

Transportation Effect and Route Evaluation Study

Baron Winds Facility

Towns of Cohocton, Dansville, Fremont, and Wayland

Steuben County, New York

October, 2017

Prepared for:

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1.0 INTRODUCTION

Baron Winds, LLC (a subsidiary of EverPower Wind Holdings, Inc.) [herein referred to as the Applicant] is preparing an Application under Article 10 of the Public Service Law to the **New York State Board on Electric Generation Siting and the Environment (“Siting Board”)** for its **major electric generating facility (the “Facility”)** proposal in Steuben County, New York. This report has been prepared to satisfy relevant portions of the Preliminary Scoping Statement (PSS), specifically Section 2.25 Effect on Transportation and relevant portions of 1001.25 of the Article 10 Regulations.

1.1 PROJECT DESCRIPTION

The proposed Baron Winds Facility is a utility-scale wind project located in Steuben County, New York. Project facilities will be located in four towns: Cohocton, Dansville, Fremont, and Wayland. The total size of the facility will be a maximum of 300 MW. The Regional Facility Location and Facility Area Maps are depicted in Appendix A.

The proposed Facility consists of all activities necessary for the construction and operation of a utility-scale wind project, including the installation and operation of up to 76 utility-scale wind turbines, together with approximately 36 miles of associated collection lines (33 miles below grade and 3 miles above ground), approximately 21.4 miles of access roads, 4 permanent meteorological towers, one operation and maintenance (O&M) building, and 2 temporary construction staging/laydown areas. The Facility will also include the construction of a collection sub-station. The collection substation will be located adjacent to the existing Canandaigua Switching Station, which will be the point of interconnection (POI) substation.

During construction, there will be temporary increases in truck traffic on area roadways served by the Facility. The purpose of this evaluation is to document the existing transportation conditions in the area and identify probable local travel routes, constraints, and proposed improvements. Also this evaluation will contain any school bus routes along proposed haul roads, identification of emergency responders and the routes they will take to the Facility sites, roadway permit and road use agreement requirements, construction vehicle volumes/level of service and airport impacts associated with the Facility.

1.2 METHODOLOGY

The study methodology was developed to address the relevant needs identified in the scoping document and the Article 10 Regulations. A field inventory, photo log, and visual assessment was conducted to evaluate possible travel routes. Sample roadway characteristics and conditions were documented. Representatives were contacted including the Steuben County Deputy Commissioner and Bridge Engineer and the Highway Superintendents from the Towns of Cohocton, Dansville, Fremont, Howard, and Wayland to understand jurisdictional concerns and permit requirements. Research was conducted on wind turbine transportation requirements, and a potential worst-case design vehicle was evaluated to identify possible roadway improvements.

1.3 VEHICLE TYPES

During the Construction phase to build the facilities, there will be some temporary impacts to transportation routes that are needed to reach and travel within the Facility area. These impacts will result from the movement of vehicles involved in the Facility construction. These vehicles and their role in the Facility construction are described below. The exact construction vehicles have not yet been determined, however, it is known that transportation of turbine components and associated construction material involves numerous conventional and specialized transportation vehicles, including:

Wind Turbine Equipment

- Blade Sections – Blades are transported on trailers with one blade per vehicle. Blades typically control the length of the design vehicle, and the radius of the curves along the travel route to the site. Specialized transport vehicles are designed with articulating (manual or self-steering) rear axles to allow maneuverability through curves.
- Tower Sections – Typically transported in three to four sections depending on the supplier. Towers generally control the height and width of the design vehicle dimensions.
- Nacelle – The turbine and related elements are typically the heaviest component transported.
- Hub and Nose Cone – Typically transported with one or more of the same element on a vehicle. These elements are not critical elements related to design vehicle dimensions.
- Escort Vehicles – Typically a car or pick-up truck.

Construction Equipment and Materials

- Construction of Access Roads – Conventional trucks carrying stone and/or gravel and steel rebar.
- Crane – For assembly of the wind towers, cranes are transported in sections utilizing up to 16 trucks producing numerous trips to the site. Assembled cranes may be crawled between tower sites or dis-assembled to travel along the local roads to the next site.
- Concrete trucks for tower foundations and transformer pads.
- Variety of conventional semi-trailers for delivery of substation, turbine and O&M facility components and materials.
- Construction staff and other incidental truck trips.

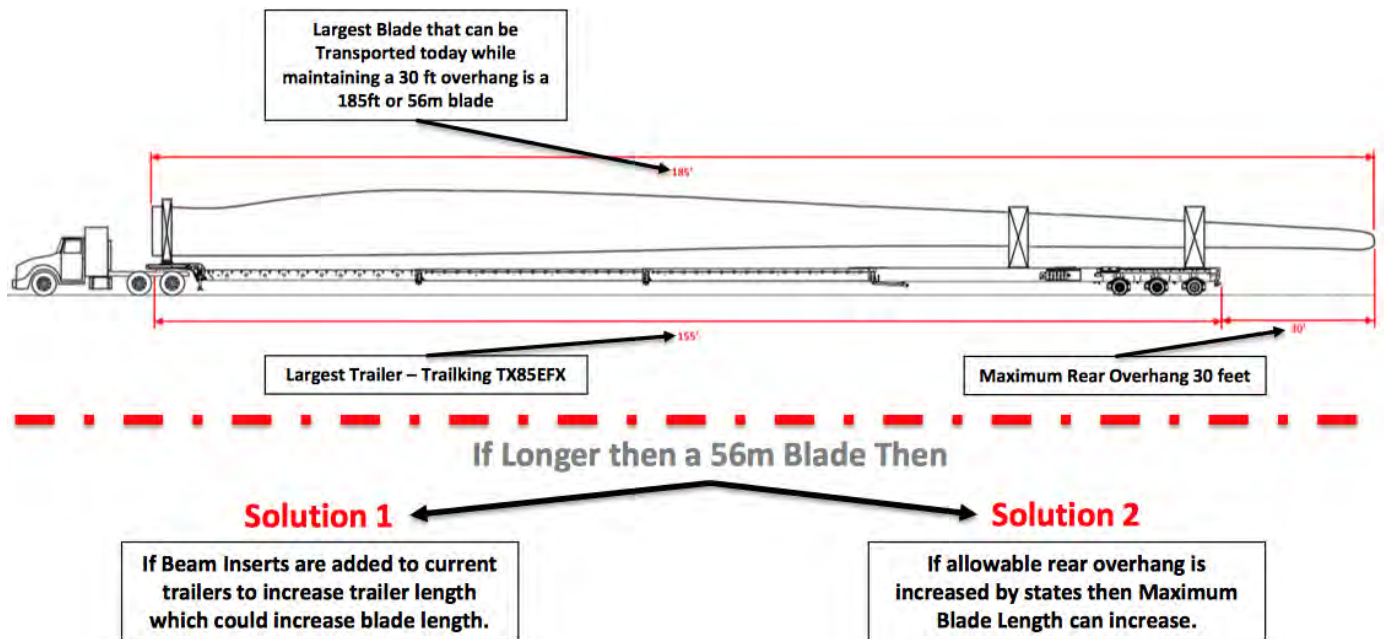
1.4 DESIGN VEHICLE RESEARCH

Transportation of turbine components and associated construction material involves numerous conventional and specialized transportation vehicles. Wind turbine components (such as the tower sections, blade sections and nacelle)

are transported separately. The actual dimensions and specifications of the design vehicles may vary, depending on the specific wind turbine supplier and components. Recognizing that the specific wind turbine supplier has not been determined, several possible suppliers were researched to determine their transportation requirements and potential design criteria for this route analysis. The following table summarizes the blade lengths from several possible turbine suppliers.

Turbine Supplier	Turbine Size (MW)	Blade length	
		Metric	English
Acciona	3.300	66 m	216.5 ft
Gamesa	2.625	62 m	203.4 ft
	3.465	64.5 m	211.6 ft
GE	3.230	63.7 m	209 ft
Nordex	3.600	58.5 m	191.9 ft
	3.900	65.5 m	214.9 ft
Senvion	3.400	59.8 m	196.2 ft
	3.600	68.5 m	224.7 ft
Siemens	2.625	59 m	193.6 ft
	3.600	63 m	206.7 ft
Vestas	3.600	61.7 m	202.4 ft
	3.600	66.7 m	218.8 ft

This table shows that blade lengths range from 191.9 feet for the 3.6 MW Nordex wind turbine, to 224.7 feet for a 3.6 MW Senvion wind turbine. The minimum turning radius requirements will ultimately be dependent on the wind turbine supplier selected. In this study, a minimum inside radius of 150 feet has been used to model intersection modification scenarios. A 150-foot radius is a conservative design standard used when developing improvements for wind power component delivery and is based on a design vehicle assuming a 155 foot trailer with extended rear axle (outer trailer) as shown in the following drawing.



Design Vehicle Dimensions for Route Planning Purposes. Actual Dimensions will vary.

1.5 REGIONAL DESTINATION ROUTES

The possible designated routes for deliveries of the wind turbine components studied were NYS Route 21, starting at the I-390 Exit 3 interchange just east of the hamlet of Perkinsville and proceeding south; County Route 121, starting at the I-390 Exit 2 interchange just west of the Village of Cohocton and proceeding west; County Route 70, starting at the I-86/NYS Route 17 Exit 35 interchange just north of the hamlet of Howard and proceeding north; then other county roads and local roads connecting NYS Route 21, County Route 121 and County Route 70 to the wind turbine construction site locations. For the purpose of this report, it was assumed that all deliveries will be using I-390 and I-86/NYS Route 17 along with using other state, county, and town roads to access the Facility locations. I-390 and I-86/NYS Route 17 are the largest freeways that are closest to the project site and are the preferred access for large turbine components that will be coming from other states and major cities with ports. When deliveries are close to the Facility area, county and local roads in the Towns of Cohocton, Dansville, Fremont, Howard, and Wayland are to be utilized to reach the Facility sites. This study will review all of the possible delivery routes and construction vehicle transport routes needed for the construction of the Facility.

2.0 ROADWAY ANALYSIS

2.1 TRAFFIC VOLUMES

Existing traffic volume data within the study area was obtained from the NYSDOT Traffic Data Viewer Website online and also updated County and Local Road listings from the NYSDOT Highway Data Services Website. Most of the county roads and all of the state roads had available traffic volume data. The data consists of some segments with total Annual Average Daily Traffic (AADT) and other segments showing AADT for both directions of travel. Most of the local town roads do not have traffic volume data, so estimated volumes, based on the surrounding traffic counts, were added to these roadways. The existing traffic data will be included in the analysis of the traffic capacity Level of Service (LOS) for the delivery/construction vehicle routes during the construction phase. See Appendix B for the Table of Existing Traffic Volumes.

2.2 ACCIDENT DATA

A FOIL request for accident data within the Facility area was sent to the NYSDOT Regional Office in Hornell, NY. Once the information was received, data was available for the State Route, six County Routes and seven local Town Roads that could be used as potential haul roads during the Facility construction. The existing accident data from the NYSDOT Accident Location Information System (ALIS) from September, 2013 to August, 2016 showed that the segment study area of State Route 21 had the most accidents at 91 for the three year study period, while County Route 54 and six of the seven town roads had the least amount of accidents at 1 within the same study period. State Route 21, near the Derevees Road intersection, had one Priority Investigation Location (PIL) in the year 2013 within the 13 mile segment between I-390 and Conderman Road. The accident data from the FOIL

request did not show any Safety Deficient Locations (SDL's) or PIL's on the County Roads. Based on the existing accident data and Annual Average Design Traffic (AADT) for the roadway segments, the annual Accident Rates can be established and compared to the New York Statewide Average Rate which is 2.81 accidents/million vehicle miles (acc/mvm) for 2-lane Rural Arterials (segment and juncture accidents). State Route 21 (from Davis Road to CR 54) and County Route 54 fall below the Statewide Average while State Route 21 (from I-390 to Davis Road), County Route 50, County Route 55, County Route 70, County Route 92 and County Route 121 are above the Statewide Average. The high accident rate along State Route 21 (from I-390 to Davis Road) is due to the high number of animal related accidents, which accounted for 50% of the accident total. The higher accident rates for the five county roads may be attributed to having lower AADT for their segments. At this time, there is no accident rate data available for the seven local town roads because of the lack of traffic volume information. See Appendix C for the Table of Existing Accident Data.

2.3 SCHOOL BUS ROUTE INFORMATION

Requests for information was sent to Arkport, Avoca, Hornell City, and Wayland-Cohocton 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. All four school districts have responded back with the requested school bus information. The information received has shown that NY 21 will have up to three school buses in the morning and the same number of school buses in the afternoon. All county roads and 11 out of 35 town roads will have one or two school buses for the morning and afternoon commute. The remaining town roads will have no school buses from the various school districts. See Appendix D for the Table of Existing School Bus Routes showing this information.

2.4 EMERGENCY SERVICE RESPONDER INFORMATION

A request containing a map showing suggested emergency response routes to the proposed installations within the Facility area was sent to all of the identified emergency responders (Cohocton, Fremont, Howard, Perkinsville, South Dansville, Wallace, and Wayland volunteer fire departments, Cohocton Valley Ambulance Service, Avoca Hose Co. Ambulance Corps, Hornell City Ambulance, SpringWay ambulance service, Bath Volunteer Ambulance Corps, Steuben County Sheriff, Cohocton Town Police and New York State Police) within and around the Facility area, asking for verification of the routes they would take to the Facility sites when responding to a possible emergency. Responses to the request have been received from the Cohocton, Howard, Perkinsville, South Dansville, Wallace, and Wayland volunteer fire departments, Cohocton Valley and Avoca Hose Co. ambulance services, Cohocton Town Police and New York State Police. The SpringWay Ambulance Service provides ambulance service for the Perkinsville and Wayland Fire District. The Cohocton Fire Department provides ambulance service under the Cohocton Valley Ambulance Service for its fire district. The Wallace and Howard Fire Departments contract with the Avoca Hose Co. Ambulance Corps for their fire districts. The Howard Fire Department also contracts with the Fremont Fire Department for ambulance service. The volunteer fire departments with ambulance services and the independent ambulance services will transport patients to the Ira Davenport Memorial Hospital in Bath and/or Noyes Memorial Hospital in Dansville. The fire chief at the Howard Fire Department

mentioned that the Fremont Fire Department and the Hornell City Ambulance Service may provide ambulance service to parts of the South Dansville Fire District and possibly transport patients to the St. James Mercy Hospital in Hornell, but this information has not been confirmed. At this time, there have been no responses from the Fremont Fire Department, Steuben County Sheriff Department, Hornell City Ambulance or Bath Volunteer Ambulance Corps. See Appendix E for the maps depicting the potential emergency routes for all of the local emergency responders.

2.5 LOAD RESTRICTIVE BRIDGES/CULVERTS

Existing bridge posting data was taken from the R-Posted Bridge and Posted Bridge listing for Steuben County dated March 15, 2017 at the NYSDOT Posted Bridges online website. There are three bridges within the Facility area, and none are posted. These bridges are not located along any currently proposed potential construction routes. At the start of the potential regional destination routes, there are five interstate bridges (I-390 NB/SB over NY 21, I-390 NB/SB over CR 121 and CR 70 over I-86/NY 17) that will not be subject to loads because of the interstate off ramp locations. If there are any changes to the potential construction routes in the future that direct traffic over these bridges between ramps, they will be checked for adequacy with respect to loading along with horizontal width and vertical height restrictions during the Special Hauling Permit Application process with the NYSDOT. See Appendix J for a Map of Existing Bridge and Large Culvert Locations and the Table of Bridge and Large Culvert Rating Information showing the HS Ratings, Condition Ratings, Sufficiency Ratings and Bridge Inspection Dates for bridges along the potential haul routes and within the Facility area. Also see Appendix G for the Table of Roadway Restrictions.

Also within the Facility area, there are numerous small and large culverts along the potential haul routes. Based on the site evaluation, approximately 40% of these culverts have less than 2 feet of coverage over them. It is assumed that any culvert with less than 2 feet of cover may be susceptible to damage during construction activities. The large culverts along the potential haul routes are assigned a condition rating from NYSDOT and Steuben County visual inspections. The culvert inspections do not include load ratings or sufficiency ratings, which are normally available for bridges only. These locations will be further analyzed during final engineering to determine if improvements are necessary prior to using the routes for deliveries of construction materials. Any necessary improvements as well as restoration of damaged culverts will be addressed in the Road Use Agreements with the local municipalities. See Appendix J for the Table of Culvert Locations.

2.6 ROADWAY PERMITS/ROAD USE AGREEMENTS

Special hauling permits are required when loads exceed legal dimensions or weights. Transport of the wind turbine sections and crane will require a variety of special hauling permits. Actual loads will depend on the specific turbine supplier, crane equipment chosen, and degree of disassembly of the crane. The types of permits depend on the characteristics of the vehicle and its cargo, number of trips, distance traveled, and duration. According to the NYSDOT Central Permit Office in Albany, all vehicles exceeding **16 feet in width, 15'-11" in height, 160' in length, or 200,000 pounds in gross weight**; and any combination of those, will require a Type 1S – Superload Trip Permit from NYSDOT. Additional Permit Forms such as the PERM 39 – Application for Special Hauling

Permit, PERM 39-1VC – Vehicle Configuration Attachment, PERM 39-4 – Additional Trailer Attachment (Option 1), and PERM 99 – Additional Trailer Attachment (Option 2) may need to be completed along with the Type 1S – Superload Trip Permit. The permit process can be completed online for Divisible and Non-Divisible Load Overweight Permits. The NYSDOT Website, <https://www.dot.ny.gov/nypermits> outlines the guidelines, types and fees for various special hauling permits. The applicant or other responsible party such as the BOP Contractor or Turbine supplier will need to set up an account in order to complete the permit process online. Additional information can also be found at www.NYPermits.org. Additionally, Highway Work Permits will be required from the respective municipalities for intersection and roadway improvements within the Public rights-of-ways.

In consultation with the County and Towns where the local roads are proposed for use as delivery and construction vehicle transport routes, Road Use Agreements with the affected municipalities will be required, and will stipulate that the hauling routes are to be repaired if there is any damage from excessive use. Steuben County requires Road Use Agreements prior to and after construction. See the following Table of Roadway Agreements and Permits below for a complete list of State, County, and Town requirements.

BARON WINDS FACILITY								
ROADWAY AGREEMENT AND PERMIT TABLE								
GOVERNMENT AGENCY	ROAD USE AGREEMENT	HIGHWAY WORK PERMIT TO WORK WITHIN ROW	HIGHWAY UTILITY PERMIT TO WORK WITHIN ROW	TRAFFIC SIGNAL PERMIT TO WORK WITHIN ROW	SPECIAL HAUL PERMIT FOR OVERSIZED/OVERWEIGHT VEHICLES	PERMIT TO EXCEED POSTED WEIGHT LIMIT ROADS	DIVISIBLE LOAD OVERWEIGHT PERMIT	CONTACT INFORMATION
TOWN OF COHOCTON	YES	YES	YES	NO	YES	YES	YES	HWY. SUPERINTENDENT BRIAN KUHN, 585-384-5290
TOWN OF DANSVILLE	*	*	*	*	*	*	*	HWY. SUPERINTENDENT RAY W. ACOMB, 607-295-7760
TOWN OF FREMONT	YES	YES	YES	YES	YES	YES	YES	HWY. SUPERINTENDENT LEE A. PYER, 607-324-6349 (CELL) 607-281-4614
#TOWN OF HOWARD	YES	YES	YES	NO	YES	YES	NO	HWY. SUPERINTENDENT ANTHONY CLARK, 607-566-2007
TOWN OF WAYLAND	*	*	*	*	*	*	*	HWY. SUPERINTENDENT RAYMOND THIELGES III, 585-728-5253
STEBEN COUNTY	YES	YES	YES	NO	YES	YES	YES	PUBLIC WORKS DEPARTMENT, STEVE CATHERMAN, PE, 607-664-2460, REQUIRE TWO ROAD USER AGREEMENTS (BEFORE & AFTER USE), START PROCESS EARLY
NYSDOT	NO	YES	YES	YES	YES	NOT AVAILABLE	YES	NYSDOT REGION 6 TRAFFIC SAFETY & MOBILITY, PERMIT ENGINEER, ANDREW PULEO, 607-324-8517

* The town highway superintendents for the towns of Dansville and Wayland have been contacted by phone (12/2016) and requests for road user agreement requirements and other transportation information (question form) have been sent to them and the other towns by either fax and/or email correspondence. A second email correspondence was sent out on 3/9/2017 inquiring on the status of the first request. On 4/20/17, a third attempt to contact the town highway superintendents by phone was made, but no one answered and a message was left for them to contact the consultant by phone with any information about their roadways for the transportation study, but as of date, there has been no response from the Towns of Dansville and Wayland.

There are no turbine sites in the Town of Howard, but there is a proposed access route along County Route 70 and Avery Road within the town that will be used for construction traffic and may be included under a permit and road user agreement.

3.0 LOCAL ROAD REVIEW

3.1 EXISTING ROADWAY CHARACTERISTICS

A field evaluation was conducted between November 30th, 2016 and December 14th, 2016 on the potential delivery and construction vehicle haul routes to and within the Facility area. The condition of the roads was evaluated by visual inspection and rated with an excellent/good/fair/poor designation. The visual pavement condition ratings were based on the criteria from the NYSDOT 2014 Pavement Report, under the section "Pavement Condition Measures" on page 4. Roadside features, bridge and roadway horizontal/vertical restrictions, bridge/culvert locations, and possible restricted intersection radii locations were also included in the evaluation.

Generally, State Route 21, between I-390 to Conderman Road, provides 12 foot lanes with shoulders that vary in width from 4 feet to 6 feet. At some culvert locations, the shoulder width is reduced to 2 to 3 feet. Based on record plans from NYSDOT, pavement thickness (including existing concrete and asphalt) is a minimum of 11 inches. The roadway terrain is considered rolling, with winding alignment amongst the southern portion of the segment. Currently, there is no load posting on this state highway, so it is assumed that this highway is adequate to handle the heavy loads. The Special Hauling Permit will be the final determination of the route to be taken during the facility's **construction operations**.

County roads CR 50, CR 54, CR 55, CR 70, CR 92 and CR 121 have travel lanes that vary from 10 feet to 11 feet wide and shoulders that vary from 2 feet to 10 feet wide. The roadway terrain is considered mostly rolling with some roads having roadside hazards such as steep banks and ditches, some non-standard guide rail, trees close to the roadway, low tree branches, and low speed curves. Request for information (email and verbal) on the county roads, bridges and culverts were sent to the Steuben County Department of Public Works Engineer on 12/2/2016, 12/5/2016, and 12/22/2016. The county responded on 12/6/2016 and 12/23/2016 by providing information on posted bridges, posted roads, condition ratings for bridge and large culverts and other roadway information including traffic volumes, pavement thicknesses, widths, utilities, and construction history. There are no bridges located on the county roads identified as potential haul routes. County Route CR 6, which is within the project area, but not being considered as a haul route, has bridges with both good and not good condition ratings. Pavement thicknesses range from 4 inches (portion of CR 70) to over 9 inches (portions of CR 50, CR 54 and CR 92), of asphalt concrete.

The various town roads along the evaluation routes had roadway surfaces that were either asphalt, oil & stone or gravel. The travel lane widths in a two lane section ranged from 8 feet to 10 feet, with some roads consisting of only a 10, 11, 12 or 14 feet single lane. The shoulder widths vary from 1 feet to 8 feet along these roads. The shoulder material may be asphalt, gravel or grass. The terrain for these roads are considered to be rolling, but with some areas being flat. There are numerous roads with roadside hazards that are similar to the county roads, along with low speed curves. Email responses and conversations with the Town Highway Supervisors have indicated that their paved town highways have thin asphalt over their sub base material. On average an existing oil and stone road may have a 3 inch or less asphalt thickness over gravel, while an asphalt road may have a thickness

of 3 to 4 inches of asphalt over gravel subbase. Gravel roads may have a material thickness of 5 to 6 inches. The Town of Howard highway supervisor mentioned that depending on the time of year, their gravel roads may be posted for weight restrictions due to the condition of the road. Based on the information received from the highway supervisors, the town roads are 20 feet in width or less, have very little pavement built up or they are gravel and are most likely to require some sort of stabilization to support the vehicle loads during construction. Additional information on the email responses from the Town Highway Supervisors have confirmed that there is no documented information on the conditions of town road culverts and all bridges on town roads are under the jurisdiction of the County.

3.2 ROADWAY EVALUATION

State roads and County roads will be utilized as much as possible for construction traffic within the Facility area (unless there are any physical constraints that may limit the use of these roads), using town roads as the last point of access to the wind turbine locations. Based on the conditions of the town roads, the most economical routes with the least impacts have been determined. See Section 4.1 Haul Route Recommendations for the preferred routes.

According to the 2015 Pavement Data Report for New York State Highways, the portion of State Route 21, from I-390 to Conderman Road has a condition rating of 6 (with 10 as the highest possible rating). Steuben County does have a roadway rating system, where each roadway is assigned a Structural Class (1, 2, or 3), to determine what type of Roadway Use Agreement is needed. Structural Class 1 indicates the roadway foundation is of high quality and the pavement surface is rated Good to Excellent. Structural Class 2 defines the roadway foundation as high quality, but the pavement surface is rated Fair to Good. Structural Class 3 indicates the roadway foundation is of poor to marginal quality and the pavement surface is rated Fair to Good. It was assumed that the towns do not have a rating system for their roads. Because of the majority of the roadways being considered for haul road and construction vehicle use are local roads, a roadway condition rating is needed to determine the best routes to the Facility since there are no rating systems set up under the local town highway departments.

The following is a more descriptive evaluation, including visual pavement ratings of each state, county, and town road being considered and/or projected to be used as a haul road, construction vehicle route, or access to a potential Facility site. See Appendix F for the Table of Roadway Field Evaluation (Condensed) showing a condensed version of the field evaluation, including pavement thicknesses. The full version of the field evaluation sheets for each roadway segment will be available as a separately bound document. See Appendix L for Roadway Rating Photos.

State Route NY 21, I-390 to Conderman Road – The length of this segment is 10.7 miles. The asphalt pavement condition ranges from Fair between Derevees Road and Conderman Road to Good between I-390 and Derevees Road. Speed limit for this segment is generally 55 mph with a speed reduction to 45 mph between CR 55 and CR 6 in the hamlet of Haskinville. The travel lanes are 12 feet and shoulder widths range from 4 to 6 feet. Most bridges and large culverts along this route have conforming bridge/culvert rail. On two culverts between Quanz Road and Emo Road, the shoulders narrow down to 2 to 3 feet. The I-390 NB and SB bridges

over NY 21 just south of Wayland, have minimum vertical clearances on NY 21 of **14'-1"** and **13'-9"** respectively. The total horizontal clearance under each of the I-390 bridges is 64 feet. The minimum width between any bridge/culvert rails along this route is 29 feet at a location just south of Ellinger Road. Two out of five of the large culverts along this route were constructed in 1926 and have condition ratings in the lower 4 range. A condition rating of 3 indicates serious deterioration or not functioning as originally designed. Referring to all of the culverts, a few have either shallow cover or deep cover with the majority having between 2 feet and 6 feet of fill under the roadway/over the culvert. There are no traffic signals along this segment of NY 21.

County Route CR 50, NY 21 to Stone Hill Road - The length of this segment is 4.3 miles. The asphalt pavement condition for this road is considered Good. Steuben County rated this roadway as Structural Class 1. The travel lanes are 10 feet and shoulder widths are 4 feet. Speed limit is 55 mph. The minimum width between any culvert rails along this route is 28 feet at a location just south of Day Road. Most of the culverts have 3 feet or less of cover under the roadway/over the culvert. Low overhead wires are present at a few locations. Steep drainage ditches exist on both sides of the roadway. Also there are multiple lower speed curves along this roadway.

County Route CR 54, Conderman Road to CR 55 - The length of this segment is 2 miles. The asphalt pavement along this road is in Good condition. Steuben County rated this roadway as Structural Class 1. The travel lanes are 10 feet and shoulder widths are 4 feet. Speed limit is 55 mph. Most of the culverts have 2 feet or more of cover under the roadway/over the culvert. Steep drainage ditches exist on both sides of the roadway.

County Route CR 55, NY 21 to Stewart Road/I-86&NY17 Bridge – The length of this segment is 3.5 miles. The asphalt pavement condition for this road is Good. Steuben County rated this roadway as Structural Class 1. The travel lanes are 11 feet and shoulder widths vary from 2 feet to 6 feet. Speed limit is 55 mph. Most of the culverts have 2 feet or more of cover under the roadway/over the culvert. Some steep slope areas exist at a few locations along the roadway. Also there is one lower speed curve along this roadway with an advisory posted of 30 MPH.

County Route CR 70, I86/NY 17 Interchange to Avoca Town Line - The length of this segment is 2.7 miles. The asphalt pavement condition for this road is Good. Steuben County rated this roadway as Structural Class 2. The travel lanes are 11 feet and shoulder widths vary from 4 feet to 6 feet. Speed limit is 55 mph. The CR 70 bridge over I-86 EB and WB just north of CR 70A, has **a minimum vertical clearance of 16'-8"** and a maximum vertical clearance of 20'-10" on I-86. The horizontal clearance for each direction on I-86 under the CR 70 bridge is approximately 58 feet. Most of the culverts have 2 feet or more of cover under the roadway/over the culvert. Also there are multiple lower speed curves along this roadway.

County Route CR 92, Old State Route 15 to NY 21 - The length of this segment is 4.0 miles. The asphalt pavement condition for this road is Good. Steuben County rated this roadway as Structural Class 1. The travel lanes are 10 feet and shoulder width is 3 feet. Speed limit for this segment is generally 55 mph with a speed reduction to 35 mph between Antler Inn Road and NY 21 in the hamlet of Loon Lake. Most of the culverts have 3 feet or more of cover under the roadway/over the culvert. Low overhead

wires are present at numerous locations. Steep drainage ditches exist on both sides of the roadway at a few locations. Also there are multiple lower speed curves along this roadway.

County Route CR 121, I-390/NY 15 Interchange to NY 21 - The length of this segment is 3.5 miles. The asphalt pavement condition for this road is Good. Steuben County rated this roadway as Structural Class 1. The travel lanes are 11 feet and shoulder width is 4 feet. Speed limit is 55 mph. Most of the culverts have 2 feet or more of cover under the roadway/over the culvert. Low overhead wires are present at numerous locations. The I-390 NB and SB bridges over CR 121 just west of Cohocton, have minimum **vertical clearances on CR 121 of 14'-3" and 14'-0"** respectively. The total horizontal clearance under each of the I-390 bridges is 58 feet. Steep drainage ditches exist on both sides of the roadway at multiple locations. Also there are multiple lower speed curves along this roadway, one advisory posted at 10 mph near South Church Street.

Avery Road, (Fremont) Town Line to CR 70 - The length of this segment is 1.5 miles. This road has a gravel surface with a condition rating of Fair. The total travel way is 14 feet and shoulder widths are 2 feet. Some potholes and washed out areas exist along this roadway. The road becomes narrower at the tight curve locations and in an area just east of Stewart Road where there are low tree branches and trees near the roadway. The one culvert along this route has at least 8 feet of cover under the roadway/over the culvert. This seasonal use roadway is not maintained in the winter, from November 1st to May 1st.

Babcock Road, NY 21 (north) to 1.1 miles south - The length of this segment is 1.1 miles. This road has a gravel surface with a condition rating of Good. The travel lanes are 10 feet and shoulder widths are 3 feet. All of the culverts have 3 feet or less of cover under the roadway/over the culvert. Between NY 21 (North) and Holmes Road, the roadway becomes steep with low tree branches, trees close to the road edge and steep slopes on both sides of the road. This seasonal use roadway is not maintained in the winter, from November 1st to April 1st.

Back Street, Rose Road to Ricks Rd - The length of this segment is 1.6 miles. This road has a gravel surface with a condition rating of Fair. The travel lanes are 9 feet and shoulder widths are 5 feet. At 0.2 miles east of Dutch Road, the roadway narrows down to 14 feet wide with 2 foot shoulders. Some potholes and wearing areas from farm tractors exist along this roadway. There are frequent steep drainage ditches on both sides of the road. Three culverts with 1 foot or more of cover were present along this portion of roadway. This seasonal use roadway is not maintained in the winter, from November 1st to April 1st.

Brasted Road, (Avoca) Town Line to CR 70 - The length of this segment is 0.3 miles. This road has a gravel surface with a condition rating of Fair. The travel lanes are 9 feet and shoulder widths are 3 feet. Low overhead wires are present. There are no culverts along this roadway.

Brown Hill Road, New Galen Road to Wager Road - The length of this segment is 1.1 miles. The asphalt pavement condition for this road is Fair. The travel lanes are 8 to 9 feet and shoulder widths are 4 to 5 feet. There are no pavement markings on this

roadway. Steep drainage ditches exist on both sides of the roadway. Low overhead wires exist along this roadway. Most of the culverts have 2 feet or more of cover under the roadway/over the culvert with the exception of two, which have 1 foot or less.

Campbell Road, Oil Well Hollow Road to Dye Road - The length of this segment is 0.7 miles. This road has a gravel surface with a condition rating of Good. The travel lanes are 8 feet and shoulder widths are 5 feet. Road is steep for the first 0.25 miles north of Dye Road. This road becomes narrower at the last 0.2 miles with less gravel and more dirt as a wearing surface. The two culverts along this route have 3 feet or more of cover under the roadway/over the culvert. This seasonal use roadway is not maintained in the winter, from November 1st to April 1st.

Canfield Road, Conderman Road to CR 55 - The length of this segment is 1.5 miles. This road has a gravel surface with a condition rating of Fair. The travel lanes are 9 feet and shoulder widths are 5 feet. There is one lower speed curve on a steep grade along this roadway with an advisory posted speed of 20 mph near CR 55. The one culvert along this route has less than 1 foot of cover under the roadway/over the culvert.

Conderman Road, NY 21 to CR 54 - The length of this segment is 1.8 miles. This combination gravel/asphalt road has a condition rating of Fair. Starting at NY 21, the road surface is asphalt for 0.7 miles, then gravel to the CR 54 intersection. The travel lanes are 10 feet and shoulder widths are 4 feet. Low tree branches and trees exist near the roadway, south of Canfield Road. The three culverts along this route have 3 feet or less of cover under the roadway/over the culvert. This seasonal use roadway is not maintained south of Canfield Road in the winter, from November 1st to April 1st.

Davis Road, NY 21 to New Galen Road - The length of this segment is 1.3 miles. This road has a gravel surface with a condition rating of Good. The travel lanes are 10 feet and shoulder widths vary from 3 to 4 feet. Low overhead wires are present at one location near NY 21. All of the culverts along this route have 2 feet or more of cover under the roadway/over the culvert. No culvert rail present at culvert location just east of NY 21 and steep slopes exist on the south side of the road along a stream from NY 21 to 0.4 miles east. Low overhanging branches are present up to 0.5 miles, east of NY 21.

Derevees Road, Bronson Road to NY 21 - The length of this segment is 0.9 miles. This combination gravel/asphalt road has a condition rating of Fair. Starting at NY 21, the road surface is asphalt for 0.7 miles, then gravel to the Bronson Road intersection. The travel lanes are 10 feet and shoulder widths are 2 feet. There are no pavement markings on this roadway. Low overhead wires are present just west of NY 21. Most of the culverts have less than 1 foot of cover under the roadway/over the culvert with the exception of one large 10 feet concrete box which has 5 feet of cover under the roadway/over the culvert (near Bronson Road). The culvert near Bronson Road has no guiderailing.

Dutch Road, CR 54 to Back Street - The length of this segment is 0.9 miles. This road has a gravel surface with a condition rating of Fair. The travel lanes are 8 feet and shoulder widths are 4 feet. This seasonal use roadway is not maintained in the winter, from November 1st to April 1st.

Dye Road, South Church Road to Campbell Road - The length of this segment is 0.7 miles. The asphalt pavement condition for this road is Fair. The travel lanes are 9 to 10 feet with shoulder widths of 5 feet. Pavement surface is heavily worn with minor cracking. There are no pavement markings on this roadway. Some steep drainage ditches exist on both sides of the roadway. Low overhead wires are present at one location east of South Church Road. All three culverts have 3 feet or more of cover under the roadway/over the culvert.

Emo Road, NY 21 to (Cohocton) Town Line - The length of this segment is 2.2 miles. This combination asphalt/gravel road has a condition rating of Good. Starting at NY 21, the road surface is asphalt, which is showing some wear at the shoulders, then transitions to gravel at a point 600 feet east of the CR 92 intersection. The travel lanes are 9 to 10 feet and shoulder widths are 5 feet. Low overhead wires are present at one location east of NY 21 and another location just east of CR 92. Of the four culverts along this route, one has 6 feet of cover under the roadway/over the culvert while the other three are unknown. Numerous sharp curves exist along this roadway.

Holmes Road, Wagner Road to Babcock Road - The length of this segment is 1.2 miles. This road has a gravel surface with a condition rating of Poor. A single lane road with 11 feet width and 1 to 4 feet shoulders exist in the Town of Dansville. In the Town of Fremont, the single travel lane is 14 feet and shoulder widths are 3 feet. This road is narrow with frequent potholes and poor drainage. There are low tree branches and trees near the roadway at multiple locations. The one culvert along this route has 8 feet of cover under the roadway/over the culvert. This seasonal use roadway is not maintained in the winter, from November 1st to April 1st.

Jobs Corners Road, CR 55 to (Howard) Town Line - The length of this segment is 0.6 miles. This road has a gravel surface with a condition rating of Fair. This single lane road is 14 feet wide with shoulder widths of 3 feet. This road becomes narrower at a **36" iron pipe** culvert location, 0.4 miles east of CR 55. There are low tree branches and trees near the roadway at various locations. There are two culverts along this roadway, one with 6 feet of cover and the other with less than 6 inches of cover under the roadway/over the culvert. This seasonal use roadway is not maintained in the winter, from November 1st to April 1st.

