# **Agricola Wind Project**

Permit Application No. 23-00064

1100-2.17 Exhibit 16

**Effect on Transportation** 

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# **EXHIBIT 16 EFFECT ON TRANSPORTATION**

On behalf of the Applicant, Westwood Survey & Engineering (Westwood) prepared Traffic Control Plans, developed a Sight Distance Analysis, identified turbine component delivery vehicle information, and used publicly available traffic data information to identify and characterize anticipated haul routes, document existing conditions of public roads, estimate the vehicular trips generated by the construction and operations of the Facility, and identify potential impacts of the associated traffic. The methodology and results of the findings are further described in Appendix 16-A, Appendix 16-B, Appendix 16-C and summarized herein.

# (a) Conceptual Site Plan

The Civil Design Drawings for this Facility (Appendix 5-A) identify all access road locations and geometry, including those associated with the approximate number of turbines, collection substation, point of interconnection (POI) switchyard, meteorological (MET) towers, aircraft detection lighting system (ADLS) tower, temporary laydown yards, temporary concrete batch plant, and access roads. No permanent traffic control devices are proposed as part of the Project. The Applicant may use temporary traffic control signage during construction and/or decommissioning of the Facility, as outlined in the traffic control plan (Appendix 16-A). The traffic control devices follow MUTCD standards and include tubular markers, "ROAD WORK AHEAD" signs, and flaggers. These devices are used to mitigate the speed and traffic in the project area for the safety and protection of the communities involved and the construction staff. No extended road closures are anticipated at this time, however, should the turbine manufacturer require closures at the time of delivery, the Applicant will provide a reroute traffic plan. Information on public road constraints, including the number of approach lanes, is provided in Appendix 16-A. A sight distance analysis for access road driveways is provided in Appendix 16-B.

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

This exhibit includes an analysis of existing road and traffic conditions in the vicinity of the Facility Site. Data on traffic volumes and accident frequency, school bus and emergency responder routes, and load-restricted bridges and culverts are provided below. The area in the vicinity of the Facility Site includes the roads outlined in the delivery flow plan (See Appendix 5-A and Appendix 16-A) to be used for component delivery and internal roads to the site that could be used for lighter construction traffic. The vicinity of the Facility Site is further defined as the roads adjacent to the Facility Site that could see traffic increases as a direct or indirect result of the construction and operation of the Facility.

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

Traffic volume data along proposed haul routes for the Facility were obtained from the New York State Department of Transportation (NYSDOT) Traffic Data Viewer and Highway Services website and field investigations. NYSDOT Traffic Data Online Viewer has available traffic volume data for both county and state roads, while local roads were evaluated by field observations. State Route 34 is the only road with

data available via NYSDOT. The traffic volume on State Route 34 is relatively small, with approximately 4,000 annual average daily trips (AADTs). Based on knowledge from landowners and site visits, the expected traffic on county and local roads in the vicinity of the Facility Site is largely farming-related or residential. Overall, this site has normal to low existing traffic volumes.

Crash data from Cayuga County and the Department of Health spanning from 1979 to 2021 was analyzed to identify any crash patterns or safety concerns on roads within the Facility Site and adjacent to it that may be used by lighter construction traffic (e.g., as pickup trucks) or community members that choose to navigate around the Facility Site (the Study Area). The most comprehensive traffic study available is from 2021. This study focused on transportation hazards and used data from 2014. In 2014, Cayuga County experienced 2,970 vehicular accidents. In the perspective of the 4,000 AADT seen on Stat 34, these data can be used to approximate that less than 0.5% of the vehicular accidents in Cayuga County occurred on State Route 34 in the Project Area. The largest number of accidents in Cayuga County occurred on US Route 20 and the section of Interstate 90 that passes through Cayuga County. Based on this available data, Cayuga County experiences vehicular accidents due to the following factors:

- Driver Distraction (14.3%)
- Failure to Yield (14.6%)
- Following to Close (9.1%)
- Passing/Lane Violations (9.7%)

A breakdown of the accident data as well as age, gender, injury, etc. is available via the Cayuga County website or the New York State Department of Health (Source: Cayuga County Risk Assessment, NY Dept. Of Health 1).

#### (2) Transit Facilities and Routes

Transit service in the area is limited to City of Auburn bus routes, Central NY Regional Transportation Authority (Routes from Auburn to Syracuse) or Human Service Agency Transportation Providers, largely servicing those with medical needs and/or senior citizens. The bus routes from Auburn to Syracuse and the Human Services public transportation largely is not anticipated to affect the construction of the Project. However, these public transportation routes will be considered to minimize any potential impacts to Facility construction. The City of Auburn has five bus routes that operate from 5:45 am to 11:25 pm, Monday through Friday; and 8:00 am to 8:00 pm on Saturdays and Sundays. During the construction of the Facility, construction operations will be conducted with careful consideration to help minimize any potential impacts on these public transit services.

