



**South Ripley**  
SOLAR PROJECT

**Connected Chautauqua County LLC**

South Ripley Solar Project  
Matter No. 21-00750

**900-2.17 Exhibit 16**

**Effect on Transportation**

## TABLE OF CONTENTS

EXHIBIT 16	EFFECT ON TRANSPORTATION .....	1
(a)	Conceptual Site Plan.....	1
(b)	Description of the Pre-construction Characteristics of Roads in the Area.....	1
(1)	Traffic Volume and Accident Data.....	1
(2)	Transit Facilities and Routes .....	2
(3)	Emergency Service Providers .....	2
(4)	Available Load Bearing and Structural Rating Information.....	3
(c)	Trip Generation Characteristics .....	5
(1)	Number, Frequency, and Timing of Vehicle Trips .....	5
(2)	Cut and Fill Activity.....	6
(3)	Conceptual Haul Routes and Approach and Departure Routes for Workers and Employees.....	6
(d)	Traffic and Transportation Impact Analysis .....	7
(1)	Projected Future Traffic Conditions With and Without the Facility (Wind Only).....	7
(2)	Evaluation of the Adequacy of the Road System .....	7
(3)	Over-sized Deliveries .....	10
(4)	Measures to Mitigate for Impacts to Traffic and Transportation .....	10
(e)	Impact of the Facility on Mass Transit Systems .....	12
(f)	Federal Aviation Administration Review.....	12
REFERENCES	.....	13

## LIST OF TABLES

Table 16-1. Information for Bridges Identified Along Haul Routes .....	4
Table 16-2. Estimated Traffic Impacts Required for Facility Construction.....	5
Table 16-3. Haul Route Roadway Information .....	8
Table 16-4. Sight Distance Summary .....	9

## LIST OF APPENDICES

Appendix 16-A	Traffic Volume Data
Appendix 16-B	Crash History Data
Appendix 16-C	Roadway Conditions Photos
Appendix 16-D	Sight Distance Diagrams

## **EXHIBIT 16 EFFECT ON TRANSPORTATION**

Mott MacDonald Engineering (Mott), on behalf of the Applicant, identified and characterized effect on transportation and traffic of the South Ripley Solar Project (Facility), as requested under 19 NYCRR 900-2.17 as follows.

### **(a) Conceptual Site Plan**

The Design Drawings for the Project (Exhibit 5: Design Drawings and Appendix 5-A: Civil Design Drawings of this Application) depict all Facility Site driveway and roadway intersections, as well as the location of solar panels, access corridors, road widths, typical access road details including horizontal and vertical geometry, and other related plans and details associated with the Facility's laydown yards, Collection Substation, point of interconnection (POI), battery energy storage system (BESS), and operation and maintenance (O&M) activities drawn at a scale ratio (in feet) of 1:200. Appendix 16-D depicts all Facility Site driveway and roadway intersections showing sight distances, vertical geometry, numbers of approach lanes, and traffic control devices for all Facility Site driveway and roadway intersections. On-site validated lane widths of local roadways within the Facility Site are included in Table 16-3.

Construction delivery vehicles and workers will likely travel to the Facility Site via the New York State (NYS) Thruway, Interstate-90 (I-90) from the north or the southern Tier Expressway, Interstate 86 (I-86) from the south. The Facility Site, haul routes, and workforce access and departure routes are depicted in Figure 16-1 and 16-2.

### **(b) Description of the Pre-construction Characteristics of Roads in the Area**

#### **(1) Traffic Volume and Accident Data**

Traffic volumes along the approach and departure routes to and from the Facility Site were obtained from the New York State Department of Transportation (NYSDOT) Traffic Data Online Viewer (Traffic Data Viewer, 2021). Additional roadway details including functional classification, maintenance and jurisdiction, and speed data were obtained from the NYSDOT Highway Data Services website (New York State Roadway Inventory System Viewer, 2021). The data included information for most of the roadways identified as potential haul routes. For roads where data was not available, estimates were made based on nearby roadways. The pre-construction characteristics of roads and details regarding potential impacts from Facility construction were provided to the Ripley Town Supervisor and Town legal and technical representatives as a component of the Applicant's consultation with local agencies in accordance with 94-c pre-Application procedures.

