ONONDAGA COUNTY INDUSTRIAL DEVELOPMENT AGENCY
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Meeting Agenda
May 6, 2021

10:45AM Call to Order the Special Meeting of the Agency

A. Conflict of Interest

Action Items

1. **Review and discuss supplemental draft GEIS for White Pine Commerce Park and set public comment and hearing schedule.**
   Agency Action Requested:
   a. Resolution to accept supplemental draft GEIS as adequate for public review, issue Notice of Completion of Supplemental Draft GEIS and authorization to OCIDA Staff and Counsel to take all necessary steps to comply with SEQRA notice requirements;
   b. Resolution to set a public hearing on the Supplemental Draft GEIS for May 24, 2021.

Representative: Robert Petrovich, Executive Director, OCIDA

Adjourn

NEW YORK STATE ENVIRONMENTAL QUALITY REVIEW ACT (SEQRA)

DRAFT SUPPLEMENTAL GENERIC ENVIRONMENTAL IMPACT STATEMENT

VOLUME I:

WHITE PINE COMMERCE PARK

5171 Route 31 Town of Clay, NY 13041

Lead Agency: Onondaga County Industrial Development Agency

https://www.ongoved.com

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May 2021

Acceptance by the Lead Agency: _____

Comments to be Submitted to OCIDA by: _____

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EXECUTIVE SUMMARY

Project Background

Project Location and Description

The Onondaga County Industrial Development Agency ("OCIDA") proposes to expand its modern industrial park at the White Pine Commerce Park ("Park"), formerly known as the Clay Business Park. The Park is located northeast of the intersection of NYS Route 31 and Caughdenoy Road in the Town of Clay, Onondaga County, New York. The Park is approximately 7 miles north of the City of Syracuse.

Project Location

The Park was created to be capable of supporting a mix of industrial and/or commercial uses with related office space, advanced state-of-the-art research, large- or small-scale manufacturing, assembly, warehousing, data management, material processing and distribution facilities in a campus-like setting.

OCIDA has devoted substantial time and effort into developing the Park, with a particular focus on development that will bring high-tech facilities and high paying jobs to Onondaga County. More recently OCIDA has focused its efforts on the semiconductor industry. These efforts have been unsuccessful to date as it has become apparent that a larger geographic footprint is necessary in order to support this type of industry and associated investment required by the tenants.

OCIDA, as Project Sponsor, proposes to expand the Park to approximately 1,250± acres (the "Project" or "Action"). OCIDA currently owns approximately 648± acres, has another 282± acres under contract, and would acquire approximately 320± additional acres. The acreage to be acquired are parcels contiguous to the current Park, and are generally located along Route 31, and along the east and west sides of Burnet Road. OCIDA would acquire the additional parcels through purchase agreements with existing landowners or, if necessary, pursuant to the Eminent Domain Procedure Law ("EDPL"), to avoid fragmented parcels that would hinder future development.

Project Overview and History

This Draft Supplemental Generic Environmental Impact Statement ("Draft SGEIS") is a supplement to the 2013 Final Generic Environmental Impact Statement that was completed ("2013 FGEIS") and OCIDA's issuance of a Findings Statement that concluded that development of the then existing 340±-acre Park avoided or minimized adverse environmental impacts to the maximum extent practicable, and incorporated mitigation measures that were considered practicable.

Project Purpose and Need

The Project purpose is to expand the Park to enable OCIDA to market the Park to a larger, more diverse mix of potential industrial and commercial developers by making the Project site more attractive to a broader scope of industries, particularly the semiconductor industry, and bringing high tech and high paying jobs to Onondaga County.

This Draft SGEIS identifies, evaluates, and addresses various impact thresholds, permit criteria, and mitigation measures anticipated for the expanded Park, including those attributes associated with large-scale semiconductor industrial development. By addressing these issues in a Generic EIS format, the SEQRA process will define a set of threshold conditions or criteria under which potential future actions and development will be undertaken or approved, including any subsequent SEQRA compliance requirements.

Proposed Development

The 2013 FGEIS detailed a preferred development scenario, which anticipated a full build-out of approximately 2.0 to 2.5 million square feet of industrial development and assumed that the Project would be developed in several phases. Given the lack of any specific tenant and uncertain timing for development of future phases, this Draft SGEIS considers the potential impacts associated with the development of the Park, including the expanded area, while providing for further evaluation, as necessary, when a conceptual plan for a specific development is available.

The development evaluated in this Draft SGEIS contemplates OCIDA's focus on developing the Park with a tenant or tenants in the semiconductor industry. This may translate into a buildout encompassing approximately 4.0 million square feet of industrial development at the Park. This would equate to approximately 400 acres of surface disturbance (temporary and permanent) within the Park developed in a campus like setting that would be sited to avoid regulated wetland areas and would limit the height of structures to no more than 160 feet. This anticipated development is expected to bring approximately 4,000 jobs covering three shifts that operate 24/7 year-round.

Based on a review of similar types of facilities being developed in other areas of the country, and given existing site conditions and the Project purpose, the initial buildout would likely include the following:

- A combined total of approximately 4.0 million square feet (SF) of buildings in a campus like setting made up of the type of uses identified in the 2013 FGEIS (manufacturing, laboratory, R&D, fabrication, warehousing, office, support, utility, waste, service yards, energy, water treatment)
- Approximately 50 acres of paved area for parking (which may include parking garages), loading, internal road circulation and/or shipping/receiving areas
- Two (2) access roads enter the Project site from NYS Route 31 and Caughdenoy Road)
- Approximately seven miles of new sanitary sewer line from the Oak Orchard WWTP to service the surrounding sewer district, including the Park
- Approximately four miles of new gas line to the Park
- Approximately 5,000 linear feet of underground electric line to the Park

- Areas avoided and set aside for wetland preservation, conservation, and if necessary, mitigation
- Additional areas for:
    - Stormwater management
    - Truck scales and security guard stations
    - Fuel storage
    - Employee amenities, trails and open space
    - Landscaping, security fencing, signage, earthen berms and vegetated buffers

Project development will include site infrastructure including internal roads, drainage culverts, waterlines, sewer and wastewater systems, electric, natural gas, stormwater management systems, lighting, landscaped areas, earthen berms and areas maintained as undeveloped natural buffers. It is anticipated that areas owned by OCIDA that are north of existing New York Power Authority and National Grid transmission lines will not be developed to avoid actual or potential wetland areas. Upland areas alongside these wetlands may be suitable as possible wetland mitigation areas, if necessary, for potential impacts that cannot be avoided or minimized by a future specific development, which is not covered by this Draft SGEIS.

The development of the Park will likely begin south of the NYPA/National Grid transmission lines to avoid potential wetlands and state wetland adjacent areas to the maximum extent practicable, which are situated in the eastern portion of the Project site. This area includes approximately 732± total acres of prime developable land within the Park. See Figure 1.1-2. This area has been identified as the prime developable area due to the anticipated absence of wetlands features, the generally flat topography, and the access to the surrounding transportation network and potential access points along NYS Route 31 and Caughdenoy Road. The prime developable area within the Project site is also positioned away from the overhead transmission lines, which run across the northern portion of the Project site. The proposed gas line and sewer connection would also tie directly into this portion of the Project site with limited impacts, if any, to wetlands or other natural features anticipated.

Changes in Circumstances

The 2013 FGEIS envisioned a Park that would accommodate a mix of industrial uses which could include office, research, manufacturing, assembly, warehousing and distribution facilities in a campus environment. It similarly noted OCIDA's intent to market the Park "for various types of uses possibly including advanced manufacturing, material processing, product assembly, warehouse and distribution, research and development, and data management to facilitate the creation of high-paying employment opportunities in Onondaga County." (FGEIS Section 1.2).

OCIDA now seeks to market the Project to a larger, more diverse mix of potential industrial and commercial developers by making the Project site more attractive to a broader scope of industries. The expanded Park will be capable of supporting a mix of industrial and/or commercial uses with related office space, advanced state-of-the-art research, large- or small-scale manufacturing, assembly, warehousing, data management, material processing and distribution facilities in a campus-like setting. As such, OCIDA intends to market the Project site in a more targeted manner to the semiconductor industry. OCIDA would acquire the additional parcels through purchase agreements with existing

landowners or, if necessary, pursuant to the EDPL, to avoid fragmented parcels that would hinder future development.

Since the completion of 2013 FGEIS, the Climate Leadership and Community Protection Act (CLCPA) was passed and signed into law in 2019 (Chapter 106 of the Laws of 2019). The CLCPA and Environmental Conservation Law ("ECL") Article 75 require NYSDEC to promulgate regulations to establish a statewide greenhouse gas ("GHG") emissions limit for 2030 that is sixty percent of 1990 GHG emissions, and for 2050 that is fifteen percent of 1990 GHG emissions. The CLCPA also requires the Public Service Commission ("PSC") to establish a program to meet a target of seventy percent of statewide electrical generation from renewable sources by 2030, and a target of zero GHG emissions for statewide electrical demand by 2040. NYSDEC adopted 6 NYCRR Part 496 on December 30, 2020, which established the statewide GHG emission limits for 2030 and 2050 consistent with ECL Article 75 and the CLCPA. On October 15, 2020, the PSC issued an Order expanding the Clean Energy Standard to increase renewable energy in the state to 70% by 2030. In addition to the regulations, Section 7(2) of the CLCPA requires all state agencies to consider whether the decision to issue permit(s) is inconsistent with or will interfere with the attainment of the ECL Article 75 GHG emission limits.

Alternatives

Several alternatives were fully evaluated in the 2013 FGEIS. This Draft SGEIS updates those that have changed since that time and expands upon others as necessary to account for the proposed expansion of the Park. These alternatives include: no action (Alternative 1); considering the Park as it was originally proposed in the 2013 FGEIS (Alternative 2); utilizing a smaller expanded area – less than the approximately 1,250± acres (Alternative 3); and considering a different location to site the Park (Alternative 4).

Alternative 1

The no action alternative would result in the Park remaining open space and potential habitat for common wildlife that is inaccessible and unutilized by the community until it is sold for other purposes. This alternative would avoid the potential need for to acquire lands pursuant to the Eminent Domain Procedure Law (EDPL) to further expand the lands owned by OCIDA to support future development. See 2013 FGEIS (Draft Section 2.1) for further analysis of this alternative.

The no action alternative would adversely affect Onondaga County's ability to remain competitive in attracting large-scale industries to Central New York. The no action alternative would preclude potentially beneficial economic impacts associated with the Project, including an increase in employment opportunities and enhanced tax revenues.

Also, current investment in the site may be lost with this alternative, as site conditions change over time. This could decrease the future development potential of the site due to increased costs associated with vegetation clearing and changing drainage characteristics, which may affect the use of additional acreage. The completed technical studies would also be less useful as data and recommendations become increasingly outdated.

Ultimately, the no action alternative is not an acceptable alternative to the Project, as it is contrary to OCIDA's mission to facilitate industrial development and job creation in Onondaga County.

Alternative 2

Alternative 2 would keep the size of the Park to 340± acres, which is roughly 911± acres smaller than the currently proposed 1,250± acre expanded Project site. Although potential environmental impacts would be limited to a smaller area, impacts on certain resources, such as wildlife may potentially be greater, as sectional development could significantly fragment essential wildlife habitat. The main wildlife mitigation for the Park is to retain/maintain existing habitat tracts, and when not feasible, use compensatory mitigation to include creation or enhanced restoration of habitat to account for any habitat loss. With a smaller park size, it would be difficult to achieve both objectives, including on-site compensatory mitigation due to space limitations. This alternative would avoid the potential need to acquire lands pursuant to EDPL to further expand the lands owned by OCIDA to support future development. A smaller sized Park may not reduce certain environmental impacts such as traffic, visual, air and noise. Instead, it could just reduce the size of open greenspace incorporated into any development design and cause greater wetlands disturbance.

OCIDA has marketed the existing approximately 340±-acre Park since 2013 and determined that the current Park is too small for the type of development it desires to attract to the area and consistent with other industrial park developments in other areas of New York and the country. The smaller, approximate 340± acre footprint would not allow for the potential of larger industrial and commercial developers, such as the semiconductor industry. The proposed expanded footprint of the Park allows OCIDA to market to a larger, more diverse mix of industries than it had previously. The smaller sized Park would not support the main objective, which is to attract a broader scope of industries such as the semiconductor industry, which require a large campus setting with greenspace and ample buffering from environmental receptors and would bring high tech and high paying jobs to Onondaga County.

Although Alternative 2 would avoid the potential need to acquire lands, if necessary, pursuant to the EDPL, it is not a viable option as it would greatly limit the full economic and development potential of the Project site in terms of viable tenants, occupancy and use, and limit options for avoiding and mitigating potential adverse environmental impacts.

Alternative 3

Alternative 3, a smaller expansion alternative, would allow for development on only a portion of the Project site, potentially keeping the remainder of the site in its current state, as vacant, undeveloped land or residential homes, and could reduce, or potentially avoid, the potential need to use EDPL to acquire lands. The smaller expansion alternative would have similar environmental impacts as Alternative 2 (The Park as Considered in the 2013 FGEIS) as well as those described in this Draft SGEIS for the Project. As explained above, the potential for habitat fragmentation on the smaller scale project could potentially cause greater impacts to wildlife. Site development would create additional vehicle traffic in the immediate vicinity and would change the visual character, aesthetics, air and noise quality, vegetation and habitats on-site, regardless of the smaller footprint. It also has the potential to reduce the size of open

greenspace incorporated into any development design and potentially cause greater wetlands disturbance. The smaller footprint could result in development located closer to residential locations that are not acquired by OCIDA, thus creating greater potential environmental impacts. In contrast, the preferred alternative would allow future tenants additional acreage on-site sufficient to construct necessary buildings and accessory uses, buffer development from adjacent lands, and avoid impacts to ecological resources such as wetlands to the maximum extent practicable.

Although this alternative considers the idea of potentially maximizing development space within a smaller area, much like Alternative 2, the smaller footprint would not allow for the potential of larger industrial and commercial developers, such as the semiconductor industry. The proposed expanded footprint of the Park allows OCIDA to market to a larger, more diverse mix of industries than it had previously. The smaller sized park would not support the main objective, which is to attract a broader scope of industries such as the semiconductor industry that require large campus type settings with greenspace and ample buffering from environmental receptors and would bring high tech and high paying jobs to Onondaga County.

Like Alternative 2, the smaller expansion alternative does not maximize the development potential of the Park and does not expand options for avoiding and mitigating potential adverse environmental impacts. Therefore, it is not an acceptable option.

Alternative 4

Alternative 4 would consist of the development of the proposed Project at a different location. This alternative was previously evaluated and rejected in the 2013 FGEIS (Draft Section 2.2.1). Based on current available information, this conclusion has not changed. None of these previously considered alternative locations would be able to accommodate the large-scale industrial use the Park is promoting due to size limitations and proximity to services and necessary infrastructure. There are no other options available currently that meet the needs of the Project.

Unlike other park locations, the expanded Park can accommodate large-scale industrial tenants that cannot easily locate elsewhere in Onondaga County due to their size and space requirements and need for suitable infrastructure. Additionally, the other locations do not have the existing utility and transportation services that serve the Park. National Grid's Clay Substation is located adjacent to the Park on the west side of Caughdenoy Road. The Oak Orchard Wastewater Treatment Plant is located approximately 2.5 miles west of the Park. The Park is also bound to the south by a 12-inch water line and NYS Route 31, which is a principal arterial west of Interstate-81, and CSX rail, which is located adjacent to the Park.

Based on the lack of other viable locations within the County to accommodate the intended scale of the Park, as well as OCIDA's substantial investment in the Park to date, this alternative is not a viable option.

Existing Conditions, Impacts and Mitigation

Land Use and Zoning

The proposed expanded Park footprint consists primarily of undeveloped land. To the extent development exists, it is limited to residential, commercial, and public utility uses and structures (i.e., electric transmission lines, telecommunications tower) scattered along NYS Route 31 and Caughdenoy Road, with approximately three dozen residences located along Burnet Road. Existing improvements and structures within the expanded Park footprint are located close to existing road frontages, leaving the remainder of the expanded Park in its natural, undeveloped state. The majority of the Park is relatively flat and vegetated with grasses, shrub, and wooded areas that have developed as the area continues to transition from former farmland. Land uses within the proposed expanded Park have remained consistent since the 2013 FGEIS.

The area surrounding the Park was once a rural area comprised of farmland and agricultural uses. The surrounding area is undergoing gradual changes as a more suburban type of development unfolds, primarily along NYS Route 31, but much of the area closest to the Park has maintained a rural character due to large swaths of undeveloped land. While farming activities are conducted within a small portion of the proposed expanded Park, the Park is not located within or near a NYS certified agricultural district.

The proposed expanded Park is located within the Town of Clay and is subject to the zoning requirements contained in the Town's Zoning Code and the zoning district designations contained in the Town's Zoning Map.[1] Of the proposed expanded Park's approximately 1,250± acres, 346± acres are zoned as Industrial 2 (I-2), 856± acres are zoned Residential Agricultural (RA-100), and 36± acres are zoned One Family Residential (R-15). Burnet Road comprises the remaining 12 ± acres that make up the expanded Park. As shown in Figure 3.1-2 (located at the end of Chapter 3), approximately 850± acres of privately owned land located on Caughdenoy Road west and north of the Park is zoned I-2, with additional parcels zoned RA-100. The parcels directly south of the Park along NYS Route 31 are zoned Highway Commercial (HC-1) and RA-100. The parcel located adjacent to the southeastern corner of the Park is zoned Planned Development (PDD). The proposed expanded Park's eastern property line is the boundary between the towns of Clay and Cicero. The proposed expanded Park contains multiple zoning designations, not all of which are compatible with the intended future use and development of the Park. The expanded Park will therefore require the approval by the Town of Clay Town Board of either a zone change to I-2 for the portions of the Park that are not zoned I-2 or a PDD that encompasses the entire Park footprint to allow the type of use OCIDA seeks for the Park.

Community Character

The Town of Clay is still the largest suburban town in Onondaga County. The Town has a diverse economic base, and industrial uses are scattered throughout the Town, including a developed industrial corridor between Henry Clay Boulevard and Morgan Road approximately 5 miles southwest of the Park. The population of the Town along with its pace of development has remained mostly unchanged since the

[1] Town of Clay Zoning Code (Last Revised May 10, 2016). https://www.townofclay.org/information/zoning-code.

2013 FGEIS. The character of the area immediately surrounding the Park remains generally rural in contrast to the more developed areas of the Town of Clay and nearby Town of Cicero.

NYS Route 31 represents the primary east-west traffic corridor in the Town of Clay north of I-481 and carries a high volume of traffic between Clay and Cicero. Nearly all travel in the vicinity of the project site is by personal vehicle, which remains unchanged since the 2013 FGEIS. There is little public transit and pedestrian use along major roadways, including NYS Route 31, and the area immediately surrounding the proposed expanded Park lacks sidewalks or other pedestrian facilities (crosswalks, etc.) that would otherwise encourage pedestrian use. While NYS Route 31 is a designated part of New York State Bike Route 5, bicycling activity is not typical along the road or surrounding area. The CSX rail line that provides freight service crosses NYS Route 31 southwest of the Park.

Visually, the western portion of the expanded Park contains few structures or natural features of any significance. The topography of the area is generally flat, which is typical of the Town of Clay and the northern portion of Onondaga County. Undeveloped areas contain mixed upland and wetland vegetation including grasses, shrubs, and woodlands. These resources are described in detail later in this chapter under existing ecology and vegetation. The area of the expanded Park that includes Burnet Road contains approximately three dozen residential properties that have been or will be acquired by OCIDA through voluntary purchase agreements or pursuant to the EDPL to help establish the expanded Park footprint. These residential properties will be rezoned to support the proposed development of the Park and existing structures removed from the property.

Electrical utilities, including the National Grid electrical substation located just west of the Park and the NYPA and National Grid transmission lines passing through the northern third of the site are prominent visual features in the area. A telecommunications tower also exists within the expanded Park adjacent to the southeastern corner of the current Park footprint. The presence of these public utility structures and uses incorporates an industrial element to the otherwise undeveloped character of the area.

Existing development in the area surrounding the existing Park is either low density single-family suburban style housing or older style rural homes and former farmland. A few business and commercial uses exist along Caughdenoy Road and NYS Route 31 west and south of the Park. With the exception of the area extending north of the Park for several miles that remains largely rural and undeveloped or sparsely developed, surrounding areas in other directions become more densely developed farther away from the Park. Areas east of site along NYS Route 31 and Brewerton Road in the Town of Cicero contain dense concentrations of business and commercial development with residential development interspersed throughout. Higher-density residential and commercial development along the NYS Route 31 corridor within the Town of Clay occurs mostly to the south and southeast of the Park along Stearns Road and Caughdenoy Road north of I-481. Areas farther west of site transition from suburban residential into a developed, high-traffic shopping area along NYS Route 31 around the I-481 interchange. The development of retail, commercial and residential growth farther away from the Park in both directions along NYS Route 31 in Clay and Cicero is due in large part to the proximity of NYS Route 31 to I-81, I-481, I-90 and the Syracuse Hancock International Airport. Together, those features have made the greater surrounding area attractive to many forms of development.

To avoid or minimize potential adverse impacts to the extent practicable, the potential future development of the expanded Park will occur subject to the design features, conditions, and mitigation measures required by the Town of Clay Town and Planning Boards in accordance with the requirements of the Zoning Code. In conjunction with either a zone change or PDD approval process, OCIDA will work with the Town Board and/or Planning Board to identify specific issues or areas of concern and develop specific measures to address or alleviate such concerns to ensure the objectives of the Project are achieved while also minimizing or mitigating development related impacts on the surrounding community.

Undeveloped portions of the Park will likely be maintained as wetlands, vegetated greenspace and integrated into stormwater management and other site design features. Additionally, greenspace would be used to meet setback requirements or other design thresholds that may be included in a PDD or site plan. Greenspace may also be incorporated in the tenant facility design/layouts to serve aesthetic purposes, establishing a campus-like setting for tenant employees and visitors.

With respect to the acquisition and removal of residential properties to enable the creation and future development of the expanded Park, OCIDA will negotiate to purchase these properties at fair market value and pay the seller's normal transaction costs of updating the title and survey, recording fees, transfer taxes and other similar expenses in connection with the transfer of these properties as well as the pro rata portion of real property taxes, water rents, sewer rents, special ad valorem charges and other similar charges. In the event it is necessary to acquire any such properties pursuant to the EDPL, as condemnor OCIDA will offer just compensation based on the fair market value determined by its highest approved appraisal, and the respective property owners will have the right to challenge the amount of such just compensation under EDPL Article 5. OCIDA will also pay, upon acquisition, any costs associated with recording fees, transfer taxes, penalties incurred by the condemnee for prepayment of any preexisting recorded mortgage entered into in good faith encumbering the property, and the pro rata portion of real property taxes, water rents, sewer rents, special ad valorem taxes and other similar charges.

Transportation

An increase in traffic will result from construction and development of the Park. Traffic is also projected to increase from other developments occurring in the area and will change the existing levels of service (LOS) at certain intersections along NYS Route 31. Therefore, roadway improvements along NYS Route 31 are proposed based on existing and future traffic volumes. Regardless of development at the Park, transportation improvements will be required along NYS Route 31 as other development occurs over time.

Since the preparation of the 2012 Traffic Impact Study that was part of the 2012 DGEIS and finalized in the 2013 FGEIS, traffic roadway changes include:

- The addition of exclusive eastbound and westbound left turn lanes along NYS Route 31 at Henry Clay Boulevard;
- The unsignalized intersections of NYS Route 31/Caughdenoy Road and NYS Route 31/Legionnaire Drive/Lawton Road were signalized;

- The Caughdenoy Road/NYS Route 31 intersection was also recommended for right and left turn lane additions; however, the current development assumptions have changed with multiple site entrances.

Impacts related to the proposed expanded Park are described in Section 4.3.

A new Traffic Impact Study (TIS) was prepared to evaluate potential traffic impacts associated with the proposed expanded Park area. Due to the generic nature of this review, the TIS includes more generic as opposed to specific development details and follows the assumptions to develop the traffic impact of the proposed expansion and potential development, which include supporting between 3,750 to 4,000 employees (4,000 used for analysis), having a minimum of two driveways for site access: one driveway will be connected to Caughdenoy Road and the other will be connected to NYS Route 31; operating 24 hours a day and seven days a week with three equally sized rotating working shifts; and development of the Project site will be completed and operational by the year 2024.

Capacity analysis was performed, and the following capacity improvement measures are recommended to address LOS, travel speeds, delay, and safety:

- NYS Route 31 at Henry Clay Boulevard: Construct a northbound left turn lane,
- NYS Route 31 at US Route 11: Construct an additional left turn lane to provide for westbound dual left turn lanes and modify left turn phasing from permissive/protected to protected,
- NYS Route 31 at I-81 Southbound Ramps: Construct an additional left turn lane to provide westbound double left turn lanes and change westbound left turn phasing from permissive/protected to protected and widen to two lanes on the on-ramp before merging to a single lane prior to the merge on to I-81.
- NYS Route 31 at I-81 Northbound/ Pardee Road: On I-81 northbound off ramp construct an additional left and right turn lane.
- NYS Route 31 at Site Entrance 2: An addition of a left turn lane along NYS Route 31 eastbound and a right turn lane along NYS Route 31 at the site entrance. A left and right turn will be provided out of the site. A traffic signal is recommended at the intersection.
- Caughdenoy Road at Site Entrance 1: A right and left turn lane will be provided from the site entrance and along Caughdenoy Road.
- NYS Route 31 at Lakeshore Road: Concepts have been developed and coordination will take place with NYSDOT for future consideration.

Additional information is provided in the TIS in Appendix B.

Utilities & Community Services

Existing and proposed utilities (electric, natural gas, and water) in the vicinity of the Park are shown in Figure 3.4-1. Sewer service is in the process of being extended to the surrounding district, including the Park. Gas utility improvements are being proposed in conjunction with the Park expansion. There have

been no significant changes since 2013 in the location of existing electric, natural gas, and water utilities in the vicinity of the Park.

Community services in the vicinity of the Park include fire, police and emergency response, parks and recreation, schools and other community services such as places of worship. These services remain largely unchanged from 2013. Community service provider locations near the project site are shown in Figure 3.4-2. The area is served by the Clay Fire Department, North Area Volunteer Ambulance Corps (NAVAC), and Northern Onondaga Volunteer Ambulance (NOVA). The Park is in the North Syracuse Central School District which has an enrollment of approximately 8,500 pupils in 2020. The inventory of places of worship in the vicinity of the park is largely unchanged since the 2013 FGEIS was prepared. At least one new church affiliated building, the Upstate New York District Church of the Nazarene, has been built immediately east of the intersection of NYS Route 31 and Burnet Road. The Church uses this location as its main offices for the Nazarene District.

Updated estimates of the potential demands for electric, gas and water supplies, and estimates of sanitary waste volumes have been developed based on the types of industry OCIDA is seeking to attract to the proposed expanded Park:

- Power – up to 500 megavolt-amperes (MVA)
- Water – 5 million gallons per day (MGD)
- Wastewater – 4 MGD
- Natural Gas – up to 7000 meters cubed per hour (m^3/hr)

OCIDA anticipates that these capacities are adequate to accommodate high technology industries including, but not limited to, semiconductor and semiconductor manufacturing.

Correspondence from National Grid (March 18, 2021, see Appendix C) indicated the existing transmission infrastructure can presently provide up to 540 MVA to the Park, and up to 1,200 MVA is possible in the long term. The estimated Project demand of 500 MVA is within the levels that National Grid has indicated can be provided. No mitigation would be required. No mitigation would be required for fiber optic and phone service which typically expand to meet local demands.

Correspondence from National Grid (March 18, 2021, see Appendix C) indicated that with the extension of the gas main from Gas Regulator Station #147 to the Project site, up to 750 dekatherms per hour (dth/hr) can presently be provided to the Project site with projected future availability of 1,000 dth/hr. The estimated demand of 7,000 m^3/hr, equivalent to 245 dth/hr, for potential Park users is within the levels that National Grid has indicated can be provided. No mitigation would be required.

Two routes have been considered to connect the Park to the Gas Regulator Station, a proposed route and an alternative route. See Figure 3.4-1. The location of the proposed route lies within previously disturbed public and utility rights-of-way over much of the length of the proposed route. The alternative route makes use of public rights-of-way for the entire length of the route, but is longer than the proposed route.

Permanent and temporary easements would be required along either route. Installation of new gas mains will involve temporary construction impacts along the route. Impacts may include ambient noise, soil

disturbance, and interruption of traffic at construction access points. These temporary impacts will be mitigated through proper construction and best management practices. Trenching, boring and horizontal directional drilling will be utilized to minimize disruption of traffic during construction and to minimize impacts to any wetlands that may be delineated along the route of the proposed gas line. Best management construction practices will be used, including, soil and erosion control and stormwater management. Disturbed areas will be re-graded and reseeded to pre-construction conditions.

Since the proposed route is shorter than the alternative route, construction along the proposed route would result in fewer impacts and it is therefore preferred as the proposed route over the alternative route.

According to April 29, 2021 correspondence from OCWEP, the capacity for up to 4.0 MGD is currently available at the Oak Orchard WWTP. The estimated sanitary sewer discharges from potential development of the expanded Park of 4.0 MGD are within the levels that OCWEP has indicated they can accommodate. No mitigation is required. Further OCWEP had previously commenced the design of the conveyance infrastructure to serve lands within the surrounding district and future development areas. OCWEP estimates that conveyance infrastructure will be available within 24 months.

Industrial wastewater pre-treatment may be required on-site by the OCWEP prior to discharge to the Oak Orchard WWTP, if the wastewater strength from the expanded Park exceeds the limits established for discharge to the municipal sanitary sewer system.

The conveyance infrastructure to support developments in the surrounding district including the Park will consist of six-inch and 12-inch diameter PVC force mains. These lines will be located along Caughdenoy Road and in the existing 99-foot wide Metropolitan Water Board easement that parallels NYS Route 31, and the County's easement that contains the Davis Road Force Main and the Clay – Cicero Force Main to the Oak Orchard WWTP. Installation of new sewer lines will require temporary construction from existing rights-of-way in the area. These temporary impacts will be mitigated through proper construction and best management practices.

Since the majority of the proposed sewer route follows existing MWB and OCWEP easements, the need to procure permanent easements along this route is practically non-existent. However, temporary construction easements required for the installation of bored crossings may be required and to the extent permanent easements are required they will be acquired by OCWEP by negotiated purchase or pursuant to the EDPL. The use of borings under roads and the CSX rail line will minimize disruption of traffic and the need for reconstruction and resurfacing of roadways. Temporary traffic detours may be needed at road crossings.

Trenching will be used through upland areas along the MWB and OCWEP rights-of-way. Most upland areas along the rights-of-way are active cropland or vacant farm fields consisting of shrubs. Best management construction practices will be used in these areas including soil and erosion control and stormwater management. Disturbed areas will be re-graded and reseeded to pre-construction conditions.

Wetland mapping shows that federal and state wetlands are potentially present in certain parts of the proposed routes of the utility improvements. Should field surveys verify regulated wetlands are present

during the course of preparation for utility line construction, the proposed force mains and gas line will be installed through wetland areas using horizontal directional drilling (HDD) methods to avoid adverse impacts.

Public water service is available from adjacent water lines to the Park. According to correspondence from OCWA (March 19, 2021, see Appendix C) indicates that 3,700 gpm at 20-psi is available for the Park. OCWA indicates the current availability for the Park is 1 MGD. OCWA has plans in place that would allow a supply of 5 MGD within 180 days, and potential to provide 11 MGD at an 18 month to two-year horizon. The expanded Park's estimated water demand of 5 MGD is within the levels OCWA has indicated it can provide, and would not adversely impact the availability or capacity of the local public water supply in the surrounding area. No mitigation would be required.

Future tenants of the Park are expected to provide security and basic emergency preparedness programs for their own facilities. New York State and federal regulatory agencies, such as the EPA, have specific requirements for managing hazardous materials which may be stored on site. Tenants will be required to adhere to all such regulatory requirements. As appropriate based on their industry, tenants of the Park will be expected to have emergency response plans that outline procedures to be undertaken to deal with fire, spills, injuries, etc. Emergency response plans will be reviewed by local officials to ensure that public service providers are properly prepared and equipped in the event they are needed to support tenant security personnel. Tenants are expected to provide on-site water storage for fire suppression and emergency operations. The specifications for fire suppression systems are stipulated in national building and fire codes. The plans for fire suppression and control systems are reviewed and approved by local emergency officials. With the noted life safety, security and emergency response provisions required of future Park tenants, development of the expanded Park is not anticipated to create a burden on the provision of police, fire, and emergency services. No mitigation is required at this time.

Development of the Park will not result in the loss of public open space. The extensive regional opportunities for outdoor recreation will easily accommodate the potential increase in population that is brought to the area by employment opportunities in the Park. Potential development of the expanded Park is not anticipated to create adverse impacts on community parks and/or recreation facilities. No mitigation is required.

It is assumed that the future employment opportunities at the Park could bring up to 4,000 new households to the area. New households and primary school students would likely be distributed throughout the Syracuse MSA. The North Syracuse Central School District enrollment would be expected to increase approximately 1.6% (136 additional students to the current district student population of 8,500 pupils). This increase in the student population is not anticipated to place an undue burden or create adverse impacts on local schools and educational services. No mitigation is required.

OCIDA intends to acquire the property on which the Upstate New York District Church of the Nazarene is located by negotiated purchase or pursuant to the EDPL and other applicable law. The parcel will become part of the Park and the building will be removed, requiring the Nazarene District office to be relocated. Any community services provided by the church at this location (e.g., counseling, meeting

space, day care programs, and clothing and food distribution, etc.) would be curtailed by development of the Park.

Topography, Geology, & Soils

The topography of the Project Site is generally the same as was detailed in the 2013 FGEIS. The ground is relatively flat to gently sloping, with site elevations ranging from about 380 to 430 feet above mean sea level (amsl). Highest elevations are in the southern portion of the site near NYS Route 31 and the lowest elevations occur in the north part of the site. The site drains to the north towards Youngs Creek, which is a tributary to the Oneida River. Elevation at the expanded Park is most variable along a small ridge located in the central portion of the site. This feature is located approximately 2,000 feet north of NYS Route 31 and generally runs parallel to the road for approximately 3,000 feet. Any potential impacts to topography of the proposed expanded Park would be relatively minor and are consistent with the finding of 2013 FGEIS. No additional mitigation for onsite topographic changes is necessary.

The surficial deposits in the vicinity of the expanded site consist primarily of lacustrine silts and clays deposited in former glacial lakes. These are generally fine-grained and laminated soils. Bedrock beneath the site is mapped as dolostone/limestone, belonging to the Lockport Group. No bedrock outcrops have been noted on the project site. There are no mineral resource extraction areas (gravel pits, mines, quarries, oil/gas wells, etc.) present on the expanded site and the area is seismically stable. Site development will not affect any geologic resources since there are no unique geologic features at the expanded site or in the immediate vicinity. Shallow bedrock is present in some portions of the site and the need for potential blasting during construction and preparation of a blasting plan were discussed in the 2013 FGEIS. No additional mitigation for geologic resources is necessary.

Similar to the park as evaluated in the 2013 FGEIS, the expanded site contains a variety of soils. Based on the physical features of the expanded site, the most likely area for development is west of Burnet Road. In this area, the amount of hydric soils (Cd, FL, and Pb) is approximately 18.7 acres. Hydric soils are characterized by poor drainage. Portions of the expanded site were used for farming in the past. About 40% of the Park soils are considered prime farmland and 9.7% of soils are farmland of statewide importance. Although agriculturally viable soils exist on the site, actual agricultural activity is limited. Most of the expanded site is currently vacant woodlands. Agricultural activities (primarily hayfields) are located at the northern end of Burnet Road. Some cultivated fields also exist in this area. No designated Agricultural Districts exist on the project site and the closest Agricultural District is approximately one-mile northwest (Onondaga County Agricultural Districts, 2019[2]). Although the property currently has only limited agricultural use, future development as a business park/manufacturing site will reduce the availability of suitable agricultural soils. This will result in a small, unavoidable impact. Mitigation for soils was detailed in the 2013 FGEIS and no additional mitigation for onsite soil disturbance is necessary. Offsite utility trench construction will require a NYSDEC SPDES permit for construction. This permit will require that erosion control and site restoration measures be established to mitigate any potential impacts to soil.

[2] New York State Department of Agriculture and Markets. Onondaga County Agricultural Districts (2019).

Water Resources

The Park is relatively flat to gently sloping. Groundwater is expected to flow northward, based upon regional topography and surface water drainage, which is consistent with the Park as it is proposed in the 2013 FGEIS.

The expanded Park is not situated within a primary, principal, or sole source aquifer, although the proposed utility and sewer line routes are partially situated within unconsolidated, confined aquifers. The proposed road improvement to Henry Clay Boulevard is also located within this sand and gravel aquifer.

The Park includes several classified streams, including Youngs Creek and several of its tributaries. The proposed gas line connection crosses Shaver Creek and two of its tributaries. The proposed roadway improvements are not expected to comprise of any stream crossings.

There are no FEMA mapped floodplains or Special Flood Hazard Areas within the Park or within the proposed gas line route. The site lies entirely within FEMA flood zone X, which is an area of minimal flood hazard. The preferred sewer line route, however, does have the potential to fall within a mapped FEMA floodplain. Some of the roadway improvements also have the potential to fall within a mapped FEMA floodplain.

Although the Town of Clay and the Town of Cicero are both designated Municipal Separate Storm Sewer Systems (MS4), the site is not located within either of the designated MS4 boundaries. The MS4 boundaries, however, are immediately south and east of the site. As part of the SPDES Construction GP and SWPPP, which is an anticipated requirement of Park development, a MS4 SWPPP Acceptance Form from the Town of Clay and/or Town of Cicero may be required, depending on the off-site locations of the stormwater discharges.

Construction and operational activities at the Park are not expected to have any significant impact to either groundwater and surface water quantity or quality. Furthermore, standard best engineering practices will be employed to minimize any changes to existing topography and vegetative cover which will minimize any related impacts to surface drainage and water quality. As such, no additional mitigation for water resources, beyond what was identified in the 2013 FGEIS is necessary.

Air Resources

Onondaga County (including the expanded Park area) remains within attainment status of National Ambient Air Quality Standards (NAAQS) for the six criteria pollutants (*i.e.,* ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter, and lead). The NAAQS are levels of pollutants in the ambient air that have been determined to be protective of human health, including the health of sensitive subpopulations such as children, the elderly, and those with chronic respiratory problems; in addition, they are developed to protect public welfare, including damage to property and structures, visibility, vegetation, animal species, and other concerns.

Meteorological conditions for the Syracuse and Central New York region have not materially changed since the 2013 FGEIS. As part of any air permit application submitted to the NYSDEC for development

of the Park, meteorological conditions will be considered. The closest National Weather Service (NWS) station to the Park that has the appropriate available data for purposes of an air permit application is the Syracuse NWS station, which is located approximately 9 kilometers to the Southeast of the Park.

There is a broad international scientific consensus that human activity-generated greenhouse gas (GHG) emissions are increasing the concentration of GHGs in the atmosphere and leading to global climate change. While the contribution to climate change of a single project is very small, the combined GHG emissions from all human activity contributes to global climate change. Regulations and policies have been, and continue to be, implemented to address GHG emissions at global, national, regional, state and local levels. Statutes, policies and regulations that are pertinent to potential development in the Park include New York State's Climate Leadership and Community Protection Act ("CLCPA") and regulations under the Clean Air Act. The CLCPA amended the Public Service Law to require the Public Service Commission ("PSC" or "Commission") to establish a program to meet a target of seventy percent of statewide electrical generation from renewable sources by 2030, and a target of zero GHG emissions for statewide electrical demand by 2040. The regulations and programs to be implemented by NYSDEC and the Commission in accordance with the CLCPA are to be conducted in a manner that minimizes costs and maximizes benefits.

NYSDEC recently adopted 6 NYCRR Part 496, which limits statewide GHG emissions in 2030 and 2050 as a percentage of 1990 emissions, per the requirements of the CLCPA. Part 496 limits statewide GHG emissions in 2030 to 245.87 million metric tons of CO_{2e}, and 61.47 tons in 2050. Part 496 also includes the 20-year global warming potentials for GHGs that are not CO_2. The rule applies to all emission sources in New York State, but does not itself impose compliance obligations. The Part 496 statewide emission limits will serve as the baseline for the promulgation of future NYSDEC CLCPA regulations for attainment of the 2030 and 2050 limits. NYSDEC also finalized its Establishing a Value of Carbon Guidelines for Use by State Agencies guidance on December 30, 2020, which is for use by State agencies to monetize benefits/costs of actions that impact GHG emissions based on societal impacts incurred as a result of climate change. CLCPA also requires all state agencies to consider whether its decision to issue permit(s) is inconsistent with or will interfere with the attainment of the statewide GHG emission limits established in ECL Article 75. Where such decisions are deemed to be inconsistent with or will interfere with the attainment of the statewide GHG limits, the agency must provide a detailed statement of justification as to why such limits/criteria may not be met and identify alternatives or GHG mitigation measures to be required where the project is located.

Air quality conditions are influenced by stationary sources and mobile sources of air pollutants. Since 2013, no significant existing stationary sources of air emissions were identified in the vicinity of the Park. The nearest facilities with an air permit are the Buckeye Terminal in Brewerton (approximately 3.3 miles north) and Barrett Paving Materials in Phoenix (approximately 5.5 miles west). Mobile source emissions are a function of traffic volume and intersection levels of service (LOS). Mobile sources include commuter and truck traffic on NYS Route 31, residential traffic on Caughdenoy Road and other local roads, and occasional emissions from train traffic along the CSX rail line adjacent to the site.

Air emissions resulting from potential development of the proposed expanded Park may be associated with mobile and stationary sources, including transportation vehicles and manufacturing processes, respectively. Potential sources of emissions may be related to manufacturing support systems, heating and cooling, storage tanks, wastewater treatment, and site utilities such as boilers, chillers and back-up generators. Semiconductor manufacturing makes use of processes that require specific chemicals, heat and clean water.

Based on the representative GHG emission estimates for a generic semiconductor manufacturing operation, GHG emissions from the expanded Park could include the following:

- Direct GHG emissions associated with natural gas and fuel oil combustion in boilers, thermal incinerators and other miscellaneous natural gas-fired sources
- Carbon dioxide emissions from the oxidation of volatile organic compounds (VOCs) from the expected use of liquid chemicals
- Specialty gases used in the manufacturing process, including fluorinated and chlorinated GHGs.
- Indirect (upstream) GHG emissions from the import of natural gas and fuel oil

Potential direct annual GHG emissions at the expanded Park could range from 150,000 metric tons carbon dioxide equivalent (MTCO2e) to 350,000 MTCO2e. Approximately 10-15% of these GHG emissions are expected to result from the use of specialty gases including nitrogen trifluoride and sulfur hexafluoride, which have 20-year global warming potentials (GWP) of 12,800 and 16,300, respectively. Indirect (upstream) potential annual GHG emissions from the import of fossil fuels could range from 150,000 MTCO2e to 250,000 MTCO2e. For purposes of minimizing GHG emissions, future tenants will be encouraged to promote green infrastructure and energy efficiency (Section 9.0) and, to the extent feasible, use renewable forms of energy to power operations.

As noted in the 2013 FGEIS, all future industrial development will be subject to applicable air emission permitting under NYSDEC. Such an application will be required to be submitted to NYSDEC who will, in turn, review the application in accordance with all applicable state and federal laws, and impose appropriate permit conditions. NYSDEC will also undertake a review of the potential development's GHG emissions under the CLCPA. Facilities locating within the Park will have to meet air emission permit requirements designed to meet the NAAQS and comply with all applicable regulatory requirements. NYSDEC will impose, as appropriate, permit conditions to implement emission control equipment and other operating parameter and conditions, which any prospective tenant will be required to abide by. In addition to the permitting requirements, mitigation for air pollutant emissions include material handling protocols and industrial good housekeeping practices.

The boilers, incinerator and diesel generators that will be operated at the facility will be new. For the purpose of promoting efficient operation and reducing the potential for excess GHG emissions, these sources will be operated in accordance with the manufacturer's instructions. Boiler maintenance and testing will also be conducted in accordance with the manufacturer's instructions. Dual-fired boilers will be operated such that fuel oil will be used as backup and only when natural gas is not available. Some specialty gases that will be used in processes at the facility will have built-in point of use (POU)

abatement devices which are integral to the processes. POU waste streams are conveyed to the central house scrubbers for further reduction.

With respect to mobile emissions, road and intersection improvements adjacent to the Project site will provide for smoother traffic flow and reduced delays along access roads to the Park. Movement of goods and materials for use by rail will help reduce the amount of truck traffic to and from the Project site. Combined these efforts are expected to generally reduce air emissions associated with potential future development of the Park, including GHG emissions.

Construction-related air quality impacts will be temporary, and mitigation will be implemented to control fugitive dust problems by sweeping and wetting down road surfaces and laydown areas used by haul vehicles. In addition, existing vegetative buffer areas will be maintained to the greatest extent practicable on-site to reduce wind-blown dust. Maintaining vegetated buffer areas and re-vegetating disturbed areas as soon as practicable along the periphery of the Park and internally alongside wetlands and other surface features will help control stormwater runoff and fugitive dust from moving off-site. Erosion and sediment control practices for sediment and dust will be implemented on-site and along utility routes being utilized for the installation of utilities.

Odor

Odors can result from emission of organic and inorganic compounds. Different compounds produce different odors and have unique detection and recognition thresholds. Without proper mitigation, the potential exists for odors to occur. As noted in the discussion of air impacts and mitigation, facilities manufacturing semiconductors utilize a variety of controls to reduce the concentration of pollutant emissions.

Ecological Resources

Due to the proposed Park expansion, additional mapped wetland areas were identified that were not previously discussed in the 2013 FGEIS. The Park now includes mapped NYSDEC wetland BRE-11, as well as additional mapped NWI wetlands, including NWI wetland classification codes PSS1/EM5C, PUBFH, PFO1C, R5UBH, PUBHx, and PEM5E. These mapped wetland areas are primarily situated on the far eastern and northern portions of the Park. Although NWI mapping indicates the potential presence of federal wetlands regulated by the U.S. Army Corps of Engineers (USACE), the USACE does not publish official wetland maps. These mapped wetlands, including those shown outside of the NYSDEC-mapped boundaries, would also be subject to the recently revised definition of regulated waters under the 2020 federal Navigable Waters Protection Rule, which is narrower in scope and has resulted in an overall lessening of what is considered regulated waters (including federal wetlands) as compared to previous rules and definitions. The definition excludes from the definition of "waters of the United States," non-adjacent wetlands that do not directly abut or have regular surface water overflow/inundation from intermittent or perennial streams, including wetlands that are adjacent to ephemeral streams, ditches, and prior converted cropland. As such, the extent of regulated wetland areas may be less than shown on the wetland mapping, including those wetland areas discussed in the 2013 FGEIS. Field reconnaissance, and

if necessary, delineation, based on a conceptual plan for a specific development, will confirm the regulated status of wetland areas potentially impacted, if any.

Land cover types within the expanded Park are mostly consistent with the smaller footprint. Based on review of the NLCD Land Cover data, more than three-fourths of the expanded Park is made up of upland cover types. These communities represent approximately 1,003 acres, up from the approximately 276 acres identified in the 2013 FGEIS, which is approximately 80% of the expanded footprint.

As in 2013, there are no critical environmental areas or significant natural communities within or in the vicinity of the project area.

Based on the wildlife species previously observed on the site, potential development at the expanded Park has potential to affect common wildlife species and their associated habitats, although no substantial critical habitat loss is anticipated.

USFWS and NYSDEC/NYNHP identified the following federal- and state-listed threatened and endangered species as having the potential to be impacted by the Project: Sedge wren; Eastern massasauga; and Indiana bat. However, based on the available resources reviewed, there are no threatened and endangered animal species identified by the NYSDEC/NYNHP and USFWS known to inhabit or frequent the Project site. Further confirmation of the absence of these species and habitat at the park would be determined through site reconnaissance once a specific development for the Park is proposed.

Ecological resources, such as wetlands and wildlife habitat would be avoided and minimized to the maximum extent practicable through careful site planning and design. Mitigation is not anticipated if wetland areas are avoided. If a specific development design cannot entirely avoid regulated wetland areas, the Park includes ample space onsite for mitigation wetlands to replace any lost wetland benefits, if necessary.

As there are no anticipated impacts to rare, threatened, or endangered wildlife species or communities, specific mitigation is not required.

Future site development activities, including utility line construction and roadway improvements, however, will be monitored for any occurrence of the identified potential threatened, endangered, or species of special concern, including the Sedge wren, Eastern massasauga, Indiana bat, Osprey, and Sharp-shinned hawk to ensure that construction activities will avoid any direct harm to these listed species. Additional coordination with NYSDEC will also be made prior to the commencement of development activities for concurrence and further guidance, as wildlife/habitat survey(s) may be required (i.e., a grassland breeding bird survey).

Cultural & Archeological Resources

The proposed Park expansion contains approximately 1,250± acres of land, much of which was historically used for agriculture. Most of the land is presently cleared, while some is overgrown, and a portion has been used for the Clay-Teall Transmission Line. Burnet Road bisects the property and is lined

on both sides with an assortment of historic-aged buildings, including residential dwellings and agricultural buildings.

A Phase I Archaeological Survey Report was conducted for the 340± acre Park footprint in 2014 which resulted in a "No Effect" finding on historic properties listed or eligible for listing in the National Register of Historic Places. In response to OCIDA's lead agency notification letter for the SGEIS, NYSDEC provided that the statewide inventory of archaeological resources records, maintained by the New York State Museum and the New York Office of Parks, Recreation and Historic Preservation, and the expanded Park is not located within a previously designated archeological sensitive area.

Per the New York State Cultural Resource Information System (NYS CRIS), 13 previously identified above-ground historic resources are located within the expanded Park area. Two of these resources are located on the north side of NYS Route 31 and the remaining 11 resources are located along Burnet Road. Seventeen additional previously evaluated resources are located within the immediate vicinity of the expanded Park. Of the 30 previously identified resources, one resource has been determined eligible for listing in the National Register of Historic Places (NRHP) by the New York State Historic Preservation Office (NY SHPO) and 20 have been determined ineligible. The eligibility status of the remaining 9 resources is undetermined.

Residential and agricultural properties constructed prior to 1972 meet the age requirement for consideration for listing in the NRHP. Based on a review of historic aerial photographs, approximately 26 structures which have not been previously evaluated for NRHP eligibility are in the vicinity of the expanded Park and associated utility and roadway corridors. One property on Caughdenoy Road, two on NYS Route 31, and approximately eight properties on Burnet Road contain buildings which appear to have been constructed prior to 1895. Based on historic aerial photographs, most of the remaining historic-age properties appear to have been constructed between 1956 and 1972. The proposed underground utility corridors are primarily located within existing rights-of-way and their construction is not likely to impact above-ground historic resources in the vicinity of the proposed routes.

According to NYS CRIS, the expanded Park is not located within an archaeologically sensitive zone. Small portions of the utility corridors map overlap with archaeologically sensitive zones near previously identified historic-period archaeological sites, but the utility corridors are primarily within previously disturbed areas and rights-of-way.

SHPO is an involved agency and OCIDA will follow the recommendations of SHPO with regard to any further evaluation of cultural and archeological resources within the expanded Park. Should any work be required by SHPO, it will be completed by qualified professionals.

Visual Environment & Aesthetic Resources

The Park is presently undeveloped and generally consists of a mix of large upland areas of open field (former agricultural land), shrub and woodland areas interspersed with wet areas. Topography in the area is generally flat to gently sloping. In general, the predominance of vegetation surrounding the site and the relative lack of development contributes to the area's rural character. This character is influenced by

former farmsteads, scattered housing along Burnet Road, accessory structures (garages, sheds) and some small business and industrial uses primarily along Caughdenoy Road and NYS Route 31. National Grid's Clay electrical substation west of the OCIDA site and the transmission towers and high voltage power lines that spread outward from the substation into and across the northern one-third of the site are dominant elements in the local visual environment. The existing CSX rail line also contributes to the somewhat industrial nature of the area. A cell tower located north of NYS Route 31 near the site's southeastern corner as seen above also influences local views near the site. The relative lack of significant development in the immediate vicinity of the Park, especially views from NYS Route 31 and points east, west, and south of the Route 31 corridor creates the sense of a rural area both during daytime and nighttime periods. Nighttime lighting is generated by existing residential and small businesses as well as by vehicular traffic on local roads. The area does not possess the more suburban characteristics of developed areas located one-half mile or more to the east, west, and south where residential and commercial development has been occurring in recent years.

Distant views of the Park are very limited due to existing stands of woodland and shrub vegetation. The area lacks elevated viewpoints from which the Project can be seen. Most views are therefore highly localized and in general well within one to two miles or less from areas surrounding the Project site. Views of the Park are most significant from Caughdenoy Road and to the east across open fields and farmlands and former farmlands along Burnet Road.

In late 2000, Integrated Site, Landscape Architect, P.C., a consulting firm, conducted a view shed analysis of the Park to determine the potential visual impact of a semiconductor manufacturing plant considered for the Park at that time. Elements of that study and its conclusions remain valid and are discussed in Appendix D.

Due to the expansion of the Park, and the issuance of the 2019 New York State Department of Environmental Conservation's Program Policy DEP-00-2 "Assessing and Mitigating Visual and Aesthetic Impacts", an updated Visual Impact Assessment was performed to supplement the original. The updated assessment included a review of previously identified sensitive receptors, identification of new receptors as defined by the 2019 NYS Policy, assessment of views from those locations, and identification of mitigation strategies for potentially impacted locations. The 2019 policy focuses on resources of National, State, and local significance that are open to the public.

The updated Visual Impact Assessment identified a total of 52 sensitive receptor locations that could potentially be impacted by development of the Park. Of those 52 locations, 34 were identified in the previous assessment and 18 were additional locations identified within a 5-mile radius of the Park.

Sites determined to have partial or open views to the site will be further assessed as the site development plans are advanced. The developers will work with the county and local agencies during the site development process to identify the best strategies to mitigate any potential visual impacts from the proposed development. Each site will be individually reviewed based upon the site development plans to determine the type and extent of the visual impacts, and to reach consensus on the most appropriate site-specific methods of mitigating those impacts. Based upon the criteria identified in the 2019 NYSDEC Policy, no significant adverse visual impacts to identified public resources are anticipated.

Best management practices implemented during design and construction of the Park will mitigate several visual impacts that could occur with potential industrial development of the Park. More site-specific measures that can be implemented include construction and placement of earthen berms, native plant material, forested buffers, context sensitivity, camouflage/disguise, low profile and consolidation, efficient directional lighting, landscaped site entrances and curved access roads, and integrating mitigation efforts with other site design considerations such as stormwater management areas, safety and security features, fencing, berms, screening walls, building placement, landscaping, etc. No significant adverse visual impacts are anticipated.

Lighting

The Project site is predominantly undeveloped, therefore, there is very little light being generated from the site. Light generating sources in the area consist primarily of residences and the cell tower located onsite along NYS Route 31 which has two red warning lights mounted approximately at the mid-point of the tower. These are visible within a quarter mile approaching the tower in both directions. This lighting type, color, and intensity is typically dictated by FAA standards for obstruction marking and lighting. The cell tower will require relocation to an area outside the Park boundary, however, given the relatively close proximity to the Syracuse Hancock International Airport, the new cell tower may require similar lighting.

Any facilities potentially established in the Park will require exterior lighting in the form of roadway, parking lot, and building exterior lighting, to provide adequate safety and security for the employees and visitors to the site. The goal of the site lighting plans will be to provide the necessary light levels for safety and security onsite, while avoiding or minimizing glare, reducing light trespass, and reducing skyglow. The lighting design for the site will seek to use Dark Sky friendly lighting fixtures. The lighting design for the approach roadways (NYS Route 31 and Caughdenoy Road) and interior roadways on the site will follow the Illuminating Engineering Society (IES) Recommended Practices for lighting of exterior environments (RP-33-99) and for parking lots (RP-20) to avoid or minimize glare and trespass lighting. The lighting design for the roadways and parking lots will direct light downward using techniques such as cutoff fixtures and shielding. These techniques have proven to be effective in minimizing glare and trespass light that may be detrimental to humans, plants, and animal species surrounding the developed areas of the site and its approach roads. The proposed roadway improvements outside the site will be designed with standard roadway lighting complying with the current NYSDOT HDM Chapter 12 and the NYSDOT Policy on Highway Lighting for highway lighting. Prior to installation of new highway lighting, the locality must agree to be responsible for the operation and maintenance of the new fixture. The luminaire selection for the roadways will be specified according to the IES. The lighting equipment will be selected based on the locality preferences and standards specified in the NYSDOT HDM. Lighting solutions that may create spillover or glare on offsite resources will not be considered for lighting of the roadways.

The site is within five miles of the of the Syracuse Hancock International Airport. This falls within the limits of requirements for obstruction lighting of any onsite structure 200 feet tall or greater. (USDOT FAA Advisory Circular AC70/7460-1M dated 11/16/2020). The development of the site has established a maximum height of 160 feet for any structures built on the site. This would indicate that there will be no

requirements for Obstruction lighting on the site. Further coordination with the Syracuse Hancock International Airport and the FAA during site design will be required to confirm that no structures erected on the site will require Obstruction Lighting.

Noise

The noise impact analysis included impacts from construction and operational activities associated with the proposed expansion of the Park, and also impacts from anticipated roadway improvements. Existing noise in the proposed expanded Park area is generated mostly by vehicular traffic on NYS Route 31 and adjacent roads. Occasional freight trains traveling along the existing CSX rail line near the site, including train signal horns at the existing Caughdenoy Road grade crossing, contribute to the sound environment. Other noise sources in the area include occasional activities such as use of farm tractors and lawn mowing equipment, and wildlife sources typical of a local residential environment. Observed average daytime ambient sound levels in the vicinity of the Park range from 48.0 dB(A) to 73.5 dB(A), with corresponding nighttime ambient sound levels presumed to range from 41.0 dB(A) to 62.9 dB(A).

Receptors potentially sensitive to noise in the project area are generally single- and multi-family residential homes along Caughdenoy Road, NYS Route 31, Verplank Road, and surrounding roadways. Highly sensitive receptors such as schools, libraries, hospitals, and parklands do not exist near the Park, although two local parks are located to the west and southeast along NYS Route 31.

Based on a potential development and a conceptual footprint over the prime developable area, a noise impact assessment finds that:

- Operation of the Park is not anticipated to increase sound levels above current daytime levels at surrounding property lines or sensitive receptors.
- Operation of the Park may increase sound levels above current nighttime levels at surrounding property lines or sensitive receptors by up to 4.4 decibels. Per NYSDEC guidance, sound level increases of this magnitude are considered “unnoticed to tolerable,” and present the potential for adverse impacts only in cases of the most sensitive receptors
- Temporary and intermittent construction activities at nearby receptor property lines has the potential to increase sound levels by more than 10 decibels.

Site layout, operations schedules, natural buffers, vegetative screening, and earthen berms or engineered sound barriers can be employed to mitigate potential noise impacts. At a minimum, the following mitigation measures will be incorporated into the various phases of site development to reduce potential noise impacts.

- Community accessible information including construction schedules will be prepared by project tenants and made available at suitable locations (door-to-door, websites, town offices) to notify neighbors of upcoming work. A complaint resolution process will be implemented and monitored by the tenant and/or OCIDA during construction.
- All construction equipment will be maintained with properly functioning noise reduction muffler systems per manufacturer’s specifications as part of construction contracts and contractor responsibilities.

- Earth-moving equipment will be restricted from "tail gate banging" during sensitive times of the day (early morning and late evening) and when operating near residential receptors.
- Building construction near adjacent residential receptors will consider phasing opportunities and scheduling work to reduce potential noise impacts by erecting buildings, berms, stockpiling materials, structure placement, etc. to interrupt sight lines and therefore reduce noise levels being generated in the direction of sensitive receptors as construction advances on-site.
- Haul roads, access drives, materials storage areas, staging areas, etc. will be placed as far from sensitive receptors and internal to central portions of the site to the greatest extent practicable.
- Limiting construction to normal daylight hours to the greatest extent practicable. If nighttime construction is required, consideration will need to be given to use of variable level audible back-up alarms on heavy equipment, and/or use of strobe lights or other OSHA approved safety devices.
- Establish a project hotline (website and phone numbers) so residents can be kept informed of the status of project construction and obtain information for forwarding on complaints relative to construction activity due to noise, dust, work hours, etc.

Human Health

Human health considerations address potentially sensitive receptors in proximity to a project. The proposed expansion of the Park is within 1,500 feet of the recently built Cottages at Garden Grove Nursing home. This facility is approximately 200 feet east of the eastern site boundary. Grace Evangelical Covenant Church is also located just south of the site along NYS Route 31. The church, which has after-school programs for children, is located just west of Burnet Road and about 2,500 feet west of a possible NYS Route 31 entrance to the expanded Park.

Due to the anticipated construction and operations of the expanded Park, there could be activities that cause some degree of change to the physical aspects of the surrounding area, including the potential for increased traffic, air emissions and noise. These changes have the potential to cause small to moderate impacts to the human health of surrounding residents including the sensitive receptors identified above.

Minimization and mitigation for temporary impacts during construction activities include restrictions on site access, hours of construction activity, delivery of equipment and materials to the site, measures to control dust from disturbed soil, best management practices for temporary fuel storage, and flagging/traffic control measures to protect all modes of travel within any construction area or public right-of-way. During future operations, general impact minimization and mitigation measures will require that the future site tenants obtain all necessary local, state, and federal permits, demonstrating that they are developing and operating the site in accordance with all regulatory requirements and laws. Mitigation measures for potential impacts related to traffic, air quality and noise will include improvements in intersection designs, implementation of air emission control devices, compliance with air emission limits, and use of vegetative/earthen noise barriers between new facilities and neighboring properties.

Cumulative Impacts

It is anticipated that the expansion of the Park and future development of the Park for industrial semiconductor manufacturing will induce similar cumulative impacts and effects to the area as were identified in the 2013 FGEIS. It remains possible that the expanded Park could be a catalyst to additional industrial and business development in this area. Particularly, the area to the west of the Park along Caughdenoy Road that is already zoned for industrial uses (I-2). The addition of the sewer line to and through this area further adds to the attractiveness to develop this area for industrial or business use.

There are several new developments in various stages of approval and review by the Town of Clay Planning Board. The two most relevant developments are a 60-unit senior housing complex along Brewerton Road east of the Park, which was recently approved by the Town of Clay Planning Board for construction. There is also a mixed use Planned Development District (PDD) on the corner of NYS Route 31 and Henry Clay Boulevard that will soon be presented to the Town of Clay Planning Board for approval. If approved, this new PDD will include approximately 100 ± apartments and some mixed-use retail units on the bottom floors towards the front of the parcel. It is not anticipated that the construction of either of these potential developments would create cumulative impacts if constructed concurrently with the development of the Park.

The development of the expanded Park or any surrounding areas that develop as a result of development at the Park could create positive cumulative impacts and economic spin-off. This could include an increase in employment opportunities, increases in local discretionary spending providing additional sales tax revenues to State and local governments, demand for new goods and services support businesses, and further diversify the tax base of the Town of Clay.

The installation of sewer force main along NYS Route 31/Caughdenoy Road intersection and northward along Caughdenoy Road paired with the various intersection improvements along NYS Route 31 will likely make this area attractive to industrial and business uses as well. Added industrial and business uses would increase traffic along NYS Route 31 and Caughdenoy Road. The additional traffic on NYS Route 31 could impact levels of service at several intersections and require improvements at a quicker pace than presently expected as discussed in Chapter 4 Section 4.3.

Potential new growth and economic expansion could create some adverse cumulative impacts. Changes in surrounding land use could put additional demand on sewer capacity and wastewater treatment at the Oak Orchard WWTP and may require upgrades to capacity at the plant to support future growth in the area. The conversion of undeveloped land to other uses will cause a loss of vegetation and wildlife habitat. Encroachment and impacts to features including but not limited to wetlands and floodplains may occur. Changes in visual character from relatively undeveloped land to increased densities may also result. Depending on the nature and extent of development, there may be increased demand on municipal services for fire, police and emergency services. There may also be increased demand on housing, schools and local utilities. The mitigation of these potential impacts will need to be determined as new development projects are introduced and will need to be coordinated at that time with the Town of Clay and possibly other entities and Involved Agencies.

Road improvements, the provision of infrastructure, particularly expanded sanitary sewer capacity at the Oak Orchard Wastewater Treatment Plant, and the potential cost implications for increased municipal services in anticipation of further development of the area would require local, State and federal funding. The establishment and implementation of policies at the Town and County level will be required to manage land use and infrastructure development along and especially north of the NYS Route 31 corridor to control the potential for adverse effects of additional development in the area. These policies may be established through the *Town of Clay Northern Land Use Study* and/or the Onondaga County Comprehensive Plan update. Implementation could also be accomplished through Town zoning and County Section 239 project reviews.

Unavoidable Adverse Impacts

Many of the unavoidable adverse impacts that are likely to result from the expansion of the Park remain similar to those anticipated during the 2013 FGEIS. The difference is the geographic extent given the proposed Park expansion, which could result in greater impacts but also allow for additional buffers to avoid, minimize, and mitigate certain impacts (e.g., ecological, noise, etc.). The unavoidable impacts include the following.

Construction Impacts

It is expected that the expansion of the Park and subsequent construction activities during the development of the Park will generate some temporary impacts as an unavoidable consequence of the development of the Park. These impacts and their intensity will vary throughout the phase one development of the Park. Impacts are likely to include an increase in truck traffic on nearby roads, primarily NYS Route 31 and Caughdenoy Road as construction workers and materials are transported to and from the Project site.

As identified in the 2013 FGEIS, heavy machinery and construction equipment will be used throughout construction. As a result, noise levels will increase in surrounding areas during construction activity. Limiting the placement and storage of equipment and materials as far as possible from residences surrounding the Park will help to mitigate the increase in noise levels. Construction activities will also be limited to normal daytime hours whenever possible consistent with the Town of Clay Noise Ordinance requirements to minimize impacts to nearby residents.

Excavation and the transport of materials have the potential to create fugitive dust from unpaved surfaces depending on wind direction and drying conditions. Dust will be controlled by sweeping adjacent roads to the Project site and watering access roads on site as needed. In addition, in compliance with State water quality and stormwater management regulations future development will require a complete detailed Erosion and Sediment Control and Stormwater Pollution Prevention Plan prior to any construction. These plans will be developed by future project tenants in compliance with all local, State and federal regulations. Contractors working on site will also be required to follow best management construction practices to reduce the potential for soil erosion, dust, noise, traffic and other construction impacts.

Traffic

An increase in traffic will result from construction and development of the expanded Park. Traffic is also projected to increase from other developments occurring in the area and will change the existing levels of service at certain intersections along NYS Route 31. Therefore, roadway improvements along NYS Route 31 are proposed based on existing and future traffic volumes. Regardless of development at the Park, transportation improvements will be required along NYS Route 31 as other development occurs over time.

Air Quality and Noise

Future industrial use at the expanded Park will result in increased traffic, including employee vehicles, trucks, and the possible use of rail. This will increase noise and air emissions from the Park area. There will also be an increased use of energy, water and wastewater treatment resulting from development, but the exact degree of increase is unknown at this time. The use of natural gas for process heat demands and thermal oxidizers for the destruction of volatile organic compounds will generate combustion related air pollutants. The use of chemicals in manufacturing processes will generate non-combustion air pollutants. Emission control equipment will be utilized to reduce the emission rates and overall volume of released pollutants.

Ecology

Areas of open field cover type within the Park will be developed. It is anticipated additional upland shrubland and woodland habitat areas will also be affected. Impacts to state and federal jurisdictional wetlands will be avoided to the maximum extent practicable, but to the extent a specific development project cannot entirely avoid or minimize impacts to wetlands, associated habitat areas may also be impacted by development of the Park. This is consistent with the findings of the 2013 FGEIS. Much of the Park will maintain its natural habitats as areas set aside from development. Some areas on site that may experience temporary disturbance from construction activities could return to vegetated locations (i.e., stormwater management areas, landscaping, and visual buffers). As such, suitable wildlife habitat will be present in the Park in areas avoided by development or that are restored following construction.

Visual Character

Similar to the analysis in the 2013 FGEIS, the development of the expanded Park site will alter the visual character, which currently consists of single family rural residential plots, undeveloped rural open space comprised of former farm fields, and shrub and woodland. The future development at the expanded Park will instead include industrial buildings, parking areas, support facilities, and internal roads. It is anticipated that during the development at the expanded Park the wetlands within the Park will remain undeveloped.

Visual changes resulting from construction and development are unavoidable. Measures to reduce the effects of visual changes include the placement of additional vegetative buffers and landscaped berms at key locations around the site, particularly along the western and southern periphery of the site to screen views and mitigate noise.

The need for specific visual mitigation measures will be determined once tenants are known and the degree of potential visual impact is determined. Building placement, the use of attractive building materials and structural design features and landscaping will be encouraged by OCIDA to enhance the appearance of buildings and grounds. Appropriate lighting fixtures and other site design features will be determined in coordination with the Town of Clay's site plan review process.

Displacement of Existing Property Owners

In order for Project objectives to be achieved, OCIDA must increase the size of the Park to make it more attractive to potential future tenants, specifically tenants in the semiconductor industry. The proposed expanded Park footprint requires that OCIDA acquire certain residences along Caughdenoy Road, NYS Route 31 and approximately 3 dozen residences along Burnet Road. These residential properties have been acquired or will be acquired by OCIDA through negotiated purchase agreements or pursuant to the EDPL and existing owners will need to relocate. OCIDA must also acquire the property on which the existing telecommunication tower is located.

The properties along NYS Route 31 and Burnet Road represent a significant portion of the expanded Park's prime developable area and are therefore a necessary component of the Project. Existing structures and improvements will ultimately be demolished and/or removed in furtherance of the potential future development of the Park. Demolition activities will be conducted in accordance with Town of Clay requirements, and all debris will be disposed of at authorized off site facilities in accordance with applicable regulations. The telecommunications tower will need to be disassembled and relocated. The acquisition and removal of the residences along Burnet Road allows for the expansion of the Park footprint to accommodate large-scale campus like development for tenants and will enable maximum use of setbacks and buffers between the prime developable area of the Park and the nearest land uses to the east along and off of Brewerton Road in the Town of Cicero.

While the removal of the aforementioned residences and tower are unavoidable, owners will receive fair market value for their properties, thus enabling them to relocate within the Town of Clay or elsewhere. OCIDA will also pay the seller's normal transaction costs of updating the title and survey, recording fees, transfer taxes and other similar expenses in connection with the transfer of these properties as well as the pro rata portion of real property taxes, water rents, sewer rents, special ad valorem charges and other similar charges. In the event it is necessary to acquire any such properties pursuant to the EDPL, as condemnor, the Agency will offer just compensation based on the fair market value determined by its highest approved appraisal, and the respective property owners will have the right to challenge the amount of such just compensation under EDPL Article 5. The Agency will also pay, upon acquisition, any costs associated with recording fees, transfer taxes, penalties incurred by the condemnee for prepayment of any preexisting recorded mortgage entered into in good faith encumbering the property, and the pro rata portion of real property taxes, water rents, sewer rents, special ad valorem taxes and other similar charges.

Growth-Inducing Impacts

The growth-inducing impacts that are likely to result from the expansion of the Park remain similar to those anticipated during the 2013 FGEIS.

Population Growth

It remains reasonable to expect that the development of the expanded Park will result in some direct and secondary growth impacts to the surrounding community. Direct impacts will result from the development of the Park itself. Secondary impacts such as industrial-related support businesses or other commercial businesses being established near the Park are also possible.

Direct impacts will include job creation both on a temporary basis during construction and long-term employment once buildings and ancillary facilities are completed and become operational. It is anticipated that construction of a campus for large semiconductor industrial tenant will occur over the course of a year or more.

Most job opportunities created during construction will be filled by the local labor pool. However, it is anticipated that the development of the expanded Park will bring approximately 4,000 full-time high paying jobs to Onondaga County. The potential exists for many of these new jobs to be filled by people that are not currently living within the Syracuse Metropolitan Area, meaning that there could be a proportional increase in the number of households as well as the need for new housing.

It is estimated that the North Syracuse Central School District enrollment would increase by approximately 1.6%. This increase in school population is not anticipated to place an undue burden on local schools and educational facilities, mainly due to the recent decline in the Syracuse Metropolitan Area population and resulting decline in the student aged population.

Infrastructure-Induced Growth

The development of the expanded Park will necessitate the construction of new infrastructure. The most important infrastructure improvements that are needed to support the proposed development include the traffic mitigation improvements described in Section 4.1.10, the installation of sewer force mains being designed to support the greater Oak Orchard District and a gas line as described in Chapter 3 and 4, Sections 3.4.1 and 4.4.1, respectively.

Utility connections on-site will not result in substantial growth-inducing impacts since its effects will be in support of on-site uses, but these new utilities could encourage some new growth along their conveyance routes. The availability of public sewer has the potential to foster additional development in this portion of the Town of Clay, which remains relatively undeveloped at the present time. The ability to tap into the force mains is subject to State, County and Town of Clay review and approvals. As such development will be managed by these entities and by the available capacity of wastewater treatment at the Oak Orchard Treatment Plant. Formation of a new sewer district to serve the Clay Business Park could help manage growth in the area. The County can service up to 4 million gallons per day (MGD) at Oak Orchard for the Park.

Transportation improvements along the NYS Route 31 corridor could also accelerate and accommodate increased development activity. Traffic improvements will be required along NYS Route 31 as development occurs. Traffic mitigation improvements proposed to support the expanded Park are not likely to induce further growth alone without other improvements along the corridor.

Development in the vicinity of the expanded Park could take several different forms at varying scales and densities depending on real estate market conditions and trends when new sewers come online. It is expected that future development in the vicinity of the Park will be in accordance with the Town of Clay Zoning Code and any related regulations or requirements in effect at the time. Under current zoning, this could translate into additional industrial development west of Caughdenoy Road and along NYS Route 31.

Development of residential uses could also occur in the vicinity of the Park as the result of sewer availability. Residential uses, perhaps as new residential subdivisions along NYS Route 31 south and east of the Project site may occur in areas presently zoned as RA-100.

All new development that occurs off-site will be subject to Town of Clay zoning requirements and site plan review. Such projects will also be subject to an environmental review under SEQRA conducted by the Town and/or other Involved Agencies at the time a specific project is proposed. Potential adverse environmental impacts will be identified, evaluated, and subject to project-specific mitigation measures on a case-by-case basis as part of the SEQRA review process.

Irreversible and Irretrievable Commitment of Resources

Similar to the 2013 FGEIS, it is anticipated that the expansion of the Park and subsequent development of the Park will require similar commitments of various types of community resources by OCIDA, Onondaga County and other entities including the private sector as investment and development of the Park progresses.

The irreversible commitment of physical resources will include the conversion of approximately 4.0 million square feet of the expanded Park to building footprint and additional support facilities in support of industrial semiconductor uses. There will also be 50± acres of parking (which may include parking garages), loading areas, access and internal circulation roads at the expanded Park.

As evaluated in the 2013 FGEIS, the prime developable area of the Park generally consists of fields, shrubland, and some woodland areas. Residential properties may now be part of the prime developable area given the proposed expanded footprint of the Park along Burnet Road. Also similar to the 2013 FGEIS, areas that are likely to remain mainly undeveloped generally consist of wooded upland, wetlands and NYSDEC wetland buffer areas.

As analyzed in the 2013 FGEIS, development of the Park will require soil disturbance as well as the loss of vegetation and wildlife habitats. However, the goal will be to avoid wetlands and mature habitats to the maximum extent practicable by focusing development in the prime developable area. Topsoil will be stockpiled for use on-site for landscaping, whenever possible. Trees removed for development will be

considered for sale as timber and other vegetation cleared from the Project site will be recycled as mulch and landscaping, when practicable. The only difference from 2013 may be the amount of soil disturbance and trees impacts from development given the proposed expansion and greater Park acreage.

Development will include the commitment and consumption of building and construction materials including concrete, asphalt, steel, lumber, plastics and other raw materials and finished products. Development will require the consumption of water, electricity, fuel (gas and diesel), oil and other petroleum products. Additional materials and energy resources will be consumed by tenants for industrial processes. The provision of utilities for water, sewer, electrical, natural gas, and telecommunications will be required throughout construction and operation of facilities. The use of materials and goods are expected to be met by the region's supply. Nevertheless, as in 2013, this represents an irreversible and irretrievable commitment of these resources that will not be available for other uses.

The proposed Action will also require public and private services, including, but not limited to, solid waste disposal, police, fire and emergency services, as expected with any large-scale development and as detailed in the 2013 FGEIS. Commitment of these resources is an anticipated outcome of an industrial park's development.

Effect on the Use and Conservation of Energy Resources

Commitment and indication of adequate capacity from National Grid to support the expanded White Pine Commerce Park with Natural Gas and Electric utility service was received. The expanded Project Site is capable of supporting a mix of industrial and/or commercial use facilities located in a campus-like setting. The facilities will consume natural gas and electricity as a result of normal operations.

It is anticipated that approximately 25 acres of the site could be used for a potential electrical substation and gas regulator station to support the energy needs of the expanded project site. This space has potential to be a central energy facility intended for energy distribution to the campus facilities and buildings while minimizing the quantity of equipment needed and maximizing energy efficiency.

The expanded Park may employ up to 4,000 employees and operate up to 4 million square feet of facilities. Potential facilities include the following use types:

- manufacturing/fabrication/assembly space
- laboratory, research and development (R&D) space
- logistics, warehousing, and/or shipping & receiving space
- office and administration space
- manufacturing support facilities, outdoor utility spaces, maintenance areas, waste facilities, and service/storage yards
- on-site energy generation or electrical substation space
- wastewater treatment systems or pump stations
- paved area for parking (which may include parking garages), loading, internal road circulation and/or shipping/receiving areas

Although the objective of expanded Park is to develop the site for the semiconductor and manufacturing industry, the actual demand for energy can vary greatly according to the types of industries and businesses eventually located in the Park.

US Energy Information Administration's (EIA) 2018 Manufacturing Energy Consumption Survey identified that manufacturing facilities, on average, consume 95.1 kilowatt-hours (kWh) of electricity and 536,500 British thermal units (Btu) of natural gas per square foot annually. This average can increase or decrease significantly depending on the facility use type, manufactured product, and manufacturing process.

Buildings and uses designed for the expanded Park will be constructed utilizing equipment and systems in compliance with energy conservation and building code standards as set forth by New York State Construction Codes. New York State has several codes and NYS programs related to their building energy code. These include the State Energy Conservation Construction Code (SECCC), the NYS Executive Order No. 111, and The New York Energy Smart Program.

The SECCC determines the minimum energy conservation requirements for new buildings including heating and ventilating, lighting, water heating, and power usage for appliances and building systems. Specific design requirements are related to the climate zone the building is located (Onondaga County, Zone 5A). Low energy and equipment buildings are exempt from the building thermal envelope provisions.

The NYS Executive Order No. 111 provides the guidelines for energy use and environmental issues for New York State buildings and vehicles. While this Executive Order would not apply to Private Industry, it represents an Energy Conservation Model recognized within the state that can be referenced by private industry. Some of the goals are to increase the availability of renewable energy sources and premium efficiency products, reducing peak summer energy demand and creating a less oil dependent economy. For new construction equal to or greater than 20,000 gross square feet, the building must achieve at least a 20% improvement in energy efficiency performance, meet the criteria for a U.S. Green Building Council Leadership in Energy and Environmental Design (LEED) rating, and comply with the New York State Green Building Tax Credit requirements.

The following incentives are available to industry within NYS with a clear intent to promote and reward the use of energy efficient systems and policies. Several are available to industry located within Onondaga County and are promoted and coordinated by OCIDA. It is in the best interest of any industry locating at the expanded Park to be as energy efficient as possible to control operating costs as well as contribute to achievement of NYS initiatives and energy objectives. New facilities systems are expected to be designed to be highly energy efficient using the latest technologies in energy use and conservation which represent the most cost effective and responsible approach for the industry.

OCIDA coordinates incentive packages for businesses through the New York State Energy Research and Development Authority (NYSERDA) commercial/industrial programs. These programs provide energy efficiency services for new construction, industrial facilities and vehicle fleets. NYSERDA services

include new renewable, clean energy and energy efficient product manufacturing incentives and services designed to promote greater transportation, lighting and HVAC efficiencies.

Energy Star is a voluntary partnership program of the U.S. Environmental Protection Agency (EPA). Its primary purpose is to help U.S. industry improve its competitiveness through increased energy efficiency and reduced environmental impact. Through Energy Star, the U.S. EPA encourages strong and strategic corporate energy management programs and provides energy management tools and strategies to assist companies implement such programs. There are several methods for designers, contractors, and building managers to be recognized by the EPA. The most notable is the Energy Star Building Certification which requires the building to meet strict energy performance standards set by EPA. These standards include energy performance indicators (EPIs) to calculate energy intensity and to score the facility on a 1-100 scale. A score of 75 or above is required for certification, but certification is not available for all building types and for all sectors of industry. For a building in the design phase, there is the Designed to Earn Energy Star Recognition, which signifies that the operating energy use of the building is designed to be in the top 25 percent as compared to similar buildings throughout the U.S. Industrial and manufacturing facilities that are not part of EPA's Industries of Focus are eligible to participate and receive Energy Star's Challenge for Industry Recognition which is designed to help energy managers and industrial sites improve energy performance and set goals. Industrial sites participate by committing to the pre-established goal of improving energy performance by 10 percent within 5 years or less.

Currently, semiconductor manufacturing, including, but not limited to wafer fabrication and processing, is not eligible for an Energy Star Building Certification, but can be recognized through both the Designed to Earn Energy Star Recognition and Challenge for Industry Recognition. These programs offer advanced tools to assist manufacturers in assessing and tracking energy use and prescribing energy management and improvement initiatives with goals of energy reduction. Achievement of set energy reduction and environmental improvement goals results in receiving recognition.

Unstable energy markets, increasing competition, and global regulation of greenhouse gas emissions are currently causing many U.S. manufacturers to implement energy management as a viable opportunity. A reduction in production cost can be achieved without negatively affecting the yield and quality of products by effectively reducing energy consumption and costs. This goal can often be met through investments in energy efficiency, which can include the implementation of plant-wide energy-efficiency practices and the purchase of energy-efficient technologies. These technologies can often offer additional benefits, such as quality improvement, increased production, and increased process efficiency.

OCIDA promotes State and Federal incentives to encourage users to develop the Park with energy systems that are both energy efficient and environmentally friendly. This can be accomplished through the planning, design and construction of facilities that are consistent with Leadership in Energy and Environmental Design (LEED) certification standards. Standards include energy efficient heating, ventilation and air conditioning (HVAC) systems, and day-lighting of interior spaces.

Solid Waste Management

As a result of the proposed Park expansion, there is a potential for increased generation of solid and hazardous wastes, which represents a change from what was considered in the 2013 FGEIS. The impact will not be significant in terms of total service area and capacity. It is anticipated that local haulers will provide adequate services to the Park, as is currently being provided to other businesses and industrial users in the County. No additional mitigation is necessary since potential impacts due to solid waste generation are minimal.

OCIDA will work with any future tenants to develop a solid waste management program that includes recycling and reuse of materials. Management and disposal of solid waste will be consistent with the goals established by the Onondaga County Resource Recovery Agency (OCRRA) in its September 2016 Solid Waste Management Plan Update. It is anticipated that a Project site developer will institute measures to reduce solid waste generation, reuse materials (where possible), and institute recycling measures. These "best-management" practices are cost-effective alternatives to offsite disposal.

Transportation and disposal of non-hazardous solid waste will be coordinated with a licensed solid waste hauling firm. It is anticipated that material will primarily be taken to OCRRA's Waste to Energy Facility in Jamesville or an approved transfer station. OCRRA also has contingency plans for disposal of waste, if necessary, at facilities such as Seneca Meadows Landfill (Seneca County) or High Acres Landfill (Monroe County). Future development and operations within the Park will be required to comply with Chapter 194 of the Town's Solid Waste Code.

Manufacturing activities at the expanded Park could include the use and storage of petroleum, compressed specialty gases, and chemicals such as paints, solvents, chlorine, corrosive materials, and materials contaminated with metals. Specialty gases that may be used or generated by a prospective tenant could include nitrogen, nitrogen trifluoride, oxygen, carbon dioxide, silane, nitrous oxide, helium, and argon. Various types of hazardous waste may be produced as a result of the potential manufacturing activities that could take place at the expanded site. It is possible that up to approximately 60,000 tons of hazardous waste could be generated per year. Hazardous waste could be in solid, liquid or gaseous forms and is considered hazardous because of its physical characteristics or the process that generated the waste. Potential waste streams may include solvent wastes, isopropyl alcohol, acids, hydrogen fluoride, ethylene glycol, chlorine, wastewater sludge, metal slurries, and metal plating wastes. Hazardous waste that is generated, treated, and stored is controlled by permits and regulations administered by NYSDEC and USEPA, under the Resource Conservation and Recovery Act (RCRA). Off-site disposal of hazardous waste would be coordinated with a licensed hazardous waste hauler and one or more permitted treatment/disposal facilities. Permitted facilities in New York State that accept hazardous waste include Chemical Waste Management - Model City (Niagara County) and Durez Corporation (Niagara County). Alternatively, hazardous waste may be transported out-of-state using private vendors.

Various types of hazardous materials may be produced a result of the potential manufacturing activities that could take place at the proposed expanded Park Generation of waste products has the potential to create a small to moderate impact if not handled properly and in accordance with State and Federal regulations. However, any such impacts will be mitigated through the use of engineering controls, staff

training, best-management practices, and regulatory compliance with State/Federal permits, laws and regulations will be instituted.

1.0 INTRODUCTION AND PROJECT DESCRIPTION

1.1 Project Background

1.1.1 Project Description

The Onondaga County Industrial Development Agency (OCIDA) proposes to expand its existing White Pine Commerce Park ("Park"), formerly known as the Clay Business Park. The Park is located northeast of the intersection of NYS Route 31 and CR 49 (Caughdenoy Road) in the Town of Clay, Onondaga County, New York. It was created to be capable of supporting a mix of industrial and/or commercial uses with related office space, advanced state-of-the-art research, large- or small-scale manufacturing, assembly, warehousing, data management, material processing and distribution facilities in a campus-like setting.

OCIDA has devoted substantial time and effort into determining the highest and best use of the Park, with a particular focus on site attributes that will bring high-tech facilities and high paying jobs to Onondaga County. More recently OCIDA has focused its efforts on the semiconductor industry. These efforts have been unsuccessful to date as it has become apparent that a larger geographic footprint is necessary in order to support this type of industry and the associated investment required by the tenant(s).

OCIDA, as Project Sponsor, proposes to expand the Park to approximately 1,250± acres (the "Project" or "Action"). OCIDA currently owns approximately 648± acres, has another 282± acres under contract, and would acquire approximately 320± additional acres. The acreage to be acquired are parcels contiguous to the current Park, and are generally located along Route 31, and along the east and west sides of Burnet Road. OCIDA would acquire the additional parcels through purchase agreements with existing landowners or, if necessary, pursuant to the Eminent Domain Procedure Law ("EDPL"), to avoid fragmented parcels that would hinder future development.

1.1.2 Project Overview and History

In 1991, OCIDA and the Syracuse Chamber of Commerce commissioned an Industrial Park Feasibility Study to identify potential candidate sites for locating industrial businesses in Onondaga County. The feasibility study identified two primary candidate locations for large-scale industrial uses, one in the Town of Lysander north of NYS Route 31 and one in the Town of Clay along NYS Route 31 and Caughdenoy Road. The Lysander site was considered less suitable of the two sites due in part to the presence of substantial wetlands and hydric soil conditions. The Clay site was therefore chosen by OCIDA as the more feasible location for development.

OCIDA acquired seven properties that comprised the then-existing approximately 340± acre Park site along Caughdenoy Road. OCIDA then completed an environmental review under the State Environmental Quality Review Act ("SEQRA") of the Park and any adjoining routes, rights-of-way and areas needed to support the project at that time, including existing and proposed infrastructure and improvements. This review culminated in preparation of a Final Generic Environmental Impact Statement (2013 FGEIS) and OCIDA's issuance of a Findings Statement that concluded that the creation and

potential future development of the then existing approximately 340± acre Park avoided or minimized adverse environmental impacts to the maximum extent practicable, and incorporated mitigation measures that were considered practicable.

OCIDA thereafter invested considerable resources in marketing the Park for development. Certain prospective tenants expressed interest in the approximate 340± acre Park over the years but the relatively small size of the current Park was seen as a limiting factor by some. As a result, the Park remains undeveloped. Nevertheless, the Park has many favorable characteristics, including, but not limited to, its proximity to critical utilities and infrastructure, which makes it a very suitable location for large-scale tenants.

This Draft Supplemental Generic Environmental Impact Statement (Draft SGEIS) has been prepared consistent with SEQRA (Article 8 of the Environmental Conservation Law Part 617 of Title 6 of the New York Code of Rules and Regulations). In New York State, most projects of this nature and activities proposed by a state agency or unit of local government, and all discretionary approvals and permits from a state agency or unit of local government, require an environmental impact assessment of a proposed action before such action may be approved, undertaken or funded. SEQRA requires the sponsoring or approving governmental body, in this case OCIDA, acting as SEQRA Lead Agency, to identify, evaluate, and mitigate, to the maximum extent practicable, significant environmental impacts associated with the proposed action. For SEQRA purposes, the term "Project site" used in this document is defined as any location where project facilities and infrastructure will or might be constructed. The Project site includes an expanded Park consisting of approximately 1250± acres and any adjoining routes, rights-of-way and areas needed to support the Project or Project-related mitigation, including existing or proposed infrastructure and improvements. "Off-site" is defined as any portion of the study areas being assessed for potential impacts that are not on or encompassed by the Project site. Because OCIDA previously prepared the 2013 FGEIS for the Park, this Draft SGEIS evaluates the expanded development footprint of the Park and other changes in circumstances that have the potential to result in any new, previously undisclosed, or unevaluated significant adverse impacts.

1.1.3 Project Purpose and Need

The Project purpose is to expand the Park to enable OCIDA to market the Park to a larger, more diverse mix of potential industrial and commercial developers by making the Project site more attractive to a broader scope of industries, particularly the semiconductor industry, and bringing high tech and high paying jobs to Onondaga County.

This Draft SGEIS identifies, evaluates and addresses various impact thresholds, permit criteria and mitigation measures anticipated for the expanded Park, including those attributes associated with large-scale semiconductor industrial development. By addressing these issues in a Generic EIS format, the SEQRA process will define a set of threshold conditions or criteria under which potential future actions and development will be undertaken or approved, including any subsequent SEQRA compliance requirements.

1.1.4 Project Location and Setting

The Park is located at the northeastern corner of the intersection of NYS Route 31 and Caughdenoy Road in the Town of Clay, Onondaga County, NY (see Figure 1.1-1). The Park is approximately 7 miles north of the City of Syracuse.

The Park is accessible from major nearby interstates. This includes Interstate 81 (I-81) via Exit 30 at NYS Route 31 in Cicero, approximately 2.2 miles east of the Project site. The I-81/I-481/NYS Route 481 interchange is four miles southeast of the project. The NYS Route 481/NYS Route 31 interchange is approximately 3.5 miles west of the Park. The New York State Thruway (I-90) is about 6.5 miles south of the Park. Syracuse Hancock International Airport is about 5 miles south of the Park located along the I-81 corridor.

The Park is located in the eastern portion of the Town of Clay, adjacent to the Town of Clay/Town of Cicero boundary. The Town of Clay is a northern suburb of the City of Syracuse. Clay is the largest town in Onondaga County occupying approximately 48 square miles with a 2019 Census population of 59,250 people. The population of the Town has remained largely unchanged over the past two decades decreasing 0.84% since 1990. The area surrounding the Park is sparsely populated with relatively low-density residential development mostly along Caughdenoy Road and Verplank Road west of the Park, Mud Mill Road north of the Park and Burnet Road within and near the eastern boundary of the Park. I-81 is located a little more than one mile to the east of the site.

Residential and commercial development in northern suburbs of Onondaga County is likely to continue, according to the most recent studies conducted by the Town of Clay, the Syracuse-Onondaga County Planning Agency (SOCPA), and the Syracuse Metropolitan Transportation Council (SMTC). These studies include a corridor study conducted in 2010 by the SMTC titled *Clay-Cicero Route 31 Transportation Study,* the *Town of Clay Northern Land Use Study* prepared in 2013, and the *2010 Development Guide for Onondaga County*. New residential development has occurred south and east of the Park, primarily along the NYS Route 31 corridor in the Town of Cicero. The Town of Cicero had a 2019 population of 30,721 people, a decrease of 2.89% since 2010.

The SOCPA, SMTC, and Town of Clay studies assume future growth in the project area and account for future industrial use of the Park.

1.1.5 Proposed Development

The 2013 FGEIS detailed a preferred development scenario, which anticipated a full build-out of approximately 2.0 to 2.5 million square feet of industrial development and assumed that the Park would be developed in several phases over the course of perhaps 10 to 15 years. Specifically, the 2013 FGEIS considered a full build out scenario of the Park in three development areas. Given the lack of any specific tenant and uncertain timing for development of future phases, this Draft SGEIS considers the potential impacts associated with the development of the Park, including the expanded area, while providing for further evaluation, as necessary, when a conceptual plan for a specific development is available.

The development evaluated in this Draft SGEIS contemplates OCIDA's focus on developing the expanded Park with a tenant or tenants in the semiconductor industry. This may translate into a buildout

encompassing approximately 4.0 million square feet of industrial development at the Park. This would equate to approximately 400 acres of surface disturbance (temporary and permanent) within the Park developed in a campus like setting that would be sited to avoid regulated wetland areas and would limit the height of structures to no more than 160 feet. This anticipated development is expected to bring approximately 4,000 jobs covering three shifts that operate 24/7 year-round.

Based on a review of similar types of facilities being developed in other areas of the country, and given existing site conditions and the Project purpose, the buildout would likely include the following:

- A combined total of approximately 4.0 million square feet (SF) of buildings in a campus like setting made up of the type of uses identified in the 2013 FGEIS (manufacturing, laboratory, R&D, fabrication, warehousing, office, support, utility, waste, service yards, energy, water treatment);
- Approximately 50 acres of paved area for parking (which may include parking garages), loading, internal road circulation and/or shipping/receiving areas;
- Two (2) access roads entering the Project site from NYS Route 31 and Caughdenoy Road;
- Approximately seven miles of new sanitary sewer line from the Oak Orchard WWTP to service the surrounding sewer district, including the Park;
- Approximately four miles of new gas lines to the Park
- Approximately 5,000 linear feet of underground electric lines to the Park
- Areas undeveloped and set aside for greenspace, wetland preservation, conservation, and if necessary, mitigation;
- Additional areas for:
    - Stormwater management
    - Truck scales and security guard stations
    - Fuel storage
    - Employee amenities, trails and open space
    - Landscaping, security fencing, signage, earthen berms and vegetated buffers.

Project development will include site infrastructure consisting of internal roads, drainage culverts, waterlines, sewer and wastewater systems, electric, natural gas, stormwater management systems, lighting, landscaped areas, earthen berms and areas maintained as undeveloped natural buffers. It is anticipated that areas owned by OCIDA that are north of existing New York Power Authority (NYPA) and National Grid transmission lines will not be developed to avoid actual or potential wetland areas. Upland areas alongside these wetlands may be suitable as possible wetland mitigation areas, if necessary, for potential impacts that cannot be avoided or minimized by a future specific development, which is not covered by this Draft SGEIS.

The development of the Park will occur south of the National Grid/NYPA transmission lines and avoid most of the eastern portion of the Project site due to the likely existence of wetlands and wetland buffer areas. This area includes approximately 732± total acres of prime developable land within the Park. See Figure 1.1-2. This area has been identified as the prime developable area due to the anticipated absence of wetland features, the generally flat topography, and the access to the surrounding transportation network and potential access points along NYS Route 31 and Caughdenoy Road. The prime developable area within the Project site is also positioned away from the overhead transmission lines, which run across the northern portion of the Project site. The proposed gas line and sewer connection would also tie

directly into this portion of the Project site with limited, if any, impacts to wetlands or other natural features anticipated.

1.2 Changes in Circumstances

1.2.1 Expanded Scope of Potential Uses

The 2013 FGEIS envisioned a Park that would accommodate a mix of industrial uses which could include office, research, manufacturing, assembly, warehousing and distribution facilities in a campus environment. It similarly noted OCIDA's intent to market the Park "for various types of uses possibly including advanced manufacturing, material processing, product assembly, warehouse and distribution, research and development, and data management to facilitate the creation of high-paying employment opportunities in Onondaga County." (FGEIS Section 1.2).

OCIDA now seeks to market the Project to a larger, more diverse mix of potential industrial and commercial developers by making the Project site more attractive to a broader scope of industries. The expanded Park will be capable of supporting a mix of industrial and/or commercial uses with related office space, advanced state-of-the-art research, large- or small-scale manufacturing, assembly, warehousing, data management, material processing and distribution facilities in a campus-like setting. As such, OCIDA intends to market the Project site in a more targeted manner to the semiconductor industry.

1.2.2 Expanded Footprint

In 2013, the Park consisted of seven contiguous parcels covering a total area of approximately 340± acres of land and under the control of OCIDA (see FGEIS Fig. 1.4-1). At that time, the Park consisted of large undeveloped areas of former farmland, vacant fields, shrubland and woodlands, all of which are in various stages of natural succession. The northern portion of the Park included several areas of mapped wetlands and small drainages that drain northward under existing NYPA and National Grid electric transmission lines towards Youngs Creek, a non-navigable stream located north of the Park. These transmission line rights-of-way cross the northern one-third of OCIDA Park in an east-west direction perpendicular to Caughdenoy Road. The transmission lines originate at the National Grid Clay electrical substation just west of the Project site. An existing CSX rail line crossed the northwestern corner of the Park generally in a northeast/southwest direction. There was an at-grade railroad crossing along Caughdenoy Road adjacent to the Park.

In order to attract targeted development, OCIDA now proposes to expand the footprint of the Park to approximately 1,250± acres. OCIDA currently owns approximately 648± acres, has another 282 acres under contract, and would acquire approximately 320± additional acres. The acreage to be acquired are parcels contiguous to the current Park, and are generally located along NYS Route 31, and along the east and west sides of Burnet Road. OCIDA would acquire the additional parcels through purchase agreements with existing landowners or, if necessary, pursuant to the EDPL, to avoid fragmented parcels that would hinder future development.

1.2.3 Changes in the Surrounding Area

The land use patterns within the vicinity of the Park have not changed substantially since the completion of the 2013 FGEIS, although there has been limited new residential development near the Park. New residential developments near the Park include the Tocco Villaggio Apartments and the residential community of Appaloosa Trail. The Tocco Villaggio Apartments added new residential units as well as expanded residential streets off of NYS Route 31 towards the southeastern corner of the Park. The Appaloosa Trail residential community, located to the west of the Project site near Van Hoesen Road, added several new single-family homes since the 2013 FGEIS.

Additionally, a 60-unit senior housing complex along Brewerton Road east of the Park was recently approved by the Town of Clay Planning Board but has not been constructed. There is a mixed use Planned Development District (PDD) on the corner of NYS Route 31 and Henry Clay Boulevard that will soon be presented to the Town of Clay Planning Board for approval. If approved, this new PDD will include approximately 100± apartments and some mixed-use retail units on the bottom floors towards the front of the parcel. These two new developments demonstrate a continuation of, and no material change to, the land use patterns within vicinity to the Park.

Since the preparation of the 2012 TIS that was part of the 2012 DGEIS and finalized in the 2013 FGEIS, traffic roadway changes include:

- The addition of exclusive eastbound and westbound left turn lanes along NYS Route 31 at Henry Clay Boulevard.
- The unsignalized intersections of NYS Route 31/Caughdenoy Road and NYS Route 31/Legionnaire Drive/Lawton Road were signalized.
- The Caughdenoy Road/NYS Route 31 intersection was also recommended for right and left turn lane additions; however, the current development assumptions have changed with multiple site entrances.

1.2.4 Potential Acquisition of Parcels Pursuant to the EDPL

At the time of the 2013 FGEIS, OCIDA owned the seven parcels that comprised the approximate 340± acre Park. Since that time, OCIDA has acquired additional parcels and will continue to do so. However, it is anticipated that OCIDA may not be able to acquire through voluntary purchase agreements all of the parcels necessary to expand the Park's footprint as contemplated herein. OCIDA, therefore, may need to acquire certain parcels pursuant to the EDPL.

1.2.5 Climate Change

Since the completion of 2013 FGEIS, the Climate Leadership and Community Protection Act (CLCPA) was passed and signed into law in 2019 (Chapter 106 of the Laws of 2019). The CLCPA and Environmental Conservation Law ("ECL") Article 75 require NYSDEC to promulgate regulations to establish a statewide greenhouse gas ("GHG") emissions limit for 2030 that is sixty percent of 1990 GHG emissions, and for 2050 that is fifteen percent of 1990 GHG emissions. The CLCPA also requires the Public Service Commission ("PSC") to establish a program to meet a target of seventy percent of

statewide electrical generation from renewable sources by 2030, and a target of zero GHG emissions for statewide electrical demand by 2040. NYSDEC adopted 6 NYCRR Part 496 on December 30, 2020, which established the statewide GHG emission limits for 2030 and 2050 consistent with ECL Article 75 and the CLCPA. On October 15, 2020, the PSC issued an Order expanding the Clean Energy Standard to increase renewable energy in the state to 70% by 2030. In addition to the regulations, Section 7(2) of the CLCPA requires all state agencies to consider whether the decision to issue permit(s) is inconsistent with or will interfere with the attainment of the ECL Article 75 GHG emission limits.

1.3 Permitting and SEQRA Process

1.3.1 State Environmental Quality Review Act

Pursuant to regulations promulgated under SEQRA, all state, regional, and local government agencies are to consider potential environmental impacts equally with social and economic factors during preliminary stages of proposed development actions. The Lead Agency and other Involved Agencies must assess the environmental significance of all actions they have discretion to approve, fund, or directly undertake.

Under SEQRA, a Generic Environmental Impact Statement (GEIS) can be prepared in place of a more conventional site-specific EIS when a proposed action is at a conceptual stage of development and timing or project design is uncertain, thus making the identification or extent of certain specific impacts impractical. A "generic" EIS is less specific than a conventional EIS and can be based on conceptual information until more detailed information on tenants, uses and site design become known. It is appropriate to conduct an environmental review of the Project as a GEIS because the Project's development scenario offers a reasonable prediction of anticipated development while preserving flexibility to accommodate various industrial uses, buildings and facilities, scales of development and site design.

The SEQRA process provides guidance on the preparation of a GEIS and the coordinated review of subsequent actions. According to 6 NYCRR Part 617.10(c) of SEQRA:

> *"Generic EISs and their findings should set forth specific conditions or criteria under which future actions will be undertaken or approved, including requirements for any subsequent SEQR compliance. This may include thresholds and criteria for supplemental EISs to reflect specific significant impacts, such as site specific impacts, that were not adequately addressed or analyzed in the generic EIS."*

Subsequent chapters of this Draft SGEIS will identify, evaluate and provide information on avoiding, minimizing, and mitigating potential environmental impacts resulting from development of the Park as defined in this document. The Draft SGEIS establishes a set of conditions and thresholds describing the site, project components and environmental impacts potentially associated with the Project site's development. Future development proposals for the Park are expected to be generally consistent with the scale and distribution of facilities as discussed in this Draft SGEIS and with SEQRA Findings that will be prepared subsequent to this Draft SGEIS.

Future actions that fall within the range of impacts evaluated in the Draft SGEIS are not expected to require further SEQRA review. By identifying baseline environmental conditions and certain impact thresholds, the SGEIS process may facilitate development of the project by allowing for quicker approval of future actions associated with development of the Park that are consistent with the SGEIS and SEQRA Findings. If subsequent proposed actions are not addressed or not adequately addressed in the Draft SGEIS and the subsequent actions will not result in any significant environmental impacts, then SEQRA requires only that a Negative Declaration be prepared. In the event that subsequent proposed actions are adequately addressed in the SGEIS, but not adequately addressed in the Findings Statement, an amended Findings Statement will be prepared.

However, if any components associated with future development of the Park do not fall within the set of conditions and criteria defined or anticipated by this Draft SGEIS, another supplement to the Final SGEIS may need to be prepared to further evaluate and identify mitigation of significant adverse environmental impacts associated with specific development proposals that are inconsistent with this SGEIS.

SEQRA requires a supplement to the Final GEIS (a Supplemental EIS) if:

> *"…the subsequent proposed action was not addressed or was not adequately addressed in the generic EIS and the subsequent action may have one or more significant adverse environmental impacts."*

As future development is proposed for the Park, the Lead Agency established at that time under SEQRA for each proposed action will be responsible for evaluating the guidance contained at 6 NYCRR Part 617.10 regarding the need for further SEQRA compliance measures.

1.3.2 Chronology of Previous Environmental Reviews

In 2012, OCIDA undertook an environmental review of the Park. As part of the prior environmental review for the Park, on March 6, 2012, OCIDA established itself as the Lead Agency under SEQRA and assumed the responsibilities for conducting the coordinated environmental review. OCIDA determined that the project was a Type 1 action requiring preparation of an EIS. As specific tenants and uses within the Park were unknown at that time, OCIDA prepared a GEIS to analyze potential environmental impacts of the project. OCIDA coordinated the SEQRA review for the Park with the other involved agencies.

At the time the GEIS was prepared, the Park was envisioned to consist of a mix of industrial uses that may include office, research, manufacturing, assembly, warehousing, data management, material processing and distribution facilities in a campus-like setting. OCIDA intended to develop the Park for advanced manufacturing and state-of-the-art industrial uses to facilitate the creation of high-paying employment opportunities in Onondaga County.

A draft scoping document was prepared and made available for comment. Following a public comment period, OCIDA issued a Final Scoping Document which identified potential impacts and anticipated impacts to be addressed in the GEIS.

A Draft GEIS ("DGEIS") was prepared and accepted as complete on September 20, 2012 and made available for public comment. The DGEIS evaluated the potential impacts of the proposed multi-use industrial park, envisioning a certain setting which included, but was not limited to:

- The Park would encompass a certain footprint, accommodating approximately 2 million sq. ft. of multi-use space without adverse impact.
- The Park would accommodate uses such as manufacturing, research and development, warehousing, assembly, office, distribution facilities, associated parking, and other on-site support buildings and structures.
- The Park would maintain greenspace to protect wetlands and avoid impacts.
- Anticipated installation of underground utilities and infrastructure for on-site use (i.e. gas and electric utilities, water and sewer infrastructure).
- Off-site improvements such as highway and road improvements, wastewater treatment infrastructure improvements, and water supply infrastructure improvements.
- Tenants would obtain site or facility-specific permits, such as air permits and non-sanitary sewer discharge permits, as necessary for facility-specific operations.

A Public Hearing on the DGEIS was held on October 16, 2012, and the public comment period ended on October 29, 2012. Subsequently, a Final GEIS ("FGEIS") was prepared by OCIDA and accepted as complete on September 10, 2013. OCIDA thereafter issued its Findings Statement on October 8, 2013. OCIDA concluded that the action avoided or minimized adverse environmental impacts to the maximum extent practicable, and incorporated mitigation measures that were considered practicable.

1.3.3 Chronology of Current SEQRA Process

OCIDA prepared a Full Environmental Assessment Form ("EAF") for the Project to supplement its prior SEQRA review of the Park. On December 8, 2020, based on an examination of the FEAF, the criteria contained in 6 NYCRR §617.7(c), and its knowledge of the area surrounding the Project site, OCIDA adopted a resolution classifying the Project as a Type I action, declared its intent to act as lead agency for the purpose of conducting a coordinated environmental review, determined that the Project has the potential to result in at least one significant adverse impact, and issued a positive declaration for the Project. Additionally, OCIDA determined that the Project represents a significant change from the Park's current footprint and that there exists other changes in circumstances from those previously evaluated in the 2013 FGEIS. As a result, OCIDA concluded that the preparation of a Supplemental GEIS ("SGEIS") is necessary to adequately identify and evaluate potential significant adverse impacts associated with the Project that are not addressed or are inadequately addressed in the 2013 FGEIS. To that end, OCIDA adopted and issued a Notice of Intent to Serve as Lead Agency and Prepare a Draft SGEIS ("Notice of Intent") for the Project, which was subsequently filed and distributed in accordance with SEQRA.

The Full EAF provided a description of the Project, identified agencies that have potential permitting and approval jurisdiction over the Project, and identified potential environmental impacts. The Project (or

Proposed Action) remains classified as a Type 1 Action for the purposes of this supplemental environmental review because the Project (Part 617.4.(b)(7)).

A copy of the FEAF and the Notice of Intent are found in Appendix A.

OCIDA received concurrence from the Onondaga County Water Authority (OCWA) and from the New York State Department of Environmental Conservation (NYSDEC) for OCIDA to act as the Lead Agency for the purpose of conducting a coordinated environmental review of the Project under SEQRA for the proposed expansion of the Park. All other identified Involved Agencies did not object to OCIDA's lead agency declaration within the statutory time period. A copy of the lead agency correspondence is found in Appendix A.

The list of Involved and Interested Agencies identified for the Project is provided as follows:

- Onondaga County Department of Transportation (OCDOT)
- Onondaga County Department of Health (OCDOH)
- Onondaga County Department of Water Environment Protection (OCDWEP)
- Onondaga County Water Authority
- Onondaga County Industrial Development Agency
- Syracuse Metropolitan Transportation Council (SMTC)
- New York State Department of Transportation (NYSDOT)
- New York State Department of Environmental Conservation (NYSDEC)
- New York State Office of Parks, Recreation and Historic Preservation (NYS OPRHP)
- United States Army Corps of Engineers (USACE)
- United States Fish and Wildlife Service (USFWS)
- Town of Clay Town Board
- Town of Clay
- Town of Clay Zoning Board of Appeals
- Town of Clay Planning Department
- Syracuse Onondaga County Planning Agency
- Town of Cicero

Additional agencies and stakeholder organizations that may participate in the review process include, but are not limited to:

- New York Power Authority
- National Grid
- CSX Rail
- New York Empire State Development

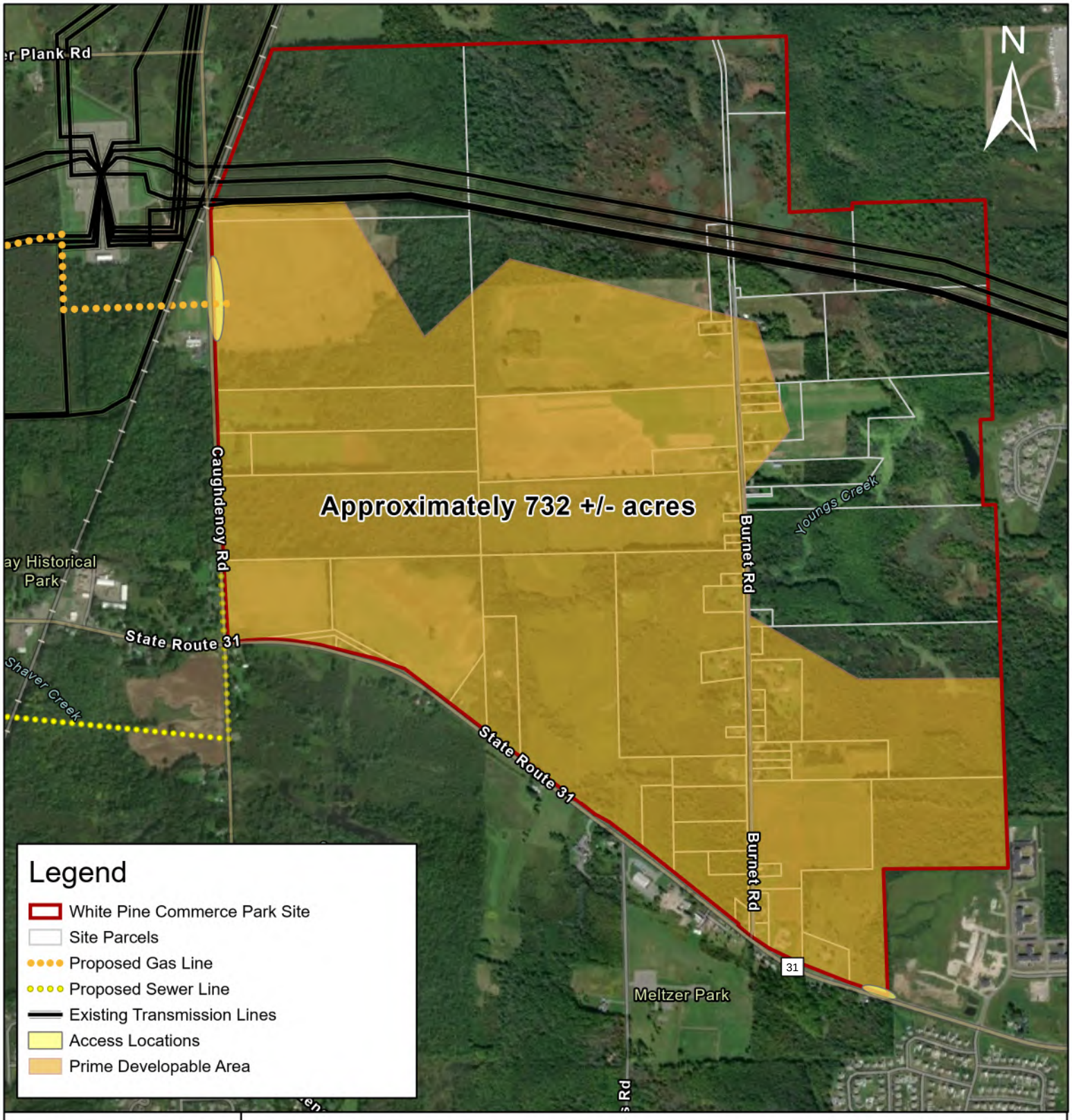
GEIS Preparation

This Draft SGEIS has been prepared in accordance with 6 NYCRR 617.9, as applicable to a supplemental assessment. As such, it presents a focused assessment of potentially significant adverse impacts associated with the Project and changes in circumstances that have occurred since the 2013 FGEIS and Findings Statement. The 2013 FGEIS will be appended by reference.

Required Approvals and Permits

The potential future development of the Project site is anticipated to require specific approvals and permits during various stages of planning, design, and site development. Many permits and approvals to be issued by Involved Agencies, such as highway work permits from State or County DOTs, will be sought after actual site development plans have been prepared and advanced to the point that specific industrial tenant requirements and project components become known. Project reviews, approvals and permits which may be sought from various agencies include, but are not limited to the following:

- NYSDEC Air Permit (type depending on future tenant(s))
- NYSDEC Threatened & Endangered Species
- NYSDEC Freshwater Wetlands
- NYSDEC 401 Water Quality Certification
- U.S.A.C.E. Section 404 (Waters of the United States)
- Discharge to Surface Water (NYSPDES) 6NYCRR Part 750
- General Permit for Stormwater Discharge from Construction Activity SPDES GP-0-10-001
- Multi-Sector General Permit for Stormwater Discharge Associated with Industrial Activity SPDES GP-0-06-002
- NYSDOT Highway Work Permit (I-81 & NYS Route 31)
- Onondaga County Planning Referral GML 239m
- Onondaga County Department of Water Environment Protection Industrial Waste Discharge Permit
- County Highway Department Work Permit
- County Highway Department Curb Cut Approval
- Town of Clay Subdivision Adjustment (Section 230-28F)
- Town of Clay Planned Development District (PDD) / Zone Change
- Town of Clay Site Plan Review & Approval (Section 230-26)
- Town of Clay Industrial Performance Standard Variance (Section 230-17)
- Town of Clay Accessory Special Permit
- Town of Clay Building Permit
- Town of Clay Certificate of Occupancy
- Town of Clay Demolition Permit



Onondaga County, NY

Figure 1.1-2

Prime Developable Area

0 0.13 0.25 Miles

Scale: 1 inch = 2.5 miles

White Pine Commerce Park
Onondaga County Industrial Development Agency

Date Printed: 4/26/2021

Data Sources: Onondaga County Parcel Data provided by SOCPA
New York State, Maxar, Esri Community Maps Contributors, Esri Canada, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

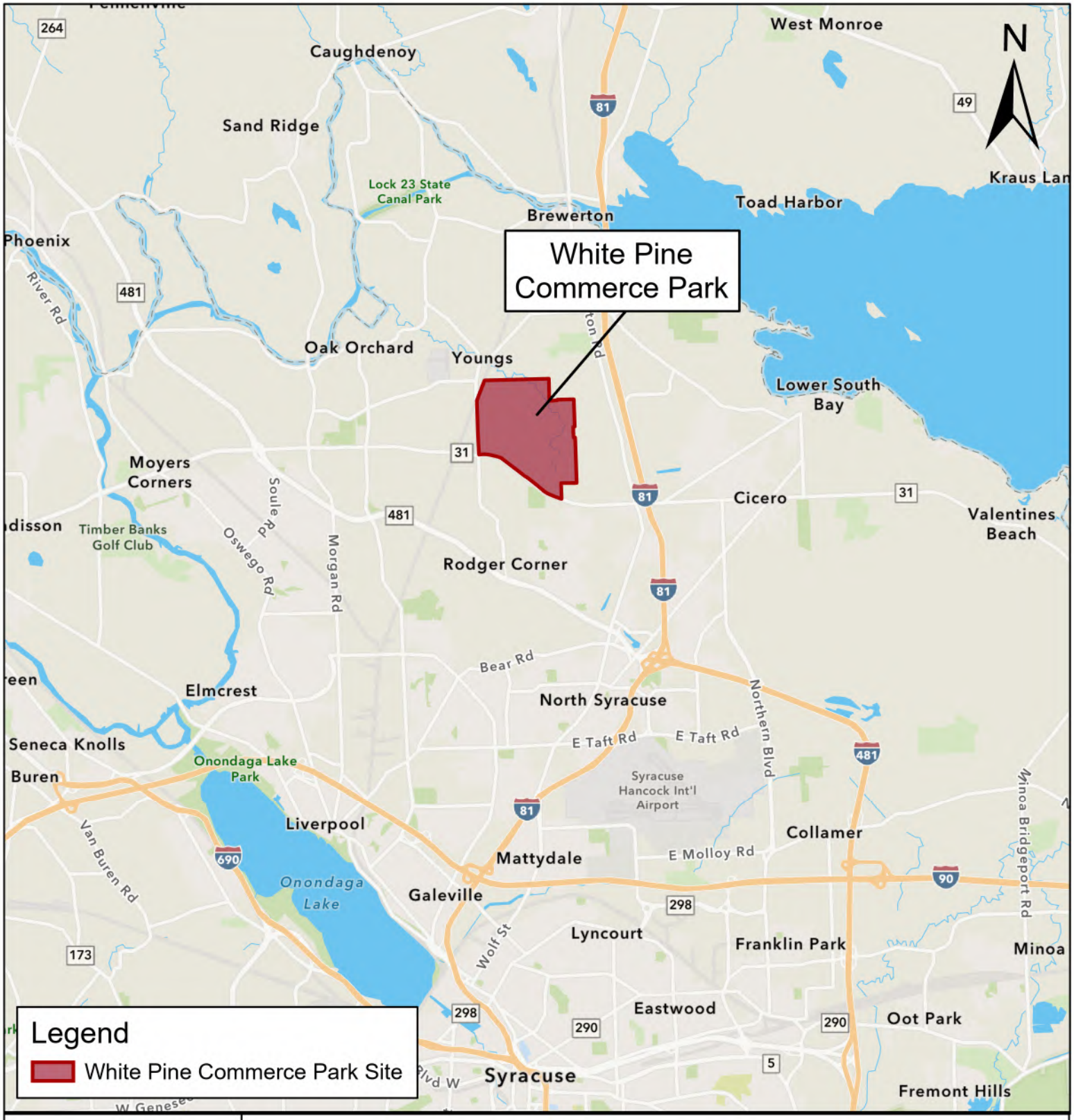


Figure 1.1-1

Project Location

White Pine Commerce Park
Onondaga County Industrial Development Agency

0 1 2 Miles

Scale: 1 inch = 2 miles

Date Printed: 4/25/2021
Data Sources:
Esri Canada, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA

2.0 ALTERNATIVES

2.1 Background

Several alternatives were fully evaluated in the 2013 FGEIS. This section updates those that have changed and expands upon others as necessary to account for the proposed expansion of the Park. These alternatives include: no action (Alternative 1); considering the Park as it was originally proposed in the 2013 FGEIS (Alternative 2); utilizing a smaller expanded area – less than the approximately 1,250± acres (Alternative 3); and considering a different location to site the Park (Alternative 4).

2.2 Alternative 1: No Action Alternative

2.2.1 Description

The no action alternative would retain the current vacant, undeveloped conditions of the Park.

2.2.2 Comparison of Potential Environmental Impacts from Alternative 1 to the Project

As described in the 2013 FGEIS, the no action alternative would result in the Park remaining open space and potential habitat for common wildlife that is inaccessible and unutilized by the community until it is sold and used for other purposes. This alternative would avoid the potential need to acquire lands pursuant to the EDPL to further expand the lands owned by OCIDA to support future development. See 2013 FGEIS (Draft Section 2.1) for further analysis of this alternative.

2.2.3 Limitations of Alternative 1

As discussed in the 2013 FGEIS (Draft Section 2.1), the no action alternative would adversely affect Onondaga County's ability to remain competitive in attracting large-scale industries to Central New York. The no action alternative would preclude potentially beneficial economic impacts associated with the Project, including an increase in employment opportunities and enhanced tax revenues.

Also, as previously disclosed in the 2013 FGEIS (Draft Section 2.1), current investment in the site may be lost with this alternative, as site conditions change over time. This could decrease the future development potential of the site due to increased costs associated with vegetation clearing and changing drainage characteristics, which may affect the use of additional acreage. The completed technical studies would also be less useful as data and recommendations become increasingly outdated. Alternative 1 would also preclude a comprehensive plan of development that includes measures to avoid and minimize impacts to ecological resources versus potential piecemeal, and uncoordinated separate developments that would not consider the larger area that the Park encompasses.

2.2.4 Conclusion

The no action alternative is not an acceptable alternative to the Project, as it is contrary to OCIDA's mission to facilitate industrial development and job creation in Onondaga County.

2.3 Alternative 2: The Park as Considered in 2013 FGEIS

2.3.1 Description

The Park as it is considered in the 2013 FGEIS alternative would encompass approximately 339+/- acres within the western portion of the current Park area.

2.3.2 Comparison of Potential Environmental Impacts from Alternative 2 to the Project

This alternative would keep the size of the Park to 339+/- acres, which is roughly 911+/- acres smaller than the currently proposed 1,250+/- acre expanded Project site. Although potential environmental impacts would be limited to a smaller area, impacts on certain resources, such as wildlife may potentially be greater, as sectional development could significantly fragment essential wildlife habitat. The main wildlife mitigation for the Park is to retain/maintain existing habitat tracts, and when not feasible, use compensatory mitigation to include creation or enhanced restoration of habitat to account for any habitat loss. With a smaller park size, it would be difficult to achieve both objectives, including on-site compensatory mitigation due to space limitations. This alternative would avoid the potential need to acquire lands pursuant to the EDPL to further expand the lands owned by OCIDA to support future development.

In addition, depending on an actual tenant(s), a smaller sized Park may not reduce certain environmental impacts such as traffic, visual, air and noise. Instead, it could just reduce the size of open greenspace incorporated into any development design and potentially cause greater wetlands disturbance. In contrast, the preferred alternative would allow future tenants additional acreage on-site sufficient to construct necessary buildings and accessory uses while avoiding impacts to ecological resources such as wetlands to the maximum extent practicable.

2.3.3 Limitations of Alternative 2

OCIDA has marketed the existing approximately 339-acre Park since 2013 and determined that the current Park is too small for the type of development it desires to attract to the area and consistent with other industrial park developments in other areas of New York and the country. The smaller, approximate 339-acre footprint would not allow for the potential of larger industrial and commercial developers, such as the semiconductor industry. The proposed expanded footprint of the Park allows OCIDA to market to a larger, more diverse mix of industries than it had previously. The smaller sized park would not support the main objective, which is to attract a broader scope of industries such as the semiconductor industry, which require a large campus setting with greenspace and ample buffering from environmental receptors and would bring high tech and high paying jobs to Onondaga County.

2.3.4 Conclusion

While the Park as it is considered in the 2013 FGEIS alternative would avoid the potential to acquire lands, if necessary, pursuant to the EDPL, it is not a viable option as it would greatly limit the full economic and development potential of the Project site in terms of viable tenants, occupancy and use, and limit options for avoiding and mitigating potential adverse environmental impacts.

2.4 Alternative 3: Smaller Expansion

2.4.1 Alternative 3 Description

The smaller expansion alternative would allow for development on only a portion of the Project site, potentially keeping the remainder of the site in its current state, as vacant, undeveloped land or residential homes, and could reduce, or potentially avoid, the potential need to use the EDPL to acquire lands.

2.4.2 Comparison of Potential Environmental Impacts from Alternative 3 to Project

The smaller expansion alternative would have similar environmental impacts as Alternative 2 (The Park as Considered in the 2013 FGEIS) as well as those described in this Draft SGEIS for the Project. As explained above, the potential for habitat fragmentation on the smaller scale project could potentially cause greater impacts to wildlife. Site development would create additional vehicle traffic in the immediate vicinity and would change the visual character, aesthetics, air and noise quality, vegetation and habitats on-site, regardless of the smaller footprint. It also has the potential to reduce the size of open greenspace incorporated into any development design and potentially cause greater wetlands disturbance. The smaller footprint could result in development located closer to residential locations that are not acquired by OCIDA, thus creating greater potential environmental impacts. In contrast, the preferred alternative would allow future tenants additional acreage on-site sufficient to construct necessary buildings and accessory uses, buffer development from adjacent lands, and avoid impacts to ecological resources such as wetlands to the maximum extent practicable.

2.4.3 Limitations of Alternative 3

Although this alternative considers the idea of potentially maximizing development space within a smaller area, much like Alternative 2, the smaller footprint would not allow for the potential of larger industrial and commercial developers, such as the semiconductor industry. The proposed expanded footprint of the Park allows OCIDA to market to a larger, more diverse mix of industries than it had previously. The smaller sized park would not support the main objective, which is to attract a broader scope of industries, such as the semiconductor industry, that require a large campus type setting with greenspace and ample buffering from environmental receptors and would bring high tech and high paying jobs to Onondaga County.

2.4.4 Conclusion

Like Alternative 2, the smaller expansion alternative does not maximize the development potential of the Park and does not expand options for avoiding and mitigating potential adverse environmental impacts. Therefore, it is not an acceptable option.

2.5 Alternative 4: Develop Park in Alternative Location

2.5.1 Alternative 4 Description

This alternative would consist of the development of the proposed Project at a different location.

2.5.2 Comparison of Potential Environmental Impacts from Alternative 4 to Project

This alternative was previously evaluated and rejected in the 2013 FGEIS (Draft Section 2.2.1). Based on current available information, this conclusion has not changed. None of the previously considered alternative locations would be able to accommodate the large-scale industrial use the Park is promoting due to size limitations and proximity to services and necessary infrastructure. There are no other options available currently that meet the needs of the Project.

2.5.3 Limitations of Alternative 4

Unlike other park locations, the expanded Park can accommodate large-scale industrial tenants that cannot easily locate elsewhere in Onondaga County due to their size and space requirements and need for suitable infrastructure.

Additionally, the other locations do not have the existing utility and transportation services that serve the Park. National Grid's Clay Substation is located adjacent to the Park on the west side of Caughdenoy Road. The Oak Orchard Wastewater Treatment Plant is located approximately 2.5 miles west of the Park. The Park is also bound to the south by a 12-inch water line and NYS Route 31, which is a principal arterial west of Interstate-81, and CSX rail, which is located adjacent to the Park.

2.5.4 Conclusion

Based on the lack of other viable locations within the County to accommodate the intended scale of the Park, as well as OCIDA's substantial investment in the Park to date, this alternative is not a viable option.

3.0 ENVIRONMENTAL SETTING

3.1 Land Use & Zoning

3.1.1 Land Use

The proposed expanded Park footprint consists primarily of undeveloped land. To the extent development exists, it is limited to residential, commercial, and public utility uses and structures (i.e., electric transmission lines, telecommunications tower) scattered along NYS Route 31 and Caughdenoy Road, with approximately three dozen residences located along Burnet Road. Existing improvements and structures within the expanded Park footprint are located close to existing road frontages, leaving the remainder of the expanded Park in its natural, undeveloped state. The majority of the Park is relatively flat and vegetated with grasses, shrub, and wooded areas that have developed as the area continues to transition from former farmland. Land uses within the proposed expanded Park have remained consistent since the 2013 FGEIS.

The area surrounding the Park was once a rural area comprised of farmland and agricultural uses. The surrounding area is undergoing gradual changes as a more suburban type of development unfolds, primarily along NYS Route 31, but much of the area closest to the Park has maintained a rural character due to large swaths of undeveloped land. While farming activities are conducted within a small portion of the proposed expanded Park, the Park is not located within or near a NYS certified agricultural district.

Land use patterns in the area surrounding the Park have remained largely unchanged since the completion of the 2013 FGEIS, with development consisting primarily of focused residential apartments and communities, specifically the Tocco Villaggio Apartments off of NYS Route 31 east of the Park and the Appaloosa Trail development located west of the Park off of Van Hoesen Road. Additionally, The Town of Cicero Planning Board recently approved a 60-unit senior housing complex to be located on Brewerton Road east of the Park.

The land uses adjacent to the expanded Park include a mix of vacant land, agriculture, residential, commercial, and public utility uses. See Figure 3.1-1 Existing Land Use. The area immediately south of the Park is largely undeveloped with the exception of a few residences and businesses, including a veterinary clinic, church, tractor equipment company, and landscaping business. Farther south of those land uses, suburban residential development is prevalent along Stearns Road and Caughdenoy Road north of I-481. Meltzer Park is also located along Stearns Road. Residential and commercial development also increases to the east of the Park, particularly along NYS Route 31 and Brewerton Road near I-81. The area west of the Park consists of relatively low density residential development with intermittent business and commercial uses, including Jerome Fire Equipment Co on Caughdenoy Road. The density of uses increases heading west along NYS Route 31 near the Town of Clay Town Hall and Great Northern Mall. The area north of the Park is mainly agricultural and vacant land, with some scattered residential uses.

The area adjacent to the expanded Park also includes various public utility and transportation uses. The National Grid Clay substation is located along the west side of Caughdenoy Road. NYPA electric

transmission line rights-of-way and a National Grid line cross the northern third of the Park in an easterly direction from the substation. Additionally, the Watertown branch of the CSX rail line runs diagonally from the northwest corner of the Park southwest across Caughdenoy Road.

As shown in Table 3.1-1, non-residential parcels comprise approximately 71% of existing land use within a one-mile distance from the proposed expanded Park while residential properties comprise about 29% of the area. The primary land use within a one-mile area of the Park is vacant land (38%).

Table 3.1-1: Existing Land Use within One Mile of White Pine Commerce Park
(Based on February 2021 Data Provided by SOCPA)

Land Use	# Parcels	Acreage	% Coverage
Residential	**2,200**	**2,405**	**29%**
Apartment	6	30	0%
Single-Family	2,145	1290	16%
Two-Family	11	66	1%
Multi-Family	4	7	0%
Rural Residential	33	998	12%
Home for Aged	1	14	0%
Non-Residential	**368**	**5,812**	**71%**
Agriculture	21	1,022	12%
Commercial	90	913	11%
Industrial/Utility	21	556	7%
Parks/Open Space	9	79	1%
Public Service	19	160	2%
Vacant	208	3,082	38%
Total	**2,568**	**8,217**	**100%**

3.1.2 Zoning

The proposed expanded Park is located within the Town of Clay and is subject to the zoning requirements contained in the Town's Zoning Code and the zoning district designations contained in the Town's Zoning Map.[1] Of the proposed expanded Park's approximately 1,250± acres, 346± acres are zoned as Industrial 2 (I-2), 856± acres are zoned Residential Agricultural (RA-100), and 36± acres are zoned One Family Residential (R-15). Burnet Road comprises the remaining 12± acres that make up the expanded Park. As shown in Figure 3.1-2 (located at the end of this Chapter), approximately 850± acres of privately owned land located on Caughdenoy Road west and north of the Park is zoned I-2, with additional parcels zoned RA-100. The parcels directly south of the Park along NYS Route 31 are zoned Highway

[1] Town of Clay Zoning Code (Last Revised May 10, 2016). https://www.townofclay.org/information/zoning-code.

Commercial (HC-1) and RA-100. The parcel located adjacent to the southeastern corner of the Park is zoned Planned Development (PDD). The proposed expanded Park's eastern property line is the boundary between the towns of Clay and Cicero. The proposed expanded Park contains multiple zoning designations, not all of which are compatible with the intended future use and development of the Park. The expanded Park will therefore require the approval by the Town of Clay Town Board of either a zone change to I-2 for the portions of the Park that are not zoned I-2 or a PDD that encompasses the entire Park footprint to allow the type of use OCIDA seeks for the Park.

Pursuant to the Zoning Code, the intent of the I-2 district is to:

> *". . . promote and accommodate processes that primarily operate in a clean and orderly manner that may involve exterior activities sensitive to environmental features and available public services. Other uses are permitted that provide the logistical assembly, shipping, storage, servicing, or similar support for retail or other business uses. This district should be located away from residential districts."*

The Zoning Code permits the following uses upon receipt of site plan approval from the Planning Board: exhibit hall; wholesale; warehouse; truck terminal; manufacturing; utility substation; emergency vehicle station; building products sale, storage and display; and cropland. The future development and use of the Park as envisioned by OCIDA will therefore require site plan review and approval from the Town of Clay Planning Board and will be subject to any other Town of Clay land use and zoning regulations.

Assuming a zone change to I-2, the future development of the Park must comply with the bulk density and dimensional requirements set forth in the Zoning Code for property within the I-2 district, as set forth below.

Lot

- Area, minimum: n/a
- Width, minimum: n/a
- Depth, minimum: n/a
- Coverage, maximum building: 60%
- Coverage, maximum total: 80%

Principal structures and attached accessory structures

- Front yard minimum:
  - NYS or county highway: 200 feet
  - Town of private highway: 50 feet
- Side yard minimum: 25 feet
- Rear yard minimum: 25 feet
- Maximum height: n/a
- Maximum gross floor area: n/a
- Maximum number of floors: n/a

Accessory structures, detached

- Front yard minimum: existing principal structure rear line.
- Side yard setback: 25 feet
- Rear yard setback 25 feet
- Maximum height: same as principal structure

Supplemental I-2 district design standards also may apply to the future development of the Park, as outlined below.

- Front perimeter landscape strip must be 50% of front yard depth.
- Additional side or rear yard setbacks of 100 feet where abutting a non-industrial district.
- Structure design, scale and materials:
    - When a new or modified land use and/or structure is proposed on any property that is entirely or partially within 500 feet of a Residential Zone District boundary, then the reviewing board shall also consider the compatibility of the site and building design, scale of site development, and any impacts related to such development with the existing or planned character of those residential zones.
    - Any open storage of materials or waste shall be screened from view from all property lines with a seven-foot high fence, hedge or similar opaque barrier. Such screening shall comply with applicable setbacks.

An alternative to a zone change is the creation of a PDD. Pursuant to the Zoning Code, the intent of a PDD is to allow for:

> a variety of land uses and flexible arrangements of lots, structures, and land uses in a well-planned and coordinated design. The flexibility of land uses and lots is achieved by the Town continuously participating in and approving stages of project planning and development. Any combination of land uses already permitted within the Town may be proposed for development on sites under this district. This district is also intended to accommodate land uses or scales of development that may be unique or require more consideration by the Town. This district may be applied anywhere in the Town, provided the project scale and design is found to further Town planning goals and to be compatible and coordinated with the environmental constraints and the existing and/or planned availability of public water, sewer, drainage, and transportation facilities.

It is possible that a PDD could be established for the Park enabling OCIDA, (and/or a potential future developer) and the Town to work collaboratively to customize the development of the Park in ways that are not permitted or feasible in the I-2 district. In such a case, predetermined development standards would not exist and would instead be established jointly with the Town through meetings with the Town Board and Planning Board in accordance with the Zoning Code.

3.2 Community Character

The Town of Clay is still the largest suburban town in Onondaga County and is known for its large retail shopping areas and residential neighborhoods. The Town has a diverse economic base, and industrial uses are scattered throughout the Town, including a developed industrial corridor between Henry Clay Boulevard and Morgan Road approximately 5 miles southwest of the Park. The population of the Town along with its pace of development has remained mostly unchanged since the 2013 FGEIS. The character of the area immediately surrounding the Park remains generally rural in contrast to the more developed areas of the Town of Clay and nearby Town of Cicero.

NYS Route 31 represents the primary east-west traffic corridor in the Town of Clay north of I-481 and carries a high volume of traffic between Clay and Cicero. Nearly all travel in the vicinity of the project site is by personal vehicle, which remains unchanged since the 2013 FGEIS. There is little public transit and pedestrian use along major roadways, including NYS Route 31, and the area immediately surrounding the proposed expanded Park lacks sidewalks or other pedestrian facilities (crosswalks, etc.) that would otherwise encourage pedestrian use. While NYS Route 31 is a designated part of New York State Bike Route 5, bicycling activity is not typical along the road or surrounding area. The CSX rail line that provides freight service crosses NYS Route 31 southwest of the Park.

Visually, the western portion of the expanded Park contains few structures or natural features of any significance. The topography of the area is generally flat, which is typical of the Town of Clay and the northern portion of Onondaga County. Undeveloped areas contain mixed upland and wetland vegetation including grasses, shrubs, and woodlands. These resources are described in detail later in this chapter under existing ecology and vegetation. The area of the expanded Park that includes Burnet Road contains approximately three dozen residential properties that have been or will be acquired by OCIDA through voluntary purchase agreements or pursuant to the EDPL to help establish the expanded Park footprint,

Electrical utilities, including the National Grid electrical substation located just west of the Park and the NYPA and National Grid transmission lines passing through the northern third of the site are prominent visual features in the area. A telecommunications tower also exists within the expanded Park adjacent to the southeastern corner of the current Park footprint. The presence of these public utility structures and uses incorporates an industrial element to the otherwise undeveloped character of the area.

Existing development in the area surrounding the existing Park is either low density single-family suburban style housing or older style rural homes and former farmland. A few business and commercial uses exist along Caughdenoy Road and NYS Route 31 west and south of the Park. With the exception of the area extending north of the Park for several miles that remains largely rural and undeveloped or sparsely developed, surrounding areas in other directions become more densely developed farther away from the Park. Areas east of site along NYS Route 31 and Brewerton Road in the Town of Cicero contain dense concentrations of business and commercial development with residential development interspersed throughout. Higher-density residential and commercial development along the NYS Route 31 corridor within the Town of Clay occurs mostly to the south and southeast of the Park along Stearns Road and Caughdenoy Road north of I-481. Areas farther west of site transition from suburban residential into a developed, high-traffic shopping area along NYS Route 31 around the I-481 interchange. The

development of retail, commercial and residential growth farther away from the Park in both directions along NYS Route 31 in Clay and Cicero is due in large part to the proximity of NYS Route 31 to I-81, I-481, I-90 and the Syracuse Hancock International Airport. Together, those features have made the greater surrounding area attractive to many forms of development.

3.3 Transportation

3.3.1 Summary of Traffic Impacts

Since the preparation of the 2012 Traffic Impact Study that was part of the 2012 DGEIS and finalized in the 2013 FGEIS, traffic roadway changes include:

- The addition of exclusive eastbound and westbound left turn lanes along NYS Route 31 at Henry Clay Boulevard;
- The unsignalized intersections of NYS Route 31/Caughdenoy Road and NYS Route 31/Legionnaire Drive/Lawton Road were signalized;
- The Caughdenoy Road/NYS Route 31 intersection was also recommended for right and left turn lane additions; however, the current development assumptions have changed with multiple site entrances and placement of entrance further from the signalized intersection.

Impacts related to the proposed expanded Park are described in Section 4.3.

A new Traffic Impact Study (TIS) was prepared to evaluate potential traffic impacts associated with the proposed expanded Park area. Due to the generic nature of this review, the TIS includes more generic as opposed to specific development details and follows the assumptions to develop the traffic impact of the proposed expansion and potential development, which include supporting between 3,750 to 4,000 employees (4,000 used for analysis), having a minimum of two driveways for site access: one driveway will be connected to Caughdenoy Road and the other will be connected to NYS Route 31; operating 24 hours a day and seven days a week with three equally sized rotating working shifts; and development of the Project site will be completed and operational by the year 2024.

Additional information is provided in the TIS in Appendix B.

3.3.2 Impacted Traffic Area

The impacted traffic area includes both Town of Clay and Town of Cicero in in New York. A total of 14 intersections along NYS Route 31 were studied from the western limits of NYS Route 481 to the eastern limits of CR 123 (Lakeshore Road) and southern limits of Caughdenoy Road at Maple Road. Minor stop-controlled side streets were not evaluated. See Figure 1 for Project Location Map in the Traffic Impact Study located in Appendix B.

The intersections include:

1. NYS Route 31 / NYS Route 481 Southbound Off Ramp / Soule Road
2. NYS Route 31 / NYS Route 481 Northbound Ramps
3. NYS Route 31 / Marketfair Plaza

4. NYS Route 31 / Great Northern Mall West Driveway / Water Board Lane
5. NYS Route 31 / Great Northern Mall East Driveway / La-Z-Boy Driveway
6. NYS Route 31 / Morgan Road (CR 46)
7. NYS Route 31 / Henry Clay Boulevard (CR 265 / CR 121)
8. NYS Route 31 / CR 49 (Caughdenoy Road)
9. NYS Route 31 / Legionnaire Drive / Lawton Road
10. NYS Route 31 / US Route 11
11. NYS Route 31 / I-81 Southbound Ramps
12. NYS Route 31 / I-81 Northbound Off Ramp / CR 253 (Pardee Road)
13. NYS Route 31 / CR 123 (Lakeshore Road) (unsignalized)
14. CR 49 (Caughdenoy Road) / CR 197 (Maple Road) / NYS Route 481 Northbound Off-ramp (unsignalized)

3.3.3 Functional Classification

The functional classifications for major streets are identified in the May 2017 NYSDOT Region 3 Functional Classification Map. The roadway of NYS Route 31 is classified as a Principal Arterial Other from NYS Route 481 to I-81 and classified Minor Arterial from I-81 to Lakeshore Road. NYS Route 31 is located within an Urban Area. The major intersecting roadways along NYS Route 31 are also classified. They are: NYS Route 481 classified as a Principal Arterial Expressway, Caughdenoy Road is classified as a Major Collector, US Route 11 is classified as a Minor Arterial, I-81 is classified as a Principal Arterial Interstate and Lakeshore Road is classified as a Major Collector. See Figure 2 for a detailed map of the roadway functional classifications in the Traffic Impact Study in Appendix B. The existing typical section on NYS Route 31 is described below:

- From NYS Route 481 to east of Morgan Road is a 4-lane divided roadway with 12-foot travel lanes and varying width marked medians
- From east of Morgan Road to west of US Route 11 is a 2-lane undivided roadway with 11-foot travel lanes between the Henry Clay Boulevard and Legionnaire Drive roadway segment
- From west of US Route 11 to Lakeshore Road is a 4-lane divided roadway with 12-foot travel lanes and center two way left turn lanes (TWLTL)

The posted speed limit varies along the corridor and the speed limit segments are identified below:

- Along NYS Route 31:
  - NYS Route 481 to east side of Morgan Road is 40 mph
  - East side of Morgan Road to Grange Road is 55 mph
  - Grange Road to east side of Caughdenoy Road is 40 mph
  - East side of Caughdenoy Road to east side of Barcaldine Drive/Legionnaire Drive is 55 mph
  - East side of Barcaldine Drive/Legionnaire Drive to west side of US Route 11 is 45 mph
  - West side of US Route 11 to Lakeshore Road is 35 mph

- Along Caughdenoy Road:
  - NYS Route 31 to Maple Road is 35 mph

3.3.4 Data Collection

It was determined that existing traffic count data could be used, and new count data would also be required. Following NYSDOT Traffic Data Collection Guidance during COVID-19 Pandemic Memo dated August 11, 2020 which states traffic count data older than 5 years would need to be collected again, JMT reviewed and have used an adjustment factor created to help balance and match existing traffic volume data.

The processing timeframes described above are to encompass morning peak and evening peak hour vehicle volumes. However, after processing the data, the peak times used for analysis were 7:15 to 8:15 AM and 4:15 to 5:15 PM.

3.3.5 Existing Facilities for Non-Motorized Traffic

Sidewalks exist along limited sections of NYS Route 31 but are missing from large sections of that road. Sidewalk is present from just west of US Route 11 to Lakeshore Road, along both sides of the road. Sidewalk is also present on the south side only of Legionnaire Drive and Lawton Road, and a small portion of sidewalk exists near the at-grade railroad crossing and Weller Canning Road along the north side only. Sidewalk is also located starting from the east side of Morgan Road to East Mall Entrance along the north side only.

There are no pavement marked or unmarked bike lanes along NYS Route 31 within the Project limits. NYS Route 31 is designated as State Bicycle Route 5 as a signed, on-road bicycle route that extends 365 miles from Niagara Falls across New York to the Massachusetts state line. Bicyclists can share the road with motorists along the roadway network.

3.4 Utilities & Community Services

3.4.1 Utilities

Figure 3.4-1 identifies the location of existing electric, natural gas, and water utilities in the vicinity of the Park, which were detailed in the 2013 FGEIS. It also illustrates the sewer expansion to the surrounding district, including the Park, and the gas utility improvements that are being proposed in conjunction with the Park expansion. Since 2013, there are no changes in the location of existing electric, natural gas, and water utilities in the vicinity of the Park.

3.4.2 Community Services

Community services in the vicinity of the Park remain largely unchanged from 2013. Community service provider locations near the Park are shown in Figure 3.4-2 (located at the end of this Chapter).

Current firefighting and emergency response equipment within the Clay Fire Department includes[2]:

- Engine 11 – 2016 Sutphen - 1,750 gallons per minute (gpm)/1,000-gallon water / 20 Gallon Foam cell
- Engine 31 – 2016 Sutphen - 1,750 gpm/1,000-gallon water / 20 Gallon Foam cell
- Engine 12 – 2007 American LaFrance - 2,000 gpm/1,000-gallon water / 25-gallon foam cell
- Rescue 3 – 2003 American LaFrance – Hurst Tools System/Lightower
- Squad 1 – 2018 Chevy Tahoe - First Responder Vehicle for EMS
- Squad 3 - 2018 Chevy Tahoe - First Responder Vehicle for EMS
- Squad 4 – 2008 Ford/Brand FX Light Rescue truck
- Ladder 3 –2021 Sutphen 75-foot mid-mount ladder - 1,750 gpm/ 500 Gallon water (currently in the process of purchasing)

Emergency medical services (EMS) are provided by two EMS operators, North Area Volunteer Ambulance Corps (NAVAC), which responds to over 6,500 calls annually, and Northern Onondaga Volunteer Ambulance (NOVA), which responds to an average of 6,000 calls a year. In addition to a centrally located station, NOVA posts ambulances at Moyers Corners Fire Department Stations 1 and 3 to allow for a rapid response to any location their district[3].

The Park is in the North Syracuse Central School District. The North Syracuse Central School District student enrollment was approximately 8,500 pupils in 2020[4].

The locations of places of worship are included on the Figure 3.4-2. The inventory of places of worship in the vicinity of the Park is largely unchanged since the 2013 FGEIS was prepared. At least one new church affiliated building, the Upstate New York District Church of the Nazarene, has been built immediately east of the intersection of NYS Route 31 and Burnet Road. The Church uses this location as its main offices for the Nazarene District.

3.5 Topography, Geology & Soils

3.5.1 Topography

The topography of the Project site is generally the same as was detailed in the 2013 FGEIS. The ground is relatively flat to gently sloping, with site elevations generally ranging from 380 to 430 feet above mean sea level (amsl). Figure 3.5-1 (located at the end of this Chapter) is a topographic map that shows existing topography at five-foot contour intervals. Highest elevations are in the southern portion of the Project site near NYS Route 31. The lowest elevations in the Park occur just north of the power lines. The Park drains to the north towards Youngs Creek, which is a tributary to the Oneida River.

Elevation at the expanded Park is most variable along the small ridge related to a geologic feature known as an esker. The esker, located in the central portion of the site, is a glacial formation resulting from sand

[2] Personal correspondence, Town of Clay Fire Chief, 4/20/21
[3] www.northernonondagavolunteerambulance.org, 4/14/21
[4] www.https://www.nscsd.org/districtpage.cfm?pageid=825, 4/13/21

and gravel materials deposited in a long, narrow ridge resembling a railroad embankment. The esker is located approximately 2,000 feet north of NYS Route 31 and generally runs parallel to the road for approximately 3,000 feet. It forms a slight ridge that is wooded and provides visual and physical separation between locations immediately to the north and south. The area directly north of the esker is wooded and the area directly south of the esker transitions first to wetlands and then uplands consisting of open fields with shrubs and grasses.

3.5.2 Geology

As described in the 2013 FGEIS, the surficial deposits in the vicinity of the expanded Park consist of lacustrine silts and clays deposited in pro-glacial lakes. These are generally fine-grained and laminated soils. A relatively small area, just north of NYS Route 31, is mapped as glacial till. This is a poorly sorted mixture of variable soils deposited beneath glacial ice. Bedrock beneath the site is mapped as dolostone/limestone, belonging to the Lockport Group. Although, soil borings drilled at the site encountered weathered shale. No bedrock outcrops have been noted on the project site.

A Geotechnical Investigation Report[5] previously prepared for the Park, included analysis of certain areas within the expanded site. The investigation included the advancement of six soil borings to depths of 9.5-15 feet. According to that investigation, the expanded Park is overlain by a thin layer of topsoil, approximately six inches in thickness. Underlying the topsoil is a layer of silt and fine sand, with varying percentages of fine to medium gravel. The thickness of this deposit varies from 4 to 13 feet. Below this layer is a more consolidated unit composed of firm silt to dense sand, and a silt mixture with varying percentages of gravel. This dense material is likely a glacial till deposit. Bedrock (shale) was encountered in two borings at depths of 5.5 to 13.5 feet just north of NYS Route 31.

There are no mineral resource extraction areas (gravel pits, mines, quarries, oil/gas wells, etc.) present on the expanded Park.

The expanded Park is in a seismically stable zone. The United States Geological Survey (USGS) produced a 2014 Seismic Hazard Map for New York State[6] showing the site within a zone that has a 2% probability of exceeding a spectral acceleration (i.e., ground movement) of 8-10% gravity. This seismic risk zone is the second lowest of six zones in the State.

3.5.3 Soils

The expanded Park contains a variety of soils similar to what was evaluated in the 2013 FGEIS. Figure 3.5-2 (located at the end of this Chapter) provides a map of all soil types on the expanded site and Table 3.5-1 summarizes the characteristics of each soil type.

Niagara silt loam (NgA) covers much of the northern and eastern portions of the expanded Park, about 38.1%. Collamer silt loams (ChA, ChB) cover 28.6% of the expanded project site, including much of the north-central and southeastern areas. In addition to Appleton loam (AoA), Hilton loam (HlA, HlB),

[5] C&S Engineers, Inc. Geotechnical Investigation Report (1996).
[6] www.usgs.gov/media/images/2014-seismic-hazard-map-new-york" https://www.usgs.gov/media/images/2014-seismic-hazard-map-new-york

Madrid fine sandy loam (MdC), and Rhinebeck silt loam (Rh), the remainder of the expanded site is covered by minor amounts of Canandaigua (Cd), Dunkirk silt loam (DuC), Fluvaquents (FL), Fonda mucky silty clay loam (Fo), Minoa fine sandy loam (MtA), Ontario loam (OgB, OgC), and Palms muck (Pb).

Based on the physical features of the expanded Park, the most likely area for development is west of Burnet Road. In this area, the amount of hydric soils (Cd, FL, and Pb) is approximately 18.7 acres. Hydric soils are characterized by poor drainage and are often associated with wetlands.

Portions of the expanded Park were used for farming in the past. The Natural Resources Conservation Service (NRCS) classifies soils by capability classes based on their potential for agricultural productivity.

Soil Capability Classes 1-5 are described as follows (USDA Soil Survey of Onondaga County, NY[7]):

- Class 1 soils have few limitations that restrict their use
- Class 2 soils have minor to moderate limitations that limit their ability to support certain crops, or that require moderate conservation practices
- Class 3 soils have severe limitations that reduce the choice of crops, require special conservation practices, or both
- Class 4 soils have very severe limitations that reduce the choice of crops, require very careful management, or both
- Class 5 soils are not likely to erode, but have other limitations, impractical to remove, that limit their agricultural use largely to pasture, range, woodland, or wildlife

Table 3.5-1 shows the distribution of soil capability classes on the expanded Park.

The expanded Park has no Class 1 soils. Class 2 soil covers approximately 39.4%, Class 3 soil covers 51.8%, Class 4 soil covers 0.9%, and Class 5 soil covers 7.5% of the expanded Park. Approximately 60% of the expanded Park consists of soils (Classes 3, 4, and 5) that would have severe limitations for agricultural productivity. The remainder of the site consists of Class 1 and 2 soils that would have few to moderate limitations in their ability to support certain crops, or that require moderate conservation practices.

As shown on Table 3.5-1, 39.4% of expanded Park soils are considered prime farmland and 9.7% of soils are farmland of statewide importance, as determined by the USDA. The remainder of the soils are considered prime farmland, if drained (42.1%), or not prime farmland (8.4%). In addition, 78.1% of the expanded site soils belong to Mineral Soil Groups 1-4, as designated by the New York State Department of Agriculture and Markets. Although agriculturally viable soils exist on the Park, actual agricultural activity is limited. Most of the expanded Park is currently vacant woodlands. Agricultural activities, primarily hayfields, are located at the northern end of Burnet Road. Some cultivated fields also exist in this area. No designated Agricultural Districts exist on the project site and the closest Agricultural District is approximately one-mile northwest (Onondaga County Agricultural Districts, 2019[8]).

[7] USDA. Soil Survey of Onondaga County, New York via NRCS Web Soil Survey (2021).
[8] New York State Department of Agriculture and Markets. Onondaga County Agricultural Districts (2019).

Similar to the Park as evaluated in the 2013 FGEIS, the suitability of soils for septic systems varies across the expanded site. It generally ranges between conditions considered suitable to areas with conditions that are generally not suitable. It is not anticipated that onsite septic systems will be needed for the Park.

Table 3.5-1 also provides potential constraint ratings for each soil, relative to the following specified uses: shallow excavation, lawns and landscaping, local roads, and commercial buildings. This constraint rating information was obtained from the Onondaga County Soil Survey.

Each soil-type is described as "Not Limited", "Somewhat Limited" or "Very Limited" for the specified use based on soil characteristics (load-bearing capacity, drainage characteristics, slope).

- Not Limited indicates the soil has characteristics that are very favorable for the specified use. Good performance and very low maintenance can be expected.
- Somewhat Limited indicates the soil has characteristics that are moderately favorable for the specified use. Limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected.
- Very Limited indicates the soil has one or more characteristics that are unfavorable for the specified use. The limitations generally cannot be overcome without soil reclamation, special design, or installation procedures. Poor performance and high maintenance can be expected.

In the expanded Park, about 87.7% of soils are rated as Very Limited for shallow excavation; about 18.9% of soils are rated as Very Limited for lawns and landscaping; 51.2% of soils are rated as Very Limited for local roads; and 62.1% of soils rated as Very Limited for small commercial buildings.

Many of the soils located on the expanded project site could have some constraints to development and generally speaking, special design or construction measures may be required to allow development on portions of the site. This does not preclude development of the site.

3.5.4 Offsite Utility Corridors

Most of the proposed gas line starting at the Clay Gas Regulator Station #147 lies within previously disturbed easements including approximately 4,500 feet along NYS Route 31 and 7,250 feet along overhead utilities. The remaining portion of the proposed gas line (1,450 feet) crosses a wooded area south of the Clay Substation and a hay field immediately north of the Jerome Fire Equipment Co. on Caughdenoy Road. The alternative gas line makes use of public rights-of-way for the entire length of the route following sections of NYS Route 31, Henry Clay Boulevard, Verplank Road, and Caughdenoy Road.

The topography of the proposed and alternative gas line routes are both relatively flat. The alternative route is slightly flatter since it is entirely along existing roadways. Bedrock geology for both routes is consistent with the expanded Park, belonging to the Lockport Group. Neither route is in a designated Agricultural District.

Soils along the proposed and alternate gas line routes are generally consistent with the expanded Park except for very small additions of Arkport very fine sandy loam (2 to 6% slopes), Colonie loamy fine

sand (0 to 6% slopes), Lakemont silty clay loam (0 to 3% slopes), and Alton gravelly fine sandy loam (0 to 3% slopes). Arkport and Alton are classified as well drained, prime farmland with a land capability classification of 2 and depths greater than 80 inches to groundwater. Colonie is classified as somewhat excessively drained, farmland of statewide importance with a land capability classification of 3, and depths greater than 80 inches to groundwater. Lakemont is classified as poorly drained, farmland of statewide importance with a land capability classification of 4, and greater than 80 inches to groundwater. The soils along the alternative gas line route are somewhat more disturbed since this route follows public roads for the entire length.

An underground electric line may also be constructed for a short distance beneath Caughdenoy Road and the railroad tracks from the existing substation to the site. No impacts to topography, geology or soils are anticipated given the short distance of this new line and its location beneath an area that was already disturbed for road construction.

3.6 Water Resources

3.6.1 Groundwater

Groundwater occurs beneath the surface within the pore spaces of soil and rock. Relatively shallow groundwater was observed on portions of the Park during a prior geotechnical investigation. Groundwater was encountered at depths ranging from 2 to 9 feet. It is anticipated that groundwater flows northward, based upon regional topography and surface water drainage, which is consistent with the Park as proposed in the 2013 FGEIS.

The proposed expanded Park is not situated within a primary, principal, or sole source aquifer.

Proposed Utility Line Routes and Roadway Improvements

The proposed utility gas and sewer line routes are partially situated within unconsolidated, confined aquifers. These sand and gravel aquifers are in the immediate vicinity of Mud Creek and are not considered primary, principal, or sole source aquifers. The majority of both proposed utility routes are outside of the mapped unconsolidated aquifers.

The proposed road improvement to Henry Clay Boulevard discussed in the TIS is located within the unconsolidated, confined aquifer described above. The remaining three roadway improvement areas discussed in the TIS, including the I-81/NYS Route 31 Interchange are not located within the aquifer but are within its vicinity. Roadway improvement activities would occur entirely above the water table, within developed and/or previously disturbed areas.

3.6.2 Surface Water

The Park is relatively flat to gently sloping. Elevations range from approximately 430 feet amsl along the southern boundary (NYS Route 31) to approximately 380 feet amsl along the northern boundary. Drainage is of a northwesterly flow direction towards the Oneida River. The Project site encompasses the entire esker, as described above in section 3.5.1. The Park also includes several tributaries and drains to

the north towards Youngs Creek. Two of these tributaries drain the eastern half of the site, and flow to the north-northwest, draining into Youngs Creek and ultimately to the Oneida River.

A small, unnamed tributary of Youngs Creek is located on the northern portion of the site, at the base of the onsite esker's southern embankment. The flow is intermittent and traverses through the northern and eastern parts of the site.

Both the New York Stream Classification Map (Figure 3.6-1, located at the end of this Chapter) and the NYSDEC Environmental Resource Mapper[1] identified several classified streams on site. Youngs Creek is in the northern portion of the site and is classified as C. Class C streams can support fisheries and are suitable for non-contact activities but are not considered protected. There are also several other classified streams (tributaries of Youngs Creek) all identified as class C tributaries to Oneida River (6 CRR-NY 899-10)[9]. All these tributaries are in the eastern portion of the site, two of which follow a course which crosses Burnet Road, ultimately connecting to Youngs Creek.

Proposed Utility Line Routes and Roadway Improvements

The proposed gas line connection crosses three classified streams, all identified as tributaries to Oneida River (6 CRR-NY 899-10). These three streams are all class C, which are not considered protected. Two of these tributaries connect to Shaver Creek and cross Van Hoesen Road. The other tributary is Shaver Creek. It flows in a south to north direction on the west side of the existing subdivision on Appaloosa Trail, off Van Hoesen Road, in the vicinity of the route and existing utility right-of-way.

The proposed roadway improvements outlined in the TIS are not expected to comprise any stream crossings; however, activities do have the potential to occur near classified streams. Just south of the proposed roadway improvements to the I-81/NYS Route 31 Interchange, there is a class C stream, a tributary to Oneida River (6 CRR-NY 899-10)[10].

3.6.3 Stormwater/Drainage/Flooding

According to Syracuse-Onondaga County Planning Agency resources[11], the Park is located within the Oneida River Basin major watershed and Oneida River sub-watershed. Although a small section of the southwest corner of the Park (near NYS Route 31) is within the Shaver Creek tributary watershed, almost the entirety of the Park is located within the Youngs Creek tributary watershed.

Stormwater drainage is from south to north, consistent with the topography described above. As a result of the relatively flat nature of the Park, the potential impacts due to soil erosion is minimal.

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[9] New York State Department of Environmental Conservation (2021). Environmental Resource Mapper, web application, 2021. https://gisservices.dec.ny.gov/gis/erm/

[10] New York State Department of Environmental Conservation. Title 6. Department of Environmental Conservation, Chapter X, Division of Water Resources, Subchapter B. Classes and Standards of Quality and Purity Assigned to Fresh Surface and Tidal Salt Waters, Article 14. Oswego River Drainage Basin Series, Part 899. Oneida River Drainage Basin. 899.4 Table 1; 6 CRR-NY 899.4 (current as of July 15, 2020).

[11] Syracuse-Onondaga County Planning Agency (2003). Watersheds in Onondaga County, 2003. http://www.ongov.net/planning/documents/map_gallery/Watersheds%20in%20Onondaga%20County.pdf

Although the Town of Clay and the Town of Cicero are both designated Municipal Separate Storm Sewer Systems (MS4), the Park is not located within either of the designated MS4 boundaries. The MS4 boundaries, however, are immediately south and east of the Park.

There are no FEMA mapped floodplains or Special Flood Hazard Areas within the Park[12]. The Park lies entirely within FEMA flood zone X, which is an area of minimal flood hazard.

Proposed Utility Line Routes
Based on the most current information available, the preferred sewer line route does have the potential to fall within a mapped FEMA floodplain, in the immediate vicinity of Mud Creek, north of NYS Route 31. The proposed gas line route does not fall within a mapped FEMA floodplain or Special Flood Hazard Area. (See Figure 3.6-2., located at the end of this Chapter.)

Some of the roadway improvements outlined in the TIS have the potential to fall within a mapped FEMA floodplain.

3.7 Air Resources

3.7.1 Air Quality

According to the EPA Green Book website[13] Onondaga County (including the expanded Park area) remains within attainment status of National Ambient Air Quality Standards (NAAQS) for the six criteria pollutants (*i.e.,* ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter, and lead). The NAAQS are levels of pollutants in the ambient air that have been determined to be protective of human health, including the health of sensitive subpopulations such as children, the elderly, and those with chronic respiratory problems; in addition, they are developed to protect public welfare, including damage to property and structures, visibility, vegetation, animal species, and other concerns.

The NAAQS have been established for the following criteria pollutants that could be emitted by a prospective tenant at the proposed expanded Park: particulate matter sized 10-microns and smaller ("PM10"), particulate matter sized 2.5 microns and smaller ("$PM_{2.5}$"), nitrogen dioxide ("NO_2"), sulfur dioxide ("SO_2"), carbon monoxide ("CO"), ozone ("O_3"), and lead ("Pb"). Following is a brief discussion of each of the criteria pollutants that could be emitted by a prospective tenant.

Meteorological Conditions

Meteorological conditions for the Syracuse and Central New York region have not materially changed since the 2013 FGEIS. As part of any air permit application submitted to the NYSDEC for development of the Park, meteorological conditions will be considered. The closest National Weather Service (NWS) station to the Park that has the appropriate available data for purposes of an air permit application is the Syracuse NWS station, which is located approximately 5.4 miles southeast of the Park.

[12] Syracuse-Onondaga County Planning Agency (2016). FEMA Floodplain Changes in Onondaga County (2016), 2016. http://www.ongov.net/planning/documents/map_floodplain_revisions_2016.pdf
[13] https://www3.epa.gov/airquality/greenbook/anayo_ny.html, 4/16/21

3.7.2 Climate Change

There is a broad international scientific consensus that human activity-generated greenhouse gas (GHG) emissions are increasing the concentration of GHGs in the atmosphere and leading to global climate change. While the contribution to climate change of a single project is very small, the combined GHG emissions from all human activity contributes to global climate change. As such, statutes, regulations and policies have been, and continue to be, implemented to address GHG emissions at global, national, regional, state and local levels. Pertinent to the potential future development at the proposed expanded Park, these statutes, policies and regulations include CLCPA and regulations under the Clean Air Act.

The CLCPA (Chapter 106 of the Laws of 2019) and Article 75 of the Environmental Conservation Law ("ECL"), require NYSDEC to promulgate regulations to establish a statewide GHG emissions limit for 2030 that is sixty percent of 1990 GHG emissions, and for 2050 that is fifteen percent of 1990 GHG emissions. The CLCPA requires that carbon dioxide equivalent (CO_2e) emissions be calculated based on a 20-year global warming potential ("GWP") for GHGs that are not carbon dioxide (CO_2), as opposed to either the 100-year GWP used by the Intergovernmental Panel on Climate Change ("IPCC") or the GWPs required by 6 NYCRR 231-13.9 that are used for permitting . The CLCPA also amended the Public Service Law to require the Public Service Commission ("PSC" or "Commission") to establish a program to meet a target of seventy percent of statewide electrical generation from renewable sources by 2030, and a target of zero GHG emissions for statewide electrical demand by 2040. The regulations and programs to be implemented by NYSDEC and the Commission in accordance with the CLCPA are to be conducted in a manner that minimizes costs and maximizes benefits.

NYSDEC recently adopted 6 NYCRR Part 496, which limits statewide GHG emissions in 2030 and 2050 as a percentage of 1990 emissions, per the requirements of the CLCPA. As such, Part 496 limits statewide GHG emissions in 2030 to 245.87 million metric tons of CO_{2e}, and 61.47 tons in 2050. Part 496 also includes the 20-year global warming potentials for GHGs that are not CO_2. The rule applies to all emission sources in New York State, but does not itself impose compliance obligations. The final rule was published in the New York State Register on December 30, 2020. The Part 496 statewide emission limits will serve as the baseline for the promulgation of future NYSDEC CLCPA regulations for attainment of the 2030 and 2050 limits. NYSDEC also finalized its Establishing a Value of Carbon Guidelines for Use by State Agencies guidance on December 30, 2020, which is for use by State agencies to monetize benefits/costs of actions that impact GHG emissions based on societal impacts incurred as a result of climate change.

Section 7(2) of the CLCPA also requires all state agencies to consider whether its decision to issue permit(s) is inconsistent with or will interfere with the attainment of the statewide GHG emission limits established in ECL Article 75. Where such decisions are deemed to be inconsistent with or will interfere with the attainment of the statewide GHG limits, the agency must provide a detailed statement of justification as to why such limits/criteria may not be met and identify alternatives or GHG mitigation measures to be required where the project is located.

3.7.3 Emission Sources

Air quality conditions are influenced by stationary sources and mobile sources of air pollutants. Since 2013, no significant existing stationary sources of air emissions were identified in the vicinity of the Park. The nearest facilities with an air permit are the Buckeye Terminal in Brewerton (approximately 3.3 miles north) and Barrett Paving Materials in Phoenix (approximately 5.5 miles west)[14].

Mobile source emissions continue to be driven by traffic volume and intersection levels of service (LOS). Mobile sources include commuter and truck traffic on NYS Route 31, residential traffic on Caughdenoy Road and other local roads, and occasional emissions from train traffic along the CSX rail line adjacent to the site.

3.8 Ecological Resources

3.8.1 Wetlands

The wetlands evaluation for the expanded Park area of the Project site consisted of an extensive review of state and federal agency resource information maps, soils descriptions, aerial photos, and a delineation report prepared by Terrestrial Environmental Specialists, Inc. (TES) in 2013[15,16]. These maps and information assisted in the identification of potential wetlands. Field reconnaissance of the Project site was not conducted as part of this Draft SGEIS[17].

The wetlands identified and evaluated in the 2013 FGEIS and the expanded Park area of the Project Site, are presented on Figure 3.8-1. Wetlands previously delineated by TES are represented by hatching and are drawn as open ended in some locations to indicate the possible extension of wetland areas with the expanded Park. This figure allows for the comparison of the delineated wetlands to the state and federal wetland maps. Depending on the location of any proposed development at the Park, these areas may need to be re-evaluated through a formal delineation using state and federal criteria.

Figure 3.8-1 (located at the end of this Chapter) identifies NWI and NYSDEC-mapped wetlands in largely overlapping areas in isolated areas in the far northern and eastern portions of the Project site. Although NWI mapping indicates the potential presence of federal wetlands regulated by the U.S. Army

[14] New York State Department of Environmental Conservation. Accessed April 12, 2021. Retrieved from: https://www.dec.ny.gov/chemical/32249.html. Facilities with air permits located further than 6 miles from the Park include Anheuser Busch Brewery in Baldwinsville, Paper Conversions, Inc. in Syracuse, and Cooper Crouse-Hinds in Salina.
[15] National Wetland Inventory Map. Accessed April 12, 2021. Retrieved from: https://www.fws.gov/wetlands/data/Mapper.html
[16] New York State Department of Environmental Conservation. Accessed April 12, 2021. Retrieved from: https://gisservices.dec.ny.gov/gis/erm/
[17] Although field reconnaissance of the Park was not conducted as part of this Draft SGEIS, it will be required for any proposed development to verify the nature, extent and location of any regulated wetlands. A Jurisdictional Determination (JD) was approved for the 158-acre portion of the Park, as it was proposed in the 2013 FGEIS, but expired on July 28, 2012. A JD Form is not included as part of this Draft SGEIS. Further coordination with the USACE will be required to determine if any "Waters of the United States" under the Corps jurisdiction are present. If present, delineations will be conducted in accordance with the revised definition of "Waters of the United States", which became effective on June 22, 2020. This typically would be completed during the design phase of the project, when conceptual project site layout is determined.

Corps of Engineers (USACE), the USACE does not publish official wetland maps. These mapped wetlands, including those shown outside of the NYSDEC-mapped boundaries, would be subject to the recently revised definition of regulated waters under the 2020 federal Navigable Waters Protection Rule, which is narrower in scope and has resulted in an overall lessening of what is considered regulated waters (including federal wetlands) as compared to previous rules and definitions. The definition excludes from the definition of "waters of the United States," non-adjacent wetlands that do not directly abut or have regular surface water overflow/inundation from intermittent or perennial streams, including wetlands that are adjacent to ephemeral streams, ditches, and prior converted cropland.

NWI wetlands in this area were photo interpreted using black and white imagery from 1978 (some maps have been modified as of October 1, 2020). As a result, the actual boundaries may differ from the time the maps were created. Some reasons for these discrepancies include changes to the landscape caused by agricultural uses; ecological succession; new water drainage patterns resulting from recent commercial/residential development; mapping inaccuracies and/or deviations produced by different map scales.

The NWI-mapped wetlands range in size and are defined by different classification codes. The following mapped NWI wetland classification codes (including riverine and pond) were identified within the Park using the mapping resources described above: PSS1A, PFO1C, PFO1A, PSS1/EM5C, R4SBC, R5UBH, PUBFx, PUBFH, PUBHx, and PEM5E. The smaller Park footprint, as proposed in the 2013 FGEIS only accounts for NWI wetland classification codes: R4SBC, PSS1A, PF01A, and PUBFx. Additionally, mapping of the expanded Park Area identified NYSDEC wetland BRE-11, which is a Class III state wetland. Depending on the location of any proposed development at the Park field reconnaissance, including a wetland delineation and soil samples, may be necessary to determine the presence of any wetlands, their precise wetland boundaries, and whether there is any connection to a jurisdictional waterway.

NWI-mapped potential wetlands areas A, B, C, D, E/I, F, G, and H (which encompass NYSDEC wetland BRE-14) shown in Figure 3.8-1 were previously evaluated in the 2013 FGEIS (Draft Section 3.8.1). The regulatory status of these wetland areas may differ from 2013 based on the 2020 Navigable Waters Protection Rule, and to the extent these areas are not adjacent to navigable waters, tributaries, lakes or ponds, or are prior converted cropland, they would not fall under the USACE's jurisdiction.

Wetland A

Wetland A is the second largest wetland on the Project site. It is found in the central portion of the property and extends to the north and south. The majority of Wetland A contains deciduous forest wetlands with smaller areas of emergent, scrub-shrub, and mixed forest wetlands. Wetland A contains an intermittent stream that flows north and continues off-site into Youngs Creek. Youngs Creek connects to the Oneida River, which is a traditional navigable waterbody (TNW). Wetland A is located in a portion of mapped state-regulated wetland (BRE-14). This mapped state-regulated wetland is in the northernmost portion of Wetland A. Additional information regarding the dominate plant species and mapped soils within this wetland area is provided in the 2013 FGEIS (Draft Section 3.8.1).

Wetland B

Wetland B is in the central portion of the Project site along the eastern boundary. Hydrology indicators throughout this wetland included drainage patterns. This wetland does not appear to be connected to a tributary system and is, therefore, considered isolated. Additional information regarding the dominate plant species and mapped soils within this wetland area is provided in the 2013 FGEIS (Draft Section 3.8.1).

Wetland C

Wetland C is in the southeastern portion of the Project site. Wetland C is a wet meadow. Wetland C drains to the east off-site. Additional information regarding the dominate plant species, mapped soils, and the wetlands connection to possible tributary systems is provided in the 2013 FGEIS (Draft Section 3.8.1).

Wetland D

Wetland D is in the north-central portion of the Project site. Wetland D is a mix of wet meadow and scrub-shrub wetland cover types. There was no tree or shrub layer in the wet meadow portion of Wetland D. Additional information regarding the dominate plant species, mapped soils, and the wetlands connection to possible tributary systems is provided in the 2013 FGEIS (Draft Section 3.8.1).

Wetland E/I

Wetland E/I is the largest wetland on the Project site and is located in the northern section of the site. Wetland E/I contains wet meadow, scrub-shrub, and deciduous forest wetland cover types. Wetland E/I also contains an intermittent stream that flows north and continues off-site into Youngs Creek. Wetland E/I is in an area mapped as state-regulated wetland, BRE-14. This mapped state-regulated wetland is in the eastern portion of Wetland E/I. The wet meadow portion of Wetland E/I contains no tree or shrub layers. The scrub-shrub portion of Wetland E/I had no tree layer. Additional information regarding the dominate plant species, mapped soils, and the wetlands connection to possible tributary systems within this wetland area is provided in the 2013 FGEIS (Draft Section 3.8.1).

Wetland F

Wetland F is in the northeastern portion of the Park between Wetland A and Wetland D. Wetland F is a scrub-shrub wetland. Additional information regarding the dominate plant species, mapped soils, and the wetlands connection to possible tributary systems within this wetland area is provided in the 2013 FGEIS (Draft Section 3.8.1).

Wetland G

Wetland G is in the northwestern portion of the Project site along the western site boundary and CSX rail line. Wetland G is a scrub-shrub wetland. Additional information regarding the dominate plant species, mapped soils, and the wetlands connection to possible tributary systems within this wetland area is provided in the 2013 FGEIS (Draft Section 3.8.1).

Wetland H

Wetland H is in the northwestern portion of the Project site below Wetland G. Wetland H is an emergent wetland. There were no tree or shrub layers in this cover type. Additional information regarding the dominate plant species, mapped soils, and the wetlands connection to possible tributary systems within this wetland area is provided in the 2013 FGEIS (Draft Section 3.8.1).

Additional Wetland Areas within the Park not Previously Discussed

Due to the Park expansion, additional mapped wetland areas exist on the Project site that were not previously discussed in the 2013 FGEIS. These wetland areas were identified using the mapping resources detailed above and are described below. For consistency purposes, the continuation of the same naming convention is used to identify the additional wetland areas (J-L).

Wetland J

Wetland J is in the northwestern portion of the Project site and extends to the north and south. Wetland J is classified as palustrine scrub-shrub wetlands (PSS1A) and palustrine forested wetlands (PFO1A). Palustrine scrub-shrub wetlands contain broad-leaved deciduous trees or shrubs and is temporarily flooded. Palustrine forested wetlands are characterized by woody vegetation that is 6 meters tall or taller. Wetland J contains an intermittent stream that flows north and continues off-site into Youngs Creek. Youngs Creek connects to the Oneida River, which is a traditional navigable waterbody (TNW). Wetland J is located in a portion of mapped state-regulated wetland (BRE-14). This mapped state-regulated wetland is in the northernmost portion of Wetland J.

Wetland K

Wetland K is in the northern portion of the Project site and extends to the north and south. Wetland K is mixed with wetlands classified as palustrine scrub-shrub (PSS1A), emergent (EM5C & PEM5E) and palustrine forested wetlands (PFO1C). Palustrine scrub-shrub wetlands consist of broad-leaved deciduous trees and shrubs. Emergent wetlands typically have large perennial grass such as *Phragmites australis*. Palustrine forested wetlands are characterized by woody vegetation that is 6 meters tall or taller. Wetland K is characterized as being typically flooded and seasonally flooded within various areas of the wetland. Wetland K contains an intermittent stream that flows north and continues off-site into Youngs Creek. Youngs Creek connects to the Oneida River, which is a traditional navigable waterbody (TNW). Wetland K is located in a portion of mapped state-regulated wetland (BRE-11). This mapped state-regulated wetland is in the northernmost portion of Wetland K.

Wetland L

Wetland L is in the southeastern portion of the Project site and extends to the north and south. Wetland L is classified as palustrine forested wetlands (PFO1C) and emergent wetlands (EM5E). Palustrine scrub-shrub wetlands consist of broad-leaved deciduous trees and shrubs. Emergent wetlands typically have large perennial grass such as *Phragmites australis*. Wetland L is characterized as being typically flooded and seasonally flooded within various areas of the wetland. Wetland L contains an intermittent stream that flows north and continues off-site into Youngs Creek. Youngs Creek connects to the Oneida River, which

is a traditional navigable waterbody (TNW). Wetland L is located in a portion of mapped state-regulated wetland (BRE-11). This mapped state-regulated wetland is in the northernmost portion of Wetland L.

Proposed Utility Line Routes and Roadway Improvement Areas

Due to the expiration of both the USACE Jurisdictional Determination (JD) and wetland delineation performed by TES in 2013, a preliminary review of mapped NWI and NYSDEC wetlands was conducted for the proposed utility line routes. The preliminary review identified NYSDEC-mapped wetlands along Mud Creek that are classified as Class I wetlands and NWI-mapped wetlands that are classified as riverine (R4SBC & R5UBH), freshwater forested/shrub wetland (PFO1E & PSS1E), and freshwater emergent wetland (PEM5C). These areas are further described in section 3.8.2.2. NWI mapped wetlands were identified near the abandoned overhead utility line easement whereas the NYSDEC map does not identify wetlands within this area.

With respect to roadway improvement areas identified in the TIS, a preliminary review of the NWI and NYSDEC maps indicates NWI and NYSDEC-mapped wetlands of differing sizes only in the vicinity of I-8I/NYS Route 31 Interchange. Wetlands are not mapped near the NYS Route 31, Caughdenoy Road, or Henry Clay Boulevard roadway improvement areas. The NYSDEC map identifies a Class II wetland located southeast of NYS Route 31.

Wetland D, which was previously delineated by TES in 2013, is located in the vicinity of the proposed driveway entrance at Caughdenoy Road. Based on the new Navigable Waters Protection Rule, depending on the exact location of any proposed development at the Park, potential wetland areas may need to be revaluated to determine whether they are jurisdictional adjacent wetlands.

A formal delineation using state and federal criteria has not been conducted at this time but will be completed prior to detailed engineering design to confirm that the preferred route will avoid wetlands to the maximum extent possible.

3.8.2 Vegetation

The land cover types contained in the 2013 FGEIS utilized aerial imagery and field investigation for identification. The Park, as it was proposed in the 2013 FGEIS, is mostly made up of various upland cover types, with open field making up most of the site (approximately 35%) and wetland cover types consisting of less than 20%. The land cover types included in the 2013 FGEIS are: open field; scrub-shrub upland; and deciduous forest upland as upland cover types; as well as: wet meadow; emergent wetland; scrub-shrub wetland; and deciduous forest wetland as wetland cover types.

The land cover types of the proposed expanded Park area were analyzed only utilizing data from the National Land Cover Database (NLCD) (2016)[18]. As this is a different resource than what was used in the 2013 FGEIS analysis, the categories of classification of land cover types differ. Therefore, comparisons

[18] National Land Cover Database (2016). Accessed April 6, 2021. Retrieved from: https://utility.arcgis.com/usrsvcs/servers/296c2474ac94415dab80067c3f5ffe94/services/USA_NLCD_Land_Cover/ImageServer

can only be made between the similar classifications of the land cover and should not be considered exact. A comparison of the land cover types of the expanded Park with the previous footprint is provided below.

Vegetation cover types identified on the expanded Park using data from the NLCD are shown in Figure 3.8-3 (located at the end of this Chapter). The acreage of each cover type is presented in Table 3.8-1.

Table 3.8-1: Acreage of Vegetation Cover Types

Expanded (SGEIS) Footprint			**Previous (2013 FGEIS) Footprint***		
Vegetation/Land Cover Type	**Acreage**	**% of Site**	**Vegetation/Land Cover Type**	**Acreage**	**% of Site**
Upland	**1003±**	**80±**	**Upland**	**275.7±**	**81.3**
Developed Open Space	22±	2±	Residential/Developed	2.43	0.7
Developed Low Intensity	4±	<1	-	-	-
Deciduous Forest	402±	32±	Deciduous Forest Upland	45.34	13.4
Evergreen Forest	3±	<1	Evergreen Forest Upland	0.86	0.3
Mixed Forest	4±-	<1	Mixed Forest Upland	37.09	10.9
Shrub/Scrub	2±-	<1	Scrub-Shrub Upland	69.75	20.6
Pasture/Hay	525±	42±	Open Field	120.25	35.3
Cultivated Crops	41±	3±	-	-	-
Wetland	**250±**	**20±**	**Wetland**	**63.5+-**	**18.7**
Open Water	<1	<1	Open Water	0.26	0.1
Woody Wetlands	220±	18±	Deciduous Forest Wetland	33.09	9.8
-	-	-	Mixed Forest Wetland	0.35	0.1
Emergent Herbaceous Wetlands	29±	2±	Emergent Wetland	0.89	0.3
-	-	-	Wet Meadow	9.19	2.7
-	-	-	Scrub-Shrub Wetland	19.76	5.8
Total	**1253±**	**100**	**Total**	**339.26+-**	**100**

*Acreages shown as provided in the 2013 FGEIS.

Each upland and wetland vegetation/land cover type classification for the expanded footprint is described in section 3.8.2.1 and 3.8.2.2 below, according to the NLCD definitions[19].

Upland Vegetation

As explained above, the upland cover types, which were considered in the 2013 FGEIS (Draft Section 3.8.2.1), include residential/developed areas, open fields, scrub-shrub areas, deciduous forest, mixed forest, and evergreen forest. This analysis was updated utilizing a different data resource, the NLCD, containing different classifications of cover types to account for the total expanded footprint of the Park.

Based on review of the NLCD Land Cover data, more than three-fourths of the expanded Park is made up of upland cover types. These communities represent approximately 1,003 acres, up from the

[19] National Land Cover Database 2016 (NLCD2016) Legend. Accessed April 6, 2021. Retrieved from: https://www.mrlc.gov/data/legends/national-land-cover-database-2016-nlcd2016-legend

approximately 276 acres identified in the 2013 FGEIS, which is approximately 80% of the expanded footprint of the Park.

The definitions of all land cover types apply only to those from the NLCD, the similar classifications from the 2013 FGEIS are listed as general comparison only.

Developed Open Space

The NLCD Legend defines developed open space as areas with less than 20% impervious surfaces, and vegetation dominated by lawn grass. Per NLCD, typically, these areas include "large-lot single-family housing units, parks, golf courses, and vegetation planted in developed settings for recreation, erosion control, or aesthetic purposes."

Various portions of developed open space can be found at the west and south edges of the Park, along Caughdenoy Road and NYS Route 31, as well as along Burnet Road. The total area defined as developed open space as part of the expanded Park is approximately 22 acres, or approximately 2% of the Park.

Developed Low Intensity

The NLCD Legend defines developed low intensity as areas with between 20-49% impervious surfaces, containing a mix of vegetation and constructed materials. These areas mostly include single family housing units.

Various areas defined as developed low intensity can be found at the west and south edges of the Park, along Caughdenoy Road and NYS Route 31, as well as towards the east side of the Park along Burnet Road. The total area defined as developed low intensity as part of the expanded footprint is approximately 4 acres, or less than 1% of the Park.

Compared to the land cover types considered in the 2013 FGEIS, developed open space and developed low intensity land cover are most like the "residential/developed" classification (see Table 3.8-1). On the previous footprint, residential/developed land cover was very minimal, taking up less than 1% of the total land cover. Based on NLCD information for the total expanded footprint, the combined developed open space and developed low intensity land cover take up approximately 3% of the total land cover on the expanded Park footprint.

Deciduous Forest

Deciduous forests are defined by the NLCD Legend as areas with trees greater than five meters tall accounting for greater than 20% of the total vegetation. Tree species which shed foliage in response to seasonal changes make up greater than 75% of tree species in these areas.

Deciduous forest areas for the proposed expanded Park constitute approximately 402 acres or about 32% of the Park, the second largest portion of the Park after pasture/hay. These forested areas were interspersed throughout the entirety of the expanded Park footprint, with large areas in the north, east, and west-central portions. Compared to the land cover types considered in the 2013 FGEIS, deciduous forest as defined by the NLCD is most like the "deciduous forest upland" cover type (see Table 3.8-1). On the

previous footprint, deciduous forest upland vegetation was only about 13% of the total vegetation/land cover types, in contrast with the 32% of deciduous forest vegetation on the expanded Park footprint.

Evergreen Forest

Evergreen forests are defined by the NLCD Legend as areas with trees greater than five meters tall accounting for greater than 20% of the total vegetation. Greater than 75% of tree species in these areas maintain their foliage year-round.

Evergreen forest areas for the expanded Park footprint represent approximately 3 acres or less than 1% of the Park. Evergreen forests occur in the northeast and south-central portion of the expanded Park footprint. Compared to the land cover types considered in the 2013 FGEIS, evergreen forest as defined by the NLCD is most like the "evergreen forest upland" cover type (see Table 3.8-1). On the previous footprint, evergreen forest upland vegetation was less than 1% of the total vegetation/land cover types, which is the same percentage of evergreen forest vegetation on the expanded Park footprint.

Mixed Forest

According to the NLCD, mixed forest areas are dominated by trees greater than five meters tall, which account for grater that 20% of the total vegetation. A mixed forest is defined as having neither deciduous nor evergreen tree species at greater than 75% of the total tree cover.

Mixed forest uplands for the expanded footprint represents approximately 4 acres or less than 1% of the Project site. Mixed forest uplands occur in the east-central and west-central portions of the Park. Compared to the land cover types considered in the 2013 FGEIS, mixed forest as defined by the NLCD is most like the "mixed forest upland" cover type (see Table 3.8-1). On the previous footprint, mixed forest upland vegetation was approximately 11% of the total vegetation/land cover types, much higher than the less than 1% of mixed forest vegetation identified by the NLCD on the expanded Park footprint.

Shrub/Scrub

In accordance with the NLCD Legend, there is a small area located east of Burnet Road identified as Shrub/Scrub. This area is defined as having shrub canopy greater that 20% of the total vegetation. The NLCD defines shrubs as less than five meters tall and can include true shrubs, young trees, or trees that exhibit stunted growth due to environmental conditions.

An area of shrub/scrub vegetation for the expanded Park footprint comprises approximately 2 acres or less than 1% of the Park. This vegetative cover is in the east-central portion of the expanded Park footprint, east of Burnet Road and surrounded by an area of pasture/hay vegetation. Compared to the land cover types considered in the 2013 FGEIS, shrub/scrub as defined by the NLCD is most like the "scrub-shrub upland" cover type (see Table 3.8-1). In the 2013 FGEIS, scrub-shrub upland vegetation was the second most abundant upland cover type, making up approximately 21% of the total cover. This is significantly higher than the less than 1% of shrub/scrub cover as defined by the NLCD within the expanded Park footprint.

Pasture/Hay

As defined by the NLCD Legend, pasture/hay is a subgroup of the "Planted/Cultivated" section. It is defined as an area where greater than 20% of the total vegetation is intended for grazing livestock or seed/hay crops. Typically planted on a perennial cycle with "grasses, legumes or grass-legume mixtures."

Pasture/Hay areas cover the largest portion of the expanded Park footprint. This vegetation cover type occurred on approximately 525 acres or about 42% of the park. The pasture/hay areas are found mainly in the central, southern, and western portions of the expanded Park footprint.

Cultivated Crops

Cultivated crops are defined by the NLCD Legend as areas of annual crop production, and all actively tilled land. The total vegetation in the area is made up of greater than 20% crop vegetation.

Cultivated crops are identified in three areas, all centrally located, in the center and in the southern portions of the expanded Park footprint. The two areas in the south are on either side of Burnet Road. The cultivated crop areas for the expanded Park make up approximately 41 acres, or about 3% of the Park.

Compared to the land cover types considered in the 2013 FGEIS, pasture/hay and cultivated crops as defined by the NLCD are most like the "open field" cover type (see Table 3.8-1). In the 2013 FGEIS, open field vegetation was the most abundant upland cover type, making up approximately 35% of the total cover within the previous footprint. This is similar to the combined pasture/hay and cultivated crops cover type as defined by the NLCD, which makes up approximately 45% of the total land cover types on the expanded Park footprint.

Utility Corridor

The vegetation/land cover types within the proposed utility corridor are not included in Table 3.8-1. The vegetation in the proposed utility corridor were not discussed in the 2013 FGEIS. The relevant land cover types within the utility corridor as defined by the NLCD are described below.

Based on preliminary review of the NLCD data most of the proposed utility corridor is comprised of pasture/hay land cover, while small portions are composed of deciduous forest, mixed forest, cultivated crops, developed open space, developed low intensity, and developed medium intensity land cover.

The land cover type found in the utility corridor is developed medium intensity land cover. Developed medium intensity cover is defined as areas with between 50-79% impervious surfaces, containing a mix of vegetation and constructed materials, according to the NLCD Legend. These areas mostly include single family housing units.

Proposed Roadway Improvements

Based on preliminary review of NLCD data, the land cover/vegetation types were identified at each proposed roadway improvement outlined in the TIS. The area surrounding and including the driveway entrance on Caughdenoy Road is made up of developed open space, developed low intensity, and pasture/hay land cover types. The area surrounding and including the driveway entrance on NYS Route

31 is comprised of developed open space, deciduous forest, shrub/scrub, pasture/hay, and cultivated crops land cover types. The area surrounding and including the Henry Clay Boulevard and NYS Route 31 intersection is made up of developed open space, developed low intensity, developed medium intensity, developed high intensity, pasture/hay, and cultivated crops land cover types. Developed high intensity land cover is defined by the NLCD as "highly developed areas where people reside or work in high numbers." This can include commercial and industrial buildings, row houses, and apartment complexes. The total cover is considered 100% impervious surface. The area surrounding and including the NYS Route 31 and Interstate 81 intersection is comprised of developed open space, developed low intensity, developed medium intensity, developed high intensity, pasture/hay, and deciduous forest land cover types.

Wetland Vegetation

The 2013 FGEIS indicates there is approximately 63.5 acres of wetlands/water cover types or approximately 18.7% of the previous footprint of the Park. The expanded Park is now approximately 249.82 acres of wetlands/water cover types or approximately 19.98% of the expanded Park footprint. The expansion of the Park increased the study area, thereby expanding the wetland cover types on site. These wetland cover types include open water, woody wetlands, and emergent herbaceous wetlands. Wetland cover types are also depicted in Figure 3.8-3. A field reconnaissance of the Park was not conducted as part of this Draft SGEIS. Depending on the location of any proposed development at the Park, a wetland delineation may be required prior to any development to collect field data on present hydrophytic vegetation and confirm the actual presence and boundaries of jurisdictional wetlands.

3.8.3 Open Water

Open water within the expanded Park footprint covers approximately 0.44 acres, or 0.04% of the Park. This cover type constitutes the smallest proportion of the site. Open water is located centrally on the east edge of the Park. Open water areas are defined as generally having less than 25% coverage in terms of vegetation or soil. The 2013 FGEIS identified open water as covering approximately 0.3 acres, or 0.1% of the site.

Woody Wetlands

Woody wetland cover types for the expanded footprint cover 220.38 acres, or 17.63% of the Park. This cover type is located mainly in the northeastern portion of the Park, with smaller areas in the western and southeastern portion of the Park.

Woody wetland cover types are defined by the NLCD Legend as areas where greater than 20% of the total vegetative cover is forest or shrubland vegetation. The soil or substrate in these areas is also covered with water or periodically saturated.

Compared to the land cover types considered in the 2013 FGEIS, deciduous forest and mixed forest wetland as defined by the NLCD are most like the "woody wetlands" cover type (see Table 3.8-1). On the approximately 339+/- acre Park site, woody wetland vegetation was the most abundant wetland cover type, making up approximately 18% of the total cover within the previous Park footprint.

Emergent Herbaceous Wetlands

Emergent herbaceous wetland cover types for the expanded Park footprint covers 29 acres, or 2.32% of the Park. This cover type can be found mainly in the northeastern portion of the Park, with small areas in the central western portion.

Emergent herbaceous wetland areas are similarly defined as emergent wetlands, as areas where the soil or substrate is either covered with water or periodically saturated. The NLCD Legend defines emergent herbaceous wetlands as areas where 80% of the total vegetative cover is perennial herbaceous vegetation.

Compared to the land cover types considered in the 2013 FGEIS, emergent wetland, wet meadow, and scrub-shrub wetland, as defined by the NLCD are most like the "emergent wetlands" cover type (see Table 3.8-1).

Proposed Utility Line Routes and Roadway Improvement Areas

The NWI maps identified Mud Creek (R2UBH) and Shaver Creek (R5UBH) flowing adjacent to and throughout the proposed utility corridor. Mapped wetland areas along Mud Creek and Shaver Creek are made up of woody wetlands, scrub-shrub, and emergent land cover types. The NWI maps also identified small freshwater ponds located throughout the Park.

The NWI maps identified an unnamed tributary (R5UBH) flowing parallel to the proposed I-81/NYS Route 31 Interchange roadway improvement area. Mapped wetland areas along the unnamed tributary are identified as a freshwater emergent wetland. The NWI maps also identifies a large freshwater pond (open waters) located southeast of the Project site. The proposed roadway improvements will have no impact on the freshwater pond.

The NLCD did not identify wetland cover types located within the proposed roadway improvement areas of Caughdenoy Road, Henry Clay Boulevard or NYS Route 31. The NWI map did identify a freshwater forested/shrub wetland located southeast from the Caughdenoy Road improvement area, but it is off-site.

A field reconnaissance will be necessary to identify dominant hydrophytic vegetation within the utility corridor and the roadway improvement areas.

3.8.4 Wildlife

A comprehensive investigation was prepared for the western portion of the Project site in 2010 by Terrestrial Environmental Specialists, Inc. (TES) of Phoenix, New York to assess the onsite wildlife and habitats. The *Vegetation and Wildlife Resources at the Onondaga County Industrial Agency Site, July 2010* ("TES report"), which was included in the 2013 FGEIS (Draft Appendix E), identified common amphibian, reptile, bird, and mammal species through field reconnaissance. The common species observed are included in the following table. Land cover types on site are described above in section 3.8.2 in detail and depicted on Figure 3.8-3.

Table 3.8-2 Common Species			
AMPHIBIANS (5 Species)	**REPTILES (2 Species)**	**BIRDS (68 Species)**	**MAMMALS (6 Species)**
Eastern American toad	Painted turtle	*General Site:* Ruffed grouse; great-crested flycatcher; red-eyed vireo; tufted titmouse; white-breasted nuthatch; wood thrush; American redstart; and ovenbird	Woodchuck
Gray tree frog	Common garter snake	*Within the deciduous forested areas:* Black-billed cuckoo, eastern wood pee-wee, blackburnian warbler, and black-and-white warbler (*observed during breeding season)	Eastern chipmunk
American bullfrog		*Within open fields:* Red-tailed hawk; eastern kingbird; tree swallow; barn swallow; bobolink; field sparrow; savannah sparrow; and song sparrow	Gray squirrel
Northern green frog		*Within shrublands:* Alder flycatcher; willow flycatcher; eastern kingbird; gray catbird; blue-winged warbler; yellow warbler; common yellowthroat; eastern towhee; swamp sparrow; dark-eyed junco; northern cardinal; rose-breasted grosbeak; indigo bunting; red-winged blackbird, brown-headed cowbird; Baltimore oriole; and American goldfinch	Coyote*
Wood frog		*Within deciduous forest wetland habitat:* Hairy woodpecker; pileated woodpecker; wood veery; thrush; and common yellowthroat	Raccoon*
		Within wetland areas: Wood duck; magnolia warbler; and northern waterthrush.	White-tailed deer*
		Species observed flying over the site from the open utility corridor: Osprey and sharp-shinned hawk** (**species listed as special concern in New York State)	

* The presence of coyote, raccoon, and white-tailed deer were detected by tracks and scat.

It is anticipated that the remainder of the expanded area of the Park, which was not surveyed by TES, would include species like those identified above (and in the 2013 FGEIS), as the land cover types and habitats are similar. It is furthermore anticipated that several of the smaller transient species listed above would likely frequent the proposed utility corridors and roadway improvement areas. Field reconnaissance of the expanded Park, proposed utility corridors and roadway improvement areas can confirm this once specific development is proposed.

3.8.5 Threatened and Endangered Species

Per the NYSDEC EAF Mapper and NYSDEC Environmental Resource Mapper, there are no critical environmental areas or significant natural communities within or in the vicinity of the park. This is consistent with the original findings in the 2013 FGEIS.

To determine whether listed threatened or endangered species or critical habitats are located on or in the vicinity of the Park, coordination with the New York Natural Heritage Program (NYNHP) was conducted (March 26, 2021). The evaluation also included a review of the United States Fish and Wildlife Service's (USFWS) website including the Information, Planning, and Consultation (IPaC) System, the NYSDEC EAF Mapper, and the NYSDEC Environmental Resource Mapper. Copies of the supporting documentation, including the USFWS Official Species List and NYNHP correspondences are included in Appendix A.

The NYSDEC Environmental Resource Mapper did not identify any rare or state-listed species or natural communities in the expanded Park area that were not previously identified in 2013. The NYSDEC EAF Mapper identified the Sedge wren (*Cistothorus platensis)* and Indiana bat (*Myotis sodalis*) as potentially occurring in the Park. (Both screening tools accessed on April 13, 2021; See Appendix A.) Although the NYNHP screening results from the March 2021 request have not been received as of the date of this report, the last correspondence from NYNHP, dated May 14, 2010 is consistent with the NYSDEC EAF Mapper findings, which identified the Sedge wren. Specifically, the May 2010 NYNHP response letter indicated the Sedge wren as occurring on or in the immediate vicinity of the site. Although, Sedge wrens are typically found in wet meadows, shallow emergent marshes, bogs, and fens (NYNHP 2009b), TES concluded in their 2010 report, that "while limited amounts of wet meadow and emergent wetland occur on the site, the nature of these areas does not represent appropriate habitat for this species. Therefore, Sedge wren is not expected to occur on the site." (TES, 2010)

The USFWS IPaC search results identified the following federally listed endangered (E), threatened (T), and candidate species as being known or likely to occur in or in the vicinity of the expanded Park area:

Table 3.8-3: USFWS Endangered and Threatened Species

ANIMALS
Indiana bat (E) *(Myotis sodalis)*
Eastern massasauga (T)* *(Sistrurus catenatus)* *State-listed as endangered

Both the eastern massasauga and Indiana bat were described in detail in the 2013 FGEIS. Descriptions of each species are also included below for the purpose of the expanded Park footprint and to reflect the most current information available. The 2013 FGEIS also included a discussion of the Bog turtle, but recent search findings did not indicate the potential for this species. (See Appendix A.)

The Eastern massasauga (Sistrurus catenatus) rattlesnake is state listed as endangered and federally listed as threatened. According to the TES report, Eastern massasauga is known to occur in only one location within Onondaga County: within the northeastern portion of the County. Massasaugas use wetland habitats such as fens, marshes, and wet prairies during hibernation and use associated uplands for foraging during the active season (Gibbs et al. 2007). Due to habitat limitations, Eastern massasaugas are not likely to occur on or in the vicinity of the Park. Furthermore, the NYNHP did not list the Eastern massasauga as occurring or likely to occur within the Park.

The Indiana bat (Myotis sodalis) is both state-listed and federally listed as endangered. The species hibernates in caves and mines during the winter months and uses wooded areas in association with rivers and wetland complexes, such as floodplain forests, during the spring and summer months. Species with exfoliating or furrowed bark, such as shagbark hickory and silver maple, as well as dead trees or snags, are typically used for roosting. According to the TES report, one hibernaculum is known to exist in Onondaga County. This hibernaculum is approximately 14 miles from the Park (USFWS 2007). No caves occur within the Project site; therefore, it is not expected that the Indiana bat would overwinter on the site. There is potential for Indiana bat to forage and roost on the Project site in the wooded areas that contain shagbark hickory, a common roosting tree for the bat species. TES did not observe any bat species, including the Indiana bat or evidence of any species during their site investigations.

Two additional state-listed species of special concern were observed in 2010 by TES: osprey and sharp-shinned hawk. Both species were seen flying overhead near the utility corridor ROW. TES noted that habitat for the osprey does not exist onsite and although there is potential habitat for the hawk species, none were observed nesting or foraging.

No other rare, threatened, endangered or special concern species or natural communities were identified by USFWS, NYSDEC, NYNHP or TES within or in the vicinity of the Park. (See Appendix A.)

Further confirmation of the absence of these species and habitat at the park would be determined through site reconnaissance once a specific development for the Park is proposed.

3.9 Cultural & Archeological Resources

The proposed Park expansion contains approximately 1,250± acres of land, much of which was historically used for agriculture. Most of the land is presently cleared, while some is overgrown, and a portion has been used for the Clay-Teall Transmission Line. Burnet Road bisects the property and is lined on both sides with an assortment of historic-aged buildings, including residential dwellings and agricultural buildings.

A Phase I Archaeological Survey Report was conducted for the 340± acre Park footprint in 2014 which resulted in a “No Effect” finding on historic properties listed or eligible for listing in the National Register of Historic Places. In response to OCIDA’s lead agency notification letter for the SGEIS, NYSDEC provided that the statewide inventory of archaeological resources records, maintained by the New York State Museum and the New York Office of Parks, Recreation and Historic Preservation, and the expanded Park is not located within a previously designated archeological sensitive area.

No previously identified historic resources which are listed in or eligible for listing in the National Register of Historic Places are located within the expanded project area. Five previous cultural resource studies have been conducted within the immediate vicinity of the expanded Park:

- *2012 Phase IA Cultural Resources Survey Report: Clay Business Park*
  In 2012, EDR Environmental Services, LLC prepared a Phase IA Cultural Resources Survey Report which addressed the results of a cultural resource survey of the approximately 340± acre project area for the Park and the proposed 4-mile sewer line. The Phase IA Cultural Resources Survey Report recommended that no above-ground historic resources would be impacted by the proposed project, and that a limited Phase IB archaeological survey should be completed within the project area and proposed sewer line.

- *2013 Phase I Archaeological Survey Report: White Pine Commerce Park (formerly Clay Business Park)*
  In 2013, EDR Environmental Services, LLC prepared a Phase I archaeological survey report which was submitted to the New York State Historic Preservation Office (NY SHPO). The report addressed the results of an archaeological survey of the approximately 340± acre project area for the Park, as well as testing of the proposed, approximately 4-mile sewer line connecting the project site to the existing wastewater treatment facilities at the Oak Orchard WWTP. The archaeological testing discovered two previously unrecorded archaeological sites: Caughdenoy Road MDS 1 Historic Site A06703.000190 and Caughdenoy Road MDS 2 Historic Site A06703.000189. Both sites were determined ineligible for listing in the NRHP. The report indicated that no above-ground historic resources were extant within the original 340± acre project site.

- *2014 Phase IB Archeological Field Reconnaissance Clay-Teall Transmission Line, Towns of Cicero and Clay, Onondaga County, New York*
  In 2014, Hartgen Archaeological Associates, Inc. conducted a Phase IB archaeological survey prior to the installation of the Clay-Teall Transmission Line. No archaeological sites were identified as a result of the survey.

- *2019 Consultation Project 19PR04378: Burnet Road Solar Farm*
  In 2019 the NY SHPO provided a no impact determination for a solar project consisting of two ground mounted facilities totaling 8.9MW on the west side of Burnet Road within the current project area. A Phase IA/IB archaeological survey for the 19PR04378 solar facility was determined to be unwarranted and the no impact determination was provided based on the limited nature of the proposed ground disturbance associated with the proposed solar farm.

- *2019 Phase I Archaeological Survey, Davis Road Pump Station Rehabilitation Project, Town of Clay, Onondaga County, New York*
  In 2019, EDR Environmental Services, LLC completed a Phase I Archaeological Survey of for the installation of 1.1 miles of wastewater force main connecting to the Oak Orchard WWTP, installed within a trench with maximum dimensions of 5 feet deep by 8 feet wide under Verplank

Road and NYS Route 31. The Phase I Survey Report recommended that no significant historic resources would be impacted by the project.

- *2020 Environmental Assessment Form*
  In 2020, a Full Environmental Assessment Form was completed for the expanded project area on behalf of the Onondaga County Industrial Development Agency (OCIDA). The Environmental Assessment Form noted that no NRHP listed/eligible sites were located within the project area, and that no designated sensitive archaeological areas are adjacent, but also noted that the "proposed action may occur in or adjacent to a historic or archaeological resource."

3.9.1 Historic Resources

Per the New York State Cultural Resource Information System[20] (NYS CRIS), 13 previously identified above-ground historic resources are located within the expanded Park. Two of these resources are located on the north side of NYS Route 31 and the remaining 11 resources are located along Burnet Road. Seventeen additional previously evaluated resources are located within the immediate vicinity of the expanded Park. Of the 30 previously identified resources one resource has been determined eligible for listing in the NRHP by the NY SHPO and 20 have been determined ineligible. The eligibility status of the remaining 9 resources is undetermined. The single eligible resource is located on the south side of NYS Route 31 (Figure 3.9-1).

Three previously identified historic period archaeological sites are located within the expanded Park. Two of these sites were identified during the 2013 Phase I archaeological survey conducted on the west side of the Project site and have been determined not eligible for listing in the NRHP. The third site is located along the proposed sewer line and has been determined not eligible for listing in the NRHP.

Residential and agricultural properties constructed prior to 1972 meet the age requirement for consideration for listing in the NRHP. Based on a review of historic aerial photographs, approximately 26 structures which have not been previously evaluated for NRHP eligibility are in the vicinity of the expanded Park and associated utility and roadway corridors. One property on Caughdenoy Road, two on NYS Route 31, and approximately eight properties on Burnet Road contain buildings which appear to have been constructed prior to 1895. Based on historic aerial photographs, most of the remaining historic-age properties appear to have been constructed between 1956 and 1972. The proposed underground utility corridors are primarily located within existing rights-of-way and their construction is not likely to impact above-ground historic resources in the vicinity of the proposed routes.

3.9.2 Archaeological Resources

According to NYS CRIS, the expanded Park is not located within an archaeologically sensitive zone. Small portions of the utility corridors map overlap with archaeologically sensitive zones near previously identified historic-period archaeological sites, but the utility corridors are primarily within previously disturbed areas and rights-of-way.

[20] New York State Cultural Resources Information System (https://cris.parks.ny.gov/Default.aspx).

3.10 Visual Environment & Aesthetic Resources

3.10.1 Viewshed Existing Conditions

The Park is presently undeveloped and generally consists of a mix of large upland areas of open field (former agricultural land), shrub and woodland areas interspersed with wetland areas as described in Section 3.8. Topography in the area is generally flat to gently sloping. In general, the predominance of vegetation surrounding the Project site and the relative lack of development contributes to the area's rural character. This character is influenced by former farmsteads, scattered housing, accessory structures (garages, sheds) and some small business and industrial uses primarily along Caughdenoy Road and NYS Route 31. Typical views are shown below.

This view is looking at the central portion of the Park from Caughdenoy Road during leaf-off season.

Looking north towards the southernmost portion of the Park from NYS Route 31 during leaf-on season.

National Grid's Clay electrical substation west of the Project site and the transmission towers and high voltage power lines that spread outward from the substation into and across the northern one-third of the site are dominant elements in the local visual environment. The existing CSX rail line also contributes to the somewhat industrial nature of the area. A cell tower located north of NYS Route 31 near the Project site's southeastern corner as seen above also influences local views near the site.

Looking at the northern portion of the Park at the CSX rail line and transmission lines during leaf-off season.

Looking north along Caughdenoy Road during leaf-on season. The Park is to the right.

The relative lack of significant development in the immediate vicinity of the Park, especially views from NYS Route 31 and points east, west, and south of the NYS Route 31 corridor creates the sense of a rural area both during daytime and nighttime periods. Nighttime lighting is generated by existing residential and small businesses as well as by vehicular traffic on local roads. More suburban areas are located one-half mile or more to the east, west, and south where residential and commercial development has been occurring in recent years.

Distant views of the Park are very limited due to existing stands of woodland and shrub vegetation. The area lacks elevated viewpoints from which the Project site can be seen. Most views are therefore highly localized and in general well within one to two miles or less from areas surrounding the Project site. Views of the Park are most significant from Caughdenoy Road and to the east across open fields and farmlands and former farmlands along Burnet Road.

In late 2000, Integrated Site, Landscape Architect, P.C., a consulting firm, conducted a viewshed analysis of the Park to determine the potential visual impact of a semiconductor manufacturing plant considered for the Park at that time. Elements of that study and its conclusions remain valid and are discussed in Appendix D.

3.10.2 Lighting Existing Conditions

The Project site is predominantly undeveloped, therefore, there is very little light being generated from the site. Light generating sources onsite include two residences along Caughdenoy Road, three residences along NYS Route 31, 17 residences along the west side of Burnet Road, and the cell tower located onsite along NYS Route 31. The residences generate light from typical exterior residential lighting (porch lights and house or ground mounted flood lights). Those light sources generally have a limited range of visibility from offsite. Should the residences remain after the development, there are no requirements for mitigation of the residential lighting.

The cell tower along NYS Route 31 has two red warning lights mounted approximately at the mid-point of the tower. These are visible within a quarter mile approaching the tower in both directions. This lighting type, color, and intensity is typically dictated by FAA standards for obstruction marking and lighting. The cell tower will require relocation to an area outside the Park boundary, however, given the relatively close proximity to the Syracuse Hancock International Airport, the new cell tower will may require similar lighting.

3.11 Noise

3.11.1 Background

Noise is a common consideration in environmental reviews of projects under SEQRA (6 NYCRR 617.2(1)). A substantial change in noise levels can have a significant adverse impact on the environment. The NYSDEC has published a guidance document, *Assessing and Mitigating Noise Impacts*[21] for

[21] Assessing and Mitigating Noise Impacts, New York State Department of Environmental Conservation Program Policy DEP-00-1, October 6, 2000; Revised February 2, 2001

assessing noise impacts. Information contained in NYSDEC guidance is the basis for the generic discussion of noise in this DGEIS. NYSDEC guidance defines noise as:

> *"…any loud, discordant or disagreeable sound or sounds. More commonly, in an environmental context, noise is defined simply as unwanted sound. Certain activities inherently produce sound levels or sound characteristics that have the potential to create noise. The sound generated by proposed or existing facilities may become noise due to land use surrounding the facility. When lands adjoining an existing or proposed facility contain residential, commercial, institutional, or recreational uses that are proximal to the facility, noise is likely to be a matter of concern to residents or users of adjacent lands."*

Noise is considered unwanted sound. The sound we hear is comprised of mechanical longitudinal waves with frequencies in the audible spectrum. Sound characteristics and impacts vary with frequency. Human hearing is more sensitive to sounds in higher frequencies than to sounds in the lower frequencies. An electronic scale called the "A-scale weighting network" can be applied to closely resemble human hearing. A-weighted sound levels are particularly useful noise impact assessments in relation to human hearing and are specified by NYSDEC guidance as a primary assessment metric.

Sound intensity is a measure of the magnitude of the sound pressure level (SPL), on a logarithmic scale expressed in units called decibels (dB). When noise is measured in decibels with A-scale weighting, the magnitude of the sound is expressed as "dB(A)" or "dBA."

Sound level intensity typically varies over time and can be measured or represented as an instantaneous level, or over various periods of time as threshold levels or average levels. The equivalent sound level, or L_{eq}, was developed to quantify the time-varying pattern of noise. The L_{eq} descriptor, as it is known, quantifies the average energy content of sounds over a selected period, most commonly one hour for most noise studies. The L_{eq} is typically used to conduct impacts analysis under "worst-case" conditions.

3.11.2 Town of Clay Regulations

The Town of Clay has a noise ordinance to regulate noise levels in the community. Section 152-4 of the Town Code limits non-emergency construction activity to the hours between 7 a.m. to 7 p.m. weekdays and from 8 a.m. to 5 p.m. on Saturdays.

Section 152-4 also limits noise levels at property boundaries for steady state or "operational" noise to 52 dB(A) between 7 a.m. and 9 p.m., and to 45 dB(A) between 9 p.m. and 7 a.m. These limits apply to sources that emit sounds of consistent intensity.

Transient and impulsive or fluctuating sound sources are limited to 72 dB(A) between 7 a.m. and 9 p.m. and to 65 dB(A) between 9 p.m. and 7 a.m., as observed at the property line.

Section 230-17 Industrial Districts of the Town Zoning Code contains performance standards for all industrial districts. It states:

(1) "Noise. No land use activity shall emit noise measured at the property lines of the subject property exceeding 70 decibels between 6:00 a.m. and 10:00 p.m., or 60 decibels between 10:00 p.m. and 6:00 a.m. These maximum sound levels may be intermittently exceeded by not more than seven decibels for a maximum of six minutes during any sixty-minute period. Any land use activity on property that is entirely or partially within 500 feet of a Residential Zone District shall be subject to the more restrictive noise standards of either this section or of the Town of Clay Code, Chapter 152." (as stated above).

The Project's relationship to the ordinance is discussed in Chapter 4, Section 4.11.1.1

3.11.3 Town of Cicero Regulations

The proposed Project includes potential transportation improvements within the Town of Cicero. The Town of Cicero has a noise ordinance to regulate noise levels in the community. Section 143-5 of the Town Code limits non-emergency construction activity to the hours between 7 a.m. to 8 p.m. weekdays and from 8 a.m. to 8 p.m. on Saturdays, and it is presumed that any transportation improvements undertaken in Cicero will take place within these specified hours.

The Project's relationship to the ordinance is discussed in Chapter 4, Section 4.11.1.1

3.11.4 Existing Conditions

The proposed expansion of the Park to the east and the inclusion of roadway improvements have expanded the areas requiring noise impact analysis during construction and operation activities. Additionally, previously assumed background (ambient) sound levels have been adjusted to reflect measured sound levels.

Existing noise in the proposed expanded Park area is generated mostly by vehicular traffic on NYS Route 31 and adjacent roads. Occasional freight trains traveling along the existing CSX rail line near the site, including train signal horns at the existing Caughdenoy Road grade crossing, contribute to the sound environment. Other noise sources in the area include occasional activities such as use of farm tractors and lawn mowing equipment, and wildlife sources typical of a local residential environment.

Receptors potentially sensitive to noise in the Project site are generally single- and multi-family residential homes along Caughdenoy Road, NYS Route 31, Verplank Road, and surrounding roadways. Highly sensitive receptors such as schools, libraries, hospitals, and parklands do not exist near the Park, although two local parks are located to the west and southeast along NYS Route 31.

JMT collected confirmatory day-time ambient sound level data at five representative locations around the Project site on Thursday, April 8, 2021 and April 27, 2021. Data was collected with a Class 1 noise meter over two, non-consecutive 30-minute periods at each location to ensure representative samples. Ambient sound level monitoring locations are indicated on Figure 3.11-1, and sound level measurements are summarized in Table 3.11-1. Observed daytime ambient sound levels at representative locations ranged from 48.0 dB(A) to 73.5 dB(A). Observed average daytime ambient sound levels in the vicinity of the Park currently exceed daytime sound level limits specified in the Town of Clay noise code (Section 152-4). Sound level monitoring data sheets and field notes are provided in Appendix E.

Per NYSDEC guidance, nighttime noise levels in general are typically assumed to be about 10 decibels lower than daytime levels, depending on local land uses and sources of sound. Decibel levels in the mid-40s to mid-60s range are likely typical of quiet nighttime conditions within the proposed expanded Park. Assumed nighttime ambient sound levels are listed in Table 3.11-1.

Table 3.11-1: Ambient Noise Data

Location	Date	Start Time	File #	Laeq (dB(A))	Date	Start Time	File #	Laeq (dB(A))	Average Daytime Ambient (dB(A))	Assumed Nighttime Ambient (dB(A))
A1	4/8/21	9:33	JMT.079	72.2	4/8/21	9:33	JMT.085	73.5	72.9	62.9
A2	4/8/21	10:30	JMT.081	60.8	4/8/21	10:30	JMT.087	65.3	63.6	53.6
A3	4/8/21	11:23	JMT.083	53.9	4/8/21	14:16	JMT.089	55.3	54.7	44.7
A4	4/27/21	10:29	JMT.091	69.7	4/27/21	12:59	JMT.094	70.0	69.9	59.9
A5	4/27/21	11:34	JMT.093	52.8	4/27/21	13:29	JMT.095	48.0	51.0	41.0

3.12 Human Health

Since the 2013 FGEIS, the SEQRA environmental assessment process has incorporated more specific questions about human health. Human health is not a quantifiable environmental resource with identifiable characteristics specific to the Project site. However, the SEQRA process takes human health into consideration through potential direct or indirect human health effects of a project considering certain nearby sensitive receptors, the potential to disturb contaminated soils, and potential waste generation of the project. Aspects of human health related to the generation, storage, and disposal of solid and hazardous waste are discussed in Chapter 10.

Human health considerations address potentially sensitive receptors in proximity to a project. The proposed expansion of the Park is within 1,500 feet of the recently built Cottages at Garden Grove Nursing home. This facility is approximately 200 feet east of the eastern site boundary and has a physical address of 5460 Meltzer Court, Cicero, NY. Grace Evangelical Covenant Church is also located south of the Project site at 5300 NYS Route 31 in the Town of Clay. The church, which has after-school programs for children, is located west of Burnet Road and about 2,500 feet west of a possible NYS Route 31 entrance to the expanded Park. Potential impacts and mitigation of impacts as they relate to human health are addressed in Section 4.12.

Past environmental spills of petroleum or chemicals at or adjacent to the Project site also have the potential to impact human health since contaminated soils could be disturbed during site construction. According to environmental records (ERIS Database Report)[22], a small petroleum spill occurred on the

[22] Environmental Risk Information Services (ERIS). White Pine Property, Clay, NY (November 2020)

expanded Park site at the north end of Burnet Road in September 2020. This spill involved about 2 quarts of hydraulic oil. According to New York State Department of Environmental Conservation (NYSDEC) records, the spill was satisfactorily closed on September 20, 2020.

Over the last twenty years, five other small spills have occurred at the perimeter of the proposed expanded Park along NYS Route 31 or Caughdenoy Road. All the spills have been closed to the satisfaction of NYSDEC, and no further investigation or remediation is required. Three of the spills were associated with motor vehicle incidents between 1999 and 2009. They involved spilled quantities of gasoline (10-15 gallons) or hydraulic fluid (4 gallons). Another incident in 2012 at the Clay Substation along Caughdenoy Road, was related to an equipment malfunction. It is reported that one gallon of petroleum leaked and was fully recovered. This past spill could be in the vicinity of the new electric line to be installed beneath Caughdenoy Road. However, it is not anticipated to impact that work since the small amount of leaked petroleum was fully cleaned up. The fifth spill was associated with the detection of petroleum contaminated soil that was discovered while digging a foundation in 2001 near the intersection of NYS Route 31 and Caughdenoy Road. The contaminated soil was removed. It is possible that a section of a new sewer line could be installed in this area.

Table 3.5-1 Soil Characterization

Symbol	Name	Soil Capability Class[1]	Mineral Soil Group[2,4]	Hydric Soil	Farmland Classification[3]	Drainage Class[3]	Depth to Water Table[3]	Rating for Shallow Excavation[3]	Rating for Lawns & Landscaping[3]	Rating for Local Roads[3]	Rating for Commercial Buildings[3]	% of the Expanded Site
AoA	Appleton loam, 0 to 3% slopes	3	5	No	Prime farmland if drained	Somewhat poorly drained	6-18"	Very Limited (depth to saturated, cutbanks cave, dense layer)	Very Limited (depth to saturated zone, low exchange capacity, dusty)	Very Limited (frost action, depth to saturated zone)	Very Limited (depth to saturated zone)	0.9
Cd	Canandaigua mucky silt loam	3	7	Yes	Farmland of statewide importance	Poorly drained	0"	Very Limited (ponding, depth to saturated zone)	Very Limited (ponding, depth to saturated zone)	Very limited (ponding, depth to saturated zone, frost action)	Very Limited (ponding, depth to saturated zone)	7.4
ChA	Collamer silt loam, 0 to 2% slopes	2	2	No	All areas are prime farmland	Moderately well drained	18-24"	Very Limited (depth to saturated zone, dusty, unstable excavation walls)	Somewhat Limited (depth to saturated zone)	Very Limited (frost action, depth to saturated zone, low strength)	Somewhat limited (depth to saturated zone)	3.4
ChB	Collamer silt loam, 2 to 6% slopes	2	3	No	All areas are prime farmland	Moderately well drained	18-24"	Very Limited (depth to saturated zone, dusty, unstable excavation walls)	Somewhat Limited (depth to saturated zone)	Very limited (frost action, depth to saturated zone, low strength)	Somewhat limited (depth to saturated zone)	25.2
DuC	Dunkirk silt loam, rolling	3	4	No	Farmland of statewide importance	Well drained	More than 80"	Very Limited (depth to saturated zone, dusty, unstable excavation walls)	Somewhat Limited (low exchange capacity, slope, dusty)	Very Limited (frost action, slope)	Very Limited (slope)	0.6
FL	Fluvaquents, frequently flooded	5	9	Yes	Not prime farmland	Poorly drained	0"	Very Limited (ponding, depth to saturated zone, flooding, unstable excavation walls, dusty)	Very Limited (ponding, flooding, depth to saturated zone, dusty)	Very Limited (ponding, depth to saturated zone, frost action, flooding)	Very Limited (ponding, flooding, depth to saturated zone)	1.1
Fo	Fonda mucky silty clay loam	4	7	Yes	Not prime farmland	Very poorly drained	0"	Very Limited (ponding, depth to saturated zone, dusty, unstable excavation walls)	Very Limited (ponding, organic matter content, depth to saturated zone, dusty)	Very Limited (ponding, depth to saturated zone, subsidence, frost action, low strength)	Very Limited (ponding, subsidence, depth to saturated zone)	0.9
HlA, HlB	Hilton loam, 0 to 8% slopes	2	2	No	All areas are prime farmland	Moderately well drained	18-24"	Very Limited (depth to saturated zone, unstable excavation walls, dusty)	Somewhat Limited (low exchange capacity, depth to saturated zone, dusty)	Somewhat Limited (frost action, depth to saturated zone)	Somewhat limited (depth to saturated zone, slope)	5.8
MdC	Madrid fine sandy loam, 8 to 15% slopes	3	5	No	Farmland of statewide importance	Well drained	More than 80"	Somewhat Limited (slope, unstable excavation walls)	Somewhat Limited (low exchange capacity, slope)	Somewhat Limited (slope, frost action)	Very Limited (slope)	0.9
MtA	Minoa	3	5	No	Prime farmland if drained	Somewhat poorly drained	6-18"	Very Limited (depth to saturated zone, unstable excavation walls)	Somewhat Limited (depth to saturated zone, low exchange capacity)	Very limited (frost action, depth to saturated zone)	Very Limited (depth to saturated zone)	0.2
NgA	Niagara silt loam, 0 to 4% slopes	3	4	No	Prime farmland if drained	Somewhat poorly drained	6-18"	Very Limited (depth to saturated zone,dusty, unstable excavation walls)	Somewhat Limited (depth to saturated zone, low exchange capacity, dusty)	Very Limited (frost action, depth to saturated zone)	Very Limited (depth to saturated zone)	38.1
OgB	Ontario loam, 2 to 8% slopes	2	2	No	All areas are prime farmland	Well drained	More than 80"	Somewhat Limited (unstable excavation walls, dusty)	Somewhat Limited (low exchange capacity, dusty)	Somewhat Limited (frost action)	Somewhat Limited (slope)	3.1
OgC	Ontario gravelly loam, 8 to 15% percent slopes	3	5	No	Farmland of statewide importance	Well drained	More than 80"	Somewhat Limited (slope, unstable excavation walls, dusty)	Somewhat Limited (slope, low exchange capacity, dusty)	Somewhat Limited (slope, frost action)	Very Limited (slope)	0.5
Pb	Palms	5	10	Yes	Not prime farmland	Very poorly drained	0"	Very Limited (ponding, depth to saturated zone, dusty, unstable excavation walls)	Very Limited (ponding, organic matter content, depth to saturated zone, dusty)	Very Limited (ponding, depth to saturated zone, subsidence, frost action, low strength)	Very Limited (ponding, subsidence, depth to saturated zone)	6.4
Rh	Rhinebeck silt loam	3	5	No	Prime farmland if drained	Somewhat poorly drained	6-18"	Very Limited (depth to saturated zone, too clayey, dusty, unstable excavation walls)	Somewhat Limited (depth to saturated zone, dusty)	Very Limited (frost action, low strength, depth to saturated zone, shrink-swell)	Very Limited (depth to saturated zone, shrink-swell)	2.9
WwB	Williamson silt loam, rolling or 2 to 6% slopes	2	4	No	All areas are prime farmland	Moderately well drained	13-22"	Very Limited (depth to saturated zone, dusty, unstable excavation walls)	Very Limited (low exchange capacity, depth to saturated zone, dusty)	Very Limited (frost action, depth to saturated zone, slope)	Very Limited (depth to cemented pan, depth to saturated zone, slope)	1.9
WwC	Williamson silt loam, rolling	3	5	No	Farmland of statewide importance	Moderately well drained	13-22"	Very Limited (depth to saturated zone,slope, dusty, unstable excavation walls)	Very Limited (low exchange capacity, depth to saturated zone, slope, dusty)	Very Limited (frost action, depth to saturated zone, slope)	Very Limited (depth to cemented pan, depth to saturated zone, slope)	0.3

Notes

1. Natural Resources Conservation Service (NRCS) classifies soils into capability classes based upon their potential for agricultural productivity (USDA Soil Survey of Onondaga County, NY)
2. 2021 New York State Master List of Agricultural Soils, Onondaga County, https://agriculture.ny.gov/system/files/documents/2021/01/masterlistofagriculturalsoils.pdf
3. Source: Onondaga County Soil Survey
4. New York State Mineral Soil Groups (1 CRR-NY 370.8)

Soil Productivity Index	Soil Group
90 – 100	1
80 – 89	2
70 – 79	3
60 – 69	4
50 – 59	5
40 – 49	6
30 – 39	7
29 or less - Marginal cultivated uses	8
Soils not suitable for pasture or other cultivated uses and not identified above or below	9
Marsh, wetlands and organics not farmed	10

Figure 3.8-2:
Uitility Corridor Wetlands

Legend

- White Pine Site Boundary
- Proposed Gas Line
- Proposed Sewer Line
- Wetlands 2013 FGEIS
- NYSDEC Wetlands
- NYSDEC Wetlands Checkzones

National Wetland Inventory

- Freshwater Forested/Shrub Wetland
- Freshwater Emergent Wetland
- Freshwater Pond
- Riverine

Wetlands 2013 FGEIS: Wetlands delineation was conducted by Terrestrial Environmental Specialists (TES), Inc. in June of 2013.

0 0.2 0.4 Miles

Scale: 1" = 0.20 mile

Date Printed: 4/27/2021

Data Sources:
New York State, Maxar, Esri Community Maps Contributors, Esri Canada, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands_team@fws.gov | New York State, Maxar | Esri, HERE, Garmin
NYS Department of Environmental Conservation, Environmental Resource Mapper, State Regulated Wetlands

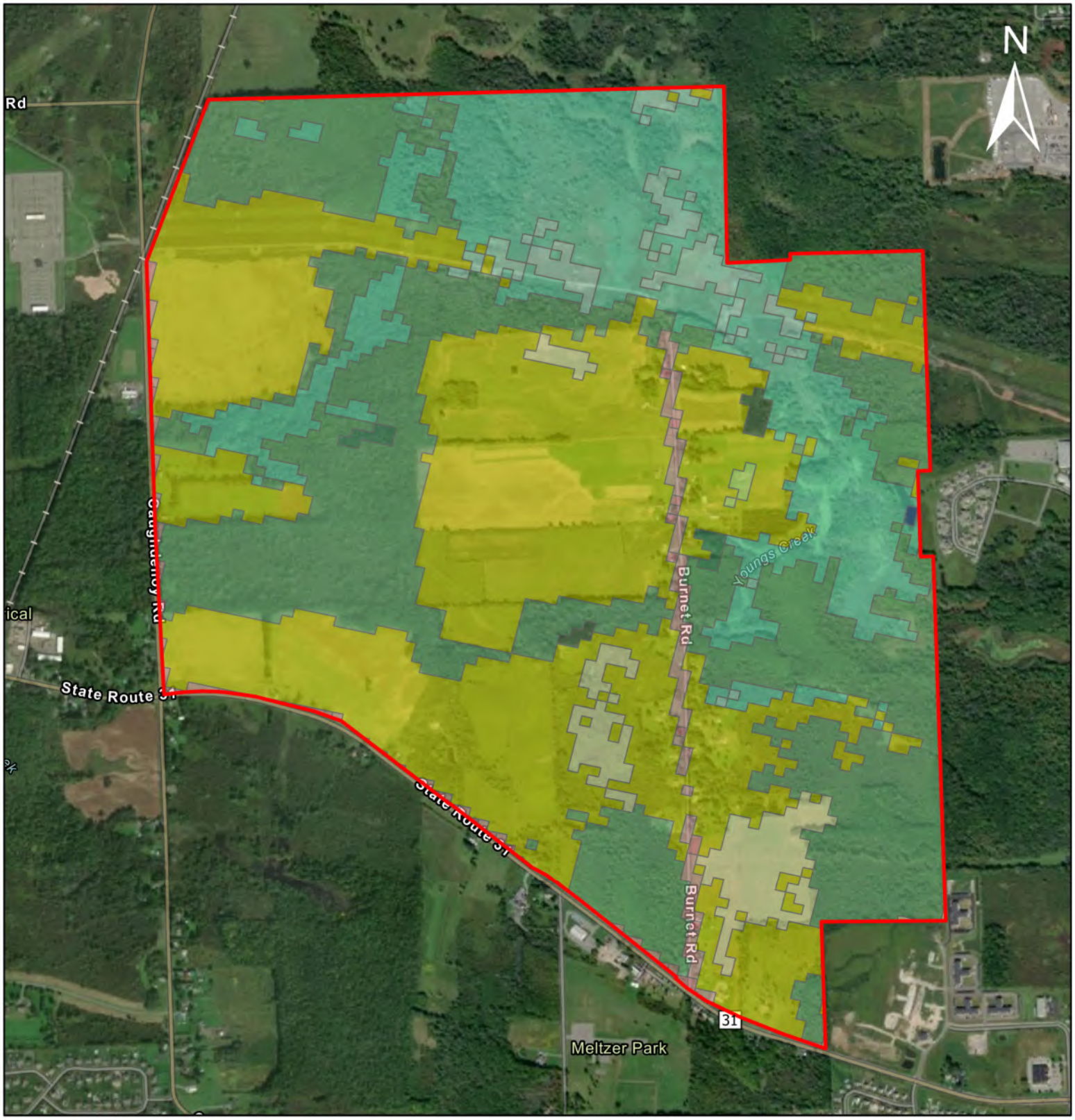


Figure 3.8-3
Land Cover Types

0 0.13 0.25 Miles

Scale: 1 inch = .25 miles

Date Printed: 4/26/2021

Data Sources: New York State, Maxar, Esri Community Maps Contributors, Esri Canada, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA
https://utility.arcgis.com/usrsvcs/servers/296c2474ac94415dab80067c3f5ffe94/services/USA_NLCD_Land_Cover/ImageServer

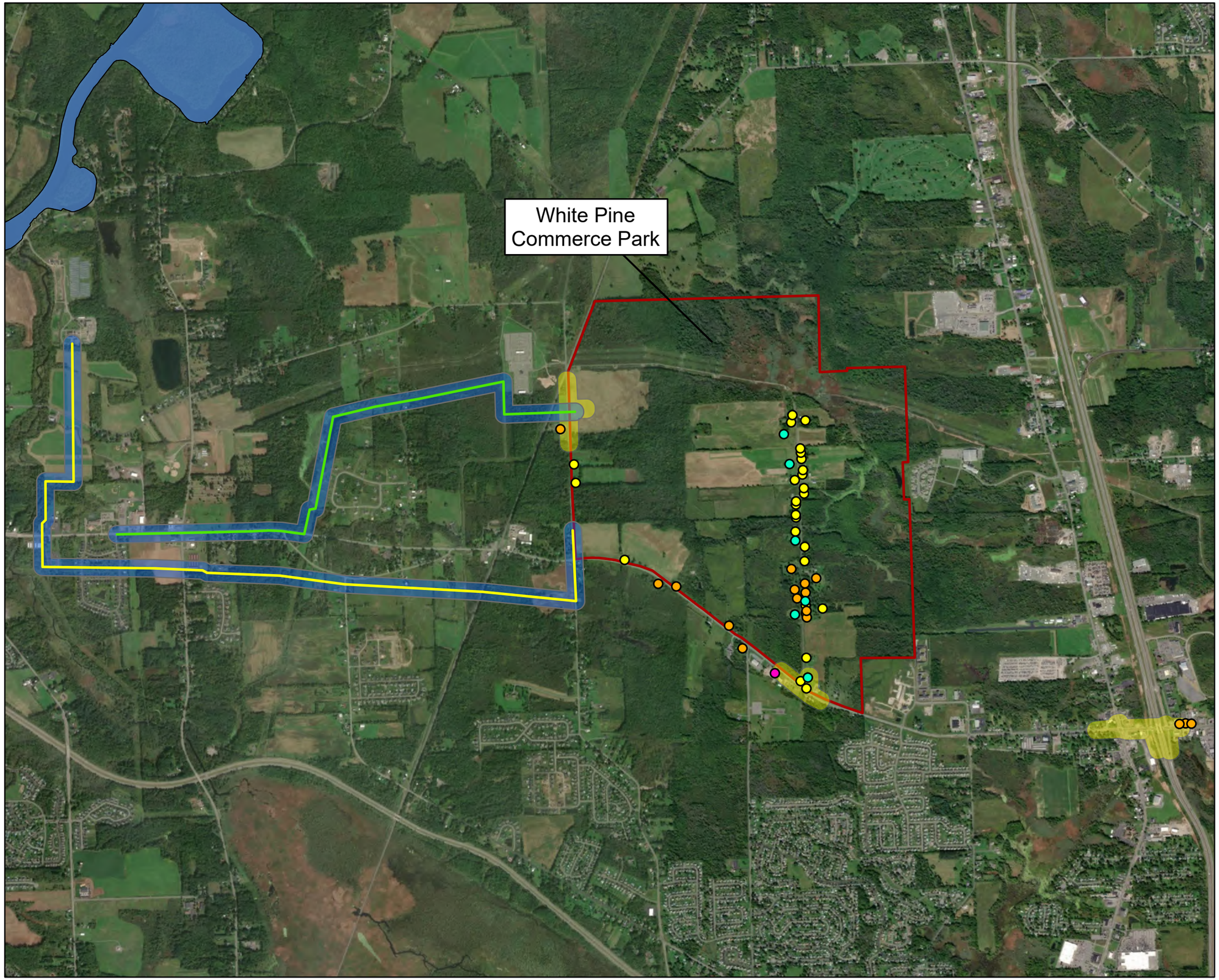
Legend

- White Pine Site Boundary
- Open Water
- Developed Open Space
- Developed Low Intensity
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Shrub/Scrub
- Pasture/Hay
- Cultivated Crops
- Woody Wetlands
- Emergent Herbaceous Wetlands

Figure 3.9-1

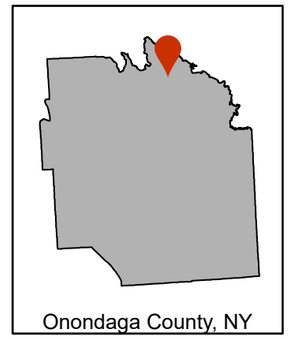
Architectural Resources

White Pine Commerce Park
Onondaga County Industrial Development Agency



Legend

- Non-Historic
- Not Eligible (per SHPO)
- Unevaluated (per SHPO)
- Previously Unsurveyed
- Proposed Gas Line
- Proposed Sewer Line
- Roadway Improvement APE
- Utility 200' APE
- White Pine Commerce Park Site



0 0.17 0.35 0.7 Miles

Date Printed:

Data Sources:
New York State, Maxar

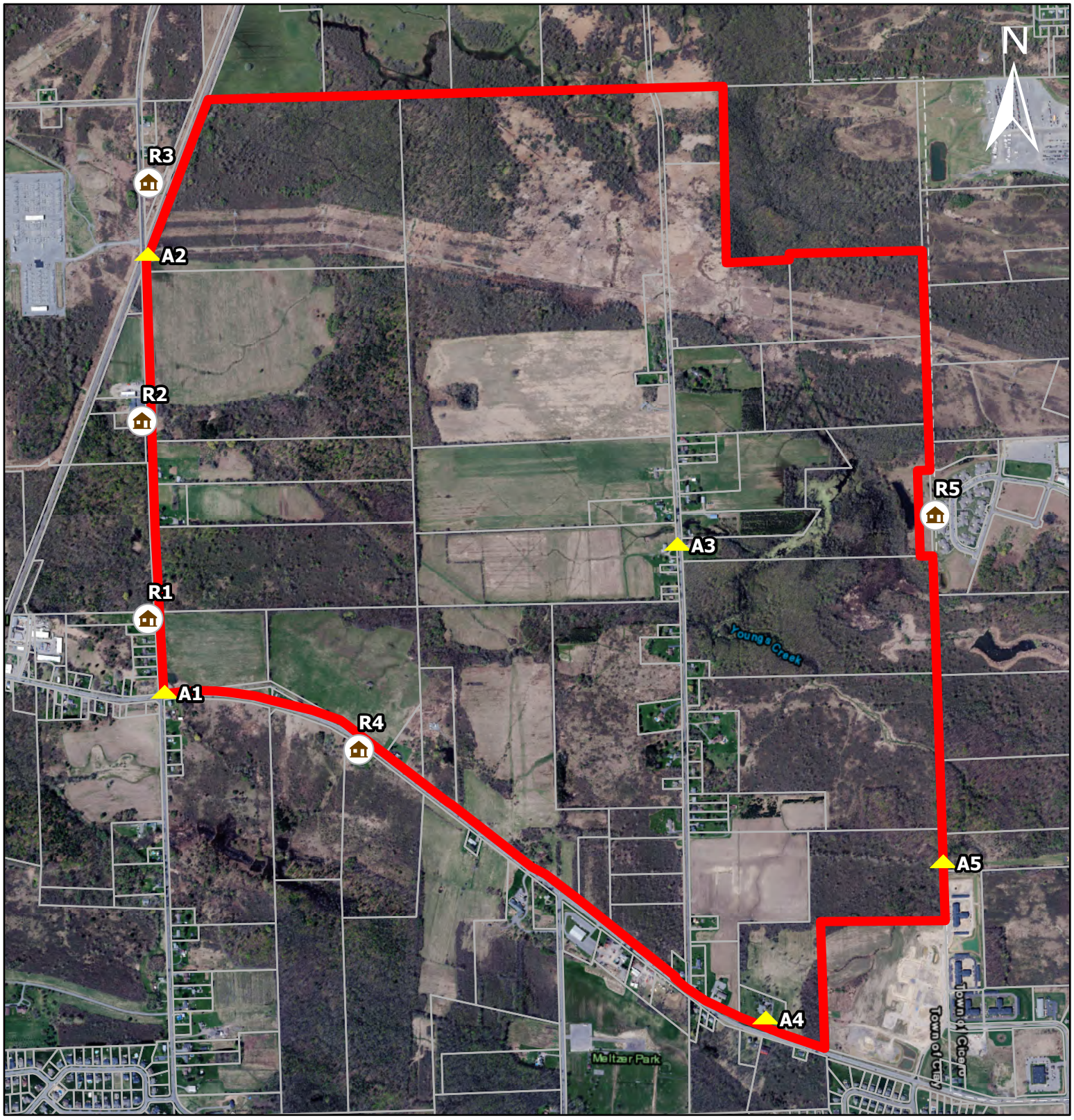


Figure 3.11-1:
SOUND LEVEL MONITORING AND RECEPTOR LOCATIONS

0 0.13 0.25 Miles

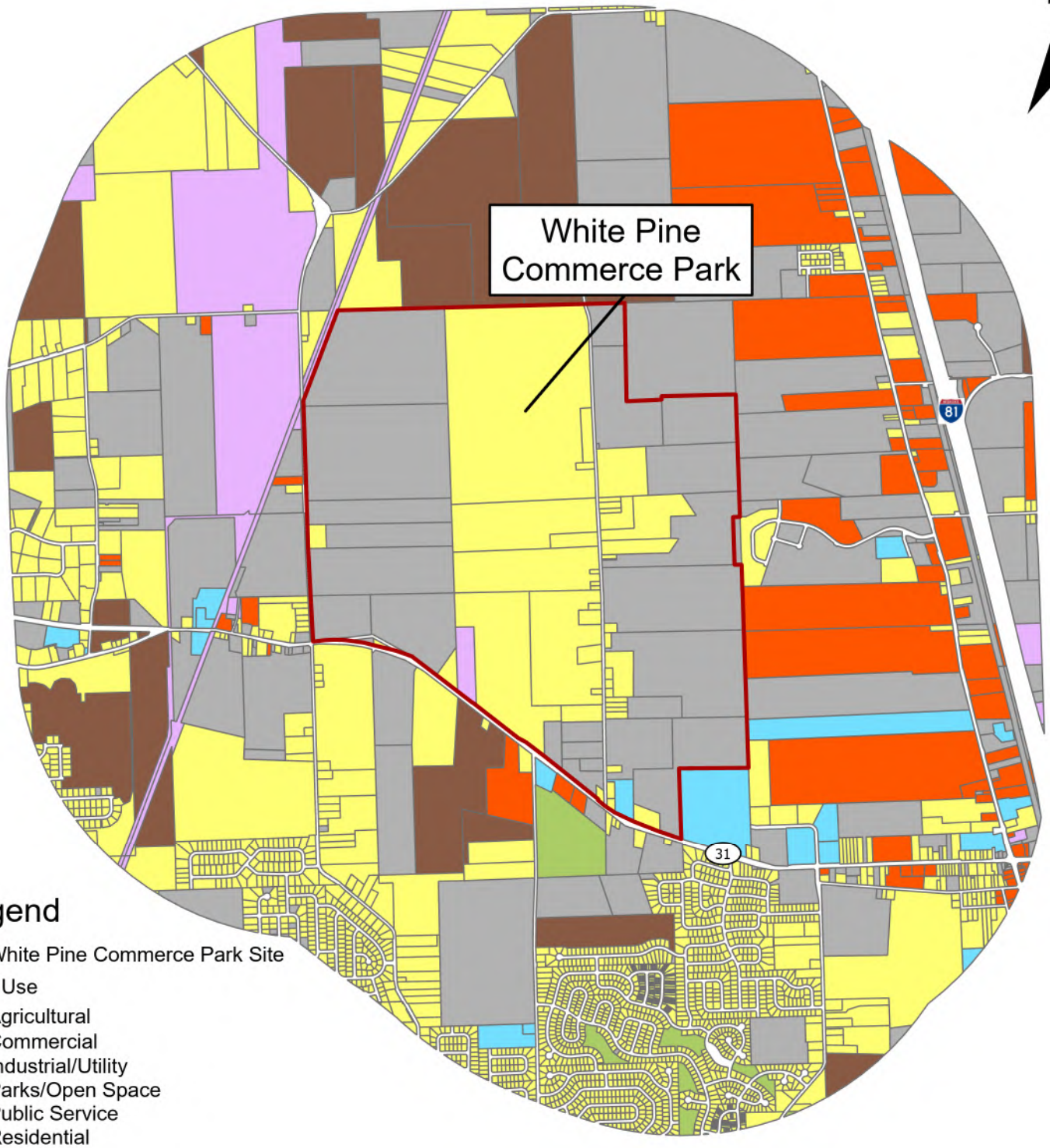
Scale: 1 inch = 0.25 miles

Date Printed: 4/27/2021 3:42

Legend

- White Pine Commerce Park
- Parcel Boundaries
- Ambient Monitoring Locations
- Noise Receptors

Data Sources:
Esri, HERE, Garmin, iPC;
Parcel data obtained from Syracuse-Onondaga County Planning Agency on 2/25/21
Note: All boundaries and locations are approximate where shown.



Legend

White Pine Commerce Park Site

Land Use

- Agricultural
- Commercial
- Industrial/Utility
- Parks/Open Space
- Public Service
- Residential
- Vacant

Onondaga County, NY

Figure 3.1-1

Existing Land Use

White Pine Commerce Park
Onondaga County Industrial Development Agency

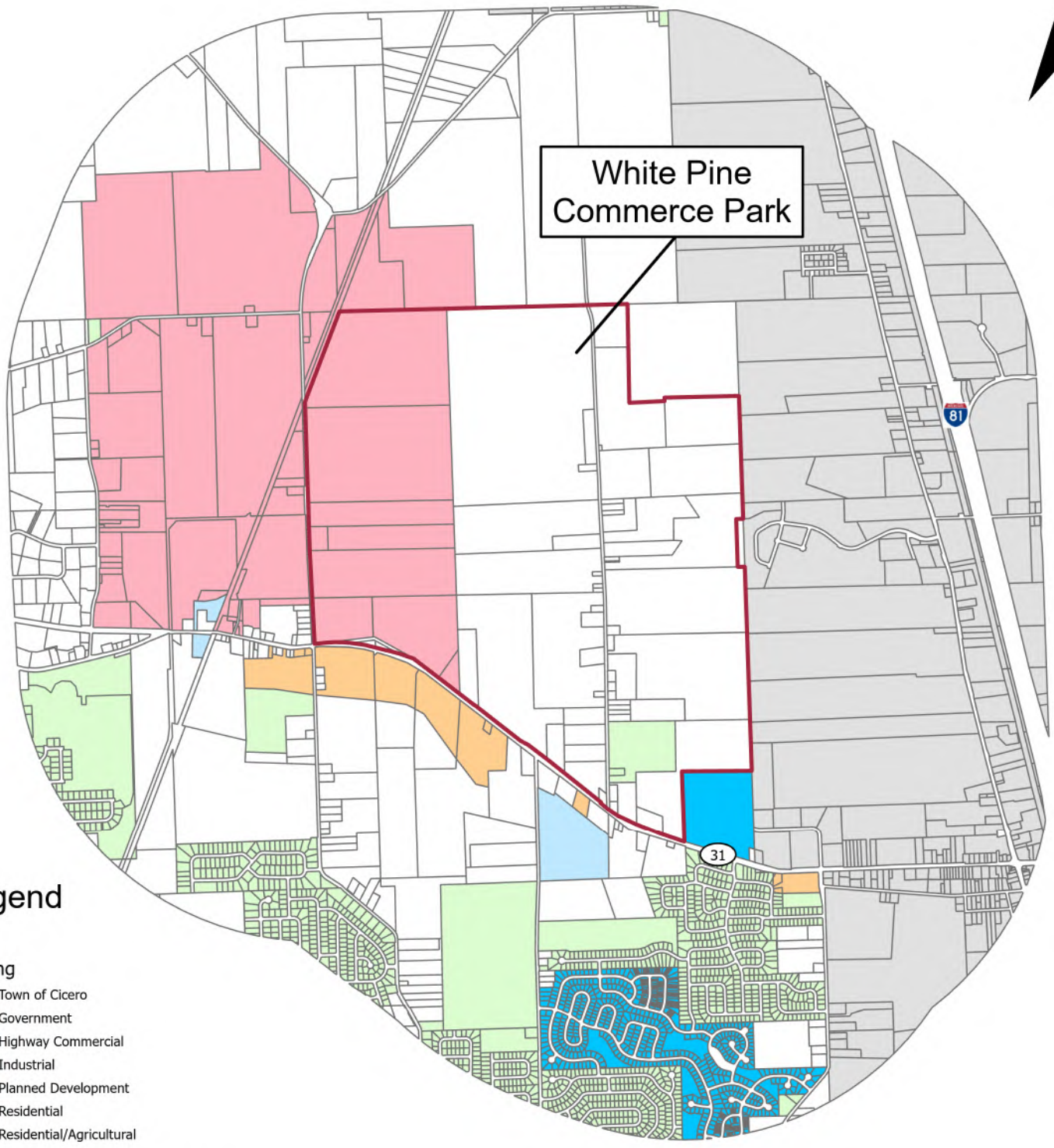
0 0.25 0.5 Miles

Scale: 1 inch = .5 miles

Date Printed: 4/25/2021

Data Sources: Onondaga County parcel data provided by SOCPA, Town of Clay Zoning Data (2016),

Note: Map shows land uses within 1-mile buffer of White Pine Commerce Park.



