DRAFT ENVIRONMENTAL IMPACT STATEMENT

Proposed Hot Mix Asphalt Plant
At 5690 Camp Road Hamburg, NY

Town of Hamburg, Erie County, New York

Draft EIS Accepted as Complete: 5/3/2023

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Proposed Action: Hot Mix Asphalt Plant

Location: 5690 Camp Road
Town of Hamburg, Erie County, New York

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List of Abbreviations

ATSDR	Agency for Toxic Substances and Disease Registry
ASF	Air State Facility
AGC	Annual Guideline Concentration
AC	Asphalt Cement
BACT	Best Available Control Technology
CO2e	Carbon Dioxide Equivalents
CO	Carbon Monoxide
CRIS	Cultural Resource Information System
dBA	Decibel ("A" weighted)
dB	Decibel (unweighted
DEIS	Draft environmental impact statement
FEAF	Full Environmental Assessment Form
GHG	Greenhouse Gas
HAP	Hazardous Air Pollutants
HTAC	Highly Toxic Air Contaminant
HCM	Highway Capacity Manual
HDM	Highway Design Manual
HMA	Hot Mix Asphalt
H2S	Hydrogen Sulfide
IPAC	Information for Planning and Consultation from USFWS
kW	Kilowatt
LOS	Level of Service
LNB	Low NOx Burner
MW	Megawatt
$\mu g/m^3$	Micrograms per cubic meter
NIOSH	National Institute of Occupational Safety and Health

List of Abbreviations – Continued

NWI	National Wetland Inventory
NSPS	New Source Performance Standards
NYCRR	New York Code of Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOT	New York State Department of Transportation
NYSEG	New York State Electric and Gas
OPRHP	New York State Office of Parks, Recreation, and Historical Places
NOx	Nitrogen Oxides
PM	Particulate Matter
PPM	Parts Per Million
PBT	Persistent, Bio-accumulative, and Toxic
PAH	Polycyclic Aromatic Hydrocarbon
PTE	Potential To Emit
Lb/hr	Pounds per hour
Lb/yr	Pounds per year
RAP	Recycled Asphalt Pavement
SGC	Short-term Guideline Concentration
SEQRA	State Environmental Quality Review Act
SPDES	State Pollutant Discharge Elimination System
SOx	Sulfur Dioxide
CLCPA	The Climate Leadership and Community Protection Act
TPY	Tons Per Year
TOC	Total Organic Compounds
T-BACT	Toxic - Best Available Control Technology
TIS	Traffic Impact Study

List of Abbreviations – Continued

USACE	U.S. Army Corps of Engineers
DHS	U.S. Department of Homeland Security
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Services
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds
WMA	Warm Mix Asphalt
WBE	Women-owned Business Enterprise

1.0 Introduction

This Draft Environmental Impact Statement (DEIS) has been prepared at the request of the Town of Hamburg (The Town) Planning Board. The Town is acting as Lead Agency for the environmental review of the proposed hot mix asphalt (HMA) plant. The DEIS has been prepared in compliance with Article 8 of the New York State Environmental Conservation Law, the State Environmental Quality Review Act (SEQRA) and regulations at 6 NYCRR Part 617.

A.L. Asphalt Corporation (AL Asphalt) is proposing to construct and operate a hot mix asphalt plant at 5690 Camp Road, a 53-acre site in the Town of Hamburg, Erie County (Figure 1). The current zoning of 5690 Camp Road is M-3, the highest level of industrial zoning within The Town of Hamburg, which principal uses allow manufacturing of heavy machinery and the processing or treatment of bituminous products. The project site consists of office space, concrete redi-mix plant, block plant, precast redi-mix plant, truck repair facility, railroad freight, crude oil storage, and cement and other construction material storage and manufacturing. There is also vacant land located south of the existing industrial buildings. The vacant section is disturbed, undeveloped flat land that has a layer of aggregate material as a base course.

The proposed HMA plant will consist of construction aggregate material stockpiles, feed bins, conveyor belts, propane burner, counterflow drum dryer, storage hopper/ storage silo with drag slat conveyor, baghouse, liquid asphalt cement tank, and batch office (Figure 2).

The main components of the HMA plant will utilize less than an acre with a footprint of 160’ x 200’ within the vacant land of the property for plant equipment. Plant truck traffic will utilize existing roadways already on site and employees will use existing office parking. Current and existing aggregate material storage bins will continue to be used while existing green space will not be disturbed.

This document will evaluate concerns related to air quality, surface water, ground water, plants and animals, aesthetic resources, historic and archeological resources, transportation, energy, noise, odor, and human health/ safety. These potential impacts and associated mitigation measures are further detailed in Section 4.5 of this document.

This document will also evaluate proposed site layout of HMA plant along with its components and production of the plant on a seasonal, daily, and hourly basis. The intent of the DEIS is to identify, assess, and present possible mitigation measures for potential significant impacts that were identified during the scoping process of SEQRA.

2.0 Description of Proposed Action

The proposed HMA plant is to be constructed with 5690 Camp Road, Town of Hamburg, Erie County, New York (Figure 1). 5690 Camp Road property is approximately 53-acres and has M-3 and M-2 industrial zoning. The proposed project has a footprint of 160' X 200' disturbing less than 1-acre of the 53-acre site. The project site is located on the southern portion of the property and abuts a berm of trees and green space on the west, a railroad to the southeast and industrial buildings to the north.

The project is accessible by way of Camp Road or Old Camp Road to an existing private roadway which runs throughout 5690 Camp Road. The entrance to the HMA is approximately 1300 feet from the intersection of Elmview Road and Camp Road. The private roadway within the property is 24' wide allowing for one lane each way for coming and going traffic.

The proposed plant will consist of the following various components: aggregate piles, aggregate bins, conveyor belts, drag slat, burner/ dryer drum, batching office, storage hoppers/ silos, baghouse, liquid asphalt cement, asphalt storage tank, and heater. Proposed silos are 70 feet in height and the tallest component of the prefabricated equipment. Proposed silos are shorter than the concrete cement storage silos currently onsite. The Town's M-3 code does not restrict the height of structures within that zone thus permitting the proposed HMA plant silos.

The proposed HMA plant will serviced by an existing connection to the Erie County sanitary sewer system. There will be no increase of usage to the sanitary sewer system. The property is serviced by an existing waterline connection to the Erie County Water Authority main located on Elmview Dr. The production of HMA material does not require the use of water in the direct process and minimally uses sprinkler systems to control fugitive dusts when necessary. The existing waterline connection services the entire 5e acres, and there will be no need for any additional water service.

The intention of the HMA plant is to supply construction materials vital to maintain and rebuild local and state roads, private parking lots, and residential driveways within the Town of Hamburg and other surrounding areas within Erie County. The proposed plant is designed to produce 300 tons of hot asphalt per hour and average 100,000 tons of hot asphalt per season but not to exceed 150,000 ton per year. Seasons are weather permitting but expected to be April through November. The HMA plant's weekly and daily operations are based upon market demand, and it is important to note that there will be significant periods of time when the plant is not operating. Due to fluctuating demand facilities are designed and monitored by the New York State

Department of Environmental Conservation (NYSDEC) on a per hour capacity basis. Maximum hourly output is limited by the plant burner, baghouse, dryer capacity, batch size, and the timing and frequency of truck loading process. The proposed HMA plant is of standard size compared to local competitors.

The proposed plant will operate within normal business hours of 7 AM to 4 PM, Monday through Friday during construction season (April – November). This facility will need 6 full-time employees during construction season to operate. Occasional evening or weekend operations may commence depending on the customer. New York State Department of Transportation (NYSDOT) and other projects demands dictate when the plant operations will be needed. Job schedule or heavily travelled roadways will often but not always require evening operations. Plant operations on weekends will be on an as-need basis as it is more costly to run during weekend hours, customers are more likely to wait until regular business hours. Any other work to be performed during weekend hours for the HMA plant could include preparation for the following weeks jobs or repairs and maintenance to the facility.

Below is a table of anticipated customers:

Job Type	**Customer**	**Approximate Time Frame**	**Average Tons Per Year**
County Roadways	Erie County Highway Department	April – November	30,000
NYSDOT Roadways	Local Paving Contractor	April – November	50,000
Municipal Roadways	Various Local Town Highway Dept. and/or Paving Contractors	April - November	20,000
Private Residential/ Commercial	Local Paving Contractors	May - October	15,000
Commercial Developments	Local Paving Contractors	April - November	15,000

The proposed site for the HMA plant is located at 5690 Camp Road, Town of Hamburg, SBL # 182.16-7-3.1. The property has a history of manufacturing construction materials onsite and is currently zoned for such use. The 53-acre property is presently zoned M-3 and M-2, the Town's heaviest industrial district. The proposed HMA plant will be placed within the M-3 zone where it is *expressly permitted* according to Article XX M-3, section A (10), General Industrial District of the Town of Hamburg the "processing or treatment of bituminous products" is a principal permitted use. The

proposed plant will be located in the posterior portion of the property that currently consist of vacant flat land made up of recycled construction materials such as crushed concrete and various types of gravel as subbase. Within this section of the property are stockpile bins for construction materials, storage silos, rail facility, and outlying federal wetlands. The proposed plant will disturb less than an acre of the property with dimensions of 160' X 200' inside the 53-acre site. Due to the proposed setbacks and placement of the HMA equipment, the plant will be partially screened from main roadways and completely screened from surrounding residential districts.

Surrounding land of the proposed plant consist of various industrial and commercial developments. The commercial businesses within Elmview Road have coincided with the production of the existing construction material manufacturing for decades. There are also non-contiguous undisturbed federal wetlands to the south of the property included within the 53 acres. These wetlands act as natural screening to commercial property located behind 5690 Camp Road.

There are many major prefabricated components that make up a HMA plant, which include but are not limited to: feed bins, covered drag slat, various conveyor belts, burner, dryer drum, storage silos, baghouse, and asphalt cement storage tank with heater. The proposed HMA plant layout is included in this document as Figure 2.

AL Asphalt's proposed HMA plant is a counter-flow drum-mix plant, which has been designed in efforts to improve the heating process and thus reduce the plant emissions. In order to produce hot mix asphalt, the plant must blend together aggregates and asphalt cement (AC) at high temperatures to create the finished product. An in-depth description of the manufacturing process of HMA is further present below in six steps.

1. Various aggregates are stored onsite in stockpiles according to their size. Depending on the type of asphalt product ordered, also known as the "mix" depends on which size and quantity of the aggregate is used. Aggregate feeder bins are filled with the appropriate aggregate depending on the mix ordered by the customer. As the aggregate feed bins get low on material, more stock is retrieved from the stockpiles on the ground by use of a front-end loader. These materials are then transferred directly from the loader bucket into the aggregate feed bins to replenish used materials.
2. Material from the feed bins is blended onto the conveyor belt underneath the bins. The blended aggregate mixture is transported by conveyor belt across the belt scale where it is weighed and then conveyed into the counterflow drum.

3. As the aggregate mixture flows through the drum, it is dried and heated by air drawn from the burner through the dryer to approximately 300 degrees Fahrenheit. The hot air used to dry the material is directed into the baghouse through an exhaust fan, which filters particulates picked up during the drying process before exiting through the exhaust stack. The baghouse is used to remove 98+% of particulate matter.
4. After the product is dried the heated asphalt cement is added to the drum. The heated and dried aggregate is proportioned according to mix design and is blended with the AC. After proper mixing of the materials, the finish product is moved up a drag slat conveyor to the storage silo.
5. Recycled Asphalt Pavement (RAP), which is crushed, and re-used asphalt permitted for incorporation into the mix, is introduced into the drum. RAP is weighed to maximize recycling capabilities and product quality.
6. Final step in asphalt manufacturing is customer load out. As previously stated, the applicant does not own their own trucks for customer delivery. The customers will get loaded under the storage silos, on top of a scale. Material is loaded into the truck to desired weight. Once customer load out is complete, they receive a loading ticket from the operator and exit the premises.

3.0 Review Pursuant of The State Environmental Quality Review Act (SEQRA)

Part 1 of the Full Environmental Assessment (FEAF) was filed by AL Asphalt with the Town of Hamburg Planning Board on July 3, 2019 (Appendix A). The Town of Hamburg Planning Board, as lead agency, then prepared part 2 and 3 of the Full Environmental Assessment on September 6, 2019 (Appendix A). This process provided for consideration of potentially adverse environmental impacts the proposed action could have on the surrounding community. Several public meetings were held by the Lead Agency prior to issuing a Positive Declaration to the applicant. During the public meetings the applicant was able to present the proposed project while the public provided comments to the Planning Board.

The following is a record of the information submitted and reviewed:

DATE	ACTION
June 4, 2019	Application for Site Plan is submitted to the Planning Board including Short Environmental Assessment Form (SEAF).
June 19, 2019	Planning Board requested a Full Environmental Assessment Form (FEAF) from applicant. Action tabled.
July 3, 2019	AL Asphalt presented action to the Planning Board and submitted FEAF.
July 8, 2019	Planning Board distributed notice to interest and involved agencies. Planning Board declared itself Lead Agency and classified the action as Unlisted.
August 7, 2019	Planning Board meeting to schedule public hearing for August 21, 2019.
August 21, 2019	Planning Board meeting is up to the public for comment. Public comment period is left open.
September 4, 2019	Public comment period is closed. Action tabled.
September 10, 2019	Planning Board send lists of concerns to applicant.
September 18, 2019	Applicant submits letter addressing lists of concerns from Planning Board. Letter includes traffic, odor, noise, and home appraisal studies. Action tabled.
November 4, 2019	Special Planning Board meeting issuing a Positive Declaration.
March 6, 2020	Applicant submitted Draft Scoping Document to Planning Board.
April 21, 2020	All public comments are received via email to the Planning Board due to COVID19.

April 29, 2020	Final Scope is adopted by the Planning Board.
August 5, 2022	Applicant submitted Draft Environmental Impact Statement to the Planning Board.

3.1 Project Classification and Lead Agency Designation

Part 1 of the Short Environmental Assessment Form (SEAF) was completed and submitted to The Town Planning Board on June 4, 2019. The Town Planning Board requested the applicant complete a Full Environmental Assessment Form (FEAF) Part 1, which was provided to The Town Planning Board on July 3, 2019 (Appendix A). On July 8, 2019, the Town of Hamburg Planning Board sent the Notice SEQR Lead Agency Designation to Erie County Water, Erie County Health, NYS Department of Environmental Conservation, NYS Department of Transportation, and Erie County Department of Environment and Planning requesting to be lead agency and classifying the project as Unlisted under SEQR. The Town of Hamburg Planning Board received correspondences from:

1. NYS Department of Environmental Conservation on July 12, 2019
2. Erie County Department of Environmental and Planning on August 7, 2019
3. Erie County Division of Sewer Management on August 9, 2019
4. Erie County Water Authority on August 6, 2019

All concurred with The Town's designation to be lead agency.

It is important to note that on August 27, 2019, AL Asphalt's counsel notified The Town of its improper classification of the action as Unlisted, stating the proposed action should be classified as Type II pursuant to 6NYCRR617.5(c)(9). According to SEQR any structure or facility involving less than 4,000 sq. ft. of gross floor area and not involving a change in zone or a use variance is to be classified as Type II. On September 28, 2019, at the Town of Hamburg Planning Board meeting the board classified the action as Unlisted.

Acting as Lead Agency on November 6, 2019, The Town of Hamburg Planning Board prepared Part 2 and 3 of the FEAF for the proposed project (Appendix A). The Town decided on November 4, 2019, after two public hearings, to issue a Positive Declaration (Appendix B). The potentially significant environmental impacts listed in the Positive Declaration include:

1. Transportation
2. Emissions and Human Health
3. Noise and Odor
4. Aesthetic and Community Character

3.2 Purpose of the Scoping Process

This scoping document has been prepared in compliance with Article 8 of the New York Environmental Conservation Law and the State Environmental Quality Review Act (SEQRA) 6 NYCRR Part 617. The primary goal of the scoping process is to identify potentially significant adverse environmental impacts to be identified in the Draft Environmental Impact Statement. The scoping document has been prepared at the request of The Town of Hamburg Planning Board, the Lead Agency for the project.

The Lead Agency should provide a copy of the scoping documents to all involved agencies, and individuals or interested agencies concerned with the proposed project to allow for comment. The scoping process must include opportunity for public input, in this case due to the state of emergency relating to the COVID-19 pandemic, public input was only accepted via written material to the Planning Board.

Lead Agency provided a final written scope to the applicant after consideration of comments from the involved and interested agencies and the public. The final scoping objectives include:

1. Identify potentially significant adverse environmental impacts identified in Part 3 of the Environmental Assessment Form;
2. Identify the extent and quality of information needed for the Draft Environmental Impact Statement;
3. Identify mitigation measures and reasonable alternatives;
4. Identify information or data that should be included in the appendix rather than the body of the DEIS; and
5. Identify issues determined to be neither relevant or environmentally significant or that have been adequately addressed.

The scoping process ensures that the DEIS will include accurate, complete, and relevant information which the Lead Agency and involved and/or interested agencies can evaluate. Including the public in the scoping process allows for Lead Agency to receive additional information to be included in the final scoping document which will lessen additional concerns from arising in the future. It is the responsibility of the Town of Hamburg Planning Board, as Lead Agency to adopt a final scope and the environmental review of the proposed action.

3.3 Lead Agency, Involved Agencies, and Interested Agencies

Pursuant to 6 NYCRR Part 617.2 there are three types of agencies included in SEQR review: Lead Agency, Involved Agencies, and Interested Agencies. The Lead Agency for the proposed project is the Town of Hamburg Planning Board. Lead Agency is an agency principally responsible for undertaking, funding, or approving an action. In this case the Town of Hamburg Planning Board is Lead Agency because it is responsible for issuing a decision regarding site plan approval for the proposed project.

Involved Agencies is an agency that has jurisdiction to fund, approve or directly undertake an action. Involved Agencies may participate in the review process. The proposed project will have to obtain an Air State Facility Permit in order to operate the asphalt plant. This permit is administered by the New York State Department of Environmental Conservation, the agency who will ultimately issue a permit to produce HMA if the application so warrants. The identified Involved Agencies for the environmental review of the proposed project are as follows:

1. New York State Department of Environmental Conservation (NYSDEC).

Interested Agencies is an agency or party that lacks jurisdiction to fund, approve or directly undertake an action but can participate in the review process because of its expertise or concern about the project. An Interested Agency can participate in the review process as a member of the public. The identified Interested Agencies/Parties for the environmental review of the proposed project are as follows:

1. New York State Department of Transportation (NYSDOT)
2. Erie County Department of Environment and Planning
3. Erie County Division of Sewerage Management
4. Erie County Water Authority
5. The Village of Hamburg

4.0 Content of The Draft Environmental Impact Statement

The intent of the DEIS is to identify, evaluate, and present potential mitigating measures for issues of significance that were provided by The Town Planning Board. This document will present detailed information about the proposed HMA plant, property layout, plant layout, the process of creating asphalt products and its affects within The Town of Hamburg. There will be attached figures and appendices to further demonstrate plant configuration and placement. The attachments will also include studies and permit applications from various experts. Together, with supporting studies and details of the hot mix asphalt plant production this will form a basis for the Draft Environmental Impact Statement.

4.2 Executive Summary

AL Asphalt Corporation is proposing to construct a hot mix asphalt plant in the Town of Hamburg, Erie County. The Town of Hamburg Planning Board has rendered a positive declaration regarding this project due to potentially significant adverse environmental impacts. The following chart summarizes what The Town of Hamburg Planning Board considers potential impacts and possible mitigation measures. Each section is described in further detail in the DEIS.

Summary of Potential Impacts and Mitigation Measures

DEIS Section	Concern	Potential Impact	Potential Mitigation Measure
4.5.1	Surface Water, Ground Water Resources, And Flooding	1. Regulated water bodies 2. Surface/ Groundwater Resources and wastewater discharge 3. Discharge or by-product run-off to residential culvert 4. Floodwater impacts to downstream waterbodies	1. Stormwater and containment systems
4.5.2	Air Quality	1. Air, point source, and fugitive emissions 2. Airborne emissions from mobile sources 3. Fugitive dust emissions from truck traffic and aggregate stockpiles	1. Reduction of emission rates through decrease in plant processing rates and/or emission control equipment 2. Modify release points and exhaust flow rates 3. Reduction of emissions through use of more efficient plant technology

Summary of Potential Impacts and Mitigation Measures

DEIS Section	Concern	Potential Impact	Mitigation Measure
4.5.2	Cont.' Air Quality	Impacts stated above	4. Reduction of emissions through the use of alternative production methods 5. Mitigation technology includes Low-NOx burner, collection and control of emissions from enclosed HMA conveyors, HMA storage silos, truck load out and liquid asphalt storage tank. Dust plan and route HMA traffic away from residential locations 6. Retrofit diesel fleet vehicles with diesel oxidation catalysts and/or diesel particulate filters 7. Dust suppression techniques using conveyor covers and transfer point chutes

Summary of Potential Impacts and Mitigation Measures

DEIS Section	Concern	Potential Impact	Mitigation Measure
4.5.3	Plants and Animals	1. Discussion of endangered, threatened, or special concern species and plants	1. None, unless specific species or habitats are identified
4.5.4	Aesthetic Resources	1. Documentations of federal, state, or local scenic or aesthetic resources 2. Visualization of the project from: Camp Road, Elmview Avenue, Grimsby Drive, Sunset Drive, Kenton Place, Legion Drive, and Staley Drive	1. Vegetative Screening 2. Camouflage paint colors 3. Location and type of equipment

Summary of Potential Impacts and Mitigation Measures

DEIS Section	Concern	Potential Impact	Mitigation Measure
4.5.5	Historic and Archeological Resources	1. Historical and archaeological resources located within 0.50 mile of project listed on the State National Register of Historic Places or determined eligible for listing. 2. Discussion with New York State Office of Parks, Recreation, and Historic Preservation regarding historical and archeological resources	1. Mitigation measures determined by State Historic Preservation Office 2. Mitigation measures determined by Hamburg Historical Society 3. Mitigation measures determined by the Village of Hamburg Historic Preservation Commission
4.5.6	Transportation	1. Analysis of main roads: Elmview Avenue, Legion Drive, Sunset Drive, and Camp Road 2. Analysis of intersections: Elmview at Camp, Elmview at Sunset, Legion at Camp, Sunset at Camp, Scranton at Camp, and at access driveways 3. Analysis of crash history, existing pedestrian and bicycle accommodations, public transportation and bus traffic, present pattern of people or goods, hours of deliveries and shipments to and from, and conditions of roads	1. Control of truck/vehicle routes 2. Avoidance of bicycle routes, addition/relocation of sidewalks/walkways 3. Improvements to reduce crashes 4. Scheduling of trucks 5. Road use agreements

Summary of Potential Impacts and Mitigation Measures

DEIS Section	Concern	Potential Impact	Mitigation Measure
4.5.7	Energy	1. Use and conservation of energy	1. Use of energy efficient equipment 2. Time of equipment use to avoid peak energy demand 3. Use of renewable energy alternatives
4.5.8	Noise, Odor and Light	1. Noise generation from equipment for daytime and nighttime operations within 0.50 mile of site 2. Odor generation (using naphthalene and hydrogen sulfide as surrogates) within 0.50 mile of site 3. Additional lighting, locations, size, wattage, and hours of operation	1. Acoustic engineering and barrier technologies to reduce noise 2. Limitation on hours of operation 3. Different equipment models 4. Decrease plant processing rates and/or implementation of more effective emission control. Modify release points and exhaust flow rates 5. Additives to reduce odor 6. Dark Sky compliant lighting

Summary of Potential Impacts and Mitigation Measures

DEIS Section	Concern	Potential Impact	Mitigation Measure
4.5.9	Human Health	1. Noise, odor, light, and air quality relating to schools, recreation sites, and parks, day cares, nursing homes, and residential homes 2. Existing environmental conditions 3. Water run-off in residential neighborhood	1. Decrease in plant processing rates, emission control equipment, and/or modification of release points and exhaust flow rates 2. Diversion or restriction of run-off towards Sunset Drive culvert system
4.5.10	Consistency with Community Plans	1. Consistency with zoning regulation 280-133(c)(1)(b) 2. Camp Road overlay district requirement 3. Town of Hamburg Comprehensive Plan 4. Village of Hamburg "Goals and Objectives/Vision"	1. Location and screening of the equipment on site 2. Methodologies to reduce noise, odor, and air quality 3. Revisions to the project to meet the Goals/Objectives Vision of the Town and Village's Comprehensive Plans

Summary of Potential Impacts and Mitigation Measures

DEIS Section	Concern	Potential Impact	Mitigation Measure
4.5.11	Consistency with Character of Community or Neighborhood	1. Consistency with existing zoning and permitted uses in the surrounding neighborhood 2. Community Services 3. Visualizations at Grimsby Drive, Sunset Drive and Kenton Place, Camp Road and Legion Drive, Camp Road and Staley Drive	1. Project modification 2. Location and screening of the equipment on site 3. Methodologies to reduce noise, odor, and air quality
4.5.12	Solid Waste Management	1. Solid waste management	1. State and local adopted solid waste management plan per Section 617.9 (b)(5)(iii)(f)
4.5.13	Climate Change	1. Climate change	1. Avoid or reduce the action's impact on climate change per Section 617.9 (b)(5)(iii)(i)

4.3 Introduction and Description of Proposed Action

The proposed HMA plant is to be constructed within 5690 Camp Road, Town of Hamburg, Erie County, New York (Figure 1). 5690 Camp Road property is approximately 53-acres and has M-3 and M-2 industrial zoning. The proposed project has a footprint of 160' X 200' disturbing less than 1-acre of the 53-acre site. The project site is located on the southern portion of the property and abuts a berm of trees and green space on the west, a railroad to the southeast and industrial buildings to the north. The land has previously been disturbed with very little green space except for the 11 acres, not contiguous, that is undisturbed vegetation. Majority of the property has a subbase of various aggregates and paved blacktop and/or concrete.

The proposed project is a hot mix asphalt plant that will produce up to 150,000 tons per year based upon a NYSDEC Air State Facility Permit. The proposed plant will consist of the following various components: aggregate piles, aggregate bins, conveyor belts, drag slat, burner/ dryer drum, batching office, storage hoppers/ silos, baghouse, liquid asphalt cement tank, asphalt storage tank, and heater. Proposed silos are 70 feet in height and the tallest component of the prefabricated equipment. The asphalt plant will occupy less than 1-acre and the only proposed changes to the site are concrete foundations for the storage silos which will include minor excavation. The HMA plant is a closed process which does not require the use of existing on-site sewer or water utilities.

The intention of the HMA plant is to supply construction materials vital to maintain and rebuild local and state roads, private parking lots, and residential driveways within the Town of Hamburg and other surrounding areas within Erie County. The proposed plant is designed to produce 300 tons of hot asphalt per hour and average 100,000 tons of hot asphalt per season but not to exceed 150,000 ton per year. Seasons are weather permitting but expected to be April through November. The HMA plant's weekly and daily operations are based upon market demand, and it is important to note that there will be significant periods of time when the plant is not operating. Due to fluctuating demand facilities are designed and monitored by the New York State Department of Environmental Conservation (NYSDEC) on a per hour capacity basis. Maximum hourly output is limited by the plant burner, baghouse, dryer capacity, batch size, and the timing and frequency of truck loading process. AL Asphalt is also proposing to be the only Women-owned Business Enterprise (WBE) asphalt facility within Erie County which will aid local contractors in reaching established M/WBE goals for state contracts.

The purpose and need for the project are due to the fact that over 94% of paved roads in America utilize hot mix asphalt products whether for repair of existing roadways or construction of new roadways. The asphalt market is also distance sensitive because as the material decreases in temperature it becomes inadequate. Having access to a local plant in the Town of Hamburg will reduce travel distances for not only the Town's benefit but the regional market as well. AL Asphalt Corporation will be able to serve southern Erie County customers with various types of competitively priced and environmentally responsible hot mix asphalt products. Reducing the travel distance for the Town of Hamburg and all other customers utilizing the plant will result in a decrease in mobile source of emissions, thus lessening the carbon footprint.

Further, the proposed plant will also have a positive financial impact on the County of Erie because increased sales tax revenue from private customer sales. Moreover, the asphalt plant will not have an increase on municipal services needed while also adding value to the property thus increasing the property's assessed tax value adding more tax dollars to The Town and school district. The proposed plant will also result in the addition of six new employment opportunities as well as increase for subcontractor trucking companies upon paving demand.

Upon the approval of the HMA plant there will be little, if any, adverse impacts to the environment and public. There are no additional municipal services required but there will be increased tax revenue, reduced cost for local road construction for both public and private sector through decreased truck time and hauling distance, and employment opportunities both direct (6) and indirect through local subcontractors. In summary, the proposed project will have more positive than negative general community impacts.

The site layout is designed to maintain the existing aspects to the property as it currently stands. The pre-developed grade, and water runoffs were taken into consideration when laying out the proposed facility. This will ensure the surrounding the communities are not affected by the project. The proposed facility is projected to sit in the middle of the 53-acre property allowing for the maximum distance between the facility and the property boundary lines. The current warehouse and buildings on site are positioned in front of the project site which will give more visual screening to the non-industrial zoned districts that surround the property. Finally, this location within the property was chosen because the proposed facility is completely screen by greenery and buildings to the immediate R Districts within the Town and Village.

The project is accessible by way of Camp Road or Old Camp Road to an existing private roadway which runs throughout 5690 Camp Road. The entrance to the HMA facility is approximately 1,300 feet from the intersection of Elmview Road and Camp

Road. The private roadway within the property is 24' wide allowing for one lane each way for coming and going traffic. Upon entrance and exit of the property will be truck traffic signs prohibiting use of Elmview Road. All truck traffic will be directed to the main road, Camp Road, and prohibit the use of residential streets.

The property is serviced by an existing connection to the Erie County sanitary sewer system. Existing breakrooms and facilities will be utilized by the six additional employees hired by AL Asphalt Corp. The Property also has an existing waterline onsite. However, there will be no need for water in the process of HMA material, except for sporadic sprinkling of the aggregate stockpiles for fugitive dust control.

The proposed plant will operate within normal business hours of 7 AM to 4 PM, Monday through Friday during construction season (April – November). This facility will need six full-time employees during construction season to operate. Occasional evening or weekend operations may commence depending on the customer. New York State Department of Transportation (NYSDOT) and other projects demands dictate when the plant operations will be needed. Job schedule or heavily travelled roadways will often but not always require evening operations. Plant operations on weekends will be on an as-need basis as it is more costly to run during weekend hours, customers are more likely to wait until regular business hours. Any other work to be performed during weekend hours for the HMA plant could include preparation for the following weeks jobs or repairs and maintenance to the facility.

Contractors within the construction industry typically have operational hours that are identical to those of the proposed facility. It is anticipated first-round customer pick-ups will occur around 8 AM and last-round of material pick-ups will be 3 PM. This window gives the contractor's truck driver enough time to drop off the material at their project and get back to their construction yard by the end of business hours.

Material deliveries are vital to the HMA operation. Specifically, various aggregate and AC deliveries. These shipments are made periodically throughout the day of the applicant's operational hours as an employee will have to be there at the time of delivery. Each material delivery is ordered by the facility and planned ahead of time depending on the customer orders for that day/week. The less tonnage produced the less need for materials to be hauled in. To prevent the unnecessary truck trips the proposed facility will stockpile aggregate material in feed bins as well as use of the existing stockpiles on site.

The proposed site for the HMA plant is located at 5690 Camp Road, Town of Hamburg, SBL # 182.16-7-3.1. The property has a history of manufacturing construction materials onsite and is currently zoned for such use. The 53-acre property is presently

zoned M-3 and M-2, The Town's heaviest industrial district. The proposed HMA plant will be placed within the M-3 zone where it is *expressly permitted* according to Article XX M-3, section A(10), General Industrial District of the Town of Hamburg the "processing or treatment of bituminous products" is a principal use.

Required project approval is needed from the lead agency, The Town of Hamburg Planning Board. On June 4, 2019, AL Asphalt submitted a site plan application to the planning board. Variance or special use permit is not required because the use of a hot mix asphalt plant is expressly permitted within The Town's code for this property nor does The Town have a height requirement in the M-3 district. As a source of air emissions, permit approval for the project is required from NYSDEC. In fact, NYSDEC did issue a Draft Air State Facility (ASF) permit for this equipment at a separate location. Upon completion of Town of Hamburg approval, an application for modification to the existing draft permit reflecting the new property location and site plan will be submitted to the NYSDEC for re-issuance. The application will demonstrate compliance with air emissions limitations and off-site health impacts.

4.4 Environmental Setting/ Existing Conditions

The existing facility occupies approximately 53 acres of which 43 acres are disturbed and being utilized according to permitted land uses. The existing property is industrial manufacturing of concrete and concrete related products. The property has boundary vegetation and natural screening to all abutting residential areas currently existing. The topography of the existing site where the proposed plant is to be located is already prepared to grade and no further disturbance of the grade will be necessary. The area is currently cleared of all green space and has been previously disturbed by the landowners and is covered with aggregate material. The existing grade elevation will be utilized and maintained for final construction. The construction area and final plant footprint is less than one acre, allowing for minimal impact to the overall existing conditions of the property site.

The current NYSDEC Permit No. GP-0-17-004, General Permit for the stormwater discharges from construction activities under the State Pollutant Discharge Elevation System (SPDES) is required only for construction of activities that disturb more than one acre, Part 1.A.1. All other necessary drainage requirements for the facility are to be maintained by the Landlord. During operations, the property will maintain a SPDES, Multi-sector General Permit for stormwater discharges associated with Industrial activity for the property as a whole.

As noted above the existing drainage and stormwater management is facilitated by an existing MSGP permit. This permit is authorized by the NYSDEC, and compliance

includes testing of the quality of the storm water leaving the site into identified outlets. This permit currently covers the entire property, therefore there is no additional permitting necessary. Dust control mitigation measures may require the sprinkling of water on aggregate piles. However, the piles are located such that any runoff would be contained and outlet into the existing identified outlets and would be monitored as such under the SPDES permit.

There are no existing federal or state wetlands on site. This has been documented by reviewing NYSDEC's website for wetlands mapping and the U.S. Army Corps of Engineers. However, there is one identified federal wetland that abuts the property of the project site. This wetland is 26.38 acres and consists of freshwater and large shrubs and trees. There are no existing mapped floodway and/or floodplain boundaries in the proposed project site. Further review of the NYSDEC website and its documented resources for identifying terrestrial and aquatic ecology shows that there are none identified on the site. The NYSDEC resource mapper also confirms that there are no endangered, threatened or species of special concern within the property site.

The existing zoning of the facility is M-3 General Industrial District and M-2 Light Industrial District, for the parcels within the Town of Hamburg, and MU-I Mixed Use Industrial for the parcel within the Village of Hamburg. The plant location will be within the M-3 zoning area of the existing property. Below are the other land uses within 0.5 miles of the project site:

- M-2 Light Industrial District (Town of Hamburg)
- C-2 General Commercial District (Town of Hamburg)
- R-1 Single Family Residence District (Town of Hamburg)
- RA Residential- Agricultural District (Town of Hamburg)
- C-3 Office District (Town of Hamburg)
- R-3 Multifamily District (Town of Hamburg)
- LCR Limited Commercial Residential (Village of Hamburg)
- SFR Single-Family Residential (Village of Hamburg)

Identified below are sensitive receptors located within 0.5 miles of the project property that include but are not limited to, parks, schools, daycares, and doctor's offices:

- Hamburg Middle School Baseball Field
- Hamburg High School Baseball Field
- Elderwood at Hamburg

- Encompass Animal Care and Health
- Camp Road Animal Clinic
- Maureen Casey Pediatric Dentistry
- Woodbridge Learning Child Care
- Neighborhood Health Center – Southtowns
- Donald W. Robinson MD, Family Practice
- Hamburg Healing Center
- Melgar Luis MD, Asthma and Allergy Center
- Steven Herman MD, Family Practice

Land use regulations governing the use of the project site is M-3 and is outlined in the Town of Hamburg Code Chapter 280 Zoning §280-133 through §280-139. The Code is identified below:

§280-133. Uses and structures permitted in M-3 District are as follows:

A. Principal uses and structures
   1. Principal uses and structures permitted in the M-2 District, but without the requirement of being within a completely enclosed building
   2. Lumberyards and coal yards
   3. (Reserved)
   4. Railroad freight yards
   5. Concrete products manufacture and concrete or cement mixing plants
   6. Storage of petroleum or petroleum products
   7. Manufacturing of abrasives
   8. Automobile assembly and fabrication
   9. Manufacture of heavy machinery
   10. Process of treating bituminous products
   11. Metal casting and foundry products
   12. Open storage yards not otherwise regulated in this section. Junkyards are prohibited as defined in the Town's Junkyard Law
   13. Adult uses, subject to the provisions of §280-270
   14. The following uses by special use permit authorized by the Planning Board:
       a. Reserved
       b. Nursery schools and day-care centers

B. Accessory uses and structures:
   1. Accessory uses permitted in M-2 District
   2. Accessory uses and structures customarily incidental to permitted principal uses

C. Limitations on uses in the M-3 District:
   1. No use of land, building, or structure shall be permitted, the operation of which normally results in any:
      a. Fire or explosive hazard beyond the boundaries of the district in which such use is located. Any approved use shall conform with the New York State Uniform Fire Prevention and Building Code and the Town of Hamburg Fire Prevention Code, Chapter 113.
      b. Dissemination of atmospheric pollutant, noise, or odor into any R, C, M-1 or M-2 District.
      c. No vibration shall be registered beyond the property line.
   2. No un-neutralized refuse material shall be discharged into sewers, streams, or ditches
   3. All sides and rear lot lines abutting any lot in any R District or a C-1 District shall be fenced or screened in the same manner as the prescribed in the M-2 District. All open storage yards not otherwise limited in this section, including junkyards, shall be fenced to a height of not less than eight feet nor more than 10 feet, as determined by the Planning Board, to screen such storage from adjacent views.
   4. Unless otherwise provided, required side yards shall be used only for landscaping and/or the off-street parking of employees', customers', and visitors' cars.

§280-134. Minimum lot size: There shall be no minimum lot size requirement in the M-3 District.

§280-135. Maximum height of buildings: There shall be no maximum building height requirement in the M-3 District.

§280-136. Required Yards: Unless otherwise provided, the minimum required yards and other open spaces in the M-3 District shall be as specified in this section.

A. Front Yard: 40 feet, except that, when opposite any R District or when used for accessory parking. It shall be not less than 50 feet.
B. Side Yards:
   1. Minimum: 10 feet

2. Where a side yard abuts any R District boundary, it shall be not less than 75 feet or the height of the principal building, whichever is greater.
3. Where a side yard abuts a C-1 District boundary, it shall be not less than 25 feet in width.

C. Rear Yard:
1. Minimum: 10 feet
2. Where a rear yard abuts the boundary of any R or C-1 District: same distance as side for a side yard.

§280-137. Off Street Parking: For applicable off-street parking regulations, see Article XXXII.

§280-138. Signs: For applicable sign regulations, see Article XXXVI.

§280-139. Supplemental regulations: For applicable regulations pertaining to use, height, area, or open space, see Article XXXVII through XXXIX.

The project site is also located within the Camp/Village Overlay district. The Camp/Village Overlay District, however, only has prohibited uses where the underlying zoning district is C-2. As identified above, the underlying district of the project site is M-3 and identified accessory uses in the Camp/Village Overlay District shall be the same as the accessory uses permitted in the underlying zoning districts. The property that is adjacent to the project site are zoned MU-I, Mixed-use- Industrial. The zoning is identified in the Village of Hamburg code 250, most recently adopted March 23, 2022. MU-I is the highest industrial zoning available within the Village of Hamburg.

Existing Utilities on site include ample water, electricity, natural gas, and Erie County Sewer connection. The property currently has a 4" watermain serviced by Erie County Water Authority, several gas meters by National Fuel, a primary power line by New York State Gas and Electric, and a sanitary sewer connection on Elmview Road. Existing solid waste disposal is handled on an as-need basis by the landowner. Paper and office waste is included in the Applicant's lease agreement with the landlord, which is a local, private dumpster company.

There is an existing NYSDEC Air Registration, permit # DEC -9-1448-00423/00002, for the property site that is current and operational for Brenner Oil Company, an existing tenant.

Existing lighting is affixed to the warehouse buildings along the front and back. There are approximately 30 industrial flood lights within the entire property and 4 free standing parking lot lights located within the southwest and northern portions of the land.

Existing traffic patterns include vehicles passing along Camp Road, heading North towards the I-90 Thruway entrance in the AM Peak, (7:15 am-8:15 am) as 935

vehicles and vehicles passing along Camp Road, heading South towards Eden in the AM Peak as 536 vehicles. The existing PM (4:15 pm-5:15 pm) traffic pattern passing by Camp Road heading North is 719 vehicles and passing Camp Road. heading South is 1,023 vehicles daily. There are no existing pedestrian walkways or bicycle paths within the property site but there are sidewalks along both sides of Camp Road to the northwest of Scranton and to the south of Legion Drive. There is also a sidewalk located along the north side of Elmview Road but not on the same side at the project location. Below is a summary of the existing highway system within the study area.

EXISTING HIGHWAY SYSTEM

ROADWAY[1]	CLASS[2]	AGENCY[3]	SPEED LIMIT[4]	# OF TRAVEL LANES[5]	TRAVEL PATTERN/ DIRECTION	EST. AADT[6] & SOURCE[7]
Camp Rd (NY-75)	14	NYSDOT	40/45	4	Two-way/ Northwest-Southeast	27,877 NYSDOT (2016)
Sunset Dr	19	Town of Hamburg	30	2	Two-way/ North-South	N/A
Scranton Rd	19	Town of Hamburg	35	2	Two-way/ Northeast-Southwest	N/A
Legion Dr (CR-134)	16	ECDPW	30	2	Two-way/ East-West	8,798 NYSDOT (2019)
Elmview Ave	19	Town of Hamburg	30	2	Two-way/ North-South	N/A

Existing crash investigation identified within the project site is noted below. This also quantified historical crashes at the studies intersections and identifying potential crash patterns and clusters. Based upon the information below three out of the five intersections studies are above the statewide average crash rate. These intersections are Camp Road/Sunset Drive, Camp Road/Legion Drive, and Sunset Drive/Elmview Road.

EXISTING ACCIDENT INVESTIGATION

INTERSECTION	TOTAL NO. OF ACCIDENTS	ACTUAL CRASH RATE	STATEWIDE AVERAGE CRASH RATE
Camp Rd/Sunset Dr	9	0.34	0.31
Camp Rd/Scranton Rd	11	0.44	0.54
Camp Rd/Elmview Ave	2	0.10	0.18
Camp Rd/Legion Dr	12	0.51	0.31
Sunset Dr/Elmview Ave	2	0.41	0.31

Existing community and emergency services include Scranton Volunteer Fire Company, the Hamburg Police Stations, both Town and Village. The existing operations at the project site are currently being serviced by this fire department and police departments.

The existing location does not have any historical, archaeological, or cultural resources and there are also none within ½ mile of the project site.

The existing neighborhood character and setting that immediately surround the project site is industrial manufacturing, various commercial operations, including car repair/collision shops, railway facility, car washes, restaurants/ bars to various professional offices. Outside of the industrial and commercial setting, not directly adjacent, are residential neighborhoods in both the Town and Village.

The Village of Hamburg Comprehensive plan was adopted March 22, 2022 and did not fundamentally change the zoning in the village portion of the project site. The Town of Hamburg has yet to adopt a new and updated comprehensive plan since 2010, and the current operations at the site include industrial manufacturing. The last adopted comprehensive plan did not change the zoning of the project site and it remained, M-3 General Industrial and M-2 Light Industrial.

4.5 Evaluation of the Potentially Significant Adverse Environmental Impacts

This section describes in further detail aspects of the environmental setting that have been requested by the Lead Agency during the Scoping process. The following sections cover potentially significant adverse environmental impacts by the proposed hot mix asphalt plant. In these sections include severity of the impacts, cumulative impacts, and short term and long-term impacts followed by practical mitigation measures. As outlined in the Final Scoping Document as Appendix C, the potentially significant environmental impacts to be discussed within the DEIS are as follows:

- Transportation – Section 4.5.6
- Emissions and Human Health – Section 4.5.2 & 4.5.9
- Noise and Odor – Section 4.5.8
- Aesthetic and Community Character – Section 4.5.4 & 4.5.11

Additional sections will cover areas unlikely to be significantly impacted by the proposed project but will also be included and discussed:

- Surface Water, Ground Water Resources and Flooding – Section 4.5.1
- Plants and Animals – Section 4.5.3

- Historic and Archeological Resources – Section 4.5.5
- Utilities – Section 4.5.7
- Community Plans – Section 4.5.10
- Waste Management – Section 4.5.12
- Climate Change – Section 4.5.13

4.5.1 Impact on Surface Water, Ground Water Resources, and Flooding

Potential Impacts

To determine the potential for wetland resources within the proposed project area New York State Department of Environmental Conservation (NYSDEC) freshwater wetland mapping and National Wetland Inventory (NWI) mapping were reviewed. Federal wetland PF01/SS1E is mapped to the southwest of the project site, but not mapped within the proposed project property of 5690 Camp Road. The wetland that abuts the property line of the proposed project is 26.38 acres of freshwater forested/shrub wetland habitat that is classified as PF01/SS1E. This wetland is comprised of a palustrine emergent system with a class of forested vegetation. NWI tools characterize this wetland as dominated by trees, shrubs, persistent emergent, and emergent mosses or liches. There are woody angiosperms (trees and shrubs) that are taller than 20 feet with relatively wide, flat leaves that are shed during the cold or dry season. Surface water is present for extended periods during the growing season but absent by the end of the season. Regulatory jurisdiction over the identified wetland is the U.S. Army Corps of Engineers (USACE). A jurisdictional determination was made by USACE on March 1, 2022. Department of the Army reviewed the proposed project and determined that a permit is not required because wetlands will not be impacted by the proposed project (Appendix D). The location of the wetlands was taken into consideration when designing the project and the facility location was carefully chosen to not impact or disturb the existing freshwater wetland.

The proposed hot mix asphalt facility will not negatively impact the water resources of the Town of Hamburg for two reasons:

1. Manufacturing of hot mix asphalt does not utilize any water in the production process therefore there is no water discharge from the operation.
2. Asphalt Cement is typically heated in an enclosed storage tank and when in contact with temperatures below 100 degrees, will solidify and not penetrate groundwater.

AC, also known as liquid asphalt cement, will be stored on site in tanks which will not disturb any surface or groundwaters. As AC is heated to high temperatures, such as 130 degrees and remains in a liquid form. If an event were to occur that would cause this material to spill from the tank, it would quickly solidify once reaching lower outside temperatures. The material could be simply cleaned up because of its solid state and would not permeate the ground thus not impacting the groundwater.

A State Pollutant Discharge Elimination System (SPDES) permit has been completed for the property location of 5690 Camp Road, Hamburg, Erie County to ensure adequate water quality in the Town of Hamburg. The SPDES permit will document current and proposed conditions of the property. SPDES permit is governed by the NYSDEC and is designed to eliminate pollution of New York waters and to maintain the highest quality of water possible consistent with:

- Public health
- Public enjoyment of the resource
- Protection and propagation of fish and wildlife
- Industrial development in the state.

In addition to NYSDEC guidance, the SPDES program has been approved by the United States Environmental Protection Agency for the control of surface wastewater and storm discharges in accordance with the Clean Water Act. NYSDEC SPDES program exceeds the scope of the Clean Water Act as a SPDES permit controls point source discharges to groundwater as well as surface water.

U.S. Department of Homeland Security (DHS) FEMA Flood Map Service Center was reviewed to determine the potential for floodwaters to occur on the project site. Per FEMA Flood Map Service Center there is no identified flood hazard areas within the project site.

April 4, 2023 Revision

Under protest that this was not included in the original Scoping Document, refer to letter by The Law Offices of Ralph Lorigo dated April 4, 2023, notwithstanding, materials are discussed in section 1.0, 4.3, and 6.0 of the original DEIS. AL Asphalt would use the existing aggregates that are currently being stored on site. There are existing aggregate bins that contain the materials that are used in the existing production of redi-mix concrete products. They have been stored in the same location since 2006, and even before that with the prior owners. These same types of aggregate materials will be used for the process of producing hot mix asphalt. Aggregates are raw materials that are produced from natural sources and extracted from pits and quarries, including gravel, crushed stone and

sand. Aggregates are the most basic material used in construction, they make up 80% of a concrete mix and 90% of an asphalt product, because both processes use the same type of aggregates, the existing aggregate bins, where aggregate is currently stockpiled, will be utilized by both operations. Figure 3 includes aerial view of stockpiles.

It is vital that the existing location of the aggregate storage remains the same because the water runoff from this site is monitored, approved, and protected by the NYSDEC Division of Water through a SPDES permit for stormwater discharges associated with industrial activities as stated in section 4.5.1 of the original DEIS. Two outfalls are located and identified in Figure 4**.** A majority of the eastern portion of the site drains to the storm water sewer throughout the paved areas which connects to the municipal 36" line which runs along the western edge of the site. The paved areas have a number of drains that are connected to the storm sewer system that connects to outfall #1. The unpaved area on the south portion of the site drains in a swale running east and west to a drainage swale along the southwest portion of the property, which is protected by a silt fence. These swales will be inspected and maintained on a regular basis and will be cleaned to keep them free of debris and provide adequate flow conditions. Per the NYSDEC SPDES permit, analytical benchmark monitoring is required for both outfalls 1 and 2 on a semi-annual basis. Runoff water is gathered and sent to an independent environmental consultant who tests the sample water per NYSDEC testing regulations. These test results are submitted to the NYSDEC in a Discharge Monitoring Report on a semi- annual basis. Along with the Discharge Monitoring Report the facility is also responsible for Quarterly Visual Assessment Reports and must maintain "good house keeping" and regular maintenance to the area. The NYSDEC SPDES permit is designed to eliminate pollution of New York waters and to maintain the highest quality of water possible. For further information about where these outfalls, # 1 and #2, discharge please refer to the NYSDEC. They have readily available material of the drainage system under their jurisdiction after it leaves the property that this project is located on. They can also answer any question relative to the drainage and its effects on any body of water in NYS. It should be noted that since, as previously advised in this DEIS, there will be NO grade changes to the existing topography of the project site, there will be NO additional clearing of any vegetation at the project site. As such, there will be NO drainage discharge changes, including flow or type, from the project site.

In addition, as previously stated in section 4.5.1, the only other material that will be stored on site is AC, also known as liquid asphalt cement. This material will be stored on site in above ground tanks which will not disturb any

surface groundwaters. AC is heated to high temperatures, such as 130 degrees and remains in liquid form. If an event were to occur that would cause this material to spill from the tank, it would quickly solidify once reaching lower ambient temperatures. The material could be simply cleaned up because of its solid state and would not permeate the ground, thus having no harmful impact to the groundwater.

Possible Mitigation

Impact to water quality, groundwater, or discharge water are not anticipated. 26.38-acre federal wetland located outside of the property boundary with USACE jurisdiction determined wetlands will not be impacted by the proposed project. Therefore, no wetland mitigation plans are necessary for the proposed project. A SPDES permit will be maintained to mitigate the sediment deposition concerns. This permit will provide assurances that any runoff or stormwater discharges will not negatively impact the site or nearby neighborhoods.

4.5.2 Impact on Air

Potential Impacts

The proposed project is a hot mix asphalt facility that manufactures and sells asphalt materials to improve local roadways. The components of this facility include aggregate stockpiles, aggregate bins, conveyor belts, burner/dryer drum, storage silos, baghouse system, asphalt tank with heater, and truck scale. An updated burner known as a Low NOx burner (LNB) will be installed. The LNB is a high efficiency and low emission burner that results in reduced nitrogen oxide emissions. Along with an upgraded burner this facility will feature a baghouse that is designed to remove 98+% of PM-10 (particulate matter with aerodynamic diameter of 10-microns) that will be generated.

There is a potential for air quality impacts associated with the operations of the proposed facility. To prevent or minimize significant air impacts the NYSDEC and USEPA have strict standards and policies in place to protect the quality of air on site and surrounding areas. Prior to operation of any hot mix asphalt plant, calculations of air emissions must be provided to the NYSDEC to ensure the facility's emissions will meet permit limits. Limits are provided by the EPA and additional limits are provided on a state level by the DEC. The tonnage amount modeled for the NYSDEC air permit is 150,000 ton per year (TPY).

Calculating 150,000 TPY provides the NYSDEC with a conservative example of air emissions and demonstrates an overestimate of emissions for potential impacts as market demand will likely be less than 150,000 TPY.

Potential air impacts may occur from point source emissions and/or fugitive source emissions. Point source emissions include the dryer drum and the baghouse filter system. Fugitive source emission may occur at aggregate stockpiles, liquid asphalt system, the load out of customers, and filling of storage silos. Measures have been adopted in order to limit and prevent fugitive source emissions. These measures include moisture control of aggregate stockpiles through a moisture control plan, paving of stone roadways within the property site, and watering any high traffic areas. Employees and management of the proposed facility will be trained in accordance with these policies to maintain and prevent fugitive emissions. Particulate matter (PM) are the point source emissions that are associated with the dryer drum. PM emissions are the primary source of emissions produces by hot mix asphalt plants. This proposed facility will be equipped with a baghouse filter system that eliminates 98+% of PM-10 (particulate matter with aerodynamic diameter of 10-microns) emissions as stated in the working copy of the NYSDEC air permit, provided as Appendix E.

Newly constructed hot mix asphalt plants are subject to USEPA regulation 40 CFR 60 Subpart I Standards of Performance for Hot Mix Asphalt Facilities. Subpart I require facility owners to meet standards for particulate matter emissions. Compliance is demonstrated by stack testing once the plant has achieved steady-state operation. The draft ASF permit indicates the facility owner will also be responsible for maintaining records of carbon monoxide emissions, HMA production, dryer burner tune-ups, records of visible emissions, records of differential pressure drop across the baghouse, and records of visual inspections of the baghouse. A report of compliance status will be required to be submitted to NYSDEC annually. In conjunction with the above-mentioned requirements, additional general requirements listed in the Draft ASF Permit by the NYSDEC are included below:

- 6 NYCRR 200.5 – The Commissioner may seal an air contaminant source to prevent its operation if compliance is not met within the time provided by an order. Sealing means labeling or tagging a source to notify any person that operation of the source is prohibited.

- 6 NYCRR 200.6 – No person shall allow or permit any air contamination source to emit air contaminants in quantities which alone or in combination with emissions from other air contamination

sources would contravene any applicable ambient air quality standard and/or cause air pollution.

- 6 NYCRR 200.7 – Any person who owns or operates an air contamination source which is equipped with an emission control device shall operate such device and keep it in a satisfactory state of maintenance and repair in accordance with ordinary and necessary practices, standards, and procedures.

- 6 NYCRR 201-1.2 – If an existing source was subject to the permitting requirements of 6NYCRR Part 201 at the time of construction or modification and the owner and/or operator failed to apply for a permit the owner must apply for a permit and facility is subject to all regulations.

- 6 NYCRR 201-1.7 – Any person who owns or operates an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device

- 6 NYCRR 201-1.8 – No person shall unnecessarily remove, handle, or cause to be handled, collected air contaminants from an air cleaning device for recycling, salvage, or disposal in a manner that would reintroduce them to the outdoor atmosphere.

- 6 NYCRR 201-3.2(a) – The owner and/or operator of an emission source or unit that is eligible to be exempt, may be required to certify that is operates within specific criteria described in 6 NYCRR Subpart 201-3.

- 6 NYCRR 201-3.3(a) – The owner and/or operator of an emission source or unit that is listed as being trivial in 6 NYCRR Subpart 201 may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3.

- 6 NYCRR 202-1.1 – An acceptable report of measured emissions shall be submitted, as may be required by the Commissioner, to ascertain compliance or noncompliance with any air pollution code, rule, or regulation.

- 6 NYCRR 212-4.1 – Installation of low-NOx burner for use in the drum dryer.

- 6 NYCRR 212-2.2 – Facility must demonstrate that emissions of hazardous air pollutants (HAPs) are below certain thresholds. Facility must not exceed annual allowable emissions of Persistent Bio-accumulative Toxic (PBT) compounds and/or Highly Toxic Air Compounds (HTACs).

- 6 NYCRR 215.2 – Except as allowed by section 215.3 of 6 NYCRR 215, no person shall burn, cause, suffer, allow, or permit the burning of any materials in an open fire.

- 40 CFR 70.6 (b) – All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act.

Located in Appendix E of the DEIS are additional applicable federal and state requirements/conditions. The applicant, AL Asphalt Corporation, previously applied to the NYSDEC for an Air State Facility permit on August 13, 2020. The application was accepted on February 2, 2021, and a working copy ASF permit was issued. The working copy permit was based on a 150,000-ton per year production rate for a separate location in Niagara County. The facility owner is choosing to proceed with the site plan application in the Town of Hamburg as opposed to the prior location. The difference between the two locations is the project setbacks within property boundaries. For Niagara County, the property setbacks were as follows:

- 125' from the proposed plant to the northern boundary line
- 797' from the proposed plant to the eastern boundary line
- 252' from the proposed plant to the southern boundary line
- 78' from the proposed plant to the western boundary line

To provide comparison the property setbacks for the proposed site in the Town of Hamburg at 5690 Camp Road are as follows:

- 575' from the proposed plant to the northern boundary line
- 804' from the proposed plant to the eastern boundary line
- 387.5' from the proposed plant to the southern boundary line
- 881.25' from the proposed plant to the western boundary line

It is evident that the proposed location in the Town of Hamburg has far greater boundary distances than those in the preceding location. Other than the change in property location the equipment proposed and modeled for air emission is the exact same. For purposes of the Draft Environmental Impact Statement the same air calculations accepted by the NYSDEC will be used here as a conservatively high example of emissions since they will be calculated off the shorter setback distances. Greater distance from boundary lines means a greater distance from the project to surrounding receptors which generally lessen the off-site ambient air impacts. Upon completion of site plan approval by the Town of Hamburg Planning Board, the applicant will then revise the existing draft air permit application and resubmit to the NYSDEC.

The complete Air State Facility Permit Application with emission calculations is provided in Appendix F. The permit application includes the following:

- Calculations of emissions of criteria pollutants (carbon monoxide (CO), nitrogen oxides (NOx), particulate matter (PM), sulfur dioxide (SOx), and hazardous air pollutants (HAP). Additionally, calculations of Volatile Organic Compounds (VOC), an ozone precursor, and carbon dioxide equivalents (CO2e) representing greenhouse gas emissions were included. These emission estimates were prepared using USEPA emission factors compiled in AP-42, Fifth Edition Compilation of Air Pollutant Emissions Factors. These emission factors have been developed and complied from source test data, material balance studies, and engineering estimates through the USEPA. Air modeling calculations were prepared for combustion of natural gas in the dryer drum and PM emissions from baghouse dust collector. Fugitive source air calculations were also prepared for silo filling and customer load-out.
- Air calculations were summarized into a table demonstrating the overall proposed air emissions from the project and comparisons to regulatory thresholds.
- The summary data are included along with the basis for the calculations, a description of the facility including a site plan, and regulatory and permitting applicability.

Below is a table summarizing criteria pollutants, Greenhouse Gas (GHGs), and HAPs potential to emit (PTE) based upon 500 operational hours per year. The modeling results, based on the shorter boundary line distances of 125’, 797’, 252’, and 78’, indicate that HAP concentrations are significantly below guideline

thresholds. These results indicate emissions will not have an adverse health impact. Furthermore, at the actual boundary lines of the proposed Town of Hamburg location, it is anticipated that the ambient air impacts d will be even less.

Table 4.1 - Summary of Calculated Emission Results (tons/year)
Criteria Pollutants, GHGs, & HAPs

Type	CO	NOx	SO2	PM	PM10	VOC	HAPs
Estimated Annual Emissions	6.4	1.9	0.5	0.4	0.4	3.2	0.4
NYSDEC Permit Thresholds	100	100	100	100	100	50	10/25

NYSDEC recently finalized its guidelines for the implementation of 6 NYCRR Part 212 Process Operations (DAR-1). NYSDEC revisions to Part 212 provide more regulatory certainty for the regulated community and ensure public health and welfare. Notable updates to Part 212 include:

- Establishing a Toxic – Best Available Control Technology (T-BACT) for toxic air contaminants. T-BACT would apply to non-criteria contaminants, where the department would determine the maximum degree of reduction or emission limitations for each non-criteria air contaminant on a case-by-case basis.
- Alternative compliance for High Toxicity Air Contaminants by adopting mass emission rate options for facilities. Mass emission rates have been determined based on NYSDEC's Annual Guideline Concentrations (AGCs) and Short-Term Guideline Concentrations (SGCs) for non-criteria air contaminants.
- In some cases, based on environmental rating and emission rate potential, compliance with air cleaning requirements may be demonstrated by dispersion modeling.

Below is a summary of anticipated emissions for which air cleaning compliance has been demonstrated by dispersion modeling.

DAR-1 Modeling Results

Results - Short Term

Contaminant	CAS #	Env Rating	PTE (lb/yr)	ERP (lb/hr)	EF (µg-hr/m³-lb)	Conc (µg/m³)	SGC (µg/m³)	Meets SGC? (Yes/No)
Formaldehyde	50-00-0	A	465	0.9	2.72	2.528	30	Yes
Hexane	110-54-3	B	138	0.3	2.72	0.750	--	n/a
Butane	106-97-8	L	101	0.2	2.72	0.546	238000	Yes
Ethylene	74-85-1	--	1050	2.1	2.72	5.708	--	n/a
Heptane	142-82-5	M	1410	2.8	2.72	7.665	210000	Yes
2-Methyl-1-pentene	763-29-1		600	1.2	2.72	3.262	--	n/a
1-Pentene	109-67-1	M	330	0.7	2.72	1.794	--	n/a

Results - Annual

Contaminant	CAS #	Env Rating	PTE (lb/yr)	ERP (lb/hr)	ERP over 8760	EF (µg-hr/m³-lb)	Conc (µg/m³)	AGC (µg/m³)	Meets AGC? (Yes/No)
Formaldehyde	50-00-0	A	465	0.9	0.05	0.27	0.01	0.06	Yes
Hexane	110-54-3	B	138	0.3	0.02	0.27	0.00	700	Yes
Butane	106-97-8	L	101	0.2	0.01	0.27	0.00	--	Yes
Ethylene	74-85-1	--	1050	2.1	0.12	0.27	0.03	550	Yes
Heptane	142-82-5	M	1410	2.8	0.16	0.27	0.04	3900	Yes
2-Methyl-1-pentene[1]	763-29-1	--	600	1.2	0.07	0.27	0.33	0.1	No
1-Pentene	109-67-1	M	330	0.7	0.04	0.27	0.18	410	Yes

Notes:

[1]2-Methyl-1-pentene is not listed in DAR-1 so a default AGC of 0.1-µg/m3 is assigned.

- The annual concentration is within 10x the AGC.

Based upon the Table 4.2 results, the proposed facility is in compliance with 6 NYCRR Part 212 air cleaning requirements, even though 2-Methyl-1-pentene is indicated to exceed the DAR-1 default value of 0.1-µg/m3. Because 2-Methyl-1-pentene is not listed in the DAR-1 tables, DAR-1 requires the use of the conservative default value of 0.1-µg/m3 for the AGC. However, DAR-1 also includes a provision allowing for a concentration that falls is within 10x the AGC. Therefore, 2-methyl-1-pentene meets the air cleaning requirement. Further emission testing of the facility will verify that actual emissions are within NYSDEC thresholds.

As requested by the Lead Agency, air modeling of Hydrogen Sulfide (H_2S) under Part 257-10 was performed to ensure that proper thresholds are met. As of March 15, 2021, Part 257-10 was repealed and replaced with Part 257-5 which states H_2S is a colorless gas that can cause odors which unreasonably interfere with the comfort and enjoyment of life and property. The main objective of this standards is to prevent disagreeable odors. In any, one-hour period, the average concentration of H_2S shall not exceed 14 micrograms per cubic meter of

air (µg/m^3). Below is a table of air calculations performed on H_2S for the dryer drum, storage silo, and customer loadout with a fence line distance of 200feet. The full air modeling for this compound is included in Appendix G. H_2S concentrations at the dryer drum are 0.04-µg/m^3, H_2S concentrations at the storage silo are 0.00271-µg/m^3, and finally the H_2S concentration during customer loadout is 1.2-µg/m^3. In all three situations H_2S is well below the Part 257-5 standard of 14-µg/m^3.

H_2S CONCENTRATION, DRYER

Results Contaminant	CAS #	Toxicity Rating	ERP[4] (lb/hr)	PTE (lb/hr)	EF (µg·hr/m^3·lb)	Conc (µg/m^3)	SGC (µg/m^3)	Meets Threshold? (Yes/No)
Hydrogen Sulfide	7783-06-4	M	0.016	0.016	2.70	0.04	--	n/a

Part 257-5 Threshold (µg/m^3)	Meets Threshold? (Yes/No)
14	Yes

Odor[5] Threshold (µg/m^3)	Meets Threshold? (Yes/No)
450	Yes

H_2S CONCENTRATION, SILO

Results Contaminant	CAS #	Toxicity Rating	ERP[4] (lb/hr)	PTE (lb/hr)	EF (µg·hr/m^3·lb)	Conc (µg/m^3)	SGC (µg/m^3)	Meets SGC? (Yes/No)
Hydrogen Sulfide	7783-06-4	M	4.38E-04	4.38E-04	6.18	2.71E-03	--	n/a

Part 257-5 Threshold (µg/m^3)	Meets Threshold? (Yes/No)
14	Yes

Odor[5] Threshold (µg/m^3)	Meets Threshold? (Yes/No)
450	Yes

H_2S CONCENTRATION, LOADOUT (VOLUME)

Results Contaminant	CAS #	Toxicity Rating	ERP[4] (lb/hr)	PTE (lb/hr)	EF (µg·hr/m^3·lb)	Conc (µg/m^3)	SGC (µg/m^3)	Meets SGC? (Yes/No)
Hydrogen Sulfide	7783-06-4	M	4.38E-04	4.38E-04	2646	1.2	--	n/a

Part 257-5 Threshold (µg/m^3)	Meets Threshold? (Yes/No)
14	Yes

Odor[5] Threshold (µg/m^3)	Meets Threshold? (Yes/No)
450	Yes

Airborne emissions of particulate and gaseous pollutants from mobile sources are quantified in Appendix F. These emissions have been quantified in accordance with NYSDEC Policy "Assessing Energy Use and Greenhouse Gas Emissions in Environmental Impact Statements" (July 15, 2009). The policy provides guidance for calculating "direct" and "indirect" emissions from non-stationary sources (i.e., mobile sources). Direct emissions from mobile sources include emissions from fleet vehicles owned and operated by the project sponsor, such as freight trucks carrying aggregates, AC tanker trucks, HMA delivery trucks, and any onsite mobile equipment. The proposed project does not own any fleet vehicle with the exception of a front-end loader. Direct emissions from the front-end loader are quantified below.

Direct Emissions from Non-Stationary (Mobile) Sources – Loader

Make/ Model	Max Fuel[1] Usage (gal/hr)	Max[2] Fuel Usage (gal/wk)	Max[3] Fuel Usage (gal/yr)	Contam	EF[4] (kg/gal)	Daily[5] Average (lbs)	Daily[6] Peak (lbs)	Weekly[7] Total (lbs)	Monthly[8] Total (lbs)	Annual[9] Total (tons)	CO2e (tons)
Caterpillar	4.9	352.8	5410	PM-10	--	1.0	2.0	1.0	3.8	0.04	--
Cat 950				CO2	10.2	657	1,313	7,878	31,512	47.3	47.3
				CH4	5.8E-04	0.04	0.08	0.45	1.8	0.003	0.2
				N2O	2.6E-04	0.02	0.03	0.20	0.8	0.001	0.3
											47.8

Indirect emissions from mobile sources include vehicles that are associated with the proposed project but not owned by the applicant, such as employee trips, customers, vendors, and material suppliers. Emissions are calculated by estimating vehicle miles traveled (VMT) and the number of net new trips generated by the proposed facility. Annual VMT is then converted to particulate matter and greenhouse gas emissions. The tables below summarize indirect emissions from these mobile sources in terms of daily average, daily peak, and weekly, monthly, and annual totals.

Emission Rates for Indirect Mobile Sources

	Emission Rate (lbs)	
	PM-2.5	**CO2e**
Daily Average	0.1	3,308
Daily Peak	0.1	3,308
Weekly Total	0.5	19,848
Monthly Total	2.2	101,445
Annual Total	8.3	304,335

Indirect Emissions from Non-Stationary (Mobile) Sources

Process	Source	Net New Trips/Day	VMT/Trip	Operating Days/Year	Annual VMT	PM2.5	Emission Rate, lb/yr CO2	CH4	N2O	CO2e	CO2e (tpy)
Aggregate Delivery	10-Wheel Dump Truck	11	50	92	50,600	3.6	128,396	0.6	0.5	128,585	
AC Delivery	30K Tanker	2	50	92	9,200	0.6	23,721	0.1	0.1	23,756	
HMA Loadout	10-Wheel Dump Truck	11	50	92	50,600	3.6	128,396	0.6	0.5	128,585	
Commuting	Personal Vehicles	12	25	92	27,600	0.5	23,207	0.9	0.5	23,409	
					Total	8.3	303,721	2.1	1.6	304,335	152.2

NYSDEC policy guidance also directs consideration of upstream emissions for mobile sources. Upstream emissions are defined as those associated with extraction, production, and transmission of fossil fuels imported in New York State. Using NYSDEC factors, upstream emissions for mobile sources are estimated below.

Upstream GHG Emissions

Source	Fuel Type	Gal/Yr[1]	MMBtu/ Gal[2]	MMBtu/ Yr	CO2e (g/MMBtu)	CO2e (lb/MMBtu)	CO2e (lb/yr)	CO2e (tons/yr)
Loader	Diesel	5,410	0.137	741	25,375	55.9	41,459	
Agg Delivery	Diesel	6,747	0.137	924	25,375	55.9	51,706	
AC Delivery	Diesel	1,533	0.137	210	25,375	55.9	11,751	
Loadout	Diesel	5,410	0.137	741	25,375	55.9	41,459	
Commuting	Gasoline	812	0.130	106	7,905	17.4	1,839	
						Total (lbs):	148,215	74.1

[1]Based on proposed operating schedule.

Fugitive dust emissions, specifically PM10 and PM2.5 may relate from truck traffic, solid material stockpiling and transfer operations. These are quantified in the Appendix F as load-out and yard emissions, a summary of total PMs (including PM10 and PM2.5) relating to truck traffic, aggregate stockpiling and transfer are summarized below.

Total PM for Load-out & Yard Emissions (lbs/year)					
PM	Annual	Monthly	Weekly	Daily (average)	Daily (Peak)
Total	78.3	11.19	2.8	0.57	1.56

The results above represent fugitive emissions as opposed to point source emissions. As for a mass emission limit, there are none because the process is not applicable to Part 212-2.5 process categories; therefore Part 212-2.4 standard does not apply here. NYSDEC does regulate PM under major thresholds as 100 lbs/year. As demonstrated above the total annual PM for truck traffic, material stockpiles, and transfer is 78.3 lbs/year based upon 150,000 tons/year which is below the allowable limit by the governing agency. Therefore, fugitive PM from plant operations will not have an adverse impact on the environment or surrounding properties.

The completed Air State Facility Permit application was submitted to NYSDEC on August 12, 2019. This application was based on a batch-mix plant. Whereas the proposed plant is a drum-mix plant, NYSDEC issued a notice of

incomplete application (NOIA) requesting revision based on drum-mix plant emission factors. Additionally, an updated analysis of compliance with DAR-1 guidelines, and an updated odor analysis was requested. In response, a revised Air State Facility Permit Application based on a drum-mix HMA plant was prepared and submitted. A copy is included herein as Appendix F. The revised ASF application reflects drum-mix plant emissions based on the appropriate USEPA AP-42, emission factors. These factors are also reflected in revised dispersion modeling as required under Part 212. An updated odor analysis was also submitted to the NYSDEC on August 31, 2020, and is included in Appendix O. All revisions and corrections of the initial ASF permit were made, submitted, and accepted by the NYSDEC on February 5, 2021. Again, these revisions were based on air calculations, site plan and property location, as illustrated in Appendix E, resulting in issuance of a draft ASF permit by the NYSDEC. Since the issuance of the draft, the applicant has changed the proposed location of this facility from the Town of Niagara to the Town of Hamburg. Due to the property location change the applicant will revise the site plan and property location and resubmit the ASF application to the NYSDEC. All air calculations shall remain the same as the proposed equipment has not changed. All air calculations are modeled off shorter distances because the proposed property location in the Town of Hamburg is much further in distance than that of the property in the Town of Niagara. This makes for worst case scenario air calculations because the air modeling is based off a smaller plot of land with shorter distances to the property lines. Therefore, the proposed facility in the Town of Hamburg shall pose even less of an impact than what was submitted and accepted by the NYSDEC.

The NOIA also includes that the application will remain incomplete until the SEQR process is complete. Under 6 NYCRR 621.3, General Requirements for Applications, this application is considered administratively incomplete until acceptance of the DEIS by the Town of Hamburg Planning Board, as the SEQR Lead Agency.

Possible Mitigation

The ASF permit includes enforceable permit conditions that can serve as air emissions mitigation measures as they ensure there are no significant impacts to air quality at full build and in the future. These enforceable permit conditions include:

- Stack testing to verify mass emission rates and concentrations;

- Operation and maintenance of air pollution control in accordance with the manufacturer's instructions and good engineering practice at all times;
- Compliance with the Moisture Mitigation Plan, which includes paving of main roadway within the property site and watering of aggregate stockpiles to control fugitive dust.

Based upon air dispersion calculations presented in the ASF Permit application, off-site impacts will not exceed any of the NYSDEC health-based concentrations. the proposed facility will not pose any off-site air impacts. The proposed plant includes a high efficiency baghouse as Best Available Control Technology (BACT), with a particulate matter removal efficiency of 98+ percent. This removal efficiency ensures that the plant will meet the federal standard for particulate matter under 40 CFR 60 Subpart I *Standards of Performance for Hot Mix Asphalt Facilities*. No other mitigation measures are required for the facility.

4.5.3 Impact on Plants and Animals

Potential Impacts

As stated in the existing conditions section of the Draft Environmental Impact Statement this property has been previously cleared and disturbed for decades and has a historical use of industrial construction activities. The ground space is made up of mostly recycled aggregates and asphalt. There is very minimal greenspace left making it difficult for any plants or animals to survive within the property boundaries.

U.S. Fish and Wildlife Services (USFWS) Information for Planning and Consultation (IPAC) is a project planning tool for USFWS environmental review process. IPAC allows for property areas to be searched for any federally protected species and habitats, similar to the NYSDEC Environmental Resource Mapper. One federally threatened species was identified, the Northern Long-eared Bat (Myotis septentrionalis) was listed as having the potential to be affected by activities in this location. The historical range for Northern Long-eared Bats covered 39 states including New York and specifically Erie County, because of this the New York State Department of Environmental Conservation was consulted for further details.

NYSDEC Environmental Resource Mapper was utilized to identify any rare plants and animals on or near the property including the Northern Long-eared

Bat. NYSDEC interactive mapping application also lists those plants and animals that qualify as endangered or threatened. The Environmental Resource Mapper confirmed there are no rare, endangered, or threatened plants and animals within the proposed project site, nor surrounding areas. NYSDEC Protection of Northern Long-eared Bats Protective Measures includes a map and chart of Norther Long-eared Bat Occurrences by Town (Appendix H). In the County of Erie there are 6 towns listed, the Town and Village of Hamburg are not listed as having any confirmed summer or winter occurrences of the Northern Long-eared Bats.

Possible Mitigation

No mitigation requirements are needed as there are no identified plants or animal on or surrounding the property site that would be affect by the proposed project. NYSDEC resource mapper provides documentation that the federally threatened species is not identified in the project area.

4.5.4 Impact on Aesthetic Resources

Potential Impacts

The proposed hot mix asphalt plant involves construction of prefabricated equipment pieces which create an industrial manufacturing facility. The project would be erected within an existing industrial site at 5690 Camp Road, Hamburg, Erie County. A main component of the manufacturing facility includes storage silos that are approximately 70 feet in height. The proposed silos are shorter in height than other structures currently on the property and are consistent in height with the other 2 storage silos located on the 53-acre parcel. The project does not exceed local height limits as The Town of Hamburg does not have a maximum height requirement in the M-3 industrial district.

The project site does not contain any federal or state aesthetic resources. The proposed action will not be visible from any official designated federal, state, or local scenic or aesthetic resource. The property is 53 acres in totality and the proposed hot mix asphalt plant will disturb approximately less than 1 full acre within the 53-acre parcel. The land use of the surrounding properties is a mix of vacant land with commercial zoning to the east, wooded wetlands to the south, and developed commercial property and residential property to the north and west of the property. The project site also has wooded wetlands located to the west of property which acts as a visual buffer to the residential and commercial properties. Along with vegetative screening the property features buildings that

range from 20 feet to 90 feet in height and a cell tower 250' above grade. The height of existing structures and significant elevation changes from the property line to public roadways will make the proposed facility difficult to perceive.

NYSDEC Visual Policy identifies significant aesthetic resources as the categories below:

1. A historic resource listed or eligible for inclusion in the State or National registers of historic places
2. State Parks
3. NYS Heritage Areas
4. The State Forest Preserve
5. National Wildlife Refuges and State Game Refuges
6. National Natural Landmarks
7. The National Park System, Recreation Areas, Seashores, Forests
8. Rivers designated as National or State Wild, Scenic, or Recreational
9. A site, area, lake, reservoir or highway designated or eligible for designation as scenic, including NYS Scenic Byways
10. Scenic Areas of Statewide Significance
11. A state or federally designated trail, or one proposed for designation
12. Adirondack Park Scenic Vistas
13. State Nature and Historic Preserve Areas
14. Palisades Park
15. Bond Act Properties purchased under Exceptional Scenic Beauty category
16. National Heritage Areas

None of the identified aesthetic resources are within the proposed project location or vicinity therefore a Visual Impact Assessment is not necessary for this project. In accordance with the Final Scoping document and using NYSDEC Visual Impact Assessment guidelines, photo documentation and photo simulations of the proposed plant were used to provide a visualization of how the project will appear from various locations selected by the Lead Agency.

A viewpoint analysis was created using photographs from the property, a balloon flown over the project site at 70 feet to simulate the height of the tallest aspect of the plant, and photo simulations of the hot mix asphalt facility superimposed onto property photographs. The photo simulation used were the existing storage silos currently onsite as the proposed storage silos are similar. Property photos were taken during the winter season when vegetation is bare, the "leaf-off" photos are considered a worst-case scenario for a visibility analysis as

spring and summer seasons will have fuller vegetation and will further reduce any visibility to the project site.

Photographs and observations were made from the following locations identified in the Final Scoping document by the Lead Agency:

- End of Grimsby Drive
- Sunset Drive and Kenton Place
- Camp Road and Legion Drive
- Camp Road and Staley Drive

Elmview Road from the nearest commercial business was also included in this analysis because of the proximity. Each photograph was taken by the identified intersection street signs and faced the proposed project site. Visibility and assessment of the project is summarized in the table below:

Visual Receptors		
Location	**Visibility**	**Visibility Details**
End Of Grimsby Drive	Screened/Visible	View is significantly screened by existing evergreens and other vegetative screening during leaf off season. View is also interrupted by utility poles/lines.
Sunset Drive and Kenton Place	Not Visible	View is completely screened by vegetation during leaf off season.
Camp Road and Legion Drive	Screened/Visible	View is screened by vegetation along main road. Lower view is screened by industrial buildings.
Camp Road and Staley Drive	Not Visible	View is blocked by commercial and industrial buildings.
Elmview Road (directly across from project site)	Screened/Visible	Lower view is screened by existing buildings on site.

Based upon the above summarized table the proposed project would be visible and partially screened at three of the five locations and not visible at the remaining two. The hot mix asphalt plant would also be shorter in height than the existing cellular tower standing at 250 feet and the existing storage building that is 90 feet in height, both of which do not have active screening. The proposed hot mix asphalt plant's storage silos are the tallest component to the plant and the only aspect of the plant that would be visible from limited views. The lower view of the plant is completely screened due to the industrial buildings on site, the existing vegetative greenery, and the proposed position of the facility. The significant set back and elevation change of the property site were considered in the layout process to limit visibility of the proposed project.

Viewpoint – End of Grimsby

This photo was taken from the end of Grimsby Drive facing the rear of 5690 Camp Road where the proposed project is to be erected. From this viewpoint, the balloon was visible through the existing greenery at leaf off season. The balloon was shorter in height than the existing evergreen trees that border the property line. The view is also somewhat obstructed by the utility pole and lines in front of the trees. The only structure completely visible from this location is the existing storage silo which have little screening due to lack of vegetation during winter season and the location of these silos are set closer to the property boundary line. It is assumed that majority of the proposed facility will be is partially or completely screen once vegetation is in leaf. A photo simulation of the hot mix asphalt plant was prepared to demonstrate whether the visual impacts from the proposed project would be significant. The only plant component visible would be the 70-foot storage silos that are still partly screened during the leaf off, worst case scenario photo.



Viewpoint – Camp Road and Legion Drive

This viewpoint was taken from the corner of Camp Road and Legion Drive directly next to the street signs facing the property site. The balloon, acting as the visibility marker, was visible from this location. However, the overall view is being dominated by other existing structures on site, such as, the Erie County Industrial Development Agency building, and the communication tower. The size and height of these two structures are significantly larger than the proposed project therefore the tallest aspect of the hot mix asphalt plant (70-foot silos) will not generate a significant visual impact. A simulation was generated to illustrate the facility at this location. The lower view of the proposed project is being screened by existing industrial buildings on the property site therefore only allowing for the storage silos to be visible at times through the evergreen trees planted along Camp Road. The substantial grade change from where the trees are planted along Camp Road to where the projected facility is to be erected allows only partial vertical view of the silos to be seen from Camp Road and Legion Drive. The visual impact from the proposed project is not likely to be significant due to the surrounding vertical elements on site that dominate the viewshed and the partially screened view of the facility by existing industrial buildings.



Viewpoint – Elmview Road

The photograph on Elmview Road was taken from the parking lot of 75 Elmview Road Hamburg, New York, located directly across from the proposed project site. This viewpoint was taken to analyze the impact the project would have on the commercial businesses that neighbor the property line. The simulation marker was visible above the above the existing buildings on site. Due to the height of the industrial warehouses the lower view of the facility is completely screened. The photo simulation created shows part of the 70-foot silos visible while standing on Elmview Road. Similarly, the existing silos are also seen from this viewpoint and unlike the proposed project, are not screened by vegetation or buildings. From this viewpoint there are two industrial buildings, aggregate stockpiles, and cement storage silos within sight and because of these significant and similar elements on site it is unlikely that the proposed facility would have a major impact on view from this location.



Viewpoint – Camp Road & Staley Drive / Sunset Drive & Kenton Place

The remaining viewpoints, Camp Road at Staley Drive and Sunset Drive at Kenton Place, are completely screened from the proposed hot mix asphalt plant. Camp Road and Staley is completely screened due to the project setback and commercial business buildings along Camp Road. The viewpoint at Sunset and Kenton Place is completely screened from the project site by existing vegetation during leaf off winter season. Based upon these results the project will not have an impact on views from these two receptor sites.

Based upon the viewpoint analysis, in a worst-case leaf off condition, the proposed facility, at all viewpoints, would be at least partially screened by either vegetation or other existing structures currently on site. The project also has consistent components to structures existing on site which are tolerated by

surrounding study areas. It is important to note, the property as whole is visually dominated by Erie County Industrial Development Agency's building due to its size, height, and color, it is also the second largest vertical structure on the property after the 250-foot cellular tower. Visual simulations of the proposed hot mix asphalt plant indicate that the aesthetic impact will be minimal if any at all. Based upon the analysis and conclusion from the aesthetic resource list, the project's overall impact to visual character and the aesthetic resources of the area will not be significant.

The concentrated source of emissions from the hot mix asphalt facility will be from the fabric filter baghouse stack. The baghouse is considered to be a "Best Available Control Technology" (BACT) because is has a 98+% removal efficiency of particulate matter during the manufacturing process. Due to 98+% capture and elimination of particulate matter the emissions from the baghouse stack would consist of almost entirely water-based steam which are not considered to constitute a plume according to the USEPA definition in the Visible Emission Field Manual Method 9. The Federal standard for visible emissions states opacity observations should be evaluated at which condensed water vapor is no longer visible. As such, the visible emissions generated at the proposed facility will consist of almost entirely water-based steam because of the efficiency of the required baghouse, therefore there will be no plume generated from this project.

Possible Mitigation

While the impacts from the project are minimal based upon worst case leaf-off scenario, the following possible mitigation measures are practical considerations to enhance the property and project aesthetics. Hot mix asphalt plant components can be painted in various colors to be camouflaged with the background. These colors can include blue tones that blend with the sky or earth-tones that mimic surrounding vegetation. A.L. Asphalt Corporation can also increase the amount of vegetative screening along the main road. Additional evergreens at street level can increase foliage further screening the plant from motorist along Camp Road and Elmview Road.

4.5.5 Impact on Historic and Archeological Resources

Potential Impacts

New York State Division for Historic Preservation's online Cultural Resource Information System (CRIS) lists the State's historic resource

information. CRIS allows for project submittal for State Environmental Quality Review and search for historic buildings, sites, and districts. There are no buildings, sites, or districts on the proposed project site or within a half mile based upon CRIS search results from the New York State Parks, Recreation and Historic Preservation website.

For further review, the proposed hot mix asphalt plant project was submitted to the New York State Office of Parks, Recreation and Historic Preservation for SEQR. A findings letter dated February 3, 2022, declared the project will have no impact on archaeological and/or historical resources listed in or eligible for the New York State and National Registers of Historic Places (Appendix I).

Hamburg Historical Society and Village of Hamburg Historic Preservation Commission were also consulted regarding the proposed hot mix asphalt plant. An opinion letter dated February 16, 2022, from the Hamburg Historical Society also agreed the property had no historical significance and there would be no impact from the proposed project (Appendix J). An opinion letter dated March 16, 2022, from Village of Hamburg Historic Preservation Commission states that the commission cannot concur with the New York State Office of Parks, Recreation and Historic Preservation and the Hamburg Historical Society as they believe historical and archaeological resources within .50 miles of the project site may be eligible for listing on the New York State or National Registers of Historic Places (Appendix K).

Possible Mitigation

Mitigation measures are not required based upon the findings letter from the governing authority, the New York State Office of Parks, Recreation and Historic Preservation, that the proposed project will not impact historical or archaeological resources that are listed or eligible to be listed for the New York State and National Registers of Historic Places. To further ensure that historical and archaeological resources will not be affected, the site will be actively monitored for historical and archaeological resources that could be uncovered during the excavation process for the plant foundations.

4.5.6 Impact on Transportation

Potential Impacts

A full Traffic Impact Study (TIS) was completed in accordance with the Final Scoping document to assess the traffic impacts associated with the proposed

hot mix asphalt plant and recommended mitigation measures to alleviate any identified impacts. The full traffic impact study is included as Appendix L of this draft and should be referenced for further details.

The study area consists of intersections and roads identified by the Lead Agency during the scoping process. The following intersections are included in the TIS:

1. Camp Road/Sunset Drive
2. Camp Road/Scranton Road
3. Camp Road/Elmview Avenue
4. Camp Road/Legion Drive
5. Sunset Drive/Elmview Avenue

The following are roads identified by the Lead Agency for analysis in the TIS:

1. Elmview Avenue
2. Legion Drive
3. Sunset Drive
4. Camp Road

To evaluate the impact of the proposed hot mix asphalt plant traffic projections were prepared for the expected year of completion, 2023. The Town of Hamburg was contacted regarding specific developments that are currently approved or under construction that would generate additional traffic in the study area. No approved or under construction projects were identified. New York State Department of Transportation traffic volume data on the study roadways in the vicinity of the proposed project indicates that truck traffic decreased from 2010 to 2019. To account for normal increases in background traffic growth and any unforeseen developments in the study area, a conservative growth rate of 0.5% per year was applied to the 2022 base traffic volumes, based upon historical traffic growth for the one-year build-out period. Traffic counts for this study were conducted between 7:00 – 9:00 for the weekday AM peak hour and 4:00 – 6:00 PM for the evening peak hour. Based upon traffic count, the peak hour traffic periods generally occurred between 7:15 – 8:15 AM and 4:15-5:15 PM.

Based on information provided by the applicant, the proposed hot mix asphalt facility will employ six people that will be responsible for plant operations, truck loading, aggregate loading, and quality control operations. The facility will operate from April to November, Monday through Friday with occasional Saturdays on an as-need basis. Employees for the proposed project will arrive on site anywhere between 6:00 – 7:00 AM and will leave around 4:00 PM. It is vital for asphalt manufacturing that field employees arrive prior to customers

and remain on site after the customer leaves, because of this employee traffic will not interfere with morning and evening peak hours.

Trip generation data for the proposed project was gathered by the applicant based upon other hot mix asphalt facilities of the same size (150,000 ton/per year). Trip generation consist of truck capacity, plant loading capacity, and truck ticket processing. Therefore, trip generation is based upon how quickly the above operations take place in each hour. For example, it would take a small 4-ton truck approximately 5 minutes to receive product and the customer truck ticket. It would take a large 22-ton truck closer to 10 minutes. Since this project does not involve a stone quarry, aggregate material will be brought to the site almost daily. Aggregate material deliveries are to be made when inventory is low and in need to replenishing, if the applicant has enough material for manufacturing, then aggregate deliveries will not take place for that specific day. It is assumed that the customer trucks, aggregate trucks, and employee traffic will all enter/exit the site at the same time, which would result in a total of 11 trips entering/exiting the site at peak times. It is noted that these peak times would occur outside the normal commuter peak times due to the operating hours of the project. However, for this study, it is assumed that the plant peak times coincide with the commuter peak hours to overestimate the impacts during commuter peak hours. In doing so, this will result in a conservative analysis of traffic impacts from the proposed project.

Below is a table from the Traffic Impact Study that shows the total site generated trips for the weekday morning and evening peak hours for full build out of A.L. Asphalt Corporation.

Site Generated Trips

DESCRIPTION	AM PEAK HOUR		PM PEAK HOUR	
	ENTER	EXIT	ENTER	EXIT
Asphalt Plant Employees	6	6	6	6
Asphalt Plant Trucks	5	5	5	5
Total	**11**	**11**	**11**	**11**

The proposed project is located at 5690 Camp Road in the Town of Hamburg, with access to the site from Camp Road or Old Camp Road. There are additional access points to the property along Elmview Avenue that are prohibited uses for truck traffic but may be used in the event of an emergency. Based upon

information given by the applicant all customer trucks will be directed to Camp Road for entering and exiting the site. There will be signage posted to instruct drivers where to go upon exiting the facility. These efforts are taken to reduce traffic on residential roads such as, Elmview Avenue and Sunset Drive.

Intersection Analysis

Capacity analysis is a technique used for determining a measure of effectiveness for a section of roadway and/or intersection based on the number of vehicles during a specific time period. Level of Service (LOS) is the measure of effectiveness used for the capacity analysis. Intersection LOS and capacity analysis relate traffic volumes to the physical characteristics of an intersection. Intersection evaluations were derived using traffic analysis software, SYNCHRO 11, which is based on procedures and methodologies contained in the Highway Capacity Manual (HCM) as required by New York State Department of Transportation, Region 5.

There are six Levels of Service which range from “A” to “F” with LOS “A” representing the ideal conditions with little to no delay and LOS “F” conditions with very long delays. Suggested ranges of service capacity and an explanation of LOS are included in the full TIS (Appendix L). Comparing the Level of Service during the background conditions of the future year (2023) and the full build conditions of the asphalt facility can determine the potential impact from the project. As per the NYSDOT’s Highway Design Manual (HDM) it is required Developers to mitigate the impacts of their development to maintain the same level of service, safety, operation, and/or other measure of traffic conditions as the affected highway(s) would experience without the development. Below is a table from the TIS that shows the results of the Level of Service calculations.

CAPACITY ANALYSIS RESULTS

INTERSECTION	2022 EXISTING CONDITIONS				2023 BACKGROUND CONDITIONS				2023 FULL BUILD CONDITIONS			
	AM		PM		AM		PM		AM		PM	
1. Camp Rd/Sunset Dr (S)												
SEB Thru - Camp Rd	B	15.6	B	18.8	B	15.6	B	18.9	B	15.7	B	18.9
SEB Right - Camp Rd	A	0.8	A	0.8	A	0.8	A	0.8	A	0.8	A	0.8
NWB Left - Camp Rd	A	8.2	A	8.2	A	8.2	A	8.2	A	8.2	A	8.2
NWB Thru - Camp Rd	B	11.2	A	7.9	B	11.2	A	7.9	B	11.3	A	7.9
NEB Left - Sunset Dr	C	26.9	C	28.9	C	26.9	C	29.0	C	26.9	C	29.1
NEB Right - Sunset Dr	A	9.0	A	7.8	A	9.0	A	7.8	A	9.0	A	7.8
Overall LOS	**B**	**14.1**	**B**	**13.6**	**B**	**14.2**	**B**	**13.6**	**B**	**14.2**	**B**	**13.6**
Volume-to-Capacity (v/c) Ratio	**0.60**		**0.67**		**0.60**		**0.67**		**0.60**		**0.67**	
2. Camp Rd/Scranton Rd/Monro Dwy (S)												
SEB Left - Camp Rd	A	3.4	A	4.5	A	3.4	A	4.5	A	3.4	A	4.5
SEB Thru/Right - Camp Rd	A	2.9	A	4.5	A	2.9	A	4.6	A	2.9	A	4.6
NWB - Camp Rd	A	5.1	A	6.6	A	5.1	A	6.6	A	5.6	A	6.7
NEB - Monro Dwy	D	44.5	D	42.4	D	44.5	D	42.4	D	44.5	D	42.4
SWB Left - Scranton Rd	E	65.7	E	65.9	E	65.7	E	66.0	E	65.7	E	66.0
SWB Thru/Right - Scranton Rd	A	1.1	A	0.6	A	1.1	A	0.6	A	1.1	A	0.6
Overall LOS	**A**	**7.5**	**A**	**8.7**	**A**	**7.5**	**A**	**8.8**	**A**	**7.7**	**A**	**8.8**
Volume-to-Capacity (v/c) Ratio	**0.59**		**0.66**		**0.61**		**0.66**		**0.59**		**0.66**	
3. Camp Rd/Elmview Ave (U)												
EB - Elmview Ave	B	11.8	B	12.8	B	11.8	B	12.8	B	12.1	B	13.5
NB Left - Camp Rd	A	0.8	A	2.5	A	0.8	A	2.5	A	0.8	A	2.5
4. Camp Rd/Legion Dr (S)												
WB Left - Legion Dr	D	51.7	E	65.6	D	51.7	E	65.8	D	51.7	E	65.8
WB Right - Legion Dr	B	11.0	A	4.9	B	11.3	A	4.9	B	11.6	A	4.9
NB - Camp Rd	B	13.7	B	12.0	B	13.8	B	12.0	B	13.9	B	12.0
SB Left - Camp Rd	E	56.7	F	149.2	E	56.6	F	152.1	E	56.1	F	154.5
SB Thru - Camp Rd	A	9.3	B	12.0	A	9.4	B	12.0	A	9.5	B	12.1
Overall LOS	**B**	**19.8**	**D**	**36.8**	**B**	**19.9**	**D**	**37.3**	**B**	**19.9**	**D**	**37.7**
Volume-to-Capacity (v/c) Ratio	**0.68**		**1.16**		**0.68**		**1.17**		**0.68**		**1.18**	
5. Sunset Dr/Elmview Ave/Kenton Pl (U)												
EB - Kenton Pl	B	11.4	B	11.3	B	11.4	B	11.3	B	11.4	B	11.3
WB - Elmview Ave	B	10.6	B	10.7	B	10.6	B	10.7	B	10.6	B	10.7
NB - Sunset Dr	A	0.0	A	0.1	A	0.0	A	0.1	A	0.0	A	0.1
SB - Sunset Dr	A	2.4	A	0.7	A	2.4	A	0.7	A	2.4	A	0.7
6. Camp Rd/Existing Dwy (U)												
EB - Existing Dwy	N/A		N/A		N/A		N/A		B	14.6	C	19.5
NB - Camp Rd									A	0.2	A	0.3
7. Elmview Ave/Existing Dwy (U)												
WB - Elmview Ave	N/A		N/A		N/A		N/A		A	0.2	A	0.1
NWB - Existing Dwy									A	8.5	A	8.5

The peak hour capacity analysis results indicate that the approaches at the study interesection will operate similarly to project 2023 background conditions. All of the study intersections experience no changes in LOS at full build of the hot mix asphalt plant. As a result of the project there is no decrease in LOS therefore no mitigation is warranted or recommended at any of the study intersections because the proposed project will not have a significant impact on the exisitng roadway system.

