NIAGARA REGION WIND FARM DESIGN AND OPERATIONS REPORT

Appendix D

Property Line Setback Report



NIAGARA REGION WIND FARM PROPERTY LINE SETBACK ASSESSMENT REPORT

File No. 160950269 April 2013

Prepared for:

Niagara Region Wind Corporation 277 Lakeshore Road East, Suite 211 Oakville, ON L6J 6J3

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NIAGARA REGION WIND FARM

PROPERTY LINE SETBACK ASSESSMENT REPORT

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PROPERTY LINE SETBACK ASSESSMENT REPORT

1.0 Introduction

The purpose of the Property Line Setback Assessment Report is to demonstrate that siting some of the turbines within the prescribed hub height setback from non-participating properties will not result in any adverse impacts on neighbouring businesses, infrastructure, or land use activities. This assessment is based on evaluating land uses within the vicinity of the turbines, confirming the presence of any structures that may occur closer than the hub height of the adjacent turbines, and to describe preventative measures to address potential adverse impacts.

1.1 PROJECT OVERVIEW

Niagara Region Wind Corporation (NRWC) is proposing to develop, construct, and operate the 230 Megawatt (MW) Niagara Region Wind Farm (the Project) within the Townships of West Lincoln and Wainfleet and the Town of Lincoln within the Niagara Region and within Haldimand County in Southern Ontario, in response to the Government of Ontario's initiative to promote the development of renewable electricity in the province. Project infrastructure such as collector lines and transmission lines will be sited along the boundaries of the Township of Pelham and Town of Grimsby, but will be sited outside of these municipalities on the opposite side of the road.

The basic components of the Project include 77 wind turbine generators (80 potential locations identified) each with a rated capacity ranging from approximately 2.3 MW to 3.0 MW for a maximum installed nameplate capacity of 230 MW. An overhead and/or underground collection system connects each turbine to one of two transformer substations along a series of 34.5 kilovolt (kV) lines. Turbines are grouped into nine collector circuits that bring power (and data via fibre optic lines) to one of the transformer substations. Voltage is stepped up from 34.5kV to 115kV at each transformer substation by means of a 100 MVA base rated transformer with two stages of cooling (via fans). A 115kV transmission line transports power from each of the two transformer substations north to the tap-in location where the Project is connected to the Hydro One Networks Inc. (HONI) owned transmission line, south of the Queen Elizabeth Way (QEW) in the Town of Lincoln. Power generated from this Project will be conveyed along the existing HONI transmission line to the Beach Transformer Station in Hamilton.

Alternate transmission and collector lines routes have been identified and assessed to provide options during detailed design, the final selection of which route to follow will be confirmed following the consultation process with local distribution companies, agency review and detailed design.

Other Project components include access roads, junction boxes (or pad-mounted disconnect switches) and associated culverts at swales and waterbody crossings. Temporary components during construction may include temporary laydown areas (for storage and staging areas at each turbine location), crane pads or mats, staging areas along access roads, delivery truck turnaround areas, central construction laydown areas and crane paths.

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PROPERTY LINE SETBACK ASSESSMENT REPORT

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1.2 REPORT REQUIREMENTS

This Property Line Setback Assessment Report is one component of the REA application for the Project, and has been prepared in accordance with O. Reg. 359/09, the Ontario Ministry of Natural Resources' (MNR's) Approval and Permitting Requirements Document for Renewable Energy Projects (September 2009), and MOE's "Technical Guide to renewable Energy Approvals (2012)". This report is required in accordance with section 53(3) of O. Reg. 359/09 to reduce the property line setback from hub height to the length of the turbine blade (blade length) plus 10 metres.

The following table summarizes the documentation requirements as specified under O. Reg. 359/09.

Table 1.1: Property Line Setback Assessment Report Requirements: O. Reg. 359/09

Requirements	Completed	Section Reference		
As part of an application for the issues of a renewable energy approval or a certificate of approval in respect of the construction, installation or expansion of the wind turbine, the person who is constructing, installing or expanding the wind turbine submits a written assessment,				
Demonstrating that the proposed location of the wind turbine will not result in adverse impacts on nearby business, infrastructure, properties or land use activities, and	~	Appendix B		
Describing any preventative measures that are required to be implemented to address the possibility of any adverse impacts.	√	Section 2.0, Appendix B		

1.3 SETBACK REQUIREMENTS

Property boundary setbacks are the equivalent of the turbine hub height in accordance with section 53(1)(b) of O. Reg. 359/09, which can be reduced to blade length plus 10 m if the REA application includes a Property Line Setback Assessment Report per section 53(3) of O. Reg. 359/09. This report is intended to address a reduction of the property line setback by identifying and evaluating land uses on neighbouring properties and by demonstrating that siting the turbine in such a location will not result in any adverse impacts on neighbouring businesses, infrastructure or land use activities through the implementation of appropriate preventative measures.

The proposed turbine hub height for the Project is either 124 m or 135 m, to be confirmed through detailed design. In order to accommodate either scenario, both hub height cases have been identified in this report with the more conservative setback (135 m) used to identify where a property line assessment is required and to assess impacts on adjacent land uses. The turbine blade length of the E101 turbine is 48.6 m and the blade length of the E82 turbine is 38.8m, as confirmed in the Wind Turbine Specification Report. As such, the more conservative

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blade length of the E101 turbine has been assessed in this report when considering the blade length plus 10 m setback from property lines and roadways.

All of the proposed turbine sites meet the minimum setback requirement of at least 550 metres (m) from any non-participating noise receptor in accordance with section 54(1) of O. Reg. 359/09.

All of the proposed turbines meet the minimum setback of at least blade length plus 10 m (48.6 m blade length + 10m = 58.6 m) from any public road or railway in accordance with section 53(1)(a) of O. Reg. 359/09.

Fifty-four (54) turbines are located less than hub height (135 m) to a non-participating property line. Eighty-two (82) non-participating property lines are within 135m of the proposed turbines.

One of the proposed turbines is located less than blade length plus 10 m (58.6 m) from a non-participating property line. Specifically, Turbine T3 is located 56m from an adjacent property line. NRWC has entered into a written agreement with the landowner of this adjacent property to permit the location of the turbine at a distance of 56m from the property line in accordance with section 53(2)(b) of O. Reg. 359/09. A copy of the redacted agreement between the NRWC and the adjacent non-participating property owner is included in **Appendix C**.

In no case are any turbine blades "overhanging" onto a non-participating property. All turbines are located more than the blade length (48.6m) from all non-participating properties.

Mapping of all turbine locations demonstrating the 124m, 135m and 58.6m setbacks are provided in **Appendix A**.

1.4 PREVENTATIVE MEASURES

Possible adverse impacts to adjacent land uses or structures caused by constructing and operating wind turbines within the property line setback distance are related to catastrophic failure or collapse of a turbine or concerns over "ice throw" during winter operation.

1.4.1 Catastrophic Failure

The primary preventative measure against turbine collapse relates to the design, construction and maintenance of the turbines. All ENERCON wind energy converters are designed and certified according to the latest international standards. Currently, the basis for design are the internationally acknowledged IEC-61400 standards. These standards identify the assumptions and conditions used to define the load cases for which the wind turbine has to be designed. Furthermore, all ENERCON wind turbines are verified by independent third party engineer firms to assure conformity with the IEC standards.

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In addition to adhering to the IEC standards, the ENERCON wind turbines incorporate safety systems which feature various control sensors that protect the turbine and its components from damage. This includes high and low temperatures, vibrations, oscillations and physical strain. In the case that one or more of these sensors detect conditions outside the design limits, the main control of the turbine will take the appropriate measures to halt or reduce the turbine rotation and power production.

To the extent of ensuring survivability and preventing turbine collapse, ENERCON incorporates cast iron components, concrete towers and gravity foundations in the design of its wind turbines. The cast iron components are used in key load bearing sections of the turbine, such as the main carrier, thus adding strength. The concrete tower provides a more rigid tower which considerably reduces lateral movement of the turbine due to high wind speeds. The gravity foundation is essentially a large mass heavy enough to weigh down the turbine even in extreme wind conditions approaching 60 metres per second (216 km/h).

ENERCON has been manufacturing commercial wind turbines since the early 1980's. As of mid-2012, ENERCON has installed over 19,600 wind turbines worldwide for an installed capacity of over 28,200 MW. Due to ENERCON's conservative design methodology, there have been no collapse of megawatt scale wind turbines currently being operated and maintained by ENERCON and the likelihood of turbine collapse due to design is negligible.

In addition, preventative maintenance of these turbines is completed on an on-going basis to ensure proper functioning, maximize efficiency and maintain longevity of the turbines. Maintenance activities include both scheduled and unscheduled maintenance, as discussed in the Design and Operations Report. Maintenance including regular visual inspections, inspection of mechanical components, inspection of electrical components, greasing and other general maintenance will occur on a regular basis. Unscheduled maintenance activities could include replacement of major components such as blades or generators. Such maintenance activities are undertaken to ensure the turbines operate in accordance with their intended energy production and safety design measures.

NRWC will hire a specialized Operation and Maintenance Contractor for specific maintenance tasks. It is expected that up to 12 full-time operation and maintenance staff from NRWC and the Operation and Maintenance Contractor would be employed by the wind project during the operation phase to carry out the various on-going maintenance activities. Additional staff would be brought in on an as needed basis to support the maintenance activities required for the project. The operations and maintenance logs and checks will be documented by NRWC and/or the Operation and Maintenance Contractor.

1.4.2 Ice Throw

During operation of the turbines, concerns surrounding possible damage to structures or human health relating to "ice throw" have been raised. Ice throw is caused when ice that has accumulated on the blades of a turbine during sub-zero temperatures, primarily as a result of

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freezing rain, becomes dislodged from the blades and falls to the ground. In order to prevent this phenomenon from occurring, the turbines for this Project will be equipped with a preventative blade de-icing system and a contingent control system.

The blade de-icing system detects conditions for potential ice formation and heats the blades to prevent the buildup of ice during winter operation. Technology incorporated into the turbines themselves will monitor for conditions conducive to potential ice formation, which when detected will enact heaters in the blades to circulate warm air and prevent ice formation.

An additional control and monitoring system will take action should the de-icing system not be effective in preventive ice during extreme weather conditions. In this case, sensors will detect ice on the blades by analysing the real-time power curve of the turbine and noting a change in power performance due to the weight and friction from the ice on the blades. The turbine will shut down operation as soon as ice is detected on the blades and will not resume operation until the ice accumulation has been cleared.

NIAGARA REGION WIND FARM

PROPERTY LINE SETBACK ASSESSMENT REPORT

2.0 Property Line Setback Analysis

An analysis for each proposed wind turbine site within hub height of any non-participating property boundary is provided in the table in **Appendix B**, which includes an assessment for both hub height scenarios (124 m and 135 m). This assessment defines the distance of each turbine centre point to the non-participating property line and the distance of overlap for the hub height setback. The assessment identifies any features or land uses within the overlap area, such as businesses, infrastructure, natural features and land use activities, along with preventative measures that will be employed to minimize the potential effects.