Onondaga County, NY

Figure 3.1-2

Existing Zoning Map

White Pine Commerce Park
Onondaga County Industrial Development Agency

0 0.25 0.5 Miles

Scale: 1 inch = .5 miles

Date Printed: 4/25/2021
Data Sources: Onondaga County Parcel Data provided by SOCPA, Town of Clay Zoning Data (2016)

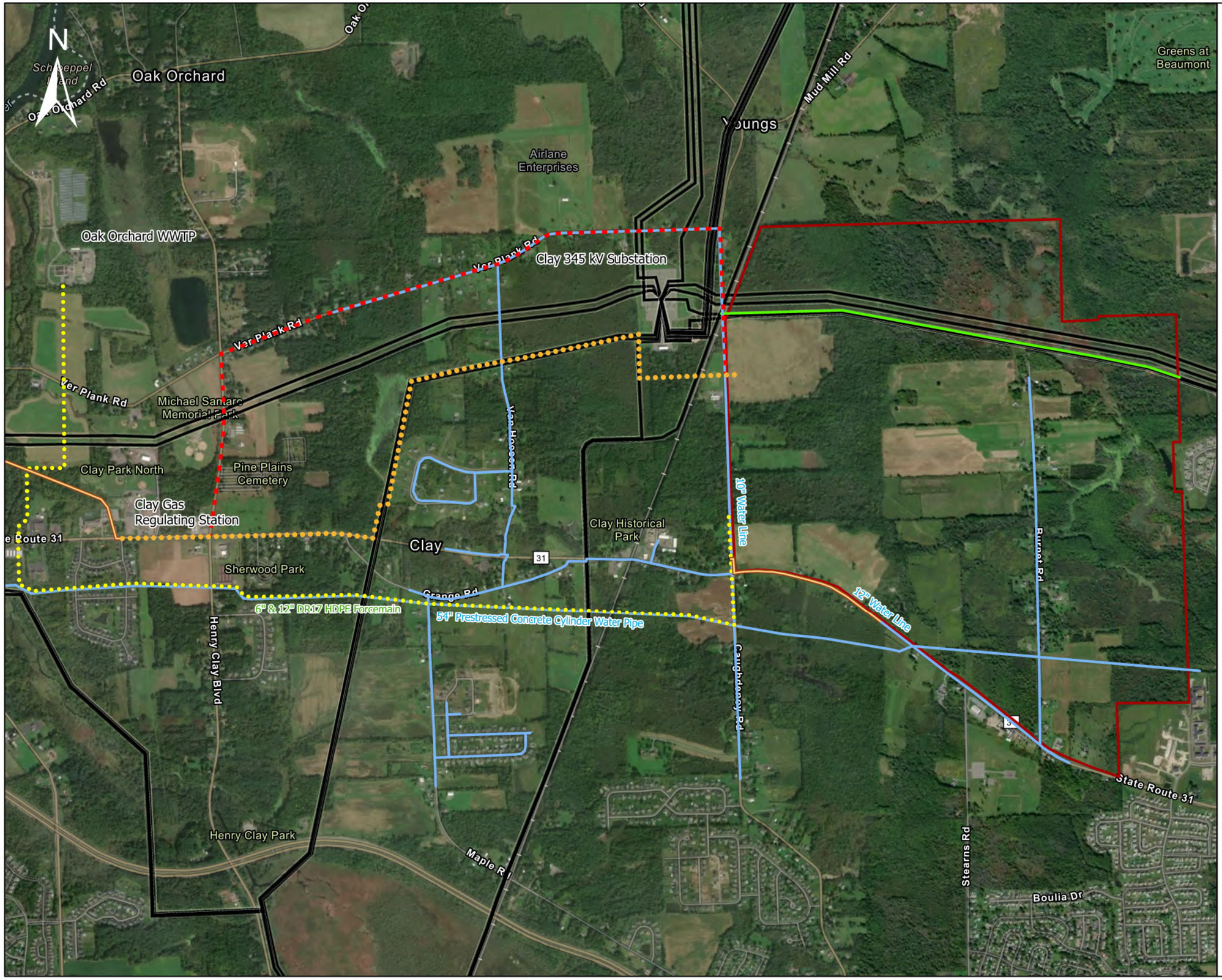


Figure 3.4-1
Existing and Proposed Utilities

White Pine Commerce Park
Onondaga County Industrial Development Agency

Legend

- Proposed Gas Line Route
- Alternative Gas Line Route
- Existing Gas Pipeline
- Proposed Sewer Line
- Water Line
- Existing Transmission Lines
- Fiber-Optic Line
- White Pine Commerce Park Site

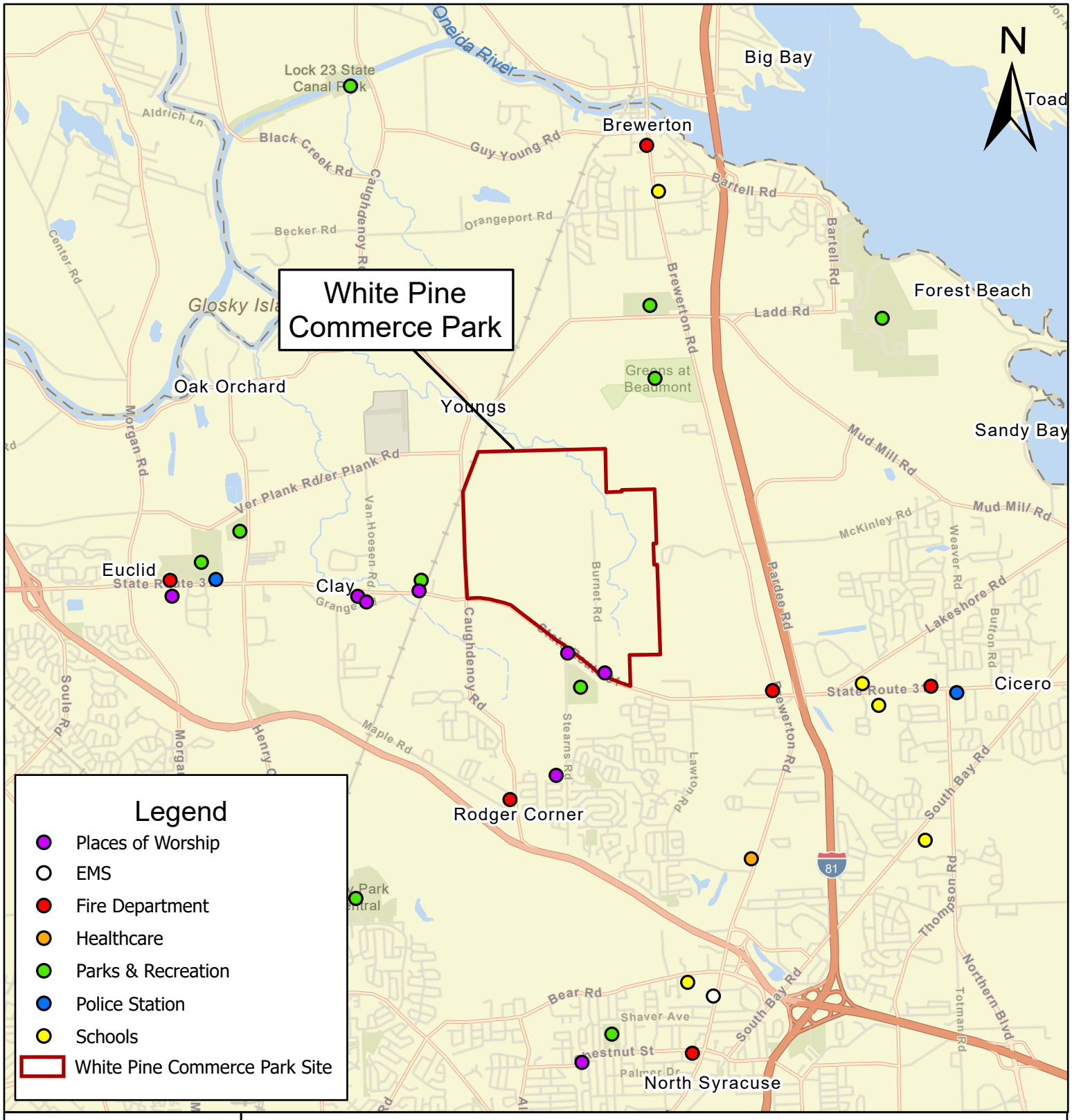
0 0.25 0.5 Miles

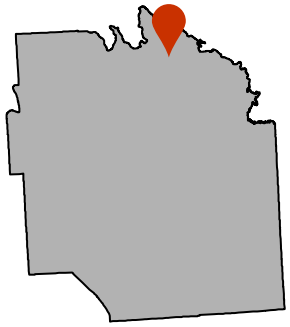
Scale: 1 Inch = 0.3 Mile

Date Printed: 4/26/2021 5:02 PM

Data Sources:

New York State, Maxar, Esri Canada, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA
Ramboll US Corp. (3/19/21), NYS Electric Transmission Lines of 115kv and above. Digitized from NYPP map (2010) at 1:1,000,000 scale.





Onondaga County, NY

Figure 3.4-2: Community Services

White Pine Commerce Park
Onondaga County Industrial Development Agency

0 0.5 1 Miles

Scale: 1 inch = .4 miles

Date Printed: 4/8/2021

Data Sources: Onondaga County Parcel Data, Town of Clay Zoning Data (2016), Esri Canada, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA

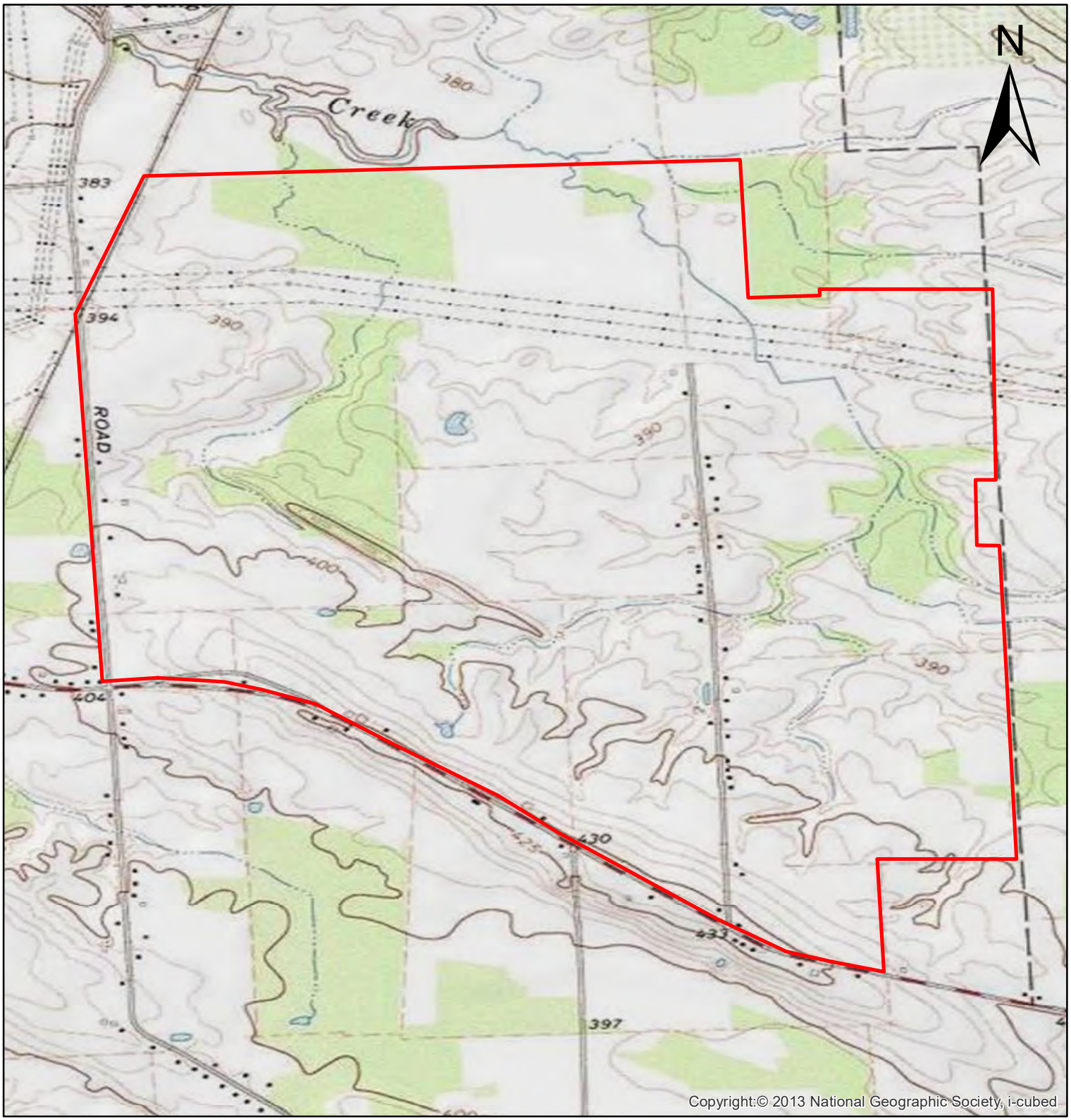


Figure 3.5-1:
Topography

Legend

White Pine Commerce Park

0 0.25 0.5 Miles

Scale: 1 inch = 0.5 miles
Date Printed: April 21, 2021
Data Sources: ESRI, National Geographic Society

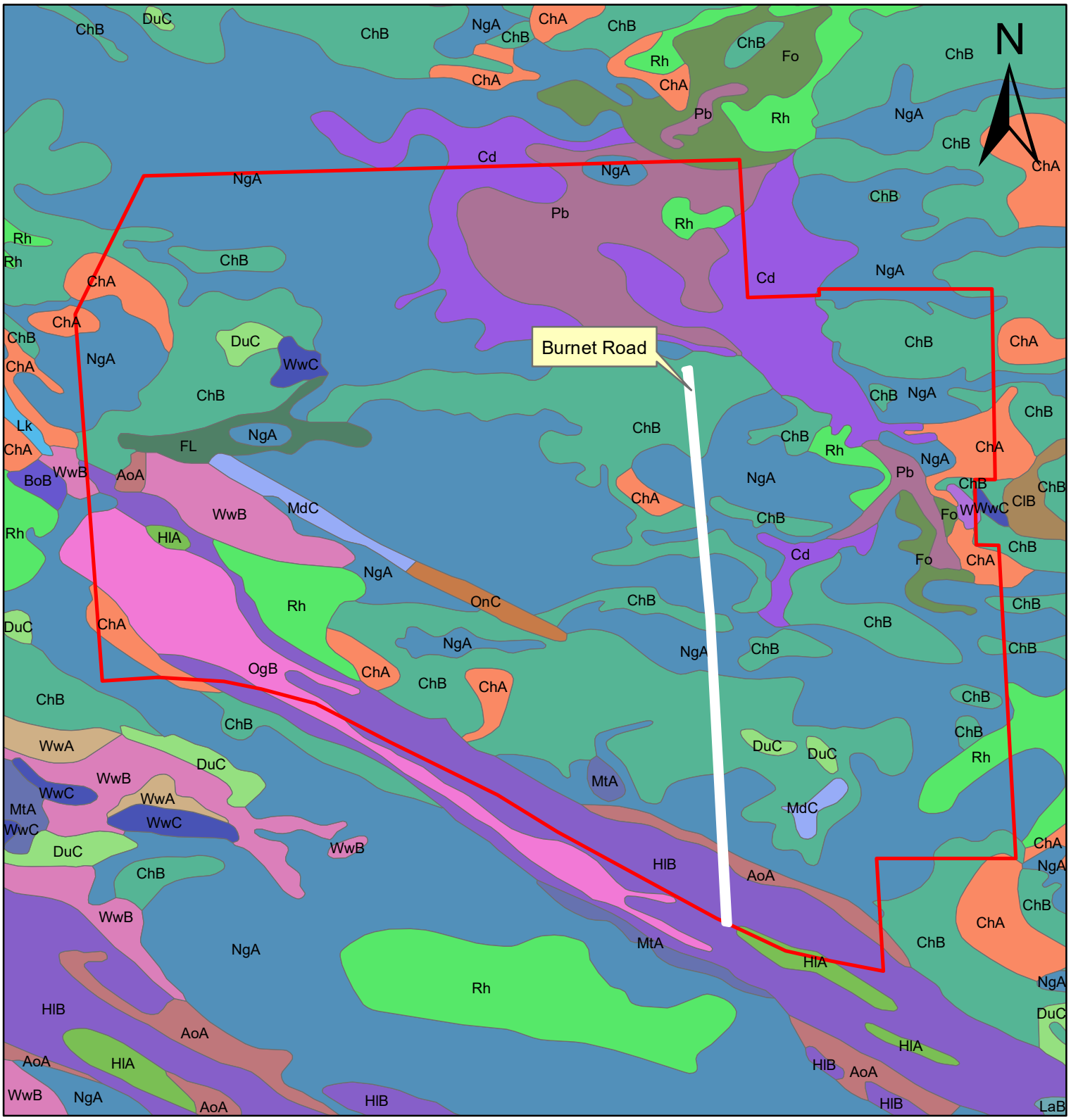


Figure 3.5-2:
Soils

Legend

White Pine Commerce Park

0 0.25 0.5 Miles

Note:
Refer to Table 3.5-1 for Soil Abbreviations

Scale: 1 inch = 0.5 miles
Date Printed: April 21, 2021
Data Sources: ESRI, CUGIR, Soil Survey Geographic SSURGO Database

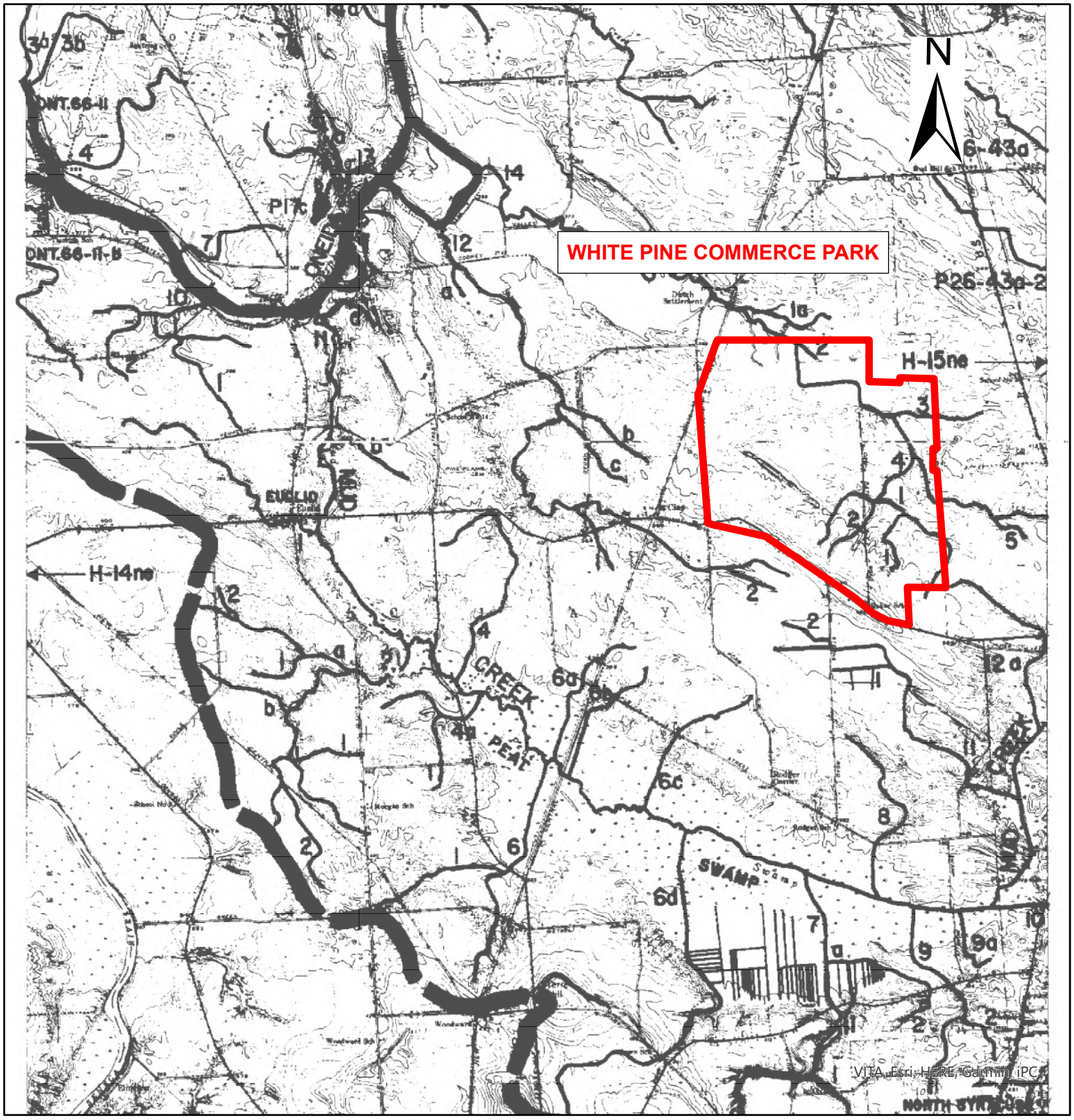


Figure 3.6-1:

NYSDEC STREAM CLASSIFICATIONS QUADRANGLE MAP H-15nw

Legend

White Pine Commerce Park

NOT TO SCALE

Date Printed: 4/22/2021

Data Sources:

NYSDEC Title 6 NYCRR, Chapter X, Article 14, Part 899.7 (1994), Map H-15nw Article 14, Part 899.7 (1994) Map H-15nw

Boundaries are approximate where shown.

Figure 3.6-2:

WATER QUALITY CLASSIFICATIONS

White Pine Commerce Park
Onondaga County Industrial Development Agency

N

Legend

- White Pine Commerce Park
- Proposed Sewer Line
- Proposed Gas Line
- NYSDEC Water Classifications

0 0.5 1 Miles

Scale: 1 Inch = 0.5 Mile

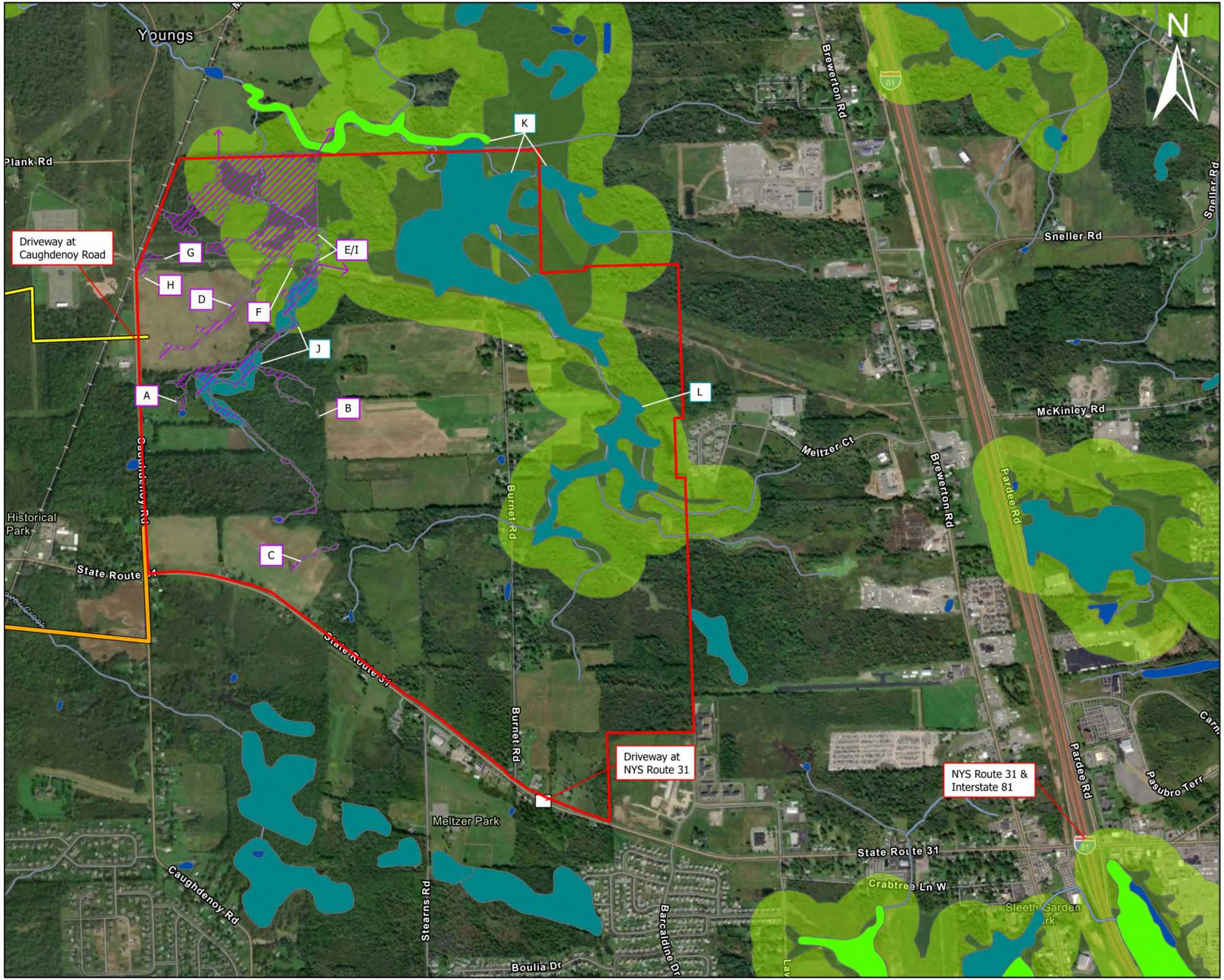
Date Printed: 4/22/2021

Data Sources:
© OpenStreetMap (and) contributors, CC-BY-SA;

Water Quality Classifications (WQC) data from NYS Department of Environmental Conservation, Division of Water, Bureau of Water Assessment and Monitoring, dated 4/13/2010, last revised May 2019.

All boundaries and locations are approximate where shown.

Figure 3.8-1:
Site Wetlands



Legend

- White Pine Site Boundary
- Proposed Gas Line
- Proposed Sewer Line
- Wetlands 2012 GEIS
- NYSDEC Wetlands
- NYSDEC Wetlands Checkzones

National Wetland Inventory

- Freshwater Forested/Shrub Wetland
- Freshwater Emergent Wetland
- Freshwater Pond
- Riverine

Wetlands 2012 GEIS: Wetlands delineation was conducted by Terrestrial Environmental Specialists (TES), Inc. in July of 2010.

0 0.25 0.5 Miles

Scale: 1" = 0.25 mile

Date Printed: 4/27/2021

Data Sources:
New York State, Maxar, Esri Community Maps Contributors, Esri Canada, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands_team@fws.gov | New York State, Maxar | Esri, HERE, Garmin
NYS Department of Environmental Conservation, Environmental Resource Mapper, State Regulated Wetlands

4.0 POTENTIAL ENVIRONMENTAL IMPACTS AND MITIGATION

4.1 Land Use & Zoning

4.1.1 Impacts

Development of the proposed expanded Park is partially consistent with existing Town of Clay land use and zoning regulations. The existing Park is presently zoned I-2, which will allow for the types of uses, specifically tenants in the semiconductor industry, intended for the Park. The majority of the remaining lands that comprise the proposed expanded Park are zoned RA-100 and RA-15, which only allow uses that are inconsistent and incompatible with the objectives of the Project. The Project will therefore require either a zone change to I-2 for the portion of the expanded Park that is zoned differently or the creation of a PDD that encompasses the entire expanded Park. OCIDA will work with the Town of Clay to obtain rezoning approval for those portions of the Park which are not currently zoned compatibly for the Project.

The change in zoning classification required for the expanded Park will result in the conversion of residentially zoned property to allow industrial uses. The change will enable the expanded Park to be developed in a manner that is not currently permitted under the Town of Clay Zoning Code and will introduce land uses that were previously limited to the existing Park as evaluated in the 2013 FGEIS. Specifically, the Project will result in the expansion of industrial land uses and associated improvements beyond the bounds of the existing Park on primarily undeveloped land. The Project will extend the I-2 district or a PDD east and north within the Town of Clay, thus bringing potential future industrial development closer to residential properties along NYS Route 31 to the east, as well as the Town of Cicero border.

4.1.2 Mitigation

In furtherance of the Project, OCIDA will pursue approval by the Town of Clay Town Board of either a zone change to I-2 for the portion of the Park that is not zoned I-2 or a PDD that encompasses the entire Park footprint to allow the type of uses OCIDA seeks for the Park. If a zone change to I-2 is obtained, future development of the Park must comply with the specific use, performance, and design requirements for that district. Additionally, the potential future development of the Park will be subject to site plan review and approval by the Town of Clay Planning Board, which may require alterations of the plan and impose specific design or other conditions associated with such development to ensure compliance with the Zoning Code. Visual buffering (e.g., retention of existing trees in certain areas), building and site design features, and other Project-related issues will be reviewed and coordinated as part of any future development to avoid and/or minimize potential adverse impacts to nearby properties.

Alternatively, if OCIDA opts to pursue PDD approval for the expanded Park, a similar result would occur. OCIDA, a potential future developer, and the Town of Clay would work collaboratively to customize the development of the Park in ways that are not permitted or feasible in the I-2 district. Development standards that are typically applicable to existing zoning districts would not exist and would instead be established jointly with the Town through meetings with the Town Board and Planning Board in accordance with the Zoning Code. Such standards and requirements would be created with an eye

toward minimizing potential adverse impacts associated with development and use of the Park while also maximizing the opportunities presented by the expanded Park. Similar to site plan review above, the Town of Clay would take efforts to ensure that specific features and mitigation measures are incorporated into the design and function of the future site development.

Regardless of whether OCIDA seeks a zone change or PDD approval, the Town of Clay's review of any application concerning the future use and development of the expanded Park in the context of this SGEIS will determine whether all potential adverse impacts associated with the application and future use are adequately addressed and evaluated in this document in accordance with the requirements of SEQRA.

According to the most recent studies conducted by the Town of Clay *(Town of Clay Northern Land Use Study, 2013)*, SOCPA (*2010 Development Guide for Onondaga County)*, and SMTC (*Clay-Cicero Route 31 Transportation Study, 2010*), commercial development in the northern suburbs of Onondaga County is likely to continue. The studies also account for future industrial use of the Park. Additionally, SOCPA is currently updating the County's Comprehensive Plan and expects to finalize the plan later this year. Based on information obtained from SOCPA on April 7, 2021, the Comprehensive Plan will promote new opportunities to strengthen communities and options near the Park, including the creation of town centers, enhanced transit and transportation options, and complete neighborhoods concepts. Once a future tenant is identified for the Park, the County Comprehensive Plan will be reviewed to identify any goals or objectives from the Plan that should be considered for implementation into the future development of the Park.

4.2 Community Character

4.2.1 Impacts

The Development of the proposed expanded Park would alter the undeveloped rural character of the Project site and introduce industrial land uses and associated structures and improvements. This was contemplated for the current Park in the 2013 FGEIS, but the proposed Park expansion will extend potential future industrial development to additional lands not previously evaluated in 2013, thereby increasing the footprint of industrial use, as well as the potential adverse impacts associated with such use. Potential future development will introduce new buildings, parking lots, and other industrial support facilities and infrastructure to the expanded Park.

With the expansion of the Park approximately 3 dozen residential properties will be acquired by negotiated purchase or pursuant to the EDPL and these homeowners will need to relocate. The properties to be acquired along NYS Route 31 and Burnet Road represent a significant portion of the expanded Park's prime developable area (depicted on Figure 1.1-2) and are therefore a necessary component of the Project. It is anticipated that development of the Park will be largely contained within this area. Existing structures and improvements will ultimately be demolished and/or removed in furtherance of future development. Demolition activities will be conducted in accordance with Town of Clay requirements, and all debris will be disposed of at authorized off site facilities in accordance with applicable regulations. The telecommunications tower will need to be disassembled and relocated.

Assuming that future development is contained within the prime developable area to avoid interference with wetlands and existing public utility improvements and/or rights-of-way and taking into consideration existing I-2 zoning district standards and requirements, it is anticipated that approximately 400 acres of the expanded Park would be developed with buildings, roads/parking areas, industrial infrastructure and ancillary facilities. The remainder of the Park would remain essentially undeveloped with vegetated buffers and pervious surfaces to maintain a natural appearance.

4.2.2 Minimization and Mitigation

To avoid or minimize potential adverse impacts to the extent practicable, the potential future development of the expanded Park will occur subject to the design features, conditions, and mitigation measures required by the Town of Clay Town and Planning Boards in accordance with the requirements of the Zoning Code. In conjunction with either a zone change or PDD approval process, OCIDA will work with the Town Board and/or Planning Board to identify specific issues or areas of concern and develop specific measures to address or alleviate such concerns to ensure the objectives of the Project are achieved while also minimizing or mitigating development related impacts on the surrounding community.

Undeveloped portions of the Park will likely be maintained as wetlands, vegetated greenspace and integrated into stormwater management and other site design features. Additionally, greenspace would be used to meet setback requirements or other design thresholds that may be included in a PDD or site plan. Greenspace may also be incorporated in the tenant facility design/layouts to serve aesthetic purposes, establishing a campus-like setting for tenant employees and visitors.

With respect to the acquisition and removal of residential properties to enable the creation and future development of the expanded Park, OCIDA will negotiate to purchase these properties at fair market value and pay the seller's normal transaction costs of updating the title and survey, recording fees, transfer taxes and other similar expenses in connection with the transfer of these properties as well as the pro rata portion of real property taxes, water rents, sewer rents, special ad valorem charges and other similar charges. In the event it is necessary to acquire any such properties pursuant to the EDPL, as condemnor OCIDA will offer just compensation based on the fair market value determined by its highest approved appraisal, and the respective property owners will have the right to challenge the amount of such just compensation under EDPL Article 5. OCIDA will also pay, upon acquisition, any costs associated with recording fees, transfer taxes, penalties incurred by the condemnee for prepayment of any preexisting recorded mortgage entered into in good faith encumbering the property, and the pro rata portion of real property taxes, water rents, sewer rents, special ad valorem taxes and other similar charges.

4.3 Transportation

To assess future traffic conditions after the potential development is constructed on the proposed expanded Park, it is necessary to estimate the traffic volumes generated by proposed Project developments other than the Park and the traffic volumes on adjacent roadways.

Background Traffic Condition (Future No Build)

The study area was reviewed for future developments. The following approved developments were included as part of the 2024 background volumes:

1. Chick-fil-A – a 5,000-square foot fast food restaurant building was approved to replace an existing 6,400-square foot Uno Pizzeria restaurant building located just west of the NYS Route 31 and NYS Route 481 southbound off ramp. Based on the hours of service for this facility, the PM peak hour trip generation was adjusted to reflect the restaurant closing. The existing pizza restaurant's PM peak hour trip generation was subtracted from the Chick-fil-A trip generation to reflect the total new trips.
2. Brewerton Road Development (8697 and 8699 Brewerton Road) – a 60-unit senior housing facility was approved and will be located on US Route 11 near Meltzer Court, a mile north of NYS Route 31.

The following background development was not included, in consultation with NYSDOT, because it is not yet approved:

3. Clay Marketplace – this site is anticipated to consist of 30,000 square feet of mixed-use development including apartments, retail markets, restaurants, and offices. The site is located on a 14.9-acre parcel near the intersection of NYS Route 31 and Henry Clay Boulevard. It will be a 96-unit apartment complex with 176 parking spaces and 60 garage spaces, 30,000 SF of commercial space, and access from 3 driveways. This site is anticipated to include roadway addition of turn lanes for the northbound (NB) and southbound (SB) approaches on Henry Clay Boulevard which were not assumed to be included.

4.3.1 Trip Generation

The proposed expansion of the Park and potential development scenario as described in Section 1.1.5 of the Draft SGEIS will add trips to the transportation network. The development discussed within the Draft SGEIS is focused on developing the Park for potential industrial and commercial developers with a focus on a tenant or tenants in the semiconductor industry. The trips can be estimated from known site assumptions and from using the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition. The known site data description follows Land Use Code 140: Manufacturing. Trip generation rates used the average rate approach and Land Use Code 140 as described below.

ITE Trip Generation Code - 140 Manufacturing

A manufacturing facility is an area where the primary activity is the conversion of raw materials or parts into finished products. Size and type of activity may vary substantially from one facility to another. In addition to the actual production of goods, manufacturing facilities generally also have office, warehouse, research, and associated functions. Based on these factors, the total estimated trips were determined to be 493 trips in the AM peak hour and 440 trips in the PM peak hour. See Table 4.3-1 for more information.

Table 4.3-1: Trip Generation						
	Morning Peak Hour			Evening Peak Hour		
	In	**Out**	**Total**	**In**	**Out**	**Total**
Shift Entering	**365**	**128**	**493**	**268**	**172**	**440**
Shift Leaving	128	365	493	172	268	440
TOTAL	493	493	986	440	440	880

New trips from approved developments in the vicinity of the Park were also generated and distributed and are shown in Traffic Impact Study in Appendix B.

Following the NYSDOT HDM, it is assumed that construction traffic would be scheduled outside peak travel times where feasible and would determine detour routes around the proposed work zone. Therefore, additional analysis for construction traffic is not merited. Additionally, the I-81 Viaduct Project in Syracuse is still under review, but that project is not anticipated to affect this analysis. For more information on that project see https://www.dot.ny.gov/i81opportunities.

The analysis of other forms of transportation including, but not limited to, bus transit, ride share or carpool, that could impact single vehicle trips is not part of this study.

4.3.2 Trip Distribution

To help support the change to the transportation area the use of future travel demand models was also used. The model is the first step to understand the shift in vehicle trips across the network based on future land use maps and other data. The Syracuse Metropolitan Transportation Council (SMTC) provided from their travel demand model a select link analysis based on the site development for the particular Traffic Analysis Zone (TAZ).

Note: Additional information is provided in the Traffic Impact Study in Appendix B.

4.3.3 Capacity Analyses

The purpose of conducting capacity analysis is to understand operations along the corridor, how a proposed development will impact those operations and determine the level of improvement needed to mitigate degradation in operations to the background condition. Capacity analysis was conducted for the following five scenarios:

1. Year 2021 Existing
2. Year 2024 Background
3. Year 2024 Background with Development
4. Year 2024 Background with Development and Build Improvements
5. Year 2044 Background with Development with 2024 Build Improvements

Intersection and arterial Level of Service (LOS) was determined for each scenario. The Level of Service calculation procedures are provided in the Highway Capacity Manual 6th edition (HCM) published by the Transportation Research Board, 2016. Synchro 11, developed by Trafficware, was utilized to determine the HCM LOS for the study intersections and arterial roadway, determine operational deficiencies and aid in determining appropriate mitigation. SimTraffic traffic simulation software was used to determine queue lengths.

The HCM quantifies the quality of traffic flow in terms of levels of service (LOS). See Table 3 (In Appendix B) for the six levels of service, with LOS A indicating very low levels of delays and LOS F indicating high levels of delays associated with congestion. These represent a qualitative measure of operational conditions within a traffic stream, and the perception of conditions by motorists and/or passengers. LOS and capacity for signalized intersections are calculated for each lane group (a lane group may be one or more movements), each intersection approach, and the entire intersection. The intersection LOS is merely a weighted average of the individual approaches and may not be considered a valid measure of the quality or acceptability of an intersection design since it can conceal poor operating conditions on individual approaches.

LOS at unsignalized intersections are only calculated for minor movements since the through movement on the major street is not affected by intersection traffic control.

Year 2021 Existing Condition

This section describes operations during the Year 2021 Existing and Year 2024 Background conditions. Existing conditions represents operations throughout the study area presently. The Year 2024 Background condition includes regional traffic growth and trips from approved developments.

During the 2021 Existing Conditions, the capacity analysis results for the AM and PM peak hour show most signalized intersections will operate at LOS D or better and all movements are to operate at LOS D or better except:

- NYS Route 31/I-81 southbound ramp left turn movement operates at LOS E for PM peak hours
- NYS Route 31/I-81 northbound off ramp right turn movement operates at LOS E for PM peak hours
- NYS Route 31/Lakeshore Road southbound right operates at LOS F for AM and PM peak hours

Note: Additional LOS and Delay information is provided in the Traffic Impact Study in Appendix B.

Year 2024 Background Condition

By the year 2024 background condition, the capacity analysis results for the AM and PM peak hour show most signalized intersections will continue to operate at LOS D or better, and all movements are to operate at LOS D or better except:

- NYS Route 31/I-81 southbound off ramp left turn movement operates at LOS E for PM peak hours
- NYS Route 31/I-81 northbound off ramp right turn movement operates at LOS E for PM peak hours

- NYS Route 31/ Lakeshore Road southbound right operates at LOS F for AM and PM peak hours

Year 2024 Background Development and Background Development Build Conditions
This section describes operations during the Year 2024 Background Development, the Year 2024 Background Development Build, and the Year 2044 Background Development Build conditions.

During the 2024 Background Development, the addition of development traffic causes slight delay increases at most intersections. The two Project site entrances are both expected to operate at LOS A. There are three intersections that degrade in LOS:

- NYS Route 31/Henry Clay Boulevard intersection reduces from LOS B to LOS C in AM peak hour and LOS C to LOS D in PM peak hour
- NYS Route 31/I-81 southbound intersection reduces from LOS C to LOS D in AM peak hour
- NYS Route 31/I-81 northbound off ramp intersection from LOS D to LOS F in PM peak hour

All movements are expected to operate at LOS D or better except:

- NYS Route 31/Henry Clay Boulevard – the northbound approach operates at E for AM peak hour
- NYS Route 31/US Route 11 – the southbound left operates at LOS E for PM peak hour
- NYS Route 31/I-81 southbound off ramp intersection – the southbound left operates at LOS E for AM and PM peak hours; the eastbound thru movement operates at LOS F for AM peak hour; and westbound left operates at LOS E for PM peak hour
- NYS Route 31/I-81 northbound off ramp – the eastbound left movement operates at LOS F for PM peak hour and northbound right turn movement operates at LOS E for PM peak hour
- NYS Route 31/Lakeshore Road – the southbound right operates at LOS F for AM and PM peak hours

NYSDOT is considering various options for Lakeshore Road improvements as outlined in the Traffic Impact Study in Appendix B.

The 2024 Background Development Build includes build improvements which address traffic delays for most intersections. These improvements are targeted to address movements that are LOS D or lower, as described above, and are further detailed in the Traffic Impact Study in Appendix B.

Year 2044 Background Development Build
The 2044 Background Development Build provides an outlook of how well the network operates in the future and holds up over time and includes the build improvements, which were developed to address traffic delay for most intersections.

The Year 2044 scenario is performed per HDM Exhibit 5-1b, which is for project work type that includes intersection reconstruction. The analysis requires an estimated time of completion (ETC) plus twenty years (or ETC+20). This scenario serves as an evaluation of how well improvements operate over time to Year 2044.

There are four intersections that degrade in LOS Year 2044 scenario compared to the 2024 Background Development Build condition:

- NYS Route 31/NYS Route 481 northbound intersection reduces from LOS C to LOS D in PM peak hour
- NYS Route 31/Morgan Road intersection reduces from LOS C to LOS D in PM peak hour
- NYS Route 31/US Route 11 intersection reduces from LOS C to LOS D in PM peak hour
- NYS Route 31/I-81 southbound intersection reduces from LOS B to LOS C in AM peak hour

4.3.4 Traffic Mitigation

Identifying deficiencies that exist prior to the build condition and identifying those that are from the development are different. However, applying capacity improvement measures is required for the proposed build condition to meet minimum LOS conditions. These mitigation improvements start with selecting the most cost-effective improvements. These NYSDOT improvements can include:

- Retiming traffic signals or adjusting signal phasing
- Signage or striping to prevent turning movements at intersections
- Addition of turn lanes to increase capacity
- Installation of traffic signals
- Conversion of a signalized or unsignalized intersection to a roundabout

Proposed mitigation measures were developed to improve operations to 2024 Background levels and meet acceptable LOS D or better operations. The aforementioned operational deficiencies during the AM and PM peak hour, along with a summary of the improvements, are provided in the Traffic Impact Study in Appendix B.

Capacity analysis was conducted with the proposed mitigation improvements and results are provided in the Traffic Impact Study in Appendix B. Queue results and speed results are provided in the Traffic Impact Study in Appendix B. Results of the capacity analysis show movements will operate better compared to 2024 Background levels and meet acceptable LOS D or better. These improvements will provide better operations through the year 2044. Queueing deficiencies will be mitigated, especially the extensive queues at the I-81 interchange. Furthermore, speeds will improve along the east side of the study area with the proposed improvements.

Capacity analysis was performed, and the following capacity improvement measures are recommended to address LOS, travel speeds, delay, and safety:

- NYS Route 31 at Henry Clay Boulevard – construct a northbound left turn lane.
- NYS Route 31 at US Route 11 – construct an additional left turn lane to provide for westbound dual left turn lanes and modify left-turn phasing from permissive/protected to protected.
- NYS Route 31 at I-81 Southbound Ramps – construct an additional left turn lane to provide westbound double left turn lanes, change westbound left turn phasing from permissive/protected to protected, and widen to two lanes on the on-ramp before merging to a single lane prior to the merge on to I-81.
- NYS Route 31 at I-81 Northbound/Pardee Road – construct an additional left and right turn lane on the I-81 northbound off ramp.

- NYS Route 31 at Site Entrance 2 – add a left turn lane along NYS Route 31 eastbound and a right turn lane along NYS Route 31 at the site entrance. A left and right turn will be provided out of the site. A traffic signal is recommended at the intersection.
- Caughdenoy Road at Site Entrance 1 – provide a right and left turn lane from the site entrance and along Caughdenoy Road.
- NYS Route 31 at Lakeshore Road – (concepts have been developed and coordination will take place with NYSDOT for future consideration.)

Circulation to the site is projected and modeled based upon Section 4.0 in the TIS in Appendix B. If changes occur to how the Park is accessed and volumes increase on Caughdenoy Road beyond those currently projected and modeled, then further mitigation would be recommended to construct an eastbound left turn lane along NYS Route 31 to help with through movement from being delayed by turning vehicles.

A crash analysis was performed for three locations from the 2017-2019 HAL list. Between May 1, 2015 and April 31, 2018, there were 462 total crashes at the three study area segments. The proposed recommendations include mitigation measures at each of these locations based on a review of capacity analysis and collision type.

Overall, the transportation network with Development and Build improvements will operate better than existing conditions. With the proposed recommendations, the study area will maintain an acceptable Level of Service of D or better in design year 2024.

As the level of service analysis shows, there are intersections and movements that are projected to fail by 2044. The main areas of concern are at the NYS Route 481 interchange and NYS Route 31 between US Route 11 and the Interstate 81 ramps. These areas are projected to be failing or near failing by 2044. Any improvements beyond 2024 need to be reviewed for mitigation at a later time.

4.4 Utilities & Community Services

Updated estimates of the potential demands for electric, gas and water supplies, and estimates of sanitary waste volumes have been developed based on the types of industry OCIDA is seeking to attract to the proposed expanded Park:

- Power – up to 500 megavolt-amperes (MVA)
- Water – 5 million gallons per day (MGD)
- Wastewater – 4 MGD
- Natural Gas – up to 7000 meters cubed per hour (m^3/hr)

OCIDA anticipates that these capacities are adequate to accommodate high technology industries including, but not limited to, semiconductor manufacturing.

4.4.1 Utilities Impacts

Electric, Fiber Optic and Phone Service

The existing National Grid Clay Substation along Caughdenoy Road is a major hub for high-voltage bulk power transmission. Correspondence from National Grid (March 18, 2021, see Appendix C) indicated the existing transmission infrastructure can presently provide up to 540 MVA to the Park, and up to 1,200 MVA is possible in the long term. The estimated Project demand of 500 MVA is within the levels that National Grid has indicated can be provided, and therefore the potential development of the expanded Park would not adversely impact local supplies or capacity. No mitigation would be required.

Natural Gas

The March 18, 2021 correspondence from National Grid indicated that with the extension of the gas main from Gas Regulator Station #147 to the Project site, up to 750 dekatherms per hour (dth/hr) can presently be provided to the Project site with projected future availability of 1,000 dth/hr. The estimated demand of 7,000 m^3/hr, equivalent to 245 dth/hr, is within the levels that National Grid has indicated can be provided, and therefore the potential development of the expanded Park would not impact local supplies or capacity. No mitigation would be required.

Two routes have been considered to connect the Park to the Gas Regulator Station. These are referred to as the proposed route and the alternative route (see Figure 3.4-1). The location of the proposed route lies within previously disturbed public and utility rights-of-way over much of the length of the proposed route. The first 4,500 feet of the route lies along NYS Route 31. The route then follows an existing power line right-of-way north parallel to Shaver Creek and east, crossing Van Hoesen Road, continuing east to the point where the power line enters the Clay Substation. The route then extends around the south end of the substation, crossing the CSX rail line and Caughdenoy Road into the Park property. Access for construction of the segment of the line lying in the existing transmission line easement will be primarily from NYS Route 31 and Van Hoesen Road. The segment of the line between the transmission line and the Park will be from existing access roads for the National Grid Clay Substation and Caughdenoy Road. Temporary construction easements will be necessary along the proposed route. Permanent easements will also be necessary for those areas outside the NYS Route 31 right-of-way. Such temporary and permanent easements will be acquired by negotiated purchase or pursuant to the EDPL as necessary.

The alternative route makes use of public rights-of-way for the entire length of the route. The alternative route extends from the Gas Regulator Station east along Route 31 to the intersection of Henry Clay Boulevard, turns north following Henry Clay Boulevard to the intersection of Verplank Road, then east along Verplank Road to the intersection of Caughdenoy Road, then south to the point South of the National Grid substation where the proposed route crosses Caughdenoy Road, then east into the Park on the same path as the proposed route. This route is previously disturbed as it follows public roads for the entire length. Easements may be required along the route. Temporary construction easements will be necessary along the proposed route. Such temporary construction easements will be acquired by negotiated purchase or pursuant to the EDPL as necessary.

Installation of new gas mains will involve temporary construction impacts along the route. The impacts may include ambient noise, soil disturbance, and interruption of traffic at construction access points.

These temporary impacts will be mitigated through proper construction and best management practices. Trenching, boring and horizontal directional drilling will be utilized to minimize disruption of traffic during construction and to minimize impacts to any wetlands that may be delineated along the route of the proposed gas line. Best management construction practices will be used, including, soil and erosion control and stormwater management. Disturbed areas will be re-graded and reseeded to pre-construction conditions. Since the proposed route is shorter than the alternative route, construction along the proposed route would result in fewer impacts and it is therefore preferred as the proposed route over the alternative route.

Sanitary Sewer

According to April 29, 2021 correspondence from OCWEP, the capacity for up to 4.0 MGD is currently available at the Oak Orchard WWTP. The estimated sanitary sewer discharges from potential development of the expanded Park of 2.4 MGD to 4.0 MGD are within the levels that OCWEP has indicated they can accommodate. The potential development, therefore, would not adversely impact the capacity of the WWTP to handle sanitary flows from the remainder of the service area. No mitigation is required. Further OCWEP had previously commenced the design of the conveyance infrastructure to serve lands within the surrounding district and future development areas. OCWEP estimates that conveyance infrastructure will be available within 24 months.

Industrial wastewater pre-treatment may be required on-site by the OCWEP prior to discharge to the Oak Orchard WWTP, if the wastewater strength from the expanded Park exceeds the limits established for discharge to the municipal sanitary sewer system. It is expected that future operations will include one or more wastewater treatment facilities that will provide pretreatment of wastewater prior to discharge into local sewers. Typical pretreatment methods include pH adjustment, flocculation, filtration and settling of solids. Wastewater sludge, which will be produced as a byproduct, will require offsite disposal. Discharge of the wastewater itself into the sewer system would be done in accordance with a permit from the Onondaga County Department of Water Environment Protection (OCWEP). The permit will establish effluent discharge limits and regular monitoring to verify permit compliance. Pre-treatment would be coordinated with OCWEP and the responsibility of the Park tenant(s).

The conveyance infrastructure to support lands without the surrounding district including the Park is six-inch and 12-inch diameter PVC force mains along Caughdenoy Road for about 1,000 feet, then heading west along the existing 99-foot wide Metropolitan Water Board easement that parallels NYS Route 31, and then north within the County's easement that contains the Davis Road Force Main and the Clay – Cicero Force Main to the Oak Orchard WWTP. Installation of new sewer lines will require temporary construction from existing rights-of-way in the area. These temporary impacts will be mitigated through proper construction and best management practices.

Since the majority of the proposed sewer route follows existing MWB and OCWEP easements, the need to procure permanent easements along this route is practically non-existent. However, temporary construction easements required for the installation of bored crossings may be required and to the extent permanent easements are required they will be acquired by OCWEP by negotiated purchase or pursuant to the EDPL. The use of borings under roads and the CSX rail line will minimize disruption of traffic and the need for reconstruction and resurfacing of roadways. Temporary traffic detours may be needed at road crossings.

Trenching will be used through upland areas along the MWB and OCWEP rights-of-way. Most upland areas along the rights-of-way are active cropland or vacant farm fields consisting of shrubs. Best management construction practices will be used in these areas including soil and erosion control and stormwater management. Disturbed areas will be re-graded and reseeded to pre-construction conditions.

Wetland mapping shows that federal and state wetlands are potentially present in certain parts of the proposed routes of the utility improvements. Should field surveys verify regulated wetlands are present during the course of preparation for utility line construction, the proposed force mains and gas line will be installed through wetland areas using horizontal directional drilling (HDD) methods to avoid adverse impacts.

Water

Public water service is available from adjacent water lines to the Park. According to correspondence from OCWA (March 19, 2021, see Appendix C) indicates that 3,700 gpm at 20-psi is available for the Park. OCWA indicates the current availability for the Park is 1 MGD. OCWA has plans in place that would allow a supply of 5 MGD within 180 days, and potential to provide 11 MGD at an 18 month to two-year horizon. The expanded Park's estimated water demand of 5 MGD is within the levels OCWA has indicated it can provide, and therefore future development of the Park would not adversely impact the availability or capacity of the local public water supply in the surrounding area. No mitigation would be required.

4.4.2 Community Services and Resources Impacts

Police, Fire, and Emergency Services

Future tenants of the Park are expected to provide security and basic emergency preparedness programs for their own facilities. New York State and federal regulatory agencies, such as the EPA, have specific requirements for managing hazardous materials which may be stored on site. Tenants will be required to adhere to all such regulatory requirements. As appropriate based on their industry, tenants of the Park will be expected to have emergency response plans that outline procedures to be undertaken to deal with fire, spills, injuries, etc. These procedures will include specialized training including clean-up and coordination with emergency responders from the community. In accordance with State and Federal regulations, emergency response plans will be reviewed by local officials to ensure that public service providers are properly prepared and equipped in the event they are needed to support tenant security personnel.

Tenants are expected to provide on-site water storage for fire suppression and emergency operations. The specifications for fire suppression systems are stipulated in national building and fire codes. The plans for fire suppression and control systems are reviewed and approved by local emergency officials.

With the noted life safety, security and emergency response provisions required of future Park tenants, development of the expanded Park is not anticipated to create a burden on the provision of police, fire, and emergency services. No mitigation is required at this time.

Parks and Recreation Facilities

Development of the Park will not result in the loss of public open space. The extensive regional opportunities for outdoor recreation will easily accommodate the potential increase in population that is brought to the area by employment opportunities in the Park. Potential development of the expanded Park is not anticipated to create adverse impacts on community parks and/or recreation facilities. No mitigation is required.

Schools

In 2019, there were 255,844 households in the Syracuse Metropolitan Statistical Area (according to the US Census Bureau American Community Survey, 1-year estimates, 2019) which includes the counties of Onondaga, Oswego and Madison. It is assumed that the future development of the Park as considered for this Draft SGEIS could create up to 4,000 new jobs, many of which could be filled by people not currently living within the Syracuse Metropolitan Area. These new jobs could bring up to 4,000 new households to the area. Assuming that the increase in the student population would be proportional to the increase in the number of households and that the households are evenly distributed throughout the Syracuse MSA, the North Syracuse Central School District enrollment would be expected to increase approximately 1.6% (136 additional students to the current district student population of 8,500 pupils). It should also be noted that the Syracuse MSA population declined between 2010 and 2019 by approximately 2% (662,757 in 2010 to 648,593 in 2019, US Census Bureau), which means the projected increase resulting from the Project would potentially backfill the decline in the student population.

An increase of approximately 136 students is not anticipated to place an undue burden on local schools and educational facilities. The development of the Park is not anticipated to create adverse impacts on local schools and educational services. No mitigation is required.

Other Community Services

OCIDA intends to acquire the property on which the Upstate New York District Church of the Nazarene is located by negotiated purchase or pursuant to the EDPL and other applicable law. The parcel will become part of the Park and the building will be removed, requiring the Nazarene District office to be relocated. Any community services provided by the church at this location (e.g., counseling, meeting space, day care programs, and clothing and food distribution, etc.) would be curtailed by development of the Park.

4.5 Topography, Geology & Soils

4.5.1 Topography

Impacts

Any potential impacts to topography of the proposed expanded Park would be relatively minor and are consistent with the finding of 2013 FGEIS.

Construction of a new gas line, and activities associated with demolition of existing structures will potentially cause negligible to minor impacts on topography. The utility right-of-way (ROW) will require

some grading during installation. Subsurface materials will be removed along the new utility trench. The trench will be backfilled with excavated material once the new gas line is installed. The soil will be replaced in lifts, compacted, and crowned slightly to accommodate any settling. This could result in minor localized changes to grade; however, slopes will be blended with the surrounding topography and overall impacts will be negligible to minor. Additionally, much of new utility route will likely be within existing ROWs, where construction has already modified the natural topography.

Mitigation

Mitigation for topography was detailed in the 2013 FGEIS (Draft Section 4.5.1). No additional mitigation for on-site topographic changes is necessary.

Off-site underground utilities will be installed in shallow trenches that will be backfilled to original grade. If any high or low points are traversed and disturbed, special care will be given to minimize the degree and extent of such disturbance. The ground in the disturbed areas will be stabilized and returned to its original condition shortly after utility installation. Where it is not practicable to restore the ground to its original topographic condition, care will be taken to blend the ground together and stabilize the surface. It is also anticipated that there will be prompt site restoration back to original conditions or as closely thereto as is practicable, with little to no long-term change in topographic conditions.

4.5.2 Geology

Impacts

Site development will not affect any geologic resources since there are no unique geologic features at the expanded Park or in the immediate vicinity. Furthermore, the Project site does not contain any significant mineral resources. Unconsolidated deposits are primarily silt and fine sand, which are not typically highly valued. These materials are commonly available throughout the region. Subsurface bedrock deposits consist of shale and dolostone. These rock types are not unique and occur across extensive areas in central and western New York. Future site development will not significantly reduce the availability of these building materials.

Shallow bedrock is present in some portions of the Project site. The need for potential blasting during construction and development of a blasting plan were discussed in the 2013 FGEIS. No additional mitigation beyond the measures previously proposed are necessary.

The majority of the construction route for the off-site utilities occurs within existing ROWs. In these areas, the ground was previously modified by clearing, grubbing, excavation, and backfilling activities. As such, very little undisturbed ground remains within existing ROWs and no significant, long-term environmental impact to geology will occur. Where the new utility route traverses' ground that has seen limited previous disturbance, the nature of the construction methodology will cause only minor, temporary disturbances. During utility installation, there could be localized impacts (ground vibrations, noise) if blasting is necessary. This would be limited to areas that encounter rock that could not be removed by conventional excavation methods.

Mitigation

Mitigation for geology was detailed in the 2013 FGEIS (Draft Section 4.5.2). No additional mitigation for on-site geologic related items is necessary.

Geologic materials will be disturbed during off-site utility trench excavations. To the extent possible, trench backfill will be derived from the original excavated material. Depending upon the subsurface conditions, the new utility trench could be constructed using various technologies including standard excavation, mechanical hammer, or shallow blasting. Where shallow rock is encountered, as much as possible will be crushed and returned to the trench as backfill. Depending upon the nature of the material, shallow bedrock will be removed with a backhoe, controlled blasting, or a mechanical hydra-hammer. Blasting will only be conducted by licensed and trained professionals. Unconsolidated soils removed to construct the trenches will be screened as necessary and returned to the excavated trench for backfill. Any excess earth or rock that was removed during the excavation process will either be graded within the ROW at designated and approved locations or transported off-site for disposal.

4.5.3 Soils

Impacts

Soil conditions for the expanded Project site are generally similar to those that were evaluated in the 2013 FGEIS.

About 39.4% of the soils at the expanded Project site are favorable (with only moderate limitations) for agricultural use. In addition, nearly 78% of the soils are comprised of soil groups 1-4, which are mineral groups with potentially favorable agricultural properties. Although the property currently has only limited agricultural use, future development as a business park/manufacturing site will reduce the availability of suitable agricultural soils. This will result in a small, unavoidable impact.

Bringing a new utility service to the Project site will involve temporarily disturbing soils along a linear distance. Much of the utilities will be constructed within an existing ROW corridor. Because the soils along existing ROW have been previously disturbed/impacted, potential development will have negligible to minor impacts to soils in those areas. In locations where the soils have not been previously disturbed, potential impacts will be localized, minor, and short-term. Best management practices and engineering controls will mitigate potential impacts.

Mitigation

Mitigation for soils was detailed in the 2013 FGEIS (Draft Section 4.5.3). No additional mitigation for on-site soil disturbance is necessary.

Prior to beginning the offsite utility trench construction, a future developer will obtain a NYSDEC SPDES permit for construction. This permit will require that erosion control measures be established to mitigate any potential impacts. Erosion controls such as silt fencing, hay bales, erosion logs, rip rap, and use of temporary drainage controls (e.g., waterbars, slope breakers, culverts) will be established. In general, topsoil will be stripped and stockpiled, and will be used after construction to re-establish the original surface condition to the greatest extent practicable. The disturbed soil will be restored and

stabilized by grading, seeding, and planting of native species matching or consistent with the surrounding terrain and vegetation. Excess soils will be disposed of at established on-site locations or transported to approved off-site disposal sites. Soils that are excessively compacted due to heavy equipment, will be roto-tilled or aerated prior to re-seeding. Restored areas will be monitored to ensure that revegetation was effective and that there is no ongoing soil erosion. If necessary, periodic re-seeding will be performed.

4.6 Water Resources

4.6.1 Groundwater

Impacts

No adverse environmental conditions were noted during the previously prepared geotechnical investigation. That study included analysis of certain areas within the expanded Park. There is currently no known usage of groundwater in the expansion area. It is expected that on site groundwater will not be used as a water source, since a nearby OCWA water main can serve the Park.

Construction and operational activities at the Park are not expected to have any significant impact to either groundwater quantity or quality. Potable water at the Park will be derived from an existing OCWA waterline and groundwater will not be needed. Therefore, site operations will have no impact to long-term groundwater quantity.

Shallow groundwater conditions will need to be considered during site design/construction and may require engineering controls or mitigation, as was indicated in the prior 2013 FGEIS.

Potential development at the expanded Park could create up to 4,000 jobs, which could increase demand for housing, and require new residential construction spread throughout the Syracuse Metropolitan Statistical Area for future employees. Additional drinking water supplies, some of which may be from groundwater sources, are likely. This could present a relatively small, localized impact on groundwater availability.

Potential groundwater impacts associated with the proposed utility lines have been evaluated by identifying and assessing the existence of mapped sand and gravel aquifers within the vicinity of the proposed gas and sewer line routes. Both proposed utility routes are located within unconsolidated, confined aquifers, located in the immediate vicinity of Mud Creek. However, no significant impacts to these resources are anticipated, as construction of the proposed utility lines are not expected to encounter groundwater and general best management practices will be followed to avoid and/or minimize any potential impacts to groundwater quality as described below.

Minimization and Mitigation

Prior to beginning construction of off-site utility trenches, a Stormwater Pollution Prevention Plan (SWPPP) and SPDES Construction Permit with provisions to address potential concerns associated with accidental spills or leaks from construction equipment will be prepared. Included will be controls for vehicle refueling, maintenance, equipment inspections, spill response, and storage of petroleum products.

No additional mitigation for on-site groundwater, beyond what was identified in the 2013 FGEIS (Draft Section 4.6.1) is necessary.

New off-site groundwater supplies may be necessary to support residential construction for the anticipated work force. Mitigation for off-site groundwater supplies is generally beyond the control of the future site developers and not quantifiable at this time. However, the impact is expected to be relatively minor. New housing would likely be built in multiple areas and builders would prefer areas with existing water supplies. If new water wells are drilled to support residential developments, they would require permits from NYSDEC, NYSDOH and the local health department. Wells for an individual home would require relatively minor amounts of groundwater, typically 5 gallons per minute or less. With appropriate well spacing, this amount of pumping will not significantly impact groundwater resources.

4.6.2 Surface Water

Impacts

As detailed in the 2013 FGEIS, significant permanent impacts to surface drainage and surface water quality are not expected as on-site development activities will avoid surface water features to the greatest extent possible. Because surface water drainage is primarily influenced by slope and soil properties, and these two factors will be largely unchanged from the original conditions following site development, no significant impacts to surface water are expected.

No significant impacts are anticipated along the proposed utility routes because the excavated trench work will be backfilled primarily with the originally excavated soils, and the topography will be restored to the initial grade. There may be minor, temporary impacts to surface water drainage and quality during the construction of the on-site facilities and the installation of the proposed utility lines. These temporary potential impacts could result from ground disturbances that cause a localized increase in turbidity, changes in slope, loss of vegetation and minor leaks or spills of fluids from construction equipment, or inadvertent loss of poured concrete.

Minimization and Mitigation

In areas where surface water is encountered by the utility installations, temporary diversion structures would be utilized to control surface water flow and bypass the work zone. Such temporary measures may include: the use of small coffer dams, bypass piping, culverts, temporary drainage ditches, or trench boxes. Excavated soils would be protected or staged in a manner that prevents runoff and increased turbidity into adjacent streams. The location and extent of any temporary or permanent measures will be determined at the engineering design phase of tenant development. Implementation of these measures may require authorization under a United States Army Corp of Engineers (USACE) Nationwide Permit, which would likely be determined during and/or after the engineering design phase. Any other local, state, and/or federal regulatory requirements would also be determined at that time.

No additional mitigation for onsite surface waters, beyond what was identified in the 2013 FGEIS (Draft Section 4.6.2) is necessary.

4.6.3 Stormwater/Drainage/Flooding

Impacts

During facility construction, standard best engineering practices will be employed to minimize any changes to existing topography and vegetative cover. These general procedures will minimize any related impacts to existing surface drainage and water quality. Impacts to drainage patterns on site will be avoided by incorporating permanent stormwater controls to maintain peak storm discharges at or below pre-development levels.

A 100-year floodplain and associated floodway exists alongside Mud Creek, along the preferred sewer line route. This includes an approximate 800 feet section of the existing sewer route, north of NYS Route 31. It is anticipated that this floodplain will not be adversely affected by utility line construction. Normal operation of the utility line will have no impact on the floodplain since topographic changes will be minimal. Minor temporary impacts during construction could occur. These impacts could include erosion as well as sediment loading. Mitigation measures are discussed below.

Minimization and Mitigation

As detailed in the 2013 FGEIS, it is anticipated that coverage under SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-20-001 (SPDES Construction GP) would be required, as construction activities associated with site development are anticipated to be greater than one acre. A Notice of Intent (NOI) would need to be filed with NYSDEC in advance of any construction activities or ground disturbance. As part of the SPDES Construction GP and SWPPP, a MS4 SWPPP Acceptance Form from the Town of Clay and/or Town of Cicero may be required, depending on the off-site locations of the stormwater discharges. The SWPPP would also identify best practices and standards for erosion and sediment control incorporating engineering standards developed by the NYSDEC (2016). The SWPPP would identify best practices and standards for erosion and sediment control incorporating engineering standards developed by the NYSDEC (2016). These practices may include engineering controls, such as silt fences, hay bales, geofabric installation, stormwater retention, stabilized construction entrances, check dams, and infiltration basins. A Spill Prevention Control and Countermeasures (SPCC) Plan and/or a NYSDEC Petroleum Bulk Storage (PBS) Registration may also be required if site development and/or operations are deemed regulated. The SPCC Plan would address the potential for minor accidental spills or leaks from construction equipment as well as any on-site PBS tanks or containers. The plan would also include provisions for inspections, secondary containment, equipment refueling practices, and spill response.

As there are no floodplains or Special Flood Hazard Areas on-site, no impacts to floodplains or Special Flood Hazard Areas would occur and therefore mitigation in these areas would not be required.

Final design should make provisions for avoiding impacts to the floodplain, such as locating above grade infrastructure outside of the floodplain and by maintaining grades within the proposed utility routes. Best management practices will be implemented during construction, including sediment and erosion control measures. It is not anticipated that any stream disturbance to Mud Creek would occur nor is it anticipated that any structures or other fill materials will be placed within the floodplain that would affect its function or value. Furthermore, previously disturbed locations will be selected for material storage/staging during

installation of the utilities to the greatest extent possible to minimize impacts. Areas of disturbance will be re-graded and re-seeded once the installation of the utilities are complete.

No additional mitigation for on-site stormwater, drainage, and flooding, beyond what was identified in the 2013 FGEIS (Draft Section 4.6.3) is necessary.

4.7 Air Resources

4.7.1 Air Quality

Air emissions resulting from potential development of the proposed expanded Park may be associated with mobile and stationary sources, including transportation vehicles and manufacturing processes, respectively. Potential sources of emissions may be related to manufacturing support systems, heating and cooling, storage tanks, wastewater treatment, and site utilities such as boilers, chillers and back-up generators. Semiconductor manufacturing makes use of processes that require specific chemicals, heat and clean water. The processes typical of the industry include:

- Photolithography
- Doping
- Thin Film Deposition/Layering
- Etching
- Cleaning
- Chemical Mechanical Planarization

Process heat is generated from natural gas boilers. To accommodate disruptions in the supply of natural gas, some boilers are designed to also burn #2 fuel oil. The boilers generate combustion products including CO, NO_2, SO_2, and $PM/PM_{10}/PM_{2.5}$, and through secondary chemical processes in the atmosphere combustion products produces ground level O_3.

Although there is currently no known tenant(s) for the proposed expanded Park, it is anticipated that a tenant from the semiconductor industry could have the following combustion sources:

- Boilers firing natural gas with a maximum heat input rating of approximately 40 MMBtu/hr, each.
- Boilers firing natural gas, with #2 fuel oil during periods of natural gas curtailment, with a maximum heat input rating of approximately 40 MMBtu/hr, each.
- Miscellaneous natural gas fired sources with a maximum heat input rating of <10 MMBtu/hr.
- Emergency generators that fire diesel.
- Some exempt and trivial sources, including the wastewater pre-treatment operations.

Table 4.7-1 Representative Facility Emissions Summary[1]	
Contaminant Name	**Potential to Emit (tons/year)**
PM_{10}	15-20
$PM_{2.5}$	15-20
Sulfur Dioxide	15
Oxides of Nitrogen	99 (capped)
Carbon Monoxide	99 (capped)
Lead (elemental)	1.3E-03
Total Volatile Organic Compounds	13
Total Hazardous Air Pollutants	17
Carbon Dioxide Equivalents	251,000

[1]Due to the fact that there is no specific tenant for the Park, process specific operating data, including material usage, is unavailable. A representative emissions inventory for a generic semiconductor manufacturing operation was created as a basis for these estimates.

The chemical processes utilize specialty gases and volatile organic compounds. The chemical used in the largest quantity is typically ammonia. The chemical processes generate regulated contaminants which may include hazardous air pollutants. The main pollutants commonly associated with semiconductor manufacturing include but are not limited to ammonia, hydrogen chloride (HCl), hydrogen peroxide, and nitrogen trifluoride.

Exposure to ammonia and hydrogen peroxide may cause irritation of the eyes and respiratory tract. Acute exposure can cause burns and is potentially fatal. Exposure to irritating concentrations of HCl can result in coughing, pain, inflammation, edema, and desquamation in the upper respiratory tract. Acute exposure to high concentrations might produce constriction of the larynx and bronchi and closure of the glottis. Exposure to nitrogen trifluoride can cause dizziness and asphyxiation. Contact with liquid ethyl lactate may cause mild irritation of eyes and (on prolonged contact) skin. Breathing cyclopentanone can irritate the nose and throat causing coughing and wheezing. High exposure can cause dizziness, lightheadedness and passing out. (www.epa.gov, www.osha.gov; pubchem.ncbi.nlm.nih.gov)

Mobile source air emissions will result from private employee vehicles and transportation of manufacturing materials, products and by-products by truck and rail. Air emissions from vehicle traffic will be related to vehicle exhaust from idling vehicles due to traffic movement and congestion. The emissions from mobile sources are essentially combustion products which have the potential health impacts described above. According to the FHWA interim guidance, a quantitative mobile source air toxics analysis should be considered for transportation projects located in proximity to populated areas that create new capacity or add significant capacity to urban roadways with projected annual average daily traffic (AADT) of at least

140,000 vehicles or create (or significantly alter) a major intermodal freight facility involving significant numbers of diesel vehicles. The proposed development does not trigger any of these requirements.

4.7.2 Climate Change

Based on the representative GHG emission estimates for a generic semiconductor manufacturing operation, GHG emissions from the expanded Park could include the following:

- Direct GHG emissions associated with natural gas and fuel oil combustion in boilers, thermal incinerators and other miscellaneous natural gas-fired sources
- Carbon dioxide emissions from the oxidation of volatile organic compounds (VOCs) from the expected use of liquid chemicals
- Specialty gases used in the manufacturing process, including fluorinated and chlorinated GHGs.
- Indirect (upstream) GHG emissions from the import of natural gas and fuel oil

Potential direct annual GHG emissions at the expanded Park could range from 150,000 metric tons carbon dioxide equivalent ($MTCO_2e$) to 350,000 $MTCO_2e$. Approximately 10-15% of these GHG emissions are expected to result from the use of specialty gases including nitrogen trifluoride and sulfur hexafluoride, which have 20-year global warming potentials (GWP) of 12,800 and 16,300, respectively. Indirect (upstream) potential annual GHG emissions from the import of fossil fuels could range from 150,000 $MTCO_2e$ to 250,000 $MTCO_2e$.

Minimization and Mitigation

As noted in the 2013 FGEIS, all future industrial development will be subject to applicable air emission permitting under NYSDEC. Such an application will be required to be submitted to NYSDEC who will, in turn, review the application in accordance with all applicable state and federal laws, and impose appropriate permit conditions. NYSDEC will also undertake a review of the potential development's GHG emissions under the CLCPA.

The waste products generated in the largest quantity are typically hydrofluoric and hydrochloric acid. Emissions of hydrofluoric and hydrochloric acid and other chemical pollutants associated with semiconductor manufacturing are controlled with acid gas scrubbers and caustic gas scrubbers. These devices reduce emissions by capturing and converting the contaminants to liquids that can then be treated or disposed of. Volatile organic compounds are controlled with thermal oxidizers which decomposes hazardous gases at high temperatures by burning natural gas. Equipment controlling emissions must be operated and maintained in accordance with the monitoring requirements of any future air permit.

Facilities locating within the Park will have to meet air emission permit requirements designed to meet the NAAQS and comply with all applicable regulatory requirements. NYSDEC will impose, as appropriate, permit conditions to implement emission control equipment and other operating parameter and conditions, which any prospective tenant will be required to abide by. In addition to the permitting requirements, mitigation for air pollutant emissions include material handling protocols and industrial good housekeeping practices.

For purposes of minimizing GHG emissions, future tenants will be encouraged to promote green infrastructure and energy efficiency (Section 9.0) and, to the extent feasible, use renewable forms of energy to power operations. In general, Park tenants will be expected to take a proactive approach to addressing sustainability, climate change and GHG reduction. Depending on the specifics of future development of the Park, this approach may include the following:

- Working to develop process improvements, including those that reduce GHG emissions by eliminating the use of the GHGs with higher GWPs.
- Setting goals to improve energy efficiency and reduce electricity consumption.
- Use of a vehicle fleet that includes hybrid and electric vehicles.

The boilers, incinerator and diesel generators that will be operated at the facility will be new. For the purpose of promoting efficient operation and reducing the potential for excess GHG emissions, these sources will be operated in accordance with the manufacturer's instructions. Boiler maintenance and testing will also be conducted in accordance with the manufacturer's instructions. Dual-fired boilers will be operated such that fuel oil will be used as backup and only when natural gas is not available.

Some specialty gases that will be used in processes at the facility will have built-in point of use (POU) abatement devices which are integral to the processes. The POU abatement expected to be utilized at the facility consist of thermal-based incineration followed by a water scrubber. The halogenated specialty gases, including fluorinated and chlorinated GHGs, will decompose into HF and HCl which is then absorbed by the water side of the POU. The HF and HCl that is not captured by the water side of the POU is then sent to the house scrubbers for control.

With respect to mobile emissions, road and intersection improvements adjacent to the Project site as determined by the traffic analysis will provide for smoother traffic flow and reduced delays along access roads to the Park. Movement of goods and materials for use by rail could help reduce the amount of truck traffic to and from the Project site. Combined these efforts are expected to generally reduce air emissions associated with potential future development of the Park, including GHG emissions.

Construction-related air quality impacts will be temporary, and mitigation will be implemented to control fugitive dust problems by sweeping and wetting down road surfaces and laydown areas used by haul vehicles. In addition, existing vegetative buffer areas will be maintained to the greatest extent practicable on-site to reduce wind-blown dust. Maintaining vegetated buffer areas and re-vegetating disturbed areas as soon as practicable along the periphery of the Park and internally alongside wetlands and other surface features will help control stormwater runoff and fugitive dust from moving off-site.

Erosion and sediment control practices will be implemented on-site and along utility routes being utilized for the installation of utilities. A summary of practices that will implemented are available from the NYSDEC http://www.dec.ny.gov/docs/water_pdf/bluebklite.pdf . These will include a combination of practices to control sediment and dust.

4.7.3 Odor

Odors can result from emission of organic and inorganic compounds. Different compounds produce different odors and have unique detection and recognition thresholds. As indicated in the air permit

application, emissions of hydrogen chloride and ammonia are expected to be among the larger emissions from manufacturing facilities likely to be located in the Park. The permit application indicates estimated actual annual emissions of hydrogen chloride and ammonia each of approximately 20,000 pounds per year. The odor detection threshold for hydrogen chloride is variously listed between one and five parts per million (www.chlorineinstitute.org), and as low as 0.25 ppm (NIH PubChem database). The odor detection threshold for ammonia is 5 ppm according to several sources (OSHA, CDC). Odor detection thresholds for other compounds included in the permit application emissions vary by compound. Without proper mitigation, the potential exists for odors to occur. As noted in the discussion of air impacts and mitigation, facilities manufacturing semiconductors utilize a variety of controls to reduce the concentration of pollutant emissions.

4.8 Ecological Resources

4.8.1 Wetlands

The goal for potential development at the Park has been and continues to be the avoidance of adverse impacts to wetlands to the maximum extent practicable and development of the Park will adhere to a practice of avoidance, minimization, and if necessary, mitigation of impacts to wetlands.

It is anticipated that much of the development at the expanded Park will occur in the prime developable area of approximately 732 acres which does not include any mapped wetlands. As described in Chapter 3, Section 3.8 most of the potential NWI and NYSDEC-mapped wetlands (limited to those that are 12.4 acres or larger) are situated on the eastern perimeter of the Project site (east of Burnet Road) and north of the electric transmission line easement. It is, therefore, anticipated that the Park can be developed without impacting existing wetlands. To the extent development occurs beyond the approximately 732 acres, when a specific development is proposed, field reconnaissance, and if necessary, a wetland delineation, will be conducted prior to actual site development, to identify the design that avoids and minimizes the potential for wetlands impacts.

The goal of avoiding wetland impacts will be furthered by field reconnaissance that confirms the limited extent of regulated jurisdiction wetlands on the Project site compared with mapped wetlands. The new Navigable Waters Protection Rule changed the definition of "waters of the United States," which narrowed the scope of wetlands that fall under federal jurisdiction compared to the rule that was in place at the time of the prior FGEIS in 2013. Under the new Rule, only "adjacent wetlands" that abut or have a direct connection with jurisdictional waters, such as navigable waters and tributaries, fall under USACE jurisdiction. Ephemeral streams, certain ditches, and prior converted cropland, among other features, are not regulated. Because NWI maps only indicate the potential presence of wetlands but are not jurisdictional maps, mapped wetland areas would be subject to the newly revised rule.

After wetland areas are delineated (including state wetland 100-foot adjacent areas) and determined to be jurisdictional based on a conceptual layout, measures to avoid and minimize wetland impacts to the maximum extent practicable will be incorporated into the development design. Mitigation would not be necessary if wetlands are preserved.

If complete avoidance is not practicable for development activities that are not exempt from regulation, development would proceed with permits issued by NYSDEC and/or the USACE. NYSDEC has a designated Class II and a designated Class III wetland near or within the Project site, which are associated with intermittent streams that flow into Youngs Creek, an unregulated Class C, non-navigable stream. A permit application would be submitted to NYSDEC, or a Joint Application to the NYSDEC and USACE in a case of concurrent jurisdiction. Issuance of a permit would be based, in part, on a showing that losses or impacts on the functions and benefits of the wetland have been minimized and the social and economic need for the Project. Required mitigation would likely be minimal because of measures to avoid and minimize impacts, but on-site mitigation areas are available within and north of the NYPA/ National Grid electric transmission line easement, which would allow for a 2:1 mitigation ratio. Onsite mitigation can exist outside of the site boundaries, but within or contiguous to the impacted wetland. This will ensure that the size and integrity of the wetland will be maintained, and lost functions and benefits are replaced in-kind. If onsite mitigation is not feasible or suitable locations are not present, possible off-site mitigation options will be considered in consultation with the NYSDEC. Monitoring would be required for a minimum of five years.

Encroachments on federal jurisdictional wetlands (not jointly associated with NYSDEC wetlands) can be mitigated through purchase of in-lieu fee credits from wetland banks; several wetland banks with credit capacity are available for future development if impacts cannot be avoided; no long-term monitoring is required for in-lieu fee mitigation. USACE review may be further expedited by approval through a Nationwide General Permit or Letter of Permission depending on the scale of future development. At this time, because there is no specific development proposal before OCIDA, potential development-specific impacts to wetlands, if any, cannot be evaluated.

Proposed Utility Line Routes

The same practice of avoiding, minimizing, and if necessary, mitigation of impacts to wetlands will apply to the installation of utilities. Chapter 3, Section 3.8 describes several potential small to medium size mapped wetland areas that will need to be delineated and may fall under the jurisdiction of the USACE as federal wetlands unless excluded by the Navigable Waters Protection Rule. One potential avoidance measure, if necessary, would be to install the utility lines using horizontal directional drilling (HDD) methods to avoid wetland impacts. The need for HDD installation will be determined after a field reconnaissance and delineation to determine if regulated wetlands are present and may be impacted once the conceptual Project site layout is complete.

Proposed Roadway Improvements

The same practice of avoiding, minimizing, and if necessary, mitigation of impacts to wetlands will apply to the proposed roadway improvements. Based on previous wetland delineations performed under the 2013 FGEIS and the wetland evaluation for the expanded Park, there will be no impacts on wetlands at the proposed site driveway entrance on NYS Route 31 or at the NYS Route 31 and Henry Clay Boulevard Intersection. Although TES previously identified Wetland D in close proximity to the proposed driveway entrance for Caughdenoy Road, the delineation was performed prior to the enactment of the Navigable Waters Protection Rule, which narrowed the definition of jurisdictional wetlands. Wetlands were not evaluated in the vicinity of I-81/NYS Route 31 Interchange. These and other NWI-mapped wetlands will

be further evaluated when a more specific development is proposed to determine actual jurisdictional wetland boundaries.

The NYSDEC map identifies a Class II wetland located southeast of NYS Route 31. This wetland's check zone (as shown on Figure 3.8-1) encompasses portions of NYS Route 31 where full depth asphalt, mill and overlay, concrete sidewalks, and grading limits are being proposed. Check zones measure to 500 feet for wetland polygons and 200 feet around linear wetlands. Check zone should not be confused with the regulated "adjacent area". If wetland or adjacent area impacts cannot be avoided, permitting would proceed as described above.

A formal delineation using state and federal criteria has not been conducted at this time but will be completed prior to detailed engineering design if these roadway improvements are chosen by a developer as the most feasible alternative.

4.8.2 Vegetation

Most development in the proposed expanded Park would be south of the transmission lines and west of Burnet Road. Within this area, the Park is anticipated to disturb approximately 400 acres of upland land cover, remaining outside of, and avoiding any impacts to wetland areas.

Anticipated impacts include the temporary and permanent loss of vegetation. This includes the removal of existing trees and the disturbance or stripping of existing ground cover during construction. The development will also include the conversion of existing vegetated cover into impervious surfaces.

Minimization and Mitigation

A preliminary design objective in developing the Park is to balance the amount of industrial development with avoidance and/or minimizing impacts to sensitive features. This includes vegetation, as it pertains to wetland areas and specific wildlife habitats. These areas would be avoided to the maximum extent practicable through careful site planning and design. Impacts, if any, to wetlands will be compensated as previously discussed in section 4.8.2. Additionally, mitigation measures for soils are identified in section 4.5, mitigation for water resources are identified in section 4.6 of this report.

Furthermore, in areas where vegetative restoration is required, the following will be considered:

- Establish 90% permanent ground cover within one growing season (one year) following construction.
- Seeded areas should be evaluated and reseeded as necessary to achieve 90% cover as soon as practicable.
- On flat areas (less than 30 percent slope), mulch (i.e., straw, burlap, chips, etc.) can be applied to aid temporary and permanent restoration and soil stabilization.
- On steeper slopes (in excess of 30 percent slope), mulch and jute nets or erosion control fabrics may be used to provide temporary soil and site stabilization.
- Erosion control fabric can be installed per manufacturer's recommendations. These materials may be placed to minimize soil erosion and surface water runoff on disturbed sites.

- In areas where slopes are in excess of 25 percent or in stream banks, mulch may be anchored or a tackifier may be applied.
- Erosion control fabrics may be installed cross slope on short hills and stream banks.
- On long grades or in runoff ditches, where erosion control fabrics are determined by an environmental inspector to be necessary, fabrics can be installed parallel to the slope with the edges of adjacent sheets overlapped and secured with pegs or stapled to the ground, per the manufacturer's specifications.
- All erosion control fabric installation should be conducted in accordance with the manufacturer's specifications.

4.8.3 Wildlife

Based on the wildlife species observed on the site, potential development at the expanded Park has potential to affect common wildlife species and their associated habitats as described in detail in Chapter 3, section 3.8.3. This includes the five amphibians, two reptiles, 68 birds, and six mammal species identified in the TES report. (See table 3.8-2 in Chapter 3, section 3.8.3.)

Although impacts to critical habitat would be minimized to the greatest extent possible through avoidance and mitigation, potential impacts to wildlife species during development may include habitat fragmentation, habitat loss, and disturbance. Vegetative loss would temporarily disrupt the common wildlife species that inhabit the site; however, it is anticipated the transient wildlife in these areas would adapt during site development and following project completion, either by relocating to suitable areas in other areas on site or to surrounding areas.

No substantial critical habitat loss is anticipated as a result of the potential development at the proposed expanded Park. Specific impacts and mitigation measures regarding wetland areas and vegetation are described above in sections 4.8.1 and 4.8.2, respectively.

Mitigation

Installing the proposed utility corridors, site development, and roadway improvements may include temporary disturbance to wetland areas and other wildlife habitat. For those areas that are mowed and maintained (e.g., existing utility right-of-way), there will be minimal change in habitat character. Best management practices during construction with erosion and sediment controls will prevent siltation into any aqueous habitats. However, in areas where complete habitat avoidance is not practicable, the following mitigation will be considered:

- Retain/maintain existing habitat tracts, whenever feasible.
- Compensatory mitigation (e.g., wetlands) for any habitat loss, as described above in section 4.8.2.

4.8.4 Threatened or Endangered Species

As in 2013, there are no critical environmental areas or significant natural communities within or in the vicinity of the project area. Based on the available resources reviewed, there are no threatened and

endangered animal species identified by the NYSDEC/NYNHP and USFWS known to inhabit or frequent the Project site.

Mitigation

As there are no anticipated impacts to rare, threatened, or endangered wildlife species or communities, specific mitigation is not required. Future site development activities, including utility line construction and roadway improvements, however, will be monitored for any occurrence of the identified potential threatened, endangered, or species of special concern, including the Sedge wren, Eastern massasauga, Indiana bat, Osprey, and Sharp-shinned hawk to ensure that construction activities will avoid any direct harm to these listed species.

Additionally, the following USFWS recommendations, which restrict and/or prohibit incompatible construction practices should be followed, if any potential habitat/species is recognized through site reconnaissance. Additional coordination with NYSDEC should also be made prior to the commencement of development activities for concurrence and further guidance, as wildlife/habitat survey(s) may be required (i.e., a grassland breeding bird survey):

- *Indiana bat:* Follow seasonal restriction on tree cutting. Only cut trees between October 31 and March 31.
- *Sedge wren:* Prohibit incompatible practices, such as mowing and haying during the breeding season (May 1 to September 30).
- *Eastern massasauga:* Complete activities that occur within streams and/or wetlands from June 1 to August 31.
- *Osprey:* Prohibit construction activities during nesting (April 1 to August 31).
- *Sharp-shinned hawk*: Prohibit construction activities during the breeding season (March 31 to June 1).

4.9 Cultural & Archeological Resources

Impacts

The development of the approximately 1,250± acre Project site will result in the demolition of all of the existing buildings located within the project site. OCIDA will follow recommendations of New York State Historic Preservation Office (SHPO) with regard to further examination or assessment of above-ground resources. Construction of the underground utility corridors and in the vicinity of roadway improvements is not likely to impact above-ground historic resources, given their location within or adjacent to existing rights-of-way.

In 2013, EDR conducted a Phase IB archaeological survey and identified no significant archaeological sites within an approximate 340± acre area on the west side of the project site or along the extent of the

proposed sewer line. Therefore, potential archaeological impacts are limited to the approximately 910 acres remaining within the expanded Park site, the proposed utility lines, and any adjoining routes, rights-of-way, and/or other areas needed to support the project or project-related mitigation including existing or proposed infrastructure and improvements that have not previously been examined. On March 5, 2021, OCIDA received a letter from the New York State Department of Environmental Conservation which stated "[W]e have reviewed the statewide inventory of archaeological resources maintained by the New York State Museum and the New York State Office of Parks, Recreation, and Historic Preservation. These records indicate that the project is not located within an area considered to be sensitive with regard to archaeological resources." OCIDA will follow recommendations of SHPO with regard to potential impacts to archaeological resources.

Mitigation

The SHPO is an involved agency and OCIDA will follow their recommendations with regard to any further evaluation of cultural and archeological resources within the expanded Park. Should any work be required by SHPO, it will be completed by professionals meeting the Secretary of the Interiors Standards. In the event that previously unidentified historic properties or archaeological resources are discovered or if unanticipated effects on historic properties or archaeological resources occur during construction activities, the contractor will stop construction work in the area of the property/resource and coordinate with OCIDA and the SHPO. Should human remains be encountered appropriate actions will immediately be taken to stop work in the surrounding area and cover and secure the remains until the appropriate authorities have been contacted.

4.10 Visual Environment & Aesthetic Resources

4.10.1 Visual Impact Assessment

A Visual Impact Assessment of the project area was performed for a previous industrial scenario at the Park by Integrated Site, Landscape Architects, P.C. in 2000, but its assumptions and conclusions remain valid. Due to the expansion of the Park, and the issuance of the 2019 New York State Department of Environmental Conservation's Program Policy DEP-00-2 "Assessing and Mitigating Visual and Aesthetic Impacts", an updated Visual Impact Assessment was performed to supplement the original. This assessment is included as Appendix D.

The updated assessment included a review of previously identified sensitive receptors, identification of new receptors as defined by the 2019 NYS Policy, assessment of views from those locations, and identification of mitigation strategies for potentially impacted locations. The 2019 policy focuses on resources of National, State, and local significance that are open to the public.

Impacts

The updated Visual Impact Assessment identified a total of 52 sensitive receptor locations that could potentially be impacted by development of the Park. Of those 52 locations, 34 were identified in the previous assessment and 18 were additional locations identified within a 5-mile radius of the Park.

Specific publicly accessible locations identified based upon the DEP 2019 policy category list include the following:

- Oneida Shores County Park
- New York State Barge Canal Historic District
- Cicero Swamp Wildlife Management Area
- Big Bay Swamp
- Stanley J. Hamlin Wildlife Management Area
- Erie Canal National Heritage Area

Based upon their distance from the site, the relatively flat topography, and the presence of forested areas or patches between the location and the site, all these resource locations will have their view to the Park screened.

The following private or local resources were identified as having partially screened views to the Park:

- Immanuel Church – NYS Route 31 (viewpoint #8)
- Great Northern Mall (viewpoint #11)
- Calvary Church – Mud Hill Road (viewpoint #17)
- Airlane Enterprises – Verplank Road (viewpoint #20)
- Hays Airfield – Route 11(viewpoint #28)

The following two locations were determined to have open views to the Park:

- Caughdenoy Road power substation (viewpoint #1)
- Heron Marsh – Caughdenoy Road (viewpoint #34)

Mitigation

Sites determined to have partial or open views to the site will be further assessed as the site development plans are advanced. The developers will work with the county and local agencies during the site development process to identify the best strategies to mitigate any potential visual impacts from the proposed development. Each site will be individually reviewed based upon the site development plans to determine the type and extent of the visual impacts, and to reach consensus on the most appropriate site-specific methods of mitigating those impacts. Based upon the criteria identified in the 2019 NYSDEC Policy, no significant adverse visual impacts to identified public resources are anticipated.

Best management practices implemented during design and construction of the Park will mitigate several visual impacts anticipated from the industrial development of the site. More site-specific measures that can be implemented to mitigate visual impacts of the project will be identified and discussed during the Town's Site Plan review and approval process once the specific development is proposed. No significant adverse visual impacts are anticipated.

Mitigation strategies that may be considered in developing the site include:

- **Construction and Placement of Earthen Berms:** Earthen berms along with landscape plantings and/or fences for screening will interrupt critical viewpoints into the site from several nearby locations. In particular, the residences along Caughdenoy Road west of the site and along Burnet

Road to the east. Berms should be constructed at sufficient heights to block lines of sight from nearby receptors and at no greater than a 3:1 slope to prevent soil erosion and for easier maintenance. A contoured slope of 4:1, 5:1 or gentler ratio is preferable. As the site design process moves forward, berm design and placement will be carefully considered to provide a natural appearing landscape that is context sensitive to its surroundings.

- **Native Plant Material:** Landscape plantings will favor native plant species to maximize survivability rates and to reduce future maintenance costs. A well-designed plant palette consisting of deciduous and evergreen trees and shrubs will be utilized in conjunction with berms, fencing and/or walls to screen certain facilities and parking areas from nearby residents. The plant palette will provide year-round visual interest with flowering, fall color, and evergreen characteristics.

Berms can be designed combining vegetation, landscaping, and screening walls or fencing at sufficient heights to interrupt the lines-of-sight from nearby receptors. These barriers can be effective in mitigating visual and to some extent noise impacts, particularly views and noise generated at ground level by ground operations on site.

- **Forested Buffers:** Opportunities to retain existing forested buffer areas around the perimeter of the site will be identified. This will aid in minimizing views into the site and reducing potential noise and light emanating from the site. The effectiveness of forested buffers to reduce visual and noise intrusions increases with width.

- **Context Sensitivity:** Landscape plantings will be designed to complement the surrounding landscape and provide a less intrusive visual element. As an example, randomized plant layouts in disturbed areas adjacent to currently undeveloped areas will appear more natural and create less visual clutter. Form and function of the planting will be balanced to provide visual screening as quickly as possible with faster growing species, both deciduous and evergreen. Other areas may require more formalized plantings with densely spaced evergreen plant material to visually screen and/or provide mitigation for noise and light intrusion from the site.

- **Camouflage/Disguise:** Colors and patterns of color will aid in minimizing the visual effects of an object on its surrounding viewshed. The utilization of earth tones and similar color schemes in the design of buildings and structures on the site will reduce the visual contrast with surrounding

landscapes. As an example, disguising communication towers as trees is a long-standing design tactic that has been successfully implemented on other sites.

- **Low Profile and Consolidation:** The design of buildings and other supporting facilities should be to the lowest practicable heights. Consolidation of facilities may reduce the development footprint, and thus, lessen the visual impacts. Alternatives considering the height, color and capacity requirements of water towers, communication towers, smokestacks, piping, transmission lines, etc. should be explored to mitigate potential views from off-site locations.

- **Site Lighting:** Light illumination levels on the site must adhere to engineering minimums for security which may result in light pollution outside the site. By utilizing the latest technology with appropriately sized light poles and fixtures, the effects of light spill over can be minimized. Cutoff LED fixtures are efficient and provide more accurate direction of the light. The most efficient combinations of light pole and fixture will be implemented to reduce light spill over to the greatest extent practical without sacrificing safety and security.

- **Site Entrances:** Site entrances and entrance roadways may be engineered to be curvilinear to minimize views into the site from local roads. Installing landscape plant material to obscure the views into the site at entrances can be beneficial, but clear sight lines must be maintained for the safety of all users including bicyclists and pedestrians.

- **On-Site Opportunities:** Integrating opportunities for visual mitigation and noise mitigation efforts with other site design considerations such as stormwater management areas, safety and security features, fencing, berms, screening walls, building placement, landscaping, etc. will be explored.

4.10.2 Lighting Impacts and Mitigation

Impacts

The proposed project will require exterior lighting in the form of roadway, parking lot, and building exterior lighting, to provide adequate safety and security for the employees and visitors to the site. The goal of the site lighting plans will be to provide the necessary light levels for safety and security onsite, while avoiding or minimizing glare, reducing light trespass, and reducing skyglow. The lighting design for the site will seek to use Dark Sky friendly lighting fixtures.

Transportation Lighting

The lighting design for the approach roadways (NYS Route 31 and Caughdenoy Road) and interior roadways on the site will follow the Illuminating Engineering Society (IES) Recommended Practices for lighting of exterior environments (RP-33-99) and for parking lots (RP-20) to avoid or minimize glare and trespass lighting.

The lighting design for the roadways and parking lots will direct light downward using techniques such as cutoff fixtures and shielding. These techniques have proven to be effective in minimizing glare and trespass light that may be detrimental to humans, plants, and animal species surrounding the developed areas of the site and its approach roads.

The proposed roadway improvements outside the site will be designed with standard roadway lighting complying with the current NYSDOT HDM Chapter 12 and the NYSDOT Policy on Highway Lighting for highway lighting. Prior to installation of new highway lighting, the locality must agree to be responsible for the operation and maintenance of the new fixture. The luminaire selection for the roadways will be specified according to the IES. The lighting equipment will be selected based on the locality preferences and standards specified in the NYSDOT HDM. Lighting solutions that may create spillover or glare on offsite resources will not be considered for lighting of the roadways.

Exterior Lighting of Structures

The facility structures for the development will require exterior lighting for safety and security of employees and visitors. As the project moves to more detailed design, the designers will employ Dark Skies guidelines to ensure that exterior building lighting will focus all lighting down toward the ground to minimize spillover of light upward.

Obstruction Lighting

The site is within five miles of the of the Syracuse Hancock International Airport. This falls within the limits of requirements for obstruction lighting of any onsite structure 200 feet tall or greater. (USDOT FAA Advisory Circular AC70/7460-1M dated 11/16/2020). The development of the site has established a maximum height of 160 feet for any structures built on the site. This would indicate that there will be no requirements for Obstruction lighting on the site. Further coordination with the Syracuse Hancock International Airport and the FAA during site design will be required to confirm that no structures erected on the site will require Obstruction Lighting.

4.11 Noise

4.11.1 Impacts

The nature of potential noise impacts resulting from development and operation of the Park have not changed significantly since the completion of the 2013 FGEIS. However, the expanded footprint of the Park and the proposed roadway improvements include additional areas that require noise impact assessment for construction and operation activities.

The proposed expanded Park includes areas currently zoned for industrial uses as a right of use, as well as areas currently zoned for residential and agricultural uses (see Section 3.1.2). Industrial development has the potential to cause an increase in environmental sound levels in the vicinity of the Park due to industrial operations and employee and delivery traffic. Traffic will be comprised of both automobile and truck traffic, but the composition of new traffic is uncertain until specific industrial tenants are known.

Depending on specific industries, noise from manufacturing processes, public address systems, building heating, ventilation and cooling systems, truck movement, and back-up alarms may, among others, all be potential sources of noise. Future tenants may need to assess the impacts of their operations on ambient conditions as part of the Town's site plan approval process. Traffic and site operations are expected throughout the day and at night depending on operational requirements. Most sources are considered stationary but may vary in intensity and duration.

Construction noise is an unavoidable impact of land development activity and will vary daily and by season. Noise will originate from the use of heavy equipment for land clearing and earthmoving. Impacts will be highly variable as equipment moves around the site and external construction areas.

Assessment Guidance

As discussed in Chapter 3, the NYSDEC guidance document, ***Assessing and Mitigating Noise Impacts*** provides noise impact assessment procedures and identifies potential mitigation practices. The NYSDEC guidance states:

> *"When certain criteria are satisfied, the need for undertaking a noise impact analysis at any level is eliminated. These criteria are as follows:*
>
> *a) The site is contained within an area in which local zoning provides for the intended use as a "right of use". It does not apply to activities that are permissible only after an applicant is granted a special use permit by the local government; and*
> *b) The applicant's operational plan incorporates appropriate best management practices (BMPs [see Section V.C. Mitigation - Best Management Practices]) for noise control for all facets of the operation.*
>
> *Where activities may be undertaken as a "right of use", it is presumed that noise has been addressed in establishing the zoning. Any residual noise that is present following BMP implementation should be considered an inherent component of the activity that has been found acceptable in consideration of the zoning designation of the site."*

NYSDEC guidance provides for different impact threshold levels for projected noise over ambient sound levels. To this, the guidance document also states:

> *"The goal for any permitted operation should be to minimize increases in sound pressure level above ambient levels at the chosen point of sound reception. Increases ranging from 0-3 dB should have no appreciable effect on receptors. Increases from 3-6 dB may have potential for adverse noise impact only in cases where the most sensitive of receptors are present. Sound pressure increases of more than 6 dB may require a closer analysis of impact potential depending on existing SPLs (Sound Pressure Levels) and the character of surrounding land use and receptors. SPL increases approaching 10 dB result in a perceived doubling of SPL. The perceived doubling of the SPL results from the fact that SPLs are measured on a logarithmic scale. An increase of 10 dB(A) deserves consideration of avoidance and mitigation measures in most cases."*

NYSDEC guidance states that typical human reaction to increases in decibel levels are as follows:

- *Under 5 decibels increase* — *Unnoticed to Tolerable*
- *5 - 10 decibel increase* — *Intrusive*
- *10 - 15 decibel increase* — *Very Noticeable*
- *15 - 20 decibel increase* — *Objectionable*
- *Over 20 decibels increase* — *Very Objectionable to Intolerable*

This noise impact assessment also considers the project in relation to local ordinances. Section 152-4 of the Clay Town Code, denoting specific performance limits on noise in industrial districts and limits on construction activity, and Section 143 of the Town of Cicero Town code specifying limits on construction activities, are discussed in Chapter 3, Section 3.11.

Noise levels generally decrease at an attenuation rate of 6 dB(A) per doubling of distance under ideal conditions. In other words, a receptor located approximately 100 feet from the source would be expected to experience a level that is 6 dB(A) less than a receptor located 50 feet from the source.

In reality, projected noise levels are influence by local variables, including weather conditions and the screening effects of vegetation and topography, and observations are likely to vary from the idealized model. In many cases, observed sound levels at receptors may be lower than anticipated due to the screening effects of intervening topography, structures and vegetation, and atmospheric absorption of sound energy.

Preliminary Noise Assessment

Although specific industrial uses and the scale of their development are not known some assumptions on noise can be based on a potential development and a conceptual footprint based on the prime developable area. For assessment purposes several assumptions can be made concerning development and potential noise sources including:

- Construction-associated noise will be produced during construction of on-site infrastructure, including demolition of existing structures, installation of roadways, parking areas, utilities, stormwater management areas, buildings, as well as during construction of improvements to existing infrastructure external to OCIDA's property boundaries, including new utility installations and improvements to nearby roadways.

- Operations including vehicle traffic and equipment movement along internal roadways, utility/storage yards and parking areas will generate noise. Manufacturing processes and building mechanical systems (heating, ventilation, air conditioning, etc.) may also create exterior noise.

To estimate potential noise levels, five residential areas near the expanded Park area were considered representative of other nearby receptors. Distances between noise generated on site and the property lines of the proposed expanded Park and these receptors were determined using publicly available mapping, including aerial photos. Typical noise levels that may be generated by the project were estimated using NYSDEC guidelines and other source materials from the Federal Highway Administration, Federal Railroad Administration, and website research.

The five receptors include:

a) A home approximately 800 feet north of the Caughdenoy Road/NYS Route 31 intersection representative of at least five other residences along the west side of Caughdenoy Road
b) A home approximately 2,700 feet north of the Caughdenoy Road/NYS Route 31 intersection on the west side of Caughdenoy Road just south of the Jerome Fire Equipment Company

c) A home on the east side of Caughdenoy Road approximately 750 feet north of the existing CSX grade crossing, approximately 150 feet west of the Park's property boundary representing two other homes in the vicinity
d) A home south of the Park's property line and the Old Route 31 right-of-way. This is north of NYS Route 31 and represents other residential parcels in this vicinity
e) A home in a residential development east of the Park's property line on Meltzer Court

Construction Noise

Construction noise differs from operational noise in several ways:

- Construction noise is highly variable and somewhat unpredictable depending on the type of equipment and its location relative to a receptor. Construction traffic noise varies by vehicle and by where along the travel path the vehicle is located relative to the receptor.

- Construction generally occurs during daytime hours when most receptor activity is occurring outside and less likely to adversely affect outdoor activity unless it is based on recreation or similar outdoor uses that may rely on quiet conditions.

- Construction activity is generally short-term and more acceptable as such.

Noise levels generated during construction activities within the Park were estimated using information for different types of construction equipment by determining levels at specific distances from the source based on typical noise attenuation rates. Noise levels for construction equipment are presented in Table 4.11-1. These levels are based on a reference distance of 50 feet from the source of noise (engine, muffler, etc.), as obtained from the NYSDEC guidance and Federal Highway Administration Construction Noise Handbook[1].

[1] Construction Noise Handbook Final Report, US Department of Transportation – Federal Highway Administration, August 2006

Table 4.11-1: Typical Construction Equipment Noise Levels		
Construction	**Typical Noise Level dB(A)**	
Equipment	**at 50 Feet from Source**	
	FHWA	**NYSDEC**
Air Compressor	81	-
Backhoe	80	83-86
Concrete Mixer	85	63-71
Concrete Pump	82	-
Crane	83	-
Dozer	85	80
Generator	81	78
Grader	85	85
Jack Hammer	88	82
Loader	85	-
Paver	89	-
Pile Driver	101	-
Roller	74	-
Scraper	89	-
Shovel	82	-
Truck (Dump)	88	91

Sources: FHWA Construction Noise Handbook &
NYSDEC "Assessing and Mitigating Noise Impacts" 2001

Potential development would include demolition, on-site construction activities within the Town of Clay and roadway improvement construction in the Town of Clay and the Town of Cicero. For the purposes of this preliminary assessment, it is presumed that construction activities will take place within the hours specified in the respective town codes.

For estimating construction noise three pieces of equipment were assumed to be operating simultaneously in the same area of the site. A dump truck at 91dB(A), a grader at 85dB(A) and a dozer at 80dB(A) combining for a total 93 dB(A) at 50 feet per the NYS DEC guidance document. The potential noise levels experienced at the five receptor locations are indicated in Table 4.11-2.

Table 4.11-2 Potential Construction Noise at Receptors								
Receptor Number	Distance from OCIDA PL to Receptor PL	Representative Day Time Ambient Sound Level	Construction Noise at OCIDA P_L w/o screening	Distance from Town Setback/ Building Line to Receptor PL	Construction Noise at Receptor P_L with w/o buffer screening	Construction Noise at Receptor P_L with w/ buffer screening	Combined Noise at Receptor P_L with w/ buffer screening	Increase in Sound Level at Receptor P_L with w/ buffer screening
1	50 ft.	72.9 dBA	81 dBA	250 ft.	79.5 dBA	74.5 dBA	76.5 dBA	3.6 dBA
2	50 ft.	63.6 dBA	81 dBA	250 ft.	79.5 dBA	74.5 dBA	74.5 dBA	10.9 dBA
3	50 ft.	63.6 dBA	81 dBA	350 ft.	77.0 dBA	72.0 dBA	73.0 dBA	9.4 dBA
4	50 ft.	72.9 dBA	81 dBA	250 ft.	79.5 dBA	74.5 dBA	76.5 dBA	3.6 dBA
5	50 ft.	51.0 dBA	81 dBA	250 ft.	79.5 dBA	74.5 dBA	74.5 dBA	23.5 dBA

If assumed to be operating at the required Town setback line of 200 feet from the expanded Park boundary the noise level at the property line would be approximately 81dB(A). At receptor property lines the noise levels would be slightly lower at approximately 79.5 dB(A) at the three nearest receptors. This noise level assumes no additional attenuation by topography or vegetation in the 200-foot project buffer.

Dense vegetation may reduce noise levels further between 3 to 7 dB(A) per NYSDEC guidance which is reflected in the last column of Table 4.11-2 where the reduction in noise levels was assumed to be mid-point at 5 dB(A). Topographic screening and/or constructed barriers have the potential to reduce sound propagation by significant measures (in excess of 10 dBA), depending on orientation. A combination of earthen berms and/or vegetation would create additional attenuation if the line-of-sight is effectively blocked. Effective berms at sufficient heights could reduce levels further from those shown in the last column of Table 4.11-2.

NYSDOT construction noise guidelines recommend maximum allowable levels of 80 dB(A) at a receptor. Such levels are most likely to occur within 200 feet of a noise source and on site because of the existing 200-foot setback along Caughdenoy Road and NYS Route 31 at the Park. For example, assuming a maximum noise level generated by several pieces of equipment operating at 93 dB(A) at 50 feet and attenuation of 12 decibels at 200 feet would result in the 81 dB(A) shown above. At 400 feet the sound level would decrease to 74 dB(A) and less than 65 dB(A) at about one-quarter mile.

In general, the closest residences to the site (and on-site construction activity) are about 300 feet from the outermost building line (setback) allowed by local zoning. Thus, construction noise levels at a nearby off-site receptor at this distance would be approximately 77 dB(A) or about 3 decibels below the 80 dB(A) NYSDOT guideline.

Roadway improvements and utility installation may take place closer to nearby residents (about 100 feet from the centerline) and could experience slightly higher temporary levels. Temporary construction activity beyond the boundaries of the expanded Park that will be necessary for utility installation and roadway improvements along NYS Route 31 and Caughdenoy Road may result in noise levels at nearby residences greater than that which might be expected from on-site construction work.

Operational Noise

Operational noise from potential development at the proposed expanded Park is anticipated to include vehicle and equipment movement along internal roadways such as employee vehicles and delivery trucks; utility/storage yards and parking areas; manufacturing processes; and building systems such as heating, ventilation, and air conditioning.

Ambient sound levels at the Park location currently exceed "Steady-State" (operational) limits specified in the Town of Clay noise ordinance. Industrial operations at the proposed expanded Park do not present the potential to cause sound levels to exceed these limits at the property line. Therefore, this preliminary analysis evaluates potential impacts associated with operational noise resulting in sound levels above current ambient conditions.

Vehicular traffic speeds within the Park are expected to be controlled, and associated noise levels from vehicular traffic will correspond to NYSDEC's categorization of *Light Auto Traffic*, producing sound levels of 50-55 dB(A) at a distance of 50 feet. Building systems would likely contribute sound levels on the order of NYSDEC's level of approximately 60-65 dB(A) per unit at a distance of 20 feet. (See Figure 4.11-1)

Sound levels originating from multiple sources are additive. However, as decibels are measured on a logarithmic scale, source sound levels are also added logarithmically. As a result, a maximum combined sound level produced by multiple contributing sources is limited to approximately 10 decibels above the highest individual contributing sound level. Furthermore, as sound levels also decay logarithmically over distance, the additive effects of sound levels are limited by the proximity of the sound sources to one another. For the purposes of this preliminary analysis, combined operational sound levels within the operational footprint of the site (200 feet from the property line) are presumed to be a conservatively high 72 dB(A) at a distance of 50 feet.

Operational noise levels estimated for post-construction activity on site are shown in Table 4.11-3. In this instance, assuming an operational noise level of 72 dB(A) at 50 feet and attenuation of 3 to 7 decibels per distance doubling or assuming 5 dB(A) as mid-point, would result in 62 dBA at the proposed expanded Park's property line and slightly less at nearby receptor property lines. Day-time ambient sound levels along Caughdenoy Road and NYS Route 31 currently exceed these operational sound levels projected to the Park property lines.

Dense vegetation may reduce noise levels further between 3 to 7 dB(A) per NYSDEC guidance, which is reflected in the last column of Table 4.11-3**,** where the reduction in noise levels was assumed to be mid-point at 5 dB(A). Topographic screening and/or constructed barriers have the potential to reduce sound propagation by significant measures (in excess of 10 dBA), depending on orientation. A combination of earthen berms and/or vegetation would create additional attenuation if the line-of-sight is effectively

blocked. With the addition of modest amounts of screening, the levels at receptors closest to the noise might be reduced to 56 dB(A). This assumes noise being generated up to the setback line on site, which may or may not be the case. A more likely scenario would assume noise levels are generated in more interior portions of the site, thereby resulting in noise levels slightly lower at receptor locations.

Table 4.11-3 Potential Operational Noise at Receptors

Receptor Number	Distance from OCIDA PL to Receptor PL	Measured Representative Day Time Ambient Sound Level	Assumed Representative Night Time Ambient Sound Level	Operation Noise at OCIDA P_L w/o screening	Distance from Town Setback/ Building Line to Receptor PL	Operation Noise at Receptor P_L w/o buffer screening	Operation Noise at Receptor P_L with w/ buffer screening	Day Time Combined Noise at Receptor P_L with w/ buffer screening	Night Time Combined Noise at Receptor P_L with w/ buffer screening	Night Time Increase in Sound Level at Receptor P_L with w/ buffer screening
1	50 ft.	72.9 dBA	62.9 dBA	62 dBA	250 ft.	61.0 dBA	56.0 dBA	72.9 dBA	63.9 dBA	1.0 dBA
2	50 ft.	63.6 dBA	53.6 dBA	62 dBA	250 ft.	61.0 dBA	56.0 dBA	64.6 dBA	58.0 dBA	4.4 dBA
3	50 ft.	63.6 dBA	53.6 dBA	62 dBA	350 ft.	58.0 dBA	53.0 dBA	63.6 dBA	56.6 dBA	3.0 dBA
4	50 ft.	72.9 dBA	62.9 dBA	62 dBA	250 ft.	61.0 dBA	56.0 dBA	72.9 dBA	63.9 dBA	1.0 dBA
5	NA*	51.0 dBA	41.0 dBA	62 dBA	2,400 ft.*	40.4 dBA	<30.0 dBA	51.0 dBA	41.0 dBA	0.0 dBA

*Presumes operations only to the west of Burnet Road

Operational noise, including during nighttime operations, observed at nearby residential receptors adjacent to the site may result in increases in sound levels from existing ambient conditions in the range of 0.0 to 4.4 dB(A).

Impacts

The NYSDEC Noise Policy indicates increases in sound pressure levels of less than 5 decibels are considered "*unnoticed to tolerable"* by human hearing. NYSDEC guidelines further state that increases in sound pressure levels between 0 to 3 dB should have no appreciable effect on receptors. Changes in noise levels of 3 dB(A) or less are not perceptible by human hearing. An increase of 3 to 6 dB may have a potential for adverse noise impact in cases where the most sensitive receptors are present. An increase of more than 6 dB may require a closer analysis of impact potential depending on existing sound pressure levels and the character of the surrounding land use and receptors.

Furthermore, NYSDEC guidance states that the goal for any permitted operation should be to minimize noise levels above ambient levels at the chosen point of sound reception. The addition of any noise source, in a non-industrial setting, should not raise the ambient noise level above a maximum of 65 dB(A). Ambient noise levels in an industrial or commercial area may exceed 65 dB(A) with a high end of 79 dB(A). In these instances, mitigation measures utilizing best management practices should be used in an effort to ensure that a facility's generated sound levels are at a minimum.

The analysis above indicates potential worst-case-scenario increases of sound levels at surrounding receptor property lines of up to 4.4 dB(A) during nighttime operations. Increases of this magnitude are considered "unnoticed to tolerable," and present the potential for adverse impacts only in cases of the most sensitive receptors. These findings are predicated upon operational sound levels consistent with operational noise sources contributing 62 dB(A) at the Park property line. Operational sound sources resulting in projected sound levels at the Park property line in excess of 62 dB(A) may require additional analysis and/or mitigation.

Temporary and intermittent construction activities may have the potential to increase sound levels in excess of 10 dB(A) at nearby receptor property lines depending on the exact location of construction activities associated with a specific development proposal. NYSDEC notes increases in sound pressure levels of 10-15 decibels to be "very noticeable," 10-15 decibels to be "objectionable," and above 20 decibels to be "very objectionable to intolerable." Increases in sound levels due to construction activities are an unavoidable temporary impact that may warrant additional mitigation.

4.11.2 Mitigation

In many instances operational noise can be mitigated by site layout to increase the distance between noise source and receptor to the greatest extent possible. Additional reductions can be achieved by maintaining natural buffer areas as vegetative screens and constructing earthen berms or other noise barriers on site. Physically blocking the line-of-sight between source and receptor is effective in reducing noise levels to some degree.

The location and need for earthen berms and similar types of noise barriers will be confirmed at the time a specific tenant proceeds with site engineering and review by the Town. Earthen berms will be effective in reducing noise levels if sufficient in height, width, and length. Overall dimensions will need to be determined. A barrier may be required in lieu of a berm if space is restricted.

The placement of buildings, utility yards, equipment, and materials storage, loading docks, air compressors, etc. can influence noise levels at off-site receptors. Screening these areas from receptors east, west, and south of the Park may be necessary. Additional measures include installing enclosures of heating, ventilation, and air conditioning (HVAC) building systems and utilities. Noise from transportation sources can be mitigated by adjusting work and delivery schedules to distribute employee and truck traffic during hours of operation.

At a minimum, the following mitigation measures will be incorporated into the various phases of site development to reduce potential noise impacts.

- Community accessible information including construction schedules will be prepared by project tenants and made available at suitable locations (door-to-door, websites, town offices) to notify neighbors of upcoming work. A complaint resolution process will be implemented and monitored by the tenant and/or OCIDA during construction.
- All construction equipment will be maintained with properly functioning noise reduction muffler systems per manufacturer's specifications as part of construction contracts and contractor responsibilities.

- Earth-moving equipment will be restricted from "tail gate banging" during sensitive times of the day (early morning and late evening) and when operating near residential receptors.
- Building construction near adjacent residential receptors will consider phasing opportunities and scheduling work to reduce potential noise impacts by erecting buildings, berms, stockpiling materials, structure placement, etc. to interrupt sight lines and therefore reduce noise levels being generated in the direction of sensitive receptors as construction advances on-site.
- Haul roads, access drives, materials storage areas, staging areas, etc. will be placed as far from sensitive receptors and internal to central portions of the site to the greatest extent practicable.
- Limiting construction to normal daylight hours to the greatest extent practicable. If nighttime construction is required, consideration will need to be given to use of variable level audible back-up alarms on heavy equipment, and/or use of strobe lights or other OSHA approved safety devices.
- Establish a project hotline (website and phone numbers) so residents can be kept informed of the status of project construction and obtain information for forwarding on complaints relative to construction activity due to noise, dust, work hours, etc.

4.12 Human Health

Due to the anticipated construction and operations of the expanded Park, there could be activities that cause some degree of change to the physical aspects of the surrounding area, including the potential for increased traffic, air emissions and noise. These changes have the potential to cause small to moderate impacts to the human health of surrounding residents including more "sensitive" receptors like nursing home residents and small children.

Future construction activities at the Park could create impacts associated with construction equipment noise, dust generation associated with earth moving/grading, and increased vehicular traffic. New manufacturing operations will result in some degree of air emissions, depending upon the specific manufacturing processes (see Section 4.7). Long-term site operations could also impact public safety due to increased traffic from the relatively large workforce.

Minimization and mitigation for temporary impacts during construction activities include restrictions on site access, hours of construction activity, delivery of equipment and materials to the site, measures to control dust from disturbed soil, best management practices for temporary fuel storage, and flagging/traffic control measures to protect all modes of travel within any construction area or public right-of-way.

General impact minimization and mitigation measures will require that the future site tenants obtain all necessary local, state, and federal permits, demonstrating that they are developing and operating the site in accordance with all regulatory requirements and laws. Operational procedures and avoidance measures will be established to minimize potential offsite impacts to human health. Mitigation measures for potential impacts during operation of new facilities include improvements in intersection designs, implementation of air emission control devices on industrial process, and vegetative and earthen noise barriers between new facilities and neighboring properties. Specific mitigation measures for traffic, air and noise are addressed in greater detail in Sections 4.3, 4.7, and 4.11, respectively.

Past spills constitute relatively minor environmental incidents that are not expected to present any significant human health or environmental risks to the Project or surrounding community considering the small quantities of spilled material and the status of the spills (i.e., all dealt with to the satisfaction of NYSDEC). Furthermore, with one exception, the spills did not occur within the expanded Park boundaries. The one spill that did occur at the north end of Burnet Road only involved 2 quarts of oil and has been satisfactorily addressed. A Geotechnical Investigation Report[2] previously prepared for the Park did not encounter any adverse environmental conditions. There were two minor past spills that occurred in off-site areas where new utility lines could be constructed. In the unlikely event that any contaminated soil is encountered during construction, it will be segregated, sampled, and disposed of in accordance with applicable regulations.

[2] C&S Engineers, Inc. Geotechnical Investigation Report (1996).

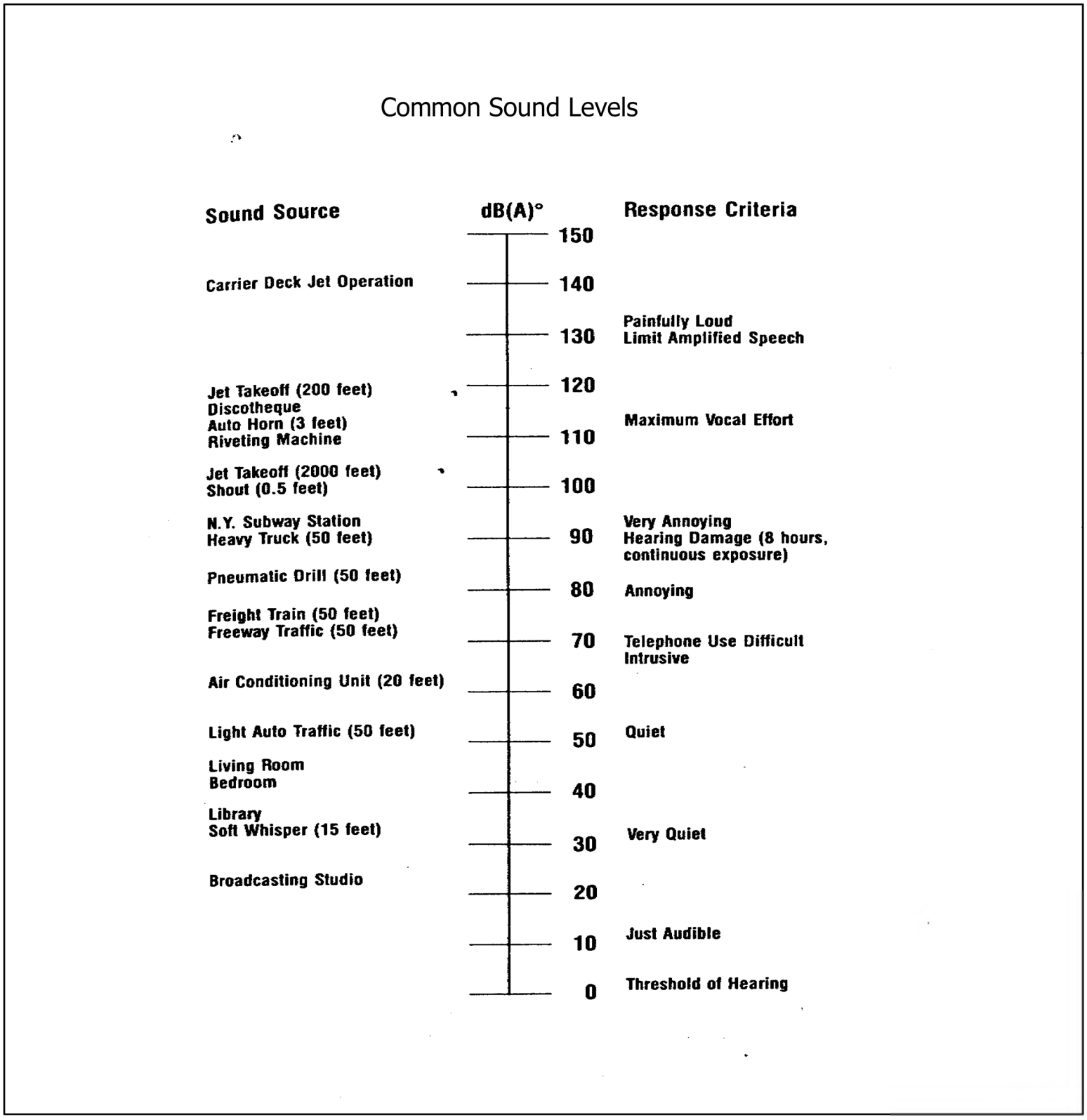


Figure 4.11-1:
COMMON SOUND LEVELS

Date Printed: 4/27/2021

Data Sources:
Table E (page 19) from NYSDEC Assessing and Mitigating Noise Impacts, dated February 2, 2001.

5.0 CUMULATIVE IMPACTS

5.1 Cumulative Impacts

It is anticipated that the expansion of the Park and subsequent development of the Park for industrial semiconductor uses will induce similar cumulative impacts and effects to the area as was identified during the 2013 FGEIS. It remains possible that the expanded Park could be a catalyst to additional industrial and business development in this area, particularly, the area to the west of the Park along Caughdenoy Road that is already zoned for industrial uses (I-2) and areas south of the expanded Park where lands are vacant and currently for sale. The addition of the sewer line to and through this area further adds to the attractiveness to develop this area for industrial or business use.

There are several new developments in various stages of approval and review by the Town of Clay Planning Board. The two most relevant developments are a 60-unit senior housing complex along Brewerton Road east of the Park, which was recently approved by the Town of Clay Planning Board for construction. There is also a mixed use Planned Development District (PDD) on the corner of NYS Route 31 and Henry Clay Boulevard that will soon be presented to the Town of Clay Planning Board for approval. If approved, this new PDD will include approximately 100 +/- apartments and some mixed-use retail units on the bottom floors towards the front of the parcel. Given their distance from the Park, it is not anticipated that the construction of either of these potential developments would create cumulative impacts if constructed concurrently with the development of the Park.

The development of the expanded Park or any surrounding areas that develop as a result of development at the Park could create positive cumulative impacts and economic spin-off. This could include an increase in employment opportunities, increases in local discretionary spending providing additional sales tax revenues to State and local governments, demand for new goods and services support businesses, and further diversify the tax base of the Town of Clay.

The installation of a sewer force main along NYS Route 31/Caughdenoy Road intersection and northward along Caughdenoy Road paired with the various intersection improvements along NYS Route 31 will likely make this area attractive to industrial and business uses as well. Added industrial and business uses would increase traffic along NYS Route 31 and Caughdenoy Road. The additional traffic on NYS Route 31 could impact levels of service at several intersections and require improvements at a quicker pace than presently expected as discussed in Chapter 4, Section 4.3.

Potential new growth and economic expansion could create some adverse cumulative impacts. Changes in surrounding land use could put additional demand on sewer capacity and wastewater treatment at the Oak Orchard WWTP and may require upgrades to capacity at the plant to support future growth in the area. The conversion of undeveloped land to other uses will cause a loss of vegetation and wildlife habitat. Encroachment and impacts to environmentally sensitive features including, but not limited to wetlands and floodplains may occur. Changes in visual character from relatively undeveloped land to increased densities may also result. Depending on the nature and extent of development, there may be increased demand on municipal services for fire, police and emergency services. There may also be increased demand on housing, schools and local utilities. The mitigation of these potential impacts will need to be determined as new development projects are introduced and will need to be coordinated at that time with the Town of Clay and possibly other entities and involved agencies.

5.2 Mitigation

Road improvements and the provision of other infrastructure, particularly expanded sanitary sewer capacity at the Oak Orchard Wastewater Treatment Plant, and the potential cost implications for increased municipal services in anticipation of further development of the area would require local, state and federal funding. The establishment and implementation of policies at the Town and County level will be required to manage land use and infrastructure development along and especially north of the NYS Route 31 corridor to control the potential for adverse effects of additional development in the area. These policies may be established through the *Town of Clay Northern Land Use Study* and/or the Onondaga County Comprehensive Plan update. Implementation could also be accomplished through Town zoning and County Section 239 project reviews.

6.0 UNAVOIDABLE ADVERSE IMPACTS

6.1 Unavoidable Impacts

Many of the unavoidable adverse impacts that are likely to result from the expansion of the Park remain similar to those anticipated during the 2013 FGEIS. The difference is the geographic extent given the proposed Park expansion, which could result in greater impacts but also allow for additional buffers to avoid, minimize, and mitigate certain impacts (e.g., ecological, noise, etc.). The unavoidable impacts include the following.

6.1.1 Construction Impacts

It is expected that the expansion of the Park and subsequent construction activities during the development of the Park will generate some temporary impacts as an unavoidable consequence of the development of the Park. These impacts and their intensity will vary throughout the development of the Park. Impacts are likely to include an increase in truck traffic on nearby roads, primarily NYS Route 31 and Caughdenoy Road as construction workers and materials are transported to and from the Project site.

As identified in the 2013 FGEIS, heavy machinery and construction equipment will be used throughout construction. As a result, noise levels will increase in surrounding areas during construction activity. Limiting the placement and storage of equipment and materials as far as possible from residences surrounding the Park will help to mitigate the increase in noise levels. Construction activities will also be limited to normal daytime hours whenever possible consistent with the Town of Clay Noise Ordinance requirements to minimize impacts to nearby residents.

Excavation and the transport of materials have the potential to create fugitive dust from unpaved surfaces depending on wind direction and drying conditions. Dust will be controlled by sweeping adjacent roads to the Project site and watering access roads on site as needed. In addition, in compliance with State water quality and stormwater management regulations future development will require a complete detailed Erosion and Sediment Control and Stormwater Pollution Prevention Plan prior to any construction. These plans will be developed by future project tenants in compliance with all local, State and federal regulations. Contractors working on site will also be required to follow best management construction practices to reduce the potential for soil erosion, dust, noise, traffic and other construction impacts.

6.1.2 Traffic

An increase in traffic will result from construction and development of the expanded Park. Traffic is also projected to increase from other developments occurring in the area and will change the existing levels of service at certain intersections along NYS Route 31. Therefore, roadway improvements along NYS Route 31 are proposed based on existing and future traffic volumes. Regardless of development at the Park, transportation improvements will be required along NYS Route 31 as other development occurs over time.

6.1.3 Air Quality and Noise

Future industrial use at the expanded Park will result in increased traffic, including employee vehicles, trucks, and the possible use of rail. This will increase noise and air emissions from the Park area. There will also be an increased use of energy, water and wastewater treatment resulting from development, but the exact degree of increase is unknown at this time. The use of natural gas for process heat demands and thermal oxidizers for the destruction of volatile organic compounds will generate combustion related air pollutants. The use of chemicals in manufacturing processes will generate non-combustion air pollutants. Emission control equipment will be utilized to reduce the emission rates and overall volume of released pollutants.

6.1.4 Ecology

Areas of open field cover type within the expanded Park will be developed. It is anticipated additional upland shrubland and woodland habitat areas will also be affected by the expansion. As the Park does have the potential to impact both state and federal jurisdictional wetlands, the associated habitat areas may also be impacted by development of the expanded Park. This is consistent with the findings of the 2013 FGEIS. Much of the Park will maintain its natural habitats as areas set aside from development. Some areas on site that may experience temporary disturbance from construction activities could return to vegetated locations, (i.e., stormwater management areas, landscaping, and visual buffers). Furthermore, it is anticipated that most wildlife would adjust to site development either by relocating to suitable areas on site or to surrounding areas.

6.1.5 Visual Character

Similar to the analysis in the 2013 FGEIS, the development of the expanded Park site will alter the visual character, which currently consists of single family rural residential plots, undeveloped rural open space comprised of former farm fields, and shrub and woodland. The future development at the expanded Park will instead include industrial buildings, parking areas, support facilities, and internal roads. It is anticipated that during development at the expanded Park wetlands within the Park will remain undeveloped.

Visual changes resulting from construction and development are unavoidable. Measures to reduce the effects of visual changes include the placement of additional vegetative buffers and landscaped berms at key locations around the site, particularly along the western and southern periphery of the site to screen views and mitigate noise.

The need for specific visual mitigation measures will be determined once tenants are known and the degree of potential visual impact is determined. Building placement, the use of attractive building materials and structural design features and landscaping will be encouraged by the OCIDA to enhance the appearance of buildings and grounds. Appropriate lighting fixtures and other site design features will be determined in coordination with the Town of Clay's site plan review process.

6.1.6 Displacement of Existing Property Owners

For the objectives of the Project to be achieved, OCIDA must increase the size of the Park to make it more attractive to potential future tenants, specifically tenants in the semiconductor industry. The proposed expanded Park footprint requires that OCIDA acquire certain residences along Caughdenoy Road, NYS Route 31 and approximately 3 dozen residences along Burnet Road. These residential properties have been acquired or will be acquired by OCIDA through negotiated purchase agreements or pursuant to the Eminent Domain Procedure Law (EDPL) and existing owners will need to relocate. OCIDA must also acquire the property on which the existing telecommunication tower is located.

The properties along NYS Route 31 and Burnet Road represent a significant portion of the expanded Park's prime developable area and are therefore a necessary component of the Project. Existing structures and improvements will ultimately be demolished and/or removed in furtherance of the potential future development of the Park. Demolition activities will be conducted in accordance with Town of Clay requirements, and all debris will be disposed of at authorized off site facilities in accordance with applicable regulations. The telecommunications tower will need to be disassembled and relocated. The acquisition and removal of the residences along Burnet Road allows for the expansion of the Park footprint to accommodate large-scale campus like development for tenants and will enable maximum use of setbacks and buffers between the prime developable area of the Park and the nearest land uses to the east along and off of Brewerton Road in the Town of Cicero.

While the removal of the aforementioned residences and tower are unavoidable, owners will receive fair market value for their properties, thus enabling them to relocate within the Town of Clay or elsewhere. OCIDA will also pay the seller's normal transaction costs of updating the title and survey, recording fees, transfer taxes and other similar expenses in connection with the transfer of these properties as well as the pro rata portion of real property taxes, water rents, sewer rents, special ad valorem charges and other similar charges. In the event it is necessary to acquire any such properties pursuant to the EDPL, as condemnor, the Agency will offer just compensation based on the fair market value determined by its highest approved appraisal, and the respective property owners will have the right to challenge the amount of such just compensation under EDPL Article 5. The Agency will also pay, upon acquisition, any costs associated with recording fees, transfer taxes, penalties incurred by the condemnee for prepayment of any preexisting recorded mortgage entered into in good faith encumbering the property, and the pro rata portion of real property taxes, water rents, sewer rents, special ad valorem taxes and other similar charges.

7.0 GROWTH-INDUCING IMPACTS

The growth-inducing impacts that are likely to result from the expansion of the Park remain similar to those anticipated during the 2013 FGEIS.

7.1 Population Growth

It remains reasonable to expect that the development of the expanded Park will result in some direct and secondary growth impacts to the surrounding community. Direct impacts will result from the development of the Park itself. Secondary impacts such as industrial-related support businesses or other commercial businesses being established near the Park are also possible.

Direct impacts will include job creation both on a temporary basis during construction and long-term employment once buildings and ancillary facilities are completed and become operational. It is anticipated that construction of a campus for a large semiconductor industrial tenant will occur over the course of a year or more.

Most job opportunities created during construction will be filled by the local labor pool. However, it is anticipated that the development of the expanded Park will bring approximately 4,000 full-time high paying jobs to Onondaga County. The potential exists for many of these new jobs to be filled by people that are not currently living within the Syracuse Metropolitan Area, meaning that there could be a proportional increase in the number of households in the Syracuse metropolitan statistical area (MSA) as well as the need for new housing.

It is estimated that the North Syracuse Central School District enrollment would increase by approximately 1.6%. This increase in school population is not anticipated to place an undue burden on local schools and educational facilities, mainly due to the recent decline in the Syracuse Metropolitan Area population and resulting decline in the student aged population.

7.2 Infrastructure-Induced Growth

The development of the expanded Park will necessitate the construction of new infrastructure. The most important infrastructure improvements that are needed to support the proposed development include the traffic mitigation improvements described in Section 4.1.10, the installation of sewer force mains being designed to support the greater Oak Orchard District and a gas line as described in Chapter 3 and 4, Sections 3.4.1 and 4.4.1, respectively.

Utility connections on-site will not result in substantial growth-inducing impacts since its effects will be in support of on-site uses, but these new utilities could encourage some new growth along their conveyance routes. The availability of public sewer has the potential to foster additional development in this portion of the Town of Clay, which remains relatively undeveloped at the present time. The ability to tap into the force mains is subject to State, County and Town of Clay review and approvals. As such, development will be managed by these entities and by the available capacity of wastewater treatment at the Oak Orchard Treatment Plant. Formation of a new sewer district to serve the Clay Business Park

could help manage growth in the area. The County can service up to 4 million gallons per day (MGD) at Oak Orchard for the Park.

Transportation improvements along the NYS Route 31 corridor could also accelerate and accommodate increased development activity. Traffic improvements will be required along NYS Route 31 as development occurs. Traffic mitigation improvements proposed to support the expanded Park are not likely to induce further growth alone without other improvements along the corridor.

Development in the vicinity of the expanded Park could take several different forms at varying scales and densities depending on real estate market conditions and trends when new sewers come online. It is expected that future development in the vicinity of the Park will be in accordance with the Town of Clay Zoning Code and any related regulations or requirements in effect at the time. Under current zoning, this could translate into additional industrial development west of Caughdenoy Road and along NYS Route 31.

Development of residential uses could also occur in the vicinity of the Park as the result of sewer availability. Residential uses, perhaps as new residential subdivisions along NYS Route 31 south and east of the Project site, may occur in areas presently zoned RA-100.

All new development that occurs off-site will be subject to Town of Clay zoning requirements and site plan review. Such projects will also be subject to an environmental review under SEQRA conducted by the Town and/or other involved agencies at the time a specific project is proposed. Potential adverse environmental impacts will be identified, evaluated, and subject to project-specific mitigation measures on a case-by-case basis as part of the SEQRA review process.

8.0 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

8.1 Commitment of Resources

Similar to the 2013 FGEIS, it is anticipated that the expansion of the Park and subsequent development of the Park will require similar commitments of various types of community resources by OCIDA, Onondaga County, and other entities including the private sector as investment and development of the Park progresses.

The irreversible commitment of physical resources will include the conversion of approximately 4.0 million square feet of the expanded Park to building footprint and additional support facilities in support of potential industrial semiconductor uses. There will also be 50± acres of parking (which may include parking garages), loading areas, access and internal circulation roads at the expanded Park.

As evaluated in the 2013 FGEIS, the prime developable area of the Park generally consists of fields, shrubland, and some woodland areas. Residential properties may now be part of the prime developable area given the proposed expanded footprint of the Park along Burnet Road. Also similar to the 2013 FGEIS, areas that are likely to remain mainly undeveloped generally consist of wooded upland, wetlands and NYSDEC wetland buffer areas.

As analyzed in the 2013 FGEIS, development of the Park will require soil disturbance as well as the loss of vegetation and wildlife habitats. However, the goal will be to avoid wetlands and mature habitats to the maximum extent practicable by focusing development in the prime developable area (see Figure 1.1-2). Topsoil will be stockpiled for use on-site for landscaping, whenever possible. Trees removed for development will be considered for sale as timber and other vegetation cleared from the Project site will be recycled as mulch and landscaping, when practicable. The only difference from 2013 may be the amount of soil disturbance and trees impacts from development given the proposed expansion and greater Park acreage.

Development will include the commitment and consumption of building and construction materials including concrete, asphalt, steel, lumber, plastics and other raw materials and finished products. Development will require the consumption of water, electricity, fuel (gas and diesel), oil and other petroleum products. Additional materials and energy resources will be consumed by tenants for industrial processes. The provision of utilities for water, sewer, electrical, natural gas, and telecommunications will be required throughout construction and operation of facilities. The use of materials and goods are expected to be met by the region's supply. Nevertheless, as in 2013, this represents an irreversible and irretrievable commitment of these resources that will not be available for other uses.

The proposed Action will also require public and private services, including, but not limited to, solid waste disposal, police, fire and emergency services, as expected with any large-scale development and as detailed in the 2013 FGEIS. Commitment of these resources is an anticipated outcome of an industrial park's development.

9.0 EFFECTS ON THE USE AND CONSERVATION OF ENERGY RESOURCES

9.1 Proposed Energy Sources

Commitment and indication of adequate capacity from National Grid to support the expanded Park with natural gas and electric utility service was received. The expanded Project site is capable of supporting a mix of industrial and/or commercial use facilities located in a campus-like setting. The facilities will consume natural gas and electricity as a result of normal operations.

It is anticipated that approximately 25 acres of the site could be used for a potential electrical substation and gas regulator station to support the energy needs of the expanded project site. This space has potential to be a central energy facility intended for energy distribution to the campus facilities and buildings, while minimizing the quantity of equipment needed and maximizing energy efficiency.

9.2 Anticipated Short-Term/Long-Term Energy Consumption

Based on the targeted semiconductor industry, development of the expanded Park may employ up to 4,000 employees and operate up to 4 million square feet of facilities. Potential facilities include the following use types:

- manufacturing/fabrication/assembly space
- laboratory, research and development (R&D) space
- logistics, warehousing, and/or shipping & receiving space
- office and administration space
- manufacturing support facilities, outdoor utility spaces, maintenance areas, waste facilities, and service/storage yards
- on-site energy generation or electrical substation space
- wastewater treatment systems or pump stations
- paved area for parking (which may include parking garages), loading, internal road circulation and/or shipping/receiving areas

Although the objective of the expanded Park is to develop the site for the semiconductor and manufacturing industry, the actual demand for energy can vary greatly according to the types of industries and businesses eventually located in the Park.

US Energy Information Administration's (EIA) 2018 Manufacturing Energy Consumption Survey identified that manufacturing facilities, on average, consume 95.1 kilowatt-hours (kWh) of electricity and 536,500 British thermal units (Btu) of natural gas per square foot annually. This average can increase or decrease significantly depending on the facility use type, manufactured product, and manufacturing process.

9.3 Energy Codes and Executive Orders

Buildings and uses designed for the expanded Park will be constructed utilizing equipment and systems in compliance with energy conservation and building code standards as set forth by New York State Construction Codes. New York State has several codes and NYS programs related to their building energy code. These include the State Energy Conservation Construction Code ("SECCC"), the NYS Executive Order No. 111, and The New York Energy Smart Program.

The SECCC determines the minimum energy conservation requirements for new buildings including heating and ventilating, lighting, water heating, and power usage for appliances and building systems. Specific design requirements are related to the climate zone the building is located (Onondaga County, Zone 5A). Low energy and equipment buildings are exempt from the building thermal envelope provisions.

The NYS Executive Order No. 111 provides the guidelines for energy use and environmental issues for New York State buildings and vehicles. While this Executive Order would not apply to Private Industry, it represents an Energy Conservation Model recognized within the state that can be referenced by private industry. Some of the goals are to increase the availability of renewable energy sources and premium efficiency products, reducing peak summer energy demand and creating a less oil dependent economy. For new construction equal to or greater than 20,000 gross square feet, the building must achieve at least a 20% improvement in energy efficiency performance, meet the criteria for a U.S. Green Building Council Leadership in Energy and Environmental Design ("LEED") rating, and comply with the New York State Green Building Tax Credit requirements.

9.4 State and Local Energy Initiatives

The following incentives are available to industry within NYS with a clear intent to promote and reward the use of energy efficient systems and policies. Several are available to industry located within Onondaga County and are promoted and coordinated by OCIDA. It is in the best interest of any industry locating at the expanded Park to be as energy efficient as possible to control operating costs as well as contribute to achievement of NYS initiatives and energy objectives. New facilities systems are expected to be designed to be highly energy efficient using the latest technologies in energy use and conservation which represent the most cost effective and responsible approach for the industry.

OCIDA coordinates incentive packages for businesses through the New York State Energy Research and Development Authority ("NYSERDA") commercial/industrial programs. These programs provide energy efficiency services for new construction, industrial facilities and vehicle fleets. NYSERDA services include new renewable, clean energy and energy efficient product manufacturing incentives and services designed to promote greater transportation, lighting and HVAC efficiencies.

9.5 Energy Star and Industry Energy Responsibility Partnerships

Energy Star is a voluntary partnership program of the U.S. Environmental Protection Agency ("EPA"). Its primary purpose is to help U.S. industry improve its competitiveness through increased energy efficiency and reduced environmental impact. Through Energy Star, the U.S. EPA encourages strong and strategic corporate energy management programs and provides energy management tools and strategies to assist companies implement such programs. There are several methods for designers, contractors, and building managers to be recognized by the EPA. The most notable is the Energy Star Building Certification which requires the building to meet strict energy performance standards set by EPA. These standards include energy performance indicators ("EPIs") to calculate energy intensity and to score the facility on a 1-100 scale. A score of 75 or above is required for certification, but certification is not available for all building types and for all sectors of industry. For a building in the design phase, there is the Designed to Earn Energy Star Recognition, which signifies that the operating energy use of the building is designed to be in the top 25 percent as compared to similar buildings throughout the U.S. Industrial and manufacturing facilities that are not part of EPA's Industries of Focus are eligible to participate and receive Energy Star's Challenge for Industry Recognition which is designed to help energy managers and industrial sites improve energy performance and set goals. Industrial sites participate by committing to the pre-established goal of improving energy performance by 10 percent within 5 years or less.

Currently, semiconductor manufacturing, including, but not limited to wafer fabrication and processing, is not eligible for an Energy Star Building Certification, but can be recognized through both the Designed to Earn Energy Star Recognition and Challenge for Industry Recognition. These programs offer advanced tools to assist manufacturers in assessing and tracking energy use and prescribing energy management and improvement initiatives with goals of energy reduction. Achievement of set energy reduction and environmental improvement goals results in receiving recognition.

Unstable energy markets, increasing competition, and global regulation of greenhouse gas emissions are currently causing many U.S. manufacturers to implement energy management as a viable opportunity. A reduction in production cost can be achieved without negatively affecting the yield and quality of products by effectively reducing energy consumption and costs. This goal can often be met through investments in energy efficiency, which can include the implementation of plant-wide energy-efficiency practices and the purchase of energy-efficient technologies. These technologies can often offer additional benefits, such as quality improvement, increased production, and increased process efficiency.

9.6 LEED Design and Construction

OCIDA promotes State and Federal incentives to encourage users to develop the Park with energy systems that are both energy efficient and environmentally friendly. This can be accomplished through the planning, design and construction of facilities that are consistent with Leadership in Energy and Environmental Design (LEED) certification standards. Standards include energy efficient heating, ventilation and air conditioning (HVAC) systems, and day-lighting of interior spaces.

10.0 SOLID WASTE MANAGEMENT

10.1 Solid Waste

The proposed expanded Park may employ up to 4,000 employees and operate up to 4 million square feet of facilities. As a result of the proposed Park expansion, there will be increased generation of solid and hazardous wastes, which represents a change from what was considered in the 2013 FGEIS.

Statistics vary greatly on the amount and type of waste that is generated by industrial processes depending on types of industrial uses and materials. Based on a California study[1]that was cited in the 2013 FGEIS, an estimated solid waste generation rate for typical manufacturing and warehousing facilities is 1.42 pounds per 100 square feet per day. Using this rate and the potential for approximately 4 million square feet of manufacturing and warehouse space at the expanded Park, approximately 56,800 pounds per day (28.4 tons per day) of solid waste could be generated. For perspective, a waste hauler truck that services businesses can fit up to 40 cubic yards of compacted waste or about 13.2 tons of waste. This would equate to about two truckloads per day of compacted solid waste leaving the Park. Given recent industry improvements in waste minimization, recycling, and reuse, it is anticipated that actual solid waste generation at the Project site would be less than 28.4 tons per day. According to a 2019 GLOBALFOUNDRIES Corporate Responsibility Report, their facilities generated an average of about 9-12 tons per day of solid waste over a five-year period (assuming five manufacturing plants).

Certain properties to be acquired along NYS Route 31 and Burnet Road contain existing structures and improvements that will ultimately be demolished and/or removed in furtherance of the future development of the expanded Park. Demolition activities will be conducted in accordance with Town of Clay requirements, including a demolition permit issued by the Town of Clay, and all debris will be disposed of at authorized off site facilities in accordance with applicable regulations. It is estimated that demolition of a 2000 square foot residential structure will generate about 100-120 tons of solid waste.

10.1.1 Solid Waste Impacts and Mitigation

As described in the 2013 FGEIS, OCIDA will work with any future tenant to develop a solid waste management program that includes recycling and reuse of materials. Management and disposal of solid waste will be consistent with the goals established by the Onondaga County Resource Recovery Agency (OCRRA) in its September 2016 Solid Waste Management Plan Update. It is anticipated that the Town of Clay will incorporate solid waste management requirements (including reuse and recycling measures) into any zoning and land use approvals issued to a future tenant. These "best-management" practices are cost-effective alternatives to offsite disposal.

Transportation and disposal of non-hazardous solid waste will be coordinated with a licensed solid waste hauling firm. It is anticipated that material will primarily be taken to OCRRA's Waste to Energy Facility

[1] Santa Barbara County Public Works Department. Guide to Solid Waste and Recycling Plans for Development Projects (May 1997).

in Jamesville or an approved transfer station. OCRRA also has contingency plans for disposal of waste, if necessary, at facilities such as Seneca Meadows Landfill (Seneca County) or High Acres Landfill (Monroe County). Future development and operations within the Park will also be required to comply with Chapter 194 of the Town of Clay Town Code concerning solid waste.

At the estimated solid waste generation rate, the potential impact is not anticipated to be significant in terms of the total service area and solid waste capacity. It is anticipated that local haulers will provide adequate services to the Park, as is currently being provided to other businesses and industrial users in the County. No additional mitigation is necessary since potential impacts due to solid waste generation are minimal.

10.2 Hazardous Materials

Potential future industrial manufacturing activities at the Park could include the use and storage of petroleum, compressed specialty gases, and chemicals such as paints, solvents, chlorine, corrosive materials, and materials containing metals. Specialty gases that may be used or generated by a future tenant could include nitrogen, nitrogen trifluoride, oxygen, carbon dioxide, silane, nitrous oxide, helium, and argon.

Various types of hazardous waste may be produced as a result of the potential manufacturing and wastewater treatment activities that could take place at the proposed expanded Park. Hazardous waste could be in solid, liquid or gaseous forms and considered hazardous because of its physical characteristics or the process that generated the waste. Potential waste streams may include solvents, isopropyl alcohol, acids, hydrogen fluoride, ethylene glycol, chlorine, wastewater sludge, metal slurries, and metal plating wastes. The use, generation, treatment, handling and storage of hazardous waste will be monitored and regulated in accordance with applicable permits administered by NYSDEC and USEPA in accordance with the Resource Conservation and Recovery Act (RCRA), or other applicable State and Federal laws and regulations.

It is possible that up to approximately 60,000 tons of hazardous waste could be generated per year.

10.2.1 Hazardous Materials Impacts and Mitigation

Off-site disposal of hazardous waste would be coordinated with a licensed hazardous waste hauler and one or more permitted treatment/disposal facilities. Permitted facilities in New York State that accept hazardous waste include Chemical Waste Management - Model City (Niagara County) and Durez Corporation (Niagara County). Alternatively, hazardous waste may be transported out-of-state using private vendors.

The use, generation, treatment, handling and storage of hazardous materials and generation of waste products has the potential to create a small to moderate impact if not handled properly and in accordance with State and Federal regulations. However, any such impacts will be mitigated through the use of engineering controls, staff training, best-management practices, and compliance with State/Federal permits, laws, and regulations.

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Prepared for:

NEW YORK STATE ENVIRONMENTAL QUALITY REVIEW ACT (SEQRA)

DRAFT SUPPLEMENTAL GENERIC ENVIRONMENTAL IMPACT STATEMENT

VOLUME II:

WHITE PINE COMMERCE PARK

5171 Route 31 Town of Clay, NY 13041

Lead Agency: Onondaga County Industrial Development Agency

https://www.ongoved.com

Robert M. Petrovich, Executive Director

333 W. Washington Street, Suite 130

Syracuse, New York 13202

315-435-3770 (Fax) 315-435-3669

Prepared by:

JMT of New York, Inc
19 British American Boulevard
Latham, NY 12110
518-782-0882

May 2021

Acceptance by the Lead Agency: _____

Comments to be Submitted to OCIDA by: _____

APPENDIX A

SEQRA Documentation and Agency Correspondence

WHITE PINE COMMERCE PARK

SEQRA RESOLUTION

A regular meeting of the Onondaga County Industrial Development Agency (the "Agency") was convened in public session, remotely by conference call or similar service pursuant to New York State Executive Order 202.79 on December 8, 2020, at 8:00 a.m., local time.

The meeting was called to order by the (Vice) Chairman of the Agency and, upon roll being called, the following members of the Agency were:

PRESENT: Patrick Hogan
Janice Herzog
Victor Ianno
Steve Morgan
Susan Stanczyk
Kevin Ryan

ABSENT: Fanny Villarreal

ALSO PRESENT: Robert M. Petrovich, Executive Director
Jeffrey W. Davis, Esq., Agency Counsel
Amanda M. Mirabito, Esq., Agency Counsel

The following resolution was offered by Susan Stanczyk, seconded by Janice Herzog, to wit:

RESOLUTION CLASSIFYING A CERTAIN PROJECT AS A TYPE I ACTION, ISSUING A POSITIVE DECLARATION, AND DECLARING THE INTENT OF THE ONONDAGA COUNTY INDUSTRIAL DEVELOPMENT AGENCY TO BE LEAD AGENCY FOR THE PREPARATION OF A SUPPLEMENTAL GENERIC ENVIRONMENTAL IMPACT STATEMENT PURSUANT TO THE STATE ENVIRONMENTAL QUALITY REVIEW ACT

WHEREAS, Onondaga County Industrial Development Agency (the "Agency") is authorized and empowered by the provisions of Chapter 1030 of the 1969 Laws of New York, constituting Title 1 of Article 18-A of the General Municipal Law, Chapter 24 of the Consolidated Laws of New York, as amended (the "Enabling Act"), Chapter 435 of the Laws of 1970 of the State of New York and Chapter 676 of the Laws of 1975 of the State of New York, as amended (said Chapter and the Enabling Act being hereinafter collectively referred to as the "Act") to promote, develop, encourage and assist in the acquiring, constructing, reconstructing, improving, maintaining, equipping and furnishing of manufacturing, warehousing, research, commercial and industrial facilities, among others, for the purpose of promoting, attracting and developing

economically sound commerce and industry to advance the job opportunities, health, general prosperity and economic welfare of the people of the State of New York, to improve their prosperity and standard of living, and to prevent unemployment and economic deterioration; and

WHEREAS, to accomplish its stated purposes, the Agency is authorized and empowered under the Act to acquire, construct, reconstruct and install "projects" (as defined in the Act) or to cause said projects to be acquired, constructed, reconstructed and installed, and to convey said projects or to lease said projects with the obligation to purchase; and

WHEREAS, the Agency currently owns White Pine Commerce Park ("Park") located northeast of the intersection of NYS Route 31 and Caughdenoy Road in the Town of Clay, Onondaga County, New York; and

WHEREAS, in an effort to transform the Park into a modern industrial park for advanced manufacturing and state-of-the-art industrial uses, the Agency previously performed a thorough environmental review of the Park and its anticipated environmental impacts pursuant to Article 8 of the Environmental Conservation Law of the State of New York, as amended, and the regulations of the Department of Environmental Conservation of the State of New York promulgated thereunder (collectively referred to hereinafter as "SEQRA"), which included, but was not limited to, the following: (1) classifying the Park project as a Type 1 action; (2) acting as Lead Agency for the purpose of a coordinated environmental review; (3) conducting necessary studies and holding required hearings in connection with the preparation of a Generic Environmental Impact Statement ("GEIS") to address anticipated potential impacts associated with the proposed multi-use industrial park; (4) preparation of a subsequent Final GEIS ("FGEIS") that incorporated the DGEIS by reference and included responses to public comments received; and (5) preparation and issuance by the Agency of a Findings Statement in October of 2013 that (a) concluded the project avoided or minimized adverse environmental impacts to the maximum extent practicable, (b) incorporated mitigation measures that were considered practicable, and (c) identified certain impact thresholds that, if exceeded, may require supplemental determinations of their significance and/or impact evaluation, and possibly mitigation measures in addition to those identified; and

WHEREAS, since 2013, the Agency has attempted to market the Park for development around the country to potential manufacturing and industrial users, but those efforts have been unsuccessful and the Park remains vacant; and

WHEREAS, through its marketing efforts and communications with desired tenants around the country, the Agency has determined that the Park is not geographically large enough and must be expanded significantly to be considered an attractive, viable location for prospective large- and small-scale manufacturing and industrial developers; and

WHEREAS, to improve the Agency's ability to market the Park to a larger, more diverse mix of large- and small-scale industrial, manufacturing, and commercial users, the Agency proposes to expand the existing Park to approximately 1,253 acres by acquiring approximately 800 additional acres to the north and east of the existing Park footprint, with such additional acreage comprised of certain parcels contiguous to the current Park, and which are generally located along

NYS Route 31 and the east and west sides of Burnett Road (the "Project" or "Action"); and

WHEREAS, pursuant to SEQRA, the Agency is required to make a determination whether the "action" (as said quoted term is defined in SEQRA) to be taken by the Agency may have a "significant impact on the environment" (as said quoted term is utilized in SEQRA) and the preliminary agreement of the Agency to undertake the Project constitutes such an action; and

WHEREAS, pursuant to SEQRA (6 N.Y.C.R.R. § 617.9(7)(i)), the Agency recognizes the proposed Project represents a significant change from the Park's current footprint that presents changed circumstances from those evaluated by the Agency under its prior SEQRA review in 2013; and

WHEREAS, the Agency has prepared and completed a Full Environmental Assessment Form (the "FEAF") to aid in determining whether undertaking the Project requires a supplemental GEIS; and

WHEREAS, the Agency has not approved the Project; and

NOW, THEREFORE, be it resolved by the members of the Onondaga County Industrial Development Agency as follows:

(1) Based upon an examination of the FEAF prepared for the Project, the criteria contained in 6 NYCRR §617.7(c), and based further upon the Agency's knowledge of the area surrounding the Project, and such further investigation of the Project and its potential significant environmental impacts as the Agency has deemed appropriate, the Agency makes the following findings and determinations with respect to the Project pursuant to SEQRA:

(A) The Project consists of the components described above in the seventh WHEREAS clause of this resolution.

(B) The Project constitutes a "Type I Action" (as said quoted term is defined in SEQRA).

(C) Based on its review and evaluation of the FEAF for the Project, a copy of which is attached hereto as Exhibit A, the Agency hereby determines that the Project represents a significant change from the Park's current footprint and will result in changed circumstances from those previously evaluated by the Agency in the DGEIS/FGEIS, and the Agency hereby determines that the preparation of a Supplemental GEIS ("SGEIS") is necessary to adequately identify and evaluate potential significant adverse impacts associated with the Project that are not addressed or are inadequately addressed in the existing DGEIS/FGEIS.

(D) The Agency therefore determines that the Project requires that a supplement to the FGEIS be prepared, and, therefore, a Notice of Intent to prepare a

supplemental GEIS (i.e., a positive declaration) shall be issued, a copy of which is attached hereto as Exhibit B.

(E) As a consequence of the foregoing, the Agency hereby declares its intent to act as "Lead Agency" (as said term is defined in SEQRA) with respect to a coordinated agency review of the Project pursuant to SEQRA, including the preparation of a SGEIS, as explained in the Notice of Intent attached hereto as Exhibit B.

(F) The Agency's counsel shall arrange for publication and distribution of this determination and notice of intent to be "Lead Agency" and is hereby authorized to take such actions as are necessary and appropriate to assist the Agency in fulfilling the requirements under SEQRA for the Project.

(2) A copy of this Resolution, together with the attachments hereto, shall be placed on file in the office of the Agency where the same shall be available for public inspection during business hours.

(3) This Resolution shall take effect immediately

The question of the adoption of the foregoing Resolution was duly put to a vote on roll call, which resulted as follows:

	AYE	NAY	ABSENT
Patrick Hogan	X		
Janice Herzog	X		
Victor Ianno	X		
Steve Morgan	X		
Susan Stanczyk	X		
Kevin Ryan	X		
Fanny Villarreal			X

The Resolution was thereupon declared duly adopted.

STATE OF NEW YORK)
) SS.:
COUNTY OF ONONDAGA)

I, the undersigned Secretary of the Onondaga County Industrial Development Agency, DO HEREBY CERTIFY that I have compared the annexed extract of the minutes of the meeting of the Onondaga County Industrial Development Agency (the "*Agency*") held on December 8, 2020, with the original thereof on file in my office, and that the same (including all exhibits) is a true and correct copy of the proceedings of the Agency and of the whole of such original insofar as the same relates to the subject matters referred to therein.

I FURTHER CERTIFY that (i) all members of the Agency had due notice of such meeting, (ii) pursuant to Section 104 of the Public Officers Law (Open Meetings Law), such meeting was open to the general public and public notice of the time and place of such meeting was duly given in accordance with such Section 104, (iii) the meeting was in all respects duly held, and (iv) there was a quorum present throughout.

I FURTHER CERTIFY that, as of the date hereof, the attached resolution is in full force and effect and has not been amended, repealed or rescinded.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of the Agency this 8th day of December, 2020.

Nancy Lowery
Secretary

(S E A L)

EXHIBIT A

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: White Pine Commerce Park (formerly known as the Clay Business Park)		
Project Location (describe, and attach a general location map): 5171 Route 31, Town of Clay, NY 13041		
Brief Description of Proposed Action (include purpose or need): The Onondaga County Industrial Development Agency (OCIDA) proposes to expand its White Pine Commerce Park (the Park) in the Town of Clay, Onondaga County, NY. The project site is approximately 1,250 acres, of which the County currently owns 450 acres. The expanded Park will be capable of supporting a mix of industrial and/or commercial uses that may include industrially related office, research, manufacturing, assembly, warehousing, data management, material processing and distribution facilities in a campus-like setting. The purpose of the proposed expansion will enable OCIDA to market the Park to a larger, more diverse mix of potential developers, allowing development of the site for advanced forms of manufacturing and state-of-the-art industrial uses to facilitate the creation of high-paying employment opportunities in Onondaga County. The Park has many important attributes that make it particularly well suited to large-scale industrial and/or commercial use. The Park is accessible from major nearby interstates and State and County highways. This includes Interstate 81 (I-81) via Exit 30 at NYS Route 31 in Cicero, approximately 2.2 miles east of the project site. The I-81 interchange at Bartell Road (Exit 31) is approximately 3 miles north of the site, and the Interstate 81/481 interchange is 4 miles to the southeast. The I-481/NYSRoute 31 interchange is approximately 3.5 miles west of the Park. The New York State Thruway (I-90) is about 6.5 miles south of the Park. Syracuse Hancock International Airport is about 5 miles south of the Park along the I-81 corridor.		
Name of Applicant/Sponsor: Onondaga County Industrial Development Agency (OCIDA)	Telephone: (315) 435-3770 E-Mail: economicdevelopment@ongov.net	
Address: 333 W Washington St #130		
City/PO: Syracuse	State: New York	Zip Code: 13202
Project Contact (if not same as sponsor; give name and title/role): Robert M. Petrovich – Executive Director	Telephone: (315) 435-3770 E-Mail: robertpetrovich@ongov.net	
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor):	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Counsel, Town Board, or Village Board of Trustees ☑Yes ☐No	see attachment	tbd
b. City, Town or Village Planning Board or Commission ☑Yes ☐No	see attachment	tbd
c. City, Town or Village Zoning Board of Appeals ☑Yes ☐No	see attachment	tbd
d. Other local agencies ☑Yes ☐No	see attachment	tbd
e. County agencies ☑Yes ☐No	see attachment	tbd
f. Regional agencies ☑Yes ☐No	see attachment	tbd
g. State agencies ☑Yes ☐No	see attachment	tbd
h. Federal agencies ☑Yes ☐No	see attachment	tbd

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes ☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☑Yes ☐No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes ☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes ☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes ☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☑Yes ☐No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐Yes ☑No

If Yes, identify the plan(s):

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes ☑No

If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No

If Yes, what is the zoning classification(s) including any applicable overlay district?

A portion of the site is zoned Residential Agricultural District (RA-100), another portion is zoned Industrial 2 (I-2), and a small portion of the site zoned as One Family Residential (R-15). The Project is consistent with the intended uses in the community development plan. Some rezoning will be needed.

b. Is the use permitted or allowed by a special or conditional use permit? ☑ Yes ☐ No

c. Is a zoning change requested as part of the proposed action? ☑ Yes ☐ No

If Yes,

i. What is the proposed new zoning for the site? I-2 Industrial 2

C.4. Existing community services.

a. In what school district is the project site located? North Syracuse Central School District

b. What police or other public protection forces serve the project site?

Onondaga County Sheriff's Department

c. Which fire protection and emergency medical services serve the project site?

Clay Volunteer Fire Dept (VFD), Meyers Corner FD, Brewerton Fire District, North Syracuse FD, Caughdenoy VFD, Emergency Medical -NAVAC & NOVA

d. What parks serve the project site?

Two Town of Clay parks are located within one mile of the project site. These include Meltzer Park and the Clay Historical Park.

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? OCIDA proposes to develop a modern industrial and commercial park on the County's White Pine Commerce Park consisting of industrial and commercial uses that may include office, research, manufacturing, warehouse, assembly, or distribution facilities.

b. a. Total acreage of the site of the proposed action? 1,253+/- acres

b. Total acreage to be physically disturbed? TBD acres

c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 646 acres

c. Is the proposed action an expansion of an existing project or use? ☑ Yes ☐ No

i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % 178 Units: 800 acres

d. Is the proposed action a subdivision, or does it include a subdivision? ☐ Yes ☑ No

If Yes,

i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)

ii. Is a cluster/conservation layout proposed? ☐ Yes ☐ No

iii. Number of lots proposed? _____

iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will the proposed action be constructed in multiple phases? ☑ Yes ☐ No

i. If No, anticipated period of construction: _____ months

ii. If Yes:

- Total number of phases anticipated 2
- Anticipated commencement date of phase 1 (including demolition) TBD month _____ year
- Anticipated completion date of final phase TBD month _____ year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases:

Phase I may include development of manufacturing facilities on a portion of the property. Phase II is envisioned as primarily research and development activities on a smaller portion of the property.

f. Does the project include new residential uses? ☐ Yes ☑ No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase				
At completion of all phases				

g. Does the proposed action include new non-residential construction (including expansions)? ☑ Yes ☐ No

If Yes,

i. Total number of structures 15 - 30

ii. Dimensions (in feet) of largest proposed structure: 40' - 70' height; 1250'-1500' width; and 1250'-1500' length

iii. Approximate extent of building space to be heated or cooled: 4 - 5 million square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☑ Yes ☐ No

If Yes,

i. Purpose of the impoundment: stormwater management

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☑ Other specify: stormwater

iii. If other than water, identify the type of impounded/contained liquids and their source.

iv. Approximate size of the proposed impoundment. Volume: TBD million gallons; surface area: TBD acres

v. Dimensions of the proposed dam or impounding structure: TBD height; TBD length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): TBD

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☐ Yes ☑ No

If Yes:

i .What is the purpose of the excavation or dredging?

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards):
- Over what duration of time?

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

iv. Will there be onsite dewatering or processing of excavated materials? ☐ Yes ☑ No

If yes, describe.

v. What is the total area to be dredged or excavated? TBD acres

vi. What is the maximum area to be worked at any one time? TBD acres

vii. What would be the maximum depth of excavation or dredging? TBD feet

viii. Will the excavation require blasting? ☐ Yes ☑ No

ix. Summarize site reclamation goals and plan:

Conduct excavations and restoration consistent with regulatory permit requirements and guidance.

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☑ Yes ☐ No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): Potentially NYSDEC Class C Stream No. 899-10 (Tributaries of Oneida River); NYSDEC Wetlands BRE-11 & BRE-14; and onsite NWI mapped wetlands.

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:
Specific impacts will be determined by site plan development; potential impacts could include placement of fill or structures for outfall locations.

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☐ Yes ☑ No
If Yes, describe:

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐ Yes ☑ No
If Yes:

- acres of aquatic vegetation proposed to be removed:
- expected acreage of aquatic vegetation remaining after project completion:
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access):
- proposed method of plant removal:
- if chemical/herbicide treatment will be used, specify product(s):

v. Describe any proposed reclamation/mitigation following disturbance:
TBD

c. Will the proposed action use, or create a new demand for water? ☑ Yes ☐ No
If Yes:

i. Total anticipated water usage/demand per day: TBD gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☑ Yes ☐ No
If Yes:

- Name of district or service area: Town of Clay UWD / Onondaga County Water Authority (line owned by Metropolitan Water Board)
- Does the existing public water supply have capacity to serve the proposal? TBD ☐ Yes ☐ No
- Is the project site in the existing district? ☐ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☐ No
- Do existing lines serve the project site? ☐ Yes ☐ No

iii. Will line extension within an existing district be necessary to supply the project? ☐ Yes ☐ No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project: TBD
- Source(s) of supply for the district:

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☑ No
If, Yes:

- Applicant/sponsor for new district:
- Date application submitted or anticipated:
- Proposed source(s) of supply for new district:

v. If a public water supply will not be used, describe plans to provide water supply for the project:

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☑ Yes ☐ No
If Yes:

i. Total anticipated liquid waste generation per day: TBD gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each):
Sanitary wastewater, potentially industrial associated with future industrial processes. Nature and volume of liquid waste to be generated are to be determined.

iii. Will the proposed action use any existing public wastewater treatment facilities? ☑ Yes ☐ No
If Yes:

- Name of wastewater treatment plant to be used: Oak Orchard Wastewater Treatment Plant
- Name of district: Onondaga County Consolidated Sewer District
- Does the existing wastewater treatment plant have capacity to serve the project? TBD. Limiting factor may be BOD not volume. ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No

- Do existing sewer lines serve the project site? ☐Yes ☑No
- Will a line extension within an existing district be necessary to serve the project? ☑Yes ☐No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: Installation of dual and parallel 6-inch and 12-inch diameter PVC force mains for a total of approximately 4.3 miles. Necessary improvements to the existing OOWT Plant to accommodate the project are being evaluated.

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☑Yes ☐No

If Yes:

- Applicant/sponsor for new district: OCIDA
- Date application submitted or anticipated: TBD
- What is the receiving water for the wastewater discharge? Oneida River

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

vi. Describe any plans or designs to capture, recycle or reuse liquid waste:

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑Yes ☐No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or TBD acres (impervious surface)

_____ Square feet or 1253 acres (parcel size)

ii. Describe types of new point sources. Ditches, pipes, curbs, gutters, detention pond outfalls, etc.

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

Onsite stormwater management facility and/or offsite discharge to tributaries of Oneida River.

- If to surface waters, identify receiving water bodies or wetlands: Oneida River
- Will stormwater runoff flow to adjacent properties? ☐Yes ☑No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☑Yes ☐No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☑Yes ☐No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

Delivery and employee vehicles.

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

Potentially power generation.

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

Site tenant activity may produce process emissions. Certain facilities may require back-up power generation.

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☑Yes ☐No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐Yes ☑No

ii. In addition to emissions as calculated in the application, the project will generate:

- TBD Tons/year (short tons) of Carbon Dioxide (CO_2)
- TBD Tons/year (short tons) of Nitrous Oxide (N_2O)
- TBD Tons/year (short tons) of Perfluorocarbons (PFCs)
- TBD Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- TBD Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- TBD Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

_____

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☑Yes ☐No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☑ Morning ☑ Evening ☑Weekend
☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____
10 to 30 trucks/peak hour (approximately 2% to 5% of vehicle trips/hr for 870,000 SF logistics, warehousing, and/or shipping & receiving space)

iii. Parking spaces: Existing 0 Proposed >500 Net increase/decrease >500

iv. Does the proposed action include any shared use parking? ☐Yes ☑No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:
Caughdenoy Road/NYS Route 31 improvements; right-in driveway on NYS Route 31; widen Caughdenoy Road; signal timing adjustments, I-81 ramps

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐Yes ☑No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☑No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☑No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☑Yes ☐No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____
TBD

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):
National Grid

iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☑Yes ☐No

l. Hours of operation. Answer all items which apply.

i. During Construction:
- Monday - Friday: 7 AM - 7 PM
- Saturday: 7 AM - 7 PM
- Sunday: N/A
- Holidays: N/A

ii. During Operations:
- Monday - Friday: 24 hours/day
- Saturday: 24 hours/day
- Sunday: 24 hours/day
- Holidays: 24 hours/day

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☑ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

Noise generated from construction (M-F 7am-7pm) and site operations (24/7) are expected to contribute to sound levels within the Town of Clay Code. There is a potential for project noise to exceed ambient noise levels. Site layout will mitigate operational noise levels to the greatest extent possible.

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☑ Yes ☐ No

Describe: Onsite tree removal is proposed as part of the site development. Site layout and the possible implementation of berms will mitigate this.

n. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Light sources could include pole-mounted and/or building-mounted. Luminaries which are dark-sky friendly, high-efficiency LED lights with cut off shields to provide uniform and energy conscious illumination to walkways and parking lots will be implemented to the greatest extent possible.

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☑ Yes ☐ No

Describe: Onsite tree removal is proposed as part of site development.

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures:

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☑ Yes ☐ No

If Yes:

i. Product(s) to be stored Petroleum, miscellaneous chemicals needed to support manufacturing and research & development.

ii. Volume(s) TBD per unit time _____ (e.g., month, year)

iii. Generally, describe the proposed storage facilities:

Tanks and containers that are compliant with regulations. Secondary containment structures, as warranted.

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☑ No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☑ Yes ☐ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: TBD tons per day (unit of time)
- Operation : 20-30 tons per day (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: Onsite recycling will be provided and privately hauled to recycling facility.
- Operation: Onsite recycling will be provided and privately hauled to recycling facility.

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: Solid waste will be handled by a private contractor or municipality.
- Operation: Solid waste will be handled by a private contractor or municipality.

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☑ Yes ☐ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: TBD

ii. Generally describe processes or activities involving hazardous wastes or constituents: Manufacturing, laboratory chemicals.

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: Re-use and recycle, whenever possible.

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☑ Yes ☐ No

If Yes: provide name and location of facility: TBD

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☑ Industrial ☑ Commercial ☑ Residential (suburban) ☑ Rural (non-farm)
☑ Forest ☑ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

The site is bounded by highway commercial uses to the south, industrial uses to the west, residential agricultural use to the north, and commercial, residential, and undeveloped lands to the east.

b. Land uses and covertypes on the project site. Values provided are estimates.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	5	200 to 250	+ 195 to 245
• Forested	750 combined	500 to 550 combined	- 200 to 250 combined
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)			
• Agricultural (includes active orchards, field, greenhouse etc.)	20	0	- 20
• Surface water features (lakes, ponds, streams, rivers, etc.)	10	20 to 30	+ 10 to 20
• Wetlands (freshwater or tidal)	469	469	0
• Non-vegetated (bare rock, earth or fill)	0	0	0
• Other Describe: _____	N/A	N/A	N/A

c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☑ No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☑ Yes ☐ No

If Yes,

i. Identify Facilities:

The Cottages at Garden Grove is a nursing home located approximately 200 ft. east of the site at 5460 Meltzer Ct. in Cicero; Grace Evangelical Covenant Church is located at 5300 NY-31 in Clay, and ~200 ft. south of the proposed project site. The church runs a pre-school program.

e. Does the project site contain an existing dam? ☐ Yes ☑ No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

_____

_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Has the facility been formally closed? ☐ Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____

_____

iii. Describe any development constraints due to the prior solid waste activities: _____

_____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

_____

_____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☑ Yes ☐ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☑ Yes ☐ No

☑ Yes – Spills Incidents database — Provide DEC ID number(s): Spill No. 2005446

☐ Yes – Environmental Site Remediation database — Provide DEC ID number(s): _____

☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures: _____

Not applicable

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐ Yes ☑ No

If yes, provide DEC ID number(s): _____

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

_____

_____

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☑ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☐ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? 10-15 feet

b. Are there bedrock outcroppings on the project site? ☐ Yes ☑ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ %

c. Predominant soil type(s) present on project site:

Niagara silt loam, 0 to 4% slopes	41.56 %
Collamer silt loam, 2 to 6% slopes	26.95 %
Hilton loam, 3 to 8% slopes	5.9 %

d. What is the average depth to the water table on the project site? Average: 4.5 feet

e. Drainage status of project site soils:
☑ Well Drained: 5 % of site
☑ Moderately Well Drained: 42 % of site
☑ Poorly Drained 53 % of site

f. Approximate proportion of proposed action site with slopes:
☑ 0-10%: 98.46 % of site
☑ 10-15%: 0.92 % of site
☑ 15% or greater: 0.62 % of site

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☑ Yes ☐ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☑ Yes ☐ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☑ Yes ☐ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name 899-10 Classification C
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name Federal Waters, NYS Wetland, Federal Waters, Fe... Approximate Size 453 acres
- Wetland No. (if regulated by DEC) BRE-14, BRE-11

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☑ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100-year Floodplain? ☐ Yes ☑ No

k. Is the project site in the 500-year Floodplain? ☐ Yes ☑ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐ Yes ☑ No
If Yes:

i. Name of aquifer: _____

m. Identify the predominant wildlife species that occupy or use the project site:

eastern chipmunk	white-tailed deer	nuthatch
eastern gray squirrel	wood thrush	ruffed grouse
tufted titmouse	racoon	other common birds & small mammals.

n. Does the project site contain a designated significant natural community? ☐ Yes ☑ No

If Yes:

i. Describe the habitat/community (composition, function, and basis for designation):

ii. Source(s) of description or evaluation:

iii. Extent of community/habitat:

- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☑ Yes ☐ No

If Yes:

i. Species and listing (endangered or threatened):

Sedge Wren, Indiana Bat Further consultation with NYNHP is needed due to age of the previous studies.

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐ Yes ☑ No

If Yes:

i. Species and listing: Further consultation with NYNHP is needed due to age of the previous studies.

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐ Yes ☑ No

If yes, give a brief description of how the proposed action may affect that use:

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐ Yes ☑ No

If Yes, provide county plus district name/number:

b. Are agricultural lands consisting of highly productive soils present? ☑ Yes ☐ No

i. If Yes: acreage(s) on project site? Approx. 1/2 of Project site (626 +/-ac) soils are rated as prime farmland or farmland of statewide significance.

ii. Source(s) of soil rating(s): USDA Web Soil Survey

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☑ No

If Yes:

i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature

ii. Provide brief description of landmark, including values behind designation and approximate size/extent:

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐ Yes ☑ No

If Yes:

i. CEA name:

ii. Basis for designation:

iii. Designating agency and date:

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? ☐ Yes ☑ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: _____

iii. Brief description of attributes on which listing is based:

_____

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☐ Yes ☑ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☐ Yes ☑ No

If Yes:

i. Identify resource: _____

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____

iii. Distance between project and resource: _____ miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name GIDA Date 12/8/20

Signature [signature] Title EXECUTIVE DIRECTOR

PRINT FORM

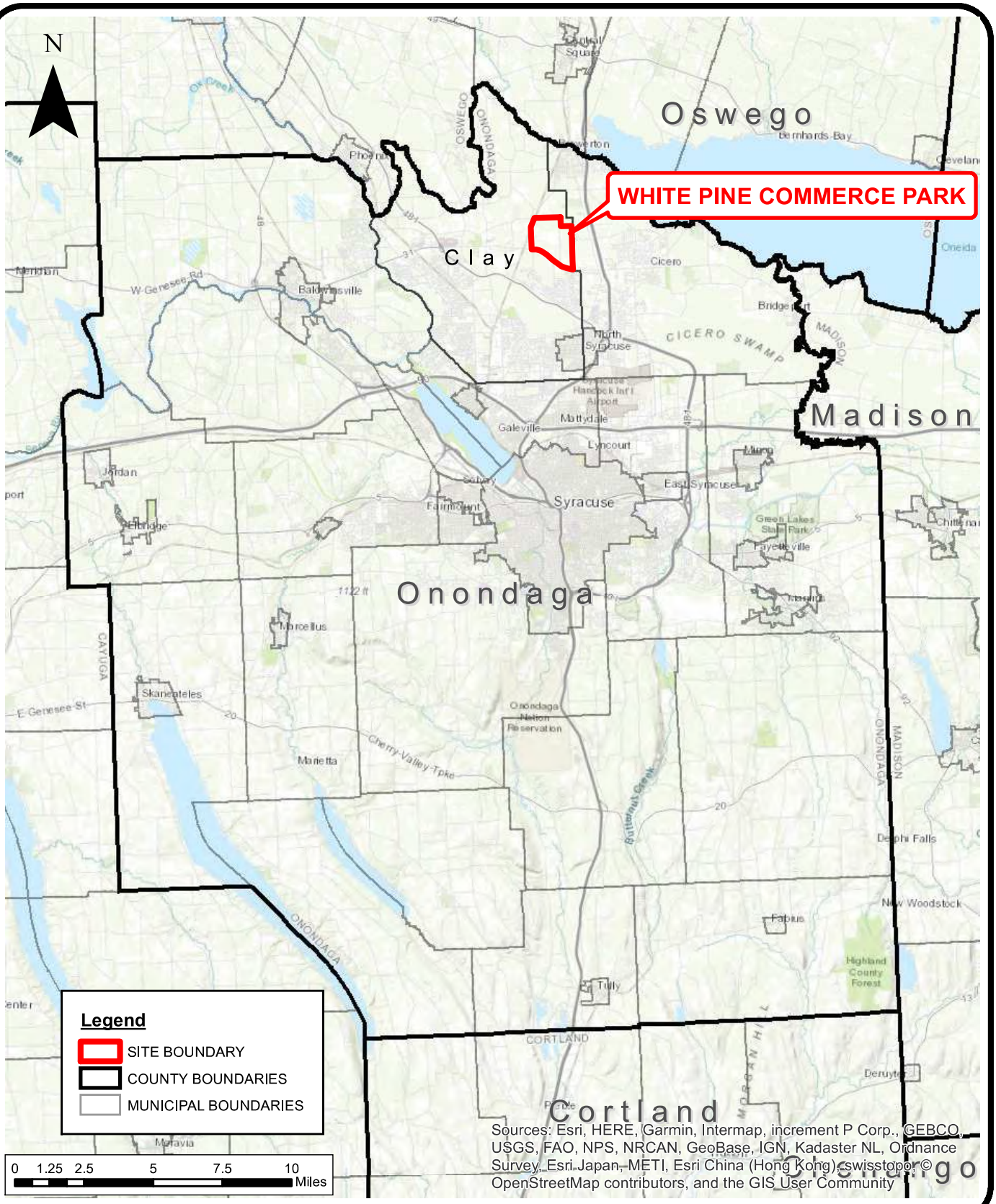
ATTACHMENT

WHITE PINE COMMERCE PARK

SEQRA EAF Part 1.B - Government Approvals, Funding, Sponsorship

Below is a list of agencies and permits/approvals that are or may be required for the future development of White Pine Commerce Park.

- Onondaga County Department of Transportation (OCDOT) - highway improvement, resignaling, right-of-way work permit, curb cuts
- Onondaga County Department of Health (OCDOH) - sewer design approval
- Onondaga County Department of Water Environment Protection (OCDWEP) - sewer infrastructure
- Onondaga County Metropolitan Water Board- water supply approval
- Onondaga County Industrial Development Agency – eminent domain
- Syracuse Metropolitan Transportation Council (SMTC) - traffic review
- New York State Department of Transportation (NYSDOT) - highway improvement, resignaling
- New York State Department of Environmental Conservation (NYSDEC)- stormwater, SPDES, SPDES General Permit, air, freshwater wetland, endangered species, 401 water quality certification
- New York State Office of Parks, Recreation and Historic Preservation (NYS OPRHP) – historical/archaeological resource review
- United States Army Corps of Engineers (USACE) - wetland permit, Nationwide permit
- United States Fish and Wildlife Service (USFWS) - endangered species
- Town of Clay Town Board – zone change
- Town of Clay – subdivision, site plan
- Town of Clay Zoning Board of Appeals- zoning variance, special permit
- Town of Clay Planning Department- Building permit, inspection and certificate of occupancy, SWPPP approval, MS4 approval
- Syracuse Onondaga County Planning Agency – GML 239-m review



19 British American Blvd.,Latham, New York 12110
P: (518) 782-0882 F: (518) 782-0973 www.jmt.com

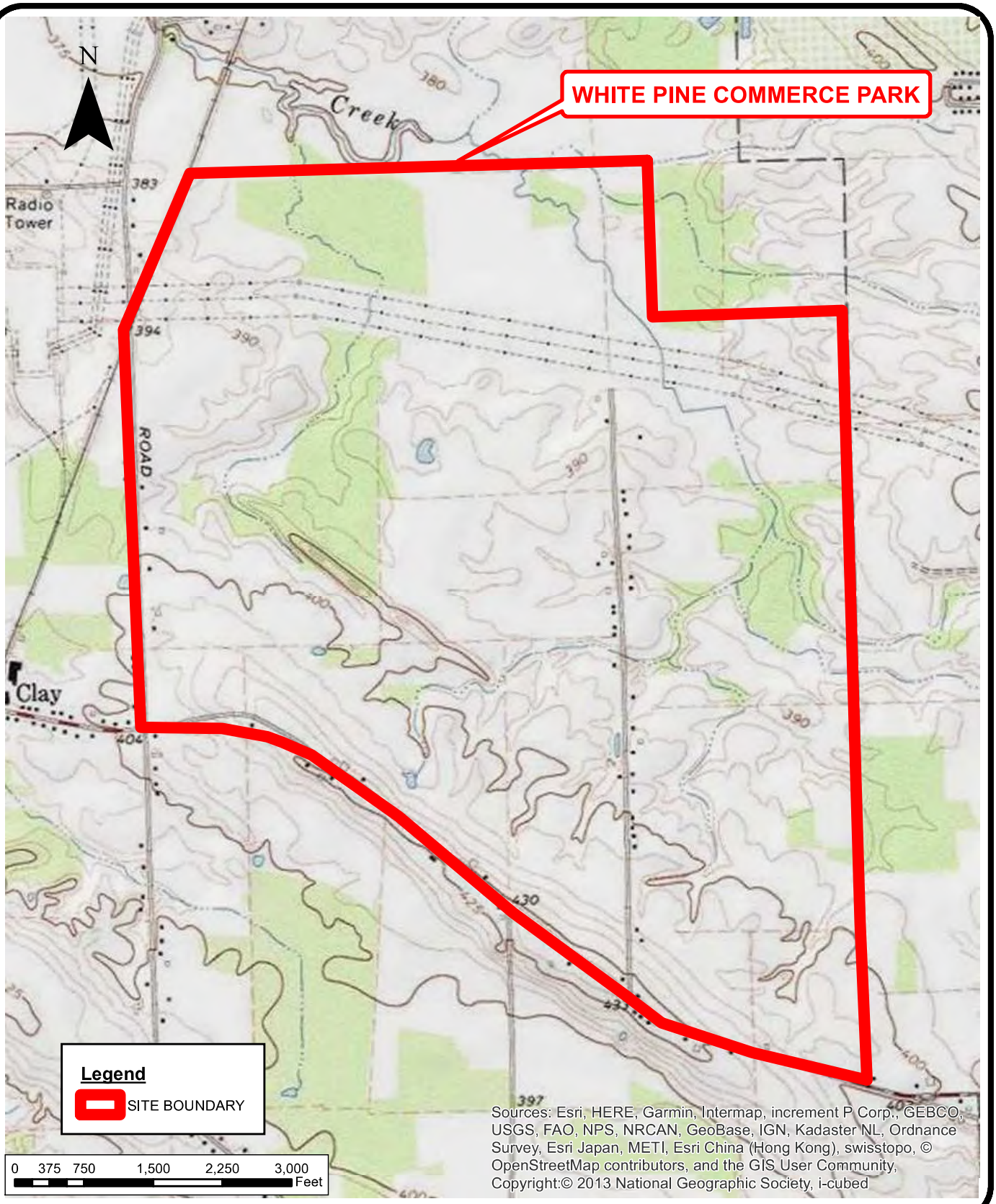
REGIONAL MAP

OCIDA

WHITE PINE COMMERCE PARK

TOWNS OF CLAY & CICERO ONONDAGA CO., NY

PROJ. NO: 20-03861N	DATE: DEC. 2020	SCALE: 1"= 5 MI	DWG: SLM.MXD	FIGURE: 1



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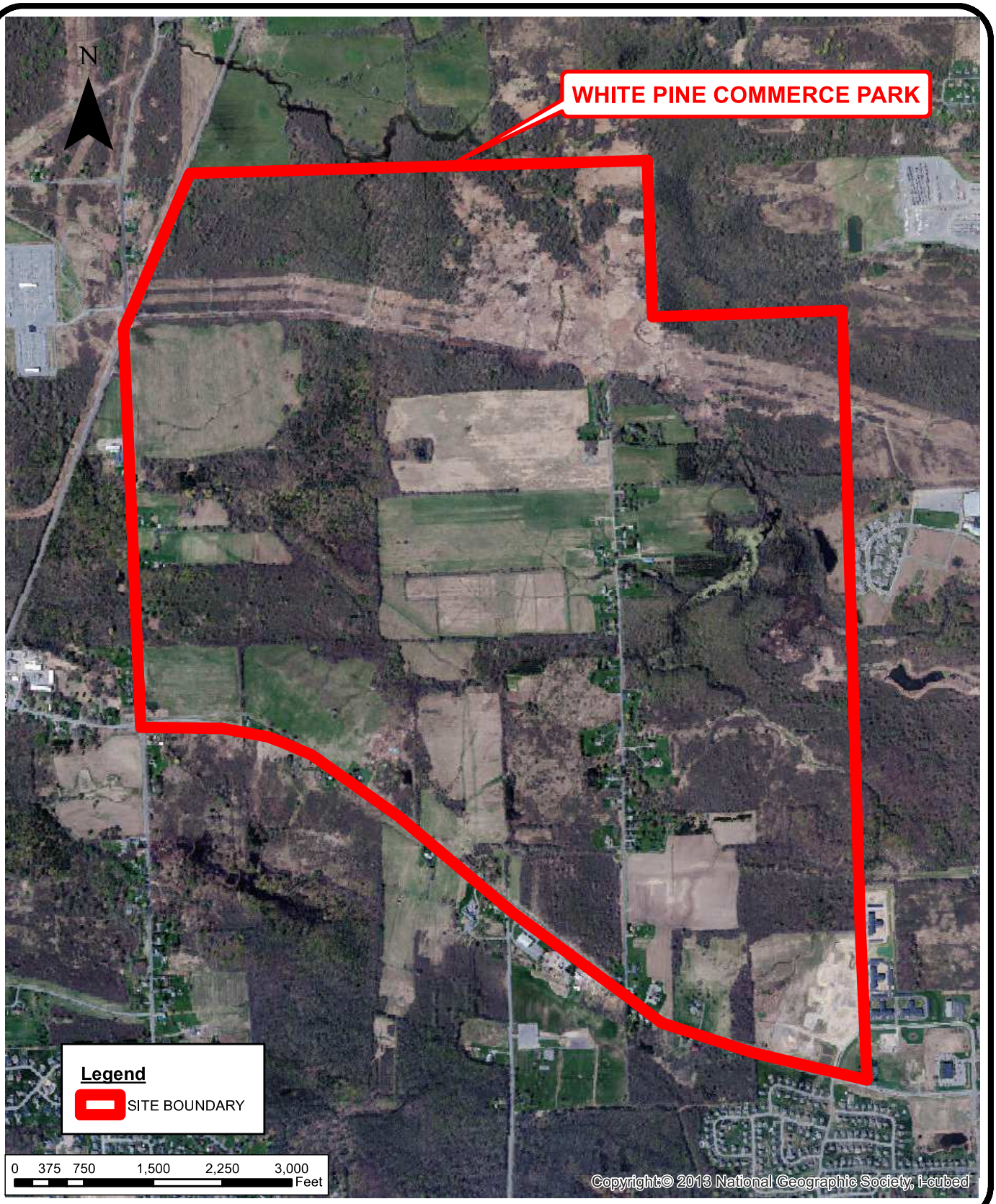
SITE LOCATION MAP

OCIDA

WHITE PINE COMMERCE PARK

TOWNS OF CLAY & CICERO — ONONDAGA CO., NY

PROJ. NO: 20-03861N	DATE: DEC. 2020	SCALE: 1"= 1,500 FT	DWG: SLM.MXD	FIGURE: 2



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2018 ORTHOIMAGERY

OCIDA

WHITE PINE COMMERCE PARK

TOWNS OF CLAY & CICERO ONONDAGA CO., NY

PROJ. NO: 20-03861N	DATE: DEC. 2020	SCALE: 1"= 1,500 FT	DWG: ORTHO.MXD	FIGURE: 3

Agency Use Only [If applicable]

Project :

Date :

Full Environmental Assessment Form
Part 2 - Identification of Potential Project Impacts

Part 2 is to be completed by the lead agency. Part 2 is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

If the lead agency is a state agency **and** the action is in any Coastal Area, complete the Coastal Assessment Form before proceeding with this assessment.

Tips for completing Part 2:

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer "**Yes"** to a numbered question, please complete all the questions that follow in that section.
- If you answer "**No"** to a numbered question, move on to the next numbered question.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box "Moderate to large impact may occur."
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the "whole action".
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable manner considering the scale and context of the project.

1. Impact on Land

Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site. (See Part 1. D.1) ☐ NO ☑ YES

If "Yes", answer questions a - j. If "No", move on to Section 2.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may involve construction on land where depth to water table is less than 3 feet.	E2d	☐	☑
b. The proposed action may involve construction on slopes of 15% or greater.	E2f	☑	☐
c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E2a	☑	☐
d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.	D2a	☑	☐
e. The proposed action may involve construction that continues for more than one year or in multiple phases.	D1e	☐	☑
f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D2e, D2q	☑	☐
g. The proposed action is, or may be, located within a Coastal Erosion hazard area.	B1i	☑	☐
h. Other impacts: _____ _____		☐	☐

2. Impact on Geological Features

The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1. E.2.g) ☑ NO ☐ YES

If "Yes", answer questions a - c. If "No", move on to Section 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Identify the specific land form(s) attached: _____ _____	E2g	☐	☐
b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature: _____	E3c	☐	☐
c. Other impacts: _____ _____		☐	☐

3. Impacts on Surface Water

The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes). (See Part 1. D.2, E.2.h) ☐ NO ☑ YES

If "Yes", answer questions a - l. If "No", move on to Section 4.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may create a new water body.	D2b, D1h	☐	☑
b. The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D2b	☐	☑
c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D2a	☐	☑
d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E2h	☐	☑
e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.	D2a, D2h	☐	☑
f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D2c	☑	☐
g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D2d	☐	☑
h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D2e	☐	☑
i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E2h	☐	☑
j. The proposed action may involve the application of pesticides or herbicides in or around any water body.	D2q, E2h	☑	☐
k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.	D1a, D2d	☐	☑

l. Other impacts: _____		☐	☐

4. Impact on groundwater

The proposed action may result in new or additional use of ground water, or may have the potential to introduce contaminants to ground water or an aquifer. (See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t)

☐ NO ☑ YES

If "Yes", answer questions a - h. If "No", move on to Section 5.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D2c	☑	☐
b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source: _____	D2c	☑	☐
c. The proposed action may allow or result in residential uses in areas without water and sewer services.	D1a, D2c	☑	☐
d. The proposed action may include or require wastewater discharged to groundwater.	D2d, E2l	☑	☐
e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D2c, E1f, E1g, E1h	☑	☐
f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D2p, E2l	☑	☐
g. The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	E2h, D2q, E2l, D2c	☑	☐
h. Other impacts: _____		☐	☐

5. Impact on Flooding

The proposed action may result in development on lands subject to flooding. (See Part 1. E.2)

☐ NO ☑ YES

If "Yes", answer questions a - g. If "No", move on to Section 6.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in development in a designated floodway.	E2i	☑	☐
b. The proposed action may result in development within a 100 year floodplain.	E2j	☑	☐
c. The proposed action may result in development within a 500 year floodplain.	E2k	☑	☐
d. The proposed action may result in, or require, modification of existing drainage patterns.	D2b, D2e	☑	☐
e. The proposed action may change flood water flows that contribute to flooding.	D2b, E2i, E2j, E2k	☑	☐
f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade?	E1e	☑	☐

g. Other impacts: _____ _____		☐	☐

6. Impacts on Air

The proposed action may include a state regulated air emission source. ☐NO ☑YES

(See Part 1. D.2.f., D.2.h, D.2.g)

If "Yes", answer questions a - f. If "No", move on to Section 7.

Although the proposed action will not include a state regulated air emission source, the future build-out of the park may.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels:			
i. More than 1000 tons/year of carbon dioxide (CO_2)	D2g	☐	☑
ii. More than 3.5 tons/year of nitrous oxide (N_2O)	D2g	☐	☑
iii. More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs)	D2g	☐	☑
iv. More than .045 tons/year of sulfur hexafluoride (SF_6)	D2g	☐	☑
v. More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions	D2g	☐	☑
vi. 43 tons/year or more of methane	D2h	☐	☑
b. The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.	D2g	☐	☑
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU's per hour.	D2f, D2g	☐	☑
d. The proposed action may reach 50% of any of the thresholds in "a" through "c", above.	D2g	☐	☑
e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D2s	☑	☐
f. Other impacts: _____ _____		☐	☐

7. Impact on Plants and Animals

The proposed action may result in a loss of flora or fauna. (See Part 1. E.2. m.-q.) ☐NO ☑YES

If "Yes", answer questions a - j. If "No", move on to Section 8.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2o	☑	☐
b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E2o	☑	☐
c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2p	☑	☐
d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E2p	☑	☐

e. The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E3c	☑	☐
f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source: No significant natural communities are present per NYSDEC EAF Mapper.	E2n	☑	☐
g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E2m	☑	☐
h. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat. Habitat type & information source: _____ Greater than 10 acres of forest or grassland will be converted per proposed site conditions.	E1b	☐	☑
i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.	D2q	☑	☐
j. Other impacts: _____ _____		☐	☐

8. Impact on Agricultural Resources

The proposed action may impact agricultural resources. (See Part 1. E.3.a. and b.) ☐ NO ☑ YES

If "Yes", answer questions a - h. If "No", move on to Section 9.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	E2c, E3b	☐	☑
b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).	E1a, Elb	☑	☐
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E3b	☑	☐
d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 acres if not within an Agricultural District.	E1b, E3a	☐	☑
e. The proposed action may disrupt or prevent installation of an agricultural land management system.	El a, E1b	☑	☐
f. The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.	C2c, C3, D2c, D2d	☐	☑
g. The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C2c	☑	☐
h. Other impacts: _____		☐	☐

9. Impact on Aesthetic Resources

The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource. (Part 1. E.1.a, E.1.b, E.3.h.)

☑ NO ☐ YES

If "Yes", answer questions a - g. If "No", go to Section 10.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E3h	☐	☐
b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E3h, C2b	☐	☐
c. The proposed action may be visible from publicly accessible vantage points: i. Seasonally (e.g., screened by summer foliage, but visible during other seasons) ii. Year round	E3h	 ☐ ☐	 ☐ ☐
d. The situation or activity in which viewers are engaged while viewing the proposed action is: i. Routine travel by residents, including travel to and from work ii. Recreational or tourism based activities	E3h E2q, E1c	 ☐ ☐	 ☐ ☐
e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E3h	☐	☐
f. There are similar projects visible within the following distance of the proposed project: 0-1/2 mile ½ -3 mile 3-5 mile 5+ mile	D1a, E1a, D1f, D1g	☐	☐
g. Other impacts: _____		☐	☐

10. Impact on Historic and Archeological Resources

The proposed action may occur in or adjacent to a historic or archaeological resource. (Part 1. E.3.e, f. and g.)

☐ NO ☑ YES

If "Yes", answer questions a - e. If "No", go to Section 11.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on the National or State Register of Historical Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places.	E3e	☑	☐
b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E3f	☑	☐
c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory. Source: NYS Museum	E3g	☑	☐

d. Other impacts: There are numerous NYS Museum and SHPO identified archaeological sites located within one mile of the project site and/or potential utility improvements.		☑	☐
e. If any of the above (a-d) are answered "Moderate to large impact may occur", continue with the following questions to help support conclusions in Part 3:			
i. The proposed action may result in the destruction or alteration of all or part of the site or property.	E3e, E3g, E3f	☐	☐
ii. The proposed action may result in the alteration of the property's setting or integrity.	E3e, E3f, E3g, E1a, E1b	☐	☐
iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	E3e, E3f, E3g, E3h, C2, C3	☐	☐

11. Impact on Open Space and Recreation

The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan.
(See Part 1. C.2.c, E.1.c., E.2.q.)
If "Yes", answer questions a - e. If "No", go to Section 12.

☑ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in an impairment of natural functions, or "ecosystem services", provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, wildlife habitat.	D2e, E1b E2h, E2m, E2o, E2n, E2p	☐	☐
b. The proposed action may result in the loss of a current or future recreational resource.	C2a, E1c, C2c, E2q	☐	☐
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C2a, C2c E1c, E2q	☐	☐
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C2c, E1c	☐	☐
e. Other impacts: _____		☐	☐

12. Impact on Critical Environmental Areas

The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1. E.3.d)
If "Yes", answer questions a - c. If "No", go to Section 13.

☑ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E3d	☐	☐
b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.	E3d	☐	☐
c. Other impacts: _____		☐	☐

13. Impact on Transportation
The proposed action may result in a change to existing transportation systems. ☐ NO ☑ YES
(See Part 1. D.2.j)
If "Yes", answer questions a - f. If "No", go to Section 14.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Projected traffic increase may exceed capacity of existing road network.	D2j	☐	☑
b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D2j	☐	☑
c. The proposed action will degrade existing transit access.	D2j	☑	☐
d. The proposed action will degrade existing pedestrian or bicycle accommodations.	D2j	☑	☐
e. The proposed action may alter the present pattern of movement of people or goods.	D2j	☐	☑
f. Other impacts: _____		☐	☐

14. Impact on Energy
The proposed action may cause an increase in the use of any form of energy. ☐ NO ☑ YES
(See Part 1. D.2.k)
If "Yes", answer questions a - e. If "No", go to Section 15.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action will require a new, or an upgrade to an existing, substation.	D2k	☐	☑
b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D1f, D1q, D2k	☐	☑
c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D2k	☐	☑
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D1g	☐	☑
e. Other Impacts: _____		☐	☐

15. Impact on Noise, Odor, and Light
The proposed action may result in an increase in noise, odors, or outdoor lighting. ☐ NO ☑ YES
(See Part 1. D.2.m., n., and o.)
If "Yes", answer questions a - f. If "No", go to Section 16.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may produce sound above noise levels established by local regulation.	D2m	☐	☑
b. The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.	D2m, E1d	☑	☐
c. The proposed action may result in routine odors for more than one hour per day.	D2o	☑	☐

d. The proposed action may result in light shining onto adjoining properties.	D2n	☑	☐
e. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.	D2n, E1a	☐	☑
f. Other impacts: _____ _____		☐	☐

16. Impact on Human Health

The proposed action may have an impact on human health from exposure to new or existing sources of contaminants. (See Part 1.D.2.q., E.1. d. f. g. and h.) ☐ NO ☑ YES

If "Yes", answer questions a - m. If "No", go to Section 17.

	Relevant Part I Question(s)	No,or small impact may cccur	Moderate to large impact may occur
a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.	E1d	☑	☐
b. The site of the proposed action is currently undergoing remediation.	E1g, E1h	☑	☐
c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action.	E1g, E1h	☑	☐
d. The site of the action is subject to an institutional control limiting the use of the property (e.g., easement or deed restriction).	E1g, E1h	☑	☐
e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.	E1g, E1h	☑	☐
f. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.	D2t	☑	☐
g. The proposed action involves construction or modification of a solid waste management facility.	D2q, E1f	☑	☐
h. The proposed action may result in the unearthing of solid or hazardous waste.	D2q, E1f	☑	☐
i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D2r, D2s	☐	☑
j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.	E1f, E1g E1h	☑	☐
k. The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E1f, E1g	☑	☐
l. The proposed action may result in the release of contaminated leachate from the project site.	D2s, E1f, D2r	☑	☐
m. Other impacts: _____ _____		☐	☐

17. Consistency with Community Plans

The proposed action is not consistent with adopted land use plans. ☐ NO ☑ YES
(See Part 1. C.1, C.2. and C.3.)
If "Yes", answer questions a - h. If "No", go to Section 18.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action's land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C2, C3, D1a E1a, E1b	☐	☑
b. The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C2	☐	☑
c. The proposed action is inconsistent with local land use plans or zoning regulations.	C2, C2, C3	☑	☐
d. The proposed action is inconsistent with any County plans, or other regional land use plans.	C2, C2	☑	☐
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C3, D1c, D1d, D1f, D1d, Elb	☐	☑
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C4, D2c, D2d D2j	☐	☑
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C2a	☐	☑
h. Other: _____ _____		☐	☐

18. Consistency with Community Character

The proposed project is inconsistent with the existing community character. ☐ NO ☑ YES
(See Part 1. C.2, C.3, D.2, E.3)
If "Yes", answer questions a - g. If "No", proceed to Part 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.	E3e, E3f, E3g	☑	☐
b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)	C4	☐	☑
c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.	C2, C3, D1f D1g, E1a	☑	☐
d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.	C2, E3	☑	☐
e. The proposed action is inconsistent with the predominant architectural scale and character.	C2, C3	☐	☑
f. Proposed action is inconsistent with the character of the existing natural landscape.	C2, C3 E1a, E1b E2g, E2h	☐	☑
g. Other impacts: _____ _____		☐	☐

PRINT FULL FORM

Agency Use Only [IfApplicable]

Project :

Date :

Full Environmental Assessment Form
Part 3 - Evaluation of the Magnitude and Importance of Project Impacts
and
Determination of Significance

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

Reasons Supporting This Determination:

To complete this section:

- Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
- Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur.
- The assessment should take into consideration any design element or project changes.
- Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.
- Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact
- For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
- Attach additional sheets, as needed.

See the attached Notice of Intent to Serve as Lead Agency and Prepare a Draft Supplemental Generic Environmental Impact Statement for reasons supporting this determination.

Determination of Significance - Type 1 and Unlisted Actions

SEQR Status: ☑ Type 1 ☐ Unlisted

Identify portions of EAF completed for this Project: ☑ Part 1 ☑ Part 2 ☑ Part 3

Upon review of the information recorded on this EAF, as noted, plus this additional support information
Additional information concerning the proposed project.

and considering both the magnitude and importance of each identified potential impact, it is the conclusion of the Onondaga County Industrial Development Agency as lead agency that:

☐ A. This project will result in no significant adverse impacts on the environment, and, therefore, an environmental impact statement need not be prepared. Accordingly, this negative declaration is issued.

☐ B. Although this project could have a significant adverse impact on the environment, that impact will be avoided or substantially mitigated because of the following conditions which will be required by the lead agency:

There will, therefore, be no significant adverse impacts from the project as conditioned, and, therefore, this conditioned negative declaration is issued. A conditioned negative declaration may be used only for UNLISTED actions (see 6 NYCRR 617.7(d)).

☑ C. This Project may result in one or more significant adverse impacts on the environment, and an environmental impact statement must be prepared to further assess the impact(s) and possible mitigation and to explore alternatives to avoid or reduce those impacts. Accordingly, this positive declaration is issued.

Name of Action:	Proposed White Pine Commerce Park Expansion
Name of Lead Agency:	Onondaga County Industrial Development Agency
Name of Responsible Officer in Lead Agency:	Robert Petrovich
Title of Responsible Officer:	Executive Director
Signature of Responsible Officer in Lead Agency:	Date: 12/8/20
Signature of Preparer (if different from Responsible Officer)	Date:

For Further Information:

Contact Person: Robert Petrovich, Onondaga County Industrial Development Agency

Address: 333 East Washington Street

Telephone Number: 315-435-3770

E-mail: economicdevelopment@ongov.net

For Type 1 Actions and Conditioned Negative Declarations, a copy of this Notice is sent to:

Chief Executive Officer of the political subdivision in which the action will be principally located (e.g., Town / City / Village of)
Other involved agencies (if any)
Applicant (if any)
Environmental Notice Bulletin: http://www.dec.ny.gov/enb/enb.html

PRINT FULL FORM

EXHIBIT B

NOTICE OF INTENT TO SERVE AS LEAD AGENCY AND PREPARE A DRAFT SUPPLEMENTAL GENERIC ENVIRONMENTAL IMPACT STATEMENT

Project: White Pine Commerce Park

(formerly known as Clay Business Park)

5171 Route 31

Town of Clay, New York

December 8, 2020

This notice is provided pursuant to the State Environmental Quality Review Act ("SEQRA"), Article 8 of the Environmental Conservation Law and the regulations adopted thereunder at 6 NYCRR Part 617.

The creation of the White Pine Commerce Park was previously determined to be a Type 1 Action under SEQRA and, because the action was found to potentially have a significant impact on the environment, the Onondaga County Industrial Development Agency **("**OCIDA"), as lead agency, issued a positive declaration and required the preparation of a Draft Generic Environmental Impact Statement ("DGEIS"). Thereafter, in September 2013, OCIDA issued a Final GEIS ("FGEIS") for the White Pine Commerce Park and issued its Findings Statement certifying that the requirements of SEQRA had been met and the White Pine Commerce Park was "[c]onsistent with social, economic and other essential considerations from among the reasonable alternatives available, the action is the one that avoids or minimizes adverse environmental impacts to the maximum extent practicable, and that adverse impacts will be avoided or minimized to the maximum extent practicable by incorporating as conditions to the decision those mitigation measures that were identified as practicable[.]"

Project changes are now being proposed to the White Pine Commerce Park and there have been certain changes in circumstances since the 2013 GEIS and Findings Statement. OCIDA has, therefore, determined that it should resume its status as lead agency for the environmental review of these changes to the proposed Action and changed circumstances as described herein and that a Supplemental Generic Environmental Impact Statement will be prepared.

SEQRA DESIGNATION: Type 1 Action

PROJECT DESCRIPTION: OCIDA, as Project Sponsor, proposes to expand its business park known as the White Pine Commerce Park ("Park") to approximately 1,253± acres (the "Project" or "Action"). The White Pine Commerce Park is located northeast of the intersection of NYS Route 31 and Caughdenoy Road in the Town of Clay, Onondaga County, New York. OCIDA currently owns approximately 450± acres and would acquire approximately 800± additional acres

to the east of the existing Park. The acreage to be acquired are parcels contiguous to the current Park, and are generally located along Route 31, and along the east and west sides of Burnett Road.

The Project purpose is to enable OCIDA to market the Project to a larger, more diverse mix of potential industrial and commercial developers by making the site more attractive to a broader scope of industries. The expanded Park will be capable of supporting a mix of industrial and/or commercial uses with related office space, advanced state-of-the-art research, large- or small-scale manufacturing, assembly, warehousing, data management, material processing and distribution facilities in a campus-like setting. The expansion will provide an expanded and improved "shovel ready" facility, demonstrating to industrial and commercial prospects that governmental approvals needed for the infrastructure development and construction have already been secured, or can be readily secured within certain thresholds or permit criteria.

Prior SEQRA Review

In 2012, OCIDA undertook an environmental review of the original Park. As part of the prior environmental review for the Park, on March 6, 2012, OCIDA established itself as the Lead Agency and assumed the responsibilities for conducting the coordinated environmental review. OCIDA determined that the project was a Type 1 action requiring preparation of an Environmental Impact Statement ("EIS"). As specific tenants and uses within the Park were unknown at that time, OCIDA prepared a GEIS to analyze potential environmental impacts of the project. OCIDA coordinated the SEQRA review for the Park with the other involved agencies.

A draft scoping document was prepared and made available for comment. Following a public comment period, OCIDA issued a Final Scoping Document which identified potential impacts and anticipated impacts to be addressed in the GEIS.

A DGEIS was then prepared, subject to public comment, and accepted as complete on September 20, 2012. The DGEIS evaluated the potential impacts of the proposed multi-use industrial park, envisioning a certain setting which included, but was not limited to:

- The Park would encompass a certain footprint, accommodating approximately 2 million sq. ft. of multi-use space without adverse impact.
- The Park would accommodate uses such as manufacturing, research and development, warehousing, assembly, office, warehousing, distribution facilities, associated parking, and other on-site support buildings and structures.
- The Park would maintain greenspace to protect wetlands.
- Anticipated installation of underground utilities and infrastructure for on-site use (i.e. gas and electric utilities, water and sewer infrastructure).
- Off-site improvements such as highway and road improvements, wastewater treatment infrastructure improvements, and water supply infrastructure improvements.
- Tenants would obtain site or facility-specific permits, such as air permits and non-sanitary sewer discharge permits, as necessary for facility-specific operations.

A Public Hearing on the DGEIS was held on October 16, 2012, and the public comment period ended on October 29, 2012. Subsequently, a FGEIS was prepared by OCIDA and accepted as complete on September 10, 2013. The FGEIS incorporated the DGEIS by reference and responded to all substantive comments received on the DGEIS. Both the DGEIS and FGEIS addressed the potential impacts of the envisioned White Pine Commerce Park on environmental resources including: land use and zoning; community character; transportation; utilities and community services; topography, geology and soils; water resources; air resources; ecological resources; cultural and archeological resources; visual and noise resources.

OCIDA thereafter issued its Findings Statement on October 8, 2013. The preferred development scenario from the alternatives evaluated in the DGEIS envisioned a certain development footprint within the Park that avoided construction north of the power lines, with accommodation of approximately 2-2.5 million sq. ft. of industrial development consisting of approximately 46 acres of buildings, approximately 6 acres of support facilities and approximately 58 acres of parking and roads or related infrastructure. The project would encompass or disturb approximately 182 acres, and off-site improvement impacts were evaluated and included road or intersection improvement on Route 31 and Caughdenoy Road, as well as improvements to the sanitary sewer infrastructure.

OCIDA concluded that the action avoided or minimized adverse environmental impacts to the maximum extent practicable, and incorporated mitigation measures that were considered practicable. The Findings Statement also identified certain thresholds for future tenant-specific site use proposals and determined that if there were environmental conditions or impact thresholds that would be exceeded by the proposed tenant-specific use, a supplemental determination of significance or impact evaluation, along with additional mitigation measures beyond those thresholds identified in the DGEIS and FGEIS would be required.

REASON FOR POSITIVE DECLARATION AND PREPARATION OF A SUPPLEMENTAL GEIS

Pursuant 6 N.Y.C.R.R. § 617.9(7)(i), the Project Sponsor finds that a SGEIS is necessary due to changes proposed for the Park that are not adequately addressed in the prior DGEIS and FGEIS, as well as certain changes in circumstances since 2013. Project changes include, but are not limited to, an expansion of the geographic footprint of the Park to approximately 1253 ± acres, physical and/or environmental conditions that will be altered in furtherance of the Action, an expanded scope of potential uses that may be possible at the site, and the potential use by OCIDA of eminent domain, as necessary, to secure the land necessary for the Project.

SUMMARY OF POTENTIAL ADVERSE IMPACTS TO BE ADDRESSED IN SUPPLEMENTAL GEIS.

Potential impacts associated with the proposed action are identified in the Full Environmental Assessment Form. These impacts, which may be reasonably expected to result from the Project, have been compared to the criteria for determining significance identified in 6 N.Y.C.R.R. § 617.7(c)(1) and in accordance with 6 N.Y.C.R.R. § 617.7(c)(2) and (3). The discussion of

potentially significant adverse impacts and mitigation includes the following topics outlined below. For each impact category, appropriate mitigation measured will be identified and evaluated to determine how best to address potential adverse impacts associated with future development.

Zoning and Land Use

The Park is located in the Town of Clay's Industrial 2 (I-2) zoning district, but the Project includes incorporating lands located in the Residential Agricultural District (RA-100) and one Family Residential (R-15) zoning district. This will require a zone change from the Town of Clay to permit the types of industrial uses necessary for OCIDA to effectively market the expanded Park. The anticipated zoning change will be evaluated in the context of surrounding land use conditions and relevant local plans and laws.

Community Character

Changes in community character and in local or regional demographics that could result from the Project will be explored. Changes in demographic and socioeconomic conditions resulting from the additional build-out of the site (due to a possible influx of new residents, for example) could have implications on local community services such as schools, police, fire, emergency services as well as taxes, property values, housing, and other community facilities.

Transportation

Potential impacts on transportation systems and local road networks due to expansion and development of the Park, particularly from increased vehicular traffic along NYS Route 31, will be reviewed. NYS Route 31 through the Towns of Clay and Cicero have experienced rapid development and increased traffic in recent years, and further increases are likely with or without the Project, based on recent corridor studies. The impact on traffic conditions along the NYS Route 31 corridor and intersections will be evaluated for existing, no-build and phased levels of Project build-out. Mitigation measures will be evaluated and will be determined following consultation with the NYSDOT and Onondaga County DOT.

Energy and Utilities

The FGEIS determined that with the exception of the lack of sanitary sewer and natural gas infrastructure for the Park, other utilities are anticipated to have sufficient capacity and be easily accessed to provide service to the Park. The expanded Project is anticipated to include an electrical substation within the Park. The SGEIS will analyze the available utilities and potential utility demands, and include verification from personal communications or other documentation from service providers regarding the ability of existing utilities to support the Project. Utility service thresholds, limits on capacities, or potential upgrades will be identified based upon information from providers as well as any related potential impacts and necessary mitigation.

Topography, Geology, Soils and Groundwater

Impacts on natural features found on site, including topography, geologic features, groundwater and soils, will be identified and evaluated, and mitigation measures to avoid significant adverse impacts will be discussed. Subsurface soil, groundwater and bedrock conditions and how they relate to potential development of the site will be discussed based in part on past geotechnical investigations conducted in the former 2013 Project area. Silt/clay soils and shallow groundwater exist in portions of the 2013 Project area. These conditions may extend into the expanded site and could affect the design of building foundations and stormwater control features. In local areas that do not currently have municipal water service, the Project could increase demand on groundwater supplies if new or expanded residential development occurs to accommodate a larger workforce.

The expanded Project encompasses a greater amount of land having agricultural value. The SGEIS will address potential reduction in acreage of prime agricultural land.

Water Resources

With the expansion of the Project area, the number and size of potentially impacted wetlands and natural water bodies has increased. The expanded site encompasses 17 National Wetland Inventory (NWI) mapped wetlands and two state-regulated wetlands. Classified waterbodies present onsite are tributaries to Oneida River. These surface waters are Class C, and are not considered protected; however, any disturbance would require prior approval from the United States Army Corps of Engineers (USACE) and/or the New York State Department of Environmental Conservation (NYSDEC).

Potential impacts to state and federal wetlands will be identified, and efforts to avoid or minimize the extent of adverse impacts will be discussed with consideration of physical layout alternatives. Mitigation measures associated with the potential loss of wetlands will be established following consultation with the NYSDEC and USACE. It is assumed that any loss of wetlands will be mitigated both on and off-site through wetland restoration, creation, and enhancement. The area north of the existing electric transmission line right-of-way is thought to be a potentially viable area for on-site mitigation given the presence of State regulated wetlands. Other locations will be considered for mitigation.

Potential impacts to water resources include impacts resulting from stormwater runoff. These impacts will be minimized with appropriate erosion and sediment controls during construction and permanent stormwater management features in the final buildout. The SGEIS will discuss soil conservation practices, stockpiling, re-vegetation and other best management practices to protect water quality in streams and wetlands and protect vegetation and natural habitats.

Air Resources

The expansion of the Project site is intended to accommodate larger and more diverse commercial and industrial uses. The determination of potential adverse impacts on air quality from Project will

depend on the types of industrial uses and emissions generated by tenants. Future tenants will need to obtain specific state and federal air quality permits according to the nature of the operations they conduct. State and federal air permits impose requirements for control devices to meet applicable air quality standards and impose limits on allowable emissions.

The expanded Project is anticipated to accommodate a larger workforce, which will create a larger amount of local vehicular traffic. The potential changes in traffic conditions in the area may have implications for air quality if reduced levels of service at intersections along the NYS Route 31 corridor are projected. Traffic mitigation measures are anticipated to accommodate increased traffic levels. Although improved traffic flow will reduce potential vehicular emissions, mobile source emissions will be assessed and evaluated as appropriate.

Climate Change

The impacts from greenhouse gas emissions due to construction and potential site uses will be identified and analyzed in light of New York State's recently enacted Climate Leadership and Community Protection Act ("CLCPA"). Potential impacts will be identified, and mitigation measures considered to avoid or minimize the Action's impacts on climate change. The impacts will also be compared against the Onondaga County Climate Action Plan (updated 2017).

Human Health

Potential human health impacts from the Project will be considered. Potential impacts include dust generation during construction and air emissions during the operational phases of the Project. Sensitive receptors (a nursing home and a preschool) exist within 1500 feet of the expanded Project area. The anticipated increase in manufacturing, assembly and related high-tech industries contemplated under the expanded Project may generate greater volumes of solid waste and potentially hazardous waste. Anticipated waste volumes and regional disposal capacity will be evaluated.

Ecological Resources

Ecological impacts resulting from the Project are expected to be limited as a result of avoiding significant ecological resources onsite and along the proposed sewer line and road improvement areas to the extent practicable. Nevertheless, impacts from the Project may occur and mitigation necessary to reduce adverse impacts to ecological resources will be described.

As the New York Natural Heritage Program ("NYNHP") recommends a new assessment of a project area after one year from the date of the original findings to account for any new or updated information, it will be necessary to consult with NYNHP and United States Fish and Wildlife Service ("USFWS") to evaluate the potential impacts of the Project on rare, threatened, and endangered species. Consultation with the agencies will identify previously reported species on and in the vicinity of the Project, and determine if additional field investigations may be warranted

to confirm the presence or absence or current use of potential habitat for identified species. The SGEIS will assess potential Project impacts and identify appropriate mitigation as necessary.

The loss of forest and grasslands are considered irreversible ecological impacts. The larger project footprint increases the acreage of land clearance; thus, creating a larger impact on ecological resources. These impacts will also be considered and discussed in the SGEIS.

Cultural and Archeological Resources

Project impacts on cultural and archeological resources, including along the proposed sewer line and in areas of potential road improvements will be determined in consultation with NYS Office of Parks, Recreation and Historic Preservation ("OPRHP") / State Preservation Officer ("SHPO") under the New York State Historic Preservation Act. Particular emphasis will be on potential effects on resources listed on or eligible for inclusion on the State and National Register of Historic Places. The SGEIS will identify potential impacts and discuss appropriate mitigation measures. Mitigation may include resource avoidance, documentation, and/or removal.

Consultation with NYS OPRHP / SHPO will also be warranted for concurrence regarding the prior archaeological/cultural resources survey report and if additional investigations and/or studies are deemed necessary.

Visual

The appearance of the planned development differs from the existing natural landscape of the area. Potential visual impacts associated with the Project will be described in general terms relative to anticipated changes in visual character and views of the site once development occurs. Mitigation alternatives to mitigate potentially adverse visual impacts on receptors and the NYS Route 31 corridor will be addressed according to levels of practicability and screening effectiveness. Impacts and mitigation will consider lighting and the maintenance or establishment of natural or other visual buffers and screening. More specific measures that can be implemented to mitigate specific visual aspects of the Project will be discussed and determined during the Town's Site Plan review and approval process once specific development is proposed.

Noise, Odor, and Light

Potential noise impacts associated with the Project will be considered for both construction and operation of industrial uses. Impacts and mitigation measures to reduce adverse impacts on the nearby receptors will be described for both short-term and long-term periods. Best management construction practices to control noise generation will be identified. Mitigation may include recommendations for the location of staging areas, limits on hours of construction activity and establishing a complaint resolution process. The Project will be discussed in terms of compliance with current Town of Clay noise regulations. The nature of noise generated by the Project depends on the types of industrial activities conducted by future tenants. However, estimations of noise

levels, distances to sensitive receptors, and sources of noise based on the current proposed development scenario will be addressed and appropriate mitigation measures discussed.

The SGEIS will address any potential impacts on odor, although there are no anticipated significant impacts on odor at this time.

Site lighting for buildings, roads, parking, and utility areas will comply with Chapter 140 of the Town of Clay Code. Mitigation of potential off-site impacts from lighting will consider the placement of lighting and the types of fixtures to be used as recommended by the Illuminating Engineering Society of North America (IESNA) to reduce the potential for light pollution to the greatest extent practicable.

REASONS SUPPORTING THIS LEAD AGENCY DETERMINATION

OCIDA, as the Project sponsor and the agency most familiar with the Project area and potential future use of the land, has the broadest governmental powers for investigation of the impact of the proposed changes to the Action and the greatest capability for providing a thorough environmental assessment of the Action as presented.

NOTICE

STATE ENVIRONMENTAL QUALITY REVIEW ACT

LEAD AGENCY DESIGNATION

ONONDAGA COUNTY INDUSTRIAL DEVELOPMENT AGENCY

December 9, 2020

This notice is provided pursuant to the State Environmental Quality Review Act ("SEQRA"), Article 8 of the Environmental Conservation Law and the regulations adopted thereunder at 6 NYCRR Part 617. The Onondaga County Industrial Development Agency **("**OCIDA") intends to assume the role of Lead Agency for the purpose of conducting a coordinated environmental review under SEQRA for the following action .

Project Name: Proposed Expansion of the White Pine Commerce Park

Project Address: 5171 Route 31, Town of Clay, Onondaga County New York

Description of Action: OCIDA, as Project Sponsor, proposes to expand its business park known as White Pine Commerce Park to approximately 1,253± acres (the "Project"). White Pine Commerce Park (the "Park") is located at the northeast of the intersection of NYS Route 31 and Caughdenoy Road. OCIDA currently owns approximately 450± acres and would acquire approximately 800± additional acres to the east of the existing Park. The expanded Park will be capable of supporting a mix of industrial and/or commercial uses that may include industrially related office, research, manufacturing, assembly, warehousing, data management, material processing and distribution facilities in a campus-like setting.

Based on its review of the Full Environmental Assessment Form ("FEAF") prepared for the Project, and its knowledge of the Project generally, OCIDA has determined that the Project constitutes a Type I action as defined under SEQRA. As a recipient of this notice, your agency has been identified as one of the potentially involved agencies for the Project. Since the Lead Agency must be designated by agreement among the involved agencies, OCIDA requests your agreement regarding its assumption of the SEQRA Lead Agency role for this project.

Within 30 days of the date of this notice, please notify OCIDA in writing at the address below of your agreement to OCIDA acting as lead agency and provide any comments or questions you may have concerning the Project. A lead agency consent form is found below.

Robert Petrovich, Executive Director
Onondaga County Industrial Development Agency
333 West Washington St., Suite 130
Syracuse, New York 13202
Email: economicdevelopment@ongov.net

Phone: (315) 435-3770
Fax: (315) 435-3669

A complete copy of the FEAF, including OCIDA's Notice of Intent to Prepare a Supplemental Generic Environmental Impact Statement is enclosed herein. If no response is received within the 30 days of the date of this notice, it shall be assumed that your agency has no objection to OCIDA acting as Lead Agency and no specific concerns about the Project.

_____

SEQRA LEAD AGENCY DESIGNATION

Project: White Pine Commerce Park

(formerly known as Clay Business Park)

5171 Route 31

Town of Clay, New York

The undersigned, on behalf of _____, concurs with the designation of the Onondaga County Industrial Development Agency as lead agency for the coordinated environmental review of the White Pine Commerce Park Expansion Project.

By: _____

Title: _____

Date: _____

Mailing List:

Damian M. Ulatowski, Supervisor
Town of Clay
4401 State Route 31
Clay, New York 13041

Edward Wisnowski, Chairman
Town of Clay Zoning Board of Appeals
4401 State Route 31
Clay, NY 13041

Russ Mitchell, Chairman
Town of Clay Planning Board
4401 State Route 31
Clay, New York 13041

Matthew Marko, Regional Director
New York State Department of Environmental Conservation
615 Erie Boulevard West
Syracuse, New York 13204-2400

Basil Seggos, Commissioner
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233

Martin E. Voss, Commissioner
Onondaga County Department of Transportation
John H. Mulroy Civic Center
421 Montgomery Street, 11th Floor
Syracuse, New York 13202

J. Ryan McMahon, II, County Executive
John H. Mulroy Civic Center
421 Montgomery Street, 14th Floor
Syracuse, New York 13202

Dan Kwasnowski, Planning Director
Syracuse-Onondaga County Planning Agency
John H. Mulroy Civic Center
421 Montgomery Street, 11th Floor
Syracuse, New York 13202

Frank M. Mento, P.E., Commissioner
Onondaga County Water Environment Protection
650 Hiawatha Boulevard
Syracuse, New York 13204

Marie Therese Dominguez, Commissioner
New York State Department of Transportation
50 Wolf Road
Albany, NY 12232

David P. Smith, P.E., Regional Director
New York State Department of Transportation
State Office Building
333 E. Washington Street
Syracuse, NY 13202

New York State Office of Parks, Recreation
& Historic Preservation
Erik Kulleseid, Commissioner
625 Broadway
Albany NY 12207

Onondaga County Metropolitan Water Board
Terence Mannion, Esq., Acting Chairman
4170 Route 31
Clay, NY 13041-8739

U.S. Army Corps of Engineers
Lt. Col. Eli Adams, Commander
Buffalo District
1776 Niagara Street
Buffalo, NY 14207

U.S. Fish & Wildlife Service
New York Field Office
3817 Luker Road
Cortland, NY 13045

U.S. Fish & Wildlife Service
Northeast Region
300 Westgate Center Dr.
Hadley, MA 01035

Indu Gupta, M.D., MPH
Commissioner of Health
Onondaga County Department of Health
Bureau of Public Health Engineering
421 Montgomery Street, 12th Floor
Syracuse, NY 13202

James D'Agostino, Director
Syracuse Metropolitan Transportation Council
126 North Salina Street
100 Clinton Square, Suite 100

NOTICE

STATE ENVIRONMENTAL QUALITY REVIEW ACT

LEAD AGENCY DESIGNATION

ONONDAGA COUNTY INDUSTRIAL DEVELOPMENT AGENCY

December 9, 2020

This notice is provided pursuant to the State Environmental Quality Review Act ("SEQRA"), Article 8 of the Environmental Conservation Law and the regulations adopted thereunder at 6 NYCRR Part 617. The Onondaga County Industrial Development Agency **("**OCIDA") intends to assume the role of Lead Agency for the purpose of conducting a coordinated environmental review under SEQRA for the proposed action below.

Project Name Proposed Expansion of White Pine Commerce Park

Project Address: 5171 Route 31, Town of Clay, Onondaga County New York

Description of Action: OCIDA, as Project Sponsor, proposes to expand its business park known as White Pine Commerce Park to approximately 1,253± acres (the "Project"). White Pine Commerce Park (the "Park") is located at the northeast of the intersection of NYS Route 31 and Caughdenoy Road. OCIDA currently owns approximately 450± acres and would acquire approximately 800± additional acres to the east of the existing Park. The expanded Park will be capable of supporting a mix of industrial and/or commercial uses that may include industrially related office, research, manufacturing, assembly, warehousing, data management, material processing and distribution facilities in a campus-like setting.

Based on its review of the Environmental Assessment Form ("EAF") prepared for the Project, and its knowledge of the Project generally, OCIDA has determined that the Project constitutes a Type I action as defined under SEQRA. As a recipient of this notice, your agency has been identified as one of the potentially interested agencies for the Project. A complete copy of the SEQRA Environmental Assessment Form, including OCIDA's Notice of Intent to Prepare a Supplemental Generic Environmental Impact Statement is enclosed herein. Please direct any comments or questions to OCIDA at the following address:

Robert Petrovich, Executive Director
Onondaga County Industrial Development Agency
333 West Washington St., Suite 130
Syracuse, New York 13202
Email: economicdevelopment@ongov.net
Phone: (315) 435-3770
Fax: (315) 435-3669

Mailing List:

Bill Meyer, Supervisor
Town of Cicero
8236 Brewerton Road
Cicero, NY 13039

200 Northern Concourse
PO Box 4949
Syracuse, NY 13221-4949

Central New York's Water Authority
www.ocwa.org

Phone: 315-455-7061
Fax: 315-455-6649

December 16, 2020

Robert Petrovich, Executive Director
Onondaga County Industrial Development Agency
333 West Washington Street, Suite 130
Syracuse, New York 13202

Subject: White Pine Commerce Park
SEQRA Lead Agency Designation

Dear Mr. Petrovich:

OCWA's concurrence with designating the Onondaga County Industrial Development Agency as the lead agency for the coordinated environmental review of the White Pine Commerce Park Expansion Project is attached.

One item of note, since January 1, 2017, OCWA has assumed the operation, maintenance and capital improvements related to the Onondaga County Metropolitan Water Agency. Accordingly, water related inquiries and requests should be directed to OCWA.

Should you have any questions or require information related to water service for the White Pine Commerce Park or OCWA in general, please don't hesitate to contact me directly. My office phone number is 315-455-7061 extension 3114 and my email address is mehooker@ocwa.org.

Thank you,

Michael E. Hooker
Executive Director

cc: Geoffrey G. Miller, P.E., BCEE,
Deputy Executive Director/COO

Phone: (315) 435-3770
Fax: (315) 435-3669

A complete copy of the FEAF, including OCIDA's Notice of Intent to Prepare a Supplemental Generic Environmental Impact Statement is enclosed herein. If no response is received within the 30 days of the date of this notice, it shall be assumed that your agency has no objection to OCIDA acting as Lead Agency and no specific concerns about the Project.

SEQRA LEAD AGENCY DESIGNATION

Project: White Pine Commerce Park

(formerly known as Clay Business Park)

5171 Route 31

Town of Clay, New York

The undersigned, on behalf of the Onondaga County Water Authority, concurs with the designation of the Onondaga County Industrial Development Agency as lead agency for the coordinated environmental review of the White Pine Commerce Park Expansion Project.

By: _____

Title: Executive Director

Date: December 16, 2020

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits, Region 7
615 Erie Boulevard West, Syracuse, NY 13204-2400
P: (315) 426-7438 | F: (315) 426-7425
www.dec.ny.gov

Onondaga County Industrial Development Agency
333 West Washington St., Suite 130
Syracuse, NY 13202
economicdevelopment@ongov.net

March 5, 2021

RE: White Pine Commerce Park, Response to SEQRA Lead Agency Coordination
5171 Route 31, Town of Clay, Onondaga County

Dear Mr. Petrovich:

The New York State Department of Environmental Conservation (DEC) received the submitted information for the above referenced project on January 8, 2021. This information was received by the Department on January 8, 2021. According to the provided materials, OCIDA, as the project sponsor, proposes to expand its existing 450 acres business park to approximately 1,253 acres to support a mix of industrial and/or commercial businesses. DEC has no objections to OCIDA continuing as lead agency and offers the following to be considered in addition to the impacts that were identified in the 2013 Final Generic Environmental Impact Statement.

PROTECTION OF WATERS

Eight tributaries of Oneida River and Youngs Creek (NYS Water Index#: ONT-66-11-14-4-1A, ONT-66-11-14-2-1, ONT-66-11-14-1C, ONT-66-11-14-2, ONT-66-11-14-1B, ONT-66-11-14, ONT-66-11-14-4, ONT-66-11-14-4-1), all Class C streams, are located within close proximity to the identified project location. These natural resources should be preserved to the best extent possible. An Article 15, Protection of Waters, is required for excavating or placing fill in navigable waters of the state, below the mean high water level, including adjacent and contiguous marshes and wetlands. In New York State, applicants for a Federal license or permit for activities that may result in a discharge into waters of the United States are required to apply for and obtain a Water Quality Certification (WQC) from DEC indicating that the proposed activity will comply with New York State water quality standards. A WQC from DEC is most commonly required when a project also requires a permit from the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act for the placement of fill in waters of the United States. Therefore, any of these impacts should be considered in your environmental review and incorporated into the design. Upon application to DEC, the project sponsor must provide a full delineation of all streams, and should include, but not limited to; stream width at Ordinary High Water Level (OHWL), colored photographs, a determination of its' navigability, any proposed tree cutting along the stream corridor, and any fill or ground disturbance within 50 feet from OHWL.

The project sponsor will be responsible for ensuring that any work shall not pollute any stream or waterbody, as it pertains to New York State's water quality standards program, which includes federal (U.S. EPA) oversight. Care shall be taken to stabilize any disturbed areas promptly after any construction, and all necessary precautions shall be taken to prevent contamination of the stream or waterbody by silt, sediment, fuels, solvents, lubricants, or any other pollutant associated with the project.

FRESHWATER WETLANDS

Your project/site is near or within two Regulated Freshwater Wetlands; BRE-11, a Class III wetland, and BRE-14, a Class II Wetland. Under the Freshwater Wetlands Act, DEC regulates activities in freshwater wetlands and in their 100 foot adjacent areas. DEC regulates such activities to prevent impairment of wetland benefits and functions. Therefore, DEC recommends that any impacts to both the Freshwater

Wetland and/or 100 foot adjacent area be considered in your environmental review, and strict avoidance incorporated into your design. In addition, a full delineation, and wetland report should be completed. Once completed, please contact our Bureau of Ecosystem Health, to have the delineation verified, at (607) 753-3095, ext. 206.

Please also contact your town officials and the United States Army Corps of Engineers Auburn Field Office, at (315) 255-8090, for anything they might require.

STATE-LISTED SPECIES

DEC has reviewed the State's Natural Heritage records. We have determined that the site is located within or near record(s) for the following State-listed species: Sedge Wren (Cistothorus platensis), Threatened, and Indiana Bat (Myotis sodalis), Endangered. Please be aware, pursuant to Article 11, Title 5, Section 535 of the Environmental Conservation Law, Threatened and Endangered Species, an "Incidental Take" Permit may be required from the DEC for any project if it is determined that a take of a threatened or endangered species will occur. Regarding the Sedge Wren, DEC will require that a grassland breeding bird survey be conducted. DEC will review the results of this survey in order to determine the need for an incidental take permit. Regarding the Indiana Bat, to avoid adverse impacts, any project plans for construction activities on these parcels must specify that cutting of any and all known roost trees be avoided, and clearing of other trees must occur from October 31 through March 31. For more information on avoiding impacts to state-listed species referenced above, please contact Tom Bell with DEC's Region 7 Division of Wildlife at (607) 753-3095, ext. 243.

The absence of data does not necessarily mean that rare or state-listed species, natural communities or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information which indicates their presence. For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

CULTURAL RESOURCES

We have reviewed the statewide inventory of archaeological resources maintained by the New York State Museum and the New York State Office of Parks, Recreation, and Historic Preservation. These records indicate that the project is not located within an area considered to be sensitive with regard to archaeological resources. For more information, please visit the New York State Office of Historic Preservation website at http://www.nysparks.com/shpo/.

Other permits from this Department or other agencies may be required for projects conducted on this property now or in the future. Applicants proposing complex, multi-residential, commercial or industrial projects are strongly encouraged to schedule a pre-application conference. This meeting with DEC allows the applicant to clarify project objectives and obtain DEC's recommendations. Such feedback can improve the project environmentally and shorten the application procedure. Also, regulations applicable to the location subject to this determination occasionally are revised and you should, therefore, verify the need for permits if your project is delayed or postponed. Applications may be downloaded from our website at https://www.dec.ny.gov/permits/6222.html.

State Pollutant Discharge Elimination System (SPDES)

If the project will disturb greater than one acre of soil, a SPDES General Permit for Stormwater Discharges from Construction Activity, Permit No. GP-0-20-001 (Stormwater Permit) will be required. The project is located within the Town of Clay, which is a regulated Municipal Separate Storm Sewer System (MS4) community. Therefore, the Stormwater Pollution Prevention Plan (SWPPP) must be reviewed and accepted by the MS4 prior to obtaining stormwater permit coverage. In addition to the MS4 review, DEC

retains its authority to complete a SWPPP review of the project. Please notify DEC when the SWPPP for this project has been completed and is available for review.

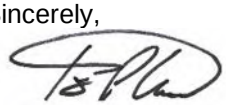
The proposed commerce park will most likely be serviced by the Oak Orchard Wastewater Treatment plant (WWTP). Depending on the estimated organic loads the facility (s) will produce, a pretreatment system should be considered. Many industrial developments typically have higher levels of total suspended solids and/or metals, and existing conditions at the treatment plant may not accommodate these increases. In addition to pretreatment, an upgrade to the WWTP should be considered to handle not only the increase in organic loads, but the increase in hydraulic loading.

Proposed new outfalls were mentioned in the FEAF. Once available, DEC will need to review any new outfalls, as any discharges of wastewater will require a SPDES permit, and proper justification as to why the discharges cannot be sent to the Oak Orchard WWTP.

With regards to any proposed sewer extensions, DEC strongly recommends being a co-reviewer along with Onondaga County Department of Health for any and all approvals for the installation of the force mains. Lastly, the groundwater elevation has been noted as 3 feet, and thus any dewatering action should be reviewed by DEC.

These determinations are typically good for one year, therefore as plans progress please contact DEC to ensure your compliance with Environmental Conservation Law (ECL). Please contact this office if you have questions regarding the above information. Thank you.

Sincerely,



Trendon Choe
Division of Environmental Permits, Region 7
Telephone No. (315) 426-7445

Cc: Matthew Marko – R7 Director
T. Vigneault, V. Ellis, M. Kazmierski – R7 DOW
T. Bell – R7 Wildlife
T. Toukatly – R7 BEH
E. Tracy – R7 RPA
Town Supervisor

From: dec.sm.NaturalHeritage
To: Carroll, Alexandra
Subject: [EXTERNAL] RE: Info Request
Date: Tuesday, March 30, 2021 5:22:44 PM

I see. We can review the project site, but it's worth mentioning that for listed animals such as sedge wren and Indiana bat, we cannot divulge detailed information. We can report the distance from the project site and whether or not it is a breeding or nonbreeding location (for birds) and summer or winter location (for bats). And, you would still need to follow up with NYSDEC Regional Permits staff for additional guidance or permit considerations for any listed species.

We do provide more detailed information for unlisted species and significant natural communities, should there happen to be any.

I will keep this request in our queue for review.

Sincerely,
Heidi

From: Carroll, Alexandra <ACarroll@jmt.com>
Sent: Tuesday, March 30, 2021 5:06 PM
To: dec.sm.NaturalHeritage <NaturalHeritage@dec.ny.gov>
Subject: RE: Info Request

Heidi,

Thank you for your email. I did use the EAF Mapper tool and USFWS IPaC tool and found that the project location could impact two species: Sedge wren and Indiana bat. I was hoping to gain more information on the *known occurrences* of these species as neither tool provides that information.

Thanks again,
Alexandra

JMT of New York, Inc.
An Employee-Owned Company

Alexandra Carroll, GISP
Associate
Special Projects
D. (518) 218-5925

Please consider the environment before printing this e-mail

From: dec.sm.NaturalHeritage <NaturalHeritage@dec.ny.gov>
Sent: Tuesday, March 30, 2021 4:25 PM

To: Carroll, Alexandra <ACarroll@jmt.com>
Subject: [EXTERNAL] RE: Info Request

Alexandra,

Thank you for contacting the NY Natural Heritage Program.

In your request you mention SEQR review. You can use the EAF Mapper, a NYSDEC online tool, to obtain the information you need. The EAF Mapper is the most efficient way to obtain answers to questions on the EAF. The EAF Mapper will automatically answer many of the EAF questions, including those regarding rare and endangered species (the tool provides specific species names) and significant natural communities. And when you use the EAF Mapper to fill in your EAF, submitting a project screening request to NY Natural Heritage is not necessary.

Due to the volume of requests we are receiving, our turn-around time is currently longer than usual, at about 5-6 weeks response time from submission date. If you use the EAF Mapper in the meantime and are able to get what you need regarding rare and endangered species and significant natural communities, please let me know and I will remove this request from our queue.

Sincerely,

Heidi Krahling, Environmental Review Specialist
(she/her)
NY Natural Heritage Program
625 Broadway, 5th Floor
Albany, NY 12233-4757
www.nynhp.org

From: Carroll, Alexandra <ACarroll@jmt.com>
Sent: Friday, March 26, 2021 2:39 PM
To: dec.sm.NaturalHeritage <NaturalHeritage@dec.ny.gov>
Subject: Info Request
Importance: High

Dear Information Services:

JMT of New York, Inc. is preparing SEQR-related documents for a Draft Generic Environmental Impact Statement (DGEIS) for a proposed manufacturing site bound by NY-31 to the south and Caughdenoy Road to the west in Towns of Clay and Cicero, Onondaga County, New York.

The attached Site Location Map depicts the project boundaries.

Please review the project area for the presence of endangered, threatened, or special concern wildlife species, rare plant, animal or natural community occurrences, or other significant habitats.

If you should have any questions or require additional information, please contact me at acarroll@jmt.com or (518) 218-5925.

Kind regards,
Alexandra

JMT of New York, Inc.
An Employee-Owned Company

Alexandra Carroll, GISP
Associate
Special Projects

19 British American Boulevard
Latham, New York 12110
D. (518) 218-5925
acarroll@jmt.com

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JMT 50th Anniversary

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Thank You.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
Phone: (607) 753-9334 Fax: (607) 753-9699
http://www.fws.gov/northeast/nyfo/es/section7.htm

In Reply Refer To: April 13, 2021
Consultation Code: 05E1NY00-2021-SLI-2254
Event Code: 05E1NY00-2021-E-07085
Project Name: White Pine SGEIS

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). This list can also be used to determine whether listed species may be present for projects without federal agency involvement. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list.

Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list. If listed, proposed, or candidate species were identified as potentially occurring in the project area, coordination with our office is encouraged. Information on the steps involved with assessing potential impacts from projects can be found at: http://www.fws.gov/northeast/nyfo/es/section7.htm

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the Services wind

energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the ESA. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334

Project Summary

Consultation Code: 05E1NY00-2021-SLI-2254
Event Code: 05E1NY00-2021-E-07085
Project Name: White Pine SGEIS
Project Type: DEVELOPMENT
Project Description: Development of Supplemental Generic Environmental Impact Statement
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@43.188826750000004,-76.15214390820285,14z

Counties: Onondaga County, New York

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

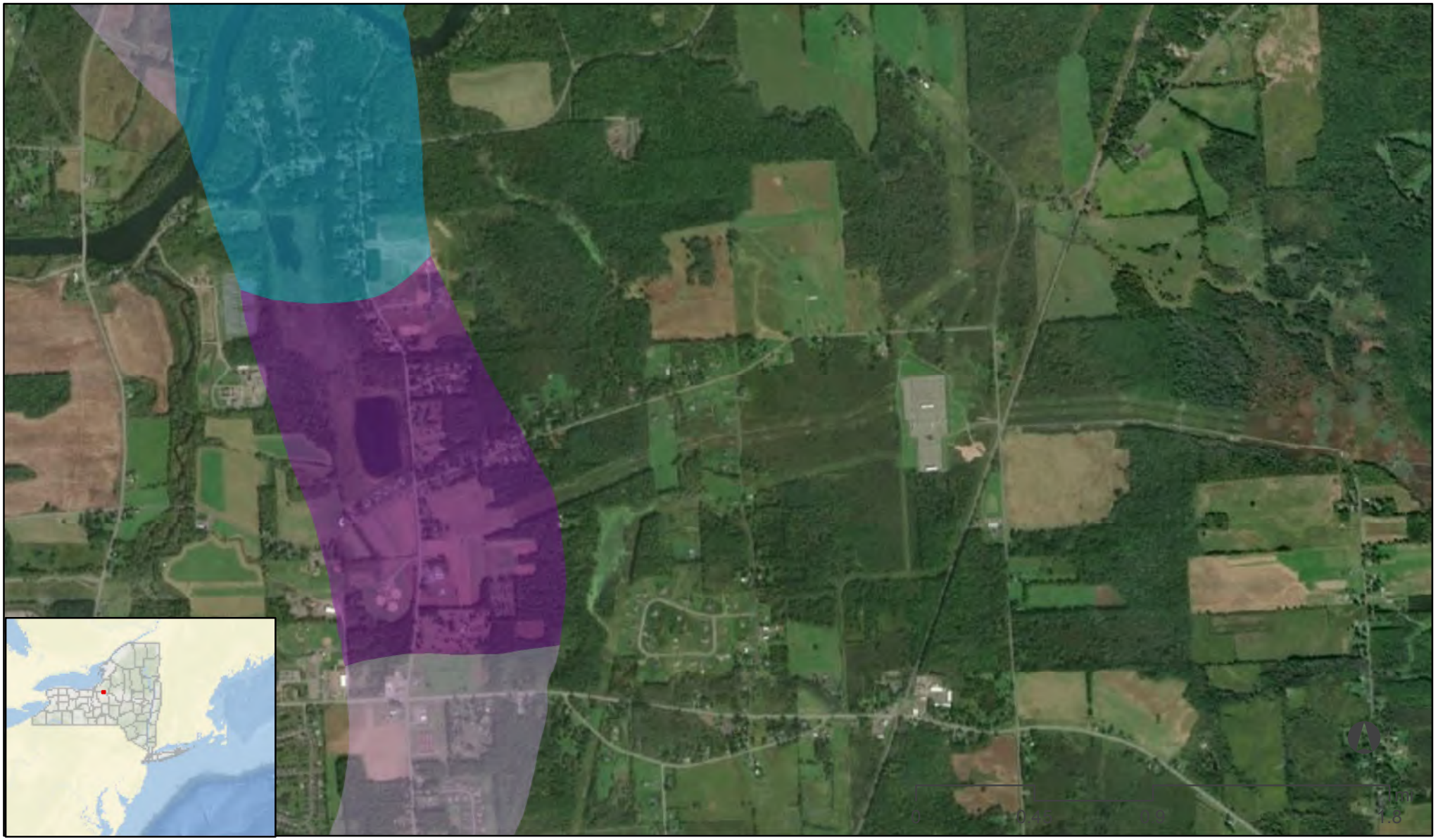
NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered

Reptiles

NAME	STATUS
Eastern Massasauga (=rattlesnake) *Sistrurus catenatus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2202	Threatened

Critical habitats

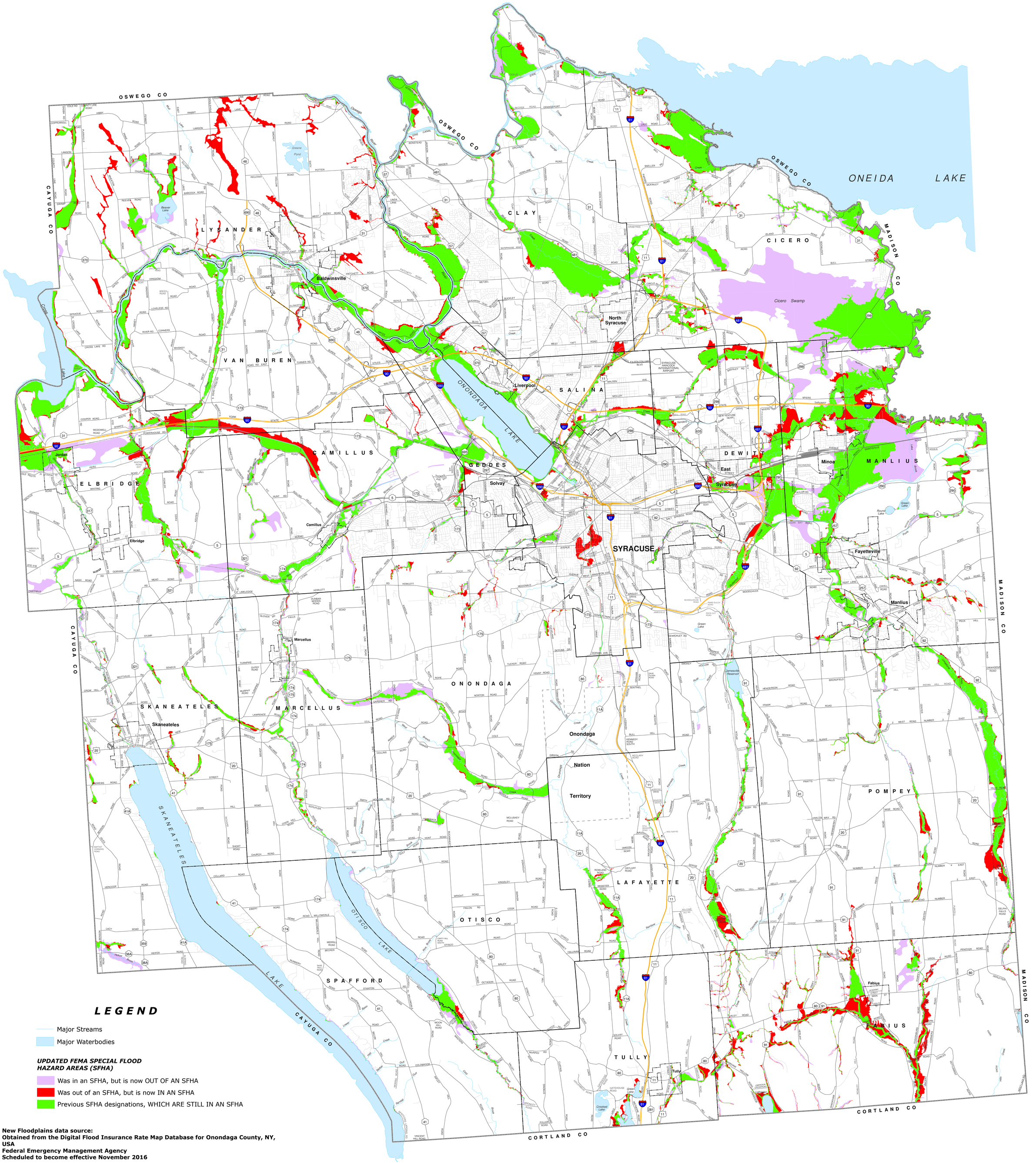
THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



NEW YORK STATE OF OPPORTUNITY. Department of State

The New York Department of State (DOS) gives no warranty, expressed or implied, as to the accuracy, reliability, or completeness of data shown on this map product. DOS does not assume responsibility for the use or application of any information represented on this map nor responsibility for any error, omission or other discrepancy between the electronic and printed versions of documents.

FEMA Floodplain Changes in Onondaga County (2016)



LEGEND

- Major Streams
- Major Waterbodies

UPDATED FEMA SPECIAL FLOOD HAZARD AREAS (SFHA)

- Was in an SFHA, but is now OUT OF AN SFHA
- Was out of an SFHA, but is now IN AN SFHA
- Previous SFHA designations, WHICH ARE STILL IN AN SFHA

New Floodplains data source:
Obtained from the Digital Flood Insurance Rate Map Database for Onondaga County, NY, USA
Federal Emergency Management Agency
Scheduled to become effective November 2016

Previous Floodplain data source:
Provided by the Federal Emergency Management Agency from Flood Insurance Maps June 1982 - August 1984

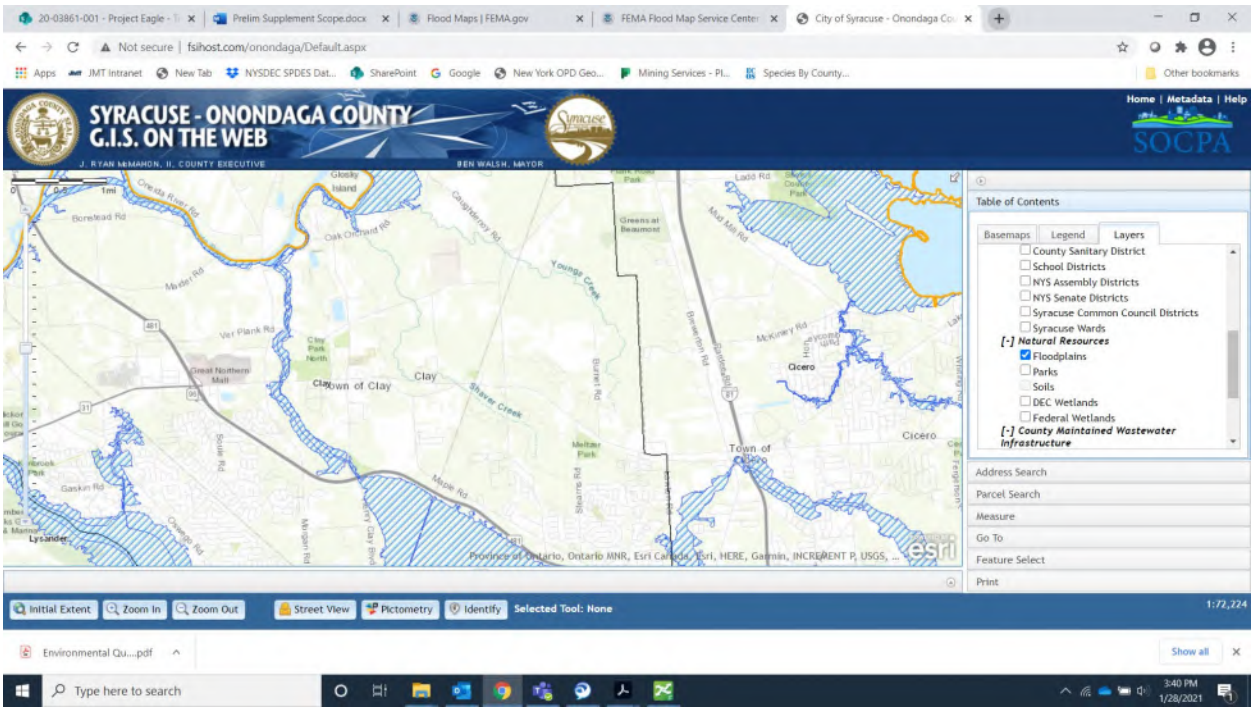
Disclaimer:
THIS IS NOT AN OFFICIAL FEMA MAP.
This map is intended for general planning purposes only. It should not be used to determine if a property is located in a SFHA. To determine if a property is located in a SFHA, refer to the FEMA Flood Insurance Rate Maps.

The hardcopy FIRM and the accompanying FISs are the official designation of SFHAs and Base Flood Elevations (BFEs) for the NFIP. For the purposes of the NFIP, changes to the flood risk information published by FEMA may only be performed by FEMA and through the mechanisms established in the NFIP regulation (44 CFR Parts 59-78). These digital data are produced in conjunction with the hardcopy FIRMs and generally match the hardcopy map exactly. However the hardcopy flood maps and flood profiles are the authoritative documents for the NFIP.

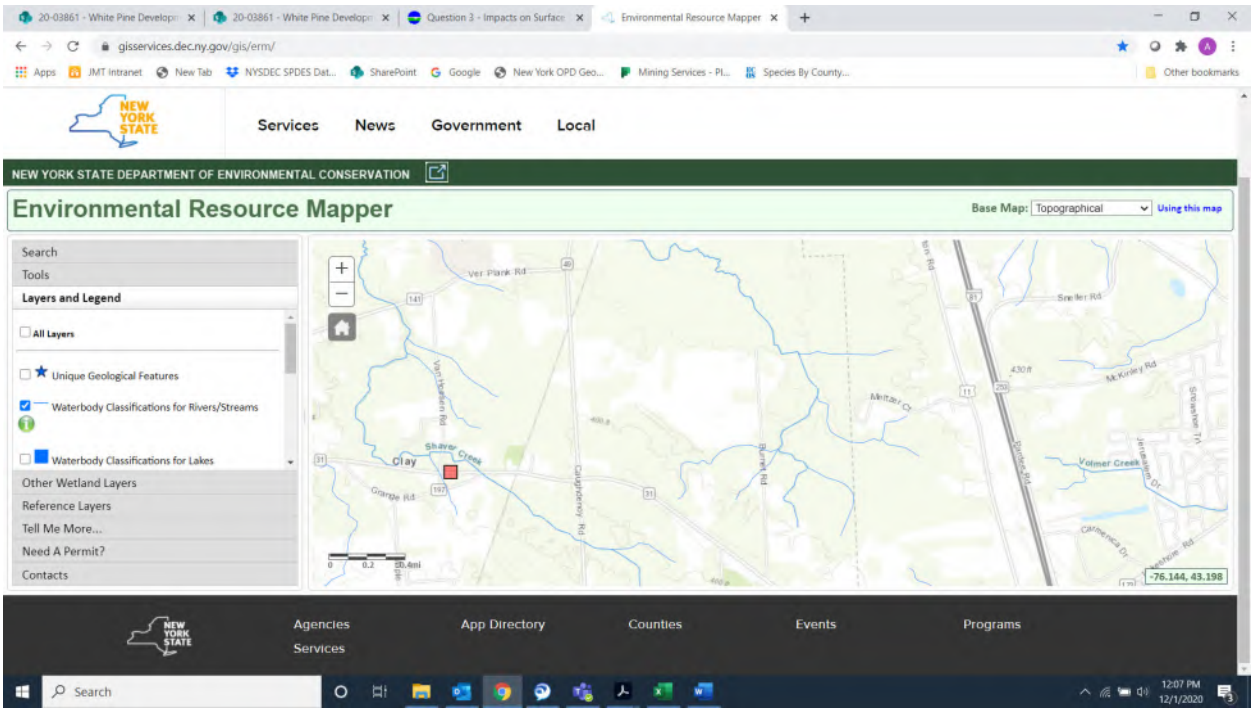
N

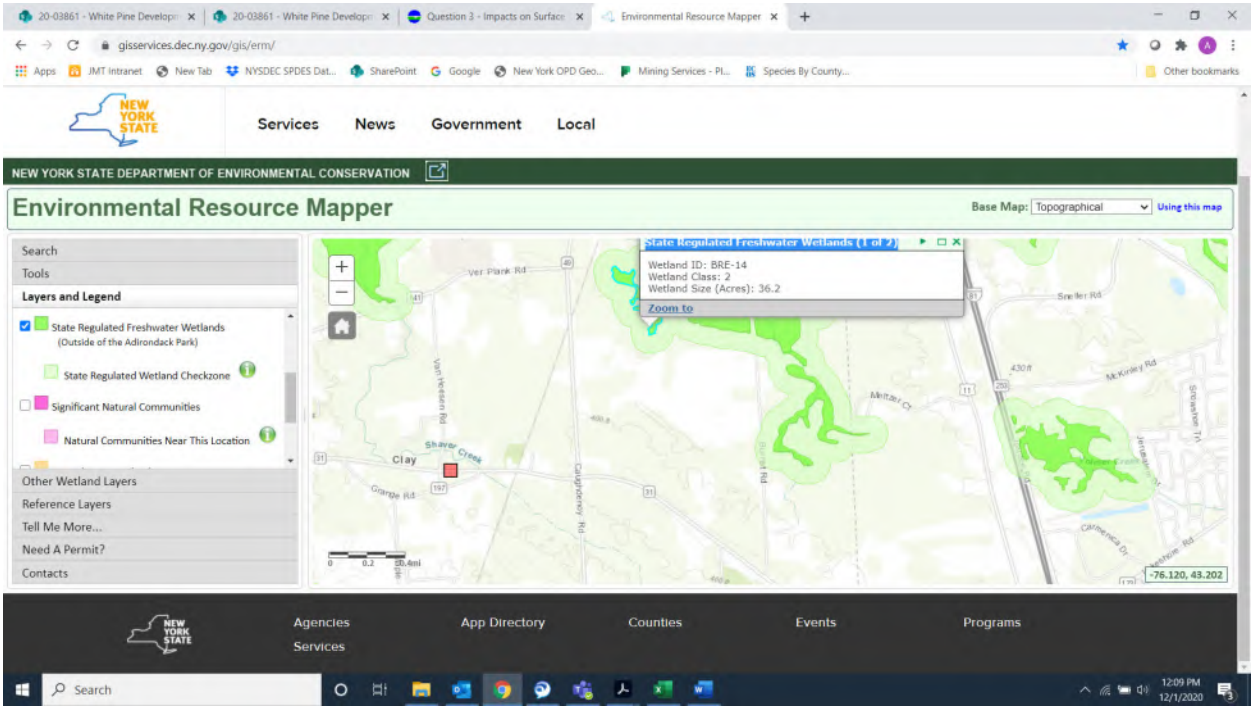
0 1 2 3 4 5 Miles

NOTE: This map was created by the Syracuse-Onondaga County Planning Agency (SOCPA) GIS division using existing (1980's) and preliminary (2016) FEMA floodplain data.



No floodplains identified.


Environmental Resource Mapper
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Base Map: Topographical
Using this map
Search
Tools
Layers and Legend
All Layers
Unique Geological Features
Waterbody Classifications for Rivers/Streams
Waterbody Classifications for Lakes
Other Wetland Layers
Reference Layers
Tell Me More...
Need A Permit?
Contacts
Clay
Shaver Creek
Volmer Creek
-76.144, 43.198
Agencies
Services
App Directory
Counties
Events
Programs


Environmental Resource Mapper
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Base Map: Topographical
Using this map
State Regulated Freshwater Wetlands (1 of 2)
Wetland ID: BRE-14
Wetland Class: 2
Wetland Size (Acres): 36.2
Zoom to
Search
Tools
Layers and Legend
State Regulated Freshwater Wetlands (Outside of the Adirondack Park)
State Regulated Wetland Checkzone
Significant Natural Communities
Natural Communities Near This Location
Other Wetland Layers
Reference Layers
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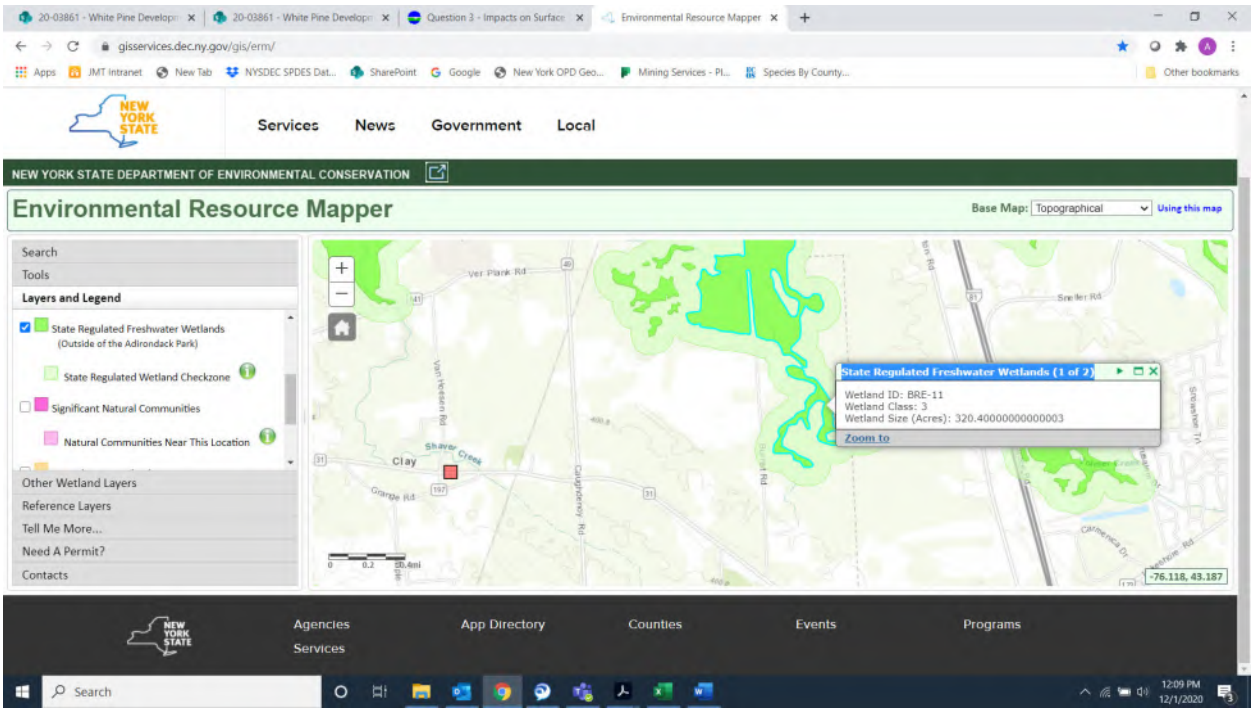
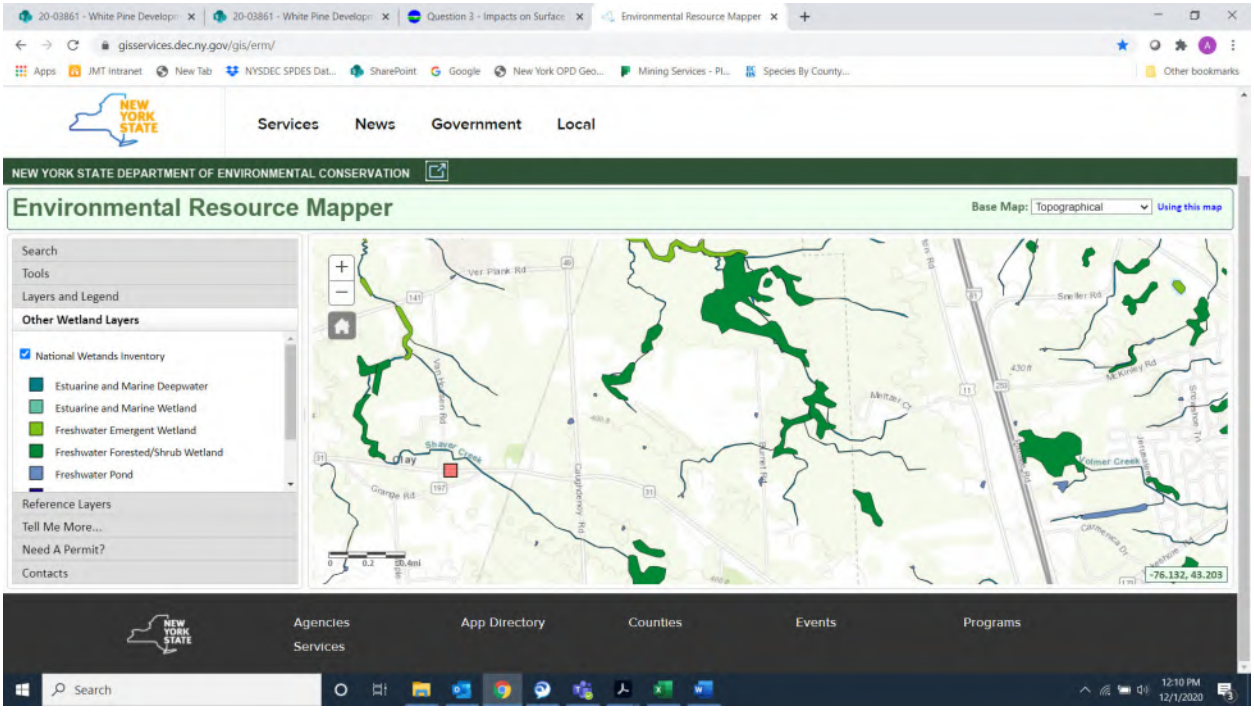
Contacts
Clay
Shaver Creek
-76.120, 43.202
Agencies
Services
App Directory
Counties
Events
Programs


Environmental Resource Mapper
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Base Map: Topographical
Using this map
Search
Tools
Layers and Legend
State Regulated Freshwater Wetlands (Outside of the Adirondack Park)
State Regulated Wetland Checkzone
Significant Natural Communities
Natural Communities Near This Location
Other Wetland Layers
Reference Layers
Tell Me More...
Need A Permit?
Contacts
State Regulated Freshwater Wetlands (1 of 2)
Wetland ID: BRE-11
Wetland Class: 3
Wetland Size (Acres): 320.40000000000003
Zoom to
Clay
-76.118, 43.187


Environmental Resource Mapper
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Base Map: Topographical
Using this map
Search
Tools
Layers and Legend
Other Wetland Layers
National Wetands Inventory
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond
Reference Layers
Tell Me More...
Need A Permit?
Contacts
Clay
-76.132, 43.203

APPENDIX B

Traffic Analysis Report and Data

WHITE PINE COMMERCE PARK

TRAFFIC IMPACT STUDY

Submitted to:
Onondaga County Industrial Development Agency (OCIDA)

May 2021

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1.0 EXECUTIVE SUMMARY

1.1 PROPOSED PROJECT

This study was prepared for Onondaga County Industrial Development Agency (OCIDA) by JMT of New York, Inc. (JMT) as part of the Draft Supplemental Generic Environmental Impact Statement (SGEIS). This report includes a Traffic Impact Study (TIS) of the impacts of the proposed expansion of the White Pine Commerce Park ("Park"), a planned industrial development that is proposed in the Town of Clay located north of the City of Syracuse in Onondaga County. For the purposes of this Draft SGEIS, the Park is assumed to be operational by year 2024. This report was prepared in accordance with Chapter 5 of the New York State Department of Transportation (NYSDOT) Highway Design Manual (HDM). This report is based on the NYSDOT TIS Shell dated September 2014 as well as the NYSDOT TIS Typical Elements dated March 2015.

1.2 SUMMARY OF TRAFFIC IMPACTS

Since the preparation of the 2012 TIS that was part of the 2012 Draft GEIS and finalized in the 2013 Final GEIS, traffic roadway changes include:

- The addition of exclusive eastbound and westbound left turn lanes along NYS Route 31 at Henry Clay Boulevard;
- The unsignalized intersections of NYS Route 31/Caughdenoy Road and NYS Route 31/Legionnaire Drive/Lawton Road were signalized;
- The Caughdenoy Road/NYS Route 31 intersection was also recommended for right and left turn lane additions; however, the current development assumptions have changed with multiple site entrances.

During the Year 2024 (See Section 4.4), the addition of the proposed future development assumed traffic causes delay increases at most intersections. During this scenario, the intersections along the NYS Route 31 corridor that have LOS E or F movements include: Henry Clay Boulevard, US Route 11, I-81 southbound off ramp, I-81 northbound off ramp, and Lakeshore Road.

1.3 MITIGATION OF TRAFFIC IMPACTS

Capacity analysis was performed, and the following capacity improvement measures are recommended to address LOS, travel speeds, delay, and safety:

- NYS Route 31 at Henry Clay Boulevard: Construct a northbound left turn lane,
- NYS Route 31 at US Route 11: Construct an additional left turn lane to provide for westbound dual left turn lanes and modify left turn phasing from permissive/protected to protected,
- NYS Route 31 at I-81 Southbound Ramps: Construct an additional left turn lane to provide westbound double left turn lanes and change westbound left turn phasing from permissive/protected to protected and widen to two lanes on the on-ramp before merging to a single lane prior to the merge on to I-81.

- NYS Route 31 at I-81 Northbound/ Pardee Road: On I-81 northbound off ramp construct an additional left and right turn lane.
- NYS Route 31 at Site Entrance 2: An addition of a left turn lane along NYS Route 31 eastbound and a right turn lane along NYS Route 31 at the site entrance. A left and right turn will be provided out of the site. A traffic signal is recommended at the intersection.
- Caughdenoy Road at Site Entrance 1: A right and left turn lane will be provided from the site entrance and along Caughdenoy Road.
- NYS Route 31 at Lakeshore Road: Concepts have been developed and coordination will take place with NYSDOT for future consideration.

A crash analysis was performed for three locations from the 2017-2019 HAL list. Between May 1, 2015 and April 31, 2018, there were 462 total crashes at the three study area segments. The proposed recommendations include mitigation measures at each of these locations based on a review of capacity analysis and collision type.

Overall, the transportation network with Development and Build improvements will operate better than existing conditions. With the proposed recommendations, the study area will maintain an acceptable Level of Service of D or better in design year 2024.

2.0 INTRODUCTION AND BACKGROUND

2.1 STUDY PURPOSE

This study was prepared for OCIDA by JMT as part of the Draft SGEIS. This report includes a TIS of the impacts of the Park development located within the NYS Route 31 and Caughdenoy Road intersection and its impact on the surrounding transportation network.

2.2 PROJECT DESCRIPTION

White Pine Commerce Park is an existing undeveloped industrial park development in the Town of Clay located north of the City of Syracuse in Onondaga County that is proposed to be expanded to attract development. A new TIS was prepared to evaluated potential traffic impacts associated with the proposed expanded Park area. Due to the generic nature of this review, the TIS includes more generic as opposed to specific development details. The anticipated bounds of the project site are shown on **Figure 1**. This study follows the assumptions to develop the traffic impact of the proposed expansion and potential development, which include supporting between 3,750 to 4,000 employees (4,000 used for analysis); having a minimum of two driveways for site access: one driveway will be connected to Caughdenoy Road and the other will be connected to NYS Route 31; operating 24 hours a day and seven days a week with three equally sized rotating working shifts; and development of the Project site will be completed and operational by the year 2024.

2.3 IMPACTED TRAFFIC AREA

The Park is located in the Town of Clay north of the City of Syracuse. The site is located on the northeast corner of Caughdenoy Road and NYS Route 31. The impacted traffic area includes both Town of Clay and Town of Cicero in in New York. A total of 14 intersections along NYS Route 31 were studied from the western limits of NYS Route 481 to the eastern limits of CR 123 (Lakeshore Road) and southern limits of Caughdenoy Road at Maple Road/NYS Route 481. Minor stop-controlled side streets were not evaluated. See **Figure 1** for the study location map and study area. The intersections include:

1. NYS Route 31/NYS Route 481 Southbound Off Ramp/Soule Road
2. NYS Route 31/NYS Route 481 Northbound Ramps
3. NYS Route 31/Marketfair Plaza
4. NYS Route 31/Great Northern Mall West Driveway/Water Board Lane
5. NYS Route 31/Great Northern Mall East Driveway/La-Z-Boy Driveway
6. NYS Route 31/Morgan Road (CR 46)
7. NYS Route 31/Henry Clay Boulevard (CR 265/CR 121)
8. NYS Route 31/CR 49 (Caughdenoy Road)
9. NYS Route 31/Legionnaire Drive/Lawton Road
10. NYS Route 31/US Route 11
11. NYS Route 31/I-81 Southbound Ramps
12. NYS Route 31/I-81 Northbound Off Ramp/CR 253 (Pardee Road)
13. NYS Route 31/CR 123 (Lakeshore Road) (unsignalized)
14. CR 49 (Caughdenoy Road)/CR 197 (Maple Road)/NYS Route 481 Northbound Off-ramp (unsignalized)

19 British American Blvd. W, Latham NY 12110
P: 518-782-0882| F: 518-782-0973| jmt.com

WHITE PINE COMMERCE PARK
ONONDAGA COUNTY INDUSTRIAL DEVELOPMENT AGENCY
TRAFFIC STUDY AREA

PROJ No.: 20-03861	Date: 4/22/2021	SCALE: 1" = 5,500 FT	FIGURE: 1

3.0 EXISTING HIGHWAY SYSTEM & CONDITIONS

The existing roadway features described in this section were obtained from data collected in the field and a review of existing documents. These documents are referenced in this section. In addition to local knowledge of the area, JMT staff conducted field investigations starting on March 13, 2021 to observe intersection operations during various times of the day. Field observations of NYS Route 31 within the project limits include:

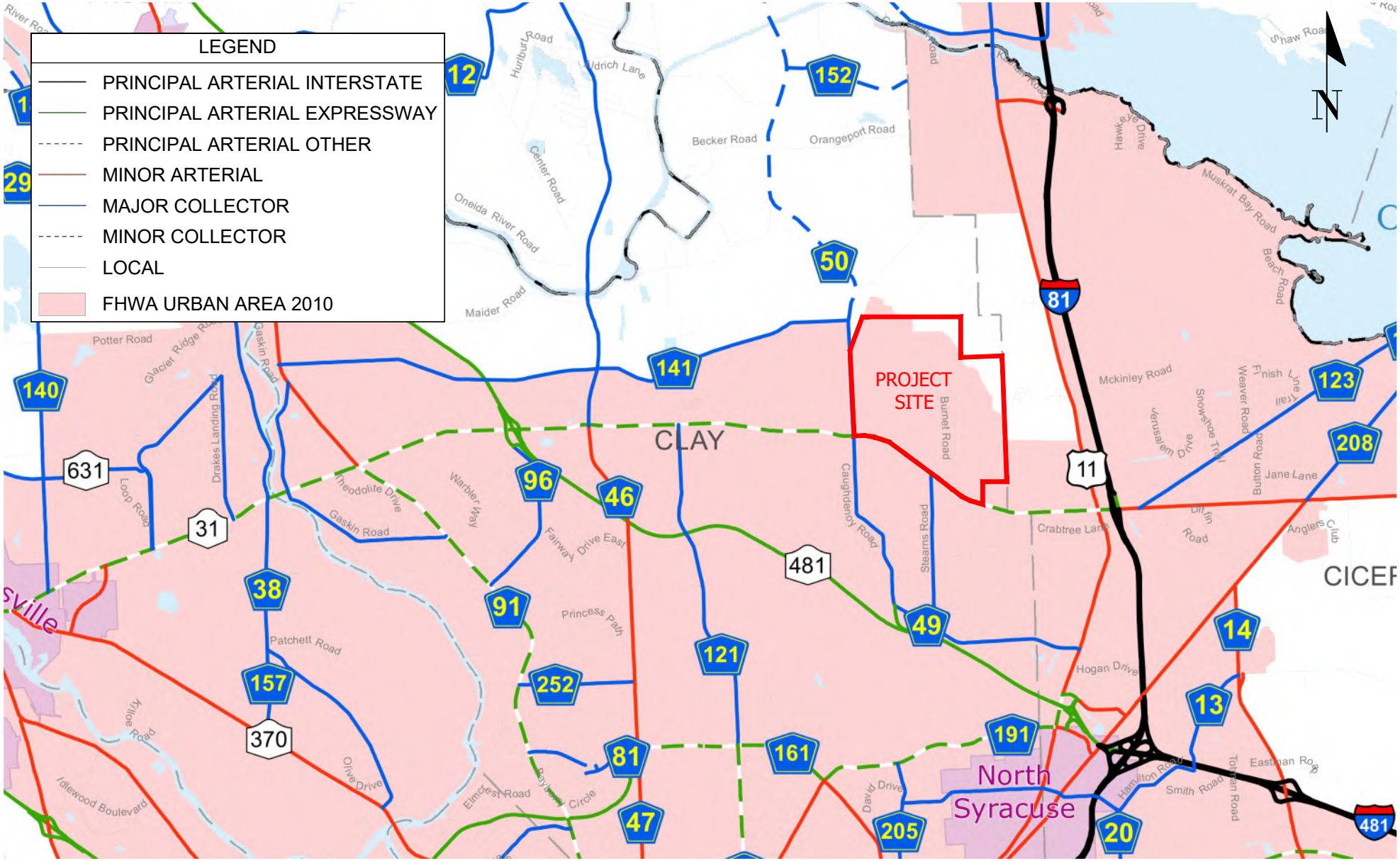
- Motorists passing in the shoulder around left-turning vehicles;
- Varying speed limits along the corridor and high travel speeds;
- Newer signals have mast arm mounted signs while older signals have post mounted signs;
- Worn pavement markings;
- Limited roadway lighting during nighttime operations;
- Varying land uses (i.e. residential, commercial, retail) with inconsistent driveways;
- Long queues in the eastbound direction approaching I-81;
- The eastbound and westbound left turn lanes at I-81 do not have enough storage and long queues occur with vehicles spilling into the through lanes, which causes weaving especially in the westbound direction near I-81;
- The I-81 queuing affects Lakeshore Road with additional weaving of approaching vehicles access at business driveways or getting around vehicles waiting to get onto the ramps; and
- The skewed approaches of Lakeshore Road and Maple Road/NYS Route 481 Northbound Off Ramp Intersection forces confusion and quick decision making.

3.1 FUNCTIONAL CLASSIFICATION, ACCESS CONTROL, & ADJACENT LAND USE

The functional classifications for major streets are identified in the May 2017 NYSDOT Region 3 Functional Classification Map. The roadway of NYS Route 31 is classified as a Principal Arterial Other from NYS Route 481 to I-81 and classified Minor Arterial from I-81 to Lakeshore Road. NYS Route 31 is located within an Urban Area. The major intersecting roadways along NYS Route 31 are also classified. They are: NYS Route 481 classified as a Principal Arterial Expressway, Caughdenoy Road is classified as a Major Collector, US Route 11 is classified as a Minor Arterial, I-81 is classified as a Principal Arterial Interstate and Lakeshore Road is classified as a Major Collector. See **Figure 2** for a detailed map of the roadway functional classifications.

The existing typical section on NYS Route 31 is described below:

- From NYS Route 481 to east of Morgan Road is a 4-lane divided roadway with 12-foot travel lanes and varying width marked medians.
- From east of Morgan Road to west of US Route 11 is a 2-lane undivided roadway with 11-foot travel lanes between the Henry Clay Boulevard and Legionnaire Drive roadway segment.
- From west of US Route 11 to Lakeshore Road is a 4-lane divided roadway with 12-foot travel lanes and center two way left turn lanes (TWLTL).



JMT 19 British American Blvd. W, Latham NY 12110 P: 518-782-0882| F: 518-782-0973| jmt.com		WHITE PINE COMMERCE PARK ONONDAGA COUNTY INDUSTRIAL DEVELOPMENT AGENCY NYSDOT FUNCTIONAL CLASSIFICATION	
PROJ No.:20-03861	DATE: 4/22/2021	SCALE: N.T.S.	FIGURE: 2

The posted speed limit varies along the corridor and the speed limit segments are identified below:

- Along NYS Route 31:
  - NYS Route 481 to east side of Morgan Road is 40 mph.
  - East side of Morgan Road to Grange Road is 55 mph.
  - Grange Road to east side of Caughdenoy Road is 40 mph.
  - East side of Caughdenoy Road to east side of Barcaldine Drive/Legionnaire Drive is 55 mph.
  - East side of Barcaldine Drive/Legionnaire Drive to west side of US Route 11 is 45 mph.
  - West side of US Route 11 to Lakeshore Road is 35 mph.
- Along Caughdenoy Road:
  - NYS Route 31 to Maple Road is 35 mph.

Adjacent land surrounding the Park has gradually changed from what was once a rural area made up of agriculture and farmland to a more suburban character of development. The land uses immediately adjacent to the Park includes a mix of vacant land, agriculture, as well as some residential, commercial, and public service uses. The density of development increases significantly south of NYS Route 31 with suburban residential neighborhoods and some commercial activity along NYS Route 31. Further to the west of the Park, a similar suburban development pattern is also prevalent, although not as dense as south of NYS Route 31. North of the Park is mainly agricultural and vacant land, with some scattered residential uses. East of the Park is a mix of mainly commercial, residential and vacant land uses along the I-81 corridor.

3.2 TRAVEL SPEEDS

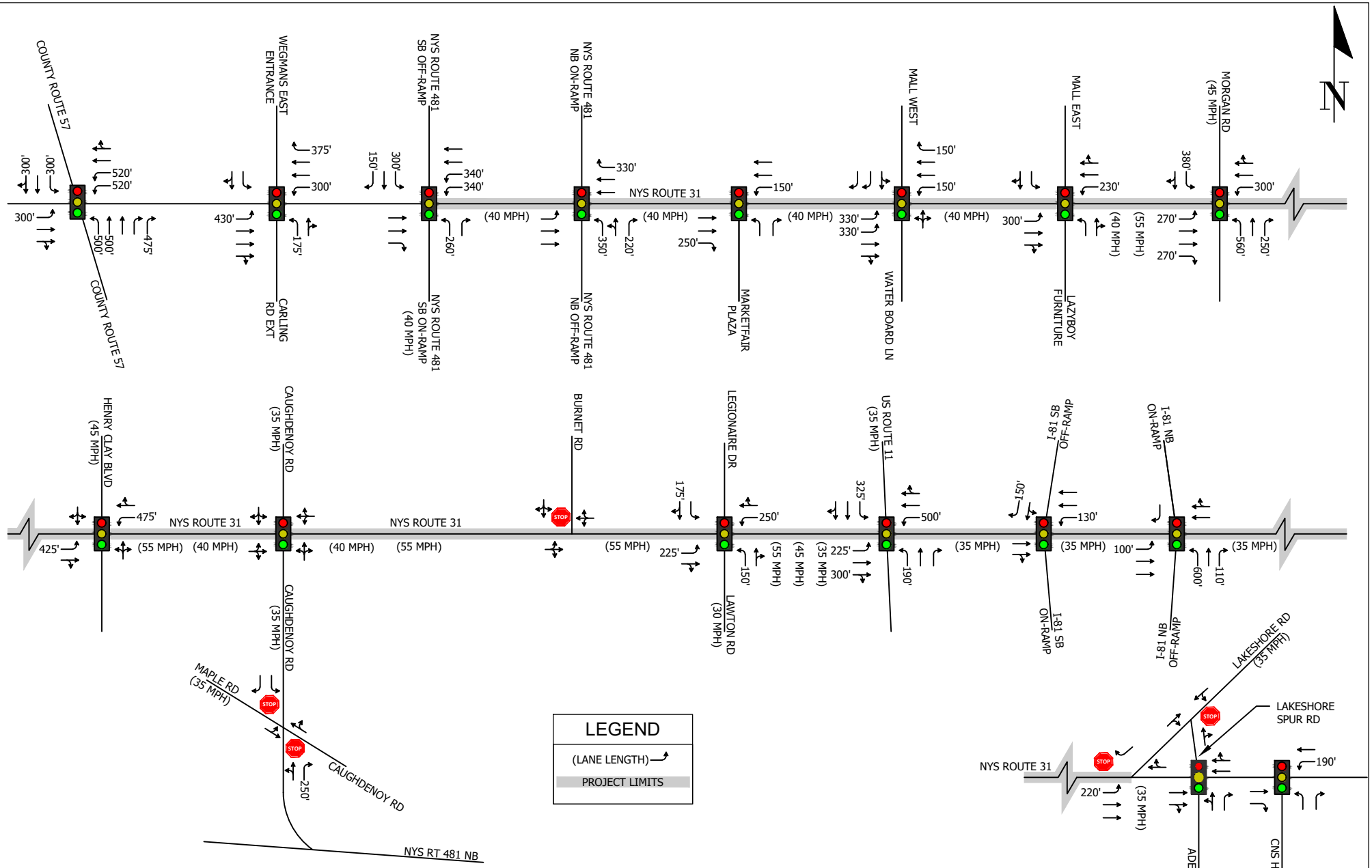
The posted speed limit and the off-peak 85th percentile speed were determined based on NYSDOT Highway Design Manual Chapter 5, Section 5.2 and are shown in **Table 1** below. Average operating speeds in both directions were collected from the NYSDOT Traffic Data Viewer and summarized below. Additional speed analysis is performed in Section 5.5.

Table 1. Speed Data

Street Name	Limits (From – To)	Posted Speed	Average Operating Speed
NYS Route 31	NYS Route 481 to Morgan Road	40 mph	42 mph
NYS Route 31	Van Hoesen Road to Caughdenoy Road	40 mph	35 mph
Caughdenoy Rd	Dandelion Way to NYS Route 31	35 mph	43 mph
Caughdenoy Rd	Davis Road to Dandelion Way	35 mph	39 mph

3.3 EXISTING TRAFFIC CONTROL

There are 12 signalized intersections within the study area and no flashing beacons. There are two stop-controlled intersections that were analyzed in the study area. These are located at NYS Route 31/Lakeshore Road and NYS Route 481 Off-Ramp/Caughdenoy Road/Maple Ave. All other intersections and commercial driveways within the study area are stop controlled. Signal control exists between the I-81 Ramp intersections and existing timing data for all signalized intersections is included in **Appendix B**. See **Figure 3** for the existing lane designations at intersections, traffic control type, and speed limits along the study area.



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EXISTING LANE DESIGNATIONS AND TRAFFIC CONTROL

PROJ No.:20-03861	DATE: 4/22/2021	SCALE: N.T.S.	FIGURE: 3

3.4 EXISTING FACILITIES FOR NON-MOTORIZED TRAFFIC

Sidewalks exist along limited sections of NYS Route 31, but are missing from large sections of the road. Sidewalk is present from just west of US Route 11 to Lakeshore Road, along both sides of the road. Sidewalk is also present on the south side only of Legionnaire Drive and Lawton Road, and a small portion of sidewalk exists near the at-grade railroad crossing and Weller Canning Road along the north side only. Sidewalk is also located starting from the east side of Morgan Road to East Mall Entrance along the north side only. As shown above, there are large gaps of missing sidewalk along NYS Route 31.

There are no pavement marked or unmarked bike lanes along NYS Route 31 within the Project limits. NYS Route 31 is designated as State Bicycle Route 5 as a signed on-road bicycle route that extends 365 miles from Niagara Falls across New York to the Massachusetts state line. Bicyclists can share the road with motorists along the roadway network.

3.5 DATA COLLECTION

This section of the report presents the data that was obtained for this study. For the purposes of this study, it was determined that existing traffic count data could be used, and also new count data would also be required. Following NYSDOT Traffic Data Collection Guidance during COVID-19 Pandemic Memo dated August 11, 2020 which states traffic count data older than 5 years would need to be collected again, JMT reviewed and have used an adjustment factor created to help balance and match existing traffic volume data.

Turning Movement Counts (TMCs) is a collection of vehicle data to determine the traffic flow through an intersection and collecting data during peak hours times when traffic volumes are the highest. Existing TMC data for AM and PM peak hours was already collected within the past 5 years for 9 intersections within the project limits. Therefore, new turning movement counts were collected by JMT on 03/16/21 for 5 locations. The counts were collected using Miovision cameras that recorded 13 hours of data from 6 a.m. to 7 p.m. and include processing of peak hour data from 7:00 a.m. to 10:00 a.m., 11:00 a.m. to 1:00 p.m., and 3:00 p.m. to 6:00 p.m. Saturday analysis is typically performed if near shopping malls, with specific facilities having peak hours occurring during midday operation. Since the assumed development of the Park has peaks in AM/PM occurring during employee shifts, the Saturday peak analysis was not performed as directed by NYSDOT. The raw traffic count data for existing intersections and roadway segments and new 5 intersections are included in **Appendix A**.

Additionally, existing signal timing and phase data was collected to build and calibrate the traffic analysis model.

The intersections were observed in the field during various time of day and during peak hours to note traffic operations. This is done to provide context and identify issues and to help calibrate the traffic analysis model.

3.5.1 Existing Traffic Counts & Volume Data as AADT & Truck Percent

Annual Average Daily Traffic (AADT) is a measurement of the busyness of a road. It is the total volume of vehicle traffic of a roadway segment in both directions for a year divided by 365 days. Existing AADT information was available from the NYSDOT Traffic Data Viewer website. Additionally, truck percentage information is also available and is useful in determining additional traffic impact factors. The existing AADT and Truck Percentages are graphically shown in **Figure 4** and **Figure 5**.

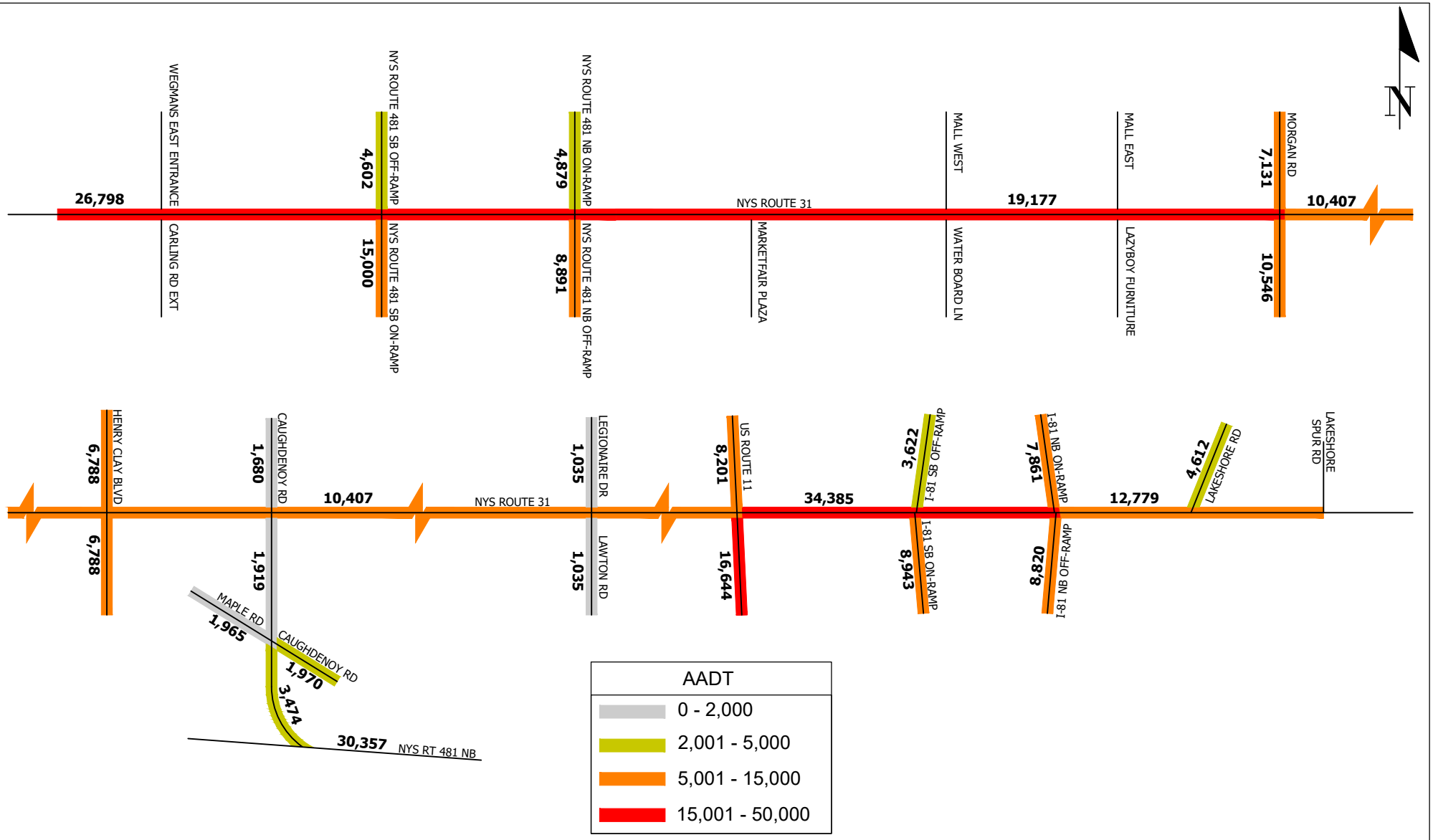
3.5.2 Existing Traffic Volumes, Peak Periods, and Conditions

The process to meet varying traffic volumes and establish 2021 Base Year volumes is described below.

1. The existing count data for 9 intersections performed in 2017 and existing roadway segment counts from 2017 & 2019 were grown to 2021 using a growth factor as described in Section 3.7 below.
2. The new traffic counts for the 5 intersections performed in 2021 were reviewed and adjusted following the NYSDOT Memo described in Section 3.5 above.
3. The counts for all intersections were brought to 2021 Base Year were then reviewed and compared. Traffic volumes were balanced so vehicles were not disappearing between intersections and driveways or side streets were noted to account for significant volume change.
4. The study area was reviewed for other additional approved developments and their impacts were applied to the network. The developments are described in Section 3.8 below.
5. The 2021 Base Year counts were then grown to Future Year 2024 using a growth factor. The Site Development and future traffic volumes are described in Section 4.0.

The 2021 existing traffic volumes are shown in **Figure 6**.

The processing timeframes described above are to encompass morning peak and evening peak hour vehicle volumes. However, after processing the data, the peak times used for analysis were 7:15 to 8:15 AM and 4:15 to 5:15 PM.



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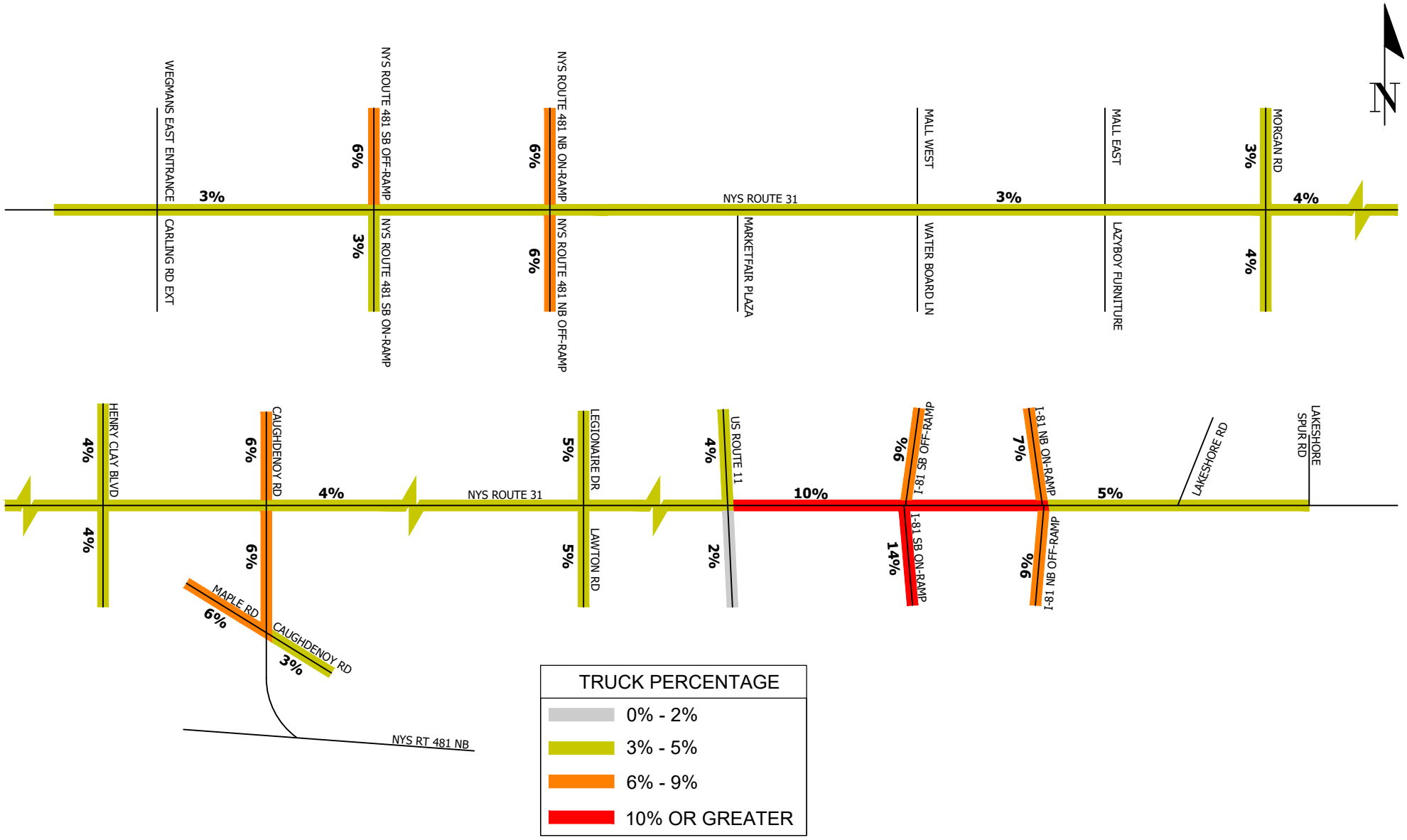
2019 AADT ON NYS ROUTE 31

PROJ No.:20-03861	DATE: 4/22/2021	SCALE: N.T.S.	FIGURE: 4

SOURCE: NYSDOT TRAFFIC DATA VIEWER



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WHITE PINE COMMERCE PARK
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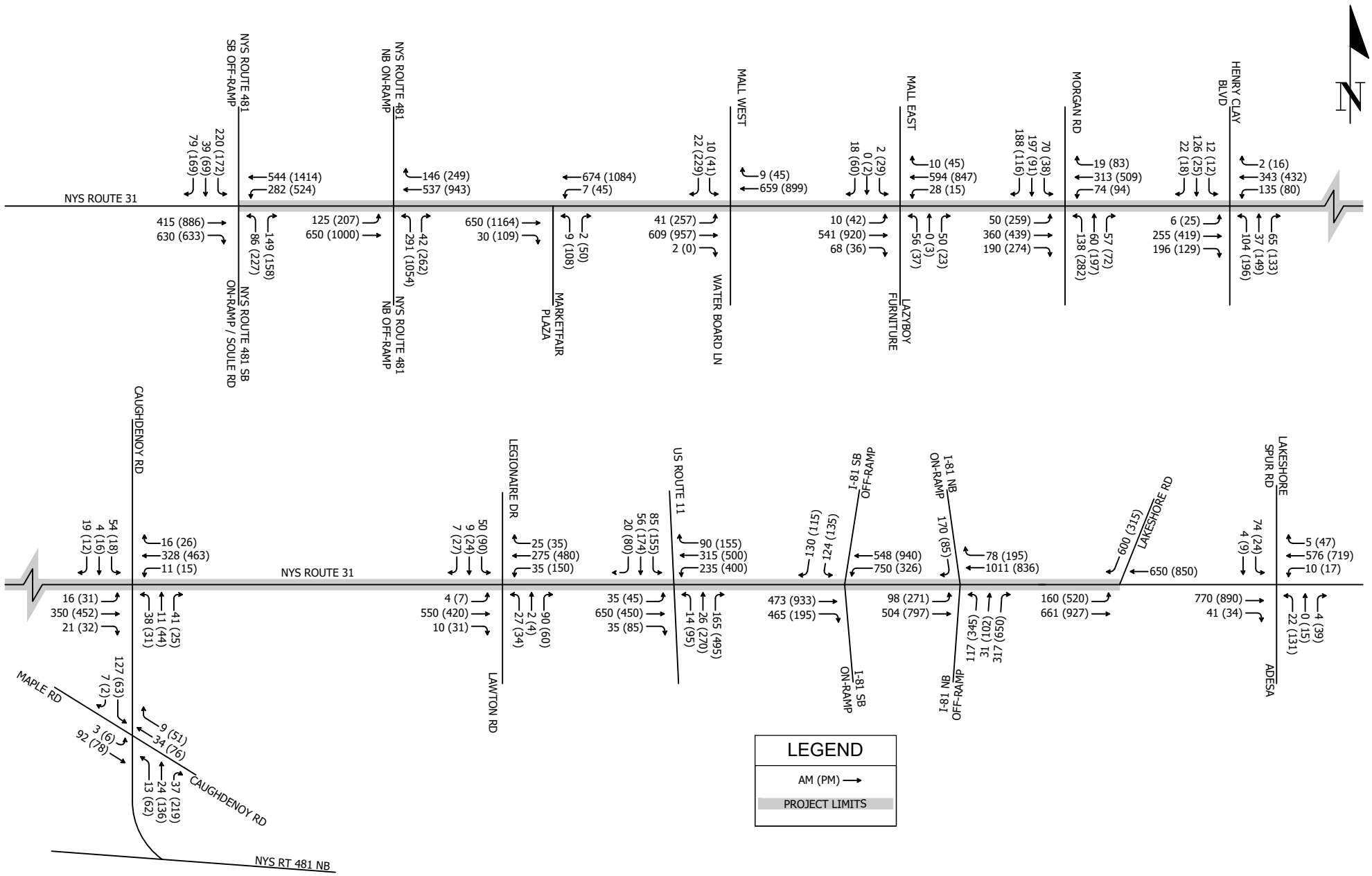
2019 TRUCK PERCENTAGE ON NYS ROUTE 31

PROJ No.:20-03861	DATE: 4/22/2021	SCALE: N.T.S.	FIGURE: 5

SOURCE: NYSDOT TRAFFIC DATA VIEWER



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WHITE PINE COMMERCE PARK
ONONDAGA COUNTY INDUSTRIAL DEVELOPMENT AGENCY
YEAR 2021 EXISTING TRAFFIC VOLUMES

PROJ No.:20-03861	DATE: 4/26/2021	SCALE: N.T.S.	FIGURE: 6

3.6 GROWTH RATES

Growth rates for this project were used to bring existing and new traffic counts to a similar base year and to growth volumes to a future year. Growth rates are based on historical volume and trends and were agreed upon with NYSDOT to be 0.75% per year.

3.7 OTHER PROPOSED LAND DEVELOPMENTS OR POTENTIAL CHANGES

The study area was reviewed for future developments. The following approved developments were included as part of the 2024 Background volumes:

1. Chick-fil-A – a 5,000 SF building fast food restaurant was approved to replace an existing 6,400 sf Uno Pizzeria restaurant located just west of the NYS Route 31 and NYS Route 481 southbound off ramp. Based on the hours of service for this facility, the PM peak hour trip generation was adjusted to reflect the restaurant closing. The existing pizza restaurant's PM peak hour trip generation was subtracted from the Chick-fil-A trip generation to reflect the total new trips.
2. Brewerton Road Development (8697 and 8699 Brewerton Road) - a 60-unit senior housing facility was approved and will be located on US Route 11 near Meltzer Court, a mile north of NYS Route 31.

The following background development was not included, in consultation with NYSDOT, because it is not yet approved:

3. Clay Marketplace – this development is anticipated to consist of 30,000 SF mixed-use including apartment, retail, restaurant, and office. The site is located on a 14.9-acre parcel near the intersection of NYS Route 31 and Henry Clay Boulevard. It will be a 96-unit apartment complex with 176 parking spaces and 60 garage spaces, 30,000 SF of commercial space, and access from 3 driveways. This site is anticipated to include roadway addition of turn lanes for the northbound (NB) and southbound (SB) approaches on Henry Clay Boulevard which were not assumed as part of this study.

4.0 PROPOSED DEVELOPMENT

4.1 PROJECT DESCRIPTION

The proposed Park is an existing undeveloped industrial park located in the Town of Clay, which is near Syracuse NY in Onondaga County. The study assumptions include up to 4,000 employees and have a minimum of 2 entrances for site access. The development is anticipated to operate 24 hours a day and 7 days a week, 365 days a year with a minimum of 3 rotating equally sized work shifts.

4.2 YEAR 2021 TRAFFIC VOLUMES

To help support the change to the transportation area the use of future travel demand models was also used. The model is the first step to understand the shift in vehicle trips across the network based on future land use maps and other data. The Syracuse Metropolitan Transportation Council (SMTC) provided from their travel demand model a select link analysis based on the site development for the particular Traffic Analysis Zone (TAZ). The select link analysis data is provided in **Appendix B** and the percent of adjusted trips across the network are shown in **Figure 7**.

4.3 TRIP GENERATION & DISTRIBUTION

The proposed expansion of the Park and presumed proposed development as described in Section 1.1.5 of the Draft SGEIS will add trips to the transportation network. The development discussed within the Draft SGEIS is focused on developing the Park for potential industrial and commercial developers with a focus on a tenant or tenants in the semiconductor industry. The trips can be estimated from known site assumptions and from using the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition. The known site data description follows Land Use Code 140: Manufacturing. Trip generation rates utilized the average rate approach and Land Use Code 140 as described below.

ITE Trip Generation Code - 140 Manufacturing
A manufacturing facility is an area where the primary activity is the conversion of raw materials or parts into finished products. Size and type of activity may vary substantially from one facility to another. In addition to the actual production of goods, manufacturing facilities generally also have office, warehouse, research, and associated functions. Based on these factors, the total estimated trips were determined to be 493 tips in the AM peak hour and 440 trips in the PM peak hour. See **Table 2** for more information**.** The additional trips are shown in **Figure 8** and **Figure 9**. Additional supporting data and calculations are provided in **Appendix B**.

Table 2. Trip Generation

	Morning Peak Hour			Evening Peak Hour		
	In	Out	Total	In	Out	Total
Shift Entering	365	128	493	268	172	440
Shift Leaving	128	365	493	172	268	440
TOTAL	493	493	986	440	440	880

New trips from approved developments in the vicinity of the Park and described in Section 3.8 were also generated and distributed and are shown in **Appendix B**.

Following the NYSDOT HDM, it is assumed that construction traffic would be scheduled outside peak travel times where feasible and would determine detour routes around the proposed work zone. Therefore, additional analysis for construction traffic is not merited. Additionally, the I-81 Viaduct Project in Syracuse is still under review, but that project is not anticipated to affect this analysis. For more information on that project, see https://www.dot.ny.gov/i81opportunities.

The analysis of other forms of transportation including, but not limited to, bus transit, ride share or carpool, that could impact single vehicle trips is not part of this study.

4.4 YEAR 2024 BACKGROUND DEVELOPMENT VOLUMES

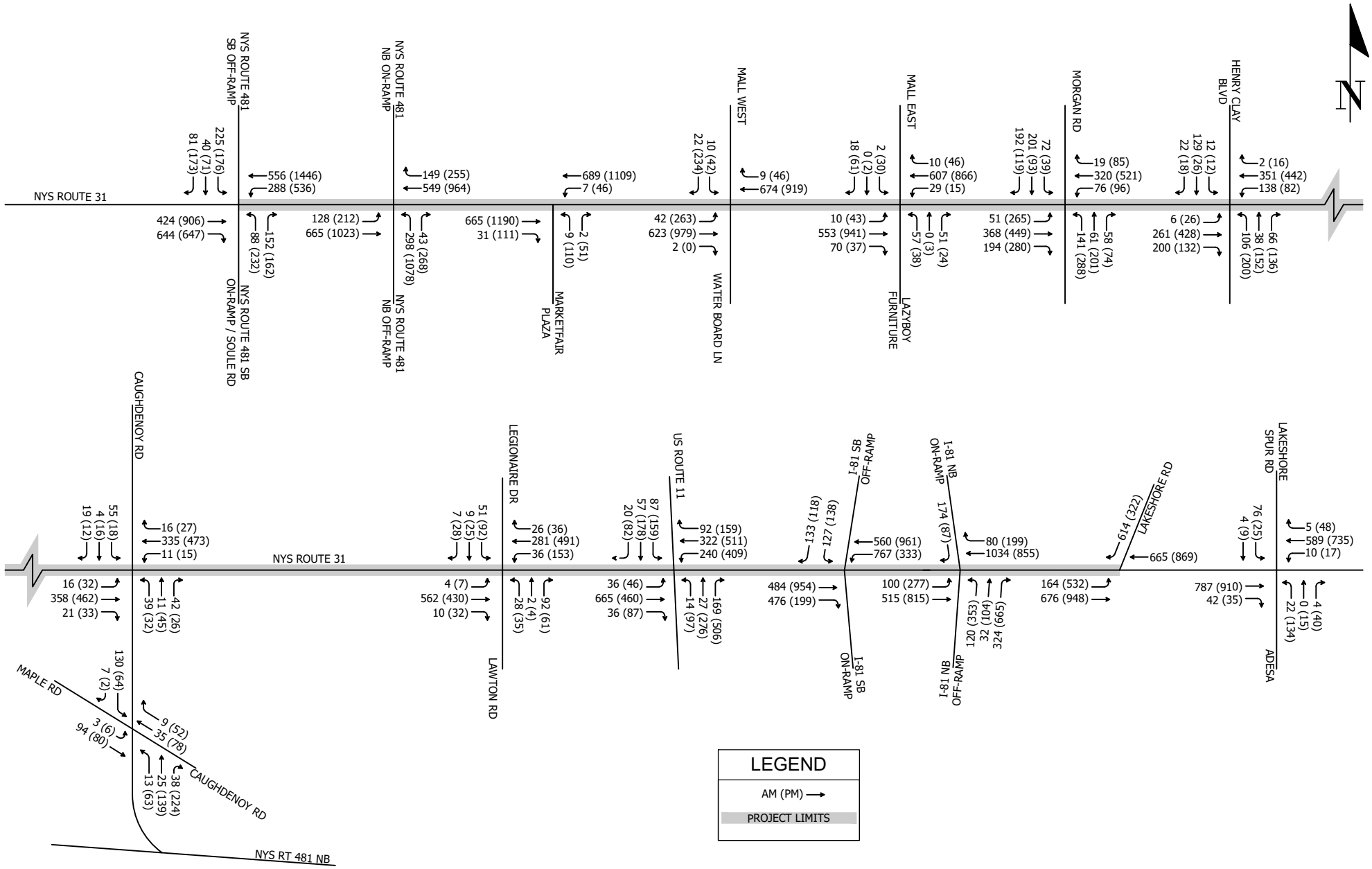
The Year 2021 volumes were grown to Year 2024 using a growth factor of 0.75% per year as described in Section 3.6. The development site trips were added to the background volumes to create Year 2024 Background Development volumes.

The Year 2024 Background Development traffic volumes are shown in **Figure 10**.

4.5 YEAR 2044 BACKGROUND AND BACKGROUND DEVELOPMENT VOLUMES

The Year 2024 volumes were grown to Future Year 2044 (See Section 5.3) using the same growth factor of 0.75% per year as described in Section 3.6. The Year 2044 development site trips were added to the background volumes to create Year 2044 Background Development volumes.

The Year 2044 traffic volumes are shown in **Figure 11** and **Figure 12.**



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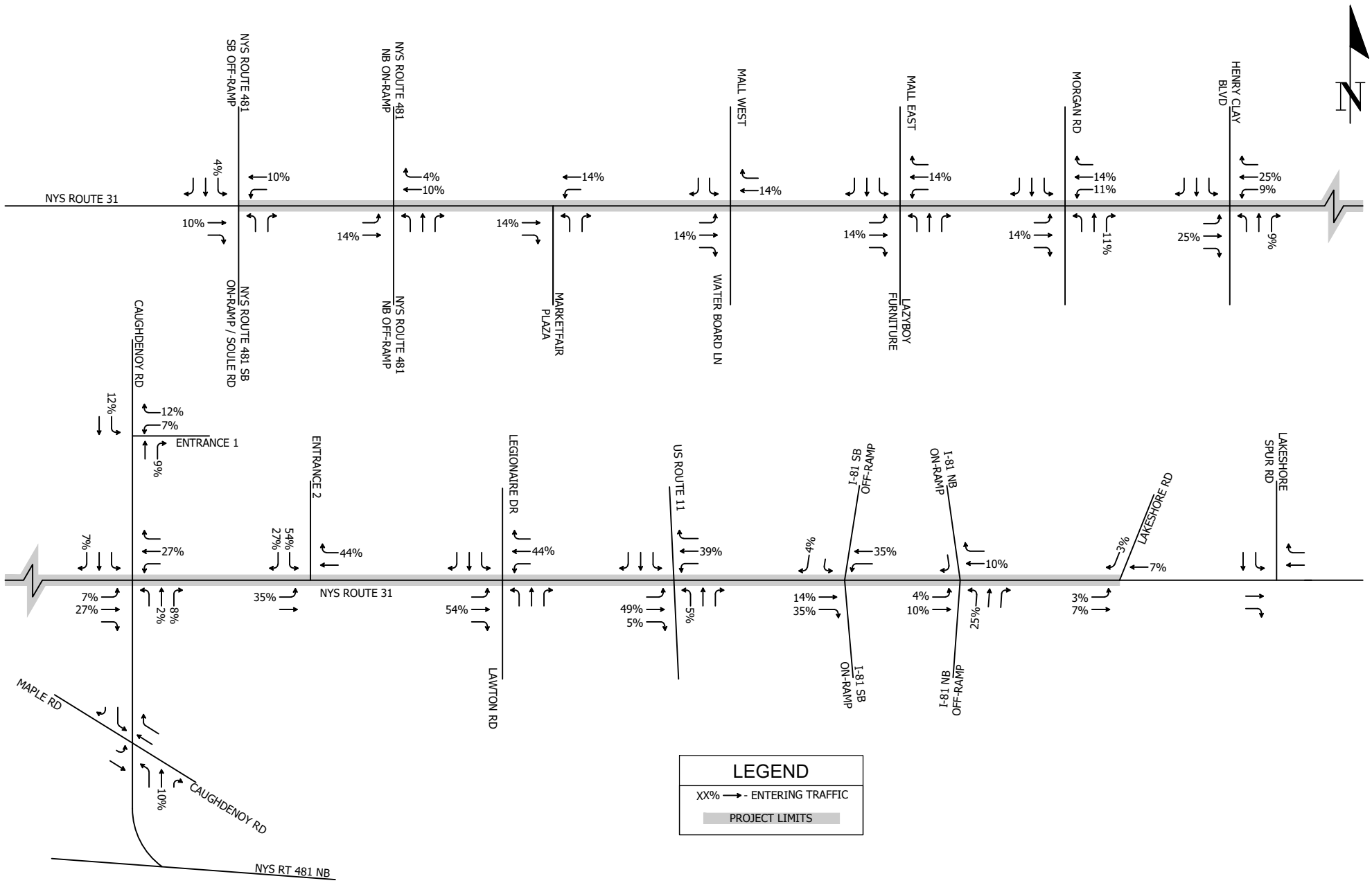
WHITE PINE COMMERCE PARK
ONONDAGA COUNTY INDUSTRIAL DEVELOPMENT AGENCY
YEAR 2024 BACKGROUND TRAFFIC VOLUMES

PROJ No.:20-03861	DATE: 4/26/2021	SCALE: N.T.S.	FIGURE: 7



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WHITE PINE COMMERCE PARK
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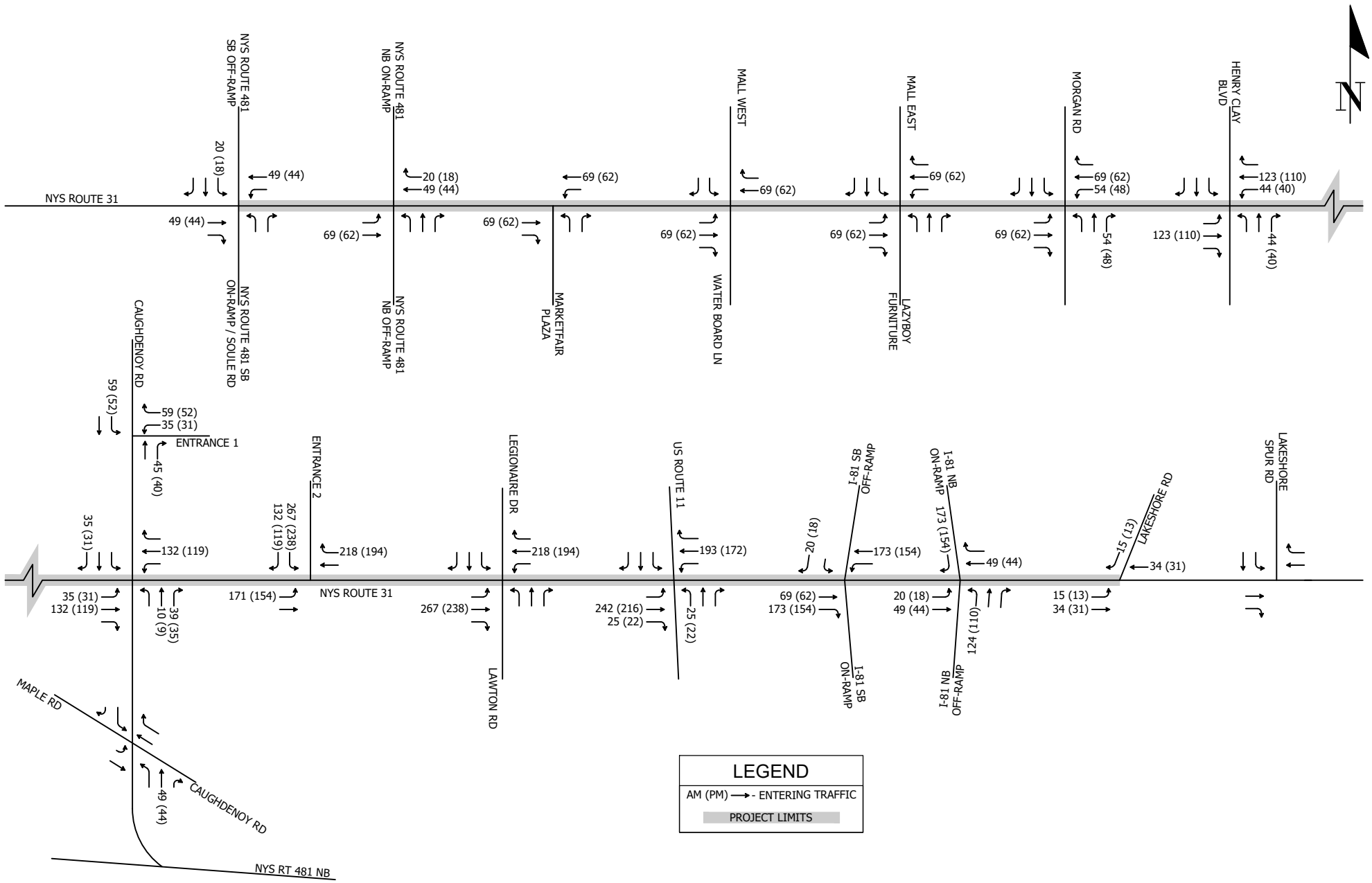
TRIP DISTRIBUTION

PROJ No.:20-03861	DATE: 4/22/2021	SCALE: N.T.S.	FIGURE: 8



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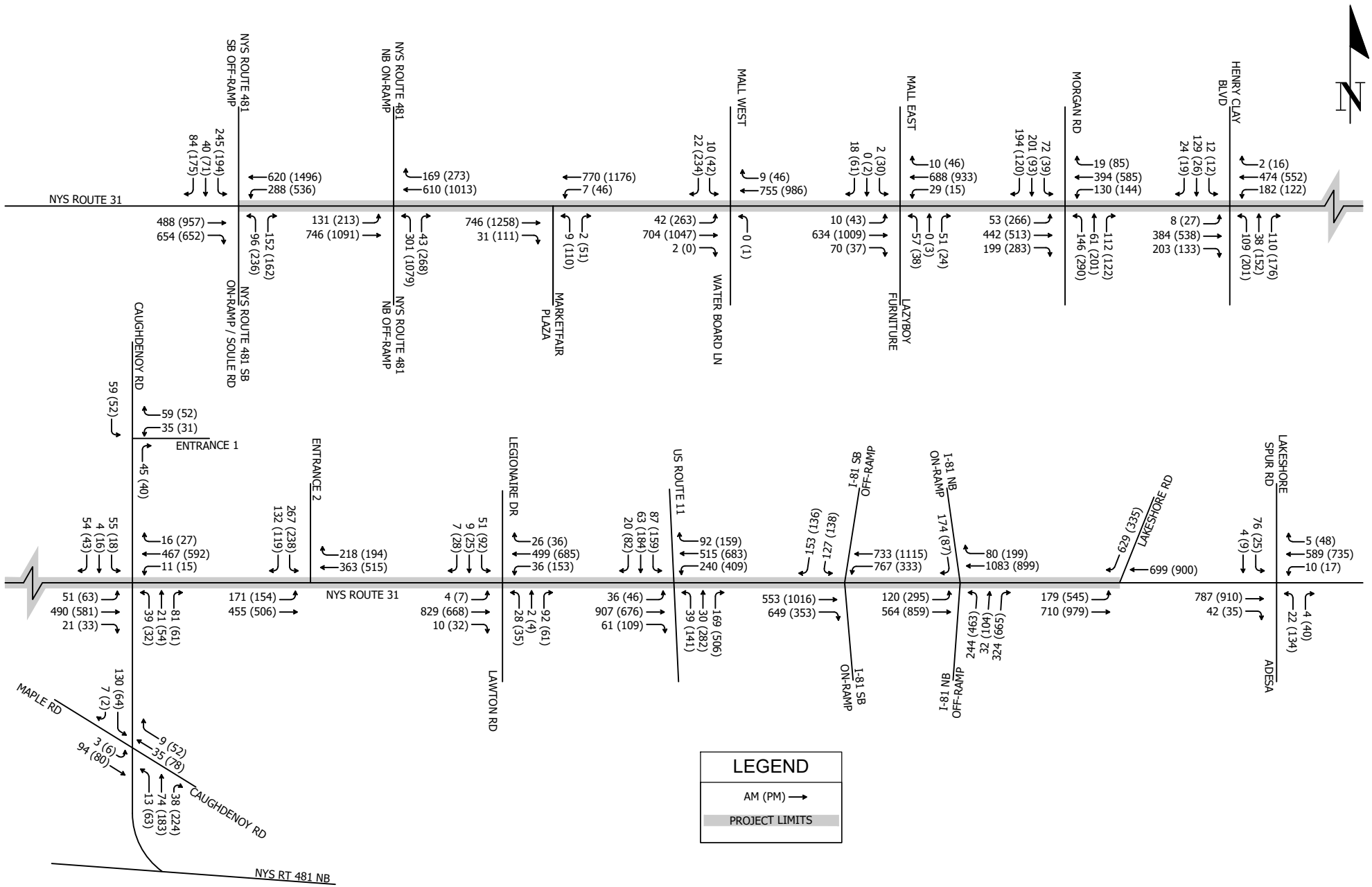
WHITE PINE COMMERCE PARK
ONONDAGA COUNTY INDUSTRIAL DEVELOPMENT AGENCY
NEW TRIPS

PROJ No.:20-03861	DATE: 4/22/2021	SCALE: N.T.S.	FIGURE: 9



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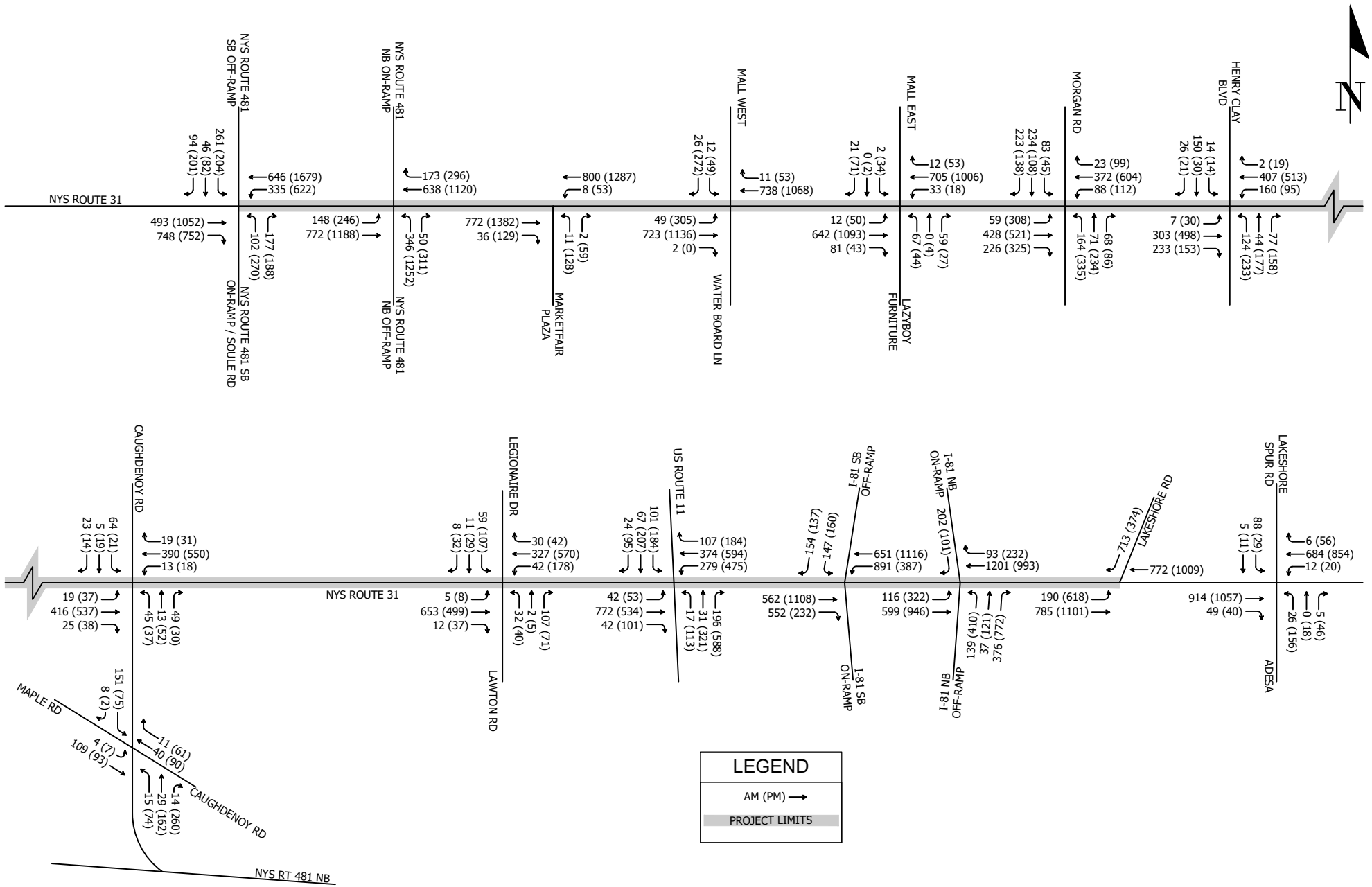
WHITE PINE COMMERCE PARK
ONONDAGA COUNTY INDUSTRIAL DEVELOPMENT AGENCY
YEAR 2024 BACKGROUND DEVELOPMENT

PROJ No.:20-03861	DATE: 4/22/2021	SCALE: N.T.S.	FIGURE: 10



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WHITE PINE COMMERCE PARK
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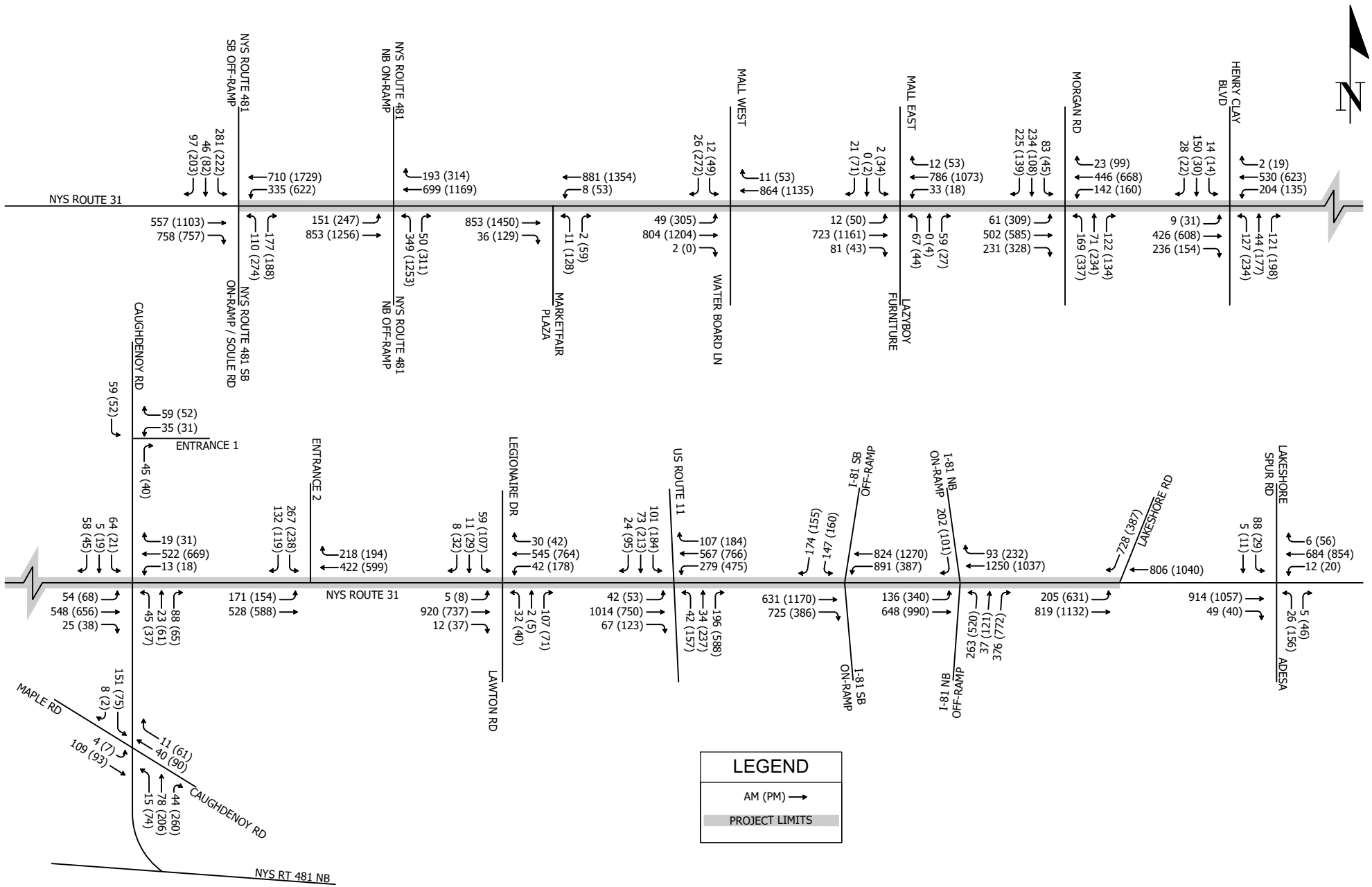
YEAR 2044 BACKGROUND

PROJ No.:20-03861	DATE: 4/22/2021	SCALE: N.T.S.	FIGURE: 11



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WHITE PINE COMMERCE PARK
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YEAR 2044 BACKGROUND DEVELOPMENT

PROJ No.:20-03861	DATE: 4/22/2021	SCALE: N.T.S.	FIGURE: 12

5.0 CAPACITY ANALYSIS

5.1 METHODOLOGY

The purpose of conducting capacity analysis is to understand operations along the corridor, how the development will impact those operations and determine the level of improvement needed to mitigate degradation in operations to the background condition. Capacity analysis was conducted for the following five scenarios:

1. Year 2021 Existing
2. Year 2024 Background
3. Year 2024 Background with Development
4. Year 2024 Background with Development and Build Improvements
5. Year 2044 Background with Development and with 2024 Build Improvements

Intersection and arterial Level of Service (LOS) was determined for each scenario. The Level of Service calculation procedures are provided in the Highway Capacity Manual 6th edition (HCM) published by the Transportation Research Board, 2016. Synchro 11, developed by Trafficware, was utilized to determine the HCM LOS for the study intersections and arterial roadway, determine operational deficiencies and aid in determining appropriate mitigation. SimTraffic traffic simulation software was used to determine queue lengths. Synchro outputs for each scenario are shown in **Appendix C** to **Appendix G**.

The HCM quantifies the quality of traffic flow in terms of levels of service (LOS). See **Table 3** for the six levels of service, with LOS A indicating very low levels of delays and LOS F indicating high levels of delays associated with congestion. These represent a qualitative measure of operational conditions within a traffic stream, and the perception of conditions by motorists and/or passengers. LOS and capacity for signalized intersections are calculated for each lane group (a lane group may be one or more movements), each intersection approach, and the entire intersection. The intersection LOS is merely a weighted average of the individual approaches and may not be considered a valid measure of the quality or acceptability of an intersection design since it can conceal poor operating conditions on individual approaches.

LOS at unsignalized intersections are only calculated for minor movements since the through movement on the major street is not affected by intersection traffic control.

Note that turn lanes additions are recommended for capacity improvements only along with signal operation adjustments to address crash safety. Additional improvements to be reviewed during design and construction that could improve safety, reduce delay and queueing further include, but are not limited, to wider shoulders that could assist with disabled vehicles or snow storage during winter months, relocated stop bars to help trucks complete wide turns, and/or access improvements to minor side streets and major driveways.

Table 3. Level of Service (LOS)

HCM Signalized Intersection Level of Service

	LOS by Volume-to-Capacity Ratio (v/c)	
Control Delay (s/veh)	v/c ≤1.0	v/c >1.0
≤10	A	F
>10-20	B	F
>20-35	C	F
>35-55	D	F
>55-80	E	F
>80	F	F

HCM Unsignalized Intersection Level of Service

	LOS by Volume-to-Capacity Ratio (v/c)a, b	
Control Delay (s/veh)	v/c ≤1.0	v/c >1.0
≤10	A	F
>10-15	B	F
>15-25	C	F
>25-35	D	F
>35-50	E	F
>50	F	F

The following assumptions were made when conducting the capacity analysis:

1. Existing timings were used and modified to account for volume increases.
2. A few select driveways were added to help balance the volumes between signalized intersections to help prevent vehicles from appearing or disappearing inside the network.
3. The peak hour factor was 0.95 for all scenarios. This value was used since traffic counts taken during the pandemic are lower compared to normal conditions.
4. Models were run based on 2004 FHWA standards and each simulation was run for two hours with a 30-minute seeding period. Ten simulation runs were performed for each model to obtain SimTraffic results.
5. Caughdenoy Road and Site Entrance 1 was modeled as a stop-controlled intersection (westbound approach stop-controlled), and NYS Route 31 and Site Entrance 2 was modeled as a signalized intersection (See Section 5.6.1). The Entrance placement and number of entrances are part of the assumptions and could change.
6. Site Entrances have a 10% Heavy Vehicles shown in the analysis.
7. A LOS D or better is acceptable per NYSDOT and NYSDOT HDM requirements.

5.2 YEAR 2021 EXISTING AND YEAR 2024 BACKGROUND CONDITION

This section describes operations during the Year 2021 Existing and Year 2024 Background conditions. Existing Conditions represents operations throughout the study area presently. The Year 2024 Background condition includes regional traffic growth (Section 3.6) and trips from approved developments (Section 3.7).

During the 2021 Existing Conditions, the capacity analysis results for the AM and PM peak hour show most signalized intersections will operate at LOS D or better and all movements are to operate at LOS D or better except:

- NYS Route 31/I-81 southbound ramp left turn movement operates at LOS E for PM peak hours.
- NYS Route 31/I-81 northbound off ramp right turn movement operates at LOS E for PM peak hours.
- NYS Route 31/Lakeshore Road southbound right operates at LOS F for AM and PM peak hours.

By the year 2024 background condition, the capacity analysis results for the AM and PM peak hour show most signalized intersections will continue to operate at LOS D or better and all movements are to operate at LOS D or better except:

- NYS Route 31/I-81 southbound off ramp left turn movement operates at LOS E for PM peak hours.
- NYS Route 31/I-81 northbound off ramp right turn movement operates at LOS E for PM peak hours.
- NYS Route 31/Lakeshore Road southbound right operates at LOS F for AM and PM peak hours.

The Year 2021 Existing and Year 2024 Background condition intersection LOS results are shown in **Table 6** and **Table 7** and displayed on **Figure 13** and **Figure 14.**

5.3 YEAR 2024 BACKGROUND DEVELOPMENT, YEAR 2024 BACKGROUND DEVELOPMENT BUILD CONDITION

This section describes operations during the Year 2024 Background Development and Year 2024 Background Development Build conditions.

During the 2024 Background Development, the addition of the development traffic causes delay increases slightly at most intersections. The two proposed site entrances are both expected to operate at LOS A (Section 5.6.1). There are three intersections that degrade in LOS:

- NYS Route 31/Henry Clay Boulevard intersection reduces from LOS B to LOS C in AM peak hour and LOS C to LOS D in PM peak hour.
- NYS Route 31/I-81 southbound intersection reduces from LOS C to LOS D in AM peak hour.
- NYS Route 31/I-81 northbound off ramp intersection from LOS D to LOS F in PM peak hour.

All movements are expected to operate at LOS D or better except:

- NYS Route 31/Henry Clay Boulevard – the northbound approach operates at E for AM peak hour.
- NYS Route 31/US Route 11 – the southbound left operates at LOS E for PM peak hour.
- NYS Route 31/I-81 southbound off ramp intersection the southbound left operates at LOS E for AM and PM peak hours, the eastbound thru movement operates at LOS F for AM peak hour and westbound left operates at LOS E for PM peak hour.
- NYS Route 31/I-81 northbound off ramp the eastbound left movement operates at LOS F for PM peak hour and northbound right turn movement operates at LOS E for PM peak hours.
- NYS Route 31/ Lakeshore Road southbound right operates at LOS F for AM and PM peak hours.

The 2024 Background Development Build includes the addition of the build improvements that address traffic delay for most intersections. The improvements are targeted to address movements that are LOS D or lower as described above and are further detailed in Section 5.7.

NYSDOT is considering various options for Lakeshore Road improvements as outlined in the Traffic Impact Study in Appendix B.

Year 2024 Background Development and Year 2024 Background Development Build LOS results are shown in **Table 6** and **Table 7** and displayed on **Figure 15** and **Figure 16.**

5.4 YEAR 2044 BACKGROUND DEVELOPMENT BUILD CONDITION

The 2044 Background Development Build provides an outlook of how well the network operates in the future and holds up over time and includes the build improvements, which were developed to address traffic delay for most intersections. The improvements are further detailed in Section 5.7.

The Year 2044 scenario is performed per HDM Exhibit 5-1b, which is for project work type that includes intersection reconstruction, the analysis requires an Estimated Time of Completion (ETC) plus twenty years or ETC+20. This scenario serves as an evaluation of how well improvements operate over time to Year 2044.

There are four intersections that degrade in LOS Year 2044 scenario compared to the 2024 Background Development Build condition:

- NYS Route 31/NYS Route 481 northbound intersection reduces from LOS C to LOS D in PM peak hour.
- NYS Route 31/Morgan Road intersection reduces from LOS C to LOS D in PM peak hour.
- NYS Route 31/US Route 11 intersection reduces from LOS C to LOS D in PM peak hour.
- NYS Route 31/I-81 southbound intersection reduces from LOS B to LOS C in AM peak hour.

Year 2044 Background Development Build condition intersection LOS results are shown in **Table 6** and **Table 7** and displayed on **Figure 17.**

5.5 QUEUE ANALYSIS

The 95th percentile queue lengths were compiled from Trafficware's SimTraffic for the five scenarios: 2021 Existing, 2024 Background, 2024 Background Development, 2044 Background and 2044 Background Build. Simtraffic was used to determine queues over Synchro since microsimulation models are more effective in evaluating heavily congested conditions. These lengths were compiled and compared to existing storage lengths for the purpose of the analysis to identify locations where queues will exceed available storage because of the additional development traffic. These results are the average output of ten SimTraffic runs. Results are summarized in **Table 8** and **Table 9,** for the AM and PM peak hours, respectively.

The following is summary of the deficiencies identified prior to the additional development traffic:

- AM Peak Hour
  - NYS Route 31/I-81 northbound ramp - northbound right turn exceeds available storage.
  - NYS Route 31/I-81 southbound ramp - westbound left exceeds available storage.
  - NYS Route 31/Lakeshore Road - extensive queues along Lakeshore Road approaching NYS Route 31.
- PM Peak Hour
  - NYS Route 31/I-81 northbound ramp - eastbound left exceeds available storage.
  - NYS Route 31/I-81 northbound ramp - northbound left exceeds available storage.
  - NYS Route 31/I-81 southbound ramp - westbound left exceeds available storage.
  - NYS Route 31/Lakeshore Road - eastbound left exceeds available storage and causes queues on the I-81 NB off-ramp. The southbound right queues are excessive.

The following is summary of the deficiencies identified because of the additional development traffic:

- AM Peak Hour
  - Extensive queues along NYS Route 31 eastbound, which is caused by the high eastbound right turn volume onto the I-81 southbound on-ramp.
- PM Peak Hour
  - Extensive queues along NYS Route 31 eastbound, which is caused by the high eastbound right turn volume onto the I-81 southbound on-ramp.

The 2024 Background Development Build includes the addition of the build improvements that also address traffic queuing resulting from extended delay for most intersections.

5.6 PEAK HOUR TRAVEL SPEEDS

NYS Route 31 speeds along six sections were analyzed using SimTraffic. The purpose of this analysis is to compare operating speeds with the posted speed limits to view delay and travel operations between the signalized intersections. Simtraffic is preferred compared to HCM output since Simtraffic, which is a microscopic model is more effective at representing congested conditions. The six sections were segmented based on the posted speed limit and the various scenarios were compiled and compared in **Table 4**.

The 2024 Background Development condition was compared to the 2024 Background condition to determine the change in speed through the corridor with the additional development traffic. The results show the speeds will reduce throughout the corridor, especially around Segment 4 and 5. Along Segment 4, the speeds reduce by 7 MPH during both the AM and PM peak hours. For Segment 5, during the AM peak hour, the speeds will reduce by 26 MPH and during the PM Peak hour, speeds will reduce by 23 MPH. These reduced speeds are due to excessive queues throughout the I-81 interchange area.

The 2024 Background Development Build includes the addition of the build improvements that also address traffic travel speeds resulting from extended delay for most intersections.

Table 4. SimTraffic Arterial Speeds (MPH)[1]

	Segment 1 NYS Route 481 to east side of Morgan Rd		Segment 2 East side of Morgan Rd to Grange Rd		Segment 3 Grange Road to East side of Caughdenoy Rd		Segment 4 East side of Caughdenoy Rd to East side of Barcaldine Dr/ Legionnaire Dr		Segment 5 East side of Barcaldine Dr/Legionnaire Dr to West side of US Route 11		Segment 6 West side of US Route 11 to Lakeshore Rd	
Speed Limit (MPH)	**40**		**55**		**40**		**55**		**45**		**35**	
	EB	**WB**	**EB**	**WB**	**EB**	**WB**	**EB**	**WB**	**EB**	**WB**	**EB**	**WB**
AM Peak Hour												
2021 Existing	24.0	26.0	42.0	45.0	35.0	35.0	49.0	51.0	32.0	40.0	13.0	16.0
2024 Background	24.0	26.0	42.0	45.0	35.0	35.0	49.0	51.0	32.0	40.0	13.0	14.0
2024 Background + Dev.	22.0	25.0	39.0	43.0	33.0	35.0	31.0	44.0	6.0	39.0	8.0	13.0
Change	*-2.0*	*-1.0*	*-3.0*	*-2.0*	*-2.0*	*0.0*	*-18.0*	*-7.0*	*-26.0*	*-1.0*	*-5.0*	*-1.0*
2024 Build Alternative 1	22.0	25.0	41.0	44.0	33.0	35.0	44.0	44.0	31.0	39.0	15.0	17.0
Change	-2.0	-1.0	-1.0	-1.0	-2.0	0.0	-5.0	-7.0	-1.0	-1.0	2.0	3.0
2044 Build Alternative 1	19.0	23.0	39.0	43.0	32.0	34.0	43.0	43.0	29.0	38.0	13.0	13.0
PM Peak Hour												
2021 Existing	21.0	19.0	39.0	42.0	34.0	34.0	49.0	50.0	31.0	38.0	11.0	10.0
2024 Background	20.0	19.0	39.0	42.0	34.0	34.0	49.0	50.0	31.0	38.0	10.0	9.0
2024 Background + Dev.	19.0	18.0	30.0	39.0	32.0	34.0	41.0	43.0	8.0	38.0	7.0	7.0
Change	*-1.0*	*-1.0*	*-9.0*	*-3.0*	*-2.0*	*0.0*	*-8.0*	*-7.0*	*-23.0*	*0.0*	*-3.0*	*-2.0*
2024 Build Alternative 1	19.0	18.0	39.0	42.0	31.0	34.0	44.0	43.0	30.0	37.0	14.0	14.0
Change	*-1.0*	*-1.0*	*0.0*	*0.0*	*-3.0*	*0.0*	*-5.0*	*-7.0*	*-1.0*	*-1.0*	*4.0*	*5.0*
2044 Build Alternative 1	15.0	14.0	36.0	42.0	28.0	32.0	38.0	43.0	10.0	37.0	6.0	8.0

[1]Speeds shown help to assess whether the traffic volumes reflect a forced-flow condition or a free-flow condition in potentially congested areas.

5.7 CAPACITY IMPROVEMENT MEASURES

Identifying deficiencies that exist prior to the build condition and identifying those that are from the development are different. However, applying capacity improvement measures is required for the proposed build condition to meet minimum LOS conditions. These mitigation improvements start with selecting the most cost-effective improvements. These improvements from NYSDOT can include:

- Retiming traffic signals or adjusting signal phasing.
- Signage or striping to prevent turning movements at intersections.
- Addition of turn lanes to increase capacity.
- Installation of traffic signals.
- Conversion of a signalized or unsignalized intersection to a roundabout.

Proposed mitigation measures were developed to improve operations to Year 2024 volumes with Background levels (no Park development) and meet acceptable LOS D or better operations. The aforementioned operational deficiencies during the AM and PM peak hour along with a summary of the improvements are summarized in Table 5.

Capacity analysis was conducted with the proposed mitigation improvements and results are summarized on **Table 6** and **Table 7**. Queue results are summarized in **Table 8** and **9**, for the AM and PM peak hours, respectively, while speed results are shown in Table 4. Results of the capacity analysis show movements will operate better compared to 2024 Background levels and meet acceptable LOS D or better. These improvements will provide better operations through the year 2044. Queueing deficiencies will be mitigated, especially the extensive queues at the I-81 interchange. Furthermore, speeds will improve along the east side of the study area with the proposed improvements.

Circulation to the site is projected and modeled based upon Section 4.0. If changes occur to how the Park is accessed and volumes increase on Caughdenoy Road beyond those currently projected and modeled, then further mitigation would be recommended to construct an eastbound left turn lane along NYS Route 31 to help with through movement from being delayed by turning vehicles.

As the level of service analysis shows, there are intersections and movements that are projected to fail by 2044. The main areas of concern are at the NYS Route 481 interchange and NYS Route 31 between US Route 11 and the Interstate 81 ramps. These areas are projected to be failing or near failing by 2044. Any improvements beyond 2024 need to be reviewed for mitigation at a later time.

Table 5. Proposed Mitigation Improvements

Location	AM Peak Hour	PM Peak Hour	Mitigation	Benefit
NYS Route 31/Henry Clay Blvd		• Intersection reduces from LOS C to LOS D. • Northbound approach operates at E.	Construct northbound left turn lane.	PM peak hour LOS improves to C and intersection delay is improved compared to 2024 Background condition. Northbound approach improves from E to D.
NYS Route 31/US Route 11		• Southbound left operates at LOS E	Construct westbound dual left turn lanes (existing single left) and modify left turn phasing from E/P to protected. Allocate additional green time to southbound left.	All movements operate at LOS D or better.
NYS Route 31/I-81 Southbound Ramps	• Intersection degrades from LOS C to LOS D. • SB left turn movement operates at LOS E. • EB thru movement operates at LOS F. • WB left exceeds storage. • Queues along eastbound, which is caused by the high EB right turn volume onto the I-81 SB on-ramp. • Reduced travel speeds	• SB left turn movement operates at LOS E. • WB movements operate at LOS E. • WB left exceeds available storage and I-81 NB off-ramp left turn exceeds available storage. • EB queues along caused by the high EB right volume to the I-81 SB on-ramp. • Reduced travel speeds	Construct westbound double left turn lanes (existing single left) and change westbound left turn phasing from permissive/protected to protected. The dual lefts will require the I-81 southbound on-ramp be widened to two lanes and return to a single lane before the I-81 merge.	All movements operate at LOS D or better and overall intersection LOS improves to B. Queues are within available storage.
NYS Route 31/I-81 Northbound Ramp	• Right turn exceeds available storage.	• Eastbound left movement operates at LOS F. • NB right turn movement operates at LOS E. • EB left exceeds storage.	Provide an additional left and right turn lane on the I-81 northbound off ramp to provide dual LT lanes and RT lanes	Intersection improves from LOS F to LOS C.
NYS Route 31/ Lakeshore Road	• Southbound right operates at LOS F. • Extensive queues along Lakeshore Road	• Southbound right operates at LOS F. • EB left at the exceeds available storage and causes queues on the I-81 NB off-ramp. • SB right queues are excessive.	Various concepts developed and in progress with NYSDOT. See on the following page for a description of preliminary Alternatives.	See results

5.7.1 NYS Route 31 and Lakeshore Road

The intersection of NYS Route 31 and Lakeshore Road is currently experiencing capacity and safety issues. To address this, five alternatives were developed. The final mitigation alternative will be reviewed and decided in the future in coordination with NYSDOT. The Alternatives include:

- **Alternative A** – Provide a signalized double right from Lakeshore Road westbound at NYS Route 31 by converting the eastbound lane. The existing left turn movement will be relocated to the signalized Lakeshore Road Spur intersection approximately 300 feet to the east. NYS Route 31 westbound traffic will be stopped at the existing Lakeshore Road intersection but NYS Route 31 eastbound traffic will free flow. The signal could be timed such that the NYS Route 31 eastbound left at the Lakeshore Road Spur could operate at the same time as the Lakeshore Road westbound double right. No right-of-way should be required.
- **Alternative B** – Realign Lakeshore Road at NYS Route 31 so that the westbound right turn free flows on to NYS Route 31 westbound. The left turn from NYS Route 31 eastbound to Lakeshore Road eastbound will take place at a more 90-degree movement instead of the existing skew. There could be some right-of way take in the northeast quadrant.
- **Alternative C** – A signalized double right would be provided on Lakeshore Road westbound like Alternative A. This alternative would have the left turn from NYS Route 31 eastbound to Lakeshore Road eastbound occur in the same manner as the existing condition. Widening would take place along the east side of Lakeshore Road. Widening is shown along the north side of NYS Route 31 between the Lakeshore Road and the Lakeshore Road Spur to provide additional capacity at the Lakeshore Road intersection. Right-of-way appears to be needed. The NYS Route 31 eastbound traffic would still free flow through the Lakeshore Road intersection.
- **Alternative D** – The left turn from NYS Route 31 eastbound to Lakeshore Road will remain at its exiting location. Lakeshore Road westbound will be terminated at the Lakeshore Road Spur. Lakeshore Road westbound motorists will take a left turn after stopping, on to the Lakeshore Road Spur. Once on Lakeshore Road Spur, the southbound right will be channelized to provide a free flow condition on the NYS Route 31. Widening will take place on the north side between the Lakeshore Road Spur and Lakeshore Road which will require right-of-way. Another option to this is to provide a double right from the Lakeshore Road Spur and widen NYS Route 31 westbound east of the Lakeshore Road Spur intersection. The NYS Route 31 eastbound through movement will free flow at the Lakeshore Road intersection.
- **Alternative E** – Lakeshore Road would be a cul-de sac at NYS Route 31. All Lakeshore Road westbound traffic will turn left at the Lakeshore Spur Road. Lakeshore Road eastbound traffic will also turn at the Lakeshore Road Spur signalized intersection. The southbound right along the Lakeshore Road Spur be channelized to provide a free flow condition on the NYS Route 31 westbound. Widening will take place on the north side between the Lakeshore Spur Road and Lakeshore Road which will require right-of-way. The option to this is to provide a double right from the Lakeshore Road Spur and widen NYS Route 31 westbound east of the Lakeshore Road Spur intersection. The left turn movement from Lakeshore Road westbound onto the Lakeshore Road Spur is assumed to be free flow, but additional signage will be needed to alert motorists that the road is a cul-de-sac at NYS Route 31.

5.7.2 Traffic Signal Warrant Analysis

A traffic signal warrant analysis was performed at the following two study area intersections based on the 2009 Manual on Uniform Traffic Control Devices (MUTCD) in conjunction with the 2011 NYSDOT MUTCD:

- NYS Route 31/Entrance 2
- NYS Route 481 Northbound Off Ramp/Caughdenoy Road/Maple Road

The signal warrant analysis illustrates that a signal is warranted at the NYS Route 31/Entrance 2 intersection but not at the NYS Route 481 Northbound Off Ramp/Caughdenoy Road/Maple Road intersection. However, this intersection may be a good candidate for a roundabout, which may reduce the occurrence of right-angle crashes as discussed in Section 6.5. A summary of the warrant analysis is provided in with supporting calculations included in **Appendix B**.

Table 6. HCM AM Peak Hour Intersection Level of Service and Delay (s/veh) & V/C[2]

Intersection	Approach	Movement	2021 Existing			2024 Background			2024 Background w/ Development			2024 Background, Development w/ Build			2044 Background, Development w/ Build		
			LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS [1]	Delay	V/C
NYS Route 31 & NYS Route 481 SB/Soule Rd	EB	T	C	20.7	0.37	C	22.0	0.41	C	22.7	0.46	C	22.7	0.46	C	28.7	0.63
		R	B	13.8	0.54	B	14.3	0.57	B	14.3	0.57	B	14.3	0.57	B	17.7	0.71
		Approach	B	16.6		B	17.4		B	17.9		B	17.9		C	22.3	
	WB	L	C	27.9	0.71	C	28.5	0.72	C	28.3	0.72	C	28.3	0.72	C	33.6	0.82
		T	A	5.9	0.32	A	6.5	0.35	A	7.9	0.38	A	7.9	0.38	A	9.5	0.48
		Approach	B	13.4		B	13.9		B	14.3		B	14.3		B	17.2	
	NB	L	C	28.9	0.29	C	28.0	0.30	C	27.9	0.29	C	27.9	0.29	C	24.6	0.27
		R	C	31.3	0.10	C	31.3	0.10	C	31.6	0.17	C	31.6	0.17	C	32.8	0.40
		Approach	C	30.4		C	30.0		C	30.2		C	30.2		C	29.6	
	SB	L	C	20.5	0.39	B	19.7	0.38	B	19.9	0.42	B	19.9	0.42	B	17.3	0.42
		T	C	33.9	0.24	C	34.0	0.24	C	34.0	0.24	C	34.0	0.24	C	34.1	0.28
		R	C	33.2	0.05	C	33.2	0.06	C	33.2	0.06	C	33.2	0.06	C	33.2	0.07
		Approach	C	25.0		C	24.5		C	24.4		C	24.4		C	22.7	
	Intersection Overall		B	18.0	0.61	B	18.4	0.64	B	18.7	0.64	B	18.7	0.64	C	21.3	0.77
NYS Route 31 & NYS Route 481 NB	EB	L	A	3.4	0.23	A	3.0	0.25	A	2.7	0.26	A	2.7	0.26	A	3.5	0.34
		T	A	2.9	0.27	A	2.7	0.28	A	2.5	0.31	A	2.5	0.31	A	2.7	0.36
		Approach	A	3.0		A	2.7		A	2.5		A	2.5		A	2.9	
	WB	T	A	6.0	0.28	A	6.2	0.29	A	6.4	0.32	A	6.4	0.32	A	7.1	0.38
		R	A	2.3	0.10	A	2.3	0.11	A	2.4	0.12	A	2.4	0.12	A	2.5	0.14
		Approach	A	5.2		A	5.4		A	5.5		A	5.5		A	6.1	
	NB	L	D	35.8	0.63	D	35.6	0.64	D	35.6	0.64	D	35.6	0.64	D	35.7	0.67
		LT	D	35.8	0.63	D	35.9	0.64	D	35.9	0.64	D	35.9	0.64	D	36.1	0.67
		R	C	29.0	0.03	C	28.7	0.03	C	28.7	0.03	C	28.7	0.03	C	27.7	0.04
		Approach	C	34.9		C	34.9		C	34.9		C	34.9		C	34.9	
	Intersection Overall		A	9.8	0.36	A	9.7	0.37	A	9.2	0.40	A	9.2	0.40	A	9.7	0.46
NYS Route 31 & Marketfair Plaza	EB	T	A	0.7	0.26	A	0.7	0.27	A	0.7	0.29	A	0.7	0.29	A	0.8	0.34
		R	A	0.0	0.02	A	0.0	0.02	A	0.0	0.02	A	0.0	0.02	A	0.0	0.02
		Approach	A	0.7		A	0.7		A	0.7		A	0.7		A	0.7	
	WB	L	A	0.7	0.01	A	0.7	0.01	A	0.8	0.01	A	0.8	0.01	A	1.0	0.02
		T	A	0.9	0.24	A	0.7	0.25	A	0.8	0.27	A	0.8	0.27	A	1.0	0.31
		Approach	A	0.9		A	0.7		A	0.8		A	0.8		A	1.0	
	NB	L	D	38.0	0.15	D	38.0	0.15	D	38.0	0.15	D	38.0	0.15	D	38.0	0.19
		R	D	35.7	0.00	D	35.7	0.00	D	35.7	0.00	D	35.7	0.00	D	35.6	0.00

Intersection	Approach	Movement	2021 Existing			2024 Background			2024 Background w/ Development			2024 Background, Development w/ Build			2044 Background, Development w/ Build		
			LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS [1]	Delay	V/C
		Approach	D	37.6		D	37.6		D	37.6		D	37.6		D	37.7	
	Intersection Overall		A	1.1	0.26	A	1.1	0.27	A	1.1	0.30	A	1.1	0.30	A	1.2	0.34
NYS Route 31 & Mall West/ Water Board Lane	EB	L	D	46.5	0.22	D	46.2	0.22	D	46.1	0.22	D	46.1	0.22	D	43.5	0.21
		TR	A	0.5	0.23	A	0.5	0.24	A	0.5	0.26	A	0.5	0.26	A	0.5	0.30
		Approach	A	3.4		A	3.3		A	3.1		A	3.1		A	3.0	
	WB	L	A			A	0.0	0.00	A	0.0	0.00	A	0.0	0.00	A	0.0	0.00
		T	A	1.6	0.29	A	1.5	0.30	A	1.5	0.33	A	1.5	0.33	A	1.8	0.38
		R	A	2.4	0.01	A	2.4	0.01	A	2.4	0.01	A	2.4	0.01	A	2.7	0.01
		Approach	A	1.6		A	1.6		A	1.5		A	1.5		A	1.8	
	NB	LTR (Approach)	A	0.0	0.00	A	0.0	0.00	A	0.0	0.00	A	0.0	0.00	A	0.0	0.00
	SB	LT	D	37.3	0.15	D	37.3	0.15	D	37.3	0.15	D	37.3	0.15	D	37.3	0.17
		R	C	32.8	0.08	C	32.8	0.08	C	32.8	0.08	C	32.8	0.08	C	31.7	0.08
		Approach	C	34.3		C	34.3		C	34.3		C	34.3		C	33.5	
	Intersection Overall		A	3.2	0.30	A	3.2	0.32	A	2.9	0.35	A	2.9	0.35	A	3.1	0.40
NYS Route 31 & Mall East/ Lazy B Furniture	EB	L	A	2.9	0.02	A	3.3	0.02	A	3.2	0.02	A	3.2	0.02	A	5.2	0.03
		TR	A	3.5	0.24	A	3.8	0.26	A	3.7	0.28	A	3.7	0.28	A	5.7	0.33
		Approach	A	3.5		A	3.8		A	3.6		A	3.6		A	5.7	
	WB	L	A	4.7	0.06	A	4.8	0.06	A	4.8	0.07	A	4.8	0.07	A	5.6	0.09
		TR	A	5.6	0.28	A	5.7	0.29	A	5.9	0.32	A	5.9	0.32	A	7.0	0.38
		Approach	A	5.6		A	5.7		A	5.9		A	5.9		A	6.9	
	NB	L	C	34.7	0.42	C	34.6	0.43	C	34.6	0.43	C	34.6	0.43	C	34.5	0.48
		TR	C	32.6	0.03	C	32.5	0.03	C	32.5	0.03	C	32.5	0.03	C	32.1	0.04
		Approach	C	33.7		C	33.6		C	33.6		C	33.6		C	33.4	
	SB	LT	C	32.6	0.02	C	32.5	0.01	C	32.5	0.01	C	32.5	0.01	C	32.0	0.01
		R	C	30.0	0.01	C	29.9	0.01	C	29.9	0.01	C	29.9	0.01	C	28.6	0.01
		Approach	C	30.2		C	30.1		C	30.1		C	30.1		C	28.9	
	Intersection Overall		A	7.2	0.30	A	7.3	0.32	A	7.1	0.34	A	7.1	0.34	A	8.5	0.40
NYS Route 31 & Morgan Road	EB	L	C	23.5	0.18	C	24.0	0.19	C	24.4	0.18	C	24.4	0.18	C	25.3	0.22
		T	C	28.5	0.48	C	29.3	0.50	C	31.8	0.56	C	31.8	0.56	C	34.2	0.62
		R	B	18.7	0.11	B	19.0	0.11	C	20.3	0.11	C	20.3	0.11	C	21.0	0.13
		Approach	C	25.0		C	25.6		C	28.0		C	28.0		C	29.7	
	WB	L	C	21.6	0.28	C	22.1	0.29	C	22.0	0.47	C	22.0	0.47	C	24.2	0.55
		TR	C	26.1	0.41	C	26.8	0.41	C	27.8	0.45	C	27.8	0.45	C	29.7	0.50

Intersection	Approach	Movement	2021 Existing			2024 Background			2024 Background w/ Development			2024 Background, Development w/ Build			2044 Background, Development w/ Build		
			LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS [1]	Delay	V/C
		Approach	C	25.3		C	25.9		C	26.4		C	26.4		C	28.4	
	NB	L	B	18.9	0.44	B	19.0	0.46	C	21.5	0.50	C	21.5	0.50	C	24.3	0.66
		T	C	22.6	0.12	C	22.6	0.12	C	25.0	0.13	C	25.0	0.13	C	21.0	0.12
		R	B	18.4	0.04	B	18.4	0.04	B	19.2	0.07	B	19.2	0.07	B	15.8	0.08
		Approach	B	19.7		B	19.7		C	21.3		C	21.3		C	20.8	
	SB	L	B	12.5	0.11	B	12.5	0.12	B	14.5	0.12	B	14.5	0.12	B	19.3	0.16
		TR	C	28.9	0.69	C	29.4	0.70	C	32.9	0.71	C	32.9	0.71	D	40.9	0.82
		Approach	C	26.3		C	26.8		C	30.0		C	30.0		D	37.6	
	Intersection Overall		C	24.6	0.55	C	25.1	0.57	C	27.0	0.61	C	27.0	0.61	C	29.8	0.71
NYS Route 31 & Henry Clay Blvd	EB	L	B	11.9	0.01	B	12.1	0.02	B	12.6	0.02	B	10.1	0.02	B	10.7	0.02
		TR	B	18.6	0.58	B	19.2	0.60	C	23.3	0.70	B	18.6	0.67	C	21.9	0.73
		Approach	B	18.5		B	19.1		C	23.2		B	18.5		C	21.8	
	WB	L	A	8.2	0.30	A	8.6	0.31	B	12.0	0.49	A	9.0	0.44	B	12.9	0.56
		TR	B	11.3	0.36	B	11.6	0.37	B	13.2	0.47	B	10.3	0.45	B	11.5	0.49
		Approach	B	10.4		B	10.8		B	12.9		A	10.0		B	11.9	
	NB	L	-	-	-	-	-	-	-	-	-	D	36.4	0.60	D	50.6	0.74
		TR	-	-	-	-	-	-	-	-	-	C	29.4	0.20	C	32.4	0.25
		Approach	C	31.8	0.65	C	33.8	0.68	D	46.8	0.79	C	32.4	0.78	D	40.3	0.90
	SB	LTR (Approach)	C	25.8	0.40	C	26.5	0.40	C	30.9	0.39	C	32.1	0.51	D	36.0	0.55
	Intersection Overall		B	18.5	0.57	B	19.3	0.59	C	23.5	0.71	B	18.6	0.63	C	22.2	0.72
NYS Route 31 & Caughdenoy Road	EB	LTR (Approach)	A	4.5	0.37	A	4.5	0.38	A	6.5	0.57	A	6.5	0.57	A	7.0	0.62
	WB	LTR (Approach)	A	4.3	0.34	A	4.3	0.35	A	5.5	0.47	A	5.5	0.47	A	5.7	0.51
	NB	LTR (Approach)	B	15.4	0.31	B	15.7	0.31	B	16.6	0.31	B	16.6	0.31	B	18.0	0.35
	SB	LTR (Approach)	B	16.0	0.37	B	16.2	0.38	B	16.5	0.30	B	16.5	0.30	B	18.1	0.36
	Intersection Overall		A	6.5	0.37	A	6.5	0.38	A	8.1	0.51	A	8.1	0.51	A	8.7	0.56
NYS Route 31 & Legionnaire Dr/ Lawton Rd	EB	L	A	5.5	0.01	A	5.5	0.01	A	4.6	0.01	A	4.6	0.01	A	5.1	0.01
		TR	A	6.8	0.59	A	9.9	0.60	B	12.4	0.75	B	12.4	0.75	B	16.0	0.82
		Approach	A	9.8		A	9.9		B	12.4		B	12.4		B	16.0	
	WB	L	A	5.0	0.09	A	5.1	0.10	A	6.9	0.13	A	6.9	0.13	B	10.3	0.18
		TR	A	6.5	0.30	A	6.5	0.31	A	6.2	0.45	A	6.2	0.45	A	7.0	0.48
		Approach	A	6.3		A	6.4		A	6.3		A	6.3		A	7.2	
	NB	L	C	22.4	0.17	C	22.6	0.17	C	32.3	0.22	C	32.3	0.22	D	35.4	0.22
		TR	C	21.8	0.07	C	22.0	0.07	C	31.2	0.07	C	31.2	0.07	C	34.3	0.08

Intersection	Approach	Movement	2021 Existing			2024 Background			2024 Background w/ Development			2024 Background, Development w/ Build			2044 Background, Development w/ Build		
			LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS [1]	Delay	V/C
NYS Route 31 & US Route 11		Approach	C	21.9		C	22.1		C	31.5		C	31.5		C	34.6	
	SB	L	C	23.7	0.34	C	23.9	0.35	C	34.6	0.44	C	34.6	0.44	D	37.6	0.43
		TR	C	21.7	0.05	C	21.8	0.05	C	31.1	0.06	C	31.1	0.06	C	34.2	0.06
		Approach	C	23.2		C	23.4		C	33.8		C	33.8		D	36.8	
	Intersection Overall		B	10.9	0.52	B	11.0	0.53	B	12.6	0.67	B	12.6	0.67	B	15.3	0.73
	EB	L	A	9.3	0.07	A	9.6	0.07	A	9.4	0.08	D	53.0	0.49	D	51.5	0.46
		TR	B	13.5	0.37	B	13.9	0.38	B	15.7	0.52	B	15.4	0.52	C	20.4	0.63
		Approach	B	13.3		B	13.7		B	15.5		B	16.7		C	21.6	
	WB	L	A	5.9	0.46	A	6.2	0.47	A	8.4	0.57	D	42.3	0.58	D	43.6	0.62
		TR	A	4.9	0.19	A	4.9	0.20	A	5.9	0.28	A	7.0	0.30	A	8.7	0.36
		Approach	A	5.3		A	5.3		A	6.6		B	17.0		B	18.9	
	NB	L	D	45.9	0.12	D	45.9	0.12	D	46.6	0.31	D	46.2	0.30	D	45.2	0.29
		T	D	48.1	0.19	D	48.2	0.20	D	49.5	0.27	D	49.5	0.27	D	49.7	0.30
		R	D	42.7	0.59	D	42.2	0.58	D	41.9	0.58	D	43.4	0.60	D	44.8	0.66
		Approach	D	43.6		D	43.2		D	43.6		D	44.6		D	45.5	
	SB	L	D	39.2	0.43	D	39.3	0.44	D	41.8	0.49	D	41.4	0.47	D	37.0	0.42
		TR	D	43.3	0.15	D	43.3	0.15	D	46.1	0.21	D	46.1	0.21	D	43.5	0.19
		Approach	D	41.1		D	41.2		D	43.9		D	43.7		D	40.2	
	Intersection Overall		B	16.5	0.49	B	16.7	0.51	B	17.3	0.58	C	21.8	0.54	C	24.6	0.61
NYS Route 31 & I-81 SB Ramps	EB	TR (Approach)	D	43.3	0.87	D	44.2	0.89	F	89.6	1.10	C	25.2	0.84	C	32.2	0.94
	WB	L	C	28.0	0.93	C	32.5	0.96	C	34.9	0.97	B	14.8	0.66	B	17.2	0.81
		T	A	3.1	0.20	A	3.1	0.21	A	2.2	0.27	A	2.4	0.29	A	2.5	0.33
		Approach	B	17.4		C	20.1		B	18.9		A	8.8		B	10.1	
	SB	LT	E	74.0	0.81	E	77.4	0.83	E	77.4	0.83	D	54.6	0.68	D	54.5	0.70
		R	D	46.1	0.09	D	46.1	0.09	D	46.2	0.10	D	44.2	0.10	D	43.1	0.12
		Approach	E	59.7		E	61.4		E	60.3		D	49.0		D	48.3	
	Intersection Overall		C	31.5	0.95	C	33.4	0.98	D	51.3	1.00	B	19.2	0.74	C	22.5	0.86
NYS Route 31 & I-81 NB Ramps /Pardee Road	EB	L	A	4.1	0.21	A	4.1	0.21	C	22.6	0.31	A	7.2	0.31	A	8.9	0.39
		T	A	1.3	0.19	A	1.4	0.20	A	7.3	0.24	A	2.9	0.24	A	3.1	0.28
		Approach	A	1.8		A	1.8		A	10.0		A	3.6		A	4.1	
	WB	TR (Approach)	B	19.1	0.61	B	19.5	0.63	C	24.1	0.71	B	19.6	0.65	C	25.4	0.79
	NB	L	D	45.8	0.55	D	45.9	0.56	D	51.0	0.78	D	40.2	0.45	D	39.4	0.46
		T	D	41.8	0.17	D	41.7	0.17	D	35.3	0.12	D	37.7	0.13	D	36.8	0.14

Intersection	Approach	Movement	2021 Existing			2024 Background			2024 Background w/ Development			2024 Background, Development w/ Build			2044 Background, Development w/ Build		
			LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS [1]	Delay	V/C
		R	D	42.3	0.23	D	42.1	0.24	D	36.3	0.24	D	47.3	0.73	D	50.9	0.80
		Approach	D	43.1		D	43.1		D	42.3		D	43.9		D	45.6	
	SB	R (Approach)	D	39.8	0.54	D	40.2	0.55	D	45.4	0.63	D	51.7	0.71	D	53.4	0.76
	Intersection Overall		C	20.9	0.59	C	21.2	0.60	C	26.0	0.71	C	23.1	0.68	C	26.3	0.78
NYS Route 31 & Lakeshore Road (unsignalized)[7]	EB	L	A	2.0	0.19	B	10.2	0.20	B	10.6	0.23	B	10.6	0.23	B	12.1	0.30
	SB	R	F	252.8	1.48	F	284.2	1.55	F	350.4	1.70	F	350.4	1.70	F	656.2	2.38
	Intersection Overall		F	252.8	1.48	F	284.2	1.55	F	350.4	1.70	F	350.4	1.70	F	656.2	2.38
Caughdenoy Road/ Maple Rd & NYS Route 481 Off Ramp (unsignalized)[7]	EB	LT	A	0.2	0.00	A	0.2	0.00	A	0.2	0.00	A	0.2	0.00	A	0.3	0.00
	NB	LR	A	9.4	0.05	A	9.4	0.05	A	10.0	0.12	A	10.0	0.12	B	10.2	0.13
	SB	LTR	B	10.6	0.18	B	10.7	0.19	B	11.4	0.20	B	11.4	0.20	B	12.2	0.24
	Intersection Overall		B	10.6	0.18	B	10.7	0.19	B	11.4	0.20	B	11.4	0.20	B	12.2	0.24
Caughdenoy Road & Entrance 1 (unsignalized)[1]	WB	L	-	-	-	-	-	-	B	10.5	0.05	B	10.5	0.05	B	10.7	0.06
		R	-	-	-	-	-	-	A	8.8	0.06	A	8.8	0.06	A	8.9	0.06
		Approach	-	-	-	-	-	-	A	9.5		A	9.5		A	9.6	
	SB	L	-	-	-	-	-	-	A	7.6	0.04	A	7.6	0.04	A	7.6	0.04
	Intersection Overall		-	-	-	-	-	-	A	9.5		A	9.5		B	10.7	
NYS Route 31 & Entrance 2	EB	L	-	-	-	-	-	-	B	10.4	0.48	B	10.4	0.48	B	10.9	0.52
		T	-	-	-	-	-	-	B	11.4	0.61	B	11.4	0.61	B	12.3	0.66
		Approach	-	-	-	-	-	-	B	11.1		B	11.1		B	11.9	
	WB	T	-	-	-	-	-	-	A	9.8	0.48	A	9.8	0.48	B	10.2	0.52
		R	-	-	-	-	-	-	A	8.1	0.16	A	8.1	0.16	A	8.0	0.16
		Approach	-	-	-	-	-	-	A	9.2		A	9.2		A	9.5	
	SB	L	-	-	-	-	-	-	B	14.3	0.56	B	14.3	0.56	B	16.0	0.57
		R	-	-	-	-	-	-	B	11.2	0.09	B	11.2	0.09	B	12.5	0.09
		Approach	-	-	-	-	-	-	B	13.3		B	13.3		B	14.9	
	Intersection Overall		-	-	-	-	-	-	B	10.9	0.58	B	10.9	0.58	B	11.7	0.62

Table 7. HCM PM Peak Hour Intersection Level of Service and Delay (s/veh)

Intersection	Approach	Movement	2021 Existing			2024 Background			2024 Background w/ Development			2024 Background, Development w/ Build			2044 Background, Development w/ Build		
			LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C
NYS Route 31 & NYS Route 481 SB/Soule Rd	EB	T	C	33.7	0.76	D	35.1	0.79	D	36.9	0.83	D	36.9	0.83	D	51.9	0.97
		R	C	20.5	0.67	C	21.4	0.70	C	21.4	0.70	C	21.4	0.70	C	28.9	0.84
		Approach	C	28.2		C	29.4		C	30.6		C	30.6		D	42.5	
	WB	L	C	30.4	0.86	C	30.4	0.88	C	29.2	0.88	C	29.2	0.88	D	35.3	1.00
		T	A	6.4	0.72	A	6.4	0.74	A	6.8	0.77	A	6.8	0.77	A	7.3	0.88
		Approach	B	12.9		B	12.9		B	12.7		B	12.7		B	14.7	
	NB	L	D	51.3	0.78	D	53.3	0.80	D	53.3	0.80	D	53.3	0.80	E	73.4	0.93
		R	D	35.3	0.29	D	35.4	0.31	D	35.4	0.31	D	35.4	0.31	D	35.7	0.39
		Approach	D	44.8		D	46.0	0.33	D	46.0		D	46.0		E	58.1	
	SB	L	C	26.5	0.32	C	26.4		C	26.7	0.36	C	26.7	0.36	C	27.3	0.42
		T	D	43.8	0.44	D	43.9	0.45	D	43.9	0.45	D	43.9	0.45	D	44.5	0.51
		R	D	42.0	0.11	D	42.0	0.12	D	42.0	0.12	D	42.0	0.12	D	42.1	0.13
		Approach	D	35.8		D	35.8		D	35.6		D	35.6		D	36.0	
	Intersection Overall		C	23.5	0.77	C	24.0	0.79	C	24.4	0.80	C	24.4	0.80	C	30.6	0.93
NYS Route 31 & NYS Route 481 NB	EB	L	B	19.5	0.79	C	24.4	0.83	C	26.2	0.85	C	26.2	0.85	D	50.6	0.99
		T	B	11.9	0.54	B	12.4	0.56	B	12.6	0.60	B	12.6	0.60	B	17.1	0.73
		Approach	B	13.2		B	14.4		B	14.8		B	14.8		C	22.6	
	WB	T	C	24.1	0.72	C	25.6	0.75	C	24.5	0.79	C	24.5	0.79	D	49.4	1.00
		R	B	19.0	0.17	B	19.8	0.17	B	15.3	0.18	B	15.3	0.18	C	26.1	0.21
		Approach	C	23.0		C	24.4		C	22.5		C	22.5		D	44.4	
	NB	L	D	46.9	0.91	D	48.0	0.91	D	48.0	0.91	D	48.0	0.91	E	57.3	0.97
		LT	D	47.1	0.91	D	48.0	0.91	D	48.0	0.91	D	48.0	0.91	E	57.6	0.97
		R	C	23.8	0.38	C	23.5	0.38	C	23.5	0.38	C	23.5	0.38	C	21.9	0.42
		Approach	D	42.4		D	43.1		D	43.1		D	43.1		D	50.4	
	Intersection Overall		C	26.7	0.85	C	27.8	0.88	C	27.0	0.90	C	27.0	0.90	D	39.3	1.00
NYS Route 31 & Marketfair Plaza	EB	T	A	2.7	0.49	A	2.9	0.50	A	3.4	0.53	A	3.4	0.53	A	3.9	0.62
		R	A	0.3	0.07	A	0.8	0.07	A	0.8	0.07	A	0.8	0.07	A	0.3	0.08
		Approach	A	2.5		A	2.7		A	3.2		A	3.2		A	3.6	
	WB	L	A	4.0	0.13	A	4.2	0.14	A	5.8	0.15	A	5.8	0.15	A	6.9	0.22
		T	A	2.5	0.40	A	2.6	0.41	A	3.2	0.43	A	3.2	0.43	A	3.3	0.51
		Approach	A	2.6		A	2.6		A	3.3		A	3.3		A	3.5	
	NB	L	D	50.0	0.65	D	50.1	0.66	D	50.1	0.66	D	50.1	0.66	D	50.7	0.69
		R	D	37.4	0.02	D	37.3	0.02	D	37.3	0.04	D	37.3	0.04	D	36.3	0.11

Intersection	Approach	Movement	2021 Existing			2024 Background			2024 Background w/ Development			2024 Background, Development w/ Build			2044 Background, Development w/ Build		
			LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C
		Approach	D	46.0		D	46.0		D	46.1		D	46.1		D	46.2	
	Intersection Overall		A	5.2	0.51	A	5.3	0.53	A	5.8	0.55	A	5.8	0.55	A	6.1	0.64
NYS Route 31 & Mall West/ Water Board Lane	EB	L	D	48.7	0.59	D	48.4	0.60	D	47.6	0.60	D	47.6	0.60	D	44.7	0.64
		TR	A	0.7	0.39	A	0.7	0.40	A	2.0	0.42	A	2.0	0.42	A	3.8	0.49
		Approach	B	10.9		B	10.7		B	11.2		B	11.2		B	12.1	
	WB	L	A	0.0	0.00	A	0.0	0.00	A	0.0	0.00	A	0.0	0.00	A	0.0	0.00
		T	A	9.8	0.48	A	10.0	0.49	B	10.3	0.52	B	10.3	0.52	B	11.8	0.62
		R	A	1.1	0.03	A	1.1	0.03	A	0.8	0.03	A	0.8	0.03	A	1.1	0.04
		Approach	A	9.4		A	9.5		A	9.9		A	9.9		B	11.4	
	NB	LTR (Approach)	D	48.4	0.03	D	48.4	0.03	D	48.4	0.03	D	48.4	0.03	D	48.4	0.03
	SB	LT	D	45.0	0.35	D	45.0	0.36	D	45.0	0.36	D	45.0	0.36	D	45.0	0.40
		R	C	35.0	0.43	C	34.9	0.43	C	34.9	0.43	C	34.9	0.43	C	34.1	0.47
		Approach	D	36.5		D	36.5		D	36.5		D	36.5		D	35.8	
	Intersection Overall		B	13.2	0.48	B	13.1	0.49	B	13.3	0.52	B	13.3	0.52	B	14.3	0.59
NYS Route 31 & Mall East/ Lazy B Furniture	EB	L	A	0.7	0.09	A	0.8	0.10	A	0.6	0.11	A	0.6	0.11	A	0.8	0.15
		TR	A	0.9	0.36	A	1.0	0.37	A	0.9	0.40	A	0.9	0.40	A	1.1	0.46
		Approach	A	0.9		A	1.0		A	0.9		A	0.9		A	1.1	
	WB	L	A	4.3	0.04	A	4.3	0.04	A	4.4	0.05	A	4.4	0.05	A	4.8	0.07
		TR	A	5.9	0.38	A	6.0	0.40	A	6.2	0.42	A	6.2	0.42	A	7.0	0.49
		Approach	A	5.9		A	6.0		A	6.2		A	6.2		A	7.0	
	NB	L	D	44.9	0.38	D	44.8	0.38	D	44.8	0.38	D	44.8	0.38	D	44.8	0.42
		TR	D	43.0	0.04	D	42.9	0.04	D	42.9	0.04	D	42.9	0.04	D	42.5	0.05
		Approach	D	44.1		D	44.0		D	44.0		D	44.0		D	43.8	
	SB	LT	D	44.6	0.33	D	44.5	0.34	D	44.5	0.34	D	44.5	0.34	D	44.3	0.36
		R	D	38.3	0.03	D	38.3	0.03	D	38.3	0.04	D	38.3	0.04	D	37.9	0.03
		Approach	D	40.5		D	40.4		D	40.4		D	40.4		D	40.0	
	Intersection Overall		A	6.2	0.39	A	6.2	0.40	A	6.1	0.43	A	6.1	0.43	A	6.6	0.49
NYS Route 31 & Morgan Road	EB	L	C	26.4	0.76	C	30.4	0.80	C	34.7	0.82	C	34.7	0.82	D	51.9	0.91
		T	C	24.2	0.39	C	25.9	0.43	C	28.1	0.50	C	28.1	0.50	C	29.5	0.55
		R	B	13.5	0.16	B	14.5	0.17	B	14.9	0.17	B	14.9	0.17	B	14.7	0.19
		Approach	C	21.8		C	23.9		C	26.3		C	26.3		C	31.2	
	WB	L	C	23.6	0.31	C	23.4	0.30	C	24.3	0.46	C	24.3	0.46	C	26.6	0.54
		TR	C	32.0	0.66	C	34.5	0.70	D	38.9	0.79	D	38.9	0.79	D	49.4	0.90
		Approach	C	30.9		C	32.9		D	36.3		D	36.3		D	45.5	

Intersection	Approach	Movement	2021 Existing			2024 Background			2024 Background w/ Development			2024 Background, Development w/ Build			2044 Background, Development w/ Build		
			LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C
	NB	L	C	24.1	0.70	C	25.2	0.72	C	25.0	0.70	C	25.0	0.70	D	41.3	0.87
		T	C	25.4	0.36	C	25.3	0.36	C	25.1	0.35	C	25.1	0.35	C	28.1	0.42
		R	B	19.0	0.05	B	17.9	0.05	B	17.1	0.08	B	17.1	0.08	B	18.9	0.09
		Approach	C	23.9		C	24.3		C	23.5		C	23.5		C	32.7	
	SB	L	C	26.5	0.12	C	26.3	0.12	C	28.0	0.13	C	28.0	0.13	C	30.0	0.15
		TR	C	34.0	0.49	C	34.2	0.51	D	35.9	0.52	D	35.9	0.52	D	43.1	0.66
		Approach	C	32.9		C	33.0		C	34.6		C	34.6		D	41.1	
	Intersection Overall		C	25.7	0.79	C	27.4	0.82	C	29.4	0.82	C	29.4	0.82	D	36.6	0.95
NYS Route 31 & Henry Clay Blvd	EB	L	B	17.2	0.08	B	17.7	0.09	C	20.2	0.12	B	11.0	0.08	B	12.6	0.10
		TR	C	32.6	0.77	C	34.0	0.79	D	46.0	0.90	C	23.3	0.76	C	27.9	0.83
		Approach	C	31.9		C	33.3		D	45.0		C	22.9		C	27.3	
	WB	L	B	16.7	0.34	B	18.8	0.36	D	39.6	0.76	B	12.9	0.42	B	19.3	0.59
		TR	C	23.0	0.59	C	25.2	0.60	C	30.2	0.71	B	16.4	0.59	B	18.7	0.65
		Approach	C	22.0		C	24.2		C	31.8		B	15.8		B	18.8	
	NB	L	-	-	-	-	-	-	-	-	-	D	36.6	0.66	D	40.7	0.68
		TR	-	-	-	-	-	-	-	-	-	D	39.6	0.74	D	50.1	0.83
		Approach	D	41.0	0.87	D	46.3	0.89	E	60.5	0.95	D	38.5		D	46.5	
	SB	LTR (Approach)	C	20.5	0.08	C	21.2	0.08	C	23.5	0.08	C	27.9	0.13	C	31.3	0.18
	Intersection Overall		C	30.2	0.79	C	33.8	0.81	D	43.9	0.91	C	24.7	0.73	C	29.7	0.81
NYS Route 31 & Caughdenoy Road	EB	LTR (Approach)	A	4.7	0.48	A	4.8	0.49	A	7.8	0.67	A	7.8	0.67	A	9.6	0.74
	WB	LTR (Approach)	A	4.6	0.45	A	4.6	0.46	A	6.2	0.57	A	6.2	0.57	A	7.1	0.64
	NB	LTR (Approach)	B	18.6	0.43	B	18.8	0.44	B	19.8	0.44	B	19.8	0.44	C	22.1	0.52
	SB	LTR (Approach)	B	17.1	0.21	B	17.2	0.20	B	18.1	0.18	B	18.1	0.18	B	19.5	0.21
	Intersection Overall		A	6.4	0.47	A	6.4	0.48	A	8.8	0.62	A	8.8	0.62	B	10.2	0.70
NYS Route 31 & Legionnaire Dr/ Lawton Rd	EB	L	A	8.4	0.02	A	8.5	0.02	A	7.6	0.02	A	7.6	0.02	A	8.2	0.03
		TR	B	13.0	0.55	B	13.3	0.56	B	15.9	0.72	B	15.9	0.72	B	18.5	0.77
		Approach	B	13.0		B	13.2		B	15.8		B	15.8		B	18.4	
	WB	L	A	4.6	0.27	A	4.7	0.28	A	7.8	0.37	A	7.8	0.37	B	10.9	0.48
		TR	A	7.9	0.49	A	8.0	0.50	A	8.8	0.62	A	8.8	0.62	B	10.2	0.68
		Approach	A	7.2		A	7.3		A	8.7		A	8.7		B	10.3	
	NB	L	C	25.4	0.21	C	25.6	0.22	C	33.0	0.24	C	33.0	0.24	D	35.8	0.26
		TR	C	24.4	0.06	C	24.6	0.06	C	31.7	0.06	C	31.7	0.06	C	34.3	0.07
		Approach	C	24.8		C	24.9		C	32.1		C	32.1		C	34.8	
	SB	L	C	30.2	0.56	C	30.8	0.57	D	41.6	0.63	D	41.6	0.63	D	51.7	0.72

Intersection	Approach	Movement	2021 Existing			2024 Background			2024 Background w/ Development			2024 Background, Development w/ Build			2044 Background, Development w/ Build		
			LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C
		TR	C	24.8	0.13	C	25.0	0.14	C	32.2	0.15	C	32.2	0.15	C	34.9	0.17
		Approach	C	28.3		C	28.7		D	38.2		D	38.2		D	45.5	
	Intersection Overall		B	12.6	0.53	B	12.8	0.54	B	15.1	0.68	B	15.1	0.68	B	17.7	0.75
NYS Route 31 & US Route 11	EB	L	C	24.0	0.16	C	24.7	0.17	C	23.8	0.18	D	51.0	0.45	D	53.4	0.54
		TR	C	32.6	0.51	C	33.9	0.53	D	38.2	0.74	C	31.4	0.64	D	38.2	0.78
		Approach	C	31.9		C	33.2		D	37.4		C	32.5		D	39.1	
	WB	L	C	24.4	0.73	C	25.5	0.75	D	41.6	0.86	D	42.7	0.71	D	47.3	0.81
		TR	B	13.9	0.39	B	14.5	0.40	B	14.4	0.49	B	14.5	0.54	B	16.4	0.65
		Approach	B	17.9		B	18.7		C	23.3		C	23.7		C	26.7	
	NB	L	C	31.4	0.33	C	31.2	0.33	C	32.9	0.52	C	31.5	0.48	C	29.6	0.51
		T	D	45.8	0.72	D	45.6	0.73	D	45.8	0.73	D	45.8	0.73	D	46.9	0.78
		R	C	29.0	0.74	C	28.3	0.74	C	28.0	0.74	D	42.4	0.86	D	52.5	0.94
		Approach	C	34.5		C	34.1		C	34.1		D	41.8		D	47.5	
	SB	L	D	40.3	0.72	D	41.3	0.74	E	59.0	0.83	D	41.4	0.74	D	54.1	0.85
		TR	D	35.4	0.28	D	35.1	0.28	D	36.1	0.30	D	35.5	0.30	C	34.4	0.33
		Approach	D	37.3		D	37.4		D	44.6		D	37.7		D	41.8	
	Intersection Overall		C	28.3	0.75	C	28.8	0.77	C	32.3	0.86	C	32.4	0.75	D	37.2	0.86
NYS Route 31 & I-81 SB Ramps	EB	TR (Approach)	D	36.8	0.88	D	37.4	0.89	D	38.5	0.95	B	19.1	0.78	C	22.8	0.89
	WB	L	D	51.1	0.50	D	52.1	0.52	E	65.8	0.59	C	20.5	0.45	B	17.9	0.54
		T	A	1.0	0.34	A	1.0	0.35	A	2.9	0.40	A	5.1	0.42	A	7.3	0.48
		Approach	B	13.9		B	14.2		B	17.4		A	8.6		A	9.7	
	SB	LT	E	55.1	0.69	E	55.7	0.70	E	55.7	0.70	D	53.7	0.68	D	54.4	0.71
		R	D	44.0	0.08	D	43.9	0.08	D	44.0	0.09	D	43.7	0.09	D	44.1	0.32
		Approach	D	50.0		D	50.3		D	49.9		D	48.7		D	49.4	
	Intersection Overall		C	27.1	0.70	C	27.5	0.71	C	29.6	0.79	B	16.8	0.68	B	19.1	0.78
NYS Route 31 & I-81 NB Ramps /Pardee Road	EB	L	D	47.4	0.93	D	51.1	0.95	F	53.2	1.02	C	29.9	0.86	D	43.6	0.95
		T	A	7.1	0.44	A	7.3	0.46	A	5.6	0.48	A	5.1	0.41	A	6.4	0.50
		Approach	B	17.3		B	18.5		B	17.8		B	11.5		B	15.9	
	WB	TR (Approach)	D	44.0	0.89	D	48.1	0.92	D	54.0	0.96	C	30.0	0.76	D	50.7	0.97
	NB	L	C	25.2	0.53	C	24.9	0.53	C	29.3	0.70	C	32.1	0.50	C	30.4	0.51
		T	C	20.8	0.15	C	20.5	0.15	C	20.5	0.15	C	29.1	0.21	C	27.2	0.22
		R	E	60.8	0.97	E	65.6	0.99	E	69.2	1.00	D	46.2	0.87	D	51.2	0.93
		Approach	D	45.9		D	48.6		D	50.1		D	39.4		D	41.5	
	SB	R (Approach)	D	43.6	0.38	D	43.7	0.39	D	43.7	0.39	D	41.3	0.34	D	40.4	0.37

Intersection	Approach	Movement	2021 Existing			2024 Background			2024 Background w/ Development			2024 Background, Development w/ Build			2044 Background, Development w/ Build		
			LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C
	Intersection Overall		D	35.9	0.96	D	38.5	0.98	F	40.7	1.02	C	27.5	0.88	D	36.0	0.96
NYS Route 31 & Lakeshore Road (unsignalized)[1]	EB	L	B	10.6	0.81	D	34.9	0.86	E	44.1	0.92	E	44.1	0.92	F	208.8	1.38
	SB	R	F	125.7	1.12	F	150.7	1.18	F	206.1	1.32	F	206.1	1.32	F	559.5	2.12
	Intersection Overall		F	125.7	1.12	F	150.7	1.18	F	206.1	1.32	F	206.1	1.32	F	559.5	2.12
Caughdenoy Road/ Maple Rd & NYS Route 481 Off Ramp (unsignalized)[1]	EB	LT	A	8.4		A	8.4		A	8.6		A	8.6		A	8.9	
	NB	LR	A	8.1		A	8.1		A	8.5		A	8.5		A	9.0	
	SB	LTR	A	8.4		A	8.3		A	8.4		A	8.4		A	8.7	
	Intersection Overall		A	8.4		A	8.4		A	8.6		A	8.6		A	9.0	
Caughdenoy Road & Entrance 1 (unsignalized)[1]	WB	L	-	-	-	-	-	-	B	10.6	0.05	B	10.6	0.05	B	10.8	0.05
		R	-	-	-	-	-	-	A	9.1	0.06	A	9.1	0.06	A	9.2	0.06
		Approach	-	-	-	-	-	-	A	9.7		A	9.7		A	9.8	
	SB	L	-	-	-	-	-	-	A	7.7	0.04	A	7.7	0.04	A	7.8	0.04
	Intersection Overall		-	-	-	-	-	-	A	9.7		A	9.7		A	9.8	
NYS Route 31 & Entrance 2	EB	L	-	-	-	-	-	-	B	10.3	0.52	B	10.3	0.52	B	19.3	0.57
		T	-	-	-	-	-	-	B	10.1	0.59	B	10.1	0.59	B	15.3	0.09
		Approach	-	-	-	-	-	-	B	10.1		B	10.1		B	18.0	
	WB	T	-	-	-	-	-	-	B	10.2	0.60	B	10.2	0.60	B	13.6	0.61
		R	-	-	-	-	-	-	A	7.1	0.14	A	7.1	0.14	B	11.2	0.64
		Approach	-	-	-	-	-	-	A	9.4		A	9.4		B	11.7	
	SB	L	-	-	-	-	-	-	B	17.3	0.57	B	17.3	0.57	B	11.5	0.66
		R	-	-	-	-	-	-	B	13.6	0.09	B	13.6	0.09	A	7.1	0.14
		Approach	-	-	-	-	-	-	B	16.0		B	16.0		B	10.4	
	Intersection Overall		-	-	-	-	-	-	B	11.1	0.59	B	11.1	0.59	B	12.3	0.63

[1] Signalized and Unsignalized follow different LOS and Delay results. See TIS Section 5n for more information. Worst approach delay and LOS reported as the overall unsignalized intersection operation.
[2]Volume to Capacity (V/C) Ratio; LOS F when V/C > 1

Legend

LOS A – C	
LOS D	
LOS E	
LOS F	

Table 8. AM Peak Hour SimTraffic 95% Queues (feet)[1]

Intersection	Approach	Lane Group	Storage Length	2021 Existing	2024 Background	2024 Background Development	Proposed Storage Length [2]	2024 Background Development Build	2044 Background Development Build
NYS Route 31 & NYS Route 481 SB/Soule Rd	EB	T	-	193	200	210	-	225	265
		R	-	205	215	205	-	205	255
	WB	L	340	140	145	135	-	145	140
		T	-	143	150	140	-	150	175
	NB	L	260	93	100	100	-	100	105
		R	-	74	75	80	-	80	80
	SB	L	300	167	170	180	-	190	190
		T	-	72	70	70	-	70	65
		R	150	55	60	60	-	65	65
NYS Route 31 & NYS Route 481 NB	EB	L	150	84	85	90	-	90	95
		T	-	110	105	110	-	105	120
	WB	T	-	121	125	135	-	135	160
		R	330	44	45	45	-	50	50
	NB	L	350	144	150	150	-	150	175
		LT	-	187	190	195	-	190	200
		R	220	62	55	60	-	55	65
NYS Route 31 & Marketfair Plaza	EB	T	-	11	9	10	-	10	10
		R	250	2	1	5	-	0	0
	WB	L	150	18	20	25	-	20	20
		T	-	23	20	25	-	25	30
	NB	L	-	29	25	25	-	25	30
		R	-	11	10	10	-	10	10
NYS Route 31 & Mall West/	EB	L	330	16	35	35	-	35	35
		TR	-	8	10	15	-	10	15
	WB	L	150	0	0	0	-	0	0
		T	-	51	55	60	-	60	50

Intersection	Approach	Lane Group	Storage Length	2021 Existing	2024 Background	2024 Background Development	Proposed Storage Length [2]	2024 Background Development Build	2044 Background Development Build
Water Board Lane		R	150	5	5	5	-	5	5
	NB	LTR	-	0	0	0	-	0	0
	SB	LT	-	31	30	30	-	30	30
		R	-	39	40	35	-	35	40
NYS Route 31 & Mall East/ Lazy B Furniture	EB	L	300	20	20	20	-	20	20
		TR	-	94	100	105	-	100	155
	WB	L	210	35	35	35	-	40	40
		TR	-	86	90	100	-	95	115
	NB	L	-	85	85	85	-	85	100
		TR	-	55	55	55	-	55	65
	SB	LT	-	11	10	10	-	10	15
		R	-	40	40	40	-	40	40
NYS Route 31 & Morgan Road	EB	L	275	61	60	70	-	90	115
		T	-	196	195	260	-	265	305
		R	275	85	90	90	-	95	120
	WB	L	300	82	80	140	-	130	115
		TR	-	118	120	155	-	155	135
	NB	L	550	126	130	145	-	150	155
		T	-	73	75	80	-	80	75
		R	250	40	40	50	-	50	45
	SB	L	400	96	125	75	-	105	80
		TR	-	334	360	305	-	320	370
NYS Route 31 & Henry Clay Blvd	EB	L	425	17	20	20	-	20	15
		TR	-	255	250	365	-	380	325
	WB	L	475	95	95	130	-	130	140
		TR	-	152	145	210	-	210	180
	NB	L	-	-	-	-	300	135	175

Intersection	Approach	Lane Group	Storage Length	2021 Existing	2024 Background	2024 Background Development	Proposed Storage Length [2]	2024 Background Development Build	2044 Background Development Build
		TR	-	162	175	230	-	240	110
	SB	LTR	-	129	120	135	-	145	145
NYS Route 31 & Caughdenoy Road	EB	LTR	-	132	130	235	-	225	185
	WB	LTR	-	123	125	170	-	165	145
	NB	LTR	-	67	70	95	-	100	95
	SB	LTR	-	63	60	85	-	85	80
NYS Route 31 & Legionnaire Dr/ Lawton Rd	EB	L	250	13	10	115	-	15	20
		TR	-	171	195	3300	-	235	210
	WB	L	250	44	45	50	-	55	50
		TR	-	94	100	160	-	145	150
	NB	L	130	47	50	60	-	55	60
		TR	-	69	70	110	-	80	75
	SB	L	-	67	70	85	-	70	80
		TR	175	36	35	35	-	35	35
NYS Route 31 & US Route 11	EB	L	225	65	50	125	-	80	55
		TR	-	250	260	>3500	-	410	290
	WB	L	500	136	145	205	450 (double left)	130	130
		TR	-	94	100	135	-	175	205
	NB	L	190	30	30	70	-	65	80
		T	-	54	55	60	-	55	55
		R	-	188	190	180	-	195	230
	SB	L	325	119	125	130	-	120	135
		TR	-	60	60	70	-	70	80
NYS Route 31 & I-81 SB Ramps	EB	TR	-	171	160	>3500	-	680	175
	WB	L	130	190	185	190	130 (double left)	195	215
		T	-	355	330	360	-	120	140
	SB	LT	-	206	200	225	-	165	250

Intersection	Approach	Lane Group	Storage Length	2021 Existing	2024 Background	2024 Background Development	Proposed Storage Length [2]	2024 Background Development Build	2044 Background Development Build
		R	200	114	110	130	-	90	150
NYS Route 31 & I-81 NB Ramps /Pardee Road	EB	L	100	48	50	90	-	80	65
		T	-	65	70	120	-	80	85
	WB	TR	-	335	390	585	-	520	370
	NB	L	450	162	160	285	200 (double left)	185	185
		T	-	113	120	115	-	85	80
		R	100	136	135	130	125 (double right)	240	270
	SB	R	-	1035	1020	250	-	200	220
NYS Route 31 & Lakeshore Rd	EB	L	250	90	100	95	-	115	115
	SB	R	-	420	440	425	-	440	430
Caughdenoy Road/Maple Rd & NYS Route 481 Off Ramp	EB	LT	-	0	0	0	-	5	5
	NB	LR	250	40	40	45	-	45	50
	SB	LTR	50	60	65	65	-	65	70
Caughdenoy Road & Entrance 1	WB	L	-	-	-	50	-	45	45
		R	-	-	-	50	-	50	50
	NB	R	-	-	-	5	-	5	5
	SB	L	-	-	-	25	-	30	20
NYS Route 31 & Entrance 2	EB	L	-	-	-	165	-	155	165
		T	-	-	-	210	-	205	210
	WB	T	-	-	-	170	-	155	165
		R	-	-	-	95	-	85	85
	SB	L	-	-	-	205	-	210	215
		R	-	-	-	85	-	75	85

[1]Reported (in feet) from SimTraffic. Synchro underestimate queues in oversaturated conditions.
[2]Proposed storage lengths at mitigated locations only; additional locations need to be reviewed in the future.

Table 9. PM Peak Hour SimTraffic 95% Queues (feet) [1]

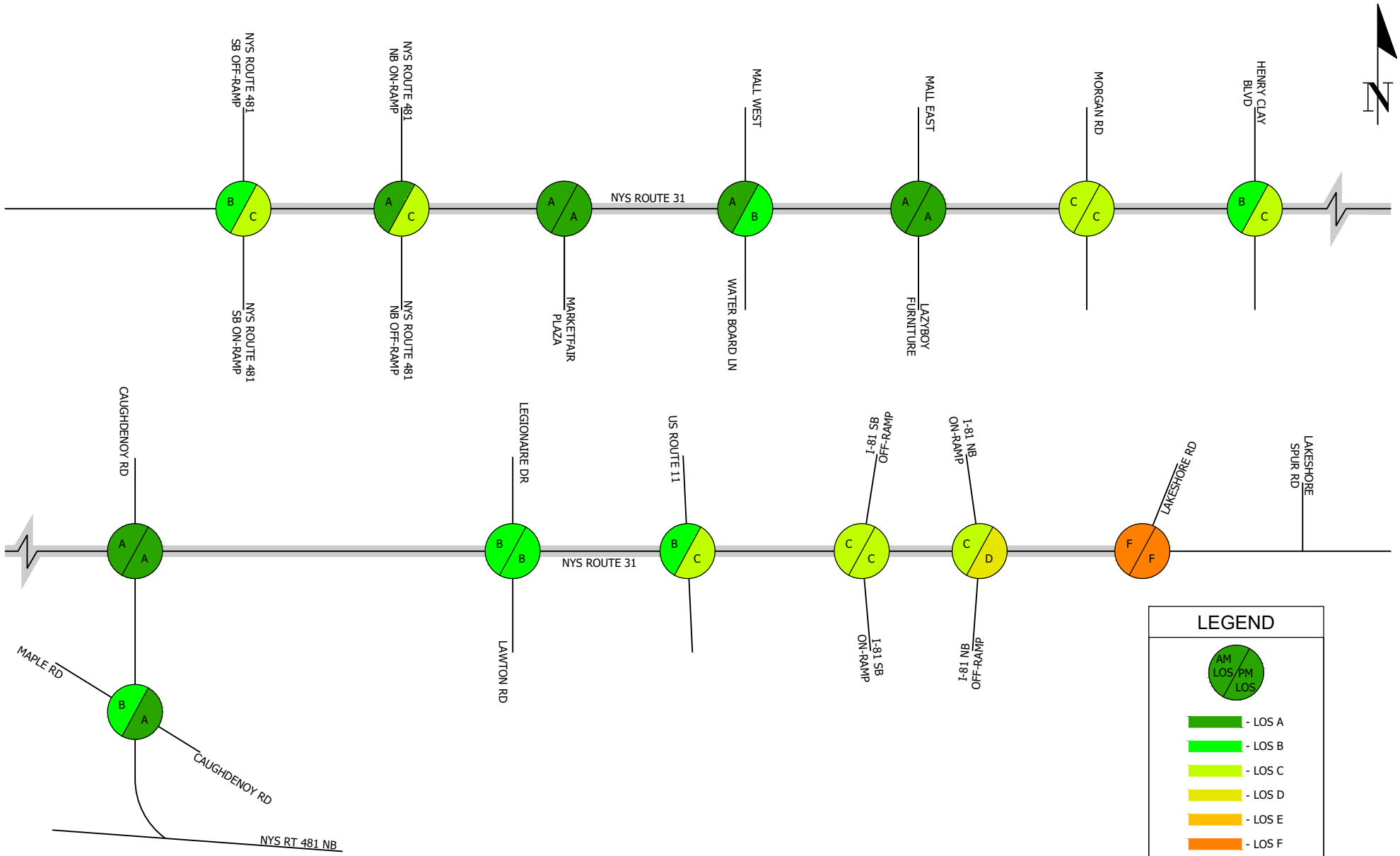
Intersection	Approach	Lane Group	Storage Length	2021 Existing	2024 Background	2024 Background + Dev	Proposed Storage Length [2]	2024 Build	2044 Build
NYS Route 31 & NYS Route 481 SB/Soule Rd	EB	T	-	410	445	485	-	480	570
		R	-	265	280	285	-	295	570
	WB	L	340	225	195	220	-	210	150
		T	-	210	205	215	-	225	215
	NB	L	260	220	220	230	-	225	250
		R	-	120	100	120	-	110	180
	SB	L	300	155	155	165	-	170	180
		T	-	105	115	110	-	115	150
		R	150	125	135	135	-	140	170
NYS Route 31 & NYS Route 481 NB	EB	L	150	115	175	175	-	175	175
		T	-	210	200	200	-	200	270
	WB	T	-	350	350	370	-	365	340
		R	330	75	85	115	-	125	85
	NB	L	350	410	425	435	-	440	450
		LT	-	515	570	600	-	630	780
		R	220	350	355	350	-	355	335
NYS Route 31 & Marketfair Plaza	EB	T	-	140	145	85	-	85	105
		R	250	35	35	25	-	20	25
	WB	L	150	60	60	70	-	65	60
		T	-	120	115	105	-	105	130
	NB	L	-	130	135	130	-	125	145
		R	-	45	45	50	-	50	45
NYS Route 31 & Mall West/ Water Board Lane	EB	L	330	125	130	125	-	125	135
		TR	-	20	25	70	-	75	110
	WB	L	150	0	0	0	-	0	0
		T	-	155	170	180	-	185	135
		R	150	35	45	50	-	55	20
	NB	LTR	-	10	10	10	-	10	15

Intersection	Approach	Lane Group	Storage Length	2021 Existing	2024 Background	2024 Background + Dev	Proposed Storage Length [2]	2024 Build	2044 Build
	SB	LT	-	75	75	75	-	70	80
		R	-	165	165	160	-	160	195
NYS Route 31 & Mall East/ Lazy B Furniture	EB	L	300	40	40	40	-	40	40
		TR	-	65	65	110	-	100	85
	WB	L	210	30	30	30	-	30	30
		TR	-	135	125	140	-	150	95
	NB	L	-	70	75	75	-	80	75
		TR	-	50	45	50	-	50	55
	SB	LT	-	65	70	65	-	70	70
		R	-	60	60	60	-	60	55
NYS Route 31 & Morgan Road	EB	L	275	200	200	225	-	215	210
		T	-	210	215	255	-	255	240
		R	275	95	100	105	-	105	115
	WB	L	300	95	95	125	-	130	115
		TR	-	210	215	240	-	245	215
	NB	L	550	215	220	230	-	220	200
		T	-	155	160	160	-	160	200
		R	250	40	45	50	-	50	55
	SB	L	400	60	60	60	-	60	70
		TR	-	195	190	215	-	210	265
NYS Route 31 & Henry Clay Blvd	EB	L	425	45	45	280	-	210	45
		TR	-	365	370	915	-	745	375
	WB	L	475	80	80	130	-	140	90
		TR	-	260	260	365	-	360	210
	NB	L	-	-	-	-	300	185	250
		TR	-	375	370	430	-	450	325
	SB	LTR	-	55	60	65	-	55	65
	EB	LTR	-	185	200	350	-	360	260

Intersection	Approach	Lane Group	Storage Length	2021 Existing	2024 Background	2024 Background + Dev	Proposed Storage Length [2]	2024 Build	2044 Build
NYS Route 31 & Caughdenoy Road	WB	LTR	-	170	160	230	-	245	200
	NB	LTR	-	80	75	115	-	105	105
	SB	LTR	-	50	50	65	-	65	65
NYS Route 31 & Legionnaire Dr/ Lawton Rd	EB	L	250	25	20	65	-	30	20
		TR	-	200	215	720	-	285	235
	WB	L	250	95	95	110	-	110	135
		TR	-	145	155	200	-	210	190
	NB	L	130	55	60	60	-	60	60
		TR	-	60	60	65	-	70	70
	SB	L	-	90	100	115	-	110	115
		TR	175	65	65	75	-	75	80
NYS Route 31 & US Route 11	EB	L	225	100	120	220	-	150	95
		TR	-	310	315	>3500	-	750	255
	WB	L	500	220	225	225	450 (double left)	170	190
		TR	-	150	150	200	-	240	145
	NB	L	190	155	155	180	-	180	205
		T	-	280	280	295	-	310	445
		R	-	310	320	340	-	380	485
	SB	L	325	185	205	320	-	215	195
		TR	-	130	130	205	-	130	140
NYS Route 31 & I-81 SB Ramps	EB	TR	-	160	170	>3500	-	340	180
	WB	L	130	210	205	200	130 (double left)	135	130
		T	-	345	345	355	-	225	265
	SB	LT	-	165	165	175	-	170	195
		R	200	85	75	95	-	90	110
NYS Route 31 &	EB	L	100	170	170	180	-	165	170
		T	-	360	365	360	-	235	265

Intersection	Approach	Lane Group	Storage Length	2021 Existing	2024 Background	2024 Background + Dev	Proposed Storage Length [2]	2024 Build	2044 Build
I-81 NB Ramps /Pardee Road	WB	TR	-	520	575	610	-	420	490
	NB	L	450	465	480	580	200 (double left)	215	220
		T	-	806	860	1215	-	150	145
		R	100	170	165	165*	125 (double right)	500	570
	SB	R	-	120	130	170	-	115	125
NYS Route 31 & Lakeshore Rd	EB	L	250	320	350	370	-	360	355
	SB	R	-	190	245	385	-	170	245
Caughdenoy Road/Maple Rd & NYS Route 481 Off Ramp	EB	LT	-	50	50	50	-	50	50
	NB	LR	250	90	95	85	-	75	145
	SB	LTR	50	55	55	55	-	55	60
Caughdenoy Road & Entrance 1	WB	L	-	-	-	45	-	45	40
		R	-	-	-	50	-	50	50
	NB	R	-	-	-	5	-	5	5
	SB	L	-	-	-	35	-	35	35
NYS Route 31 & Entrance 2	EB	L	-	-	-	160	-	160	170
		T	-	-	-	205	-	190	215
	WB	T	-	-	-	190	-	180	190
		R	-	-	-	85	-	80	75
	SB	L	-	-	-	210	-	200	205
		R	-	-	-	85	-	90	85

[1]Reported (in feet) from SimTraffic. Synchro underestimate queues in oversaturated conditions.
[2]Proposed storage lengths at mitigated locations only; additional locations need to be reviewed in the future.



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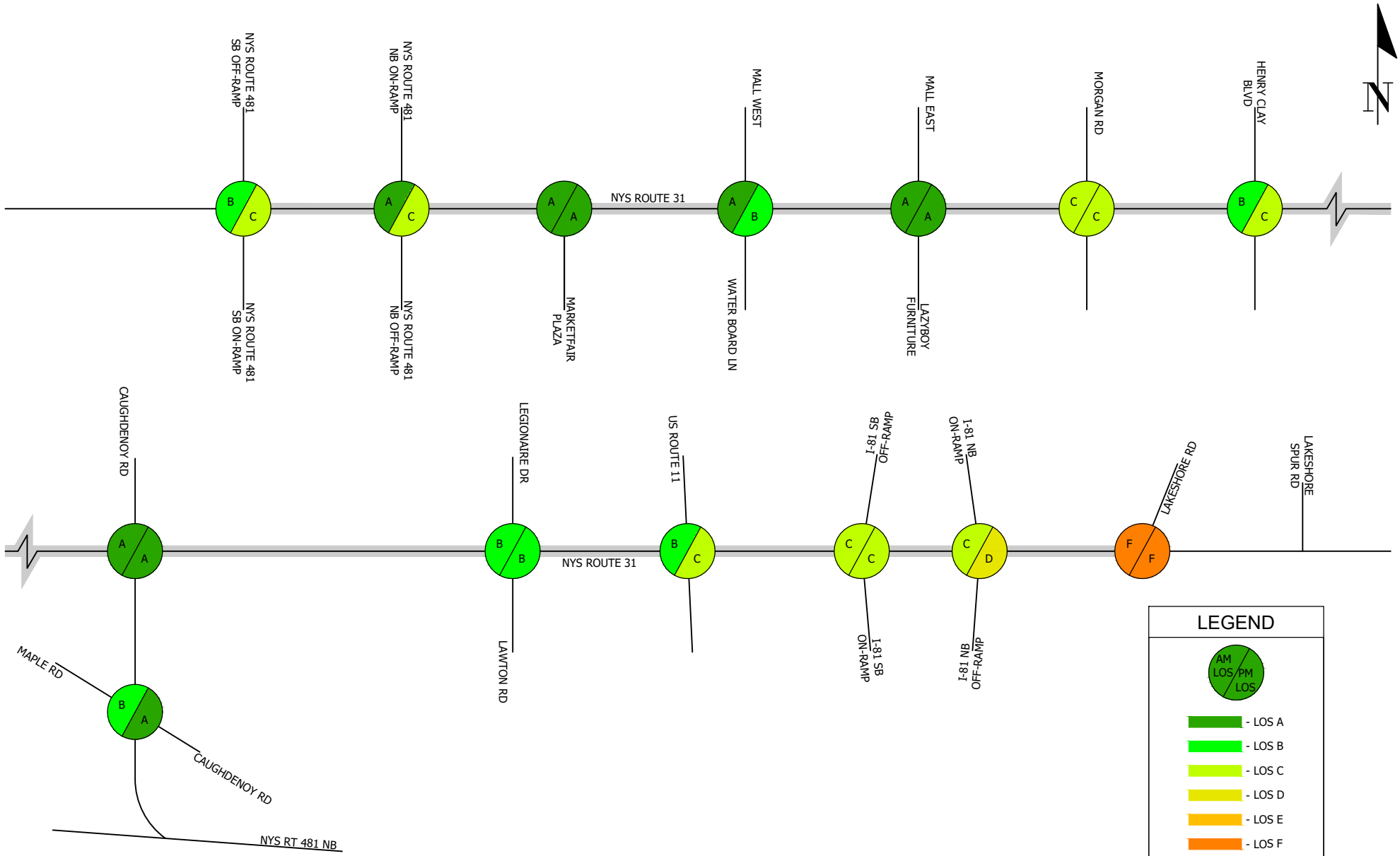
WHITE PINE COMMERCE PARK
ONONDAGA COUNTY INDUSTRIAL DEVELOPMENT AGENCY
YEAR 2021 EXISTING - LOS

PROJ No.:20-03861	DATE: 4/22/2021	SCALE: N.T.S.	FIGURE: 13



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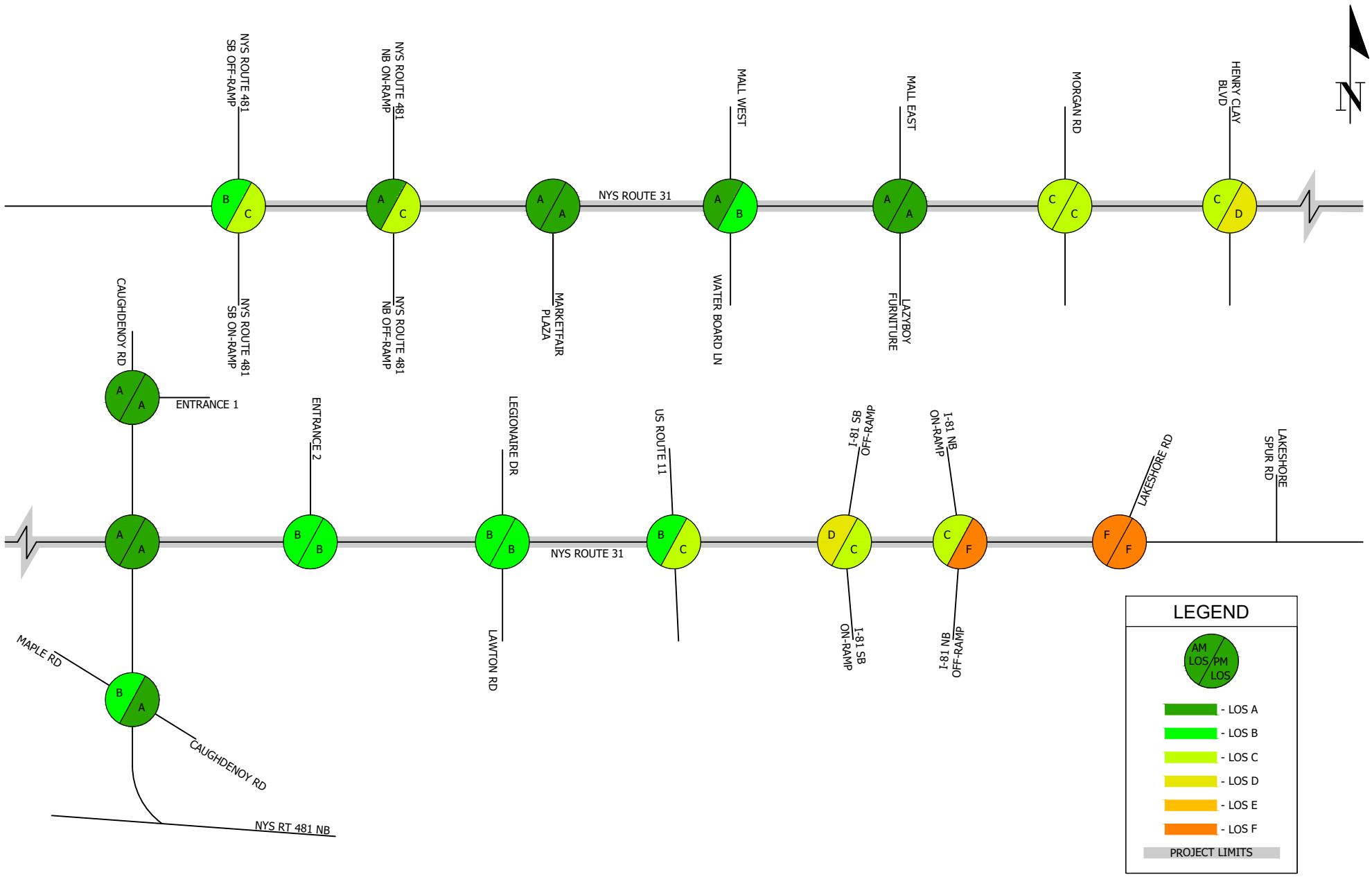
WHITE PINE COMMERCE PARK
ONONDAGA COUNTY INDUSTRIAL DEVELOPMENT AGENCY
YEAR 2024 BACKGROUND - LOS

PROJ No.:20-03861	DATE: 4/22/2021	SCALE: N.T.S.	FIGURE: 14



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WHITE PINE COMMERCE PARK
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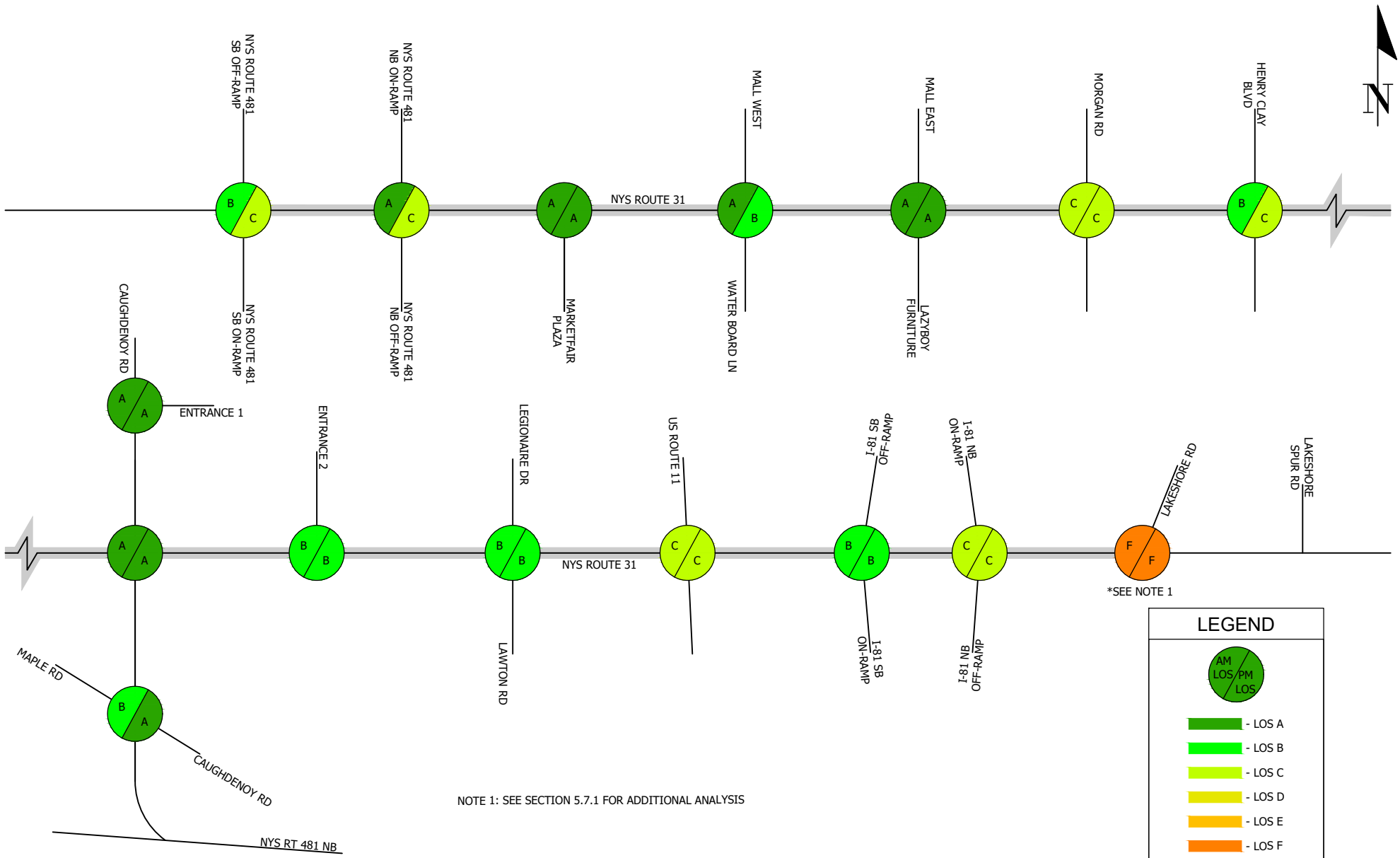
YEAR 2024 BACKGROUND DEVELOPMENT - LOS

PROJ No.:20-03861	DATE: 4/26/2021	SCALE: N.T.S.	FIGURE: 15



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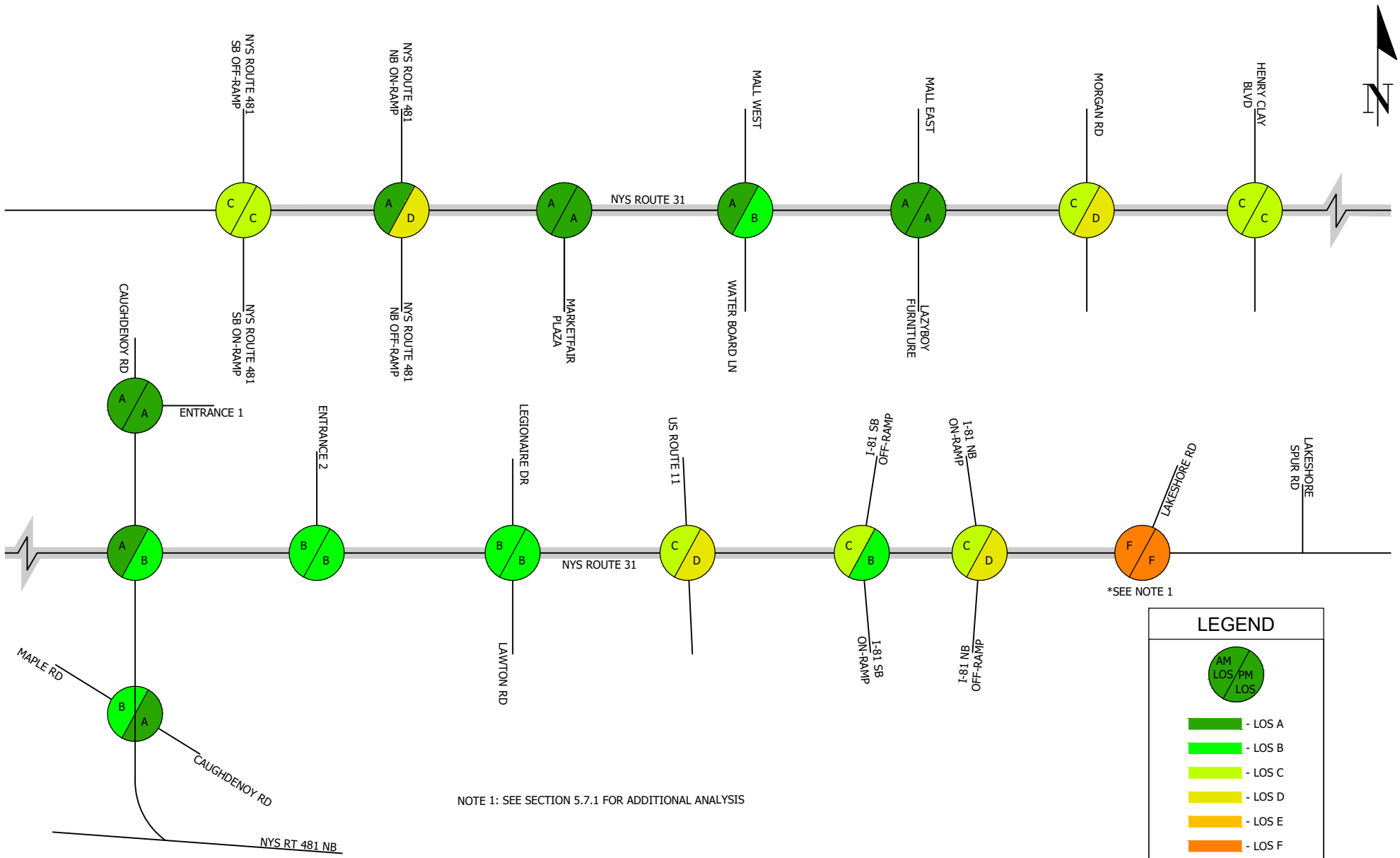
WHITE PINE COMMERCE PARK
ONONDAGA COUNTY INDUSTRIAL DEVELOPMENT AGENCY
YEAR 2024 BACKGROUND DEVELOPMENT BUILD - LOS

PROJ No.:20-03861	DATE: 4/26/2021	SCALE: N.T.S.	FIGURE: 16



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WHITE PINE COMMERCE PARK
ONONDAGA COUNTY INDUSTRIAL DEVELOPMENT AGENCY
YEAR 2044 BACKGROUND DEVELOPMENT BUILD - LOS

PROJ No.:20-03861	DATE: 4/26/2021	SCALE: N.T.S.	FIGURE: 17

6.0 CRASH ANALYSIS

The purpose of this crash analysis is to identify safety problems by studying and quantifying crashes within the project study area and identifying patterns and clusters. A crash cluster is defined as an abnormal occurrence of similar crash types occurring at approximately the same location or involving the same geometric features. The severity of the crashes was also considered. A history of crashes is an indication that further analysis is required to determine the causes of the crashes and to identify what actions, if any, could be taken to mitigate the accidents.

A three-year crash history review was performed for the period from May 1, 2015 to April 31, 2018 for the project study area. There are High Accident Locations (HAL's) within the project limits, so a crash analysis is required. Based on a preliminary review of the crash history, all procedures of the Full Crash Analysis were completed with the exception of the Safety Benefits Evaluation Form and the Benefit Cost Ratio form. Several solutions to mitigate high crash locations were already accounted for in the future improvements planned throughout the project area as a result of intersection capacity analysis.

6.1 EXISTING CRASH DATA

The project study area includes 14 intersections along an approximately 6.5-mile segment of NYS Route 31 between NYS Route 481 and Lakeshore Road. The study area includes both the Town of Clay and Town of Cicero. NYSDOT provided crash data for the period of May 1, 2015 to April 31, 2018. Of the 462 total crashes at the three study area segments, there were 90 crashes that resulted in injury and 232 crashes that resulted in property damage only. One of the crashes resulted in a fatality because of defective breaks on an oversized vehicle. Three of the crashes involved a bicycle, one crash involved a motorcycle, and one crash involved a snowmobile. One crash occurred in 2008 involving a motorcycle, which resulted in a fatality. This crash was not included in calculations for this study.

6.2 ANALYSIS OF CRASH DATA

A crash analysis was performed in accordance with the NSYDOT HDM Chapter 5. According to the crash summary for the project limits provided by NYSDOT, there are four locations that appear on the 2017 HAL list and three locations that appear on the 2018 and 2019 HAL list. All area Priority Investigation Locations (PILs). The intersection of NYS Route 31 at Henry Clay Boulevard (RM 31-3309-1205 to 31-3309-1207) appears on the 2017 HAL list as a PIL and was not included in this study since it was not on the HAL list from all three of the most recent horizon years. The following locations from the 2017-2019 HAL list were analyzed as part of the project. Crash data summary tables (Form TE-213), collision diagrams (Form TE-56), and Highway Safety Investigation Reports (HSIPs) are provided in **Appendix H.**

NYS Route 31 from Wegmans Driveway East to Marketfair Plaza (segment RM 31-3309-1186 to 31-3309-1191). The crashes mostly consisted of rear end collisions as a result of driver inattention and following too closely. A HSIP was not completed at this location.

NYS Route 31 from US Route 11 to East of the I-81 NB Ramps (segment RM 31-3309-1249 to 31-3309-1252. The crashes mostly consisted of rear end and left turn crash types. These crashes were a result of failure to yield and of following too closely. This segment was ranked 4th out of 127 locations on the 2017 PIL list so NYSDOT completed a HSIP.

NYS Route 31 from Lakeshore Road to Lakeshore Road Spur (segment RM 31-3309-1253 to 31-3309-1255). The crashes mostly consisted of rear end collisions because of driver inattention and following too closely. This segment was ranked 7th out of 127 locations on the 2017 PIL list, so NYSDOT completed a HSIP.

6.3 COMPARE RATES TO ACCEPTED VALUES

The crash rate for the three study segments and one intersection were compared to the statewide crash rate for similar facilities. The segment rates were calculated in Crashes per Million Vehicle Miles (ACC/MVM) and the intersection rate was calculated in Crashes per Million Entering Vehicles (ACC/MEV). Table 11 compares the crash rates for 2019.

Table 10. Study Area Crash Rate Comparison

No.	Type	Location	Calculated Rates	Statewide Rates	Comparison
1	Segment	NYS Route 31 from Wegmans East Entrance to Marketfair Plaza	12.27	2.94	Above
2	Segment	NYS Route 31 from US Route 11 to East of I-81 NB Ramps	23.95	2.94	Above
3	Segment	NYS Route 31 from Lakeshore Road to Lakeshore Road Spur	10.23	2.94	Above

6.4 ADDITIONAL CONSIDERATIONS

An additional intersection of concern was reviewed with most of the crashes were right angle. The intersection of NYS Route 481 Northbound Off-Ramp/Caughdenoy Road/Maple Road, an unsignalized, two-way stop-controlled has a crash rate of 1.86 ACC/MEV compared to the statewide average of 0.31 ACC/MEV.

6.5 CRASH REDUCTION MEASURES

The crash rates at the four study areas (three segments and one intersections) are well above the 2019 statewide average. The proposed project includes mitigation measures to address some of these locations plus provide a safe condition at the site entrance. Based on the crash types, the following crash reduction measures typically include:

- Installing of turn lanes along NYS Route 31 and along Caughdenoy Road at the site entrances to reduce rear end crashes;
- Constructing left turn lane on Henry Clay Boulevard northbound to reduce rear end crashes;

- Readjusting signal timings to provide protected phasing to reduce left turn crashes along NYS Route 31 westbound at US Route 11 and NYS Route 31 westbound at the I-81 southbound ramps;
- At NYS Route 31 and Lakeshore Road, the alternatives developed should assist in reducing the number of rear end crashes both along Lakeshore Road and NYS Route 31.
- Converting a partially stop-controlled intersection into a roundabout to reduce right angle crashes is one option at NYS Route 481 off ramp at Caughdenoy Road at Maple Road and NYS 481 Northbound Off Ramp.

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 PROPOSED PROJECT

This study was prepared for Onondaga County Industrial Development Agency (OCIDA) by JMT of New York, Inc. (JMT) as part of the Draft Supplemental Generic Environmental Impact Statement (SGEIS). This report includes a Traffic Impact Study (TIS) of the impacts of the proposed expansion of the White Pine Commerce Park ("Park"), a planned industrial development that is proposed in the Town of Clay located north of the City of Syracuse in Onondaga County. For the purposes of this Draft SGEIS, the Park is assumed to be operational by year 2024. This report was prepared in accordance with Chapter 5 of the New York State Department of Transportation (NYSDOT) Highway Design Manual (HDM). This report is based on the NYSDOT TIS Shell dated September 2014 as well as the NYSDOT TIS Typical Elements dated March 2015.

7.2 SUMMARY OF TRAFFIC IMPACTS

Since the preparation of the 2012 TIS that was part of the 2012 Draft GEIS and finalized in the 2013 Final GEIS, traffic roadway changes include:

- The addition of exclusive eastbound and westbound left turn lanes along NYS Route 31 at Henry Clay Boulevard.
- Intersections Caughdenoy Road and Legionnaire Drive /Lawton Road have been signalized.
- The Caughdenoy Road/NYS Route 31 were also recommended for right and left turn lane additions; however, the current development assumptions have changed with multiple Site Entrances.

During the 2024 Background Development, the addition of the proposed future development causes delay increases at most intersections. During this scenario, the intersections along the NYS Route 31 corridor that have LOS E or F movements include: Henry Clay Boulevard, US Route, I-81 southbound off ramp, I-81 northbound off ramp, and Lakeshore Road.

7.3 MITIGATION OF TRAFFIC IMPACTS

Capacity analysis was performed and the following capacity improvement measures are recommended to address LOS, travel speeds, delay and safety:

- NYS Route 31 at Henry Clay Boulevard: Construct a northbound left turn lane,
- NYS Route 31 at US Route 11: Construct an additional left turn lane to provide for westbound dual left turn lanes and modify left turn phasing from permissive/protected to protected,
- NYS Route 31 at I-81 Southbound Ramps: Construct an additional left turn lane to provide westbound double left turn lanes and change westbound left turn phasing from permissive/protected to protected and widen to two lanes on the on-ramp before merging to a single lane prior to the merge on to I-81.
- NYS Route 31 at I-81 Northbound/ Pardee Road: On I-81 northbound off ramp construct an additional left and right turn lane.
- NYS Route 31 at Site Entrance 2: An addition of a left turn lane along NYS Route 31 eastbound and a right turn lane along NYS Route 31 at the site entrance. A left and right turn will be provided out of the site. A traffic signal is recommended at the intersection.
- Caughdenoy Road at Site Entrance 1: A right and left turn lane will be provided from the site entrance and along Caughdenoy Road.
- NYS Route 31 at Lakeshore Road: Concepts have been developed and coordination will take place with NYSDOT for future consideration.

A crash analysis was performed for three locations from the 2017-2019 HAL list. Between May 1, 2015 and April 31, 2018, there were 462 total crashes at the three study area segments. The proposed project includes mitigation measures at each of these locations based on a review of capacity analysis and collision type.

Overall, the transportation network with Development and Build improvements will operate better than existing conditions. The proposed project will maintain an acceptable Level of Service of D or better in design year 2024.

APPENDIX

APPENDIX A

VOLUME REPORT

TRI-STATE TRAFFIC DATA

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184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Onondaga County, NY
Rte 31/I-481 SB Ramps
Wednesday, November 29, 2017
Location: 43.185539, -76.232929

Count Name: 6 Route 31-Rte 481 SB Ramps Soule Rd
Site Code: SCU13X
Start Date: 11/29/2017

Turning Movement Data

Start Time	Rte 31 Eastbound					Rte 31 Westbound					Soule Rd to Rte 481 SB On Ramp Northbound						Rte 481 SB Off Ramp to Rte 31 Southbound						
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	Int. Total
7:00 AM	89	148	0	0	237	59	79	0	0	138	14	19	13	0	0	46	46	6	8	5	0	65	486
7:15 AM	92	161	0	0	253	71	115	0	0	186	16	22	9	0	0	47	52	5	8	6	0	71	557
7:30 AM	103	157	0	0	260	77	122	0	0	199	19	21	22	0	0	62	71	11	12	11	0	105	626
7:45 AM	108	163	0	0	271	80	154	0	0	234	29	27	6	0	0	62	56	17	14	11	0	98	665
Hourly Total	392	629	0	0	1021	287	470	0	0	757	78	89	50	0	0	217	225	39	42	33	0	339	2334
8:00 AM	100	130	0	0	230	46	131	0	0	177	19	25	12	0	0	56	35	5	3	12	1	55	518
8:15 AM	71	138	0	0	209	64	150	0	0	214	35	7	27	0	0	69	44	9	20	7	0	80	572
8:30 AM	81	101	0	0	182	48	130	0	0	178	24	15	5	0	0	44	34	9	16	5	1	64	468
8:45 AM	72	105	0	0	177	35	164	0	0	199	29	13	12	0	0	54	32	14	14	11	0	71	501
Hourly Total	324	474	0	0	798	193	575	0	0	768	107	60	56	0	0	223	145	37	53	35	2	270	2059
9:00 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
1:00 PM	197	110	0	0	307	67	203	0	0	270	42	19	22	0	0	83	21	9	13	17	0	60	720
1:15 PM	210	107	0	0	317	65	249	1	0	315	33	13	10	0	1	56	29	7	15	12	0	63	751
1:30 PM	178	110	0	0	288	54	228	0	0	282	40	13	13	0	0	66	35	9	20	21	0	85	721
1:45 PM	171	133	0	0	304	81	213	0	0	294	36	20	7	0	0	63	24	15	19	17	0	75	736
Hourly Total	756	460	0	0	1216	267	893	1	0	1161	151	65	52	0	1	268	109	40	67	67	0	283	2928
2:00 PM	184	103	0	0	287	54	233	0	0	287	33	16	9	1	0	59	32	9	11	13	0	65	698
2:15 PM	209	132	0	0	341	64	226	0	0	290	21	18	15	0	0	54	29	4	11	14	0	58	743
2:30 PM	208	148	0	0	356	72	239	0	0	311	39	20	19	1	0	79	35	10	14	11	0	70	816
2:45 PM	185	117	0	0	302	79	221	0	0	300	49	32	17	0	0	98	35	9	19	10	0	73	773
Hourly Total	786	500	0	0	1286	269	919	0	0	1188	142	86	60	2	0	290	131	32	55	48	0	266	3030
3:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:00 PM	217	145	0	0	362	95	259	0	0	354	36	23	14	0	0	73	44	14	29	5	0	92	881
4:15 PM	209	163	0	0	372	107	388	0	0	495	36	16	10	0	0	62	36	17	35	5	0	93	1022
4:30 PM	254	135	0	0	389	94	338	0	0	432	48	29	21	0	0	98	50	15	30	11	0	106	1025
4:45 PM	217	154	0	0	371	120	348	0	0	468	54	28	8	0	0	90	35	18	45	2	0	100	1029
Hourly Total	897	597	0	0	1494	416	1333	0	0	1749	174	96	53	0	0	323	165	64	139	23	0	391	3957
5:00 PM	224	163	0	0	387	129	309	0	0	438	66	22	15	0	0	103	47	16	36	7	0	106	1034
5:15 PM	216	165	0	0	381	123	362	0	0	485	45	26	19	0	0	90	40	14	35	1	0	90	1046
5:30 PM	203	132	0	0	335	137	353	0	0	490	55	24	11	0	0	90	45	19	37	1	0	102	1017
5:45 PM	181	114	0	0	295	95	316	0	0	411	39	31	14	0	0	84	26	8	21	5	1	60	850
Hourly Total	824	574	0	0	1398	484	1340	0	0	1824	205	103	59	0	0	367	158	57	129	14	1	358	3947
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	3979	3235	0	0	7214	1917	5530	1	0	7448	857	499	330	2	1	1688	933	269	485	220	3	1907	18257
Approach %	55.2	44.8	0.0	-	-	25.7	74.2	0.0	-	-	50.8	29.6	19.5	0.1	-	-	48.9	14.1	25.4	11.5	-	-	-
Total %	21.8	17.7	0.0	-	39.5	10.5	30.3	0.0	-	40.8	4.7	2.7	1.8	0.0	-	9.2	5.1	1.5	2.7	1.2	-	10.4	-
Lights	3906	3140	0	-	7046	1876	5389	1	-	7266	847	493	321	2	-	1663	903	264	482	213	-	1862	17837
% Lights	98.2	97.1	-	-	97.7	97.9	97.5	100.0	-	97.6	98.8	98.8	97.3	100.0	-	98.5	96.8	98.1	99.4	96.8	-	97.6	97.7
Buses	12	16	0	-	28	12	19	0	-	31	4	3	4	0	-	11	1	1	0	0	-	2	72
% Buses	0.3	0.5	-	-	0.4	0.6	0.3	0.0	-	0.4	0.5	0.6	1.2	0.0	-	0.7	0.1	0.4	0.0	0.0	-	0.1	0.4
Trucks	61	79	0	-	140	29	122	0	-	151	6	3	5	0	-	14	29	4	3	7	-	43	348
% Trucks	1.5	2.4	-	-	1.9	1.5	2.2	0.0	-	2.0	0.7	0.6	1.5	0.0	-	0.8	3.1	1.5	0.6	3.2	-	2.3	1.9
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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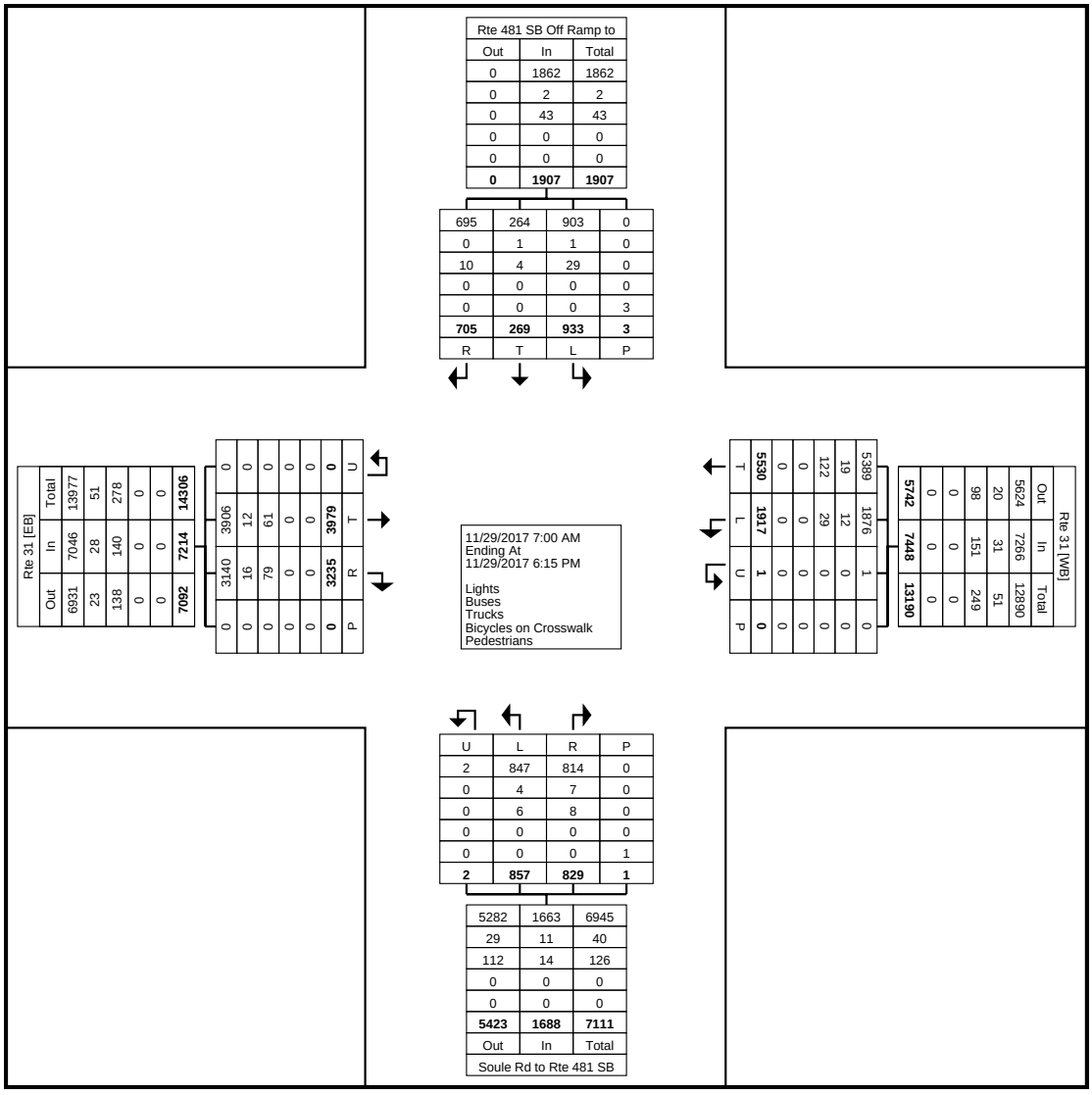

Turning Movement Data Plot

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Onondaga County, NY
Rte 31/I-481 SB Ramps
Wednesday, November 29, 2017
Location: 43.185539, -76.232929

Count Name: 6 Route 31-Rte 481 SB Ramps Soule Rd
Site Code: SCU13X
Start Date: 11/29/2017

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Rte 31 Eastbound					Rte 31 Westbound					Soule Rd to Rte 481 SB On Ramp Northbound						Rte 481 SB Off Ramp to Rte 31 Southbound						
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	Int. Total
7:30 AM	103	157	0	0	260	77	122	0	0	199	19	21	22	0	0	62	71	11	12	11	0	105	626
7:45 AM	108	163	0	0	271	80	154	0	0	234	29	27	6	0	0	62	56	17	14	11	0	98	665
8:00 AM	100	130	0	0	230	46	131	0	0	177	19	25	12	0	0	56	35	5	3	12	1	55	518
8:15 AM	71	138	0	0	209	64	150	0	0	214	35	7	27	0	0	69	44	9	20	7	0	80	572
Total	382	588	0	0	970	267	557	0	0	824	102	80	67	0	0	249	206	42	49	41	1	338	2381
Approach %	39.4	60.6	0.0	-	-	32.4	67.6	0.0	-	-	41.0	32.1	26.9	0.0	-	-	60.9	12.4	14.5	12.1	-	-	-
Total %	16.0	24.7	0.0	-	40.7	11.2	23.4	0.0	-	34.6	4.3	3.4	2.8	0.0	-	10.5	8.7	1.8	2.1	1.7	-	14.2	-
PHF	0.884	0.902	0.000	-	0.895	0.834	0.904	0.000	-	0.880	0.729	0.741	0.620	0.000	-	0.902	0.725	0.618	0.613	0.854	-	0.805	0.895
Lights	364	572	0	-	936	261	519	0	-	780	99	78	63	0	-	240	201	41	46	41	-	329	2285
% Lights	95.3	97.3	-	-	96.5	97.8	93.2	-	-	94.7	97.1	97.5	94.0	-	-	96.4	97.6	97.6	93.9	100.0	-	97.3	96.0
Buses	2	4	0	-	6	2	5	0	-	7	2	1	2	0	-	5	0	1	0	0	-	1	19
% Buses	0.5	0.7	-	-	0.6	0.7	0.9	-	-	0.8	2.0	1.3	3.0	-	-	2.0	0.0	2.4	0.0	0.0	-	0.3	0.8
Trucks	16	12	0	-	28	4	33	0	-	37	1	1	2	0	-	4	5	0	3	0	-	8	77
% Trucks	4.2	2.0	-	-	2.9	1.5	5.9	-	-	4.5	1.0	1.3	3.0	-	-	1.6	2.4	0.0	6.1	0.0	-	2.4	3.2
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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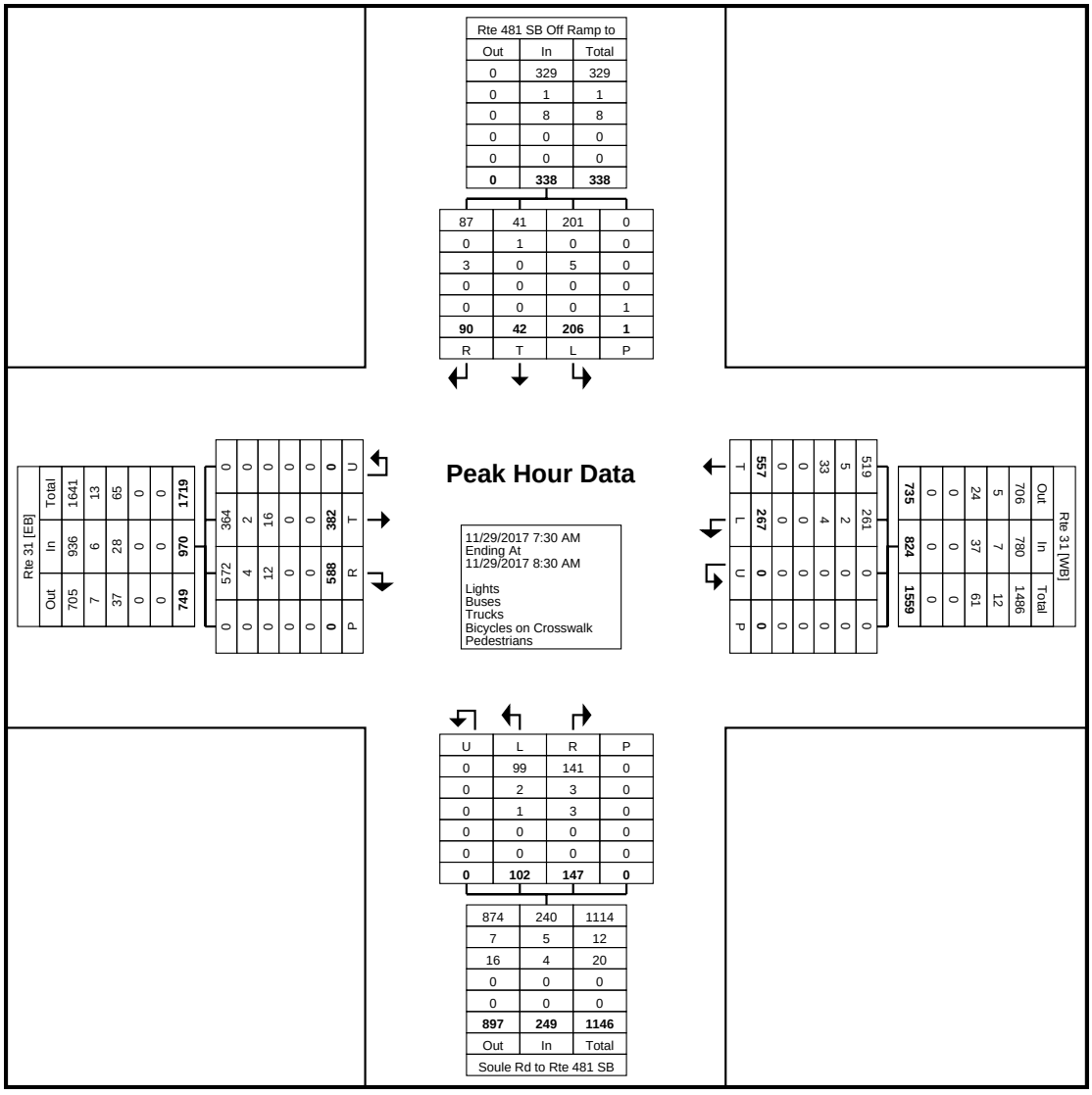

Turning Movement Peak Hour Data Plot (7:30 AM)

Onondaga County, NY
Rte 31/I-481 SB Ramps
Wednesday, November 29, 2017
Location: 43.185539, -76.232929

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Count Name: 6 Route 31-Rte 481 SB Ramps Soule Rd
Site Code: SCU13X
Start Date: 11/29/2017

Turning Movement Peak Hour Data (2:00 PM)

Start Time	Rte 31 Eastbound					Rte 31 Westbound					Soule Rd to Rte 481 SB On Ramp Northbound						Rte 481 SB Off Ramp to Rte 31 Southbound						Int. Total
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	
2:00 PM	184	103	0	0	287	54	233	0	0	287	33	16	9	1	0	59	32	9	11	13	0	65	698
2:15 PM	209	132	0	0	341	64	226	0	0	290	21	18	15	0	0	54	29	4	11	14	0	58	743
2:30 PM	208	148	0	0	356	72	239	0	0	311	39	20	19	1	0	79	35	10	14	11	0	70	816
2:45 PM	185	117	0	0	302	79	221	0	0	300	49	32	17	0	0	98	35	9	19	10	0	73	773
Total	786	500	0	0	1286	269	919	0	0	1188	142	86	60	2	0	290	131	32	55	48	0	266	3030
Approach %	61.1	38.9	0.0	-	-	22.6	77.4	0.0	-	-	49.0	29.7	20.7	0.7	-	-	49.2	12.0	20.7	18.0	-	-	-
Total %	25.9	16.5	0.0	-	42.4	8.9	30.3	0.0	-	39.2	4.7	2.8	2.0	0.1	-	9.6	4.3	1.1	1.8	1.6	-	8.8	-
PHF	0.940	0.845	0.000	-	0.903	0.851	0.961	0.000	-	0.955	0.724	0.672	0.789	0.500	-	0.740	0.936	0.800	0.724	0.857	-	0.911	0.928
Lights	776	474	0	-	1250	257	901	0	-	1158	139	84	58	2	-	283	122	30	55	48	-	255	2946
% Lights	98.7	94.8	-	-	97.2	95.5	98.0	-	-	97.5	97.9	97.7	96.7	100.0	-	97.6	93.1	93.8	100.0	100.0	-	95.9	97.2
Buses	1	3	0	-	4	3	2	0	-	5	1	1	1	0	-	3	0	0	0	0	-	0	12
% Buses	0.1	0.6	-	-	0.3	1.1	0.2	-	-	0.4	0.7	1.2	1.7	0.0	-	1.0	0.0	0.0	0.0	0.0	-	0.0	0.4
Trucks	9	23	0	-	32	9	16	0	-	25	2	1	1	0	-	4	9	2	0	0	-	11	72
% Trucks	1.1	4.6	-	-	2.5	3.3	1.7	-	-	2.1	1.4	1.2	1.7	0.0	-	1.4	6.9	6.3	0.0	0.0	-	4.1	2.4
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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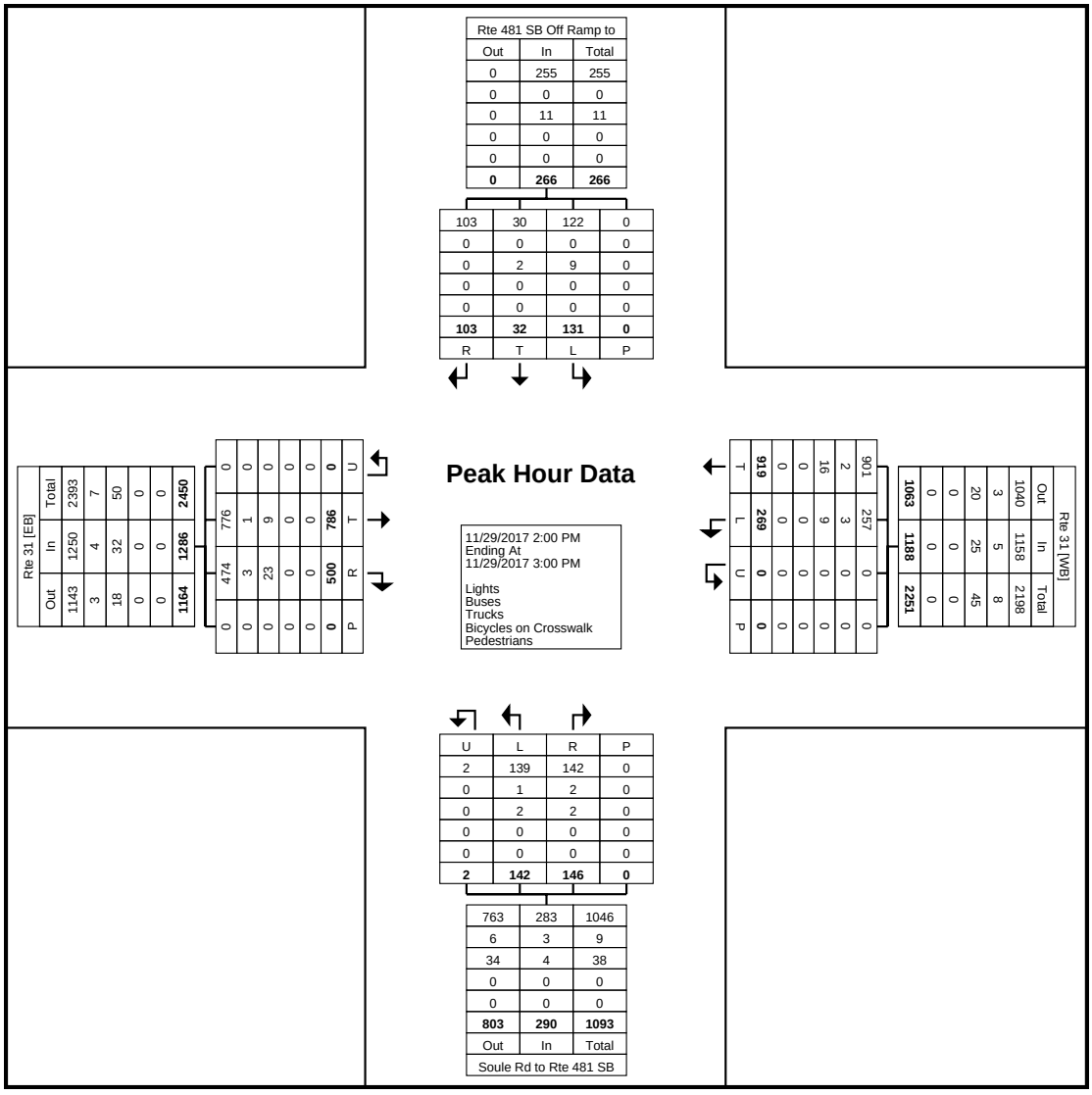
Onondaga County, NY
Rte 31/I-481 SB Ramps
Wednesday, November 29, 2017
Location: 43.185539, -76.232929

Count Name: 6 Route 31-Rte 481 SB Ramps Soule Rd
Site Code: SCU13X
Start Date: 11/29/2017



Turning Movement Peak Hour Data Plot (2:00 PM)

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Onondaga County, NY
Rte 31/I-481 SB Ramps
Wednesday, November 29, 2017
Location: 43.185539, -76.232929

Count Name: 6 Route 31-Rte 481 SB Ramps Soule Rd
Site Code: SCU13X
Start Date: 11/29/2017

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Rte 31 Eastbound					Rte 31 Westbound					Soule Rd to Rte 481 SB On Ramp Northbound						Rte 481 SB Off Ramp to Rte 31 Southbound						
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	Int. Total
4:30 PM	254	135	0	0	389	94	338	0	0	432	48	29	21	0	0	98	50	15	30	11	0	106	1025
4:45 PM	217	154	0	0	371	120	348	0	0	468	54	28	8	0	0	90	35	18	45	2	0	100	1029
5:00 PM	224	163	0	0	387	129	309	0	0	438	66	22	15	0	0	103	47	16	36	7	0	106	1034
5:15 PM	216	165	0	0	381	123	362	0	0	485	45	26	19	0	0	90	40	14	35	1	0	90	1046
Total	911	617	0	0	1528	466	1357	0	0	1823	213	105	63	0	0	381	172	63	146	21	0	402	4134
Approach %	59.6	40.4	0.0	-	-	25.6	74.4	0.0	-	-	55.9	27.6	16.5	0.0	-	-	42.8	15.7	36.3	5.2	-	-	-
Total %	22.0	14.9	0.0	-	37.0	11.3	32.8	0.0	-	44.1	5.2	2.5	1.5	0.0	-	9.2	4.2	1.5	3.5	0.5	-	9.7	-
PHF	0.897	0.935	0.000	-	0.982	0.903	0.937	0.000	-	0.940	0.807	0.905	0.750	0.000	-	0.925	0.860	0.875	0.811	0.477	-	0.948	0.988
Lights	907	604	0	-	1511	462	1349	0	-	1811	212	104	63	0	-	379	170	63	146	21	-	400	4101
% Lights	99.6	97.9	-	-	98.9	99.1	99.4	-	-	99.3	99.5	99.0	100.0	-	-	99.5	98.8	100.0	100.0	100.0	-	99.5	99.2
Buses	0	0	0	-	0	1	0	0	-	1	0	1	0	0	-	1	0	0	0	0	-	0	2
% Buses	0.0	0.0	-	-	0.0	0.2	0.0	-	-	0.1	0.0	1.0	0.0	-	-	0.3	0.0	0.0	0.0	0.0	-	0.0	0.0
Trucks	4	13	0	-	17	3	8	0	-	11	1	0	0	0	-	1	2	0	0	0	-	2	31
% Trucks	0.4	2.1	-	-	1.1	0.6	0.6	-	-	0.6	0.5	0.0	0.0	-	-	0.3	1.2	0.0	0.0	0.0	-	0.5	0.7
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Onondaga County, NY
Rte 31/I-481 SB Ramps
Wednesday, November 29, 2017
Location: 43.185539, -76.232929

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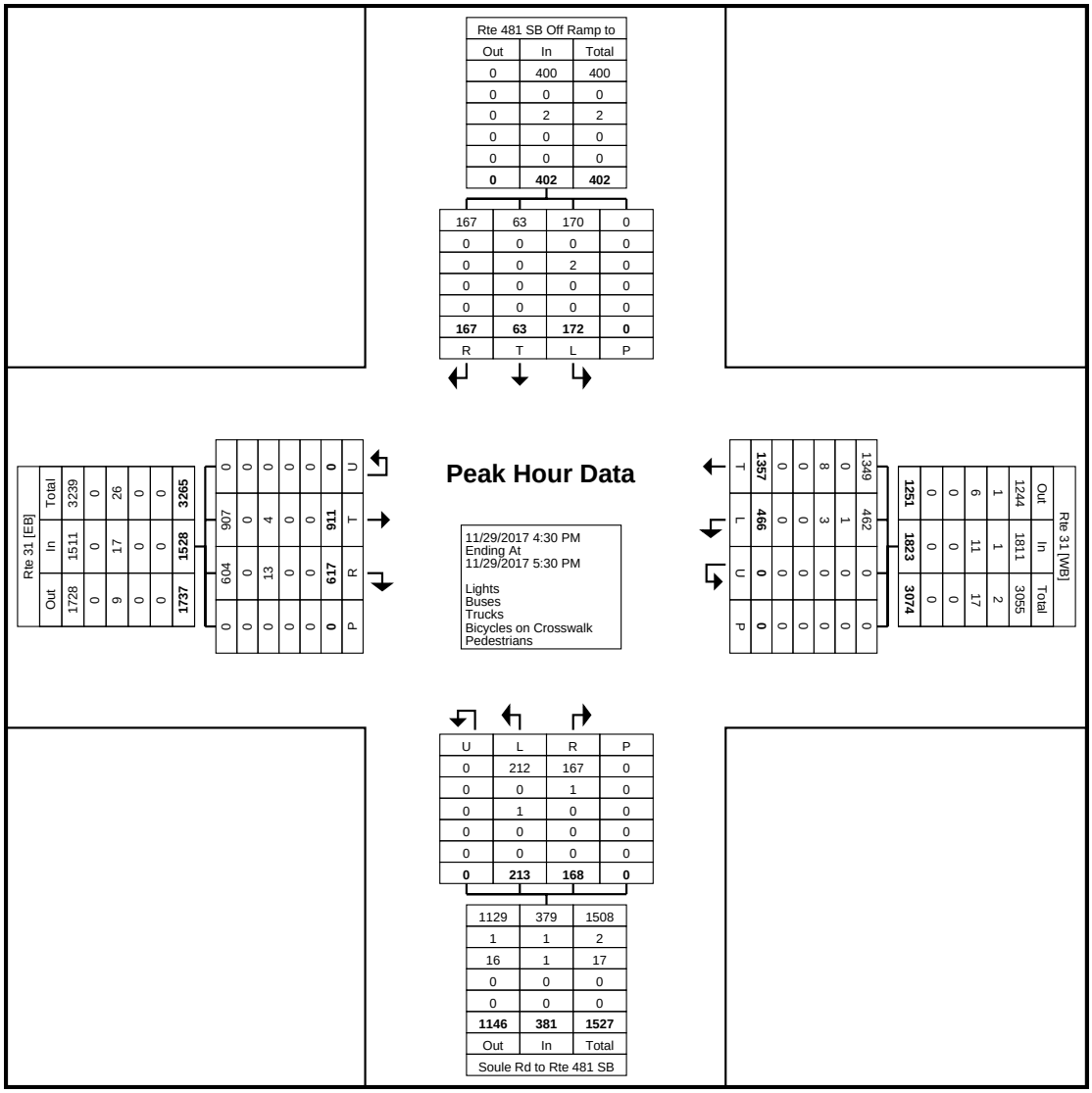

Turning Movement Peak Hour Data Plot (4:30 PM)

Onondaga County, NY
Rte 31/Rte 481 NB Ramps
Wednesday, November 29, 2017
Location: 43.185613, -76.230368

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Count Name: 5 Route 31-Rte 481 NB Ramps
Site Code: SCU3PX
Start Date: 11/29/2017

Turning Movement Data

Start Time	Rte 31 Eastbound					Rte 31 Westbound						Rte 481 NB Off Ramp to Rte 31 Northbound						Rte 31 WB to Rte 481 NB On Ramps Southbound		
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	Peds	App. Total	Int. Total
7:00 AM	25	137	0	0	162	103	40	5	0	0	148	35	0	3	8	0	46	0	0	356
7:15 AM	30	141	0	0	171	122	36	12	0	0	170	65	0	1	5	0	71	0	0	412
7:30 AM	39	177	1	0	217	138	20	18	0	0	176	71	0	5	2	0	78	0	0	471
7:45 AM	24	178	0	0	202	149	28	3	0	0	180	82	0	6	6	0	94	0	0	476
Hourly Total	118	633	1	0	752	512	124	38	0	0	674	253	0	15	21	0	289	0	0	1715
8:00 AM	28	135	0	0	163	112	20	5	0	0	137	64	0	7	9	0	80	1	0	380
8:15 AM	20	125	0	0	145	145	29	5	0	0	179	92	0	7	5	0	104	0	0	428
8:30 AM	10	134	0	0	144	130	16	1	0	0	147	71	0	4	11	0	86	1	0	377
8:45 AM	20	111	0	0	131	136	18	7	0	0	161	77	0	9	11	0	97	0	0	389
Hourly Total	78	505	0	0	583	523	83	18	0	0	624	304	0	27	36	0	367	2	0	1574
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	31	225	0	0	256	197	20	8	0	0	225	80	0	15	15	0	110	0	0	591
1:15 PM	33	225	0	0	258	211	21	14	0	0	246	97	0	21	15	0	133	0	0	637
1:30 PM	29	212	0	0	241	202	18	4	0	0	224	85	1	15	8	0	109	0	0	574
1:45 PM	35	181	0	0	216	214	20	13	0	0	247	87	0	20	13	0	120	1	0	583
Hourly Total	128	843	0	0	971	824	79	39	0	0	942	349	1	71	51	0	472	1	0	2385
2:00 PM	31	233	0	0	264	199	30	6	0	0	235	95	0	11	10	0	116	0	0	615
2:15 PM	42	216	0	0	258	192	31	4	0	0	227	105	0	18	21	0	144	0	0	629
2:30 PM	41	231	1	0	273	214	39	6	0	0	259	94	0	34	12	0	140	0	0	672
2:45 PM	49	210	0	0	259	188	46	6	0	0	240	128	0	23	20	0	171	0	0	670
Hourly Total	163	890	1	0	1054	793	146	22	0	0	961	422	0	86	63	0	571	0	0	2586
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	51	233	0	0	284	180	39	24	0	0	243	171	0	26	17	0	214	0	0	741
4:15 PM	43	226	0	0	269	256	36	25	0	0	317	214	0	43	11	0	268	0	0	854
4:30 PM	61	280	0	0	341	211	49	18	0	0	278	198	0	47	6	0	251	0	0	870
4:45 PM	47	247	0	0	294	214	36	13	0	0	263	243	0	65	6	0	314	0	0	871
Hourly Total	202	986	0	0	1188	861	160	80	0	0	1101	826	0	181	40	0	1047	0	0	3336
5:00 PM	58	247	0	0	305	234	59	22	0	0	315	238	0	49	5	0	292	0	0	912
5:15 PM	52	238	0	0	290	243	48	17	0	0	308	272	0	54	14	0	340	0	0	938
5:30 PM	44	239	0	0	283	224	35	12	0	0	271	270	0	44	17	0	331	0	0	885
5:45 PM	48	207	0	0	255	201	29	7	0	0	237	211	0	30	20	0	261	0	0	753
Hourly Total	202	931	0	0	1133	902	171	58	0	0	1131	991	0	177	56	0	1224	0	0	3488
Grand Total	891	4788	2	0	5681	4415	763	255	0	0	5433	3145	1	557	267	0	3970	3	0	15084
Approach %	15.7	84.3	0.0	-	-	81.3	14.0	4.7	0.0	-	-	79.2	0.0	14.0	6.7	-	-	-	-	-
Total %	5.9	31.7	0.0	-	37.7	29.3	5.1	1.7	0.0	-	36.0	20.8	0.0	3.7	1.8	-	26.3	-	0.0	-
Lights	875	4689	2	-	5566	4317	743	252	0	-	5312	3052	1	542	259	-	3854	-	0	14732
% Lights	98.2	97.9	100.0	-	98.0	97.8	97.4	98.8	-	-	97.8	97.0	100.0	97.3	97.0	-	97.1	-	-	97.7
Buses	0	15	0	-	15	26	0	1	0	-	27	8	0	2	2	-	12	-	0	54
% Buses	0.0	0.3	0.0	-	0.3	0.6	0.0	0.4	-	-	0.5	0.3	0.0	0.4	0.7	-	0.3	-	-	0.4
Trucks	16	84	0	-	100	72	20	2	0	-	94	85	0	13	6	-	104	-	0	298
% Trucks	1.8	1.8	0.0	-	1.8	1.6	2.6	0.8	-	-	1.7	2.7	0.0	2.3	2.2	-	2.6	-	-	2.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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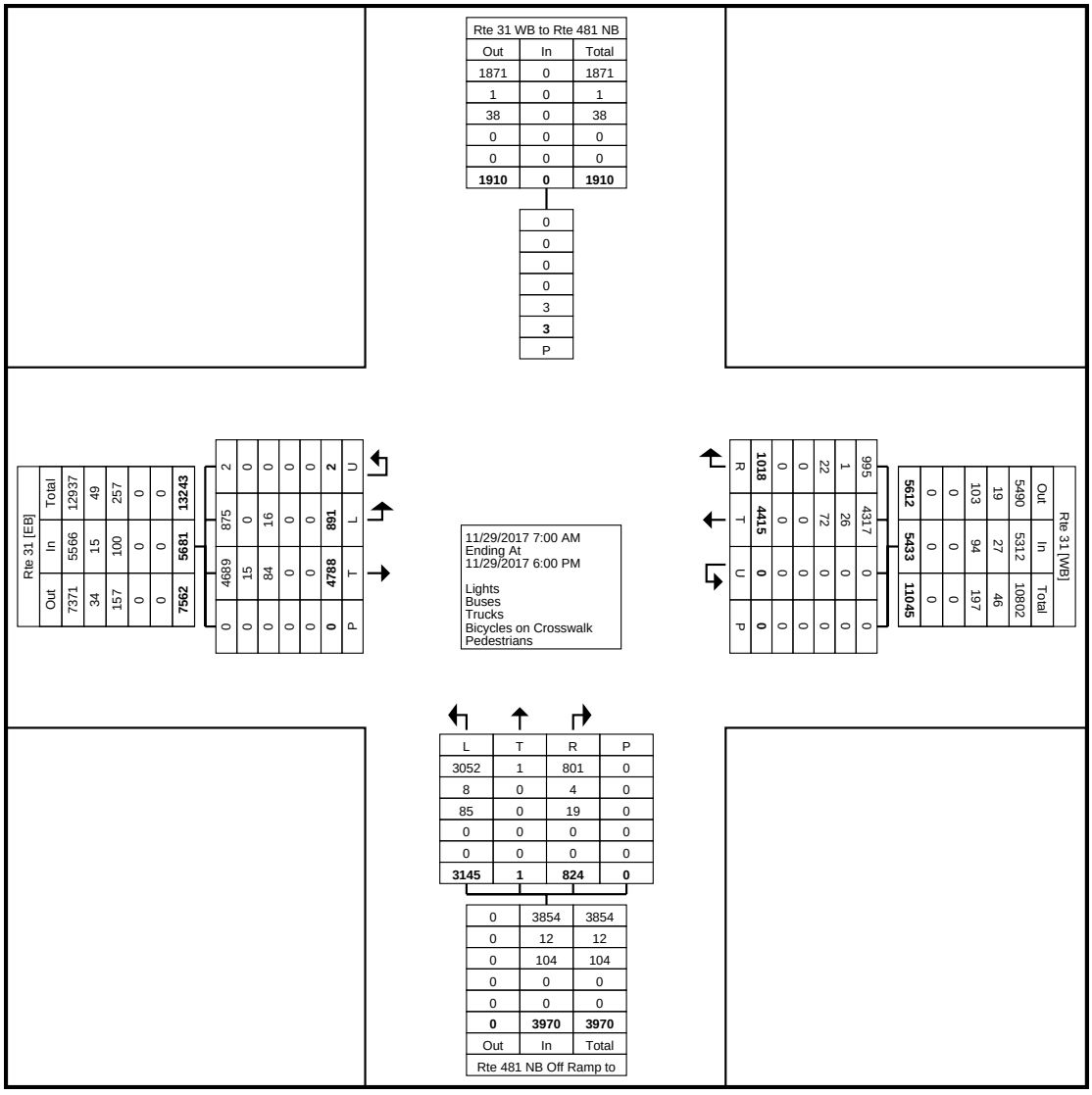

Turning Movement Data Plot

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Onondaga County, NY
Rte 31/Rte 481 NB Ramps
Wednesday, November 29, 2017
Location: 43.185613, -76.230368

Count Name: 5 Route 31-Rte 481 NB Ramps
Site Code: SCU3PX
Start Date: 11/29/2017

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Rte 31 Eastbound					Rte 31 Westbound						Rte 481 NB Off Ramp to Rte 31 Northbound						Rte 31 WB to Rte 481 NB On Ramps Southbound		
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	Peds	App. Total	Int. Total
7:30 AM	39	177	1	0	217	138	20	18	0	0	176	71	0	5	2	0	78	0	0	471
7:45 AM	24	178	0	0	202	149	28	3	0	0	180	82	0	6	6	0	94	0	0	476
8:00 AM	28	135	0	0	163	112	20	5	0	0	137	64	0	7	9	0	80	1	0	380
8:15 AM	20	125	0	0	145	145	29	5	0	0	179	92	0	7	5	0	104	0	0	428
Total	111	615	1	0	727	544	97	31	0	0	672	309	0	25	22	0	356	1	0	1755
Approach %	15.3	84.6	0.1	-	-	81.0	14.4	4.6	0.0	-	-	86.8	0.0	7.0	6.2	-	-	-	-	-
Total %	6.3	35.0	0.1	-	41.4	31.0	5.5	1.8	0.0	-	38.3	17.6	0.0	1.4	1.3	-	20.3	-	0.0	-
PHF	0.712	0.864	0.250	-	0.838	0.913	0.836	0.431	0.000	-	0.933	0.840	0.000	0.893	0.611	-	0.856	-	0.000	0.922
Lights	106	592	1	-	699	517	90	31	0	-	638	288	0	22	20	-	330	-	0	1667
% Lights	95.5	96.3	100.0	-	96.1	95.0	92.8	100.0	-	-	94.9	93.2	-	88.0	90.9	-	92.7	-	-	95.0
Buses	0	5	0	-	5	6	0	0	0	-	6	2	0	0	0	-	2	-	0	13
% Buses	0.0	0.8	0.0	-	0.7	1.1	0.0	0.0	-	-	0.9	0.6	-	0.0	0.0	-	0.6	-	-	0.7
Trucks	5	18	0	-	23	21	7	0	0	-	28	19	0	3	2	-	24	-	0	75
% Trucks	4.5	2.9	0.0	-	3.2	3.9	7.2	0.0	-	-	4.2	6.1	-	12.0	9.1	-	6.7	-	-	4.3
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Onondaga County, NY
Rte 31/Rte 481 NB Ramps
Wednesday, November 29, 2017
Location: 43.185613, -76.230368

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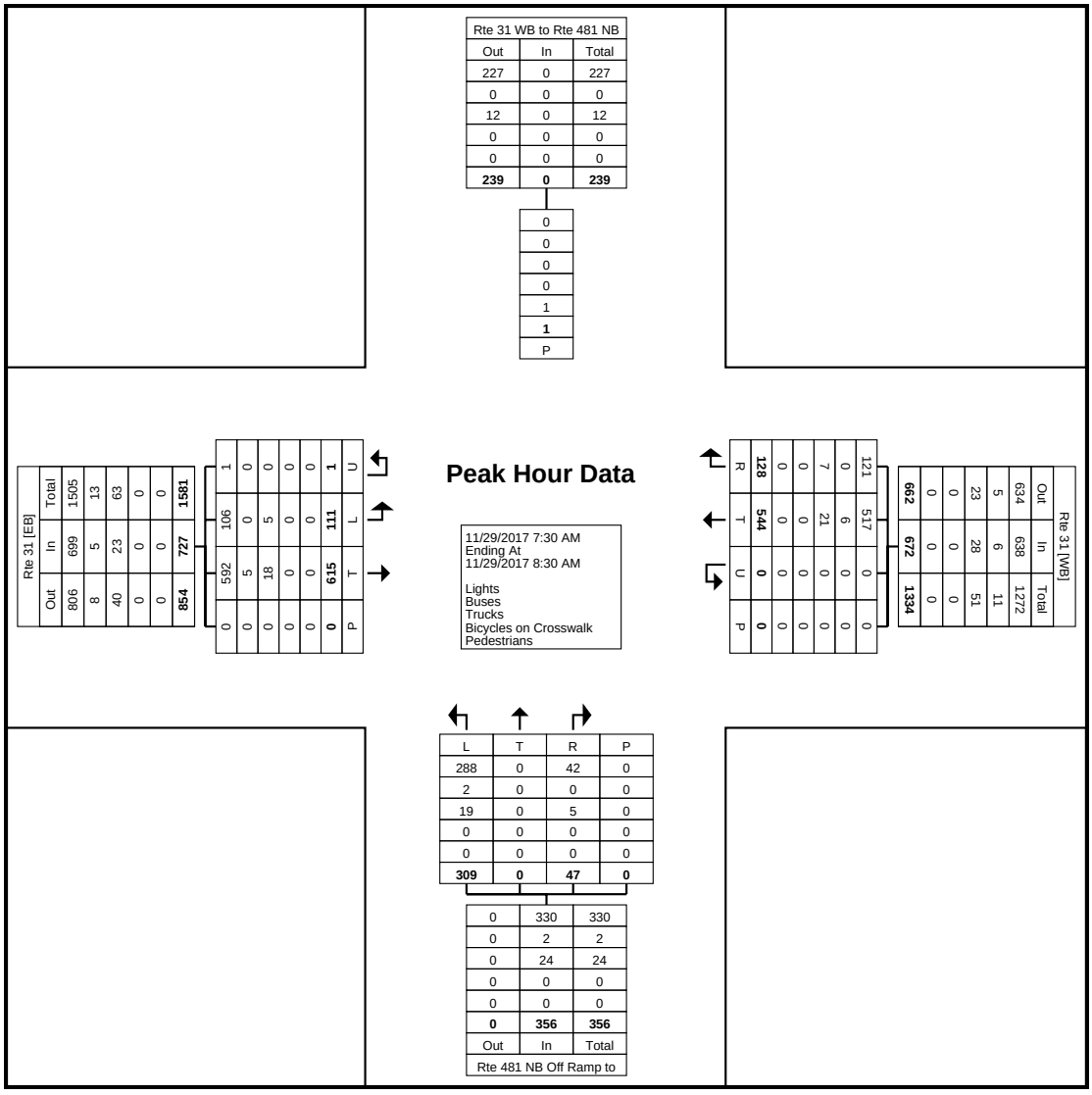

Turning Movement Peak Hour Data Plot (7:30 AM)

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Onondaga County, NY
Rte 31/Rte 481 NB Ramps
Wednesday, November 29, 2017
Location: 43.185613, -76.230368

Count Name: 5 Route 31-Rte 481 NB Ramps
Site Code: SCU3PX
Start Date: 11/29/2017

Turning Movement Peak Hour Data (2:00 PM)

Start Time	Rte 31 Eastbound					Rte 31 Westbound						Rte 481 NB Off Ramp to Rte 31 Northbound						Rte 31 WB to Rte 481 NB On Ramps Southbound		
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	Peds	App. Total	Int. Total
2:00 PM	31	233	0	0	264	199	30	6	0	0	235	95	0	11	10	0	116	0	0	615
2:15 PM	42	216	0	0	258	192	31	4	0	0	227	105	0	18	21	0	144	0	0	629
2:30 PM	41	231	1	0	273	214	39	6	0	0	259	94	0	34	12	0	140	0	0	672
2:45 PM	49	210	0	0	259	188	46	6	0	0	240	128	0	23	20	0	171	0	0	670
Total	163	890	1	0	1054	793	146	22	0	0	961	422	0	86	63	0	571	0	0	2586
Approach %	15.5	84.4	0.1	-	-	82.5	15.2	2.3	0.0	-	-	73.9	0.0	15.1	11.0	-	-	-	-	-
Total %	6.3	34.4	0.0	-	40.8	30.7	5.6	0.9	0.0	-	37.2	16.3	0.0	3.3	2.4	-	22.1	-	0.0	-
PHF	0.832	0.955	0.250	-	0.965	0.926	0.793	0.917	0.000	-	0.928	0.824	0.000	0.632	0.750	-	0.835	-	0.000	0.962
Lights	161	870	1	-	1032	779	139	22	0	-	940	410	0	83	61	-	554	-	0	2526
% Lights	98.8	97.8	100.0	-	97.9	98.2	95.2	100.0	-	-	97.8	97.2	-	96.5	96.8	-	97.0	-	-	97.7
Buses	0	2	0	-	2	4	0	0	0	-	4	0	0	1	1	-	2	-	0	8
% Buses	0.0	0.2	0.0	-	0.2	0.5	0.0	0.0	-	-	0.4	0.0	-	1.2	1.6	-	0.4	-	-	0.3
Trucks	2	18	0	-	20	10	7	0	0	-	17	12	0	2	1	-	15	-	0	52
% Trucks	1.2	2.0	0.0	-	1.9	1.3	4.8	0.0	-	-	1.8	2.8	-	2.3	1.6	-	2.6	-	-	2.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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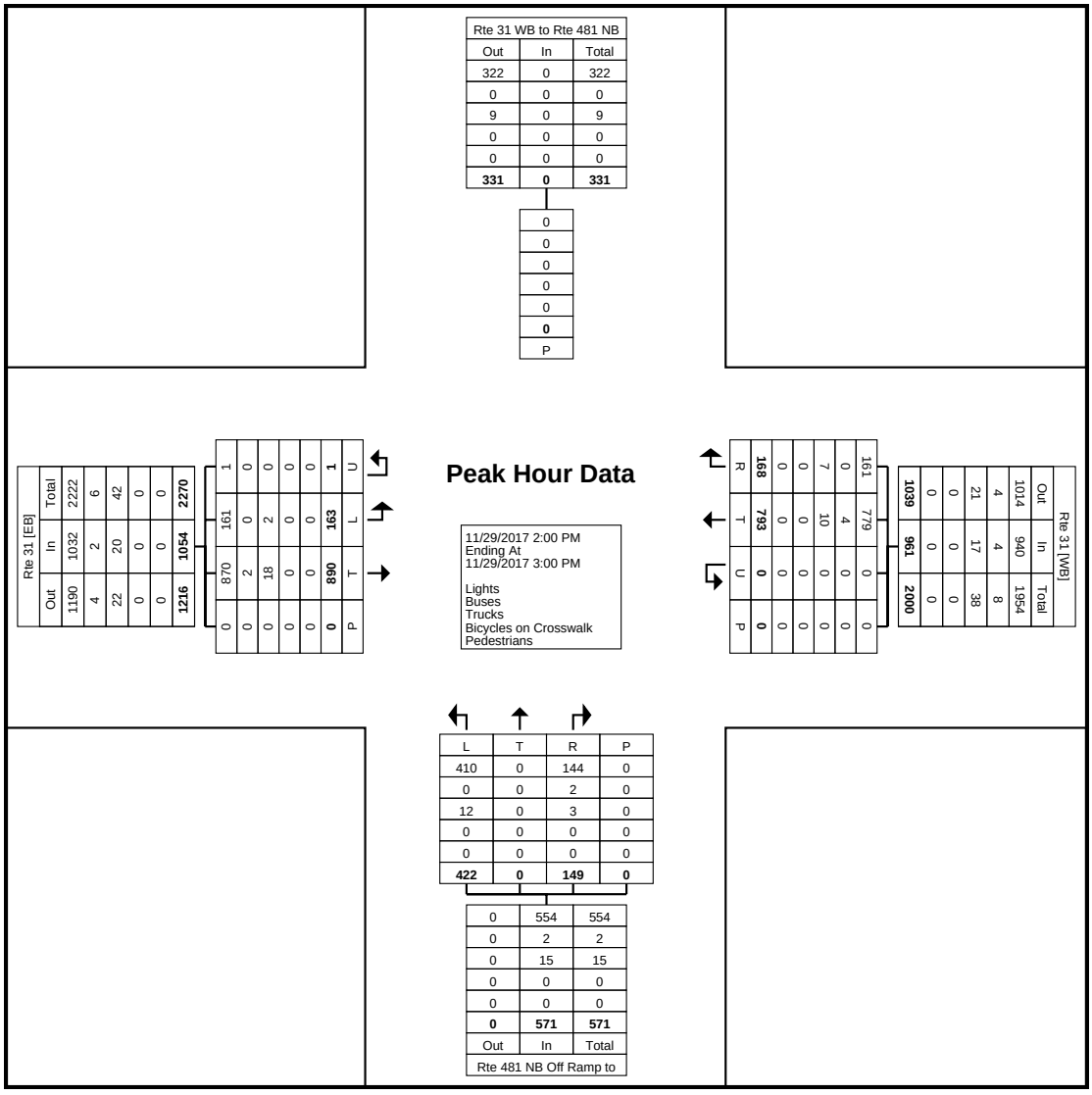

Turning Movement Peak Hour Data Plot (2:00 PM)

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Onondaga County, NY
Rte 31/Rte 481 NB Ramps
Wednesday, November 29, 2017
Location: 43.185613, -76.230368

Count Name: 5 Route 31-Rte 481 NB Ramps
Site Code: SCU3PX
Start Date: 11/29/2017

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Rte 31 Eastbound					Rte 31 Westbound						Rte 481 NB Off Ramp to Rte 31 Northbound						Rte 31 WB to Rte 481 NB On Ramps Southbound		
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	Peds	App. Total	Int. Total
4:45 PM	47	247	0	0	294	214	36	13	0	0	263	243	0	65	6	0	314	0	0	871
5:00 PM	58	247	0	0	305	234	59	22	0	0	315	238	0	49	5	0	292	0	0	912
5:15 PM	52	238	0	0	290	243	48	17	0	0	308	272	0	54	14	0	340	0	0	938
5:30 PM	44	239	0	0	283	224	35	12	0	0	271	270	0	44	17	0	331	0	0	885
Total	201	971	0	0	1172	915	178	64	0	0	1157	1023	0	212	42	0	1277	0	0	3606
Approach %	17.2	82.8	0.0	-	-	79.1	15.4	5.5	0.0	-	-	80.1	0.0	16.6	3.3	-	-	-	-	-
Total %	5.6	26.9	0.0	-	32.5	25.4	4.9	1.8	0.0	-	32.1	28.4	0.0	5.9	1.2	-	35.4	-	0.0	-
PHF	0.866	0.983	0.000	-	0.961	0.941	0.754	0.727	0.000	-	0.918	0.940	0.000	0.815	0.618	-	0.939	-	0.000	0.961
Lights	200	965	0	-	1165	905	176	62	0	-	1143	1017	0	210	42	-	1269	-	0	3577
% Lights	99.5	99.4	-	-	99.4	98.9	98.9	96.9	-	-	98.8	99.4	-	99.1	100.0	-	99.4	-	-	99.2
Buses	0	1	0	-	1	1	0	1	0	-	2	1	0	1	0	-	2	-	0	5
% Buses	0.0	0.1	-	-	0.1	0.1	0.0	1.6	-	-	0.2	0.1	-	0.5	0.0	-	0.2	-	-	0.1
Trucks	1	5	0	-	6	9	2	1	0	-	12	5	0	1	0	-	6	-	0	24
% Trucks	0.5	0.5	-	-	0.5	1.0	1.1	1.6	-	-	1.0	0.5	-	0.5	0.0	-	0.5	-	-	0.7
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Onondaga County, NY
Rte 31/Rte 481 NB Ramps
Wednesday, November 29, 2017
Location: 43.185613, -76.230368