Pedestrian, Bicycle, and Transit Facilities

In accordance with the Final Scoping document, an evulation of the study area's pedestrian, bicycle and transit facilities were also included in the full TIS. There are sidewalks along both sides of Camp Road to the northwest of Scranton Road and to the south of Legion Drive. Sidewalk continues along the northeast side of Camp Road in between Scranton Road and Legion Drive. Also, there is a sidewalk along both sides of Sunset Drive and the north side of Elmview Avenue. There are no sidewalks that run along or through the property at 5690 Camp Road. All of the signalized intersections provide signalized pedestrian crossings.

There are no dedicated bicycle facilities in the study area nor on the project site, however bicyclist are allowed to share the roadway with motorists and utilize the existing shoulder space within the study area.

Public transportation service is provided within the study area. Public transit is provided by Niagara Frontier Transportation Authority (NFTA). NFTA currently provides one bus route (Route 74) that services the Hamburg area. Bus stops are located along both sides of Camp Road.

Given that the proposed hot mix asphalt facility will not impact the exisiting roadway system, the proposed project will, as well, not have a significant adverse impact on the existing bicycle, pedestrian and transit facilities.

Possible Mitigation

The Traffic Impact Study identifies and evulates the potential traffic impacts that can be expected from the proposed project. The results of this study determine that the existing transportation network can adequetly accommodate the projected traffic volumes to study area. As identified in the Traffic Impact Study there is no decrease in LOS at main roadways or intersections. The full build of the hot mix asphalt facility will not result in any potentially significant adverse traffic impacts therefore no mitgations measures are required.

4.5.7 Impact on Energy

Potential Impacts

The property location currently has active electricity that is being provided by New York State Electric and Gas (NYSEG). The proposed project will not have a significant impact on energy usage as documented in the letter the applicant received from NYSEG regarding electricity availability (Appendix M). The engineering analysis performed by NYSEG of the existing electric distribution center states it has the capacity to serve the proposed project. Since the energy supply system has the adequate amount of energy there will not be any needed upgrades to the production or delivery system. The Full Environmental Assessment Form Part 2 completed by The Town of Hamburg Planning Board on November 6, 2019, also concurs with the electric company's letter. Question 14 of the FEAF, Impact on Energy, was answered by The Town as not having an impact. New York State Department of Environmental Conservation states four criteria for potential impacts to energy:

1. Proposed action requires a new, or an upgrade to an existing substation.
2. 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.
3. Proposed action may utilize more than 2,500 MWhrs (Megawatt) per year of electricity
4. Proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.

The applicant applied for 350-kilowatt (kW) (0.35 MW) service at 5690 Camp Road to power the hot mix asphalt plant. The plant is made of various compressors and motors which operate the plant. The hot mix asphalt facility will not continuously run during all hours of operation. Once the material is made and stored the equipment shuts off until another batch of material is ordered. Also, A.L. Asphalt Corporation will be a seasonal business that only operates from April – September each year. During off season months the plant will be properly winterized and will not utilize any energy.

Possible Mitigation

The proposed project will not have an impact on energy usage as NYSEG's engineering analysis concluded there is a sufficient amount of electricity available to service the proposed project without needing to modify the

existing supply system. The proposed project is also going to use less than 1 Megawatt per year and its activities do not include any heating or cooling of a 100,000 square foot building. The seasonality of the business will also provide for energy conservation as the business will not operate a full 12 months out of the year. No mitigation measures are required.

4.5.8 Impact from Noise, Odor, and Light

Potential Impacts

Noise

Existing noise level measurements were taken at various locations and times in the month of June 2022 at locations surrounding the property of the proposed project. These locations represent the closest properties with non-industrial zoned sites at the Town's request. Locations studied are within one half mile of the project site, because the results concluded that ambient noise levels were not affected there is no need to monitor locations at a further distance. The Noise Analysis prepared by Neu-Velle is included in Appendix N of the DEIS for the full report.

The noise level measurements were obtained using Casella dBandge2 sound meter, separate meters were used to monitor each location. All meters were calibrated prior to use and serial number of each unit are included in the full noise study. Ambient sound level measurements were taken in nine (9) locations in Hamburg, New York. The weather conditions during the sampling were partly cloudy, 65 degrees Fahrenheit and wind 1 miles per hour from the northwest in the morning and 65 degrees Fahrenheit and wind 4 miles per hour from the northwest in the evening. The location of the sound level measurements obtained are summarized below.

Summary of Locations Monitored			
Location	**Date**	**Time**	**Approx. Distance from Plant**
Gerber Collision	6/27/22	7:50AM to 8:09AM	500'
Alibi Bar & Grill	6/27/22	8:00 PM to 8:15 PM	560'
Camp Rd/Legion Dr	6/27/22	8:15 PM to 8:31 PM	950'
Camp Rd/ Elmview Ave	6/27/22	8:33 PM to 8:48 PM	1,073'
Camp Rd/Scranton Rd	6/27/22	8:49 PM to 9:05 PM	1,620'

Camp Rd/Sunset Dr	6/27/22	9:07 PM to 9:22 PM	3,175’
Elmview Ave/Sunset Dr	6/27/22	9:24 PM to 9:39 PM	1,798’
Hamburg Athletic Field	9/17/19	1:40 PM – 2:50 PM	2,700’
Staley Drive	9/17/19	1:40 PM – 2:50 PM	959’

An existing hot mix asphalt plant in Erie County was analyzed for this survey of sound monitoring. The plant that was used as a surrogate for this study is larger in size and has a larger capacity for material production per year (234,000 tons/year). The setting is similar to the proposed facility as both premises are located on state roads that serve as commercial corridors, proximate to large expressways. Both the existing and proposed hot mix asphalt facilities are bordered by commercial and industrial properties and within 1,000’ feet of residential property. The data derived from the existing plant is intended to be used as a comparison for sound level to be emitted by the proposed facility. The existing asphalt production facility is larger in size therefore creating a highly conservative comparison for the noise analysis. Sound level results for the existing plant include ongoing operations and truck traffic of customers entering and exiting the facility. Sound level monitoring was gathered approximately 500’ north of the operating facility and the only noticeable sound was emanating from the asphalt plant and surrounding street traffic. The average sound pressure level observed during the sampling of the existing facility operations was 63.0 decibels (dB). Below are the results of the measurements surrounding the project site.

Noise Level Readings						
Location	Date	Time	Approx. Distance to plant (feet)	Reading at location (dB)	Reading at location from plant (dB)	Noise level Increase at location (dB)
Gerber Collision	6/27/22	7:50 AM-8:09 AM	500’	65.1	63	2
Alibi Bar & Grill	6/27/22	8:00 PM-8:15 PM	560’	63.5	63	3
Camp Rd/Legion Dr	6/27/22	8:15 PM-8:31 PM	950’	68.2	60	1
Camp Rd/Elmview Rd	6/27/22	8:33 PM-8:48 PM	1,073’	69.8	60	1
Camp Rd/Scranton	6/27/22	8:49 PM-9:05 PM	1,620’	66.8	57	1

Camp Rd/Sunset Dr	6/27/22	9:07 PM-9:22 PM	3,175’	66.9	48	0
Elmview Rd/Sunset Dr	6/27/22	9:24 PM-9:39 PM	1,798’	55.7	55.5	3
Hamburg Central School Athletic Field	9/17/19	1:40 PM-2:50 PM	2,700’	47.9	49.8	2
Staley Drive	9/17/19	1:40 PM-2:50 PM	959’	59.4	60	3

Based upon the measurements of the existing noise levels experienced at the monitored locations, operation of the proposed project is not expected to raise noise levels beyond 3 decibels at three out of the nine monitored locations and will raise the noise level by 2 dBA at two of the nine locations. The remaining locations in the studied area increase noise levels by 1 dBA or had no change.

The Town of Hamburg does not have an established decibel noise level for the community, but Chapter 175-2 of the Town of Hamburg Noise Code prohibits the following:

- The creation of any unnecessary and unreasonably loud or disturbing noise is prohibited as a public nuisance.
- Noise of such character, intensity, and duration as to be detrimental to the life, health, or welfare of the inhabitants of the Town of Hamburg is prohibited as a public nuisance.
- In particular, without excluding other types of prohibited sounds by failure to enumerate them, all sleep-disturbing noises are prohibited. Sleep-disturbing noises shall mean any unnecessary and unreasonably loud or disturbing sounds occurring during the hours between 11:00 PM and 7:00 AM and unreasonably interfering with the sleep, comfort, health, and repose of any individual within hearing thereof or in the vicinity.

Additionally, the Town of Hamburg Code for the General Industrial District prohibits dissemination of atmospheric pollutant, noise and odor into any R, C, M-1, or M-2 district. The sound levels monitored for the noise analysis range from 500’ – 3,175’ surrounding the project site. Special consideration was given to the surrounding non-industrial zoned properties which are within the footage of the studied locations. Non-industrial zoned properties within the vicinity of the project are as follows:

- R-1 – Single Family Residence – Staley Drive – 959’ from the proposed project

- R-3 – Multifamily District – Franklin Street – 1,099’ from the proposed project
- C-2 – General Commercial District – Gerber Collision 500’ from the proposed project
- RA – Residential Agricultural District – 1,605’ from the proposed project

Along with the Town of Hamburg Code the NYSDEC also has guidance on assessing and mitigating noise impacts which states that noise levels increasing from 0-3 dB should have no impact on surrounding receptors, but a noise increase of 6 dB may require a closer analysis of impact depending on character of surrounding land use and receptors. An increase of 10 dB deserves mitigation measures in most cases. The expected noise level from the proposed facility does not increase the decibel level to a point that requires mitigation. Further, the ambient noise levels surrounding the proposed facility are louder than the sound level that the facility would emit. Based upon the results of the noise analysis and NYSDEC guidelines, the surrounding receptors will not be impacted by the sound of the hot mix asphalt plant as the highest increase in noise levels is 3 dBA at daytime and nighttime monitoring. The proposed facility will not violate the ordinance or increase the sounds levels in the studied area.

Odor

Odor from the proposed project is derived primarily from the liquid asphalt associated with the manufacturing of hot mix asphalt. The most noticeable odorous compound found in this production is naphthalene, a Polycyclic Aromatic Hydrocarbon (PAH), which exhibits an odor similar to moth balls. Naphthalene has a strong odor often detectable at concentrations as low as 0.08 parts per million (ppm) or 440 micrograms per cubic meter per the Agency for Toxic Substances and Disease Registry (ATSDR).

Emissions are based on guidance and emission factors from USEPA AP-42 section 11.1, including the factor for emissions of total organic compounds (TOCs). Due to the very low odor threshold of naphthalene and significant presence in liquid asphalt, naphthalene was chosen as the surrogate best to represent odors from the proposed facility. For purposes of the odor analysis and as a conservative estimate, an assumed concentration of 100% naphthalene was used for TOCs. The use of naphthalene in the odor analysis does not imply that it is the only odorous compound associated with manufacturing of hot mix asphalt. Many other odor producing compounds associated with naphthalene do not have

published odor thresholds, may only be detected at much higher concentrations in the air, or may disperse rapidly in the atmosphere and not work well in mathematical emission modeling. Therefore, naphthalene was the chosen as the compound for use in the odor study and for modeling odor emissions.

Odorous emissions at the hot mix asphalt facility are typically associated with the two activities, filling the asphalt oil tank and loading hot mix asphalt into storage silo and/or customer trucks. Tank filling operations involve pumping the asphalt oil from a tanker truck into the heated oil storage tank. The tank vent will have the highest concentration of odorous compounds but because the tank fill rate is low the overall exhaust volume from the tank is low (only filled for short periods of time one or two times a day) and is not at a steady or continuous rate. Due to these operational conditions, it is difficult to quantify emissions and it is assumed that the emission rate is too low to result in any off-site impacts. The activity of loading product into customer trucks or storage silos is assumed to produce the second highest concentration of odorous compounds associated with facility operations. These would occur when hot mix asphalt is loaded as the product is at its highest temperature and liquid asphalt has just been mixed with aggregate. The action of transferring the HMA to the conveyor or truck tends to "aerate" the product which can result in a release of odorous volatile compounds.

The asphalt storage silo is the tallest potential source at the proposed facility exceeding the height of the asphalt oil storage tank. It is therefore assumed that the transfer of material into the storage silo by presents a greater potential for off-cite odor impacts than emissions associated with the asphalt oil storage tank. Calculations of air emissions from silo filling operations were prepared using USEPA AP-42 Chapter 11.1 emission factors for naphthalene. Based upon a maximum production rate of 300 tons per hour and the Chapter 11.1 equations for predictive emission factors, an emission rate of 0.00046-lbs naphthalene/ ton hot mix asphalt or 0.138-lb naphthalene per hour was determined. It was then conservatively assumed that all emissions emanated from the top of the silo at the maximum production rate of 300 tons per hour at a volumetric flow rate of 225 cubic feet per minute. By assuming all odors are emitted from the top of the silo (highest point) and at a constant rate, a conservative approach for the analysis of potential off-site odor impact is assured. Under these conditions, a screening dispersion modeling analysis of naphthalene was completed. A summary of the results is included below, and the full report included as Appendix O. impacts.

AERSCREEN Summary - Naphthalene

Contaminant	CAS #	Emission Rate Potential (lb/hr)	Distance	Modeled 1-Hour Max Conc (µg/m3)	Modeled Annual Conc (µg/m3)	DAR-1 SGC (µg/m3)	DAR-1 AGC (µg/m3)	ATSDR Odor Threshold (µg/m3)
Naphthalene	00091-20-3	0.14	Fenceline	0.844	0.0844	7900	3	440
			Nearest Residence	0.025	--			

The modeled results by the independent consultant included site specific data such as local meteorological data and local terrain information to calculate dispersion of contaminants. Odor is assessed and compared to NYSDEC DAR-1 Short Term Guideline Concentration (SGC), Annual Guideline Concentration (AGC), and the ATSDR odor threshold. The distance modeled for odor is the proposed stack to fence line distance of 200-feet. The distance to the nearest residence is 650-feet. As stated earlier in the DEIS, these results are based off a prior location for the equipment and because of that the distance modeled to the fence line and residential receptor are shorter than the actual distance proposed at this location. For purposes of this document and to continue using the most conservative approach, the shorter distance will be evaluated to ensure there will not be any off-site odor

The model results indicate compliance with the DAR-1 SGC and AGC. In addition, the 1-hour concentration is well below the ATSDR threshold concentration. Again, these results are based on a conservative fence line distance of 200-feet. Therefore, odors from the proposed hot mix asphalt plant will not be detectable beyond the boundary lines of 5690 Camp Road in the Town of Hamburg or at the neatest receptor.

The Lead Agency in the Final Scoping Document requests modeling for hydrogen sulfide (H_2S) in addition to naphthalene. H_2S has a disagreeable odor often described as that of rotten eggs. The ATSDR has established a threshold for odor from H_2S that can be used to assess the potential for nuisance odors that may unreasonably interfere with the comfort and enjoyment of life and property. The ATSDR odor threshold is 450-$\mu g/m^3$. Below is a summarization of H_2S concentrations modeled at 200' for the drum dryer, storage silo, and customer loadout. The full report is found in Appendix G. All results at 200' are well below the ATSDR threshold, therefore hydrogen sulfide odors will not be detectable beyond boundary lines.

H_2S CONCENTRATION, DRYER

Results Contaminant	CAS #	Toxicity Rating	ERP[4] (lb/hr)	PTE (lb/hr)	EF (µg·hr/m^3·lb)	Conc (µg/m^3)	SGC (µg/m^3)	Meets Threshold? (Yes/No)
Hydrogen Sulfide	7783-06-4	M	0.016	0.016	2.70	0.04	--	n/a

Odor[5] Threshold (µg/m^3)	Meets Threshold? (Yes/No)
450	Yes

H_2S CONCENTRATION, SILO

Results Contaminant	CAS #	Toxicity Rating	ERP[4] (lb/hr)	PTE (lb/hr)	EF (µg·hr/m^3·lb)	Conc (µg/m^3)	SGC (µg/m^3)	Meets SGC? (Yes/No)
Hydrogen Sulfide	7783-06-4	M	4.38E-04	4.38E-04	6.18	2.71E-03	--	n/a

Odor[5] Threshold (µg/m^3)	Meets Threshold? (Yes/No)
450	Yes

H_2S CONCENTRATION, LOADOUT (VOLUME)

Results Contaminant	CAS #	Toxicity Rating	ERP[4] (lb/hr)	PTE (lb/hr)	EF (µg·hr/m^3·lb)	Conc (µg/m^3)	SGC (µg/m^3)	Meets SGC? (Yes/No)
Hydrogen Sulfide	7783-06-4	M	4.38E-04	4.38E-04	2646	1.2	--	n/a

Odor[5] Threshold (µg/m^3)	Meets Threshold? (Yes/No)
450	Yes

Lights

The applicant is not proposing any additional installation of lighting on the premises. The landlord and property owner has granted permission for use of the existing lighting on site, on an as-need basis. The current existing lighting system on site are three parking lot lights that are approximately 20’ in height with the except of the light pole in the rear of the property that is approximately 30’ tall. All parking lot lights are affixed to concrete light pole standards. There are also 11 commercial flood lights affixed to the industrial buildings within the property.

The current on-site lighting is sufficient to safely operate the proposed facility within nighttime hours when appropriate and not impact the surrounding community.

Mitigation Measures

Based upon the results of the noise analysis and NYSDEC guidance, the proposed project as is will not cause noise impacts upon the existing environment to surrounding sensitive receptors or non-industrial zoned properties. Current ambient noise levels at daytime and nighttime along with distance traveled all ensure the decibel noise level in the study will not be increased. No mitigation measures are required.

The results of the odor analysis, which modeled shorter property line distances than actual property line distances at 5690 Camp Rd., the proposed hot mix asphalt facility should not pose off-site odor impacts. According to the Town of Hamburg ordinance, general industrial district shall not disseminate odor onto any other zoned district. Based upon the odor results modeled the concentration within the property boundary is estimated to be well below published odor detection threshold. No mitigation measures are required.

The applicant is not proposing to install any additional lights within the property. The current and existing lighting on site is not to be modified by the proposed facility owner and is currently being used by the landlord. There are no mitigation measures required as the lighting on site is existing and accepted, also there will be no additions or modification made.

4.5.9 Impact on Human Health

Potential Impacts

The purpose of this section of the DEIS is to evaluate the potential human health impacts to nearby receptors such as, schools, recreation sites and parks, day cares, nursing homes, and residential homes associated with the proposed project. Particularly with respect to the potential impacts to air quality, odor, noise, and water resources per the Lead Agency's Final Scoping document.

For close to 50 years the United State Environmental Protection Agency has adopted significant environmental legislation which has greatly improved our air quality and protects urbanized areas from new developments. On June 11, 1973, the EPA put in place the New Source Performance Standards. This standard

specifically required hot mix asphalt plants to comply with strict air emission standards and install or update air quality control systems. Some of the strict air emission standards include ambient particulate matter concentration limits. PM emission limits have been established to protect human health and are regulated by federal and state government. NSPS requires air quality control systems such as state-of-the-art baghouses, which significantly lower the amount of PM generated by hot mix asphalt plants. The removal efficiency of these baghouse system is typically greater than 98+% of PM and in return the actual PM emissions are significantly lower than those allowed by the governing agencies, the EPA and NYSDEC.

Federal requirements applicable to HMA plants include 40 CFR 60 Subpart I, Standards of Performance for Hot Mix Asphalt Plants. New York State requirements applicable to HMA plants include 6NYCRR Subpart 201-5 State Facility Permits, Subpart 212-2 Allowable Emissions, and Section 212-4.1 Control of nitrogen oxides for hot mix asphalt production plants. These rules are intended to provide protection to human health and the environment The state permitting requirements include conditions to ensure compliance with prevention and control of air contamination and air pollution. These conditions include requirements for monitoring, record keeping, and reporting. This proposed hot mix asphalt plant must apply and receive approval from the NYSDEC to construct and operate the facility under the terms and conditions of an Air State Facility (ASF) Permit. Pursuant to section 4.5.2 of this Draft Environmental Impact Statement, Impact on Air, it is evident by the air modeling data summarized and presented in Appendix F, that the proposed facility will be in compliance with the 6NYCRR Subpart 212-2 allowable emissions, and with the particulate matter standard in 40 CFR 60 Subpart I by way of installation and operation of air pollution control equipment (e.g., high efficiency baghouse). Compliance with the allowable emissions concentrations has been demonstrated through air dispersion modeling, which assesses health-based impacts of emissions. Compliance will be verified by emissions testing within 60-days of the facility reaching steady state operation. In addition, compliance will be demonstrated by operation of a low NOx burner (LNB) to meet the 6NYCRR Subpart 212-4 requirements. To further meet or exceed EPA and NYSDEC standards for emissions the burner that was purchased by the applicant is a low NOx burner, which are designed to control fuel and air mixing at each burner in order to create larger more branched flames. Peak flame temperature is thereby reduced and results in less NOx formation.

It is important to note that in 2002, the EPA reviewed emissions from asphalt plants and determined that these facilities are not a major source of hazardous air pollutants and were delisted by the agency as such. Per the National Asphalt Pavement Association (NAPA), additional studies completed by various regulatory agencies verified that emissions from asphalt plants do not present an environmental or public health hazard. In an effort to show the little harm that comes from a hot mix asphalt plant, a study listed by NAPA compared emissions from an asphalt plant to emissions from other neighborhood businesses. The study concluded that low annual emissions from an asphalt plant are equivalent to or well below the VOCs emissions from one bakery operating for two weeks and 13 residential fireplaces over the course of one year. The results of this study demonstrated the comparable nature of asphalt facilities to other common community sources.

Fumes associated with asphalt material have also been studied within the United States. In December of 2000, the National Institute of Occupational Safety and Health (NIOSH) reported in the Health Effects of Occupational Exposure to Asphalt, determined there is insufficient evidence for an association between lung cancer and expose to asphalt fumes while paving. Although the proposed project does not include asphalt paving, the process of paving asphalt has a much stronger odor than the process of manufacturing asphalt. While manufacturing hot mix asphalt sometimes fumes from the heated material may emanate from the plant and although may be noticeable, these odors pose no danger to plant works or surrounding communities. It has been proven that detection of odor does not presume such odor is hazardous. By way of example, there are many natural and man-made odors that are noticeable, such as skunks and dairy farms but neither are harmful.

Furthermore, Neu-Velle LLC, the independent odor and emissions consultant, completed estimates of naphthalene emissions concentrations for comparison to odor thresholds. The report of findings is included in Appendix O. Naphthalene is a Polycyclic Aromatic Hydrocarbons (PAH) that is used as a surrogate for odor from the proposed facility based on detectability at low concentrations. In addition, Neu-Velle also modeled hydrogen sulfide (H_2S) as a surrogate for nuisance odor from asphalt manufacturing. H_2S is a low odor-threshold compound with a scent resembling rotten eggs. Using a conservative approach of worst-case conditions, the results demonstrated that fumes from the proposed facility would not be detectable beyond the property boundary or at nearest receptors.

The U.S. EPA has performed extensive research into environmental noise levels as a way to protect public health. EPA documented in their Noise Control

Act, the noise levels at which most people perceive, are annoyed, and may sustain hearing loss. A majority of the population will experience no or minimal hearing loss when exposed to sound levels equal to 73 decibels (dB) during regular workdays over a 40-year period. In order to protect human health, the EPA suggests that 70 dB is an adequate threshold below which hearing loss would not occur.

NYSDEC Policy "Assessing and Mitigating Noise Impacts" states that noise levels in non-industrial settings should probably not exceed ambient noise by more than 6 dB at the receptor. An increase of 6 dB is generally associated with an increase in complaints. The addition of a noise source in a non-industrial setting should not raise the ambient noise level above a maximum of 65 dB. This should be considered the upper end limit since 65 dB allows for undisturbed speech at a distance of 3 feet.

The decibel scale used to describe sound is a logarithmic rating system that accounts for the larger differences in audible sound intensities. The human ear responds to a very wide range of sound intensities. The scales accounts for human perception of a doubling of loudness as the equivalent of 10 dB increase. Sound pressure levels are expressed in a logarithmic scale and are not, therefore, additive (i.e., 30 dB plus 30 dB does not equal 60 dB). The average person cannot detect a difference of 1 dB, but a 5 dB change would be perceived by most under normal listening conditions. The table below gives decibel readings determined by the Center for Hearing and Communication for common everyday noise.

dB Level	Source of Sound
0	Softest sound a person can hear
10	Normal Breathing
20	Whispering at 5 feet
30	Soft Whisper
50	Rainfall
60	Normal Conversation
70	Freeway Traffic
80	Whistling Kettle
90	Tractor / Truck
110	Shouting in ear
120	Thunder

Based on the results of the noise analysis performed by Neu-Velle, the ambient sound level at surrounding receptors would not be affected by plant operation. Therefore, based on NYSDEC guidelines and the noise analysis, the proposed project would not impact human health in the area surrounding the site.

As identified in section 4.5.1 of the Draft Environmental Impact Statement, the manufacturing of asphalt material does not involve the use of water. Instead, for this process aggregate needs to be dried before mixing with liquid asphalt cement. The only time the facility will use water is in its moisture mitigation plan for the aggregate stockpiles. During the warmer months, where there is a lack of rainfall, sprinklers will be used to water roadways and aggregate stockpiles for dust control. The property owner will obtain a State Pollutant Discharge Elimination System (SPDES) permit for this project prior to full build. The SPDES program is designed to eliminate the water pollution and to maintain the highest level of water quality possible, thus ensuring public health, public enjoyment, and protection and propagation of fish and wildlife. The conditions of this permit will additionally ensure that stormwater, surface water and ground water discharge will not have a negative effect on the property site or nearby communities such as, Forest Glen neighborhood as referenced in the Final Scoping document. The SPDES permit will include conditions for monitoring surface and groundwater. By way of the SPDES permit, the property owner ensures that not only the HMA facility, but all property activities will not impact the Town's water resources.

Possible Mitigation

The U.S. EPA and NYSDEC have implemented rigorous regulations when it comes to protecting human health. There are many policies and standards regarding air quality, noise, odor, and water resources to ensure there are little to no impact to the surrounding receptors and the environment. Results from independent experts demonstrate that this proposed facility will be well below or within NYSDEC standards. There are no mitigating measures necessary as the health of the surrounding communities will not be affected.

4.5.10 Consistency with Community Plans

Potential Impacts

Zoning Code § 280-133.C(1)(b) prohibits any use in the M-3 District that "normally results" in dissemination of atmospheric pollutant, noise, or odor into any R, C, M-1, or M-2 District. Sponsor has obtained expert studies, all of which

prove with a reasonable degree of certainty in the study's respective field or prove as a result of permit issuance that the proposed use will not normally result in the dissemination of atmospheric pollutant(s), noise, or odor into the adjacent properties, which are zoned M2 and C2.

Project Sponsor encloses a New York State Department of Environmental Conservation ("NYSDEC") Air State Facility Permit ("Permit") as Appendix E to this DEIS. The applicant previously applied to the NYSDEC for an Air State Facility permit on August 13, 2020. The application was accepted on February 2, 2021, and a working copy ASF permit was issued. The working copy permit was based on a 150,000-ton per year production rate for a separate location in Niagara County. The facility owner is choosing to proceed with the site plan application in the Town of Hamburg as opposed to the prior location. The proposed location in the Town of Hamburg has far greater boundary distances than those in the preceding location. Other than the change in property location the equipment proposed and modeled for air emission is the exact same. For purposes of the Draft Environmental Impact Statement the same air calculations accepted by the NYSDEC will be used here as a conservatively high example of emissions since they will be calculated off the shorter setback distances. Greater distance from boundary lines means a greater distance from the project to surrounding receptors which generally lessen the off-site ambient air impacts. Upon completion of site plan approval by the Town of Hamburg Planning Board, the applicant will then revise the existing draft air permit application and resubmit to the NYSDEC.

The expert "Noise Survey and Assessment" prepared by Neu-Velle LLC is attached as Appendix N to this DEIS. The Noise Survey and Assessment concludes with a reasonable degree of engineering certainty that "the operation of the proposed plant would have no effect on the ambient conditions observed in the [area]," Hamburg Town Code § 175-2 will not be violated, and any increase in noise from the proposed plant will have no appreciable effect on the surrounding area. Noise Survey and Assessment section 6.0. In support of its conclusion, the Noise Survey and Assessment collected sound level measurements from an existing operating facility located in similar setting in Western New York and several locations near the proposed facility along Camp Road. *Id.* Sections 1.0, 4.0. The data demonstrates the noise levels produced by an existing, similarly situated—and larger—facility are less than ambient noise levels located approximate to the proposed facility. *Id.* Section 4.0. Therefore, the noise levels of the proposed plant would have no effect on existing ambient conditions.

The expert "Odor Analysis" prepared by Neu-Velle LLC is attached as Appendix O to this DEIS. The Odor Analysis concludes with a reasonable degree of engineer certainty that "odors from the [facility] should not be detectable outside the AL Asphalt property boundary, or at the nearest receptor. Odor Analysis p. 4. In support of its conclusion, the Odor Analysis relied on USEPA AP-42 Section 11.1, which contains well-accepted guidance and emission statistics from the United States Environmental Protection Agency that are specific to hot mix asphalt plants.

Together, the expert studies summarized and cited above—Appendix E, N, and O, each conclude that atmospheric pollutant(s), noise, or odor—if any—will stay within the confines of the property and not "normally" disseminate to adjacent properties that are zoned M2 and C2 in compliance with Zoning Code § 280-133.C(1)(b).

The project meets the requirements of the Camp Road Overlay District. The Camp Road Overlay District supplements the underlying zoning restrictions to provide for safe and orderly development. The Camp Road Overlay District does not replace the use regulations of the underlying zoning district.

Notably, the Camp Road Overlay District includes multiple M2 and C2 zoned parcels in addition to the property at issue, which is zoned M3—the Town's most intense zoning classification. The C2 or general commercial district, permits warehouses, storage and sales of solid fuel, and storage and sales of feed for livestock, among other intense uses. The M2 district, also known as the light industrial district, permits more intense uses like truck terminals, as well as manufacturing or laboratories conducted within a completely enclosed building. Meanwhile, the M3 or general industrial district permits, for example, the highest impact, or most intense uses, such as lumberyards, coal yards, railroad freight yards, petroleum storage, abrasives manufacturing, automobile assembly, heavy machinery manufacturing, metal casting, concrete products manufacturing, and—the project use itself—. processing or treatment of bituminous products.

In short, the Camp Road Overlay District includes numerous high impact uses—including the project use. Moreover, the project was used for concrete products manufacturing long before establishment of the Camp Road Overlay District in 2000. Indeed, the majority of the Camp Road Overlay District includes property in the Town zoned for industrial use (M2 and M3). The Camp Road Overlay District even excludes three particular uses otherwise permitted in the underlying C2 commercial zone but does not explicitly reference the M3 permitted concrete products manufacturing use. The C2 commercial properties are distinct

from the M3 zoned site, separated by a rail line on the west side of Camp Road and have coexisted for years. Consequently, "safe and orderly development" within the Camp Road Overlay district includes furthering M3 permitted uses including concrete products manufacturing and processing or treatment of bituminous products, which have existed harmoniously for years without unnecessarily restricting commercial growth.

The Comprehensive Plan denotes the use of the project site as "industrial." Comprehensive Plan map 2-2. The Comprehensive Plan sets forth the goal to "maintain existing industrial development to accommodate Town needs as well as adaptive re-use and expansion of existing industrial sites." Comprehensive Plan 3-1. While the Comprehensive Plan also notes that industrial "expansion" should continue in the northwest corner of the Town, Comprehensive Plan 4-8, the project site is existing industrial identified to be maintained in accordance with the Comprehensive Plan Goals set forth in Section 3.0. The Comprehensive Plan emphasizes the importance of commercial uses acting as a buffer to adjacent industrial uses. Comprehensive Plan VI-b. Again, the project is not an expansion of an industrial site, but rather a use of an existing industrially zoned property for a use that is expressly permitted by the Code. The project location has been used for concrete products manufacturing for more than 80 years.

Importantly, the proposed project will occur entirely within the Town of Hamburg, outside of the Village. The Village of Hamburg Comprehensive Plan 2012 Update (Village Plan), identifies adjacent property immediately north of the proposed facility to be used as "light industrial mixed use." Specially, the Village envisions "less-intensive, smaller-scale" industrial development. The proposed facility will only operate 2,500 hours per year and is smaller in scale than the historic Great Lakes Concrete Facility, as it comprises approximately 1-acre of the 53-acre property. Given the minimal footprint of the proposed facility, opportunities remain throughout the property for enhanced connectivity or implementation of other light industrial mixed use design features where appropriate. Additionally, the Village Plan calls for support of economic development, particularly existing and new retail, commercial, and industrial enterprises.

In summary, while the vision for the property is continued industrial use within the Town, the small footprint of the project provides additional opportunity for development/improvements that further Village goals of implementing a "light industrial mixed use" area adjacent to the property.

April 4, 2023 Revision

In the Draft Environmental Impact Statement for the proposed hot mix asphalt plant at 5690 Camp Road, Hamburg, New York, dated August 5, 2022, the existing Comprehensive Plan was fully addressed.

It was noted that the Camp Road Overlay District includes multiple M-2 and C-2 zoned parcels in addition to the property at issue which is zoned M-3-the Town's most extensive zoning classification. The M-3 or General Industrial District permits, for example, the highest impact, or most intense uses, such as lumber yards, coal yards, railroad freight yards, petroleum storage, abrasives manufacturing, automobile assembly, heavy machinery manufacturing, metal casting, concrete products manufacturing and the project use itself—processing or treatment of bituminous products.

We fully believe that the August 5, 2022 DEIS was fully complete and answered each and every relevant question necessary.

It is acknowledged that over three months after the submission of the DEIS, the Town adopted a New Comprehensive Plan. While the New Comprehensive Plan encompasses substantially the same goals as the prior Comprehensive Plan, it does make reference to "remove industrial zoning along Camp, especially near the Village". It proposes developing a new zoning district that compliments the Village and provides opportunities to re-develop older industrial/commercial areas of the Town.

While this language is incorporated in the New Comprehensive Plan, the Comprehensive Plan recognizes that even with a change of zoning, the current industrial/commercial uses in situation, the Applicant continues to be allowed to operate the existing concrete plant and since no zoning change has yet been made, continue on its application for AL Asphalt Corporation, an acknowledged approved use within its current zoning district.

While a Comprehensive Plan is a long range overview which guides the Town in terms of its zoning and land use, a good Town Comprehensive Plan must also respect existing uses and how transitions are to come about. A thorough Comprehensive Plan takes into account not only strong and healthy neighborhoods and hamlets, but also helps and encourages a strong economic base that leads to a sustainable future.

AL Asphalt Corporation is proposing to construct and operate a hot mix asphalt plant on a 53 acre site presently zoned M-3, the highest level of industrial zoning within the Town of Hamburg, which was an expressly permitted use in that zoning district, at the time of the application by AL Asphalt, June 4, 2019 through January 2023, without a special use permit.

Even if a proposed change does come about in the current zoning of this property, it will remain a non-conforming use which will allow the continuation of the concrete plant. The proposed asphalt plant will utilize less than an acre of the footprint of 160 feet by 200 feet within the 53 acres. The operation will essentially be the same as it currently being operated by the concrete plant and therefore have no substantial change or impact on the surrounding areas and communities. In fact, there are no abutting residential areas and the 53 acres add substantial buffer to the surrounding uses.

As a result, while the New Comprehensive Plan seeks certain zoning changes, it recognizes current utilizations and certainly State Law recognizes non-conforming uses.

It is interesting to note that while asphalt is used extensively throughout the Town, the Comprehensive Plan makes no provision for zoning within the Town to allow its production.

The elimination of approved zoning throughout the Town for such a high use product is certainly questionable and not in conformance with the goals outlined in the Comprehensive Plan.

The newly adopted Comprehensive Plan was reviewed in its entirety for the purpose of addressing 4.5.10, Consistency with Community Plans, including but not limited to the following sections:

1. Section 01, Introduction, paragraph C. - Three other studies have been incorporated into this Plan, including the Gateway Revitalization Design Project. You need to reference this Plan as it is part of the Comprehensive Plan.
2. Section 02, subsection A., Neighborhoods/Hamlets map (references this area as “Village transition”)
3. See Section 02, see “Village Transition Areas” section.
4. See Section 02, “major Roadway corridors”, “Camp Road” – see Key Issues/Objectives and Recommendations
5. See Section 02, subsection C. “Protecting Our Environmental Assets”, Key Issues/Objectives

6. See Section 02, subsection E. "Creating an Economically Sustainable Future", map on Commercial /Industrial Areas
7. See Section 02, subsection E. "Creating an Economically Sustainable Future", Key Issues
8. See Section 02, subsection E. "Creating an Economically Sustainable Future", Recommendations
9. See Section 02, subsection G. "How We Regulate and Control", Zoning Opportunities Map and Other Zoning/Land Use Opportunities

Possible Mitigation

The proposed facility is as set forth above, the project meets the Goals and Objectives of both the Town and Village Comprehensive Plans. Based upon expert studies noise, odor and air quality will not impact surrounding properties. No mitigation measures are required.

4.5.11 Consistency with Character of Community or Neighborhood

Potential Impacts

The project is an expressly permitted use and, as set forth above, complies with Town Zoning Code § 280-133.C(1)(b) prohibiting any use in the M-3 District that "normally results" in dissemination of atmospheric pollutant, noise, or odor into any R, C, M-1, or M-2 District. The project location has been used for concrete products manufacturing for more than 80 years. The parcel is located along a heavily traveled state road, in a commercial corridor and is surrounded by commercial properties to the north and east and industrial properties to the south and west. The nearest residence is approximately 950 feet away. No impacts to the existing uses in the surrounding neighborhood are anticipated.

Existing community and emergency services include Scranton Volunteer Fire Company, the Hamburg Police Stations, both Town and Village. The existing operations at the project site are currently being serviced by this fire department and police departments. The DEIS identified two local schools and no parks or recreation areas within 0.5 miles of the project property, DEIS Section 4.4. The DEIS also evaluated impact to human health, including receptors like schools and parks, DEIS Section 4.9. There, the DEIS concluded that no mitigation measures are necessary, in light of existing EPA and DEC regulations and because the proposed facility falls below certain DEC thresholds. Therefore, there will be no impacts to community services such as fire and police protection, schools, parks, or recreation.

DEIS Section 4.5.4 provides a response to this section, which contains visual images of each location identified above. In summary, the project site has wooded wetlands located to the west of property which acts as a visual buffer to the residential and commercial properties. Along with vegetative screening the property features buildings that range from 20 feet to 90 feet in height and a cell tower 250' above grade. The hot mix asphalt plant would also be shorter in height than the existing cellular tower standing at 250 feet and the existing storage building that is 90 feet in height, both of which do not have active screening. The proposed hot mix asphalt plant's storage silos are the tallest component to the plant and the only aspect of the plant that would be visible from limited views. The lower view of the plant is completely screened due to the industrial buildings on site, the existing vegetative greenery, and the proposed position of the facility. The significant set back and elevation change of the property site were considered in the layout process to limit visibility of the proposed project. The height of existing structures and significant elevation changes from the property line to public roadways will make the proposed facility difficult to perceive. Further, no identified aesthetic resource are within the project location.

Possible Mitigation

The project is an expressly permitted use the complies with further directive contained with Town Zoning Code § 280-133.C(1)(b) regarding dissemination, the project poses no significant adverse environmental impact to community services or human health, and the project does not negatively impact visual resources/aesthetic resources. No project modification is therefore required. Nonetheless, project sponsor could paint the facility silos as directed by the Town or add additional vegetation. The proposed project does not require any additional community services, therefore no mitigating measure are required.

4.5.12 Impact on Solid Waste Management

Potential Impacts

The New York State Department of Environmental Conservation has a solid waste management plan called Beyond Waste: A Sustainable Materials Management Strategy. The goal of NYS's Beyond Waste plan is to reduce the amount of waste New Yorkers dispose by preventing waste generation and increase reuse, recycling, composting and other organic material recycling methods. 6 NYCRR Section 360.12 applies to certain wastes as effective

substitutes for commercial products or raw materials. Section 360.12(C.) (3)(X) states asphalt pavement and asphalt millings received at an asphalt manufacturing facility for incorporation into an asphalt product ceases to be classified as waste. Dilapidated asphalt roads and/or asphalt millings may be given back to asphalt material supplier to recycle and reuse for future uses. The utilization of Reclaimed Asphalt Products (RAP) is not only cost effective but also environmentally responsible. The proposed hot mix asphalt plant would comply with NYSDEC Beyond Waste plan because it would reuse and recycle materials which would reduce waste and preserve the environment.

Possible Mitigation

No mitigation measures are required as there is no solid waste generated from the proposed project. The NYSDEC under 6 NYCRR Section 360.12 specifically states asphalt pavement and asphalt millings cease to be classified as waste. The proposed hot mix asphalt plant will comply with the State's solid waste management plan through the use of recycling materials.

4.5.13 Impact on Climate Change

Potential Impacts

Greenhouse Gases (GHG) from human activities are the most significant source of observed climate change. As GHG emissions increase they build up in the atmosphere and warm the climate which can lead to changes in the atmosphere, land, and oceans. Many major GHGs stay in the atmosphere for tens to hundreds of years after being released and their effects on the climate extend over a long period of time, which can affect both present and future generations. Due to the impacts that GHGs have on the atmosphere, NYSDEC adopted, on January 1, 2020, the Climate Leadership and Community Protection Act (CLCPA). The sole purpose of this policy is to reduce GHG emissions in NYS. By enacting this program New York State plans to reduce GHG emissions by 40% below 1990 levels by 2030, and 85% below 1990 levels by 2050.

In order to ensure that the CLCPA guidelines are being followed state agencies must consider whether such decisions are inconsistent with or will interfere with the attainment of the statewide GHG emission limits prior to issuing any air permits. Although CLCPA review is independent from reviews, such as 6 NYCRR Part 212 for air quality, it is required for the applicant's air permit.

An independent analysis for impacts of climate change from GHG emissions was performed by Neu-Velle for A.L. Asphalt Corporation's counterflow drum mix plant. The full report can be found in Appendix P. The following criteria were used to determine anticipated climate change impacts:

- Plant construction and design
- Operating limits
- Burner efficiency
- Moisture mitigation plan

The design for the proposed facility is for a counterflow drum mix plant. An alternative plant design would be for a batch mix plant. Using EPA AP-42 emission factors, emissions from each design can be compared.

GHG Emissions Based on Plant Construction[1]

Plant Type	CO_2[2] (lb/ton HMA)	CH_4[2] (lb/ton HMA)	Tons HMA/ Year	CO_2e[3] (tons/year)
Batch Mix, NG-Fired	37	0.0074	303,600	5711
Batch Mix, #2 Oil-Fired	37	0.0074		5722
Drum Mix, NG-Fired	33	0.012		5162
Drum Mix, #2 Oil-Fired	33	0.012		5162

[1]GHG emissions are based on a 1,012-hour per year operating scenario, assuming a 92-day construction season and 11-operating hours per day.
[2]Source: AP-42 Chapter 11.1.
[3]CO_2e is based on 6NYCRR Part 496.5.Global Warming Potentials of 1, 84, and 264 for CO_2, CH_4, and N_2O, respectively.

The above table indicates that GHG emissions for a counterflow drum mix, natural gas-fired plant will produce 549 tons less per year of CO_2e (carbon dioxide equivalents) than those of a batch mix plant, irrespective of fuel. [Note - carbon dioxide equivalents account for carbon dioxide and other greenhouse gases.]

Plant operating limits play a strong role in limiting GHG emissions from hot mix asphalt plants. Asphalt manufacturing facilities only operate when there is demand for material. Asphalt products are produced at a temperature around 275 – 300 degrees F and can only be used in paving activities when the ground temperature is 40 degrees F and rising. Since Western New York experiences several months of temperatures below freezing paving contactors are not operational during those periods and asphalt plants get winterized. The facility is

winterized typically from November to Mid April. When the proposed project is operational, business hours will be 8 hours each day. If night operations are required, the plant will not operate during the day. A yearly production limit of 500 hours per 12-month period will be adopted as an enforceable air permit condition. The table below summarizes the reduction in CO2e by limiting plant operations to 500 hours per year vs. a full year at 1,012 hours. The total reduction of GHG emissions are 2,615 tons CO2e per year for the proposed facility.

GHG Reductions from Plant Operating Limits

GHG	Emission Factor (lb/ton)	Tons @ 1,012-hpy	Tons @ 500-hpy	GWP	CO2e @ 1,012-hpy (tons)	CO2e @ 500-hpy (tons)	GHG Reduction (tpy)
CO2	33	5,009	2,475	1	5,009	2,475	
CH4	0.012	1.8	0.9	84	153	76	
N2O	0.00015	0.02	0.01	264	6	3	
CO2e					5,168	2,554	2,615

Notes:
[1]Source: AP-42
[2]Source: 6NYCRR Part 496.5
[3]Based on 92-day construction season (June – August) and 11-operating hours per day

Regular maintenance to the burner of a hot mix asphalt plant is top priority not only for efficiency of the operations but also to limit GHG emissions. Performing annual tune-ups (or more frequently if necessary) as required under 6NYCRR Section 212-4.1(a)(a), will maintain optimum burner efficiency. Compliance will be demonstrated by maintaining records of annual tune-ups. Based upon results calculated by Neu-Velle, a properly tuned burner runs at 85% efficiency, while a lack of maintenance puts burner efficiency around 60%. Results for burner efficiency are calculated in Appendix P and state that the 60% burner efficiency produces a total of 2,197 tons per year of GHG emissions versus 85% efficiency that produces 1,757 tons per year. Therefore, the properly maintained burner system allows for a net reduction of 440 tons per year of GHG emissions.

In addition, the air permit will include a Moisture Reduction Plan (see Appendix F) that will reduce GHG emissions. The Moisture Reduction Plan specifies that aggregates will be stockpiled on site on a declining grade that will facilitate drainage. The aggregate will also be covered when not in use. Moisture will be monitored by a high-quality moisture meter. Aggregates from the top of the pile will be used first as it will be the driest. Target level of moisture in the aggregates is 6% but with the measures used above the anticipated moisture level is 4%. By reducing the percentage of moisture in the aggregate the amount of fuel

used to dry the material is reduced. A net reduction of 176 tons per year of CO2e will result from the Moisture Reduction Plan per attachment C in Appendix P.

Plant construction/design, operating limits, burner efficiency, and moisture mitigation plan all play a vital role in the reduction of GHG emissions thus limiting the impacts of climate change. The below chart is a summary of GHG emissions together with climate change mitigation measures that result in a total net reduction of 5,122 tons of GHG emissions per year.

Summary of GHG Reductions

Criteria	Potential GHG[1] Emissions (tons CO2e/Year)	Actual Anticipated[2] GHG Emissions (tons CO2e/Year)	Net Reduction (tons CO2e/Year)
Plant Construction & Design[3]	9256		4945
Operating Limits		2554	
Burner Efficiency		1757	
Moisture Mitigation	293	117	176
Electrification	Insignificant	4.7	1.3
HMA Alternatives	n/a	n/a	n/a
Total:	9555	4433	5122

Notes:
[1]Based on 1012 operating hours.
[2]Based on 500 operating hours.
[3]Includes plant construction, upstream, and downstream activities.

Possible Mitigation

As determined above the type of facility chosen, counterflow drum mix plant as opposed to a batch mix plant, limited operating hours, annual burner maintenance, and moisture mitigation plan effectively mitigate GHG emissions. With all criteria in place the reductions of GHGs are over 5,000 tons of per year. This significantly limits the concentration of GHG emissions in the atmosphere that effect our environment and lead to climate change.

5.0 Evaluation of Mitigation Measures

A.L. Asphalt Corporation is proposing to construct a hot mix asphalt plant in the Town of Hamburg, Erie County. The Town of Hamburg Planning Board has rendered a positive declaration regarding this project due to potentially significant adverse environmental impacts. Several independent consultants performed studies based upon the Final Scope finalized by the Town of Hamburg Planning Board, as the Lead Agency. Each section is described in further detail in section 4 of the DEIS and the appendices. The following chart summarizes the results of identified impacts along with appropriate mitigation measures for the proposed facility by independent professionals.

Of the thirteen subsections of Section 4, there are two sections with mitigating measures. First is for section 4.5.2, air quality and the second is for section 4.5.4, aesthetic resources. There were no identified air quality impacts by the NYSDEC based upon air emission calculations, but the mitigation measures are requirements enforced by the NYSDEC in the ASF permit. These requirements ensure that there are no impacts from the proposed facility upon full build and in the future. The proposed facility is partially visible from the main roadway and although this facility is not proposed in a location that contains federal, state, or local scenic or aesthetic resources the partial view can still be mitigated by use of vegetative screening and/or camouflage paint colors.

Summary of Potential Impacts and Mitigation Measures

DEIS Section	Concern	Identified Impact	Mitigation Measure
4.5.1	Surface Water, Ground Water Resources, And Flooding	1. No impacts were identified	1. SPDES permit prior to full build of facility

Summary of Identified Impacts and Mitigation Measures

DEIS Section	Concern	Identified Impact	Mitigation Measure
4.5.2	Air Quality	1. No impacts were identified (NYSDEC has requirements for permit holders that act as mitigation measures to ensure there are no impacts).	1. Maintenance of high efficiency baghouse and Low NOx burner. 2. Limitations of tonnage production per year. 3. Dust mitigation through NYSDEC moisture mitigation plan. 4. Pave truck traffic roadways on-site for further dust mitigation.
4.5.3	Plants and Animals	1. No impacts were identified.	1. No mitigation measures required.
4.5.4	Aesthetic Resources	1. Partially visible from main roadway.	1. Additional vegetative screening 2. Camouflage paint

Summary of Identified Impacts and Mitigation Measures

DEIS Section	Concern	Identified Impact	Mitigation Measure
4.5.5	Aesthetic Resources	1. Partially visible from main roadway.	1. Additional vegetative screening 2. Camouflage paint
4.5.6	Historic and Archeological Resources	1. No impacts identified.	1. No mitigation measures required.
4.5.7	Energy	1. No impacts identified.	1. No mitigation measures required.

Summary of Identified Impacts and Mitigation Measures

DEIS Section	Concern	Identified Impact	Mitigation Measure
4.5.8	Noise, Odor and Light	1. No impacts identified.	1. No mitigation measures required.
4.5.9	Human Health	1. No impacts identified.	1. No mitigation measures required.

Summary of Identified Impacts and Mitigation Measures

DEIS Section	Concern	Identified Impact	Mitigation Measure
4.5.10	Consistency with Community Plans	1. No impacts identified.	1. No mitigation measures required.
4.5.11	Consistency with Character of Community or Neighborhood	1. Partially visible from main roadway.	1. Additional vegetative screening 2. Camouflage paint

Summary of Identified Impacts and Mitigation Measures

DEIS Section	Concern	Identified Impact	Mitigation Measure
4.5.12	Solid Waste Management	1. No impacts identified.	1. No mitigation measures required.
4.5.13	Climate Change	1. No impacts identified.	1. No mitigation measures required.

6.0 Alternatives to be Evaluated

1. *No Action Alternative*

Under a "no-action" alternative the proposed hot mix asphalt facility would not be built, and the land would remain in its current state for another industrial user to develop through the property owner. The current landowner or new potential tenant under the existing zoning could seek approval for any of the following:

- Lumber yard and coal yards
- Railroad freight yards
- Concrete manufacturing or cement mixing plants
- Storage of petroleum and petroleum products
- Manufacturing of abrasives
- Automobile assembly and fabrication
- Manufacturing of heavy machinery
- Processing or treatment of bituminous products
- Metal casting and foundry products
- Adult uses

Under the no action alternative, the demand for hot mix asphalt products for the Town of Hamburg, surrounding towns/villages, and local contractors would be met by use of existing hot mix asphalt suppliers. These suppliers are located 13 – 30 miles from the proposed site. Below is a table of HMA plants located within Erie County. The proposed project location is in an area which does not currently have an asphalt plant within a 10-mile radius. The demand for asphalt production would not change, and the existing hauling distances necessary from existing plants would continue to increase fuel consumption and increase GHG emissions. By decreasing hauling distances by way of a more centrally located plant in the market area, there is decrease in fuel consumption and decrease in truck emissions, which ultimately results in a decrease in greenhouse gas emissions. Furthermore, if the project did not occur the aesthetic aspect of the project site would remain the same, which currently has various warehouses, storage silos, and construction materials manufacturing operations.

Hot Mix Asphalt Suppliers in Erie County		
Supplier	**Location**	**Distance from proposed Facility (miles)**
New Enterprise Stone & Lime Co. - Cheektowaga	500 Como Park Blvd. Cheektowaga, NY 14227	15
County Line Stone	4515 Crittenden Road Akron, NY 14001	30
Gernatt Asphalt Products Inc. -Collins	13870 Taylor Hollow Rd. Collins, NY 14034	18
Gernatt Asphalt Products Inc. - Springville	13650 Benz Road Springville, NY 14141	20
New Enterprise Stone & Lime Co. – Clarence	8615 Wehrle Drive Clarence, NY 14221	24
Gernatt Asphalt Products Inc. – West Seneca	1655 Union Road West Seneca, NY 14224	13

2. Alternative Technology

A relatively new product in the asphalt market is Warm Mix Asphalt (WMA). This type of asphalt is mixed with temperature reductions of 50 to 75 degrees Fahrenheit. WMA is produced using the same methodologies as conventional hot mix asphalt with the benefit of cutting fuel consumption. WMA is produced by adding zeolites, waxes, asphalt emulsions or water prior to mixing to achieve lower viscosity. Manufacturing companies have developed WMA equipment which adds a component to the existing plant that injects and mixes zeolites, waxes, asphalt emulsions or water into the liquid asphalt. Reducing the viscosity of liquid asphalt allows for the asphalt mixture to be handled at lower temperatures. As a result of lower temperatures, energy consumption is reduced as well as plant emissions.

The use of WMA is common is outside of the United States and is more frequently used in European countries. It is not yet widely used in the United States as there is ongoing research to evaluate the durability of WMA compared to HMA. Due to this, the demand for WMA products is too low to warrant a dedicated WMA facility. HMA plants can be easily modified to WMA plants once demand warrants. This demand would most likely be created by the NYS Department of Transportation and the County of Erie, as these are the largest customers of HMA products today. The proposed plant can manufacture warm mix asphalt products once there is an established market demand.

3. Alternative Layouts

The proposed facility layout was decided and arranged in its current formation to minimize the projects impacts to the surrounding receptors and other tenants on site. The current layout allows for the structure to be partially screened at all times by existing warehouse buildings and foliage surrounding the property. The location chosen within the site is also the most central location within the 53-acre parcel, thus ensuring the greatest distance between the proposed project and the boundary lines. The specific placement of the hot mix asphalt plant in the rear of the property is to place the equipment near similar components such as the cement storage silos. In doing this it would allow for less of a negative visual impact for the general public since the existing components have existed for over a decade without complaint. Existing aggregate stockpiles on site are also situated in the near of the property. They cannot be seen from boundary lines and are further blocked by existing warehousing, which also acts as a buffer from fugitive dust. If the site plan of the proposed plant were to be moved, it would risk a greater impact to aesthetics and air quality as the facility would be closer to boundary lines.

4. Alternative uses of the site

The proposed project is an expressly permitted use based upon the Town of Hamburg M-3 General Industrial District. Included in permitted uses is the processing or treatment of bituminous products. Asphalt is also known as bitumen, which is a sticky, black, high viscous liquid or semi- solid form of petroleum that holds aggregate together. The proposed facility heats, dries, and mixes aggregates, bitumen, and sand to form hot mix asphalt. Because this is a permitted use, if the proposed facility was not built that does not necessarily mean that another potential tenant or landowner couldn't propose a project that processes or treats bituminous products.

Other current allowable uses in the General Industrial District such as coal yards, railroad freight yards, and various manufacturing operations could potentially result in adverse environmental impacts to the property or surrounding receptors. The current zoning also allows for "adult uses" although this use would not pose environmental impacts but could adversely affect the culture of the neighboring village properties. Below is a list of other allowable uses the property could be developed for:

- Concrete manufacturing or cement mixing plants
- Storage of petroleum and petroleum products
- Manufacturing of abrasives
- Automobile assembly and fabrication
- Manufacturing of heavy machinery
- Processing or treatment of bituminous products
- Metal casting and foundry products

To date the applicant has not proposed any other use for this property other than the current site plan application at the Town of Hamburg Planning Board for approval of a hot mix asphalt facility.

5. Alternative Sites

In order for alternative sites to be considered under SEQR, the applicant must own or own a right to use the alternative site. However, there are no alternate site locations that are owned or controlled by A.L. Asphalt Corporation. No alternative sites are available for the relocation of this project.

7.0 Cumulative Impacts

Cumulative impacts occur when multiple actions affect the same resources. Impacts occur when the incremental or increased impacts of an action, are added to other past, present, and reasonably foreseeable future actions. In the past, the project site consisted of two concrete cement plants (one interior, one exterior), concrete block plant, concrete precast operations, and concrete storage silos. Due to several factors, including a fundamental change in the type of building materials used in the industry, the manufacturing of the concrete masonry and hardscape products no longer occurs. However, one of the redi-mix concrete plants is still in operation and operates based upon market demand. Precast concrete products can still be produced, again, based upon market demand.

In order to operate, produce, and deliver various material the property maintained, on average, two hundred (200) truck trips daily. These truck trips included aggregate drop-offs, cement tankers, concrete deliveries, block deliveries, precast concrete deliveries, service trucks, employee vehicles, and various customer vehicles. As of today, the exterior cement plant and the block plant operations do not exist. The remaining operations on site that are owned by the applicant, A.L. Asphalt Corporation, is the interior cement plant, and various concrete block inventory. The only same resources the concrete plant utilizes that the proposed HMA plant utilizes are various stone aggregate. The concrete operations do not entail fuel usage as the proposed HMA facility would and the concrete plant requires water for mixing, which the HMA plant does not. With both operations the applicant does not need any additional utilities, public services, or roadways because what is existing was built for operation beyond what will be used at the property site. Based upon the capacity that was once maintained at this property, lowering of the anticipated truck trips, and other resources (water, sewer, electricity etc.) on a cumulative basis is significantly less than previous operations at the project site, and its operations at that time were not a detriment to the community. Therefore, the future foreseeable actions with approval of the proposed project will not have any adverse cumulative impacts.

It is acknowledged that Brenner (Brenner) Oil Company has a rail loading facility on the site and does have an active Air Facility Registration authorized by the NYSDEC. Brenner Oil Company has been operating on the site since 2014 and continues to operate as the market demands. The Facility transloads product from rail cars that are operated by Buffalo Southern Railroad, which has operated the rail facility on the site for decades. The Facility is simply a transfer operation, unloading product from rail cars to tanker trucks as customers demand. The final customers are within the western NY region and by rail is the most economical and effective way to move product to keep it accessible for

consumers. Brenner Oil Company, at its peak operations, unloaded 5-6 tanker trucks per day. This amount of production, and the use of 5-6 tanker trucks per day would have little to no cumulative impact on the existing and past operations of the project.

8.0 Growth Inducing Impacts

This section of the DEIS consists of a discussion of growth-inducing aspects of the proposed facility. Growth inducement is a secondary impact that may encourage or lead to further increases in population or business activity. Recognizing growth inducement is important because significant growth may require the need for additional sewer, water, and other public services. According to the SEQRA handbook published by the NYSDEC, examples of growth inducement include the following:

- The extension of public utilities such as sewer and water into an agricultural area previously not serviced by these utilities may encourage non-farm development and undermine the area's agricultural base.
- The construction of a new prison in a rural community may result in the construction of single-family homes and support industries or businesses to serve the prison staff.
- The construction of a new interchange on a limited access highway may cause the construction of fast-food establishments, motels, and gasoline stations catering to highway travelers.
- The expansion of an existing sewage treatment plant may result in the construction of additional single-family homes and businesses within the plant's service area.

The project site is located within an industrial developed portion of the Town that is presently served by full complements of utilities, which have the adequate capacity within the project site. It is not anticipated that the project will require expansion or off-site infrastructure improvements. The proposed project is being located in response to demand of asphalt materials as a result of existing developments and increased growth in the surrounding areas. It is not anticipated that the proposed hot mix asphalt plant will induce additional growth in the Town of Hamburg, but rather to better serve the growth that is occurring. In recent years, there have been several residential and commercial developments constructed throughout the town. The proposed facility can help meet the needs of developers by way of driveway and parking lot materials.

Industrial land in the Town of Hamburg is minimal and located in close proximity to the proposed site. There is additional M-2 industrial zoning across the street from the proposed project site on Maelou Drive, therefore it is unlikely the project will induce additional industrial development, as the needs for industrial land are being met within these areas. The project will not drive away other businesses and residential owners in the area because, as presented herein, there are no anticipated environmental impacts to the project site or surrounding receptors. The proposed plant will provide a necessary resource for both existing and future development, with less intense impacts on the

environment due to expected decrease in mobile source impacts from utilizing a plant located closer in proximity.

9.0 Potential Impacts Raised During Scoping Determined to be Insignificant

The Lead Agency is responsible for eliminating consideration of concerns that have been identified during the scoping process as irrelevant or insignificant. The following has been deemed irrelevant or insignificant because they are not legally relevant to SEQR, they are not environmentally significant, or they were addressed prior to the scoping process.

- Agricultural Resources – This project site is not included in an Agricultural District in Erie County. This project site is zoned industrial and has not been used for agriculture in the recent past. There is not much green space or soil on this property site, as most of the property land has been disturbed. For these reasons, the project will not have an impact on agriculture resources.
- Property Values – Surrounding property values of the proposed project is not a legally relevant aspect of an environmental review. However, the applicant had a property value analysis completed by GAR Associates in 2019 that resulted in no decrease in property values from the proposed project, this analysis was turned over to the Lead Agency prior to the scoping process. Based upon the results, this project will not impact the surrounding properties and their values.
- Impacts to 18 Mile Creek CEA – The proposed project site is not located on or close in proximity to 18 Mile Creek which is designated a New York State Critical Environmental Area, therefore the facility will not impact 18 Mile Creek.
- Land and Geological Features – This process doesn't include aggregate blasting or mining. The proposed project consists of prefabricated components that come together to form the plant. As stated, the land at this property site has previously been disturbed. The project will not have an impact on land or geological features.

Figure 1

Site Location Map

A.L. Asphalt Corporation

Hot Mix Asphalt Plant

Site Location

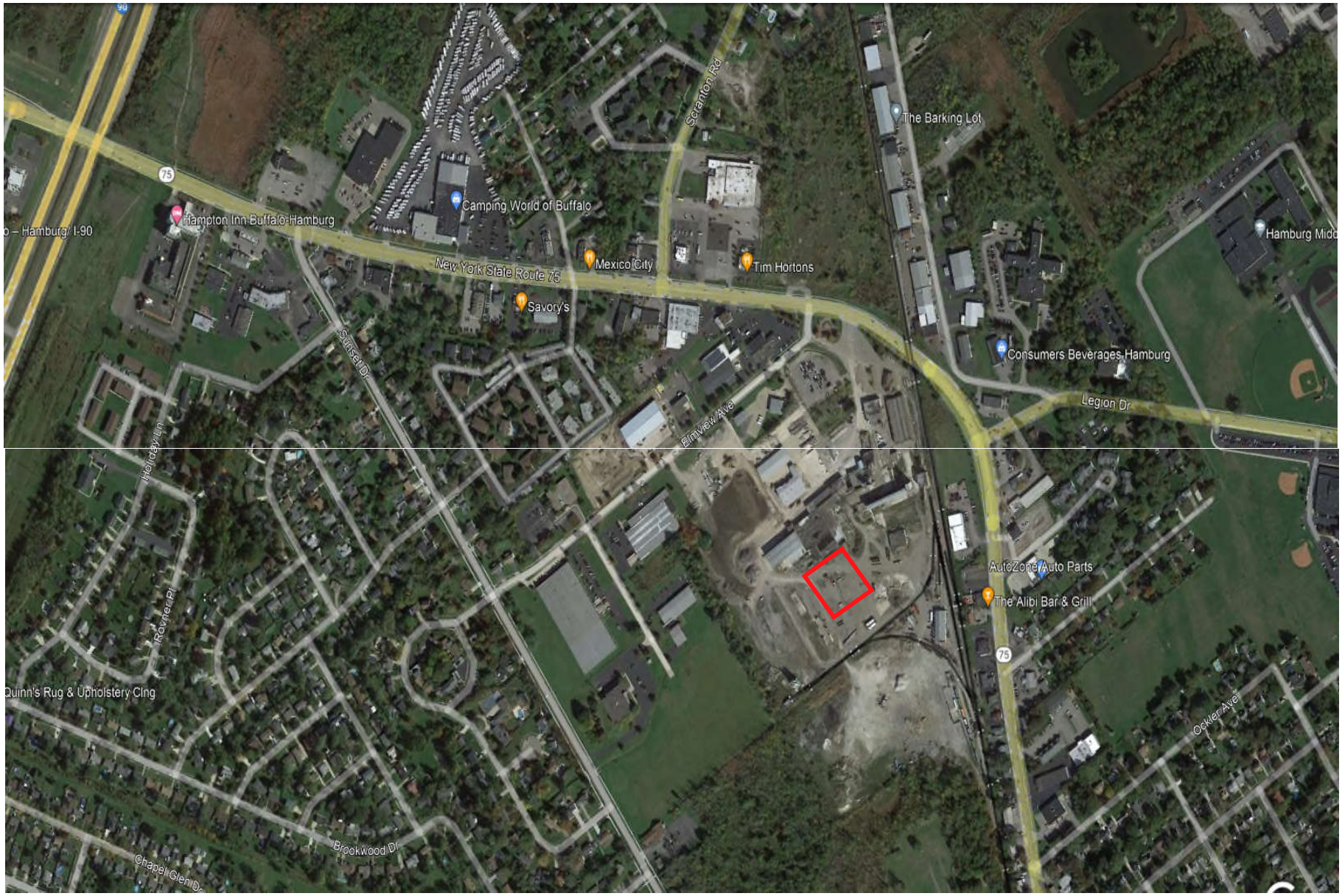
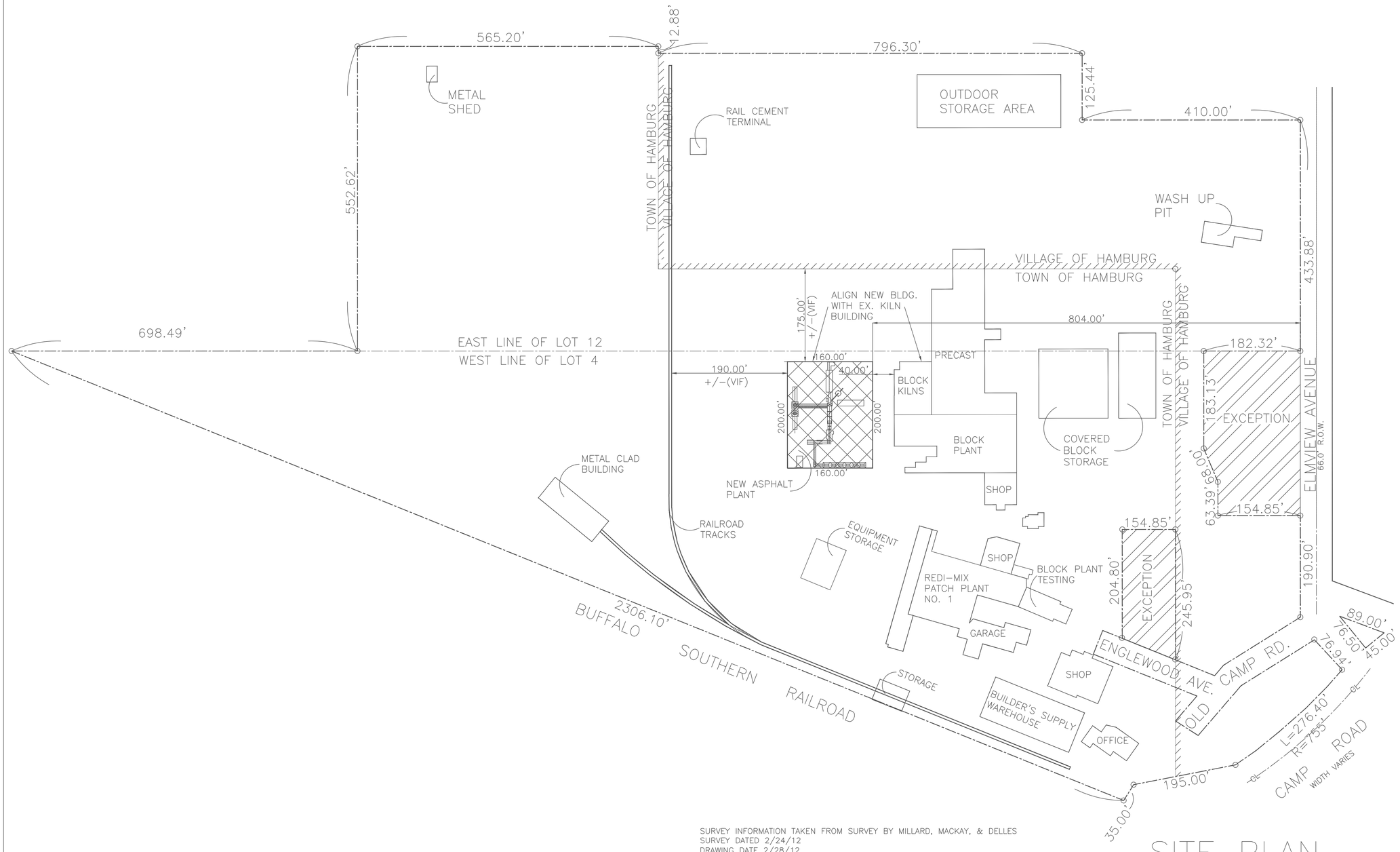


Figure 2

Site Plan



SURVEY INFORMATION TAKEN FROM SURVEY BY MILLARD, MACKAY, & DELLES
SURVEY DATED 2/24/12
DRAWING DATE 2/28/12
PART OF LOT 3,4,11 & 12 TOWNSHIP 9, RANGE 8 OF THE HOLLAND LAND COMPANY'S SURVEY
ERIE COUNTY, NEW YORK
SBL NO. 182.16-3-21.1

SITE PLAN

SCALE: 1"=90'-0"

General Notes

PLAN NORTH

TRUE NORTH

BMG HOT MIX ASPHALT COUNTERFLOW DRUM PLANT 300 TPH

SITE PLAN

No.	Revision/Issue	Date

Firm Name and Address
GEORGE H. REINHARDT, JR.
ARCHITECT
9019 CAROLINE LANE
COLDEN, NY 14033
(716)-725-8417
GEORGER3320@HOTMAIL.COM

Project Name and Address
BMG HOT MIX ASPHALT COUNTERFLOW
DRUM PLANT 300 TPH
5690 CAMP ROAD
HAMBURG, NEW YORK 14075

OWNER
AL ASPHALT CORPORATION
100 STRADTMAN STREET
CHEEKTOWAGA, NEW YORK 14206

Project	Sheet
1908	SP-1
Date: 5/31/2019	
Scale: 1"=90'-0"	

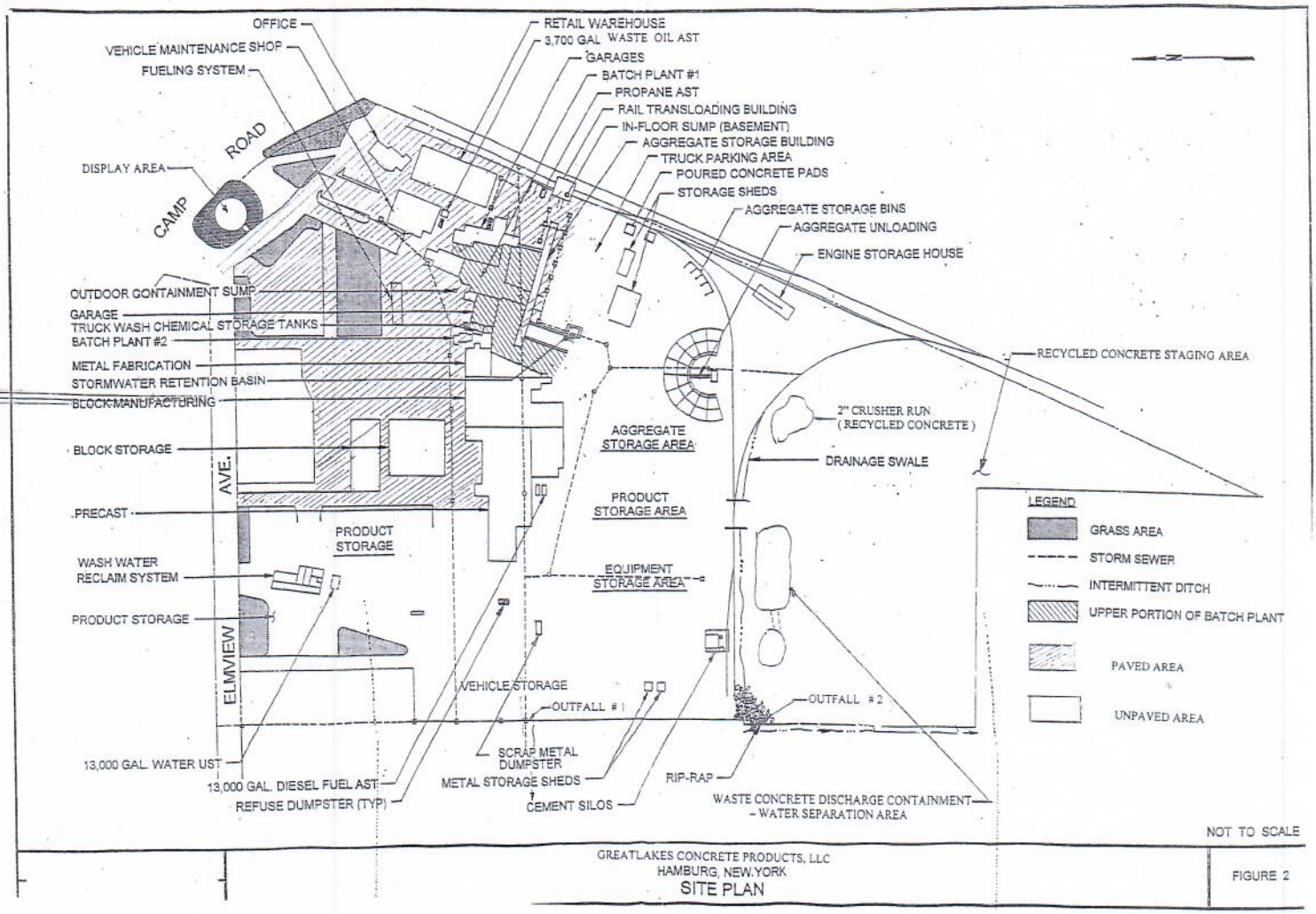
Figure 3
Aerial View of Aggregate Stockpiles

Google Maps 5690 Camp Rd



Imagery ©2023 CNES / Airbus, Maxar Technologies, New York GIS, U.S. Geological Survey, USDA/FPAC/GEO, Map data ©2023 50 ft

Figure 4
Stormwater Pollution Prevention Plan Map



GREATLAKES CONCRETE PRODUCTS, LLC
HAMBURG, NEW YORK
SITE PLAN

FIGURE 2

Appendix A
Full Environmental Assessment Form
(EAF)

Full Environmental Assessment Form
Part 1 - Project and Setting

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: Hot Mix Asphalt Plant		
Project Location (describe, and attach a general location map): 5690 Camp Rd., Hamburg, NY 14075		
Brief Description of Proposed Action (include purpose or need): Erection of a Hot Mix Asphalt Plant for the manufacturing of Hot Mix Asphalt for pick up from various customers.		
Name of Applicant/Sponsor: AL Asphalt Corporation	Telephone: 716-480-0398 E-Mail: Alexandra@dipizio.com	
Address: 100 STRADTMAN ST		
City/PO: CHEEKTOWAGA	State: NY	Zip Code: 14206
Project Contact (if not same as sponsor; give name and title/role): ROSANNE DIPIZIO	Telephone: E-Mail:	
Address: 100 STRADTMAN ST		
City/PO: CHEEKTOWAGA	State: NY	Zip Code: 14206
Property Owner (if not same as sponsor): CHEEKTOWAGA CONCRETE LLC	Telephone: N/A E-Mail:	
Address: 100 STRADTMAN ST		
City/PO: CHEEKTOWAGA	State: NY	Zip Code: 14206

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		
b. City, Town or Village Planning Board or Commission ☑Yes☐No	Town of Hamburg - Site Plan approval	6/3/19
c. City, Town or Village Zoning Board of Appeals ☐Yes☑No		
d. Other local agencies ☐Yes☑No		
e. County agencies ☐Yes☑No		
f. Regional agencies ☐Yes☑No		
g. State agencies ☑Yes☐No	NYS DEC Air quality permit SIP -State Implementaion Plan covers EPA regulations	
h. Federal agencies ☐Yes☑No		

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?
M3 zoning classification and Camp Rd. Overlay

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?

C.4. Existing community services.

a. In what school district is the project site located? Hamburg Central

b. What police or other public protection forces serve the project site?
Hamburg Police.

c. Which fire protection and emergency medical services serve the project site?
Scranton

d. What parks serve the project site?
NA

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)? Industrial, Erection of construction equipment to manufacture Hot Mix Asphalt,

b. a. Total acreage of the site of the proposed action? 48 acres
b. Total acreage to be physically disturbed? Less than 1 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 57 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)? % 1.7 % Units: 160' x 200'

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 _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ 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:

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 0
ii. Dimensions (in feet) of largest proposed structure: _____height; _____width; and _____ length
iii. Approximate extent of building space to be heated or cooled: _____ 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: _____
ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐Other specify:
_____
iii. If other than water, identify the type of impounded/contained liquids and their source.
_____
iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres
v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length
vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):
_____

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? _____ acres
vi. What is the maximum area to be worked at any one time? _____ acres
vii. What would be the maximum depth of excavation or dredging? _____ feet
viii. Will the excavation require blasting? ☐Yes ☐No
ix. Summarize site reclamation goals and plan: _____
_____
_____

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): _____
_____

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:

_____

_____

_____

_____

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: _____

_____

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: _____ 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: _____
- Does the existing public water supply have capacity to serve the proposal? ☐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: _____

_____

- 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: _____ 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): _____

_____

_____

iii. Will the proposed action use any existing public wastewater treatment facilities? ☐Yes ☐No

If Yes:

- Name of wastewater treatment plant to be used: _____
- Name of district: _____
- Does the existing wastewater treatment plant have capacity to serve the project? ☐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: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐Yes ☐No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

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 _____ acres (impervious surface)

_____ Square feet or _____ acres (parcel size)

ii. Describe types of new point sources. _____

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)?

- If to surface waters, identify receiving water bodies or wetlands: _____
- 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)

front end loader

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

Asphalt plant bag house, 68,000 CFM, capable of handling 300tph plant.

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:

- 95 Tons/year (short tons) of Carbon Dioxide (CO_2)
- 5 Tons/year (short tons) of Nitrous Oxide (N_2O)
- na Tons/year (short tons) of Perfluorocarbons (PFCs)
- na Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- na Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- 1 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): _____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

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:

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: _____

766,920 kilowatt hours (1100 amps x 830 = 913,000 per hour/ 1,000) 913 x 12 x 140 days X 50% usage factor=

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

NYSEG

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 - 6 pm
- Saturday: 7 am - 3 pm
- Sunday: _____
- Holidays: _____

ii. During Operations:

- Monday - Friday: 6 am to 6 pm
- Saturday: 6 am to 12 pm
- Sunday: _____
- Holidays: _____

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:

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☐ No

Describe:

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:

There is existing lighting if there are nighttime operations, which are very infrequent

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☑ No

Describe:

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:

Asphalt liquid, during manufacturing process only, 200+ feet away

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 Liquid asphalt cement (AC)

ii. Volume(s) 30,000 gal per unit time 2 days (e.g., month, year)

iii. Generally, describe the proposed storage facilities:

Above ground insulated storage tank piped to drum

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: _____ tons per _____ (unit of time)
- Operation : _____ tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction:
- Operation:

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction:
- Operation:

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: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

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:

generally the area is industrial with mostly commercial surrounding, very limited residential

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	48	48	0
• Forested	0	0	0
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0	0	0
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	0
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	0	0
• Wetlands (freshwater or tidal)	11	11	0
• Non-vegetated (bare rock, earth or fill)	inc. in above line 1.	inc in above line 1.	0
• Other Describe: _____			

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: 1460' TO ELDERWOOD FACILITY (DEPENDING ON WHERE MEASURED)
1272' TO WOODBRIDGE LEARNING CENTER (SEE ABOVE)

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): _____

☐ 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: _____

_____

_____

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? 25 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: clay/shale 100 %
_____ %
_____ %

d. What is the average depth to the water table on the project site? Average: 12' feet

e. Drainage status of project site soils: ☐ Well Drained: 100 % of site
☐ Moderately Well Drained: _____% of site
☐ Poorly Drained _____% of site

f. Approximate proportion of proposed action site with slopes: ☑ 0-10%: 100 % of site
☐ 10-15%: _____% of site
☐ 15% or greater: _____% 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 na Classification _____
- Lakes or Ponds: Name na Classification _____
- Wetlands: Name Federal Approximate Size 10 acres
- Wetland No. (if regulated by DEC) na

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: _____

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): _____

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: _____

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? _____

ii. Source(s) of soil rating(s): _____

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.

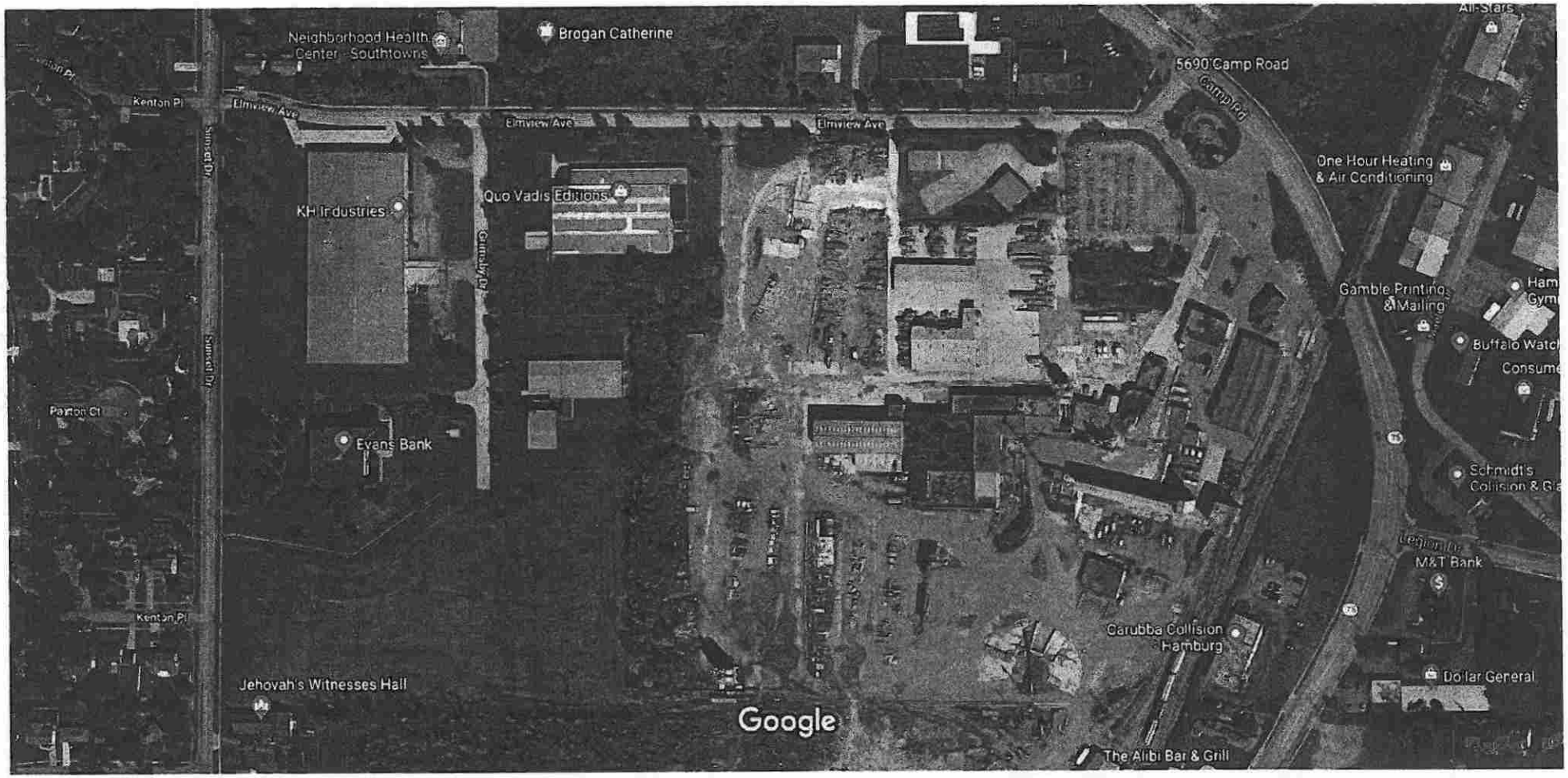
Applicant/Sponsor Name AL Asphalt Corp Date 7/3/19

Signature _____ Title Representative

Rosanne DiPiero

PRINT FORM

Google Maps 5690 Camp Rd



U.S. Fish and Wildlife Service

National Wetlands Inventory

Wetlands



July 3, 2019

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

National Wetlands Inventory (NWI)

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.

	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: _____	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: _____ _____	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, E1b	☐	☐
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.	E1 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: Character of community (Overlay District)		☐	☑

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:	E3g	☐	☐

d. Other impacts: _____ _____		☐	☐
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 occur	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: The nearest of sensitive receptors - school, nursing home, doctor's office, homes - health impacts		☐	☑

17. Consistency with Community Plans

The proposed action is not consistent with adopted land use plans. (See Part 1. C.1, C.2. and C.3.) ☐ NO ☑ YES

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, E1b	☑	☐
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: The zoning code, including overlay district, has protections for discharges and impacts to surrounding properties		☐	☑

18. Consistency with Community Character

The proposed project is inconsistent with the existing community character. (See Part 1. C.2, C.3, D.2, E.3) ☐ NO ☑ YES

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: The Village of Hamburg has been taking actions to improve the character of the Village and this could create negative impacts to this effort.		☐	☑

PRINT FULL FORM

Agency Use Only [If Applicable]

Project: AL Asphalt

Date: 11/4/19

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.

The Hamburg Planning Board, having completed the part 2 of the EAF, identified several potentially Moderate to Large environmental impacts and other impacts that may have a significant impact on the environment. Based on its review of some of these impacts, the Planning Board determined the following:

1. The proposed action, although zoned correctly, may not meet the additional requirements listed in the M-3 district and the Camp road Overlay district, and is not in accordance with the Town's Comprehensive Plan.

2. The development of an asphalt plant at this site will potentially adversely impact the surrounding area with noise, odors and pollution, especially those sensitive receptors in the area; school, nursing home, day care, doctor's office and homes.

3. The proposed project has a potential to have a significant adverse impact the character and quality of the existing area and neighborhood (including the Village of Hamburg) due to activities that would occur on the site.

Having noted these three potentially significant adverse impacts on the environment, the Planning Board must issue a Positive Declaration. The EIS process will further clarify and analyze not only these three impacts but any others that may be identified through the EIS Scoping process.

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
Orion reports and other information provided by the applicant.

and considering both the magnitude and importance of each identified potential impact, it is the conclusion of the Hamburg Planning Board 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.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: AL Asphalt

Name of Lead Agency: Hamburg Planning Board

Name of Responsible Officer in Lead Agency: William Clark

Title of Responsible Officer: Planning Board Chairman

Signature of Responsible Officer in Lead Agency: [signature] Date: 11-6-19

Signature of Preparer (if different from Responsible Officer) Andrew Reilly Date: 11-6-19

For Further Information:

Contact Person: Sarah desJardins

Address: 6100 South Park Avenue, Hamburg, NY 14075

Telephone Number: 716-649-2023

E-mail: sdesjard@townofhamburgny.com

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

Appendix B
SEQRA POSITIVE DECLARATION

TO: Those listed

FROM: Sarah desJardins, Town of Hamburg Planning Department

RE: AL Asphalt Hot Mix Asphalt Plant proposal, 5690 Camp Road

DATE: November 7, 2019

Attached please find Parts One, Two and Three of the Environmental Assessment Form, along with the resolution passed by the Hamburg Planning Board on November 4, 2019 to issue a Positive Declaration regarding the above project.

Pursuant to the Positive Declaration issued by the Hamburg Planning Board, please allow this correspondence to confirm that you will prepare a draft scoping document and submit it to the Hamburg Planning Board accordingly.

If you have any questions about the attached, please contact me at (716) 649-2023 or via email at sdesjard@townofhamburgny.com.

Thank you.

Cc: Supervisor James Shaw

Attorney Corey Auerbach

Rosanne Dipizio

Jason Cozza, Village of Hamburg Administrator

David Denk, NYSDEC

NYSDOT Planning Group

Erie County Dept. of Environment & Planning

Dr. Gale Burnstein, ECHD

Russell Stoll, ECWA

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Rosanne Dipizio
Jason Cozza, Village of Hamburg Administrator
David Denk, NYSDEC
NYSDOT Planning Group
Erie County Dept. of Environment & Planning
Dr. Gale Burnstein, ECHD
Russell Stoll, ECWA

Town of Hamburg

Planning Board Meeting

November 4, 2019

Minutes

The Town of Hamburg Planning Board met for a Special Meeting at 7:00 P.M. on Monday, November 4, 2019 at the Taylor Road Park, 6765 Taylor Road, Hamburg, NY. Those attending included Chairman William Clark, Vice-Chairman Augie Geraci, Doug Schawel, Robert Mahoney, Al Monaco, Dennis Chapman, and Kaitlin McCormick.

Others in attendance included Town Planner Sarah desJardins and Planning Board Attorney Jennifer Puglisi.

AL Asphalt Corporation - Requesting Site Plan Approval of a hot mix asphalt plant to be locate at 5690 Camp Road

Chairman Clark asked the applicant and her attorney if any of the responses to questions raised by Planning Board members at the October 16, 2019 meeting had been submitted.

Roseanne Dipizio, applicant, responded that there have been no further submissions to the Planning Board.

Mr. Geraci made the following motion, seconded by Mr. Chapman:

"Whereas, the Town of Hamburg received a Site Plan application from AL Asphalt for the construction of an asphalt plant (called HMA plant in the application) and related accessory uses at 5690 Camp Road; and

Whereas, the Hamburg Planning Board reviewed the application at its July 3rd meeting and initiated the SEQR Coordinated Review process for this Unlisted Action and received input from various Involved and Interested Agencies and Town Departments; and

Whereas, the Hamburg Planning Board held public hearings on the Site Plan application on August 15, 2019 and September 4, 2019; and

Whereas, the Hamburg Planning Board has reviewed the EAF submitted by the applicant, comments and input from the Planning Department, Planning Board members, other Involved Agencies and the public and information submitted by the applicant on the project and has reviewed the Town's Comprehensive Plan; and

Whereas, in accordance with Part 617 of the implementing regulations pertaining to Article 8 (State Environmental Quality Review Act - SEQRA) of the Environmental Conservation Law, the Hamburg Planning Board has completed Part 2 and 3 of the FEAF and reviewed the criteria for determining significance in accordance with Section 617.7 of SEQR and has determined the following:

1. The proposed action, although zoned correctly, may not meet the additional requirements listed in the M-3 District and the Camp Road Overlay District and is not in accordance with the Town's Comprehensive Plan.
2. The development of an asphalt plant at this site will potentially adversely impact the surrounding area with noise, odors and pollution, especially those sensitive receptors in the area (school, nursing home, day care, doctor's office and homes).
3. The proposed project has a potential to have a significant adverse impact on the character and quality of the existing area and neighborhood (including the Village of Hamburg) due to activities that would occur on the site; and

Whereas, the Hamburg Planning Board, in accordance with the State Environmental Quality Review Act (SEQRA) has determined that the proposed approval of a site plan and construction of an asphalt facility may include the potential for at least one (1) significant adverse environmental impact.

Now, Therefore, Be It Resolved, that the Hamburg Planning Board hereby issues a Positive Declaration and authorizes the Planning Board Chairman to sign the EAF, which will act as the SEQRA Positive Declaration; and

Be It Further Resolved, that the Hamburg Planning Board will begin the EIS process once the applicant submits a draft scoping document."

Carried.

Chairman Clark stated that the next step in the review process will be the applicant submitting a draft scoping document to the Planning Board.

Chairman Clark made a motion, seconded by Mr. Geraci, to table this project. Carried.

OTHER BUSINESS

Mr. Schawel made a motion, seconded by Ms. Chapman, to adjourn the meeting. The meeting was adjourned at 7:15 P.M.

Respectfully submitted,

Doug Schawel, Secretary

November 5, 2019

Appendix C
FINAL SCOPING DOCUMENT

FINAL SCOPING DOCUMENT
FOR PLANNING BOARD REVIEW
5/1/20

Proposed Project:

Hot Mix Asphalt Plant

Project Location:

5690 Camp Road
Hamburg, New York 14075

Project Sponsor:

AL Asphalt Corporation
100 Stradtman Street
Cheektowaga, New York 14206

Lead Agency:

Town of Hamburg Planning Board
6100 South Park Avenue
Hamburg, New York 14075

Draft Scoping Document Submitted:

March 06, 2020

Final Scoping Document Completed:

April 29, 2020

Town of Hamburg Planning Board
Final Scoping Document

Scoping Document
Draft Environmental Impact Statement

Positive Declaration Issued:	November 4, 2019
Draft Scoping Document Issued:	March 6, 2020
Final Scoping Document:	April 29, 2020
Project Sponsor Contact Person:	AL Asphalt Corporation 100 Stradtman Street Cheektowaga, New York 14206 Attention: Ms. Alexandra Lettieri 716-480-0398 Alexandra@dipizio.com
Lead Agency Contact Person:	William Clark, Chairman Town of Hamburg Planning Board 6100 South Park Avenue Hamburg, New York 14075 716-649-2023 wclarkesq@gmail.com

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List of Acronyms

DAR	Division of Air Resources
DEC	Department of Environmental Conservation
DEIS	Draft Environmental Impact Statement
DEP	Department of Environment and Planning
DOT	Department of Transportation
EIS	Environmental Impact Statement
FEIS	Final Environmental Impact Statement
HMA	Hot Mix Asphalt
ITE	Institute of Transportation Engineers
NYSAAQS	New York State Ambient Air Quality Standards
NYCRR	New York Codes, Rules, and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOT	New York State Department of Transportation
OPRHP	Office of Parks, Recreation, and Historic Preservation
PAUSE	Policies Assure Uniform Safety Everyone
SEQR	State Environmental Quality Review
SEQRA	State Environmental Quality Review Act
SHPO	State Historic Preservation Office
SPDES	State Pollution Discharge Elimination System
TIS	Traffic Impact Study
USACE	United States Army Corps of Engineer

1.0 INTRODUCTION

On November 4, 2019, the Town of Hamburg Planning Board, as the Lead Agency, determined that the proposed hot mix asphalt plant may result in potentially significant adverse environmental impacts and issued a Positive Declaration pursuant to the State Environmental Quality Review Act (SEQRA), requiring the submission of a Draft Environmental Impact Statement (DEIS) by the Project Sponsor.

This Scoping Document sets forth the content of the Draft Environmental Impact Statement that Project Sponsor shall prepare for the purpose of evaluating the environmental impacts of the proposed hot mix asphalt plant. The Scoping Document provides a general description of the proposed action, an overview of the environmental review process pursuant to SEQRA, discussion of the potentially significant adverse environmental impacts that have been identified within the Positive Declaration issued by the Planning Board on November 4, 2019, and resulting from the scoping process that must be evaluated by the Project Sponsor in the DEIS, the extent and quality of information needed to adequately address each identified potentially significant adverse environmental impact, an initial identification of potential mitigation measures, reasonable alternatives to be considered, identification of information to be included in the Appendices of the DEIS, and a brief description of those prominent issues and concerns raised during scoping that have been determined to be neither relevant nor environmentally significant and the reasons why those issues were not included in the scope.