Average Annual Daily Trips (AADT) volumes were available for most of the State and County Routes. The highest volume is on West Main Street (Rt. 20) with a 2019 AADT volume of 3,613 vehicles per day (vpd). The next highest AADT is on South State Street (Rt. 76) with 906 vpd, which is considered a low volume roadway (AADT

less than 2,000 vpd). Appendix 16-A includes the vehicle count reports and a table that summarizes traffic volume data along the identified routes.

Existing crash data for the Study Area was obtained from NYSDOT through a Freedom of Information Law request and the NYSDOT Accident Location Information System (ALIS). Accident data was obtained for a three-year period ranging from September 2016 to September 2019 and is summarized in Appendix 16-B by case number. During that three-year period, there were approximately 51 reported crashes within the Study Area. Of the 51 crashes reported during the time period there were 17 collisions with other motor vehicles, 8 with animal, 7 with earth/rock/ditch, 3 with guide rail, 3 with bridge/building/culvert, 3 with other fixed object, 2 with pedestrian, 2 with snow embankment, 2 with signpost, 1 with bicyclist, 1 fire/explosion, 1 overturned, and 1 other non-collision. Common apparent factors were animal's action (8), alcohol involvement (7), unsafe speed (6), failure to yield right of way (6), following too closely (4), and slippery pavement (3). 34 crashes (67%) were non-injury property damage only or non-reportable, there were no fatalities or high accident locations reported. Appendix 16-C provides photographs depicting the existing roadway conditions.

## **(2) Transit Facilities and Routes**

There are no mass transit systems that operate within the vicinity of the Facility Site. Accordingly, mass transit systems will not be impacted by the construction and operation of the Facility and are not addressed in this Application.

School bus route information was requested from the Ripley Central, Sherman, and Clymer school districts asking for identification of school bus routes, number of buses, and pickup/drop-off times along the possible haul roads needed for delivery trucks and construction vehicles. Currently, there have not been any responses to the request.

Due to the rural nature of the Facility Site and variability of annual bussing plans, school seasonality and moderate to low existing traffic volumes, it is anticipated that traffic related to the construction and operation of the Facility will have a little to no impact on school bus routes and operations. Though road closures are not anticipated, should any temporarily road closures be needed during construction, the Applicant will contact the appropriate local agencies to provide notifications of such closures.

## **(3) Emergency Service Providers**

A request for input was sent to local emergency responders identified within and around the Facility Site, including the Ripley and South Ripley Volunteer Fire Departments and the Ripley Police and Chautauqua County Sheriff

departments. This request contained a map showing the suggested emergency response routes to the proposed Facility and requested each local emergency responder provide comments on routes they would take to the Facility when responding to a possible emergency. The Applicant received feedback from the Chautauqua County Department of Emergency Services in June 2021 regarding the map depicting response routes for local emergency responders. This feedback included a request for the inclusion of the Westfield Fire Department, Chautauqua Fire Department, Chautauqua County Office of Emergency Services, Chautauqua County Hazmat Team, Mayville Police Department and Trauma Centers in Erie, PA and Buffalo, NY. This feedback was incorporated into emergency route map (Figure 16-3) and the Safety Response Plan (Appendix 6-B). See Figure 16-3 for the map depicting response routes for local emergency responders.

Though road closures are not anticipated, should any temporarily road closures be needed during construction, the Applicant will contact the following emergency responders to provide notifications of such closures.