On behalf of the Applicant, Westwood reviewed school district routes for those districts that serve the Facility Site. The proposed haul routes travel through the Southern Cayuga Central School District and the

Available at: https://www.health.ny.gov/statistics/prevention/injury\_prevention/traffic/county/cayuga/index.htm

Moravia Central School District. The Applicant reached out to the school districts to identify bus schedules for haul routes within and adjacent to the Facility Site via a letter dated July 19, 2024. The Moravia Central School District provided school bus route information (see Appendix 2-B), and this information was included in the scope of this analysis. Turbine deliveries will be coordinated with school districts prior to delivery. The Applicant will make efforts to avoid delivery of heavy vehicles during morning school bus pick-up and afternoon drop-off hours to avoid disruption of school bus service.

### (3) Emergency Service Providers

The emergency service provider stations in the vicinity of the Facility include the Southern Cayuga Instant Aid (SCIA), the Scipio Volunteer Fire Department, the Long Hill Fire Company, and the Poplar Ridge Fire Company. The Safety Response Plan (Appendix 6-A) includes maps that provide the locations of these emergency service providers.

The Applicant has commenced consultations with emergency service providers to minimize potential impacts to emergency service routes throughout the construction process. On March 13, 2024, the Applicant delivered hardcopies of the Safety Response Plan (Appendix 6-A) and Site Security Plan (Appendix 6-B) to local first responders requesting review of the plans and for any comments or questions. In addition to the letters, the Applicant hosted a meeting on April 23, 2024 with the local emergency service representatives, including attendees from the SCIA, Long Hill Fire Company, Poplar Ridge Fire Company, and Cayuga County Office of Emergency Management to review the draft Safety Response and Site Security Plans. Feedback from the local emergency responders was considered when the Applicant completed relevant edits to the Safety Response Plan (Appendix 6-A) and Site Security Plan (Appendix 6-B). Following the meeting, the Applicant provided a summary via email of what was discussed to all the responders, including those that were unable to attend the meeting (see Appendix 2-B). The Applicant also requested additional feedback from local emergency responders if they had any before the plans are finalized for the Article VIII Application submittal. If any transportation issues are identified by any of these emergency service providers during continued consultation efforts, those will be addressed and the Safety Response Plan and Site Security Plan will be updated accordingly, as needed. Local emergency service providers will be notified in advance of any road closures. Therefore, it is anticipated that there will be minimal to no impacts to local emergency service routes. Figure 1 of Appendix 6-A provides a map of the emergency service provider locations, as well as public roads that may be used to access the site in the case of an emergency.

The Safety Response Plan (Appendix 6-A) was provided to Town Supervisors and emergency service providers in the area and includes detailed instructions and guidelines to be followed by site personnel and emergency responders in the event of a major emergency (see Appendix 2-A for documented correspondence with these parties). The Applicant will have employees on-site trained in responding to emergency situations. Please see Exhibit 6 for a detailed discussion of the consultations completed by the Applicant to date, on-site training, and emergency response procedures.

# (4) Available Load Bearing and Structural Rating Information

The Applicant provided copies of draft Road Use Agreements (RUA) to Town Supervisors and Town Highway Superintendents at each respective Town Board Meeting in February and March 2024. The Applicant also initiated consultation with the Cayuga County Highway Committee representatives via email on May 29, 2024 and during a virtual meeting on June 11, 2024 regarding the possibility of developing a Road Use Agreement (RUA) at the County level. On June 17, 2024, the Applicant emailed the Town and County representatives together as one group to share a copy of the draft RUA, along with a draft haul route in relation to the Facility, requesting feedback and redlines as well as specific input on the suitability of local roads and their pre-construction characteristics (see Appendix 2-A and 2-B). The Applicant understands that the Town and County representatives are actively collaborating on RUA development and expect direct consultation efforts to progress in the coming months. Following receipt of comments on the RUAs, the Applicant will work with the Town Supervisors, Town Highway Superintendents, and County Highway Committee representatives to address any concerns. Updated copies of haul routes and maps will also be provided to the appropriate representatives once finalized.

The transportation study identified and evaluated bridges along the proposed haul routes. There are no bridges located along the proposed haul routes. Small culverts exist along the proposed haul routes, but field investigations conducted on June 7 and 8 of 2023 did not indicate that any culverts would present an issue along the proposed delivery route. As indicated in Appendix 16-D, Culvert Recommendation Map, no culverts located along the proposed haul route will need to be protected and monitored at this time. Culverts will be inspected prior to construction and will be monitored during materials delivery, as necessary. It is not expected that culvert findings will impact or necessitate a change in the proposed haul routes. However, the Applicant will continue to consult with local and county highway supervisors, and it is anticipated that town highway supervisors will provide more information on the conditions of town road culverts.