Jones Road, CR 54 to CR 55 - The length of this segment is 1.1 miles. This combination asphalt/gravel road has a condition rating of Fair. The travel lanes are 10 feet and shoulder widths are 2 feet. Starting at CR 54, the road is gravel for 0.4 miles, then transitions to an oil and stone surface. There are no pavement markings on this roadway. There are six culverts on this segment with 4 feet or less of cover under the roadway/over the culvert.

Lake Hollow Road, CR 121 to Potter Hill Road - The length of this segment is 1.2 miles. This asphalt road has a condition rating of Fair. The travel lanes are 9 feet and shoulder widths are 2 feet. Some pavement surface areas are worn with moderate raveling. Low overhead wires are present at numerous locations. Steep drainage ditches exist on both sides of the roadway at frequent locations. All five culverts have 2 feet or more of cover under the roadway/over the culvert. Numerous sharp curves

exist along this roadway. Low overhanging branches are present just south of CR 121. There are no pavement markings on this roadway.

Lander Road, Walter Kurtz Road to CR 50 - The length of this segment is 1.5 miles. This combination asphalt/gravel road has a condition rating of Fair. Starting at CR 50, the road surface is asphalt which is heavily worn with some potholes and moderate cracking, then transitions to gravel at the Day Road intersection. The gravel portion is worn and eroded from rain. The travel lanes are 10 feet and shoulder widths are 5 feet. There are low wires at approximately 0.3 miles south of Day Road. Three out of four culverts have 10 feet or more of cover under the roadway/over the culvert while the fourth culvert has 1 foot of cover under the roadway/over the culvert. There are no pavement markings present on this roadway. Two sharp curves are located just north of CR 50 and the gravel portion is not maintained in the winter, from December 1st to April 1st.

Mack School Road, NY 21 to Neu Road - The length of this segment is 1.3 miles. This asphalt road has a condition rating of Good. The short asphalt road portion between Wagner Road and Neu Road is in Fair condition. The travel lanes are 10 feet and shoulder widths vary from 2 to 3 feet. Low overhead wires exist at three locations. Most of the culverts have 2 feet or less of cover under the roadway/over the culvert. There are frequent drainage ditches on both sides of the roadway with some being very steep.

Mattoon Road, Skelly Road to Dead End - The length of this segment is 1.1 miles. This gravel road has a condition rating of Fair. The travel lanes are 8 feet and shoulder widths are 2 feet. This roadway is narrow with steep ditches on both sides. Low branches are present and there is a bridge (BIN 2216990) that has an inspection rating of 5 as indicated on the Bridge and Large Culvert Rating Table in Appendix J. The one culvert along the roadway has unknown cover under the roadway/over the culvert.

Miller Road, CR 70 (south) to CR 70 (north) - The length of this segment is 2.3 miles. This gravel road has a condition rating of Fair. The travel lanes are 9 feet and shoulder widths are 5 feet. There was some significant gravel surface wear on the steep slope sections. There are no culverts on this roadway.

New Galen Road, Dye Road to Davis Road - The length of this segment is 1.3 miles. This asphalt road has a condition rating of Good. The travel lanes are 10 feet and shoulder widths are 6 feet. Minor cracking exists at the centerline. Low overhead wires are present at two locations. Steep drainage ditches exist on both sides of the roadway at some locations. Most of the culverts have 3 feet or less of cover under the roadway/over the culvert. Two sharp curves exist along this roadway. There are no pavement markings on this roadway.

Neu Road, Mack School Road to 0.7 miles south - The length of this segment is 0.7 miles. This road has a gravel surface with a condition rating of Poor. This single lane road is 12 feet wide with shoulder widths of 2 feet. This road becomes narrower at some areas and exhibits frequent potholes and rutting. Steep slopes exist on the west side of the roadway. There are two culverts

along this roadway, both with 3 feet or less of cover. This seasonal use roadway is not maintained in the winter, from December 1st to April 1st.

Old Route 15, Quanz Road to CR 92 - The length of this segment is 0.2 miles. This road has an asphalt surface with a condition rating of Fair. The travel lanes are 10 feet and shoulder widths are 5 feet. There is frequent minor cracking and deteriorated shoulders along this segment. There are two culverts along this roadway, both with 3 feet or more of cover under the roadway/over the culvert. There are no pavement markings on this roadway.

Parker Road, Mattoon Road to Saxton Road - The length of this segment is 0.8 miles. This road has a gravel surface with a condition rating of Fair. The travel lanes are 9 feet and shoulder widths are 2 feet. Low overhead wires are present at one location west of Saxton Road. The one culvert along this route has 6 inches to 3 feet of cover under the roadway/over the culvert. Roadway grade becomes steep near Skelly Road and the skewed configuration at this intersection makes it difficult to turn from Parker Road. This seasonal use roadway is not maintained in the winter, from December 1st to April 1st.

Potter Hill Road, Lake Hollow Road to Campbell Rd - The length of this segment is 2.3 miles. This combination gravel/asphalt road has a condition rating of Fair. Starting at Campbell Road, the road surface is gravel which is heavily worn with rain damage and washboarding, then transitions to asphalt at the Wager Road intersection. The asphalt portion has frequent cracking and holes in the top wearing course. The travel lanes are 8 to 9 feet and shoulder widths are 5 feet. Roadway becomes narrow at a culvert location just east of Campbell Road. Steep slopes and winding curves are frequent along this roadway portion. Houses are present at two outside curve locations between Campbell Road and Wager Road, where the steep roadway ends at a winding curve, putting residents at risk if trucks lose their brakes traveling downhill and going off the roadway at these areas. There are low wires at four locations along this segment of roadway. Grade warning signs are posted at various locations. Most culverts have 3 feet or more of cover under the roadway/over the culvert while one culvert has 1 foot of cover under the roadway/over the culvert and two culverts have unknown cover under the roadway/over the culvert. There are no pavement markings on this roadway.

Quanz Road, NY 21 to Old Route 15 - The length of this segment is 0.9 miles. This road has an asphalt surface with a condition rating of Good. The travel lanes are 9 feet and shoulder widths are 5 feet. Low overhead wires are present at several locations east of NY 21. Steep drainage ditches and shoulders exist on both sides of the roadway. The three culverts have 3 feet or more of cover under the roadway/over the culvert. There are no pavement markings along this roadway.

Rex Road, Brown Hill Road to 0.5 miles north - The length of this segment is 0.5 miles. This road has a gravel surface with a condition rating of Fair. The travel lanes are 8 feet and shoulder widths are 5 feet. The one culvert along this route has 5 feet of cover under the roadway/over the culvert and there are two sharp curves, one with an advisory posted speed of 15 MPH. This seasonal use roadway is not maintained in the winter, from November 1st to May 1st.

Rose Road, CR 54 to Tuttle Road - The length of this segment is 1.8 miles. This combination gravel/asphalt road has a condition rating of Fair. Starting at CR 54, the road surface is gravel with some potholes present, then transitions to asphalt at 0.2 miles north of the Van Keuren Road intersection. There are no pavement markings present. The travel lanes are 10 feet and shoulder widths are 8 feet. Deep ditches are frequent on both sides of the roadway.

South Church Road, CR 121 to NY 21 - The length of this segment is 1.4 miles. This road has an asphalt surface with a condition rating of Good. The travel lanes are 10 feet and shoulder widths are 5 feet. Pavement is in Poor condition south of Dye Road with heavy cracking. Low overhead wires are present at a few locations. Two culvert locations just east of NY 21 have concrete fascia barrier walls. Four out of five culverts have 2 feet or more of cover under the roadway/over the culvert while the other culvert has less than 1 foot of cover under the roadway/over the culvert. There is one sharp curve present. There are no pavement markings on this roadway.

Saxton Road, Parker Road to CR 70 - The length of this segment is 1.3 miles. This road has a gravel surface with a condition rating of Fair. The travel lanes are 10 feet and shoulder widths are 2 feet. The one culvert along this route has less than 6 inches of cover under the roadway/over the culvert.

Skelly Road, CR 55 to Mattoon Road - The length of this segment is 0.4 miles. This road has a gravel surface with a condition rating of Fair. The travel lanes are 8 feet and shoulder widths are 3 feet. There is a combo sharp horizontal, steep vertical curve near the Mattoon Road intersection. The one culvert along this route has 3 feet of cover under the roadway/over the culvert.

Stone Hill Road, CR 50 to Bronson Road - The length of this segment is 1.8 miles. This road has a gravel surface with a condition rating of Fair. The travel lanes are 10 feet and shoulder widths are 2 feet. Some wearing and rough pavement surface areas exist along this roadway. Three out of four culverts have less than 1 foot of cover under the roadway/over the culvert while the other one has 7 feet of cover under the roadway/over the culvert. Frequent overhanging branches exist west of Wagner Road.

Tuttle Road, CR 55 to Rose Road - The length of this segment is 2.4 miles. This road has a gravel surface with a condition rating of Poor. This single lane road is 12 feet wide with shoulder widths of 5 feet. The road has some potholes and becomes narrower in the forested areas. All culverts have 1 foot or less of cover under the roadway/over the culvert. There are low tree branches and trees near the roadway, south of CR 55.

Van Keuren Road, Rose Road to Dead End - The length of this segment is 0.6 miles. This road has a gravel surface with a condition rating of Good. The travel lanes are 9 feet and shoulder widths are 3 feet.

Wager Road, Potter Hill Road to Brown Hill Road - The length of this segment is 1.1 miles. This road has an asphalt surface with a condition rating of Fair. The travel lanes are 9 feet and shoulder widths are 5 feet. Some steep grades along with winding

curves exist along this roadway. Low overhead wires are present at a few locations. All of the culverts have 1 foot or more of cover under the roadway/over the culvert. There are no pavement markings on this roadway.

Wagner Road, Stone Hill Road to Mack Hill Road - The length of this segment is 1 mile. This road has a gravel surface with a condition rating of Poor. This single lane road is 14 feet wide with shoulder widths of 2 feet. This road is narrow with frequent potholes. The one culvert along this route has 8 feet of cover under the roadway/over the culvert. This seasonal use roadway is not maintained in the winter, from December 1st to April 1st.

Walter Kurtz Road, Lander Road to NY 21 - The length of this segment is 2.3 miles. This combination gravel/asphalt road has a condition rating of Good. Starting at Lander Road, the road surface is gravel with minor washboarding present, then transitions to asphalt at 0.4 miles east of the Lander Road intersection. There are no pavement markings present. The gravel section consists of a single travel lane of 12 feet with shoulder widths of 2 feet. The asphalt section has 10 feet travel lanes and 3 to 5 feet shoulder widths. Some sharp curves exist along this roadway. Most culverts have 1 foot or more of cover under the roadway/over the culvert with the exception of one, which has less than 1 foot of cover under the roadway/over the culvert. The gravel portion of the roadway is not maintained in the winter, from November 1st to April 1st.

Walters Road, Wager Road to Dead End - The length of this segment is 1 mile. This road has a gravel surface with a condition rating of Good. This single lane road is 12 feet wide with shoulder widths of 2 feet. This road is narrow with some wearing of the gravel surface and overhanging branches present at various locations. Three out of four culverts have 2 feet or more of cover under the roadway/over the culvert while the other one has 1 foot of cover under the roadway/over the culvert.

3.3 ROADWAY/INTERSECTION RESTRICTIONS

Existing roadway restrictions (height, width, weight) and deficient intersection radius locations were observed in the field and researched from NYSDOT resources during our initial review. Height restrictions such as vertical clearances under bridges at the interchanges of State Route 21/I-390 and County Route 121/I-390 as well as low utility wires along various local roads as described under the roadway evaluation will prevent or make it difficult for access by Overwidth/Overweight delivery vehicles. There are some local roads within the Facility area that are considered narrow with only one lane. Some wind turbine access roads are located along these narrow roads, or these narrow roads are used to travel to another local road with a turbine access road, so it may be necessary to either widen the road or provide traffic control (contractor flag person or local police agency) for the Overwidth/Overweight vehicles. It was also noted that tight curves exist on some roadways where additional widening with gravel may be needed to accommodate up to a 150 foot radius turn for the Overwidth/Overweight delivery vehicles. The large culverts along the potential construction routes appear to have sufficient width to accommodate the Overwidth/Overweight vehicles, but also will need to be checked during the Special Hauling Permit Application process. There are no weight restrictions along State and County roads, but the following local roads on the next page may have load postings that are determined from the town highway supervisor at the time the road is needed as a haul route:

- Avery Road, Brasted Road, Miller Road, Parker Road, Saxton Road and Tuttle Road in the Town of Howard

For the deficient intersections, the path of the 155 foot trailer design vehicle (for turbine blades) using a 150 foot intersection radius was evaluated along the potential travel routes to the wind turbine sites to identify required temporary intersection improvements. Additional mitigation (tree removal, sign relocation, utility pole/box relocation, culvert pipe extension or new installation, drainage ditch relocation, removal/relocation of other tall objects) may be needed due to the turbine blade length extending beyond the rear trailer of the delivery vehicle. See Appendix G for the Table of Roadway Restrictions and Table of Intersection Restrictions (along potential access route locations only).

4.0 TRANSPORTATION ROUTES

4.1 HAUL ROUTE RECOMMENDATIONS

When evaluating viable transportation routes for delivery vehicles and construction vehicles going to the Facility sites, several items were considered. These items are:

- The roadway characteristics and condition
- The number of bridges and large culverts along a designated route
- The condition of the bridges and culverts that are along the route
- The number of intersections where turning movements will be made
- Roadways with minimal sharp curves and/or steep grades to avoid additional mitigation and/or safety issues
- Various potential restrictions such as narrow bridges/large culverts, low overhead clearances and impacts from small intersection radii affecting the turning movements.

Based on this assessment, the following are recommended routes to the various facility sites:

Access Route #1 - To Wind Turbine Sites T3, T5, T2/T7/T18/T13: Use Exit 3 off ramp from I-390 (SB). Turn right onto NY 21 and travel southbound within the Town of Wayland. Turn left onto Quanz Road, then right onto Old Route 15, then right onto CR 92. Travel southbound on CR 92, then turn left onto Emo Road. Travel eastbound on Emo Road, turn left for Turbine Site T3, continue further, turn left for Turbine Site T5, continue a little further on Emo Road and turn right for Turbine Sites T2/T7/T18/T13. See Appendix A for the Map of Access Route Locations. In the map, potential access routes are starting at the three interstate interchanges; I-390 and NY 21 (Exit 3), I-390 and CR 121 (Exit 2), and I-86/NY 17 and CR 70 (Exit 35). Each potential access route to the turbine locations is color-coded. A portion of Access Route #2 will overlap with Access Route #1 along the route between Exit 3 off ramp from I-390 (SB) and Emo Road. There is a legend on the map that also shows the overlapped route along each individual color-coded route for better guidance.

Other routes evaluated for turning off of NY 21, south of Quanz Road, to reach these sites were studied. On NY 21, there are three large concrete box culverts located between Quanz Road and CR 50/CR 92. Two of the three culverts were built in 1926 and have culvert ratings of 4.3 and 4.5 with short spans that are similar to bridges. It is unknown whether these lower rated large culvert structures can accommodate the turbine delivery truck loads. The preferred Access Route #1 (Quanz Road/Old Route 15/CR 92 to Emo Rd) does not have any bridges or large culverts.

Access Route #2 - To Wind Turbine Sites T72/T61, T83, T81/T86, T78/T75/T64, T89/T91/T66/T62, T35/T40, T79/T87/T76/T68, T45 and T69/T65: Use Exit 3 off ramp from I-390 (SB). Turn right onto NY 21 and travel southbound within the Town of Wayland. Turn left onto Quanz Road, then right onto Old Route 15, then right onto CR 92. Proceed southbound on CR 92, past the Emo Road intersection, continue to the NY 21 intersection, then turn left onto NY 21. Continue to proceed southbound on NY 21, turn right onto Derevees Road, proceed westbound on Derevees Road (entering the Town of Dansville). At the Wagner Road intersection, turn left and proceed southbound on Wagner Road, turn left on Holmes Road. Proceed eastbound on Holmes Road, turn right for Turbine Sites T72 and T61, continue further down Holmes Road, turn left for Turbine Site T83, continue further eastbound on Holmes Road (entering the Town of Fremont), turn left for Turbine Sites T86 and T81. Still on Holmes Road, continue eastbound from the T86/T81 Turbine Site access road to the Babcock Road intersection, turn right. Travel southbound on Babcock Road, turn left for Turbine Sites T78/T75/T64, continue further down Babcock Road, turn right for Turbine sites T89/T91/T66/T62. For Sites T35/T40, continue southbound on Wagner Road from the Holmes Road intersection, turn right onto Mack School Road, then left onto Neu Road. Travel southbound on Neu Road, turn left for Turbine Sites T35 and T40. For Sites T79/T87/T76/T68, T45, and T69/T65, at Wagner Road and Mack School Road intersection, proceed eastbound on Mack School Road (entering the Town of Fremont), then right onto NY 21. Travel southbound on NY 21, then turn left onto Conderman Road. Proceed southbound on Conderman Road, turn left for Turbine Sites T79/T87/T76/T68, continue further down Conderman Road, past the Canfield Road intersection, turn left for Turbine Site T45. For turbine sites T69 and T65, travel southbound on Conderman Road from the NY 21 intersection, turn left onto Canfield Road, proceed eastbound on Canfield Road, turn right for Turbine Sites T69 and T65. See Appendix A for the Map of Access Route Locations.

Other routes were investigated under Access Route #2 to reach the turbine sites. Using NY 21, between Quanz Road and CR 92/CR50 was considered, but was not viable due to the reasons mentioned under Access Route #1. Additional routes along NY 21, south of Derevees Road were studied for the turbine site locations under Access Route #2. The Babcock Road (north intersection) route was considered, but the roadway was narrow with a steep grade, large trees and a barn near the road edge, and steep side slopes. Because additional mitigation, such as widening the roadway and removing the trees and barn, could be necessary to ensure safe traveling through this steep roadway, this route from NY 21 was not a viable candidate. Continuing down NY 21, the Babcock Road (south intersection) route was considered, but at the intersection, a large radius will be needed for the NY 21 southbound turn onto the Babcock Road northbound direction, which will require a large easement. The removal of an existing house close to the potential turning radius may be part of the mitigation, so this route from NY 21 was not considered viable.

Also on NY 21, there is a bridge (BIN 1016400) located just south of Derevees Road. It is unknown whether this bridge structure can accommodate the turbine delivery truck loads.

Another route to consider is using the same directions from NY 21 to Quanz Road/Old Route 15/CR 92 and back to NY 21, then proceeding straight past the NY 21 intersection to CR 50. Continue on CR 50 in a southwesterly direction until the Stone Hill Road intersection, turn left onto Stone Hill Road. Proceed eastbound on Stone Hill Road until the Wagner Road intersection, turn right onto Wagner Road and follow the same directions as discussed under the preferred access route to the turbine sites. This route is considered as an alternate route.

Access Route #3 – To Wind Turbine Sites T9/T1/T11/T4/T15, T8/T19/T43, T52/T60, T47, T44/T59/T74, T55/T53, T88/T46, T49/T34/T26/T22, T14/T28/T21/T33/T24/T29, T37/T6/T17: Use Exit 2 off ramp from I-390 (SB). Turn right onto CR 121, then left onto Lake Hollow Road within the Town of Cohocton. Travel southbound on Lake Hollow Road, continue straight, road becomes Potter Hill Road, turn left at the Wager Road intersection. Travel southbound on Wager Road for a short distance, turn left onto Walters Road, proceed eastbound on Walters Road, turn left for Turbine Sites T9/T1/T11/T4/T15, continue further down Walters Road at the dead end for Turbine Sites T8/T19/T43. Continue southbound on Wager Road from the Walters Road intersection, turn left for Turbine Sites T52 and T60. Travel further down Wager Road, turn right onto Brown Hill Road, continue westbound on Brown Hill Road (entering Town of Wayland) to the Rex Road intersection, turn right. Proceed northbound on Rex Road, turn right for Turbine site T47, go a little further, turn left for Turbine Sites T44/T59/T74. For Sites T55/T53, continue westbound on Brown Hill Road from the Rex Road intersection, continue straight, road becomes Davis Road after the New Galen Road intersection, turn left for Turbine Sites T55/T53. For the remaining turbine sites, continue westbound on Brown Hill Road from the Rex Road intersection, turn right onto New Galen Road. Travel northbound on New Galen Road, turn left for Turbine Sites T88 and T46, continue northbound on New Galen Road, turn right onto Dye Road, then left onto Campbell Road. Travel northbound on Campbell Road, turn right for Turbine Sites T49/T34/T26/T22, continue further along Campbell Road, turn left for Turbine Sites T14/T28/T21/T33/T24/T29, turn right for Turbine Sites T37/T6/T17. See Appendix A for the Map of Access Route Locations.

The CR 121/South Church Road/Dye Road route was considered, but there would be some mitigation to the narrow spur road at the South Church and CR 121 intersection that would possibly impact the park like setting with a large Loon Lake community sign **in the “island area” of the intersection.** Also CR 121 is a higher volume county road which passes through the southern part of the Loon Lake hamlet, possibly raising some safety issues with the increase in construction traffic. It was decided that this route was therefore discarded as a viable alternative route.

Potter Hill Road, between Campbell Road and Wager Road, was considered as another route to access the turbine sites on Campbell Road and New Galen Road, but this gravel road is heavily worn with rain damage, narrow at a culvert location, and steep with winding curves at two locations (houses present at end of steep slope and sharp curve areas), possibly presenting a safety hazard to drivers and residents along this portion of the roadway. Additional mitigation, such as repairing the roadway and widening at the culvert location, could be necessary to ensure safe traveling through this portion of the roadway, but may still not address

the safety hazard at the steep slope and winding curve areas. The portion of Potter Hill Road, between Campbell Road and Wager Road, was therefore discarded as a viable alternative route.

Access Route #4 – To Wind Turbine Sites T67/T92, T93, T77, T85, T73, T82, T80, T84/T51, T42, T32, T70/T71/T63/T90, T50 and T38: Use Exit 35 off ramp from I-86/NY 17 (WB). Turn right onto CR 70 and travel northbound within the Town of Howard, until the Avery Road intersection, turn left onto Avery Road. Traveling on Avery Road westbound, road becomes Jobs Corners Road (entering the Town of Fremont), turn left onto CR 55 and travel southbound, bear right onto Tuttle Road, turn right for Turbine Site T67 and T92. For the other sites, starting at the Jobs Corners Road/CR 54 and CR 55 intersection, proceed westbound on CR 54, turn right for Turbine Site T93, continue westbound on CR 54, past the Jones Road and Rose Road intersections, turn right for Turbine Site T77. From the Rose Road intersection with CR 54, proceed southbound on Rose Road, turn right for Turbine Site T85, continue traveling southbound on Rose Road, turn left for Turbine Site T73, staying on Rose Road, then a right for Turbine Site T82 and further down, another right for Turbine Site T80. Continuing on Rose Road southbound, turn right onto Back Street, then left for Turbine Sites T84 and T51. Staying on Back Street, continue westbound from the access road for T84/T51, turn left for Turbine Site T42, continue further along Back Street, past the Dutch Road intersection, turn right for Turbine Site T32. At the Back Street and Dutch Road intersection, proceed northbound on Dutch Road, turn right for Turbine Site T70/T71/T63/T90. Back at the Rose Road and Back Street intersection, continue southbound on Rose Road, turn right onto Van Keuren Road, proceed westbound on Van Keuren Road, turn right for Turbine Site T50, proceed further to the dead end, continue straight for Turbine Site T38.

Another route was considered from the I-86/NY 17 Exit 35 interchange. Using the Exit 35 off ramp from I-86/NY 17 (EB), turn right onto CR 70, proceed southbound to CR 70A intersection, turn right onto CR 70A. Continue on CR 70A, bear right at the Starr Hill Road intersection, proceed in a northerly direction to the CR 55 intersection, turn right onto CR 55. Proceed northbound on CR 55, travel on the CR 55 Bridge over I-86/NY 17 to the CR 54/Jobs Corners Road intersection and follow the same directions as discussed under the preferred access route to the turbine sites. This route deemed not feasible due to a bridge (CR 55 over I-86/NY 17) along the route that may not support the Overwidth/Overweight vehicles as well as having two extra turns involving additional mitigation (one intersection would involve removing a church and a public library). Due to the unfeasibility of this route, CR 70A was not included in the local road review.

4.2 ROUTE SEGMENT MITIGATION

Along the potential access routes there are three roads (Holmes Road, Neu Road, and Wagner Road) **rated “Poor” that are either** used as proposed access routes and/or connect with turbine access roads. These poorly rated roads and three other roads rated **“Fair” to “Good”** (Avery Road, Jobs Corners Road, and Walters Road) are all gravel roads with a single lane width ranging from 10 to 14 feet, that might need to be widened or traffic control provided to accommodate the Overwidth/Overweight delivery vehicles. The asphalt and gravel roads rated **“Fair” to “Good”** should be monitored during construction for pot-holing and deterioration of the pavement to ensure they are safe for general construction and local roadway traffic. The volume and weight of both the general

construction traffic and turbine delivery (Overwidth/Overweight) vehicles may cause accelerated distress that could require temporary repair. These temporary repairs/improvements could include repaving with asphalt, adding gravel stone, temporary traffic signs, etc. and be stipulated as a condition of a Road Use Agreement with the local municipalities.

After completion of construction activities, there may be permanent improvements needed after the facility completion, due to any damage caused by the heavy construction vehicle traffic (especially on any roads that had temporary repairs made during the construction activities). The contractor may be required to repair the roadways to pre-construction conditions using the appropriate treatments such as oil & stone, hot or cold mix asphalt or additional gravel as a condition per Road Use Agreement. See Appendix H for Table of Potential Roadway Improvements indicating the segment of road that may need temporary and/or permanent improvements, along with suggested type for the mitigation. See Appendix H for Map of Potential Roadway Improvement and Intersection Improvement Locations.

4.3 ROUTE INTERSECTION MITIGATION

The existing pavement widths of the county and town roads vary from approximately 12 feet to 22 feet wide. The existing radius of the edge of the pavement at a typical intersection is approximately 25 to 50 feet. It is typical that a radius of approximately 135-feet to 150 feet is necessary to accommodate the wheel paths of permit vehicles, while 150 feet or more may be needed for the load clearance of the vehicles. As a result, the temporary widening of the pavement surface with an aggregate roadway surface will be required to accommodate the trucks turning movements at some locations. Additional mitigation may be needed if the length of a turbine blade extends beyond the outer trailer of the delivery vehicle. After the turbine deliveries have been completed, the temporary pavement will be removed and the area restored to its original surface (e.g., lawn).

Depending on the truck hauler, there can be various truck configurations to consider. Each truck that the hauler proposes to use should be evaluated, and the vehicle with the largest turning movement used to determine the design of intersections.

In reference to available information on access road construction, there are formulas that determine the width of clear turning movement needed for the turbine delivery trucks when navigating along curve sections of the roadway. Applying the radius of 150 feet, as mentioned above, and using the mathematical formula (from Gamesa Corp. document dated 5/29/2012) for the longest transport vehicle (turbine blade), the width of the turning radius to accommodate the truck can be determined. Existing pavement surfaces would need to be widened up to three (3) different directions in order to balance the impacts and to attempt to keep the impacts within the existing right of way. Impacts that extend outside of the right of way would require easements and/or land purchases from adjacent property owners.

Existing facilities typically impacted include drainage ditches, culverts, traffic signs, trees, above ground utilities and utility poles. Mitigation usually includes temporary gravel fills, pipe to maintain drainage in the ditched areas, culvert pipe extensions, and the relocation of poles, street signs and other appurtenances.

See Appendix H for the Maps of Intersection Turning Movements showing the 150 foot radius impacts at the various intersections along the designated haul routes. Again, the extent of these intersection radii improvements will also be decided/confirmed under a Road Use Agreement with the local municipalities. See Appendix H for the Table of Intersection Improvements indicating the intersections that may need temporary and/or permanent improvements and suggested type of improvements. Also see Appendix H for the Map of Potential Roadway Improvements and Intersection Improvement Locations.

4.4 EXISTING STRUCTURE/UTILITY MITIGATION

The drainage pipes/culverts along the construction routes that have 2 feet or less of cover may have a potential to be damaged by construction activities causing delays to construction and local traffic. Each pipe should be analyzed during final design of the roadway improvements to determine the amount of cover over the pipe or necessary improvements needed to accommodate the construction traffic. Any necessary improvements may be a condition stipulated under the Road Use Agreement with the local municipalities.

In regard to the bridge and large culvert structures, the preferred access routes have been selected based on avoiding as many deficient bridges and large culverts as possible to prevent additional mitigation. During the Special Hauling Permit application process, the New York State Department of Transportation and Steuben County Public Works Department will be required to review and approve all bridges and culverts to be traversed along the access routes in the construction phase.

At various locations along the construction access routes, there may be low overhead wires present that will need to be raised to accommodate the Overwidth/Overweight delivery vehicles, due to their transport material heights. Coordination with the local utility companies will be needed to obtain the necessary permits to raise the wires.

5.0 CONSTRUCTION TRAFFIC

5.1 CONSTRUCTION VEHICLE VOLUMES

There will be approximately 11 Overwidth/Overweight trucks required for each turbine. Depending on the turbine selected for the Facility, at the most, there could be up to 76 utility-scale wind turbines. For impact calculation purposes, this study will assume that 76 turbines will be required. Other construction equipment trips will include the following:

- Gravel trucks with capacity of approximately 10 cubic yards (cy) per truck and an estimated gross weight of 75,000 pounds (lbs.), for access road construction (currently the total length of the access roads is approximately 113,000 feet long (21.4 miles) and a minimum of 16 feet wide, with gravel 12 inches deep.

- Concrete trucks for construction of turbine foundations and transformer pads with capacity of approximately 10 cy per truck and an estimated gross weight of 96,000 lbs. The concrete may range from 500 Tons to 900 Tons depending on model and size of turbine selected per location.
- Variety of conventional semi-trailers for delivery of reinforcing steel (two per turbine foundation) and small substation components and interconnection facility material (approximately 152 trucks).
- Variety of conventional vehicles carrying water, fuel oil, bulk fuels (including wood, biomass, coal and municipal solid waste), chemicals or hazardous materials for construction or operation of the facility.

Trucks and cars for transporting construction workers, equipment and tools are not included in the above list because they are not significant in regard to traffic volumes and causing any damage to the roads.

There are no specific locations for the stone/sand quarries. An on-site concrete batch plant will be located at the laydown area on the north side of Davis Road, just west of the New Galen Road intersection. All excavation operations for the wind turbine foundations and access roads will have on-site excavation disposal. The high volume of loaded trucks is expected to accelerate deterioration of Access Route #3 pavement between the laydown area (location of concrete batch plant) and the I-390 interchange, which will be addressed by mitigation described in the Road User Agreement with Steuben County and the Towns of Cohocton and Wayland.

The following table below represents an order-of-magnitude estimate of the total number of heavy loaded truck trips entering the Facility area associated with construction of the turbines.

Component/Truck Type	Assumption	Trips
Blades	One blade per truck	456
Towers	4 tower sections per turbine	608
Nacelle and Hub	2 truck trips per turbine	304
Road Construction	Gravel trucks 10 cubic yards per truck, plus other construction equipment.	13516
Crane	Several trips per access point depending on the degree of disassembly.	304
Concrete	250 to 450 cubic yards per foundation, 10 cubic yards per truck. Assume 40 trips per tower.	6080
Total Heavy Vehicle Trips		21268

Note: trips represent a total number of entering and exiting (2 way) Facility area heavy vehicles.

Existing roadways used for construction access routes that will temporarily experience this additional traffic could potentially have increased risk of vehicle accidents, due to the increase in traffic volumes. New traffic patterns and delays (new construction vehicle entrances on low volume roads, increased heavy truck traffic on these same roads, and delays at the intersections to allow oversized vehicle turning movements) are other factors that could affect safety. Potential routes that exhibited safety concerns (sharp curves, steep grades, restricted sight distance) were identified in this study and eliminated from consideration as viable routes where feasible. The remaining routes that are recommended for use are considered to be able to safely handle the

passage of construction vehicles. Section 2.2 of this report summarized existing accident rates along these routes, which were used to predict the possible effect of additional traffic in regards to safety. The highway with the greatest concentration and frequency of accidents is NYS Route 21, which is proposed to be utilized as Access Route #2 from CR 92 to Derevees Road. The historical data shows that 82% of the accidents were single vehicle collisions caused by either animal action, snow and ice, drunk driving, or hitting roadside fixed objects. None of these are factors that would apply to construction vehicles, so therefore the increase in traffic during construction of the proposed Facility will not exacerbate existing safety deficiencies.

To maintain the safety of all road users, there are preventative measures that can be implemented to reduce the potential risk of accidents during the construction phase of the Facility. Public notifications about the construction of the Facility is one measure that can be provided to warn drivers in advance what to expect when travelling within the construction area.

Overwidth/Overweight vehicles delivering turbine components will have certified escorts and/or police escorts when traveling to the construction sites. Daily construction trucks (concrete, gravel, equipment) typically have amber warning lights and/or construction warning signs attached to the back of the trucks conveying **“CONSTRUCTION VEHICLE STAY 500 FEET BACK”**, **“CONSTRUCTION VEHICLE DO NOT FOLLOW”**, or **“SLOW MOVING VEHICLE”** to alert motorists. Construction warning signs **such as “CONSTRUCTION VEHICLES ENTERING”** can be posted in advance of intersections with turbine site access roads to provide awareness of the potential for construction vehicles entering and exiting these sites. When Overwidth/Overweight vehicles are traveling within the facility area and delivery route roadways, existing traffic may experience minor delays as escort vehicles and/or flag persons stop traffic to allow the safe passage of the Overwidth/Overweight vehicles. Additional construction signs **such as “BE PREPARED TO STOP”** and **“FLAGGER AHEAD”** can be placed in advance of these areas to provide advance warning to motorists.

Some portions of access routes and intersections may be closed short term while turbine vehicles are travelling through, especially roads with narrow pavement or clearance obstructions. If a closure is necessary, an off-site detour (re-routing traffic around the closure) can be implemented during the road/intersection closure to minimize delay to motorists and reduce the potential risk of accidents. Additional construction signing would be placed along the detour route to guide motorists back to their original destination route. Additional measures can be placed in the contract documents as an Internal Traffic Control Plan for the project. These measures can include implementing a reduced speed limit for construction vehicles, establishing procedures for construction vehicles entering and exiting the work zone, placing time restrictions for construction vehicle travel, coordination with local municipalities and the traveling public on traffic pattern changes, and continued inspection along the access routes for any safety deficiencies during the construction phase. See Appendix I for the Table of Construction Vehicle Volumes and Maps of Construction Vehicle Routes/Trip Volumes along access routes to the wind turbine locations.

5.2 CONSTRUCTION ROUTES LEVEL OF SERVICE

A capacity analysis was performed for the study area using the HCS (Highway Capacity Software) by combining the existing condition traffic volumes and additional construction traffic volumes to estimate the construction route Level of Service during the

construction phase. Level of Service (LOS) is a qualitative measure used to relate the quality of traffic service. LOS is used to analyze highways by categorizing traffic flow and assigning quality levels of traffic based on performance measure like speed, density, etc. North American Highway LOS standards, as described in the Highway Capacity Manual and the AASHTO Geometric Design of Highways and Streets use letter designations of A through F to describe levels of service, with A being the best and F being the worst.

It was assumed that all the turbine sites had the same start and completion date, worked 12 hour days, 6 days a week, 4 weeks per month for a duration of 7 months. The analysis showed that there was very little increase from the Existing Peak Hour Volume compared to the Future Construction Phase Peak Hour Volume. Thus, the Future Construction Phase Level of Service is the same as the Existing Level of Service. Along Access Routes #1, #2, #3, and #4 utilizing State Route 21, County Routes 54, 55, 70, 92, 121, and various town roads, it was determined that all had a Level of Service “A” (Existing and Future). As the existing traffic volumes are low, local traffic flow should not be significantly impacted by the normal construction traffic or during the turbine delivery vehicles. As mentioned in the previous section, local traffic may experience minor delays due to slow moving construction vehicles and increased traffic related to the construction activities. To minimize any delays to local traffic during the construction phase, the Owner/Contractor will be required to coordinate with the State, County and local Municipalities to respond to any locations that may experience any traffic flow or capacity issues. See Appendix B for the Table of Level of Service.

5.3 POST-CONSTRUCTION NEEDS

After construction, the Facility will employ approximately 14 full time employees, all of whom may drive separately to the Operation and Maintenance (O&M) building. Some of these personnel will need to visit each turbine location, as well as the collector sub-station and return to the O&M building. Each turbine and the sub-station typically requires routine maintenance visits once every 3 months, but certain turbines or other facility improvements may require periods of more frequent service visits, should a problem arise. Such service visits typically involve 1 to 2 pick-up trucks. The post-construction traffic will not have a significant impact on the Level of Service for the highway system, or require special transportation considerations, such as building new roads, so in conclusion, there are no long term impacts.

6.0 AIRPORT IMPACTS

6.1 AIRPORT LOCATIONS

There are numerous airports and airstrips located within a 20 mile radius from the outside of the Facility area. One municipal airport operated by the City of Hornell, near the city limits to the southwest and another municipal airport operated by the Town of North Dansville in Dansville, located to the northwest, are within 3.4 miles and 8.7 miles respectively. There is one private heliport, DC Helicopters Heliport, located on Jones Road, just south of the Village of Cohocton, that is the closest airport to the eastern facility

area with a distance of 0.4 miles. This heliport/airport location has a 30 feet by 30 feet square pad for vertical takeoff and landing. There are at least 14 wind turbine locations within 2 miles from this heliport/airport. The closest wind turbine locations are T15, at 0.6 miles and T4, at 0.8 miles, both located west from the heliport landing pad. The next closest turbine locations are location T43 at 1.0 mile and T19 at 1.2 miles south, T11 at 1.1 miles west, T1 at 1.2 miles and T8 at 1.4 miles southwest.