- |                                       |  |
|---------------------------------------|--|
| ○ Chautauqua County Sheriff's Office  | 15 E Chautauqua St, Mayville, NY 14757 |
| ○ NYS Police Troop A Headquarters     | 4525 West Saile Dr, Batavia NY 14020   |
| ○ Ripley Volunteer Fire Department    | 11 S State St, Ripley, NY 14775        |
| ○ South Ripley Volunteer Fire Station | 10268 NE Sherman Rd, Ripley, NY 14775  |
| ○ Westfield Memorial Hospital         | 189 E Main St, Westfield, NY 14787     |

The Applicant will have on-site employees trained in responding to emergency situations. Please see Exhibit 6 for further discussion of on-site training and emergency response procedures. A map of all emergency service provider locations and routes will be posted in the Collection Substation and the O&M Building (and provided to the emergency service providers). Gravel access roads will extend throughout the Facility Site and are designed for emergency service access with 20 ft. widths, emergency vehicle load bearing capacity, 50 ft turnarounds on each road, and emergency responder accessible gating.

#### **(4) Available Load Bearing and Structural Rating Information**

Load-restricted bridges and culverts and existing bridge posting data was acquired from NY State Highway Bridge Data: (NY State Highway Bridge Data. April 30, 2021) and the NYSDOT Posted Bridge Interactive Map (Posted Bridges. 2021). The Map identifies current R-Posted, Load-Posted and Other-Posted bridges. An R-Posted Bridge is a bridge, which based on design or condition, does not have the reserve capacity to accommodate most vehicles over legal weights, but can still safely carry legal weights. These bridges are identified with signage denoting "No Trucks with R Permits." Posted-Load Bridges are bridges or elevated structures which have a specific weight limit in tons posted on a sign. All vehicles exceeding the specified weights are prohibited, including

those with overweight permits. An Other-Posted Bridge is a bridge or elevated structure that is closed, under construction, or for which vehicle traffic may be otherwise restricted.

There are no R-Posted, Load-Posted, or Other-Posted bridges along the suggested haul routes. It should be noted that there is a load restricted bridge located on Klondyke Road between Rater Road and Mina Road which are both identified as haul routes. Any traffic traveling between Rater Road and Mina Road will utilize Northeast Sherman Road. See Figure 16-1: Haul Route for a depiction of the location of the Load-Posted bridge on Klondyke Road.

The Applicant identified three bridges along the proposed haul routes (see Figure 16-1). Information for the identified bridges is provided in Table 16-1 below. A review of information on the NYSDOT's Highway Data Services website did not reveal any load restrictions for the bridges along the haul routes.

**Table 16-1. Information for Bridges Identified Along Haul Routes**

<b>BIN:</b>	<b>1030010</b>	<b>3325480</b>	<b>1050610</b>
<b>Feature Carried:</b>	76 76 52011165	COUNTY ROAD 13	NY 950D SHORTMAN ROAD
<b>Permitted Vertical Clearance ON:</b>	99.99	99.99	99.99
<b>Crossed:</b>	GAGE GULF	BR TWENTYMILE CRK	90IX EASTBOUND
<b>Permitted Vertical Clearance UNDER:</b>	0' 0"	0' 0"	14'
<b>Crossed Minimum Vertical Clearance Desc:</b>	GAGE GULF	BR TWENTYMILE CRK	90IX EB
<b>Location:</b>	5.9 MI NW SHELDON CORNERS	0.6 MI SW OF SHELDON CNRS	AT EXIT 61 OF I90
<b>County:</b>	CHAUTAUQUA	CHAUTAUQUA	CHAUTAUQUA
<b>Primary Owner:</b>	NYSDOT	30 - County	2L - NYS Thruway Authority
<b>Political Unit:</b>	0715 - Town of RIPLEY	0715 - Town of RIPLEY	0715 - Town of RIPLEY
<b>Year Built or Replaced</b>	1928	2017	1956
<b>Date of Last Inspection</b>	06/24/2019	11/06/2019	8/22/2019
<b>Poor Status</b>	No	No	No

Source: NY State Highway Bridge Data (April 30, 2021)

Discussions with local stakeholders have identified no locally owned load-restricted facilities along the proposed access routes. Roads and crossings along the haul route are under the maintenance and jurisdiction of the NYSDOT, Chautauqua County, and Town of Ripley and assumed to have been constructed using NYSDOT standards.