A Draft Scoping Document was prepared by the Project Sponsor in accordance with the requirements of the State Environmental Quality Review Act and the implementing regulations as promulgated by the New York State Department Environmental Conservation

("SEQRA Regulations") and submitted to the Town of Hamburg on March 6, 2020. The process to complete the Final Scope occurred during the New York State of Emergency and Governor Cuomo's PAUSE Executive Order related to COVID-19 and the Town of Hamburg Planning Board acting as SEQR Lead Agency, provided time and methodologies to garner public and agency input and hold a meeting on this Scoping document.

2.0 DESCRIPTION OF THE PROPOSED ACTION

The proposed action consists of a Hot Mix Asphalt (HMA) plant consisting of the manufacturing up to 130,000 tons per year (is dependent on the Air Permit) of asphalt materials. The project includes the trucking of materials to the site and the trucking of final products off the site. The Project Site currently contains two concrete batch plants, concrete storage silos, and a concrete block plant. Concrete product manufacturing does not appear to be presently occurring on the Project Site.

The proposed action has also been defined broadly to include all required discretionary approvals and permits required from the Town of Hamburg municipal boards and from other involved agencies.

3.0 REVIEW PURSUANT TO THE STATE ENVIRONMENTAL QUALITY REVIEW ACT (SEQRA)

SEQRA provides a process for the consideration of potentially significant adverse environmental impacts resulting from a proposed action requiring one or more discretionary approvals and/or permits. Discretionary decisions of a state, regional, or local agency to approve, fund, or directly undertake an action that may affect the environment are subject to review under the SEQRA. It is the intent of the SEQRA that protection and enhancement of

the environment and community resources be balanced with social and economic factors in the decision-making process.

3.1 PROJECT CLASSIFICATION AND LEAD AGENCY DESIGNATION

The Town of Hamburg Planning Board classified the proposed action as an Unlisted Action pursuant to SEQRA based on a determination that the impacts of the proposed action do not meet or exceed any of the thresholds for a Type I Action contained in 6 NYCRR Part 617.4, and is not included in the list of Type II Actions (6 NYCRR Part 617.5). An action that is not contained on the Type I or Type II list is deemed an Unlisted Action.

As allowed in SEQRA, the Town of Hamburg Planning Board decided to conduct a Coordinated Review of the proposed unlisted action. A lead agency solicitation letter was issued to involved and interested agencies on July 11, 2019. None of the involved agencies objected to the Town of Hamburg Planning Board's request to be the lead agency.

In accordance with 6 NYCRR Part 617.7, based on its review of all agency comments, the completed Part 1 of the Full Environmental Assessment Form and application materials (including reports and studies) submitted by the Project Sponsor, and the completion of Part 2 and 3 of the Full Environmental Assessment Form, the Planning Board considered the potential environmental impacts of the proposed action and determined the action may result in significant adverse environmental impacts and that a Draft Environmental Impact Statement ("DEIS") must be prepared. The Town of Hamburg Planning Board issued a Positive Declaration on November 4, 2019, and determined that the proposed action may include potentially significant environmental impacts to:

1. Transportation;

2. Emissions and Human Health;
3. Noise and Odor; and
4. Aesthetic and Community Character.

3.2 PURPOSE OF THE SCOPING PROCESS

The purpose of the scoping process is to identify the potentially significant adverse environmental impacts to be evaluated in the DEIS. The potentially significant adverse environmental impacts to be evaluated do not have to be limited to those identified in the Positive Declaration issued on November 4, 2019. The objectives of the project scoping are as follows:

1. Identify potentially significant adverse environmental impacts;
2. Identify limits or extent of DEIS;
3. Identify information needed to adequately address impacts;
4. Identify potential mitigation measures and alternatives; and
5. Eliminate irrelevant or insignificant issues.

The public scoping process ensures that the DEIS will be a concise, accurate, and complete document upon which all involved and interested Agencies can evaluate and issue decisions regarding discretionary approvals and permits needed for the proposed project. By including the public, as well as other agencies in the scoping process, the lead agency can obtain additional information and specialized knowledge that may reduce the likelihood of additional issues arising during the public review period for the DEIS. It is the responsibility of the Town of Hamburg Planning Board, as the designated Lead Agency, to complete the scoping process and issue the final Scoping Document. Since this project has garnered a

tremendous amount of public interest, the Town of Hamburg Planning Board intended to conduct a public scoping meeting as part of the scoping process, but could not due to the State of Emergency related to COVID19 and the New York State PAUSE executive order issued by Governor Cuomo. Opportunities were provided for the public to comment and comments were received. The Planning Board also used the comments and/or minutes of prior public meetings on this project to further understand and/or incorporate the concerns of the public.

3.3 LEAD AGENCY, INVOLVED AGENCIES, AND INTERESTED AGENCIES

Pursuant to SEQRA, there are three types of agencies: the Lead Agency, Involved Agencies, and Interested Agencies. The Lead Agency is the Involved Agency that has the responsibility, under SEQRA, to conduct the environmental review process for a proposed action. The Town of Hamburg Planning Board was previously designated as the Lead Agency for the proposed action because it has jurisdiction with respect to issuing a decision regarding site plan approval for the Proposed Action. Involved Agencies are agencies that have jurisdiction to fund, approve, or directly undertake an action. The identified Involved Agencies for the environmental review of the Proposed Action are as follows:

1. New York State Department of Environmental Conservation ("NYSDEC").

Interested Agencies consist of agencies that do not have jurisdiction with respect to discretionary approvals or permits for a proposed action, but may want to participate in the environmental review process because of their expertise or concern regarding the proposed action. For the Proposed Action, identified Interested Agencies include but may not be limited to:

1. New York State Department of Transportation (NYSDOT);

2. Erie County Department of Environment and Planning;
3. Erie County Division of Sewerage Management;
4. Erie County Water Authority; and
5. The Village of Hamburg

4.0 CONTENT OF THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

The minimum contents of a DEIS are specified in 6 NYCRRR Part 617.9(b) and are generally outlined below for this DEIS.

4.1 COVER SHEET (In accordance with 617.9 (b) (3), AND A TABLE OF CONTENTS

4.2 EXECUTIVE SUMMARY

The Executive Summary should provide a precise summary of the Draft Environmental Impact Statement (DEIS).

4.3 INTRODUCTION/ DESCRIPTION OF THE ACTION

The Introduction/Description of the action should provide a brief summary of the proposed project, including the following topics:

- Project location and setting;
- Project description (including proposed actions, changes to the site, acreage to be developed, etc.);
- Purpose and objectives of the proposed project;
- Public need and benefits (see the NYSDEC Handbook for a clarification of these terms);

- Social and economic considerations;
- Project history, including environmental review pursuant to SEQRA;
- Site layout and design;
- On-site traffic circulation;
- Hours of operation for the workers;
- Hours of operation for contractors;
- Hours of deliveries to the site;
- Hours of shipments from and to the site;
- Site access (existing and proposed); and
- Regulatory compliance, including zoning and required project approvals and permits.

4.4 ENVIRONMENTAL SETTING/ EXISTING CONDITIONS

The Environmental Setting/Existing Conditions section of the DEIS should present a narrative discussion of each subject area to provide for a sufficient understanding of potential impacts of the proposed action and how they may affect the environment, such as:

- Topographic setting of the project site;
- Documentation on wetlands and waters of the United States subject to the jurisdiction of the United States Army Corps of Engineers (on site and adjacent to the site);
- Documentation on existing terrestrial and aquatic ecology, including any endangered, threatened, or species of special concern;
- Existing surface and ground water resources on the site and downstream of the site;
- Existing mapped floodway and floodplain boundaries;
- Existing means of site drainage and storm water management (existing discharges);

- Existing land uses (which are currently in operation and which are not) on the project site and in the vicinity of the project site (within ½ mile, including the Village). Include identification of recreation sites, parks, schools, daycares, doctors' offices, and other sensitive receptors;
- Existing zoning of the site and surrounding area – including the Village (within ½mile of site);
- Land use regulations governing the use of the project site (Zoning District, Overlay District, other applicable sections of the Code);
- Land Use regulations of the Village of Hamburg that impact those properties in the Village that are adjacent to this site;
- Existing utilities (water, sewer, electric, natural gas, telecommunications);
- Existing solid waste disposal services;
- Existing air quality, noise, and lighting levels that presently exist on the project site and in the area. For air quality, see requirements of air quality study;
- Existing traffic patterns and conditions in the vicinity of the project site (those required for completion of a Traffic Impact Study);
- Existing community and emergency services for the project site;
- Existing historical, archaeological, or cultural resources on the project site and within one half mile of the project site; and
- Existing neighborhood character and setting (photographs taken at locations, as illustrated in the attachment to this scope);
- Description of Community Plans affecting this site and area (Town of Hamburg and Village of Hamburg Comprehensive Plans, and other local planning documents)

Note: For the existing conditions section, the narrative should describe the site as it is now and not what happened at the site in the past during active operations of the concrete facility.

4.5 EVALUATION OF THE POTENTIALLY SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS

This section of the DEIS should provide a detailed discussion of the identified potentially significant adverse environmental impacts of the Project, the severity of the impacts, short term and long-term impacts, cumulative impacts, and the practical mitigation measures that could reduce the magnitude of identified potentially significant adverse environmental impacts. The following sections cover impacts that have been identified for analysis and evaluation in the DEIS.

4.5.1 IMPACT ON SURFACE WATER, GROUND WATER RESOURCES, AND FLOODING

A. Potential Impacts

1. Document that no regulated water bodies will be impacted. If this is not the case, provide how these impacts will be avoided.
2. Document that this type of Asphalt production plant does not utilize any surface or groundwater resources and discharges no wastewaters.
3. Analyze any downstream waterbody identified in the environmental setting to determine if that water body will be impacted by any discharges or by-products of the operation of this plant. Particular attention needs to be taken with the run-off from the site that goes through the culvert on Sunset Drive and into the Forest Glen neighborhood.

4. Document that the project will not be impacted by floodwaters (or drainage patterns) that could cause the discharge of materials to downstream waterbodies.

B. Potential Mitigations to Be Analyzed

1. Stormwater and containment systems to keep any materials from getting into downstream waterbodies.

4.5.2 IMPACTS ON AIR

A. Potential Impacts

1. Document that air emissions from Hot Mix Asphalt(HMA) production, including point source and fugitive emissions, will not adversely affect ambient air quality as measured against the New York State Ambient Air Quality Standards (NYSAAQS) under 6 NYCRR Part 257, which are equivalent to the National Ambient Air Quality Standards (NAAQS). Although, the applicant projected potential emissions of hazardous air pollutants (HAPs) to be below the regulatory threshold 100 lbs/yr for Highly Toxic Air Compounds (HTACs) and Persistent Bioaccumulative Toxic (PBT) compounds established in Part 212 and Table 201-9.1, impacts of these pollutants should be compared with and short-term and annual guideline concentrations for toxic air contaminants under 6 NYCRR Part 212 and Part 257-10 for hydrogen sulfide.
2. Potential to emit (PTE) estimates of air emissions from HMA Plant emission points should be based on process equipment vendor commercial emissions performance guarantees being made to the applicant by the vendor.
3. Airborne emission of particulate and gaseous pollutants from mobile sources associated with the project must be quantified, including criteria and hazardous

air pollutants. Mobile Sources include trucks delivering raw materials and other commodities to the HMA Plant, trucks hauling HMA product to construction projects, and personally owned vehicles of HMA Plant employees. Emission estimates should include average and peak daily, weekly, monthly, and annual emissions.

4. Fugitive Dust emissions as PM_{10} and $PM_{2.5}$ from truck traffic to and from the facility and solid material stockpiling and transfer operations at the facility must be quantified. Emission estimates should include average and peak daily, weekly, monthly and annual emissions.
5. The DEIS must address the issues identified in the NYSDEC Notice of Incomplete application dated November 5, 2019.

B. <u>Potential Mitigations to Be Analyzed</u>

1. Reduction of emission rates through decreases in plant processing rates and/or implementation of more effective emission control equipment;
2. Enhancement of atmospheric dispersion of pollutants by modifying release points and exhaust flow rates;
3. Reduction in emissions through use of more efficient plant technology;
4. Reduction in emissions through the use alternative production methods, and
5. Other potential mitigation technologies which may be considered include: Low-NOx burners on the aggregate dryer; collection and control of emissions (including blue smoke) from enclosed HMA conveyors, HMA storage silos and truck load out stations; emission control on the liquid asphalt storage tanks; site dust mitigation plans; and route HMA traffic away from residential locations.

6. Reduction of mobile source emissions through retrofit of diesel fleet vehicles with and diesel oxidation catalysts (DOC) and/or diesel particulate filters (DPF).
7. Reduction of fugitive dust emissions from truck traffic by dust suppression techniques. Reduction of fugitive dust emissions from solid material stockpiling and transfer operations using conveyor covers, transfer point chutes and other feasible means of limiting fugitive dust.
8. Refer to the NYSDEC Notice of Incomplete application for other mitigations.

4.5.3 IMPACT ON PLANTS AND ANIMALS

A. Potential Impacts

1. Document and provide a detailed discussion of the potential impacts of the proposed project on plants and animals, including any endangered, threatened, or special concern species identified in the Environmental Settings section. Impacts considered must include the analysis of impacts from noise, light, and activity at the project site on adjacent areas.

B. Potential Mitigations to Be Analyzed

1. None, unless specific species or habitats are identified at or adjacent to the project site. If potential impacts are identified, provide mitigations to reduce these impacts; lighting and noise reductions, siting of equipment on the site, etc.

4.5.4 IMPACT ON AESTHETIC RESOURCES

A. Potential Impacts

1. Document that the area contains no federal, state or local scenic or aesthetic resources (consult with the Village of Hamburg concerning their Historic district).
2. Provide a visualization of how the project will appear from Camp road, Elmview Avenue, and the residential areas in the Village (also see Section 4.5.11 "Consistency with Character of Community or Neighborhood").
3. Document whether there will be a plume generated from the Plant and if it will be seen from surrounding areas.

B. Potential Mitigations to Be Analyzed

1. Vegetative screening
2. Camouflage paint colors
3. Location and type of equipment on the site

4.5.5 IMPACT ON HISTORIC AND ARCHEOLOGICAL RESOURCES

A. Potential Impacts

1. The project has the potential to adversely affect historic and archaeological resources. The DEIS should document any historic and archaeological resources location within 0.50 mile of the project site that are:

    i. Listed on the State or National Register of Historic Places (S/NRHP);

    ii. Determined eligible for listing on the S/NRHP by the Commissioner of the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) or his/her designee;

2. The project will be reviewed not only under SEQR, also under Section 14.09 of the State Historic Preservation Act (SHPA). Please consult with the OPRHP and provide documentation from the OPRHP that the project will have no adverse effect on historic or archaeological resources.

. B. Potential Mitigations to Be Analyzed

2. As determined by the SHPO;

3. As determined by the Hamburg Historical Society; and

4. As determined by the Village of Hamburg Historic Preservation Commission.

4.5.6 IMPACT ON TRANSPORTATION

1. The project has the potential to adversely impact the transportation system in the area: the applicant will complete a Full Traffic Impact Study (TIS), completed to NYSDOT standards (See NYSDOT Guidelines on TIS's in support of SEQR Actions). The Traffic Impact Study will include the identified roads, intersections and required information as outlined below. Impacts will be determined based on existing conditions (little to no traffic currently being generated) and not compared to past conditions and uses at the site. At this time, due to the NYS PAUSE, it will not be possible to take existing traffic counts. These figures will need to be obtained from the most recent counts taken for these roads and intersections.
2. We have identified the following roads and intersections for analysis:
3. Roads: Elmview Avenue, Legion Drive, Sunset Drive and Camp Road.

4. Intersections: Elmview Avenue at Camp Road, Elmview Avenue at Sunset Drive, Legion Drive at Camp Road, Sunset Drive at Camp Road, Scranton at Camp, and at all access driveways onto their respective roads.
5. In completing this analysis, the DEIS/TIS must illustrate the routes that will be taken by the vehicles (asphalt trucks, material delivery trucks, employees, etc.) for ingress and egress from the site. The TIS should reference any appropriate standards for calculating traffic generation (Institute of Transportation Engineers Manual, studies, etc.) and utilize the maximum vehicles that could be generated at the site (describing how this figure was developed).
6. In addition, this section will review all potential impacts that the Project will have on the transportation system including but not limited to:

- Existing crash history for the most recent three years compared to the Statewide crash history for similar roads and intersections;
- Existing pedestrian and bicycle accommodations;
- Public transportation and bus traffic;
- Present pattern of movement of people or goods;
- Hours of deliveries and shipments to and from the site; and
- Conditions of roads, especially Elmview Avenue.

B. POTENTIAL MITIGATIONS TO BE ANALYZED

5. Those as identified in the TIS (signalization, signal timing, turn lanes, restricted access, specific truck routes, etc.);
6. Control of the routing of trucks/vehicles (and how it can be enforced)
7. Avoidance of bicycle routes, addition/relocation of sidewalks/walkways

8. Improvements to reduce crashes
5. Timing/scheduling of trucks.
6. Road Use Agreements

4.5.7 IMPACT ON ENERGY

A. Potential Impacts

1. In accordance with the SEQR regulations discuss the project's impacts on the use and conservation of energy. Describe the types and quantities of energy to be utilized and the different types of equipment that could be used.

B. Potential Mitigations to Be Analyzed

1. The use of more energy efficient equipment.
2. Timing of use to avoid manufacture of asphalt at times of peak energy demand in the area
3. The use of renewable energy alternatives such as solar and wind.

4.5.8 IMPACTS FROM NOISE, ODOR, AND LIGHT

A. Potential Impacts

1. ***NOISE***: the project sponsor shall disclose any potential noise impacts the proposed project may have (during construction and during daily operations) on the project site and to adjacent businesses and residences. This shall be achieved by determining the existing noise decibel levels (at all hours of the day and night – operation time of the plant may occur into the night), and those that will occur during construction and during daily operations. The applicant will need to identify all of noise making equipment and the level of noise generated by that equipment – utilizing equipment specification documents. If using documentation

from existing equipment operations, verify that it is the same equipment and that it was operating at peak capacity and as this system would operate. Noise generating equipment also includes the operation of trucks at the site and on nearby roadways/neighborhoods (see transportation section for the identification of truck routes). In evaluating these noise impacts, it must be noted that it is our understanding that for certain projects it is anticipated that the equipment and trucks may operate into nighttime hours. Analyze these noise impacts for those extended time periods.

This analysis will require consulting any applicable local or county noise ordinances and the NYSDEC recommended standards. Special consideration shall be given to the noise impacts experienced by non-industrial zoned properties located within a one half mile radius of the project site, including, but not limited to properties zoned R1, R2, R3, R4, RA, RE, C1, and C2. If noise is shown to be above ambient conditions at one half mile, continue the study further out (greater than one half mile).

2. ***ODOR:*** shall be assessed utilizing the dispersion modelling software in accordance with Policy DAR-10: NYSDEC Guidelines on Dispersion Modeling Procedures for Air Quality Impact Analysis, May 2006. Substances to be modeled include naphthalene and hydrogen sulfide (H_2S), since it has a low odor threshold in the general population. Special consideration shall be given to odor impacts experienced by non-industrial zoned properties located within a one half mile radius of the project site, including, but not limited to, properties zoned R1, R2, R3, R4, RA, RE, C1, and C2 (including properties in the Village and parks and recreational facilities). If odors are detected at one half mile from the facility, continue the study further out (greater than one half mile).

3. ***LIGHT:*** The applicant shall discuss the lighting to be used on site, its location, size, wattage and hours of operation. Provide a lighting plan illustrating the levels of light onto any adjoining sites.

B. Potential Mitigations to Be Analyzed

1. Use of acoustic engineering and barrier technologies to reduce noise impacts.
2. Proposed limitations on hours of operation and how they would be enforced.
3. Use of different equipment models or processing equipment to reduce noise and odor impacts.
4. Reduction of emission rates through decreases in plant processing rates and/or implementation of more effective emission control equipment or enhancement of atmospheric dispersion of odorous pollutants by modifying release points and exhaust flow rates to reduce odors.
5. Use of additives to reduce odor associated with emissions (e.g., Ecosorb or additives).
6. The use of dark sky compliant lighting and refurbishment of existing lighting to dark sky compliant and/or relocation of existing lighting.

4.5.9 IMPACT ON HUMAN HEALTH

A. Potential Impacts

1. Describe and analyze the potential human health impacts to the schools, recreation sites and parks, day cares, nursing homes and residential homes, relating to noise, odor, light, air quality, etc.
2. Describe and analyze how the project may impact any existing environmental conditions identified in the environmental settings section.

3. As identified in the "IMPACT ON SURFACE WATER, GROUND WATER RESOURCES, AND FLOODING" section, discuss and analyze any harmful materials that may enter the run-off heading towards the Forest Glen neighborhood.

B. Potential Mitigations to Be Analyzed

1. For human health impacts related to air and odorous pollutants, reduction of emission rates through decreases in plant processing rates and/or implementation of more effective emission control equipment or enhancement of atmospheric dispersion of pollutants by modifying release points and exhaust flow rates will be analyzed.
2. Diversion or restriction of run-off that heads towards the Sunset Drive culvert system and the Forest Glen neighborhood.

4.5.10 CONSISTENCY WITH COMMUNITY PLANS

A. Potential Impacts

1. Consistency with Zoning regulations: based on the results of the air quality analysis (and additional study) and the analysis of noise and odor impacts, describe how the project meets the requirements of Section 280-133 (c)(1)(b) of the M-3 Zoning district. The project sponsor shall furnish studies, completed by technical experts, which demonstrate that no atmospheric pollutants, noise, and/or odor will be disseminated into adjacent R, C, M-1, and/or M-2 zoning districts. Note that the nearest such districts are located adjacent to the site.
2. Describe how the project meets or does not meet the requirements of the Camp Road Overlay district.

3. Describe how the project is consistent or inconsistent with the Town of Hamburg Comprehensive Plan. Consult with the Town of Hamburg Planning Department on the interpretation of the Plan recommendations. Both ways the project is consistent and ways it is inconsistent should be discussed.
4. Describe how the project will impact the "Goals and Objectives/Vision" of the Village of Hamburg's Comprehensive Plan.

B. Potential Mitigations to Be Analyzed

1. Location and screening of the equipment on the site.
2. Methodologies to reduce noise, odor and air quality impacts to surrounding properties.
3. Revisions to the project to meet the Goals and Objectives/ Vision of the Town'sand Village's Comprehensive Plans.

4.5.11 CONSISTENCY WITH CHARACTER OF COMMUNITY OR NEIGHBORHOOD

A. Potential Impacts

1. The consistency of the project with the existing zoning and permitted uses in the neighborhood. Based on the impacts identified in the DEIS, describe how these will impact the zoning and permitted uses in the surrounding neighborhood (Town and Village);
2. Impacts on community services such as fire and police protection, schools, parks and recreation, etc.; and
3. Based on the overlay zoning requirements and the two communities Comprehensive Plans, analyze the visual impacts to the Community's character. This analysis should include the visualizations created in the aesthetic impact section of the DEIS. These

visualizations will occur at the following locations: End of Grimsby Drive towards site, Sunset Drive and Kenton Place towards site, Camp Road and Legion Drive looking towards site, and Camp Road and Staley Drive looking towards site.

B. Potential Mitigations to Be Analyzed

1. Project modification.
2. Location and screening of the equipment on the site.
3. Methodologies to reduce noise, odor and air quality impacts to surrounding properties.

4.5.12 IMPACTS ON SOLID WASTE MANAGEMENT

In accordance with Section 617.9 (b) (5) (iii) (f) and the SEQR Handbook (2020), describe the project's impacts on solid waste management and its consistency with the state and locally adopted solid waste management plan.

4.5.13 IMPACTS ON CLIMATE CHANGE

In accordance with Section 617.9 (b) (5) (iii) (i) and the SEQR Handbook (2020), describe measures to avoid or reduce both the action's impacts on climate change and associated impacts because of climate change such as sea level rise and flooding.

5.0 EVALUATION OF MITIGATION MEASURES

The DEIS should include a discussion of the identified potentially significant adverse environmental impacts and a description of the proposed mitigation measures to be implemented to minimize the identified potentially significant impacts to the maximum extent practicable. Since the mitigation measures are to be addressed in the discussion of

the identified environmental impacts in Section 4 of the DEIS, this section can act as a summary of those results. This section also provides an opportunity to discuss all of the mitigations and how some may help to minimize the impacts in several environmental categories.

6.0 ALTERNATIVES TO BE EVALUATED

2. No Action Alternative: describe how the identified potential impacts would or would not be impacted by the project not occurring.
3. Alternative Technology: identify and describe how the use of alternative asphalt technology (such as warm asphalt) would change the potential impacts analyzed in the DEIS.
4. Alternative Layouts: identify and describe how alternative layouts/location of equipment on the site could change the impacts analyzed in the DEIS.
5. Alternative uses of the site; describe the impacts that could result if the site is developed for other allowable uses or the use previously proposed by the applicant.
6. Alternative Sites; In accordance with the restrictions/requirements of SEQRA.

7.0 CUMULATIVE IMPACTS

The impacts of the proposed action in the context of other proposed projects (if any) in the vicinity of the project site. The Town of Hamburg Board, as well as Town of Hamburg Planning and Building Departments, should be consulted in identifying the list of proposed

projects within the vicinity. Identify any proposed projects within the vicinity and discuss this projects impact on those projects and whether those project's impacts will exacerbate the impacts of this project.

The existing Burner Oil Company rail loading facility is adjacent to this site (has an Air Facility Registration) and should be addressed in cumulative impacts.

The project site currently consists of two concrete batch plants, concrete storage silos, and a concrete block plant. Concrete product manufacturing has not occurred on the project site recently and some of the concrete production equipment has been previously reported as being sold. The project sponsor needs to discuss whether or not this plant can still operate and whether or not it could operate in the future. If the applicant, states that these operations could re-occur, the applicant will need to analyze these cumulative impacts of operating both types of facilities.

8.0 GROWTH INDUCING IMPACTS

The proposed action could potentially result in significant impacts on the growth and character of the surrounding neighborhood and the Town of Hamburg.

The project sponsor shall also demonstrate how the proposed action will not result in adverse growth inducing impacts. Will it encourage other similar uses on the site and in the area and potentially drive away other less impact uses in the area (especially those zoned Residential and Commercial). Illustrate where there are any other heavy industrial users in the area.

9.0 POTENTIAL IMPACTS RAISED DURING SCOPING DETERMINED TO BE INSIGNIFICANT:

Under 6 NYCRR Part 617 of the SEQR Regulations, the Lead Agency is responsible for

eliminating consideration of those impacts and concerns that have been identified during the scoping process that are determined to be irrelevant or insignificant either because they are not legally relevant to the environmental review of the proposed action, they are not environmentally significant, or they have been adequately addressed prior to the scoping process. These issues and concerns should not be included in the DEIS:

- Agricultural Resources
- Impacts to property values
- Impacts to the 18 Mile Creek CEA- not located on site or substantially contiguous.
- Impacts on Land and Geological features

10.0 INFORMATION TO BE INCLUDED IN THE APPENDICES OF THE DEIS:

The DEIS shall provide enough detail to enable the reader to understand, interpret, and evaluate the existing conditions, potential impacts, mitigation measures, and alternative project scenarios. The appendices shall contain copies of studies and reports that supplement and support the narrative in the DEIS. The methodologies and results of the studies and technical reports shall be summarized and explained in the DEIS. Only site-specific documents that are not readily available to the public should be included as appendices to the DEIS. The following are examples of documents that could be included in the appendices:

- All Application Materials;
- Parts 1, 2 and 3 of the Full Environmental Assessment Form ("EAF");
- Positive Declaration;

- Final Scoping Document;
- Correspondence Related to the Project (Town, agency and applicant);
- Minutes of Meetings of the Town of Hamburg Planning Board;
- Traffic Impact Study;
- Odor Study;
- Air Quality Study and the corrected Air Permit Application materials
- NYSDEC Notice of Incomplete Application (Air Permit)
- Noise Study;
- Current State Pollutant Discharge Elimination System (SPDES) Permit and any other existing permits;
- Engineer's Report of Facility Size and Layout; and
- Any other report prepared or referred to, related to any matter herein.

Appendix D
U.S. Army Corps of Engineers
Federal Wetlands Correspondence

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, BUFFALO DISTRICT
1776 NIAGARA STREET
BUFFALO, NEW YORK 14207-3199

March 1, 2022

Regulatory Branch

SUBJECT: Determination of No Permit Required, Department of Army No. LRB-2022-00117

Alexandra Lettieri
AL Asphalt Corporation
100 Stradtman St
Buffalo, New York 14206

Dear Ms. Lettieri:

This pertains to your request for a Department of the Army determination if a permit is required to discharge fill material in association with the construction of a hot mix asphalt plant located at 5690 Camp Rd, in the Town of Hamburg, Erie County, New York.

Under Section 404 of the Clean Water Act (CWA), the U.S. Army Corps of Engineers regulates the discharge of dredged or fill material into WOUS, including freshwater wetlands. Certain types of excavation activities are defined as discharges of dredged material when they occur in WOUS. For instance, land clearing using mechanized equipment, ditching, channelization and other types of excavation when performed in such waters, including wetlands, would likely be regulated under Section 404 of the CWA.

I have reviewed the information which accompanied your request and have determined that a Department of the Army (DA) permit is not required. Should you modify your proposal to entail work in navigable waters or a discharge of dredged or fill material into a WOUS you must contact this office regarding DA permit requirements. Although a permit is not required, we request that proper measures be taken to prevent unintentional discharges from entering any adjacent waterways.

You are encouraged to contact the appropriate state and local governmental officials to insure that the proposed work complies with their requirements.

Questions pertaining to this matter should be directed to me by calling (716) 879-4246 by writing to the following address: U.S. Army Corps of Engineers Regulatory Branch, 1776 Niagara Street, Buffalo, New York 14207 or by e-mail at: bryan.t.young@usace.army.mil.

Sincerely,

Bryan T. Young

Bryan T. Young
Biologist, Monitoring & Enforcement Section

Appendix E
NYSDEC Draft Air State Facility Permit

Facility DEC ID: 9293000059

PERMIT
Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air State Facility
Permit ID: 9-2930-00059/00001
Effective Date: Expiration Date:

Permit Issued To:4660 Witmer Rd LLC
4660 Witmer Rd
Niagara Falls, NY 14305

Contact: Rosanne Dipizio
100 Stradtman St
Cheektowaga, NY 14206
(716) 462-7198

Facility: 4660 Witmer Rd LLC
4660 Witmer Rd
Niagara Falls, NY 14305

Contact: Rosanne Dipizio
100 Stradtman St
Cheektowaga, NY 14206
(716) 462-7198

Description:
This new Air State Facility permit (ASF) will allow 4660 Witmer Road, LLC (Facility) to provide up to 150,000 tons of hot mix asphaltic cement (HMA) per every 12-months rolling total period. The asphalt will be used in roads, parking lots and highways throughout the greater Western New York area. The process will include storage of different size aggregates, storage of asphalt oil in an above ground storage tank heated by propane, a rotary drum dryer heated by propane, and silos for storage of the HMA product. During the review of the permit application, natural gas emission factors were used for the burning of propane. Presently, there are no emission factors for propane in USEPA AP-42. Based on the design of the HMA plant, the majority of emissions from the process are from the drum dryer, where propane is combusted to heat and dry the aggregate prior to mixing with hot asphalt oil. Exhaust from the drum dryer is ducted to a baghouse which removes particulate matter from the air stream prior to exhausting to the atmosphere. Due to winter weather conditions preventing placement or use of asphalt, the facility will typically only operate between May and November of any given year. In order to maintain carbon monoxide and VOC emissions below the major source thresholds of 100 tons per year (tpy) and 50 tpy, respectively, the facility has accepted an annual production limit of 150,000 tons per year of asphalt. The facility will accept this annual production limit as a federally enforceable permit condition in order to restrict operation and total potential emissions from the facility.

The Hot Mix Asphalt (HMA) rotary drum dryer utilizes a Tarmac, counterflow drum mixer, 8.5' in diameter and 45' long. The dryer is fired by a Hauck Eco-Star II model 75 liquid propane burner with a maximum capacity of 83 MMBtu/hr. The mixer is used to dry aggregate prior to mixing with liquid asphalt to produce hot mix asphalt. Primary emissions from the dryer are particulates from drying the aggregate, which are controlled by a BMG 68,000 acfm baghouse with 13,050 square feet of cloth filters and designed for greater than 99% particulate capture

efficiency. Particulates captured in the baghouse are dropped out of the airstream, and criteria pollutants (byproducts) from propane combustion (carbon monoxide, oxides of nitrogen, etc.,) pass through the baghouse and are exhausted to atmosphere. Emissions from the drum dryer and baghouse are exhausted from the baghouse through a 48" x 48" vertical exhaust, 31-feet above grade. This is emission point, EP001. The drum dryer is rated at production of 300 tons per hour of hot mix asphalt, and hourly emissions are based on 300 tons per hour multiplied by the associated AP-42 emission factors. The drag slat conveyor from the dryer to the storage silos will be covered to keep the material hot and protected from the elements.

The HMA process will utilize two silos for storage of final product in periods when trucks are not being loaded. In both instances, material is transported by conveyor either to the silos for storage or
to load trucks. The emission factors provided in AP-42 Section 11, Table 11.1-14 are based on the tons of material produced/transported by the conveyor. These emissions are presented and counted in
the emission inventory for determination of regulatory and permitting thresholds.

Condition 6 NYCRR Part 212-1.5(d) documents that a 6 NYCRR Part 212 Air Toxics evaluation was performed for the proposed asphalt plant following the procedures in DEC Policy DAR-1: Guidelines for the Evaluation and Control of Ambient Air Contaminants under Part 212 (DAR-1). Emission estimates are based on an asphalt paving material (asphalt) production rate of 150,000 tons per year (tpy) which is a federally enforceable production cap.

There are no controls that can be added to reduce formaldehyde so a Toxic-Best Available Control Technology (T-BACT) evaluation was conducted per 212-1.5(d). The August 19, 2020 application included a T-BACT analysis and concluded that T-BACT would require formaldehyde from the dryer to meet the Short-term Guidance Concentrations (SGC) and Annual Guidance Concentrations (AGC) in DAR-1. Formaldehyde emissions were modeled by DEC using EPA's AERSCREEN and the maximum off-site ambient concentration was 31% of the SGC and 92% of the AGC. Formaldehyde emissions from the dryer are considered in compliance with Part 212. As part of T-BACT, the burner must be tuned up annually and that is already required by 6NYCRR 212-4(a)(1) (The tune up requirement is in a separate permit condition).

The ERP of formaldehyde emissions from truck load out and the asphalt storage silos are each less than 0.1 lb/hr. The ERP of PAH's from the aggregate dryer, truck load out and asphalt storage silos are each less than 0.1 lb/hr. Table 4 requires emissions less than 0.1 lb/hr to comply with the applicable SGC and AGC. Emissions from each source were modeled using AERSCREEN and the predicted ambient concentrations for each were below the applicable SGC and AGC. This demonstrates compliance with Part 212.

Since the facility does not engage in any stone crushing or mineral processing activities, it is not subject to 40 CFR 60 Subpart OOO-Standards of Performance for Nonmetallic Mineral Processing Plants.

Permit exempt sources include the 25,000 gallon liquid asphalt storage tank (The storage tank itself is exempt from permitting under 6 NYCRR Part 201-3.2(c)(21)) and heater, the aboveground propane tank, and the aggregate piles. Fugitive sources include the aggregate piles, cold aggregate bins, and truck load-out.

The proposed project was required to evaluate conformity with the goals of the Climate Leadership and Community Protection Act (CLCPA). The proposed project includes measures that inherently reduce its greenhouse gas (GHG) footprint and includes flexible operating

scenarios that can also reduce its GHG footprint. These characteristics are summarized as follows:

- The facility will use a propane-fired drum mix plant, which is anticipated to result in 10% fewer GHG emissions than a propane-fired batch mix plant. (EPA AP-42 natural gas emission factors were used to estimate emissions from propane combustion.)
- The facility includes the capability to produce warm mix asphalt (WMA), which would require less fuel and could reduce GHG emissions by 20%.
- The facility has limited its annual hot mix asphalt production to 150,000 tpy. This restriction on plant operations will have an enormous impact, reducing GHG emissions by 94%.
- Burner maintenance and annual tune-ups are anticipated to reduce fuel usage and GHG emissions by approximately 20%.
- Managing aggregate moisture by following the moisture mitigation plan is anticipated to reduce GHG emissions from reduced fuel usage by approximately 34%.
- Use of Reclaimed Asphalt Pavement (RAP) in place of virgin aggregate will reduce aggregate drying time and fuel usage, which has the potential to reduce GHG emissions by 30%.

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified and any Special Conditions included as part of this permit.

Permit Administrator: DAVID S DENK
DIVISION OF ENVIRONMENTAL PERMITS
270 MICHIGAN AVE
BUFFALO, NY 14203-2915

Authorized Signature: _____ Date: 02 / 10 / 21

Notification of Other State Permittee Obligations

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

The permittee expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the compliance permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in any compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

Item B: Permittee's Contractors to Comply with Permit

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

Item D: No Right to Trespass or Interfere with Riparian Rights

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.

PAGE LOCATION OF CONDITIONS

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DEC GENERAL CONDITIONS

General Provisions

6 1 Facility Inspection by the Department

6 2 Relationship of this Permit to Other Department Orders and Determinations

6 3 Applications for permit renewals, modifications and transfers

7 4 Permit modifications, suspensions or revocations by the Department

Facility Level

7 5 Submission of application for permit modification or renewal-REGION 9 HEADQUARTERS

DEC GENERAL CONDITIONS
**** General Provisions ****
GENERAL CONDITIONS - Apply to ALL Authorized Permits.

Condition 1: Facility Inspection by the Department
Applicable State Requirement: ECL 19-0305

Item 1.1:
The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).

Item 1.2:
The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

Item 1.3:
A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

Condition 2: Relationship of this Permit to Other Department Orders and Determinations
Applicable State Requirement: ECL 3-0301 (2) (m)

Item 2.1:
Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

Condition 3: Applications for permit renewals, modifications and transfers
Applicable State Requirement: 6 NYCRR 621.11

Item 3.1:
The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

Item3.2:
The permittee must submit a renewal application at least 180 days before the expiration of permits for Title V and State Facility Permits.

Item 3.3
Permits are transferrable with the approval of the department unless specifically prohibited by the statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

Condition 4: Permit modifications, suspensions or revocations by the Department

Facility DEC ID: 9293000059

Applicable State Requirement: 6 NYCRR 621.13

Item 4.1:
The Department reserves the right to exercise all available authority to modify, suspend, or revoke this permit in accordance with 6NYCRR Part 621. The grounds for modification, suspension or revocation include:

a) materially false or inaccurate statements in the permit application or supporting papers;
b) failure by the permittee to comply with any terms or conditions of the permit;
c) exceeding the scope of the project as described in the permit application;
d) newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
e) noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

****** Facility Level ******

Condition 5: Submission of application for permit modification or renewal-REGION 9 HEADQUARTERS
Applicable State Requirement: 6 NYCRR 621.6 (a)

Item 5.1:
Submission of applications for permit modification or renewal are to be submitted to:

NYSDEC Regional Permit Administrator
Region 9 Headquarters
Division of Environmental Permits
270 Michigan Avenue
Buffalo, NY 14203-2915
(716) 851-7165

Permit ID: 9-2930-00059/00001 **Facility DEC ID: 9293000059**

Permit Under the Environmental Conservation Law (ECL)

ARTICLE 19: AIR POLLUTION CONTROL - AIR STATE FACILITY PERMIT

IDENTIFICATION INFORMATION

Permit Issued To:4660 Witmer Rd LLC
4660 Witmer Rd
Niagara Falls, NY 14305

Facility: 4660 Witmer Rd LLC
4660 Witmer Rd
Niagara Falls, NY 14305

Authorized Activity By Standard Industrial Classification Code:
2951 - PAVING MIXTURES AND BLOCKS

Permit Effective Date: Permit Expiration Date:

PAGE LOCATION OF CONDITIONS

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FEDERALLY ENFORCEABLE CONDITIONS
Facility Level

5 1 6 NYCRR 201-7.1: Facility Permissible Emissions
6 *2 6 NYCRR 201-7.1: Capping Monitoring Condition
7 3 6 NYCRR 211.2: Visible Emissions Limited
8 4 6 NYCRR 212-1.5 (d): Compliance Demonstration
9 5 6 NYCRR 212-4.1 (a) (1): Compliance Demonstration
9 6 6 NYCRR 212-4.1 (a) (2): Compliance Demonstration

Emission Unit Level

EU=1-DRYER,EP=EP001

10 7 40CFR 60.92(a)(2), NSPS Subpart I: Compliance Demonstration

EU=1-DRYER,EP=EP001,Proc=DRY

11 8 6 NYCRR 212-1.6 (a): Compliance Demonstration

EU=1-DRYER,EP=EP001,Proc=DRY,ES=BAGH1

12 9 40CFR 60.92(a)(1), NSPS Subpart I: Compliance Demonstration
13 10 40CFR 60.92(a)(1), NSPS Subpart I: Compliance Demonstration

STATE ONLY ENFORCEABLE CONDITIONS
Facility Level

16 11 ECL 19-0301: Contaminant List
16 12 6 NYCRR 201-1.4: Malfunctions and Start-up/Shutdown Activities
17 13 6 NYCRR Subpart 201-5: Emission Unit Definition
18 14 6 NYCRR 201-5.2 (c): Renewal deadlines for state facility permits
18 15 6 NYCRR 201-5.3 (c): Compliance Demonstration
18 16 6 NYCRR 211.1: Air pollution prohibited

Emission Unit Level

19 17 6 NYCRR Subpart 201-5: Emission Point Definition By Emission Unit
19 18 6 NYCRR Subpart 201-5: Process Definition By Emission Unit

NOTE: * preceding the condition number indicates capping.

FEDERALLY ENFORCEABLE CONDITIONS
****** Facility Level ******

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS
This section contains terms and conditions which are federally enforceable. Permittees may also have other obligations under regulations of general applicability

Item A: Sealing - 6 NYCRR 200.5

The Commissioner may seal an air contamination source to prevent its operation if compliance with 6 NYCRR Chapter III is not met within the time provided by an order of the Commissioner issued in the case of the violation. Sealing means labeling or tagging a source to notify any person that operation of the source is prohibited, and also includes physical means of preventing the operation of an air contamination source without resulting in destruction of any equipment associated with such source, and includes, but is not limited to, bolting, chaining or wiring shut control panels, apertures or conduits associated with such source.

No person shall operate any air contamination source sealed by the Commissioner in accordance with this section unless a modification has been made which enables such source to comply with all requirements applicable to such modification.

Unless authorized by the Commissioner, no person shall remove or alter any seal affixed to any contamination source in accordance with this section.

Item B: Acceptable Ambient Air Quality - 6 NYCRR 200.6

Notwithstanding the provisions of 6 NYCRR Chapter III, Subchapter A, no person shall allow or permit any air contamination source to emit air contaminants in quantities which alone or in combination with emissions from other air contamination sources would contravene any applicable ambient air quality standard and/or cause air pollution. In such cases where contravention occurs or may occur, the Commissioner shall specify the degree and/or method of emission control required.

Item C: Maintenance of Equipment - 6 NYCRR 200.7

Any person who owns or operates an air contamination source which is equipped with an emission control device shall operate such device and keep it in a satisfactory state of maintenance and repair in accordance with ordinary and necessary practices, standards and procedures, inclusive of manufacturer's specifications, required to operate such device effectively.

Item D: Unpermitted Emission Sources - 6 NYCRR 201-1.2

If an existing emission source was subject to the permitting requirements of 6 NYCRR Part 201 at the time of construction or modification, and the owner and/or operator failed to apply for a

permit for such emission source then the following provisions apply:

(a) The owner and/or operator must apply for a permit for such emission source or register the facility in accordance with the provisions of Part 201.

(b) The emission source or facility is subject to all regulations that were applicable to it at the time of construction or modification and any subsequent requirements applicable to existing sources or facilities.

Item E: Recycling and Salvage - 6 NYCRR 201-1.7

Where practical, any person who owns or operates an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device according to the requirements of 6 NYCRR.

Item F: Prohibition of Reintroduction of Collected Contaminants to the Air - 6 NYCRR 201-1.8

No person shall unnecessarily remove, handle, or cause to be handled, collected air contaminants from an air cleaning device for recycling, salvage or disposal in a manner that would reintroduce them to the outdoor atmosphere.

Item G: Proof of Eligibility for Sources Defined as Exempt Activities - 6 NYCRR 201-3.2 (a)

The owner and/or operator of an emission source or unit that is eligible to be exempt, may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to 6 NYCRR Subpart 201-3, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

Item H: Proof of Eligibility for Sources Defined as Trivial Activities - 6 NYCRR 201-3.3 (a)

The owner and/or operator of an emission source or unit that is listed as being trivial in 6 NYCRR Part 201 may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to 6 NYCRR Subpart 201-3, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

Item I: Required Emission Tests - 6 NYCRR 202-1.1

An acceptable report of measured emissions shall be submitted, as may be required by the Commissioner, to ascertain compliance or noncompliance with any air pollution code, rule, or regulation. Failure to submit a report acceptable to the Commissioner within the time stated shall be sufficient reason for the Commissioner to suspend or deny an operating permit. Notification and acceptable procedures are specified in 6 NYCRR Subpart 202-1.

Item J: Open Fires Prohibitions - 6 NYCRR 215.2

Except as allowed by section 215.3 of 6 NYCRR Part 215, no person shall burn, cause, suffer, allow or permit the burning of any materials in an open fire.

Item K: Permit Exclusion - ECL 19-0305

The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this permit, including, but not limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and Chapter III of the Official Compilation of the Codes, Rules and Regulations of the State of New York (NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.

Item L: Federally Enforceable Requirements - 40 CFR 70.6 (b)

All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations.

FEDERAL APPLICABLE REQUIREMENTS

The following conditions are federally enforceable.

Condition 1: Facility Permissible Emissions
Effective for entire length of Permit

Applicable Federal Requirement:6 NYCRR 201-7.1

Item 1.1:

The sum of emissions from the emission units specified in this permit shall not equal or exceed the following
Potential To Emit (PTE) rate for each regulated contaminant:

CAS No: 000630-08-0 PTE: 19,500 pounds per year
Name: CARBON MONOXIDE

Condition 2: Capping Monitoring Condition
Effective for entire length of Permit

Applicable Federal Requirement:6 NYCRR 201-7.1

Item 2.1:
Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6 NYCRR 201-6.1 (a)
40 CFR 52.21

Item 2.2:
Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

Item 2.3:
The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Item 2.4:
On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

Item 2.5:
The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

Item 2.6:
The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):
CAS No: 000630-08-0 CARBON MONOXIDE

Item 2.7:

Compliance Demonstration shall include the following monitoring:

Capping: Yes
Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS
Monitoring Description:

1.) Asphaltic concrete production shall be limited to 150,000 tons per every 12 month period which will keep emissions below the thresholds for Title V permitting applicability and the thresholds of the Prevention of Significant Deterioration (PSD) of air quality with respect to carbon monoxide (CO). This asphalt limit keeps the facility's actual tons of CO at 6.4 tons per year (tpy), compared to the Title V threshold of 100 tpy and the PSD threshold of 250 tpy.

2.) Records of asphalt production will be kept on a daily basis and to verify compliance with the production limit in item 1 above, the total production for each 12 month period shall be computed monthly. The 12 month period ends on the last day of the month.

3.) The owner or operator of this facility shall maintain all required records on-site for a period of five years and make them available to representatives of the department upon request. Department representatives must be granted access to any facility regulated by this subpart, during normal operating hours for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

4.) All records and corresponding emission calculations shall be kept on site for a minimum of five (5) years. This information shall be made available to the department upon request. A capping certification shall be submitted annually, by January 30th each year. It shall include monthly and rolling 12-month asphalt production for the drum plant, monthly and rolling 12-month propane consumption for the hot oil furnace, and monthly and rolling 12-month CO emissions.

Work Practice Type: PROCESS MATERIAL THRUPUT
Process Material: ASPHALTIC CONCRETE
Upper Permit Limit: 150,000 tons per year
Monitoring Frequency: DAILY
Averaging Method: 12-MONTH TOTAL, ROLLED MONTHLY
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
Subsequent reports are due every 12 calendar month(s).

Condition 3: Visible Emissions Limited
Effective for entire length of Permit

Applicable Federal Requirement:6 NYCRR 211.2

Item 3.1:
Except as permitted by a specific part of this Subchapter and for open fires for which a restricted burning permit has been issued, no person shall cause or allow any air contamination source to

emit any material having an opacity equal to or greater than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

Condition 4: Compliance Demonstration
Effective for entire length of Permit

Applicable Federal Requirement:6 NYCRR 212-1.5 (d)

Item 4.1:
The Compliance Demonstration activity will be performed for the Facility.

Item 4.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

This condition documents the 6 NYCRR Part 212 Air Toxics evaluation performed for the proposed asphalt plant following the procedures in DEC Policy DAR-1: Guidelines for the Evaluation and Control of Ambient Air Contaminants under Part 212 (DAR-1). Emission estimates are based on an asphalt paving material (asphalt) production rate of 150,000 tons per year (tpy) which is a the federally enforceable production cap.

Producing 150,000 tpy of asphalt, the facility will emit 480 pounds per year (lb/yr) of formaldehyde, which is greater than the 100 lb/yr Mass Emission Limit (MEL) in Part 212-2.2 Table 2 – high toxicity air contaminant list (Table 2). The facility will also emit 38.8 lb/yr of polycyclic aromatic hydrocarbons (PAH's), which are a subset of polycyclic organic matter (POM), and greater than the 1 lb/yr MEL for POM in 212-2.2 Table 2. Since both formaldehyde and PAH's exceed the applicable MEL's in 212-2.2 Table 2, the emissions from each emission source will need to comply with 212-2.3(b) Table 4 – Degree of Air Cleaning Required for Non-Criteria Air Contaminates (Table 4). Both contaminants were assigned an Environmental Rating of A.

The Emission Rate Potential (ERP) of formaldehyde from the aggregate dryer is 0.93 lb/hr so it must comply with the 90% control requirement in Table 4. There are no controls that can be added to reduce formaldehyde so a Toxic-Best Available Control Technology (T-BACT) evaluation was conducted per 212-1.5(d). The August 19, 2020 application included a T-BACT analysis and concluded that T-BACT would require formaldehyde from the dryer to meet the Short-term Guidance Concentrations (SGC) and Annual Guidance Concentrations (AGC) in DAR-1. Formaldehyde emissions were modeled by DEC using EPA's AERSCREEN and the maximum off-site ambient concentration was 31% of the SGC and 92% of the AGC. Formaldehyde emissions from the dryer are considered in compliance with Part 212. As part of T-BACT, the burner must be tuned up annually and that is already required by 6 NYCRR 212-4(a)(1) (The tune up requirement is in a separate permit condition).

The Emission Rate Potential (ERP) of formaldehyde emissions from truck

load out and the asphalt storage silos are each less than 0.1 lb/hr. The ERP of PAH's from the aggregate dryer, truck load out and asphalt storage silos are each less than 0.1 lb/hr. Table 4 requires emissions less than 0.1 lb/hr to comply with the applicable SGC and AGC. Emissions from each source were modeled using AERSCREEN and the predicted ambient concentrations for each were below the applicable SGC and AGC. This demonstrates compliance with Part 212.

Monitoring Frequency: UPON REQUEST OF REGULATORY AGENCY
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 5: Compliance Demonstration
Effective for entire length of Permit

Applicable Federal Requirement:6 NYCRR 212-4.1 (a) (1)

Item 5.1:
The Compliance Demonstration activity will be performed for the Facility.

Item 5.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

A tune-up must be performed on the dryer burner on an annual basis at any hot mix asphalt production plant that is in operation during that calendar year.

The tune-up records must be submitted annually to the RAPCE at the following address:

NYSDEC
270 Michigan Avenue
Buffalo, New York 14203

Monitoring Frequency: ANNUALLY
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
Subsequent reports are due every 12 calendar month(s).

Condition 6: Compliance Demonstration
Effective for entire length of Permit

Applicable Federal Requirement:6 NYCRR 212-4.1 (a) (2)

Item 6.1:
The Compliance Demonstration activity will be performed for the Facility.

Item 6.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The facility submitted a plan which details the methods by which to reduce the moisture content of the aggregate stockpile(s). The moisture plan, which was submitted on August 24, 2020, has been approved by DEC. The facility shall perform self-inspections to monitor compliance with the plan.

No further reporting is required unless requested by the Department.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

****** Emission Unit Level ******

Condition 7: Compliance Demonstration
Effective for entire length of Permit

Applicable Federal Requirement:40CFR 60.92(a)(2), NSPS Subpart I

Item 7.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: 1-DRYER Emission Point: EP001

Regulated Contaminant(s):
CAS No: 0NY075-00-0 PARTICULATES

Item 7.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING
Monitoring Description:

(1) No owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from any affected facility any gases which contain opacity in excess of 20 percent.

(2) Method 9 shall be used to determine the opacity. 40 CFR Part 60.93(b)(2).

(3) A Method 9 opacity test for the new plant shall commence no later than 180 days after start up and no later than 60 days after reaching maximum production rate.

(4) A stack test protocol shall be submitted to the Department for approval at least thirty days in advance of the performance test.

(5) Submit the emission test report within 60 days after the

completion of the performance test.

Parameter Monitored: OPACITY
Upper Permit Limit: 20 percent
Reference Test Method: EPA Reference Method 9
Monitoring Frequency: SINGLE OCCURRENCE
Averaging Method: 6-MINUTE AVERAGE (METHOD 9)
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 8: Compliance Demonstration
Effective for entire length of Permit

Applicable Federal Requirement:6 NYCRR 212-1.6 (a)

Item 8.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: 1-DRYER Emission Point: EP001
Process: DRY

Regulated Contaminant(s):
CAS No: 0NY075-00-0 PARTICULATES

Item 8.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE
Monitoring Description:

Facility owner or operator shall not cause or allow emissions having an average opacity of 20 percent or greater for any consecutive six minute period from any emission source into the outdoor atmosphere.

In order to demonstrate compliance with this requirement, the facility owner or operator shall check for visible emissions during daylight hours and while the facility is in operation, except during periods of extreme weather (fog, snow, rain). Should any visible emissions appear, the facility owner or operator shall determine the cause and immediately make the necessary correction(s). If after corrections are made and any emissions continue to be observed, the facility owner or operator will conduct a Method 9 assessment to determine the degree of opacity. The facility owner or operator will notify the DEC immediately if the Method 9 test indicates that the opacity standard is not met.

The visible emission observations and opacity will be recorded in a log book at the facility and shall be made available to the Department upon request. Records shall be maintained at the facility for a minimum of 5 years.

The Department reserves the right to perform or require the

performance of a Method 9 opacity evaluation at any time during facility operation to determine compliance with the above opacity limit.

Parameter Monitored: OPACITY
Upper Permit Limit: 20 percent
Reference Test Method: EPA Reference Method 9
Monitoring Frequency: WHEN THE SOURCE IS OPERATING
Averaging Method: 6-MINUTE AVERAGE (METHOD 9)
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 9: Compliance Demonstration
Effective for entire length of Permit

Applicable Federal Requirement:40CFR 60.92(a)(1), NSPS Subpart I

Item 9.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: 1-DRYER Emission Point: EP001
Process: DRY Emission Source: BAGH1

Regulated Contaminant(s):
CAS No: 0NY075-00-0 PARTICULATES

Item 9.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING
Monitoring Description:

(1) No owner or operator shall discharge or cause the discharge into the atmosphere from any affected facility any gases which contain particulate matter in excess of 0.04 gr/dscf.

(2) EPA Method 5 shall be used to determine the particulate matter concentration. The sampling time and sample volume for each run shall be at least 60 minutes and 0.90 dscm (31.8 dscf), per 40 CFR Part 60.93(b)(1).

(3) A particulate stack test for the new plant shall commence no later than 180 days after start up and no later than 60 days after reaching maximum production rate.

(4) A stack test protocol shall be submitted to the Department for approval at least thirty days in advance of the performance test.

(5) Submit the emission test report within 60 days after the completion of the performance test.

Compliance with this particulate limit also satisfies the particulate matter limit requirement found in 6 NYCRR Part 212-2.5(b) as described

in 6 NYCRR Part 212-1.5(e)(1).

Parameter Monitored: PARTICULATES
Upper Permit Limit: 0.04 grains per dscf
Reference Test Method: EPA Method 5
Monitoring Frequency: SINGLE OCCURRENCE
Averaging Method: 1-HOUR AVERAGE
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 10: Compliance Demonstration
Effective for entire length of Permit

Applicable Federal Requirement:40CFR 60.92(a)(1), NSPS Subpart I

Item 10.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: 1-DRYER Emission Point: EP001
Process: DRY Emission Source: BAGH1

Regulated Contaminant(s):
CAS No: 0NY075-00-0 PARTICULATES

Item 10.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

At all times, the permittee shall maintain the fabric collector control device for the hot mix asphalt drum plant in a manner consistent with good air pollution control practice for minimizing emissions and demonstrating continued compliance with the particulate emissions limit of 0.04 gr/dscf. The permittee has submitted a baghouse Inspection and Maintenance (I & M) plan as follows:

1. On a daily basis, the permittee will monitor the condition and performance of critical plant elements that have the potential to affect particulate emissions on an on-going basis during material production and operation.

2. On a monthly basis, a visual inspection of the baghouse will be conducted and the condition of each bag documented. Faulty bags will be promptly serviced. The visual inspection will also be conducted at the conclusion of the production season to address winter maintenance elements as necessary.

3. A black light test will be conducted on a semi-annual basis. The test will be conducted prior to seasonal production and halfway into the production period. An additional test may be necessary if the results of monthly visual baghouse inspections indicate the need to evaluate fabric collector performance. Corrective action to address faulty bags and/or loose collars will be promptly implemented.

As part of the facility maintenance plan, the permittee must develop and implement corrective action procedures to be followed in the case of the observation of visible emissions from the baghouse, or the indication through the periodic baghouse system inspections that the system is not operating properly. The permittee must initiate corrective action as soon as practicable after the occurrence of the observation or event indicating a problem.

Additionally, the permittee will investigate, in a timely manner, any instance where there is cause to believe that particulate emissions in excess of the particulate limit are occurring or have occurred. These instances include but are not limited to process upsets, control device malfunctions or problems, abnormal visible emissions, complaints, etc. The permittee shall determine the cause of any exceedance, make the necessary correction, and verify that the excess emissions problem has been corrected. The permittee will confirm that during source operation all pertinent parameters are within ranges that ensure compliance with the particulate emission rate.

Records of these verifications, investigations and corrective actions will be kept on-site for a period of 5 years and made available to Department representatives on request. Should the Department determine that permittee's record keeping format is inadequate to demonstrate compliance with this condition, it shall provide written notice to the permittee stating the inadequacies, and permittee shall have 90 days to revise its prospective record keeping format in a manner acceptable to the Department.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

STATE ONLY ENFORCEABLE CONDITIONS
****** Facility Level ******

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS
This section contains terms and conditions which are not federally enforceable. Permittees may also have other obligations under regulations of general applicability

Item A: Emergency Defense - 6 NYCRR 201-1.5

An emergency, as defined by subpart 201-2, constitutes an affirmative defense to penalties sought in an enforcement action brought by the Department for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

(a) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An emergency occurred and that the facility owner or operator can identify the cause(s) of the emergency;
(2) The equipment at the permitted facility causing the emergency was at the time being properly operated and maintained;
(3) During the period of the emergency the facility owner or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
(4) The facility owner or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the facility owner or operator seeking to establish the occurrence of an emergency has the burden of proof.

(c) This provision is in addition to any emergency or upset provision contained in any applicable requirement.

Item B: **Public Access to Recordkeeping for Facilities With State Facility Permits - 6 NYCRR 201-1.10 (a)**
Where facility owners and/or operators keep records pursuant to compliance with the requirements of 6 NYCRR Subpart 201-5.4, and/or the emission capping requirements of 6 NYCRR Subpart 201-7, the Department will make such records available to the public upon request in accordance with 6 NYCRR Part 616 - Public Access to Records. Facility owners and/or operators must submit the records required to comply with the request within sixty working days of written notification by the Department.

Item C: **General Provisions for State Enforceable Permit Terms and Condition - 6 NYCRR Part 201-5**

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

STATE ONLY APPLICABLE REQUIREMENTS

The following conditions are state only enforceable.

Condition 11: Contaminant List
Effective for entire length of Permit

Applicable State Requirement:ECL 19-0301

Item 11.1:
Emissions of the following contaminants are subject to contaminant specific requirements in this permit(emission limits, control requirements or compliance monitoring conditions).

CAS No: 000630-08-0
Name: CARBON MONOXIDE

CAS No: 0NY075-00-0
Name: PARTICULATES

Condition 12: Malfunctions and Start-up/Shutdown Activities
Effective for entire length of Permit

Applicable State Requirement:6 NYCRR 201-1.4

Item 12.1:
(a) The facility owner or operator shall take all necessary and appropriate actions to prevent the emission of air pollutants that result in contravention of any applicable emission standard during periods of start-up, shutdown, or malfunction.

(b) The facility owner or operator shall compile and maintain records of all equipment maintenance and start-up/shutdown activities when they are expected to result in an exceedance of any applicable emission standard, and shall submit a report of such activities to the department when required by a permit condition or upon request by the department. Such reports

shall state whether an exceedence occurred and if it was unavoidable, include the time, frequency and duration of the exceedence, and an estimate of the emission rates of any air contaminants released. Such records shall be maintained for a period of at least five years and made available for review to department representatives upon request. Facility owners or operators subject to continuous monitoring and quarterly reporting requirements need not submit additional reports of exceedences to the department.

(c) In the event that air contaminant emissions exceed any applicable emission standard due to a malfunction, the facility owner or operator shall notify the department as soon as possible during normal working hours, but not later than two working days after becoming aware that the malfunction occurred. In addition, the facility owner or operator shall compile and maintain a record of all malfunctions. Such records shall be maintained at the facility for a period of at least five years and must be made available to the department upon request. When requested by the department, the facility owner or operator shall submit a written report to the department describing the malfunction, the corrective action taken, the air contaminants emitted, and the resulting emission rates and/or opacity.

(d) The department may also require the facility owner or operator to include, in reports described under Subdivisions (b) and (c) of this Section, an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions.

(e) A violation of any applicable emission standard resulting from start-up, shutdown, or malfunction conditions at a permitted or registered facility may not be subject to an enforcement action by the department and/or penalty if the department determines, in its sole discretion, that such a violation was unavoidable. The actions and recordkeeping and reporting requirements listed above must be adhered to in such circumstances.

Condition 13: Emission Unit Definition
Effective for entire length of Permit

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 13.1:
The facility is authorized to perform regulated processes under this permit for:
Emission Unit: 1-DRYER
Emission Unit Description:
This emission unit includes the 2009 Tarmac counter-flow drum dryer rated at 300-tons asphalt per hour. The dryer is fired by a Hauck Eco-Star II natural gas burner with a burner heat input rating of 0.25-MMBtu/ton aggegate (75-MMBtu/hr). Particulate emissions from the dryer are controlled by a fabric filter baghouse with a 98+% PM-10 removal efficiency. Emissions of other criteria and non-criteria contaminants are also ducted through the baghouse and vent to atmosphere via 48-inch square vertical stack 31-feet above grade. The unit is operated only during the paving season, typically May through November, and will be limited to 150,000-tons hot mix asphalt (HMA) per 12-month period. The purpose of this limit is to maintain carbon monoxide and volatile organic compound emissions to less than the respective major source thresholds.

Condition 14: Renewal deadlines for state facility permits

Effective for entire length of Permit

Applicable State Requirement:6 NYCRR 201-5.2 (c)

Item 14.1:
The owner or operator of a facility having an issued state facility permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.

Condition 15: Compliance Demonstration
Effective for entire length of Permit

Applicable State Requirement:6 NYCRR 201-5.3 (c)

Item 15.1:
The Compliance Demonstration activity will be performed for the Facility.

Item 15.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

Any reports or submissions required by this permit shall be submitted to the Regional Air Pollution Control Engineer (RAPCE) at the following address:

Division of Air Resources
NYS Dept. of Environmental Conservation
Region 9
270 Michigan Ave.
Buffalo, NY 14203

Monitoring Frequency: ANNUALLY
Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 16: Air pollution prohibited
Effective for entire length of Permit

Applicable State Requirement:6 NYCRR 211.1

Item 16.1:
No person shall cause or allow emissions of air contaminants to the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property. Notwithstanding the existence of specific air quality standards or emission limits, this prohibition applies, but is not limited to, any particulate, fume, gas, mist, odor, smoke, vapor, pollen, toxic or deleterious emission, either alone or in combination with others.

****** Emission Unit Level ******

Condition 17: Emission Point Definition By Emission Unit
Effective for entire length of Permit

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 17.1:
The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: 1-DRYER

Emission Point: EP001
Height (ft.): 31 Length (in.): 18 Width (in.): 49
NYTMN (km.): 4777. NYTME (km.): 660.3

Condition 18: Process Definition By Emission Unit
Effective for entire length of Permit

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 18.1:
This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 1-DRYER
Process: DRY Source Classification Code: 3-05-002-55
Process Description:
Aggregate is dried in the propane-fired counter-flow drum dryer. The dried aggregate is then combined with asphalt oil to produce asphaltic cement. The asphaltic cement is then either transferred directly to trucks for transport off-site, or to either of two 300 ton storage silos for load-out at a later date.

Emission Source/Control: DRYER - Combustion
Design Capacity: 300 tons per hour

Emission Source/Control: BAGH1 - Control
Control Type: FABRIC FILTER

Appendix F
NYSDEC Air State Facility Permit Application
(Air Modeling)

NEU-VELLE LLC

August 19, 2020

Mr. David Denk
Region 9 Permit Administrator
New York State Department of Environmental Conservation
270 Michigan Ave
Buffalo, NY 14203

Re: Application for Air State Facility Permit
4660 Witmer Road, LLC

Dear Mr. Denk:

On behalf of 4660 Witmer Road, LLC, we are providing the enclosed application for an Air State Facility (ASF) permit to construct and operate a counter-flow drum hot mix asphalt (HMA) plant. The plant will be located at 4660 Witmer Road, Niagara Falls, New York. The application has been prepared in accordance with NYSDEC instructions and includes:

- NYSDEC application forms
- Site plan
- Process flow diagram
- Emissions calculations
- Screening dispersion model
- Attachment A - T-BACT Analysis
- Attachment B - Moisture Control Plan
- Attachment C - Greenhouse Gas Reduction Plan

Air emissions were calculated using USEPA AP-42 Chapter 11.1 emission factors, with the exception of NOx, CO, VOC, and SOx factors for the drum dryer. These factors were provided by the burner manufacturer. The results based on theoretical maximum operation (8760 hours per year) indicate major source emissions for carbon monoxide (CO) and volatile organic compounds (VOCs). However, the HMA process is seasonal and the demand for product is generally limited to the months of May through November. Based on this seasonality and the anticipated demand for product, AL Asphalt is proposing to adopt an enforceable permit condition limiting operations to 500-hours per 12-month period. This limit will also serve to maintain CO and VOC emissions to less than major source thresholds.

In addition to annual mass emission rates, rates were also assessed in terms of Part 212 air cleaning requirements. Specifically, for air toxics with anticipated emissions in excess of 100-pounds per year we reviewed the air cleaning requirements in Section 212-2.3 Table 4. In all but two cases, the air cleaning requirements were demonstrated by screening dispersion modeling. In the first case (formaldehyde), the air cleaning requirement for the drum dryer is 90% removal. This requirement is based on the environmental rating and emission rate potential. Implementation of 90% control on this source presents significant technical challenges, so a review of

similar permitted facilities was conducted to see what controls they are using. Nineteen similar facilities were identified, but none are using add-on control for formaldehyde.

Under these circumstances, the facility is providing a demonstration of T-BACT for formaldehyde (see Attachment A). The demonstration includes a screening dispersion modeling analysis of compliance with both short-term and annual guideline concentrations (SGC/AGC). The results indicate compliance with the guidelines. The details are included in Table 2 of Attachment A.

In the second case, the assessment of air cleaning requirements for 2-methyl-1-pentene required the use of the conservative DAR-1 AGC default value of 0.1-µg/m^3. While the modeled result exceeds the default value, it is within 10x the value (see Calculations Table 10).

In addition to Part 212, AL Asphalt considered applicability to 40 CFR 60 Subpart I and to 40 CFR 63 Subpart AAAAAAA, Upon review it was determined that Subpart I is applicable but Subpart AAAAAAA is not.

Please contact me at (315) 466-4079 with any questions.

Sincerely,

James R. Paye

James R. Paye
Senior Project Manager

Enclosure

cc: Michael Emery, PE, NYSDEC
Al Zylinski, PE, NYSDEC
Alexandra Lettieri, AL Asphalt, LLC
Rosanne Dipizio, AL Asphalt, LLC
Al Lyons, Jr., PE, NEU-VELLE, LLC

APPLICATION FOR AIR STATE FACILITY PERMIT

4660 WITMER ROAD, LLC

New York State Department of Environmental Conservation
Air Permit Application

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID	APPLICATION ID	Application Type
- -	- - /	☒ State Facility ☐ Title V

Section 1 - Certification

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information required to complete this application, I believe the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Responsible Official	Alexandra Lettieri	Title	President
Signature		Date	8/13/2020

Professional Engineer Certification

I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments as they pertain to the practice of engineering. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Professional Engineer		NYS License No.	
Signature		Date	

Section II - Identification Information

Application Type

☐ New ☐ Renewal ☐ Significant Modification ☐ Administrative Amendment ☐ Minor Modification
☒ Application for the construction of a new facility ☐ Application involves the construction of new emission unit(s)

Facility Information

Name	4660 Witmer Road, LLC		
Location/Address	4660 Witmer Rd		
	☐ City/ ☒ Town/ ☐ Village Niagara Falls	Zip	14305

Owner/Firm Information

						Business Taxpayer ID
Name	4660 Witmer Road, LLC					831853671
Street Address	4660 Witmer Road					
City	Niagara Falls	State/Province	NY	Country	Zip	14305
Owner Classification	☐ Federal ☐ State ☐ Municipal ☒ Corporation/Partnership ☐ Individual					

Owner/Firm Contact Information

Name	Rosanne Dipizio					Phone	(716) 462-7198
E-mail Address	rosanne@dipizio.com					Fax	
Affiliation	Consultant			Title	General Manager		
Street Address	100 Stradtman						
City	Cheektowaga	State/Province	NY	Country		Zip	14206

Facility Contact Information

Name	Rosanne Dipizio					Phone	(716) 462-7198
E-mail Address	rosanne@dipizio.com					Fax	
Affiliation	Consultant			Title	General Manager		
Street Address	100 Stradtman						
City	Cheektowaga	State/Province	NY	Country		Zip	14206

New York State Department of Environmental Conservation
Air Permit Application

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- -

Project Description	☐ Continuation Sheet(s)
This project is an application for a counter-flow drum hot mix asphalt (HMA) plant to be located at an existing industrial site in Niagara Falls, New York. The facility is anticipated to produce 150,000-tons of hot mix asphaltic cement per year. The material will be used in roads, parking lots, and highways throughout western NY.	

Section III - Facility Information

Facility Classification

☐ Hospital ☐ Residential ☐ Educational/Institutional ☐ Commercial ☒ Industrial ☐ Utility

Affected States (Title V Applications Only)

☐ Vermont ☐ Massachusetts ☐ Rhode Island ☐ Pennsylvania Tribal Land _____
☐ New Hampshire ☐ Connecticut ☐ New Jersey ☐ Ohio Tribal Land

SIC Codes						NAICS Codes					
2951						324121					

Facility Description ☒ Continuation Sheet(s)

The facility is planned to produce up to 150,000 tons asphalt per year for use in roads, parking lots and highways throughout western New York. The facility will include stockpiles of differently sized aggregate, an aboveground asphalt oil storage tank, a rotary drum dryer, and two silos for storage of hot mix asphalt (HMA) product.

Compliance Statements (Title V Only)

I certify that as of the date of this application the facility is in compliance with all applicable requirements: ☐ Yes ☐ No

If one or more emission units at the facility are not in compliance with all applicable requirements at the time of signing of this application (the "No" box must be checked), the noncomplying units must be identified in the "Compliance Plan" block on Page 8 of this form along with the compliance plan information required. For all emission units at this facility that are operating in compliance with all applicable requirements complete the following:

☐ This facility will continue to be operated and maintained in such a manner as to assure compliance for the duration of the permit, except those units referenced in the compliance plan portion of section IV of this application.

☐ For all emission units, subject to any applicable requirements that will become effective during the term of the permit, this facility will meet all such requirements on a timely basis.

☐ Compliance certification reports will be submitted at least once a year. Each report will certify compliance status with respect to each requirement, and the method used to determine the status.

Facility Applicable Federal Requirements ☒ Continuation Sheet(s)

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Sub Paragraph	Clause	Sub clause
6	NYCRR	201	5						
6	NYCRR	201	7						
6	NYCRR	212	1	6					
6	NYCRR	212	2	3					

Facility State Only Requirements ☐ Continuation Sheet(s)

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Sub Paragraph	Clause	Sub clause

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Facility Compliance Certification ☒ Continuation Sheet(s)

Rule Citation

Title	Type	Part	Subpart		Subdivision	Paragraph	Subparagraph	Clause	Subclause		
6	NYCRR	201	7								

☒ Applicable Federal Requirement
☐ State Only Requirement

☒ Capping

CAS No.	Contaminant Name
000630-08-0	Carbon Monoxide

Monitoring Information

☐ Ambient Air Monitoring ☒ Work Practice Involving Specific Operations ☐ Record Keeping/Maintenance Procedures

Compliance Activity Description

The facility will limit emissions of carbon monoxide to less than 100-tons per 12-month period by limiting production to 150,000-tons asphalt per 12-month period. Production will be monitored on a rolling 12-month basis and emissions calculated using AP-42 emission factors until a stack test can be completed. Records will be maintained at the facility for a 5-year period.

Work Practice Type Code	Process Material Code	Process Material Description	Reference Test Method
05	155		

Parameter Code	Parameter Description	Manufacturer's Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
150000		38	

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
17		05		16	

Facility Emissions Summary ☒ Continuation Sheet(s)

CAS No.	Contaminant Name	Potential to Emit (tons/year)	Actual Emissions (pounds/yr)
0NY075-00-5	PM-10	0.4	
0NY750-02-5	PM-2.5	0.4	
007446-09-5	Sulfur Dioxide	0.5	
0NY210-00-0	Oxides of Nitrogen	1.9	
000630-08-0	Carbon Monoxide	6.4	
007439-92-1	Lead (elemental)	0.0	
0NY998-00-0	Total Volatile Organic Compounds	3.2	
0NY100-00-0	Total Hazardous Air Pollutants	0.4	
0NY750-00-0	Carbon Dioxide Equivalents	2,605	
	POM	0.1	

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Section IV - Emission Unit Information

Emission Unit Description		☐ Continuation Sheet(s)
Emission Unit	1-DRYER	

This emission unit includes the 2009 Tarmac counter-flow drum dryer rated at 300-tons asphalt per hour. The dryer is fired by a Hauck Eco-Star II natural gas burner with a burner heat input rating of 0.25-MMBtu/ton aggegate (75-MMBtu/hr). Particulate emissions from the dryer are controlled by a fabric filter baghouse with a 98+% PM-10 removal efficiency. Emissions of other criteria and non-criteria contaminants are also ducted through the baghouse and vent to atmosphere via a 48-inch square vertical stack 31-feet above grade. The unit is operated only during the paving season, typically May through November, and will be limited to 500-hours per 12-month period. The production rate for 500-hours is 150,000-tons hot mix asphalt (HMA). The purpose of this limit is to maintain carbon monoxide and volatile organic compound emissions to less than the respective major source thresholds.

Building Information				☐ Continuation Sheet(s)
Building ID	Building Name	Length (ft)	Width (ft)	Orientation
n/a				

Emission Unit	Emission Unit Emissions Summary				☐ Continuation Sheet(s)
1-DRYER					
CAS Number	Contaminant Name				
000630-08-0	Carbon Monoxide				
ERP (lbs/yr)	Potential to Emit		Actual Emissions		
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	
341640	39	341640	39	19500	
CAS Number	Contaminant Name				
0NY998-00-0	Volatile Organic Compounds				
ERP (lbs/yr)	Potential to Emit		Actual Emissions		
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	
84096	9.6	84096	9.6	4800	
CAS Number	Contaminant Name				
ERP (lbs/yr)	Potential to Emit		Actual Emissions		
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	
CAS Number	Contaminant Name				
ERP (lbs/yr)	Potential to Emit		Actual Emissions		
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	

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Emission Point Information — Continuation Sheet(s)

Emission Pt	EP001					
Ground Elev. (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp (°F)	Cross Section	
					Length (in)	Width (in)
	31	31		290	48	48
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (KM)	NYTM (N) (KM)	Building	Distance to Property Line (ft)	Date of Removal
87	83,000	660.3	4777.0	n/a	78	
Emission Pt						
Ground Elev. (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp (°F)	Cross Section	
					Length (in)	Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (KM)	NYTM (N) (KM)	Building	Distance to Property Line (ft)	Date of Removal
Emission Pt						
Ground Elev. (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp (°F)	Cross Section	
					Length (in)	Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (KM)	NYTM (N) (KM)	Building	Distance to Property Line (ft)	Date of Removal

Emission Source/Control Information — Continuation Sheet(s)

Emission Source ID	Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
DRYER	I	Aug-20					Tarmac Counter-Flow
Design Capacity	Design Capacity Units Code	Design Capacity Units Description			Waste Feed Code	Waste Feed Description	Waste Type Code / Description
300	9						
Emission Source ID	Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
BAGH1	K	Aug-20			016		BMG
Design Capacity	Design Capacity Units Code	Design Capacity Units Description			Waste Feed Code	Waste Feed Description	Waste Type Code / Description
83000	116						
Emission Source ID	Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
Design Capacity	Design Capacity Units Code	Design Capacity Units Description			Waste Feed Code	Waste Feed Description	Waste Type Code / Description

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Section IV - Emission Unit Information (continued)

Process Information				Continuation Sheet(s)
Emission Unit	1-DRYER		Process	DRY

Process Description

Aggregate is dried in the propane-fired counter-flow drum dryer. The dried aggregate is then combined with asphalt oil to produce asphaltic cement. The asphaltic cement is then either transferred directly to trucks for transport off-site, or to either of two storage silos for load-out at a later date.

Source Classification Code (SCC)	Total Throughput		Throughput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description
30500257	300	150,000	38	tons per year

☐ Confidential
☐ Operating at Maximum Capacity

Operating Schedule		Building	Floor Location
Hrs/Day	Days/Yr		
12	42	n/a	

Emission Point Identifier(s)

EP001							

Emission Source/Control Identifier(s)

DRYER	BAGH1						

Emission Unit			Process	

Process Description

Source Classification Code (SCC)	Total Throughput		Throughput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description

Confidential
☐ Operating at Maximum Capacity

Operating Schedule		Building	Floor Location
Hrs/Day	Days/Yr		

Emission Point Identifier(s)

Emission Source/Control Identifier(s)

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Emission Unit	Emission Point	Process	Emission Source	Emission Unit Applicable Federal Requirements							☐ Continuation Sheet(s)		
				Title	Type	Part	Subpart	Section	Subdiv	Parag	Subparag	Clause	Sub clause
1-DRYER				6	NYCRR	212	4	1	(a)	(1)			
1-DRYER				6	NYCRR	212	4	1	(a)	(2)			
1-DRYER				6	NYCRR	212	4	1	(b)	(1)			
1-DRYER				6	NYCRR	212	4	1	(b)	(2)			

Emission Unit	Emission Point	Process	Emission Source	Emission Unit State Only Requirements							☐ Continuation Sheet(s)		
				Title	Type	Part	Subpart	Section	Subdiv	Parag	Subparag	Clause	Sub clause

Emission Unit Compliance Certification ☒ Continuation Sheet(s)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragragh	Subparagraph	Clause	Subclause
6	NYCRR	212	1	6					

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
1-DRYER				0NY075-00-5	PM-10

Monitoring Information

- ☐ Continuous Emission Monitoring
- ☐ Intermittent Emission Monitoring
- ☐ Ambient Air Monitoring
- ☐ Monitoring of Process or Control Device Parameters as Surrogate
- ☐ Work Practice Involving Specific Operations
- ☒ Record Keeping/Maintenance Procedures

Compliance Activity Description

The facility will demonstrate compliance with the opacity standard by completing a Method 9 opacity observation upon request by the department.

Work Practice Type Code	Process Material		Reference Test Method
	Code	Description	

Monitored Parameter		Manufacturer's Name/Model No.
Code	Description	

Limit		Limit Units	
Upper	Lower	Code	Description

Averaging Method		Monitoring Frequency		Reporting Requirements	
Code	Description	Code	Description	Code	Description
18		14		10	

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Supporting Documentation and Attachments	
Required Supporting Documentation	**Date of Document**
☒ List of Exempt Activities (attach form)	8/19/2020
☒ Plot Plan	8/19/2020
☒ Process Flow Diagram	8/19/2020
☒ Methods Used to Determine Compliance (attach form)	8/19/2020
☒ Calculations	8/19/2020
Optional Supporting Documentation	**Date of Document**
☒ Air Quality Model	8/19/2020
☐ Confidentiality Justification	
☐ Ambient Air Quality Monitoring Plan or Reports	
☐ Stack Test Protocol	
☐ Stack Test Report	
☐ Continuous Emissions Monitoring Plan	
☐ Lowest Achievable Emission Rate (LAER) Demonstration	
☐ Best Available Control Technology (BACT) Demonstration	
☐ Reasonably Available Control Technology (RACT) Demonstration	
☐ Toxic Impact Assessment (TIA)	
☐ Environmental Rating Demonstration	
☐ Operational Flexibility Protocol/Description of Alternate Operating Scenarios	
☐ Title IV Permit Application	
☐ Emission Reduction Credit (ERC) Quantification (attach form)	
☐ Baseline Period Demonstration	
☐ Use of Emission Reduction Credits (attach form)	
☐ Analysis of Contemporaneous Emissions Increase/Decrease	
Other Supporting Documentation	**Date of Document**
☒ T-BACT	8/19/2020
☒ Moisture Control Plan	8/19/2020
☒ Climate Leaders Community Protection Act Plan	8/19/2020

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Section III - Identification Information

Facility Description (continuation)

The asphalt oil storage tank will be heated using a propane-fired heater. The dryer will be fueled with propane. The drag slat conveyor from the dryer to the storage silos will be enclosed to capture emissions from the HMA, which will be routed to the dryer burner as a control measure. Exhaust from the dryer will be routed to a bgahouse for particulate matter (PM) control. The facility will typically operate during the May - November construction season. Operation will be limited to 500-hours per year in order to maintain carbon monoxide and VOC emissions below the respective major source thresholds.

Non-exempt sources include the counter-flow drum dryer, which will be controlled by the baghouse and by enclosing the drag slat conveyor. The emissions estimates included herein are conservative to the extent that they rely on USEPA AP-42 Chapter 11.1 emission factors without consideration of control achieved by capturing the conveyor emissions.

Permit exempt sources include the asphalt oil storage tank and heater, the two HMA storage silos, the aboveground propane tank, and the aggregate piles. Stack parameters for the point sources are described in the relevant sections of the application. Fugitive sources include the aggregate piles, cold aggregate bins, and truck load-out. A site plan is included as Figure 1, and a process flow diagram included as Figure 2.

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Section III - Facility Information

Facility Applicable Federal Requirements (continuation)

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Sub Paragraph	Clause	Sub clause
6	NYCRR	212	4	1	a	1			
6	NYCRR	212	4	1	a	2			
6	NYCRR	212	4	1	b				
40	CFR	60	I	92	a	1			
40	CFR	60	I	92	a	2			

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Section III - Facility Information

Facility Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Sub clause		
6	NYCRR	201	7								

☒ Applicable Federal Requirement
☐ State Only Requirement

☒ Capping

CAS No.	Contaminant Name
0NY998-00-0	Volatile Organic Compounds

Monitoring Information

☐ Ambient Air Monitoring ☒ Work Practice Involving Specific Operations ☐ Record Keeping/Maintenance Procedures

Description

The facility will limit emissions of volatile organic compounds (VOCs) to less than 50-tons per 12-month period by limiting production to 150,000-tons asphalt per 12-month period. Production will be monitored on a rolling 12-month basis and emissions calculated using AP-42 emission factors until a stack test can be completed. Records will be maintained at the facility for a 5-year period.

Work Practice	Process Material		Reference Test Method
	Code	Description	
05	155		

Monitored Parameter		Manufacturer's Name/Model No.
Code	Description	

Limit		Limit Units	
Upper	Lower	Code	Description
49		38	

Averaging Method		Monitoring Frequency		Reporting Requirements	
Code	Description	Code	Description	Code	Description
17		05		16	

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Section III - Facility Information

Facility Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Sub clause		
40	CFR	60	I	92	a	1					

☒ Applicable Federal Requirement
☐ State Only Requirement
☐ Capping

CAS No.	Contaminant Name
0NY075-00-0	Particulate Matter

Monitoring Information

☐ Ambient Air Monitoring ☐ Work Practice Involving Specific Operations ☒ Record Keeping/Maintenance Procedures

Description

The facility will demonstrate compliance with the particulate matter limit by completing a stack test in accordance with the requirements of 40 CFR 60.8. Records will be maintained for a period of five years.

Work Practice	Process Material		Reference Test Method
	Code	Description	
			Method 5

Monitored Parameter		Manufacturer's Name/Model No.
Code	Description	

Limit		Limit Units	
Upper	Lower	Code	Description
0.04		391	

Averaging Method		Monitoring Frequency		Reporting Requirements	
Code	Description	Code	Description	Code	Description
		14		16	

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Section III - Facility Information

Facility Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Sub clause		
40	CFR	60	I	92	a	2					

☒ Applicable Federal Requirement
☐ State Only Requirement
☐ Capping

CAS No.	Contaminant Name
0NY075-00-0	Particulate Matter

Monitoring Information

☐ Ambient Air Monitoring ☐ Work Practice Involving Specific Operations ☒ Record Keeping/Maintenance Procedures

Description

The facility will demonstrate compliance with the opacity standard by completing a Method 9 opacity observation in accordance with the requirements of 40 CFR 60.8. Records will be maintained for a period of five years.

Work Practice	Process Material		Reference Test Method
	Code	Description	
			Method 9

Monitored Parameter		Manufacturer's Name/Model No.
Code	Description	

Limit		Limit Units	
Upper	Lower	Code	Description
20			

Averaging Method		Monitoring Frequency		Reporting Requirements	
Code	Description	Code	Description	Code	Description
18		14		16	

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Section III - Identification Information

Facility Emissions Summary (continuation)			
CAS No.	Contaminant Name	Potential to Emit (tons/yr)	Actual (lbs/yr)
71-55-6	1,1,1-Trichloroethane	0.0E+00	
78-93-3	2-Butanone	7.0E-06	
71-43-2	Benzene[a]	2.9E-02	
74-83-9	Bromomethane	1.2E-06	
75-15-0	Carbon Disulfide	2.3E-06	
75-00-3	Chloroethane	3.4E-07	
74-87-3	Chloromethane	3.0E-06	
92-82-8	Cumene	8.8E-06	
100-41-4	Ethylbenzene	1.8E-02	
50-00-0	Formaldehyde[a]	**2.3E-01**	
100-54-3	Hexane	**6.9E-02**	
540-84-1	Isooctane	3.0E-03	
71-55-6	Methyl Chloroform	3.6E-03	
596-89-9	MTBE	0.0E+00	
98-47-6	o-Xylene	1.1E-05	
123-38-6	Propionaldehyde	0.0E+00	
106-51-4	Quinone	0.0E+00	
100-42-5	Styrene	1.0E-06	
127-18-4	Tetrachloroethene[a]	6.2E-07	
100-88-3	Toluene	1.1E-02	
79-01-6	Trichloroethene[a]	0.0E+00	
75-69-4	Trichlorofluoromethane	1.0E-07	
1330-20-7	Xylenes	1.5E-02	
91-57-6	2-Methylnaphthalene	6.2E-03	
83-32-9	Acenapth	9.1E-03	
208-96-8	Acenapthy	9.2E-04	
120-12-7	Anthracene	2.5E-03	
56-55-3	Benzo(a)anthracene	1.1E-03	
50-32-8	Benzo(a)pyrene	2.7E-06	
205-99-2	Benzo(b)fluor	8.2E-06	
192-97-2	Benzo€pyrene	1.9E-04	
191-24-2	Benzo(g,h,i)perylene	3.5E-06	
207-08-9	Benzo(k)fluor	3.6E-06	
218-01-9	Chrysene	4.0E-03	
206-44-0	Fluoranthene	2.9E-03	
86-73-7	Fluorene	2.0E-02	
193-39-5	Indeno(1,2,3)pyr	6.5E-07	
91-20-3	Naphthalene	4.2E-02	
198-55-0	Perylene	5.8E-04	
85-01-8	Phenanthrene	3.5E-02	
129-00-0	Pyrene	8.5E-03	
108-95-2	Phenol	3.0E-04	

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Section III - Identification Information

Facility Emissions Summary (continuation)

CAS No.	Contaminant Name	Potential to Emit (tons/yr)	Actual (lbs/yr)
106-97-8	Butane	**5.0E-02**	
74-85-1	Ethylene	**5.3E-01**	
142-82-5	Heptane	**7.1E-01**	
763-29-1	2-Methyl-1-pentene	**3.0E-01**	
513-35-9	2-Methyl-2-butene	4.4E-02	
96-14-0	3-Methylpentane	1.4E-02	
106-67-1	1-Pentene	**1.7E-01**	
109-66-0	n-Pentene	1.6E-02	
0	Antimony compounds	1.4E-05	
0	Arsenic compounds	4.2E-05	
0	Beryllium compounds	0.0E+00	
0	Cadmium compounds	3.1E-05	
0	Chromium compounds	4.1E-04	
0	Cobalt compounds	2.0E-06	
0	Cr(VI)	3.4E-05	
0	Lead compounds	4.7E-05	
0	Manganese compounds	5.8E-04	
0	Mercury compounds	1.8E-05	
0	Nickel compounds	4.7E-03	
0	Selenium compounds	2.6E-05	
7440-39-3	Barium	4.4E-04	
7440-50-8	Copper	2.3E-04	
7723-14-0	Phosphorous	2.1E-03	
7440-22-4	Silver	3.6E-05	
7440-28-0	Thallium	3.1E-07	
7440-66-6	Zinc	4.6E-03	

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Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause		
6	NYCRR	212	2	3	b						

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
1-DRYER				0NY100-00-0	HAP

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

Compliance is determined using USEPA AP-42 emission factors to establish hourly emission rate potential. The results are compared to Section 212-2.3(b) Table 4 air cleaning requirements. Screening dispersion modeling is completed for those contaminants subject to DAR-1 concentration limits. Records of the results are maintained on-site for a period of 5-years.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Parameter Code	Parameter Description	Manufacturer's Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14		16	

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Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause		
6	NYCRR	212	2	3	b						

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
1-DRYER				50-00-0	Formaldehyde

Monitoring Information

☐ Continuous Emission Monitoring
☒ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as Surrogate
☐ Work Practice Involving Specific Operations
☐ Record Keeping/Maintenance Procedures

Description

The formaldehyde emission rate potential for the drum dryer based on the AP-42 emission factor is greater than 0.1-lb/hr. As an "A" rated contaminant the degree of air cleaning required is 90%. The facility has determined that this level of control is unachievable. Therefore, in accordance with 6NYCRR 212-1.5(d) a T-BACT evaluation has been completed. The results indicate that the maximum offsite impact is within the DAR-1 acceptable risk management range.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method
			RM320

Parameter Code	Parameter Description	Manufacturer's Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14		16	

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List of Exempt Activities

Instructions
Applicants for Title V facility permits must provide a listing of each exempt activity, as described in 6 NYCRR Part 201-3.2(c), that is currently operated at the facility. This form provides a means to fulfill this requirement. In order to complete this form, enter the number and building location of each exempt activity. Building IDs used on this form should match those used in the Title V permit application. If a listed activity is not operated at the facility, leave the corresponding information blank.

Combustion			
Rule Citation 201-3.2(c)	Description	Number of Activities	Building Location
(1)	Stationary or portable combustion installations where the furnace has a maximum heat input capacity less than 10 mmBtu/hr burning fuels other than coal or wood; or a maximum heat input capacity of less than 1 mmBtu/hr burning coal or wood. This activity does not include combustion installations burning any material classified as solid waste, as defined in 6 NYCRR Part 360, or waste oil, as defined in 6 NYCRR Subpart 225-2.	1	n/a
(2)	Space heaters burning waste oil at automotive service facilities, as defined in 6 NYCRR Subpart 225-2, generated on-site or at a facility under common control, alone or in conjunction with used oil generated by a do-it-yourself oil changer as defined in 6 NYCRR Subpart 374-2.		
(3)(i)	Stationary or portable internal combustion engines that are liquid or gaseous fuel powered and located within the New York City metropolitan area or the Orange County towns of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick, or Woodbury, and have a maximum mechanical power rating of less than 200 brake horsepower.		
(3)(ii)	Stationary or portable internal combustion engines that are liquid or gaseous fuel powered and located outside of the New York City metropolitan area or the Orange County towns of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick, or Woodbury, and have a maximum mechanical power rating of less than 400 brake horsepower.		
(3)(iii)	Stationary or portable internal combustion engines that are gasoline powered and have a maximum mechanical power rating of less than 50 brake horsepower.		
(4)	Reserved.		
(5)	Gas turbines with a heat input at peak load less then 10 mmBtu/hour		

Rule Citation 201-3.2(c)	Description	Number of Activities	Building Location
(6)	Emergency power generating stationary internal combustion engines, as defined in 6 NYCRR Part 200.1(cq), and engine test cells at engine manufacturing facilities that are utilized for research and development, reliability performance testing, or quality assurance performance testing. Stationary internal combustion engines used for peak shaving and/or demand response programs are not exempt.		
	Combustion Related		
(7)	Non-contact water cooling towers and water treatment systems for process cooling water and other water containers designed to cool, store or otherwise handle water that has not been in direct contact with gaseous or liquid process streams.		
	Agricultural		
(8)	Feed and grain milling, cleaning, conveying, drying and storage operations including grain storage silos, where such silos exhaust to an appropriate emissions control device, excluding grain terminal elevators with permanent storage capacities over 2.5 million U.S. bushels, and grain storage elevators with capacities above one million bushels.		
(9)	Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.		
	Commercial - Food Service Industries		
(10)	Flour silos at bakeries, provided all such silos are exhausted through an appropriate emission control device.		
(11)	Emissions from flavorings added to a food product where such flavors are manually added to the product.		
	Commercial - Graphic Arts		
(12)	Screen printing inks/coatings or adhesives which are applied by a hand-held squeegee. A hand-held squeegee is one that is not propelled though the use of mechanical conveyance and is not an integral part of the screen printing process.		
(13)	Graphic arts processes at facilities located outside the New York City metropolitan area or the Orange County towns of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick, or Woodbury whose facility-wide total emissions of volatile organic compounds from inks, coatings, adhesives, fountain solutions and cleaning solutions are less than three tons during any 12-month period.		