# (c) Facility Trip Generation Characteristics

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

Exact scheduling of construction work and required vehicles will be determined by the Applicant's contractor prior to construction; however, the transportation of Facility components will involve numerous conventional and specialized transportation vehicles. Due to the nature of wind projects, it is understood that while trip generation may be low during typical operation of the site, construction of the wind farm may result in higher levels of trip generation. Therefore, trip generation was estimated during construction of the facility based on number of truck trips required for preparation of each turbine location, delivery vehicles to and from each turbine site, as well as construction vehicles required for intersection improvements. A summary of the types of construction vehicles that are anticipated to be used to transport the Facility components and construction materials/equipment is provided in Table 16-1. Trucks and cars for transporting construction workers, small equipment, and tools are not included in this table because of their minimal impact on traffic volume and road integrity.

Table 16-1. Estimated Total Number of Heavy Vehicle Trips Required for Project Construction

Component / Truck Type	Assumption	Truck Type and Approximate Gross Weight	Approximate Vehicle Dimensions	Trips per Site (One- Way)	Total Trips (Two-Way)		
Turbine Components	Includes 3 blades, 1 nacelle, 6 tower sections	Variable (see Appendix 16-C)	Variable (see Appendix 16-C)	10	480		
Foundation Steel	Includes rebar, embed rings, and anchor bolts	Flatbed, 5 axles, 30 ton	60' L x 8.5' W x 8" H	5	240		
Road Construction	60,575 linear feet of new road at 8" profile and 16' width	Triaxle, 35 ton	25′ L x 9′ W x 10.5′ H	75	3,600		
Crane	16 Base/Mid Crane pieces, 40 topout crane pieces, 4 miscellaneous	Flatbed, max 22 tons per axle	100' L x 10' W x 14' H 70' L x 10' W x 14' H	120	5,760		
Concrete	1,050 Cubic Yards at 10 Cubic Yards per Truck	Mixer truck, 35 ton	26' L x 9' W x 10.5' H	54	2,592		
Radius Improvements	Assumed fill for average intersection widening	Triaxle, 35 ton	25' L x 9' W x 10.5' H	50	1,200		
		Subtota	al for Turbine Locations	314	13,872		
Laydown Yard	Gravel and equipment for establishment of yard	Triaxle, 35 ton	25′ L x 9″ W x 10.5′ H	675	1,350		
Batch Plant Laydown Yard	Gravel and equipment for establishment of yard	Triaxle, 35 ton	25' L x 9' W x 10.5' H	725	1,450		
Substation, Switchyard, and O&M Yard	Assumed fill, gravel, and concrete for substation and switchyard pads; delivery of equipment and structures	Variable <sup>1</sup>	Variable <sup>1</sup>	1,726	3,452		
Total Heavy Vehicle Trips Generated 20,124							

<sup>&</sup>lt;sup>1</sup> A combination of triaxle, 35-ton; mixer trucks, 35-ton; and flatbed (max 22-tons per axle) trucks are expected to be utilized. 35-ton vehicles were used in calculations to provide a conservative estimate.

Typical daily operational traffic information was determined based on the anticipated number of employees for operation of the Facility. During the operational phase of the Facility, two to four employees are expected to operate the site daily. Anticipating all employees arrive separately and leave the Facility once during the day, this would result in 15 additional daily trips, or at most, four additional peak hour trips.

The Applicant is seeking to have uniform construction hours applied within the Town of Scipio in accordance with the construction hour limits in 16 NYCRR Section 1100-6.4(a) and will adhere to the Town of Venice's construction hours as described in their Local Law 2 of 2024, Section 8(11). As allowable within their local law, the Applicant will coordinate with the Town of Venice on a case-by-case basis if deviations

from their construction hours are required to optimize the delivery of turbine components, or if other construction-related activities are necessary beyond the hours outlined in Section 8(11) of their local wind law.

# (2) Cut and Fill Activity

During the design process, every effort has been made to attempt to balance the earthwork on a per access road basis so that all materials removed during construction are reused on-site eliminating the necessity for external transportation. Any remaining cut fill material used for access roads will be redistributed across the site, minimizing the need for external transport. As a result, it is not anticipated that the access road grading to be performed would result in the transport of significant quantities of removed or imported material over roads evaluated in the Traffic Control Plan.

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

Appendix 16-A shows the proposed Facility Site routes and approaches. During construction, employees and workers accessing the site with heavy haul/construction equipment (e.g., dump trucks or larger), or anything that exceeds the posted weight limits on public roads, will follow final haul routes. Final haul routes will be developed in consultation with the host municipalities and state, county, and municipal highway officials in coordination with the turbine manufacturer. In accordance with the pre-construction compliance filing requirements, final haul routes shall be accurately depicted in drawings submitted with a Traffic Control Plan before construction begins. See Section 1100-10.2(E)(8).