The primary preventative measures relate to design and construction of the turbines to avoid catastrophic failures and "ice throw". The turbines would be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain automatic shutdown mechanisms in instances such as extreme weather. In addition, a blade de-icing system will be installed in the turbines along with a contingent shut-down control in the case of ice accumulation. All of these measures are standard best practices.

The analysis as presented in **Appendix B** demonstrates that siting the turbines in the identified locations will not result in any adverse impacts on neighbouring businesses, infrastructure or land use activities.

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PROPERTY LINE SETBACK ASSESSMENT REPORT

3.0 Closure

The Niagara Region Wind Farm Property Line Setback Assessment Report has been prepared by Stantec for NRWC in accordance with Item 4, Table 1 of Ontario Regulation 359/09 and the *Technical Guide to Renewable Energy Approvals* (MOE, 2012). Information compiled in this report has been provided in association with ENERCON, with additional support from Hatch Ltd., PCL Construction Ltd., and the Niagara Region Wind Corporation.

This report has been prepared by Stantec for the sole benefit of Niagara Region Wind Corporation, and may not be used by any third party without the express written consent of the Niagara Region Wind Corporation. The data presented in this report are in accordance with Stantec's understanding of the Project as it was presented at the time of reporting.

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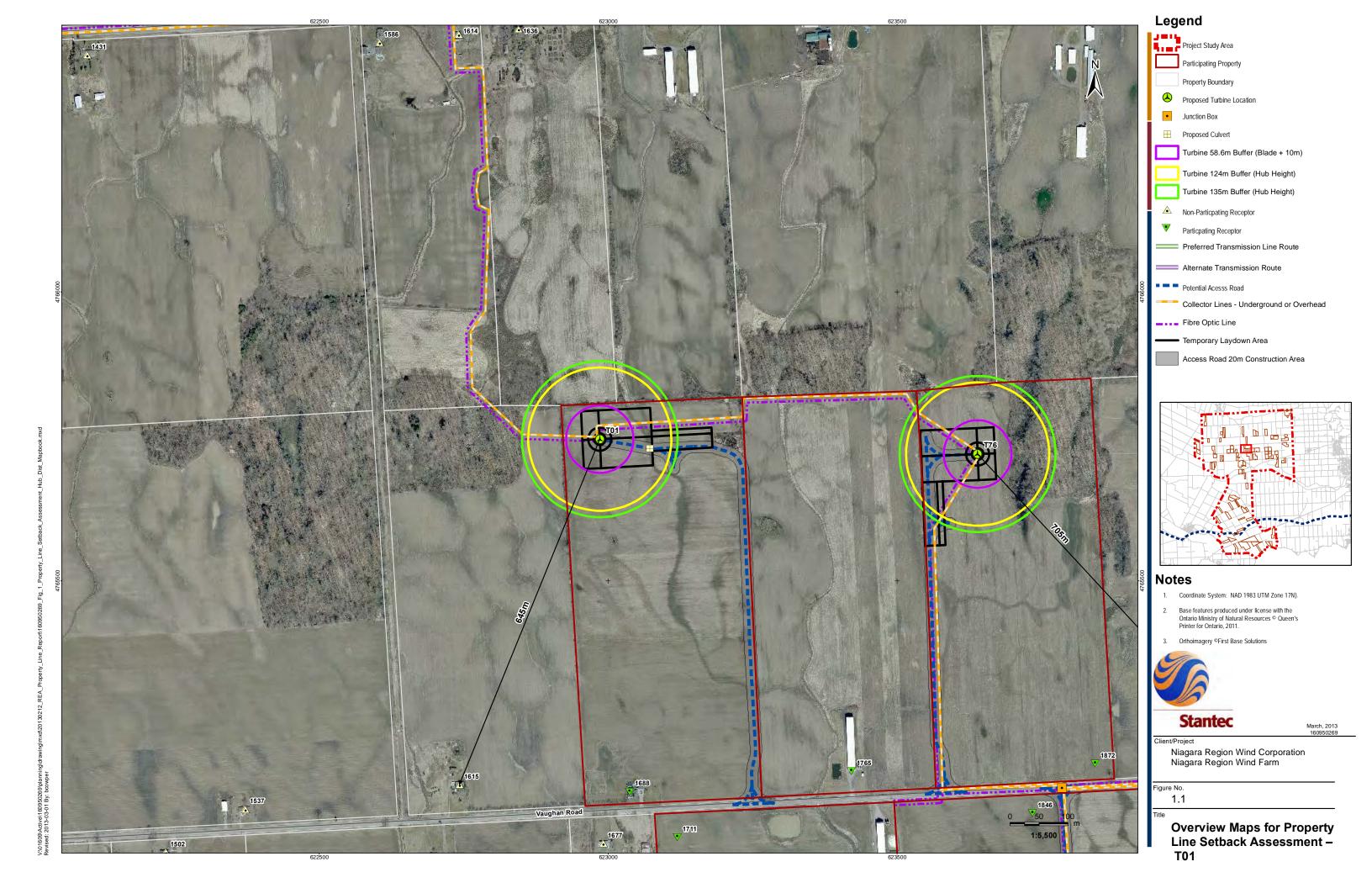
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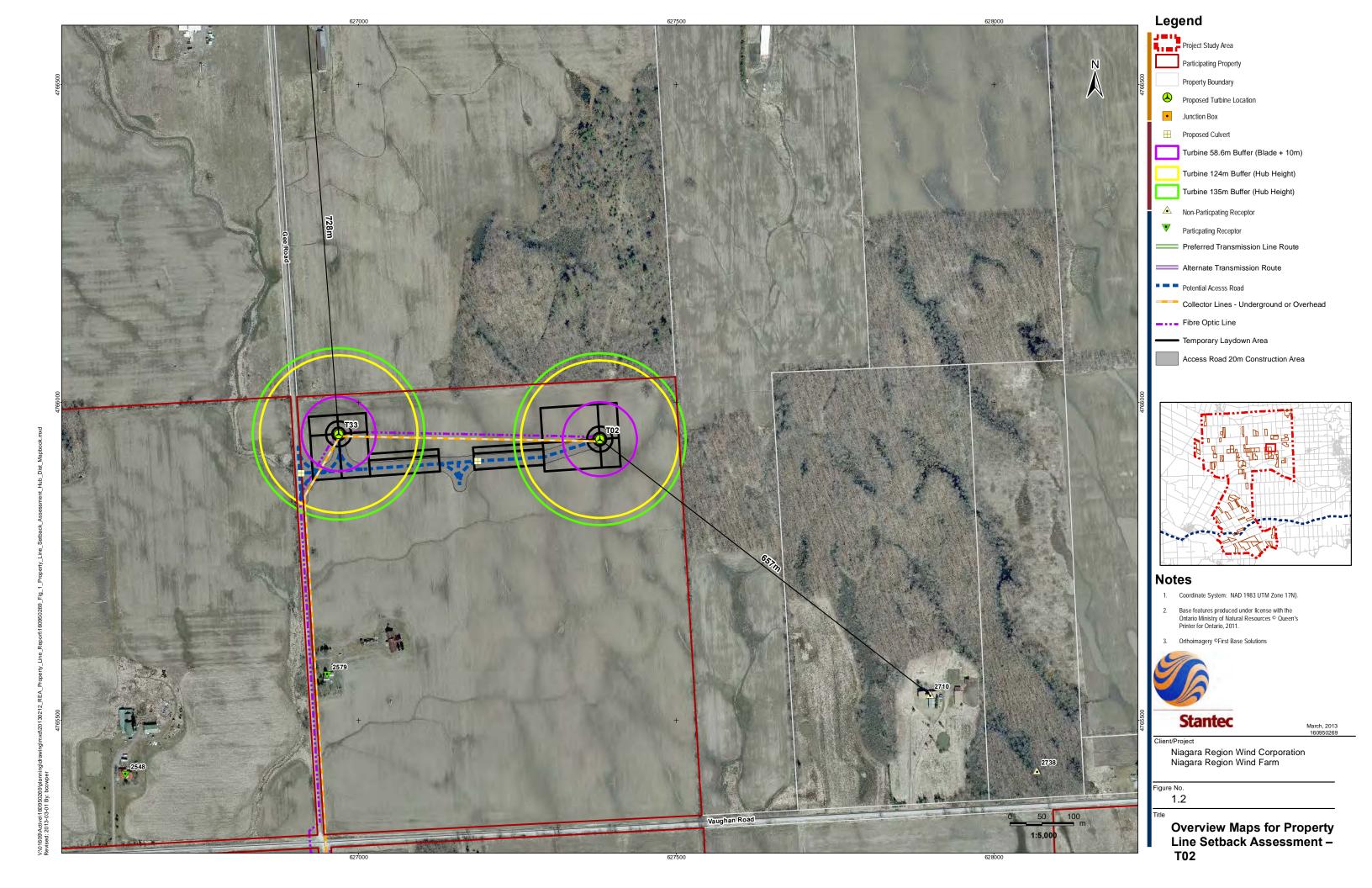
PROPERTY LINE SETBACK ASSESSMENT REPORT