6.2 AIRPORT COORDINATION

The process of coordinating with the two municipality airports, Hornell and Dansville, was started approximately 10 months ago (9/20/2016) by the developer. A call with the Airport Manager, who manages both Airports, was conducted and he indicated that he had no concerns related to the Facility. This conversation was documented in the PIP meeting log. The FAA has issued DNH's for the approximate locations. The FAA review included consultation with the U.S. Department of Defense. See Appendix K for the List of Airports with contact information and for the Map of Regional Airports.

7.0 CONCLUSION

This study has determined the probable local travel routes required for delivery of wind turbine components and construction vehicle transport during the construction of the Baron Winds Facility. The study also assesses any impacts to the highway system and road users, both short term (construction) and long-term (post-construction). Various potential intersection and roadway segment improvements and mitigation have been identified. Final engineering design and/or Road Use Agreements will be required prior to construction activities to confirm that all transportation related impacts will be addressed to the satisfaction of the State, County and local highway departments. The State, County and town municipalities will also be involved with the final routing of the Overwidth/Overweight vehicle loads during the hauling permit process. Based on the information contained in this study, there are no identified significant transportation related issues that cannot be mitigated by means described in this report, including road user agreement stipulations yet to be defined, so it is recommended to utilize the travel routes identified in this report, as it is feasible, for routing of transport, construction, and maintenance vehicles.

APPENDIX A

Map of Regional Facility Location

Map of Facility Area

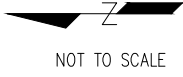
Map of Access Route Locations



C&S Engineers, Inc.
 499 Col. Eileen Collins Blvd.
 Syracuse, New York 13212
 Phone: 315-455-2000
 Fax: 315-455-9667
 www.cscos.com

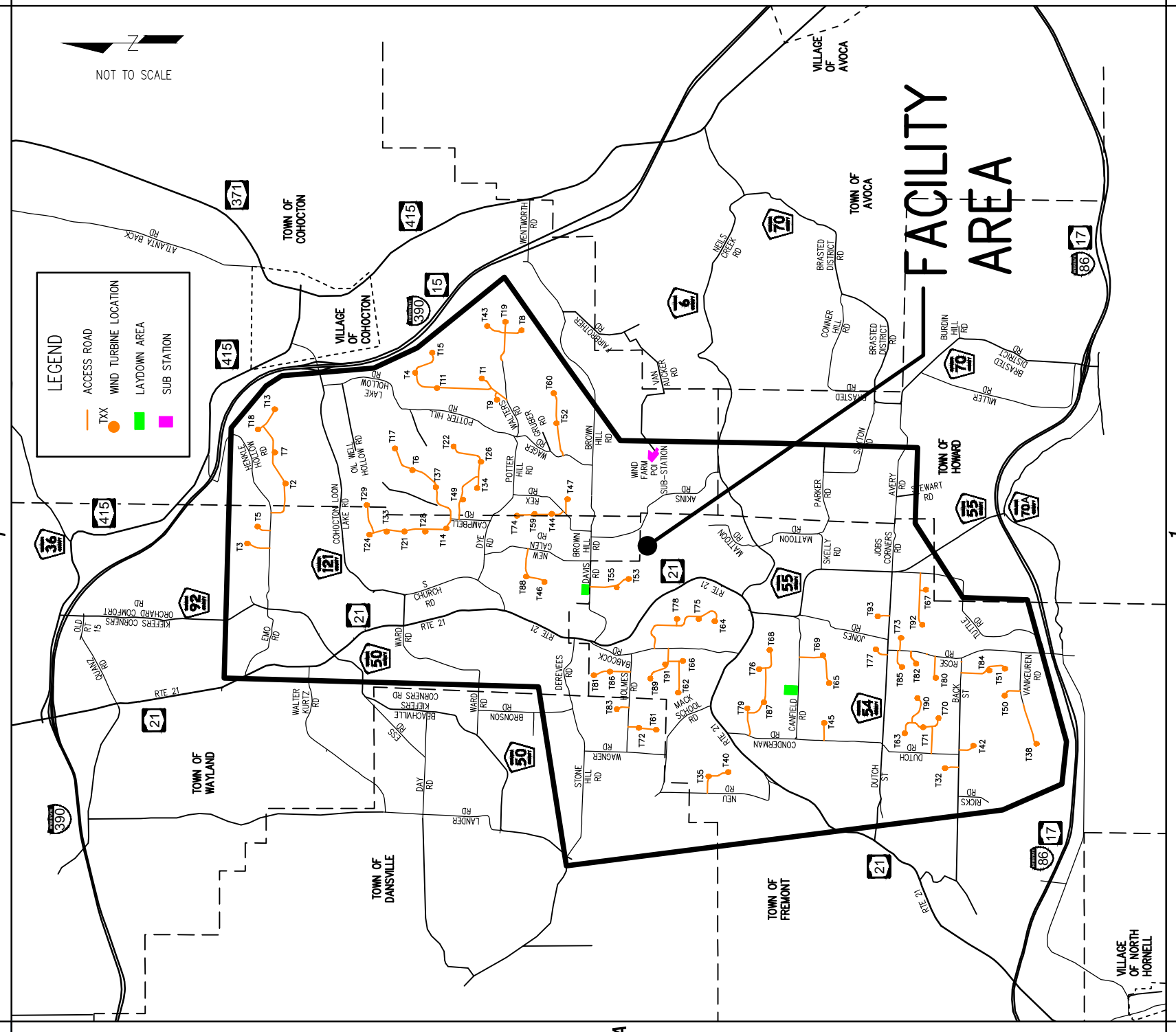
**BARON WINDS FACILITY
 REGIONAL LOCATION MAP**

APPENDIX A



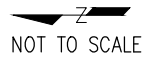
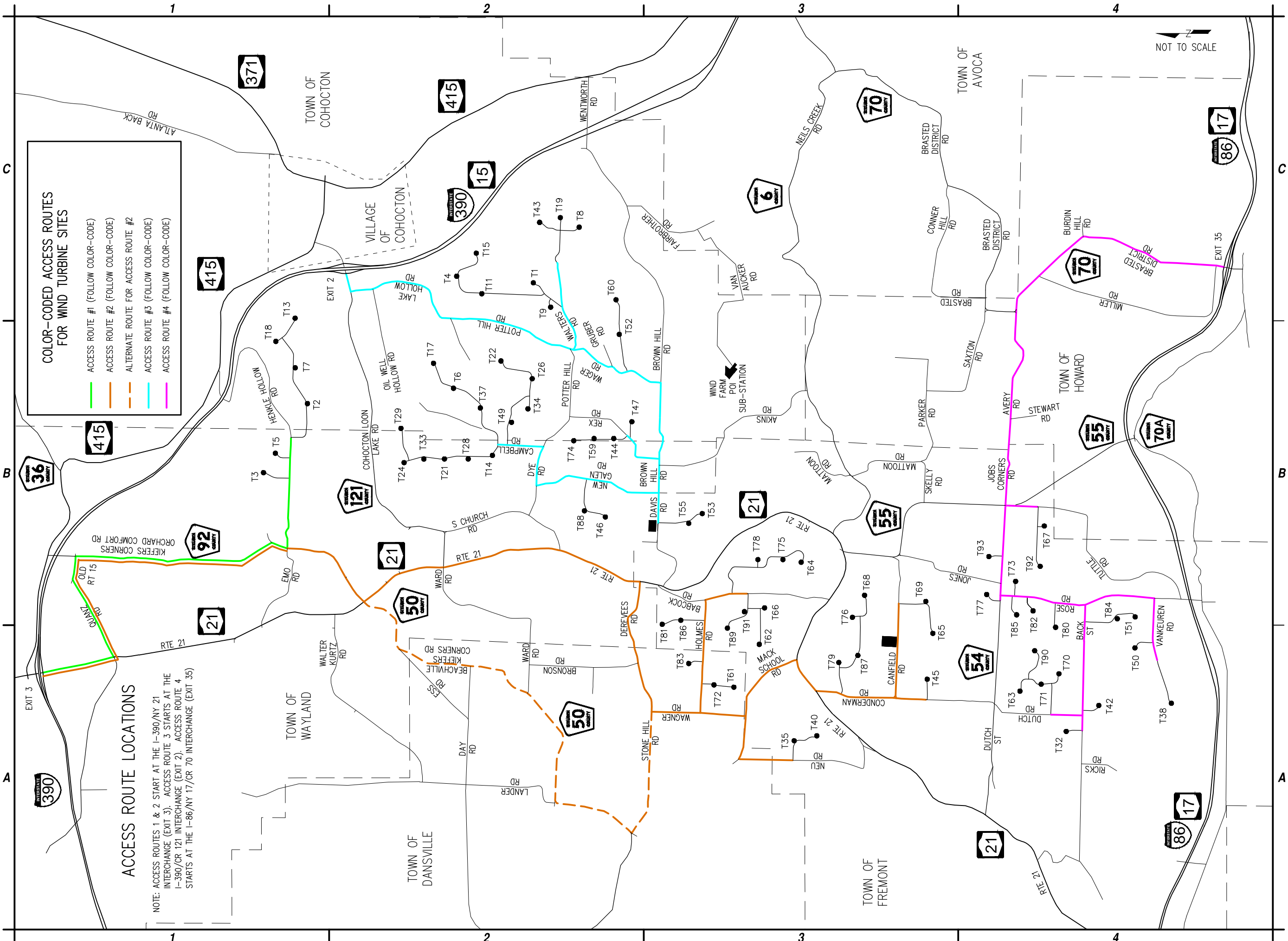
LEGEND

- ACCESS ROAD
- TX
- WIND TURBINE LOCATION
- LAYDOWN AREA
- SUB STATION



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**BARON WINDS FACILITY
 LOCATION MAP
 OF FACILITY AREA
 OF STEUBEN COUNTY**



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BARON WINDS FACILITY

STEBEN COUNTY

ACCESS ROUTE LOCATIONS

APPENDIX A

APPENDIX B

Table of Existing Traffic Volumes

Table of Level of Service

APPENDIX B

BARON WINDS FACILITY

ROADWAY TRAFFIC VOLUMES

ROUTE/ROAD NAME	DIRECTION	FROM	TO	LENGTH (MI)	TOWN(S)	AADT VOLUME	AADT TOTAL	COUNT STATION
NY 21	SB	I-390/NY 15 INTERCHANGE	CR 121	4.3	WAYLAND	1104	2226	640089 (2015)
	NB	CR 121	I-390/NY 15 INTERCHANGE			1122		
NY 21	SB	CR 121	CR 6	4.5	WAYLAND/FREMONT	923	1808	640088 (2010)
	NB	CR 6	CR 121			885		
NY 21	SB	CR 6	CONDERMAN RD	1.9	FREMONT	1126	2280	640086 (2014)
	NB	CONDERMAN RD	CR 6			1154		
CR 50 BEACHVILLE-KIEFERS CORNERS RD	SB	NY 21	DANVILLE TOWN LINE	0.8	WAYLAND	72	143	648084 (2013)
	NB	DANVILLE TOWN LINE	NY 21			71		
CR 50 BEACHVILLE-KIEFERS CORNERS RD	SB	WAYLAND TOWN LINE	STONE HILL RD	3.5	DANVILLE	75	150 (EST.)	N/A
	NB	STONE HILL RD	WAYLAND TOWN LINE			75		
CR 54 DUTCH STREET	EB	CONDERMAN RD	CR 55	2	FREMONT	63	127	648087 (2013)
	WB	CR 55	CONDERMAN RD			64		
CR 55 BACON SCHOOL-HASKINVILLE RD	SB	STEWART RD	NY 21	3.5	FREMONT/HOWARD	88	177	648088 (2005)
	NB	NY 21	STEWART RD			89		
CR 70 BRASTED DISTRICT RD	SB	AVOCA TOWN LINE	I-86/NY 17 INTERCHANGE	2.7	HOWARD	61	123	648114 (2005)
	NB	I-86/NY 17 INTERCHANGE	AVOCA TOWN LINE			62		
CR 92 KIEFERS CORS-ORCHARD COMFORT	SB	NY 21	ANTLERS INN RD	0.7	WAYLAND	181	362	648151 (2005)
	NB	ANTLERS INN RD	NY 21			181		
CR 92 KIEFERS CORS-ORCHARD COMFORT	SB	OLD ROUTE 15	ANTLERS INN RD	2.6	WAYLAND	93	186	648152 (2005)
	NB	ANTLERS INN RD	OLD ROUTE 15			93		
CR 121 COHOCTON-LOON LAKE RD	EB	NY 21	I-390/NY 15 INTERCHANGE	3.5	WAYLAND/COHOCTON	422	845	648192 (2005)
	WB	I-390/NY 15 INTERCHANGE	NY 21			423		
QUANZ RD	EB	NY 21	OLD ROUTE 15	0.9	WAYLAND	25	50 (EST.)	N/A
	WB	OLD ROUTE 15	NY 21			25		
OLD ROUTE 15	EB	QUANZ RD	CR 92	0.2	WAYLAND	15	30 (EST.)	N/A
	WB	CR 92	QUANZ RD			15		
EMO RD	EB	NY 21	COHOCTON TOWN LINE	2.2	WAYLAND	25	50 (EST.)	N/A
	WB	COHOCTON TOWN LINE	NY 21			25		
WALTER KURTZ RD	EB	LANDER RD	NY 21	2.3	WAYLAND/DANVILLE	35	70 (EST.)	N/A
	WB	NY 21	LANDER RD			35		
S CHURCH RD	SB	CR 121	NY 21	1.4	WAYLAND	25	50 (EST.)	N/A
	NB	NY 21	CR 121			25		
DYE RD	EB	S CHURCH RD	COHOCTON TOWN LINE	0.7	WAYLAND	40	80 (EST.)	N/A
	WB	COHOCTON TOWN LINE	S CHURCH RD			40		
CAMPBELL RD	SB	OIL WELL HOLLOW RD	DYE RD	0.7	WAYLAND/COHOCTON	4	8 (EST.)	N/A
	NB	DYE RD	OIL WELL HOLLOW RD			4		
NEW GALEN RD	SB	DYE RD	DAVIS RD	1.3	WAYLAND	40	80 (EST.)	N/A
	NB	DAVIS RD	DYE RD			40		
DEREEVES RD	EB	BRONSON RD	NY 21	0.9	WAYLAND/FREMONT/DANVILLE	35	70 (EST.)	N/A
	WB	NY 21	BRONSON RD			35		
REX RD	SB	POTTER HILL RD	BROWN HILL RD	1.2	WAYLAND/COHOCTON	5	10 (EST.)	N/A
	NB	BROWN HILL RD	POTTER HILL RD			5		
LAKE HOLLOW RD	SB	CR 121	POTTER HILL RD	1.2	COHOCTON	60	120 (EST.)	N/A
	NB	POTTER HILL RD	CR 121			60		
POTTER HILL RD	SB/WB	LAKE HOLLOW RD	WAYLAND TOWN LINE	2.3	COHOCTON	45	90 (EST.)	N/A
	NB/EB	WAYLAND TOWN LINE	LAKE HOLLOW RD			45		
WAGER RD	SB/WB	POTTER HILL RD	BROWN HILL RD	1.1	COHOCTON	30	60 (EST.)	N/A
	NB/EB	BROWN HILL RD	POTTER HILL RD			30		
WALTERS RD	EB	WAGER RD	DEAD END	1	COHOCTON	5	10 (EST.)	N/A
	WB	DEAD END	WAGER RD			5		
BROWN HILL RD	EB	NEW GALEN RD	WAGER RD	1.1	WAYLAND/COHOCTON	50	100 (EST.)	N/A
	WB	WAGER RD	NEW GALEN RD			50		
DAVIS RD	EB	NY 21	NEW GALEN RD	1.3	FREMONT/WAYLAND	30	60 (EST.)	N/A
	WB	NEW GALEN RD	NY 21			30		
BRASTED RD	SB	AVOCA TOWN LINE	CR 70	0.3	HOWARD	15	30 (EST.)	N/A
	NB	CR 70	AVOCA TOWN LINE			15		
SAXTON RD	EB	PARKER RD	CR 70	1.3	HOWARD	17	35 (EST.)	N/A
	WB	CR 70	PARKER RD			18		
PARKER RD	EB	MATTOON RD	SAXTON RD	0.8	FREMONT/HOWARD	10	20 (EST.)	N/A
	WB	SAXTON RD	MATTOON RD			10		
AVERY RD	EB	FREMONT TOWN LINE	CR 70	1.4	HOWARD	10	20 (EST.)	N/A
	WB	CR 70	FREMONT TOWN LINE			10		
MILLER RD	SB	CR 70 (NORTH)	CR 70 (SOUTH)	2.3	HOWARD	12	25 (EST.)	N/A
	NB	CR 70 (SOUTH)	CR 70 (NORTH)			13		
BABCOCK RD	SB	NY 21 (NORTH)	NY 21 (SOUTH)	1.8	FREMONT	12	25 (EST.)	N/A
	NB	NY 21 (SOUTH)	NY 21 (NORTH)			13		

APPENDIX B

BARON WINDS FACILITY

ROADWAY TRAFFIC VOLUMES (CONTINUED)

ROUTE/ROAD NAME	DIRECTION	FROM	TO	LENGTH (MI)	TOWN(S)	AADT VOLUME	AADT TOTAL	COUNT STATION
MATTOON RD	SB	DEAD END	SKELLY RD	1.1	FREMONT	7	14	646422 (2010)
	NB	SKELLY RD	DEAD END			7		
SKELLY RD	EB	CR 55	MATTOON RD	0.4	FREMONT	10	20 (EST.)	N/A
	WB	MATTOON RD	CR 55			10		
JOBS CORNERS RD	EB	CR 55	HOWARD TOWN LINE	0.6	FREMONT	5	10 (EST.)	N/A
	WB	HOWARD TOWN LINE	CR 55			5		
CONDERMAN RD	SB	NY 21	CR 54	1.8	FREMONT	20	40 (EST.)	N/A
	NB	CR 54	NY 21			20		
CANFIELD RD	EB	CONDERMAN RD	CR 55	1.5	FREMONT	20	40 (EST.)	N/A
	WB	CR 55	CONDERMAN RD			20		
JONES RD	SB	CR 55	CR 54	1.1	FREMONT	15	30 (EST.)	N/A
	NB	CR 54	CR 55			15		
ROSE RD	SB	CR 54	TUTTLE RD	1.8	FREMONT	37	74 (EST.)	646418 (2010)
	NB	TUTTLE RD	CR 54			37		
BACK ST	EB	RICKS RD	ROSE RD	1.6	FREMONT	10	20 (EST.)	N/A
	WB	ROSE RD	RICKS RD			10		
DUTCH RD	SB	CR 54	BACK ST	0.9	FREMONT	10	20 (EST.)	N/A
	NB	BACK ST	CR 54			10		
TUTTLE RD	SB	CR 55	ROSE RD	2.4	FREMONT/HOWARD	20	40 (EST.)	N/A
	NB	ROSE RD	CR 55			20		
VAN KEUREN RD	EB	DEAD END	ROSE RD	0.6	FREMONT	5	11 (EST.)	646419 (2010)
	WB	ROSE RD	DEAD END			6		
NEU RD	SB	MACK SCHOOL RD	RIDER RD	1.5	FREMONT/DANVILLE	5	10 (EST.)	N/A
	NB	RIDER RD	MACK SCHOOL RD			5		
MACK SCHOOL RD	EB	NEU RD	NY 21	1.3	FREMONT/DANVILLE	20	40 (EST.)	N/A
	WB	NY 21	NEU RD			20		
HOLMES RD	EB	WAGNER RD	BABCOCK RD	1.2	DANVILLE/FREMONT	7	15 (EST.)	N/A
	WB	BABCOCK RD	WAGNER RD			8		
WAGNER RD	SB	STONE HILL RD	MACK SCHOOL RD	1.0	DANVILLE	10	20 (EST.)	N/A
	NB	MACK SCHOOL RD	STONE HILL RD			10		
STONE HILL RD	EB	CR 50	BRONSON RD	1.8	DANVILLE	30	60 (EST.)	N/A
	WB	BRONSON RD	CR 50			30		
LANDER RD	SB	WALTER KURTZ RD	CR 50	1.5	DANVILLE	15	30 (EST.)	N/A
	NB	CR 50	WALTER KURTZ RD			15		

BARON WINDS FACILITY

TRAFFIC LEVEL OF SERVICE (LOS) TABLE

ROUTE/ROAD NAME	DIRECTION	FROM	TO	LENGTH (MI)	TOWN(S)	EXISTING & FUTURE LOS
NY 21	SB	I-390/NY 15 INTERCHANGE	CR 121	4.3	WAYLAND	A
	NB	CR 121	I-390/NY 15 INTERCHANGE			
NY 21	SB	CR 121	CR 6	4.5	WAYLAND/FREMONT	A
	NB	CR 6	CR 121			
NY 21	SB	CR 6	CONDERMAN RD	1.9	FREMONT	A
	NB	CONDERMAN RD	CR 6			
CR 50 BEACHVILLE-KIEFERS CORNERS RD	SB	NY 21	DANSVILLE TOWN LINE	0.8	WAYLAND	A
	NB	DANSVILLE TOWN LINE	NY 21			
CR 50 BEACHVILLE-KIEFERS CORNERS RD	SB	WAYLAND TOWN LINE	STONE HILL RD	3.5	DANSVILLE	A
	NB	STONE HILL RD	WAYLAND TOWN LINE			
CR 54 DUTCH STREET	EB	CONDERMAN RD	CR 55	2	FREMONT	A
	WB	CR 55	CONDERMAN RD			
CR 55 BACON SCHOOL-HASKINVILLE RD	SB	STEWART RD	NY 21	3.5	FREMONT/HOWARD	A
	NB	NY 21	STEWART RD			
CR 70 BRASTED DISTRICT RD	SB	AVOCA TOWN LINE	I-86/NY 17 INTERCHANGE	2.7	HOWARD	A
	NB	I-86/NY 17 INTERCHANGE	AVOCA TOWN LINE			
CR 92 KIEFERS CORS-ORCHARD COMFORT	SB	NY 21	ANTLERS INN RD	0.7	WAYLAND	A
	NB	ANTLERS INN RD	NY 21			
CR 92 KIEFERS CORS-ORCHARD COMFORT	SB	OLD ROUTE 15	ANTLERS INN RD	2.6	WAYLAND	A
	NB	ANTLERS INN RD	OLD ROUTE 15			
CR 121 COHOCTON-LOON LAKE RD	EB	NY 21	I-390/NY 15 INTERCHANGE	3.5	WAYLAND/COHOCTON	A
	WB	I-390/NY 15 INTERCHANGE	NY 21			
QUANZ RD	EB	NY 21	OLD ROUTE 15	0.9	WAYLAND	A
	WB	OLD ROUTE 15	NY 21			
OLD ROUTE 15	EB	QUANZ RD	CR 92	0.2	WAYLAND	A
	WB	CR 92	QUANZ RD			
EMO RD	EB	NY 21	COHOCTON TOWN LINE	2.2	WAYLAND	A
	WB	COHOCTON TOWN LINE	NY 21			
WALTER KURTZ RD	EB	LANDER RD	NY 21	2.3	WAYLAND/DANSVILLE	A
	WB	NY 21	LANDER RD			
S CHURCH RD	SB	CR 121	NY 21	1.4	WAYLAND	A
	NB	NY 21	CR 121			
DYE RD	EB	S CHURCH RD	COHOCTON TOWN LINE	0.7	WAYLAND	A
	WB	COHOCTON TOWN LINE	S CHURCH RD			
CAMPBELL RD	SB	OIL WELL HOLLOW RD	DYE RD	0.7	WAYLAND/COHOCTON	A
	NB	DYE RD	OIL WELL HOLLOW RD			
NEW GALEN RD	SB	DYE RD	DAVIS RD	1.3	WAYLAND	A
	NB	DAVIS RD	DYE RD			
DEREEVES RD	EB	BRONSON RD	NY 21	0.9	WAYLAND/FREMONT/DANSVILLE	A
	WB	NY 21	BRONSON RD			
REX RD	SB	POTTER HILL RD	BROWN HILL RD	1.2	WAYLAND/COHOCTON	A
	NB	BROWN HILL RD	POTTER HILL RD			
LAKE HOLLOW RD	SB	CR 121	POTTER HILL RD	1.2	COHOCTON	A
	NB	POTTER HILL RD	CR 121			
POTTER HILL RD	SB/WB	LAKE HOLLOW RD	WAYLAND TOWN LINE	2.3	COHOCTON	A
	NB/EB	WAYLAND TOWN LINE	LAKE HOLLOW RD			
WAGER RD	SB/WB	POTTER HILL RD	BROWN HILL RD	1.1	COHOCTON	A
	NB/EB	BROWN HILL RD	POTTER HILL RD			
WALTERS RD	EB	WAGER RD	DEAD END	1	COHOCTON	A
	WB	DEAD END	WAGER RD			
BROWN HILL RD	EB	NEW GALEN RD	WAGER RD	1.1	WAYLAND/COHOCTON	A
	WB	WAGER RD	NEW GALEN RD			
DAVIS RD	EB	NY 21	NEW GALEN RD	1.3	FREMONT/WAYLAND	A
	WB	NEW GALEN RD	NY 21			
BRASTED RD	SB	AVOCA TOWN LINE	CR 70	0.3	HOWARD	A
	NB	CR 70	AVOCA TOWN LINE			

APPENDIX B

BARON WINDS FACILITY

TRAFFIC LEVEL OF SERVICE (LOS) TABLE (CONTINUED)

ROUTE/ROAD NAME	DIRECTION	FROM	TO	LENGTH (MI)	TOWN(S)	EXISTING & FUTURE LOS
SAXTON RD	EB	PARKER RD	CR 70	1.3	HOWARD	A
	WB	CR 70	PARKER RD			
PARKER RD	EB	MATTOON RD	SAXTON RD	0.8	FREMONT/HOWARD	A
	WB	SAXTON RD	MATTOON RD			
AVERY RD	EB	FREMONT TOWN LINE	CR 70	1.4	HOWARD	A
	WB	CR 70	FREMONT TOWN LINE			
MILLER RD	SB	CR 70 (NORTH)	CR 70 (SOUTH)	2.3	HOWARD	A
	NB	CR 70 (SOUTH)	CR 70 (NORTH)			
BABCOCK RD	SB	NY 21 (NORTH)	NY 21 (SOUTH)	1.8	FREMONT	A
	NB	NY 21 (SOUTH)	NY 21 (NORTH)			
MATTOON RD	SB	DEAD END	SKELLY RD	1.1	FREMONT	A
	NB	SKELLY RD	DEAD END			
SKELLY RD	EB	CR 55	MATTOON RD	0.4	FREMONT	A
	WB	MATTOON RD	CR 55			
JOBS CORNERS RD	EB	CR 55	HOWARD TOWN LINE	0.6	FREMONT	A
	WB	HOWARD TOWN LINE	CR 55			
CONDERMAN RD	SB	NY 21	CR 54	1.8	FREMONT	A
	NB	CR 54	NY 21			
CANFIELD RD	EB	CONDERMAN RD	CR 55	1.5	FREMONT	A
	WB	CR 55	CONDERMAN RD			
JONES RD	SB	CR 55	CR 54	1.1	FREMONT	A
	NB	CR 54	CR 55			
ROSE RD	SB	CR 54	TUTTLE RD	1.8	FREMONT	A
	NB	TUTTLE RD	CR 54			
BACK ST	EB	RICKS RD	ROSE RD	1.6	FREMONT	A
	WB	ROSE RD	RICKS RD			
DUTCH RD	SB	CR 54	BACK ST	0.9	FREMONT	A
	NB	BACK ST	CR 54			
TUTTLE RD	SB	CR 55	ROSE RD	2.4	FREMONT/HOWARD	A
	NB	ROSE RD	CR 55			
VAN KEUREN RD	EB	DEAD END	ROSE RD	0.6	FREMONT	A
	WB	ROSE RD	DEAD END			
NEU RD	SB	MACK SCHOOL RD	RIDER RD	1.5	FREMONT/DANSVILLE	A
	NB	RIDER RD	MACK SCHOOL RD			
MACK SCHOOL RD	EB	NEU RD	NY 21	1.3	FREMONT/DANSVILLE	A
	WB	NY 21	NEU RD			
HOLMES RD	EB	WAGNER RD	BABCOCK RD	1.2	DANSVILLE/FREMONT	A
	WB	BABCOCK RD	WAGNER RD			
WAGNER RD	SB	STONE HILL RD	MACK SCHOOL RD	1.0	DANSVILLE	A
	NB	MACK SCHOOL RD	STONE HILL RD			
STONE HILL RD	EB	CR 50	BRONSON RD	1.8	DANSVILLE	A
	WB	BRONSON RD	CR 50			
LANDER RD	SB	WALTER KURTZ RD	CR 50	1.5	DANSVILLE	A
	NB	CR 50	WALTER KURTZ RD			

APPENDIX C

Table of Existing Accident Data



APPENDIX C

C&S Engineers, Inc.
 499 Col. Eileen Collins Blvd.
 Syracuse, New York 13212
 Phone: 315-455-2000
 Fax: 315-455-9667 www.cscos.com

BARON WINDS FACILITY

EXISTING ACCIDENT DATA TABLE

ROUTE/ROAD NAME	FROM	TO	LENGTH (MI)	TOWN(S)	TOTAL ACCIDENTS (9/2013-8/2016)	NON-INTERSECTION ACCIDENTS	INTERSECTION ACCIDENTS	SAFETY DEFICIENT LOCATIONS (SDL)	PRIORITY INVESTIGATION LOCATIONS (PIL) & YEAR	ACCIDENT RATE (ACC/MVM)	NY STATEWIDE AVG. RATE
NY 21	I-390/NY 15 RAMP	CR 50/CR 92	3.5	WAYLAND	28	25	3	NONE	NONE	3.28	2.81
NY 21	CR 50/CR 92	DAVIS ROAD	3.2	WAYLAND/FREMONT	29	25	4	NONE	1 (2013)	4.59	2.81
NY 21	DAVIS ROAD	CR 54/DUTCH STREET	6.2	FREMONT	34	30	4	NONE	NONE	2.44	2.81
CR 50	STONE HILL RD	NY 21	4.3	DANSVILLE/WAYLAND	3	2	1	UNKNOWN	UNKNOWN	4.45	2.81
CR 54	NY 21	CR 55	3.2	FREMONT	1	1	0	UNKNOWN	UNKNOWN	2.02	2.81
CR 55	STEWART RD	NY 21	3.5	FREMONT/HOWARD	5	5	0	UNKNOWN	UNKNOWN	7.51	2.81
CR 70	I-86/NY 17	CONNER HILL RD	4.6	HOWARD/AVOCA	7	5	2	UNKNOWN	UNKNOWN	10.18	2.81
CR 92	OLD ROUTE 15	NY 21	3.3	WAYLAND	4	4	0	UNKNOWN	UNKNOWN	5.80	2.81
CR 121	NY 21	I-390	3.5	WAYLAND/COHOCTON	14	13	1	UNKNOWN	UNKNOWN	4.35	2.81
DAVIS ROAD	NY 21	NEW GALEN RD	1.3	FREMONT/WAYLAND	1	0	1	UNKNOWN	UNKNOWN	UNKNOWN	2.81
EMO ROAD	NY 21	HENCLE HOLLOW RD	2.2	WAYLAND	2	2	0	UNKNOWN	UNKNOWN	UNKNOWN	2.81
JONES ROAD	CR 54	CR 55	1.1	FREMONT	1	1	0	UNKNOWN	UNKNOWN	UNKNOWN	2.81
LANDER ROAD	CR 50	WALTER KURTZ ROAD	1.5	DANSVILLE	1	0	1	UNKNOWN	UNKNOWN	UNKNOWN	2.81
SAXTON ROAD	PARKER RD	CR 70	1.3	HOWARD	1	1	0	UNKNOWN	UNKNOWN	UNKNOWN	2.81
STONE HILL ROAD	CR 50	BRONSON ROAD	1.9	DANSVILLE	1	1	0	UNKNOWN	UNKNOWN	UNKNOWN	2.81
WALTER KURTZ RD	LANDER ROAD	NY 21	2.3	DANSVILLE/WAYLAND	1	1	0	UNKNOWN	UNKNOWN	UNKNOWN	2.81

NOTE: NO REPORTABLE ACCIDENTS FOR THE REMAINING LOCAL TOWN ROADS WITHIN THE FACILITY AREA

APPENDIX D

Table of Existing School Bus Routes



APPENDIX D

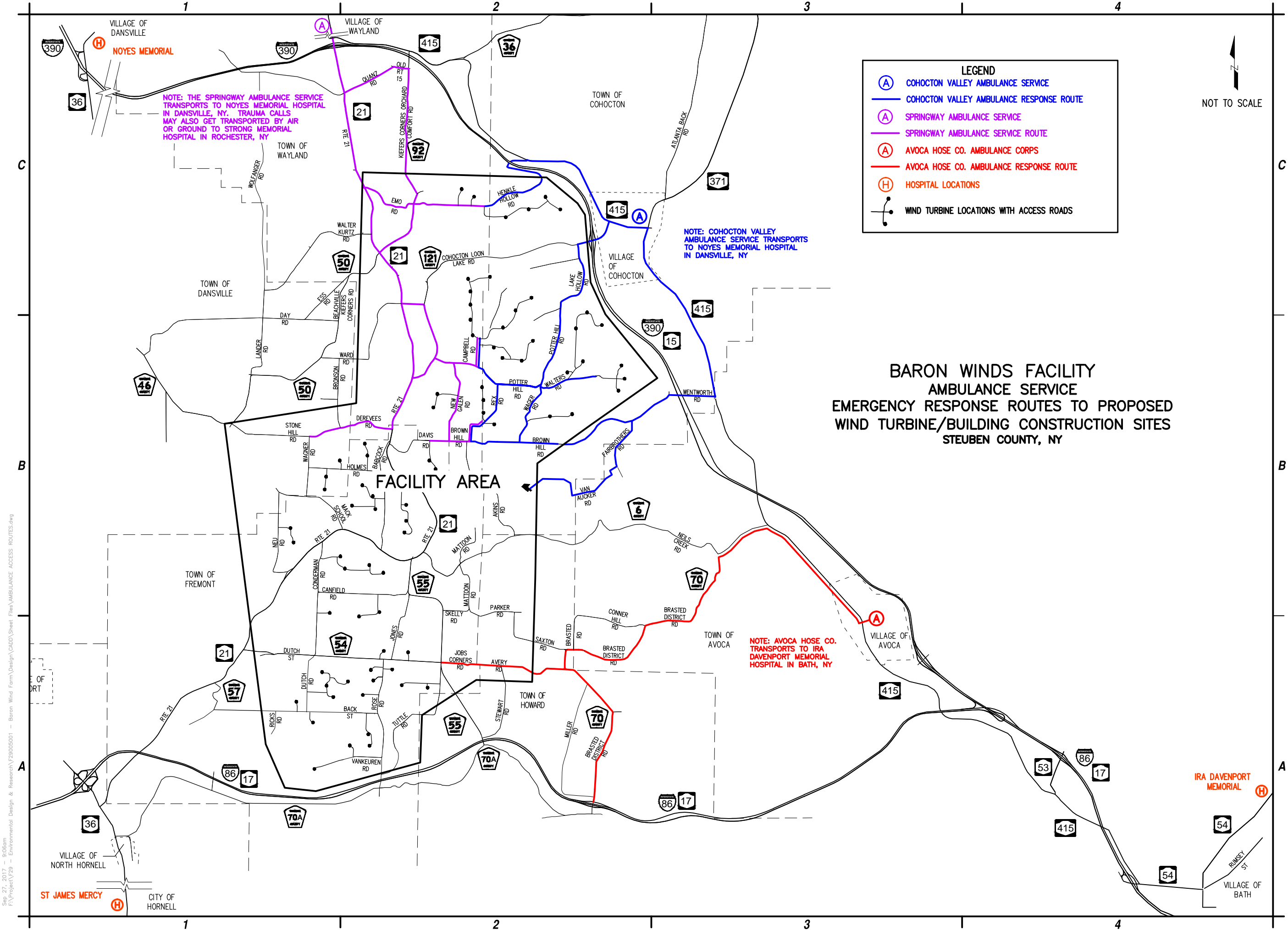
BARON WINDS FACILITY

EXISTING SCHOOL BUS ROUTE INFORMATION (CONTINUED)