Any workers and employees in regular vehicles (pick-up truck size and smaller) will access the construction site and worker parking areas through use of whichever public road route is most logical and efficient for the respective individual.

- (d) Traffic and Transportation Impact Analysis
  - (1) Comparison of Traffic with and without the Project

The Facility is not within a congested urbanized area as indicated in the traffic volume data. Therefore, a calculation and comparison of the level of service for each representative intersection are not included in this Application.

#### <u>Traffic Without the Project</u>

The roads evaluated within the Facility delivery routes (defined as roads planned to be used for heavy construction traffic or component delivery) carry relatively low levels of traffic (see Section (b)(1)). Although State Route 34 has moderate traffic use for a rural road, other local roadways in the vicinity of the Facility (defined as roads adjacent to the project that may be used by lighter construction traffic like

pickup trucks) carry relatively low traffic volumes. While State Route 34 is the busiest road in the Project Area, its estimated AADT is approximately 4,000. Therefore, State Route 34 is not generally considered a busy road when reviewing NYSDOT data. Historical traffic volume data found in the latest version of the Traffic Data Report published by NYSDOT, indicates that traffic volume growth rates have been flat or even negative for some roadways. If the Facility was not built, traffic levels could be expected to remain at these levels.

#### <u>Traffic During Project Construction</u>

During peak traffic periods, Westwood estimates that these construction deliveries could result in approximately 225 trucks entering and exiting the Facility Site on a given day. Traffic associated with these deliveries and connected construction activities will occur on roads identified in the Traffic Control Plan but will be concentrated in areas where access roads or foundations are being installed and the construction yard areas, which includes the temporary concrete batch plant and laydown yards.

#### <u>Traffic Increases from Project Construction</u>

As described in Exhibit 16(c)(1), during the peak construction traffic weeks, traffic levels will increase. The increase in traffic will be temporary and should not cause more than minor delays for drivers that normally use these roads. Based on the methodology provided in the NYSDOT Highway Design Manual, State Route 34 is currently classified as a "Level of Service D" or better and will continue to be considered so throughout construction and operation of the Facility.

Overall, due to the already low traffic volumes in the vicinity of the Facility Site, and the fact that construction traffic will be spread over a large geographic area, increased traffic volumes associated with Facility construction will not cause a significant impact to the area residents.

#### <u>Traffic Increases during Project Operation</u>

Traffic projections were prepared for the Project's expected year of completion. Historical traffic volume data found in the latest version of the Traffic Data Report, published by the NYSDOT, indicates that traffic volume growth rates on roadways utilized have been flat or even negative for some roadways. Therefore, to provide a conservative analysis, traffic projections were prepared for the anticipated year of completion by applying a 0.25% per year growth rate to the existing traffic volumes. While operation of the Facility is expected to result in approximately 15 to 30 additional daily trips, even under a conservative analysis, this increase will not substantially increase the AADT and, therefore, will not surpass a "level of service" threshold. As such, no significant impact is anticipated on traffic operations. Likewise, the increased traffic will consist almost exclusively of cars and light-duty trucks associated with ongoing operation and maintenance activities.

# (2) Evaluation of the Road System to Accommodate Projected Traffic

A descriptive evaluation of the state, county, and local roads considered for use as a construction transportation route and/or routes for Facility access are outlined below. Traffic interferences are not anticipated along these routes during the construction or operation phases of the Facility.

As noted in this exhibit, the majority of the roads in the Study Area appear to operate below vehicle capacity due to low traffic volumes. A detailed capacity analysis was not conducted; however, field observation of the transportation network did not indicate any locations where traffic flow and/or capacity created undue delays. During Project construction, the increased truck traffic from workers, construction vehicles, and delivery vehicles could present the opportunity for traffic interferences.

As noted in Section (c)(1) of this exhibit, construction hours within the Town of Scipio will occur in accordance with the construction hour limits in 16 NYCRR Section 1100-6.4(a), while construction hours within the Town of Venice will occur within hours outlined in Local Law 2 of 2024, Section 8(11). While construction work will occur within these timeframes, construction workers will likely arrive on site by 7 a.m. and leave by 8 p.m., to organize and plan for construction activities that will occur on a given day. These arrival and departure times may vary seasonally, depending on daylight hours. This timing for worker departures should prevent the peak of construction worker traffic to avoid impacting typical peak rush hour traffic on nearby roadways.