Appendix A

Figures



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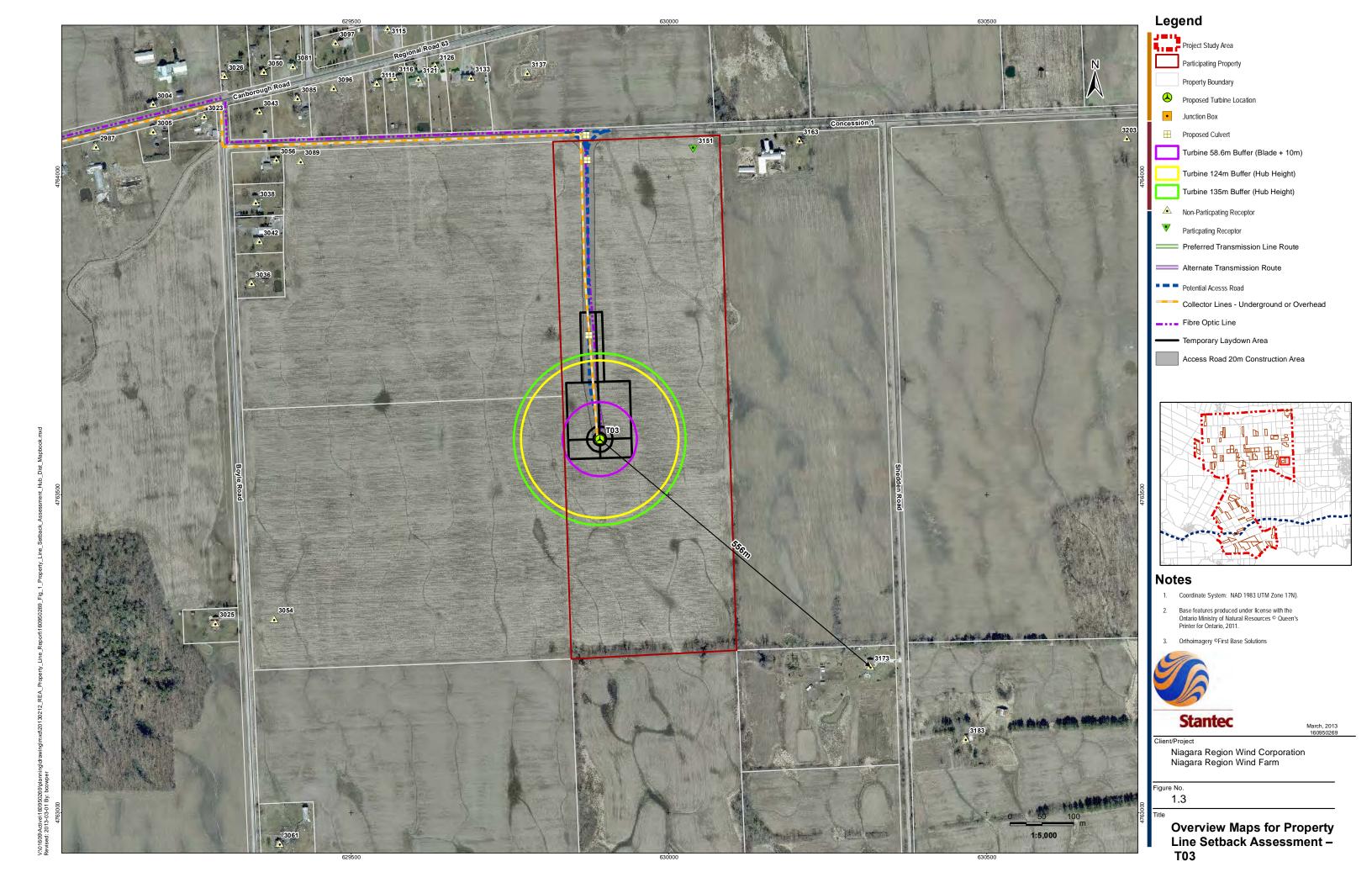
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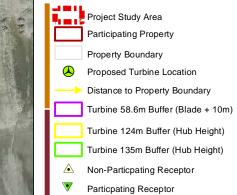
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Figure No. 1.2a



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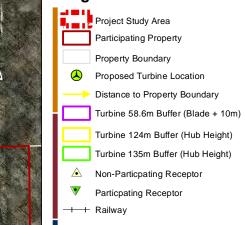
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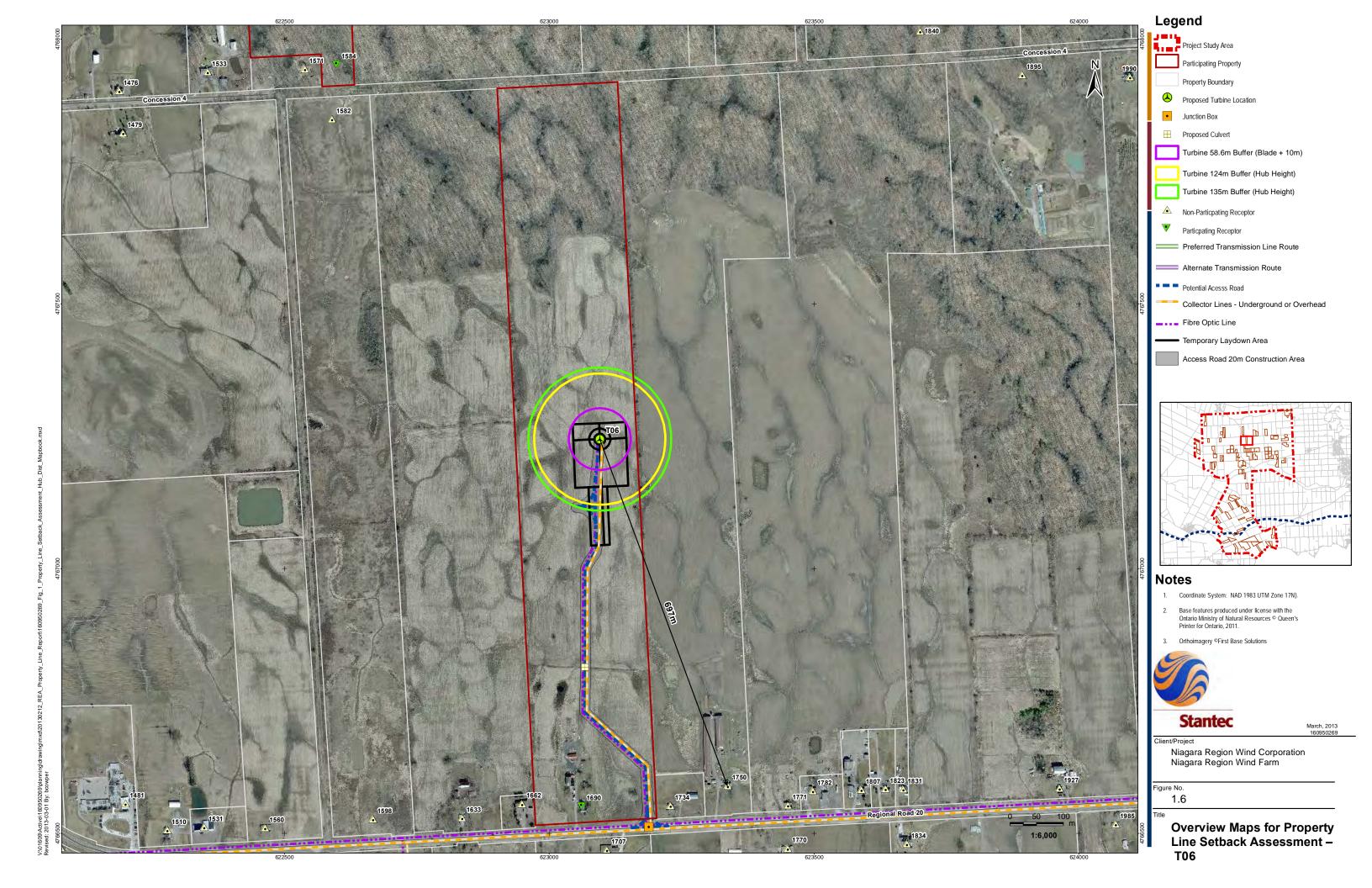


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Figure No. 1.5a





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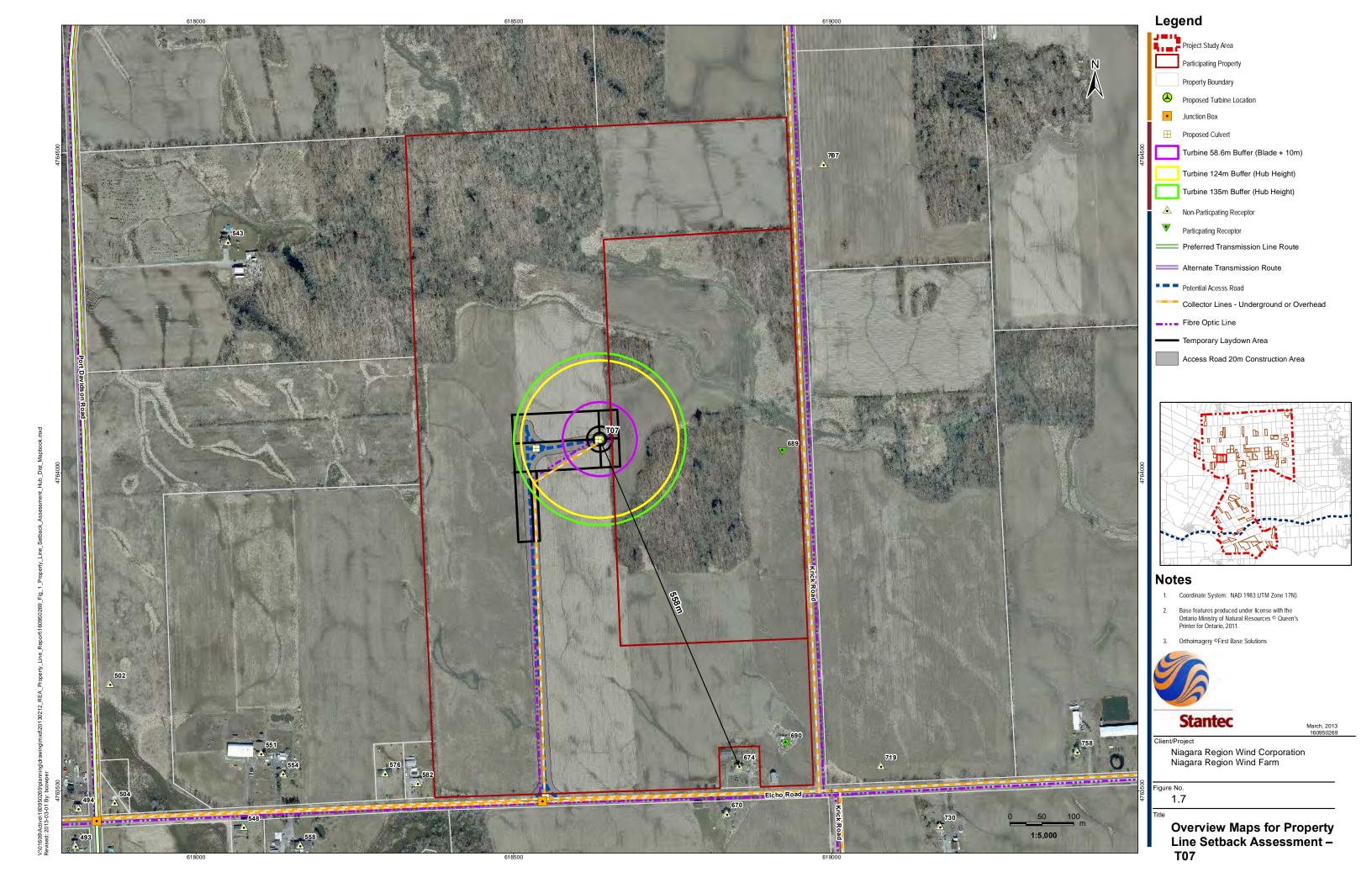
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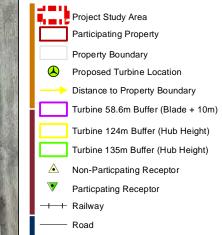
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Figure No.