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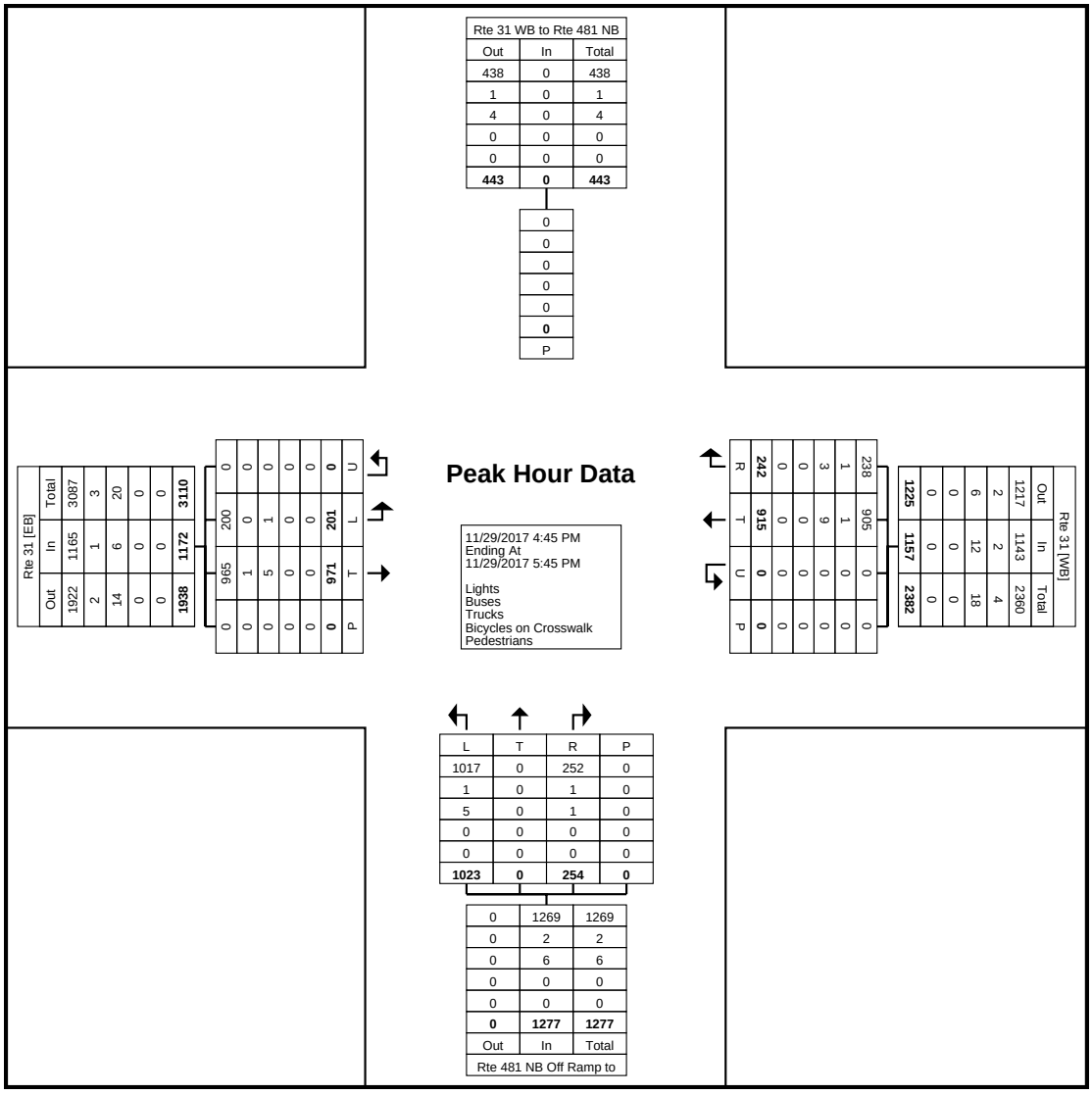


Turning Movement Peak Hour Data Plot (4:45 PM)

JMT

307 South Townsend Street
Syracuse, NY 13202

File Name : site_1_nys_rt_31_at_market_fair_north_819862_03-16-202
Site Code : Site 1
Start Date : 3/16/2021
Page No : 1

Groups Printed- Lights - Buses - Trucks

	NYS RT 31 From East				Market Fair North Plaza Driveway From South				NYS RT 31 From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
07:00 AM	132	3	0	135	2	9	0	11	1	107	0	108	254
07:15 AM	143	1	0	144	0	0	0	0	3	123	0	126	270
07:30 AM	163	1	0	164	0	3	0	3	0	149	0	149	316
07:45 AM	184	3	0	187	0	2	0	2	13	141	0	154	343
Total	622	8	0	630	2	14	0	16	17	520	0	537	1183
08:00 AM	124	1	0	125	0	3	0	3	3	133	0	136	264
08:15 AM	123	6	0	129	0	3	0	3	10	130	0	140	272
08:30 AM	150	4	0	154	1	3	0	4	7	116	0	123	281
08:45 AM	130	2	0	132	2	2	0	4	11	133	0	144	280
Total	527	13	0	540	3	11	0	14	31	512	0	543	1097
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	172	6	0	178	6	17	0	23	19	170	0	189	390
11:45 AM	171	6	0	177	2	18	0	20	15	203	0	218	415
Total	343	12	0	355	8	35	0	43	34	373	0	407	805
12:00 PM	172	11	0	183	6	22	0	28	30	183	0	213	424
12:15 PM	187	1	0	188	10	21	0	31	18	222	0	240	459
12:30 PM	203	12	0	215	8	18	0	26	23	182	0	205	446
12:45 PM	214	9	0	223	10	21	0	31	22	182	0	204	458
Total	776	33	0	809	34	82	0	116	93	769	0	862	1787
01:00 PM	195	14	0	209	7	25	0	32	18	195	0	213	454
01:15 PM	203	10	0	213	8	18	0	26	24	204	0	228	467
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	398	24	0	422	15	43	0	58	42	399	0	441	921
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	248	5	0	253	10	29	0	39	19	241	0	260	552
04:15 PM	259	8	0	267	10	22	0	32	26	296	0	322	621
04:30 PM	255	10	0	265	8	21	0	29	21	308	0	329	623
04:45 PM	270	16	0	286	11	21	0	32	37	244	0	281	599
Total	1032	39	0	1071	39	93	0	132	103	1089	0	1192	2395
05:00 PM	237	3	0	240	11	37	0	48	18	243	0	261	549

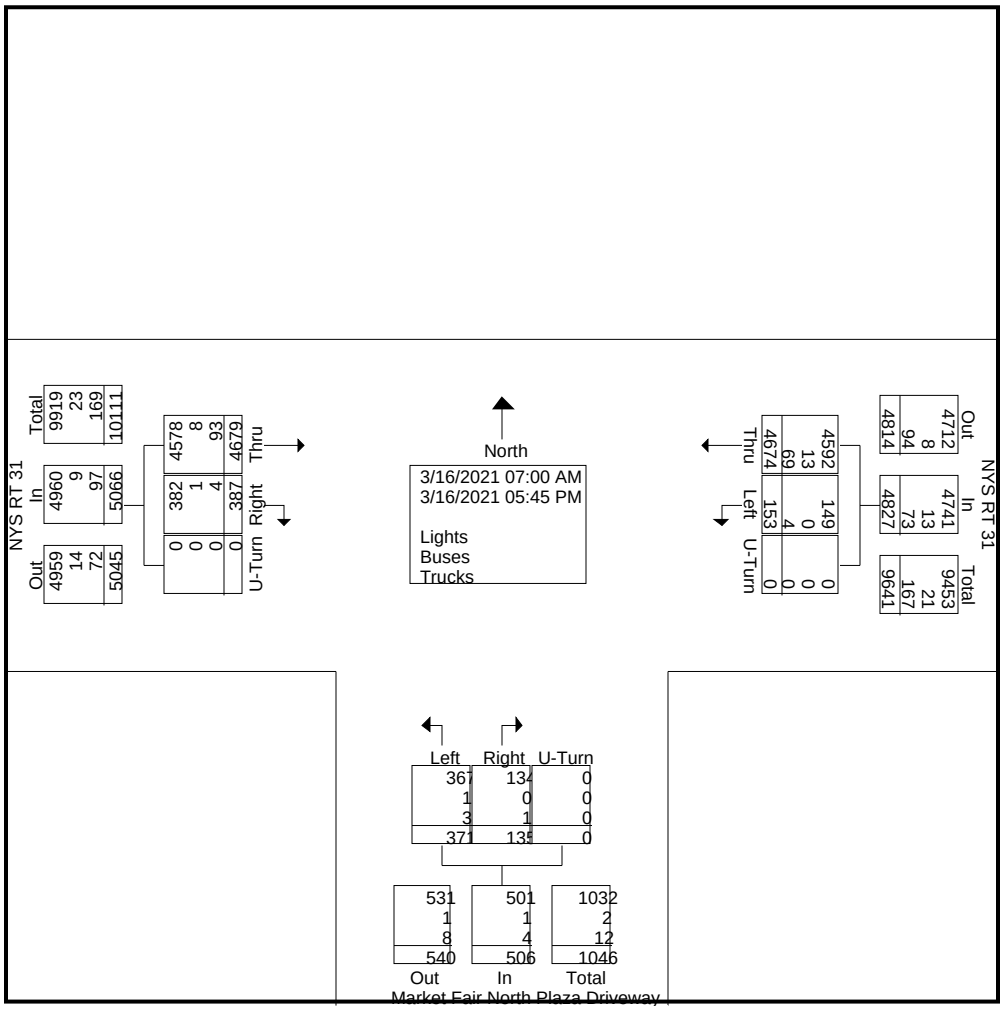
JMT

307 South Townsend Street
Syracuse, NY 13202

File Name : site_1_nys_rt_31_at_market_fair_north_819862_03-16-202
Site Code : Site 1
Start Date : 3/16/2021
Page No : 2

Groups Printed- Lights - Buses - Trucks

	NYS RT 31 From East				Market Fair North Plaza Driveway From South				NYS RT 31 From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
05:15 PM	282	5	0	287	3	19	0	22	18	285	0	303	612
05:30 PM	237	7	0	244	7	14	0	21	17	260	0	277	542
05:45 PM	220	9	0	229	13	23	0	36	14	229	0	243	508
Total	976	24	0	1000	34	93	0	127	67	1017	0	1084	2211
Grand Total	4674	153	0	4827	135	371	0	506	387	4679	0	5066	10399
Apprch %	96.8	3.2	0		26.7	73.3	0		7.6	92.4	0		
Total %	44.9	1.5	0	46.4	1.3	3.6	0	4.9	3.7	45	0	48.7	
Lights	4592	149	0	4741	134	367	0	501	382	4578	0	4960	10202
% Lights	98.2	97.4	0	98.2	99.3	98.9	0	99	98.7	97.8	0	97.9	98.1
Buses	13	0	0	13	0	1	0	1	1	8	0	9	23
% Buses	0.3	0	0	0.3	0	0.3	0	0.2	0.3	0.2	0	0.2	0.2
Trucks	69	4	0	73	1	3	0	4	4	93	0	97	174
% Trucks	1.5	2.6	0	1.5	0.7	0.8	0	0.8	1	2	0	1.9	1.7

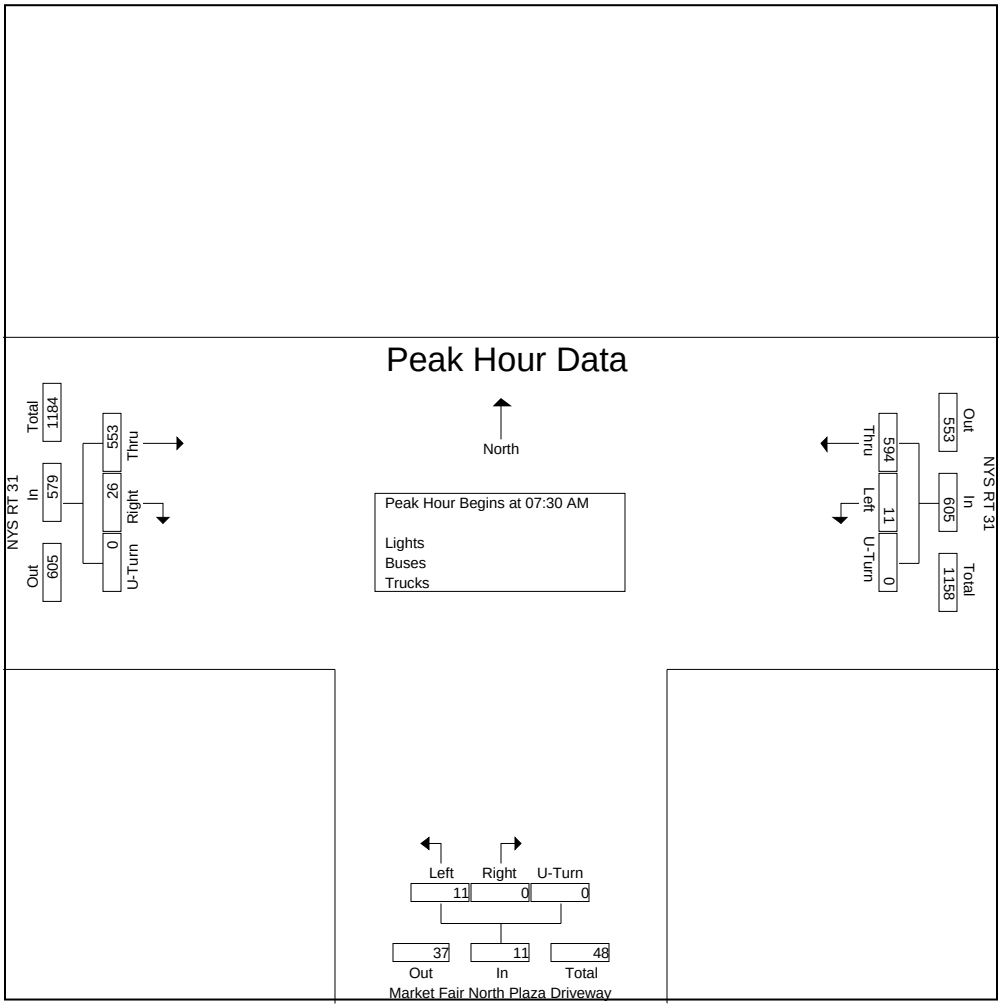


JMT

307 South Townsend Street
Syracuse, NY 13202

File Name : site_1_nys_rt_31_at_market_fair_north_819862_03-16-202
Site Code : Site 1
Start Date : 3/16/2021
Page No : 3

	NYS RT 31 From East				Market Fair North Plaza Driveway From South				NYS RT 31 From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:30 AM													
07:30 AM	163	1	0	164	0	3	0	3	0	149	0	149	316
07:45 AM	184	3	0	187	0	2	0	2	13	141	0	154	343
08:00 AM	124	1	0	125	0	3	0	3	3	133	0	136	264
08:15 AM	123	6	0	129	0	3	0	3	10	130	0	140	272
Total Volume	594	11	0	605	0	11	0	11	26	553	0	579	1195
% App. Total	98.2	1.8	0		0	100	0		4.5	95.5	0		
PHF	.807	.458	.000	.809	.000	.917	.000	.917	.500	.928	.000	.940	.871



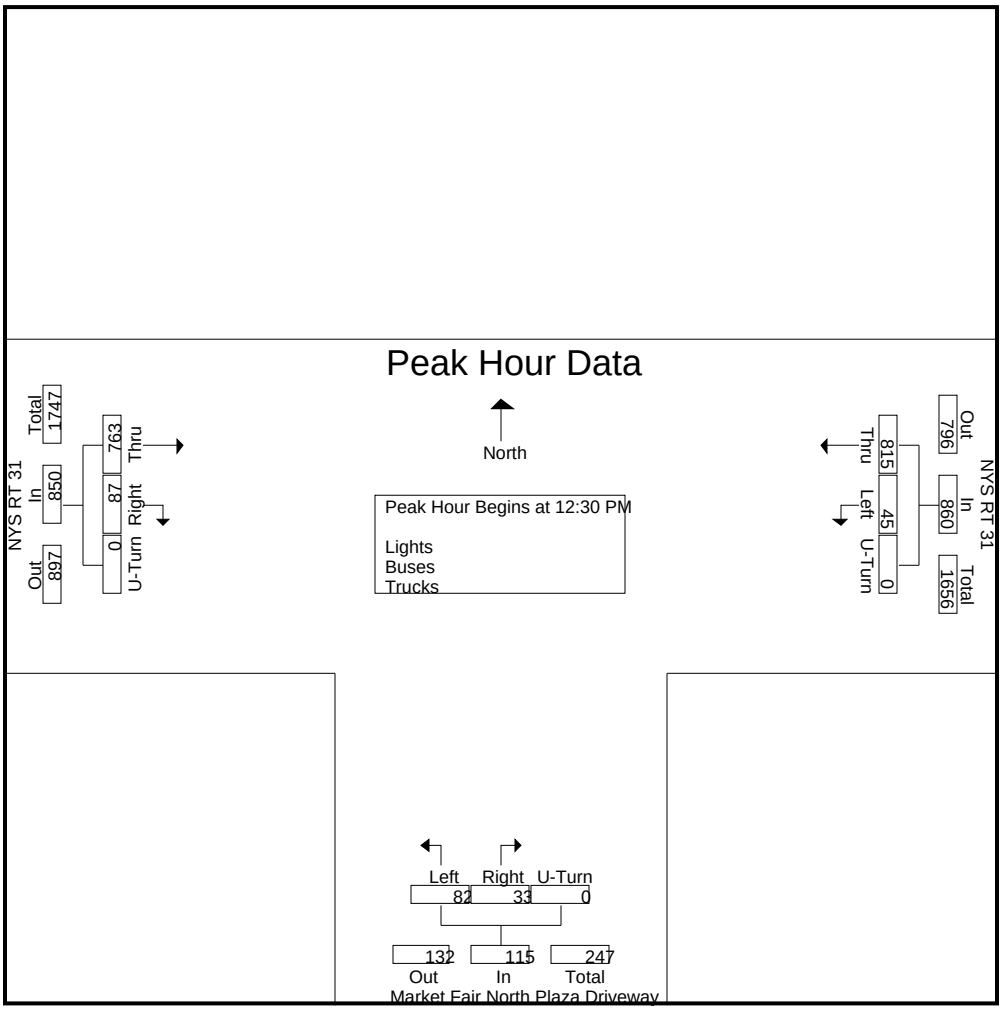
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 12:30 PM

12:30 PM	203	12	0	215	8	18	0	26	23	182	0	205	446
12:45 PM	214	9	0	223	10	21	0	31	22	182	0	204	458
01:00 PM	195	14	0	209	7	25	0	32	18	195	0	213	454
01:15 PM	203	10	0	213	8	18	0	26	24	204	0	228	467
Total Volume	815	45	0	860	33	82	0	115	87	763	0	850	1825
% App. Total	94.8	5.2	0		28.7	71.3	0		10.2	89.8	0		
PHF	.952	.804	.000	.964	.825	.820	.000	.898	.906	.935	.000	.932	.977

JMT

307 South Townsend Street
Syracuse, NY 13202

File Name : site_1_nys_rt_31_at_market_fair_north_819862_03-16-202
Site Code : Site 1
Start Date : 3/16/2021
Page No : 4



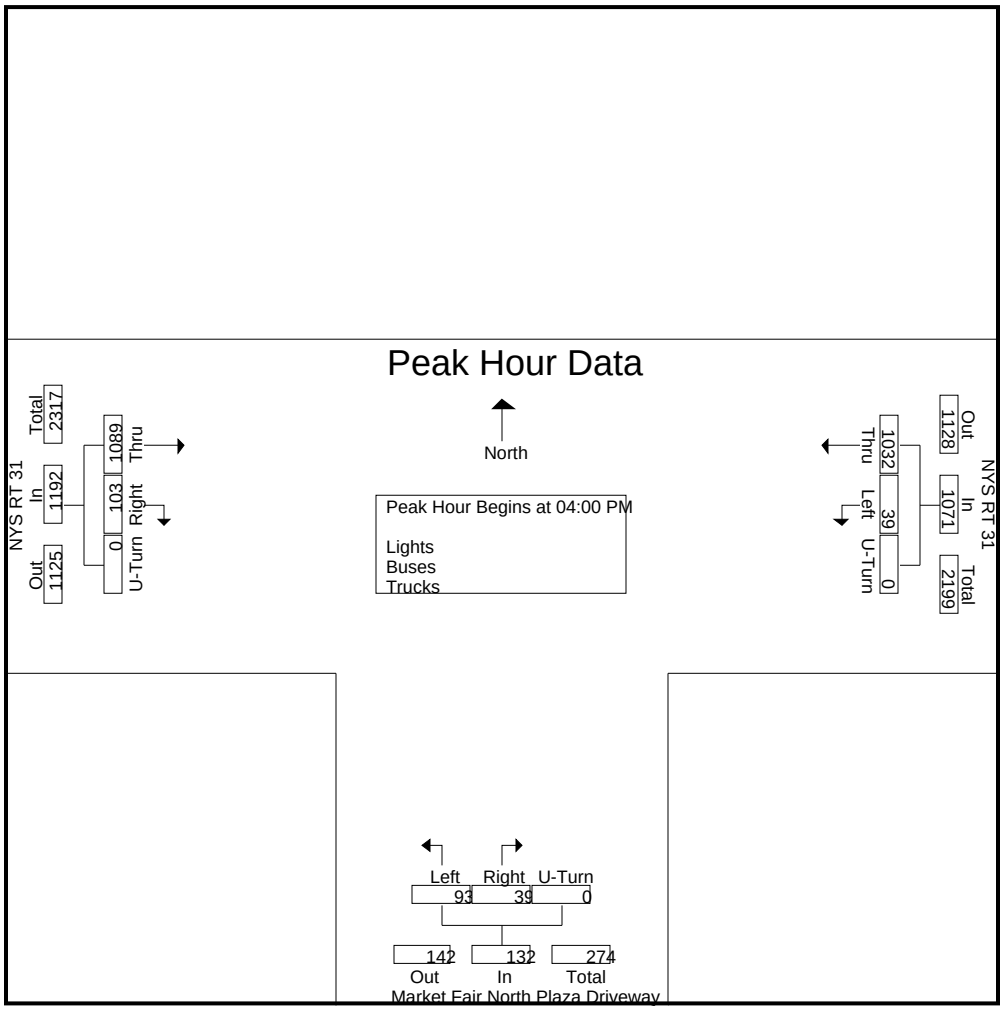
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:00 PM

04:00 PM	248	5	0	253	10	29	0	39	19	241	0	260	552
04:15 PM	259	8	0	267	10	22	0	32	26	296	0	322	621
04:30 PM	255	10	0	265	8	21	0	29	21	308	0	329	623
04:45 PM	270	16	0	286	11	21	0	32	37	244	0	281	599
Total Volume	1032	39	0	1071	39	93	0	132	103	1089	0	1192	2395
% App. Total	96.4	3.6	0		29.5	70.5	0		8.6	91.4	0		
PHF	.956	.609	.000	.936	.886	.802	.000	.846	.696	.884	.000	.906	.961

JMT

307 South Townsend Street
Syracuse, NY 13202

File Name : site_1_nys_rt_31_at_market_fair_north_819862_03-16-202
Site Code : Site 1
Start Date : 3/16/2021
Page No : 5



JMT

307 South Townsend Street
Syracuse, NY 13202

File Name : Site_2_NYS_Rt_31_at_County_Health___Mall_West_819871_03-16-202
Site Code : Site 2
Start Date : 3/16/2021
Page No : 1

Groups Printed- Lights - Buses - Trucks

	Great Northern Mall Entr From North					NYS RT 31 From East					County Health Driveway From South					NYS RT 31 From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
07:00 AM	4	0	1	0	5	0	130	0	0	130	0	0	0	0	0	0	105	5	0	110	245
07:15 AM	5	0	1	0	6	2	138	0	0	140	0	0	0	0	0	0	117	5	0	122	268
07:30 AM	5	0	0	0	5	1	164	0	0	165	0	0	0	0	0	0	140	8	0	148	318
07:45 AM	6	0	1	0	7	3	174	0	0	177	0	0	0	0	0	2	131	10	0	143	327
Total	20	0	3	0	23	6	606	0	0	612	0	0	0	0	0	2	493	28	0	523	1158
08:00 AM	4	0	3	0	7	2	123	0	0	125	0	0	0	0	0	0	122	15	0	137	269
08:15 AM	6	0	0	0	6	1	123	0	0	124	0	0	0	0	0	0	118	13	0	131	261
08:30 AM	13	0	1	0	14	2	139	1	0	142	0	0	0	0	0	3	113	11	0	127	283
08:45 AM	7	0	0	0	7	4	125	0	0	129	0	0	0	0	0	0	121	18	0	139	275
Total	30	0	4	0	34	9	510	1	0	520	0	0	0	0	0	3	474	57	0	534	1088
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	29	0	2	0	31	6	149	0	0	155	0	0	0	0	0	0	136	44	0	180	366
11:45 AM	30	0	6	0	36	6	147	0	0	153	0	0	0	0	0	0	170	38	0	208	397
Total	59	0	8	0	67	12	296	0	0	308	0	0	0	0	0	0	306	82	0	388	763
12:00 PM	26	0	11	0	37	4	153	0	0	157	0	0	0	0	0	0	145	47	0	192	386
12:15 PM	41	0	6	0	47	4	159	0	0	163	0	0	0	0	0	0	188	46	0	234	444
12:30 PM	46	0	6	0	52	5	173	0	0	178	0	0	0	0	0	0	153	48	0	201	431
12:45 PM	45	0	12	0	57	3	165	0	0	168	0	0	0	0	0	0	154	41	0	195	420
Total	158	0	35	0	193	16	650	0	0	666	0	0	0	0	0	0	640	182	0	822	1681
01:00 PM	40	0	9	0	49	7	161	0	0	168	0	0	0	0	0	0	170	33	0	203	420
01:15 PM	48	0	11	0	59	5	169	0	0	174	0	0	1	0	1	0	162	52	0	214	448
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	88	0	20	0	108	12	330	0	0	342	0	0	1	0	1	0	332	85	0	417	868
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	42	0	12	0	54	5	202	0	0	207	0	0	2	0	2	0	208	44	0	252	515
04:15 PM	41	0	9	0	50	10	224	0	0	234	0	0	0	0	0	0	254	50	0	304	588
04:30 PM	43	0	16	1	60	12	231	0	0	243	0	0	0	0	0	0	272	53	0	325	628
04:45 PM	52	0	5	0	57	11	227	0	0	238	0	0	0	0	0	0	209	48	0	257	552
Total	178	0	42	1	221	38	884	0	0	922	0	0	2	0	2	0	943	195	0	1138	2283

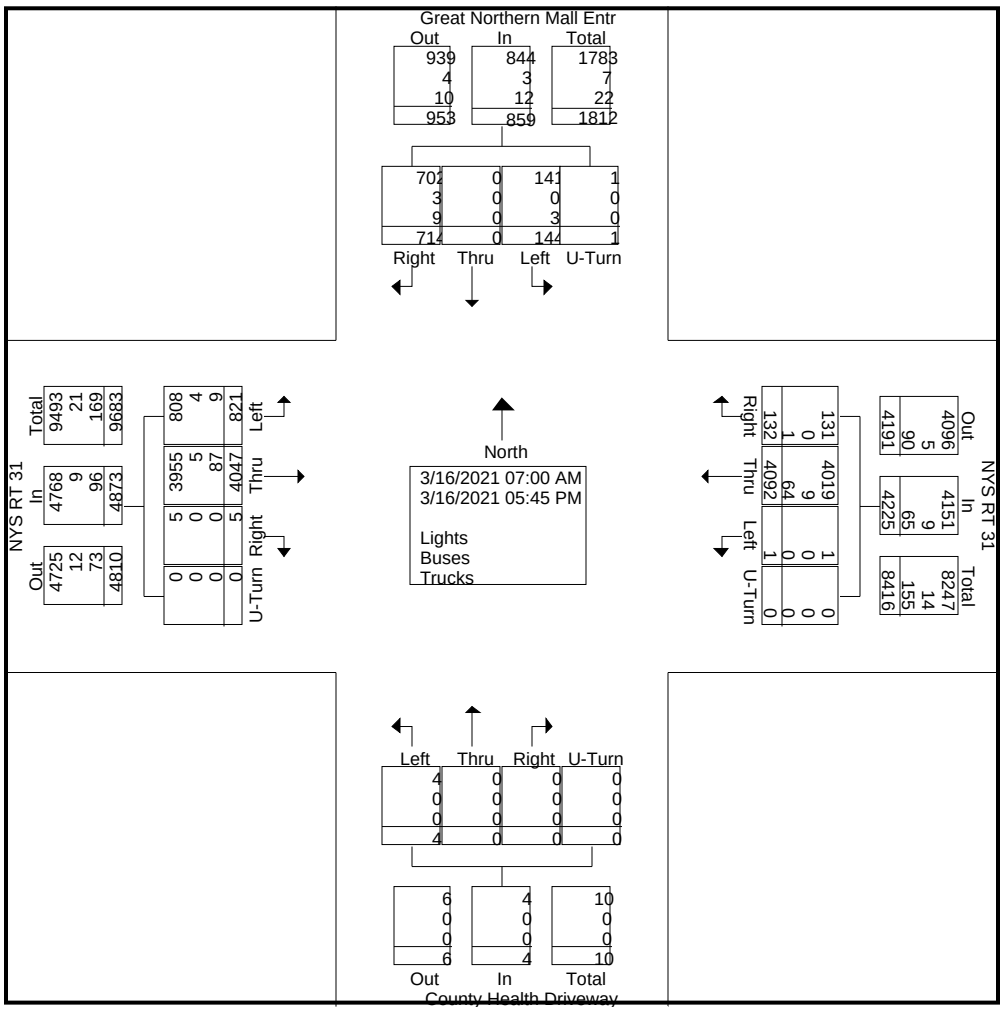
JMT

307 South Townsend Street
Syracuse, NY 13202

File Name : Site_2_NYS_Rt_31_at_County_Health___Mall_West_819871_03-16-202
Site Code : Site 2
Start Date : 3/16/2021
Page No : 2

Groups Printed- Lights - Buses - Trucks

	Great Northern Mall Entr From North					NYS RT 31 From East					County Health Driveway From South					NYS RT 31 From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
05:00 PM	44	0	7	0	51	6	195	0	0	201	0	0	1	0	1	0	211	46	0	257	510
05:15 PM	51	0	9	0	60	15	226	0	0	241	0	0	0	0	0	0	221	61	0	282	583
05:30 PM	45	0	5	0	50	9	206	0	0	215	0	0	0	0	0	0	223	46	0	269	534
05:45 PM	41	0	11	0	52	9	189	0	0	198	0	0	0	0	0	0	204	39	0	243	493
Total	181	0	32	0	213	39	816	0	0	855	0	0	1	0	1	0	859	192	0	1051	2120
Grand Total	714	0	144	1	859	132	4092	1	0	4225	0	0	4	0	4	5	4047	821	0	4873	9961
Apprch %	83.1	0	16.8	0.1		3.1	96.9	0	0		0	0	100	0		0.1	83	16.8	0		
Total %	7.2	0	1.4	0	8.6	1.3	41.1	0	0	42.4	0	0	0	0	0	0.1	40.6	8.2	0	48.9	
Lights	702	0	141	1	844	131	4019	1	0	4151	0	0	4	0	4	5	3955	808	0	4768	9767
% Lights	98.3	0	97.9	100	98.3	99.2	98.2	100	0	98.2	0	0	100	0	100	100	97.7	98.4	0	97.8	98.1
Buses	3	0	0	0	3	0	9	0	0	9	0	0	0	0	0	0	5	4	0	9	21
% Buses	0.4	0	0	0	0.3	0	0.2	0	0	0.2	0	0	0	0	0	0	0.1	0.5	0	0.2	0.2
Trucks	9	0	3	0	12	1	64	0	0	65	0	0	0	0	0	0	87	9	0	96	173
% Trucks	1.3	0	2.1	0	1.4	0.8	1.6	0	0	1.5	0	0	0	0	0	0	2.1	1.1	0	2	1.7

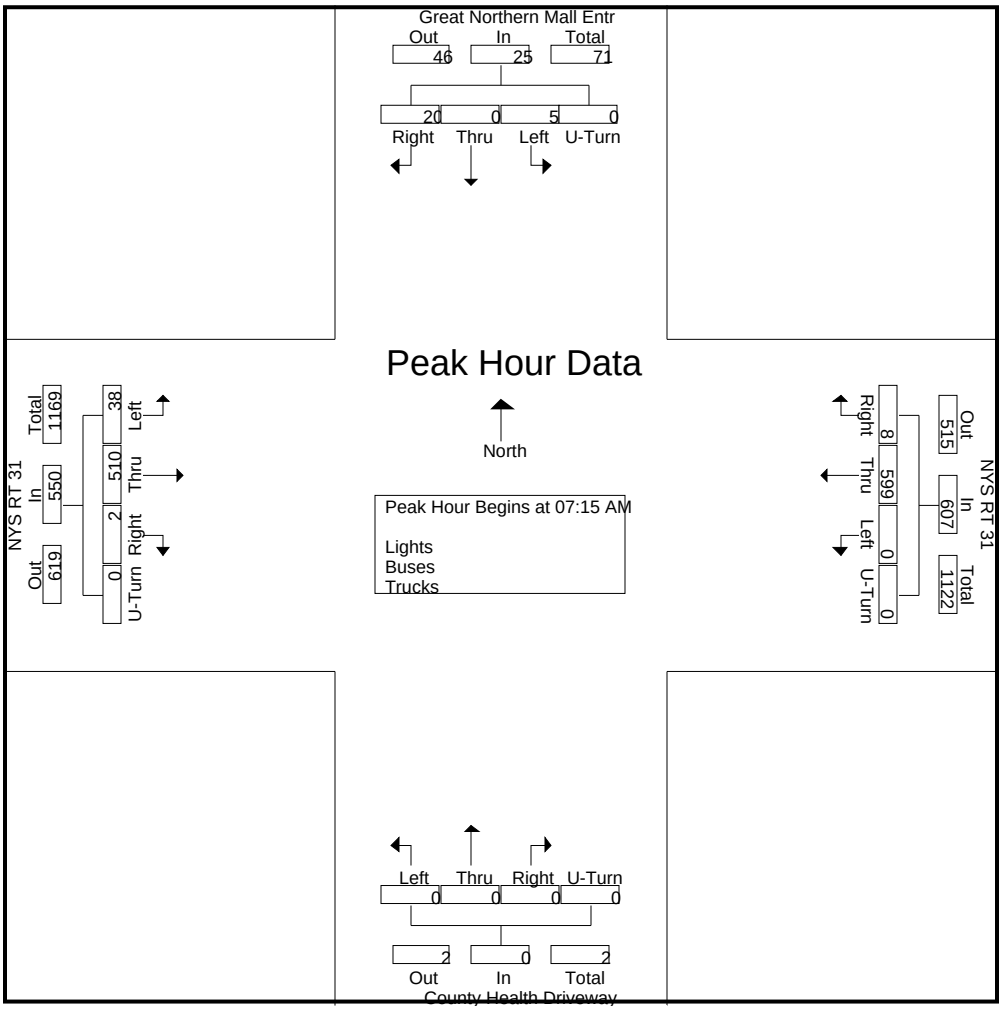


JMT

307 South Townsend Street
Syracuse, NY 13202

File Name : Site_2_NYS_Rt_31_at_County_Health___Mall_West_819871_03-16-202
Site Code : Site 2
Start Date : 3/16/2021
Page No : 3

	Great Northern Mall Entr From North					NYS RT 31 From East					County Health Driveway From South					NYS RT 31 From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	5	0	1	0	6	2	138	0	0	140	0	0	0	0	0	0	117	5	0	122	268
07:30 AM	5	0	0	0	5	1	164	0	0	165	0	0	0	0	0	0	140	8	0	148	318
07:45 AM	6	0	1	0	7	3	174	0	0	177	0	0	0	0	0	2	131	10	0	143	327
08:00 AM	4	0	3	0	7	2	123	0	0	125	0	0	0	0	0	0	122	15	0	137	269
Total Volume	20	0	5	0	25	8	599	0	0	607	0	0	0	0	0	2	510	38	0	550	1182
% App. Total	80	0	20	0		1.3	98.7	0	0		0	0	0	0		0.4	92.7	6.9	0		
PHF	.833	.000	.417	.000	.893	.667	.861	.000	.000	.857	.000	.000	.000	.000	.000	.250	.911	.633	.000	.929	.904

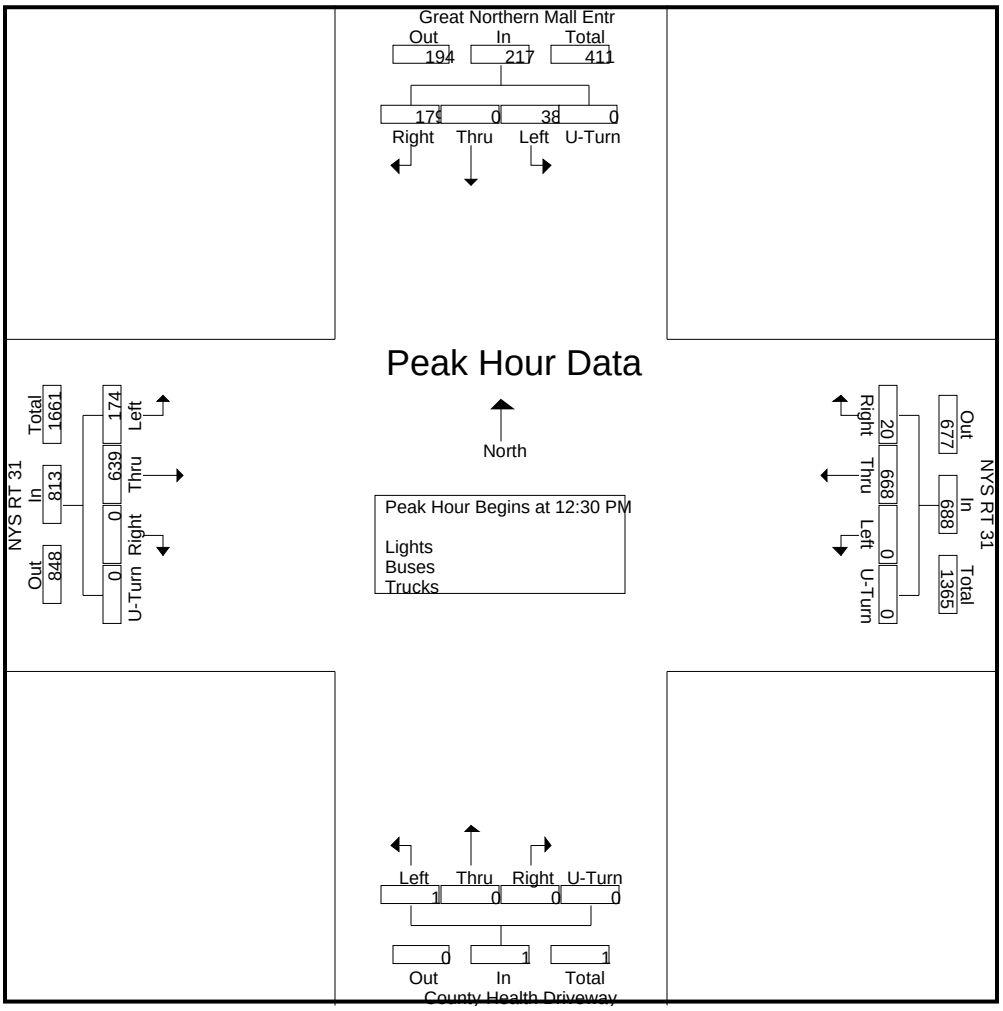


JMT

307 South Townsend Street
Syracuse, NY 13202

File Name : Site_2_NYS_Rt_31_at_County_Health___Mall_West_819871_03-16-202
Site Code : Site 2
Start Date : 3/16/2021
Page No : 4

	Great Northern Mall Entr From North					NYS RT 31 From East					County Health Driveway From South					NYS RT 31 From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30 PM																					
12:30 PM	46	0	6	0	52	5	173	0	0	178	0	0	0	0	0	0	153	48	0	201	431
12:45 PM	45	0	12	0	57	3	165	0	0	168	0	0	0	0	0	0	154	41	0	195	420
01:00 PM	40	0	9	0	49	7	161	0	0	168	0	0	0	0	0	0	170	33	0	203	420
01:15 PM	48	0	11	0	59	5	169	0	0	174	0	0	1	0	1	0	162	52	0	214	448
Total Volume	179	0	38	0	217	20	668	0	0	688	0	0	1	0	1	0	639	174	0	813	1719
% App. Total	82.5	0	17.5	0		2.9	97.1	0	0		0	0	100	0		0	78.6	21.4	0		
PHF	.932	.000	.792	.000	.919	.714	.965	.000	.000	.966	.000	.000	.250	.000	.250	.000	.940	.837	.000	.950	.959

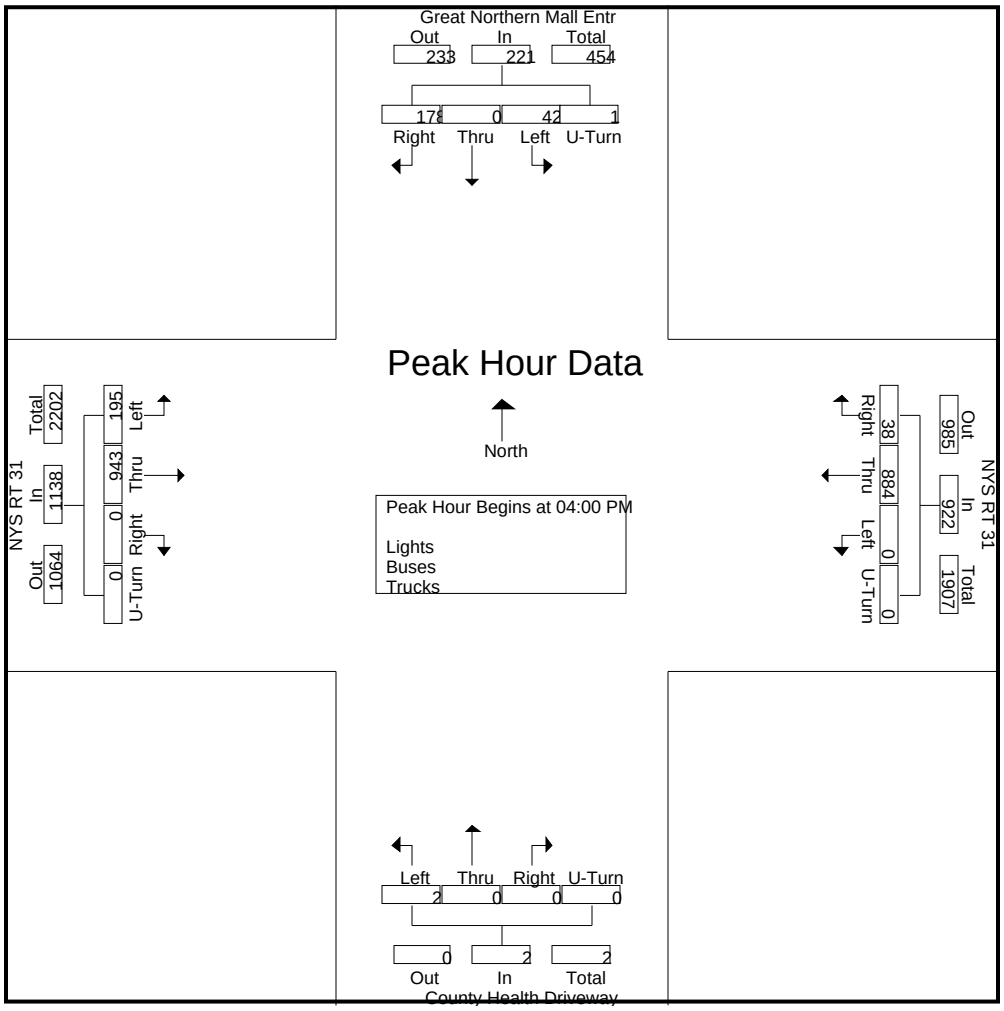


JMT

307 South Townsend Street
Syracuse, NY 13202

File Name : Site_2_NYS_Rt_31_at_County_Health___Mall_West_819871_03-16-202
Site Code : Site 2
Start Date : 3/16/2021
Page No : 5

	Great Northern Mall Entr From North					NYS RT 31 From East					County Health Driveway From South					NYS RT 31 From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	42	0	12	0	54	5	202	0	0	207	0	0	2	0	2	0	208	44	0	252	515
04:15 PM	41	0	9	0	50	10	224	0	0	234	0	0	0	0	0	0	254	50	0	304	588
04:30 PM	43	0	16	1	60	12	231	0	0	243	0	0	0	0	0	0	272	53	0	325	628
04:45 PM	52	0	5	0	57	11	227	0	0	238	0	0	0	0	0	0	209	48	0	257	552
Total Volume	178	0	42	1	221	38	884	0	0	922	0	0	2	0	2	0	943	195	0	1138	2283
% App. Total	80.5	0	19	0.5		4.1	95.9	0	0		0	0	100	0		0	82.9	17.1	0		
PHF	.856	.000	.656	.250	.921	.792	.957	.000	.000	.949	.000	.000	.250	.000	.250	.000	.867	.920	.000	.875	.909



JMT

307 South Townsend Street
Syracuse, NY 13202

File Name : Site_3_NYS_RT_31_at_Dunkin_Donuts_Ent___Great_Northern_Mall_East_819893_03-16-202
Site Code : Site 3
Start Date : 3/16/2021
Page No : 1

Groups Printed- Lights - Buses - Trucks

	Great Northern Mall East Entr From North					NYS RT 31 From East					Dunkin Donut Entr From South					NYS RT 31 From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
07:00 AM	0	0	1	0	1	3	116	5	0	124	11	0	16	0	27	11	89	2	0	102	254
07:15 AM	1	0	0	0	1	2	128	8	0	138	9	0	15	0	24	18	104	1	0	123	286
07:30 AM	8	0	0	0	8	2	136	10	0	148	10	0	17	0	27	13	121	2	0	136	319
07:45 AM	3	0	1	0	4	1	163	5	0	169	5	0	9	0	14	14	120	1	0	135	322
Total	12	0	2	0	14	8	543	28	0	579	35	0	57	0	92	56	434	6	0	496	1181
08:00 AM	4	0	1	0	5	4	111	2	0	117	9	0	9	0	18	15	96	5	0	116	256
08:15 AM	0	0	1	0	1	2	116	12	0	130	4	0	15	0	19	18	97	4	0	119	269
08:30 AM	2	0	4	0	6	3	120	7	0	130	7	1	16	0	24	10	89	5	0	104	264
08:45 AM	3	0	3	0	6	6	116	10	0	132	9	1	14	0	24	11	102	9	0	122	284
Total	9	0	9	0	18	15	463	31	0	509	29	2	54	0	85	54	384	23	0	461	1073
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	7	2	6	0	15	8	135	4	0	147	13	2	7	0	22	7	123	2	0	132	316
11:45 AM	15	1	10	0	26	6	129	9	0	144	7	0	10	0	17	10	168	5	0	183	370
Total	22	3	16	0	41	14	264	13	0	291	20	2	17	0	39	17	291	7	0	315	686
12:00 PM	17	0	6	0	23	16	139	10	0	165	8	3	13	0	24	12	134	9	0	155	367
12:15 PM	9	1	9	0	19	6	142	6	0	154	10	1	10	0	21	17	164	10	0	191	385
12:30 PM	11	2	3	0	16	7	155	3	0	165	8	0	9	0	17	8	150	7	0	165	363
12:45 PM	9	2	7	0	18	9	158	7	0	174	6	1	7	0	14	8	153	4	0	165	371
Total	46	5	25	0	76	38	594	26	0	658	32	5	39	0	76	45	601	30	0	676	1486
01:00 PM	12	1	4	0	17	9	155	1	0	165	5	1	9	0	15	12	154	12	0	178	375
01:15 PM	12	1	6	0	19	8	148	2	0	158	0	1	17	0	18	10	155	8	0	173	368
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	24	2	10	0	36	17	303	3	0	323	5	2	26	0	33	22	309	20	0	351	743
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	10	1	4	0	15	9	190	3	0	202	5	1	3	0	9	16	200	6	0	222	448
04:15 PM	10	0	9	0	19	10	216	5	0	231	6	0	15	0	21	10	241	13	0	264	535
04:30 PM	9	0	4	0	13	10	227	4	0	241	8	1	7	0	16	9	265	13	0	287	557
04:45 PM	11	1	8	0	20	15	214	4	0	233	2	1	10	0	13	6	197	8	0	211	477
Total	40	2	25	0	67	44	847	16	0	907	21	3	35	0	59	41	903	40	0	984	2017

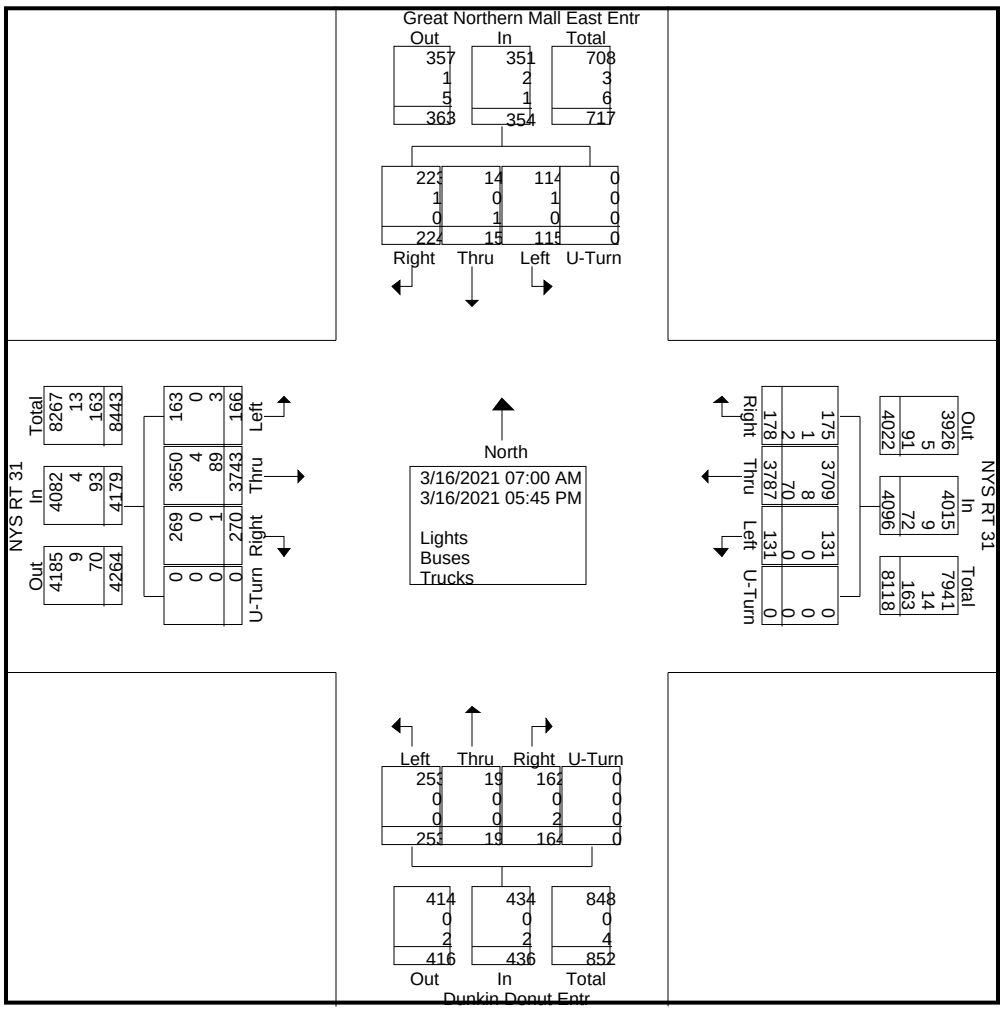
JMT

307 South Townsend Street
Syracuse, NY 13202

File Name : Site_3_NYS_RT_31_at_Dunkin_Donuts_Ent___Great_Northern_Mall_East_819893_03-16-202
Site Code : Site 3
Start Date : 3/16/2021
Page No : 2

Groups Printed- Lights - Buses - Trucks

	Great Northern Mall East Entr From North					NYS RT 31 From East					Dunkin Donut Entr From South					NYS RT 31 From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
05:00 PM	11	1	7	0	19	11	187	2	0	200	7	1	5	0	13	11	201	9	0	221	453
05:15 PM	26	1	8	0	35	12	209	5	0	226	6	0	7	0	13	9	209	11	0	229	503
05:30 PM	12	0	6	0	18	11	199	4	0	214	2	1	7	0	10	8	215	9	0	232	474
05:45 PM	22	1	7	0	30	8	178	3	0	189	7	3	6	0	16	7	196	11	0	214	449
Total	71	3	28	0	102	42	773	14	0	829	22	5	25	0	52	35	821	40	0	896	1879
Grand Total	224	15	115	0	354	178	378 7	131	0	4096	164	19	253	0	436	270	374 3	166	0	4179	9065
Apprch %	63.3	4.2	32.5	0		4.3	92.5	3.2	0		37.6	4.4	58	0		6.5	89.6	4	0		
Total %	2.5	0.2	1.3	0	3.9	2	41.8	1.4	0	45.2	1.8	0.2	2.8	0	4.8	3	41.3	1.8	0	46.1	
Lights	223	14	114	0	351	175	370 9	131	0	4015	162	19	253	0	434	269	365 0	163	0	4082	8882
% Lights	99.6	93.3	99.1	0	99.2	98.3	97.9	100	0	98	98.8	100	100	0	99.5	99.6	97.5	98.2	0	97.7	98
Buses	1	0	1	0	2	1	8	0	0	9	0	0	0	0	0	0	4	0	0	4	15
% Buses	0.4	0	0.9	0	0.6	0.6	0.2	0	0	0.2	0	0	0	0	0	0	0.1	0	0	0.1	0.2
Trucks	0	1	0	0	1	2	70	0	0	72	2	0	0	0	2	1	89	3	0	93	168
% Trucks	0	6.7	0	0	0.3	1.1	1.8	0	0	1.8	1.2	0	0	0	0.5	0.4	2.4	1.8	0	2.2	1.9

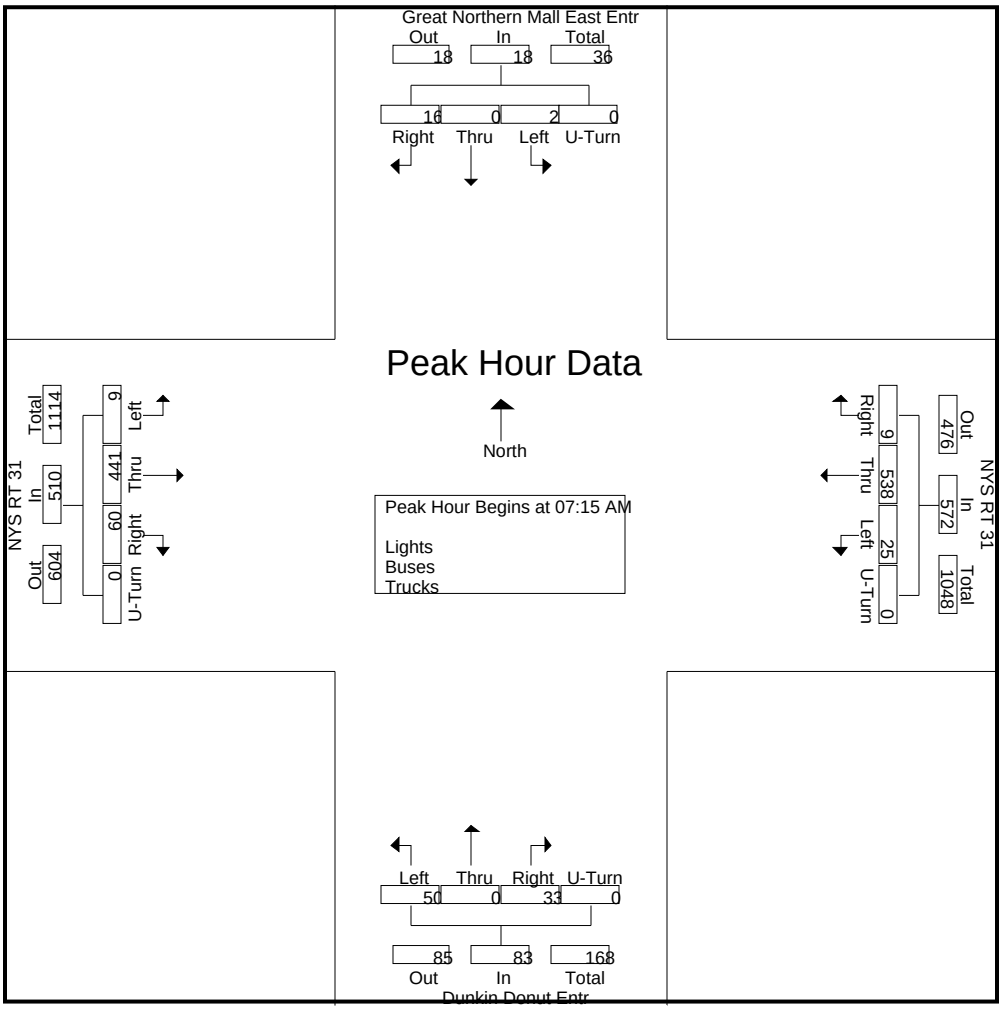


JMT

307 South Townsend Street
Syracuse, NY 13202

File Name : Site_3_NYS_RT_31_at_Dunkin_Donuts_Ent___Great_Northern_Mall_East_819893_03-16-202
Site Code : Site 3
Start Date : 3/16/2021
Page No : 3

	Great Northern Mall East Entr From North					NYS RT 31 From East					Dunkin Donut Entr From South					NYS RT 31 From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	1	0	0	0	1	2	128	8	0	138	9	0	15	0	24	18	104	1	0	123	286
07:30 AM	8	0	0	0	8	2	136	10	0	148	10	0	17	0	27	13	121	2	0	136	319
07:45 AM	3	0	1	0	4	1	163	5	0	169	5	0	9	0	14	14	120	1	0	135	322
08:00 AM	4	0	1	0	5	4	111	2	0	117	9	0	9	0	18	15	96	5	0	116	256
Total Volume	16	0	2	0	18	9	538	25	0	572	33	0	50	0	83	60	441	9	0	510	1183
% App. Total	88.9	0	11.1	0		1.6	94.1	4.4	0		39.8	0	60.2	0		11.8	86.5	1.8	0		
PHF	.500	.000	.500	.000	.563	.563	.825	.625	.000	.846	.825	.000	.735	.000	.769	.833	.911	.450	.000	.938	.918

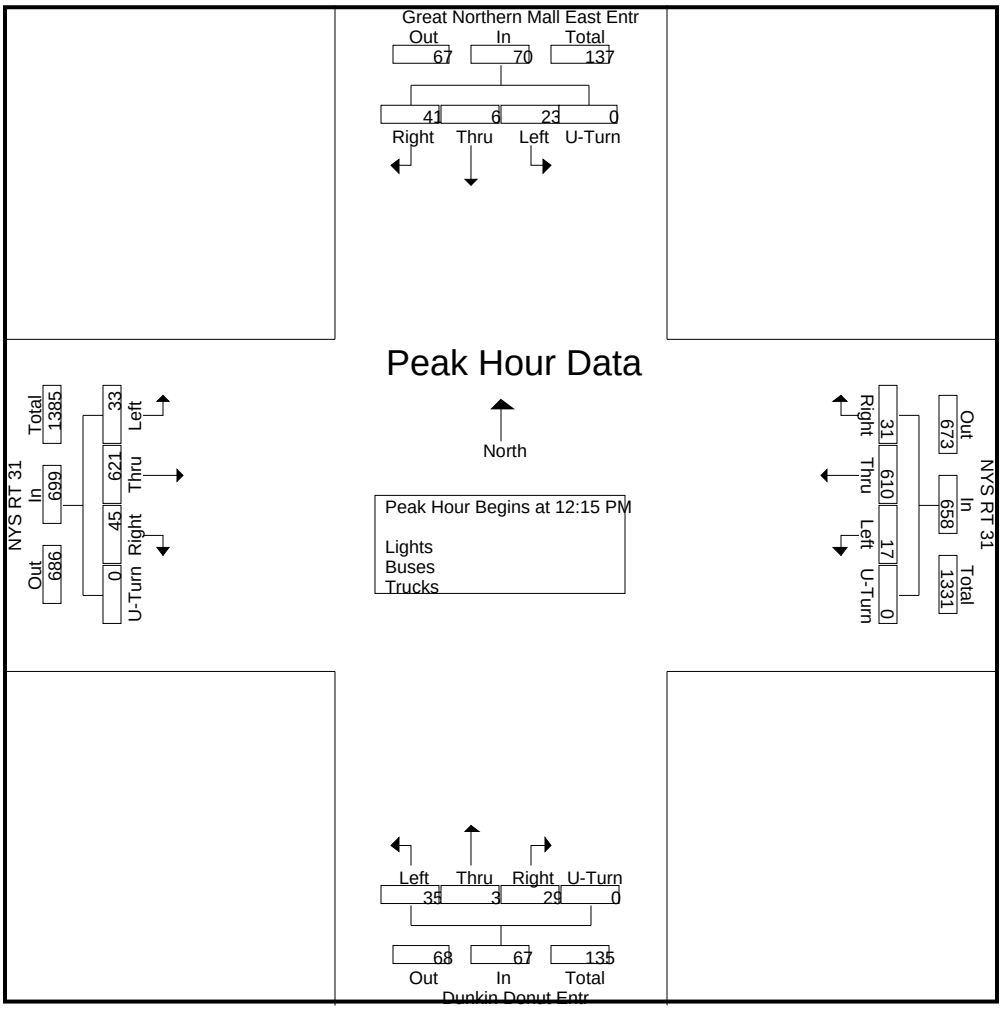


JMT

307 South Townsend Street
Syracuse, NY 13202

File Name : Site_3_NYS_RT_31_at_Dunkin_Donuts_Ent___Great_Northern_Mall_East_819893_03-16-202
Site Code : Site 3
Start Date : 3/16/2021
Page No : 4

	Great Northern Mall East Entr From North					NYS RT 31 From East					Dunkin Donut Entr From South					NYS RT 31 From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:15 PM																					
12:15 PM	9	1	9	0	19	6	142	6	0	154	10	1	10	0	21	17	164	10	0	191	385
12:30 PM	11	2	3	0	16	7	155	3	0	165	8	0	9	0	17	8	150	7	0	165	363
12:45 PM	9	2	7	0	18	9	158	7	0	174	6	1	7	0	14	8	153	4	0	165	371
01:00 PM	12	1	4	0	17	9	155	1	0	165	5	1	9	0	15	12	154	12	0	178	375
Total Volume	41	6	23	0	70	31	610	17	0	658	29	3	35	0	67	45	621	33	0	699	1494
% App. Total	58.6	8.6	32.9	0		4.7	92.7	2.6	0		43.3	4.5	52.2	0		6.4	88.8	4.7	0		
PHF	.854	.750	.639	.000	.921	.861	.965	.607	.000	.945	.725	.750	.875	.000	.798	.662	.947	.688	.000	.915	.970

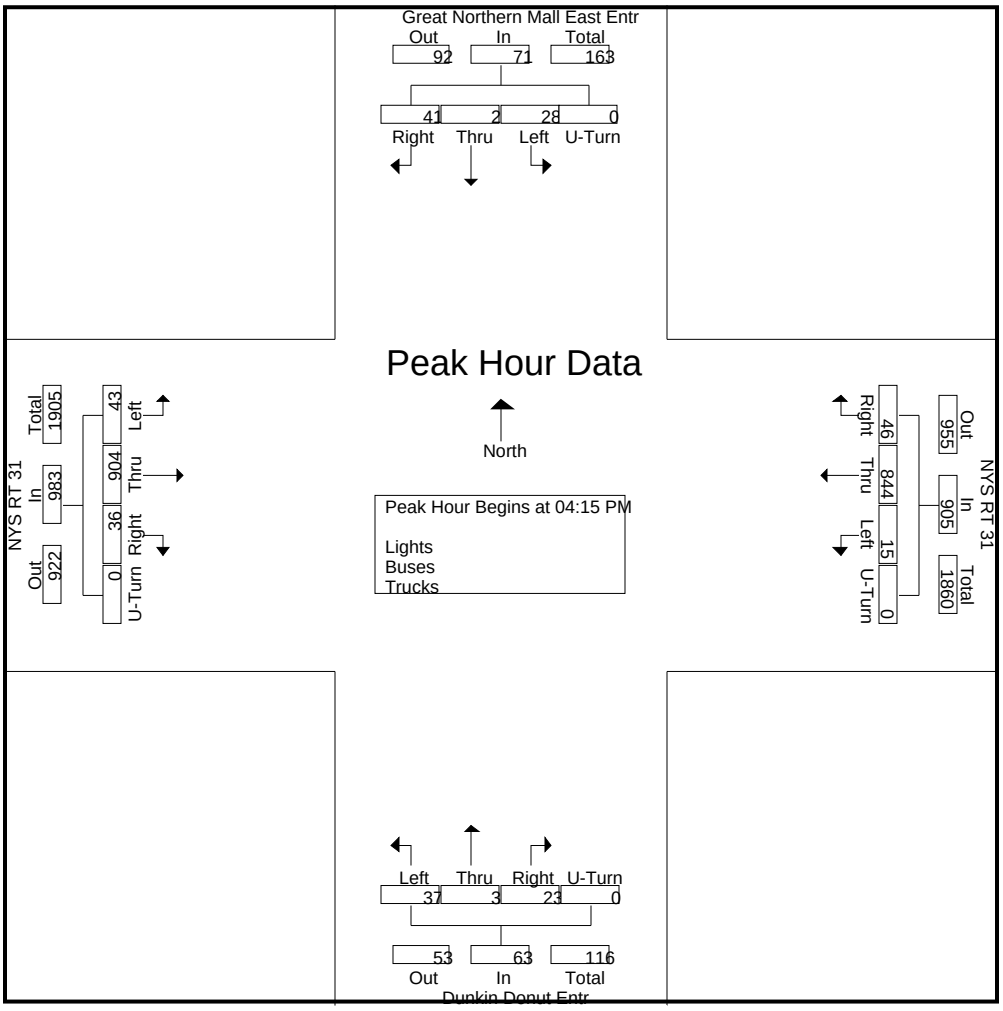


JMT

307 South Townsend Street
Syracuse, NY 13202

File Name : Site_3_NYS_RT_31_at_Dunkin_Donuts_Ent___Great_Northern_Mall_East_819893_03-16-202
Site Code : Site 3
Start Date : 3/16/2021
Page No : 5

	Great Northern Mall East Entr From North					NYS RT 31 From East					Dunkin Donut Entr From South					NYS RT 31 From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	10	0	9	0	19	10	216	5	0	231	6	0	15	0	21	10	241	13	0	264	535
04:30 PM	9	0	4	0	13	10	227	4	0	241	8	1	7	0	16	9	265	13	0	287	557
04:45 PM	11	1	8	0	20	15	214	4	0	233	2	1	10	0	13	6	197	8	0	211	477
05:00 PM	11	1	7	0	19	11	187	2	0	200	7	1	5	0	13	11	201	9	0	221	453
Total Volume	41	2	28	0	71	46	844	15	0	905	23	3	37	0	63	36	904	43	0	983	2022
% App. Total	57.7	2.8	39.4	0		5.1	93.3	1.7	0		36.5	4.8	58.7	0		3.7	92	4.4	0		
PHF	.932	.500	.778	.000	.888	.767	.930	.750	.000	.939	.719	.750	.617	.000	.750	.818	.853	.827	.000	.856	.908



TRI-STATE TRAFFIC DATA

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Onondaga County, NY
Rte 31/Morgan Road
Wednesday, November 29, 2017
Location: 43.186284, -76.217016

Count Name: 4 Route 31-Morgan Road
Site Code: SCU6ZT
Start Date: 11/29/2017

Turning Movement Data

Start Time	Rte 31 Eastbound							Rte 31 Westbound							Morgan Rd Northbound							Morgan Rd Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
7:00 AM	18	78	33	13	0	0	142	14	70	4	1	0	0	89	32	9	6	8	0	0	55	16	38	32	6	0	0	92	378
7:15 AM	16	74	31	14	0	0	135	21	80	2	0	0	0	103	37	17	7	6	0	0	67	18	48	46	7	0	0	119	424
7:30 AM	4	98	29	27	0	0	158	19	85	6	2	0	0	112	34	14	4	7	0	0	59	23	49	46	4	0	0	122	451
7:45 AM	15	94	29	23	0	0	161	20	68	3	2	0	0	93	34	17	11	8	0	0	70	12	55	37	9	0	0	113	437
Hourly Total	53	344	122	77	0	0	596	74	303	15	5	0	0	397	137	57	28	29	0	0	251	69	190	161	26	0	0	446	1690
8:00 AM	14	83	18	13	0	0	128	12	71	2	1	0	0	86	29	10	7	5	0	0	51	15	39	28	5	0	0	87	352
8:15 AM	10	73	25	21	0	0	129	12	84	2	0	0	0	98	45	8	16	1	0	0	70	9	29	28	12	0	0	78	375
8:30 AM	14	66	19	16	0	0	115	10	48	1	1	0	0	60	34	12	12	2	0	0	60	8	24	28	10	0	0	70	305
8:45 AM	18	59	15	15	0	0	107	11	80	9	0	0	0	100	36	9	12	5	0	0	62	9	36	22	11	0	0	78	347
Hourly Total	56	281	77	65	0	0	479	45	283	14	2	0	0	344	144	39	47	13	0	0	243	41	128	106	38	0	0	313	1379
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	34	100	25	19	0	0	178	14	73	4	2	0	0	93	34	17	3	2	0	0	56	8	14	13	11	0	0	46	373
1:15 PM	38	84	26	22	0	0	170	7	91	8	2	0	0	108	40	26	6	3	0	0	75	12	20	22	11	0	0	65	418
1:30 PM	33	77	34	15	0	0	159	12	75	8	0	0	0	95	31	22	6	8	0	0	67	9	18	15	7	0	0	49	370
1:45 PM	36	72	33	14	0	0	155	8	90	6	3	0	0	107	39	23	3	8	0	0	73	10	22	18	5	0	0	55	390
Hourly Total	141	333	118	70	0	0	662	41	329	26	7	0	0	403	144	88	18	21	0	0	271	39	74	68	34	0	0	215	1551
2:00 PM	36	84	28	16	0	0	164	15	76	8	2	0	0	101	41	20	5	5	0	2	71	6	27	14	13	0	0	60	396
2:15 PM	35	101	24	30	0	0	190	16	87	5	2	0	0	110	36	17	5	4	0	0	62	7	23	18	6	0	0	54	416
2:30 PM	53	68	40	25	0	0	186	14	88	6	3	0	0	111	51	38	6	5	0	0	100	7	14	15	11	0	0	47	444
2:45 PM	29	108	24	24	0	0	185	13	98	14	1	0	0	126	46	24	7	6	0	0	83	15	16	21	4	0	0	56	450
Hourly Total	153	361	116	95	0	0	725	58	349	33	8	0	0	448	174	99	23	20	0	2	316	35	80	68	34	0	0	217	1706
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0	0	0	0	0	0	0	2
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0	0	0	0	0	0	0	2
4:00 PM	54	105	35	25	0	0	219	22	95	9	1	0	0	127	53	54	13	7	0	0	127	6	22	27	2	0	0	57	530
4:15 PM	72	85	50	15	0	0	222	18	128	20	0	0	0	166	55	47	9	10	0	0	121	7	23	25	3	0	0	58	567
4:30 PM	66	100	31	21	0	0	218	24	128	12	4	0	0	168	84	67	12	10	0	0	173	12	28	27	3	0	0	70	629
4:45 PM	67	109	39	33	0	0	248	22	128	13	1	0	0	164	58	53	10	12	0	0	133	7	26	14	4	0	0	51	596
Hourly Total	259	399	155	94	0	0	907	86	479	54	6	0	0	625	250	221	44	39	0	0	554	32	99	93	12	0	0	236	2322
5:00 PM	60	104	38	32	0	0	234	22	127	15	6	0	0	170	73	46	13	4	0	0	136	13	22	31	4	0	0	70	610
5:15 PM	71	100	21	40	0	0	232	26	124	19	5	0	0	174	82	45	9	8	0	0	144	7	26	26	7	0	0	66	616
5:30 PM	53	113	25	38	0	0	229	21	115	21	1	0	0	158	61	47	8	6	0	0	122	10	14	17	10	0	0	51	560
5:45 PM	55	78	33	29	0	0	195	24	103	17	6	0	0	150	52	45	19	2	0	0	118	9	18	16	5	0	0	48	511
Hourly Total	239	395	117	139	0	0	890	93	469	72	18	0	0	652	268	183	49	20	0	0	520	39	80	90	26	0	0	235	2297
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	901	2113	705	540	0	0	4259	397	2212	214	46	0	0	2869	1118	688	209	142	0	2	2157	255	651	586	170	0	0	1662	10947
Approach %	21.2	49.6	16.6	12.7	0.0	-	-	13.8	77.1	7.5	1.6	0.0	-	-	51.8	31.9	9.7	6.6	0.0	-	-	15.3	39.2	35.3	10.2	0.0	-	-	-
Total %	8.2	19.3	6.4	4.9	0.0	-	38.9	3.6	20.2	2.0	0.4	0.0	-	26.2	10.2	6.3	1.9	1.3	0.0	-	19.7	2.3	5.9	5.4	1.6	0.0	-	15.2	-
Lights	887	2053	685	527	0	-	4152	377	2158	212	44	0	-	2791	1088	657	201	138	0	-	2084	247	634	572	167	0	-	1620	10647
% Lights	98.4	97.2	97.2	97.6	-	-	97.5	95.0	97.6	99.1	95.7	-	-	97.3	97.3	95.5	96.2	97.2	-	-	96.6	96.9	97.4	97.6	98.2	-	-	97.5	97.3
Buses	0	7	5	3	0	-	15	1	10	2	0	0	-	13	5	4	0	3	0	-	12	2	3	5	1	0	-	11	51
% Buses	0.0	0.3	0.7	0.6	-	-	0.4	0.3	0.5	0.9	0.0	-	-	0.5	0.4	0.6	0.0	2.1	-	-	0.6	0.8	0.5	0.9	0.6	-	-	0.7	0.5
Trucks	14	53	15	10	0	-	92	19	44	0	2	0	-	65	25	27	8	1	0	-	61	6	14	9	2	0	-	31	249
% Trucks	1.6	2.5	2.1	1.9	-	-	2.2	4.8	2.0	0.0	4.3	-	-	2.3	2.2	3.9	3.8	0.7	-	-	2.8	2.4	2.2	1.5	1.2	-	-	1.9	2.3
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	2	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-

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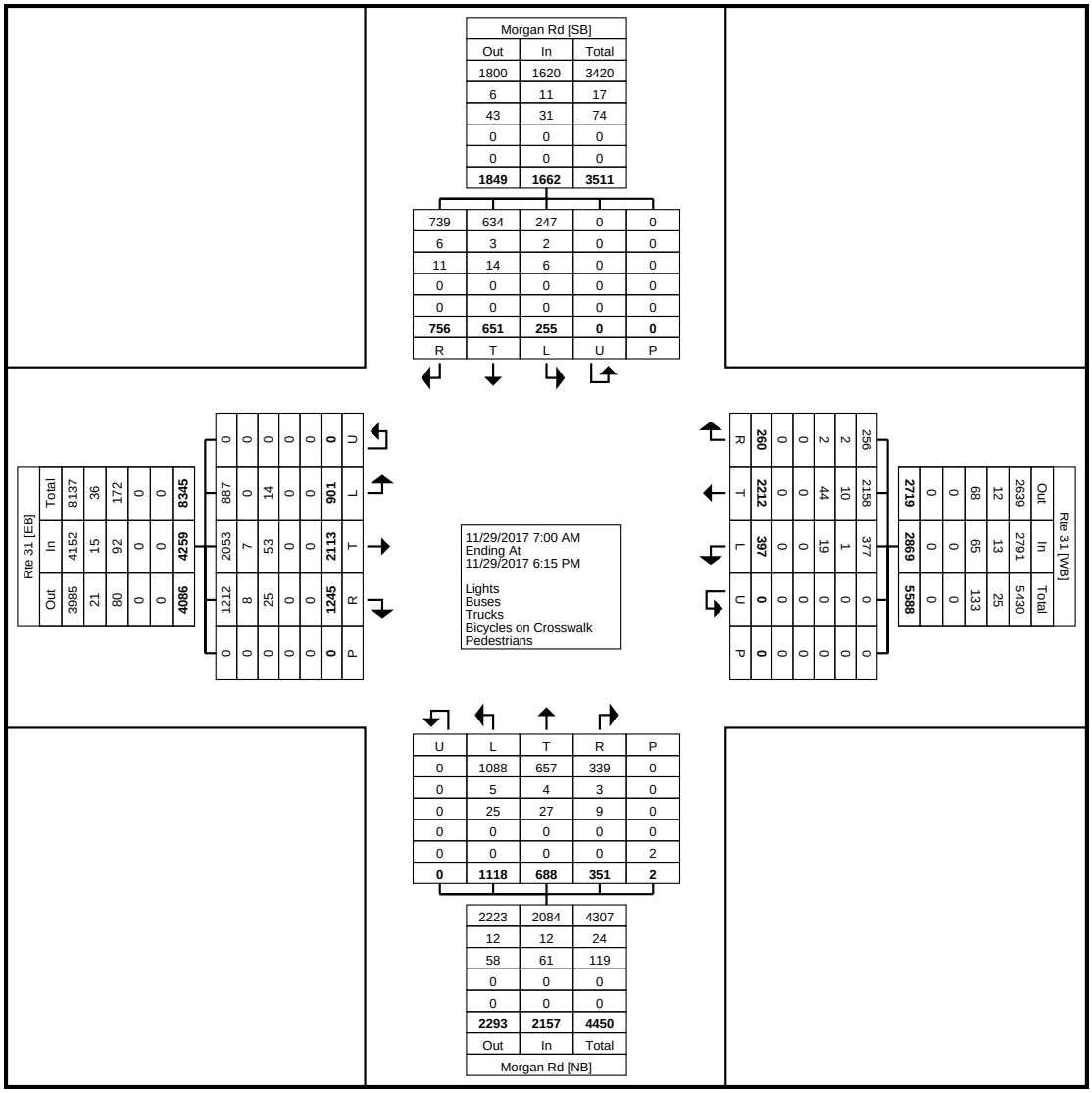
Onondaga County, NY
Rte 31/Morgan Road
Wednesday, November 29, 2017
Location: 43.186284, -76.217016

Count Name: 4 Route 31-Morgan Road
Site Code: SCU6ZT
Start Date: 11/29/2017



Turning Movement Data Plot

Onondaga County, NY
Rte 31/Morgan Road
Wednesday, November 29, 2017
Location: 43.186284, -76.217016

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Count Name: 4 Route 31-Morgan Road
Site Code: SCU6ZT
Start Date: 11/29/2017

Turning Movement Peak Hour Data (7:00 AM)

Start Time	Rte 31 Eastbound							Rte 31 Westbound							Morgan Rd Northbound							Morgan Rd Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
7:00 AM	18	78	33	13	0	0	142	14	70	4	1	0	0	89	32	9	6	8	0	0	55	16	38	32	6	0	0	92	378
7:15 AM	16	74	31	14	0	0	135	21	80	2	0	0	0	103	37	17	7	6	0	0	67	18	48	46	7	0	0	119	424
7:30 AM	4	98	29	27	0	0	158	19	85	6	2	0	0	112	34	14	4	7	0	0	59	23	49	46	4	0	0	122	451
7:45 AM	15	94	29	23	0	0	161	20	68	3	2	0	0	93	34	17	11	8	0	0	70	12	55	37	9	0	0	113	437
Total	53	344	122	77	0	0	596	74	303	15	5	0	0	397	137	57	28	29	0	0	251	69	190	161	26	0	0	446	1690
Approach %	8.9	57.7	20.5	12.9	0.0	-	-	18.6	76.3	3.8	1.3	0.0	-	-	54.6	22.7	11.2	11.6	0.0	-	-	15.5	42.6	36.1	5.8	0.0	-	-	-
Total %	3.1	20.4	7.2	4.6	0.0	-	35.3	4.4	17.9	0.9	0.3	0.0	-	23.5	8.1	3.4	1.7	1.7	0.0	-	14.9	4.1	11.2	9.5	1.5	0.0	-	26.4	-
PHF	0.736	0.878	0.924	0.713	0.000	-	0.925	0.881	0.891	0.625	0.625	0.000	-	0.886	0.926	0.838	0.636	0.906	0.000	-	0.896	0.750	0.864	0.875	0.722	0.000	-	0.914	0.937
Lights	52	327	119	76	0	-	574	69	291	15	5	0	-	380	129	54	28	28	0	-	239	69	188	158	26	0	-	441	1634
% Lights	98.1	95.1	97.5	98.7	-	-	96.3	93.2	96.0	100.0	100.0	-	-	95.7	94.2	94.7	100.0	96.6	-	-	95.2	100.0	98.9	98.1	100.0	-	-	98.9	96.7
Buses	0	1	1	0	0	-	2	0	3	0	0	0	-	3	1	1	0	0	0	-	2	0	0	0	0	0	-	0	7
% Buses	0.0	0.3	0.8	0.0	-	-	0.3	0.0	1.0	0.0	0.0	-	-	0.8	0.7	1.8	0.0	0.0	-	-	0.8	0.0	0.0	0.0	0.0	-	-	0.0	0.4
Trucks	1	16	2	1	0	-	20	5	9	0	0	0	-	14	7	2	0	1	0	-	10	0	2	3	0	0	-	5	49
% Trucks	1.9	4.7	1.6	1.3	-	-	3.4	6.8	3.0	0.0	0.0	-	-	3.5	5.1	3.5	0.0	3.4	-	-	4.0	0.0	1.1	1.9	0.0	-	-	1.1	2.9
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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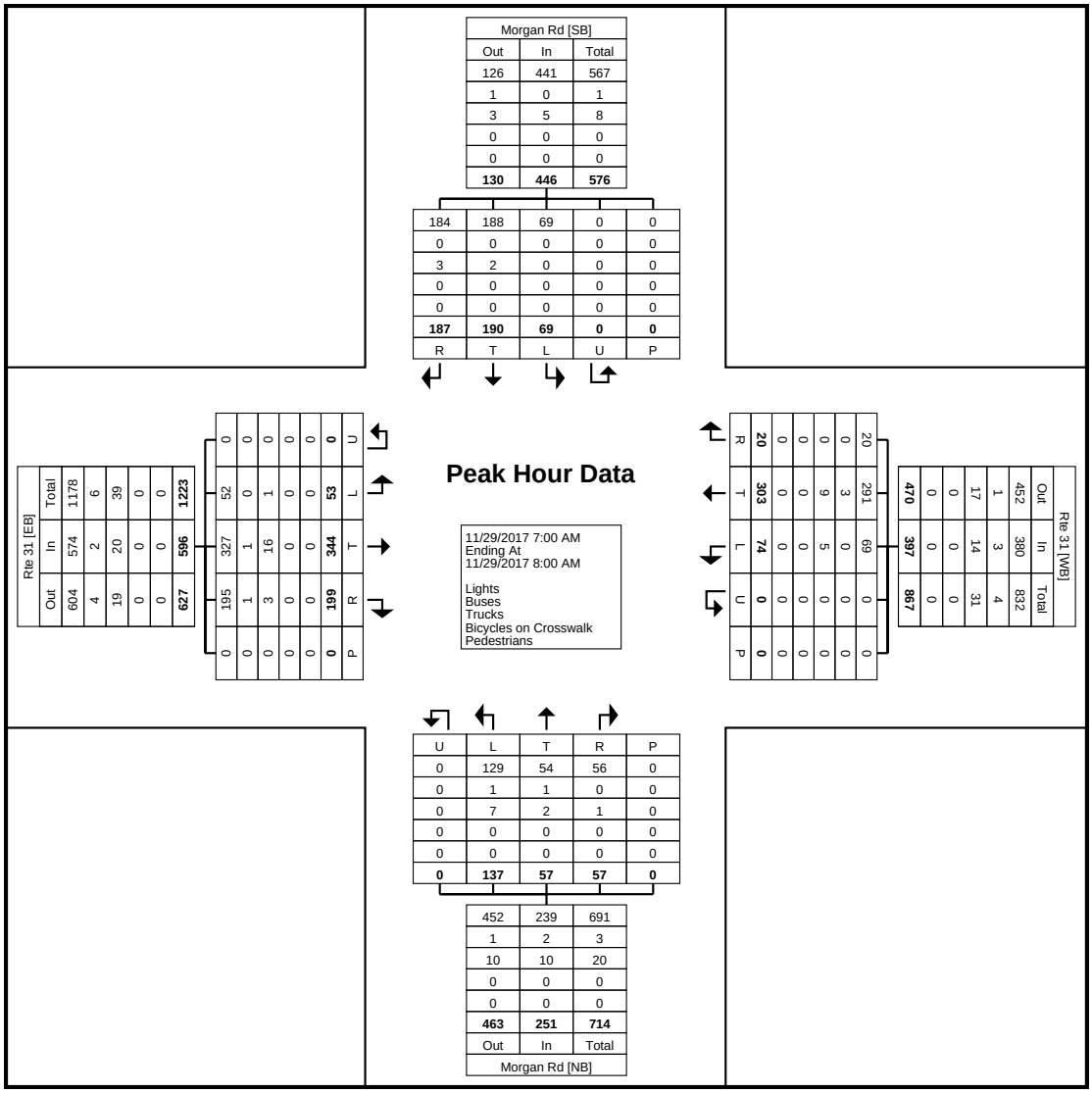

Turning Movement Peak Hour Data Plot (7:00 AM)

TRI-STATE TRAFFIC DATA

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Onondaga County, NY
Rte 31/Morgan Road
Wednesday, November 29, 2017
Location: 43.186284, -76.217016

Count Name: 4 Route 31-Morgan Road
Site Code: SCU6ZT
Start Date: 11/29/2017

Turning Movement Peak Hour Data (2:00 PM)

Start Time	Rte 31 Eastbound							Rte 31 Westbound							Morgan Rd Northbound							Morgan Rd Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
2:00 PM	36	84	28	16	0	0	164	15	76	8	2	0	0	101	41	20	5	5	0	2	71	6	27	14	13	0	0	60	396
2:15 PM	35	101	24	30	0	0	190	16	87	5	2	0	0	110	36	17	5	4	0	0	62	7	23	18	6	0	0	54	416
2:30 PM	53	68	40	25	0	0	186	14	88	6	3	0	0	111	51	38	6	5	0	0	100	7	14	15	11	0	0	47	444
2:45 PM	29	108	24	24	0	0	185	13	98	14	1	0	0	126	46	24	7	6	0	0	83	15	16	21	4	0	0	56	450
Total	153	361	116	95	0	0	725	58	349	33	8	0	0	448	174	99	23	20	0	2	316	35	80	68	34	0	0	217	1706
Approach %	21.1	49.8	16.0	13.1	0.0	-	-	12.9	77.9	7.4	1.8	0.0	-	-	55.1	31.3	7.3	6.3	0.0	-	-	16.1	36.9	31.3	15.7	0.0	-	-	-
Total %	9.0	21.2	6.8	5.6	0.0	-	42.5	3.4	20.5	1.9	0.5	0.0	-	26.3	10.2	5.8	1.3	1.2	0.0	-	18.5	2.1	4.7	4.0	2.0	0.0	-	12.7	-
PHF	0.722	0.836	0.725	0.792	0.000	-	0.954	0.906	0.890	0.589	0.667	0.000	-	0.889	0.853	0.651	0.821	0.833	0.000	-	0.790	0.583	0.741	0.810	0.654	0.000	-	0.904	0.948
Lights	151	349	109	91	0	-	700	54	341	33	8	0	-	436	167	87	21	18	0	-	293	29	77	65	34	0	-	205	1634
% Lights	98.7	96.7	94.0	95.8	-	-	96.6	93.1	97.7	100.0	100.0	-	-	97.3	96.0	87.9	91.3	90.0	-	-	92.7	82.9	96.3	95.6	100.0	-	-	94.5	95.8
Buses	0	2	1	1	0	-	4	1	1	0	0	0	-	2	0	1	0	2	0	-	3	2	0	2	0	0	-	4	13
% Buses	0.0	0.6	0.9	1.1	-	-	0.6	1.7	0.3	0.0	0.0	-	-	0.4	0.0	1.0	0.0	10.0	-	-	0.9	5.7	0.0	2.9	0.0	-	-	1.8	0.8
Trucks	2	10	6	3	0	-	21	3	7	0	0	0	-	10	7	11	2	0	0	-	20	4	3	1	0	0	-	8	59
% Trucks	1.3	2.8	5.2	3.2	-	-	2.9	5.2	2.0	0.0	0.0	-	-	2.2	4.0	11.1	8.7	0.0	-	-	6.3	11.4	3.8	1.5	0.0	-	-	3.7	3.5
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	2	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-

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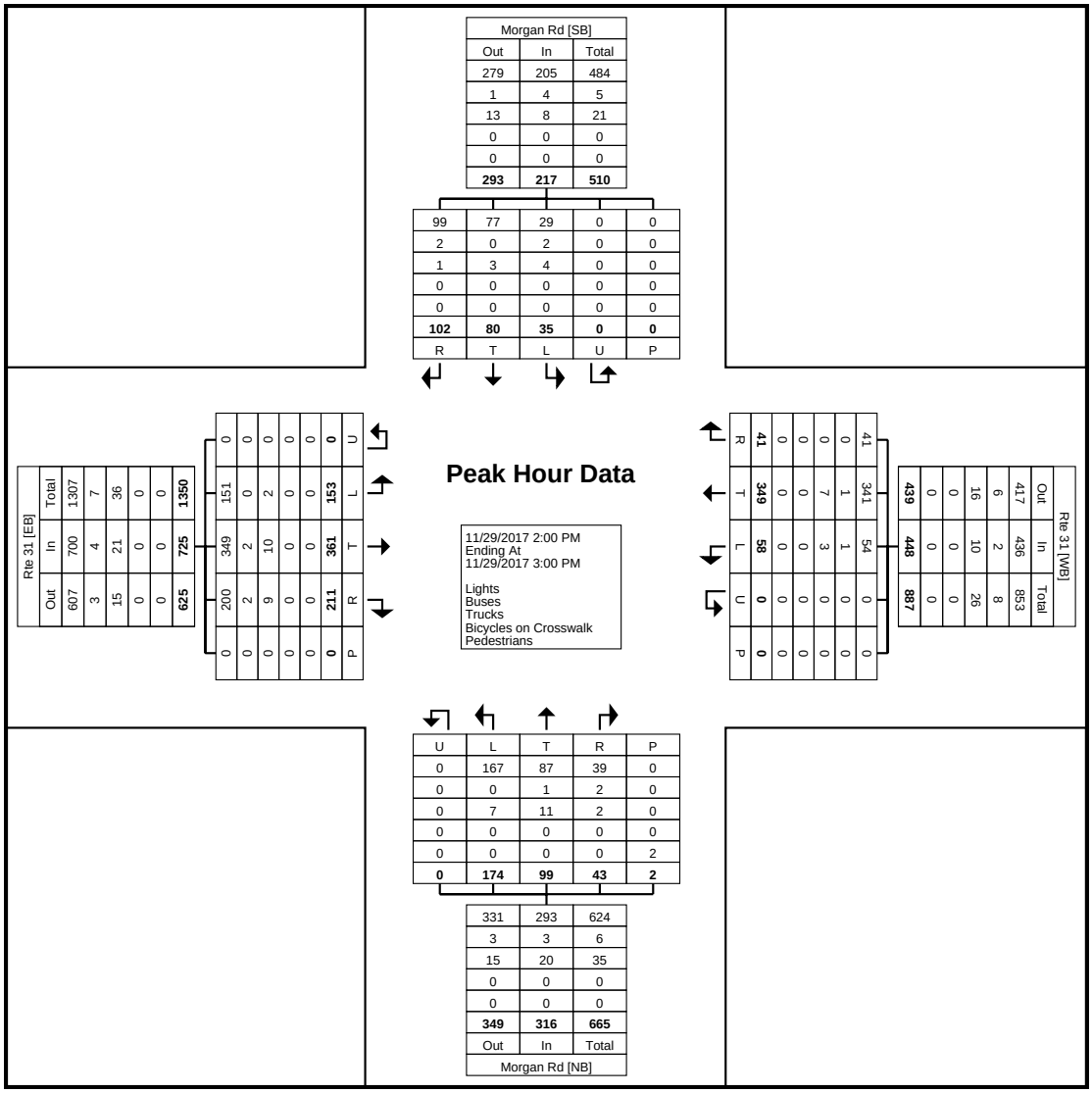

Turning Movement Peak Hour Data Plot (2:00 PM)

Onondaga County, NY
Rte 31/Morgan Road
Wednesday, November 29, 2017
Location: 43.186284, -76.217016

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Turning Movement Peak Hour Data (4:30 PM)

Start Time	Rte 31 Eastbound							Rte 31 Westbound							Morgan Rd Northbound							Morgan Rd Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
4:30 PM	66	100	31	21	0	0	218	24	128	12	4	0	0	168	84	67	12	10	0	0	173	12	28	27	3	0	0	70	629
4:45 PM	67	109	39	33	0	0	248	22	128	13	1	0	0	164	58	53	10	12	0	0	133	7	26	14	4	0	0	51	596
5:00 PM	60	104	38	32	0	0	234	22	127	15	6	0	0	170	73	46	13	4	0	0	136	13	22	31	4	0	0	70	610
5:15 PM	71	100	21	40	0	0	232	26	124	19	5	0	0	174	82	45	9	8	0	0	144	7	26	26	7	0	0	66	616
Total	264	413	129	126	0	0	932	94	507	59	16	0	0	676	297	211	44	34	0	0	586	39	102	98	18	0	0	257	2451
Approach %	28.3	44.3	13.8	13.5	0.0	-	-	13.9	75.0	8.7	2.4	0.0	-	-	50.7	36.0	7.5	5.8	0.0	-	-	15.2	39.7	38.1	7.0	0.0	-	-	-
Total %	10.8	16.9	5.3	5.1	0.0	-	38.0	3.8	20.7	2.4	0.7	0.0	-	27.6	12.1	8.6	1.8	1.4	0.0	-	23.9	1.6	4.2	4.0	0.7	0.0	-	10.5	-
PHF	0.930	0.947	0.827	0.788	0.000	-	0.940	0.904	0.990	0.776	0.667	0.000	-	0.971	0.884	0.787	0.846	0.708	0.000	-	0.847	0.750	0.911	0.790	0.643	0.000	-	0.918	0.974
Lights	262	407	128	126	0	-	923	89	502	59	16	0	-	666	295	207	44	34	0	-	580	38	100	96	17	0	-	251	2420
% Lights	99.2	98.5	99.2	100.0	-	-	99.0	94.7	99.0	100.0	100.0	-	-	98.5	99.3	98.1	100.0	100.0	-	-	99.0	97.4	98.0	98.0	94.4	-	-	97.7	98.7
Buses	0	1	0	0	0	-	1	0	0	0	0	0	-	0	0	0	0	0	0	-	0	0	0	1	0	0	-	1	2
% Buses	0.0	0.2	0.0	0.0	-	-	0.1	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	1.0	0.0	-	-	0.4	0.1
Trucks	2	5	1	0	0	-	8	5	5	0	0	0	-	10	2	4	0	0	0	-	6	1	2	1	1	0	-	5	29
% Trucks	0.8	1.2	0.8	0.0	-	-	0.9	5.3	1.0	0.0	0.0	-	-	1.5	0.7	1.9	0.0	0.0	-	-	1.0	2.6	2.0	1.0	5.6	-	-	1.9	1.2
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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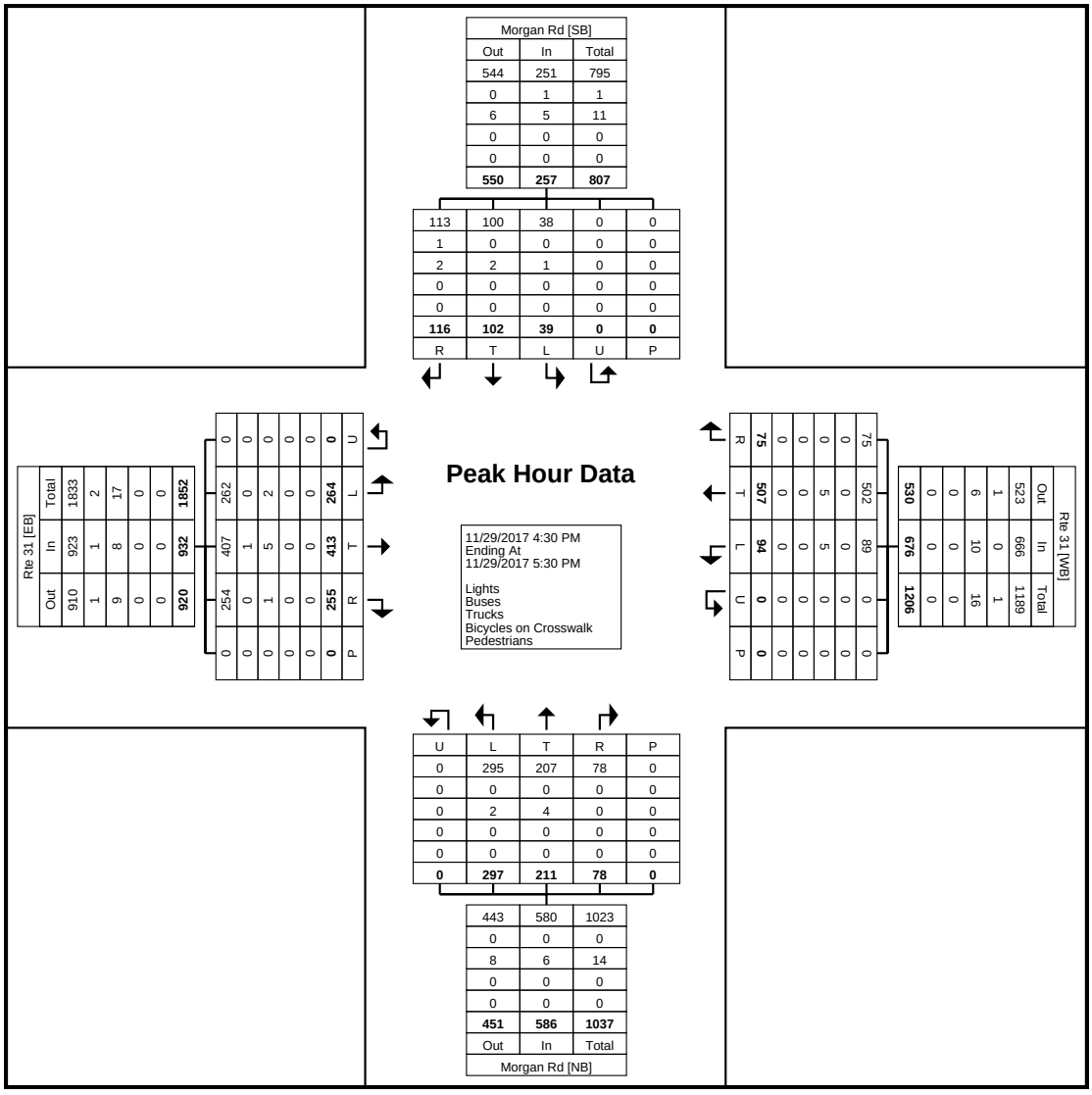


Turning Movement Peak Hour Data Plot (4:30 PM)

JMT

307 South Townsend Street
Syracuse, NY 13202

File Name : Site_4_NYS_RT_31_at_Henry_Clay_819895_03-16-202
Site Code : Site 4
Start Date : 3/16/2021
Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	Henry Clay Blvd From North					NYS RT 31 From East					Henry Clay Blvd From South					NYS RT 31 From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
07:00 AM	3	19	3	0	25	2	53	15	0	70	9	5	12	0	26	24	61	3	0	88	209
07:15 AM	3	22	2	0	27	0	76	22	0	98	17	10	18	0	45	39	56	0	0	95	265
07:30 AM	4	27	3	0	34	0	76	34	0	110	14	4	15	0	33	62	58	4	0	124	301
07:45 AM	8	39	1	0	48	2	65	29	0	96	14	8	33	0	55	37	60	0	0	97	296
Total	18	107	9	0	134	4	270	100	0	374	54	27	78	0	159	162	235	7	0	404	1071
08:00 AM	3	17	4	0	24	0	69	28	0	97	9	9	21	0	39	26	39	1	0	66	226
08:15 AM	4	13	1	0	18	1	37	19	0	57	8	8	14	0	30	29	51	0	0	80	185
08:30 AM	4	17	3	0	24	3	62	21	0	86	17	4	20	0	41	17	56	3	0	76	227
08:45 AM	4	14	2	0	20	5	65	16	0	86	9	7	20	0	36	28	63	3	0	94	236
Total	15	61	10	0	86	9	233	84	0	326	43	28	75	0	146	100	209	7	0	316	874
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	9	5	1	0	15	1	70	14	0	85	17	12	21	0	50	20	69	6	0	95	245
11:45 AM	6	10	0	0	16	4	61	17	0	82	9	8	35	0	52	21	83	4	0	108	258
Total	15	15	1	0	31	5	131	31	0	167	26	20	56	0	102	41	152	10	0	203	503
12:00 PM	5	5	4	0	14	1	65	13	0	79	13	11	24	0	48	22	63	4	0	89	230
12:15 PM	3	6	5	0	14	4	79	8	0	91	7	9	29	0	45	24	83	3	0	110	260
12:30 PM	8	10	5	0	23	3	97	15	0	115	16	10	28	0	54	18	87	7	0	112	304
12:45 PM	3	6	1	0	10	4	86	14	0	104	14	10	28	0	52	15	69	2	0	86	252
Total	19	27	15	0	61	12	327	50	0	389	50	40	109	0	199	79	302	16	0	397	1046
01:00 PM	0	15	2	0	17	0	90	17	0	107	15	9	23	0	47	21	77	2	0	100	271
01:15 PM	5	5	0	0	10	1	85	16	0	102	13	17	19	0	49	16	81	8	0	105	266
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5	20	2	0	27	1	175	33	0	209	28	26	42	0	96	37	158	10	0	205	537
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	4	0	2	0	6	1	83	12	0	96	31	29	42	0	102	19	91	5	0	115	319
04:15 PM	4	5	6	0	15	2	114	20	0	136	32	28	60	0	120	20	108	4	0	132	403
04:30 PM	7	2	3	0	12	5	97	13	0	115	29	36	42	0	107	35	125	8	0	168	402
04:45 PM	1	10	2	0	13	6	93	25	0	124	34	37	59	0	130	38	85	7	0	130	397
Total	16	17	13	0	46	14	387	70	0	471	126	130	203	0	459	112	409	24	0	545	1521

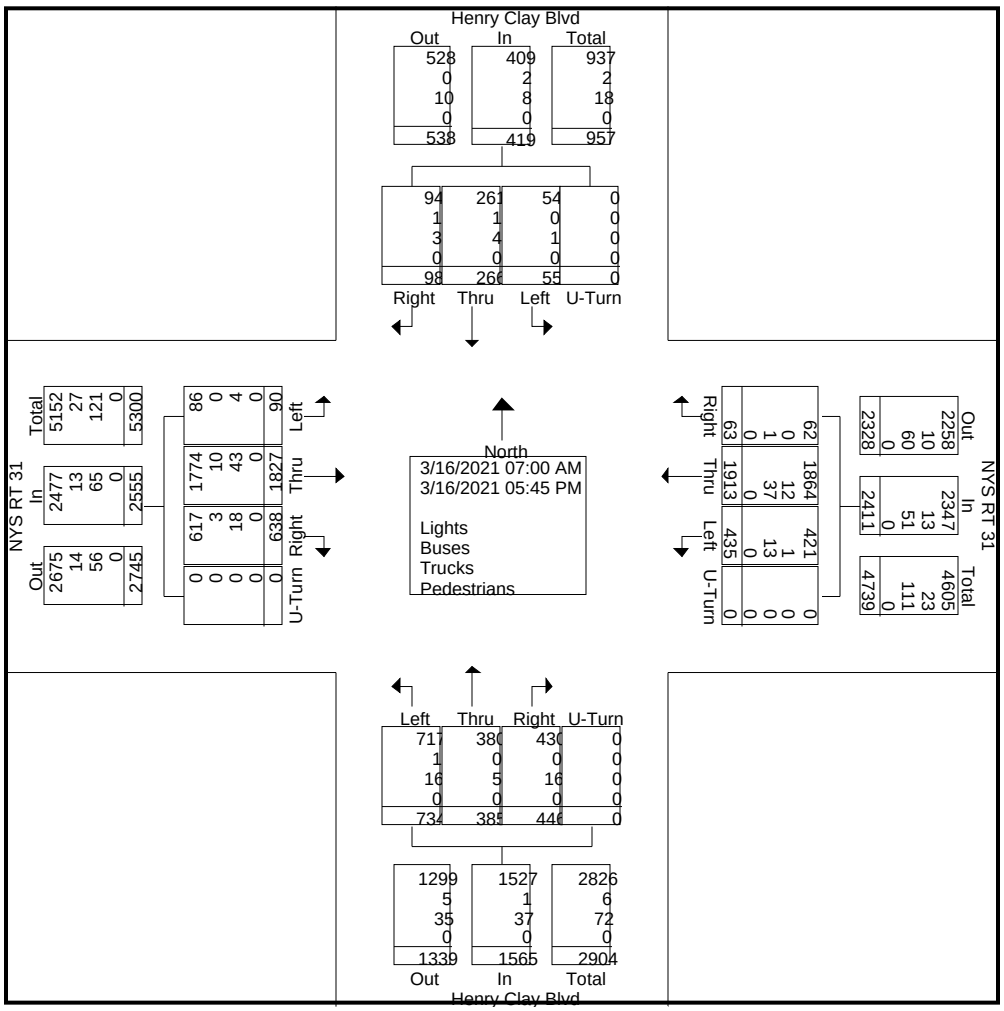
JMT

307 South Townsend Street
Syracuse, NY 13202

File Name : Site_4_NYS_RT_31_at_Henry_Clay_819895_03-16-202
Site Code : Site 4
Start Date : 3/16/2021
Page No : 2

Groups Printed- Lights - Buses - Trucks - Pedestrians

	Henry Clay Blvd From North					NYS RT 31 From East					Henry Clay Blvd From South					NYS RT 31 From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
05:00 PM	6	7	1	0	14	3	117	20	0	140	35	44	30	0	109	33	91	5	0	129	392
05:15 PM	2	6	0	0	8	6	89	15	0	110	34	32	59	0	125	23	86	5	0	114	357
05:30 PM	2	0	2	0	4	5	103	18	0	126	25	25	40	0	90	20	99	3	0	122	342
05:45 PM	0	6	2	0	8	4	81	14	0	99	25	13	42	0	80	31	86	3	0	120	307
Total	10	19	5	0	34	18	390	67	0	475	119	114	171	0	404	107	362	16	0	485	1398
Grand Total	98	266	55	0	419	63	191 3	435	0	2411	446	385	734	0	1565	638	182 7	90	0	2555	6950
Apprch %	23.4	63.5	13.1	0		2.6	79.3	18	0		28.5	24.6	46.9	0		25	71.5	3.5	0		
Total %	1.4	3.8	0.8	0	6	0.9	27.5	6.3	0	34.7	6.4	5.5	10.6	0	22.5	9.2	26.3	1.3	0	36.8	
Lights	94	261	54	0	409	62	186 4	421	0	2347	430	380	717	0	1527	617	177 4	86	0	2477	6760
% Lights	95.9	98.1	98.2	0	97.6	98.4	97.4	96.8	0	97.3	96.4	98.7	97.7	0	97.6	96.7	97.1	95.6	0	96.9	97.3
Buses	1	1	0	0	2	0	12	1	0	13	0	0	1	0	1	3	10	0	0	13	29
% Buses	1	0.4	0	0	0.5	0	0.6	0.2	0	0.5	0	0	0.1	0	0.1	0.5	0.5	0	0	0.5	0.4
Trucks	3	4	1	0	8	1	37	13	0	51	16	5	16	0	37	18	43	4	0	65	161
% Trucks	3.1	1.5	1.8	0	1.9	1.6	1.9	3	0	2.1	3.6	1.3	2.2	0	2.4	2.8	2.4	4.4	0	2.5	2.3
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

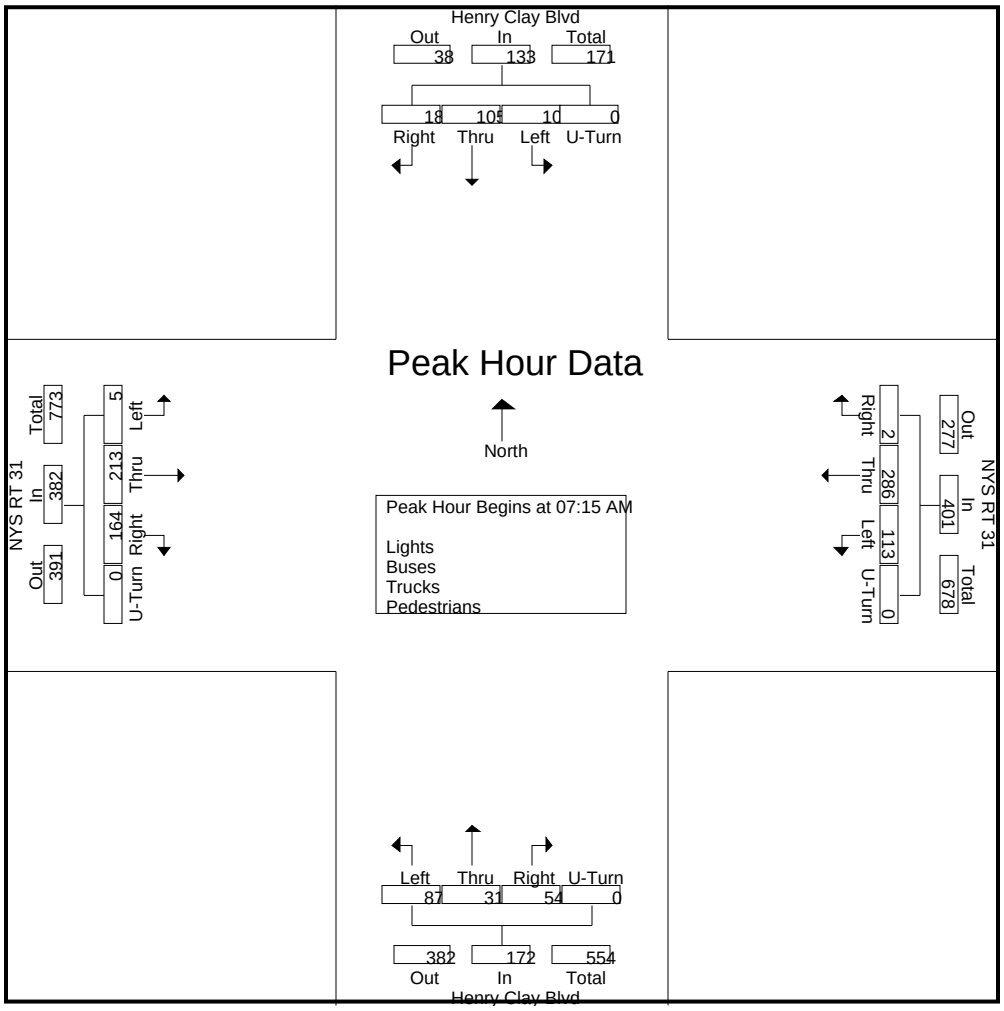


JMT

307 South Townsend Street
Syracuse, NY 13202

File Name : Site_4_NYS_RT_31_at_Henry_Clay_819895_03-16-202
Site Code : Site 4
Start Date : 3/16/2021
Page No : 3

	Henry Clay Blvd From North					NYS RT 31 From East					Henry Clay Blvd From South					NYS RT 31 From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	3	22	2	0	27	0	76	22	0	98	17	10	18	0	45	39	56	0	0	95	265
07:30 AM	4	27	3	0	34	0	76	34	0	110	14	4	15	0	33	62	58	4	0	124	301
07:45 AM	8	39	1	0	48	2	65	29	0	96	14	8	33	0	55	37	60	0	0	97	296
08:00 AM	3	17	4	0	24	0	69	28	0	97	9	9	21	0	39	26	39	1	0	66	226
Total Volume	18	105	10	0	133	2	286	113	0	401	54	31	87	0	172	164	213	5	0	382	1088
% App. Total	13.5	78.9	7.5	0		0.5	71.3	28.2	0		31.4	18	50.6	0		42.9	55.8	1.3	0		
PHF	.563	.673	.625	.000	.693	.250	.941	.831	.000	.911	.794	.775	.659	.000	.782	.661	.888	.313	.000	.770	.904

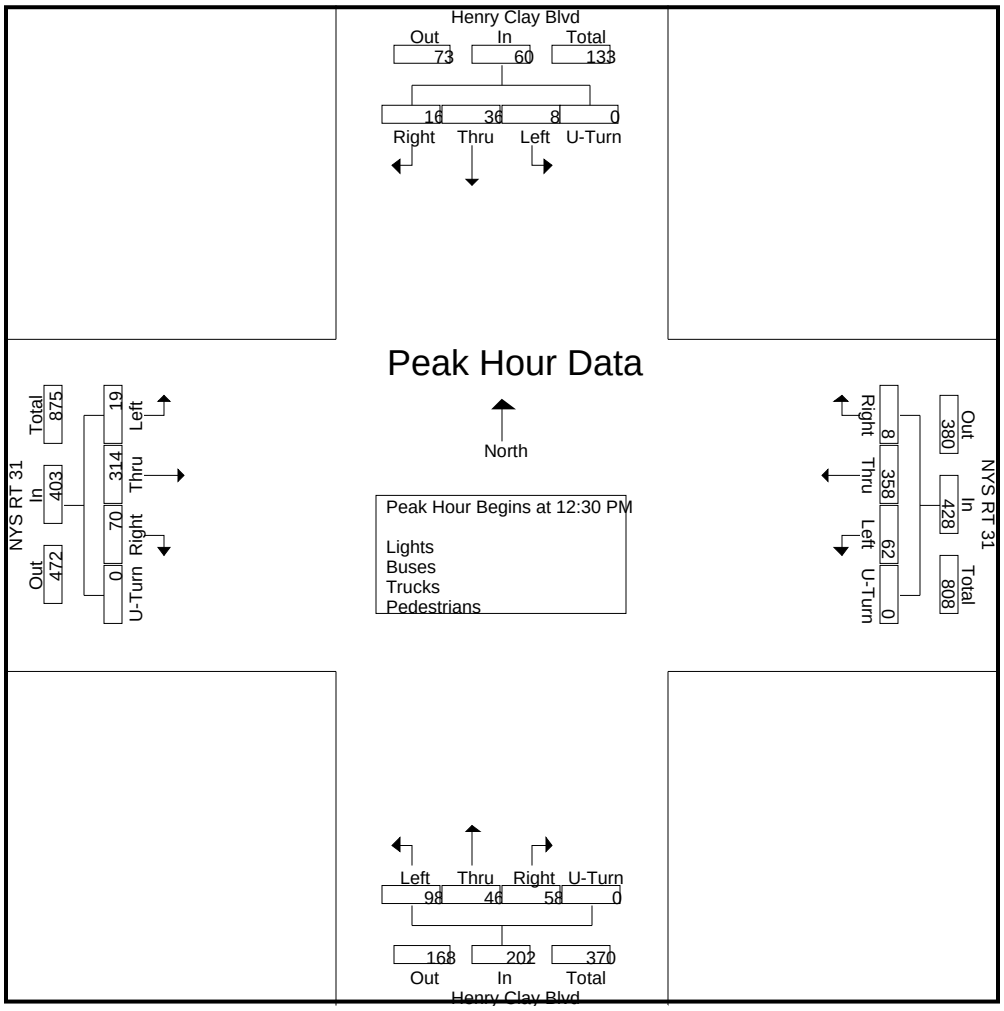


JMT

307 South Townsend Street
Syracuse, NY 13202

File Name : Site_4_NYS_RT_31_at_Henry_Clay_819895_03-16-202
Site Code : Site 4
Start Date : 3/16/2021
Page No : 4

	Henry Clay Blvd From North					NYS RT 31 From East					Henry Clay Blvd From South					NYS RT 31 From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30 PM																					
12:30 PM	8	10	5	0	23	3	97	15	0	115	16	10	28	0	54	18	87	7	0	112	304
12:45 PM	3	6	1	0	10	4	86	14	0	104	14	10	28	0	52	15	69	2	0	86	252
01:00 PM	0	15	2	0	17	0	90	17	0	107	15	9	23	0	47	21	77	2	0	100	271
01:15 PM	5	5	0	0	10	1	85	16	0	102	13	17	19	0	49	16	81	8	0	105	266
Total Volume	16	36	8	0	60	8	358	62	0	428	58	46	98	0	202	70	314	19	0	403	1093
% App. Total	26.7	60	13.3	0		1.9	83.6	14.5	0		28.7	22.8	48.5	0		17.4	77.9	4.7	0		
PHF	.500	.600	.400	.000	.652	.500	.923	.912	.000	.930	.906	.676	.875	.000	.935	.833	.902	.594	.000	.900	.899

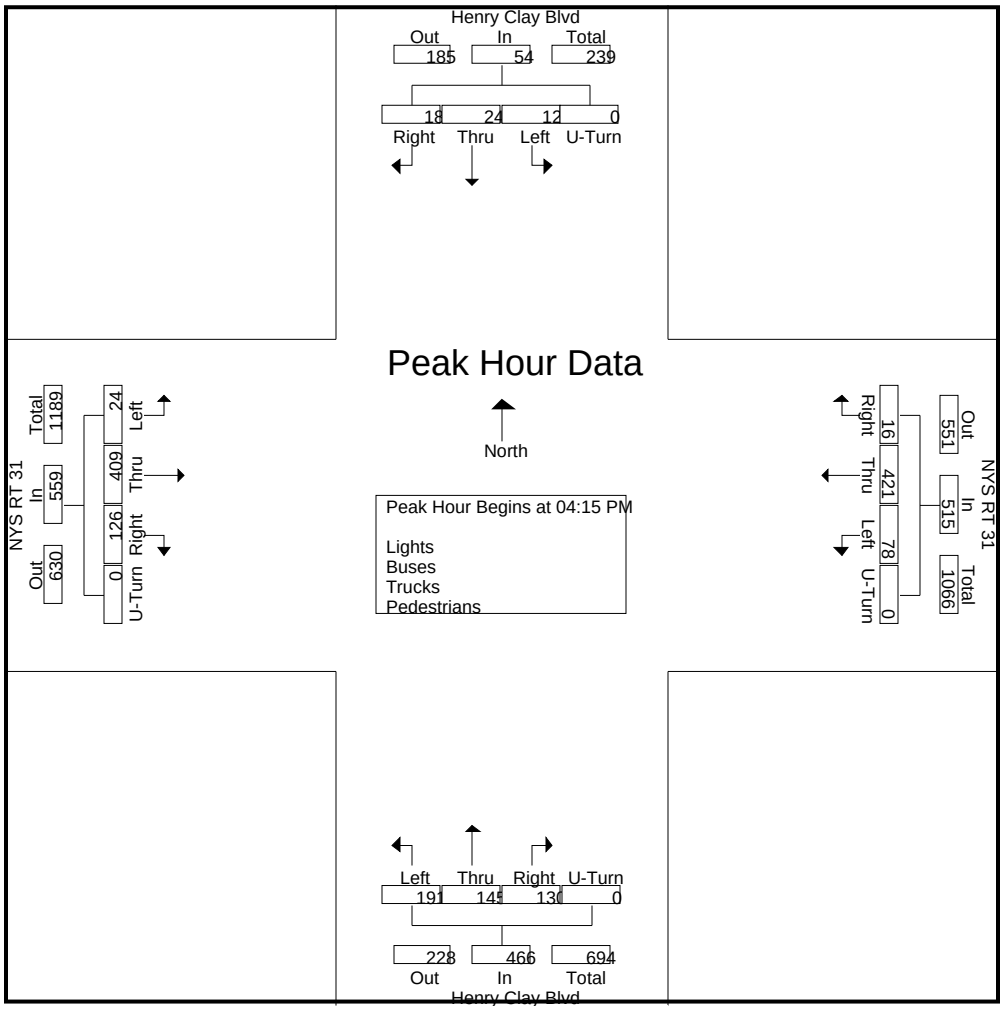


JMT

307 South Townsend Street
Syracuse, NY 13202

File Name : Site_4_NYS_RT_31_at_Henry_Clay_819895_03-16-202
Site Code : Site 4
Start Date : 3/16/2021
Page No : 5

	Henry Clay Blvd From North					NYS RT 31 From East					Henry Clay Blvd From South					NYS RT 31 From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	4	5	6	0	15	2	114	20	0	136	32	28	60	0	120	20	108	4	0	132	403
04:30 PM	7	2	3	0	12	5	97	13	0	115	29	36	42	0	107	35	125	8	0	168	402
04:45 PM	1	10	2	0	13	6	93	25	0	124	34	37	59	0	130	38	85	7	0	130	397
05:00 PM	6	7	1	0	14	3	117	20	0	140	35	44	30	0	109	33	91	5	0	129	392
Total Volume	18	24	12	0	54	16	421	78	0	515	130	145	191	0	466	126	409	24	0	559	1594
% App. Total	33.3	44.4	22.2	0		3.1	81.7	15.1	0		27.9	31.1	41	0		22.5	73.2	4.3	0		
PHF	.643	.600	.500	.000	.900	.667	.900	.780	.000	.920	.929	.824	.796	.000	.896	.829	.818	.750	.000	.832	.989



CHA, Inc.
441 South Salina Street
Syracuse, NY 13202

Default Comments
Change These in The Preferences Window
Select File/Preference in the Main Scree
Then Click the Comments Tab

File Name : Caughdenoy AM
Site Code : 00000013
Start Date : 3/16/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	Caughdenoy Road Southbound					SR 31 Westbound					Caughdenoy Road Northbound					SR 31 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	1	0	2	0	3	1	78	2	0	81	7	2	4	0	13	2	61	7	0	70	167
07:15 AM	5	2	10	0	17	2	57	0	0	59	7	2	5	0	14	6	72	2	0	80	170
07:30 AM	4	0	13	0	17	4	77	4	0	85	12	2	11	0	25	5	64	2	0	71	198
07:45 AM	4	0	16	0	20	8	84	2	0	94	12	5	9	0	26	3	96	7	0	106	246
Total	14	2	41	0	57	15	296	8	0	319	38	11	29	0	78	16	293	18	0	327	781
08:00 AM	5	2	10	0	17	1	77	4	0	82	6	1	6	0	13	5	82	4	0	91	203
08:15 AM	4	3	5	0	12	1	60	1	0	62	4	3	4	0	11	2	58	6	0	66	151
08:30 AM	7	4	5	0	16	0	80	0	0	80	4	3	6	0	13	1	68	3	0	72	181
08:45 AM	5	0	8	0	13	3	56	1	0	60	2	2	7	0	11	6	72	4	0	82	166
Total	21	9	28	0	58	5	273	6	0	284	16	9	23	0	48	14	280	17	0	311	701
Grand Total	35	11	69	0	115	20	569	14	0	603	54	20	52	0	126	30	573	35	0	638	1482
Apprch %	30.4	9.6	60	0		3.3	94.4	2.3	0		42.9	15.9	41.3	0		4.7	89.8	5.5	0		
Total %	2.4	0.7	4.7	0	7.8	1.3	38.4	0.9	0	40.7	3.6	1.3	3.5	0	8.5	2	38.7	2.4	0	43	
Unshifted	35	11	69	0	115	20	569	14	0	603	54	20	52	0	126	30	573	35	0	638	1482
% Unshifted	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Caughdenoy Road Southbound					SR 31 Westbound					Caughdenoy Road Northbound					SR 31 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	**5**	**2**	10	0	17	2	57	0	0	59	7	2	5	0	14	**6**	72	2	0	80	170
07:30 AM	4	0	13	0	17	4	77	**4**	0	85	**12**	2	**11**	0	25	5	64	2	0	71	198
07:45 AM	4	0	**16**	0	**20**	**8**	**84**	2	0	**94**	12	**5**	9	0	**26**	3	**96**	**7**	0	**106**	**246**
08:00 AM	5	2	10	0	17	1	77	4	0	82	6	1	6	0	13	5	82	4	0	91	203
Total Volume	18	4	49	0	71	15	295	10	0	320	37	10	31	0	78	19	314	15	0	348	817
% App. Total	25.4	5.6	69	0		4.7	92.2	3.1	0		47.4	12.8	39.7	0		5.5	90.2	4.3	0		
PHF	.900	.500	.766	.000	.888	.469	.878	.625	.000	.851	.771	.500	.705	.000	.750	.792	.818	.536	.000	.821	.830

CHA, Inc.
441 South Salina Street
Syracuse, NY 13202

Default Comments
Change These in The Preferences Window
Select File/Preference in the Main Scree
Then Click the Comments Tab

File Name : Caughdenoy PM
Site Code : 00000013
Start Date : 3/16/2010
Page No : 1

Groups Printed- Unshifted - Bank 1

	Caughdenoy Road Southbound					SR 31 Westbound					Caughdenoy Road Northbound					SR 31 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	6	3	2	0	11	2	91	3	0	96	2	13	7	0	22	9	80	3	0	92	221
04:15 PM	5	2	8	0	15	7	107	4	0	118	3	14	4	0	21	8	103	5	0	116	270
04:30 PM	6	3	9	0	18	10	110	4	0	124	7	7	3	0	17	4	108	4	0	116	275
04:45 PM	3	5	3	0	11	8	86	3	0	97	7	8	7	0	22	12	98	8	0	118	248
Total	20	13	22	0	55	27	394	14	0	435	19	42	21	0	82	33	389	20	0	442	1014
05:00 PM	2	4	4	0	10	3	118	4	0	125	2	10	8	0	20	8	112	8	0	128	283
05:15 PM	1	3	1	0	5	3	119	3	0	125	7	16	11	0	34	6	104	9	0	119	283
05:30 PM	1	6	5	0	12	5	94	5	0	104	4	10	8	0	22	3	91	10	0	104	242
05:45 PM	3	5	1	0	9	8	117	2	0	127	6	7	8	0	21	4	83	5	0	92	249
Total	7	18	11	0	36	19	448	14	0	481	19	43	35	0	97	21	390	32	0	443	1057
Grand Total	27	31	33	0	91	46	842	28	0	916	38	85	56	0	179	54	779	52	0	885	2071
Apprch %	29.7	34.1	36.3	0		5	91.9	3.1	0		21.2	47.5	31.3	0		6.1	88	5.9	0		
Total %	1.3	1.5	1.6	0	4.4	2.2	40.7	1.4	0	44.2	1.8	4.1	2.7	0	8.6	2.6	37.6	2.5	0	42.7	
Unshifted	27	31	33	0	91	46	842	28	0	916	38	85	56	0	179	54	779	52	0	885	2071
% Unshifted	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Caughdenoy Road Southbound					SR 31 Westbound					Caughdenoy Road Northbound					SR 31 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	**6**	3	**9**	0	**18**	**10**	110	**4**	0	124	**7**	7	3	0	17	4	108	4	0	116	275
04:45 PM	3	**5**	3	0	11	8	86	3	0	97	7	8	7	0	22	**12**	98	8	0	118	248
05:00 PM	2	4	4	0	10	3	118	4	0	**125**	2	10	8	0	20	8	**112**	8	0	**128**	**283**
05:15 PM	1	3	1	0	5	3	**119**	3	0	125	7	**16**	**11**	0	**34**	6	104	**9**	0	119	283
Total Volume	12	15	17	0	44	24	433	14	0	471	23	41	29	0	93	30	422	29	0	481	1089
% App. Total	27.3	34.1	38.6	0		5.1	91.9	3	0		24.7	44.1	31.2	0		6.2	87.7	6	0		
PHF	.500	.750	.472	.000	.611	.600	.910	.875	.000	.942	.821	.641	.659	.000	.684	.625	.942	.806	.000	.939	.962

TRI-STATE TRAFFIC DATA

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Onondaga County, NY
NY 31/Rte 11
Wednesday, November 29, 2017
Location: 43.175471, -76.119281

Count Name: 3 Route 31-US Route 11
Site Code: SCU51V
Start Date: 11/29/2017
Page No: 1

Turning Movement Data

Start Time	Rte 31 Eastbound							Rte 31 Westbound							Rte 11 Northbound							Rte 11 Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
7:00 AM	4	49	6	0	0	0	59	13	26	6	2	0	0	47	0	3	3	6	0	0	12	6	5	0	0	0	0	11	129
7:15 AM	2	57	2	0	0	0	61	18	39	9	0	0	0	66	1	4	5	11	0	0	21	9	13	0	0	0	0	22	170
7:30 AM	9	107	10	2	0	0	128	22	57	9	3	0	0	91	2	7	9	15	0	0	33	14	12	1	0	0	0	27	279
7:45 AM	9	136	5	0	0	0	150	40	48	25	7	0	0	120	4	9	17	7	0	0	37	23	15	3	8	0	0	49	356
Hourly Total	24	349	23	2	0	0	398	93	170	49	12	0	0	324	7	23	34	39	0	0	103	52	45	4	8	0	0	109	934
8:00 AM	9	142	8	1	0	0	160	35	52	16	6	0	0	109	7	5	41	4	0	0	57	21	14	1	6	0	0	42	368
8:15 AM	6	164	6	0	0	0	176	44	72	18	8	0	0	142	2	12	26	22	0	0	62	14	26	2	2	0	0	44	424
8:30 AM	10	158	9	2	0	0	179	46	70	15	10	0	0	141	8	19	27	18	0	0	72	24	23	5	3	0	0	55	447
8:45 AM	15	147	11	4	0	0	177	90	67	22	7	0	0	186	9	25	18	19	0	0	71	33	36	5	1	0	0	75	509
Hourly Total	40	611	34	7	0	0	692	215	261	71	31	0	0	578	26	61	112	63	0	0	262	92	99	13	12	0	0	216	1748
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	12	72	21	2	0	0	107	80	63	19	2	0	0	164	27	55	73	34	0	0	189	35	54	4	2	0	0	95	555
1:15 PM	7	63	30	4	0	0	104	83	63	22	8	0	0	176	25	40	56	30	0	0	151	37	38	8	7	0	0	90	521
1:30 PM	18	57	24	1	0	0	100	81	77	18	8	0	0	184	31	49	63	41	0	0	184	42	41	3	3	0	0	89	557
1:45 PM	14	60	27	2	0	0	103	91	67	25	2	0	0	185	27	47	67	36	0	0	177	38	47	7	4	0	0	96	561
Hourly Total	51	252	102	9	0	0	414	335	270	84	20	0	0	709	110	191	259	141	0	0	701	152	180	22	16	0	0	370	2194
2:00 PM	8	55	15	9	0	0	87	73	68	28	7	0	0	176	26	45	61	42	0	0	174	27	48	16	3	0	0	94	531
2:15 PM	11	55	23	4	0	0	93	79	62	19	13	0	0	173	29	49	81	35	0	0	194	33	50	4	2	0	0	89	549
2:30 PM	16	73	18	1	0	0	108	87	60	26	7	0	0	180	21	51	57	34	0	0	163	31	42	6	9	0	0	88	539
2:45 PM	10	86	12	5	0	0	113	84	57	23	8	0	0	172	23	67	57	37	0	0	184	23	35	7	7	0	0	72	541
Hourly Total	45	269	68	19	0	0	401	323	247	96	35	0	0	701	99	212	256	148	0	0	715	114	175	33	21	0	0	343	2160
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	16	82	23	0	0	0	121	82	97	33	3	0	0	215	21	55	86	30	0	0	192	49	45	8	7	0	0	109	637
4:15 PM	9	70	16	1	0	0	96	84	91	16	10	0	0	201	24	65	74	30	0	0	193	37	33	7	8	0	0	85	575
4:30 PM	10	79	29	1	0	0	119	79	93	24	10	0	0	206	23	59	57	43	0	0	182	42	40	9	9	0	0	100	607
4:45 PM	8	87	21	0	0	0	116	82	96	35	3	0	0	216	23	63	79	49	0	0	214	25	42	11	5	0	0	83	629
Hourly Total	43	318	89	2	0	0	452	327	377	108	26	0	0	838	91	242	296	152	0	0	781	153	160	35	29	0	0	377	2448
5:00 PM	13	87	16	2	0	0	118	74	108	32	5	0	0	219	14	68	55	50	0	0	187	40	34	10	11	0	0	95	619
5:15 PM	8	84	15	4	0	0	111	97	109	34	5	0	0	245	21	58	61	43	0	0	183	43	36	12	10	0	0	101	640
5:30 PM	8	83	19	2	0	0	112	67	105	22	9	0	0	203	30	73	61	51	0	0	215	40	57	12	7	0	0	116	646
5:45 PM	16	103	18	0	0	0	137	89	98	33	6	0	0	226	37	59	70	45	0	0	211	29	36	4	13	0	0	82	656
Hourly Total	45	357	68	8	0	0	478	327	420	121	25	0	0	893	102	258	247	189	0	0	796	152	163	38	41	0	0	394	2561
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Grand Total	248	2156	384	47	0	0	2835	1620	1745	529	149	0	0	4043	436	987	1204	732	0	0	3359	715	822	145	127	0	0	1809	12046
Approach %	8.7	76.0	13.5	1.7	0.0	-	-	40.1	43.2	13.1	3.7	0.0	-	-	13.0	29.4	35.8	21.8	0.0	-	-	39.5	45.4	8.0	7.0	0.0	-	-	-
Total %	2.1	17.9	3.2	0.4	0.0	-	23.5	13.4	14.5	4.4	1.2	0.0	-	33.6	3.6	8.2	10.0	6.1	0.0	-	27.9	5.9	6.8	1.2	1.1	0.0	-	15.0	-
Lights	231	2063	378	46	0	-	2718	1590	1648	488	138	0	-	3864	424	972	1190	721	0	-	3307	674	801	140	118	0	-	1733	11622
% Lights	93.1	95.7	98.4	97.9	-	-	95.9	98.1	94.4	92.2	92.6	-	-	95.6	97.2	98.5	98.8	98.5	-	-	98.5	94.3	97.4	96.6	92.9	-	-	95.8	96.5
Buses	1	41	2	0	0	-	44	9	34	4	0	0	-	47	2	5	7	2	0	-	16	2	5	0	0	0	-	7	114
% Buses	0.4	1.9	0.5	0.0	-	-	1.6	0.6	1.9	0.8	0.0	-	-	1.2	0.5	0.5	0.6	0.3	-	-	0.5	0.3	0.6	0.0	0.0	-	-	0.4	0.9
Trucks	16	52	4	1	0	-	73	21	63	37	11	0	-	132	10	10	7	9	0	-	36	39	16	5	9	0	-	69	310
% Trucks	6.5	2.4	1.0	2.1	-	-	2.6	1.3	3.6	7.0	7.4	-	-	3.3	2.3	1.0	0.6	1.2	-	-	1.1	5.5	1.9	3.4	7.1	-	-	3.8	2.6
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Onondaga County, NY
NY 31/Rte 11
Wednesday, November 29, 2017
Location: 43.175471, -76.119281

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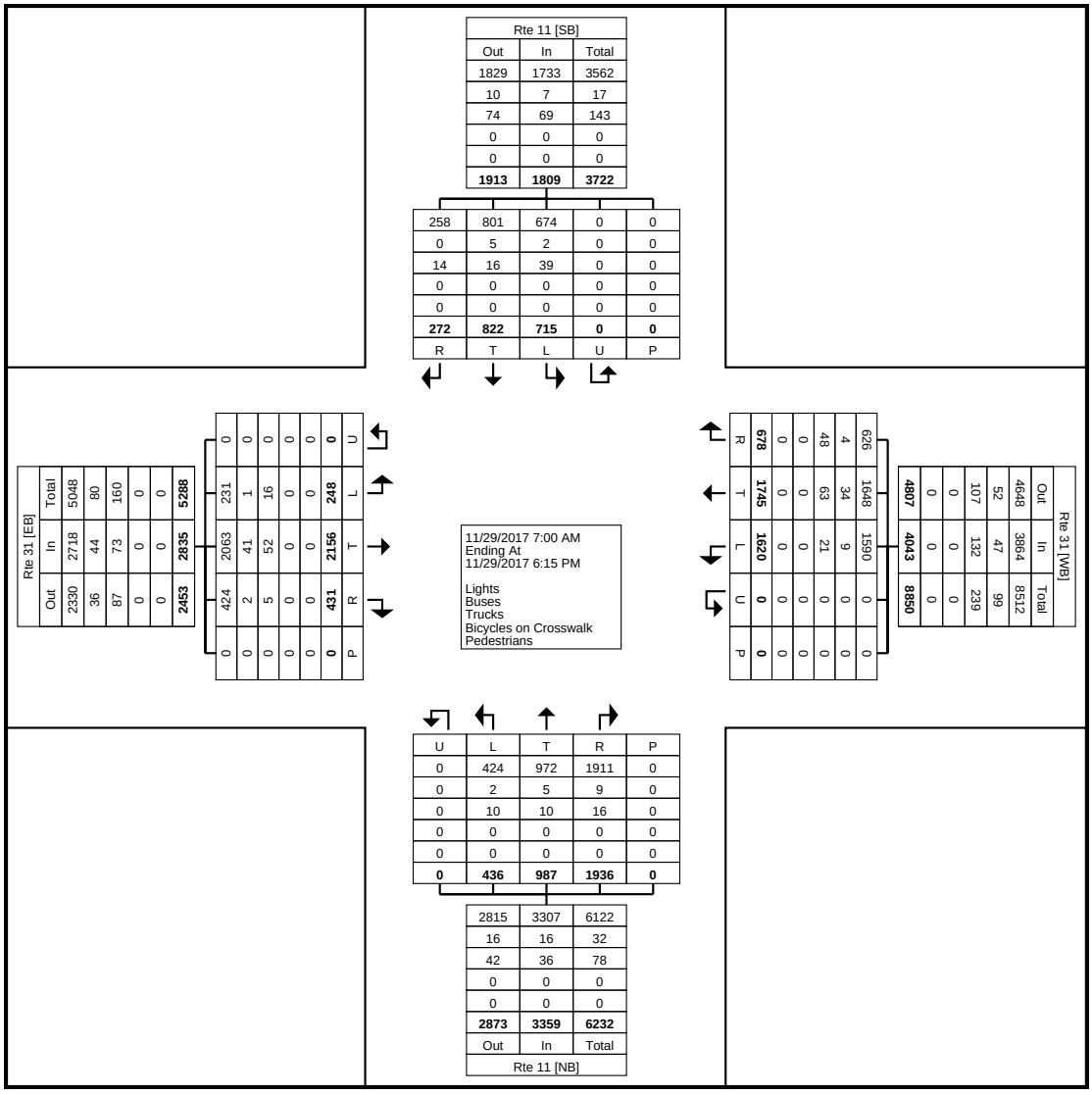

Turning Movement Data Plot

Onondaga County, NY
NY 31/Rte 11
Wednesday, November 29, 2017
Location: 43.175471, -76.119281

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Turning Movement Peak Hour Data (8:00 AM)

Start Time	Rte 31 Eastbound							Rte 31 Westbound							Rte 11 Northbound							Rte 11 Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
8:00 AM	9	142	8	1	0	0	160	35	52	16	6	0	0	109	7	5	41	4	0	0	57	21	14	1	6	0	0	42	368
8:15 AM	6	164	6	0	0	0	176	44	72	18	8	0	0	142	2	12	26	22	0	0	62	14	26	2	2	0	0	44	424
8:30 AM	10	158	9	2	0	0	179	46	70	15	10	0	0	141	8	19	27	18	0	0	72	24	23	5	3	0	0	55	447
8:45 AM	15	147	11	4	0	0	177	90	67	22	7	0	0	186	9	25	18	19	0	0	71	33	36	5	1	0	0	75	509
Total	40	611	34	7	0	0	692	215	261	71	31	0	0	578	26	61	112	63	0	0	262	92	99	13	12	0	0	216	1748
Approach %	5.8	88.3	4.9	1.0	0.0	-	-	37.2	45.2	12.3	5.4	0.0	-	-	9.9	23.3	42.7	24.0	0.0	-	-	42.6	45.8	6.0	5.6	0.0	-	-	-
Total %	2.3	35.0	1.9	0.4	0.0	-	39.6	12.3	14.9	4.1	1.8	0.0	-	33.1	1.5	3.5	6.4	3.6	0.0	-	15.0	5.3	5.7	0.7	0.7	0.0	-	12.4	-
PHF	0.667	0.931	0.773	0.438	0.000	-	0.966	0.597	0.906	0.807	0.775	0.000	-	0.777	0.722	0.610	0.683	0.716	0.000	-	0.910	0.697	0.688	0.650	0.500	0.000	-	0.720	0.859
Lights	36	593	33	7	0	-	669	209	241	66	28	0	-	544	23	59	109	58	0	-	249	89	96	11	11	0	-	207	1669
% Lights	90.0	97.1	97.1	100.0	-	-	96.7	97.2	92.3	93.0	90.3	-	-	94.1	88.5	96.7	97.3	92.1	-	-	95.0	96.7	97.0	84.6	91.7	-	-	95.8	95.5
Buses	0	9	0	0	0	-	9	2	9	1	0	0	-	12	0	0	1	1	0	-	2	0	2	0	0	0	-	2	25
% Buses	0.0	1.5	0.0	0.0	-	-	1.3	0.9	3.4	1.4	0.0	-	-	2.1	0.0	0.0	0.9	1.6	-	-	0.8	0.0	2.0	0.0	0.0	-	-	0.9	1.4
Trucks	4	9	1	0	0	-	14	4	11	4	3	0	-	22	3	2	2	4	0	-	11	3	1	2	1	0	-	7	54
% Trucks	10.0	1.5	2.9	0.0	-	-	2.0	1.9	4.2	5.6	9.7	-	-	3.8	11.5	3.3	1.8	6.3	-	-	4.2	3.3	1.0	15.4	8.3	-	-	3.2	3.1
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Onondaga County, NY
NY 31/Rte 11
Wednesday, November 29, 2017
Location: 43.175471, -76.119281

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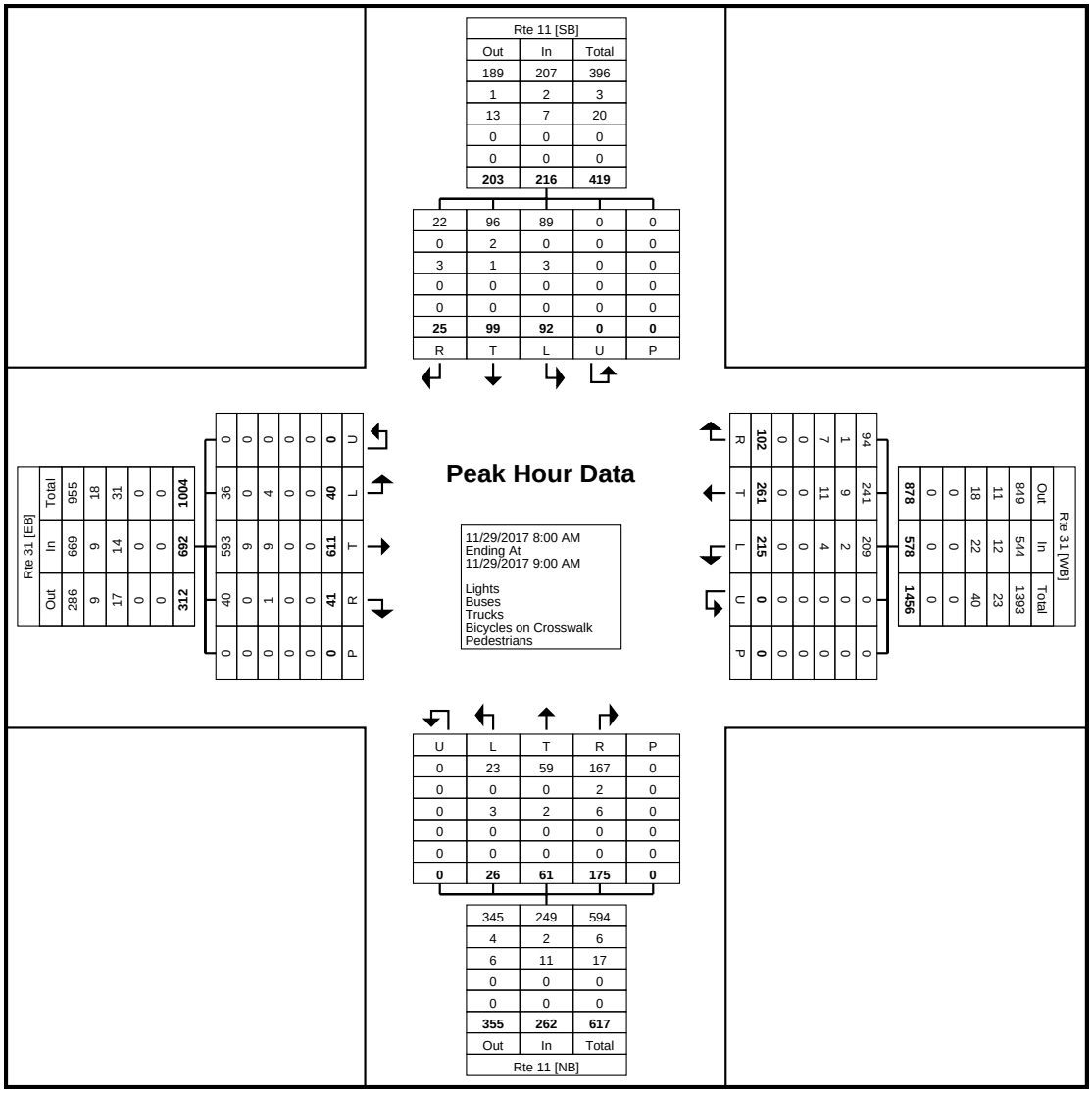

Turning Movement Peak Hour Data Plot (8:00 AM)

Onondaga County, NY
NY 31/Rte 11
Wednesday, November 29, 2017
Location: 43.175471, -76.119281

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Turning Movement Peak Hour Data (1:30 PM)

Start Time	Rte 31 Eastbound							Rte 31 Westbound							Rte 11 Northbound							Rte 11 Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
1:30 PM	18	57	24	1	0	0	100	81	77	18	8	0	0	184	31	49	63	41	0	0	184	42	41	3	3	0	0	89	557
1:45 PM	14	60	27	2	0	0	103	91	67	25	2	0	0	185	27	47	67	36	0	0	177	38	47	7	4	0	0	96	561
2:00 PM	8	55	15	9	0	0	87	73	68	28	7	0	0	176	26	45	61	42	0	0	174	27	48	16	3	0	0	94	531
2:15 PM	11	55	23	4	0	0	93	79	62	19	13	0	0	173	29	49	81	35	0	0	194	33	50	4	2	0	0	89	549
Total	51	227	89	16	0	0	383	324	274	90	30	0	0	718	113	190	272	154	0	0	729	140	186	30	12	0	0	368	2198
Approach %	13.3	59.3	23.2	4.2	0.0	-	-	45.1	38.2	12.5	4.2	0.0	-	-	15.5	26.1	37.3	21.1	0.0	-	-	38.0	50.5	8.2	3.3	0.0	-	-	-
Total %	2.3	10.3	4.0	0.7	0.0	-	17.4	14.7	12.5	4.1	1.4	0.0	-	32.7	5.1	8.6	12.4	7.0	0.0	-	33.2	6.4	8.5	1.4	0.5	0.0	-	16.7	-
PHF	0.708	0.946	0.824	0.444	0.000	-	0.930	0.890	0.890	0.804	0.577	0.000	-	0.970	0.911	0.969	0.840	0.917	0.000	-	0.939	0.833	0.930	0.469	0.750	0.000	-	0.958	0.980
Lights	49	211	88	15	0	-	363	322	263	84	29	0	-	698	111	187	270	153	0	-	721	126	177	29	12	0	-	344	2126
% Lights	96.1	93.0	98.9	93.8	-	-	94.8	99.4	96.0	93.3	96.7	-	-	97.2	98.2	98.4	99.3	99.4	-	-	98.9	90.0	95.2	96.7	100.0	-	-	93.5	96.7
Buses	0	2	0	0	0	-	2	0	0	0	0	0	-	0	0	1	2	0	0	-	3	0	1	0	0	0	-	1	6
% Buses	0.0	0.9	0.0	0.0	-	-	0.5	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.5	0.7	0.0	-	-	0.4	0.0	0.5	0.0	0.0	-	-	0.3	0.3
Trucks	2	14	1	1	0	-	18	2	11	6	1	0	-	20	2	2	0	1	0	-	5	14	8	1	0	0	-	23	66
% Trucks	3.9	6.2	1.1	6.3	-	-	4.7	0.6	4.0	6.7	3.3	-	-	2.8	1.8	1.1	0.0	0.6	-	-	0.7	10.0	4.3	3.3	0.0	-	-	6.3	3.0
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Onondaga County, NY
NY 31/Rte 11
Wednesday, November 29, 2017
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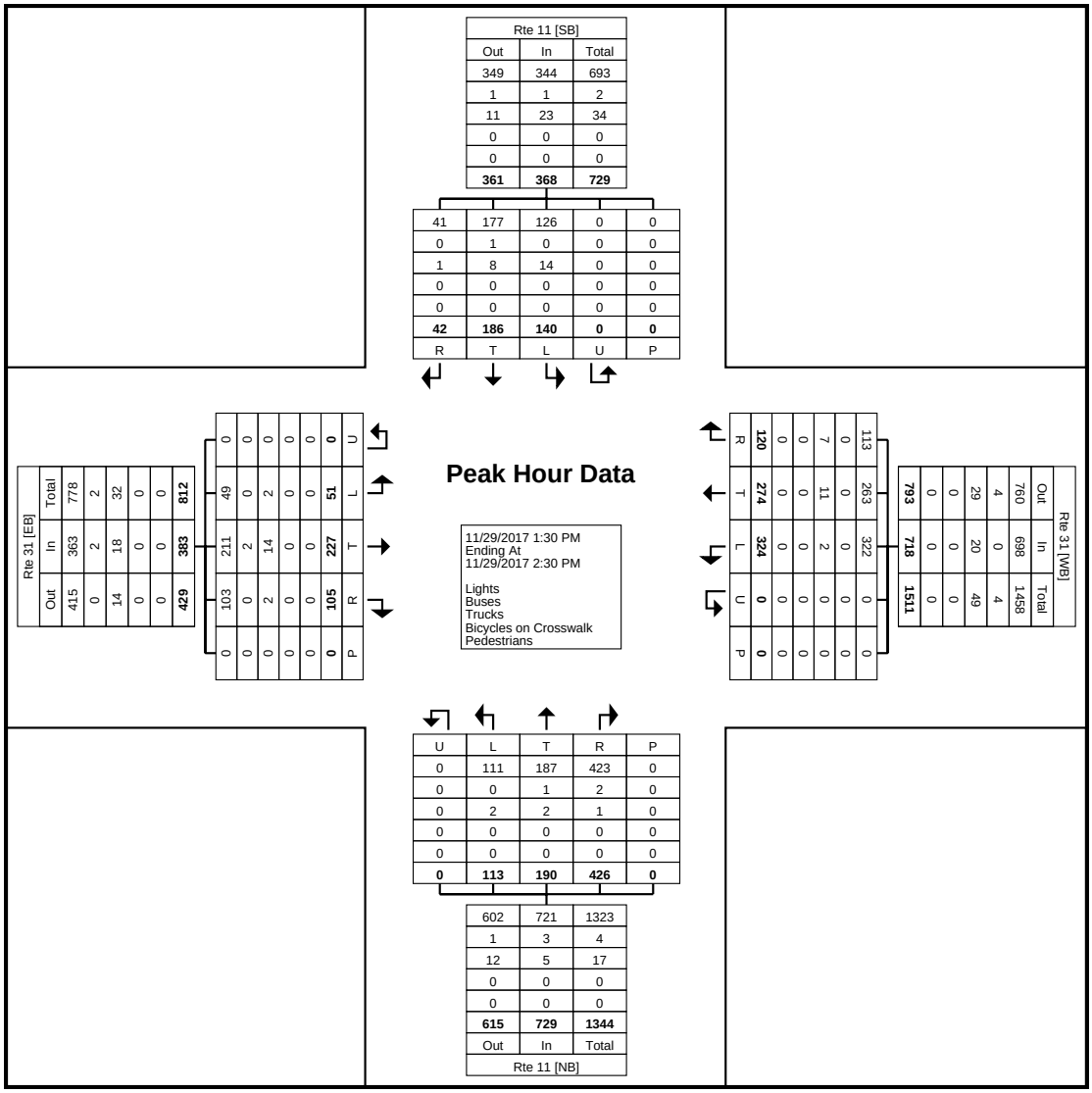

Turning Movement Peak Hour Data Plot (1:30 PM)

TRI-STATE TRAFFIC DATA

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Onondaga County, NY
NY 31/Rte 11
Wednesday, November 29, 2017
Location: 43.175471, -76.119281

Count Name: 3 Route 31-US Route 11
Site Code: SCU51V
Start Date: 11/29/2017

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Rte 31 Eastbound							Rte 31 Westbound							Rte 11 Northbound							Rte 11 Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
5:00 PM	13	87	16	2	0	0	118	74	108	32	5	0	0	219	14	68	55	50	0	0	187	40	34	10	11	0	0	95	619
5:15 PM	8	84	15	4	0	0	111	97	109	34	5	0	0	245	21	58	61	43	0	0	183	43	36	12	10	0	0	101	640
5:30 PM	8	83	19	2	0	0	112	67	105	22	9	0	0	203	30	73	61	51	0	0	215	40	57	12	7	0	0	116	646
5:45 PM	16	103	18	0	0	0	137	89	98	33	6	0	0	226	37	59	70	45	0	0	211	29	36	4	13	0	0	82	656
Total	45	357	68	8	0	0	478	327	420	121	25	0	0	893	102	258	247	189	0	0	796	152	163	38	41	0	0	394	2561
Approach %	9.4	74.7	14.2	1.7	0.0	-	-	36.6	47.0	13.5	2.8	0.0	-	-	12.8	32.4	31.0	23.7	0.0	-	-	38.6	41.4	9.6	10.4	0.0	-	-	-
Total %	1.8	13.9	2.7	0.3	0.0	-	18.7	12.8	16.4	4.7	1.0	0.0	-	34.9	4.0	10.1	9.6	7.4	0.0	-	31.1	5.9	6.4	1.5	1.6	0.0	-	15.4	-
PHF	0.703	0.867	0.895	0.500	0.000	-	0.872	0.843	0.963	0.890	0.694	0.000	-	0.911	0.689	0.884	0.882	0.926	0.000	-	0.926	0.884	0.715	0.792	0.788	0.000	-	0.849	0.976
Lights	44	343	68	8	0	-	463	326	405	113	25	0	-	869	101	256	244	187	0	-	788	145	160	37	41	0	-	383	2503
% Lights	97.8	96.1	100.0	100.0	-	-	96.9	99.7	96.4	93.4	100.0	-	-	97.3	99.0	99.2	98.8	98.9	-	-	99.0	95.4	98.2	97.4	100.0	-	-	97.2	97.7
Buses	0	8	0	0	0	-	8	1	6	0	0	0	-	7	1	1	2	1	0	-	5	1	0	0	0	0	-	1	21
% Buses	0.0	2.2	0.0	0.0	-	-	1.7	0.3	1.4	0.0	0.0	-	-	0.8	1.0	0.4	0.8	0.5	-	-	0.6	0.7	0.0	0.0	0.0	-	-	0.3	0.8
Trucks	1	6	0	0	0	-	7	0	9	8	0	0	-	17	0	1	1	1	0	-	3	6	3	1	0	0	-	10	37
% Trucks	2.2	1.7	0.0	0.0	-	-	1.5	0.0	2.1	6.6	0.0	-	-	1.9	0.0	0.4	0.4	0.5	-	-	0.4	3.9	1.8	2.6	0.0	-	-	2.5	1.4
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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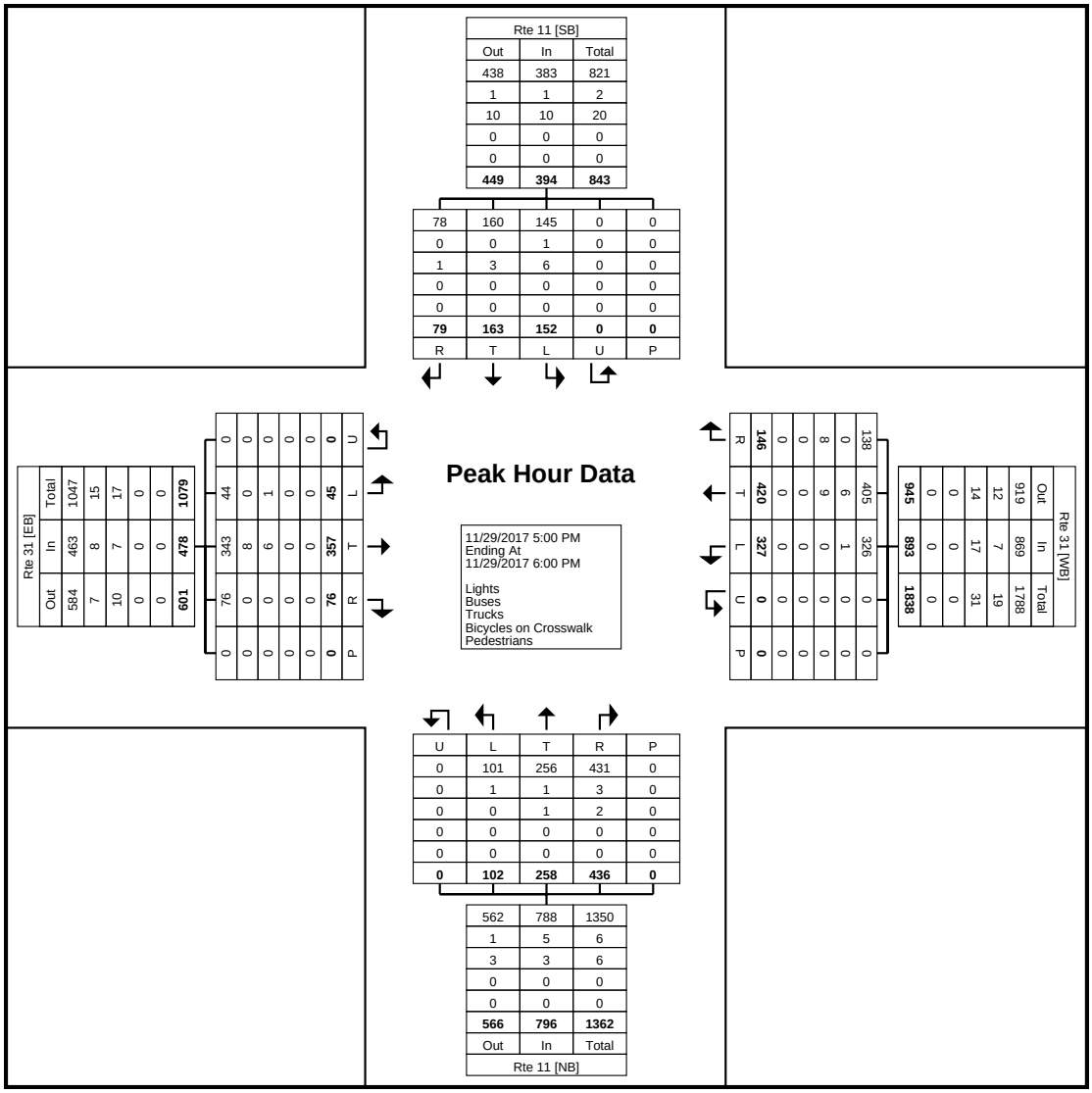
Onondaga County, NY
NY 31/Rte 11
Wednesday, November 29, 2017
Location: 43.175471, -76.119281

Count Name: 3 Route 31-US Route 11
Site Code: SCU51V
Start Date: 11/29/2017



Turning Movement Peak Hour Data Plot (5:00 PM)

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Onondaga County, NY
Rte 31/I-81 SB Ramps
Wednesday, November 29, 2017
Location: 43.175604, -76.11665

Count Name: 2 Route 31-I81 SB Ramps
Site Code: SCU7F2
Start Date: 11/29/2017

Turning Movement Data

Start Time	Rte 31 Eastbound						Rte 31 Westbound					Rte 81 SB On Ramp Northbound		Rte 81 SB Off Ramp to Rte 31 Southbound						Int. Total
	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	
7:00 AM	111	97	10	0	0	218	180	94	0	0	274	0	0	27	0	6	22	0	55	547
7:15 AM	129	98	18	0	0	245	189	118	0	0	307	0	0	27	0	9	20	0	56	608
7:30 AM	103	106	20	0	0	229	221	128	0	0	349	0	0	29	0	7	25	0	61	639
7:45 AM	128	84	24	0	0	236	160	158	0	0	318	0	0	36	0	16	17	0	69	623
Hourly Total	471	385	72	0	0	928	750	498	0	0	1248	0	0	119	0	38	84	0	241	2417
8:00 AM	99	84	17	0	0	200	142	143	0	0	285	0	0	28	0	17	23	0	68	553
8:15 AM	104	80	9	0	0	193	116	111	0	0	227	0	0	23	0	16	15	0	54	474
8:30 AM	111	49	14	0	0	174	117	138	0	0	255	0	0	25	0	11	18	0	54	483
8:45 AM	112	29	9	0	0	150	113	170	0	0	283	0	0	23	0	13	18	0	54	487
Hourly Total	426	242	49	0	0	717	488	562	0	0	1050	0	0	99	0	57	74	0	230	1997
9:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	2
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	2
1:00 PM	154	42	10	0	0	206	75	165	0	0	240	0	0	17	0	9	18	0	44	490
1:15 PM	169	43	3	0	0	215	68	193	0	0	261	0	0	14	0	6	17	0	37	513
1:30 PM	177	45	5	0	0	227	83	189	0	0	272	0	0	24	0	11	12	0	47	546
1:45 PM	174	46	3	0	0	223	71	158	0	0	229	1	0	15	0	18	22	0	55	507
Hourly Total	674	176	21	0	0	871	297	705	0	0	1002	1	0	70	0	44	69	0	183	2056
2:00 PM	183	41	1	0	0	225	113	188	0	0	301	0	0	14	0	13	19	0	46	572
2:15 PM	148	37	4	0	0	189	127	203	0	0	330	0	0	18	0	11	14	0	43	562
2:30 PM	170	39	2	0	0	211	103	198	0	0	301	0	0	19	0	14	16	0	49	561
2:45 PM	180	41	2	0	0	223	91	184	0	0	275	0	0	21	0	9	18	0	48	546
Hourly Total	681	158	9	0	0	848	434	773	0	0	1207	0	0	72	0	47	67	0	186	2241
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:00 PM	195	50	7	0	0	252	89	210	0	0	299	1	0	19	0	13	19	0	51	602
4:15 PM	179	59	7	0	0	245	74	220	0	0	294	0	0	26	0	14	16	0	56	595
4:30 PM	201	34	3	0	0	238	72	195	0	0	267	0	0	24	0	12	20	0	56	561
4:45 PM	219	47	3	0	0	269	73	222	0	0	295	1	0	31	0	17	16	0	64	628
Hourly Total	794	190	20	0	0	1004	308	847	0	0	1155	2	0	100	0	56	71	0	227	2386
5:00 PM	225	46	1	0	0	272	77	233	0	0	310	0	0	31	0	17	9	0	57	639
5:15 PM	230	47	0	0	0	277	91	249	0	0	340	0	0	44	0	22	11	0	77	694
5:30 PM	232	48	2	0	0	282	75	217	0	0	292	0	0	22	1	7	16	0	46	620
5:45 PM	211	40	0	0	0	251	65	214	0	0	279	0	0	42	0	15	19	0	76	606
Hourly Total	898	181	3	0	0	1082	308	913	0	0	1221	0	0	139	1	61	55	0	256	2559
6:00 PM	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	3
Grand Total	3944	1332	174	0	0	5450	2585	4302	0	0	6887	3	0	599	1	304	421	0	1325	13662
Approach %	72.4	24.4	3.2	0.0	-	-	37.5	62.5	0.0	-	-	-	-	45.2	0.1	22.9	31.8	-	-	-
Total %	28.9	9.7	1.3	0.0	-	39.9	18.9	31.5	0.0	-	50.4	-	0.0	4.4	0.0	2.2	3.1	-	9.7	-
Lights	3824	1269	169	0	-	5262	2488	4142	0	-	6630	-	0	582	1	286	406	-	1275	13167
% Lights	97.0	95.3	97.1	-	-	96.6	96.2	96.3	-	-	96.3	-	-	97.2	100.0	94.1	96.4	-	96.2	96.4
Buses	35	12	0	0	-	47	40	59	0	-	99	-	0	0	0	0	1	-	1	147
% Buses	0.9	0.9	0.0	-	-	0.9	1.5	1.4	-	-	1.4	-	-	0.0	0.0	0.0	0.2	-	0.1	1.1
Trucks	85	51	5	0	-	141	57	101	0	-	158	-	0	17	0	18	14	-	49	348
% Trucks	2.2	3.8	2.9	-	-	2.6	2.2	2.3	-	-	2.3	-	-	2.8	0.0	5.9	3.3	-	3.7	2.5
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	1	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	33.3	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	2	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	66.7	-	-	-	-	-	-	-	-

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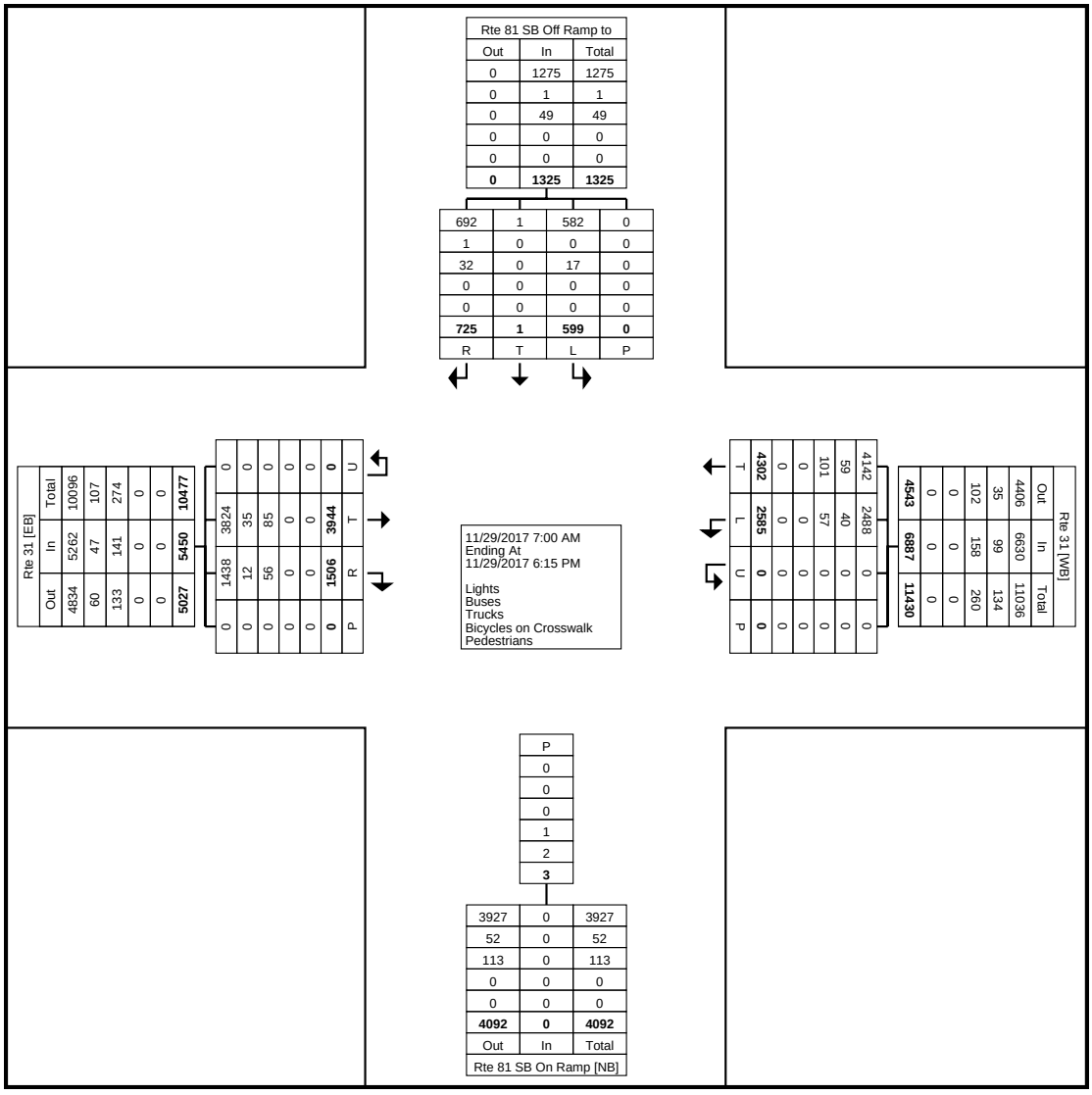
Onondaga County, NY
Rte 31/I-81 SB Ramps
Wednesday, November 29, 2017
Location: 43.175604, -76.11665

Count Name: 2 Route 31-I81 SB Ramps
Site Code: SCU7F2
Start Date: 11/29/2017



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Rte 31/I-81 SB Ramps
Wednesday, November 29, 2017
Location: 43.175604, -76.11665

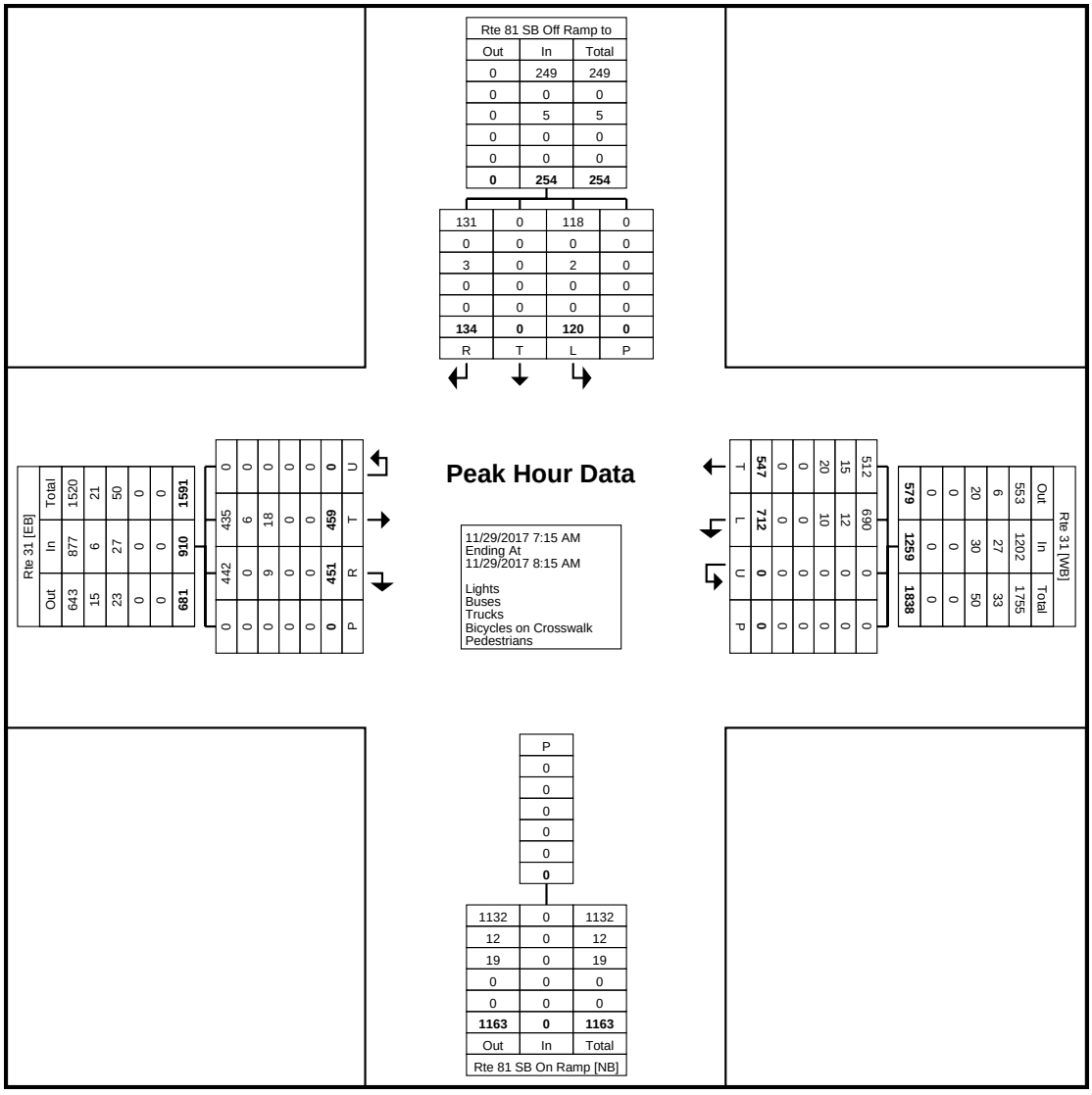
Count Name: 2 Route 31-I81 SB Ramps
Site Code: SCU7F2
Start Date: 11/29/2017

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Rte 31 Eastbound						Rte 31 Westbound					Rte 81 SB On Ramp Northbound		Rte 81 SB Off Ramp to Rte 31 Southbound						Int. Total
	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	
7:15 AM	129	98	18	0	0	245	189	118	0	0	307	0	0	27	0	9	20	0	56	608
7:30 AM	103	106	20	0	0	229	221	128	0	0	349	0	0	29	0	7	25	0	61	639
7:45 AM	128	84	24	0	0	236	160	158	0	0	318	0	0	36	0	16	17	0	69	623
8:00 AM	99	84	17	0	0	200	142	143	0	0	285	0	0	28	0	17	23	0	68	553
Total	459	372	79	0	0	910	712	547	0	0	1259	0	0	120	0	49	85	0	254	2423
Approach %	50.4	40.9	8.7	0.0	-	-	56.6	43.4	0.0	-	-	-	-	47.2	0.0	19.3	33.5	-	-	-
Total %	18.9	15.4	3.3	0.0	-	37.6	29.4	22.6	0.0	-	52.0	-	0.0	5.0	0.0	2.0	3.5	-	10.5	-
PHF	0.890	0.877	0.823	0.000	-	0.929	0.805	0.866	0.000	-	0.902	-	0.000	0.833	0.000	0.721	0.850	-	0.920	0.948
Lights	435	364	78	0	-	877	690	512	0	-	1202	-	0	118	0	48	83	-	249	2328
% Lights	94.8	97.8	98.7	-	-	96.4	96.9	93.6	-	-	95.5	-	-	98.3	-	98.0	97.6	-	98.0	96.1
Buses	6	0	0	0	-	6	12	15	0	-	27	-	0	0	0	0	0	-	0	33
% Buses	1.3	0.0	0.0	-	-	0.7	1.7	2.7	-	-	2.1	-	-	0.0	-	0.0	0.0	-	0.0	1.4
Trucks	18	8	1	0	-	27	10	20	0	-	30	-	0	2	0	1	2	-	5	62
% Trucks	3.9	2.2	1.3	-	-	3.0	1.4	3.7	-	-	2.4	-	-	1.7	-	2.0	2.4	-	2.0	2.6
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Onondaga County, NY
Rte 31/I-81 SB Ramps
Wednesday, November 29, 2017
Location: 43.175604, -76.11665

Count Name: 2 Route 31-I81 SB Ramps
Site Code: SCU7F2
Start Date: 11/29/2017



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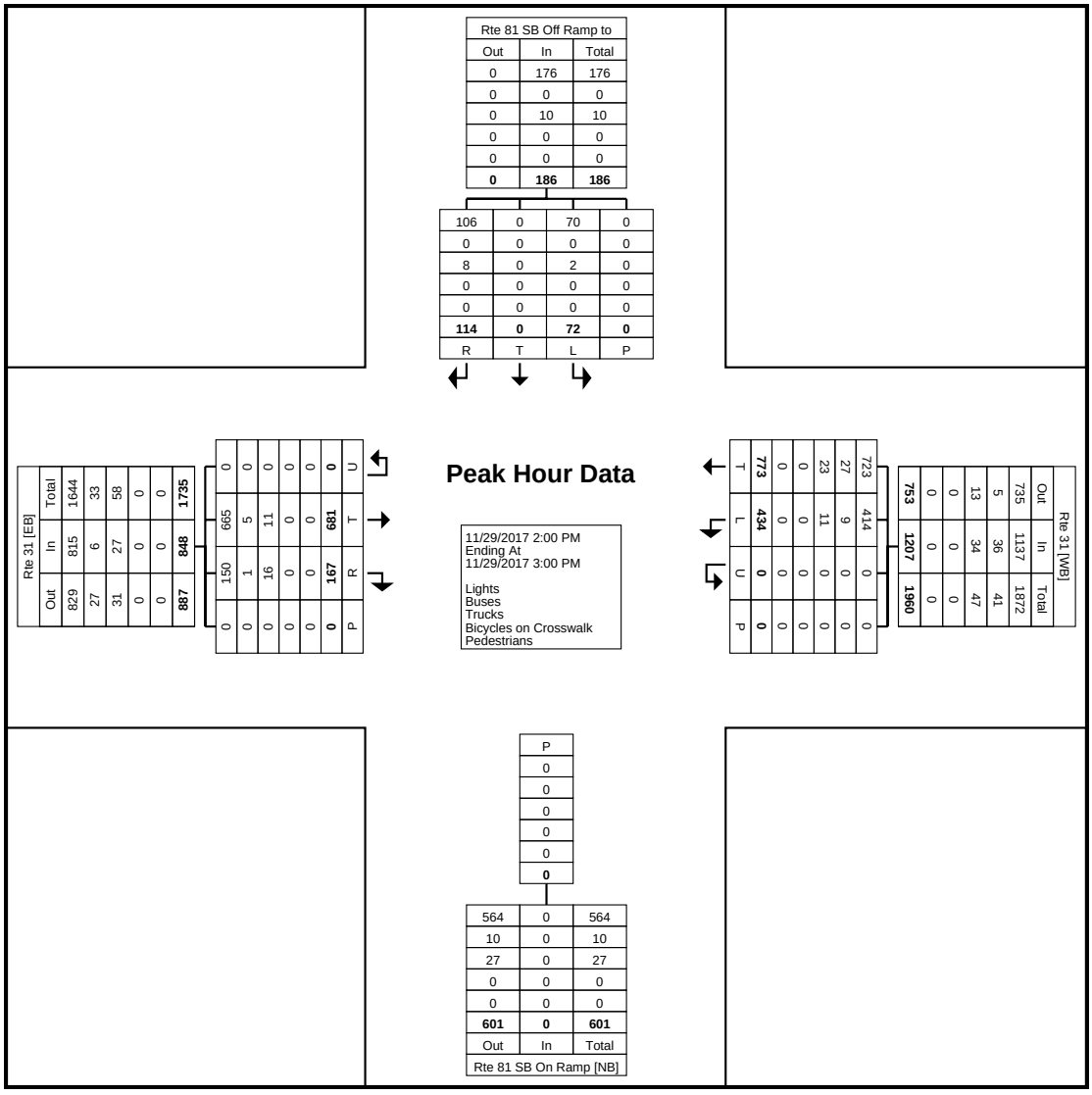
Onondaga County, NY
Rte 31/I-81 SB Ramps
Wednesday, November 29, 2017
Location: 43.175604, -76.11665

Count Name: 2 Route 31-I81 SB Ramps
Site Code: SCU7F2
Start Date: 11/29/2017

Turning Movement Peak Hour Data (2:00 PM)

Start Time	Rte 31 Eastbound						Rte 31 Westbound					Rte 81 SB On Ramp Northbound		Rte 81 SB Off Ramp to Rte 31 Southbound						Int. Total
	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	
2:00 PM	183	41	1	0	0	225	113	188	0	0	301	0	0	14	0	13	19	0	46	572
2:15 PM	148	37	4	0	0	189	127	203	0	0	330	0	0	18	0	11	14	0	43	562
2:30 PM	170	39	2	0	0	211	103	198	0	0	301	0	0	19	0	14	16	0	49	561
2:45 PM	180	41	2	0	0	223	91	184	0	0	275	0	0	21	0	9	18	0	48	546
Total	681	158	9	0	0	848	434	773	0	0	1207	0	0	72	0	47	67	0	186	2241
Approach %	80.3	18.6	1.1	0.0	-	-	36.0	64.0	0.0	-	-	-	-	38.7	0.0	25.3	36.0	-	-	-
Total %	30.4	7.1	0.4	0.0	-	37.8	19.4	34.5	0.0	-	53.9	-	0.0	3.2	0.0	2.1	3.0	-	8.3	-
PHF	0.930	0.963	0.563	0.000	-	0.942	0.854	0.952	0.000	-	0.914	-	0.000	0.857	0.000	0.839	0.882	-	0.949	0.979
Lights	665	142	8	0	-	815	414	723	0	-	1137	-	0	70	0	43	63	-	176	2128
% Lights	97.7	89.9	88.9	-	-	96.1	95.4	93.5	-	-	94.2	-	-	97.2	-	91.5	94.0	-	94.6	95.0
Buses	5	1	0	0	-	6	9	27	0	-	36	-	0	0	0	0	0	-	0	42
% Buses	0.7	0.6	0.0	-	-	0.7	2.1	3.5	-	-	3.0	-	-	0.0	-	0.0	0.0	-	0.0	1.9
Trucks	11	15	1	0	-	27	11	23	0	-	34	-	0	2	0	4	4	-	10	71
% Trucks	1.6	9.5	11.1	-	-	3.2	2.5	3.0	-	-	2.8	-	-	2.8	-	8.5	6.0	-	5.4	3.2
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Turning Movement Peak Hour Data Plot (2:00 PM)

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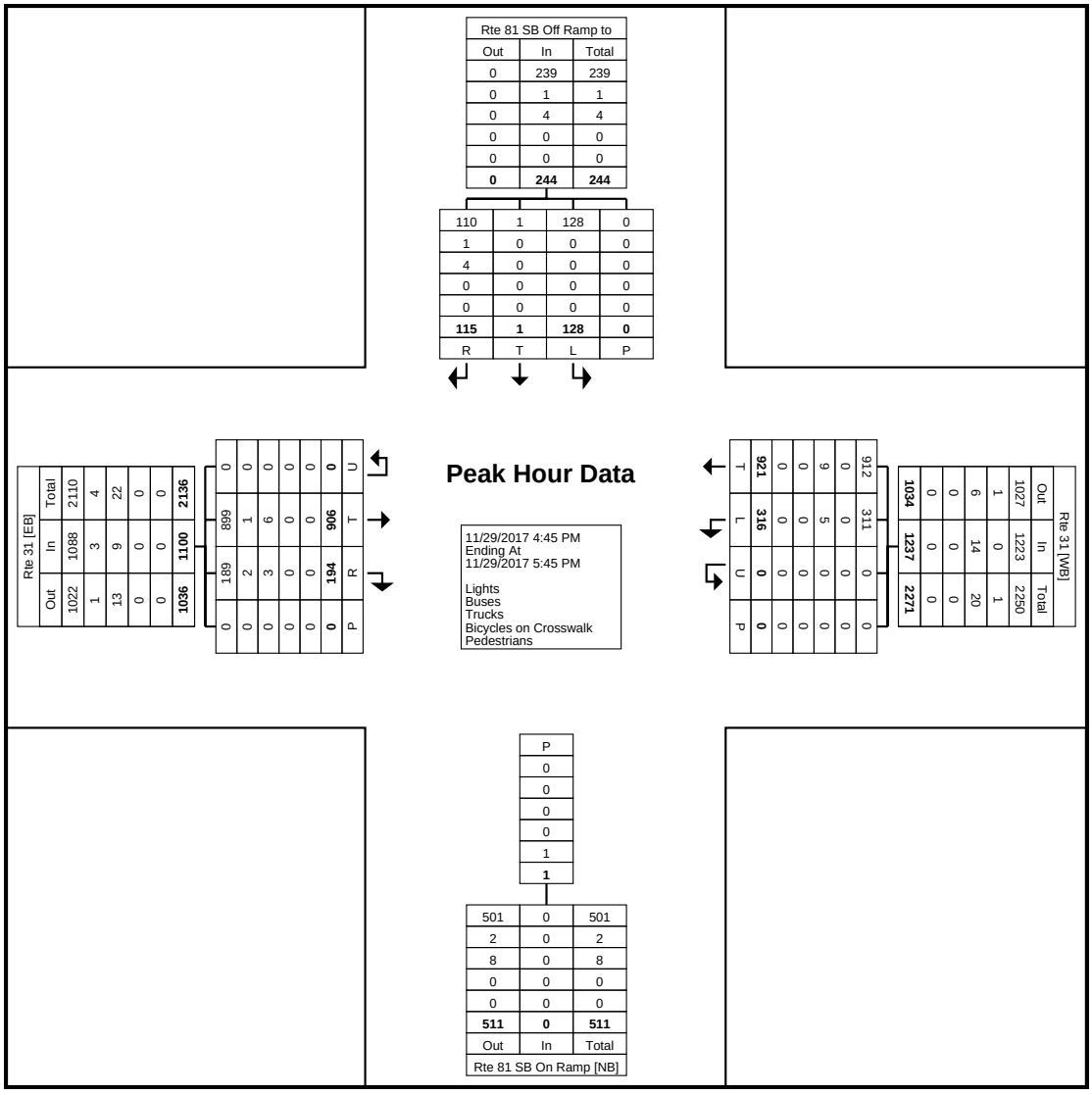
Onondaga County, NY
Rte 31/I-81 SB Ramps
Wednesday, November 29, 2017
Location: 43.175604, -76.11665

Count Name: 2 Route 31-I81 SB Ramps
Site Code: SCU7F2
Start Date: 11/29/2017

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Rte 31 Eastbound						Rte 31 Westbound					Rte 81 SB On Ramp Northbound		Rte 81 SB Off Ramp to Rte 31 Southbound						Int. Total
	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	
4:45 PM	219	47	3	0	0	269	73	222	0	0	295	1	0	31	0	17	16	0	64	628
5:00 PM	225	46	1	0	0	272	77	233	0	0	310	0	0	31	0	17	9	0	57	639
5:15 PM	230	47	0	0	0	277	91	249	0	0	340	0	0	44	0	22	11	0	77	694
5:30 PM	232	48	2	0	0	282	75	217	0	0	292	0	0	22	1	7	16	0	46	620
Total	906	188	6	0	0	1100	316	921	0	0	1237	1	0	128	1	63	52	0	244	2581
Approach %	82.4	17.1	0.5	0.0	-	-	25.5	74.5	0.0	-	-	-	-	52.5	0.4	25.8	21.3	-	-	-
Total %	35.1	7.3	0.2	0.0	-	42.6	12.2	35.7	0.0	-	47.9	-	0.0	5.0	0.0	2.4	2.0	-	9.5	-
PHF	0.976	0.979	0.500	0.000	-	0.975	0.868	0.925	0.000	-	0.910	-	0.000	0.727	0.250	0.716	0.813	-	0.792	0.930
Lights	899	183	6	0	-	1088	311	912	0	-	1223	-	0	128	1	61	49	-	239	2550
% Lights	99.2	97.3	100.0	-	-	98.9	98.4	99.0	-	-	98.9	-	-	100.0	100.0	96.8	94.2	-	98.0	98.8
Buses	1	2	0	0	-	3	0	0	0	-	0	-	0	0	0	0	1	-	1	4
% Buses	0.1	1.1	0.0	-	-	0.3	0.0	0.0	-	-	0.0	-	-	0.0	0.0	0.0	1.9	-	0.4	0.2
Trucks	6	3	0	0	-	9	5	9	0	-	14	-	0	0	0	2	2	-	4	27
% Trucks	0.7	1.6	0.0	-	-	0.8	1.6	1.0	-	-	1.1	-	-	0.0	0.0	3.2	3.8	-	1.6	1.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-



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Onondaga County, NY
Rte 31 @ I-81 NB Ramps
Wednesday, November 29, 2017
Location: 43.175656, -76.115294

Count Name: 1 Route 31-I81 NB Ramps
Site Code: SCU3ME
Start Date: 11/29/2017

Turning Movement Data

Start Time	Rte 31 Eastbound					Rte 31 Westbound					Rte 81 off ramp to Rte 31 Northbound						Pardee Rd Southbound						
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Right	Right on Red	U-Turn	Peds	App. Total	Int. Total
7:00 AM	15	115	0	0	130	212	20	0	0	232	23	4	66	45	0	138	0	48	2	0	0	50	550
7:15 AM	25	139	0	0	164	235	17	0	0	252	31	11	56	44	0	142	0	32	0	0	0	32	590
7:30 AM	23	116	0	0	139	244	21	0	0	265	24	9	22	58	0	113	0	68	0	0	0	68	585
7:45 AM	20	137	0	0	157	237	20	0	0	257	31	6	45	34	0	116	0	39	0	0	0	39	569
Hourly Total	83	507	0	0	590	928	78	0	0	1006	109	30	189	181	0	509	0	187	2	0	0	189	2294
8:00 AM	27	97	0	0	124	239	18	0	0	257	28	4	24	25	0	81	0	15	11	0	0	26	488
8:15 AM	19	104	0	0	123	171	17	0	0	188	30	10	20	36	0	96	0	12	7	0	0	19	426
8:30 AM	24	117	0	0	141	199	13	0	0	212	34	6	24	23	1	87	0	15	13	0	0	28	468
8:45 AM	31	105	0	0	136	190	20	0	0	210	46	7	19	47	0	119	0	16	15	0	0	31	496
Hourly Total	101	423	0	0	524	799	68	0	0	867	138	27	87	131	1	383	0	58	46	0	0	104	1878
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1:00 PM	41	131	0	0	172	165	32	0	0	197	40	19	33	18	1	110	0	5	10	0	0	15	494
1:15 PM	36	143	0	0	179	174	33	0	0	207	49	14	31	20	0	114	0	0	21	0	0	21	521
1:30 PM	38	163	0	0	201	194	31	0	0	225	33	11	61	16	0	121	0	0	21	0	0	21	568
1:45 PM	38	156	0	0	194	170	48	0	0	218	50	9	67	25	1	151	0	2	13	0	0	15	578
Hourly Total	153	593	0	0	746	703	144	0	0	847	172	53	192	79	2	496	0	7	65	0	0	72	2161
2:00 PM	39	155	0	0	194	250	38	0	0	288	37	13	47	16	3	113	0	2	18	0	0	20	615
2:15 PM	42	126	0	0	168	232	38	0	0	270	47	14	57	23	0	141	0	1	26	0	0	27	606
2:30 PM	29	155	0	0	184	205	43	0	0	248	56	14	35	42	0	147	0	9	31	0	0	40	619
2:45 PM	42	164	0	0	206	195	37	0	0	232	56	11	42	50	1	159	0	3	17	0	0	20	617
Hourly Total	152	600	0	0	752	882	156	0	0	1038	196	52	181	131	4	560	0	15	92	0	0	107	2457
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	53	169	0	0	222	186	53	0	0	239	79	27	82	38	1	226	0	0	31	0	0	31	718
4:15 PM	52	151	0	0	203	193	46	0	0	239	81	19	91	55	0	246	0	1	26	0	0	27	715
4:30 PM	61	172	0	0	233	162	48	0	0	210	64	13	88	42	0	207	0	0	25	0	0	25	675
4:45 PM	53	183	0	0	236	193	39	0	0	232	89	17	131	47	0	284	0	0	16	0	0	16	768
Hourly Total	219	675	0	0	894	734	186	0	0	920	313	76	392	182	1	963	0	1	98	0	0	99	2876
5:00 PM	72	183	0	0	255	198	43	0	0	241	89	30	116	45	0	280	0	0	27	0	0	27	803
5:15 PM	78	220	0	0	298	187	51	0	0	238	90	33	128	34	0	285	0	3	20	0	0	23	844
5:30 PM	60	199	0	0	259	184	48	0	0	232	72	19	111	33	0	235	0	5	12	0	0	17	743
5:45 PM	66	175	0	0	241	163	32	0	0	195	70	25	84	46	0	225	0	1	16	0	0	17	678
Hourly Total	276	777	0	0	1053	732	174	0	0	906	321	107	439	158	0	1025	0	9	75	0	0	84	3068
Grand Total	984	3575	0	0	4559	4778	806	0	0	5584	1249	345	1480	862	8	3936	0	277	378	0	0	655	14734
Approach %	21.6	78.4	0.0	-	-	85.6	14.4	0.0	-	-	31.7	8.8	37.6	21.9	-	-	0.0	42.3	57.7	0.0	-	-	-
Total %	6.7	24.3	0.0	-	30.9	32.4	5.5	0.0	-	37.9	8.5	2.3	10.0	5.9	-	26.7	0.0	1.9	2.6	0.0	-	4.4	-
Lights	954	3470	0	-	4424	4624	785	0	-	5409	1191	302	1378	850	-	3721	0	255	359	0	-	614	14168
% Lights	97.0	97.1	-	-	97.0	96.8	97.4	-	-	96.9	95.4	87.5	93.1	98.6	-	94.5	-	92.1	95.0	-	-	93.7	96.2
Buses	1	33	0	-	34	82	2	0	-	84	7	3	82	3	-	95	0	3	4	0	-	7	220
% Buses	0.1	0.9	-	-	0.7	1.7	0.2	-	-	1.5	0.6	0.9	5.5	0.3	-	2.4	-	1.1	1.1	-	-	1.1	1.5
Trucks	29	72	0	-	101	72	19	0	-	91	51	40	20	9	-	120	0	19	15	0	-	34	346
% Trucks	2.9	2.0	-	-	2.2	1.5	2.4	-	-	1.6	4.1	11.6	1.4	1.0	-	3.0	-	6.9	4.0	-	-	5.2	2.3
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	-	6	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75.0	-	-	-	-	-	-	-	-

Onondaga County, NY
Rte 31 @ I-81 NB Ramps
Wednesday, November 29, 2017
Location: 43.175656, -76.115294

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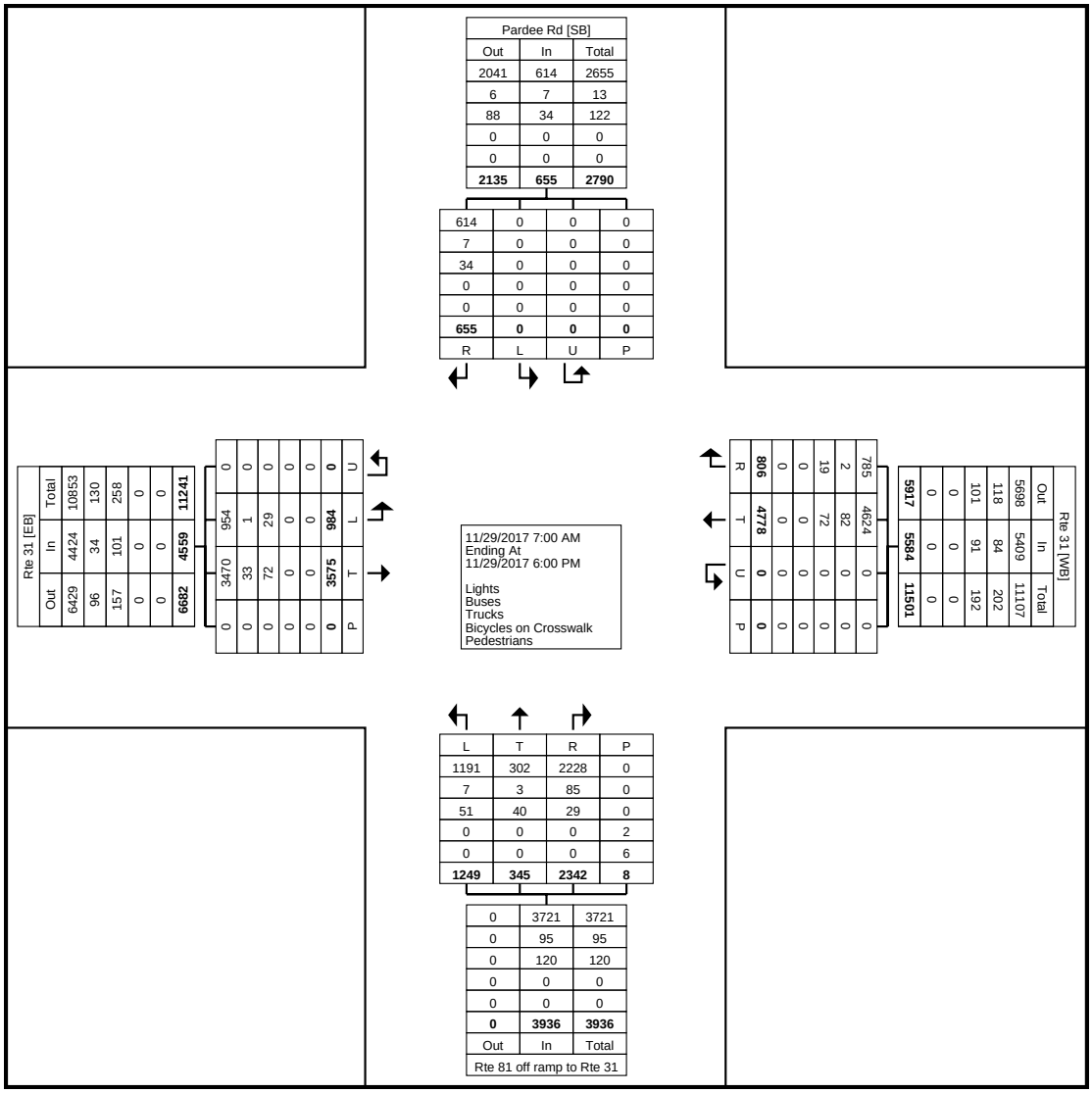

Turning Movement Data Plot

Onondaga County, NY
Rte 31 @ I-81 NB Ramps
Wednesday, November 29, 2017
Location: 43.175656, -76.115294

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Turning Movement Peak Hour Data (7:00 AM)

Start Time	Rte 31 Eastbound					Rte 31 Westbound					Rte 81 off ramp to Rte 31 Northbound						Pardee Rd Southbound						
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Right	Right on Red	U-Turn	Peds	App. Total	Int. Total
7:00 AM	15	115	0	0	130	212	20	0	0	232	23	4	66	45	0	138	0	48	2	0	0	50	550
7:15 AM	25	139	0	0	164	235	17	0	0	252	31	11	56	44	0	142	0	32	0	0	0	32	590
7:30 AM	23	116	0	0	139	244	21	0	0	265	24	9	22	58	0	113	0	68	0	0	0	68	585
7:45 AM	20	137	0	0	157	237	20	0	0	257	31	6	45	34	0	116	0	39	0	0	0	39	569
Total	83	507	0	0	590	928	78	0	0	1006	109	30	189	181	0	509	0	187	2	0	0	189	2294
Approach %	14.1	85.9	0.0	-	-	92.2	7.8	0.0	-	-	21.4	5.9	37.1	35.6	-	-	0.0	98.9	1.1	0.0	-	-	-
Total %	3.6	22.1	0.0	-	25.7	40.5	3.4	0.0	-	43.9	4.8	1.3	8.2	7.9	-	22.2	0.0	8.2	0.1	0.0	-	8.2	-
PHF	0.830	0.912	0.000	-	0.899	0.951	0.929	0.000	-	0.949	0.879	0.682	0.716	0.780	-	0.896	0.000	0.688	0.250	0.000	-	0.695	0.972
Lights	78	485	0	-	563	900	76	0	-	976	98	19	163	179	-	459	0	172	2	0	-	174	2172
% Lights	94.0	95.7	-	-	95.4	97.0	97.4	-	-	97.0	89.9	63.3	86.2	98.9	-	90.2	-	92.0	100.0	-	-	92.1	94.7
Buses	0	11	0	-	11	21	0	0	-	21	2	2	21	2	-	27	0	2	0	0	-	2	61
% Buses	0.0	2.2	-	-	1.9	2.3	0.0	-	-	2.1	1.8	6.7	11.1	1.1	-	5.3	-	1.1	0.0	-	-	1.1	2.7
Trucks	5	11	0	-	16	7	2	0	-	9	9	9	5	0	-	23	0	13	0	0	-	13	61
% Trucks	6.0	2.2	-	-	2.7	0.8	2.6	-	-	0.9	8.3	30.0	2.6	0.0	-	4.5	-	7.0	0.0	-	-	6.9	2.7
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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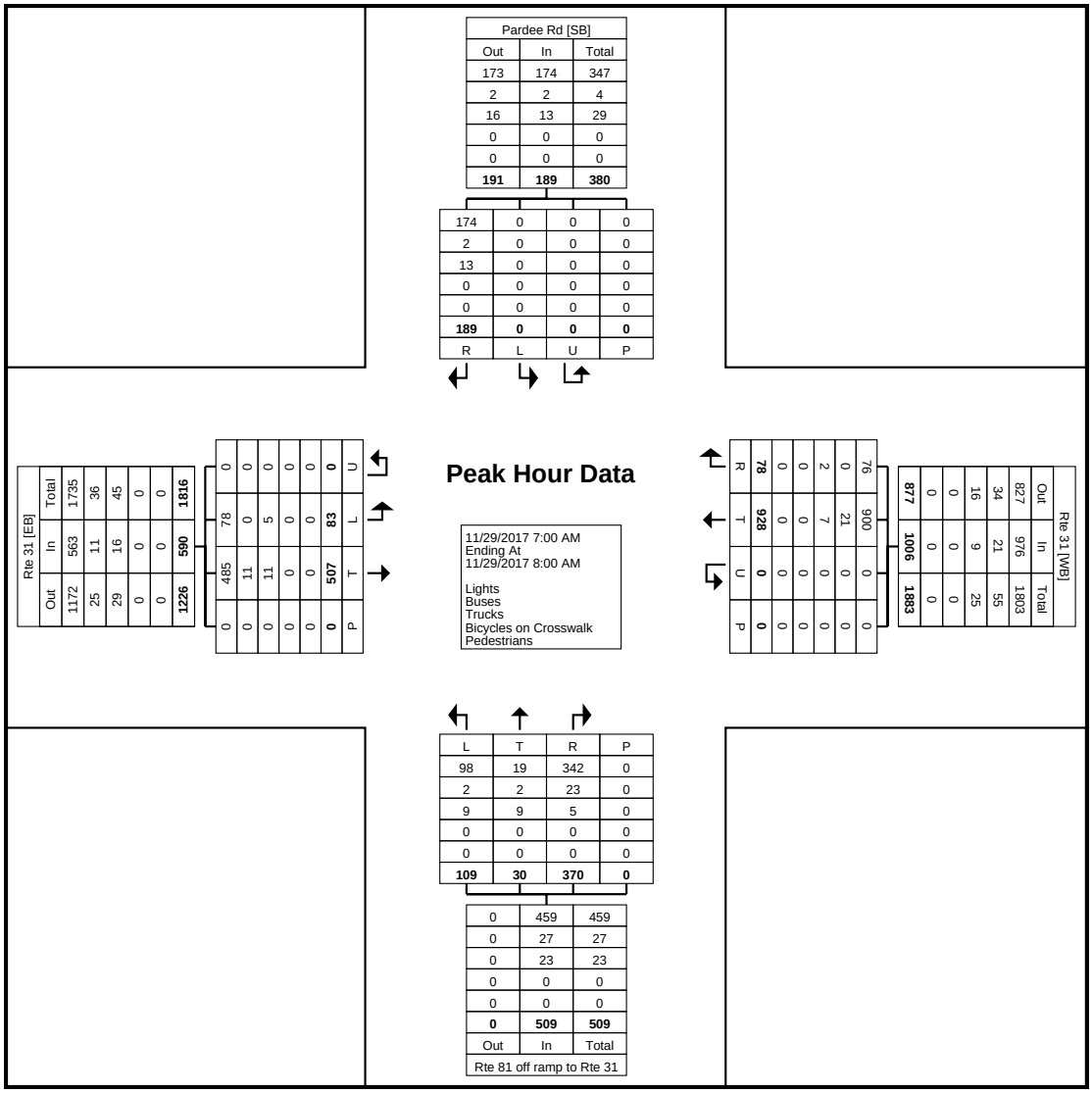
Onondaga County, NY
Rte 31 @ I-81 NB Ramps
Wednesday, November 29, 2017
Location: 43.175656, -76.115294

Count Name: 1 Route 31-I81 NB Ramps
Site Code: SCU3ME
Start Date: 11/29/2017



Turning Movement Peak Hour Data Plot (7:00 AM)

Onondaga County, NY
Rte 31 @ I-81 NB Ramps
Wednesday, November 29, 2017
Location: 43.175656, -76.115294

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Turning Movement Peak Hour Data (2:00 PM)

Start Time	Rte 31 Eastbound					Rte 31 Westbound					Rte 81 off ramp to Rte 31 Northbound						Pardee Rd Southbound						
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Right	Right on Red	U-Turn	Peds	App. Total	Int. Total
2:00 PM	39	155	0	0	194	250	38	0	0	288	37	13	47	16	3	113	0	2	18	0	0	20	615
2:15 PM	42	126	0	0	168	232	38	0	0	270	47	14	57	23	0	141	0	1	26	0	0	27	606
2:30 PM	29	155	0	0	184	205	43	0	0	248	56	14	35	42	0	147	0	9	31	0	0	40	619
2:45 PM	42	164	0	0	206	195	37	0	0	232	56	11	42	50	1	159	0	3	17	0	0	20	617
Total	152	600	0	0	752	882	156	0	0	1038	196	52	181	131	4	560	0	15	92	0	0	107	2457
Approach %	20.2	79.8	0.0	-	-	85.0	15.0	0.0	-	-	35.0	9.3	32.3	23.4	-	-	0.0	14.0	86.0	0.0	-	-	-
Total %	6.2	24.4	0.0	-	30.6	35.9	6.3	0.0	-	42.2	8.0	2.1	7.4	5.3	-	22.8	0.0	0.6	3.7	0.0	-	4.4	-
PHF	0.905	0.915	0.000	-	0.913	0.882	0.907	0.000	-	0.901	0.875	0.929	0.794	0.655	-	0.881	0.000	0.417	0.742	0.000	-	0.669	0.992
Lights	148	582	0	-	730	831	152	0	-	983	185	46	166	128	-	525	0	13	89	0	-	102	2340
% Lights	97.4	97.0	-	-	97.1	94.2	97.4	-	-	94.7	94.4	88.5	91.7	97.7	-	93.8	-	86.7	96.7	-	-	95.3	95.2
Buses	0	5	0	-	5	32	2	0	-	34	3	0	12	0	-	15	0	0	0	0	-	0	54
% Buses	0.0	0.8	-	-	0.7	3.6	1.3	-	-	3.3	1.5	0.0	6.6	0.0	-	2.7	-	0.0	0.0	-	-	0.0	2.2
Trucks	4	13	0	-	17	19	2	0	-	21	8	6	3	3	-	20	0	2	3	0	-	5	63
% Trucks	2.6	2.2	-	-	2.3	2.2	1.3	-	-	2.0	4.1	11.5	1.7	2.3	-	3.6	-	13.3	3.3	-	-	4.7	2.6
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75.0	-	-	-	-	-	-	-	-

Onondaga County, NY
Rte 31 @ I-81 NB Ramps
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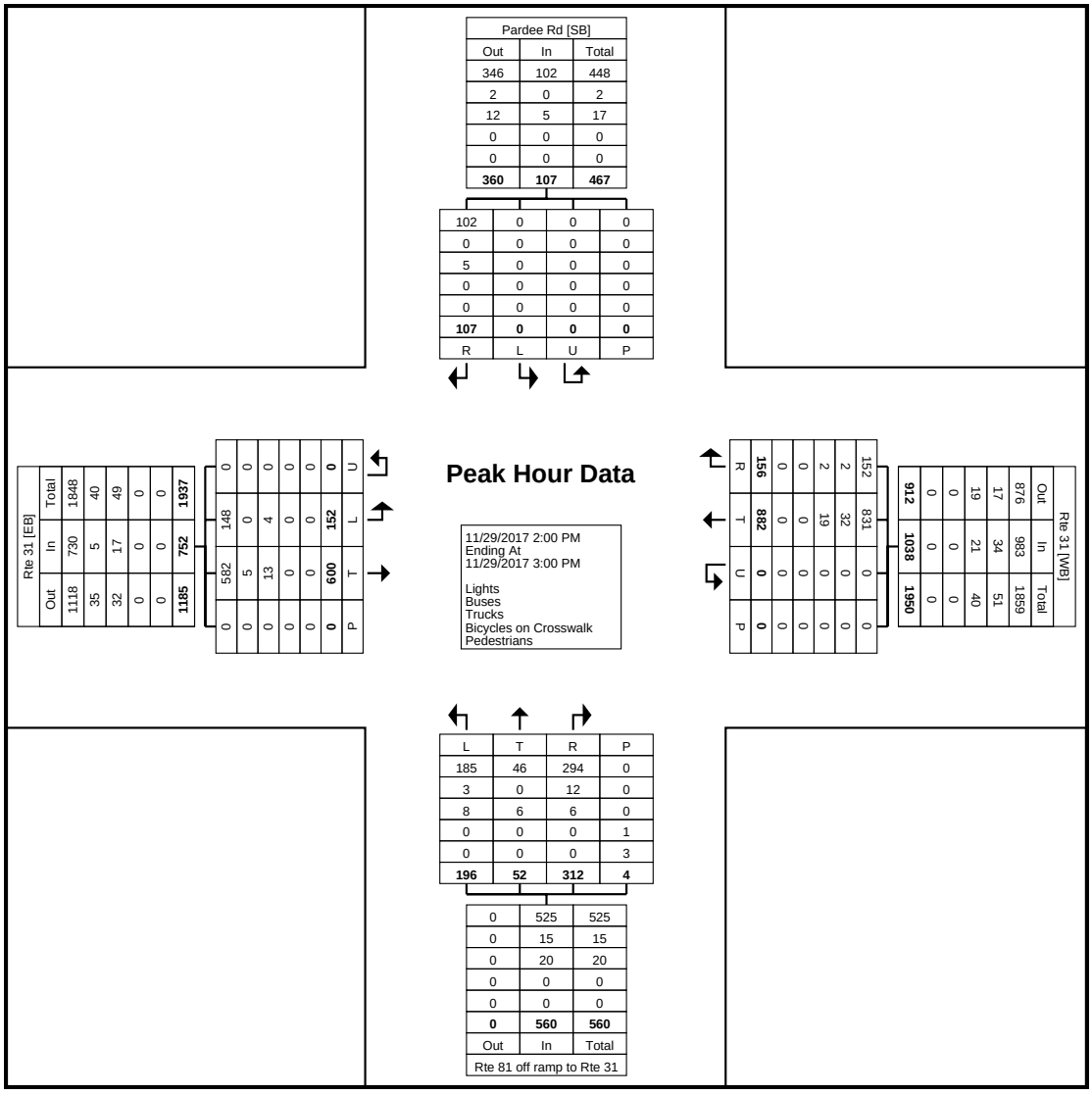

Turning Movement Peak Hour Data Plot (2:00 PM)

TRI-STATE TRAFFIC DATA

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Onondaga County, NY
Rte 31 @ I-81 NB Ramps
Wednesday, November 29, 2017
Location: 43.175656, -76.115294

Count Name: 1 Route 31-I81 NB Ramps
Site Code: SCU3ME
Start Date: 11/29/2017

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Rte 31 Eastbound					Rte 31 Westbound					Rte 81 off ramp to Rte 31 Northbound						Pardee Rd Southbound						
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Right	Right on Red	U-Turn	Peds	App. Total	Int. Total
4:45 PM	53	183	0	0	236	193	39	0	0	232	89	17	131	47	0	284	0	0	16	0	0	16	768
5:00 PM	72	183	0	0	255	198	43	0	0	241	89	30	116	45	0	280	0	0	27	0	0	27	803
5:15 PM	78	220	0	0	298	187	51	0	0	238	90	33	128	34	0	285	0	3	20	0	0	23	844
5:30 PM	60	199	0	0	259	184	48	0	0	232	72	19	111	33	0	235	0	5	12	0	0	17	743
Total	263	785	0	0	1048	762	181	0	0	943	340	99	486	159	0	1084	0	8	75	0	0	83	3158
Approach %	25.1	74.9	0.0	-	-	80.8	19.2	0.0	-	-	31.4	9.1	44.8	14.7	-	-	0.0	9.6	90.4	0.0	-	-	-
Total %	8.3	24.9	0.0	-	33.2	24.1	5.7	0.0	-	29.9	10.8	3.1	15.4	5.0	-	34.3	0.0	0.3	2.4	0.0	-	2.6	-
PHF	0.843	0.892	0.000	-	0.879	0.962	0.887	0.000	-	0.978	0.944	0.750	0.927	0.846	-	0.951	0.000	0.400	0.694	0.000	-	0.769	0.935
Lights	262	780	0	-	1042	755	178	0	-	933	333	93	483	159	-	1068	0	7	74	0	-	81	3124
% Lights	99.6	99.4	-	-	99.4	99.1	98.3	-	-	98.9	97.9	93.9	99.4	100.0	-	98.5	-	87.5	98.7	-	-	97.6	98.9
Buses	0	1	0	-	1	0	0	0	-	0	1	0	1	0	-	2	0	0	0	0	-	0	3
% Buses	0.0	0.1	-	-	0.1	0.0	0.0	-	-	0.0	0.3	0.0	0.2	0.0	-	0.2	-	0.0	0.0	-	-	0.0	0.1
Trucks	1	4	0	-	5	7	3	0	-	10	6	6	2	0	-	14	0	1	1	0	-	2	31
% Trucks	0.4	0.5	-	-	0.5	0.9	1.7	-	-	1.1	1.8	6.1	0.4	0.0	-	1.3	-	12.5	1.3	-	-	2.4	1.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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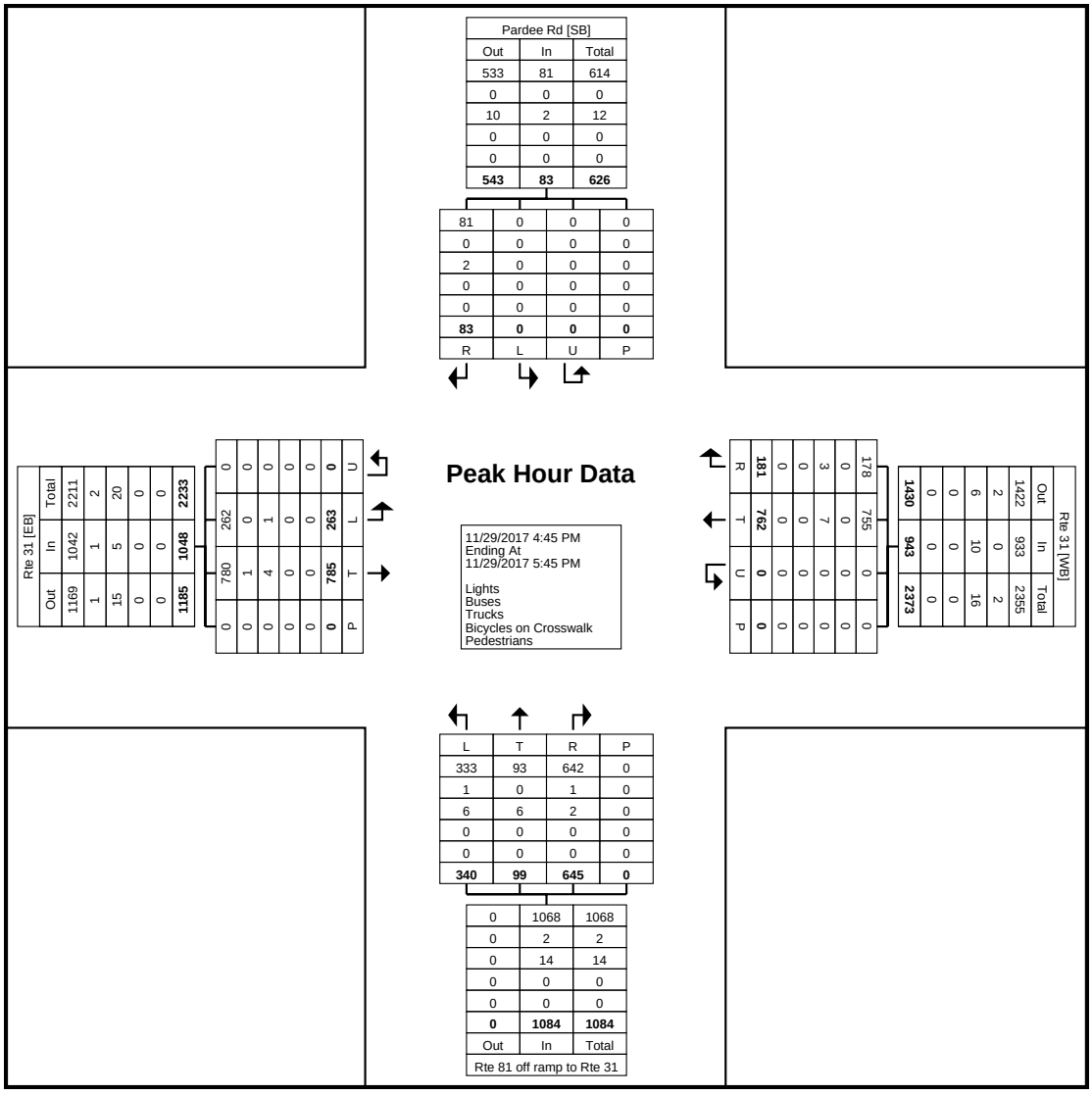


Turning Movement Peak Hour Data Plot (4:45 PM)

JMT

307 South Townsend Street
Syracuse, NY 13202

File Name : Site_5_NYS_Rt_31_at_Lakeshore_Road_819867_03-16-2021 (1
Site Code : Site 5
Start Date : 3/16/2021
Page No : 1

Groups Printed- Lights - Buses - Trucks

	From North					Lakeshore Rd From Northeast					NYS RT 31 From East					NYS RT 31 From West					
Start Time	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	U-Turn	App. Total	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	96	0	0	96	0	0	90	0	90	139	21	0	0	160	346
07:15 AM	0	0	0	0	0	0	113	0	0	113	0	0	128	0	128	156	22	1	0	179	420
07:30 AM	0	0	0	0	0	0	134	0	0	134	0	0	97	0	97	95	24	0	0	119	350
07:45 AM	0	0	0	0	0	0	120	0	0	120	0	0	91	0	91	115	29	0	0	144	355
Total	0	0	0	0	0	0	463	0	0	463	0	0	406	0	406	505	96	1	0	602	1471
08:00 AM	0	0	0	0	0	0	88	0	0	88	0	0	85	0	85	81	33	0	0	114	287
08:15 AM	0	0	0	0	0	0	63	0	0	63	0	0	83	0	83	91	43	0	0	134	280
08:30 AM	0	0	0	0	0	0	63	0	0	63	0	0	84	0	84	85	30	0	0	115	262
08:45 AM	0	0	0	0	0	0	82	0	0	82	0	0	86	0	86	111	36	0	0	147	315
Total	0	0	0	0	0	0	296	0	0	296	0	0	338	0	338	368	142	0	0	510	1144
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	1	0	1	0	70	0	0	70	0	0	154	0	154	165	85	0	0	250	475
04:15 PM	0	0	1	0	1	0	59	0	0	59	0	0	143	0	143	183	114	0	0	297	500
04:30 PM	0	0	0	0	0	1	57	0	0	58	0	0	160	0	160	167	76	0	0	243	461
04:45 PM	0	0	1	0	1	1	65	0	0	66	0	0	207	0	207	197	96	0	0	293	567
Total	0	0	3	0	3	2	251	0	0	253	0	0	664	0	664	712	371	0	0	1083	2003

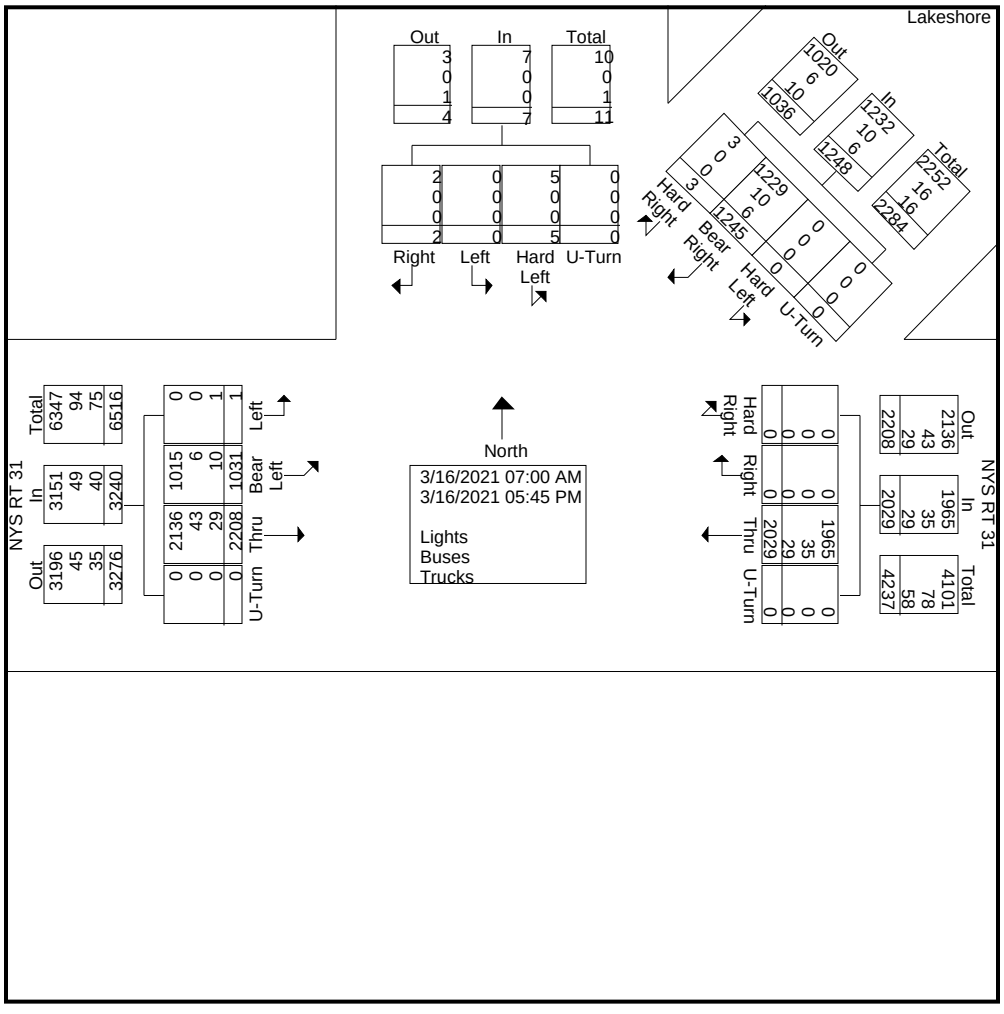
JMT

307 South Townsend Street
Syracuse, NY 13202

File Name : Site_5_NYS_Rt_31_at_Lakeshore_Road_819867_03-16-2021 (1
Site Code : Site 5
Start Date : 3/16/2021
Page No : 2

Groups Printed- Lights - Buses - Trucks

	From North					Lakeshore Rd From Northeast					NYS RT 31 From East					NYS RT 31 From West					
Start Time	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	U-Turn	App. Total	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
05:00 PM	1	0	1	0	2	1	70	0	0	71	0	0	157	0	157	171	116	0	0	287	517
05:15 PM	1	0	1	0	2	0	46	0	0	46	0	0	161	0	161	166	109	0	0	275	484
05:30 PM	0	0	0	0	0	0	62	0	0	62	0	0	168	0	168	158	94	0	0	252	482
05:45 PM	0	0	0	0	0	0	57	0	0	57	0	0	135	0	135	128	103	0	0	231	423
Total	2	0	2	0	4	1	235	0	0	236	0	0	621	0	621	623	422	0	0	1045	1906
Grand Total	2	0	5	0	7	3	124 5	0	0	1248	0	0	202 9	0	2029	220 8	103 1	1	0	3240	6524
Apprch %	28.6	0	71.4	0		0.2	99.8	0	0		0	0	100	0		68.1	31.8	0	0		
Total %	0	0	0.1	0	0.1	0	19.1	0	0	19.1	0	0	31.1	0	31.1	33.8	15.8	0	0	49.7	
Lights	2	0	5	0	7	3	122 9	0	0	1232	0	0	196 5	0	1965	213 6	101 5	0	0	3151	6355
% Lights	100	0	100	0	100	100	98.7	0	0	98.7	0	0	96.8	0	96.8	96.7	98.4	0	0	97.3	97.4
Buses	0	0	0	0	0	0	10	0	0	10	0	0	35	0	35	43	6	0	0	49	94
% Buses	0	0	0	0	0	0	0.8	0	0	0.8	0	0	1.7	0	1.7	1.9	0.6	0	0	1.5	1.4
Trucks	0	0	0	0	0	0	6	0	0	6	0	0	29	0	29	29	10	1	0	40	75
% Trucks	0	0	0	0	0	0	0.5	0	0	0.5	0	0	1.4	0	1.4	1.3	1	100	0	1.2	1.1

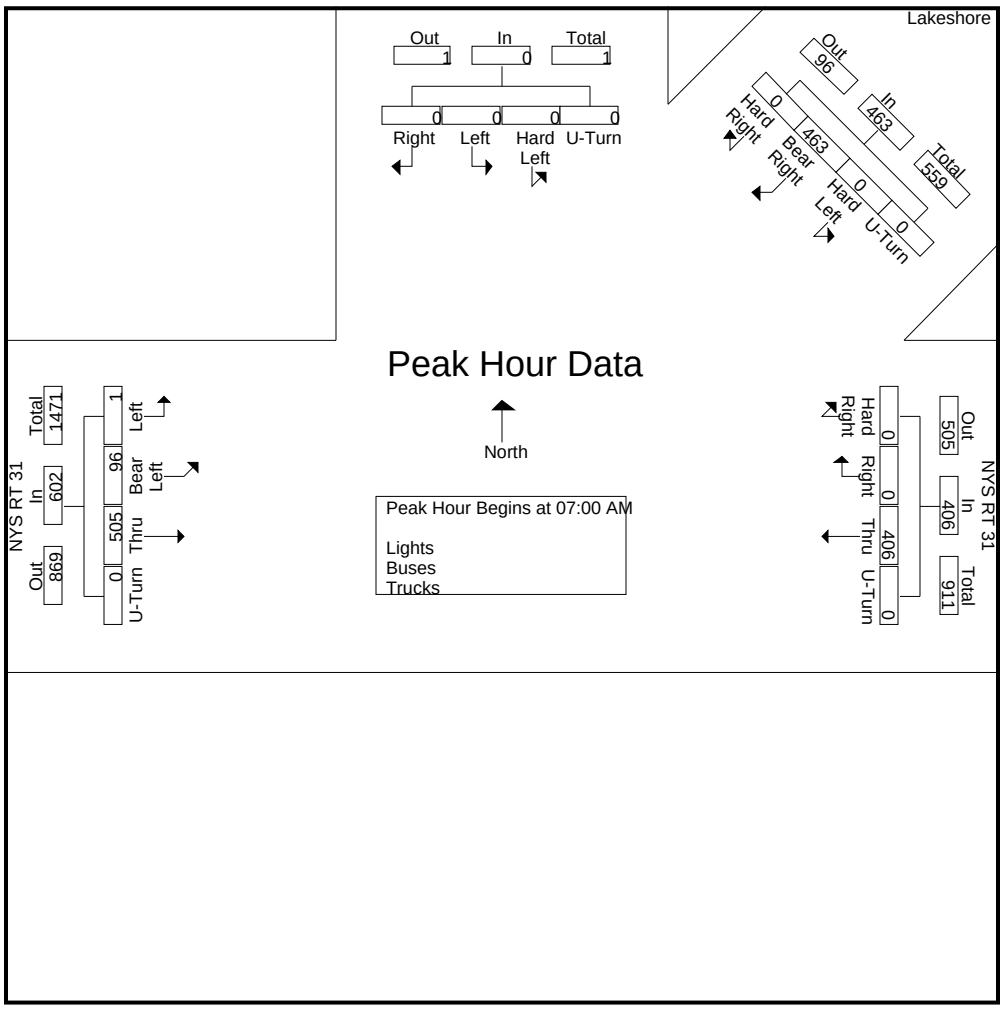


JMT

307 South Townsend Street
Syracuse, NY 13202

File Name : Site_5_NYS_Rt_31_at_Lakeshore_Road_819867_03-16-2021 (1
Site Code : Site 5
Start Date : 3/16/2021
Page No : 3

	From North					Lakeshore Rd From Northeast					NYS RT 31 From East					NYS RT 31 From West					
Start Time	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	U-Turn	App. Total	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	96	0	0	96	0	0	90	0	90	139	21	0	0	160	346
07:15 AM	0	0	0	0	0	0	113	0	0	113	0	0	128	0	128	156	22	1	0	179	420
07:30 AM	0	0	0	0	0	0	134	0	0	134	0	0	97	0	97	95	24	0	0	119	350
07:45 AM	0	0	0	0	0	0	120	0	0	120	0	0	91	0	91	115	29	0	0	144	355
Total Volume	0	0	0	0	0	0	463	0	0	463	0	0	406	0	406	505	96	1	0	602	1471
% App. Total	0	0	0	0		0	100	0	0		0	0	100	0		83.9	15.9	0.2	0		
PHF	.000	.000	.000	.000	.000	.000	.864	.000	.000	.864	.000	.000	.793	.000	.793	.809	.828	.250	.000	.841	.876

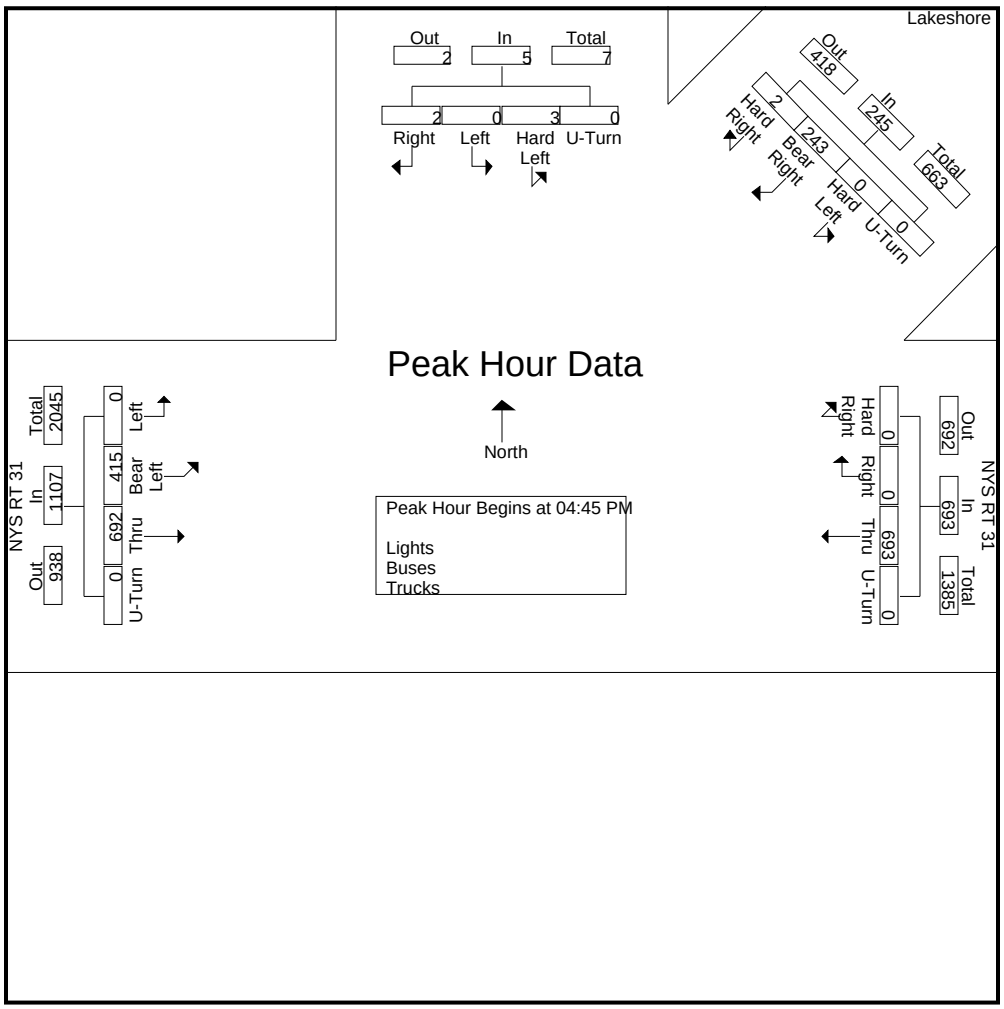


JMT

307 South Townsend Street
Syracuse, NY 13202

File Name : Site_5_NYS_Rt_31_at_Lakeshore_Road_819867_03-16-2021 (1
Site Code : Site 5
Start Date : 3/16/2021
Page No : 4

	From North					Lakeshore Rd From Northeast					NYS RT 31 From East					NYS RT 31 From West					
Start Time	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	U-Turn	App. Total	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	1	0	1	1	65	0	0	66	0	0	207	0	207	197	96	0	0	293	567
05:00 PM	1	0	1	0	2	1	70	0	0	71	0	0	157	0	157	171	116	0	0	287	517
05:15 PM	1	0	1	0	2	0	46	0	0	46	0	0	161	0	161	166	109	0	0	275	484
05:30 PM	0	0	0	0	0	0	62	0	0	62	0	0	168	0	168	158	94	0	0	252	482
Total Volume	2	0	3	0	5	2	243	0	0	245	0	0	693	0	693	692	415	0	0	1107	2050
% App. Total	40	0	60	0		0.8	99.2	0	0		0	0	100	0		62.5	37.5	0	0		
PHF	.500	.000	.750	.000	.625	.500	.868	.000	.000	.863	.000	.000	.837	.000	.837	.878	.894	.000	.000	.945	.904



New York State Department of Transportation

Traffic Count Hourly Report

ROUTE #: **NY 31** ROAD NAME:
DIRECTION: Eastbound FACTOR GROUP: 40
STATE DIR CODE: 1 WK OF YR: 44
DATE OF COUNT: 10/31/2017
NOTES LANE 1: EB travel lane
NOTES LANE 2: EB Passing lane
COUNT TAKEN BY: ORG CODE: TST INITIALS: TBW

FROM: **RT 481 UNDER**
REC. SERIAL #: CF48
PLACEMENT: 1,116' West of Morgan Rd
@ REF MARKER:
ADDL DATA: Class Speed
COUNT TYPE: AXLE PAIRS
PROCESSED BY: ORG CODE: DOT INITIALS: SJK

TO: **EUCLID MORGAN RD**
FUNC. CLASS: 14
NHS: no
JURIS: City
CC Stn:
BATCH ID: DOT-R03C44aTST5195

COUNTY: **Onondaga**
TOWN:
LION#:
BIN: 1061760
RR CROSSING:
HPMS SAMPLE:

DATE	DAY	12 TO 1 AM	1 TO 2 AM	2 TO 3 AM	3 TO 4 AM	4 TO 5 AM	5 TO 6 AM	6 TO 7 AM	7 TO 8 AM	8 TO 9 AM	9 TO 10 AM	10 TO 11 AM	11 TO 12 AM	12 TO 1 PM	1 TO 2 PM	2 TO 3 PM	3 TO 4 PM	4 TO 5 PM	5 TO 6 PM	6 TO 7 PM	7 TO 8 PM	8 TO 9 PM	9 TO 10 PM	10 TO 11 PM	11 TO 12 PM	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
31	T											**460**	**647**	**662**	**716**	**754**	**892**	**1053**	**893**	**480**	**462**	**467**	**300**	**142**	**63**			
1	W	**42**	**14**	**18**	**40**	**56**	**146**	**332**	**560**	**491**	**431**	**480**	**590**	**610**	**650**	**701**	**821**	**847**	**931**	**735**	**585**	**425**	**296**	**130**	**88**	10019	931	17
2	T	**41**	**24**	**22**	**29**	**68**	**125**	**329**	**550**	**461**	**407**																	
3	F																											

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

12 TO 1 AM	1 TO 2 AM	2 TO 3 AM	3 TO 4 AM	4 TO 5 AM	5 TO 6 AM	6 TO 7 AM	7 TO 8 AM	8 TO 9 AM	9 TO 10 AM	10 TO 11 AM	11 TO 12 AM	12 TO 1 PM	1 TO 2 PM	2 TO 3 PM	3 TO 4 PM	4 TO 5 PM	5 TO 6 PM	6 TO 7 PM	7 TO 8 PM	8 TO 9 PM	9 TO 10 PM	10 TO 11 PM	11 TO 12 PM	ADT
42	**19**	**20**	**34**	**62**	**136**	**330**	**555**	**476**	**419**	**470**	**618**	**636**	**683**	**728**	**856**	**950**	**912**	**608**	**524**	**446**	**298**	**136**	**76**	**10034**

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor
2	48	2	48	950	9%	1.000	1.035

ESTIMATED

AADT

9695

New York State Department of Transportation

Traffic Count Hourly Report

ROUTE #: **NY 31** ROAD NAME:
FROM: **RT 481 UNDER** TO: **EUCLID MORGAN RD** COUNTY: **Onondaga**
DIRECTION: Westbound FACTOR GROUP: 40 REC. SERIAL #: AP22 FUNC. CLASS: 14 TOWN:
STATE DIR CODE: 2 WK OF YR: 44 PLACEMENT: 1,116' West of Morgan Rd NHS: no LION#:
DATE OF COUNT: 10/31/2017 @ REF MARKER: JURIS: City BIN: 1061760
NOTES LANE 1: WB travel lane ADDL DATA: Class Speed CC Stn: RR CROSSING:
NOTES LANE 2: WB passing lane COUNT TYPE: AXLE PAIRS BATCH ID: DOT-R03C44aTST5195 HPMS SAMPLE:
COUNT TAKEN BY: ORG CODE: TST INITIALS: TBW PROCESSED BY: ORG CODE: DOT INITIALS: SJK

		AM												PM													
DATE	DAY	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
31	T											**664**	**716**	**691**	**660**	**662**	**846**	**883**	**816**	**446**	**357**	**386**	**197**	**97**	**50**			
1	W	**38**	**21**	**14**	**23**	**70**	**167**	**389**	**605**	**630**	**585**	**597**	**625**	**666**	**566**	**653**	**761**	**839**	**961**	**580**	**382**	**289**	**160**	**100**	**60**	9781	961	17
2	T	**38**	**23**	**18**	**28**	**62**	**176**	**399**	**582**	**607**	**455**																	
3	F																											

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

																									ADT
38	**22**	**16**	**26**	**66**	**172**	**394**	**594**	**618**	**520**	**630**	**670**	**678**	**613**	**658**	**804**	**861**	**888**	**513**	**370**	**338**	**178**	**98**	**55**	**9820**

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor
2	48	2	48	888	9%	1.000	1.035

ESTIMATED

AADT

9488

New York State Department of Transportation

Traffic Count Hourly Report

ROUTE #: **NY 31** ROAD NAME:
DIRECTION: Eastbound FACTOR GROUP: 40
STATE DIR CODE: 6 WK OF YR: 43
DATE OF COUNT: 10/17/2016
NOTES LANE 1: EB travel lane

FROM: **EUCLID MORGAN RD** TO: **RT 11 CICERO**
REC. SERIAL #: CF48 FUNC. CLASS: 14
PLACEMENT: 240' W of Weller Canning St. NHS: no
@ REF MARKER: JURIS: City
ADDL DATA: Class Speed CC Stn:
COUNT TYPE: VEHICLES BATCH ID: DOT-R03C43aTST5195

COUNTY: **Onondaga**
TOWN:
LION#:
BIN: 1021950
RR CROSSING: 508347S
HPMS SAMPLE:

COUNT TAKEN BY: ORG CODE: TST INITIALS: TBW
PROCESSED BY: ORG CODE: DOT INITIALS: SJW

DATE	DAY	12 TO 1 AM	1 TO 2 AM	2 TO 3 AM	3 TO 4 AM	4 TO 5 AM	5 TO 6 AM	6 TO 7 AM	7 TO 8 AM	8 TO 9 AM	9 TO 10 AM	10 TO 11 AM	11 TO 12 AM	12 TO 1 PM	1 TO 2 PM	2 TO 3 PM	3 TO 4 PM	4 TO 5 PM	5 TO 6 PM	6 TO 7 PM	7 TO 8 PM	8 TO 9 PM	9 TO 10 PM	10 TO 11 PM	11 TO 12 PM	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
1	S																											
2	S																											
3	M																											
4	T																											
5	W																											
6	T																											
7	F																											
8	S																											
9	S																											
10	M																											
11	T																											
12	W																											
13	T																											
14	F																											
15	S																											
16	S																											
17	M										**257**	**276**	**305**	**277**	**327**	**362**	**396**	**490**	**417**	**330**	**237**	**233**	**172**	**57**	**39**			
18	T	**17**	**16**	**14**	**13**	**27**	**70**	**161**	**327**	**295**	**291**	**300**	**355**	**387**	**336**	**394**	**389**	**469**	**461**	**345**	**281**	**242**	**147**	**65**	**40**	5442	469	16
19	W	**20**	**15**	**13**	**10**	**19**	**73**	**173**	**346**	**279**	**250**	**294**	**348**	**375**	**413**	**368**	**429**	**472**	**480**	**394**	**295**	**283**	**140**	**72**	**56**	5617	480	17
20	T	**25**	**9**	**13**	**13**	**26**	**74**	**174**	**288**	**285**																		
21	F																											
22	S																											
23	S																											
24	M																											
25	T																											
26	W																											
27	T																											
28	F																											
29	S																											
30	S																											
31	M																											

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

																									ADT
21	**13**	**13**	**12**	**24**	**72**	**169**	**320**	**286**	**266**	**290**	**336**	**346**	**359**	**375**	**405**	**477**	**453**	**356**	**271**	**253**	**153**	**65**	**45**	**5380**

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor
3	72	3	72	477	9%	1.000	1.039

ESTIMATED

AADT

5178

New York State Department of Transportation

Traffic Count Hourly Report

ROUTE #: **NY 31** ROAD NAME:
DIRECTION: Westbound FACTOR GROUP: 40
STATE DIR CODE: 7 WK OF YR: 43
DATE OF COUNT: 10/17/2016
NOTES LANE 1: WB travel lane

FROM: **EUCLID MORGAN RD** TO: **RT 11 CICERO**
REC. SERIAL #: CF48 FUNC. CLASS: 14
PLACEMENT: 240' W of Weller Canning St. NHS: no
@ REF MARKER: JURIS: City
ADDL DATA: Class Speed CC Stn:
COUNT TYPE: VEHICLES BATCH ID: DOT-R03C43aTST5195

COUNTY: **Onondaga**
TOWN:
LION#:
BIN: 1021950
RR CROSSING: 508347S
HPMS SAMPLE:

COUNT TAKEN BY: ORG CODE: TST INITIALS: TBW
PROCESSED BY: ORG CODE: DOT INITIALS: SJW

DATE	DAY	12 TO 1 AM	1 TO 2 AM	2 TO 3 AM	3 TO 4 AM	4 TO 5 AM	5 TO 6 AM	6 TO 7 AM	7 TO 8 AM	8 TO 9 AM	9 TO 10 AM	10 TO 11 AM	11 TO 12 AM	12 TO 1 PM	1 TO 2 PM	2 TO 3 PM	3 TO 4 PM	4 TO 5 PM	5 TO 6 PM	6 TO 7 PM	7 TO 8 PM	8 TO 9 PM	9 TO 10 PM	10 TO 11 PM	11 TO 12 PM	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
1	S																											
2	S																											
3	M																											
4	T																											
5	W																											
6	T																											
7	F																											
8	S																											
9	S																											
10	M																											
11	T																											
12	W																											
13	T																											
14	F																											
15	S																											
16	S																											
17	M										**293**	**306**	**297**	**357**	**319**	**369**	**387**	**498**	**442**	**328**	**228**	**143**	**82**	**73**	**40**			
18	T	**20**	**14**	**9**	**18**	**36**	**93**	**245**	**354**	**360**	**277**	**305**	**364**	**343**	**363**	**347**	**442**	**487**	**518**	**356**	**235**	**170**	**82**	**80**	**30**	5548	518	17
19	W	**10**	**15**	**10**	**19**	**33**	**94**	**220**	**350**	**314**	**309**	**357**	**337**	**319**	**335**	**374**	**457**	**440**	**509**	**387**	**280**	**174**	**107**	**67**	**36**	5553	509	17
20	T	**13**	**16**	**15**	**20**	**43**	**99**	**222**	**343**	**283**																		
21	F																											
22	S																											
23	S																											
24	M																											
25	T																											
26	W																											
27	T																											
28	F																											
29	S																											
30	S																											
31	M																											

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

																									ADT
14	**15**	**11**	**19**	**37**	**95**	**229**	**349**	**319**	**293**	**323**	**333**	**340**	**339**	**363**	**429**	**475**	**490**	**357**	**248**	**162**	**90**	**73**	**35**	**5438**

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor
4	72	4	72	490	9%	1.000	1.039

ESTIMATED

AADT

5234

New York State Department of Transportation

Traffic Count Hourly Report

ROUTE #: **NY 31** ROAD NAME:
DIRECTION: Eastbound FACTOR GROUP: 30
STATE DIR CODE: 1 WK OF YR: 46
DATE OF COUNT: 11/07/2016
NOTES LANE 0: EB travel land passing lanes

COUNT TAKEN BY: ORG CODE: TST INITIALS: TW

FROM: **RT 11 CICERO**
REC. SERIAL #: CG35
PLACEMENT: 193' E of Rt. 11
@ REF MARKER:
ADDL DATA:
COUNT TYPE: AXLE PAIRS

PROCESSED BY: ORG CODE: DOT INITIALS: JAB

TO: **JCT RT 81I**
FUNC. CLASS: 14
NHS: no
JURIS: City
CC Stn:
BATCH ID: DOT-DOTR03V46aTST1996

COUNTY: **Onondaga**
TOWN:
LION#:
BIN:
RR CROSSING:
HPMS SAMPLE:

DATE	DAY	12 TO 1 AM	1 TO 2 AM	2 TO 3 AM	3 TO 4 AM	4 TO 5 AM	5 TO 6 AM	6 TO 7 AM	7 TO 8 AM	8 TO 9 AM	9 TO 10 AM	10 TO 11 AM	11 TO 12 AM	12 TO 1 PM	1 TO 2 PM	2 TO 3 PM	3 TO 4 PM	4 TO 5 PM	5 TO 6 PM	6 TO 7 PM	7 TO 8 PM	8 TO 9 PM	9 TO 10 PM	10 TO 11 PM	11 TO 12 PM	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
1	T																											
2	W																											
3	T																											
4	F																											
5	S																											
6	S																											
7	M												**1047**	**1155**	**1110**	**1171**	**1300**	**1449**	**1412**	**988**	**793**	**586**	**351**	**213**	**156**			
8	T	**71**	**41**	**32**	**34**	**75**	**184**	**704**	**1144**	**928**	**987**	**1026**	**1138**	**1276**	**1158**	**1193**	**1301**	**1467**	**1632**	**1082**	**815**	**520**	**400**	**189**	**108**	17505	1632	17
9	W	**63**	**33**	**30**	**28**	**63**	**182**	**538**	**1119**	**898**	**749**	**870**	**865**	**1003**	**1079**	**1151**	**1178**	**1324**	**1496**	**945**	**748**	**552**	**419**	**236**	**116**	15685	1496	17
10	T	**57**	**36**	**36**	**33**	**54**	**183**	**455**	**1099**	**779**	**771**	**774**																
11	F																											
12	S																											
13	S																											
14	M																											
15	T																											
16	W																											
17	T																											
18	F																											
19	S																											
20	S																											
21	M																											
22	T																											
23	W																											
24	T																											
25	F																											
26	S																											
27	S																											
28	M																											
29	T																											
30	W																											

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

																								ADT
62	**36**	**32**	**31**	**62**	**177**	**548**	**1086**	**841**	**810**	**862**	**985**	**1110**	**1081**	**1136**	**1221**	**1369**	**1466**	**974**	**761**	**536**	**378**	**206**	**123**	**15893**

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor
4	72	4	72	1466	9%	0.969	1.017

ESTIMATED (one way)

AADT
15627

New York State Department of Transportation

Traffic Count Hourly Report

ROUTE #: **NY 31** ROAD NAME:
DIRECTION: Westbound FACTOR GROUP: 30
STATE DIR CODE: 2 WK OF YR: 46
DATE OF COUNT: 11/07/2016
NOTES LANE 0: WB travel and passing lanes

COUNT TAKEN BY: ORG CODE: TST INITIALS: TBW

FROM: **RT 11 CICERO**
REC. SERIAL #: CG41
PLACEMENT: 193' E of Rt. 11
@ REF MARKER:
ADDL DATA:
COUNT TYPE: AXLE PAIRS

PROCESSED BY: ORG CODE: DOT INITIALS: JAB

TO: **JCT RT 81I**
FUNC. CLASS: 14
NHS: no
JURIS: City
CC Stn:
BATCH ID: DOT-DOTR03V46aTST1996

COUNTY: **Onondaga**
TOWN:
LION#:
BIN:
RR CROSSING:
HPMS SAMPLE:

DATE	DAY	12 TO 1 AM	1 TO 2 AM	2 TO 3 AM	3 TO 4 AM	4 TO 5 AM	5 TO 6 AM	6 TO 7 AM	7 TO 8 AM	8 TO 9 AM	9 TO 10 AM	10 TO 11 AM	11 TO 12 AM	12 TO 1 PM	1 TO 2 PM	2 TO 3 PM	3 TO 4 PM	4 TO 5 PM	5 TO 6 PM	6 TO 7 PM	7 TO 8 PM	8 TO 9 PM	9 TO 10 PM	10 TO 11 PM	11 TO 12 PM	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
1	T																											
2	W																											
3	T																											
4	F																											
5	S																											
6	S																											
7	M												**789**	**891**	**774**	**932**	**1003**	**1007**	**1102**	**771**	**425**	**295**	**199**	**132**	**67**				
8	T	**37**	**28**	**18**	**24**	**78**	**176**	**582**	**769**	**836**	**860**	**883**	**943**	**867**	**871**	**996**	**1117**	**1139**	**1194**	**837**	**470**	**285**	**204**	**146**	**77**	13437	1194	17
9	W	**35**	**39**	**23**	**32**	**50**	**160**	**377**	**600**	**686**	**731**	**728**	**754**	**892**	**793**	**937**	**1058**	**1027**	**1090**	**728**	**478**	**315**	**353**	**143**	**79**	12108	1090	17
10	T	**33**	**16**	**25**	**31**	**61**	**129**	**369**	**669**	**743**	**733**	**789**																
11	F																											
12	S																											
13	S																											
14	M																											
15	T																											
16	W																											
17	T																											
18	F																											
19	S																											
20	S																											
21	M																											
22	T																											
23	W																											
24	T																											
25	F																											
26	S																											
27	S																											
28	M																											
29	T																											
30	W																											

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

																									ADT
34	**27**	**21**	**28**	**61**	**150**	**429**	**658**	**732**	**751**	**775**	**803**	**856**	**788**	**925**	**1026**	**1025**	**1094**	**755**	**444**	**289**	**244**	**136**	**72**	**12123**

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor
4	72	4	72	1094	9%	0.969	1.017

ESTIMATED (one way)

AADT
11920

APPENDIX B

MISCELLANEOUS CALCULATIONS & SUPPORTING DOCUMENTS

STD8

Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green		10	4	4	4	10	4	4
Gap, Ext		5	1	1	1	5	1	1
Max 1		50	20	20	30	40	25	20
Max 2								
Yel Clearance		4	3.5	3.5	4	4	3.5	3.5
Red Clearance		2	2.5	2.5	2	2	2.5	2.5
Walk								
Ped Clearance								
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Options [1.1.2]

	1	2	3	4	5	6	7	8
Enable		On	On	On	On	On	On	On
Min Recall								
Max Recall		On	On	On	On	On	On	On
Ped Recall								
Soft Recall		On				On		
Lock Calls		On				On		
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		On		On		On		On
Enable Simul Gap	On	On	On	On	On	On	On	On
Gaurantee Passag								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Options+ [1.1.3]

	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay								

ID: 3235 31 @ SOULE

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	80	45	1	1	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1
2	100	73	2	1	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1
3	100	73	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1
4	100	73	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1
9	0	0	9	1	21	0	0	21	1	33	0	0	0	1	45	0	0	0	1
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1
12	0	0	12	1	24	0	0	24	1	36	0	0	0	1	48	0	0	0	1

Split	1	2	3	4	5	6	7	8	Split	1	2	3	4	5	6	7	8
1 Coor	0	48	14	18	20	28	17	15	13 Coor	0	0	0	0	0	0	0	0
2	NON	MAX	NON	NON	NON	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
2 Coor	0	67	18	15	26	41	18	15	14 Coor	0	0	0	0	0	0	0	0
2	NON	MAX	NON	NON	NON	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
3 Coor	0	67	18	15	20	47	18	15	15 Coor	0	0	0	0	0	0	0	0
2	NON	MAX	NON	NON	NON	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
4 Coor	0	67	18	15	26	41	18	15	16 Coor	0	0	0	0	0	0	0	0
2	NON	MAX	NON	NON	NON	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
5 Coor	0	0	0	0	0	0	0	0	17 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
6 Coor	0	0	0	0	0	0	0	0	18 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
7 Coor	0	0	0	0	0	0	0	0	19 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
8 Coor	0	0	0	0	0	0	0	0	20 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
9 Coor	0	0	0	0	0	0	0	0	21 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
10 Coor	0	0	0	0	0	0	0	0	22 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
11 Coor	0	0	0	0	0	0	0	0	23 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
12 Coor	0	0	0	0	0	0	0	0	24 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
2	Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)
3	Detection; Sample Time and Unit Parameters related to detection
4	Preemption and Alternate Phase Time and Phase Options
5	Annual Schedule
6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms; Call/Inhibit/Redirect; P/OLAP Auto Flash; CIC; Misc Unit Param

Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	RED	Off
2	1	RED	On
3	1	RED	On
4	1	RED	On
5	2	RED	On
6	2	RED	On
7	2	RED	On
8	2	RED	On

Coord Modes [2.1]

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX 1
Force-Off	FLOAT
Closed Loop	ON
Stop-in-Walk	OFF
Auto Reset	ON
Expand Splt	OFF
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	CHANNEL
Flash Yel	45
Flash Red	0

Unit Params [1.2.1]

Phase Mode	STD8
IO Mode	USER
Loc Flsh Start	RED
Start Flash(s)	0
Start AllRed(s)	6
Yellow < 3"	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	0
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

08/14/19 **Page 1**

Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green	4	10		4		10		
Gap, Ext	1	5		1		5		
Max 1	20	45		30		45		
Max 2								
Yel Clearance	4.5	4.5		4		4.5		
Red Clearance	2	2		2		2		
Walk								
Ped Clearance								
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Options [1.1.2]

	1	2	3	4	5	6	7	8
Enable	On	On		On		On		
Min Recall								
Max Recall								
Ped Recall								
Soft Recall		On				On		
Lock Calls		On				On		
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		On				On		
Enable Simul Gap	On	On	On	On	On	On	On	On
Gaurantee Passag								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Options+ [1.1.3]

	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay								

ID: 3236 31 @ 481 NB

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	80	5	1	1	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1
2	100	78	2	1	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1
3	100	78	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1
4	100	78	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1
9	0	0	9	1	21	0	0	21	1	33	0	0	0	1	45	0	0	0	1
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1
12	0	0	12	1	24	0	0	24	1	36	0	0	0	1	48	0	0	0	1

Split	1	2	3	4	5	6	7	8	Split	1	2	3	4	5	6	7	8
1 Coor	18	32	0	30	0	50	0	30	13 Coor	0	0	0	0	0	0	0	0
2	NON	MAX	NON	NON	NON	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
2 Coor	20	40	0	40	0	60	0	40	14 Coor	0	0	0	0	0	0	0	0
2	NON	MAX	NON	NON	NON	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
3 Coor	15	60	0	25	0	75	0	25	15 Coor	0	0	0	0	0	0	0	0
2	NON	MAX	NON	NON	NON	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
4 Coor	20	40	0	40	0	60	0	40	16 Coor	0	0	0	0	0	0	0	0
2	NON	MAX	NON	NON	NON	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
5 Coor	0	0	0	0	0	0	0	0	17 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
6 Coor	0	0	0	0	0	0	0	0	18 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
7 Coor	0	0	0	0	0	0	0	0	19 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
8 Coor	0	0	0	0	0	0	0	0	20 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
9 Coor	0	0	0	0	0	0	0	0	21 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
10 Coor	0	0	0	0	0	0	0	0	22 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
11 Coor	0	0	0	0	0	0	0	0	23 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
12 Coor	0	0	0	0	0	0	0	0	24 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
2	Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)
3	Detection; Sample Time and Unit Parameters related to detection
4	Preemption and Alternate Phase Time and Phase Options
5	Annual Schedule
6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms; Call/Inhibit/Redirect; P/OLAP Auto Flash; CIC; Misc Unit Param

STD8

Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	RED	On
2	1	RED	On
3	1	RED	Off
4	1	RED	On
5	2	RED	Off
6	2	RED	On
7	2	RED	Off
8	2	RED	Off

Coord Modes [2.1]

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX 1
Force-Off	FLOAT
Closed Loop	ON
Stop-in-Walk	OFF
Auto Reset	ON
Expand Splt	OFF
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	CHANNEL
Flash Yel	45
Flash Red	0

Unit Params [1.2.1]

Phase Mode	STD8
IO Mode	USER
Loc Flsh Start	RED
Start Flash(s)	0
Start AllRed(s)	6
Yellow < 3"	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	0
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

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STD8

Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green		10	4	4		10		
Gap, Ext			1	1				
Max 1		45	20	25		45		
Max 2								
Yel Clearance		4	4	3.5		4		
Red Clearance		1.5	1.5	2		1.5		
Walk								
Ped Clearance								
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Options [1.1.2]

	1	2	3	4	5	6	7	8
Enable		On	On	On		On		
Min Recall								
Max Recall								
Ped Recall								
Soft Recall		On				On		
Lock Calls								
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		On				On		
Enable Simul Gap	On	On	On	On	On	On	On	On
Gaurantee Passag								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Options+ [1.1.3]

	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay								

ID: 3252 31 @ MARKETFAIR

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	80	13	1	1	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1
2	100	84	2	1	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1
3	100	70	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1
4	100	84	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1
9	0	0	9	1	21	0	0	21	1	33	0	0	0	1	45	0	0	0	1
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1
12	0	0	12	1	24	0	0	24	1	36	0	0	0	1	48	0	0	0	1

Split		1	2	3	4	5	6	7	8	Split		1	2	3	4	5	6	7	8
1	Coor	0	48	14	18	0	48	14	18	13	Coor	0	0	0	0	0	0	0	0
	6	NON	MAX	NON	NON	NON	MAX	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
2	Coor	0	50	20	30	0	50	20	30	14	Coor	0	0	0	0	0	0	0	0
	6	NON	NON	NON	NON	NON	MAX	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
3	Coor	0	60	15	25	0	60	15	25	15	Coor	0	0	0	0	0	0	0	0
	6	NON	NON	NON	NON	NON	MAX	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
4	Coor	0	50	20	30	0	50	20	30	16	Coor	0	0	0	0	0	0	0	0
	6	NON	NON	NON	NON	NON	MAX	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
5	Coor	0	0	0	0	0	0	0	0	17	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
6	Coor	0	0	0	0	0	0	0	0	18	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
7	Coor	0	0	0	0	0	0	0	0	19	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
8	Coor	0	0	0	0	0	0	0	0	20	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
9	Coor	0	0	0	0	0	0	0	0	21	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
10	Coor	0	0	0	0	0	0	0	0	22	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
11	Coor	0	0	0	0	0	0	0	0	23	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
12	Coor	0	0	0	0	0	0	0	0	24	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
2	Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)
3	Detection; Sample Time and Unit Parameters related to detection
4	Preemption and Alternate Phase Time and Phase Options
5	Annual Schedule
6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms; Call/Inhibit/Redirect; P/OLAP Auto Flash; CIC; Misc Unit Param

Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	RED	Off
2	1	RED	On
3	1	RED	On
4	1	RED	On
5	2	RED	Off
6	2	RED	On
7	2	RED	Off
8	2	RED	Off

Coord Modes [2.1]

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX 1
Force-Off	FLOAT
Closed Loop	ON
Stop-in-Walk	OFF
Auto Reset	ON
Expand Splt	OFF
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	CHANNEL
Flash Yel	45
Flash Red	0

Unit Params [1.2.1]

Phase Mode	STD8
IO Mode	USER
Loc Flsh Start	RED
Start Flash(s)	0
Start AllRed(s)	6
Yellow < 3"	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	0
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

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Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green	4	10	4	4		10		
Gap, Ext	2	5	2	1		5		
Max 1	36	45	20	15		45		
Max 2								
Yel Clearance	4	4	3	3.5		4		
Red Clearance	2	2.5	2.5	2		2.5		
Walk				7				
Ped Clearance				23				
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Options [1.1.2]

	1	2	3	4	5	6	7	8
Enable	On	On	On	On		On		
Min Recall								
Max Recall								
Ped Recall								
Soft Recall		On				On		
Lock Calls		On				On		
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		On				On		
Enable Simul Gap	On	On	On	On	On	On	On	On
Gaurantee Passag								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Options+ [1.1.3]

	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay								

ID: 3237 31 @ GN MALL WEST

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	80	68	1	1	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1
2	100	98	2	1	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1
3	100	78	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1
4	100	98	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1
9	0	0	9	1	21	0	0	21	1	33	0	0	0	1	45	0	0	0	1
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1
12	0	0	12	1	24	0	0	24	1	36	0	0	0	1	48	0	0	0	1

Split	1	2	3	4	5	6	7	8	Split	1	2	3	4	5	6	7	8
1 Coor	22	31	14	13	0	53	14	13	13 Coor	0	0	0	0	0	0	0	0
2	NON	MAX	NON	NON	NON	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
2 Coor	35	33	20	12	0	68	20	12	14 Coor	0	0	0	0	0	0	0	0
2	NON	MAX	NON	NON	NON	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
3 Coor	41	28	20	11	0	69	20	11	15 Coor	0	0	0	0	0	0	0	0
2	NON	MAX	NON	NON	NON	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
4 Coor	35	33	20	12	0	68	20	12	16 Coor	0	0	0	0	0	0	0	0
2	NON	MAX	NON	NON	NON	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
5 Coor	0	0	0	0	0	0	0	0	17 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
6 Coor	0	0	0	0	0	0	0	0	18 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
7 Coor	0	0	0	0	0	0	0	0	19 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
8 Coor	0	0	0	0	0	0	0	0	20 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
9 Coor	0	0	0	0	0	0	0	0	21 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
10 Coor	0	0	0	0	0	0	0	0	22 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
11 Coor	0	0	0	0	0	0	0	0	23 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
12 Coor	0	0	0	0	0	0	0	0	24 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
2	Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)
3	Detection; Sample Time and Unit Parameters related to detection
4	Preemption and Alternate Phase Time and Phase Options
5	Annual Schedule
6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms; Call/Inhibit/Redirect; P/OLAP Auto Flash; CIC; Misc Unit Param

STD8

Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	RED	On
2	1	RED	On
3	1	RED	On
4	1	RED	On
5	2	RED	Off
6	2	RED	On
7	2	RED	Off
8	2	RED	Off

Coord Modes [2.1]

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX 1
Force-Off	FLOAT
Closed Loop	ON
Stop-in-Walk	ON
Auto Reset	ON
Expand Splt	OFF
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	CHANNEL
Flash Yel	45
Flash Red	0

Unit Params [1.2.1]

Phase Mode	STD8
IO Mode	USER
Loc Flsh Start	RED
Start Flash(s)	0
Start AllRed(s)	6
Yellow < 3"	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	0
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

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STD8

Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green	4	10		4		10		4
Gap, Ext	2	5		2		5		2
Max 1	20	50		35		50		35
Max 2								
Yel Clearance	4	4.5		4		4.5		4
Red Clearance	2	2		2		2		2
Walk								
Ped Clearance								
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Options [1.1.2]

	1	2	3	4	5	6	7	8
Enable	On	On		On		On		On
Min Recall								
Max Recall		On				On		
Ped Recall								
Soft Recall		On				On		
Lock Calls		On				On		
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		On		On		On		On
Enable Simul Gap	On	On	On	On	On	On	On	On
Gaurantee Passag								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Options+ [1.1.3]

	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay								

ID: 3238 31 @ GN MALL EAST

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	80	1	1	1	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1
2	100	13	2	1	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1
3	100	13	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1
4	100	13	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1
9	0	0	9	1	21	0	0	21	1	33	0	0	0	1	45	0	0	0	1
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1
12	0	0	12	1	24	0	0	24	1	36	0	0	0	1	48	0	0	0	1

Split	1	2	3	4	5	6	7	8	Split	1	2	3	4	5	6	7	8
1 Coor	15	40	0	25	0	55	0	25	13 Coor	0	0	0	0	0	0	0	0
2	NON	MAX	NON	NON	NON	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
2 Coor	19	50	0	31	0	69	0	31	14 Coor	0	0	0	0	0	0	0	0
2	NON	MAX	NON	NON	NON	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
3 Coor	20	50	0	30	0	70	0	30	15 Coor	0	0	0	0	0	0	0	0
2	NON	MAX	NON	NON	NON	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
4 Coor	19	50	0	31	0	69	0	31	16 Coor	0	0	0	0	0	0	0	0
2	NON	MAX	NON	NON	NON	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
5 Coor	0	0	0	0	0	0	0	0	17 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
6 Coor	0	0	0	0	0	0	0	0	18 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
7 Coor	0	0	0	0	0	0	0	0	19 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
8 Coor	0	0	0	0	0	0	0	0	20 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
9 Coor	0	0	0	0	0	0	0	0	21 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
10 Coor	0	0	0	0	0	0	0	0	22 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
11 Coor	0	0	0	0	0	0	0	0	23 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
12 Coor	0	0	0	0	0	0	0	0	24 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
2	Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)
3	Detection; Sample Time and Unit Parameters related to detection
4	Preemption and Alternate Phase Time and Phase Options
5	Annual Schedule
6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms; Call/Inhibit/Redirect; P/OLAP Auto Flash; CIC; Misc Unit Param

Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	RED	On
2	1	RED	On
3	1	RED	Off
4	1	RED	On
5	2	RED	Off
6	2	RED	On
7	2	RED	Off
8	2	RED	On

Coord Modes [2.1]

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX 1
Force-Off	FLOAT
Closed Loop	ON
Stop-in-Walk	OFF
Auto Reset	ON
Expand Splt	OFF
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	CHANNEL
Flash Yel	45
Flash Red	0

Unit Params [1.2.1]

Phase Mode	STD8
IO Mode	USER
Loc Flsh Start	RED
Start Flash(s)	0
Start AllRed(s)	6
Yellow < 3"	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	0
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

STD8

Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green	4	15	4	6	4	15	4	6
Gap, Ext	2	4	2	4	2	4	2	4
Max 1	16	27	15	23	16	27	15	23
Max 2								
Yel Clearance	4.5	4.5	5	5.5	4	4.5	5.5	5
Red Clearance	3	2.5	2.5	3	3.5	3	3	2.5
Walk		7						7
Ped Clearance		15						28
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Options [1.1.2]

	1	2	3	4	5	6	7	8
Enable	On	On	On	On	On	On	On	On
Min Recall								
Max Recall								
Ped Recall								
Soft Recall		On				On		
Lock Calls		On				On		
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		On		On		On		On
Enable Simul Gap	On	On	On	On	On	On	On	On
Gaurantee Passag								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Options+ [1.1.3]

	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay								

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	0	0	1	1	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1
2	0	0	2	1	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1
3	0	0	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1
4	0	0	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1
9	0	0	9	1	21	0	0	21	1	33	0	0	0	1	45	0	0	0	1
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1
12	0	0	12	1	24	0	0	24	1	36	0	0	0	1	48	0	0	0	1

Split	1	2	3	4	5	6	7	8	Split	1	2	3	4	5	6	7	8
1 Coor	0	0	0	0	0	0	0	0	13 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
2 Coor	0	0	0	0	0	0	0	0	14 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
3 Coor	0	0	0	0	0	0	0	0	15 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
4 Coor	0	0	0	0	0	0	0	0	16 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
5 Coor	0	0	0	0	0	0	0	0	17 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
6 Coor	0	0	0	0	0	0	0	0	18 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
7 Coor	0	0	0	0	0	0	0	0	19 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
8 Coor	0	0	0	0	0	0	0	0	20 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
9 Coor	0	0	0	0	0	0	0	0	21 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
10 Coor	0	0	0	0	0	0	0	0	22 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
11 Coor	0	0	0	0	0	0	0	0	23 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
12 Coor	0	0	0	0	0	0	0	0	24 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
2	Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)
3	Detection; Sample Time and Unit Parameters related to detection
4	Preemption and Alternate Phase Time and Phase Options
5	Annual Schedule
6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms; Call/Inhibit/Redirect; P/OLAP Auto Flash; CIC; Misc Unit Param

Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	RED	On
2	1	RED	On
3	1	RED	On
4	1	RED	On
5	2	RED	On
6	2	RED	On
7	2	RED	On
8	2	RED	On

Coord Modes [2.1]

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX 1
Force-Off	FLOAT
Closed Loop	ON
Stop-in-Walk	OFF
Auto Reset	ON
Expand Splt	OFF
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	CHANNEL
Flash Yel	45
Flash Red	0

Unit Params [1.2.1]

Phase Mode	STD8
IO Mode	USER
Loc Flsh Start	RED
Start Flash(s)	0
Start AllRed(s)	6
Yellow < 3"	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	0
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

ID: 3034 31 @ MORGAN

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STD8

Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green	6	15		10	6	15		10
Gap, Ext	2	6		3	2	6		3
Max 1	15	45		40	15	45		40
Max 2								
Yel Clearance	4	4		4	4	4		4
Red Clearance	2	2		2	2	2		2
Walk								
Ped Clearance								
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Options [1.1.2]

	1	2	3	4	5	6	7	8
Enable	On	On		On	On	On		On
Min Recall								
Max Recall								
Ped Recall								
Soft Recall								
Lock Calls		On				On		
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		On		On		On		On
Enable Simul Gap	On	On	On	On	On	On	On	On
Gaurantee Passag								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Options+ [1.1.3]

	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay								

ID: 3121 31 @ HENRY CLAY

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	0	0	1	1	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1
2	0	0	2	1	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1
3	0	0	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1
4	0	0	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1
9	0	0	9	1	21	0	0	21	1	33	0	0	0	1	45	0	0	0	1
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1
12	0	0	12	1	24	0	0	24	1	36	0	0	0	1	48	0	0	0	1

Split	1	2	3	4	5	6	7	8	Split	1	2	3	4	5	6	7	8
1 Coor	0	0	0	0	0	0	0	0	13 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
2 Coor	0	0	0	0	0	0	0	0	14 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
3 Coor	0	0	0	0	0	0	0	0	15 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
4 Coor	0	0	0	0	0	0	0	0	16 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
5 Coor	0	0	0	0	0	0	0	0	17 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
6 Coor	0	0	0	0	0	0	0	0	18 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
7 Coor	0	0	0	0	0	0	0	0	19 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
8 Coor	0	0	0	0	0	0	0	0	20 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
9 Coor	0	0	0	0	0	0	0	0	21 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
10 Coor	0	0	0	0	0	0	0	0	22 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
11 Coor	0	0	0	0	0	0	0	0	23 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
12 Coor	0	0	0	0	0	0	0	0	24 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
2	Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)
3	Detection; Sample Time and Unit Parameters related to detection
4	Preemption and Alternate Phase Time and Phase Options
5	Annual Schedule
6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms; Call/Inhibit/Redirect; P/OLAP Auto Flash; CIC; Misc Unit Param

Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	RED	On
2	1	RED	On
3	1	RED	Off
4	1	RED	On
5	2	RED	On
6	2	RED	On
7	2	RED	Off
8	2	RED	On

Coord Modes [2.1]

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX 1
Force-Off	FLOAT
Closed Loop	ON
Stop-in-Walk	OFF
Auto Reset	ON
Expand Splt	OFF
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	CHANNEL
Flash Yel	45
Flash Red	0

Unit Params [1.2.1]

Phase Mode	STD8
IO Mode	USER
Loc Flsh Start	RED
Start Flash(s)	0
Start AllRed(s)	6
Yellow < 3"	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	0
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

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Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green		30		7		30		7
Gap, Ext		5		3		5		3
Max 1		30		20		30		20
Max 2								
Yel Clearance		4		3.5		4		3.5
Red Clearance		1.5		1.5		1.5		1.5
Walk								
Ped Clearance								
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								
Options [1.1.2]	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Enable		On		On		On		On
Min Recall								
Max Recall								
Ped Recall								
Soft Recall		On				On		
Lock Calls		On				On		
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		On		On		On		On
Enable Simul Gap	On	On	On	On	On	On	On	On
Gaurantee Passag								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								
Options+ [1.1.3]	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay								

ID: 3226 31 @ CAUGHDENOY

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	0	0	1	1	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1
2	0	0	2	1	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1
3	0	0	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1
4	0	0	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1
9	0	0	9	1	21	0	0	21	1	33	0	0	0	1	45	0	0	0	1
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1
12	0	0	12	1	24	0	0	24	1	36	0	0	0	1	48	0	0	0	1

Split	1	2	3	4	5	6	7	8	Split	1	2	3	4	5	6	7	8
1 Coor	0	0	0	0	0	0	0	0	13 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
2 Coor	0	0	0	0	0	0	0	0	14 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
3 Coor	0	0	0	0	0	0	0	0	15 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
4 Coor	0	0	0	0	0	0	0	0	16 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
5 Coor	0	0	0	0	0	0	0	0	17 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
6 Coor	0	0	0	0	0	0	0	0	18 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
7 Coor	0	0	0	0	0	0	0	0	19 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
8 Coor	0	0	0	0	0	0	0	0	20 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
9 Coor	0	0	0	0	0	0	0	0	21 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
10 Coor	0	0	0	0	0	0	0	0	22 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
11 Coor	0	0	0	0	0	0	0	0	23 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
12 Coor	0	0	0	0	0	0	0	0	24 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
2	Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)
3	Detection; Sample Time and Unit Parameters related to detection
4	Preemption and Alternate Phase Time and Phase Options
5	Annual Schedule
6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms; Call/Inhibit/Redirect; P/OLAP Auto Flash; CIC; Misc Unit Param

STD8

Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	RED	Off
2	1	RED	On
3	1	RED	Off
4	1	RED	On
5	2	RED	Off
6	2	RED	On
7	2	RED	Off
8	2	RED	On

Coord Modes [2.1]

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX 1
Force-Off	FLOAT
Closed Loop	ON
Stop-in-Walk	OFF
Auto Reset	ON
Expand Splt	OFF
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	PH OVER
Flash Yel	45
Flash Red	0

Unit Params [1.2.1]

Phase Mode	STD8
IO Mode	USER
Loc Flsh Start	RED
Start Flash(s)	0
Start AllRed(s)	6
Yellow < 3"	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	0
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

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STD8

Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green	4	10		6	4	10		6
Gap, Ext	2	5		3	2	5		3
Max 1	20	40		30	20	40		30
Max 2								
Yel Clearance	3.5	4		3.5	3.5	4		3.5
Red Clearance	2	1.5		2	2	1.5		2
Walk								
Ped Clearance								
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Options [1.1.2]

	1	2	3	4	5	6	7	8
Enable	On	On		On	On	On		On
Min Recall								
Max Recall								
Ped Recall								
Soft Recall		On				On		
Lock Calls		On				On		
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		On		On		On		On
Enable Simul Gap	On	On	On	On	On	On	On	On
Gaurantee Passag								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Options+ [1.1.3]

	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay								

ID: 3309 31 @ LAWTON

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	0	0	1	1	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1
2	0	0	2	1	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1
3	0	0	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1
4	0	0	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1
9	0	0	9	1	21	0	0	21	1	33	0	0	0	1	45	0	0	0	1
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1
12	0	0	12	1	24	0	0	24	1	36	0	0	0	1	48	0	0	0	1

Split	1	2	3	4	5	6	7	8	Split	1	2	3	4	5	6	7	8
1 Coor	0	0	0	0	0	0	0	0	13 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
2 Coor	0	0	0	0	0	0	0	0	14 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
3 Coor	0	0	0	0	0	0	0	0	15 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
4 Coor	0	0	0	0	0	0	0	0	16 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
5 Coor	0	0	0	0	0	0	0	0	17 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
6 Coor	0	0	0	0	0	0	0	0	18 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
7 Coor	0	0	0	0	0	0	0	0	19 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
8 Coor	0	0	0	0	0	0	0	0	20 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
9 Coor	0	0	0	0	0	0	0	0	21 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
10 Coor	0	0	0	0	0	0	0	0	22 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
11 Coor	0	0	0	0	0	0	0	0	23 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
12 Coor	0	0	0	0	0	0	0	0	24 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
2	Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)
3	Detection; Sample Time and Unit Parameters related to detection
4	Preemption and Alternate Phase Time and Phase Options
5	Annual Schedule
6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms; Call/Inhibit/Redirect; P/OLAP Auto Flash; CIC; Misc Unit Param

Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	RED	On
2	1	RED	On
3	1	RED	Off
4	1	RED	On
5	2	RED	On
6	2	RED	On
7	2	RED	Off
8	2	RED	On

Coord Modes [2.1]

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX 1
Force-Off	FLOAT
Closed Loop	ON
Stop-in-Walk	OFF
Auto Reset	ON
Expand Splt	OFF
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	PH OVER
Flash Yel	45
Flash Red	0

Unit Params [1.2.1]

Phase Mode	STD8
IO Mode	USER
Loc Flsh Start	RED
Start Flash(s)	0
Start AllRed(s)	6
Yellow < 3"	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	3
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

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STD8

Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green	8	12	4	8	4	12	4	8
Gap, Ext	2	2	1	2	1	2	1.5	2
Max 1	40	40	20	40	40	40	20	40
Max 2								
Yel Clearance	3.5	3.5	3.5	3.5	3.5	3.5	3	3.5
Red Clearance	2	2.5	2.5	2.5	2	2.5	2.5	2.5
Walk		7		7		7		7
Ped Clearance		25		27		25		26
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Options [1.1.2]

	1	2	3	4	5	6	7	8
Enable	On	On	On	On	On	On	On	On
Min Recall								
Max Recall								
Ped Recall								
Soft Recall		On				On		
Lock Calls								
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		On		On		On		On
Enable Simul Gap	On	On	On	On	On	On	On	On
Gaurantee Passag								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Options+ [1.1.3]

	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay								

ID: 3007 11 @ 31

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	110	11	1	1	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1
2	0	0	2	1	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1
3	0	0	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1
4	0	0	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1
9	0	0	9	1	21	0	0	21	1	33	0	0	0	1	45	0	0	0	1
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1
12	0	0	12	1	24	0	0	24	1	36	0	0	0	1	48	0	0	0	1

Split	1	2	3	4	5	6	7	8	Split	1	2	3	4	5	6	7	8
1 Coor	35	40	14	21	14	61	16	19	13 Coor	0	0	0	0	0	0	0	0
2	NON	MAX	NON	NON	NON	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
2 Coor	35	32	15	40	10	32	22	40	14 Coor	0	0	0	0	0	0	0	0
6	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
3 Coor	30	32	10	34	10	53	11	34	15 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
4 Coor	30	32	10	34	10	53	11	34	16 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
5 Coor	0	0	0	0	0	0	0	0	17 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
6 Coor	0	0	0	0	0	0	0	0	18 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
7 Coor	0	0	0	0	0	0	0	0	19 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
8 Coor	0	0	0	0	0	0	0	0	20 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
9 Coor	0	0	0	0	0	0	0	0	21 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
10 Coor	0	0	0	0	0	0	0	0	22 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
11 Coor	0	0	0	0	0	0	0	0	23 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
12 Coor	0	0	0	0	0	0	0	0	24 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
2	Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)
3	Detection; Sample Time and Unit Parameters related to detection
4	Preemption and Alternate Phase Time and Phase Options
5	Annual Schedule
6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms; Call/Inhibit/Redirect; P/OLAP Auto Flash; CIC; Misc Unit Param

Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	RED	On
2	1	RED	On
3	1	RED	On
4	1	RED	On
5	2	RED	On
6	2	RED	On
7	2	RED	On
8	2	RED	On

Coord Modes [2.1]

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX 1
Force-Off	FLOAT
Closed Loop	ON
Stop-in-Walk	ON
Auto Reset	ON
Expand Splt	OFF
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	CHANNEL
Flash Yel	45
Flash Red	0

Unit Params [1.2.1]

Phase Mode	STD8
IO Mode	USER
Loc Flsh Start	RED
Start Flash(s)	0
Start AllRed(s)	6
Yellow < 3"	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	0
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

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Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green	4	12	4	4		12		
Gap, Ext	2	3	2	1.5		3		
Max 1	36	50	35	25		80		
Max 2								
Yel Clearance	3.5	3.5	3.5	4		3.5		
Red Clearance	1.5	1.5	1.5	1		1.5		
Walk								
Ped Clearance								
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Options [1.1.2]

	1	2	3	4	5	6	7	8
Enable	On	On	On	On		On		
Min Recall								
Max Recall	On	On	On			On		
Ped Recall								
Soft Recall		On				On		
Lock Calls								
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		On				On		
Enable Simul Gap	On	On	On	On	On	On	On	On
Gaurantee Passag								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Options+ [1.1.3]

	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay								

ID: 3181 81 SB @ 31

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	110	97	1	1	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1
2	110	8	2	1	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1
3	90	84	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1
4	90	84	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1
9	0	0	9	1	21	0	0	21	1	33	0	0	0	1	45	0	0	0	1
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1
12	0	0	12	1	24	0	0	24	1	36	0	0	0	1	48	0	0	0	1

Split	1	2	3	4	5	6	7	8	Split	1	2	3	4	5	6	7	8
1 Coor	19	36	36	19	0	91	0	19	13 Coor	0	0	0	0	0	0	0	0
1	MAX	NON	NON	NON	NON	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
2 Coor	13	50	28	19	0	91	0	19	14 Coor	0	0	0	0	0	0	0	0
1	MAX	NON	NON	NON	NON	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
3 Coor	16	35	19	20	0	70	0	20	15 Coor	0	0	0	0	0	0	0	0
2	NON	MAX	NON	NON	NON	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
4 Coor	16	35	19	20	0	70	0	20	16 Coor	0	0	0	0	0	0	0	0
2	NON	MAX	NON	NON	NON	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
5 Coor	0	0	0	0	0	0	0	0	17 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
6 Coor	0	0	0	0	0	0	0	0	18 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
7 Coor	0	0	0	0	0	0	0	0	19 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
8 Coor	0	0	0	0	0	0	0	0	20 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
9 Coor	0	0	0	0	0	0	0	0	21 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
10 Coor	0	0	0	0	0	0	0	0	22 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
11 Coor	0	0	0	0	0	0	0	0	23 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
12 Coor	0	0	0	0	0	0	0	0	24 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
2	Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)
3	Detection; Sample Time and Unit Parameters related to detection
4	Preemption and Alternate Phase Time and Phase Options
5	Annual Schedule
6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms; Call/Inhibit/Redirect; P/OLAP Auto Flash; CIC; Misc Unit Param

USER

Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	RED	On
2	1	RED	On
3	1	RED	On
4	1	RED	On
5	2	RED	Off
6	2	RED	On
7	2	RED	Off
8	2	RED	Off

Coord Modes [2.1]

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX 1
Force-Off	FLOAT
Closed Loop	ON
Stop-in-Walk	OFF
Auto Reset	ON
Expand Splt	OFF
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	CHANNEL
Flash Yel	45
Flash Red	0

Unit Params [1.2.1]

Phase Mode	USER
IO Mode	USER
Loc Flsh Start	RED
Start Flash(s)	0
Start AllRed(s)	6
Yellow < 3"	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	0
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

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Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green		12			4	12		6
Gap, Ext		3			1	3		1
Max 1		75			25	50		45
Max 2								
Yel Clearance		3.5			3	3.5		4
Red Clearance		2			2	2		2
Walk								
Ped Clearance								
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Options [1.1.2]

	1	2	3	4	5	6	7	8
Enable		On			On	On		On
Min Recall								
Max Recall		On			On			
Ped Recall								
Soft Recall		On				On		
Lock Calls								
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		On				On		
Enable Simul Gap	On	On	On	On	On	On	On	On
Gaurantee Passag								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Options+ [1.1.3]

	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay								

ID: 3182 81 NB @ 31

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	110	87	1	1	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1
2	110	87	2	1	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1
3	90	12	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1
4	90	12	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1
9	0	0	9	1	21	0	0	21	1	33	0	0	0	1	45	0	0	0	1
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1
12	0	0	12	1	24	0	0	24	1	36	0	0	0	1	48	0	0	0	1

Split	1	2	3	4	5	6	7	8	Split	1	2	3	4	5	6	7	8
1 Coor	0	75	0	35	24	51	0	35	13 Coor	0	0	0	0	0	0	0	0
2	NON	MAX	NON	NON	NON	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
2 Coor	0	66	0	44	31	35	0	44	14 Coor	0	0	0	0	0	0	0	0
2	NON	MAX	NON	NON	NON	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
3 Coor	0	60	0	30	23	37	0	30	15 Coor	0	0	0	0	0	0	0	0
2	NON	MAX	NON	NON	NON	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
4 Coor	0	60	0	30	23	37	0	30	16 Coor	0	0	0	0	0	0	0	0
2	NON	MAX	NON	NON	NON	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
5 Coor	0	0	0	0	0	0	0	0	17 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
6 Coor	0	0	0	0	0	0	0	0	18 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
7 Coor	0	0	0	0	0	0	0	0	19 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
8 Coor	0	0	0	0	0	0	0	0	20 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
9 Coor	0	0	0	0	0	0	0	0	21 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
10 Coor	0	0	0	0	0	0	0	0	22 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
11 Coor	0	0	0	0	0	0	0	0	23 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
12 Coor	0	0	0	0	0	0	0	0	24 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
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6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms; Call/Inhibit/Redirect; P/OLAP Auto Flash; CIC; Misc Unit Param

STD8

Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	RED	Off
2	1	RED	On
3	1	RED	Off
4	1	RED	Off
5	2	RED	On
6	2	RED	On
7	2	RED	Off
8	2	RED	On

Coord Modes [2.1]

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX 1
Force-Off	FLOAT
Closed Loop	ON
Stop-in-Walk	OFF
Auto Reset	ON
Expand Splt	OFF
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	CHANNEL
Flash Yel	45
Flash Red	0

Unit Params [1.2.1]

Phase Mode	STD8
IO Mode	USER
Loc Flsh Start	RED
Start Flash(s)	0
Start AllRed(s)	6
Yellow < 3"	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	0
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

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Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green		12		4	4	12		4
Gap, Ext				2				2
Max 1		40		30	25	40		30
Max 2								
Yel Clearance		3.5		3.5	2	3.5		3.5
Red Clearance		2		2		2		2
Walk								
Ped Clearance								
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Options [1.1.2]

	1	2	3	4	5	6	7	8
Enable		On		On	On	On		On
Min Recall								
Max Recall		On				On		
Ped Recall								
Soft Recall		On				On		
Lock Calls								
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		On		On		On		On
Enable Simul Gap	On	On	On	On	On	On	On	On
Gaurantee Passag								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Options+ [1.1.3]

	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay								

ID: 3260 31 @ LAKESHORE SPUR

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	90	0	1	1	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1
2	90	0	2	1	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1
3	90	0	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1
4	90	0	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1
9	0	0	9	1	21	0	0	21	1	33	0	0	0	1	45	0	0	0	1
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1
12	0	0	12	1	24	0	0	24	1	36	0	0	0	1	48	0	0	0	1

Split	1	2	3	4	5	6	7	8	Split	1	2	3	4	5	6	7	8
1 Coor	0	61	0	29	6	55	0	29	13 Coor	0	0	0	0	0	0	0	0
6	NON	MAX	NON	NON	MAX	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
2 Coor	0	70	0	20	16	54	0	20	14 Coor	0	0	0	0	0	0	0	0
6	NON	MAX	NON	NON	MAX	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
3 Coor	0	68	0	22	6	62	0	22	15 Coor	0	0	0	0	0	0	0	0
6	NON	MAX	NON	NON	MAX	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
4 Coor	0	68	0	22	6	62	0	22	16 Coor	0	0	0	0	0	0	0	0
6	NON	MAX	NON	NON	MAX	MAX	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
5 Coor	0	0	0	0	0	0	0	0	17 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
6 Coor	0	0	0	0	0	0	0	0	18 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
7 Coor	0	0	0	0	0	0	0	0	19 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
8 Coor	0	0	0	0	0	0	0	0	20 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
9 Coor	0	0	0	0	0	0	0	0	21 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
10 Coor	0	0	0	0	0	0	0	0	22 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
11 Coor	0	0	0	0	0	0	0	0	23 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON
12 Coor	0	0	0	0	0	0	0	0	24 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON		NON	NON	NON	NON	NON	NON	NON	NON

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6	2	RED	On
7	2	RED	Off
8	2	RED	On

Coord Modes [2.1]

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX 1
Force-Off	FLOAT
Closed Loop	ON
Stop-in-Walk	OFF
Auto Reset	ON
Expand Splt	OFF
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

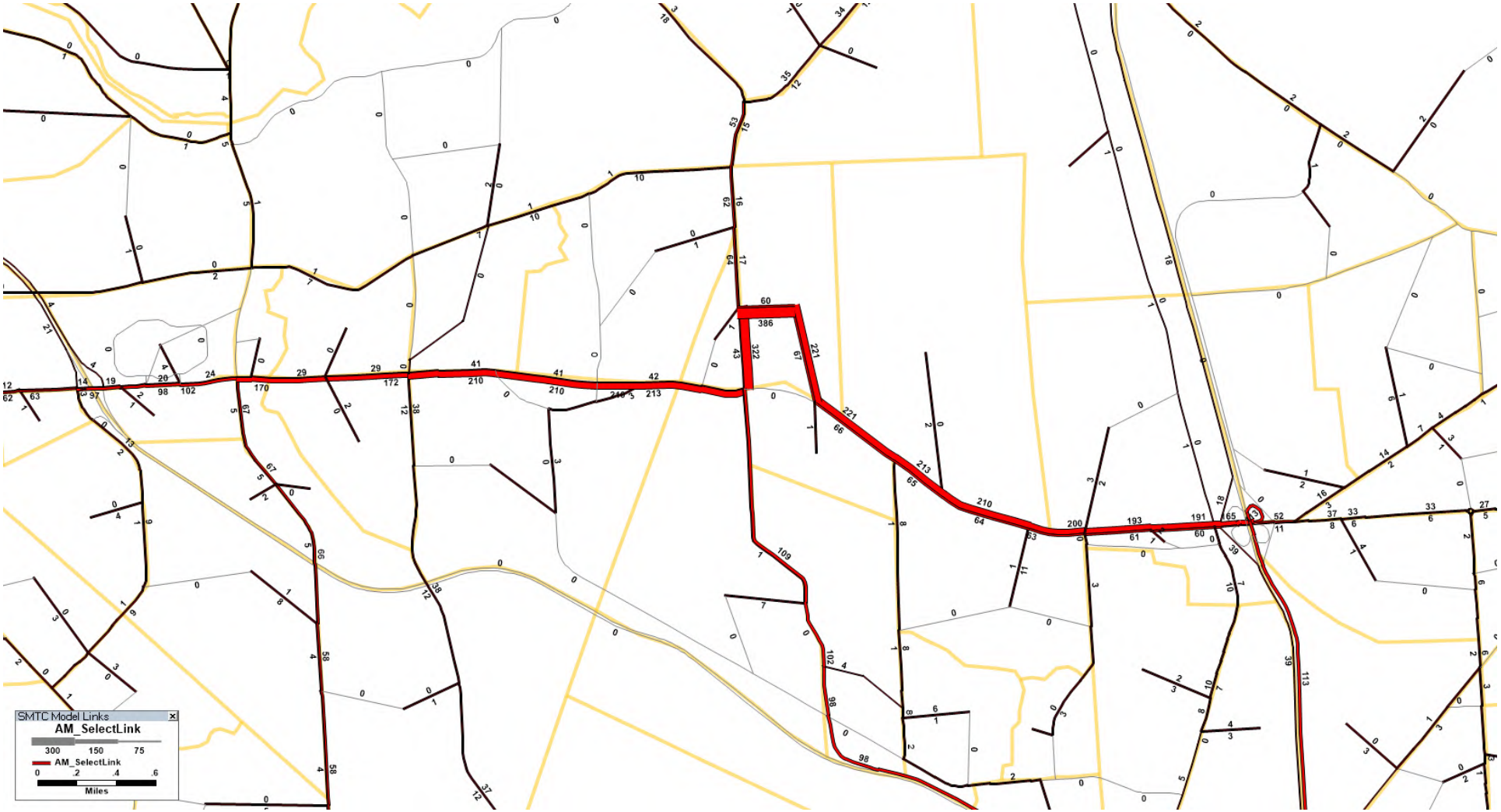
Auto Flash	CHANNEL
Flash Yel	45
Flash Red	0

Unit Params [1.2.1]

Phase Mode	STD8
IO Mode	USER
Loc Flsh Start	RED
Start Flash(s)	0
Start AllRed(s)	6
Yellow < 3"	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	0
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

08/14/19 **Page 1**

SMTC Regional Travel Demand Model (v5.0) – Select Link Analysis for Project Eagle Site



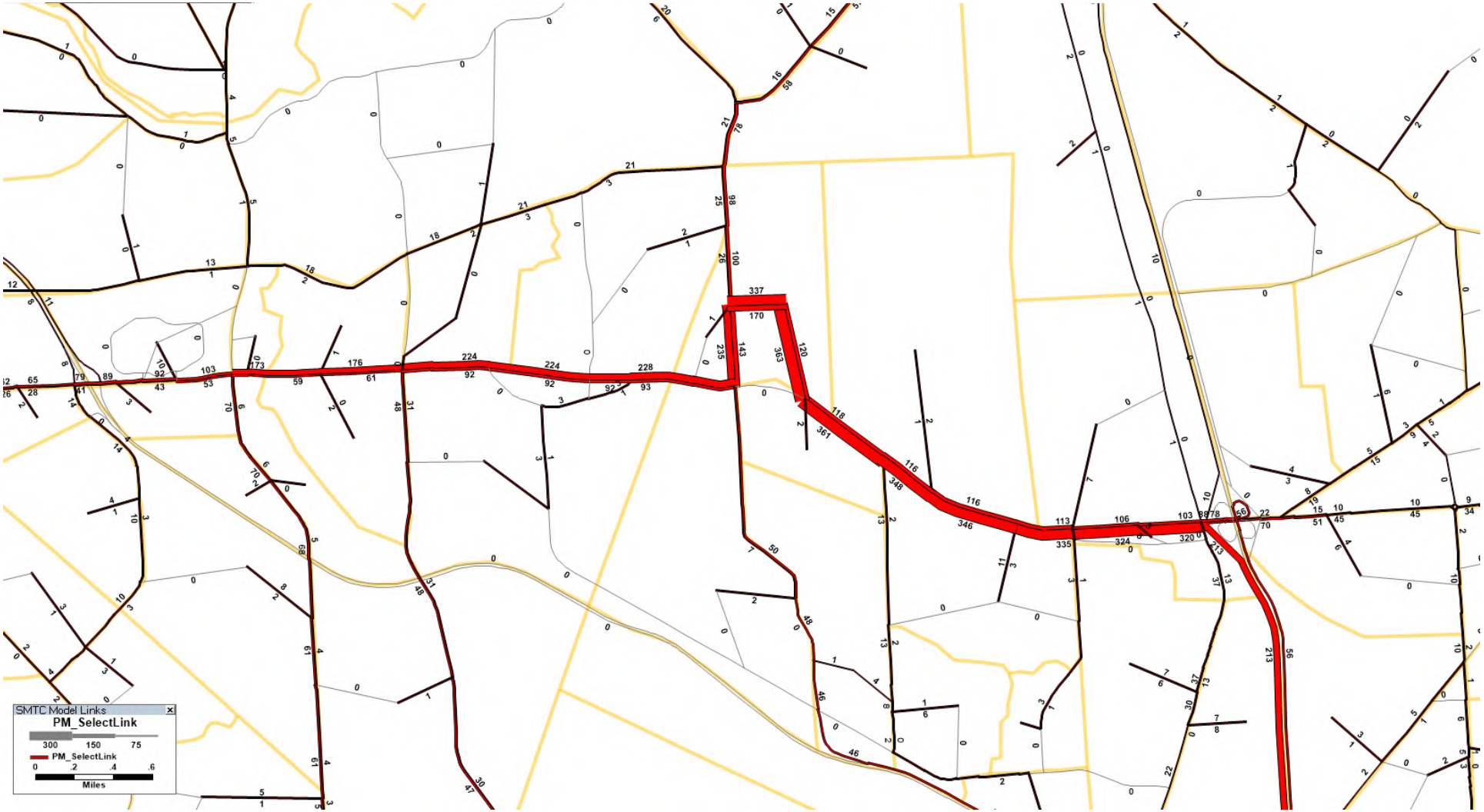
2050 AM Peak Hour Select Link Analysis

*This map is for planning purposes only. The SMTC does not guarantee the accuracy or completeness of this data.

Prepared by SMTC on 3/12/2021

SMTC

SMTC Regional Travel Demand Model (v5.0) – Select Link Analysis for Project Eagle Site



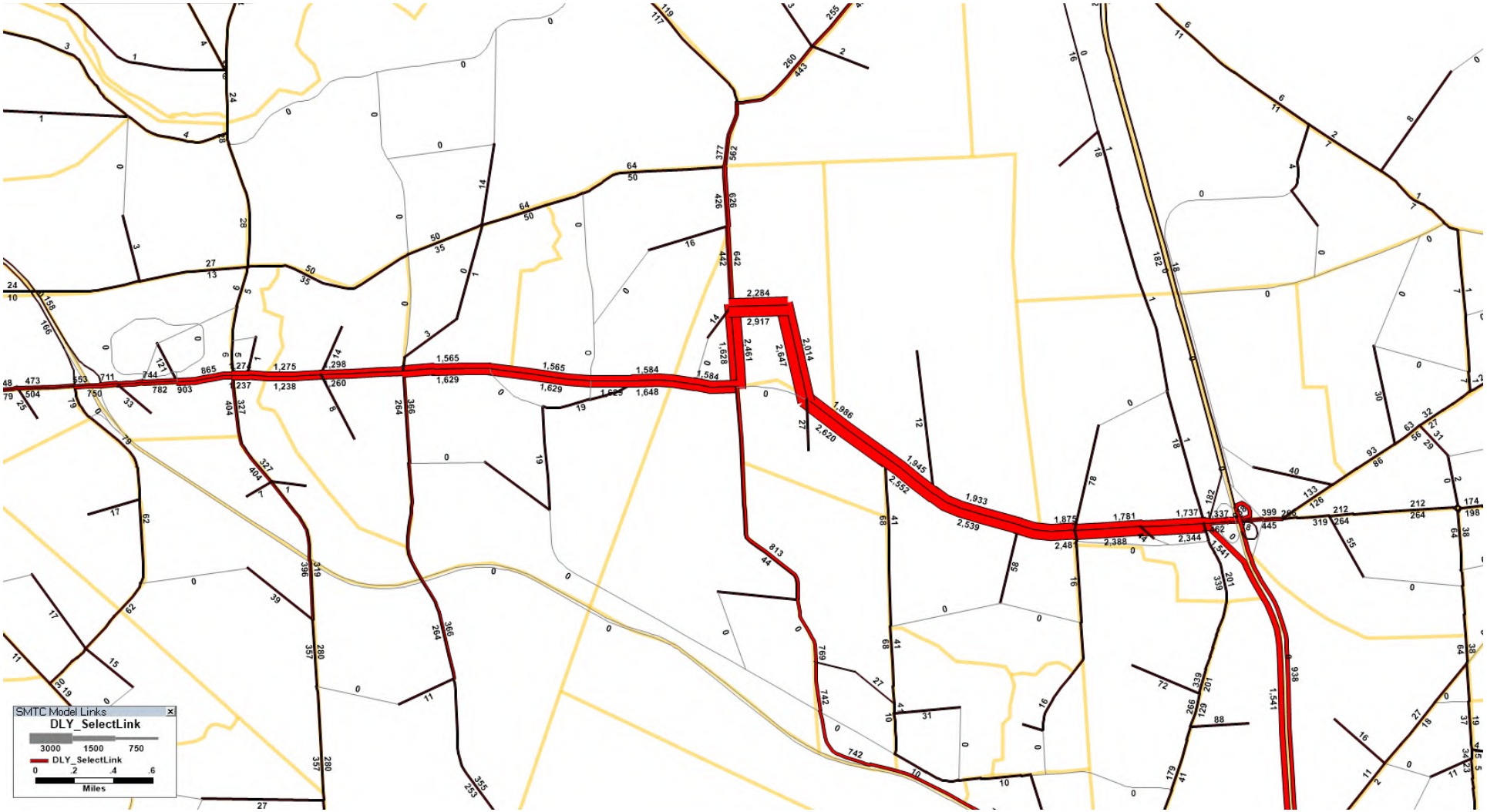
2050 PM Peak Hour Select Link Analysis

*This map is for planning purposes only. The SMTC does not guarantee the accuracy or completeness of this data.

Prepared by SMTC on 3/12/2021

SMTC

SMTC Regional Travel Demand Model (v5.0) – Select Link Analysis for Project Eagle Site



2050 Daily (24hr) Select Link Analysis

*This map is for planning purposes only. The SMTC does not guarantee the accuracy or completeness of this data.

Prepared by SMTC on 3/12/2021

SMTC

TRIP GENERATION RATES for White Pine

Total Employees = 4000
Number of Shifts = 3
Shift Employees = 2666 Number of employees assume two shift change at once

Manufacturing (ITE-140, Employees)

AVG RATE FORMULA

Morning Trips = 0.37
Evening Trips = 0.33

DISTRIBUTION

IN	50%
	50%
	50%

OUT	50%
	50%
	50%

TRIP GENERATION

White Pine Development
Manufacturing - Code 140

MORNING PEAK HOUR			EVENING PEAK HOUR		
IN	OUT	TOTAL	IN	OUT	TOTAL
493	493	986	440	440	880

140 Manufacturing

A manufacturing facility is an area where the primary activity is the conversion of raw materials or parts into finished products. Size and type of activity may vary substantially from one facility to another. In addition to the actual production of goods, manufacturing facilities generally also have office, warehouse, research, and associated functions.

Note: Trip generation rates obtained from ITE Trip Generation Manual 10th Edition, 2017

TRIP GENERATION RATES for Pizzeria Uno

ITE Code 932 High Turnover Sitdown Restaurant

Square Footage 6400

AVG RATE FORMULA

Morning Trips = 0

Evening Trips = 9.77

DISTRIBUTION

IN	0%		OUT	0%
	62%			38%

	MORNING PEAK HOUR			EVENING PEAK HOUR		
	IN	OUT	TOTAL	IN	OUT	TOTAL
High Turnover Sitdown Restaurant	0	0	0	39	24	63
Less Passby Trips PM 43%	0	0	0	-17	-10	-27
Total New Trips				22	14	36

*Restaurant not open in the morning

TRIP GENERATION RATES for Chick-fil-a

ITE Code 934 Fast Food Restaurant with Drive Thru

Square Footage 5000

AVG RATE FORMULA

Morning Trips = 40.19

Evening Trips = 32.67

DISTRIBUTION

IN	51%		OUT	49%
	52%			48%

	MORNING PEAK HOUR			EVENING PEAK HOUR		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Fast Food Restaurant with Drive Thru	102	99	201	85	78	163
Less Passby Trips AM 49%, PM 50%	-50	-49	-99	-42	-39	-82
New Trips	52	50	102	43	39	82
Less Pizzeria Uno Trips				-22	-14	-36
Total New Trips	52	50	102	21	25	46

Note: Trip generation rates obtained from ITE Trip Generation Manual 10th Edition, 2017

TRIP GENERATION RATES for Brewerton

ITE Code 252 - Senior Adult Housing

Residents = 60

AVG RATE FORMULA

Morning Trips = 0.2

Evening Trips = 0.26

DISTRIBUTION

IN	50%
	35%
	50%

OUT	50%
	65%
	50%

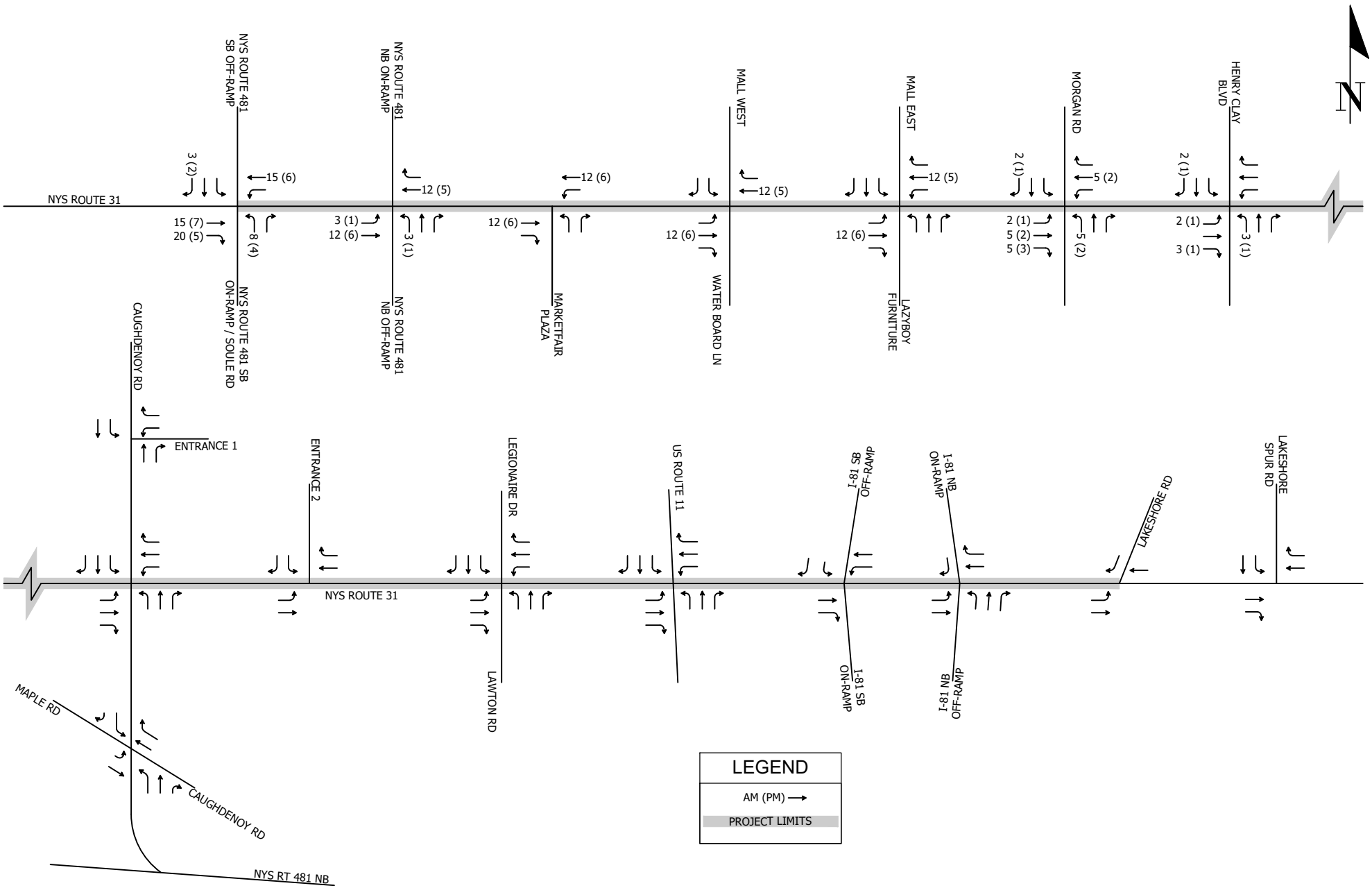
TRIP GENERATION

	MORNING PEAK HOUR			EVENING PEAK HOUR		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Brewerton Trip Generation	4	8	12	8	8	16

140 Manufacturing

A manufacturing facility is an area where the primary activity is the conversion of raw materials or parts into finished products. Size and type of activity may vary substantially from one facility to another. In addition to the actual production of goods, manufacturing facilities generally also have office, warehouse, research, and associated functions.

Note: Trip generation rates obtained from ITE Trip Generation Manual 10th Edition, 2017



19 British American Blvd. W, Latham NY 12110
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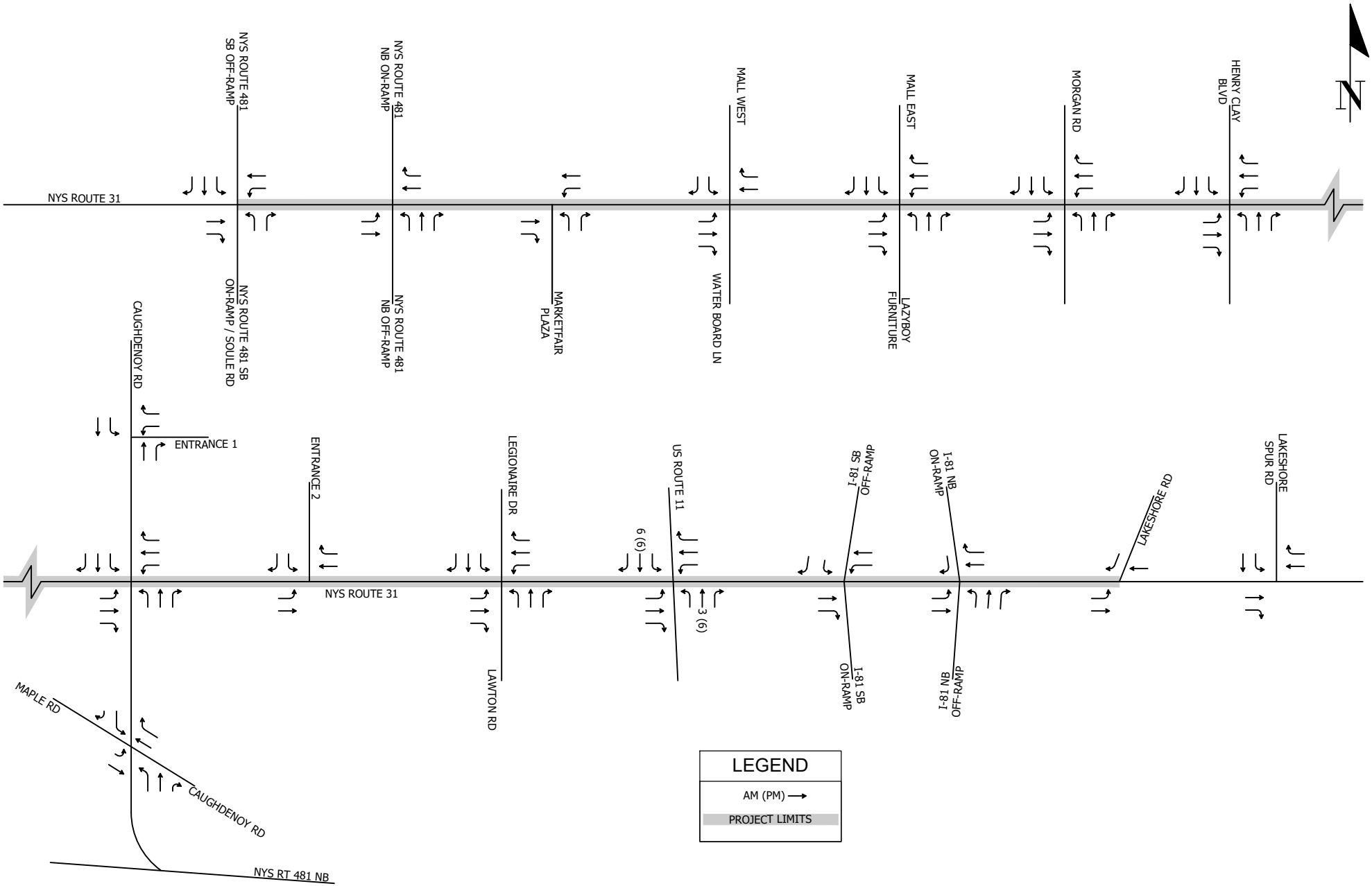
WHITE PINE COMMERCE PARK
ONONDAGA COUNTY INDUSTRIAL DEVELOPMENT AGENCY
CHICK-FIL-A DEVELOPMENT TRIPS

PROJ No.:20-03861	DATE: 4/22/2021	SCALE: N.T.S.	APPENDIX



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WHITE PINE COMMERCE PARK
ONONDAGA COUNTY INDUSTRIAL DEVELOPMENT AGENCY
BREWERTON RD DEVELOPMENT TRIPS

PROJ No.:20-03861	DATE: 4/27/2021	SCALE: N.T.S.	APPENDIX

TRAFFIC SIGNAL WARRANT ANALYSIS

NYS Route 31/ Entrance #2

Entrance #2 for White Pine Commerce will be located along NYS Route 31 to the east of Caughdenoy Road and to the west of Legionnaire Drive/Barcaldine Drive. NYS Route 31 at Entrance #2 is one through lane in each direction with turn lanes. The site access road will have one left lane and one right turn lane egressing from the site. The speed limit along NYS Route 31 in this area is 45mph.

Traffic volumes were generated for the development for Year 2024. Volumes along NYS Route 31 were taken from a 72-hour short term count conducted by the NYSDOT near Weller Canter Street which was found to be the closest location to the site. This was used to determine volumes for the non-peak periods. Site traffic volumes were generated in the following manner:

- The AM and PM peak hour volumes from the ITE Trip Generation Manual 10th edition were utilized for the exiting volumes plus the reverse volumes to reflect one shift entering and one shift exiting.
- The number of turns from the site access in and out will remain consistent during all 24 hours (54% left turns, 27% right turns out; 44% right turns in and 35% left turns in)
- The PM peak hour volumes will be used for the 2nd shift exit volumes.
- The hour closest to the peak hour for exiting traffic will have approximately 75% of the peak hour traffic.
- The remaining 18 hours will have the same number of vehicles exiting and entering. This is calculated in the following manner:

Table A1. Signal Warrant Trip Distribution

	In		Out	
	Left	Right	Left	Right
ADT vehicles/day	1,729	2,174	2,420	1,334
Peak Hour Volumes (3 hours)	479	606	743	370
Shoulder Hour Volumes (3 hours)	359	454	557	278
Other 18 hours/hr.	50	62	62	38

- ADT 4,000 x 2.47= 9,880; 50% Enter= 4,940 & 50% Exit = 4,940
- 35% Lefts in x 4,940= 1,729; 44% Rights in x 4,940 = 2,174; 54% Lefts out x 4,940 = 2,420; 27% Rights out x 4,940= 1,334
- Peak hour volumes based on ITE rates for AM and PM. Same numbers used for night shift.
- Shoulder hours = 0.75 x peak hour volumes
- Other 18 hours = ADT-Peak Hour volumes – shoulder hour volumes / 18

Based on the projected data a signal is warranted at this intersection. The projected count data and the warrant analysis worksheets are included in the Appendix B.

Table A2. Signal Warrant for NYS Route 31 at Entrance 2

Warrant	Number of Hours/Condition	Warrant Met
#1 – Eight Hour Volume	Condition A -4 hrs; Condition B 12 hrs	Yes
#2 – Four-Hour Volume	>4	Yes
#3 – Peak Hour	>1	Yes
#4 – Pedestrian Volume	Assume pedestrian volume is low.	No
#5 – School Crossing	N/A	N/A
#6 – Coordinated Signal System	N/A	N/A
#7 – Crash Experience	N/A	N/A
#8 – Roadway Network	Site Access Road not a major street	No
#9 – Intersection Near at Grade Crossing	N/A	N/A

New York State Route 481 Off Ramp/ Caughdenoy Road/Maple Road

Caughdenoy Road forms both the north and east leg of the intersection. The NYS RT 481 off ramp forms the south leg and Maple Road forms the west leg. The intersection is unusual in the fact the higher volumes are on the stop-controlled street which is the New York State 481 off ramp and Caughdenoy Road southbound. The speed limit on Maple Road is 35 mph. Maple Road and Caughdenoy Road to the east are single lane approaches. The other two approaches have separate right turn lanes. Traffic volumes for this intersection were limited to using a previous two-hour count. The analysis was conducted by conservatively assuming the same volumes in the AM peak hour would occur for two consecutive hours to evaluate the four-hour warrant. The volumes were evaluated for existing and Year 2024 conditions assuming the higher volumes roadways are the major street. The analysis showed that for the existing or Year 2024 condition the intersection does not meet Warrant 2.

There have been several collisions at the intersection. In the last three years where data is available from September 2016 to September 2019 the most correctable crashes in one year was three. Most of the crashes involve vehicles from the NYS Route 481 off ramp with Maple Road eastbound traffic. Possible solution to address the crash issue could include installing stop ahead signs and rumble strips on the ramp. On Maple Road alternatives could include adding an intersection warning sign and proving traverse marking to slow traffic as they approach the intersection. Ultimately the best solution would be a roundabout at this location.

Table 1. Signal Warrant for New York State Route 481 Off Ramp/ Caughdenoy Road/Maple Road

Warrant	Number of Hours/Condition	Warrant Met
#1 – Eight Hour Volume	Condition A -2 hrs; Condition B 1 hrs	No
#2 – Four-Hour Volume	>4	No
#3 – Peak Hour	>1	No
#4 – Pedestrian Volume	Assume pedestrian volume is low.	No
#5 – School Crossing	N/A	N/A
#6 – Coordinated Signal System	N/A	N/A
#7 – Crash Experience	N/A	N/A
#8 – Roadway Network	Site Access Road not a major street	No
#9 – Intersection Near at Grade Crossing	N/A	N/A

Turning Counts Study - Field Sheet

Request No.: 1050638
Job No.: 1050638

Location: NYS Rte 31 at Site Entrance
Date (m/d/y): 7/16/05
Recorder:
Interval (dd) (in Minutes): 15

County:
Town: Cicero
Weather:

Street Name-->	Site Entrance								Rte 31				Rte 31				
Hour	From North				From South				From East				From West				
Ending	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	TOT
Include?	☑	☑	☑		☑	☑	☑		☑	☑	☑		☐	☑	☑		
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45	62	0	38	100	0	0	0	0	0	220	62	282	50	173	0	173	555
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	267	0	132	399	0	0	0	0	0	350	218	568	171	346	0	346	1313
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	200	0	99	299	0	0	0	0	0	314	164	478	128	279	0	279	1056
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	62	0	38	100	0	0	0	0	0	309	62	371	50	250	0	250	721
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	62	0	38	100	0	0	0	0	0	357	62	419	50	294	0	294	813
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	62	0	38	100	0	0	0	0	0	337	62	399	50	348	0	348	847
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	62	0	38	100	0	0	0	0	0	319	62	381	50	375	0	375	856
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	62	0	38	100	0	0	0	0	0	335	62	397	50	413	0	413	910
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	62	0	38	100	0	0	0	0	0	374	62	436	50	388	0	388	904
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	62	0	38	100	0	0	0	0	0	457	62	519	50	429	0	429	1048
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	238	0	119	357	0	0	0	0	0	440	194	634	154	472	0	472	1463
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	178	0	89	267	0	0	0	0	0	509	145	654	115	472	0	472	1393
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	62	0	38	100	0	0	0	0	0	387	62	449	50	394	0	394	943
19:00				0				0				0				0	0
19:15				0				0				0				0	0
19:30				0				0				0				0	0
19:45				0				0				0				0	0
20:00				0				0				0				0	0
20:15				0				0				0				0	0
20:30				0				0				0				0	0
20:45				0				0				0				0	0
21:00				0				0				0				0	0
TOTAL	1441	0	781	2222	0	0	0	0	0	4708	1279	5987	1018	4613	0	4613	12822

MUTCD Signal Warrant 1: Eight-Hour Vehicular Volumes

2024 Rte 31 & Site Entrance

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume

Condition A - Minimum Vehicular Volume									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	**2 or more**	500	400	**350**	**280**	200	160	**140**	**112**

Condition B - Interruption of Continuous Traffic									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	**2 or more**	750	600	**525**	**420**	100	80	**70**	**56**

[a] Basic minimum hourly volume.

[b] Used for combination of Conditions A and B after adequate trial of other remedial measures.

[c] May be used when the major street speed exceeds 70 km/h (40 mph) or in an isolated community with a population of less than 10,000.

Evaluation of 70% Criteria for Either Condition A or Condition B:

Evaluation of Condition A:

Hour	Major Volume (350 req'd)	Minor Volume (140 req'd)	Meets Warrant?
6:00-7:00	455	100	No
7:00-8:00	**914**	**399**	**Yes**
8:00-9:00	**757**	**299**	**Yes**
9:00-10:00	621	100	No
10:00-11:00	713	100	No
11:00-12:00	747	100	No
12:00-13:00	756	100	No
13:00-14:00	810	100	No
14:00-15:00	804	100	No
15:00-16:00	948	100	No
16:00-17:00	**1106**	**357**	**Yes**
17:00-18:00	**1126**	**267**	**Yes**
18:00-19:00	843	100	No
19:00-20:00	0	0	No
20:00-21:00	0	0	No

4 hours met - Condition A is Not Met

Evaluation of Condition B:

Hour	Major Volume (525 req'd)	Minor Volume (70 req'd)	Meets Warrant?
6:00-7:00	455	100	No
7:00-8:00	**914**	**399**	**Yes**
8:00-9:00	**757**	**299**	**Yes**
9:00-10:00	**621**	**100**	**Yes**
10:00-11:00	**713**	**100**	**Yes**
11:00-12:00	**747**	**100**	**Yes**
12:00-13:00	**756**	**100**	**Yes**
13:00-14:00	**810**	**100**	**Yes**
14:00-15:00	**804**	**100**	**Yes**
15:00-16:00	**948**	**100**	**Yes**
16:00-17:00	**1106**	**357**	**Yes**
17:00-18:00	**1126**	**267**	**Yes**
18:00-19:00	**843**	**100**	**Yes**
19:00-20:00	0	0	No
20:00-21:00	0	0	No

12 hours met - Condition B is Met

Warrant 1 is Met

Evaluation of 56% Criteria for Both Condition A & Condition B:

Evaluation of Condition A:

Hour	Major Volume (280 req'd)	Minor Volume (112 req'd)	Meets Warrant?
6:00-7:00	455	100	No
7:00-8:00	**914**	**399**	**Yes**
8:00-9:00	**757**	**299**	**Yes**
9:00-10:00	621	100	No
10:00-11:00	713	100	No
11:00-12:00	747	100	No
12:00-13:00	756	100	No
13:00-14:00	810	100	No
14:00-15:00	804	100	No
15:00-16:00	948	100	No
16:00-17:00	**1106**	**357**	**Yes**
17:00-18:00	**1126**	**267**	**Yes**
18:00-19:00	843	100	No
19:00-20:00	0	0	No
20:00-21:00	0	0	No

4 hours met - Condition A is Not Met

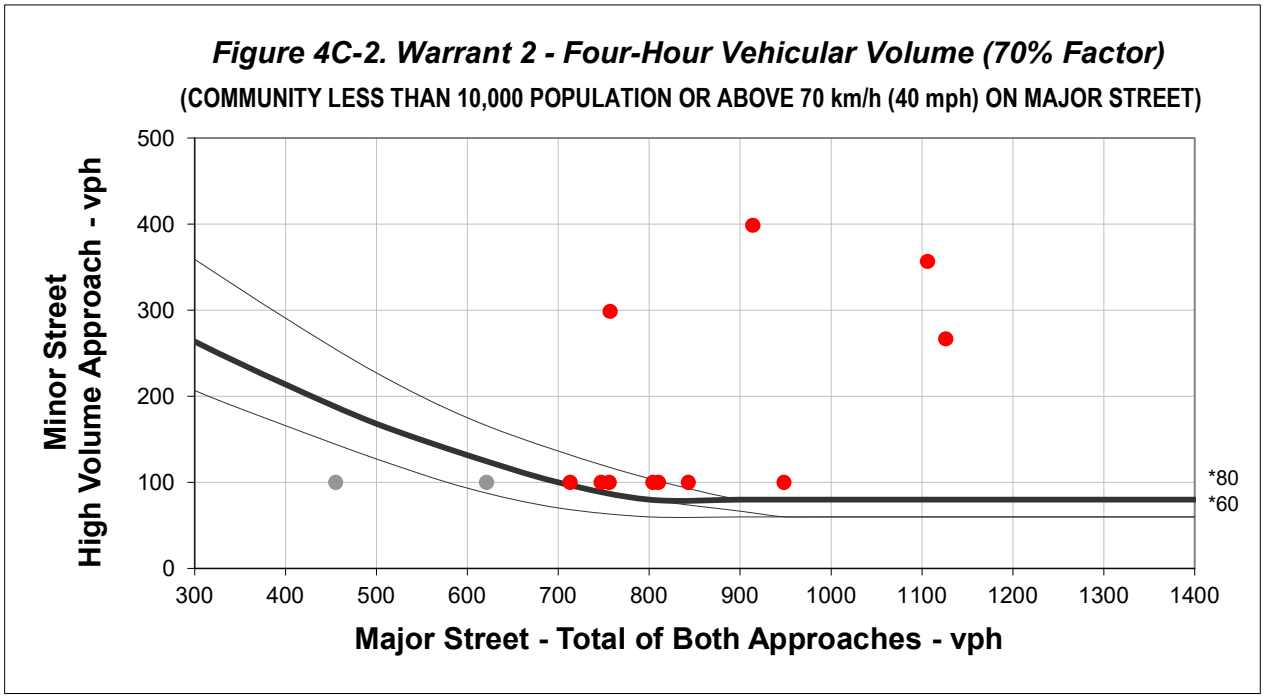
Evaluation of Condition B:

Hour	Major Volume (420 req'd)	Minor Volume (56 req'd)	Meets Warrant?
6:00-7:00	**455**	**100**	**Yes**
7:00-8:00	**914**	**399**	**Yes**
8:00-9:00	**757**	**299**	**Yes**
9:00-10:00	**621**	**100**	**Yes**
10:00-11:00	**713**	**100**	**Yes**
11:00-12:00	**747**	**100**	**Yes**
12:00-13:00	**756**	**100**	**Yes**
13:00-14:00	**810**	**100**	**Yes**
14:00-15:00	**804**	**100**	**Yes**
15:00-16:00	**948**	**100**	**Yes**
16:00-17:00	**1106**	**357**	**Yes**
17:00-18:00	**1126**	**267**	**Yes**
18:00-19:00	**843**	**100**	**Yes**
19:00-20:00	0	0	No
20:00-21:00	0	0	No

13 hours met - Condition B is Met

MUTCD Signal Warrant 2: Four-Hour Volumes

2024 Rte 31 & Site Entrance



*Note: 80 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor street approach with one lane.

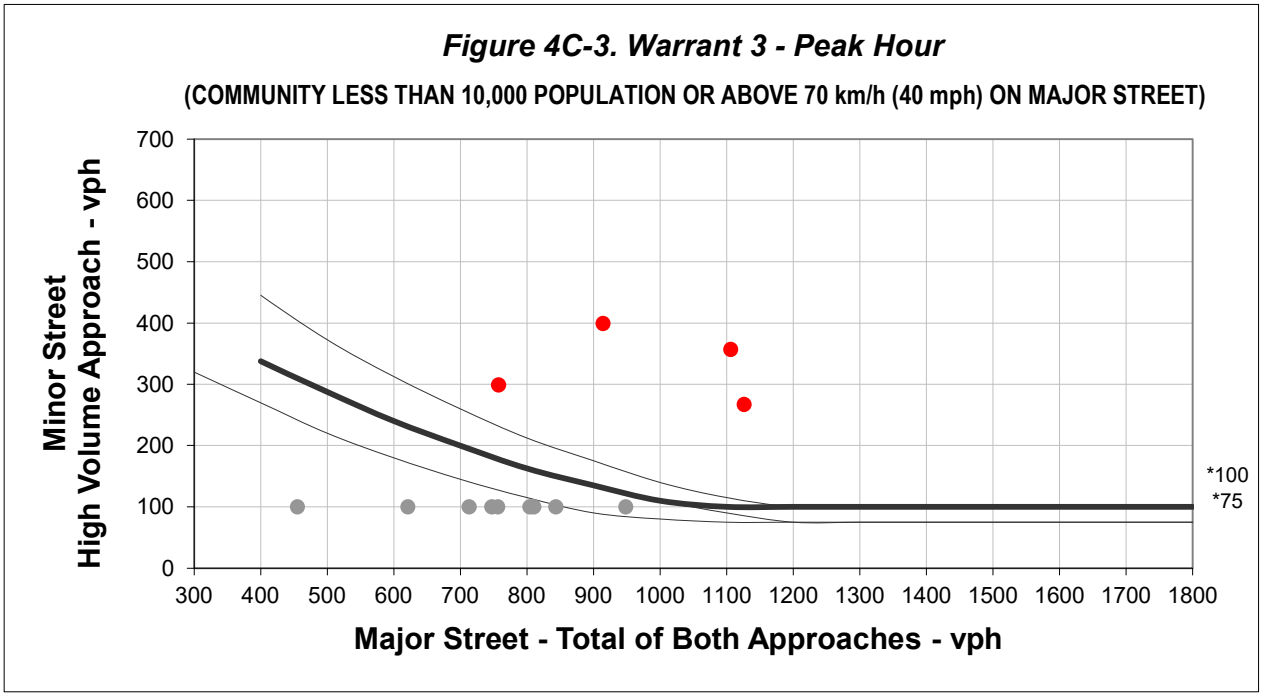
Hour	Major Street Total of Both Approaches	Minor Street High Volume Approach	Required Minor Street High Volume Approach	Meets Warrant?
6:00 - 7:00	455	100	189	No
7:00 - 8:00	914	399	80	**Yes**
8:00 - 9:00	757	299	89	**Yes**
9:00 - 10:00	621	100	125	No
10:00 - 11:00	713	100	97	**Yes**
11:00 - 12:00	747	100	91	**Yes**
12:00 - 13:00	756	100	89	**Yes**
13:00 - 14:00	810	100	80	**Yes**
14:00 - 15:00	804	100	80	**Yes**
15:00 - 16:00	948	100	80	**Yes**
16:00 - 17:00	1106	357	80	**Yes**
17:00 - 18:00	1126	267	80	**Yes**
18:00 - 19:00	843	100	80	**Yes**
19:00 - 20:00	0	0		No
20:00 - 21:00	0	0		No

Total Number of Hours Met = 11

Warrant 2 is Met

MUTCD Signal Warrant 3, Condition B: Peak Hour Volume

2024 Rte 31 & Site Entrance



*Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor street approach with one lane.

Hour	Major Street Total of Both Approaches	Minor Street High Volume Approach	Required Minor Street High Volume Approach	Meets Warrant?
6:00 - 7:00	455	100	310	No
7:00 - 8:00	914	399	132	**Yes**
8:00 - 9:00	757	299	179	**Yes**
9:00 - 10:00	621	100	232	No
10:00 - 11:00	713	100	195	No
11:00 - 12:00	747	100	182	No
12:00 - 13:00	756	100	179	No
13:00 - 14:00	810	100	160	No
14:00 - 15:00	804	100	161	No
15:00 - 16:00	948	100	123	No
16:00 - 17:00	1106	357	100	**Yes**
17:00 - 18:00	1126	267	100	**Yes**
18:00 - 19:00	843	100	151	No
19:00 - 20:00	0	0		No
20:00 - 21:00	0	0		No

Total Number of Hours Met = 4

Warrant 3, Condition B is Met

This signal warrant shall be applied only in unusual cases. Such cases include, but are not limited to, office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.

Turning Counts Study - Field Sheet

Request No.: 1050638
Job No.: 1050638

Location: NYS 481 Ramp at Maple
Date (m/d/y):
Recorder:
Interval (dd) : 15
(In Minutes)

County:
Town: Cicero
Weather:

Street Name-->	Caughdenoy				NYS Rte 481 Ramp				Caughdenoy				Maple				
Hour	From North				From South				From East				From West				
Ending	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	TOT
Include?	☑	☑	☑		☑	☑	☑		☑	☑	☑		☐	☑	☑		
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45	57	0	0	57	0	45	0	45	0	38	0	38	0	32	0	32	172
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	127	0	7	134	13	24	37	74	0	92	3	95	0	92	3	95	398
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	84	0	0	84	0	74	0	74	0	56	0	56	0	48	0	48	262
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	58	0	0	58	0	61	0	61	0	54	0	54	0	40	0	40	213
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	44	0	0	44	0	55	0	55	0	39	0	39	0	49	0	49	187
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	46	0	0	46	0	93	0	93	0	65	0	65	0	46	0	46	250
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	67	0	0	67	0	103	0	103	0	65	0	65	0	50	0	50	285
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	58	0	0	58	0	115	0	115	0	51	0	51	0	50	0	50	274
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	53	0	0	53	0	128	0	128	0	58	0	58	0	45	0	45	284
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	42	0	0	42	0	250	0	250	0	97	0	97	0	73	0	73	462
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	84	0	0	84	0	366	0	366	0	112	0	112	0	67	0	67	629
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	63	0	2	65	62	136	219	417	0	76	51	127	0	78	6	84	693
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	45	0	0	45	0	215	0	215	0	73	0	73	0	63	0	63	396
19:00				0				0				0				0	0
19:15				0				0				0				0	0
19:30				0				0				0				0	0
19:45				0				0				0				0	0
20:00				0				0				0				0	0
20:15				0				0				0				0	0
20:30				0				0				0				0	0
20:45				0				0				0				0	0
21:00				0				0				0				0	0
TOTAL	828	0	9	837	75	1665	256	1996	0	876	54	930	0	733	9	742	4505

MUTCD Signal Warrant 1: Eight-Hour Vehicular Volumes

2021 NYS Rte 481/ Caughdenoy & Maple/ Caughdenoy

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume

Condition A - Minimum Vehicular Volume									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	500	400	350	280	150	120	105	84
2 or more	**1**	600	480	**420**	**336**	150	120	**105**	**84**
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B - Interruption of Continuous Traffic									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	750	600	525	420	75	60	53	42
2 or more	**1**	900	720	**630**	**504**	75	60	**53**	**42**
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

[a] Basic minimum hourly volume.

[b] Used for combination of Conditions A and B after adequate trial of other remedial measures.

[c] May be used when the major street speed exceeds 70 km/h (40 mph) or in an isolated community with a population of less than 10,000.

Evaluation of 70% Criteria for Either Condition A or Condition B:

Evaluation of Condition A:

Hour	Major Volume (420 req'd)	Minor Volume (105 req'd)	Meets Warrant?
6:00-7:00	102	38	No
7:00-8:00	208	95	No
8:00-9:00	158	56	No
9:00-10:00	119	54	No
10:00-11:00	99	49	No
11:00-12:00	139	65	No
12:00-13:00	170	65	No
13:00-14:00	173	51	No
14:00-15:00	181	58	No
15:00-16:00	292	97	No
16:00-17:00	**450**	**112**	**Yes**
17:00-18:00	**482**	**127**	**Yes**
18:00-19:00	260	73	No
19:00-20:00	0	0	No
20:00-21:00	0	0	No

2 hours met - Condition A is Not Met

Evaluation of Condition B:

Hour	Major Volume (630 req'd)	Minor Volume (53 req'd)	Meets Warrant?
6:00-7:00	102	38	No
7:00-8:00	208	95	No
8:00-9:00	158	56	No
9:00-10:00	119	54	No
10:00-11:00	99	49	No
11:00-12:00	139	65	No
12:00-13:00	170	65	No
13:00-14:00	173	51	No
14:00-15:00	181	58	No
15:00-16:00	292	97	No
16:00-17:00	450	112	No
17:00-18:00	482	127	No
18:00-19:00	260	73	No
19:00-20:00	0	0	No
20:00-21:00	0	0	No

0 hours met - Condition B is Not Met

(continued on next page)

Evaluation of 56% Criteria for Both Condition A & Condition B:

Evaluation of Condition A:

Hour	Major Volume (336 req'd)	Minor Volume (84 req'd)	Meets Warrant?
6:00-7:00	102	38	No
7:00-8:00	208	95	No
8:00-9:00	158	56	No
9:00-10:00	119	54	No
10:00-11:00	99	49	No
11:00-12:00	139	65	No
12:00-13:00	170	65	No
13:00-14:00	173	51	No
14:00-15:00	181	58	No
15:00-16:00	292	97	No
16:00-17:00	**450**	**112**	**Yes**
17:00-18:00	**482**	**127**	**Yes**
18:00-19:00	260	73	No
19:00-20:00	0	0	No
20:00-21:00	0	0	No

2 hours met - Condition A is Not Met

Evaluation of Condition B:

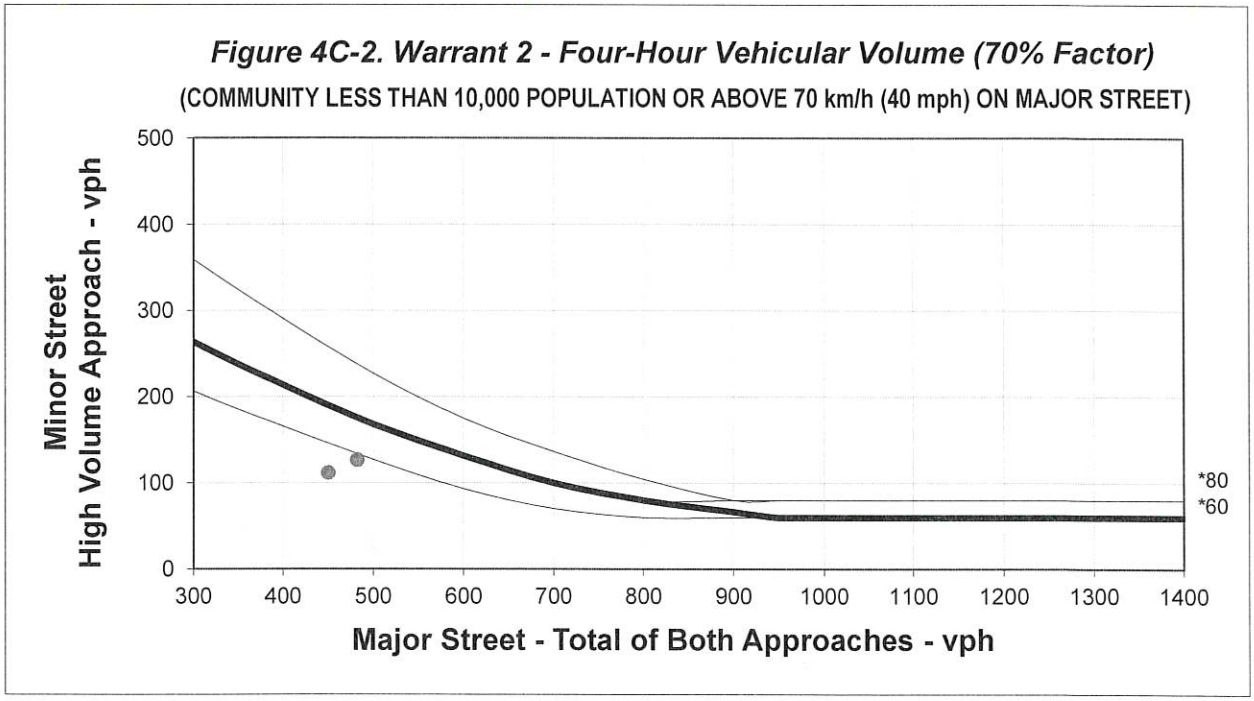
Hour	Major Volume (504 req'd)	Minor Volume (42 req'd)	Meets Warrant?
6:00-7:00	102	38	No
7:00-8:00	208	95	No
8:00-9:00	158	56	No
9:00-10:00	119	54	No
10:00-11:00	99	49	No
11:00-12:00	139	65	No
12:00-13:00	170	65	No
13:00-14:00	173	51	No
14:00-15:00	181	58	No
15:00-16:00	292	97	No
16:00-17:00	450	112	No
17:00-18:00	482	127	No
18:00-19:00	260	73	No
19:00-20:00	0	0	No
20:00-21:00	0	0	No
21:00-22:00	0	0	No

0 hours met - Condition B is Not Met

Warrant 1 is Not Met

MUTCD Signal Warrant 2: Four-Hour Volumes

2021 NYS Rte 481/ Caughdenoy & Maple/ Caughdenoy



*Note: 80 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor street approach with one lane.

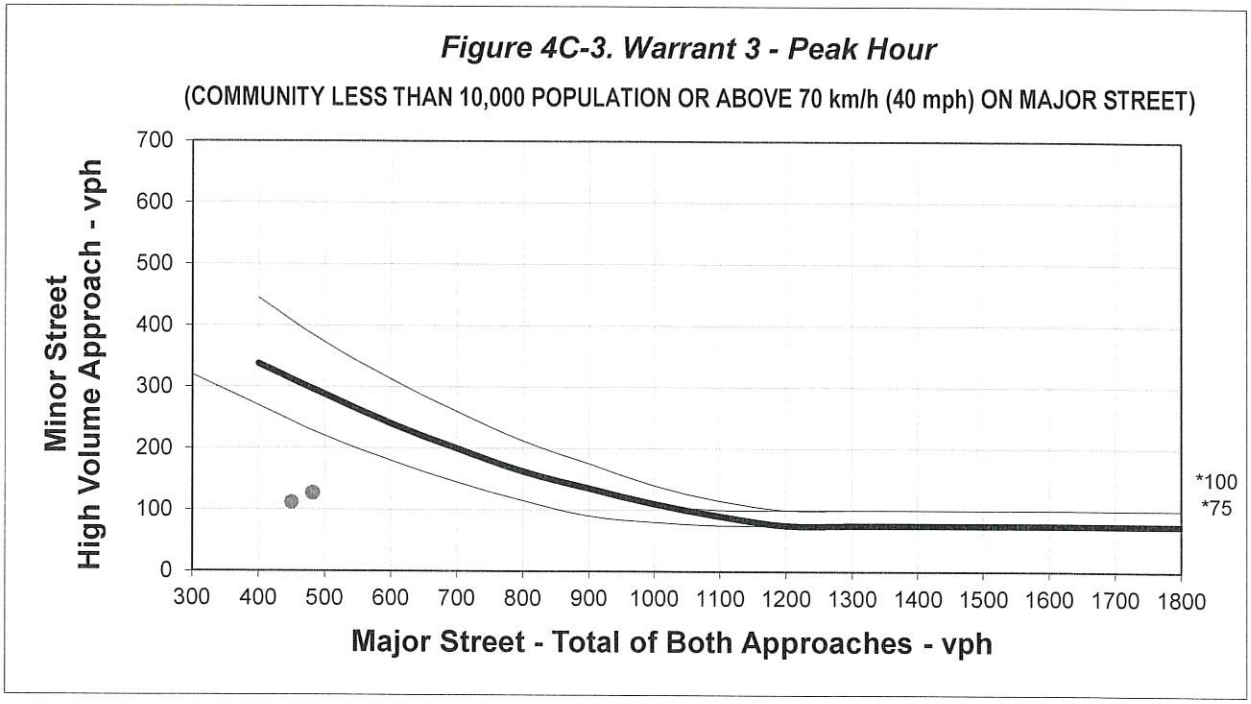
Hour	Major Street Total of Both Approaches	Minor Street High Volume Approach	Required Minor Street High Volume Approach	Meets Warrant?
6:00 - 7:00	102	38		No
7:00 - 8:00	208	95	314	No
8:00 - 9:00	158	56		No
9:00 - 10:00	119	54		No
10:00 - 11:00	99	49		No
11:00 - 12:00	139	65		No
12:00 - 13:00	170	65		No
13:00 - 14:00	173	51		No
14:00 - 15:00	181	58		No
15:00 - 16:00	292	97	268	No
16:00 - 17:00	450	112	191	No
17:00 - 18:00	482	127	176	No
18:00 - 19:00	260	73	285	No
19:00 - 20:00	0	0		No
20:00 - 21:00	0	0		No
21:00 - 22:00	0	0		No

Total Number of Hours Met = 0

Warrant 2 is Not Met

MUTCD Signal Warrant 3, Condition B: Peak Hour Volume

2021 NYS Rte 481/ Caughdenoy & Maple/ Caughdenoy



*Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor street approach with one lane.

Hour	Major Street Total of Both Approaches	Minor Street High Volume Approach	Required Minor Street High Volume Approach	Meets Warrant?
6:00 - 7:00	102	38		No
7:00 - 8:00	208	95		No
8:00 - 9:00	158	56		No
9:00 - 10:00	119	54		No
10:00 - 11:00	99	49		No
11:00 - 12:00	139	65		No
12:00 - 13:00	170	65		No
13:00 - 14:00	173	51		No
14:00 - 15:00	181	58		No
15:00 - 16:00	292	97		No
16:00 - 17:00	450	112	313	No
17:00 - 18:00	482	127	297	No
18:00 - 19:00	260	73		No
19:00 - 20:00	0	0		No
20:00 - 21:00	0	0		No
21:00 - 22:00	0	0		No

Total Number of Hours Met = 0

Warrant 3, Condition B is Not Met

This signal warrant shall be applied only in unusual cases. Such cases include, but are not limited to, office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.

MUTCD Signal Warrant Analysis: 2021 NYS Rte 481/ Caughdenoy & Maple/ Cau

MUTCD Warrant Number & Name		Description	Met?
1	Eight-Hour Vehicular Volume	The volumes of traffic on the major and minor streets meet specified minimum amounts for at least 8 hours of an average weekday. Either of two sets of minimum criteria may be used.	No
2	Four-Hour Vehicular Volume	For any four hours of an average day, the points representing major and minor street volumes plot above a specified curve.	No
3	Peak Hour	For at least one hour of an average day, minor street traffic exceeds a minimum volume and suffers at least a specified amount of total delay, or the points representing major and minor street volumes plot above a specified curve. This warrant only applies to unusual cases involving large traffic generators.	No
4	Pedestrian Volume	The volume of pedestrian traffic crossing a major street at an intersection or mid-block location must meet minimum values for either a single hour or any four hours of an average weekday.	No
5	School Crossing	The frequency and adequecy of gaps in the traffic stream must not otherwise be sufficient for the number of children crossing.	No
6	Coordinated Signal System	Signalized control is required to maintain proper grouping of vehicles in a coordinated, progressive signal system.	No
7	Crash Experience	Five or more reported crashes of type susceptible to control by a traffic signal have occurred at the location within a 12-month period. Other less restrictive remedies and enforcement have failed to reduce accidents. Either Warrant 1 or Warrant 2 is at least 80% met. A signal will not seriously disrupt traffic flow.	No
8	Roadway Network	An intersection of two major routes has either high five-year projected peak-hour traffic volumes or high volumes for at least five hours on an average Saturday and/or Sunday.	No

Turning Counts Study - Field Sheet

Request No.: 1050638
Job No.: 1050638

Location: NYS 481 Ramp at Maple
Date (m/d/y):
Recorder:
Interval (dd) : 15
(In Minutes)

County:
Town: Clay
Weather:

Street Name-->	Caughdenoy				NYS Rte 481 Ramp				Caughdenoy				Maple				
Hour	From North				From South				From East				From West				
Ending	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	TOT
Include?	☑	☑	☑		☑	☑	☑		☑	☑	☑		☐	☑	☑		
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45	57	0	0	57	0	60	0	60	0	38	0	38	0	32	0	32	187
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	127	0	7	134	13	73	37	123	0	34	9	43	0	92	3	95	395
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	84	0	0	84	0	111	0	111	0	56	0	56	0	48	0	48	299
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	58	0	0	58	0	76	0	76	0	54	0	54	0	40	0	40	228
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	44	0	0	44	0	70	0	70	0	39	0	39	0	49	0	49	202
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	46	0	0	46	0	108	0	108	0	65	0	65	0	46	0	46	265
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	67	0	0	67	0	118	0	118	0	65	0	65	0	50	0	50	300
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	58	0	0	58	0	130	0	130	0	51	0	51	0	50	0	50	289
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	53	0	0	53	0	158	0	158	0	58	0	58	0	45	0	45	314
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	42	0	0	42	0	265	0	265	0	97	0	97	0	73	0	73	477
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	84	0	0	84	0	399	0	399	0	112	0	112	0	67	0	67	662
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	63	0	2	65	62	160	219	441	0	76	51	127	0	78	6	84	717
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	45	0	0	45	0	230	0	230	0	73	0	73	0	63	0	63	411
19:00				0				0				0				0	0
19:15				0				0				0				0	0
19:30				0				0				0				0	0
19:45				0				0				0				0	0
20:00				0				0				0				0	0
20:15				0				0				0				0	0
20:30				0				0				0				0	0
20:45				0				0				0				0	0
21:00				0				0				0				0	0
TOTAL	828	0	9	837	75	1958	256	2289	0	818	60	878	0	733	9	742	4746

MUTCD Signal Warrant 1: Eight-Hour Vehicular Volumes

2024 NYS Rte 481/ Caughdenoy & Maple/ Caughdenoy

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume

Condition A - Minimum Vehicular Volume									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	500	400	350	280	150	120	105	84
2 or more	**1**	600	480	**420**	**336**	150	120	**105**	**84**
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B - Interruption of Continuous Traffic									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	750	600	525	420	75	60	53	42
2 or more	**1**	900	720	**630**	**504**	75	60	**53**	**42**
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

[a] Basic minimum hourly volume.

[b] Used for combination of Conditions A and B after adequate trial of other remedial measures.

[c] May be used when the major street speed exceeds 70 km/h (40 mph) or in an isolated community with a population of less than 10,000.

Evaluation of 70% Criteria for Either Condition A or Condition B:

Evaluation of Condition A:

Hour	Major Volume (420 req'd)	Minor Volume (105 req'd)	Meets Warrant?
6:00-7:00	117	38	No
7:00-8:00	257	95	No
8:00-9:00	195	56	No
9:00-10:00	134	54	No
10:00-11:00	114	49	No
11:00-12:00	154	65	No
12:00-13:00	185	65	No
13:00-14:00	188	51	No
14:00-15:00	211	58	No
15:00-16:00	307	97	No
16:00-17:00	**483**	**112**	**Yes**
17:00-18:00	**506**	**127**	**Yes**
18:00-19:00	275	73	No
19:00-20:00	0	0	No
20:00-21:00	0	0	No

2 hours met - Condition A is Not Met

Evaluation of Condition B:

Hour	Major Volume (630 req'd)	Minor Volume (53 req'd)	Meets Warrant?
6:00-7:00	117	38	No
7:00-8:00	257	95	No
8:00-9:00	195	56	No
9:00-10:00	134	54	No
10:00-11:00	114	49	No
11:00-12:00	154	65	No
12:00-13:00	185	65	No
13:00-14:00	188	51	No
14:00-15:00	211	58	No
15:00-16:00	307	97	No
16:00-17:00	483	112	No
17:00-18:00	506	127	No
18:00-19:00	275	73	No
19:00-20:00	0	0	No
20:00-21:00	0	0	No

0 hours met - Condition B is Not Met

(continued on next page)

Evaluation of 56% Criteria for Both Condition A & Condition B:

Evaluation of Condition A:

Hour	Major Volume (336 req'd)	Minor Volume (84 req'd)	Meets Warrant?
6:00-7:00	117	38	No
7:00-8:00	257	95	No
8:00-9:00	195	56	No
9:00-10:00	134	54	No
10:00-11:00	114	49	No
11:00-12:00	154	65	No
12:00-13:00	185	65	No
13:00-14:00	188	51	No
14:00-15:00	211	58	No
15:00-16:00	307	97	No
16:00-17:00	**483**	**112**	**Yes**
17:00-18:00	**506**	**127**	**Yes**
18:00-19:00	275	73	No
19:00-20:00	0	0	No
20:00-21:00	0	0	No

2 hours met - Condition A is Not Met

Evaluation of Condition B:

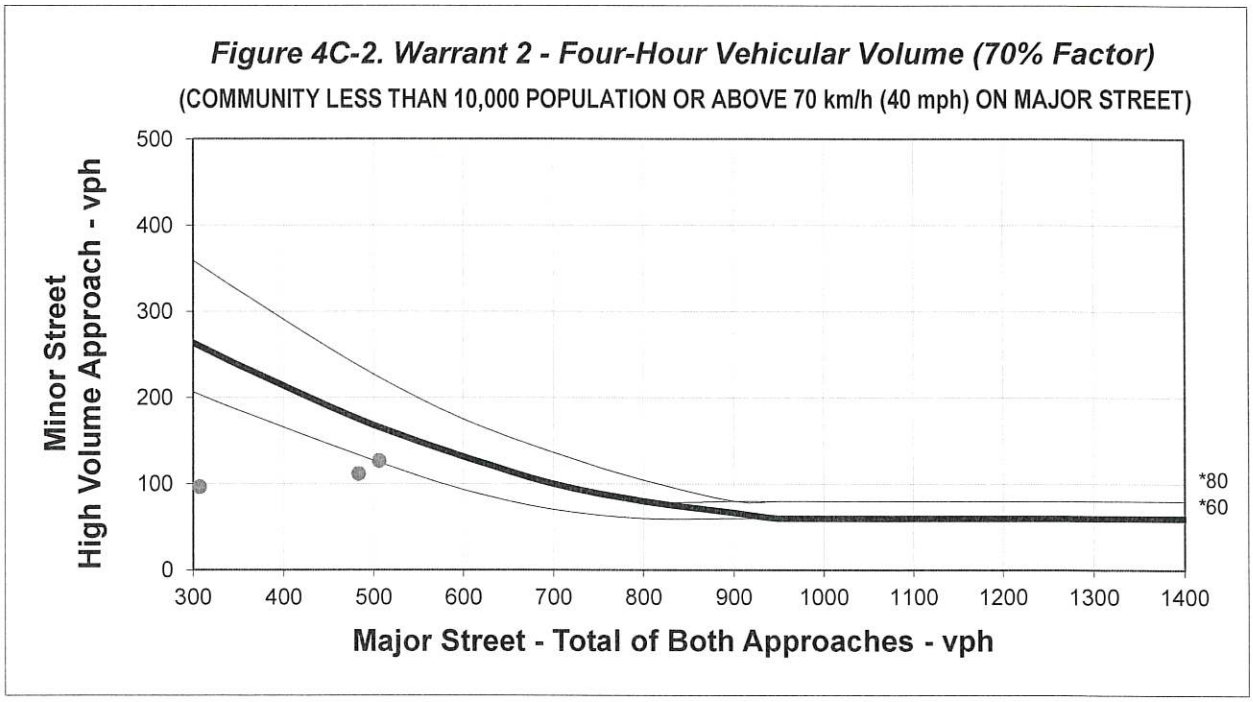
Hour	Major Volume (504 req'd)	Minor Volume (42 req'd)	Meets Warrant?
6:00-7:00	117	38	No
7:00-8:00	257	95	No
8:00-9:00	195	56	No
9:00-10:00	134	54	No
10:00-11:00	114	49	No
11:00-12:00	154	65	No
12:00-13:00	185	65	No
13:00-14:00	188	51	No
14:00-15:00	211	58	No
15:00-16:00	307	97	No
16:00-17:00	483	112	No
17:00-18:00	**506**	**127**	**Yes**
18:00-19:00	275	73	No
19:00-20:00	0	0	No
20:00-21:00	0	0	No

1 hours met - Condition B is Not Met

Warrant 1 is Not Met

MUTCD Signal Warrant 2: Four-Hour Volumes

2024 NYS Rte 481/ Caughdenoy & Maple/ Caughdenoy



*Note: 80 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor street approach with one lane.

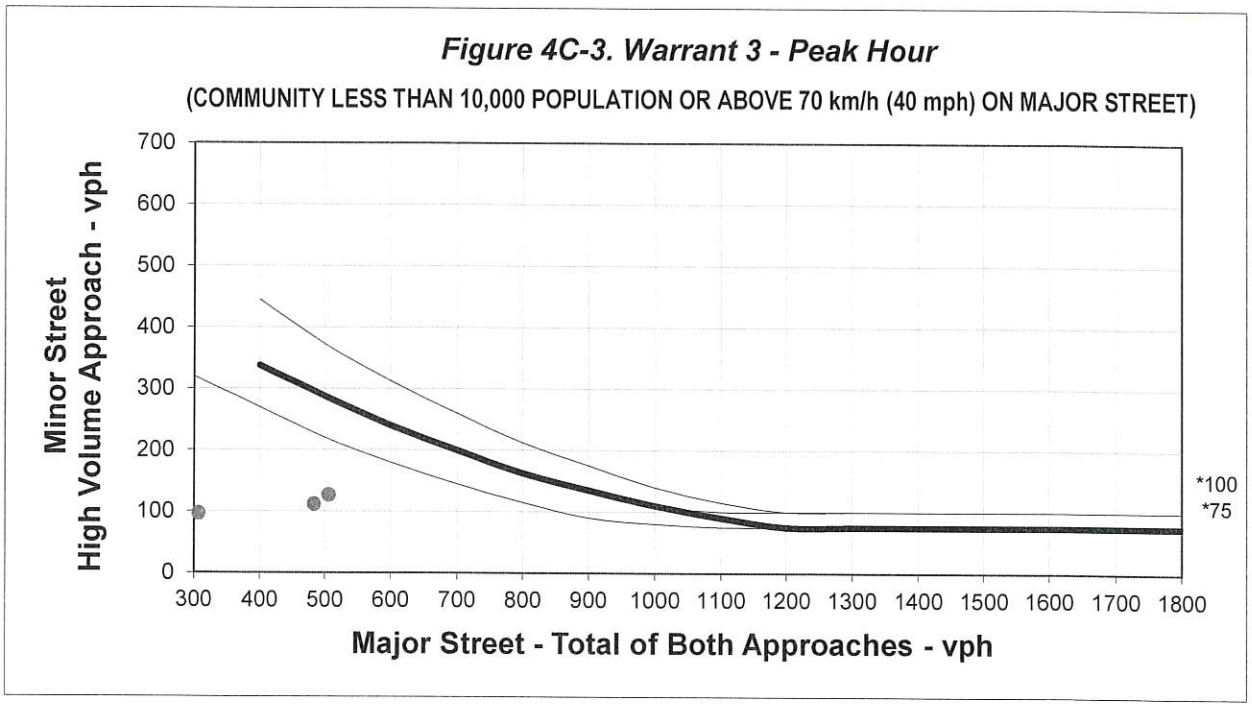
Hour	Major Street Total of Both Approaches	Minor Street High Volume Approach	Required Minor Street High Volume Approach	Meets Warrant?
6:00 - 7:00	117	38		No
7:00 - 8:00	257	95	287	No
8:00 - 9:00	195	56		No
9:00 - 10:00	134	54		No
10:00 - 11:00	114	49		No
11:00 - 12:00	154	65		No
12:00 - 13:00	185	65		No
13:00 - 14:00	188	51		No
14:00 - 15:00	211	58	312	No
15:00 - 16:00	307	97	260	No
16:00 - 17:00	483	112	176	No
17:00 - 18:00	506	127	166	No
18:00 - 19:00	275	73	277	No
19:00 - 20:00	0	0		No
20:00 - 21:00	0	0		No
21:00 - 22:00	0	0		No

Total Number of Hours Met = 0

Warrant 2 is Not Met

MUTCD Signal Warrant 3, Condition B: Peak Hour Volume

2024 NYS Rte 481/ Caughdenoy & Maple/ Caughdenoy



*Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor street approach with one lane.

Hour	Major Street Total of Both Approaches	Minor Street High Volume Approach	Required Minor Street High Volume Approach	Meets Warrant?
6:00 - 7:00	117	38		No
7:00 - 8:00	257	95		No
8:00 - 9:00	195	56		No
9:00 - 10:00	134	54		No
10:00 - 11:00	114	49		No
11:00 - 12:00	154	65		No
12:00 - 13:00	185	65		No
13:00 - 14:00	188	51		No
14:00 - 15:00	211	58		No
15:00 - 16:00	307	97		No
16:00 - 17:00	483	112	296	No
17:00 - 18:00	506	127	285	No
18:00 - 19:00	275	73		No
19:00 - 20:00	0	0		No
20:00 - 21:00	0	0		No
21:00 - 22:00	0	0		No

Total Number of Hours Met = 0

Warrant 3, Condition B is Not Met

This signal warrant shall be applied only in unusual cases. Such cases include, but are not limited to, office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.

New York State Department of Transportation

Traffic Count Hourly Report

ROUTE #: **NY 31** ROAD NAME:
DIRECTION: Eastbound FACTOR GROUP: 40
STATE DIR CODE: 6 WK OF YR: 43
DATE OF COUNT: 10/17/2016
NOTES LANE 1: EB travel lane

FROM: **EUCLID MORGAN RD**
REC. SERIAL #: CF48
PLACEMENT: 240' W of Weller Canning St.
@ REF MARKER:
ADDL DATA: Class Speed
COUNT TYPE: VEHICLES

TO: **RT 11 CICERO**
FUNC. CLASS: 14
NHS: no
JURIS: City
CC Stn:

COUNTY: **Onondaga**
TOWN:
LION#:
BIN: 1021950
RR CROSSING: 508347S

COUNT TAKEN BY: ORG CODE: TST INITIALS: TBW
PROCESSED BY: ORG CODE: DOT INITIALS: SJW
BATCH ID: DOT-R03C43aTST5195 HPMS SAMPLE:

DATE	DAY	12 TO 1 AM	1 TO 2 AM	2 TO 3 AM	3 TO 4 AM	4 TO 5 AM	5 TO 6 AM	6 TO 7 AM	7 TO 8 AM	8 TO 9 AM	9 TO 10 AM	10 TO 11 AM	11 TO 12 AM	12 TO 1 PM	1 TO 2 PM	2 TO 3 PM	3 TO 4 PM	4 TO 5 PM	5 TO 6 PM	6 TO 7 PM	7 TO 8 PM	8 TO 9 PM	9 TO 10 PM	10 TO 11 PM	11 TO 12 PM	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
1	S																											
2	S																											
3	M																											
4	T																											
5	W																											
6	T																											
7	F																											
8	S																											
9	S																											
10	M																											
11	T																											
12	W																											
13	T																											
14	F																											
15	S																											
16	S																											
17	M										257	276	305	277	327	362	396	490	417	330	237	233	172	57	39			
18	T	17	16	14	13	27	70	161	327	295	291	300	355	387	336	394	389	469	461	345	281	242	147	65	40	5442	469	16
19	W	20	15	13	10	19	73	173	346	279	250	294	348	375	413	368	429	472	480	394	295	283	140	72	56	5617	480	17
20	T	25	9	13	13	26	74	174	288	285																		
21	F																											
22	S																											
23	S																											
24	M																											
25	T																											
26	W																											
27	T																											
28	F																											
29	S																											
30	S																											
31	M																											

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

12 TO 1 AM	1 TO 2 AM	2 TO 3 AM	3 TO 4 AM	4 TO 5 AM	5 TO 6 AM	6 TO 7 AM	7 TO 8 AM	8 TO 9 AM	9 TO 10 AM	10 TO 11 AM	11 TO 12 AM	12 TO 1 PM	1 TO 2 PM	2 TO 3 PM	3 TO 4 PM	4 TO 5 PM	5 TO 6 PM	6 TO 7 PM	7 TO 8 PM	8 TO 9 PM	9 TO 10 PM	10 TO 11 PM	11 TO 12 PM	ADT
21	13	13	12	24	72	169	320	286	266	290	336	346	359	375	405	477	453	356	271	253	153	65	45	5380

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor	ESTIMATED
3	72	3	72	477	9%	1.000	1.039	**AADT 5178**

New York State Department of Transportation

Traffic Count Hourly Report

ROUTE #: **NY 31** ROAD NAME:
DIRECTION: Westbound FACTOR GROUP: 40
STATE DIR CODE: 7 WK OF YR: 43
DATE OF COUNT: 10/17/2016
NOTES LANE 1: WB travel lane

FROM: **EUCLID MORGAN RD** TO: **RT 11 CICERO**
REC. SERIAL #: CF48 FUNC. CLASS: 14
PLACEMENT: 240' W of Weller Canning St. NHS: no
@ REF MARKER: JURIS: City
ADDL DATA: Class Speed CC Stn:
COUNT TYPE: VEHICLES BATCH ID: DOT-R03C43aTST5195

COUNTY: **Onondaga**
TOWN:
LION#:
BIN: 1021950
RR CROSSING: 508347S
HPMS SAMPLE:

COUNT TAKEN BY: ORG CODE: TST INITIALS: TBW
PROCESSED BY: ORG CODE: DOT INITIALS: SJW

DATE	DAY	12 TO 1 AM	1 TO 2 AM	2 TO 3 AM	3 TO 4 AM	4 TO 5 AM	5 TO 6 AM	6 TO 7 AM	7 TO 8 AM	8 TO 9 AM	9 TO 10 AM	10 TO 11 AM	11 TO 12 AM	12 TO 1 PM	1 TO 2 PM	2 TO 3 PM	3 TO 4 PM	4 TO 5 PM	5 TO 6 PM	6 TO 7 PM	7 TO 8 PM	8 TO 9 PM	9 TO 10 PM	10 TO 11 PM	11 TO 12 PM	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
1	S																											
2	S																											
3	M																											
4	T																											
5	W																											
6	T																											
7	F																											
8	S																											
9	S																											
10	M																											
11	T																											
12	W																											
13	T																											
14	F																											
15	S																											
16	S																											
17	M										293	306	297	357	319	369	387	498	442	328	228	143	82	73	40			
18	T	20	14	9	18	36	93	245	354	360	277	305	364	343	363	347	442	487	518	356	235	170	82	80	30	5548	518	17
19	W	10	15	10	19	33	94	220	350	314	309	357	337	319	335	374	457	440	509	387	280	174	107	67	36	5553	509	17
20	T	13	16	15	20	43	99	222	343	283																		
21	F																											
22	S																											
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30	S																											
31	M																											

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

12 TO 1 AM	1 TO 2 AM	2 TO 3 AM	3 TO 4 AM	4 TO 5 AM	5 TO 6 AM	6 TO 7 AM	7 TO 8 AM	8 TO 9 AM	9 TO 10 AM	10 TO 11 AM	11 TO 12 AM	12 TO 1 PM	1 TO 2 PM	2 TO 3 PM	3 TO 4 PM	4 TO 5 PM	5 TO 6 PM	6 TO 7 PM	7 TO 8 PM	8 TO 9 PM	9 TO 10 PM	10 TO 11 PM	11 TO 12 PM	ADT
14	15	11	19	37	95	229	349	319	293	323	333	340	339	363	429	475	490	357	248	162	90	73	35	5438

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor	ESTIMATED
4	72	4	72	490	9%	1.000	1.039	**AADT 5234**

STATION: **337050**

New York State Department of Transportation

Traffic Count Hourly Report

ROAD #: **CR CR197** ROAD NAME: **MAPLE RD** FROM: **CR 49** TO: **GRANGE RD** COUNTY: **Onondaga**
DIRECTION: Eastbound FACTOR GROUP: 40 REC. SERIAL #: JT33 FUNC. CLASS: 19 TOWN:
STATE DIR CODE: 6 WK OF YR: 16 PLACEMENT: 2958' S of Lynnville Way NHS: no LION#:
DATE OF COUNT: 04/17/2018 @ REF MARKER: JURIS: Village BIN:
NOTES LANE 1: EB travel lane ADDL DATA: Class Speed CC Stn: RR CROSSING: 508349F
COUNT TYPE: AXLE PAIRS BATCH ID: DOT-R03C16aTST5195 HPMS SAMPLE:
COUNT TAKEN BY: ORG CODE: TST INITIALS: TBW PROCESSED BY: ORG CODE: DOT INITIALS: SJK

DATE	DAY	12 TO 1 AM	1 TO 2 AM	2 TO 3 AM	3 TO 4 AM	4 TO 5 AM	5 TO 6 AM	6 TO 7 AM	7 TO 8 AM	8 TO 9 AM	9 TO 10 AM	10 TO 11 AM	11 TO 12 AM	12 TO 1 PM	1 TO 2 PM	2 TO 3 PM	3 TO 4 PM	4 TO 5 PM	5 TO 6 PM	6 TO 7 PM	7 TO 8 PM	8 TO 9 PM	9 TO 10 PM	10 TO 11 PM	11 TO 12 PM	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
1	S																											
2	M																											
3	T																											
4	W																											
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12	T																											
13	F																											
14	S																											
15	S																											
16	M																											
17	T																											
18	W	4	1	1	3	3	9	32	60	48	40	49	46	50	50	45	73	67	85	63	48	38	24	11	3	853	85	17
19	T	1	1	3	1	4	7	28	59	46	37	50	49	50	42													
20	F																											
21	S																											
22	S																											
23	M																											
24	T																											
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26	T																											
27	F																											
28	S																											
29	S																											
30	M																											

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

2	1	2	2	4	8	30	60	47	38	50	48	50	45	50	68	74	89	62	48	39	26	12	2	ADT 857

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor	ESTIMATED
3	49	3	49	89	10%	1.000	0.958	**AADT 895**

ROAD #: **CR197** ROAD NAME: **MAPLE RD** FROM: **CR 49** TO: **GRANGE RD** COUNTY: **Onondaga**
STATION: **337050** STATE DIR CODE: **6** PLACEMENT: **2958' S of Lynnville Way** DATE OF COUNT: **04/17/2018**

New York State Department of Transportation

Traffic Count Hourly Report

ROAD #: CR CR197 ROAD NAME: MAPLE RD
DIRECTION: Westbound FACTOR GROUP: 40
STATE DIR CODE: 7 WK OF YR: 16
DATE OF COUNT: 04/17/2018
NOTES LANE 1: WB travel lane

FROM: CR 49
REC. SERIAL #: JT33
PLACEMENT: 2958' S of Lynnville Way
@ REF MARKER:
ADDL DATA: Class Speed
COUNT TYPE: AXLE PAIRS

TO: GRANGE RD
FUNC. CLASS: 19
NHS: no
JURIS: Village
CC Stn:
BATCH ID: DOT-R03C16aTST5195

COUNTY: Onondaga
TOWN:
LION#:
BIN:
RR CROSSING: 508349F
HPMS SAMPLE:

COUNT TAKEN BY: ORG CODE: TST INITIALS: TBW
PROCESSED BY: ORG CODE: DOT INITIALS: SJK

DATE	DAY	12 TO 1 AM	1 TO 2 AM	2 TO 3 AM	3 TO 4 AM	4 TO 5 AM	5 TO 6 AM	6 TO 7 AM	7 TO 8 AM	8 TO 9 AM	9 TO 10 AM	10 TO 11 AM	11 TO 12 AM	12 TO 1 PM	1 TO 2 PM	2 TO 3 PM	3 TO 4 PM	4 TO 5 PM	5 TO 6 PM	6 TO 7 PM	7 TO 8 PM	8 TO 9 PM	9 TO 10 PM	10 TO 11 PM	11 TO 12 PM	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
1	S																											
2	M																											
3	T																											
4	W																											
5	T																											
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9	M																											
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12	T																											
13	F																											
14	S																											
15	S																											
16	M																											
17	T													64	65	101	98	125	71	54	48	24	10	3				
18	W	3	2	0	3	3	13	38	60	56	54	39	65	65	51	58	97	112	116	73	53	38	22	17	4	1042	116	17
19	T	2	1	1	2	3	12	28	54	65	54	40	64	63	68													
20	F																											
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23	M																											
24	T																											
25	W																											
26	T																											
27	F																											
28	S																											
29	S																											
30	M																											

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

12 TO 1 AM	1 TO 2 AM	2 TO 3 AM	3 TO 4 AM	4 TO 5 AM	5 TO 6 AM	6 TO 7 AM	7 TO 8 AM	8 TO 9 AM	9 TO 10 AM	10 TO 11 AM	11 TO 12 AM	12 TO 1 PM	1 TO 2 PM	2 TO 3 PM	3 TO 4 PM	4 TO 5 PM	5 TO 6 PM	6 TO 7 PM	7 TO 8 PM	8 TO 9 PM	9 TO 10 PM	10 TO 11 PM	11 TO 12 PM	ADT
2	2	0	2	3	12	33	57	60	54	40	64	64	61	62	99	105	120	72	54	43	23	14	4	1050

DAYS Counted	HOURS Counted	WEEKDAYS WEEKDAY Counted	WEEKDAYS WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor	ESTIMATED
3	49	3	49	120	11%	1.000	0.958	**AADT 1096**

New York State Department of Transportation

Traffic Count Hourly Report

ROAD #: CR CR49 ROAD NAME: CAUGHDENOY RD FROM: DAVIS RD TO: AFTER NOVARA LN COUNTY: Onondaga
DIRECTION: Southbound FACTOR GROUP: 30 REC. SERIAL #: AD50 FUNC. CLASS: 17 TOWN:
STATE DIR CODE: 7 WK OF YR: 16 PLACEMENT: 364' N of Novara Ln. NHS: no LION#:
DATE OF COUNT: 04/17/2018 @ REF MARKER: JURIS: Village BIN:
NOTES LANE 1: SB travel lane ADDL DATA: Class Speed CC Stn: RR CROSSING:
COUNT TYPE: AXLE PAIRS BATCH ID: DOT-R03C16aTST5195 HPMS SAMPLE: 1024023
COUNT TAKEN BY: ORG CODE: TST INITIALS: BEK PROCESSED BY: ORG CODE: DOT INITIALS: SJK

DATE	DAY	12 TO 1 AM	1 TO 2 AM	2 TO 3 AM	3 TO 4 AM	4 TO 5 AM	5 TO 6 AM	6 TO 7 AM	7 TO 8 AM	8 TO 9 AM	9 TO 10 AM	10 TO 11 AM	11 TO 12 AM	12 TO 1 PM	1 TO 2 PM	2 TO 3 PM	3 TO 4 PM	4 TO 5 PM	5 TO 6 PM	6 TO 7 PM	7 TO 8 PM	8 TO 9 PM	9 TO 10 PM	10 TO 11 PM	11 TO 12 PM	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
1	S																											
2	M																											
3	T																											
4	W																											
5	T																											
6	F																											
7	S																											
8	S																											
9	M																											
10	T																											
11	W																											
12	T																											
13	F																											
14	S																											
15	S																											
16	M																											
17	T													51	46	55	77	82	38	31	28	9	7	4				
18	W	1	3	1	0	6	15	57	104	84	58	44	46	67	58	53	42	84	79	45	37	18	23	7	5	937	104	7
19	T	1	3	2	2	8	12	54	103	67	43	54	46	49	61													
20	F																											
21	S																											
22	S																											
23	M																											
24	T																											
25	W																											
26	T																											
27	F																											
28	S																											
29	S																											
30	M																											

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

12 TO 1 AM	1 TO 2 AM	2 TO 3 AM	3 TO 4 AM	4 TO 5 AM	5 TO 6 AM	6 TO 7 AM	7 TO 8 AM	8 TO 9 AM	9 TO 10 AM	10 TO 11 AM	11 TO 12 AM	12 TO 1 PM	1 TO 2 PM	2 TO 3 PM	3 TO 4 PM	4 TO 5 PM	5 TO 6 PM	6 TO 7 PM	7 TO 8 PM	8 TO 9 PM	9 TO 10 PM	10 TO 11 PM	11 TO 12 PM	ADT
1	3	2	1	7	14	56	104	76	50	49	46	58	57	50	48	60	80	42	34	23	16	7	4	908

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor	ESTIMATED
3	49	3	49	104	11%	1.000	1.062	**AADT 855**

STATION: **333166**

New York State Department of Transportation

Traffic Count Hourly Report

ROUTE #: **RAMP** ROAD NAME: **NY 481 EXIT 11**
DIRECTION: Northbound FACTOR GROUP: 30
STATE DIR CODE: 3 WK OF YR: 21
DATE OF COUNT: 05/17/2010
NOTES LANE 1: NORTH

FROM: **NY 481 NB (OFF)**
REC. SERIAL #: 0287
PLACEMENT: I 481 NB OFF
@ REF MARKER:
ADDL DATA:
COUNT TYPE: AXLE PAIRS

TO: **CAUGHDENOY/MAPLE RDS**
FUNC. CLASS: 17
NHS: no
JURIS: NYSDOT
CC Stn:
BATCH ID: DOT-WW21

COUNTY: **Onondaga**
TOWN: **CLAY**
LION#:
BIN:
RR CROSSING:
HPMS SAMPLE:

COUNT TAKEN BY: ORG CODE: DOT INITIALS: DKS
PROCESSED BY: ORG CODE: DOT INITIALS: jl

DATE	DAY	12 TO 1 AM	1 TO 2 AM	2 TO 3 AM	3 TO 4 AM	4 TO 5 AM	5 TO 6 AM	6 TO 7 AM	7 TO 8 AM	8 TO 9 AM	9 TO 10 AM	10 TO 11 AM	11 TO 12 AM	12 TO 1 PM	1 TO 2 PM	2 TO 3 PM	3 TO 4 PM	4 TO 5 PM	5 TO 6 PM	6 TO 7 PM	7 TO 8 PM	8 TO 9 PM	9 TO 10 PM	10 TO 11 PM	11 TO 12 PM	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
1	S																											
2	S																											
3	M																											
4	T																											
5	W																											
6	T																											
7	F																											
8	S																											
9	S																											
10	M																											
11	T																											
12	W																											
13	T																											
14	F																											
15	S																											
16	S																											
17	M		6	2	3	5	20	25	65	70	64	66	88	133	95	133	250	345	414	175	124	109	79	48	36			
18	T	27	8	11	14	4	11	45	70	74	61	55	93	103	115	128	250	366	410	215	133	130	85	56	32	2496	410	17
19	W	24	10	13	11	3	9	25	85	59	58	69	86	93	98	124	230	349	408	185	165	133	97	62	27	2423	408	17
20	T	27	12	15	9	6	10	33	53	77	83	66	91	87	113	123												
21	F																											
22	S																											
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24	M																											
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27	T																											
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29	S																											
30	S																											
31	M																											

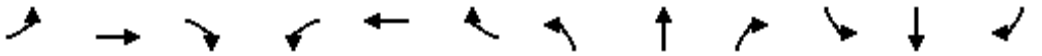
AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

12 TO 1 AM	1 TO 2 AM	2 TO 3 AM	3 TO 4 AM	4 TO 5 AM	5 TO 6 AM	6 TO 7 AM	7 TO 8 AM	8 TO 9 AM	9 TO 10 AM	10 TO 11 AM	11 TO 12 AM	12 TO 1 PM	1 TO 2 PM	2 TO 3 PM	3 TO 4 PM	4 TO 5 PM	5 TO 6 PM	6 TO 7 PM	7 TO 8 PM	8 TO 9 PM	9 TO 10 PM	10 TO 11 PM	11 TO 12 PM	ADT
26	10	13	11	4	10	32	67	69	65	63	89	102	103	125	239	348	405	189	139	122	86	54	32	2403

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor	ESTIMATED
4	86	3	81	405	17%	0.985	1.088	**AADT 2209**

APPENDIX C

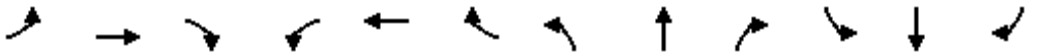
YEAR 2021 EXISTING CONDITION CAPACITY ANALYSIS OUTPUT



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	415	630	282	544	0	86	0	149	220	39	79
Future Volume (vph)	0	415	630	282	544	0	86	0	149	220	39	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	6.0	5.0	5.0		6.0		5.0	6.0	5.0	5.0
Lane Util. Factor		0.95	1.00	0.97	0.95		1.00		1.00	1.00	1.00	1.00
Frpb, ped/bikes		1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00		1.00		0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00		0.95		1.00	0.95	1.00	1.00
Satd. Flow (prot)		3438	1568	3433	3374		1752		1553	1770	1863	1568
Flt Permitted		1.00	1.00	0.95	1.00		0.00		1.00	0.95	1.00	1.00
Satd. Flow (perm)		3438	1568	3433	3374		0		1553	1770	1863	1568
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	437	663	297	573	0	91	0	157	232	41	83
RTOR Reduction (vph)	0	0	170	0	0	0	0	0	138	0	0	75
Lane Group Flow (vph)	0	437	493	297	573	0	91	0	19	232	41	8
Confl. Peds. (#/hr)	1					1						
Heavy Vehicles (%)	2%	5%	3%	2%	7%	2%	3%	2%	4%	2%	2%	3%
Turn Type		NA	pm+ov	Prot	NA		pm+pt		pm+ov	pm+pt	NA	Perm
Protected Phases		6	7	5	2		7		5	3	8	
Permitted Phases			6				4 7		4 5	8		8
Actuated Green, G (s)		26.4	40.8	8.8	41.2		14.4		8.8	26.8	6.4	6.4
Effective Green, g (s)		27.4	40.8	9.8	42.2		14.4		9.8	26.8	7.4	7.4
Actuated g/C Ratio		0.34	0.51	0.12	0.53		0.18		0.12	0.34	0.09	0.09
Clearance Time (s)		6.0	6.0	6.0	6.0		6.0		6.0	6.0	6.0	6.0
Vehicle Extension (s)		4.8	3.0	2.0	4.8		3.0		2.0	2.0	2.0	2.0
Lane Grp Cap (vph)		1177	917	420	1779		315		190	592	172	145
v/s Ratio Prot		0.13	c0.10	c0.09	0.17		0.05		0.01	c0.13	0.02	
v/s Ratio Perm			0.22									0.00
v/c Ratio		0.37	0.54	0.71	0.32		0.29		0.10	0.39	0.24	0.05
Uniform Delay, d1		19.8	13.2	33.7	10.8		28.4		31.2	20.4	33.7	33.1
Progression Factor		1.00	1.00	0.70	0.51		1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2		0.9	0.6	4.3	0.5		0.5		0.1	0.2	0.3	0.1
Delay (s)		20.7	13.8	27.9	5.9		28.9		31.3	20.5	33.9	33.2
Level of Service		C	B	C	A		C		C	C	C	C
Approach Delay (s)		16.6			13.4			30.4			25.0	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	18.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	67.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	650	0	0	537	146	291	0	42	0	0	0
Future Volume (vph)	125	650	0	0	537	146	291	0	42	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.0			5.0	5.0	4.5	4.5	4.5			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.95	0.95	1.00			
Frpb, ped/bikes	1.00	1.00			1.00	0.98	1.00	1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	1719	3471			3438	1492	1603	1603	1455			
Flt Permitted	0.38	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	689	3471			3438	1492	1603	1603	1455			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	132	684	0	0	565	154	306	0	44	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	63	0	0	37	0	0	0
Lane Group Flow (vph)	132	684	0	0	565	91	153	153	7	0	0	0
Confl. Peds. (#/hr)	1					1						
Heavy Vehicles (%)	5%	4%	2%	1%	5%	6%	7%	0%	11%	0%	0%	0%
Turn Type	pm+pt	NA			NA	Perm	Split	NA	Perm			
Protected Phases	1	6			2		4	4				
Permitted Phases	6					2			4			
Actuated Green, G (s)	57.4	57.4			46.3	46.3	11.1	11.1	11.1			
Effective Green, g (s)	57.4	58.4			47.3	47.3	12.1	12.1	12.1			
Actuated g/C Ratio	0.72	0.73			0.59	0.59	0.15	0.15	0.15			
Clearance Time (s)	5.5	6.0			6.0	6.0	5.5	5.5	5.5			
Vehicle Extension (s)	1.0	5.0			5.0	5.0	1.0	1.0	1.0			
Lane Grp Cap (vph)	566	2533			2032	882	242	242	220			
v/s Ratio Prot	0.02	c0.20			0.16		c0.10	0.10				
v/s Ratio Perm	0.15					0.06			0.00			
v/c Ratio	0.23	0.27			0.28	0.10	0.63	0.63	0.03			
Uniform Delay, d1	3.8	3.6			8.0	7.1	31.9	31.9	28.9			
Progression Factor	0.86	0.73			0.71	0.29	1.00	1.00	1.00			
Incremental Delay, d2	0.1	0.2			0.3	0.2	3.9	3.9	0.0			
Delay (s)	3.4	2.9			6.0	2.3	35.8	35.8	29.0			
Level of Service	A	A			A	A	D	D	C			
Approach Delay (s)		3.0			5.2			34.9			0.0	
Approach LOS		A			A			C			A	

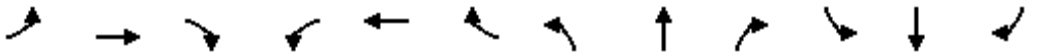
Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	42.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	650	30	7	674	9	2
Future Volume (vph)	650	30	7	674	9	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3610	1615	1805	3610	1805	1615
Flt Permitted	1.00	1.00	0.39	1.00	0.95	1.00
Satd. Flow (perm)	3610	1615	744	3610	1805	1615
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	684	32	7	709	9	2
RTOR Reduction (vph)	0	7	0	0	0	2
Lane Group Flow (vph)	684	25	7	709	9	0
Turn Type	NA	pm+ov	pm+pt	NA	Prot	pm+ov
Protected Phases	6	4	3	2	4	3
Permitted Phases		6	2			4
Actuated Green, G (s)	59.1	61.8	66.3	66.3	2.7	4.4
Effective Green, g (s)	59.1	61.8	66.3	66.3	2.7	4.4
Actuated g/C Ratio	0.74	0.77	0.83	0.83	0.03	0.06
Clearance Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Vehicle Extension (s)	3.0	1.0	1.0	3.0	1.0	1.0
Lane Grp Cap (vph)	2666	1358	639	2991	60	199
v/s Ratio Prot	c0.19	0.00	0.00	c0.20	c0.00	0.00
v/s Ratio Perm		0.01	0.01			0.00
v/c Ratio	0.26	0.02	0.01	0.24	0.15	0.00
Uniform Delay, d1	3.4	2.1	1.2	1.5	37.5	35.7
Progression Factor	0.15	0.02	0.57	0.48	1.00	1.00
Incremental Delay, d2	0.2	0.0	0.0	0.2	0.4	0.0
Delay (s)	0.7	0.0	0.7	0.9	38.0	35.7
Level of Service	A	A	A	A	D	D
Approach Delay (s)	0.7			0.9	37.6	
Approach LOS	A			A	D	

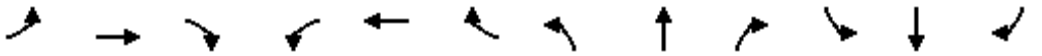
Intersection Summary			
HCM 2000 Control Delay	1.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.26		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	16.5
Intersection Capacity Utilization	31.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



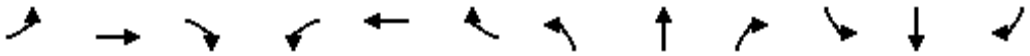
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	609	2	0	659	9	0	0	0	10	0	22
Future Volume (vph)	41	609	2	0	659	9	0	0	0	10	0	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.5			5.5	4.5					4.5	5.0
Lane Util. Factor	0.97	0.95			0.95	1.00					1.00	0.88
Frt	1.00	1.00			1.00	0.85					1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00					0.95	1.00
Satd. Flow (prot)	3433	3404			3406	1583					1770	2787
Flt Permitted	0.95	1.00			1.00	1.00					0.95	1.00
Satd. Flow (perm)	3433	3404			3406	1583					1770	2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	43	641	2	0	694	9	0	0	0	11	0	23
RTOR Reduction (vph)	0	0	0	0	0	2	0	0	0	0	0	0
Lane Group Flow (vph)	43	643	0	0	694	7	0	0	0	0	11	23
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	0%	0%	0%	2%	2%	2%
Turn Type	Prot	NA		Perm	NA	pm+ov				Split	NA	pm+ov
Protected Phases	1	6			2	3	4	4		3	3	1
Permitted Phases				2		2						3
Actuated Green, G (s)	3.6	65.7			56.1	58.4					2.3	5.9
Effective Green, g (s)	4.6	66.7			57.1	60.4					3.3	7.9
Actuated g/C Ratio	0.06	0.83			0.71	0.75					0.04	0.10
Clearance Time (s)	6.0	6.5			6.5	5.5					5.5	6.0
Vehicle Extension (s)	2.0	5.0			5.0	2.0					2.0	2.0
Lane Grp Cap (vph)	197	2838			2431	1195					73	275
v/s Ratio Prot	0.01	c0.19			c0.20	0.00					c0.01	0.00
v/s Ratio Perm						0.00						0.00
v/c Ratio	0.22	0.23			0.29	0.01					0.15	0.08
Uniform Delay, d1	36.0	1.4			4.1	2.4					37.0	32.8
Progression Factor	1.29	0.25			0.31	1.00					1.00	1.00
Incremental Delay, d2	0.2	0.2			0.3	0.0					0.3	0.0
Delay (s)	46.5	0.5			1.6	2.4					37.3	32.8
Level of Service	D	A			A	A					D	C
Approach Delay (s)		3.4			1.6			0.0			34.3	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	3.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	30.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



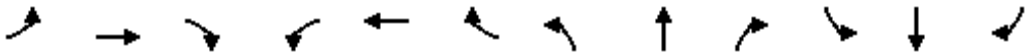
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	541	68	28	594	10	56	0	50	2	0	18
Future Volume (vph)	10	541	68	28	594	10	56	0	50	2	0	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.5		5.5	5.5		5.0	5.0			5.0	5.0
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00			1.00	1.00
Frt	1.00	0.98		1.00	1.00		1.00	0.85			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.95	1.00
Satd. Flow (prot)	1770	3363		1770	3399		1770	1583			1770	1583
Flt Permitted	0.37	1.00		0.41	1.00		0.76	1.00			0.72	1.00
Satd. Flow (perm)	693	3363		761	3399		1409	1583			1346	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	569	72	29	625	11	59	0	53	2	0	19
RTOR Reduction (vph)	0	9	0	0	1	0	0	48	0	0	0	16
Lane Group Flow (vph)	11	632	0	29	635	0	59	5	0	0	2	3
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	1	6			2			4			8	1
Permitted Phases	6			2			4			8		8
Actuated Green, G (s)	60.6	60.6		52.7	52.7		6.9	6.9			6.9	8.8
Effective Green, g (s)	61.6	61.6		53.7	53.7		7.9	7.9			7.9	10.8
Actuated g/C Ratio	0.77	0.77		0.67	0.67		0.10	0.10			0.10	0.14
Clearance Time (s)	6.0	6.5		6.5	6.5		6.0	6.0			6.0	6.0
Vehicle Extension (s)	2.0	5.0		5.0	5.0		2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	572	2589		510	2281		139	156			132	312
v/s Ratio Prot	0.00	c0.19			c0.19			0.00				0.00
v/s Ratio Perm	0.01			0.04			c0.04				0.00	0.00
v/c Ratio	0.02	0.24		0.06	0.28		0.42	0.03			0.02	0.01
Uniform Delay, d1	2.3	2.6		4.5	5.3		33.9	32.6			32.5	30.0
Progression Factor	1.25	1.27		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	0.0	0.2		0.2	0.3		0.8	0.0			0.0	0.0
Delay (s)	2.9	3.5		4.7	5.6		34.7	32.6			32.6	30.0
Level of Service	A	A		A	A		C	C			C	C
Approach Delay (s)		3.5			5.6			33.7			30.2	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	7.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	41.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	360	190	74	313	19	138	60	57	70	197	188
Future Volume (vph)	50	360	190	74	313	19	138	60	57	70	197	188
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	5.5	5.5	6.5	5.5		6.5	5.5	6.0	5.5	5.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3438	1583	1687	3449		1703	1810	1583	1805	1735	
Flt Permitted	0.54	1.00	1.00	0.40	1.00		0.33	1.00	1.00	0.63	1.00	
Satd. Flow (perm)	1011	3438	1583	713	3449		599	1810	1583	1205	1735	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	53	379	200	78	329	20	145	63	60	74	207	198
RTOR Reduction (vph)	0	0	131	0	4	0	0	0	40	0	29	0
Lane Group Flow (vph)	53	379	69	78	345	0	145	63	20	74	376	0
Heavy Vehicles (%)	2%	5%	2%	7%	4%	0%	6%	5%	2%	0%	1%	2%
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	1	6	3	5	2		3	8	5	7	4	
Permitted Phases	6		6	2			8		8	4		
Actuated Green, G (s)	21.9	18.1	26.6	26.3	20.3		30.8	22.3	28.3	36.8	25.3	
Effective Green, g (s)	21.9	19.1	28.6	25.3	21.3		30.8	23.3	28.3	38.8	26.3	
Actuated g/C Ratio	0.26	0.23	0.34	0.30	0.26		0.37	0.28	0.34	0.47	0.32	
Clearance Time (s)	6.0	6.5	6.5	6.0	6.5		6.5	6.5	6.0	6.5	6.5	
Vehicle Extension (s)	2.0	4.0	2.0	2.0	4.0		2.0	4.0	2.0	2.0	4.0	
Lane Grp Cap (vph)	300	787	647	280	880		333	505	537	650	547	
v/s Ratio Prot	0.01	c0.11	0.01	c0.02	0.10		c0.04	0.03	0.00	0.02	c0.22	
v/s Ratio Perm	0.04		0.03	0.07			0.12		0.01	0.04		
v/c Ratio	0.18	0.48	0.11	0.28	0.39		0.44	0.12	0.04	0.11	0.69	
Uniform Delay, d1	23.4	27.9	18.7	21.4	25.7		18.6	22.4	18.4	12.5	25.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.1	0.6	0.0	0.2	0.4		0.3	0.2	0.0	0.0	3.9	
Delay (s)	23.5	28.5	18.7	21.6	26.1		18.9	22.6	18.4	12.5	28.9	
Level of Service	C	C	B	C	C		B	C	B	B	C	
Approach Delay (s)		25.0			25.3			19.7			26.3	
Approach LOS		C			C			B			C	

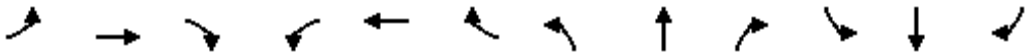
Intersection Summary			
HCM 2000 Control Delay	24.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	83.4	Sum of lost time (s)	24.0
Intersection Capacity Utilization	65.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	255	196	135	343	2	104	37	65	12	126	22
Future Volume (vph)	6	255	196	135	343	2	104	37	65	12	126	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.93		1.00	1.00			0.96			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.98			1.00	
Satd. Flow (prot)	1805	1776		1805	1898			1774			1858	
Flt Permitted	0.54	1.00		0.30	1.00			0.74			0.97	
Satd. Flow (perm)	1035	1776		568	1898			1344			1800	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	6	268	206	142	361	2	109	39	68	13	133	23
RTOR Reduction (vph)	0	24	0	0	0	0	0	15	0	0	5	0
Lane Group Flow (vph)	6	450	0	142	363	0	0	201	0	0	164	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)	34.4	33.6		47.4	40.6			17.7			17.7	
Effective Green, g (s)	34.4	33.6		47.4	40.6			17.7			17.7	
Actuated g/C Ratio	0.45	0.44		0.61	0.53			0.23			0.23	
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Vehicle Extension (s)	2.0	6.0		2.0	6.0			3.0			3.0	
Lane Grp Cap (vph)	469	773		474	999			308			413	
v/s Ratio Prot	0.00	c0.25		c0.03	c0.19							
v/s Ratio Perm	0.01			0.15				c0.15			0.09	
v/c Ratio	0.01	0.58		0.30	0.36			0.65			0.40	
Uniform Delay, d1	11.9	16.4		8.1	10.7			26.9			25.2	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.0	2.1		0.1	0.6			4.9			0.6	
Delay (s)	11.9	18.6		8.2	11.3			31.8			25.8	
Level of Service	B	B		A	B			C			C	
Approach Delay (s)		18.5			10.4			31.8			25.8	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	18.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	77.1	Sum of lost time (s)	18.0
Intersection Capacity Utilization	73.2%	ICU Level of Service	D
Analysis Period (min)	15		

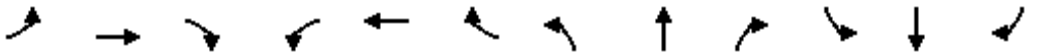
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	350	21	11	328	16	38	11	41	54	4	19
Future Volume (vph)	16	350	21	11	328	16	38	11	41	54	4	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			0.99			0.94			0.97	
Flt Protected		1.00			1.00			0.98			0.97	
Satd. Flow (prot)		1882			1885			1747			1774	
Flt Permitted		0.98			0.98			0.83			0.73	
Satd. Flow (perm)		1847			1859			1474			1343	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	17	368	22	12	345	17	40	12	43	57	4	20
RTOR Reduction (vph)	0	3	0	0	3	0	0	37	0	0	17	0
Lane Group Flow (vph)	0	404	0	0	371	0	0	58	0	0	64	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		21.5			21.5			4.7			4.7	
Effective Green, g (s)		21.5			21.5			4.7			4.7	
Actuated g/C Ratio		0.59			0.59			0.13			0.13	
Clearance Time (s)		5.5			5.5			5.0			5.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		1082			1089			188			171	
v/s Ratio Prot												
v/s Ratio Perm		c0.22			0.20			0.04			c0.05	
v/c Ratio		0.37			0.34			0.31			0.37	
Uniform Delay, d1		4.0			3.9			14.5			14.6	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.5			0.4			0.9			1.4	
Delay (s)		4.5			4.3			15.4			16.0	
Level of Service		A			A			B			B	
Approach Delay (s)		4.5			4.3			15.4			16.0	
Approach LOS		A			A			B			B	

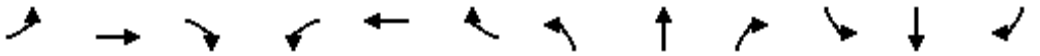
Intersection Summary			
HCM 2000 Control Delay	6.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	36.7	Sum of lost time (s)	10.5
Intersection Capacity Utilization	42.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	550	10	35	275	25	27	2	90	50	9	7
Future Volume (vph)	4	550	10	35	275	25	27	2	90	50	9	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.99		1.00	0.85		1.00	0.93	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1840		1752	1822		1770	1589		1770	1741	
Flt Permitted	0.57	1.00		0.33	1.00		0.75	1.00		0.69	1.00	
Satd. Flow (perm)	1050	1840		605	1822		1392	1589		1293	1741	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	579	11	37	289	26	28	2	95	53	9	7
RTOR Reduction (vph)	0	0	0	0	3	0	0	84	0	0	6	0
Lane Group Flow (vph)	4	590	0	37	312	0	28	13	0	53	10	0
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)	30.9	30.3		33.7	31.7		6.7	6.7		6.7	6.7	
Effective Green, g (s)	30.9	30.3		33.7	31.7		6.7	6.7		6.7	6.7	
Actuated g/C Ratio	0.56	0.55		0.61	0.57		0.12	0.12		0.12	0.12	
Clearance Time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Vehicle Extension (s)	2.0	5.0		2.0	5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	592	1004		408	1040		168	191		156	210	
v/s Ratio Prot	0.00	c0.32		c0.00	0.17			0.01			0.01	
v/s Ratio Perm	0.00			0.05			0.02			c0.04		
v/c Ratio	0.01	0.59		0.09	0.30		0.17	0.07		0.34	0.05	
Uniform Delay, d1	5.5	8.4		5.0	6.2		21.9	21.6		22.4	21.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	1.4		0.0	0.3		0.5	0.2		1.3	0.1	
Delay (s)	5.5	9.8		5.0	6.5		22.4	21.8		23.7	21.7	
Level of Service	A	A		A	A		C	C		C	C	
Approach Delay (s)		9.8			6.3			21.9			23.2	
Approach LOS		A			A			C			C	

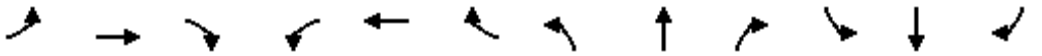
Intersection Summary			
HCM 2000 Control Delay	10.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	55.5	Sum of lost time (s)	16.5
Intersection Capacity Utilization	48.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	650	35	235	315	90	14	26	165	85	56	20
Future Volume (vph)	35	650	35	235	315	90	14	26	165	85	56	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	12	12	10	12	12	10	12	12
Total Lost time (s)	4.5	4.0		4.5	4.0		5.0	4.0	4.5	4.5	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.99		1.00	0.97		1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1662	3451		1711	3265		1636	1900	1583	1589	3393	
Flt Permitted	0.50	1.00		0.30	1.00		0.70	1.00	1.00	0.45	1.00	
Satd. Flow (perm)	880	3451		544	3265		1209	1900	1583	757	3393	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	37	684	37	247	332	95	15	27	174	89	59	21
RTOR Reduction (vph)	0	2	0	0	17	0	0	0	0	0	18	0
Lane Group Flow (vph)	37	719	0	247	410	0	15	27	174	89	62	0
Heavy Vehicles (%)	5%	4%	0%	2%	6%	10%	3%	0%	2%	6%	3%	0%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases	2			6			8		8	4		
Actuated Green, G (s)	63.3	60.5		78.5	70.2		8.2	6.1	18.6	19.3	11.4	
Effective Green, g (s)	65.3	62.5		79.5	72.2		10.2	8.1	20.6	20.5	13.4	
Actuated g/C Ratio	0.59	0.57		0.72	0.66		0.09	0.07	0.19	0.19	0.12	
Clearance Time (s)	5.5	6.0		5.5	6.0		6.0	6.0	5.5	5.5	6.0	
Vehicle Extension (s)	1.0	2.0		2.0	2.0		1.0	2.0	2.0	1.5	2.0	
Lane Grp Cap (vph)	549	1960		536	2143		124	139	296	208	413	
v/s Ratio Prot	0.00	0.21		0.06	0.13		0.00	0.01	c0.07	c0.03	0.02	
v/s Ratio Perm	0.04			c0.28			0.01		0.04	0.05		
v/c Ratio	0.07	0.37		0.46	0.19		0.12	0.19	0.59	0.43	0.15	
Uniform Delay, d1	9.3	13.0		6.2	7.4		45.7	47.9	40.8	38.7	43.2	
Progression Factor	1.00	1.00		0.92	0.63		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.0	0.5		0.2	0.2		0.2	0.2	1.9	0.5	0.1	
Delay (s)	9.3	13.5		5.9	4.9		45.9	48.1	42.7	39.2	43.3	
Level of Service	A	B		A	A		D	D	D	D	D	
Approach Delay (s)		13.3			5.3			43.6			41.1	
Approach LOS		B			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	16.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	17.5
Intersection Capacity Utilization	53.5%	ICU Level of Service	A
Analysis Period (min)	15		

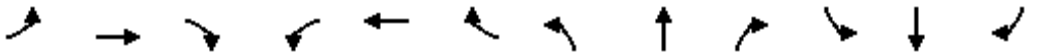
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	473	465	750	548	0	0	0	0	124	0	130
Future Volume (vph)	0	473	465	750	548	0	0	0	0	124	0	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	12	12	12	12	12	12	13	12
Total Lost time (s)		3.5		3.5	3.5						4.0	4.0
Lane Util. Factor		0.95		1.00	0.95						1.00	1.00
Frt		0.93		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)		3228		1620	3406						1811	1583
Flt Permitted		1.00		0.10	1.00						0.95	1.00
Satd. Flow (perm)		3228		174	3406						1811	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	498	489	789	577	0	0	0	0	131	0	137
RTOR Reduction (vph)	0	164	0	0	0	0	0	0	0	0	0	125
Lane Group Flow (vph)	0	823	0	789	577	0	0	0	0	0	131	12
Heavy Vehicles (%)	0%	5%	2%	4%	6%	0%	0%	0%	0%	3%	0%	2%
Turn Type		NA		pm+pt	NA					Split	NA	Perm
Protected Phases		2		1 3	6					4	4	
Permitted Phases				6								4
Actuated Green, G (s)		30.7		91.2	91.2						8.8	8.8
Effective Green, g (s)		32.2		92.7	92.7						9.8	9.8
Actuated g/C Ratio		0.29		0.84	0.84						0.09	0.09
Clearance Time (s)		5.0			5.0						5.0	5.0
Vehicle Extension (s)		3.0			3.0						1.5	1.5
Lane Grp Cap (vph)		944		849	2870						161	141
v/s Ratio Prot		0.25		c0.45	0.17						c0.07	
v/s Ratio Perm				c0.33								0.01
v/c Ratio		0.87		0.93	0.20						0.81	0.09
Uniform Delay, d1		36.9		22.7	1.6						49.2	46.0
Progression Factor		0.94		0.64	1.79						1.00	1.00
Incremental Delay, d2		8.8		13.4	0.1						24.8	0.1
Delay (s)		43.3		28.0	3.1						74.0	46.1
Level of Service		D		C	A						E	D
Approach Delay (s)		43.3			17.4			0.0			59.7	
Approach LOS		D			B			A			E	

Intersection Summary			
HCM 2000 Control Delay	31.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	86.4%	ICU Level of Service	E
Analysis Period (min)	15		

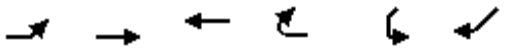
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	504	0	0	1011	78	117	31	317	0	0	170
Future Volume (vph)	98	504	0	0	1011	78	117	31	317	0	0	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	12	12	12	12	11	12	11	12	12	12
Total Lost time (s)	4.0	3.5			3.5		4.0	4.0	4.0			4.0
Lane Util. Factor	1.00	0.95			0.95		1.00	1.00	1.00			1.00
Frt	1.00	1.00			0.99		1.00	1.00	0.85			0.86
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00			1.00
Satd. Flow (prot)	1589	3471			3467		1586	1387	1446			1522
Flt Permitted	0.16	1.00			1.00		0.95	1.00	1.00			1.00
Satd. Flow (perm)	268	3471			3467		1586	1387	1446			1522
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	103	531	0	0	1064	82	123	33	334	0	0	179
RTOR Reduction (vph)	0	0	0	0	4	0	0	0	287	0	0	0
Lane Group Flow (vph)	103	531	0	0	1142	0	123	33	47	0	0	179
Heavy Vehicles (%)	6%	4%	0%	0%	3%	3%	10%	37%	8%	0%	0%	8%
Turn Type	pm+pt	NA			NA		Split	NA	Perm			Over
Protected Phases	5	2			6		8	8				5
Permitted Phases	2								8			
Actuated Green, G (s)	85.6	85.1			57.1		13.4	13.4	13.4			23.0
Effective Green, g (s)	86.6	87.1			59.1		15.4	15.4	15.4			24.0
Actuated g/C Ratio	0.79	0.79			0.54		0.14	0.14	0.14			0.22
Clearance Time (s)	5.0	5.5			5.5		6.0	6.0	6.0			5.0
Vehicle Extension (s)	3.0	3.0			3.0		2.0	2.0	2.0			3.0
Lane Grp Cap (vph)	499	2748			1862		222	194	202			332
v/s Ratio Prot	0.05	0.15			c0.33		c0.08	0.02				c0.12
v/s Ratio Perm	0.12								0.03			
v/c Ratio	0.21	0.19			0.61		0.55	0.17	0.23			0.54
Uniform Delay, d1	12.6	2.8			17.6		44.1	41.7	42.0			38.1
Progression Factor	0.32	0.45			1.00		1.00	1.00	1.00			1.00
Incremental Delay, d2	0.1	0.1			1.5		1.7	0.2	0.2			1.7
Delay (s)	4.1	1.3			19.1		45.8	41.8	42.3			39.8
Level of Service	A	A			B		D	D	D			D
Approach Delay (s)		1.8			19.1			43.1			39.8	
Approach LOS		A			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	20.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.5
Intersection Capacity Utilization	59.3%	ICU Level of Service	B
Analysis Period (min)	15		

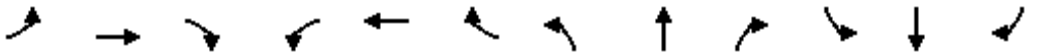
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	160	661	650	0	0	600
Future Volume (Veh/h)	160	661	650	0	0	600
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	168	696	684	0	0	632
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)		1075	348			
pX, platoon unblocked	0.81				0.81	0.81
vC, conflicting volume	684				1368	684
vC1, stage 1 conf vol					684	
vC2, stage 2 conf vol					684	
vCu, unblocked vol	493				1337	493
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	81				100	0
cM capacity (veh/h)	876				303	427

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	SW 1
Volume Total	168	348	348	684	632
Volume Left	168	0	0	0	0
Volume Right	0	0	0	0	632
cSH	876	1700	1700	1700	427
Volume to Capacity	0.19	0.20	0.20	0.40	1.48
Queue Length 95th (ft)	18	0	0	0	821
Control Delay (s)	10.1	0.0	0.0	0.0	252.8
Lane LOS	B				F
Approach Delay (s)	2.0			0.0	252.8
Approach LOS					F

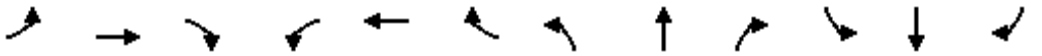
Intersection Summary			
Average Delay	74.1		
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	92	0	0	34	9	13	24	37	127	0	7
Future Volume (Veh/h)	3	92	0	0	34	9	13	24	37	127	0	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	3	97	0	0	36	9	14	25	39	134	0	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									10			2
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	45			97			144	148	97	156	144	40
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	45			97			144	148	97	156	144	40
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	97	96	82	100	99
cM capacity (veh/h)	1576			1509			824	746	965	761	750	1036

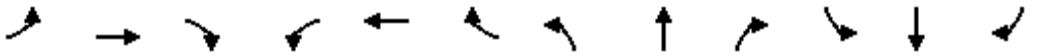
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	100	45	78	141
Volume Left	3	0	14	134
Volume Right	0	9	39	7
cSH	1576	1700	1547	801
Volume to Capacity	0.00	0.03	0.05	0.18
Queue Length 95th (ft)	0	0	4	16
Control Delay (s)	0.2	0.0	9.4	10.6
Lane LOS	A		A	B
Approach Delay (s)	0.2	0.0	9.4	10.6
Approach LOS			A	B

Intersection Summary				
Average Delay	6.2			
Intersection Capacity Utilization	27.6%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	886	633	524	1414	0	227	0	158	172	69	169
Future Volume (vph)	0	886	633	524	1414	0	227	0	158	172	69	169
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	6.0	5.0	5.0		6.0		5.0	6.0	5.0	5.0
Lane Util. Factor		0.95	1.00	0.97	0.95		1.00		1.00	1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00		1.00		0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00		0.95		1.00	0.95	1.00	1.00
Satd. Flow (prot)		3574	1583	3467	3574		1787		1599	1787	1863	1599
Flt Permitted		1.00	1.00	0.95	1.00		0.00		1.00	0.95	1.00	1.00
Satd. Flow (perm)		3574	1583	3467	3574		0		1599	1787	1863	1599
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	933	666	552	1488	0	239	0	166	181	73	178
RTOR Reduction (vph)	0	0	65	0	0	0	0	0	80	0	0	162
Lane Group Flow (vph)	0	933	601	552	1488	0	239	0	86	181	73	16
Heavy Vehicles (%)	0%	1%	2%	1%	1%	0%	1%	0%	1%	1%	2%	1%
Turn Type		NA	pm+ov	Prot	NA		pm+pt		pm+ov	pm+pt	NA	Perm
Protected Phases		6	7	5	2		7		5	3	8	
Permitted Phases			6				4 7		4 5	8		8
Actuated Green, G (s)		33.3	50.5	17.5	56.8		17.2		17.5	31.2	8.0	8.0
Effective Green, g (s)		34.3	50.5	18.5	57.8		17.2		18.5	31.2	9.0	9.0
Actuated g/C Ratio		0.34	0.50	0.18	0.58		0.17		0.18	0.31	0.09	0.09
Clearance Time (s)		6.0	6.0	6.0	6.0		6.0		6.0	6.0	6.0	6.0
Vehicle Extension (s)		4.8	3.0	2.0	4.8		3.0		2.0	2.0	2.0	2.0
Lane Grp Cap (vph)		1225	894	641	2065		307		295	557	167	143
v/s Ratio Prot		0.26	0.12	c0.16	c0.42		c0.13		0.05	0.10	c0.04	
v/s Ratio Perm			0.26									0.01
v/c Ratio		0.76	0.67	0.86	0.72		0.78		0.29	0.32	0.44	0.11
Uniform Delay, d1		29.2	18.5	39.5	15.3		39.6		35.1	26.3	43.1	41.8
Progression Factor		1.00	1.00	0.57	0.34		1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2		4.5	2.0	7.8	1.3		11.8		0.2	0.1	0.7	0.1
Delay (s)		33.7	20.5	30.4	6.4		51.3		35.3	26.5	43.8	42.0
Level of Service		C	C	C	A		D		D	C	D	D
Approach Delay (s)		28.2			12.9			44.8			35.8	
Approach LOS		C			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	23.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	74.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



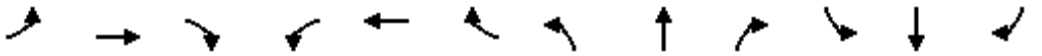
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	207	1000	0	0	943	249	1054	0	262	0	0	0
Future Volume (vph)	207	1000	0	0	943	249	1054	0	262	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.0			5.0	5.0	4.5	4.5	4.5			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.95	0.95	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	1787	3574			3574	1583	1698	1698	1599			
Flt Permitted	0.12	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	221	3574			3574	1583	1698	1698	1599			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	218	1053	0	0	993	262	1109	0	276	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	161	0	0	59	0	0	0
Lane Group Flow (vph)	218	1053	0	0	993	101	554	555	217	0	0	0
Heavy Vehicles (%)	1%	1%	2%	1%	1%	2%	1%	0%	1%	0%	0%	0%
Turn Type	pm+pt	NA			NA	Perm	Split	NA	Perm			
Protected Phases	1	6			2		4	4				
Permitted Phases	6					2			4			
Actuated Green, G (s)	53.4	53.4			37.7	37.7	35.1	35.1	35.1			
Effective Green, g (s)	53.4	54.4			38.7	38.7	36.1	36.1	36.1			
Actuated g/C Ratio	0.53	0.54			0.39	0.39	0.36	0.36	0.36			
Clearance Time (s)	5.5	6.0			6.0	6.0	5.5	5.5	5.5			
Vehicle Extension (s)	1.0	5.0			5.0	5.0	1.0	1.0	1.0			
Lane Grp Cap (vph)	277	1944			1383	612	612	612	577			
v/s Ratio Prot	c0.08	0.29			0.28		0.33	c0.33				
v/s Ratio Perm	c0.34					0.06			0.14			
v/c Ratio	0.79	0.54			0.72	0.17	0.91	0.91	0.38			
Uniform Delay, d1	17.8	14.7			26.0	20.1	30.3	30.4	23.6			
Progression Factor	0.59	0.75			0.81	0.92	1.00	1.00	1.00			
Incremental Delay, d2	9.1	0.8			3.0	0.5	16.6	16.8	0.1			
Delay (s)	19.5	11.9			24.1	19.0	46.9	47.1	23.8			
Level of Service	B	B			C	B	D	D	C			
Approach Delay (s)		13.2			23.0			42.4			0.0	
Approach LOS		B			C			D			A	

Intersection Summary			
HCM 2000 Control Delay	26.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1164	109	45	1084	108	50
Future Volume (vph)	1164	109	45	1084	108	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3610	1615	1805	3610	1805	1615
Flt Permitted	1.00	1.00	0.19	1.00	0.95	1.00
Satd. Flow (perm)	3610	1615	369	3610	1805	1615
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1225	115	47	1141	114	53
RTOR Reduction (vph)	0	24	0	0	0	46
Lane Group Flow (vph)	1225	91	47	1141	114	7
Turn Type	NA	pm+ov	pm+pt	NA	Prot	pm+ov
Protected Phases	6	4	3	2	4	3
Permitted Phases		6	2			4
Actuated Green, G (s)	69.8	79.5	79.3	79.3	9.7	13.7
Effective Green, g (s)	69.8	79.5	79.3	79.3	9.7	13.7
Actuated g/C Ratio	0.70	0.80	0.79	0.79	0.10	0.14
Clearance Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Vehicle Extension (s)	3.0	1.0	1.0	3.0	1.0	1.0
Lane Grp Cap (vph)	2519	1372	350	2862	175	310
v/s Ratio Prot	c0.34	0.01	0.01	c0.32	c0.06	0.00
v/s Ratio Perm		0.05	0.10			0.00
v/c Ratio	0.49	0.07	0.13	0.40	0.65	0.02
Uniform Delay, d1	6.9	2.2	5.8	3.1	43.5	37.4
Progression Factor	0.30	0.13	0.68	0.68	1.00	1.00
Incremental Delay, d2	0.6	0.0	0.1	0.4	6.5	0.0
Delay (s)	2.7	0.3	4.0	2.5	50.0	37.4
Level of Service	A	A	A	A	D	D
Approach Delay (s)	2.5			2.6	46.0	
Approach LOS	A			A	D	

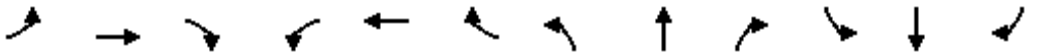
Intersection Summary			
HCM 2000 Control Delay	5.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.5
Intersection Capacity Utilization	52.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	257	957	0	0	899	45	1	0	0	41	0	229
Future Volume (vph)	257	957	0	0	899	45	1	0	0	41	0	229
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.5			5.5	4.5		4.5			4.5	5.0
Lane Util. Factor	0.97	0.95			0.95	1.00		1.00			1.00	0.88
Frt	1.00	1.00			1.00	0.85		1.00			1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00		0.95			0.95	1.00
Satd. Flow (prot)	3433	3406			3406	1583		1805			1770	2787
Flt Permitted	0.95	1.00			1.00	1.00		0.95			0.95	1.00
Satd. Flow (perm)	3433	3406			3406	1583		1805			1770	2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	271	1007	0	0	946	47	1	0	0	43	0	241
RTOR Reduction (vph)	0	0	0	0	0	16	0	0	0	0	0	0
Lane Group Flow (vph)	271	1007	0	0	946	31	0	1	0	0	43	241
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	0%	0%	0%	2%	2%	2%
Turn Type	Prot	NA		Perm	NA	pm+ov	Split	NA		Split	NA	pm+ov
Protected Phases	1	6			2	3	4	4		3	3	1
Permitted Phases				2		2						3
Actuated Green, G (s)	12.3	75.7			57.4	63.4		0.8			6.0	18.3
Effective Green, g (s)	13.3	76.7			58.4	65.4		1.8			7.0	20.3
Actuated g/C Ratio	0.13	0.77			0.58	0.65		0.02			0.07	0.20
Clearance Time (s)	6.0	6.5			6.5	5.5		5.5			5.5	6.0
Vehicle Extension (s)	2.0	5.0			5.0	2.0		1.0			2.0	2.0
Lane Grp Cap (vph)	456	2612			1989	1035		32			123	565
v/s Ratio Prot	c0.08	0.30			c0.28	0.00		c0.00			0.02	c0.06
v/s Ratio Perm						0.02						0.03
v/c Ratio	0.59	0.39			0.48	0.03		0.03			0.35	0.43
Uniform Delay, d1	40.8	3.9			12.0	6.1		48.2			44.3	34.8
Progression Factor	1.16	0.07			0.76	0.18		1.00			1.00	1.00
Incremental Delay, d2	1.3	0.4			0.8	0.0		0.1			0.6	0.2
Delay (s)	48.7	0.7			9.8	1.1		48.4			45.0	35.0
Level of Service	D	A			A	A		D			D	C
Approach Delay (s)		10.9			9.4			48.4			36.5	
Approach LOS		B			A			D			D	

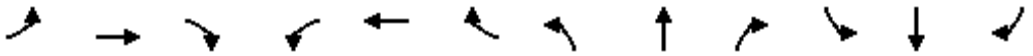
Intersection Summary			
HCM 2000 Control Delay	13.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	51.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	920	36	15	847	45	37	3	23	29	2	60
Future Volume (vph)	42	920	36	15	847	45	37	3	23	29	2	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.5		5.5	5.5		5.0	5.0			5.0	5.0
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.87			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.96	1.00
Satd. Flow (prot)	1770	3391		1770	3386		1770	1614			1779	1583
Flt Permitted	0.26	1.00		0.28	1.00		0.74	1.00			0.72	1.00
Satd. Flow (perm)	492	3391		531	3386		1370	1614			1340	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	44	968	38	16	892	47	39	3	24	31	2	63
RTOR Reduction (vph)	0	2	0	0	2	0	0	22	0	0	0	55
Lane Group Flow (vph)	44	1004	0	16	937	0	39	5	0	0	33	8
Confl. Peds. (#/hr)	1											
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	1	6			2			4			8	1
Permitted Phases	6			2			4			8		8
Actuated Green, G (s)	81.0	81.0		70.9	70.9		6.5	6.5			6.5	10.6
Effective Green, g (s)	82.0	82.0		71.9	71.9		7.5	7.5			7.5	12.6
Actuated g/C Ratio	0.82	0.82		0.72	0.72		0.08	0.08			0.08	0.13
Clearance Time (s)	6.0	6.5		6.5	6.5		6.0	6.0			6.0	6.0
Vehicle Extension (s)	2.0	5.0		5.0	5.0		2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	468	2780		381	2434		102	121			100	278
v/s Ratio Prot	0.00	c0.30			c0.28			0.00				0.00
v/s Ratio Perm	0.07			0.03			c0.03				0.02	0.00
v/c Ratio	0.09	0.36		0.04	0.38		0.38	0.04			0.33	0.03
Uniform Delay, d1	2.2	2.3		4.1	5.5		44.0	42.9			43.9	38.3
Progression Factor	0.32	0.26		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	0.0	0.3		0.2	0.5		0.9	0.0			0.7	0.0
Delay (s)	0.7	0.9		4.3	5.9		44.9	43.0			44.6	38.3
Level of Service	A	A		A	A		D	D			D	D
Approach Delay (s)		0.9			5.9			44.1			40.5	
Approach LOS		A			A			D			D	

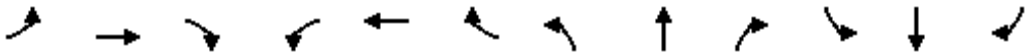
Intersection Summary			
HCM 2000 Control Delay	6.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	52.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	259	439	274	94	509	83	282	197	72	38	91	116
Future Volume (vph)	259	439	274	94	509	83	282	197	72	38	91	116
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	5.5	5.5	6.5	5.5		6.5	5.5	6.0	5.5	5.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	0.92	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1787	3574	1599	1719	3504		1787	1863	1615	1752	1697	
Flt Permitted	0.19	1.00	1.00	0.49	1.00		0.34	1.00	1.00	0.63	1.00	
Satd. Flow (perm)	366	3574	1599	880	3504		645	1863	1615	1159	1697	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	273	462	288	99	536	87	297	207	76	40	96	122
RTOR Reduction (vph)	0	0	148	0	13	0	0	0	48	0	44	0
Lane Group Flow (vph)	273	462	140	99	610	0	297	207	28	40	174	0
Heavy Vehicles (%)	1%	1%	1%	5%	1%	0%	1%	2%	0%	3%	2%	3%
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	1	6	3	5	2		3	8	5	7	4	
Permitted Phases	6		6	2			8		8	4		
Actuated Green, G (s)	42.8	30.5	43.7	30.2	23.9		38.3	28.2	34.5	22.2	18.6	
Effective Green, g (s)	42.8	31.5	45.7	29.2	24.9		38.3	29.2	34.5	24.2	19.6	
Actuated g/C Ratio	0.45	0.33	0.49	0.31	0.26		0.41	0.31	0.37	0.26	0.21	
Clearance Time (s)	6.0	6.5	6.5	6.0	6.5		6.5	6.5	6.0	6.5	6.5	
Vehicle Extension (s)	2.0	4.0	2.0	2.0	4.0		2.0	4.0	2.0	2.0	4.0	
Lane Grp Cap (vph)	361	1196	870	324	927		422	578	592	327	353	
v/s Ratio Prot	c0.10	0.13	0.02	0.02	0.17		c0.10	0.11	0.00	0.01	0.10	
v/s Ratio Perm	c0.24		0.06	0.08			c0.19		0.01	0.03		
v/c Ratio	0.76	0.39	0.16	0.31	0.66		0.70	0.36	0.05	0.12	0.49	
Uniform Delay, d1	18.6	23.9	13.5	23.7	30.8		20.7	25.2	19.2	26.6	32.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	7.8	0.3	0.0	0.2	1.9		4.3	0.5	0.0	0.1	1.5	
Delay (s)	26.4	24.2	13.5	23.9	32.7		25.1	25.7	19.2	26.6	34.4	
Level of Service	C	C	B	C	C		C	C	B	C	C	
Approach Delay (s)		21.8			31.5			24.5			33.2	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	26.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	94.1	Sum of lost time (s)	24.0
Intersection Capacity Utilization	76.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	419	129	80	432	16	196	149	133	12	25	18
Future Volume (vph)	25	419	129	80	432	16	196	149	133	12	25	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.96		1.00	0.99			0.96			0.96	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.99	
Satd. Flow (prot)	1805	1833		1805	1890			1792			1796	
Flt Permitted	0.34	1.00		0.19	1.00			0.84			0.88	
Satd. Flow (perm)	647	1833		356	1890			1537			1599	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	26	441	136	84	455	17	206	157	140	13	26	19
RTOR Reduction (vph)	0	10	0	0	1	0	0	11	0	0	12	0
Lane Group Flow (vph)	26	567	0	84	471	0	0	492	0	0	46	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)	43.3	40.1		47.7	42.3			36.7			36.7	
Effective Green, g (s)	43.3	40.1		47.7	42.3			36.7			36.7	
Actuated g/C Ratio	0.43	0.40		0.48	0.42			0.37			0.37	
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Vehicle Extension (s)	2.0	6.0		2.0	6.0			3.0			3.0	
Lane Grp Cap (vph)	316	733		247	797			562			585	
v/s Ratio Prot	0.00	c0.31		c0.02	0.25							
v/s Ratio Perm	0.03			0.14				c0.32			0.03	
v/c Ratio	0.08	0.77		0.34	0.59			0.87			0.08	
Uniform Delay, d1	17.2	26.1		17.8	22.3			29.6			20.7	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.0	6.4		0.3	2.2			14.2			0.1	
Delay (s)	17.2	32.6		18.1	24.5			43.8			20.8	
Level of Service	B	C		B	C			D			C	
Approach Delay (s)		31.9			23.5			43.8			20.8	
Approach LOS		C			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	32.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	100.2	Sum of lost time (s)	18.0
Intersection Capacity Utilization	83.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

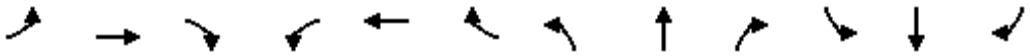
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	452	32	15	463	26	31	44	25	18	16	12
Future Volume (vph)	31	452	32	15	463	26	31	44	25	18	16	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			0.99			0.97			0.96	
Flt Protected		1.00			1.00			0.98			0.98	
Satd. Flow (prot)		1878			1884			1808			1797	
Flt Permitted		0.96			0.98			0.88			0.83	
Satd. Flow (perm)		1799			1851			1609			1517	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	33	476	34	16	487	27	33	46	26	19	17	13
RTOR Reduction (vph)	0	3	0	0	3	0	0	23	0	0	11	0
Lane Group Flow (vph)	0	540	0	0	527	0	0	82	0	0	38	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		26.1			26.1			4.9			4.9	
Effective Green, g (s)		26.1			26.1			4.9			4.9	
Actuated g/C Ratio		0.63			0.63			0.12			0.12	
Clearance Time (s)		5.5			5.5			5.0			5.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		1131			1164			189			179	
v/s Ratio Prot												
v/s Ratio Perm		c0.30			0.28			c0.05			0.02	
v/c Ratio		0.48			0.45			0.43			0.21	
Uniform Delay, d1		4.1			4.0			17.0			16.5	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.7			0.6			1.6			0.6	
Delay (s)		4.7			4.6			18.6			17.1	
Level of Service		A			A			B			B	
Approach Delay (s)		4.7			4.6			18.6			17.1	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	6.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	41.5	Sum of lost time (s)	10.5
Intersection Capacity Utilization	55.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	420	31	150	480	35	34	4	60	90	24	27
Future Volume (vph)	7	420	31	150	480	35	34	4	60	90	24	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.86		1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1825		1752	1826		1770	1600		1770	1715	
Flt Permitted	0.46	1.00		0.33	1.00		0.72	1.00		0.71	1.00	
Satd. Flow (perm)	852	1825		602	1826		1346	1600		1329	1715	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	7	442	33	158	505	37	36	4	63	95	25	28
RTOR Reduction (vph)	0	3	0	0	2	0	0	55	0	0	24	0
Lane Group Flow (vph)	7	472	0	158	540	0	36	12	0	95	29	0
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)	30.8	30.1		44.3	38.1		8.1	8.1		8.1	8.1	
Effective Green, g (s)	30.8	30.1		44.3	38.1		8.1	8.1		8.1	8.1	
Actuated g/C Ratio	0.49	0.47		0.70	0.60		0.13	0.13		0.13	0.13	
Clearance Time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Vehicle Extension (s)	2.0	5.0		2.0	5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	423	866		578	1097		171	204		169	219	
v/s Ratio Prot	0.00	c0.26		c0.04	c0.30			0.01			0.02	
v/s Ratio Perm	0.01			0.15			0.03			c0.07		
v/c Ratio	0.02	0.55		0.27	0.49		0.21	0.06		0.56	0.13	
Uniform Delay, d1	8.4	11.8		4.5	7.2		24.8	24.3		26.0	24.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	1.2		0.1	0.7		0.6	0.1		4.2	0.3	
Delay (s)	8.4	13.0		4.6	7.9		25.4	24.4		30.2	24.8	
Level of Service	A	B		A	A		C	C		C	C	
Approach Delay (s)		13.0			7.2			24.8			28.3	
Approach LOS		B			A			C			C	

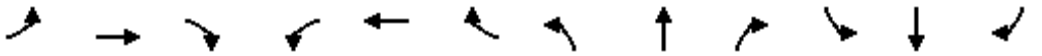
Intersection Summary			
HCM 2000 Control Delay	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	63.4	Sum of lost time (s)	16.5
Intersection Capacity Utilization	57.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	450	85	400	500	155	95	270	495	155	174	80
Future Volume (vph)	45	450	85	400	500	155	95	270	495	155	174	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	12	12	10	12	12	10	12	12
Total Lost time (s)	4.5	4.0		4.5	4.0		5.0	4.0	4.5	4.5	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.98		1.00	0.96		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1745	3495		1745	3414		1685	1863	1599	1620	3429	
Flt Permitted	0.39	1.00		0.26	1.00		0.54	1.00	1.00	0.25	1.00	
Satd. Flow (perm)	716	3495		479	3414		951	1863	1599	426	3429	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	47	474	89	421	526	163	100	284	521	163	183	84
RTOR Reduction (vph)	0	12	0	0	23	0	0	0	0	0	54	0
Lane Group Flow (vph)	47	551	0	421	666	0	100	284	521	163	213	0
Heavy Vehicles (%)	0%	1%	0%	0%	2%	2%	0%	2%	1%	4%	0%	1%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases	2			6			8		8	4		
Actuated Green, G (s)	36.4	32.3		63.0	53.4		27.7	21.3	46.5	30.8	22.6	
Effective Green, g (s)	38.4	34.3		64.0	55.4		29.7	23.3	48.5	32.8	24.6	
Actuated g/C Ratio	0.35	0.31		0.58	0.50		0.27	0.21	0.44	0.30	0.22	
Clearance Time (s)	5.5	6.0		5.5	6.0		6.0	6.0	5.5	5.5	6.0	
Vehicle Extension (s)	1.0	2.0		2.0	2.0		1.0	2.0	2.0	1.5	2.0	
Lane Grp Cap (vph)	297	1089		580	1719		306	394	705	226	766	
v/s Ratio Prot	0.01	0.16		c0.17	0.20		0.02	0.15	c0.18	c0.06	0.06	
v/s Ratio Perm	0.05			c0.25			0.07		0.15	c0.15		
v/c Ratio	0.16	0.51		0.73	0.39		0.33	0.72	0.74	0.72	0.28	
Uniform Delay, d1	23.9	30.9		14.9	16.8		31.2	40.3	25.5	31.1	35.3	
Progression Factor	1.00	1.00		1.39	0.79		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.1	1.7		3.7	0.6		0.2	5.4	3.5	9.2	0.1	
Delay (s)	24.0	32.6		24.4	13.9		31.4	45.8	29.0	40.3	35.4	
Level of Service	C	C		C	B		C	D	C	D	D	
Approach Delay (s)		31.9			17.9			34.5			37.3	
Approach LOS		C			B			C			D	

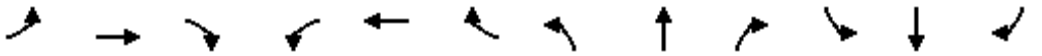
Intersection Summary			
HCM 2000 Control Delay	28.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	17.5
Intersection Capacity Utilization	73.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	933	195	326	940	0	0	0	0	135	0	115
Future Volume (vph)	0	933	195	326	940	0	0	0	0	135	0	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	12	12	12	12	12	12	13	12
Total Lost time (s)		3.5		3.5	3.5						4.0	4.0
Lane Util. Factor		0.95		1.00	0.95						1.00	1.00
Frpb, ped/bikes		1.00		1.00	1.00						1.00	1.00
Flpb, ped/bikes		1.00		1.00	1.00						1.00	1.00
Frt		0.97		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)		3457		1652	3574						1865	1553
Flt Permitted		1.00		0.08	1.00						0.95	1.00
Satd. Flow (perm)		3457		141	3574						1865	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	982	205	343	989	0	0	0	0	142	0	121
RTOR Reduction (vph)	0	16	0	0	0	0	0	0	0	0	0	108
Lane Group Flow (vph)	0	1171	0	343	989	0	0	0	0	0	142	13
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	0%	1%	3%	2%	1%	0%	0%	0%	0%	0%	0%	4%
Turn Type		NA		pm+pt	NA					Split	NA	Perm
Protected Phases		2		1 3	6					4	4	
Permitted Phases				6								4
Actuated Green, G (s)		40.7		88.9	88.9						11.1	11.1
Effective Green, g (s)		42.2		90.4	90.4						12.1	12.1
Actuated g/C Ratio		0.38		0.82	0.82						0.11	0.11
Clearance Time (s)		5.0			5.0						5.0	5.0
Vehicle Extension (s)		3.0			3.0						1.5	1.5
Lane Grp Cap (vph)		1326		681	2937						205	170
v/s Ratio Prot		c0.34		c0.19	0.28						c0.08	
v/s Ratio Perm				0.22								0.01
v/c Ratio		0.88		0.50	0.34						0.69	0.08
Uniform Delay, d1		31.6		19.5	2.4						47.2	43.9
Progression Factor		0.95		2.61	0.31						1.00	1.00
Incremental Delay, d2		6.9		0.1	0.2						7.9	0.1
Delay (s)		36.8		51.1	1.0						55.1	44.0
Level of Service		D		D	A						E	D
Approach Delay (s)		36.8			13.9			0.0			50.0	
Approach LOS		D			B			A			D	

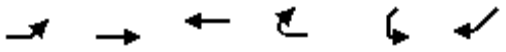
Intersection Summary			
HCM 2000 Control Delay	27.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	67.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	271	797	0	0	836	195	345	102	650	0	0	85
Future Volume (vph)	271	797	0	0	836	195	345	102	650	0	0	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	12	12	12	12	11	12	11	12	12	12
Total Lost time (s)	4.0	3.5			3.5		4.0	4.0	4.0			4.0
Lane Util. Factor	1.00	0.95			0.95		1.00	1.00	1.00			1.00
Frt	1.00	1.00			0.97		1.00	1.00	0.85			0.86
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00			1.00
Satd. Flow (prot)	1668	3574			3466		1711	1792	1546			1611
Flt Permitted	0.10	1.00			1.00		0.95	1.00	1.00			1.00
Satd. Flow (perm)	169	3574			3466		1711	1792	1546			1611
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	285	839	0	0	880	205	363	107	684	0	0	89
RTOR Reduction (vph)	0	0	0	0	18	0	0	0	78	0	0	0
Lane Group Flow (vph)	285	839	0	0	1067	0	363	107	606	0	0	89
Heavy Vehicles (%)	1%	1%	0%	0%	1%	2%	2%	6%	1%	0%	0%	2%
Turn Type	pm+pt	NA			NA		Split	NA	Perm			Over
Protected Phases	5	2			6		8	8				5
Permitted Phases	2								8			
Actuated Green, G (s)	56.6	56.1			36.1		42.4	42.4	42.4			15.0
Effective Green, g (s)	57.6	58.1			38.1		44.4	44.4	44.4			16.0
Actuated g/C Ratio	0.52	0.53			0.35		0.40	0.40	0.40			0.15
Clearance Time (s)	5.0	5.5			5.5		6.0	6.0	6.0			5.0
Vehicle Extension (s)	3.0	3.0			3.0		2.0	2.0	2.0			3.0
Lane Grp Cap (vph)	306	1887			1200		690	723	624			234
v/s Ratio Prot	c0.14	0.23			0.31		0.21	0.06				0.06
v/s Ratio Perm	c0.35								c0.39			
v/c Ratio	0.93	0.44			0.89		0.53	0.15	0.97			0.38
Uniform Delay, d1	39.7	16.0			34.0		24.8	20.8	32.2			42.5
Progression Factor	0.65	0.42			1.00		1.00	1.00	1.00			1.00
Incremental Delay, d2	21.7	0.4			10.0		0.3	0.0	28.6			1.0
Delay (s)	47.4	7.1			44.0		25.2	20.8	60.8			43.6
Level of Service	D	A			D		C	C	E			D
Approach Delay (s)		17.3			44.0			45.9			43.6	
Approach LOS		B			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	35.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.5
Intersection Capacity Utilization	73.5%	ICU Level of Service	D
Analysis Period (min)	15		

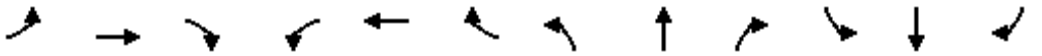
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	520	927	850	0	0	315
Future Volume (Veh/h)	520	927	850	0	0	315
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	547	976	895	0	0	332
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)		1075	348			
pX, platoon unblocked	0.71				0.72	0.71
vC, conflicting volume	895				2477	895
vC1, stage 1 conf vol					895	
vC2, stage 2 conf vol					1582	
vCu, unblocked vol	642				2648	642
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	19				100	0
cM capacity (veh/h)	672				29	297

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	SW 1
Volume Total	547	488	488	895	332
Volume Left	547	0	0	0	0
Volume Right	0	0	0	0	332
cSH	672	1700	1700	1700	297
Volume to Capacity	0.81	0.29	0.29	0.53	1.12
Queue Length 95th (ft)	213	0	0	0	338
Control Delay (s)	29.5	0.0	0.0	0.0	125.7
Lane LOS	D				F
Approach Delay (s)	10.6			0.0	125.7
Approach LOS					F

Intersection Summary			
Average Delay	21.0		
Intersection Capacity Utilization	80.2%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	6	78	0	0	76	51	62	136	219	63	0	2
Future Volume (vph)	6	78	0	0	76	51	62	136	219	63	0	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	6	82	0	0	80	54	65	143	231	66	0	2

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	88	134	208	231	66	2
Volume Left (vph)	6	0	65	0	66	0
Volume Right (vph)	0	54	0	231	0	2
Hadj (s)	0.01	-0.24	0.06	-0.60	0.20	-0.60
Departure Headway (s)	4.7	4.4	4.6	3.2	4.9	3.2
Degree Utilization, x	0.12	0.17	0.26	0.21	0.09	0.00
Capacity (veh/h)	708	754	750	1122	690	1121
Control Delay (s)	8.4	8.3	9.2	7.0	8.4	6.2
Approach Delay (s)	8.4	8.3	8.1		8.3	
Approach LOS	A	A	A		A	

Intersection Summary				
Delay	8.2			
Level of Service	A			
Intersection Capacity Utilization	33.1%	ICU Level of Service	A	
Analysis Period (min)	15			

Intersection: 2: Soule Road/481 South off-ramp & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	L	R	L	T	R
Maximum Queue (ft)	228	188	268	174	184	164	166	124	117	220	94	80
Average Queue (ft)	114	59	110	78	83	68	79	49	43	99	31	32
95th Queue (ft)	191	134	200	135	140	131	136	95	77	171	69	57
Link Distance (ft)	572	572	572			620	620		544		503	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)				340	340			260		300		150
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 3: 481 North off-ramp/481 North on-ramp & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	T	R	L	LT	R
Maximum Queue (ft)	110	139	154	180	105	74	191	228	79
Average Queue (ft)	42	40	53	58	24	17	72	125	24
95th Queue (ft)	80	96	112	123	66	46	156	192	57
Link Distance (ft)		620	620	356	356			1069	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	150					330	350		220
Storage Blk Time (%)		0						0	
Queuing Penalty (veh)		0						0	

Intersection: 4: Marketfair Plaza & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	20	28	4	32	48	55	42	19
Average Queue (ft)	0	1	0	4	3	3	7	1
95th Queue (ft)	6	10	2	20	21	21	26	9
Link Distance (ft)	356	356			625	625	288	288
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			250	150				
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 5: Water Board/Great Northern Mall West & Rt 31 Seg 1

Movement	EB	EB	EB	EB	WB	WB	WB	SB	SB	SB
Directions Served	L	L	T	TR	T	T	R	LT	R	R
Maximum Queue (ft)	38	47	30	42	107	100	14	47	51	25
Average Queue (ft)	3	13	1	1	20	16	0	9	13	3
95th Queue (ft)	17	35	10	13	59	53	5	31	36	15
Link Distance (ft)			625	625	797	797		345	345	345
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	330	330					150			
Storage Blk Time (%)					0	0				
Queuing Penalty (veh)					0	0				

Intersection: 6: Laz-Boy/Great Northern East & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	LT	R
Maximum Queue (ft)	32	118	124	52	118	132	102	67	28	44
Average Queue (ft)	5	37	39	12	29	36	43	27	2	14
95th Queue (ft)	21	89	97	37	82	92	84	55	13	40
Link Distance (ft)		797	797		1437	1437	393	393	414	414
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	300			210						
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 7: Morgan Road & Rt 31 Seg 1

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	T	R	L	TR
Maximum Queue (ft)	88	246	208	114	105	148	149	162	117	67	126	407
Average Queue (ft)	28	117	61	42	39	64	60	66	35	19	33	182
95th Queue (ft)	61	193	143	82	77	117	114	118	77	42	79	312
Link Distance (ft)		1437	1437			589	589		1049			1291
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	275			275	300			550		250	400	
Storage Blk Time (%)		0										0
Queuing Penalty (veh)		0										0

Intersection: 8: Henry Clay Boulevard & Rt 31 Seg 2

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	32	349	136	235	215	160
Average Queue (ft)	4	139	50	71	99	66
95th Queue (ft)	19	261	94	154	170	120
Link Distance (ft)		1654		4993	1071	1000
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	425		475			
Storage Blk Time (%)		0				
Queuing Penalty (veh)		0				

Intersection: 9: Caughdenoy Road & Rt 31 Seg 3

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	187	163	87	81
Average Queue (ft)	68	57	33	31
95th Queue (ft)	136	122	63	59
Link Distance (ft)	3900	1654	3895	1060
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 10: Lawton Rd/Legionaire Dr & Rt 31 Seg 5

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	32	232	54	143	74	90	90	52
Average Queue (ft)	2	93	17	42	20	39	33	12
95th Queue (ft)	15	176	44	95	52	69	67	38
Link Distance (ft)		1701		2976		575	583	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	250		250		130			175
Storage Blk Time (%)		0						
Queuing Penalty (veh)		0						

Intersection: 11: Route 11 & Rt 31 Seg 6

Movement	EB	EB	EB	B23	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	T	L	T	TR	L	T	R	L	T
Maximum Queue (ft)	54	350	313	52	188	89	157	57	89	222	152	87
Average Queue (ft)	14	92	143	2	78	7	42	10	24	105	58	30
95th Queue (ft)	39	222	266	30	148	37	101	34	58	178	116	65
Link Distance (ft)		336		2976	120	120	120		506	506		572
Upstream Blk Time (%)		0	0		3	0	0					
Queuing Penalty (veh)		3	0		7	0	1					
Storage Bay Dist (ft)	225		300					190			325	
Storage Blk Time (%)		0	1									
Queuing Penalty (veh)		2	2									

Intersection: 11: Route 11 & Rt 31 Seg 6

Movement	SB
Directions Served	TR
Maximum Queue (ft)	84
Average Queue (ft)	24
95th Queue (ft)	57
Link Distance (ft)	572
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: I-81 SB On-Ramp/I-81 SB Off-Ramp & Rt 31 Seg 6

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	T	TR	L	T	T	LT	R
Maximum Queue (ft)	156	155	180	302	282	244	174
Average Queue (ft)	153	155	178	274	53	108	46
95th Queue (ft)	170	158	187	351	137	193	100
Link Distance (ft)	82	82		278	278	1127	
Upstream Blk Time (%)	51	69		14	0		
Queuing Penalty (veh)	239	325		93	0		
Storage Bay Dist (ft)			130				200
Storage Blk Time (%)			47	0		2	
Queuing Penalty (veh)			129	1		3	

Intersection: 13: I-81 NB Off-Ramp/Pardee Road & Rt 31 Seg 6

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	T	TR	L	T	R	R
Maximum Queue (ft)	78	96	96	523	450	215	194	150	821
Average Queue (ft)	17	25	18	424	143	83	37	83	574
95th Queue (ft)	50	64	55	596	339	155	108	136	1007
Link Distance (ft)		278	278	450	450		1088		786
Upstream Blk Time (%)				19	0				42
Queuing Penalty (veh)				105	1				0
Storage Bay Dist (ft)	100					450		100	
Storage Blk Time (%)	0	0					1	4	
Queuing Penalty (veh)	1	0					4	6	

Intersection: 14: Rt 31 Seg 6/Route 31 & LakeShore Rd.

Movement	EB	WB	SW
Directions Served	L	T	R
Maximum Queue (ft)	128	23	353
Average Queue (ft)	48	1	256
95th Queue (ft)	91	9	422
Link Distance (ft)		249	270
Upstream Blk Time (%)			37
Queuing Penalty (veh)			219
Storage Bay Dist (ft)	250		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 28: 481 NB Off-Ramp & Maple Road & Caughdenoy Road

Movement	EB	WB	NB	SB	SB
Directions Served	LT	TR	LT	L	R
Maximum Queue (ft)	3	4	44	77	15
Average Queue (ft)	0	0	18	38	0
95th Queue (ft)	2	2	39	62	8
Link Distance (ft)	1618	1396	1157	2601	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					50
Storage Blk Time (%)				2	0
Queuing Penalty (veh)				0	0

Zone Summary

Zone wide Queuing Penalty: 1141

Intersection: 2: Soule Road/481 South off-ramp & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	L	R	L	T	R
Maximum Queue (ft)	483	407	353	262	266	227	231	264	205	205	131	165
Average Queue (ft)	285	230	157	125	131	121	130	133	54	88	52	74
95th Queue (ft)	410	353	279	211	219	192	202	221	118	154	100	128
Link Distance (ft)	572	572	572			620	620		544		503	
Upstream Blk Time (%)	0											
Queuing Penalty (veh)	0											
Storage Bay Dist (ft)				340	340			260		300		150
Storage Blk Time (%)				0	0			0	0		0	0
Queuing Penalty (veh)				0	0			1	0		0	1

Intersection: 3: 481 North off-ramp/481 North on-ramp & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	T	R	L	LT	R
Maximum Queue (ft)	195	269	258	369	333	163	400	737	270
Average Queue (ft)	102	99	105	226	151	41	288	355	204
95th Queue (ft)	169	190	189	348	263	92	414	539	353
Link Distance (ft)		620	620	356	356			1069	
Upstream Blk Time (%)				1	0	0			
Queuing Penalty (veh)				6	0	0			
Storage Bay Dist (ft)	150					330	350		220
Storage Blk Time (%)	2	1			0		0	28	0
Queuing Penalty (veh)	11	2			0		3	221	1

Intersection: 4: Marketfair Plaza & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	176	158	50	86	189	173	168	60
Average Queue (ft)	69	63	10	25	47	42	72	21
95th Queue (ft)	134	121	34	57	122	109	130	45
Link Distance (ft)	356	356			625	625	288	288
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			250	150				
Storage Blk Time (%)					0			
Queuing Penalty (veh)					0			

Intersection: 5: Water Board/Great Northern Mall West & Rt 31 Seg 1

Movement	EB	EB	EB	EB	WB	WB	WB	NB	SB	SB	SB
Directions Served	L	L	T	TR	T	T	R	LTR	LT	R	R
Maximum Queue (ft)	148	155	68	47	216	210	99	26	94	197	156
Average Queue (ft)	66	81	7	4	86	83	7	1	30	95	38
95th Queue (ft)	117	128	32	20	170	169	40	9	66	160	100
Link Distance (ft)			625	625	797	797		316	345	345	345
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	330	330					150				
Storage Blk Time (%)					2	2					
Queuing Penalty (veh)					0	1					

Intersection: 6: Laz-Boy/Great Northern East & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	LT	R
Maximum Queue (ft)	50	127	109	41	185	202	104	58	80	71
Average Queue (ft)	16	28	22	7	52	56	36	19	26	30
95th Queue (ft)	39	79	65	26	128	135	80	47	63	57
Link Distance (ft)		797	797		1437	1437	393	393	414	414
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	300			210						
Storage Blk Time (%)					0					
Queuing Penalty (veh)					0					

Intersection: 7: Morgan Road & Rt 31 Seg 1

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	T	R	L	TR
Maximum Queue (ft)	239	253	210	145	134	234	261	262	188	52	85	239
Average Queue (ft)	112	135	79	50	48	123	140	127	84	20	24	110
95th Queue (ft)	186	208	164	97	92	197	221	210	148	43	57	192
Link Distance (ft)		1437	1437			589	589		1049			1291
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	275			275	300			550		250	400	
Storage Blk Time (%)	0	0	0									
Queuing Penalty (veh)	0	0	0									

Intersection: 8: Henry Clay Boulevard & Rt 31 Seg 2

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	53	427	122	389	441	88
Average Queue (ft)	15	202	39	143	229	23
95th Queue (ft)	42	362	82	274	364	56
Link Distance (ft)		1654		4993	1071	1000
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	425		475			
Storage Blk Time (%)		0		0		
Queuing Penalty (veh)		0		0		

Intersection: 9: Caughdenoy Road & Rt 31 Seg 3

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	254	242	100	65
Average Queue (ft)	92	82	41	22
95th Queue (ft)	186	169	78	48
Link Distance (ft)	3900	1654	3895	1060
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 10: Lawton Rd/Legionaire Dr & Rt 31 Seg 5

Movement	EB	EB	WB	WB	B23	NB	NB	SB	SB
Directions Served	L	TR	L	TR	T	L	TR	L	TR
Maximum Queue (ft)	31	270	116	210	71	77	76	116	87
Average Queue (ft)	4	103	48	73	1	24	30	50	29
95th Queue (ft)	20	196	89	145	35	57	60	90	63
Link Distance (ft)		1701		2976	336		575	583	
Upstream Blk Time (%)					0				
Queuing Penalty (veh)					0				
Storage Bay Dist (ft)	250		250			130			175
Storage Blk Time (%)		0		0					
Queuing Penalty (veh)		0		0					

Intersection: 11: Route 11 & Rt 31 Seg 6

Movement	EB	EB	EB	B23	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	T	L	T	TR	L	T	R	L	T
Maximum Queue (ft)	250	392	334	104	192	193	178	239	359	384	276	145
Average Queue (ft)	31	176	194	5	146	119	73	62	168	191	115	64
95th Queue (ft)	113	341	314	50	219	199	144	146	273	316	218	115
Link Distance (ft)		336		2976	120	120	120		506	506		572
Upstream Blk Time (%)		2	0		16	8	1					
Queuing Penalty (veh)		10	0		57	28	5					
Storage Bay Dist (ft)	225		300					190			325	
Storage Blk Time (%)	0	5	1						7		0	
Queuing Penalty (veh)	0	17	4						6		0	

Intersection: 11: Route 11 & Rt 31 Seg 6

Movement	SB
Directions Served	TR
Maximum Queue (ft)	166
Average Queue (ft)	73
95th Queue (ft)	130
Link Distance (ft)	572
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: I-81 SB On-Ramp/I-81 SB Off-Ramp & Rt 31 Seg 6

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	T	TR	L	T	T	LT	R
Maximum Queue (ft)	156	155	180	296	266	212	143
Average Queue (ft)	155	151	160	157	24	97	43
95th Queue (ft)	155	167	207	347	123	169	82
Link Distance (ft)	82	82		278	278	1127	
Upstream Blk Time (%)	55	45		2	0		
Queuing Penalty (veh)	311	252		11	0		
Storage Bay Dist (ft)			130				200
Storage Blk Time (%)			17	0		0	
Queuing Penalty (veh)			79	0		0	

Intersection: 13: I-81 NB Off-Ramp/Pardee Road & Rt 31 Seg 6

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	T	TR	L	T	R	R
Maximum Queue (ft)	150	305	302	523	514	499	847	150	159
Average Queue (ft)	136	195	78	452	332	230	353	146	65
95th Queue (ft)	174	349	225	604	532	463	760	166	126
Link Distance (ft)		278	278	450	450		1088		786
Upstream Blk Time (%)		3	0	34	6		2		
Queuing Penalty (veh)		18	2	178	29		0		
Storage Bay Dist (ft)	100					450		100	
Storage Blk Time (%)	21	2				0	2	48	
Queuing Penalty (veh)	85	6				0	17	215	

Intersection: 14: Rt 31 Seg 6/Route 31 & LakeShore Rd.

Movement	EB	EB	EB	WB	SW
Directions Served	L	T	T	T	R
Maximum Queue (ft)	300	485	413	85	213
Average Queue (ft)	197	76	22	12	89
95th Queue (ft)	322	356	179	70	188
Link Distance (ft)		503	503	249	270
Upstream Blk Time (%)		3	0	0	2
Queuing Penalty (veh)		21	0	1	7
Storage Bay Dist (ft)	250				
Storage Blk Time (%)	16	0			
Queuing Penalty (veh)	73	0			

Intersection: 28: 481 NB Off-Ramp & Maple Road & Caughdenoy Road

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LT	TR	LT	R	L	R
Maximum Queue (ft)	59	70	74	170	66	5
Average Queue (ft)	30	32	38	17	28	0
95th Queue (ft)	49	52	61	91	53	3
Link Distance (ft)	1618	1396	1157		2601	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)				250		50
Storage Blk Time (%)				0	1	0
Queuing Penalty (veh)				0	0	0

Zone Summary

Zone wide Queuing Penalty: 1681

Arterial Level of Service: EB Rt 31 Seg 1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Soule Road	2	21.4	31.5	0.1	13
481 North off-ramp	3	8.7	20.6	0.1	23
Marketfair Plaza	4	1.3	8.4	0.1	35
Water Board	5	0.7	12.4	0.1	39
Laz-Boy	6	4.2	19.2	0.2	32
Morgan Road	7	24.4	49.7	0.3	21
	24	5.5	17.0	0.1	27
Total		66.2	158.7	1.0	24

Arterial Level of Service: WB Rt 31 Seg 1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Morgan Road	7	18.2	28.7	0.1	16
Great Northern East	6	6.2	31.2	0.3	33
Great Northern Mall	5	2.3	17.5	0.2	35
Marketfair Plaza	4	1.1	12.8	0.1	38
481 North on-ramp	3	5.9	12.9	0.1	23
481 South off-ramp	2	14.1	25.8	0.1	18
Total		47.8	128.9	0.9	26

Arterial Level of Service: EB Rt 31 Seg 2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	59	2.6	30.0	0.4	50
Henry Clay Boulevard	8	22.2	43.5	0.3	27
Driveway	45	8.6	71.2	1.0	48
Total		33.4	144.7	1.7	42

Arterial Level of Service: WB Rt 31 Seg 2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Henry Clay Boulevard	8	15.2	78.5	1.0	44
Driveway	59	5.9	27.2	0.3	43
	24	3.1	30.4	0.4	49
Total		24.2	136.1	1.7	45

Arterial Level of Service: EB Rt 31 Seg 3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Caughdenoy Road	9	10.5	77.8	0.8	35
	21	3.5	32.9	0.3	35
Total		14.0	110.7	1.1	35

Arterial Level of Service: WB Rt 31 Seg 3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Caughdenoy Road	9	7.2	36.4	0.3	32
Driveway	45	7.2	74.7	0.8	36
Total		14.4	111.1	1.1	35

Arterial Level of Service: EB Rt 31 Seg 5

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Lawton Rd	10	9.5	35.4	0.3	34
	23	7.5	66.9	0.6	31
Total		17.0	102.3	0.9	32

Arterial Level of Service: WB Rt 31 Seg 5

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Legionaire Dr	10	6.1	51.7	0.6	40
	15	2.8	29.8	0.3	40
Total		9.0	81.5	0.9	40

Arterial Level of Service: EB Rt 31 Seg 6

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Route 11	11	16.3	24.1	0.1	12
Driveway	70	5.4	9.6	0.0	15
Driveway	36	26.9	34.0	0.1	7
I-81 SB On-Ramp	12	30.8	42.5	0.0	3
I-81 NB Off-Ramp	13	4.9	11.9	0.1	20
Driveway	27	0.9	10.7	0.1	34
LakeShore Rd.	14	0.4	11.3	0.1	33
Total		85.7	143.9	0.5	13

Arterial Level of Service: WB Rt 31 Seg 6

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	27	6.4	17.8	0.1	21
Pardee Road	13	41.8	63.8	0.1	7
I-81 SB Off-Ramp	12	4.4	11.4	0.1	21
Driveway	36	0.8	3.6	0.0	30
Driveway	70	1.3	8.5	0.1	29
Route 11	11	3.9	7.4	0.0	19
	23	1.4	9.9	0.1	29
Total		60.0	122.3	0.5	16

Arterial Level of Service: SE Rt 31 Seg 4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	20	4.6	54.2	0.7	49
	15	4.1	38.2	0.5	49
Total		8.7	92.3	1.3	49

Arterial Level of Service: WB Rt 31 Seg 4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	20	2.3	36.1	0.5	52
	21	4.5	53.0	0.7	50
Total		6.9	89.1	1.3	51

Arterial Level of Service: EB Rt 31 Seg 1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Soule Road	2	38.3	48.5	0.1	9
481 North off-ramp	3	14.1	26.1	0.1	18
Marketfair Plaza	4	5.5	12.6	0.1	23
Water Board	5	1.9	13.6	0.1	36
Laz-Boy	6	2.7	17.8	0.2	34
Morgan Road	7	23.4	47.6	0.3	22
	24	6.0	17.6	0.1	26
Total		91.8	183.7	1.0	21

Arterial Level of Service: WB Rt 31 Seg 1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Morgan Road	7	29.9	40.9	0.1	11
Great Northern East	6	8.1	32.3	0.3	32
Great Northern Mall	5	8.7	24.0	0.2	25
Marketfair Plaza	4	4.8	16.5	0.1	29
481 North on-ramp	3	24.8	32.2	0.1	9
481 South off-ramp	2	18.9	30.3	0.1	15
Total		95.3	176.3	0.9	19

Arterial Level of Service: EB Rt 31 Seg 2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	59	2.2	30.4	0.4	49
Henry Clay Boulevard	8	28.8	50.1	0.3	23
Driveway	45	11.9	74.3	1.0	46
Total		42.9	154.7	1.7	39

Arterial Level of Service: WB Rt 31 Seg 2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Henry Clay Boulevard	8	24.9	88.3	1.0	39
Driveway	59	6.0	27.4	0.3	43
	24	3.5	30.9	0.4	48
Total		34.4	146.6	1.7	42

Arterial Level of Service: EB Rt 31 Seg 3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Caughdenoy Road	9	13.0	80.4	0.8	34
	21	3.9	33.3	0.3	35
Total		17.0	113.7	1.1	34

Arterial Level of Service: WB Rt 31 Seg 3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Caughdenoy Road	9	8.4	37.7	0.3	31
Driveway	45	7.7	75.2	0.8	36
Total		16.2	112.9	1.1	34

Arterial Level of Service: EB Rt 31 Seg 5

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Lawton Rd	10	12.4	38.4	0.3	31
	23	7.8	66.8	0.6	31
Total		20.2	105.2	0.9	31

Arterial Level of Service: WB Rt 31 Seg 5

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Legionaire Dr	10	9.7	55.3	0.6	38
	15	3.8	30.7	0.3	39
Total		13.5	86.0	0.9	38

Arterial Level of Service: EB Rt 31 Seg 6

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Route 11	11	46.6	54.4	0.1	5
Driveway	70	3.7	7.9	0.0	18
Driveway	36	19.5	26.5	0.1	9
I-81 SB On-Ramp	12	27.1	30.3	0.0	4
I-81 NB Off-Ramp	13	7.4	14.3	0.1	17
Driveway	27	2.1	12.4	0.1	29
LakeShore Rd.	14	0.9	11.7	0.1	32
Total		107.3	157.6	0.5	11

Arterial Level of Service: WB Rt 31 Seg 6

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	27	12.0	23.4	0.1	16
Pardee Road	13	80.8	99.6	0.1	4
I-81 SB Off-Ramp	12	6.2	13.2	0.1	18
Driveway	36	0.6	3.5	0.0	30
Driveway	70	2.2	9.3	0.1	27
Route 11	11	14.0	17.7	0.0	8
	23	4.4	13.0	0.1	22
Total		120.2	179.7	0.5	10

Arterial Level of Service: SE Rt 31 Seg 4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	20	5.5	55.0	0.7	48
	15	4.0	38.0	0.5	49
Total		9.5	93.0	1.3	49

Arterial Level of Service: WB Rt 31 Seg 4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	20	3.6	37.2	0.5	50
	21	5.3	53.7	0.7	49
Total		8.8	90.9	1.3	50

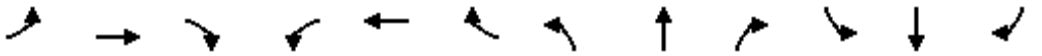
APPENDIX D

YEAR 2024 BACKGROUND CONDITON CAPACITY ANALYSIS OUTPUT

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	439	654	288	571	0	96	0	152	225	40	84
Future Volume (vph)	0	439	654	288	571	0	96	0	152	225	40	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	6.0	5.0	5.0		6.0		5.0	6.0	5.0	5.0
Lane Util. Factor		0.95	1.00	0.97	0.95		1.00		1.00	1.00	1.00	1.00
Frpb, ped/bikes		1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00		1.00		0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00		0.95		1.00	0.95	1.00	1.00
Satd. Flow (prot)		3438	1568	3433	3374		1752		1553	1770	1863	1568
Flt Permitted		1.00	1.00	0.95	1.00		0.00		1.00	0.95	1.00	1.00
Satd. Flow (perm)		3438	1568	3433	3374		0		1553	1770	1863	1568
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	462	688	303	601	0	101	0	160	237	42	88
RTOR Reduction (vph)	0	0	167	0	0	0	0	0	140	0	0	80
Lane Group Flow (vph)	0	462	521	303	601	0	101	0	20	237	42	8
Confl. Peds. (#/hr)	1					1						
Heavy Vehicles (%)	2%	5%	3%	2%	7%	2%	3%	2%	4%	2%	2%	3%
Turn Type		NA	pm+ov	Prot	NA		pm+pt		pm+ov	pm+pt	NA	Perm
Protected Phases		6	7	5	2		7		5	3	8	
Permitted Phases			6				4 7		4 5	8		8
Actuated Green, G (s)		25.2	40.8	8.8	40.0		15.6		8.8	28.0	6.4	6.4
Effective Green, g (s)		26.2	40.8	9.8	41.0		15.6		9.8	28.0	7.4	7.4
Actuated g/C Ratio		0.33	0.51	0.12	0.51		0.19		0.12	0.35	0.09	0.09
Clearance Time (s)		6.0	6.0	6.0	6.0		6.0		6.0	6.0	6.0	6.0
Vehicle Extension (s)		4.8	3.0	2.0	4.8		3.0		2.0	2.0	2.0	2.0
Lane Grp Cap (vph)		1125	917	420	1729		341		190	619	172	145
v/s Ratio Prot		0.13	c0.11	c0.09	0.18		0.06		0.01	c0.13	0.02	
v/s Ratio Perm			0.22									0.01
v/c Ratio		0.41	0.57	0.72	0.35		0.30		0.10	0.38	0.24	0.06
Uniform Delay, d1		20.9	13.5	33.8	11.6		27.5		31.2	19.5	33.7	33.1
Progression Factor		1.00	1.00	0.70	0.52		1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2		1.1	0.8	5.0	0.5		0.5		0.1	0.1	0.3	0.1
Delay (s)		22.0	14.3	28.5	6.5		28.0		31.3	19.7	34.0	33.2
Level of Service		C	B	C	A		C		C	B	C	C
Approach Delay (s)		17.4			13.9			30.0			24.5	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	18.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	68.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	131	677	0	0	561	149	301	0	43	0	0	0
Future Volume (vph)	131	677	0	0	561	149	301	0	43	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.0			5.0	5.0	4.5	4.5	4.5			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.95	0.95	1.00			
Frpb, ped/bikes	1.00	1.00			1.00	0.98	1.00	1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	1719	3471			3438	1492	1603	1603	1455			
Flt Permitted	0.37	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	664	3471			3438	1492	1603	1603	1455			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	138	713	0	0	591	157	317	0	45	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	65	0	0	38	0	0	0
Lane Group Flow (vph)	138	713	0	0	591	92	158	159	7	0	0	0
Confl. Peds. (#/hr)	1					1						
Heavy Vehicles (%)	5%	4%	2%	1%	5%	6%	7%	0%	11%	0%	0%	0%
Turn Type	pm+pt	NA			NA	Perm	Split	NA	Perm			
Protected Phases	1	6			2		4	4				
Permitted Phases	6					2			4			
Actuated Green, G (s)	57.1	57.1			45.9	45.9	11.4	11.4	11.4			
Effective Green, g (s)	57.1	58.1			46.9	46.9	12.4	12.4	12.4			
Actuated g/C Ratio	0.71	0.73			0.59	0.59	0.16	0.16	0.16			
Clearance Time (s)	5.5	6.0			6.0	6.0	5.5	5.5	5.5			
Vehicle Extension (s)	1.0	5.0			5.0	5.0	1.0	1.0	1.0			
Lane Grp Cap (vph)	549	2520			2015	874	248	248	225			
v/s Ratio Prot	0.02	c0.21			0.17		0.10	c0.10				
v/s Ratio Perm	0.16					0.06			0.00			
v/c Ratio	0.25	0.28			0.29	0.11	0.64	0.64	0.03			
Uniform Delay, d1	4.0	3.8			8.3	7.3	31.7	31.7	28.7			
Progression Factor	0.74	0.64			0.70	0.29	1.00	1.00	1.00			
Incremental Delay, d2	0.1	0.3			0.4	0.2	3.9	4.2	0.0			
Delay (s)	3.0	2.7			6.2	2.3	35.6	35.9	28.7			
Level of Service	A	A			A	A	D	D	C			
Approach Delay (s)		2.7			5.4			34.9			0.0	
Approach LOS		A			A			C			A	

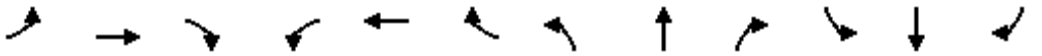
Intersection Summary			
HCM 2000 Control Delay	9.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	43.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	677	31	7	701	9	2
Future Volume (vph)	677	31	7	701	9	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3610	1615	1805	3610	1805	1615
Flt Permitted	1.00	1.00	0.38	1.00	0.95	1.00
Satd. Flow (perm)	3610	1615	723	3610	1805	1615
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	713	33	7	738	9	2
RTOR Reduction (vph)	0	8	0	0	0	2
Lane Group Flow (vph)	713	25	7	738	9	0
Turn Type	NA	pm+ov	pm+pt	NA	Prot	pm+ov
Protected Phases	6	4	3	2	4	3
Permitted Phases		6	2			4
Actuated Green, G (s)	59.1	61.8	66.3	66.3	2.7	4.4
Effective Green, g (s)	59.1	61.8	66.3	66.3	2.7	4.4
Actuated g/C Ratio	0.74	0.77	0.83	0.83	0.03	0.06
Clearance Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Vehicle Extension (s)	3.0	1.0	1.0	3.0	1.0	1.0
Lane Grp Cap (vph)	2666	1358	622	2991	60	199
v/s Ratio Prot	c0.20	0.00	0.00	c0.20	c0.00	0.00
v/s Ratio Perm		0.02	0.01			0.00
v/c Ratio	0.27	0.02	0.01	0.25	0.15	0.00
Uniform Delay, d1	3.4	2.1	1.2	1.5	37.5	35.7
Progression Factor	0.14	0.02	0.56	0.47	1.00	1.00
Incremental Delay, d2	0.2	0.0	0.0	0.2	0.4	0.0
Delay (s)	0.7	0.0	0.7	0.9	38.0	35.7
Level of Service	A	A	A	A	D	D
Approach Delay (s)	0.7			0.9	37.6	
Approach LOS	A			A	D	

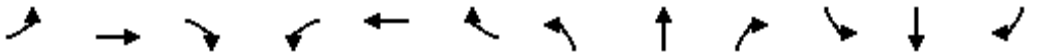
Intersection Summary			
HCM 2000 Control Delay	1.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	16.5
Intersection Capacity Utilization	31.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



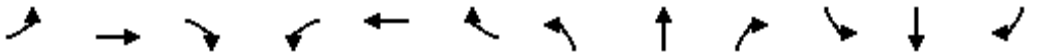
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	635	2	0	686	9	0	0	0	10	0	22
Future Volume (vph)	42	635	2	0	686	9	0	0	0	10	0	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.5			5.5	4.5					4.5	5.0
Lane Util. Factor	0.97	0.95			0.95	1.00					1.00	0.88
Frt	1.00	1.00			1.00	0.85					1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00					0.95	1.00
Satd. Flow (prot)	3433	3405			3406	1583					1770	2787
Flt Permitted	0.95	1.00			1.00	1.00					0.95	1.00
Satd. Flow (perm)	3433	3405			3406	1583					1770	2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	44	668	2	0	722	9	0	0	0	11	0	23
RTOR Reduction (vph)	0	0	0	0	0	2	0	0	0	0	0	0
Lane Group Flow (vph)	44	670	0	0	722	7	0	0	0	0	11	23
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	0%	0%	0%	2%	2%	2%
Turn Type	Prot	NA		Perm	NA	pm+ov				Split	NA	pm+ov
Protected Phases	1	6			2	3	4	4		3	3	1
Permitted Phases				2		2						3
Actuated Green, G (s)	3.6	65.7			56.1	58.4					2.3	5.9
Effective Green, g (s)	4.6	66.7			57.1	60.4					3.3	7.9
Actuated g/C Ratio	0.06	0.83			0.71	0.75					0.04	0.10
Clearance Time (s)	6.0	6.5			6.5	5.5					5.5	6.0
Vehicle Extension (s)	2.0	5.0			5.0	2.0					2.0	2.0
Lane Grp Cap (vph)	197	2838			2431	1195					73	275
v/s Ratio Prot	0.01	c0.20			c0.21	0.00					c0.01	0.00
v/s Ratio Perm						0.00						0.00
v/c Ratio	0.22	0.24			0.30	0.01					0.15	0.08
Uniform Delay, d1	36.0	1.4			4.2	2.4					37.0	32.8
Progression Factor	1.28	0.25			0.30	1.00					1.00	1.00
Incremental Delay, d2	0.2	0.2			0.3	0.0					0.3	0.0
Delay (s)	46.2	0.5			1.5	2.4					37.3	32.8
Level of Service	D	A			A	A					D	C
Approach Delay (s)		3.3			1.6			0.0			34.3	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	3.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	31.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



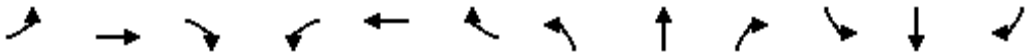
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	565	70	29	619	10	57	0	51	2	0	18
Future Volume (vph)	10	565	70	29	619	10	57	0	51	2	0	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.5		5.5	5.5		5.0	5.0			5.0	5.0
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00			1.00	1.00
Frt	1.00	0.98		1.00	1.00		1.00	0.85			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.95	1.00
Satd. Flow (prot)	1770	3363		1770	3399		1770	1583			1770	1583
Flt Permitted	0.36	1.00		0.40	1.00		0.76	1.00			0.72	1.00
Satd. Flow (perm)	670	3363		740	3399		1409	1583			1345	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	595	74	31	652	11	60	0	54	2	0	19
RTOR Reduction (vph)	0	9	0	0	1	0	0	49	0	0	0	16
Lane Group Flow (vph)	11	660	0	31	662	0	60	5	0	0	2	3
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	1	6			2			4			8	1
Permitted Phases	6			2			4			8		8
Actuated Green, G (s)	60.5	60.5		52.6	52.6		7.0	7.0			7.0	8.9
Effective Green, g (s)	61.5	61.5		53.6	53.6		8.0	8.0			8.0	10.9
Actuated g/C Ratio	0.77	0.77		0.67	0.67		0.10	0.10			0.10	0.14
Clearance Time (s)	6.0	6.5		6.5	6.5		6.0	6.0			6.0	6.0
Vehicle Extension (s)	2.0	5.0		5.0	5.0		2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	554	2585		495	2277		140	158			134	314
v/s Ratio Prot	0.00	c0.20			c0.19			0.00				0.00
v/s Ratio Perm	0.01			0.04			c0.04				0.00	0.00
v/c Ratio	0.02	0.26		0.06	0.29		0.43	0.03			0.01	0.01
Uniform Delay, d1	2.4	2.7		4.5	5.4		33.9	32.5			32.4	29.9
Progression Factor	1.40	1.35		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	0.0	0.2		0.2	0.3		0.8	0.0			0.0	0.0
Delay (s)	3.3	3.8		4.8	5.7		34.6	32.5			32.5	29.9
Level of Service	A	A		A	A		C	C			C	C
Approach Delay (s)		3.8			5.7			33.6			30.1	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	7.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	42.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	373	199	76	325	19	146	61	58	72	201	194
Future Volume (vph)	53	373	199	76	325	19	146	61	58	72	201	194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	5.5	5.5	6.5	5.5		6.5	5.5	6.0	5.5	5.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3438	1583	1687	3450		1703	1810	1583	1805	1734	
Flt Permitted	0.54	1.00	1.00	0.38	1.00		0.32	1.00	1.00	0.64	1.00	
Satd. Flow (perm)	998	3438	1583	683	3450		571	1810	1583	1214	1734	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	56	393	209	80	342	20	154	64	61	76	212	204
RTOR Reduction (vph)	0	0	137	0	4	0	0	0	40	0	29	0
Lane Group Flow (vph)	56	393	72	80	358	0	154	64	21	76	387	0
Heavy Vehicles (%)	2%	5%	2%	7%	4%	0%	6%	5%	2%	0%	1%	2%
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	1	6	3	5	2		3	8	5	7	4	
Permitted Phases	6		6	2			8		8	4		
Actuated Green, G (s)	22.2	18.3	27.1	26.6	20.5		32.0	23.2	29.3	37.8	26.1	
Effective Green, g (s)	22.2	19.3	29.1	25.6	21.5		32.0	24.2	29.3	39.8	27.1	
Actuated g/C Ratio	0.26	0.23	0.34	0.30	0.25		0.38	0.29	0.35	0.47	0.32	
Clearance Time (s)	6.0	6.5	6.5	6.0	6.5		6.5	6.5	6.0	6.5	6.5	
Vehicle Extension (s)	2.0	4.0	2.0	2.0	4.0		2.0	4.0	2.0	2.0	4.0	
Lane Grp Cap (vph)	296	782	645	272	874		332	516	546	658	554	
v/s Ratio Prot	0.01	c0.11	0.01	c0.02	0.10		c0.05	0.04	0.00	0.02	c0.22	
v/s Ratio Perm	0.04		0.03	0.07			0.13		0.01	0.04		
v/c Ratio	0.19	0.50	0.11	0.29	0.41		0.46	0.12	0.04	0.12	0.70	
Uniform Delay, d1	23.9	28.6	19.0	21.9	26.4		18.6	22.4	18.4	12.5	25.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.1	0.7	0.0	0.2	0.4		0.4	0.1	0.0	0.0	4.1	
Delay (s)	24.0	29.3	19.0	22.1	26.8		19.0	22.6	18.4	12.5	29.4	
Level of Service	C	C	B	C	C		B	C	B	B	C	
Approach Delay (s)		25.6			25.9			19.7			26.8	
Approach LOS		C			C			B			C	

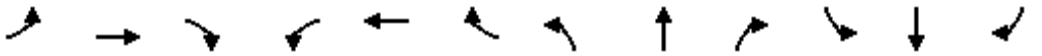
Intersection Summary			
HCM 2000 Control Delay	25.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	84.8	Sum of lost time (s)	24.0
Intersection Capacity Utilization	66.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	261	203	138	351	2	109	38	66	12	129	24
Future Volume (vph)	8	261	203	138	351	2	109	38	66	12	129	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.93		1.00	1.00			0.96			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.97			1.00	
Satd. Flow (prot)	1805	1775		1805	1898			1775			1856	
Flt Permitted	0.54	1.00		0.29	1.00			0.72			0.97	
Satd. Flow (perm)	1027	1775		549	1898			1315			1800	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	8	275	214	145	369	2	115	40	69	13	136	25
RTOR Reduction (vph)	0	23	0	0	0	0	0	15	0	0	5	0
Lane Group Flow (vph)	8	466	0	145	371	0	0	209	0	0	169	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)	36.0	35.2		49.2	42.4			18.7			18.7	
Effective Green, g (s)	36.0	35.2		49.2	42.4			18.7			18.7	
Actuated g/C Ratio	0.45	0.44		0.62	0.53			0.23			0.23	
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Vehicle Extension (s)	2.0	6.0		2.0	6.0			3.0			3.0	
Lane Grp Cap (vph)	470	781		463	1007			307			421	
v/s Ratio Prot	0.00	c0.26		c0.03	c0.20							
v/s Ratio Perm	0.01			0.16				c0.16			0.09	
v/c Ratio	0.02	0.60		0.31	0.37			0.68			0.40	
Uniform Delay, d1	12.1	17.0		8.5	10.9			27.9			25.9	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.0	2.3		0.1	0.6			5.9			0.6	
Delay (s)	12.1	19.2		8.6	11.6			33.8			26.5	
Level of Service	B	B		A	B			C			C	
Approach Delay (s)		19.1			10.8			33.8			26.5	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	19.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	79.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	74.8%	ICU Level of Service	D
Analysis Period (min)	15		

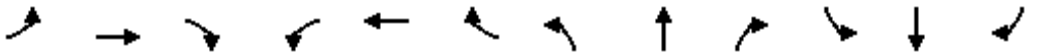
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	358	21	11	335	16	39	11	42	55	4	19
Future Volume (vph)	16	358	21	11	335	16	39	11	42	55	4	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			0.99			0.94			0.97	
Flt Protected		1.00			1.00			0.98			0.97	
Satd. Flow (prot)		1883			1886			1747			1775	
Flt Permitted		0.98			0.98			0.83			0.73	
Satd. Flow (perm)		1848			1859			1472			1340	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	17	377	22	12	353	17	41	12	44	58	4	20
RTOR Reduction (vph)	0	3	0	0	2	0	0	38	0	0	17	0
Lane Group Flow (vph)	0	413	0	0	380	0	0	59	0	0	65	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		21.8			21.8			4.7			4.7	
Effective Green, g (s)		21.8			21.8			4.7			4.7	
Actuated g/C Ratio		0.59			0.59			0.13			0.13	
Clearance Time (s)		5.5			5.5			5.0			5.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		1088			1095			186			170	
v/s Ratio Prot												
v/s Ratio Perm		c0.22			0.20			0.04			c0.05	
v/c Ratio		0.38			0.35			0.31			0.38	
Uniform Delay, d1		4.0			3.9			14.7			14.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.5			0.4			1.0			1.4	
Delay (s)		4.5			4.3			15.7			16.2	
Level of Service		A			A			B			B	
Approach Delay (s)		4.5			4.3			15.7			16.2	
Approach LOS		A			A			B			B	

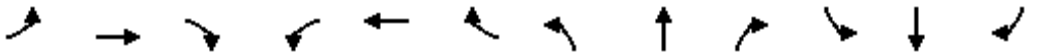
Intersection Summary			
HCM 2000 Control Delay	6.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	37.0	Sum of lost time (s)	10.5
Intersection Capacity Utilization	43.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	562	10	36	281	26	28	2	92	51	9	7
Future Volume (vph)	4	562	10	36	281	26	28	2	92	51	9	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.99		1.00	0.85		1.00	0.93	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1840		1752	1822		1770	1589		1770	1741	
Flt Permitted	0.57	1.00		0.32	1.00		0.75	1.00		0.69	1.00	
Satd. Flow (perm)	1042	1840		588	1822		1392	1589		1291	1741	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	592	11	38	296	27	29	2	97	54	9	7
RTOR Reduction (vph)	0	0	0	0	3	0	0	85	0	0	6	0
Lane Group Flow (vph)	4	603	0	38	320	0	29	14	0	54	10	0
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)	31.3	30.7		34.1	32.1		6.8	6.8		6.8	6.8	
Effective Green, g (s)	31.3	30.7		34.1	32.1		6.8	6.8		6.8	6.8	
Actuated g/C Ratio	0.56	0.55		0.61	0.57		0.12	0.12		0.12	0.12	
Clearance Time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Vehicle Extension (s)	2.0	5.0		2.0	5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	590	1008		399	1044		169	192		156	211	
v/s Ratio Prot	0.00	c0.33		c0.00	0.18			0.01			0.01	
v/s Ratio Perm	0.00			0.05			0.02			c0.04		
v/c Ratio	0.01	0.60		0.10	0.31		0.17	0.07		0.35	0.05	
Uniform Delay, d1	5.5	8.5		5.1	6.2		22.1	21.8		22.6	21.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	1.4		0.0	0.4		0.5	0.2		1.3	0.1	
Delay (s)	5.5	9.9		5.1	6.5		22.6	22.0		23.9	21.8	
Level of Service	A	A		A	A		C	C		C	C	
Approach Delay (s)		9.9			6.4			22.1			23.4	
Approach LOS		A			A			C			C	

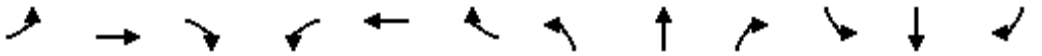
Intersection Summary			
HCM 2000 Control Delay	11.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	56.0	Sum of lost time (s)	16.5
Intersection Capacity Utilization	48.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	665	36	240	322	92	14	27	169	87	57	20
Future Volume (vph)	36	665	36	240	322	92	14	27	169	87	57	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	12	12	10	12	12	10	12	12
Total Lost time (s)	4.5	4.0		4.5	4.0		5.0	4.0	4.5	4.5	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.99		1.00	0.97		1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1662	3451		1711	3265		1636	1900	1583	1589	3394	
Flt Permitted	0.50	1.00		0.29	1.00		0.70	1.00	1.00	0.45	1.00	
Satd. Flow (perm)	872	3451		528	3265		1208	1900	1583	757	3394	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	38	700	38	253	339	97	15	28	178	92	60	21
RTOR Reduction (vph)	0	2	0	0	17	0	0	0	0	0	18	0
Lane Group Flow (vph)	38	736	0	253	419	0	15	28	178	92	63	0
Heavy Vehicles (%)	5%	4%	0%	2%	6%	10%	3%	0%	2%	6%	3%	0%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases	2			6			8		8	4		
Actuated Green, G (s)	62.7	59.9		78.5	70.2		8.2	6.1	19.2	19.3	11.4	
Effective Green, g (s)	64.7	61.9		79.5	72.2		10.2	8.1	21.2	20.5	13.4	
Actuated g/C Ratio	0.59	0.56		0.72	0.66		0.09	0.07	0.19	0.19	0.12	
Clearance Time (s)	5.5	6.0		5.5	6.0		6.0	6.0	5.5	5.5	6.0	
Vehicle Extension (s)	1.0	2.0		2.0	2.0		1.0	2.0	2.0	1.5	2.0	
Lane Grp Cap (vph)	540	1941		533	2143		124	139	305	208	413	
v/s Ratio Prot	0.00	0.21		0.06	0.13		0.00	0.01	c0.07	c0.04	0.02	
v/s Ratio Perm	0.04			c0.28			0.01		0.04	c0.05		
v/c Ratio	0.07	0.38		0.47	0.20		0.12	0.20	0.58	0.44	0.15	
Uniform Delay, d1	9.5	13.4		6.3	7.5		45.7	47.9	40.4	38.7	43.2	
Progression Factor	1.00	1.00		0.94	0.62		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.0	0.6		0.2	0.2		0.2	0.3	1.8	0.5	0.1	
Delay (s)	9.6	13.9		6.2	4.9		45.9	48.2	42.2	39.3	43.3	
Level of Service	A	B		A	A		D	D	D	D	D	
Approach Delay (s)		13.7			5.3			43.2			41.2	
Approach LOS		B			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	16.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	17.5
Intersection Capacity Utilization	54.3%	ICU Level of Service	A
Analysis Period (min)	15		

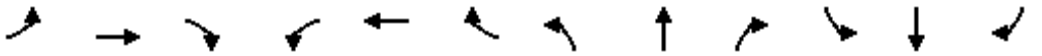
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	484	476	767	560	0	0	0	0	127	0	133
Future Volume (vph)	0	484	476	767	560	0	0	0	0	127	0	133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	12	12	12	12	12	12	13	12
Total Lost time (s)		3.5		3.5	3.5						4.0	4.0
Lane Util. Factor		0.95		1.00	0.95						1.00	1.00
Frt		0.93		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)		3228		1620	3406						1811	1583
Flt Permitted		1.00		0.10	1.00						0.95	1.00
Satd. Flow (perm)		3228		173	3406						1811	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	509	501	807	589	0	0	0	0	134	0	140
RTOR Reduction (vph)	0	164	0	0	0	0	0	0	0	0	0	128
Lane Group Flow (vph)	0	846	0	807	589	0	0	0	0	0	134	12
Heavy Vehicles (%)	0%	5%	2%	4%	6%	0%	0%	0%	0%	3%	0%	2%
Turn Type		NA		pm+pt	NA					Split	NA	Perm
Protected Phases		2		1 3	6					4	4	
Permitted Phases				6								4
Actuated Green, G (s)		31.0		91.2	91.2						8.8	8.8
Effective Green, g (s)		32.5		92.7	92.7						9.8	9.8
Actuated g/C Ratio		0.30		0.84	0.84						0.09	0.09
Clearance Time (s)		5.0			5.0						5.0	5.0
Vehicle Extension (s)		3.0			3.0						1.5	1.5
Lane Grp Cap (vph)		953		845	2870						161	141
v/s Ratio Prot		0.26		c0.46	0.17						c0.07	
v/s Ratio Perm				c0.34								0.01
v/c Ratio		0.89		0.96	0.21						0.83	0.09
Uniform Delay, d1		37.0		23.6	1.6						49.3	46.0
Progression Factor		0.93		0.64	1.78						1.00	1.00
Incremental Delay, d2		9.9		17.3	0.1						28.1	0.1
Delay (s)		44.2		32.5	3.1						77.4	46.1
Level of Service		D		C	A						E	D
Approach Delay (s)		44.2			20.1			0.0			61.4	
Approach LOS		D			C			A			E	

Intersection Summary			
HCM 2000 Control Delay	33.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	88.2%	ICU Level of Service	E
Analysis Period (min)	15		

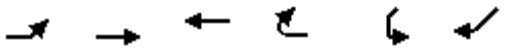
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	515	0	0	1034	80	120	32	324	0	0	174
Future Volume (vph)	100	515	0	0	1034	80	120	32	324	0	0	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	12	12	12	12	11	12	11	12	12	12
Total Lost time (s)	4.0	3.5			3.5		4.0	4.0	4.0			4.0
Lane Util. Factor	1.00	0.95			0.95		1.00	1.00	1.00			1.00
Frt	1.00	1.00			0.99		1.00	1.00	0.85			0.86
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00			1.00
Satd. Flow (prot)	1589	3471			3467		1586	1387	1446			1522
Flt Permitted	0.15	1.00			1.00		0.95	1.00	1.00			1.00
Satd. Flow (perm)	254	3471			3467		1586	1387	1446			1522
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	105	542	0	0	1088	84	126	34	341	0	0	183
RTOR Reduction (vph)	0	0	0	0	4	0	0	0	293	0	0	0
Lane Group Flow (vph)	105	542	0	0	1168	0	126	34	48	0	0	183
Heavy Vehicles (%)	6%	4%	0%	0%	3%	3%	10%	37%	8%	0%	0%	8%
Turn Type	pm+pt	NA			NA		Split	NA	Perm			Over
Protected Phases	5	2			6		8	8				5
Permitted Phases	2								8			
Actuated Green, G (s)	85.4	84.9			56.9		13.6	13.6	13.6			23.0
Effective Green, g (s)	86.4	86.9			58.9		15.6	15.6	15.6			24.0
Actuated g/C Ratio	0.79	0.79			0.54		0.14	0.14	0.14			0.22
Clearance Time (s)	5.0	5.5			5.5		6.0	6.0	6.0			5.0
Vehicle Extension (s)	3.0	3.0			3.0		2.0	2.0	2.0			3.0
Lane Grp Cap (vph)	490	2742			1856		224	196	205			332
v/s Ratio Prot	0.05	0.16			c0.34		c0.08	0.02				c0.12
v/s Ratio Perm	0.12								0.03			
v/c Ratio	0.21	0.20			0.63		0.56	0.17	0.24			0.55
Uniform Delay, d1	13.4	2.9			17.9		44.0	41.5	41.9			38.2
Progression Factor	0.30	0.45			1.00		1.00	1.00	1.00			1.00
Incremental Delay, d2	0.1	0.1			1.6		1.9	0.2	0.2			2.0
Delay (s)	4.1	1.4			19.5		45.9	41.7	42.1			40.2
Level of Service	A	A			B		D	D	D			D
Approach Delay (s)		1.8			19.5			43.1			40.2	
Approach LOS		A			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	21.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.5
Intersection Capacity Utilization	60.2%	ICU Level of Service	B
Analysis Period (min)	15		

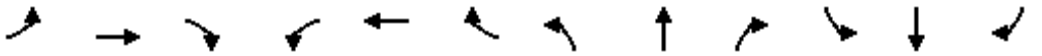
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	164	676	665	0	0	614
Future Volume (Veh/h)	164	676	665	0	0	614
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	173	712	700	0	0	646
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)		1075	348			
pX, platoon unblocked	0.80				0.80	0.80
vC, conflicting volume	700				1402	700
vC1, stage 1 conf vol					700	
vC2, stage 2 conf vol					702	
vCu, unblocked vol	505				1378	505
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	80				100	0
cM capacity (veh/h)	860				293	416

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	SW 1
Volume Total	173	356	356	700	646
Volume Left	173	0	0	0	0
Volume Right	0	0	0	0	646
cSH	860	1700	1700	1700	416
Volume to Capacity	0.20	0.21	0.21	0.41	1.55
Queue Length 95th (ft)	19	0	0	0	888
Control Delay (s)	10.2	0.0	0.0	0.0	284.2
Lane LOS	B				F
Approach Delay (s)	2.0			0.0	284.2
Approach LOS					F

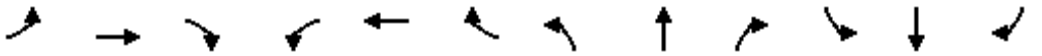
Intersection Summary			
Average Delay	83.1		
Intersection Capacity Utilization	79.7%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	94	0	0	35	9	13	25	38	130	0	7
Future Volume (Veh/h)	3	94	0	0	35	9	13	25	38	130	0	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	3	99	0	0	37	9	14	26	40	137	0	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									10			2
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	46			99			146	151	99	160	146	42
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	46			99			146	151	99	160	146	42
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	97	96	82	100	99
cM capacity (veh/h)	1575			1507			820	743	962	755	747	1035

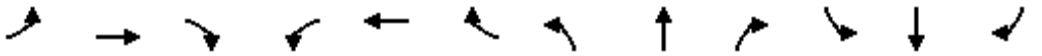
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	102	46	80	144
Volume Left	3	0	14	137
Volume Right	0	9	40	7
cSH	1575	1700	1540	794
Volume to Capacity	0.00	0.03	0.05	0.18
Queue Length 95th (ft)	0	0	4	16
Control Delay (s)	0.2	0.0	9.4	10.7
Lane LOS	A		A	B
Approach Delay (s)	0.2	0.0	9.4	10.7
Approach LOS			A	B

Intersection Summary				
Average Delay	6.2			
Intersection Capacity Utilization	27.9%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	913	652	536	1452	0	236	0	162	176	71	175
Future Volume (vph)	0	913	652	536	1452	0	236	0	162	176	71	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	6.0	5.0	5.0		6.0		5.0	6.0	5.0	5.0
Lane Util. Factor		0.95	1.00	0.97	0.95		1.00		1.00	1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00		1.00		0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00		0.95		1.00	0.95	1.00	1.00
Satd. Flow (prot)		3574	1583	3467	3574		1787		1599	1787	1863	1599
Flt Permitted		1.00	1.00	0.95	1.00		0.00		1.00	0.95	1.00	1.00
Satd. Flow (perm)		3574	1583	3467	3574		0		1599	1787	1863	1599
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	961	686	564	1528	0	248	0	171	185	75	184
RTOR Reduction (vph)	0	0	63	0	0	0	0	0	80	0	0	167
Lane Group Flow (vph)	0	961	623	564	1528	0	248	0	91	185	75	17
Heavy Vehicles (%)	0%	1%	2%	1%	1%	0%	1%	0%	1%	1%	2%	1%
Turn Type		NA	pm+ov	Prot	NA		pm+pt		pm+ov	pm+pt	NA	Perm
Protected Phases		6	7	5	2		7		5	3	8	
Permitted Phases			6				4 7		4 5	8		8
Actuated Green, G (s)		33.0	50.4	17.6	56.6		17.4		17.6	31.4	8.0	8.0
Effective Green, g (s)		34.0	50.4	18.6	57.6		17.4		18.6	31.4	9.0	9.0
Actuated g/C Ratio		0.34	0.50	0.19	0.58		0.17		0.19	0.31	0.09	0.09
Clearance Time (s)		6.0	6.0	6.0	6.0		6.0		6.0	6.0	6.0	6.0
Vehicle Extension (s)		4.8	3.0	2.0	4.8		3.0		2.0	2.0	2.0	2.0
Lane Grp Cap (vph)		1215	892	644	2058		310		297	561	167	143
v/s Ratio Prot		0.27	c0.12	c0.16	c0.43		0.14		0.06	0.10	c0.04	
v/s Ratio Perm			0.27									0.01
v/c Ratio		0.79	0.70	0.88	0.74		0.80		0.31	0.33	0.45	0.12
Uniform Delay, d1		29.8	19.0	39.6	15.7		39.6		35.1	26.2	43.1	41.8
Progression Factor		1.00	1.00	0.56	0.32		1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2		5.3	2.4	8.3	1.4		13.7		0.2	0.1	0.7	0.1
Delay (s)		35.1	21.4	30.4	6.4		53.3		35.4	26.4	43.9	42.0
Level of Service		D	C	C	A		D		D	C	D	D
Approach Delay (s)		29.4			12.9			46.0			35.8	
Approach LOS		C			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	24.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	75.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



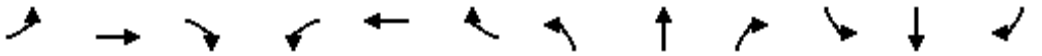
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	213	1029	0	0	969	255	1079	0	268	0	0	0
Future Volume (vph)	213	1029	0	0	969	255	1079	0	268	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.0			5.0	5.0	4.5	4.5	4.5			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.95	0.95	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	1787	3574			3574	1583	1698	1698	1599			
Flt Permitted	0.10	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	193	3574			3574	1583	1698	1698	1599			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	224	1083	0	0	1020	268	1136	0	282	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	166	0	0	59	0	0	0
Lane Group Flow (vph)	224	1083	0	0	1020	102	568	568	223	0	0	0
Heavy Vehicles (%)	1%	1%	2%	1%	1%	2%	1%	0%	1%	0%	0%	0%
Turn Type	pm+pt	NA			NA	Perm	Split	NA	Perm			
Protected Phases	1	6			2		4	4				
Permitted Phases	6					2			4			
Actuated Green, G (s)	52.9	52.9			36.9	36.9	35.6	35.6	35.6			
Effective Green, g (s)	52.9	53.9			37.9	37.9	36.6	36.6	36.6			
Actuated g/C Ratio	0.53	0.54			0.38	0.38	0.37	0.37	0.37			
Clearance Time (s)	5.5	6.0			6.0	6.0	5.5	5.5	5.5			
Vehicle Extension (s)	1.0	5.0			5.0	5.0	1.0	1.0	1.0			
Lane Grp Cap (vph)	269	1926			1354	599	621	621	585			
v/s Ratio Prot	c0.09	0.30			0.29		c0.33	0.33				
v/s Ratio Perm	c0.35					0.06			0.14			
v/c Ratio	0.83	0.56			0.75	0.17	0.91	0.91	0.38			
Uniform Delay, d1	22.0	15.2			27.0	20.6	30.2	30.2	23.4			
Progression Factor	0.52	0.75			0.81	0.93	1.00	1.00	1.00			
Incremental Delay, d2	12.9	0.9			3.7	0.6	17.8	17.8	0.2			
Delay (s)	24.4	12.4			25.6	19.8	48.0	48.0	23.5			
Level of Service	C	B			C	B	D	D	C			
Approach Delay (s)		14.4			24.4			43.1			0.0	
Approach LOS		B			C			D			A	

Intersection Summary			
HCM 2000 Control Delay	27.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	81.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1196	111	46	1114	110	51
Future Volume (vph)	1196	111	46	1114	110	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3610	1615	1805	3610	1805	1615
Flt Permitted	1.00	1.00	0.19	1.00	0.95	1.00
Satd. Flow (perm)	3610	1615	352	3610	1805	1615
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1259	117	48	1173	116	54
RTOR Reduction (vph)	0	24	0	0	0	47
Lane Group Flow (vph)	1259	93	48	1173	116	7
Turn Type	NA	pm+ov	pm+pt	NA	Prot	pm+ov
Protected Phases	6	4	3	2	4	3
Permitted Phases		6	2			4
Actuated Green, G (s)	69.7	79.5	79.2	79.2	9.8	13.8
Effective Green, g (s)	69.7	79.5	79.2	79.2	9.8	13.8
Actuated g/C Ratio	0.70	0.80	0.79	0.79	0.10	0.14
Clearance Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Vehicle Extension (s)	3.0	1.0	1.0	3.0	1.0	1.0
Lane Grp Cap (vph)	2516	1372	336	2859	176	311
v/s Ratio Prot	c0.35	0.01	0.01	c0.32	c0.06	0.00
v/s Ratio Perm		0.05	0.11			0.00
v/c Ratio	0.50	0.07	0.14	0.41	0.66	0.02
Uniform Delay, d1	7.0	2.2	6.1	3.2	43.5	37.3
Progression Factor	0.32	0.34	0.68	0.68	1.00	1.00
Incremental Delay, d2	0.6	0.0	0.1	0.4	6.6	0.0
Delay (s)	2.9	0.8	4.2	2.6	50.1	37.3
Level of Service	A	A	A	A	D	D
Approach Delay (s)	2.7			2.6	46.0	
Approach LOS	A			A	D	

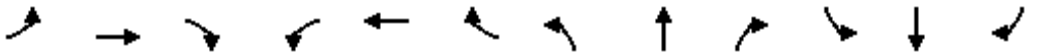
Intersection Summary			
HCM 2000 Control Delay	5.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.5
Intersection Capacity Utilization	53.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	263	985	0	0	924	46	1	0	0	42	0	234
Future Volume (vph)	263	985	0	0	924	46	1	0	0	42	0	234
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.5			5.5	4.5		4.5			4.5	5.0
Lane Util. Factor	0.97	0.95			0.95	1.00		1.00			1.00	0.88
Frt	1.00	1.00			1.00	0.85		1.00			1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00		0.95			0.95	1.00
Satd. Flow (prot)	3433	3406			3406	1583		1805			1770	2787
Flt Permitted	0.95	1.00			1.00	1.00		0.95			0.95	1.00
Satd. Flow (perm)	3433	3406			3406	1583		1805			1770	2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	277	1037	0	0	973	48	1	0	0	44	0	246
RTOR Reduction (vph)	0	0	0	0	0	17	0	0	0	0	0	0
Lane Group Flow (vph)	277	1037	0	0	973	31	0	1	0	0	44	246
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	0%	0%	0%	2%	2%	2%
Turn Type	Prot	NA		Perm	NA	pm+ov	Split	NA		Split	NA	pm+ov
Protected Phases	1	6			2	3	4	4		3	3	1
Permitted Phases				2		2						3
Actuated Green, G (s)	12.4	75.7			57.3	63.3		0.8			6.0	18.4
Effective Green, g (s)	13.4	76.7			58.3	65.3		1.8			7.0	20.4
Actuated g/C Ratio	0.13	0.77			0.58	0.65		0.02			0.07	0.20
Clearance Time (s)	6.0	6.5			6.5	5.5		5.5			5.5	6.0
Vehicle Extension (s)	2.0	5.0			5.0	2.0		1.0			2.0	2.0
Lane Grp Cap (vph)	460	2612			1985	1033		32			123	568
v/s Ratio Prot	c0.08	0.30			c0.29	0.00		c0.00			0.02	c0.06
v/s Ratio Perm						0.02						0.03
v/c Ratio	0.60	0.40			0.49	0.03		0.03			0.36	0.43
Uniform Delay, d1	40.8	3.9			12.2	6.1		48.2			44.4	34.8
Progression Factor	1.15	0.07			0.75	0.17		1.00			1.00	1.00
Incremental Delay, d2	1.4	0.4			0.8	0.0		0.1			0.7	0.2
Delay (s)	48.4	0.7			10.0	1.1		48.4			45.0	34.9
Level of Service	D	A			A	A		D			D	C
Approach Delay (s)		10.7			9.5			48.4			36.5	
Approach LOS		B			A			D			D	

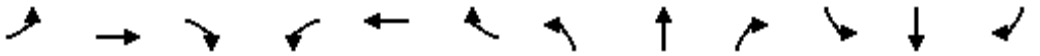
Intersection Summary			
HCM 2000 Control Delay	13.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	947	37	15	871	46	38	3	24	30	2	61
Future Volume (vph)	43	947	37	15	871	46	38	3	24	30	2	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.5		5.5	5.5		5.0	5.0			5.0	5.0
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.87			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.96	1.00
Satd. Flow (prot)	1770	3391		1770	3387		1770	1613			1779	1583
Flt Permitted	0.26	1.00		0.28	1.00		0.73	1.00			0.72	1.00
Satd. Flow (perm)	477	3391		515	3387		1369	1613			1338	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	45	997	39	16	917	48	40	3	25	32	2	64
RTOR Reduction (vph)	0	2	0	0	2	0	0	23	0	0	0	56
Lane Group Flow (vph)	45	1034	0	16	963	0	40	5	0	0	34	8
Confl. Peds. (#/hr)	1											
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	1	6			2			4			8	1
Permitted Phases	6			2			4			8		8
Actuated Green, G (s)	80.9	80.9		70.8	70.8		6.6	6.6			6.6	10.7
Effective Green, g (s)	81.9	81.9		71.8	71.8		7.6	7.6			7.6	12.7
Actuated g/C Ratio	0.82	0.82		0.72	0.72		0.08	0.08			0.08	0.13
Clearance Time (s)	6.0	6.5		6.5	6.5		6.0	6.0			6.0	6.0
Vehicle Extension (s)	2.0	5.0		5.0	5.0		2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	456	2777		369	2431		104	122			101	280
v/s Ratio Prot	0.01	c0.31			c0.28			0.00				0.00
v/s Ratio Perm	0.08			0.03			c0.03				0.03	0.00
v/c Ratio	0.10	0.37		0.04	0.40		0.38	0.04			0.34	0.03
Uniform Delay, d1	2.3	2.4		4.1	5.6		44.0	42.8			43.8	38.2
Progression Factor	0.31	0.25		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	0.0	0.4		0.2	0.5		0.9	0.0			0.7	0.0
Delay (s)	0.8	1.0		4.3	6.0		44.8	42.9			44.5	38.3
Level of Service	A	A		A	A		D	D			D	D
Approach Delay (s)		1.0			6.0			44.0			40.4	
Approach LOS		A			A			D			D	

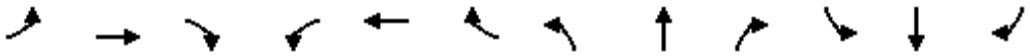
Intersection Summary			
HCM 2000 Control Delay	6.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	53.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	266	451	283	96	523	85	290	201	74	39	93	120
Future Volume (vph)	266	451	283	96	523	85	290	201	74	39	93	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	5.5	5.5	6.5	5.5		6.5	5.5	6.0	5.5	5.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	0.92	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1787	3574	1599	1719	3505		1787	1863	1615	1752	1696	
Flt Permitted	0.18	1.00	1.00	0.48	1.00		0.34	1.00	1.00	0.63	1.00	
Satd. Flow (perm)	334	3574	1599	869	3505		632	1863	1615	1153	1696	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	280	475	298	101	551	89	305	212	78	41	98	126
RTOR Reduction (vph)	0	0	159	0	12	0	0	0	48	0	44	0
Lane Group Flow (vph)	280	475	139	101	628	0	305	212	30	41	180	0
Heavy Vehicles (%)	1%	1%	1%	5%	1%	0%	1%	2%	0%	3%	2%	3%
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	1	6	3	5	2		3	8	5	7	4	
Permitted Phases	6		6	2			8		8	4		
Actuated Green, G (s)	41.4	28.2	41.6	30.6	22.8		38.6	28.5	36.3	22.3	18.7	
Effective Green, g (s)	41.4	29.2	43.6	29.6	23.8		38.6	29.5	36.3	24.3	19.7	
Actuated g/C Ratio	0.44	0.31	0.47	0.32	0.25		0.41	0.32	0.39	0.26	0.21	
Clearance Time (s)	6.0	6.5	6.5	6.0	6.5		6.5	6.5	6.0	6.5	6.5	
Vehicle Extension (s)	2.0	4.0	2.0	2.0	4.0		2.0	4.0	2.0	2.0	4.0	
Lane Grp Cap (vph)	352	1114	838	341	891		425	587	626	328	356	
v/s Ratio Prot	c0.11	0.13	0.03	0.02	0.18		c0.10	0.11	0.00	0.01	0.11	
v/s Ratio Perm	c0.24		0.06	0.07			c0.19		0.01	0.03		
v/c Ratio	0.80	0.43	0.17	0.30	0.70		0.72	0.36	0.05	0.12	0.51	
Uniform Delay, d1	19.4	25.6	14.5	23.2	31.7		20.4	24.8	17.9	26.3	32.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	11.0	0.4	0.0	0.2	2.7		4.8	0.5	0.0	0.1	1.5	
Delay (s)	30.4	25.9	14.5	23.4	34.5		25.2	25.3	17.9	26.3	34.2	
Level of Service	C	C	B	C	C		C	C	B	C	C	
Approach Delay (s)		23.9			32.9			24.3			33.0	
Approach LOS		C			C			C			C	

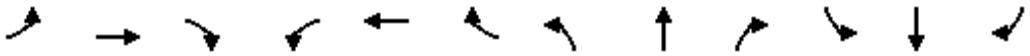
Intersection Summary			
HCM 2000 Control Delay	27.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	93.6	Sum of lost time (s)	24.0
Intersection Capacity Utilization	78.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	428	133	82	442	16	201	152	136	12	26	19
Future Volume (vph)	27	428	133	82	442	16	201	152	136	12	26	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.96		1.00	0.99			0.96			0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.99	
Satd. Flow (prot)	1805	1832		1805	1890			1792			1795	
Flt Permitted	0.33	1.00		0.17	1.00			0.84			0.88	
Satd. Flow (perm)	628	1832		332	1890			1534			1600	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	28	451	140	86	465	17	212	160	143	13	27	20
RTOR Reduction (vph)	0	10	0	0	1	0	0	11	0	0	13	0
Lane Group Flow (vph)	28	581	0	86	481	0	0	504	0	0	47	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)	44.8	41.5		49.4	43.8			38.1			38.1	
Effective Green, g (s)	44.8	41.5		49.4	43.8			38.1			38.1	
Actuated g/C Ratio	0.43	0.40		0.48	0.42			0.37			0.37	
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Vehicle Extension (s)	2.0	6.0		2.0	6.0			3.0			3.0	
Lane Grp Cap (vph)	310	736		238	802			566			590	
v/s Ratio Prot	0.00	c0.32		c0.02	0.25							
v/s Ratio Perm	0.04			0.15				c0.33			0.03	
v/c Ratio	0.09	0.79		0.36	0.60			0.89			0.08	
Uniform Delay, d1	17.7	27.0		18.5	22.9			30.6			21.2	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.0	7.0		0.3	2.2			15.8			0.1	
Delay (s)	17.7	34.0		18.8	25.2			46.3			21.2	
Level of Service	B	C		B	C			D			C	
Approach Delay (s)		33.3			24.2			46.3			21.2	
Approach LOS		C			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	33.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	103.2	Sum of lost time (s)	18.0
Intersection Capacity Utilization	84.7%	ICU Level of Service	E
Analysis Period (min)	15		

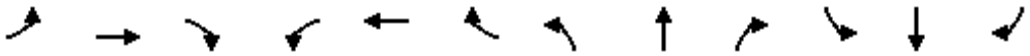
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	462	33	15	473	27	32	45	26	18	16	12
Future Volume (vph)	32	462	33	15	473	27	32	45	26	18	16	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			0.99			0.97			0.96	
Flt Protected		1.00			1.00			0.98			0.98	
Satd. Flow (prot)		1878			1884			1807			1797	
Flt Permitted		0.95			0.98			0.88			0.85	
Satd. Flow (perm)		1796			1851			1608			1554	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	34	486	35	16	498	28	34	47	27	19	17	13
RTOR Reduction (vph)	0	3	0	0	3	0	0	24	0	0	11	0
Lane Group Flow (vph)	0	552	0	0	539	0	0	84	0	0	38	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		26.5			26.5			5.0			5.0	
Effective Green, g (s)		26.5			26.5			5.0			5.0	
Actuated g/C Ratio		0.63			0.63			0.12			0.12	
Clearance Time (s)		5.5			5.5			5.0			5.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		1133			1167			191			185	
v/s Ratio Prot												
v/s Ratio Perm		c0.31			0.29			c0.05			0.02	
v/c Ratio		0.49			0.46			0.44			0.20	
Uniform Delay, d1		4.1			4.0			17.2			16.7	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.7			0.6			1.6			0.5	
Delay (s)		4.8			4.6			18.8			17.2	
Level of Service		A			A			B			B	
Approach Delay (s)		4.8			4.6			18.8			17.2	
Approach LOS		A			A			B			B	

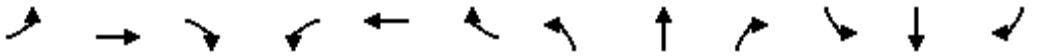
Intersection Summary			
HCM 2000 Control Delay	6.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	42.0	Sum of lost time (s)	10.5
Intersection Capacity Utilization	56.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	430	32	153	491	36	35	4	61	92	25	28
Future Volume (vph)	7	430	32	153	491	36	35	4	61	92	25	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.86		1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1825		1752	1826		1770	1600		1770	1715	
Flt Permitted	0.46	1.00		0.32	1.00		0.72	1.00		0.71	1.00	
Satd. Flow (perm)	842	1825		586	1826		1343	1600		1328	1715	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	7	453	34	161	517	38	37	4	64	97	26	29
RTOR Reduction (vph)	0	3	0	0	2	0	0	56	0	0	25	0
Lane Group Flow (vph)	7	484	0	161	553	0	37	12	0	97	30	0
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)	31.1	30.4		44.7	38.5		8.2	8.2		8.2	8.2	
Effective Green, g (s)	31.1	30.4		44.7	38.5		8.2	8.2		8.2	8.2	
Actuated g/C Ratio	0.49	0.48		0.70	0.60		0.13	0.13		0.13	0.13	
Clearance Time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Vehicle Extension (s)	2.0	5.0		2.0	5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	419	868		570	1100		172	205		170	220	
v/s Ratio Prot	0.00	c0.27		c0.04	c0.30			0.01			0.02	
v/s Ratio Perm	0.01			0.16			0.03			c0.07		
v/c Ratio	0.02	0.56		0.28	0.50		0.22	0.06		0.57	0.14	
Uniform Delay, d1	8.5	12.0		4.6	7.2		25.0	24.5		26.2	24.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	1.3		0.1	0.8		0.6	0.1		4.6	0.3	
Delay (s)	8.5	13.3		4.7	8.0		25.6	24.6		30.8	25.0	
Level of Service	A	B		A	A		C	C		C	C	
Approach Delay (s)		13.2			7.3			24.9			28.7	
Approach LOS		B			A			C			C	

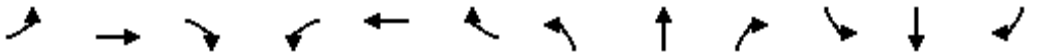
Intersection Summary			
HCM 2000 Control Delay	12.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	63.9	Sum of lost time (s)	16.5
Intersection Capacity Utilization	58.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	460	87	409	511	159	97	276	506	159	178	82
Future Volume (vph)	46	460	87	409	511	159	97	276	506	159	178	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	12	12	10	12	12	10	12	12
Total Lost time (s)	4.5	4.0		4.5	4.0		5.0	4.0	4.5	4.5	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.98		1.00	0.96		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1745	3494		1745	3413		1685	1863	1599	1620	3429	
Flt Permitted	0.38	1.00		0.24	1.00		0.53	1.00	1.00	0.24	1.00	
Satd. Flow (perm)	705	3494		450	3413		946	1863	1599	414	3429	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	48	484	92	431	538	167	102	291	533	167	187	86
RTOR Reduction (vph)	0	13	0	0	23	0	0	0	0	0	54	0
Lane Group Flow (vph)	48	563	0	431	682	0	102	291	533	167	219	0
Heavy Vehicles (%)	0%	1%	0%	0%	2%	2%	0%	2%	1%	4%	0%	1%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases	2			6			8		8	4		
Actuated Green, G (s)	35.4	31.2		62.6	52.9		28.0	21.7	47.6	31.3	23.1	
Effective Green, g (s)	37.4	33.2		63.6	54.9		30.0	23.7	49.6	33.3	25.1	
Actuated g/C Ratio	0.34	0.30		0.58	0.50		0.27	0.22	0.45	0.30	0.23	
Clearance Time (s)	5.5	6.0		5.5	6.0		6.0	6.0	5.5	5.5	6.0	
Vehicle Extension (s)	1.0	2.0		2.0	2.0		1.0	2.0	2.0	1.5	2.0	
Lane Grp Cap (vph)	288	1054		576	1703		307	401	721	226	782	
v/s Ratio Prot	0.01	0.16		c0.18	0.20		0.02	0.16	0.18	c0.06	0.06	
v/s Ratio Perm	0.05			c0.25			0.07		0.15	c0.16		
v/c Ratio	0.17	0.53		0.75	0.40		0.33	0.73	0.74	0.74	0.28	
Uniform Delay, d1	24.6	32.0		15.5	17.2		31.0	40.1	24.9	30.9	35.0	
Progression Factor	1.00	1.00		1.36	0.80		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.1	1.9		4.4	0.7		0.2	5.5	3.4	10.4	0.1	
Delay (s)	24.7	33.9		25.5	14.5		31.2	45.6	28.3	41.3	35.1	
Level of Service	C	C		C	B		C	D	C	D	D	
Approach Delay (s)		33.2			18.7			34.1			37.4	
Approach LOS		C			B			C			D	

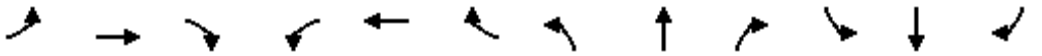
Intersection Summary			
HCM 2000 Control Delay	28.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	17.5
Intersection Capacity Utilization	74.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	954	199	333	961	0	0	0	0	138	0	118
Future Volume (vph)	0	954	199	333	961	0	0	0	0	138	0	118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	12	12	12	12	12	12	13	12
Total Lost time (s)		3.5		3.5	3.5						4.0	4.0
Lane Util. Factor		0.95		1.00	0.95						1.00	1.00
Frpb, ped/bikes		1.00		1.00	1.00						1.00	1.00
Flpb, ped/bikes		1.00		1.00	1.00						1.00	1.00
Frt		0.97		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)		3457		1652	3574						1865	1553
Flt Permitted		1.00		0.08	1.00						0.95	1.00
Satd. Flow (perm)		3457		140	3574						1865	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1004	209	351	1012	0	0	0	0	145	0	124
RTOR Reduction (vph)	0	16	0	0	0	0	0	0	0	0	0	110
Lane Group Flow (vph)	0	1197	0	351	1012	0	0	0	0	0	145	14
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	0%	1%	3%	2%	1%	0%	0%	0%	0%	0%	0%	4%
Turn Type		NA		pm+pt	NA					Split	NA	Perm
Protected Phases		2		1 3	6					4	4	
Permitted Phases				6								4
Actuated Green, G (s)		41.1		88.8	88.8						11.2	11.2
Effective Green, g (s)		42.6		90.3	90.3						12.2	12.2
Actuated g/C Ratio		0.39		0.82	0.82						0.11	0.11
Clearance Time (s)		5.0			5.0						5.0	5.0
Vehicle Extension (s)		3.0			3.0						1.5	1.5
Lane Grp Cap (vph)		1338		674	2933						206	172
v/s Ratio Prot		c0.35		c0.19	0.28						c0.08	
v/s Ratio Perm				0.23								0.01
v/c Ratio		0.89		0.52	0.35						0.70	0.08
Uniform Delay, d1		31.6		20.2	2.5						47.2	43.9
Progression Factor		0.94		2.58	0.31						1.00	1.00
Incremental Delay, d2		7.6		0.2	0.2						8.6	0.1
Delay (s)		37.4		52.1	1.0						55.7	43.9
Level of Service		D		D	A						E	D
Approach Delay (s)		37.4			14.2			0.0			50.3	
Approach LOS		D			B			A			D	

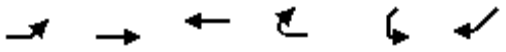
Intersection Summary			
HCM 2000 Control Delay	27.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	68.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	277	815	0	0	855	199	353	104	665	0	0	87
Future Volume (vph)	277	815	0	0	855	199	353	104	665	0	0	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	12	12	12	12	11	12	11	12	12	12
Total Lost time (s)	4.0	3.5			3.5		4.0	4.0	4.0			4.0
Lane Util. Factor	1.00	0.95			0.95		1.00	1.00	1.00			1.00
Frt	1.00	1.00			0.97		1.00	1.00	0.85			0.86
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00			1.00
Satd. Flow (prot)	1668	3574			3467		1711	1792	1546			1611
Flt Permitted	0.10	1.00			1.00		0.95	1.00	1.00			1.00
Satd. Flow (perm)	171	3574			3467		1711	1792	1546			1611
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	292	858	0	0	900	209	372	109	700	0	0	92
RTOR Reduction (vph)	0	0	0	0	18	0	0	0	74	0	0	0
Lane Group Flow (vph)	292	858	0	0	1091	0	372	109	626	0	0	92
Heavy Vehicles (%)	1%	1%	0%	0%	1%	2%	2%	6%	1%	0%	0%	2%
Turn Type	pm+pt	NA			NA		Split	NA	Perm			Over
Protected Phases	5	2			6		8	8				5
Permitted Phases	2								8			
Actuated Green, G (s)	56.0	55.5			35.5		43.0	43.0	43.0			15.0
Effective Green, g (s)	57.0	57.5			37.5		45.0	45.0	45.0			16.0
Actuated g/C Ratio	0.52	0.52			0.34		0.41	0.41	0.41			0.15
Clearance Time (s)	5.0	5.5			5.5		6.0	6.0	6.0			5.0
Vehicle Extension (s)	3.0	3.0			3.0		2.0	2.0	2.0			3.0
Lane Grp Cap (vph)	306	1868			1181		699	733	632			234
v/s Ratio Prot	c0.14	0.24			0.31		0.22	0.06				0.06
v/s Ratio Perm	c0.35								c0.41			
v/c Ratio	0.95	0.46			0.92		0.53	0.15	0.99			0.39
Uniform Delay, d1	40.8	16.5			34.9		24.5	20.4	32.3			42.6
Progression Factor	0.64	0.42			1.00		1.00	1.00	1.00			1.00
Incremental Delay, d2	25.1	0.4			13.3		0.4	0.0	33.3			1.1
Delay (s)	51.1	7.3			48.1		24.9	20.5	65.6			43.7
Level of Service	D	A			D		C	C	E			D
Approach Delay (s)		18.5			48.1			48.6			43.7	
Approach LOS		B			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	38.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.5
Intersection Capacity Utilization	74.9%	ICU Level of Service	D
Analysis Period (min)	15		

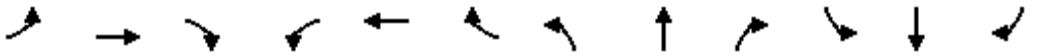
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	532	948	869	0	0	322
Future Volume (Veh/h)	532	948	869	0	0	322
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	560	998	915	0	0	339
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)		1075	348			
pX, platoon unblocked	0.69				0.71	0.69
vC, conflicting volume	915				2534	915
vC1, stage 1 conf vol					915	
vC2, stage 2 conf vol					1619	
vCu, unblocked vol	654				2711	654
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	14				100	0
cM capacity (veh/h)	652				21	286

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	SW 1
Volume Total	560	499	499	915	339
Volume Left	560	0	0	0	0
Volume Right	0	0	0	0	339
cSH	652	1700	1700	1700	286
Volume to Capacity	0.86	0.29	0.29	0.54	1.18
Queue Length 95th (ft)	246	0	0	0	376
Control Delay (s)	34.9	0.0	0.0	0.0	150.7
Lane LOS	D				F
Approach Delay (s)	12.5			0.0	150.7
Approach LOS					F

Intersection Summary			
Average Delay	25.1		
Intersection Capacity Utilization	81.9%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	6	80	0	0	78	52	63	139	224	64	0	2
Future Volume (vph)	6	80	0	0	78	52	63	139	224	64	0	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	6	84	0	0	82	55	66	146	236	67	0	2

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	90	137	212	236	67	2
Volume Left (vph)	6	0	66	0	67	0
Volume Right (vph)	0	55	0	236	0	2
Hadj (s)	0.01	-0.24	0.06	-0.60	0.20	-0.60
Departure Headway (s)	4.8	4.5	4.6	3.2	4.9	3.2
Degree Utilization, x	0.12	0.17	0.27	0.21	0.09	0.00
Capacity (veh/h)	704	751	747	1122	687	1121
Control Delay (s)	8.4	8.4	9.3	7.0	8.4	6.2
Approach Delay (s)	8.4	8.4	8.1		8.3	
Approach LOS	A	A	A		A	

Intersection Summary				
Delay	8.2			
Level of Service	A			
Intersection Capacity Utilization	33.5%	ICU Level of Service	A	
Analysis Period (min)	15			

Intersection: 2: Soule Road/481 South off-ramp & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	L	R	L	T	R
Maximum Queue (ft)	240	204	292	165	180	172	187	120	108	229	97	88
Average Queue (ft)	123	68	116	80	83	70	83	50	42	95	32	33
95th Queue (ft)	199	148	213	138	142	136	145	96	76	169	69	60
Link Distance (ft)	572	572	572			620	620		544		503	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)				340	340			260		300		150
Storage Blk Time (%)											0	
Queuing Penalty (veh)											0	

Intersection: 3: 481 North off-ramp/481 North on-ramp & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	T	R	L	LT	R
Maximum Queue (ft)	118	135	147	175	109	88	187	227	92
Average Queue (ft)	45	39	51	62	27	18	75	127	26
95th Queue (ft)	87	96	110	131	69	49	158	196	62
Link Distance (ft)		620	620	356	356			1069	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	150					330	350		220
Storage Blk Time (%)	0	0						0	
Queuing Penalty (veh)	0	0						0	

Intersection: 4: Marketfair Plaza & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	15	24	3	35	59	55	49	27
Average Queue (ft)	0	1	0	3	4	3	8	2
95th Queue (ft)	5	9	2	19	25	23	28	12
Link Distance (ft)	356	356			625	625	288	288
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			250	150				
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 5: Water Board/Great Northern Mall West & Rt 31 Seg 1

Movement	EB	EB	EB	EB	WB	WB	WB	SB	SB	SB
Directions Served	L	L	T	TR	T	T	R	LT	R	R
Maximum Queue (ft)	30	47	38	31	91	93	18	44	59	23
Average Queue (ft)	3	13	1	1	20	17	1	9	14	3
95th Queue (ft)	15	35	11	10	56	53	6	30	39	14
Link Distance (ft)			625	625	797	797		345	345	345
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	330	330					150			
Storage Blk Time (%)					0					
Queuing Penalty (veh)					0					

Intersection: 6: Laz-Boy/Great Northern East & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	LT	R
Maximum Queue (ft)	32	126	127	51	140	134	114	80	37	44
Average Queue (ft)	4	37	39	11	31	35	44	28	2	13
95th Queue (ft)	19	93	93	34	89	91	88	56	15	39
Link Distance (ft)		797	797		1437	1437	393	393	414	414
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	300			210						
Storage Blk Time (%)					0					
Queuing Penalty (veh)					0					

Intersection: 7: Morgan Road & Rt 31 Seg 1

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	T	R	L	TR
Maximum Queue (ft)	104	263	222	123	108	153	154	199	127	56	271	483
Average Queue (ft)	30	120	66	44	40	68	65	75	35	17	42	206
95th Queue (ft)	68	197	149	85	80	122	119	140	80	41	144	377
Link Distance (ft)		1437	1437			589	589		1049			1291
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	275			275	300			550		250	400	
Storage Blk Time (%)		0	0									2
Queuing Penalty (veh)		0	0									2

Intersection: 8: Henry Clay Boulevard & Rt 31 Seg 2

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	40	340	134	201	226	167
Average Queue (ft)	5	137	49	75	102	66
95th Queue (ft)	22	256	93	157	175	127
Link Distance (ft)		1654		4993	1071	1000
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	425		475			
Storage Blk Time (%)		0				
Queuing Penalty (veh)		0				

Intersection: 9: Caughdenoy Road & Rt 31 Seg 3

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	168	176	92	81
Average Queue (ft)	64	60	35	31
95th Queue (ft)	131	124	66	59
Link Distance (ft)	3900	1654	3895	1060
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 10: Lawton Rd/Legionaire Dr & Rt 31 Seg 5

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	30	249	59	128	67	89	103	50
Average Queue (ft)	2	92	18	39	20	39	33	11
95th Queue (ft)	15	175	45	89	51	67	69	36
Link Distance (ft)		1701		2976		575	583	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	250		250		130			175
Storage Blk Time (%)		0				0		
Queuing Penalty (veh)		0				0		

Intersection: 11: Route 11 & Rt 31 Seg 6

Movement	EB	EB	EB	B23	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	T	L	T	TR	L	T	R	L	T
Maximum Queue (ft)	57	351	316	10	183	90	145	50	75	241	159	100
Average Queue (ft)	14	100	149	0	80	6	42	9	22	111	61	30
95th Queue (ft)	39	233	272	6	149	35	102	32	53	191	118	68
Link Distance (ft)		336		2976	120	120	120		506	506		572
Upstream Blk Time (%)		0	0		4	0	0					
Queuing Penalty (veh)		1	0		8	0	1					
Storage Bay Dist (ft)	225		300					190			325	
Storage Blk Time (%)		1	0									
Queuing Penalty (veh)		3	1									

Intersection: 11: Route 11 & Rt 31 Seg 6

Movement	SB
Directions Served	TR
Maximum Queue (ft)	88
Average Queue (ft)	25
95th Queue (ft)	60
Link Distance (ft)	572
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: I-81 SB On-Ramp/I-81 SB Off-Ramp & Rt 31 Seg 6

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	T	TR	L	T	T	LT	R
Maximum Queue (ft)	156	155	180	302	285	320	213
Average Queue (ft)	153	155	179	281	58	116	54
95th Queue (ft)	170	157	182	332	152	241	134
Link Distance (ft)	82	82		278	278	1127	
Upstream Blk Time (%)	52	71		16	0		
Queuing Penalty (veh)	250	341		107	0		
Storage Bay Dist (ft)			130				200
Storage Blk Time (%)			49	0		5	0
Queuing Penalty (veh)			138	0		7	0

Intersection: 13: I-81 NB Off-Ramp/Pardee Road & Rt 31 Seg 6

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	T	TR	L	T	R	R
Maximum Queue (ft)	79	100	76	523	458	202	290	149	844
Average Queue (ft)	17	25	18	472	152	87	41	83	738
95th Queue (ft)	49	65	52	616	360	155	140	137	988
Link Distance (ft)		278	278	450	450		1088		786
Upstream Blk Time (%)				33	0				69
Queuing Penalty (veh)				183	1				0
Storage Bay Dist (ft)	100					450		100	
Storage Blk Time (%)	0	0					1	4	
Queuing Penalty (veh)	0	0					6	6	

Intersection: 14: Rt 31 Seg 6/Route 31 & LakeShore Rd.