A descriptive evaluation of the state, county, and town roads considered for use as haul routes, construction vehicle routes, and/or routes for Facility access are outlined below. Potential delivery routes between the proximate interstate highways and the turbine locations within the Facility were examined. While the turbine component manufacturer has not yet provided their final routing, and will not be provided until closer to construction, a route from Interstate 90 to State Route 34 to Sherwood Road has been identified as the most logical delivery route. This route has been analyzed generally has gradual curves, minimal, if any, required obstacle clearing (i.e., overhanging trees), and minimal turns leading to the Project Site. While reviewing other routes off major roadways, such as US Route 20, State Route 38, and State Route 34 (from the South), there were concerns of sharp turns that would require intense clearing and/or grading, or complicated delivery requirements in highly congested areas of significance, such as Ithaca. Thus, the route from Interstate 90 to Sherwood Road is currently defined as the route into the Project Area for component delivery.<sup>2</sup>

The delivery route does involve travel through the City of Auburn and the Village of Weedsport. Due to the substantial length and height of turbine blades, urban infrastructure in these municipalities may need to be temporarily modified to ensure safe passage. This typically involves coordinating with local utility

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<sup>&</sup>lt;sup>2</sup> Following the final selection of a turbine supplier, the original equipment manufacturer (OEM) for the turbines may require changes to the delivery flow plan. The Applicant will work with ORES to permit any changes to the delivery flow plan required by the OEM.

companies, the city or village, the OEM (original equipment manufacturer), and the delivery company to raise or temporarily remove overhead lines and working with municipal authorities to adjust or temporarily dismantle streetlights. Such modifications are crucial to prevent damage to both the turbine components and the town's infrastructure, while also maintaining regular traffic patterns in the municipalities.

Westwood completed a transportation analysis site visit in June of 2023 and the results of this site visit were used in conjunction with publicly available traffic data to identify local roads for use by delivery vehicles to access each of the turbine locations. Intersections with acute angle turns and significant grade changes were avoided, to the extent possible. The Transportation analysis site visit included: a visual analysis of the existing road conditions, identifying fatal flaws for project deliveries, a video recording of roads with a high definition (1080P) digital video and GPS tracklog, and an existing drainage structure inventory assessment to review any concern or failed points along the delivery route. These studies were reviewed to identify workable routes. GIS data available through the New York State GIS Clearinghouse was used to identify any load restrictions at bridges or known utility crossings along the route. Limited availability of street-level imagery for many of the local roadways in the region necessitated further field investigations to assess the conditions of all roadways. The site visit was used to note items such as power poles and signage to be avoided or temporarily removed as well as reviewing the condition of the roads. Throughout the visit it was found that the roads have been recently and regularly paved and maintained by local authorities.

During field investigations, road features, such as culverts, vertical clearance restrictions, vertical curves, and constrained intersection geometries were noted. The majority of the town roads along the preliminary route are paved with drainage ditches located on both sides. Field observations indicate that roads under county and NYSDOT jurisdiction have paved asphalt surface. Roadways along the route are generally in good condition.

Based on these efforts and observed conditions in the field, a feasible routing was refined to exclude problematic intersections and roadway segments and at which implementation of necessary temporary roadway widening and improvements would be challenging. The refined recommended routing for construction and materials delivery is shown in the Civil Design Drawings (Appendix 5-A). A formal study will be conducted prior to construction and will be coordinated with the local municipalities to confirm that the roads can handle the construction traffic.

The following provides a descriptive evaluation of each state, county, or local road considered for use by delivery vehicles during construction:

State Route 34 (NY-34), between Interstate 90 and Sherwood Road is a highway with one paved 13-ft lane and a paved 5 shoulder (varying widths) in each direction. In some areas along the route there are passing lanes (largely between Weedsport and Auburn) which adds one additional lane in each direction. This route does go through both the City of Auburn and the Village of Weedsport, as discussed earlier. Land use along the route generally includes residential and