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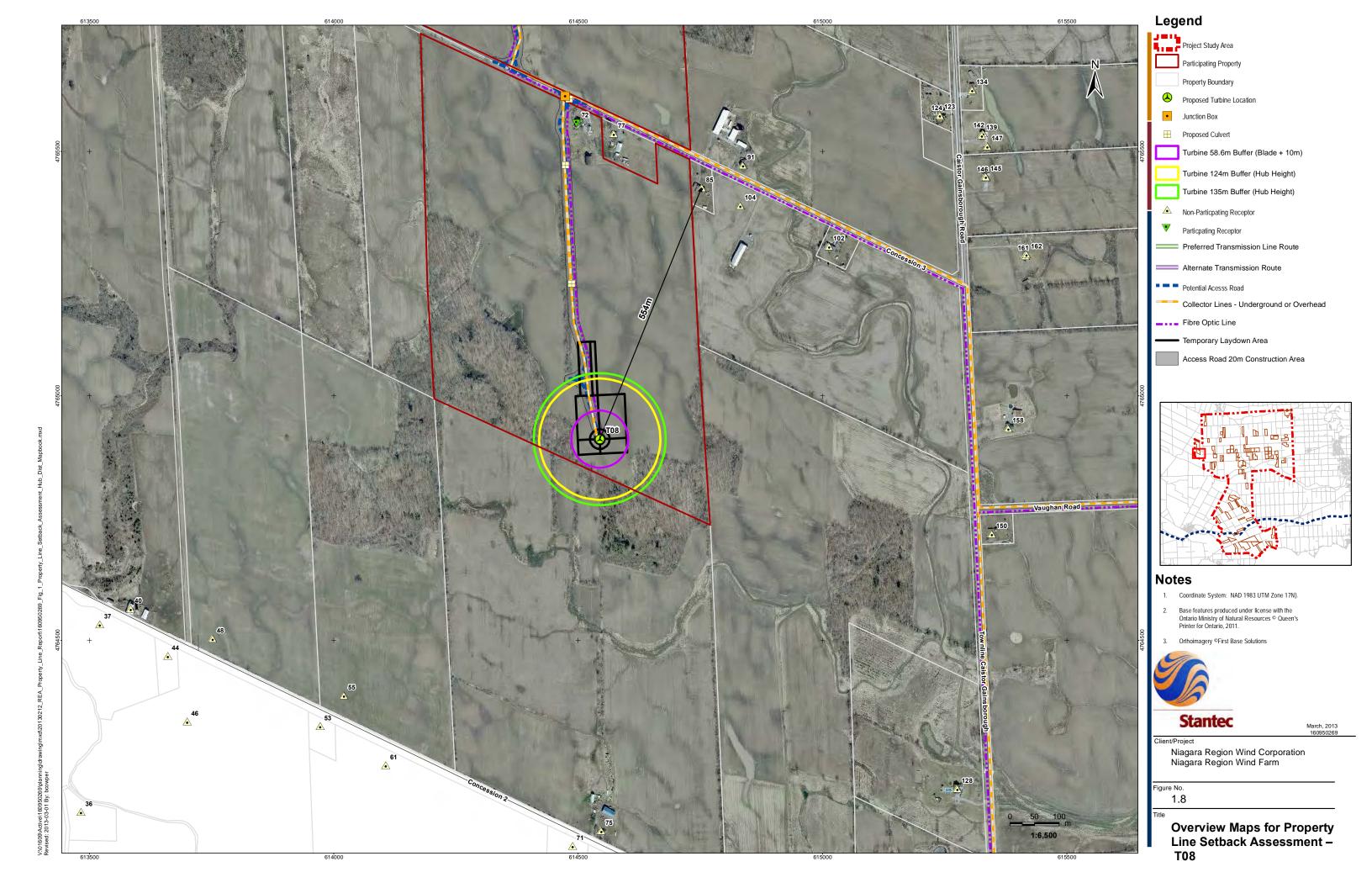
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Figure No. 1.7a





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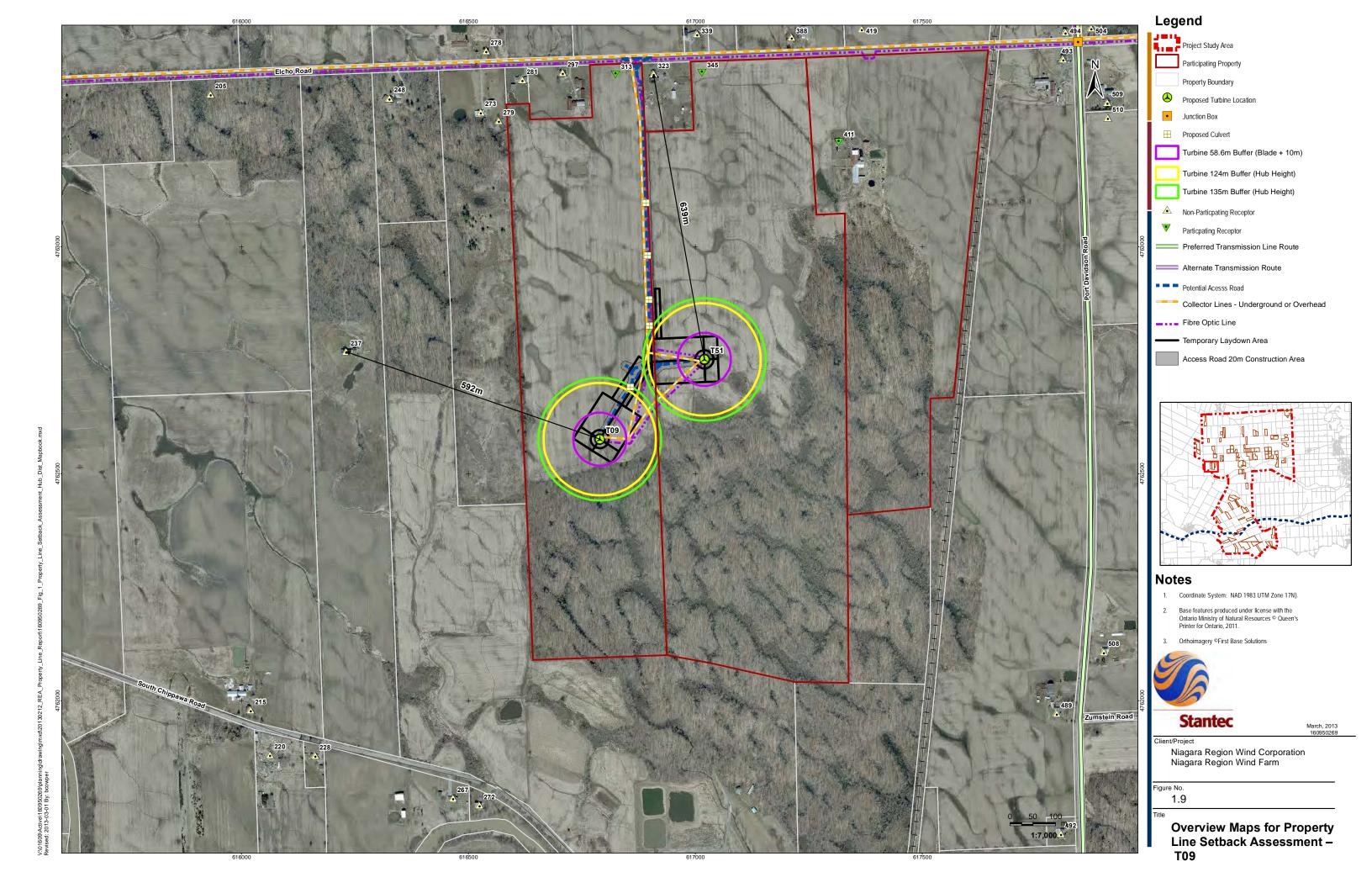
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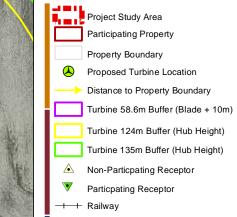
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Figure No.