Movement	EB	WB	SW
Directions Served	L	T	R
Maximum Queue (ft)	147	63	353
Average Queue (ft)	50	4	291
95th Queue (ft)	98	39	439
Link Distance (ft)		249	270
Upstream Blk Time (%)		0	55
Queuing Penalty (veh)		0	339
Storage Bay Dist (ft)	250		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 28: 481 NB Off-Ramp & Maple Road & Caughdenoy Road

Movement	EB	NB	SB
Directions Served	LT	LT	L
Maximum Queue (ft)	3	47	85
Average Queue (ft)	0	20	39
95th Queue (ft)	2	40	64
Link Distance (ft)	1618	1157	2601
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			2
Queuing Penalty (veh)			0

Zone Summary

Zone wide Queuing Penalty: 1396

Intersection: 2: Soule Road/481 South off-ramp & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	L	R	L	T	R
Maximum Queue (ft)	507	469	365	304	326	260	250	272	217	193	164	178
Average Queue (ft)	290	232	164	135	140	127	135	134	55	90	56	76
95th Queue (ft)	423	374	281	232	238	207	215	221	127	155	115	134
Link Distance (ft)	572	572	572			620	620		544		503	
Upstream Blk Time (%)	0	0	0						0			
Queuing Penalty (veh)	0	0	0						0			
Storage Bay Dist (ft)				340	340			260		300		150
Storage Blk Time (%)				0	0	0		1			0	1
Queuing Penalty (veh)				0	0	0		1			0	2

Intersection: 3: 481 North off-ramp/481 North on-ramp & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	T	R	L	LT	R
Maximum Queue (ft)	197	348	306	372	335	124	400	877	270
Average Queue (ft)	107	109	112	246	171	39	304	385	221
95th Queue (ft)	177	222	210	373	290	80	430	622	355
Link Distance (ft)		620	620	356	356			1069	
Upstream Blk Time (%)				2	0			0	
Queuing Penalty (veh)				10	0			0	
Storage Bay Dist (ft)	150					330	350		220
Storage Blk Time (%)	3	1			0		0	30	0
Queuing Penalty (veh)	17	2			0		4	241	1

Intersection: 4: Marketfair Plaza & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	194	179	60	89	197	154	178	55
Average Queue (ft)	74	68	10	27	52	43	76	20
95th Queue (ft)	143	131	36	62	125	104	134	43
Link Distance (ft)	356	356			625	625	288	288
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			250	150				
Storage Blk Time (%)		0			0			
Queuing Penalty (veh)		0			0			

Intersection: 5: Water Board/Great Northern Mall West & Rt 31 Seg 1

Movement	EB	EB	EB	EB	WB	WB	WB	NB	SB	SB	SB
Directions Served	L	L	T	TR	T	T	R	LTR	LT	R	R
Maximum Queue (ft)	142	151	77	60	226	228	47	20	91	199	162
Average Queue (ft)	65	79	8	5	87	84	6	1	31	100	41
95th Queue (ft)	115	127	38	26	173	171	23	7	69	168	107
Link Distance (ft)			625	625	797	797		316	345	345	345
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	330	330					150				
Storage Blk Time (%)					2	1					
Queuing Penalty (veh)					0	1					

Intersection: 6: Laz-Boy/Great Northern East & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	LT	R
Maximum Queue (ft)	57	130	117	42	177	194	104	64	88	75
Average Queue (ft)	17	31	25	8	49	54	35	20	29	32
95th Queue (ft)	41	81	70	28	121	134	74	49	67	59
Link Distance (ft)		797	797		1437	1437	393	393	414	414
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	300			210						
Storage Blk Time (%)					0					
Queuing Penalty (veh)					0					

Intersection: 7: Morgan Road & Rt 31 Seg 1

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	T	R	L	TR
Maximum Queue (ft)	272	267	241	147	142	249	273	269	190	54	80	256
Average Queue (ft)	119	138	81	51	51	127	147	134	85	20	24	112
95th Queue (ft)	202	219	176	98	100	210	234	220	150	42	59	195
Link Distance (ft)		1437	1437			589	589		1049			1291
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	275			275	300			550		250	400	
Storage Blk Time (%)	0	0	0			0						
Queuing Penalty (veh)	0	0	0			0						

Intersection: 8: Henry Clay Boulevard & Rt 31 Seg 2

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	144	482	153	399	527	90
Average Queue (ft)	16	218	42	147	246	25
95th Queue (ft)	68	393	95	281	418	58
Link Distance (ft)		1654		4993	1071	1000
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	425		475			
Storage Blk Time (%)		1		0		
Queuing Penalty (veh)		0		0		

Intersection: 9: Caughdenoy Road & Rt 31 Seg 3

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	264	237	111	63
Average Queue (ft)	96	86	42	22
95th Queue (ft)	194	174	79	49
Link Distance (ft)	3900	1654	3895	1060
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 10: Lawton Rd/Legionaire Dr & Rt 31 Seg 5

Movement	EB	EB	WB	WB	B23	NB	NB	SB	SB
Directions Served	L	TR	L	TR	T	L	TR	L	TR
Maximum Queue (ft)	35	299	135	215	184	74	88	134	99
Average Queue (ft)	5	110	50	79	4	24	32	52	31
95th Queue (ft)	22	215	92	158	70	56	62	96	67
Link Distance (ft)		1701		2976	336		575	583	
Upstream Blk Time (%)					0				
Queuing Penalty (veh)					0				
Storage Bay Dist (ft)	250		250			130			175
Storage Blk Time (%)		0	0	0			0	0	
Queuing Penalty (veh)		0	0	0			0	0	

Intersection: 11: Route 11 & Rt 31 Seg 6

Movement	EB	EB	EB	B23	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	T	L	T	TR	L	T	R	L	T
Maximum Queue (ft)	223	409	334	124	192	193	185	239	384	392	280	149
Average Queue (ft)	30	183	200	6	152	124	76	68	177	192	118	65
95th Queue (ft)	99	343	316	59	226	207	154	161	292	316	224	114
Link Distance (ft)		336		2976	120	120	120		506	506		572
Upstream Blk Time (%)		2	0		19	9	2					
Queuing Penalty (veh)		11	0		67	32	8					
Storage Bay Dist (ft)	225		300					190			325	
Storage Blk Time (%)	0	5	2						7		0	
Queuing Penalty (veh)	0	16	4						7		0	

Intersection: 11: Route 11 & Rt 31 Seg 6

Movement	SB
Directions Served	TR
Maximum Queue (ft)	168
Average Queue (ft)	75
95th Queue (ft)	133
Link Distance (ft)	572
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: I-81 SB On-Ramp/I-81 SB Off-Ramp & Rt 31 Seg 6

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	T	TR	L	T	T	LT	R
Maximum Queue (ft)	156	155	180	295	270	232	124
Average Queue (ft)	155	153	157	145	25	100	45
95th Queue (ft)	156	161	208	335	124	180	90
Link Distance (ft)	82	82		278	278	1127	
Upstream Blk Time (%)	59	47		1	0		
Queuing Penalty (veh)	339	274		10	0		
Storage Bay Dist (ft)			130				200
Storage Blk Time (%)			16	0		1	0
Queuing Penalty (veh)			77	1		1	0

Intersection: 13: I-81 NB Off-Ramp/Pardee Road & Rt 31 Seg 6

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	T	TR	L	T	R	R
Maximum Queue (ft)	150	307	307	523	518	500	1051	150	160
Average Queue (ft)	140	215	90	462	368	251	398	146	66
95th Queue (ft)	170	362	253	612	579	493	854	169	123
Link Distance (ft)		278	278	450	450		1088		786
Upstream Blk Time (%)		5	0	43	12		4		
Queuing Penalty (veh)		27	3	224	65		0		
Storage Bay Dist (ft)	100					450		100	
Storage Blk Time (%)	24	3				0	1	50	
Queuing Penalty (veh)	97	9				0	12	230	

Intersection: 14: Rt 31 Seg 6/Route 31 & LakeShore Rd.

Movement	EB	EB	EB	WB	SW
Directions Served	L	T	T	T	R
Maximum Queue (ft)	300	557	482	135	254
Average Queue (ft)	223	173	47	24	108
95th Queue (ft)	350	575	275	121	243
Link Distance (ft)		503	503	249	270
Upstream Blk Time (%)		16	0	0	6
Queuing Penalty (veh)		121	1	3	21
Storage Bay Dist (ft)	250				
Storage Blk Time (%)	31	0			
Queuing Penalty (veh)	149	0			

Intersection: 28: 481 NB Off-Ramp & Maple Road & Caughdenoy Road

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LT	TR	LT	R	L	R
Maximum Queue (ft)	54	58	73	168	76	4
Average Queue (ft)	31	32	39	18	29	0
95th Queue (ft)	49	50	62	93	57	3
Link Distance (ft)	1618	1396	1157		2601	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)				250		50
Storage Blk Time (%)				0	1	0
Queuing Penalty (veh)				0	0	0

Zone Summary

Zone wide Queuing Penalty: 2091

Arterial Level of Service: EB Rt 31 Seg 1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Soule Road	2	22.7	32.8	0.1	13
481 North off-ramp	3	8.5	20.4	0.1	23
Marketfair Plaza	4	1.3	8.3	0.1	36
Water Board	5	0.7	12.4	0.1	39
Laz-Boy	6	4.3	19.3	0.2	31
Morgan Road	7	25.0	50.0	0.3	21
	24	5.6	17.1	0.1	27
Total		68.0	160.4	1.0	24

Arterial Level of Service: WB Rt 31 Seg 1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Morgan Road	7	18.7	29.4	0.1	16
Great Northern East	6	6.3	31.4	0.3	33
Great Northern Mall	5	2.4	17.6	0.2	35
Marketfair Plaza	4	1.1	12.9	0.1	38
481 North on-ramp	3	6.2	13.2	0.1	22
481 South off-ramp	2	14.3	26.0	0.1	18
Total		49.0	130.5	0.9	26

Arterial Level of Service: EB Rt 31 Seg 2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	59	2.6	30.0	0.4	50
Henry Clay Boulevard	8	22.3	43.6	0.3	27
Driveway	45	8.7	71.2	1.0	48
Total		33.5	144.8	1.7	42

Arterial Level of Service: WB Rt 31 Seg 2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Henry Clay Boulevard	8	15.8	79.1	1.0	44
Driveway	59	6.2	27.6	0.3	42
	24	3.1	30.4	0.4	49
Total		25.1	137.1	1.7	45

Arterial Level of Service: EB Rt 31 Seg 3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Caughdenoy Road	9	10.4	77.7	0.8	35
	21	3.6	32.9	0.3	36
Total		14.0	110.6	1.1	35

Arterial Level of Service: WB Rt 31 Seg 3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Caughdenoy Road	9	7.3	36.5	0.3	32
Driveway	45	7.2	74.6	0.8	36
Total		14.5	111.1	1.1	35

Arterial Level of Service: EB Rt 31 Seg 5

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Lawton Rd	10	9.6	35.4	0.3	34
	23	7.5	66.8	0.6	31
Total		17.1	102.3	0.9	32

Arterial Level of Service: WB Rt 31 Seg 5

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Legionaire Dr	10	5.9	51.5	0.6	40
	15	2.7	29.6	0.3	41
Total		8.6	81.1	0.9	40

Arterial Level of Service: EB Rt 31 Seg 6

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Route 11	11	16.5	24.3	0.1	12
Driveway	70	6.2	10.4	0.0	14
Driveway	36	30.3	37.4	0.1	7
I-81 SB On-Ramp	12	31.0	49.2	0.0	3
I-81 NB Off-Ramp	13	5.0	12.0	0.1	20
Driveway	27	0.9	10.6	0.1	34
LakeShore Rd.	14	0.4	11.3	0.1	33
Total		90.4	155.2	0.5	13

Arterial Level of Service: WB Rt 31 Seg 6

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	27	11.4	22.7	0.1	16
Pardee Road	13	49.7	96.9	0.1	6
I-81 SB Off-Ramp	12	4.5	11.4	0.1	21
Driveway	36	0.8	3.6	0.0	30
Driveway	70	1.3	8.4	0.1	29
Route 11	11	3.7	7.2	0.0	20
	23	1.3	9.9	0.1	29
Total		72.7	160.1	0.5	14

Arterial Level of Service: SE Rt 31 Seg 4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	20	4.7	54.2	0.7	49
	15	4.2	38.2	0.5	49
Total		8.9	92.4	1.3	49

Arterial Level of Service: WB Rt 31 Seg 4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	20	2.2	35.8	0.5	52
	21	4.4	52.7	0.7	50
Total		6.6	88.4	1.3	51

Arterial Level of Service: EB Rt 31 Seg 1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Soule Road	2	39.1	49.4	0.1	9
481 North off-ramp	3	14.5	26.4	0.1	18
Marketfair Plaza	4	5.6	12.8	0.1	23
Water Board	5	2.0	13.7	0.1	36
Laz-Boy	6	2.9	18.0	0.2	34
Morgan Road	7	24.2	48.3	0.3	21
	24	6.2	17.8	0.1	26
Total		94.6	186.4	1.0	20

Arterial Level of Service: WB Rt 31 Seg 1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Morgan Road	7	30.9	41.9	0.1	11
Great Northern East	6	8.1	32.4	0.3	32
Great Northern Mall	5	8.6	23.8	0.2	26
Marketfair Plaza	4	5.2	16.9	0.1	29
481 North on-ramp	3	27.9	35.3	0.1	8
481 South off-ramp	2	18.5	29.9	0.1	16
Total		99.2	180.1	0.9	19

Arterial Level of Service: EB Rt 31 Seg 2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	59	2.2	30.4	0.4	49
Henry Clay Boulevard	8	32.0	53.2	0.3	22
Driveway	45	11.9	74.4	1.0	46
Total		46.1	158.0	1.7	39

Arterial Level of Service: WB Rt 31 Seg 2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Henry Clay Boulevard	8	25.4	88.8	1.0	39
Driveway	59	6.3	27.5	0.3	42
	24	3.6	30.9	0.4	48
Total		35.3	147.2	1.7	42

Arterial Level of Service: EB Rt 31 Seg 3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Caughdenoy Road	9	13.4	80.9	0.8	33
	21	3.9	33.3	0.3	35
Total		17.4	114.3	1.1	34

Arterial Level of Service: WB Rt 31 Seg 3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Caughdenoy Road	9	9.0	38.2	0.3	31
Driveway	45	8.0	75.4	0.8	36
Total		16.9	113.6	1.1	34

Arterial Level of Service: EB Rt 31 Seg 5

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Lawton Rd	10	12.9	38.9	0.3	31
	23	8.0	67.1	0.6	31
Total		21.0	105.9	0.9	31

Arterial Level of Service: WB Rt 31 Seg 5

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Legionaire Dr	10	10.1	55.4	0.6	37
	15	3.9	30.8	0.3	39
Total		14.0	86.2	0.9	38

Arterial Level of Service: EB Rt 31 Seg 6

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Route 11	11	48.8	56.6	0.1	5
Driveway	70	4.3	8.5	0.0	16
Driveway	36	23.5	30.6	0.1	8
I-81 SB On-Ramp	12	28.7	32.2	0.0	3
I-81 NB Off-Ramp	13	8.6	15.5	0.1	15
Driveway	27	5.6	16.8	0.1	23
LakeShore Rd.	14	1.0	11.9	0.1	31
Total		120.5	172.1	0.5	10

Arterial Level of Service: WB Rt 31 Seg 6

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	27	19.1	30.6	0.1	12
Pardee Road	13	87.9	106.3	0.1	4
I-81 SB Off-Ramp	12	6.2	13.3	0.1	18
Driveway	36	0.6	3.5	0.0	30
Driveway	70	2.6	9.8	0.1	25
Route 11	11	14.3	18.0	0.0	8
	23	4.6	13.1	0.1	22
Total		135.3	194.5	0.5	9

Arterial Level of Service: SE Rt 31 Seg 4

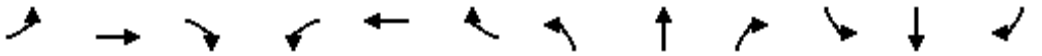
Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	20	5.5	55.0	0.7	48
	15	4.0	38.1	0.5	49
Total		9.6	93.0	1.3	49

Arterial Level of Service: WB Rt 31 Seg 4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	20	3.8	37.3	0.5	50
	21	5.4	53.8	0.7	49
Total		9.2	91.1	1.3	50

APPENDIX E

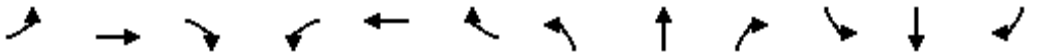
YEAR 2024 BACKGROUND DEVELOPMENT CONDITION CAPACITY ANALYSIS OUTPUT



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	488	654	288	620	0	96	0	152	245	40	84
Future Volume (vph)	0	488	654	288	620	0	96	0	152	245	40	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	6.0	5.0	5.0		6.0		5.0	6.0	5.0	5.0
Lane Util. Factor		0.95	1.00	0.97	0.95		1.00		1.00	1.00	1.00	1.00
Frpb, ped/bikes		1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00		1.00		0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00		0.95		1.00	0.95	1.00	1.00
Satd. Flow (prot)		3438	1568	3433	3374		1752		1553	1770	1863	1568
Flt Permitted		1.00	1.00	0.95	1.00		0.00		1.00	0.95	1.00	1.00
Satd. Flow (perm)		3438	1568	3433	3374		0		1553	1770	1863	1568
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	514	688	303	653	0	101	0	160	258	42	88
RTOR Reduction (vph)	0	0	167	0	0	0	0	0	127	0	0	80
Lane Group Flow (vph)	0	514	521	303	653	0	101	0	33	258	42	8
Confl. Peds. (#/hr)	1					1						
Heavy Vehicles (%)	2%	5%	3%	2%	7%	2%	3%	2%	4%	2%	2%	3%
Turn Type		NA	pm+ov	Prot	NA		pm+pt		pm+ov	pm+pt	NA	Perm
Protected Phases		6	7	5	2		7		5	3	8	
Permitted Phases			6				4 7		4 5	8		8
Actuated Green, G (s)		25.1	40.8	8.8	39.9		15.7		8.8	28.1	6.4	6.4
Effective Green, g (s)		26.1	40.8	9.8	40.9		15.7		9.8	28.1	7.4	7.4
Actuated g/C Ratio		0.33	0.51	0.12	0.51		0.20		0.12	0.35	0.09	0.09
Clearance Time (s)		6.0	6.0	6.0	6.0		6.0		6.0	6.0	6.0	6.0
Vehicle Extension (s)		4.8	3.0	2.0	4.8		3.0		2.0	2.0	2.0	2.0
Lane Grp Cap (vph)		1121	917	420	1724		343		190	621	172	145
v/s Ratio Prot		0.15	c0.11	c0.09	0.19		0.06		0.02	c0.15	0.02	
v/s Ratio Perm			0.22									0.01
v/c Ratio		0.46	0.57	0.72	0.38		0.29		0.17	0.42	0.24	0.06
Uniform Delay, d1		21.4	13.5	33.8	11.8		27.4		31.5	19.7	33.7	33.1
Progression Factor		1.00	1.00	0.69	0.61		1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2		1.4	0.8	4.9	0.6		0.5		0.2	0.2	0.3	0.1
Delay (s)		22.7	14.3	28.3	7.9		27.9		31.6	19.9	34.0	33.2
Level of Service		C	B	C	A		C		C	B	C	C
Approach Delay (s)		17.9			14.3			30.2			24.4	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	18.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	68.7%	ICU Level of Service	C
Analysis Period (min)	15		

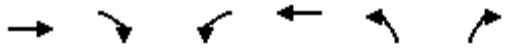
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	131	746	0	0	610	169	301	0	43	0	0	0
Future Volume (vph)	131	746	0	0	610	169	301	0	43	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.0			5.0	5.0	4.5	4.5	4.5			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.95	0.95	1.00			
Frpb, ped/bikes	1.00	1.00			1.00	0.98	1.00	1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	1719	3471			3438	1492	1603	1603	1455			
Flt Permitted	0.34	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	621	3471			3438	1492	1603	1603	1455			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	138	785	0	0	642	178	317	0	45	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	74	0	0	38	0	0	0
Lane Group Flow (vph)	138	785	0	0	642	104	158	159	7	0	0	0
Confl. Peds. (#/hr)	1					1						
Heavy Vehicles (%)	5%	4%	2%	1%	5%	6%	7%	0%	11%	0%	0%	0%
Turn Type	pm+pt	NA			NA	Perm	Split	NA	Perm			
Protected Phases	1	6			2		4	4				
Permitted Phases	6					2			4			
Actuated Green, G (s)	57.1	57.1			45.9	45.9	11.4	11.4	11.4			
Effective Green, g (s)	57.1	58.1			46.9	46.9	12.4	12.4	12.4			
Actuated g/C Ratio	0.71	0.73			0.59	0.59	0.16	0.16	0.16			
Clearance Time (s)	5.5	6.0			6.0	6.0	5.5	5.5	5.5			
Vehicle Extension (s)	1.0	5.0			5.0	5.0	1.0	1.0	1.0			
Lane Grp Cap (vph)	521	2520			2015	874	248	248	225			
v/s Ratio Prot	0.02	c0.23			0.19		0.10	c0.10				
v/s Ratio Perm	0.17					0.07			0.00			
v/c Ratio	0.26	0.31			0.32	0.12	0.64	0.64	0.03			
Uniform Delay, d1	4.1	3.9			8.4	7.4	31.7	31.7	28.7			
Progression Factor	0.64	0.56			0.71	0.29	1.00	1.00	1.00			
Incremental Delay, d2	0.1	0.3			0.4	0.3	3.9	4.2	0.0			
Delay (s)	2.7	2.5			6.4	2.4	35.6	35.9	28.7			
Level of Service	A	A			A	A	D	D	C			
Approach Delay (s)		2.5			5.5			34.9			0.0	
Approach LOS		A			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	9.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	45.0%	ICU Level of Service	A
Analysis Period (min)	15		

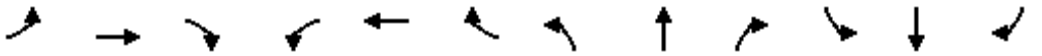
c Critical Lane Group



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	746	31	7	770	9	2
Future Volume (vph)	746	31	7	770	9	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3610	1615	1805	3610	1805	1615
Flt Permitted	1.00	1.00	0.35	1.00	0.95	1.00
Satd. Flow (perm)	3610	1615	666	3610	1805	1615
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	785	33	7	811	9	2
RTOR Reduction (vph)	0	8	0	0	0	2
Lane Group Flow (vph)	785	25	7	811	9	0
Turn Type	NA	pm+ov	pm+pt	NA	Prot	pm+ov
Protected Phases	6	4	3	2	4	3
Permitted Phases		6	2			4
Actuated Green, G (s)	59.1	61.8	66.3	66.3	2.7	4.4
Effective Green, g (s)	59.1	61.8	66.3	66.3	2.7	4.4
Actuated g/C Ratio	0.74	0.77	0.83	0.83	0.03	0.06
Clearance Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Vehicle Extension (s)	3.0	1.0	1.0	3.0	1.0	1.0
Lane Grp Cap (vph)	2666	1358	576	2991	60	199
v/s Ratio Prot	c0.22	0.00	0.00	c0.22	c0.00	0.00
v/s Ratio Perm		0.02	0.01			0.00
v/c Ratio	0.29	0.02	0.01	0.27	0.15	0.00
Uniform Delay, d1	3.5	2.1	1.3	1.5	37.5	35.7
Progression Factor	0.13	0.01	0.63	0.51	1.00	1.00
Incremental Delay, d2	0.3	0.0	0.0	0.2	0.4	0.0
Delay (s)	0.7	0.0	0.8	1.0	38.0	35.7
Level of Service	A	A	A	A	D	D
Approach Delay (s)	0.7			1.0	37.6	
Approach LOS	A			A	D	

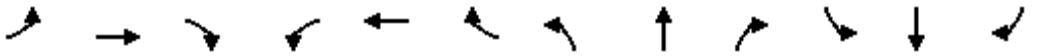
Intersection Summary			
HCM 2000 Control Delay	1.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	16.5
Intersection Capacity Utilization	33.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



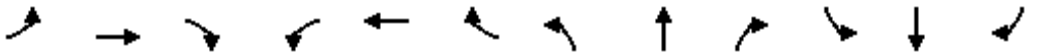
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	704	2	0	755	9	0	0	0	10	0	22
Future Volume (vph)	42	704	2	0	755	9	0	0	0	10	0	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.5			5.5	4.5					4.5	5.0
Lane Util. Factor	0.97	0.95			0.95	1.00					1.00	0.88
Frt	1.00	1.00			1.00	0.85					1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00					0.95	1.00
Satd. Flow (prot)	3433	3405			3406	1583					1770	2787
Flt Permitted	0.95	1.00			1.00	1.00					0.95	1.00
Satd. Flow (perm)	3433	3405			3406	1583					1770	2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	44	741	2	0	795	9	0	0	0	11	0	23
RTOR Reduction (vph)	0	0	0	0	0	2	0	0	0	0	0	0
Lane Group Flow (vph)	44	743	0	0	795	7	0	0	0	0	11	23
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	0%	0%	0%	2%	2%	2%
Turn Type	Prot	NA		Perm	NA	pm+ov				Split	NA	pm+ov
Protected Phases	1	6			2	3	4	4		3	3	1
Permitted Phases				2		2						3
Actuated Green, G (s)	3.6	65.7			56.1	58.4					2.3	5.9
Effective Green, g (s)	4.6	66.7			57.1	60.4					3.3	7.9
Actuated g/C Ratio	0.06	0.83			0.71	0.75					0.04	0.10
Clearance Time (s)	6.0	6.5			6.5	5.5					5.5	6.0
Vehicle Extension (s)	2.0	5.0			5.0	2.0					2.0	2.0
Lane Grp Cap (vph)	197	2838			2431	1195					73	275
v/s Ratio Prot	0.01	c0.22			c0.23	0.00					c0.01	0.00
v/s Ratio Perm						0.00						0.00
v/c Ratio	0.22	0.26			0.33	0.01					0.15	0.08
Uniform Delay, d1	36.0	1.4			4.3	2.4					37.0	32.8
Progression Factor	1.27	0.21			0.26	1.00					1.00	1.00
Incremental Delay, d2	0.2	0.2			0.4	0.0					0.3	0.0
Delay (s)	46.1	0.5			1.5	2.4					37.3	32.8
Level of Service	D	A			A	A					D	C
Approach Delay (s)		3.1			1.5			0.0			34.3	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	2.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	33.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



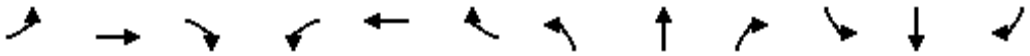
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	634	70	29	688	10	57	0	51	2	0	18
Future Volume (vph)	10	634	70	29	688	10	57	0	51	2	0	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.5		5.5	5.5		5.0	5.0			5.0	5.0
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00			1.00	1.00
Frt	1.00	0.99		1.00	1.00		1.00	0.85			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.95	1.00
Satd. Flow (prot)	1770	3367		1770	3400		1770	1583			1770	1583
Flt Permitted	0.33	1.00		0.37	1.00		0.76	1.00			0.72	1.00
Satd. Flow (perm)	614	3367		690	3400		1409	1583			1345	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	667	74	31	724	11	60	0	54	2	0	19
RTOR Reduction (vph)	0	8	0	0	1	0	0	49	0	0	0	16
Lane Group Flow (vph)	11	733	0	31	734	0	60	5	0	0	2	3
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	1	6			2			4			8	1
Permitted Phases	6			2			4			8		8
Actuated Green, G (s)	60.5	60.5		52.6	52.6		7.0	7.0			7.0	8.9
Effective Green, g (s)	61.5	61.5		53.6	53.6		8.0	8.0			8.0	10.9
Actuated g/C Ratio	0.77	0.77		0.67	0.67		0.10	0.10			0.10	0.14
Clearance Time (s)	6.0	6.5		6.5	6.5		6.0	6.0			6.0	6.0
Vehicle Extension (s)	2.0	5.0		5.0	5.0		2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	513	2588		462	2278		140	158			134	314
v/s Ratio Prot	0.00	c0.22			c0.22			0.00				0.00
v/s Ratio Perm	0.02			0.04			c0.04				0.00	0.00
v/c Ratio	0.02	0.28		0.07	0.32		0.43	0.03			0.01	0.01
Uniform Delay, d1	2.4	2.7		4.6	5.6		33.9	32.5			32.4	29.9
Progression Factor	1.30	1.24		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	0.0	0.3		0.3	0.4		0.8	0.0			0.0	0.0
Delay (s)	3.2	3.7		4.8	5.9		34.6	32.5			32.5	29.9
Level of Service	A	A		A	A		C	C			C	C
Approach Delay (s)		3.6			5.9			33.6			30.1	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	7.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	42.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	442	199	130	394	19	146	61	112	72	201	194
Future Volume (vph)	53	442	199	130	394	19	146	61	112	72	201	194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	5.5	5.5	6.5	5.5		6.5	5.5	6.0	5.5	5.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3438	1583	1687	3453		1703	1810	1583	1805	1734	
Flt Permitted	0.49	1.00	1.00	0.30	1.00		0.29	1.00	1.00	0.64	1.00	
Satd. Flow (perm)	904	3438	1583	537	3453		528	1810	1583	1221	1734	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	56	465	209	137	415	20	154	64	118	76	212	204
RTOR Reduction (vph)	0	0	136	0	3	0	0	0	75	0	32	0
Lane Group Flow (vph)	56	465	73	137	432	0	154	64	43	76	384	0
Heavy Vehicles (%)	2%	5%	2%	7%	4%	0%	6%	5%	2%	0%	1%	2%
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	1	6	3	5	2		3	8	5	7	4	
Permitted Phases	6		6	2			8		8	4		
Actuated Green, G (s)	26.3	21.1	30.2	33.5	24.7		33.8	24.7	33.5	39.6	27.6	
Effective Green, g (s)	26.3	22.1	32.2	32.5	25.7		33.8	25.7	33.5	41.6	28.6	
Actuated g/C Ratio	0.29	0.24	0.35	0.35	0.28		0.37	0.28	0.36	0.45	0.31	
Clearance Time (s)	6.0	6.5	6.5	6.0	6.5		6.5	6.5	6.0	6.5	6.5	
Vehicle Extension (s)	2.0	4.0	2.0	2.0	4.0		2.0	4.0	2.0	2.0	4.0	
Lane Grp Cap (vph)	307	824	647	293	963		309	505	575	633	538	
v/s Ratio Prot	0.01	c0.14	0.01	c0.04	0.13		c0.05	0.04	0.01	0.02	c0.22	
v/s Ratio Perm	0.04		0.03	c0.12			0.13		0.02	0.04		
v/c Ratio	0.18	0.56	0.11	0.47	0.45		0.50	0.13	0.07	0.12	0.71	
Uniform Delay, d1	24.3	30.8	20.3	21.5	27.4		21.0	24.8	19.2	14.5	28.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.1	1.1	0.0	0.4	0.5		0.5	0.2	0.0	0.0	4.8	
Delay (s)	24.4	31.8	20.3	22.0	27.8		21.5	25.0	19.2	14.5	32.9	
Level of Service	C	C	C	C	C		C	C	B	B	C	
Approach Delay (s)		28.0			26.4			21.3			30.0	
Approach LOS		C			C			C			C	

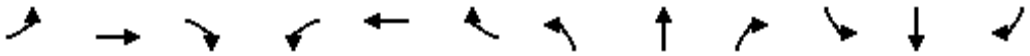
Intersection Summary			
HCM 2000 Control Delay	27.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	92.1	Sum of lost time (s)	24.0
Intersection Capacity Utilization	69.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	384	203	182	474	2	109	38	110	12	129	24
Future Volume (vph)	8	384	203	182	474	2	109	38	110	12	129	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.95		1.00	1.00			0.94			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.98			1.00	
Satd. Flow (prot)	1805	1801		1805	1899			1753			1856	
Flt Permitted	0.46	1.00		0.21	1.00			0.73			0.97	
Satd. Flow (perm)	874	1801		403	1899			1309			1805	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	8	404	214	192	499	2	115	40	116	13	136	25
RTOR Reduction (vph)	0	16	0	0	0	0	0	24	0	0	5	0
Lane Group Flow (vph)	8	602	0	192	501	0	0	247	0	0	169	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)	45.9	45.0		60.0	53.1			22.5			22.5	
Effective Green, g (s)	45.9	45.0		60.0	53.1			22.5			22.5	
Actuated g/C Ratio	0.49	0.48		0.63	0.56			0.24			0.24	
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Vehicle Extension (s)	2.0	6.0		2.0	6.0			3.0			3.0	
Lane Grp Cap (vph)	433	857		389	1067			311			429	
v/s Ratio Prot	0.00	c0.33		c0.05	0.26							
v/s Ratio Perm	0.01			0.27				c0.19			0.09	
v/c Ratio	0.02	0.70		0.49	0.47			0.79			0.39	
Uniform Delay, d1	12.6	19.5		11.7	12.3			33.8			30.3	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.0	3.9		0.4	0.9			13.0			0.6	
Delay (s)	12.6	23.3		12.0	13.2			46.8			30.9	
Level of Service	B	C		B	B			D			C	
Approach Delay (s)		23.2			12.9			46.8			30.9	
Approach LOS		C			B			D			C	

Intersection Summary			
HCM 2000 Control Delay	23.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	94.5	Sum of lost time (s)	18.0
Intersection Capacity Utilization	86.3%	ICU Level of Service	E
Analysis Period (min)	15		

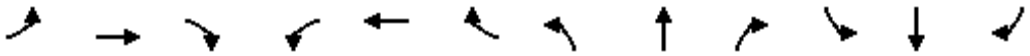
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	490	21	12	467	16	39	21	81	55	4	54
Future Volume (vph)	51	490	21	12	467	16	39	21	81	55	4	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			1.00			0.92			0.94	
Flt Protected		1.00			1.00			0.99			0.98	
Satd. Flow (prot)		1882			1889			1729			1735	
Flt Permitted		0.92			0.98			0.89			0.85	
Satd. Flow (perm)		1747			1861			1554			1509	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	54	516	22	13	492	17	41	22	85	58	4	57
RTOR Reduction (vph)	0	2	0	0	2	0	0	71	0	0	48	0
Lane Group Flow (vph)	0	590	0	0	520	0	0	77	0	0	71	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		25.4			25.4			6.8			6.8	
Effective Green, g (s)		25.4			25.4			6.8			6.8	
Actuated g/C Ratio		0.59			0.59			0.16			0.16	
Clearance Time (s)		5.5			5.5			5.0			5.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		1039			1107			247			240	
v/s Ratio Prot												
v/s Ratio Perm		c0.34			0.28			c0.05			0.05	
v/c Ratio		0.57			0.47			0.31			0.30	
Uniform Delay, d1		5.3			4.9			15.9			15.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.2			0.7			0.7			0.7	
Delay (s)		6.5			5.5			16.6			16.5	
Level of Service		A			A			B			B	
Approach Delay (s)		6.5			5.5			16.6			16.5	
Approach LOS		A			A			B			B	

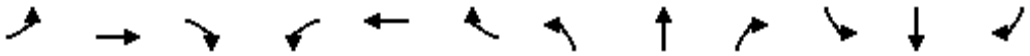
Intersection Summary			
HCM 2000 Control Delay	8.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	42.7	Sum of lost time (s)	10.5
Intersection Capacity Utilization	72.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	829	10	36	499	26	28	2	92	51	9	7
Future Volume (vph)	4	829	10	36	499	26	28	2	92	51	9	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.99		1.00	0.85		1.00	0.93	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1841		1752	1831		1770	1589		1770	1741	
Flt Permitted	0.43	1.00		0.18	1.00		0.75	1.00		0.69	1.00	
Satd. Flow (perm)	795	1841		340	1831		1392	1589		1291	1741	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	873	11	38	525	27	29	2	97	54	9	7
RTOR Reduction (vph)	0	0	0	0	1	0	0	88	0	0	6	0
Lane Group Flow (vph)	4	884	0	38	551	0	29	11	0	54	10	0
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)	49.2	48.5		54.2	51.0		7.3	7.3		7.3	7.3	
Effective Green, g (s)	49.2	48.5		54.2	51.0		7.3	7.3		7.3	7.3	
Actuated g/C Ratio	0.65	0.64		0.72	0.68		0.10	0.10		0.10	0.10	
Clearance Time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Vehicle Extension (s)	2.0	5.0		2.0	5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	526	1182		303	1236		134	153		124	168	
v/s Ratio Prot	0.00	c0.48		c0.01	0.30			0.01			0.01	
v/s Ratio Perm	0.00			0.08			0.02			c0.04		
v/c Ratio	0.01	0.75		0.13	0.45		0.22	0.07		0.44	0.06	
Uniform Delay, d1	4.6	9.3		6.8	5.7		31.5	31.0		32.2	31.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	3.2		0.1	0.5		0.8	0.2		2.4	0.1	
Delay (s)	4.6	12.4		6.9	6.2		32.3	31.2		34.6	31.1	
Level of Service	A	B		A	A		C	C		C	C	
Approach Delay (s)		12.4			6.3			31.5			33.8	
Approach LOS		B			A			C			C	

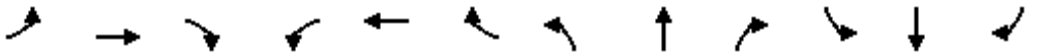
Intersection Summary			
HCM 2000 Control Delay	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	75.5	Sum of lost time (s)	16.5
Intersection Capacity Utilization	62.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	907	61	240	515	92	39	30	169	87	63	20
Future Volume (vph)	36	907	61	240	515	92	39	30	169	87	63	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	12	12	10	12	12	10	12	12
Total Lost time (s)	4.5	4.0		4.5	4.0		5.0	4.0	4.5	4.5	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.99		1.00	0.98		1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1662	3447		1711	3309		1636	1900	1583	1589	3402	
Flt Permitted	0.41	1.00		0.19	1.00		0.70	1.00	1.00	0.47	1.00	
Satd. Flow (perm)	716	3447		346	3309		1201	1900	1583	786	3402	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	38	955	64	253	542	97	41	32	178	92	66	21
RTOR Reduction (vph)	0	3	0	0	11	0	0	0	0	0	19	0
Lane Group Flow (vph)	38	1016	0	253	628	0	41	32	178	92	68	0
Heavy Vehicles (%)	5%	4%	0%	2%	6%	10%	3%	0%	2%	6%	3%	0%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases	2			6			8		8	4		
Actuated Green, G (s)	63.0	60.2		80.1	71.8		8.5	5.0	19.4	15.8	8.4	
Effective Green, g (s)	65.0	62.2		81.1	73.8		10.5	7.0	21.4	17.8	10.4	
Actuated g/C Ratio	0.59	0.57		0.74	0.67		0.10	0.06	0.19	0.16	0.09	
Clearance Time (s)	5.5	6.0		5.5	6.0		6.0	6.0	5.5	5.5	6.0	
Vehicle Extension (s)	1.0	2.0		2.0	2.0		1.0	2.0	2.0	1.5	2.0	
Lane Grp Cap (vph)	455	1949		446	2220		132	120	307	188	321	
v/s Ratio Prot	0.00	0.29		c0.08	0.19		0.01	0.02	c0.08	c0.04	0.02	
v/s Ratio Perm	0.05			c0.34			0.02		0.03	c0.04		
v/c Ratio	0.08	0.52		0.57	0.28		0.31	0.27	0.58	0.49	0.21	
Uniform Delay, d1	9.4	14.7		8.4	7.4		46.2	49.1	40.2	41.1	46.0	
Progression Factor	1.00	1.00		0.89	0.76		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.0	1.0		1.0	0.3		0.5	0.4	1.7	0.7	0.1	
Delay (s)	9.4	15.7		8.4	5.9		46.6	49.5	41.9	41.8	46.1	
Level of Service	A	B		A	A		D	D	D	D	D	
Approach Delay (s)		15.5			6.6			43.6			43.9	
Approach LOS		B			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	17.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	17.5
Intersection Capacity Utilization	62.2%	ICU Level of Service	B
Analysis Period (min)	15		

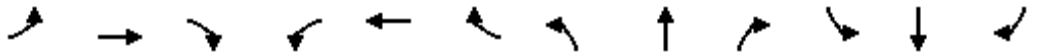
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	553	649	767	733	0	0	0	0	127	0	153
Future Volume (vph)	0	553	649	767	733	0	0	0	0	127	0	153
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	12	12	12	12	12	12	13	12
Total Lost time (s)		3.5		3.5	3.5						4.0	4.0
Lane Util. Factor		0.95		1.00	0.95						1.00	1.00
Frt		0.92		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)		3209		1620	3406						1811	1583
Flt Permitted		1.00		0.10	1.00						0.95	1.00
Satd. Flow (perm)		3209		168	3406						1811	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	582	683	807	772	0	0	0	0	134	0	161
RTOR Reduction (vph)	0	193	0	0	0	0	0	0	0	0	0	147
Lane Group Flow (vph)	0	1072	0	807	772	0	0	0	0	0	134	14
Heavy Vehicles (%)	0%	5%	2%	4%	6%	0%	0%	0%	0%	3%	0%	2%
Turn Type		NA		pm+pt	NA					Split	NA	Perm
Protected Phases		2		1 3	6					4	4	
Permitted Phases				6								4
Actuated Green, G (s)		32.0		91.2	91.2						8.8	8.8
Effective Green, g (s)		33.5		92.7	92.7						9.8	9.8
Actuated g/C Ratio		0.30		0.84	0.84						0.09	0.09
Clearance Time (s)		5.0			5.0						5.0	5.0
Vehicle Extension (s)		3.0			3.0						1.5	1.5
Lane Grp Cap (vph)		977		830	2870						161	141
v/s Ratio Prot		c0.33		c0.46	0.23						c0.07	
v/s Ratio Perm				0.36								0.01
v/c Ratio		1.10		0.97	0.27						0.83	0.10
Uniform Delay, d1		38.2		24.7	1.8						49.3	46.1
Progression Factor		0.81		0.62	1.17						1.00	1.00
Incremental Delay, d2		58.6		19.6	0.2						28.1	0.1
Delay (s)		89.6		34.9	2.2						77.4	46.2
Level of Service		F		C	A						E	D
Approach Delay (s)		89.6			18.9			0.0			60.3	
Approach LOS		F			B			A			E	

Intersection Summary			
HCM 2000 Control Delay	51.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	95.7%	ICU Level of Service	F
Analysis Period (min)	15		

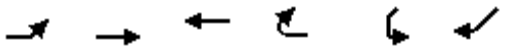
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	564	0	0	1083	80	244	32	324	0	0	174
Future Volume (vph)	120	564	0	0	1083	80	244	32	324	0	0	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	12	12	12	12	11	12	11	12	12	12
Total Lost time (s)	4.0	3.5			3.5		4.0	4.0	4.0			4.0
Lane Util. Factor	1.00	0.95			0.95		1.00	1.00	1.00			1.00
Frt	1.00	1.00			0.99		1.00	1.00	0.85			0.86
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00			1.00
Satd. Flow (prot)	1589	3471			3469		1586	1387	1446			1522
Flt Permitted	0.12	1.00			1.00		0.95	1.00	1.00			1.00
Satd. Flow (perm)	202	3471			3469		1586	1387	1446			1522
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	126	594	0	0	1140	84	257	34	341	0	0	183
RTOR Reduction (vph)	0	0	0	0	5	0	0	0	270	0	0	0
Lane Group Flow (vph)	126	594	0	0	1219	0	257	34	71	0	0	183
Heavy Vehicles (%)	6%	4%	0%	0%	3%	3%	10%	37%	8%	0%	0%	8%
Turn Type	pm+pt	NA			NA		Split	NA	Perm			Over
Protected Phases	5	2			6		8	8				5
Permitted Phases	2								8			
Actuated Green, G (s)	78.0	77.5			52.5		21.0	21.0	21.0			20.0
Effective Green, g (s)	79.0	79.5			54.5		23.0	23.0	23.0			21.0
Actuated g/C Ratio	0.72	0.72			0.50		0.21	0.21	0.21			0.19
Clearance Time (s)	5.0	5.5			5.5		6.0	6.0	6.0			5.0
Vehicle Extension (s)	3.0	3.0			3.0		2.0	2.0	2.0			3.0
Lane Grp Cap (vph)	409	2508			1718		331	290	302			290
v/s Ratio Prot	0.06	0.17			c0.35		c0.16	0.02				c0.12
v/s Ratio Perm	0.16								0.05			
v/c Ratio	0.31	0.24			0.71		0.78	0.12	0.24			0.63
Uniform Delay, d1	23.1	5.1			21.6		41.1	35.3	36.2			40.9
Progression Factor	0.97	1.43			1.00		1.00	1.00	1.00			1.00
Incremental Delay, d2	0.0	0.0			2.5		10.0	0.1	0.1			4.4
Delay (s)	22.6	7.3			24.1		51.0	35.3	36.3			45.4
Level of Service	C	A			C		D	D	D			D
Approach Delay (s)		10.0			24.1			42.3			45.4	
Approach LOS		A			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	26.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.5
Intersection Capacity Utilization	66.8%	ICU Level of Service	C
Analysis Period (min)	15		

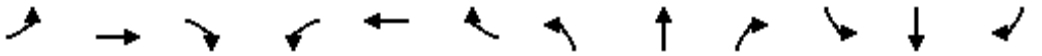
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	179	710	699	0	0	629
Future Volume (Veh/h)	179	710	699	0	0	629
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	188	747	736	0	0	662
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)		1075	348			
pX, platoon unblocked	0.80				0.80	0.80
vC, conflicting volume	736				1486	736
vC1, stage 1 conf vol					736	
vC2, stage 2 conf vol					750	
vCu, unblocked vol	549				1482	549
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	77				100	0
cM capacity (veh/h)	828				268	389

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	SW 1
Volume Total	188	374	374	736	662
Volume Left	188	0	0	0	0
Volume Right	0	0	0	0	662
cSH	828	1700	1700	1700	389
Volume to Capacity	0.23	0.22	0.22	0.43	1.70
Queue Length 95th (ft)	22	0	0	0	1006
Control Delay (s)	10.6	0.0	0.0	0.0	350.4
Lane LOS	B				F
Approach Delay (s)	2.1			0.0	350.4
Approach LOS					F

Intersection Summary			
Average Delay	100.3		
Intersection Capacity Utilization	82.4%	ICU Level of Service	E
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	94	0	0	35	9	13	74	38	130	0	7
Future Volume (Veh/h)	3	94	0	0	35	9	13	74	38	130	0	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	3	99	0	0	37	9	14	78	40	137	0	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									10			2
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	46			99			146	151	99	186	146	42
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	46			99			146	151	99	186	146	42
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	90	96	80	100	99
cM capacity (veh/h)	1575			1507			820	743	962	686	747	1035

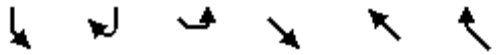
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	102	46	132	144
Volume Left	3	0	14	137
Volume Right	0	9	40	7
cSH	1575	1700	1083	721
Volume to Capacity	0.00	0.03	0.12	0.20
Queue Length 95th (ft)	0	0	10	19
Control Delay (s)	0.2	0.0	10.0	11.4
Lane LOS	A		A	B
Approach Delay (s)	0.2	0.0	10.0	11.4
Approach LOS			A	B

Intersection Summary				
Average Delay	7.0			
Intersection Capacity Utilization	27.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	35	59	43	45	59	78
Future Volume (Veh/h)	35	59	43	45	59	78
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	37	62	45	47	62	82
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	251	45			92	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	251	45			92	
tC, single (s)	6.5	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	95	94			96	
cM capacity (veh/h)	690	1002			1454	

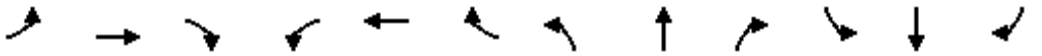
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	37	62	45	47	62	82
Volume Left	37	0	0	0	62	0
Volume Right	0	62	0	47	0	0
cSH	690	1002	1700	1700	1454	1700
Volume to Capacity	0.05	0.06	0.03	0.03	0.04	0.05
Queue Length 95th (ft)	4	5	0	0	3	0
Control Delay (s)	10.5	8.8	0.0	0.0	7.6	0.0
Lane LOS	B	A			A	
Approach Delay (s)	9.5		0.0		3.3	
Approach LOS	A					

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	19.9%	ICU Level of Service	A
Analysis Period (min)	15		



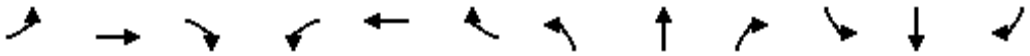
Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (vph)	267	132	171	455	363	218
Future Volume (vph)	267	132	171	455	363	218
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1641	1468	1641	1863	1863	1468
Flt Permitted	0.95	1.00	0.51	1.00	1.00	1.00
Satd. Flow (perm)	1641	1468	877	1863	1863	1468
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	281	139	180	479	382	229
RTOR Reduction (vph)	0	96	0	0	0	132
Lane Group Flow (vph)	281	43	180	479	382	97
Heavy Vehicles (%)	10%	10%	10%	2%	2%	10%
Turn Type	Prot	Perm	Perm	NA	NA	Perm
Protected Phases	4			6	2	
Permitted Phases		4	6			2
Actuated Green, G (s)	13.9	13.9	19.1	19.1	19.1	19.1
Effective Green, g (s)	13.9	13.9	19.1	19.1	19.1	19.1
Actuated g/C Ratio	0.31	0.31	0.42	0.42	0.42	0.42
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	506	453	372	790	790	623
v/s Ratio Prot	c0.17			c0.26	0.21	
v/s Ratio Perm		0.03	0.21			0.07
v/c Ratio	0.56	0.09	0.48	0.61	0.48	0.16
Uniform Delay, d1	13.0	11.1	9.4	10.0	9.4	8.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.3	0.1	1.0	1.3	0.5	0.1
Delay (s)	14.3	11.2	10.4	11.4	9.8	8.1
Level of Service	B	B	B	B	A	A
Approach Delay (s)	13.3			11.1	9.2	
Approach LOS	B			B	A	

Intersection Summary			
HCM 2000 Control Delay	10.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	957	652	536	1496	0	236	0	162	194	71	175
Future Volume (vph)	0	957	652	536	1496	0	236	0	162	194	71	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	6.0	5.0	5.0		6.0		5.0	6.0	5.0	5.0
Lane Util. Factor		0.95	1.00	0.97	0.95		1.00		1.00	1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00		1.00		0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00		0.95		1.00	0.95	1.00	1.00
Satd. Flow (prot)		3574	1583	3467	3574		1787		1599	1787	1863	1599
Flt Permitted		1.00	1.00	0.95	1.00		0.00		1.00	0.95	1.00	1.00
Satd. Flow (perm)		3574	1583	3467	3574		0		1599	1787	1863	1599
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1007	686	564	1575	0	248	0	171	204	75	184
RTOR Reduction (vph)	0	0	63	0	0	0	0	0	80	0	0	167
Lane Group Flow (vph)	0	1007	623	564	1575	0	248	0	91	204	75	17
Heavy Vehicles (%)	0%	1%	2%	1%	1%	0%	1%	0%	1%	1%	2%	1%
Turn Type		NA	pm+ov	Prot	NA		pm+pt		pm+ov	pm+pt	NA	Perm
Protected Phases		6	7	5	2		7		5	3	8	
Permitted Phases			6				4 7		4 5	8		8
Actuated Green, G (s)		33.0	50.4	17.6	56.6		17.4		17.6	31.4	8.0	8.0
Effective Green, g (s)		34.0	50.4	18.6	57.6		17.4		18.6	31.4	9.0	9.0
Actuated g/C Ratio		0.34	0.50	0.19	0.58		0.17		0.19	0.31	0.09	0.09
Clearance Time (s)		6.0	6.0	6.0	6.0		6.0		6.0	6.0	6.0	6.0
Vehicle Extension (s)		4.8	3.0	2.0	4.8		3.0		2.0	2.0	2.0	2.0
Lane Grp Cap (vph)		1215	892	644	2058		310		297	561	167	143
v/s Ratio Prot		c0.28	c0.12	c0.16	0.44		0.14		0.06	0.11	c0.04	
v/s Ratio Perm			0.27									0.01
v/c Ratio		0.83	0.70	0.88	0.77		0.80		0.31	0.36	0.45	0.12
Uniform Delay, d1		30.3	19.0	39.6	16.1		39.6		35.1	26.6	43.1	41.8
Progression Factor		1.00	1.00	0.54	0.33		1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2		6.6	2.4	7.8	1.5		13.7		0.2	0.1	0.7	0.1
Delay (s)		36.9	21.4	29.2	6.8		53.3		35.4	26.7	43.9	42.0
Level of Service		D	C	C	A		D		D	C	D	D
Approach Delay (s)		30.6			12.7			46.0			35.6	
Approach LOS		C			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	24.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	76.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



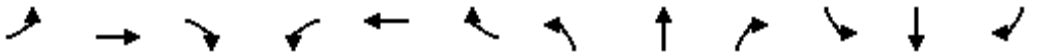
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	213	1091	0	0	1013	273	1079	0	268	0	0	0
Future Volume (vph)	213	1091	0	0	1013	273	1079	0	268	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.0			5.0	5.0	4.5	4.5	4.5			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.95	0.95	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	1787	3574			3574	1583	1698	1698	1599			
Flt Permitted	0.09	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	177	3574			3574	1583	1698	1698	1599			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	224	1148	0	0	1066	287	1136	0	282	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	178	0	0	59	0	0	0
Lane Group Flow (vph)	224	1148	0	0	1066	109	568	568	223	0	0	0
Heavy Vehicles (%)	1%	1%	2%	1%	1%	2%	1%	0%	1%	0%	0%	0%
Turn Type	pm+pt	NA			NA	Perm	Split	NA	Perm			
Protected Phases	1	6			2		4	4				
Permitted Phases	6					2			4			
Actuated Green, G (s)	52.9	52.9			36.9	36.9	35.6	35.6	35.6			
Effective Green, g (s)	52.9	53.9			37.9	37.9	36.6	36.6	36.6			
Actuated g/C Ratio	0.53	0.54			0.38	0.38	0.37	0.37	0.37			
Clearance Time (s)	5.5	6.0			6.0	6.0	5.5	5.5	5.5			
Vehicle Extension (s)	1.0	5.0			5.0	5.0	1.0	1.0	1.0			
Lane Grp Cap (vph)	262	1926			1354	599	621	621	585			
v/s Ratio Prot	c0.09	0.32			0.30		c0.33	0.33				
v/s Ratio Perm	c0.36					0.07			0.14			
v/c Ratio	0.85	0.60			0.79	0.18	0.91	0.91	0.38			
Uniform Delay, d1	24.2	15.7			27.5	20.7	30.2	30.2	23.4			
Progression Factor	0.47	0.74			0.73	0.71	1.00	1.00	1.00			
Incremental Delay, d2	14.8	1.0			4.3	0.6	17.8	17.8	0.2			
Delay (s)	26.2	12.6			24.5	15.3	48.0	48.0	23.5			
Level of Service	C	B			C	B	D	D	C			
Approach Delay (s)		14.8			22.5			43.1			0.0	
Approach LOS		B			C			D			A	

Intersection Summary			
HCM 2000 Control Delay	27.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	82.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1258	111	46	1176	110	51
Future Volume (vph)	1258	111	46	1176	110	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3610	1615	1805	3610	1805	1615
Flt Permitted	1.00	1.00	0.17	1.00	0.95	1.00
Satd. Flow (perm)	3610	1615	322	3610	1805	1615
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1324	117	48	1238	116	54
RTOR Reduction (vph)	0	24	0	0	0	43
Lane Group Flow (vph)	1324	93	48	1238	116	11
Turn Type	NA	pm+ov	pm+pt	NA	Prot	pm+ov
Protected Phases	6	4	3	2	4	3
Permitted Phases		6	2			4
Actuated Green, G (s)	69.7	79.5	79.2	79.2	9.8	13.8
Effective Green, g (s)	69.7	79.5	79.2	79.2	9.8	13.8
Actuated g/C Ratio	0.70	0.80	0.79	0.79	0.10	0.14
Clearance Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Vehicle Extension (s)	3.0	1.0	1.0	3.0	1.0	1.0
Lane Grp Cap (vph)	2516	1372	314	2859	176	311
v/s Ratio Prot	c0.37	0.01	0.01	c0.34	c0.06	0.00
v/s Ratio Perm		0.05	0.11			0.01
v/c Ratio	0.53	0.07	0.15	0.43	0.66	0.04
Uniform Delay, d1	7.2	2.2	6.8	3.3	43.5	37.3
Progression Factor	0.38	0.37	0.85	0.83	1.00	1.00
Incremental Delay, d2	0.7	0.0	0.1	0.4	6.6	0.0
Delay (s)	3.4	0.8	5.8	3.2	50.1	37.3
Level of Service	A	A	A	A	D	D
Approach Delay (s)	3.2			3.3	46.1	
Approach LOS	A			A	D	

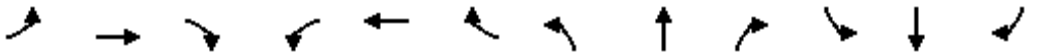
Intersection Summary			
HCM 2000 Control Delay	5.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.5
Intersection Capacity Utilization	53.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	263	1047	0	0	986	46	1	0	0	42	0	234
Future Volume (vph)	263	1047	0	0	986	46	1	0	0	42	0	234
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.5			5.5	4.5		4.5			4.5	5.0
Lane Util. Factor	0.97	0.95			0.95	1.00		1.00			1.00	0.88
Frt	1.00	1.00			1.00	0.85		1.00			1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00		0.95			0.95	1.00
Satd. Flow (prot)	3433	3406			3406	1583		1805			1770	2787
Flt Permitted	0.95	1.00			1.00	1.00		0.95			0.95	1.00
Satd. Flow (perm)	3433	3406			3406	1583		1805			1770	2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	277	1102	0	0	1038	48	1	0	0	44	0	246
RTOR Reduction (vph)	0	0	0	0	0	17	0	0	0	0	0	0
Lane Group Flow (vph)	277	1102	0	0	1038	31	0	1	0	0	44	246
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	0%	0%	0%	2%	2%	2%
Turn Type	Prot	NA		Perm	NA	pm+ov	Split	NA		Split	NA	pm+ov
Protected Phases	1	6			2	3	4	4		3	3	1
Permitted Phases				2		2						3
Actuated Green, G (s)	12.4	75.7			57.3	63.3		0.8			6.0	18.4
Effective Green, g (s)	13.4	76.7			58.3	65.3		1.8			7.0	20.4
Actuated g/C Ratio	0.13	0.77			0.58	0.65		0.02			0.07	0.20
Clearance Time (s)	6.0	6.5			6.5	5.5		5.5			5.5	6.0
Vehicle Extension (s)	2.0	5.0			5.0	2.0		1.0			2.0	2.0
Lane Grp Cap (vph)	460	2612			1985	1033		32			123	568
v/s Ratio Prot	c0.08	0.32			c0.30	0.00		c0.00			0.02	c0.06
v/s Ratio Perm						0.02						0.03
v/c Ratio	0.60	0.42			0.52	0.03		0.03			0.36	0.43
Uniform Delay, d1	40.8	4.0			12.5	6.1		48.2			44.4	34.8
Progression Factor	1.14	0.39			0.75	0.14		1.00			1.00	1.00
Incremental Delay, d2	1.3	0.4			0.9	0.0		0.1			0.7	0.2
Delay (s)	47.6	2.0			10.3	0.8		48.4			45.0	34.9
Level of Service	D	A			B	A		D			D	C
Approach Delay (s)		11.2			9.9			48.4			36.5	
Approach LOS		B			A			D			D	

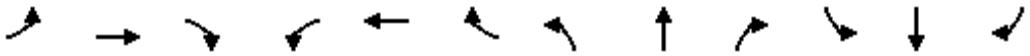
Intersection Summary			
HCM 2000 Control Delay	13.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	53.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	1009	37	15	933	46	38	3	24	30	2	61
Future Volume (vph)	43	1009	37	15	933	46	38	3	24	30	2	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.5		5.5	5.5		5.0	5.0			5.0	5.0
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.87			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.96	1.00
Satd. Flow (prot)	1770	3392		1770	3388		1770	1613			1779	1583
Flt Permitted	0.24	1.00		0.26	1.00		0.73	1.00			0.72	1.00
Satd. Flow (perm)	440	3392		483	3388		1369	1613			1338	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	45	1062	39	16	982	48	40	3	25	32	2	64
RTOR Reduction (vph)	0	2	0	0	2	0	0	23	0	0	0	56
Lane Group Flow (vph)	45	1099	0	16	1028	0	40	5	0	0	34	8
Confl. Peds. (#/hr)	1											
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	1	6			2			4			8	1
Permitted Phases	6			2			4			8		8
Actuated Green, G (s)	80.9	80.9		70.8	70.8		6.6	6.6			6.6	10.7
Effective Green, g (s)	81.9	81.9		71.8	71.8		7.6	7.6			7.6	12.7
Actuated g/C Ratio	0.82	0.82		0.72	0.72		0.08	0.08			0.08	0.13
Clearance Time (s)	6.0	6.5		6.5	6.5		6.0	6.0			6.0	6.0
Vehicle Extension (s)	2.0	5.0		5.0	5.0		2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	428	2778		346	2432		104	122			101	280
v/s Ratio Prot	0.01	c0.32			c0.30			0.00				0.00
v/s Ratio Perm	0.08			0.03			c0.03				0.03	0.00
v/c Ratio	0.11	0.40		0.05	0.42		0.38	0.04			0.34	0.03
Uniform Delay, d1	2.4	2.4		4.1	5.7		44.0	42.8			43.8	38.2
Progression Factor	0.24	0.20		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	0.0	0.4		0.3	0.5		0.9	0.0			0.7	0.0
Delay (s)	0.6	0.9		4.4	6.2		44.8	42.9			44.5	38.3
Level of Service	A	A		A	A		D	D			D	D
Approach Delay (s)		0.9			6.2			44.0			40.4	
Approach LOS		A			A			D			D	

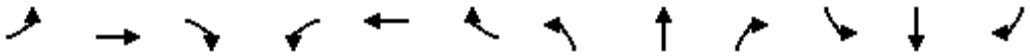
Intersection Summary			
HCM 2000 Control Delay	6.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	53.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	266	513	283	144	585	85	290	201	122	39	93	120
Future Volume (vph)	266	513	283	144	585	85	290	201	122	39	93	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	5.5	5.5	6.5	5.5		6.5	5.5	6.0	5.5	5.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	0.92	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1787	3574	1599	1719	3511		1787	1863	1615	1752	1696	
Flt Permitted	0.14	1.00	1.00	0.41	1.00		0.33	1.00	1.00	0.63	1.00	
Satd. Flow (perm)	270	3574	1599	737	3511		614	1863	1615	1153	1696	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	280	540	298	152	616	89	305	212	128	41	98	126
RTOR Reduction (vph)	0	0	160	0	11	0	0	0	75	0	44	0
Lane Group Flow (vph)	280	540	138	152	695	0	305	212	53	41	180	0
Heavy Vehicles (%)	1%	1%	1%	5%	1%	0%	1%	2%	0%	3%	2%	3%
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	1	6	3	5	2		3	8	5	7	4	
Permitted Phases	6		6	2			8		8	4		
Actuated Green, G (s)	42.1	27.9	42.6	32.3	23.0		39.8	30.3	39.6	21.6	18.6	
Effective Green, g (s)	42.1	28.9	44.6	31.3	24.0		39.8	31.3	39.6	23.6	19.6	
Actuated g/C Ratio	0.44	0.30	0.46	0.33	0.25		0.41	0.33	0.41	0.25	0.20	
Clearance Time (s)	6.0	6.5	6.5	6.0	6.5		6.5	6.5	6.0	6.5	6.5	
Vehicle Extension (s)	2.0	4.0	2.0	2.0	4.0		2.0	4.0	2.0	2.0	4.0	
Lane Grp Cap (vph)	342	1075	834	330	877		434	607	666	308	346	
v/s Ratio Prot	c0.12	0.15	0.03	0.04	0.20		c0.11	0.11	0.01	0.01	0.11	
v/s Ratio Perm	c0.24		0.06	0.11			c0.18		0.03	0.03		
v/c Ratio	0.82	0.50	0.17	0.46	0.79		0.70	0.35	0.08	0.13	0.52	
Uniform Delay, d1	21.3	27.6	14.9	23.9	33.7		20.8	24.6	17.1	28.0	34.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	13.4	0.5	0.0	0.4	5.2		4.2	0.5	0.0	0.1	1.8	
Delay (s)	34.7	28.1	14.9	24.3	38.9		25.0	25.1	17.1	28.0	35.9	
Level of Service	C	C	B	C	D		C	C	B	C	D	
Approach Delay (s)		26.3			36.3			23.5			34.6	
Approach LOS		C			D			C			C	

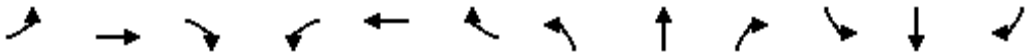
Intersection Summary			
HCM 2000 Control Delay	29.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	96.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	538	133	122	552	16	201	152	176	12	26	19
Future Volume (vph)	27	538	133	122	552	16	201	152	176	12	26	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.97		1.00	1.00			0.96			0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.99	
Satd. Flow (prot)	1805	1843		1805	1892			1781			1795	
Flt Permitted	0.23	1.00		0.09	1.00			0.85			0.88	
Satd. Flow (perm)	433	1843		169	1892			1541			1602	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	28	566	140	128	581	17	212	160	185	13	27	20
RTOR Reduction (vph)	0	8	0	0	1	0	0	16	0	0	13	0
Lane Group Flow (vph)	28	698	0	128	597	0	0	541	0	0	47	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)	51.8	48.4		57.0	51.0			42.6			42.6	
Effective Green, g (s)	51.8	48.4		57.0	51.0			42.6			42.6	
Actuated g/C Ratio	0.45	0.42		0.50	0.44			0.37			0.37	
Clearance Time (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Vehicle Extension (s)	2.0	6.0		2.0	6.0			3.0			3.0	
Lane Grp Cap (vph)	235	775		169	839			570			593	
v/s Ratio Prot	0.00	c0.38		c0.04	0.32							
v/s Ratio Perm	0.05			c0.34				c0.35			0.03	
v/c Ratio	0.12	0.90		0.76	0.71			0.95			0.08	
Uniform Delay, d1	20.1	31.1		23.9	26.0			35.2			23.5	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.1	14.9		15.7	4.1			25.4			0.1	
Delay (s)	20.2	46.0		39.6	30.2			60.5			23.5	
Level of Service	C	D		D	C			E			C	
Approach Delay (s)		45.0			31.8			60.5			23.5	
Approach LOS		D			C			E			C	

Intersection Summary			
HCM 2000 Control Delay	43.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	94.7%	ICU Level of Service	F
Analysis Period (min)	15		

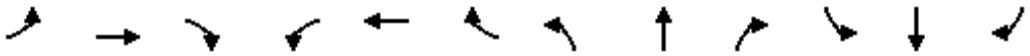
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	581	33	15	592	27	32	54	61	18	16	43
Future Volume (vph)	63	581	33	15	592	27	32	54	61	18	16	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			0.99			0.94			0.93	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		1879			1887			1775			1737	
Flt Permitted		0.90			0.98			0.90			0.91	
Satd. Flow (perm)		1699			1853			1617			1595	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	66	612	35	16	623	28	34	57	64	19	17	45
RTOR Reduction (vph)	0	3	0	0	2	0	0	47	0	0	38	0
Lane Group Flow (vph)	0	710	0	0	665	0	0	108	0	0	43	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		30.2			30.2			7.3			7.3	
Effective Green, g (s)		30.2			30.2			7.3			7.3	
Actuated g/C Ratio		0.63			0.63			0.15			0.15	
Clearance Time (s)		5.5			5.5			5.0			5.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		1068			1165			245			242	
v/s Ratio Prot												
v/s Ratio Perm		c0.42			0.36			c0.07			0.03	
v/c Ratio		0.67			0.57			0.44			0.18	
Uniform Delay, d1		5.7			5.1			18.5			17.7	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		2.1			1.1			1.3			0.4	
Delay (s)		7.8			6.2			19.8			18.1	
Level of Service		A			A			B			B	
Approach Delay (s)		7.8			6.2			19.8			18.1	
Approach LOS		A			A			B			B	

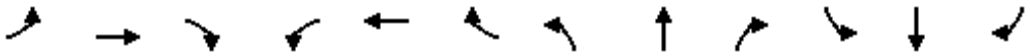
Intersection Summary			
HCM 2000 Control Delay	8.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	48.0	Sum of lost time (s)	10.5
Intersection Capacity Utilization	84.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	668	32	153	685	36	35	4	61	92	25	28
Future Volume (vph)	7	668	32	153	685	36	35	4	61	92	25	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.86		1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1832		1752	1831		1770	1600		1770	1715	
Flt Permitted	0.33	1.00		0.20	1.00		0.72	1.00		0.71	1.00	
Satd. Flow (perm)	617	1832		367	1831		1343	1600		1328	1715	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	7	703	34	161	721	38	37	4	64	97	26	29
RTOR Reduction (vph)	0	2	0	0	1	0	0	57	0	0	26	0
Lane Group Flow (vph)	7	735	0	161	758	0	37	11	0	97	29	0
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)	45.6	44.9		59.8	53.6		9.3	9.3		9.3	9.3	
Effective Green, g (s)	45.6	44.9		59.8	53.6		9.3	9.3		9.3	9.3	
Actuated g/C Ratio	0.57	0.56		0.75	0.67		0.12	0.12		0.12	0.12	
Clearance Time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Vehicle Extension (s)	2.0	5.0		2.0	5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	361	1026		436	1225		155	185		154	199	
v/s Ratio Prot	0.00	c0.40		c0.04	c0.41			0.01			0.02	
v/s Ratio Perm	0.01			0.23			0.03			c0.07		
v/c Ratio	0.02	0.72		0.37	0.62		0.24	0.06		0.63	0.15	
Uniform Delay, d1	7.6	12.9		7.6	7.5		32.2	31.5		33.8	31.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	3.0		0.2	1.4		0.8	0.1		7.8	0.3	
Delay (s)	7.6	15.9		7.8	8.8		33.0	31.7		41.6	32.2	
Level of Service	A	B		A	A		C	C		D	C	
Approach Delay (s)		15.8			8.7			32.1			38.2	
Approach LOS		B			A			C			D	

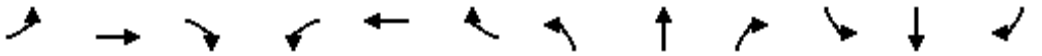
Intersection Summary			
HCM 2000 Control Delay	15.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	80.1	Sum of lost time (s)	16.5
Intersection Capacity Utilization	71.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	676	109	409	683	159	141	282	506	159	184	82
Future Volume (vph)	46	676	109	409	683	159	141	282	506	159	184	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	12	12	10	12	12	10	12	12
Total Lost time (s)	4.5	4.0		4.5	4.0		5.0	4.0	4.5	4.5	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.98		1.00	0.97		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1745	3505		1745	3439		1685	1863	1599	1620	3433	
Flt Permitted	0.32	1.00		0.12	1.00		0.49	1.00	1.00	0.25	1.00	
Satd. Flow (perm)	589	3505		222	3439		864	1863	1599	429	3433	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	48	712	115	431	719	167	148	297	533	167	194	86
RTOR Reduction (vph)	0	10	0	0	15	0	0	0	0	0	52	0
Lane Group Flow (vph)	48	817	0	431	871	0	148	297	533	167	228	0
Heavy Vehicles (%)	0%	1%	0%	0%	2%	2%	0%	2%	1%	4%	0%	1%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases	2			6			8		8	4		
Actuated Green, G (s)	36.8	32.6		64.0	54.3		28.0	22.0	47.9	28.5	22.0	
Effective Green, g (s)	38.8	34.6		65.0	56.3		30.0	24.0	49.9	30.5	24.0	
Actuated g/C Ratio	0.35	0.31		0.59	0.51		0.27	0.22	0.45	0.28	0.22	
Clearance Time (s)	5.5	6.0		5.5	6.0		6.0	6.0	5.5	5.5	6.0	
Vehicle Extension (s)	1.0	2.0		2.0	2.0		1.0	2.0	2.0	1.5	2.0	
Lane Grp Cap (vph)	262	1102		503	1760		287	406	725	200	749	
v/s Ratio Prot	0.01	0.23		c0.21	0.25		0.03	0.16	0.18	c0.06	0.07	
v/s Ratio Perm	0.06			c0.30			0.11		0.15	c0.17		
v/c Ratio	0.18	0.74		0.86	0.49		0.52	0.73	0.74	0.83	0.30	
Uniform Delay, d1	23.7	33.7		28.1	17.6		32.3	40.0	24.6	35.1	36.0	
Progression Factor	1.00	1.00		1.04	0.77		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.1	4.5		12.2	0.9		0.7	5.8	3.4	23.9	0.1	
Delay (s)	23.8	38.2		41.6	14.4		32.9	45.8	28.0	59.0	36.1	
Level of Service	C	D		D	B		C	D	C	E	D	
Approach Delay (s)		37.4			23.3			34.1			44.6	
Approach LOS		D			C			C			D	

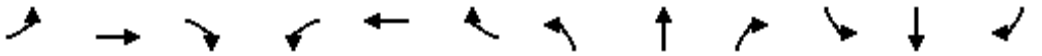
Intersection Summary			
HCM 2000 Control Delay	32.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	17.5
Intersection Capacity Utilization	82.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1016	353	333	1115	0	0	0	0	138	0	136
Future Volume (vph)	0	1016	353	333	1115	0	0	0	0	138	0	136
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	12	12	12	12	12	12	13	12
Total Lost time (s)		3.5		3.5	3.5						4.0	4.0
Lane Util. Factor		0.95		1.00	0.95						1.00	1.00
Frpb, ped/bikes		0.99		1.00	1.00						1.00	1.00
Flpb, ped/bikes		1.00		1.00	1.00						1.00	1.00
Frt		0.96		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)		3400		1652	3574						1865	1553
Flt Permitted		1.00		0.07	1.00						0.95	1.00
Satd. Flow (perm)		3400		126	3574						1865	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1069	372	351	1174	0	0	0	0	145	0	143
RTOR Reduction (vph)	0	31	0	0	0	0	0	0	0	0	0	127
Lane Group Flow (vph)	0	1410	0	351	1174	0	0	0	0	0	145	16
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	0%	1%	3%	2%	1%	0%	0%	0%	0%	0%	0%	4%
Turn Type		NA		pm+pt	NA					Split	NA	Perm
Protected Phases		2		1 3	6					4	4	
Permitted Phases				6								4
Actuated Green, G (s)		46.7		88.8	88.8						11.2	11.2
Effective Green, g (s)		48.2		90.3	90.3						12.2	12.2
Actuated g/C Ratio		0.44		0.82	0.82						0.11	0.11
Clearance Time (s)		5.0			5.0						5.0	5.0
Vehicle Extension (s)		3.0			3.0						1.5	1.5
Lane Grp Cap (vph)		1489		590	2933						206	172
v/s Ratio Prot		c0.41		c0.19	0.33						c0.08	
v/s Ratio Perm				0.30								0.01
v/c Ratio		0.95		0.59	0.40						0.70	0.09
Uniform Delay, d1		29.7		24.8	2.6						47.2	43.9
Progression Factor		0.91		2.64	1.03						1.00	1.00
Incremental Delay, d2		11.5		0.4	0.2						8.6	0.1
Delay (s)		38.5		65.8	2.9						55.7	44.0
Level of Service		D		E	A						E	D
Approach Delay (s)		38.5			17.4			0.0			49.9	
Approach LOS		D			B			A			D	

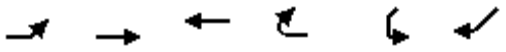
Intersection Summary			
HCM 2000 Control Delay	29.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	75.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	295	859	0	0	899	199	463	104	665	0	0	87
Future Volume (vph)	295	859	0	0	899	199	463	104	665	0	0	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	12	12	12	12	11	12	11	12	12	12
Total Lost time (s)	4.0	3.5			3.5		4.0	4.0	4.0			4.0
Lane Util. Factor	1.00	0.95			0.95		1.00	1.00	1.00			1.00
Frt	1.00	1.00			0.97		1.00	1.00	0.85			0.86
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00			1.00
Satd. Flow (prot)	1668	3574			3471		1711	1792	1546			1611
Flt Permitted	0.10	1.00			1.00		0.95	1.00	1.00			1.00
Satd. Flow (perm)	171	3574			3471		1711	1792	1546			1611
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	311	904	0	0	946	209	487	109	700	0	0	92
RTOR Reduction (vph)	0	0	0	0	17	0	0	0	66	0	0	0
Lane Group Flow (vph)	311	904	0	0	1138	0	487	109	634	0	0	92
Heavy Vehicles (%)	1%	1%	0%	0%	1%	2%	2%	6%	1%	0%	0%	2%
Turn Type	pm+pt	NA			NA		Split	NA	Perm			Over
Protected Phases	5	2			6		8	8				5
Permitted Phases	2								8			
Actuated Green, G (s)	56.0	55.5			35.5		43.0	43.0	43.0			15.0
Effective Green, g (s)	57.0	57.5			37.5		45.0	45.0	45.0			16.0
Actuated g/C Ratio	0.52	0.52			0.34		0.41	0.41	0.41			0.15
Clearance Time (s)	5.0	5.5			5.5		6.0	6.0	6.0			5.0
Vehicle Extension (s)	3.0	3.0			3.0		2.0	2.0	2.0			3.0
Lane Grp Cap (vph)	306	1868			1183		699	733	632			234
v/s Ratio Prot	c0.15	0.25			0.33		0.28	0.06				0.06
v/s Ratio Perm	c0.38								c0.41			
v/c Ratio	1.02	0.48			0.96		0.70	0.15	1.00			0.39
Uniform Delay, d1	42.1	16.8			35.5		26.9	20.4	32.5			42.6
Progression Factor	0.40	0.31			1.00		1.00	1.00	1.00			1.00
Incremental Delay, d2	36.2	0.4			18.5		2.5	0.0	36.7			1.1
Delay (s)	53.2	5.6			54.0		29.3	20.5	69.2			43.7
Level of Service	D	A			D		C	C	E			D
Approach Delay (s)		17.8			54.0			50.1			43.7	
Approach LOS		B			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	40.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.5
Intersection Capacity Utilization	83.2%	ICU Level of Service	E
Analysis Period (min)	15		

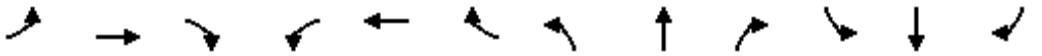
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	545	979	900	0	0	335
Future Volume (Veh/h)	545	979	900	0	0	335
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	574	1031	947	0	0	353
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)		1075	348			
pX, platoon unblocked	0.69				0.72	0.69
vC, conflicting volume	947				2610	947
vC1, stage 1 conf vol					947	
vC2, stage 2 conf vol					1664	
vCu, unblocked vol	701				2738	701
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	8				100	0
cM capacity (veh/h)	627				12	267

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	SW 1
Volume Total	574	516	516	947	353
Volume Left	574	0	0	0	0
Volume Right	0	0	0	0	353
cSH	627	1700	1700	1700	267
Volume to Capacity	0.92	0.30	0.30	0.56	1.32
Queue Length 95th (ft)	294	0	0	0	452
Control Delay (s)	44.1	0.0	0.0	0.0	206.1
Lane LOS	E				F
Approach Delay (s)	15.8			0.0	206.1
Approach LOS					F

Intersection Summary			
Average Delay	33.7		
Intersection Capacity Utilization	84.2%	ICU Level of Service	E
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	6	80	0	0	78	52	63	183	224	64	0	2
Future Volume (vph)	6	80	0	0	78	52	63	183	224	64	0	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	6	84	0	0	82	55	66	193	236	67	0	2

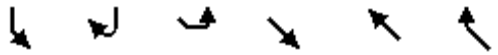
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	90	137	259	236	67	2
Volume Left (vph)	6	0	66	0	67	0
Volume Right (vph)	0	55	0	236	0	2
Hadj (s)	0.01	-0.24	0.05	-0.60	0.20	-0.60
Departure Headway (s)	4.9	4.6	4.6	3.2	5.0	3.2
Degree Utilization, x	0.12	0.17	0.33	0.21	0.09	0.00
Capacity (veh/h)	680	726	749	1122	675	1121
Control Delay (s)	8.6	8.5	9.9	7.0	8.5	6.2
Approach Delay (s)	8.6	8.5	8.5		8.4	
Approach LOS	A	A	A		A	

Intersection Summary				
Delay	8.5			
Level of Service	A			
Intersection Capacity Utilization	35.8%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	31	52	104	40	52	46
Future Volume (Veh/h)	31	52	104	40	52	46
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	33	55	109	42	55	48
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	267	109			151	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	267	109			151	
tC, single (s)	6.5	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	95	94			96	
cM capacity (veh/h)	677	923			1382	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	33	55	109	42	55	48
Volume Left	33	0	0	0	55	0
Volume Right	0	55	0	42	0	0
cSH	677	923	1700	1700	1382	1700
Volume to Capacity	0.05	0.06	0.06	0.02	0.04	0.03
Queue Length 95th (ft)	4	5	0	0	3	0
Control Delay (s)	10.6	9.1	0.0	0.0	7.7	0.0
Lane LOS	B	A			A	
Approach Delay (s)	9.7		0.0		4.1	
Approach LOS	A					

Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	19.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (vph)	238	119	154	506	515	194
Future Volume (vph)	238	119	154	506	515	194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1641	1468	1641	1863	1863	1468
Flt Permitted	0.95	1.00	0.37	1.00	1.00	1.00
Satd. Flow (perm)	1641	1468	635	1863	1863	1468
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	251	125	162	533	542	204
RTOR Reduction (vph)	0	91	0	0	0	104
Lane Group Flow (vph)	251	34	162	533	542	100
Heavy Vehicles (%)	10%	10%	10%	2%	2%	10%
Turn Type	Prot	Perm	Perm	NA	NA	Perm
Protected Phases	4			6	2	
Permitted Phases		4	6			2
Actuated Green, G (s)	13.4	13.4	24.2	24.2	24.2	24.2
Effective Green, g (s)	13.4	13.4	24.2	24.2	24.2	24.2
Actuated g/C Ratio	0.27	0.27	0.49	0.49	0.49	0.49
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	443	396	309	908	908	716
v/s Ratio Prot	c0.15			0.29	c0.29	
v/s Ratio Perm		0.02	0.26			0.07
v/c Ratio	0.57	0.09	0.52	0.59	0.60	0.14
Uniform Delay, d1	15.6	13.5	8.7	9.1	9.2	7.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.7	0.1	1.6	1.0	1.1	0.1
Delay (s)	17.3	13.6	10.3	10.1	10.2	7.1
Level of Service	B	B	B	B	B	A
Approach Delay (s)	16.0			10.1	9.4	
Approach LOS	B			B	A	

Intersection Summary			
HCM 2000 Control Delay	11.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	49.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	72.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Intersection: 2: Soule Road/481 South off-ramp & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	L	R	L	T	R
Maximum Queue (ft)	258	214	304	168	177	192	198	134	112	268	150	80
Average Queue (ft)	135	81	118	80	85	74	84	51	44	108	36	32
95th Queue (ft)	214	166	213	135	143	143	150	101	79	193	92	57
Link Distance (ft)	572	572	572			620	620		544		503	
Upstream Blk Time (%)			0									
Queuing Penalty (veh)			0									
Storage Bay Dist (ft)				340	340			260		300		150
Storage Blk Time (%)										0	0	
Queuing Penalty (veh)										0	0	

Intersection: 3: 481 North off-ramp/481 North on-ramp & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	T	R	L	LT	R
Maximum Queue (ft)	139	147	157	189	117	83	200	224	103
Average Queue (ft)	47	37	50	63	30	21	72	129	26
95th Queue (ft)	92	96	111	131	76	53	155	193	65
Link Distance (ft)		620	620	356	356			1069	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	150					330	350		220
Storage Blk Time (%)	0	0						0	
Queuing Penalty (veh)	0	0						0	

Intersection: 4: Marketfair Plaza & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	18	29	2	34	58	63	45	22
Average Queue (ft)	0	1	0	4	4	4	8	2
95th Queue (ft)	7	10	1	20	24	27	28	11
Link Distance (ft)	356	356			625	625	288	288
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			250	150				
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 5: Water Board/Great Northern Mall West & Rt 31 Seg 1

Movement	EB	EB	EB	EB	WB	WB	WB	SB	SB	SB
Directions Served	L	L	T	TR	T	T	R	LT	R	R
Maximum Queue (ft)	36	53	46	41	100	107	13	49	62	25
Average Queue (ft)	3	13	1	1	20	17	0	8	14	3
95th Queue (ft)	17	36	14	12	58	55	4	29	38	16
Link Distance (ft)			625	625	797	797		345	345	345
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	330	330					150			
Storage Blk Time (%)						0				
Queuing Penalty (veh)						0				

Intersection: 6: Laz-Boy/Great Northern East & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	LT	R
Maximum Queue (ft)	28	138	146	61	137	150	112	75	31	47
Average Queue (ft)	4	46	48	13	35	41	44	30	1	13
95th Queue (ft)	19	104	109	40	90	100	87	58	12	39
Link Distance (ft)		797	797		1437	1437	393	393	414	414
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	300			210						
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 7: Morgan Road & Rt 31 Seg 1

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	T	R	L	TR
Maximum Queue (ft)	138	317	298	130	183	193	198	187	124	77	91	383
Average Queue (ft)	32	167	111	49	68	86	88	78	37	27	34	177
95th Queue (ft)	81	260	217	92	129	151	157	141	85	53	70	293
Link Distance (ft)		1437	1437			589	589		1049			1291
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	275			275	300			550		250	400	
Storage Blk Time (%)		1	0									0
Queuing Penalty (veh)		0	0									0

Intersection: 8: Henry Clay Boulevard & Rt 31 Seg 2

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	32	460	197	278	310	185
Average Queue (ft)	5	218	77	107	146	77
95th Queue (ft)	21	385	139	207	250	142
Link Distance (ft)		1654		4993	1071	1000
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	425		475			
Storage Blk Time (%)		0				
Queuing Penalty (veh)		0				

Intersection: 9: Caughdenoy Road & Rt 31 Seg 3

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	310	228	121	125
Average Queue (ft)	120	88	49	44
95th Queue (ft)	231	174	89	85
Link Distance (ft)	3900	1654	3895	3715
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 10: Lawton Rd/Legionaire Dr & Rt 31 Seg 5

Movement	EB	EB	B15	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	T	L	TR	L	TR	L	TR
Maximum Queue (ft)	192	1640	1236	71	228	81	134	126	53
Average Queue (ft)	11	811	254	22	72	21	54	41	11
95th Queue (ft)	98	1977	1192	54	160	55	100	90	37
Link Distance (ft)		1701	2010		2976		575	583	
Upstream Blk Time (%)		21	0						
Queuing Penalty (veh)		179	4						
Storage Bay Dist (ft)	250			250		130			175
Storage Blk Time (%)		42			0		0	0	
Queuing Penalty (veh)		2			0		0	0	

Intersection: 11: Route 11 & Rt 31 Seg 6

Movement	EB	EB	EB	B23	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	T	L	T	TR	L	T	R	L	T
Maximum Queue (ft)	274	443	336	2987	192	115	172	101	98	214	147	96
Average Queue (ft)	30	409	329	2460	126	22	72	30	28	104	59	35
95th Queue (ft)	135	444	356	3806	201	73	136	69	66	177	112	73
Link Distance (ft)		336		2976	120	120	120		506	506		572
Upstream Blk Time (%)		45	22	5	17	0	1					
Queuing Penalty (veh)		439	0	46	48	0	4					
Storage Bay Dist (ft)	225		300					190			325	
Storage Blk Time (%)	0	19	58									
Queuing Penalty (veh)	0	103	283									

Intersection: 11: Route 11 & Rt 31 Seg 6

Movement	SB
Directions Served	TR
Maximum Queue (ft)	95
Average Queue (ft)	27
95th Queue (ft)	64
Link Distance (ft)	572
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: I-81 SB On-Ramp/I-81 SB Off-Ramp & Rt 31 Seg 6

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	T	TR	L	T	T	LT	R
Maximum Queue (ft)	156	155	180	296	383	280	192
Average Queue (ft)	148	155	175	215	133	107	57
95th Queue (ft)	179	157	190	359	319	203	119
Link Distance (ft)	82	82		278	278	1127	
Upstream Blk Time (%)	55	73		5	1		
Queuing Penalty (veh)	328	437		35	9		
Storage Bay Dist (ft)			130				200
Storage Blk Time (%)			42	0		3	
Queuing Penalty (veh)			154	2		4	

Intersection: 13: I-81 NB Off-Ramp/Pardee Road & Rt 31 Seg 6

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	T	TR	L	T	R	R
Maximum Queue (ft)	115	156	128	523	464	376	272	149	278
Average Queue (ft)	42	60	47	505	204	173	42	78	130
95th Queue (ft)	88	113	95	590	443	291	135	127	223
Link Distance (ft)		278	278	450	450		1088		786
Upstream Blk Time (%)				45	0				
Queuing Penalty (veh)				261	2				
Storage Bay Dist (ft)	100					450		100	
Storage Blk Time (%)	1	2				0	1	3	
Queuing Penalty (veh)	4	2				0	4	8	

Intersection: 14: Rt 31 Seg 6/Route 31 & LakeShore Rd.

Movement	EB	WB	SW
Directions Served	L	T	R
Maximum Queue (ft)	126	99	353
Average Queue (ft)	50	6	325
95th Queue (ft)	94	49	437
Link Distance (ft)		249	270
Upstream Blk Time (%)		0	79
Queuing Penalty (veh)		0	496
Storage Bay Dist (ft)	250		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 28: 481 NB Off-Ramp & Maple Road & Caughdenoy Road

Movement	EB	WB	NB	SB	SB
Directions Served	LT	TR	LT	L	R
Maximum Queue (ft)	3	2	63	86	5
Average Queue (ft)	0	0	28	40	0
95th Queue (ft)	2	2	47	65	3
Link Distance (ft)	1618	1396	1157	2601	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					50
Storage Blk Time (%)				2	0
Queuing Penalty (veh)				0	0

Intersection: 29: Caughdenoy Road & Entrance 1

Movement	WB	WB	NB	SB
Directions Served	L	R	R	L
Maximum Queue (ft)	64	66	2	58
Average Queue (ft)	21	24	0	7
95th Queue (ft)	49	49	1	30
Link Distance (ft)	624	624		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			200	200
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 30: Rt 31 Seg 4 & Entrance 2

Movement	SB	SB	SE	SE	NW	NW
Directions Served	L	R	L	T	T	R
Maximum Queue (ft)	263	107	222	233	204	113
Average Queue (ft)	116	41	90	91	78	42
95th Queue (ft)	196	78	162	171	147	77
Link Distance (ft)	1047	1047		3359	1079	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			200			200
Storage Blk Time (%)			0	0	0	
Queuing Penalty (veh)			2	0	0	

Zone Summary

Zone wide Queuing Penalty: 2857

Intersection: 2: Soule Road/481 South off-ramp & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	L	R	L	T	R
Maximum Queue (ft)	552	492	442	246	260	252	259	269	157	224	205	183
Average Queue (ft)	328	271	165	124	127	132	141	139	57	101	56	83
95th Queue (ft)	479	417	297	211	214	206	216	223	112	173	122	147
Link Distance (ft)	572	572	572			620	620		544		503	
Upstream Blk Time (%)	0	0	0									
Queuing Penalty (veh)	0	0	0									
Storage Bay Dist (ft)				340	340			260		300		150
Storage Blk Time (%)								0		0	0	2
Queuing Penalty (veh)								0		0	1	4

Intersection: 3: 481 North off-ramp/481 North on-ramp & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	T	R	L	LT	R
Maximum Queue (ft)	197	312	273	366	359	219	400	881	270
Average Queue (ft)	108	106	107	239	175	47	313	402	222
95th Queue (ft)	176	211	195	364	302	109	437	643	355
Link Distance (ft)		620	620	356	356			1069	
Upstream Blk Time (%)				1	0	0		0	
Queuing Penalty (veh)				8	1	0		0	
Storage Bay Dist (ft)	150					330	350		220
Storage Blk Time (%)	3	1			0	0	1	32	0
Queuing Penalty (veh)	19	2			0	0	5	258	1

Intersection: 4: Marketfair Plaza & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	109	112	37	98	158	129	175	70
Average Queue (ft)	35	35	5	29	44	40	75	21
95th Queue (ft)	84	81	23	66	106	95	135	48
Link Distance (ft)	356	356			625	625	288	288
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			250	150				
Storage Blk Time (%)					0			
Queuing Penalty (veh)					0			

Intersection: 5: Water Board/Great Northern Mall West & Rt 31 Seg 1

Movement	EB	EB	EB	EB	WB	WB	WB	NB	SB	SB	SB
Directions Served	L	L	T	TR	T	T	R	LTR	LT	R	R
Maximum Queue (ft)	144	154	135	121	223	215	114	29	93	193	157
Average Queue (ft)	63	79	22	23	83	82	8	1	32	95	42
95th Queue (ft)	115	127	74	72	170	165	49	10	69	162	109
Link Distance (ft)			625	625	797	797		316	345	345	345
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	330	330					150				
Storage Blk Time (%)					1	1					
Queuing Penalty (veh)					0	1					

Intersection: 6: Laz-Boy/Great Northern East & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	LT	R
Maximum Queue (ft)	60	142	127	41	216	219	103	64	97	80
Average Queue (ft)	17	41	33	7	54	59	36	20	30	32
95th Queue (ft)	42	103	87	27	140	152	77	49	69	60
Link Distance (ft)		797	797		1437	1437	393	393	414	414
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	300			210						
Storage Blk Time (%)					0					
Queuing Penalty (veh)					0					

Intersection: 7: Morgan Road & Rt 31 Seg 1

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	T	R	L	TR
Maximum Queue (ft)	263	305	248	134	199	310	314	277	205	60	75	282
Average Queue (ft)	127	167	108	53	75	153	174	131	91	28	26	114
95th Queue (ft)	210	254	200	97	139	248	269	218	158	51	58	206
Link Distance (ft)		1437	1437			589	589		1049			1291
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	275			275	300			550		250	400	
Storage Blk Time (%)	0	0	0			0			0			
Queuing Penalty (veh)	0	1	0			0			0			

Intersection: 8: Henry Clay Boulevard & Rt 31 Seg 2

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	475	911	176	431	602	85
Average Queue (ft)	59	485	72	209	302	26
95th Queue (ft)	279	888	130	361	485	61
Link Distance (ft)		1654		4993	1071	1000
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	425		475			
Storage Blk Time (%)		22		0		
Queuing Penalty (veh)		6		0		

Intersection: 9: Caughdenoy Road & Rt 31 Seg 3

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	400	337	152	87
Average Queue (ft)	166	113	57	34
95th Queue (ft)	303	227	106	66
Link Distance (ft)	3900	1654	3895	3715
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 10: Lawton Rd/Legionaire Dr & Rt 31 Seg 5

Movement	EB	EB	B15	WB	WB	B23	NB	NB	SB	SB
Directions Served	L	TR	T	L	TR	T	L	TR	L	TR
Maximum Queue (ft)	249	961	182	168	284	239	83	104	198	140
Average Queue (ft)	13	338	47	57	102	5	26	37	68	36
95th Queue (ft)	96	1040	413	111	203	69	62	74	142	84
Link Distance (ft)		1701	2010		2976	336		575	583	
Upstream Blk Time (%)		5				0				
Queuing Penalty (veh)		36				0				
Storage Bay Dist (ft)	250			250			130			175
Storage Blk Time (%)		17			0			0	2	
Queuing Penalty (veh)		1			0			0	1	

Intersection: 11: Route 11 & Rt 31 Seg 6

Movement	EB	EB	EB	B23	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	T	L	T	TR	L	T	R	L	T
Maximum Queue (ft)	275	437	336	2695	192	193	176	240	413	441	339	253
Average Queue (ft)	60	404	328	1836	158	131	88	98	185	210	156	73
95th Queue (ft)	206	460	358	3612	227	201	153	200	314	359	296	171
Link Distance (ft)		336		2976	120	120	120		506	506		572
Upstream Blk Time (%)		49	18	2	29	13	2		0	1		
Queuing Penalty (veh)		403	0	17	120	53	9		0	0		
Storage Bay Dist (ft)	225		300					190			325	
Storage Blk Time (%)	0	38	52					0	9		3	
Queuing Penalty (veh)	0	187	199					1	13		3	

Intersection: 11: Route 11 & Rt 31 Seg 6

Movement	SB
Directions Served	TR
Maximum Queue (ft)	196
Average Queue (ft)	77
95th Queue (ft)	141
Link Distance (ft)	572
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: I-81 SB On-Ramp/I-81 SB Off-Ramp & Rt 31 Seg 6

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	T	TR	L	T	T	LT	R
Maximum Queue (ft)	156	155	180	304	288	244	183
Average Queue (ft)	155	153	171	214	58	103	53
95th Queue (ft)	158	163	198	355	197	188	111
Link Distance (ft)	82	82		278	278	1127	
Upstream Blk Time (%)	64	51		4	0		
Queuing Penalty (veh)	435	350		28	1		
Storage Bay Dist (ft)			130				200
Storage Blk Time (%)			31	1		2	
Queuing Penalty (veh)			174	4		2	

Intersection: 13: I-81 NB Off-Ramp/Pardee Road & Rt 31 Seg 6

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	T	TR	L	T	R	R
Maximum Queue (ft)	150	311	309	523	523	500	1079	150	232
Average Queue (ft)	138	225	126	513	477	344	567	147	78
95th Queue (ft)	176	370	294	582	613	578	1218	165	167
Link Distance (ft)		278	278	450	450		1088		786
Upstream Blk Time (%)		6	1	69	42		20		
Queuing Penalty (veh)		35	5	381	230		0		
Storage Bay Dist (ft)	100					450		100	
Storage Blk Time (%)	24	14				0	1	57	
Queuing Penalty (veh)	105	40				1	12	322	

Intersection: 14: Rt 31 Seg 6/Route 31 & LakeShore Rd.

Movement	EB	EB	EB	WB	SW
Directions Served	L	T	T	T	R
Maximum Queue (ft)	300	575	500	221	331
Average Queue (ft)	256	317	57	64	187
95th Queue (ft)	368	757	309	211	393
Link Distance (ft)		503	503	249	270
Upstream Blk Time (%)		39	0	2	31
Queuing Penalty (veh)		295	1	13	102
Storage Bay Dist (ft)	250				
Storage Blk Time (%)	55				
Queuing Penalty (veh)	268				

Intersection: 28: 481 NB Off-Ramp & Maple Road & Caughdenoy Road

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LT	TR	LT	R	L	R
Maximum Queue (ft)	55	70	91	171	68	5
Average Queue (ft)	30	33	45	16	29	0
95th Queue (ft)	47	52	72	86	55	3
Link Distance (ft)	1618	1396	1157		2601	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)				250		50
Storage Blk Time (%)					1	0
Queuing Penalty (veh)					0	0

Intersection: 29: Caughdenoy Road & Entrance 1

Movement	WB	WB	NB	SB
Directions Served	L	R	R	L
Maximum Queue (ft)	59	68	13	56
Average Queue (ft)	18	23	0	7
95th Queue (ft)	44	48	5	31
Link Distance (ft)	624	624		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			200	200
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 30: Rt 31 Seg 4 & Entrance 2

Movement	SB	SB	SE	SE	NW	NW
Directions Served	L	R	L	T	T	R
Maximum Queue (ft)	256	110	221	268	254	159
Average Queue (ft)	115	44	84	93	97	40
95th Queue (ft)	195	83	156	185	182	86
Link Distance (ft)	1047	1047		3359	1079	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			200			200
Storage Blk Time (%)			0	0	0	0
Queuing Penalty (veh)			2	1	1	0

Zone Summary

Zone wide Queuing Penalty: 4160

Arterial Level of Service: EB Rt 31 Seg 1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Soule Road	2	23.8	33.9	0.1	12
481 North off-ramp	3	7.7	19.6	0.1	24
Marketfair Plaza	4	1.3	8.3	0.1	36
Water Board	5	0.7	12.5	0.1	39
Laz-Boy	6	4.6	19.7	0.2	31
Morgan Road	7	35.9	61.1	0.3	17
	24	7.8	19.3	0.1	24
Total		81.8	174.4	1.0	22

Arterial Level of Service: WB Rt 31 Seg 1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Morgan Road	7	21.5	32.1	0.1	14
Great Northern East	6	6.5	31.5	0.3	33
Great Northern Mall	5	2.5	17.7	0.2	34
Marketfair Plaza	4	1.2	12.9	0.1	38
481 North on-ramp	3	5.7	12.8	0.1	23
481 South off-ramp	2	15.7	27.4	0.1	17
Total		53.0	134.3	0.9	25

Arterial Level of Service: EB Rt 31 Seg 2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	59	3.2	30.7	0.4	49
Henry Clay Boulevard	8	30.4	51.7	0.3	23
Driveway	45	10.3	73.0	1.0	47
Total		43.9	155.3	1.7	39

Arterial Level of Service: WB Rt 31 Seg 2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Henry Clay Boulevard	8	17.7	81.2	1.0	42
Driveway	59	7.0	28.4	0.3	41
	24	3.7	31.0	0.4	48
Total		28.4	140.5	1.7	43

Arterial Level of Service: EB Rt 31 Seg 3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Caughdenoy Road	9	16.0	83.3	0.8	32
	21	4.3	33.6	0.3	35
Total		20.3	117.0	1.1	33

Arterial Level of Service: WB Rt 31 Seg 3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Caughdenoy Road	9	8.7	36.8	0.3	32
Driveway	45	7.9	75.3	0.8	36
Total		16.6	112.0	1.1	35

Arterial Level of Service: EB Rt 31 Seg 5

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Lawton Rd	10	119.3	165.1	0.3	8
	23	309.0	365.9	0.6	6
Total		428.3	531.0	0.9	6

Arterial Level of Service: WB Rt 31 Seg 5

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Legionaire Dr	10	8.4	54.3	0.6	38
	15	3.5	30.5	0.3	39
Total		11.9	84.8	0.9	39

Arterial Level of Service: EB Rt 31 Seg 6

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Route 11	11	69.8	79.8	0.1	4
Driveway	70	13.3	17.8	0.0	8
Driveway	36	40.4	47.4	0.1	5
I-81 SB On-Ramp	12	32.0	91.3	0.0	3
I-81 NB Off-Ramp	13	13.5	20.5	0.1	12
Driveway	27	1.5	11.2	0.1	32
LakeShore Rd.	14	0.4	11.3	0.1	33
Total		170.9	279.2	0.5	8

Arterial Level of Service: WB Rt 31 Seg 6

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	27	16.7	28.1	0.1	13
Pardee Road	13	56.8	134.7	0.1	5
I-81 SB Off-Ramp	12	4.8	11.8	0.1	20
Driveway	36	1.1	3.8	0.0	28
Driveway	70	2.0	9.2	0.1	27
Route 11	11	5.2	8.9	0.0	16
	23	2.1	10.7	0.1	27
Total		88.8	207.1	0.5	13

Arterial Level of Service: SE Rt 31 Seg 4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Entrance 2	30	13.7	55.7	0.6	42
Driveway	20	6.6	20.4	0.2	38
	15	43.4	68.8	0.4	20
Total		63.8	144.8	1.3	31

Arterial Level of Service: WB Rt 31 Seg 4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	20	2.6	28.1	0.4	50
Entrance 2	30	11.6	25.2	0.2	31
	21	7.7	50.1	0.6	47
Total		21.9	103.5	1.3	44

Arterial Level of Service: EB Rt 31 Seg 1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Soule Road	2	44.7	54.9	0.1	8
481 North off-ramp	3	14.5	26.4	0.1	18
Marketfair Plaza	4	3.3	10.4	0.1	28
Water Board	5	2.7	14.3	0.1	34
Laz-Boy	6	3.6	18.7	0.2	32
Morgan Road	7	30.3	54.4	0.3	19
	24	7.6	19.1	0.1	24
Total		106.6	198.3	1.0	19

Arterial Level of Service: WB Rt 31 Seg 1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Morgan Road	7	34.8	45.8	0.1	10
Great Northern East	6	9.4	33.7	0.3	31
Great Northern Mall	5	8.1	23.3	0.2	26
Marketfair Plaza	4	3.8	15.5	0.1	32
481 North on-ramp	3	28.4	35.9	0.1	8
481 South off-ramp	2	18.9	30.3	0.1	15
Total		103.4	184.5	0.9	18

Arterial Level of Service: EB Rt 31 Seg 2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	59	2.5	30.6	0.4	49
Henry Clay Boulevard	8	77.3	98.3	0.3	12
Driveway	45	13.6	75.9	1.0	45
Total		93.4	204.8	1.7	30

Arterial Level of Service: WB Rt 31 Seg 2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Henry Clay Boulevard	8	32.5	95.9	1.0	36
Driveway	59	7.3	28.6	0.3	41
	24	4.1	31.4	0.4	48
Total		43.8	155.9	1.7	39

Arterial Level of Service: EB Rt 31 Seg 3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Caughdenoy Road	9	20.9	88.0	0.8	31
	21	4.6	33.9	0.3	34
Total		25.5	121.9	1.1	32

Arterial Level of Service: WB Rt 31 Seg 3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Caughdenoy Road	9	10.5	38.8	0.3	30
Driveway	45	8.5	75.9	0.8	36
Total		19.0	114.6	1.1	34

Arterial Level of Service: EB Rt 31 Seg 5

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Lawton Rd	10	49.1	77.9	0.3	16
	23	267.5	324.0	0.6	6
Total		316.6	401.9	0.9	8

Arterial Level of Service: WB Rt 31 Seg 5

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Legionaire Dr	10	11.2	56.0	0.6	37
	15	4.3	31.2	0.3	38
Total		15.5	87.2	0.9	38

Arterial Level of Service: EB Rt 31 Seg 6

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Route 11	11	98.9	108.3	0.1	3
Driveway	70	4.6	8.8	0.0	16
Driveway	36	29.9	36.9	0.1	7
I-81 SB On-Ramp	12	29.3	32.9	0.0	3
I-81 NB Off-Ramp	13	16.0	23.0	0.1	10
Driveway	27	18.1	33.3	0.1	13
LakeShore Rd.	14	1.0	11.9	0.1	31
Total		197.8	255.1	0.5	7

Arterial Level of Service: WB Rt 31 Seg 6

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	27	47.0	58.6	0.1	6
Pardee Road	13	116.0	149.3	0.1	3
I-81 SB Off-Ramp	12	6.7	13.8	0.1	17
Driveway	36	1.0	3.9	0.0	27
Driveway	70	3.0	10.1	0.1	24
Route 11	11	15.1	18.8	0.0	7
	23	5.0	13.6	0.1	21
Total		193.8	268.0	0.5	7

Arterial Level of Service: SE Rt 31 Seg 4

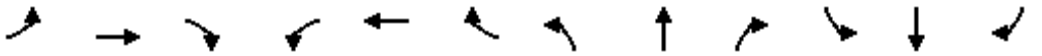
Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Entrance 2	30	13.2	55.2	0.6	42
Driveway	20	5.1	18.8	0.2	41
	15	11.7	37.5	0.4	38
Total		30.1	111.5	1.3	41

Arterial Level of Service: WB Rt 31 Seg 4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	20	3.6	29.1	0.4	49
Entrance 2	30	12.0	25.7	0.2	30
	21	8.2	50.7	0.6	46
Total		23.9	105.5	1.3	43

APPENDIX F

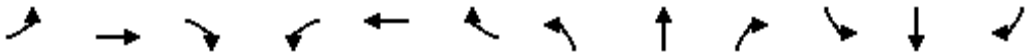
YEAR 2024 BACKGROUND DEVELOPMENT BUILD CONDITION CAPACITY ANALYSIS OUTPUT



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	488	654	288	620	0	96	0	152	245	40	84
Future Volume (vph)	0	488	654	288	620	0	96	0	152	245	40	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	6.0	5.0	5.0		6.0		5.0	6.0	5.0	5.0
Lane Util. Factor		0.95	1.00	0.97	0.95		1.00		1.00	1.00	1.00	1.00
Frpb, ped/bikes		1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00		1.00		0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00		0.95		1.00	0.95	1.00	1.00
Satd. Flow (prot)		3438	1568	3433	3374		1752		1553	1770	1863	1568
Flt Permitted		1.00	1.00	0.95	1.00		0.00		1.00	0.95	1.00	1.00
Satd. Flow (perm)		3438	1568	3433	3374		0		1553	1770	1863	1568
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	514	688	303	653	0	101	0	160	258	42	88
RTOR Reduction (vph)	0	0	167	0	0	0	0	0	127	0	0	80
Lane Group Flow (vph)	0	514	521	303	653	0	101	0	33	258	42	8
Confl. Peds. (#/hr)	1					1						
Heavy Vehicles (%)	2%	5%	3%	2%	7%	2%	3%	2%	4%	2%	2%	3%
Turn Type		NA	pm+ov	Prot	NA		pm+pt		pm+ov	pm+pt	NA	Perm
Protected Phases		6	7	5	2		7		5	3	8	
Permitted Phases			6				4 7		4 5	8		8
Actuated Green, G (s)		25.1	40.8	8.8	39.9		15.7		8.8	28.1	6.4	6.4
Effective Green, g (s)		26.1	40.8	9.8	40.9		15.7		9.8	28.1	7.4	7.4
Actuated g/C Ratio		0.33	0.51	0.12	0.51		0.20		0.12	0.35	0.09	0.09
Clearance Time (s)		6.0	6.0	6.0	6.0		6.0		6.0	6.0	6.0	6.0
Vehicle Extension (s)		4.8	3.0	2.0	4.8		3.0		2.0	2.0	2.0	2.0
Lane Grp Cap (vph)		1121	917	420	1724		343		190	621	172	145
v/s Ratio Prot		0.15	c0.11	c0.09	0.19		0.06		0.02	c0.15	0.02	
v/s Ratio Perm			0.22									0.01
v/c Ratio		0.46	0.57	0.72	0.38		0.29		0.17	0.42	0.24	0.06
Uniform Delay, d1		21.4	13.5	33.8	11.8		27.4		31.5	19.7	33.7	33.1
Progression Factor		1.00	1.00	0.69	0.61		1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2		1.4	0.8	4.9	0.6		0.5		0.2	0.2	0.3	0.1
Delay (s)		22.7	14.3	28.3	7.9		27.9		31.6	19.9	34.0	33.2
Level of Service		C	B	C	A		C		C	B	C	C
Approach Delay (s)		17.9			14.3			30.2			24.4	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	18.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	68.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	131	746	0	0	610	169	301	0	43	0	0	0
Future Volume (vph)	131	746	0	0	610	169	301	0	43	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.0			5.0	5.0	4.5	4.5	4.5			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.95	0.95	1.00			
Frpb, ped/bikes	1.00	1.00			1.00	0.98	1.00	1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	1719	3471			3438	1492	1603	1603	1455			
Flt Permitted	0.34	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	621	3471			3438	1492	1603	1603	1455			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	138	785	0	0	642	178	317	0	45	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	74	0	0	38	0	0	0
Lane Group Flow (vph)	138	785	0	0	642	104	158	159	7	0	0	0
Confl. Peds. (#/hr)	1					1						
Heavy Vehicles (%)	5%	4%	2%	1%	5%	6%	7%	0%	11%	0%	0%	0%
Turn Type	pm+pt	NA			NA	Perm	Split	NA	Perm			
Protected Phases	1	6			2		4	4				
Permitted Phases	6					2			4			
Actuated Green, G (s)	57.1	57.1			45.9	45.9	11.4	11.4	11.4			
Effective Green, g (s)	57.1	58.1			46.9	46.9	12.4	12.4	12.4			
Actuated g/C Ratio	0.71	0.73			0.59	0.59	0.16	0.16	0.16			
Clearance Time (s)	5.5	6.0			6.0	6.0	5.5	5.5	5.5			
Vehicle Extension (s)	1.0	5.0			5.0	5.0	1.0	1.0	1.0			
Lane Grp Cap (vph)	521	2520			2015	874	248	248	225			
v/s Ratio Prot	0.02	c0.23			0.19		0.10	c0.10				
v/s Ratio Perm	0.17					0.07			0.00			
v/c Ratio	0.26	0.31			0.32	0.12	0.64	0.64	0.03			
Uniform Delay, d1	4.1	3.9			8.4	7.4	31.7	31.7	28.7			
Progression Factor	0.64	0.56			0.71	0.29	1.00	1.00	1.00			
Incremental Delay, d2	0.1	0.3			0.4	0.3	3.9	4.2	0.0			
Delay (s)	2.7	2.5			6.4	2.4	35.6	35.9	28.7			
Level of Service	A	A			A	A	D	D	C			
Approach Delay (s)		2.5			5.5			34.9			0.0	
Approach LOS		A			A			C			A	

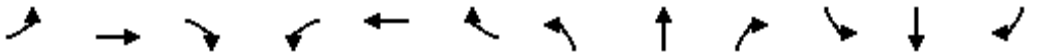
Intersection Summary			
HCM 2000 Control Delay	9.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	45.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	746	31	7	770	9	2
Future Volume (vph)	746	31	7	770	9	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3610	1615	1805	3610	1805	1615
Flt Permitted	1.00	1.00	0.35	1.00	0.95	1.00
Satd. Flow (perm)	3610	1615	666	3610	1805	1615
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	785	33	7	811	9	2
RTOR Reduction (vph)	0	8	0	0	0	2
Lane Group Flow (vph)	785	25	7	811	9	0
Turn Type	NA	pm+ov	pm+pt	NA	Prot	pm+ov
Protected Phases	6	4	3	2	4	3
Permitted Phases		6	2			4
Actuated Green, G (s)	59.1	61.8	66.3	66.3	2.7	4.4
Effective Green, g (s)	59.1	61.8	66.3	66.3	2.7	4.4
Actuated g/C Ratio	0.74	0.77	0.83	0.83	0.03	0.06
Clearance Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Vehicle Extension (s)	3.0	1.0	1.0	3.0	1.0	1.0
Lane Grp Cap (vph)	2666	1358	576	2991	60	199
v/s Ratio Prot	c0.22	0.00	0.00	c0.22	c0.00	0.00
v/s Ratio Perm		0.02	0.01			0.00
v/c Ratio	0.29	0.02	0.01	0.27	0.15	0.00
Uniform Delay, d1	3.5	2.1	1.3	1.5	37.5	35.7
Progression Factor	0.13	0.01	0.63	0.51	1.00	1.00
Incremental Delay, d2	0.3	0.0	0.0	0.2	0.4	0.0
Delay (s)	0.7	0.0	0.8	1.0	38.0	35.7
Level of Service	A	A	A	A	D	D
Approach Delay (s)	0.7			1.0	37.6	
Approach LOS	A			A	D	

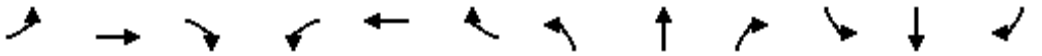
Intersection Summary			
HCM 2000 Control Delay	1.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	16.5
Intersection Capacity Utilization	33.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



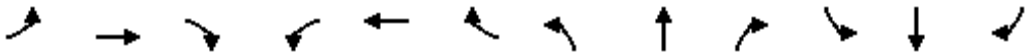
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	704	2	0	755	9	0	0	0	10	0	22
Future Volume (vph)	42	704	2	0	755	9	0	0	0	10	0	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.5			5.5	4.5					4.5	5.0
Lane Util. Factor	0.97	0.95			0.95	1.00					1.00	0.88
Frt	1.00	1.00			1.00	0.85					1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00					0.95	1.00
Satd. Flow (prot)	3433	3405			3406	1583					1770	2787
Flt Permitted	0.95	1.00			1.00	1.00					0.95	1.00
Satd. Flow (perm)	3433	3405			3406	1583					1770	2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	44	741	2	0	795	9	0	0	0	11	0	23
RTOR Reduction (vph)	0	0	0	0	0	2	0	0	0	0	0	0
Lane Group Flow (vph)	44	743	0	0	795	7	0	0	0	0	11	23
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	0%	0%	0%	2%	2%	2%
Turn Type	Prot	NA		Perm	NA	pm+ov				Split	NA	pm+ov
Protected Phases	1	6			2	3	4	4		3	3	1
Permitted Phases				2		2						3
Actuated Green, G (s)	3.6	65.7			56.1	58.4					2.3	5.9
Effective Green, g (s)	4.6	66.7			57.1	60.4					3.3	7.9
Actuated g/C Ratio	0.06	0.83			0.71	0.75					0.04	0.10
Clearance Time (s)	6.0	6.5			6.5	5.5					5.5	6.0
Vehicle Extension (s)	2.0	5.0			5.0	2.0					2.0	2.0
Lane Grp Cap (vph)	197	2838			2431	1195					73	275
v/s Ratio Prot	0.01	c0.22			c0.23	0.00					c0.01	0.00
v/s Ratio Perm						0.00						0.00
v/c Ratio	0.22	0.26			0.33	0.01					0.15	0.08
Uniform Delay, d1	36.0	1.4			4.3	2.4					37.0	32.8
Progression Factor	1.27	0.21			0.26	1.00					1.00	1.00
Incremental Delay, d2	0.2	0.2			0.4	0.0					0.3	0.0
Delay (s)	46.1	0.5			1.5	2.4					37.3	32.8
Level of Service	D	A			A	A					D	C
Approach Delay (s)		3.1			1.5			0.0			34.3	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	2.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	33.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



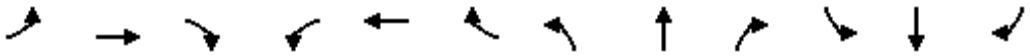
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	634	70	29	688	10	57	0	51	2	0	18
Future Volume (vph)	10	634	70	29	688	10	57	0	51	2	0	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.5		5.5	5.5		5.0	5.0			5.0	5.0
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00			1.00	1.00
Frt	1.00	0.99		1.00	1.00		1.00	0.85			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.95	1.00
Satd. Flow (prot)	1770	3367		1770	3400		1770	1583			1770	1583
Flt Permitted	0.33	1.00		0.37	1.00		0.76	1.00			0.72	1.00
Satd. Flow (perm)	614	3367		690	3400		1409	1583			1345	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	667	74	31	724	11	60	0	54	2	0	19
RTOR Reduction (vph)	0	8	0	0	1	0	0	49	0	0	0	16
Lane Group Flow (vph)	11	733	0	31	734	0	60	5	0	0	2	3
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	1	6			2			4			8	1
Permitted Phases	6			2			4			8		8
Actuated Green, G (s)	60.5	60.5		52.6	52.6		7.0	7.0			7.0	8.9
Effective Green, g (s)	61.5	61.5		53.6	53.6		8.0	8.0			8.0	10.9
Actuated g/C Ratio	0.77	0.77		0.67	0.67		0.10	0.10			0.10	0.14
Clearance Time (s)	6.0	6.5		6.5	6.5		6.0	6.0			6.0	6.0
Vehicle Extension (s)	2.0	5.0		5.0	5.0		2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	513	2588		462	2278		140	158			134	314
v/s Ratio Prot	0.00	c0.22			c0.22			0.00				0.00
v/s Ratio Perm	0.02			0.04			c0.04				0.00	0.00
v/c Ratio	0.02	0.28		0.07	0.32		0.43	0.03			0.01	0.01
Uniform Delay, d1	2.4	2.7		4.6	5.6		33.9	32.5			32.4	29.9
Progression Factor	1.30	1.24		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	0.0	0.3		0.3	0.4		0.8	0.0			0.0	0.0
Delay (s)	3.2	3.7		4.8	5.9		34.6	32.5			32.5	29.9
Level of Service	A	A		A	A		C	C			C	C
Approach Delay (s)		3.6			5.9			33.6			30.1	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	7.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	42.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	442	199	130	394	19	146	61	112	72	201	194
Future Volume (vph)	53	442	199	130	394	19	146	61	112	72	201	194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	5.5	5.5	6.5	5.5		6.5	5.5	6.0	5.5	5.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3438	1583	1687	3453		1703	1810	1583	1805	1734	
Flt Permitted	0.49	1.00	1.00	0.30	1.00		0.29	1.00	1.00	0.64	1.00	
Satd. Flow (perm)	904	3438	1583	537	3453		528	1810	1583	1221	1734	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	56	465	209	137	415	20	154	64	118	76	212	204
RTOR Reduction (vph)	0	0	136	0	3	0	0	0	75	0	32	0
Lane Group Flow (vph)	56	465	73	137	432	0	154	64	43	76	384	0
Heavy Vehicles (%)	2%	5%	2%	7%	4%	0%	6%	5%	2%	0%	1%	2%
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	1	6	3	5	2		3	8	5	7	4	
Permitted Phases	6		6	2			8		8	4		
Actuated Green, G (s)	26.3	21.1	30.2	33.5	24.7		33.8	24.7	33.5	39.6	27.6	
Effective Green, g (s)	26.3	22.1	32.2	32.5	25.7		33.8	25.7	33.5	41.6	28.6	
Actuated g/C Ratio	0.29	0.24	0.35	0.35	0.28		0.37	0.28	0.36	0.45	0.31	
Clearance Time (s)	6.0	6.5	6.5	6.0	6.5		6.5	6.5	6.0	6.5	6.5	
Vehicle Extension (s)	2.0	4.0	2.0	2.0	4.0		2.0	4.0	2.0	2.0	4.0	
Lane Grp Cap (vph)	307	824	647	293	963		309	505	575	633	538	
v/s Ratio Prot	0.01	c0.14	0.01	c0.04	0.13		c0.05	0.04	0.01	0.02	c0.22	
v/s Ratio Perm	0.04		0.03	c0.12			0.13		0.02	0.04		
v/c Ratio	0.18	0.56	0.11	0.47	0.45		0.50	0.13	0.07	0.12	0.71	
Uniform Delay, d1	24.3	30.8	20.3	21.5	27.4		21.0	24.8	19.2	14.5	28.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.1	1.1	0.0	0.4	0.5		0.5	0.2	0.0	0.0	4.8	
Delay (s)	24.4	31.8	20.3	22.0	27.8		21.5	25.0	19.2	14.5	32.9	
Level of Service	C	C	C	C	C		C	C	B	B	C	
Approach Delay (s)		28.0			26.4			21.3			30.0	
Approach LOS		C			C			C			C	

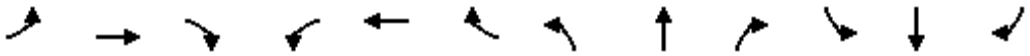
Intersection Summary			
HCM 2000 Control Delay	27.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	92.1	Sum of lost time (s)	24.0
Intersection Capacity Utilization	69.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	384	203	182	474	2	109	38	110	12	129	24
Future Volume (vph)	8	384	203	182	474	2	109	38	110	12	129	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0		6.0	6.0			6.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Frt	1.00	0.95		1.00	1.00		1.00	0.89			0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1805	1801		1805	1899		1805	1688			1856	
Flt Permitted	0.48	1.00		0.24	1.00		0.55	1.00			0.97	
Satd. Flow (perm)	911	1801		447	1899		1048	1688			1804	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	8	404	214	192	499	2	115	40	116	13	136	25
RTOR Reduction (vph)	0	16	0	0	0	0	0	95	0	0	6	0
Lane Group Flow (vph)	8	602	0	192	501	0	115	61	0	0	168	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)	43.2	42.4		56.8	50.0		15.6	15.6			15.6	
Effective Green, g (s)	43.2	42.4		56.8	50.0		15.6	15.6			15.6	
Actuated g/C Ratio	0.51	0.50		0.67	0.59		0.18	0.18			0.18	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0			6.0	
Vehicle Extension (s)	2.0	6.0		2.0	6.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	474	904		435	1125		193	312			333	
v/s Ratio Prot	0.00	c0.33		c0.04	c0.26			0.04				
v/s Ratio Perm	0.01			0.25			c0.11				0.09	
v/c Ratio	0.02	0.67		0.44	0.45		0.60	0.20			0.51	
Uniform Delay, d1	10.1	15.7		8.8	9.5		31.5	29.1			30.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.0	2.9		0.3	0.8		4.9	0.3			1.2	
Delay (s)	10.1	18.6		9.0	10.3		36.4	29.4			32.1	
Level of Service	B	B		A	B		D	C			C	
Approach Delay (s)		18.5			10.0			32.4			32.1	
Approach LOS		B			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	18.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	84.4	Sum of lost time (s)	18.0
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		

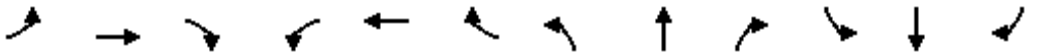
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	490	21	12	467	16	39	21	81	55	4	54
Future Volume (vph)	51	490	21	12	467	16	39	21	81	55	4	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			1.00			0.92			0.94	
Flt Protected		1.00			1.00			0.99			0.98	
Satd. Flow (prot)		1882			1889			1729			1735	
Flt Permitted		0.92			0.98			0.89			0.85	
Satd. Flow (perm)		1747			1861			1554			1509	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	54	516	22	13	492	17	41	22	85	58	4	57
RTOR Reduction (vph)	0	2	0	0	2	0	0	71	0	0	48	0
Lane Group Flow (vph)	0	590	0	0	520	0	0	77	0	0	71	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		25.4			25.4			6.8			6.8	
Effective Green, g (s)		25.4			25.4			6.8			6.8	
Actuated g/C Ratio		0.59			0.59			0.16			0.16	
Clearance Time (s)		5.5			5.5			5.0			5.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		1039			1107			247			240	
v/s Ratio Prot												
v/s Ratio Perm		c0.34			0.28			c0.05			0.05	
v/c Ratio		0.57			0.47			0.31			0.30	
Uniform Delay, d1		5.3			4.9			15.9			15.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.2			0.7			0.7			0.7	
Delay (s)		6.5			5.5			16.6			16.5	
Level of Service		A			A			B			B	
Approach Delay (s)		6.5			5.5			16.6			16.5	
Approach LOS		A			A			B			B	

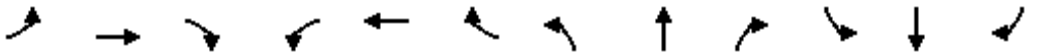
Intersection Summary			
HCM 2000 Control Delay	8.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	42.7	Sum of lost time (s)	10.5
Intersection Capacity Utilization	72.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	829	10	36	499	26	28	2	92	51	9	7
Future Volume (vph)	4	829	10	36	499	26	28	2	92	51	9	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.99		1.00	0.85		1.00	0.93	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1841		1752	1831		1770	1589		1770	1741	
Flt Permitted	0.43	1.00		0.18	1.00		0.75	1.00		0.69	1.00	
Satd. Flow (perm)	795	1841		340	1831		1392	1589		1291	1741	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	873	11	38	525	27	29	2	97	54	9	7
RTOR Reduction (vph)	0	0	0	0	1	0	0	88	0	0	6	0
Lane Group Flow (vph)	4	884	0	38	551	0	29	11	0	54	10	0
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)	49.2	48.5		54.2	51.0		7.3	7.3		7.3	7.3	
Effective Green, g (s)	49.2	48.5		54.2	51.0		7.3	7.3		7.3	7.3	
Actuated g/C Ratio	0.65	0.64		0.72	0.68		0.10	0.10		0.10	0.10	
Clearance Time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Vehicle Extension (s)	2.0	5.0		2.0	5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	526	1182		303	1236		134	153		124	168	
v/s Ratio Prot	0.00	c0.48		c0.01	0.30			0.01			0.01	
v/s Ratio Perm	0.00			0.08			0.02			c0.04		
v/c Ratio	0.01	0.75		0.13	0.45		0.22	0.07		0.44	0.06	
Uniform Delay, d1	4.6	9.3		6.8	5.7		31.5	31.0		32.2	31.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	3.2		0.1	0.5		0.8	0.2		2.4	0.1	
Delay (s)	4.6	12.4		6.9	6.2		32.3	31.2		34.6	31.1	
Level of Service	A	B		A	A		C	C		C	C	
Approach Delay (s)		12.4			6.3			31.5			33.8	
Approach LOS		B			A			C			C	

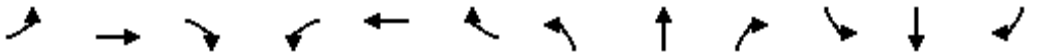
Intersection Summary			
HCM 2000 Control Delay	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	75.5	Sum of lost time (s)	16.5
Intersection Capacity Utilization	62.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	907	61	240	515	92	39	30	169	87	63	20
Future Volume (vph)	36	907	61	240	515	92	39	30	169	87	63	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	11	10	12	12	10	12	12
Total Lost time (s)	4.5	4.0		4.5	4.0		5.0	4.0	4.5	4.5	4.0	
Lane Util. Factor	1.00	0.95		0.97	0.95		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.99		1.00	0.98		1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1662	3447		3319	3199		1636	1900	1583	1589	3402	
Flt Permitted	0.95	1.00		0.95	1.00		0.70	1.00	1.00	0.47	1.00	
Satd. Flow (perm)	1662	3447		3319	3199		1201	1900	1583	786	3402	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	38	955	64	253	542	97	41	32	178	92	66	21
RTOR Reduction (vph)	0	4	0	0	10	0	0	0	0	0	19	0
Lane Group Flow (vph)	38	1015	0	253	629	0	41	32	178	92	68	0
Heavy Vehicles (%)	5%	4%	0%	2%	6%	10%	3%	0%	2%	6%	3%	0%
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	4.1	60.7		13.5	70.1		8.9	5.0	18.5	16.2	8.4	
Effective Green, g (s)	5.1	62.7		14.5	72.1		10.9	7.0	20.5	18.2	10.4	
Actuated g/C Ratio	0.05	0.57		0.13	0.66		0.10	0.06	0.19	0.17	0.09	
Clearance Time (s)	5.5	6.0		5.5	6.0		6.0	6.0	5.5	5.5	6.0	
Vehicle Extension (s)	1.0	2.0		2.0	2.0		1.0	2.0	2.0	1.5	2.0	
Lane Grp Cap (vph)	77	1964		437	2096		138	120	295	194	321	
v/s Ratio Prot	0.02	c0.29		0.08	0.20		0.01	0.02	c0.08	c0.04	0.02	
v/s Ratio Perm							0.02		0.03	c0.04		
v/c Ratio	0.49	0.52		0.58	0.30		0.30	0.27	0.60	0.47	0.21	
Uniform Delay, d1	51.2	14.4		44.9	8.1		45.8	49.1	41.0	40.7	46.0	
Progression Factor	1.00	1.00		0.92	0.82		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.8	1.0		1.1	0.4		0.4	0.4	2.4	0.7	0.1	
Delay (s)	53.0	15.4		42.3	7.0		46.2	49.5	43.4	41.4	46.1	
Level of Service	D	B		D	A		D	D	D	D	D	
Approach Delay (s)		16.7			17.0			44.6			43.7	
Approach LOS		B			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	21.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	17.5
Intersection Capacity Utilization	55.8%	ICU Level of Service	B
Analysis Period (min)	15		

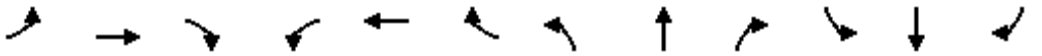
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	553	649	767	733	0	0	0	0	127	0	153
Future Volume (vph)	0	553	649	767	733	0	0	0	0	127	0	153
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	12	12	12	12	13	12
Total Lost time (s)		3.5		3.5	3.5						4.0	4.0
Lane Util. Factor		0.95		0.97	0.95						1.00	1.00
Frt		0.92		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)		3102		3255	3292						1811	1583
Flt Permitted		1.00		0.95	1.00						0.95	1.00
Satd. Flow (perm)		3102		3255	3292						1811	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	582	683	807	772	0	0	0	0	134	0	161
RTOR Reduction (vph)	0	186	0	0	0	0	0	0	0	0	0	143
Lane Group Flow (vph)	0	1079	0	807	772	0	0	0	0	0	134	18
Heavy Vehicles (%)	0%	5%	2%	4%	6%	0%	0%	0%	0%	3%	0%	2%
Turn Type		NA		Prot	NA					Split	NA	Perm
Protected Phases		2		1	6					4	4	
Permitted Phases												4
Actuated Green, G (s)		44.0		40.0	89.0						11.0	11.0
Effective Green, g (s)		45.5		41.5	90.5						12.0	12.0
Actuated g/C Ratio		0.41		0.38	0.82						0.11	0.11
Clearance Time (s)		5.0		5.0	5.0						5.0	5.0
Vehicle Extension (s)		3.0		2.0	3.0						1.5	1.5
Lane Grp Cap (vph)		1283		1228	2708						197	172
v/s Ratio Prot		c0.35		c0.25	0.23						c0.07	
v/s Ratio Perm												0.01
v/c Ratio		0.84		0.66	0.29						0.68	0.10
Uniform Delay, d1		29.0		28.4	2.3						47.2	44.1
Progression Factor		0.70		0.45	0.98						1.00	1.00
Incremental Delay, d2		4.9		2.1	0.2						7.5	0.1
Delay (s)		25.2		14.8	2.4						54.6	44.2
Level of Service		C		B	A						D	D
Approach Delay (s)		25.2			8.8			0.0			49.0	
Approach LOS		C			A			A			D	

Intersection Summary			
HCM 2000 Control Delay	19.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	75.1%	ICU Level of Service	D
Analysis Period (min)	15		

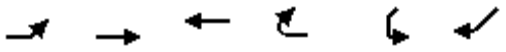
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	564	0	0	1083	80	244	32	324	0	0	174
Future Volume (vph)	120	564	0	0	1083	80	244	32	324	0	0	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	12	12	11	12	11	12	12	12
Total Lost time (s)	4.0	3.5			3.5		4.0	4.0	4.0			4.0
Lane Util. Factor	1.00	0.95			0.95		0.97	1.00	0.88			1.00
Frt	1.00	1.00			0.99		1.00	1.00	0.85			0.86
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00			1.00
Satd. Flow (prot)	1646	3355			3469		3077	1387	2544			1522
Flt Permitted	0.12	1.00			1.00		0.95	1.00	1.00			1.00
Satd. Flow (perm)	216	3355			3469		3077	1387	2544			1522
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	126	594	0	0	1140	84	257	34	341	0	0	183
RTOR Reduction (vph)	0	0	0	0	4	0	0	0	0	0	0	0
Lane Group Flow (vph)	126	594	0	0	1220	0	257	34	341	0	0	183
Heavy Vehicles (%)	6%	4%	0%	0%	3%	3%	10%	37%	8%	0%	0%	8%
Turn Type	pm+pt	NA			NA		Split	NA	Perm			Over
Protected Phases	5	2			6		8	8				5
Permitted Phases	2								8			
Actuated Green, G (s)	80.3	80.3			57.6		18.2	18.2	18.2			17.7
Effective Green, g (s)	81.3	82.3			59.6		20.2	20.2	20.2			18.7
Actuated g/C Ratio	0.74	0.75			0.54		0.18	0.18	0.18			0.17
Clearance Time (s)	5.0	5.5			5.5		6.0	6.0	6.0			5.0
Vehicle Extension (s)	3.0	3.0			3.0		2.0	2.0	2.0			3.0
Lane Grp Cap (vph)	402	2510			1879		565	254	467			258
v/s Ratio Prot	0.05	0.18			c0.35		0.08	0.02				c0.12
v/s Ratio Perm	0.18								c0.13			
v/c Ratio	0.31	0.24			0.65		0.45	0.13	0.73			0.71
Uniform Delay, d1	9.5	4.2			17.8		40.0	37.6	42.3			43.1
Progression Factor	0.73	0.65			1.00		1.00	1.00	1.00			1.00
Incremental Delay, d2	0.3	0.1			1.8		0.2	0.1	5.0			8.6
Delay (s)	7.2	2.9			19.6		40.2	37.7	47.3			51.7
Level of Service	A	A			B		D	D	D			D
Approach Delay (s)		3.6			19.6			43.9			51.7	
Approach LOS		A			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	23.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.5
Intersection Capacity Utilization	61.6%	ICU Level of Service	B
Analysis Period (min)	15		

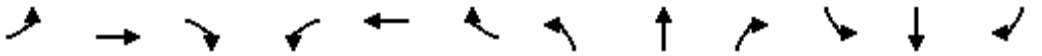
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	179	710	699	0	0	629
Future Volume (Veh/h)	179	710	699	0	0	629
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	188	747	736	0	0	662
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)		1075	348			
pX, platoon unblocked	0.80				0.80	0.80
vC, conflicting volume	736				1486	736
vC1, stage 1 conf vol					736	
vC2, stage 2 conf vol					750	
vCu, unblocked vol	549				1482	549
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	77				100	0
cM capacity (veh/h)	828				268	389

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	SW 1
Volume Total	188	374	374	736	662
Volume Left	188	0	0	0	0
Volume Right	0	0	0	0	662
cSH	828	1700	1700	1700	389
Volume to Capacity	0.23	0.22	0.22	0.43	1.70
Queue Length 95th (ft)	22	0	0	0	1006
Control Delay (s)	10.6	0.0	0.0	0.0	350.4
Lane LOS	B				F
Approach Delay (s)	2.1			0.0	350.4
Approach LOS					F

Intersection Summary			
Average Delay	100.3		
Intersection Capacity Utilization	82.4%	ICU Level of Service	E
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	94	0	0	35	9	13	74	38	130	0	7
Future Volume (Veh/h)	3	94	0	0	35	9	13	74	38	130	0	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	3	99	0	0	37	9	14	78	40	137	0	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									10			2
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	46			99			146	151	99	186	146	42
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	46			99			146	151	99	186	146	42
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	90	96	80	100	99
cM capacity (veh/h)	1575			1507			820	743	962	686	747	1035

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	102	46	132	144
Volume Left	3	0	14	137
Volume Right	0	9	40	7
cSH	1575	1700	1083	721
Volume to Capacity	0.00	0.03	0.12	0.20
Queue Length 95th (ft)	0	0	10	19
Control Delay (s)	0.2	0.0	10.0	11.4
Lane LOS	A		A	B
Approach Delay (s)	0.2	0.0	10.0	11.4
Approach LOS			A	B

Intersection Summary				
Average Delay	7.0			
Intersection Capacity Utilization	27.9%	ICU Level of Service	A	
Analysis Period (min)	15			

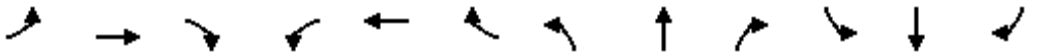
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	35	59	43	45	59	78
Future Volume (Veh/h)	35	59	43	45	59	78
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	37	62	45	47	62	82
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	251	45			92	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	251	45			92	
tC, single (s)	6.5	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	95	94			96	
cM capacity (veh/h)	690	1002			1454	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	37	62	45	47	62	82
Volume Left	37	0	0	0	62	0
Volume Right	0	62	0	47	0	0
cSH	690	1002	1700	1700	1454	1700
Volume to Capacity	0.05	0.06	0.03	0.03	0.04	0.05
Queue Length 95th (ft)	4	5	0	0	3	0
Control Delay (s)	10.5	8.8	0.0	0.0	7.6	0.0
Lane LOS	B	A			A	
Approach Delay (s)	9.5		0.0		3.3	
Approach LOS	A					

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	19.9%	ICU Level of Service	A
Analysis Period (min)	15		

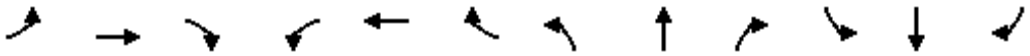
Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (vph)	267	132	171	455	363	218
Future Volume (vph)	267	132	171	455	363	218
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1641	1468	1641	1863	1863	1468
Flt Permitted	0.95	1.00	0.51	1.00	1.00	1.00
Satd. Flow (perm)	1641	1468	877	1863	1863	1468
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	281	139	180	479	382	229
RTOR Reduction (vph)	0	96	0	0	0	132
Lane Group Flow (vph)	281	43	180	479	382	97
Heavy Vehicles (%)	10%	10%	10%	2%	2%	10%
Turn Type	Prot	Perm	Perm	NA	NA	Perm
Protected Phases	4			6	2	
Permitted Phases		4	6			2
Actuated Green, G (s)	13.9	13.9	19.1	19.1	19.1	19.1
Effective Green, g (s)	13.9	13.9	19.1	19.1	19.1	19.1
Actuated g/C Ratio	0.31	0.31	0.42	0.42	0.42	0.42
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	506	453	372	790	790	623
v/s Ratio Prot	c0.17			c0.26	0.21	
v/s Ratio Perm		0.03	0.21			0.07
v/c Ratio	0.56	0.09	0.48	0.61	0.48	0.16
Uniform Delay, d1	13.0	11.1	9.4	10.0	9.4	8.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.3	0.1	1.0	1.3	0.5	0.1
Delay (s)	14.3	11.2	10.4	11.4	9.8	8.1
Level of Service	B	B	B	B	A	A
Approach Delay (s)	13.3			11.1	9.2	
Approach LOS	B			B	A	

Intersection Summary			
HCM 2000 Control Delay	10.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	957	652	536	1496	0	236	0	162	194	71	175
Future Volume (vph)	0	957	652	536	1496	0	236	0	162	194	71	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	6.0	5.0	5.0		6.0		5.0	6.0	5.0	5.0
Lane Util. Factor		0.95	1.00	0.97	0.95		1.00		1.00	1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00		1.00		0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00		0.95		1.00	0.95	1.00	1.00
Satd. Flow (prot)		3574	1583	3467	3574		1787		1599	1787	1863	1599
Flt Permitted		1.00	1.00	0.95	1.00		0.00		1.00	0.95	1.00	1.00
Satd. Flow (perm)		3574	1583	3467	3574		0		1599	1787	1863	1599
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1007	686	564	1575	0	248	0	171	204	75	184
RTOR Reduction (vph)	0	0	63	0	0	0	0	0	80	0	0	167
Lane Group Flow (vph)	0	1007	623	564	1575	0	248	0	91	204	75	17
Heavy Vehicles (%)	0%	1%	2%	1%	1%	0%	1%	0%	1%	1%	2%	1%
Turn Type		NA	pm+ov	Prot	NA		pm+pt		pm+ov	pm+pt	NA	Perm
Protected Phases		6	7	5	2		7		5	3	8	
Permitted Phases			6				4 7		4 5	8		8
Actuated Green, G (s)		33.0	50.4	17.6	56.6		17.4		17.6	31.4	8.0	8.0
Effective Green, g (s)		34.0	50.4	18.6	57.6		17.4		18.6	31.4	9.0	9.0
Actuated g/C Ratio		0.34	0.50	0.19	0.58		0.17		0.19	0.31	0.09	0.09
Clearance Time (s)		6.0	6.0	6.0	6.0		6.0		6.0	6.0	6.0	6.0
Vehicle Extension (s)		4.8	3.0	2.0	4.8		3.0		2.0	2.0	2.0	2.0
Lane Grp Cap (vph)		1215	892	644	2058		310		297	561	167	143
v/s Ratio Prot		c0.28	c0.12	c0.16	0.44		0.14		0.06	0.11	c0.04	
v/s Ratio Perm			0.27									0.01
v/c Ratio		0.83	0.70	0.88	0.77		0.80		0.31	0.36	0.45	0.12
Uniform Delay, d1		30.3	19.0	39.6	16.1		39.6		35.1	26.6	43.1	41.8
Progression Factor		1.00	1.00	0.54	0.33		1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2		6.6	2.4	7.8	1.5		13.7		0.2	0.1	0.7	0.1
Delay (s)		36.9	21.4	29.2	6.8		53.3		35.4	26.7	43.9	42.0
Level of Service		D	C	C	A		D		D	C	D	D
Approach Delay (s)		30.6			12.7			46.0			35.6	
Approach LOS		C			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	24.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	76.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



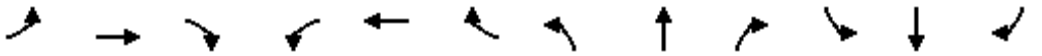
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	213	1091	0	0	1013	273	1079	0	268	0	0	0
Future Volume (vph)	213	1091	0	0	1013	273	1079	0	268	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.0			5.0	5.0	4.5	4.5	4.5			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.95	0.95	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	1787	3574			3574	1583	1698	1698	1599			
Flt Permitted	0.09	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	177	3574			3574	1583	1698	1698	1599			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	224	1148	0	0	1066	287	1136	0	282	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	178	0	0	59	0	0	0
Lane Group Flow (vph)	224	1148	0	0	1066	109	568	568	223	0	0	0
Heavy Vehicles (%)	1%	1%	2%	1%	1%	2%	1%	0%	1%	0%	0%	0%
Turn Type	pm+pt	NA			NA	Perm	Split	NA	Perm			
Protected Phases	1	6			2		4	4				
Permitted Phases	6					2			4			
Actuated Green, G (s)	52.9	52.9			36.9	36.9	35.6	35.6	35.6			
Effective Green, g (s)	52.9	53.9			37.9	37.9	36.6	36.6	36.6			
Actuated g/C Ratio	0.53	0.54			0.38	0.38	0.37	0.37	0.37			
Clearance Time (s)	5.5	6.0			6.0	6.0	5.5	5.5	5.5			
Vehicle Extension (s)	1.0	5.0			5.0	5.0	1.0	1.0	1.0			
Lane Grp Cap (vph)	262	1926			1354	599	621	621	585			
v/s Ratio Prot	c0.09	0.32			0.30		c0.33	0.33				
v/s Ratio Perm	c0.36					0.07			0.14			
v/c Ratio	0.85	0.60			0.79	0.18	0.91	0.91	0.38			
Uniform Delay, d1	24.2	15.7			27.5	20.7	30.2	30.2	23.4			
Progression Factor	0.47	0.74			0.73	0.71	1.00	1.00	1.00			
Incremental Delay, d2	14.8	1.0			4.3	0.6	17.8	17.8	0.2			
Delay (s)	26.2	12.6			24.5	15.3	48.0	48.0	23.5			
Level of Service	C	B			C	B	D	D	C			
Approach Delay (s)		14.8			22.5			43.1			0.0	
Approach LOS		B			C			D			A	

Intersection Summary			
HCM 2000 Control Delay	27.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	82.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1258	111	46	1176	110	51
Future Volume (vph)	1258	111	46	1176	110	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3610	1615	1805	3610	1805	1615
Flt Permitted	1.00	1.00	0.17	1.00	0.95	1.00
Satd. Flow (perm)	3610	1615	322	3610	1805	1615
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1324	117	48	1238	116	54
RTOR Reduction (vph)	0	24	0	0	0	43
Lane Group Flow (vph)	1324	93	48	1238	116	11
Turn Type	NA	pm+ov	pm+pt	NA	Prot	pm+ov
Protected Phases	6	4	3	2	4	3
Permitted Phases		6	2			4
Actuated Green, G (s)	69.7	79.5	79.2	79.2	9.8	13.8
Effective Green, g (s)	69.7	79.5	79.2	79.2	9.8	13.8
Actuated g/C Ratio	0.70	0.80	0.79	0.79	0.10	0.14
Clearance Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Vehicle Extension (s)	3.0	1.0	1.0	3.0	1.0	1.0
Lane Grp Cap (vph)	2516	1372	314	2859	176	311
v/s Ratio Prot	c0.37	0.01	0.01	c0.34	c0.06	0.00
v/s Ratio Perm		0.05	0.11			0.01
v/c Ratio	0.53	0.07	0.15	0.43	0.66	0.04
Uniform Delay, d1	7.2	2.2	6.8	3.3	43.5	37.3
Progression Factor	0.38	0.37	0.85	0.83	1.00	1.00
Incremental Delay, d2	0.7	0.0	0.1	0.4	6.6	0.0
Delay (s)	3.4	0.8	5.8	3.2	50.1	37.3
Level of Service	A	A	A	A	D	D
Approach Delay (s)	3.2			3.3	46.1	
Approach LOS	A			A	D	

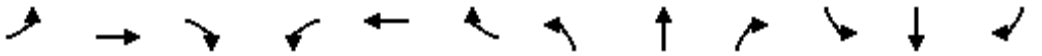
Intersection Summary			
HCM 2000 Control Delay	5.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.5
Intersection Capacity Utilization	53.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	263	1047	0	0	986	46	1	0	0	42	0	234
Future Volume (vph)	263	1047	0	0	986	46	1	0	0	42	0	234
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.5			5.5	4.5		4.5			4.5	5.0
Lane Util. Factor	0.97	0.95			0.95	1.00		1.00			1.00	0.88
Frt	1.00	1.00			1.00	0.85		1.00			1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00		0.95			0.95	1.00
Satd. Flow (prot)	3433	3406			3406	1583		1805			1770	2787
Flt Permitted	0.95	1.00			1.00	1.00		0.95			0.95	1.00
Satd. Flow (perm)	3433	3406			3406	1583		1805			1770	2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	277	1102	0	0	1038	48	1	0	0	44	0	246
RTOR Reduction (vph)	0	0	0	0	0	17	0	0	0	0	0	0
Lane Group Flow (vph)	277	1102	0	0	1038	31	0	1	0	0	44	246
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	0%	0%	0%	2%	2%	2%
Turn Type	Prot	NA		Perm	NA	pm+ov	Split	NA		Split	NA	pm+ov
Protected Phases	1	6			2	3	4	4		3	3	1
Permitted Phases				2		2						3
Actuated Green, G (s)	12.4	75.7			57.3	63.3		0.8			6.0	18.4
Effective Green, g (s)	13.4	76.7			58.3	65.3		1.8			7.0	20.4
Actuated g/C Ratio	0.13	0.77			0.58	0.65		0.02			0.07	0.20
Clearance Time (s)	6.0	6.5			6.5	5.5		5.5			5.5	6.0
Vehicle Extension (s)	2.0	5.0			5.0	2.0		1.0			2.0	2.0
Lane Grp Cap (vph)	460	2612			1985	1033		32			123	568
v/s Ratio Prot	c0.08	0.32			c0.30	0.00		c0.00			0.02	c0.06
v/s Ratio Perm						0.02						0.03
v/c Ratio	0.60	0.42			0.52	0.03		0.03			0.36	0.43
Uniform Delay, d1	40.8	4.0			12.5	6.1		48.2			44.4	34.8
Progression Factor	1.14	0.39			0.75	0.14		1.00			1.00	1.00
Incremental Delay, d2	1.3	0.4			0.9	0.0		0.1			0.7	0.2
Delay (s)	47.6	2.0			10.3	0.8		48.4			45.0	34.9
Level of Service	D	A			B	A		D			D	C
Approach Delay (s)		11.2			9.9			48.4			36.5	
Approach LOS		B			A			D			D	

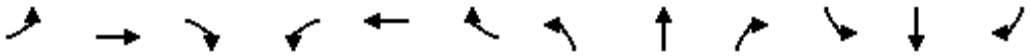
Intersection Summary			
HCM 2000 Control Delay	13.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	53.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	1009	37	15	933	46	38	3	24	30	2	61
Future Volume (vph)	43	1009	37	15	933	46	38	3	24	30	2	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.5		5.5	5.5		5.0	5.0			5.0	5.0
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.87			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.96	1.00
Satd. Flow (prot)	1770	3392		1770	3388		1770	1613			1779	1583
Flt Permitted	0.24	1.00		0.26	1.00		0.73	1.00			0.72	1.00
Satd. Flow (perm)	440	3392		483	3388		1369	1613			1338	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	45	1062	39	16	982	48	40	3	25	32	2	64
RTOR Reduction (vph)	0	2	0	0	2	0	0	23	0	0	0	56
Lane Group Flow (vph)	45	1099	0	16	1028	0	40	5	0	0	34	8
Confl. Peds. (#/hr)	1											
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	1	6			2			4			8	1
Permitted Phases	6			2			4			8		8
Actuated Green, G (s)	80.9	80.9		70.8	70.8		6.6	6.6			6.6	10.7
Effective Green, g (s)	81.9	81.9		71.8	71.8		7.6	7.6			7.6	12.7
Actuated g/C Ratio	0.82	0.82		0.72	0.72		0.08	0.08			0.08	0.13
Clearance Time (s)	6.0	6.5		6.5	6.5		6.0	6.0			6.0	6.0
Vehicle Extension (s)	2.0	5.0		5.0	5.0		2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	428	2778		346	2432		104	122			101	280
v/s Ratio Prot	0.01	c0.32			c0.30			0.00				0.00
v/s Ratio Perm	0.08			0.03			c0.03				0.03	0.00
v/c Ratio	0.11	0.40		0.05	0.42		0.38	0.04			0.34	0.03
Uniform Delay, d1	2.4	2.4		4.1	5.7		44.0	42.8			43.8	38.2
Progression Factor	0.24	0.20		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	0.0	0.4		0.3	0.5		0.9	0.0			0.7	0.0
Delay (s)	0.6	0.9		4.4	6.2		44.8	42.9			44.5	38.3
Level of Service	A	A		A	A		D	D			D	D
Approach Delay (s)		0.9			6.2			44.0			40.4	
Approach LOS		A			A			D			D	

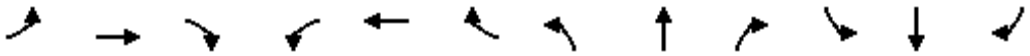
Intersection Summary			
HCM 2000 Control Delay	6.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	53.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	266	513	283	144	585	85	290	201	122	39	93	120
Future Volume (vph)	266	513	283	144	585	85	290	201	122	39	93	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	5.5	5.5	6.5	5.5		6.5	5.5	6.0	5.5	5.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	0.92	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1787	3574	1599	1719	3511		1787	1863	1615	1752	1696	
Flt Permitted	0.14	1.00	1.00	0.41	1.00		0.33	1.00	1.00	0.63	1.00	
Satd. Flow (perm)	270	3574	1599	737	3511		614	1863	1615	1153	1696	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	280	540	298	152	616	89	305	212	128	41	98	126
RTOR Reduction (vph)	0	0	160	0	11	0	0	0	75	0	44	0
Lane Group Flow (vph)	280	540	138	152	695	0	305	212	53	41	180	0
Heavy Vehicles (%)	1%	1%	1%	5%	1%	0%	1%	2%	0%	3%	2%	3%
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	1	6	3	5	2		3	8	5	7	4	
Permitted Phases	6		6	2			8		8	4		
Actuated Green, G (s)	42.1	27.9	42.6	32.3	23.0		39.8	30.3	39.6	21.6	18.6	
Effective Green, g (s)	42.1	28.9	44.6	31.3	24.0		39.8	31.3	39.6	23.6	19.6	
Actuated g/C Ratio	0.44	0.30	0.46	0.33	0.25		0.41	0.33	0.41	0.25	0.20	
Clearance Time (s)	6.0	6.5	6.5	6.0	6.5		6.5	6.5	6.0	6.5	6.5	
Vehicle Extension (s)	2.0	4.0	2.0	2.0	4.0		2.0	4.0	2.0	2.0	4.0	
Lane Grp Cap (vph)	342	1075	834	330	877		434	607	666	308	346	
v/s Ratio Prot	c0.12	0.15	0.03	0.04	0.20		c0.11	0.11	0.01	0.01	0.11	
v/s Ratio Perm	c0.24		0.06	0.11			c0.18		0.03	0.03		
v/c Ratio	0.82	0.50	0.17	0.46	0.79		0.70	0.35	0.08	0.13	0.52	
Uniform Delay, d1	21.3	27.6	14.9	23.9	33.7		20.8	24.6	17.1	28.0	34.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	13.4	0.5	0.0	0.4	5.2		4.2	0.5	0.0	0.1	1.8	
Delay (s)	34.7	28.1	14.9	24.3	38.9		25.0	25.1	17.1	28.0	35.9	
Level of Service	C	C	B	C	D		C	C	B	C	D	
Approach Delay (s)		26.3			36.3			23.5			34.6	
Approach LOS		C			D			C			C	

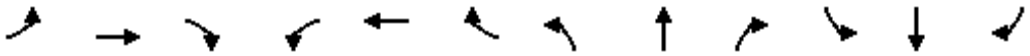
Intersection Summary			
HCM 2000 Control Delay	29.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	96.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	538	133	122	552	16	201	152	176	12	26	19
Future Volume (vph)	27	538	133	122	552	16	201	152	176	12	26	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0		6.0	6.0			6.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Frt	1.00	0.97		1.00	1.00		1.00	0.92			0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1805	1843		1805	1892		1805	1747			1795	
Flt Permitted	0.32	1.00		0.18	1.00		0.72	1.00			0.80	
Satd. Flow (perm)	611	1843		342	1892		1364	1747			1444	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	28	566	140	128	581	17	212	160	185	13	27	20
RTOR Reduction (vph)	0	8	0	0	1	0	0	39	0	0	15	0
Lane Group Flow (vph)	28	699	0	128	597	0	212	306	0	0	45	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)	49.3	46.1		55.5	49.2		21.8	21.8			21.8	
Effective Green, g (s)	49.3	46.1		55.5	49.2		21.8	21.8			21.8	
Actuated g/C Ratio	0.53	0.50		0.60	0.53		0.24	0.24			0.24	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0			6.0	
Vehicle Extension (s)	2.0	6.0		2.0	6.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	368	921		305	1009		322	413			341	
v/s Ratio Prot	0.00	c0.38		c0.03	c0.32			c0.18				
v/s Ratio Perm	0.04			0.22			0.16				0.03	
v/c Ratio	0.08	0.76		0.42	0.59		0.66	0.74			0.13	
Uniform Delay, d1	11.0	18.6		12.6	14.7		31.8	32.6			27.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.0	4.8		0.3	1.7		4.8	7.0			0.2	
Delay (s)	11.0	23.3		12.9	16.4		36.6	39.6			27.9	
Level of Service	B	C		B	B		D	D			C	
Approach Delay (s)		22.9			15.8			38.5			27.9	
Approach LOS		C			B			D			C	

Intersection Summary			
HCM 2000 Control Delay	24.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	92.2	Sum of lost time (s)	18.0
Intersection Capacity Utilization	76.9%	ICU Level of Service	D
Analysis Period (min)	15		

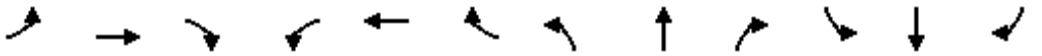
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	581	33	15	592	27	32	54	61	18	16	43
Future Volume (vph)	63	581	33	15	592	27	32	54	61	18	16	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			0.99			0.94			0.93	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		1879			1887			1775			1737	
Flt Permitted		0.90			0.98			0.90			0.91	
Satd. Flow (perm)		1699			1853			1617			1595	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	66	612	35	16	623	28	34	57	64	19	17	45
RTOR Reduction (vph)	0	3	0	0	2	0	0	47	0	0	38	0
Lane Group Flow (vph)	0	710	0	0	665	0	0	108	0	0	43	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		30.2			30.2			7.3			7.3	
Effective Green, g (s)		30.2			30.2			7.3			7.3	
Actuated g/C Ratio		0.63			0.63			0.15			0.15	
Clearance Time (s)		5.5			5.5			5.0			5.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		1068			1165			245			242	
v/s Ratio Prot												
v/s Ratio Perm		c0.42			0.36			c0.07			0.03	
v/c Ratio		0.67			0.57			0.44			0.18	
Uniform Delay, d1		5.7			5.1			18.5			17.7	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		2.1			1.1			1.3			0.4	
Delay (s)		7.8			6.2			19.8			18.1	
Level of Service		A			A			B			B	
Approach Delay (s)		7.8			6.2			19.8			18.1	
Approach LOS		A			A			B			B	

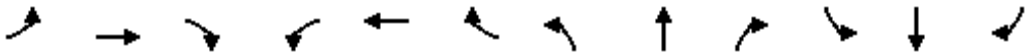
Intersection Summary			
HCM 2000 Control Delay	8.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	48.0	Sum of lost time (s)	10.5
Intersection Capacity Utilization	84.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	668	32	153	685	36	35	4	61	92	25	28
Future Volume (vph)	7	668	32	153	685	36	35	4	61	92	25	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.86		1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1832		1752	1831		1770	1600		1770	1715	
Flt Permitted	0.33	1.00		0.20	1.00		0.72	1.00		0.71	1.00	
Satd. Flow (perm)	617	1832		367	1831		1343	1600		1328	1715	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	7	703	34	161	721	38	37	4	64	97	26	29
RTOR Reduction (vph)	0	2	0	0	1	0	0	57	0	0	26	0
Lane Group Flow (vph)	7	735	0	161	758	0	37	11	0	97	29	0
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)	45.6	44.9		59.8	53.6		9.3	9.3		9.3	9.3	
Effective Green, g (s)	45.6	44.9		59.8	53.6		9.3	9.3		9.3	9.3	
Actuated g/C Ratio	0.57	0.56		0.75	0.67		0.12	0.12		0.12	0.12	
Clearance Time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Vehicle Extension (s)	2.0	5.0		2.0	5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	361	1026		436	1225		155	185		154	199	
v/s Ratio Prot	0.00	c0.40		c0.04	c0.41			0.01			0.02	
v/s Ratio Perm	0.01			0.23			0.03			c0.07		
v/c Ratio	0.02	0.72		0.37	0.62		0.24	0.06		0.63	0.15	
Uniform Delay, d1	7.6	12.9		7.6	7.5		32.2	31.5		33.8	31.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	3.0		0.2	1.4		0.8	0.1		7.8	0.3	
Delay (s)	7.6	15.9		7.8	8.8		33.0	31.7		41.6	32.2	
Level of Service	A	B		A	A		C	C		D	C	
Approach Delay (s)		15.8			8.7			32.1			38.2	
Approach LOS		B			A			C			D	

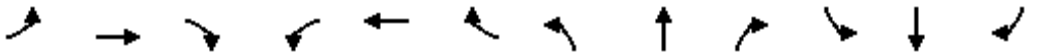
Intersection Summary			
HCM 2000 Control Delay	15.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	80.1	Sum of lost time (s)	16.5
Intersection Capacity Utilization	71.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	676	109	409	683	159	141	282	506	159	184	82
Future Volume (vph)	46	676	109	409	683	159	141	282	506	159	184	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	11	10	12	12	10	12	12
Total Lost time (s)	4.5	4.0		4.5	4.0		5.0	4.0	4.5	4.5	4.0	
Lane Util. Factor	1.00	0.95		0.97	0.95		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.98		1.00	0.97		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1745	3505		3385	3325		1685	1863	1599	1620	3433	
Flt Permitted	0.95	1.00		0.95	1.00		0.51	1.00	1.00	0.24	1.00	
Satd. Flow (perm)	1745	3505		3385	3325		898	1863	1599	417	3433	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	48	712	115	431	719	167	148	297	533	167	194	86
RTOR Reduction (vph)	0	10	0	0	16	0	0	0	0	0	52	0
Lane Group Flow (vph)	48	817	0	431	870	0	148	297	533	167	228	0
Heavy Vehicles (%)	0%	1%	0%	0%	2%	2%	0%	2%	1%	4%	0%	1%
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	5.7	38.1		18.6	51.0		29.1	22.0	40.6	31.0	22.7	
Effective Green, g (s)	6.7	40.1		19.6	53.0		31.1	24.0	42.6	33.0	24.7	
Actuated g/C Ratio	0.06	0.36		0.18	0.48		0.28	0.22	0.39	0.30	0.22	
Clearance Time (s)	5.5	6.0		5.5	6.0		6.0	6.0	5.5	5.5	6.0	
Vehicle Extension (s)	1.0	2.0		2.0	2.0		1.0	2.0	2.0	1.5	2.0	
Lane Grp Cap (vph)	106	1277		603	1602		311	406	619	226	770	
v/s Ratio Prot	0.03	c0.23		0.13	0.26		0.03	0.16	c0.15	c0.06	0.07	
v/s Ratio Perm							0.10		0.18	0.16		
v/c Ratio	0.45	0.64		0.71	0.54		0.48	0.73	0.86	0.74	0.30	
Uniform Delay, d1	49.9	29.0		42.6	20.0		31.1	40.0	31.0	31.1	35.4	
Progression Factor	1.00	1.00		0.93	0.66		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.1	2.5		3.1	1.2		0.4	5.8	11.4	10.4	0.1	
Delay (s)	51.0	31.4		42.7	14.5		31.5	45.8	42.4	41.4	35.5	
Level of Service	D	C		D	B		C	D	D	D	D	
Approach Delay (s)		32.5			23.7			41.8			37.7	
Approach LOS		C			C			D			D	

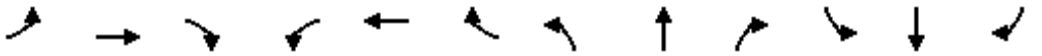
Intersection Summary			
HCM 2000 Control Delay	32.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	17.5
Intersection Capacity Utilization	72.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1016	353	333	1115	0	0	0	0	138	0	136
Future Volume (vph)	0	1016	353	333	1115	0	0	0	0	138	0	136
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	12	12	12	12	13	12
Total Lost time (s)		3.5		3.5	3.5						4.0	4.0
Lane Util. Factor		0.95		0.97	0.95						1.00	1.00
Frpb, ped/bikes		1.00		1.00	1.00						1.00	1.00
Flpb, ped/bikes		1.00		1.00	1.00						1.00	1.00
Frt		0.96		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)		3294		3319	3455						1865	1553
Flt Permitted		1.00		0.95	1.00						0.95	1.00
Satd. Flow (perm)		3294		3319	3455						1865	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1069	372	351	1174	0	0	0	0	145	0	143
RTOR Reduction (vph)	0	32	0	0	0	0	0	0	0	0	0	127
Lane Group Flow (vph)	0	1410	0	351	1174	0	0	0	0	0	145	16
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	0%	1%	3%	2%	1%	0%	0%	0%	0%	0%	0%	4%
Turn Type		NA		Prot	NA					Split	NA	Perm
Protected Phases		2		1	6					4	4	
Permitted Phases												4
Actuated Green, G (s)		59.0		24.4	88.4						11.6	11.6
Effective Green, g (s)		60.5		25.9	89.9						12.6	12.6
Actuated g/C Ratio		0.55		0.24	0.82						0.11	0.11
Clearance Time (s)		5.0		5.0	5.0						5.0	5.0
Vehicle Extension (s)		3.0		2.0	3.0						1.5	1.5
Lane Grp Cap (vph)		1811		781	2823						213	177
v/s Ratio Prot		c0.43		c0.11	0.34						c0.08	
v/s Ratio Perm												0.01
v/c Ratio		0.78		0.45	0.42						0.68	0.09
Uniform Delay, d1		19.5		36.0	2.8						46.8	43.6
Progression Factor		0.88		0.53	1.70						1.00	1.00
Incremental Delay, d2		1.9		1.3	0.4						6.9	0.1
Delay (s)		19.1		20.5	5.1						53.7	43.7
Level of Service		B		C	A						D	D
Approach Delay (s)		19.1			8.6			0.0			48.7	
Approach LOS		B			A			A			D	

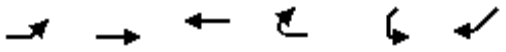
Intersection Summary			
HCM 2000 Control Delay	16.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	66.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	295	859	0	0	899	199	463	104	665	0	0	87
Future Volume (vph)	295	859	0	0	899	199	463	104	665	0	0	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	12	12	11	12	11	12	12	12
Total Lost time (s)	4.0	3.5			3.5		4.0	4.0	4.0			4.0
Lane Util. Factor	1.00	0.95			0.95		0.97	1.00	0.88			1.00
Frt	1.00	1.00			0.97		1.00	1.00	0.85			0.86
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00			1.00
Satd. Flow (prot)	1728	3455			3471		3319	1792	2720			1611
Flt Permitted	0.09	1.00			1.00		0.95	1.00	1.00			1.00
Satd. Flow (perm)	161	3455			3471		3319	1792	2720			1611
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	311	904	0	0	946	209	487	109	700	0	0	92
RTOR Reduction (vph)	0	0	0	0	16	0	0	0	0	0	0	0
Lane Group Flow (vph)	311	904	0	0	1139	0	487	109	700	0	0	92
Heavy Vehicles (%)	1%	1%	0%	0%	1%	2%	2%	6%	1%	0%	0%	2%
Turn Type	pm+pt	NA			NA		Split	NA	Perm			Over
Protected Phases	5	2			6		8	8				5
Permitted Phases	2								8			
Actuated Green, G (s)	67.9	67.9			45.6		30.6	30.6	30.6			17.3
Effective Green, g (s)	68.9	69.9			47.6		32.6	32.6	32.6			18.3
Actuated g/C Ratio	0.63	0.64			0.43		0.30	0.30	0.30			0.17
Clearance Time (s)	5.0	5.5			5.5		6.0	6.0	6.0			5.0
Vehicle Extension (s)	3.0	3.0			3.0		2.0	2.0	2.0			3.0
Lane Grp Cap (vph)	361	2195			1501		983	531	806			268
v/s Ratio Prot	c0.14	0.26			0.33		0.15	0.06				0.06
v/s Ratio Perm	c0.39								c0.26			
v/c Ratio	0.86	0.41			0.76		0.50	0.21	0.87			0.34
Uniform Delay, d1	30.5	9.9			26.3		31.9	29.0	36.7			40.5
Progression Factor	0.57	0.48			1.00		1.00	1.00	1.00			1.00
Incremental Delay, d2	12.5	0.4			3.6		0.1	0.1	9.5			0.8
Delay (s)	29.9	5.1			30.0		32.1	29.1	46.2			41.3
Level of Service	C	A			C		C	C	D			D
Approach Delay (s)		11.5			30.0			39.4			41.3	
Approach LOS		B			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	27.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.5
Intersection Capacity Utilization	70.8%	ICU Level of Service	C
Analysis Period (min)	15		

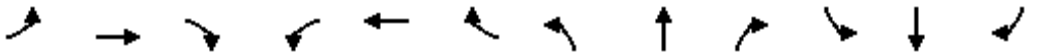
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	545	979	900	0	0	335
Future Volume (Veh/h)	545	979	900	0	0	335
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	574	1031	947	0	0	353
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)		1075	348			
pX, platoon unblocked	0.69				0.69	0.69
vC, conflicting volume	947				2610	947
vC1, stage 1 conf vol					947	
vC2, stage 2 conf vol					1664	
vCu, unblocked vol	701				3068	701
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	8				100	0
cM capacity (veh/h)	627				12	267

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	SW 1
Volume Total	574	516	516	947	353
Volume Left	574	0	0	0	0
Volume Right	0	0	0	0	353
cSH	627	1700	1700	1700	267
Volume to Capacity	0.92	0.30	0.30	0.56	1.32
Queue Length 95th (ft)	294	0	0	0	452
Control Delay (s)	44.1	0.0	0.0	0.0	206.1
Lane LOS	E				F
Approach Delay (s)	15.8			0.0	206.1
Approach LOS					F

Intersection Summary			
Average Delay	33.7		
Intersection Capacity Utilization	84.2%	ICU Level of Service	E
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	6	80	0	0	78	52	63	183	224	64	0	2
Future Volume (vph)	6	80	0	0	78	52	63	183	224	64	0	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	6	84	0	0	82	55	66	193	236	67	0	2

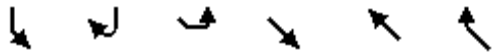
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	90	137	259	236	67	2
Volume Left (vph)	6	0	66	0	67	0
Volume Right (vph)	0	55	0	236	0	2
Hadj (s)	0.01	-0.24	0.05	-0.60	0.20	-0.60
Departure Headway (s)	4.9	4.6	4.6	3.2	5.0	3.2
Degree Utilization, x	0.12	0.17	0.33	0.21	0.09	0.00
Capacity (veh/h)	680	726	749	1122	675	1121
Control Delay (s)	8.6	8.5	9.9	7.0	8.5	6.2
Approach Delay (s)	8.6	8.5	8.5		8.4	
Approach LOS	A	A	A		A	

Intersection Summary				
Delay	8.5			
Level of Service	A			
Intersection Capacity Utilization	35.8%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	31	52	104	40	52	46
Future Volume (Veh/h)	31	52	104	40	52	46
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	33	55	109	42	55	48
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	267	109			151	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	267	109			151	
tC, single (s)	6.5	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	95	94			96	
cM capacity (veh/h)	677	923			1382	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	33	55	109	42	55	48
Volume Left	33	0	0	0	55	0
Volume Right	0	55	0	42	0	0
cSH	677	923	1700	1700	1382	1700
Volume to Capacity	0.05	0.06	0.06	0.02	0.04	0.03
Queue Length 95th (ft)	4	5	0	0	3	0
Control Delay (s)	10.6	9.1	0.0	0.0	7.7	0.0
Lane LOS	B	A			A	
Approach Delay (s)	9.7		0.0		4.1	
Approach LOS	A					

Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	19.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (vph)	238	119	154	506	515	194
Future Volume (vph)	238	119	154	506	515	194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1641	1468	1641	1863	1863	1468
Flt Permitted	0.95	1.00	0.37	1.00	1.00	1.00
Satd. Flow (perm)	1641	1468	635	1863	1863	1468
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	251	125	162	533	542	204
RTOR Reduction (vph)	0	91	0	0	0	104
Lane Group Flow (vph)	251	34	162	533	542	100
Heavy Vehicles (%)	10%	10%	10%	2%	2%	10%
Turn Type	Prot	Perm	Perm	NA	NA	Perm
Protected Phases	4			6	2	
Permitted Phases		4	6			2
Actuated Green, G (s)	13.4	13.4	24.2	24.2	24.2	24.2
Effective Green, g (s)	13.4	13.4	24.2	24.2	24.2	24.2
Actuated g/C Ratio	0.27	0.27	0.49	0.49	0.49	0.49
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	443	396	309	908	908	716
v/s Ratio Prot	c0.15			0.29	c0.29	
v/s Ratio Perm		0.02	0.26			0.07
v/c Ratio	0.57	0.09	0.52	0.59	0.60	0.14
Uniform Delay, d1	15.6	13.5	8.7	9.1	9.2	7.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.7	0.1	1.6	1.0	1.1	0.1
Delay (s)	17.3	13.6	10.3	10.1	10.2	7.1
Level of Service	B	B	B	B	B	A
Approach Delay (s)	16.0			10.1	9.4	
Approach LOS	B			B	A	

Intersection Summary			
HCM 2000 Control Delay	11.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	49.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	72.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Intersection: 2: Soule Road/481 South off-ramp & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	L	R	L	T	R
Maximum Queue (ft)	276	226	274	167	168	188	198	135	111	241	99	84
Average Queue (ft)	141	85	121	75	80	73	83	55	45	103	34	35
95th Queue (ft)	230	177	215	130	134	144	152	104	82	178	73	63
Link Distance (ft)	572	572	572			620	620		544		503	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)				340	340			260		300		150
Storage Blk Time (%)										0		
Queuing Penalty (veh)										0		

Intersection: 3: 481 North off-ramp/481 North on-ramp & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	T	R	L	LT	R
Maximum Queue (ft)	133	144	156	190	124	82	194	236	103
Average Queue (ft)	46	38	49	64	29	20	73	129	26
95th Queue (ft)	92	97	108	136	75	51	159	196	64
Link Distance (ft)		620	620	356	356			1069	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	150					330	350		220
Storage Blk Time (%)	0	0						0	0
Queuing Penalty (veh)	0	0						0	0

Intersection: 4: Marketfair Plaza & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	32	29	3	35	53	62	51	22
Average Queue (ft)	1	1	0	4	4	4	10	2
95th Queue (ft)	9	11	2	21	23	25	32	11
Link Distance (ft)	356	356			625	625	288	288
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			250	150				
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 5: Water Board/Great Northern Mall West & Rt 31 Seg 1

Movement	EB	EB	EB	EB	WB	WB	WB	SB	SB	SB
Directions Served	L	L	T	TR	T	T	R	LT	R	R
Maximum Queue (ft)	40	51	32	42	83	92	11	46	53	29
Average Queue (ft)	3	14	1	2	20	19	0	9	13	3
95th Queue (ft)	17	37	11	14	56	57	4	30	38	16
Link Distance (ft)			625	625	797	797		345	345	345
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	330	330					150			
Storage Blk Time (%)						0				
Queuing Penalty (veh)						0				

Intersection: 6: Laz-Boy/Great Northern East & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	LT	R
Maximum Queue (ft)	27	146	134	54	138	128	101	64	34	41
Average Queue (ft)	4	47	44	12	30	38	43	29	1	14
95th Queue (ft)	18	106	101	35	84	93	82	55	12	39
Link Distance (ft)		797	797		1437	1437	393	393	414	414
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	300			210						
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 7: Morgan Road & Rt 31 Seg 1

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	T	R	L	TR
Maximum Queue (ft)	114	293	249	122	172	184	191	200	113	80	98	336
Average Queue (ft)	31	162	102	50	68	87	87	77	36	26	36	180
95th Queue (ft)	72	249	204	90	125	151	152	143	79	53	74	289
Link Distance (ft)		1437	1437			589	589		1049			1291
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	275			275	300			550		250	400	
Storage Blk Time (%)		0	0									
Queuing Penalty (veh)		0	0									

Intersection: 8: Henry Clay Boulevard & Rt 31 Seg 2

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	TR	L	TR	L	TR	LTR
Maximum Queue (ft)	33	430	188	234	166	154	193
Average Queue (ft)	4	180	74	88	77	57	77
95th Queue (ft)	21	335	137	178	134	109	144
Link Distance (ft)		1648		4988		1071	999
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	425		475		300		
Storage Blk Time (%)		0					
Queuing Penalty (veh)		0					

Intersection: 9: Caughdenoy Road & Rt 31 Seg 3

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	292	224	119	109
Average Queue (ft)	117	84	51	43
95th Queue (ft)	217	165	91	79
Link Distance (ft)	3900	1654	3895	3715
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 10: Lawton Rd/Legionaire Dr & Rt 31 Seg 5

Movement	EB	EB	WB	WB	B23	NB	NB	SB	SB
Directions Served	L	TR	L	TR	T	L	TR	L	TR
Maximum Queue (ft)	32	331	70	192	5	84	124	108	50
Average Queue (ft)	2	128	21	64	0	23	46	35	13
95th Queue (ft)	15	237	50	136	3	56	87	74	40
Link Distance (ft)		1701		2976	335		575	583	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	250		250			130			175
Storage Blk Time (%)		1		0			0		
Queuing Penalty (veh)		0		0			0		

Intersection: 11: Route 11 & Rt 31 Seg 6

Movement	EB	EB	EB	B23	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	TR	T	L	L	T	TR	L	T	R	L
Maximum Queue (ft)	202	412	333	215	134	160	131	188	91	91	230	153
Average Queue (ft)	29	156	207	8	62	84	35	91	26	23	110	60
95th Queue (ft)	86	328	328	98	114	133	103	179	63	58	189	116
Link Distance (ft)		335		2976	116	116	116	116		502	502	
Upstream Blk Time (%)		1	0		1	3	0	4				
Queuing Penalty (veh)		11	0		2	6	0	8				
Storage Bay Dist (ft)	225		300						190			325
Storage Blk Time (%)		2	2									
Queuing Penalty (veh)		10	8									

Intersection: 11: Route 11 & Rt 31 Seg 6

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	102	83
Average Queue (ft)	36	27
95th Queue (ft)	73	63
Link Distance (ft)	567	567
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: I-81 SB On-Ramp/I-81 SB Off-Ramp & Rt 31 Seg 6

Movement	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	T	TR	L	L	T	T	LT	R
Maximum Queue (ft)	157	157	179	264	129	162	231	180
Average Queue (ft)	144	157	106	112	27	58	98	53
95th Queue (ft)	186	160	176	199	75	118	178	108
Link Distance (ft)	85	85		271	271	271	1125	
Upstream Blk Time (%)	34	56		0				
Queuing Penalty (veh)	205	336		0				
Storage Bay Dist (ft)			130					200
Storage Blk Time (%)			2	3			1	
Queuing Penalty (veh)			6	10			2	

Intersection: 13: I-81 NB Off-Ramp/Pardee Road & Rt 31 Seg 6

Movement	EB	EB	EB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	T	T	T	TR	L	L	T	R	R	R
Maximum Queue (ft)	106	82	99	506	430	200	220	129	297	224	286
Average Queue (ft)	31	26	40	377	154	82	111	32	161	123	132
95th Queue (ft)	73	60	80	540	337	152	181	86	237	207	227
Link Distance (ft)		271	271	433	433			444	444		782
Upstream Blk Time (%)				9	0						
Queuing Penalty (veh)				53	0						
Storage Bay Dist (ft)	100					200	200			125	
Storage Blk Time (%)	1	0				0	1	0	21	4	
Queuing Penalty (veh)	2	0				0	0	0	34	7	

Intersection: 14: Rt 31 Seg 6/Route 31 & LakeShore Rd.

Movement	EB	WB	SW
Directions Served	L	T	R
Maximum Queue (ft)	167	34	353
Average Queue (ft)	59	2	314
95th Queue (ft)	117	14	435
Link Distance (ft)		249	270
Upstream Blk Time (%)			68
Queuing Penalty (veh)			425
Storage Bay Dist (ft)	250		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 28: 481 NB Off-Ramp & Maple Road & Caughdenoy Road

Movement	EB	WB	NB	SB	SB
Directions Served	LT	TR	LT	L	R
Maximum Queue (ft)	8	2	54	86	4
Average Queue (ft)	0	0	28	39	0
95th Queue (ft)	4	1	45	65	3
Link Distance (ft)	1618	1396	1157	2601	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					50
Storage Blk Time (%)				2	0
Queuing Penalty (veh)				0	0

Intersection: 29: Caughdenoy Road & Entrance 1

Movement	WB	WB	NB	SB
Directions Served	L	R	R	L
Maximum Queue (ft)	65	69	4	54
Average Queue (ft)	19	25	0	7
95th Queue (ft)	45	50	2	30
Link Distance (ft)	624	624		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			200	200
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 30: Rt 31 Seg 4 & Entrance 2

Movement	SB	SB	SE	SE	NW	NW
Directions Served	L	R	L	T	T	R
Maximum Queue (ft)	256	114	203	266	206	113
Average Queue (ft)	116	44	86	90	77	42
95th Queue (ft)	201	80	151	175	147	79
Link Distance (ft)	1047	1047		3359	1079	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			200			200
Storage Blk Time (%)			1	0	0	
Queuing Penalty (veh)			3	0	0	

Zone Summary

Zone wide Queuing Penalty: 1129

Intersection: 2: Soule Road/481 South off-ramp & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	L	R	L	T	R
Maximum Queue (ft)	557	492	435	275	275	267	266	276	214	222	204	180
Average Queue (ft)	332	274	164	125	130	130	140	136	56	101	59	82
95th Queue (ft)	476	420	294	213	215	209	220	219	117	172	129	143
Link Distance (ft)	572	572	572			620	620		544		503	
Upstream Blk Time (%)	0	0	0									
Queuing Penalty (veh)	0	0	0									
Storage Bay Dist (ft)				340	340			260		300		150
Storage Blk Time (%)				0	0			0	0	0	0	1
Queuing Penalty (veh)				0	0			1	0	0	1	4

Intersection: 3: 481 North off-ramp/481 North on-ramp & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	T	R	L	LT	R
Maximum Queue (ft)	199	348	341	374	365	264	400	921	270
Average Queue (ft)	112	109	108	256	187	52	307	396	221
95th Queue (ft)	181	224	205	387	325	137	433	643	353
Link Distance (ft)		620	620	356	356			1069	
Upstream Blk Time (%)				3	0	0		0	
Queuing Penalty (veh)				17	2	0		0	
Storage Bay Dist (ft)	150					330	350		220
Storage Blk Time (%)	4	1			0	0	1	30	0
Queuing Penalty (veh)	21	3			1	0	5	244	2

Intersection: 4: Marketfair Plaza & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	119	116	33	101	219	182	192	72
Average Queue (ft)	37	38	4	30	54	45	77	22
95th Queue (ft)	87	86	21	67	136	114	145	48
Link Distance (ft)	356	356			625	625	288	288
Upstream Blk Time (%)							0	
Queuing Penalty (veh)							0	
Storage Bay Dist (ft)			250	150				
Storage Blk Time (%)					1			
Queuing Penalty (veh)					0			

Intersection: 5: Water Board/Great Northern Mall West & Rt 31 Seg 1

Movement	EB	EB	EB	EB	WB	WB	WB	NB	SB	SB	SB
Directions Served	L	L	T	TR	T	T	R	LTR	LT	R	R
Maximum Queue (ft)	151	152	116	124	223	228	118	26	104	187	151
Average Queue (ft)	63	78	23	24	90	88	7	1	32	95	41
95th Queue (ft)	115	126	73	75	179	177	40	10	71	159	105
Link Distance (ft)			625	625	797	797		316	345	345	345
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	330	330					150				
Storage Blk Time (%)					2	2					
Queuing Penalty (veh)					0	1					

Intersection: 6: Laz-Boy/Great Northern East & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	LT	R
Maximum Queue (ft)	63	152	133	44	218	215	116	62	89	76
Average Queue (ft)	18	40	31	8	53	58	37	19	29	32
95th Queue (ft)	43	104	87	28	138	145	81	48	65	61
Link Distance (ft)		797	797		1437	1437	393	393	414	414
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	300			210						
Storage Blk Time (%)					0					
Queuing Penalty (veh)					0					

Intersection: 7: Morgan Road & Rt 31 Seg 1

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	T	R	L	TR
Maximum Queue (ft)	272	309	261	155	204	292	309	283	216	63	94	260
Average Queue (ft)	124	163	110	55	74	154	175	137	90	27	27	117
95th Queue (ft)	207	250	209	105	140	247	269	224	162	52	63	208
Link Distance (ft)		1437	1437			589	589		1049			1291
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	275			275	300			550		250	400	
Storage Blk Time (%)	0	0	0			0			0			0
Queuing Penalty (veh)	0	1	0			0			0			0

Intersection: 8: Henry Clay Boulevard & Rt 31 Seg 2

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	TR	L	TR	L	TR	LTR
Maximum Queue (ft)	98	498	144	378	225	305	103
Average Queue (ft)	16	232	58	152	114	153	29
95th Queue (ft)	57	428	109	289	187	252	69
Link Distance (ft)		1648		4988		1071	999
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	425		475		300		
Storage Blk Time (%)		1		0		0	
Queuing Penalty (veh)		0		0		0	

Intersection: 9: Caughdenoy Road & Rt 31 Seg 3

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	514	345	144	109
Average Queue (ft)	188	118	60	33
95th Queue (ft)	368	238	109	68
Link Distance (ft)	3900	1654	3895	3715
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 10: Lawton Rd/Legionaire Dr & Rt 31 Seg 5

Movement	EB	EB	WB	WB	B23	B23	NB	NB	SB	SB
Directions Served	L	TR	L	TR	T		L	TR	L	TR
Maximum Queue (ft)	35	348	206	292	275	34	84	101	136	99
Average Queue (ft)	6	151	63	107	7	1	26	36	59	33
95th Queue (ft)	25	273	121	212	90	24	61	70	107	68
Link Distance (ft)		1701		2976	335	335		575	583	
Upstream Blk Time (%)					0	0				
Queuing Penalty (veh)					0	0				
Storage Bay Dist (ft)	250		250				130			175
Storage Blk Time (%)		1		0			0	0	0	
Queuing Penalty (veh)		0		0			0	0	0	

Intersection: 11: Route 11 & Rt 31 Seg 6

Movement	EB	EB	EB	B23	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	TR	T	L	L	T	TR	L	T	R	L
Maximum Queue (ft)	273	421	335	350	177	186	188	180	240	416	442	281
Average Queue (ft)	48	251	250	35	97	117	110	70	94	180	223	110
95th Queue (ft)	148	437	364	182	154	178	195	146	197	304	358	217
Link Distance (ft)		335		2976	116	116	116	116		502	502	
Upstream Blk Time (%)		6	2		8	13	7	2		0	0	
Queuing Penalty (veh)		49	0		26	42	21	5		0	0	
Storage Bay Dist (ft)	225		300						190			325
Storage Blk Time (%)	0	11	6						0	8		1
Queuing Penalty (veh)	0	53	23						0	11		1

Intersection: 11: Route 11 & Rt 31 Seg 6

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	175	169
Average Queue (ft)	71	75
95th Queue (ft)	141	134
Link Distance (ft)	567	567
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: I-81 SB On-Ramp/I-81 SB Off-Ramp & Rt 31 Seg 6

Movement	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	T	TR	L	L	T	T	LT	R
Maximum Queue (ft)	157	157	151	148	270	241	215	138
Average Queue (ft)	152	142	61	77	137	75	99	50
95th Queue (ft)	174	180	114	125	234	168	170	92
Link Distance (ft)	85	85		271	271	271	1125	
Upstream Blk Time (%)	28	24			0	0		
Queuing Penalty (veh)	191	167			0	0		
Storage Bay Dist (ft)			130					200
Storage Blk Time (%)			0	0			0	
Queuing Penalty (veh)			0	1			1	

Intersection: 13: I-81 NB Off-Ramp/Pardee Road & Rt 31 Seg 6

Movement	EB	EB	EB	WB	WB	NB	NB	NB	NB	NB	B66	SB
Directions Served	L	T	T	T	TR	L	L	T	R	R	T	R
Maximum Queue (ft)	150	285	258	473	417	243	270	255	504	225	120	155
Average Queue (ft)	104	107	82	291	208	144	126	67	301	205	4	61
95th Queue (ft)	164	229	164	419	347	211	203	142	448	260	50	122
Link Distance (ft)		271	271	433	433			444	444		588	782
Upstream Blk Time (%)		0	0	1	0				1			
Queuing Penalty (veh)		3	0	5	1				0			
Storage Bay Dist (ft)	100					200	200			125		
Storage Blk Time (%)	14	1				1	1	0	48	20		
Queuing Penalty (veh)	62	3				1	1	0	160	68		

Intersection: 14: Rt 31 Seg 6/Route 31 & LakeShore Rd.