ROUTE/ROAD NAME	FROM	TO	TOWN(S)	SCHOOL DISTRICT	MORNING BUS ROUTE		MID-DAY BUS ROUTE		AFTERNOON BUS	
					NOS. OF BUSES	TIME SPAN	NOS. OF BUSES	TIME SPAN	NOS. OF BUSES	TIME SPAN
JONES RD	CR 55	CR 54	FREMONT	AVOCA	NONE	NONE	NONE	NONE	NONE	NONE
NY 21	0.3 MILES NORTH OF CR 6	0.5 MILES SOUTH OF CR 6	FREMONT	AVOCA	1	7:00 AM TO 8:00 AM	NONE	NONE	1	3:00 PM TO 4:00 PM
CR 54 DUTCH STREET	JONES RD	CR 55	FREMONT	AVOCA	NONE	NONE	NONE	NONE	NONE	NONE
CR 55 BACON SCHOOL-HASKINVILLE RD	STEWART RD	FREMONT TOWN LINE	HOWARD	HORNELL CITY	NONE	NONE	NONE	NONE	NONE	NONE
TUTTLE RD	CR 55	ROSE RD	FREMONT/HOWARD	HORNELL CITY	2	6:30 AM TO 8:00 AM	NONE	NONE	2	2:30 PM TO 4:00 PM
ROSE RD	CR 54	TUTTLE RD	FREMONT	HORNELL CITY	NONE	NONE	NONE	NONE	NONE	NONE
DUTCH RD	CR 54	BACK ST	FREMONT	HORNELL CITY	NONE	NONE	NONE	NONE	NONE	NONE
BACK ST	RICKS RD	ROSE RD	FREMONT	HORNELL CITY	NONE	NONE	NONE	NONE	NONE	NONE
VAN KEUREN RD	ROSE RD	DEAD END	FREMONT	HORNELL CITY	NONE	NONE	NONE	NONE	NONE	NONE
NY 21	0.5 MILES SOUTH OF CR 6	CR 54	FREMONT	ARKPORT	1	7:30 AM TO 8:00 AM	NONE	NONE	1	3:30 PM TO 4:00 PM
CR 54 DUTCH STREET	NY 21	JONES RD	FREMONT	ARKPORT	1	7:15 AM TO 7:45 AM	NONE	NONE	1	3:15 PM TO 3:45 PM
CONDERMAN RD	NY 21	CR 54	FREMONT	ARKPORT	1	7:30 AM TO 8:00 AM	NONE	NONE	1	3:30 PM TO 4:00 PM
CANFIELD RD	CONDERMAN RD	CR 55	FREMONT	ARKPORT	NONE	NONE	NONE	NONE	NONE	NONE
BABCOCK RD	0.6 MILES NORTH OF NY 21 (SOUTH)	NY 21 (SOUTH)	FREMONT	ARKPORT	NONE	NONE	NONE	NONE	NONE	NONE
MACK SCHOOL RD	NY 21	NEU RD	FREMONT/DANSVILLE	ARKPORT	1	7:15 AM TO 7:45 AM	NONE	NONE	1	3:15 PM TO 3:45 PM
JONES RD	CR 55	CR 54	FREMONT	ARKPORT	NONE	NONE	NONE	NONE	NONE	NONE
WAGNER RD	STONE HILL RD	MACK SCHOOL RD	DANSVILLE	ARKPORT	NONE	NONE	NONE	NONE	NONE	NONE
NEU RD	MACK SCHOOL RD	RIDER RD	FREMONT/DANSVILLE	ARKPORT	NONE	NONE	NONE	NONE	NONE	NONE
STONE HILL RD	CR 50	WAGNER RD	DANSVILLE	ARKPORT	NONE	NONE	NONE	NONE	NONE	NONE
CR 50 BEACHVILLE-KIEFERS CORNERS RD	STONE HILL RD	LANDER RD	DANSVILLE	ARKPORT	1	7:15 AM TO 7:45 AM	NONE	NONE	1	3:15 PM TO 3:45 PM

APPENDIX E

Maps of Emergency Responder Routes



C&S Engineers, Inc.
499 Col. Eileen Collins Blvd.
Syracuse, New York 13212
Phone: 315-455-2000
Fax: 315-455-9667
www.cscos.com

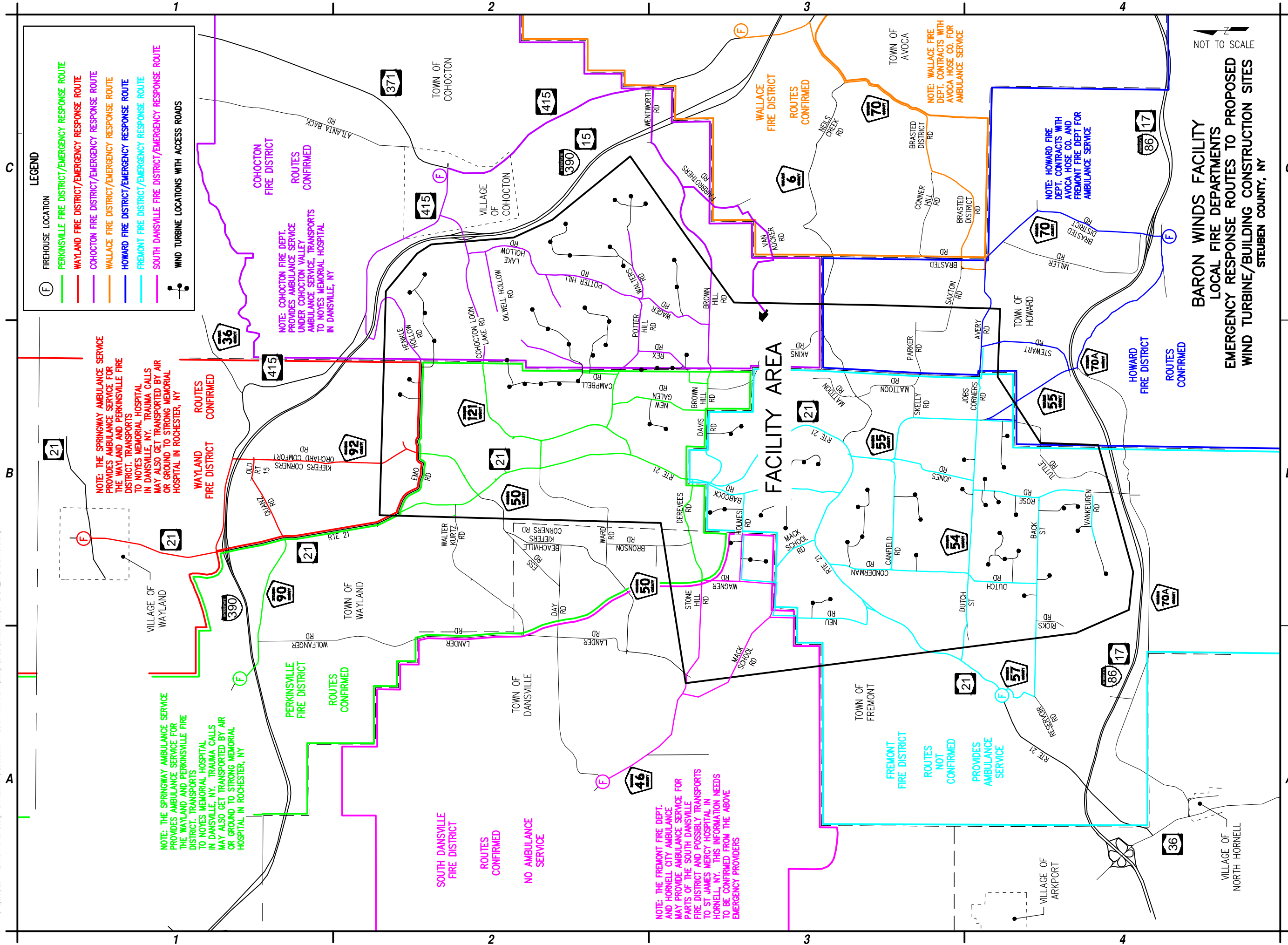
NOT TO SCALE

**BARON WINDS FACILITY
STEBEN COUNTY**

**AMBULANCE
RESPONSE
ROUTES**

APPENDIX E

Sep. 27, 2017 - 9:06am
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NOT TO SCALE

**BARON WINDS FACILITY
 LOCAL FIRE DEPARTMENTS
 EMERGENCY RESPONSE ROUTES TO PROPOSED
 WIND TURBINE/BUILDING CONSTRUCTION SITES
 STEUBEN COUNTY, NY**



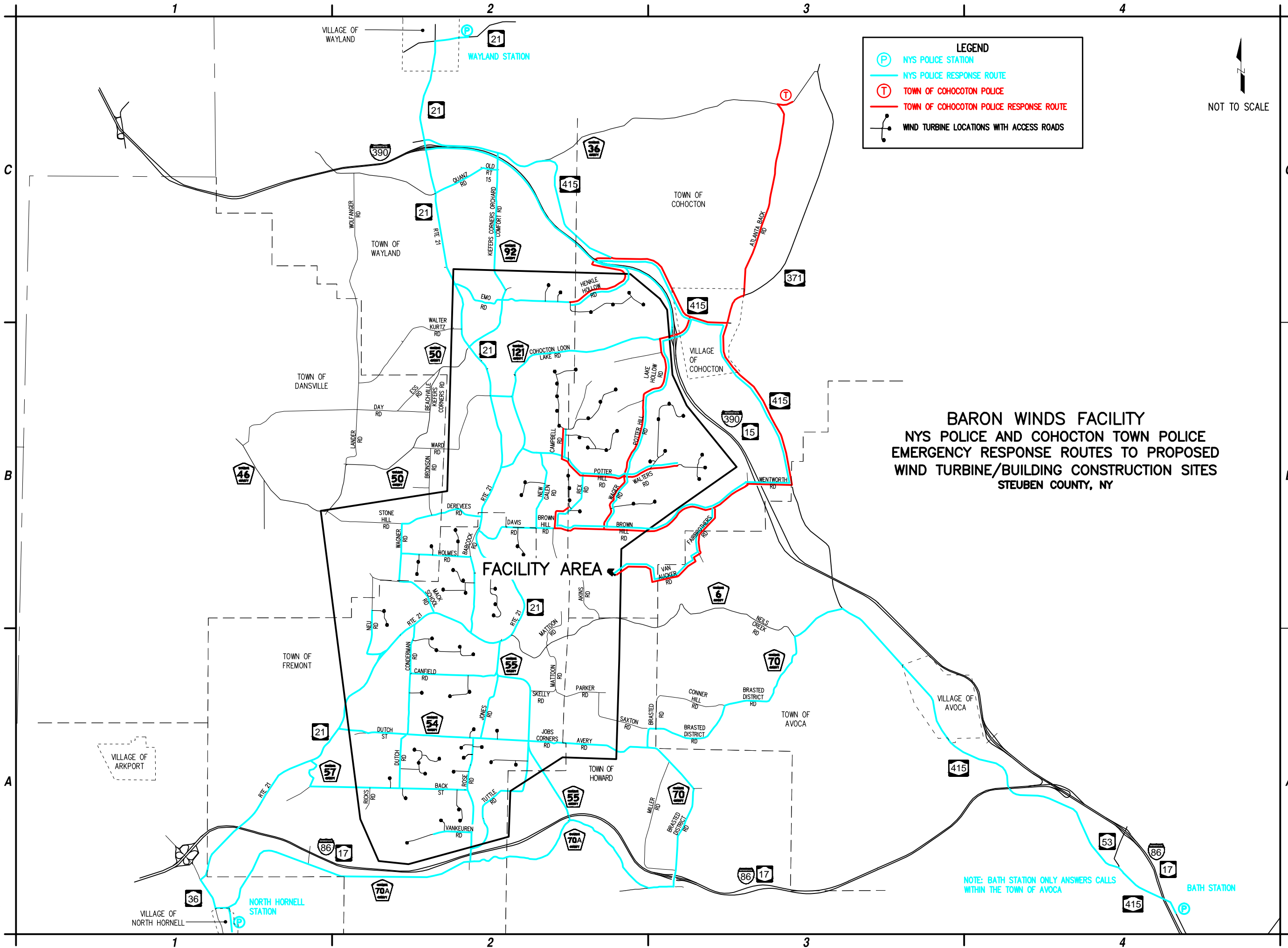
C&S Engineers, Inc.
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**BARON WINDS FACILITY
 STEUBEN COUNTY**

**EMERGENCY
 RESPONSE ROUTES
 LOCAL FIRE DEPTS.**

APPENDIX E

Sep. 27, 2017 - 9:16am
F:\Project\29 - Environmental Design & Research\290505001 - Baron Wind Farm\Drawn\CAD\Sheet\Files\NYS Troopers_Town Police Access Routes.dwg



LEGEND

- Ⓟ NYS POLICE STATION
- NYS POLICE RESPONSE ROUTE
- Ⓟ TOWN OF COHOCTON POLICE
- TOWN OF COHOCTON POLICE RESPONSE ROUTE
- WIND TURBINE LOCATIONS WITH ACCESS ROADS

N
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NOT TO SCALE

BARON WINDS FACILITY
NYS POLICE AND COHOCTON TOWN POLICE
EMERGENCY RESPONSE ROUTES TO PROPOSED
WIND TURBINE/BUILDING CONSTRUCTION SITES
STEBUEN COUNTY, NY



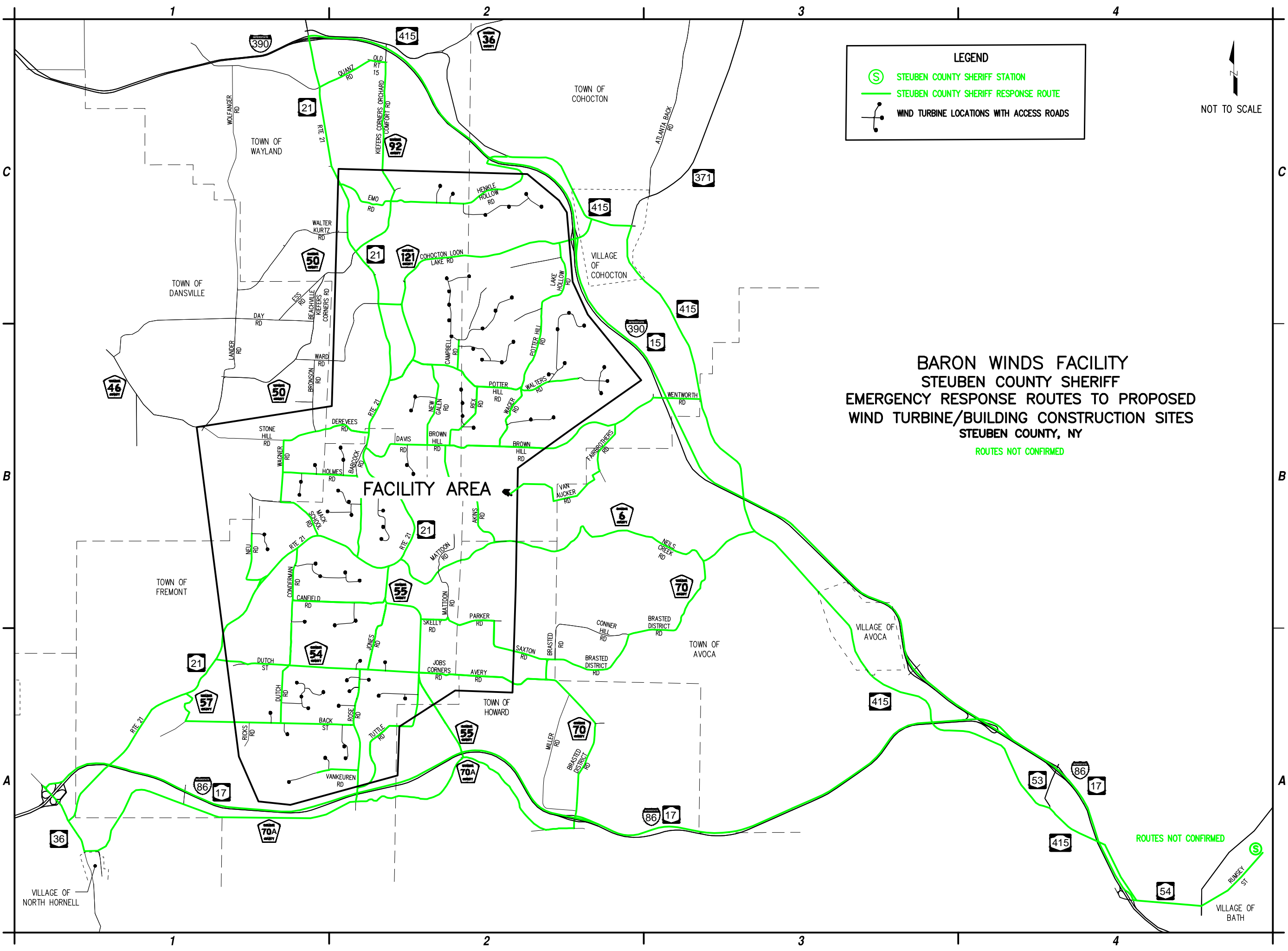
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 499 Col. Eileen Collins Blvd.
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BARON WINDS FACILITY
STEBUEN COUNTY

NYS POLICE
AND TOWN POLICE
RESPONSE ROUTES

APPENDIX E

Sep. 27, 2017 - 9:50am
F:\Project\29 - Environmental Design & Research\290505001 - Baron Wind Farm\Drawings\CAD\Sheet Files\SHERIFF ACCESS ROUTES.dwg



LEGEND

- STEUBEN COUNTY SHERIFF STATION
- STEUBEN COUNTY SHERIFF RESPONSE ROUTE
- WIND TURBINE LOCATIONS WITH ACCESS ROADS

NOT TO SCALE

**BARON WINDS FACILITY
STEUBEN COUNTY SHERIFF
EMERGENCY RESPONSE ROUTES TO PROPOSED
WIND TURBINE/BUILDING CONSTRUCTION SITES
STEUBEN COUNTY, NY**
ROUTES NOT CONFIRMED



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**BARON WINDS FACILITY
STEUBEN COUNTY**

**STEUBEN COUNTY
SHERIFF
RESPONSE ROUTES**

APPENDIX E

APPENDIX F

Table of Roadway Field Evaluation (Condensed)



APPENDIX F

C&S Engineers, Inc.
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BARON WINDS FACILITY

ROADWAY FIELD EVALUATION TABLE (CONDENSED)

ABBREVIATION INDEX					PAVEMENT DEPTH (IN)	NO. OF LANES	LANE WIDTH (FT)	SHOULDER WIDTH (FT)	PAVEMENT MARKINGS	ROAD TYPE **	PAVEMENT CONDITION	ALIGNMENT	TERRAIN	LOW WIRES	POSTED BRIDGE	POSTED BRIDGE TYPE	POSTED ROAD	POSTED ROAD WGT. (T)	SEASONAL ROAD	SHARP CURVES	CURVE WARNING SPEED (MPH)		
ROUTE/ROAD NAME	FROM	TO	LENGTH (MI)	TOWN(S)																			
PAVEMENT DEPTH: VAR - VARIES UP TO 3" FOR OIL & STONE, 3"-5" FOR ASPHALT UNK - UNKNOWN																							
ROAD TYPES: A- ASPHALT GR- GRAVEL																							
PAVEMENT CONDITIONS: P- POOR F- FAIR G- GOOD E- EXCELLENT																							
ALIGNMENT: T- TANGENT C- CURVED W- WINDING																							
TERRAIN: F- FLAT R- ROLLING M- MOUNTAINOUS																							
POSTED BRIDGE/CULV. TYPE: R POSTED LOAD - PL																							
POSTED ROAD WGT.: LD - LOCAL DELIVERY TRUCKS ONLY																							
NY 21	I-390/NY 15	DEREEVES RD	6.5	WAYLAND	12"+/-	2	12	4	YES	A	G	C	R	YES	NO		NO		NO	YES	50		
NY 21	DEREEVES RD	CONDERMAN RD	4.2	FREMONT	12"+/-	2	12	6	YES	A	F	W	R	YES	NO		NO		NO	NO	NO		
CR 50 BEACHVILLE-KIEFERS CORNERS	NY 21	STONE HILL RD	4.3	WAYLAND/DANSVILLE	9"	2	10	4	YES	A	G	W	R	YES	NO		NO		NO	YES	20/25/30/40		
CR 54 DUTCH STREET	CONDERMAN RD	CR 55	2	FREMONT	9"	2	10	4	YES	A	G	T	R	NO	NO		NO		NO	NO	NO		
CR 55 BACON SCHOOL-HASKINVILLE RD	STEWART RD/I-86/NY 17 BRIDGE	NY 21	3.5	FREMONT/HOWARD	6"+/-	2	11	2 TO 6	YES	A	G	C	R	NO	NO		NO		NO	NO	30		
CR 70 BRASTED DISTRICT RD	I-86/NY 17 INTERCHANGE	AVOCA TOWN LINE	2.7	HOWARD	4"	2	11	4 TO 6	YES	A	G	C	R	YES	NO		NO		NO	YES	30/40		
CR 92 KIEFERS CORS-ORCHARD COMFORT RD	NY 21	OLD ROUTE 15	4	WAYLAND	9"	2	10	3	YES	A	G	W	R	YES	NO		NO		NO	YES	25/30/35/40/45		
CR 121 COHOCTON-LOON LAKE RD	NY 21	I-390/NY 15	3.5	WAYLAND/COHOCTON	6"+/-	2	11	4	YES	A	G	W	R	YES	NO		NO		NO	YES	35/10		
QUANZ RD	NY 21	OLD ROUTE 15	0.9	WAYLAND	UNK	2	9	5	NO	A	G	T	F	YES	NO		NO		YES	NO	NO		
OLD ROUTE 15	QUANZ RD	CR 92	0.2	WAYLAND	UNK	2	10	5	NO	A	F	T	F	NO	NO		NO		NO	NO	NO		
EMO RD	NY 21	COHOCTON TOWN LINE	2.2	WAYLAND	UNK	2	9 TO 10	5	NO	A/GR	F	W	M	YES	NO		NO		NO	YES	20/30		
WALTER KURTZ RD	LANDER RD	WAYLAND TOWN LINE	0.4	DANSVILLE	UNK	1	12	2	NO	GR	G	C	R	NO	NO		NO		YES	NO	NO		
WALTER KURTZ RD	DANSVILLE TOWN LINE	NY 21	1.9	WAYLAND	UNK	2	10	3 TO 5	NO	A	G	W	R	NO	NO		NO		NO	YES	30		
S CHURCH RD	CR 121	NY 21	1.4	WAYLAND	UNK	2	10	5	NO	A	G	C	F	YES	NO		NO		NO	YES	20		
DYE RD	S CHURCH RD	CAMPBELL RD	0.7	WAYLAND	UNK	2	9 TO 10	5	NO	A	F	C	R	YES	NO		NO		NO	YES	NO		
CAMPBELL RD	OIL WELL HOLLOW RD	DYE RD	0.7	WAYLAND/COHOCTON	UNK	2	8	5	NO	GR	G	T	M	NO	NO		NO		YES	NO	NO		
NEW GALEN RD	DYE RD	DAVIS RD	1.3	WAYLAND	UNK	2	10	6	NO	A	G	W	R	YES	NO		NO		NO	YES	30		
DEREEVES RD	BRONSON RD	NY 21	0.9	WAYLAND/FREMONT/DANSVILLE	UNK	2	10	2	NO	GR/A	F	W	F	YES	NO		NO		NO	YES	30		
REX RD	BROWN HILL RD	0.5 MILES NORTH	0.5	WAYLAND/COHOCTON	5" AVG	2	8	5	NO	GR	F	C	M	NO	NO		NO		YES	YES	15		
LAKE HOLLOW RD	CR 121	POTTER HILL RD	1.2	COHOCTON	4"	2	9	2	NO	A	G	W	R	YES	NO		NO		NO	YES	20		
POTTER HILL RD	LAKE HOLLOW RD	CAMPBELL RD	2.3	COHOCTON	3"/6"	2	8 TO 9	5	NO	A/GR	F	W	M	YES	NO		NO		NO	YES	NO		
WAGER RD	POTTER HILL RD	BROWN HILL RD	1.1	COHOCTON	3"	2	9	5	NO	A	F	W	M	YES	NO		NO		NO	YES	NO		
WALTERS RD	WAGER RD	DEAD END	1	COHOCTON	6"	1	12	2	NO	GR	G	C	F	NO	NO		NO		NO	NO	NO		
BROWN HILL RD	NEW GALEN RD	WAGER RD	1.1	WAYLAND/COHOCTON	4"	2	8 TO 9	4 TO 5	NO	A	F	W	R	NO	NO		NO		NO	YES	NO		
DAVIS RD	NY 21	NEW GALEN RD	1.3	FREMONT/WAYLAND	UNK	2	10	3 TO 4	NO	GR	G	C	M	YES	NO		NO		NO	YES	NO		
BRASTED RD	AVOCA TOWN LINE	CR 70	0.3	HOWARD	UNK	2	9	3	NO	GR	F	T	R	YES	NO		YES*		NO	NO	NO		
SAXTON RD	PARKER RD	CR 70	1.3	HOWARD	UNK	2	10	2	NO	GR	F	C	R	NO	NO		YES*		NO	NO	NO		
PARKER RD	MATTOON RD	SAXTON RD	0.8	FREMONT/HOWARD	UNK	2	9	2	NO	GR	F	C	R	YES	NO		YES*		YES*	NO	NO		
AVERY RD	FREMONT TOWN LINE	CR 70	1.4	HOWARD	UNK	1	14	2	NO	GR	F	C	R	NO	NO		YES*		YES	YES	NO		
MILLER RD	CR 70 (NORTH)	CR 70 (SOUTH)	2.3	HOWARD	UNK	2	9	5	NO	GR	F	T	M	NO	NO		YES*		NO	NO	NO		
BABCOCK RD	NY 21 (NORTH)	1.1 MILES SOUTH	1.1	FREMONT	UNK	2	10	3	NO	GR	G	C	R	NO	NO		NO		NO	YES	NO		
MATTOON RD	SKELLY RD	DEAD END	1.1	FREMONT	UNK	2	8	2	NO	GR	F	W	R	NO	NO		NO		NO	NO	NO		
SKELLY RD	CR 55	MATTOON RD	0.4	FREMONT	UNK	2	8	3	NO	GR	F	C	R	NO	NO		NO		YES	YES	NO		
JOBS CORNERS RD	CR 55	HOWARD TOWN LINE	0.6	FREMONT	UNK	1	14	3	NO	GR	F	W	M	NO	NO		NO		YES	NO	NO		
CONDERMAN RD	NY 21	CR 54	1.8	FREMONT	UNK	2	10	4	NO	A/GR	F	T	M	NO	NO		NO		YES	NO	NO		
CANFIELD RD	CONDERMAN RD	CR 55	1.5	FREMONT	UNK	2	9	5	NO	GR	F	C	R	NO	NO		NO		NO	YES	20		
JONES RD	CR 54	CR 55	1.1	FREMONT	UNK	2	10	2	NO	GR/A	F	T	F	NO	NO		NO		NO	NO	NO		
ROSE RD	CR 54	TUTTLE RD	1.8	FREMONT	3" TO 6"	2	10	8	NO	A/GR	F	W	R	NO	NO		NO		NO	NO	NO		
BACK ST	ROSE RD	RICKS RD	1.6	FREMONT	UNK	2	9	5	NO	GR	F	T	R	NO	NO		NO		NO	YES	NO		
DUTCH RD	CR 54	BACK ST	0.9	FREMONT	UNK	2	8	4	NO	GR	F	T	F	YES	NO		NO		NO	YES	NO		
TUTTLE RD	CR 55	ROSE RD	2.4	FREMONT/HOWARD	UNK	1	12	5	NO	GR	P	W	R	NO	NO		YES*		NO	YES	NO		
VAN KEUREN RD	ROSE RD	DEAD END	0.6	FREMONT	UNK	2	9	3	NO	GR	G	T	R	NO	NO		NO		NO	NO	NO		
NEU RD	MACK SCHOOL RD	0.7 MILES SOUTH	0.7	FREMONT/DANSVILLE	UNK	1	10	4	NO	GR	P	T	R	NO	NO		NO		YES	NO	NO		
MACK SCHOOL RD	NY 21	NEU RD	1.3	FREMONT/DANSVILLE	UNK	2	10	2 TO 3	NO	A	G	C	R	YES	NO		NO		NO	YES	30		
HOLMES RD	WAGNER RD	BABCOCK RD	1.2	DANSVILLE/FREMONT	UNK	1	11 TO 14	1 TO 4	NO	GR	P	T	R	NO	NO		NO		YES	NO	NO		
WAGNER RD	STONE HILL RD	MACK SCHOOL RD	1	DANSVILLE	UNK	1	11	2	NO	GR	P	T	F	NO	NO		NO		YES	NO	NO		
STONE HILL RD	CR 50	BRONSON RD	1.8	DANSVILLE	UNK	2	10	2	NO	GR	F	C	R	NO	NO		NO		NO	NO	NO		
LANDER RD	WALTER KURTZ RD	CR 50	1.5	DANSVILLE	UNK	2	10	5	NO	GR/A	F	C	M	YES	NO		NO		YES	YES	NO		

NOTES:

- * AVERY RD, BRASTED RD, MILLER RD, PARKER RD, SAXTON RD AND TUTTLE RD PORTION IN THE TOWN OF HOWARD MAY BE POSTED FOR WEIGHT RESTRICTIONS AND CLOSED TO CONSTRUCTION TRAFFIC AT CERTAIN TIMES OF THE YEAR AT THE DISCRETION OF THE TOWN OF HOWARD HIGHWAY SUPERVISOR PRIOR TO HAUL ROAD USE.
- ** LAKE HOLLOW RD, CR 121 TO POTTER HILL RD, IS GETTING A CHIP-SEALED ASPHALT TREATMENT FROM THE TOWN OF COHOCTON DURING THE SUMMER OF 2017
- ** POTTER HILL RD, LAKE HOLLOW RD TO WAGER RD, IS GETTING A DOUBLE OIL AND STONE ASPHALT TREATMENT FROM THE TOWN OF COHOCTON IN THE SUMMER OF 2017
- ** POTTER HILL RD, LAKE HOLLOW RD TO WAGER RD, THE TOWN OF COHOCTON IS REPLACING A CULVERT PIPE IN THE SUMMER OF 2017
- ** WAGER RD, BROWN HILL RD TO POTTER HILL RD, IS GETTING A DOUBLE OIL AND STONE ASPHALT TREATMENT FROM THE TOWN OF COHOCTON IN THE SUMMER OF 2017
- ** BROWN HILL RD, DAVIS RD TO SLAYTON RD, IS GETTING A CHIP-SEALED ASPHALT TREATMENT FROM THE TOWN OF COHOCTON DURING THE SUMMER OF 2017
- ** ALL GRAVEL ROADS IN THE TOWN OF FREMONT ARE SUBJECT TO ADDING AND REGRADING GRAVEL AT VARIOUS LOCATIONS ANNUALLY.

APPENDIX G

Table of Roadway Restrictions

Table of Intersection Restrictions

APPENDIX G

BARON WINDS FACILITY

ROADWAY RESTRICTION TABLE

ROUTE/ROAD NAME	FROM	TO	TOWN(S)	RESTRICTION LOCATION	RESTRICTION	HEIGHT/WGT. LIMIT
NY 21	NY 415	QUANZ RD	WAYLAND	I-390 NB OVER NY 21	UNDER BRIDGE CLEARANCE	14' - 1"
				I-390 SB OVER NY 21	UNDER BRIDGE CLEARANCE	13' - 9"
CR 121	NY 415	LAKE HOLLOW RD	COHOCTON	I-390 NB OVER CR 121	UNDER BRIDGE CLEARANCE	14' - 3"
				I-390 SB OVER CR 121	UNDER BRIDGE CLEARANCE	14' - 0"
I-86/NY 17 NB&SB	CR 70A	MILLER RD	HOWARD	NY 962B (CR 70) OVER I-86/NY 17 NB&SB	UNDER BRIDGE CLEARANCE	16' - 6"
AVERY RD	FREMONT TOWN LINE	CR 70	HOWARD	LENGTH OF SEGMENT	POSSIBLE POSTED LOAD ON ROADWAY	CONTACT TOWN HWY SUPERVISOR
BRASTED RD	AVOCA TOWN LINE	CR 70	HOWARD	LENGTH OF SEGMENT	POSSIBLE POSTED LOAD ON ROADWAY	CONTACT TOWN HWY SUPERVISOR
MILLER RD	CR 70 (NORTH)	CR 70 (SOUTH)	HOWARD	LENGTH OF SEGMENT	POSSIBLE POSTED LOAD ON ROADWAY	CONTACT TOWN HWY SUPERVISOR
PARKER RD	MATTOON RD	SAXTON RD	HOWARD	LENGTH OF SEGMENT	POSSIBLE POSTED LOAD ON ROADWAY	CONTACT TOWN HWY SUPERVISOR
SAXTON RD	PARKER RD	CR 70	HOWARD	LENGTH OF SEGMENT	POSSIBLE POSTED LOAD ON ROADWAY	CONTACT TOWN HWY SUPERVISOR
TUTTLE RD	FREMONT TOWN LINE (WEST)	FREMONT TOWN LINE (NORTH)	HOWARD	LENGTH OF SEGMENT	POSSIBLE POSTED LOAD ON ROADWAY	CONTACT TOWN HWY SUPERVISOR

NOTE: VARIOUS ROADS HAVE LOCATIONS WITH LOW WIRES, SEE APPENDIX F, ROADWAY FIELD EVALUATION TABLE (CONDENSED) FOR ROADWAYS WITH LOW WIRES PRESENT.

BARON WINDS FACILITY

INTERSECTION RESTRICTION TABLE (POTENTIAL ACCESS ROUTE LOCATIONS ONLY)

LOCATION NOS	POTENTIAL ACCESS ROUTE ROADS WITH INTERSECTION RESTRICTIONS	FROM	TO	TOWN(S)	LENGTH (MI)	ACCESS ROUTE	TYPE	INTERSECTION RESTRICTION LOCATION	RELOCATE SIGNS	RELOCATE UTILITIES AND/OR UTIL. POLES	REMOVE TREES	DITCH WORK	DRAINAGE PIPE WORK
1	I-390 SB OFF RAMP	I-390	NY 21	WAYLAND	0.2	1, 2	A	I-390 SB OFF RAMP/NY 21	YES	YES	YES	YES	NO
2,3	QUANZ RD	NY 21	OLD ROUTE 15	WAYLAND	0.9	1, 2	A	QUANZ RD/NY 21	YES	NO	NO	YES	YES
								QUANZ RD/OLD ROUTE 15	YES	NO	NO	NO	NO
4	OLD ROUTE 15	QUANZ RD	CR 92	WAYLAND	0.2	1, 2	A	OLD ROUTE 15/CR 92	YES	YES	YES	YES	YES
5	EMO RD	CR 92	TURBINE LOC. T2/T7/T18/T13	WAYLAND	1.2	1	A/G	EMO RD/CR 92	YES	YES	NO	YES	NO
6	CR 92	EMO RD	NY 21	WAYLAND	1	2	A	*CR 92/NY 21	YES	YES	NO	YES	YES
7	NY 21	CR 50/CR 92	DEREEVES RD	WAYLAND/FREMONT	3	2	A	NY 21/DEREEVES RD	NO	NO	NO	NO	NO
8	WAGNER RD	STONE HILL RD	MACK SCHOOL RD	DANVILLE	1	2	G	WAGNER RD/STONE HILL RD	YES	YES	YES	YES	NO
9, 10	HOLMES RD	WAGNER RD	BABCOCK RD	DANVILLE/FREMONT	1.2	2	G	HOLMES RD/WAGNER RD	NO	NO	YES	NO	NO
								HOLMES RD/BABCOCK RD	YES	NO	YES	YES	YES
11	MACK SCHOOL RD	NEU RD	NY 21	DANVILLE/FREMONT	1.3	2	A	MACK SCHOOL RD/WAGNER RD	YES	YES	YES	YES	YES
12	NEU RD	MACK SCHOOL RD	TURBINE LOC. T35/T40	DANVILLE/FREMONT	0.6	2	G	NEU RD/MACK SCHOOL RD	YES	NO	YES	YES	YES
13, 14	NY 21	MACK SCHOOL RD	CONDERMAN RD	FREMONT	0.4	2	A	NY 21/MACK SCHOOL RD	YES	NO	NO	YES	NO
								**NY 21/CONDERMAN RD	YES	YES	YES	YES	NO
15	CANFIELD RD	CONDERMAN RD	TURBINE LOC. T65/T69	FREMONT	1	2	G	CANFIELD RD/CONDERMAN RD	YES	NO	YES	YES	NO
16	I-390 SB OFF RAMP	I-390	CR 121	COHOCTON	0.2	3	A	I-390 SB OFF RAMP/CR 121	YES	NO	YES	YES	NO
17	LAKE HOLLOW RD	CR 121	POTTER HILL RD	COHOCTON	1.3	3	A	LAKE HOLLOW RD/ CR 121	YES	NO	NO	NO	NO
18	WALTERS RD	WAGER RD	TURBINE LOC. T8/T19/T43	COHOCTON	1	3	G	WALTERS RD/WAGER RD	YES	YES	NO	YES	NO
19	WAGER RD	POTTER HILL RD	BROWN HILL RD	COHOCTON	1.1	3	A	***WAGER RD/GRUBER RD	NO	YES	YES	YES	YES
20	BROWN HILL RD	WAGER RD	NEW GALEN RD	COHOCTON/WAYLAND	1.2	3	A	BROWN HILL RD/WAGER RD	YES	NO	YES	YES	YES
21	REX RD	BROWN HILL RD	TURBINE LOC. T44/T59/T74	WAYLAND/COHOCTON	0.5	3	G	REX RD/BROWN HILL RD	YES	NO	YES	NO	YES
22	NEW GALEN RD	DAVIS RD	DYE RD	WAYLAND	1.3	3	A	NEW GALEN RD/DAVIS RD	YES	NO	NO	YES	NO
23	DYE RD	NEW GALEN RD	CAMPBELL RD	WAYLAND	0.4	3	A	DYE RD/CAMPBELL RD	YES	YES	NO	YES	NO
24	CAMPBELL RD	DYE RD	TURBINE LOC. T37/T6/T17	WAYLAND/COHOCTON	0.5	3	G	CAMPBELL RD/DYE RD	YES	YES	NO	YES	YES
25	I-86/NY 17 WB OFF RAMP	I-86/NY 17	CR 70	HOWARD	0.3	4	A	I-86/NY 17 WB OFF RAMP/CR 70	YES	NO	YES	YES	NO
26	JOBS CORNERS RD	CR 55	HOWARD TOWN LINE	FREMONT	0.6	4	G	JOBS CORNERS RD/CR 55	YES	YES	YES	YES	YES
27	ROSE RD	CR 54	TUTTLE RD	FREMONT	1.8	4	A/G	ROSE RD/CR 54	YES	NO	NO	YES	YES
28	BACK ST	ROSE RD	TURBINE LOC. T32	FREMONT	1.2	4	G	BACK ST/ROSE RD	NO	YES	NO	YES	YES
29	VAN KEUREN RD	ROSE RD	TURBINE LOC. T38	FREMONT	0.6	4	G	VAN KEUREN RD/ROSE RD	NO	NO	NO	YES	YES
30	DUTCH RD	BACK ST	TURBINE LOC. T70/T71/T63/T90	FREMONT	0.3	4	G	DUTCH RD/BACK ST	NO	NO	YES	YES	YES

ABBREVIATIONS: A - ASPHALT G - GRAVEL LOC. - LOCATION UTIL. - UTILITY MI - MILES

NOTES:

* LOC. 6 - EXTENSIVE UTILITY POLE RELOCATIONS AND CULVERT EXTENSION WOULD BE REQUIRED.