Rule Citation 201-3.2(c)	Description	Number of Activities	Building Location
(14)	Graphic label and/or box labeling operations where the inks are applied by stamping or rolling.		
(15)	Graphic arts processes which are specifically exempted from regulation under 6 NYCRR Part 234, with respect to emissions of volatile organic compounds which are not given an A rating as described in 6 NYCRR Part 212.		
	Commercial - Other		
(16)	Gasoline dispensing sites registered with the department pursuant to 6 NYCRR Part 612.		
(17)	Surface coating and related activities at facilities which use less than 25 gallons per month of total coating materials, or with actual volatile organic compound emissions of 1,000 pounds or less from coating materials in any 12-month period. Coating materials include all paints and paint components, other materials mixed with paints prior to application, and cleaning solvents, combined. This exemption is subject to the following: (i) The facility is located outside of the New York City metropolitan area or the Orange County towns of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick, or Woodbury; and (ii) All abrasive cleaning and surface coating operations are performed in an enclosed building where such operations are exhausted into appropriate emission control devices.		
(18)	Abrasive cleaning operations which exhaust to an appropriate emission control device.		
(19)	Ultraviolet curing operations.		
	Municipal/Public Health Related		
(20)	Landfill gas ventilating systems at landfills with design capacities less than 2.5 million megagrams (3.3 million tons) and 2.5 million cubic meters (2.75 million cubic yards), where the systems are vented directly to the atmosphere, and the ventilating system has been required by, and is operating under, the conditions of a valid 6 NYCRR Part 360 permit, or order on consent.		
	Storage Vessels		
(21)	Distillate fuel oil, residual fuel oil, and liquid asphalt storage tanks with storage capacities below 300,000 barrels.	1	n/a

Rule Citation 201-3.2(c)	Description	Number of Activities	Building Location
(22)	Pressurized fixed roof tanks which are capable of maintaining a working pressure at all times to prevent emissions of volatile organic compounds to the outdoor atmosphere.		
(23)	External floating roof tanks which are of welded construction and are equipped with a metallic-type shoe primary seal and a secondary seal from the top of the shoe seal to the tank wall.		
(24)	External floating roof tanks which are used for the storage of a petroleum or volatile organic liquid with a true vapor pressure less than 4.0 psi (27.6 kPa), are of welded construction and are equipped with one of the following: (i) a metallic-type shoe seal; (ii) a liquid-mounted foam seal; (iii) a liquid-mounted liquid-filled type seal; or (iv) equivalent control equipment or device.		
(25)	Storage tanks, including petroleum liquid storage tanks as defined in 6 NYCRR Part 229, with capacities less than 10,000 gallons, except those subject to 6 NYCRR Part 229 or Part 233.		
(26)	Horizontal petroleum or volatile organic liquid storage tanks.		
(27)	Storage silos storing solid materials, provided all such silos are exhausted through an appropriate emission control device. This exemption does not include raw material, clinker, or finished product storage silos at Portland cement plants.		
	Industrial		
(28)	Processing equipment at existing sand and gravel and stone crushing plants which were installed or constructed before August 31, 1983, where water is used for operations such as wet conveying, separating, and washing. This exemption does not include processing equipment at existing sand and gravel and stone crushing plants where water is used for dust suppression.		
(29)(i)	Sand and gravel processing or crushed stone processing lines at a non-metallic mineral processing facility that are a permanent or fixed installation with a maximum rated processing capacity of 25 tons of minerals per hour or less.		

DEC ID
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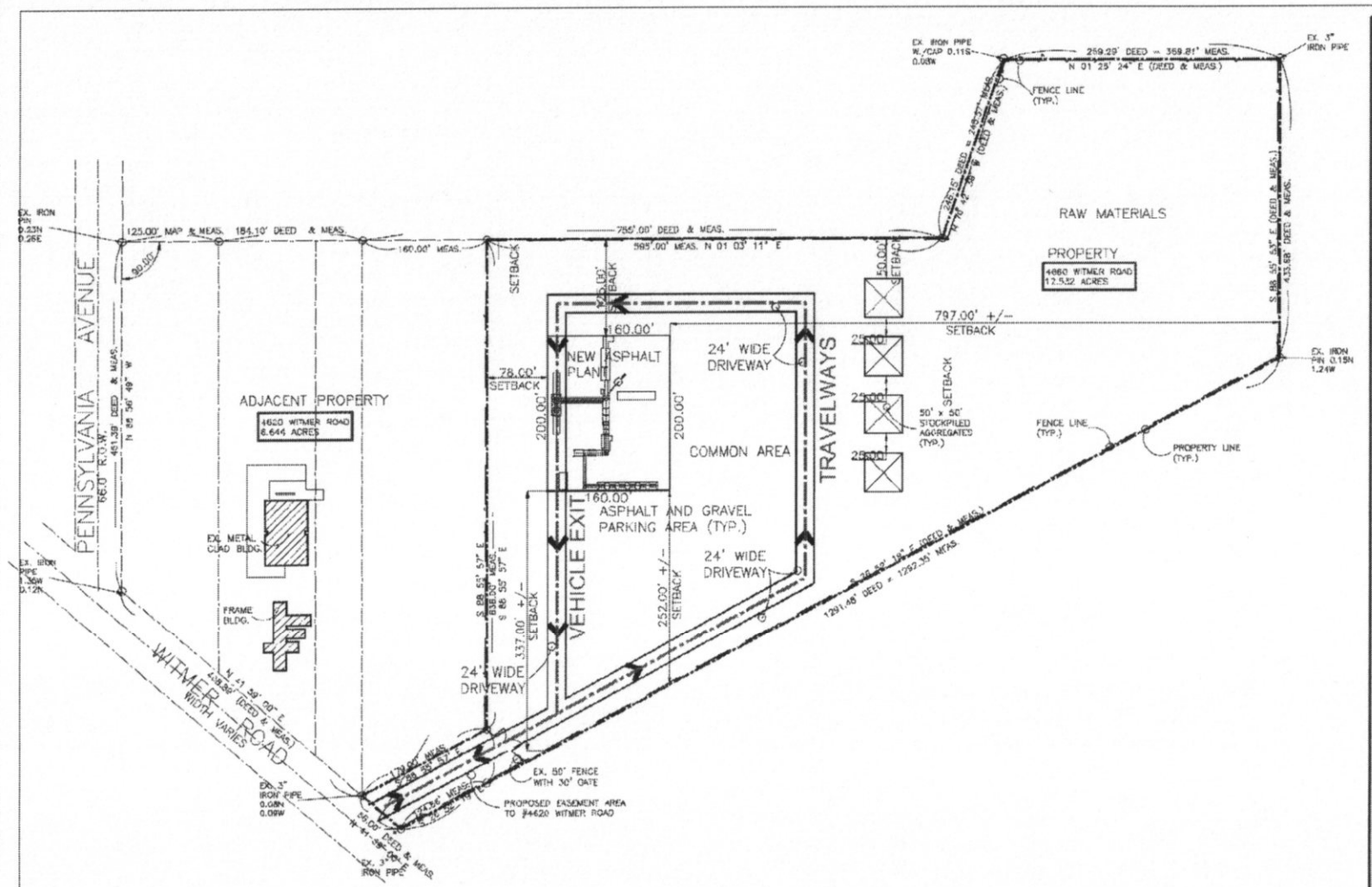
Rule Citation 201-3.2(c)	Description	Number of Activities	Building Location
(29)(ii)	Sand and gravel processing or crushed stone processing lines at a non-metallic mineral processing facility that are a portable emission source with a maximum rated processing capacity of 150 tons of minerals per hour or less.		
(29)(iii)	Sand and gravel processing or crushed stone processing lines at a non-metallic mineral processing facility that are used exclusively to screen minerals at a facility where no crushing or grinding takes place.		
(30)	Reserved.		
(31)	Surface coating operations which are specifically exempted from regulation under 6 NYCRR Part 228, with respect to emissions of volatile organic compounds which are not given an A rating pursuant to 6 NYCRR Part 212.		
(32)	Pharmaceutical tablet branding operations.		
(33)	Thermal packaging operations, including, but not limited to, therimage labeling, blister packing, shrink wrapping, shrink banding, and carton gluing.		
(34)	Powder coating operations.		
(35)	All tumblers used for the cleaning and/or deburring of metal products without abrasive blasting.		
(36)	Presses used exclusively for molding or extruding plastics except where halogenated carbon compounds or hydrocarbon solvents are used as foaming agents.		
(37)	Concrete batch plants where the cement weigh hopper and all bulk storage silos are exhausted through fabric filters, and the batch drop point is controlled by a shroud or other emission control device.		
(38)	Cement storage operations not located at Portland cement plants where materials are transported by screw or bucket conveyors.		
(39)(i)	Cold cleaning degreasers with an open surface area of 11 square feet or less and an internal volume of 93 gallons or less or, having an organic solvent loss of 3 gallons per day or less.		
39(ii)	Cold cleaning degreasers that use a solvent with a VOC content or five percent or less by weight, unless subject to the requirements of 40 CFR 63 Subpart T.		

DEC ID
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Rule Citation 201-3.2(c)	Description	Number of Activities	Building Location
(39)(iii)	Conveyorized degreasers with an air/vapor interface smaller than 22 square feet (2 square meters), unless subject to the requirements of 40 CFR 63 Subpart T.		
(39)(iv)	Open-top vapor degreasers with an open-top area smaller than 11 square feet (1 square meter), unless subject to the requirements of 40 CFR 63 Subpart T.		
	Miscellaneous		
(40)	Ventilating and exhaust systems for laboratory operations. Laboratory operations do not include processes having a primary purpose to produce commercial quantities of materials.		
(41)	Exhaust or ventilating systems for the melting of gold, silver, platinum and other precious metals.		
(42)	Exhaust systems for paint mixing, transfer, filling or sampling and/or paint storage rooms or cabinets, provided the paints stored within these locations are stored in closed containers when not in use.		
(43)	Exhaust systems for solvent transfer, filling or sampling, and/or solvent storage rooms provided the solvent stored within these locations are stored in containers when not in use.		
(44)	Research and development activities, including both stand-alone and activities within a major facility, until such time as the administrator completes a rule making to determine how the permitting program should be structured for these activities.		
(45)	The application of odor counteractants and/or neutralizers.		
(46)	Hydrogen fuel cells.		
(47)	Dry cleaning equipment that uses only water-based cleaning processes or those using liquid carbon dioxide.		
(48)	Manure spreading, handling and storage at farms and agricultural facilities.		

SITE PLAN

AL ASPHALT, 4660 WITMER ROAD



SURVEY INFORMATION TAKEN FROM SURVEY BY APEX CONSULTING, SURVEY & ENGINEERING SERVICES P.C.
DRAWING DATE 8/30/18
JOB NO. 18-141
DRAWING NO. 181141
SURVEY OF PARTS OF MILE RESERVE LOTS
30 & 31, SITUATE IN THE TOWN OF NIAGARA, COUNTY OF NIAGARA, AND STATE OF NEW YORK

SITE PLAN

SCALE: 1"=60'-0"

General Notes

PLAN NORTH | TRUE NORTH

BMG HOT MIX ASPHALT COUNTERFLOW DRUM PLANT 300 TPH

EXISTING LANDSCAPING

No.	Revision/Issue	Date

GEORGE P. STEINHARDT, JR.
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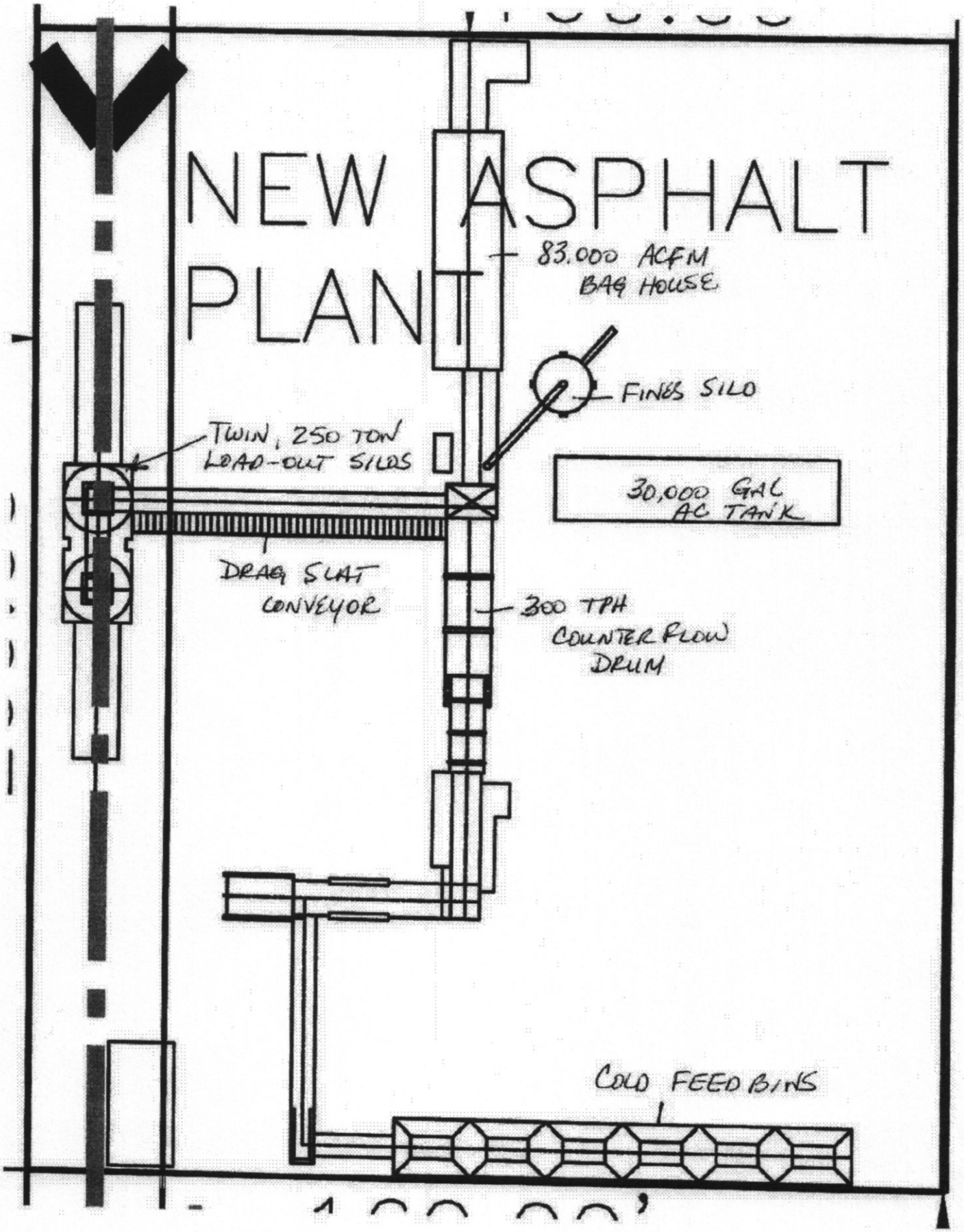
Project Name and Address
BMG HOT MIX ASPHALT COUNTERFLOW
DRUM PLANT 300 TPH
4660 WITMER ROAD
NIAGARA FALLS, NEW YORK 14304

OWNER
AL ASPHALT CORPORATION
100 STRAITMAN STREET
CHEEKTOWAGA, NEW YORK 14206

Project: 2019
Date: 08/13/2020
Scale: 1"=60'-0"
Sheet: SP-1.0

PROCESS FLOW DIAGRAM

AL ASPHALT, 4660 WITMER ROAD


NEW ASPHALT PLANT
83,000 ACFM BAG HOUSE
FINES SILO
TWIN, 250 TON LOAD-OUT SILOS
30,000 GAL AC TANK
DRAG SLAT CONVEYOR
300 TPH COUNTER FLOW DRUM
COLD FEED BINS

DEC ID

METHODS USED TO DETERMINE COMPLIANCE

Emission Unit ID	Applicable Requirement	Method Used to Determine Compliance	Compliance Date
1-DRYER	6NYCRR 201-7	Compliance with the carbon monoxide limit will be determined by maintaining hourly records of production and calculating emissions using published emission factors.	8/19/2020
1-DRYER	6NYCRR 212-1.6(a)	Compliance with the opacity standard will be determined by completing a Method 9 observation upon request by the department.	8/19/2020
1-DRYER	6NYCRR 212-2.3(b)	Compliance is determined using USEPA AP-42 emission factors to establish hourly emission rate potential. The results are compared to Section 212-2.3(b) Table 4 air cleaning requirements. For those contaminants subject to Guideline Concentration limits, screening dispersion modeling is conducted based on the test results. Records of the results are maintained on-site for a period of 5-years.	8/19/2020
1-DRYER	6NYCRR 212-2.3(b)	The formaldehyde emission rate potential for the drum dryer based on the AP-42 emission factor is greater than 0.1-lb/hr. As an "A" rated contaminant the degree of air cleaning required is 90%. The facility has determined that this level of control is unachievable. Therefore, in accordance with 6NYCRR 212-1.5(d) a T-BACT evaluation has been completed. The results indicate that the maximum offsite impact is within the DAR-1 acceptable risk management range.	8/19/2020
1-DRYER	6NYCRR 212-4.1(a)(1)	Compliance is determined by records of tune-ups performed on the dryer burner on an annual basis.	8/19/2020
1-DRYER	6NYCRR 212-4.1(a)(2)	Compliance is determined by submission and implementation of a plan to reduce the moisture content of the aggregate piles.	8/19/2020
1-DRYER	6NYCRR 212-4.1(b)	Compliance is determined by documentation of the low NOx rating of the drum dryer burner.	8/19/2020
1-DRYER	40 CFR 60.92(a)(1)	The facility will demonstrate compliance with the particulate matter limit by completing a stack test in accordance with the requirements of 40 CFR 60.8. Records will be maintained for a period of five years.	8/19/2020
1-DRYER	40 CFR 60.92(a)(2)	The facility will demonstrate compliance with the opacity standard by completing a Method 9 opacity observation in accordance with the requirements of 40 CFR 60.8. Records will be maintained for a period of five years.	8/19/2020

CALCULATIONS

Table 1
POTENTIAL TO EMIT
TONS based on 8760 hrs

Pollutant	*CAS #*	*Natural Gas-Fired Dryer w/ FF*	*Hot Oil System*	*Load Out & Yard*	*Silo Filling/ Asphalt Storage*	*Total (tons/yr)*
PM-10	0NY075-00-5	5.1	0.2	0.69		6.0
PM-2.5	0NY075-02-5	5.1	0.2	0.69		6.0
SO2	007446-09-5	4.5	4.8			9.2
NOx	0NY210-00-0	31.5	1.3			32.9
CO	000630-08-0	107.7	0.1	1.87		**109.7**
Pb	007439-92-1	0.0	0.0			0.0
VOC	0NY998-00-0	39.4	0.0	15	16	**70.5**
HAP	0NY100-00-0	7.1	0.0	0.2	2.0E-01	7.5
CO2e	0NY750-00-0	43756	1,880			45636
POM[d]		0.0E+00	1.5E-03	1.4		1.4
PCDD/PCDF		0.0E+00	1.5E-08			0.0
NON-PAH HAPs						
1,1,1-Trichloroethane	71-55-6			0.0E+00	0.0E+00	0.0E+00
2-Butanone	78-93-3			7.8E-03	6.2E-03	1.4E-02
Benzene[a]	71-43-2	0.51		8.3E-03	5.1E-03	5.3E-01
Bromomethane	74-83-9			1.5E-03	7.8E-04	2.3E-03
Carbon Disulfide	75-15-0			2.1E-03	2.6E-03	4.6E-03
Chloroethane	75-00-3			3.4E-05	6.4E-04	6.7E-04
Chloromethane	74-87-3			2.4E-03	3.7E-03	6.1E-03
Cumene	92-82-8			1.8E-02	0.0E+00	1.8E-02
Ethylbenzene	100-41-4	0.32		4.5E-02	6.1E-03	3.7E-01
Formaldehyde[a]	50-00-0	4.07	0.00	1.4E-02	1.1E-01	4.2E+00
Hexane	100-54-3	1.21		2.4E-02	1.6E-02	1.2E+00
Iso-octane	540-84-1	0.05		2.9E-04	5.0E-05	5.3E-02
Methyl Chloroform	71-55-6	0.06				6.3E-02
MTBE	596-89-9			0.0E+00	0.0E+00	0.0E+00
o-Xylene	98-47-6			1.3E-02	9.1E-03	2.2E-02
Propionaldehyde	123-38-6					0.0E+00
Quinone	106-51-4					0.0E+00
Styrene	100-42-5			1.2E-03	8.6E-04	2.0E-03
Tetrachloroethene[a]	127-18-4			1.2E-03	0.0E+00	1.2E-03
Toluene	100-88-3	0.20		3.4E-02	9.9E-03	2.4E-01
Trichloroethene[a]	79-01-6			0.0E+00	0.0E+00	0.0E+00
Trichlorofluoromethane	75-69-4			2.1E-04	0.0E+00	2.1E-04
Xylenes	1330-20-7	0.26		6.6E-02	3.2E-02	3.6E-01
PAH HAPs						0.0E+00
2-Methylnaphthalene		9.7E-02				9.7E-02
Acenapth		1.8E-03	3.6E-05	1.2E-03	1.6E-01	1.6E-01
Acenapthy		1.1E-02	1.3E-05	1.3E-04	4.7E-03	1.6E-02
Anthracene		2.9E-04	1.2E-05	3.1E-04	4.3E-02	4.4E-02

Table 1
POTENTIAL TO EMIT
TONS based on 8760 hrs

Pollutant	*CAS #*	*Natural Gas-Fired Dryer w/ FF*	*Hot Oil System*	*Load Out & Yard*	*Silo Filling/ Asphalt Storage*	*Total (tons/yr)*
Benzo(a)anth		2.8E-04		8.5E-05	1.9E-02	1.9E-02
Benzo(a)pyr		1.3E-05		1.0E-05	0.0E+00	2.3E-05
Benzo(b)fluor		1.3E-04	6.7E-06	3.4E-05	0.0E+00	1.7E-04
Benzo€pyr		1.4E-04		3.5E-05	3.2E-03	3.3E-03
Benzo(g,h,i)pery		5.3E-05		8.5E-06	0.0E+00	6.1E-05
Benzo(k)fluor		5.4E-05		9.9E-06	0.0E+00	6.4E-05
Chrysene		2.4E-04		4.6E-04	7.0E-02	7.1E-02
Fluoranthene		8.0E-04	3.0E-06	2.2E-04	5.0E-02	5.1E-02
Fluorene		5.0E-03	2.1E-06	3.4E-03	3.4E-01	3.5E-01
Indeno(1,2,3)pyr		9.2E-06		2.1E-06	0.0E+00	1.1E-05
Naphthalene		1.2E-01	1.1E-03	5.6E-03	6.1E-01	7.3E-01
Perylene		1.2E-05		9.9E-05	1.0E-02	1.0E-02
Phenanthrene		1.0E-02	3.3E-04	3.6E-03	6.0E-01	6.1E-01
Pyrene		7.1E-04	2.1E-06	6.7E-04	1.5E-01	1.5E-01
Phenol	108-95-2					0.0E+00
NON-HAP ORGANICS						0.0E+00
Butane	106-97-8	0.9				8.8E-01
Ethylene	74-85-1	9.2				9.2E+00
Heptane	142-82-5	12				1.2E+01
2-Methyl-1-pentene	763-29-1	5.3				5.3E+00
2-Methyl-2-butene	513-35-9	0.8				7.6E-01
3-Methylpentane	96-14-0	0.2				2.5E-01
1-Pentene	106-67-1	2.9				2.9E+00
n-Pentene	109-66-0	0.3				2.8E-01
TOTAL NON-HAP ORGANICS		31.9				3.2E+01
HAP METALS						0.0E+00
Antimony						0.0E+00
Arsenic		7.4E-04				7.4E-04
Berylium		0.0E+00				0.0E+00
Cadmium		5.4E-04				5.4E-04
Chromium		7.2E-03				7.2E-03
Cobalt		3.4E-05				3.4E-05
Cr(VI)		5.9E-04				5.9E-04
Lead		8.1E-04				8.1E-04
Manganese		1.0E-02				1.0E-02
Mercury		3.2E-04				3.2E-04
Nickel		8.3E-02				8.3E-02
Phosporous		3.7E-02				3.7E-02
Selenium		4.6E-04				4.6E-04
TOTAL HAP METALS		0.14				1.4E-01
NON-HAP METALS						0.0E+00

Table 1
POTENTIAL TO EMIT
TONS based on 8760 hrs

Pollutant	*CAS #*	*Natural Gas-Fired Dryer w/ FF*	*Hot Oil System*	*Load Out & Yard*	*Silo Filling/ Asphalt Storage*	*Total (tons/yr)*
Barium		8.7E-07				8.7E-07
Copper		4.7E-07				4.7E-07
Silver		4.2E-06				4.2E-06
Thallium		6.2E-10				6.2E-10
Zinc		9.2E-06				9.2E-06

Table 2
POTENTIAL TO EMIT
lbs per year @ 500 hrs

Pollutant	*CAS #*	*Natural Gas-Fired Dryer w/ FF*	*Hot Oil System*	*Load Out & Yard*	*Silo Filling/ Asphalt Storage*	*Total (lb/yr)*	*Total (tons/yr)*
PM-10	0NY075-00-5	585	25	78.29	88	776	0.4
PM-2.5	0NY075-02-5	585	25	78.29	88	776	0.4
SO2	007446-09-5	510	544			1054	0.5
NOx	0NY210-00-0	3600	153			3753	1.9
CO	000630-08-0	12300	9	213.27	213	12736	6.4
Pb	007439-92-1	0	0			0	0.0
VOC	0NY998-00-0	4500	3	15	1828	6346	3.2
HAP	0NY100-00-0	807	3	0	23	833	0.4
CO2e	0NY750-00-0	4995000	214,599			5209599	2605
POM[d]		0	1.8E-01	165		165	0.08
PCDD/PCDF		0	1.8E-06			***0***	0.00
NON-PAH HAPs							
1,1,1-Trichloroethane	71-55-6			0.00	0.00	0.0	0.00
2-Butanone	78-93-3			0.01	0.01	0.0	0.00
Benzene[a]	71-43-2	59		0.01	0.01	58.5	0.03
Bromomethane	74-83-9			0.00	0.00	0.0	0.00
Carbon Disulfide	75-15-0			0.00	0.00	0.0	0.00
Chloroethane	75-00-3			0.00	0.00	0.0	0.00
Chloromethane	74-87-3			0.00	0.00	0.0	0.00
Cumene	92-82-8			0.02	0.00	0.0	0.00
Ethylbenzene	100-41-4	36		0.04	0.01	36.1	0.02
Formaldehyde[a]	50-00-0	465	0.03	0.01	0.11	**465**	0.23
Hexane	100-54-3	138		0.02	0.02	**138**	0.07
Isooctane	540-84-1	6		0.00	0.00	6	0.00
Methyl Chloroform	71-55-6	7				7.2	0.00
MTBE	596-89-9			0.00	0.00	0.0	0.00
o-Xylene	98-47-6			0.01	0.01	0.0	0.00
Propionaldehyde	123-38-6	0				0.0	0.00
Quinone	106-51-4	0				0.0	0.00
Styrene	100-42-5			0.00	0.00	0.0	0.00
Tetrachloroethene[a]	127-18-4			0.00	0.00	0.0	0.00
Toluene	100-88-3	23		0.03	0.01	22.5	0.01
Trichloroethene[a]	79-01-6			0.00	0.00	0.0	0.00
Trichlorofluoromethane	75-69-4			0.00	0.00	0.0	0.00
Xylenes	1330-20-7	30		0.07	0.03	30	0.02
PAH HAPs						0.0	
2-Methylnaphthalene		11		1.22		12.3	6.2E-03
Acenapth		0.2	0.004	0.13	18	18.2	9.1E-03

Table 2
POTENTIAL TO EMIT
lbs per year @ 500 hrs

Pollutant	*CAS #*	*Natural Gas-Fired Dryer w/ FF*	*Hot Oil System*	*Load Out & Yard*	*Silo Filling/ Asphalt Storage*	*Total (lb/yr)*	*Total (tons/yr)*
Acenapthy		1.3	0.002	0.01	1	1.8	9.2E-04
Anthracene		0.0	0.001	0.04	5	5.0	2.5E-03
Benzo(a)anth		0.0		0.01	2	2.2	1.1E-03
Benzo(a)pyr		0.0		0.00	0.0	0.0	2.7E-06
Benzo(b)fluor		0.0	2.5E-04	0.00	0.0	0.0	8.2E-06
Benzo€pyr		0.0		0.00	0.4	0.4	1.9E-04
Benzo(g,h,i)pery		0.0		0.00	0.0	0.0	3.5E-06
Benzo(k)fluor		0.0		0.00	0.0	0.0	3.6E-06
Chrysene		0.0		0.05	8	8.1	4.0E-03
Fluoranthene		0.1	3.4E-04	0.03	6	5.8	2.9E-03
Fluorene		0.6	2.5E-04	0.39	38	39	2.0E-02
Indeno(1,2,3)pyr		0.0		0.00	0.0	0.0	6.5E-07
Naphthalene		14	0.130	0.64	69	84	4.2E-02
Perylene		0.0		0.01	1.1	1.2	5.8E-04
Phenanthrene		1.1	0.038	0.41	69	70	3.5E-02
Pyrene		0.1	0.176	0.08	17	17.1	8.5E-03
Phenol	108-95-2			0.60		0.6	3.0E-04
NON-HAP ORGANICS						0.0	
Butane	106-97-8	101				**101**	5.0E-02
Ethylene	74-85-1	1050				**1050**	5.3E-01
Heptane	142-82-5	1410				**1410**	7.1E-01
2-Methyl-1-pentene	763-29-1	600				**600**	3.0E-01
2-Methyl-2-butene	513-35-9	87				87	4.4E-02
3-Methylpentane	96-14-0	29				28.5	1.4E-02
1-Pentene	106-67-1	330				**330**	1.7E-01
n-Pentene	109-66-0	32				31.5	1.6E-02
TOTAL NON-HAP ORGANICS						3638	1.82
HAP METALS							
Antimony		0.03				0.0	1.4E-05
Arsenic		0.08				0.1	4.2E-05
Berylium		0.00				0.0	0.0E+00
Cadmium		0.06				0.1	3.1E-05
Chromium		0.83				0.8	4.1E-04
Cobalt		0.00				0.0	2.0E-06
Cr(VI)		0.07				0.1	3.4E-05
Lead		0.09				0.1	4.7E-05
Manganese		1.16				1.2	5.8E-04
Mercury		0.04				0.0	1.8E-05
Nickel		9.45				9.5	4.7E-03

Table 2
POTENTIAL TO EMIT
lbs per year @ 500 hrs

Pollutant	*CAS #*	*Natural Gas-Fired Dryer w/ FF*	*Hot Oil System*	*Load Out & Yard*	*Silo Filling/ Asphalt Storage*	*Total (lb/yr)*	*Total (tons/yr)*
Phosporous		4.20				4.2	2.1E-03
Selenium		0.05				0.1	2.6E-05
TOTAL HAP METALS						16.1	0.01
NON-HAP METALS						0.0	
Barium		0.87				0.9	4.4E-04
Copper		0.47				0.5	2.3E-04
Silver		4.20				4.2	2.1E-03
Thallium		0.00				0.0	3.1E-07
Zinc		9.15				9.2	4.6E-03

Table 3

PTE, 300 ton/hr Counterflow Rotary Drum Dryer

Natural Gas-Fired Dryer w/ FF							
Contaminant	*CAS #*	*Emission Factor (lb/ton)*	*ERP lb/hr*	*lb/yr @ 8760 hpy*	*tons/yr @ 8760 hpy*	*lb/yr @ 500 hpy*	*tons/yr @ 500 hpy*
PM-10	0NY075-00-0	0.0039	1.17	10249	5.1	585	0.3
PM-2.5	0NY750-02-5	*0.0039*	1.17	10249	5.1	585	0.3
SO2	007446-09-5	0.0034	1.02	8935	4.5	510	0.3
NOx[1]	0NY210-00-0	0.024	7.20	63072	31.5	3600	1.8
CO[1]	000630-08-0	0.082	25	215496	107.7	12300	6.2
Pb	007439-92-1		0.00	0	0.0	0.0	0.0
VOC[1]	0NY998-00-0	0.03	9.00	78840	39.4	4500	2.3
HAP	0NY100-00-0	5.38E-03	1.61	14145	7.1	807	0.4
CO_2e [2]	0NY750-00-0	33.3	9990	87512400	43756	4995000	2498
NON-PAH HAPS							
Acetaldehyde							
Acrolein							
Benzene	71-43-2	0.00039	0.12	1025	0.5	59	2.9E-02
Ethylbenzene	100-41-4	0.00024	0.07	631	0.3	36	1.8E-02
Formaldehyde[3]	50-00-0	0.0031	0.93	8147	4.1	**465**	2.3E-01
Hexane[3]	110-54-3	0.00092	0.28	2418	1.2	**138**	6.9E-02
Iso-octane	540-84-1	4.00E-05	0.01	105	0.1	6	3.0E-03
Methyl chloroform	71-55-6	4.80E-05	0.01	126	0.1	7	3.6E-03
Propionaldehyde			0.00		0.0	0	
Quinone			0.00		0.0	0	
Toluene	108-88-3	0.00015	0.05	394	0.2	23	1.1E-02
Xylene	1330-20-7	0.0002	0.06	526	0.3	30	1.5E-02
TOTAL NON-PAH HAPS		0.0051	1.53	13371	6.7	763	0.4
PAH HAPs							
2-Methylnaphthalene	91-57-6	7.40E-05	2.22E-02	194	9.7E-02	11.1	5.6E-03
Acenapthene	83-32-9	1.40E-06	4.20E-04	4	1.8E-03	0.21	1.1E-04
Acenapthylene	208-96-8	8.60E-06	2.58E-03	23	1.1E-02	1.29	6.5E-04
Anthracene	120-12-7	2.20E-07	6.60E-05	1	2.9E-04	0.03	1.7E-05
Benzo(a)anth	56-55-3	2.10E-07	6.30E-05	1	2.8E-04	0.03	1.6E-05
Benzo(a)pyr	50-32-8	9.80E-09	2.94E-06	0	1.3E-05	0.00	7.4E-07
Benzo(b)fluor	205-99-2	1.00E-07	3.00E-05	0	1.3E-04	0.02	7.5E-06
Benzo€pyr	192-97-2	1.10E-07	3.30E-05	0	1.4E-04	0.02	8.3E-06
Benzo(g,h,i)pery	191-24-2	4.00E-08	1.20E-05	0	5.3E-05	0.01	3.0E-06
Benzo(k)fluor	207-08-9	4.10E-08	1.23E-05	0	5.4E-05	0.01	3.1E-06
Chrysene	218-01-9	1.80E-07	5.40E-05	0	2.4E-04	0.03	1.4E-05
Fluoranthene	206-44-0	6.10E-07	1.83E-04	2	8.0E-04	0.09	4.6E-05

Table 3
PTE, 300 ton/hr Counterflow Rotary Drum Dryer

Natural Gas-Fired Dryer w/ FF							
Contaminant	*CAS #*	*Emission Factor (lb/ton)*	*ERP lb/hr*	*lb/yr @ 8760 hpy*	*tons/yr @ 8760 hpy*	*lb/yr @ 500 hpy*	*tons/yr @ 500 hpy*
Fluorene	86-73-7	3.80E-06	1.14E-03	10	5.0E-03	0.57	2.9E-04
Indeno(1,2,3)pyr	193-39-5	7.00E-09	2.10E-06	0	9.2E-06	0.00	5.3E-07
Naphthalene[a]	91-20-3	9.00E-05	2.70E-02	237	1.2E-01	13.50	6.8E-03
Perylene	198-55-0	8.80E-09	2.64E-06	0	1.2E-05	0.00	6.6E-07
Phenanthrene	85-01-8	7.60E-06	2.28E-03	20	1.0E-02	1.14	5.7E-04
Pyrene	129-00-0	5.40E-07	1.62E-04	1	7.1E-04	0.08	4.1E-05
TOTAL PAH HAPS		1.87E-04	5.62E-02	493	2.5E-01	28.1	**1.4E-02**
NON-HAP ORGANICS							
Butane[3]	106-97-8	0.00067	0.20	1761	1	**101**	5.0E-02
Ethylene[3]	74-85-1	0.007	2.10	18396	9	**1050**	5.3E-01
Heptane[3]	142-82-5	0.0094	2.82	24703	12	**1410**	7.1E-01
2-Methyl-1-pentene[3]	763-29-1	0.004	1.20	10512	5	**600**	3.0E-01
2-Methyl-2-butene	513-35-9	0.00058	0.17	1524	1	**87**	4.4E-02
3-Methylpentane[3]	96-14-0	0.00019	0.06	499	0	**28.5**	1.4E-02
1-Pentene	109-67-1	0.0022	0.66	5782	3	**330**	1.7E-01
n-Pentane	109-66-0	0.00021	0.06	552	0	**31.5**	1.6E-02
TOTAL NON-HAP ORGANICS		0.02425	7.28	63729	32	**3638**	1.8E+00
HAP Metals							
Arsenic		5.60E-07	1.7E-04	1	7.4E-04	0.08	4.2E-05
Berylium		0	0.0E+00	0	0.0E+00	0.00	0.0E+00
Cadmium		4.10E-07	1.2E-04	1	5.4E-04	0.06	3.1E-05
Chromium		5.50E-06	1.7E-03	14	7.2E-03	0.83	4.1E-04
Cobalt		2.60E-08	7.8E-06	0	3.4E-05	0.00	2.0E-06
Cr(VI)		4.50E-07	1.4E-04	1	5.9E-04	0.07	3.4E-05
Lead		6.20E-07	1.9E-04	2	8.1E-04	0.09	4.7E-05
Manganese		7.70E-06	2.3E-03	20	1.0E-02	1.16	5.8E-04
Mercury		2.40E-07	7.2E-05	1	3.2E-04	0.04	1.8E-05
Nickel		6.30E-05	1.9E-02	166	8.3E-02	9.45	4.7E-03
Phosphorous		2.80E-05	8.4E-03	74	3.7E-02	4.20	2.1E-03
Selenium		3.50E-07	1.1E-04	1	4.6E-04	0.05	2.6E-05
TOTAL HAP METALS		**1.07E-04**	3.2E-02	281	1.4E-01	16.0	8.0E-03
NON-HAP METALS							
Antimony		1.80E-07	5.4E-05	0.5	0.00	0.03	0.0
Barium		5.80E-06	1.7E-03	15	0.00	0.87	0.0
Copper		3.10E-06	9.3E-04	8	0.00	0.47	0.0
Silver		2.80E-05	8.4E-03	74	0.00	4.20	0.0

Table 3

PTE, 300 ton/hr Counterflow Rotary Drum Dryer

Natural Gas-Fired Dryer w/ FF							
Contaminant	*CAS #*	*Emission Factor (lb/ton)*	*ERP lb/hr*	*lb/yr @ 8760 hpy*	*tons/yr @ 8760 hpy*	*lb/yr @ 500 hpy*	*tons/yr @ 500 hpy*
Thallium		4.10E-09	1.2E-06	0.0	0.00	0.00	0.0
Zinc		6.10E-05	1.8E-02	160	0.00	9.15	0.0
TOTAL NON-HAP METALS		9.81E-05	0.0E+00	0	0.00	0.00	0.0

Table 4
PTE - HOT OIL SYSTEM, DIESEL

Fuel[1]	*Heat Input Potential (MMBtu/hr)*	*Heat Input Potential (gal/hr)*	*Pollutant*	*Emission Factor*[2] *(lb/gal)*	*ERP (lb/hr)*	*Tons/Yr @ 8760 hpy*	*Lb/Yr @ 500 hpy*	*Tons/Yr @ 500 hpy*
Diesel	2.1	15.3	PM-10 (filt + cond)	3.30E-03	5.06E-02	2.22E-01	25	1.3E-02
			PM2.5	3.30E-03	5.06E-02	2.22E-01	25	1.3E-02
			SO2	7.10E-02	1.09E+00	4.77E+00	544	2.7E-01
			NOx	2.00E-02	3.07E-01	1.34E+00	153	7.7E-02
			CO	0.0012	1.84E-02	8.06E-02	9.2	4.6E-03
			Pb	9.00E-12	1.38E-10	6.04E-10	0.0	3.4E-11
			VOC	0.00034	5.21E-03	2.28E-02	2.6	1.3E-03
			HAP	*0.00034*	5.21E-03	2.28E-02	2.6	1.3E-03
			CO2e	28.0	4.29E+02	1.88E+03	214,599	1.1E+02
			POM[ ]	2.30E-05	3.53E-04	1.55E-03	0.2	8.8E-05
			CO2	28	4.29E+02	1.88E+03	214,599	1.1E+02
NON-PAH HAPS			Formaldehyde	3.50E-06	5.36E-05	2.35E-04	2.7E-02	1.3E-05
POM HAPS			Acenapthene[b]	5.30E-07	8.12E-06	3.56E-05	4.1E-03	2.0E-06
			Acenapthylene[b]	2.00E-07	3.07E-06	1.34E-05	1.5E-03	7.7E-07
			Anthracene[b]	1.80E-07	2.76E-06	1.21E-05	1.4E-03	6.9E-07
			Benzo(b)fluoranthene[b]	1.00E-07	1.53E-06	6.71E-06	7.7E-04	3.8E-07
			Fluoranthene[b]	4.40E-08	6.74E-07	2.95E-06	3.4E-04	1.7E-07
			Flourene[b]	3.20E-08	4.91E-07	2.15E-06	2.5E-04	1.2E-07
			Naphthalene[b]	1.70E-05	2.61E-04	1.14E-03	1.3E-01	6.5E-05
			Phenanthrene[b]	4.90E-06	7.51E-05	3.29E-04	3.8E-02	1.9E-05
			Pyrene[b]	3.20E-08	4.91E-07	2.15E-06	2.5E-04	1.2E-07
			PCDD/PCDF[b]	2.30E-10	3.53E-09	1.54E-08	1.8E-06	8.8E-10
			Total POM[c]	2.30E-05	3.53E-04	1.55E-03	1.8E-01	8.8E-05
			Total HAP	2.65E-05	4.06E-04	1.78E-03	2.0E-01	1.0E-04

	CO2	CH4	N2O
EF, lb/gal	*28*		
GWP	1	31	216
Emission Factor Eq:	28	0.000	0.00
CO2e Factor (lb/gal):	**28.0**		

Notes

[1]Diesel is assumed equivalent to No. 2 fuel oil.

[2]Source: AP-42 Table 11.1-13.

[b] Polycyclic Organic Matter, which is defined as a Hazardous Air Pollutant under 6 NYCRR 200.1.

[c] Total POM is the sum of individual; as a product of combustion, not subject to 6 NYCRR Part 212.

Table 5

PTE - LOADOUT/YARD, and SILO FILLING/ASPHALT STORAGE

Emission Factors for speciated Polycyclic Aromatic Hydrocarbon (PAH) and Polycyclic Organic Matter (POM) are determined by multiplying the AP-42 Table 11.1-15 percentage for the compound by the emission factor for Organic PM determined from AP-42 Table 11.1-4.

Production Capacity, tph: **300**

PAH HAPs	*Load-Out & Yard, Organic PM (%)*	*Emission Factor (lb/ton)*	*ERP (lb/hr)*	*PTE, TPY @ 8760 hpy*	*PTE, LB/YR @ 500 hpy*	*PTE, TPY @ 500 hpy*	*Silo Filling & Asphalt Storage Organic PM (%)*	*Emission Factor (lb/ton)*	*ERP (lb/hr)*	*PTE, TPY @ 8760 hpy*	*PTE, LB/YR @ 500 hpy*	*PTE, TPY @ 500 hpy*	*PTE, PAH (lb/hr)*	*PTE, POM (lb/hr)*
Total PM		5.2E-04	1.6E-01	6.9E-01	7.8E+01	3.9E-02		5.9E-04	0.18	0.8	88	0.04		
TOC		4.2E-03	1.2E+00	5.5E+00	6.2E+02	3.1E-01		1.2E-02	3.66	16	1,828	0.9		
CO		1.4E-03	4.3E-01	1.9E+00	2.1E+02	1.1E-01		1.4E-03	0.43	1.9	213	0.1		
Acenapthene[b]	0.26	8.9E-07	2.7E-04	1.2E-03	1.3E-01	6.6E-05	0.47	1.2E-04	3.6E-02	1.6E-01	1.8E+01	8.9E-03	3.6E-02	3.6E-02
Acenapthylene[b]	0.028	9.5E-08	2.9E-05	1.3E-04	1.4E-02	7.2E-06	0.014	3.6E-06	1.1E-03	4.7E-03	5.3E-01	2.7E-04	1.1E-03	1.1E-03
Anthracene[b]	0.07	2.4E-07	7.2E-05	3.1E-04	3.6E-02	1.8E-05	0.13	3.3E-05	9.9E-03	4.3E-02	5.0E+00	2.5E-03	9.9E-03	1.0E-02
Benzo(a)anthracene[b]	0.019	6.5E-08	1.9E-05	8.5E-05	9.7E-03	4.9E-06	0.056	1.4E-05	4.3E-03	1.9E-02	2.1E+00	1.1E-03	4.3E-03	4.3E-03
Benzo(b)fluoranthene[b]	0.0076	2.6E-08	7.8E-06	3.4E-05	3.9E-03	1.9E-06			0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	7.8E-06
Benzo(k)fluoranthene[b]	0.0022	7.5E-09	2.3E-06	9.9E-06	1.1E-03	5.6E-07			0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.3E-06
Benzo(g,h,i)perylene[b]	0.0019	6.5E-09	1.9E-06	8.5E-06	9.7E-04	4.9E-07			0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.9E-06
Benzo(a)pyrene[b]	0.0023	7.8E-09	2.4E-06	1.0E-05	1.2E-03	5.9E-07			0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.4E-06
Benzo(e)pyrene[b]	0.0078	2.7E-08	8.0E-06	3.5E-05	4.0E-03	2.0E-06	0.0095	2.4E-06	7.2E-04	3.2E-03	3.6E-01	1.8E-04	7.2E-04	7.3E-04
Chrysene[b]	0.103	3.5E-07	1.1E-04	4.6E-04	5.3E-02	2.6E-05	0.21	5.3E-05	1.6E-02	7.0E-02	8.0E+00	4.0E-03	1.6E-02	1.6E-02
Dibenz(a,h)anthracene[b]	0.00037	1.3E-09	3.8E-07	1.7E-06	1.9E-04	9.5E-08			0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.8E-07
Fluoranthene[b]	0.05	1.7E-07	5.1E-05	2.2E-04	2.6E-02	1.3E-05	0.15	3.8E-05	1.1E-02	5.0E-02	5.7E+00	2.9E-03	1.1E-02	1.1E-02
Fluorene[b]	0.77	2.6E-06	7.9E-04	3.4E-03	3.9E-01	2.0E-04	1.01	2.6E-04	7.7E-02	3.4E-01	3.8E+01	1.9E-02	7.7E-02	7.8E-02
Indeno(1,2,3-cd)pyrene[b]	0.00047	1.6E-09	4.8E-07	2.1E-06	2.4E-04	1.2E-07			0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.8E-07
2-Methylnapthalene	2.38	8.1E-06	2.4E-03	1.1E-02	1.2E+00	6.1E-04	5.27	1.3E-03	4.0E-01	1.8E+00	2.0E+02	1.0E-01	4.0E-01	
Napthalene	1.25	4.3E-06	1.3E-03	5.6E-03	6.4E-01	3.2E-04	1.82	4.6E-04	1.4E-01	6.1E-01	6.9E+01	3.5E-02	1.4E-01	
Perylene	0.022	7.5E-08	2.3E-05	9.9E-05	1.1E-02	5.6E-06	0.03	7.6E-06	2.3E-03	1.0E-02	1.1E+00	5.7E-04	2.3E-03	
Phenanthrene[b]	0.81	2.8E-06	8.3E-04	3.6E-03	4.1E-01	2.1E-04	1.8	4.6E-04	1.4E-01	6.0E-01	6.9E+01	3.4E-02	1.4E-01	1.4E-01
Pyrene[b]	0.15	5.1E-07	1.5E-04	6.7E-04	7.7E-02	3.8E-05	0.44	1.1E-04	3.4E-02	1.5E-01	1.7E+01	8.4E-03	3.4E-02	3.4E-02
												Total PAH:	**0.9**	**--**
												Total POM:	**--**	**0.3**

SemiV HAP	*%*	*EF*	*ERP (lb/hr)*	*PTE, TPY @ 8760 hpy*	*PTE, LB/YR @ 500 hpy*	*PTE, TPY @ 500 hpy*	*%*	*EF*	*ERP (lb/hr)*	*PTE, TPY @ 8760 hpy*	*PTE, LB/YR @ 500 hpy*	*PTE, TPY @ 500 hpy*	
Phenol	1.18	4.0E-06	1.2E-03	5.3E-03	6.0E-01	3.0E-04							
Total HAP (PAH + SVOC):		**2.4E-05**	**7.3E-03**	3.2E-02	3.6E+00	1.8E-03							

Notes:

[a] Based on an estimated density of 8.57-lb/gal.

[b] POM

[c] **201-9.1 Table 1 SMER = 1-lb/yr; @ 29.8-lbs/yr, ineligible for Minor Facility Registration.**

Table 6

PTE - VHAP FROM LOADOUT, YARD, TRANSFER, & STORAGE EMISSIONS

Emission factor for compound is determined by multiplying the percentage presented for the compound by the emission factor for total organic compounds (TOC) as determined from Table 11.1-14.

Production rate (tons/hr) **300**

Pollutant	*CAS*	*Load-Out & Yard (%)*	*Emission Factor (lb/ton)*	*ERP (lb/hr)*	*PTE, TPY @ 8760 hpy*	*PTE, LB/YR @ 500 hpy*	*PTE, TPY @ 500 hpy*	*Silo Filling & Asphalt Storage (%)*	*Emission Factor (lb/ton)*	*ERP (lb/hr)*	*PTE, TPY @ 8760 hpy*	*PTE, LB/YR @ 500 hpy*	*PTE, TPY @ 500 hpy*
VOC		94	1.1E-02	3.437	15	1718	0.86	100	1.2E-02	3.7E+00	16	*1.8E+03*	***9.1E-01***
Volatile Organic HAPS													
1,1,1-Trichloroethane	71-55-6	0.000	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00				0.0E+00	0.0E+00	0.0E+00
2-Butanone	78-93-3	0.049	6.0E-06	1.8E-03	7.8E-03	9.0E-01	4.5E-04	0.039	4.8E-06	1.4E-03	6.2E-03	7.1E-01	3.6E-04
Benzene[a]	71-43-2	0.052	6.3E-06	1.9E-03	8.3E-03	9.5E-01	4.8E-04	0.032	3.9E-06	1.2E-03	5.1E-03	5.8E-01	2.9E-04
Bromomethane	74-83-9	0.010	1.2E-06	3.5E-04	1.5E-03	1.8E-01	8.8E-05	0.005	6.0E-07	1.8E-04	7.8E-04	9.0E-02	4.5E-05
Carbon Disulfide	75-15-0	0.013	1.6E-06	4.8E-04	2.1E-03	2.4E-01	1.2E-04	0.016	1.9E-06	5.8E-04	2.6E-03	2.9E-01	1.5E-04
Chloroethane	75-00-3	0.000	2.6E-08	7.7E-06	3.4E-05	3.8E-03	1.9E-06	0.004	4.9E-07	1.5E-04	6.4E-04	7.3E-02	3.7E-05
Chloromethane	74-87-3	0.015	1.8E-06	5.5E-04	2.4E-03	2.7E-01	1.4E-04	0.023	2.8E-06	8.4E-04	3.7E-03	4.2E-01	2.1E-04
Cumene	92-82-8	0.110	1.3E-05	4.0E-03	1.8E-02	2.0E+00	1.0E-03				0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	100-41-4	0.280	3.4E-05	1.0E-02	4.5E-02	5.1E+00	2.6E-03	0.038	4.6E-06	1.4E-03	6.1E-03	6.9E-01	3.5E-04
Formaldehyde[a]	50-00-0	0.088	1.1E-05	3.2E-03	1.4E-02	1.6E+00	8.0E-04	0.690	8.4E-05	2.5E-02	1.1E-01	1.3E+01	6.3E-03
n-Hexane	100-54-3	0.150	1.8E-05	5.5E-03	2.4E-02	2.7E+00	1.4E-03	0.100	1.2E-05	3.7E-03	1.6E-02	1.8E+00	9.1E-04
Isooctane	540-84-1	0.002	2.2E-07	6.6E-05	2.9E-04	3.3E-02	1.6E-05	0.000	3.8E-08	1.1E-05	5.0E-05	5.7E-03	2.8E-06
Methylene Chloride[a]	75-09-2	0.000	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.000	3.3E-08	9.9E-06	4.3E-05	4.9E-03	2.5E-06
MTBE	596-89-9	0.000	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00				0.0E+00	0.0E+00	0.0E+00
o-Xylene	95-47-6	0.080	9.7E-06	2.9E-03	1.3E-02	1.5E+00	7.3E-04	0.057	6.9E-06	2.1E-03	9.1E-03	1.0E+00	5.2E-04
Styrene	100-42-5	0.007	8.9E-07	2.7E-04	1.2E-03	1.3E-01	6.7E-05	0.005	6.6E-07	2.0E-04	8.6E-04	9.9E-02	4.9E-05
Tetrachloroethene[a]	127-18-4	0.008	9.4E-07	2.8E-04	1.2E-03	1.4E-01	7.0E-05				0.0E+00	0.0E+00	0.0E+00
Toluene	100-88-3	0.210	2.6E-05	7.7E-03	3.4E-02	3.8E+00	1.9E-03	0.062	7.6E-06	2.3E-03	9.9E-03	1.1E+00	5.7E-04
Trichloroethene[a]	79-01-6	0.000	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00				0.0E+00	0.0E+00	0.0E+00
Trichlorofluoromethane	75-69-4	0.001	1.6E-07	4.8E-05	2.1E-04	2.4E-02	1.2E-05				0.0E+00	0.0E+00	0.0E+00
Xylenes	1330-20-7	0.410	5.0E-05	1.5E-02	6.6E-02	7.5E+00	3.7E-03	0.200	2.4E-05	7.3E-03	3.2E-02	3.7E+00	1.8E-03
Total VHAP		1.5	1.8E-04	5.4E-02	0.2	27.1	1.4E-02	1.3	1.6E-04	4.7E-02	2.0E-01	2.3E+01	1.2E-02

Notes:

[1] Based on an estimated density of 8.57-lb/gal.

"a" = PBT	SMER (lbs)
Benzene[a]	100
Formaldehyde[a]	100
Methylene Chloride[a]	5000
Tetrachloroethene[a]	1000
Trichloroethene[a]	1000

Table 7

PREDICTIVE EMISSION FACTORS FOR LOAD-OUT & YARD EMISSIONS[1]

Drum/Batch Mix Plant Load-Out/Yard

EF, Total PM	=	$0.000181 + 0.00141(-V)e^{((0.0251)(T + 460) - 20.43)}$
where: V	=	-0.5
-V	=	0.5
$((0.0251)(T + 460) - 20.43$	=	-0.7265
$e^{((0.0251)(T+460) - 20.43}$	=	0.483599
	=	0.000181 + 0.00141 x -(-0.5) x 0.483599
	=	**0.000522** lb/ton HMA
EF, Extractable Organic PM	=	$0.00141(-V)e^{((0.0251)(T + 460) - 20.43)}$
where: V	=	-0.5
-V	=	0.5
$((0.0251)(T + 460) - 20.43$	=	-0.7265
$e^{((0.0251)(T+460) - 20.43}$	=	0.483599
	=	0.00141 x -(-0.5) x 0.483599
	=	**0.000341** lb/ton HMA
EF, TOC	=	$0.0172 \times (-V) \times e^{((0.025)(T + 460) - 20.43)}$
where: V	=	-0.5
-V	=	0.5
$((0.0251)(T + 460) - 20.43$	=	-0.7265
$e^{((0.025)(T+460) - 20.43}$	=	0.483599
	=	0.0172 x -(-0.5) x 0.483599
	=	**0.004159** lb/ton HMA
EF, CO	=	$0.00558 \times (-V) \times e^{((0.025)(T + 460) - 20.43)}$
V	=	-0.5
-V	=	0.5
$((0.0251)(T + 460) - 20.43$	=	-0.7265
$e^{((0.025)(T+460) - 20.43}$	=	0.483599
	=	0.00558 x -(-0.5) x 0.483599
	=	**0.001422** lb/ton HMA

Notes:

[1]Source: AP-42 Table 11.1-14.

Table 8

PREDICTIVE EMISSION FACTORS FOR SILO FILLING & ASPHALT STORAGE[1]

EF, Total PM	=	$0.000332 + 0.00105(-V)e^{((0.0251)(T + 460) - 20.43)}$
where: V	=	-0.5
-V	=	0.5
$((0.0251)(T + 460) - 20.43$	=	-0.7265
$e^{((0.0251)(T+460) - 20.43}$	=	0.483599
EF, Total PM	=	0.000332 + 0.00105 x -(-0.5) x 0.483599
	=	**0.000586** lb/ton asphalt

EF, Extractable Organic PM	=	$0.00105(-V)e^{((0.0251)(T + 460) - 20.43)}$
where: V	=	-0.5
-V	=	0.5
$((0.0251)(T + 460) - 20.43$	=	-0.7265
$e^{((0.0251)(T+460) - 20.43}$	=	0.483599
EF, Organic PM	=	0.00105 x -(-0.5) x 0.483599
	=	**0.000254** lb/ton asphalt

EF, TOC	=	$0.0504 \times (-V) \times e^{((0.0251)(T + 460) - 20.43)}$
where: V	=	-0.5
-V	=	0.5
$((0.0251)(T + 460) - 20.43$	=	-0.7265
$e^{((0.025)(T+460) - 20.43}$	=	0.483599
EF, TOC	=	0.0504 x -(-0.5) x 0.483599
	=	**0.012187** lb/ton asphalt

CO Emission Factor, Silo Filling:

EF, CO	=	$0.00488 \times (-V) \times e^{((0.0251)(T + 460) - 20.43)}$
where: V	=	-0.5
-V	=	0.5
$((0.0251)(T + 460) - 20.43$	=	-0.7265
$e^{((0.025)(T+460) - 20.43}$	=	0.483599
EF, CO	=	0.00558 x -(-0.5) x 0.483599
	=	**0.001422** lb/ton asphalt

Notes:

[1]Source: AP-42 Table 11.1-14.

Table 9
Greenhouse Gas Emissions

	EF* (lb/ton)	GWP**	CO2e
CO2	33	1	33
CH4	0.012	25	0.30

Total, lb/ton HMA =	33.3
Lb/hr @ 300-tph =	9990
Lb/yr @ 500-hpy =	4995000
CO2e, tpy =	2498

Notes:
**Source: AP-42 Chapter 11.1*
***Source: 40 CFR 98*

Table 10

AERSCREEN ANALYSIS OF DRYER EMISSIONS BASED ON 1-LB/HR

Source Parameters (point source)	
Emission Rate (lb/hr)	1.0
Stack Height (ft)	31
Stack Diameter (ft)	4.5
Flow Rate (acfm)	83000
Exit Temp (F)	290
Population (urban only)	
Building Parameters - Single Rectangular Building	
(For no downwash, default parameters are used.)	default
Height (ft)	
Max Dimension (ft)	
Min Dimension (ft)	
Building Orientation (°)[1]	
Stack Direction (°)[2]	
Stack Offset (ft)[3]	
MAKEMET (use default)	
	default
RECEPTORS (for no fence, 3.2808 ft)	
Distance to fenceline (ft):	78
TERRAIN (use default)	
RESULTS	
Max 1-Hour (µg/m^3)	**2.7180**
Scaled Annual (µg/m3)	**0.2718**

Results - Short Term

Contaminant	CAS #	Env Rating	PTE (lb/yr)	ERP (lb/hr)	EF (µg·hr/m^3·lb)	Conc (µg/m^3)	SGC (µg/m^3)	Meets SGC? (Yes/No)
Formaldehyde	50-00-0	A	465	0.9	2.72	2.528	30	Yes
Hexane	110-54-3	B	138	0.3	2.72	0.750	--	n/a
Butane	106-97-8	L	101	0.2	2.72	0.546	238000	Yes
Ethylene	74-85-1	--	1050	2.1	2.72	5.708	--	n/a
Heptane	142-82-5	M	1410	2.8	2.72	7.665	210000	Yes
2-Methyl-1-pentene	763-29-1		600	1.2	2.72	3.262	--	n/a
1-Pentene	109-67-1	M	330	0.7	2.72	1.794	--	n/a

Results - Annual

Contaminant	CAS #	Env Rating	PTE (lb/yr)	ERP (lb/hr)	ERP over 8760	EF (µg·hr/m^3·lb)	Conc (µg/m^3)	AGC (µg/m^3)	Meets AGC? (Yes/No)
Formaldehyde	50-00-0	A	465	0.9	0.05	0.27	0.01	0.06	Yes

Results - Annual

Contaminant	CAS #	Env Rating	PTE (lb/yr)	ERP (lb/hr)	ERP over 8760	EF (µg·hr/m^3·lb)	Conc (µg/m^3)	AGC (µg/m^3)	Meets AGC? (Yes/No)
Hexane	110-54-3	B	138	0.3	0.02	0.27	0.00	700	Yes
Butane	106-97-8	L	101	0.2	0.01	0.27	0.00	--	Yes
Ethylene	74-85-1	--	1050	2.1	0.12	0.27	0.03	550	Yes
Heptane	142-82-5	M	1410	2.8	0.16	0.27	0.04	3900	Yes
2-Methyl-1-pentene[1]	763-29-1	--	600	1.2	0.07	0.27	0.33	0.1	No
1-Pentene	109-67-1	M	330	0.7	0.04	0.27	0.18	410	Yes

Notes:

[1]2-Methyl-1-pentene is not listed in DAR-1 so a default AGC of 0.1-µg/m3 is assigned.

- The annual concentration is within 10x the AGC.

Attachment A

T-BACT

T-BACT FOR FORMALDEHYDE FROM COUNTERFLOW DRUM DRYER

A PROPOSED ALTERNATIVE TO TABLE 4 AIR CLEANING REQUIREMENTS

4660 Witmer Road, LLC

August 2020

1. Source/Process Description

This project is an application for a counter-flow drum hot mix asphalt (HMA) plant to be located at an existing industrial site in Niagara Falls, New York. The facility is anticipated to produce 150,000-tons of hot mix asphaltic cement per year. The material will be used in roads, parking lots, and highways throughout western NY. The facility will include stockpiles of differently sized aggregate, an aboveground asphalt oil storage tank, a rotary drum dryer, and two silos for storage of hot mix asphalt (HMA) product.

The facility includes a 2009 Tarmac counter-flow drum dryer rated at 300-tons asphalt per hour. The dryer is fired by a Hauck Eco-Star II propane burner with a burner heat input rating of 0.25-MMBtu/ton aggregate (75-MMBtu/hr). Particulate emissions from the dryer are controlled by a fabric filter baghouse with a 98+% PM-10 removal efficiency. Emissions of other criteria and non-criteria contaminants are also ducted through the baghouse and vent to atmosphere via a 48-inch square vertical stack 31-feet above grade. The unit is operated only during the paving season, typically May through November, and will be limited to 500-hours per 12-month period. The production rate for 500-hours is 150,000-tons HMA. This level of operation is sufficient to meet the anticipated demand for product and will maintain carbon monoxide and volatile organic compound emissions to less than the respective major source thresholds.

Based on USEPA AP-42 emission factors, the formaldehyde emission rate potential (ERP) from the dryer is 0.93-lb/hr. At 0.93-lb/hr and assuming an “A” environmental rating, the 212-2.3(b) air cleaning requirement is 90%. AL Asphalt conducted a review of the EPA’s RACT/BACT/LAER Clearinghouse (RBLC) database and a statewide review of permitted drum mix HMA plants to determine a feasible control strategy. The RBLC search results produced no facilities. The results of the review of statewide permitted drum mix HMA facilities are detailed in Table 2 – Similar Sources, below.

Table 1 below provides a summary of nineteen drum mix HMA plants in the DEC list of Air State Facility permitted facilities and the respective control strategies.

Table 1. Similar Sources

Facility Name	Permit ID	Type	212-2 Compliance Demonstration
Alliance Paving Materials	6-3013-00002	300-tph HMA Drum Mix, Natural Gas	Formaldehyde is assigned a B rating and compliance is demonstrated by annual screening dispersion modeling
Sundial Asphalt Company	1-4722-01183	300-tph Drum Mix, NG or #2 FO	None for formaldehyde
Callanan-East Kingston	3-5154-00133	350-tph Drum Mix, NG, Propane, #2, #4 or Waste Fuel A	None for formaldehyde
Canal Asphalt, Inc	3-5508-00247	300-tph Drum Mix Counterflow, NG w/ #2 FO backup	None for formaldehyde
Cranesville Quarry & Asphalt Plant	4-2726-00002	300-tph Drum Mix Parallel flow	T-BACT determined need to increase stack height 1.5x height of nearby structure based on maximum production rate of 340,000-tons/12-month period.
Dolomite HMA Plant	5-4120-00266	200-tph Drum Mix, Natural Gas	Production is limited to 100,000-tpy to limit CO below major source threshold, and formaldehyde concentrations to less than AG-1.
Empire Paving Asphalt Plant	5-1722-00177	Drum Mix	None for formaldehyde
Flushing Asphalt, LLC	2-6302-00083	Drum Mix	None for formaldehyde
Gates Quarry/Asphalt Plant	8-2626-00049	350-tph Drum Mix, NG, fuel oil, or waste oil	None for formaldehyde
Green Asphalt Co	2-6304-01496	150,000-tpy Drum Mix, #2 FO	None for formaldehyde
HoneoyeFalls Quarry & Asphalt Plant	8-9908-00113	400-tph Drum Mix Counterflow, #2 FO or Waste Fuel A	None for formaldehyde
Jointa Lime Asphalt Plant – Plattsburgh	5-0942-00506	300-tph Drum Mix Counterflow, NG	Based on annual HMA production cap (210,000-tons/12-month period), T-BACT is considered a formaldehyde emission rate of no greater than 0.0031-pounds per ton of asphalt produced. At the respective PTEs, ambient impacts are predicted to be below the Department's recommended SGCs/AGCs.

Facility Name	Permit ID	Type	212-2 Compliance Demonstration
Jointa Lime Company Asphalt Plant	3-3348-00278	400-tph Drum Mix Counterflow, NG	None for formaldehyde; 350,000-tpy production limit
Lydel Brookhaven Asphalt Facility	1-4722-03465	125-tph	None for formaldehyde; limited operating hours and hourly production rate
Manchester Hot Mix Asphalt Facility	8-3236-00022	350-tph Drum Mix, NG, Distillate, Waste Fuel A	None for formaldehyde; carbon monoxide emissions are capped
New CastleAsphalt, LLC	4-3814-00074	400-tph Drum Mix, NG, recycled oil, or #2 FO	Formaldehyde concentrations modeled using AERSCREEN <SGC/AGC
Rason Asphalt Facility	1-2820-01873	450-tph Drum Mix Counterflow, NG	T-BACT-predicted maximum off-site concentration of formaldehyde modeled at less than 10/million excess cancer risk; fenceline concentration must remain within the DAR-1 Section F.1.c Acceptable Risk Management Range.
S.I. Asphalt Company	2-6403-00277	300-tph Drum Mix Counterflow, NG	None for formaldehyde; NOx cap only
Westfield Asphalt Paving	9-0672-00115	350-tph Drum Mix, NG	None for formaldehyde; caps for CO and NOx

NYSDEC DAR-1 guidance defines the necessary steps to submit a complete T-BACT determination as follows:

a) Identify the best controlled similar process emissions source that has been achieved in practice.
b) Identify the numerical risk from the air contaminant(s).
c) Verify that the process emission source's predicted maximum offsite concentration is less than 10-in-a-million excess cancer risk for carcinogens

DAR-1 F Section 212-1.5(d) further indicates:

- (If) The degree of air cleaning required in Table 4 of 212-2.3(b) is unachievable (then)
- The maximum offsite air concentration must remain within the acceptable risk management range established under Section F.1 Procedure to Determine T-BACT Acceptability.

None of the 19 similar sources in Table 1 employs add-on air pollution control. Thirteen of the nineteen permits make no direct reference to formaldehyde. Six of the nineteen limit production in order to limit NOx and/or CO. T-BACT is indicated in three of nineteen permits. Two of the three T-BACT references are for formaldehyde specifically. For these cases, T-BACT is a demonstration of compliance with the SGC and AGC. 4660 Witmer Road, LLC will address formaldehyde by limiting production to 150,000 tons

per 12-month period and by demonstrating compliance with the DAR-1 SGC and AGC, as illustrated in Table 2. Supporting documentation is included in Table 8 of the Air State Facility Permit application.

Table 2. Initial Modeling Impacts

Air Tox	1-Hr Conc (μg/m3)	DAR-1 SGC (μg/m3)	Annual Conc (μg/m3)	DAR-1 AGC (μg/m3)
Formaldehyde	2.5	30	0.01	0.06

Attachment B

MOISTURE CONTROL PLAN

6NYCRR 212-4.1

AL ASPHALT CORPORATION

100 STRADTMAN ST. CHEEKTOWAGA, NY 14206

August 21, 2019

Alan Zylinkski
Environmental Engineer
NYSDEC, Region 9
270 Michigan Ave.
Buffalo, NY 14203

Re: Aggregate Moisture Reduction Plan for AL Asphalt Corporation – Hamburg Plant

Dear Mr. Zylinkski:

As required by NYCRR 212 we offer the following aggregate moisture control plan to be used at AL Asphalt Corporation facility located at 5690 Camp Rd. Hamburg, NY:

Sand, Course and Fine Aggregate:
All of the aggregates used at this facility are trucked in daily and stored on site. All course aggregate used in the production of HMA is from D&H Materials and will be cleaned washed stone that will minimize fugitive dust. The aggregates will be stored in exterior aggregate bins that are built on site. The aggregate bins are maintained on a concrete leveling pad and we will utilize the FIFO (first in, first out) method to allow for natural drainage from course aggregate and natural moisture reduction. A moisture meter will be used to keep the product at a consistent moisture level.

Operator:
The loader operator will aid in the moisture reduction by visual inspection of aggregate piles to ensure that the driest materials are being used in the manufacturing process. Visual inspection will be required daily.

May you have any questions or concerns please contact me directly at 716-480-0398.

Regards,

Alexandra Lettieri
President

Attachment C

Climate Leadership and Community Protection Act

Greenhous Gas Reduction Plan

MITIGATION & REDUCTION OF GREENHOUSE GASES
CLIMATE LEADERSHIP and COMMUNITY PROTECTION ACT

AL Asphalt, 4660 Witmer Road Air State Facility Permit Application

Pursuant to the department's directive under the Climate Leadership and Community Protection Act (CPCLA) as relates to the above-referenced project a discussion of climate impacts is presented in terms of the following criteria:

- Identification of each Greenhouse Gas (GHG) emitted;
- Calculations of carbon dioxide equivalents (CO_2e) for the project based on 40 CFR Part 98 emission factors, and
- Methods used to reduce GHG emissions

1. Identification of GHGs emitted

40 CFR 98.6 Definitions describes the following GHGs:

- Carbon dioxide (CO2)
- Methane (CH4)
- Nitrous oxide (N2O)
- Sulfur hexafluoride (SF6)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Other fluorinated gases

Of these, the project will result in only CO_2 and CH_4 emissions.

2. Calculations of CO2e based on Part 98 factors

Absent emission factors in 40 CFR Part 98, USEPA AP-42 emission factors from Chapter 11.1 are used to calculate CO_2 and CH_4 emissions. CO2e is then determined using the Global Warming Potential (GWP) factors provided in 40 CFR Part 98 Table A-1.

Table 1. Project GHG Emission Potential

Drum Dryer Emissions Based on 500 operating hours per year

GHG	Emission Factor[1] (lb/ton)	Global[2] Warming Potential	CO_2e
CO2	33	1	33
CH4	0.012	25	0.30

[1]Source: AP-42 Chapter 11.1
[2]Source: 40 CFR Part 98

Total, lb/ton HMA = 33.3
Lb/hr @ 300-tph = 9,990
Lb/yr @ 500-hpy = 4,995,000
CO_2e, tpy = 2,498

3. Methods to reduce GHG emissions

a. Operate a Drum Mix Plant vs. Batch Mix

CO_2e emission rate from drum mix is less than batch mix:

Table 1 – Dryer Emissions Comparison

	Batch			Drum		
Source	**CO2**	**CH4**	**CO2e**	**CO2**	**CH4**	**CO2e**
NG-Fired Dryer	37	0.0074	37.185	33	0.012	33.3

GWP, CO2 = 1
GWP, CH4 = 25

b. Optimize combustion equipment efficiency by annual burner tune-ups
   i. Dryer and hot oil heater

Appendix G
Additional Air Modeling – Hydrogen Sulfide

Table 1

H_2S CONCENTRATION, DRYER

Source Parameters (point source)	
Emission Rate (lb/hr)	1.0
Stack Height (ft)	31
Stack Diameter (ft)	1
Flow Rate (acfm)	83000
Exit Temp (F)	300
Population (urban only)	
Building Parameters - Single Rectangular Building	
(For no downwash, default parameters are used.)	Default
Height (ft)	
Max Dimension (ft)	
Min Dimension (ft)	
Building Orientation (°)[1]	
Stack Direction (°)[2]	
Stack Offset (ft)[3]	
MAKEMET (use default)	
	Default
RECEPTORS (for no fence, 3.2808 ft)	
Distance to fenceline (ft):	200
TERRAIN (use default)	
	Default
RESULTS	
1-Hour (µg/m^3)	**2.70**

Results Contaminant	CAS #	Toxicity Rating	ERP[4] (lb/hr)	PTE (lb/hr)	EF (µg·hr/m^3·lb)	Conc (µg/m^3)	SGC (µg/m^3)	Meets SGC? (Yes/No)
Hydrogen Sulfide	7783-06-4	M	0.016	0.016	2.70	0.04	--	n/a

Odor Threshold[5] (µg/m3)
450

Notes:

[4]ERP =

lb/ton	tph	lb/hr
5.18E-05	300	1.55E-02

Meets Threshold? **Yes**

[5]Source: ATSDR

Table 2

H_2S CONCENTRATION, SILO

Source Parameters (point source)	
Emission Rate (lb/hr)	1.0
Stack Height (ft)	71
Stack Diameter (ft)	1
Flow Rate (acfm)	225
Exit Temp (F)	200
Population (urban only)	
Building Parameters - Single Rectangular Building	
(For no downwash, default parameters are used.)	Default
Height (ft)	
Max Dimension (ft)	
Min Dimension (ft)	
Building Orientation (^{o})[1]	
Stack Direction (^{o})[2]	
Stack Offset (ft)[3]	
MAKEMET (use default)	
	Default
RECEPTORS (for no fence, 3.2808 ft)	
Distance to fenceline (ft):	200
TERRAIN (use default)	
	Default
RESULTS	
1-Hour ($\mu g/m^3$)	**6.18**

Results Contaminant	CAS #	Toxicity Rating	ERP[4] (lb/hr)	PTE (lb/hr)	EF ($\mu g \cdot hr/m^3 \cdot lb$)	Conc ($\mu g/m^3$)	SGC ($\mu g/m^3$)	Meets SGC? (Yes/No)
Hydrogen Sulfide	7783-06-4	M	4.38E-04	4.38E-04	6.18	2.71E-03	--	n/a

Odor Threshold[5]
(µg/m3)
450

Notes:

[4]ERP =

lb/ton	tph	lb/hr
1.46E-06	300	4.38E-04

Meets Threshold? **Yes**

[5]Source: ATSDR

Table 3

H_2S CONCENTRATION, LOADOUT (VOLUME)

Source Parameters (point source)	
Emission Rate (lb/hr)	1.0
Release Height (ft)[a]	6.0
Initial Horizontal Dimension (ft)	2.3
Initial Vertical Dimension (ft)	5.6
Building Parameters	
	N/A
MAKEMET (use default)	
	Default
RECEPTORS (for no fence, 3.2808 ft)	
Distance to fenceline (ft):	200
TERRAIN (use default)	
	Default
RESULTS	
Scaled Annual ($\mu g/m^3$)	2.65E+03
Maximum 1-Hr ($\mu g/m^3$)	

Results Contaminant	CAS #	Toxicity Rating	ERP[4] (lb/hr)	PTE (lb/hr)	EF ($\mu g \cdot hr/m^3 \cdot lb$)	Conc ($\mu g/m^3$)	SGC ($\mu g/m^3$)	Meets SGC? (Yes/No)
Hydrogen Sulfide	7783-06-4	M	4.38E-04	4.38E-04	2646	1.2	--	n/a

Notes:

[a]Release Height = 1/2 actual height

[b]Initial Horizontal Dimension = "equivalent square"/4.3

where "equivalent square" = square root of footprint area

(for non-square, relatively uniform sources)

[c]Initial Vertical Dimension = Height/2.15

Odor Threshold[5]

(µg/m3)

450

Meets Threshold? **Yes**

Source, [a] - [c]:*USER'S GUIDE FOR THE AMS/EPA REGULATORY MODEL - AERMOD (US EPA 2004a*

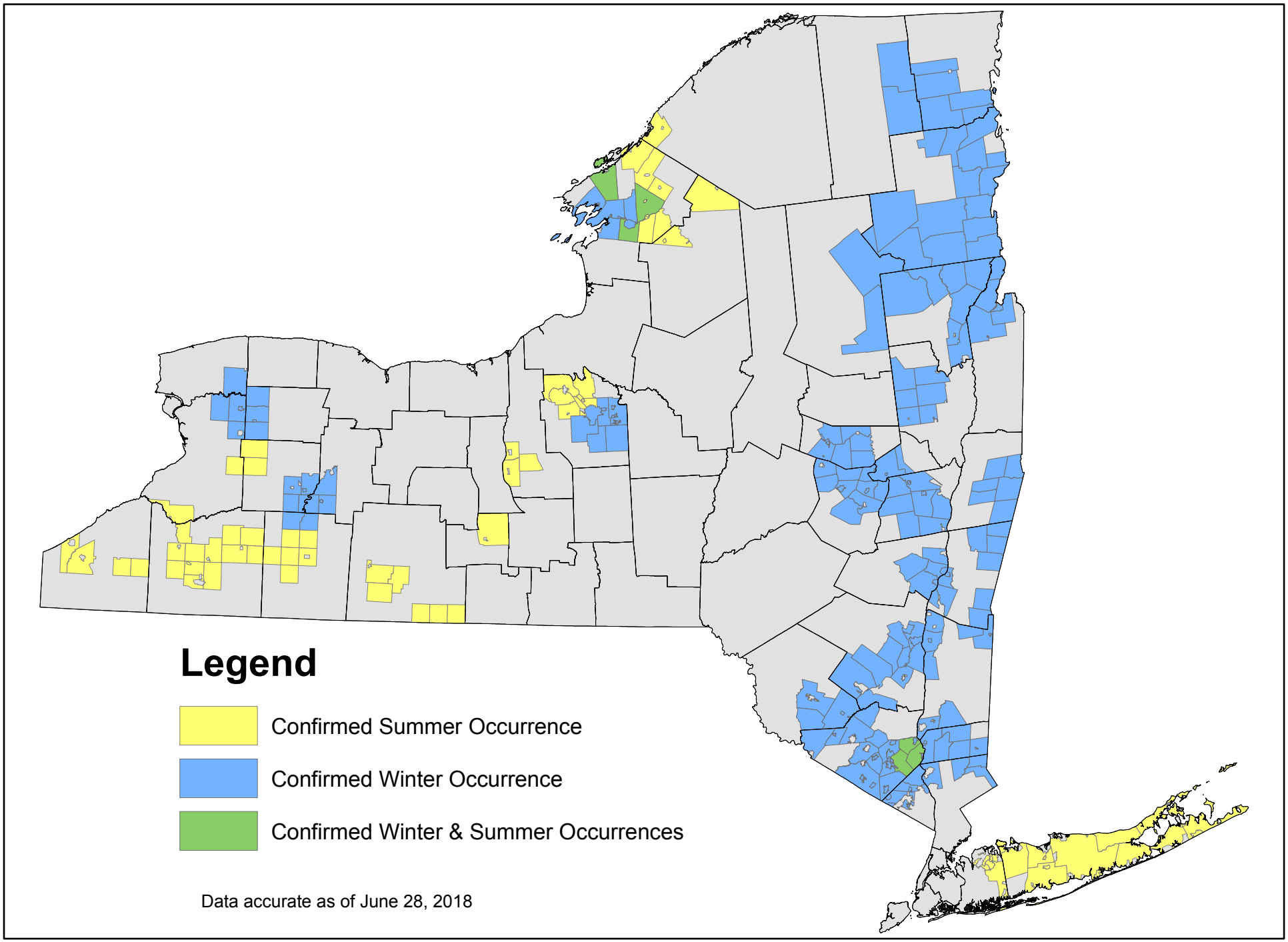
[4]ERP =

lb/ton	tph	lb/hr
1.46E-06	300	4.38E-04

[5]Source: ATSDR

Appendix H
NYSDEC Northern Long-eared Bat Occurrences by Town

Northern Long-eared Bat Occurrences by Town



Northern Long-eared Bat Occurrences by Town

*if your town is highlighted in yellow, please contact NYNHP to see whether your project site is within 0.25 miles of a hibernacula, or 150 feet of a summer occurrence.

County	Name	Occurrence	
		Summer	Winter
Albany	Altamont		Yes
	Berne		Yes
	Bethlehem		Yes
	Coeymans		Yes
	Guilderland		Yes
	Knox		Yes
	New Scotland		Yes
	Voorheesville		Yes
	Westerlo		Yes
Allegany	Allen	Yes	
	Angelica	Yes	
	Belfast	Yes	
	Caneadea	Yes	
	Friendship	Yes	
	Granger		Yes
	Hume		Yes
	New Hudson	Yes	
Cattaraugus	Ellicottville	Yes	
	Farmersville	Yes	
	Franklinville	Yes	
	Great Valley	Yes	
	Little Valley	Yes	
	Lyndon	Yes	
	Machias	Yes	
	Mansfield	Yes	
	Napoli	Yes	
	New Albion	Yes	
	Otto	Yes	
	Salamanca	Yes	
Cayuga	Ledyard	Yes	
	Scipio	Yes	
	Springport	Yes	
Chautauqua	Chautauqua	Yes	
	Ellington	Yes	
	Gerry	Yes	
	Westfield	Yes	
Clinton	Ausable		Yes
	Black Brook		Yes
	Dannemora		Yes
	Peru		Yes
	Saranac		Yes

Note: not all portions of listed towns are covered by a buffer. If your town is listed, contact NYNHP or your regional DEC office to see whether your project site falls within known occupied habitat.

County	Name	Occurrence	
		Summer	Winter
Columbia	Ancram		Yes
	Austerlitz		Yes
	Canaan		Yes
	Chatham		Yes
	Copake		Yes
	Germantown		Yes
	Greenport		Yes
	Hudson		Yes
	Livingston		Yes
	New Lebanon		Yes
Dutchess	East Fishkill		Yes
	Fishkill		Yes
	Hyde Park		Yes
	Millerton		Yes
	Northeast		Yes
	Pine Plains		Yes
	Red Hook		Yes
	Rhinebeck		Yes
Erie	Akron		Yes
	Alden		Yes
	Clarence		Yes
	Collins	Yes	
	Newstead		Yes
	Wales	Yes	
Essex	Chesterfield		Yes
	Crown Point		Yes
	Elizabethtown		Yes
	Essex		Yes
	Jay		Yes
	Lewis		Yes
	Minerva		Yes
	Moriah		Yes
	Newcomb		Yes
	North Hudson		Yes
	Schroon		Yes
	Ticonderoga		Yes
	Westport		Yes
	Wilmington		Yes
Franklin	Bellmont		Yes
	Franklin		Yes
Genesee	Alabama		Yes
	Corfu		Yes
	Darien		Yes
	Pembroke		Yes

Note: not all portions of listed towns are covered by a buffer. If your town is listed, contact NYNHP or your regional DEC office to see whether your project site falls within known occupied habitat.

County	Name	Occurrence	
		Summer	Winter
Greene	Athens		Yes
	Cairo		Yes
	Catskill		Yes
	Coxsackie		Yes
Hamilton	Indian Lake		Yes
	Wells		Yes
Jefferson	Alexandria	Yes	
	Black River	Yes	
	Brownville		Yes
	Champion	Yes	
	Chaumont		Yes
	Clayton	Yes	Yes
	Dexter		Yes
	Evans Mills	Yes	
	Glen Park		Yes
	Hounsfield		Yes
	Le Ray	Yes	Yes
	Lyme		Yes
	Pamelia		Yes
	Philadelphia	Yes	
	Rutland	Yes	
	Theresa	Yes	
	Watertown	Yes	Yes
Lewis	Copenhagen	Yes	
	Denmark	Yes	
	Diana	Yes	
Livingston	Mount Morris		Yes
	Nunda		Yes
	Portage		Yes
Montgomery	Ames		Yes
	Canajoharie		Yes
	Charleston		Yes
	Glen		Yes
	Mohawk		Yes
	Nelliston		Yes
	Palatine		Yes
	Palatine Bridge		Yes
	Root		Yes
Nassau	Brookville	Yes	
	Muttontown	Yes	
	Oyster Bay	Yes	
	Oyster Bay Cove	Yes	
	Upper Brookville	Yes	
Niagara	Royalton		Yes

Note: not all portions of listed towns are covered by a buffer. If your town is listed, contact NYNHP or your regional DEC office to see whether your project site falls within known occupied habitat.

County	Name	Occurrence	
		Summer	Winter
Onondaga	Camillus	Yes	
	Clay	Yes	
	De Witt		Yes
	East Syracuse		Yes
	Fayetteville		Yes
	Geddes	Yes	
	La Fayette		Yes
	Liverpool	Yes	
	Lysander	Yes	
	Manlius		Yes
	Minoa		Yes
	Onondaga		Yes
	Pompey		Yes
	Salina	Yes	
	Syracuse		Yes
	Van Buren	Yes	
Orange	Blooming Grove		Yes
	Chester		Yes
	Cornwall	Yes	Yes
	Cornwall-on-Hudson		Yes
	Crawford		Yes
	Deerpark		Yes
	Goshen		Yes
	Greenwood Lake		Yes
	Hamptonburgh		Yes
	Harriman		Yes
	Highland Falls		Yes
	Highlands	Yes	Yes
	Kiryas Joel		Yes
	Monroe		Yes
	Mount Hope		Yes
	Otisville		Yes
	South Blooming Grove		Yes
	Tuxedo		Yes
	Tuxedo Park		Yes
	Wallkill		Yes
	Warwick		Yes
	Washingtonville		Yes
	Woodbury	Yes	Yes
Putnam	Brewster		Yes
	Carmel		Yes
	Cold Spring		Yes
	Kent		Yes
	Nelsonville		Yes
	Philipstown		Yes
	Putnam Valley		Yes
	Southeast		Yes

Note: not all portions of listed towns are covered by a buffer. If your town is listed, contact NYNHP or your regional DEC office to see whether your project site falls within known occupied habitat.

County	Name	Occurrence	
		Summer	Winter
Rensselaer	Berlin		Yes
	Grafton		Yes
	Petersburgh		Yes
	Poestenkill		Yes
	Sand Lake		Yes
	Stephentown		Yes
Rockland	Haverstraw		Yes
	Hillburn		Yes
	Pomona		Yes
	Ramapo		Yes
	Sloatsburg		Yes
	Stony Point		Yes
Saratoga	Corinth		Yes
	Edinburg		Yes
	Galway		Yes
	Greenfield		Yes
	Milton		Yes
	Providence		Yes
Schenectady	Delanson		Yes
	Duanesburg		Yes
	Princetown		Yes
Schoharie	Carlisle		Yes
	Cobleskill		Yes
	Esperance		Yes
	Esperance		Yes
	Fulton		Yes
	Middleburgh		Yes
	Schoharie		Yes
	Seward		Yes
	Sharon		Yes
	Wright		Yes
Schuyler	Hector	Yes	
St Lawrence	Hammond	Yes	
Steuben	Cameron	Yes	
	Canisteo	Yes	
	Caton	Yes	
	Jasper	Yes	
	Lindley	Yes	
	Tuscarora	Yes	
Suffolk	Brookhaven	Yes	
	Dering Harbor	Yes	
	East Hampton	Yes	
	Huntington	Yes	
	Islandia	Yes	
	Islip	Yes	
	Lloyd Harbor	Yes	
	Mastic Beach	Yes	

Note: not all portions of listed towns are covered by a buffer. If your town is listed, contact NYNHP or your regional DEC office to see whether your project site falls within known occupied habitat.

County	Name	Occurrence	
		Summer	Winter
Suffolk (cont'd)	Riverhead	Yes	
	Sag Harbor	Yes	
	Shelter Island	Yes	
	Shoreham	Yes	
	Smithtown	Yes	
	Southampton	Yes	
	Southold	Yes	
	Village of the Branch	Yes	
Sullivan	Bloomingburg		Yes
	Forestburgh		Yes
	Mamakating		Yes
	Thompson		Yes
	Wurtsboro		Yes
Ulster	Esopus		Yes
	Hurley		Yes
	Kingston		Yes
	Marbletown		Yes
	New Paltz		Yes
	Rochester		Yes
	Rosendale		Yes
	Shawangunk		Yes
	Ulster		Yes
	Wawarsing		Yes
Warren	Bolton		Yes
	Chester		Yes
	Hague		Yes
	Horicon		Yes
	Johnsburg		Yes
	Lake George		Yes
	Queensbury		Yes
Washington	Dresden		Yes
	Fort Ann		Yes
	Putnam		Yes
	Whitehall		Yes
Westchester	Cortlandt		Yes
	Lewisboro		Yes
	North Salem		Yes
	Somers		Yes
Wyoming	Bennington	Yes	
	Castile		Yes
	Gainesville		Yes
	Genesee Falls		Yes
	Pike		Yes
	Sheldon	Yes	

Note: not all portions of listed towns are covered by a buffer. If your town is listed, contact NYNHP or your regional DEC office to see whether your project site falls within known occupied habitat.

Appendix I

New York State Office of Parks, Recreation, and Historic Preservation – Findings Letter

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

KATHY HOCHUL
Governor

ERIK KULLESEID
Commissioner

February 03, 2022

Mr. Alexandra Lettieri
President
A.L. Asphalt Corp
100 Stradtman St.
Cheektowaga, NY 14206

Re: DEC
A.L Asphalt Corp - New Hot Mix Asphalt Plant Construction Project
5690 Camp Rd, Hamburg, Erie County, NY
22PR00450

Dear Mr. Lettieri:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the project in accordance with the New York State Historic Preservation Act of 1980 (Section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the OPRHP and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617).

Based upon this review, it is the opinion of OPRHP that no properties, including archaeological and/or historic resources, listed in or eligible for the New York State and National Registers of Historic Places will be impacted by this project.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

R. Daniel Mackay

Deputy Commissioner for Historic Preservation
Division for Historic Preservation

Appendix J
Town of Hamburg Historical Society Letter

Hamburg Historical Society
P. O. Box 400
Hamburg, NY 14075

February 16, 2022

Ms. Alexandra Lettieri, President
A. L. Asphalt Corp.
100 Stradtman St.
Cheektowaga, NY 14206

Re: A. L. Asphalt Corp - New Hot Mix Asphalt Construction Plant Project
5690 Camp Rd., Hamburg, Erie County, NY

Dear Ms. Lettieri:

Thank you for requesting the comments of the Office of the Hamburg Town Historian regarding the property at 5690 Camp Board. I have reviewed and consulted with the Hamburg Historical Society Board of Directors and the Hamburg Historic Preservation Advisory Board.

The only impact on Hamburg history would be that Paul Riefler owned and operated a business at the site from 1928-1972 when he retired. The business was sold in 1997.

Based on this review, it is my opinion that other than the Riefler business there is no historic significance to the property that will impact this project.

If you have any questions or would like more information you may contact me at my office.

Sincerely,

James D. Baker

James D. Baker, Historian
Town of Hamburg
716-648-6320

Appendix K

Village of Hamburg Historic Preservation Letter

HANCOCK ESTABROOK LLP

THOMAS J. FUCILLO
Direct Dial: 315-565-4503
tfucillo@hancocklaw.com

March 16, 2022

Via E-Mail: sdesjard@townofhamburgny.com
And First-Class Mail

Ms. Sarah desJardins
Town of Hamburg Planning Department
Hamburg Town Hall
6100 South Park Avenue
Hamburg, NY 14075

Re: Proposed A.L. Asphalt (the "Applicant") Hot Mix Asphalt Plant Project (the "Project")
5690 Camp Road, Hamburg, New York (the "Site")

Dear Ms. desJardins:

This letter is submitted on behalf of both the Village of Hamburg Historic Preservation Commission (the "Commission") and the Village of Hamburg (the "Village"), regarding the proposed Project. As you are aware, the proposed Project Site is located immediately adjacent to certain portions of the Village.

The Commission is a Certified Local Government ("CLG") under the federal government's Certified Local Government Program. As a CLG, and under the Village Code, the Commission is responsible for promoting the general welfare of the Village by providing for the identification, protection, enhancement, perpetuation and use of buildings, structures, signs, features, improvements, sites and areas within the Village that reflect special elements of the Village's historical, architectural, cultural, economic or aesthetic heritage.

The Town of Hamburg's May 1, 2020 "Final Scoping Document" regarding the Project (the "Final Scope") requires that the Applicant's State Environmental Quality Review act ("SEQRA") Draft Environmental Impact Statement ("DEIS") assess the Project's potential impacts on historic and archaeological resources within .50 miles of the Project Site, including those "as determined by the Village of Hamburg Historic Preservation Commission." The Commission is in receipt of the letter of February 3, 2022, from the New York State Office of Parks, Recreation and Historic Preservation (the "SHPO Letter"), opining that the Project will not impact properties that are listed or are eligible for listing on the New York State or National Registers of Historic Places. At this point, the Commission does not have enough information to be able to make a similar statement and it is the Commission's opinion that notwithstanding the SHPO Letter, the Project may impact historic and archeological resources in the Village of Hamburg located within .50 miles of the Project site. Such resources may be eligible for listing on the New York State or National Registers of Historic Places.

Therefore, in accordance with the Final Scope and Section 617.9 of the State's SEQRA regulations (6 NYCRR Part 617.9), the Town should ensure that the Applicant's DEIS include the following: a detailed map of the targeted area of assessment to identify the areas potentially affected by the Project; a survey of all historic resources within that area, including, but not limited to, buildings and structures in the Village that are capable of listing on state or federal historic building registries; an analysis of the significant adverse impacts to such resources, including the reasonably-related short-term and long-term impacts, cumulative impacts, and any impacts caused by truck traffic and other growth-inducing aspects of the Project; reasonable alternatives and measures to avoid or mitigate such impacts.

Obviously, in addition to the impacts to archeological and historic resources in the Village, the Applicant should make sure that the DEIS fully addresses all of the other issues specified in the Planning Board's May 1, 2020 Final Scoping Document.

Please ensure this letter is considered part of the record of the Planning Board's review of the Project along with the comments of other involved agencies and interested parties.

Very truly yours,

HANCOCK ESTABROOK, LLP

Thomas J. Fucillo

TJF/lmg

cc via e-mail: Damon Ayer, Chair, Village of Hamburg Historic Preservation Comm. (damon@masonsgrille.com)
Jason Cozza, Village Administrator (jcozza@villagehamburg.com)
Edward J. Murphy, Esq., Village of Hamburg Attorney (emurphy@magavern.com)
Mary McKee, Deputy Clerk, Village of Hamburg (mmckee@villagehamburg.com)
Roseann DiPizio (Roseanne@dipizio.com)
Alexandra Lettieri (Alexandra@dipizio.com)

Appendix L
Traffic Impact Study

Traffic Impact Study

for the proposed

Proposed Asphalt Plant

Town of Hamburg
Erie County, New York

March 2022

Project No. 42006

Prepared For:

A.L. ASPHALT CORPORATION

100 Stradtman St
Cheektowaga, New York 14206

Prepared By:

SRF ASSOCIATES
www.srfa.net
Transportation Planning / Engineering / Design

3495 Winton Place
Building E, Suite 110
Rochester, New York 14623

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LIST OF REFERENCES

1. Highway Capacity Manual 6th Edition. Transportation Research Board (TRB). The National Academies, Washington, DC. 2016.
2. Trip Generation, 11th Edition. Institute of Transportation Engineers. Washington, DC. 2021.
3. New York State Department of Transportation Traffic Data Viewer. 2021. Retrieved from https://www.dot.ny.gov/tdv.
4. Manual on Uniform Traffic Control Devices for Street and Highways (MUTCD). Federal Highway Administration. 2009.
5. A Policy on Geometric Design of Highways and Streets 7th Edition. AASHTO. 2018.

EXECUTIVE SUMMARY

OVERVIEW

The purpose of this report is to identify and evaluate the potential traffic impacts associated with the proposed Asphalt Plant development located at 5690 Camp Rd in the Town of Hamburg, Erie County, New York. The operating characteristics of the access drives and impacts to the adjacent roadway network are identified and mitigating measures, if needed, are provided to minimize identified capacity or safety concerns.

To define traffic impact, this analysis establishes existing traffic conditions, projects background traffic flow including area growth, and determines the traffic operations that would result from the full build out of the project.