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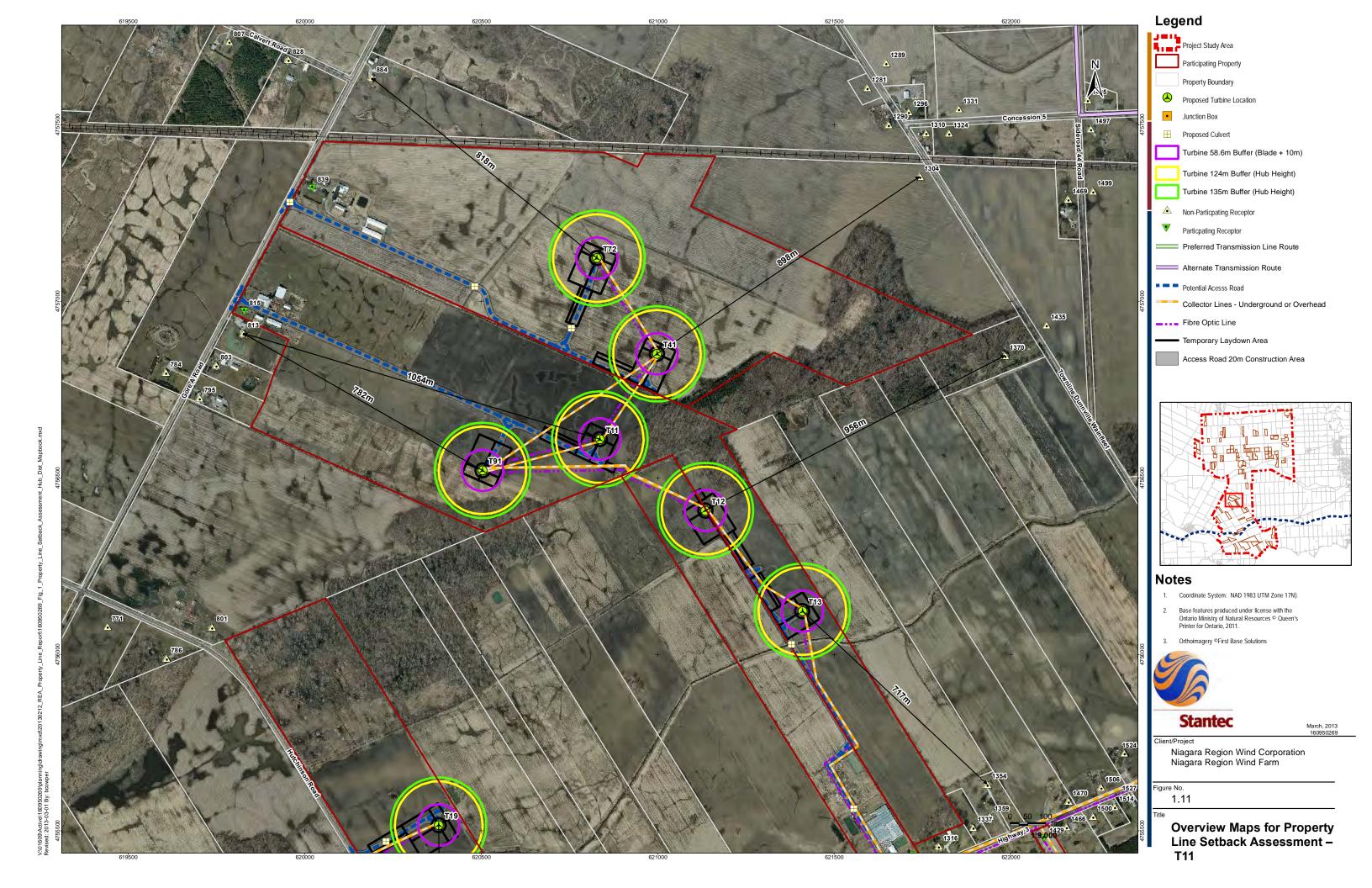
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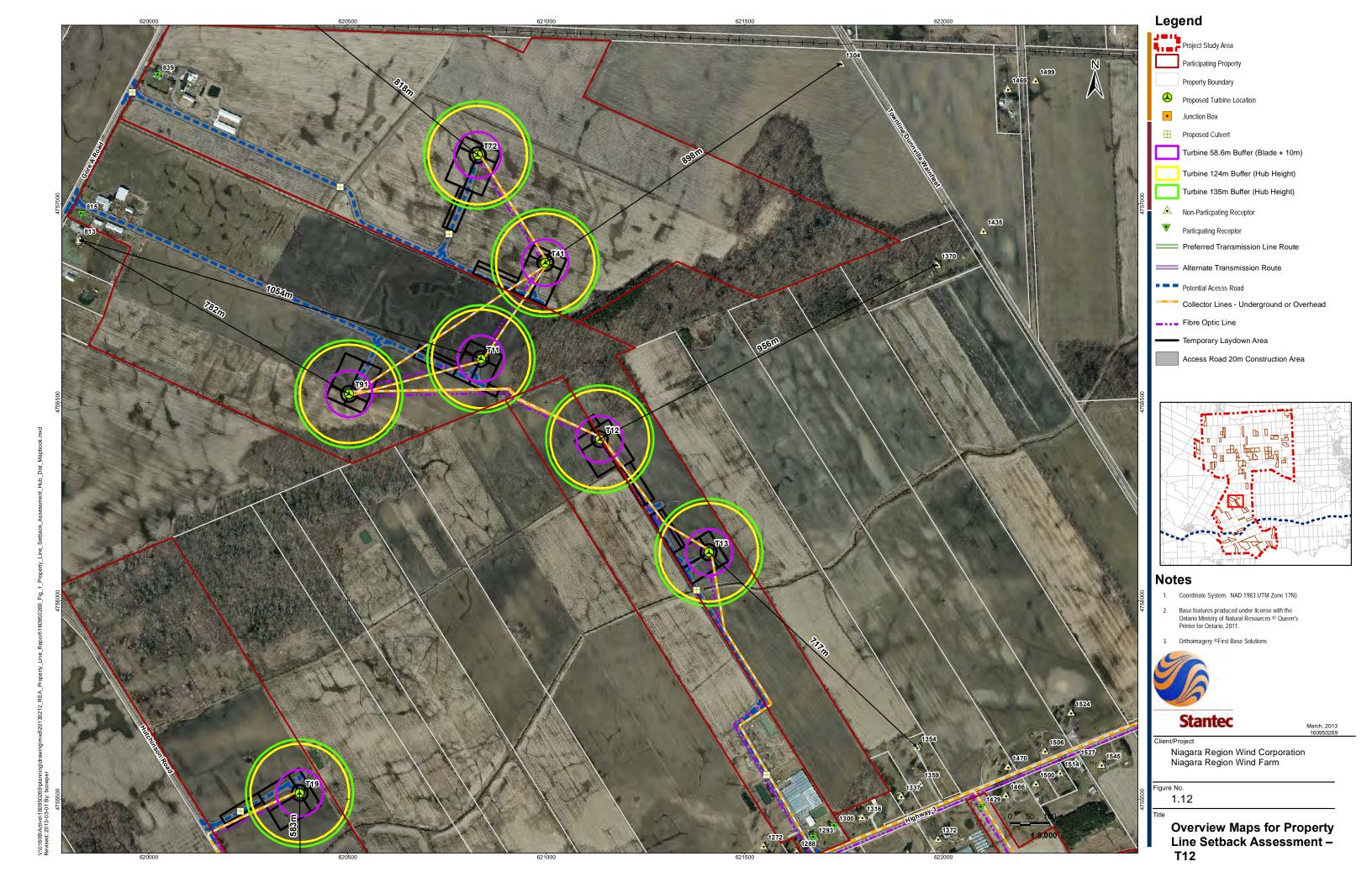
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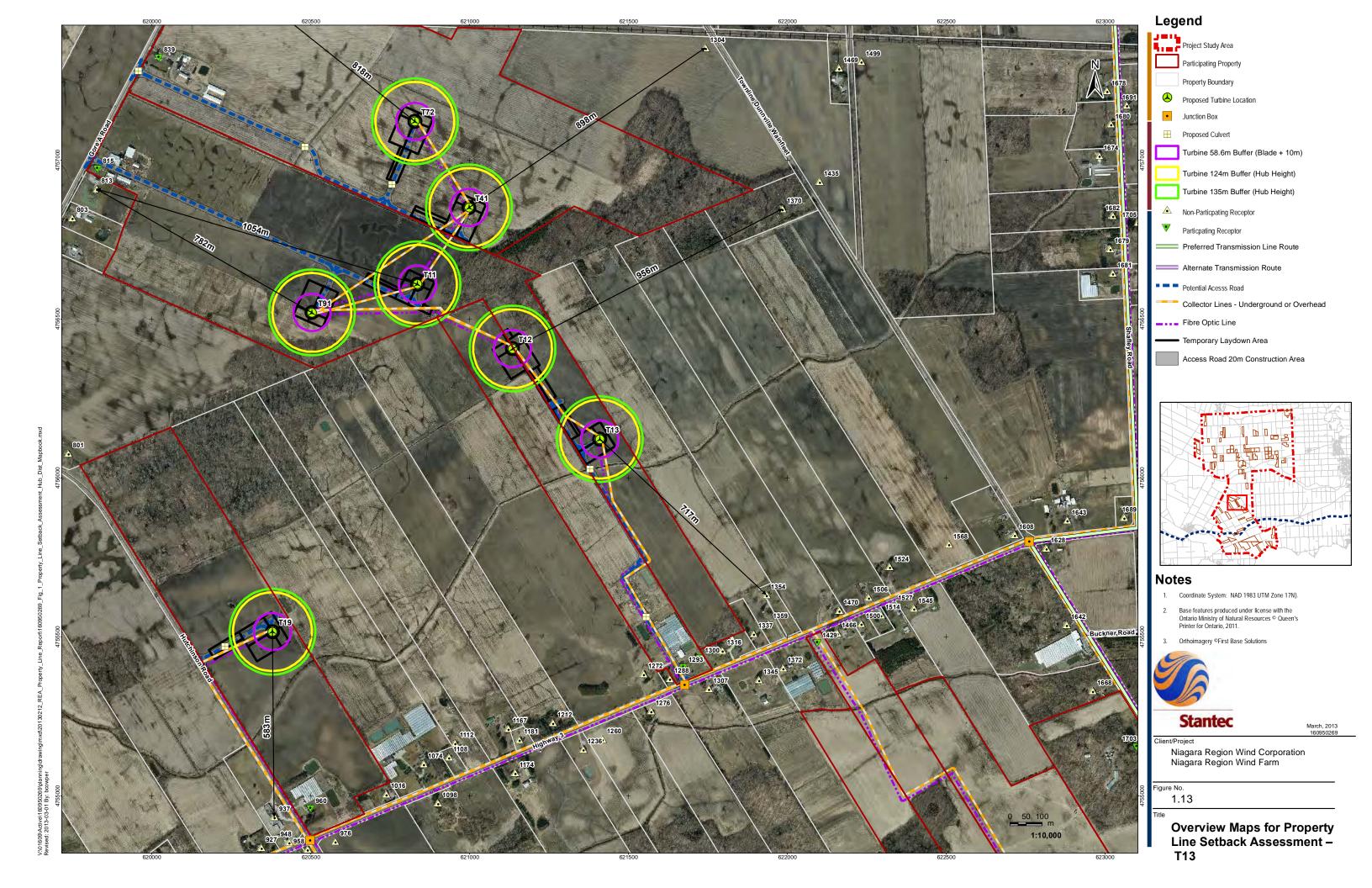


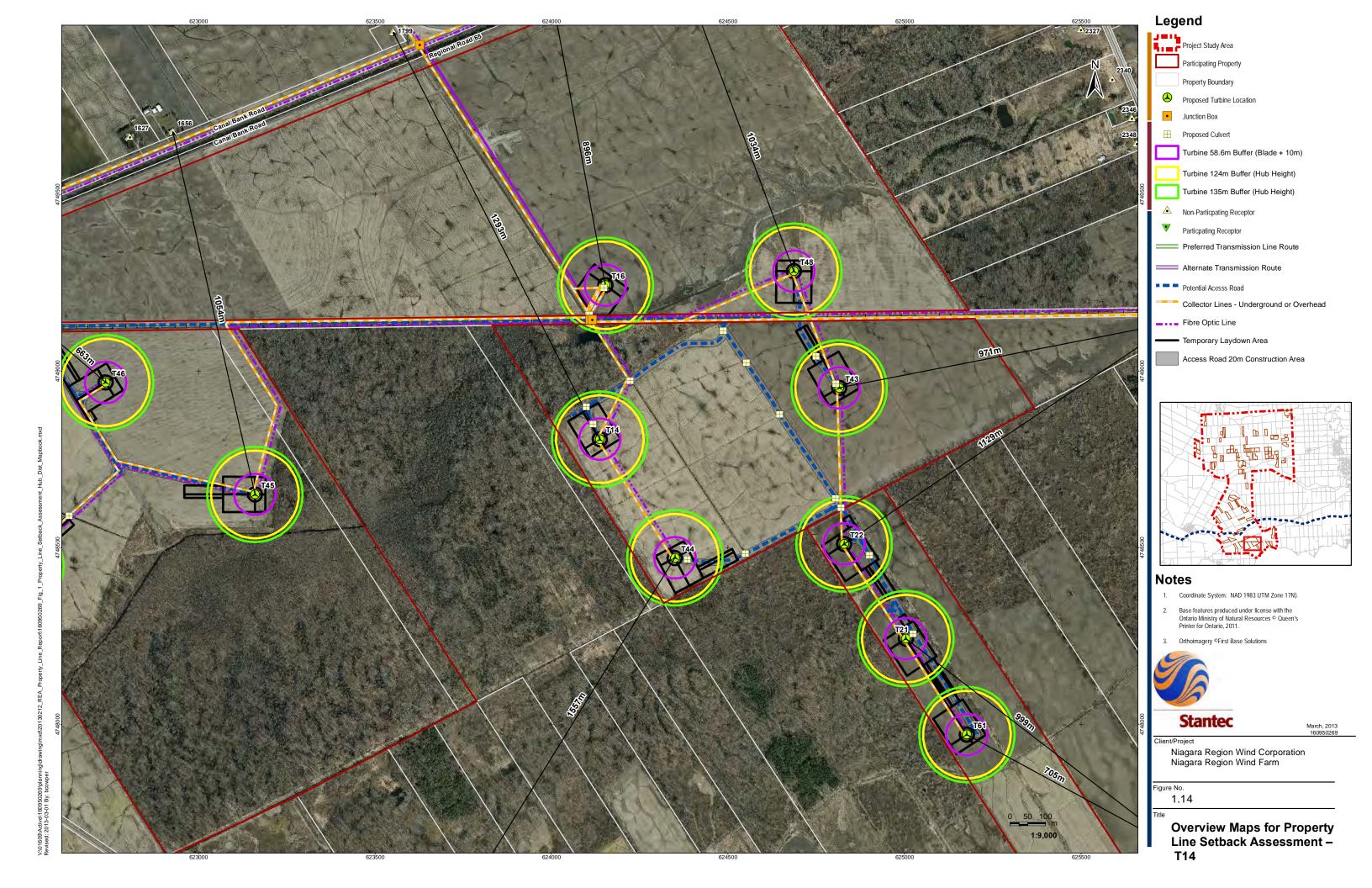
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Inset Maps for Property Line Setback - T12