### (c) Trip Generation Characteristics

#### (1) Number, Frequency, and Timing of Vehicle Trips

The number, frequency and timing of vehicle trips will vary throughout the construction and O&M phase. Table 16-2 outlines the estimated traffic impacts for construction and operation of the Facility, including the number and frequency of vehicle trips by size, weight, and type of vehicle. These trips will be spread out over the length of the construction period, which will last approximately 12-18 months, and will be distributed over the Facility locations during various construction phases.

The following is the anticipated construction phasing sequence and schedule:

- Construction begins Q3 2022
- Site prep – earth moving equipment (Gravel Delivery) – 3 months
- Pier driving – 3-4 months (1-2 month overlap with start of next activity)
- Racking installation (Miscellaneous Delivery) – 3-4 months (1-2 month overlap with start of next activity)
- Panel installation (Panel Delivery)– 3-4 months (1-2 month overlap with start of next activity)
- Substation (Concrete and Delivery)– 3-month installation during Q2 2023
- Commissioning during Q4 2023

**Table 16-2. Estimated Traffic Impacts Required for Facility Construction**

Component/Phase of Work	Vehicle Type	Vehicle Size and Weight (feet (pounds))	Estimated Vehicle Trips Total (vpd <sup>1</sup> )
Construction Staff	Passenger Cars and Other Two-Axle Single Unit Vehicles	20 (8,000)	70,500 (130-225)
Construction Equipment	WB-67 Semi-trailer	75 (70,000)	50 (<1)
Fencing	Two-Axle Single Unit Vehicles	20 (16,000)	200 (3-5)
Gravel	SU-30 Dump Truck	30 (70,000)	3,500-5,800 (60-80)
Concrete	SU-30 Mixing Truck	30 (70,000)	40 (10-15)
PV Panels	WB-67 Semi-trailer	75 (70,000)	1,200 (12-15)
Racking	WB-67 Semi-trailer	75 (70,000)	1,000 (12-15)
Inverters	WB-67 Semi-trailer	75 (70,000)	300 (10-12)
Cabling	WB-67 Semi-trailer	75 (70,000)	400 (12-15)

Component/Phase of Work	Vehicle Type	Vehicle Size and Weight (feet (pounds))	Estimated Vehicle Trips Total (vpd <sup>1</sup> )
Substation Equipment and Transformer	WB-67 Semi-trailer	75 (70,000)	15 (2-3)
Miscellaneous Equipment and Material and Disposal of Construction Waste	Mix of above	20 (16,000) - 75 (70,000)	4,450 (20-30)
Estimate Total Trips			828,600 (225-3609)

<sup>1</sup> Daily trips are limited to specific phases of construction noted in the aforementioned construction phasing sequence and schedule, not the entire construction period.

Material deliveries are anticipated to be distributed throughout a typical 08:00-16:00 work shift, and a majority will occur outside of typical morning and evening peak hour traffic. Based on the distribution of delivery times, the estimated trip generation, and the existing capacity along the identified construction delivery routes, existing traffic is not expected to experience noticeable delay as a result of construction or O&M of the Facility. During operations, typical traffic will be limited to the daily trips of approximately four (4) on-site technicians. Thus, any measurable impacts will be limited to the approximate 12 to 18-month construction phase and will be further limited during winter months given tree clearing and limited site preparation are the only anticipated activities during the winter months.

## **(2) Cut and Fill Activity**

In general, it is not anticipated that significant cut and fill hauling activities will be necessary during construction. It is estimated that fill material will be derived from excavated material, except for the gravel used for access road construction, and no fill will need to be imported for construction of the Facility. Furthermore, cut materials will not be removed from the Facility Site. Stockpiled soils along the construction corridors will be used in site restoration, and all such materials will be re-graded to approximate pre-construction contours. See the Civil Design Drawings (Appendix 5-A) and Exhibit 5 for additional information on cut and fill activity.