** LOC. 14 - CABLE GUIDE RAIL IS PRESENT IN THE SOUTHEAST QUADRANT OF THE INTERSECTION.

*** LOC. 19 - CORRUGATED BEAM GUIDE RAIL IS PRESENT IN THE NORTHEAST AND SOUTHWEST QUADRANTS OF THE INTERSECTION TO PROTECT STEEP SLOPES DUE TO A 10' ROUND IRON PIPE CROSSING

APPENDIX H

Table of Potential Roadway Improvements

Table of Potential Intersection Improvements

Map of Potential Roadway Improvement and Intersection Improvement Locations

Maps of Intersection Turning Movements

APPENDIX H

BARON WINDS FACILITY

POTENTIAL ROADWAY IMPROVEMENT TABLE

POTENTIAL ACCESS ROUTE ROADS NEEDING IMPROVEMENT	FROM	TO	TOWN(S)	LENGTH (MI)	ACCESS ROUTE	TYPE	TEMPORARY ROADWAY IMPROVEMENT SEE NOTE 1 BELOW	PERMANENT ROADWAY IMPROVEMENT SEE NOTE 1 BELOW	COMMENTS (SEE NOTE 2 BELOW)
QUANZ RD	NY 21	OLD ROUTE 15	WAYLAND	0.9	1, 2	A	MONITOR DURING CONSTRUCTION AND MAKE ANY NECESSARY ASPHALT REPAIRS	T&L AND SINGLE COURSE ASPHALT OVERLAY FOR REPAIRED/DAMAGED AREAS	CONDITION RATING GOOD
OLD ROUTE 15	QUANZ RD	CR 92	WAYLAND	0.2	1, 2	A	MONITOR DURING CONSTRUCTION AND MAKE ANY NECESSARY ASPHALT REPAIRS	T&L AND SINGLE COURSE ASPHALT OVERLAY FOR REPAIRED/DAMAGED AREAS	CONDITION RATING FAIR
CR 92	OLD ROUTE 15	NY 21	WAYLAND	4	1, 2	A	MONITOR DURING CONSTRUCTION AND MAKE ANY NECESSARY ASPHALT REPAIRS	T&L AND SINGLE COURSE ASPHALT OVERLAY FOR REPAIRED/DAMAGED AREAS	CONDITION RATING GOOD
EMO RD	CR 92	TURBINE LOC. T2/T7/T18/T13	WAYLAND	0.1	1	A	MONITOR DURING CONSTRUCTION AND MAKE ANY NECESSARY ASPHALT OR GRAVEL REPAIRS	T&L AND SINGLE COURSE ASPHALT OVERLAY FOR REPAIRED/DAMAGED AREAS	CONDITION RATING GOOD
				1.1		G		GRADE & ADD 3" GRAVEL	
CR 92	EMO RD	NY 21	WAYLAND	1	2	A	MONITOR DURING CONSTRUCTION AND MAKE ANY NECESSARY ASPHALT REPAIRS	T&L AND SINGLE COURSE ASPHALT OVERLAY FOR REPAIRED/DAMAGED AREAS	CONDITION RATING GOOD
STONE HILL RD	WAGNER RD	BRONSON RD	DANVILLE	0.5	2	G	ADD 8" GRAVEL	GRADE & ADD 3" GRAVEL	CONDITION RATING FAIR
DEREEVES RD	BRONSON RD	NY 21	WAYLAND/FREMONT/ DANVILLE	0.7	2	A	MONITOR DURING CONSTRUCTION AND MAKE ANY NECESSARY ASPHALT REPAIRS	T&L AND SINGLE COURSE ASPHALT OVERLAY FOR REPAIRED/DAMAGED AREAS	CONDITION RATING FAIR
				0.2		G		ADD 8" GRAVEL	
WAGNER RD	STONE HILL RD	MACK SCHOOL RD	DANVILLE	1	2	G	WIDEN W/12" GRAVEL, OR PROVIDE TRAFFIC CONTROL, ADD 12" GRAVEL	GRADE & ADD 3" GRAVEL	CONDITION RATING POOR, NARROW GRASS SHOULDERS, WIDEN ROAD FROM 11' TO 20' WIDTH IF POSSIBLE
HOLMES RD	WAGNER RD	BABCOCK RD	DANVILLE/FREMONT	1.2	2	G	WIDEN W/12" GRAVEL, OR PROVIDE TRAFFIC CONTROL, ADD 12" GRAVEL	GRADE & ADD 3" GRAVEL	CONDITION RATING POOR, NARROW GRASS SHOULDERS, WIDEN ROAD FROM 11' AND 14' TO 20' WIDTH IF POSSIBLE
BABCOCK RD	HOLMES RD	TURBINE LOC. T62/T66/T91/T89	FREMONT	0.5	2	G	REPAIR GRAVEL, IF NEEDED, DURING CONSTRUCTION	GRADE & ADD 3" GRAVEL	CONDITION RATING GOOD
MACK SCHOOL RD	NEU RD	NY 21	DANVILLE/FREMONT	0.7	2	A	MONITOR DURING CONSTRUCTION AND MAKE ANY NECESSARY ASPHALT REPAIRS	T&L AND SINGLE COURSE ASPHALT OVERLAY FOR REPAIRED/DAMAGED AREAS	CONDITION RATING GOOD

ABBREVIATIONS: A - ASPHALT G - GRAVEL LOC. - LOCATION T&L - ASPHALT TRUING & LEVELING COURSE UTIL. - UTILITY

NOTE 1: THE POTENTIAL ROADWAY IMPROVEMENTS IN THE TABLE ARE ONLY SUGGESTED RECOMMENDATIONS, THE FINAL ROADWAY MITIGATION WILL BE DECIDED BY TOWN AND COUNTY HIGHWAY OFFICIALS AND INCLUDED IN A ROAD USE AGREEMENT WITH THE WIND PROJECT DEVELOPER, BARON WINDS, LLC

NOTE 2: REFER TO MAP OF POTENTIAL ROADWAY IMPROVEMENTS AND INTERSECTION IMPROVEMENTS FOR POTENTIAL ROADWAY IMPROVEMENT LOCATIONS

APPENDIX H

BARON WINDS FACILITY

POTENTIAL ROADWAY IMPROVEMENT TABLE (CONTINUED)

POTENTIAL ACCESS ROUTE ROADS NEEDING IMPROVEMENT	FROM	TO	TOWN(S)	LENGTH (MI)	ACCESS ROUTE	TYPE	TEMPORARY ROADWAY IMPROVEMENT SEE NOTE 1 BELOW	PERMANENT ROADWAY IMPROVEMENT SEE NOTE 1 BELOW	COMMENTS (SEE NOTE 2 BELOW)
NEU RD	MACK SCHOOL RD	TURBINE LOC. T35/T40	DANSVILLE/FREMONT	0.6	2	G	WIDEN W/12" GRAVEL, OR PROVIDE TRAFFIC CONTROL, ADD 12" GRAVEL	GRADE & ADD 3" GRAVEL	CONDITION RATING POOR, WIDEN ROAD FROM 10' TO 20' WIDTH IF POSSIBLE
CONDERMAN RD	NY 21	TURBINE LOC. T45	FREMONT	0.7	2	A	MONITOR DURING CONSTRUCTION AND MAKE ANY NECESSARY ASPHALT REPAIRS	T&L AND SINGLE COURSE ASPHALT OVERLAY FOR REPAIRED/DAMAGED AREAS	CONDITION RATING FAIR
				0.4		G	ADD 8" GRAVEL	GRADE & ADD 3" GRAVEL	
CANFIELD RD	CONDERMAN RD	TURBINE LOC. T65/T69	FREMONT	1	2	G	ADD 8" GRAVEL	GRADE & ADD 3" GRAVEL	CONDITION RATING FAIR
CR 121	I-390 SB OFF RAMP	LAKE HOLLOW RD	COHOCTON	0.2	3	A	MONITOR DURING CONSTRUCTION AND MAKE ANY NECESSARY ASPHALT REPAIRS	T&L AND SINGLE COURSE ASPHALT OVERLAY FOR REPAIRED/DAMAGED AREAS	CONDITION RATING GOOD
LAKE HOLLOW RD	CR 121	POTTER HILL RD	COHOCTON	1.3	3	A	MONITOR DURING CONSTRUCTION AND MAKE ANY NECESSARY ASPHALT REPAIRS	T&L AND SINGLE COURSE ASPHALT OVERLAY FOR REPAIRED/DAMAGED AREAS	CONDITION RATING GOOD, TOWN OF COHOCTON IS APPLYING A CHIP-SEALED ASPHALT TREATMENT DURING THE SUMMER OF 2017
POTTER HILL RD	LAKE HOLLOW RD	WAGER RD	COHOCTON	1.3	3	A	MONITOR DURING CONSTRUCTION AND MAKE ANY NECESSARY ASPHALT REPAIRS	T&L AND SINGLE COURSE ASPHALT OVERLAY FOR REPAIRED/DAMAGED AREAS	CONDITION RATING FAIR, TOWN OF COHOCTON IS APPLYING A DOUBLE OIL AND STONE ASPHALT TREATMENT AND A NEW CULVERT PIPE DURING THE SUMMER OF 2017
WALTERS RD	WAGER RD	TURBINE LOC. T8/T19/T43	COHOCTON	1	3	G	WIDEN W/12" GRAVEL, OR PROVIDE TRAFFIC CONTROL, REPAIR GRAVEL, IF NEEDED	GRADE & ADD 3" GRAVEL	CONDITION RATING GOOD, WIDEN ROAD FROM 12' TO 20' WIDTH IF POSSIBLE
WAGER RD	POTTER HILL RD	BROWN HILL RD	COHOCTON	1.1	3	A	MONITOR DURING CONSTRUCTION AND MAKE ANY NECESSARY ASPHALT REPAIRS	T&L AND SINGLE COURSE ASPHALT OVERLAY FOR REPAIRED/DAMAGED AREAS	CONDITION RATING FAIR, 10' IRON PIPE JUST NORTH OF GRUBER RD MAY NEED TO BE LENGTHENED AND GUIDE RAIL REPLACED DUE TO TURNING RADIUS LIMITS FOR DELIVERY VEHICLES. TOWN OF COHOCTON IS APPLYING A DOUBLE OIL AND STONE ASPHALT TREATMENT DURING THE SUMMER OF 2017
BROWN HILL RD	WAGER RD	NEW GALEN RD	COHOCTON/WAYLAND	1.2	3	A	MONITOR DURING CONSTRUCTION AND MAKE ANY NECESSARY ASPHALT REPAIRS	T&L AND SINGLE COURSE ASPHALT OVERLAY FOR REPAIRED/DAMAGED AREAS	CONDITION RATING FAIR, TOWN OF COHOCTON IS APPLYING A CHIP-SEALED ASPHALT TREATMENT DURING THE SUMMER OF 2017
DAVIS RD	NEW GALEN RD	TURBINE LOC. T55/T53	FREMONT	0.3	3	G	REPAIR GRAVEL, IF NEEDED, DURING CONSTRUCTION	GRADE & ADD 3" GRAVEL	CONDITION RATING GOOD
NEW GALEN RD	DAVIS RD	DYE RD	WAYLAND	1.3	3	A	MONITOR DURING CONSTRUCTION AND MAKE ANY NECESSARY ASPHALT REPAIRS	T&L AND SINGLE COURSE ASPHALT OVERLAY FOR REPAIRED/DAMAGED AREAS	CONDITION RATING GOOD

ABBREVIATIONS: A - ASPHALT G - GRAVEL LOC. - LOCATION T&L - ASPHALT TRUING & LEVELING COURSE UTIL. - UTILITY

NOTE 1: THE POTENTIAL ROADWAY IMPROVEMENTS IN THE TABLE ARE ONLY SUGGESTED RECOMMENDATIONS, THE FINAL ROADWAY MITIGATION WILL BE DECIDED BY TOWN AND COUNTY HIGHWAY OFFICIALS AND INCLUDED IN A ROAD USE AGREEMENT WITH THE WIND PROJECT DEVELOPER, BARON WINDS, LLC

NOTE 2: REFER TO MAP OF POTENTIAL ROADWAY IMPROVEMENTS AND INTERSECTION IMPROVEMENTS FOR POTENTIAL ROADWAY IMPROVEMENT LOCATIONS



APPENDIX H

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BARON WINDS FACILITY

POTENTIAL ROADWAY IMPROVEMENT TABLE (CONTINUED)

POTENTIAL ACCESS ROUTE ROADS NEEDING IMPROVEMENT	FROM	TO	TOWN(S)	LENGTH (MI)	ACCESS ROUTE	TYPE	TEMPORARY ROADWAY IMPROVEMENT SEE NOTE 1 BELOW	PERMANENT ROADWAY IMPROVEMENT SEE NOTE 1 BELOW	COMMENTS (SEE NOTE 2 BELOW)
DYE RD	NEW GALEN RD	CAMPBELL RD	WAYLAND	0.4	3	A	MONITOR DURING CONSTRUCTION AND MAKE ANY NECESSARY ASPHALT REPAIRS	T&L AND SINGLE COURSE ASPHALT OVERLAY FOR REPAIRED/DAMAGED AREAS	CONDITION RATING FAIR
CAMPBELL RD	DYE RD	TURBINE LOC. T37/T6/T17	WAYLAND/COHOCTON	0.5	3	G	WIDEN W/12" GRAVEL, AT NARROW AREA OR PROVIDE TRAFFIC CONTROL, REPAIR GRAVEL, IF NEEDED	GRADE & ADD 3" GRAVEL	CONDITION RATING GOOD, AT 0.3 MILES NORTH OF DYE RD, THE ROADWAY NARROWS DOWN TO A 12 FEET WIDE SINGLE LANE AND SHOULD BE WIDENED TO 20' WIDTH IF POSSIBLE
CR 70	I-86/NY 17 WB OFF RAMP	AVERY RD	HOWARD	2.6	4	A	MONITOR DURING CONSTRUCTION AND MAKE ANY NECESSARY ASPHALT REPAIRS	T&L AND SINGLE COURSE ASPHALT OVERLAY FOR REPAIRED/DAMAGED AREAS	CONDITION RATING GOOD
AVERY RD	CR 70	FREMONT TOWN LINE	HOWARD	1.4	4	G	WIDEN W/12" GRAVEL, OR PROVIDE TRAFFIC CONTROL, ADD 8" GRAVEL	GRADE & ADD 3" GRAVEL	CONDITION RATING FAIR, WIDEN ROAD FROM 14' TO 20' WIDTH IF POSSIBLE, ANY CULVERTS WILL NEED TO BE LENGTHENED. ROAD MAY BE POSTED FOR WEIGHT LIMIT AS PER HIGHWAY TOWN SUPERVISOR
JOBS CORNERS RD	HOWARD TOWN LINE	CR 55	FREMONT	0.6	4	G	WIDEN W/12" GRAVEL, OR PROVIDE TRAFFIC CONTROL, ADD 8" GRAVEL	GRADE & ADD 3" GRAVEL	CONDITION RATING FAIR, WIDEN ROAD FROM 14' TO 20' WIDTH IF POSSIBLE, 36" AND 30" PIPES LOCATED EAST OF CR 55 MAY NEED TO BE LENGTHENED AND GUIDE RAIL REPLACED DUE TO NARROW ROAD WIDTHS FOR DELIVERY VEHICLES
CR 55	TUTTLE RD	CR 54	FREMONT	0.1	4	A	MONITOR DURING CONSTRUCTION AND MAKE ANY NECESSARY ASPHALT REPAIRS	T&L AND SINGLE COURSE ASPHALT OVERLAY FOR REPAIRED/DAMAGED AREAS	CONDITION RATING GOOD
TUTTLE RD	CR 55	TURBINE LOC. T67/T92	FREMONT	0.3	4	G	WIDEN W/12" GRAVEL, OR PROVIDE TRAFFIC CONTROL, ADD 12" GRAVEL	GRADE & ADD 3" GRAVEL	CONDITION RATING POOR, WIDEN ROAD FROM 12' TO 20' WIDTH IF POSSIBLE.
CR 54	CR 55	TURBINE LOC. T77	FREMONT	1	4	A	MONITOR DURING CONSTRUCTION AND MAKE ANY NECESSARY ASPHALT REPAIRS	T&L AND SINGLE COURSE ASPHALT OVERLAY FOR REPAIRED/DAMAGED AREAS	CONDITION RATING GOOD
ROSE RD	CR 54	VAN KEUREN RD	FREMONT	1.3	4	A	MONITOR DURING CONSTRUCTION AND MAKE ANY NECESSARY ASPHALT REPAIRS	T&L AND SINGLE COURSE ASPHALT OVERLAY FOR REPAIRED/DAMAGED AREAS	CONDITION RATING FAIR
				0.2		G	ADD 8" GRAVEL	GRADE & ADD 3" GRAVEL	
BACK ST	ROSE RD	TURBINE LOC. T32	FREMONT	1.2	4	G	ADD 8" GRAVEL	GRADE & ADD 3" GRAVEL	CONDITION RATING FAIR

ABBREVIATIONS: A - ASPHALT G - GRAVEL LOC. - LOCATION T&L - ASPHALT TRUING & LEVELING COURSE UTIL. - UTILITY

NOTE 1: THE POTENTIAL ROADWAY IMPROVEMENTS IN THE TABLE ARE ONLY SUGGESTED RECOMMENDATIONS, THE FINAL ROADWAY MITIGATION WILL BE DECIDED BY TOWN AND COUNTY HIGHWAY OFFICIALS AND INCLUDED IN A ROAD USE AGREEMENT WITH THE WIND PROJECT DEVELOPER, BARON WINDS, LLC
NOTE 2: REFER TO MAP OF POTENTIAL ROADWAY IMPROVEMENTS AND INTERSECTION IMPROVEMENTS FOR POTENTIAL ROADWAY IMPROVEMENT LOCATIONS



APPENDIX H

BARON WINDS FACILITY

POTENTIAL ROADWAY IMPROVEMENT TABLE (CONTINUED)

POTENTIAL ACCESS ROUTE ROADS NEEDING IMPROVEMENT	FROM	TO	TOWN(S)	LENGTH (MI)	ACCESS ROUTE	TYPE	TEMPORARY ROADWAY IMPROVEMENT SEE NOTE 1 BELOW	PERMANENT ROADWAY IMPROVEMENT SEE NOTE 1 BELOW	COMMENTS (SEE NOTE 2 BELOW)
DUTCH RD	BACK ST	TURBINE LOC. T70/T71/T63/T90	FREMONT	0.3	4	G	ADD 8" GRAVEL	GRADE & ADD 3" GRAVEL	CONDITION RATING FAIR
VAN KEUREN RD	ROSE RD	TURBINE LOC. T38	FREMONT	0.6	4	G	REPAIR GRAVEL, IF NEEDED, DURING CONSTRUCTION	GRADE & ADD 3" GRAVEL	CONDITION RATING GOOD
ALTERNATE ACCESS ROUTE ROADS NEEDING IMPROVEMENT	NOTE - ALTERNATE ACCESS ROUTE LOCATIONS WITH ROADWAY IMPROVEMENTS ARE NOT SHOWN ON THE MAP OF ROADWAY/INTERSECTION IMPROVEMENTS								
CR 50	NY 21	STONE HILL RD	WAYLAND/DANSVILLE	4.3	2	A	MONITOR DURING CONSTRUCTION AND MAKE ANY NECESSARY ASPHALT REPAIRS	T&L AND SINGLE COURSE ASPHALT OVERLAY FOR REPAIRED/DAMAGED AREAS	CONDITION RATING GOOD
STONE HILL RD	CR 50	WAGNER RD	DANSVILLE	1.3	2	G	ADD 8" GRAVEL	GRADE & ADD 3" GRAVEL	CONDITION RATING FAIR
ABBREVIATIONS: A - ASPHALT G - GRAVEL LOC. - LOCATION T&L - ASPHALT TRUING & LEVELING COURSE UTIL. - UTILITY							NOTE 1: THE POTENTIAL ROADWAY IMPROVEMENTS IN THE TABLE ARE ONLY SUGGESTED RECOMMENDATIONS, THE FINAL ROADWAY MITIGATION WILL BE DECIDED BY TOWN AND COUNTY HIGHWAY OFFICIALS AND INCLUDED IN A ROAD USE AGREEMENT WITH THE WIND PROJECT DEVELOPER, BARON WINDS, LLC NOTE 2: REFER TO MAP OF POTENTIAL ROADWAY IMPROVEMENTS AND INTERSECTION IMPROVEMENTS FOR POTENTIAL ROADWAY IMPROVEMENT LOCATIONS		



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BARON WINDS FACILITY

POTENTIAL INTERSECTION IMPROVEMENT TABLE

POTENTIAL ACCESS ROUTE ROADS WITH INTERSECTIONS NEEDING IMPROVEMENT	FROM	TO	TOWN(S)	LENGTH (MI)	ACCESS ROUTE	TYPE	POTENTIAL INTERSECTION IMPROVEMENT LOCATION	TEMPORARY INTERSECTION IMPROVEMENT SEE NOTE 1 BELOW	PERMANENT INTERSECTION IMPROVEMENT SEE NOTE 1 BELOW	INTERSECTION LOCATION NUMBER SEE NOTE 2 BELOW
I-390 SB OFF RAMP	I-390	NY 21	WAYLAND	0.2	1, 2	A	I-390 SB OFF RAMP/NY 21	WIDEN SW CORNER W/12" GRAVEL	ADD 3" TOPSOIL AND SEED	1
QUANZ RD	NY 21	OLD ROUTE 15	WAYLAND	0.9	1, 2	A	QUANZ RD/NY 21	WIDEN NE CORNER W/12" GRAVEL	ADD 3" TOPSOIL AND SEED	2
							QUANZ RD/OLD ROUTE 15	WIDEN SE CORNER W/12" GRAVEL	ADD 3" TOPSOIL AND SEED	3
OLD ROUTE 15	QUANZ RD	CR 92	WAYLAND	0.2	1, 2	A	OLD ROUTE 15/CR 92	WIDEN SW CORNER W/12" GRAVEL	ADD 3" TOPSOIL AND SEED	4
EMO RD	CR 92	TURBINE LOC. T2/T7/T18/T13	WAYLAND	1.2	1	A, G	EMO RD/CR 92	NE CORNER ACCESS ROAD W/12" GRAVEL	REMOVE GRAVEL, ADD 12" TOPSOIL & SEED	5
CR 92	EMO RD	NY 21	WAYLAND	1	2	A	*CR 92/NY 21	NE CORNER ACCESS ROAD W/12" GRAVEL	REMOVE GRAVEL, ADD 12" TOPSOIL & SEED	6
NY 21	CR 50/CR 92	DEREEVES RD	FREMONT	3	2	A	NY 21/DEREEVES RD	WIDEN NW CORNER W/12" GRAVEL	ADD 3" TOPSOIL AND SEED	7
WAGNER RD	STONE HILL RD	MACK SCHOOL RD	DANSVILLE	1	2	G	WAGNER RD/STONE HILL RD	WIDEN SE CORNER W/12" GRAVEL	ADD 3" TOPSOIL AND SEED	8
HOLMES RD	WAGNER RD	BABCOCK RD	DANSVILLE/FREMONT	1.2	2	G	HOLMES RD/WAGNER RD	WIDEN NE CORNER W/12" GRAVEL	ADD 3" TOPSOIL AND SEED	9
							HOLMES RD/BABCOCK RD	WIDEN SW CORNER W/12" GRAVEL	ADD 3" TOPSOIL AND SEED	10
MACK SCHOOL RD	NEU RD	NY 21	DANSVILLE/FREMONT	1.3	2	A	MACK SCHOOL RD/ WAGNER RD	WIDEN NE/NW CORNERS W/12" GRAVEL	REMOVE NE GRAVEL, ADD 12" TOPSOIL , ADD 3" TOPSOIL TO NW & SEED BOTH	11
NEU RD	MACK SCHOOL RD	TURBINE LOC. T35/T40	DANSVILLE/FREMONT	0.6	2	G	NEU RD/MACK SCHOOL RD	SE CORNER ACCESS ROAD W/12" GRAVEL	ADD 3" TOPSOIL AND SEED	12
NY 21	MACK SCHOOL RD	CONDERMAN RD	FREMONT	0.4	2	A	NY 21/MACK SCHOOL RD	WIDEN NW CORNER W/12" GRAVEL	ADD 3" TOPSOIL AND SEED	13
							**NY 21/CONDERMAN RD	WIDEN SE CORNER W/12" GRAVEL	ADD 3" TOPSOIL AND SEED	14
CANFIELD RD	CONDERMAN RD	TURBINE LOC. T65/T69	FREMONT	1	2	G	CANFIELD RD/ CONDERMAN RD	WIDEN NE CORNER & ISLAND W/12" GRAVEL	ADD 3" TOPSOIL AND SEED	15
I-390 SB OFF RAMP	I-390	CR 121	COHOCTON	0.2	3	A	I-390 SB OFF RAMP/CR 121	WIDEN NW CORNER W/12" GRAVEL	ADD 3" TOPSOIL AND SEED	16
LAKE HOLLOW RD	CR 121	POTTER HILL RD	COHOCTON	1.3	3	A	LAKE HOLLOW RD/ CR 121	WIDEN SE CORNER W/12" GRAVEL	ADD 3" TOPSOIL AND SEED	17
WALTERS RD	WAGER RD	TURBINE LOC. T8/T19/T43	COHOCTON	1	3	G	WALTERS RD/WAGER RD	WIDEN NE CORNER W/12" GRAVEL	ADD 3" TOPSOIL AND SEED	18
WAGER RD	POTTER HILL RD	BROWN HILL RD	COHOCTON	1.1	3	A	***WAGER RD/GRUBER RD	WIDEN NE/SW CORNERS W/12" GRAVEL	ADD 3" TOPSOIL AND SEED	19
BROWN HILL RD	WAGER RD	NEW GALEN RD	COHOCTON/WAYLAND	1.2	3	A	BROWN HILL RD/WAGER RD	WIDEN NW CORNER W/12" GRAVEL	ADD 3" TOPSOIL AND SEED	20

*ADDITIONAL IMPROVEMENT MAY INVOLVE CONSTRUCTING POTENTIAL ACCESS ROAD TO AVOID EXTENSIVE UTILITY/CULVERT MITIGATION AT THE CR 92 AND NY 21 INTERSECTION

**ADDITIONAL IMPROVEMENT MAY INVOLVE RELOCATING/REPLACING CABLE GUIDE RAIL ON NY 21 AT THE CONDERMAN RD INTERSECTION

***ADDITIONAL IMPROVEMENT MAY INVOLVE LARGE DRAINAGE PIPE EXTENSION AND GUIDE RAIL REPLACEMENT ON WAGER RD

ABBREVIATIONS: A - ASPHALT G - GRAVEL LOC. - LOCATION T&L - ASPHALT TRUING & LEVELING COURSE
 UTIL. - UTILITY

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NOTE 2: REFER TO MAP OF POTENTIAL ROADWAY IMPROVEMENT & INTERSECTION IMPROVEMENT LOCATIONS AND MAPS OF INTERSECTION TURNING MOVEMENTS FOR INTERSECTION LOCATIONS



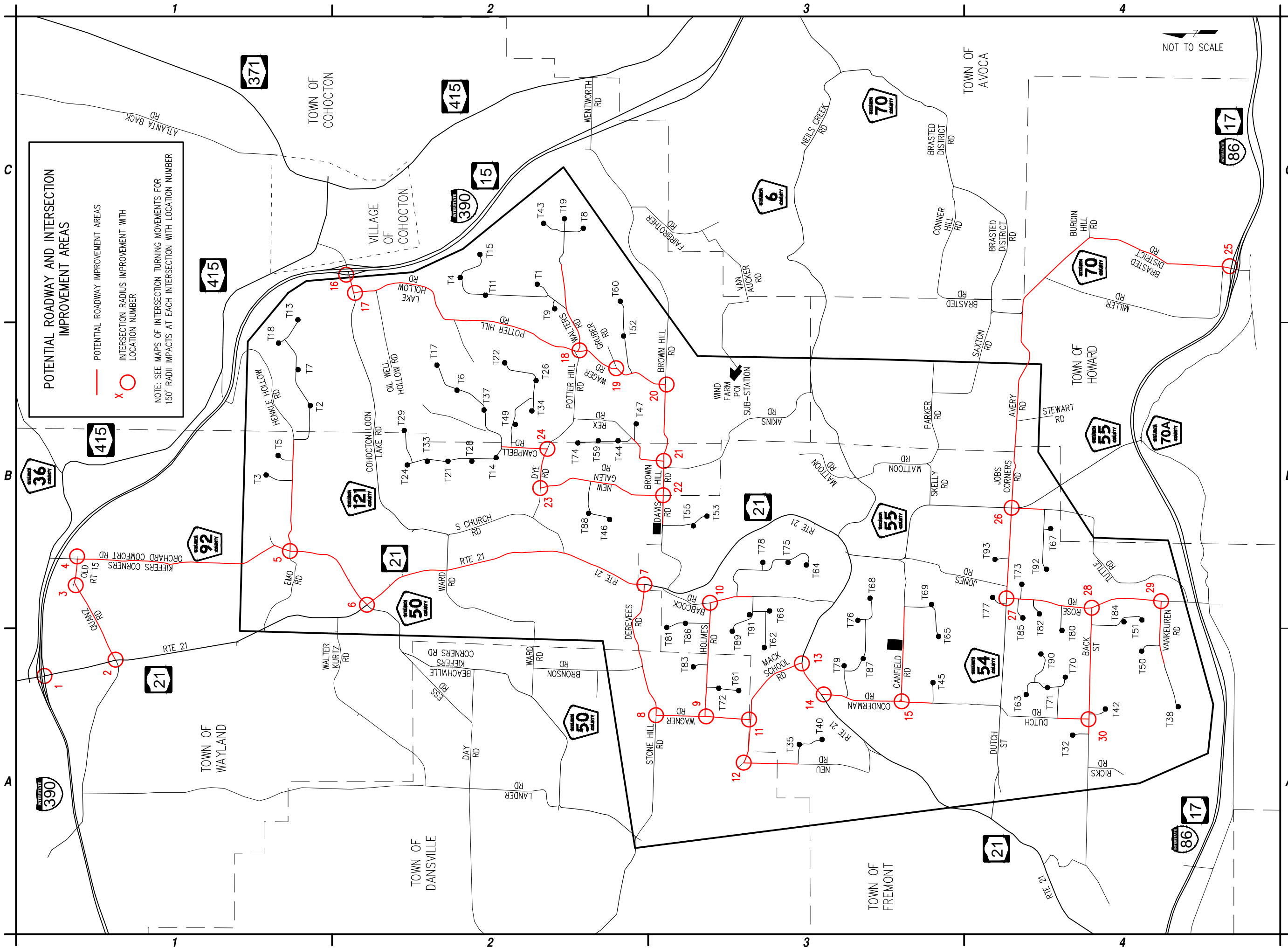
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POTENTIAL INTERSECTION IMPROVEMENT TABLE (CONTINUED)

POTENTIAL ACCESS ROUTE ROADS WITH INTERSECTIONS NEEDING IMPROVEMENT	FROM	TO	TOWN(S)	LENGTH (MI)	ACCESS ROUTE	TYPE	POTENTIAL INTERSECTION IMPROVEMENT LOCATION	TEMPORARY INTERSECTION IMPROVEMENT SEE NOTE 1 BELOW	PERMANENT INTERSECTION IMPROVEMENT SEE NOTE 1 BELOW	INTERSECTION LOCATION NUMBER SEE NOTE 2 BELOW
REX RD	BROWN HILL RD	TURBINE LOC. T44/T59/T74	WAYLAND/COHOCTON	0.5	3	G	REX RD/BROWN HILL RD	WIDEN NE CORNER W/12" GRAVEL	ADD 3" TOPSOIL AND SEED	21
NEW GALEN RD	BROWN HILL RD	DYE RD	WAYLAND	1.3	3	A	NEW GALEN RD/BROWN HILL RD	WIDEN NE CORNER W/12" GRAVEL	ADD 3" TOPSOIL AND SEED	22
DYE RD	NEW GALEN RD	CAMPBELL RD	WAYLAND	0.4	3	A	DYE RD/NEW GALEN RD	WIDEN SE CORNER W/12" GRAVEL	REMOVE GRAVEL, ADD 12" TOPSOIL & SEED	23
CAMPBELL RD	DYE RD	TURBINE LOC. T37/T6/T17	WAYLAND/COHOCTON	0.5	3	G	CAMPBELL RD/DYE RD	NW CORNER ACCESS ROAD W/12" GRAVEL	ADD 3" TOPSOIL AND SEED	24
I-86/NY 17 WB OFF RAMP	I-86/NY 17	CR 70	HOWARD	0.3	4	A	I-86/NY 17 WB OFF RAMP/CR 70	WIDEN NE CORNER W/12" GRAVEL	ADD 3" TOPSOIL AND SEED	25
JOBS CORNERS RD	CR 55	HOWARD TOWN LINE	FREMONT	0.6	4	G	JOBS CORNERS RD/CR 55	WIDEN SE CORNER W/12" GRAVEL	ADD 3" TOPSOIL AND SEED	26
ROSE RD	CR 54	TUTTLE RD	FREMONT	1.8	4	A/G	ROSE RD/CR 54	WIDEN SE CORNER W/12" GRAVEL	REMOVE GRAVEL, ADD 12" TOPSOIL & SEED	27
BACK ST	ROSE RD	TURBINE LOC. T32	FREMONT	1.2	4	G	BACK ST/ROSE RD	WIDEN NW CORNER W/12" GRAVEL	REMOVE GRAVEL, ADD 12" TOPSOIL & SEED	28
VAN KEUREN RD	ROSE RD	TURBINE LOC. T38	FREMONT	0.6	4	G	VAN KEUREN RD/ROSE RD	WIDEN NW CORNER W/12" GRAVEL	REMOVE GRAVEL, ADD 12" TOPSOIL & SEED	29
DUTCH RD	BACK ST	TURBINE LOC. T70/T71/T63/T90	FREMONT	0.3	4	G	BACK ST/DUTCH RD	WIDEN NE CORNER W/12" GRAVEL	REMOVE GRAVEL, ADD 12" TOPSOIL & SEED	30
ALTERNATE ACCESS ROUTE ROADS WITH INTERSECTIONS NEEDING IMPROVEMENT	NOTE - ALTERNATE ACCESS ROUTE LOCATIONS WITH INTERSECTION IMPROVEMENTS ARE NOT SHOWN ON THE MAP OF ROADWAY/INTERSECTION IMPROVEMENTS									
CR 50	LANDER RD	STONE HILL RD	DANSVILLE	0.9	2	A	CR 50/LANDER RD	WIDEN SE CORNER & ISLAND W/12" GRAVEL	ADD 3" TOPSOIL AND SEED	N/A
							CR 50/STONE HILL RD	WIDEN NE CORNER W/12" GRAVEL	ADD 3" TOPSOIL AND SEED	N/A
WAGNER RD	STONE HILL RD	MACK SCHOOL RD	DANSVILLE	1	2	G	WAGNER RD/STONE HILL RD	WIDEN SW CORNER W/12" GRAVEL	ADD 3" TOPSOIL AND SEED	N/A
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POTENTIAL ROADWAY AND INTERSECTION IMPROVEMENT AREAS

— POTENTIAL ROADWAY IMPROVEMENT AREAS
x O INTERSECTION RADIUS IMPROVEMENT WITH LOCATION NUMBER

NOTE: SEE MAPS OF INTERSECTION TURNING MOVEMENTS FOR 150' RADI IMPACTS AT EACH INTERSECTION WITH LOCATION NUMBER

NOT TO SCALE



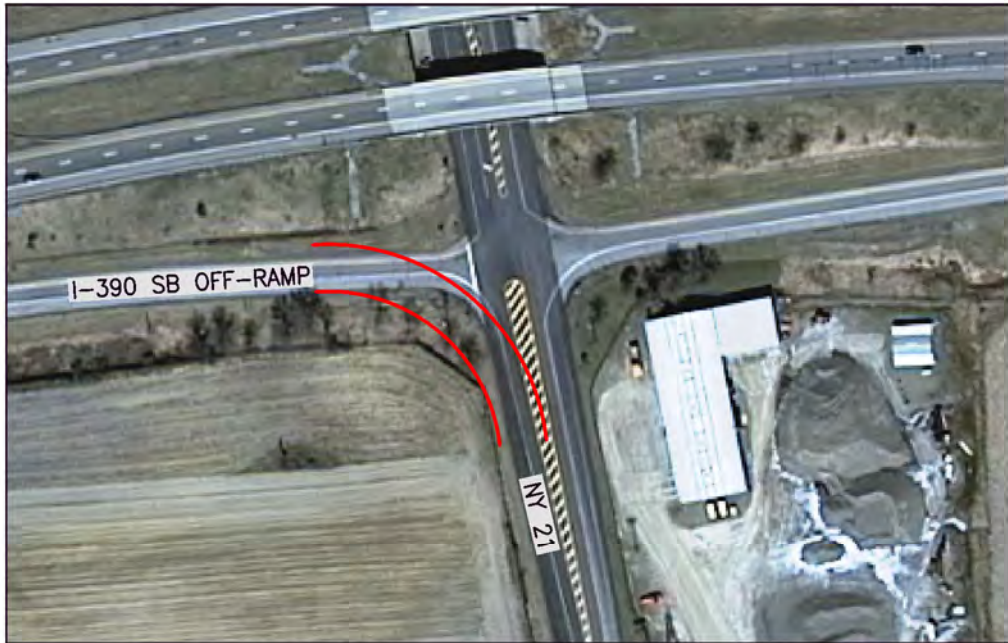
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POTENTIAL ROADWAY AND INTERSECTION IMPROVEMENT AREAS

APPENDIX H




LOCATION 1 – I-390 SOUTHBOUND OFF-RAMP (EXIT 3) AT STATE ROUTE 21



LOCATION 2 – STATE ROUTE 21 AT QUANZ RD

NOTE:
 APPROXIMATE LOCATIONS ARE SHOWN
 FOR TRUCK TURNING MOVEMENTS.
 DEVELOPER NEEDS TO APPLY THE STANDARD
 TRUCK TURNING RADII IN ORDER TO VERIFY
 INTERSECTION IMPROVEMENTS REQUIRED.