- commercial uses and farmland. The posted speed limit is 55 mph and is lowered for travel through the towns. The roadway pavement is in good condition.
- Sherwood Road (42B), between State Route 34 and Booth Road is approximately 20-ft wide with one 10-foot travel lane in each direction. An gravel shoulder approximately 3 to 5 feet wide is present along portions of the road. Land use along Sherwood Road generally includes residential and farmland. The posted speed limit is 55 mph. The roadway pavement is in good condition.
- Burns Road/Stewarts Corner Road (26C), between Sherwood Road and Ford Road, is approximately 20 feet wide with two 10-foot-wide travel lanes in each direction. There are varying shoulders on the road ranging from 3-foot shoulders on both sides of the road to 5-foot shoulders on one side of the road. The posted speed limit is 55 mph, and land uses along Burns Road include residential and farmland. The roadway pavement is generally in good condition.
- Wyckoff Road/Gieger Road, from the entrance of the Wind Turbine #4 and #5 access road until it transitions into Burns Road, is a minimum of 20 feet wide with two 10-foot-wide lanes in each direction. There are no shoulders on either side of the road. Land use along Wykoff Road/Gieger Road is farmland. The posted speed limit is 30 mph and the roadway pavement is generally in good condition.
- East Venice Road (35A), between Long Hill Road and the entrance of the Wind Turbine #19 access road, is approximately 18 feet wide with two 9-foot-wide travel lanes in each direction. There are 5 foot shoulders on either side of the road. The posted speed limit is 55 mph, and land uses along East Venice Road include residential and farmland. The roadway pavement is generally in good condition.
- Welch Road, between Booth Road and the entrance for the Wind Turbine #12 access road, is approximately 18 feet wide with two 9-foot-wide travel lanes in each direction. There are no shoulders on either side of the road. The posted speed limit is 55 mph, and land use along Welsh Road is farmland. The roadway pavement is generally in good condition.
- Long Hill Road (43B), between the entrance of the Wind Turbine #15 access road and the entrance of the Wind Turbine #18 access road, is approximately 22 feet wide with two 11-footwide travel lanes in each direction. There are 4-foot shoulders on either side of the road. The posted speed limit is 55 mph, and land uses along Long Hill Road include residential and farmland. The roadway pavement is generally in good condition.
- Ford Road, between Burns Road and the entrance for the Wind Turbine #24 access road is approximately 20 feet wide with two 10-foot-wide travel lanes in each direction. There are 1-foot shoulders on either side of the road. The posted speed limit is 55 mph, and land uses along Ford Road include residential and farmland. The roadway pavement is generally in good condition.
- Booth Road, from the transition of North Street to Cramer Road, is a minimum of 20 feet wide
  with two 10-foot-wide lanes in each direction. There are no shoulders on either side of the road.
  Land use along this segment of CR45 include residential and farmland. The posted speed limit is
  55 mph, and the roadway pavement is generally in good condition.

Local Roadways: The local roadways along the delivery routes are 18 to 24 feet wide with one, 9 to 12-foot-wide travel lane in each direction without any shoulders on either side and are generally paved. Since

state and county roads feed into local roadways along the route, local roads are generally low volume, providing access to mainly residential and farmland uses.

State roads and county roads will be utilized as much as possible for construction traffic within the proposed haul routes. Where necessary, local roads will be used as the last point of access to the wind turbine locations. Please see Appendix 5-A for a map of the proposed transportation routes.

Based on the analysis of site-specific field data and publicly available data completed by Westwood, all of the roads on site meet the minimum standards necessary to deliver Facility components (i.e., the size, condition, supporting infrastructure, and available intersections are adequate). Further geotechnical studies prior to construction are needed to confirm the visual analysis interpretations, and the roads will need to be monitored during construction, as typical with wind projects, to ensure the condition and safety of the roads are maintained.

#### (3) Over-sized Deliveries

Existing roadway restrictions (height, width, weight) and deficient intersection radius locations were observed in the field, researched from NYSDOT resources, and evaluated based on aerial imagery during the preparation of the Traffic Control Plan (Appendix 16-A). Detailed maps of intersection turning movements on aerial imagery are included in the Civil Design Drawings (Appendix 5-A).

Construction of the Facility will require the use of large delivery vehicles to deliver turbine blades. All components delivered to the site will be within legal NYSDOT per axle loads for all roads and structures encountered. The Traffic Control Plan utilized the largest turbine model being considered for the Facility to inform the conservative analysis of the adequacy of the evaluated roadway systems. The analysis assumed oversized/overweight (OS/OW) vehicles will require paved roadways that have at least a 20-footwide obstacle free horizontal width and a 16-foot-wide paved width and a minimum inside turn radius (with roadway widening) of up to 250 feet. Additionally, the largest turbine model being considered would require a slewing area free of above grade obstructions with an inside radius of up 302 feet during delivery. To accommodate delivery vehicles of this size, some form of roadway widening and/or vegetation clearing will be required at most intersections where vehicles must make turns.

A total of nine intersections along the recommended delivery route that are not directly tied to Facility access roads or other infrastructure are found to require some level of temporary intersection improvements. These intersections include a combination of improvement on private land and public rights-of-way (ROW). Many of the improvements on private land are located within the Facility Site and the Applicant has initiated discussions with all the applicable landowners. The intersections or roadway segment improvements will generally require widening of the paved roadway and/or clearance of above ground obstructions, such as utility poles, shrubbery, or trees. The owners of the overhead wires that have insufficient clearance for OS/OW traffic will be contacted prior to construction to determine the appropriate course of action for providing the appropriate clearance. All clearance issues will be reviewed by the Applicant's contractor.

As described above, satellite imagery, GIS data available through the New York State GIS Clearinghouse, and field investigations were utilized to identify workable routes and avoid intersections with acute angle turns, significant grade changes, any load restrictions at bridges, or known utility crossings along the route. Based on these efforts and observed conditions in the field, a feasible routing was refined to exclude problematic intersections and roadway segments where improvements would be necessary or challenging.