## **(3) Conceptual Haul Routes and Approach and Departure Routes for Workers and Employees**

Haul routes and approach and departure routes for workers and employees have been identified in Figure 16-1 and Figure 16-2. Proposed haul routes to the Facility Site use the I-90 Thruway and exit onto Shortman Road south to West Main Street (NY 20) east to South State (CR 76) south to Sherman Road (CR 76) south to Northeast Sherman Road (CR 303) west to the various sites.

Approach and departure routes for workers and employees considered population densities, existing travel patterns, and the efficiency of area roadways. Based on a review of the existing travel patterns, surrounding



roadway network, and population centers in the area it is estimated that 45% of the worker and employee traffic will travel to and from the Facility Site following the conceptual haul route as described above and 25% will travel to and from the south on Sherman Road (CR 76) from I-86. It was assumed that 10% of the traffic will travel to and from the east and west via Miller Road (CR 606) and Route 22 (CR 333) and 5% will travel from the north and south via Miller Road and North Road. The major highways and interstates that will be used prior to reaching local highways do not require special analysis, as they are suitable for all intended uses and will not require alterations in traffic patterns due to their size.

#### **(d) Traffic and Transportation Impact Analysis**

##### **(1) Projected Future Traffic Conditions With and Without the Facility (Wind Only)**

The Facility is not a wind facility and therefore the requirements of § 900-2.17(d)(1) do not apply.

##### **(2) Evaluation of the Adequacy of the Road System**

The existing traffic volumes along the identified haul routes are low to moderate, the highest volume road (Rt. 20) carries approximately 3,613 vpd and 360 vehicles during peak hours. The Highway Capacity Manual, Sixth Edition (HCM) identifies the maximum capacity of similar roadways as 1,700 vehicles per hour per direction (Transportation Research Board, 2016). The maximum estimated peak daily traffic generated during the Facility construction is 360 vpd. Assuming a worst-case scenario of all traffic arriving via the same route (assumes the highest volume route (Rt. 20) during the peak hour, roadway segments along the haul route would have still additional capacity above the use for Facility construction (additional 980 vehicle capacity in peak hour assuming 360 peak traffic plus 360 peak construction traffic).

HCM criteria for Level of Service (LOS) of C for similar roadways is > 4.0 - 6.5 vehicles per mile per lane and >55–70 percent time following and is generally accepted to be an acceptable LOS. Roadways carrying construction traffic are anticipated to operate at a LOS of C or better throughout the construction period.

A field evaluation of road conditions and potential arrival and departure routes was conducted on July 24, 2020 to identify road conditions and potential obstacles to delivery of Facility components during construction (e.g., road width, turning radii, overhead clearance, presence of culverts, presence of steep slopes, etc.). Road conditions were evaluated by visual inspection and then rated with an excellent/good/fair/poor designation. The visual pavement condition ratings were based on the criteria from the Pavement Report under the section “Pavement Condition Measures” (Pavement Report. 2014). Appendix 16-C provides photographs of the roadway conditions observed within the Facility Site during the field evaluation. Additionally, the field evaluation also reviewed

roadside features, bridge and roadway horizontal/vertical restrictions, bridge/culvert locations, and intersection geometry. The field evaluation suggested that the identified routes are suitable for all intended uses and will not require alterations.

Table 16-3 below is a descriptive evaluation of each state, county or town road considered and/or projected to be used as a haul route.