Movement	EB	EB	EB	WB	SW
Directions Served	L	T	T	T	R
Maximum Queue (ft)	300	574	512	40	253
Average Queue (ft)	251	241	107	8	93
95th Queue (ft)	363	653	429	28	183
Link Distance (ft)		503	503	249	270
Upstream Blk Time (%)		14	0		1
Queuing Penalty (veh)		104	2		2
Storage Bay Dist (ft)	250				
Storage Blk Time (%)	43				
Queuing Penalty (veh)	210				

Intersection: 28: 481 NB Off-Ramp & Maple Road & Caughdenoy Road

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LT	TR	LT	R	L	R
Maximum Queue (ft)	59	66	105	169	66	5
Average Queue (ft)	31	33	45	15	28	0
95th Queue (ft)	50	52	74	84	54	3
Link Distance (ft)	1618	1396	1157		2601	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)				250		50
Storage Blk Time (%)					1	
Queuing Penalty (veh)					0	

Intersection: 29: Caughdenoy Road & Entrance 1

Movement	WB	WB	NB	SB
Directions Served	L	R	R	L
Maximum Queue (ft)	58	65	6	54
Average Queue (ft)	17	23	0	7
95th Queue (ft)	42	46	3	29
Link Distance (ft)	624	624		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			200	200
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 30: Rt 31 Seg 4 & Entrance 2

Movement	SB	SB	SE	SE	NW	NW
Directions Served	L	R	L	T	T	R
Maximum Queue (ft)	269	132	225	361	259	168
Average Queue (ft)	116	45	87	98	98	39
95th Queue (ft)	202	86	163	215	188	91
Link Distance (ft)	1047	1047		3359	1079	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			200			200
Storage Blk Time (%)			1	0	0	
Queuing Penalty (veh)			6	1	1	

Zone Summary

Zone wide Queuing Penalty: 1525

Arterial Level of Service: EB Rt 31 Seg 1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Soule Road	2	25.0	35.1	0.1	12
481 North off-ramp	3	7.7	19.6	0.1	24
Marketfair Plaza	4	1.2	8.3	0.1	36
Water Board	5	0.7	12.4	0.1	39
Laz-Boy	6	4.4	19.5	0.2	31
Morgan Road	7	35.0	60.2	0.3	17
	24	7.6	19.1	0.1	24
Total		81.5	174.2	1.0	22

Arterial Level of Service: WB Rt 31 Seg 1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Morgan Road	7	22.0	32.6	0.1	14
Great Northern East	6	6.2	31.3	0.3	33
Great Northern Mall	5	2.5	17.7	0.2	34
Marketfair Plaza	4	1.2	12.9	0.1	38
481 North on-ramp	3	6.0	13.0	0.1	23
481 South off-ramp	2	15.7	27.4	0.1	17
Total		53.6	135.0	0.9	25

Arterial Level of Service: EB Rt 31 Seg 2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	59	3.2	30.6	0.4	49
Henry Clay Boulevard	8	25.2	46.4	0.3	25
Driveway	45	10.2	73.0	1.0	47
Total		38.5	150.1	1.7	41

Arterial Level of Service: WB Rt 31 Seg 2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Henry Clay Boulevard	8	15.6	78.9	1.0	44
Driveway	59	6.3	27.7	0.3	42
	24	3.6	31.0	0.4	48
Total		25.5	137.6	1.7	44

Arterial Level of Service: EB Rt 31 Seg 3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Caughdenoy Road	9	15.9	83.3	0.8	32
	21	4.3	33.6	0.3	35
Total		20.2	116.9	1.1	33

Arterial Level of Service: WB Rt 31 Seg 3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Caughdenoy Road	9	8.4	36.5	0.3	32
Driveway	45	8.0	75.2	0.8	36
Total		16.4	111.6	1.1	35

Arterial Level of Service: EB Rt 31 Seg 5

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Lawton Rd	10	10.6	36.6	0.3	33
	23	8.8	68.1	0.6	30
Total		19.5	104.8	0.9	31

Arterial Level of Service: WB Rt 31 Seg 5

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Legionaire Dr	10	7.8	53.8	0.6	39
	15	3.5	30.5	0.3	39
Total		11.3	84.2	0.9	39

Arterial Level of Service: EB Rt 31 Seg 6

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Route 11	11	19.5	27.4	0.1	10
Driveway	70	5.1	9.2	0.0	15
Driveway	36	18.1	25.1	0.1	10
I-81 SB On-Ramp	12	18.3	32.7	0.0	5
I-81 NB Off-Ramp	13	5.7	12.5	0.1	19
Driveway	27	1.3	11.2	0.1	32
LakeShore Rd.	14	0.5	11.4	0.1	33
Total		68.4	129.6	0.5	15

Arterial Level of Service: WB Rt 31 Seg 6

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	27	3.0	14.3	0.1	26
Pardee Road	13	32.3	43.7	0.1	9
I-81 SB Off-Ramp	12	6.1	13.2	0.1	18
Driveway	36	0.8	3.6	0.0	29
Driveway	70	1.7	8.9	0.1	28
Route 11	11	6.3	9.8	0.0	14
	23	2.6	11.1	0.1	26
Total		52.8	104.8	0.5	17

Arterial Level of Service: SE Rt 31 Seg 4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Entrance 2	30	13.4	55.5	0.6	42
Driveway	20	5.0	18.7	0.2	42
	15	3.1	28.8	0.4	49
Total		21.5	103.0	1.3	44

Arterial Level of Service: WB Rt 31 Seg 4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	20	2.5	28.1	0.4	50
Entrance 2	30	11.5	25.1	0.2	31
	21	7.7	50.2	0.6	47
Total		21.7	103.4	1.3	44

Arterial Level of Service: EB Rt 31 Seg 1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Soule Road	2	44.2	54.4	0.1	8
481 North off-ramp	3	14.5	26.5	0.1	18
Marketfair Plaza	4	3.3	10.4	0.1	28
Water Board	5	2.7	14.4	0.1	34
Laz-Boy	6	3.6	18.7	0.2	33
Morgan Road	7	28.7	52.8	0.3	20
	24	7.6	19.1	0.1	24
Total		104.6	196.4	1.0	19

Arterial Level of Service: WB Rt 31 Seg 1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Morgan Road	7	35.2	46.2	0.1	10
Great Northern East	6	8.6	32.9	0.3	31
Great Northern Mall	5	8.7	23.9	0.2	25
Marketfair Plaza	4	4.5	16.2	0.1	30
481 North on-ramp	3	31.1	38.5	0.1	8
481 South off-ramp	2	18.5	29.9	0.1	16
Total		106.7	187.6	0.9	18

Arterial Level of Service: EB Rt 31 Seg 2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	59	2.5	30.7	0.4	49
Henry Clay Boulevard	8	29.9	51.1	0.3	23
Driveway	45	12.9	75.2	1.0	46
Total		45.2	157.0	1.7	39

Arterial Level of Service: WB Rt 31 Seg 2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Henry Clay Boulevard	8	22.5	85.9	1.0	40
Driveway	59	6.1	27.5	0.3	42
	24	4.1	31.5	0.4	48
Total		32.7	144.9	1.7	42

Arterial Level of Service: EB Rt 31 Seg 3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Caughdenoy Road	9	24.0	91.0	0.8	30
	21	4.7	34.0	0.3	34
Total		28.6	125.1	1.1	31

Arterial Level of Service: WB Rt 31 Seg 3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Caughdenoy Road	9	11.1	39.4	0.3	30
Driveway	45	8.6	75.8	0.8	36
Total		19.7	115.2	1.1	34

Arterial Level of Service: EB Rt 31 Seg 5

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Lawton Rd	10	13.9	39.8	0.3	30
	23	10.5	69.7	0.6	30
Total		24.4	109.5	0.9	30

Arterial Level of Service: WB Rt 31 Seg 5

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Legionaire Dr	10	11.8	56.7	0.6	37
	15	4.4	31.4	0.3	38
Total		16.2	88.1	0.9	37

Arterial Level of Service: EB Rt 31 Seg 6

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Route 11	11	45.4	53.3	0.1	5
Driveway	70	2.9	7.1	0.0	20
Driveway	36	4.6	11.7	0.1	21
I-81 SB On-Ramp	12	12.9	15.9	0.0	7
I-81 NB Off-Ramp	13	7.8	14.7	0.1	16
Driveway	27	4.1	14.4	0.1	25
LakeShore Rd.	14	1.6	12.5	0.1	30
Total		79.3	129.5	0.5	14

Arterial Level of Service: WB Rt 31 Seg 6

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	27	1.8	13.1	0.1	28
Pardee Road	13	36.0	46.0	0.1	8
I-81 SB Off-Ramp	12	12.1	19.3	0.1	12
Driveway	36	1.5	4.4	0.0	24
Driveway	70	2.6	9.7	0.1	26
Route 11	11	10.8	14.5	0.0	10
	23	5.2	13.7	0.1	21
Total		70.0	120.8	0.5	14

Arterial Level of Service: SE Rt 31 Seg 4

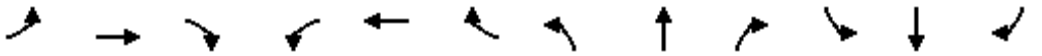
Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Entrance 2	30	13.4	55.4	0.6	42
Driveway	20	5.0	18.8	0.2	42
	15	2.7	28.5	0.4	49
Total		21.1	102.6	1.3	44

Arterial Level of Service: WB Rt 31 Seg 4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	20	3.9	29.4	0.4	48
Entrance 2	30	12.2	26.0	0.2	30
	21	8.4	50.8	0.6	46
Total		24.5	106.2	1.3	43

APPENDIX G

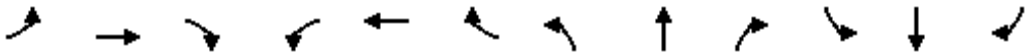
YEAR 2044 BACKGROUND DEVELOPMENT BUILD CONDITION CAPACITY ANALYSIS OUTPUT



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	557	758	335	710	0	110	0	177	281	46	97
Future Volume (vph)	0	557	758	335	710	0	110	0	177	281	46	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	6.0	5.0	5.0		6.0		5.0	6.0	5.0	5.0
Lane Util. Factor		0.95	1.00	0.97	0.95		1.00		1.00	1.00	1.00	1.00
Frpb, ped/bikes		1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00		1.00		0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00		0.95		1.00	0.95	1.00	1.00
Satd. Flow (prot)		3438	1568	3433	3374		1752		1553	1770	1863	1568
Flt Permitted		1.00	1.00	0.95	1.00		0.00		1.00	0.95	1.00	1.00
Satd. Flow (perm)		3438	1568	3433	3374		0		1553	1770	1863	1568
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	586	798	353	747	0	116	0	186	296	48	102
RTOR Reduction (vph)	0	0	152	0	0	0	0	0	108	0	0	93
Lane Group Flow (vph)	0	586	646	353	747	0	116	0	78	296	48	9
Confl. Peds. (#/hr)	1					1						
Heavy Vehicles (%)	2%	5%	3%	2%	7%	2%	3%	2%	4%	2%	2%	3%
Turn Type		NA	pm+ov	Prot	NA		pm+pt		pm+ov	pm+pt	NA	Perm
Protected Phases		6	7	5	2		7		5	3	8	
Permitted Phases			6				4 7		4 5	8		8
Actuated Green, G (s)		20.8	40.6	9.0	35.8		19.8		9.0	32.2	6.4	6.4
Effective Green, g (s)		21.8	40.6	10.0	36.8		19.8		10.0	32.2	7.4	7.4
Actuated g/C Ratio		0.27	0.51	0.12	0.46		0.25		0.12	0.40	0.09	0.09
Clearance Time (s)		6.0	6.0	6.0	6.0		6.0		6.0	6.0	6.0	6.0
Vehicle Extension (s)		4.8	3.0	2.0	4.8		3.0		2.0	2.0	2.0	2.0
Lane Grp Cap (vph)		936	913	429	1552		433		194	712	172	145
v/s Ratio Prot		0.17	c0.18	c0.10	0.22		0.07		0.05	c0.17	0.03	
v/s Ratio Perm			0.24									0.01
v/c Ratio		0.63	0.71	0.82	0.48		0.27		0.40	0.42	0.28	0.07
Uniform Delay, d1		25.5	15.1	34.1	15.0		24.3		32.3	17.1	33.8	33.1
Progression Factor		1.00	1.00	0.66	0.57		1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2		3.2	2.5	10.9	1.0		0.3		0.5	0.1	0.3	0.1
Delay (s)		28.7	17.7	33.6	9.5		24.6		32.8	17.3	34.1	33.2
Level of Service		C	B	C	A		C		C	B	C	C
Approach Delay (s)		22.3			17.2			29.6			22.7	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	21.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	76.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	151	853	0	0	699	193	349	0	50	0	0	0
Future Volume (vph)	151	853	0	0	699	193	349	0	50	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.0			5.0	5.0	4.5	4.5	4.5			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.95	0.95	1.00			
Frpb, ped/bikes	1.00	1.00			1.00	0.98	1.00	1.00	1.00			
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	1719	3471			3438	1492	1603	1603	1455			
Flt Permitted	0.30	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	537	3471			3438	1492	1603	1603	1455			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	159	898	0	0	736	203	367	0	53	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	88	0	0	44	0	0	0
Lane Group Flow (vph)	159	898	0	0	736	115	183	184	9	0	0	0
Confl. Peds. (#/hr)	1					1						
Heavy Vehicles (%)	5%	4%	2%	1%	5%	6%	7%	0%	11%	0%	0%	0%
Turn Type	pm+pt	NA			NA	Perm	Split	NA	Perm			
Protected Phases	1	6			2		4	4				
Permitted Phases	6					2			4			
Actuated Green, G (s)	55.8	55.8			44.2	44.2	12.7	12.7	12.7			
Effective Green, g (s)	55.8	56.8			45.2	45.2	13.7	13.7	13.7			
Actuated g/C Ratio	0.70	0.71			0.57	0.57	0.17	0.17	0.17			
Clearance Time (s)	5.5	6.0			6.0	6.0	5.5	5.5	5.5			
Vehicle Extension (s)	1.0	5.0			5.0	5.0	1.0	1.0	1.0			
Lane Grp Cap (vph)	464	2464			1942	842	274	274	249			
v/s Ratio Prot	0.03	c0.26			0.21		0.11	c0.11				
v/s Ratio Perm	0.21					0.08			0.01			
v/c Ratio	0.34	0.36			0.38	0.14	0.67	0.67	0.04			
Uniform Delay, d1	4.9	4.5			9.6	8.2	31.0	31.0	27.6			
Progression Factor	0.69	0.53			0.68	0.26	1.00	1.00	1.00			
Incremental Delay, d2	0.1	0.4			0.5	0.3	4.7	5.0	0.0			
Delay (s)	3.5	2.7			7.1	2.5	35.7	36.1	27.7			
Level of Service	A	A			A	A	D	D	C			
Approach Delay (s)		2.9			6.1			34.9			0.0	
Approach LOS		A			A			C			A	

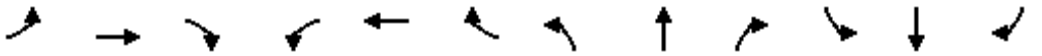
Intersection Summary			
HCM 2000 Control Delay	9.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	49.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	853	36	8	881	11	2
Future Volume (vph)	853	36	8	881	11	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3610	1615	1805	3610	1805	1615
Flt Permitted	1.00	1.00	0.31	1.00	0.95	1.00
Satd. Flow (perm)	3610	1615	584	3610	1805	1615
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	898	38	8	927	12	2
RTOR Reduction (vph)	0	9	0	0	0	2
Lane Group Flow (vph)	898	29	8	927	12	0
Turn Type	NA	pm+ov	pm+pt	NA	Prot	pm+ov
Protected Phases	6	4	3	2	4	3
Permitted Phases		6	2			4
Actuated Green, G (s)	59.0	61.8	66.2	66.2	2.8	4.5
Effective Green, g (s)	59.0	61.8	66.2	66.2	2.8	4.5
Actuated g/C Ratio	0.74	0.77	0.83	0.83	0.03	0.06
Clearance Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Vehicle Extension (s)	3.0	1.0	1.0	3.0	1.0	1.0
Lane Grp Cap (vph)	2662	1358	509	2987	63	201
v/s Ratio Prot	c0.25	0.00	0.00	c0.26	c0.01	0.00
v/s Ratio Perm		0.02	0.01			0.00
v/c Ratio	0.34	0.02	0.02	0.31	0.19	0.00
Uniform Delay, d1	3.7	2.1	1.6	1.6	37.5	35.6
Progression Factor	0.12	0.00	0.61	0.49	1.00	1.00
Incremental Delay, d2	0.3	0.0	0.0	0.3	0.5	0.0
Delay (s)	0.8	0.0	1.0	1.0	38.0	35.6
Level of Service	A	A	A	A	D	D
Approach Delay (s)	0.7			1.0	37.7	
Approach LOS	A			A	D	

Intersection Summary			
HCM 2000 Control Delay	1.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	16.5
Intersection Capacity Utilization	36.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

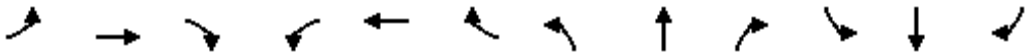


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	804	2	0	864	11	0	0	0	12	0	26
Future Volume (vph)	49	804	2	0	864	11	0	0	0	12	0	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.5			5.5	4.5					4.5	5.0
Lane Util. Factor	0.97	0.95			0.95	1.00					1.00	0.88
Frt	1.00	1.00			1.00	0.85					1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00					0.95	1.00
Satd. Flow (prot)	3433	3405			3406	1583					1770	2787
Flt Permitted	0.95	1.00			1.00	1.00					0.95	1.00
Satd. Flow (perm)	3433	3405			3406	1583					1770	2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	52	846	2	0	909	12	0	0	0	13	0	27
RTOR Reduction (vph)	0	0	0	0	0	3	0	0	0	0	0	0
Lane Group Flow (vph)	52	848	0	0	909	9	0	0	0	0	13	27
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	0%	0%	0%	2%	2%	2%
Turn Type	Prot	NA		Perm	NA	pm+ov				Split	NA	pm+ov
Protected Phases	1	6			2	3	4	4		3	3	1
Permitted Phases				2		2						3
Actuated Green, G (s)	4.8	65.6			54.8	57.2					2.4	7.2
Effective Green, g (s)	5.8	66.6			55.8	59.2					3.4	9.2
Actuated g/C Ratio	0.07	0.83			0.70	0.74					0.04	0.11
Clearance Time (s)	6.0	6.5			6.5	5.5					5.5	6.0
Vehicle Extension (s)	2.0	5.0			5.0	2.0					2.0	2.0
Lane Grp Cap (vph)	248	2834			2375	1171					75	320
v/s Ratio Prot	0.02	c0.25			c0.27	0.00					c0.01	0.01
v/s Ratio Perm						0.01						0.00
v/c Ratio	0.21	0.30			0.38	0.01					0.17	0.08
Uniform Delay, d1	34.9	1.5			5.0	2.7					36.9	31.6
Progression Factor	1.24	0.19			0.28	1.00					1.00	1.00
Incremental Delay, d2	0.1	0.3			0.4	0.0					0.4	0.0
Delay (s)	43.5	0.5			1.8	2.7					37.3	31.7
Level of Service	D	A			A	A					D	C
Approach Delay (s)		3.0			1.8			0.0			33.5	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	3.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	36.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

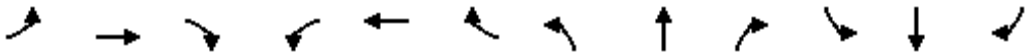
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	723	81	33	786	12	67	0	59	2	0	21
Future Volume (vph)	12	723	81	33	786	12	67	0	59	2	0	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.5		5.5	5.5		5.0	5.0			5.0	5.0
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00			1.00	1.00
Frt	1.00	0.98		1.00	1.00		1.00	0.85			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.95	1.00
Satd. Flow (prot)	1770	3367		1770	3400		1770	1583			1770	1583
Flt Permitted	0.29	1.00		0.33	1.00		0.76	1.00			0.72	1.00
Satd. Flow (perm)	532	3367		622	3400		1409	1583			1335	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	13	761	85	35	827	13	71	0	62	2	0	22
RTOR Reduction (vph)	0	8	0	0	1	0	0	55	0	0	0	19
Lane Group Flow (vph)	13	838	0	35	839	0	71	7	0	0	2	3
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	1	6			2			4			8	1
Permitted Phases	6			2			4			8		8
Actuated Green, G (s)	60.0	60.0		51.1	51.1		7.5	7.5			7.5	10.4
Effective Green, g (s)	61.0	61.0		52.1	52.1		8.5	8.5			8.5	12.4
Actuated g/C Ratio	0.76	0.76		0.65	0.65		0.11	0.11			0.11	0.16
Clearance Time (s)	6.0	6.5		6.5	6.5		6.0	6.0			6.0	6.0
Vehicle Extension (s)	2.0	5.0		5.0	5.0		2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	466	2567		405	2214		149	168			141	344
v/s Ratio Prot	0.00	c0.25			c0.25			0.00				0.00
v/s Ratio Perm	0.02			0.06			c0.05				0.00	0.00
v/c Ratio	0.03	0.33		0.09	0.38		0.48	0.04			0.01	0.01
Uniform Delay, d1	2.7	3.0		5.2	6.5		33.7	32.1			32.0	28.6
Progression Factor	1.88	1.77		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	0.0	0.3		0.4	0.5		0.9	0.0			0.0	0.0
Delay (s)	5.2	5.7		5.6	7.0		34.5	32.1			32.0	28.6
Level of Service	A	A		A	A		C	C			C	C
Approach Delay (s)		5.7			6.9			33.4			28.9	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	8.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	46.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	502	231	142	446	23	169	71	122	83	234	225
Future Volume (vph)	61	502	231	142	446	23	169	71	122	83	234	225
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	5.5	5.5	6.5	5.5		6.5	5.5	6.0	5.5	5.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3438	1583	1687	3452		1703	1810	1583	1805	1734	
Flt Permitted	0.42	1.00	1.00	0.26	1.00		0.16	1.00	1.00	0.71	1.00	
Satd. Flow (perm)	774	3438	1583	457	3452		280	1810	1583	1346	1734	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	64	528	243	149	469	24	178	75	128	87	246	237
RTOR Reduction (vph)	0	0	156	0	4	0	0	0	71	0	32	0
Lane Group Flow (vph)	64	528	87	149	489	0	178	75	57	87	451	0
Heavy Vehicles (%)	2%	5%	2%	7%	4%	0%	6%	5%	2%	0%	1%	2%
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	1	6	3	5	2		3	8	5	7	4	
Permitted Phases	6		6	2			8		8	4		
Actuated Green, G (s)	28.7	23.1	33.0	35.7	26.6		43.8	33.9	43.0	35.6	29.8	
Effective Green, g (s)	28.7	24.1	35.0	34.7	27.6		43.8	34.9	43.0	37.6	30.8	
Actuated g/C Ratio	0.29	0.25	0.36	0.36	0.28		0.45	0.36	0.44	0.39	0.32	
Clearance Time (s)	6.0	6.5	6.5	6.0	6.5		6.5	6.5	6.0	6.5	6.5	
Vehicle Extension (s)	2.0	4.0	2.0	2.0	4.0		2.0	4.0	2.0	2.0	4.0	
Lane Grp Cap (vph)	285	850	658	271	978		270	648	698	551	548	
v/s Ratio Prot	0.01	c0.15	0.01	c0.05	0.14		c0.07	0.04	0.01	0.01	c0.26	
v/s Ratio Perm	0.05		0.04	c0.15			0.23		0.03	0.05		
v/c Ratio	0.22	0.62	0.13	0.55	0.50		0.66	0.12	0.08	0.16	0.82	
Uniform Delay, d1	25.2	32.6	21.0	23.0	29.1		19.9	20.9	15.8	19.3	30.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.1	1.6	0.0	1.2	0.6		4.4	0.1	0.0	0.0	10.1	
Delay (s)	25.3	34.2	21.0	24.2	29.7		24.3	21.0	15.8	19.3	40.9	
Level of Service	C	C	C	C	C		C	C	B	B	D	
Approach Delay (s)		29.7			28.4			20.8			37.6	
Approach LOS		C			C			C			D	

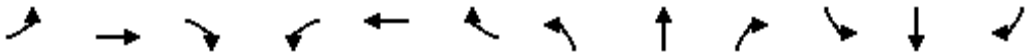
Intersection Summary			
HCM 2000 Control Delay	29.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	97.4	Sum of lost time (s)	24.0
Intersection Capacity Utilization	76.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	426	236	204	530	2	127	44	121	14	150	28
Future Volume (vph)	9	426	236	204	530	2	127	44	121	14	150	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0		6.0	6.0			6.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Frt	1.00	0.95		1.00	1.00		1.00	0.89			0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1805	1798		1805	1899		1805	1691			1856	
Flt Permitted	0.43	1.00		0.19	1.00		0.48	1.00			0.97	
Satd. Flow (perm)	812	1798		361	1899		917	1691			1803	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	9	448	248	215	558	2	134	46	127	15	158	29
RTOR Reduction (vph)	0	16	0	0	0	0	0	90	0	0	6	0
Lane Group Flow (vph)	9	680	0	215	560	0	134	83	0	0	196	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)	49.7	48.8		63.8	56.9		18.7	18.7			18.7	
Effective Green, g (s)	49.7	48.8		63.8	56.9		18.7	18.7			18.7	
Actuated g/C Ratio	0.53	0.52		0.68	0.60		0.20	0.20			0.20	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0			6.0	
Vehicle Extension (s)	2.0	6.0		2.0	6.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	436	928		381	1143		181	334			356	
v/s Ratio Prot	0.00	c0.38		c0.05	0.29			0.05				
v/s Ratio Perm	0.01			0.33			c0.15				0.11	
v/c Ratio	0.02	0.73		0.56	0.49		0.74	0.25			0.55	
Uniform Delay, d1	10.7	17.8		11.8	10.6		35.6	32.0			34.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.0	4.1		1.1	0.9		15.0	0.4			1.8	
Delay (s)	10.7	21.9		12.9	11.5		50.6	32.4			36.0	
Level of Service	B	C		B	B		D	C			D	
Approach Delay (s)		21.8			11.9			40.3			36.0	
Approach LOS		C			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	22.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	94.5	Sum of lost time (s)	18.0
Intersection Capacity Utilization	88.2%	ICU Level of Service	E
Analysis Period (min)	15		

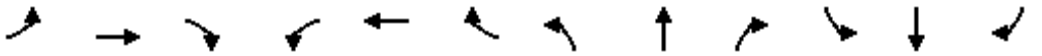
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	548	25	13	522	19	45	23	88	64	5	58
Future Volume (vph)	54	548	25	13	522	19	45	23	88	64	5	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			1.00			0.92			0.94	
Flt Protected		1.00			1.00			0.99			0.98	
Satd. Flow (prot)		1882			1889			1730			1739	
Flt Permitted		0.92			0.98			0.90			0.82	
Satd. Flow (perm)		1739			1858			1574			1462	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	57	577	26	14	549	20	47	24	93	67	5	61
RTOR Reduction (vph)	0	2	0	0	2	0	0	78	0	0	51	0
Lane Group Flow (vph)	0	658	0	0	581	0	0	86	0	0	82	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		27.9			27.9			7.1			7.1	
Effective Green, g (s)		27.9			27.9			7.1			7.1	
Actuated g/C Ratio		0.61			0.61			0.16			0.16	
Clearance Time (s)		5.5			5.5			5.0			5.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		1066			1139			245			228	
v/s Ratio Prot												
v/s Ratio Perm		c0.38			0.31			0.05			c0.06	
v/c Ratio		0.62			0.51			0.35			0.36	
Uniform Delay, d1		5.5			5.0			17.1			17.2	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.5			0.8			0.9			1.0	
Delay (s)		7.0			5.7			18.0			18.1	
Level of Service		A			A			B			B	
Approach Delay (s)		7.0			5.7			18.0			18.1	
Approach LOS		A			A			B			B	

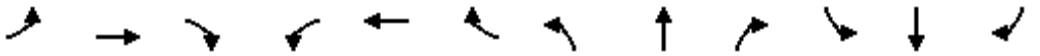
Intersection Summary			
HCM 2000 Control Delay	8.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	45.5	Sum of lost time (s)	10.5
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	920	12	42	545	30	32	2	107	59	11	8
Future Volume (vph)	5	920	12	42	545	30	32	2	107	59	11	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.99		1.00	0.85		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1841		1752	1830		1770	1588		1770	1751	
Flt Permitted	0.39	1.00		0.14	1.00		0.74	1.00		0.68	1.00	
Satd. Flow (perm)	723	1841		250	1830		1386	1588		1272	1751	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	5	968	13	44	574	32	34	2	113	62	12	8
RTOR Reduction (vph)	0	0	0	0	1	0	0	100	0	0	7	0
Lane Group Flow (vph)	5	981	0	44	605	0	34	15	0	62	13	0
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)	57.2	56.4		62.6	59.1		9.9	9.9		9.9	9.9	
Effective Green, g (s)	57.2	56.4		62.6	59.1		9.9	9.9		9.9	9.9	
Actuated g/C Ratio	0.66	0.65		0.73	0.68		0.11	0.11		0.11	0.11	
Clearance Time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Vehicle Extension (s)	2.0	5.0		2.0	5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	488	1203		242	1253		158	182		145	200	
v/s Ratio Prot	0.00	c0.53		c0.01	c0.33			0.01			0.01	
v/s Ratio Perm	0.01			0.12			0.02			c0.05		
v/c Ratio	0.01	0.82		0.18	0.48		0.22	0.08		0.43	0.06	
Uniform Delay, d1	5.1	11.1		10.2	6.4		34.7	34.1		35.6	34.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	4.9		0.1	0.6		0.7	0.2		2.0	0.1	
Delay (s)	5.1	16.0		10.3	7.0		35.4	34.3		37.6	34.2	
Level of Service	A	B		B	A		D	C		D	C	
Approach Delay (s)		16.0			7.2			34.6			36.8	
Approach LOS		B			A			C			D	

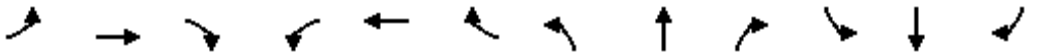
Intersection Summary			
HCM 2000 Control Delay	15.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	86.3	Sum of lost time (s)	16.5
Intersection Capacity Utilization	68.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	1014	67	279	567	107	42	34	196	101	73	24
Future Volume (vph)	42	1014	67	279	567	107	42	34	196	101	73	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	11	10	12	12	10	12	12
Total Lost time (s)	4.5	4.0		4.5	4.0		5.0	4.0	4.5	4.5	4.0	
Lane Util. Factor	1.00	0.95		0.97	0.95		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.99		1.00	0.98		1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1662	3447		3319	3194		1636	1900	1583	1589	3400	
Flt Permitted	0.95	1.00		0.95	1.00		0.69	1.00	1.00	0.42	1.00	
Satd. Flow (perm)	1662	3447		3319	3194		1184	1900	1583	701	3400	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	44	1067	71	294	597	113	44	36	206	106	77	25
RTOR Reduction (vph)	0	4	0	0	13	0	0	0	0	0	22	0
Lane Group Flow (vph)	44	1134	0	294	697	0	44	36	206	106	80	0
Heavy Vehicles (%)	5%	4%	0%	2%	6%	10%	3%	0%	2%	6%	3%	0%
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	5.3	55.4		14.7	64.8		10.0	5.0	19.7	22.4	11.4	
Effective Green, g (s)	6.3	57.4		15.7	66.8		12.0	7.0	21.7	23.4	13.4	
Actuated g/C Ratio	0.06	0.52		0.14	0.61		0.11	0.06	0.20	0.21	0.12	
Clearance Time (s)	5.5	6.0		5.5	6.0		6.0	6.0	5.5	5.5	6.0	
Vehicle Extension (s)	1.0	2.0		2.0	2.0		1.0	2.0	2.0	1.5	2.0	
Lane Grp Cap (vph)	95	1798		473	1939		153	120	312	253	414	
v/s Ratio Prot	0.03	c0.33		0.09	0.22		0.02	0.02	c0.09	c0.05	0.02	
v/s Ratio Perm							0.02		0.04	0.04		
v/c Ratio	0.46	0.63		0.62	0.36		0.29	0.30	0.66	0.42	0.19	
Uniform Delay, d1	50.2	18.7		44.4	10.9		44.9	49.2	40.7	36.6	43.4	
Progression Factor	1.00	1.00		0.94	0.76		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.3	1.7		1.7	0.5		0.4	0.5	4.0	0.4	0.1	
Delay (s)	51.5	20.4		43.6	8.7		45.2	49.7	44.8	37.0	43.5	
Level of Service	D	C		D	A		D	D	D	D	D	
Approach Delay (s)		21.6			18.9			45.5			40.2	
Approach LOS		C			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	24.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	17.5
Intersection Capacity Utilization	60.8%	ICU Level of Service	B
Analysis Period (min)	15		

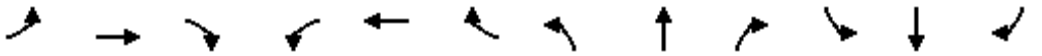
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	631	725	891	824	0	0	0	0	147	0	174
Future Volume (vph)	0	631	725	891	824	0	0	0	0	147	0	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	12	12	12	12	13	12
Total Lost time (s)		3.5		3.5	3.5						4.0	4.0
Lane Util. Factor		0.95		0.97	0.95						1.00	1.00
Frt		0.92		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)		3104		3255	3292						1811	1583
Flt Permitted		1.00		0.95	1.00						0.95	1.00
Satd. Flow (perm)		3104		3255	3292						1811	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	664	763	938	867	0	0	0	0	155	0	183
RTOR Reduction (vph)	0	189	0	0	0	0	0	0	0	0	0	161
Lane Group Flow (vph)	0	1238	0	938	867	0	0	0	0	0	155	22
Heavy Vehicles (%)	0%	5%	2%	4%	6%	0%	0%	0%	0%	3%	0%	2%
Turn Type		NA		Prot	NA					Split	NA	Perm
Protected Phases		2		1	6					4	4	
Permitted Phases												4
Actuated Green, G (s)		45.0		37.6	87.6						12.4	12.4
Effective Green, g (s)		46.5		39.1	89.1						13.4	13.4
Actuated g/C Ratio		0.42		0.36	0.81						0.12	0.12
Clearance Time (s)		5.0		5.0	5.0						5.0	5.0
Vehicle Extension (s)		3.0		2.0	3.0						1.5	1.5
Lane Grp Cap (vph)		1312		1157	2666						220	192
v/s Ratio Prot		c0.40		c0.29	0.26						c0.09	
v/s Ratio Perm												0.01
v/c Ratio		0.94		0.81	0.33						0.70	0.12
Uniform Delay, d1		30.5		32.1	2.7						46.4	43.0
Progression Factor		0.65		0.41	0.83						1.00	1.00
Incremental Delay, d2		12.5		3.9	0.2						8.1	0.1
Delay (s)		32.2		17.2	2.5						54.5	43.1
Level of Service		C		B	A						D	D
Approach Delay (s)		32.2			10.1			0.0			48.3	
Approach LOS		C			B			A			D	

Intersection Summary			
HCM 2000 Control Delay	22.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	84.3%	ICU Level of Service	E
Analysis Period (min)	15		

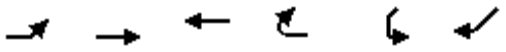
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	648	0	0	1250	93	263	37	376	0	0	202
Future Volume (vph)	136	648	0	0	1250	93	263	37	376	0	0	202
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	12	12	11	12	11	12	12	12
Total Lost time (s)	4.0	3.5			3.5		4.0	4.0	4.0			4.0
Lane Util. Factor	1.00	0.95			0.95		0.97	1.00	0.88			1.00
Frt	1.00	1.00			0.99		1.00	1.00	0.85			0.86
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00			1.00
Satd. Flow (prot)	1646	3355			3468		3077	1387	2544			1522
Flt Permitted	0.07	1.00			1.00		0.95	1.00	1.00			1.00
Satd. Flow (perm)	119	3355			3468		3077	1387	2544			1522
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	143	682	0	0	1316	98	277	39	396	0	0	213
RTOR Reduction (vph)	0	0	0	0	4	0	0	0	0	0	0	0
Lane Group Flow (vph)	143	682	0	0	1410	0	277	39	396	0	0	213
Heavy Vehicles (%)	6%	4%	0%	0%	3%	3%	10%	37%	8%	0%	0%	8%
Turn Type	pm+pt	NA			NA		Split	NA	Perm			Over
Protected Phases	5	2			6		8	8				5
Permitted Phases	2								8			
Actuated Green, G (s)	79.1	79.1			54.7		19.4	19.4	19.4			19.4
Effective Green, g (s)	80.1	81.1			56.7		21.4	21.4	21.4			20.4
Actuated g/C Ratio	0.73	0.74			0.52		0.19	0.19	0.19			0.19
Clearance Time (s)	5.0	5.5			5.5		6.0	6.0	6.0			5.0
Vehicle Extension (s)	3.0	3.0			3.0		2.0	2.0	2.0			3.0
Lane Grp Cap (vph)	369	2473			1787		598	269	494			282
v/s Ratio Prot	0.07	0.20			c0.41		0.09	0.03				c0.14
v/s Ratio Perm	0.21								c0.16			
v/c Ratio	0.39	0.28			0.79		0.46	0.14	0.80			0.76
Uniform Delay, d1	18.8	4.8			21.8		39.2	36.7	42.3			42.4
Progression Factor	0.46	0.63			1.00		1.00	1.00	1.00			1.00
Incremental Delay, d2	0.3	0.1			3.6		0.2	0.1	8.6			10.9
Delay (s)	8.9	3.1			25.4		39.4	36.8	50.9			53.4
Level of Service	A	A			C		D	D	D			D
Approach Delay (s)		4.1			25.4			45.6			53.4	
Approach LOS		A			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	26.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.5
Intersection Capacity Utilization	68.4%	ICU Level of Service	C
Analysis Period (min)	15		

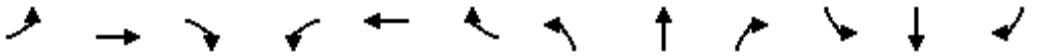
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	205	819	806	0	0	728
Future Volume (Veh/h)	205	819	806	0	0	728
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	216	862	848	0	0	766
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)		1075	348			
pX, platoon unblocked	0.75				0.75	0.75
vC, conflicting volume	848				1711	848
vC1, stage 1 conf vol					848	
vC2, stage 2 conf vol					863	
vCu, unblocked vol	630				1782	630
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	70				100	0
cM capacity (veh/h)	721				212	322

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	SW 1
Volume Total	216	431	431	848	766
Volume Left	216	0	0	0	0
Volume Right	0	0	0	0	766
cSH	721	1700	1700	1700	322
Volume to Capacity	0.30	0.25	0.25	0.50	2.38
Queue Length 95th (ft)	31	0	0	0	1507
Control Delay (s)	12.1	0.0	0.0	0.0	656.2
Lane LOS	B				F
Approach Delay (s)	2.4			0.0	656.2
Approach LOS					F

Intersection Summary			
Average Delay	187.7		
Intersection Capacity Utilization	94.2%	ICU Level of Service	F
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	109	0	0	40	11	15	78	44	151	0	8
Future Volume (Veh/h)	4	109	0	0	40	11	15	78	44	151	0	8
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	4	115	0	0	42	12	16	82	46	159	0	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									10			2
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	54			115			171	177	115	212	171	48
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	54			115			171	177	115	212	171	48
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	89	95	76	100	99
cM capacity (veh/h)	1564			1487			789	718	943	649	724	1027

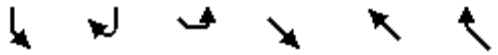
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	119	54	144	167
Volume Left	4	0	16	159
Volume Right	0	12	46	8
cSH	1564	1700	1073	682
Volume to Capacity	0.00	0.03	0.13	0.24
Queue Length 95th (ft)	0	0	12	24
Control Delay (s)	0.3	0.0	10.2	12.2
Lane LOS	A		B	B
Approach Delay (s)	0.3	0.0	10.2	12.2
Approach LOS			B	B

Intersection Summary				
Average Delay	7.3			
Intersection Capacity Utilization	30.7%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	35	59	51	45	59	92
Future Volume (Veh/h)	35	59	51	45	59	92
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	37	62	54	47	62	97
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	275	54			101	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	275	54			101	
tC, single (s)	6.5	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	94	94			96	
cM capacity (veh/h)	668	991			1443	

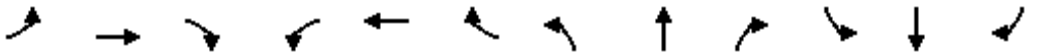
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	37	62	54	47	62	97
Volume Left	37	0	0	0	62	0
Volume Right	0	62	0	47	0	0
cSH	668	991	1700	1700	1443	1700
Volume to Capacity	0.06	0.06	0.03	0.03	0.04	0.06
Queue Length 95th (ft)	4	5	0	0	3	0
Control Delay (s)	10.7	8.9	0.0	0.0	7.6	0.0
Lane LOS	B	A			A	
Approach Delay (s)	9.6		0.0		3.0	
Approach LOS	A					

Intersection Summary			
Average Delay	4.0		
Intersection Capacity Utilization	19.9%	ICU Level of Service	A
Analysis Period (min)	15		



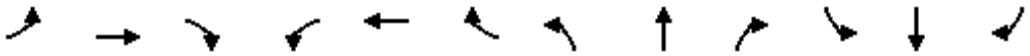
Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (vph)	267	132	171	528	422	218
Future Volume (vph)	267	132	171	528	422	218
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1641	1468	1641	1863	1863	1468
Flt Permitted	0.95	1.00	0.44	1.00	1.00	1.00
Satd. Flow (perm)	1641	1468	764	1863	1863	1468
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	281	139	180	556	444	229
RTOR Reduction (vph)	0	97	0	0	0	125
Lane Group Flow (vph)	281	42	180	556	444	104
Heavy Vehicles (%)	10%	10%	10%	2%	2%	10%
Turn Type	Prot	Perm	Perm	NA	NA	Perm
Protected Phases	4			6	2	
Permitted Phases		4	6			2
Actuated Green, G (s)	14.9	14.9	22.5	22.5	22.5	22.5
Effective Green, g (s)	14.9	14.9	22.5	22.5	22.5	22.5
Actuated g/C Ratio	0.30	0.30	0.46	0.46	0.46	0.46
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	494	442	347	848	848	668
v/s Ratio Prot	c0.17			c0.30	0.24	
v/s Ratio Perm		0.03	0.24			0.07
v/c Ratio	0.57	0.09	0.52	0.66	0.52	0.16
Uniform Delay, d1	14.5	12.4	9.6	10.4	9.6	7.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.5	0.1	1.3	1.8	0.6	0.1
Delay (s)	16.0	12.5	10.9	12.3	10.2	8.0
Level of Service	B	B	B	B	B	A
Approach Delay (s)	14.9			11.9	9.5	
Approach LOS	B			B	A	

Intersection Summary			
HCM 2000 Control Delay	11.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	49.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	61.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1103	757	622	1729	0	274	0	188	222	82	203
Future Volume (vph)	0	1103	757	622	1729	0	274	0	188	222	82	203
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	6.0	5.0	5.0		6.0		5.0	6.0	5.0	5.0
Lane Util. Factor		0.95	1.00	0.97	0.95		1.00		1.00	1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00		1.00		0.85	1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00		0.95		1.00	0.95	1.00	1.00
Satd. Flow (prot)		3574	1583	3467	3574		1787		1599	1787	1863	1599
Flt Permitted		1.00	1.00	0.95	1.00		0.00		1.00	0.95	1.00	1.00
Satd. Flow (perm)		3574	1583	3467	3574		0		1599	1787	1863	1599
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1161	797	655	1820	0	288	0	198	234	86	214
RTOR Reduction (vph)	0	0	52	0	0	0	0	0	79	0	0	195
Lane Group Flow (vph)	0	1161	746	655	1820	0	288	0	119	234	86	19
Heavy Vehicles (%)	0%	1%	2%	1%	1%	0%	1%	0%	1%	1%	2%	1%
Turn Type		NA	pm+ov	Prot	NA		pm+pt		pm+ov	pm+pt	NA	Perm
Protected Phases		6	7	5	2		7		5	3	8	
Permitted Phases			6				4 7		4 5	8		8
Actuated Green, G (s)		32.6	50.0	18.0	56.6		17.4		18.0	31.4	8.0	8.0
Effective Green, g (s)		33.6	50.0	19.0	57.6		17.4		19.0	31.4	9.0	9.0
Actuated g/C Ratio		0.34	0.50	0.19	0.58		0.17		0.19	0.31	0.09	0.09
Clearance Time (s)		6.0	6.0	6.0	6.0		6.0		6.0	6.0	6.0	6.0
Vehicle Extension (s)		4.8	3.0	2.0	4.8		3.0		2.0	2.0	2.0	2.0
Lane Grp Cap (vph)		1200	886	658	2058		310		303	561	167	143
v/s Ratio Prot		c0.32	c0.15	0.19	c0.51		0.16		0.07	0.13	c0.05	
v/s Ratio Perm			0.32									0.01
v/c Ratio		0.97	0.84	1.00	0.88		0.93		0.39	0.42	0.51	0.13
Uniform Delay, d1		32.7	21.6	40.5	18.3		40.7		35.4	27.1	43.4	41.9
Progression Factor		1.00	1.00	0.47	0.30		1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2		19.3	7.3	16.1	1.8		32.7		0.3	0.2	1.1	0.2
Delay (s)		51.9	28.9	35.3	7.3		73.4		35.7	27.3	44.5	42.1
Level of Service		D	C	D	A		E		D	C	D	D
Approach Delay (s)		42.5			14.7			58.1			36.0	
Approach LOS		D			B			E			D	

Intersection Summary			
HCM 2000 Control Delay	30.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	87.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



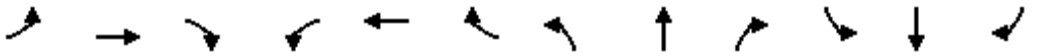
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	247	1256	0	0	1169	314	1253	0	311	0	0	0
Future Volume (vph)	247	1256	0	0	1169	314	1253	0	311	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.0			5.0	5.0	4.5	4.5	4.5			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.95	0.95	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	1787	3574			3574	1583	1698	1698	1599			
Flt Permitted	0.10	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	192	3574			3574	1583	1698	1698	1599			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	260	1322	0	0	1231	331	1319	0	327	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	216	0	0	56	0	0	0
Lane Group Flow (vph)	260	1322	0	0	1231	115	659	660	271	0	0	0
Heavy Vehicles (%)	1%	1%	2%	1%	1%	2%	1%	0%	1%	0%	0%	0%
Turn Type	pm+pt	NA			NA	Perm	Split	NA	Perm			
Protected Phases	1	6			2		4	4				
Permitted Phases	6					2			4			
Actuated Green, G (s)	49.6	49.6			33.6	33.6	38.9	38.9	38.9			
Effective Green, g (s)	49.6	50.6			34.6	34.6	39.9	39.9	39.9			
Actuated g/C Ratio	0.50	0.51			0.35	0.35	0.40	0.40	0.40			
Clearance Time (s)	5.5	6.0			6.0	6.0	5.5	5.5	5.5			
Vehicle Extension (s)	1.0	5.0			5.0	5.0	1.0	1.0	1.0			
Lane Grp Cap (vph)	262	1808			1236	547	677	677	638			
v/s Ratio Prot	c0.10	0.37			0.34		0.39	c0.39				
v/s Ratio Perm	c0.39					0.07			0.17			
v/c Ratio	0.99	0.73			1.00	0.21	0.97	0.97	0.42			
Uniform Delay, d1	28.0	19.4			32.6	23.1	29.5	29.6	21.7			
Progression Factor	0.61	0.81			0.81	1.10	1.00	1.00	1.00			
Incremental Delay, d2	33.5	1.5			23.1	0.8	27.7	28.0	0.2			
Delay (s)	50.6	17.1			49.4	26.1	57.3	57.6	21.9			
Level of Service	D	B			D	C	E	E	C			
Approach Delay (s)		22.6			44.4			50.4			0.0	
Approach LOS		C			D			D			A	

Intersection Summary			
HCM 2000 Control Delay	39.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	93.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1450	129	53	1354	128	59
Future Volume (vph)	1450	129	53	1354	128	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3610	1615	1805	3610	1805	1615
Flt Permitted	1.00	1.00	0.12	1.00	0.95	1.00
Satd. Flow (perm)	3610	1615	232	3610	1805	1615
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1526	136	56	1425	135	62
RTOR Reduction (vph)	0	29	0	0	0	25
Lane Group Flow (vph)	1526	107	56	1425	135	37
Turn Type	NA	pm+ov	pm+pt	NA	Prot	pm+ov
Protected Phases	6	4	3	2	4	3
Permitted Phases		6	2			4
Actuated Green, G (s)	67.9	78.8	78.1	78.1	10.9	15.6
Effective Green, g (s)	67.9	78.8	78.1	78.1	10.9	15.6
Actuated g/C Ratio	0.68	0.79	0.78	0.78	0.11	0.16
Clearance Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Vehicle Extension (s)	3.0	1.0	1.0	3.0	1.0	1.0
Lane Grp Cap (vph)	2451	1361	255	2819	196	340
v/s Ratio Prot	c0.42	0.01	0.01	c0.39	c0.07	0.01
v/s Ratio Perm		0.06	0.16			0.02
v/c Ratio	0.62	0.08	0.22	0.51	0.69	0.11
Uniform Delay, d1	8.9	2.4	10.8	4.0	42.9	36.2
Progression Factor	0.34	0.13	0.62	0.70	1.00	1.00
Incremental Delay, d2	0.9	0.0	0.1	0.6	7.8	0.1
Delay (s)	3.9	0.3	6.9	3.3	50.7	36.3
Level of Service	A	A	A	A	D	D
Approach Delay (s)	3.6			3.5	46.2	
Approach LOS	A			A	D	

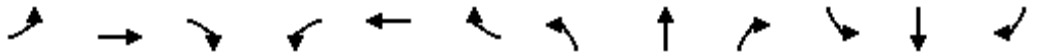
Intersection Summary			
HCM 2000 Control Delay	6.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.5
Intersection Capacity Utilization	60.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	305	1204	0	0	1135	53	1	0	0	49	0	272
Future Volume (vph)	305	1204	0	0	1135	53	1	0	0	49	0	272
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.5			5.5	4.5		4.5			4.5	5.0
Lane Util. Factor	0.97	0.95			0.95	1.00		1.00			1.00	0.88
Frt	1.00	1.00			1.00	0.85		1.00			1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00		0.95			0.95	1.00
Satd. Flow (prot)	3433	3406			3406	1583		1805			1770	2787
Flt Permitted	0.95	1.00			1.00	1.00		0.95			0.95	1.00
Satd. Flow (perm)	3433	3406			3406	1583		1805			1770	2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	321	1267	0	0	1195	56	1	0	0	52	0	286
RTOR Reduction (vph)	0	0	0	0	0	20	0	0	0	0	0	0
Lane Group Flow (vph)	321	1267	0	0	1195	36	0	1	0	0	52	286
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	0%	0%	0%	2%	2%	2%
Turn Type	Prot	NA		Perm	NA	pm+ov	Split	NA		Split	NA	pm+ov
Protected Phases	1	6			2	3	4	4		3	3	1
Permitted Phases				2		2						3
Actuated Green, G (s)	13.7	75.4			55.7	62.0		0.8			6.3	20.0
Effective Green, g (s)	14.7	76.4			56.7	64.0		1.8			7.3	22.0
Actuated g/C Ratio	0.15	0.76			0.57	0.64		0.02			0.07	0.22
Clearance Time (s)	6.0	6.5			6.5	5.5		5.5			5.5	6.0
Vehicle Extension (s)	2.0	5.0			5.0	2.0		1.0			2.0	2.0
Lane Grp Cap (vph)	504	2602			1931	1013		32			129	613
v/s Ratio Prot	c0.09	0.37			c0.35	0.00		c0.00			0.03	c0.07
v/s Ratio Perm						0.02						0.03
v/c Ratio	0.64	0.49			0.62	0.04		0.03			0.40	0.47
Uniform Delay, d1	40.1	4.4			14.4	6.6		48.2			44.3	33.9
Progression Factor	1.08	0.74			0.72	0.16		1.00			1.00	1.00
Incremental Delay, d2	1.6	0.5			1.4	0.0		0.1			0.8	0.2
Delay (s)	44.7	3.8			11.8	1.1		48.4			45.0	34.1
Level of Service	D	A			B	A		D			D	C
Approach Delay (s)		12.1			11.4			48.4			35.8	
Approach LOS		B			B			D			D	

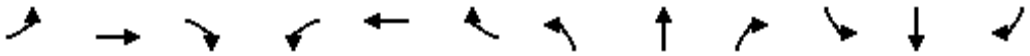
Intersection Summary			
HCM 2000 Control Delay	14.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	57.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	1161	43	18	1073	53	44	4	27	34	2	71
Future Volume (vph)	50	1161	43	18	1073	53	44	4	27	34	2	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.5		5.5	5.5		5.0	5.0			5.0	5.0
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.87			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.95	1.00
Satd. Flow (prot)	1770	3392		1770	3388		1770	1618			1779	1583
Flt Permitted	0.19	1.00		0.22	1.00		0.73	1.00			0.71	1.00
Satd. Flow (perm)	358	3392		409	3388		1364	1618			1330	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	53	1222	45	19	1129	56	46	4	28	36	2	75
RTOR Reduction (vph)	0	2	0	0	2	0	0	26	0	0	0	65
Lane Group Flow (vph)	53	1265	0	19	1183	0	46	6	0	0	38	10
Confl. Peds. (#/hr)	1											
Heavy Vehicles (%)	2%	6%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	1	6			2			4			8	1
Permitted Phases	6			2			4			8		8
Actuated Green, G (s)	80.5	80.5		70.3	70.3		7.0	7.0			7.0	11.2
Effective Green, g (s)	81.5	81.5		71.3	71.3		8.0	8.0			8.0	13.2
Actuated g/C Ratio	0.82	0.82		0.71	0.71		0.08	0.08			0.08	0.13
Clearance Time (s)	6.0	6.5		6.5	6.5		6.0	6.0			6.0	6.0
Vehicle Extension (s)	2.0	5.0		5.0	5.0		2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	365	2764		291	2415		109	129			106	288
v/s Ratio Prot	0.01	c0.37			c0.35			0.00				0.00
v/s Ratio Perm	0.11			0.05			c0.03				0.03	0.00
v/c Ratio	0.15	0.46		0.07	0.49		0.42	0.05			0.36	0.03
Uniform Delay, d1	3.0	2.7		4.3	6.3		43.8	42.5			43.6	37.8
Progression Factor	0.24	0.22		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	0.1	0.5		0.4	0.7		1.0	0.1			0.8	0.0
Delay (s)	0.8	1.1		4.8	7.0		44.8	42.5			44.3	37.9
Level of Service	A	A		A	A		D	D			D	D
Approach Delay (s)		1.1			7.0			43.8			40.0	
Approach LOS		A			A			D			D	

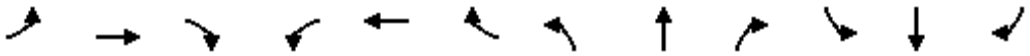
Intersection Summary			
HCM 2000 Control Delay	6.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	59.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	309	585	328	160	668	99	337	234	134	45	108	139
Future Volume (vph)	309	585	328	160	668	99	337	234	134	45	108	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	5.5	5.5	6.5	5.5		6.5	5.5	6.0	5.5	5.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85	1.00	0.92	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1787	3574	1599	1719	3510		1787	1863	1615	1752	1697	
Flt Permitted	0.13	1.00	1.00	0.36	1.00		0.25	1.00	1.00	0.61	1.00	
Satd. Flow (perm)	245	3574	1599	653	3510		464	1863	1615	1118	1697	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	325	616	345	168	703	104	355	246	141	47	114	146
RTOR Reduction (vph)	0	0	176	0	10	0	0	0	84	0	44	0
Lane Group Flow (vph)	325	616	169	168	797	0	355	246	57	47	216	0
Heavy Vehicles (%)	1%	1%	1%	5%	1%	0%	1%	2%	0%	3%	2%	3%
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	1	6	3	5	2		3	8	5	7	4	
Permitted Phases	6		6	2			8		8	4		
Actuated Green, G (s)	47.0	31.2	47.9	34.5	24.7		42.0	31.3	41.1	23.0	18.8	
Effective Green, g (s)	47.0	32.2	49.9	33.5	25.7		42.0	32.3	41.1	25.0	19.8	
Actuated g/C Ratio	0.46	0.32	0.49	0.33	0.25		0.41	0.32	0.40	0.25	0.19	
Clearance Time (s)	6.0	6.5	6.5	6.0	6.5		6.5	6.5	6.0	6.5	6.5	
Vehicle Extension (s)	2.0	4.0	2.0	2.0	4.0		2.0	4.0	2.0	2.0	4.0	
Lane Grp Cap (vph)	359	1128	868	311	884		407	589	650	306	329	
v/s Ratio Prot	c0.14	0.17	0.03	0.05	0.23		c0.14	0.13	0.01	0.01	0.13	
v/s Ratio Perm	c0.27		0.07	0.13			c0.22		0.03	0.03		
v/c Ratio	0.91	0.55	0.19	0.54	0.90		0.87	0.42	0.09	0.15	0.66	
Uniform Delay, d1	27.0	28.9	14.7	25.6	36.9		23.6	27.4	18.8	29.9	38.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	24.8	0.7	0.0	1.0	12.5		17.7	0.7	0.0	0.1	5.1	
Delay (s)	51.9	29.5	14.7	26.6	49.4		41.3	28.1	18.9	30.0	43.1	
Level of Service	D	C	B	C	D		D	C	B	C	D	
Approach Delay (s)		31.2			45.5			32.7			41.1	
Approach LOS		C			D			C			D	

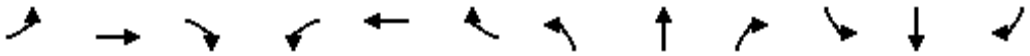
Intersection Summary			
HCM 2000 Control Delay	36.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	102.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	89.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	608	154	135	623	19	234	177	198	14	30	22
Future Volume (vph)	31	608	154	135	623	19	234	177	198	14	30	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0		6.0	6.0			6.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Frt	1.00	0.97		1.00	1.00		1.00	0.92			0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1805	1842		1805	1892		1805	1750			1796	
Flt Permitted	0.26	1.00		0.13	1.00		0.77	1.00			0.67	
Satd. Flow (perm)	502	1842		244	1892		1470	1750			1224	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	33	640	162	142	656	20	246	186	208	15	32	23
RTOR Reduction (vph)	0	8	0	0	1	0	0	36	0	0	16	0
Lane Group Flow (vph)	33	794	0	142	675	0	246	358	0	0	54	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)	57.8	54.6		63.8	57.6		25.8	25.8			25.8	
Effective Green, g (s)	57.8	54.6		63.8	57.6		25.8	25.8			25.8	
Actuated g/C Ratio	0.55	0.52		0.61	0.55		0.25	0.25			0.25	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0			6.0	
Vehicle Extension (s)	2.0	6.0		2.0	6.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	317	961		241	1041		362	431			301	
v/s Ratio Prot	0.00	c0.43		c0.03	c0.36			c0.20				
v/s Ratio Perm	0.05			0.32			0.17				0.04	
v/c Ratio	0.10	0.83		0.59	0.65		0.68	0.83			0.18	
Uniform Delay, d1	12.5	21.0		17.0	16.4		35.7	37.3			31.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.1	6.9		2.4	2.3		5.0	12.7			0.3	
Delay (s)	12.6	27.9		19.3	18.7		40.7	50.1			31.3	
Level of Service	B	C		B	B		D	D			C	
Approach Delay (s)		27.3			18.8			46.5			31.3	
Approach LOS		C			B			D			C	

Intersection Summary			
HCM 2000 Control Delay	29.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	104.6	Sum of lost time (s)	18.0
Intersection Capacity Utilization	85.3%	ICU Level of Service	E
Analysis Period (min)	15		

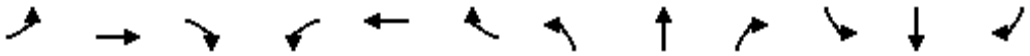
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	656	38	18	669	31	37	61	65	21	19	45
Future Volume (vph)	68	656	38	18	669	31	37	61	65	21	19	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			0.99			0.95			0.93	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		1879			1886			1778			1743	
Flt Permitted		0.89			0.98			0.90			0.88	
Satd. Flow (perm)		1677			1843			1610			1555	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	72	691	40	19	704	33	39	64	68	22	20	47
RTOR Reduction (vph)	0	3	0	0	2	0	0	44	0	0	40	0
Lane Group Flow (vph)	0	800	0	0	754	0	0	127	0	0	49	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		33.1			33.1			7.8			7.8	
Effective Green, g (s)		33.1			33.1			7.8			7.8	
Actuated g/C Ratio		0.64			0.64			0.15			0.15	
Clearance Time (s)		5.5			5.5			5.0			5.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		1079			1186			244			235	
v/s Ratio Prot												
v/s Ratio Perm		c0.48			0.41			c0.08			0.03	
v/c Ratio		0.74			0.64			0.52			0.21	
Uniform Delay, d1		6.2			5.5			20.1			19.1	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		3.4			1.6			2.0			0.4	
Delay (s)		9.6			7.1			22.1			19.5	
Level of Service		A			A			C			B	
Approach Delay (s)		9.6			7.1			22.1			19.5	
Approach LOS		A			A			C			B	

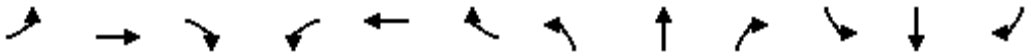
Intersection Summary			
HCM 2000 Control Delay	10.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	51.4	Sum of lost time (s)	10.5
Intersection Capacity Utilization	91.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	737	37	178	764	42	40	5	71	107	29	32
Future Volume (vph)	8	737	37	178	764	42	40	5	71	107	29	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.86		1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1831		1752	1830		1770	1601		1770	1717	
Flt Permitted	0.28	1.00		0.16	1.00		0.71	1.00		0.70	1.00	
Satd. Flow (perm)	515	1831		296	1830		1331	1601		1313	1717	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	8	776	39	187	804	44	42	5	75	113	31	34
RTOR Reduction (vph)	0	2	0	0	1	0	0	66	0	0	30	0
Lane Group Flow (vph)	8	813	0	187	847	0	42	14	0	113	35	0
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			8			4	
Permitted Phases	6			2			8			4		
Actuated Green, G (s)	51.0	50.2		65.9	59.6		10.5	10.5		10.5	10.5	
Effective Green, g (s)	51.0	50.2		65.9	59.6		10.5	10.5		10.5	10.5	
Actuated g/C Ratio	0.58	0.57		0.75	0.68		0.12	0.12		0.12	0.12	
Clearance Time (s)	5.5	5.5		5.5	5.5		5.5	5.5		5.5	5.5	
Vehicle Extension (s)	2.0	5.0		2.0	5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	311	1051		393	1247		159	192		157	206	
v/s Ratio Prot	0.00	c0.44		c0.06	c0.46			0.01			0.02	
v/s Ratio Perm	0.01			0.30			0.03			c0.09		
v/c Ratio	0.03	0.77		0.48	0.68		0.26	0.07		0.72	0.17	
Uniform Delay, d1	8.2	14.3		10.5	8.2		34.9	34.1		37.0	34.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	4.2		0.3	1.9		0.9	0.2		14.6	0.4	
Delay (s)	8.2	18.5		10.9	10.2		35.8	34.3		51.7	34.9	
Level of Service	A	B		B	B		D	C		D	C	
Approach Delay (s)		18.4			10.3			34.8			45.5	
Approach LOS		B			B			C			D	

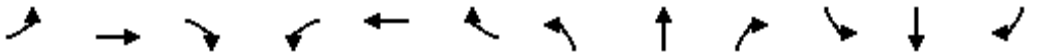
Intersection Summary			
HCM 2000 Control Delay	17.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	87.4	Sum of lost time (s)	16.5
Intersection Capacity Utilization	77.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	750	123	475	766	184	157	327	588	184	213	95
Future Volume (vph)	53	750	123	475	766	184	157	327	588	184	213	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	11	10	12	12	10	12	12
Total Lost time (s)	4.5	4.0		4.5	4.0		5.0	4.0	4.5	4.5	4.0	
Lane Util. Factor	1.00	0.95		0.97	0.95		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.98		1.00	0.97		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1745	3504		3385	3322		1685	1863	1599	1620	3432	
Flt Permitted	0.95	1.00		0.95	1.00		0.46	1.00	1.00	0.20	1.00	
Satd. Flow (perm)	1745	3504		3385	3322		824	1863	1599	341	3432	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	56	789	129	500	806	194	165	344	619	194	224	100
RTOR Reduction (vph)	0	11	0	0	17	0	0	0	0	0	49	0
Lane Group Flow (vph)	56	907	0	500	983	0	165	344	619	194	275	0
Heavy Vehicles (%)	0%	1%	0%	0%	2%	2%	0%	2%	1%	4%	0%	1%
Turn Type	Prot	NA		Prot	NA		pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2		1	6		3	8	1	7	4	
Permitted Phases							8		8	4		
Actuated Green, G (s)	5.5	34.6		19.2	48.3		32.1	24.1	43.3	33.8	24.7	
Effective Green, g (s)	6.5	36.6		20.2	50.3		34.1	26.1	45.3	35.8	26.7	
Actuated g/C Ratio	0.06	0.33		0.18	0.46		0.31	0.24	0.41	0.33	0.24	
Clearance Time (s)	5.5	6.0		5.5	6.0		6.0	6.0	5.5	5.5	6.0	
Vehicle Extension (s)	1.0	2.0		2.0	2.0		1.0	2.0	2.0	1.5	2.0	
Lane Grp Cap (vph)	103	1165		621	1519		325	442	658	228	833	
v/s Ratio Prot	0.03	c0.26		0.15	0.30		0.04	0.18	c0.17	c0.08	0.08	
v/s Ratio Perm							0.12		0.21	0.20		
v/c Ratio	0.54	0.78		0.81	0.65		0.51	0.78	0.94	0.85	0.33	
Uniform Delay, d1	50.3	33.0		43.0	23.0		29.1	39.2	31.1	30.0	34.3	
Progression Factor	1.00	1.00		0.95	0.63		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.1	5.2		6.4	1.9		0.5	7.7	21.5	24.2	0.1	
Delay (s)	53.4	38.2		47.3	16.4		29.6	46.9	52.5	54.1	34.4	
Level of Service	D	D		D	B		C	D	D	D	C	
Approach Delay (s)		39.1			26.7			47.5			41.8	
Approach LOS		D			C			D			D	

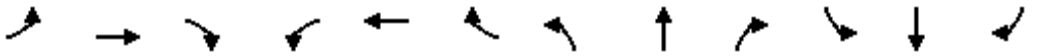
Intersection Summary			
HCM 2000 Control Delay	37.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	17.5
Intersection Capacity Utilization	81.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1170	386	387	1270	0	0	0	0	160	0	155
Future Volume (vph)	0	1170	386	387	1270	0	0	0	0	160	0	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	12	12	12	12	13	12
Total Lost time (s)		3.5		3.5	3.5						4.0	4.0
Lane Util. Factor		0.95		0.97	0.95						1.00	1.00
Frpb, ped/bikes		1.00		1.00	1.00						1.00	1.00
Flpb, ped/bikes		1.00		1.00	1.00						1.00	1.00
Frt		0.96		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)		3300		3319	3455						1865	1553
Flt Permitted		1.00		0.95	1.00						0.95	1.00
Satd. Flow (perm)		3300		3319	3455						1865	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1232	406	407	1337	0	0	0	0	168	0	163
RTOR Reduction (vph)	0	29	0	0	0	0	0	0	0	0	0	100
Lane Group Flow (vph)	0	1609	0	407	1337	0	0	0	0	0	168	63
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	0%	1%	3%	2%	1%	0%	0%	0%	0%	0%	0%	4%
Turn Type		NA		Prot	NA					Split	NA	Perm
Protected Phases		2		1	6					4	4	
Permitted Phases												4
Actuated Green, G (s)		58.5		23.6	87.1						12.9	12.9
Effective Green, g (s)		60.0		25.1	88.6						13.9	13.9
Actuated g/C Ratio		0.55		0.23	0.81						0.13	0.13
Clearance Time (s)		5.0		5.0	5.0						5.0	5.0
Vehicle Extension (s)		3.0		2.0	3.0						1.5	1.5
Lane Grp Cap (vph)		1800		757	2782						235	196
v/s Ratio Prot		c0.49		c0.12	0.39						c0.09	
v/s Ratio Perm												0.04
v/c Ratio		0.89		0.54	0.48						0.71	0.32
Uniform Delay, d1		22.2		37.3	3.4						46.1	43.8
Progression Factor		0.80		0.45	2.03						1.00	1.00
Incremental Delay, d2		5.1		1.1	0.4						8.3	0.4
Delay (s)		22.8		17.9	7.3						54.4	44.1
Level of Service		C		B	A						D	D
Approach Delay (s)		22.8			9.7			0.0			49.4	
Approach LOS		C			A			A			D	

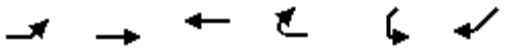
Intersection Summary			
HCM 2000 Control Delay	19.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	74.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	340	990	0	0	1037	232	520	121	772	0	0	101
Future Volume (vph)	340	990	0	0	1037	232	520	121	772	0	0	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	12	12	11	12	11	12	12	12
Total Lost time (s)	4.0	3.5			3.5		4.0	4.0	4.0			4.0
Lane Util. Factor	1.00	0.95			0.95		0.97	1.00	0.88			1.00
Frt	1.00	1.00			0.97		1.00	1.00	0.85			0.86
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00			1.00
Satd. Flow (prot)	1728	3455			3470		3319	1792	2720			1611
Flt Permitted	0.09	1.00			1.00		0.95	1.00	1.00			1.00
Satd. Flow (perm)	157	3455			3470		3319	1792	2720			1611
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	358	1042	0	0	1092	244	547	127	813	0	0	106
RTOR Reduction (vph)	0	0	0	0	17	0	0	0	0	0	0	0
Lane Group Flow (vph)	358	1042	0	0	1319	0	547	127	813	0	0	106
Heavy Vehicles (%)	1%	1%	0%	0%	1%	2%	2%	6%	1%	0%	0%	2%
Turn Type	pm+pt	NA			NA		Split	NA	Perm			Over
Protected Phases	5	2			6		8	8				5
Permitted Phases	2								8			
Actuated Green, G (s)	65.0	65.0			41.2		33.5	33.5	33.5			18.8
Effective Green, g (s)	66.0	67.0			43.2		35.5	35.5	35.5			19.8
Actuated g/C Ratio	0.60	0.61			0.39		0.32	0.32	0.32			0.18
Clearance Time (s)	5.0	5.5			5.5		6.0	6.0	6.0			5.0
Vehicle Extension (s)	3.0	3.0			3.0		2.0	2.0	2.0			3.0
Lane Grp Cap (vph)	376	2104			1362		1071	578	877			289
v/s Ratio Prot	c0.17	0.30			0.38		0.16	0.07				0.07
v/s Ratio Perm	c0.40								c0.30			
v/c Ratio	0.95	0.50			0.97		0.51	0.22	0.93			0.37
Uniform Delay, d1	34.3	12.0			32.7		30.2	27.2	36.0			39.6
Progression Factor	0.68	0.50			1.00		1.00	1.00	1.00			1.00
Incremental Delay, d2	20.5	0.4			17.9		0.2	0.1	15.2			0.8
Delay (s)	43.6	6.4			50.7		30.4	27.2	51.2			40.4
Level of Service	D	A			D		C	C	D			D
Approach Delay (s)		15.9			50.7			41.5			40.4	
Approach LOS		B			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	36.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.5
Intersection Capacity Utilization	79.7%	ICU Level of Service	D
Analysis Period (min)	15		

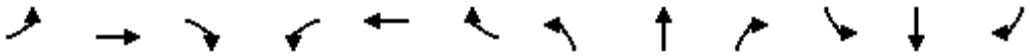
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	631	1132	1040	0	0	387
Future Volume (Veh/h)	631	1132	1040	0	0	387
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	664	1192	1095	0	0	407
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)		1075	348			
pX, platoon unblocked	0.57				0.60	0.57
vC, conflicting volume	1095				3019	1095
vC1, stage 1 conf vol					1095	
vC2, stage 2 conf vol					1924	
vCu, unblocked vol	795				3726	795
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	0				0	0
cM capacity (veh/h)	480				0	192

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	SW 1
Volume Total	664	596	596	1095	407
Volume Left	664	0	0	0	0
Volume Right	0	0	0	0	407
cSH	480	1700	1700	1700	192
Volume to Capacity	1.38	0.35	0.35	0.64	2.12
Queue Length 95th (ft)	776	0	0	0	791
Control Delay (s)	208.8	0.0	0.0	0.0	559.5
Lane LOS	F				F
Approach Delay (s)	74.7			0.0	559.5
Approach LOS					F

Intersection Summary			
Average Delay	109.1		
Intersection Capacity Utilization	96.4%	ICU Level of Service	F
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	7	93	0	0	90	61	74	206	260	75	0	2
Future Volume (vph)	7	93	0	0	90	61	74	206	260	75	0	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	7	98	0	0	95	64	78	217	274	79	0	2

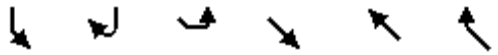
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	105	159	295	274	79	2
Volume Left (vph)	7	0	78	0	79	0
Volume Right (vph)	0	64	0	274	0	2
Hadj (s)	0.01	-0.24	0.05	-0.60	0.20	-0.60
Departure Headway (s)	5.1	4.7	4.7	3.2	5.2	3.2
Degree Utilization, x	0.15	0.21	0.39	0.24	0.11	0.00
Capacity (veh/h)	650	695	727	1112	644	1121
Control Delay (s)	8.9	9.0	10.7	7.2	8.8	6.2
Approach Delay (s)	8.9	9.0	9.0		8.7	
Approach LOS	A	A	A		A	

Intersection Summary				
Delay	9.0			
Level of Service	A			
Intersection Capacity Utilization	39.7%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	31	52	120	40	52	54
Future Volume (Veh/h)	31	52	120	40	52	54
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	33	55	126	42	55	57
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	293	126			168	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	293	126			168	
tC, single (s)	6.5	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	95	94			96	
cM capacity (veh/h)	654	903			1363	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	33	55	126	42	55	57
Volume Left	33	0	0	0	55	0
Volume Right	0	55	0	42	0	0
cSH	654	903	1700	1700	1363	1700
Volume to Capacity	0.05	0.06	0.07	0.02	0.04	0.03
Queue Length 95th (ft)	4	5	0	0	3	0
Control Delay (s)	10.8	9.2	0.0	0.0	7.8	0.0
Lane LOS	B	A			A	
Approach Delay (s)	9.8		0.0		3.8	
Approach LOS	A					

Intersection Summary			
Average Delay	3.5		
Intersection Capacity Utilization	19.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (vph)	238	119	154	588	599	194
Future Volume (vph)	238	119	154	588	599	194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1641	1468	1641	1863	1863	1468
Flt Permitted	0.95	1.00	0.30	1.00	1.00	1.00
Satd. Flow (perm)	1641	1468	516	1863	1863	1468
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	251	125	162	619	631	204
RTOR Reduction (vph)	0	92	0	0	0	99
Lane Group Flow (vph)	251	33	162	619	631	105
Heavy Vehicles (%)	10%	10%	10%	2%	2%	10%
Turn Type	Prot	Perm	Perm	NA	NA	Perm
Protected Phases	4			6	2	
Permitted Phases		4	6			2
Actuated Green, G (s)	14.8	14.8	28.5	28.5	28.5	28.5
Effective Green, g (s)	14.8	14.8	28.5	28.5	28.5	28.5
Actuated g/C Ratio	0.27	0.27	0.52	0.52	0.52	0.52
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	439	392	265	960	960	756
v/s Ratio Prot	c0.15			0.33	c0.34	
v/s Ratio Perm		0.02	0.31			0.07
v/c Ratio	0.57	0.09	0.61	0.64	0.66	0.14
Uniform Delay, d1	17.5	15.2	9.5	9.7	9.8	7.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.8	0.1	4.1	1.5	1.6	0.1
Delay (s)	19.3	15.3	13.6	11.2	11.5	7.1
Level of Service	B	B	B	B	B	A
Approach Delay (s)	18.0			11.7	10.4	
Approach LOS	B			B	B	

Intersection Summary			
HCM 2000 Control Delay	12.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	55.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection: 2: Soule Road/481 South off-ramp & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	L	R	L	T	R
Maximum Queue (ft)	308	271	418	196	207	201	220	128	125	263	120	97
Average Queue (ft)	170	119	160	97	100	89	101	52	51	116	37	38
95th Queue (ft)	264	221	291	160	168	165	173	100	91	200	81	69
Link Distance (ft)	572	572	572			620	620		544		503	
Upstream Blk Time (%)			0									
Queuing Penalty (veh)			0									
Storage Bay Dist (ft)				340	340			260		300		150
Storage Blk Time (%)										0		
Queuing Penalty (veh)										0		

Intersection: 3: 481 North off-ramp/481 North on-ramp & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	T	R	L	LT	R
Maximum Queue (ft)	132	162	166	202	146	93	226	252	104
Average Queue (ft)	54	40	55	75	40	25	84	139	29
95th Queue (ft)	99	99	115	149	97	58	174	210	66
Link Distance (ft)		620	620	356	356			1069	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	150					330	350		220
Storage Blk Time (%)	0	0						0	
Queuing Penalty (veh)	0	0						1	

Intersection: 4: Marketfair Plaza & Rt 31 Seg 1

Movement	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	L	T	T	L	R
Maximum Queue (ft)	29	29	32	64	61	49	20
Average Queue (ft)	1	1	5	6	5	9	2
95th Queue (ft)	8	10	21	29	29	32	11
Link Distance (ft)	356	356		625	625	288	288
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			150				
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 5: Water Board/Great Northern Mall West & Rt 31 Seg 1

Movement	EB	EB	EB	EB	WB	WB	WB	SB	SB	SB
Directions Served	L	L	T	TR	T	T	R	LT	R	R
Maximum Queue (ft)	34	52	38	46	121	125	14	46	76	27
Average Queue (ft)	3	15	1	2	24	21	0	9	16	3
95th Queue (ft)	16	39	12	16	67	65	5	31	46	16
Link Distance (ft)			625	625	797	797		345	345	345
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	330	330					150			
Storage Blk Time (%)					0	0				
Queuing Penalty (veh)					0	0				

Intersection: 6: Laz-Boy/Great Northern East & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	LT	R
Maximum Queue (ft)	38	166	175	58	161	150	131	74	30	53
Average Queue (ft)	7	63	66	14	42	51	49	31	2	15
95th Queue (ft)	26	126	132	39	106	112	94	58	13	42
Link Distance (ft)		797	797		1437	1437	393	393	414	414
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	300			210						
Storage Blk Time (%)					0					
Queuing Penalty (veh)					0					

Intersection: 7: Morgan Road & Rt 31 Seg 1

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	T	R	L	TR
Maximum Queue (ft)	257	386	345	231	187	222	230	219	126	77	356	584
Average Queue (ft)	44	212	159	66	81	105	108	92	42	28	53	266
95th Queue (ft)	136	330	287	144	145	176	183	167	88	54	166	456
Link Distance (ft)		1437	1437			589	589		1049			1291
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	275			275	300			550		250	400	
Storage Blk Time (%)		4	1									4
Queuing Penalty (veh)		3	2									3

Intersection: 8: Henry Clay Boulevard & Rt 31 Seg 2

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	TR	L	TR	L	TR	LTR
Maximum Queue (ft)	36	524	217	296	226	184	211
Average Queue (ft)	6	235	94	111	97	71	99
95th Queue (ft)	25	430	163	217	173	134	172
Link Distance (ft)		1648		4988		1071	999
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	425		475		300		
Storage Blk Time (%)		1			0		
Queuing Penalty (veh)		0			0		

Intersection: 9: Caughdenoy Road & Rt 31 Seg 3

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	337	312	143	124
Average Queue (ft)	142	99	58	49
95th Queue (ft)	260	202	106	89
Link Distance (ft)	3900	1654	3895	3715
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 10: Lawton Rd/Legionaire Dr & Rt 31 Seg 5

Movement	EB	EB	WB	WB	B23	NB	NB	SB	SB
Directions Served	L	TR	L	TR	T	L	TR	L	TR
Maximum Queue (ft)	60	396	70	219	38	76	152	112	60
Average Queue (ft)	3	158	24	75	1	22	56	44	13
95th Queue (ft)	28	291	54	157	24	55	104	85	41
Link Distance (ft)		1701		2976	335		575	583	
Upstream Blk Time (%)					0				
Queuing Penalty (veh)					0				
Storage Bay Dist (ft)	250		250			130			175
Storage Blk Time (%)		2		0			0		
Queuing Penalty (veh)		0		0			0		

Intersection: 11: Route 11 & Rt 31 Seg 6

Movement	EB	EB	EB	B23	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	TR	T	L	L	T	TR	L	T	R	L
Maximum Queue (ft)	260	424	335	728	154	170	150	188	89	90	270	169
Average Queue (ft)	39	262	269	102	72	91	43	102	29	29	126	69
95th Queue (ft)	121	474	375	491	126	141	117	191	66	67	216	130
Link Distance (ft)		335		2976	116	116	116	116		502	502	
Upstream Blk Time (%)		8	3		2	4	0	4				
Queuing Penalty (veh)		82	0		4	9	1	11				
Storage Bay Dist (ft)	225		300						190			325
Storage Blk Time (%)		6	12									
Queuing Penalty (veh)		38	63									

Intersection: 11: Route 11 & Rt 31 Seg 6

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	106	100
Average Queue (ft)	40	32
95th Queue (ft)	79	69
Link Distance (ft)	567	567
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: I-81 SB On-Ramp/I-81 SB Off-Ramp & Rt 31 Seg 6

Movement	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	T	TR	L	L	T	T	LT	R
Maximum Queue (ft)	157	157	180	279	130	186	220	147
Average Queue (ft)	146	157	123	134	32	64	104	56
95th Queue (ft)	185	159	188	226	84	128	174	98
Link Distance (ft)	85	85		271	271	271	1125	
Upstream Blk Time (%)	38	57		0				
Queuing Penalty (veh)	256	386		1				
Storage Bay Dist (ft)			130					200
Storage Blk Time (%)			3	4			1	
Queuing Penalty (veh)			13	18			1	

Intersection: 13: I-81 NB Off-Ramp/Pardee Road & Rt 31 Seg 6

Movement	EB	EB	EB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	T	T	T	TR	L	L	T	R	R	R
Maximum Queue (ft)	111	83	96	506	455	208	230	165	348	225	308
Average Queue (ft)	35	26	42	498	192	88	118	40	182	143	145
95th Queue (ft)	77	59	80	544	428	158	188	101	269	226	240
Link Distance (ft)		271	271	433	433			444	444		782
Upstream Blk Time (%)				43	0						
Queuing Penalty (veh)				289	2						
Storage Bay Dist (ft)	100					200	200			125	
Storage Blk Time (%)	1	0				0	1	0	27	7	
Queuing Penalty (veh)	2	0				0	0	0	51	12	

Intersection: 14: Rt 31 Seg 6/Route 31 & LakeShore Rd.

Movement	EB	WB	SW
Directions Served	L	T	R
Maximum Queue (ft)	186	97	353
Average Queue (ft)	73	6	353
95th Queue (ft)	140	41	356
Link Distance (ft)		249	270
Upstream Blk Time (%)			98
Queuing Penalty (veh)			716
Storage Bay Dist (ft)	250		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 28: 481 NB Off-Ramp & Maple Road & Caughdenoy Road

Movement	EB	NB	SB	SB
Directions Served	LT	LT	L	R
Maximum Queue (ft)	11	58	90	9
Average Queue (ft)	0	30	43	0
95th Queue (ft)	5	49	70	4
Link Distance (ft)	1618	1157	2601	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				50
Storage Blk Time (%)			3	0
Queuing Penalty (veh)			0	0

Intersection: 29: Caughdenoy Road & Entrance 1

Movement	WB	WB	NB	SB
Directions Served	L	R	R	L
Maximum Queue (ft)	74	69	6	52
Average Queue (ft)	22	24	0	6
95th Queue (ft)	51	50	3	28
Link Distance (ft)	624	624		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			200	200
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 30: Rt 31 Seg 4 & Entrance 2

Movement	SB	SB	SE	SE	NW	NW
Directions Served	L	R	L	T	T	R
Maximum Queue (ft)	274	126	226	289	244	166
Average Queue (ft)	123	44	91	109	88	42
95th Queue (ft)	213	84	166	208	166	86
Link Distance (ft)	1047	1047		3359	1079	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			200			200
Storage Blk Time (%)			1	1	0	
Queuing Penalty (veh)			4	1	1	

Zone Summary

Zone wide Queuing Penalty: 1972

Intersection: 2: Soule Road/481 South off-ramp & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	L	R	L	T	R
Maximum Queue (ft)	603	603	603	312	313	301	306	301	327	265	255	194
Average Queue (ft)	504	456	323	152	156	159	165	173	79	114	72	103
95th Queue (ft)	669	651	620	247	250	235	246	274	175	196	165	171
Link Distance (ft)	572	572	572			620	620		544		503	
Upstream Blk Time (%)	18	8	4									
Queuing Penalty (veh)	0	0	0									
Storage Bay Dist (ft)				340	340			260		300		150
Storage Blk Time (%)				0	0	0		2	0	0	1	4
Queuing Penalty (veh)				0	0	0		4	0	0	4	13

Intersection: 3: 481 North off-ramp/481 North on-ramp & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	T	R	L	LT	R
Maximum Queue (ft)	199	479	417	379	389	355	400	1102	270
Average Queue (ft)	132	152	134	357	301	127	381	693	254
95th Queue (ft)	203	317	265	403	430	339	447	1146	334
Link Distance (ft)		620	620	356	356			1069	
Upstream Blk Time (%)		0	0	31	5	0		5	
Queuing Penalty (veh)		0	0	230	41	0		0	
Storage Bay Dist (ft)	150					330	350		220
Storage Blk Time (%)	10	2			10	0	4	39	1
Queuing Penalty (veh)	66	4			32	0	37	365	12

Intersection: 4: Marketfair Plaza & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	165	143	48	200	577	557	300	257
Average Queue (ft)	58	56	8	60	234	178	186	56
95th Queue (ft)	126	115	31	168	496	436	351	205
Link Distance (ft)	356	356			625	625	288	288
Upstream Blk Time (%)					1	0	33	7
Queuing Penalty (veh)					7	3	0	0
Storage Bay Dist (ft)			250	150				
Storage Blk Time (%)					23			
Queuing Penalty (veh)					12			

Intersection: 5: Water Board/Great Northern Mall West & Rt 31 Seg 1

Movement	EB	EB	EB	EB	WB	WB	WB	NB	SB	SB	SB
Directions Served	L	L	T	TR	T	T	R	LTR	LT	R	R
Maximum Queue (ft)	168	166	150	147	305	295	165	26	100	223	168
Average Queue (ft)	73	87	42	43	119	118	13	1	37	106	46
95th Queue (ft)	130	138	107	108	227	225	71	10	76	177	116
Link Distance (ft)			625	625	797	797		316	345	345	345
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	330	330					150				
Storage Blk Time (%)					5	5	0				
Queuing Penalty (veh)					0	2	0				

Intersection: 6: Laz-Boy/Great Northern East & Rt 31 Seg 1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	LT	R
Maximum Queue (ft)	69	208	178	50	227	228	105	76	95	92
Average Queue (ft)	19	52	47	10	57	65	38	25	30	35
95th Queue (ft)	47	130	121	33	148	156	78	57	69	67
Link Distance (ft)		797	797		1437	1437	393	393	414	414
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	300			210						
Storage Blk Time (%)					0					
Queuing Penalty (veh)					0					

Intersection: 7: Morgan Road & Rt 31 Seg 1

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	T	R	L	TR
Maximum Queue (ft)	324	433	356	197	306	372	386	328	258	113	94	326
Average Queue (ft)	170	210	148	67	89	200	217	162	105	30	29	149
95th Queue (ft)	286	328	273	131	183	305	325	259	188	66	65	270
Link Distance (ft)		1437	1437			589	589		1049			1291
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	275			275	300			550		250	400	
Storage Blk Time (%)	1	2	0		0	1			0			1
Queuing Penalty (veh)	3	7	1		0	2			1			0

Intersection: 8: Henry Clay Boulevard & Rt 31 Seg 2

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	TR	L	TR	L	TR	LTR
Maximum Queue (ft)	314	644	174	405	313	433	154
Average Queue (ft)	25	317	68	169	146	199	40
95th Queue (ft)	121	545	127	314	249	333	101
Link Distance (ft)		1648		4988		1071	999
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	425		475		300		
Storage Blk Time (%)		4		0	0	2	
Queuing Penalty (veh)		1		0	0	5	

Intersection: 9: Caughdenoy Road & Rt 31 Seg 3

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	887	549	161	98
Average Queue (ft)	301	151	64	37
95th Queue (ft)	653	342	114	72
Link Distance (ft)	3900	1654	3895	3715
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 10: Lawton Rd/Legionaire Dr & Rt 31 Seg 5

Movement	EB	EB	B15	WB	WB	B23	B23	NB	NB	SB	SB
Directions Served	L	TR	T	L	TR	T		L	TR	L	TR
Maximum Queue (ft)	167	1030	402	195	302	333	33	100	112	263	180
Average Queue (ft)	12	371	74	67	119	10	1	31	44	79	40
95th Queue (ft)	90	1109	600	126	234	108	23	70	83	176	97
Link Distance (ft)		1701	2010		2976	335	335		575	583	
Upstream Blk Time (%)		6	0			0	0				
Queuing Penalty (veh)		47	0			1	0				
Storage Bay Dist (ft)	250			250				130			175
Storage Blk Time (%)		17			0			0	0	3	
Queuing Penalty (veh)		1			1			0	0	2	

Intersection: 11: Route 11 & Rt 31 Seg 6

Movement	EB	EB	EB	B23	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	TR	T	L	L	T	TR	L	T	R	L
Maximum Queue (ft)	275	439	335	2696	183	188	188	178	240	532	545	365
Average Queue (ft)	79	394	323	1442	98	117	123	79	138	381	433	213
95th Queue (ft)	239	478	368	3311	165	184	209	160	265	640	628	408
Link Distance (ft)		335		2976	116	116	116	116		502	502	
Upstream Blk Time (%)		41	16	2	11	16	8	2		18	38	
Queuing Penalty (veh)		379	0	14	38	56	28	7		0	0	
Storage Bay Dist (ft)	225		300						190			325
Storage Blk Time (%)	0	40	44						1	22		26
Queuing Penalty (veh)	0	219	189						4	34		28

Intersection: 11: Route 11 & Rt 31 Seg 6

Movement	SB	SB	B61
Directions Served	T	TR	T
Maximum Queue (ft)	486	393	300
Average Queue (ft)	202	115	89
95th Queue (ft)	572	309	458
Link Distance (ft)	567	567	728
Upstream Blk Time (%)	16		6
Queuing Penalty (veh)	0		0
Storage Bay Dist (ft)			
Storage Blk Time (%)	0		
Queuing Penalty (veh)	0		

Intersection: 12: I-81 SB On-Ramp/I-81 SB Off-Ramp & Rt 31 Seg 6

Movement	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	T	TR	L	L	T	T	LT	R
Maximum Queue (ft)	157	157	162	167	295	275	394	240
Average Queue (ft)	157	153	70	91	171	105	147	72
95th Queue (ft)	161	174	130	147	273	219	295	171
Link Distance (ft)	85	85		271	271	271	1125	
Upstream Blk Time (%)	71	41			0	0		
Queuing Penalty (veh)	556	318			2	0		
Storage Bay Dist (ft)			130					200
Storage Blk Time (%)			0	1			8	0
Queuing Penalty (veh)			0	2			13	0

Intersection: 13: I-81 NB Off-Ramp/Pardee Road & Rt 31 Seg 6

Movement	EB	EB	EB	WB	WB	NB	NB	NB	NB	NB	B66	SB
Directions Served	L	T	T	T	TR	L	L	T	R	R	T	R
Maximum Queue (ft)	150	312	313	506	506	243	274	516	531	225	640	172
Average Queue (ft)	147	271	182	499	468	121	103	110	509	221	589	72
95th Queue (ft)	168	334	338	545	588	219	211	363	543	258	744	131
Link Distance (ft)		271	271	433	433			444	444		588	782
Upstream Blk Time (%)		22	4	63	40			0	65		64	
Queuing Penalty (veh)		143	24	399	251			0	0		0	
Storage Bay Dist (ft)	100					200	200			125		
Storage Blk Time (%)	39	54				2	1	0	94	51		
Queuing Penalty (veh)	192	184				3	1	1	362	197		

Intersection: 14: Rt 31 Seg 6/Route 31 & LakeShore Rd.

Movement	EB	EB	WB	SW
Directions Served	L	T	T	R
Maximum Queue (ft)	300	575	241	353
Average Queue (ft)	300	575	32	257
95th Queue (ft)	300	576	135	436
Link Distance (ft)		503	249	270
Upstream Blk Time (%)		99	0	48
Queuing Penalty (veh)		872	3	184
Storage Bay Dist (ft)	250			
Storage Blk Time (%)	95			
Queuing Penalty (veh)	536			

Intersection: 28: 481 NB Off-Ramp & Maple Road & Caughdenoy Road

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LT	TR	LT	R	L	R
Maximum Queue (ft)	64	79	145	223	73	20
Average Queue (ft)	33	35	50	36	32	0
95th Queue (ft)	52	57	93	145	58	9
Link Distance (ft)	1618	1396	1157		2601	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)				250		50
Storage Blk Time (%)				0	1	0
Queuing Penalty (veh)				0	0	0

Intersection: 29: Caughdenoy Road & Entrance 1

Movement	WB	WB	NB	SB
Directions Served	L	R	R	L
Maximum Queue (ft)	68	63	10	60
Average Queue (ft)	18	22	0	8
95th Queue (ft)	44	47	3	33
Link Distance (ft)	624	624		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			200	200
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 30: Rt 31 Seg 4 & Entrance 2

Movement	SB	SB	SE	SE	NW	NW
Directions Served	L	R	L	T	T	R
Maximum Queue (ft)	282	118	235	316	244	129
Average Queue (ft)	120	43	89	109	100	35
95th Queue (ft)	205	85	168	215	189	76
Link Distance (ft)	1047	1047		3359	1079	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			200			200
Storage Blk Time (%)			1	1	0	
Queuing Penalty (veh)			6	1	1	

Zone Summary

Zone wide Queuing Penalty: 6157

Arterial Level of Service: EB Rt 31 Seg 1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Soule Road	2	29.9	40.0	0.1	11
481 North off-ramp	3	7.9	19.8	0.1	24
Marketfair Plaza	4	1.3	8.4	0.1	35
Water Board	5	0.8	12.6	0.1	39
Laz-Boy	6	5.9	21.0	0.2	29
Morgan Road	7	47.4	72.5	0.3	14
	24	9.1	20.6	0.1	22
Total		102.4	194.9	1.0	19

Arterial Level of Service: WB Rt 31 Seg 1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Morgan Road	7	24.7	35.3	0.1	13
Great Northern East	6	7.8	33.0	0.3	31
Great Northern Mall	5	2.9	18.1	0.2	34
Marketfair Plaza	4	1.4	13.1	0.1	37
481 North on-ramp	3	6.8	13.8	0.1	21
481 South off-ramp	2	17.7	29.3	0.1	16
Total		61.1	142.6	0.9	23

Arterial Level of Service: EB Rt 31 Seg 2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	59	4.0	31.5	0.4	48
Henry Clay Boulevard	8	32.1	53.3	0.3	22
Driveway	45	10.7	73.3	1.0	47
Total		46.7	158.0	1.7	39

Arterial Level of Service: WB Rt 31 Seg 2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Henry Clay Boulevard	8	17.7	81.1	1.0	43
Driveway	59	7.7	29.1	0.3	40
	24	4.1	31.5	0.4	48
Total		29.6	141.7	1.7	43

Arterial Level of Service: EB Rt 31 Seg 3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Caughdenoy Road	9	18.7	85.9	0.8	31
	21	4.6	34.0	0.3	34
Total		23.3	119.9	1.1	32

Arterial Level of Service: WB Rt 31 Seg 3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Caughdenoy Road	9	9.8	37.9	0.3	31
Driveway	45	8.3	75.6	0.8	36
Total		18.1	113.5	1.1	34

Arterial Level of Service: EB Rt 31 Seg 5

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Lawton Rd	10	12.9	38.9	0.3	31
	23	16.2	75.4	0.6	27
Total		29.1	114.4	0.9	29

Arterial Level of Service: WB Rt 31 Seg 5

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Legionaire Dr	10	8.6	54.6	0.6	38
	15	3.6	30.5	0.3	39
Total		12.2	85.1	0.9	38

Arterial Level of Service: EB Rt 31 Seg 6

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Route 11	11	29.1	37.3	0.1	8
Driveway	70	6.4	10.6	0.0	13
Driveway	36	21.7	28.8	0.1	9
I-81 SB On-Ramp	12	18.0	35.6	0.0	5
I-81 NB Off-Ramp	13	5.4	12.3	0.1	19
Driveway	27	1.3	11.1	0.1	33
LakeShore Rd.	14	0.6	11.5	0.1	32
Total		82.4	147.1	0.5	13

Arterial Level of Service: WB Rt 31 Seg 6

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	27	14.1	25.5	0.1	15
Pardee Road	13	51.8	128.9	0.1	6
I-81 SB Off-Ramp	12	6.6	13.8	0.1	17
Driveway	36	0.9	3.7	0.0	29
Driveway	70	1.9	9.1	0.1	27
Route 11	11	7.2	10.7	0.0	13
	23	2.9	11.4	0.1	25
Total		85.4	203.0	0.5	13

Arterial Level of Service: SE Rt 31 Seg 4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Entrance 2	30	14.6	56.6	0.6	41
Driveway	20	5.5	19.2	0.2	40
	15	3.4	29.2	0.4	48
Total		23.6	105.1	1.3	43

Arterial Level of Service: WB Rt 31 Seg 4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	20	2.7	28.3	0.4	50
Entrance 2	30	12.1	25.7	0.2	30
	21	8.0	50.5	0.6	46
Total		22.7	104.4	1.3	43

Arterial Level of Service: EB Rt 31 Seg 1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Soule Road	2	80.8	99.2	0.1	5
481 North off-ramp	3	16.6	28.6	0.1	16
Marketfair Plaza	4	4.1	11.2	0.1	26
Water Board	5	4.0	15.7	0.1	31
Laz-Boy	6	4.8	19.9	0.2	31
Morgan Road	7	36.6	60.7	0.3	17
	24	9.4	20.9	0.1	22
Total		156.2	256.2	1.0	15

Arterial Level of Service: WB Rt 31 Seg 1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Morgan Road	7	45.8	56.8	0.1	8
Great Northern East	6	8.7	33.1	0.3	31
Great Northern Mall	5	11.8	27.0	0.2	23
Marketfair Plaza	4	20.3	32.2	0.1	15
481 North on-ramp	3	59.9	69.5	0.1	4
481 South off-ramp	2	18.6	29.9	0.1	16
Total		165.0	248.4	0.9	14

Arterial Level of Service: EB Rt 31 Seg 2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	59	2.8	31.0	0.4	48
Henry Clay Boulevard	8	39.1	60.2	0.3	19
Driveway	45	14.0	76.4	1.0	45
Total		55.9	167.6	1.7	36

Arterial Level of Service: WB Rt 31 Seg 2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Henry Clay Boulevard	8	24.0	87.4	1.0	39
Driveway	59	6.3	27.8	0.3	42
	24	4.4	31.7	0.4	47
Total		34.7	146.9	1.7	42

Arterial Level of Service: EB Rt 31 Seg 3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Caughdenoy Road	9	38.4	105.6	0.8	26
	21	5.1	34.4	0.3	34
Total		43.5	140.0	1.1	28

Arterial Level of Service: WB Rt 31 Seg 3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Caughdenoy Road	9	15.1	43.3	0.3	27
Driveway	45	8.7	76.2	0.8	35
Total		23.8	119.5	1.1	32

Arterial Level of Service: EB Rt 31 Seg 5

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Lawton Rd	10	49.5	78.4	0.3	16
	23	184.9	242.1	0.6	9
Total		234.3	320.5	0.9	10

Arterial Level of Service: WB Rt 31 Seg 5

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Legionaire Dr	10	12.9	57.8	0.6	36
	15	4.6	31.5	0.3	38
Total		17.5	89.3	0.9	37

Arterial Level of Service: EB Rt 31 Seg 6

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Route 11	11	87.8	96.9	0.1	3
Driveway	70	8.4	12.7	0.0	11
Driveway	36	40.9	48.0	0.1	5
I-81 SB On-Ramp	12	29.9	40.3	0.0	3
I-81 NB Off-Ramp	13	34.0	40.8	0.1	6
Driveway	27	52.8	143.0	0.1	6
LakeShore Rd.	14	0.8	11.7	0.1	32
Total		254.6	393.3	0.5	6

Arterial Level of Service: WB Rt 31 Seg 6

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	27	34.7	46.2	0.1	8
Pardee Road	13	93.2	125.2	0.1	4
I-81 SB Off-Ramp	12	14.5	21.7	0.1	11
Driveway	36	2.0	4.9	0.0	22
Driveway	70	3.8	10.9	0.1	23
Route 11	11	12.7	16.4	0.0	8
	23	6.4	14.9	0.1	19
Total		167.3	240.2	0.5	8

Arterial Level of Service: SE Rt 31 Seg 4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Entrance 2	30	14.2	56.3	0.6	41
Driveway	20	5.9	19.7	0.2	40
	15	16.0	41.6	0.4	34
Total		36.1	117.6	1.3	38

Arterial Level of Service: WB Rt 31 Seg 4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Driveway	20	4.0	29.4	0.4	48
Entrance 2	30	12.2	25.9	0.2	30
	21	8.4	50.9	0.6	46
Total		24.5	106.2	1.3	43

APPENDIX H

CRASH ANALYSIS DIAGRAMS/TABLES

TE 213 (9/79)

DIAGRAM No.: 1

COUNTY: ONONDAGA **P.I.N.:**

TOWN OF CLAY

ROUTE NO. OR STREET NAME: NYS ROUTE 31

BETWEEN: WEGMANS EAST DRIVE TO MARKETFAIR PLAZA (RM 31 3309 1186 TO RM 31 3309 1190)

CASE No.:
FILE:
BY:
DATE:

TIME PERIOD **FROM:** 05/01/15 **TO:** 04/31/18

No. OF MONTHS: 36

ENVIRONMENTAL: Use Codes from MV 104 (shown at right) for these categories

Light Conditions:
1. Daylight
2. Dawn
3. Dusk
4. Dark Road Lighted
5. Dark Road Unlighted

Roadway Character:
1. Straight & Level
2. Straight & Grade
3. Straight & Hillcrest
4. Curve & Level
5. Curve & Grade
6. Curve & Hillcrest

Roadway Surface Condition:
1. Dry
2. Wet
3. Muddy
4. Snow/Ice
5. Slush
10. Other

Weather:
1. Clear
2. Cloudy
3. Rain
4. Snow
5. Sleet/Hail/Freezing Rain
6. Fog/Smog/Smoke
10. Other

ACCIDENT No.	DATE	TIME	No. of VEHICLES	SEVERITY	LIGHT CONDITIONS	ROADWAY CHARACTER	ROADWAY SURFACE CONDITION	WEATHER	APPARENT CONTRIBUTING FACTORS		DIRECTION	TYPE	DESCRIPTION	REFERENCE MARKER
1	5/2/2015	18:30	2	PDO	1	1	1	1	Turning Improperly			RIGHT ANGLE	DRIVER 1 STATED THAT SHE WAS MAKING A LEFT U TURN AND DID NOT	31 33091186
2	5/9/2015	12:41	2	PDO	1	1	1	2	Following Too Closely			REAR END	VEHICLE #1 AND #2 WERE TRAVELING W/B ON ST RT 31 T/CLAY. VEHICL	31 33091189
3	5/18/2015	15:59	2	PDO	1	1	1	2	FTY			LEFT TURN (A	OPERATOR OF VEHICLE#1 STATED THAT SHE WAS SOUTH ON RT.31 AN	
4	5/26/2015	17:39	3	PDO	1	1	1	1	Following Too Closely			OTHER	V1, V2 and V3 traveling westbound in the same lane on ST 31 in front of Burge	31 33091188
5	6/20/2015	13:19	2	INJURY	1	1	1	1	Driver Inattention	Following Too Closely		REAR END	V-2 TRAVELING WESTBOUND ON ST RT 31 TOWN OF CLAY STOPPED IN T	31 33091189
6	6/20/2015	12:20	2	NR	1	1	1	1	Backing Unsafely			OTHER	VEH2 WAS STOPPED IN TRAFFIC FACING EAST ON STATE ROUTE 31 DIR	31 33091188
7	6/24/2015	20:29	2	INJURY	1	1	1	1	Traffic Control Disregarded			SIDESWIPE		31 33091188
8	6/30/2015	09:22	2	PDO	1	2	2	3	Following Too Closely			REAR END	V2 stopped in traffic eastbound on Route 31 at red signal. V1 traveling eastbou	31 33091189
9	7/2/2015	13:00	2	PDO	1	1	1	1	Backing Unsafely	Driver Inexperience		SIDESWIPE	V1 BACKING W-NW BOUND OUT OF PARKING SPOT IN WEGMANS, 3955 S	
10	7/6/2015	16:05	2	NR	1	1	1	1	Driver Inattention			UNKNOWN	OWNER OF VEHICLE 2 STATED THAT SHE PARKED HER VEHICLE IN THE	
11	7/12/2015	16:32	2	PDO	1	1	1	1	Driver Inattention			REAR END		31 33091190
12	7/23/2015	11:15	2	INJURY	1	1	1	1	Traffic Control Disregarded			RIGHT ANGLE	OP OF VEH 1 STATED HE WAS TRAVELING EAST ON RT 31 WHEN A CAR	31 33091190
13	7/14/2015	17:01	2	INJURY	1	1	1	2	Driver Inattention	Following Too Closely		REAR END	OPERATOR OF V1 STATED THAT SHE THOUGHT TRAFFIC WAS MOVING A	31 33091190
14	8/13/2015	19:18	2	NR	1	1	1	1	Turning Improperly			RIGHT TURN (A	V1 Traveling West Bound on State Route 31, made an improper right turn to ex	31 33091190
15	6/28/2015	18:55	2	PDO	1	1	2	3	FTY	Turning Improperly		RIGHT TURN (A	operator of MV#1 stated. "Its my fault she must have been in my blind spo	31 33091186
16	8/15/2015	17:40	2	PDO	1	1	1	1	Turning Improperly	Passing or Lane Usage Improper		RIGHT TURN (A	OPERATOR 02 STATED THAT HE WAS STOPPED AT THE TRAFFIC LIGHT	31 33091188
17	8/12/2015	17:15	2	PDO	1	1	1	2	Following Too Closely			REAR END	DRIVER 1 STATED THAT TRAFFIC ABRUPTLY STOPPED IN FRONT OF HIM	31 33091189
18	8/6/2015	10:00	1	PDO	Z	Z	Z	Z	XX			OTHER FIXED		31 33091186
19	9/8/2015	12:16	3	INJURY	1	1	1	1	Following Too Closely			OTHER	DRIVER #1 STATED THAT SHE WAS TRAVELING EAST ON ROUTE 31 WHE	
20	8/28/2015	13:50	2	INJURY	1	1	1	1	Traffic Control Disregarded			RIGHT ANGLE	OPER 2 ADVISED THAT HE WAS STOPPED FOR A RED LIGHT AT ROUTE 4	31 33091190
21	8/22/2015	13:40	2	PDO	1	1	1	1	Following Too Closely			REAR END	OPERATOR 01 STATED THAT HE WAS STOPPED AT THE STOP LIGHT AT	
22	9/19/2015	12:55	2	NR	1	2	1	2	Backing Unsafely			REAR END	OPR1 STATED SHE WAS STOPPED AT THE LIGHT AND BEGAN BACKING I	
23	9/21/2015	19:35	2	PDO	4	1	1	1	Driver Inattention	Following Too Closely		REAR END	OPERATOR 01 STATED THAT WHILE HE WAS APPROACHING THE INTERS	
24	10/8/2015	19:30	4	INJURY	3	1	1	2	Driver Inattention	Following Too Closely		OTHER	-VEHICLES #2, 3, AND 4 WERE ALL STOPPED IN TRAFFIC ON EB ST ROUT	31 33091187
25	10/17/2015	13:35	2	PDO	1	1	1	2	Following Too Closely			REAR END	VEH2 WAS TRAVELING EAST IN THE LEFT LANE OF ROUTE 31. VEH1 WA	31 33091191
26	10/21/2015	11:50	2	INJURY	1	1	2	2	Driver Inattention	Following Too Closely		REAR END	Investigation revealed V2 WB on ST31T/Clay stopped in traffic for red light at C	31 33091187
27	10/28/2015	15:54	2	NR	1	2	2	3	Following Too Closely	Unsafe Speed		REAR END		31 33091189
28	11/2/2015	14:28	2	NR	1	1	1	1	Following Too Closely			REAR END	Driver 2 stated he was traveling east on route 31 when he changed lanes from	31 33091188
29	11/11/2015	16:32	2	PDO	4	4	2	3	FTY			RIGHT ANGLE	V2 Northbound on Carling Road. V1 stopped and preparing to make right turn	31 33091186
30	11/9/2015	21:35	2	NR	4	1	1	1	Driver Inattention			REAR END	investigation showed that both vehicles were traveling west on rt. 31 drive 1 sta	31 33091189
31	11/19/2015	12:05	2	PDO	1	1	1	1	Following Too Closely			REAR END		31 33091189
32	11/22/2015	13:44	2	NR	1	1	1	2	Following Too Closely			REAR END	V-2 stopped Eastbound SR 31 at Intersection with SR 481, at a steady red light	31 33091190
33	11/27/2015	14:10	2	PDO	1	4	1	2	Passing or Lane Usage Improper	Turning Improperly		LEFT TURN (A	DRIVER V-2 STATED SHE WAS TURNING LEFT IN THE LEFT TURN ONLY L	
34	12/4/2015	18:35	2	PDO	4	1	1	2	Driver Inattention	Following Too Closely		REAR END	DRIVER NUMBER TWO STATED THAT HE WAS STOPPED WAITING IN TRA	31 33091186
35	12/5/2015	13:55	2	PDO	1	1	1	2	Driver Inattention	Following Too Closely		REAR END	OPERATOR 01 STATED THAT AS SHE WAS TRAVELING WESTBOUND ON	31 33091191
36	12/16/2015	07:45	2	INJURY	1	1	1	1	Driver Inattention			REAR END		31 33091189
37	12/18/2015	17:00	2	NR	3	1	1	1	FTY	Passing or Lane Usage Improper		OVERTAKING	Vehicle-1 was traveling in an easterly direction on SR-31 in the TCLAY when co	31 33091190
38	12/19/2015	15:39	2	NR	1	1	1	2	Following Too Closely			REAR END	V2 was slowing in traffic when the driver of V1 looked down at his cell phone an	31 33091188
39	12/22/2015	17:03	2	NR	4	1	2	2	Following Too Closely			REAR END	V-1 traveling Eastbound on State Route 31 in the Town of Clay. V-2 stopping fo	31 33091188
40	12/14/2015	20:54	1	PDO	5	2	2	2	Other Vehicular			FIRE/EXPLOSI	V-1turning south onto Soule Rd from SR 31 East, when the vehicle stalled, and	
41	12/19/2015	14:33	2	PDO	1	1	1	2	Following Too Closely			REAR END		31 33091190
42	12/21/2015	11:50	2	NR	1	1	1	2	Following Too Closely			REAR END	V-1 traveling Eastbound on State Route 31 behind V-2. V-2 stops for a steady	31 33091190
43	12/13/2015	18:40	2	INJURY	4	1	1	2	Alcohol Involvement	Traffic Control Disregarded		RIGHT ANGLE		31 33091189

TE 213 (9/79)

DIAGRAM No.: 1

COUNTY: ONONDAGA **P.I.N.:**

TOWN OF CLAY

ROUTE NO. OR STREET NAME: NYS ROUTE 31

BETWEEN: WEGMANS EAST DRIVE TO MARKETFAIR PLAZA (RM 31 3309 1186 TO RM 31 3309 1190)

CASE No.:
FILE:
BY:
DATE:

TIME PERIOD **FROM:** 05/01/15 **TO:** 04/31/18

No. OF MONTHS: 36

ENVIRONMENTAL: Use Codes from MV 104 (shown at right) for these categories

Light Conditions:
1. Daylight
2. Dawn
3. Dusk
4. Dark Road Lighted
5. Dark Road Unlighted

Roadway Character:
1. Straight & Level
2. Straight & Grade
3. Straight & Hillcrest
4. Curve & Level
5. Curve & Grade
6. Curve & Hillcrest

Roadway Surface Condition:
1. Dry
2. Wet
3. Muddy
4. Snow/Ice
5. Slush
10. Other

Weather:
1. Clear
2. Cloudy
3. Rain
4. Snow
5. Sleet/Hail/Freezing Rain
6. Fog/Smog/Smoke
10. Other

ACCIDENT No.	DATE	TIME	No. of VEHICLES	SEVERITY	LIGHT CONDITIONS	ROADWAY CHARACTER	ROADWAY SURFACE CONDITION	WEATHER	APPARENT CONTRIBUTING FACTORS		DIRECTION	TYPE	DESCRIPTION	REFERENCE MARKER
44	1/5/2016	18:20	2	NR	4	1	4	2	Following Too Closely	Pavement Slippery		REAR END	DRIVER NUMBER TWO STATED THAT SHE WAS SLOWING FOR TRAFFIC	31 33091189
45	1/29/2016	19:36	2	PDO	4	1	1	1	Following Too Closely	Unsafe Speed		REAR END	V1 stopped at a red light on SR-31 facing west. Op V2 traveling westbound fails	31 33091186
46	2/5/2016	09:50	2	NR	1	1	1	1	Driver Inattention			OTHER	Veh2 was stopped in traffic facing west in the center lane on route 31, intersect	31 33091190
47	2/11/2016	15:05	2	NR	1	1	4	4	Passing or Lane Usage Improper			OVERTAKING	Veh#1 E/B in the right turn only lane of ST-31, approaching the intersection of S	31 33091189
48	2/5/2016	11:20	2	INJURY	1	1	1	1	Following Too Closely			REAR END		31 33091186
49	2/3/2016	16:10	2	NR	1	1	1	2	Following Too Closely			REAR END	V-1 traveling west bound on State Route 31 was following too closely to behind	31 33091189
50	2/15/2016	14:24	2	NR	1	1	2	2	Unsafe Speed			REAR END	OPR1 STATED THAT SHE WAS TRAVELING EAST ON STATE ROUTE 31. O	31 33091186
51	2/18/2016	11:24	2	NR	1	1	4	1	Driver Inattention	Turning Improperly		LEFT TURN (A(	DRIVER V-1 STATED THAT SHE WAS PULLING TO A PARKING SPACE IN W	
52	2/5/2016	10:05	2	PDO	1	3	1	2	Following Too Closely			REAR END	V2 stopped at red light at 481NB off-ramp in the right lane waiting to turn right o	481 33011069
53	2/28/2016	18:17	2	PDO	5	1	1	2	Following Too Closely			REAR END		
54	2/29/2016	01:00	1	PDO	5	4	4	1	YY			UNKNOWN		31 33091186
55	3/25/2016	15:40	2	PDO	1	1	1	2	FTY			RIGHT TURN (A	Operator 01 stated that he was stopped at the red traffic light waiting to make a	31 33091189
56	4/7/2016	08:35	2	PDO	1	1	2	1	Passing or Lane Usage Improper	Turning Improperly		RIGHT ANGLE		31 33091189
57	4/9/2016	11:53	2	PDO	1	1	1	2	Driver Inattention	Following Too Closely		REAR END	DRIVER V-1 STATED THAT THE LIGHT TURNED GREEN AND HE STARTED	31 33091188
58	4/14/2016	18:35	2	INJURY	1	1	1	1	Glare			REAR END	OPERATOR OF VEHICLE #1 STATED THAT HE WAS TRAVELING WESTBOU	31 33091189
59	4/21/2016	16:30	2	NR	1	1	1	2	Following Too Closely			REAR END	V2 was traveling east on ST-31 at ST-481 south off ramp, TClay, in lane 2; V2 v	31 33091190
60	5/2/2016	08:37	2	NR	1	1	2	3	Following Too Closely	Pavement Slippery		REAR END	V1 traveling EB on St RT 31, collided with the rear end of V2; causing damage t	31 33091189
61	5/8/2016	19:11	2	INJURY	1	1	1	2	Traffic Control Disregarded			LEFT TURN (A(	Op V-1 was EB on St Rt 31. Op V-1 failed to obey the traffic signal, which was	31 33091190
62	5/6/2016	17:29	2	INJURY	1	1	2	2	Driver Inattention	Following Too Closely		REAR END	-Veh #1 was traveling in traffic behind Veh #2. As Veh #2 came to the intersec	31 33091189
63	5/11/2016	09:40	2	PDO	1	1	1	1	Passing or Lane Usage Improper			LEFT TURN (A(	OPERATOR 01 STATED THAT SHE WAS CHANGING LANES ON RT. 31 ATT	
64	5/13/2016	10:50	2	INJURY	1	1	2	2	Following Too Closely			REAR END		31 33091190
65	5/13/2016	22:40	2	NR	4	1	1	1	YY, ZZ			REAR END	V1 struck the rear driver's side corner of V2 while V2 was parked in the p	
66	5/18/2016	12:53	2	NR	1	1	1	2	Backing Unsafely			RIGHT ANGLE	DRIVER V-1 STATED SHE WAS BACKING OUT OF HER PARKING SPACE A	31 33091186
67	5/15/2016	11:20	1	PDO	1	1	1	2	Fell Asleep			SIGN POST	V1 traveling NB on Interstate 481 just south of Route 31 in the left hand lane. V	481 33011069
68	5/31/2016	19:30	2	INJURY	1	1	1	1	FTY			LEFT TURN (A(		31 33091190
69	6/9/2016	15:35	2	INJURY	1	1	1	1	FTY			LEFT TURN (W		
70	6/1/2016	12:45	2	NR	1	1	1	1	Driver Inattention	Following Too Closely		REAR END	V-1 stopped westbound behind V-2 at red light on ST-31 at Wegman's st	31 33091188
71	6/15/2016	12:35	2	INJURY	1	1	1	1	Driver Inexperience			OVERTAKING		31 33091188
72	7/2/2016	15:52	2	NR	1	1	1	2	Following Too Closely			REAR END	V-1 was traveling Eastbound on St Rte 31 in the Town of Clay. V-1 was followin	31 33091189
73	7/2/2016	15:19	2	NR	1	1	1	1	Following Too Closely			REAR END	V-1 traveling Southbound on 481 Southbound off ramp to St Rte 31. V-1 was fo	
74	7/7/2016	15:59	2	PDO	1	1	1	2	Following Too Closely			REAR END	V2 stopped eastbound in traffic on State Route 31. V1 following too closely eas	31 33091189
75	6/27/2016	16:44	2	NR	1	2	1	2	Passing or Lane Usage Improper			OVERTAKING	V-1 and V-2 both North bound on Co Rte 31 off ramp from I- 481. V-1 and V-2 n	
76	7/15/2016	18:15	4	INJURY	1	1	1	1	Driver Inattention	Following Too Closely		OTHER	vehicles 2, 3, and 4 were stopped on route 31 in front of wegmans for the red lig	31 33091186
77	7/14/2016	20:50	2	NR	4	1	1	2	Backing Unsafely			OTHER	Investigation showed that veh 1 was parked in the parking lot of Chilis on RT 31	31 33091186
78	7/26/2016	14:05	2	INJURY	1	1	1	1	Following Too Closely			REAR END	Vehicle-1 was attempting to make a left turn while traveling in a westerly directi	31 33091186
79	7/28/2016	15:30	2	PDO	1	1	1	2	Following Too Closely			REAR END	V1 and V2 WB ST-31 in the Town of Clay. V1 is slowing down due to stop and	31 33091189
80	7/31/2016	11:55	3	INJURY	1	1	1	2	Driver Inattention	Following Too Closely		OTHER		31 33091190
81	7/19/2016	00:00	2	PDO	Z	Z	Z	Z	XX			REAR END		31 33091188
82	8/5/2016	16:00	2	NR	1	1	1	1	Driver Inattention			REAR END	Driver #1 stated she was heading East on State Route 31. Driver #1 stated she	31 33091187
83	8/8/2016	21:50	2	NR	4	1	1	1	Driver Inattention			REAR END	V2 was stopped in traffic in the center lane of State Route 31. V1, a constructio	31 33091187
84	8/7/2016	19:53	2	INJURY	1	1	1	1	Traffic Control Disregarded	Turning Improperly		HEAD ON	D1 stated that she made a left turn onto the 481N onramp from Eastbound Rou	31 33091190
85	8/13/2016	10:00	3	PDO	1	1	1	1	Driver Inattention			OTHER		31 33091188
86	8/17/2016	12:50	2	INJURY	1	1	1	1	Driver Inattention			REAR END	THE OPERATOR OF VEH#2 STATED THAT HE WAS STOPPED IN TRAFFIC	31 33091188

TE 213 (9/79)

DIAGRAM No.: 1

COUNTY: ONONDAGA **P.I.N.:**

TOWN OF CLAY

ROUTE NO. OR STREET NAME: NYS ROUTE 31

BETWEEN: WEGMANS EAST DRIVE TO MARKETFAIR PLAZA (RM 31 3309 1186 TO RM 31 3309 1190)

CASE No.:
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BY:
DATE:

TIME PERIOD **FROM:** 05/01/15 **TO:** 04/31/18

No. OF MONTHS: 36

ENVIRONMENTAL: Use Codes from MV 104 (shown at right) for these categories

Light Conditions:
1. Daylight
2. Dawn
3. Dusk
4. Dark Road Lighted
5. Dark Road Unlighted

Roadway Character:
1. Straight & Level
2. Straight & Grade
3. Straight & Hillcrest
4. Curve & Level
5. Curve & Grade
6. Curve & Hillcrest

Roadway Surface Condition:
1. Dry
2. Wet
3. Muddy
4. Snow/Ice
5. Slush
10. Other

Weather:
1. Clear
2. Cloudy
3. Rain
4. Snow
5. Sleet/Hail/Freezing Rain
6. Fog/Smog/Smoke
10. Other

ACCIDENT No.	DATE	TIME	No. of VEHICLES	SEVERITY	LIGHT CONDITIONS	ROADWAY CHARACTER	ROADWAY SURFACE CONDITION	WEATHER	APPARENT CONTRIBUTING FACTORS		DIRECTION	TYPE	DESCRIPTION	REFERENCE MARKER
87	8/12/2016	13:55	2	PDO	1	1	1	2	Following Too Closely			REAR END	op1 stated she was traveling sb on carling rd when she suddenly realized vh2 w	
88	8/25/2016	07:20	2	INJURY	1	1	1	2	FTY	Traffic Control Disregarded		RIGHT ANGLE	Veh1 was traveling east on State Route 31 through the intersection of State Ro	31 33091190
89	8/29/2016	15:24	2	PDO	1	1	1	1	Driver Inattention	Turning Improperly		LEFT TURN (A(	Operator 1 stated that she was traveling east bound on Route 31 when she rea	31 33091186
90	9/3/2016	08:00	2	NR	1	1	1	1	Driver Inattention			REAR END	Driver #1 stated he was heading South on Carling Road at the intersection of S	
91	8/8/2016	14:02	2	NR	1	1	1	2	Following Too Closely			REAR END	V-1 following too closely on I -481 South bound off ramp to St Rte 31 in the Tow	
92	10/1/2016	15:20	2	PDO	1	1	1	2	Driver Inattention	Following Too Closely		REAR END		31 33091187
93	9/14/2016	17:28	2	NR	1	1	1	1	Following Too Closely			REAR END	Vehicles #1 and #2 were traveling east on Rt. 31, Vehicle #1 was behind Vehic	31 33091190
94	10/13/2016	12:00	2	NR	1	1	2	3	Following Too Closely	Illness		REAR END	Driver 1 advised that she was traveling WB on Rt 31 when she struck the rear o	31 33091190
95	10/15/2016	19:25	2	PDO	4	1	1	1	Driver Inattention	Following Too Closely		REAR END	OP 01 stated that she was approaching intersection of Wegmans East Entrance	31 33091188
96	10/23/2016	16:40	2	PDO	1	1	1	1	Driver Inattention			REAR END		31 33091189
97	9/29/2016	13:55	2	PDO	1	1	1	2	FTY			HEAD ON	Driver 1 stated she was traveling East Bound on Rt. 31 making a left hand turn	31 33091186
98	10/31/2016	06:50	2	PDO	4	1	2	3	Passing or Lane Usage Improper			RIGHT ANGLE	Driver veh.1 stated that he wanted to make a u-turn or at least a left turn to hea	31 33091188
99	11/1/2016	15:21	2	NR	1	1	1	2	Passing or Lane Usage Improper			LEFT TURN (A(	Op V-1 and V-2 were making a left hand turn, southbound, from St Rt 31 onto S	31 33091190
100	11/9/2016	08:05	4	INJURY	1	2	2	2	Pavement Slippery			OTHER		31 33091189
101	11/28/2016	17:45	2	NR	5	1	1	2	Following Too Closely			REAR END	Driver 2 making left turn from ST481 NB off ramp onto ST31 WB T/Clay when s	31 33091190
102	12/2/2016	19:34	2	PDO	5	1	2	4	Traffic Control Disregarded			LEFT TURN (A(		31 33091190
103	12/2/2016	21:35	2	PDO	4	1	2	3	Traffic Control Disregarded			LEFT TURN (W	Operator of vehicle #1 stated that she was traveling westbound on Route 31, ap	31 33091190
104	12/8/2016	13:20	4	PDO	1	1	1	2	Following Too Closely			OTHER		31 33091188
105	12/20/2016	18:06	2	NR	4	1	1	2	Driver Inattention	Following Too Closely		REAR END	Vehicle 2 was stopped in traffic on State Route 31 facing west when she was st	31 33091189
106	12/20/2016	16:45	2	PDO	4	1	1	2	Following Too Closely			REAR END	Operator of v2 stated that she was traveling east on Route 31 when she was re	31 33091190

TE 213 (9/79)

DIAGRAM No.: 2A-2D

COUNTY: ONONDAGA **P.I.N.:**

TOWN CICERO

ROUTE NO. OR STREET NAME: NYS ROUTE 31

BETWEEN: US ROUTE 11 TO LAKESHORE ROAD (RM 31 3309 1249 TO RM 31 3309 1252)

CASE No.:
FILE:
BY:
DATE:

TIME PERIOD **FROM:** **TO:**

No. OF MONTHS: 36 05/01/15 04/31/18

ENVIRONMENTAL: Use Codes from MV 104 (shown at right) for these categories

Light Conditions:
1. Daylight
2. Dawn
3. Dusk
4. Dark Road Lighted
5. Dark Road Unlighted

Roadway Character:
1. Straight & Level
2. Straight & Grade
3. Straight & Hillcrest
4. Curve & Level
5. Curve & Grade
6. Curve & Hillcrest

Roadway Surface Condition:
1. Dry
2. Wet
3. Muddy
4. Snow/Ice
5. Slush
10. Other

Weather:
1. Clear
2. Cloudy
3. Rain
4. Snow
5. Sleet/Hail/Freezing Rain
6. Fog/Smog/Smoke
10. Other

ACCIDENT No.	MONTH	DAY	YEAR	TIME	No. of VEHICLES	SEVERITY	LIGHT CONDITIONS	ROADWAY CHARACTER	ROADWAY SURFACE CONDITION	WEATHER	APPARENT CONTRIBUTING FACTORS		DIRECTION	TYPE	DESCRIPTION	REFERENCE MARKER
1	5	3	15	1255	2	P	1	1	1	1	Driver Inattent/Distract	Following too Closely	RE	P	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	kwik fill
2	5	4	15	1421	2	I	1	1	1	1	Following too Closely	Unknown	RE	P	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	pardee
4	5	7	15	0728	2	I	1	2	1	1	Following too Closely	Driver Inattent/Distract	RE	P	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	pardee
5	5	11	15	1028	2	N	1	1	1	2	FTY	Driver Inattent/Distract	LT	P	V1 WB RT 31 TURNS LEFT TO RT 11 SB STRIKES V2 EB RT 31	Rt 11
6	5	15	15	1650	2	N	1	1	1	2	FTY	Unknown	LT	P	V2 WB RT 31 TURNS LEFT TO CRABTREE STRIKES V1 STOPPED EB RT 31	crabtree
7	5	16	15	1155	3	N	1	1	1	1	Following too Closely	Driver Inattent/Distract	RE	C	V2, V3 EB RT 31 STOPPED, V1 DID NOT STOP STRUCK REAR OF V2, V2 ST	kwik fill
8	5	18	15	1158	2	P	1	1	1	2	Following too Closely	Unknown	RE	P	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	Rt 11
10	5	26	15	1641	2	N	1	1	1	1	FTY	Unknown	LT	P	V2 WB RT 31 TURNS LEFT TO RT 81 SB ON RAMP STRIKES V1 EB RT 31	81 ramp
12	5	29	15	1711	2	N	1	1	1	1	Unsafe Lane Change	Unknown	SS	P	V1 WB RT 31 CHANGES LANES STRIKES V2 WB RT 31	pardee
13	5	26	15	2105	2	N	1	1	1	1	Unsafe Lane Change	Unknown	SS	P	V1 NB RT 11 CHANGES LANES STRIKES V2 NB RT 11	Rt 11
15	6	3	15	1516	2	N	1	1	1	1	Driver Inattent/Distract	Unknown	RE	P	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	Byrne D
16	6	5	15	0734	1	I	1	1	1	2	React to Uninvolved Veh	Pavement Slippery	FO	M	V1 MOTORCYCLE EB RT 31 HIT SAND/GRAVEL IN ROAD AND TIPPED OVE	pardee
17	6	7	15	1310	2	P	1	1	1	1	FTY	Outside Car Distraction	LT	P	V1 WB RT 31 TURNS LEFT THROUGH COURTESY GAP TO RT 11 SB STRIK	Rt 11
19	6	11	15	0251	2	P	1	1	1	1	Turn Improper	Unknown	RA	P	V1 EXITING BYRNE DAIRY NB TO RT 31 EB STRIKES V2 EB RT 31	Byrne D
21	6	15	15	1514	2	P	1	1	1	1	Following too Closely	Unknown	RE	P	V1 NB RT 11 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	Rt 11
22	6	18	15	0802	2	I	1	1	1	2	Traffic Cntrl Disregard	Unknown	RA	P	V1 EB RT 31 RAN RED LIGHT STRUCK V2 NB 81 OFFRAMP	81 ramp
23	5	31	15	1000	2	P	1	1	2	3	Driver Inattent/Distract	Unknown	LT	P	V1 EB RT 31 TURNS LEFT TO PARDEE RD STRIKES V2 WB RT 31	pardee
24	6	25	15	1320	2	P	1	1	1	1	Turn Improper	Unknown	LT	C	V1 COM TRUCK WB RT 31 TURNS LEFT TO CRABTREE STRIKES V2 STOPI	crabtree
25	6	26	15	1715	2	P	1	1	1	2	FTY	Unknown	LT	P	V1 WB RT 31 TURNS LEFT THROUGH COURTESY GAP STRIKES V2 EB RT	Franks rd
26	6	15	15	1720	5	I	2	1	1	2	Unsafe Lane Change	Unknown	RE	P	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1, CAUSED	crabtree
27	6	30	15	2111	2	N	2	1	2	2	Unknown	Unknown	LT	P	V1 SB RT 11 TURNS LEFT TO RT 31 STRIKES V2 NB RT 11 TURNING RIGHT	Rt 11
30	7	1	15	0938	2	P	1	1	1	2	Unsafe Lane Change	Unknown	SS	P	V1 STOPPED WB RT 31, V2 WB RT 31 CHNAGED LANES AND STRUCK V1	81 ramp
35	8	11	15	1525	2	N	1	1	1	1	FTY	Traffic Cntrl Disregard	RA	P	V1 WB RT 31 RUNS RED LIGHT STRIKES V2 SB PARDEE RD MAKING LEFT	pardee
36	8	13	15	1621	2	N	1	1	1	1	Following too Closely	Unknown	RE	P	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	Rt 11
38	8	20	15	2229	2	P	2	1	2	2	Turn Improper	Unsafe Lane Change	LT	P	V1 WB RT 13 TURNS LEFT TO BYRNE DAIRY STRIKES V2 WB RT 13	Byrne D
40	8	24	15	1510	2	N	1	1	1	2	Traffic Cntrl Disregard	Unknown	RT	P	V1 NB RT 11 TURNED RIGHT ON RED WHERE NOT ALLOWED STRUCK V2	Rt 11
41	8	24	15	1205	2	N	1	1	1	2	Unknown	Unknown	PB	C	V1 COM TRUCK STOPPED ON RT 81 NB OFFRAMP, ATTEMPTED RIGHT TU	81 ramp
42	8	29	15	0714	2	N	1	1	1	1	Backing Unsafely	Alcohol Involvement	RE	P	V1 STOPPED NB ON CRABTREE RAN OUT OF GAS, ROLLED BACKWARD A	crabtree
43	9	2	15	1542	2	N	1	1	1	1	FTY	Unknown	LT	P	V1 EB RT 31 TURNS LEFT TO DUNKIN DONUTS STRIKES V2 WB RT 31	dunkin
44	9	8	15	0915	2	P	1	1	1	1	Driver Inattent/Distract	Turn Improper	LT	P	V1 SB RT 11 RUNS RED LIGHT TURNS LEFT TO RT 31 STRIKES V2 NB RT	Rt 11
45	9	9	15	1155	2	I	1	1	1	1	FTY	Driver Inattent/Distract	PB	P	V1 SB RT 11 TURNS LEFT TO RT 31 STRIKES V2 BICYCLE NB RT 11	Rt 11
46	9	16	15	1713	2	I	1	1	1	2	FTY	Unknown	PB	P	V1 STOPPED SB OFFRAMP FROM RT 81 SB TO RT 31. V1 PULLED OUT AN	81 ramp
47	9	25	15	1519	2	P	1	1	1	1	Unsafe Lane Change	Unknown	SS	C	V1 COM TRUCK EB RT 31 CHANGED LANES STRUCK V2 EB RT 31	Rt 11
48	9	25	15	1745	2	N	1	1	1	1	Unsafe Lane Change	Following too Closely	SS	P	V1 NB RT 11 STOPPED, V2 DID NOT STOP STRUCK SIDE OF V1	Rt 11
49	9	27	15	2014	2	N	2	1	2	1	Following too Closely	Unknown	RE	P	V1 NB RT 11 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	crabtree
50	9	30	15	1417	2	N	1	2	2	3	Unsafe Speed	Unknown	RE	P	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	Byrne D

TE 213 (9/79)

DIAGRAM No.: 2A-2D

COUNTY: ONONDAGA **P.I.N.:**

TOWN CICERO

ROUTE NO. OR STREET NAME: NYS ROUTE 31

BETWEEN: US ROUTE 11 TO LAKESHORE ROAD (RM 31 3309 1249 TO RM 31 3309 1252)

CASE No.:
FILE:
BY:
DATE:

TIME PERIOD **FROM:** **TO:**

No. OF MONTHS: 36 05/01/15 04/31/18

ENVIRONMENTAL: Use Codes from MV 104 (shown at right) for these categories

Light Conditions:
1. Daylight
2. Dawn
3. Dusk
4. Dark Road Lighted
5. Dark Road Unlighted

Roadway Character:
1. Straight & Level
2. Straight & Grade
3. Straight & Hillcrest
4. Curve & Level
5. Curve & Grade
6. Curve & Hillcrest

Roadway Surface Condition:
1. Dry
2. Wet
3. Muddy
4. Snow/Ice
5. Slush
10. Other

Weather:
1. Clear
2. Cloudy
3. Rain
4. Snow
5. Sleet/Hail/Freezing Rain
6. Fog/Smog/Smoke
10. Other

ACCIDENT No.	MONTH	DAY	YEAR	TIME	No. of VEHICLES	SEVERITY	LIGHT CONDITIONS	ROADWAY CHARACTER	ROADWAY SURFACE CONDITION	WEATHER	APPARENT CONTRIBUTING FACTORS		DIRECTION	TYPE	DESCRIPTION	REFERENCE MARKER
52	10	1	15	0715	2	P	1	1	1	2	Driver Inattent/Distract	Following too Closely	RE	P	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	pardee
56	10	9	15	1616	2	N	1	1	1	2	Following too Closely	Unknown	RE	P	V1 NB RT 11 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	Rt 11
57	10	9	15	1206	2	I	1	1	2	3	FTY	Driver Inattent/Distract	LT	P	V1 WB RT 31 TURNS LEFT TO RT 11 SB STRIKES V2 EB RT 31	Rt 11
59	10	22	15	0930	2	N	1	2	1	2	FTY	Driver Inattent/Distract	LT	P	V1 EB RT 31 TURNS LEFT TO MCDONALDS STRIKES V2 WB RT 31	Mcdnlds
60	10	4	15	1200	2	P	1	1	1	1	Following too Closely	Driver Inattent/Distract	RE	P	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	pardee
61	10	15	15	0958	2	N	1	1	1	1	Following too Closely	Unknown	RE	P	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	empower
62	10	16	15	0747	2	P	1	1	1	1	FTY	Unknown	RT	P	V1 EXITING NB FROM FRANKS ROADHOUSE STRIKES V2 EB RT 31	Franks rd
65	11	16	15	0845	2	P	1	1	1	2	FTY	Unknown	RT	P	V1 EXITING DUNKIN DONUTS SB TO RT 31 WB FTY AND STRUCK V2 WB R	dunkin
66	11	10	15	0931	2	P	1	1	1	2	FTY	View Obstructed/Limited	LT	P	V2 WB RT 31 TURNS LEFT TO RT 81 SB ON RAMP STRIKES V1 EB RT 31	81 ramp
67	11	27	15	1927	2	P	3	1	1	1	Driver Inattent/Distract	FTY	RE	P	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	dunkin
68	12	1	15	1454	2	I	1	3	2	3	Following too Closely	Pavement Slippery	RE	P	V1 NB RT 81 OFF RAMP STOPPED, V2 DID NOT STOP STRUCK REAR OF V	81 ramp
72	9	18	15	1704	2	F	1	2	1	1	Brakes Defective	Oversize Vehicle	RA	C	V1 COM TRUCK SB RT 81 OFF RAMP DOES NOT STOP CROSSES INTERSE	81 ramp
74	12	12	15	1736	2	N	3	1	2	4	FTY	Unknown	RA	P	V1 EXITING PARKING LOT SB STRIKES V2 WB RT 31	parkride
76	12	23	15	1306	2	P	1	1	2	2	Following too Closely	Unknown	RE	P	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	Rt 11
77	12	18	15	1817	2	N	3	1	2	3	Unsafe Lane Change	Unknown	SS	P	V1 EB RT 31 CHANGES LANES STRIKES V2 EB RT 31	Byrne D
78	12	26	15	1255	2	P	1	1	1	2	FTY	Unknown	LT	P	V1 WB RT 31 TURNS LEFT TO RT 11 SB STRIKES V2 EB RT 31	Rt 11
80	12	29	15	1646	2	P	1	1	2	3	Following too Closely	Unknown	RE	P	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	Rt 11
81	12	29	15	1817	2	P	3	1	1	2	Passenger Distraction	Unknown	RE	P	V1 STOPPED EB RT 31, BACKED UP, V1 STRUCK V2 STOPPED EB RT 31 B	crabtree
84	1	7	16	1532	2	I	1	1	1	2	Unsafe Speed	Unknown	RE	P	V1 SB RT 81 OFF RAMP STOPPED, V2 DID NOT STOP STRUCK REAR OF V	81 ramp
85	1	5	16	2130	2	P	4	1	1	1	Turn Improper	Unknown	LT	P	V1 SB RT 81 OFF RAMP TURNED LEFT TO RT 31 STRUCK V2 STOPPED WB	81 ramp
87	1	13	16	1320	2	P	1	1	4	4	Following too Closely	Pavement Slippery	RE	P	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	81 ramp
88	1	25	16	1703	2	P	4	1	2	3	Following too Closely	Unknown	RE	P	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	pardee
91	1	30	16	1551	3	N	1	1	1	1	Following too Closely	Unknown	RE	P	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1, CAUSED	crabtree
92	2	10	16	1551	2	P	1	1	4	4	Driver Inattent/Distract	Following too Closely	RE	P	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	crabtree
93	2	12	16	1548	2	P	1	1	2	1	Following too Closely	Unknown	RE	P	V1 NB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	pardee
94	2	19	16	1629	2	P	1	1	2	1	FTY	React to Uninvolved Veh	LT	P	V2 WB RT 31 TURNS LEFT TO RT 81 SB ON RAMP STRIKES V1 EB RT 31	81 ramp
95	5	1	15	1820	2	P	1	1	1	1	FTY	View Obstructed/Limited	LT	P	V2 EB RT 31 TURNS LEFT TO PARK AND RIDE STRIKES V1 WB RT 31	parkride
96	2	24	16	1442	2	I	1	1	2	3	Unsafe Lane Change	Unknown	SS	P	V1 WB RT 31 CHANGED LANES STRUCK V2 WB RT 31	pardee
99	3	2	16	1445	2	I	1	1	2	4	FTY	Outside Car Distraction	LT	P	V1 EB RT 31 WAVED ON BY WB VEH IN LEFT LANE TURNS LEFT TO PARD	pardee
100	3	8	16	1200	2	N	1	1	1	2	Turn Improper	Unknown	RE	P	V1 EB RT ATTEMPTS U TURN STRIKES REAR OF V2 STOPPED EB RT 31	crabtree
101	3	9	16	1435	2	N	1	1	1	2	Driver Inattent/Distract	Unknown	RE	P	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	crabtree
102	3	12	16	1920	2	N	4	1	2	3	React to Uninvolved Veh	Unknown	LT	P	V2 EB RT 31 TURNS LEFT TO PARK AND RIDE STRIKES V1 WB RT 31	parkride
103	3	15	16	0657	2	P	4	1	1	1	FTY	Unknown	LT	P	V2 EB RT 31 TURNS LEFT TO PARK AND RIDE STRIKES V1 WB RT 31	parkride
104	3	27	16	1325	2	I	1	1	1	1	FTY	Unknown	LT	P	V2 WB RT 31 TURNS LEFT TO RT 81 SB ON RAMP STRIKES V1 EB RT 31	81 ramp
105	3	22	16	2033	2	N	4	1	1	2	Driver Inattent/Distract	Unknown	RE	P	V1 SB RT 11 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	Rt 11
106	4	1	16	1800	2	P	1	1	1	1	FTY	Driver Inattent/Distract	LT	P	V2 EB RT 31 TURNS LEFT STRIKES V1 WB RT 31	Empower

TE 213 (9/79)

DIAGRAM No.: 2A-2D

COUNTY: ONONDAGA **P.I.N.:**

TOWN CICERO

ROUTE NO. OR STREET NAME: NYS ROUTE 31

BETWEEN: US ROUTE 11 TO LAKESHORE ROAD (RM 31 3309 1249 TO RM 31 3309 1252)

CASE No.:
FILE:
BY:
DATE:

TIME PERIOD **FROM:** **TO:**

No. OF MONTHS: 36 05/01/15 04/31/18

ENVIRONMENTAL: Use Codes from MV 104 (shown at right) for these categories

Light Conditions:
1. Daylight
2. Dawn
3. Dusk
4. Dark Road Lighted
5. Dark Road Unlighted

Roadway Character:
1. Straight & Level
2. Straight & Grade
3. Straight & Hillcrest
4. Curve & Level
5. Curve & Grade
6. Curve & Hillcrest

Roadway Surface Condition:
1. Dry
2. Wet
3. Muddy
4. Snow/Ice
5. Slush
10. Other

Weather:
1. Clear
2. Cloudy
3. Rain
4. Snow
5. Sleet/Hail/Freezing Rain
6. Fog/Smog/Smoke
10. Other

ACCIDENT No.	MONTH	DAY	YEAR	TIME	No. of VEHICLES	SEVERITY	LIGHT CONDITIONS	ROADWAY CHARACTER	ROADWAY SURFACE CONDITION	WEATHER	APPARENT CONTRIBUTING FACTORS		DIRECTION	TYPE	DESCRIPTION	REFERENCE MARKER
107	4	7	16	1917	2	N	1	1	2	2	FTY	Unknown	RA	P	V1 EXITING DUNKIN DONUTS SB TO RT 31 EB FTY AND STRUCK V2 WB RT	dunkin
108	4	7	16	0820	2	P	1	1	1	1	Traffic Cntrl Disregard	Unknown	RA	P	V1 EBRT 31 RAN RED LIGHT STRUCK V2 SB FROM 81 OFF RAMP	81 ramp
111	4	13	16	1647	2	I	1	1	1	2	Following too Closely	Unknown	RE	P	V1 NB RT 11 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	Rt 11
112	4	21	16	1145	2	P	1	1	1	2	Passing/Lane Use Improp	Unknown	SS	C	V1 COM TRUCK NB RT 81 NB OFFRAMP, V1 TURNS LEFT TO RT 31 WB, V1	81 ramp
114	5	3	16	1749	2	P	1	1	1	1	Following too Closely	Unknown	RE	P	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	81 ramp
115	5	11	16	1424	2	N	1	1	1	1	Unsafe Lane Change	Unknown	SS	C	V1 COM TRUCK WB RT 31 CHANGES LANES STRIKES V2 WB RT 31	81 ramp
118	5	12	16	1230	2	P	1	1	1	1	Driver Inattent/Distract	Following too Closely	RE	P	V1 NB RT 11 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	Rt 11
119	5	14	16	1653	2	N	1	1	2	3	FTY	Turn Improper	RA	P	V1 EXITED FASTRAC NB TO RT 31 WB STRUCK V2 STOPPED RT 31 WB	fast trak
121	5	23	16	0742	2	N	1	1	1	1	FTY	Turn Improper	LT	P	V1 EB RT 31 TURNS LEFT TO MCDONALDS STRIKES V2 WB RT 31	Mcdnlds
122	5	24	16	1410	2	P	1	2	1	1	FTY	Turn Improper	LT	P	V1 EB RT 31 TURNS LEFT TO MCDONALDS STRIKES V2 WB RT 31	Mcdnlds
125	6	12	16	1340	2	P	1	1	1	2	Following too Closely	Passing/Lane Use Improp	SS	P	V1 WB RT 31 CHANGED LANES SIDESWIPED V2 WB RT 31	81 ramp
127	6	21	16	1717	6	P	1	1	1	1	Following too Closely	Driver Inattent/Distract	RE	C	V1 TOW TRUCK WB RT 31 HIT REAR OF V2 STOPPED WB RT 31, V2 PUSH	Rt 11
128	6	25	16	1425	2	I	1	1	1	1	Driver Inexperience	Unknown	RE	P	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	81 ramp
129	6	23	16	1530	2	P	1	1	1	1	FTY	Unknown	LT	P	V1 WB RT 31 FTY TURNS LEFT TO KWIK FILL STRIKES V2 EB RT 31	kwik fill
130	6	28	16	0855	2	I	1	1	1	1	Following too Closely	Driver Inattent/Distract	RE	P	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	81 ramp
132	6	28	16	1750	3	N	1	1	1	1	Driver Inexperience	Unknown	RE	P	V1, V2 WB RT 31 STOPPED, V3 DID NOT STOP STRUCK REAR OF V2, V2 P	dunkin
133	7	1	16	1500	3	N	1	1	1	1	Brakes Defective	Unknown	SS	P	V1, V2 NB RT 81 OFF RAMP STOPPED, V3 DID NOT STOP STRUCK SIDE O	81 ramp
135	7	10	16	1033	2	I	1	1	2	3	FTY	Traffic Cntrl Disregard	RA	P	V1 WB RT 31 RAN RED LIGHT STRUCK V2 SB RT 11	Rt 11
136	7	6	16	1605	2	P	1	1	1	1	FTY	React to Uninvolved Veh	LT	P	V1 WB RT 31 TURNS LEFT TO CRABTREE STRIKES V2 EB RT 31	crabtree
137	7	20	16	1214	2	P	1	1	1	1	FTY	Unknown	RA	P	V1 EXITED FASTRAC NB TO RT 31 WB STRUCK V2 RT 31 WB	fast trak
138	7	20	16	1657	2	P	1	1	1	1	Following too Closely	Unknown	RE	P	V1 SB RT 11 TURNS EB RT 31 STRIKES V2 STOPPED EB RT 31	Rt 11
142	7	29	16	1100	2	N	1	1	1	1	Unsafe Lane Change	Unknown	SS	P	V1 WB RT 31 CHANGED LANES SIDESWIPED V2 WB RT 31	81 ramp
143	8	3	16	2204	2	P	4	1	2	3	Backing Unsafely	Unknown	RE	P	V1 BACKED NB ACROSS RT 31 FROM DRIVEWAY STRUCK V2 WB RT 31	Franks rd
144	8	2	16	1442	2	I	1	1	1	1	Unsafe Lane Change	View Obstructed/Limited	LT	P	V1 EB RT 31 TURNS LEFT TO MCDONALDS STRIKES V2 WB RT 31	Mcdnlds
145	8	10	16	1450	2	P	1	1	1	1	FTY	Unknown	LT	P	V1 EB RT 31 TURNS LEFT TO MCDONALDS STRIKES V2 WB RT 31	Mcdnlds
146	8	10	16	1915	2	N	1	1	1	1	FTY	Unsafe Lane Change	SS	P	V1 WB RT 31 CHANGED LANES STRUCK V2 LB RT 31	parkride
147	8	9	16	1450	3	P	1	1	1	1	Driver Inattent/Distract	Driver Inexperience	RE	P	V1, V2 EB RT 31 STOPPED, V3 DID NOT STOP STRUCK REAR OF V2, V2 PU	Rt 11
148	8	16	16	1150	3	N	1	1	1	2	Driver Inattent/Distract	Unknown	RE	P	V1, V2 WB RT 31 STOPPED, V3 DID NOT STOP STRUCK REAR OF V2, V2 P	81 ramp
149	8	16	16	1415	2	P	1	1	1	2	FTY	Unknown	LT	P	V1 WB RT 13 TURNS LEFT TO BYRNE DAIRY STRIKES V2 WB RT 13	Byrne D
150	8	19	16	1816	2	P	1	1	1	1	Unsafe Lane Change	Driver Inattent/Distract	SS	P	V1 WB RT 31 CHANGED LANES SIDESWIPED V2 WB RT 31	parkride
151	8	26	16	1515	2	P	1	1	1	1	Following too Closely	Unsafe Speed	RE	P	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	Rt 11
152	8	31	16	1146	2	N	1	1	1	2	Following too Closely	Unknown	RE	P	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	parkride
154	9	6	16	1230	2	N	1	1	1	1	Backing Unsafely	Unknown	RE	C	V1 COM TRUCK STOPPED NB RT 11 BACKED UP AND STRUCK V2 NB RT 1	Rt 11
155	9	4	16	1335	2	P	1	1	1	1	FTY	View Obstructed/Limited	LT	P	V2 WB RT 31 TURNS LEFT TO RT 81 SB ON RAMP STRIKES V1 EB RT 31	81 ramp
156	9	10	16	1330	2	N	1	1	1	2	Driver Inattent/Distract	Unknown	SS	P	V1 NB RT 11 TURNS RIGHT TO RT 31 SIDESWIPES V2 STOPPED WB RT 31	Rt 11

TE 213 (9/79)

DIAGRAM No.: 3

COUNTY: ONONDAGA **P.I.N.:**

TOWN CICERO

ROUTE NO. OR STREET NAME: NYS ROUTE 31

BETWEEN: LAKESHORE ROAD TO LAKESHORE ROAD SPUR (RM 31 3309 1253 TO RM 31 3309 1255)

CASE No.:
FILE:
BY:
DATE:

TIME PERIOD **FROM:** 05/01/15 **TO:** 04/31/18

No. OF MONTHS: 36

ENVIRONMENTAL: Use Codes from MV 104 (shown at right) for these categories

Light Conditions:
1. Daylight
2. Dawn
3. Dusk
4. Dark Road Lighted
5. Dark Road Unlighted

Roadway Character:
1. Straight & Level
2. Straight & Grade
3. Straight & Hillcrest
4. Curve & Level
5. Curve & Grade
6. Curve & Hillcrest

Roadway Surface Condition:
1. Dry
2. Wet
3. Muddy
4. Snow/Ice
5. Slush
10. Other

Weather:
1. Clear
2. Cloudy
3. Rain
4. Snow
5. Sleet/Hail/Freezing Rain
6. Fog/Smog/Smoke
10. Other

ACCIDENT No.	MONTH	DAY	YEAR	TIME	No. of VEHICLES	SEVERITY	LIGHT CONDITIONS	ROADWAY CHARACTER	ROADWAY SURFACE CONDITION	WEATHER	APPARENT CONTRIBUTING FACTORS		DIRECTION	TYPE	DESCRIPTION	REFERENCE MARKER
9	5	22	15	1737	2	I	1	1	1	1	Following too Closely	Driver Inattent/Distract	RE	P	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	lakeshore
18	6	10	15	1657	2	N	1	1	2	1	Following too Closely	Unknown	RE	P	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	lakeshore
20	6	12	15	1224	2	N	1	1	1	2	React to Uninvolved Veh	FTY	RA	P	V1 NB TO RT 31 WB THROUGH COURTESY GAP STRIKES V2 WB RT 31	lakeshore
31	7	2	15	1317	2	I	1	1	1	1	Driver Inattent/Distract	Following too Closely	RE	P	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	lakeshore
32	7	17	15	1816	2	0	1	1	2	3	Driver Inattent/Distract	Unknown	RE	C	V1 COM TRUCK WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF	lakeshore
37	8	13	15	1812	4	P	1	1	1	1	Following too Closely	Glare	RE	P	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1, CAUSED	lakeshore
55	10	8	15	1925	3	I	2	1	4	1	FTY	Driver Inattent/Distract	LT	P	V1 EB RT 31 TURNS LEFT TO LAKESHORE RD STRIKES V2 WB RT 31, V2 S	lakeshore
58	10	12	15	1715	3	P	1	2	1	1	Driver Inattent/Distract	Unknown	RE	P	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1, CAUSED	lakeshore
64	10	29	15	1523	3	P	1	1	1	1	Following too Closely	Driver Inattent/Distract	RE	P	V1, V2 WB RT 31 STOPPED, V3 DID NOT STOP STRUCK REAR OF V1, CAU	lakeshore
70	12	5	15	0315	2	P	3	1	2	3	Animal Action	Unknown	AN	P	V1 WB RT 31 STRUCK DEER	lakeshore
82	1	4	16	0725	2	N	1	1	1	2	Following too Closely	Unknown	RE	P	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	lakeshore
83	1	5	16	1634	3	P	1	1	1	1	Following too Closely	Glare	RE	P	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1, CAUSED	lakeshore
110	3	21	16	1246	2	N	1	1	2	4	Following too Closely	Unknown	RE	P	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	lakeshore
113	4	22	16	1417	2	I	1	1	1	2	Prescription Medication	Failure to Keep Right	HO	P	V1 WB RT 31 CROSSES CENTERLINE STRIKES V2 EB RT 31	lakeshore
117	4	26	16	1700	3	I	1	1	1	2	Following too Closely	Driver Inattent/Distract	RE	P	V1, V2 WB RT 31 STOPPED, V3 DID NOT STOP STRUCK REAR OF V1, CAU	lakeshore
131	6	24	16	1301	2	N	1	1	1	2	View Obstructed/Limited	Unknown	LT	P	V1 EB RT 31 ATTEMPTS LEFT TURN TO PIZZA SHOPE ? STRIKES V2 WB R	lakeshore
139	7	22	16	1537	2	N	1	1	1	1	Following too Closely	Unknown	RE	P	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	lakeshore
157	9	15	16	0710	2	P	1	4	1	1	Backing Unsafely	Unknown	RE	P	V1 STOPPED WB LAKESHORE RD BACKS UP STRIKES V2 STOPPED WB LA	lakeshore
160	9	25	16	0940	2	P	1	1	1	1	Driver Inattent/Distract	Unknown	RE	P	V1 WB LAKESHORE RD STOPPED, V2 DID NOT STOP STRUCK REAR OF V	lakeshore
161	9	29	16	0756	2	P	1	1	1	2	Unknown	Unknown	RE	P	V1 SB LAKESHORE RD SPUR STOPPED, V2 DID NOT STOP STRUCK REAR	lakeshore
164	10	5	16	1500	2	N	1	1	1	1	Following too Closely	Unknown	RE	P	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	lakeshore
173	11	6	16	1753	1	P	4	1	1	1	Animal Action	Unknown	AN	P	V1 WB RT 31 STRUCK DEER	lakeshore
181	11	20	16	1010	1	N	1	1	2	4	Pavement Slippery	Unknown	FO	P	V1 EB RT 31 LOST CONTROL STRUCK CURB ENDED IN AUTO ACTION DRI	lakeshore
188	12	3	16	2003	2	N	4	1	1	1	Driver Inattent/Distract	Driver Inexperience	RT	P	V1 EB RT 31 LEFT LANE ATTEMPTS RIGHT TURN STRIKES V2 EB RT 31 RI	lakeshore
191	11	25	16	1248	2	P	1	1	1	2	Unknown	Unknown	RE	P	V1 WB LAKESHORE RD STOPPED, V2 DID NOT STOP STRUCK REAR OF V	lakeshore
199	12	21	16	2102	2	N	4	1	1	2	FTY	Traffic Cntrl Disregard	RA	P	V1 WB LAKESHORE RD RAN STOP SIGN STRUCK V2 EB RT 31	lakeshore
209	1	18	17	1419	2	P	1	1	2	3	Following too Closely	Driver Inattent/Distract	RE	P	V1 WB LAKESHORE RD STOPPED, V2 DID NOT STOP STRUCK REAR OF V	lakeshore
217	2	21	17	1605	2	P	1	1	1	1	FTY	Unknown	RA	P	V1 NB LAKESHORE RD SPUR STOPS PROCEEDS FTY STRIKES V2 NORTH	lakeshore
224	3	18	17	2015	2	P	4	2	2	4	FTY	Turn Improper	LT	P	V1 WB LAKESHORE ROAD ATTEMPTS LEFT TURN TO RT 31 EB STRIKES V	lakeshore
241	5	17	17	0915	2	P	1	1	1	1	Driver Inattent/Distract	Following too Closely	RE	P	V1 WB LAKESHORE RD STOPPED, V2 DID NOT STOP STRUCK REAR OF V	lakeshore
253	6	10	17	1636	3	I	1	1	1	1	Following too Closely	Fatigued/Drowsy	RE	P	V1, V2 WB RT 31 STOPPED, V3 DID NOT STOP STRUCK REAR OF V2, V2 PU	lakeshore
271	8	25	17	1721	2	N	1	2	1	1	Driver Inexperience	Unknown	RT	P	V1 EXITING PARKING LOT NB FOR RIGHT TURN TO LAKESHORE RD EB ST	lakeshore
284	9	14	17	0735	2	P	1	1	1	1	Following too Closely	Unknown	RE	P	V1 WB LAKESHORE RD STOPPED, V2 DID NOT STOP STRUCK REAR OF V	lakeshore
292	9	30	17	1145	2	N	1	1	1	2	Following too Closely	Unknown	RE	P	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	lakeshore
306	10	30	17	0725	2	P	1	1	2	3	Following too Closely	Driver Inattent/Distract	RE	P	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	lakeshore
308	11	24	17	1226	2	P	1	1	1	1	Following too Closely	Driver Inattent/Distract	RE	P	V1 WB LAKESHORE RD STOPPED, V2 DID NOT STOP STRUCK REAR OF V	lakeshore
310	11	29	17	1834	2	P	4	1	1	2	Driver Inattent/Distract	Unsafe Speed	RE	P	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	lakeshore

TE 213 (9/79)

DIAGRAM No.: 3

COUNTY: ONONDAGA **P.I.N.:**

TOWN CICERO

ROUTE NO. OR STREET NAME:

NYS ROUTE 31

BETWEEN:

LAKESHORE ROAD TO LAKESHORE ROAD SPUR (RM 31 3309 1253 TO RM 31 3309 1255)

CASE No.:

FILE:

BY:

DATE:

TIME PERIOD **FROM:** **TO:**

No. OF MONTHS: 05/01/15 04/31/18
36

ENVIRONMENTAL:
Use Codes from MV 104 (shown at right) for these categories

Light Conditions:
1. Daylight
2. Dawn
3. Dusk
4. Dark Road Lighted
5. Dark Road Unlighted

Roadway Character:
1. Straight & Level
2. Straight & Grade
3. Straight & Hillcrest
4. Curve & Level
5. Curve & Grade
6. Curve & Hillcrest

Roadway Surface Condition:
1. Dry
2. Wet
3. Muddy
4. Snow/Ice
5. Slush
10. Other

Weather:
1. Clear
2. Cloudy
3. Rain
4. Snow
5. Sleet/Hail/Freezing Rain
6. Fog/Smog/Smoke
10. Other

ACCIDENT No.	MONTH	DAY	YEAR	TIME	No. of VEHICLES	SEVERITY	LIGHT CONDITIONS	ROADWAY CHARACTER	ROADWAY SURFACE CONDITION	WEATHER	APPARENT CONTRIBUTING FACTORS		DIRECTION	TYPE	DESCRIPTION	REFERENCE MARKER
315	12	14	17	0734	2	I	1	2	4	2	Following too Closely	Unknown	RE	P	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	lakeshore
318	12	18	17	1132	2	P	1	1	2	3	Following too Closely	Unknown	RE	P	V1 WB LAKESHORE RD STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	lakeshore
323	1	1	18	1500	2	P	1	1	2	2	FTY	Unknown	SS	P	V1 WB RT 31 CHANGED LANES STRUCK V2 WB RT 31	lakeshore
325	1	8	18	0714	2	P	5	1	1	2	Following too Closely	Driver Inattent/Distract	RE	P	V1 WB LAKESHORE RD STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	lakeshore
333	2	10	18	0010	2	P	5	1	1	1	FTY	Unknown	RA	M	SNOWMOBILE SB ACROSS RT 31 FTY STRUCK V2 WB RT 31	lakeshore
334	2	8	18	1537	2	P	1	1	1	1	Following too Closely	Unknown	RE	P	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1	lakeshore

TE 213 (9/79) **ACCIDENT**

REVERSE **DETAILS OF HISTORY FOR LOCATION INSTRUCTIONS**

This form is used in conjunction with the TE 56 Collision Diagram. When it becomes impractical to put descriptive information on the diagram, this form can be used to list the details of each accident.

Column No. 1: Provides a reference character which refers to a particular accident on the diagram, but may be unnessary if the date is included on the diagram itrself.
Columns No. 2,3 & 4: (date, time & No. of Veh.) Are self explanatory.
Column No. 5: (severity) Classifies each accident as either Fatal (F), Injury (I) or Property Damage (PDO). Non-Reportable accidents (NR) can be included if desired.
Columns No. 6,7,8 & 9: (Enviornmental) Used coded numbers from the MV 104 police accident report listed on the form.
Column No. 10: (Apparent Contributing Factors) Again uses coded numbers from the MV 104 police accident report.
Column No. 11: Include a brief description of each accident. Include any information deemed relevant. This information may include such items as accident type, direction of vehicles, existing traffic control & driver characteristics.

APPARENT CONTRIBUTING FACTORS

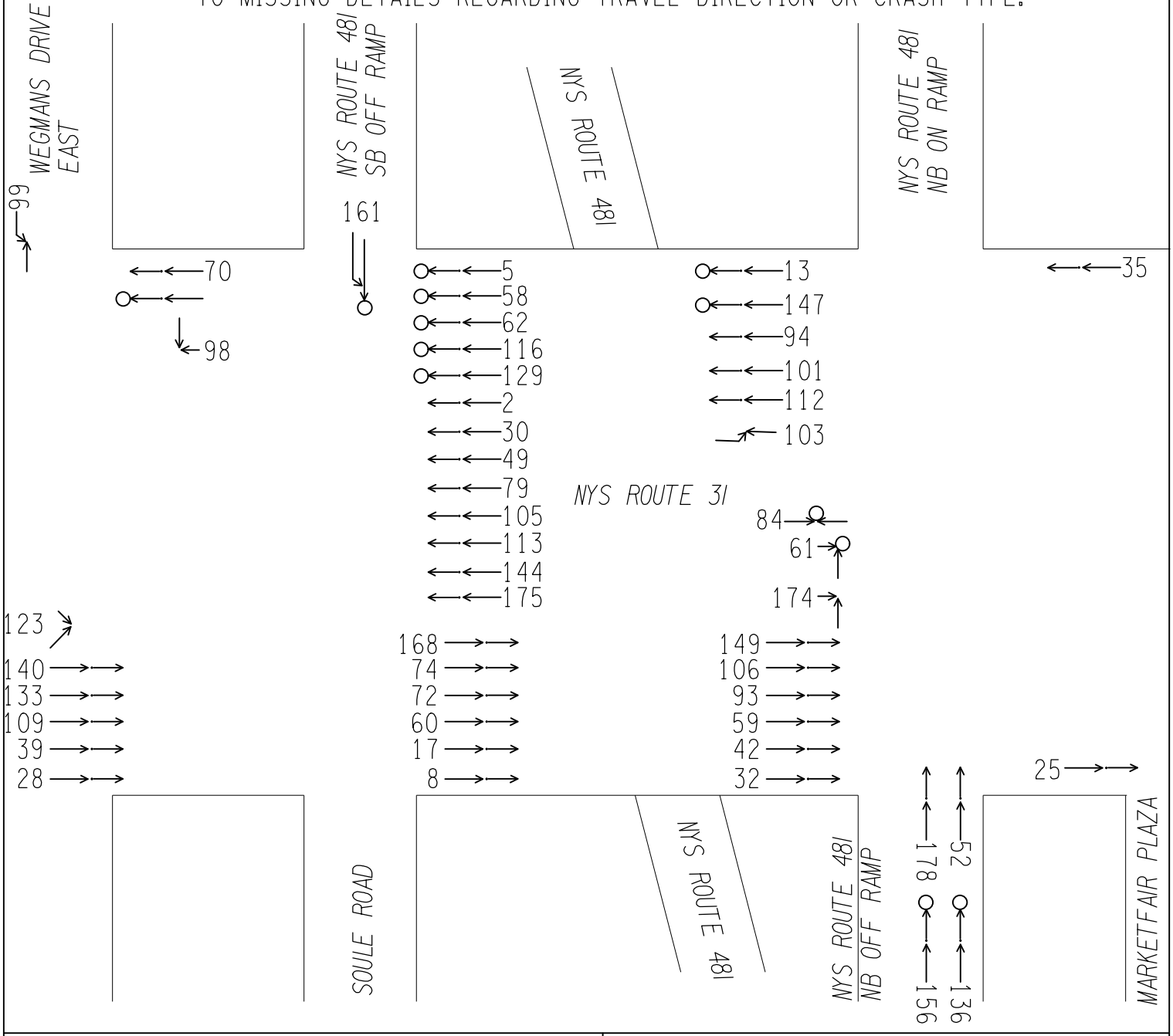
HUMAN	VEHICULAR	ENVIRONMENTAL
2. Alcohol Involvement	41. Accelerator Defective	61. Animal's Action
3. Backing Unsafely	42. Brakes Defective	62. Glare
4. Driver Inattention*	43. Headlights Defective	63. Lane Marking - Improper/Inadequate
5. Driver Inexperience*	44. Other Lighting Defects	64. Obstruction/Debris
6. Drugs (illegal)	45. Oversized Vehicle	65. Pavement Defective
7. Failure to Yeild Right-of-Way	46. Steering Failure	66. Pavement Slippery
8. Fell Asleep	47. Tire Failure/Inadequate	67. Shoulders - Defective/Improper
9. Following Too Closely	48. Tow Hitch Defective	68. Traffice Control Device Improper/ Non-working
10. Illness	49. Windshield Inadequate	69. View Obstructed/Limited
11. Lost Consciousness	60. Other Vehicular*	80. Other Environmental*
12. Passenger Distraction		
13. Passing or Lane Usage Improper		
14. Pedestrian's Error/Confusion		
15. Physical Disability		* Indicate nature of contributing factor
16. Precription Medication		
17. Traffic Control Disregarded		
18. Turning Improperly		
19. Unsafe Speed		
40. Other Human*		

DEPARTMENT OF TRANSPORTATION
COLLISION DIAGRAM

MUNICIPALITY	TOWN OF CLAY	COUNTY	ONONDAGA	FILE	
INTERSECTION	SEGMENT: NYS ROUTE 31 FROM WEGMANS DRIVE EAST TO MARKETFAIR PLAZA				
PERIOD	3 YR __ MO	FROM	05 / 01 / 2015	BY	DATE / /
		TO	04 / 31 / 2017		

FIGURE 1

NOTE: 129 NUMBER OF CRASHES NOT DEPICTED ON THIS DIAGRAM DUE TO MISSING DETAILS REGARDING TRAVEL DIRECTION OR CRASH TYPE.



SYMBOLS

MOVING VEHICLE		PEDESTRIAN	
MOTORCYCLE	M	BICYCLE	B
BACKING VEHICLE		FIXED OBJECT	
STOPPED VEHICLE		PERSONAL INJURY	
PARKED VEHICLE		FATAL INJURY	

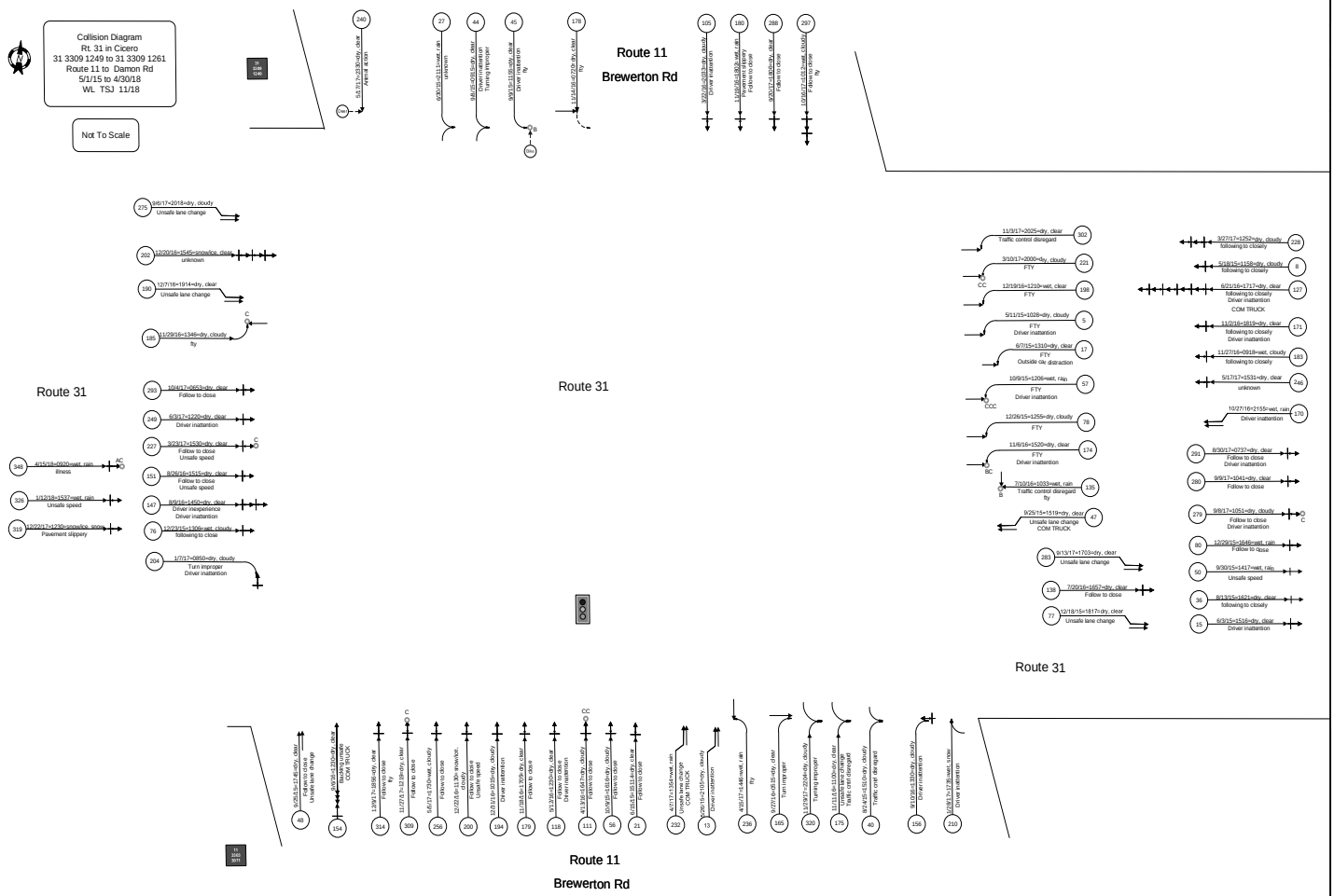
MANNER OF COLLISION

REAR-END		HEAD-ON	
SIDE-SWIPE		LEFT-TURN	
OUT OF CONTROL		RIGHT-ANGLE	
SKIDDING			
OVERTURNED			

DEPARTMENT OF TRANSPORTATION
COLLISION DIAGRAM

MUNICIPALITY	TOWN OF CICERO	COUNTY	ONONDAGA	FILE	
INTERSECTION	SEGMENT: NYS ROUTE 31/NYS ROUTE 11/I-81				
PERIOD	3 YR __ MO	FROM	5 / 3 / 15	TO	4 /25/ 18
BY		DATE	/ /		

FIGURE 2A



SYMBOLS

- MOVING VEHICLE
- MOTORCYCLE
- BACKING VEHICLE
- STOPPED VEHICLE
- PARKED VEHICLE
- PEDESTRIAN
- BICYCLE
- FIXED OBJECT
- PERSONAL INJURY
- FATAL INJURY

MANNER OF COLLISION

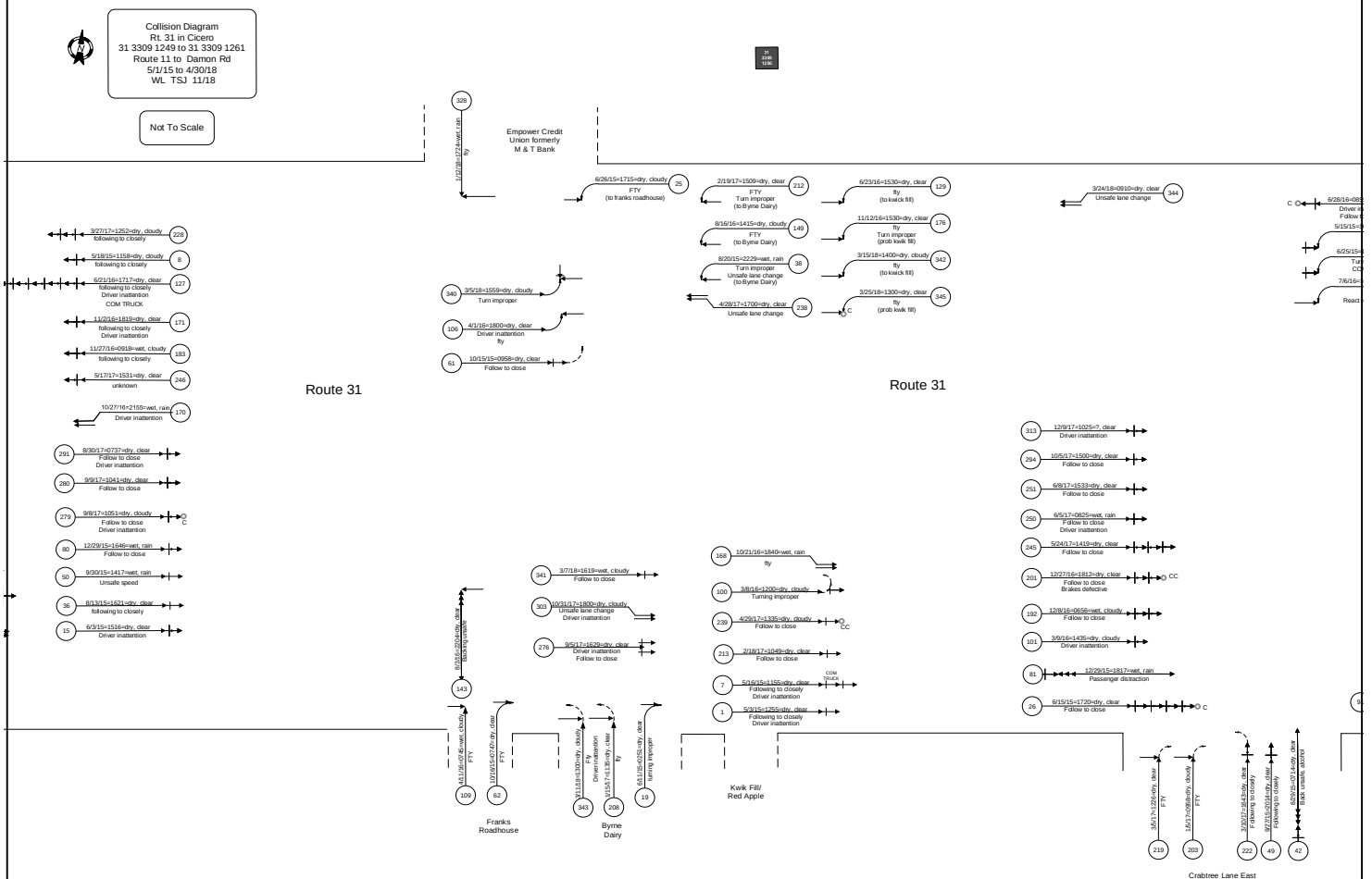
- REAR-END
- SIDE-SWIPE
- OUT OF CONTROL
- SKIDDING
- OVERTURNED
- HEAD-ON
- LEFT-TURN
- RIGHT-ANGLE

TE 56

DEPARTMENT OF TRANSPORTATION
COLLISION DIAGRAM

MUNICIPALITY	TOWN OF CICERO	COUNTY ONONDAGA	FILE
INTERSECTION	SEGMENT: NYS ROUTE 31/NYS ROUTE 11/I-81		
PERIOD	3 YR ___ MO	FROM 5 / 3 / 15 TO 4 /25/ 18	BY ___ DATE / /

FIGURE 2B



MATCH FIGURE 2A

MATCH FIGURE 2C

SYMBOLS

MOVING VEHICLE		PEDESTRIAN	
MOTORCYCLE	M	BICYCLE	B
BACKING VEHICLE		FIXED OBJECT	
STOPPED VEHICLE		PERSONAL INJURY	
PARKED VEHICLE		FATAL INJURY	

MANNER OF COLLISION

REAR-END		HEAD-ON	
SIDE-SWIPE		LEFT-TURN	
OUT OF CONTROL		RIGHT-ANGLE	
SKIDDING			
OVERTURNED			

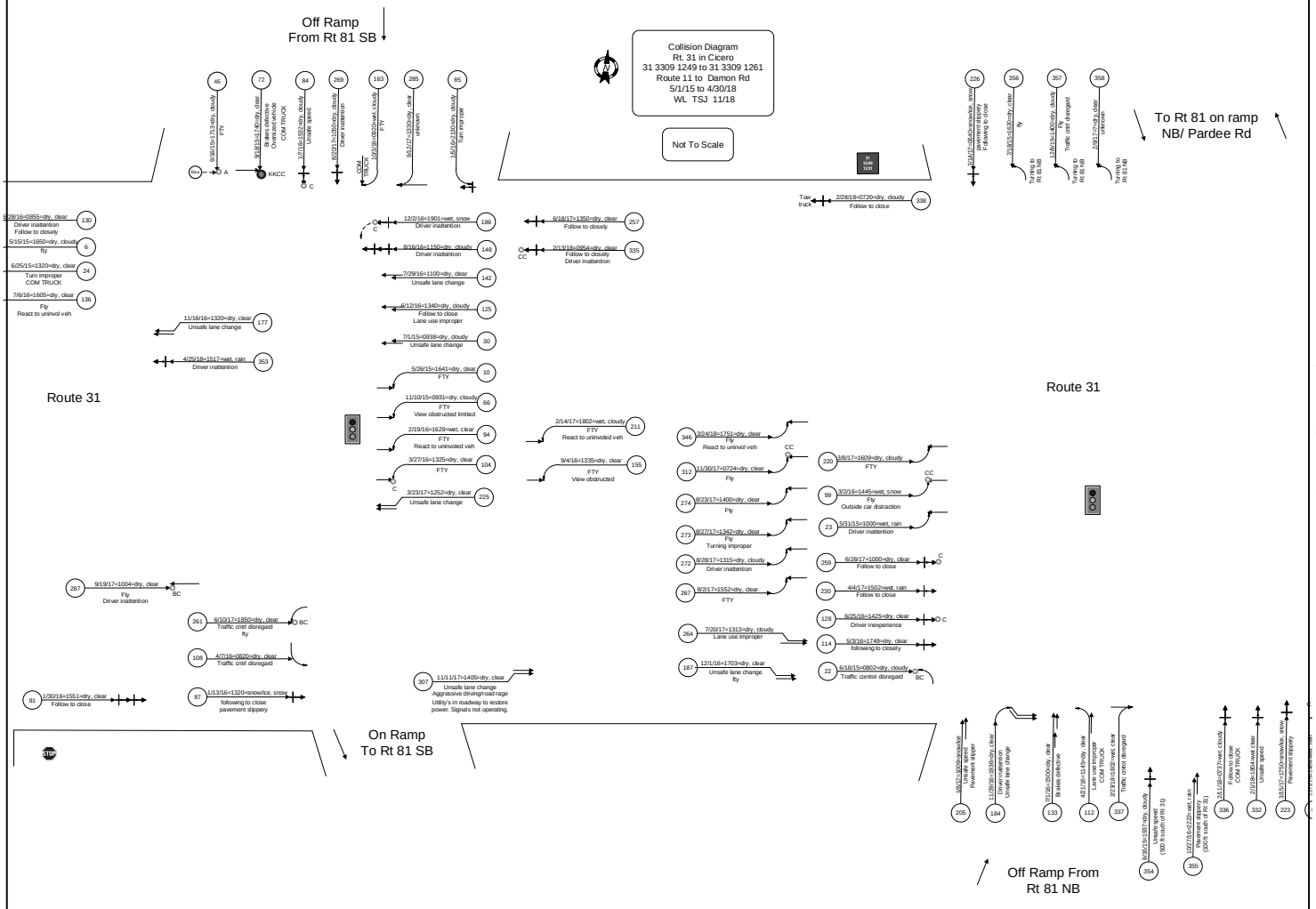
DEPARTMENT OF TRANSPORTATION
COLLISION DIAGRAM

MUNICIPALITY **TOWN OF CICERO** COUNTY **ONONDAGA** FILE

INTERSECTION **SEGMENT: NYS ROUTE 31/NYS ROUTE 11/I-81**

PERIOD **3** YR **__** MO FROM **5 / 3 / 15** TO **4 /25/ 18** BY **__** DATE **/ /**

FIGURE 2C



SYMBOLS

MOVING VEHICLE		PEDESTRIAN	
MOTORCYCLE	M	BICYCLE	B
BACKING VEHICLE		FIXED OBJECT	
STOPPED VEHICLE		PERSONAL INJURY	
PARKED VEHICLE		FATAL INJURY	

MANNER OF COLLISION

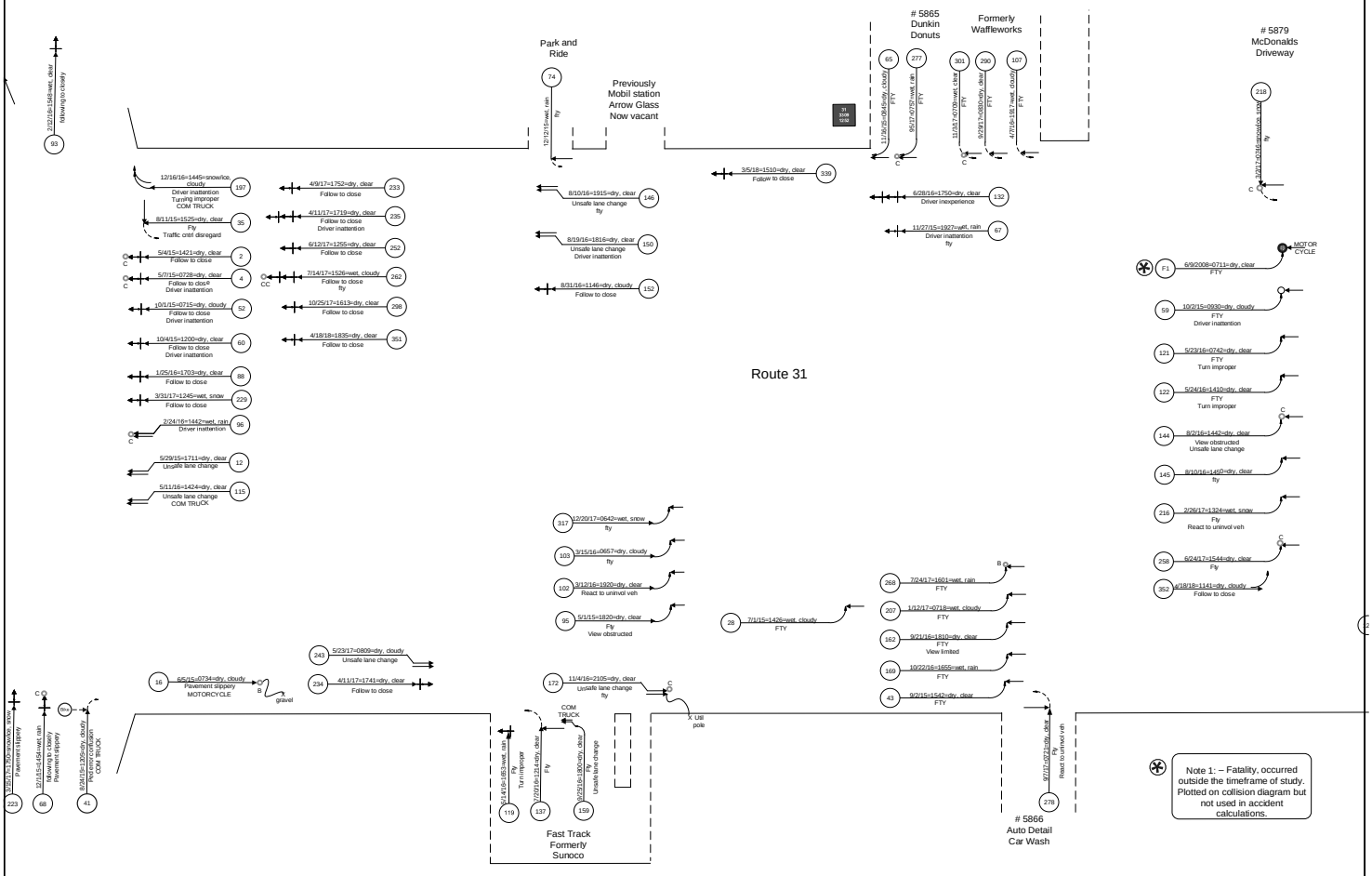
REAR-END		HEAD-ON	
SIDE-SWIPE		LEFT-TURN	
OUT OF CONTROL		RIGHT-ANGLE	
SKIDDING			
OVERTURNED			

DEPARTMENT OF TRANSPORTATION
COLLISION DIAGRAM

MUNICIPALITY	TOWN OF CICERO	COUNTY ONONDAGA	FILE
INTERSECTION	SEGMENT: NYS ROUTE 31/NYS ROUTE 11/I-81		
PERIOD	3 YR MO	FROM 5 / 3 / 15 TO 4 /25/ 18	BY DATE / /

FIGURE 2D

MATCH FIGURE 2C



SYMBOLS

- MOVING VEHICLE
- MOTORCYCLE
- BACKING VEHICLE
- STOPPED VEHICLE
- PARKED VEHICLE
- PEDESTRIAN
- BICYCLE
- FIXED OBJECT
- PERSONAL INJURY
- FATAL INJURY

MANNER OF COLLISION

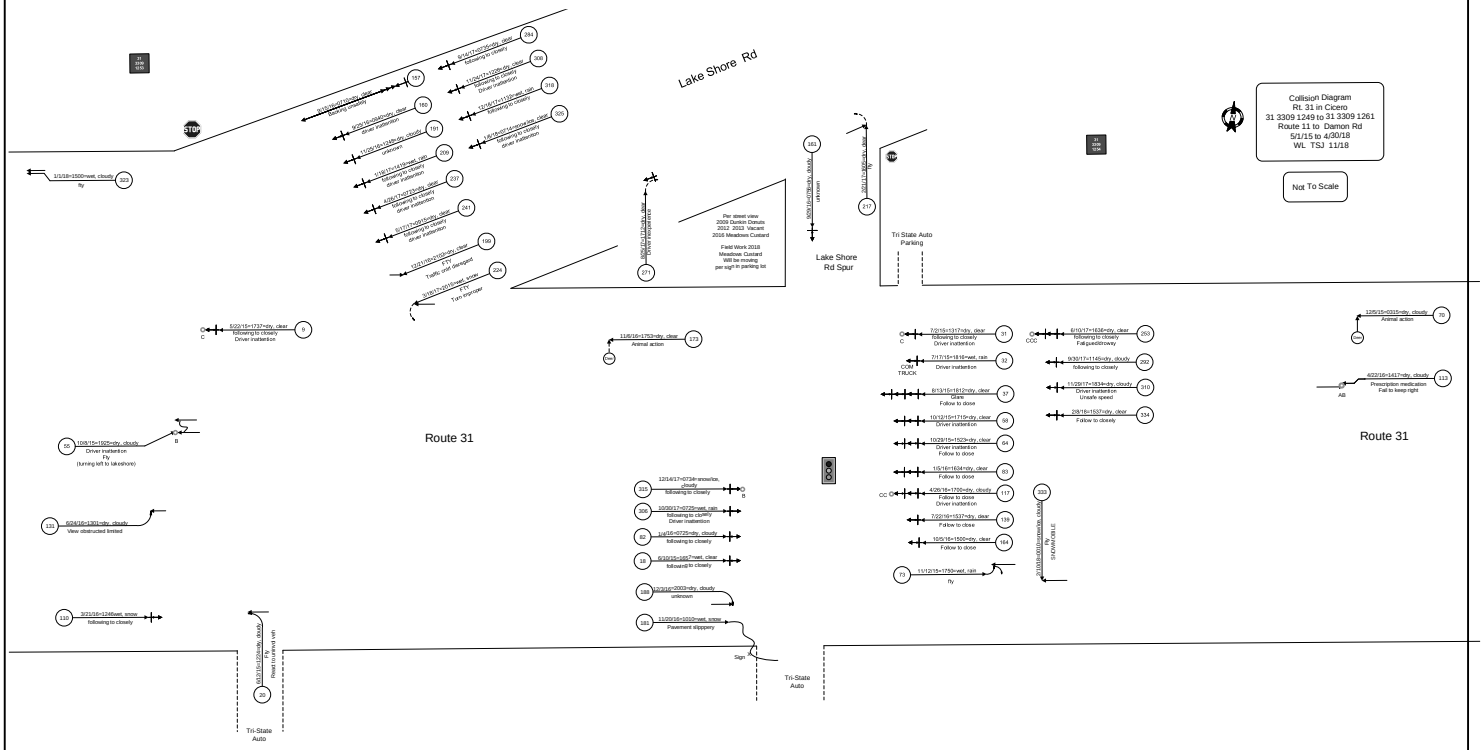
- REAR-END
- SIDE-SWIPE
- OUT OF CONTROL
- SKIDDING
- OVERTURNED
- HEAD-ON
- LEFT-TURN
- RIGHT-ANGLE

TE 56

DEPARTMENT OF TRANSPORTATION
COLLISION DIAGRAM

MUNICIPALITY	TOWN OF CICERO	COUNTY ONONDAGA	FILE
INTERSECTION	SEGMENT: NYS ROUTE 31/LAKESHORE RD/LAKESHORE RD SPUR		
PERIOD	3 YR __ MO	FROM 5 / 3 / 15 TO 4 /25/ 18	BY _____ DATE / /

FIGURE 3



SYMBOLS

MOVING VEHICLE		PEDESTRIAN	
MOTORCYCLE	M	BICYCLE	B
BACKING VEHICLE		FIXED OBJECT	
STOPPED VEHICLE		PERSONAL INJURY	
PARKED VEHICLE		FATAL INJURY	

MANNER OF COLLISION

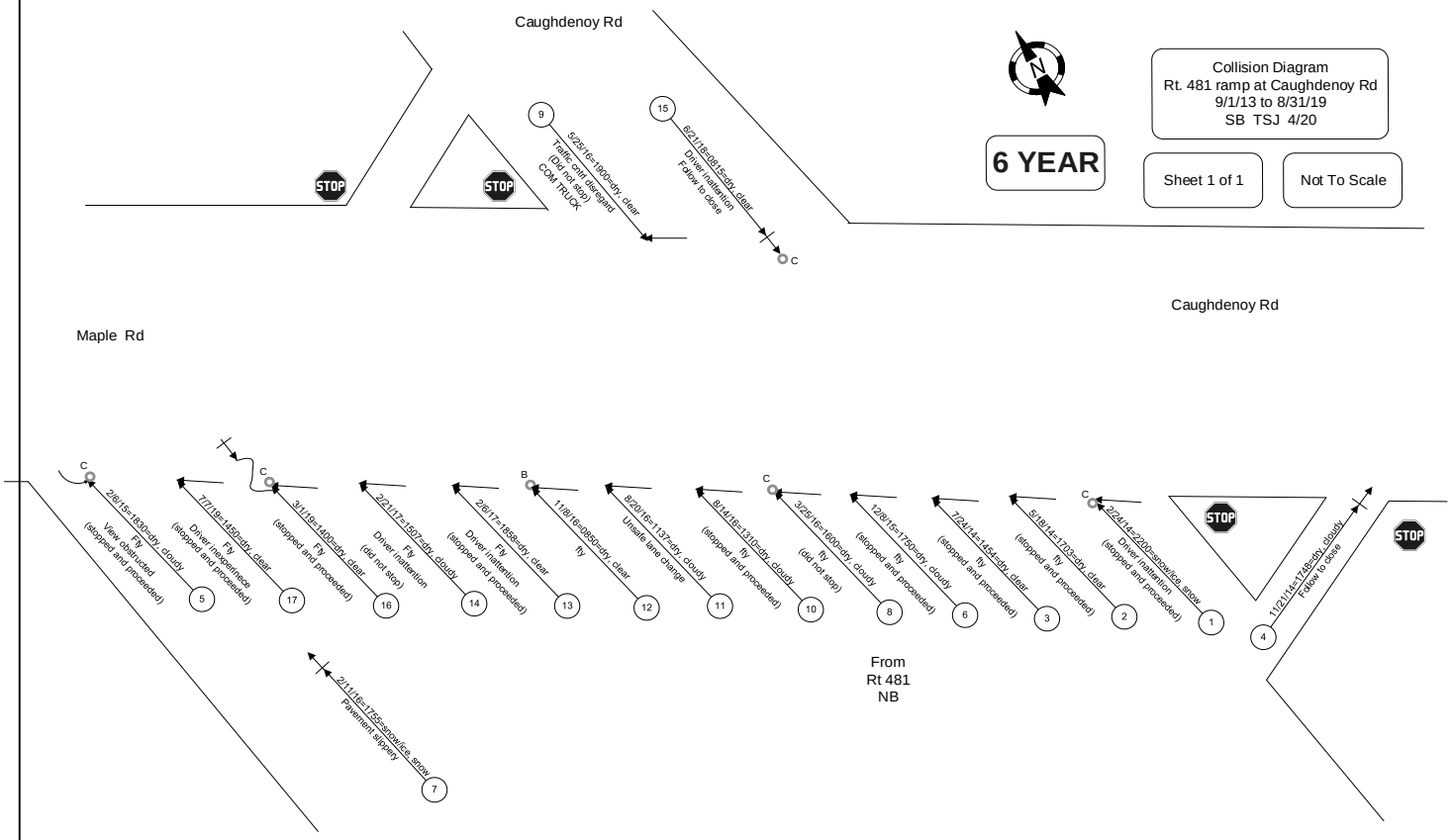
REAR-END		HEAD-ON	
SIDE-SWIPE		LEFT-TURN	
OUT OF CONTROL		RIGHT-ANGLE	
SKIDDING			
OVERTURNED			

DEPARTMENT OF TRANSPORTATION
COLLISION DIAGRAM

MUNICIPALITY	TOWN OF CLAY	COUNTY	ONONDAGA
INTERSECTION	NYS ROUTE 481 / CAUGHDENOY ROAD / MAPLE ROAD		
PERIOD	6 YR __ MO	FROM 9 / 1 / 13	TO 8 / 31 / 19

FILE _____ BY _____ DATE / /

FIGURE 4



SYMBOLS

MOVING VEHICLE		PEDESTRIAN	
MOTORCYCLE	M	BICYCLE	B
BACKING VEHICLE		FIXED OBJECT	
STOPPED VEHICLE		PERSONAL INJURY	
PARKED VEHICLE		FATAL INJURY	

MANNER OF COLLISION

REAR-END		HEAD-ON	
SIDE-SWIPE		LEFT-TURN	
OUT OF CONTROL		RIGHT-ANGLE	
SKIDDING			
OVERTURNED			

Crash Rate Worksheet

Location No.	1	
Location Name:	NYS Route 31 from Wegmans Driveway East to Marketfair Plaza	
From RM:	31 3309 1186	
To RM:	31 3309 1190	
Segment Length:	0.5	miles
Study Years:	May 1, 2015 to April 31, 2018	
Total Years:	3	
Total Crashes:	180	
AADT Avg:	26800	
MVM:	14.67	
Calculated Rate:	12.27	Acc/MVM
Statewide Average:	2.94	Acc/MVM Urban Functional Class Undivided All Lanes Mainline and Juncture Accidents All Types

Crash Rate Worksheet

Location No.	2	
Location Name:	NYS Route 31 from US Route 11 to Lakeshore Road	
From RM:	31 3309 1249	
To RM:	31 3309 1252	
Segment Length:	0.4	miles
Study Years:	May 1, 2015 to April 31, 2018	
Total Years:	3	
Total Crashes:	239	
AADT Avg:	22788	
MVM:	9.98	
Calculated Rate:	23.95	Acc/MVM
Statewide Average:	2.94	Acc/MVM Urban Functional Class Undivided All Lanes Mainline and Juncture Accidents All Types

Crash Rate Worksheet

Location No.	3	
Location Name:	NYS Route 31 from Lakeshore Road to Lakeshore Road Spur	
From RM:	31 3309 1253	
To RM:	31 3309 1255	
Segment Length:	0.3	miles
Study Years:	May 1, 2015 to April 31, 2018	
Total Years:	3	
Total Crashes:	43	
AADT Avg:	12796	
MVM:	4.20	
Calculated Rate:	10.23	Acc/MVM
Statewide Average:	2.94	Acc/MVM Urban Functional Class Undivided All Lanes Mainline and Juncture Accidents All Types

Region 3 PIL Report

Ascending Route Sequence for HAL Year 2017

All Routes

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HAL Year	Time Period			PIL Accidents	PIL LOC	SDL Accidents	SDL LOC	PII LOC	HAL Created
2017	01-JAN-2016	thru	31-DEC-2017	Linear&Intersection	99.9	Linear&Intersection	90.9	99.9	11-APR-2018

HAL Year	Route	Begins at Reference Marker	Ends at Reference Marker	Int#	Seg Lgth	Hal Typ	Avg AADT	Exposure MVM or MEV	Type (Clsf Cde)	Highway/Int Char. Int Cntl	Int Config	--- Number of Accidents --- Fat	Inj	Pdo	Int	Not At Int	Total Accd	Accd Per Exposure	UCL	Reduct Index	Severe Weight Rank
2017	3	3 34012008	3 34012013		.6	PIL	16560	7.263	72			0	28	74	35	67	102	14.04	8.26	61.25	8.60
2017	3	3 34012014	3 34012016		.3	PIL	8246	1.808	70			0	4	55	42	17	59	32.63	8.87	51.14	5.03
2017	3	3 34013022	3 34013026		.5	PIL	5126	1.874	50			0	4	12	12	4	16	8.54	6.09	11.00	1.73
2017	3	3 34013146	3 34013148		.3	PIL	3919	.859	50			0	3	10	8	5	13	15.13	7.54	10.71	2.63
2017	5	5 33081156	5 33081159		.4	PIL	15666	4.581	72			0	2	43	21	24	45	9.82	8.92	19.30	1.13
2017	5	5 33081346	5 33081144		.5	PIL	18332	6.7	36			1	7	35	13	30	43	6.42	3.46	30.34	5.02
2017	5	5 33082039	5 33082041		.3	PIL	17179	3.767	62			0	5	28	8	25	33	8.76	8.22	14.73	2.55
2017	5	5 33082046	5 33082050		.5	PIL	17179	6.279	62			3	9	50	7	55	62	9.87	7.49	31.55	4.98
2017	5	5 33083008	5 33083010		.3	PIL	17649	3.87	62			0	9	35	6	38	44	11.37	8.18	25.23	5.56
2017	5	5 33083025	5 33083027		.3	PIL	49843	10.93	74			0	13	58	24	47	71	6.50	5.79	27.60	5.52
2017	5	5 33083043	5 33083046		.4	PIL	22220	6.497	72			0	19	60	48	31	79	12.16	8.4	42.55	8.00
2017	5	5 33083051	5 33083053		.3	PIL	8796	1.929	68			0	8	24	19	13	32	16.59	7.43	25.21	6.53
2017	5	5 35061087	5 35061089		.3	PIL	13896	3.047	68			0	4	20	10	14	24	7.88	6.68	13.27	2.46
2017	5	5 35061092	5 35061095		.4	PIL	9712	2.84	68			0	7	16	8	15	23	8.10	6.78	13.00	2.99
2017	11	11 32022001	11 32022004		.4	PIL	10245	2.996	68			0	6	20	18	8	26	8.68	6.7	15.45	2.81
2017	11	11 32022005	11 32022009		.5	PIL	12678	4.634	68			0	10	45	28	27	55	11.87	6.11	38.69	4.62
2017	11	11 32022011	11 32023000		.3	PIL	8542	1.873	68			0	4	19	9	14	23	12.28	7.49	16.41	3.15
2017	11	11 32023016	11 32023018		.3	PIL	6213	1.363	68			0	0	20	15	5	20	14.67	8.12	15.20	0.59

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All Routes

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HAL Year	Route	Begins at Reference Marker	Ends at Reference Marker	Int#	Seg Lgth	Hal Typ	Avg AADT	Exposure MVM or MEV	Highway/Int Char. Type (Clsf Cde)	Int Cntl	Int Config	--- Number of Accidents --- Fat	Inj	Pdo	Int	Not At Int	Total Accd	Accd Per Exposure	UCL	Reduct Index	Severe Weight Rank
2017	11	11 33031086	11 33031089		.4	PIL	2325	.68	50			0	3	9	3	9	12	17.65	8.06	10.18	2.00
2017	11	11 33031136	11 33031139		.4	PIL	6023	1.761	50			0	7	19	14	12	26	14.76	6.19	21.30	4.44
2017	11	11 33031140	11 33031145		.6	PIL	9859	4.324	46			0	12	16	1	27	28	6.48	4.14	18.92	4.61
2017	11	11 33031153	11 33031156		.4	PIL	9582	2.802	60			0	10	28	21	17	38	13.56	8.37	25.14	5.14
2017	11	11 33033018	11 33033021		.4	PIL	24260	7.094	64			0	27	94	20	101	121	17.06	7.51	85.60	15.22
2017	11	11 33033022	11 33033022		.1	PIL	17414	1.273	58			0	13	17	11	19	30	23.57	11.2	23.30	29.63
2017	11	11 33033023	11 33033028		.6	PIL	17414	7.638	68			0	22	87	38	71	109	14.27	5.55	82.11	8.89
2017	11	11 33033029	11 33033032		.4	PIL	13756	4.022	72			0	11	44	28	27	55	13.67	9.14	32.44	5.23
2017	11	11 33033040	11 33033042		.3	PIL	12536	2.749	68			0	3	19	12	10	22	8.00	6.83	12.32	1.96
2017	11	11 33033042	11 33033049		.8	PIL	16278	9.519	68			1	21	95	42	75	117	12.29	5.35	83.49	8.73
2017	11	11 33033050	11 33033058		.9	PIL	23628	15.55	72			1	37	139	29	148	177	11.39	7.43	89.79	9.36
2017	11	11 33033068	11 33033070		.3	PIL	13327	2.923	68			1	10	12	15	8	23	7.87	6.74	12.71	8.26
2017	11	11 33033109	11 33033111		.3	PIL	10654	2.336	68			0	5	16	13	8	21	8.99	7.1	12.78	3.18
2017	11	11 33033113	11 33033116		.4	PIL	12799	3.742	68			0	7	17	19	5	24	6.41	6.38	10.83	2.40
2017	11	11 34041031	11 34041035		.5	PIL	8589	3.139	68			0	2	24	11	15	26	8.28	6.63	14.95	0.95
2017	11	11 34041093	11 34041095		.3	PIL	2810	.616	50			0	5	6	8	3	11	17.86	8.29	9.36	4.06
2017	11	11 34041228	11 34041231		.4	PIL	5224	1.527	50			0	2	15	13	4	17	11.13	6.43	12.92	1.46
2017	13	13 32041031	13 32041034		.4	PIL	12335	3.607	60			0	5	27	11	21	32	8.87	7.94	15.44	2.06
2017	13	13 32042008	13 32042012		.5	PIL	15988	5.844	72			0	9	53	15	47	62	10.61	8.55	29.22	2.92
2017	13	13 32042023	13 32042025		.3	PIL	9031	1.98	72			0	6	18	15	9	24	12.12	10.6	12.89	3.34

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All Routes

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									Highway/Int Char.			--- Number of Accidents ---								
HAL Year	Route	Begins at Reference Marker	Ends at Reference Marker	Int#	Seg Lgth	Hal Typ	Avg AADT	Exposure MVM or MEV	Type (Clsf Cde)	Int Cntl	Int Config	Fat	Inj	Pdo	Int	Not At Int	Total Accd	Accd Per Exposure	UCL	Reduct Index	Severe Weight Rank
2017	13	13 34071183	13 34071186		.4	PIL	5959	1.742	50			0	1	15	2	14	16	9.18	6.21	11.35	0.88
2017	13	13 36031127	13 36032015		.6	PIL	20846	9.143	72			0	17	109	41	85	126	13.78	7.98	74.71	5.89
2017	13	13 36032025	13 36032026		.2	PIL	32964	4.819	42			0	4	27	16	15	31	6.43	5.49	16.01	3.93
2017	13	13 36032116	13 36032122		.7	PIL	17826	9.122	74			0	25	172	104	93	197	21.60	5.95	160.79	10.37
2017	13	13 36033027	13 36033029		.3	PIL	22625	4.962	34			0	6	15	12	9	21	4.23	3.88	11.03	3.49
2017	31	31 33091172	31 33091174		.3	PIL	22484	4.931	72			0	9	38	23	24	47	9.53	8.8	19.34	4.01
2017	31	31 33091182	31 33091184		.3	PIL	26705	5.856	72			0	15	42	20	37	57	9.73	8.55	24.15	6.54
2017	31	31 33091184	31 33091186		.3	PIL	26705	5.856	72			0	19	35	39	15	54	9.22	8.55	21.15	7.38
2017	31	31 33091186	31 33091191		.6	PIL	25499	11.18	72			0	34	92	48	78	126	11.27	7.75	63.26	8.75
2017	31	31 33091205	31 33091207		.3	PIL	10394	2.279	68			0	8	13	15	6	21	9.21	7.14	12.98	4.86
2017	31	31 33091249	31 33091252		.4	PIL	20212	5.91	72			0	26	139	37	128	165	27.92	8.54	131.84	17.56
2017	31	31 33091253	31 33091257		.5	PIL	12925	4.724	68			0	26	44	37	33	70	14.82	6.08	53.37	11.73
2017	31	31 33091260	31 33091264		.5	PIL	12925	4.724	68			0	15	39	32	22	54	11.43	6.08	37.37	6.36
2017	31	370 33031074	370 33031077		.4	PIL	17020	4.977	68			0	3	32	10	25	35	7.03	6.02	17.48	1.50
2017	31	370 33031077	31 33091141		.6	PIL	14843	6.51	68			0	10	39	24	25	49	7.53	5.72	26.08	2.85
2017	34	34 31052018	34 31052020		.3	PIL	12713	2.788	72			0	9	21	24	6	30	10.76	9.81	14.36	4.35
2017	38	38 31041072	38 31041075		.4	PIL	5562	1.626	50			0	5	12	10	7	17	10.46	6.32	12.66	2.84
2017	48	48 33011049	48 33011058		1.0	PIL	10861	7.939	68			0	20	59	56	23	79	9.95	5.51	51.05	4.01
2017	48	48 34021009	48 34021013		.5	PIL	6959	2.544	50			0	0	17	8	9	17	6.68	5.64	10.21	0.31
2017	49	49 34012139	49 34012143		.5	PIL	7166	2.619	68			0	1	27	2	26	28	10.69	6.91	18.78	0.79

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2017	49	49 34012159	49 34012161		.3	PIL	10666	2.339	50			0	2	12	6	8	14	5.99	5.76	7.75	1.33
2017	79	79 36053021	79 36053025		.5	PIL	4458	1.629	50			0	3	14	4	13	17	10.44	6.32	12.65	1.52
2017	79	79 36053042	79 36053045		.4	PIL	4458	1.304	50			0	3	10	5	8	13	9.97	6.71	9.52	1.75
2017	81I	81I32021043	81I32021045		.3	PIL	20269	4.445	2			0	1	10	0	11	11	2.47	2.44	6.33	0.90
2017	81I	81I32021086	81I32021090		.5	PIL	20269	7.408	2			0	3	15	0	18	18	2.43	2.15	10.22	1.31
2017	81I	81I32021119	81I32021121		.3	PIL	20269	4.445	2			0	0	11	0	11	11	2.47	2.44	6.33	0.36
2017	81I	81I32021124	81I32021126		.3	PIL	20269	4.445	2			0	2	9	0	11	11	2.47	2.44	6.33	1.44
2017	81I	81I33031059	81I33031061		.3	PIL	33763	7.404	2			0	3	13	0	16	16	2.16	2.15	8.23	1.91
2017	81I	81I33032013	81I33032015		.3	PIL	49362	10.83	18			0	5	24	2	27	29	2.68	2.45	13.95	2.33
2017	81I	81I33032025	81I33032027		.3	PIL	52001	11.40	18			0	6	27	5	28	33	2.89	2.42	17.15	2.99
2017	81I	81I33032035	81I33032047		1.3	PIL	88718	84.31	14			0	49	188	25	212	237	2.81	1.53	138.36	6.19
2017	81I	81I33032047	81I33032050		.4	PIL	97159	28.41	14			0	21	73	13	81	94	3.31	1.78	60.76	9.42
2017	81I	81I33032051	81I33032053		.3	PIL	97159	21.31	18			0	12	60	12	60	72	3.38	2.16	42.38	6.90
2017	81I	81I33032053	81I33032060		.8	PIL	97159	56.82	18			0	26	104	19	111	130	2.29	1.86	51.02	3.61
2017	81I	81I33033119	81I33033121		.3	PIL	38777	8.504	18			0	3	19	9	13	22	2.59	2.58	10.18	1.42
2017	81I	81I34041157	81I34041159		.3	PIL	18381	4.031	2			0	1	10	1	10	11	2.73	2.5	6.77	0.96
2017	81I	81I34041262	81I34041265		.4	PIL	15699	4.59	2			1	1	15	0	17	17	3.70	2.42	12.18	2.85
2017	81I	81I34041301	81I34041304		.4	PIL	16083	4.703	2			0	1	13	0	14	14	2.98	2.4	9.06	0.84
2017	89	89 36011100	89 36011101		.2	PIL	12693	1.856	68			0	4	37	28	13	41	22.09	7.51	34.47	6.44
2017	89	89 36011102	89 36011102		.1	PIL	16923	1.237	72			0	4	34	19	19	38	30.72	11.8	31.06	12.24

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2017	90	90 32013057	90 32013059		.3	PIL	2251	.494	50			0	4	8	4	8	12	24.29	8.84	10.68	3.55
2017	92	92 33012006	92 33012007		.2	PIL	13030	1.905	74			0	4	30	9	25	34	17.85	8.17	26.44	5.64
2017	92	92 33012033	92 33012035		.3	PIL	22248	4.879	68			0	11	25	14	22	36	7.38	6.04	18.83	5.80
2017	92	92 33012051	92 33012060		1.0	PIL	21290	15.56	68			0	25	133	60	98	158	10.15	4.96	103.22	5.52
2017	92	92 33012067	92 33012071		.5	PIL	12995	4.75	68			0	5	27	18	14	32	6.74	6.07	15.28	1.62
2017	96	96 36023004	96 36023007		.4	PIL	8330	2.436	68			0	1	22	7	16	23	9.44	7.03	14.43	0.83
2017	96	96 36023094	96 36023097		.4	PIL	7738	2.263	50			0	3	13	9	7	16	7.07	5.81	9.96	1.56
2017	104	104 34062008	104 34062016		.9	PIL	14437	9.498	72			0	15	97	58	54	112	11.79	7.93	58.72	3.07
2017	104	104 34062016	104 34062018		.3	PIL	19936	4.372	72			0	8	34	20	22	42	9.61	9	17.47	3.61
2017	104	104 34062018	104 34062020		.3	PIL	19936	4.372	72			0	7	40	20	27	47	10.75	9	22.47	3.82
2017	104	104 34062026	104 34062030		.5	PIL	16933	6.189	68			0	8	42	23	27	50	8.08	5.77	28.21	3.04
2017	173	173 33011089	173 33011096		.8	PIL	12945	7.57	68			0	17	63	48	32	80	10.57	5.56	53.35	4.52
2017	173	173 33011100	173 33011103		.4	PIL	12945	3.785	68			0	10	16	11	15	26	6.87	6.37	12.68	3.59
2017	173	173 33011130	173 33011132		.3	PIL	11077	2.429	68			0	6	16	1	21	22	9.06	7.03	13.45	3.75
2017	173	173 33013112	173 33013115		.4	PIL	2846	.832	50			0	5	8	5	8	13	15.63	7.6	10.78	3.03
2017	222	222 32021032	222 32021035		.4	PIL	10062	2.942	68			0	7	22	1	28	29	9.86	6.73	18.64	3.52
2017	281	281 32011013	281 32011016		.4	PIL	14929	4.365	72			0	7	48	6	49	55	12.60	9	30.51	3.45
2017	297	297 33011020	297 33011022		.3	PIL	6493	1.424	68			0	6	16	14	8	22	15.45	8.03	16.99	4.74
2017	298	298 33011004	298 33011006		.3	PIL	11723	2.571	72			0	6	25	27	4	31	12.06	9.98	16.58	3.47
2017	298	298 33011006	298 33011008		.3	PIL	11723	2.571	72			0	14	38	44	8	52	20.23	9.98	37.58	10.38

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2017	298	298 33012014	298 33012016		.3	PIL	10627	2.331	60			0	2	20	7	15	22	9.44	8.71	11.30	1.35
2017	298	298 33012016	298 33012018		.3	PIL	10627	2.331	60			0	3	18	8	13	21	9.01	8.71	10.30	1.71
2017	298	298 33012025	298 33012027		.3	PIL	10627	2.331	60			0	6	25	19	12	31	13.30	8.71	20.30	4.28
2017	298	298 33012028	298 33012028		.1	PIL	10627	.777	58			0	8	71	10	69	79	********	12.7	74.91	28.92
2017	298	298 33012029	298 33012031		.3	PIL	16328	3.581	68			0	8	19	4	23	27	7.54	6.44	14.39	4.32
2017	298	298 33012080	298 33012084		.5	PIL	7566	2.765	50			0	5	11	8	8	16	5.79	5.53	8.62	1.63
2017	318	318 35011039	318 35011041		.3	PIL	6804	1.492	50			0	2	14	0	16	16	10.72	6.47	12.02	1.88
2017	318	318 35021118	318 35021120		.3	PIL	6189	1.357	50			0	2	9	5	6	11	8.11	6.64	7.38	1.51
2017	318	318 35021155	318 35011002		.5	PIL	7187	2.627	50			0	4	25	14	15	29	11.04	5.59	21.99	2.21
2017	321	321 33011031	321 33011034		.4	PIL	6805	1.99	50			0	3	11	7	7	14	7.04	6	8.69	1.51
2017	370	370 33031123	370 33031126		.4	PIL	12933	3.782	68			0	10	19	0	29	29	7.67	6.37	15.69	4.03
2017	370	370 33031152	370 33031156		.5	PIL	22584	8.254	42			0	17	63	28	52	80	9.69	4.95	54.33	7.91
2017	414	414 35041289	414 35041292		.4	PIL	5897	1.724	68			0	4	26	6	24	30	17.40	7.65	23.93	2.80
2017	414	414 35041330	414 35041334		.5	PIL	10037	3.669	50			0	6	17	0	23	23	6.27	5.17	13.20	2.15
2017	481	481 34021038	481 34021040		.3	PIL	12506	2.743	2			0	0	11	0	11	11	4.01	2.78	8.12	0.46
2017	481	481 34022015	481 34022018		.4	PIL	14636	4.28	68			0	10	41	34	17	51	11.92	6.21	35.93	5.70
2017	481	481 34022018	481 34022020		.3	PIL	14165	3.106	68			0	5	16	7	14	21	6.76	6.65	10.07	2.50
2017	481	481 34023048	481 34023050		.3	PIL	10765	2.361	60			0	11	10	16	5	21	8.89	8.69	10.16	5.12
2017	481	481 34023050	481 34023052		.3	PIL	10765	2.361	60			0	11	10	16	5	21	8.89	8.69	10.16	5.12
2017	635	635 33011000	635 33011002		.3	PIL	21744	4.768	62			0	6	38	9	35	44	9.23	7.86	20.88	3.34

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2017	635	635 33011010	635 33011010		.1	PIL	22965	1.679	42			0	3	17	0	20	20	11.91	7.02	14.78	8.13
2017	635	635 33011011	635 33011013		.3	PIL	28819	6.32	24			0	6	20	8	18	26	4.11	3.64	13.42	2.62
2017	635	635 33011016	635 33011020		.5	PIL	28819	10.53	24			0	12	34	32	14	46	4.37	3.29	25.04	3.25
2017	635	635 33011020	635 33011022		.3	PIL	28819	6.32	24			0	4	22	2	24	26	4.11	3.64	13.42	1.88
2017	690I	690I33014001	690I33014014		.7	PIL	40748	20.85	14			0	12	54	4	62	66	3.17	1.88	41.60	3.11
2017	930B	930B33011001	930B33011003		.3	PIL	16391	3.595	62			0	8	22	14	16	30	8.34	8.3	12.56	3.46
2017	930B	930B33011004	930B33011006		.3	PIL	16391	3.595	62			0	13	48	19	42	61	16.97	8.3	43.56	9.94
2017	930C	930C33011003	930C33011006		.4	PIL	13157	3.847	74			0	36	79	49	66	115	29.89	6.98	99.73	23.54
2017	930P	930P33011002	930P33011004		.3	PIL	16035	3.516	72			0	10	26	22	14	36	10.24	9.37	16.28	4.62

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Region 3 PIL Report

Ascending Route Sequence for HAL Year 2018

All Routes

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HAL Year	Time Period			PIL Accidents	PIL LOC	SDL Accidents	SDL LOC	PII LOC	HAL Created
2018	01-JAN-2017	thru	31-DEC-2018	Linear&Intersection	99.9	Linear&Intersection	90.9	99.9	05-APR-2019

HAL Year	Route	Begins at Reference Marker	Ends at Reference Marker	Int#	Seg Lgth	Hal Typ	Avg AADT	Exposure MVM or MEV	Type (Clsf Cde)	Highway/Int Char. Int Cntl	Int Config	--- Number of Accidents --- Fat	Inj	Pdo	Int	Not At Int	Total Accd	Accd Per Exposure	UCL	Reduct Index	Severe Weight Rank
2018	3	3 34011120	3 34011002		.5	PIL	4217	1.539	50			0	2	11	11	2	13	8.45	6.4	8.91	0.91
2018	3	3 34012008	3 34012013		.6	PIL	16607	7.274	72			0	26	72	20	78	98	13.47	8.5	55.74	8.15
2018	3	3 34012014	3 34012016		.3	PIL	8216	1.799	70			0	10	62	50	22	72	40.02	9.51	63.44	10.97
2018	3	3 34013022	3 34013026		.5	PIL	5143	1.877	50			0	7	7	11	3	14	7.46	6.07	9.01	2.40
2018	5	5 31072028	5 31072030		.3	PIL	30532	6.687	72			0	20	38	30	28	58	8.67	8.62	19.15	7.04
2018	5	5 33081156	5 33081159		.4	PIL	15403	4.498	72			0	4	38	22	20	42	9.34	9.21	15.87	1.57
2018	5	5 33081346	5 33081144		.4	PIL	18569	5.422	36			0	7	26	7	26	33	6.09	3.34	23.78	4.53
2018	5	5 33082039	5 33082041		.3	PIL	17125	3.75	62			1	4	36	7	34	41	10.93	8.95	20.82	3.91
2018	5	5 33082046	5 33082051		.6	PIL	17125	7.501	62			0	15	74	14	75	89	11.87	7.93	48.64	4.87
2018	5	5 33082057	5 33083000		.3	PIL	18500	4.052	62			0	6	39	2	43	45	11.11	8.82	23.20	3.87
2018	5	5 33083008	5 33083010		.3	PIL	17594	3.853	62			0	12	30	11	31	42	10.90	8.9	21.27	6.61
2018	5	5 33083010	5 33083013		.4	PIL	17594	5.137	62			0	13	45	5	53	58	11.29	8.44	30.36	5.75
2018	5	5 33083024	5 33083026		.3	PIL	49687	10.88	74			0	9	55	26	38	64	5.88	5.84	20.37	3.56
2018	5	5 33083028	5 33083030		.3	PIL	45139	9.885	74			0	12	48	16	44	60	6.07	5.93	20.36	4.70
2018	5	5 33083043	5 33083046		.4	PIL	22173	6.475	72			0	12	60	39	33	72	11.12	8.66	34.38	5.14
2018	5	5 33083051	5 33083053		.3	PIL	8767	1.92	68			0	7	25	15	17	32	16.67	7.48	25.20	6.26
2018	5	5 35061091	5 35061093		.3	PIL	11872	2.6	68			0	7	13	10	10	20	7.69	6.95	10.80	4.02
2018	5	5 35061093	5 35061095		.3	PIL	7421	1.625	68			0	7	14	10	11	21	12.92	7.79	15.25	5.44

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2018	11	11 32022002	11 32022005		.4	PIL	10249	2.993	68			0	7	23	20	10	30	10.02	6.73	19.40	3.82
2018	11	11 32022005	11 32022009		.5	PIL	10754	3.925	68			0	8	41	20	29	49	12.48	6.35	35.11	4.13
2018	11	11 32022011	11 32022013		.3	PIL	5974	1.308	68			0	5	16	9	12	21	16.06	8.24	16.37	4.37
2018	11	11 33031018	11 33031021		.4	PIL	4881	1.425	50			0	2	13	5	10	15	10.53	6.53	11.21	1.29
2018	11	11 33031085	11 33031089		.5	PIL	2391	.873	50			0	3	11	6	8	14	16.04	7.48	11.68	1.52
2018	11	11 33031136	11 33031139		.4	PIL	6001	1.752	50			0	5	18	14	9	23	13.13	6.18	18.34	3.03
2018	11	11 33031140	11 33031145		.6	PIL	9840	4.31	46			0	12	15	1	26	27	6.26	3.97	18.42	4.58
2018	11	11 33031153	11 33031156		.4	PIL	9548	2.788	60			0	12	32	26	18	44	15.78	8.42	31.12	6.97
2018	11	11 33033016	11 33033018		.3	PIL	20717	4.537	62			0	11	33	19	25	44	9.70	8.63	19.59	5.43
2018	11	11 33033019	11 33033020		.2	PIL	20717	3.025	64			0	18	47	12	53	65	21.49	8.68	50.15	22.75
2018	11	11 33033021	11 33033022		.2	PIL	18657	2.724	60			0	19	50	17	52	69	25.33	8.46	56.42	25.47
2018	11	11 33033023	11 33033028		.6	PIL	16597	7.269	68			0	26	82	42	66	108	14.86	5.63	82.27	11.07
2018	11	11 33033029	11 33033032		.4	PIL	13366	3.903	72			0	13	50	26	37	63	16.14	9.45	40.32	7.16
2018	11	11 33033033	11 33033035		.3	PIL	12289	2.691	68			0	4	16	2	18	20	7.43	6.9	10.47	2.42
2018	11	11 33033038	11 33033049		1.2	PIL	14809	12.97	68			0	19	123	45	97	142	10.95	5.12	96.08	4.04
2018	11	11 33033050	11 33033058		.9	PIL	23544	15.47	72			1	40	199	39	201	240	15.52	7.67	150.13	13.43
2018	11	11 33033058	11 33033061		.4	PIL	15819	4.619	72			0	7	43	12	38	50	10.82	9.17	23.16	3.02
2018	11	11 33033068	11 33033071		.4	PIL	12013	3.508	68			1	10	19	19	11	30	8.55	6.5	17.58	6.96
2018	11	11 33033113	11 33033116		.4	PIL	12762	3.727	68			0	7	17	19	5	24	6.44	6.42	10.81	2.57
2018	11	11 34041031	11 34041035		.5	PIL	7538	2.751	68			0	4	28	12	20	32	11.63	6.86	22.26	2.13

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2018	11	11 34041228	11 34041231		.4	PIL	5067	1.48	50			0	3	15	11	7	18	12.16	6.46	14.06	1.90
2018	13	13 32041031	13 32041035		.5	PIL	13563	4.95	60			0	4	37	10	31	41	8.28	7.5	18.13	1.45
2018	13	13 32042004	13 32042006		.3	PIL	14727	3.225	72			0	4	29	20	13	33	10.23	9.8	14.26	2.23
2018	13	13 32042023	13 32042025		.3	PIL	9025	1.976	72			0	8	18	18	8	26	13.16	10.9	14.52	4.83
2018	13	13 34071163	13 34071167		.5	PIL	2745	1.002	50			0	5	12	10	7	17	16.97	7.2	14.33	2.41
2018	13	13 36032011	13 36032015		.5	PIL	21683	7.914	72			0	20	81	33	68	101	12.76	8.39	55.02	7.55
2018	13	13 36032025	13 36032026		.2	PIL	33829	4.939	42			0	5	29	15	19	34	6.88	5.96	16.86	5.63
2018	13	13 36032116	13 36032117		.2	PIL	17733	2.589	70			0	8	43	16	35	51	19.70	8.76	38.68	11.02
2018	13	13 36032118	13 36032118		.1	PIL	17168	1.253	72			0	7	36	28	15	43	34.32	12.1	35.72	20.95
2018	13	13 36032119	13 36032122		.4	PIL	16988	4.96	70			0	12	68	38	42	80	16.13	7.69	56.39	7.76
2018	13	13 36033027	13 36033029		.3	PIL	22810	4.995	34			0	3	18	14	7	21	4.20	4.03	10.41	1.93
2018	31	31 33091172	31 33091175		.4	PIL	23561	6.88	72			0	10	54	24	40	64	9.30	8.58	24.03	3.41
2018	31	31 33091186	31 33091190		.5	PIL	26764	9.769	72			0	21	83	51	53	104	10.65	8.14	47.24	6.59
2018	31	31 33091249	31 33091252		.4	PIL	20120	5.875	72			0	29	140	35	134	169	28.77	8.8	134.87	20.62
2018	31	31 33091253	31 33091255		.3	PIL	12822	2.808	70			0	8	32	22	18	40	14.25	8.61	26.63	6.14
2018	31	31 33091260	31 33091264		.5	PIL	12822	4.68	68			0	11	34	23	22	45	9.62	6.12	28.43	4.65
2018	31	31 33091326	31 33091329		.4	PIL	9886	2.887	68			0	2	21	10	13	23	7.97	6.79	12.78	1.19
2018	31	370 33031074	370 33031077		.4	PIL	16971	4.956	68			0	3	43	12	34	46	9.28	6.05	28.46	2.21
2018	31	370 33031078	31 33091141		.5	PIL	14482	5.286	68			0	10	36	20	26	46	8.70	5.97	27.29	4.05
2018	34	34 31052017	34 31052020		.4	PIL	12702	3.709	72			0	11	33	35	9	44	11.86	9.54	22.45	4.68

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2018	34	34 36041067	34 36041070		.4	PIL	6303	1.84	50			0	0	15	2	13	15	8.15	6.1	10.11	0.37
2018	34B	34B36011015	34B36011017		.3	PIL	7282	1.595	50			0	1	10	6	5	11	6.90	6.34	6.76	0.81
2018	38	38 31041072	38 31041075		.4	PIL	5570	1.626	50			0	3	11	12	2	14	8.61	6.3	9.67	1.58
2018	38	38 36031050	38 36031052		.3	PIL	3006	.658	50			0	4	10	6	8	14	21.28	8.11	12.25	3.36
2018	48	48 33011049	48 33011058		1.0	PIL	11213	8.185	68			0	17	69	63	23	86	10.51	5.51	57.03	3.91
2018	48	48 33011100	48 33011102		.3	PIL	8293	1.816	50			0	2	10	7	5	12	6.61	6.12	7.17	1.29
2018	48	48 34021009	48 34021013		.5	PIL	7020	2.562	50			0	2	14	7	9	16	6.25	5.61	9.19	0.81
2018	49	49 34012139	49 34012142		.4	PIL	6991	2.041	68			0	4	19	2	21	23	11.27	7.36	15.77	2.44
2018	49	49 34012150	49 34012152		.3	PIL	10837	2.373	68			0	4	16	5	15	20	8.43	7.1	11.60	2.68
2018	49	49 34012157	49 34012160		.4	PIL	10666	3.114	50			0	6	11	7	10	17	5.46	5.36	8.72	2.14
2018	79	79 36052012	79 36052015		.4	PIL	15118	4.414	72			0	3	57	10	50	60	13.59	9.24	34.35	2.29
2018	81I	81I32021058	81I32021060		.3	PIL	20980	4.595	2			0	2	11	0	13	13	2.83	2.45	8.08	1.84
2018	81I	81I33031026	81I33031028		.3	PIL	30615	6.705	2			0	4	11	0	15	15	2.24	2.23	7.83	2.71
2018	81I	81I33031060	81I33031063		.4	PIL	30615	8.94	2			0	5	18	0	23	23	2.57	2.08	13.43	2.97
2018	81I	81I33031079	81I33031081		.3	PIL	30615	6.705	2			0	3	13	0	16	16	2.39	2.23	8.83	2.32
2018	81I	81I33032033	81I33032046		.6	PIL	83464	36.56	14			0	16	79	13	82	95	2.60	1.8	49.67	4.19
2018	81I	81I33032055	81I33032058		.3	PIL	92389	20.23	18			0	7	45	9	43	52	2.57	2.38	20.64	2.92
2018	81I	81I34041096	81I34041100		.5	PIL	24462	8.929	2			0	6	14	0	20	20	2.24	2.08	10.45	2.39
2018	81I	81I34041231	81I34041234		.4	PIL	16908	4.937	2			0	0	12	2	10	12	2.43	2.41	6.72	0.33
2018	81I	81I34041242	81I34041246		.5	PIL	16306	5.952	2			0	0	20	0	20	20	3.36	2.3	13.63	0.54

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2018	81I	81I34041262	81I34041264		.3	PIL	16306	3.571	2			1	1	9	0	11	11	3.08	2.62	7.18	3.14
2018	89	89 35021025	89 35021027		.3	PIL	2978	.652	50			0	3	8	0	11	11	16.87	8.13	9.27	2.45
2018	89	89 35021107	89 35021109		.3	PIL	1951	.427	50			0	0	11	7	4	11	25.76	9.2	9.86	0.47
2018	89	89 36011100	89 36011101		.2	PIL	12516	1.827	68			0	6	37	27	16	43	23.54	7.57	36.53	9.51
2018	89	89 36011102	89 36011102		.1	PIL	16945	1.237	72			0	2	38	21	19	40	32.34	12.1	32.81	8.75
2018	90	90 32013057	90 32013059		.3	PIL	2663	.583	50			0	2	9	6	5	11	18.87	8.4	9.45	1.81
2018	92	92 33012006	92 33012007		.2	PIL	13019	1.901	74			0	6	24	7	23	30	15.78	8.23	22.38	7.74
2018	92	92 33012033	92 33012035		.3	PIL	22192	4.86	68			0	10	23	11	22	33	6.79	6.07	15.80	5.18
2018	92	92 33012052	92 33012059		.8	PIL	22084	12.90	68			0	23	116	60	79	139	10.78	5.12	93.34	6.93
2018	92	92 33012068	92 33012071		.4	PIL	11953	3.49	68			0	8	23	17	14	31	8.88	6.51	18.65	3.99
2018	96	96 35031326	96 35031329		.4	PIL	6329	1.848	50			0	4	8	9	3	12	6.49	6.1	7.08	1.66
2018	96	96 36023005	96 36023007		.3	PIL	8301	1.818	68			0	1	20	8	13	21	11.55	7.58	14.56	1.26
2018	96	96 36023012	96 36023014		.3	PIL	8301	1.818	68			0	5	15	10	10	20	11.00	7.58	13.56	3.77
2018	96	96 36023093	96 36023097		.5	PIL	8558	3.124	50			0	2	21	10	13	23	7.36	5.35	14.69	1.03
2018	104	104 34062002	104 34062004		.3	PIL	9839	2.155	60			0	2	22	4	20	24	11.14	8.91	14.04	1.68
2018	104	104 34062008	104 34062010		.3	PIL	9839	2.155	72			0	2	23	17	8	25	11.60	10.7	12.48	1.46
2018	104	104 34062012	104 34062014		.3	PIL	17655	3.866	72			0	7	34	18	23	41	10.61	9.47	18.54	3.76
2018	104	104 34062025	104 34062030		.6	PIL	15533	6.803	68			0	11	49	33	27	60	8.82	5.7	35.92	3.86
2018	173	173 33011088	173 33011092		.5	PIL	13632	4.976	68			0	19	48	43	24	67	13.46	6.05	49.38	9.18
2018	173	173 33011093	173 33011096		.4	PIL	13645	3.984	68			0	7	22	11	18	29	7.28	6.33	14.90	3.02

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2018	175	175 33011126	175 33011129		.4	PIL	8235	2.405	70			0	4	19	8	15	23	9.56	8.9	11.55	1.78
2018	221	221 32011114	221 32011116		.3	PIL	2185	.479	50			0	2	9	2	9	11	22.96	8.9	9.73	1.87
2018	222	222 32021032	222 32021035		.4	PIL	10062	2.938	68			0	9	21	2	28	30	10.21	6.76	19.60	4.78
2018	264	264 34011015	264 34011017		.3	PIL	2916	.639	50			0	2	9	5	6	11	17.21	8.18	9.30	1.78
2018	297	297 33011020	297 33011022		.3	PIL	6470	1.417	68			0	4	21	20	5	25	17.64	8.07	19.98	3.85
2018	298	298 33011006	298 33011008		.3	PIL	11953	2.618	72			0	14	35	41	8	49	18.72	10.2	33.79	10.53
2018	298	298 33012025	298 33012027		.3	PIL	10597	2.321	60			0	11	21	15	17	32	13.79	8.76	21.28	7.78
2018	298	298 33012028	298 33012028		.1	PIL	10597	.774	58			0	8	78	9	77	86	********	12.7	81.93	31.66
2018	298	298 33012029	298 33012031		.3	PIL	16283	3.566	68			0	5	28	3	30	33	9.25	6.48	20.38	3.77
2018	298	298 33012034	298 33012034		.1	PIL	15096	1.102	70			0	5	15	11	9	20	18.15	10.7	14.75	12.30
2018	298	298 33012055	298 33012057		.3	PIL	8389	1.837	68			0	5	15	3	17	20	10.89	7.56	13.50	3.75
2018	298	298 33012080	298 33012084		.5	PIL	7650	2.792	50			0	3	14	7	10	17	6.09	5.5	9.57	1.08
2018	298	298 33012086	298 33012088		.3	PIL	7784	1.705	50			1	2	9	9	3	12	7.04	6.23	7.46	3.62
2018	318	318 35021120	318 35021122		.3	PIL	6594	1.444	50			0	3	8	6	5	11	7.62	6.51	7.16	1.89
2018	318	318 35021153	318 35021155		.3	PIL	6594	1.444	50			0	2	10	4	8	12	8.31	6.51	8.16	1.47
2018	318	318 35021155	318 35011000		.3	PIL	6594	1.444	50			0	4	28	17	15	32	22.16	6.51	28.16	4.14
2018	321	321 33011018	321 33011020		.3	PIL	6790	1.487	50			0	2	11	7	6	13	8.74	6.46	9.04	1.53
2018	321	321 33011021	321 33011023		.3	PIL	6790	1.487	50			0	3	9	3	9	12	8.07	6.46	8.04	1.98
2018	321	321 33011033	321 33011035		.3	PIL	6790	1.487	50			0	2	9	5	6	11	7.40	6.46	7.04	1.35
2018	370	370 33031124	370 33031126		.3	PIL	12323	2.699	68			0	4	19	0	23	23	8.52	6.89	13.45	2.77

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2018	370	370 33031152	370 33031156		.5	PIL	21329	7.785	42			0	18	67	27	58	85	10.92	5.47	57.99	10.39
2018	414	414 35041328	414 35041335		.8	PIL	9227	5.389	50			0	7	36	3	40	43	7.98	4.74	28.67	1.90
2018	414	414 35041335	414 35041337		.3	PIL	3313	.726	50			0	2	9	0	11	11	15.15	7.89	9.07	1.74
2018	481	481 34022015	481 34022018		.4	PIL	14599	4.263	68			0	15	44	27	32	59	13.84	6.24	43.91	9.29
2018	481	481 34022018	481 34022020		.3	PIL	14128	3.094	68			0	5	18	10	13	23	7.43	6.68	12.05	2.98
2018	635	635 33011000	635 33011002		.3	PIL	21767	4.767	62			0	5	42	13	34	47	9.86	8.56	21.35	3.02
2018	635	635 33011010	635 33011010		.1	PIL	22976	1.677	42			0	2	19	1	20	21	12.52	7.62	15.18	7.37
2018	635	635 33011016	635 33011018		.3	PIL	28819	6.311	24			0	5	23	21	7	28	4.44	3.96	14.05	3.00
2018	635	635 33011018	635 33011020		.3	PIL	28819	6.311	24			0	6	22	22	6	28	4.44	3.96	14.05	3.49
2018	635	635 33011020	635 33011022		.3	PIL	28819	6.311	24			0	4	24	1	27	28	4.44	3.96	14.05	2.52
2018	690I	690I33014001	690I33014012		.5	PIL	34474	12.58	14			0	12	38	5	45	50	3.97	2.17	34.40	4.66
2018	930B	930B33011001	930B33011003		.3	PIL	16344	3.579	62			0	10	24	14	20	34	9.50	9.03	14.74	4.70
2018	930B	930B33011004	930B33011006		.3	PIL	16344	3.579	62			0	12	55	15	52	67	18.72	9.03	47.74	10.03
2018	930C	930C33011003	930C33011004		.2	PIL	10155	1.483	74			0	13	24	10	27	37	24.95	8.75	31.05	17.41
2018	930C	930C33011005	930C33011006		.2	PIL	15996	2.335	72			1	15	47	25	38	63	26.98	10.5	49.43	28.07
2018	930P	930P33011005	930P33011006		.2	PIL	15988	2.334	60			0	10	14	2	22	24	10.28	8.75	13.22	8.61

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Region 3 PIL Report

Ascending Route Sequence for HAL Year 2019

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HAL Year	Time Period			PIL Accidents	PIL LOC	SDL Accidents	SDL LOC	PII LOC	HAL Created
2019	01-SEP-2017	thru	31-AUG-2019	Linear&Intersection	99.9	Linear&Intersection	95.9	99.9	30-MAR-2020

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2019	5	5 31072028	5 31072030		.3	PIL	30867	6.76	72			0	18	47	35	30	65	9.62	9.34	21.67	6.89
2019	5	5 33083029	5 33083030		.2	PIL	23168	3.383	72			0	10	36	4	42	46	13.60	10.5	24.31	9.45
2019	5	5 35061091	5 35061095		.5	PIL	8843	3.228	68			0	10	24	10	24	34	10.53	6.9	21.96	4.42
2019	11	11 32022002	11 32022009		.8	PIL	10257	5.99	68			0	17	58	36	39	75	12.52	6.08	52.66	5.30
2019	11	11 32022011	11 32022013		.3	PIL	6030	1.321	68			0	6	21	8	19	27	20.44	8.54	22.07	5.82
2019	11	11 33031018	11 33031021		.4	PIL	4924	1.438	50			0	1	14	6	9	15	10.43	6.62	11.09	0.89
2019	11	11 33031141	11 33031145		.5	PIL	11313	4.129	46			0	9	12	0	21	21	5.09	4.08	12.62	3.14
2019	11	11 33031153	11 33031156		.4	PIL	9051	2.643	60			0	10	29	24	15	39	14.76	8.53	26.76	6.05
2019	11	11 34041031	11 34041035		.5	PIL	7739	2.825	68			0	3	24	10	17	27	9.56	7.1	16.46	1.52
2019	11	11 34041228	11 34041232		.5	PIL	4451	1.625	50			0	5	16	13	8	21	12.92	6.41	16.58	2.50
2019	13	13 32041031	13 32041035		.5	PIL	13938	5.087	60			0	4	42	12	34	46	9.04	7.48	22.45	1.76
2019	13	13 32042003	13 32042006		.4	PIL	14790	4.319	72			0	5	39	21	23	44	10.19	10.1	16.32	1.91
2019	13	13 32042008	13 32042011		.4	PIL	15944	4.656	72			0	6	43	12	37	49	10.52	9.93	19.16	2.37
2019	13	13 32042023	13 32042025		.3	PIL	9045	1.981	72			0	9	16	18	7	25	12.62	11.7	12.30	4.92
2019	13	13 34071163	13 34071167		.5	PIL	2913	1.063	50			0	4	12	9	7	16	15.05	7.19	13.11	2.05
2019	13	13 34071183	13 34071186		.4	PIL	5985	1.748	50			0	0	12	0	12	12	6.86	6.29	7.25	0.28
2019	13	13 36032011	13 36032015		.5	PIL	21777	7.949	72			0	21	85	27	79	106	13.34	9.12	55.05	7.93
2019	13	13 36032116	13 36032117		.2	PIL	17916	2.616	70			0	8	38	20	26	46	17.58	9.52	32.11	10.40

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2019	13	13 36032118	13 36032118		.1	PIL	17555	1.282	72			0	8	34	23	19	42	32.76	12.9	33.78	23.55
2019	13	13 36032119	13 36032122		.4	PIL	16828	4.914	70			0	12	67	31	48	79	16.08	8.42	52.91	7.71
2019	13	13 36033027	13 36033030		.4	PIL	21235	6.201	34			1	7	25	17	16	33	5.32	3.9	19.61	5.15
2019	13	13 36033060	13 36033062		.3	PIL	14304	3.133	40			0	2	18	0	20	20	6.38	5.5	11.35	1.80
2019	31	31 33091173	31 33091175		.3	PIL	23949	5.245	72			0	8	46	21	33	54	10.30	9.73	20.38	3.88
2019	31	31 33091186	31 33091190		.5	PIL	26800	9.782	72			0	20	83	40	63	103	10.53	8.86	40.30	5.71
2019	31	31 33091249	31 33091250		.2	PIL	32780	4.786	74			0	18	107	21	104	125	26.12	7.08	104.56	29.23
2019	31	31 33091251	31 33091252		.2	PIL	12796	1.868	72			0	19	45	10	54	64	34.26	11.9	52.03	26.37
2019	31	31 33091253	31 33091255		.3	PIL	12796	2.802	70			0	10	32	20	22	42	14.99	9.39	27.12	7.58
2019	31	31 33091260	31 33091264		.5	PIL	12796	4.671	68			0	13	28	20	21	41	8.78	6.38	23.58	5.06
2019	31	31 33091267	31 33091271		.5	PIL	11169	4.077	68			0	7	21	14	14	28	6.87	6.56	12.79	2.24
2019	31	370 33031074	370 33031077		.4	PIL	16951	4.95	68			0	3	53	11	45	56	11.31	6.31	37.54	2.72
2019	31	370 33031078	31 33091141		.5	PIL	14484	5.287	68			0	8	32	15	25	40	7.57	6.23	20.28	2.94
2019	34	34 31052017	34 31052020		.4	PIL	12950	3.781	72			0	12	36	33	15	48	12.70	10.3	23.76	5.19
2019	38	38 31041072	38 31041075		.4	PIL	5562	1.624	50			0	1	11	10	2	12	7.39	6.41	7.58	0.69
2019	38	38 36031050	38 36031052		.3	PIL	2928	.641	50			0	5	9	6	8	14	21.84	8.31	12.26	4.31
2019	48	48 33011049	48 33011058		1.0	PIL	11190	8.169	68			0	16	76	69	23	92	11.26	5.76	61.53	3.99
2019	48	48 33011100	48 33011104		.5	PIL	8113	2.961	50			0	4	14	11	7	18	6.08	5.51	9.95	1.42
2019	48	48 34021009	48 34021013		.5	PIL	7078	2.583	50			0	2	13	7	8	15	5.81	5.7	7.97	0.78
2019	49	49 34012139	49 34012143		.5	PIL	8374	3.057	68			0	6	18	0	24	24	7.85	6.98	12.60	2.20

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									Highway/Int Char.		--- Number of Accidents ---								
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2019	49	49 34012149	49 34012152		.4	PIL	10834	3.164	68			0	6	23	4	25	29	9.17	6.93	17.20	3.21
2019	49	49 34012157	49 34012159		.3	PIL	10649	2.332	50			0	5	9	7	7	14	6.00	5.84	7.66	2.69
2019	49	49 34012159	49 34012161		.3	PIL	10649	2.332	50			0	5	11	7	9	16	6.86	5.84	9.66	3.03
2019	79	79 36052012	79 36052015		.4	PIL	15485	4.522	72			0	2	57	11	48	59	13.05	9.98	30.01	1.74
2019	81I	81I32021056	81I32021058		.3	PIL	20967	4.592	2			0	1	11	0	12	12	2.61	2.5	6.95	1.33
2019	81I	81I32021058	81I32021060		.3	PIL	20967	4.592	2			0	1	14	0	15	15	3.27	2.5	9.95	1.69
2019	81I	81I32021103	81I32021106		.4	PIL	20967	6.122	2			0	3	14	0	17	17	2.78	2.33	10.27	2.40
2019	81I	81I32023086	81I32023088		.3	PIL	29816	6.53	2			0	3	12	0	15	15	2.30	2.29	7.82	2.68
2019	81I	81I33031019	81I33031021		.3	PIL	32048	7.019	2			0	4	13	3	14	17	2.42	2.25	9.28	3.60
2019	81I	81I33031078	81I33031082		.5	PIL	32751	11.95	2			0	7	20	0	27	27	2.26	2	13.85	3.48
2019	81I	81I33032033	81I33032046		.5	PIL	79719	29.10	14			0	11	73	13	71	84	2.89	1.97	45.30	4.06
2019	81I	81I33032053	81I33032164		.8	PIL	86246	50.37	18			0	26	107	15	118	133	2.64	1.92	61.98	4.77
2019	81I	81I34041231	81I34041233		.3	PIL	17388	3.808	2			0	0	11	1	10	11	2.89	2.63	6.81	0.57
2019	81I	81I34041241	81I34041246		.6	PIL	18890	8.274	2			0	0	23	0	23	23	2.78	2.17	13.90	0.58
2019	89	89 35021107	89 35021111		.5	PIL	1959	.715	50			0	0	13	9	4	13	18.18	8.05	11.06	0.34
2019	89	89 36011100	89 36011101		.2	PIL	12492	1.824	68			0	7	46	26	27	53	29.06	7.87	46.20	12.10
2019	89	89 36011102	89 36011102		.1	PIL	17071	1.246	72			0	6	40	28	18	46	36.92	13.0	38.01	19.72
2019	92	92 33012006	92 33012007		.2	PIL	13272	1.938	74			0	5	25	6	24	30	15.48	8.6	21.72	6.80
2019	92	92 33012052	92 33012058		.7	PIL	23422	11.97	68			0	22	103	60	65	125	10.44	5.41	80.36	7.51
2019	92	92 33012068	92 33012072		.5	PIL	11685	4.265	68			0	8	25	15	18	33	7.74	6.5	17.09	2.91

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INTERSECTION ACCIDENTS ARE INCLUDED.

All Routes

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									Highway/Int Char.			--- Number of Accidents ---								
HAL Year	Route	Begins at Reference Marker	Ends at Reference Marker	Int#	Seg Lgth	Hal Typ	Avg AADT	Exposure MVM or MEV	Type (Clsf Cde)	Int Cntl	Int Config	Fat	Inj	Pdo	Int	Not At Int	Total Accd	Accd Per Exposure	UCL	Reduct Index	Severe Weight Rank
2019	173	173 33011088	173 33011091		.4	PIL	13765	4.019	68			0	15	39	34	20	54	13.44	6.58	39.01	9.33
2019	173	173 33011093	173 33011096		.4	PIL	13721	4.007	68			0	5	24	12	17	29	7.24	6.59	14.05	2.26
2019	173	173 33011128	173 33011130		.3	PIL	11117	2.435	68			0	3	18	7	14	21	8.62	7.35	11.92	2.21
2019	175	175 33011127	175 33011129		.3	PIL	8239	1.804	70			0	5	17	8	14	22	12.20	10.3	12.42	3.34
2019	175	175 33011129	175 33011131		.3	PIL	7922	1.735	70			0	3	18	6	15	21	12.10	10.4	11.79	2.18
2019	222	222 32021032	222 32021035		.4	PIL	8880	2.593	68			0	6	18	1	23	24	9.26	7.24	14.33	3.13
2019	290	290 33012008	290 33012012		.5	PIL	6381	2.329	68			0	8	27	23	12	35	15.03	7.43	26.31	4.26
2019	290	290 33012020	290 33012022		.3	PIL	17525	3.838	68			1	10	18	14	15	29	7.56	6.65	14.68	8.23
2019	290	290 33012034	290 33012036		.3	PIL	15173	3.323	68			0	8	15	9	14	23	6.92	6.85	10.61	4.12
2019	297	297 33011020	297 33011022		.3	PIL	6466	1.416	68			0	3	19	19	3	22	15.54	8.39	16.72	2.99
2019	298	298 33011006	298 33011008		.3	PIL	10095	2.211	72			0	10	29	33	6	39	17.64	11.5	24.83	7.39
2019	318	318 35021118	318 35021122		.5	PIL	6633	2.421	50			0	4	12	9	7	16	6.61	5.79	9.41	1.47
2019	318	318 35021153	318 35021155		.3	PIL	6633	1.453	50			1	4	7	4	8	12	8.26	6.6	8.05	6.62
2019	318	318 35021155	318 35011000		.3	PIL	6633	1.453	50			0	4	22	15	11	26	17.89	6.6	22.05	3.98
2019	321	321 33011003	321 33011005		.3	PIL	7023	1.538	50			0	0	11	0	11	11	7.15	6.5	6.82	0.35
2019	321	321 33011018	321 33011020		.3	PIL	7023	1.538	50			0	3	12	7	8	15	9.75	6.5	10.82	2.37
2019	321	321 33011033	321 33011035		.3	PIL	7023	1.538	50			0	3	8	4	7	11	7.15	6.5	6.82	1.91
2019	370	370 33031152	370 33031156		.5	PIL	21799	7.957	42			0	11	61	22	50	72	9.05	5.38	44.79	5.84
2019	414	414 35041328	414 35041337		1.0	PIL	8114	5.923	50			0	9	47	2	54	56	9.45	4.73	39.89	2.23
2019	481	481 33011004	481 33011006		.3	PIL	50183	10.99	14			1	3	22	4	22	26	2.37	2.36	11.38	2.34

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									Highway/Int Char.			--- Number of Accidents ---								
HAL Year	Route	Begins at Reference Marker	Ends at Reference Marker	Int#	Seg Lgth	Hal Typ	Avg AADT	Exposure MVM or MEV	Type (Clsf Cde)	Int Cntl	Int Config	Fat	Inj	Pdo	Int	Not At Int	Total Accd	Accd Per Exposure	UCL	Reduct Index	Severe Weight Rank
2019	481	481 34022015	481 34022018		.4	PIL	15981	4.666	68			0	11	50	18	43	61	13.07	6.39	43.60	7.27
2019	635	635 33011000	635 33011002		.3	PIL	21749	4.763	62			0	5	38	16	27	43	9.03	8.75	16.66	2.67
2019	635	635 33011003	635 33011005		.3	PIL	21436	4.694	60			0	8	31	12	27	39	8.31	7.59	17.27	4.31
2019	635	635 33011010	635 33011010		.1	PIL	21436	1.565	42			0	5	18	1	22	23	14.70	7.67	17.65	15.30
2019	635	635 33011020	635 33011022		.3	PIL	29560	6.474	24			0	6	29	2	33	35	5.41	4.95	15.97	3.32
2019	690I	690I33014001	690I33014012		.5	PIL	34567	12.62	14			0	11	45	5	51	56	4.44	2.29	39.22	4.85
2019	930B	930B33011001	930B33011003		.3	PIL	16414	3.595	62			0	13	28	20	21	41	11.40	9.22	21.12	7.65
2019	930B	930B33011004	930B33011006		.3	PIL	16414	3.595	62			0	15	59	19	55	74	20.58	9.22	54.12	13.38
2019	930C	930C33011003	930C33011004		.2	PIL	12501	1.825	74			0	12	25	11	26	37	20.27	8.72	29.21	15.99
2019	930C	930C33011005	930C33011006		.2	PIL	16017	2.338	72			1	13	52	27	39	66	28.23	11.3	51.01	25.47
2019	930P	930P33011005	930P33011006		.2	PIL	16057	2.344	60			0	7	19	2	24	26	11.09	8.76	15.15	7.14

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INTERSECTION ACCIDENTS ARE INCLUDED.

EL.TE 156 a (ver. 03/06)

TE&S File **31.18-31**

1. LOCATION

IDENT. NO. : '18-'19' 3 3 0 0 1 5

[X] TOWN
[ ] CITY
[ ] VILLAGE
of : Cicero

COUNTY : Onondaga

STATE OF NEW YORK
DEPARTMENT of TRANSPORTATION
TRAFFIC and SAFETY DIVISION

HIGHWAY SAFETY INVESTIGATION REPORT

MAIN OFFICE USE :

DIVISION FILE _____

REVIEWED BY _____

SCHEDULED for Befr & Aftr [ ]

ROUTE NO. OR STREET NAME	STATE HIGHWAY NO.	FROM OR AT REFERENCE MARKER
Route 31	452	3 1 3 3 0 9 1 2 4 9
(if any) Intrs. with ROUTE NO. OR STREET NAME	STATE HIGHWAY NO.	TO REFERENCE MARKER
Route 11 to just east of I-81 NB ramps	NA	3 1 3 3 0 9 1 2 5 2

2. REASON for INVESTIGATION

- [X] a. IDENTIFIED by ACCIDENT SURVEILLANCE SYSTEM
- [ ] b. POLICE HAZARD REPORT
- [ ] c. RESPONSE to COMPLAINT or INQUIRY
- [ ] d. REGIONALLY INITIATED
- [ ] e. OTHER: _____

3. RECOMMENDATION

- [ ] a. CAPITAL IMPROVEMENT (Initiate Proj. Devel. Study) _____
- [ ] b. TRAFFIC CONTROL IMPROVEMENT
- [X] c. MAINTENANCE IMPROVEMENT
- [ ] d. OTHER:___ _____
- [ ] e. NONE

sections 4 & 5 completed below

4. DISCUSSION (2nd form used if additional space is required.) [X] (Checked if second form is used.)

a. PROBLEMS IDENTIFIED

1) Route 31 from Route 11 (RM 1249) to just east of the Interstate 81 NB ramps (RM 1252) is in the T/o Cicero, in Onondaga county. Rt 31 is signed as an east/west highway, actual direction of highway in the study area is east/west. This HSI is # 4 (out of 127) on the 2017 PIL list, with a severity index of 17.56. This section of Route 31 is classified as an Urban Principle Arterial (other street), has an AADT of 12,612 to 23,947 (Traffic Data Viewer), and is on the National Highway System (NHS).The study area for this section of Rt 31 is approximately 0.4 miles long. Route 31 in the study area is an undivided four lane highway, with 11 – 13-foot travel lanes in both directions, and a TWLTL east of the Interstate 81. The speed limit on Route 31 in the study area is 35 MPH. Currently the centerline is marked as no passing on Route 31 within the study area. CARDS are/not in place in the study area because the speed limit is below 45 MPH.

b. PROPOSED SOLUTION

1) Various sign panels are worn/faded and need replacing.

2) Implement and prioritize various short term and intermediate projects to address safety and operational needs until the future interchange project is programmed.

c. ACTION TAKEN

1) Memo sent to the Residency to complete sign work.

2) Traffic and Safety Group held an in house meeting on 3/20/19 to discuss alternatives for future interim safety projects to address both short term and intermediate safety needs along the Route 31 corridor. Traffic to further analyze and review potential short term and intermediate projects to determine if a future capital project is feasible.

d. CRASH RELATED INFORMATION

		EXISTING PER YEAR CONDITION	PER YEAR REDUCTION
CALCULATED RATE LINEAR	0.94 Acc/Mev	SEVERE	
STATEWIDE RATE LINEAR	0.23 Acc/Mev	TOTAL	

5. CRASH EXPERIENCE 218 Acc in 3 YR

NUMBR of MNTHS	PERIOD BEGINNING with MONTH	PERIOD BEGINNING with YEAR	NUMBER of ACCIDENTS Fatal Acc.	Personl Injury Acc.	Property Damage Acc.	Non - Reportbl Acc.
36						
08	05	15	1	9	23	19
12	01	16	0	14	40	21
12	01	17	0	14	39	19
04	01	18	0	3	13	3
TOTALS			**1**	**40**	**115**	**62**
			218			

6. BENEFIT / COST ANALYSIS

[ ] Box checked = Benefit / Cost calculations attached

PRINCIPAL INVESTIGATOR

TITLE CE II

TE & S APPROVAL BY

DATE

HIGHWAY SAFETY INVESTIGATION
TE-156 FORM

4 Discussion

a) Problems Identified

2) The intersection of Route 31 at Route 11 is a four-leg intersection, controlled by a three color signal. The intersection accident rate for Route 31 at Route 11 is 0.94 ACC/MEV, which is 4.1 times the state average of 0.23 ACC/MEV. (4 leg intersection, Urban, Left Turn, Signal, 5 or more lanes, All Types, 1/1/16 to 12/31/17. The majority of accidents at this intersection are rear end, and left turn accidents.

3) The intersection of Route 31 at Interstate 81 SB ramps is a four-leg intersection, controlled by a three color signal. The north leg is the Interstate 81 SB off ramp, traffic on this leg is entering only. The south leg is the Interstate 81 SB on ramp, traffic on this leg is outgoing only. The intersection accident rate for Route 31 at Interstate 81 SB ramps is 1.16 ACC/MEV, which is 2.1 times the state average of 0.55 ACC/MEV. (4 leg intersection, Urban, Signal, 1 – 4 lanes, 1/1/16 to 12/31/17. The majority of the accidents at this intersection are rear end, and left turn accidents.

4) The intersection of Route 31 at Interstate 81 NB ramps is a four-leg intersection, controlled by a three color signal. The north leg is Pardee Rd leading to the Interstate 81 NB on ramp. Traffic on this leg is two way. The south leg is the Interstate 81 NB off ramp. The intersection accident rate for Route 31 at Interstate 81 NB ramps is 1.79 ACC/MEV, which is 3.3 times the state average of 0.55 ACC/MEV. (4 leg intersection, Urban, Signal, 1 – 4 lanes, 1/1/16 to 12/31/17. The majority of the accidents at this intersection are rear end, and left turn accidents.

5) The linear accident rate was not considered relevant for this study due to the majority of the accidents occurring at the intersections.

6) Calculated accident severity for injury is 40/218 = 18.35%. State average accident severity for injury is 22.84%. (Free access, Urban, undivided, 4 lanes, all accident types 1/1/16 to 12/31/17).

a) Problems Identified (continued)

7) There were 218 out of 358 accidents that were plotted on the collision diagram that occurred within the study area, resulting in 40 injuries. Out of the 358 accidents 140 accidents were described as being outside the immediate study area or were found to be miscodes occurring at an entirely different location.

8) There is a EB Rt. 31 rear end crash pattern on the west approach to Rt. 11 intersection involving (10 Acc.) There is another rear end crash pattern along EB Rt. 31 at the I-81 SB On Ramp involving (15 Acc.) There is a rear end crash pattern along WB Rt. 31 at the I-81 SB Off Ramp (5 Acc.) There is a rear end crash pattern along Rt. 31 WB at Rt. 11 involving (6 Acc.) There is a rear end crash pattern along Rt. 31 WB at I-81 NB On Ramp/Pardee Rd. involving (13 Acc.)

   There is a WB. Rt. 31 Left Turn/Head On crash pattern at Rt. 11 involving (8 Acc.) There is a small pattern of EB Rt. 31 Left Turn/Head On crashes involving vehicles turning into the Empower Credit Union (3 Acc.) There is a pattern of Rt. 31 WB Left Turn/Head on crash pattern to I-81 SB On Ramp under permissive Left Turn phasing (6 Acc.).

   There is a Rt. 31 EB Left Turn/Head on pattern at the I-81 NB On ramp at Pardee Rd. under permissive left turn phasing (9 Acc.) A no turn on red prohibition was implemented for the I-81 NB offramp in 2001 to eliminate the potential for right angle crashes. There were 2 crashes that occurred at the bottom of the I-81 off ramp that involved right angle crashes. One of the crashes involved a bicyclist crossing the ramp in an EB direction hit by a truck making a right on red. The second accident involved a motorist heading down the I-81 NB off ramp failing to stop for the red light colliding with an EB Rt. 31 motorist listing the cause as traffic control disregard. The prohibition of right turn movement for the NB I-81 offramp to head EB on Rt. 31 has been rescinded due to capacity reasons resulting in traffic backing up the NB offramp onto mainline.

9) There are 2 distinct Left Turn/Head On small crash patterns at driveways both along WB Rt. 31, the first involves motorists making lefts into the Byrne Dairy Convenient Mart (3 Acc.), the second involves motorists making lefts into the Kwik Fill/Red Apple Mart (4 Acc.)

a) Problems Identified (continued)

10) There are 2 distinct Left Turn/Head On crash patterns at driveways both along EB Rt. 31, the first involves motorists making lefts into the Dunkin Donuts Restaurant (6 Acc.), the second involves motorists making lefts into the Mc Donald's Restaurant (8 Acc.) The Left turn/Head On crash pattern at Mc Donald's listed a contributing factor as motorist being routinely waived on by motorists in the interior lane resulting in crashes involving WB Rt. 31 motorists in the adjacent curb lane. There were accident patterns related to left turning motorists not properly yielding to oncoming WB Rt. 31 traffic due to the shadowing effect caused by stopped vehicles in the interior lane which shield EB Rt. 31 turning traffic from being seen by approaching WB traffic in the curb lane. There were a total of 8 accidents including a fatal motorcycle accident that occurred along Rt. 31 EB at the Mc Donald's driveway occurring as a result of Rt. 31 EB left turning vehicles failing to yield right of way to oncoming traffic as a result of WB Rt. 31 motorists leaving a courtesy gap in the stopped traffic queue. There were 2 EB left turn head on crashes related to the Empower Credit Union are due to courtesy gaps similar to the Mc Donald's Driveway.

11) Various sign panels are worn/faded and need replacing.

12) There were 2 fatalities within the limits of the study area from 1/1/1987 to 4/30/2018. The first fatality occurred on 6/9/2008 at 7:11 AM when V1 EB on Route 31 attempted a left turn into McDonalds, was waved through by another vehicle, and struck V2, a motorcycle, WB on Route 31. The motorcycle driver died. The cause listed was failure to yield. This accident occurred in daylight and dry, clear conditions.

The second fatality occurred on 9/18/2015 at 5:40 PM when a large commercial truck on the Interstate 81 SB off ramp failed to stop and struck a vehicle EB on Route 31. Two people in the EB vehicle died. The causes listed were brakes defective and oversized vehicle. This accident occurred in daylight and dry, clear conditions.

13) An examination of location file 31.18-31 found the following: A PSAP study dated 8/30/18 for Route 31 at Route 11 recommended upgrading all pedestrian signals to audible pedestrian signals. A PSAP study dated 5/29/18 for Route 31 at I 81 SB ramps concluded that upgrades were needed because of the pedestrian origins/destinations in the area. Recommended

a) Problems Identified (continued)

done now because of the age of the equipment. Any improvements to be completed when the entire 3 color signal is replaced will be done under a future signal or I-81/Rt. 31 Interchange project. A PSAP study dated 8/14/18 for Route 31 at Pardee Rd. concluded that no accident countermeasures were needed because there was no accident history to justify doing pedestrian upgrades to this intersection. A letter dated 4/12/13 installed a "Right on Green Arrow Only" overhead sign for the Pardee Rd. SB approach. A letter dated 10/13/11, in response to a request from NYS Assemblyman Donald Miller, stated that left turns, and right on red, from Pardee Rd. SB, would be prohibited. These changes were implemented in a letter dated 8/29/11. A letter dated 3/26/09 installed a "Left Turn Yield on Green Ball" overhead sign facing the I 81 NB off ramp.

Signal information: Date: April 21, 2021

Signal No. 7 - Route 11 at 31 Town of Cicero, Onondaga County

Signal File/ Location File (31.18-11/31):

- Signal put into operation as a fully-actuated signal with two signal faces per approach, July 1977.
- Signal fully replaced under D254536, summer of 1994. Reconstruction of Route 11 and 31 were done as part of this contract.
- "No Turn on Red" restriction installed on 1/22/1997 as part of Case No. 3960415 and 3960458, for the Route 31 eastbound approach, during the PM peak hours of 3:00 P.M. to 6:00 P.M.
- "No Turn on Red" request denied on 12/2/1997 for the northbound Route 11 approach as part of Case No. 3960415.
- Request to make right lane on Route 31 westbound approach a right-only lane, denied as part of Case No. 3010082.
- "No Turn on Red" restriction installed as part of Case No. 3010116, for the Route 11 northbound approach. Sign installed 9/6/2001.
- Timing modifications made on 3/8/2001.

Problems Identified (continued)

- Northbound Route 11 right-turn only lane installed as part of a permit project for the Cicero Market Commercial Development (Walmart), 2004-2005.

- New timing and controller installed 12/15/2006.

- Timing modifications made on 11/15/2011.

- Recommendation made to upgrade all pedestrian signals to audible pedestrian signals as part of the Pedestrian Safety Action Plan, 8/03/2018. Work order memo to be sent out at a later date.

Date: April 21, 2021

Signal No. 181 – Route 31 at I-81 SB ramps
Town of Cicero, Onondaga County

Signal File/ Location File (31.18-11/31):

- New signal design and roadway alignment performed under PIN 3500.81.111, August 8, 1973.

- "No Right Turn on Red" Study performed, but determined there are no issues turning right on red.

- Notice of order officiates the operation of this intersection as a fully-actuated signal on 12/8/1986.

- Timing changes made 4/8/1998.

- Timing changes made 4/5/2001.

- New controller installed 12/2006.

- Timing changes made 11/15/2011.

- HSI completed July 2009, determined a "Left Turn Yield on Green Ball" sign be installed for the Route 31 WB approach. Work as completed 9/24/2009.

- Recommendation to upgrade pedestrian facilities at this signal made as part of the Pedestrian Safety Action Plan, but due to the age of the structure, replacement of the entire signal is required. A future contract (PIN 303768 – Route 31 at I-81 Safety Improvement Project) will perform this work.

Problems Identified (continued)

Date: April 21, 2021

Signal No. 182 – Route 31 at I-81 NB ramp and Pardee Rd.
Town of Cicero, Onondaga County

Signal File/ Location File (31.18-11/31):

- Signal installed under Contract FIRCM 73-118, February 10, 1976.
- New signal heads, and controller cabinet installed 3/17/1992.
- Signal phasing modified for off ramp and Pardee Rd. to be same phase number. Work was a direct result of signal case no. 3960306, and completed 6/3/1996.
- Signal timing adjusted 4/8/1998.
- "No Turn on Red" sign installed facing Pardee Rd. as a direct result of signal case no. 3980393. Work completed 2/19/1999.
- Signal timing modification made 5/26/2000.
- Wireless control unit installed to coordinate signal with adjacent signals nearby. Work completed 4/25/2001.
- "No Turn on Red" restricted for northbound I-81 off-ramp approach on 12/20/2001. Work completed as a direct result of signal case no. 3010236.
- New signal controller installed 12/15/2006.
- "Left Turn Yield on Green Ball" sign installed for the northbound I-81 off ramp approach on 4/8/2009. Work completed as a direct result of signal case no. 3090032.
- Signal timing adjustments made on 11/15/2011.
- Phasing and sign changes made as a direct result of signal case no. 3100123. Left turns were restricted for southbound Pardee Rd. traffic, and the appropriate sign/signal phasing adjustments were made to support this modification. Work was completed 9/27/2011. Additional green time could then be used to minimize the long traffic queues on the I-81 NB off ramp.

a) Problems Identified (continued)

14) **CONCLUSIONS/RECOMMENDATIONS:** In summary, there were 218 plotted accidents of which 40 resulted in injuries. The majority of the crashes coincide with AM and PM peak hour volumes due to heavy commuter traffic volumes as high as 24,000 AADT. There were numerous patterns of left turn head on crashes at the various signalized intersections and driveways accounting for 28% of all crashes and 33% of the total number of left turn crashes resulted in injury. There were numerous rear end crashes at the various signalized intersections accounting for 40% of all crashes and 40% of the total number of rear end crashes resulted in injury. There were 34 sideswipe/overtaking crashes throughout the corridor accounting for 16% of the total crashes 2 of which resulted in injury. There were 25 right angle crashes representing 11% of the total number of crashes and 13% of the total number of right angle crashes resulted in injury.

There is a continuing pattern of rear end crashes along the Route 31 EB and WB signalized approach to Route 11 mainly due to unsafe speed, following too closely and driver inattention. Traffic during PM peak routinely backs up along the Rt. 31 EB approach to Rt. 11. There is a significant rear end crash pattern along the EB approach to the signalized intersection with the I-81 SB on ramp that queues back sufficiently to block Crabtree Lane East and the Quick Fill/Red Apple Gas Station and Byrne Dairy driveways. There is a small cluster of left turn head on crashes involving WB Rt. 31 motorists making turns into Crabtree Lane East and those entering Quick Fill/Red Apple Gas Station. There is a small cluster of rear end crashes located at the EB approach to the I-81 off ramp. The WB Route 31 approach has a significant rear end crash pattern associated with motorists speeding up to change lanes into the left most interior lane creating an unbalanced lane use for motorists attempting to position themselves into the I-81 SB on ramp turn lane. The opposing left turn lanes for the I-81 on ramps are too short and fill up quickly in both AM and PM peak hours spilling over into the adjacent through lanes. The 3 closely spaced signalized intersections at Rt. 11, I-81 SB ramps, I-81 at NB ramps are timed to optimize peak hours for both AM and PM peak hours in reducing motorist delay by providing additional green time to minimize traffic queues that cause traffic to back up along the I-81 NB offramp onto mainline I-81 NB. Likewise, additional green time is allowed for the WB Rt. 31 left turn to I-81 SB on ramp by providing a lead and lag left turn phasing to minimize the extent that traffic queues back within the short WB left turn lane.

a) Problems Identified (continued)

15) **CONCLUSIONS/RECOMMENDATIONS:** (Cont.) Long term improvements/recommendations will be addressed under a more comprehensive future "interchange" project to address greater needs in improving overall capacity/safety needs and reducing driver delays especially during peak hours. This project is currently on the Capital Program as a “wish list” project with a 22 M estimate and will address safety concerns along the Route 31 corridor near the I-81 Interchange.

In addition to the large long term project, the following is a list of potential short term and intermediate projects to address various safety and operational needs for the Rt. 31 corridor:

- Placement of an I-81 SB "Loop Ramp" that would eliminate the WB Rt. 31 left turn crossing maneuver and its associated accident pattern. Discussions would need to take place with the Town to determine the feasibility of acquiring property immediately west of the I-81 bridges along the north side of Route 31 in the northwest quadrant. *(Intermediate measure)*

- Extension of the Rt. Turn lane for the I-81 NB off ramp to Rt. 31 will accommodate for PM peak storage in order to prevent stopped traffic from queueing back up the ramp onto the NB I-81 mainline. *(Intermediate measure)*

- Option to close off the un-signalized intersection of Lakeshore Rd. and redirect through traffic along the Lakeshore Rd. signalized spur or “Tee-Up” the existing Lakeshore Rd. approach to 60 degrees. *(Intermediate measure)*

- Closing off the stop controlled intersection of E. Crabtree Ln. in addressing the small cluster of right angle crashes. *(Short Term measure)*

- The poorly designed internal circulation on the CNS High School site was cited as a cause of traffic backing up in the EB Rt. 31 right turn lane due to people who are unable to enter the CNS driveway due to stopped vehicles within the site. Reconfiguration of the internal movements within the CNS site is needed to improve ingress/egress at the Route 31 and CNS High School intersection during the morning peak hour. *(Intermediate measure)*

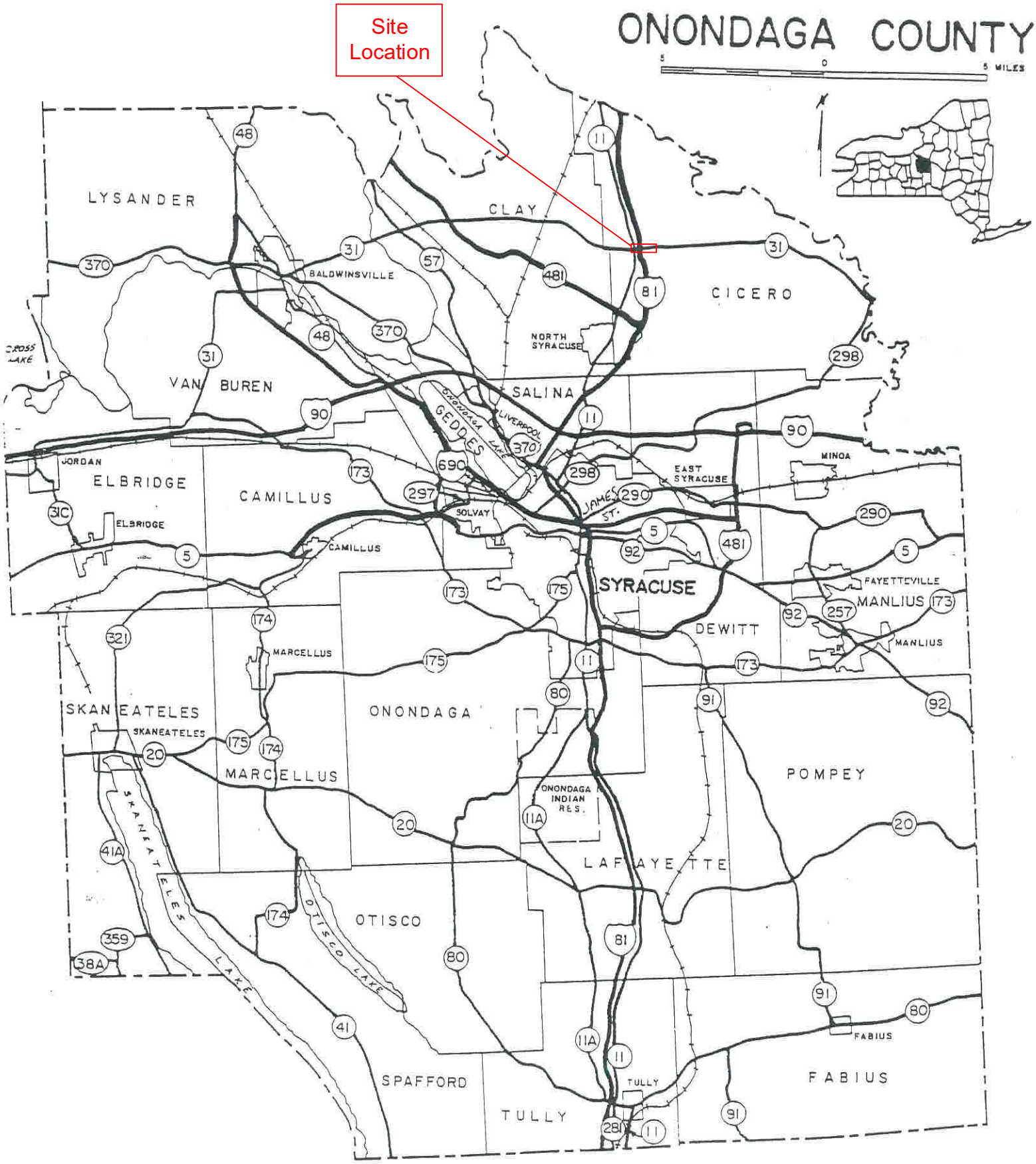
a) Problems Identified (continued)

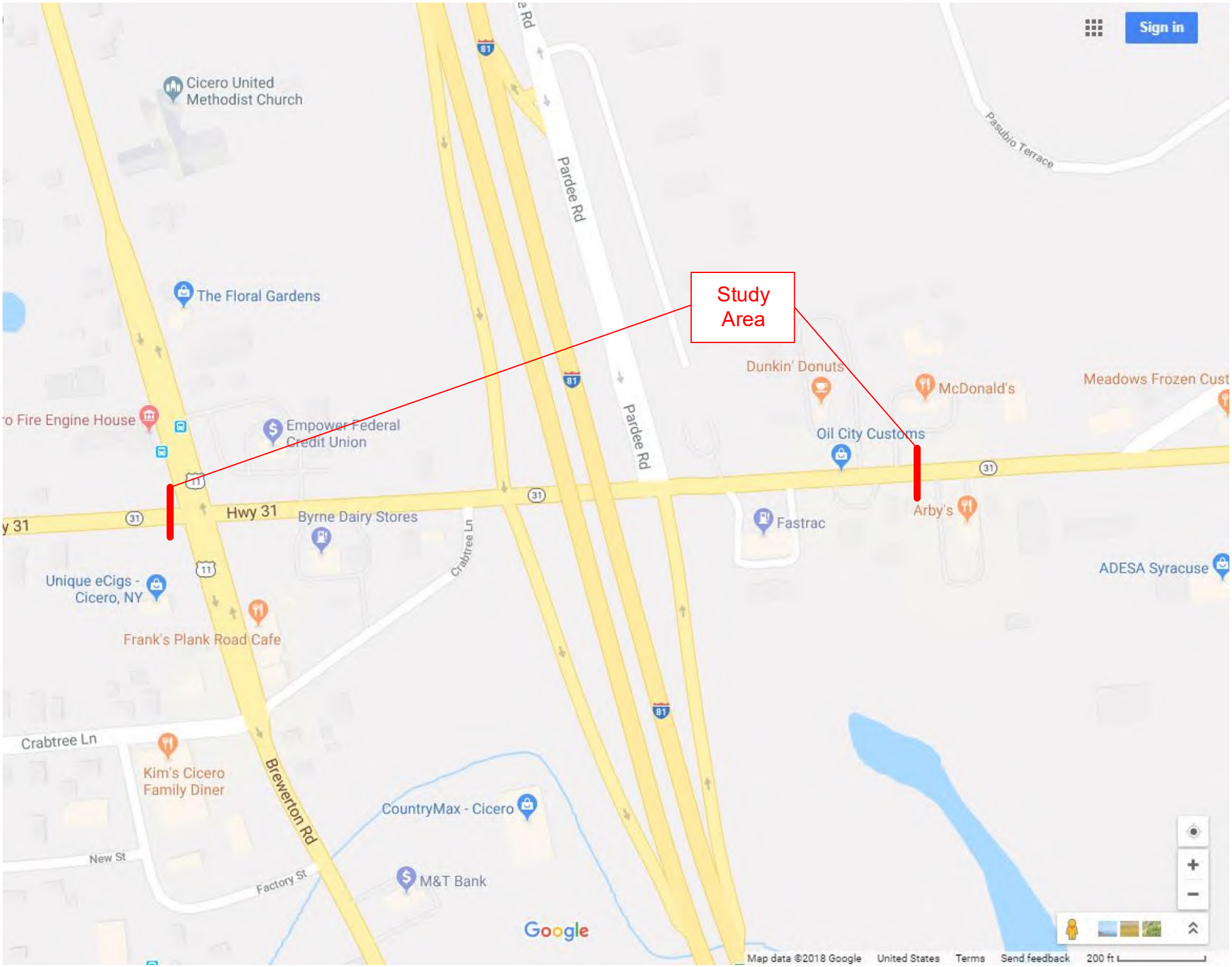
15) **CONCLUSIONS/RECOMMENDATIONS:** (Cont.)