The "Public Intersection Improvements" section of the Civil Design Drawings (Appendix 5-A, C500 series) provides a depiction of all the proposed roadway and intersection improvements. Additionally, the drawings show the location of these improvements and detailed figures showing anticipated intersection turning movements. All improvements identified in this Exhibit will require verification and/or update after the final turbine supplier is identified.

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

As outlined in Appendix 16-B, there are some areas on public roadways where speed limit signage along the road is lacking. If a 55mph speed limit is assumed, horizontal and vertical sight distance requirements may not be met in some locations. It is the Applicant's recommendation that signage (either a lower speed limit sign, or a "ROAD AHEAD" sign) be installed in these areas to enhance the safety of residents throughout the community, and those operating and maintaining the Facility. No permanent capacity improvements (e.g., lighting or signage to control traffic volume) are projected to be required to accommodate the operation of the Facility as traffic volume is not expected to significantly increase.

Roadway turn improvements are proposed for the Facility to ensure that all construction deliveries and other vehicles will be able to navigate to the Facility's access roads, which will be made at the Applicant's expense prior to the arrival of any oversized or overweight construction vehicles. Appendix 5-A identifies locations where turn improvements will likely be necessary.

Final transportation routing will be developed in consultation with the OEM of the turbine components. The Cayuga County Highway Department and representatives from the Towns of Scipio and Venice will be consulted throughout this process to ensure the approved haul routes avoid and/or minimize safety issues. If damage to local, county, or state roads is caused by construction of the Facility, the Applicant will make repairs in accordance with the proposed RUAs and/or local laws at no expense to the town(s), county, or state. See Exhibit 24 for a discussion on local road requirements. Repairs to the approved haul routes sustained during the construction of the Facility will be completed to a condition equal to or better than the roadway's condition prior to the Facility construction.

Following the completion of construction, repair of damage to roadways along the delivery route caused by heavy vehicles may be required. The Applicant will discuss with all involved parties to determine the exact extent and method or roadway repair necessary. Damage may be repaired utilizing one of the following methods:

- If the roadway was originally of gravel construction, the Applicant will re-grade the roadway back to its original cross slope and then topcoat the damaged areas as needed, with up to 12 inches of crushed stone and a geotextile stabilization fabric, or as specified by local officials.
- If the roadway was originally asphalt, damaged areas will mill to a depth where the damage is removed and then repaved with asphalt, matching the existing pavement lift thicknesses and composition, or as specified by local officials.

The Applicant will also follow all NYSDOT standards for any construction traffic that involves slow-moving vehicles and work on roadsides. Town roads that are expected to be used as haul routes vary in width from 18 to 20 feet wide. Roadside hazards in these locations are minimal, similar to county roads in the vicinity which accommodate heavy equipment travel often. Therefore, it is not anticipated that vehicles passing during construction of the Facility will encounter any issues.

Before construction begins and throughout the construction process, the Applicant will coordinate with the local bus companies, local school districts, and local emergency service providers to avoid impacts and delays. They will also be advised in advance of any road closures and if it is deemed necessary to develop an alternative route. Additionally, most of the traffic for the Facility construction will be during off-peak hours. The Traffic Control Plan (Appendix 16-A) will be provided as a pre-construction compliance filing as required by Section 1100-10.2(e)(8). The Traffic Control Plan will be in effect during Facility construction and will include protocols to ensure that emergency services and school transportation are not prevented from traveling on public roads and will provide notifications in the event of a temporary road closure, route restriction, or detour. It is expected that overall impacts to local bus companies, local school districts, and local emergency service providers will be minimal and no significant mitigation beyond coordination during construction is necessary.

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

Transit service in the area is provided by the City of Auburn, which has five bus routes in the area. Route 3 coincides briefly with the component delivery route. The scheduled times along Route 3 are approximately between 5:45am and 11:00pm, Monday through Friday. Transit service is provided along State Route 34 within these provided time frames; therefore, during the construction of the Facility Site, construction operations will be conducted with careful consideration of this bus route to help minimize any potential impacts on the transit service.

There are four private airports, and two public airports located within a 12-mile radius of the Facility Site, as described in Table 16-2.

Table 16-2. Airports within a 12-mile radius of the Facility Site

Airport	Airport Classification	Distance from Closest Turbine (Nautical Miles)	Runway Length (Feet)
Skaneateles Aero Drome	Public	8.7	3,350
Owasco Airfield	Public	0.5	2,333
St Bernard Field	Private	6.3	1,400
Murphy Field	Private	5.3	2,000
Airy-Acres Airport	Private	9.4	1,600
Match Mate Airport	Private	4.6	3,000

As discussed in Exhibit 16(f), the impact of the Facility on military and civilian air space, including military training and operations and other airport/heliport operations, are addressed by the Federal Aviation Administration (FAA) as part of its hazard review process. This process includes outreach through the U.S. Department of Defense's Siting Clearinghouse to evaluate the impact of potential aviation obstructions on military readiness. Neither the construction nor the operation of the Facility is anticipated to affect aviation.