**Table 16-3. Haul Route Roadway Information**

Road Name (Route Number)	AADT <sup>1</sup>	Length of Segment (Miles)	Functional Classification and Jurisdiction	Average Speed <sup>2</sup>	Number of Lanes and Lane Width	Pavement Condition
Shortman Rd. (950D)	870	0.5	Rural - Major Collector – NYSDOT	43	2 - 12' lanes	Good
W. Main St. (US 20)	3,613	1.7	Rural – Principle Collector – NYSDOT	54	2 - 12' lanes	Fair
S. State St. (NY 76)	906	4.0	Rural - Major Collector – NYSDOT	31	2 - 11' lanes	Fair
Sherman Rd. (NY 76)	428	4.0	Rural - Major Collector – Chautauqua County	51	2 - 11' lanes	Excellent to Good
NE Sherman Rd. (CR 303)	476	6.25	Rural - Minor Collector – Chautauqua County	53	2 - 11' lanes	Good
Mina Rd. (CR 622)	93	0.4	Rural – Local Road – Chautauqua County	44	2 - 10' lanes	Good
Rater Rd.	75 <sup>3</sup>	0.25	Rural – Local Road – Town of Ripley	55 <sup>3</sup>	No lane marking – 20' wide road	Fair
Post Rd.	75 <sup>3</sup>	1.0	Rural – Local Road – Town of Ripley	55 <sup>3</sup>	No lane marking – 20' wide road	Excellent
Sulphur Springs Rd.	75 <sup>3</sup>	0.4	Rural – Local Road – Town of Ripley	55 <sup>3</sup>	No lane marking – 20' wide road	Excellent
Sinden Rd.	50 <sup>3</sup>	0.8	Rural – Local Road – Town of Ripley	55 <sup>3</sup>	No lane marking – 20' wide road	Excellent
Miller Rd. (CR 606)	203	0.8	Rural – Local Road – Chautauqua County	44	2 - 10' lanes	Good

<sup>1</sup> AADT - Average Annual Daily Trips

<sup>2</sup> Data obtained from the NYSDOT Traffic Data Viewer

<sup>3</sup> Estimated due to lack of traffic count data

Sight distance was approximated at each of the thirty-nine (39) Access Road locations with values compared to American Association of State Highway and Transportation Officials (AASHTO) minimums. Sight distance values included both Stopping Sight Distance (SSD) for the main roadways as well as Intersection Sight Distance (ISD) at each of the driveways using topographic survey and site plans. For 55 mph design speed the minimum SSD is 495 feet, and 610 feet for ISD. Appendix 16-D includes sight distance diagrams at each of the Access Road intersections.

It was found that four (4) Access Road entranceways (AR 13, AR 19, AR 26B, and AR 29) have limited ISD, and three (3) Access Road entranceways (AR 13, AR 19, and AR 26B) have limited SSD due to potential vegetation and trees or the horizontal or vertical curvature of the roadway. For these Access Roads, it is recommended that intersection warning signs be placed to mitigate the limited intersection site distance. The ISD and SSD measurements are shown in Table 16-4. Please see Appendix 16-D for the visual sight line analysis.