The asphalt plant project site is bounded by Elmview Ave to the north, industrial buildings and Grimsby Dr to the west, Camp Road to the east, and a wooded area to the south. The project site is a currently partially occupied by Great Lakes Concrete plant. The study area consists of the following intersections:

1. Camp Road/Sunset Drive
2. Camp Road/Scranton Road
3. Camp Road/Elmview Ave
4. Camp Road/Legion Drive
5. Sunset Drive/Elmview Ave

The proposed development consists of a 150,000 ton/year hot mix asphalt plant on the site of the existing Great Lakes Concrete plant that will remain operational. In general, the plant will operate from 7:00 AM-3:00 PM, however, the plant may operate during the nighttime as well if a job contract requires a nighttime paving. Access to the site will be provided via one existing driveway on Camp Road and another existing driveway along Elmview Ave which will not be used for truck traffic.

Construction of the Asphalt Plant is anticipated to reach full build-out within one (1) year. The Town of Hamburg was contacted to discuss any other specific developments that are currently approved or under construction that would generate additional traffic in the study area. No such projects were identified.

A review of historical NYSDOT traffic volume data on the study roadways in the vicinity of the site indicates that traffic has decreased between 2010 and 2019. To account for normal increases in background traffic growth and any unforeseen developments in the project study area, a conservative growth rate of 0.5% per year was applied to the 2022 base traffic volumes, based upon historical traffic growth for the one-year build-out period.

CONCLUSIONS & RECOMMENDATIONS

This Traffic Impact Study identifies and evaluates the potential traffic impacts that can be expected from the proposed Asphalt Plant development located at 5690 Camp Rd in the Town of Hamburg, Erie County, New York. The results of this study determine that the existing transportation network can adequately accommodate the projected traffic volumes and resulting impacts to study area intersections. The following sets forth the conclusions based upon the results of the analyses:

1. The proposed project is expected to generate approximately 11 entering/11 exiting vehicle trips during the AM peak hour and 11 entering/11 exiting vehicle trips during the PM peak hour at full build out.

2. Crash analyses at the existing intersections did not identify any discernible crash clusters or inherent safety deficiencies.

3. The projected traffic impacts resulting from full development of the proposed project during all peak hours can be accommodated by the existing transportation network with no highway improvements.

4. Given that the proposed project will not have a significant adverse effect on the existing roadway system, the proposed project will as well not have a significant adverse effect on the existing bicycle and pedestrian pathways.

5. For purposes of the environmental review of the project pursuant to the State Environmental Quality Review Act (SEQRA), it is our firm's professional opinion that the final phase of the project will not result in any potentially significant adverse traffic impacts to the study area intersections.

I. INTRODUCTION

The purpose of this report is to identify and evaluate the potential traffic impacts associated with the proposed Asphalt Plant development located at 5690 Camp Rd in the Town of Hamburg, Erie County, New York. The operating characteristics of the access drives and impacts to the adjacent roadway network are identified and mitigating measures, if needed, are provided to minimize identified capacity or safety concerns.

To define traffic impact, this analysis establishes existing traffic conditions, projects background traffic flow including area growth, and determines the traffic operations that would result from the full build out of the project.

II. LOCATION

The asphalt plant project site is bounded by Elmview Ave to the north, industrial buildings and Grimsby Dr to the west, Camp Road to the east, and a wooded area to the south. The project site is a currently partially occupied by Great Lakes Concrete plant. The study area consists of the following intersections:

1. Camp Road/Sunset Drive
2. Camp Road/Scranton Road
3. Camp Road/Elmview Ave
4. Camp Road/Legion Drive
5. Sunset Drive/Elmview Ave

The site location and study area are illustrated in **Figure 1** (all Figures are included at the end of this report).

III. EXISTING HIGHWAY SYSTEM

A. Vehicular Network Description

The following information outlined in **Table I** provides a description of the existing roadway network within project study area. **Figure 2** illustrates the lane geometry at each of the study intersections and the Annual Average Daily Traffic (AADT) volumes on the study roadways. The AADTs reflect the most recently collected data obtained from the New York State Department of Transportation (NYSDOT).

TABLE I: EXISTING HIGHWAY SYSTEM

ROADWAY[1]	CLASS[2]	AGENCY[3]	SPEED LIMIT[4]	# OF TRAVEL LANES[5]	TRAVEL PATTERN/ DIRECTION	EST. AADT[6] & SOURCE[7]
Camp Rd (NY-75)	14	NYSDOT	40/45	4	Two-way/ Northwest-Southeast	27,877 NYSDOT (2016)
Sunset Dr	19	Town of Hamburg	30	2	Two-way/ North-South	N/A
Scranton Rd	19	Town of Hamburg	35	2	Two-way/ Northeast-Southwest	N/A
Legion Dr (CR-134)	16	ECDPW	30	2	Two-way/ East-West	8,798 NYSDOT (2019)
Elmview Ave	19	Town of Hamburg	30	2	Two-way/ North-South	N/A

Notes:
1. Route Name/Number: "NY" = New York; "CR" = County Road
2. State Functional Classification of Roadway (All are Urban): 14 = Principal Arterial, 16 = Minor Arterial, 17 = Major Collector, 19 = Local
3. Jurisdictional Agency of Roadway. "NYSDOT" = New York State Department of Transportation; "ECDPW" = Erie County Department of Public Works
4. Posted or Statewide Limit in Miles per Hour (mph).
5. Excludes turning/auxiliary lanes developed at intersections.
6. Estimated AADT in Vehicles per Day (vpd).
7. AADT Source (Year).

B. Multi-Modal Network Description

This evaluation reviewed the study area's pedestrian, bicycle, and transit network via field and aerial reconnaissance. A description of the multi-modal infrastructure is described hereafter.

Pedestrian and Bicycle Facilities

There are sidewalks along both sides of Camp Rd to the northwest of Scranton Rd and to the south of Legion Dr. Sidewalk continues along the northeast side of Camp Rd in between Scranton Rd and Legion Dr. Also, there is a sidewalk along both sides of Sunset Dr and the north side of Elmview Ave. All of the signalized intersections provide signalized pedestrian crossings.

There are no dedicated bicycle facilities in the study area, however, bicyclists are allowed to share the road with motorists on all roadways and utilize the existing shoulder space, when available, within the study area.

Transit Facilities

Public transit service within the study area is provided by the Niagara Frontier Transportation Authority (NFTA). RTS currently provides one bus route that services the Camp Rd corridor (Route 74). Bus stops are located along both sides of Camp Rd.



IV. EXISTING TRAFFIC CONDITIONS

A. *Peak Intervals for Analysis*

Given the functional characteristics of the corridors and the land use proposed for the site (asphalt plant), the peak hours selected for analysis are the weekday commuter AM and PM peak periods. The combination of site traffic and adjacent through traffic produces the greatest demand during these time periods.

B. *Existing Traffic Volume Data*

Turning movement traffic counts were collected on Tuesday, December 7th, 2021 by SRF Associates (SRF) at the study intersections described in Section II, except for the Camp Rd/Elmview Ave and Sunset Dr/Elmview Ave intersections which were collected on Wednesday, February 2nd, 2022. Traffic counts were conducted between 7:00-9:00 AM for the weekday AM peak hour and 4:00 – 6:00 PM for the PM peak hour. The peak hour traffic periods generally occurred between 7:15-8:15 AM and 4:15-5:15 PM.

All turning movement count data was collected on a typical weekday. No adverse weather conditions impacted the traffic counts and all schools in the vicinity of the study area were in session. The traffic volumes were reviewed to confirm the accuracy and relative balance of the collective traffic counts. The actual differences in traffic volumes can be attributed to temporal variations in traffic volumes as well as activity related to driveways located in the segments between the study intersections. **Figure 3** illustrates the weekday AM and PM peak hour volumes used for analysis purposes in this study.

C. *Field Observations*

The study intersections were observed during both peak intervals to assess current traffic operations. Signal timing information was obtained from the NYSDOT through a Freedom of Information (FOIL) request to determine peak hour phasing plans and phase durations during each interval. This information was used to support and/or calibrate capacity analysis models described in detail later in this report.

D. Existing Crash Investigation

The purpose of this crash analysis is to identify inherent safety issues by studying and quantifying historical crashes at the study intersections and identifying potential crash 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 should also be considered. A history of crashes is an indication that further analysis is required to determine the cause(s) of the crash(es) and to identify what actions, if any, could be taken to mitigate the crashes.

A crash investigation within the study area was conducted to assess the safety history from January 1, 2017, through August 31, 2021. The data was provided by the New York State Department of Motor Vehicles through a Freedom of Information (FOIL) request.

Given that the COVID-19 pandemic influenced daily travel in 2020, any reported crashes after 2020 were dismissed from the study.

Reportable (non-injury, injury, and fatal injury) type crashes are defined as damage to one person's property in the amount of $1,001 or more. The Non-Reportable type crashes result in property damage of $1,000 or less. Crash rates were computed for the study intersection and compared with NYSDOT average crash rates for similar intersections, as summarized in **Table II**. Intersection rates are listed as crashes per million entering vehicle (CR/MEV). Pertinent crash data is provided in the Appendices.

TABLE II: EXISTING ACCIDENT INVESTIGATION

INTERSECTION	TOTAL NO. OF ACCIDENTS	ACTUAL CRASH RATE	STATEWIDE AVERAGE CRASH RATE
Camp Rd/Sunset Dr	9	0.34	0.31
Camp Rd/Scranton Rd	11	0.44	0.54
Camp Rd/Elmview Ave	2	0.10	0.18
Camp Rd/Legion Dr	12	0.51	0.31
Sunset Dr/Elmview Ave	2	0.41	0.31

Three of the five study intersections had a crash rate higher than the statewide average. The intersections with calculated rates higher than the statewide average are described in greater detail below.

Camp Rd/Sunset Dr

As shown in Table II, the study intersection has a crash rate that is 1.10 times higher than the statewide average crash rate for similar intersections. Of the 9 total crashes, the only notable crash type is rear end (7 crashes), which all occurred in the northbound direction. Many of the apparent factors contributing to the crashes were following too closely, or driver inattention. Rear end crashes are common at signalized intersections. Clearance intervals may contribute to causing rear-end collisions. NYSDOT may want to review signal timings and make adjustments to reduce the number of rear-end collisions.

Camp Rd/Legion Dr

As shown in Table II, the study intersection has a crash rate that is 1.65 times higher than the statewide average crash rate for similar intersections. Of the 12 total crashes, notable crash types include rear end (3 crashes) and left turn (4 crashes). Many of the apparent factors contributing to the crashes were failure to yield right of way, following too closely, or driver inattention. These crashes are further divided as follows:

Northbound:

- 1 left turn collision
- 2 rear end collisions

Southbound:

- 3 left turn collisions
- 1 rear end collision

Based on the noted collisions, there are no discernible crash patterns that require mitigation.

Sunset Dr/Elmview Ave

As shown in Table II, the study intersection has a crash rate that is 1.32 times higher than the statewide average crash rate for similar intersections. The only crashes to occur at this intersection was a northbound rear end collision and a northbound collision classified as "other". Based on the noted collisions, there are no discernible crash patterns that require mitigation.

V. FUTURE AREA DEVELOPMENT AND LOCAL GROWTH

Construction of the Asphalt Plant is anticipated to reach full build-out within one (1) year. The Town of Hamburg was contacted to discuss any other specific developments that are currently approved or under construction that would generate additional traffic in the study area. No such projects were identified.

A review of historical NYSDOT traffic volume data on the study roadways in the vicinity of the site indicates that traffic has decreased between 2010 and 2019. To account for normal increases in background traffic growth and any unforeseen developments in the project study area, a conservative growth rate of 0.5% per year was applied to the 2022 base traffic volumes, based upon historical traffic growth for the one-year build-out period.
Future background traffic volumes are shown in **Figure 4**.

VI. DEVELOPMENT

A. Description

The proposed development consists of a 150,000 ton/year hot mix asphalt plant on the site of the existing Great Lakes Concrete plant that will remain operational. In general, the plant will operate from 7:00 AM-3:00 PM, however, the plant may operate during the nighttime as well if a job contract requires nighttime paving. Access to the site will be provided via one existing driveway on Camp Road and another existing driveway along Elmview Ave which will not be used for truck traffic. **Figure 5** illustrates the proposed site plan.

B. Site Traffic

The next step in evaluation of the potential traffic impacts related to the asphalt plant development was to determine the additional traffic consisting of vehicle trips entering and exiting the project site that are attributable to the residential development. The volume of traffic generated by a site is dependent on the intended land use and size of the development. Trip generation is an estimate of the number of trips generated by a specific building or land use. These trips represent the volume of traffic entering and exiting the development. Trip Generation, 11th Edition (2021), published by the Institute of Transportation Engineers (ITE), is used as a reference for this information. The trip rate for the peak hour of the generator may or may not coincide in time or volume with the trip rate for the peak hour of adjacent street traffic. According to the Institute of Transportation Engineers (ITE), the following steps are recommended when determining trip generation for proposed land uses:

i. *Check for the availability of local trip generation rates for comparable uses.*

ii. *If local trip data for similar developments are not available and time and funding permit, conduct trip generation studies at sites with characteristics similar to those of the proposed development.*

Trip generation data for the proposed Project are based on truck and employee count data provided by the Project operator. From this data, peak hour trips were calculated.

The existing concrete facilities on the site generated approximately 100 truck trips per day at its peak of operations in 2015. The current operation generates 20 truck trips per day after closing the concrete block operations that were previously generating approximately 30 truck trips per day. The proposed Asphalt Plant Project will add approximately 50 truck trips per day resulting in a total of approximately 70 truck trips per day generated by the site. Given that the Project will operate 12 hours per day, approximately 4 to 5 truck trips per hour are anticipated.

The Asphalt Plant will employ 6 people. It is assumed that all of the employees work the same hours and enter/exit the site at the same time resulting in 6 employee trips during these hours. Additionally, it is assumed that trucks and employees enter/exit the site at the same time, resulting in a total of 11 trips entering/exiting the site at the peak times. It is noted that these peak times would occur outside of the normal commuter peak times (generally 7:15-8:15 AM and 4:15-5:15 PM) given the operating hours of the Project. However, it is assumed that the plant peak times will coincide with the commuter peak hours. These assumptions overestimate the impacts during the commuter peak hours and result in a conservative analysis of site impacts.

Table III shows the total site generated trips for the weekday AM and PM peak hours for full development of the proposed site.

TABLE III: SITE GENERATED TRIPS

DESCRIPTION	AM PEAK HOUR		PM PEAK HOUR	
	ENTER	EXIT	ENTER	EXIT
Asphalt Plant Employees	6	6	6	6
Asphalt Plant Trucks	5	5	5	5
Total	**11**	**11**	**11**	**11**

The proposed project is expected to generate approximately 11 entering/11 exiting vehicle trips during the AM peak hour and 11 entering/11 exiting vehicle trips during the PM peak hour at full build out.

C. Site Traffic Distribution

The cumulative effect of site traffic on the transportation network is dependent on the origins and destinations of that traffic and the location of the driveways serving the site.

The proposed arrival/departure distribution of traffic to be generated at this site is considered a function of several parameters, including the following:

- Proximity to I-90 and US-219.
- Internal site circulation design.
- Site access intersection locations.
- Existing traffic patterns; and
- Existing traffic conditions and controls

Figures 6A and 6B shows the anticipated trip distribution pattern percentages for the final development phase traffic for both employee and truck traffic, respectively. **Figures 7A, 7B, and 7C** show the resulting employee, truck, and total site generated traffic (including cars and trucks) as assigned to the study area intersections for the weekday AM and PM peak hour periods under full build-out conditions.

VII. FULL DEVELOPMENT VOLUMES

Proposed design hour traffic volumes are developed for the AM and PM peak hours by combining the background traffic conditions (Figure 4) and the future asphalt plant site-generated traffic volumes (Figure 7C) to yield the traffic volumes under full development conditions. The resulting full build-out design hour volumes for Hamburg Crossings are illustrated in **Figure 8**.

VIII. CAPACITY ANALYSIS

A. Description of Capacity Analysis

Capacity analysis is a technique used for determining a measure of effectiveness for a section of roadway and/or intersection based on the number of vehicles during a specific time period. The measure of effectiveness used for the capacity analysis is referred to as a Level of Service

(LOS). Levels of Service are calculated to provide an indication of the amount of delay that a motorist experiences while traveling along a roadway or through an intersection. Since the most amount of delay to motorists usually occurs at intersections, capacity analysis typically focuses on intersections, as opposed to highway segments.

Six Levels of Service are defined for analysis purposes. They are assigned letter designations, from "A" to "F", with LOS "A" representing the conditions with little to no delay, and LOS "F" conditions with very long delays. Suggested ranges of service capacity and an explanation of Levels of Service are included in the Appendix.

The standard procedure for capacity analysis of signalized and un-signalized intersections is outlined in the Highway Capacity Manual (HCM 2016) published by the Transportation Research Board (TRB). Traffic analysis software, SYNCHRO 11, which is based on procedures and methodologies contained in the HCM, was used to analyze operating conditions at study area intersections. The procedure yields a Level of Service (LOS) based on the HCM as an indicator of how well intersections operate. However, it is noted that capacity analysis results were derived using the HCM 2000 methodology for unsignalized intersections within Synchro as required by NYSDOT Region 5.

B. Capacity Analysis Results

Existing and background operating conditions during the peak study periods are evaluated to determine a basis for comparison with the projected future conditions. The future traffic conditions generated by the project were analyzed to assess the operation of the study area intersections. Capacity results for existing, background and full development conditions are listed in **Table IV**. The discussion following the table summarizes capacity conditions. All capacity analysis calculations are included in the Appendices.

TABLE IV: CAPACITY ANALYSIS RESULTS

INTERSECTION	2022 EXISTING CONDITIONS				2023 BACKGROUND CONDITIONS				2023 FULL BUILD CONDITIONS			
	AM		PM		AM		PM		AM		PM	
1. Camp Rd/Sunset Dr (S)												
SEB Thru - Camp Rd	B	15.6	B	18.8	B	15.6	B	18.9	B	15.7	B	18.9
SEB Right - Camp Rd	A	0.8	A	0.8	A	0.8	A	0.8	A	0.8	A	0.8
NWB Left - Camp Rd	A	8.2	A	8.2	A	8.2	A	8.2	A	8.2	A	8.2
NWB Thru - Camp Rd	B	11.2	A	7.9	B	11.2	A	7.9	B	11.3	A	7.9
NEB Left - Sunset Dr	C	26.9	C	28.9	C	26.9	C	29.0	C	26.9	C	29.1
NEB Right - Sunset Dr	A	9.0	A	7.8	A	9.0	A	7.8	A	9.0	A	7.8
Overall LOS	**B**	**14.1**	**B**	**13.6**	**B**	**14.2**	**B**	**13.6**	**B**	**14.2**	**B**	**13.6**
Volume-to-Capacity (v/c) Ratio	**0.60**		**0.67**		**0.60**		**0.67**		**0.60**		**0.67**	
2. Camp Rd/Scranton Rd/Monro Dwy (S)												
SEB Left - Camp Rd	A	3.4	A	4.5	A	3.4	A	4.5	A	3.4	A	4.5
SEB Thru/Right - Camp Rd	A	2.9	A	4.5	A	2.9	A	4.6	A	2.9	A	4.6
NWB - Camp Rd	A	5.1	A	6.6	A	5.1	A	6.6	A	5.6	A	6.7
NEB - Monro Dwy	D	44.5	D	42.4	D	44.5	D	42.4	D	44.5	D	42.4
SWB Left - Scranton Rd	E	65.7	E	65.9	E	65.7	E	66.0	E	65.7	E	66.0
SWB Thru/Right - Scranton Rd	A	1.1	A	0.6	A	1.1	A	0.6	A	1.1	A	0.6
Overall LOS	**A**	**7.5**	**A**	**8.7**	**A**	**7.5**	**A**	**8.8**	**A**	**7.7**	**A**	**8.8**
Volume-to-Capacity (v/c) Ratio	**0.59**		**0.66**		**0.61**		**0.66**		**0.59**		**0.66**	
3. Camp Rd/Elmview Ave (U)												
EB - Elmview Ave	B	11.8	B	12.8	B	11.8	B	12.8	B	12.1	B	13.5
NB Left - Camp Rd	A	0.8	A	2.5	A	0.8	A	2.5	A	0.8	A	2.5
4. Camp Rd/Legion Dr (S)												
WB Left - Legion Dr	D	51.7	E	65.6	D	51.7	E	65.8	D	51.7	E	65.8
WB Right - Legion Dr	B	11.0	A	4.9	B	11.3	A	4.9	B	11.6	A	4.9
NB - Camp Rd	B	13.7	B	12.0	B	13.8	B	12.0	B	13.9	B	12.0
SB Left - Camp Rd	E	56.7	F	149.2	E	56.6	F	152.1	E	56.1	F	154.5
SB Thru - Camp Rd	A	9.3	B	12.0	A	9.4	B	12.0	A	9.5	B	12.1
Overall LOS	**B**	**19.8**	**D**	**36.8**	**B**	**19.9**	**D**	**37.3**	**B**	**19.9**	**D**	**37.7**
Volume-to-Capacity (v/c) Ratio	**0.68**		**1.16**		**0.68**		**1.17**		**0.68**		**1.18**	
5. Sunset Dr/Elmview Ave/Kenton Pl (U)												
EB - Kenton Pl	B	11.4	B	11.3	B	11.4	B	11.3	B	11.4	B	11.3
WB - Elmview Ave	B	10.6	B	10.7	B	10.6	B	10.7	B	10.6	B	10.7
NB - Sunset Dr	A	0.0	A	0.1	A	0.0	A	0.1	A	0.0	A	0.1
SB - Sunset Dr	A	2.4	A	0.7	A	2.4	A	0.7	A	2.4	A	0.7
6. Camp Rd/Existing Dwy (U)												
EB - Existing Dwy	N/A		N/A		N/A		N/A		B	14.6	C	19.5
NB - Camp Rd									A	0.2	A	0.3
7. Elmview Ave/Existing Dwy (U)												
WB - Elmview Ave	N/A		N/A		N/A		N/A		A	0.2	A	0.1
NWB - Existing Dwy									A	8.5	A	8.5

Notes:

1. A (0.0) = Level of Service (Delay in seconds per vehicle)
2. EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound, NW = Northwest, SE = Southeast
3. (S) = Signalized; (U) = Unsignalized
4. N/A = Approach does not exist and/or was not analyzed during this condition
5. Green shaded cells indicate low delays, yellow shaded cells indicate moderate delays, red shaded cells indicate long delays.
6. The v/c ratio, also referred to as degree of saturation, represents the sufficiency of an intersection to accommodate the vehicular demand. A v/c ratio less than 0.85 generally indicates that adequate capacity is available and vehicles are not expected to experience significant queues and delays. A v/c ratio between 0.85 and 0.95 generally indicates an intersection is nearing capacity. Intersections with a v/c ratio of 1.0 or greater generally indicate conditions at or above capacity.

The peak hour capacity analysis results indicate that the approaches at the study intersections will operate similarly to projected 2023 Background Conditions. All of the study intersections experience no changes in levels of service and all approaches operate at LOS "D" or better during the peak hours, with the exception of:

- The southwestbound left approach at the Camp Rd/Scranton Rd intersection which operates at LOS "E" during both peaks
- The westbound left at the Camp Rd/Legion Dr intersection operates at LOS "E" during the PM peak
- The southbound left at the Camp Rd/Legion Dr intersection which operates at LOS "E"("F") during the AM(PM) peak hours respectively. No mitigation is warranted or recommended at any of the study intersections.

Given that there is no decrease in LOS as a result of this project, no mitigation is warranted or recommended at any of the study intersections.

Given that the proposed project will not have a significant adverse effect on the existing roadway system, the proposed project will as well not have a significant adverse effect on the existing bicycle and pedestrian pathways.

IX. CONCLUSIONS & RECOMMENDATIONS

This Traffic Impact Study identifies and evaluates the potential traffic impacts that can be expected from the proposed Asphalt Plant development at 5690 Camp Rd in the Town of Hamburg, Erie County, New York. The results of this study determine that the existing transportation network can adequately accommodate the projected traffic volumes and resulting impacts to study area intersections. The following sets forth the conclusions based upon the results of the analyses:

1. The proposed project is expected to generate approximately 11 entering/11 exiting vehicle trips during the AM peak hour and 11 entering/11 exiting vehicle trips during the PM peak hour at full build out.

2. Crash analyses at the existing intersections did not identify any discernible crash clusters or inherent safety deficiencies.

3. The projected traffic impacts resulting from full development of the proposed project during all peak hours can be accommodated by the existing transportation network with no highway improvements.

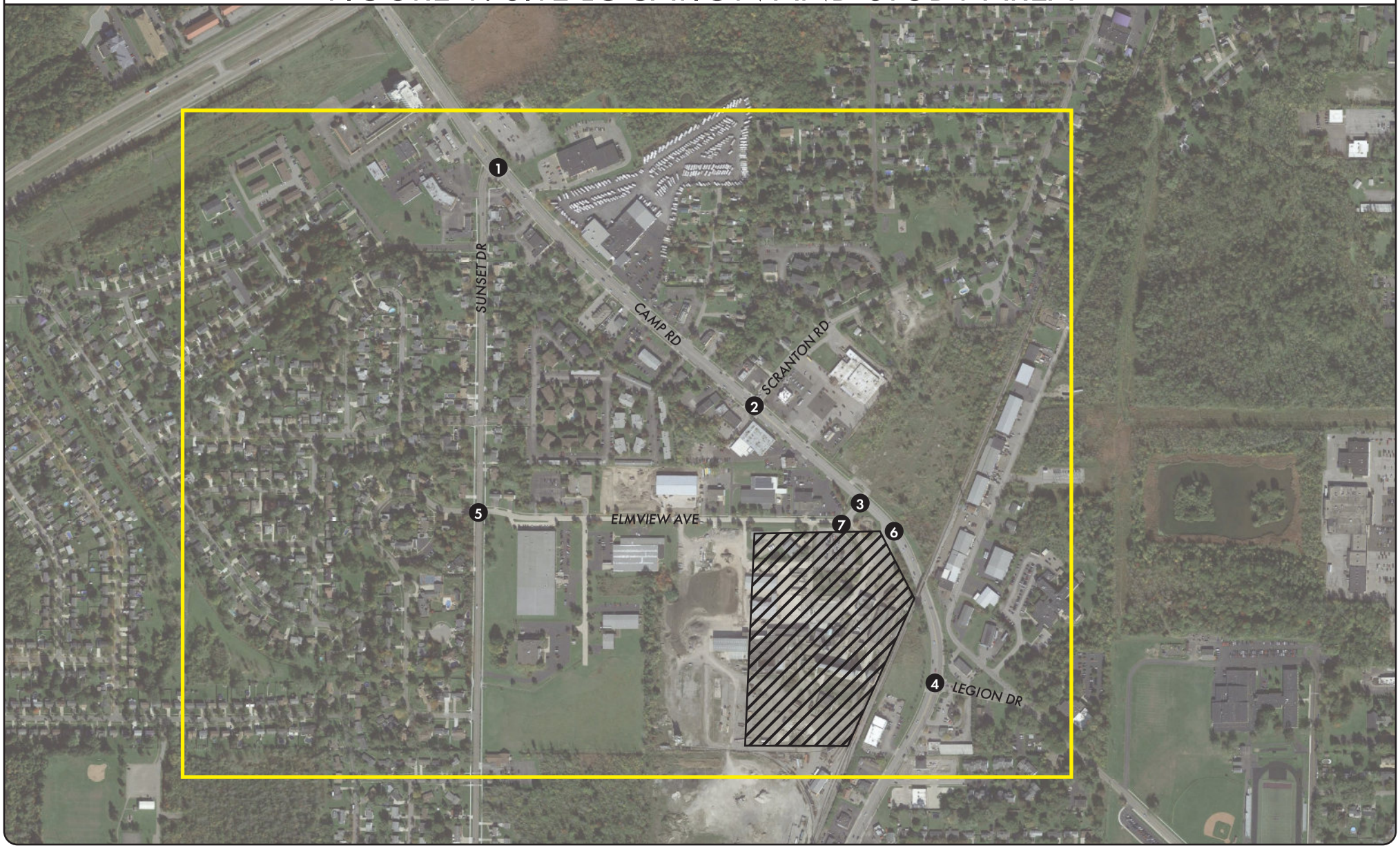
4. Given that the proposed project will not have a significant adverse effect on the existing roadway system, the proposed project will as well not have a significant adverse effect on the existing bicycle and pedestrian pathways.

5. For purposes of the environmental review of the project pursuant to the State Environmental Quality Review Act (SEQRA), it is our firm's professional opinion that the final phase of the project will not result in any potentially significant adverse traffic impacts to the study area intersections.

X. FIGURES

Figures 1 through 8 are included on the following pages.

FIGURE 1: SITE LOCATION AND STUDY AREA



Key

- # Study Intersection
- Site Location
- Study Area

PROPOSED ASPHALT PLANT

TOWN OF HAMBURG, ERIE COUNTY, NEW YORK

N

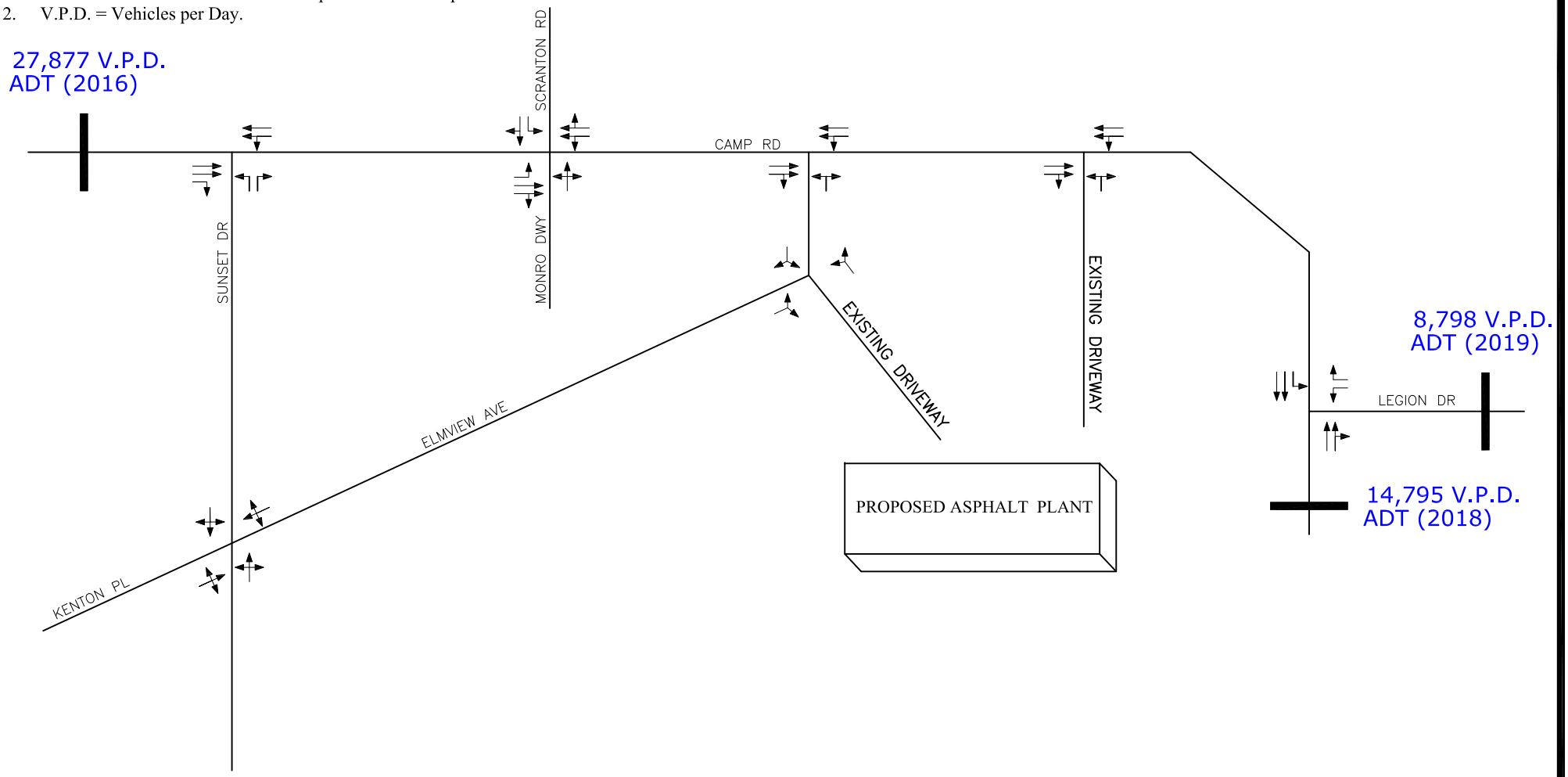
0 600
FEET

Project No: 42006

SRF ASSOCIATES
Transportation Planning / Engineering / Design

Notes:

1. All AADT volumes by those noted:
   1.1. NYSDOT = New York State Department of Transportation.
2. V.P.D. = Vehicles per Day.



SRF ASSOCIATES
Transportation Planning / Engineering / Design
www.srfa.net / (585) 272-4660

N

NOT TO SCALE

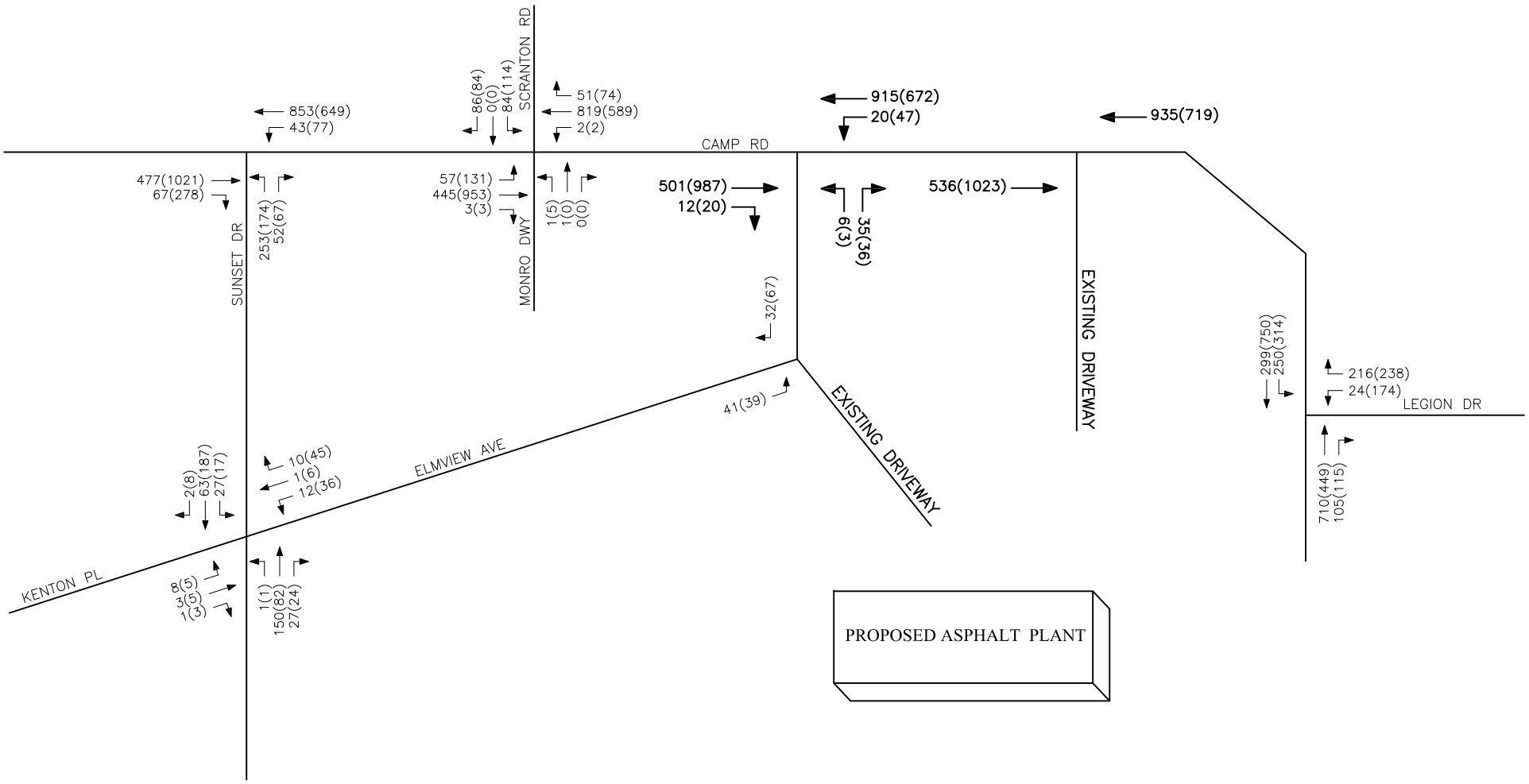
FIGURE 2

LANE GEOMETRY &
AVERAGE DAILY TRAFFIC

PROPOSED ASPHALT PLANT
TOWN OF HAMBURG, NY

KEY

PROJECT NO: 42006



AM PEAK: 7:15–8:15
PM PEAK: 4:15–5:15

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N

NOT TO SCALE

FIGURE 3

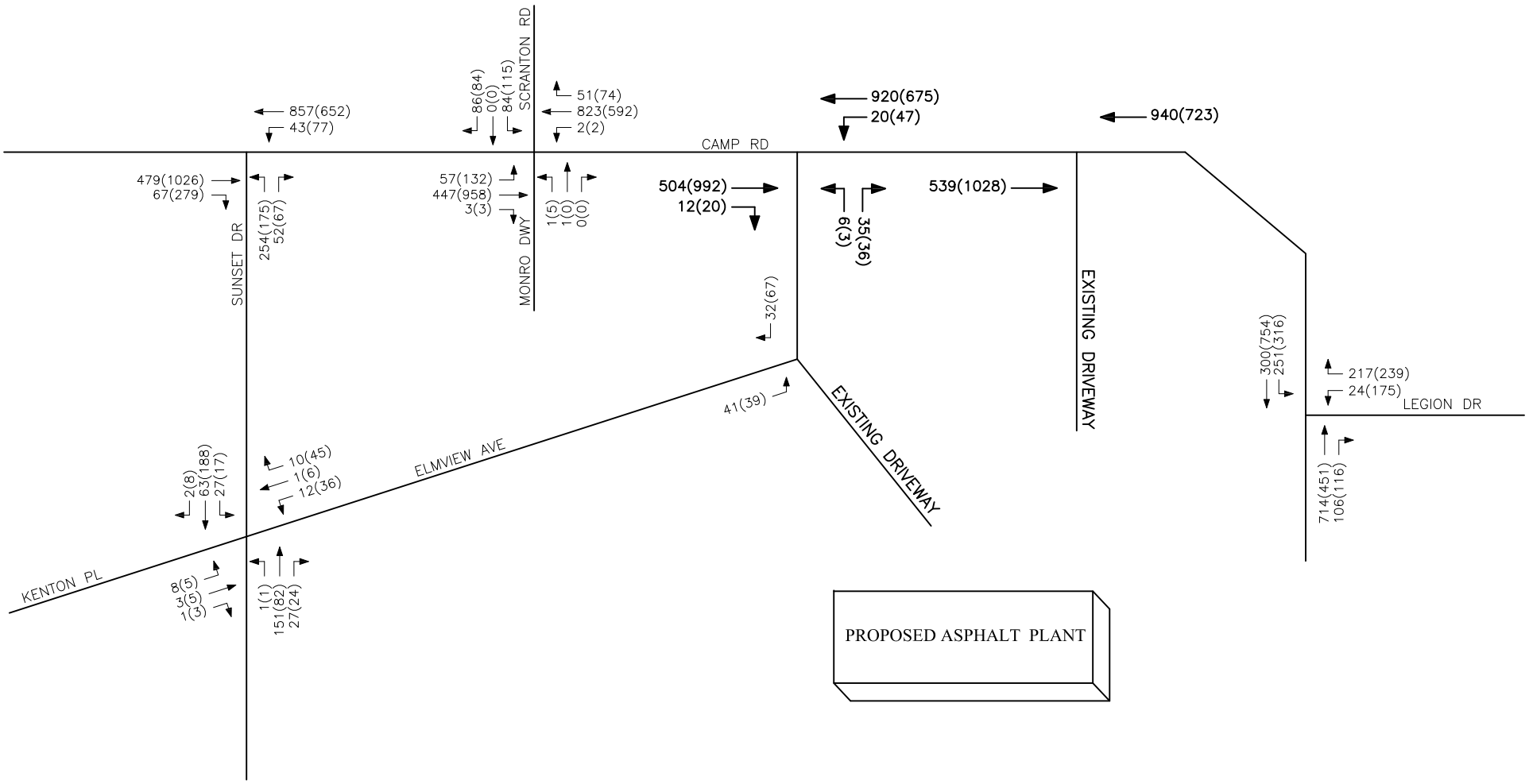
PEAK HOUR VOLUMES
2022 EXISTING BASE CONDITIONS

PROPOSED ASPHALT PLANT
TOWN OF HAMBURG, NY

KEY

00(00) = AM(PM)

PROJECT NO: 42006



AM PEAK: 7:15–8:15
PM PEAK: 4:15–5:15

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N

NOT TO SCALE

FIGURE 4

PEAK HOUR VOLUMES
2023 BACKGROUND CONDITIONS

PROPOSED ASPHALT PLANT
TOWN OF HAMBURG, NY

KEY

00(00) = AM(PM)

PROJECT NO: 42006

565.20'
12.88'
796.30'
125.44'
410.00'
433.88'
552.62'
698.49'
METAL SHED
RAIL CEMENT TERMINAL
OUTDOOR STORAGE AREA
WASH UP PIT
TOWN OF HAMBURG
VILLAGE OF HAMBURG
VILLAGE OF HAMBURG
TOWN OF HAMBURG
EAST LINE OF LOT 12
WEST LINE OF LOT 4
175.00'
+/-(VIF)
ALIGN NEW BLDG. WITH EX. KILN BUILDING
TRAVELWAYS
190.00'
+/-(VIF)
160.00'
40.00'
PRECAST
BLOCK KILNS
182.32'
183.13'
EXCEPTION
200.00'
200.00'
160.00'
BLOCK PLANT
COVERED BLOCK STORAGE
TOWN OF HAMBURG
VILLAGE OF HAMBURG
METAL CLAD BUILDING
NEW ASPHALT PLANT
SHOP
TRAVELWAYS
PUBLIC ROADWAYS
TRAVELWAYS
RAILROAD TRACKS
EQUIPMENT STORAGE
154.85'
154.85'
63.39'
100.00'
SHOP
BLOCK PLANT TESTING
204.80'
EXCEPTION
245.95'
REDI-MIX PATCH PLANT NO. 1
GARAGE
PUBLIC ROADWAYS
TRAVELWAYS
89.00'
45.00'
SHOP
STORAGE
BUILDER'S SUPPLY WAREHOUSE
OFFICE
2306.10'
BUFFALO SOUTHERN RAILROAD
195.00'
276.40'
CAMP ROAD
WIDTH VARIES
35.00'

ASPHALT PLANT
NOT TO SCALE

SURVEY INFORMATION TAKEN FROM SURVEY BY MILLARD, MACKAY, & DELLES
SURVEY DATED 2/24/12
DRAWING DATE 2/28/12
PART OF LOT 3,4,11 & 12 TOWNSHIP 9, RANGE 8 OF THE HOLLAND LAND COMPANY'S SURVEY
ERIE COUNTY, NEW YORK
SBL NO. 182.16-3-21.1

SITE PLAN
SCALE: 1"=90'-0"

General Notes

PLAN NORTH

TRUE NORTH

BMG HOT MIX ASPHALT COUNTERFLOW DRUM PLANT 300 TPH

SITE PLAN

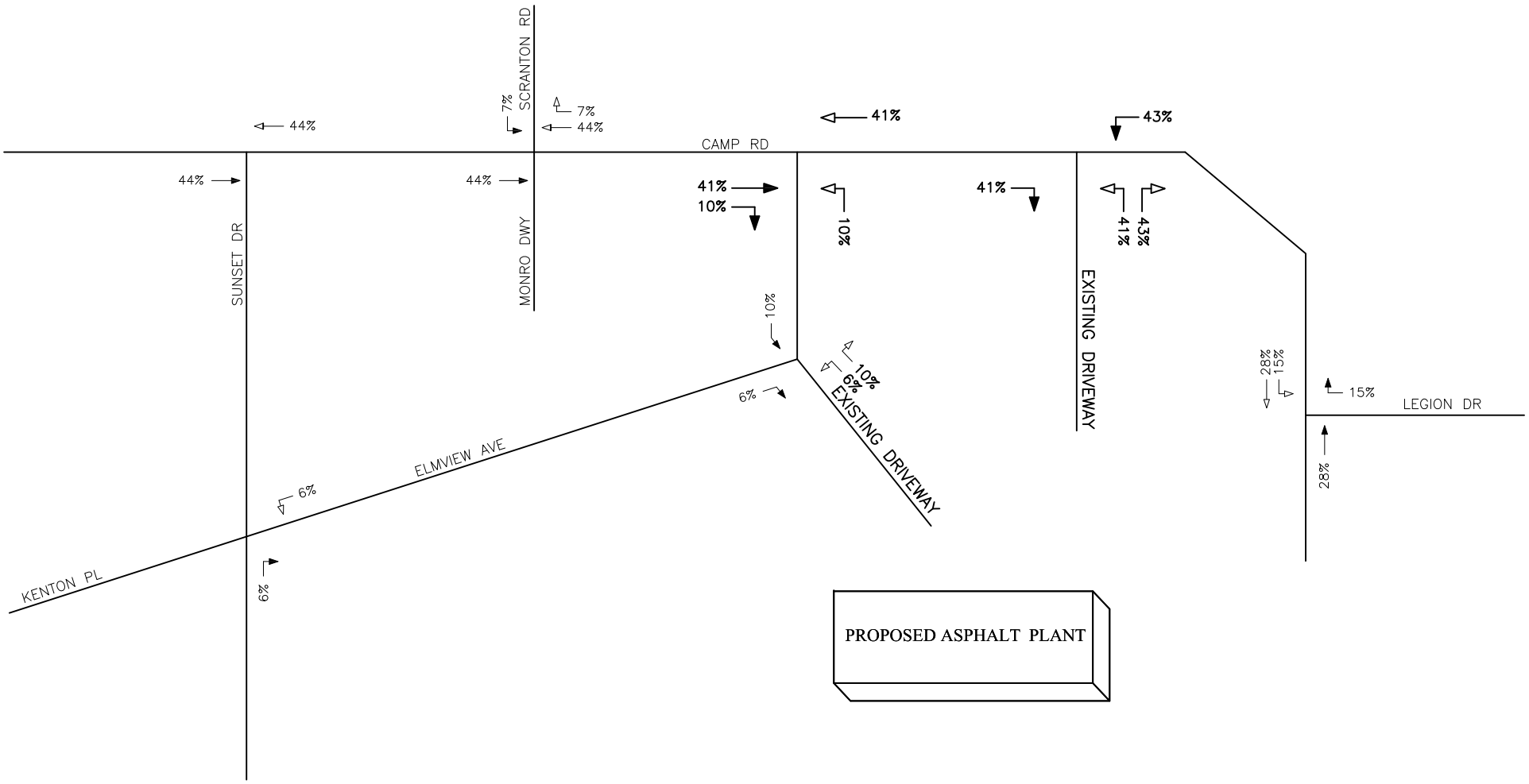
No.	Revision/Issue	Date

Firm Name and Address
GEORGE H. REINHARDT, JR.
ARCHITECT
9019 CAROLINE LANE
COLDEN, NY 14033
(716)-725-8417
GEORGER3320@HOTMAIL.COM

Project Name and Address
BMG HOT MIX ASPHALT COUNTERFLOW
DRUM PLANT 300 TPH
5690 CAMP ROAD
HAMBURG, NEW YORK 14075

OWNER
AL ASPHALT CORPORATION
100 STRADTMAN STREET
CHEEKTOWAGA, NEW YORK 14206

Project	Sheet
1908	SP-1
Date: 5/31/2019	
Scale: 1"=90'-0"	



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N

NOT TO SCALE

FIGURE 6A

TRIP DISTRIBUTION - EMPLOYEE

PROPOSED ASPHALT PLANT
TOWN OF HAMBURG, NY

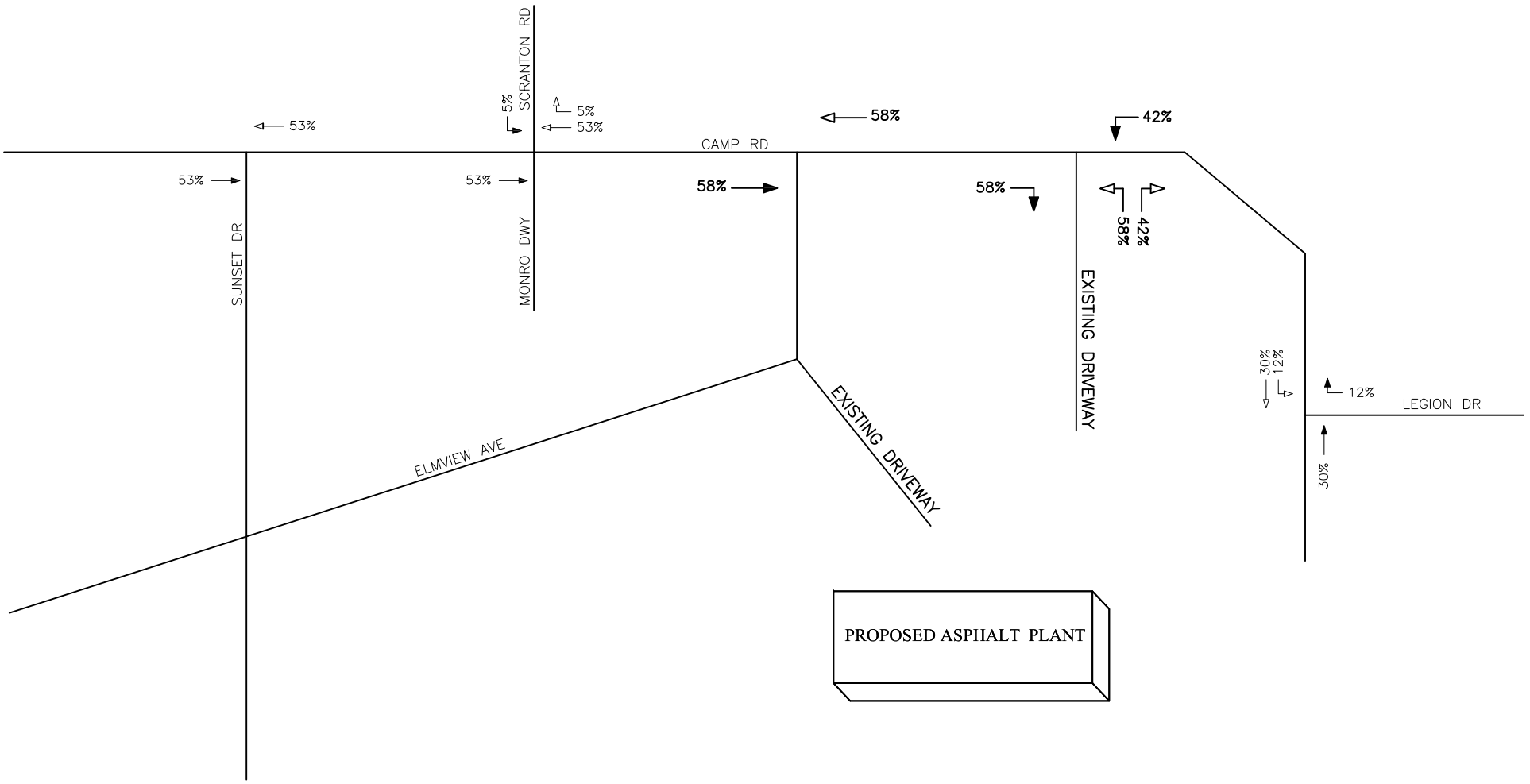
KEY

00(00) = AM(PM)

→ = ENTERING TRIPS

→ = EXITING TRIPS

PROJECT NO: 42006



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N

NOT TO SCALE

FIGURE 6B

TRIP DISTRIBUTION - TRUCK

PROPOSED ASPHALT PLANT
TOWN OF HAMBURG, NY

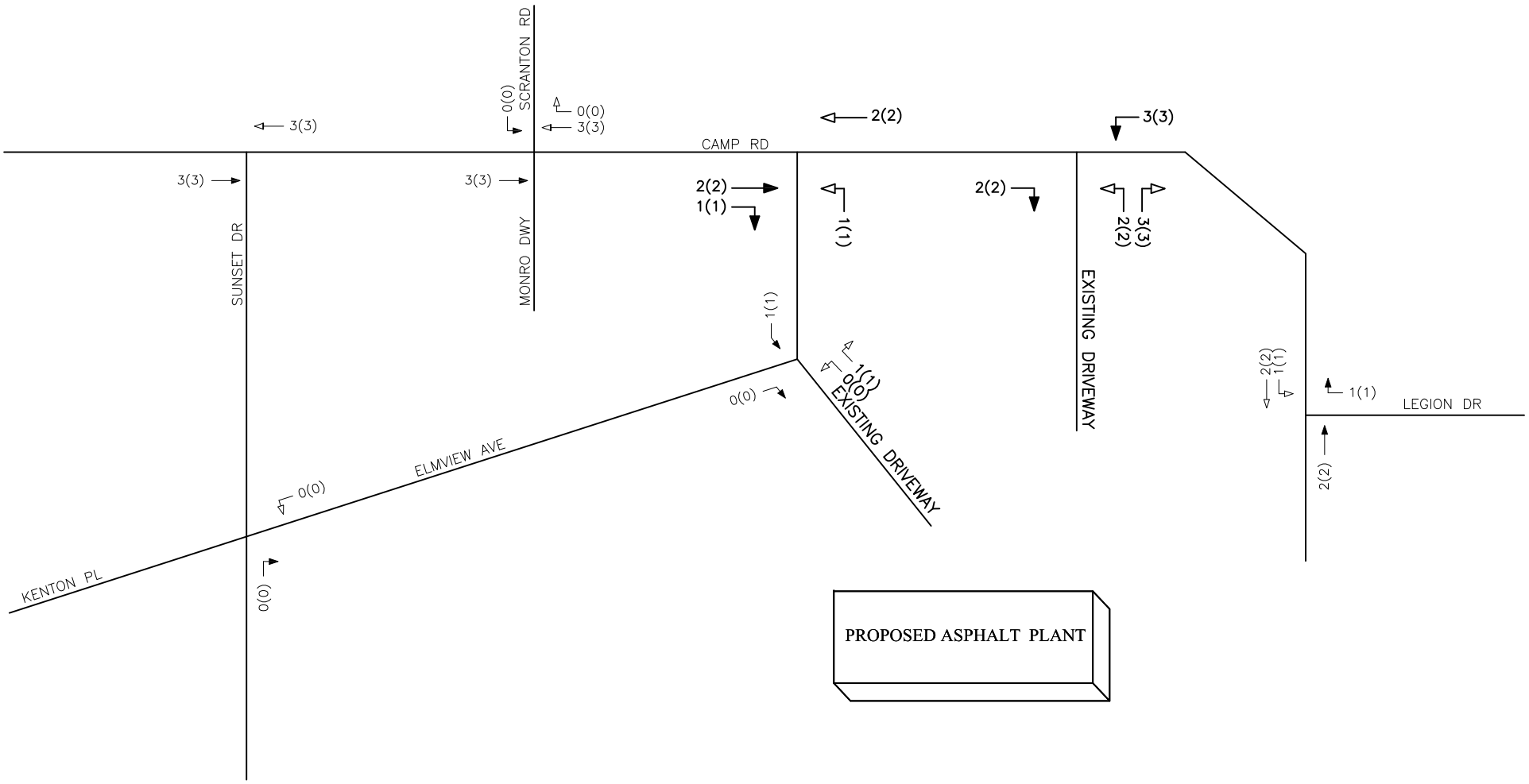
KEY

00(00) = AM(PM)

→ = ENTERING TRIPS

→ = EXITING TRIPS

PROJECT NO: 42006



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N

NOT TO SCALE

FIGURE 7A

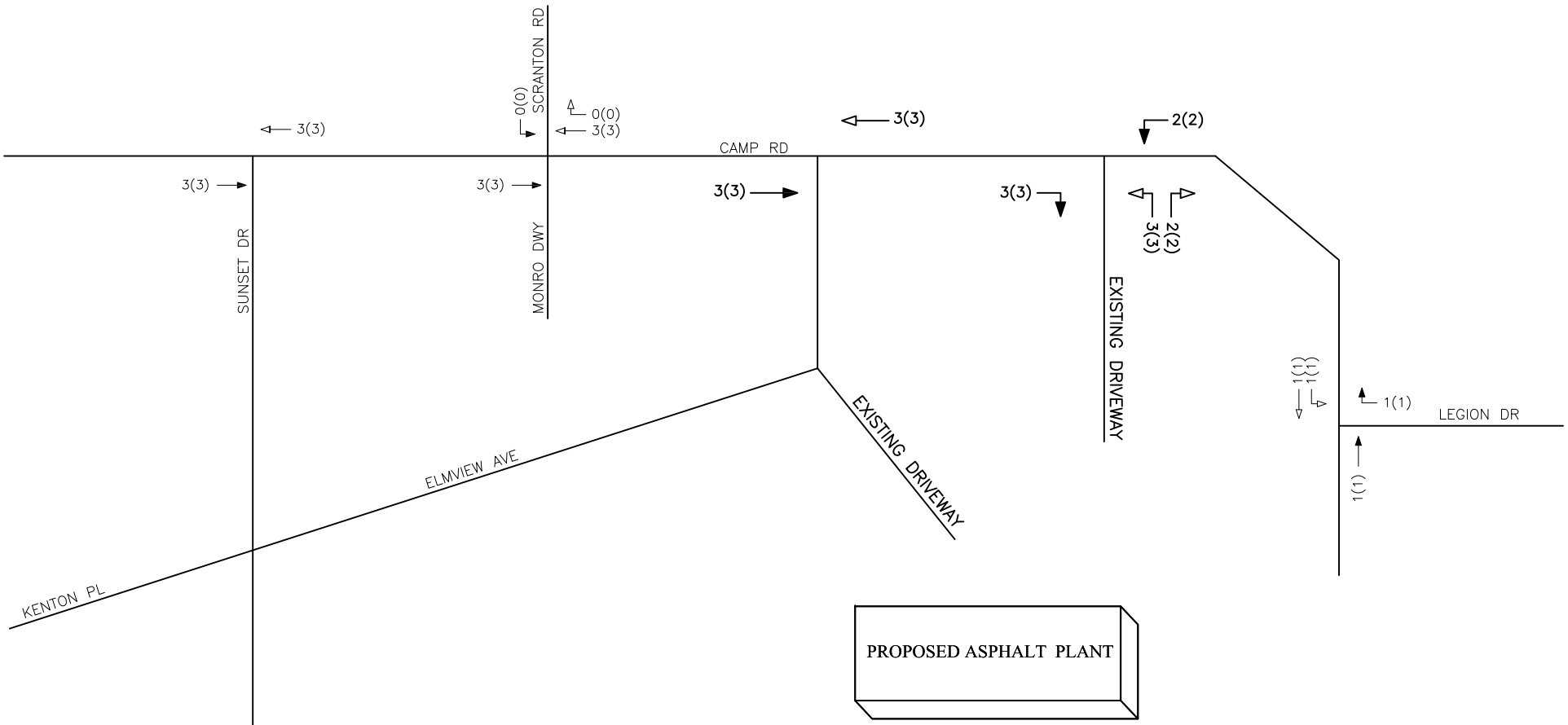
SITE GENERATED TRIPS - EMPLOYEES

PROPOSED ASPHALT PLANT
TOWN OF HAMBURG, NY

KEY

00(00) = AM(PM)
→ = ENTERING TRIPS
→ = EXITING TRIPS

PROJECT NO: 42006



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N

NOT TO SCALE

FIGURE 7B

SITE GENERATED TRIPS - TRUCKS

PROPOSED ASPHALT PLANT
TOWN OF HAMBURG, NY

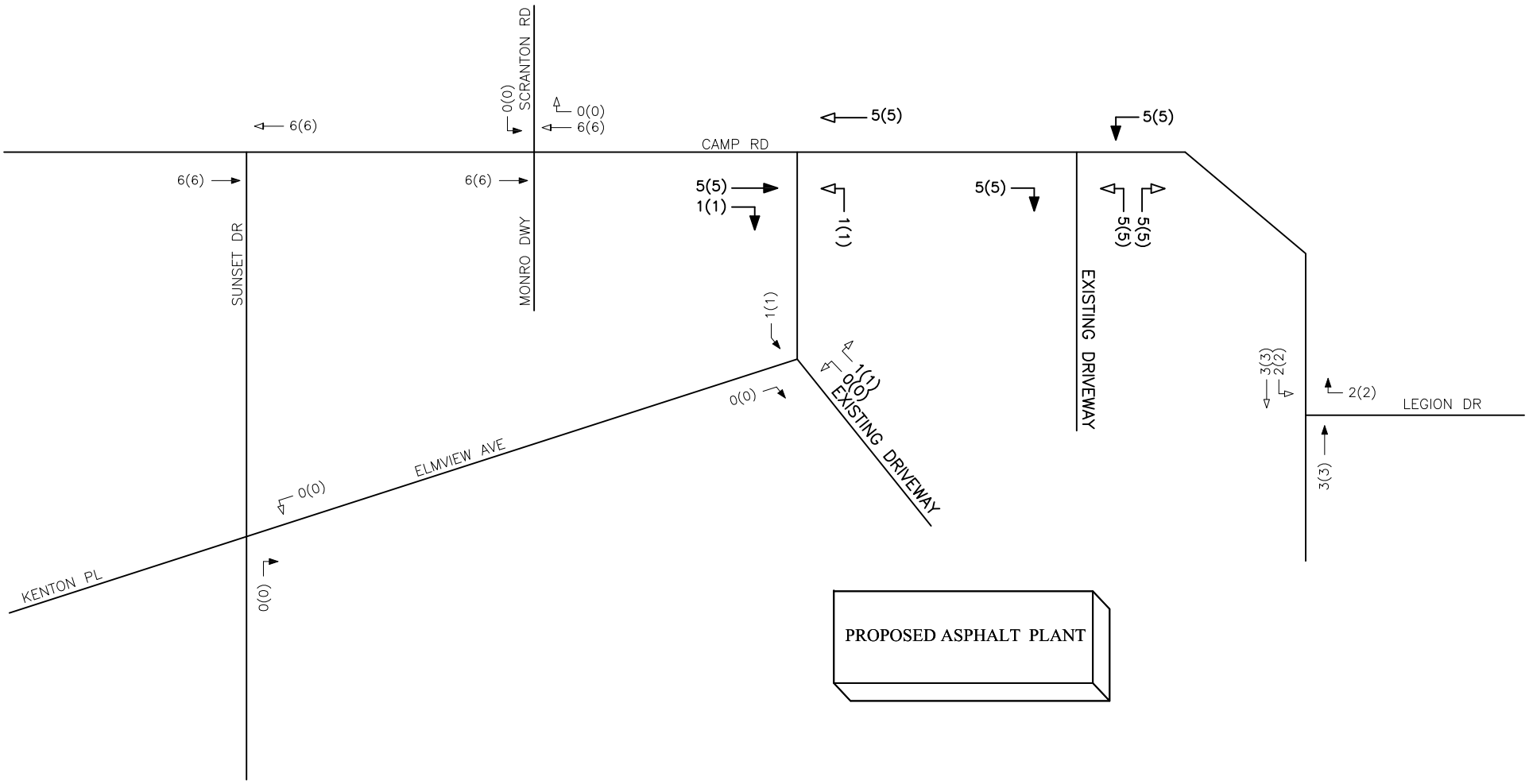
KEY

00(00) = AM(PM)

→ = ENTERING TRIPS

→ = EXITING TRIPS

PROJECT NO: 42006



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N

NOT TO SCALE

FIGURE 7C

TOTAL SITE GENERATED TRIPS

PROPOSED ASPHALT PLANT
TOWN OF HAMBURG, NY

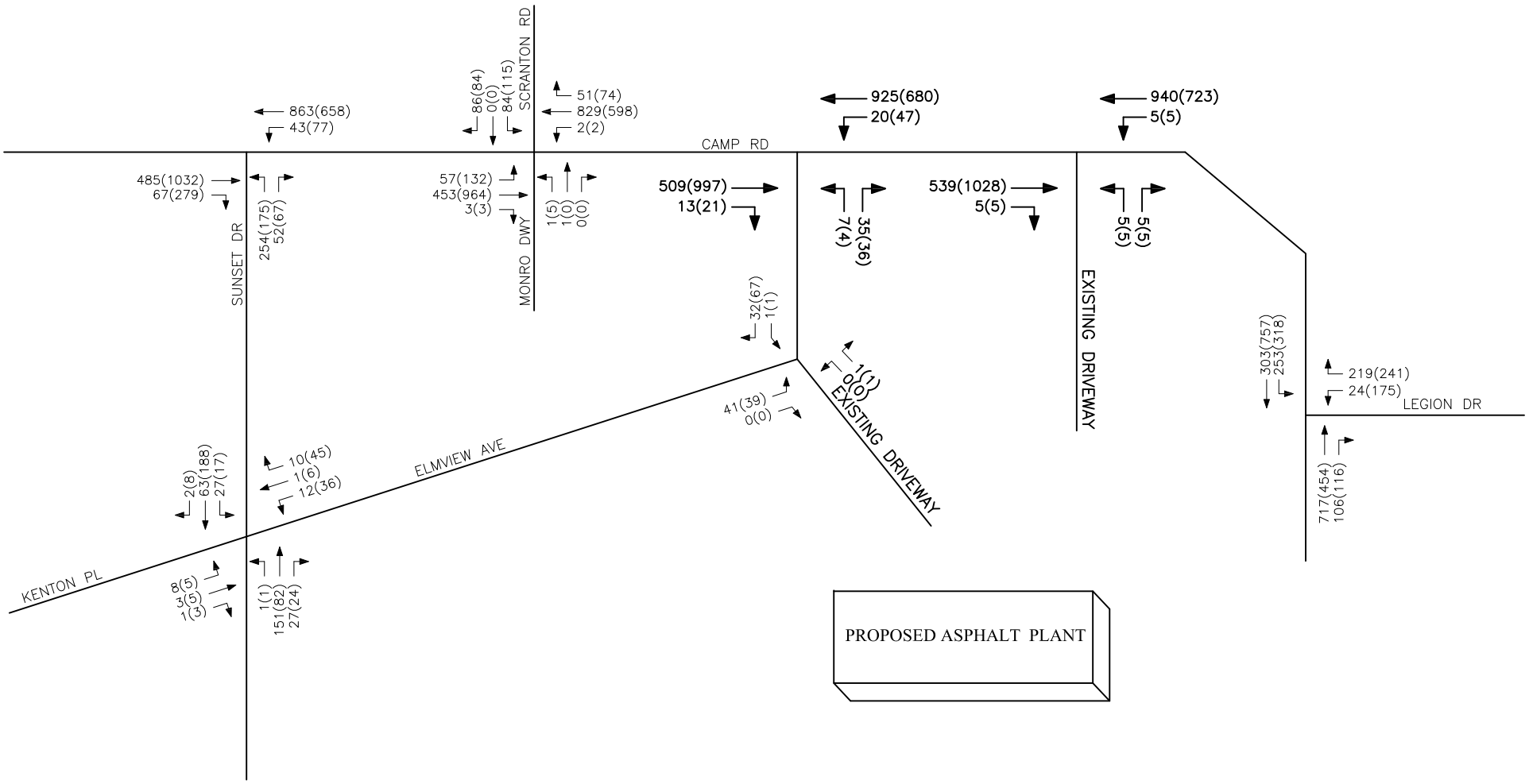
KEY

00(00) = AM(PM)

→ = ENTERING TRIPS

→ = EXITING TRIPS

PROJECT NO: 42006



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N

NOT TO SCALE

FIGURE 8

PEAK HOUR VOLUMES
FULL DEVELOPMENT CONDITIONS

PROPOSED ASPHALT PLANT
TOWN OF HAMBURG, NY

KEY

00(00) = AM(PM)

PROJECT NO: 42006

APPENDICES

A1

Collected Traffic Volume Data

Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA

WVWGdwd1frp

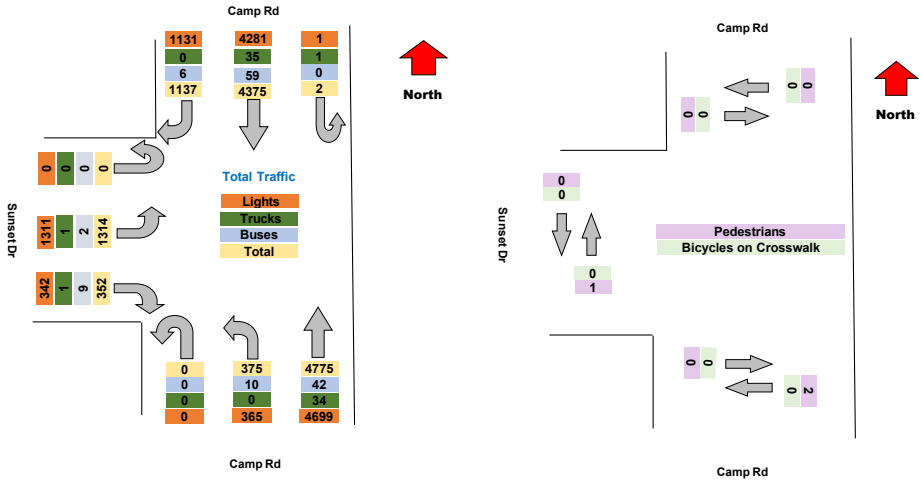
Project	SRFHamburg
Project Code	SRFHamburg
Site Name	Camp Rd & Sunset Dr
Legs and Movements	All Processed Legs & Movements
Bin Size	15 minutes
Survey Date	07/12/2021, Tuesday
Location	7
Latitude and Longitude	42.737980, -78.844012

	Start	End	PHF
Forced Peak AM	2021/12/07 07:30:00	2021/12/07 08:30:00	0.89
Forced Peak PM	2021/12/07 16:30:00	2021/12/07 17:30:00	0.98
AM Peak	2021/12/07 07:15:00	2021/12/07 08:15:00	0.92
PM Peak	2021/12/07 16:15:00	2021/12/07 17:15:00	0.98

Turning Movement Data

Leg	**Camp Rd**						**Camp Rd**						**Sunset Dr**						
Direction	**Southbound**						**NorthBound**						**Eastbound**						
Start Time	Right	Thru	U-Turn	**App Total**	Peds CW	Peds CCW	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Left	U-Turn	**App Total**	Peds CW	Peds CCW	**Total**
6:00:00 AM	5	31	0	**36**	0	0	103	3	0	**106**	0	0	1	28	0	**29**	0	0	**171**
6:15:00 AM	14	47	0	**61**	0	0	166	1	0	**167**	0	0	1	38	0	**39**	0	0	**267**
6:30:00 AM	10	70	0	**80**	0	0	181	3	0	**184**	0	0	8	53	0	**61**	0	0	**325**
6:45:00 AM	21	104	0	**125**	0	0	173	5	0	**178**	0	0	6	44	0	**50**	0	0	**353**
Hourly Total	50	252	0	**302**	0	0	623	12	0	**635**	0	0	16	163	0	**179**	0	0	**1116**
7:00:00 AM	8	100	0	**108**	0	0	180	4	0	**184**	0	0	10	42	0	**52**	0	0	**344**
7:15:00 AM	15	109	0	**124**	0	0	213	8	0	**221**	0	0	20	75	0	**95**	0	0	**440**
7:30:00 AM	16	106	0	**122**	0	0	254	11	0	**265**	0	0	9	78	0	**87**	0	0	**474**
7:45:00 AM	19	138	1	**158**	0	0	183	10	0	**193**	0	0	12	56	0	**68**	0	0	**419**
Hourly Total	58	453	1	**512**	0	0	830	33	0	**863**	0	0	51	251	0	**302**	0	0	**1677**
8:00:00 AM	17	124	0	**141**	0	0	203	14	0	**217**	0	0	11	44	0	**55**	0	0	**413**
8:15:00 AM	25	96	0	**121**	0	0	171	11	0	**182**	0	0	17	62	0	**79**	0	0	**382**
8:30:00 AM	23	122	0	**145**	0	0	190	7	0	**197**	0	0	13	54	0	**67**	0	0	**409**
8:45:00 AM	30	105	0	**135**	0	0	171	8	0	**179**	0	0	6	32	0	**38**	0	0	**352**
Hourly Total	95	447	0	**542**	0	0	735	40	0	**775**	0	0	47	192	0	**239**	0	0	**1556**
9:00:00 AM	23	102	0	**125**	0	0	189	18	0	**207**	0	0	10	40	0	**50**	0	0	**382**
9:15:00 AM	23	122	0	**145**	0	0	164	9	0	**173**	0	0	14	49	0	**63**	0	0	**381**
9:30:00 AM	23	142	0	**165**	0	0	156	17	0	**173**	0	0	14	45	0	**59**	0	0	**397**
9:45:00 AM	25	139	0	**164**	0	0	153	13	0	**166**	0	0	13	26	0	**39**	0	0	**369**
Hourly Total	94	505	0	**599**	0	0	662	57	0	**719**	0	0	51	160	0	**211**	0	0	**1529**
4:00:00 PM	59	198	0	**257**	0	0	150	25	0	**175**	0	0	14	47	0	**61**	0	0	**493**
4:15:00 PM	90	238	0	**328**	0	0	163	17	0	**180**	0	0	16	52	0	**68**	0	0	**576**
4:30:00 PM	56	268	0	**324**	0	0	158	22	0	**180**	0	0	15	40	0	**55**	0	0	**559**
4:45:00 PM	58	264	0	**322**	0	0	150	25	0	**175**	1	0	16	46	0	**62**	0	0	**559**
Hourly Total	263	968	0	**1231**	0	0	621	89	0	**710**	1	0	61	185	0	**246**	0	0	**2187**
5:00:00 PM	74	251	0	**325**	0	0	178	13	0	**191**	1	0	20	36	0	**56**	1	0	**572**
5:15:00 PM	60	208	0	**268**	0	0	148	21	0	**169**	0	0	13	55	0	**68**	0	0	**505**
5:30:00 PM	81	248	0	**329**	0	0	135	14	0	**149**	0	0	13	54	0	**67**	0	0	**545**
5:45:00 PM	76	163	0	**239**	0	0	121	16	0	**137**	0	0	9	37	0	**46**	0	0	**422**
Hourly Total	291	870	0	**1161**	0	0	582	64	0	**646**	1	0	55	182	0	**237**	1	0	**2044**
6:00:00 PM	55	156	0	**211**	0	0	123	14	0	**137**	0	0	20	48	0	**68**	0	0	**416**
6:15:00 PM	48	151	0	**199**	0	0	128	12	0	**140**	0	0	11	27	0	**38**	0	0	**377**
6:30:00 PM	43	118	0	**161**	0	0	102	9	0	**111**	0	0	7	28	0	**35**	0	0	**307**
6:45:00 PM	32	108	0	**140**	0	0	69	8	0	**77**	0	0	8	19	0	**27**	0	0	**244**
Hourly Total	178	533	0	**711**	0	0	422	43	0	**465**	0	0	46	122	0	**168**	0	0	**1344**
7:00:00 PM	23	102	0	**125**	0	0	91	12	0	**103**	0	0	6	11	0	**17**	0	0	**245**
7:15:00 PM	28	78	0	**106**	0	0	92	8	0	**100**	0	0	7	16	0	**23**	0	0	**229**
7:30:00 PM	28	74	0	**102**	0	0	69	11	0	**80**	0	0	6	22	0	**28**	0	0	**210**
7:45:00 PM	29	93	1	**123**	0	0	48	6	0	**54**	0	0	6	10	0	**16**	0	0	**193**
Hourly Total	108	347	1	**456**	0	0	300	37	0	**337**	0	0	25	59	0	**84**	0	0	**877**
Grand Total	1137	4375	2	**5514**	0	0	4775	375	0	**5150**	2	0	352	1314	0	**1666**	1	0	**12330**
% Approach	20.6%	79.3%	0.0%	**0.0%**	0.0%	0.0%	92.7%	7.3%	0.0%	**0.0%**	0.0%	0.0%	21.1%	78.9%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**
% Total	9.2%	35.5%	0.0%	**44.7%**	0.0%	0.0%	38.7%	3.0%	0.0%	**41.8%**	0.0%	0.0%	2.9%	10.7%	0.0%	**13.5%**	0.0%	0.0%	**0.0%**
Lights	1131	4281	1	**5413**	0	0	4699	365	0	**5064**	0	0	342	1311	0	**1653**	0	0	**12130**
% Lights	99.5%	97.9%	50.0%	**98.2%**	0.0%	0.0%	98.4%	97.3%	0.0%	**98.3%**	0.0%	0.0%	97.2%	99.8%	0.0%	**99.2%**	0.0%	0.0%	**98.4%**
Trucks	0	35	1	**36**	0	0	34	0	0	**34**	0	0	1	1	0	**2**	0	0	**72**
% Trucks	0.0%	0.8%	50.0%	**0.7%**	0.0%	0.0%	0.7%	0.0%	0.0%	**0.7%**	0.0%	0.0%	0.3%	0.1%	0.0%	**0.1%**	0.0%	0.0%	**0.6%**
Buses	6	59	0	**65**	0	0	42	10	0	**52**	0	0	9	2	0	**11**	0	0	**128**
% Buses	0.5%	1.3%	0.0%	**0.0%**	0.0%	0.0%	0.0%	2.7%	0.0%	**0.0%**	0.0%	0.0%	2.6%	0.2%	0.0%	**0.0%**	0.0%	0.0%	**1.0%**
Pedestrians	0	0	0	**0**	0	0	0	0	0	**0**	2	0	0	0	0	**0**	1	0	0
% Pedestrians	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	0.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0
% Bicycles on Crosswalk	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%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**

Turning Movement Data Plot



Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

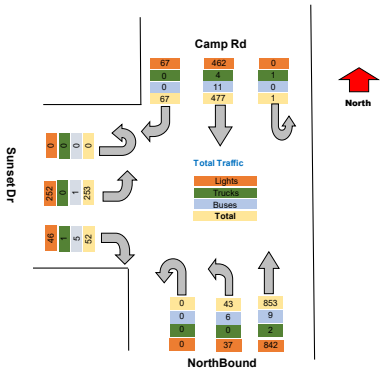
TRI-STATE TRAFFIC DATA

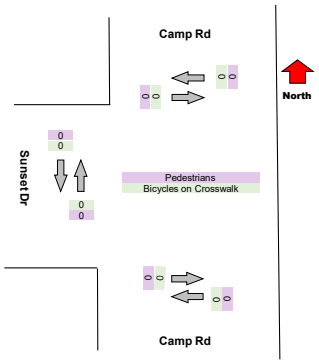
WVWGdwd1frp

Turning Movement Peak Hour Data (AM)

7:15:00 AM

Leg	Camp Rd						Camp Rd						Sunset Dr						
Direction	Southbound						NorthBound						Eastbound						
Start Time	Right	Thru	U-Turn	App Total	Peds CW	Peds CCW	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Left	U-Turn	App Total	Peds CW	Peds CCW	Total
7:15:00 AM	15	109	0	**124**	0	0	213	8	0	**221**	0	0	20	75	0	**95**	0	0	**440**
7:30:00 AM	16	106	0	**122**	0	0	254	11	0	**265**	0	0	9	78	0	**87**	0	0	**474**
7:45:00 AM	19	138	1	**158**	0	0	183	10	0	**193**	0	0	12	56	0	**68**	0	0	**419**
8:00:00 AM	17	124	0	**141**	0	0	203	14	0	**217**	0	0	11	44	0	**55**	0	0	**413**
Grand Total	67	477	1	**545**	0	0	853	43	0	**896**	0	0	52	253	0	**305**	0	0	**1746**
% Approach	12.3%	87.5%	0.2%	**0.0%**	0.0%	0.0%	95.2%	4.8%	0.0%	**0.0%**	0.0%	0.0%	17.0%	83.0%	0.0%	**0.0%**	0.0%	0.0%	
% Total	3.8%	27.3%	0.1%	**31.2%**	0.0%	0.0%	48.9%	2.5%	0.0%	**51.3%**	0.0%	0.0%	3.0%	14.5%	0.0%	**17.5%**	0.0%	0.0%	
PHF	0.882	0.864	0.250	**0.862**	0.000	0.000	0.840	0.768	0.000	**0.845**	0.000	0.000	0.650	0.811	0.000	**0.803**	0.000	0.000	**0.921**
Lights	67	462	0	**529**	0	0	842	37	0	**879**	0	0	46	252	0	**298**	0	0	**1706**
% Lights	100.0%	96.9%	0.0%	**97.1%**	0.0%	0.0%	98.7%	86.0%	0.0%	**98.1%**	0.0%	0.0%	88.5%	99.6%	0.0%	**97.7%**	0.0%	0.0%	**97.7%**
Trucks	0	4	1	**5**	0	0	2	0	0	**2**	0	0	1	0	0	**1**	0	0	**8**
% Trucks	0.0%	0.8%	100.0%	**0.9%**	0.0%	0.0%	0.2%	0.0%	0.0%	**0.2%**	0.0%	0.0%	1.9%	0.0%	0.0%	**0.3%**	0.0%	0.0%	**0.5%**
Buses	0	11	0	**11**	0	0	9	6	0	**15**	0	0	5	1	0	**6**	0	0	**32**
% Buses	0.0%	2.3%	0.0%	**0.0%**	0.0%	0.0%	1.1%	14.0%	0.0%	**0.0%**	0.0%	0.0%	9.6%	0.4%	0.0%	**0.0%**	0.0%	0.0%	**1.8%**
Pedestrians	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%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0
% Bicycles on Crosswalk	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%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**





Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

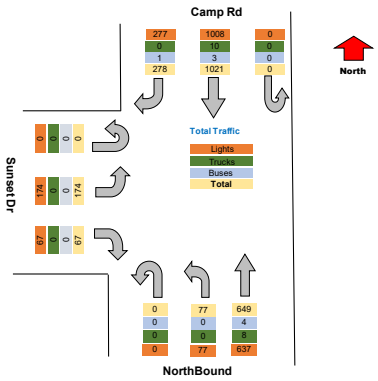
TRI-STATE TRAFFIC DATA

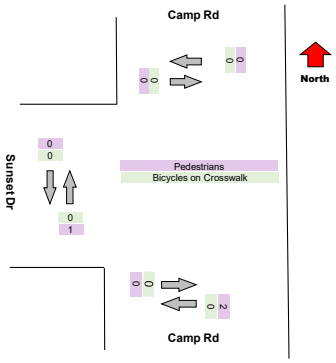
WVWGdwd1frp

Turning Movement Peak Hour Data (PM)

4:15:00 PM

Leg	Camp Rd						Camp Rd						Sunset Dr						
Direction	**Southbound**						**NorthBound**						**Eastbound**						
Start Time	Right	Thru	U-Turn	**App Total**	Peds CW	Peds CCW	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Left	U-Turn	**App Total**	Peds CW	Peds CCW	**Total**
4:15:00 PM	90	238	0	**328**	0	0	163	17	0	**180**	0	0	16	52	0	**68**	0	0	**576**
4:30:00 PM	56	268	0	**324**	0	0	158	22	0	**180**	0	0	15	40	0	**55**	0	0	**559**
4:45:00 PM	58	264	0	**322**	0	0	150	25	0	**175**	1	0	16	46	0	**62**	0	0	**559**
5:00:00 PM	74	251	0	**325**	0	0	178	13	0	**191**	1	0	20	36	0	**56**	1	0	**572**
Grand Total	278	1021	0	**1299**	0	0	649	77	0	**726**	2	0	67	174	0	**241**	1	0	**2266**
% Approach	21.4%	78.6%	0.0%	**0.0%**	0.0%	0.0%	89.4%	10.6%	0.0%	**0.0%**	0.0%	0.0%	27.8%	72.2%	0.0%	**0.0%**	0.0%	0.0%	
% Total	12.3%	45.1%	0.0%	**57.3%**	0.0%	0.0%	28.6%	3.4%	0.0%	**32.0%**	0.0%	0.0%	3.0%	7.7%	0.0%	**10.6%**	0.0%	0.0%	
PHF	0.772	0.952	0.000	**0.990**	0.000	0.000	0.912	0.770	0.000	**0.950**	0.000	0.000	0.838	0.837	0.000	**0.886**	0.000	0.000	**0.984**
Lights	277	1008	0	**1285**	0	0	637	77	0	**714**	0	0	67	174	0	**241**	0	0	**2240**
% Lights	99.6%	98.7%	0.0%	**98.9%**	0.0%	0.0%	98.2%	100.0%	0.0%	**98.3%**	0.0%	0.0%	100.0%	100.0%	0.0%	**100.0%**	0.0%	0.0%	**98.9%**
Trucks	0	10	0	**10**	0	0	8	0	0	**8**	0	0	0	0	0	**0**	0	0	**18**
% Trucks	0.0%	1.0%	0.0%	**0.8%**	0.0%	0.0%	1.2%	0.0%	0.0%	**1.1%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.8%**
Buses	1	3	0	**4**	0	0	4	0	0	**4**	0	0	0	0	0	**0**	0	0	**8**
% Buses	0.4%	0.3%	0.0%	**0.0%**	0.0%	0.0%	0.6%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.4%**
Pedestrians	0	0	0	**0**	0	0	0	0	0	**0**	2	0	0	0	0	**0**	1	0	0
% Pedestrians	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	0.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0
% Bicycles on Crosswalk	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%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**





TRI-STATE TRAFFIC DATA TSTData.com

Project	SRFHamburg
Project Code	SRFHamburg
Site Name	Camp Rd & Scranton Rd
Legs and Movements	All Processed Legs & Movem
Bin Size	15 minutes
Survey Date	2021/12/07 Tuesday
Location	8
Latitude and Longitude	42.734461, -78.838842

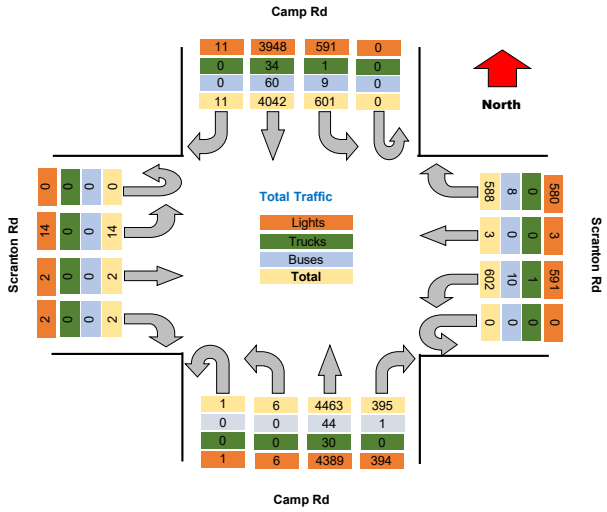
	Start	End	PHF
Forced Peak AM	2021/12/07 07:30:00	2021/12/07 08:30:00	0.94
Forced Peak PM	2021/12/07 16:30:00	2021/12/07 17:30:00	0.95
AM Peak	2021/12/07 07:15:00	2021/12/07 08:15:00	0.93
PM Peak	2021/12/07 16:15:00	2021/12/07 17:15:00	0.95

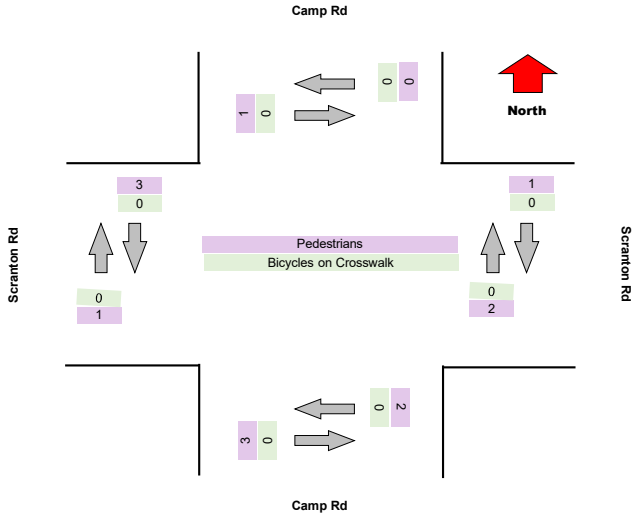
Turning Movement Data

Leg	Camp Rd							Scranton Rd							Camp Rd							Scranton Rd							
Direction	Southbound							Westbound							Northbound							Eastbound							
Start Time	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	**Total**
6:00:00 AM	0	22	5	0	**27**	0	0	10	0	3	0	**13**	0	0	5	99	0	0	**104**	0	0	0	0	0	0	**0**	1	0	**144**
6:15:00 AM	0	42	9	0	**51**	0	0	11	0	5	0	**16**	0	0	8	158	0	0	**166**	0	0	0	0	0	0	**0**	0	0	**233**
6:30:00 AM	0	72	5	0	**77**	0	0	14	0	17	0	**31**	0	0	12	168	0	0	**180**	0	0	0	0	0	0	**0**	0	0	**288**
6:45:00 AM	0	99	8	0	**107**	0	0	14	0	22	0	**36**	0	1	11	166	0	1	**179**	0	0	0	0	0	0	**0**	0	0	**322**
Hourly Total	0	235	27	0	**262**	0	0	49	0	47	0	**96**	0	1	36	591	0	1	**629**	0	0	0	0	0	0	**0**	1	0	**987**
7:00:00 AM	0	101	10	0	**111**	0	0	11	0	25	0	**36**	0	0	6	170	0	0	**176**	0	0	0	0	0	0	**0**	0	0	**323**
7:15:00 AM	1	116	17	0	**134**	0	0	22	0	19	0	**41**	0	0	14	225	1	0	**240**	0	0	0	0	0	0	**0**	0	0	**415**
7:30:00 AM	0	95	16	0	**111**	0	0	24	0	18	0	**42**	0	0	11	227	0	0	**238**	0	0	0	0	0	0	**0**	0	0	**391**
7:45:00 AM	1	127	9	0	**137**	0	0	19	0	29	0	**48**	0	0	16	187	1	0	**204**	0	0	0	0	1	0	**1**	0	0	**390**
Hourly Total	2	439	52	0	**493**	0	0	76	0	91	0	**167**	0	0	47	809	2	0	**858**	0	0	0	0	1	0	**1**	0	0	**1519**
8:00:00 AM	1	107	15	0	**123**	0	0	21	0	18	0	**39**	0	0	10	180	0	0	**190**	0	0	0	1	0	0	**1**	0	0	**353**
8:15:00 AM	0	87	19	0	**106**	0	0	28	1	20	0	**49**	0	0	15	165	1	0	**181**	0	0	0	0	2	0	**2**	0	0	**338**
8:30:00 AM	0	104	26	0	**130**	0	0	28	0	12	0	**40**	0	0	10	162	0	0	**172**	0	0	0	0	0	0	**0**	0	0	**342**
8:45:00 AM	0	100	11	0	**111**	0	0	14	0	24	0	**38**	0	0	14	177	0	0	**191**	0	0	0	0	0	0	**0**	0	0	**340**
Hourly Total	1	398	71	0	**470**	0	0	91	1	74	0	**166**	0	0	49	684	1	0	**734**	0	0	0	1	2	0	**3**	0	0	**1373**
9:00:00 AM	0	92	21	0	**113**	0	0	21	1	20	0	**42**	0	0	6	183	0	0	**189**	2	3	0	1	0	0	**1**	0	1	**345**
9:15:00 AM	0	114	23	0	**137**	0	0	23	0	21	0	**44**	0	0	18	133	0	0	**151**	0	0	0	0	1	0	**1**	0	0	**333**
9:30:00 AM	1	121	21	0	**143**	0	0	23	0	13	0	**36**	0	0	9	141	0	0	**150**	0	0	0	0	0	0	**0**	0	1	**329**
9:45:00 AM	2	124	14	0	**140**	0	0	19	1	18	0	**38**	0	0	7	141	0	0	**148**	0	0	0	0	1	0	**1**	0	0	**327**
Hourly Total	3	451	79	0	**533**	0	0	86	2	72	0	**160**	0	0	40	598	0	0	**638**	2	3	0	1	2	0	**3**	0	2	**1334**
4:00:00 PM	0	176	29	0	**205**	0	0	28	0	23	0	**51**	0	0	15	131	0	0	**146**	0	0	0	0	0	0	**0**	0	0	**402**
4:15:00 PM	0	215	30	0	**245**	0	0	17	0	23	0	**40**	1	0	18	147	1	0	**166**	0	0	0	0	0	0	**0**	0	0	**451**
4:30:00 PM	2	244	31	0	**277**	1	0	23	0	24	0	**47**	0	1	21	142	1	0	**164**	0	0	0	0	2	0	**2**	0	0	**490**
4:45:00 PM	1	253	35	0	**289**	0	0	25	0	41	0	**66**	0	0	11	145	0	0	**156**	0	0	0	0	2	0	**2**	0	0	**513**
Hourly Total	3	888	125	0	**1016**	1	0	93	0	111	0	**204**	1	1	65	565	2	0	**632**	0	0	0	0	4	0	**4**	0	0	**1856**
5:00:00 PM	0	241	35	0	**276**	0	0	19	0	26	0	**45**	0	0	24	155	0	0	**179**	0	0	0	0	1	0	**1**	0	0	**501**
5:15:00 PM	1	185	36	0	**222**	0	0	26	0	23	0	**49**	0	0	20	146	0	0	**166**	0	0	1	0	0	0	**1**	0	0	**438**
5:30:00 PM	0	220	27	0	**247**	0	0	27	0	26	0	**53**	0	0	13	120	1	0	**134**	0	0	1	0	1	0	**2**	0	0	**436**
5:45:00 PM	0	150	22	0	**172**	0	0	24	0	19	0	**43**	0	0	18	111	0	0	**129**	0	0	0	0	0	0	**0**	0	0	**344**
Hourly Total	1	796	120	0	**917**	0	0	96	0	94	0	**190**	0	0	75	532	1	0	**608**	0	0	2	0	2	0	**4**	0	0	**1719**
6:00:00 PM	1	156	19	0	**176**	0	0	19	0	23	0	**42**	0	0	13	118	0	0	**131**	0	0	0	0	0	0	**0**	0	0	**349**
6:15:00 PM	0	139	22	0	**161**	0	0	17	0	9	0	**26**	0	0	14	115	0	0	**129**	0	0	0	0	0	0	**0**	0	0	**316**
6:30:00 PM	0	116	18	0	**134**	0	0	11	0	9	0	**20**	0	0	11	95	0	0	**106**	0	0	0	0	0	0	**0**	0	0	**260**
6:45:00 PM	0	103	13	0	**116**	0	0	8	0	17	0	**25**	0	0	15	61	0	0	**76**	0	0	0	0	2	0	**2**	0	0	**219**
Hourly Total	1	514	72	0	**587**	0	0	55	0	58	0	**113**	0	0	53	389	0	0	**442**	0	0	0	0	2	0	**2**	0	0	**1144**
7:00:00 PM	0	84	25	0	**109**	0	0	8	0	15	0	**23**	0	0	6	98	0	0	**104**	0	0	0	0	0	0	**0**	0	0	**236**
7:15:00 PM	0	71	15	0	**86**	0	0	14	0	15	0	**29**	0	0	10	84	0	0	**94**	0	0	0	0	1	0	**1**	0	0	**210**
7:30:00 PM	0	69	9	0	**78**	0	0	9	0	11	0	**20**	0	0	5	71	0	0	**76**	0	0	0	0	0	0	**0**	0	0	**174**
7:45:00 PM	0	97	6	0	**103**	0	0	11	0	14	0	**25**	0	0	9	42	0	0	**51**	0	0	0	0	0	0	**0**	0	1	**179**
Hourly Total	0	321	55	0	**376**	0	0	42	0	55	0	**97**	0	0	30	295	0	0	**325**	0	0	0	0	1	0	**1**	0	1	**799**
Grand Total	11	4042	601	0	**4654**	1	0	588	3	602	0	**1193**	1	2	395	4463	6	1	**4866**	2	3	2	2	14	0	**18**	1	3	**10731**
% Approach	0.2%	86.9%	12.9%	0.0%	**0.0%**	0.0%	0.0%	49.3%	0.3%	50.5%	0.0%	**0.0%**	0.0%	0.0%	8.1%	91.7%	0.1%	0.0%	**0.0%**	0.0%	0.0%	11.1%	11.1%	77.8%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**
% Total	0.1%	37.7%	5.6%	0.0%	**43.4%**	0.0%	0.0%	5.5%	0.0%	5.6%	0.0%	**11.1%**	0.0%	0.0%	3.7%	41.6%	0.1%	0.0%	**45.3%**	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	**0.2%**	0.0%	0.0%	**0.0%**
Lights	11	3948	591	0	**4550**	0	0	580	3	591	0	**1174**	0	0	394	4389	6	1	**4790**	0	0	2	2	14	0	**18**	0	0	**10532**
% Lights	100.0%	97.7%	98.3%	0.0%	**97.8%**	0.0%	0.0%	98.6%	100.0%	98.2%	0.0%	**98.4%**	0.0%	0.0%	99.7%	98.3%	100.0%	100.0%	**98.4%**	0.0%	0.0%	100.0%	100.0%	100.0%	0.0%	**100.0%**	0.0%	0.0%	**98.1%**
Trucks	0	34	1	0	**35**	0	0	0	0	1	0	**1**	0	0	0	30	0	0	**30**	0	0	0	0	0	0	**0**	0	0	**66**
% Trucks	0.0%	0.8%	0.2%	0.0%	**0.8%**	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	**0.1%**	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	**0.6%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.6%**
Buses	0	60	9	0	**69**	0	0	8	0	10	0	**18**	0	0	1	44	0	0	**45**	0	0	0	0	0	0	**0**	0	0	**132**
% Buses	0.0%	1.5%	1.5%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	1.7%	0.0%	**0.0%**	0.0%	0.0%	0.3%	1.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**1.2%**
Pedestrians	0	0	0	0	**0**	1	0	0	0	0	0	**0**	1	2	0	0	0	0	**0**	2	3	0	0	0	0	**0**	1	3	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	**0.0%**
Bicycles on Crosswalk	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
% Bicycles on Crosswalk	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%	0.0%	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%**