TURNING MOVEMENT KEY

 150' INSIDE RADIUS, 40.8' WIDTH
 TO ALLOW FOR TURNING MOVEMENT



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LOCATION 3 – QUANZ RD AT OLD STATE ROUTE 15



LOCATION 4 – OLD STATE ROUTE 15 AT CR 92 KIEFERS CORNERS–ORCHARD COMFORT RD

NOTE:
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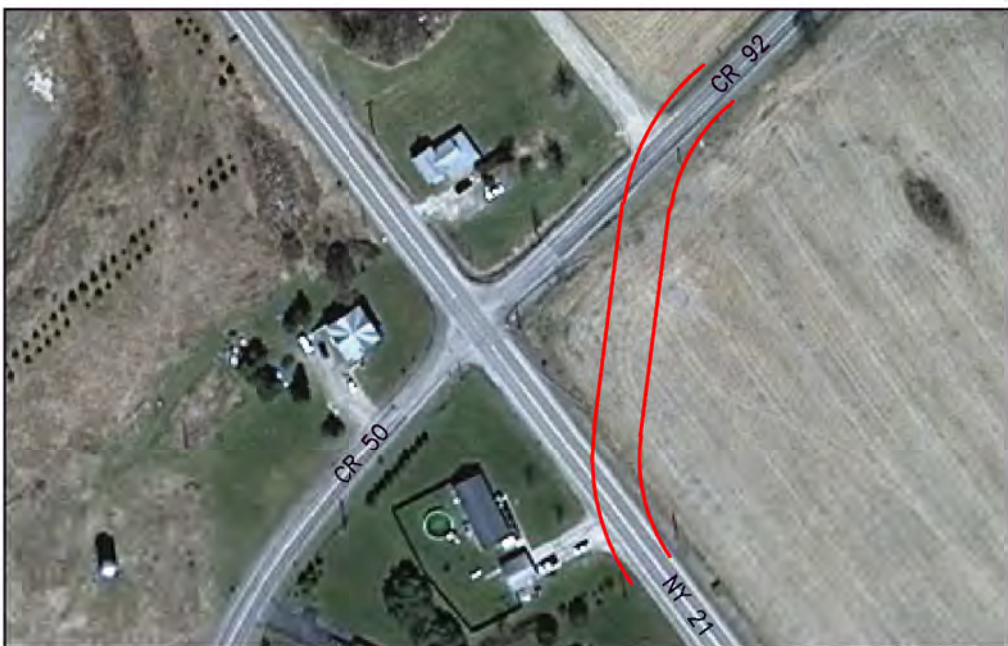
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LOCATION 5 – CR 92 KIEFERS CORNERS–ORCHARD COMFORT RD AT EMO RD



LOCATION 6 – STATE ROUTE 21 AT CR 50 BEACHVILLE–KIEFERS CORNERS RD /
CR 92 KIEFERS CORNERS–ORCHARD COMFORT RD

NOTE:
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LOCATION 7 – STATE ROUTE 21 AT DEREVEES RD



LOCATION 8 – STONE HILL RD AT WAGNER RD

NOTE:
 APPROXIMATE LOCATIONS ARE SHOWN
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LOCATION 9 – WAGNER RD AT HOLMES RD



LOCATION 10 – HOLMES RD AT BABCOCK RD

NOTE:
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TURNING MOVEMENT KEY

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LOCATION 11 – WAGNER RD AT MACK SCHOOL RD



LOCATION 12 – MACK SCHOOL RD AT NEU RD

NOTE:
 APPROXIMATE LOCATIONS ARE SHOWN
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TURNING MOVEMENT KEY

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LOCATION 13 – MACK SCHOOL RD AT STATE ROUTE 21



LOCATION 14 – STATE ROUTE 21 AT CONDERMAN RD

NOTE:
 APPROXIMATE LOCATIONS ARE SHOWN
 FOR TRUCK TURNING MOVEMENTS.
 DEVELOPER NEEDS TO APPLY THE STANDARD
 TRUCK TURNING RADII IN ORDER TO VERIFY
 INTERSECTION IMPROVEMENTS REQUIRED.

TURNING MOVEMENT KEY

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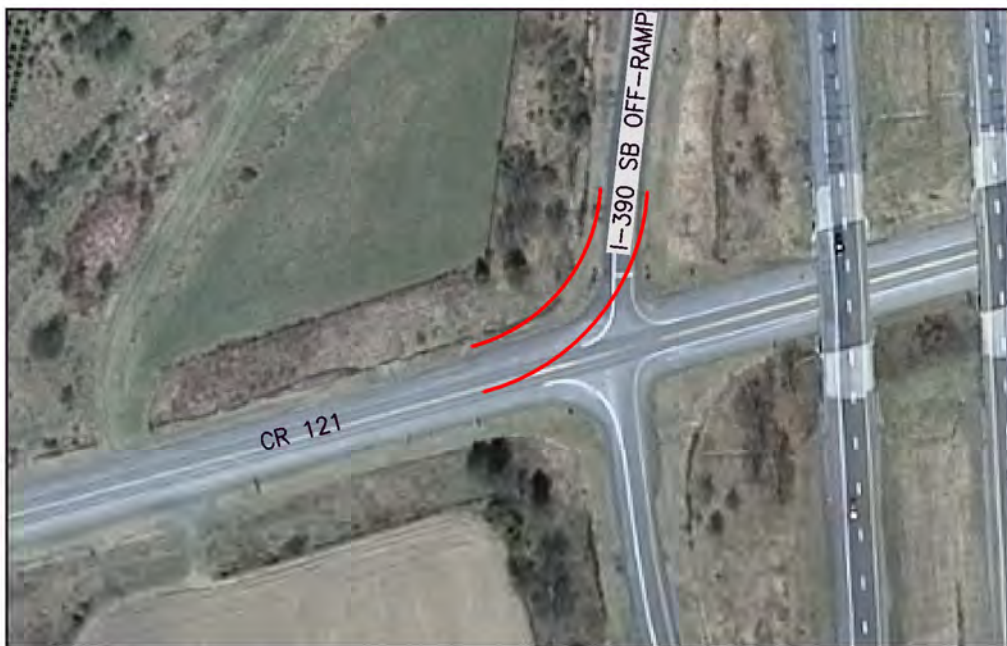
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LOCATION 15 – CONDERMAN RD AT CANFIELD RD



LOCATION 16 – I-390 SOUTHBOUND OFF-RAMP (EXIT 2) AT
CR 121 COHOCTON-LOON LAKE RD

NOTE:
APPROXIMATE LOCATIONS ARE SHOWN
FOR TRUCK TURNING MOVEMENTS.
DEVELOPER NEEDS TO APPLY THE STANDARD
TRUCK TURNING RADII IN ORDER TO VERIFY
INTERSECTION IMPROVEMENTS REQUIRED.

TURNING MOVEMENT KEY

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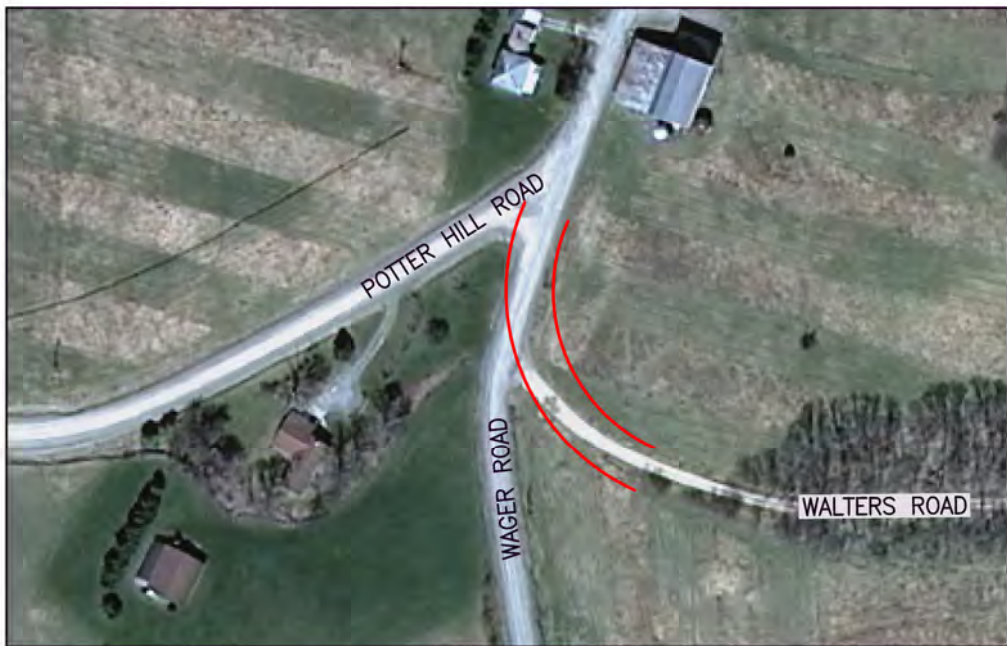
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LOCATION 17 – CR 121 COHOCTON–LOON LAKE RD AT LAKE HOLLOW RD



LOCATION 18 – WAGER RD AT WALTERS RD

NOTE:
 APPROXIMATE LOCATIONS ARE SHOWN
 FOR TRUCK TURNING MOVEMENTS.
 DEVELOPER NEEDS TO APPLY THE STANDARD
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 150' INSIDE RADIUS, 40.8' WIDTH
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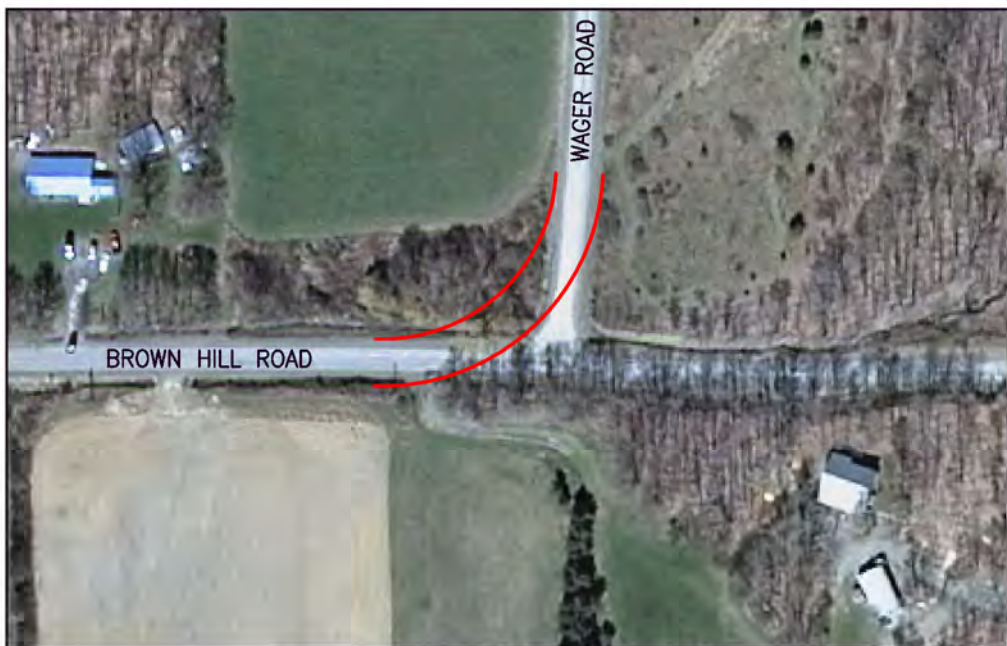
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LOCATION 19 – WAGER RD AT GRUBER RD



LOCATION 20 – WAGER RD AT BROWN HILL RD

NOTE:
 APPROXIMATE LOCATIONS ARE SHOWN
 FOR TRUCK TURNING MOVEMENTS.
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 TRUCK TURNING RADII IN ORDER TO VERIFY
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TURNING MOVEMENT KEY

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LOCATION 21 – BROWN HILL RD AT REX RD



LOCATION 22 – BROWN HILL RD AT NEW GALEN RD

NOTE:
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 FOR TRUCK TURNING MOVEMENTS.
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 TRUCK TURNING RADII IN ORDER TO VERIFY
 INTERSECTION IMPROVEMENTS REQUIRED.

TURNING MOVEMENT KEY

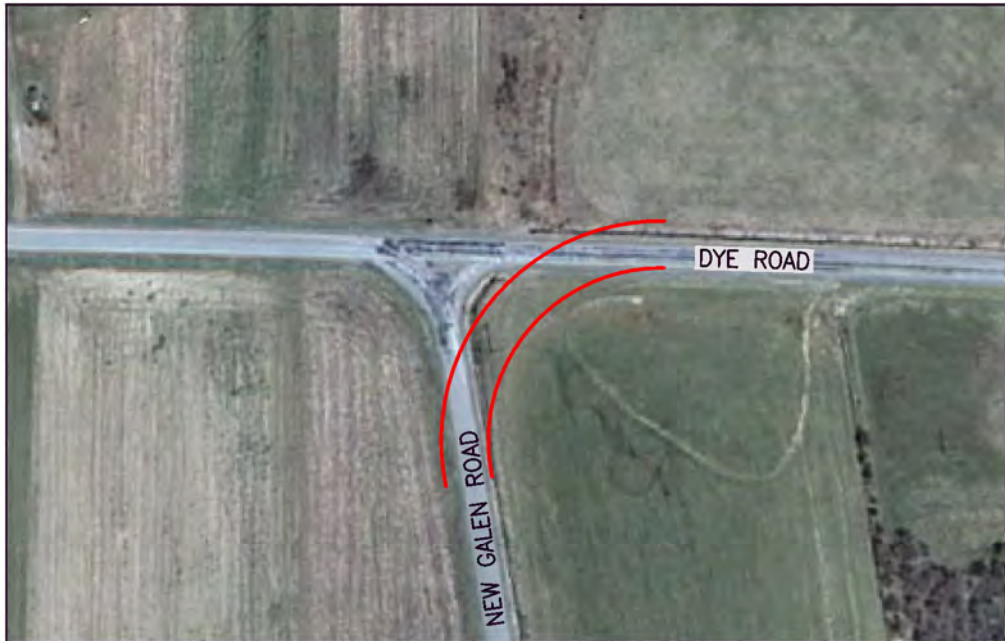
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LOCATION 23 – NEW GALEN RD AT DYE RD



LOCATION 24 – DYE RD AT CAMPBELL RD

NOTE:
 APPROXIMATE LOCATIONS ARE SHOWN
 FOR TRUCK TURNING MOVEMENTS.
 DEVELOPER NEEDS TO APPLY THE STANDARD
 TRUCK TURNING RADII IN ORDER TO VERIFY
 INTERSECTION IMPROVEMENTS REQUIRED.

TURNING MOVEMENT KEY

 150' INSIDE RADIUS, 40.8' WIDTH
 TO ALLOW FOR TURNING MOVEMENT



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 499 Col. Eileen Collins Blvd.
 Syracuse, New York 13212
 Phone: 315-455-2000
 Fax: 315-455-9667
 www.cscos.com

INTERSECTION TURNING
 MOVEMENTS FOR
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 BARON WINDS FACILITY
 APPENDIX H






LOCATION 25 - I-86 WESTBOUND OFF-RAMP (EXIT 35) AT CR 70



LOCATION 26 - JOBS CORNERS RD AT CR 55 BACON SCHOOL-HASKINVILLE RD

NOTE:
 APPROXIMATE LOCATIONS ARE SHOWN
 FOR TRUCK TURNING MOVEMENTS.
 DEVELOPER NEEDS TO APPLY THE STANDARD
 TRUCK TURNING RADII IN ORDER TO VERIFY
 INTERSECTION IMPROVEMENTS REQUIRED.

TURNING MOVEMENT KEY

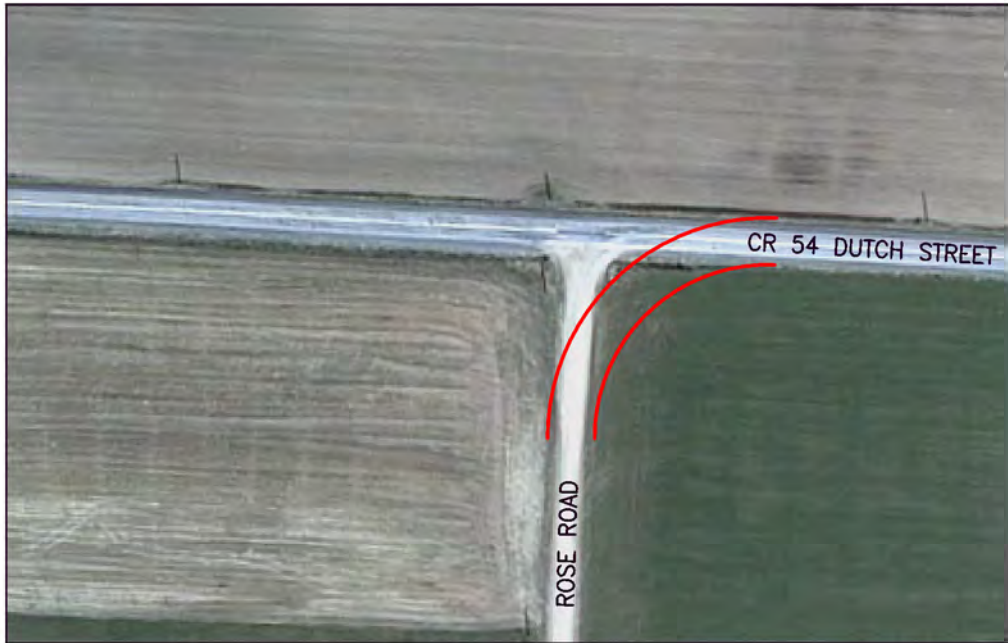
 150' INSIDE RADIUS, 40.8' WIDTH
 TO ALLOW FOR TURNING MOVEMENT



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LOCATION 27 – CR 54 DUTCH ST AT ROSE RD



LOCATION 28 – ROSE RD AT BACK ST

NOTE:
 APPROXIMATE LOCATIONS ARE SHOWN
 FOR TRUCK TURNING MOVEMENTS.
 DEVELOPER NEEDS TO APPLY THE STANDARD
 TRUCK TURNING RADII IN ORDER TO VERIFY
 INTERSECTION IMPROVEMENTS REQUIRED.

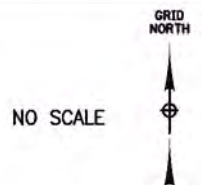
TURNING MOVEMENT KEY

 150' INSIDE RADIUS, 40.8' WIDTH
 TO ALLOW FOR TURNING MOVEMENT



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LOCATION 29 – ROSE RD AT VAN KEUREN RD



LOCATION 30 – BACK ST AT DUTCH RD

NOTE:
 APPROXIMATE LOCATIONS ARE SHOWN
 FOR TRUCK TURNING MOVEMENTS.
 DEVELOPER NEEDS TO APPLY THE STANDARD
 TRUCK TURNING RADII IN ORDER TO VERIFY
 INTERSECTION IMPROVEMENTS REQUIRED.

TURNING MOVEMENT KEY

 150' INSIDE RADIUS, 40.8' WIDTH
 TO ALLOW FOR TURNING MOVEMENT



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APPENDIX I

Table of Construction Vehicle Volumes

Maps of Construction Vehicle Routes/Volumes

APPENDIX I

BARON WINDS FACILITY

CONSTRUCTION VEHICLE VOLUMES

CONSTRUCTION ROUTES	GRAVEL CY	GRAVEL TRUCK VOLUME	CONCRETE MIX CY	CONCRETE TRUCK VOLUME	NO. OF TURBINES PER ACCESS ROUTE	TURBINE DELIVERY FLATBED TRUCKS VOLUME	CRANE VOLUME
ACCESS ROUTE #1	6101	611	2400	240	6	54	12
ACCESS ROUTE #2	17471	1748	8400	840	21	189	42
ACCESS ROUTE #3	29367	2937	12400	1240	31	279	62
ACCESS ROUTE #4	14618	1462	7200	720	18	162	36
VOLUME TOTALS		6758		3040	76	684	152

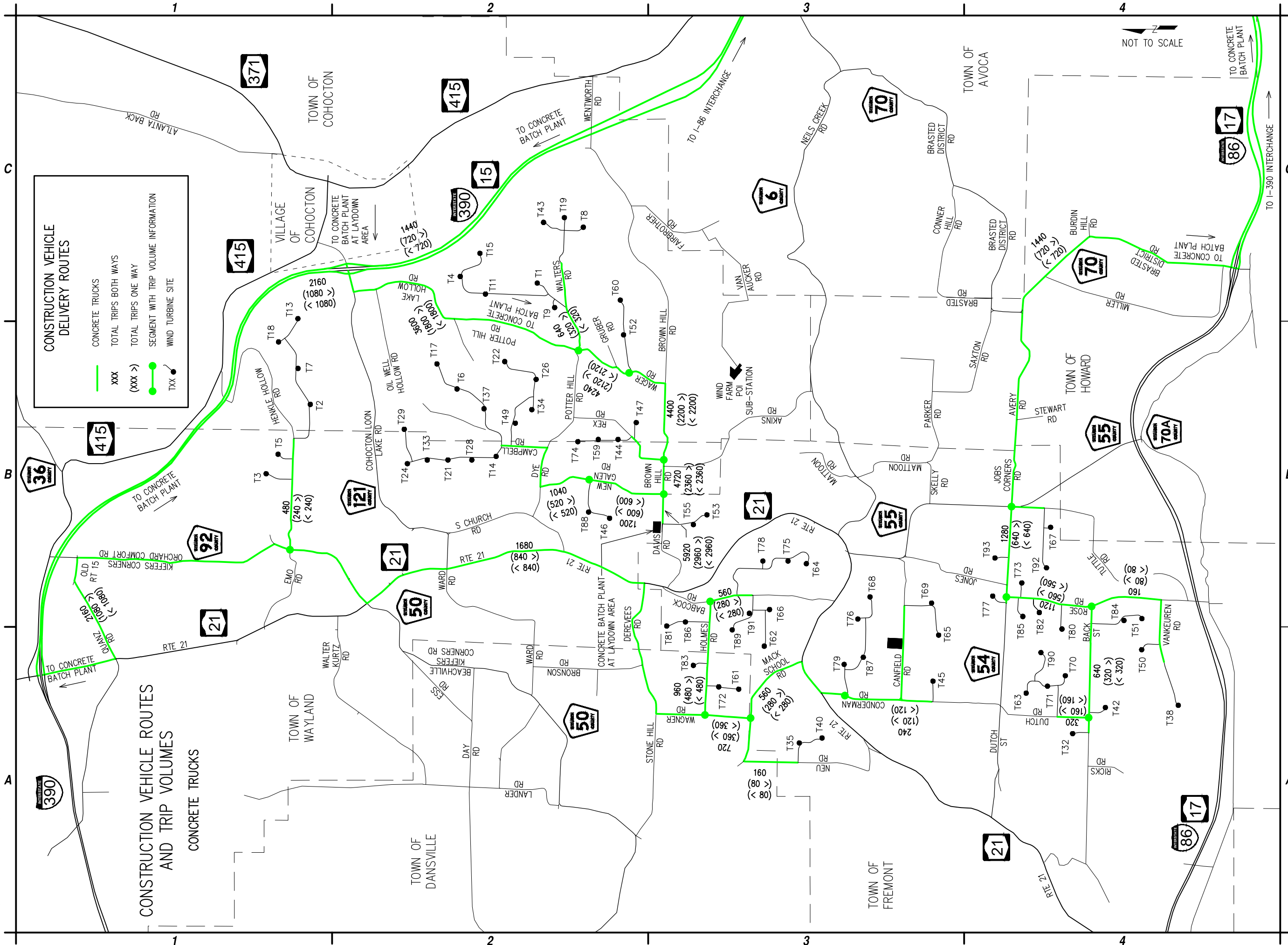
NOTE - VOLUMES BASED ON:

10 CY PER GRAVEL TRUCK

10 CY PER CONCRETE TRUCK

9 FLATBEDS PER TURBINE

2 CRANE MOVES PER TURBINE



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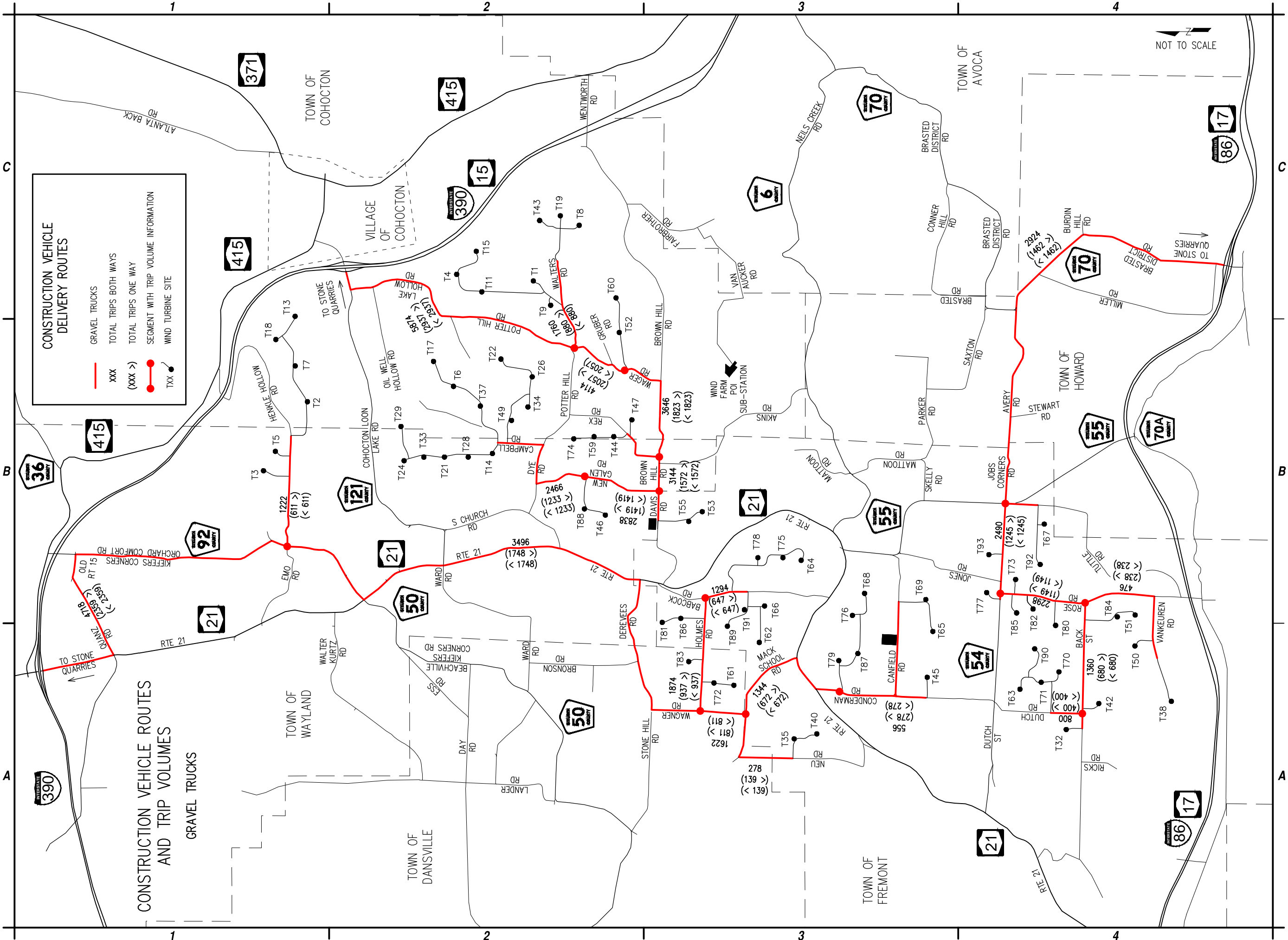
BARON WINDS FACILITY

STEBUEN COUNTY

CONSTRUCTION
 VEHICLE ROUTES
 AND TRIP VOLUMES

CONCRETE
 TRUCKS

APPENDIX I



CONSTRUCTION VEHICLE DELIVERY ROUTES

- GRAVEL TRUCKS
- TOTAL TRIPS BOTH WAYS
- TOTAL TRIPS ONE WAY
- SEGMENT WITH TRIP VOLUME INFORMATION
- WIND TURBINE SITE

CONSTRUCTION VEHICLE ROUTES AND TRIP VOLUMES

GRAVEL TRUCKS



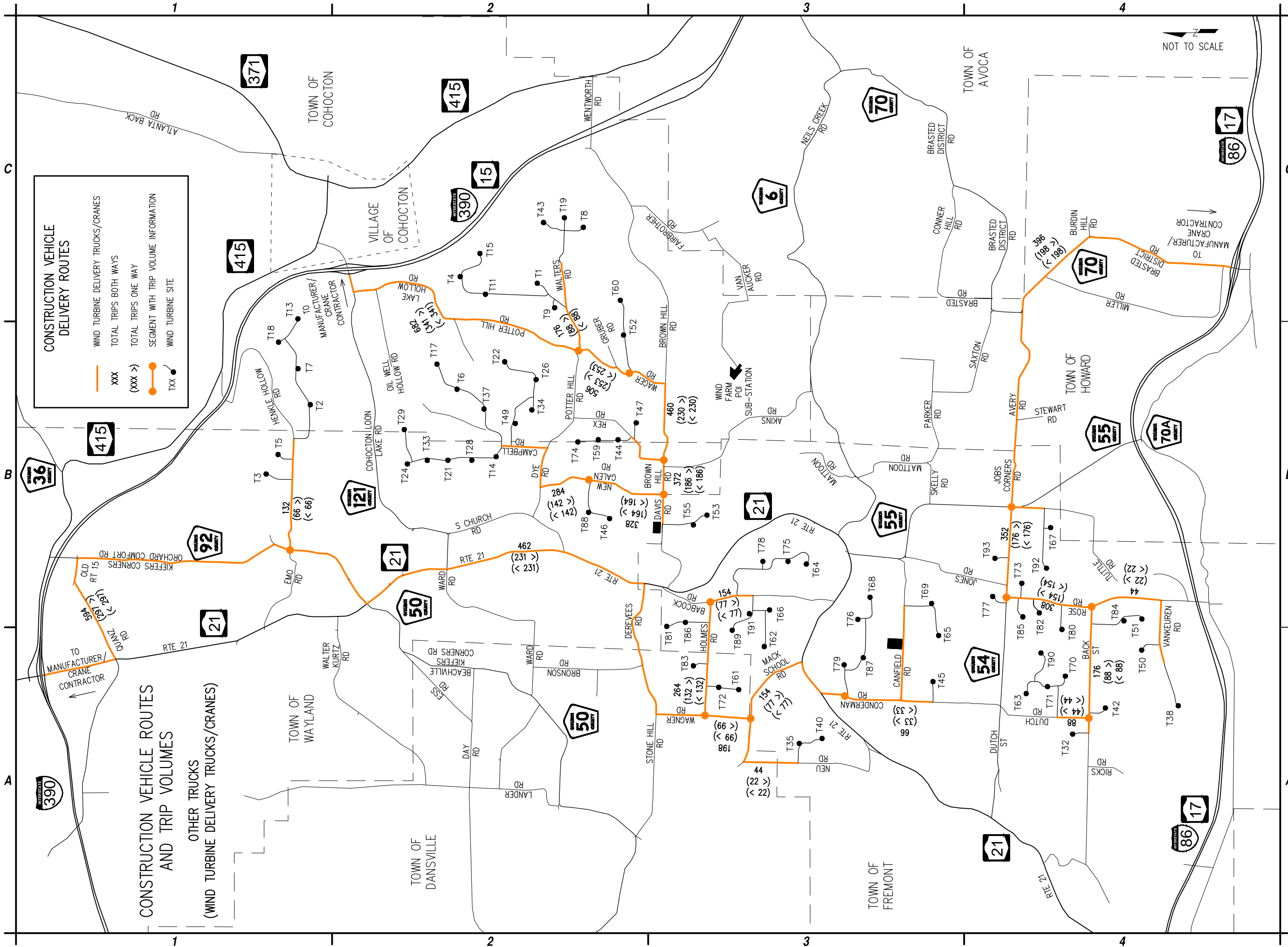
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BARON WINDS FACILITY
STEBUEN COUNTY

CONSTRUCTION VEHICLE ROUTES AND TRIP VOLUMES

GRAVEL TRUCKS

APPENDIX I



CONSTRUCTION VEHICLE DELIVERY ROUTES

- WIND TURBINE DELIVERY TRUCKS/CRANES
- XXX TOTAL TRIPS BOTH WAYS
- (XXX >) TOTAL TRIPS ONE WAY
- SEGMENT WITH TRIP VOLUME INFORMATION
- WIND TURBINE SITE

CONSTRUCTION VEHICLE ROUTES AND TRIP VOLUMES
 OTHER TRUCKS
 (WIND TURBINE DELIVERY TRUCKS/CRANES)



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STEBUEN COUNTY

CONSTRUCTION VEHICLE ROUTES AND TRIP VOLUMES

OTHER TRUCKS

APPENDIX I

APPENDIX J

Table of Bridge and Large Culvert Rating Information

Table of Culvert Locations

Map of Existing Bridge & Large Culvert Locations

APPENDIX J

BARON WINDS FACILITY

BRIDGE AND LARGE CULVERT RATING TABLE

BRIDGE RATING INFORMATION (SEE NOTES 1 & 5 BELOW)

ROUTE/ROAD NAME	FROM	TO	TOWN(S)	BIN NO(S)	FEATURE CROSSED	LOCATION	FLAGGED BRIDGE	POSTED BRIDGE	HS INVENTORY RATING (LEVEL 1)		HS OPERATING RATING (LEVEL 1)		HS INVENTORY RATING (LEVEL 2)		HS OPERATING RATING (LEVEL 2)		CONDITION RATING	GENERAL RECOMMENDATION RATING	LATEST INSPECTION DATE	SUFFICIENCY RATING	YEAR BUILT	NO. OF SPANS	LONGEST SPAN LENGTH (FT)	BRIDGE LENGTH (FT)	HORIZONTAL CLEARANCE (FT)	COMMENTS	POTENTIAL ACCESS ROUTE NUMBERS		
									HS	T	HS	T	HS	T	HS	T													
NY 21	CR 121	CR 6	WAYLAND/FREMONT	1016400	TRIB NEIL CREEK	RM 21 6402 3123	No	No	HS 20	46 T	HS 20	76 T	HS	-	-	HS	-	-	6.286	6	11/18/2015	0881	2007	1	37	37	29		
I-390 SB	WARREN HILL RD BRIDGE	WENTWORTH RD BRIDGE	COHOCTON	1090691	CR 121	RM 390I 6401 1109	No	No	HS	-	-	HS	-	-	HS 20	52 T	HS 20	121 T	5.266(2014)	4	5/24/2016	-	1976	1	103	107	41	Sufficiency Rating not listed in the Bridge Data Info System	
I-390 NB	WARREN HILL RD BRIDGE	WENTWORTH RD BRIDGE	COHOCTON	1090692	CR 121	RM 390I 6401 1109	No	No	HS	-	-	HS	-	-	HS 20	52 T	HS 20	130 T	5.297(2014)	4	5/20/2016	0857	1976	1	103	107	41		
I-390 SB	CR 90 BRIDGE	CR 92 BRIDGE	WAYLAND	1090721	NY 21	RM 390I 6401 1166	No	No	HS	-	-	HS	-	-	HS 20	49 T	HS 20	82 T	5.73	6	9/10/2015	0957	1975	1	116	119	41		
I-390 NB	CR 90 BRIDGE	CR 92 BRIDGE	WAYLAND	1090722	NY 21	RM 390I 6401 1166	No	No	HS	-	-	HS	-	-	HS 20	49 T	HS 20	83 T	5.476	5	9/10/2015	0967	1975	1	116	119	41		
CR 70	CR 70A	SMITH POND RD	HOWARD	1061880	I-86/NY 17	RM 962B 6401 1002	No	No	HS	-	-	HS	-	-	HS 20	57 T	HS 20	95 T	4.766	5	10/21/2014	0828	1970	2	117	239	59		
CR 6	MATTOON RD	ATKINS RD	AVOCA	3332900	NEILS CREEK	1.2 MILES EAST OF HASKINVILLE	No	No	HS 20	56 T	HS 20	94 T	HS 20	55 T	HS 20	91 T			6.391	6	10/31/2014	0969	1998	1	57	60	30		
MATTOON RD	CR 6	DEAD END	FREMONT	2216990	NEILS CREEK	0.8 MILES EAST OF HASKINVILLE	No	No	HS 20	99 T	HS 20	99 T	HS	-	-	HS	-	-	5.526	5	11/10/2015	0940	1997	2	10	21	28		

LARGE CULVERT RATING INFORMATION, 5' TO 20' (SEE NOTES 2, 3 & 4 BELOW)

ROUTE/ROAD NAME	FROM	TO	TOWN(S)	CIN NO. OR STRUCTURE NO.	FEATURE CROSSED	LOCATION	FLAGGED CULVERT	POSTED CULVERT	HS INVENTORY RATING (LEVEL 1)		HS OPERATING RATING (LEVEL 1)		HS INVENTORY RATING (LEVEL 2)		HS OPERATING RATING (LEVEL 2)		CONDITION RATING 1 (FAILED) THRU 7 (NEW)	GENERAL RECOMMENDATION RATING	LATEST INSPECTION DATE	SUFFICIENCY RATING	YEAR BUILT	NO. OF SPANS	MAXIMUM SPAN LENGTH (FT)	HORIZONTAL CLEARANCE (FT)	COMMENTS	POTENTIAL ACCESS ROUTE NUMBERS					
									HS	T	HS	T	HS	T	HS	T															
NY 21	CR 6	HASKINVILLE RD	FREMONT	C640560	UNKNOWN STREAM	RM 21 6402 3100	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6.316	N/A	7/17/2015	N/A	2007	1	17	35	15' CORRUGATED METAL ARCH						
NY 21	CR 50	CR 121	WAYLAND	C640580	UNKNOWN STREAM	RM 21 6402 3149	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.762	N/A	10/16/2014	N/A	1962	2	7	34	2'x10' CONC ARCH, CORR. METAL LINING	2					
NY 21	I-390	CR 92	WAYLAND	C640590	UNKNOWN STREAM	RM 21 6402 3171	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.81	N/A	7/19/2013	N/A	1993	1	16	34	20' CONC. ARCH, CORR. METAL LINING						
NY 21	I-390	CR 92	WAYLAND	C640600	UNKNOWN STREAM	RM 21 6402 3172	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.276	N/A	7/27/2015	N/A	1926	1	11	28	12' CONCRETE BOX						
NY 21	I-390	CR 92	WAYLAND	C640610	UNKNOWN STREAM	RM 21 6402 3180	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.457	N/A	10/15/2014	N/A	1926	1	16	30	14' CONCRETE BOX						
CR 50	WARD RD	DAY RD	DANSVILLE	050-01	UNKNOWN STREAM	1.1 MI NORTH OF WARD RD	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7	N/A	2008	N/A	2007			28	5' IRON PIPE						
CR 50	STONE HILL RD	LANDER RD	HOWARD	050-01.5	UNKNOWN STREAM	0.4 MILES NORTH OF STONE HILL RD	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7	N/A	2008	N/A	2007				5' CORRUGATED PLASTIC PIPE (SICPP)						
CR 50	STONE HILL RD	LANDER RD	HOWARD	050-02	UNKNOWN STREAM	0.3 MILES NORTH OF STONE HILL RD	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6	N/A	2008	N/A	2000				5' IRON PIPE						
CR 55	NY 21	CANFIELD RD	FREMONT	055-01	UNKNOWN STREAM	200' NORTH OF CANFIELD RD	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4	N/A	2016	N/A	-	1	10	33.5	10' CONCRETE BOX, GUIDE RAIL NEEDS REPAIR, YR BUILT UNKNOWN						
CR 55	JONES RD	SKELLY RD	FREMONT	055-02	UNKNOWN STREAM	0.2 MILES EAST OF JONES RD	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	N/A	2016	N/A	-	1	12	36	10' CONCRETE BOX, YR BUILT UNKNOWN						
CR 70	MILLER RD (NORTH)	BURDIN HILL RD	HOWARD	070-01	UNKNOWN STREAM	JUST WEST OF BURDIN HILL RD	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5	N/A	2008	N/A	2001			38.7	5' IRON PIPE	4					
CR 70	SAXTON RD	BRASTED RD	HOWARD	070-02	UNKNOWN STREAM	190' WEST OF BRASTED RD	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6	N/A	2008	N/A	1998	1	12	31.8	14'x6' CONCRETE BOX						
CR 70	BRASTED RD	CONNOR HILL RD	HOWARD	070-03	UNKNOWN STREAM	0.2 MILES SOUTH CONNER HILL RD	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5	N/A	2016	N/A	-				6' PIPE, ROCK PROTRUDING THRU PIPE, YR BUILT UNKNOWN						
CR 121	S CHURCH RD	LAKE HOLLOW RD	COHOCTON	121-?	UNKNOWN STREAM	600' WEST OF LAKE HOLLOW RD	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6	N/A	-	N/A	2003			36+/-	10' IRON PIPE, INSPECTION DATE UNKNOWN	3					
									Large Culverts do not have load ratings done on them under normal circumstances. There is no data in the inventory for load ratings.																						
																						The Sufficiency Rating is a Federal Rating for bridges. Large culverts are not tracked on the federal system and do not have a sufficiency rating.									