**Table 16-4. Sight Distance Summary**

Access Road	Intersecting Street	Posted Speed Limit	Intersection Sight Distance		Stopping Sight Distance	
			Looking Left	Looking Right	NB/EB	SB/WB
AR 01	NE Sherman Road	55	>610'	>610'	>495'	>495'
AR 02	NE Sherman Road	55	>610'	>610'	>495'	>495'
AR 03	Miller Road	55	>610'	>610'	>495'	>495'
AR 04	Miller Road	55	>610'	>610'	>495'	>495'
AR 05	NE Sherman Road	55	>610'	>610'	>495'	>495'
AR 06	NE Sherman Road	55	>610'	>610'	>495'	>495'
AR 07	NE Sherman Road	55	>610'	>610'	>495'	>495'
AR 08	NE Sherman Road	55	>610'	>610'	>495'	>495'
AR 08A	NE Sherman Road	55	>610'	>610'	>495'	>495'
AR 09	NE Sherman Road	55	>610'	>610'	>495'	>495'
AR 10	NE Sherman Road	55	>610'	>610'	>495'	>495'
AR 11	NE Sherman Road	55	>610'	>610'	>495'	>495'
AR 12	NE Sherman Road	55	>610'	610'	>495'	>495'
AR 13	NE Sherman Road	55	410'	>610'	410'	>495'
AR 14	NE Sherman Road	55	610'	>610'	>495'	>495'
AR 15	Miller Road	55	>610'	>610'	>495'	>495'
AR 16	Miller Road	55	>610'	>610'	>495'	>495'
AR 17	Miller Road	55	>610'	>610'	>495'	>495'
AR 18	Miller Road	55	>610'	>610'	>495'	>495'
AR 19	Miller Road	55	>610'	420'	>495'	420'
AR 20	Miller Road	55	>610'	>610'	>495'	>495'
AR 21	NE Sherman Road	55	>610'	>610'	>495'	>495'
AR 22	NE Sherman Road	55	>610'	>610'	>495'	>495'
AR 23	Sinden Road	55	>610'	>610'	>495'	>495'
AR 24	Sinden Road	55	>610'	>610'	>495'	>495'
AR 25	Sinden Road	55	>610'	>610'	>495'	>495'
AR 26A	NE Sherman Road	55	>610'	>610'	>495'	>495'
AR 26B	Post Road	55	>610'	365'	>495'	365'
AR 27	Post Road	55	>610'	>610'	>495'	>495'
AR 28	Post Road	55	>610'	>610'	>495'	>495'
AR 29	Rater Road	55	>610'	600'	>495'	>495'

Access Road	Intersecting Street	Posted Speed Limit	Intersection Sight Distance		Stopping Sight Distance	
			Looking Left	Looking Right	NB/EB	SB/WB
AR 30	NE Sherman Road	55	>610'	>610'	>495'	>495'
AR 31	NE Sherman Road	55	>610'	>610'	>495'	>495'
AR 32	Mina Road	55	>610'	>610'	>495'	>495'
AR 33	Mina Road	55	>610'	>610'	>495'	>495'
AR 34	Rt 76	55	>610'	>610'	>495'	>495'
AR 35	Rt 76	55	>610'	>610'	>495'	>495'
AR 36	Rt 76	55	>610'	>610'	>495'	>495'
AR 37	Sinden Road	55	>610'	>610'	>495'	>495'
AR 38	NE Sherman Road	55	>610'	>610'	>495'	>495'
AR 39	NE Sherman Road	55	>610'	>610'	>495'	>495'

### (3) Over-sized Deliveries

The Facility Substation transformer is the only potential oversized/overweight (OS/OW) delivery anticipated during construction of the Facility. It is expected that it will be delivered on a “lowbed” semi-trailer and may require a Special Hauling Permit (Non-Divisible Load) which will identify the delivery vehicle design and the required haul route. Based on the proposed roadway configuration, it is not anticipated that major improvements will be needed to accommodate this OS/OW delivery. Minor shoulder improvements and restoration may be required at the substation site entrance and the Applicant will work with the Town of Ripley and Chautauqua County Highway Departments to estimate Road Use Agreements, as necessary.

### (4) Measures to Mitigate for Impacts to Traffic and Transportation

#### *Transit and School Busing*

Before construction begins and throughout the construction process, the Applicant will continue to coordinate with the bus companies and local school districts to avoid impacts and delays to bus routes. The Applicant will inform local officials, school districts, and bus companies where construction activities will take place along local commute routes and notify them of any event that that may impact their routing or commute times. The Applicant will advise these stakeholders in advance of any potential road closures (currently, none projected) and will work to identify alternative routes if necessary. It is expected that overall impacts to the buses and the local school districts busing program is projected to be minimal and no significant mitigation beyond the ongoing coordination is necessary.

#### *Emergency Response*

Before construction begins and throughout the construction process, coordination will continue between the Applicant and local emergency service providers to notify them of any event that that may impact their routing or

response time. Emergency service providers will also be advised on significant changes in site work/number of workers, if any. Since there are not any anticipated construction activities that will require road closures or detours, impacts to local emergency service providers routes or response times are not expected and no significant mitigation beyond the ongoing coordination is necessary.