TRI-STATE TRAFFIC DATA TSTData.com

Turning Movement Data Plot





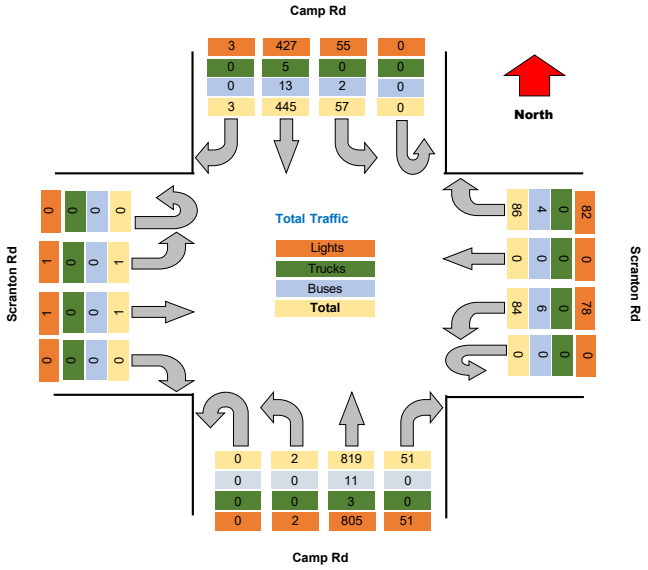
Project : VBH Malta NYSite : Site 4Location : 42.948550, -73.790036Survey Date : 202

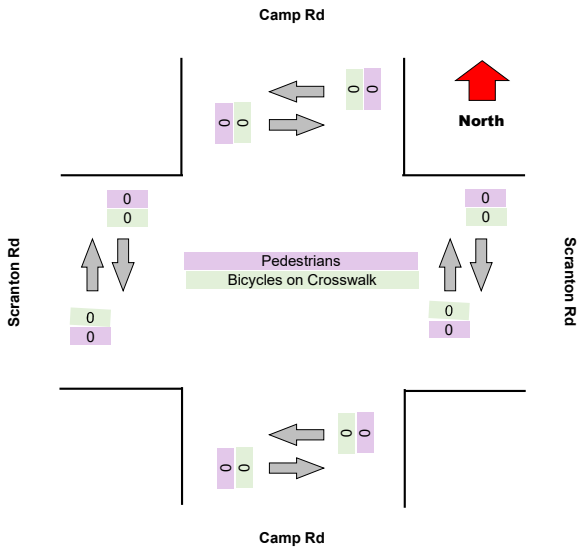
TRI-STATE TRAFFIC DATA TSTData.com

Turning Movement Peak Hour Data (AM)

7:15:00 AM

Leg	Camp Rd							Scranton Rd							Camp Rd							Scranton Rd							
Direction	Southbound							Westbound							Northbound							Eastbound							
Start Time	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Total
7:15:00 AM	1	116	17	0	**134**	0	0	22	0	19	0	**41**	0	0	14	225	1	0	**240**	0	0	0	0	0	0	**0**	0	0	**415**
7:30:00 AM	0	95	16	0	**111**	0	0	24	0	18	0	**42**	0	0	11	227	0	0	**238**	0	0	0	0	0	0	**0**	0	0	**391**
7:45:00 AM	1	127	9	0	**137**	0	0	19	0	29	0	**48**	0	0	16	187	1	0	**204**	0	0	0	0	1	0	**1**	0	0	**390**
8:00:00 AM	1	107	15	0	**123**	0	0	21	0	18	0	**39**	0	0	10	180	0	0	**190**	0	0	0	1	0	0	**1**	0	0	**353**
Grand Total	3	445	57	0	**505**	0	0	86	0	84	0	**170**	0	0	51	819	2	0	**872**	0	0	0	1	1	0	**2**	0	0	**1549**
% Approach	0.6%	88.1%	11.3%	0.0%	**0.0%**	0.0%	0.0%	50.6%	0.0%	49.4%	0.0%	**0.0%**	0.0%	0.0%	5.8%	93.9%	0.2%	0.0%	**0.0%**	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	**0.0%**	0.0%	0.0%	
% Total	0.2%	28.7%	3.7%	0.0%	**32.6%**	0.0%	0.0%	5.6%	0.0%	5.4%	0.0%	**11.0%**	0.0%	0.0%	3.3%	52.9%	0.1%	0.0%	**56.3%**	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	**0.1%**	0.0%	0.0%	
PHF	0.750	0.876	0.838	0.000	**0.922**	0.000	0.000	0.896	0.000	0.724	0.000	**0.885**	0.000	0.000	0.797	0.902	0.500	0.000	**0.908**	0.000	0.000	0.000	0.250	0.250	0.000	**0.500**	0.000	0.000	**0.933**
Lights	3	427	55	0	**485**	0	0	82	0	78	0	**160**	0	0	51	805	2	0	**858**	0	0	0	1	1	0	**2**	0	0	**1505**
% Lights	100.0%	96.0%	96.5%	0.0%	**96.0%**	0.0%	0.0%	95.3%	0.0%	92.9%	0.0%	**94.1%**	0.0%	0.0%	100.0%	98.3%	100.0%	0.0%	**98.4%**	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	**100.0%**	0.0%	0.0%	**97.2%**
Trucks	0	5	0	0	**5**	0	0	0	0	0	0	**0**	0	0	0	3	0	0	**3**	0	0	0	0	0	0	**0**	0	0	**8**
% Trucks	0.0%	1.1%	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%	0.4%	0.0%	0.0%	**0.3%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.5%**
Buses	0	13	2	0	**15**	0	0	4	0	6	0	**10**	0	0	0	11	0	0	**11**	0	0	0	0	0	0	**0**	0	0	**36**
% Buses	0.0%	2.9%	3.5%	0.0%	**0.0%**	0.0%	0.0%	4.7%	0.0%	7.1%	0.0%	**0.0%**	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**2.3%**
Pedestrians	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
% Pedestrians	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%	0.0%	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%**
Bicycles on Crosswalk	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
% Bicycles on Crosswalk	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%	0.0%	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%**





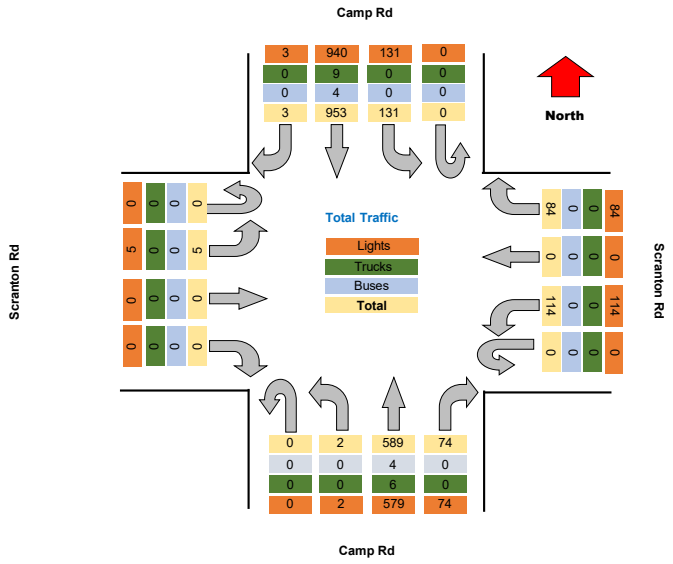
Project : VBH Malta NYSite : Site 4Location : 42.948550, -73.790036Survey Date : 202

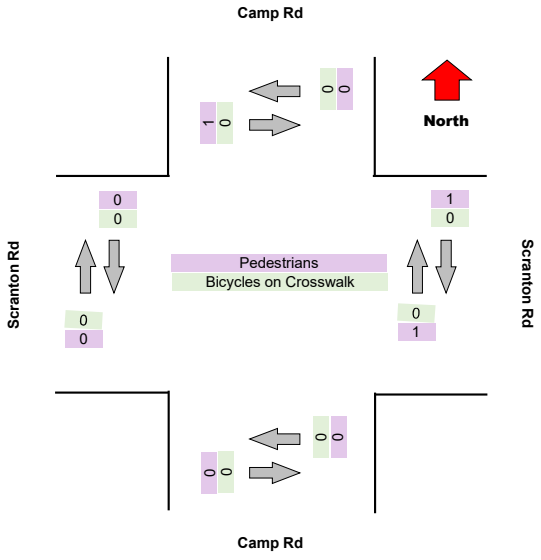
TRI-STATE TRAFFIC DATA TSTData.com

Turning Movement Peak Hour Data (PM)

4:15:00 PM

Leg	Camp Rd							Scranton Rd							Camp Rd							Scranton Rd							
Direction	Southbound							Westbound							Northbound							Eastbound							
Start Time	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Total
4:15:00 PM	0	215	30	0	**245**	0	0	17	0	23	0	**40**	1	0	18	147	1	0	**166**	0	0	0	0	0	0	**0**	0	0	**451**
4:30:00 PM	2	244	31	0	**277**	1	0	23	0	24	0	**47**	0	1	21	142	1	0	**164**	0	0	0	0	2	0	**2**	0	0	**490**
4:45:00 PM	1	253	35	0	**289**	0	0	25	0	41	0	**66**	0	0	11	145	0	0	**156**	0	0	0	0	2	0	**2**	0	0	**513**
5:00:00 PM	0	241	35	0	**276**	0	0	19	0	26	0	**45**	0	0	24	155	0	0	**179**	0	0	0	0	1	0	**1**	0	0	**501**
Grand Total	3	953	131	0	**1087**	1	0	84	0	114	0	**198**	1	1	74	589	2	0	**665**	0	0	0	0	5	0	**5**	0	0	**1955**
% Approach	0.3%	87.7%	12.1%	0.0%	**0.0%**	0.0%	0.0%	42.4%	0.0%	57.6%	0.0%	**0.0%**	0.0%	0.0%	11.1%	88.6%	0.3%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	**0.0%**	0.0%	0.0%	
% Total	0.2%	48.7%	6.7%	0.0%	**55.6%**	0.0%	0.0%	4.3%	0.0%	5.8%	0.0%	**10.1%**	0.0%	0.0%	3.8%	30.1%	0.1%	0.0%	**34.0%**	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	**0.3%**	0.0%	0.0%	
PHF	0.375	0.942	0.936	0.000	**0.940**	0.000	0.000	0.840	0.000	0.695	0.000	**0.750**	0.000	0.000	0.771	0.950	0.500	0.000	**0.929**	0.000	0.000	0.000	0.000	0.625	0.000	**0.625**	0.000	0.000	**0.953**
Lights	3	940	131	0	**1074**	0	0	84	0	114	0	**198**	0	0	74	579	2	0	**655**	0	0	0	0	5	0	**5**	0	0	**1932**
% Lights	100.0%	98.6%	100.0%	0.0%	**98.8%**	0.0%	0.0%	100.0%	0.0%	100.0%	0.0%	**100.0%**	0.0%	0.0%	100.0%	98.3%	100.0%	0.0%	**98.5%**	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	**100.0%**	0.0%	0.0%	**98.8%**
Trucks	0	9	0	0	**9**	0	0	0	0	0	0	**0**	0	0	0	6	0	0	**6**	0	0	0	0	0	0	**0**	0	0	**15**
% Trucks	0.0%	0.9%	0.0%	0.0%	**0.8%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	**0.9%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.8%**
Buses	0	4	0	0	**4**	0	0	0	0	0	0	**0**	0	0	0	4	0	0	**4**	0	0	0	0	0	0	**0**	0	0	**8**
% Buses	0.0%	0.4%	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%	0.7%	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%**
Pedestrians	0	0	0	0	**0**	1	0	0	0	0	0	**0**	1	1	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%**	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	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%	**0.0%**
Bicycles on Crosswalk	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
% Bicycles on Crosswalk	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%	0.0%	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%**





Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA

WVWGdwd1frp

Project	SRFHamburg
Project Code	SRFHamburg
Site Name	Camp Rd & Legion Dr
Legs and Movements	All Processed Legs & Movements
Bin Size	15 minutes
Survey Date	07/12/2021, Tuesday
Location	9
Latitude and Longitude	42.730464, -78.835274

	Start	End	PHF
Forced Peak AM	2021/12/07 07:30:00	2021/12/07 08:30:00	0.909
Forced Peak PM	2021/12/07 16:30:00	2021/12/07 17:30:00	0.957
AM Peak	2021/12/07 07:15:00	2021/12/07 08:15:00	0.875
PM Peak	2021/12/07 16:15:00	2021/12/07 17:15:00	0.957

Turning Movement Data

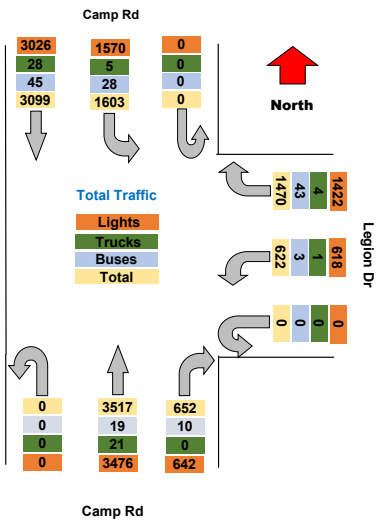
Leg	**Camp Rd**						**Legion Dr**						**Camp Rd**						
Direction	**Southbound**						**Westbound**						**Northbound**						
Start Time	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	U-Turn	**App Total**	Peds CW	Peds CCW	**Total**
6:00:00 AM	20	7	0	**27**	0	0	16	0	0	**16**	0	0	5	93	0	**98**	0	0	**141**
6:15:00 AM	30	16	0	**46**	0	0	27	2	0	**29**	1	0	4	133	0	**138**	0	0	**213**
6:30:00 AM	57	28	0	**85**	0	0	34	3	0	**37**	0	1	10	163	0	**174**	0	0	**296**
6:45:00 AM	69	49	0	**118**	0	0	37	6	0	**43**	1	0	21	138	0	**160**	0	0	**321**
Hourly Total	176	100	0	**276**	0	0	114	11	0	**125**	2	1	40	527	0	**570**	0	0	**971**
7:00:00 AM	57	67	0	**124**	0	0	48	6	0	**54**	0	0	25	131	0	**156**	0	0	**334**
7:15:00 AM	59	90	0	**149**	0	0	53	5	0	**58**	0	0	52	200	0	**252**	0	0	**459**
7:30:00 AM	65	50	0	**115**	0	0	72	6	0	**78**	0	0	15	190	0	**205**	0	0	**398**
7:45:00 AM	92	58	0	**150**	0	0	50	7	0	**57**	0	0	21	171	0	**192**	0	0	**399**
Hourly Total	273	265	0	**538**	0	0	223	24	0	**247**	0	0	113	692	0	**805**	0	0	**1590**
8:00:00 AM	83	52	0	**135**	0	0	41	6	0	**47**	1	2	17	149	0	**169**	0	0	**351**
8:15:00 AM	64	36	0	**100**	0	0	43	4	0	**47**	0	0	20	135	0	**155**	0	0	**302**
8:30:00 AM	65	48	0	**113**	0	0	45	11	0	**56**	0	1	20	129	0	**150**	1	0	**319**
8:45:00 AM	77	48	0	**125**	0	0	59	12	0	**71**	1	0	18	132	0	**151**	0	1	**347**
Hourly Total	289	184	0	**473**	0	0	188	33	0	**221**	2	3	75	545	0	**625**	1	1	**1319**
9:00:00 AM	70	39	0	**109**	0	0	59	6	0	**65**	0	0	13	143	0	**156**	0	0	**330**
9:15:00 AM	73	47	0	**120**	0	0	41	19	0	**60**	0	0	21	109	0	**130**	0	0	**310**
9:30:00 AM	92	46	0	**138**	0	0	40	14	0	**54**	0	0	15	104	0	**119**	0	0	**311**
9:45:00 AM	93	52	0	**145**	0	0	45	14	0	**59**	0	0	17	106	0	**123**	0	0	**327**
Hourly Total	328	184	0	**512**	0	0	185	53	0	**238**	0	0	66	462	0	**528**	0	0	**1278**
Hourly Total	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	**0**
4:00:00 PM	152	57	0	**209**	0	0	55	48	0	**103**	0	0	42	95	0	**137**	0	0	**449**
4:15:00 PM	164	58	0	**222**	0	0	56	37	0	**93**	0	0	30	118	0	**148**	0	0	**463**
4:30:00 PM	183	106	0	**289**	0	0	54	49	0	**103**	0	0	27	103	0	**130**	0	0	**522**
4:45:00 PM	213	80	0	**293**	0	0	53	37	0	**90**	0	0	32	107	0	**139**	0	0	**522**
Hourly Total	712	301	0	**1013**	0	0	218	171	0	**389**	0	0	131	423	0	**554**	0	0	**1956**
5:00:00 PM	190	70	0	**260**	0	0	75	51	0	**126**	0	0	26	121	0	**147**	0	0	**533**
5:15:00 PM	148	69	0	**217**	0	0	43	34	0	**77**	0	0	21	116	0	**137**	0	0	**431**
5:30:00 PM	183	73	0	**256**	0	0	50	42	0	**92**	0	0	28	94	0	**122**	0	0	**470**
5:45:00 PM	123	63	0	**186**	0	0	51	25	0	**76**	0	0	19	76	0	**95**	0	0	**357**
Hourly Total	644	275	0	**919**	0	0	219	152	0	**371**	0	0	94	407	0	**501**	0	0	**1791**
6:00:00 PM	123	54	0	**177**	0	0	53	30	0	**83**	0	0	27	87	0	**114**	0	0	**374**
6:15:00 PM	113	38	0	**151**	0	0	46	25	0	**71**	0	0	23	83	0	**106**	0	0	**328**
6:30:00 PM	89	50	0	**139**	0	0	40	28	0	**68**	1	0	21	61	0	**82**	0	0	**289**
6:45:00 PM	81	36	0	**117**	0	0	37	24	0	**61**	0	0	18	52	0	**70**	0	0	**248**
Hourly Total	406	178	0	**584**	0	0	176	107	0	**283**	1	0	89	283	0	**372**	0	0	**1239**
7:00:00 PM	72	29	0	**101**	0	0	38	20	0	**58**	0	0	14	63	0	**77**	0	0	**236**
7:15:00 PM	57	34	0	**91**	0	0	37	15	0	**52**	0	0	11	57	0	**68**	0	0	**211**
7:30:00 PM	52	30	0	**82**	0	0	40	17	0	**57**	0	0	8	35	0	**43**	0	0	**182**
7:45:00 PM	90	23	0	**113**	0	0	32	19	0	**51**	0	0	11	23	0	**34**	0	0	**198**
Hourly Total	271	116	0	**387**	0	0	147	71	0	**218**	0	0	44	178	0	**222**	0	0	**827**
Grand Total	3099	1603	0	**4702**	0	0	1470	622	0	**2092**	5	4	652	3517	0	**4177**	1	1	**10971**
% Approach	65.9%	34.1%	0.0%	**0.0%**	0.0%	0.0%	70.3%	29.7%	0.0%	**0.0%**	0.0%	0.0%	15.6%	84.2%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**
% Total	28.2%	14.6%	0.0%	**42.9%**	0.0%	0.0%	13.4%	5.7%	0.0%	**19.1%**	0.0%	0.0%	5.9%	32.1%	0.0%	**38.1%**	0.0%	0.0%	**0.0%**
Lights	3026	1570	0	**4596**	0	0	1422	618	0	**2040**	0	0	642	3476	0	**4118**	0	0	**10754**
% Lights	97.6%	97.9%	0.0%	**97.7%**	0.0%	0.0%	96.7%	99.4%	0.0%	**97.5%**	0.0%	0.0%	98.5%	98.8%	0.0%	**98.6%**	0.0%	0.0%	**98.0%**
Trucks	28	5	0	**33**	0	0	4	1	0	**5**	0	0	0	21	0	**21**	0	0	**59**
% Trucks	0.9%	0.3%	0.0%	**0.7%**	0.0%	0.0%	0.3%	0.2%	0.0%	**0.2%**	0.0%	0.0%	0.0%	0.6%	0.0%	**0.5%**	0.0%	0.0%	**0.5%**
Buses	45	28	0	**73**	0	0	43	3	0	**46**	0	0	10	19	0	**29**	0	0	**148**
% Buses	1.5%	1.7%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.5%	0.0%	**0.0%**	0.0%	0.0%	1.5%	0.5%	0.0%	**0.0%**	0.0%	0.0%	**1.3%**
Pedestrians	0	0	0	**0**	0	0	0	0	0	**0**	5	4	0	0	0	**0**	1	1	0
% Pedestrians	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0
% Bicycles on Crosswalk	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%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**

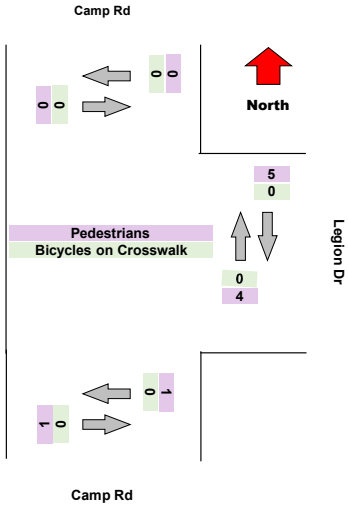
Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA

WVWGdwdlfrp

Turning Movement Data Plot

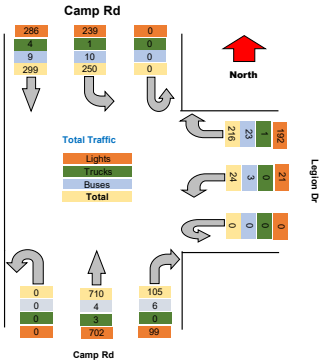


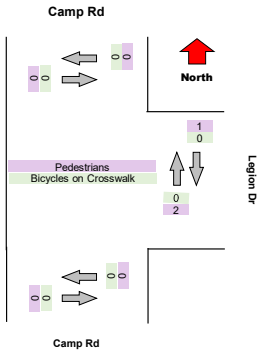


Turning Movement Peak Hour Data (AM)

7:15:00 AM

Leg	Camp Rd						Legion Dr						Camp Rd						
Direction	Southbound						Westbound						Northbound						
Start Time	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	U-Turn	App Total	Peds CW	Peds CCW	Total
7:15:00 AM	59	90	0	**149**	0	0	53	5	0	**58**	0	0	52	200	0	**252**	0	0	**459**
7:30:00 AM	65	50	0	**115**	0	0	72	6	0	**78**	0	0	15	190	0	**205**	0	0	**398**
7:45:00 AM	92	58	0	**150**	0	0	50	7	0	**57**	0	0	21	171	0	**192**	0	0	**399**
8:00:00 AM	83	52	0	**135**	0	0	41	6	0	**47**	1	2	17	149	0	**169**	0	0	**351**
Grand Total	299	250	0	**549**	0	0	216	24	0	**240**	1	2	105	710	0	**818**	0	0	**1607**
% Approach	54.5%	45.5%	0.0%	**0.0%**	0.0%	0.0%	14.2%	0.0%	0.0%	**0.0%**	0.0%	0.0%	45.1%	41.7%	0.0%	**0.0%**	0.0%	0.0%	
% Total	18.6%	15.6%	0.0%	**34.2%**	0.0%	0.0%	13.4%	1.5%	0.0%	**14.9%**	0.0%	0.0%	6.5%	44.2%	0.0%	**50.9%**	0.0%	0.0%	
PHF	0.813	0.694	0.000	**0.915**	0.000	0.000	0.750	0.857	0.000	**0.769**	0.000	0.000	0.505	0.888	0.000	**0.812**	0.000	0.000	**0.875**
Lights	286	239	0	**525**	0	0	192	21	0	**213**	0	0	99	702	0	**801**	0	0	**1539**
% Lights	95.7%	95.6%	0.0%	**95.6%**	0.0%	0.0%	88.9%	87.5%	0.0%	**88.8%**	0.0%	0.0%	94.3%	98.9%	0.0%	**97.9%**	0.0%	0.0%	**95.8%**
Trucks	4	1	0	**5**	0	0	1	0	0	**1**	0	0	0	3	0	**3**	0	0	**9**
% Trucks	1.3%	0.4%	0.0%	**0.9%**	0.0%	0.0%	0.5%	0.0%	0.0%	**0.4%**	0.0%	0.0%	0.0%	0.4%	0.0%	**0.4%**	0.0%	0.0%	**0.6%**
Buses	9	10	0	**19**	0	0	23	3	0	**26**	0	0	6	4	0	**10**	0	0	**55**
% Buses	3.0%	4.0%	0.0%	**0.0%**	0.0%	0.0%	10.6%	12.5%	0.0%	**0.0%**	0.0%	0.0%	5.7%	0.6%	0.0%	**0.0%**	0.0%	0.0%	**3.4%**
Pedestrians	0	0	0	**0**	0	0	0	0	0	**0**	1	2	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%**	100.0%	100.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0
% Bicycles on Crosswalk	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%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**





Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

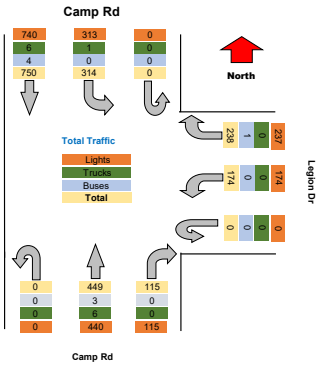
TRI-STATE TRAFFIC DATA

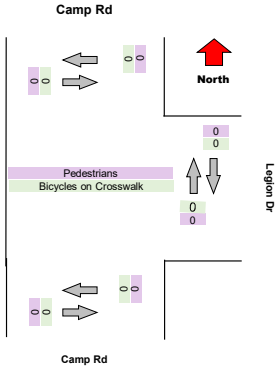
WVWGdwdlfrp

Turning Movement Peak Hour Data (PM)

4:15:00 PM

Leg	Camp Rd						Legion Dr						Camp Rd						
Direction	**Southbound**						**Westbound**						**Northbound**						
Start Time	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	U-Turn	**App Total**	Peds CW	Peds CCW	**Total**
4:15:00 PM	164	58	0	**222**	0	0	56	37	0	**93**	0	0	30	118	0	**148**	0	0	**463**
4:30:00 PM	183	106	0	**289**	0	0	54	49	0	**103**	0	0	27	103	0	**130**	0	0	**522**
4:45:00 PM	213	80	0	**293**	0	0	53	37	0	**90**	0	0	32	107	0	**139**	0	0	**522**
5:00:00 PM	190	70	0	**260**	0	0	75	51	0	**126**	0	0	26	121	0	**147**	0	0	**533**
Grand Total	750	314	0	**1064**	0	0	238	174	0	**412**	0	0	115	449	0	**564**	0	0	**2040**
% Approach	70.5%	29.5%	0.0%	**0.0%**	0.0%	0.0%	14.2%	0.0%	0.0%	**0.0%**	0.0%	0.0%	45.1%	41.7%	0.0%	**0.0%**	0.0%	0.0%	
% Total	36.8%	15.4%	0.0%	**52.2%**	0.0%	0.0%	11.7%	8.5%	0.0%	**20.2%**	0.0%	0.0%	5.6%	22.0%	0.0%	**27.6%**	0.0%	0.0%	
PHF	0.880	0.741	0.000	**0.908**	0.000	0.000	0.793	0.853	0.000	**0.817**	0.000	0.000	0.898	0.928	0.000	**0.953**	0.000	0.000	**0.957**
Lights	740	313	0	**1053**	0	0	237	174	0	**411**	0	0	115	440	0	**555**	0	0	**2019**
% Lights	98.7%	99.7%	0.0%	**99.0%**	0.0%	0.0%	99.6%	100.0%	0.0%	**99.8%**	0.0%	0.0%	100.0%	98.0%	0.0%	**98.4%**	0.0%	0.0%	**99.0%**
Trucks	6	1	0	**7**	0	0	0	0	0	**0**	0	0	0	6	0	**6**	0	0	**13**
% Trucks	0.8%	0.3%	0.0%	**0.7%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	1.3%	0.0%	**1.1%**	0.0%	0.0%	**0.6%**
Buses	4	0	0	**4**	0	0	1	0	0	**1**	0	0	0	3	0	**3**	0	0	**8**
% Buses	0.5%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.4%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.7%	0.0%	**0.0%**	0.0%	0.0%	**0.4%**
Pedestrians	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%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0
% Bicycles on Crosswalk	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%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**





Elmview Ave/Camp Rd - TMC

Wed Feb 2, 2022
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Motorcycles, Lights, Heavy, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 920186, Location: 42.733128, -78.836694

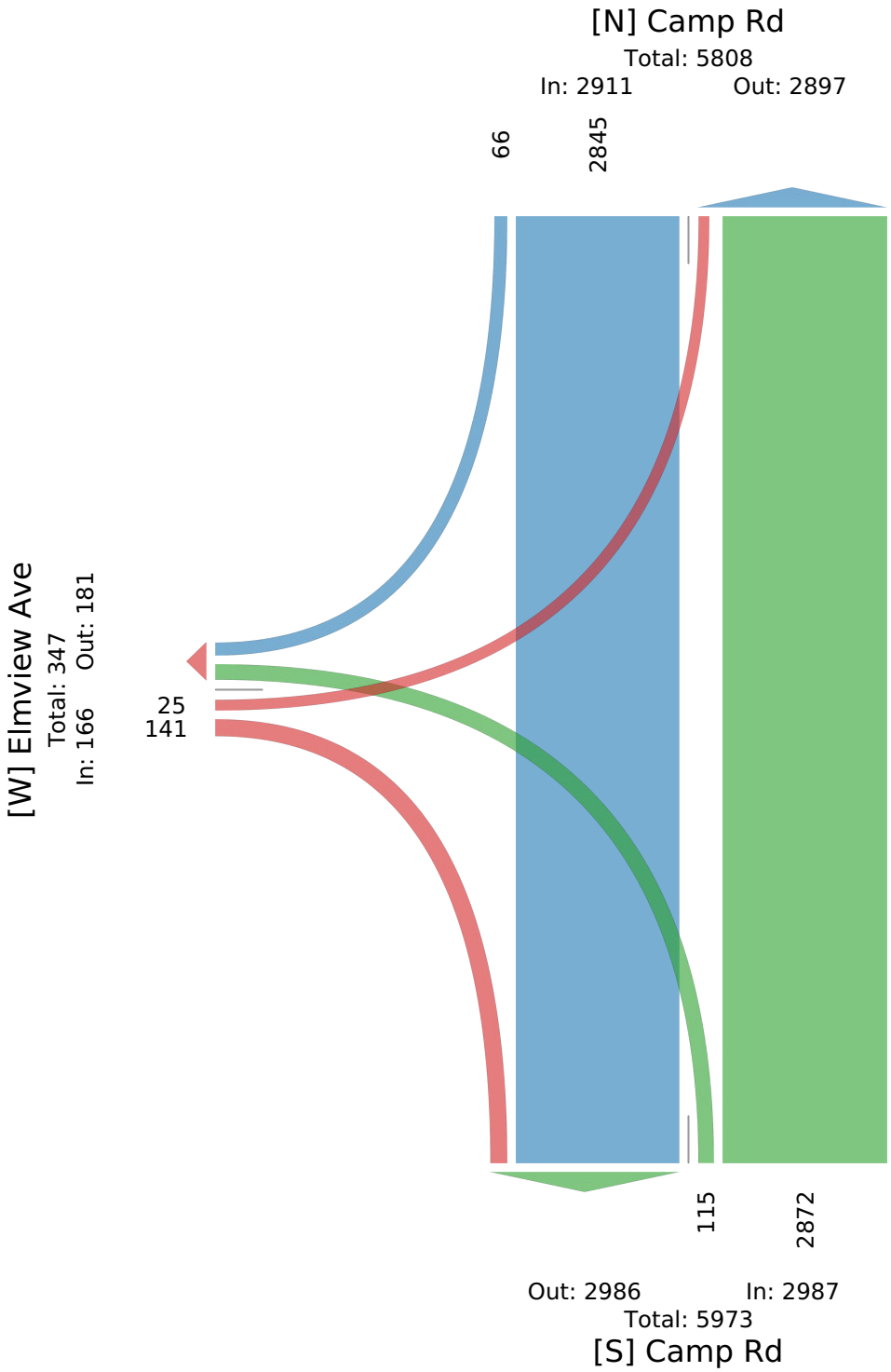
Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg / Direction	Camp Rd Southbound					Camp Rd Northbound					Elmview Ave Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
2022-02-02 7:00AM	0	123	0	**123**	0	185	4	0	**189**	0	13	1	0	**14**	0	**326**
7:15AM	4	144	0	**148**	0	236	5	0	**241**	0	20	2	0	**22**	0	**411**
7:30AM	1	105	0	**106**	0	275	5	0	**280**	0	9	2	0	**11**	0	**397**
7:45AM	4	134	0	**138**	0	201	9	0	**210**	0	4	1	0	**5**	0	**353**
Hourly Total	9	506	0	**515**	0	897	23	0	**920**	0	46	6	0	**52**	0	**1487**
8:00AM	3	118	0	**121**	0	203	1	0	**204**	0	2	1	0	**3**	0	**328**
8:15AM	2	93	0	**95**	0	178	2	0	**180**	0	7	2	0	**9**	0	**284**
8:30AM	5	113	0	**118**	0	168	3	0	**171**	0	12	3	0	**15**	0	**304**
8:45AM	2	130	0	**132**	0	169	6	0	**175**	0	3	1	0	**4**	0	**311**
Hourly Total	12	454	0	**466**	0	718	12	0	**730**	0	24	7	0	**31**	0	**1227**
9:00AM	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	**0**
Hourly Total	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	**0**
4:00PM	3	228	0	**231**	0	178	5	0	**183**	0	10	4	0	**14**	0	**428**
4:15PM	4	227	0	**231**	0	166	13	0	**179**	0	8	1	0	**9**	0	**419**
4:30PM	5	278	0	**283**	0	166	9	0	**175**	0	7	1	0	**8**	0	**466**
4:45PM	7	250	0	**257**	0	161	15	0	**176**	0	8	0	0	**8**	0	**441**
Hourly Total	19	983	0	**1002**	0	671	42	0	**713**	0	33	6	0	**39**	0	**1754**
5:00PM	4	232	0	**236**	0	179	10	0	**189**	0	13	1	0	**14**	0	**439**
5:15PM	6	229	0	**235**	0	165	13	0	**178**	0	7	1	0	**8**	0	**421**
5:30PM	8	228	0	**236**	0	124	7	0	**131**	0	6	2	0	**8**	0	**375**
5:45PM	8	213	0	**221**	0	117	8	0	**125**	0	12	2	0	**14**	0	**360**
Hourly Total	26	902	0	**928**	0	585	38	0	**623**	0	38	6	0	**44**	0	**1595**
6:00PM	0	0	0	**0**	0	1	0	0	**1**	0	0	0	0	**0**	0	**1**
Hourly Total	0	0	0	**0**	0	1	0	0	**1**	0	0	0	0	**0**	0	**1**
Total	66	2845	0	**2911**	0	2872	115	0	**2987**	0	141	25	0	**166**	0	**6064**
% Approach	2.3%	97.7%	0%	**-**	-	96.1%	3.9%	0%	**-**	-	84.9%	15.1%	0%	**-**	-	-
% Total	1.1%	46.9%	0%	**48.0%**	-	47.4%	1.9%	0%	**49.3%**	-	2.3%	0.4%	0%	**2.7%**	-	-
Motorcycles	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Lights	65	2764	0	**2829**	-	2780	115	0	**2895**	-	135	23	0	**158**	-	5882
% Lights	98.5%	97.2%	0%	**97.2%**	-	96.8%	100%	0%	**96.9%**	-	95.7%	92.0%	0%	**95.2%**	-	97.0%
Heavy	1	81	0	**82**	-	92	0	0	**92**	-	6	2	0	**8**	-	182
% Heavy	1.5%	2.8%	0%	**2.8%**	-	3.2%	0%	0%	**3.1%**	-	4.3%	8.0%	0%	**4.8%**	-	3.0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Elmview Ave/Camp Rd - TMC
Wed Feb 2, 2022
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Motorcycles, Lights, Heavy, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 920186, Location: 42.733128, -78.836694

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Elmview Ave/Camp Rd - TMC

Wed Feb 2, 2022
AM Peak (7:15 AM - 8:15 AM)
All Classes (Motorcycles, Lights, Heavy, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 920186, Location: 42.733128, -78.836694

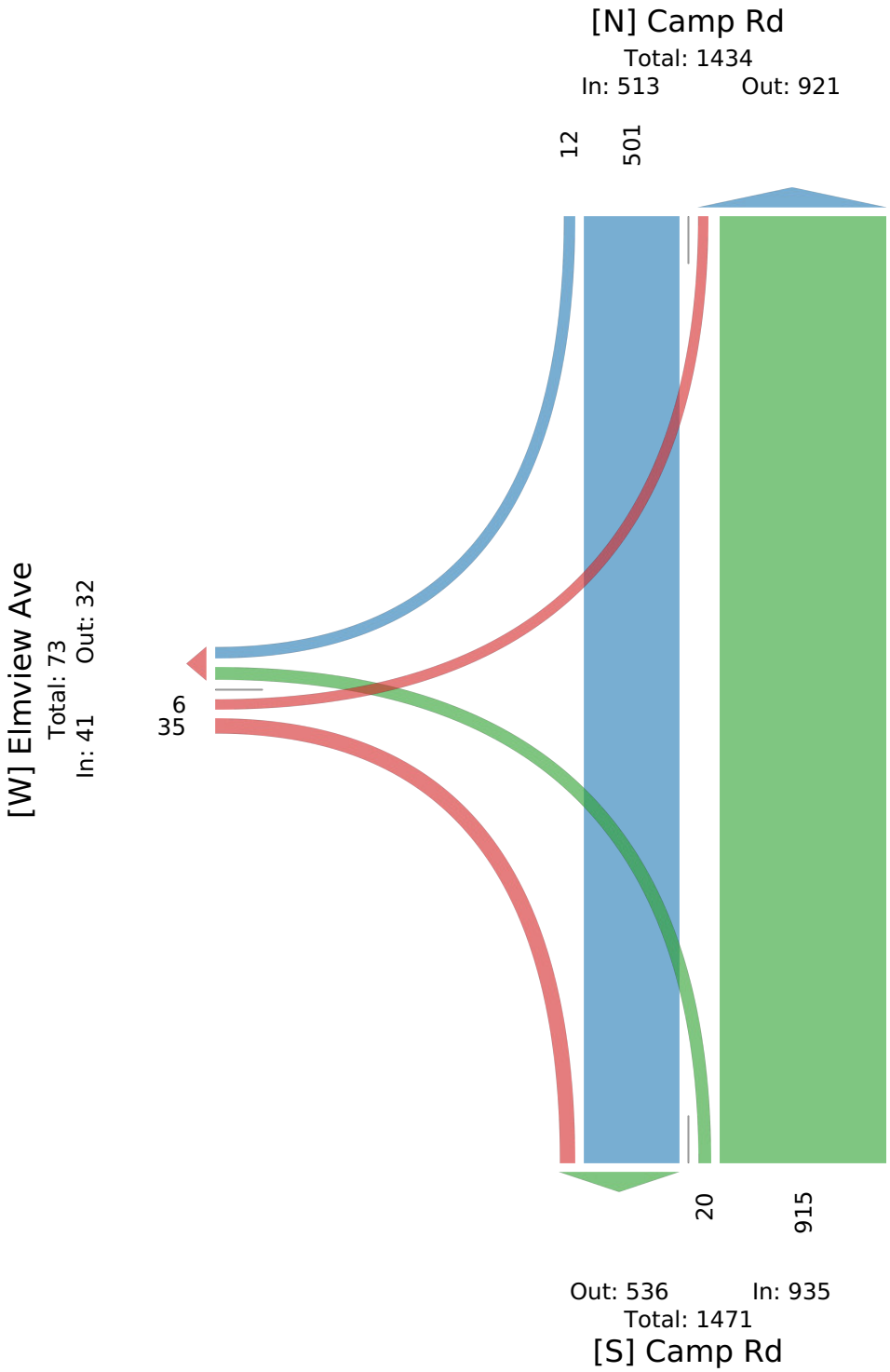
Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Camp Rd Southbound					Camp Rd Northbound					Elmview Ave Eastbound					
Time	R	T	U	**App**	Ped*	T	L	U	**App**	Ped*	R	L	U	**App**	Ped*	**Int**
2022-02-02 7:15AM	4	144	0	**148**	0	236	5	0	**241**	0	20	2	0	**22**	0	**411**
7:30AM	1	105	0	**106**	0	275	5	0	**280**	0	9	2	0	**11**	0	**397**
7:45AM	4	134	0	**138**	0	201	9	0	**210**	0	4	1	0	**5**	0	**353**
8:00AM	3	118	0	**121**	0	203	1	0	**204**	0	2	1	0	**3**	0	**328**
Total	12	501	0	**513**	0	915	20	0	**935**	0	35	6	0	**41**	0	**1489**
% Approach	2.3%	97.7%	0%	**-**	-	97.9%	2.1%	0%	**-**	-	85.4%	14.6%	0%	**-**	-	**-**
% Total	0.8%	33.6%	0%	**34.5%**	-	61.5%	1.3%	0%	**62.8%**	-	2.4%	0.4%	0%	**2.8%**	-	**-**
PHF	0.750	0.870	-	**0.867**	-	0.832	0.556	-	**0.835**	-	0.438	0.750	-	**0.466**	-	0.906
Motorcycles	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Lights	11	475	0	**486**	-	875	20	0	**895**	-	33	5	0	**38**	-	1419
% Lights	91.7%	94.8%	0%	**94.7%**	-	95.6%	100%	0%	**95.7%**	-	94.3%	83.3%	0%	**92.7%**	-	95.3%
Heavy	1	26	0	**27**	-	40	0	0	**40**	-	2	1	0	**3**	-	70
% Heavy	8.3%	5.2%	0%	**5.3%**	-	4.4%	0%	0%	**4.3%**	-	5.7%	16.7%	0%	**7.3%**	-	4.7%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Elmview Ave/Camp Rd - TMC
Wed Feb 2, 2022
AM Peak (7:15 AM - 8:15 AM)
All Classes (Motorcycles, Lights, Heavy, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 920186, Location: 42.733128, -78.836694

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Elmview Ave/Camp Rd - TMC

Wed Feb 2, 2022
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Heavy, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 920186, Location: 42.733128, -78.836694

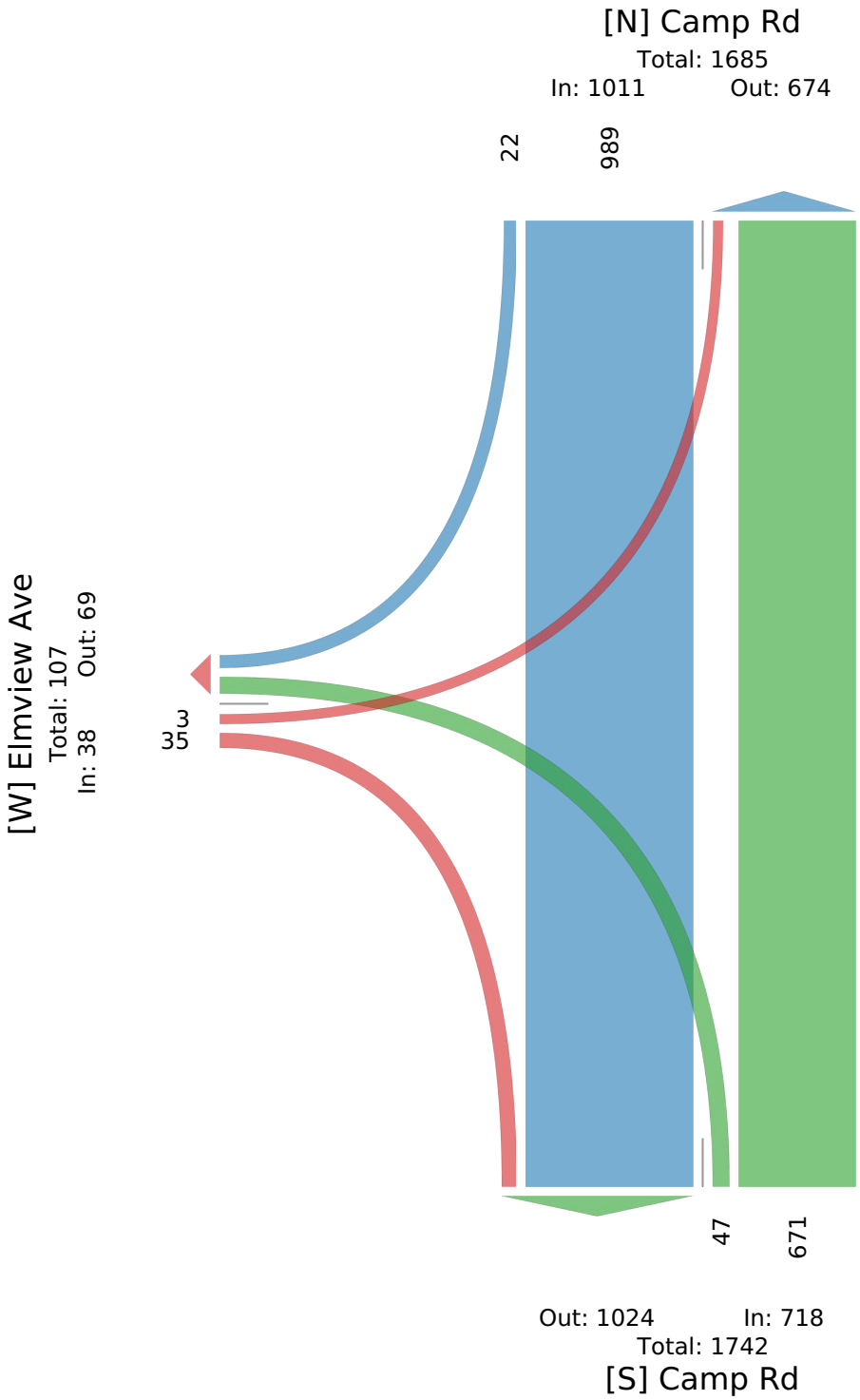
Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Camp Rd Southbound					Camp Rd Northbound					Elmview Ave Eastbound					
Time	R	T	U	**App**	Ped*	T	L	U	**App**	Ped*	R	L	U	**App**	Ped*	**Int**
2022-02-02 4:30PM	5	278	0	**283**	0	166	9	0	**175**	0	7	1	0	**8**	0	**466**
4:45PM	7	250	0	**257**	0	161	15	0	**176**	0	8	0	0	**8**	0	**441**
5:00PM	4	232	0	**236**	0	179	10	0	**189**	0	13	1	0	**14**	0	**439**
5:15PM	6	229	0	**235**	0	165	13	0	**178**	0	7	1	0	**8**	0	**421**
Total	22	989	0	**1011**	0	671	47	0	**718**	0	35	3	0	**38**	0	**1767**
% Approach	2.2%	97.8%	0%	**-**	-	93.5%	6.5%	0%	**-**	-	92.1%	7.9%	0%	**-**	-	-
% Total	1.2%	56.0%	0%	**57.2%**	-	38.0%	2.7%	0%	**40.6%**	-	2.0%	0.2%	0%	**2.2%**	-	-
PHF	0.786	0.889	-	**0.893**	-	0.937	0.783	-	**0.950**	-	0.673	0.750	-	**0.679**	-	0.948
Motorcycles	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Lights	22	981	0	**1003**	-	667	47	0	**714**	-	35	3	0	**38**	-	1755
% Lights	100%	99.2%	0%	**99.2%**	-	99.4%	100%	0%	**99.4%**	-	100%	100%	0%	**100%**	-	99.3%
Heavy	0	8	0	**8**	-	4	0	0	**4**	-	0	0	0	**0**	-	12
% Heavy	0%	0.8%	0%	**0.8%**	-	0.6%	0%	0%	**0.6%**	-	0%	0%	0%	**0%**	-	0.7%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Elmview Ave/Camp Rd - TMC
Wed Feb 2, 2022
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Heavy, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 920186, Location: 42.733128, -78.836694

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Elmview Ave/Sunset Dr - TMC

Wed Feb 2, 2022
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Motorcycles, Lights, Heavy, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 920188, Location: 42.732959, -78.844301



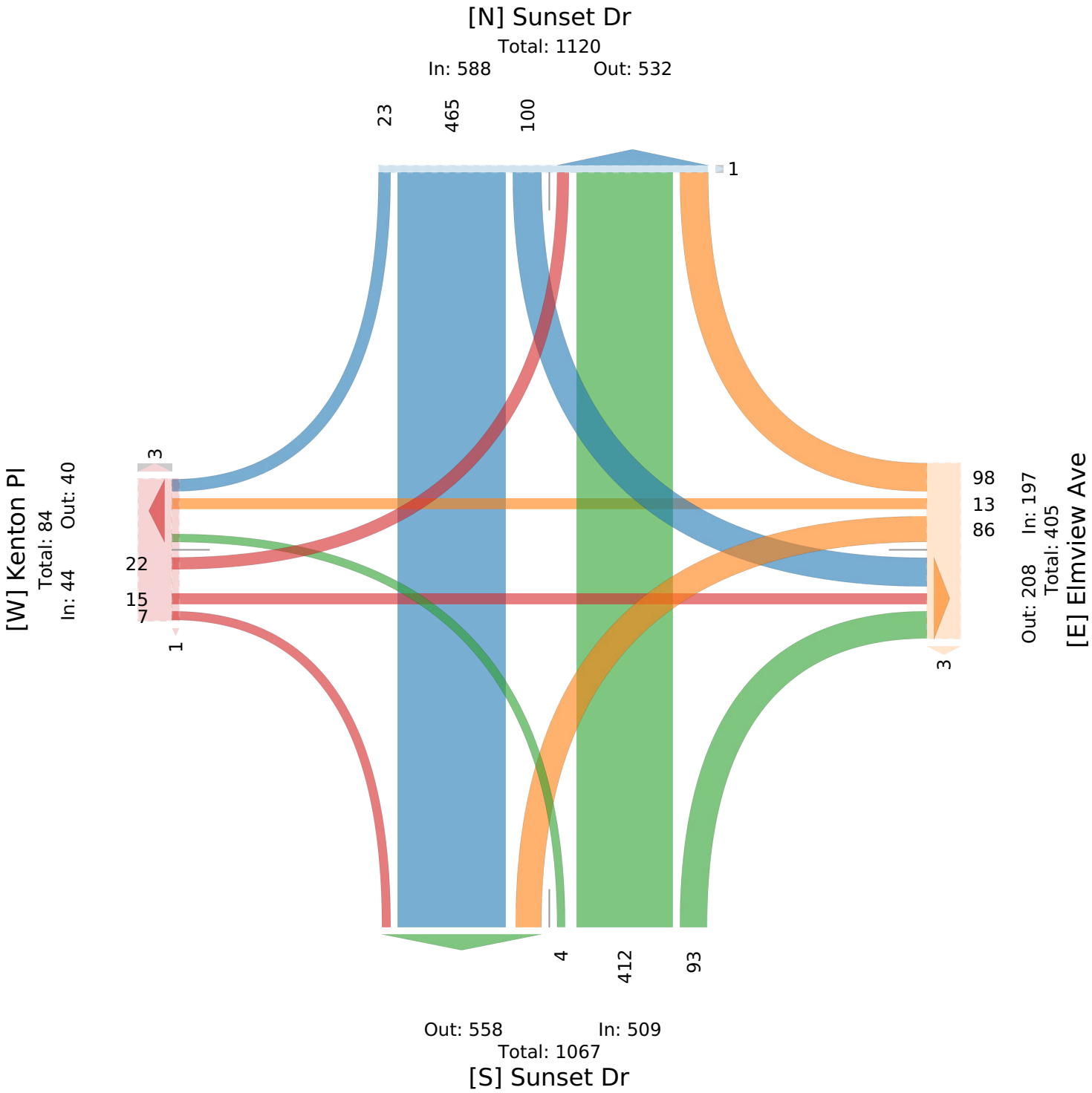
Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg	Sunset Dr						Elmview Ave						Sunset Dr						Kenton Pl						
Direction	Southbound						Westbound						Northbound						Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2022-02-02 7:00AM	1	7	12	0	**20**	0	2	0	2	0	**4**	0	4	23	0	0	**27**	0	0	0	4	0	**4**	0	**55**
7:15AM	0	10	12	0	**22**	0	3	0	4	0	**7**	0	13	50	0	0	**63**	0	0	1	2	0	**3**	0	**95**
7:30AM	1	20	6	0	**27**	0	4	0	1	0	**5**	0	6	38	0	0	**44**	0	0	1	1	0	**2**	0	**78**
7:45AM	0	23	6	0	**29**	0	3	0	5	0	**8**	0	7	28	1	0	**36**	0	1	1	2	0	**4**	0	**77**
Hourly Total	2	60	36	0	**98**	0	12	0	12	0	**24**	0	30	139	1	0	**170**	0	1	3	9	0	**13**	0	**305**
8:00AM	1	10	3	0	**14**	0	0	1	2	0	**3**	0	1	34	0	0	**35**	0	0	0	3	0	**3**	1	**55**
8:15AM	3	18	5	0	**26**	0	2	0	1	0	**3**	0	4	28	0	0	**32**	0	1	2	0	0	**3**	0	**64**
8:30AM	0	11	6	0	**17**	0	4	0	2	0	**6**	0	7	24	0	0	**31**	0	0	0	1	0	**1**	0	**55**
8:45AM	2	14	4	0	**20**	1	1	0	2	0	**3**	0	4	22	1	0	**27**	0	1	0	2	0	**3**	1	**53**
Hourly Total	6	53	18	0	**77**	1	7	1	7	0	**15**	0	16	108	1	0	**125**	0	2	2	6	0	**10**	2	**227**
4:00PM	0	42	9	0	**51**	0	9	2	4	0	**15**	1	5	24	1	0	**30**	0	0	2	0	0	**2**	2	**98**
4:15PM	1	46	9	0	**56**	0	13	1	5	0	**19**	1	8	21	0	0	**29**	0	0	0	2	0	**2**	0	**106**
4:30PM	4	46	2	0	**52**	0	9	1	12	0	**22**	0	4	14	0	0	**18**	0	1	1	3	0	**5**	0	**97**
4:45PM	2	39	4	0	**45**	0	12	3	5	0	**20**	0	9	23	0	0	**32**	0	2	3	0	0	**5**	0	**102**
Hourly Total	7	173	24	0	**204**	0	43	7	26	0	**76**	2	26	82	1	0	**109**	0	3	6	5	0	**14**	2	**403**
5:00PM	1	56	2	0	**59**	0	11	1	14	0	**26**	0	3	24	1	0	**28**	0	0	1	0	0	**1**	0	**114**
5:15PM	1	41	7	0	**49**	0	13	3	8	0	**24**	0	6	18	0	0	**24**	0	0	0	0	0	**0**	0	**97**
5:30PM	4	43	10	0	**57**	0	4	0	10	0	**14**	0	6	16	0	0	**22**	0	1	2	0	0	**3**	0	**96**
5:45PM	2	39	3	0	**44**	0	8	1	9	0	**18**	1	6	25	0	0	**31**	0	0	1	2	0	**3**	0	**96**
Hourly Total	8	179	22	0	**209**	0	36	5	41	0	**82**	1	21	83	1	0	**105**	0	1	4	2	0	**7**	0	**403**
6:00PM	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**
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**
Total	23	465	100	0	**588**	1	98	13	86	0	**197**	3	93	412	4	0	**509**	0	7	15	22	0	**44**	4	**1338**
% Approach	3.9%	79.1%	17.0%	0%	**-**	-	49.7%	6.6%	43.7%	0%	**-**	-	18.3%	80.9%	0.8%	0%	**-**	-	15.9%	34.1%	50.0%	0%	**-**	-	-
% Total	1.7%	34.8%	7.5%	0%	**43.9%**	-	7.3%	1.0%	6.4%	0%	**14.7%**	-	7.0%	30.8%	0.3%	0%	**38.0%**	-	0.5%	1.1%	1.6%	0%	**3.3%**	-	-
Motorcycles	0	0	0	0	**0**	-	0	0	0	0	**0**	-	1	0	0	0	**1**	-	0	0	0	0	**0**	-	1
% Motorcycles	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	1.1%	0%	0%	0%	**0.2%**	-	0%	0%	0%	0%	**0%**	-	0.1%
Lights	22	457	96	0	**575**	-	96	13	85	0	**194**	-	89	406	4	0	**499**	-	7	15	22	0	**44**	-	1312
% Lights	95.7%	98.3%	96.0%	0%	**97.8%**	-	98.0%	100%	98.8%	0%	**98.5%**	-	95.7%	98.5%	100%	0%	**98.0%**	-	100%	100%	100%	0%	**100%**	-	98.1%
Heavy	1	8	4	0	**13**	-	2	0	1	0	**3**	-	3	6	0	0	**9**	-	0	0	0	0	**0**	-	25
% Heavy	4.3%	1.7%	4.0%	0%	**2.2%**	-	2.0%	0%	1.2%	0%	**1.5%**	-	3.2%	1.5%	0%	0%	**1.8%**	-	0%	0%	0%	0%	**0%**	-	1.9%
Pedestrians	-	-	-	-	-	1	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	4	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Elmview Ave/Sunset Dr - TMC
Wed Feb 2, 2022
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Motorcycles, Lights, Heavy, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 920188, Location: 42.732959, -78.844301

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Elmview Ave/Sunset Dr - TMC

Wed Feb 2, 2022
AM Peak (7 AM - 8 AM)
All Classes (Motorcycles, Lights, Heavy, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 920188, Location: 42.732959, -78.844301



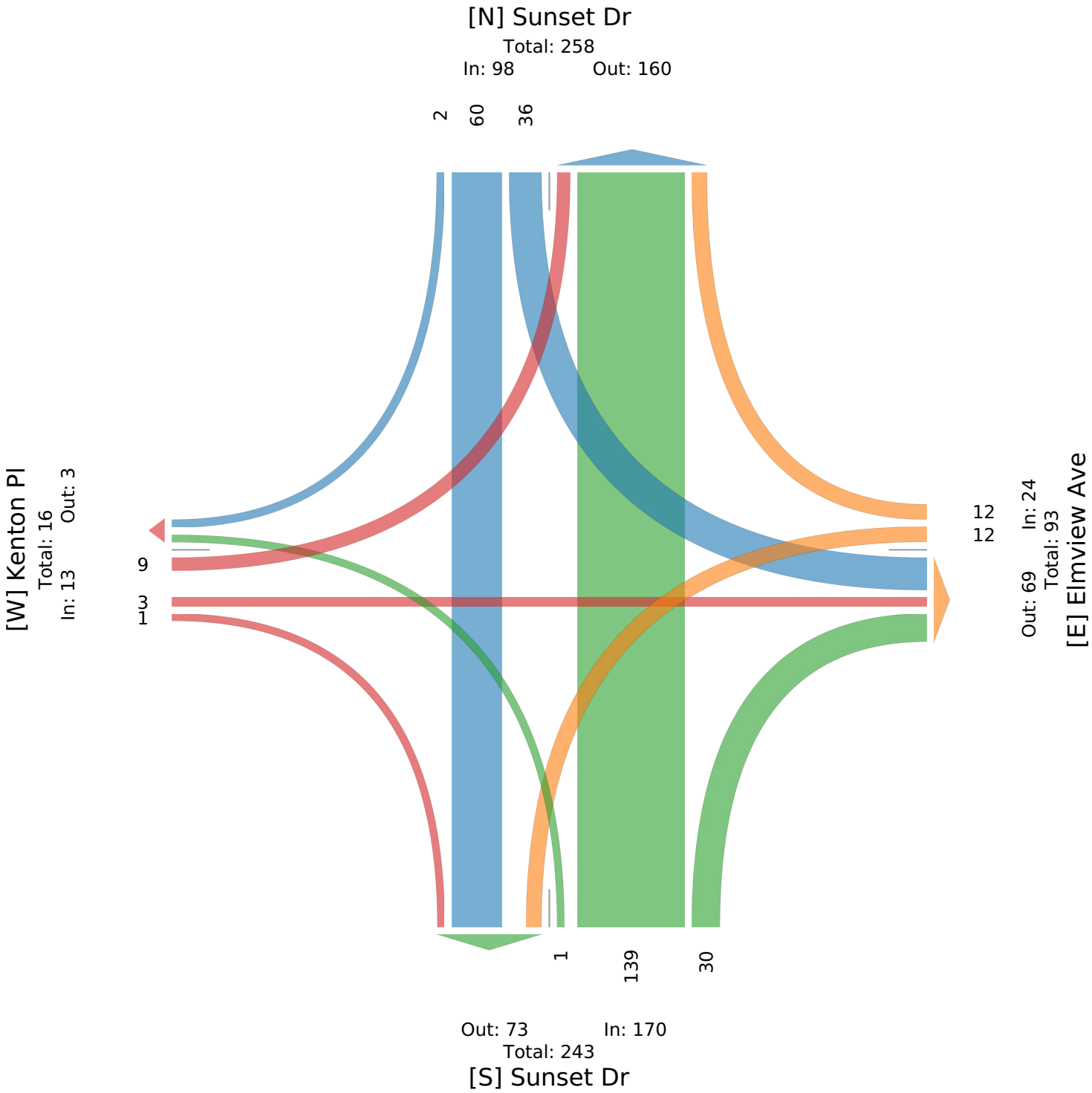
Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg	Sunset Dr						Elmview Ave						Sunset Dr						Kenton Pl						
Direction	Southbound						Westbound						Northbound						Eastbound						
Time	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	**Int**
2022-02-02 7:00AM	1	7	12	0	**20**	0	2	0	2	0	**4**	0	4	23	0	0	**27**	0	0	0	4	0	**4**	0	**55**
7:15AM	0	10	12	0	**22**	0	3	0	4	0	**7**	0	13	50	0	0	**63**	0	0	1	2	0	**3**	0	**95**
7:30AM	1	20	6	0	**27**	0	4	0	1	0	**5**	0	6	38	0	0	**44**	0	0	1	1	0	**2**	0	**78**
7:45AM	0	23	6	0	**29**	0	3	0	5	0	**8**	0	7	28	1	0	**36**	0	1	1	2	0	**4**	0	**77**
Total	2	60	36	0	**98**	0	12	0	12	0	**24**	0	30	139	1	0	**170**	0	1	3	9	0	**13**	0	**305**
% Approach	2.0%	61.2%	36.7%	0%	**-**	-	50.0%	0%	50.0%	0%	**-**	-	17.6%	81.8%	0.6%	0%	**-**	-	7.7%	23.1%	69.2%	0%	**-**	-	-
% Total	0.7%	19.7%	11.8%	0%	**32.1%**	-	3.9%	0%	3.9%	0%	**7.9%**	-	9.8%	45.6%	0.3%	0%	**55.7%**	-	0.3%	1.0%	3.0%	0%	**4.3%**	-	-
PHF	0.500	0.652	0.750	-	**0.845**	-	0.750	-	0.600	-	**0.750**	-	0.577	0.695	0.250	-	**0.675**	-	0.250	0.750	0.563	-	**0.813**	-	0.803
Motorcycles	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Lights	2	58	36	0	**96**	-	12	0	12	0	**24**	-	28	137	1	0	**166**	-	1	3	9	0	**13**	-	299
% Lights	100%	96.7%	100%	0%	**98.0%**	-	100%	0%	100%	0%	**100%**	-	93.3%	98.6%	100%	0%	**97.6%**	-	100%	100%	100%	0%	**100%**	-	98.0%
Heavy	0	2	0	0	**2**	-	0	0	0	0	**0**	-	2	2	0	0	**4**	-	0	0	0	0	**0**	-	6
% Heavy	0%	3.3%	0%	0%	**2.0%**	-	0%	0%	0%	0%	**0%**	-	6.7%	1.4%	0%	0%	**2.4%**	-	0%	0%	0%	0%	**0%**	-	2.0%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Elmview Ave/Sunset Dr - TMC
Wed Feb 2, 2022
AM Peak (7 AM - 8 AM)
All Classes (Motorcycles, Lights, Heavy, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 920188, Location: 42.732959, -78.844301

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Elmview Ave/Sunset Dr - TMC

Wed Feb 2, 2022
PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Heavy, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 920188, Location: 42.732959, -78.844301

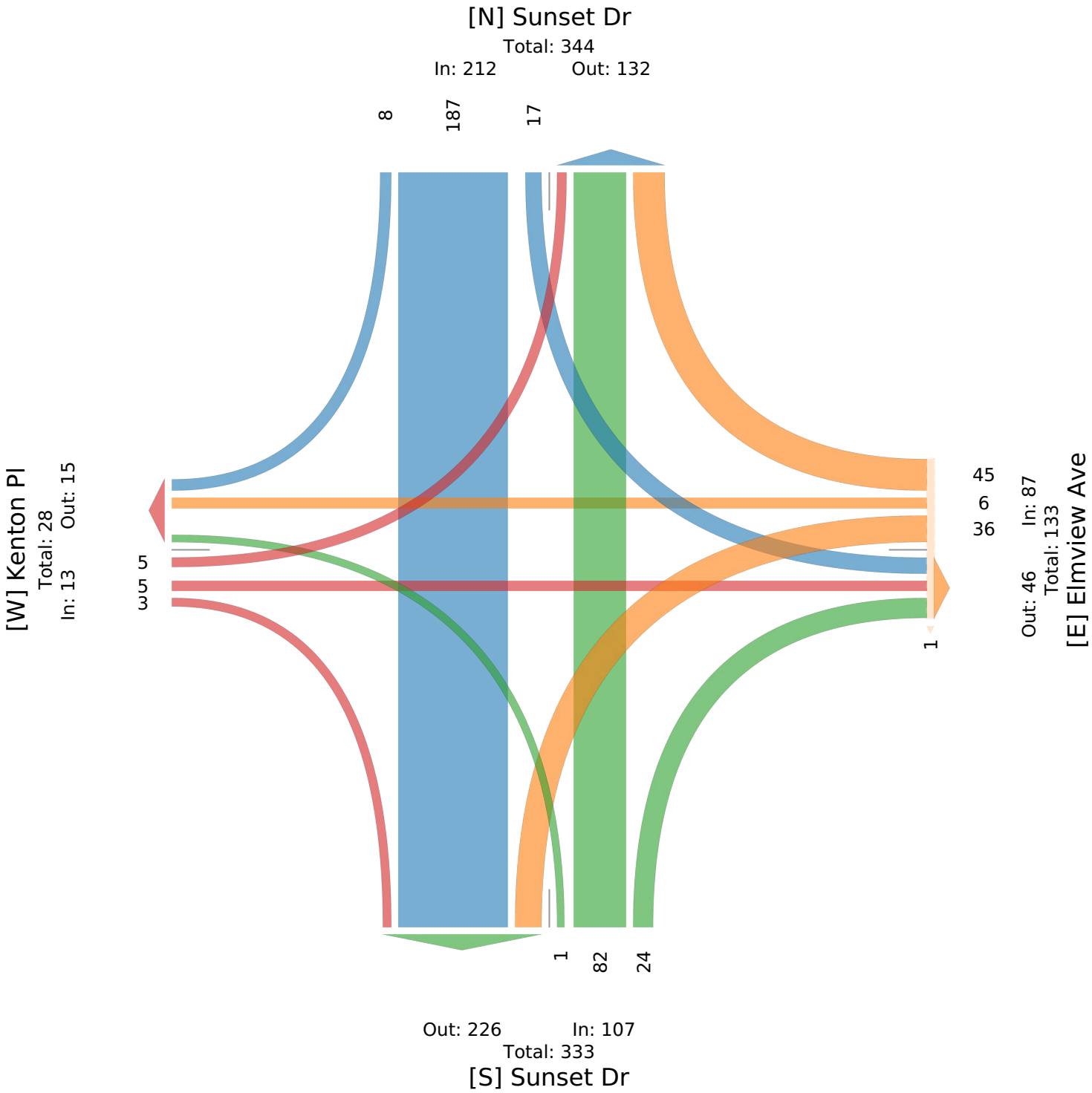
Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg	Sunset Dr						Elmview Ave						Sunset Dr						Kenton Pl						
Direction	Southbound						Westbound						Northbound						Eastbound						
Time	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	R	T	L	U	**App**	Ped*	**Int**
2022-02-02 4:15PM	1	46	9	0	**56**	0	13	1	5	0	**19**	1	8	21	0	0	**29**	0	0	0	2	0	**2**	0	**106**
4:30PM	4	46	2	0	**52**	0	9	1	12	0	**22**	0	4	14	0	0	**18**	0	1	1	3	0	**5**	0	**97**
4:45PM	2	39	4	0	**45**	0	12	3	5	0	**20**	0	9	23	0	0	**32**	0	2	3	0	0	**5**	0	**102**
5:00PM	1	56	2	0	**59**	0	11	1	14	0	**26**	0	3	24	1	0	**28**	0	0	1	0	0	**1**	0	**114**
Total	8	187	17	0	**212**	0	45	6	36	0	**87**	1	24	82	1	0	**107**	0	3	5	5	0	**13**	0	**419**
% Approach	3.8%	88.2%	8.0%	0%	**-**	-	51.7%	6.9%	41.4%	0%	**-**	-	22.4%	76.6%	0.9%	0%	**-**	-	23.1%	38.5%	38.5%	0%	**-**	-	**-**
% Total	1.9%	44.6%	4.1%	0%	**50.6%**	-	10.7%	1.4%	8.6%	0%	**20.8%**	-	5.7%	19.6%	0.2%	0%	**25.5%**	-	0.7%	1.2%	1.2%	0%	**3.1%**	-	**-**
PHF	0.500	0.835	0.472	-	**0.898**	-	0.865	0.500	0.643	-	**0.837**	-	0.667	0.854	0.250	-	**0.836**	-	0.375	0.417	0.417	-	**0.650**	-	0.919
Motorcycles	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Lights	8	186	16	0	**210**	-	43	6	35	0	**84**	-	24	81	1	0	**106**	-	3	5	5	0	**13**	-	413
% Lights	100%	99.5%	94.1%	0%	**99.1%**	-	95.6%	100%	97.2%	0%	**96.6%**	-	100%	98.8%	100%	0%	**99.1%**	-	100%	100%	100%	0%	**100%**	-	98.6%
Heavy	0	1	1	0	**2**	-	2	0	1	0	**3**	-	0	1	0	0	**1**	-	0	0	0	0	**0**	-	6
% Heavy	0%	0.5%	5.9%	0%	**0.9%**	-	4.4%	0%	2.8%	0%	**3.4%**	-	0%	1.2%	0%	0%	**0.9%**	-	0%	0%	0%	0%	**0%**	-	1.4%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Elmview Ave/Sunset Dr - TMC
Wed Feb 2, 2022
PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Heavy, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 920188, Location: 42.732959, -78.844301

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



A2

Miscellaneous Traffic Data and Calculations

Proposed Asphalt Plant, Town of Hamburg, Erie County, NY

Documentation of Ambient Traffic Volume Growth

Roadway	Segment starts at	Segment end at	2010	2011	2013	2014	2015	2016	2017	2018	2019	Annual Growth
Camp Rd	Legion Dr	I-90	20,071		27,922			27,877				-0.05%
Camp Rd	Rte 62	Legion Dr			16,357		15,565			14,795		-1.99%
Legion Dr	Camp Rd	Hamburg VL	9,293					9,256			8,798	-0.61%
											AVERAGE	**-0.88%**

Int #																
1	**Camp Rd/Sunset Dr**															
	Left turn	Rear-end	Overtaking	Right Angle	Right Turn	Head On	Side-swipe	Fixed Object	Backing	Other	Animal	Bike/Ped	**Total**	Injury	Non Injury	Non-Repo	**Sum**
		7			1					1			**9**	2	6	1	**9**
TOTALS	**0**	**7**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**		**2**	**6**	**1**	

	Northbound	Southbound	Eastbound	Westbound	Unknown	**Totals**
Left turn						**0**
Rear-end	7					**7**
Overtaking						**0**
Right Angle						**0**
Right Turn		1				**1**
Head On						**0**
Side-swipe						**0**
Fixed Object						**0**
Backing						**0**
Other		1				**1**
Bike/Ped						**0**
Animal						**0**
Totals	**7**	**2**	**0**	**0**	**0**	**9**

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1 **Camp Rd/Sunset Dr - 36 months**

ADT = Peak hour entering volume / k factor

ADT = 2266 VPH / 0.10 = 23852.63 VPD

$$\text{Rate} = \frac{9 \text{ Acc.} \times 1{,}000{,}000}{23852.632 \text{ VPD} \times 365 \text{ Days} \times 3.000 \text{ Yrs.}} = 0.34 \text{ Crash / MEV}$$

Int #																
2	**Camp Rd/Scranton Rd**															
	Left turn	Rear-end	Overtaking	Right Angle	Right Turn	Head On	Side-swipe	Fixed Object	Backing	Other	Animal	Bike/Ped	**Total**	Injury	Non Injury	Non-Repo	**Sum**
		4	1	2					2			2	**11**	4	4	3	**11**
TOTALS	**0**	**4**	**1**	**2**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**2**		**4**	**4**	**3**	

	Northbound	Southbound	Eastbound	Westbound	Unknown	**Totals**
Left turn						**0**
Rear-end	2			2		**4**
Overtaking	1					**1**
Right Angle				2		**2**
Right Turn						**0**
Head On						**0**
Side-swipe						**0**
Fixed Object						**0**
Backing						**0**
Other		1		1		**2**
Bike/Ped				2		**2**
Animal						**0**
Totals	**3**	**1**	**0**	**7**	**0**	**11**

---

2 **Camp Rd/Scranton Rd - 36 months**

ADT = Peak hour entering volume / k factor

ADT = 1955 VPH / 0.10 = 20578.95 VPD

$$\text{Rate} = \frac{10 \text{ Acc.} \times 1{,}000{,}000}{20578.947 \text{ VPD} \times 365 \text{ Days} \times 3.000 \text{ Yrs.}} = 0.44 \text{ Crash / MEV}$$

Int #																	
3	**Camp Rd/Elmview Ave**	Left turn	Rear-end	Overtaking	Right Angle	Right Turn	Head On	Side-swipe	Fixed Object	Backing	Other	Animal	Bike/Ped	**Total**	Injury	Non Injury	Non-Repo	**Sum**
			1	1										**2**	1	1		**2**
TOTALS		**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**1**	**1**	**0**	

	Northbound	Southbound	Eastbound	Westbound	Unknown	**Totals**
Left turn						**0**
Rear-end	1					**1**
Overtaking	1					**1**
Right Angle						**0**
Right Turn						**0**
Head On						**0**
Side-swipe						**0**
Fixed Object						**0**
Backing						**0**
Other						**0**
Bike/Ped						**0**
Animal						**0**
Totals	**2**	**0**	**0**	**0**	**0**	**2**

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3 **Camp Rd/Elmview Ave - 36 months**

ADT = Peak hour entering volume / k factor

ADT = 1765 VPH / 0.10 = 18578.95 VPD

Rate = $\frac{2 \text{ Acc.}}{18578.947 \text{ VPD} \times 1{,}000{,}000 \times 365 \text{ Days} \times 3.000 \text{ Yrs.}}$ = 0.10 Crash / MEV

Int #																	
4	**Camp Rd/Legion Dr**																
	Left turn	Rear-end	Overtaking	Right Angle	Right Turn	Head On	Side-swipe	Fixed Object	Backing	Other	Animal	Bike/Ped	**Total**	Injury	Non Injury	Non-Repo	**Sum**
	4	3						1		4			**12**	4	6	2	**12**
TOTALS	**4**	**3**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**4**	**0**	**0**		**4**	**6**	**2**	

	Northbound	Southbound	Eastbound	Westbound	Unknown	**Totals**
Left turn	1	3				**4**
Rear-end	2	1				**3**
Overtaking						**0**
Right Angle						**0**
Right Turn						**0**
Head On						**0**
Side-swipe						**0**
Fixed Object	1					**1**
Backing						**0**
Other		4				**4**
Bike/Ped						**0**
Animal						**0**
Totals	**4**	**8**	**0**	**0**	**0**	**12**

---

4 **Camp Rd/Legion Dr - 36 months**

ADT = Peak hour entering volume / k factor

ADT = 2040 VPH / 0.10 = 21473.68 VPD

$$\text{Rate} = \frac{12 \text{ Acc.} \times 1{,}000{,}000}{21473.684 \text{ VPD} \times 365 \text{ Days} \times 3.000 \text{ Yrs.}} = 0.51 \text{ Crash / MEV}$$

Int #																
5	**Sunset Dr/Elmview Ave**															
	Left turn	Rear-end	Overtaking	Right Angle	Right Turn	Head On	Side-swipe	Fixed Object	Backing	Other	Animal	Bike/Ped	**Total**	Injury	Non Injury	Non-Repo	**Sum**
		1								1			**2**	1	1		**2**
TOTALS	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**		**1**	**1**	**0**	

	Northbound	Southbound	Eastbound	Westbound	Unknown	**Totals**
Left turn						**0**
Rear-end	1					**1**
Overtaking						**0**
Right Angle						**0**
Right Turn						**0**
Head On						**0**
Side-swipe						**0**
Fixed Object						**0**
Backing						**0**
Other	1					**1**
Bike/Ped						**0**
Animal						**0**
Totals	**2**	**0**	**0**	**0**	**0**	**2**

---

5 **Sunset Dr/Elmview Ave - 36 months**

ADT = Peak hour entering volume / k factor

ADT = 419 VPH / 0.10 = 4410.526 VPD

Rate = $\frac{2 \text{ Acc.}}{4410.5263 \text{ VPD} \times 365 \text{ Days} \times 3.000 \text{ Yrs.}} \times 1{,}000{,}000 = 0.41$ Crash / MEV

Station : 53356 - 75 @ Legion Dr. (Standard File)

Phase [1.1.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Walk	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clearance	0	15	15	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Green	3	20	12	0	0	0	0	0	0	0	0	0	0	0	0	0
Gap Ext	3	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0
Max1	15	45	30	0	0	0	0	0	0	0	0	0	0	0	0	0
Max2	0	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yellow Clr	3.2	3.9	3.2	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	1.1	1.2	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auto Flash Entry																
Auto Flash Exit																
Non-Actuated 1																
Non-Actuated 2																
Lock Calls		ON														
Guarantd Passage																
Rest In Walk																
Added Init Calc																

Phase Option [1.1.2]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enable	ON	ON	ON													
Min Recall		ON														
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry		ON		ON		ON		ON								
Sim Gap Enable	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Cond Service																

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

ENTRY	Call Phases				From	to	From	to	From	to	From	to	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

ENTRY	Call Phases				From	to	From	to	From	to	From	to	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 1, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Alternate Phase Program 2, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Prepared By	Date Implemented	Reviewed By	Traffic Engineer

NYSDOT - Region 5 Timing Sheet 1/14/2022 12:12:04 PM

Station : 53356 - 75 @ Legion Dr. (Standard File)

Unit Parameters [1.2.1]

StartUp Flash	Auto Ped Clear	Red Revert	Local Flash Start	Allow < 3 sec Yel	Allow Skip Yel	MCE Timeout	Enable Run	Start Red Time	Phase Mode	Startup Calls	Diamond Mode	Stop Time Over Preempt	Free Ring Sequence	Clearance Decide	Min Ped Clear Time	RingAlgo
	OFF	3	RED	OFF	OFF		ON	6	STD8	OFF	4PH	OFF	1	OFF	OFF	

COMM, General Comm Parameters [6.1]

Station ID	Master Station ID	Fallback time	Allow Pencil	PORT	System-Up	Sys-Down	PC/Print	Aux 232
3356								

Port Parameters [6.2]

COMM	Mode	Baud	MsgTime	Duplex	Enable	DialTime	Modem	ModemTime	Tel#1	Tel#2
System Up(P-A)										
System Down(P-B)										
PC/Print(P-2)										

Overlap General Parameters [1.5.1]

Conflict Lock	Lock Inhibit	Program Card	Use Parent	Canadian Fast Flash
OFF	OFF	ON	ALWAYS	

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases								Modifer Phases								Type	Green	Yellow	Red
Overlap 1	1	2															NORMAL		3.9	1.4
Overlap 2																	NORMAL		3.5	1.5
Overlap 3																	NORMAL		3.5	1.5
Overlap 4																	NORMAL		3.5	1.5
Overlap 5																	NORMAL		3.5	1.5
Overlap 6																	NORMAL		3.5	1.5
Overlap 7																	NORMAL		3.5	1.5
Overlap 8																	NORMAL		3.5	1.5

Overlap Conflict Parameters+ [1.5.2.2]

Overlap	Conflicting Phases								Conflicting Overlaps								Conflicting Peds							
Overlap 1																								
Overlap 2																								
Overlap 3																								
Overlap 4																								
Overlap 5																								
Overlap 6																								
Overlap 7																								
Overlap 8																								

Detector, Vehicle Parameters 1-16 [5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	3	3	1	2	2	2	2	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	5	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector, Vehicle Parameters 17-32 [5.1]

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Station : 53356 - 75 @ Legion Dr. (Standard File)

Detector Alternate Program 1, Vehicle Parameters [5.5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Channels/SDLC, Assign to Phases [1.3.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PH/OLP #	1		2				3		1		3	2												
Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	VEH	PED	PED	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
Flash	DRK	RED	YEL	RED	RED	RED	RED	RED	YEL	RED	DRK	DRK	RED	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								
Dimming Green																								
Dimming Yellow																								
Dimming Red																								
Dim Cyc	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Channel/SDLC, Parameters [1.3.3]

TOD Dim Enable	Extra Maps Enable	D Connector Enable	Single BIU Map	IO Mode	Preempt or Ext Output
OFF	DEFAULT				

Channel/SDLC, MMU Map [1.3.5]

MMU-to-Controller Channel Map

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Channel/SDLC, Permissive [1.3.4]

Channel	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1															
2															
3															
4															
5															
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Channel/SDLC, Permissive [1.3.7]

SDLC Device	Term/Fac								Detector								MMU	DIAG
BIU#	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8		
Dev Present																		
Peer to Peer																		

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2	3	4				
Ring 2	5	6	7	8				
Ring 3								
Ring 4								

Station : 53356 - 75 @ Legion Dr. (Standard File)

Alarms, Enable Events [1.6.1]

Event#	Event Enable
1	ON
2	ON
3	
4	ON
5	ON
6	ON
7	
8	
9	ON
10	
11	
12	ON
13	
14	ON
15	
16	
17	ON
18	ON
19	ON
20	ON
21	
22	
23	
24	
25	ON
26	
27	ON
28	ON
29	ON
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	ON
44	ON
45	
46	
47	
48	ON
49	ON
50	ON
51	ON
52	ON
53	ON
54	ON
55	ON
56	ON
57	ON
58	ON
59	
60	
61	ON
62	
63	
64	

Alarms, Enable Alarms [1.6.4]

Alarm#	Alarm Enable
1	ON
2	ON
3	
4	ON
5	ON
6	ON
7	
8	
9	
10	
11	
12	ON
13	
14	ON
15	
16	
17	
18	
19	
20	ON
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25	ON
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27	ON
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Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash	ON	ON	ON	ON	ON	ON
Override Higher Preempt	ON	ON	ON	ON	ON	ON
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green						
Min Walk						
Ped Clear						
Track Green						
Min Dwell	2	2	2	2	2	2
Max Presence						
Track Veh1						
Track Veh2						
Track Veh3						
Track Veh4						
Dwell Cyc Veh1						
Dwell Cyc Veh2						
Dwell Cyc Veh3						
Dwell Cyc Veh4						
Dwell Cyc Veh5						
Dwell Cyc Veh6						
Dwell Cyc Veh7						
Dwell Cyc Veh8						
Dwell Cyc Veh9						
Dwell Cyc Veh10						
Dwell Cyc Veh11						
Dwell Cyc Veh12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell Cyc Ped7						
Dwell Cyc Ped8						
Exit 1						
Exit 2						
Exit 3						
Exit 4						

Alarms, Parameters [1.4.1]

Auto Flash Parameter

Yellow	Red	Mode	Source
45	20		

Alarms, Parameters [1.6.7]

Preempt Event Enabled	Pattern Event Enabled
OFF	OFF

Alarms, Phases/Overlaps [1.4.2]

Auto Flash	1	2	3	4	5	6	7	8	9	10	11	12
Phases												
Overlaps												

Station : 53356 - 75 @ Legion Dr. (Standard File)

Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable	ON	ON	ON	ON	ON	ON
Type	RAIL	RAIL	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt	ON	ON	ON	ON	ON	ON
Return Max/Min	MAX	MAX	MAX	MAX	MAX	MAX
Extend Dwell						
Pattern						
Output Mode	DWELL	DWELL	DWELL	DWELL	DWELL	DWELL
Track Over 1						
Track Over 2						
Track Over 3						
Track Over 4						
Track Over 5						
Track Over 6						
Track Over 7						
Track Over 8						
Track Over 9						
Track Over 10						
Track Over 11						
Track Over 12						
DwellCyc Over 1						
DwellCyc Over 2						
DwellCyc Over 3						
DwellCyc Over 4						
DwellCyc Over 5						
DwellCyc Over 6						
DwellCyc Over 7						
DwellCyc Over 8						
DwellCyc Over 9						
DwellCyc Over 10						
DwellCyc Over 11						
DwellCyc Over 12						
Ped Clear						
Yellow						
Red						
Return Max						

Coordination, Modes,+ [2.1]

Modes

Operational	Correct	Maximum	Force-Off
	SHRT/LNG	MAX 2	FLOAT

Modes+

Mode	Leave Before	Leave After	Recycle	Stop In Walk	External	Auto Reset	Latch Sec Foff	Coord Easy Float	Yield Value	Coord NTCIP Yield Sign	Closed Loop Active	
TIMED	TIMED	NO_RECYCLE	ON	OFF	ON	OFF	OFF	0	+	ON	OFF	OFF

Coordination, Pattern 1-16 [2.1]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time	120															
Offset Time																
Split Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Offset	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn

Coordination, Pattern 17-32 [2.1]

Pattern	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Cycle Time																
Offset Time																
Split Number	17	18	19	20	21	22	23	24								
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Offset	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	beggrn	beggrn	beggrn	beggrn	beggrn	beggrn	beggrn	beggrn

Station : 53356 - 75 @ Legion Dr. (Standard File)

Coordination, Splits [2.7.1]

Split Table1	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time	20	75	25													
Mode	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table2	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table3	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table4	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table5	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table6	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table7	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table8	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table9	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table10	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table11	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table12	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Station : 53356 - 75 @ Legion Dr. (Standard File)

Split Table13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table21	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table22	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table23	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table25	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord Phase																

Split Table26	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord Phase																

Split Table27	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord Phase																

Split Table28	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord Phase																

Split Table29	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord Phase																

Split Table30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord Phase																

Split Table31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord Phase																

Split Table32	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord Phase																

Station : 53356 - 75 @ Legion Dr. (Standard File)

TB Coor, Advanced Scheduler [4.3]

	Month												Day of Week							Day of Month									1									2									3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2																																																	1
3																																																	1
4																																																	1
5																																																	1
6																																																	1
7																																																	1
8																																																	1
9																																																	1
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28																																																	1
29																																																	1
30																																																	1
31																																																	1
32																																																	1

TB Coor, Day Plan [4.4]

Day Plan Table1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	7	10	15	18												
Minute				30												
Action	1	2	1	2												

Day Plan Table2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Station : 53356 - 75 @ Legion Dr. (Standard File)

Day Plan Table7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Station : 53356 - 75 @ Legion Dr. (Standard File)

TB Coor, Action Table [4.5]

Action	Pattern	Aux 1	Aux 2	Aux 3	Special 1	Special 2	Special 3	Special 4	Special 5	Special 6	Special 7	Special 8
1	1				0	0						
2	2				0	0						
3	3				0	0						
4	4				0	0						
5	5				0	0						
6	6				0	0						
7	7				0	0						
8	8				0	0						
9	9				0	0						
10	10				0	0						
11	11				0	0						
12	12				0	0						
13	13				0	0						
14	14				0	0						
15	15				0	0						
16	16				0	0						
17	17				0	0						
18	18				0	0						
19	19				0	0						
20	20				0	0						
21	21				0	0						
22	22				0	0						
23	23				0	0						
24	24				0	0						
25					0	0						
26					0	0						
27					0	0						
28					0	0						
29					0	0						
30					0	0						
31					0	0						
32					0	0						
33					0	0						
34					0	0						
35					0	0						
36					0	0						
37					0	0						
38					0	0						
39					0	0						
40					0	0						
41					0	0						
42					0	0						
43					0	0						
44					0	0						
45					0	0						
46					0	0						
47					0	0						
48					0	0						
49					0	0						
50					0	0						
51					0	0						
52					0	0						
53					0	0						
54					0	0						
55					0	0						
56					0	0						
57					0	0						
58					0	0						
59					0	0						
60					0	0						
61					0	0						
62					0	0						
63					0	0						
64					0	0						
99					0	0						
100	255				0	0						

Station : 53350 - 75 @ Scranton rd. (Standard File)

Phase [1.1.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Walk	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clearance	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Green	6	25	6	0	0	25	0	0	0	0	0	0	0	0	0	0
Gap Ext	3	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0
Max1	25	45	30	0	0	45	0	0	0	0	0	0	0	0	0	0
Max2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yellow Clr	3.9	3.9	3.4	3.5	3.5	3.9	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	1	1	1.4	1.5	1.5	1	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auto Flash Entry																
Auto Flash Exit																
Non-Actuated 1																
Non-Actuated 2																
Lock Calls																
Guarantd Passage																
Rest In Walk																
Added Init Calc																

Phase Option [1.1.2]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enable	ON	ON	ON			ON										
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry		ON		ON		ON		ON								
Sim Gap Enable	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Cond Service																

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

ENTRY	Call Phases				From	to	From	to	From	to	From	to	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

ENTRY	Call Phases				From	to	From	to	From	to	From	to	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 1, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Alternate Phase Program 2, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Prepared By	Date Implemented	Reviewed By	Traffic Engineer

NYSDOT - Region 5 Timing Sheet 1/14/2022 12:11:08 PM

Station : 53350 - 75 @ Scranton rd. (Standard File)

Unit Parameters [1.2.1]

StartUp Flash	Auto Ped Clear	Red Revert	Local Flash Start	Allow < 3 sec Yel	Allow Skip Yel	MCE Timeout	Enable Run	Start Red Time	Phase Mode	Startup Calls	Diamond Mode	Stop Time Over Preempt	Free Ring Sequence	Clearance Decide	Min Ped Clear Time	RingAlgo
	OFF	3	RED	OFF	OFF		ON	6	STD8	OFF	4PH	OFF	1	OFF	OFF	

COMM, General Comm Parameters [6.1]

Station ID	Master Station ID	Fallback time	Allow Pencil	PORT	System-Up	Sys-Down	PC/Print	Aux 232
3350								

Port Parameters [6.2]

COMM	Mode	Baud	MsgTime	Duplex	Enable	DialTime	Modem	ModemTime	Tel#1	Tel#2
System Up(P-A)										
System Down(P-B)										
PC/Print(P-2)										

Overlap General Parameters [1.5.1]

Conflict Lock	Lock Inhibit	Program Card	Use Parent	Canadian Fast Flash
OFF	OFF	ON	ALWAYS	

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases								Modifer Phases								Type	Green	Yellow	Red
Overlap 1																	NORMAL		3.5	1.5
Overlap 2																	NORMAL		3.5	1.5
Overlap 3																	NORMAL		3.5	1.5
Overlap 4																	NORMAL		3.5	1.5
Overlap 5																	NORMAL		3.5	1.5
Overlap 6																	NORMAL		3.5	1.5
Overlap 7																	NORMAL		3.5	1.5
Overlap 8																	NORMAL		3.5	1.5

Overlap Conflict Parameters+ [1.5.2.2]

Overlap	Conflicting Phases								Conflicting Overlaps								Conflicting Peds							
Overlap 1																								
Overlap 2																								
Overlap 3																								
Overlap 4																								
Overlap 5																								
Overlap 6																								
Overlap 7																								
Overlap 8																								

Detector, Vehicle Parameters 1-16 [5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	3	3	1	6	0	6	2	2	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector, Vehicle Parameters 17-32 [5.1]

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Station : 53350 - 75 @ Scranton rd. (Standard File)

Detector Alternate Program 1, Vehicle Parameters [5.5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Channels/SDLC, Assign to Phases [1.3.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PH/OLP #	1			2		6	3		3		3													
Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	PED	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
Flash	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								
Dimming Green																								
Dimming Yellow																								
Dimming Red																								
Dim Cyc	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Channel/SDLC, Parameters [1.3.3]

TOD Dim Enable	Extra Maps Enable	D Connector Enable	Single BIU Map	IO Mode	Preempt or Ext Output
OFF	DEFAULT				

Channel/SDLC, MMU Map [1.3.5]

MMU-to-Controller Channel Map

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Channel/SDLC, Permissive [1.3.4]

Channel	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
1															
2															
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12															
13															
14															
15															
1															
2															
3															

4
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14
15
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
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10
11
12
13
14
15
1
2
3
4
5
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7
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11
12
13
14
15
1
2
3
4
5
6
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13
14
15
1

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11
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2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
2
3
4
5
6
7
8
9
10
11
12
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14
15
1
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14

Channel/SDLC, Permissive [1.3.7]

SDLC Device	Term/Fac								Detector								MMU	DIAG
BIU#	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8		
Dev Present																		
Peer to Peer																		

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2	3	4				
Ring 2	5	6	7	8				
Ring 3								
Ring 4								

Station : 53350 - 75 @ Scranton rd. (Standard File)

Alarms, Enable Events [1.6.1]

Event#	Event Enable
1	ON
2	ON
3	
4	ON
5	ON
6	ON
7	
8	
9	ON
10	
11	
12	ON
13	
14	ON
15	
16	
17	ON
18	ON
19	ON
20	ON
21	
22	
23	
24	
25	ON
26	
27	ON
28	ON
29	ON
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	ON
44	ON
45	
46	
47	
48	ON
49	ON
50	ON
51	ON
52	ON
53	ON
54	ON
55	ON
56	ON
57	ON
58	ON
59	
60	
61	ON
62	
63	
64	

Alarms, Enable Alarms [1.6.4]

Alarm#	Alarm Enable
1	ON
2	ON
3	
4	ON
5	ON
6	ON
7	
8	
9	
10	
11	
12	ON
13	
14	ON
15	
16	
17	
18	
19	
20	ON
21	
22	
23	
24	
25	ON
26	
27	ON
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
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60	
61	
62	
63	
64	

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash	ON	ON	ON	ON	ON	ON
Override Higher Preempt	ON	ON	ON	ON	ON	ON
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green						
Min Walk						
Ped Clear						
Track Green						
Min Dwell	2	2	2	2	2	2
Max Presence						
Track Veh1						
Track Veh2						
Track Veh3						
Track Veh4						
Dwell Cyc Veh1						
Dwell Cyc Veh2						
Dwell Cyc Veh3						
Dwell Cyc Veh4						
Dwell Cyc Veh5						
Dwell Cyc Veh6						
Dwell Cyc Veh7						
Dwell Cyc Veh8						
Dwell Cyc Veh9						
Dwell Cyc Veh10						
Dwell Cyc Veh11						
Dwell Cyc Veh12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell Cyc Ped7						
Dwell Cyc Ped8						
Exit 1						
Exit 2						
Exit 3						
Exit 4						