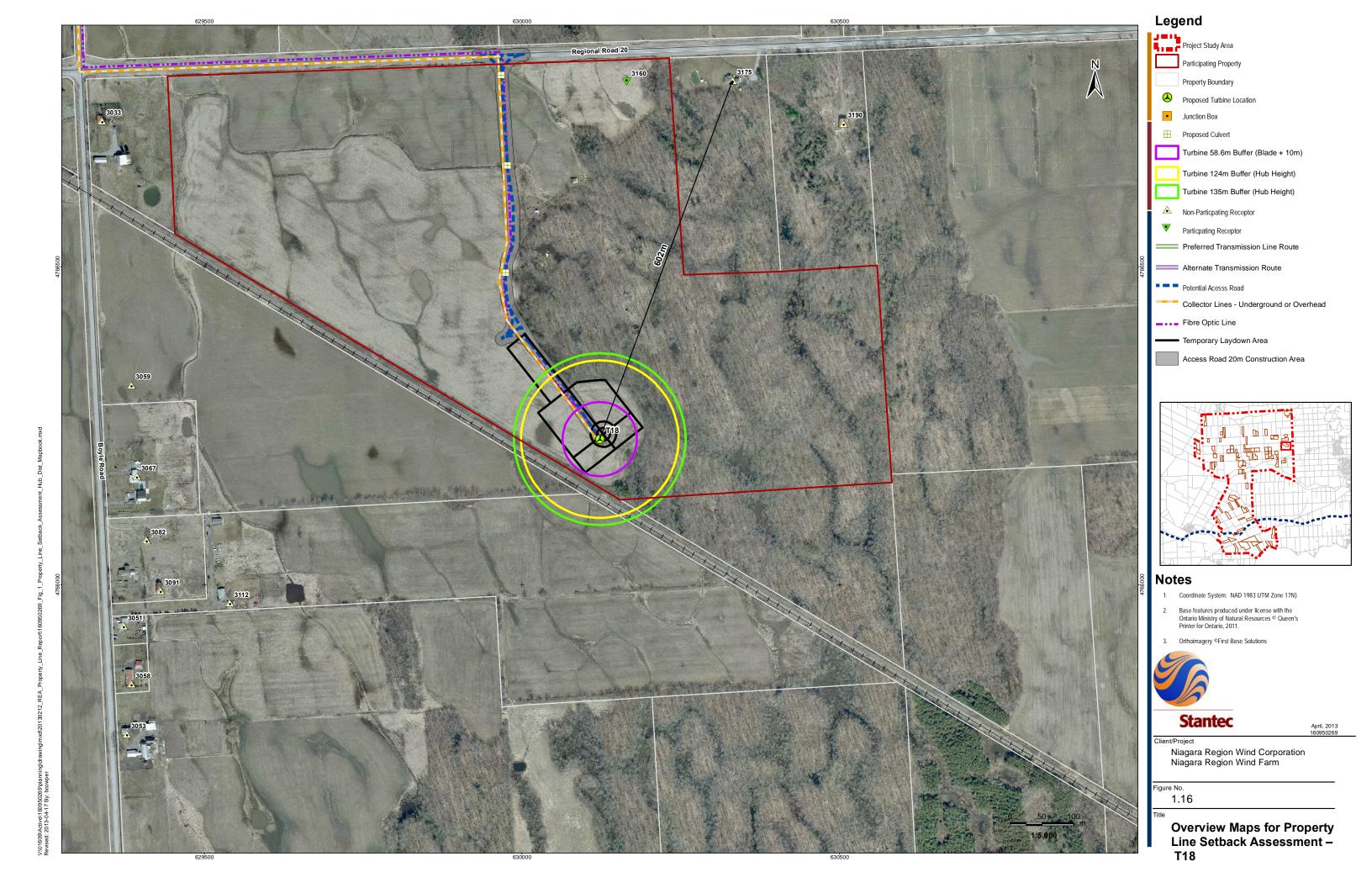
Legend







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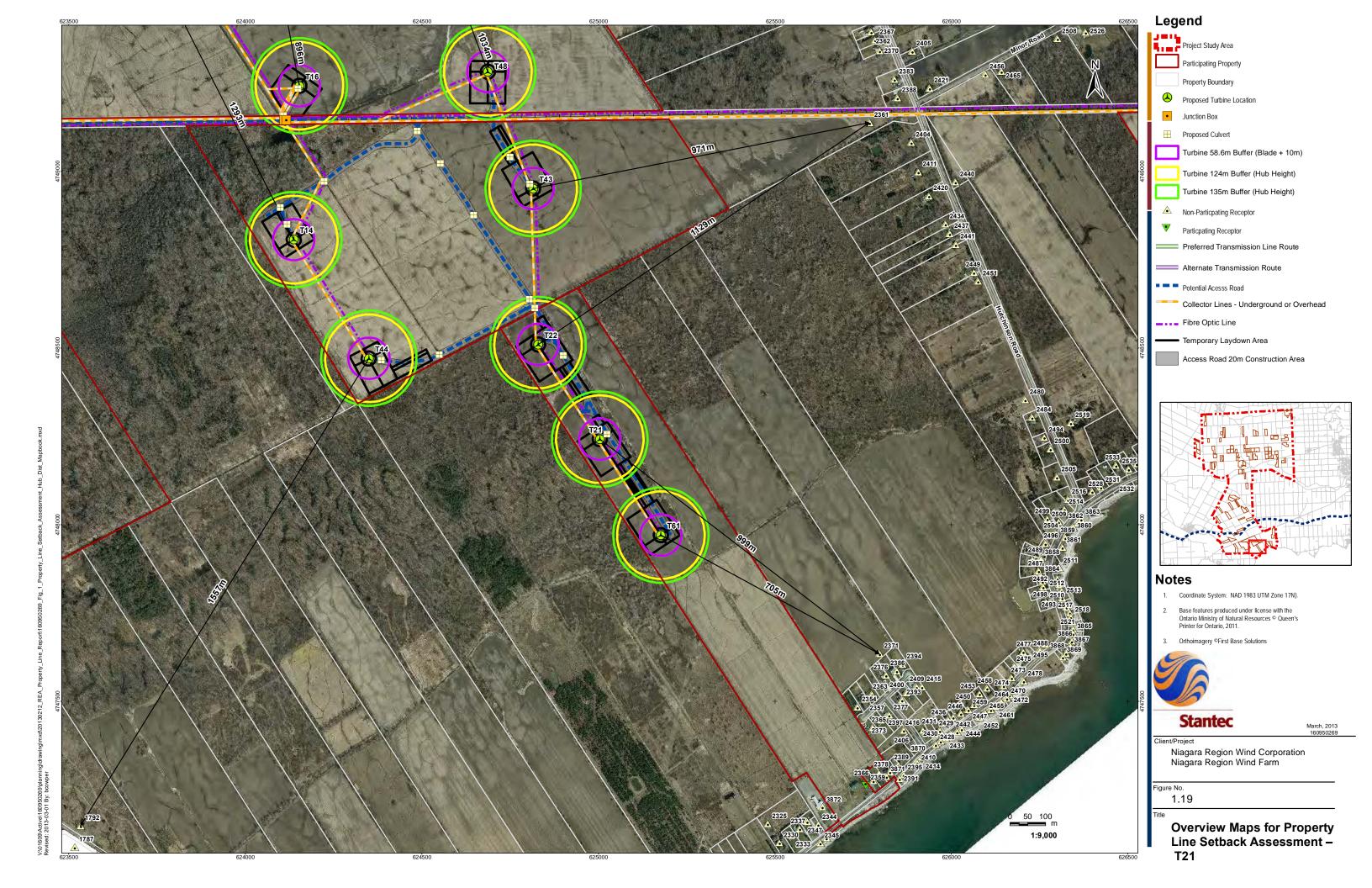
Project Study Area Participating Property Property Boundary Proposed Turbine Location Distance to Property Boundary Turbine 58.6m Buffer (Blade + 10m) Turbine 124m Buffer (Hub Height) Turbine 135m Buffer (Hub Height) Non-Particpating Receptor Participating Receptor

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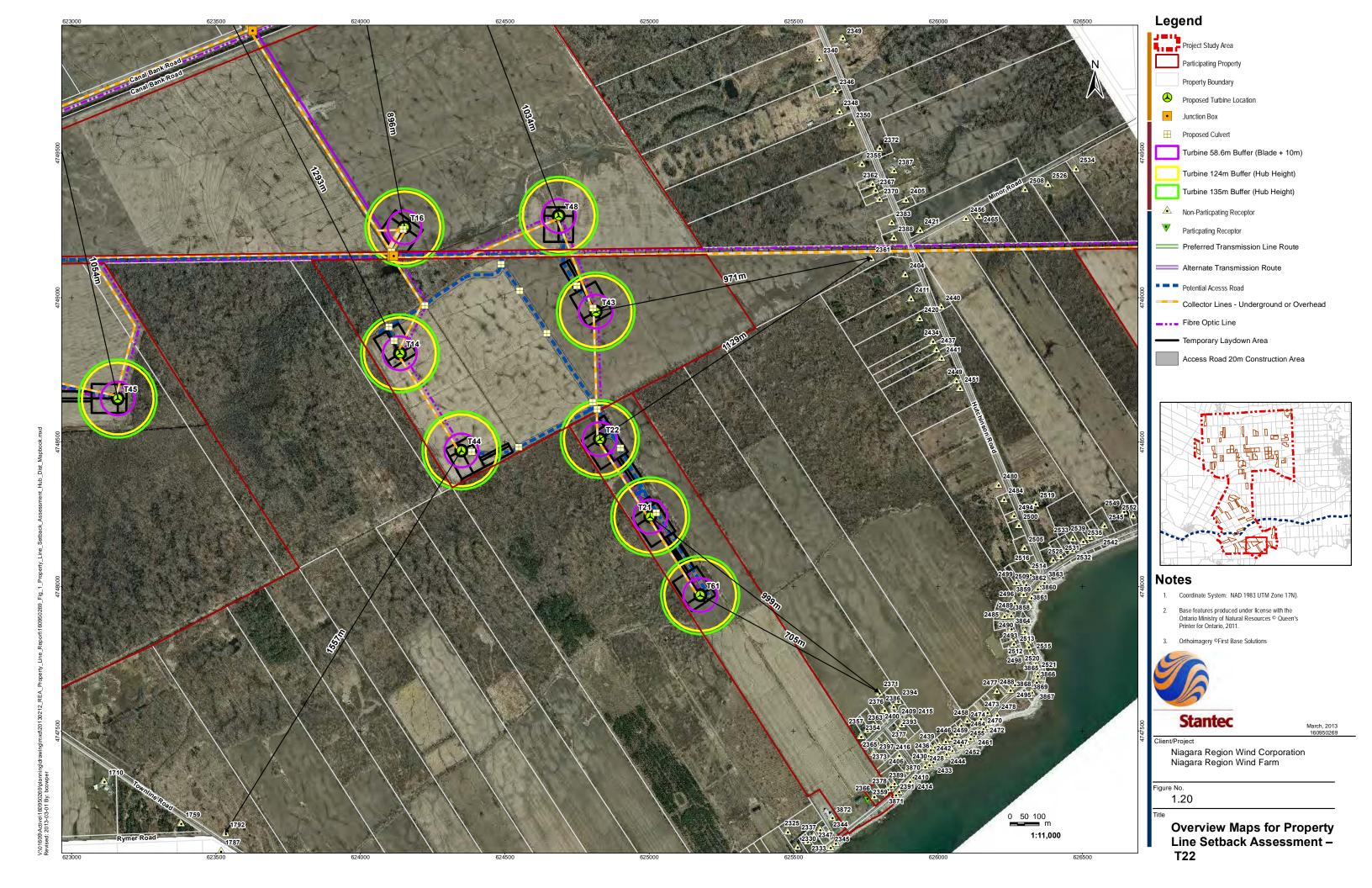