#### *Traffic Impacts*

It is expected that any impacts to the local traffic and roadways resulting from the proposed Facility will be minimal and greatly limited to the construction phase of the Facility. Permanent traffic impact mitigation efforts are not anticipated to be required as a result of the construction or O&M of the Facility.

In response to the limited ISD, it is recommended the contractor trim vegetation within the frontage, install additional temporary work zone construction entrance/intersection warning signs to heighten awareness of the proposed access and construction vehicle activity, and potentially set up a reduced speed zones for the limited approaches during high traffic times during the construction phase.

#### *Upgrades to Deficient Roadways*

It is not expected that temporary widening of the travel surface with an aggregate roadway surface will be required to accommodate the turning movements of delivery vehicles. The roadways currently support trucks in the area and are assumed to have been designed and constructed as per NYSDOT design standards. At the completion of construction, the local roadway network pavement will be evaluated for areas where improvements are required because of any damage caused by the construction trucks. If necessary, the roadways will be repaired to pre-construction conditions.

No bridge or culvert structures are currently identified to be deficient. Before construction, any bridge or culvert structures along the actual haul route will be identified and approval will be requested from the NYSDOT and applicable counties/municipalities, if necessary.

The Applicant will submit a Traffic Control Plan as a pre-construction compliance filing in accordance with Section 900-10.2(e)(8) to ensure safety and minimize potential delays to traffic during construction activities. This plan will contain final haul route maps, copies of all applicable transportation permits, agreements with utility companies, and local road use and restoration agreements. The Applicant will comply with the substantive requirements of the local laws as related to road use.

**(e) Impact of the Facility on Mass Transit Systems**

There are no airports and airstrips, railroads, buses or any other mass transit systems within the Facility Site. Accordingly, no airports and airstrips, railroads, buses or any other mass transit systems, will be impacted by the construction and operation of the Facility and are not addressed in this Application.

**(f) Federal Aviation Administration Review**

The proposed Facility does not trigger Federal Aviation Administration (FAA) review under 14 CFR Part 77.9 since there are no structures proposed which exceed 200 feet in height above ground level, and nearby public and private airports are outside the Transportation Study Area. On April 21, 2021, project representatives coordinated with David Carlin, FAA Community Planner – New York Airports District Office regarding the Facility. The Applicant provided Facility Site maps and digital files for the FAA's review. It is not anticipated that FAA filings or review is required.

Neither the construction nor the operation of the Facility is anticipated to affect aviation. Therefore, consultations with the airports were not conducted and will not be addressed in this Application.

## REFERENCES

Traffic Data Viewer. 2021. New York State Department of Transportation. Available at: <https://gisportalny.dot.ny.gov/portalny/apps/webappviewer/index.html?id=28537cbc8b5941e19cf8e959b16797b4>

New York State Roadway Inventory System Viewer. 2021. Available at: <https://gis.dot.ny.gov/html5viewer/?viewer=rsvviewer>

Transportation Research Board. 2016. *Highway Capacity Manual 6th Edition: A Guide for Multimodal Mobility Analysis*. Washington, DC: The National Academies Press. Available at: <https://doi.org/10.17226/24798>

NY State Highway Bridge Data. April 30, 2021. Available at: <https://www.dot.ny.gov/main/bridgedata/repository/ChautauquaBridgeData.pdf>

Posted Bridges. 2021. New York State Department of Transportation. Available at: <https://gis.dot.ny.gov/html5viewer/?viewer=postedbridges>

Pavement Report. 2014. New York State Department of Transportation. Available at: <https://www.dot.ny.gov/divisions/engineering/technical-services/technical-services-repository/pavement/14PR.pdf>

American Association of State Highway and Transportation Officials (AASHTO), 2018, *A Policy on Geometric Design of Highway and Streets*, 7th Edition