- Widening under the I-81 bridge to provide side by side dedicated left turn lanes along EB and WB Rt. 31. The widening would provide for a sidewalk section using a retaining wall with accommodations of a sidewalk section behind the piers/columns. This would provide for the additional storage lengths needed for Rt. 31 turning vehicles under the I-81 bridge particularly during peak AM and PM hours. *(Intermediate measure)*

- Restrict access to right in/right out driveways for existing driveways by installing a 3-4 ft. wide raised curbed median from Rt. 11 to Pardee Rd. or from Rt. 11 to Lakeshore Rd. This will prevent accidents associated with left turn crossing maneuvers across multi-lane undivided urban roadways. Additionally, these maneuvers adversely impact driver delay as a result of motorists turning left into various commercial sites. *(Intermediate measure)*

- Potential Crabtree Rd. East spur connection to I-81 SB on-ramp. *(Intermediate measure)*


Site Location
ONONDAGA COUNTY
5 0 5 MILES
LYSANDER
CLAY
CICERO
BALDWINSVILLE
NORTH SYRACUSE
VAN BUREN
SALINA
GEDDES
LIVERPOOL
JORDAN
ELBRIDGE
CAMILLUS
SOLVAY
EAST SYRACUSE
MINOA
SYRACUSE
FAYETTEVILLE
MANLIUS
DEWITT
MARCELLUS
SKANEATELES
ONONDAGA
ONONDAGA INDIAN RES.
POMPEY
LAFAYETTE
OTISCO
SPAFFORD
TULLY
FABIUS

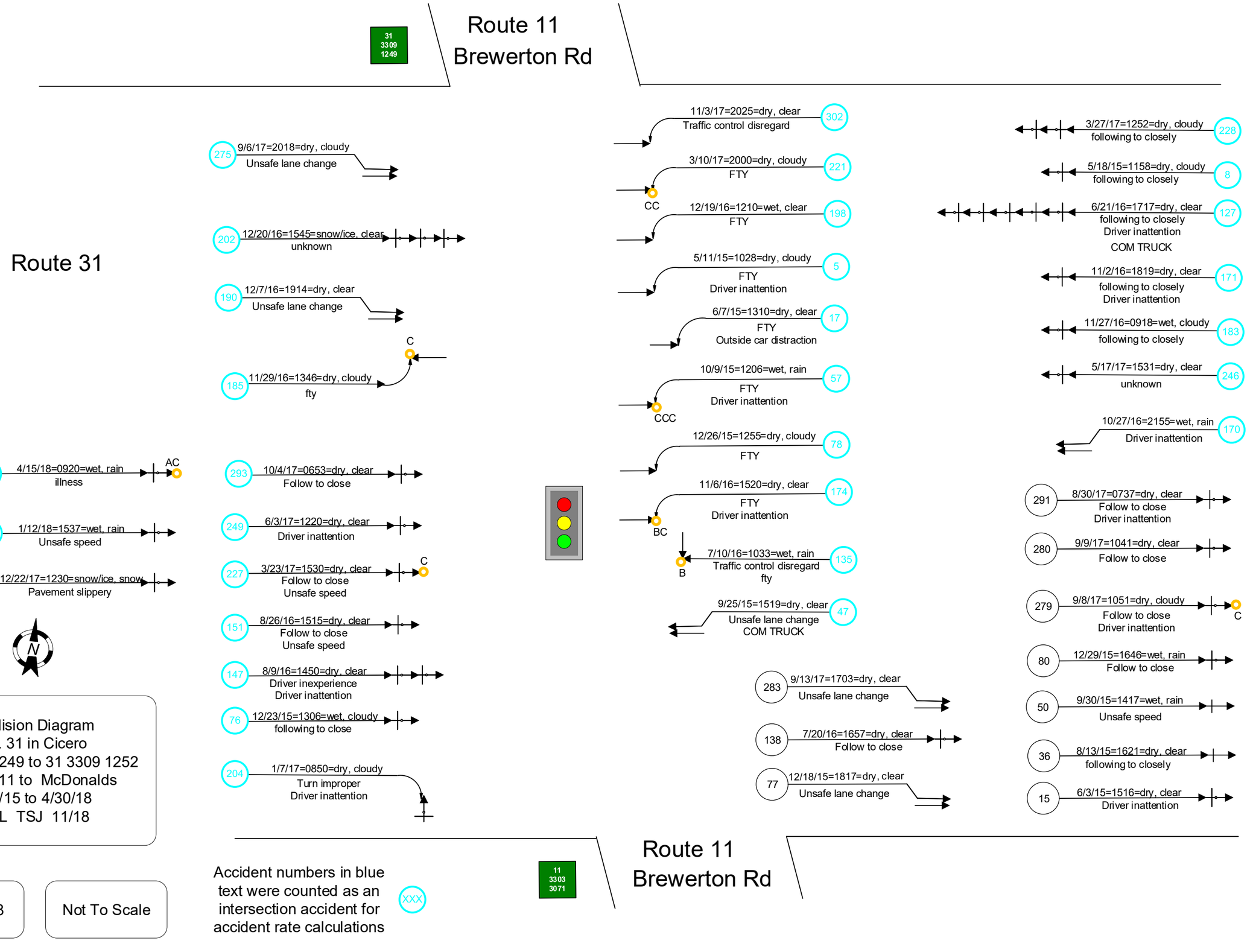

Study Area
Cicero United Methodist Church
The Floral Gardens
Empower Federal Credit Union
Hwy 31
Byrne Dairy Stores
Unique eCigs - Cicero, NY
Frank's Plank Road Cafe
Kim's Cicero Family Diner
CountryMax - Cicero
M&T Bank
Pardee Rd
Crabtree Ln
Brewerton Rd
New St
Factory St
Pasubio Terrace
Dunkin' Donuts
McDonald's
Meadows Frozen Cust
Oil City Customs
Fastrac
Arby's
ADESA Syracuse
Sign in
Google
Map data ©2018 Google
United States
Terms
Send feedback
200 ft

Details of Accident History Key

Light Conditions (MV 104 Box 4)		Roadway Characteristics (MV 104 Box 5)		Roadway Surface Condition (MV 104 Box 6)		Weather (MV 104 Box 7)	
1	Daylight	1	Straight and Level	1	Dry	1	Clear
2	Dawn	2	Straight and Grade	2	Wet	2	Cloudy
3	Dusk	3	Straight and Hillcrest	3	Muddy	3	Rain
4	Dark Road Lighted	4	Curve and Level	4	Snow/Ice	4	Snow
5	Dark Road Unlighted	5	Curve and Grade	5	Slush	5	Sleet/Hail/Freezing Rain
		6	Curve and Hillcrest	6	Flooded	6	Fog/Smog/Smoke
U	Unknown	U	Unknown	U	Unknown	U	Unknown

Injury Code	Description
K	Any injury that results in death
A	Severe lacerations, broken limbs, fractures or broken bones,
B	Lump on head, abrasions, minor lacerations
C	Momentary unconscious, limping, nausea, hysteria, pain, (no visible injury)

Accid No.	Date	Time	# of Veh	Severity	Roadway	Rd Surface	Weather	Control Cond.	Control Conditions	Control Factor 1	Control Factor 2	Type of Accid	Veh Type	Location
1	3	13 1256	2	F	1	1	1	Driver Inattention		Following too Closely	P	SS	P	1246
Details: V1 EB RT 3 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
2	5	4	15 1421	2	P	1	1	1	Driver Inattention		Unknown	P	RE	P 1246
Details: V1 WB RT 3 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
3	4	5	7	13 0728	2	1	2	1	Following too Closely		Driver Inattention/Distract		RE	P 1246
Details: V1 WB RT 3 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
4	5	5	11	13 1228	2	N	1	1	1	Driver Inattention		Unknown	LT	P 1244
Details: V1 WB RT 3 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
5	6	5	15 1650	2	N	1	1	1	FTY		Unknown	LT	P	1246
Details: V2 WB RT 11 TURNS LEFT TO CRABTREE STRIKES V1 STOPPED EB RT 31														
6	7	5	16 1705	3	N	1	1	1	Driver Inattention		Driver Inattention/Distract		SS	P 1246
Details: V1 EB RT 3 STOPPED, V2 DID NOT STOP STRUCK REAR OF V2, V3 STRUCK V3														
7	8	5	18 1158	2	P	1	1	1	Driver Inattention		Unknown	LT	RE	P 1244
Details: V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
8	9	5	20 1641	2	N	1	1	1	Driver Inattention		Unknown	LT	P	EI ramp
Details: V2 WB RT 11 TURNS LEFT TO SR 29 RAMP STRIKES V1 STOPPED EB RT 31														
9	10	5	29 1711	2	N	1	1	1	Unsafe Lane Change		Unknown	SS	P	parklot
Details: V1 WB RT 3 CHANGED LANES STRIKES V2 WB RT 31														
10	11	6	3	15 1516	2	N	1	1	1	Driver Inattention		Unknown	P	1240
Details: V1 EB RT 3 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
11	12	6	5	13 0734	1	1	1	1	React to Unmarked Veh		Pavement Slippery	P	CO	M parklot
Details: V1 MOTORCYCLE EB RT 31 HIT MEDIAN BARRIER AFTER ROAD AND RANCHO														
12	13	6	7	15 1622	2	N	1	1	1	FTY		Other Vehicular	P	EI ramp
Details: V3 WB RT 31 TURNS LEFT THROUGH COURTESY GAP TO RT 11 SB STRIKES V2 EB RT 31														
13	14	6	11	15 0251	2	P	1	1	1	Driver Inattention		Unknown	RA	P Byrne D
Details: V1 EXITING BYRNE DAIRY NB FOR LEFT TURN STRIKES V2 EB RT 31														
14	15	6	13 0902	2	S	1	1	1	Driver Inattention		Unknown	RA	P	EI ramp
Details: V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
15	16	6	31	13 1050	2	P	1	1	1	Driver Inattention		Unknown	LT	P parklot
Details: V1 EB RT 31 TURNS LEFT TO RAMP STRIKES V2 STOPPED EB RT 31														
16	17	6	25	13 1720	2	P	1	1	1	Turn Improper		Unknown	LT	C crabtree
Details: V1 COM TRUCK WB RT 31 TURNS LEFT TO SR 29 STRIKES V2 STOPPED EB RT 31														
17	18	6	26	15 1715	2	P	1	1	1	FTY		Unknown	LT	P Franks rd
Details: V1 WB RT 31 TURNS LEFT THROUGH COURTESY GAP STRIKES V2 EB RT 31														
18	19	6	27	15 1744	2	P	1	1	1	Driver Inattention		Unknown	P	parklot
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1, CAUSED CHAIN REACTION WHICH INVOLVED A TOTAL OF 5 VEHICLES														
19	20	7	1	15 1722	5	P	2	1	1	FTY		Other Vehicular	P	EI ramp
Details: V1 EB RT 31 TURNS LEFT STRIKES V2 WB RT 31														
20	21	7	13	0938	2	P	1	1	1	Driver Inattention		Unknown	SS	P 1246
Details: V1 STOPPED EB RT 31, V2 DID NOT STOP STRUCK REAR OF V1														
21	22	7	16	1720	2	N	1	1	1	FTY		Other Vehicular	LT	M Hess
Details: V1 EB RT 31 FTY TURNS LEFT TO RAMP STRIKES V2 EB RT 31 OFFRAMP														
22	23	7	31	15 1325	2	N	1	1	1	FTY		Traffic Control Disregard	RA	P parklot
Details: V1 WB RT 31 RUNS RED LIGHT STRIKES V2 STOPPED RED MARKING EB RT 31														
23	24	8	13	1521	2	N	1	1	1	FTY		Unknown	RE	P Franks rd
Details: V1 WB RT 3 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
24	25	8	14	1720	2	N	1	1	1	Unsafe Lane Change		Unknown	RE	P 1249
Details: V1 WB RT 13 TURNS LEFT TO BYRNE DAIRY STRIKES V2 WB RT 13														
25	26	8	24	15 1200	2	N	1	1	1	FTY		Unknown	PB	CI ramp
Details: V1 COM TRUCK STOPPED ON RT 61 NB OFFRAMP, ATTEMPTED RIGHT TURN TO RT 31 STRUCK BICYCLE BY ST 31 SIDEWALK														
26	27	8	29	15 1722	2	P	1	1	1	Driver Inattention		Unknown	SS	P 1246
Details: V1 STOPPED NB ON CRABTREE, RAN OUT OF GAS, ROLLED BACKWARD AND STRUCK V2 STOPPED BEHIND V1														
27	28	9	2	13 1542	2	N	1	1	1	FTY		Unknown	LT	P d.donuts
Details: V1 EB RT 3 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
28	29	9	16	13 1713	2	P	1	1	1	FTY		Unknown	SS	P 1246
Details: V1 EB RT 31 STOPPED SB OFFRAMP FROM RT 61 SB TO RT 31, V1 PULLED OUT AND STRUCK V2 EB RT 31 OR RT 31 SIDEWALK														
29	30	9	25	15 1519	2	P	1	1	1	FTY		Unknown	SS	C RE 11
Details: V1 COM TRUCK EB RT 31 CHANGED LANES STRUCK V2 EB RT 31														
30	31	9	27	15 1417	2	N	1	1	1	Driver Inattention		Unknown	RE	P 1246
Details: V1 NB RT 11 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
31	32	9	30	15 1417	2	N	1	1	1	Driver Inattention		Unknown	RE	P 1249
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
32	33	10	1	13 0715	2	P	1	1	1	Driver Inattention		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
33	34	10	9	13 1208	2	P	1	1	1	Driver Inattention		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
34	35	10	22	15 0930	2	N	1	1	1	FTY		Driver Inattention/Distract	LT	P Mcdnlds
Details: V1 EB RT 31 TURNS LEFT TO MCDONALDS STRIKES V2 EB RT 31														
35	36	10	40	13 1200	2	P	1	1	1	Following too Closely		Driver Inattention/Distract	LT	P parklot
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
36	37	10	47	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
37	38	10	49	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
38	39	10	50	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
39	40	10	51	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
40	41	10	52	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
41	42	10	53	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
42	43	10	54	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
43	44	10	55	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
44	45	10	56	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
45	46	10	57	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
46	47	10	58	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
47	48	10	59	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
48	49	10	60	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
49	50	10	61	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
50	51	10	62	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
51	52	10	63	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
52	53	10	64	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
53	54	10	65	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
54	55	10	66	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
55	56	10	67	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
56	57	10	68	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
57	58	10	69	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
58	59	10	70	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
59	60	10	71	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
60	61	10	72	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
61	62	10	73	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
62	63	10	74	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
63	64	10	75	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
64	65	10	76	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
65	66	10	77	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
66	67	10	78	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
67	68	10	79	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
68	69	10	80	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
69	70	10	81	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
70	71	10	82	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
71	72	10	83	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
72	73	10	84	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
73	74	10	85	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
74	75	10	86	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
75	76	10	87	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
76	77	10	88	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
77	78	10	89	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
78	79	10	90	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
79	80	10	91	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
80	81	10	92	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
81	82	10	93	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
82	83	10	94	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
83	84	10	95	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
84	85	10	96	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
85	86	10	97	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
86	87	10	98	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
87	88	10	99	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
88	89	10	100	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
89	90	10	101	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
90	91	10	102	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
91	92	10	103	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
92	93	10	104	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
93	94	10	105	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
94	95	10	106	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
95	96	10	107	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
96	97	10	108	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
97	98	10	109	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
98	98	10	110	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
99	99	10	111	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
100	100	10	112	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
101	101	10	113	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
102	102	10	114	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
103	103	10	115	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
104	104	10	116	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
105	105	10	117	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
106	106	10	118	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
107	107	10	119	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
108	108	10	120	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
109	109	10	121	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
110	110	10	122	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
111	111	10	123	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
112	112	10	124	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
113	113	10	125	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
114	114	10	126	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
115	115	10	127	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
116	116	10	128	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
117	117	10	129	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
118	118	10	130	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
119	119	10	131	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
120	120	10	132	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
121	121	10	133	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
122	122	10	134	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
123	123	10	135	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
124	124	10	136	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
125	125	10	137	13 1417	2	N	1	1	1	Following too Closely		Unknown	RE	P 1246
Details: V1 EB RT 31 STOPPED, V2 DO NOT STOP STRUCK REAR OF V1														
126


31
3309
1249
Route 11
Brewerton Rd
Route 31
275
9/6/17=2018=dry, cloudy
Unsafe lane change
202
12/20/16=1545=snow/ice, clear
unknown
190
12/7/16=1914=dry, clear
Unsafe lane change
C
185
11/29/16=1346=dry, cloudy
fty
348
4/15/18=0920=wet, rain
illness
AC
326
1/12/18=1537=wet, rain
Unsafe speed
319
12/22/17=1230=snow/ice, snow
Pavement slippery
N
293
10/4/17=0653=dry, clear
Follow to close
249
6/3/17=1220=dry, clear
Driver inattention
227
3/23/17=1530=dry, clear
Follow to close
Unsafe speed
C
151
8/26/16=1515=dry, clear
Follow to close
Unsafe speed
147
8/9/16=1450=dry, clear
Driver inexperience
Driver inattention
76
12/23/15=1306=wet, cloudy
following to close
204
1/7/17=0850=dry, cloudy
Turn improper
Driver inattention
11/3/17=2025=dry, clear
Traffic control disregard
302
3/10/17=2000=dry, cloudy
FTY
221
CC
12/19/16=1210=wet, clear
FTY
198
5/11/15=1028=dry, cloudy
FTY
Driver inattention
5
6/7/15=1310=dry, clear
FTY
Outside car distraction
17
10/9/15=1206=wet, rain
FTY
Driver inattention
57
CCC
12/26/15=1255=dry, cloudy
FTY
78
11/6/16=1520=dry, clear
FTY
Driver inattention
174
BC
7/10/16=1033=wet, rain
Traffic control disregard
fty
135
B
9/25/15=1519=dry, clear
Unsafe lane change
COM TRUCK
47
283
9/13/17=1703=dry, clear
Unsafe lane change
138
7/20/16=1657=dry, clear
Follow to close
77
12/18/15=1817=dry, clear
Unsafe lane change
3/27/17=1252=dry, cloudy
following to closely
228
5/18/15=1158=dry, cloudy
following to closely
8
6/21/16=1717=dry, clear
following to closely
Driver inattention
COM TRUCK
127
11/2/16=1819=dry, clear
following to closely
Driver inattention
171
11/27/16=0918=wet, cloudy
following to closely
183
5/17/17=1531=dry, clear
unknown
246
10/27/16=2155=wet, rain
Driver inattention
170
291
8/30/17=0737=dry, clear
Follow to close
Driver inattention
280
9/9/17=1041=dry, clear
Follow to close
279
9/8/17=1051=dry, cloudy
Follow to close
Driver inattention
C
80
12/29/15=1646=wet, rain
Follow to close
50
9/30/15=1417=wet, rain
Unsafe speed
36
8/13/15=1621=dry, clear
following to closely
15
6/3/15=1516=dry, clear
Driver inattention
Match Line 31 A-A
Collision Diagram
Rt. 31 in Cicero
31 3309 1249 to 31 3309 1252
Route 11 to McDonalds
5/1/15 to 4/30/18
WL TSJ 11/18
Sheet 1 of 8
Not To Scale
Accident numbers in blue text were counted as an intersection accident for accident rate calculations
XXX
11
3303
3071
Route 11
Brewerton Rd

Route 11
Brewerton Rd

328
1/12/18=1724=wet, rain
fty

Empower Credit
Union formerly
M & T Bank

31
3309
1250

6/26/15=1715=dry, cloudy
FTY
(to franks roadhouse)
25

2/19/17=1509=dry, clear
FTY
Turn improper
(to Byrne Dairy)
212

6/23/16=1530=dry, clear
fty
(to kwick fill)
129

340
3/5/18=1559=dry, cloudy
Turn improper

8/16/16=1415=dry, cloudy
FTY
(to Byrne Dairy)
149

11/12/16=1530=dry, clear
fty
Turn improper
(prob kwik fill)
176

106
4/1/16=1800=dry, clear
Driver inattention
fty

8/20/15=2229=wet, rain
Turn improper
Unsafe lane change
(to Byrne Dairy)
38

3/15/18=1400=dry, cloudy
fty
(to kwick fill)
342

61
10/15/15=0958=dry, clear
Follow to close

4/28/17=1700=dry, clear
Unsafe lane change
238

3/25/18=1300=dry, clear
fty
(prob kwik fill)
345
C

Match Line 31 A-A

Match Line 31 A-B

Route 31

168
10/21/16=1840=wet, rain
fty

341
3/7/18=1619=wet, cloudy
Follow to close

100
3/8/16=1200=dry, cloudy
Turning improper

303
10/31/17=1800=dry, cloudy
Unsafe lane change
Driver inattention

239
4/29/17=1335=dry, cloudy
Follow to close
CC

276
9/5/17=1629=dry, clear
Driver inattention
Follow to close

213
2/18/17=1049=dry, clear
Follow to close

8/3/16=2204=dry, clear
Backing unsafe
143

7
5/16/15=1155=dry, clear
Following to closely
Driver inattention
COM
TRUCK

1
5/3/15=1255=dry, clear
Following to closely
Driver inattention

Route 11
Brewerton Rd

4/11/16=0745=wet, cloudy
FTY
109

10/16/15=0747=dry, clear
FTY
62

Franks
Roadhouse

3/11/18=1300=dry, cloudy
Fty
Driver inattention
343

1/15/17=1135=dry, clear
fty
208

6/11/15=0251=dry, clear
turning improper
19

Byrne
Dairy

Kwik Fill/
Red Apple

N

Collision Diagram
Rt. 31 in Cicero
31 3309 1249 to 31 3309 1252
Route 11 to McDonalds
5/1/15 to 4/30/18
WL TSJ 11/18

Not To Scale

31
3309
1251

Off Ramp
From Rt 81 SB

Route 31

Match Line 31 A-B

Match Line 31 A-C

3/24/18=0910=dry, clear
Unsafe lane change
344

C
6/28/16=0855=dry, clear
Driver inattention
Follow to closely
130

5/15/15=1650=dry, cloudy
fty
6

6/25/15=1320=dry, clear
Turn improper
COM TRUCK
24

7/6/16=1605=dry, clear
Fty
React to uninvol veh
136

313 12/9/17=1025=?, clear
Driver inattention

294 10/5/17=1500=dry, clear
Follow to close

251 6/8/17=1533=dry, clear
Follow to close

250 6/5/17=0825=wet, rain
Follow to close
Driver inattention

245 5/24/17=1419=dry, clear
Follow to close

201 12/27/16=1812=dry, clear
Follow to close
Brakes defective
CC

192 12/8/16=0656=wet, cloudy
Follow to close

101 3/9/16=1435=dry, cloudy
Driver inattention

81 12/29/15=1817=wet, rain
Passenger distraction

26 6/15/15=1720=dry, clear
Follow to close
C

11/16/16=1320=dry, clear
Unsafe lane change
177

4/25/18=1517=wet, rain
Driver inattention
353

287 9/19/17=1004=dry, clear
Fty
Driver inattention
BC

261 6/10/17=1850=dry, clear
Traffic cntrl disregard
fty
BC

108 4/7/16=0820=dry, clear
Traffic cntrl disregard

91 1/30/16=1551=dry, clear
Follow to close

87 1/13/16=1320=snow/ice, snow
following to close
pavement slippery

C
12/2/16=1901=wet, snow
Driver inattention
186

6/18/17=1350=dry, clear
Follow to closely
257

8/16/16=1150=dry, cloudy
Driver inattention
148

CC
2/13/18=0954=dry, clear
Follow to closely
Driver inattention
335

7/29/16=1100=dry, clear
Unsafe lane change
142

6/12/16=1340=dry, cloudy
Follow to close
Lane use improper
125

7/1/15=0938=dry, cloudy
Unsafe lane change
30

5/26/15=1641=dry, clear
FTY
10

2/14/17=1802=wet, cloudy
FTY
React to uninvoled veh
211

11/10/15=0931=dry, cloudy
FTY
View obstructed limited
66

9/4/16=1335=dry, clear
FTY
View obstructed
155

2/19/16=1629=wet, clear
FTY
React to uninvoled veh
94

3/27/16=1325=dry, clear
FTY
104

C
3/23/17=1252=dry, clear
Unsafe lane change
225

307 11/11/17=1405=dry, clear
Unsafe lane change
Aggressive driving/road rage
Utility's in roadway to restore
power. Signals not operating.

N

Crabtree Lane East

STOP

On Ramp
To Rt 81 SB

Accident numbers in blue text were counted as an Rt 81 SB ramp intersection accidents for accident rate calculations

XXX

Collision Diagram
Rt. 31 in Cicero
31 3309 1249 to 31 3309 1252
Route 11 to McDonalds
5/1/15 to 4/30/18
WL TSJ 11/18

Sheet 3 of 8

Not To Scale

Off Ramp
From Rt 81 SB

46
46
9/16/15=1713=dry, cloudy
FTY
Bike
A

72
72
9/18/15=1740=dry, clear
Brakes defective
Oversized vehicle
COM TRUCK
KKCC

84
1/7/16=1532=dry, cloudy
Unsafe speed
C

269
8/20/17=1050=dry, cloudy
Driver inattention

163
COM
TRUCK
10/3/16=0920=wet, cloudy
FTY

285
9/12/17=1330=dry, clear
unknown

85
1/5/16=2130=dry, cloudy
Turn improper

31
3309
1251

Match Line 31 A-C

Match Line 31 A-D

Route 31

3/5/17=1226=dry, clear
FTY
219

1/5/17=0958=dry, cloudy
FTY
203

3/10/17=1643=dry, clear
Fdlowing to closely
222

9/27/15=2014=dry, clear
Fdlowing to closely
49

8/29/15=0714=dry, clear
Back unsafe, alcohol
42

STOP

Crabtree Lane East

On Ramp
To Rt 81 SB

Accident numbers in blue text were counted as an Rt 81 SB ramp intersection accidents for accident rate calculations

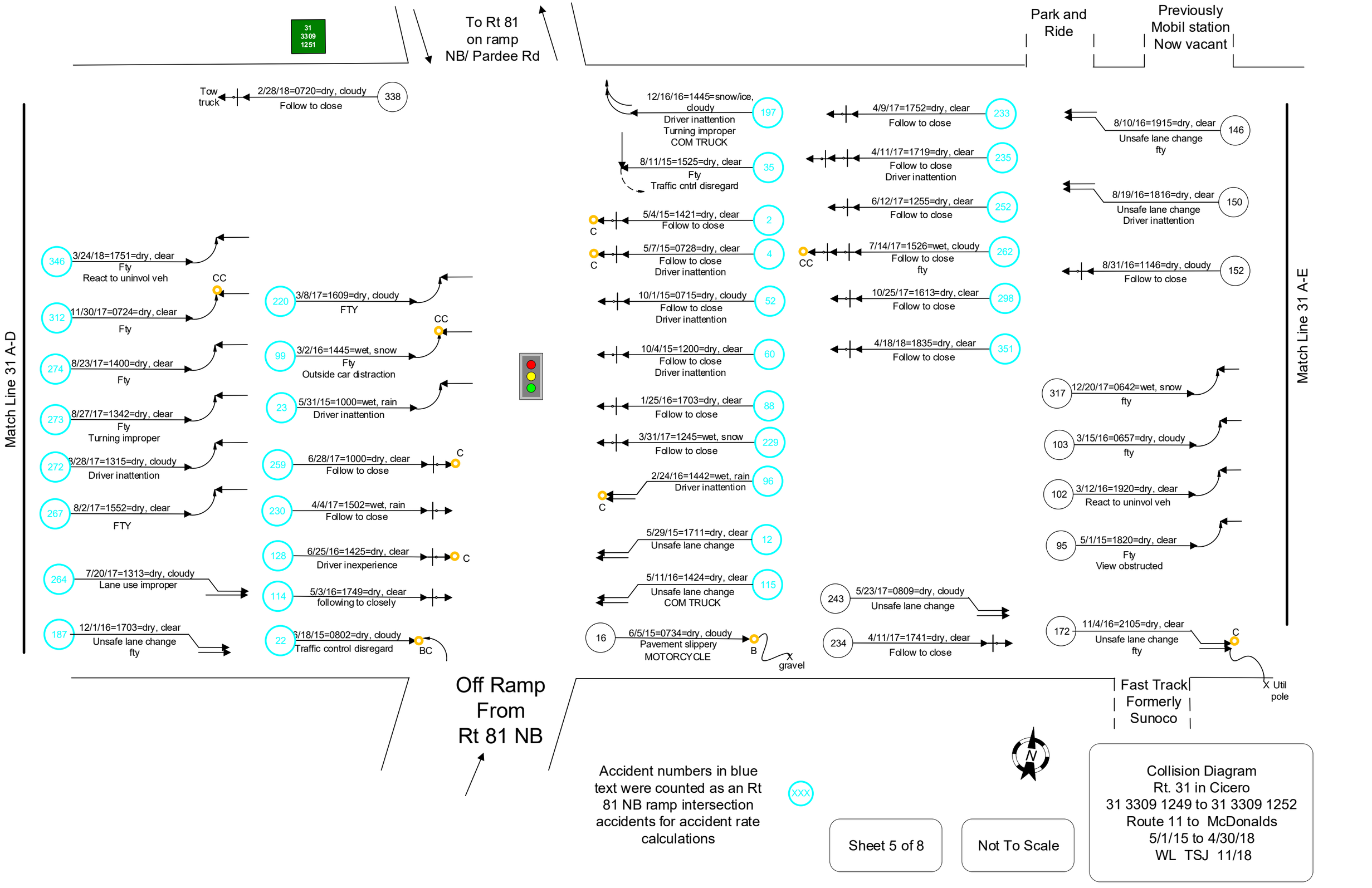
XXX

N

Collision Diagram
Rt. 31 in Cicero
31 3309 1249 to 31 3309 1252
Route 11 to McDonalds
5/1/15 to 4/30/18
WL TSJ 11/18

Sheet 4 of 8

Not To Scale


31
3309
1251
To Rt 81
on ramp
NB/ Pardee Rd
Park and
Ride
Previously
Mobil station
Now vacant
Match Line 31 A-D
Match Line 31 A-E
Tow
truck
2/28/18=0720=dry, cloudy
Follow to close
338
12/16/16=1445=snow/ice, cloudy
Driver inattention
Turning improper
COM TRUCK
197
8/11/15=1525=dry, clear
Fty
Traffic cntrl disregard
35
4/9/17=1752=dry, clear
Follow to close
233
4/11/17=1719=dry, clear
Follow to close
Driver inattention
235
6/12/17=1255=dry, clear
Follow to close
252
8/10/16=1915=dry, clear
Unsafe lane change
fty
146
8/19/16=1816=dry, clear
Unsafe lane change
Driver inattention
150
8/31/16=1146=dry, cloudy
Follow to close
152
5/4/15=1421=dry, clear
Follow to close
C
2
5/7/15=0728=dry, clear
Follow to close
Driver inattention
C
4
7/14/17=1526=wet, cloudy
Follow to close
fty
CC
262
10/1/15=0715=dry, cloudy
Follow to close
Driver inattention
52
10/25/17=1613=dry, clear
Follow to close
298
10/4/15=1200=dry, clear
Follow to close
Driver inattention
60
4/18/18=1835=dry, clear
Follow to close
351
1/25/16=1703=dry, clear
Follow to close
88
3/31/17=1245=wet, snow
Follow to close
229
2/24/16=1442=wet, rain
Driver inattention
C
96
5/29/15=1711=dry, clear
Unsafe lane change
12
5/11/16=1424=dry, clear
Unsafe lane change
COM TRUCK
115
346
3/24/18=1751=dry, clear
Fty
React to uninvol veh
312
11/30/17=0724=dry, clear
Fty
CC
274
8/23/17=1400=dry, clear
Fty
273
8/27/17=1342=dry, clear
Fty
Turning improper
272
3/28/17=1315=dry, cloudy
Driver inattention
267
8/2/17=1552=dry, clear
FTY
264
7/20/17=1313=dry, cloudy
Lane use improper
187
12/1/16=1703=dry, clear
Unsafe lane change
fty
220
3/8/17=1609=dry, cloudy
FTY
99
3/2/16=1445=wet, snow
Fty
Outside car distraction
CC
23
5/31/15=1000=wet, rain
Driver inattention
259
6/28/17=1000=dry, clear
Follow to close
C
230
4/4/17=1502=wet, rain
Follow to close
128
6/25/16=1425=dry, clear
Driver inexperience
C
114
5/3/16=1749=dry, clear
following to closely
22
3/18/15=0802=dry, cloudy
Traffic control disregard
BC
16
6/5/15=0734=dry, cloudy
Pavement slippery
MOTORCYCLE
B
X
gravel
243
5/23/17=0809=dry, cloudy
Unsafe lane change
234
4/11/17=1741=dry, clear
Follow to close
317
12/20/17=0642=wet, snow
fty
103
3/15/16=0657=dry, cloudy
fty
102
3/12/16=1920=dry, clear
React to uninvol veh
95
5/1/15=1820=dry, clear
Fty
View obstructed
172
11/4/16=2105=dry, clear
Unsafe lane change
fty
C
X Util
pole
Off Ramp
From
Rt 81 NB
Fast Track
Formerly
Sunoco
Accident numbers in blue text were counted as an Rt 81 NB ramp intersection accidents for accident rate calculations
XXX
N
Sheet 5 of 8
Not To Scale
Collision Diagram
Rt. 31 in Cicero
31 3309 1249 to 31 3309 1252
Route 11 to McDonalds
5/1/15 to 4/30/18
WL TSJ 11/18

31
3309
1251

Match Line 31 A-E

Match Line 31 A-F

To Rt 81 on ramp
NB/ Pardee Rd

Off Ramp From
Rt 81 NB

Route 31

Park and
Ride

Previously
Mobil station
Now vacant

Fast Track
Formerly
Sunoco

COM
TRUCK

C

Bike

226 — 3/14/17=0640=snow/ice, snow — pavement slippery — Following to close

356 — 7/18/15=1620=dry, clear — fty — Turning to Rt 81 NB

357 — 12/9/15=1400=dry, cloudy — Fty — Traffic cntrl disregard — Turning to Rt 81 NB

358 — 2/9/17=?=dry, clear — unknown — Turning to Rt 81 NB

93 — 2/12/16=1548=wet, clear — following to closely

74 — 12/12/15=wet, rain — fty

205 — 1/8/17=1009=snow/ice — Unsafe speed — Pavement slipper

184 — 11/29/16=1936=dry, clear — Driver inattention — Unsafe lane change

133 — 7/1/16=1500=dry, clear — Brakes defective

112 — 4/21/16=1145=dry, clear — Lane use improper — COM TRUCK

337 — 2/23/18=1802=wet, clear — Traffic cntrol disregard

354 — 8/16/15=1937=dry, cloudy — Unsafe speed — (500 ft south of Rt 31)

355 — 10/27/16=2222=wet, rain — Pavement slippery — (100 ft south of Rt 31)

336 — 2/11/18=0737=wet, cloudy — Fdlow to dose — COM TRUCK

332 — 2/1/18=1804=wet clear — Unsafe speed

223 — /15/17=1750=snow/ice, snow — Pavement slippery

68 — 12/1/15=1454=wet, rain — following to closely — Pavement slippery

41 — 8/24/15=1205=dy, cloudy — Ped error confusion — COM TRUCK

41

119 — 5/14/16=1653=wet, rain — Fty — Turn improper

137 — 7/20/16=1214=dry, clear — Fty

159 — 9/25/16=1800=dry, clear — Fty — Unsafe lane change

Accident numbers in blue text were counted as an Rt 81 NB ramp intersection accidents for accident rate calculations

XXX

Collision Diagram
Rt. 31 in Cicero
31 3309 1249 to 31 3309 1252
Route 11 to McDonalds
5/1/15 to 4/30/18
WL TSJ 11/18

Sheet 6 of 8

Not To Scale

#5865
Dunkin
Donuts

Formerly
Waffleworks

5879
McDonalds
Accidents
See Next
page

5895
Speedway
Formerly
Hess
Station

31
3309
1252

65
11/16/15=0845=dry, cloudy
FTY

277
95/17=0757=wet, rain
FTY

301
11/3/17=0709=wet, clear
FTY

290
9/29/17=0830=dry, clear
FTY

107
4/7/16=1917=wet, cloudy
FTY

97
2/27/16=1153=dry, cloudy
Follow to close

Sign
X

C

C

3/5/18=1510=dry, clear
Follow to close
339

6/28/16=1750=dry, clear
Driver inexperience
132

11/27/15=1927=wet, rain
Driver inattention
fty
67

9/5/16=2147=dry, clear
Driver inattention
158

12/14/16=0740=dry, clear
Unsafe lane change
195

5/24/17=1415=dry, clear
Follow to close
244

5/18/17=1346=dry, clear
Follow to close
247

Match Line 31 A-F

Route 31

Match Line 31 A-G

B

268
7/24/17=1601=wet, rain
FTY

295
9/28/2017=1638=dry, cloudy
Backing unsafe

28
7/1/15=1426=wet, cloudy
FTY

207
1/12/17=0718=wet, cloudy
FTY

123
5/25/16=1515=dry, clear
FTY

162
9/21/16=1810=dry, clear
FTY
View limited

169
10/22/16=1655=wet, rain
FTY

43
9/2/15=1542=dry, clear
FTY

B
MOTOR
CYCLE

34
8/6/15=1720=dry, clear
FTY

C

9/7/17=0721=dry, clear
Fty
React to uninvol veh

11/3/16=1705=wet, rain
Fty
Driver inattention

2/25/17=1200=wet, rain
Turning improper

278

182

215

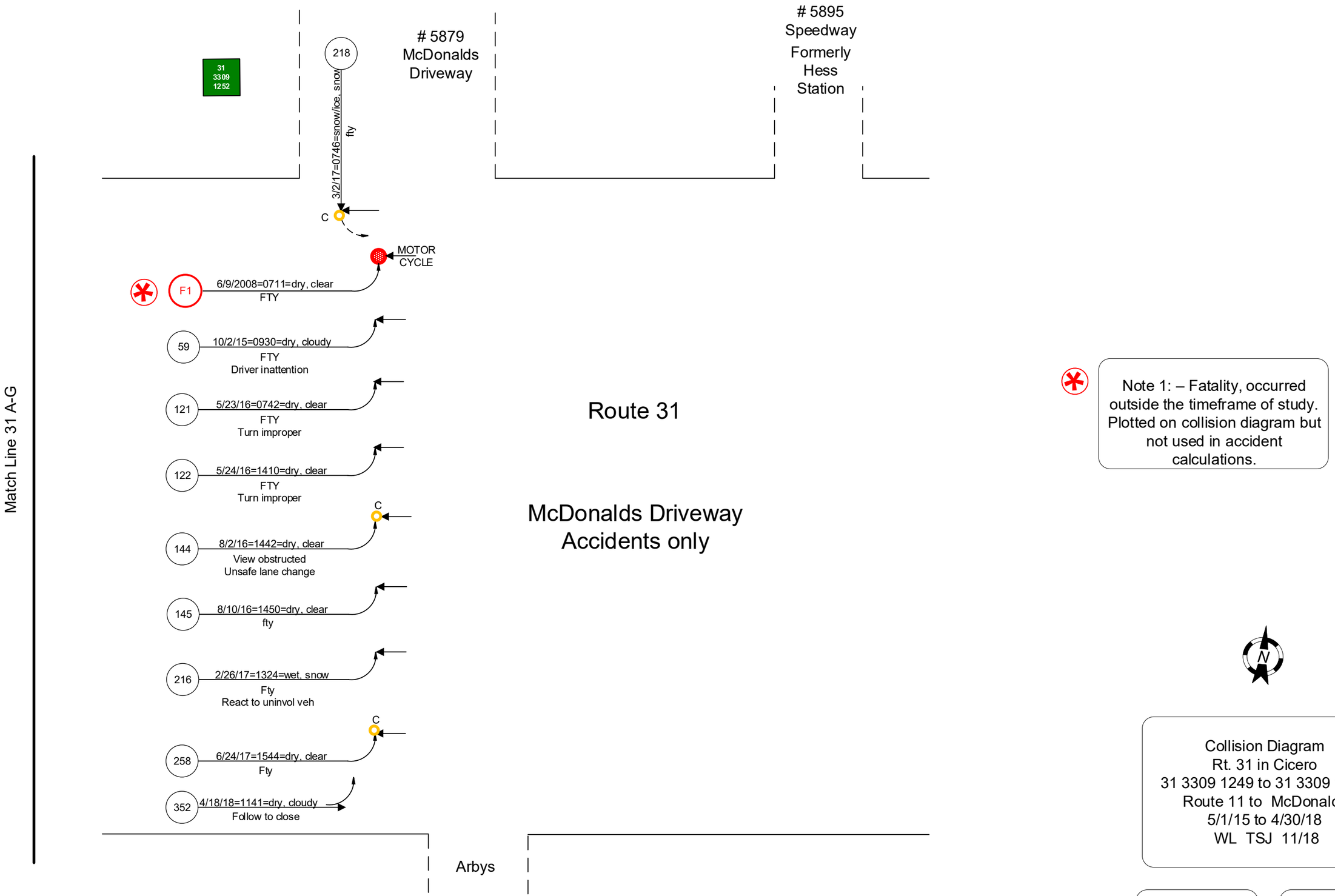
5866
Auto Detail
Car Wash

Arbys
5886

N

Collision Diagram
Rt. 31 in Cicero
31 3309 1249 to 31 3309 1252
Route 11 to McDonalds
5/1/15 to 4/30/18
WL TSJ 11/18

Not To Scale



Route 31

McDonalds Driveway
Accidents only

Note 1: – Fatality, occurred outside the timeframe of study. Plotted on collision diagram but not used in accident calculations.

N

Collision Diagram
Rt. 31 in Cicero
31 3309 1249 to 31 3309 1252
Route 11 to McDonalds
5/1/15 to 4/30/18
WL TSJ 11/18

Not To Scale

Location	Rt 31		Study Period	5/1/15 to 4/30/18		Date	
Municipality	T/o Cicero		County	Onondaga			

Accident Type	# Acc	% of Acc Total	# Injury	% of Inj Total
Animal Related	0	0%	0	0%
Fixed obj/ Run off Rd	2	1%	1	3%
Head-On	1	0%	1	3%
Left Turn	61	28%	13	33%
Overtaking/ Sideswipe	34	16%	2	5%
Pedestrian/ Bicyclist	2	1%	1	3%
Rear End	88	40%	16	40%
Right Angle	25	11%	5	13%
Right Turn	5	2%	1	3%
Unknown	0	0%	0	0%
Totals	**218**	**100%**	**40**	**100%**

Light Conditions	# Acc	% of Acc Total	# Injury	% of Inj Total
Day	183	84%	35	88%
Night	35	16%	5	13%
Unknown	0	0%	0	0%
Totals	**218**	**100%**	**40**	**100%**

Type of Vehicle	# Acc	% of Acc Total	# Injury	% of Inj Total
Passenger Car	203	93%	38	95%
Commercial Vehicle	13	6%	0	0%
Motorcycle	2	1%	2	5%
Totals	**218**	**100%**	**40**	**100%**

Pavement Condition	# Acc	% of Acc Total	# Injury	% of Inj Total
Dry	160	73%	27	68%
Wet	49	22%	12	30%
Mud	0	0%	0	0%
Snow/Ice	8	4%	1	3%
Slush	0	0%	0	0%
Flooded	0	0%	0	0%
Unknown	1	0%	0	0%
Totals	**218**	**100%**	**40**	**100%**

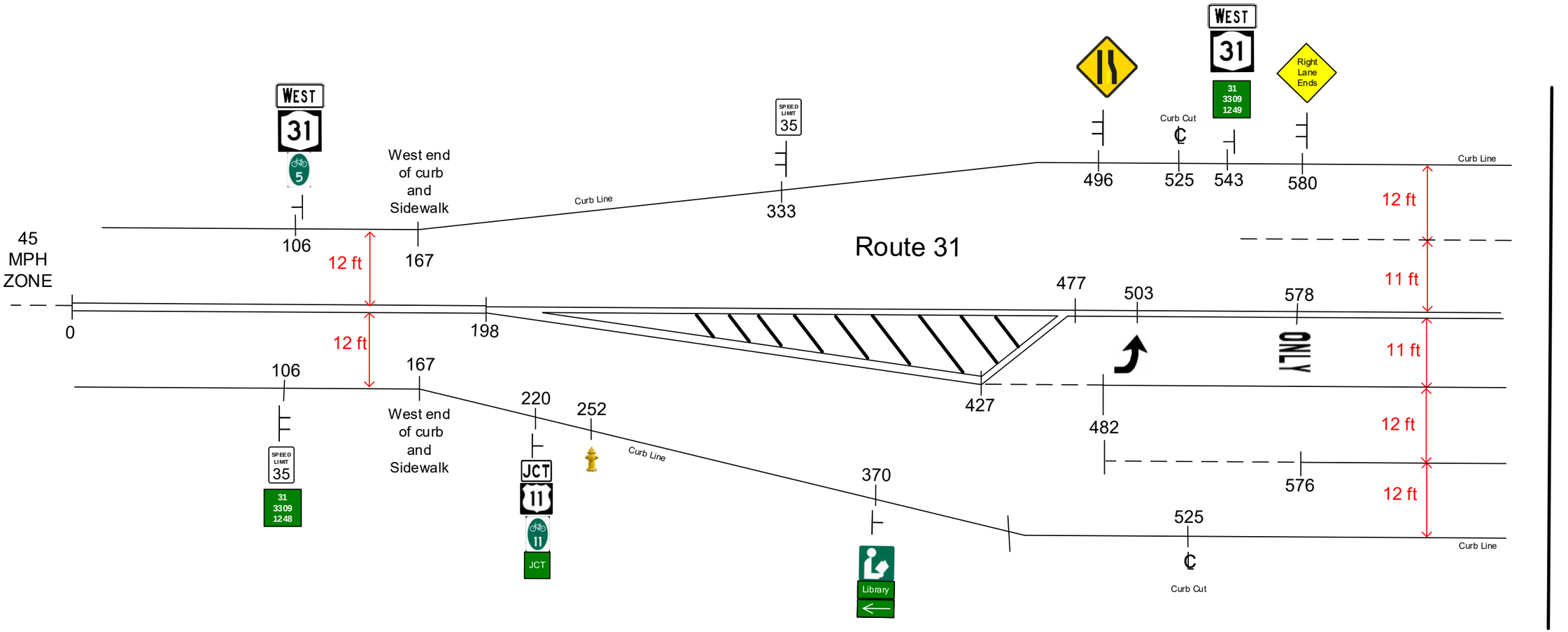
Weather Conditions	# Acc	% of Acc Total	# Injury	% of Inj Total
Clear	122	56%	20	50%
Cloudy	59	27%	9	23%
Rain	26	12%	8	20%
Snow	11	5%	3	8%
Sleet/Freezing Rain	0	0%	0	0%
Fog	0	0%	0	0%
Unknown	0	0%	0	0%
Totals	**218**	**100%**	**40**	**100%**

Time of Day	# Acc	% of Acc Total	# Injury	% of Inj Total
6 AM - 10 AM	42	19%	11	28%
10 AM - 4 PM	101	46%	19	48%
4 PM - 7 PM	54	25%	7	18%
7 PM - 12 Midnight	19	9%	3	8%
1201 - 6 AM	1	0%	0	0%
Unknown	1	0%	0	0%
Totals	**218**	**100%**	**40**	**100%**

Time of Year	# Acc	% of Acc Total	# Injury	% of Inj Total
Fall (Sep Oct Nov)	52	24%	11	28%
Winter (Dec Jan Feb)	47	22%	6	15%
Spring (Mar Aprl May)	62	28%	10	25%
Summer (Jun July Aug)	57	26%	13	33%
Totals	**218**	**100%**	**40**	**100%**

Park lot, Miscodes	# Acc	% Acc
Park Lot	0	0
Miscodes	0	0
Park + Miscode	**0**	**0.00%**
% of all Acc		**0.00%**

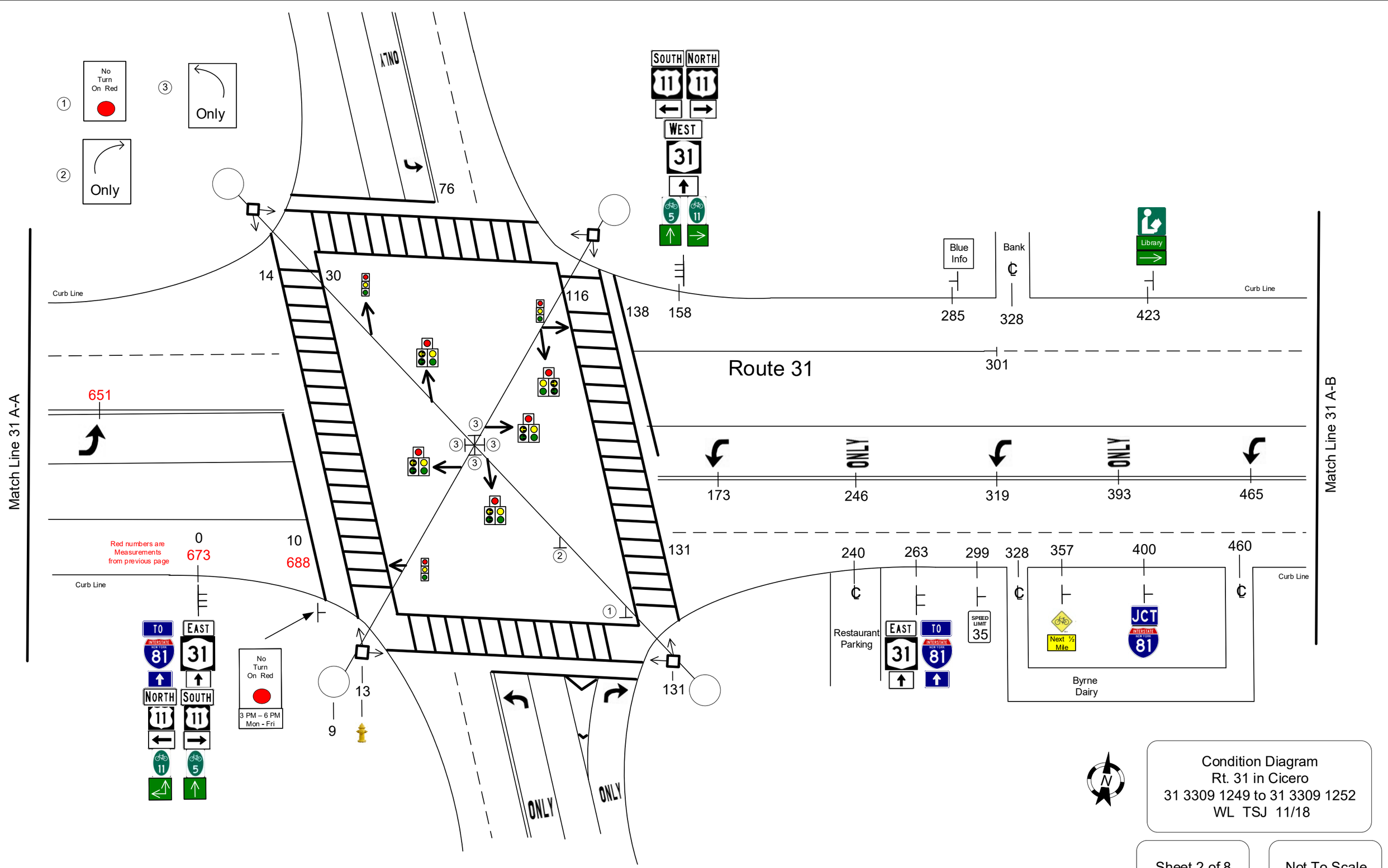
Acc Severity	# Acc	% Acc		
Non-Reportable	62	28%		
Property Damage	115	53%		
Injury	40	18%		
Fatal	1	0%		
Injury + Fatal			41	18.81%
Total	**218**	**100.00%**		



Condition Diagram
Rt. 31 in Cicero
31 3309 1249 to 31 3309 1252
WL TSJ 11/18

Sheet 1 of 8

Not To Scale



Condition Diagram
Rt. 31 in Cicero
31 3309 1249 to 31 3309 1252
WL TSJ 11/18

Sheet 2 of 8

Not To Scale

Match Line 31 Ramp 81 A-A

Route 81
SB Off Ramp

JCT 11

11

Open
Lot

Curb Line

482 540 591

13 ft

Route 31

ONLY

626

539 613 647 657

11 ft

11 ft

11 ft

Match Line 31 A-B

curb cut,
no driveway

642

SPEED LIMIT 35

676

Next 1/2 Mile

701

739

WEST 31

11

742

754

769

776

Do Not Enter

ONLY

797

815

Do Not Enter

835

Wooden
Pole

825

Curb Line

874

South Syracuse

5

777

723

772

4

1

866

840

3

5

2

834

866

Curb Line

North Watertown

5

815

Wooden
Pole

840

Route 81
SB On Ramp

SOUTH 81

ALL 3
PANELS
FADED

508 519 565 632

Curb Line

31
3309
1250

Kwik
Fill

685 705 720

Area
Speed
Limit
30

STOP

693

White Edge Line

715

White Edge Line

764

North Watertown

South Syracuse

767

81-I
3321
1D00

Crab Tree
Ln

Match Line 31 A-C

① Only

② Only

③

④ Left Turn YIELD On Green

⑤

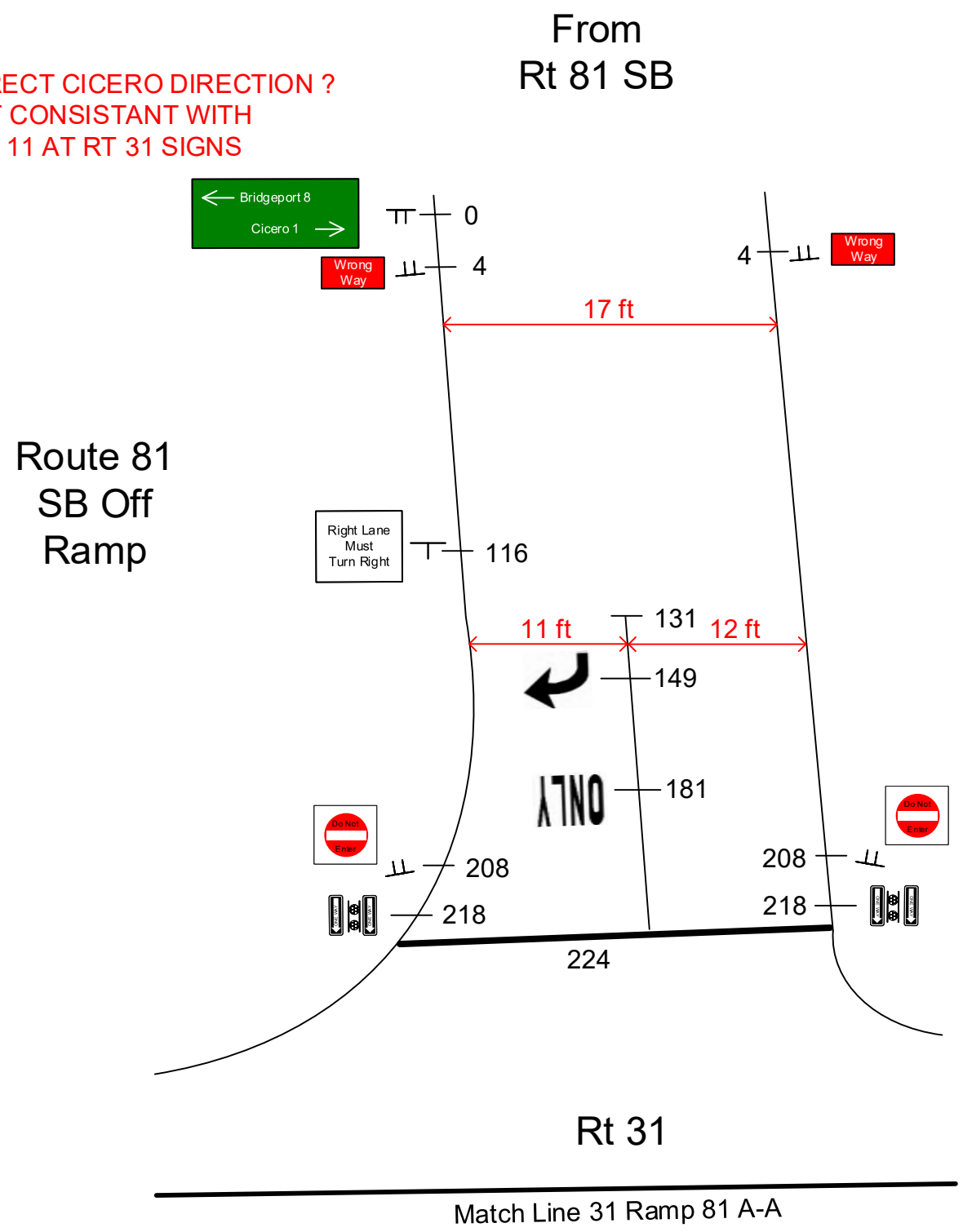
N

Condition Diagram
Rt. 31 in Cicero
31 3309 1249 to 31 3309 1252
WL TSJ 11/18

Sheet 3 of 8

Not To Scale

NOT CORRECT CICERO DIRECTION ?
NOT CONSISTANT WITH
RT 11 AT RT 31 SIGNS



N

Condition Diagram
Rt. 31 in Cicero
31 3309 1249 to 31 3309 1252
WL TSJ 11/18

Sheet 4 of 8

Not To Scale

Match Line 31 Ramp 81 A-B

Pardee Rd

1102

1148

1179

South
Syracuse

31
3309
1251

1059

Curb Line

11 ft
11 ft
11 ft
11 ft
13 ft

907 922 947 1021 1039 1073

ONLY

973

Route 31

996

1096

Curb Line

11

North
Watertown

Match Line 31 A-C

South
Syracuse

North
Watertown

State Law
Do Not
Block
Side
Road

Park and Ride

Curb Line

1216 1221 1225 1296

Route 31

1208 1270 1299 1309

Match Line 31 A-CD

1205

1275

Curb Line

EAST
31

5

11

1125

1118

1188

1186

Route 81
NB Off
Ramp

ONLY

ONLY

Match Line 31 Ramp 81 A-C

1 Only

2 Only

3

4 Only

5 Only

6 Right On Green Arrow Only

N

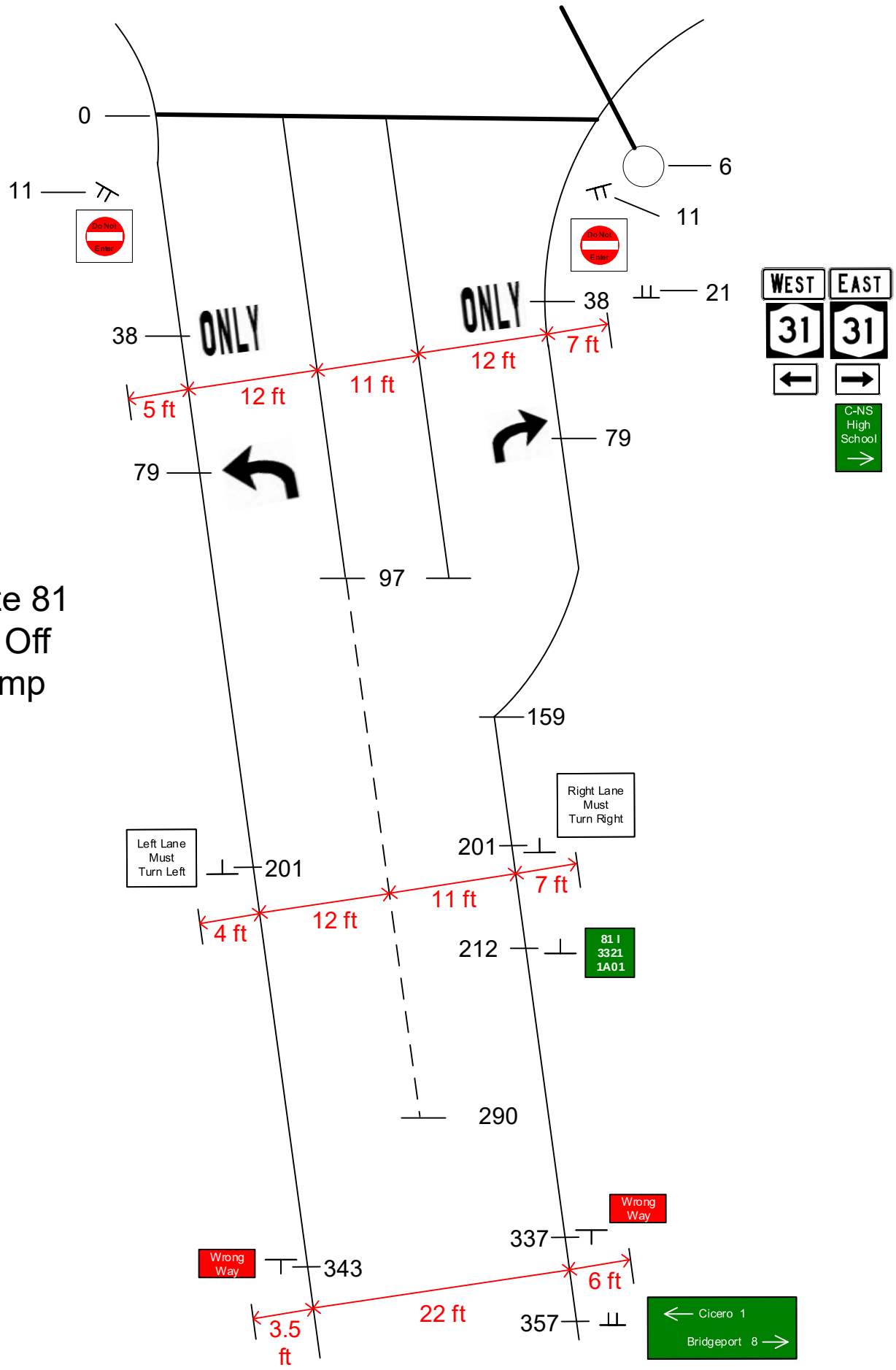
Condition Diagram
Rt. 31 in Cicero
31 3309 1249 to 31 3309 1252
WL TSJ 11/18

Sheet 5 of 8

Not To Scale

Match Line 31 Ramp 81 A-C

Rt 31



Route 81
NB Off
Ramp

From
Rt 81 NB

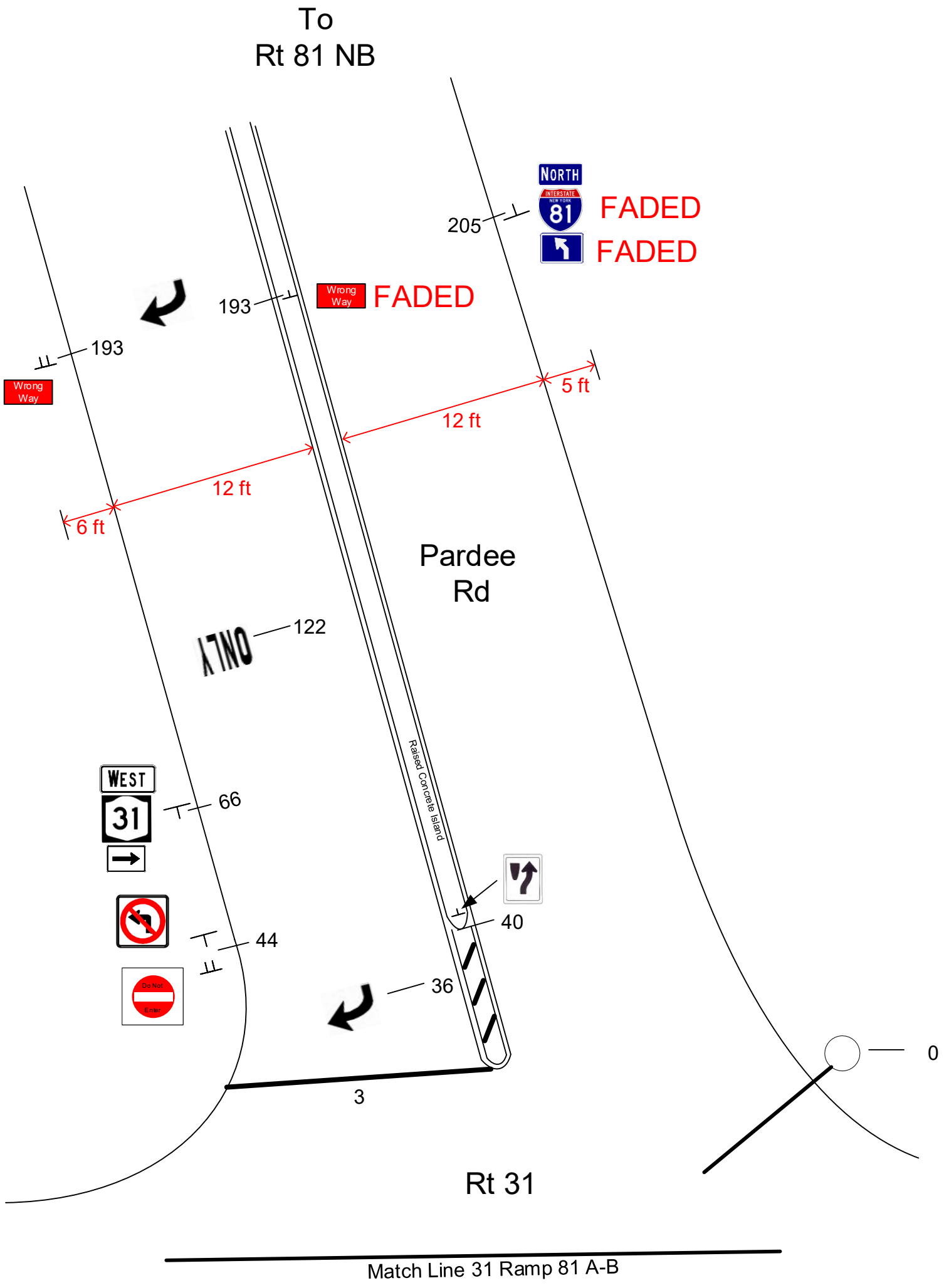
NOT CORRECT CICERO DIRECTION ?
NOT CONSISTANT WITH
RT 11 AT RT 31 SIGNS

N

Condition Diagram
Rt. 31 in Cicero
31 3309 1249 to 31 3309 1252
WL TSJ 11/18

Sheet 6 of 8

Not To Scale



Condition Diagram
Rt. 31 in Cicero
31 3309 1249 to 31 3309 1252
WL TSJ 11/18

Sheet 7 of 8

Not To Scale

Match Line 31 A-D

McDonalds

Drive Thru

SOUTH 81 NORTH 81

WEST 31

11 5

SPEED LIMIT 35

Curb Line

Abandoned Auto Glass

One Post Broken

Dunkin Donuts

McDonalds

JCT INTERSTATE 81

curb cut, no driveway

Center Lane Only

Curb Line

1333 1476 1557 1626 1666 1686 1709 1740 1776 1798 1873

12 ft

11 ft

11 ft

Route 31

1487 1497 1667 1677 1870 1880

11 ft

12 ft

1300 1333 1357 1397 1470 1494 1508 1578 1666 1734 1810 1875

Curb Line

Center Lane Only

STOP 30"

SPEED LIMIT 35

Curb Line

Fast Trak

Auto Detailers

Car Wash

Tan Bldg

Red Bldg

Arby's

N

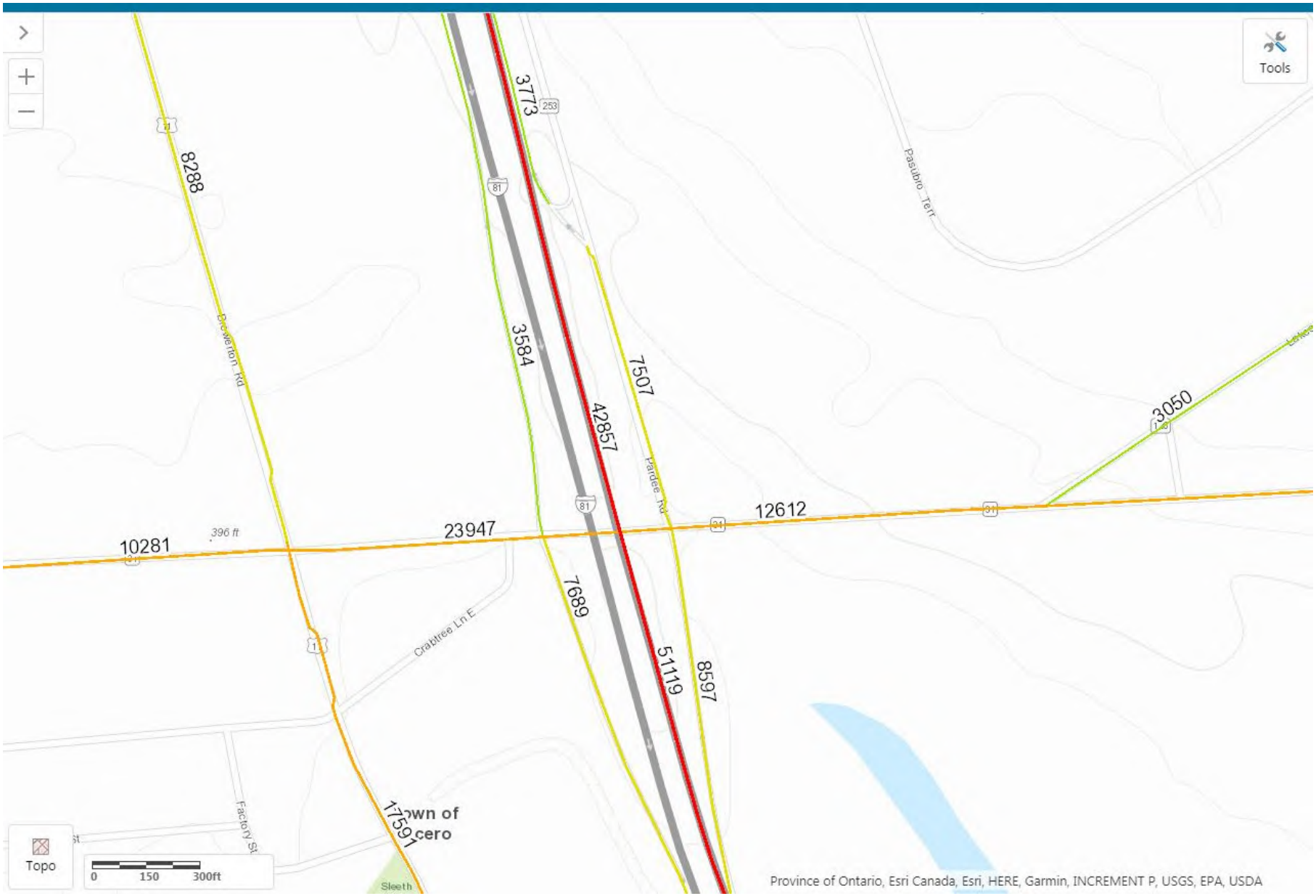
Condition Diagram
Rt. 31 in Cicero
31 3309 1249 to 31 3309 1252
WL TSJ 11/18

Not To Scale

	Accident Patterns Associated With:					Practical Accident Pattern Reduction:				
1)	Obstructions block driver view of opposing vehicles	X			1)	Sight obstruction(s) being removed or lessened?	X			
2)	Drivers are responding incorrectly to traffic control devices	X			2)	Widening narrow street approaches?		X		
3)	Drivers having trouble finding the correct path through the location	X			3)	Improving alignment of the street?	X			
4)	Inappropriate vehicle speeds	X			4)	Increasing too small curb radii?	X			
5)	Violations of parking or other traffic regulations	X			5)	Relocation pedestrian crosswalks?	X			
6)	Driver's confusion about route, street names or other guidance information	X			6)	Improving signs to increase visibility, usefulness, message, size, conformity or to correct placement?		X		
7)	Could vehicle delays be reduced?	X			7)	Changing signals to improve visibility, placement, conformity, number of signal heads, or timing?	X			
8)	Traffic flow deficiencies, or conflicts associated with turning movements?		X		8)	Changing the intersection control?	X			
9)	Pedestrian movement through the location causing conflicts	X			9)	Changing pavement markings to improve their clarity or location?	X			
10)	Would one-way operation be practical, make the location safer?	X			10)	Improving channelization to reduce conflict areas, separate traffic flow, define movements?	X			
11)	Is the volume of traffic causing a problem?	X			11)	Is the legal parking layout affecting sight distance or traffic flow?				
12)	Are there other traffic flow deficiencies or conflicts?	X			12)	Changing inappropriate speed limits?	X			
13)	Animal related accidents?	X			13)	Increasing the number of lanes?	X			
					14)	Improving Street lighting?	X			
					15)	Modifying design, location of driveways?	X			
					16)	Improving pavement surface condition?	X			

COMMENTS: Use 'O' Operational, or 'P' Physical, & Item No. from above, to describe 'Yes" responses in comments below

Operational 'O' and Item #		Physical 'P' and Item #	
"O" 8	There are several Left Turn/Head on crash patterns along Rt. 31 related to full access commercial driveways within a 5-Lane urban undivided section under peak hour conditions. Left Turn/Head on crash patterns were also identified at the signalized intersections of Rt. 31 at Rt. 11 and at both I-81 NB and SB On Ramps under permissive phasing.	"P" 2	Consider lengthening the existing dedicated right turn lane for the I-81 NB off ramp to go east on Rt.31 to address identified sideswipe crashes and reduce the length of stopped traffic queues which back up onto mainline I-81during heavy PM peak times.
		"P" 6	Replacement of weathered/damaged signs to improve visibility. Add reflectorized post strips to regulatory sign posts throughout the study area.
"O"		"P"	


Tools
3773
253
8288
81
Pasubio Terr
Brewerton Rd
3584
7507
42857
3050
Pardee Rd
12612
31
23947
10281
396 ft
7689
51119
8597
Crabtree Ln E
Factory St
17591
Sleeth
Topo
0
150
300ft
Province of Ontario, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

EL.TE 156 a (ver. 03/06)

TE&S File **31.18-31**

1. IDENT. NO. : '18-'19 3 3 0 0 1 6

LOCATION

[X] TOWN
[ ] CITY
[ ] VILLAGE
of : Cicero

COUNTY : Onondaga

STATE OF NEW YORK
DEPARTMENT of TRANSPORTATION
TRAFFIC and SAFETY DIVISION
HIGHWAY SAFETY INVESTIGATION REPORT

MAIN OFFICE USE :

DIVISION FILE _____

REVIEWED BY _____

SCHEDULED for Befr & Aftr [ ]

ROUTE NO. OR STREET NAME	STATE HIGHWAY NO.	FROM OR AT REFERENCE MARKER
Route 31	452	3 1 3 3 0 9 1 2 5 3
(if any) Intrs. with ROUTE NO. OR STREET NAME	STATE HIGHWAY NO.	TO REFERENCE MARKER
Lakeshore Rd to CNS	NA	3 1 3 3 0 9 1 2 5 7

2. REASON for INVESTIGATION

- [X] a. IDENTIFIED by ACCIDENT SURVEILLANCE SYSTEM
- [ ] b. POLICE HAZARD REPORT
- [ ] c. RESPONSE to COMPLAINT or INQUIRY
- [ ] d. REGIONALLY INITIATED
- [ ] e. OTHER: _____

3. RECOMMENDATION

- [X] a. CAPITAL IMPROVEMENT (Initiate Proj. Devel. Study)
- [X] b. TRAFFIC CONTROL IMPROVEMENT
- [X] c. MAINTENANCE IMPROVEMENT
- [ ] d. OTHER:___ _____
- [ ] e. NONE

_____ sections 4 & 5 completed below

4. DISCUSSION (2nd form used if additional space is required.) [X] (Checked if second form is used.)

a. PROBLEMS IDENTIFIED

1) Route 31 from Lake Shore Rd (RM 1253) to North Star Drive (RM 1257) is in the T/o Cicero, in Onondaga County. Rt. 31 is signed as an east/west highway, and the actual direction of highway in the study area is east/west. This HSI is # 7 (out of 127) on the 2017 PIL list, with a severity index of 11.73. This section of Route 31 is classified as an Urban minor arterial, has an AADT of 12,612 (Traffic Data Viewer), and is not on the National Highway System (NHS). The study area for this section of Rt. 31 is approximately 0.5 miles long. Route 31 in the study area is an undivided four lane highway, with 11 – 13-foot travel lanes in both directions, and a TWLTL. The speed limit on Route 31 in the study area is 35 MPH. Currently the centerline is marked as no passing on Route 31 within the study area. CARDS are/not in place in the study area because the speed limit is below 45.

b. PROPOSED SOLUTION

1) Various sign panels are worn/ faded and should be replaced. Interim measure to add "No Left Turn" sign to address unsafe turning off of Lake Shore Rd. merge to Rt. 31 EB.

2) Implement and prioritize various short term and intermediate projects to address safety and operational needs until the future interchange project is programmed.

c. ACTION TAKEN

1) Memo sent to Residency to complete sign work.

2) Traffic and Safety Group held an in house meeting on 3/20/19 to discuss alternatives for future interim safety projects to address both short term and intermediate safety needs along the Route 31 corridor. Traffic to further analyze and review potential short term and intermediate projects to determine if a future capital project is feasible.

d. CRASH RELATED INFORMATION

			EXISTING PER YEAR CONDITION	PER YEAR REDUCTION
CALCULATED INTERSECTION RATE	1.45	Acc/MEV	SEVERE	
STATEWIDE INTERSECTION RATE	0.55	Acc/MEV	TOTAL	

5. CRASH EXPERIENCE 76 Acc in 3 YR

NUMBR of MNTHS	PERIOD BEGINNING with MONTH	PERIOD BEGINNING with YEAR	NUMBER of ACCIDENTS Fatal Acc.	Personl Injury Acc.	Property Damage Acc.	Non - Reportbl Acc.
36						
08	05	15	0	7	7	5
12	01	16	0	6	9	11
12	01	17	0	6	12	5
04	01	18	0	0	7	1
TOTALS			**0**	**19**	**35**	**22**
			76			

6. BENEFIT / COST ANALYSIS

[ ] Box checked = Benefit / Cost calculations attached

PRINCIPAL INVESTIGATOR

TITLE CE II

TE & S APPROVAL BY

DATE

HIGHWAY SAFETY INVESTIGATION
TE-156a

Discussion

a) Problems Identified

2) The linear accident rate was not considered relevant for this study due to the number of accidents occurring at the intersections.

3) Calculated accident severity for injury is 19/76 = 25.00%. State average accident severity for injury is 22.84%. (Free access, Urban, Undivided, 4 lanes, all accident types 1/1/16 to 12/31/17).

4) Various sign panels are worn/faded and should be replaced.

5) There were no fatalities within the limits of the study area from 1/1/1987 to 4/30/18.

6) There were 76 accidents that occurred in the study area, resulting in 19 injuries. 55 of the 76 were rear end accidents.

7) The signalized 4-legged intersection of Lake Shore Rd. Spur/ADESA has a rear end crash pattern along both the EB and WB approaches along Rt. 31. There were a total of 13 rear end crashes in the WB direction and 4 in the EB direction. There was 1 rear end crash on the Lake Shore Rd. spur leg. Out of the 18 rear end crashes 3 resulted in injuries. There were 2 additional crashes 1 sideswipe and 1 run off the road in the EB direction. Following too closely and driver inattention were listed as contributing factors. The calculated Intersection accident rate is 1.32 Acc./Mev. is 2.4 times the Statewide Ave. of 0.55 Acc./Mev (4-Legged Intersection, Urban, Signal, 1-4 Lanes, 1/1/16 to 12/31/17).

a) Problems Identified (Cont.)

8) The un-signalized stop control 3-legged intersection of Lake Shore Rd. controlled by a stop sign has a pattern of rear end crashes along the WB approach. There were a total 9 rear end accidents along the WB approach. Out of the 9 rear end crashes none resulted in injury. There were 2 left turn head on crashes related to motorists EB on Rt. 31 making a left turn onto Lake Shore Rd. colliding with a Rt. 31 WB motorist 1 of which resulted in injuries; contributing factors listed driver inattention and view obstructed. There currently is an identifiable accident pattern involving rear end crashes at Lake Shore Rd. under stop control. WB motorists are looking for gaps in the approaching traffic stream along Route 31 colliding with stopped vehicles in front of them. Recommend running an updated SYNCHRO model to document the proposed signal phasing needed to close off the Lake Shore Rd. merge and re-direct all traffic onto the Lake Shore Rd. spur for access to Route 31 to address the identified rear end crash pattern. The calculated Intersection accident rate is 0.78 Acc./Mev. is 4.3 times the Statewide Ave. of 0.18 Acc./Mev (3-legged Intersection, Urban, Sign, 1-3 Lanes, 1/1/16 to 12/31/17).

9) The signalized 4-legged intersection of New Country Drive Plaza/Cicero Elementary School has a rear end crash pattern along both the EB and WB approaches along Rt. 31. There were a total of 13 rear end crashes in the WB direction and 7 in the EB direction. Out of the 20 rear end crashes 6 resulted in injuries. Following too closely and driver inattention were listed as contributing factors. The calculated Intersection accident rate is 1.45 Acc./Mev. is 2.6 times the Statewide Ave. of 0.55 Acc./Mev (4-Legged Intersection, Urban, Signal, 1-4 Lanes, 1/1/16 to 12/31/17).

10) The signalized 3-legged “Tee” intersection of North Star Drive to Cicero N. Syr. High School (CNS) did not exhibit any identifiable accident patterns. There were 5 total accidents, 2 rear end (1 Injury), 1 left turn/head on (Injury), 1 right turn and 1 sideswipe crash. The calculated intersection accident rate is 0.35 Acc./Mev. is 2.3 times the Statewide Ave. of 0.15 Acc./Mev (3-legged Intersection, Urban, Sign, 1-3 Lanes, 1/1/16 to 12/31/17).

) Problems Identified (Cont.)

11) An examination of location file 31.18-31 found the following: A PSAP study dated 8/14/18 for the intersection of Rt. 31 at New Country Drive/ Cicero Elementary School concluded that an “LS” type crosswalk be installed on the Cicero Elementary School leg. All existing pedestrian crossings should be upgraded to audible pedestrian signals. Back plates should be installed on all signal heads. A PSAP study dated 8/14/18 for the intersection of Rt. 31 and Lake Shore Rd. Spur/Auto driveway concluded that a new signalized pedestrian crossing should be installed across the south and east legs of the intersection. Back plates should be installed on all signal heads. An email dated 8/9/18 from the Cicero Chief of Police expressed concern about the Rt. 31 at Lake Shore Rd merge intersection, specifically people WB on Lake Shore Rd. having to twist 180 degrees to see Rt. 31 WB traffic, and people WB on Lake Shore Rd making unsafe left turns to Rt. 31 EB. He suggested a “No Left Turn” sign be placed on the Lake Shore Rd. merge facing WB traffic at the intersection, or eliminate the Lake Shore Rd. merge intersection entirely routing all traffic to the Lake Shore Rd. spur allowing motorists to head EB or WB on Rt. 31 via the signalized intersection. A PSAP study dated 8/14/18 for the intersection of Rt. 31 at Cicero High School concluded that back plates should be installed on all signal heads. A letter dated 7/22/16 stated that improvements would be made to the crosswalk at Thee Diner, in response to concerns expressed by the Town of Cicero Highway Supervisor about drivers not stopping for pedestrians in that crosswalk (email dated 5/13/15, a year previous).

) Problems Identified (Cont.)

Signal information:

Date: November 26, 2018

Signal No. 260 – Route 31 at Lakeshore Dr. spur
Town of Cicero, Onondaga County

Signal File/ Location File (31.18-11/31):

- Signal installed and notice of order verifies the operation of three color signal on 3/17/1994. Signal turn on date was 2/16/1994.
- Detection loops installed for signal on 5/9/1994.
- Signal timing changes made November 1995.
- Signal timing changes made 4/5/2001.
- Signal timing changes made 4/11/2005.
- Signal controller replaced in 2006. Coordination signal program also installed at this time, on 11/20/2006.
- All-red signal times modified as a direct result of signal case no. 3050101 on 10/24/2006.
- Overhead “Oncoming vehicles may have extended green” sign added to overhead signal, study performed 9/26/2011.
- Signal timing changes made 11/15/2011.
- Intersection studied under the Pedestrian Safety Action Plan – Phase 1. As part of this study, back plates are recommended and will be installed in the future. Pedestrian crossings are also recommended across the southern and eastern legs of the intersection, and are to be installed in the future. Recommendations signed on 8/14/2018.

) Problems Identified (Cont.)

Date: November 26, 2018

Signal No. 256 – Route 31 at New Country Dr.
Town of Cicero, Onondaga County

Signal File/ Location File (31.18-11/31):

- Signal installed and notice of order verifies the operation of three color signal on 3/16/1992. Work was performed a as direct result of highway work permit no. 03-90-4882. Signal was turned on 5/21/1991.

- Signal timing changes made 4/5/2001.

- New signal controller installed 11/20/2006.

- Signal timing changes made 11/15/2011.

- Intersection studied under the Pedestrian Safety Action Plan – Phase 1. As part of this study, back plates are recommended and will be installed in the future. Pedestrian crossings are to be upgraded to audible pedestrian units, and are to be installed in the future. Recommendations signed on 8/14/2018.

a) Problems Identified (Cont.)

Date: November 26, 2018

Signal No. 166 – Route 31 at Cicero High School
Town of Cicero, Onondaga County

Signal File/ Location File (31.18-11/31):

- Removal of "STOP" signs at school entrance via a notice of order dated 12/4/1970.
- Flashing signal installed and notice of order verifies the operation of signal on 12/4/1970. Signal operates normally as flashing signal and under direction from Regional Director, the signal is to operate as a three-color for the school driveway.
- Notice of order verifies the operation of the intersection via a semi-actuated signal, with vehicle detection loops. Order dated 3/21/1985. The signal was installed as a direct result of a highway work permit. Signal turn on was 1/2/1985.
- Traffic signal ownership transferred to NYSDOT on 1/1/1993.
- Route 31 eastbound right turn lane installed by NYSDOT Maintenance crews at intersection via a response letter dated 8/2/1984. A right turn arrow was installed as part of PIN 3037.48 under a capital improvement project.
- Timing adjustment made to allow more time for the westbound left movement into the school driveway, and a "No turn on Red" request was denied under signal case no. 3950127. Work completed 7/6/1995.
- Signal timing changes made 1/4/2000.
- Signal timing changes made 4/5/2001.
- New signal controller installed 12/15/2006.
- Signal timing changes made 11/15/2011.
- Intersection studied under the Pedestrian Safety Action Plan – Phase 1. As part of this study, back plates are recommended and will be installed in the future. Recommendations signed on 8/09/2018.

a) Problems Identified (Cont.)

12) **CONCLUSIONS & RECOMMENDATIONS**: There were a total of 76 accidents that occurred within the subject study area with the majority of crashes, 55 resulting in rear end crashes, 14 of which involved injuries. Most of the rear end crash patterns occurred under dry pavement with clear/cloudy weather conditions and mostly involved the usual 2 vehicle rear end crashes involving thru movements with contributing factors listed driver inattention and following too closely. The Pedestrian Safety Action Plan (PSAP) is currently studying the entire Route 31 corridor to determine the corrective measures needed to address the pedestrian safety issues.

The documented number of peak hour crashes 38 (50%) 6:00 AM to 10:00 AM and 4:00 PM to 7:00 PM compared to off-peak crashes 38 (50%) is equally split when comparing AM and PM peak hour (7 Hrs.) crashes to off-peak crashes throughout the day from 10:00 AM to 4:00 PM and 7:00 PM to 6:00 AM (6 Hrs.). There were very few left turn related crashes in comparison to the number of rear end crashes. There were 5 turn related crashes associated with both ADESA driveways and Lake Shore Rd. Intersection due to driver inattention, slippery pavement, view obstructed, and turn improper. Likewise, there were 2 turn related crashes associated with the North Star Drive to Cicero High School. There was a head on crash just east of Lake Shore Rd. involving a westbound vehicle that crossed into the path of an eastbound motorist resulting in injuries.

The observed crash patterns are typical for a heavily congested corridor with relatively closely spaced three colored signals. Eighty-Fifth percentile speeds are sufficiently high enough during peak hour times to cause concern with the use of closely spaced coordinated signals along with lack of adequate storage space for the high peak hour volumes.

Often during the heaviest PM peak hour times there is a lot of platooning of traffic especially the number of right turning vehicles exiting I-81 NB off ramp heading eastbound on Rt. 31. Throughout the Rt. 31 corridor there are noticeable signs of congestion. Noticeable there is an unbalanced lane use in the WB direction due to the signalized intersection I-81NB offramp/Pardee Rd. and associated short left turn lanes presenting little if any opportunity for motorists to change lanes between closely spaced signals.

Westbound motorists on Lake Shore Rd. who are trying to get to I-81 SB on ramp will often avoid using the right most curb lane in fear of not being able to get over in time to make the left turn onto I-81 SB on ramp. Quite often the capacity of the short WB left turn lane is far exceeded causing stopped queued traffic to spill over into the adjacent interior thru lane further limiting a motorist's chance of reaching the left turn lane to the I-81 SB on ramp.

a) Problems Identified (Cont.)

13) **CONCLUSIONS/RECOMMENDATIONS (Cont.):**

A request was received from the Town of Cicero's Police Chief to prohibit motorists headed WB on Lake Shore Rd. from making left turns to head east on Rt. 31 with placement of "No Left Turn" signs. He also recommended closing off the Lakeshore Rd./Rt. 31 merge lane which currently operates under stop control would require all traffic to access from the Lake Shore Rd. spur to head east and west along Rt. 31 and would likely result in additional delay for motorists on both Rt. 31 and Lake Shore Rd. A delay study should be done to determine the aggregate effect on both Rt. 31 and Lakeshore Rd. as a means of documenting any noticeable drop in level of service or reduction in delays. An added benefit to closing the Lake Shore Rd. merge lane would be for those WB motorists making a right turn from the spur would already be in the left lane without having to change lanes to access the I-81 SB on ramp especially during the AM peak.

Long term improvements/recommendations will be addressed under a more comprehensive future "interchange" project to address greater needs in improving overall capacity/safety needs and reducing driver delays especially during peak hours. This project is currently on the Capital Program as a "wish list" project with a 22 M estimate and will address safety concerns along the Route 31 corridor near the I-81 Interchange.

a) Problems Identified (Cont.)

In addition to the large long term project, the following is a list of potential short term and intermediate projects to address various safety and operational needs for the Rt. 31 corridor:

- Placement of an I-81 SB "Loop Ramp" that would eliminate the WB Rt. 31 left turn crossing maneuver and its associated accident pattern. Discussions would need to take place with the Town to determine the feasibility of acquiring property immediately west of the I-81 bridges along the north side of Route 31 in the northwest quadrant. *(Intermediate measure)*

- Extension of the Rt. Turn lane for the I-81 NB off ramp to Rt. 31 will accommodate for PM peak storage in order to prevent stopped traffic from queueing back up the ramp onto the NB I-81 mainline. *(Intermediate measure)*

- Option to close off the un-signalized intersection of Lakeshore Rd. and redirect through traffic along the Lakeshore Rd. signalized spur or "Tee-Up" the existing Lakeshore Rd. approach to 60 degrees. *(Intermediate measure)*

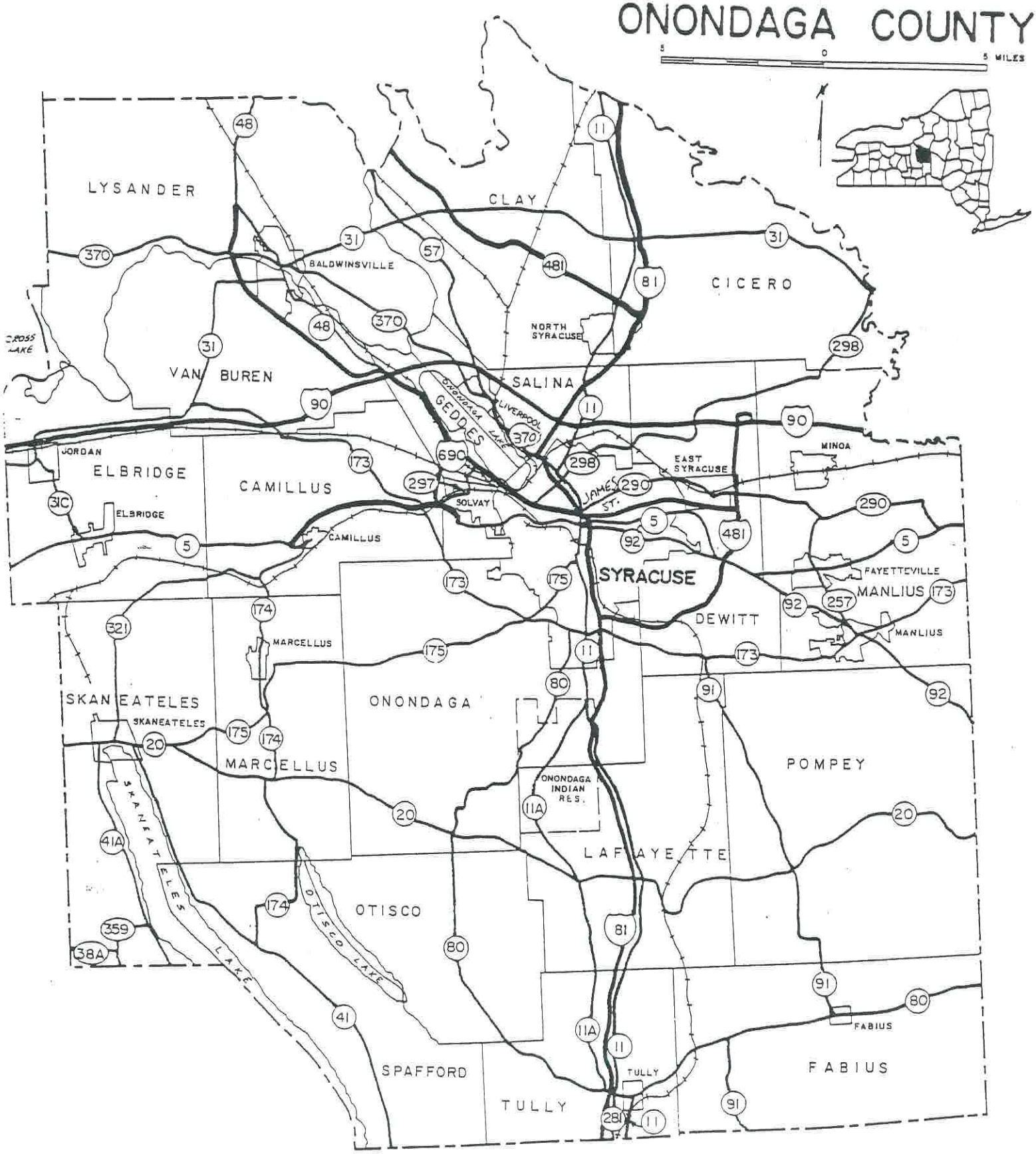
- Closing off the stop controlled intersection of E. Crabtree Ln. in addressing the small cluster of right angle crashes. *(Short Term measure)*

- The poorly designed internal circulation on the CNS High School site was cited as a cause of traffic backing up in the EB Rt. 31 right turn lane due to people who are unable to enter the CNS driveway due to stopped vehicles within the site. Reconfiguration of the internal movements within the CNS site is needed to improve ingress/egress at the Route 31 and CNS High School intersection during the morning peak hour. *(Intermediate measure)*

- Widening under the I-81 bridge to provide side by side dedicated left turn lanes along EB and WB Rt. 31. The widening would provide for a sidewalk section using a retaining wall with accommodations of a sidewalk section behind the piers/columns. This would provide for the additional storage lengths needed for Rt. 31 turning vehicles under the I-81 bridge particularly during peak AM and PM hours. *(Intermediate measure)*

- Restrict access to right in/right out driveways for existing driveways by installing a 3-4 ft. wide raised curbed median from Rt. 11 to Pardee Rd. or from Rt. 11 to Lakeshore Rd. This will prevent accidents associated with left turn crossing maneuvers across multi-lane undivided urban roadways. Additionally, these maneuvers adversely impact driver delay as a result of motorists turning left into various commercial sites. *(Intermediate measure)*

- Potential Crabtree Rd. East spur connection to I-81 SB on-ramp. *(Intermediate measure)*


ONONDAGA COUNTY
5 0 5 MILES
LYSANDER
CLAY
CICERO
BALDWINSVILLE
NORTH SYRACUSE
VAN BUREN
SALINA
GEDDES
LIVERPOOL
JORDAN
ELBRIDGE
CAMILLUS
SOLVAY
EAST SYRACUSE
MINOA
JAMES ST.
SYRACUSE
FAYETTEVILLE
MANLIUS
DEWITT
MARCELLUS
SKANEATELES
ONONDAGA
POMPEY
ONONDAGA INDIAN RES.
LAFAYETTE
OTISCO
SPAFFORD
TULLY
FABIUS
SKANEATELES LAKE
OTISCO LAKE
CROSS LAKE

Sign in
Pasubio Terrace
Pasubio Terrace
Pasubio Terrace
Carmenica Dr
Lakeshore Rd
Lakeshore Rd
Cicero Elementary School
Study Area
Thee Diner
McDonald's
Meadows Frozen Custard
City Customs
Hwy 31
Hwy 31
Hwy 31
Community Bank, N.A
CanTeen
Arby's
ADESA Syracuse
New Country Dr
New Country Max Plaza
Dollar Tree
ALDI
Cicero North Syracuse High School
Diffin Rd
Satellite
Google
Fantail Ln
Map data ©2018 Google
United States
Terms
Send feedback
200 ft

Details of Accident History Key

Light Conditions (MV 104 Box 4)		Roadway Characteristics (MV 104 Box 5)		Roadway Surface Condition (MV 104 Box 6)		Weather (MV 104 Box 7)	
1	Daylight	1	Straight and Level	1	Dry	1	Clear
2	Dawn	2	Straight and Grade	2	Wet	2	Cloudy
3	Dusk	3	Straight and Hillcrest	3	Muddy	3	Rain
4	Dark Road Lighted	4	Curve and Level	4	Snow/Ice	4	Snow
5	Dark Road Unlighted	5	Curve and Grade	5	Slush	5	Sleet/Hail/Freezing Rain
		6	Curve and Hillcrest	6	Flooded	6	Fog/Smog/Smoke
U	Unknown	U	Unknown	U	Unknown	U	Unknown

Injury Code	Description
K	Any injury that results in death
A	Severe lacerations, broken limbs, fractures or broken bones,
B	Lump on head, abrasions, minor lacerations
C	Momentary unconscious, limping, nausea, hysteria, pain, (no visible injury)

Accd No	Date			Time	# of Veh	Sev	Light Cond	Roadway Character	Rd Surface Conditions	Weather Condition	Contrib Factor 1	Contrib Factor 2	Type of Accd	Veh Type	Location
3	5	4	15	1453	2	N	1	1	1	1	Following too Closely	Unknown	RE	P	new cntry
Details:	V1 NB NEW COUNTRY DRIVE STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
9	5	22	15	1737	2	I	1	1	1	1	Following too Closely	Driver Inattent/Distract	RE	P	lakeshore
Details:	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
18	6	10	15	1657	2	N	1	1	2	1	Following too Closely	Unknown	RE	P	lakeshore
Details:	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
20	6	12	15	1224	2	N	1	1	1	2	React to Uninvolved Veh	FTY	RA	P	tri state
Details:	V1 NB TO RT 31 WB THROUGH COURTESY GAP STRIKES V2 WB RT 31														
31	7	2	15	1317	2	I	1	1	1	1	Driver Inattent/Distract	Following too Closely	RE	P	lakeshore
Details:	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
32	7	17	15	1816	2	N	1	1	2	3	Driver Inattent/Distract	Unknown	RE	C	lakeshore
Details:	V1 COM TRUCK WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
33	7	13	15	0830	2	I	1	1	1	1	Traffic Cntrl Disregard	Unknown	RA	P	elem schl
Details:	V1 WB RT 31 RAN RED LIGHT STRUCK V2 SB EXITNG FROM CICERO ELEMENTARY SCHOLL TO RT 31														
37	8	13	15	1812	4	P	1	1	1	1	Following too Closely	Glare	RE	P	lakeshore
Details:	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1, CAUSED CHAIN REACTION WHICH INVOLVED A TOTAL OF 4 VEHICLES														
39	8	24	15	1455	2	I	3	1	1	1	Following too Closely	Unknown	RE	P	new cntry
Details:	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
53	10	7	15	1530	2	P	1	1	1	2	Following too Closely	Unknown	RE	P	1256
Details:	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
54	9	20	15	1830	2	I	1	1	1	1	Following too Closely	Unknown	RE	P	new cntry
Details:	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
55	10	8	15	1925	3	I	4	1	1	2	FTY	Driver Inattent/Distract	LT	P	lakeshore
Details:	V1 EB RT 31 TURNS LEFT TO LAKESHORE RD STRIKES V2 WB RT 31, V2 STRIKES V2 ALSO WB RT 31														
58	10	12	15	1715	3	P	1	2	1	1	Driver Inattent/Distract	Unknown	RE	P	lakeshore
Details:	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1, CAUSED CHAIN REACTION WHICH INVOLVED A TOTAL OF 3 VEHICLES														
63	10	26	15	1240	2	P	1	1	1	1	Unsafe Lane Change	Unknown	SS	C	1255
Details:	V1 EB RT 31 CHANGED LANES AND STRUCK V2 COM TRUCK EB RT 31														
64	10	29	15	1523	3	P	1	1	1	1	Following too Closely	Driver Inattent/Distract	RE	P	lakeshore
Details:	V1, V2 WB RT 31 STOPPED, V3 DID NOT STOP STRUCK REAR OF V1, CAUSED CHAIN REACTION WHICH INVOLVED A TOTAL OF 3 VEHICLES														
69	12	2	15	1411	2	I	1	1	2	3	Following too Closely	Unknown	RE	P	new cntry
Details:	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
70	12	5	15	0315	2	P	5	1	1	2	Animal Action	Unknown	AN	P	1254
Details:	V1 WB RT 31 STRUCK DEER														
73	11	12	15	1750	2	N	4	1	2	3	FTY	Unknown	SS	P	1253
Details:	V1 EB RT 31 STARTS LEFT TURN, SEES V2 WB RT 31 PULLS RIGHT BUT STILL SIDESWIPED V2														
75	12	23	15	1602	2	P	1	1	2	3	Following too Closely	Pavement Slippery	RE	C	new cntry
Details:	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
82	1	4	16	0725	2	N	1	1	1	2	Following too Closely	Unknown	RE	P	lakeshore
Details:	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
83	1	5	16	1634	3	P	1	1	1	1	Following too Closely	Glare	RE	P	lakeshore
Details:	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1, CAUSED CHAIN REACTION WHICH INVOLVED A TOTAL OF 3 VEHICLES														
92	2	10	16	1551	2	P	1	1	4	4	Driver Inattent/Distract	Following too Closely	RE	P	new cntry
Details:	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
98	2	26	16	1418	2	N	1	1	1	2	Following too Closely	Unknown	RE	P	new cntry
Details:	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
110	3	21	16	1246	2	N	1	1	2	4	Following too Closely	Unknown	RE	P	lakeshore
Details:	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
113	4	22	16	1417	2	I	1	1	1	2	Prescription Medication	Failure to Keep Right	HO	P	1254
Details:	V1 WB RT 31 CROSSES CENTERLINE STRIKES V2 EB RT 31														
116	5	11	16	1540	2	N	1	1	1	1	Following too Closely	Unknown	RE	P	new cntry
Details:	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
117	4	26	16	1700	3	I	1	1	1	2	Following too Closely	Driver Inattent/Distract	RE	P	lakeshore
Details:	V1, V2 WB RT 31 STOPPED, V3 DID NOT STOP STRUCK REAR OF V1, CAUSED CHAIN REACTION WHICH INVOLVED A TOTAL OF 3 VEHICLES														
131	6	24	16	1301	2	N	1	1	1	2	View Obstructed/Limited	Unknown	LT	P	pizza
Details:	V1 EB RT 31 ATTEMPTS LEFT TURN TO PIZZA SHOPE ? STRIKES V2 WB RT 31														
134	7	6	16	1345	2	P	1	1	1	1	Following too Closely	Driver Inattent/Distract	RE	P	new cntry
Details:	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
139	7	22	16	1537	2	N	1	1	1	1	Following too Closely	Unknown	RE	P	lakeshore
Details:	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
141	7	25	16	1420	2	I	1	2	2	3	FTY	Traffic Cntrl Disregard	LT	P	north star
Details:	V1 WB RT 31 TURNS LEFT TO NORTH STAR STRIKES V2 EB RT 31														
153	8	30	16	1140	2		1	1	1	1	Driver Inattent/Distract	Unknown	RE	P	new cntry
Details:	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
157	9	15	16	0710	2	P	1	4	1	1	Backing Unsafely	Unknown	RE	P	lakeshore
Details:	V1 STOPPED WB LAKESHORE RD BACKS UP STRIKES V2 STOPPED WB LAKESHORE RD														
160	9	25	16	0940	2	P	1	1	1	1	Driver Inattent/Distract	Unknown	RE	P	lakeshore
Details:	V1 WB LAKESHORE RD STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
161	9	29	16	0756	2	P	1	1	1	2	Unknown	Unknown	RE	P	lakeshore
Details:	V1 SB LAKESHORE RD SPUR STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
164	10	5	16	1500	2	N	1	1	1	1	Following too Closely	Unknown	RE	P	lakeshore
Details:	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
166	10	11	16	0720	2	I	1	1	1	2	Following too Closely	Driver Inattent/Distract	RE	P	new cntry
Details:	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
167	10	20	16	1412	2	I	1	1	2	3	Following too Closely	Unknown	RE	P	new cntry
Details:	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
173	11	6	16	1753	1	P	5	1	1	1	Animal Action	Unknown	AN	P	1253
Details:	V1 WB RT 31 STRUCK DEER														
181	11	20	16	1010	1	N	1	1	2	4	Pavement Slippery	Unknown	FO	P	lakeshore
Details:	V1 EB RT 31 LOST CONTROL STRUCK CURB ENDED IN AUTO ACTION DRIVEWAY														
188	12	3	16	2003	2	N	4	1	1	2	Driver Inattent/Distract	Driver Inexperience	RT	P	tri state
Details:	V1 EB RT 31 LEFT LANE ATTEMPTS RIGHT TURN STRIKES V2 EB RT 31 RIGHT LANE														
191	11	25	16	1248	2	P	1	1	1	2	Unknown	Unknown	RE	P	lakeshore
Details:	V1 WB LAKESHORE RD STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
193	12	7	16	1715	3	I	5	1	1	1	Following too Closely	Unknown	RE	P	new cntry
Details:	V1, V2 WB RT 31 STOPPED, V3 DID NOT STOP STRUCK REAR OF V2, V2 PUSHED INTO V1														
196	12	14	16	1432	2	P	1	1	1	1	Following too Closely	Unknown	RE	P	new cntry
Details:	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
199	12	21	16	2102	2	N	4	1	1	1	FTY	Traffic Cntrl Disregard	RA	P	lakeshore
Details:	V1 WB LAKESHORE RD RAN STOP SIGN STRUCK V2 EB RT 31														
206	1	11	17	0940	2	I	1	1	2	1	Following too Closely	Driver Inattent/Distract	RE	P	north star
Details:	V1 EB RT 11 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
209	1	18	17	1419	2	P	1	1	2	3	Following too Closely	Driver Inattent/Distract	RE	P	lakeshore
Details:	V1 WB LAKESHORE RD STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
217	2	21	17	1605	2	P	1	1	1	1	FTY	Unknown	RA	P	lakeshore
Details:	V1 NB LAKESHORE RD SPUR STOPS PROCEEDS FTY STRIKES V2 NORTHEAST ON LAKESHORE RD														
224	3	18	17	2015	2	P	4	2	2	4	FTY	Turn Improper	LT	P	lakeshore
Details:	V1 WB LAKESHORE ROAD ATTEMPTS LEFT TURN TO RT 31 EB STRIKES V2 WB RT 31														
231	4	4	17	1734	2	N	1	1	2	3	Following too Closely	Unknown	RE	P	new cntry
Details:	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
237	4	26	17	0723	2	N	1	1	1	1	Following too Closely	Driver Inattent/Distract	RE	P	Rt 11
Details:	V1 WB LAKESHORE RD STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
241	5	17	17	0915	2	P	1	1	1	1	Driver Inattent/Distract	Following too Closely	RE	P	lakeshore
Details:	V1 WB LAKESHORE RD STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
242	5	19	17	1615	2	N	1	1	1	1	Driver Inattent/Distract	Following too Closely	RE	P	new cntry
Details:	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
253	6	10	17	1636	3	I	1	1	1	1	Following too Closely	Fatigued/Drowsy	RE	P	lakeshore
Details:	V1, V2 WB RT 31 STOPPED, V3 DID NOT STOP STRUCK REAR OF V2, V2 PUSHED INTO V1														
255	6	14	17	1024	3	P	1	1	1	1	Driver Inattent/Distract	Following too Closely	RE	P	new cntry
Details:	V1, V2 WB RT 31 STOPPED, V3 DID NOT STOP STRUCK REAR OF V2, V2 PUSHED INTO V1														
271	8	25	17	1712	2	N	1	2	1	1	Driver Inexperience	Unknown	RT	P	lakeshore
Details:	V1 EXITING PARKING LOT NB FOR RIGHT TURN TO LAKESHORE RD EB STRUCK V2 STOPPED WB ON LAKESHORE RD														
284	9	14	17	0735	2	P	1	1	1	1	Following too Closely	Unknown	RE	P	lakeshore
Details:	V1 WB LAKESHORE RD STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
289	9	28	17	0728	2	P	1	1	1	2	Following too Closely	Unknown	RE	P	new cntry
Details:	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
292	9	30	17	1145	2	N	1	1	1	2	Following too Closely	Unknown	RE	P	lakeshore
Details:	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
300	10	31	17	1802	2	I	3	1	1	1	Following too Closely	Unknown	RE	P	new cntry
Details:	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
304	11	5	17	1425	2	I	1	1	2	3	Fatigued/Drowsy	Failure to Keep Right	HO	P	new cntry
Details:	V1 EB RT 31 DRIVER FELL ASLEEP CROSSED CENTERLINE STRUCK V2 STOPPED WB RT 31														
306	10	30	17	0725	2	P	1	1	2	3	Following too Closely	Driver Inattent/Distract	RE	P	lakeshore
Details:	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
308	11	24	17	1226	2	P	1	1	1	1	Following too Closely	Driver Inattent/Distract	RE	P	lakeshore
Details:	V1 WB LAKESHORE RD STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
310	11	29	17	1834	2	P	5	1	1	2	Driver Inattent/Distract	Unsafe Speed	RE	P	lakeshore
Details:	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
315	12	14	17	0734	2	I	1	2	4	2	Following too Closely	Unknown	RE	P	lakeshore
Details:	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
316	12	15	17	1720	2	I	4	1	2	2	Following too Closely	Driver Inattent/Distract	RE	P	new cntry
Details:	V1 NB NEW COUNTRY DRIVE STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
318	12	18	17	1132	2	P	1	1	2	3	Following too Closely	Unknown	RE	P	lakeshore
Details:	V1 WB LAKESHORE RD STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
323	1	1	18	1500	2	P	1	1	2	2	FTY	Unknown	SS	P	lakeshore
Details:	V1 WB RT 31 CHANGED LANES STRUCK V2 WB RT 31														
325	1	8	18	0714	2	P	2	1	4	1	Following too Closely	Driver Inattent/Distract	RE	P	lakeshore
Details:	V1 WB LAKESHORE RD STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
327	1	11	18	0735	2	N	1	1	2	2	Following too Closely	Unknown	RE	P	new cntry
Details:	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
329	1	17	18	0719	2	P	2	1	2	4	Following too Closely	Unknown	RE	P	new cntry
Details:	V1 EB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
330	1	18	18	0001	2	P	1	1	2	2	Unknown	Unknown	RE	P	new cntry
Details:	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
333	2	10	18	0010	2	P	4	1	4	2	FTY	Unknown	RA	M	lakeshore
Details:	SNOWMOBILE SB ACROSS RT 31 FTY STRUCK V2 WB RT 31														
334	2	8	18	1537	2	P	1	1	1	1	Following too Closely	Unknown	RE	P	lakeshore
Details:	V1 WB RT 31 STOPPED, V2 DID NOT STOP STRUCK REAR OF V1														
349	4	11	18	1604	2	P	1	1	1	1	FTY	Unknown	SS	P	north star
Details:	V1 EB RT 31 CHANGED LANES SIDESWIPED V2 EB RT 31														
350	12	27	17	0854	2	P	1	1	4	4	Pavement Slippery	Unknown	RT	P	north star
Details:	V1 EB RT 31 TURNS RIGHT TO SB NORTH STAR SLIDES ON PAVEMENT STRIKES V2 STOPPED NB NORTH STAR														

Route 31

31
3309
1253

Pizza

STOP

Lake Shore Rd

Per street view
2009 Dunkin Donuts
2012 2013 Vacant
2016 Meadows Custard

4/2019 empty per field work

Lake Shore Rd Spur

STOP

Tri State Auto Parking

1/1/18=1500=wet, cloudy
fty
323

C
5/22/15=1737=dry, clear
following to closely
Driver inattention
9

11/6/16=1753=dry, clear
Animal action
173
Deer

55
10/8/15=1925=dry, cloudy
Driver inattention
Fty
(turning left to lakeshore)
B

C
7/2/15=1317=dry, clear
following to closely
Driver inattention
31

COM TRUCK
7/17/15=1816=wet, rain
Driver inattention
32

8/13/15=1812=dry, clear
Glare
Follow to close
37

10/12/15=1715=dry, clear
Driver inattention
58

10/29/15=1523=dry, clear
Driver inattention
Follow to close
64

CCC
6/10/17=1636=dry, clear
following to closely
Fatigued/drowsy
253

9/30/17=1145=dry, cloudy
following to closely
292

11/29/17=1834=dry, cloudy
Driver inattention
Unsafe speed
310

2/8/18=1537=dry, clear
Follow to closely
334

315
12/14/17=0734=snow/ice, cloudy
following to closely
B

306
10/30/17=0725=wet, rain
following to closely
Driver inattention

82
1/4/16=0725=dry, cloudy
following to closely

18
6/10/15=1657=wet, clear
following to closely

188
12/3/16=2003=dry, cloudy
unknown

181
11/20/16=1010=wet, snow
Pavement slipppery

1/5/16=1634=dry, clear
Follow to close
83

CC
4/26/16=1700=dry, cloudy
Follow to close
Driver inattention
117

7/22/16=1537=dry, clear
Follow to close
139

10/5/16=1500=dry, clear
Follow to close
164

73
11/12/15=1750=wet, rain
fty

333
2/10/18=0010=snow/ice, cloudy
Fty
SNOWMOBILE

131
6/24/16=1301=dry, cloudy
View obstructed limited

110
3/21/16=1246wet, snow
following to closely

6/12/15=1224=dry, cloudy
Fty
React to uninvol veh
20

Sign
X

Tri-State Auto

Tri-State Auto

Match Line 31 A-A

N

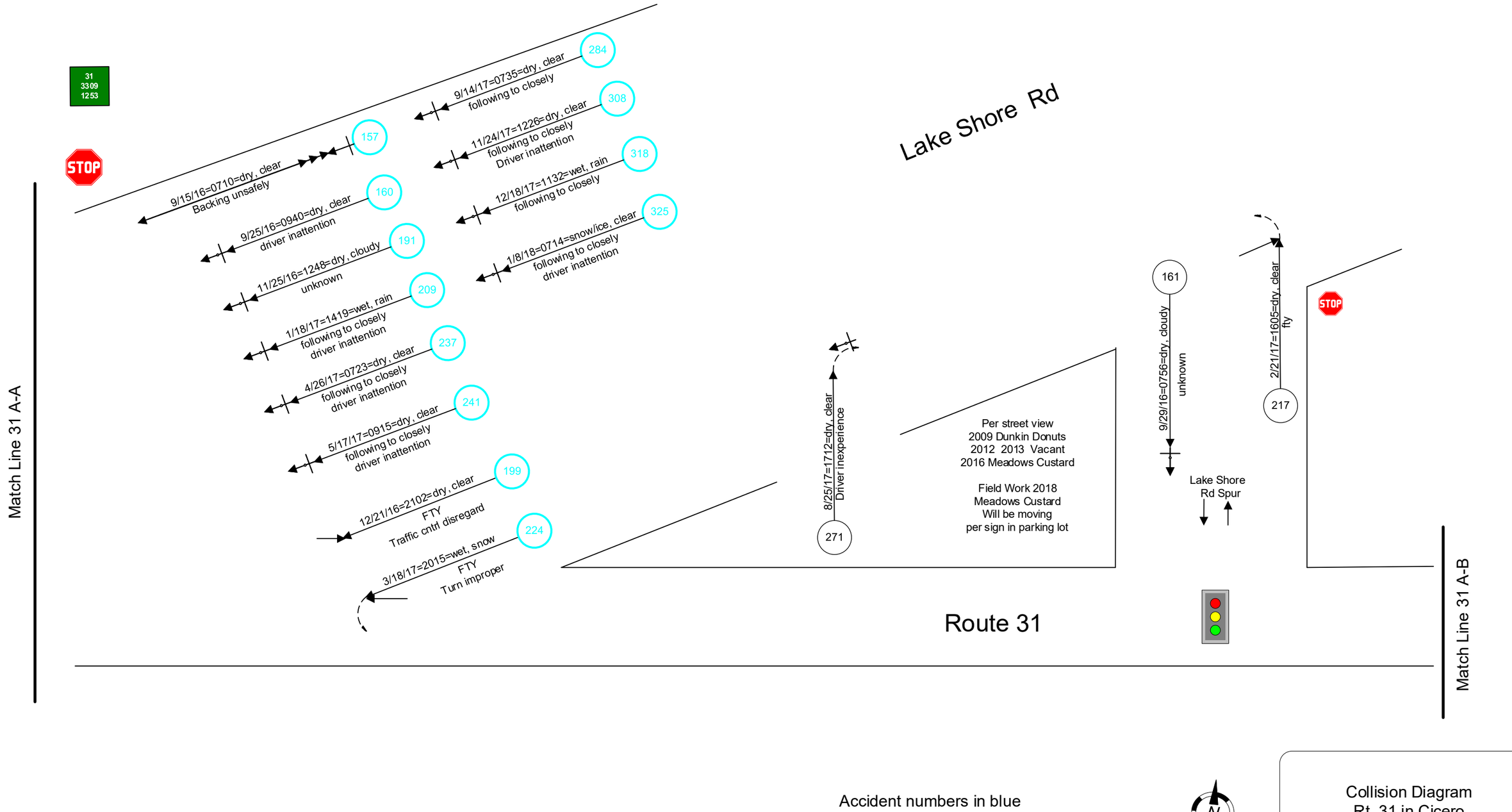
Accident numbers in blue text were counted as an intersection accident for accident rate calculations

XXX

Collision Diagram
Rt. 31 in Cicero
31 3309 1253 to 31 3309 1257
5/1/15 to 4/30/18
WL TSJ 11/18

Sheet 1 of 5

Not To Scale



Accident numbers in blue text were counted as an intersection accident for accident rate calculations (XXX)

Collision Diagram
Rt. 31 in Cicero
31 3309 1253 to 31 3309 1257
5/1/15 to 4/30/18
WL TSJ 11/18

Sheet 2 of 5

Not To Scale

31
3309
1254

Match Line 31 A-B

12/5/15=0315=dry, cloudy
Animal action
70
Deer

Route 31

4/22/16=1417=dry, cloudy
Prescription medication
Fail to keep right
113
AB

Match Line 31 A-C

N

Collision Diagram
Rt. 31 in Cicero
31 3309 1253 to 31 3309 1257
5/1/15 to 4/30/18
WL TSJ 11/18

Sheet 3 of 5

Not To Scale

31
3309
1255

Cicero
Elem
School

Match Line 31 A-C

Match Line 31 A-D

Route 31

92 — 2/10/16=1551=snow/ice, snow
Follow to close
Driver inattention

304 — 11/5/17=1425=wet, rain
Failure to keep right
Fatigued/drowsey
AC

329 — 1/17/18=0719=wet, snow
Follow to close

327 — 1/11/18=0735=wet, cloudy
Follow to close

300 — 10/31/17=1802=dry, clear
Follow to close
CC

289 — 9/28/17=0728=dry, cloudy
Follow to close

75 — 12/23/15=1602=wet, rain
Follow to close
Pavement slippery
COM TRUCK

54 — 9/20/15=1830=dry, clear
Follow to close
CC

39 — 8/24/15=1455=dry, cloudy
Driver inattention
C

C — 7/13/15=0830=dry, clear
Tarffic cntrl disregard
33

C — 12/2/15=1411=wet, rain
Follow to close
69

2/26/16=1418=dry, cloudy
Follow to close
98

5/11/16=1540=dry, clear
following to closely
116

7/6/16=1345=dry, clear
following to closely
Driver inattention
134

8/30/16=1140=dry, clear
Driver inattention
153

C — 10/11/16=0720=dry, cloudy
Driver inattention
Follow to close
166

C — 12/7/16=1715=dry, clear
Follow to close
193

4/4/17=1734=wet, rain
Follow to close
231

5/19/17=1615=dry, clear
Follow to close
Driver inattention
242

196 — 12/14/16=1432=dry, clear
Follow to close

167 — 10/20/16=1412=wet, rain
Follow to close
B

6/14/17=1024=dry, clear
Follow to close
Driver inattention
255

1/18/18=0000=wet, cloudy
unknown
330

63 — 10/26/15=1240=dry, clear
Unsafe lane change
COM TRUCK

C — 12/15/17=1720=wet, cloudy
following to closely
Driver inattention
316

C — 5/4/15=1453=dry, clear
following to closely
3

New Country
Drive Plaza

Accident numbers in blue text were counted as an intersection accident for accident rate calculations

XXX

N

Collision Diagram
Rt. 31 in Cicero
31 3309 1253 to 31 3309 1257
5/1/15 to 4/30/18
WL TSJ 11/18

Sheet 4 of 5

Not To Scale

31
3309
1256

31
3309
1257

Match Line 31 A-D

10/7/15=1530=dry, cloudy
following to closely
53

7/25/16=1420=wet, rain
FTY
Traffic control disregard
141
CC

Route 31

Route 31

206
1/11/17=0940=wet, clear
Follow to close
Driver inattentiion
C

350
12/27/17=0854=snow/ice, snow
Pavement slippery

349
4/11/18=1604=dry, clear
fty

North Star Drive
To
Cicero High School

N

Collision Diagram
Rt. 31 in Cicero
31 3309 1253 to 31 3309 1257
5/1/15 to 4/30/18
WL TSJ 11/18

Sheet 5 of 5

Not To Scale

Location	Route 31 RM 1253 to 1257	Study Period	5/1/15 to 4/30/18	Date
Municipality	T/o Cicero	County	Onondaga	11/18

Accident Type	# Acc	% of Acc Total	# Injury	% of Inj Total
Animal Related	2	3%	0	0%
Fixed obj/ Run off Rd	1	1%	0	0%
Head-On	2	3%	2	11%
Left Turn	4	5%	2	11%
Overtaking/ Sideswipe	4	5%	0	0%
Pedestrian/ Bicyclist	0	0%	0	0%
Rear End	55	72%	14	74%
Right Angle	5	7%	1	5%
Right Turn	3	4%	0	0%
Unknown	0	0%	0	0%
Totals	**76**	**100%**	**19**	**100%**

Light Conditions	# Acc	% of Acc Total	# Injury	% of Inj Total
Day	63	83%	14	74%
Night	13	17%	5	26%
Unknown	0	0%	0	0%
Totals	**76**	**100%**	**19**	**100%**

Type of Vehicle	# Acc	% of Acc Total	# Injury	% of Inj Total
Passenger Car	72	95%	19	100%
Commercial Vehicle	3	4%	0	0%
Motorcycle	1	1%	0	0%
Totals	**76**	**100%**	**19**	**100%**

Pavement Condition	# Acc	% of Acc Total	# Injury	% of Inj Total
Dry	50	66%	12	63%
Wet	21	28%	6	32%
Mud	0	0%	0	0%
Snow/Ice	5	7%	1	5%
Slush	0	0%	0	0%
Flooded	0	0%	0	0%
Unknown	0	0%	0	0%
Totals	**76**	**100%**	**19**	**100%**

Weather Conditions	# Acc	% of Acc Total	# Injury	% of Inj Total
Clear	37	49%	9	47%
Cloudy	22	29%	6	32%
Rain	11	14%	4	21%
Snow	6	8%	0	0%
Sleet/Freezing Rain	0	0%	0	0%
Fog	0	0%	0	0%
Unknown	0	0%	0	0%
Totals	**76**	**100%**	**19**	**100%**

Time of Day	# Acc	% of Acc Total	# Injury	% of Inj Total
6 AM - 10 AM	17	22%	4	21%
10 AM - 4 PM	31	41%	7	37%
4 PM - 7 PM	21	28%	7	37%
7 PM - 12 Midnight	4	5%	1	5%
1201 - 6 AM	3	4%	0	0%
Unknown	0	0%	0	0%
Totals	**76**	**100%**	**19**	**100%**

Time of Year	# Acc	% of Acc Total	# Injury	% of Inj Total
Fall (Sep Oct Nov)	24	32%	6	32%
Winter (Dec Jan Feb)	25	33%	5	26%
Spring (Mar Aprl May)	12	16%	3	16%
Summer (Jun July Aug)	15	20%	5	26%
Totals	**76**	**100%**	**19**	**100%**

Park lot, Miscodes	# Acc	% Acc
Park Lot	0	0
Miscodes	0	0
Park + Miscode	**0**	**0.00%**
% of all Acc		**0.00%**

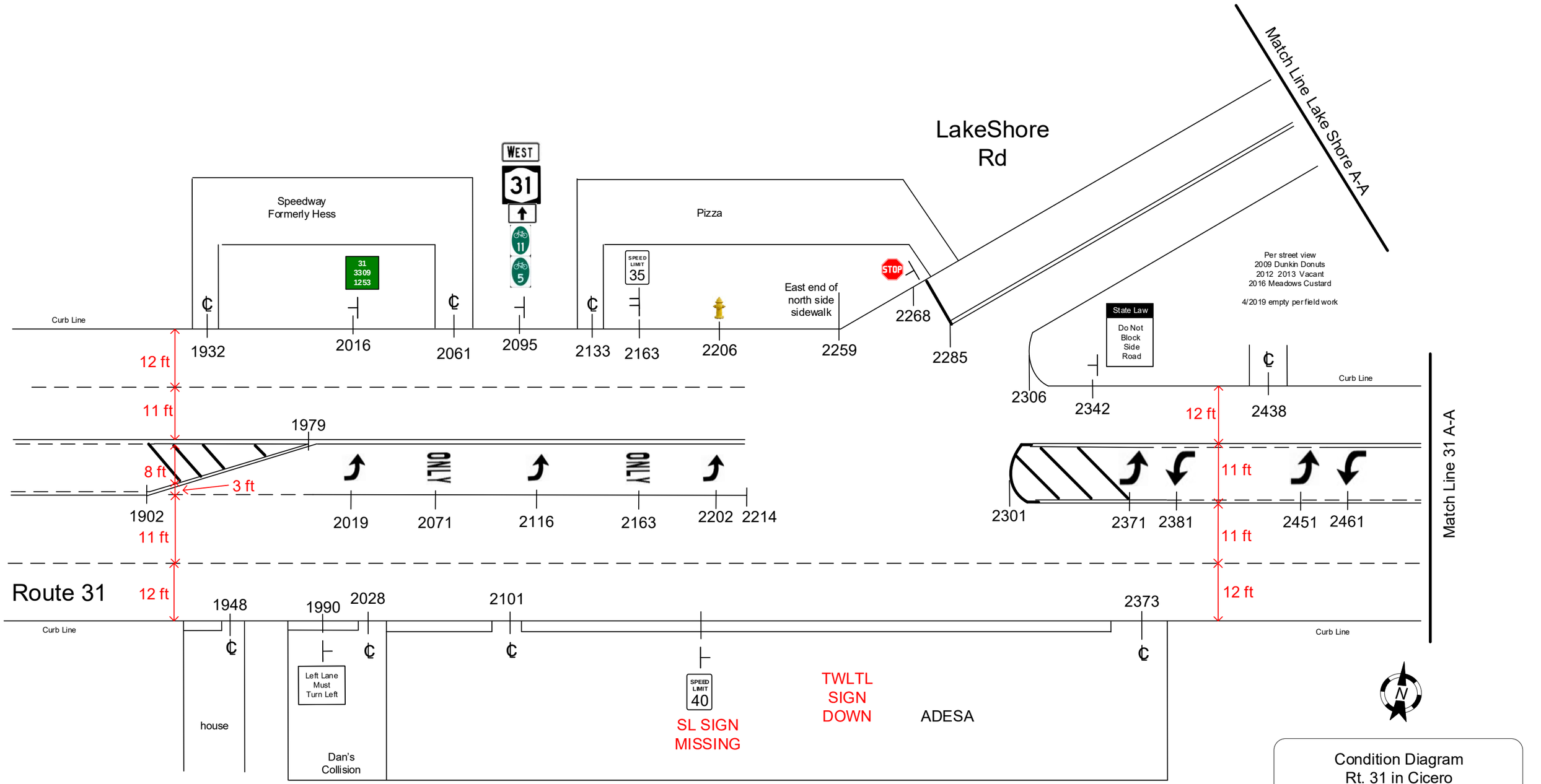
Acc Severity	# Acc	% Acc		
Non-Reportable	22	29%		
Property Damage	35	46%		
Injury	19	25%		
Fatal	0	0%		
Injury + Fatal			19	25.00%
Total	**76**	**100.00%**		

Intersection Accident Rate		
Route 31 at Lakeshore Rd Spur		
AADT for Rt 31 (traffic data viewer)		12,612
AADT for Lakeshore Rd Spur (10%)		1,261
Incoming Traffic North Leg		631
Incoming Traffic East Leg		6,306
Incoming Traffic South Leg		631
Incoming Traffic West Leg		6,306
Incoming Traffic Leg 5		0
Incoming Traffic Leg 6		0
Number of Accidents at Intersection		20
Enter Study Start Date		5/1/2015
Enter Study End Date		4/30/2018
Number of Years		3.00
MEV/Yr		5.06
Acc/Yr		6.67
Calculated Rate	Acc/MEV	1.32
Statewide Average	Acc/MEV	0.55
4 leg intersection, Urban, Signal,1 - 4 Lanes		
1/1/16 to 12/31/17		
		TJ
		11/18

Route 31 at Lakeshore Rd		
AADT for Rt 31 (traffic data viewer)		12,612
AADT for Lakeshore Rd (traffic data viewer)		3,050
Incoming Traffic North Leg		1,525
Incoming Traffic East Leg		6,306
Incoming Traffic West Leg		6,306
Incoming Traffic Leg 4		0
Incoming Traffic Leg 5		0
Incoming Traffic Leg 6		0
Number of Accidents at Intersection		12
Enter Study Start Date		5/1/2015
Enter Study End Date		4/30/2018
Number of Years		3.00
MEV/Yr		5.16
Acc/Yr		4.00
Calculated Rate	Acc/MEV	0.78
Statewide Average	Acc/MEV	0.18
3 leg intersection, Urban, Sign,1 - 3 Lanes		
1/1/16 to 12/31/17		
		TJ
		11/18

Intersection Accident Rate		
Route 31 at New Country Drive		
AADT for Rt 31 (traffic data viewer)		12,612
AADT for New Country Drive Plaza (10%)		1,261
Incoming Traffic North Leg		631
Incoming Traffic East Leg		6,306
Incoming Traffic South Leg		631
Incoming Traffic West Leg		6,306
Incoming Traffic Leg 5		0
Incoming Traffic Leg 6		0
Number of Accidents at Intersection		22
Enter Study Start Date		5/1/2015
Enter Study End Date		4/30/2018
Number of Years		3.00
MEV/Yr		5.06
Acc/Yr		7.33
Calculated Rate	Acc/MEV	1.45
Statewide Average	Acc/MEV	0.55
4 leg intersection, Urban, Signal,1 - 4 Lanes		
1/1/16 to 12/31/17		
		TJ
		11/18

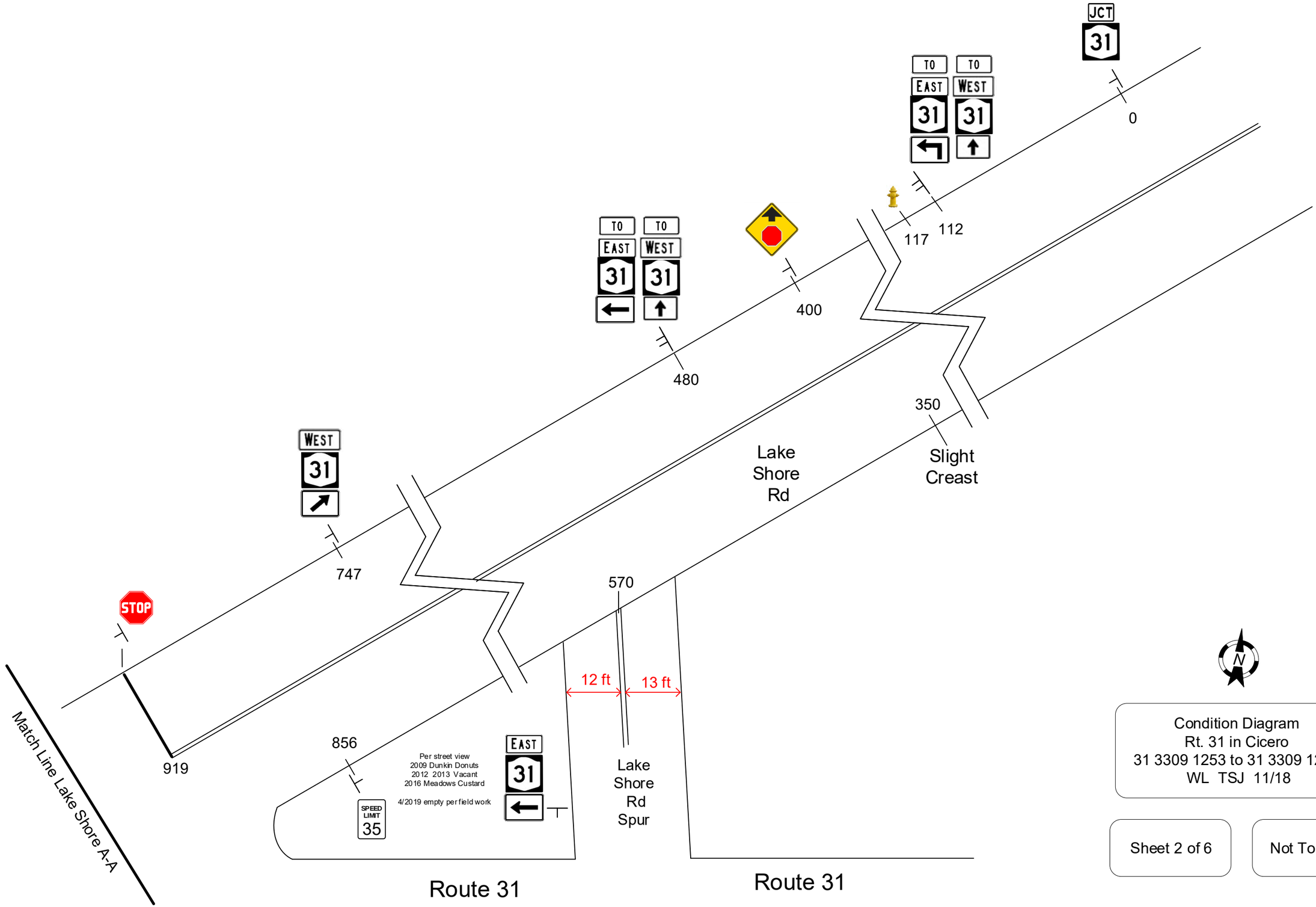
Intersection Accident Rate		
Route 31 at North Star Dr. CNS High School		
AADT for Rt 31 (traffic data viewer)		12,612
AADT for North Star Dr. CNS High School (2011 Counts)		1,078
Incoming Traffic North Leg		0
Incoming Traffic East Leg		6,306
Incoming Traffic South Leg		539
Incoming Traffic West Leg		6,306
Incoming Traffic Leg 5		0
Incoming Traffic Leg 6		0
Number of Accidents at Intersection		5
Enter Study Start Date		5/1/2015
Enter Study End Date		4/30/2018
Number of Years		3.00
MEV/Yr		4.80
Acc/Yr		1.67
Calculated Rate	Acc/MEV	0.35
Statewide Average	Acc/MEV	0.15
3 leg intersection, Urban, W/Left Turn, Signal,5 & > Lanes		
1/1/16 to 12/31/17		
		TJ
		11/18



Condition Diagram
Rt. 31 in Cicero
31 3309 1253 to 31 3309 1257
WL TSJ 11/18

Sheet 1 of 6

Not To Scale



Condition Diagram
Rt. 31 in Cicero
31 3309 1253 to 31 3309 1257
WL TSJ 11/18

Sheet 2 of 6

Not To Scale

Lake Shore Rd
Spur

2587 2603

EAST
31

2562 2569

Route 31

Match Line 31 A-A

Curb Line

2529

2488

2553

2541

Curb Line

2570

No Stop Bar

ADESA

2615

① Only

② Except Buses

③ Oncoming Traffic May Have Extended Green

④

State Law
Do Not Block Side Road

Lake Shore Road
Next Right

2653 2706 2745 2763

2649 2673 2719 2753 2773 2837 2852 2877 2887 2914

12 ft 11 ft 11 ft 12 ft

Solid White Line | Dotted White Line | Solid Yellow Line

ONLY

Curb Line | Curb Line | Curb Line | Shoulder | White Edge Line

Match Line 31 A-B

EAST
31

11
5

Center Lane
Only

31
3309
1254

School

SPEED LIMIT
30

FADED

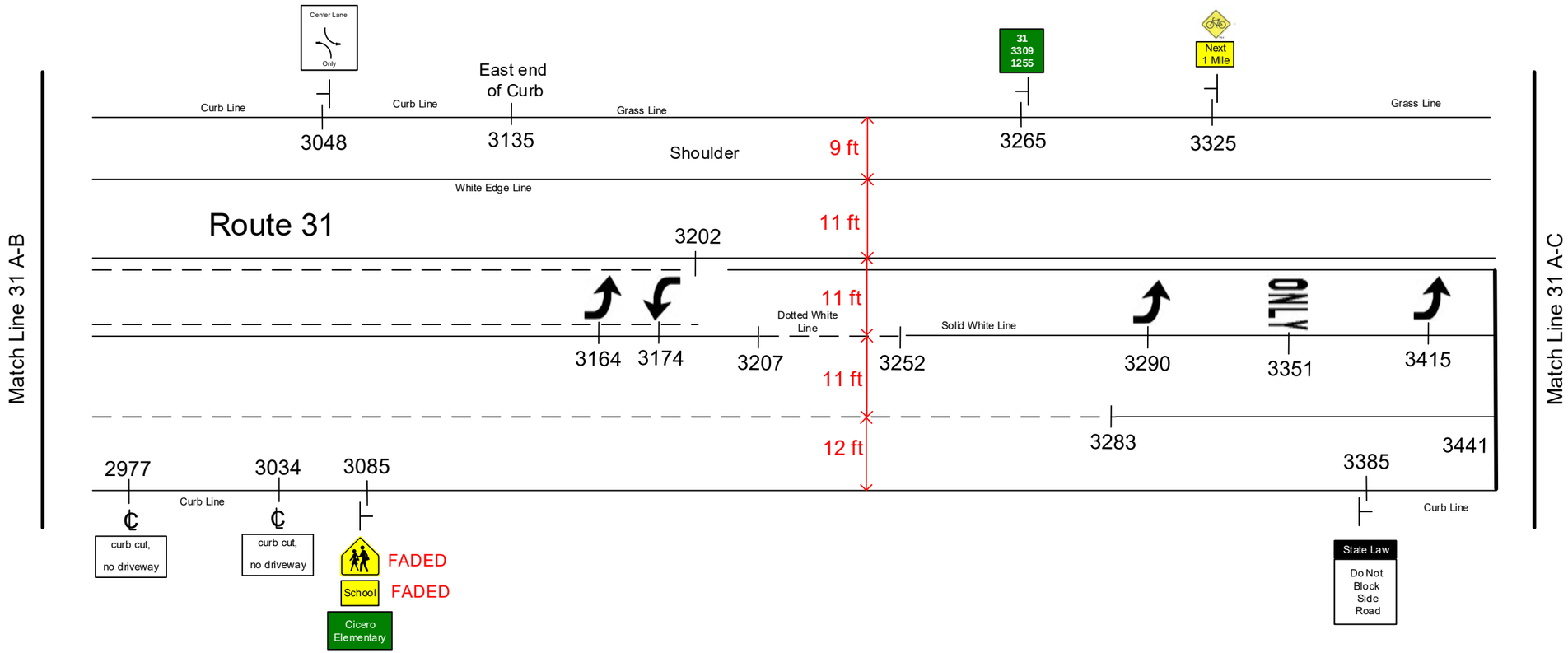
DAMAGED, SPRAY PAINTED

N

Condition Diagram
Rt. 31 in Cicero
31 3309 1253 to 31 3309 1257
WL TSJ 11/18

Sheet 3 of 6

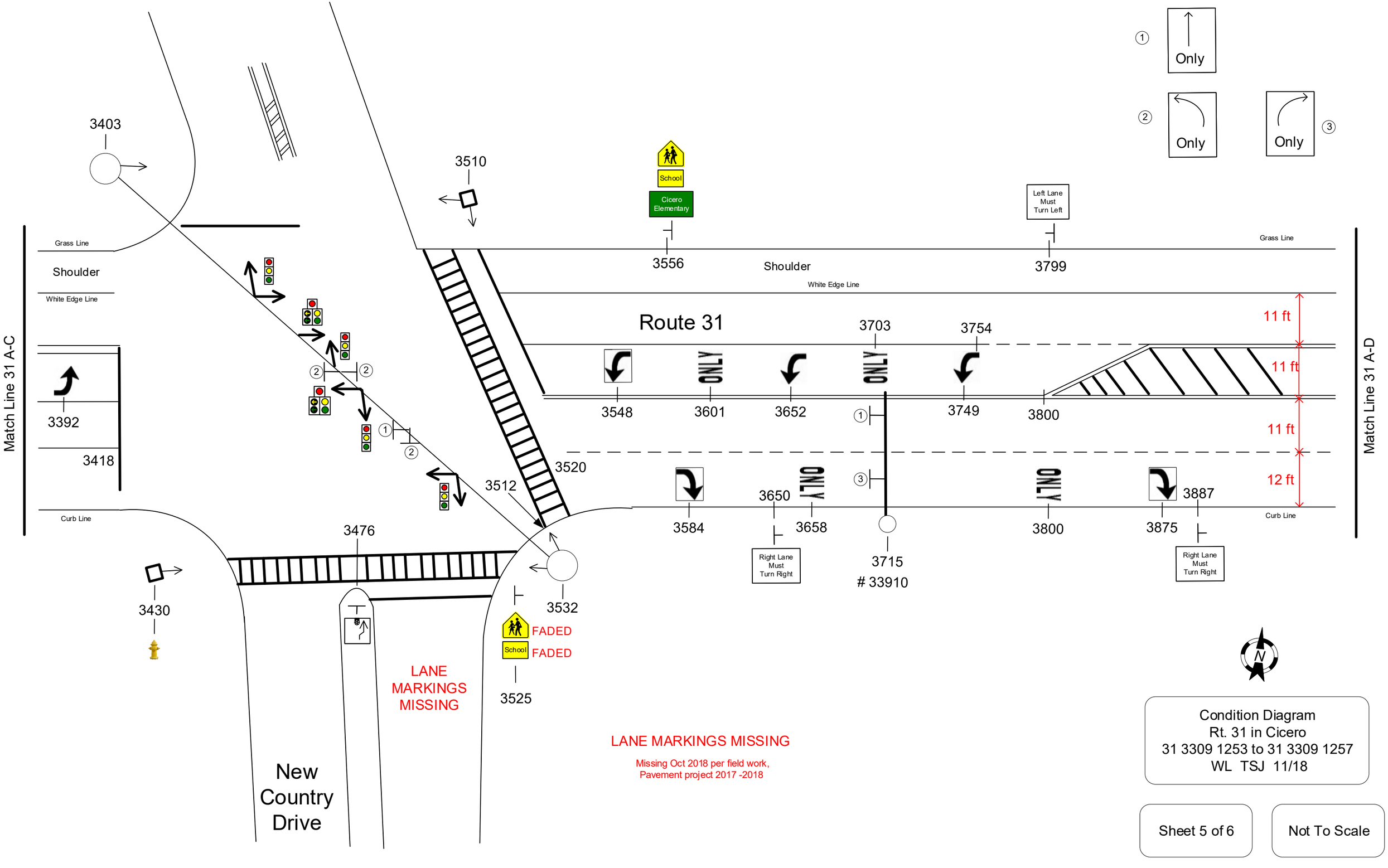
Not To Scale



Condition Diagram
Rt. 31 in Cicero
31 3309 1253 to 31 3309 1257
WL TSJ 11/18

Sheet 4 of 6

Not To Scale



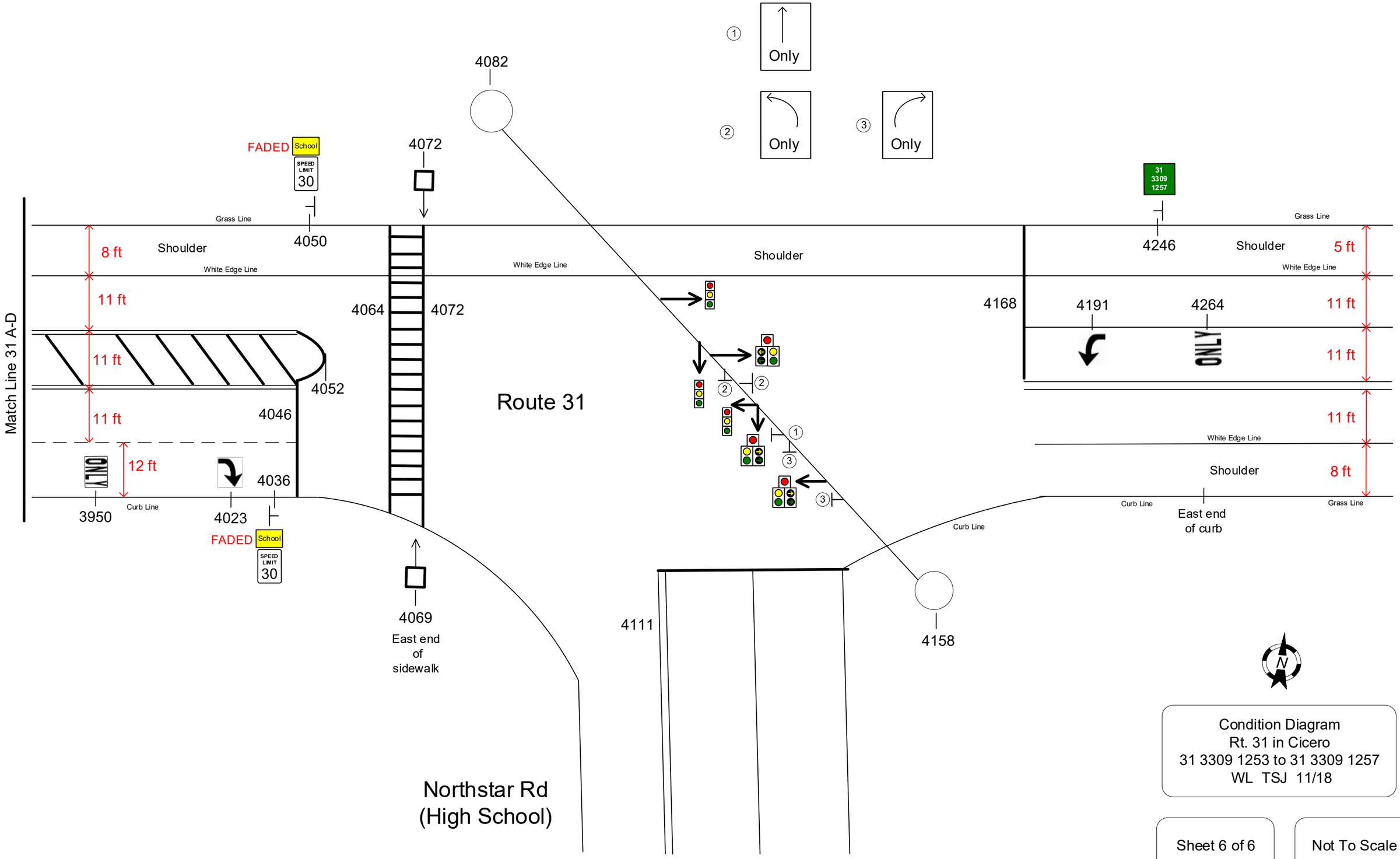
LANE MARKINGS MISSING

Missing Oct 2018 per field work,
Pavement project 2017 -2018

Condition Diagram
Rt. 31 in Cicero
31 3309 1253 to 31 3309 1257
WL TSJ 11/18

Sheet 5 of 6

Not To Scale



Condition Diagram
Rt. 31 in Cicero
31 3309 1253 to 31 3309 1257
WL TSJ 11/18

Sheet 6 of 6

Not To Scale

Field Report

Location: Rt 31, Lake Shore Rd to CHS **Date:** 11/18

C/V/T: T/o Cicero **County:** Onondaga

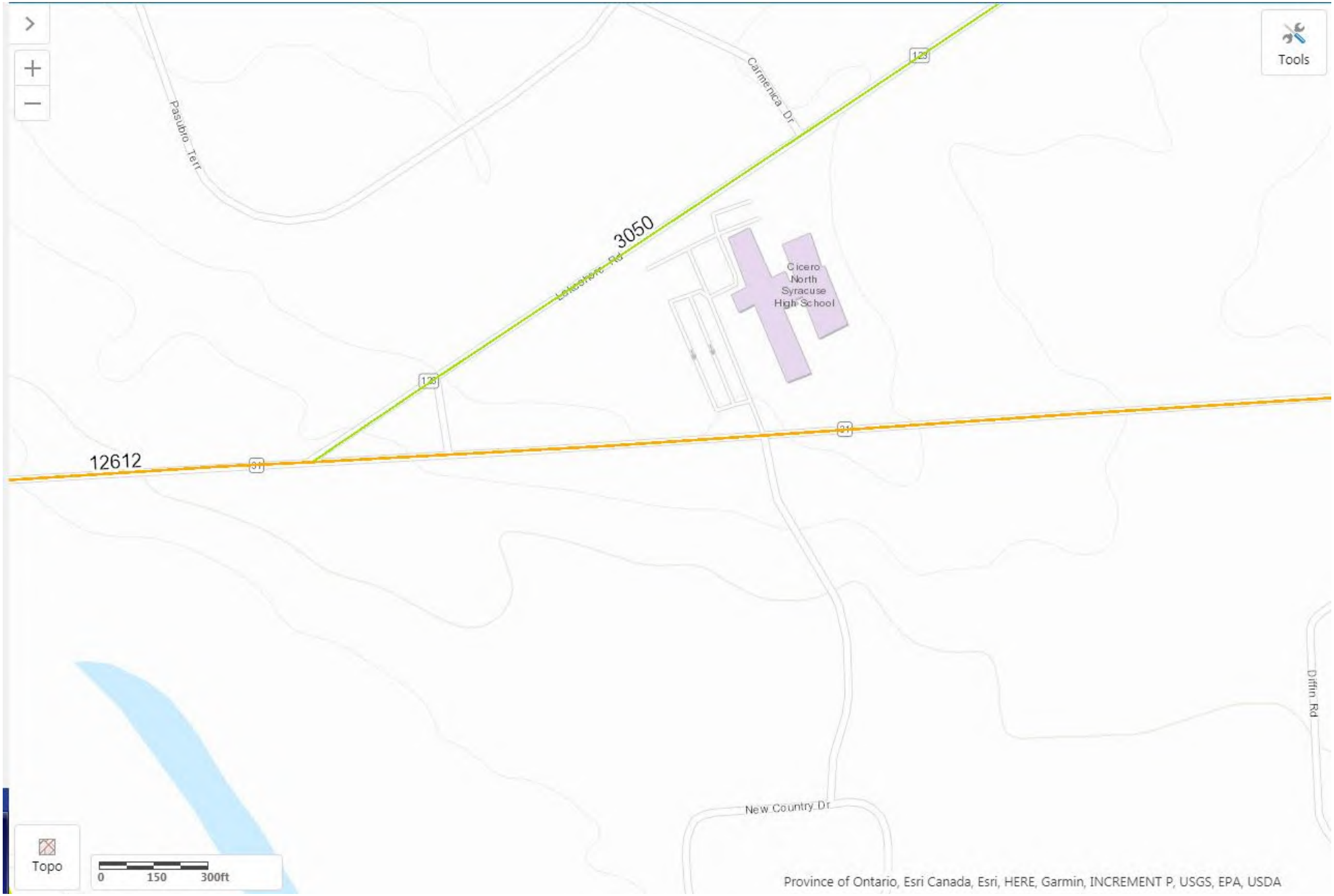
Traffic Control: various

	Operational Checklist	No	Yes	N/A
	Accident Patterns Associated With:			
1)	Obstructions block driver view of opposing vehicles	X		
2)	Drivers are responding incorrectly to traffic control devices	X		
3)	Drivers having trouble finding the correct path through the location	X		
4)	Inappropriate vehicle speeds	X		
5)	Violations of parking or other traffic regulations	X		
6)	Driver's confusion about route, street names or other guidance information	X		
7)	Could vehicle delays be reduced?		X	
8)	Traffic flow deficiencies, or conflicts associated with turning movements?	X		
9)	Pedestrian movement through the location causing conflicts	X		
10)	Would one-way operation be practical, make the location safer?	X		
11)	Is the volume of traffic causing a problem?		X	
12)	Are there other traffic flow deficiencies or conflicts?	X		
13)	Animal related accidents?	X		

	Physical Checklist	No	Yes	N/A
	Practical Accident Pattern Reduction:			
1)	Sight obstruction(s) being removed or lessened?	X		
2)	Widening narrow street approaches?	X		
3)	Improving alignment of the street?	X		
4)	Increasing too small curb radii?	X		
5)	Relocation pedestrian crosswalks?	X		
6)	Improving signs to increase visibility, usefulness, message, size, conformity or to correct placement?		X	
7)	Changing signals to improve visibility, placement, conformity, number of signal heads, or timing?		X	
8)	Changing the intersection control?	X		
9)	Changing pavement markings to improve their clarity or location?	X		
10)	Improving channelization to reduce conflict areas, separate traffic flow, define movements?	X		
11)	Is the legal parking layout affecting sight distance or traffic flow?			
12)	Changing inappropriate speed limits?	X		
13)	Increasing the number of lanes?	X		
14)	Improving Street lighting?	X		
15)	Modifying design, location of driveways?	X		
16)	Improving pavement surface condition?	X		

COMMENTS: Use 'O' Operational, or 'P' Physical, & Item No. from above, to describe 'Yes" responses in comments below

Operational 'O' and Item #		Physical 'P' and Item #	
"O" 7	Perform a delay study along Lake Shore Rd. merge to determinne if closing off the merge and re-directing traffic to the signalized intersection of Lakeshore Rd. spur	"P" 6	Send memo to residency to add new "No Left" turn sign on Lake Shore Rd. merge to avoid traffic conflicts involving turning traffic. Replace faded/damaged signs throught the study area. Pedestrian Safety Action Plan (PSAP) will address signing and pavement markings and will consider installing: ped. indications, audible warnings, countdown timers, and Rapid Rectangular Flashing Beacons (RRFB) etc.
"O"11	Peak hour traffic volumes are causing unnecessary delays and backups. Closely spaced signals involving complex signal timing plans designed to minimize driver delays along a highly congested coorridor operating at or above capacity.	"P" 7	Signal coordination and timing adjustments will be needed if closure of Lake Shore Rd. merge is closed and traffic is re-directed to the signalized Lake Shore Rd. spur.


Tools
Pasubio Terr
Carmenica Dr
3050
Lakeshore Rd
123
Cicero
North
Syracuse
High School
12612
31
Diffin Rd
New Country Dr
Topo
0
150
300ft
Province of Ontario, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

APPENDIX C

Utility Provider Commitment Letters

Alberto Bianchetti
Regional Director
Customer and Community Management
Central New York

March 18, 2021

Robert Petrovich
Director
Onondaga County Economic Development Office

Bob,

National Grid embraces our commitment as a continuing supporter of the economic vitality of Onondaga County.

Included in that effort is our ongoing and longstanding partnership in the development of the White Pine Commerce Park, work that has accelerated in recent months.

As such we can share with you the following potential capabilities for service to that campus.

Regarding Natural Gas, based on your market readiness efforts our current design scope has the capabilities of serving the campus at 750 dth/hr. If additional capacity is required, subject to the installation and/or upgrade of facilities and receipt of applicable permits and authorizations, the Company would have the potential to serve up to 1000 dth/hr at the site. Please note this assessment is based on existing market conditions for Natural Gas as an available commodity, which are subject to change.

Regarding Electricity, the adjacent Clay Substation is a robust node of New York's bulk power system. Based on your market readiness efforts our current design scope has the capabilities of serving the campus at 540MVA. The NYS bulk power system is subject to change as the various independent entities involved make decisions based on business conditions. In addition, New York state regulation prohibits any utility from reserving future capacity. Reflecting those current market and regulatory overlays, and with proper advance planning, resource allocation, and substantive upgrades, a capability to serve up to 1200 MVA is conceivable in the long-term.

Please consider this note a capability report in support of your marketing of the site, not a commitment to serve at the levels stated.

Respectfully,

/s/ *Alberto Bianchetti*

Alberto Bianchetti
Regional Director
National Grid

7496 Round Pond Road, North Syracuse, New York 13212
T: 315-452-7777 ■ alberto.bianchetti@nationalgrid.com ■ www.nationalgrid.com

200 Northern Concourse
PO Box 4949
Syracuse, NY 13221-4949

Central New York's Water Authority
www.ocwa.org

Phone: 315-455-7061
Fax: 315-455-6649

March 19, 2021

Mr. Robert M. Petrovich, Director
Onondaga County
Office of Economic Development
333 W. Washington Street, Suite 130
Syracuse, NY 13202

Subject: White Pine Industrial Park Water Availability

Dear Mr. Petrovich:

Regarding water availability for the White Pine Industrial Park in the Town of Clay, please be advised of the following:

1. OCWA currently has 1 million gallons per day (mgd) in place to serve the site.
2. We have plans in place that would allow us to increase water availability to the site to 5 mgd in approximately 180 days.
3. OCWA has the ability to increase capacity for the site to 11 mgd in a 550 to 730 day time frame.
4. With sufficient lead time OCWA could provide up to 20 mgd to the site.

Should you have additional questions or require more information regarding OCWA's ability to serve the White Pine Industrial Park, please do not hesitate to contact me directly.

Sincerely,

Michael E. Hooker
Executive Director

cc: Nathanial Stevens, Office of Economic Development
Geoffrey G. Miller, P.E., COO, OCWA

Onondaga County Department of
WATER ENVIRONMENT PROTECTION

J. Ryan McMahon, II, County Executive
Frank M. Mento, P.E., Commissioner
650 Hiawatha Blvd. West
Syracuse, NY 13204-1194
(315) 435-2260 or (315) 435-6820
FAX (315) 435-5023
http://www.ongov.net/wep

April 29, 2021

Mr. Robert M. Petrovich, Director
Onondaga County Office of Economic Development
333 W. Washington Street, Suite 130
Syracuse, NY 13202

Re: Oak Orchard Sanitary Sewer Service Area - Sewer Capacity Availability

Dear Bob,

As requested, Onondaga County Department of Water Environment Protection (OCDWEP) is providing this letter to advise you on our current and future sewer capacities to support development in the Oak Orchard Sanitary Sewer Service Area.

1. Capacity for up to 4.0 MGD is currently available at the Oak Orchard WWTP. The expansion of our conveyance infrastructure to serve lands within the surrounding district and future development areas is in the design phase. We estimate conveyance infrastructure will be available within 24 months.

2. Capacity above 4.0 MGD would require an expansion of the Oak Orchard WWTP. We estimate that the time for design and construction of the expansion would be 24-36 months from time of commencement of design, pending NYSDEC SPDES Permit modification. In light of the pattern of growth, both residential and commercial, within the service area, we anticipate starting the design process within the next six months.

Please feel free to contact me if you have any questions with regards to this information.

Sincerely,

Frank M. Mento, P.E.
Commissioner

cc: Nathanial Stevens, Office of Economic Development
Shannon L. Harty, P.E., Deputy Commissioner, OCDWEP

UNITED IN WATER

APPENDIX D

Visual Impact Assessment

APPENDIX D

Visual Impact Assessment

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Onondaga County, NY

Figure 1

Project Location

White Pine Commerce Park
Onondaga County Industrial Development Agency

0 1 2 Miles

Scale: 1 inch = 2 miles

Date Printed: 4/25/2021
Data Sources:
Esri Canada, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA

Visual Impact Assessment

Introduction

The Onondaga County Industrial Development Agency (OCIDA) proposes to expand its existing White Pine Commerce Park ("Park"), to approximately 1,250 ± acres (see Figure 1).

A Visual Impact Assessment of the project area was performed for a previous industrial scenario at the 339 AC park by Integrated Site, Landscape Architects, P.C. in 2000. Since the 2000 study was completed, the New York State Department of Environmental Conservation (DEC) has revised their July 31, 2000 Program Policy and issued DEP-00-2 / Assessing and Mitigating Visual and Aesthetic Impacts on December 13, 2019. This revised policy updates the inventory of resources and provides additional guidance and standards for conducting these types of assessments. Due to the proposed expansion of the Park, this updated Visual Impact Assessment was completed to supplement the original assessment and comply with the current policy.

Approach

This Visual and Aesthetic Impacts Assessment was designed to comply with the DEP 2019 Policy DEP-00-2. The latest policy provides additional details on how to conduct the assessment, but the general scope and process of the assessment are unchanged from the previous policy. After becoming familiarized with the previous 2000 assessment and the current project and its components, staff conducted a desktop review of the required resource databases to identify potential Federal, State, and Local resources that may be visually impacted by the proposed expanded Park. It was determined that the original 35 receptor sites from the 2000 study remained valid as potentially impacted receptor sites. After reviewing the databases of potential resources within five miles of the site, an additional 18 receptor sites were identified making a total of 53 receptor sites to be studied. A field visit was then conducted to analyze the potential visual and aesthetic impacts caused by the proposed expanded Park and resulting potential development. Local roadways were traveled and photographed to determine the overall landscape character and to photograph potential views of the Park from the 53 receptor sites within a five-mile radius of the Park. The locations visited were areas in which a high concentration of people may gather. These locations included, but were not limited to, churches, parks and open spaces, National Register of Historic Places listings, housing developments, heavily traveled roadways, and commercial destinations.

Upon completion of the field inventory, a general viewshed map was completed to determine areas which areas would potentially be able to view the Park. After analyzing the potential viewshed and the specific locations of the 53 viewpoints that were identified during the field visit, viewpoints were selected and identified as potential sensitive receptors. This resulted in recommendation of general mitigation measures which could potentially reduce the visibility of the Park from these sensitive receptors.

Project Description

Through the SEQRA process, OCIDA is identifying and evaluating potential environmental impacts anticipated from the proposed expansion of the Park. SEQRA requires information on mitigation measures to reduce any potentially significant impacts. In order to identify and evaluate potential impacts and mitigation in the absence of an actual tenant and known industrial uses, it is necessary to base the evaluation on a reasonable expectation for use of the site.

The 2013 FGEIS detailed a preferred development scenario, which anticipated a full build-out of approximately 2.0 to 2.5 million square feet of industrial development and assumed that the Project would be developed in several phases over the course of 10 to 15 years. Specifically, the 2013 FGEIS considered a full build out scenario of the Park in three development areas. Given the lack of any specific tenant and uncertain timing for development of future phases, this Draft SGEIS considers the potential impacts associated with development of the expanded Park with a tenant or tenants in the semiconductor industry. This may translate into a buildout encompassing approximately 4.0 million square feet of industrial development at the Park. This would equate to approximately 400 acres of surface disturbance on the Park developed in a campus like setting that would be sited to avoid regulated wetland areas and would limit the height of structures to no more than 160 feet.

Project development will include site infrastructure including internal roads, drainage culverts, waterlines, sewer and wastewater systems, electric, natural gas, stormwater management systems, lighting, landscaped areas, earthen berms and areas maintained as undeveloped natural buffers. It is anticipated that areas owned by the OCIDA that are north of existing New York Power Authority and National Grid transmission lines will not be developed. This leaves approximately 732 +/- acres that are considered a prime developable area within the Park. See Figure 2.

The development scenario is useful to define impact and mitigation thresholds that reasonably represent potential "worst case" adverse environmental effects associated with the types of uses anticipated. Development of the Park should then be accomplished to the extent practicable within these thresholds established by this draft Supplemental GEIS and subsequent Findings Statement that will complete this SEQRA process.

The northern most area of the Park includes the property north of the power lines and up to the Project site boundary. Development in this section of the site is limited by the proximity to the large overhead transmission lines and greater potential for the existence of wetlands. There are setbacks that will also create less developable portions of the site (mostly the northern portion).

Landscape Description

The Project site is presently undeveloped and generally consists of a mix of large upland areas of open field (former agricultural land), shrub and woodland areas interspersed with wetland areas as described in Section 3.8. Topography in the area is generally flat to gently sloping. In general, the predominance of vegetation surrounding the site and the relative lack of development contributes to the area's rural character. This character is influenced by former farmsteads, scattered housing along Burnet Road, accessory structures (garages, sheds) and some small business and industrial uses primarily along Caughdenoy Road and NYS Route 31. Typical views are shown below.

Photo 1: View of central portion of Park from Caughdenoy Road

Photo 2: View north into Park from NYS Route 31

National Grid's Clay electrical substation west of the OCIDA site and the transmission towers and high voltage power lines that spread outward from the substation into and across the northern one-third of the site are dominant elements in the local visual environment. The existing CSX rail line passes through this area. A cell tower located north of NYS Route 31 near the site's southeastern corner as seen above also influences local views near the site.

Photo 3: Northern section of Park w/CSX line and transmission lines

Photo 4: View north along Caughdenoy Road, Park on right

The relative lack of significant development in the immediate vicinity of the Park, especially views from NYS Route 31 and points east, west, and south of the Route 31 corridor creates the sense of a rural area both during daytime and nighttime periods. Nighttime lighting is generated by existing residential and small businesses as well as by vehicular traffic on local roads. The area does not possess the more suburban characteristics of developed areas located one-half mile or more to the east, west and south where residential and commercial development has been occurring in recent years.

Distant views of the Park are very limited due to existing stands of woodland and shrub vegetation. The study area lacks elevated viewpoints from which the Project site can be seen. Most views are therefore highly localized and in general well within one to two miles or less from areas surrounding the project. Views of the Park are most significant from Caughdenoy Road and to the east across open fields and farmlands and former farmlands in the vicinity of residences along Burnet Road.

Visibility Assessment

A general viewshed map of the project site was prepared (see Figure 2 Viewshed Analysis Map) using ESRI ArcGIS Pro Spatial Analyst Tools and two-foot contour data sets available from the county. This map indicates areas that would have the capability to view the site if the view to the site from that location was unobstructed by structures or vegetation. A series of cross sections (see pages 19-20) were developed at 60-degree intervals starting at the center of the site and projecting three miles from the Main Campus Area. Figure 3 Viewshed Profile shows the horizontal alignment of the cross sections. For the purposes of the analysis, the viewshed map was based upon an extruded height 160 feet. This represents the maximum height of any structure on the site to simulate a worst-case scenario for visual impacts. Cross sections were developed utilizing a three-mile radius as the topographic data set for a five-mile radius was unattainable.

It should be noted that the viewshed analysis was performed using two-foot contours on a barren landscape. Structures and vegetation within the viewshed may cause limited visibility to the Main Campus from locations currently shown as visible. Significant stands of existing forested areas within the five-mile radius will result in a smaller viewshed than is depicted in Figure 2 Viewshed Analysis Map.

Potential Sensitive Receptors

The identification of potential sensitive receptors was developed by following the criteria as outlined in the *2019 New York State Department of Environmental Conservation's Program Policy – Assessing and Mitigating Visual and Aesthetic Impacts* [1] and supplemented with field visits and photographs. The policy describes all aesthetic resources of statewide significance as being derived from the categories listed below. Each category is followed by a listing of resources identified within a five-mile radius of the site.

- Resources that occur on the city, town, and village level through zoning and comp plans
  - Oneida Shores County Park
- Historic Resources on State or National Register of Historic places
  - No listed National Register (or currently eligible) sites in the project area
  - No New York State listed or eligible sites in the project area
  - New York State Barge Canal Historic District is just under 2 miles from the site.
- State Parks [https://parks.ny.gov/parks/]
  - None located within 5-mile radius of the site.
- NYS Heritage Areas [https://parks.ny.gov/historic-preservation/heritage-areas.aspx]
  - None located within 5-mile radius of the site, closest is the Syracuse Heritage Area (Downtown Syracuse)
- NY State Forest Preserve [https://www.dec.ny.gov/lands/4960.html]
  - None located within 5-mile radius of the site.
- NWR [https://www.fws.gov/refuges/find-a-wildlife-refuge/?method=state&query=New+York]
  - None located within 5-mile radius of the site.
- National Natural Landmarks [https://www.nps.gov/subjects/nnlandmarks/nation.htm]
  - None located within 5-mile radius of the site.
- National Park System Recreation Areas [https://www.fs.fed.us/ivm/]
  - None located within 5-mile radius of the site.
- National Park System Recreation Areas Seashores [https://www.fs.fed.us/ivm/]
  - None located within 5-mile radius of the site.
- National Park System Recreation Areas Forests [https://www.fs.fed.us/ivm/]
  - None located within 5-mile radius of the site.
- National or State Wild, Scenic, or Recreational Rivers [https://www.rivers.gov/new-york.php]
  - None located within 5-mile radius of the site.
- NYS Scenic Byways [https://www.dot.ny.gov/scenic-byways]
  - None located within 5-mile radius of the site.
- Scenic Areas of Statewide Significance (SASS) (Hudson Valley and Long Island) [https://www.dos.ny.gov/opd/programs/consistency/scenicass.html#:~:text=SASS%20designation%20protects%20scenic%20landscapes,Most%20of%20Your%20Waterfront%20guidebook.]
  - None located within 5-mile radius of the site.

[1] 2019 New York State Department of Environmental Conservation, Program Policy DEP-00-2 - Assessing and Mitigating Visual and Aesthetic Impacts
https://www.dec.ny.gov/docs/permits_ej_operations_pdf/visualpolicydep002.pdf

- State or Federally designated trail (Appalachian Trail) [https://appalachiantrail.org/explore/hike-the-a-t/interactive-map/]
    - Not on Appalachian Trail
- Adirondack Park Scenic Vistas [https://visitadirondacks.com/what-to-do/scenic-byways]
    - None located within 5-mile radius of the site.
- State Nature and Historic Preserve Areas [https://gisservices.dec.ny.gov/gis/dil/]
    - DEC Operated Cicero Swamp Wildlife Management Area
    - Big Bay Swamp
- Palisades Park [https://www.palisadesparks.org/palisades-interstate-park]
    - Not located within 5-mile radius of the site.
- Bond Act properties purchased under Exceptional Scenic Beauty category
    - None located within 5-mile radius of the site (Star Hill, Oneida County)
- National Heritage Areas [https://eriecanalway.org/]
    - Erie Canalway National Heritage area

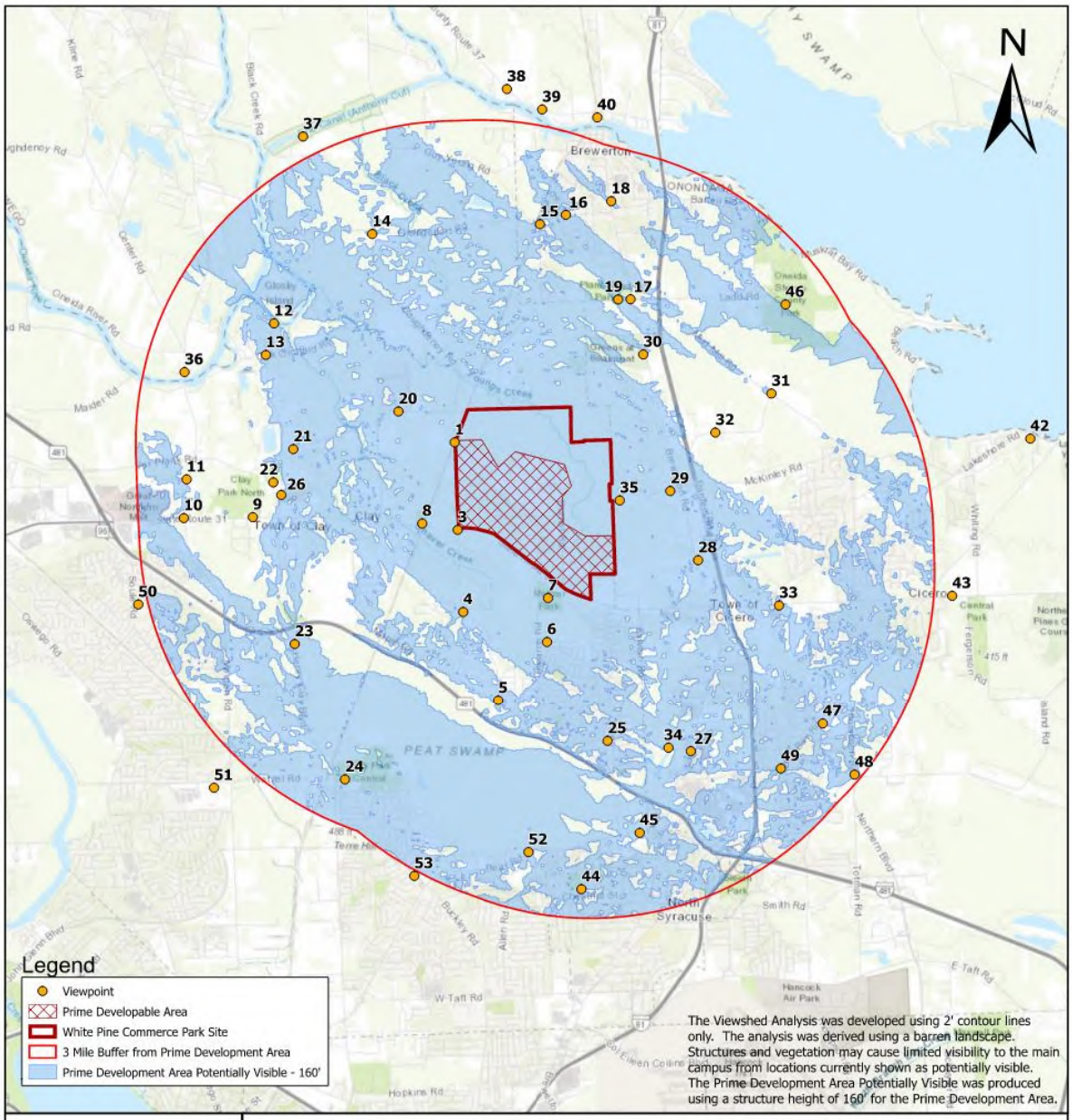
A total of 52 potential viewpoints were identified (34 were identified with the 2000 Visual Assessment and remain valid). It should be noted that the residences on Burnet Road and certain residences on Caughdenoy Road are not included as sensitive receptors in this assessment as OCIDA has either acquired them, has them under contract, or intends to acquire them through negotiated purchase agreements or pursuant to the EDPL. The following viewpoints (see Figure 2 Viewshed Analysis Map) have the potential to have unobstructed views or partial views of the site and were identified as potential locally sensitive receptors (i.e., Parks, churches, residential dwellings, schools). Each location's view to the site was categorized as Open, Partial, or Screened.

Table 1: Identified Viewpoints

Viewpoint #	Location	Viewpoint Location Use	Type of View to Site
1	Entry to substation on Caughdenoy Road	Public Utility	Open
2	Viewpoint #2 has been removed - OCIDA is purchasing this property	N/A	N/A
3	SW Corner of Rte. 31 and Caughdenoy Road Intersection	Roadway	Screened
4	Caughdenoy Road – south of site	Roadway	Screened
5	"Rodger Corner" – Intersection of Maple Road and Caughdenoy Road	Roadway	Screened
6	5755 Boulia Drive	Residential	Screened
7	Parking Lot of Meltzer Park – off Stearns Road	Public Park	Screened
8	Parking Lot of Immanuel Church off Rte. 31/Clay Historical Park	Church/Historic	Partial/Screened
9	Entry Town of Clay Offices off Rte. 31	Public Office	Screened
10	SW Corner of Morgan Road and Rte. 31	Commercial	Screened

11	Entry to Great Northern Mall off Morgan Road	Commercial	Partial
12	Henry Clay Blvd. Ext. – south of Glosky Island	Roadway	Screened
13	NE Corner of Henry Clay Blvd. and Orchard Road Intersection	Roadway	Screened
14	SE Corner of Orchard Road and Orangeport Road Intersection	Open Field	Screened
15	Intersection of Jacob Lane and Bear Springs Road	Residential	Screened
16	Intersection of Orangeport Road and Peregrin Lane	Residential	Screened
17	Calvary Church – off Mud Mill Road	Church	Partial
18	Brewerton Elementary School – Southside of Entry Loop	Public School	Screened
19	E. Entry of Plank Road Park – in Parking Lot of Mud Mill Road	Public Park	Screened
20	Driveway of Airlane Enterprises – off Verplank Road	Commercial	Partial
21	4592 Verplank Road	Residential	Screened
22	Parking Lot of Michael Santaro Memorial Park – off Henry Clay Blvd.	Public Park	Screened
23	Parking Lot of Stanley J. Hamlin Wildlife Management Area – off Henry Clay Blvd.	Public Park	Screened
24	Town of Clay Green Area – off Henry Clay Blvd.	Public Park	Screened
25	Intersection of Lehman Street and Caughdenoy Road	Roadway	Screened
26	Pine Plains Cemetery – off Henry Clay Blvd.	Public Cemetery	Screened
27	Intersection of Rte. 11 and Caughdenoy Road	Commercial	Screened
28	Hayes Airfield – along Rte. 11	Roadway	Partial
29	Northern Onondaga Library – on Knowledge Lane – off Rte. 11	Public Library	Screened
30	Parking Lot of Skyline Country Club	Public Golf Course	Screened
31	Intersection of Mud Mill Road and Sneller Road – east of I-81	Roadway	Screened
32	Along Sneller Road – east of I-81	Roadway	Screened
33	Rte. 31 in front of plaza – across from school	Commercial	Screened
34	Heron Marsh – off Caughdenoy Road	Open Field	Open
35	Meltzer Court	Residential	Screened
36	Schroeppel House – off Rte. 10	Residential/Historic	Screened

37	Lock 23 State Canal Park – off Black Creek Road	Public Park	Screened
38	Winter Harbor Marina – off Rte. 37	Commercial	Screened
39	Riveredge Airpark – off Rte. 37	Commercial	Screened
40	Fort Brewerton Park – off Rte. 11	Public Park/Historic	Screened
41	Central Square Middle School – off Rte. 11	Public School	Screened
42	Lakeshore Baptist Church – off Lakeshore Road	Church	Screened
43	Stone Arabia School Museum – off Rte. 31	School/Historic	Screened
44	Heritage Park – off Chestnut Street	Public Park	Screened
45	Bear Road Elementary School – off Bear Road	Public School	Screened
46	Oneida Shores County Park – from parking lot off Ladd Road	Public Park	Screened
47	Gillette Road Middle School – off South Bay Road	Public School	Screened
48	Believers Chapel – off Island Road	Church	Screened
49	Intersection of South Bay Road and East Pine Grove Road – SE quadrant of intersection	Residential	Screened
50	Soule Road Middle School – off Soule Road	Public School	Screened
51	Morgan Road Elementary School – off Morgan Road	Public School	Screened
52	Bear Road at Sandy Lane	Residential	Screened
53	Buckley Road Baptist Church – off Buckley Road	Church	Screened


N
Legend
Viewpoint
Prime Developable Area
White Pine Commerce Park Site
3 Mile Buffer from Prime Development Area
Prime Development Area Potentially Visible - 160'
The Viewshed Analysis was developed using 2' contour lines only. The analysis was derived using a barren landscape. Structures and vegetation may cause limited visibility to the main campus from locations currently shown as potentially visible. The Prime Development Area Potentially Visible was produced using a structure height of 160' for the Prime Development Area.
Onondaga County, NY
Figure 2
Viewshed Analysis
White Pine Commerce Park
Onondaga County Industrial Development Agency
0 0.5 1 Miles
Scale: 1 inch = 1.25 miles
Date Printed: 5/3/2021
Data Sources: Onondaga County Parcel Data, Town of Clay Zoning Data (2016), Province of Ontario, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, NGA, EPA, USDA

Of the 52 sensitive receptor sites, two were determined to have open views to the site, while an additional 5 were determined to have partial views to the site. The remaining receptor sites were determined to have views to the site screened by vegetation or other structures.

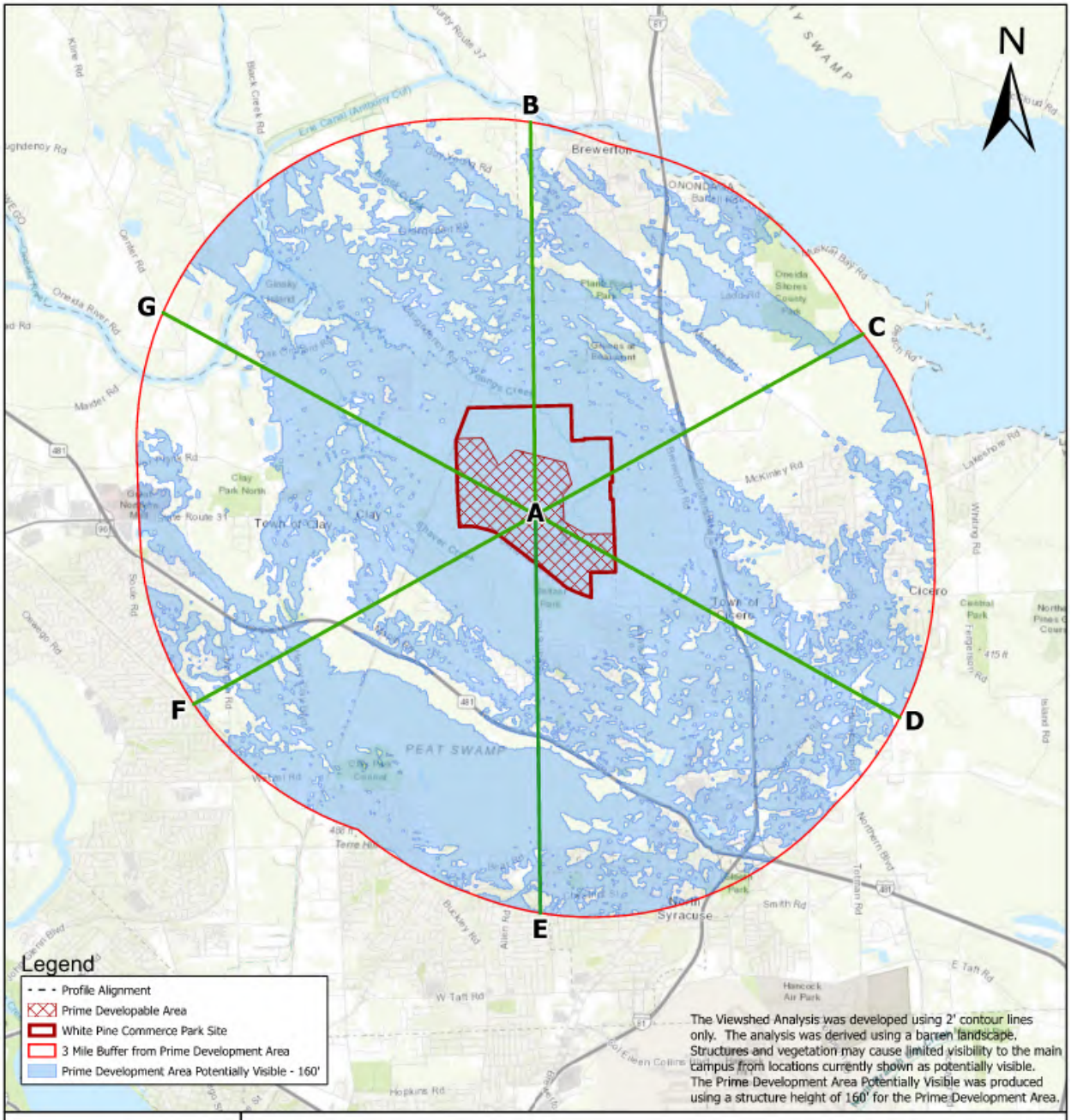
Subsequent assessment of the area was conducted to identify any additional receptors near the Park who might experience changes in the visual environment. Commuters along NYS Route 31 and other local roads near the Park will have short duration views.

Due to flat topography and lack of intervening vegetation, any significant vertical development on site may be visible within one-half to two miles-, particularly during leaf-off periods of the year. The viewshed map indicates that topography has little effect in screening the Park from views within approximately two miles to the north, east and west of the site. Topography does screen views at much closer distances south of the Park, within one mile or less.

The number of receptor locations with partial to potentially uninterrupted views of the Park will be in the range of approximately 75 to 100 nearby residences, small businesses, and other uses. During leaf-on seasons much of the site will be screened by intervening vegetation and these numbers may be less. During leaf-off seasons the potential for views of the Park, particularly more vertical structures, is increased. Most receptors will experience partial views that are screened to some degree by either topography or vegetation rather than unobstructed views. This includes approximately:

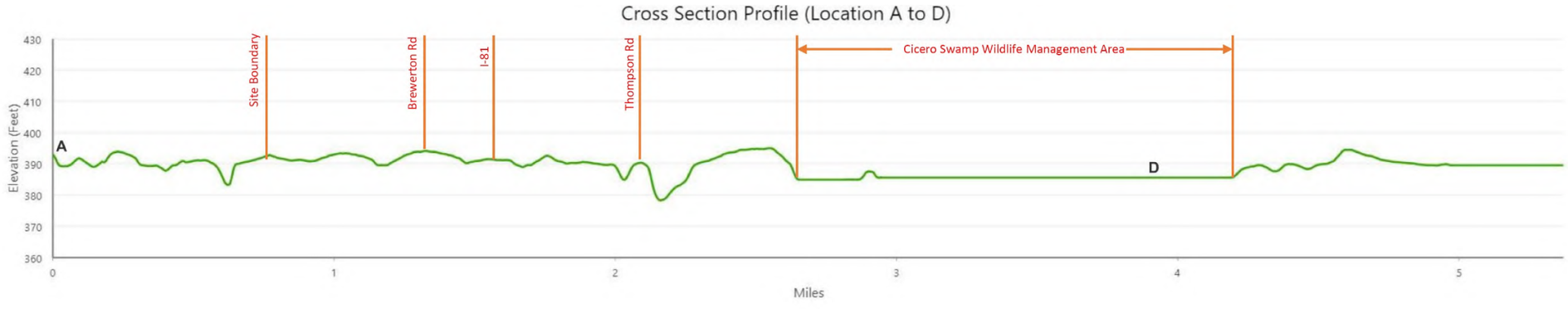
- 11 homes along Caughdenoy Road north of NYS Route 31
- 20 homes along Caughdenoy Road south of NYS Route 31
- 25 homes and businesses along NYS Route 31 directly south, east, and west of the project
- 20 homes in the Verplank Road and Van Heusen Road area
- Grace Evangelical Covenant Church and Meltzer Park along Stearns Road southeast of the project

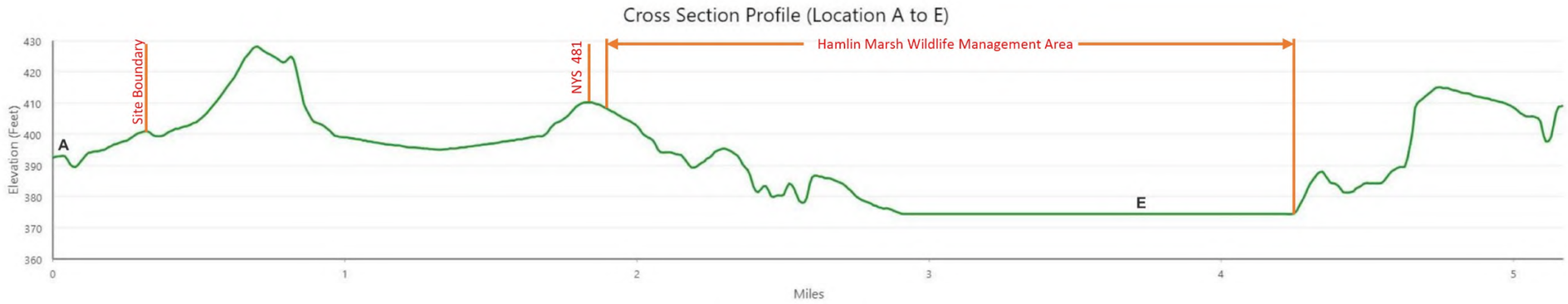
Once constructed, potential views of the Park will include buildings and other industrial structures, and to a lesser extent, roads, and parking areas. The vertical structures with height reaching 160 feet, such as buildings or a water tower, will be most visible. Parking lot lighting from the site and from traffic and operations at night may be visible within one mile of the site. Depending on tenant uses, air emissions, including steam generated by heating and cooling systems and manufacturing processes, may also be seen from nearby viewpoints.

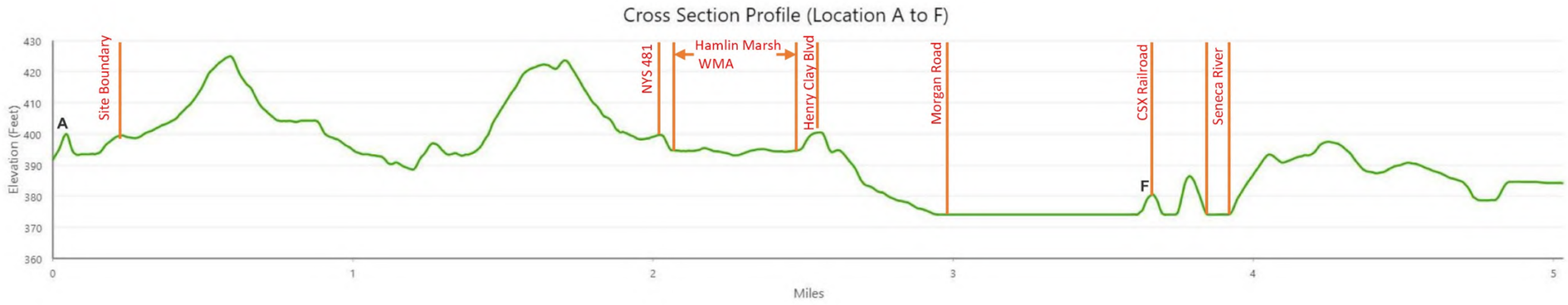

N
A
B
C
D
E
F
G
Legend
Profile Alignment
Prime Developable Area
White Pine Commerce Park Site
3 Mile Buffer from Prime Development Area
Prime Development Area Potentially Visible - 160'
The Viewshed Analysis was developed using 2' contour lines only. The analysis was derived using a barren landscape. Structures and vegetation may cause limited visibility to the main campus from locations currently shown as potentially visible. The Prime Development Area Potentially Visible was produced using a structure height of 160' for the Prime Development Area.
Onondaga County, NY
Figure 3
Viewshed Profile
White Pine Commerce Park
Onondaga County Industrial Development Agency
0 0.5 1 Miles
Scale: 1 inch = 1.25 miles
Date Printed: 4/26/2021
Data Sources: Onondaga County Parcel Data, Town of Clay Zoning Data (2016), Province of Ontario, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, NGA, EPA, USDA

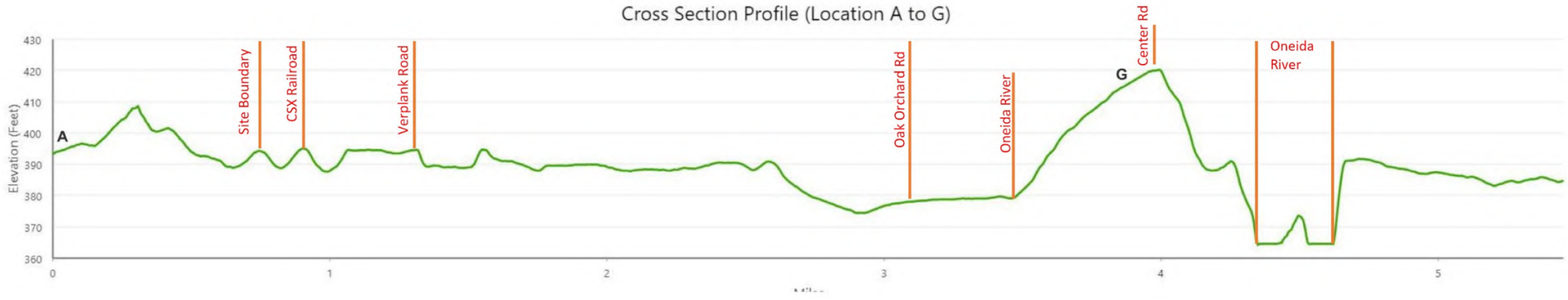
Cross Section Profile (Location A to B)
Elevation (Feet)
430
420
410
400
390
380
370
360
A
B
Site Boundary
Mud Mill Road
CSX Railroad
Oneida River
0
1
2
3
4
5
Miles

Cross Section Profile (Location A to C)
Elevation (Feet)
430
420
410
400
390
380
370
360
A
C
Site Boundary
I-81
Mud Mill Road
Oneida Lake
0
1
2
3
4
Miles


Cross Section Profile (Location A to D)
Elevation (Feet)
430
420
410
400
390
380
370
360
A
D
Site Boundary
Brewerton Rd
I-81
Thompson Rd
Cicero Swamp Wildlife Management Area
0
1
2
3
4
5
Miles


Cross Section Profile (Location A to E)
Elevation (Feet)
430
420
410
400
390
380
370
360
A
Site Boundary
NYS 481
Hamlin Marsh Wildlife Management Area
E
0
1
2
3
4
5
Miles


Cross Section Profile (Location A to F)
Elevation (Feet)
430
420
410
400
390
380
370
360
A
Site Boundary
NYS 481
Hamlin Marsh
WMA
Henry Clay Blvd
Morgan Road
CSX Railroad
Seneca River
F
0
1
2
3
4
5
Miles


Cross Section Profile (Location A to G)
Elevation (Feet)
430
420
410
400
390
380
370
360
A
Site Boundary
CSX Railroad
Verplank Road
Oak Orchard Rd
Oneida River
G
Center Rd
Oneida
River
0
1
2
3
4
5

Mitigation

Best management practices implemented during the site design and construction will mitigate several visual impacts anticipated from the future development of the Park. More site-specific measures that can be implemented to mitigate visual impacts will be identified and further evaluated during the Town's Site Plan review and approval process once a specific development is proposed. However, significant adverse visual impacts are not anticipated.
Mitigation strategies that may be considered in developing the site include:

- **Construction and Placement of Earthen Berms:** Earthen berms along with landscape plantings and/or fences for screening will interrupt critical viewpoints into the site from several nearby locations. In particular, the residences along Caughdenoy Road west of the site. Berms should be constructed at sufficient heights to block lines of sight from nearby receptors and at no greater than a 3:1 slope to prevent soil erosion and for easier maintenance. A contoured slope of 4:1, 5:1 or gentler ratio is preferable. Once a tenant is identified and the site design process moves forward, berm design and placement will be carefully considered to provide a natural appearing landscape that is context sensitive to its surroundings.

Photos 5 and 6: Berms can be designed combining vegetation, landscaping, and screening walls or fencing at sufficient heights to interrupt the lines-of-sight from nearby receptors. These barriers can be effective in mitigating visual and to some extent noise impacts, particularly views and noise generated at ground level by ground operations on site.

- **Native Plant Material:** Landscape plantings will favor native plant species in an effort to maximize survivability rates and to reduce future maintenance costs. A well-designed plant palette consisting of deciduous and evergreen trees and shrubs will be utilized in conjunction with berms, fencing and/or walls to screen certain facilities and parking areas from nearby residents. The plant palette will provide year-round visual interest with flowering, fall color, and evergreen characteristics.

- **Forested Buffers:** Opportunities to retain existing forested buffer areas around the perimeter of the site will be identified. This will aid in minimizing views into the site and reducing noise levels emanating from the site. The effectiveness of forested buffers to reduce visual and noise intrusions increases with width.

- **Context Sensitivity:** Landscape plantings will be designed to complement the surrounding landscape and provide a less intrusive visual element. As an example, randomized plant layouts in disturbed areas adjacent to currently undeveloped areas will appear more natural and create less

visual clutter. Form and function of the planting will be balanced to provide visual screening as quickly as possible with faster growing species, both deciduous and evergreen. Other areas may require more formalized plantings with densely spaced evergreen plant material to visually screen and/or provide mitigation for noise and light intrusion from the site.

- **Camouflage/Disguise:** Colors and patterns of color will aid in minimizing the visual effects of an object on its surrounding viewshed. The utilization of earth tones and similar color schemes in the design of buildings and structures on the site will reduce the visual contrast with surrounding landscapes. As an example, disguising communication towers as trees is a long-standing design tactic that has been successfully implemented on other sites.

- **Low Profile and Consolidation:** The design of buildings and other supporting facilities should be to the lowest practicable heights. Consolidation of facilities may reduce the development footprint, and thus, lessen the visual impacts. Alternatives considering the height, color and capacity requirements of water towers, communication towers, smokestacks, piping, transmission lines, etc. should be explored to mitigate potential views from off-site locations.

- **Site Lighting:** Light illumination levels on the site must adhere to engineering minimums for security which may result in light pollution outside the site. By utilizing the latest technology with appropriately sized light poles and fixtures, the effects of light spill over can be minimized. Cutoff LED fixtures are efficient and provide more accurate direction of the light. The most efficient combinations of light pole and fixture will be implemented to reduce light spill over to the greatest extent practical without sacrificing safety and security.

- **Site Entrances:** Site entrances and entrance roadways may be engineered to be curvilinear in an effort to minimize views into the site from local roads. Installing landscape plant material to obscure the views into the site at entrances can be beneficial, but clear sight lines must be maintained for the safety of all users including bicyclists and pedestrians.

- **On-Site Opportunities:** Integrating opportunities for visual mitigation and noise mitigation efforts with other site design considerations such as stormwater management areas, safety and security features, fencing, berms, screening walls, building placement, landscaping, etc. will be explored.

Conclusion

The visual impact of development on the Park site to the surrounding areas and receptors within the study area will be moderate. Of the 52 viewpoints identified, 45 of them could have their views of the site screened by existing topography and/or vegetation. Five viewpoints could have partial views of the site and the remaining two sites could have open views. There are no visual impacts anticipated to resources of statewide significance as defined by the DEC Program Policy for Assessing and Mitigating Visual and Aesthetic Impacts. The highest visual impacts occur to local and non-public resources along limited segments of the roadway network adjacent to the Park. These include: Caughdenoy Road, NYS Route 31, and NYS Route 11. The Park should not be considered scenic as the current landscape includes high-tension electrical towers, an electrical substation, a cell tower, and the CSX railroad adjacent to the Park. Visual impacts that may be identified by the further development of the specific site plans will be mitigated through the strategies discussed in the Mitigation section of this document.

Landscape Character and Potential Sensitive Receptor Photographs

Viewpoint # 1

Viewpoint # 3

Viewpoint # 4

Viewpoint # 5

Viewpoint # 6

Viewpoint # 7

Viewpoint # 8

Viewpoint # 9

Viewpoint # 10

Viewpoint # 11

Viewpoint # 12

Viewpoint # 13

Viewpoint # 14

Viewpoint # 15

Viewpoint # 16

Viewpoint # 17

Viewpoint # 18

Viewpoint # 19

Viewpoint # 20

Viewpoint # 21

Viewpoint # 22

Viewpoint # 23

Viewpoint # 24

Viewpoint # 25

Viewpoint # 26

Viewpoint # 27

Viewpoint # 28

Viewpoint # 29

Viewpoint # 30

Viewpoint # 31

Viewpoint # 32

Viewpoint # 33

Viewpoint # 34

Viewpoint # 35

Viewpoint # 36

Viewpoint # 37

Viewpoint # 38

Viewpoint # 39

Viewpoint # 40

Viewpoint # 41

Viewpoint # 42

Viewpoint # 43

Viewpoint # 44

Viewpoint # 45

Viewpoint # 46

Viewpoint # 47

Viewpoint # 48

Viewpoint # 49

Viewpoint # 50

Viewpoint # 51

Viewpoint # 52

Viewpoint # 53

APPENDIX E

Noise Data

Project OCIDA WHITE PINE

Subject AMBIENT NOISE COLLECTION

Job No. 20-03861-001

Sheet No. 1 of 2

Computed By DTS Date _____ Checked By _____ Date 4/8/21

slight Breeze

Location: 1 Rural (HWY 31 ? Caughdenoy Rd)

GPS: 43.185310, -76.166476

JMT File: JMT_79

Weather: 60's, sunny

Start: 0933

End: 1003

Duration Min.	Duration Sec.	Event
0	20-37	truck (mack) idle @ stop light
4	40	loud mack truck ~~ex~~ accelerating ~~thr~~ through turn
5	00	loud Haul truck
5	30	Mack truck
5	41	16-wheeler
6	35	Garbage truck
9	32	16-wheeler w/ low boy
{ 7	37-	16-wheeler hauling rail ties ~~tde~~ idles @ stop light and }
{ 10	15	makes turn on green to EB Rte. 31
~~+~~13	38	2- triple A Heavy highway vehicles pass
14	24	16-wheeler hauling rail ties passes
14	30	16-wheeler w/ over size load passes
14	54	16-wheeler w/ petroleum load passes
17	35	F-350 landscape truck
{ 18	00-	} passenger vehicle w/ loud music idles @ }
{ 18	28	Red light
{ 19	55-	} UPS idle @ light w/ loud exhaust }
{ 20	12	
20	20	16-wheeler
20	34	passenger (personal) vehicle w/ loud exhaust
21	46	Utility Repair truck passes
22	00	loud motorcycle
22	23	16-wheeler w/ cargo
22	26	16-wheeler w/ cargo
{ 22	57-	16-wheeler w/ rail ties idles @ the intersection }
{ 23	05	for red light
{ 24	22-	Ambulance idles @ red light
{ 24	30	
27	42	16-wheeler w/ cargo
28	50	County highway truck hauling pavement Rollers

Project OCIDA WHITE PINE

Subject AMBIENT NOISE COLLECTION Job No. 20-03861-001

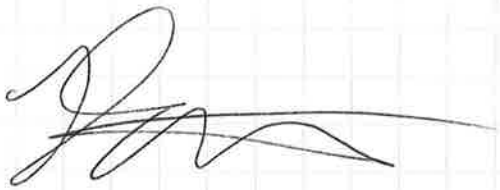
Sheet No. 2 of 2

Computed By DTS Date _____ Checked By _____ Date 4/8/21

Location: 1 Run 1 (HWY 31 ? Caughdenoy Rd)

General notes

1) Noise environment dominated by traffic.
2) Personal vehicles to numerous to quantify in notes, instead heavy class vehicles where noted, as they tend to cause peaks in ambient noise levels
3) ~~I~~ one (1) small dozer is working ≈ 600-800 FT from meter in South west quadrant of intersection. It's noise is not perceptable over traffic noise. Minimaly perceptable during the rare periods where no other vehicles are passing.
4) some bird noise present throughout data collection (red wing black bird)
5) all ~~X~~ references to "rail tres" in event log are actually loads of wood matts.



Project OCIDA WHITE PINE

Subject AMBIENT NOISE COLLECTION Job No. 20-03861-001

Sheet No. 1 of 1

Computed By DTS Date _____ Checked By _____ Date 4/8/21

Location #1 Run 2 (HWY 31 ; Laughdeney) weather: 70's, sunny

GPS 43.185310; -76.166476 start 1243

JMT File: 85 stop 1313

Duration

min	sec	Event
0	43	truck idling @ red light
0	52	16-wheeler
1	27	16-wheeler Hauling wood mat
1	44	16-wheeler & bobtail haul truck
3	26	16-wheeler w/ dumpy hauling excavator
5	00	diesel dodge cummins ;
6	35-44	mack truck w/ trailer idles @ stop light
6	51	16-wheeler
7	05	school bus
8	18	16- Wheeler
11	08	16-wheeler
11	09	loud motorcycle
11	32	loud motorcycle
11	48	landscaping F350
13	27	16-Wheeler
15	54	16-wheeler
16	26	16-wheeler
21	09	16-wheeler w/ wood mat idles @ the intersection
23	35	16-wheeler
24	45	F350 idle @ intersection
25	44	16-wheeler

General notes

1) noise dominated by traffic

2) dozer mentioned during Run1 was not running during Run 2

Project OCIDA WHITE PINE

Subject AMBIENT NOISE COLLECTION Job No. 20-03861-001

Sheet No. 1 of 1

Computed By DTS Date _____ Checked By _____ Date 4/8/21

Location 2 ("power station")
GPS 43.197455, -76.167092
JMT File: JMT_81

weather: Sunny, 60's, wind ≈ 8mph
start 1030
stop 11:00

Duration min	Duration sec	Event
1	17	
1	25	16-wheeler w/ matts leaves power station
1	52	16-wheeler returns to station for wood matts
2	24	dump truck passes
2	40	school bus passes
7	49	mack truck passes (landscaping truck)
13	20	two landscaping F350's pass
15	08	loud motorcycle.
16	35	16-wheeler w/ wood matts leaves power station
17	20	F350 landscape passes
18	20	9-wheeler returns to power station w/ wood matts,
22	34	16-wheeler returns to power station for more matts
26	13	16-wheeler returns to power station for more wood mats
26	57	16-wheeler passes by

General notes

1) noise environment dominate by ~~for~~ personal vehicle traffic
2) some animal/Bird noise throughout data collection, namely from nearby wetlands.
3) power station is mobilizing wood mats out for spring construction. Only 2-trucks related to this past during data collection, unlikely to affect overall sound levels (L_{AEq}) in a significant manner.
4) No low frequency, or other noise, ~~to~~ from power station was noticed,

Project OCIDA WHITE PINE

Subject AMBIENT NOISE COLLECTION

Job No. 20-03861-001

Sheet No. 1 of 1

Computed By OTS Date _____ Checked By _____ Date 4/8/21

Location 2 Run 2 (Rail? power station)
GPS: 43.197455, -76.167092
JMT File: 87

weather: 70°, sunny, ~8mph
start: 1333
end 1403

Duration min	Duration sec	Event
00	01	16-wheeler returns for wood mats
1	37	cement truck passes by
10	15	16-wheeler leaves power station w/ wood mats
15	50	16-wheeler returns to power station for wood mat
21	30	16-wheeler w/ low boy passes by.
26	43	16-wheeler w/ wood mats leaves power station

General notes

1) Sound environment is the same as was noted in run 1 for this location.

Project OLIDA WHITE PINE

Subject AMBIENT NOISE COLLECTION

Job No. 20-03861-001

Sheet No. 1 of 1

Computed By DTS Date 04/08/21 Checked By _____ Date _____

Location 3 ("Burnett Road") Rural
GPS 43.189855, -76.147206
JMT File JMT_83

weather: sunny, 60's, wind 2 mph
start: 11:23
stop: 11:53

Duration min	Duration sec	Event
4	10	F-350 goes by
14	10	train horn in distance
24	18	F350 drives by
25	14	car goes by
25	23	car goes by
27	16	Plane

General notes

1) noise environment ~~doom~~ is rural residential
2) virtually no traffic during data collection
3) some animal / bird chirping in the background,
4) Traffic is so low that every passing vehicle is noted in event log.

☆ Resident stopped by to inquire @ end of data collection. I let her know I was collecting noise data for parcel owner. she indicated she knew OLIDA owned the parcel, Interaction was cordial and ~~alone~~ non-confrontational;

Project OCIDA WHITE PINE

Subject AMBIENT NOISE COLLECTION

Job No. 20-03861-001

Sheet No. 1 of 1

Computed By DTS Date 04/08/21 Checked By _____ Date _____

Location #3 Run 2 (Burnett Road)
GPS: 43.189855, -76.147206
JMT: SR

weather Sunny 70°, 7 mph
Start ~~2:16~~ 1416
Stop

Duration

Min	sec	Event
00	10	School bus goes by
05	29	car goes by
18	22	Pick up truck goes by
19	37	car goes by
21	00	2 cars go by

General Notes

1) The sound environment for ~~Round~~ Run 2 @ this location is comparable to ~~round~~ run 1 @ this location

Project OCIOA WHITE PINE

Subject AMBIENT NOISE COLLECTION Job No. 20-03861-001

Sheet No. 1 of 1

Computed By DTS Date 09/27/21 Checked By _____ Date _____

Location: 5397 HWY 31 Run 1
GPS: 43.176709 -76.143589
JMT FILE: JMT_0.91

Weather: Overcast, 58°F
Start: ~~1037~~ DST 10:29
End: 10:59

Duration Min	Duration Sec	Event
00	50	- 16-wheeler
3	40	moving Truck
08	00	neighbor starts using weed wacker (accross the street) weed wacker noise is only noticable during Breaks in traffic passing
10	40	16 - wheeler
10	50	16 wheeler
13	15	16-wheeler
23	20	loud vintage muscle car

General note:
- Heavy traffic, only heavy highway vehicles noted
- noise environment dominated by traffic noise from HWY 31
- neighbor only used weed wacker (electric) intermittently, total run time ≈ 2-3 mins.

Project OCIDA WHITE PINE

Subject AMBIENT NOISE ~~COLLECTION~~ Job No. 20-03561-001
COLLECTION Sheet No. 1 of 1

Computed By DTS Date 04/27/21 Checked By _____ Date _____

~25 mph wind

Location 5397 HWY 31 Run 2
GPS: 43.176709, -76.143589
JMT File: (44) JMT_0099

weather: overcast 50°F
Start 12:29
End 12:59

Duration	Event
03 15	16-wheeler
06 22	moving truck
09 30	HWY maintenance truck
14 21	HWY maintenance truck
20 39	Tractor trailer Hauling loaded low boy
22 26	HWY maintenance truck
2551	16-wheeler
3851	2 - garbage trucks

General notes:
- Same ~~as~~ noise environment as Run 1 (i.e. dominated by HWY 31 & traffic Noise).

Project OCIDA WHITE PINE

Subject AMBIENT NOISE COLLECTION Job No. 20-03861-001

Sheet No. 1 of 1

Computed By DTS Date 09/27/21 Checked By _____ Date _____

Location: Apartments
GPS: 43.181058, -76.137205
JMT file: JMT_93

weather: overcast, 50°F
start 1134
end: 12:04

Duration	Event
0500-0600	Loud pair of birds singing nearby
07:45-	landscaping noise, sounds like mobile equipment, noise contribution transient and variable, I will make note when equipment shuts off.
21:05	equipment off
22:52	lawn mower(s) (2) start mowing near the closest building to the meter (see map)
26.21	landscape/mower noise ends

General notes
- sound environment dominated by distance HWY Noise & Bird Noise. Most prominent contribution appears to be from the direction of 81
- Bird Noise on going throughout entire run, only unusually loud birds near instrument noted.

Project OCIDA WHITE PINE

Subject AMBIENT NOISE COLLECTION

Job No. 20-03861-001

Sheet No. 1 of 1

Computed By OTS Date 04/27/21 Checked By _____ Date _____

Location: Apartments Run 2
GPS: 43.181058, -76.137205
JMT: JMT_Onta_095

Weather: overcast 50°F
Start: 13:29
End: 13:59

Duration	Event
03 50	Plane noise
06 30	crows caaing.
09 35	Fedx truck does U-turn near building closest to meter.

General Notes

- Distant HWY 81 Noise, animal noise and periodic coming/going noise from complex dominates the noise env.
- lack of landscaping noise reduces noise 2 5 -10 dBA (from perception, not based on readings)

LOCATION A1

Summary

File Name on Meter	JMT_Data.079
File Name on PC	SLM_0003004_JMT_Data_079.00.ldbin
Serial Number	0003004
Model	Model 831
Firmware Version	2.402
User	
Location	
Job Description	
Note	

Measurement

Description	30 min TH. A,C,Z. 1/1 and 1/3 octave A,C,Z.
Start	2021-04-08 09:33:01
Stop	2021-04-08 10:03:04
Duration	00:30:03.6
Run Time	00:30:03.6
Pause	00:00:00.0
Pre Calibration	2020-05-11 07:49:29
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamp	PRM831
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Freq. Weighting	A Weighting
OBA Max Spectrum	Bin Max
Gain	0.0 dB
Overload	144.9 dB

	A	**C**	**Z**
Under Range Peak	77.4	74.4	**79.4** dB
Under Range Limit	**26.8**	27.3	33.4 dB
Noise Floor	17.7	18.2	23.8 dB

Results

L_{Aeq}	72.2 dB	
LAE	104.7 dB	
EA	3.307 mPa²h	
EA8	52.814 mPa²h	
EA40	264.070 mPa²h	
$L_{Zpeak\ (max)}$	2021-04-08 09:50:00	115.4 dB
L_{ASmax}	2021-04-08 09:53:09	90.1 dB
L_{ASmin}	2021-04-08 09:45:56	51.3 dB
SEA	-99.9 dB	

LAS > 65.0 dB (Exceedance Counts / Duration)	48	1396.4 s
LAS > 85.0 dB (Exceedance Counts / Duration)	1	3.5 s
L_{Zpeak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Zpeak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Zpeak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**
	72.2	72.2	-99.9	72.2	72.2	-99.9

L_{Ceq}	83.4 dB
L_{Aeq}	72.2 dB
L_{Ceq} - L_{Aeq}	11.2 dB
L_{AIeq}	74.1 dB
L_{Aeq}	72.2 dB
L_{AIeq} - L_{Aeq}	1.9 dB

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	72.2		83.4		92.8	
$L_{S(max)}$	90.1	2021/04/08 9:53:09	100.7	2021/04/08 9:53:09	103.0	2021/04/08 9:48:33
$L_{F(max)}$	92.9	2021/04/08 9:53:09	102.9	2021/04/08 9:53:09	107.9	2021/04/08 9:49:57
$L_{I(max)}$	94.2	2021/04/08 9:53:09	103.6	2021/04/08 9:53:09	111.3	2021/04/08 9:50:00
$L_{S(min)}$	51.3	2021/04/08 9:45:56	67.5	2021/04/08 9:33:01	74.8	2021/04/08 9:55:20
$L_{F(min)}$	48.4	2021/04/08 9:45:59	64.7	2021/04/08 9:33:58	67.2	2021/04/08 9:33:59
$L_{I(min)}$	50.7	2021/04/08 9:46:51	68.3	2021/04/08 9:52:32	75.1	2021/04/08 9:34:06
$L_{Peak(max)}$	103.5	2021/04/08 9:53:09	111.1	2021/04/08 9:53:09	115.4	2021/04/08 9:50:00

# Overloads	0
Overload Duration	0.0 s
# OBA Overloads	0
OBA Overload Duration	0.0 s

Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results			
Dose	0.00	0.04	%
Projected Dose	0.01	0.67	%
TWA (Projected)	19.4	53.9	dB
TWA (t)	-0.6	33.9	dB
Lep (t)	60.1	60.1	dB

Statistics		
LAS5.00	77.6	dB
LAS10.00	76.1	dB
LAS33.30	70.9	dB
LAS50.00	68.0	dB
LAS66.60	65.3	dB
LAS90.00	61.2	dB

Calibration History					
Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**
PRM831	2020-05-11 07:49:29	-27.4	45.7	52.9	40.4

LOCATION A2

Summary

File Name on Meter	JMT_Data.081
File Name on PC	SLM_0003004_JMT_Data_081.00.ldbin
Serial Number	0003004
Model	Model 831
Firmware Version	2.402
User	
Location	
Job Description	
Note	

Measurement

Description	30 min TH. A,C,Z. 1/1 and 1/3 octave A,C,Z.
Start	2021-04-08 10:30:03
Stop	2021-04-08 11:00:03
Duration	00:30:00.9
Run Time	00:30:00.9
Pause	00:00:00.0
Pre Calibration	2020-05-11 07:49:29
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamp	PRM831
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Freq. Weighting	A Weighting
OBA Max Spectrum	Bin Max
Gain	0.0 dB
Overload	144.9 dB

	A	**C**	**Z**	
Under Range Peak	77.4	74.4	**79.4**	dB
Under Range Limit	**26.8**	27.3	33.4	dB
Noise Floor	17.7	18.2	23.8	dB

Results

L_{Aeq}	60.8	dB
LAE	93.3	dB
EA	239.805	µPa²h
EA8	3.835	mPa²h
EA40	19.175	mPa²h
$L_{Zpeak\ (max)}$	2021-04-08 10:57:40	112.4 dB
L_{ASmax}	2021-04-08 10:33:03	74.9 dB
L_{ASmin}	2021-04-08 10:37:23	42.8 dB
SEA	-99.9	dB

LAS > 65.0 dB (Exceedance Counts / Duration)	46	217.0 s
LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Zpeak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Zpeak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Zpeak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**
	60.8	60.8	-99.9	60.8	60.8	-99.9

L_{Ceq}	80.8	dB
L_{Aeq}	60.8	dB
L_{Ceq} - L_{Aeq}	20.0	dB
L_{AIeq}	64.7	dB
L_{Aeq}	60.8	dB
L_{AIeq} - L_{Aeq}	3.9	dB

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	60.8		80.8		90.5	
$L_{S(max)}$	74.9	2021/04/08 10:33:03	91.7	2021/04/08 10:49:07	102.6	2021/04/08 10:52:01
$L_{F(max)}$	76.8	2021/04/08 10:45:11	96.9	2021/04/08 10:57:40	107.1	2021/04/08 10:52:01
$L_{I(max)}$	78.0	2021/04/08 10:49:08	101.1	2021/04/08 10:57:40	109.5	2021/04/08 10:36:30
$L_{S(min)}$	42.8	2021/04/08 10:37:23	64.1	2021/04/08 10:39:28	71.1	2021/04/08 10:39:28
$L_{F(min)}$	41.4	2021/04/08 10:37:22	61.0	2021/04/08 10:37:17	65.5	2021/04/08 10:37:17
$L_{I(min)}$	42.9	2021/04/08 10:37:18	64.9	2021/04/08 10:39:28	73.0	2021/04/08 10:48:54
$L_{Peak(max)}$	89.2	2021/04/08 10:49:08	107.1	2021/04/08 10:57:40	112.4	2021/04/08 10:57:40

# Overloads	0	
Overload Duration	0.0	s
# OBA Overloads	0	
OBA Overload Duration	0.0	s

Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results			
Dose	-99.9	-99.9	%
Projected Dose	-99.9	-99.9	%
TWA (Projected)	-99.9	-99.9	dB
TWA (t)	-99.9	-99.9	dB
Lep (t)	48.7	48.7	dB

Statistics		
LAS5.00	66.7	dB
LAS10.00	64.6	dB
LAS33.30	59.3	dB
LAS50.00	56.4	dB
LAS66.60	53.1	dB
LAS90.00	48.1	dB

Calibration History					
Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**
PRM831	2020-05-11 07:49:29	-27.4	45.7	52.9	40.4

LOCATION A3

Summary

File Name on Meter	JMT_Data.083
File Name on PC	SLM_0003004_JMT_Data_083.00.ldbin
Serial Number	0003004
Model	Model 831
Firmware Version	2.402
User	
Location	
Job Description	
Note	

Measurement

Description	30 min TH. A,C,Z. 1/1 and 1/3 octave A,C,Z.
Start	2021-04-08 11:23:20
Stop	2021-04-08 11:53:22
Duration	00:30:01.9
Run Time	00:30:01.9
Pause	00:00:00.0
Pre Calibration	2020-05-11 07:49:29
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamp	PRM831
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Freq. Weighting	A Weighting
OBA Max Spectrum	Bin Max
Gain	0.0 dB
Overload	144.9 dB

	A	C	Z	
Under Range Peak	77.4	74.4	**79.4**	dB
Under Range Limit	**26.8**	27.3	33.4	dB
Noise Floor	17.7	18.2	23.8	dB

Results

L_{Aeq}	53.9	dB
LAE	86.5	dB
EA	49.359	µPa²h
EA8	788.916	µPa²h
EA40	3.945	mPa²h
$L_{Zpeak\ (max)}$	2021-04-08 11:29:13	113.1 dB
L_{ASmax}	2021-04-08 11:29:13	69.2 dB
L_{ASmin}	2021-04-08 11:42:57	39.2 dB
SEA	-99.9	dB

LAS > 65.0 dB (Exceedance Counts / Duration)	9	28.6 s
LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Zpeak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Zpeak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Zpeak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**
	53.9	53.9	-99.9	53.9	53.9	-99.9

L_{Ceq}	76.0	dB
L_{Aeq}	53.9	dB
L_{Ceq} - L_{Aeq}	22.1	dB
L_{AIeq}	58.6	dB
L_{Aeq}	53.9	dB
L_{AIeq} - L_{Aeq}	4.7	dB

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	53.9		76.0		86.8	
$L_{S(max)}$	69.2	2021/04/08 11:29:13	90.6	2021/04/08 11:29:13	99.9	2021/04/08 11:51:54
$L_{F(max)}$	72.6	2021/04/08 11:29:13	95.0	2021/04/08 11:29:13	104.6	2021/04/08 11:29:13
$L_{I(max)}$	75.1	2021/04/08 11:29:13	98.6	2021/04/08 11:52:56	108.1	2021/04/08 11:29:13
$L_{S(min)}$	39.2	2021/04/08 11:42:57	57.3	2021/04/08 11:41:23	62.7	2021/04/08 11:41:22
$L_{F(min)}$	37.6	2021/04/08 11:42:56	54.8	2021/04/08 11:43:41	60.1	2021/04/08 11:41:23
$L_{I(min)}$	39.6	2021/04/08 11:41:14	58.4	2021/04/08 11:43:44	64.3	2021/04/08 11:41:28
$L_{Peak(max)}$	87.2	2021/04/08 11:29:13	104.7	2021/04/08 11:52:56	113.1	2021/04/08 11:29:13

# Overloads	0	
Overload Duration	0.0	s
# OBA Overloads	0	
OBA Overload Duration	0.0	s

Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results			
Dose	-99.9	-99.9	%
Projected Dose	-99.9	-99.9	%
TWA (Projected)	-99.9	-99.9	dB
TWA (t)	-99.9	-99.9	dB
Lep (t)	41.9	41.9	dB

Statistics		
LAS5.00	59.9	dB
LAS10.00	57.4	dB
LAS33.30	51.2	dB
LAS50.00	48.3	dB
LAS66.60	45.6	dB
LAS90.00	42.3	dB

Calibration History					
Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**
PRM831	2020-05-11 07:49:29	-27.4	45.7	52.9	40.4

LOCATION A1

Summary

File Name on Meter	JMT_Data.085
File Name on PC	SLM_0003004_JMT_Data_085.00.ldbin
Serial Number	0003004
Model	Model 831
Firmware Version	2.402
User	
Location	
Job Description	
Note	

Measurement

Description	30 min TH. A,C,Z. 1/1 and 1/3 octave A,C,Z.
Start	2021-04-08 12:42:29
Stop	2021-04-08 13:12:35
Duration	00:30:06.5
Run Time	00:30:06.5
Pause	00:00:00.0
Pre Calibration	2020-05-11 07:49:29
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamp	PRM831
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Freq. Weighting	A Weighting
OBA Max Spectrum	Bin Max
Gain	0.0 dB
Overload	144.9 dB

	A	**C**	**Z**	
Under Range Peak	77.4	74.4	**79.4**	dB
Under Range Limit	**26.8**	27.3	33.4	dB
Noise Floor	17.7	18.2	23.8	dB

Results

L_{Aeq}	73.5	dB
LAE	106.1	dB
EA	4.476	mPa²h
EA8	71.365	mPa²h
EA40	356.826	mPa²h
$L_{Zpeak\ (max)}$	2021-04-08 13:03:58	119.8 dB
L_{ASmax}	2021-04-08 12:49:15	93.3 dB
L_{ASmin}	2021-04-08 13:00:18	50.1 dB
SEA	-99.9	dB

LAS > 65.0 dB (Exceedance Counts / Duration)	42	1567.8 s
LAS > 85.0 dB (Exceedance Counts / Duration)	4	13.8 s
L_{Zpeak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Zpeak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Zpeak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**
	73.5	73.5	-99.9	73.5	73.5	-99.9

L_{Ceq}	87.1	dB
L_{Aeq}	73.5	dB
L_{Ceq} - L_{Aeq}	13.6	dB
L_{AIeq}	75.7	dB
L_{Aeq}	73.5	dB
L_{AIeq} - L_{Aeq}	2.2	dB

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	73.5		87.1		96.5	
$L_{S(max)}$	93.3	2021/04/08 12:49:15	101.9	2021/04/08 12:49:14	108.8	2021/04/08 12:57:14
$L_{F(max)}$	95.0	2021/04/08 12:49:14	103.9	2021/04/08 13:03:58	112.9	2021/04/08 12:57:14
$L_{I(max)}$	95.9	2021/04/08 12:49:14	108.3	2021/04/08 13:03:58	114.7	2021/04/08 12:52:59
$L_{S(min)}$	50.1	2021/04/08 13:00:18	66.8	2021/04/08 12:56:54	74.7	2021/04/08 13:09:50
$L_{F(min)}$	46.1	2021/04/08 13:00:16	60.0	2021/04/08 13:01:04	65.3	2021/04/08 12:56:53
$L_{I(min)}$	50.2	2021/04/08 12:51:34	68.6	2021/04/08 12:56:54	76.1	2021/04/08 13:09:49
$L_{Peak(max)}$	112.0	2021/04/08 12:49:15	116.7	2021/04/08 12:49:14	119.8	2021/04/08 13:03:58

# Overloads	0	
Overload Duration	0.0	s
# OBA Overloads	0	
OBA Overload Duration	0.0	s

Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results			
Dose	0.01	0.06	%
Projected Dose	0.17	1.00	%
TWA (Projected)	44.1	56.8	dB
TWA (t)	24.1	36.8	dB
Lep (t)	61.5	61.5	dB

Statistics		
LAS5.00	78.0	dB
LAS10.00	76.5	dB
LAS33.30	72.1	dB
LAS50.00	69.9	dB
LAS66.60	67.3	dB
LAS90.00	62.9	dB

Calibration History					
Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**
PRM831	2020-05-11 07:49:29	-27.4	45.7	52.9	40.4

LOCATION A2

Summary

File Name on Meter	JMT_Data.087
File Name on PC	SLM_0003004_JMT_Data_087.00.ldbin
Serial Number	0003004
Model	Model 831
Firmware Version	2.402
User	
Location	
Job Description	
Note	

Measurement

Description	30 min TH. A,C,Z. 1/1 and 1/3 octave A,C,Z.
Start	2021-04-08 13:32:53
Stop	2021-04-08 14:02:54
Duration	00:30:01.3
Run Time	00:30:01.3
Pause	00:00:00.0
Pre Calibration	2020-05-11 07:49:29
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamp	PRM831
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Freq. Weighting	A Weighting
OBA Max Spectrum	Bin Max
Gain	0.0 dB
Overload	144.9 dB

	A	**C**	**Z**	
Under Range Peak	77.4	74.4	**79.4**	dB
Under Range Limit	**26.8**	27.3	33.4	dB
Noise Floor	17.7	18.2	23.8	dB

Results

L_{Aeq}	65.3	dB
LAE	97.9	dB
EA	681.228	µPa²h
EA8	10.892	mPa²h
EA40	54.459	mPa²h
$L_{Zpeak\ (max)}$	2021-04-08 13:59:31	119.3 dB
L_{ASmax}	2021-04-08 13:59:31	78.4 dB
L_{ASmin}	2021-04-08 13:38:29	48.0 dB
SEA	-99.9	dB
LAS > 65.0 dB (Exceedance Counts / Duration)	104	706.1 s
LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Zpeak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Zpeak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Zpeak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**
	65.3	65.3	-99.9	65.3	65.3	-99.9

L_{Ceq}	86.4	dB
L_{Aeq}	65.3	dB
L_{Ceq} - L_{Aeq}	21.1	dB
L_{AIeq}	70.1	dB
L_{Aeq}	65.3	dB
L_{AIeq} - L_{Aeq}	4.8	dB

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	65.3		86.4		96.8	
$L_{S(max)}$	78.4	2021/04/08 13:59:31	98.9	2021/04/08 13:59:31	108.0	2021/04/08 13:59:31
$L_{F(max)}$	82.0	2021/04/08 13:59:31	103.0	2021/04/08 13:59:32	113.6	2021/04/08 13:54:32
$L_{I(max)}$	84.4	2021/04/08 13:59:31	106.0	2021/04/08 13:59:32	115.7	2021/04/08 13:54:32
$L_{S(min)}$	48.0	2021/04/08 13:38:29	66.6	2021/04/08 13:55:58	76.0	2021/04/08 13:55:58
$L_{F(min)}$	46.9	2021/04/08 13:38:26	62.2	2021/04/08 13:32:55	68.0	2021/04/08 13:55:57
$L_{I(min)}$	48.5	2021/04/08 13:38:29	69.3	2021/04/08 13:39:37	78.5	2021/04/08 13:42:48
$L_{Peak(max)}$	96.4	2021/04/08 13:59:31	113.2	2021/04/08 13:59:31	119.3	2021/04/08 13:59:31

# Overloads	0	
Overload Duration	0.0	s
# OBA Overloads	0	
OBA Overload Duration	0.0	s

Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results			
Dose	-99.9	-99.9	%
Projected Dose	-99.9	-99.9	%
TWA (Projected)	-99.9	-99.9	dB
TWA (t)	-99.9	-99.9	dB
Lep (t)	53.3	53.3	dB

Statistics		
LAS5.00	70.8	dB
LAS10.00	69.2	dB
LAS33.30	64.7	dB
LAS50.00	62.1	dB
LAS66.60	59.4	dB
LAS90.00	53.6	dB

Calibration History					
Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**
PRM831	2020-05-11 07:49:29	-27.4	45.7	52.9	40.4

LOCATION A3

Summary

File Name on Meter	JMT_Data.089
File Name on PC	SLM_0003004_JMT_Data_089.00.ldbin
Serial Number	0003004
Model	Model 831
Firmware Version	2.402
User	
Location	
Job Description	
Note	

Measurement

Description	30 min TH. A,C,Z. 1/1 and 1/3 octave A,C,Z.
Start	2021-04-08 14:16:17
Stop	2021-04-08 14:46:18
Duration	00:30:01.1
Run Time	00:30:01.1
Pause	00:00:00.0
Pre Calibration	2020-05-11 07:49:29
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamp	PRM831
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Freq. Weighting	A Weighting
OBA Max Spectrum	Bin Max
Gain	0.0 dB
Overload	144.9 dB

	A	**C**	**Z**	
Under Range Peak	77.4	74.4	**79.4**	dB
Under Range Limit	**26.8**	27.3	33.4	dB
Noise Floor	17.7	18.2	23.8	dB

Results

L_{Aeq}	55.3	dB
LAE	87.9	dB
EA	67.800	µPa²h
EA8	1.084	mPa²h
EA40	5.421	mPa²h
$L_{Zpeak\ (max)}$	2021-04-08 14:16:33	115.8 dB
L_{ASmax}	2021-04-08 14:16:30	75.9 dB
L_{ASmin}	2021-04-08 14:43:19	38.9 dB
SEA	-99.9	dB

LAS > 65.0 dB (Exceedance Counts / Duration)	8	29.3 s
LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Zpeak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Zpeak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Zpeak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**
	55.3	55.3	-99.9	55.3	55.3	-99.9

L_{Ceq}	76.4	dB
L_{Aeq}	55.3	dB
L_{Ceq} - L_{Aeq}	21.1	dB
L_{AIeq}	60.1	dB
L_{Aeq}	55.3	dB
L_{AIeq} - L_{Aeq}	4.8	dB

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	55.3		76.4		87.4	
$L_{S(max)}$	75.9	2021/04/08 14:16:30	93.8	2021/04/08 14:16:33	104.1	2021/04/08 14:16:34
$L_{F(max)}$	79.5	2021/04/08 14:16:33	98.4	2021/04/08 14:16:33	109.2	2021/04/08 14:16:33
$L_{I(max)}$	82.1	2021/04/08 14:16:33	101.4	2021/04/08 14:16:33	111.6	2021/04/08 14:16:33
$L_{S(min)}$	38.9	2021/04/08 14:43:19	56.8	2021/04/08 14:16:17	65.9	2021/04/08 14:43:30
$L_{F(min)}$	38.1	2021/04/08 14:43:11	54.9	2021/04/08 14:43:30	60.9	2021/04/08 14:21:39
$L_{I(min)}$	38.7	2021/04/08 14:43:30	58.9	2021/04/08 14:40:13	68.7	2021/04/08 14:43:30
$L_{Peak(max)}$	93.9	2021/04/08 14:16:33	108.4	2021/04/08 14:16:33	115.8	2021/04/08 14:16:33

# Overloads	0	
Overload Duration	0.0	s
# OBA Overloads	0	
OBA Overload Duration	0.0	s

Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results			
Dose	-99.9	-99.9	%
Projected Dose	-99.9	-99.9	%
TWA (Projected)	-99.9	-99.9	dB
TWA (t)	-99.9	-99.9	dB
Lep (t)	43.3	43.3	dB

Statistics		
LAS5.00	61.1	dB
LAS10.00	58.4	dB
LAS33.30	51.2	dB
LAS50.00	48.2	dB
LAS66.60	45.3	dB
LAS90.00	41.8	dB

Calibration History					
Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**
PRM831	2020-05-11 07:49:29	-27.4	45.7	52.9	40.4

LOCATION A4

Summary

File Name on Meter	JMT_Data.091
File Name on PC	SLM_0003004_JMT_Data_091.00.ldbin
Serial Number	0003004
Model	Model 831
Firmware Version	2.402
User	
Location	
Job Description	
Note	

Measurement

Description	30 min TH. A,C,Z. 1/1 and 1/3 octave A,C,Z.
Start	2021-04-27 10:29:39
Stop	2021-04-27 10:59:54
Duration	00:30:14.9
Run Time	00:30:14.9
Pause	00:00:00.0
Pre Calibration	2020-05-11 07:49:29
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamp	PRM831
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Freq. Weighting	A Weighting
OBA Max Spectrum	Bin Max
Gain	0.0 dB
Overload	144.9 dB

	A	C	Z	
Under Range Peak	77.4	74.4	**79.4**	dB
Under Range Limit	**26.8**	27.3	33.4	dB
Noise Floor	17.7	18.2	23.8	dB

Results

L_{Aeq}	69.7	dB
LAE	102.3	dB
EA	1.894	mPa²h
EA8	30.048	mPa²h
EA40	150.239	mPa²h
$L_{Zpeak\ (max)}$	2021-04-27 10:37:44	109.4 dB
L_{ASmax}	2021-04-27 10:55:37	79.7 dB
L_{ASmin}	2021-04-27 10:48:51	46.3 dB
SEA	-99.9	dB
LAS > 65.0 dB (Exceedance Counts / Duration)	72	1026.5 s
LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Zpeak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Zpeak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{Zpeak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**
	69.7	69.7	-99.9	69.7	69.7

L_{Ceq}	75.2	dB
L_{Aeq}	69.7	dB
L_{Ceq} - L_{Aeq}	5.5	dB
L_{AIeq}	71.2	dB
L_{Aeq}	69.7	dB
L_{AIeq} - L_{Aeq}	1.4	dB

	A		C		
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**
L_{eq}	69.7		75.2		83.3
$L_{S(max)}$	79.7	2021/04/27 10:55:37	89.3	2021/04/27 10:37:47	97.9
$L_{F(max)}$	81.6	2021/04/27 10:52:05	91.2	2021/04/27 10:37:47	103.7
$L_{I(max)}$	82.3	2021/04/27 10:55:36	94.1	2021/04/27 10:32:58	105.9
$L_{S(min)}$	46.3	2021/04/27 10:48:51	60.7	2021/04/27 10:33:37	65.4
$L_{F(min)}$	44.8	2021/04/27 10:48:49	58.1	2021/04/27 10:47:50	62.1
$L_{I(min)}$	46.8	2021/04/27 10:47:57	60.9	2021/04/27 10:50:42	67.0
$L_{Peak(max)}$	93.4	2021/04/27 10:55:36	100.2	2021/04/27 10:32:58	109.4

# Overloads	0	
Overload Duration	0.0	s
# OBA Overloads	0	
OBA Overload Duration	0.0	s

Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results			
Dose	-99.9	-99.9	%
Projected Dose	-99.9	-99.9	%
TWA (Projected)	-99.9	-99.9	dB
TWA (t)	-99.9	-99.9	dB
Lep (t)	57.7	57.7	dB

Statistics		
LAS5.00	75.3	dB
LAS10.00	74.2	dB
LAS33.30	70.4	dB
LAS50.00	65.9	dB
LAS66.60	59.3	dB
LAS90.00	51.4	dB

Calibration History				
Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**
PRM831	2020-05-11 07:49:29	-27.4	45.7	52.9

LOCATION A5

Summary

File Name on Meter	JMT_Data.093
File Name on PC	SLM_0003004_JMT_Data_093.00.ldbin
Serial Number	0003004
Model	Model 831
Firmware Version	2.402
User	
Location	
Job Description	
Note	

Measurement

Description	30 min TH. A,C,Z. 1/1 and 1/3 octave A,C,Z.
Start	2021-04-27 11:34:26
Stop	2021-04-27 12:04:31
Duration	00:30:05.0
Run Time	00:30:05.0
Pause	00:00:00.0
Pre Calibration	2020-05-11 07:49:29
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamp	PRM831
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Freq. Weighting	A Weighting
OBA Max Spectrum	Bin Max
Gain	0.0 dB
Overload	144.9 dB

	A	C	Z
Under Range Peak	77.4	74.4	**79.4** dB
Under Range Limit	**26.8**	27.3	33.4 dB
Noise Floor	17.7	18.2	23.8 dB

Results

L_{Aeq}	52.8 dB	
LAE	85.4 dB	
EA	38.657 µPa²h	
EA8	616.803 µPa²h	
EA40	3.084 mPa²h	
$LZ_{peak\ (max)}$	2021-04-27 11:54:01	106.8 dB
LAS_{max}	2021-04-27 11:51:59	70.3 dB
LAS_{min}	2021-04-27 12:02:00	42.7 dB
SEA	-99.9 dB	
LAS > 65.0 dB (Exceedance Counts / Duration)	1	2.1 s
LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s
LZ_{peak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LZ_{peak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LZ_{peak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**
	52.9	52.9	-99.9	52.9	52.9	-99.9

LC_{eq}	71.0 dB	
LA_{eq}	52.8 dB	
LC_{eq} - LA_{eq}	18.2 dB	
LAI_{eq}	57.9 dB	
LA_{eq}	52.8 dB	
LAI_{eq} - LA_{eq}	5.0 dB	

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	52.8		71.0		81.0	
$L_{S(max)}$	70.3	2021/04/27 11:51:59	87.4	2021/04/27 11:34:26	96.4	2021/04/27 11:34:26
$L_{F(max)}$	78.9	2021/04/27 11:51:59	89.8	2021/04/27 11:54:01	99.5	2021/04/27 11:54:01
$L_{I(max)}$	84.2	2021/04/27 11:51:59	93.9	2021/04/27 11:54:01	103.1	2021/04/27 11:54:01
$L_{S(min)}$	42.7	2021/04/27 12:02:00	58.6	2021/04/27 12:01:21	62.8	2021/04/27 12:02:19
$L_{F(min)}$	41.8	2021/04/27 12:01:59	56.6	2021/04/27 12:01:21	60.3	2021/04/27 12:00:27
$L_{I(min)}$	42.4	2021/04/27 12:02:00	59.4	2021/04/27 12:00:06	63.4	2021/04/27 12:02:19
$L_{Peak(max)}$	105.2	2021/04/27 11:51:59	104.5	2021/04/27 11:51:59	106.8	2021/04/27 11:54:01

# Overloads	0
Overload Duration	0.0 s
# OBA Overloads	0
OBA Overload Duration	0.0 s

Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results			
Dose	-99.9	-99.9	%
Projected Dose	-99.9	-99.9	%
TWA (Projected)	-99.9	-99.9	dB
TWA (t)	-99.9	-99.9	dB
Lep (t)	40.8	40.8	dB

Statistics		
LAS5.00	58.2	dB
LAS10.00	55.6	dB
LAS33.30	52.0	dB
LAS50.00	50.6	dB
LAS66.60	49.1	dB
LAS90.00	46.0	dB

Calibration History					
Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**
PRM831	2020-05-11 07:49:29	-27.4	45.7	52.9	40.4

LOCATION A4

Summary

File Name on Meter	JMT_Data.094
File Name on PC	SLM_0003004_JMT_Data_094.00.ldbin
Serial Number	0003004
Model	Model 831
Firmware Version	2.402
User	
Location	
Job Description	
Note	

Measurement

Description	30 min TH. A,C,Z. 1/1 and 1/3 octave A,C,Z.
Start	2021-04-27 12:29:13
Stop	2021-04-27 12:59:30
Duration	00:30:17.2
Run Time	00:30:17.2
Pause	00:00:00.0
Pre Calibration	2020-05-11 07:49:29
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamp	PRM831
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Freq. Weighting	A Weighting
OBA Max Spectrum	Bin Max
Gain	0.0 dB
Overload	144.9 dB

	A	**C**	**Z**	
Under Range Peak	77.4	74.4	**79.4**	dB
Under Range Limit	**26.8**	27.3	33.4	dB
Noise Floor	17.7	18.2	23.8	dB

Results

LAeq	70.0 dB		
LAE	102.6 dB		
EA	2.009 mPa²h		
EA8	31.834 mPa²h		
EA40	159.170 mPa²h		
LZpeak (max)	2021-04-27 12:44:23	110.9 dB	
LASmax	2021-04-27 12:57:35	81.8 dB	
LASmin	2021-04-27 12:32:49	48.0 dB	
SEA	-99.9 dB		
LAS > 65.0 dB (Exceedance Counts / Duration)	75	1048.9 s	
LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s	
LZpeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s	
LZpeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s	
LZpeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s	

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**
	70.0	70.0	-99.9	70.0	70.0	-99.9

LCeq	77.6 dB	
LAeq	70.0 dB	
LCeq - LAeq	7.6 dB	
LAleq	71.5 dB	
LAeq	70.0 dB	
LAleq - LAeq	1.5 dB	

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	70.0		77.6		86.0	
LS(max)	81.8	2021/04/27 12:57:35	91.6	2021/04/27 12:43:06	100.6	2021/04/27 12:44:23
LF(max)	83.9	2021/04/27 12:57:34	94.1	2021/04/27 12:43:06	105.6	2021/04/27 12:44:23
LI(max)	84.6	2021/04/27 12:57:34	96.3	2021/04/27 12:44:23	107.5	2021/04/27 12:44:23
LS(min)	48.0	2021/04/27 12:32:49	62.2	2021/04/27 12:53:00	68.3	2021/04/27 12:33:36
LF(min)	46.9	2021/04/27 12:32:48	59.9	2021/04/27 12:32:46	63.9	2021/04/27 12:32:46
LI(min)	47.3	2021/04/27 12:32:48	63.2	2021/04/27 12:33:27	69.8	2021/04/27 12:50:47
LPeak(max)	95.3	2021/04/27 12:57:35	104.6	2021/04/27 12:44:23	110.9	2021/04/27 12:44:23

# Overloads	0
Overload Duration	0.0 s
# OBA Overloads	0
OBA Overload Duration	0.0 s

Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results			
Dose	-99.9	0.00	%
Projected Dose	-99.9	0.03	%
TWA (Projected)	-99.9	31.5	dB
TWA (t)	-99.9	11.6	dB
Lep (t)	58.0	58.0	dB

Statistics		
LAS5.00	75.6	dB
LAS10.00	74.4	dB
LAS33.30	70.2	dB
LAS50.00	65.6	dB
LAS66.60	61.0	dB
LAS90.00	53.7	dB

Calibration History					
Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**
PRM831	2020-05-11 07:49:29	-27.4	45.7	52.9	40.4

LOCATION A5

Summary

File Name on Meter	JMT_Data.095
File Name on PC	SLM_0003004_JMT_Data_095.00.ldbin
Serial Number	0003004
Model	Model 831
Firmware Version	2.402
User	
Location	
Job Description	
Note	

Measurement

Description	30 min TH. A,C,Z. 1/1 and 1/3 octave A,C,Z.
Start	2021-04-27 13:29:02
Stop	2021-04-27 13:59:03
Duration	00:30:01.0
Run Time	00:30:01.0
Pause	00:00:00.0
Pre Calibration	2020-05-11 07:49:29
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamp	PRM831
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	1/1 and 1/3
OBA Freq. Weighting	A Weighting
OBA Max Spectrum	Bin Max
Gain	0.0 dB
Overload	144.9 dB

	A	**C**	**Z**	
Under Range Peak	77.4	74.4	**79.4**	dB
Under Range Limit	**26.8**	27.3	33.4	dB
Noise Floor	17.7	18.2	23.8	dB

Results

LAeq	48.0 dB	
LAE	80.5 dB	
EA	12.570 µPa²h	
EA8	201.016 µPa²h	
EA40	1.005 mPa²h	
LZpeak (max)	2021-04-27 13:58:22	111.9 dB
LASmax	2021-04-27 13:58:42	63.6 dB
LASmin	2021-04-27 13:58:00	40.9 dB
SEA	-99.9 dB	

LAS > 65.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s
LZpeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LZpeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LZpeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**
	48.0	48.0	-99.9	48.0	48.0	-99.9

LCeq	70.0 dB
LAeq	48.0 dB
LCeq - LAeq	22.0 dB
LAleq	53.1 dB
LAeq	48.0 dB
LAleq - LAeq	5.1 dB

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	48.0		70.0		81.2	
LS(max)	63.6	2021/04/27 13:58:42	87.7	2021/04/27 13:58:22	98.9	2021/04/27 13:52:31
LF(max)	68.3	2021/04/27 13:49:13	93.5	2021/04/27 13:58:22	102.6	2021/04/27 13:49:13
LI(max)	72.0	2021/04/27 13:49:13	98.1	2021/04/27 13:58:22	106.2	2021/04/27 13:49:13
LS(min)	40.9	2021/04/27 13:58:00	58.2	2021/04/27 13:58:02	62.2	2021/04/27 13:43:46
LF(min)	40.2	2021/04/27 13:58:00	56.1	2021/04/27 13:57:44	59.3	2021/04/27 13:46:04
LI(min)	40.9	2021/04/27 13:57:56	58.5	2021/04/27 13:57:44	63.0	2021/04/27 13:43:46
LPeak(max)	88.4	2021/04/27 13:58:36	105.5	2021/04/27 13:58:22	111.9	2021/04/27 13:58:22

# Overloads	0
Overload Duration	0.0 s
# OBA Overloads	0
OBA Overload Duration	0.0 s

Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results			
Dose	-99.9	-99.9	%
Projected Dose	-99.9	-99.9	%
TWA (Projected)	-99.9	-99.9	dB
TWA (t)	-99.9	-99.9	dB
Lep (t)	35.9	35.9	dB

Statistics		
LAS5.00	53.2	dB
LAS10.00	49.0	dB
LAS33.30	45.5	dB
LAS50.00	44.8	dB
LAS66.60	44.1	dB
LAS90.00	43.0	dB

Calibration History					
Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**
PRM831	2020-05-11 07:49:29	-27.4	45.7	52.9	40.4

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