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Turbine 135m Buffer (Hub Height)



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Figure No.

1.21a

Participating Property Property Boundary

Distance to Property Boundary Turbine 58.6m Buffer (Blade + 10m) Turbine 124m Buffer (Hub Height) Turbine 135m Buffer (Hub Height)

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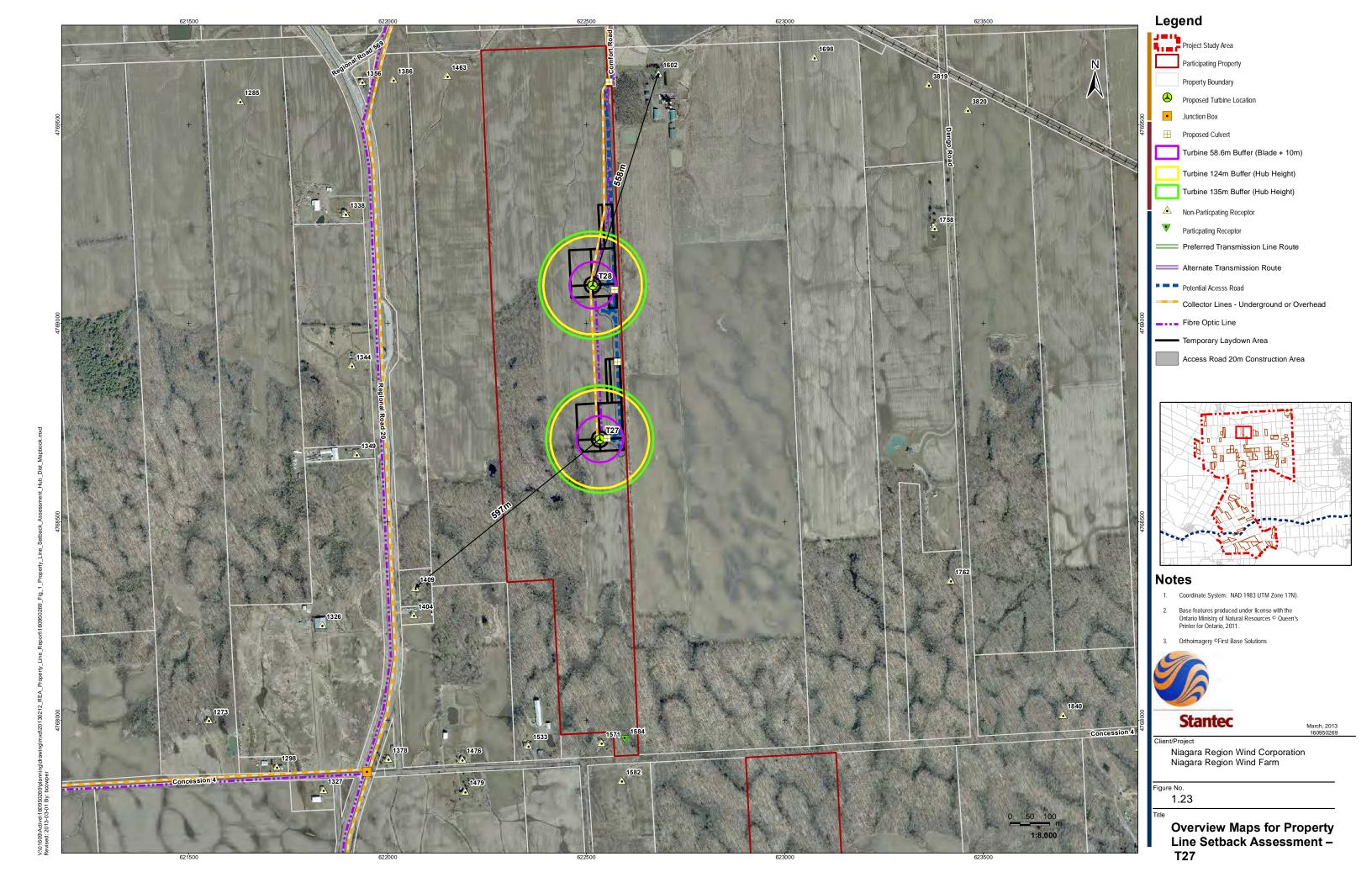
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Inset Maps for Property Line Setback - T24

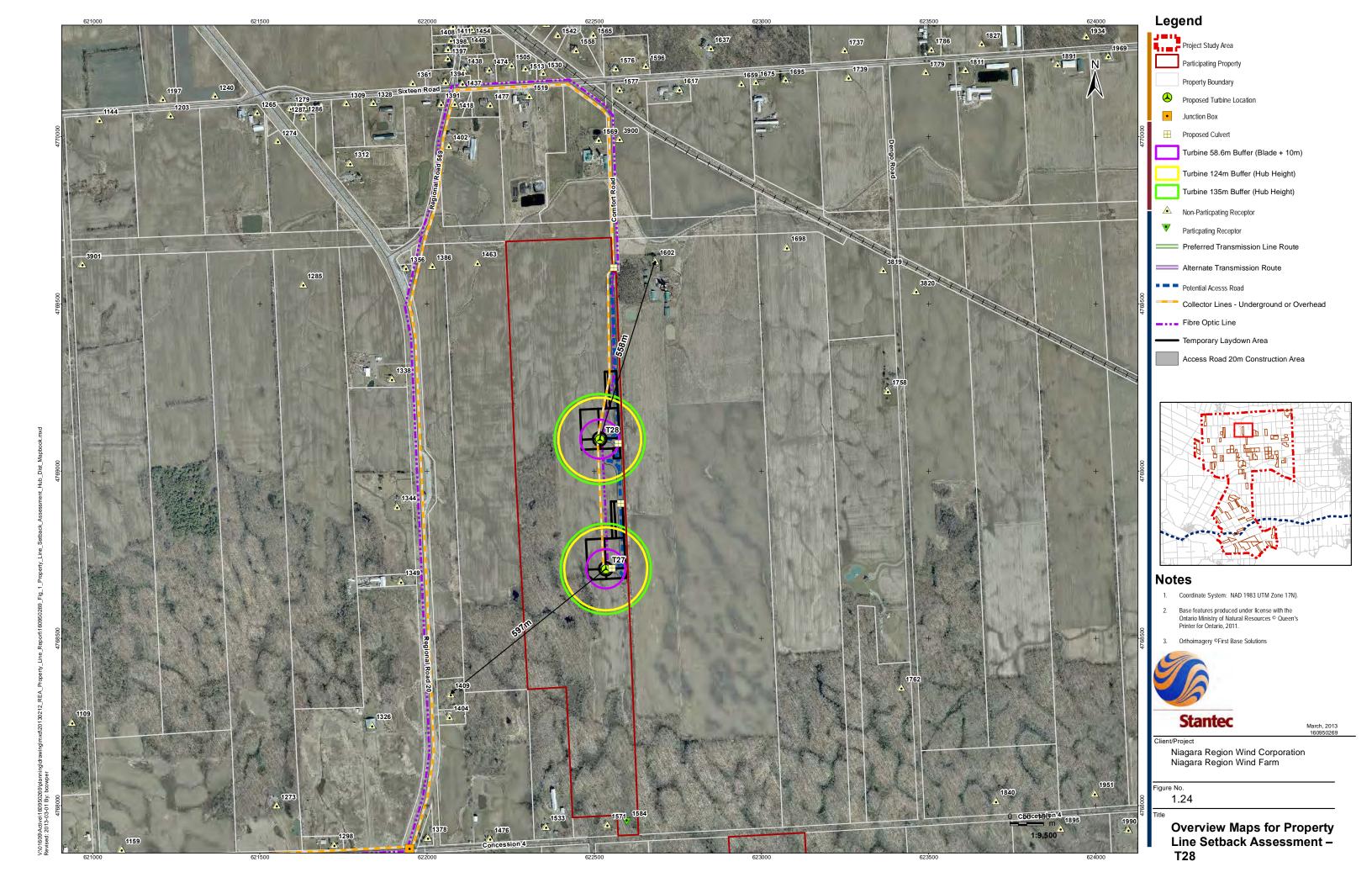
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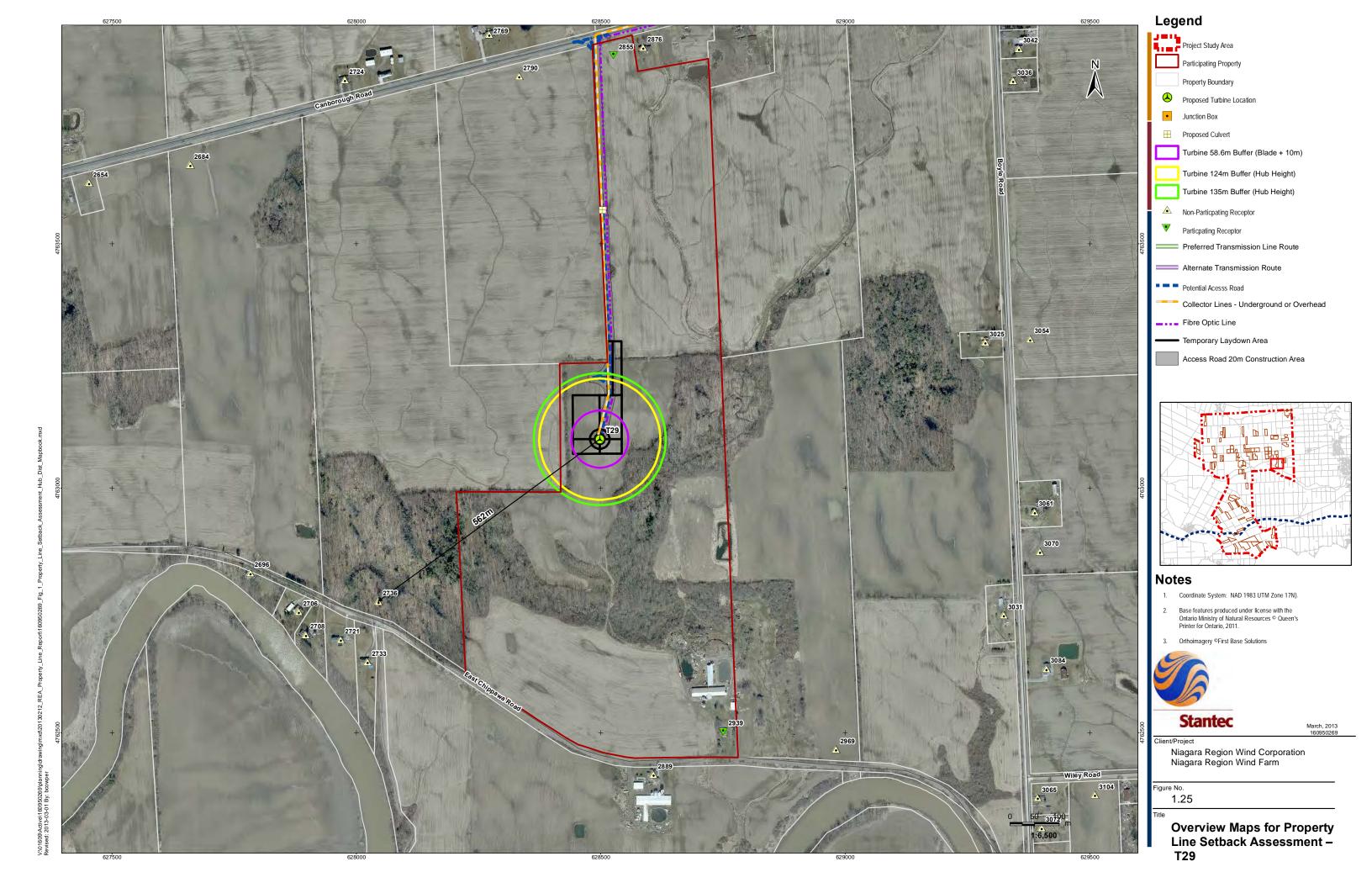
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Project Study Area