NOTE 1 - BRIDGE RATING INFORMATION FROM FREEDOM OF INFORMATION LAW (FOIL) REQUEST FR6-16-000380 TO NYS DOT, REGION 6, DATED 12/20/16
 NOTE 2 - NYS DOT CULVERT RATING INFORMATION FROM FREEDOM OF INFORMATION LAW (FOIL) REQUEST FR6-16-000380 TO NYS DOT, REGION 6, DATED 1/06/17. STEUBEN COUNTY CULVERT RATING INFORMATION FROM EMAIL REQUEST TO STEUBEN COUNTY PUBLIC WORKS DEPT., DATED 01/04/2017
 NOTE 3 - ACCORDING TO THE TOWN SUPERVISORS FOR THE TOWNS OF AVOCA, COHOCTON, DANSVILLE, FREMONT, HOWARD, AND WAYLAND, THERE IS NO CULVERT RATING INFORMATION FOR THE LARGE CULVERTS LOCATED ALONG THEIR TOWN ROADS.
 NOTE 4 - CULVERT RATING NUMBERS IN THE ABOVE TABLE FOR LARGE CULVERTS FOLLOW THE NUMERICAL RATING SCALE FROM PAGE 67 OF THE 2006 NYS DOT CULVERT INVENTORY AND INSPECTION MANUAL. THE FOLLOWING NUMERICAL RATING SCALE DEFINITIONS ARE: 7 - NEW CONDITION, NO DETERIORATION; 6 - USED TO SHADE BETWEEN RATINGS OF 5 AND 7; 5 - MINOR DETERIORATION BUT FUNCTIONING AS ORIGINALLY DESIGNED; 4 - USED TO SHADE BETWEEN RATINGS OF 3 AND 5, FUNCTIONING AS ORIGINALLY DESIGNED; 3 - SERIOUS DETERIORATION OR NOT FUNCTIONING AS ORIGINALLY DESIGNED; 2 - USED TO SHADE BETWEEN RATINGS OF 1 AND 3; 1 - TOTALLY DETERIORATED OR IN A FAILED CONDITION. POTENTIALLY HAZARDOUS
 NOTE 5 - HS TRUCK RATINGS: NYS DOT POLICY REQUIRES THAT ALL EXISTING BRIDGES BE LOAD RATED USING THE HS-20 (36 TON) TRUCK AND HAVE THE CAPACITY TO CARRY THIS LOAD WITHOUT THE NEED FOR LOAD POSTING. THIS HS-20 TRUCK IS A THREE AXLE TRUCK WITH THE FRONT AXLE LOAD OF 4 TONS, AND TWO SEPARATE REAR AXLE LOADS OF 16 TONS EACH. IF IT IS DETERMINED THAT THE BRIDGE RATING IS 36 TONS OR GREATER, THEN AN H-20 (20 TONS) TRUCK RATING IS NOT REQUIRED. H-20 TRUCK RATINGS ARE USED WHEN A BRIDGE RATES LESS THAN 36 TONS AND MAY NEED TO BE LOAD POSTED.

ABBREVIATIONS:
 RM - STATE REFERENCE MARKER SIGN LOCATION BIN - BRIDGE IDENTIFICATION NUMBER CIN - CULVERT IDENTIFICATION NUMBER



APPENDIX J

BARON WINDS FACILITY

CULVERT LOCATION TABLE

ROUTE/ROAD NAME	FROM	TO	LENGTH (MI)	TOWN(S)	CULVERT INFORMATION (INCLUDES BRIDGE LOCATIONS)	POTENTIAL ACCESS ROUTE NUMBERS
NY 21	I-390/NY 15	DEREVEES RD	6.5	WAYLAND	CULVERT 1: 5' CMP ARCH, 5' COVER, 0.1 MI SOUTH OF I-390 CULVERT 2: UNKNOWN, 5' COVER, 0.3 MI SOUTH OF I-390 CULVERT 3: 36" CMP, 6' COVER, 0.4 MI SOUTH OF I-390 CULVERT 4: C640610, 14' CONCRETE BOX, 2.5'-3' COVER, 0.8 MI SOUTH OF I-390 CULVERT 5: C640600, 12' CONCRETE BOX, 2.5'-3' COVER, 1.6 MI SOUTH OF I-390 CULVERT 6: C640590, 20' CONCRETE ARCH W/CORR. METAL LINING, MIN. 2.5' COVER, 1.7 MI SOUTH OF I-390 CULVERT 7: UNKNOWN, 1.9 MI SOUTH OF I-390 CULVERT 8: 18" IRON, 7' COVER, 2.2 MI SOUTH OF I-390 CULVERT 9: 18" CMP, 2' COVER, 0.3 MI SOUTH OF EMO RD CULVERT 10: 30" IRON, 1' COVER, 0.7 MI SOUTH OF EMO RD CULVERT 11: UNKNOWN, 7' COVER, AT WALTER KURTZ RD CULVERT 12: UNKNOWN, 0.1 MI SOUTH OF WALTER KURTZ RD CULVERT 13: 30" IRON, 4' COVER, JUST SOUTH OF CR 50 CULVERT 14: C640580, 2'X10' CONCRETE ARCH W/CORR. METAL LINING, 2'+ COVER, 0.6 MI SOUTH OF CR 50 CULVERT 15: UNKNOWN IRON, 6' COVER, 0.9 MI SOUTH OF CR 50 CULVERT 16: 36" CONCRETE, 4' COVER, 0.3 MI SOUTH OF CR 121 CULVERT 17: 4' CONCRETE, 4' COVER, 0.4 MI SOUTH OF CR 121 CULVERT 18: 36" CONCRETE, 6' COVER, 0.5 MI SOUTH OF CR 121 CULVERT 19: 24" CMP, 15' COVER, 0.5 MI SOUTH OF CR 121 CULVERT 20: 24" CMP, 4' COVER, 0.7 MI SOUTH OF CR 121 CULVERT 21: 24" CMP, 6' COVER, 0.7 MI SOUTH OF CR 121 CULVERT 22: 36" CMP, 4' COVER, 0.8 MI SOUTH OF CR 121 CULVERT 23: 30" CMP, 5' COVER, 100' SOUTH OF S CHURCH RD CULVERT 24: 36" CMP, 4' COVER, 0.2 MI SOUTH OF S CHURCH RD CULVERT 25: 5' CONCRETE BOX, 5' COVER, 0.3 MI SOUTH OF S CHURCH RD CULVERT 26: 24" CMP, 3' COVER, 0.3 MI SOUTH OF S CHURCH RD CULVERT 27: 5' CMP, 4' COVER, 0.4 MI SOUTH OF S CHURCH RD CULVERT 28: UNKNOWN, 2' COVER, 0.5 MI SOUTH OF S CHURCH RD CULVERT 29: 24" IRON, 4' COVER, 0.6 MI SOUTH OF S CHURCH RD	1 & 2 (FROM I-390 TO QUANZ RD)
NY 21	DEREVEES RD	CONDERMAN RD	4.2	FREMONT	BRIDGE (1016400), SEE BRIDGE TABLE FOR CONDITION INFO, JUST SOUTH OF DEREVEES RD CULVERT 1: 36" CMP, 6' COVER, JUST NORTH OF DAVIS RD CULVERT 2: 30" CMP, 4' COVER, 200' SOUTH OF DAVIS RD CULVERT 3: 36" CMP, 5' COVER, 400' SOUTH OF DAVIS RD CULVERT 4: 4' CMP, 6' COVER, 700' SOUTH OF DAVIS RD CULVERT 5: 30" CMP, 4' COVER, 800' SOUTH OF DAVIS RD CULVERT 6: 4.5' CONCRETE BOX, 4' COVER, 1000' SOUTH OF DAVIS RD CULVERT 7: 36" CMP, 4' COVER, 1200' SOUTH OF DAVIS RD CULVERT 8: 24" SICPP, 3' COVER, 1500' SOUTH OF DAVIS RD CULVERT 9: 40" CONCRETE, 4' COVER, 1800' SOUTH OF DAVIS RD CULVERT 10: 24" CMP, 3' COVER, 1900' SOUTH OF DAVIS RD CULVERT 11: 40" CONCRETE, 12' COVER, 2200' SOUTH OF DAVIS RD CULVERT 12: 24" CMP, 4' COVER, 2700' SOUTH OF DAVIS RD CULVERT 13: 24" CMP, 4' COVER, 2900' SOUTH OF DAVIS RD CULVERT 14: C640560, 15' CMP ARCH, 2'-3' COVER, 800' SOUTH OF HASKINVILLE RD CULVERT 15: 30" IRON, 4' COVER, JUST SOUTH OF CR 6 CULVERT 16: 24" CMP, 100' SOUTH OF CR 6 CULVERT 17: 30" CMP, 200' EAST OF BABCOCK RD CULVERT 18: 24" CMP, 6' COVER, 200' WEST OF BABCOCK RD CULVERT 19: 48" CMP, 8' COVER, 1600' WEST OF BABCOCK RD CULVERT 20: 30" CMP WITH ASPHALT LINING, 4' COVER, 800' EAST OF CONDERMAN RD	2 (FROM MACK SCHOOL RD TO CONDERMAN RD)
CR 50 BEACHVILLE-KIEFERS CORNERS RD	NY 21	STONE HILL RD	4.3	WAYLAND	CULVERT 1: 24" IRON, 2' COVER, 700' NORTH OF ESS RD CULVERT 2: 24" CMP, 2' COVER, JUST SOUTH OF ESS RD CULVERT 3: 18" IRON, 4' COVER, 0.7 MI NORTH OF DAY RD CULVERT 4: 18" CMP, 4' COVER, 0.6 MI NORTH OF DAY RD CULVERT 5: 18" CMP, 1' COVER, 2500' NORTH OF DAY RD CULVERT 6: 18" CMP, 2' COVER, 2000' NORTH OF DAY RD CULVERT 7: 30" CMP, 1' COVER, 1800' NORTH OF DAY RD CULVERT 8: 30" CMP, 1' COVER, 1000' NORTH OF DAY RD CULVERT 9: 24" CMP, 6' COVER, 300' NORTH OF DAY RD CULVERT 10: 18" SICPP, 4' COVER, 1.2 MI NORTH OF WARD RD CULVERT 11: 70" IRON, 1' COVER, 1.1 MI NORTH OF WARD RD CULVERT 12: 30" SICPP, 1' COVER, 1 MI NORTH OF WARD RD CULVERT 13: 36" CMP, 4' COVER, 2000' NORTH OF WARD RD CULVERT 14: 18" CMP, 2' COVER, 1400' NORTH OF WARD RD	POTENTIAL ALTERNATE ROUTE



APPENDIX J

BARON WINDS FACILITY

CULVERT LOCATION TABLE (CONTINUED)

ROUTE/ROAD NAME	FROM	TO	LENGTH (MI)	TOWN(S)	CULVERT INFORMATION (INCLUDES BRIDGE LOCATIONS)	POTENTIAL ACCESS ROUTE NUMBERS
CR 50 BEACHVILLE-KIEFERS CORNERS RD (CONTINUED)	NY 21	STONE HILL RD	4.3	DANVILLE	CULVERT 15: 24" SICPP, 4' COVER, 1100' NORTH OF WARD RD CULVERT 16: 18" CMP, 3' COVER, 1000' NORTH OF WARD RD CULVERT 17: 18" CMP, 4' COVER, 200' NORTH OF WARD RD CULVERT 18: 18" CMP, 3' COVER, 1 MI EAST OF LANDER RD CULVERT 19: 18" IRON, 1' COVER, 0.9 MI EAST OF LANDER RD CULVERT 20: 24" IRON, 6' COVER, 0.8 MI EAST OF LANDER RD CULVERT 21: 18" CMP, 3' COVER, 0.7 MI EAST OF LANDER RD CULVERT 22: 30" SICPP, 2' COVER, 0.5 MI EAST OF LANDER RD CULVERT 23: 24" CMP, 3' COVER, 0.2 MI EAST OF LANDER RD CULVERT 24: 18" CMP, 2' COVER, JUST EAST OF LANDER RD CULVERT 25: 24" CMP, 2' COVER, 200' SOUTH OF LANDER RD CULVERT 26: 24" CMP, 4' COVER, 3200' NORTH OF STONE HILL RD CULVERT 27: 5' SICPP, 2' COVER, 2000' NORTH OF STONE HILL RD CULVERT 28: 5' IRON, 1' COVER, 1600' NORTH OF STONE HILL RD CULVERT 29: 30" IRON, 3' COVER, 1200' NORTH OF STONE HILL RD CULVERT 30: 18" CMP, 2' COVER, JUST NORTH OF STONE HILL RD	POTENTIAL ALTERNATE ROUTE
CR 54 DUTCH STREET	CONDERMAN RD	CR 55	2	FREMONT	CULVERT 1: 18" CMP, 6' COVER, 0.4 MI EAST OF CONDERMAN RD CULVERT 2: 18" CMP, 3' COVER, 0.7 MI EAST OF CONDERMAN RD CULVERT 3: 36" SICPP, 3' COVER, 0.8 MI EAST OF CONDERMAN RD CULVERT 4: 24" SICPP, 2' COVER, 0.5 MI EAST OF JONES RD	4 (FROM CR 55 TO JUST WEST OF JONES RD)
CR 55 BACON SCHOOL-HASKINVILLE RD	STEWART RD/I-86/NY 17 BRIDGE	NY 21	3.5	FREMONT/HOWARD	CULVERT 1: 10' CONC BOX CULVERT, 4' COVER, 200' NORTH OF CANFIELD RD CULVERT 2: 24" CMP, 2' COVER, 100' EAST OF JONES RD CULVERT 3: 10' CONC BOX CULVERT, 10' COVER, 1000' EAST OF JONES RD CULVERT 4: 18" RCP, 4' COVER, 200' NORTH OF SKELLY RD CULVERT 5: 18" RCP, 2' COVER, 1000' SOUTH OF SKELLY RD CULVERT 6: 18" RCP, 2' COVER, 2500' SOUTH OF SKELLY RD CULVERT 7/8: TWO 24" CMP, 2' COVER, EITHER SIDE OF JOBS CORNERS RD CULVERT 9: 18" RCP, 4' COVER, 1500' SOUTH OF TUTTLE RD CULVERT 10: 18" RCP, 1' COVER, 2500' SOUTH OF TUTTLE RD CULVERT 11: 18" RCP, 3' COVER, 100' NORTH OF STEWART RD	4 (FROM CR 54 TO TUTTLE RD)
CR 70 BRASTED DISTRICT RD	I-86/NY 17 INTERCHANGE	AVOCA TOWN LINE	2.7	HOWARD	CULVERT 1: 24" CMP, 2' COVER, 1500' EAST OF BRASTED RD CULVERT 2: 14"X6", UNKNOWN COVER, 190' WEST OF BRASTED RD CULVERT 3: 5' IRON, 6' COVER, JUST WEST OF BURDIN HILL RD CULVERT 5/6: 24" CMP, 3' COVER, SOUTH OF BURDIN HILL RD	4 (FROM I-86/NY 17 TO AVERY RD)
CR 92 KIEFERS CORS-ORCHARD COMFORT	NY 21	OLD ROUTE 15	4	WAYLAND	CULVERT 1: 30" IRON, 3' COVER, JUST EAST OF NY 21 CULVERT 2: 18" CMP, 2' COVER, 200' NORTH OF LAF-A-LOT RD CULVERT 3: 36" IRON, <1' COVER, 0.1 MI SOUTH OF HENRY DRUM RD CULVERT 4: 24" CMP/SICPP, 3' COVER, 2 MI SOUTH OF OLD ROUTE 15 CULVERT 5: UNKNOWN, 1.7 MI SOUTH OF OLD ROUTE 15 CULVERT 6: UNKNOWN, 1.5 MI SOUTH OF OLD ROUTE 15 CULVERT 7: UNKNOWN, 6' COVER, 0.7 MI SOUTH OF OLD ROUTE 15 CULVERT 8: 4' IRON, 3' COVER, 0.3 MI SOUTH OF OLD ROUTE 15 CULVERT 9: 36" SICPP, 6' COVER, 100' SOUTH OF OLD ROUTE 15	1 & 2
CR 121 COHOCTON-LOON LAKE RD	NY 21	I-390/NY 15	3.5	WAYLAND/COHOCTON	CULVERT 1: UNKNOWN, 6' COVER, 300' WEST OF LAKE HOLLOW RD CULVERT 2: 10' IRON, 5' COVER, 600' WEST OF LAKE HOLLOW RD CULVERT 3: 30" SICPP, 4' COVER, 0.2 MI WEST OF LAKE HOLLOW RD CULVERT 4: 18" CMP, 4' COVER, 0.7 MI WEST OF LAKE HOLLOW RD CULVERT 5: 18" IRON, 2' COVER, 0.9 MI WEST OF LAKE HOLLOW RD CULVERT 6: 18" IRON, 4' COVER, JUST EAST OF REYNOLDS CREEK RD CULVERT 7: 24" IRON, 2' COVER, 0.1 MI WEST OF REYNOLDS CREEK RD CULVERT 8: 4' SICPP, 2' COVER, 0.2 MI WEST OF REYNOLDS CREEK RD CULVERT 9: 18" IRON, 3' COVER, 0.3 MI WEST OF REYNOLDS CREEK RD CULVERT 10: 24" CMP, 3' COVER, 0.5 MI WEST OF REYNOLDS CREEK RD CULVERT 11: 24" IRON, 3' COVER, 0.7 MI WEST OF REYNOLDS CREEK RD CULVERT 12: 24" IRON, 5' COVER, 0.9 MI WEST OF REYNOLDS CREEK RD CULVERT 13: 24" CMP, 5' COVER, 1.3 MI WEST OF REYNOLDS CREEK RD CULVERT 14: 24" CMP, 5' COVER, JUST SOUTH OF E LAKE RD	3 (FROM I-390 TO LAYDOWN AREA, 0.5 MILES WEST OF LAKE HOLLOW RD)
QUANZ RD	NY 21	OLD ROUTE 15	0.9	WAYLAND	CULVERT 1: 24" IRON, 3' COVER, 0.4 MI EAST OF NY 21 CULVERT 2: 24" IRON, 3' COVER, 0.5 MI EAST OF NY 21 CULVERT 3: 18" IRON, 4' COVER, 0.6 MI EAST OF NY 21	1 & 2
OLD ROUTE 15	QUANZ RD	CR 92	0.2	WAYLAND	CULVERT 1: 18" CONCRETE, 3' COVER, JUST EAST OF QUANZ RD CULVERT 2: 30" IRON, 8' COVER, JUST WEST OF CR 92	1 & 2



APPENDIX J

BARON WINDS FACILITY

CULVERT LOCATION TABLE (CONTINUED)

ROUTE/ROAD NAME	FROM	TO	LENGTH (MI)	TOWN(S)	CULVERT INFORMATION (INCLUDES BRIDGE LOCATIONS)	POTENTIAL ACCESS ROUTE NUMBERS
EMO RD	NY 21	COHOCTON TOWN LINE	2.2	WAYLAND	CULVERT 1: UNKNOWN, 0.2 MI EAST OF NY 21 CULVERT 2: 36" IRON, 6' COVER, 300' EAST OF CR 92 CULVERT 3: UNKNOWN, 0.4 MI EAST OF CR 92 CULVERT 4: UNKNOWN, 1 MI EAST OF CR 92	1 (FROM CR 92 TO T2/T7/T18/T13)
WALTER KURTZ RD	LANDER RD	NY 21	2.3	DANSVILLE/WAYLAND	CULVERT 1: 18" IRON, 1' COVER, JUST EAST OF LANDER RD CULVERT 2: 24" IRON, 5' COVER, 0.5 MI WEST OF WEARKLEY RD CULVERT 3: 48" IRON, 1' COVER, 800' WEST OF WEARKLEY RD CULVERT 4: 36" IRON, 1' COVER, 500' WEST OF WEARKLEY RD CULVERT 5: 18" CMP, 2' COVER, 0.4 MI WEST OF NY 21 CULVERT 6: 10' METAL, <1' COVER, 0.3 MI WEST OF NY 21	NONE
S CHURCH RD	CR 121	NY 21	1.4	WAYLAND	CULVERT 1: UNKNOWN, 3' COVER, 0.3 MI SOUTH OF CR 121 CULVERT 2: 18" IRON, 2' COVER, 0.5 MI SOUTH OF CR 121 CULVERT 3: 30" CMP, <1' COVER, 0.9 MI SOUTH OF CR 121 CULVERT 4: 72" IRON, 5' COVER, 0.2 MI EAST OF NY 21 CULVERT 5: 10' CMP ARCH, 4' COVER, 100' EAST OF NY 21	NONE
DYE RD	S CHURCH RD	CAMPBELL RD	0.7	WAYLAND	CULVERT 1: 18" IRON, 4' COVER, JUST EAST OF NEW GALEN RD CULVERT 2: UNKNOWN, 300' EAST OF NEW GALEN RD CULVERT 3: 18" IRON, 3' COVER, 800' EAST OF NEW GALEN RD	3 (FROM NEW GALEN RD TO CAMPBELL RD)
CAMPBELL RD	OIL WELL HOLLOW RD	DYE RD	0.7	WAYLAND/COHOCTON	CULVERT 1: 18" SICPP, 3' COVER, JUST NORTH OF DYE RD CULVERT 2: 24" SICPP, 4' COVER, 50' NORTH OF DYE RD	3
NEW GALEN RD	DYE RD	DAVIS RD	1.3	WAYLAND	CULVERT 1: 48" CMP, 15' COVER, 0.2 MI SOUTH OF DYE RD CULVERT 2: 24" SICPP, <1' COVER, 0.4 MI SOUTH OF DYE RD CULVERT 3: 30" SICPP, 2' COVER, 0.6 MI SOUTH OF DYE RD CULVERT 4: 5' CMP, 3' COVER, 0.7 MI SOUTH OF DYE RD CULVERT 5: 18" SICPP, 1' COVER, 0.7 MI SOUTH OF DYE RD CULVERT 6: 30" SICPP, 3' COVER, 0.8 MI SOUTH OF DYE RD CULVERT 7: 8" IRON, 1' COVER, 1.1 MI SOUTH OF DYE RD CULVERT 8: 30" IRON, 2' COVER, 1.2 MI SOUTH OF DYE RD	3
DEREVEES RD	BRONSON RD	NY 21	0.9	WAYLAND/FREMONT/DANSVILLE	CULVERT 1: 10' CONCRETE BOX, 5' COVER, 100' EAST OF BRONSON RD CULVERT 2: 36" IRON, <1' COVER, 0.4 MI WEST OF NY 21 CULVERT 3: 6" IRON, <1' OF COVER, 0.7 MI WEST OF NY 21 CULVERT 4: 30" IRON, <1' COVER, 100' WEST OF NY 21	2
REX RD	BROWN HILL RD	0.5 MILES NORTH	0.5	WAYLAND/COHOCTON	CULVERT: 30" CMP, 5' COVER, 200' NORTH OF BROWN HILL RD	3
LAKE HOLLOW RD	CR 121	POTTER HILL RD	1.2	COHOCTON	CULVERT 1: 10" IRON, 2' COVER, 0.1 MI SOUTH OF CR 121 CULVERT 2: 18" CMP, 4' COVER, JUST SOUTH OF OIL WELL HOLLOW RD CULVERT 3: 18" IRON, 3' COVER, 0.5 MI NORTH OF POTTER HILL RD CULVERT 4: 18" CMP, 3' COVER, 0.3 MI NORTH OF POTTER HILL RD CULVERT 5: 10' IRON, 3' COVER, 300' NORTH OF POTTER HILL RD	3
POTTER HILL RD	LAKE HOLLOW RD	CAMPBELL RD	2.3	COHOCTON	CULVERT 1: 24" CMP, 3' COVER, 1 MI NORTH OF WALTERS RD CULVERT 2: 18" CMP, 4' COVER, 0.8 MI NORTH OF WALTERS RD CULVERT 3: 36" CMP, 5' COVER, 0.7 MI NORTH OF WALTERS RD CULVERT 4: 36" IRON, 1' COVER, 0.6 MI NORTH OF WALTERS RD CULVERT 5: 30" IRON, 4' COVER, 0.3 MI NORTH OF WALTERS RD CULVERT 6: UNKNOWN, 0.1 MI NORTH OF WALTERS RD CULVERT 7: UNKNOWN, 0.2 MI EAST OF LOVELAND RD CULVERT 8: 5" IRON, 3' COVER, 0.1 MI EAST OF CAMPBELL RD	3 (FROM LAKE HOLLOW RD TO WAGER RD)
WAGER RD	POTTER HILL RD	BROWN HILL RD	1.1	COHOCTON	CULVERT 1: 24" IRON, 2' COVER, 100' SOUTH OF WALTERS RD CULVERT 2: 18" IRON, 1' COVER, 100' NORTH OF GRUBER RD CULVERT 3: 10" IRON, 2' COVER, JUST NORTH OF GRUBER RD CULVERT 4: 30" IRON, 3' COVER, JUST NORTH OF BROWN HILL RD	3
WALTERS RD	WAGER RD	DEAD END	1	COHOCTON	CULVERT 1: 24" IRON, 1' COVER, 0.4 MI EAST OF WAGNER RD CULVERT 2: 36" SICPP, 3' COVER, 0.5 MI EAST OF WAGNER RD CULVERT 3: 18" SICPP, 3' COVER, 0.7 MI EAST OF WAGNER RD CULVERT 4: 18" SICPP, 2' COVER, 0.8 MI EAST OF WAGNER RD	3
BROWN HILL RD	NEW GALEN RD	WAGER RD	1.1	WAYLAND/COHOCTON	CULVERT 1: 24" IRON, 4' COVER, 100' EAST OF NEW GALEN RD CULVERT 2: 24" IRON, 2' COVER, 200' EAST OF NEW GALEN RD CULVERT 3: UNKNOWN, 2' COVER, 1000' EAST OF NEW GALEN RD CULVERT 4: 30" IRON, <1' COVER, JUST EAST OF AKINS RD CULVERT 5: 24" IRON, 3' COVER, 500' EAST OF REX RD CULVERT 6: 30" IRON, 1' COVER, 1500' EAST OF REX RD CULVERT 7: 18" IRON, 4' COVER, 1900' EAST OF REX RD CULVERT 8: 24" IRON, 4' COVER, 2500' EAST OF REX RD	3

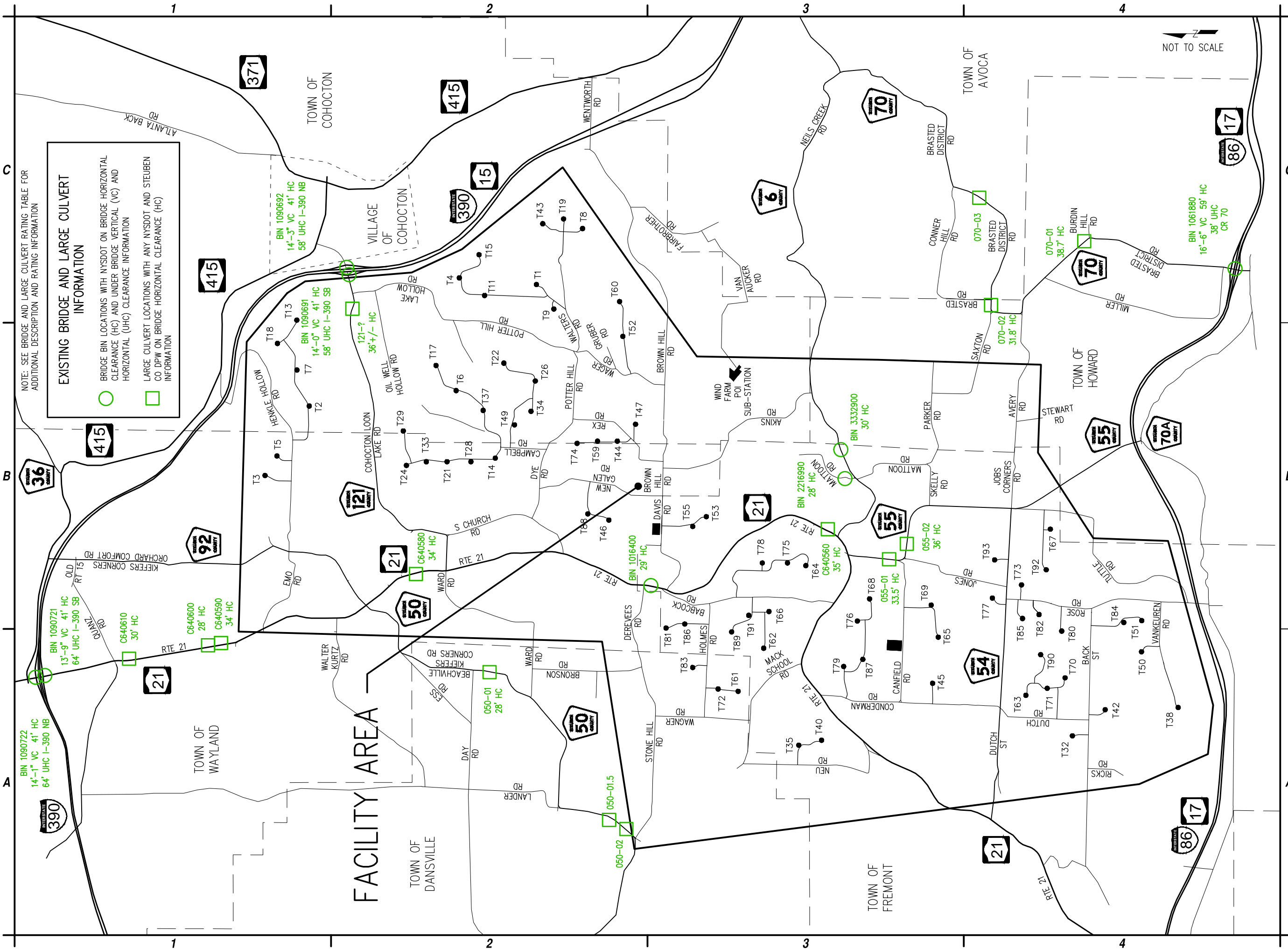


APPENDIX J

BARON WINDS FACILITY

CULVERT LOCATION TABLE (CONTINUED)