Alarms, Parameters [1.4.1]

Auto Flash Parameter

Yellow	Red	Mode	Source
45	20		

Alarms, Parameters [1.6.7]

Preempt Event Enabled	Pattern Event Enabled
OFF	OFF

Alarms, Phases/Overlaps [1.4.2]

Auto Flash	1	2	3	4	5	6	7	8	9	10	11	12
Phases												
Overlaps												

Station : 53350 - 75 @ Scranton rd. (Standard File)

Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable	ON	ON	ON	ON	ON	ON
Type	RAIL	RAIL	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt	ON	ON	ON	ON	ON	ON
Return Max/Min	MAX	MAX	MAX	MAX	MAX	MAX
Extend Dwell						
Pattern						
Output Mode	DWELL	DWELL	DWELL	DWELL	DWELL	DWELL
Track Over 1						
Track Over 2						
Track Over 3						
Track Over 4						
Track Over 5						
Track Over 6						
Track Over 7						
Track Over 8						
Track Over 9						
Track Over 10						
Track Over 11						
Track Over 12						
DwellCyc Over 1						
DwellCyc Over 2						
DwellCyc Over 3						
DwellCyc Over 4						
DwellCyc Over 5						
DwellCyc Over 6						
DwellCyc Over 7						
DwellCyc Over 8						
DwellCyc Over 9						
DwellCyc Over 10						
DwellCyc Over 11						
DwellCyc Over 12						
Ped Clear						
Yellow						
Red						
Return Max						

Coordination, Modes,+ [2.1]

Modes

Operational	Correct	Maximum	Force-Off
	SHRT/LNG	MAX 1	FLOAT

Modes+

Mode	Leave Before	Leave After	Recycle	Stop In Walk	External	Auto Reset	Latch Sec Foff	Coord Easy Float	Yield Value	Coord NTCIP Yield Sign	Closed Loop Active	
TIMED	TIMED	NO_RECYCLE	OFF	OFF	ON	OFF	OFF	0	+	ON	OFF	OFF

Coordination, Pattern 1-16 [2.1]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time	120															
Offset Time																
Split Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Offset	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn

Coordination, Pattern 17-32 [2.1]

Pattern	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Cycle Time																
Offset Time																
Split Number	17	18	19	20	21	22	23	24								
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Offset	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	beggrn	beggrn	beggrn	beggrn	beggrn	beggrn	beggrn	beggrn

Station : 53350 - 75 @ Scranton rd. (Standard File)

Coordination, Splits [2.7.1]

Split Table1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	20	65	35		20	65	35									
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase		ON														

Split Table2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Station : 53350 - 75 @ Scranton rd. (Standard File)

Split Table13	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table14	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table15	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table16	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table17	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table18	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table19	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table20	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table21	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table22	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table23	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table24	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table25	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord Phase																

Split Table26	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord Phase																

Split Table27	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord Phase																

Split Table28	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord Phase																

Split Table29	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord Phase																

Split Table30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord Phase																

Split Table31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord Phase																

Split Table32	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord Phase																

Station : 53350 - 75 @ Scranton rd. (Standard File)

TB Coor, Advanced Scheduler [4.3]

	Month												Day of Week							Day of Month										1										2										3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1																																	1
2																																																			1
3																																																			1
4																																																			1
5																																																			1
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29																																																			1
30																																																			1
31																																																			1
32																																																			1

TB Coor, Day Plan [4.4]

Day Plan Table1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	7	10	16	18												
Minute				30												
Action	1	25	1	25												

Day Plan Table2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Station : 53350 - 75 @ Scranton rd. (Standard File)

Day Plan Table7	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table8	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table9	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table10	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table11	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Day Plan Table12	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Hour																
Minute																
Action																

Station : 53350 - 75 @ Scranton rd. (Standard File)

TB Coor, Action Table [4.5]

Action	Pattern	Aux 1	Aux 2	Aux 3	Special 1	Special 2	Special 3	Special 4	Special 5	Special 6	Special 7	Special 8
1	1				0	0						
2	2				0	0						
3	3				0	0						
4	4				0	0						
5	5				0	0						
6	6				0	0						
7	7				0	0						
8	8				0	0						
9	9				0	0						
10	10				0	0						
11	11				0	0						
12	12				0	0						
13	13				0	0						
14	14				0	0						
15	15				0	0						
16	16				0	0						
17	17				0	0						
18	18				0	0						
19	19				0	0						
20	20				0	0						
21	21				0	0						
22	22				0	0						
23	23				0	0						
24	24				0	0						
25					0	0						
26					0	0						
27					0	0						
28					0	0						
29					0	0						
30					0	0						
31					0	0						
32					0	0						
33					0	0						
34					0	0						
35					0	0						
36					0	0						
37					0	0						
38					0	0						
39					0	0						
40					0	0						
41					0	0						
42					0	0						
43					0	0						
44					0	0						
45					0	0						
46					0	0						
47					0	0						
48					0	0						
49					0	0						
50					0	0						
51					0	0						
52					0	0						
53					0	0						
54					0	0						
55					0	0						
56					0	0						
57					0	0						
58					0	0						
59					0	0						
60					0	0						
61					0	0						
62					0	0						
63					0	0						
64					0	0						
99					0	0						
100	255				0	0						

Station : 53336 - 75 @ Sunset St. (Standard File)

Phase [1.1.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Walk	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clearance	0	26	19	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Green	6	25	10	0	0	25	0	0	0	0	0	0	0	0	0	0
Gap Ext	2	4	4	0	0	4	0	0	0	0	0	0	0	0	0	0
Max1	20	40	40	0	0	40	0	0	0	0	0	0	0	0	0	0
Max2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yellow Clr	3.9	4.3	3.2	3.5	3.5	4.3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2.7	3	1.5	1.5	2.7	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auto Flash Entry																
Auto Flash Exit																
Non-Actuated 1																
Non-Actuated 2																
Lock Calls																
Guarantd Passage																
Rest In Walk																
Added Init Calc																

Phase Option [1.1.2]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enable	ON	ON	ON			ON										
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry		ON		ON		ON		ON								
Sim Gap Enable	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Cond Service																

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

ENTRY	Call Phases				From	to	From	to	From	to	From	to	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

ENTRY	Call Phases				From	to	From	to	From	to	From	to	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 1, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Alternate Phase Program 2, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	0	

Prepared By	Date Implemented	Reviewed By	Traffic Engineer

NYSDOT - Region 5 Timing Sheet 1/14/2022 12:10:05 PM

Station : 53336 - 75 @ Sunset St. (Standard File)

Unit Parameters [1.2.1]

StartUp Flash	Auto Ped Clear	Red Revert	Local Flash Start	Allow < 3 sec Yel	Allow Skip Yel	MCE Timeout	Enable Run	Start Red Time	Phase Mode	Startup Calls	Diamond Mode	Stop Time Over Preempt	Free Ring Sequence	Clearance Decide	Min Ped Clear Time	RingAlgo
	OFF	3	RED	OFF	OFF		ON	6	STD8	OFF	4PH	OFF	1	OFF	OFF	

COMM, General Comm Parameters [6.1]

Station ID	Master Station ID	Fallback time	Allow Pencil	PORT	System-Up	Sys-Down	PC/Print	Aux 232
3336								

Port Parameters [6.2]

COMM	Mode	Baud	MsgTime	Duplex	Enable	DialTime	Modem	ModemTime	Tel#1	Tel#2
System Up(P-A)										
System Down(P-B)										
PC/Print(P-2)										

Overlap General Parameters [1.5.1]

Conflict Lock	Lock Inhibit	Program Card	Use Parent	Canadian Fast Flash
OFF	OFF	ON	ALWAYS	

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases								Modifer Phases								Type	Green	Yellow	Red
Overlap 1																	NORMAL		3.5	1.5
Overlap 2																	NORMAL		3.5	1.5
Overlap 3																	NORMAL		3.5	1.5
Overlap 4																	NORMAL		3.5	1.5
Overlap 5																	NORMAL		3.5	1.5
Overlap 6																	NORMAL		3.5	1.5
Overlap 7																	NORMAL		3.5	1.5
Overlap 8																	NORMAL		3.5	1.5

Overlap Conflict Parameters+ [1.5.2.2]

Overlap	Conflicting Phases								Conflicting Overlaps								Conflicting Peds							
Overlap 1																								
Overlap 2																								
Overlap 3																								
Overlap 4																								
Overlap 5																								
Overlap 6																								
Overlap 7																								
Overlap 8																								

Detector, Vehicle Parameters 1-16 [5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	2	2	2	1	6	6	0	2	0	6	3	3	3	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0

Detector, Vehicle Parameters 17-32 [5.1]

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Station : 53336 - 75 @ Sunset St. (Standard File)

Detector Alternate Program 1, Vehicle Parameters [5.5.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Channels/SDLC, Assign to Phases [1.3.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PH/OLP #	1	2	3			6			3		3	2												
Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	PED	PED	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
Flash	RED	RED	RED	RED	RED	RED	RED	RED	DRK	RED	DRK	DRK	RED	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								
Dimming Green																								
Dimming Yellow																								
Dimming Red																								
Dim Cyc	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Channel/SDLC, Parameters [1.3.3]

TOD Dim Enable	Extra Maps Enable	D Connector Enable	Single BIU Map	IO Mode	Preempt or Ext Output
OFF	DEFAULT				

Channel/SDLC, MMU Map [1.3.5]

MMU-to-Controller Channel Map

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Channel/SDLC, Permissive [1.3.4]

Channel	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
1															
2															
3															
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13															
14															
15															
1															
2															
3															

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Channel/SDLC, Permissive [1.3.7]

SDLC Device	Term/Fac								Detector								MMU	DIAG
BIU#	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8		
Dev Present																		
Peer to Peer																		

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2	3	4				
Ring 2	5	6	7	8				
Ring 3								
Ring 4								

Station : 53336 - 75 @ Sunset St. (Standard File)

Alarms, Enable Events [1.6.1]

Event#	Event Enable
1	ON
2	ON
3	
4	ON
5	ON
6	ON
7	
8	
9	ON
10	
11	
12	ON
13	
14	ON
15	
16	
17	ON
18	ON
19	ON
20	ON
21	
22	
23	
24	
25	ON
26	
27	ON
28	ON
29	ON
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	ON
44	ON
45	
46	
47	
48	ON
49	ON
50	ON
51	ON
52	ON
53	ON
54	ON
55	ON
56	ON
57	ON
58	ON
59	
60	
61	ON
62	
63	
64	

Alarms, Enable Alarms [1.6.4]

Alarm#	Alarm Enable
1	ON
2	ON
3	
4	ON
5	ON
6	ON
7	
8	
9	
10	
11	
12	ON
13	
14	ON
15	
16	
17	
18	
19	
20	ON
21	
22	
23	
24	
25	ON
26	
27	ON
28	
29	
30	
31	
32	
33	
34	
35	
36	
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62	
63	
64	

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash	ON	ON	ON	ON	ON	ON
Override Higher Preempt	ON	ON	ON	ON	ON	ON
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green						
Min Walk						
Ped Clear						
Track Green						
Min Dwell	2	2	2	2	2	2
Max Presence						
Track Veh1						
Track Veh2						
Track Veh3						
Track Veh4						
Dwell Cyc Veh1						
Dwell Cyc Veh2						
Dwell Cyc Veh3						
Dwell Cyc Veh4						
Dwell Cyc Veh5						
Dwell Cyc Veh6						
Dwell Cyc Veh7						
Dwell Cyc Veh8						
Dwell Cyc Veh9						
Dwell Cyc Veh10						
Dwell Cyc Veh11						
Dwell Cyc Veh12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell Cyc Ped7						
Dwell Cyc Ped8						
Exit 1						
Exit 2						
Exit 3						
Exit 4						

Alarms, Parameters [1.4.1]

Auto Flash Parameter

Yellow	Red	Mode	Source
45	20		

Alarms, Parameters [1.6.7]

Preempt Event Enabled	Pattern Event Enabled
OFF	OFF

Alarms, Phases/Overlaps [1.4.2]

Auto Flash	1	2	3	4	5	6	7	8	9	10	11	12
Phases												
Overlaps												

Station : 53336 - 75 @ Sunset St. (Standard File)

Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable	ON	ON	ON	ON	ON	ON
Type	RAIL	RAIL	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt	ON	ON	ON	ON	ON	ON
Return Max/Min	MAX	MAX	MAX	MAX	MAX	MAX
Extend Dwell						
Pattern						
Output Mode	DWELL	DWELL	DWELL	DWELL	DWELL	DWELL
Track Over 1						
Track Over 2						
Track Over 3						
Track Over 4						
Track Over 5						
Track Over 6						
Track Over 7						
Track Over 8						
Track Over 9						
Track Over 10						
Track Over 11						
Track Over 12						
DwellCyc Over 1						
DwellCyc Over 2						
DwellCyc Over 3						
DwellCyc Over 4						
DwellCyc Over 5						
DwellCyc Over 6						
DwellCyc Over 7						
DwellCyc Over 8						
DwellCyc Over 9						
DwellCyc Over 10						
DwellCyc Over 11						
DwellCyc Over 12						
Ped Clear						
Yellow						
Red						
Return Max						

Coordination, Modes,+ [2.1]

Modes

Operational	Correct	Maximum	Force-Off
	SHRT/LNG	MAX 1	FLOAT

Modes+

Mode	Leave Before	Leave After	Recycle	Stop In Walk	External	Auto Reset	Latch Sec Foff	Coord Easy Float	Yield Value	Coord NTCIP Yield Sign	Closed Loop Active	
TIMED	TIMED	NO_RECYCLE	OFF	OFF	ON	OFF	OFF	0	+	ON	OFF	OFF

Coordination, Pattern 1-16 [2.1]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time																
Offset Time																
Split Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Offset	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn

Coordination, Pattern 17-32 [2.1]

Pattern	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Cycle Time																
Offset Time																
Split Number	17	18	19	20	21	22	23	24								
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Offset	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	endgrn	beggrn	beggrn	beggrn	beggrn	beggrn	beggrn	beggrn	beggrn

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Coordination, Splits [2.7.1]

Split Table1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Station : 53336 - 75 @ Sunset St. (Standard File)

Split Table13	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table14	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table15	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table16	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table17	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table18	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table19	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table20	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table21	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table22	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table23	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table24	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table25	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord Phase																

Split Table26	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord Phase																

Split Table27	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord Phase																

Split Table28	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord Phase																

Split Table29	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord Phase																

Split Table30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord Phase																

Split Table31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord Phase																

Split Table32	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD	NVD
Coord Phase																

Station : 53336 - 75 @ Sunset St. (Standard File)

TB Coor, Advanced Scheduler [4.3]

	Month												Day of Week							Day of Month										1										2										3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1																																																	1
2																																																			1
3																																																			1
4																																																			1
5																																																			1
6																																																			1
7																																																			1
8																																																			1
9																																																			1
10																																																			1
11																																																			1
12																																																			1
13																																																			1
14																																																			1
15																																																			1
16																																																			1
17																																																			1
18																																																			1
19																																																			1
20																																																			1
21																																																			1
22																																																			1
23																																																			1
24																																																			1
25																																																			1
26																																																			1
27																																																			1
28																																																			1
29																																																			1
30																																																			1
31																																																			1
32																																																			1

TB Coor, Day Plan [4.4]

Day Plan Table1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Station : 53336 - 75 @ Sunset St. (Standard File)

Day Plan Table7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Station : 53336 - 75 @ Sunset St. (Standard File)

TB Coor, Action Table [4.5]

Action	Pattern	Aux 1	Aux 2	Aux 3	Special 1	Special 2	Special 3	Special 4	Special 5	Special 6	Special 7	Special 8
1	1				0	0						
2	2				0	0						
3	3				0	0						
4	4				0	0						
5	5				0	0						
6	6				0	0						
7	7				0	0						
8	8				0	0						
9	9				0	0						
10	10				0	0						
11	11				0	0						
12	12				0	0						
13	13				0	0						
14	14				0	0						
15	15				0	0						
16	16				0	0						
17	17				0	0						
18	18				0	0						
19	19				0	0						
20	20				0	0						
21	21				0	0						
22	22				0	0						
23	23				0	0						
24	24				0	0						
25					0	0						
26					0	0						
27					0	0						
28					0	0						
29					0	0						
30					0	0						
31					0	0						
32					0	0						
33					0	0						
34					0	0						
35					0	0						
36					0	0						
37					0	0						
38					0	0						
39					0	0						
40					0	0						
41					0	0						
42					0	0						
43					0	0						
44					0	0						
45					0	0						
46					0	0						
47					0	0						
48					0	0						
49					0	0						
50					0	0						
51					0	0						
52					0	0						
53					0	0						
54					0	0						
55					0	0						
56					0	0						
57					0	0						
58					0	0						
59					0	0						
60					0	0						
61					0	0						
62					0	0						
63					0	0						
64					0	0						
99					0	0						
100	255				0	0						

PROJECT: **Proposed Asphalt Plant**
LOCATION: **Town of Hamburg, New York**
PEAK HOUR: **AM Peak**

Figure Number: 3 4 6A 7A 6B 7B 7C 8

Num of yrs: 1

LOCATION NUMBER	INTERSECTION DESCRIPTION	Unadjusted Volumes	2023 Bkgd Vol 0.50%	Proposed Asphalt Plant - Employees: Enter Dist. %	Exit Dist. %	Trips IN 6	Trips OUT 6	Total Employee Trips	Proposed Asphalt Plant - Truck: Enter Dist. %	Exit Dist. %	Trips IN 5	Trips OUT 5	Total Truck Trips	Total Site Trips	Full Build Volumes
1	Camp Rd/ Sunset Dr														
	SR	67	67												67
	ST	477	479	44%		3		3	53%		3		3	6	485
	SL														
	WR														
	WT														
	WL														
	NR														
	NT	853	857		44%		3	3		53%		3	3	6	863
	NL	43	43												43
	ER	52	52												52
	ET														
	EL	253	254												254
2	Camp Rd/ Scranton Rd														
	SR	3	3												3
	ST	445	447	44%		3		3	53%		3		3	6	453
	SL	57	57												57
	WR	86	86												86
	WT														
	WL	84	84	7%		0		0	5%					0	84
	NR	51	51		7%		0	0		5%				0	51
	NT	819	823		44%		3	3		53%		3	3	6	829
	NL	2	2												2
	ER														
	ET	1	1												1
	EL	1	1												1
3	Camp Rd/ Elmview Ave														
	SR	12	12	10%		1		1						1	13
	ST	501	504	41%		2		2	58%		3		3	5	509
	SL														
	WR														
	WT														
	WL														
	NR														
	NT	915	920		41%		2	2		58%		3	3	5	925
	NL	20	20												20
	ER	35	35												35
	ET														
	EL	6	6		10%		1	1						1	7
4	Camp Rd/ Legion Dr														
	SR														
	ST	299	300		28%		2	2		30%		1	1	3	303
	SL	250	251		15%		1	1		12%		1	1	2	253
	WR	216	217	15%		1		1	12%		1		1	2	219
	WT														
	WL	24	24												24
	NR	105	106												106
	NT	710	714	28%		2		2	30%		1		1	3	717
	NL														
	ER														
	ET														
	EL														
5	Elmview Ave/ Sunset Dr														
	SR	2	2												2
	ST	63	63												63
	SL	27	27												27
	WR	10	10												10
	WT	1	1												1
	WL	12	12		6%		0	0						0	12
	NR	27	27	6%		0		0						0	27
	NT	150	151												151
	NL	1	1												1
	ER	1	1												1
	ET	3	3												3
	EL	8	8												8
6	Camp Rd/ Exist Dwy														
	SR			41%		2		2	58%		3		3	5	5
	ST	536	539												539
	SL														
	WR														
	WT														
	WL														
	NR														
	NT	935	940												940
	NL			43%		3		3	42%		2		2	5	5
	ER				43%		3	3		42%		2	2	5	5
	ET														
	EL				41%		2	2		58%		3	3	5	5
7	Elmview Ave/ Exist Dwy														
	SR														
	ST														
	SL														
	WR														
	WT	32	32												32
	WL			10%		1		1						1	1
	NR				10%		1	1						1	1
	NT														
	NL				6%		0	0						0	0
	ER			6%		0		0						0	0
	ET	41	41												41
	EL														

PROJECT: Proposed Asphalt Plant
LOCATION: Town of Hamburg, New York
PEAK HOUR: PM Peak

Figure Number:		3	4	6A				7A	6B				7B	7C	8
			Num of yrs												
			1												
LOCATION NUMBER	INTERSECTION DESCRIPTION	Unadjusted Volumes	2023 Bkgd Vol	Proposed Asphalt Plant - Employees				Total Employee Trips	Proposed Asphalt Plant - Truck				Total Truck Trips	Total Site Trips	Full Build Volumes
			0.50%	Enter Dist. %	Exit Dist. %	Trips IN 6	Trips OUT 6		Enter Dist. %	Exit Dist. %	Trips IN 5	Trips OUT 5			
1	Camp Rd/ Sunset Dr														
	SR	278	279												279
	ST	1021	1026	44%		3		3	53%		3		3	6	1032
	SL														
	WR														
	WT														
	WL														
	NR														
	NT	649	652		44%		3	3		53%		3	3	6	658
	NL	77	77												77
	ER	67	67												67
	ET														
	EL	174	175												175
2	Camp Rd/ Scranton Rd														
	SR	3	3												3
	ST	953	958	44%		3		3	53%		3		3	6	964
	SL	131	132												132
	WR	84	84												84
	WT														
	WL	114	115	7%		0		0	5%					0	115
	NR	74	74		7%		0	0		5%				0	74
	NT	589	592		44%		3	3		53%		3	3	6	598
	NL	2	2												2
	ER														
	ET														
	EL	5	5												5
3	Camp Rd/ Elmview Ave														
	SR	20	20	10%		1		1						1	21
	ST	987	992	41%		2		2	58%		3		3	5	997
	SL														
	WR														
	WT														
	WL														
	NR														
	NT	672	675		41%		2	2		58%		3	3	5	680
	NL	47	47												47
	ER	36	36												36
	ET														
	EL	3	3		10%		1	1						1	4
4	Camp Rd/ Legion Dr														
	SR														
	ST	750	754		28%		2	2		30%		2	2	3	757
	SL	314	316		15%		1	1		12%		1	1	2	318
	WR	238	239	15%		1		1	12%		1		1	2	241
	WT														
	WL	174	175												175
	NR	115	116												116
	NT	449	451	28%		2		2	30%		2		2	3	454
	NL														
	ER														
	ET														
	EL														
5	Elmview Ave/ Sunset Dr														
	SR	8	8												8
	ST	187	188												188
	SL	17	17												17
	WR	45	45												45
	WT	6	6												6
	WL	36	36		6%		0	0						0	36
	NR	24	24	6%		0		0						0	24
	NT	82	82												82
	NL	1	1												1
	ER	3	3												3
	ET	5	5												5
	EL	5	5												5
6	Camp Rd/ Exist Dwy														
	SR			41%		2		2	58%		3		3	5	5
	ST	1023	1028												1028
	SL														
	WR														
	WT														
	WL														
	NR														
	NT	719	723												723
	NL			43%		3		3	42%		2		2	5	5
	ER				43%		3	3		42%		2	2	5	5
	ET														
	EL				41%		2	2		58%		3	3	5	5
7	Elmview Ave/ Exist Dwy														
	SR														
	ST														
	SL														
	WR														
	WT	67	67												67
	WL			10%		1		1						1	1
	NR				10%		1	1						1	1
	NT														
	NL				6%		0	0						0	0
	ER			6%		0		0						0	0
	ET	39	39												39
	EL														

A3

Level of Service:
Criteria and Definitions

Level of Service Criteria

Highway Capacity Manual 2016

SIGNALIZED INTERSECTIONS

Level of Service is a qualitative measure describing operational conditions within a traffic stream, based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort, and convenience. Level of Service for signalized intersections is defined in terms of delay specifically, average total delay per vehicle for a 15 minute analysis period. The ranges are as follows:

Level of Service	Control Delay per vehicle (seconds)
A	< 10
B	10 – 20
C	20 – 35
D	35 – 55
E	55 – 80
F	>80

UNSIGNALIZED INTERSECTIONS

Level of Service for unsignalized intersections is also defined in terms of delay. However, the delay criteria are different from a signalized intersection. The primary reason for this is driver expectation that a signalized intersection is designed to carry higher volumes than an unsignalized intersection. The total delay threshold for any given Level of Service is less for an unsignalized intersection than for a signalized intersection. The ranges are as follows:

Level of Service	Control Delay per vehicle (seconds)
A	< 10
B	10 – 15
C	15 – 25
D	25 – 35
E	35 - 50
F	>50

A4

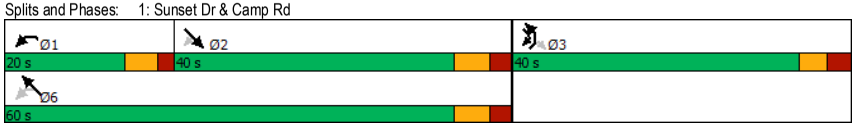
Level of Service Calculations: Existing Conditions

Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	477	67	43	853	253	52
Future Volume (vph)	477	67	43	853	253	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		125	100		0	75
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted			0.375		0.950	
Satd. Flow (perm)	3539	1583	699	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		73				45
Link Speed (mph)	40			40	30	
Link Distance (ft)	788			778	929	
Travel Time (s)	13.4			13.3	21.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	518	73	47	927	275	57
Shared Lane Traffic (%)						
Lane Group Flow (vph)	518	73	47	927	275	57
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	2	2	2	2	2
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (ft)	49	49	49	49	49	49
Trailing Detector (ft)	-1	-1	-1	-1	-1	-1
Detector 1 Position(ft)	-1	-1	-1	-1	-1	-1
Detector 1 Size(ft)	20	20	20	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	29	29	29	29	29	29
Detector 2 Size(ft)	20	20	20	20	20	20
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	NA	pm+ov	pm+pt	NA	Prot	Perm
Protected Phases	2	3	1	6	3	
Permitted Phases		2	6			3

Lane Group	SET	SER	NWL	NWT	NEL	NER
Detector Phase	2	3	1	6	3	3
Switch Phase						
Minimum Initial (s)	25.0	10.0	6.0	25.0	10.0	10.0
Minimum Split (s)	40.0	16.2	11.9	32.0	16.2	16.2
Total Split (s)	40.0	40.0	20.0	60.0	40.0	40.0
Total Split (%)	40.0%	40.0%	20.0%	60.0%	40.0%	40.0%
Maximum Green (s)	33.0	33.8	14.1	53.0	33.8	33.8
Yellow Time (s)	4.3	3.2	3.9	4.3	3.2	3.2
All-Red Time (s)	2.7	3.0	2.0	2.7	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	6.2	5.9	7.0	6.2	6.2
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	4.0	4.0	2.0	4.0	4.0	4.0
Recall Mode	Min	None	None	Min	None	None
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	26.0	19.0			19.0	19.0
Pedestrian Calls (#/hr)	0	0			0	0
Act Effct Green (s)	25.8	52.1	33.4	32.2	16.0	16.0
Actuated g/C Ratio	0.42	0.84	0.54	0.52	0.26	0.26
v/c Ratio	0.35	0.05	0.10	0.50	0.60	0.13
Control Delay	15.6	0.8	8.2	11.2	26.9	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.6	0.8	8.2	11.2	26.9	9.0
LOS	B	A	A	B	C	A
Approach Delay	13.8			11.0	23.9	
Approach LOS	B			B	C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 61.8			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay: 14.1		Intersection LOS: B	
Intersection Capacity Utilization 55.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Sunset Dr & Camp Rd



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	57	445	3	2	819	51	1	1	0	84	0	86
Future Volume (vph)	57	445	3	2	819	51	1	1	0	84	0	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	310		0	0		0	0		0	115		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.991						0.850	
Flt Protected	0.950							0.976		0.950		
Satd. Flow (prot)	1770	3536	0	0	3507	0	0	1818	0	1770	1583	0
Flt Permitted	0.264				0.954			0.904		0.757		
Satd. Flow (perm)	492	3536	0	0	3346	0	0	1684	0	1410	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			8			30			304	
Link Speed (mph)		40			40			30			35	
Link Distance (ft)		1093			781			132			554	
Travel Time (s)		18.6			13.3			3.0			10.8	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	61	478	3	2	881	55	1	1	0	90	0	92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	481	0	0	938	0	0	2	0	90	92	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2		2	2		2	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	49	49		49	49		49	49		49	49	
Trailing Detector (ft)	-1	-1		-1	-1		-1	-1		-1	-1	
Detector 1 Position(ft)	-1	-1		-1	-1		-1	-1		-1	-1	
Detector 1 Size(ft)	20	20		20	20		20	20		20	20	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)	29	29		29	29		29	29		29	29	
Detector 2 Size(ft)	20	20		20	20		20	20		20	20	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	6			2			4			8	
Permitted Phases	6			2			4			8		

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	1	6		2	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	5.0	25.0		25.0	25.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	9.9	29.9		29.9	29.9		10.9	10.9		10.9	10.9	
Total Split (s)	20.0	85.0		65.0	65.0		35.0	35.0		35.0	35.0	
Total Split (%)	16.7%	70.8%		54.2%	54.2%		29.2%	29.2%		29.2%	29.2%	
Maximum Green (s)	15.1	80.1		60.1	60.1		30.2	30.2		30.2	30.2	
Yellow Time (s)	3.9	3.9		3.9	3.9		3.4	3.4		3.4	3.4	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.4	1.4		1.4	1.4	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	4.9	4.9			4.9			4.8		4.8	4.8	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		C-Min	C-Min		None	None		None	None	
Walk Time (s)							7.0	7.0		7.0	7.0	
Flash Dont Walk (s)							18.0	18.0		18.0	18.0	
Pedestrian Calls (#/hr)							0	0		0	0	
Act Effct Green (s)	97.3	97.3			88.0			13.0		13.0	13.0	
Actuated g/C Ratio	0.81	0.81			0.73			0.11		0.11	0.11	
v/c Ratio	0.13	0.17			0.38			0.01		0.59	0.21	
Control Delay	3.4	2.9			5.1			44.5		65.7	1.1	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	3.4	2.9			5.1			44.5		65.7	1.1	
LOS	A	A			A			D		E	A	
Approach Delay		3.0			5.1			44.5			33.0	
Approach LOS		A			A			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 49.6 (41%), Referenced to phase 2:NWTL, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay: 7.5		Intersection LOS: A	
Intersection Capacity Utilization 63.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: Monro Dwy/Scranton Rd & Camp Rd



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	6	35	20	915	501	12
Future Volume (vph)	6	35	20	915	501	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.886				0.997	
Flt Protected	0.992			0.999		
Satd. Flow (prot)	1637	0	0	3536	3529	0
Flt Permitted	0.992			0.999		
Satd. Flow (perm)	1637	0	0	3536	3529	0
Link Speed (mph)	30			40	40	
Link Distance (ft)	140			1060	781	
Travel Time (s)	3.2			18.1	13.3	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	7	38	22	1005	551	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	45	0	0	1027	564	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	49.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	6	35	20	915	501	12
Future Volume (Veh/h)	6	35	20	915	501	12
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	7	38	22	1005	551	13
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1060	781	
pX, platoon unblocked	0.88	1.00	1.00			
vC, conflicting volume	1104	282	564			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	819	272	555			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	95	98			
cM capacity (veh/h)	269	723	1008			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	45	357	670	367	197
Volume Left	7	22	0	0	0
Volume Right	38	0	0	0	13
cSH	573	1008	1700	1700	1700
Volume to Capacity	0.08	0.02	0.39	0.22	0.12
Queue Length 95th (ft)	6	2	0	0	0
Control Delay (s)	11.8	0.8	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	11.8	0.3		0.0	
Approach LOS	B				

Intersection Summary				
Average Delay	0.5			
Intersection Capacity Utilization	49.6%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	24	216	710	105	250	299
Future Volume (vph)	24	216	710	105	250	299
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	240	0		0	135	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.981			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3472	0	1770	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	3472	0	1770	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		177	23			
Link Speed (mph)	30		40			40
Link Distance (ft)	468		772			1060
Travel Time (s)	10.6		13.2			18.1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	27	245	807	119	284	340
Shared Lane Traffic (%)						
Lane Group Flow (vph)	27	245	926	0	284	340
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (ft)	49	49	49		49	49
Trailing Detector (ft)	-1	-1	-1		-1	-1
Detector 1 Position(ft)	-1	-1	-1		-1	-1
Detector 1 Size(ft)	20	20	20		20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	29	29	29		29	29
Detector 2 Size(ft)	20	20	20		20	20
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0
Turn Type	Prot	pm+ov	NA		Prot	NA
Protected Phases	3	1	2		1	2
Permitted Phases		3				

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	3	1	2		1	2
Switch Phase						
Minimum Initial (s)	12.0	3.0	20.0		3.0	20.0
Minimum Split (s)	16.6	7.3	27.1		7.3	27.1
Total Split (s)	25.0	20.0	75.0		20.0	75.0
Total Split (%)	20.8%	16.7%	62.5%		16.7%	62.5%
Maximum Green (s)	20.4	15.7	69.9		15.7	69.9
Yellow Time (s)	3.2	3.2	3.9		3.2	3.9
All-Red Time (s)	1.4	1.1	1.2		1.1	1.2
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.6	4.3	5.1		4.3	5.1
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize?		Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	4.0		3.0	4.0
Recall Mode	None	None	C-Max		None	C-Max
Walk Time (s)	7.0		7.0			7.0
Flash Dont Walk (s)	15.0		15.0			15.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	12.0	38.5	72.1		28.5	72.1
Actuated g/C Ratio	0.10	0.32	0.60		0.24	0.60
v/c Ratio	0.15	0.39	0.44		0.68	0.16
Control Delay	51.7	11.0	13.7		56.7	9.3
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	51.7	11.0	13.7		56.7	9.3
LOS	D	B	B		E	A
Approach Delay	15.0		13.7			30.9
Approach LOS	B		B			C

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 19.8		Intersection LOS: B	
Intersection Capacity Utilization 58.5%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 4: Camp Rd & Legion Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	3	1	12	1	10	1	150	27	27	63	2
Future Volume (vph)	8	3	1	12	1	10	1	150	27	27	63	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991			0.939			0.979			0.997	
Flt Protected		0.968			0.975						0.986	
Satd. Flow (prot)	0	1787	0	0	1705	0	0	1824	0	0	1831	0
Flt Permitted		0.968			0.975						0.986	
Satd. Flow (perm)	0	1787	0	0	1705	0	0	1824	0	0	1831	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		244			342			845			904	
Travel Time (s)		5.5			7.8			19.2			20.5	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Adj. Flow (vph)	10	4	1	15	1	13	1	188	34	34	79	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	0	29	0	0	223	0	0	116	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
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 (veh/h)	8	3	1	12	1	10	1	150	27	27	63	2
Future Volume (Veh/h)	8	3	1	12	1	10	1	150	27	27	63	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	10	4	1	15	1	12	1	188	34	34	79	2
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	368	372	80	358	356	205	81			222		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	368	372	80	358	356	205	81			222		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	99	100	97	100	99	100			97		
cM capacity (veh/h)	568	544	980	582	555	836	1517			1347		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	15	28	223	115
Volume Left	10	15	1	34
Volume Right	1	12	34	2
cSH	577	667	1517	1347
Volume to Capacity	0.03	0.04	0.00	0.03
Queue Length 95th (ft)	2	3	0	2
Control Delay (s)	11.4	10.6	0.0	2.4
Lane LOS	B	B	A	A
Approach Delay (s)	11.4	10.6	0.0	2.4
Approach LOS	B	B		

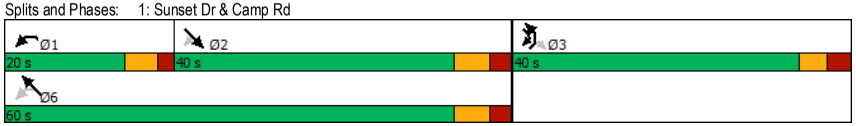
Intersection Summary				
Average Delay		2.0		
Intersection Capacity Utilization		27.9%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	1021	278	77	649	174	67
Future Volume (vph)	1021	278	77	649	174	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		125	100		0	75
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted			0.153		0.950	
Satd. Flow (perm)	3539	1583	285	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		284				68
Link Speed (mph)	40			40	30	
Link Distance (ft)	788			778	929	
Travel Time (s)	13.4			13.3	21.1	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	1042	284	79	662	178	68
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1042	284	79	662	178	68
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	2	2	2	2	2
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (ft)	49	49	49	49	49	49
Trailing Detector (ft)	-1	-1	-1	-1	-1	-1
Detector 1 Position(ft)	-1	-1	-1	-1	-1	-1
Detector 1 Size(ft)	20	20	20	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	29	29	29	29	29	29
Detector 2 Size(ft)	20	20	20	20	20	20
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	NA	pm+ov	pm+pt	NA	Prot	Perm
Protected Phases	2	3	1	6	3	
Permitted Phases		2	6			3

Lane Group	SET	SER	NWL	NWT	NEL	NER
Detector Phase	2	3	1	6	3	3
Switch Phase						
Minimum Initial (s)	25.0	10.0	6.0	25.0	10.0	10.0
Minimum Split (s)	40.0	16.2	11.9	32.0	16.2	16.2
Total Split (s)	40.0	40.0	20.0	60.0	40.0	40.0
Total Split (%)	40.0%	40.0%	20.0%	60.0%	40.0%	40.0%
Maximum Green (s)	33.0	33.8	14.1	53.0	33.8	33.8
Yellow Time (s)	4.3	3.2	3.9	4.3	3.2	3.2
All-Red Time (s)	2.7	3.0	2.0	2.7	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	6.2	5.9	7.0	6.2	6.2
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	4.0	4.0	2.0	4.0	4.0	4.0
Recall Mode	Min	None	None	Min	None	None
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	26.0	19.0			19.0	19.0
Pedestrian Calls (#/hr)	0	0			0	0
Act Effct Green (s)	29.6	53.1	40.1	38.9	14.5	14.5
Actuated g/C Ratio	0.44	0.79	0.60	0.58	0.22	0.22
v/c Ratio	0.67	0.22	0.25	0.32	0.47	0.17
Control Delay	18.8	0.8	8.2	7.9	28.9	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	0.8	8.2	7.9	28.9	7.8
LOS	B	A	A	A	C	A
Approach Delay	15.0			7.9	23.1	
Approach LOS	B			A	C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 67.1			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 13.6		Intersection LOS: B	
Intersection Capacity Utilization 58.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Sunset Dr & Camp Rd



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	131	953	3	2	589	74	5	0	0	114	0	84
Future Volume (vph)	131	953	3	2	589	74	5	0	0	114	0	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	310		0	0		0	0		0	115		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.983						0.850	
Flt Protected	0.950							0.950		0.950		
Satd. Flow (prot)	1770	3539	0	0	3479	0	0	1770	0	1770	1583	0
Flt Permitted	0.342				0.953			0.674		0.754		
Satd. Flow (perm)	637	3539	0	0	3316	0	0	1255	0	1405	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			16						392	
Link Speed (mph)		40			40			30			35	
Link Distance (ft)		1093			781			132			554	
Travel Time (s)		18.6			13.3			3.0			10.8	
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
Adj. Flow (vph)	138	1003	3	2	620	78	5	0	0	120	0	88
Shared Lane Traffic (%)												
Lane Group Flow (vph)	138	1006	0	0	700	0	0	5	0	120	88	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2		2	2		2	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	49	49		49	49		49	49		49	49	
Trailing Detector (ft)	-1	-1		-1	-1		-1	-1		-1	-1	
Detector 1 Position(ft)	-1	-1		-1	-1		-1	-1		-1	-1	
Detector 1 Size(ft)	20	20		20	20		20	20		20	20	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)	29	29		29	29		29	29		29	29	
Detector 2 Size(ft)	20	20		20	20		20	20		20	20	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	6			2			4			8	
Permitted Phases	6			2			4			8		

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	1	6		2	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	5.0	25.0		25.0	25.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	9.9	29.9		29.9	29.9		10.9	10.9		10.9	10.9	
Total Split (s)	20.0	85.0		65.0	65.0		35.0	35.0		35.0	35.0	
Total Split (%)	16.7%	70.8%		54.2%	54.2%		29.2%	29.2%		29.2%	29.2%	
Maximum Green (s)	15.1	80.1		60.1	60.1		30.2	30.2		30.2	30.2	
Yellow Time (s)	3.9	3.9		3.9	3.9		3.4	3.4		3.4	3.4	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.4	1.4		1.4	1.4	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	4.9	4.9			4.9			4.8		4.8	4.8	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		C-Min	C-Min		None	None		None	None	
Walk Time (s)							7.0	7.0		7.0	7.0	
Flash Dont Walk (s)							18.0	18.0		18.0	18.0	
Pedestrian Calls (#/hr)							0	0		0	0	
Act Effct Green (s)	94.7	94.7			81.9			15.6		15.6	15.6	
Actuated g/C Ratio	0.79	0.79			0.68			0.13		0.13	0.13	
v/c Ratio	0.24	0.36			0.31			0.03		0.66	0.16	
Control Delay	4.5	4.5			6.6			42.4		65.9	0.6	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	4.5	4.5			6.6			42.4		65.9	0.6	
LOS	A	A			A			D		E	A	
Approach Delay		4.5			6.6			42.4			38.3	
Approach LOS		A			A			D			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 49.6 (41%), Referenced to phase 2:NWTL, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 8.7		Intersection LOS: A	
Intersection Capacity Utilization 65.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: Monro Dwy/Scranton Rd & Camp Rd



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	3	36	47	672	987	20
Future Volume (vph)	3	36	47	672	987	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.875				0.997	
Flt Protected	0.996			0.997		
Satd. Flow (prot)	1623	0	0	3529	3529	0
Flt Permitted	0.996			0.997		
Satd. Flow (perm)	1623	0	0	3529	3529	0
Link Speed (mph)	30			40	40	
Link Distance (ft)	140			1060	781	
Travel Time (s)	3.2			18.1	13.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	3	38	49	707	1039	21
Shared Lane Traffic (%)						
Lane Group Flow (vph)	41	0	0	756	1060	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	61.2%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	36	47	672	987	20
Future Volume (Veh/h)	3	36	47	672	987	20
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)	3	38	49	707	1039	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1060	781	
pX, platoon unblocked	0.94	0.92	0.92			
vC, conflicting volume	1501	530	1060			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1225	325	899			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	94	93			
cM capacity (veh/h)	150	619	694			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	41	285	471	693	367
Volume Left	3	49	0	0	0
Volume Right	38	0	0	0	21
cSH	504	694	1700	1700	1700
Volume to Capacity	0.08	0.07	0.28	0.41	0.22
Queue Length 95th (ft)	7	6	0	0	0
Control Delay (s)	12.8	2.5	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	12.8	1.0		0.0	
Approach LOS	B				

Intersection Summary				
Average Delay	0.7			
Intersection Capacity Utilization	61.2%	ICU Level of Service		B
Analysis Period (min)	15			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	174	238	449	115	314	750
Future Volume (vph)	174	238	449	115	314	750
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	240	0		0	135	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.969			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3429	0	1770	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	3429	0	1770	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		248	46			
Link Speed (mph)	30		40			40
Link Distance (ft)	468		772			1060
Travel Time (s)	10.6		13.2			18.1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	181	248	468	120	327	781
Shared Lane Traffic (%)						
Lane Group Flow (vph)	181	248	588	0	327	781
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (ft)	49	49	49		49	49
Trailing Detector (ft)	-1	-1	-1		-1	-1
Detector 1 Position(ft)	-1	-1	-1		-1	-1
Detector 1 Size(ft)	20	20	20		20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	29	29	29		29	29
Detector 2 Size(ft)	20	20	20		20	20
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0
Turn Type	Prot	pm+ov	NA		Prot	NA
Protected Phases	3	1	2		1	2
Permitted Phases		3				

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	3	1	2		1	2
Switch Phase						
Minimum Initial (s)	12.0	3.0	20.0		3.0	20.0
Minimum Split (s)	16.6	7.3	27.1		7.3	27.1
Total Split (s)	25.0	20.0	75.0		20.0	75.0
Total Split (%)	20.8%	16.7%	62.5%		16.7%	62.5%
Maximum Green (s)	20.4	15.7	69.9		15.7	69.9
Yellow Time (s)	3.2	3.2	3.9		3.2	3.9
All-Red Time (s)	1.4	1.1	1.2		1.1	1.2
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.6	4.3	5.1		4.3	5.1
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize?		Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	4.0		3.0	4.0
Recall Mode	None	None	C-Max		None	C-Max
Walk Time (s)	7.0		7.0			7.0
Flash Dont Walk (s)	15.0		15.0			15.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	17.0	40.7	69.9		19.1	69.9
Actuated g/C Ratio	0.14	0.34	0.58		0.16	0.58
v/c Ratio	0.72	0.35	0.29		1.16	0.38
Control Delay	65.6	4.9	12.0		149.2	12.0
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	65.6	4.9	12.0		149.2	12.0
LOS	E	A	B		F	B
Approach Delay	30.5		12.0			52.5
Approach LOS	C		B			D

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.16			
Intersection Signal Delay: 36.8		Intersection LOS: D	
Intersection Capacity Utilization 55.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 4: Camp Rd & Legion Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	5	3	36	6	45	1	82	24	17	187	8
Future Volume (vph)	5	5	3	36	6	45	1	82	24	17	187	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.969			0.930			0.970			0.995	
Flt Protected		0.981			0.980						0.996	
Satd. Flow (prot)	0	1771	0	0	1698	0	0	1807	0	0	1846	0
Flt Permitted		0.981			0.980						0.996	
Satd. Flow (perm)	0	1771	0	0	1698	0	0	1807	0	0	1846	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		244			342			845			904	
Travel Time (s)		5.5			7.8			19.2			20.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	5	3	39	7	49	1	89	26	18	203	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	0	0	95	0	0	116	0	0	230	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	31.4%	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 (veh/h)	5	5	3	36	6	45	1	82	24	17	187	8
Future Volume (Veh/h)	5	5	3	36	6	45	1	82	24	17	187	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	5	3	39	7	49	1	89	26	18	203	9
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	400	360	208	353	352	102	212			115		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	400	360	208	353	352	102	212			115		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	99	100	93	99	95	100			99		
cM capacity (veh/h)	521	559	833	590	565	953	1358			1474		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	13	95	116	230
Volume Left	5	39	1	18
Volume Right	3	49	26	9
cSH	587	731	1358	1474
Volume to Capacity	0.02	0.13	0.00	0.01
Queue Length 95th (ft)	2	11	0	1
Control Delay (s)	11.3	10.7	0.1	0.7
Lane LOS	B	B	A	A
Approach Delay (s)	11.3	10.7	0.1	0.7
Approach LOS	B	B		

Intersection Summary				
Average Delay		2.9		
Intersection Capacity Utilization	31.4%	ICU Level of Service		A
Analysis Period (min)	15			

A5

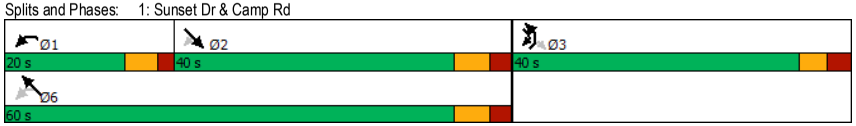
Level of Service Calculations: Background Conditions

Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	479	67	43	857	254	52
Future Volume (vph)	479	67	43	857	254	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		125	100		0	75
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted			0.374		0.950	
Satd. Flow (perm)	3539	1583	697	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		73				45
Link Speed (mph)	40			40	30	
Link Distance (ft)	788			778	929	
Travel Time (s)	13.4			13.3	21.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	521	73	47	932	276	57
Shared Lane Traffic (%)						
Lane Group Flow (vph)	521	73	47	932	276	57
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	2	2	2	2	2
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (ft)	49	49	49	49	49	49
Trailing Detector (ft)	-1	-1	-1	-1	-1	-1
Detector 1 Position(ft)	-1	-1	-1	-1	-1	-1
Detector 1 Size(ft)	20	20	20	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	29	29	29	29	29	29
Detector 2 Size(ft)	20	20	20	20	20	20
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	NA	pm+ov	pm+pt	NA	Prot	Perm
Protected Phases	2	3	1	6	3	
Permitted Phases		2	6			3

Lane Group	SET	SER	NWL	NWT	NEL	NER
Detector Phase	2	3	1	6	3	3
Switch Phase						
Minimum Initial (s)	25.0	10.0	6.0	25.0	10.0	10.0
Minimum Split (s)	40.0	16.2	11.9	32.0	16.2	16.2
Total Split (s)	40.0	40.0	20.0	60.0	40.0	40.0
Total Split (%)	40.0%	40.0%	20.0%	60.0%	40.0%	40.0%
Maximum Green (s)	33.0	33.8	14.1	53.0	33.8	33.8
Yellow Time (s)	4.3	3.2	3.9	4.3	3.2	3.2
All-Red Time (s)	2.7	3.0	2.0	2.7	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	6.2	5.9	7.0	6.2	6.2
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	4.0	4.0	2.0	4.0	4.0	4.0
Recall Mode	Min	None	None	Min	None	None
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	26.0	19.0			19.0	19.0
Pedestrian Calls (#/hr)	0	0			0	0
Act Effct Green (s)	25.8	52.1	33.4	32.3	16.0	16.0
Actuated g/C Ratio	0.42	0.84	0.54	0.52	0.26	0.26
v/c Ratio	0.35	0.05	0.10	0.51	0.60	0.13
Control Delay	15.6	0.8	8.2	11.2	26.9	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.6	0.8	8.2	11.2	26.9	9.0
LOS	B	A	A	B	C	A
Approach Delay	13.8			11.1	23.9	
Approach LOS	B			B	C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 61.9			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay: 14.2		Intersection LOS: B	
Intersection Capacity Utilization 55.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Sunset Dr & Camp Rd



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	57	447	3	2	823	51	1	1	0	84	0	86
Future Volume (vph)	57	447	3	2	823	51	1	1	0	84	0	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	310		0	0		0	0		0	115		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.991						0.850	
Flt Protected	0.950							0.976		0.950		
Satd. Flow (prot)	1770	3536	0	0	3507	0	0	1818	0	1770	1583	0
Flt Permitted	0.262				0.954			0.904		0.757		
Satd. Flow (perm)	488	3536	0	0	3346	0	0	1684	0	1410	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			7						303	
Link Speed (mph)		40			40			30			35	
Link Distance (ft)		1093			781			132			554	
Travel Time (s)		18.6			13.3			3.0			10.8	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	61	481	3	2	885	55	1	1	0	90	0	92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	484	0	0	942	0	0	2	0	90	92	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2		2	2		2	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	49	49		49	49		49	49		49	49	
Trailing Detector (ft)	-1	-1		-1	-1		-1	-1		-1	-1	
Detector 1 Position(ft)	-1	-1		-1	-1		-1	-1		-1	-1	
Detector 1 Size(ft)	20	20		20	20		20	20		20	20	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)	29	29		29	29		29	29		29	29	
Detector 2 Size(ft)	20	20		20	20		20	20		20	20	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	6			2			4			8	
Permitted Phases	6			2			4			8		

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	1	6		2	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	5.0	25.0		25.0	25.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	9.9	29.9		29.9	29.9		10.9	10.9		10.9	10.9	
Total Split (s)	20.0	85.0		65.0	65.0		35.0	35.0		35.0	35.0	
Total Split (%)	16.7%	70.8%		54.2%	54.2%		29.2%	29.2%		29.2%	29.2%	
Maximum Green (s)	15.1	80.1		60.1	60.1		30.2	30.2		30.2	30.2	
Yellow Time (s)	3.9	3.9		3.9	3.9		3.4	3.4		3.4	3.4	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.4	1.4		1.4	1.4	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	4.9	4.9			4.9			4.8		4.8	4.8	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		C-Min	C-Min		None	None		None	None	
Walk Time (s)							7.0	7.0		7.0	7.0	
Flash Dont Walk (s)							18.0	18.0		18.0	18.0	
Pedestrian Calls (#/hr)							0	0		0	0	
Act Effct Green (s)	97.3	97.3			88.0			13.0		13.0	13.0	
Actuated g/C Ratio	0.81	0.81			0.73			0.11		0.11	0.11	
v/c Ratio	0.13	0.17			0.38			0.01		0.59	0.21	
Control Delay	3.4	2.9			5.1			44.5		65.7	1.1	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	3.4	2.9			5.1			44.5		65.7	1.1	
LOS	A	A			A			D		E	A	
Approach Delay		3.0			5.1			44.5			33.0	
Approach LOS		A			A			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 49.6 (41%), Referenced to phase 2:NWTL, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay: 7.5		Intersection LOS: A	
Intersection Capacity Utilization 63.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: Monro Dwy/Scranton Rd & Camp Rd



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	6	35	20	920	504	12
Future Volume (vph)	6	35	20	920	504	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.886				0.997	
Flt Protected	0.992			0.999		
Satd. Flow (prot)	1637	0	0	3536	3529	0
Flt Permitted	0.992			0.999		
Satd. Flow (perm)	1637	0	0	3536	3529	0
Link Speed (mph)	30			40	40	
Link Distance (ft)	140			1060	781	
Travel Time (s)	3.2			18.1	13.3	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	7	38	22	1011	554	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	45	0	0	1033	567	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	49.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	6	35	20	920	504	12
Future Volume (Veh/h)	6	35	20	920	504	12
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	7	38	22	1011	554	13
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1060	781	
pX, platoon unblocked	0.88	1.00	1.00			
vC, conflicting volume	1110	284	567			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	820	272	557			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	95	98			
cM capacity (veh/h)	268	722	1006			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	45	359	674	369	198
Volume Left	7	22	0	0	0
Volume Right	38	0	0	0	13
cSH	572	1006	1700	1700	1700
Volume to Capacity	0.08	0.02	0.40	0.22	0.12
Queue Length 95th (ft)	6	2	0	0	0
Control Delay (s)	11.8	0.8	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	11.8	0.3		0.0	
Approach LOS	B				

Intersection Summary				
Average Delay	0.5			
Intersection Capacity Utilization	49.7%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	24	217	714	106	251	300
Future Volume (vph)	24	217	714	106	251	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	240	0		0	135	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.981			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3472	0	1770	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	3472	0	1770	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		175	23			
Link Speed (mph)	30		40			40
Link Distance (ft)	468		772			1060
Travel Time (s)	10.6		13.2			18.1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	27	247	811	120	285	341
Shared Lane Traffic (%)						
Lane Group Flow (vph)	27	247	931	0	285	341
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (ft)	49	49	49		49	49
Trailing Detector (ft)	-1	-1	-1		-1	-1
Detector 1 Position(ft)	-1	-1	-1		-1	-1
Detector 1 Size(ft)	20	20	20		20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	29	29	29		29	29
Detector 2 Size(ft)	20	20	20		20	20
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0
Turn Type	Prot	pm+ov	NA		Prot	NA
Protected Phases	3	1	2		1	2
Permitted Phases		3				

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	3	1	2		1	2
Switch Phase						
Minimum Initial (s)	12.0	3.0	20.0		3.0	20.0
Minimum Split (s)	16.6	7.3	27.1		7.3	27.1
Total Split (s)	25.0	20.0	75.0		20.0	75.0
Total Split (%)	20.8%	16.7%	62.5%		16.7%	62.5%
Maximum Green (s)	20.4	15.7	69.9		15.7	69.9
Yellow Time (s)	3.2	3.2	3.9		3.2	3.9
All-Red Time (s)	1.4	1.1	1.2		1.1	1.2
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.6	4.3	5.1		4.3	5.1
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize?		Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	4.0		3.0	4.0
Recall Mode	None	None	C-Max		None	C-Max
Walk Time (s)	7.0		7.0			7.0
Flash Dont Walk (s)	15.0		15.0			15.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	12.0	38.6	72.0		28.6	72.0
Actuated g/C Ratio	0.10	0.32	0.60		0.24	0.60
v/c Ratio	0.15	0.39	0.44		0.68	0.16
Control Delay	51.7	11.3	13.8		56.6	9.4
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	51.7	11.3	13.8		56.6	9.4
LOS	D	B	B		E	A
Approach Delay	15.3		13.8			30.9
Approach LOS	B		B			C

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 19.9		Intersection LOS: B	
Intersection Capacity Utilization 58.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 4: Camp Rd & Legion Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	3	1	12	1	10	1	151	27	27	63	2
Future Volume (vph)	8	3	1	12	1	10	1	151	27	27	63	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991			0.939			0.980			0.997	
Flt Protected		0.968			0.975						0.986	
Satd. Flow (prot)	0	1787	0	0	1705	0	0	1825	0	0	1831	0
Flt Permitted		0.968			0.975						0.986	
Satd. Flow (perm)	0	1787	0	0	1705	0	0	1825	0	0	1831	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		244			342			845			904	
Travel Time (s)		5.5			7.8			19.2			20.5	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Adj. Flow (vph)	10	4	1	15	1	13	1	189	34	34	79	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	0	29	0	0	224	0	0	116	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
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 (veh/h)	8	3	1	12	1	10	1	151	27	27	63	2
Future Volume (Veh/h)	8	3	1	12	1	10	1	151	27	27	63	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	10	4	1	15	1	12	1	189	34	34	79	2
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	368	373	80	359	357	206	81			223		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	368	373	80	359	357	206	81			223		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	99	100	97	100	99	100			97		
cM capacity (veh/h)	567	543	980	581	554	835	1517			1346		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	15	28	224	115
Volume Left	10	15	1	34
Volume Right	1	12	34	2
cSH	577	667	1517	1346
Volume to Capacity	0.03	0.04	0.00	0.03
Queue Length 95th (ft)	2	3	0	2
Control Delay (s)	11.4	10.6	0.0	2.4
Lane LOS	B	B	A	A
Approach Delay (s)	11.4	10.6	0.0	2.4
Approach LOS	B	B		

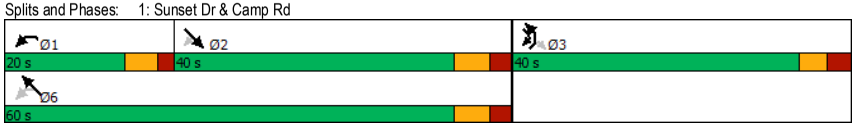
Intersection Summary				
Average Delay		2.0		
Intersection Capacity Utilization	27.9%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	1026	279	77	652	175	67
Future Volume (vph)	1026	279	77	652	175	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		125	100		0	75
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted			0.151		0.950	
Satd. Flow (perm)	3539	1583	281	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		285				68
Link Speed (mph)	40			40	30	
Link Distance (ft)	788			778	929	
Travel Time (s)	13.4			13.3	21.1	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	1047	285	79	665	179	68
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1047	285	79	665	179	68
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	2	2	2	2	2
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (ft)	49	49	49	49	49	49
Trailing Detector (ft)	-1	-1	-1	-1	-1	-1
Detector 1 Position(ft)	-1	-1	-1	-1	-1	-1
Detector 1 Size(ft)	20	20	20	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	29	29	29	29	29	29
Detector 2 Size(ft)	20	20	20	20	20	20
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	NA	pm+ov	pm+pt	NA	Prot	Perm
Protected Phases	2	3	1	6	3	
Permitted Phases		2	6			3

Lane Group	SET	SER	NWL	NWT	NEL	NER
Detector Phase	2	3	1	6	3	3
Switch Phase						
Minimum Initial (s)	25.0	10.0	6.0	25.0	10.0	10.0
Minimum Split (s)	40.0	16.2	11.9	32.0	16.2	16.2
Total Split (s)	40.0	40.0	20.0	60.0	40.0	40.0
Total Split (%)	40.0%	40.0%	20.0%	60.0%	40.0%	40.0%
Maximum Green (s)	33.0	33.8	14.1	53.0	33.8	33.8
Yellow Time (s)	4.3	3.2	3.9	4.3	3.2	3.2
All-Red Time (s)	2.7	3.0	2.0	2.7	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	6.2	5.9	7.0	6.2	6.2
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	4.0	4.0	2.0	4.0	4.0	4.0
Recall Mode	Min	None	None	Min	None	None
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	26.0	19.0			19.0	19.0
Pedestrian Calls (#/hr)	0	0			0	0
Act Effct Green (s)	29.7	53.2	40.2	39.1	14.5	14.5
Actuated g/C Ratio	0.44	0.79	0.60	0.58	0.22	0.22
v/c Ratio	0.67	0.22	0.25	0.32	0.47	0.17
Control Delay	18.9	0.8	8.2	7.9	29.0	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.9	0.8	8.2	7.9	29.0	7.8
LOS	B	A	A	A	C	A
Approach Delay	15.0			7.9	23.2	
Approach LOS	B			A	C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 67.2			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 13.6		Intersection LOS: B	
Intersection Capacity Utilization 59.0%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Sunset Dr & Camp Rd



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	132	958	3	2	592	74	5	0	0	115	0	84
Future Volume (vph)	132	958	3	2	592	74	5	0	0	115	0	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	310		0	0		0	0		0	115		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.983						0.850	
Flt Protected	0.950							0.950		0.950		
Satd. Flow (prot)	1770	3539	0	0	3479	0	0	1770	0	1770	1583	0
Flt Permitted	0.341				0.953			0.675		0.754		
Satd. Flow (perm)	635	3539	0	0	3316	0	0	1257	0	1405	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			16						391	
Link Speed (mph)		40			40			30			35	
Link Distance (ft)		1093			781			132			554	
Travel Time (s)		18.6			13.3			3.0			10.8	
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
Adj. Flow (vph)	139	1008	3	2	623	78	5	0	0	121	0	88
Shared Lane Traffic (%)												
Lane Group Flow (vph)	139	1011	0	0	703	0	0	5	0	121	88	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2		2	2		2	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	49	49		49	49		49	49		49	49	
Trailing Detector (ft)	-1	-1		-1	-1		-1	-1		-1	-1	
Detector 1 Position(ft)	-1	-1		-1	-1		-1	-1		-1	-1	
Detector 1 Size(ft)	20	20		20	20		20	20		20	20	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)	29	29		29	29		29	29		29	29	
Detector 2 Size(ft)	20	20		20	20		20	20		20	20	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	6			2			4			8	
Permitted Phases	6			2			4			8		

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	1	6		2	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	5.0	25.0		25.0	25.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	9.9	29.9		29.9	29.9		10.9	10.9		10.9	10.9	
Total Split (s)	20.0	85.0		65.0	65.0		35.0	35.0		35.0	35.0	
Total Split (%)	16.7%	70.8%		54.2%	54.2%		29.2%	29.2%		29.2%	29.2%	
Maximum Green (s)	15.1	80.1		60.1	60.1		30.2	30.2		30.2	30.2	
Yellow Time (s)	3.9	3.9		3.9	3.9		3.4	3.4		3.4	3.4	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.4	1.4		1.4	1.4	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	4.9	4.9			4.9			4.8		4.8	4.8	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		C-Min	C-Min		None	None		None	None	
Walk Time (s)							7.0	7.0		7.0	7.0	
Flash Dont Walk (s)							18.0	18.0		18.0	18.0	
Pedestrian Calls (#/hr)							0	0		0	0	
Act Effct Green (s)	94.6	94.6			81.8			15.7		15.7	15.7	
Actuated g/C Ratio	0.79	0.79			0.68			0.13		0.13	0.13	
v/c Ratio	0.24	0.36			0.31			0.03		0.66	0.16	
Control Delay	4.5	4.6			6.6			42.4		66.0	0.6	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	4.5	4.6			6.6			42.4		66.0	0.6	
LOS	A	A			A			D		E	A	
Approach Delay		4.5			6.6			42.4			38.5	
Approach LOS		A			A			D			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 49.6 (41%), Referenced to phase 2:NWTL, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 8.8		Intersection LOS: A	
Intersection Capacity Utilization 65.6%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: Monro Dwy/Scranton Rd & Camp Rd



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	3	36	47	675	992	20
Future Volume (vph)	3	36	47	675	992	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.875				0.997	
Flt Protected	0.996			0.997		
Satd. Flow (prot)	1623	0	0	3529	3529	0
Flt Permitted	0.996			0.997		
Satd. Flow (perm)	1623	0	0	3529	3529	0
Link Speed (mph)	30			40	40	
Link Distance (ft)	140			1060	781	
Travel Time (s)	3.2			18.1	13.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	3	38	49	711	1044	21
Shared Lane Traffic (%)						
Lane Group Flow (vph)	41	0	0	760	1065	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	61.4%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	36	47	675	992	20
Future Volume (Veh/h)	3	36	47	675	992	20
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)	3	38	49	711	1044	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1060	781	
pX, platoon unblocked	0.94	0.92	0.92			
vC, conflicting volume	1508	532	1065			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1229	325	902			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	94	93			
cM capacity (veh/h)	149	619	691			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	41	286	474	696	369
Volume Left	3	49	0	0	0
Volume Right	38	0	0	0	21
cSH	503	691	1700	1700	1700
Volume to Capacity	0.08	0.07	0.28	0.41	0.22
Queue Length 95th (ft)	7	6	0	0	0
Control Delay (s)	12.8	2.5	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	12.8	1.0		0.0	
Approach LOS	B				

Intersection Summary				
Average Delay	0.7			
Intersection Capacity Utilization	61.4%	ICU Level of Service	B	
Analysis Period (min)	15			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	175	239	451	116	316	754
Future Volume (vph)	175	239	451	116	316	754
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	240	0		0	135	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.969			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3429	0	1770	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	3429	0	1770	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		249	46			
Link Speed (mph)	30		40			40
Link Distance (ft)	468		772			1060
Travel Time (s)	10.6		13.2			18.1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	182	249	470	121	329	785
Shared Lane Traffic (%)						
Lane Group Flow (vph)	182	249	591	0	329	785
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (ft)	49	49	49		49	49
Trailing Detector (ft)	-1	-1	-1		-1	-1
Detector 1 Position(ft)	-1	-1	-1		-1	-1
Detector 1 Size(ft)	20	20	20		20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	29	29	29		29	29
Detector 2 Size(ft)	20	20	20		20	20
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0
Turn Type	Prot	pm+ov	NA		Prot	NA
Protected Phases	3	1	2		1	2
Permitted Phases		3				

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	3	1	2		1	2
Switch Phase						
Minimum Initial (s)	12.0	3.0	20.0		3.0	20.0
Minimum Split (s)	16.6	7.3	27.1		7.3	27.1
Total Split (s)	25.0	20.0	75.0		20.0	75.0
Total Split (%)	20.8%	16.7%	62.5%		16.7%	62.5%
Maximum Green (s)	20.4	15.7	69.9		15.7	69.9
Yellow Time (s)	3.2	3.2	3.9		3.2	3.9
All-Red Time (s)	1.4	1.1	1.2		1.1	1.2
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.6	4.3	5.1		4.3	5.1
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize?		Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	4.0		3.0	4.0
Recall Mode	None	None	C-Max		None	C-Max
Walk Time (s)	7.0		7.0			7.0
Flash Dont Walk (s)	15.0		15.0			15.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	17.0	40.7	69.9		19.1	69.9
Actuated g/C Ratio	0.14	0.34	0.58		0.16	0.58
v/c Ratio	0.73	0.36	0.29		1.17	0.38
Control Delay	65.8	4.9	12.0		152.1	12.0
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	65.8	4.9	12.0		152.1	12.0
LOS	E	A	B		F	B
Approach Delay	30.6		12.0			53.4
Approach LOS	C		B			D

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.17			
Intersection Signal Delay: 37.3		Intersection LOS: D	
Intersection Capacity Utilization 55.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 4: Camp Rd & Legion Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	5	3	36	6	45	1	82	24	17	188	8
Future Volume (vph)	5	5	3	36	6	45	1	82	24	17	188	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.969			0.930			0.970			0.995	
Flt Protected		0.981			0.980						0.996	
Satd. Flow (prot)	0	1771	0	0	1698	0	0	1807	0	0	1846	0
Flt Permitted		0.981			0.980						0.996	
Satd. Flow (perm)	0	1771	0	0	1698	0	0	1807	0	0	1846	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		244			342			845			904	
Travel Time (s)		5.5			7.8			19.2			20.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	5	3	39	7	49	1	89	26	18	204	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	0	0	95	0	0	116	0	0	231	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	31.4%	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 (veh/h)	5	5	3	36	6	45	1	82	24	17	188	8
Future Volume (Veh/h)	5	5	3	36	6	45	1	82	24	17	188	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	5	3	39	7	49	1	89	26	18	204	9
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	401	362	208	354	353	102	213			115		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	401	362	208	354	353	102	213			115		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	99	100	93	99	95	100			99		
cM capacity (veh/h)	521	558	832	589	565	953	1357			1474		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	13	95	116	231
Volume Left	5	39	1	18
Volume Right	3	49	26	9
cSH	587	731	1357	1474
Volume to Capacity	0.02	0.13	0.00	0.01
Queue Length 95th (ft)	2	11	0	1
Control Delay (s)	11.3	10.7	0.1	0.7
Lane LOS	B	B	A	A
Approach Delay (s)	11.3	10.7	0.1	0.7
Approach LOS	B	B		

Intersection Summary					
Average Delay		2.9			
Intersection Capacity Utilization	31.4%	ICU Level of Service		A	
Analysis Period (min)	15				

A6

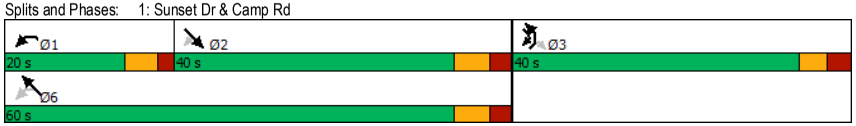
Level of Service Calculations: Full Development Conditions

Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	485	67	43	863	254	52
Future Volume (vph)	485	67	43	863	254	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		125	100		0	75
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted			0.372		0.950	
Satd. Flow (perm)	3539	1583	693	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		73				45
Link Speed (mph)	40			40	30	
Link Distance (ft)	788			778	929	
Travel Time (s)	13.4			13.3	21.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	527	73	47	938	276	57
Shared Lane Traffic (%)						
Lane Group Flow (vph)	527	73	47	938	276	57
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	2	2	2	2	2
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (ft)	49	49	49	49	49	49
Trailing Detector (ft)	-1	-1	-1	-1	-1	-1
Detector 1 Position(ft)	-1	-1	-1	-1	-1	-1
Detector 1 Size(ft)	20	20	20	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	29	29	29	29	29	29
Detector 2 Size(ft)	20	20	20	20	20	20
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	NA	pm+ov	pm+pt	NA	Prot	Perm
Protected Phases	2	3	1	6	3	
Permitted Phases		2	6			3

Lane Group	SET	SER	NWL	NWT	NEL	NER
Detector Phase	2	3	1	6	3	3
Switch Phase						
Minimum Initial (s)	25.0	10.0	6.0	25.0	10.0	10.0
Minimum Split (s)	40.0	16.2	11.9	32.0	16.2	16.2
Total Split (s)	40.0	40.0	20.0	60.0	40.0	40.0
Total Split (%)	40.0%	40.0%	20.0%	60.0%	40.0%	40.0%
Maximum Green (s)	33.0	33.8	14.1	53.0	33.8	33.8
Yellow Time (s)	4.3	3.2	3.9	4.3	3.2	3.2
All-Red Time (s)	2.7	3.0	2.0	2.7	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	6.2	5.9	7.0	6.2	6.2
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	4.0	4.0	2.0	4.0	4.0	4.0
Recall Mode	Min	None	None	Min	None	None
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	26.0	19.0			19.0	19.0
Pedestrian Calls (#/hr)	0	0			0	0
Act Effct Green (s)	25.8	52.1	33.4	32.3	16.0	16.0
Actuated g/C Ratio	0.42	0.84	0.54	0.52	0.26	0.26
v/c Ratio	0.36	0.05	0.10	0.51	0.60	0.13
Control Delay	15.7	0.8	8.2	11.3	26.9	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.7	0.8	8.2	11.3	26.9	9.0
LOS	B	A	A	B	C	A
Approach Delay	13.9			11.1	23.9	
Approach LOS	B			B	C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 61.9			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay: 14.2		Intersection LOS: B	
Intersection Capacity Utilization 55.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Sunset Dr & Camp Rd



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	57	453	3	2	829	51	1	1	0	84	0	86
Future Volume (vph)	57	453	3	2	829	51	1	1	0	84	0	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	310		0	0		0	0		0	115		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.991						0.850	
Flt Protected	0.950							0.976		0.950		
Satd. Flow (prot)	1770	3536	0	0	3507	0	0	1818	0	1770	1583	0
Flt Permitted	0.260				0.954			0.904		0.757		
Satd. Flow (perm)	484	3536	0	0	3346	0	0	1684	0	1410	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			7			30			302	
Link Speed (mph)		40			40			30			35	
Link Distance (ft)		1093			781			132			554	
Travel Time (s)		18.6			13.3			3.0			10.8	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	61	487	3	2	891	55	1	1	0	90	0	92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	490	0	0	948	0	0	2	0	90	92	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2		2	2		2	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	49	49		49	49		49	49		49	49	
Trailing Detector (ft)	-1	-1		-1	-1		-1	-1		-1	-1	
Detector 1 Position(ft)	-1	-1		-1	-1		-1	-1		-1	-1	
Detector 1 Size(ft)	20	20		20	20		20	20		20	20	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)	29	29		29	29		29	29		29	29	
Detector 2 Size(ft)	20	20		20	20		20	20		20	20	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	6			2			4			8	
Permitted Phases	6			2			4			8		

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	1	6		2	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	5.0	25.0		25.0	25.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	9.9	29.9		29.9	29.9		10.9	10.9		10.9	10.9	
Total Split (s)	20.0	85.0		65.0	65.0		35.0	35.0		35.0	35.0	
Total Split (%)	16.7%	70.8%		54.2%	54.2%		29.2%	29.2%		29.2%	29.2%	
Maximum Green (s)	15.1	80.1		60.1	60.1		30.2	30.2		30.2	30.2	
Yellow Time (s)	3.9	3.9		3.9	3.9		3.4	3.4		3.4	3.4	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.4	1.4		1.4	1.4	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	4.9	4.9			4.9			4.8		4.8	4.8	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		C-Min	C-Min		None	None		None	None	
Walk Time (s)							7.0	7.0		7.0	7.0	
Flash Dont Walk (s)							18.0	18.0		18.0	18.0	
Pedestrian Calls (#/hr)							0	0		0	0	
Act Effct Green (s)	97.3	97.3			88.0			13.0		13.0	13.0	
Actuated g/C Ratio	0.81	0.81			0.73			0.11		0.11	0.11	
v/c Ratio	0.13	0.17			0.39			0.01		0.59	0.21	
Control Delay	3.4	2.9			5.6			44.5		65.7	1.1	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	3.4	2.9			5.6			44.5		65.7	1.1	
LOS	A	A			A			D		E	A	
Approach Delay		3.0			5.6			44.5			33.0	
Approach LOS		A			A			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 49.6 (41%), Referenced to phase 2:NWTL, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay: 7.7		Intersection LOS: A	
Intersection Capacity Utilization 63.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: Monro Dwy/Scranton Rd & Camp Rd



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	7	35	20	925	509	13
Future Volume (vph)	7	35	20	925	509	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.888				0.996	
Flt Protected	0.991			0.999		
Satd. Flow (prot)	1639	0	0	3536	3525	0
Flt Permitted	0.991			0.999		
Satd. Flow (perm)	1639	0	0	3536	3525	0
Link Speed (mph)	30			40	40	
Link Distance (ft)	140			232	781	
Travel Time (s)	3.2			4.0	13.3	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	8	38	22	1016	559	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	46	0	0	1038	573	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	49.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	7	35	20	925	509	13
Future Volume (Veh/h)	7	35	20	925	509	13
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	8	38	22	1016	559	14
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1073	781	
pX, platoon unblocked	0.89	1.00	1.00			
vC, conflicting volume	1118	286	573			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	850	273	561			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	95	98			
cM capacity (veh/h)	259	721	1001			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	46	361	677	373	200
Volume Left	8	22	0	0	0
Volume Right	38	0	0	0	14
cSH	551	1001	1700	1700	1700
Volume to Capacity	0.08	0.02	0.40	0.22	0.12
Queue Length 95th (ft)	7	2	0	0	0
Control Delay (s)	12.1	0.8	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	12.1	0.3		0.0	
Approach LOS	B				

Intersection Summary				
Average Delay	0.5			
Intersection Capacity Utilization	49.9%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	24	219	717	106	253	303
Future Volume (vph)	24	219	717	106	253	303
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	240	0		0	135	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.981			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3472	0	1770	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	3472	0	1770	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		174	23			
Link Speed (mph)	30		40			40
Link Distance (ft)	468		772			841
Travel Time (s)	10.6		13.2			14.3
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	27	249	815	120	288	344
Shared Lane Traffic (%)						
Lane Group Flow (vph)	27	249	935	0	288	344
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (ft)	49	49	49		49	49
Trailing Detector (ft)	-1	-1	-1		-1	-1
Detector 1 Position(ft)	-1	-1	-1		-1	-1
Detector 1 Size(ft)	20	20	20		20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	29	29	29		29	29
Detector 2 Size(ft)	20	20	20		20	20
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0
Turn Type	Prot	pm+ov	NA		Prot	NA
Protected Phases	3	1	2		1	2
Permitted Phases		3				

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	3	1	2		1	2
Switch Phase						
Minimum Initial (s)	12.0	3.0	20.0		3.0	20.0
Minimum Split (s)	16.6	7.3	27.1		7.3	27.1
Total Split (s)	25.0	20.0	75.0		20.0	75.0
Total Split (%)	20.8%	16.7%	62.5%		16.7%	62.5%
Maximum Green (s)	20.4	15.7	69.9		15.7	69.9
Yellow Time (s)	3.2	3.2	3.9		3.2	3.9
All-Red Time (s)	1.4	1.1	1.2		1.1	1.2
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.6	4.3	5.1		4.3	5.1
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize?		Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	4.0		3.0	4.0
Recall Mode	None	None	C-Max		None	C-Max
Walk Time (s)	7.0		7.0			7.0
Flash Dont Walk (s)	15.0		15.0			15.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	12.0	38.9	71.7		28.9	71.7
Actuated g/C Ratio	0.10	0.32	0.60		0.24	0.60
v/c Ratio	0.15	0.40	0.45		0.68	0.16
Control Delay	51.7	11.6	13.9		56.1	9.5
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	51.7	11.6	13.9		56.1	9.5
LOS	D	B	B		E	A
Approach Delay	15.5		13.9			30.7
Approach LOS	B		B			C

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 19.9		Intersection LOS: B	
Intersection Capacity Utilization 58.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 4: Camp Rd & Legion Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	3	1	12	1	10	1	151	27	27	63	2
Future Volume (vph)	8	3	1	12	1	10	1	151	27	27	63	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991			0.939			0.980			0.997	
Flt Protected		0.968			0.975						0.986	
Satd. Flow (prot)	0	1787	0	0	1705	0	0	1825	0	0	1831	0
Flt Permitted		0.968			0.975						0.986	
Satd. Flow (perm)	0	1787	0	0	1705	0	0	1825	0	0	1831	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		244			342			845			904	
Travel Time (s)		5.5			7.8			19.2			20.5	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Adj. Flow (vph)	10	4	1	15	1	13	1	189	34	34	79	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	0	29	0	0	224	0	0	116	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
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 (veh/h)	8	3	1	12	1	10	1	151	27	27	63	2
Future Volume (Veh/h)	8	3	1	12	1	10	1	151	27	27	63	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	10	4	1	15	1	12	1	189	34	34	79	2
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	368	373	80	359	357	206	81			223		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	368	373	80	359	357	206	81			223		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	99	100	97	100	99	100			97		
cM capacity (veh/h)	567	543	980	581	554	835	1517			1346		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	15	28	224	115
Volume Left	10	15	1	34
Volume Right	1	12	34	2
cSH	577	667	1517	1346
Volume to Capacity	0.03	0.04	0.00	0.03
Queue Length 95th (ft)	2	3	0	2
Control Delay (s)	11.4	10.6	0.0	2.4
Lane LOS	B	B	A	A
Approach Delay (s)	11.4	10.6	0.0	2.4
Approach LOS	B	B		

Intersection Summary				
Average Delay		2.0		
Intersection Capacity Utilization		27.9%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	5	5	5	940	539	5
Future Volume (vph)	5	5	5	940	539	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.932				0.999	
Flt Protected	0.976					
Satd. Flow (prot)	1694	0	0	3539	3536	0
Flt Permitted	0.976					
Satd. Flow (perm)	1694	0	0	3539	3536	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	180			841	232	
Travel Time (s)	4.1			19.1	5.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	5	5	1022	586	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	10	0	0	1027	591	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	39.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	5	5	940	539	5
Future Volume (Veh/h)	5	5	5	940	539	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	5	5	1022	586	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				841	1013	
pX, platoon unblocked	0.87					
vC, conflicting volume	1110	296	591			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	839	296	591			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	99	99			
cM capacity (veh/h)	265	701	981			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	10	346	681	391	200
Volume Left	5	5	0	0	0
Volume Right	5	0	0	0	5
cSH	384	981	1700	1700	1700
Volume to Capacity	0.03	0.01	0.40	0.23	0.12
Queue Length 95th (ft)	2	0	0	0	0
Control Delay (s)	14.6	0.2	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	14.6	0.1		0.0	
Approach LOS	B				

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	39.5%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	41	0	1	32	0	1
Future Volume (vph)	41	0	1	32	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.865	
Flt Protected				0.999		
Satd. Flow (prot)	1863	0	0	1861	1611	0
Flt Permitted				0.999		
Satd. Flow (perm)	1863	0	0	1861	1611	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1622			140	120	
Travel Time (s)	36.9			3.2	2.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	0	1	35	0	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	45	0	0	36	1	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Traffic Volume (veh/h)	41	0	1	32	0	1
Future Volume (Veh/h)	41	0	1	32	0	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	45	0	1	35	0	1
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			45		82	45
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			45		82	45
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1563		919	1025

Direction, Lane #	EB 1	WB 1	NW 1
Volume Total	45	36	1
Volume Left	0	1	0
Volume Right	0	0	1
cSH	1700	1563	1025
Volume to Capacity	0.03	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.2	8.5
Lane LOS		A	A
Approach Delay (s)	0.0	0.2	8.5
Approach LOS			A

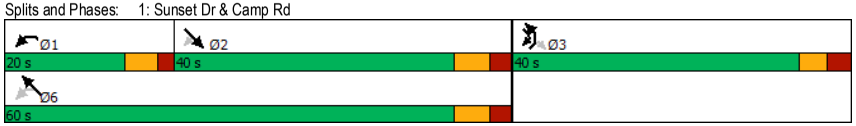
Intersection Summary				
Average Delay		0.2		
Intersection Capacity Utilization		13.3%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	1032	279	77	658	175	67
Future Volume (vph)	1032	279	77	658	175	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		125	100		0	75
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted			0.150		0.950	
Satd. Flow (perm)	3539	1583	279	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		285				68
Link Speed (mph)	40			40	30	
Link Distance (ft)	788			778	929	
Travel Time (s)	13.4			13.3	21.1	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	1053	285	79	671	179	68
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1053	285	79	671	179	68
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Number of Detectors	2	2	2	2	2	2
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (ft)	49	49	49	49	49	49
Trailing Detector (ft)	-1	-1	-1	-1	-1	-1
Detector 1 Position(ft)	-1	-1	-1	-1	-1	-1
Detector 1 Size(ft)	20	20	20	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	29	29	29	29	29	29
Detector 2 Size(ft)	20	20	20	20	20	20
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	NA	pm+ov	pm+pt	NA	Prot	Perm
Protected Phases	2	3	1	6	3	
Permitted Phases		2	6			3

Lane Group	SET	SER	NWL	NWT	NEL	NER
Detector Phase	2	3	1	6	3	3
Switch Phase						
Minimum Initial (s)	25.0	10.0	6.0	25.0	10.0	10.0
Minimum Split (s)	40.0	16.2	11.9	32.0	16.2	16.2
Total Split (s)	40.0	40.0	20.0	60.0	40.0	40.0
Total Split (%)	40.0%	40.0%	20.0%	60.0%	40.0%	40.0%
Maximum Green (s)	33.0	33.8	14.1	53.0	33.8	33.8
Yellow Time (s)	4.3	3.2	3.9	4.3	3.2	3.2
All-Red Time (s)	2.7	3.0	2.0	2.7	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	6.2	5.9	7.0	6.2	6.2
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	4.0	4.0	2.0	4.0	4.0	4.0
Recall Mode	Min	None	None	Min	None	None
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	26.0	19.0			19.0	19.0
Pedestrian Calls (#/hr)	0	0			0	0
Act Effct Green (s)	29.8	53.3	40.3	39.2	14.5	14.5
Actuated g/C Ratio	0.44	0.79	0.60	0.58	0.22	0.22
v/c Ratio	0.67	0.22	0.25	0.33	0.47	0.17
Control Delay	18.9	0.8	8.2	7.9	29.1	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.9	0.8	8.2	7.9	29.1	7.8
LOS	B	A	A	A	C	A
Approach Delay	15.0			8.0	23.2	
Approach LOS	B			A	C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 67.3			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 13.6		Intersection LOS: B	
Intersection Capacity Utilization 59.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Sunset Dr & Camp Rd



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	132	964	3	2	598	74	5	0	0	115	0	84
Future Volume (vph)	132	964	3	2	598	74	5	0	0	115	0	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	310		0	0		0	0		0	115		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.983						0.850	
Flt Protected	0.950							0.950		0.950		
Satd. Flow (prot)	1770	3539	0	0	3479	0	0	1770	0	1770	1583	0
Flt Permitted	0.338				0.953			0.675		0.754		
Satd. Flow (perm)	630	3539	0	0	3316	0	0	1257	0	1405	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			16						388	
Link Speed (mph)		40			40			30			35	
Link Distance (ft)		1093			781			132			554	
Travel Time (s)		18.6			13.3			3.0			10.8	
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
Adj. Flow (vph)	139	1015	3	2	629	78	5	0	0	121	0	88
Shared Lane Traffic (%)												
Lane Group Flow (vph)	139	1018	0	0	709	0	0	5	0	121	88	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2		2	2		2	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	49	49		49	49		49	49		49	49	
Trailing Detector (ft)	-1	-1		-1	-1		-1	-1		-1	-1	
Detector 1 Position(ft)	-1	-1		-1	-1		-1	-1		-1	-1	
Detector 1 Size(ft)	20	20		20	20		20	20		20	20	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)	29	29		29	29		29	29		29	29	
Detector 2 Size(ft)	20	20		20	20		20	20		20	20	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	1	6			2			4			8	
Permitted Phases	6			2			4			8		

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	1	6		2	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	5.0	25.0		25.0	25.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	9.9	29.9		29.9	29.9		10.9	10.9		10.9	10.9	
Total Split (s)	20.0	85.0		65.0	65.0		35.0	35.0		35.0	35.0	
Total Split (%)	16.7%	70.8%		54.2%	54.2%		29.2%	29.2%		29.2%	29.2%	
Maximum Green (s)	15.1	80.1		60.1	60.1		30.2	30.2		30.2	30.2	
Yellow Time (s)	3.9	3.9		3.9	3.9		3.4	3.4		3.4	3.4	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.4	1.4		1.4	1.4	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	4.9	4.9			4.9			4.8		4.8	4.8	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		C-Min	C-Min		None	None		None	None	
Walk Time (s)							7.0	7.0		7.0	7.0	
Flash Dont Walk (s)							18.0	18.0		18.0	18.0	
Pedestrian Calls (#/hr)							0	0		0	0	
Act Effct Green (s)	94.6	94.6			81.8			15.7		15.7	15.7	
Actuated g/C Ratio	0.79	0.79			0.68			0.13		0.13	0.13	
v/c Ratio	0.24	0.36			0.31			0.03		0.66	0.16	
Control Delay	4.5	4.6			6.7			42.4		66.0	0.6	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	4.5	4.6			6.7			42.4		66.0	0.6	
LOS	A	A			A			D		E	A	
Approach Delay		4.6			6.7			42.4			38.5	
Approach LOS		A			A			D			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 49.6 (41%), Referenced to phase 2:NWTL, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 8.8		Intersection LOS: A	
Intersection Capacity Utilization 65.7%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: Monro Dwy/Scranton Rd & Camp Rd



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	4	36	47	680	997	21
Future Volume (vph)	4	36	47	680	997	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.878				0.997	
Flt Protected	0.995			0.997		
Satd. Flow (prot)	1627	0	0	3529	3529	0
Flt Permitted	0.995			0.997		
Satd. Flow (perm)	1627	0	0	3529	3529	0
Link Speed (mph)	30			40	40	
Link Distance (ft)	140			232	781	
Travel Time (s)	3.2			4.0	13.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	38	49	716	1049	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	42	0	0	765	1071	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	61.7%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	36	47	680	997	21
Future Volume (Veh/h)	4	36	47	680	997	21
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)	4	38	49	716	1049	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1073	781	
pX, platoon unblocked	0.94	0.92	0.92			
vC, conflicting volume	1516	536	1071			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1263	325	906			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	94	93			
cM capacity (veh/h)	141	618	688			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	42	288	477	699	372
Volume Left	4	49	0	0	0
Volume Right	38	0	0	0	22
cSH	467	688	1700	1700	1700
Volume to Capacity	0.09	0.07	0.28	0.41	0.22
Queue Length 95th (ft)	7	6	0	0	0
Control Delay (s)	13.5	2.5	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	13.5	1.0		0.0	
Approach LOS	B				

Intersection Summary				
Average Delay	0.7			
Intersection Capacity Utilization	61.7%	ICU Level of Service		B
Analysis Period (min)	15			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	175	241	454	116	318	757
Future Volume (vph)	175	241	454	116	318	757
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	240	0		0	135	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.969			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3429	0	1770	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	3429	0	1770	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		251	45			
Link Speed (mph)	30		40			40
Link Distance (ft)	468		772			841
Travel Time (s)	10.6		13.2			14.3
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	182	251	473	121	331	789
Shared Lane Traffic (%)						
Lane Group Flow (vph)	182	251	594	0	331	789
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (ft)	49	49	49		49	49
Trailing Detector (ft)	-1	-1	-1		-1	-1
Detector 1 Position(ft)	-1	-1	-1		-1	-1
Detector 1 Size(ft)	20	20	20		20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	29	29	29		29	29
Detector 2 Size(ft)	20	20	20		20	20
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0
Turn Type	Prot	pm+ov	NA		Prot	NA
Protected Phases	3	1	2		1	2
Permitted Phases		3				

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	3	1	2		1	2
Switch Phase						
Minimum Initial (s)	12.0	3.0	20.0		3.0	20.0
Minimum Split (s)	16.6	7.3	27.1		7.3	27.1
Total Split (s)	25.0	20.0	75.0		20.0	75.0
Total Split (%)	20.8%	16.7%	62.5%		16.7%	62.5%
Maximum Green (s)	20.4	15.7	69.9		15.7	69.9
Yellow Time (s)	3.2	3.2	3.9		3.2	3.9
All-Red Time (s)	1.4	1.1	1.2		1.1	1.2
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.6	4.3	5.1		4.3	5.1
Lead/Lag		Lead	Lag		Lead	Lag
Lead-Lag Optimize?		Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	4.0		3.0	4.0
Recall Mode	None	None	C-Max		None	C-Max
Walk Time (s)	7.0		7.0			7.0
Flash Dont Walk (s)	15.0		15.0			15.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	17.0	40.7	69.9		19.1	69.9
Actuated g/C Ratio	0.14	0.34	0.58		0.16	0.58
v/c Ratio	0.73	0.36	0.29		1.18	0.38
Control Delay	65.8	4.9	12.0		154.5	12.1
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	65.8	4.9	12.0		154.5	12.1
LOS	E	A	B		F	B
Approach Delay	30.5		12.0			54.2
Approach LOS	C		B			D

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.18			
Intersection Signal Delay: 37.7		Intersection LOS: D	
Intersection Capacity Utilization 56.0%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 4: Camp Rd & Legion Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	5	3	36	6	45	1	82	24	17	188	8
Future Volume (vph)	5	5	3	36	6	45	1	82	24	17	188	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.969			0.930			0.970			0.995	
Flt Protected		0.981			0.980						0.996	
Satd. Flow (prot)	0	1771	0	0	1698	0	0	1807	0	0	1846	0
Flt Permitted		0.981			0.980						0.996	
Satd. Flow (perm)	0	1771	0	0	1698	0	0	1807	0	0	1846	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		244			342			845			904	
Travel Time (s)		5.5			7.8			19.2			20.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	5	3	39	7	49	1	89	26	18	204	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	0	0	95	0	0	116	0	0	231	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	31.4%	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 (veh/h)	5	5	3	36	6	45	1	82	24	17	188	8
Future Volume (Veh/h)	5	5	3	36	6	45	1	82	24	17	188	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	5	3	39	7	49	1	89	26	18	204	9
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	401	362	208	354	353	102	213			115		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	401	362	208	354	353	102	213			115		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	99	100	93	99	95	100			99		
cM capacity (veh/h)	521	558	832	589	565	953	1357			1474		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	13	95	116	231
Volume Left	5	39	1	18
Volume Right	3	49	26	9
cSH	587	731	1357	1474
Volume to Capacity	0.02	0.13	0.00	0.01
Queue Length 95th (ft)	2	11	0	1
Control Delay (s)	11.3	10.7	0.1	0.7
Lane LOS	B	B	A	A
Approach Delay (s)	11.3	10.7	0.1	0.7
Approach LOS	B	B		

Intersection Summary					
Average Delay		2.9			
Intersection Capacity Utilization	31.4%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	5	5	5	723	1028	5
Future Volume (vph)	5	5	5	723	1028	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.932				0.999	
Flt Protected	0.976					
Satd. Flow (prot)	1694	0	0	3539	3536	0
Flt Permitted	0.976					
Satd. Flow (perm)	1694	0	0	3539	3536	0
Link Speed (mph)	30			40	40	
Link Distance (ft)	180			841	232	
Travel Time (s)	4.1			14.3	4.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	5	5	786	1117	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	10	0	0	791	1122	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	38.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	5	5	723	1028	5
Future Volume (Veh/h)	5	5	5	723	1028	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	5	5	786	1117	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				841	1013	
pX, platoon unblocked	0.96	0.93	0.93			
vC, conflicting volume	1522	561	1122			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1211	377	980			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	99	99			
cM capacity (veh/h)	166	577	651			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	10	267	524	745	377
Volume Left	5	5	0	0	0
Volume Right	5	0	0	0	5
cSH	258	651	1700	1700	1700
Volume to Capacity	0.04	0.01	0.31	0.44	0.22
Queue Length 95th (ft)	3	1	0	0	0
Control Delay (s)	19.5	0.3	0.0	0.0	0.0
Lane LOS	C	A			
Approach Delay (s)	19.5	0.1		0.0	
Approach LOS	C				

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	38.6%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	39	0	1	67	0	1
Future Volume (vph)	39	0	1	67	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.865	
Flt Protected				0.999		
Satd. Flow (prot)	1863	0	0	1861	1611	0
Flt Permitted				0.999		
Satd. Flow (perm)	1863	0	0	1861	1611	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1622			140	120	
Travel Time (s)	36.9			3.2	2.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	0	1	73	0	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	42	0	0	74	1	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	14.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Traffic Volume (veh/h)	39	0	1	67	0	1
Future Volume (Veh/h)	39	0	1	67	0	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	42	0	1	73	0	1
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			42		117	42
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			42		117	42
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1567		878	1029

Direction, Lane #	EB 1	WB 1	NW 1
Volume Total	42	74	1
Volume Left	0	1	0
Volume Right	0	0	1
cSH	1700	1567	1029
Volume to Capacity	0.02	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.1	8.5
Lane LOS		A	A
Approach Delay (s)	0.0	0.1	8.5
Approach LOS			A

Intersection Summary				
Average Delay		0.1		
Intersection Capacity Utilization		14.3%	ICU Level of Service	A
Analysis Period (min)		15		

Appendix M

New York State Electric & Gas Letter

NYSEG

To: Alexandra Lettieri
From Mike Pitirri
Subject: Availability of Electric
Service Notification 10300870973 – Asphalt Plant – Proposed load – 350 kW
Date: May 23, 2022

NYSEG received a request for electric at the location referenced above Engineering analysis of the existing electric distribution system, demonstrates that NYSEG has capacity to serve the above address subject to the following:

- Based on the information provided by the customer, the above reference load is acceptable
- NYSEG's ability to serve this load may be impacted by the addition of other new electric loads

This letter does not address any costs that the customer may be obligated to pay to receive electric and is intended to address electric capacity capability only As your project progresses, NYSEG urges you to remain in contact with us regarding project schedule, our ability to serve, and any modifications to proposed load. In future correspondence, please include the Service Notification number noted above.