#### (f) Federal Aviation Administration Review

In administering Title 14 of the Code of Federal Regulations Part 77, the prime objectives of the FAA are to promote air safety and the efficient use of navigable airspace. To accomplish this mission, aeronautical studies are conducted based on information provided by proponents on an FAA Form 7460-1, Notice of Proposed Construction or Alteration. The submission of wind energy turbines, meteorological tower, and ADLS tower locations to the FAA for review initiates aeronautical studies of the location of each proposed turbine and permanent tower that includes outreach to other agencies. The FAA can issue two types of determinations, one that identifies a potential hazard and another that identifies no hazard. If the proposed structure is over 499 feet or if a potential hazard to air navigation is identified based on the structure's location and/or height, then a Notice of Presumed Hazard (NPH) is issued that must be publicly circulated prior to a final FAA determination. This notification identifies a potential hazard that must be further studied and/or mitigated in some manner. A Determination of No Hazard (DNH) will be issued if the FAA determines that the proposed structure will not pose a risk to aviation, including a review of potential aviation impacts to local airports.

The Applicant submitted a Notice of Proposed Construction or Alteration to the FAA for the 24 proposed wind turbine locations, the two proposed permanent MET tower locations, and the ADLS tower<sup>3</sup> location

<sup>&</sup>lt;sup>3</sup> ADLS is a light mitigation technology that utilizes one or more surveillance radar(s) to track aircraft in proximity to the wind turbines. If an aircraft flies toward, or through an area around the Facility, then the obstruction lights on each

on May 10, 2024. This submission initiated formal consultation, and the aeronautical studies described above. Although the FAA has not yet issued determinations for these filings, the Applicant will provide FAA Determinations of No Hazard upon receipt as part of its compliance filings.

## (5) Consultation with the Department of Defense

The Applicant has also entered discussions with the Department of Defense (DoD), acting through the Military Aviation and Installation Assurance Siting Clearinghouse and the Department of the Air Force (DAF), acting through the Deputy Assistant Secretary of the Air Force for Installations to mitigate any potential adverse impact and to minimize risks to national security while allowing the Project to proceed with development. The Applicant received a Notice of Presumed Risk from the DoD on August 13, 2024 (see Appendix 16-E). This Notice indicated that the DoD would like to enter mitigation discussions with the Applicant. The Applicant is currently coordinating with the DoD to discuss the Notice of Presumed Risk and any attendant mitigation requirements.

# (6) Consultation with Nearby Airports/Heliports

Section 1100-2.17(f)(2) of the regulations requires the Applicant to consult with the operators of commercial, cargo, public use, or military airports within 1) 12 miles that have runways exceeding 3,200 feet; 2) within 6 miles with runways less than 3,200 feet; and 3) heliports within 3 miles. Of the airports and landing strips in the vicinity of the Facility, only the Skaneateles Aero Drome and the Owasco Airfield meet these criteria. There are no heliports within 3 miles of the Facility.

The Applicant sent a letter to the managers of the Skaneateles Aero Drome and the Owasco Airfield on July 19, 2024 to explain the Article VIII process and the steps the Applicant was taking to coordinate with the FAA, NTIA, and other federal agencies. The letter included a detailed map and description of the Project and requested review of, and comment on, the Project by the operators (see Appendix 2-B). One of the managers of the Skaneateles Aero Drome reached out to the Applicant's representative on July 30, 2024, via phone and email, to discuss the Facility's location and potential to impact the Skaneateles Aero Drome's instrumented approach (see Appendix 2-B). After reviewing the position of the Facility relative to the applicable approach routes, it did not appear that there are any conflicts between the Skaneateles Aero Drome and the Agricola Wind Project; however, both the Applicant's representative and the Skaneateles Aero Drome's representative agreed that this determination must ultimately be made by the FAA.

wind turbine will be activated. Without the use of an ADLS, the obstruction lighting on all 24 wind turbines must operate during nighttime hours and periods of reduced visibilities because they will exceed 499 feet in height (as per Sections 13.5 and 13.6 of FAA Advisory Circular AC 70/7460-1M). See Exhibit 8 for additional discussion on the use of ADLS.

There are no military airports located within the 12-mile threshold for outreach set forth in the applicable regulations. As a result, the Applicant did not reach out directly to any military airports/heliports. As previously noted, however, an assessment of the impact of the Project on military readiness (including aviation operations) will be made as part of the FAA review process through outreach to the DoD Siting Clearinghouse.