ROUTE/ROAD NAME	FROM	TO	LENGTH (MI)	TOWN(S)	CULVERT INFORMATION (INCLUDES BRIDGE LOCATIONS)	POTENTIAL ACCESS ROUTE NUMBERS
DAVIS RD	NY 21	NEW GALEN RD	1.3	FREMONT/WAYLAND	CULVERT 1: 5' CMP, 4' COVER, 200' EAST OF NY 21 CULVERT 2: 48" IRON, 3' COVER, 1200' EAST OF NY 21 CULVERT 3: 36" IRON, 2' COVER, 1600' EAST OF NY 21 CULVERT 4: 18" IRON, 2' COVER, 2800' EAST OF NY 21 CULVERT 5: 36" IRON, 2' COVER, JUST WEST OF NEW GALEN RD	3 (FROM NEW GALEN RD TO T55/T53)
BRASTED RD	AVOCA TOWN LINE	CR 70	0.3	HOWARD	NO CULVERTS	NONE
SAXTON RD	PARKER RD	CR 70	1.3	HOWARD	CULVERT: 48" IRON, LESS THAN 6" COVER, 1200' SOUTH OF PARKER RD	NONE
PARKER RD	MATTOON RD	SAXTON RD	0.8	FREMONT/HOWARD	CULVERT: 24" IRON, 6" TO 3' COVER, JUST WEST OF SAXTON RD	NONE
AVERY RD	FREMONT TOWN LINE	CR 70	1.4	HOWARD	CULVERT: 24" IRON, 8+ COVER, 500' EAST OF STEWART RD	4
MILLER RD	CR 70 (NORTH)	CR 70 (SOUTH)	2.3	HOWARD	NO CULVERTS	NONE
BABCOCK RD	NY 21 (NORTH)	1.1 MILES SOUTH	1.1	FREMONT	CULVERT 1: 48" IRON, 3' COVER, 0.2 MI SOUTH OF NY 21 CULVERT 2: 24" IRON, <1' COVER, JUST SOUTH OF HOLMES RD CULVERT 3: 24" SICPP, 2' COVER, 400' SOUTH OF HOLMES RD	2 (FROM HOLMES RD TO T62/T66/T91/T89)
MATTOON RD	SKELLY RD	DEAD END	1.1	FREMONT	CULVERT: 18" IRON, SOUTH OF CR 6	NONE
SKELLY RD	CR 55	MATTOON RD	0.4	FREMONT	CULVERT: 24" PLASTIC, 3' COVER, 400' EAST OF CR 55	NONE
JOBS CORNERS RD	CR 55	HOWARD TOWN LINE	0.6	FREMONT	CULVERT 1: 36" IRON, 6' COVER, 0.4 MI EAST OF CR 55 CULVERT 2: 30" CMP, <6" COVER, 1300' EAST OF CR 55	4
CONDERMAN RD	NY 21	CR 54	1.8	FREMONT	CULVERT 1: 30" IRON, 2' COVER, 300' NORTH OF CANFIELD RD CULVERT 2: 24" SICPP, 1' COVER, 300' SOUTH OF HUGINOR RD CULVERT 3: 6" IRON, 3' COVER, 1700' NORTH OF CR 54	2 (FROM NY 21 TO T45)
CANFIELD RD	CONDERMAN RD	CR 55	1.5	FREMONT	CULVERT: 48" IRON, <1' COVER, 1.1 MI EAST OF CONDERMAN RD	2 (FROM CONDERMAN RD TO T69/T65)
JONES RD	CR 54	CR 55	1.1	FREMONT	CULVERT 1: 24" IRON, LESS THAN 1' COVER, 0.5 MI NORTH OF DUTCH RD CULVERT 2: 36" CMP, LESS THAN 1' COVER, 0.6 MI NORTH OF DUTCH RD CULVERT 3: 24" CMP, 4' COVER, 0.7 MI NORTH OF DUTCH RD CULVERT 4: 12" SICPP, 2' COVER, 0.9 MI NORTH OF DUTCH RD CULVERT 5: 12" CMP, 2' COVER, JUST SOUTH OF CR 55 CULVERT 6: 24" RCP, 1' COVER, DIAGONAL ACROSS JONES ROAD AND CR 55	NONE
ROSE RD	CR 54	TUTTLE RD	1.8	FREMONT	NO CULVERTS	4 (FROM CR 54 TO VANKEUREN RD)
BACK ST	ROSE RD	RICKS RD	1.6	FREMONT	CULVERT 1: 60" CMP, 2' COVER, 0.7 MI WEST OF ROSE RD CULVERT 2: 24" SICPP, 1' COVER, JUST EAST OF DUTCH RD CULVERT 3: 30" IRON, 3' COVER, JUST EAST OF RICKS RD	4 (FROM ROSE RD TO T32)
DUTCH RD	CR 54	BACK ST	0.9	FREMONT	CULVERT: 18" CMP (CRUSHED), 2' COVER, JUST SOUTH OF DUTCH ST	4 (FROM BACK ST TO T70/T71/T63/T90)
TUTTLE RD	CR 55	ROSE RD	2.4	FREMONT/HOWARD	CULVERT 1: 6" PIPE, 1' COVER, JUST SOUTH OF CR 55 CULVERT 2: 18" IRON, 1' COVER, 0.8 MI SOUTH OF CR 55 CULVERT 3: 18" IRON, <1' COVER, 1.5 MI SOUTH OF CR 55 CULVERT 4: 48" IRON, 1' COVER, 2.1 MI SOUTH OF CR 55	NONE
VAN KEUREN RD	ROSE RD	DEAD END	0.6	FREMONT	NO CULVERTS	4
NEU RD	MACK SCHOOL RD	0.7 MILES SOUTH	0.7	FREMONT/DANSVILLE	CULVERT 1: 24" PIPE, 1' COVER, JUST SOUTH OF MACK SCHOOL RD CULVERT 2: 24" SICPP, 3' COVER, 0.4 MI SOUTH OF MACK SCHOOL RD	2
MACK SCHOOL RD	NY 21	NEU RD	1.3	FREMONT/DANSVILLE	CULVERT 1: 24" IRON, 1' COVER, 400' NORTH OF NY 21 CULVERT 2: 5" IRON, 1' COVER, 1500' NORTH OF NY 21 CULVERT 3: 18" CMP, 2' COVER, 2400' NORTH OF NY 21 CULVERT 4: 24" CMP, 2' COVER, 3100' NORTH OF NY 21 CULVERT 5: 48" IRON WITH CMP EXTENSION, 3' COVER, 3700' NORTH OF NY 21 CULVERT 6: 24" SICPP, 1' COVER, JUST WEST OF WAGNER RD	2
HOLMES RD	WAGNER RD	BABCOCK RD	1.2	DANSVILLE/FREMONT	CULVERT: 36" CMP, 8' COVER, 0.4 MI NORTH OF BABCOCK RD	2
WAGNER RD	STONE HILL RD	MACK SCHOOL RD	1	DANSVILLE	CULVERT: 18" CMP, 8' COVER, JUST NORTH OF MACK SCHOOL RD	2
STONE HILL RD	CR 50	BRONSON RD	1.8	DANSVILLE	CULVERT 1: 30" CMP, 7' COVER, 600' EAST OF WAGNER RD CULVERT 2: 30" SICPP, <1' COVER, 0.6 MI WEST OF WAGNER RD CULVERT 3: 30" SICPP, <1' COVER, 1 MI WEST OF WAGNER RD CULVERT 4: 30" SICPP, <1' COVER, 100' EAST OF CR 50	POTENTIAL ALT. ROUTE (FROM CR 50 TO WAGNER RD), 2 (FROM BRONSON RD TO WAGNER RD)
LANDER RD	WALTER KURTZ RD	CR 50	1.5	DANSVILLE	CULVERT 1: 10" IRON, 10' COVER, 0.2 MI SOUTH OF WALTER KURTZ RD CULVERT 2: 24" SICPP, 1' COVER, 0.5 MI SOUTH OF DAY RD CULVERT 3: 48" SICPP, 10' COVER, 0.6 MI SOUTH OF DAY RD CULVERT 4: 10" CMP, 15' COVER, 0.7 MI SOUTH OF DAY RD	NONE



EXISTING BRIDGE AND LARGE CULVERT INFORMATION

NOTE: SEE BRIDGE AND LARGE CULVERT RATING TABLE FOR ADDITIONAL DESCRIPTION AND RATING INFORMATION

BRIDGE BIN LOCATIONS WITH NYS DOT ON BRIDGE HORIZONTAL CLEARANCE (HC) AND UNDER BRIDGE VERTICAL (VC) AND HORIZONTAL (UHC) CLEARANCE INFORMATION

LARGE CULVERT LOCATIONS WITH ANY NYS DOT AND STEUBEN CO DPW ON BRIDGE HORIZONTAL CLEARANCE (HC) INFORMATION

C&S COMPANIES

C&S Engineers, Inc.
 499 Col. Eileen Collins Blvd.
 Syracuse, New York 13212
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BARON WINDS FACILITY
 STEUBEN COUNTY

EXISTING BRIDGE AND LARGE CULVERT LOCATIONS

APPENDIX J

APPENDIX K

List of Airport Locations

Map of Airport Locations



APPENDIX K

LIST OF AIRPORTS

Steuben County Public and Private Airports, New York:

13 miles from southeastern project limit

Jolamtra Landing Area Airport - 23NY Bath, New York Facility Usage: Private	Herbert Townsend 5752 Wind Fall Rd Bath, NY 14810 (607) 776-6088
---	---

16 miles from southern project limit

Randalls Roost Airport - NY34 Cameron, New York Facility Usage: Private	Peter W. Randall 3264 Jackson Hill Rd Jasper, NY 14855 (607) 792-3614
---	--

8 miles from southeastern project limit

Gaskins Hilltop Airport - 2NK1 Canisteo, New York Facility Usage: Private	Philip Gaskin Rd 2 Canisteo, NY 14823 (607) 698-4876
---	---

0.4 miles from eastern project limit

D C Helicopters Heliport - NK10 Cohocton, New York Facility Usage: Private	Dennis Clarcq Rd 1, Jones Rd Cohocton, NY 14826 (716) 384-5333
--	---

18.6 miles from eastern project limit

Loucks Airport - 25NK Hammondsport, New York Facility Usage: Private	Gary D. Loucks 8961 Ridge Rd Hammondsport, NY 14840 (607) 292-6286
--	---

3.4 miles from western project limit

Hornell Muni Airport - 4G6 Hornell, New York Facility Usage: Public	City Of Hornell City Hallpo Box 627 Hornell, NY 14843 (607) 324-7421
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Yates County Public and Private Airports, New York:

18.8 miles from northeast project limit

Middlesex Valley Airport - 4N2 Middlesex, New York Facility Usage: Public	Robert Mincer 1078 Lincoln Ave Middlesex, NY 14507 (585) 554-4024
---	--



APPENDIX K

C&S Engineers, Inc.
499 Col. Eileen Collins Blvd.
Syracuse, New York 13212
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LIST OF AIRPORTS (Continued)

Livingston County Public and Private Airports, New York:

8.7 miles from northern project limit

Dansville Muni Airport - DSV Dansville, New York Facility Usage: Public	Town Of North Dansville Town Hall Clara Barton St Dansville, NY 14437 (585) 335-2330
---	---

17.4 miles from northern project limit

Seven Gullies Airport - 0NK3 Groveland, New York Facility Usage: Private	William Barbara Koschra Rfd 1, 6781 Groveland Sta Rd Mount Morris, NY 14510 (716) 243-1118
--	---

20 miles from northern project limit

Merrimac Farms Airport - 68NY Mount Morris, New York Facility Usage: Private	Merrimac Farms Inc. 4000 E Groveland Rd Mount Morris, NY 14510 (716) 243-3989
--	--

20.8 miles from northern project limit

Scotts Sky Ranch Airport - NY70 Mount Morris, New York Facility Usage: Private	Bryan Scott Kunkle 7899 Mt Morris-Nunda Rd Mount Morris, NY 14510 (585) 468-3437
--	---

18.9 miles from northern project limit

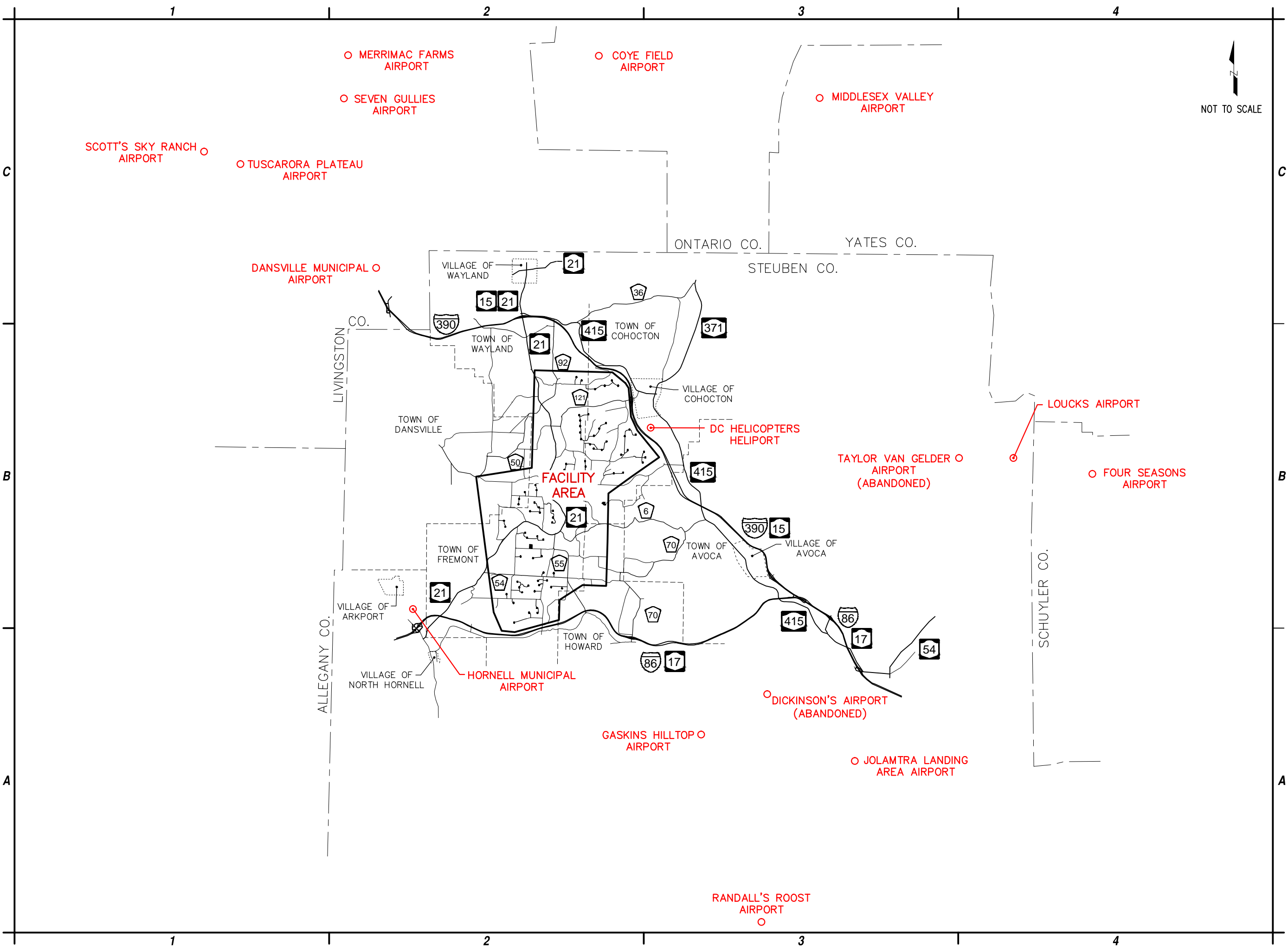
Tuscarora Plateau Airport – 3NK6 Tuscarora, New York Facility Usage: Private	Carlton L Perry 2620 Creveling Road, RD 2 Mount Morris, NY 14510 (585) 468-5766
--	--


Ontario County Public and Private Airports, New York:

16.3 miles from northern project limit

Coye Field Airport - 30NY Canadice, New York Facility Usage: Private	Wendell F. Coye 5632 Middle Road Hemlock, NY 14466 (716) 367-2573
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 NOT TO SCALE



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BARON WINDS FACILITY
STEBUEN COUNTY

AIRPORT LOCATIONS
NEAR FACILITY
AREA

APPENDIX K

APPENDIX L

Roadway Rating Photos

NEW YORK STATE ROUTE 21 (NY 21) FROM I-390 TO CONDERMAN RD



12/14/2016

I-390 SOUTHBOUND OFF-RAMP AT NY ROUTE 21



12/14/2016

**NY 21 AT I-390
LOOKING NORTH**



12/14/2016

CULVERT



12/14/2016

LOOKING SOUTH



12/14/2016

**INTERSECTION OF NY 21 AND QUANZ RD
LOOKING SOUTH**



12/14/2016

BRIDGE #C640610

NEW YORK STATE ROUTE 21 (NY 21) FROM I-390 TO CONDERMAN RD (CONTINUED)



BRIDGE #C640600



BRIDGE #C640590



LOOKING SOUTH



CULVERT



**INTERSECTION OF NY 21 AND EMO RD
LOOKING SOUTH**



**INTERSECTION OF NY 21 AND WALTER KURTZ RD
LOOKING NORTH**

NEW YORK STATE ROUTE 21 (NY 21) FROM I-390 TO CONDERMAN RD (CONTINUED)



**INTERSECTION OF NY 21, CR 92, AND CR 50
LOOKING SOUTH**



LOOKING SOUTH



BRIDGE #C640580



**INTERSECTION OF NY 21 AND DAVIS RD
LOOKING NORTHEAST**



**INTERSECTION OF NY 21 AND CR 121
LOOKING NORTH**



**INTERSECTION OF NY 21 AND CHURCH RD
LOOKING NORTH**

NEW YORK STATE ROUTE 21 (NY 21) FROM I-390 TO CONDERMAN RD (CONTINUED)



**INTERSECTION OF NY 21 AND DEREVEES RD
LOOKING SOUTH**



BRIDGE #1016400



**INTERSECTION OF NY 21 AND BABCOCK RD
LOOKING SOUTH**



CULVERT



CULVERT



LOOKING SOUTH

NEW YORK STATE ROUTE 21 (NY 21) FROM I-390 TO CONDERMAN RD (CONTINUED)



**FAILURE OF A CULVERT CONCRETE END SECTION
DUE TO WASHOUT**



LOOKING SOUTH



CULVERT



LOOKING SOUTH



LOOKING SOUTH



BRIDGE #C640560

NEW YORK STATE ROUTE 21 (NY 21) FROM I-390 TO CONDERMAN RD (CONTINUED)



LOOKING SOUTH FROM THE INTERSECTION OF NY 21 AND NEILS CREEK RD



INTERSECTION OF NY 21 AND CR 55
LOOKING WEST



INTERSECTION OF NY 21 AND MACK SCHOOL RD
LOOKING WEST



INTERSECTION OF NY 21 AND CONDERMAN RD
LOOKING WEST

STEBEN COUNTY ROUTE 50 (CR 50) FROM NY 21 TO STONE HILL RD



CULVERT



CULVERT

STEBEN COUNTY ROUTE 50 (CR 50) FROM NY 21 TO STONE HILL RD (CONTINUED)



12/07/2016

LOOKING EAST



12/07/2016

LOOKING NORTH



12/07/2016

INTERSECTION OF CR 50 AND LANDER RD
LOOKING WEST



12/07/2016

LOW WIRES AT THE INTERSECTION OF CR 50 AND
LANDER RD LOOKING NORTH



12/07/2016

LOOKING NORTH



12/07/2016

LOOKING NORTH

STEBEN COUNTY ROUTE 50 (CR 50) FROM NY 21 TO STONE HILL RD (CONTINUED)



CULVERT



INTERSECTION OF CR 50 AND STONE HILL RD
LOOKING SOUTH

STEBEN COUNTY ROUTE 54 (CR 54) FROM CR 55 TO CONDERMAN RD



LOOKING EAST



INTERSECTION OF CR 54 AND JONES RD
LOOKING WEST



INTERSECTION OF CR 54 AND ROSE RD
LOOKING EAST



CULVERT

STEBEN COUNTY ROUTE 54 (CR 54) FROM CR 55 TO CONDERMAN RD (CONTINUED)



TYPICAL SHOULDER CONDITION



INTERSECTION OF CR 54 AND CONDERMAN
LOOKING WEST

STEBEN COUNTY ROUTE 55 (CR 55) FROM STEWART RD TO NY 21



INTERSECTION OF CR 55 AND TUTTLE RD
LOOKING SOUTH



INTERSECTION OF CR 55 AND CR 54
LOOKING NORTH



CULVERT



INTERSECTION OF CR 55 AND SKELLY RD
LOOKING SOUTH

STEBEN COUNTY ROUTE 55 (CR 55) FROM STEWART RD TO NY 21 (CONTINUED)



LOOKING EAST



INTERSECTION OF CR 55 AND NY 21
LOOKING NORTH

STEBEN COUNTY ROUTE 70 (CR 70) FROM I-86 TO AVOCA TOWN LINE



LOOKING SOUTH



INTERSECTION OF CR 70 AND WELCH RD
LOOKING NORTH



INTERSECTION OF CR 70 AND BRASTED RD
LOOKING EAST



INTERSECTION OF CR 70 AND SAXTON RD
LOOKING NORTH

STEBEN COUNTY ROUTE 70 (CR 70) FROM I-86 TO AVOCA TOWN LINE (CONTINUED)



**INTERSECTION OF CR 70 AND AVERY
LOOKING WEST**



**NORTHERN INTERSECTION OF CR 70 AND MILLER RD
LOOKING WEST**



CULVERT



**INTERSECTION OF CR 70 AND BURDIN HILL RD
LOOKING NORTH**



**SOUTHERN INTERSECTION OF CR 70 AND MILLER RD
LOOKING NORTH**



**INTERSECTION OF CR 70 AND I-86
LOOKING SOUTH**

STEBEN COUNTY ROUTE 92 (CR 92) FROM OLD ROUTE 15 TO NY 21



**INTERSECTION OF CR 92 AND OLD ROUTE 15
LOOKING NORTH**



CULVERT



LOOKING SOUTH



LOOKING SOUTH



SUNOCO PETROLEUM PIPELINE



CULVERTS

STEBEN COUNTY ROUTE 92 (CR 92) FROM OLD ROUTE 15 TO NY 21 (CONTINUED)



**INTERSECTION OF CR 92 AND HENRY DRUM RD
LOOKING SOUTH**



**INTERSECTION OF CR 92 AND EMO RD
LOOKING SOUTH**



REDUCED SPEEDS SOUTH OF EMO RD



LOOKING SOUTH



LOW WIRES NEAR THE LAF-A-LOT INTERSECTION



CULVERT

STEBEN COUNTY ROUTE 121 (CR 121) FROM I-390 TO NY 21



I-390 SOUTHBOUND OFF-RAMP AT CR 121



**CR 121 AT I-390
LOOKING EAST**



**INTERSECTION OF CR 121 AND LAKE HOLLOW RD
LOOKING WEST**



CULVERT



LOOKING WEST



LOOKING WEST

STEBEN COUNTY ROUTE 121 (CR 121) FROM I-390 TO NY 21 (CONTINUED)



LOW WIRES NEAR REYNOLDS CREEK RD



**SLOPE WARNINGS
BETWEEN REYNOLDS CREEK RD AND EAST LAKE RD**



**WINDING CURVES COMBINE WITH STEEP SLOPES
BETWEEN REYNOLDS CREEK RD AND EAST LAKE RD**



**INTERSECTION OF CR 121 AND E LAKE RD
LOOKING SOUTH**



LOOKING SOUTH



**INTERSECTION OF CR 121 AND S CHURCH RD
LOOKING NORTH**

AVERY ROAD FROM CR 70 TO JOBS CORNERS RD



LOOKING EAST



SEASONAL ROAD, NOT PLOWED IN WINTER



LOOKING WEST



LOOKING WEST



CULVERT



INTERSECTION OF AVERY RD AND STEWART RD
LOOKING EAST

BABCOCK ROAD FROM NY 21 TO 0.5 MILES SOUTH OF HOLMES RD



SEASONAL ROAD, NOT PLOWED IN WINTER



LOOKING SOUTH



INTERSECTION OF BABCOCK RD AND HOLMES RD
LOOKING SOUTH



CULVERT

BACK STREET FROM ROSE RD TO RICKS RD



SEASONAL ROAD, NOT PLOWED IN WINTER



LOOKING EAST

BACK STREET FROM ROSE RD TO RICKS RD (CONTINUED)



SEGMENT WITH STEEP GRADE WITH DEEP DITCHES
0.2 MILES EAST OF DUTCH RD



LOOKING WEST



CULVERT



INTERSECTION OF BACK ST AND DUTCH RD
LOOKING WEST



LOOKING WEST



INTERSECTION OF BACK ST AND RICKS RD
LOOKING WEST

BRASTED ROAD FROM CR 70 TO AVOCA TOWN LINE



03/20/2016

LOOKING NORTH



03/20/2016

LOW WIRES BETWEEN CR 70 AND CONNOR HILL RD

BROWN HILL ROAD FROM NEW GALEN RD TO WAGER RD



12/13/2016

CULVERT



12/13/2016

CULVERT



12/13/2016

INTERSECTION OF BROWN HILL RD AND REX RD



12/13/2016

LOOKING WEST

BROWN HILL ROAD FROM NEW GALEN RD TO WAGER RD (CONTINUED)



LOOKING EAST



INTERSECTION OF BROWN HILL RD AND WAGER RD
LOOKING EAST

CAMPBELL ROAD FROM DYE RD TO 0.7 MILES NORTH OF DYE RD



LOOKING SOUTH



LOOKING NORTH

CANFIELD ROAD FROM CONDERMAN RD TO CR 55



LOOKING WEST



STEEP SHARP CURVE NEXT TO CEMETERY NEAR CR 55

CANFIELD ROAD FROM CONDERMAN RD TO CR 55 (CONTINUED)



LOOKING WEST



CULVERT

CONDERMAN ROAD FROM NY 21 TO CR 54



LOOKING SOUTH



INTERSECTION OF CONDERMAN RD AND CANFIELD RD
LOOKING SOUTH



SEASONAL ROAD
SOUTH OF CANFIELD RD NOT PLOWED IN WINTER



LOOKING SOUTH

CONDERMAN ROAD FROM NY 21 TO CR 54 (CONTINUED)



LOOKING SOUTH



CULVERT



LOOKING NORTH

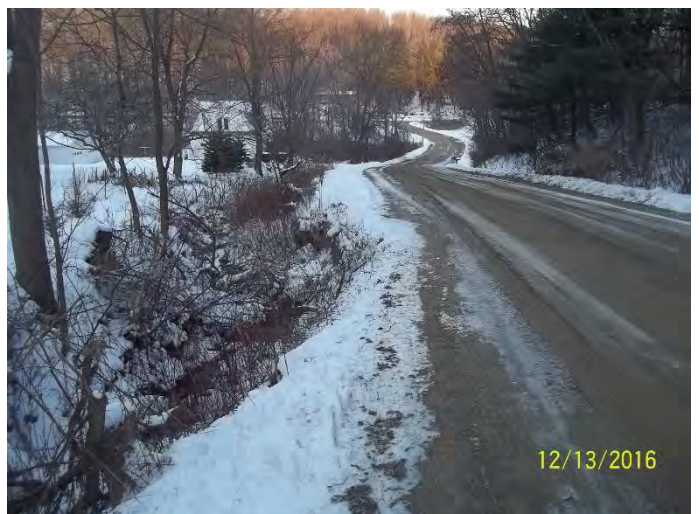


LOOKING SOUTH

DAVIS ROAD FROM NY 21 TO NEW GALEN RD



CULVERT



LOOKING EAST

DAVIS ROAD FROM NY 21 TO NEW GALEN RD (CONTINUED)



LOOKING EAST



INTERSECTION OF DAVIS RD AND NEW GALEN RD
LOOKING EAST

DEREVES ROAD FROM NY 21 TO STONE HILL RD



LOOKING WEST



CULVERT



LOOKING WEST



CULVERT

DUTCH ROAD FROM CR 54 TO BACK ST



LOOKING NORTH



LOOKING SOUTH

DYE ROAD FROM S CHURCH RD TO CAMPBELL RD



INTERSECTION OF DYE RD AND S CHURCH RD
LOOKING NORTH



LOOKING EAST



INTERSECTION OF DYE RD AND NEW GALEN RD
LOOKING EAST



CULVERT

EMO ROAD FROM NY 21 TO HENKLE HOLLOW RD



**SHARP BLIND CURVES ON STEEP GRADES
BETWEEN NY 21 AND CR 92**



LOOKING EAST



CULVERT



LOOKING EAST



LOOKING EAST



LOOKING EAST

HOLMES ROAD FROM WAGNER RD TO BABCOCK RD



RECENTLY REPLACED IRON CULVERT



LOOKING EAST



**NARROW SEGMENT OVER CULVERT
JUST EAST OF DANVILLE/FREMONT TOWN LINE**



LOOKING EAST

JOBS CORNERS ROAD FROM AVERY RD TO CR 55



LOOKING EAST



LOOKING WEST

JOBS CORNERS ROAD FROM AVERY RD TO CR 55 (CONTINUED)



CULVERT



CULVERT

JONES ROAD FROM CR 54 TO CR 55



LOOKING NORTH



LOOKING NORTH



CULVERT



**INTERSECTION OF JONES RD AND CR 55
LOOKING NORTH**

LAKE HOLLOW ROAD FROM CR 121 TO POTTER HILL RD



**INTERSECTION WITH OILWELL HOLLOW RD
LOOKING NORTH**



LOOKING SOUTH



LOOKING NORTH



LOOKING SOUTH



CULVERT



SHARP CURVE OVER CULVERT WITH RAILING

LANDER ROAD FROM CR 50 TO WALTER KURTZ RD



12/07/2016

LOOKING NORTH



12/07/2016

CULVERT



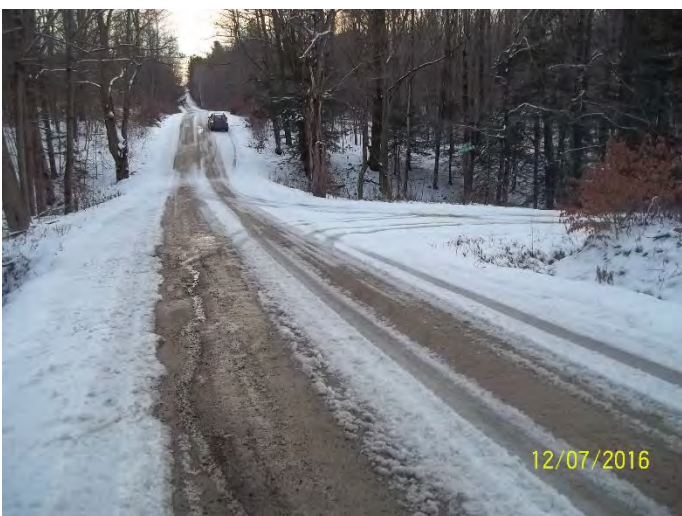
12/07/2016

SEASONAL ROAD
NORTH OF DAY RD NOT PLOWED IN WINTER



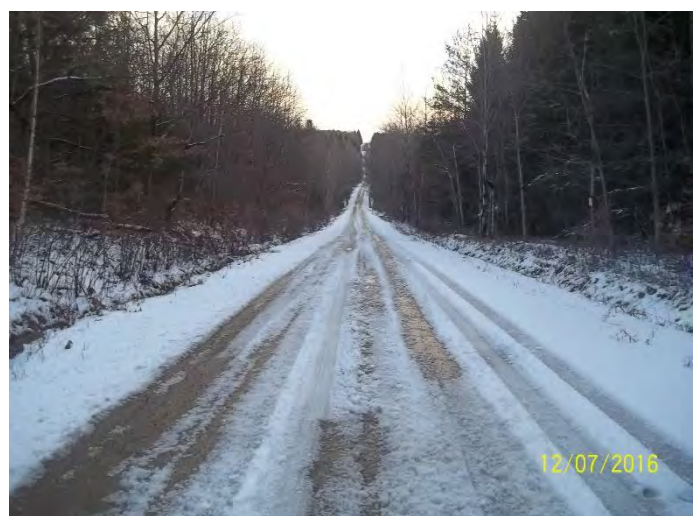
12/07/2016

CULVERT



12/07/2016

INTERSECTION OF LANDER RD AND KURTZ HOLLOW RD
LOOKING SOUTH



12/07/2016

LOOKING NORTH

MACK SCHOOL ROAD FROM NY 21 TO NEU RD



LOOKING NORTH



CULVERT



CULVERT



INTERSECTION OF MACK SCHOOL RD AND WAGNER RD
LOOKING WEST



LOOKING EAST



INTERSECTION OF MACK SCHOOL RD AND NEU RD
LOOKING WEST

MATTOON ROAD FROM SKELLY RD TO DEAD END



**INTERSECTION OF MATTOON RD AND SKELLY RD
LOOKING SOUTH**



LOOKING SOUTH



CULVERT



**EASTERN INTERSECTION OF MATTOON RD AND CR 6
LOOKING SOUTHWEST**



LOOKING NORTH



BRIDGE #2216990

MILLER ROAD FROM SOUTHERN INTERSECTION OF CR 70 TO NORTHERN INTERSECTION OF CR 70



LOOKING WEST



LOOKING NORTH



INTERSECTION MILLER RD AND WELCH RD
LOOKING SOUTH

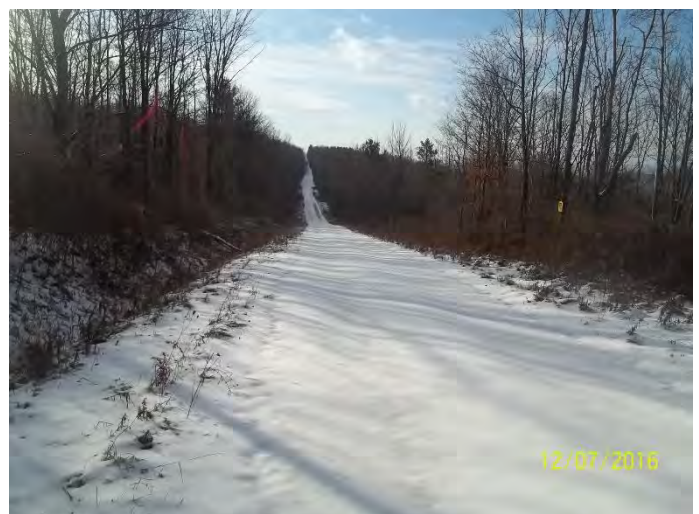


LOOKING NORTH

NEU ROAD FROM MACK SCHOOL RD TO 0.7 MILES SOUTH OF MACK SCHOOL RD



SEASONAL ROAD, NOT PLOWED IN WINTER



LOOKING SOUTH

NEU ROAD FROM MACK SCHOOL RD TO 0.7 MILES SOUTH OF MACK SCHOOL RD (CONTINUED)



LOOKING NORTH



LOOKING SOUTH AT END OF SEGMENT

NEW GALEN ROAD FROM DAVIS RD TO DYE RD



LOOKING SOUTH



LOOKING SOUTH



CULVERT



CULVERT

NEW GALEN ROAD FROM DAVIS RD TO DYE RD (CONTINUED)



LOOKING NORTH



LOOKING SOUTH

OLD ROUTE 15 FROM QUANZ RD TO CR 92



LOOKING EAST



LOOKING WEST

PARKER ROAD FROM SKELLY RD TO SAXTON RD



SEASONAL ROAD, NOT PLOWED IN WINTER



INTERSECTION OF PARKER RD AND SAXTON RD
LOOKING WEST

POTTER HILL ROAD FOM CAMPBELL RD TO LAKE HOLLOW RD



**INTERSECTION OF POTTER HILL RD AND CAMPBELL RD
LOOKING WEST**



LOOKING EAST



**INTERSECTION OF POTTER HILL RD AND REX RD
LOOKING WEST**



LOOKING EAST



**INTERSECTION OF POTTER HILL RD AND WAGNER RD
LOOKING SOUTH**



LOOKING NORTH

POTTER HILL ROAD FOM CAMPBELL RD TO LAKE HOLLOW RD (CONTINUED)



CULVERT



LOOKING NORTH



LOOKING NORTH



**INTERSECTION WITH LAKE HOLLOW RD
LOOKING NORTH**

QUANZ ROAD FROM NY 21 TO OLD ROUTE 15



LOOKING WEST



**SEVERAL LOCATIONS OF LOW WIRES
NEAR NY 21**

QUANZ ROAD FROM NY 21 TO OLD ROUTE 15 (CONTINUED)



LOOKING NORTH



CULVERT



LOOKING NORTH



INTERSECTION OF QUANZ RD AND OLD ROUTE 15
LOOKING NORTH

REX ROAD FROM BROWN HILL RD TO 0.5 MILES NORTH OF BROWN HILL RD



SEASONAL ROAD, NOT PLOWED IN WINTER



CULVERT

REX ROAD FROM BROWN HILL RD TO 0.5 MILES NORTH OF BROWN HILL RD (CONTINUED)



LOOKING NORTH



LOOKING NORTHEAST

S CHURCH ROAD FROM CR 121 TO NY 21



LOOKING SOUTH



LOOKING SOUTH



CULVERT



SHARP CURVE OVER CULVERT WITH CONCRETE RAILING
NEAR NY 21

SAXTON ROAD FROM CR 70 TO PARKER RD



LOOKING SOUTH



CULVERT

SKELLY ROAD FROM MATTOON RD TO CR 55



SEASONAL ROAD, NOT PLOWED IN WINTER



CULVERT

STONE HILL ROAD FROM CR 50 TO BRONSON RD



LOOKING WEST



CULVERT

STONE HILL ROAD FROM CR 50 TO BRONSON RD (CONTINUED)



LOOKING WEST



INTERSECTION OF STONE HILL RD AND WAGNER RD
LOOKING WEST



LOOKING WEST



INTERSECTION OF STONE HILL RD AND DEREVEES RD
LOOKING EAST

TUTTLE ROAD FROM CR 55 TO ROSE RD



SEASONAL ROAD, NOT PLOWED IN WINTER



LOOKING SOUTH

TUTTLE ROAD FROM CR 55 TO ROSE RD (CONTINUED)



12/06/2016

LOOKING SOUTH



12/06/2016

LOOKING SOUTH



12/06/2016

INTERSECTION WITH MYRTLES DR (PRIVATE DRIVE)
LOOKING SOUTH



12/06/2016

CULVERT

VAN KEUREN ROAD FROM ROSE RD TO DEAD END



12/06/2016

LOOKING WEST



12/06/2016

LOOKING WEST

WAGER ROAD FROM POTTER HILL RD TO BROWN HILL RD



**INTERSECTION OF WAGER RD AND WALTERS RD
LOOKING SOUTH**



LOOKING SOUTH



**INTERSECTION OF WAGER RD AND GRUBER RD
LOOKING SOUTH**



LOW WIRES AT GRUBER RD INTERSECTION



CULVERT AT GRUBER RD INTERSECTION



LOOKING SOUTH

WAGER ROAD FROM POTTER HILL RD TO BROWN HILL RD (CONTINUED)



12/13/2016

LOOKING NORTH



12/13/2016

CULVERT

WAGNER ROAD FROM STONE HILL RD TO MACK SCHOOL RD



12/07/2016

TYPICAL ROAD CONDITION WITH FREQUENT POTHOLES



12/07/2016

LOOKING SOUTH



12/07/2016

INTERSECTION OF WAGNER RD AND HOLMES RD
LOOKING SOUTH



12/07/2016

SEASONAL ROAD, NOT PLOWED IN WINTER

WALTER KURTZ ROAD FROM NY 21 TO LANDER RD



LOOKING WEST



CULVERT



LOOKING WEST



SEASONAL ROAD IN TOWN OF DANSVILLE
SEGMENT NOT PLOWED IN WINTER



CULVERT



INTERSECTION OF WALTER KURTZ RD AND LANDER RD
LOOKING WEST

WALTERS ROAD FROM POTTER HILL RD TO DEAD END



LOOKING EAST



LOOKING WEST



LOOKING WEST



LOOKING EAST