Extension and installation of electric facilities are pursuant to NYSEG's tariff (Public Service Commission 119)

Please contact me at with any questions

Sincerely,

Mike Pitirri
Supervisor Integrated Field Planning
Cell: 716-425-7241
150 Erie St, Lancaster, NY 14086
mpitirri@nyseg.com

Appendix N
Noise Analysis

Noise Survey & Assessment

Proposed Asphalt Plant
5690 Camp Road
Hamburg, New York

- for -

AL Asphalt Corporation
100 Stradtman Street
Cheektowaga, New York

- AS PREPARED BY –

NEU-VELLE LLC

667 Lake Avenue
Building 59, Suite 101
Rochester, New York 14615

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2.3 Leq 2

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6.0 CONCLUSION 7

Appendix A - location Map
Appendix B - Sound Level Meter Data
Appendix C - Encorus Group Assessment

1.0 INTRODUCTION

NEU-VELLE (NEU-VELLE) performed a noise survey FOR AL Asphalt Corporation to evaluate the noise level associated with a proposed 150,000 ton/year hot mix asphalt plant. To obtain the most accurate model, actual sound level measurements were recorded in the field near an existing asphalt plant to calculate sound levels resulting from ongoing operations. Data derived from the existing plant is intended to be used as a comparison for sound levels to be emitted by the asphalt plant proposed at 5690 Camp Road, Hamburg, New York.

The existing asphalt plant analyzed for this survey is located at 1655 Union Road in West Seneca, New York and operated by Gernatt Asphalt Products. While this plant is larger than what is proposed in the Town of Hamburg (234,000 tons/year), the setting is similar to the proposed facility. Both properties are located on State Roads that serve as commercial corridors, proximate to large expressways. Both the existing and proposed asphalt facilities are bordered by commercial and industrial properties and within 1,000 feet of residential property.

In addition, sound levels were monitored during evening hours (between 8:00pm and 10:00pm) in the immediate area surrounding the proposed plant location. The monitoring locations are as follows:

- Camp/Elmview
- Camp/Legion
- Camp/Scranton
- Elmview/sunset
- Camp/sunset
- Alibi Bar & Grill

2.0 NOISE DEFINITIONS

The following section briefly provides definitions of the noise terminology used in this survey:

2.1 Decibels

Sound pressures levels are described in logarithmic units of ratios of actual sound pressures to a reference pressure squared. These units are called bels. In order to provide a finer resolution, a bel is subdivided into 10 decibels, abbreviated dB.

2.2 A-Weighting

The human ear is limited not only to the range of audible frequencies, but also in the way it perceives the sound pressure level in that range. In general, the healthy human ear is most sensitive to sounds between 1,000 Hertz (Hz) and 5,000 Hz, and is much less sensitive to both higher and lower frequency sounds. The A-scale approximates the frequency response of the average human ear. The sound level meter replicates the human response of the ear by using an electronic filter which is called the "A" filter. A sound level measured with this filter switched on is denoted as dB(A). Practically all noise is measured using the A filter. The sound pressure level in dB(A) gives a close indication of the subjective loudness of the noise.

2.3 L_{eq}

The majority of sounds detected by human hearing are within the range of 0 to 140 dB. The noise created by traffic normally resides in the range of 50 to 95 dB. The effects of transportation noise are routinely measured using an A-weighted decibel scale, which is useful for measuring the noise impact of a single occurrence but not the impact of continuous noise. A frequently used measurement for continuous noise is the equivalent sound level (L_{eq}), known also as the energy mean sound level. Many noise sources produce levels that fluctuate over time such as mechanical equipment, or construction work which can vary sporadically. The equivalent sound level (L_{eq}) describes the average acoustic energy content of noise for an identified period of time. L_{eq} includes both the intensity and length of all sounds occurring during a given period; it indicates the average acoustic intensity over time and is the equivalent noise energy level of a steady, unvarying tone. For many noise sources, the L_{eq} will vary depending on the time of day, such as traffic noise.

3.0 METHODOLOGY

Sound levels were obtained using Casella dBandge2 sound meters. A separate meter was used to monitor each location. The meters were calibrated prior to use. The serial numbers for each unit are presented below.

Location Monitored	Date Monitored	Time Monitored	Serial Number
Gerber Collision	6/27/22	7:50am to 8:09am	2194475
Gernatt Plant	6/27/22	8:27am to 8:42am	2194082
Alibi Bar & Grill	6/27/22	8:00pm to 8:15pm	3398038
Camp/Legion	6/27/22	8:15pm to 8:31pm	3398001
Camp/Elmview	6/27/22	8:33pm to 8:48pm	3398016
Camp/Scranton	6/27/22	8:49pm to 9:05pm	2194069
Camp/Sunset	6/27/22	9:07pm to 9:22pm	3397821
Elmview/Sunset	6/27/22	9:24pm to 9:39pm	3397813

Short-term attended ambient sound level measurements were obtained at the above locations. Samples were collected at one location approximately 500 feet north of the plant, in a predominantly commercial/industrial area. The location offers a clear, unobstructed area to monitor the sound emanating from the plant. In addition, short-term ambient sound level measurements were collected in seven (7) locations in Hamburg, NY. The locations are in proximity to the proposed plant to identify existing noise levels. In all cases, sound levels were monitored for approximately 15 minutes.

Weather conditions during the sampling period were partly cloudy, temperature 65 degrees Fahrenheit, and wind 1 miles per hour from the northwest in the morning and 65 degrees Fahrenheit, and wind 4 miles per hour from the northwest in the evening..

4.0 RESULTS

Sound level measurements were collected approximately 500 feet north of the operating facility (Gernatt Plant) in a predominantly commercial/industrial area. During the sampling period, the only noticeable sound was emanating from the asphalt plant and surrounding street traffic. In addition, truck traffic for the plant periodically passed the sample point. The Equivalent

Continuous Sound Pressure Levels (Leq), or average sound pressure level observed during the sampling period was 63.0 dBA.

In addition, existing sound levels were monitored at several locations near the proposed plant along Camp Road in Hamburg, New York. This typical residential area had no remarkable sound associated with it other than traffic along Camp Road. The Leq readings observed during the sampling period are presented in the table below.

NOISE LEVEL READINGS

Location Monitored	Date	Time	Approx. Distance To Proposed Plant (feet)	Leq Reading @ Location Monitored	Anticipated Leq Reading @ Location from Proposed Plant	Noise Level Increase @ Location
Gerber Collision	6/27/22	7:50am to 8:09am	500	65.1	63	2
Gernatt Plant	6/27/22	8:27am to 8:42am	n/a	63.0	n/a	n/a
Alibi Bar & Grille	6/27/22	8:00pm to 8:15pm	560	63.5	63	3
Camp/Legion	6/27/22	8:15pm to 8:31pm	950	68.2	60	1
Camp/Elmview	6/27/22	8:33pm to 8:48pm	1,073	69.8	60	1
Camp/Scranton	6/27/22	8:49pm to 9:05pm	1,620	66.8	57	1
Camp/Sunset	6/27/22	9:07pm to 9:22pm	3,175	66.9	48	0
Elmview/Sunset	6/27/22	9:24pm to 9:39pm	1,798	55.7	55.5	3

5.0 DISCUSSION

Sounds are generated by a variety of sources (i.e., persons speaking, musical instruments, vehicle traffic, etc.). Energy is required to produce sound, and this sound energy is transmitted through the air in the form of sound waves as tiny, quick oscillations of pressure just above and just below atmospheric pressure.

Sound is measured in decibels. A decibel (dB) is a unit of measurement that gages the intensity of sound. The units, ranging on a comparative scale from 0-194, define how loud a noise source is, A dB reading of "0" indicates the faintest sound the human ear can detect, while a dB reading of "130" would be the equivalent to the sound of a jet during take-off at a distance of 300 feet. Average daily sound sources typically range from 30-100 dB. Conversational voice levels average about 65 dB and the pain threshold for the human ear starts at about 120 dB. Sound levels in this report are provided in A-weighted decibels (dBA). The A-weighted sound level reflects how the human ear responds to sound.

The decibel scale is logarithmic, not linear. This simply means that for every 3 decibels moved up or down the scale from 0-194, sound pressure exposure is increasing or decreasing by 50%. A drop of 6 decibels, for instance, moves 3 dB, and then another 3 dB. For each 3 dB drop, sound pressure levels drop another 50% of the remaining sound pressure. Therefore, this difference equates to a sound level reduction of 4 times. In addition, sound intensity diminishes over distance. The further away from a noise source, the lower decibel level readings will become. Sound is characterized by the inverse square law, which states that for every doubling of the distance between a sound source and the receptor of the sound, a 6 dB or four times drop would occur.

As described above, sound pressure levels are expressed in decibels, a logarithmic scale. Therefore, you cannot simply arithmetically add noise levels. For example, 30 dB plus 30 dB does not equal 60 dB.

To add two or more noise levels, if the difference between the highest and next highest noise level is:

- 0-1 dB then add 3 dB to the higher level to give the total noise level
- 2-3 dB then add 2 dB to the higher level to give the total noise level
- 4-9 dB then add 1 dB to the higher level to give the total noise level

- 10 dB and over, then the noise level is unchanged (i.e. the higher level is the total level)

Therefore, 30 dB plus 30 dB equals 33 dB. The estimated sound pressure level associated with the operating asphalt plant at 500 feet was 63.0 dBA. This sound pressure added to the dBA levels observed at the monitored locations is presented in the table above. Based on these estimates, the sound associated with the operating plant would have no effect on the ambient sound level.

6.0 CONCLUSION

Based on the data presented above, the noise levels associated with the existing operating facility are below the noise levels in the proposed area. Therefore, operation of the proposed plant would have no effect on the ambient conditions observed in the.

In accordance with The Code of the Town of Hamburg, Noise - Chapter 175-2 – Prohibitions:

§ 175-2. Prohibitions.

A. The creation of any unnecessary and unreasonably loud or disturbing noise is prohibited as a public nuisance.

B. Noise of such character, intensity and duration as to be detrimental to the life, health or welfare of the inhabitants of the Town of Hamburg is prohibited as a public nuisance.

C. In particular, without excluding other types of prohibited sounds by failure to enumerate them, all sleep-disturbing noises are prohibited. Sleep-disturbing noises shall mean any unnecessary and unreasonably loud or disturbing sounds occurring during the hours between 11:00 p.m. and 7:00 a.m. and unreasonably interfering with the sleep, comfort, health and repose of any individual within hearing thereof or in the vicinity.

In addition, based on the New York State Department of Environmental Conservation (NYSDEC) program policy for Assessing and Mitigating Noise Impacts, dated October 6, 2000, any increase in noise levels between 0 and 3 dBA should have no appreciable effect on the surrounding areas. Therefore, based on the previous data obtained by Encorus Group in September 2019, as well as the data presented in this report, the assessments indicate that the proposed facility will not violate this ordinance or have an impact in the sound levels of the area.

Appendix A – Noise Site Location Map

MONITORING LOCATIONS (area of proposed plant)



Appendix B – Sound Level Meter Data

Summary GERBER COLLISION

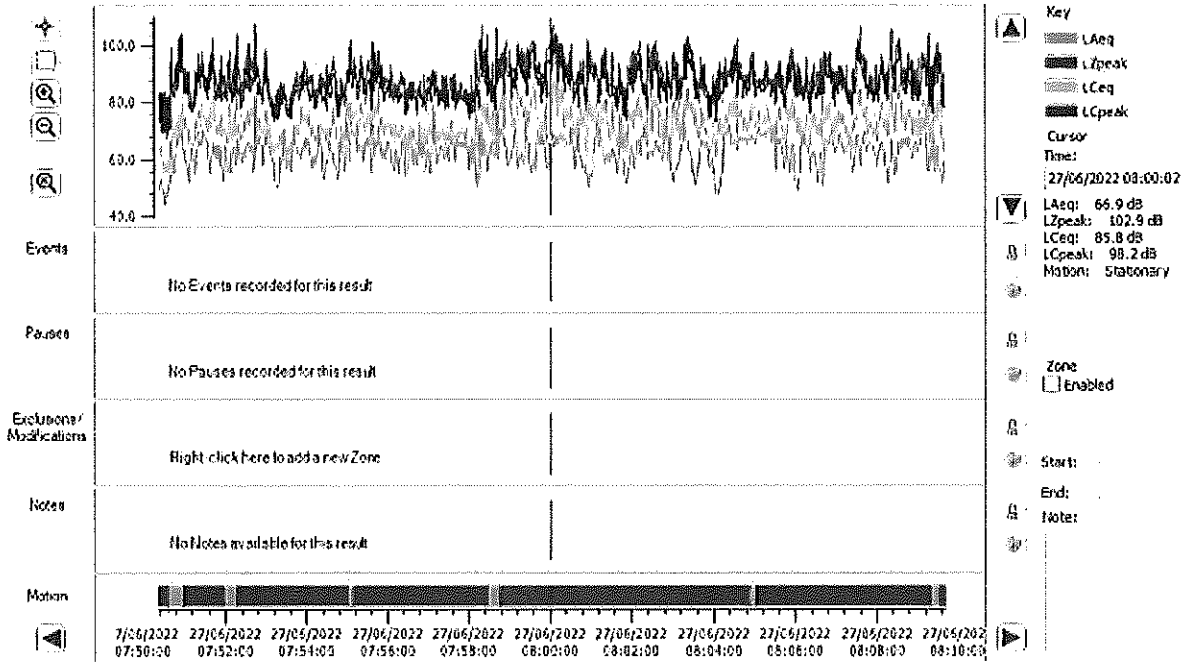
Result Information	Modified
Run No.	
Serial Number	2194475
Run Start Date & Time	6/27/2022 7:50:22 AM
Measurement Duration	00:19:19
Run End Date & Time	6/27/2022 8:09:41 AM
Battery	
Overload	
Overload (Duration)	
Under Range (Duration)	
Over 140 dB (Duration)	
Site	
Location	
Person	
Process	
Audio Note	
Cal (before) Date	
Cal (before) SPL	
Cal (after) Date	
Cal (after) SPL	
Cal Change	

Dosimeter Information	Modified
Dosimeter	D1
LAeq	65.1 dB
LCeq	76.1 dB
LAleq	
LApeak	
LCpeak	106.2 dB
LZpeak	107.8 dB
LAFmax	84.4 dB
LASmax	76.3 dB
LCeq - LAeq	11.1 dB
Motion Index	7.3%
LAVG	0.0 dB
TWA 8Hrs	-23.2 dB
Projected TWA 8Hrs	0.0 dB
Dose %	0.0%
Projected Dose %	0.0%
LAS Exceedance Duration	
LEX 8Hrs	51.1 dB
Projected LEX 8Hrs	65.1 dB
Lepd	51.1 dB
Projected Lepd	65.1 dB
Pa2Hrs	0.00
Pa2Sec	1.5
ISO Dose %	0.1%
Projected ISO Dose %	3.2%
ISO Exposure Points	0%
Projected ISO Exposure Points	3%

Summary

LAE	95.7 dB		
Note(s)	Start Date & Time	End Date & Time	Note
Modifications	Start Date & Time	End Date & Time	Action

Profile Graph



Summary GERNATT PLANT

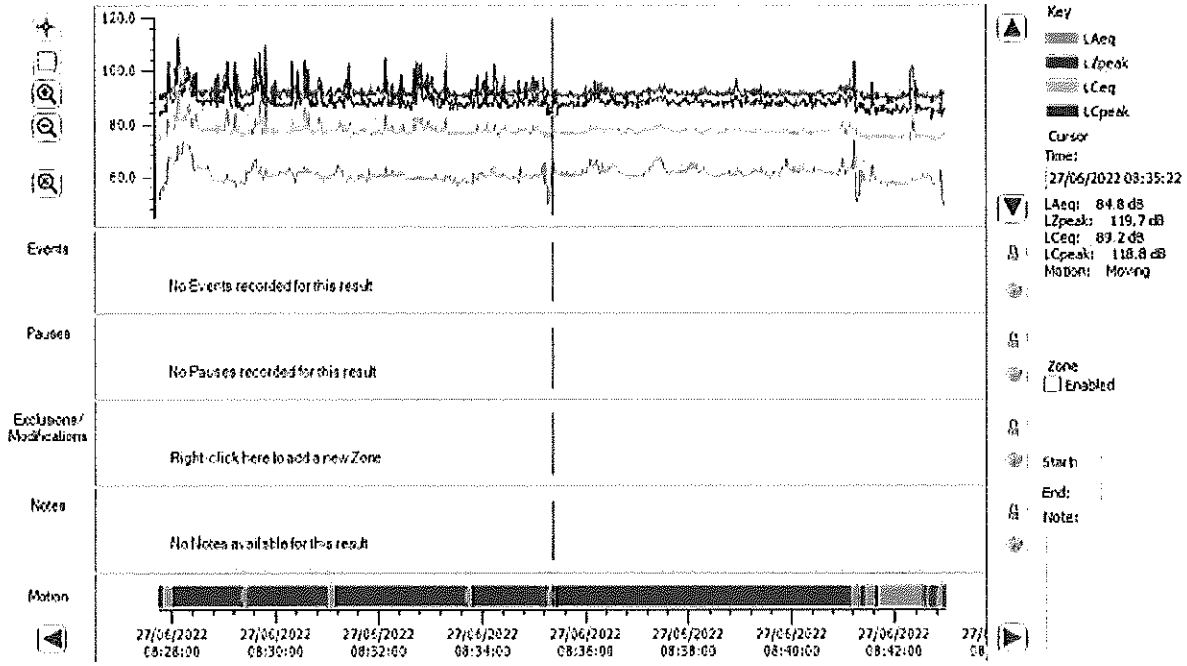
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Run No.	
Serial Number	2194082
Run Start Date & Time	6/27/2022 8:27:45 AM
Measurement Duration	00:15:14
Run End Date & Time	6/27/2022 8:42:59 AM
Battery	
Overload	
Overload (Duration)	
Under Range (Duration)	
Over 140 dB (Duration)	
Site	
Location	
Person	
Process	
Audio Note	
Cal (before) Date	
Cal (before) SPL	
Cal (after) Date	
Cal (after) SPL	
Cal Change	

Dosimeter Information	Modified
Dosimeter	D1
LAeq	63.0 dB
LCeq	78.3 dB
LAleq	
LApeak	
LCpeak	118.8 dB
LZpeak	119.7 dB
LAFmax	92.8 dB
LASmax	84.1 dB
LCeq - LAeq	15.3 dB
Motion Index	16.2%
LAVG	34.4 dB
TWA 8Hrs	9.6 dB
Projected TWA 8Hrs	34.4 dB
Dose %	0.0%
Projected Dose %	0.0%
LAS Exceedance Duration	00:00:00
LEX 8Hrs	48.0 dB
Projected LEX 8Hrs	63.0 dB
Lepd	48.0 dB
Projected Lepd	63.0 dB
Pa2Hrs	0.00
Pa2Sec	0.7
ISO Dose %	0.1%
Projected ISO Dose %	2.0%
ISO Exposure Points	0%
Projected ISO Exposure Points	2%

Summary

LAE	92.6 dB		
Note(s)	Start Date & Time	End Date & Time	Note
Modifications	Start Date & Time	End Date & Time	Action

Profile Graph



Summary

CAMP/LEGION

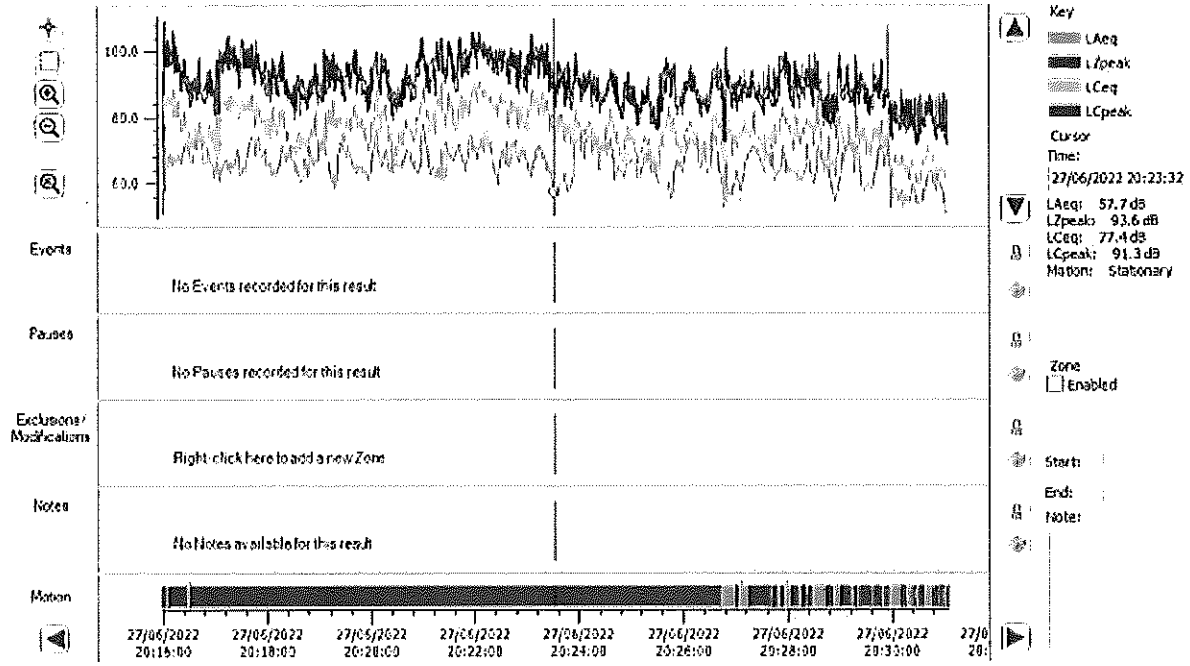
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Run No.	
Serial Number	3398001
Run Start Date & Time	6/27/2022 8:15:59 PM
Measurement Duration	00:15:06
Run End Date & Time	6/27/2022 8:31:05 PM
Battery	
Overload	
Overload (Duration)	
Under Range (Duration)	
Over 140 dB (Duration)	
Site	
Location	
Person	
Process	
Audio Note	
Cal (before) Date	
Cal (before) SPL	
Cal (after) Date	
Cal (after) SPL	
Cal Change	

Dosimeter Information	Modified
Dosimeter	D1
LAeq	68.2 dB
LCeq	80.0 dB
LAleq	
LApeak	
LCpeak	109.0 dB
LZpeak	108.4 dB
LAFmax	85.5 dB
LASmax	77.8 dB
LCeq - LAeq	11.8 dB
Motion Index	16.3%
LAVG	
TWA 8Hrs	
Projected TWA 8Hrs	
Dose %	0.0%
Projected Dose %	0.0%
LAS Exceedance Duration	00:00:00
LEX 8Hrs	53.2 dB
Projected LEX 8Hrs	68.2 dB
Lepd	53.2 dB
Projected Lepd	68.2 dB
Pa2Hrs	0.00
Pa2Sec	2.4
ISO Dose %	0.2%
Projected ISO Dose %	6.6%
ISO Exposure Points	0%
Projected ISO Exposure Points	7%

Summary

LAE	97.7 dB		
Note(s)	Start Date & Time	End Date & Time	Note
Modifications	Start Date & Time	End Date & Time	Action

Profile Graph



Summary

CAMP / ELMVIEW

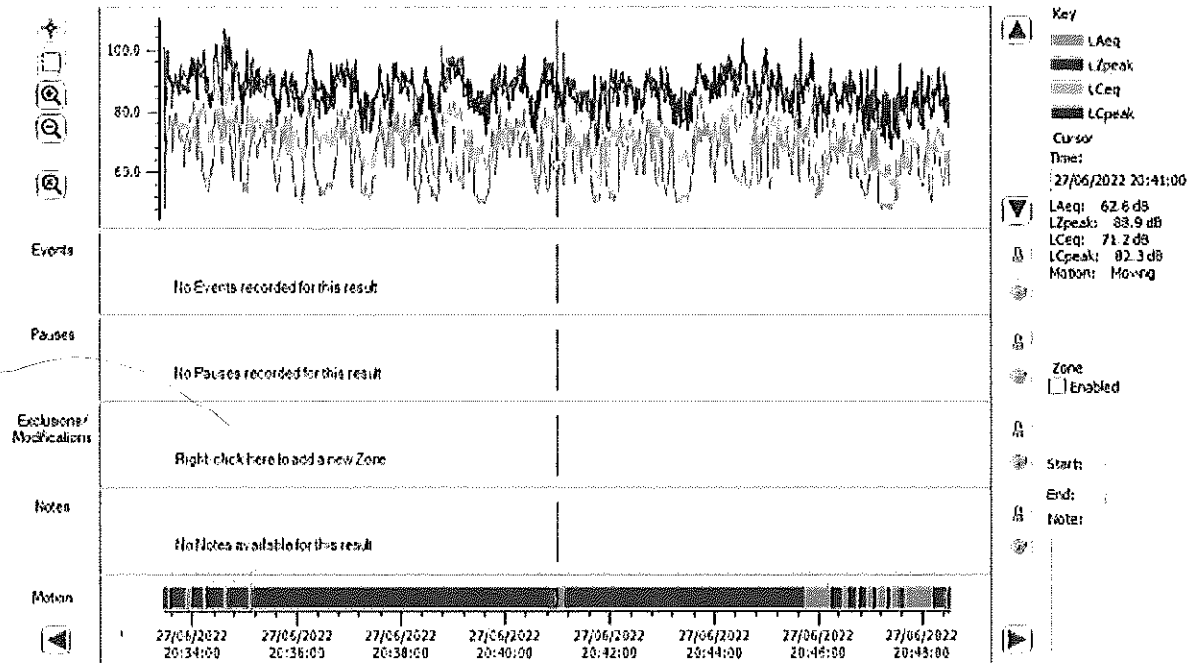
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Serial Number	3398016
Run Start Date & Time	6/27/2022 8:33:27 PM
Measurement Duration	00:15:05
Run End Date & Time	6/27/2022 8:48:32 PM
Battery	
Overload	
Overload (Duration)	
Under Range (Duration)	
Over 140 dB (Duration)	
Site	
Location	
Person	
Process	
Audio Note	
Cal (before) Date	
Cal (before) SPL	
Cal (after) Date	
Cal (after) SPL	
Cal Change	

Dosimeter Information	Modified
Dosimeter	D1
LAeq	69.8 dB
LCeq	76.3 dB
LAleq	
LApeak	
LCpeak	104.7 dB
LZpeak	106.5 dB
LAFmax	85.5 dB
LASmax	83.4 dB
LCeq - LAeq	6.5 dB
Motion Index	19.9%
LAVG	41.9 dB
TWA 8Hrs	17.0 dB
Projected TWA 8Hrs	41.9 dB
Dose %	0.0%
Projected Dose %	0.1%
LAS Exceedance Duration	00:00:00
LEX 8Hrs	54.8 dB
Projected LEX 8Hrs	69.8 dB
Lepd	54.8 dB
Projected Lepd	69.8 dB
Pa2Hrs	0.00
Pa2Sec	3.5
ISO Dose %	0.3%
Projected ISO Dose %	9.6%
ISO Exposure Points	0%
Projected ISO Exposure Points	10%

Summary

LAE	99.4 dB		
Note(s)	Start Date & Time	End Date & Time	Note
Modifications	Start Date & Time	End Date & Time	Action

Profile Graph



Summary

CAMP/SCRANTON

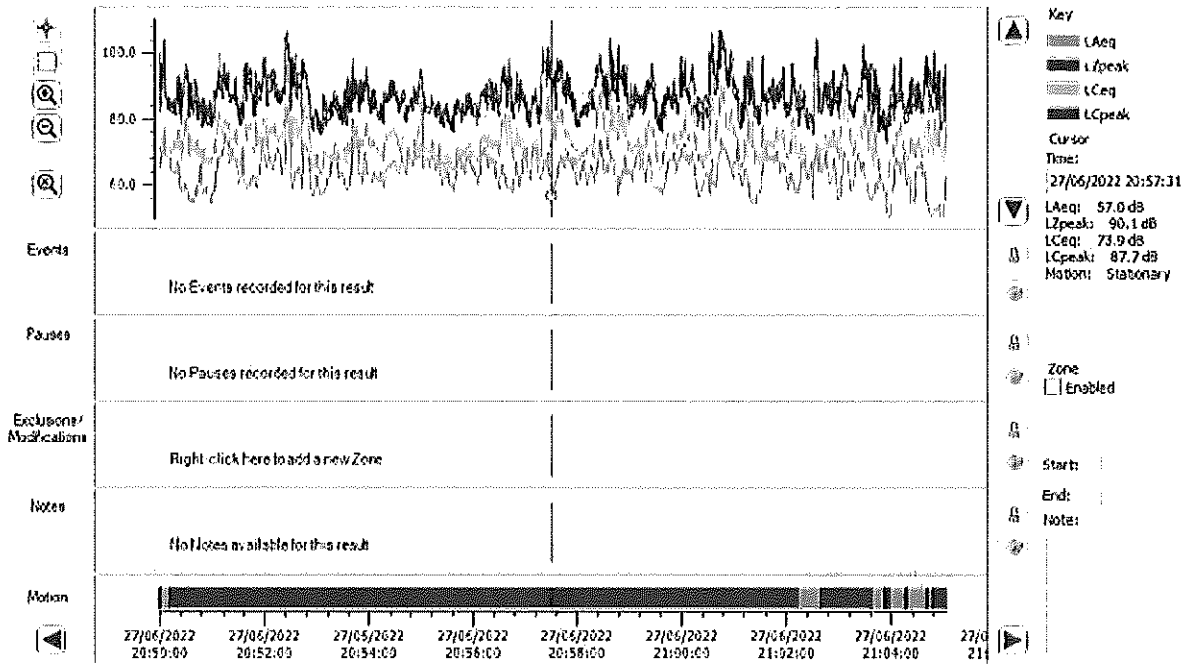
Result Information	Modified
Run No.	
Serial Number	2194069
Run Start Date & Time	6/27/2022 8:49:59 PM
Measurement Duration	00:15:04
Run End Date & Time	6/27/2022 9:05:03 PM
Battery	
Overload	
Overload (Duration)	
Under Range (Duration)	
Over 140 dB (Duration)	
Site	
Location	
Person	
Process	
Audio Note	
Cal (before) Date	
Cal (before) SPL	
Cal (after) Date	
Cal (after) SPL	
Cal Change	

Dosimeter Information	Modified
Dosimeter	D1
LAeq	66.8 dB
LCeq	77.7 dB
LAleq	
LApeak	
LCpeak	105.8 dB
LZpeak	107.5 dB
LAFmax	85.7 dB
LASmax	83.8 dB
LCeq - LAeq	10.9 dB
Motion Index	10.1%
LAVG	41.2 dB
TWA 8Hrs	16.3 dB
Projected TWA 8Hrs	41.2 dB
Dose %	0.0%
Projected Dose %	0.1%
LAS Exceedance Duration	00:00:00
LEX 8Hrs	51.8 dB
Projected LEX 8Hrs	66.8 dB
Lepd	51.8 dB
Projected Lepd	66.8 dB
Pa2Hrs	0.00
Pa2Sec	1.7
ISO Dose %	0.2%
Projected ISO Dose %	4.8%
ISO Exposure Points	0%
Projected ISO Exposure Points	5%

Summary

LAE	96.4 dB		
Note(s)	Start Date & Time	End Date & Time	Note
Modifications	Start Date & Time	End Date & Time	Action

Profile Graph



Summary

CAMP / SUNSET

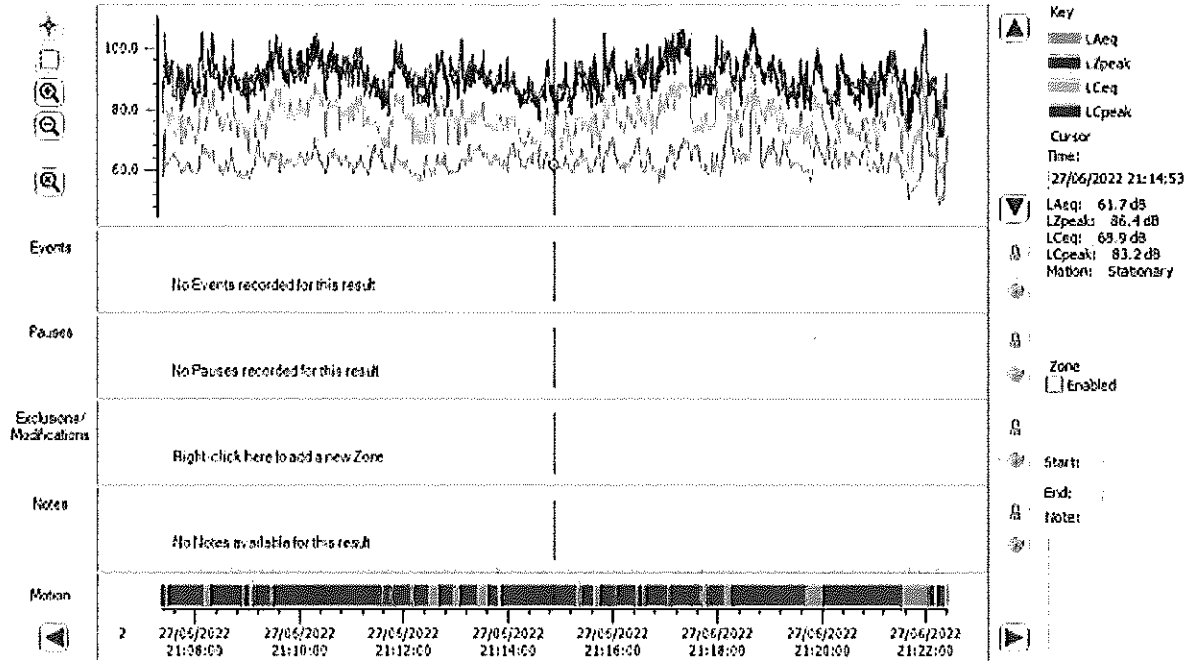
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Run No.	
Serial Number	3397821
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Measurement Duration	00:15:04
Run End Date & Time	6/27/2022 9:22:25 PM
Battery	
Overload	
Overload (Duration)	
Under Range (Duration)	
Over 140 dB (Duration)	
Site	
Location	
Person	
Process	
Audio Note	
Cal (before) Date	
Cal (before) SPL	
Cal (after) Date	
Cal (after) SPL	
Cal Change	

Dosimeter Information	Modified
Dosimeter	D1
LAeq	66.9 dB
LCeq	79.8 dB
LAleq	
LApeak	
LCpeak	105.8 dB
LZpeak	106.6 dB
LAFmax	87.5 dB
LASmax	85.5 dB
LCeq - LAeq	12.9 dB
Motion Index	22.1%
LAVG	48.1 dB
TWA 8Hrs	23.2 dB
Projected TWA 8Hrs	48.1 dB
Dose %	0.0%
Projected Dose %	0.3%
LAS Exceedance Duration	00:00:00
LEX 8Hrs	51.9 dB
Projected LEX 8Hrs	66.9 dB
Lepd	51.9 dB
Projected Lepd	66.9 dB
Pa2Hrs	0.00
Pa2Sec	1.8
ISO Dose %	0.2%
Projected ISO Dose %	4.9%
ISO Exposure Points	0%
Projected ISO Exposure Points	5%

Summary

LAE	96.5 dB		
Note(s)	Start Date & Time	End Date & Time	Note
Modifications	Start Date & Time	End Date & Time	Action

Profile Graph



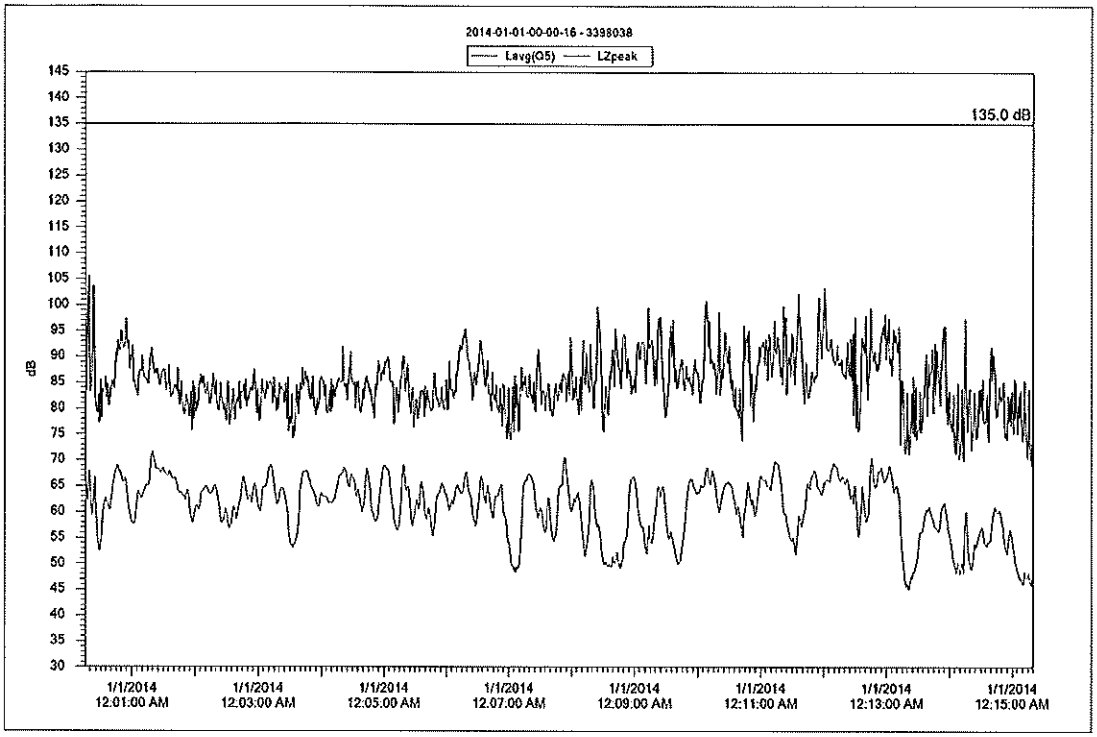
CASELLA NoiseSafe

Summary Information

Serial Number	3398038	
Run Number	1 ALIBI BAR + GRILL	
Start Time	1/1/2014 12:00:16 AM	
End Time	1/1/2014 12:15:21 AM	
Measurement Duration	00:15:05	
Note		
Overload Duration	00:00:00	
UnderRange Duration	00:03:12	
Calibration Before Time	6/23/2022 3:01:23 PM	
Calibration Before SPL	114.0 dB	
Calibration After Time	-/-/---- --:--:-- AM	
Calibration Drift	---.- dB	
Dosimeter 1 Setup	OSHA HC (T80, C90, Q5)	
D1 Lavg	---.- dB	
D1 Dose	---.- %	
D1 Dose Projected	---.- %	
D1 TWA 8Hrs	---.- dB	
D1 TWA 8Hrs Projected	---.- dB	
D1 LAeq	63.5 dB	
D1 LCeq	72.9 dB	
D1 LApeak (Time)	102.9 dB	(1/1/2014 12:00:23 AM)
D1 LCpeak (Time)	104.7 dB	(1/1/2014 12:00:19 AM)
D1 LZpeak (Time)	105.6 dB	(1/1/2014 12:00:19 AM)

CASELLA NoiseSafe

Profile Chart



Inclusion/Exclusion Information

Inclusion Zone

Start Time	1/1/2014 12:00:16 AM
End Time	1/1/2014 12:15:21 AM
Note	

Dosimeter 1 Setup	OSHA HC (T80, C90, Q5)	
Lavg	---.- dB	
Dose	---.- %	
Dose Projected	---.- %	
TWA 8Hrs	---.- dB	
TWA 8Hrs Projected	---.- dB	
LAeq	63.5 dB	
LCeq	72.9 dB	
LCpeak (Time)	104.7 dB	(1/1/2014 12:00:19 AM)
LZpeak (Time)	105.6 dB	(1/1/2014 12:00:19 AM)

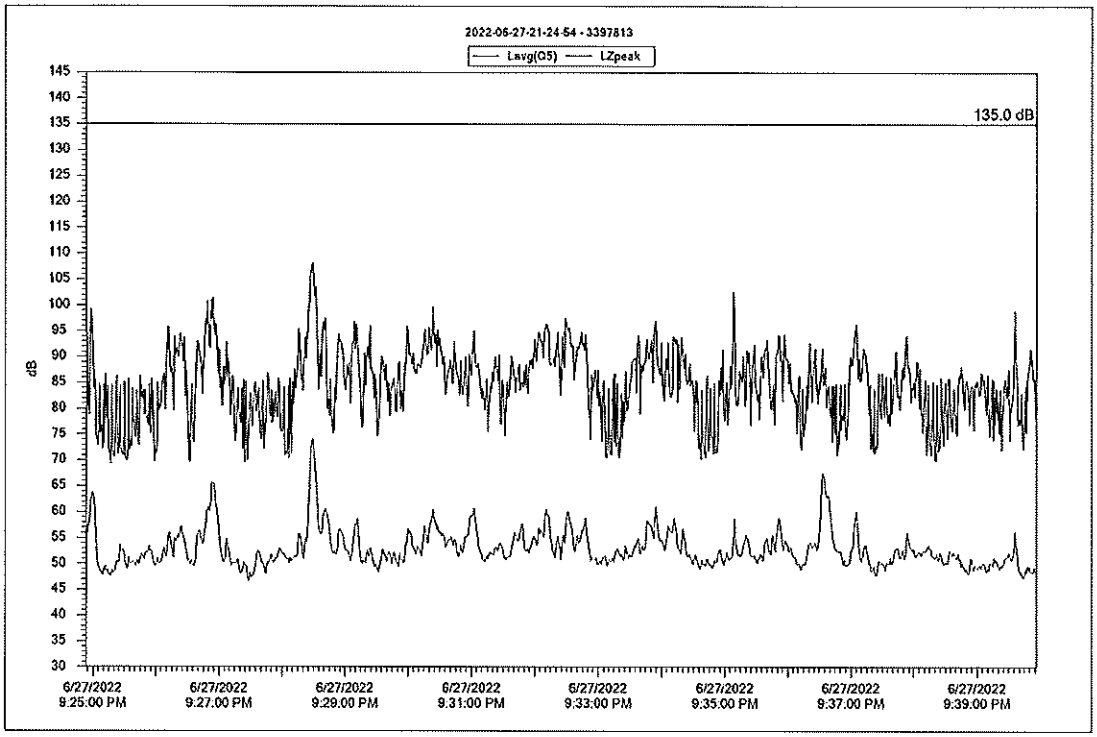
CASELLA NoiseSafe

Summary Information

Serial Number	3397813	
Run Number	1	ELMVIEW / SUNSET
Start Time	6/27/2022 9:24:54 PM	
End Time	6/27/2022 9:39:57 PM	
Measurement Duration	00:15:03	
Note		
Overload Duration	00:00:00	
UnderRange Duration	00:12:35	
Calibration Before Time	6/24/2022 10:30:38 AM	
Calibration Before SPL	114.0 dB	
Calibration After Time	-/-/---- --:--:-- AM	
Calibration Drift	---.- dB	
Dosimeter 1 Setup	OSHA HC (T80, C90, Q5)	
D1 Lavg	---.- dB	
D1 Dose	---.- %	
D1 Dose Projected	---.- %	
D1 TWA 8Hrs	---.- dB	
D1 TWA 8Hrs Projected	---.- dB	
D1 LAeq	55.7 dB	
D1 LCeq	73.5 dB	
D1 LApeak (Time)	94.9 dB	(6/27/2022 9:24:58 PM)
D1 LCpeak (Time)	106.1 dB	(6/27/2022 9:28:28 PM)
D1 LZpeak (Time)	108.1 dB	(6/27/2022 9:28:29 PM)

CASELLA NoiseSafe

Profile Chart



Inclusion/Exclusion Information

Inclusion Zone

Start Time	6/27/2022 9:24:54 PM
End Time	6/27/2022 9:39:57 PM
Note	

Dosimeter 1 Setup	OSHA HC (T80, C90, Q5)	
Lavg	---.- dB	
Dose	---.- %	
Dose Projected	---.- %	
TWA 8Hrs	---.- dB	
TWA 8Hrs Projected	---.- dB	
LAeq	55.7 dB	
LCeq	73.5 dB	
LCpeak (Time)	106.1 dB	(6/27/2022 9:28:28 PM)
LZpeak (Time)	108.1 dB	(6/27/2022 9:28:29 PM)

Appendix C – Encorus Group Assessment

ENCORUS™ GROUP
FORMERLY RJR ENGINEERING

23 Mechanic Street
Springville, NY 14141

2745 Broadway Street
Buffalo, NY 14227

716.592.3980
encorus.com

September 18, 2019

Encorus Group was engaged by AL Asphalt Corp. to model the noise level associated with the proposed 135,000 ton/year hot mix asphalt plant. To obtain the most accurate model, actual sound level measurements were recorded in the field near an existing asphalt plant to calculate sound levels resulting from ongoing operations. Data derived is intended to be used as a comparison for sound levels to be emitted by the asphalt plant proposed at 5690 Camp Road, Hamburg, NY 14075.

The existing asphalt plant analyzed for this survey is located at 1655 Union Road, West Seneca, NY 14224. While this plant is larger than what is proposed in the Town of Hamburg (234,000 tons/year), the setting is similar to the proposed facility. Both properties are located on State Roads that serve as commercial corridors, proximate to large expressways. Both facilities are bordered by commercial and industrial properties and within 1,000 feet of residential property.

In addition, sound level measurements were collected in Hamburg, NY. One was near a residence located on 3972 Staley Drive, which is about 1,000 feet southeast of the proposed asphalt plant. Another was collected near the Hamburg Central School Athletic Fields, about 2,700 feet southeast of the proposed plant.

Methodology

Sound levels were obtained using a Quest Model SoundPro DL-1 Type 1 Sound Level Meter (Serial Number BLN050005). The meter was calibrated using a Quest Model QC-20 Calibrator (Serial Number QF5020007) which was calibrated at Advanced Labs, Inc. on November 9, 2018.

The sound level meter was calibrated before and after each sampling day. All calibration results were within specifications.

Short-term attended ambient sound level measurements were obtained on Friday, August 30, 2019 while the existing asphalt plant was in continuous operation. Samples were collected at one location approximately 500 feet north of the plant, in a predominantly commercial/industrial area. The location offers a clear, unobstructed area to monitor the sound emanating from the plant.

Short-term attended ambient sound level measurements were also obtained on Tuesday, September 17, 2019 in two (2) locations in Hamburg, NY. One location was near a residence, located on 3972 Staley Drive, which is about 1,000 feet southeast of the proposed asphalt plant. Another location was collected near the Hamburg Central School Athletic Fields, about 2,700 feet southeast of the proposed plant.

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Springville, NY 14141 | Buffalo, NY 14227 | encorus.com

In all cases, sound levels were monitored for 15 minutes.

Weather conditions on August 30 during the sampling period of 12:00 p.m. to 1:30 p.m. were partly cloudy, temperature 74 degrees Fahrenheit, and wind 15 miles per hour from the southwest. Weather conditions on September 17 during the sampling period of 1:40 p.m. to 2:50 p.m. were clear, temperature 74 degrees Fahrenheit, and wind 3 miles per hour from the northeast.

Results

Sound level measurements were collected approximately 500 feet north of the operating facility in a predominantly commercial/industrial area. During the sampling period, the only noticeable sound was emanating from the asphalt plant. Truck traffic for the plant periodically passed the sample point. The Equivalent Continuous Sound Pressure Levels (Leq), or average sound pressure level observed during the sampling period was 38.9 dBA.

Existing sound levels were monitored near a residence on Staley Drive, located approximately 1,000 feet southeast of the proposed facility. This typical residential area had no remarkable sound associated with it. The Leq observed during the sampling period was 59.4 dBA.

Existing sound levels were also monitored at the Hamburg Central School Athletic Fields approximately 2,700 feet southeast of the proposed facility, which is located in a residential area. Only sound typically associated with school activities were observed. The Leq observed during the sampling period was 47.9 dBA.

Discussion

Sounds are generated by a variety of sources e.g., persons speaking, musical instruments, or vehicle traffic. Energy is required to produce sound, and this sound energy is transmitted through the air in the form of sound waves as tiny, quick oscillations of pressure just above and just below atmospheric pressure.

Sound is measured in decibels. A decibel (dB) is a unit of measurement that gages the intensity of sound. The units, ranging on a comparative scale from 0-194, define how loud a noise source is, A dB reading of "0" indicates the faintest sound the human ear can detect, while a dB reading of "130" would be the equivalent to the sound of a jet during take-off at a distance of 300 feet.

Average daily sound sources typically range from 30-100 dB. Conversational voice levels average about 65 dB and the pain threshold for the human ear starts at about 120 dB. Sound levels in this report are provided in A-weighted decibels (dBA). The A-weighted sound level reflects how the human ear responds to sound.

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The decibel scale is logarithmic, not linear. This simply means that for every 3 decibels moved up or down the scale from 0-194, sound pressure exposure is increasing or decreasing by 50%. A drop of 6 decibels, for instance, moves 3 dB, and then another 3 dB. For each 3 dB drop, sound pressure levels drop another 50% of the remaining sound pressure. Therefore, this difference equates to a sound level reduction of 4 times.

Sound intensity diminishes over distance. The further away from a noise source, the lower decibel level readings will become. Sound is characterized by the inverse square law, which states that for every doubling of the distance between a sound source and the receptor of the sound, a 6 dB or four times drop would occur.

As reported above, the average sound pressure level observed during the sampling period was 38.9 dBA. Estimating the sound pressure level associated with the operating plant on a residence located 1,000 feet away yields a value of 32.9 dBA. As a reference, the lowest limit of urban ambient sound is typically 40 dBA.

As described above, sound pressure levels are expressed in decibels, a logarithmic scale. Therefore, you cannot simply arithmetically add noise levels. For example, 30 dB plus 30 dB does not equal 60 dB.

To add two or more noise levels, if the difference between the highest and next highest noise level is:

- 0–1 dB then add 3 dB to the higher level to give the total noise level
- 2–3 dB then add 2 dB to the higher level to give the total noise level
- 4–9 dB then add 1 dB to the higher level to give the total noise level
- 10 dB and over, then the noise level is unchanged (i.e. the higher level is the total level)

Therefore, 30 dB plus 30 dB equals 33 dB.

The estimated sound pressure level associated with the operating asphalt plant at 1,000 feet was 32.9 dBA. This sound pressure added to the 59.4 dBA observed at the Staley Drive residence yields 59.4 dBA. The sound associated with the operating plant would have no effect on the ambient sound level.

The sound pressure level observed at the athletic fields was 47.9 dBA. The attenuation of the sound level observed at 500 feet from the operating plant (38.9 dBA) at 2,700 feet is 24.3 dBA. Adding 24.3 dBA to 47.9 dBA yields 47.9 dBA. Again, the additional sound level would have no effect on the ambient sound level.

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Conclusion

As the data suggests, the sound associated with the operating facility would have no effect on the ambient conditions observed at the residence located approximately 1,000 feet away or the ambient conditions observed at the Hamburg Central School Athletic Fields approximately 2,700 feet away.

The Code of the Town of Hamburg, Noise - Chapter 175-2 - Prohibitions Reads as follows:

§ 175-2. Prohibitions.

A. The creation of any unnecessary and unreasonably loud or disturbing noise is prohibited as a public nuisance.

B. Noise of such character, intensity and duration as to be detrimental to the life, health or welfare of the inhabitants of the Town of Hamburg is prohibited as a public nuisance.

C. In particular, without excluding other types of prohibited sounds by failure to enumerate them, all sleep-disturbing noises are prohibited. Sleep-disturbing noises shall mean any unnecessary and unreasonably loud or disturbing sounds occurring during the hours between 11:00 p.m. and 7:00 a.m. and unreasonably interfering with the sleep, comfort, health and repose of any individual within hearing thereof or in the vicinity.

Based on the data obtained, and anticipated operational schedule (i.e., open for business after 7:00 a.m.), sound level emissions from the proposed facility will not violate this ordinance.

References

Code of the Town of Hamburg. Noise, Chapter 175, Adopted September-3, 1963

Anonymous (2019). Comparative Examples of Noise Levels. IAC Acoustics [Online]. Available: http://www.industrialnoisecontrol.com/comparative-noise-examples.htm

Respectfully submitted,

CIH, CSP

Daniel A. Stachelski, Jr., CIH, CSP
Safety Manager
Encorus Group

Encorus Group is a Service-Disabled Veteran-Owned Business (SDVOSB).

Appendix O
Odor Analysis

June 5, 2020

Rosanne Dipizio
AL Asphalt, LLC
100 Stradtman Street
Cheektowaga, NY 14206

Re: Odor Analysis
AL Asphalt, LLC, Niagara Falls, NY

Dear Ms. Dipizio:

Neu-Velle, LLC (Neu-Velle) has prepared the following information pertaining to an off-site odor analysis for a proposed hot-mix asphalt (HMA) plant to be located at 4660 Witmer Road, Niagara Falls, New York.

FACILITY DESCRIPTION

AL Asphalt is proposing a counterflow drum mix asphalt plant that will produce up to 450,000 tons of hot mix asphalt (HMA) per year. The HMA will be used for roads, parking lots, and highways throughout the western New York area. The process will include storage of different size aggregates, storage of asphalt oil in an above ground storage tank heated by combustion of diesel fuel, a rotary drum dryer heated by combustion of propane, and a silo for storage of the HMA product.

The Facility will be located on a 12.5-acre parcel in the Town of Niagara. The plant will occupy approximately 0.8-acres. A site plan is included as Figure 1, and a generic process flow diagram is included as Attachment A. Due to winter weather conditions preventing placement or use of asphalt, the facility will typically operate between May and November of any given year. Hours of operation will vary depending on product demand and weather conditions but will generally be limited to 1,500 hours per year.

PROCESS ODORS

Odors associated with HMA plants are primarily associated with the oils mixed with aggregate to formulate the HMA. The most notable odorous compound found in the oils is naphthalene (CAS #00091-20-3). Naphthalene has a strong odor that is often detectable at concentrations as low as 0.08 parts per million (ppm) or 440 micrograms per cubic meter ($\mu g/m^3$) as per the Agency for Toxic Substances and Disease Registry (ATSDR).

Based on studies of the HMA process, odorous emissions of naphthalene at HMA plants are typically associated with two activities, including 1) daily filling of the on-site asphalt oil storage tank and 2) loading of HMA into trucks or silo.

Asphalt Oil Tank Filling

Tank filling operations involve pumping the asphalt oil from a tanker truck into the heated oil storage tank. The tank vent will have the highest concentration of odorous compounds but because the tank fill rate is low, the overall exhaust volume from the tank will be low (based on displacement of fluids). Also, tank filling is not a steady state operation as the tank will be filled only once or twice per day and the duration of the process will be relatively brief (less than 1-hour). Due to the intermittent and relatively brief duration of the process, it is assumed that odors from tank filling will be negligible.

Silo Filling & Product Load-Out

The activity of loading HMA into silos or trucks produces the second highest concentration of odorous compounds associated with the process. At the point of loading, the HMA is hot and the oil has just been mixed with the aggregate. The action of transferring the HMA from the conveyor to the silo (or truck)) tends to "aerate" the HMA, which can result in release of odorous volatile compounds.

Because air emissions from the facility are based on hourly production rates, utilizing these production rates provides an estimate of the emissions of odorous compounds from the loading operation. Additionally, because the silo is the tallest structure in the HMA plant and due to the action of transferring HMA by conveyor, the contribution to the potential for any off-site impact of odorous compounds from the silo will be much greater than those associated with the asphalt oil storage tank.

ODOROUS EMISSION ESTIMATES

Calculations of air emissions from silo filling operations were prepared using naphthalene as a surrogate for odor. Emissions were calculated using USEPA AP-42 Chapter 11.1 emission factors. Based on a maximum production rate of 300-tons HMA per hour and using the equations for predictive emission factors in Chapter 11.1, an emission factor of 0.00046-lbs naphthalene/ton HMA, or 0.138-lb naphthalene per hour was determined. Next, it was assumed that all emissions emanate from the top of the silo. At the hourly production rate of 300 tons HMA per hour, the volumetric flow rate is 225 cubic feet per minute. Assuming that all odors are emitted from the highest point and at a constant rate, a conservative approach for the analysis of potential off-site odor impact is assured.

ODOR EMISSIONS MODELING

Utilizing the naphthalene emission rate described above, Neu-Velle completed a screening model analysis to determine the impact of off-site odors. The analysis was completed using site specific data, including the site location, exhaust flow rate, exhaust height, etc., along with the assumed emission rate for naphthalene, using the AERSCREEN dispersion model. The AERSCREEN model utilizes local meteorological data and local terrain information to calculate dispersion of contaminants in the air and determines the maximum concentration at given distances from a source. Odor is assessed in terms of the maximum 1-hour concentration and compared to the NYSDEC DAR-1 Short-Term Guideline concentration (SGC) and the ATSDR odor threshold. In addition, we assessed the long term (annual) impact. The distance from the proposed stack to fenceline is

estimated to be 200-feet. The distance to the nearest residential receptor is estimated to be 650-feet (200-meters). The following table provides a summary of the model results.

Table 1 – AERSCREEN Summary

Contaminant	CAS #	Emission Rate Potential (lb/hr)	Distance	Modeled 1-Hour Max Conc (µg/m3)	Modeled Annual Conc (µg/m3)	DAR-1 SGC (µg/m3)	DAR-1 AGC (µg/m3)	ATSDR Odor Threshold (µg/m3)
Naphthalene	00091-20-3	0.14	Fenceline	0.844	0.0844	7900	3	440
			Nearest Residence	0.025	--			

CONCLUSIONS

Based upon the AERSCREEN model results, the maximum short-term (1-hour) off-site concentration of naphthalene is 0.84-micrograms per cubic meter (ug/m^3), and the maximum annual concentration is 0.08-ug/m^3. The 1-hour impact at the nearest residential receptor is 0.025-µg/m^3. These results are well below the NYSDEC DAR-1 guideline concentrations, and the ATSDR odor threshold of 440-ug/m^3. Therefore, odors from the HMA Facility should not be detectable outside the AL Asphalt property boundary or at the nearest receptor.

Please contact me at (315) 466-4079 with any questions or for additional information.

Sincerely

James R. Paye

James R. Paye
Senior Project Manager

Attachments

cc: Al Lyons, Jr., PE, NEU-VELLE, LLC
Alexandra Lettieri, AL Asphalt, LLC

Table 1

NAPTHTHALENE CONCENTRATIONS FROM ASPHALT SILO FILLING

Source Parameters (point source)	
Emission Rate (lb/hr)	0.14
Stack Height (ft)	71
Stack Diameter (ft)	1.0
Flow Rate (acfm)	225
Exit Temp (F)	250
Population (urban only)	
Building Parameters - Single Rectangular Building	
(For no downwash, default parameters are used.)	default
Height (ft)	
Max Dimension (ft)	
Min Dimension (ft)	
Building Orientation (^{o})[1]	
Stack Direction (^{o})[2]	
Stack Offset (ft)[3]	
MAKEMET (use default)	
	default
RECEPTORS (for no fence, 3.2808 ft)	
Distance to fenceline (ft):	200
TERRAIN (use default)	
RESULTS	
1-Hour ($\mu g/m^3$)	**0.844**
Annual ($\mu g/m^3$)	**0.084**

Maximum Impact Summary

	Conc (µg/m3)	*DAR-1 SGC (µ/m3)*	*DAR-1 AGC (µ/m3)*	*ATSDR (µg/m3)*
1-Hour	0.844	7900	--	440
Annual	0.084	3	--	--

Findings: 1. Modeled ambient air impacts meet DAR-1 SGC and AGC
2. Modeled 1-Hour ambient air impact is less than ATSDR odor threshold.

Conclusions: **The process will not result in nuisance odors.**

NEU-VELLE LLC

August 31, 2020

Ms. Rosanne Dipizio
4660 Witmer Rd, LLC
100 Stradtman Street
Cheektowaga, NY 14206

Re: Odor Analysis - Revised
4660 Witmer Rd, Niagara Falls, NY

Dear Ms. Dipizio:

Neu-Velle, LLC (Neu-Velle) has prepared this addendum to the odor analysis in response to the requests made by NYSDEC in their August 20, 2020 email message. A summary of those requests and our response is provided below.

Item 1
*Add formaldehyde to the analysis, including formaldehyde from **combustion sources**.*

Response:
Combustion sources include the drum dryer burner and the hot oil system heater burner. The AP-42 emission factor for natural gas-fired drum mix asphalt plants includes formaldehyde, which is vented via the baghouse. Screening dispersion modeling was performed to determine the 1-hour concentration. The concentration thus determined was 2.5-μg/m^3, which was compared to the ATSDR lower odor threshold of 0.5-ppm (464-μg/m^3 @ 290F). The modeled 1-hour concentration is well below the ATSDR odor threshold. Given the significantly smaller size of the hot oil system heater burner, those results will be well below the ATSDR threshold.

Item 2
*Model (formaldehyde) emissions from the **truck load out** as a volume source.*

Response:
For volume sources, Aerscreen model inputs include emission rate, release height, initial horizontal dimension, and initial vertical dimension. AP-42 factors are used to determine the emission rate. The Aerscreen model results indicate a 1-hour concentration of 0.01-μg/m3, well below the ATSDR temperature-adjusted threshold of 438-μg/m3.

Item 3
*Include (formaldehyde) emissions from the **asphalt cement storage tank**.*

Response:
A conservative hourly emission rate potential based on the AP-42 Table 11.1-16 speciation profile for silo filling and asphalt storage tank emissions was used to model short term concentrations for comparison to the ATSDR odor threshold. The result of 1.85-µg/m3 is well below the ATSDR temperature-adjusted odor threshold of 464-µg/m3.

Item 4
*Model **HMA storage silos** as volume source.*

Response:
A conservative hourly emission rate potential based on the AP-42 Table 11.1-16 speciation profile for silo filling and asphalt storage tank emissions was used to model short term concentrations for comparison to the ATSDR odor threshold. The resulting 1-hour concentration is 6.9-µg/m3, well below the ATSDR temperature-adjusted odor threshold of 419-µg/m3.

Conclusions
The potential for nuisance odors from formaldehyde have been evaluated using published odor threshold data and screening dispersion modeling. Screening dispersion modeling was used to calculate the 1-hour maximum concentration for point and volume sources. For each source, the results indicate that formaldehyde emissions concentrations will be less than the ATSDR odor threshold.

Please contact me at (315) 466-4079 with any questions or comments.

Sincerely

James R. Paye

James R. Paye
Senior Project Manager

Cc: Alexandra Lettieri, 4660 Witmer Rd, LLC

PROJECT DESCRIPTION: 300-tph counterflow drum hot mix asphalt plant

LOCATION: 4660 Witmer Rd, Niagara Falls, NY 14031

OBJECTIVE: Calculate odor impacts for formalehdye from:
1. Dryer/baghouse (point)
2. Hot oil system (point)
3. Load-out (volume)
4. Asphalt storage tank (point)
5. HMA Silos (volume)

	Ht	Dia	Flow	Temp	DtF
Dryer emission point is baghouse	31	1	83000	290	78

Step 1. Determine formaldehyde ERP using AP-42 factors at plant capacity (i.e., 300-tph).

Step 2. Calculate 1-hour impacts using Aerscreen.

Step 3. Compare 1-hr impacts to ATSDR lower threshold.

ATSDR Odor Threshold for Formaldehyde = 0.5 - 1.0 ppm

Step 4. Convert 0.5-ppm to µg/m3 at exhaust temperature:

$mg/m3 = ((ppm \times MW)/22.4) \times (273/T(K)) \times (P_{atm}/P_{actual})$

and $\mu g/m3 = mg/m3 \times 1000$

Source	**Odor Threshold, ppm**	MW (g/mol)	T(F)	T(K)	P_{actual} (atm)	mg/m3	**Odor Threshold, µg/m3**
Dryer	**0.5**	30	250	394	1.0	0.464	**464**
Hot Oil Burner	**0.5**	30	250	394	1.0	0.464	**464**
Load-Out	**0.5**	30	290	417	1.0	0.438	**438**
Asphalt Tank	**0.5**	30	*185*	358	5.8	0.088	**88**
Storage Silos	**0.5**	30	325	436	1.0	0.419	**419**

Step 5. Compare screening model results to odor threshold

Source	Formaldehyde Concentration (µg/m3)	Odor Threshold (µg/m3)	Exceeds Odor Threshold? (Yes/No)
Dryer	2.7	464	No
Hot Oil Burner	6.7E-03	464	No
Load-Out	3.3	438	No
Asphalt Tank	1.9	88	No
Storage Silos	6.9	419	No

Table 1

AERSCREEN ANALYSIS OF FORMALDEHYDE FROM DRYER

Source Parameters (point source)	
Emission Rate (lb/hr)	1.0
Stack Height (ft)	31
Stack Diameter (ft)	4.5
Flow Rate (acfm)	83000
Exit Temp (F)	290
Population (urban only)	
Building Parameters - Single Rectangular Building	
(For no downwash, default parameters are used.)	default
Height (ft)	
Max Dimension (ft)	
Min Dimension (ft)	
Building Orientation (^{o})[1]	
Stack Direction (^{o})[2]	
Stack Offset (ft)[3]	
MAKEMET (use default)	
	default
RECEPTORS (for no fence, 3.2808 ft)	
Distance to fenceline (ft):	78
TERRAIN (use default)	
RESULTS	
Max 1-Hour ($\mu g/m^3$)	**2.7180**

Contaminant	CAS #	Env Rating	PTE (lb/yr)	ERP (lb/hr)	EF ($\mu g \cdot hr/m^3 \cdot lb$)	Conc ($\mu g/m^3$)	SGC ($\mu g/m^3$)	Meets SGC? (Yes/No)
Formaldehyde	50-00-0	A	465	0.9	2.72	2.528	30	Yes

Table 2

AERSCREEN ANALYSIS OF FORMALDEHYDE FROM HOT OIL SYSTEM

Source Parameters (point source)	
Emission Rate (lb/hr)	1.0
Stack Height (ft)	*8*
Stack Diameter (ft)	*0.5*
Flow Rate (acfm)	*5000*
Exit Temp (F)	290
Population (urban only)	
Building Parameters - Single Rectangular Building	
(For no downwash, default parameters are used.)	default
Height (ft)	
Max Dimension (ft)	
Min Dimension (ft)	
Building Orientation (°)[1]	
Stack Direction (°)[2]	
Stack Offset (ft)[3]	
MAKEMET (use default)	
	default
RECEPTORS (for no fence, 3.2808 ft)	
Distance to fenceline (ft):	78
TERRAIN (use default)	
RESULTS	
Max 1-Hour (µg/m^3)	**82.68**

Contaminant	CAS #	Env Rating	PTE (lb/yr)	ERP (lb/hr)	EF (µg·hr/m^3·lb)	Conc (µg/m^3)	SGC (µg/m^3)	Meets SGC? (Yes/No)
Formaldehyde	50-00-0	A		8.1E-05	82.68	0.007	30	Yes

Table 3

AERSCREEN ANALYSIS OF FORMALDEHYDE FROM LOADOUT

Source Parameters (volume source)	
Emission Rate (lb/hr)	3.2E-03
Release Height (ft)[a]	7.5
Initial Horizontal Dimension (ft)[b]	35
Initial Vertical Dimension (ft)[c]	15
Building Parameters - Single Rectangular Building	
(For no downwash, default parameters are used.)	n/a
Height (ft)	
Max Dimension (ft)	
Min Dimension (ft)	
Building Orientation (°)[1]	
Stack Direction (°)[2]	
Stack Offset (ft)[3]	
MAKEMET (use default)	
	default
RECEPTORS (for no fence, 3.2808 ft)	
Distance to fenceline (ft):	78
TERRAIN (use default)	
RESULTS	
Max 1-Hour (µg/m^3)	**3.2790**

Contaminant	CAS #	Env Rating	PTE (lb/yr)	ERP (lb/hr)	EF (µg·hr/m^3·lb)	Conc (µg/m^3)	SGC (µg/m^3)	Meets SGC? (Yes/No)
Formaldehyde	50-00-0	A		3.2E-03	3.28	0.011	30	Yes

Table 4

AERSCREEN ANALYSIS OF FORMALDEHYDE EMISSIONS FROM ASPHALT CEMENT STORAGE

Source Parameters (point source)	
Emission Rate (lb/hr)	1.0
Stack Height (ft)	10
Stack Diameter (ft)	*0.5*
Flow Rate (acfm)	*2000*
Exit Temp (F)	*290*
Population (urban only)	
Building Parameters - Single Rectangular Building	
(For no downwash, default parameters are used.)	n/a
Height (ft)	
Max Dimension (ft)	
Min Dimension (ft)	
Building Orientation (°)[1]	
Stack Direction (°)[2]	
Stack Offset (ft)[3]	
MAKEMET (use default)	
	default
RECEPTORS (for no fence, 3.2808 ft)	
Distance to fenceline (ft):	78
TERRAIN (use default)	
RESULTS	
Max 1-Hour (µg/m^3)	**74.01**

Contaminant	CAS #	Env Rating	PTE (lb/yr)	ERP (lb/hr)	EF (µg·hr/m^3·lb)	Conc (µg/m^3)	SGC (µg/m^3)	Meets SGC? (Yes/No)
Formaldehyde	50-00-0	A		2.5E-02	74.01	1.867	30	Yes

Table 5

AERSCREEN ANALYSIS OF FORMALDEHYDE FROM STORAGE SILOS

Source Parameters (volume source)	
Emission Rate (lb/hr)	1.00
Release Height (ft)[a]	15
Initial Horizontal Dimension (ft)[b]	30
Initial Vertical Dimension (ft)[c]	71
Building Parameters - Single Rectangular Building	
(For no downwash, default parameters are used.)	n/a
Height (ft)	
Max Dimension (ft)	
Min Dimension (ft)	
Building Orientation (°)[1]	
Stack Direction (°)[2]	
Stack Offset (ft)[3]	
MAKEMET (use default)	
	default
RECEPTORS (for no fence, 3.2808 ft)	
Distance to fenceline (ft):	78
TERRAIN (use default)	
RESULTS	
Max 1-Hour (µg/m^3)	**272.3**

Contaminant	CAS #	Env Rating	PTE (lb/yr)	ERP (lb/hr)	EF (µg·hr/m^3·lb)	Conc (µg/m^3)	SGC (µg/m^3)	Meets SGC? (Yes/No)
Formaldehyde	50-00-0	A		2.5E-02	272.30	6.869	30	Yes

Appendix P
Climate Change Analysis

MITIGATION & REDUCTION OF GREENHOUSE GASES
REPORT for
CLIMATE LEADERSHIP and COMMUNITY PROTECTION ACT

4660 Witmer Road, LLC., Air State Facility Permit Application

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4660 Witmer Road, LLC., (Witmer Road) is proposing to construct and operate a 150,000-ton per year counterflow natural gas-fired drum mix hot mix asphalt (HMA) plant. Pursuant to the department's directive under the Climate Leadership and Community Protection Act (CLCPA) a discussion of climate impacts and potential mitigation measures is presented in terms of the following criteria:

- Plant Construction and Design;
- Operating Limits;
- Burner Efficiency;
- Moisture Mitigation;
- Electrification; and
- Hot Mix Asphalt Alternatives

Discussion of Methods to Reduce GHG Emissions

1. Reduction of GHG Emissions from Plant Construction

USEPA AP-42 describes a range of HMA plant types, including:

a. Batch mix
b. Continuous mix
c. Parallel flow drum mix
d. Counterflow drum mix

AP-42 further provides CO2 and CH4 emission factors for natural gas-fired batch mix plants, and natural gas-fired drum mix plants. Whereas Witmer Road is proposed as a natural gas-fired counterflow drum mix plant, the AP-42 factors can be compared to identify potential reductions based on design and construction.

Table 1-1. GHG Emissions, CO2 Equivalents

Plant Type	CO2[1] (lb/ton HMA)	CH4[2] (lb/ton HMA)	Tons HMA/ Year	GWP[3] (CO2)	GWP[3] (CH4)	CO2e (lb/year)	CO2e[3] (tons/year)
Batch Mix, NG-Fired	37	0.0074	150000	1	84	5643240	2822
Batch Mix, #2 Fuel Oil	37	0.0074	150000	1	84	5643240	2822
Drum Mix, NG-Fired	33	0.012	150000	1	84	5101200	2551
Drum Mix, #2 Fuel Oil	33	0.012	150000	1	84	5101200	2551

[1,2]Source, Batch Mix: AP-42 Tables 11.1-5 and 11.1-7
Source, Drum Mix: AP-42 Tables 11.1-6 and 11.1-8.
[2]Source: IPCC, 20-Year GWPs.

Table 1-1 indicates emissions reductions as a function of plant type rather than fuel, assuming the practicable choices are natural gas or No. 2 fuel oil. Based on AP-42 emission factors, the proposed natural gas-fired drum mix plant will result in GHG emissions reductions of 271-tons CO2e per year when compared to a batch mix plant.

2. Reduction of GHG Emissions from Plant Design

The plant will be designed with the capability of producing lower temperature mixes that will require less fuel. The plant will also be capable of using synthetic binders that function at lower temperatures, as allowed by customer specifications. To the extent that the major customer is anticipated to be the NYS Department of Transportation (NYSDOT), the potential for Warm Mix Asphalt (WMA) will be at the NYSDOT's discretion.

If WMA were to be specified, the US Department of Energy estimates potential reductions in fuel consumption of 20 – 35 percent[1] when compared to HMA production. Based on the use of a 75-million Btu per hour (MMBtu/hr) natural gas burner and AP-42 emission factors for CO2 and CH4 from natural gas combustion, GHG reductions from WMA production can be calculated.

75-MMBtu/hr NG burner x 1 MMscf/1020-MMBtu x 500-hpy		=	36.8-MMscf/yr
CO2@120,000-lbs/MMscf x 36.8-MMscf/yr		=	4411765-lb/yr
For GWP = 1, CO2e		=	4411765-lbs/yr
For CH4 @ 2.3-lbs/MMscf and GWP = 84, CO2e		=	7103-lb/yr
	CO2e Total	=	4,418,868-lb/yr
		=	2,209-tons/yr
Assuming a 20% reduction for WMA, CO2e = 2,209-tons/yr x (1-20%)			
		=	1,768-tons/yr
Net reduction: 2,209 – 1,768		=	442-tons CO2e/yr

3. Reduction of GHG Emissions from Plant Operations

The plant will operate during the construction season and plant operation will be limited by staffing. It is anticipated that the plant will run less than 10 – 12 hours per day. If a night shift is required, the plant will not run during the day. The plant will adopt an operating limit of 500-hours per 12-month period. GHG emissions reductions from this operating scenario, including co-pollutants, are illustrated in attached Table 1. Table 1 indicates that adoption of the 500-hour operating limit will result in a difference of 42,189-tons CO2e per year over an unlimited 24/7 operating scenario.

4. Reduction of GHG Emissions from Burner Maintenance

GHG emissions reductions will be achieved by maintaining burner and hot oil system heater efficiencies at optimum levels. Efficiencies will be maintained by performing annual tune-ups, or more frequently as necessary to maintain optimum efficiency. The facility will also monitor burner efficiency by comparing production to fuel usage.

An estimate of GHG reductions from burner maintenance can be calculated based an assumption of 85% efficiency for a properly tuned burner, vs. 60% for an un-tuned burner. The un-tuned burner therefore requires an additional 25% of fuel to achieve the same heat output. Assuming the initial efficiency of the 75-

[1] "Warm Mix Asphalt", US Department of Transportation, Federal Highway Administration.

MMBtu/hr burner is 85%, that means natural gas equivalent to 75 x 1.15 = 86.25-MMBtu/hr is required. At 1020-MMBtu/MMscf, to achieve 86.25-MMBtu/hr requires:

86.25-MMBtu/hr x 1-MMscf/1020-MMBtu = 0.085-MMscf/hr

For the un-tuned burner at 60% efficiency, a 25% heat input deficit, the heat input requirement is:

0.085-MMscf/hr x 1.25 = 0.106-MMscf/hr

The estimated difference in GHG emissions in terms of CO2e between the tuned and un-tuned burners is summarized below:

Table 3-1. GHG Reductions from Burner Maintenance

Burner	Heat Input (MMscf/hr)	CO2[1] (lb/hr)	CH4[1] (lb/hr)	CO2[2] (lb/yr)	CH4 (lb/yr)	CO2e[3] (tpy)
Tuned	0.085	10,200	0.20	5,100,000	98	2554
Untuned	0.106	12720	0.24	6,360,000	122	3185
					Reduction:	631

[1]Emission Factor, CO2 = 120,000-lb/MMscf
[1]Emission Factor, CH4 = 2.3-lb/MMscf
[2]Based on 500-hpy
[3]GWP, CO2 = 1
[3]GWP, CH4 = 84

Thus a 631-ton CO2e reduction in GHG emissions is anticipated from burner maintenance.

5. Reduction of GHG Emissions from Moisture Mitigation

The facility will implement a Moisture Reduction Plan, as detailed in Attachment A. Aggregate will be stockpiled on paved surfaces sloped away from the feed bins on a 6% grade to facilitate drainage. To the extent possible the piles will be covered when not in use. The use of covers has been reported to reduce moisture by as much as 2%. The piles will be aerated on a regular basis by mechanical means. Best operating practices, such as pulling from the top of the piles where material is driest, will be employed. A typical aggregate moisture content for material at the upper part of a pile has been reported at 4%.[2] A moisture meter will be used to monitor water content. The targeted percentage is 6%. However, the measures referenced above are anticipated to reduce moisture to an average of 4%. The reduced moisture will result in a reduction in the amount of fuel required to dry the aggregate. Calculations suggest GHG reductions of 39-tons CO2e per year (see Attached Tables 2 - 3).

6. Reduction of GHG Emissions from Plant Electrification

The facility has considered the use of an electric hot oil system heater for the liquid asphalt storage tanks. For an electric heater, GHG emissions occur at the power generating station so the reduction is not absolute, unless it is viewed at the local level.

Consideration of electrification must also assess capital and operating costs. Capital cost considerations are beyond the scope of this review. However, some analysis of operating cost differences between electric vs.

[2] "4 Ways to Reduce Moisture – and Fuel Costs", Ammann Group, August 3, 2017.

diesel vs. natural gas-fired heaters can be provided. The basis for these differences is provided in attached Table 4, and a summary is provided below.

Table 6.1. Summary of Potential GHG Reductions from Electrification

Heat Source	Operating Cost[1,2] ($$/Year)	GHG Emissions[3] (Tons CO2e/Year)	Life Cycle (years)	Cost for Tune-Ups[4] ($$/year)
Diesel	$2,696	11.2	8 – 10	$500 - $2000
Natural Gas	$827	14.7	8 – 10	$500 - $2000
Electric	$1,912	0	30+	0

[1]Based on plant operation of 500-hrs/yr; assumes engine maintenance sufficient to sustain 85% efficiency.
[2]Assumes other electric-powered equipment will be configured to exploit low demand/low-cost opportunities.
[3]Natural Gas includes CH4 emissions; AP-42 does not provide a CH4 emission factor for diesel combustion.
[4]Estimated.

Table 6.1 does not provide a detailed analysis of capital and operating costs, or depreciation. However, capital cost, and utility service costs based on discussion with the local utility, are estimated at $50,000 whereas the cost to connect the natural gas line is borne by the utility. Operating costs for electric are estimated at 25% over natural gas. Given the minimal reduction in GHG emissions relative to those obtained from limiting the hours of operation and burner maintenance, electrification is not practicable and does not provide a material benefit in terms of reducing GHG emissions.

7. Hot Mix Asphalt Alternatives

Some alternatives to HMA for road construction include:

- Warm Mix Asphalt (WMA)
- Reclaimed Asphalt Pavement
- Concrete

A discussion of each is provided.

- Warm Mix Asphalt (WMA)
  WMA was discussed above. If specified by the NYSDOT 4660 Witmer Road is prepared to produce WMA.

- Reclaimed Asphalt Pavement
  Witmer Road will be accepting Reclaimed Asphalt Pavement (RAP) or Recycled Asphalt products ("millings"). The addition of millings to the asphalt material lessens the need for all virgin aggregate. This will reduce drying time and, therefore, emissions. To the extent available, RAP is anticipated to replace as much as 40% of the aggregate to be used for commercial mixes, and up to 30% for NYSDOT mixes based on anticipated NYSDOT specifications. Assuming 30% RAP, Potential GHG reductions of 23.3 tons CO2e are anticipated from reduced fuel requirements (see Table 5, attached).

- Concrete
  Witmer Road is not designed for concrete mix and the company does not intend to engage in that market.

8. Summary

Characteristics of the proposed facility that will minimize GHG emissions are summarized as follows.

- Plant Construction
  The proposed design includes a natural gas-fired drum mix plant, which is anticipated to results in 10% fewer GHG emissions than a natural gas-fired batch mix plant.
- Plant Design
  The proposed design includes the capability to produce warm mix asphalt (WMA), requiring less fuel and resulting in 20% fewer GHG emissions.
- Plant Operations
  The proposed limit on plant operations will have an enormous impact, reducing GHG emissions by 94%.
- Burner maintenance
  Burner maintenance is anticipated to reduce GHG emissions from fuel usage by approximately 20%.
- Moisture mitigation
  Moisture mitigation is anticipated to reduce GHG emissions from fuel usage by approximately 34%.
- Use of Reclaimed Asphalt Pavement (RAP)
  RAP has the potential to reduce GHG emissions by 30%.

The anticipated and theoretical GHG reductions based on the mitigation measures described above are summarized in Table 8.1:

Table 8.1 – Summary of Potential GHG Reductions from Mitigation Measures

GHG Potential (tons CO2e)	Mitigation Measure	GHG Anticipated (tons CO2e)	Net Reduction (tons CO2e)
2,822	Plant Construction	2,551	172
2,209	Plant Design	1,768	442
44,743	Plant Operations	2,554	42,189
3,185	Burner Maintenance	2,554	631
117	Moisture Mitigation	77.8	38.8
77.8	Use of RAP	54.5	23.3
		Total:	**43,496**

9. Conclusions

This review of climate impacts and potential mitigation measures has identified methods that the facility can and has adopted to minimize GHG emissions while achieving business objectives. The limit on operating hours clearly results in the largest reduction. Burner maintenance is also a major factor in minimizing GHG emissions. At this time, the facility is not committing to an electric hot oil system heater as the estimated capital and operating costs are deemed infeasible. Given the overall reductions in GHG emissions of 43,496-tons CO2e, the 11.2-ton reduction from electrification is relatively insignificant, while the 43,496-ton reduction from other practices is substantial.

Table 1

300 **ton/hr** ***Counterflow Drum*** **Mix Plant, Natural Gas-Fired Dryer**

Natural Gas-Fired Dryer w/ FF					
GHG/ Co-Pollutant	*CAS #*	*Emission Factor (lb/ton)*	*ERP lb/hr*	*tons/yr @ 8760 hpy*	*tons/yr @ 500 hpy*
CO2	124-38-9	33	9900	43362	2475
CH4	74-82-8	0.012	3.60	16	0.9
N2O[1]	10024-97-2	0.00015	0.04	0.2	0.0
CO_2e [2]	0NY750-00-0	34.05	10215	44743	2554
NON-PAH CO-POLLUTANTS					
Acetaldehyde	75-07-0			0.0	0.0
Acrolein	107-02-8			0.0	0.0
Benzene	71-43-2	0.00039	0.12	0.5	0.03
Ethylbenzene	100-41-4	0.00024	0.07	0.3	0.02
Formaldehyde[3]	50-00-0	0.0031	0.93	4.1	0.23
Hexane[3]	110-54-3	0.00092	0.28	1.2	0.07
Iso-octane	540-84-1	4.00E-05	0.01	0.1	0.003
Methyl chloroform	71-55-6	4.80E-05	0.01	0.1	0.004
Propionaldehyde			0.00	0.0	0.000
Quinone			0.00	0.0	0.000
Toluene	108-88-3	0.00015	0.05	0.2	0.01
Xylene	1330-20-7	0.0002	0.06	0.3	0.02
TOTAL NON-PAH HAPS		**0.0051**	**1.53**	**6.7**	**0.38**
PAH HAPS/POM					
2-Methylnaphthalene	91-57-6	7.40E-05	2.22E-02	9.7E-02	5.6E-03
Acenapthene	83-32-9	1.40E-06	4.20E-04	1.8E-03	1.1E-04
Acenapthylene	208-96-8	8.60E-06	2.58E-03	1.1E-02	6.5E-04
Anthracene	120-12-7	2.20E-07	6.60E-05	2.9E-04	1.7E-05
Benzo(a)anth	56-55-3	2.10E-07	6.30E-05	2.8E-04	1.6E-05
Benzo(a)pyr	50-32-8	9.80E-09	2.94E-06	1.3E-05	7.4E-07
Benzo(b)fluor	205-99-2	1.00E-07	3.00E-05	1.3E-04	7.5E-06
Benzo€pyr	192-97-2	1.10E-07	3.30E-05	1.4E-04	8.3E-06
Benzo(g,h,i)pery	191-24-2	4.00E-08	1.20E-05	5.3E-05	3.0E-06
Benzo(k)fluor	207-08-9	4.10E-08	1.23E-05	5.4E-05	3.1E-06
Chrysene	218-01-9	1.80E-07	5.40E-05	2.4E-04	1.4E-05
Fluoranthene	206-44-0	6.10E-07	1.83E-04	8.0E-04	4.6E-05
Fluorene	86-73-7	3.80E-06	1.14E-03	5.0E-03	2.9E-04
Indeno(1,2,3)pyr	193-39-5	7.00E-09	2.10E-06	9.2E-06	5.3E-07
Naphthalene	91-20-3	9.00E-05	2.70E-02	1.2E-01	6.8E-03
Perylene	198-55-0	8.80E-09	2.64E-06	1.2E-05	6.6E-07
Phenanthrene	85-01-8	7.60E-06	2.28E-03	1.0E-02	5.7E-04
Pyrene	129-00-0	5.40E-07	1.62E-04	7.1E-04	4.1E-05
TOTAL PAH HAPS		1.87E-04	5.62E-02	2.46E-01	**1.4E-02**

Table 1

300 **ton/hr** ***Counterflow Drum*** **Mix Plant, Natural Gas-Fired Dryer**

Natural Gas-Fired Dryer w/ FF					
GHG/ Co-Pollutant	*CAS #*	*Emission Factor (lb/ton)*	*ERP lb/hr*	*tons/yr @ 8760 hpy*	*tons/yr @ 500 hpy*
TOTAL POM[3]		1.87E-04	5.62E-02	2.46E-01	**1.4E-02**
HAP Metals					
Arsenic		5.60E-07	1.7E-04	7.4E-04	4.2E-05
Berylium		0	0.0E+00	0.0E+00	0.0E+00
Cadmium		4.10E-07	1.2E-04	5.4E-04	3.1E-05
Chromium		5.50E-06	1.7E-03	7.2E-03	4.1E-04
Cobalt		2.60E-08	7.8E-06	3.4E-05	2.0E-06
Cr(VI)		4.50E-07	1.4E-04	5.9E-04	3.4E-05
Lead		6.20E-07	1.9E-04	8.1E-04	4.7E-05
Manganese		7.70E-06	2.3E-03	1.0E-02	5.8E-04
Mercury		2.40E-07	7.2E-05	3.2E-04	1.8E-05
Nickel		6.30E-05	1.9E-02	8.3E-02	4.7E-03
Phosphorous		2.80E-05	8.4E-03	3.7E-02	2.1E-03
Selenium		3.50E-07	1.1E-04	4.6E-04	2.6E-05
TOTAL HAP METALS		**1.07E-04**	3.2E-02	1.4E-01	**8.0E-03**

Notes:

[1]Based on 75-MMBtu/hr EcoStarII burner w/ NG at 1020 MMBtu/MMscf, heat input ra MMscf/hr

From AP-42 Table 1.4-2, N2O = 0.64 lb/MMscf = lb/hr = **lb/ton**

[2]GHG	EF[a] (lb/ton)	GWP[b]
CO2	33	1
CH4	0.012	84
N2O	0.0002	264

[a] *Source: AP-42 Chapter 11.1*

Total: lb/ton HMA

[b] *Source: IPCC*

Table 2

CALCULATIONS FOR CLCPA FOR 4660 WITMER ROAD - GHG REDUCTIONS FROM MOISTURE CONTROL

CALCULATE GHG EMISSIONS ASSOCIATED WITH AGGREGATE AT **6%** MOISTURE CONTENT

if 1 Btu = Raises 1-lb of water by 1 degree F
then 1 MMBtu Raises 1,000,000-lb of water by 1 degree F
or 1-MMBtu raises 500 tons water 1 degree F

- Natural drainage used to reduce aggregate moisture
- Moisture monitored by meter
- Target moisture content is **6%**

wet aggregate feed rate:	260	tph
wet aggregate moisture content:	6	wt %
moisture feed rate:	15.6	tph
wet aggregate feed temperature:	85	F
mix temp:	350	F
Boilng point:	212	F
Heat Increase:	127	F (assumes boil off at 212)

How much heat to raise 15.6-tons water by 127 F

1-MMBtu/500 tons/degree = 0.002 MMBtu/ton/degree

raise 15.6-tons by 127 degrees = $\frac{0.002 \text{ MMBtu}}{\text{ton/degree}} \times \frac{15.6 \text{ tons}}{\text{hr}} \times 127 \text{ degrees}$

= 3.96 MMBtu/hr

@ 1020-MMBtu/MMscf, 3.96 MMBtu/hr = 0.004 MMscf/hr

@ 500-hpy = 1.94 MMscf/yr

CO2e from 1.94-MMscf = (1.94 MMscf x 120,000 lb CO2/MMscf x 1)+(1.94 MMscf x 2.3 lb CH4/MMscf x 84)
= 233316 lbs CO2e
= 117 tons

Table 3

CALCULATIONS FOR CLCPA FOR 4660 WITMER ROAD - GHG REDUCTIONS FROM MOISTURE CONTROL

CALCULATE GHG EMISSIONS ASSOCIATED WITH AGGREGATE AT 4**%** MOISTURE CONTENT

	if 1 Btu =	Raises 1-lb of water by 1 degree F	
then	1 MMBtu	Raises 1,000,000-lb of water by 1 degree F	
or	1-MMBtu raises	500	tons water 1 degree F

- Natural drainage used to reduce aggregate moisture
- Moisture monitored by meter
- Target moisture content is **4%**

wet aggregate feed rate:	260	tph
wet aggregate moisture content:	4	% x wt
moisture feed rate:	10.4	tph
wet aggregate feed temperature:	85	F
mix temp:	350	F
Boilng point:	212	F
Heat Increase:	127	F (assumes boil off at 212)

How much heat to raise 15.6-tons water by 127 F

1-MMBtu/500 tons/degree = 0.002 MMBtu/ton/degree

raise 10.4-tons by 127 degrees = $\frac{0.002 \text{ MMBtu}}{\text{ton/degree}} \times \frac{10.4 \text{ tons}}{\text{hr}} \times 127 \text{ degrees}$

= 2.64 MMBtu/hr

@ 1020-MMBtu/MMscf, 2.64 MMBtu/hr = 0.003 MMscf/hr

@ 500-hpy = 1.29 MMscf/yr

CO2e from 1.29-MMscf = (1.29 MMscf x 120,000 lb CO2/MMscf x 1)+(1.29 MMscf x 2.3 lb CH4/MMscf x 84)

= 155638 lbs CO2e

= 77.8 tons CO2e

Net Reduction = 38.8 tons CO2e

Table 4

Plant Electrification

Heat for asphalt cement storage	Efficiency, fossil fuel-fired asphalt storage tank or asphalt storage tank hot oil heater = 50 - 85% depending on age and level of maintenance.	
	Efficiency, electric heater =	100%

Operating Cost Comparison

Cost for Electric	Cost/Day @ ~140 kW[1] x 4-hpd[1] x $0.0683/kW[2] =	$38.25
	tons/day @ 300-tph and 10-hpd =	3000
	cost/ton[3] =	$0.013
	cost/season based on 150,000-tons HMA =	$1,912
Cost for Diesel	Cost/day for 20-gal diesel @ $2.696/gal =	$53.92
	tons/day @ 300-tph and 10-hpd =	3000
	cost/ton =	$0.018
	cost/season based on 150,000-tons HMA =	$2,696
Cost for NG	Days/year = 500 hrs/yr x 1 day/10-hrs =	50
	Gal diesel/year = 20 gal/day x 50 days =	1,000
	MMBtu/yr @ 0.137-MMBtu/gal =	137
	MMscf/year @ 1020-MMBtu/MMscf =	0.134
	Mscf/yr =	134
	Cost/Mscf{5} =	$6.16
	cost/season based on 150,000-tons HMA =	$827.37
	annual cost differential:	**$784**
GHG Emissions Reductions based on Diesel	Days/year = 500 hrs/yr x 1 day/10-hrs =	50
	Gal diesel/season = 20 gal/day x 50 days =	1,000
	CO2 = 164-lb/MMBtu x 1000-gal x 0.137-MMBtu/gal =	22,468
	GWP =	1
	CO2e Reduction (tons) =	**11.2**
GHG Emissions Reductions based on NG	Heat Input, MMBtu =	137
	CO2 = 110-lb/MMBtu x 137-MMBtu/year =	15070
	CH4 = 1.25-lb/MMBtu x 137-MMBtu/year =	171
	CO2e Reduction (tons) = [(CO2 x 1)+(CH4 x 84)]/2000 =	14.7

Notes:

[1]140 kW and 4-hpd is assumed sufficient to maintain heat in the tank (source: ForConstructionPros.com, "How to Choose the Best Heat Source for your Asphalt Plant", November 1, 2017

[2]Source: Statista.com, 2019

Table 4

Plant Electrification

[3]Assumes well-insulated tanks and hot oil system interfaced with other large electric-using equipment to avoid demand charges operating off-peak hours.

1000-gal/season @ 0.137-MMBtu/gal

[5]Source: US Energy Information Administration as of Aug 2020.

Table 5

GHG Reductions from the Use of Recycled Asphalt Pavement

Basis:

1. The use of Recycled Asphalt Pavement (RAP) reduces the amount of virgin aggregate required per mix.
2. The displacement of virgin aggregate by RAP reduces the amoung of heat required to dry virgin aggregate.
3. NYSDOT specifications are anticipated to allow for the use of up to 30% RAP.
4. Fuel usage and associated GHG emissions from drying will be reduced by up to 30%.

Calculation:

5. From Table 3, conservatively assuming 4% moisture, heat input per 500-hrs = 1.29 MMscf

6. CO_2e from 1.29-MMscf = (1.29 MMscf x 120,000 lb CO_2/MMscf x 1)+(1.29 MMscf x 2.3 lb CH_4/MMscf x 84)
   = 155638 lbs CO_2e
   = 77.8 tons CO_2e

7. Based on a 30% reduction, heat input required = 0.91 MMscf

8. CO_2e from 0.91-MMscf = (0.91 MMscf x 120,000 lb CO_2/MMscf x 1)+(0.91 MMscf x 2.3 lb CH_4/MMscf x 84)
   = 108947 lbs CO_2e
   = 54.5 tons CO_2e

Net Reduction = 77.8 - 54.5 tons CO_2e
= 23.3

Attachment B

MOISTURE CONTROL PLAN

6NYCRR 212-4.1

AL ASPHALT CORPORATION

100 STRADTMAN ST. CHEEKTOWAGA, NY 14206

August 21, 2019

Alan Zylinkski
Environmental Engineer
NYSDEC, Region 9
270 Michigan Ave.
Buffalo, NY 14203

Re: Aggregate Moisture Reduction Plan for AL Asphalt Corporation – Hamburg Plant

Dear Mr. Zylinkski:

As required by NYCRR 212 we offer the following aggregate moisture control plan to be used at AL Asphalt Corporation facility located at 5690 Camp Rd. Hamburg, NY:

Sand, Course and Fine Aggregate:
All of the aggregates used at this facility are trucked in daily and stored on site. All course aggregate used in the production of HMA is from D&H Materials and will be cleaned washed stone that will minimize fugitive dust. The aggregates will be stored in exterior aggregate bins that are built on site. The aggregate bins are maintained on a concrete leveling pad and we will utilize the FIFO (first in, first out) method to allow for natural drainage from course aggregate and natural moisture reduction. A moisture meter will be used to keep the product at a consistent moisture level.

Operator:
The loader operator will aid in the moisture reduction by visual inspection of aggregate piles to ensure that the driest materials are being used in the manufacturing process. Visual inspection will be required daily.

May you have any questions or concerns please contact me directly at 716-480-0398.

Regards,

Alexandra Lettieri
President