Participating Property

Property Boundary

Proposed Turbine Location

Distance to Property Boundary

Turbine 58.6m Buffer (Blade + 10m)

Turbine 124m Buffer (Hub Height)

Turbine 135m Buffer (Hub Height)

Non-Participating Receptor

Particpating Receptor

- Road

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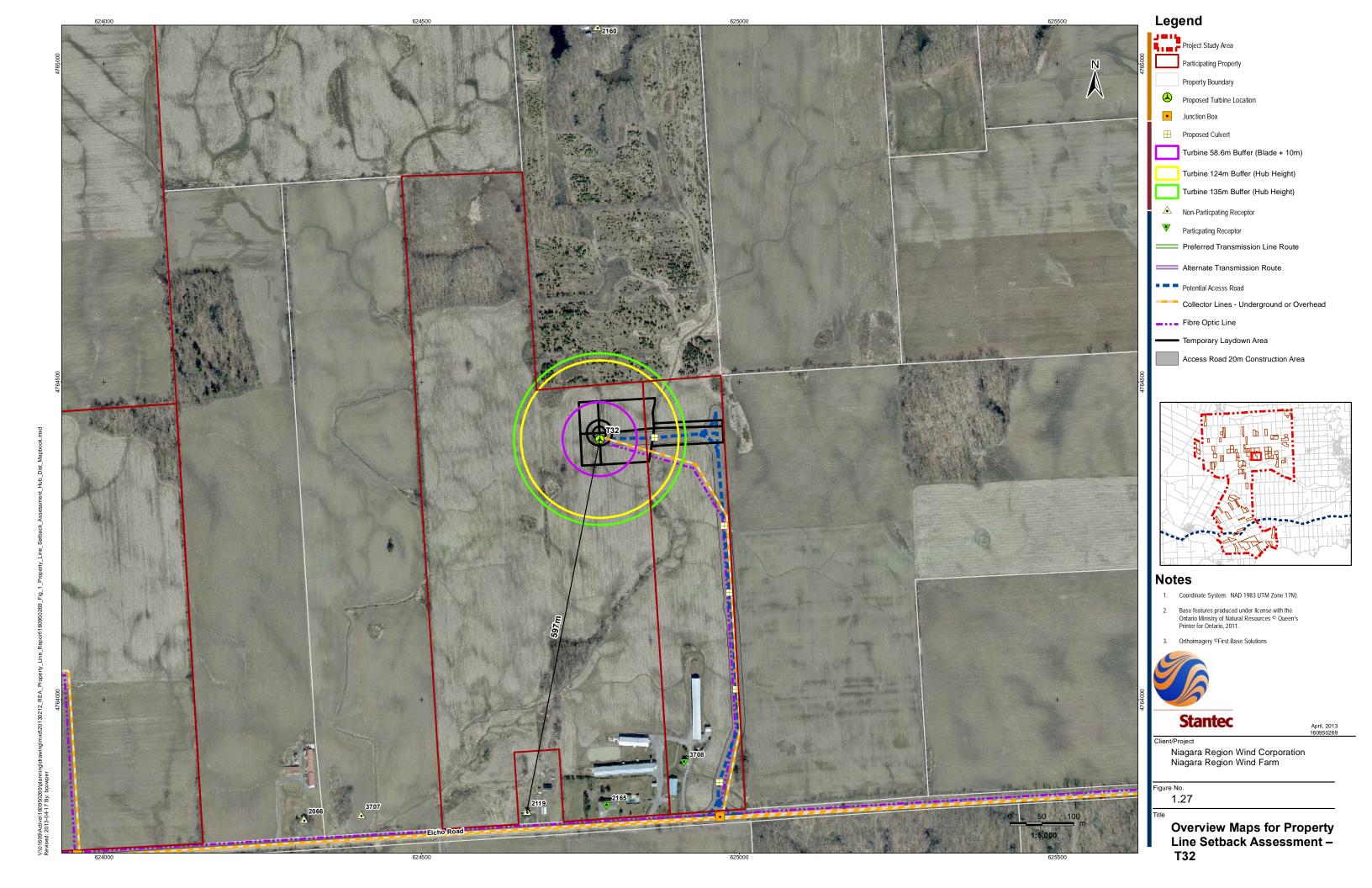


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Figure No.

1.26a



Project Study Area Participating Property Property Boundary Proposed Turbine Location Distance to Property Boundary Turbine 58.6m Buffer (Blade + 10m) Turbine 124m Buffer (Hub Height) Turbine 135m Buffer (Hub Height) Non-Particpating Receptor Particpating Receptor

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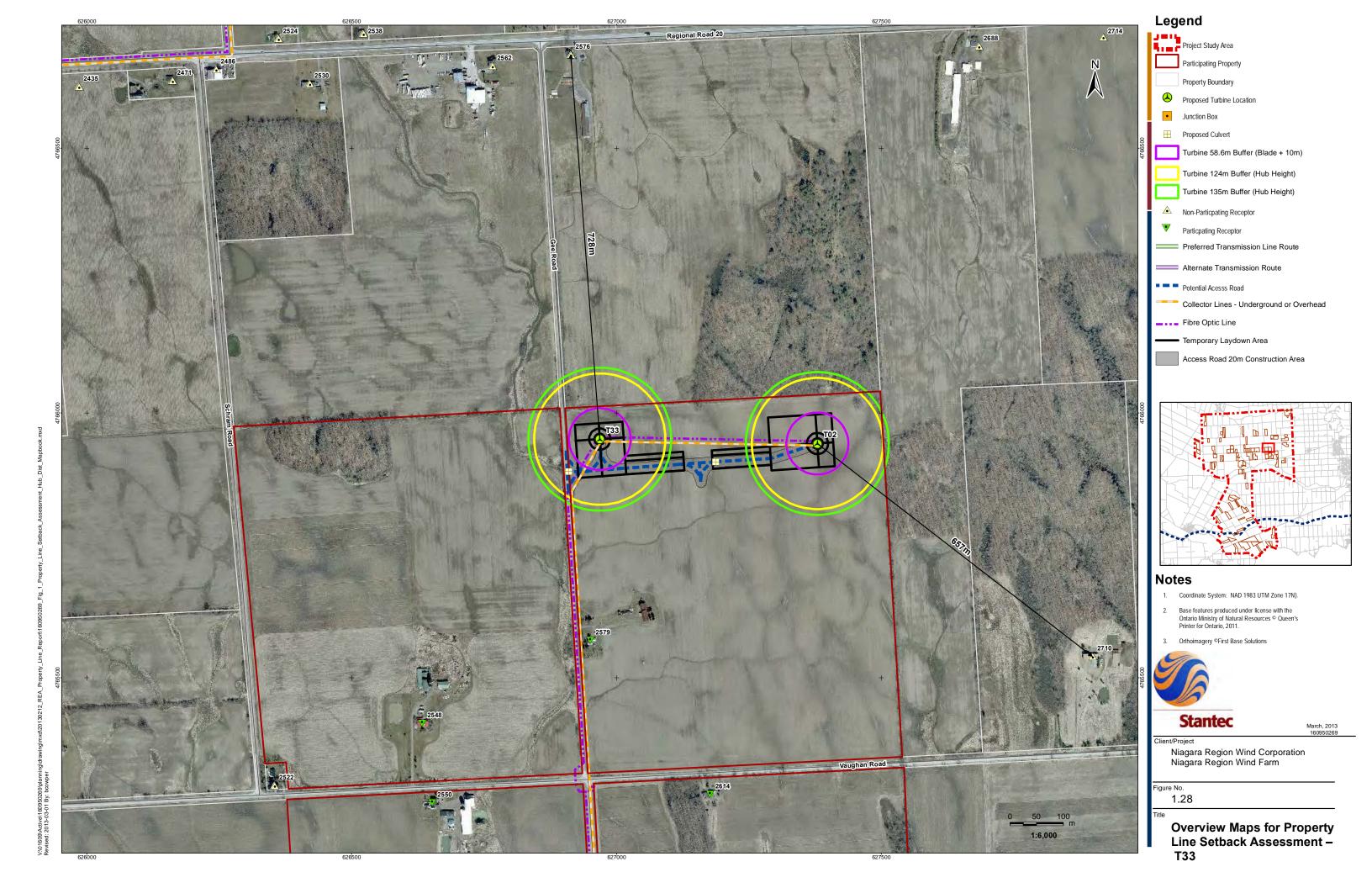
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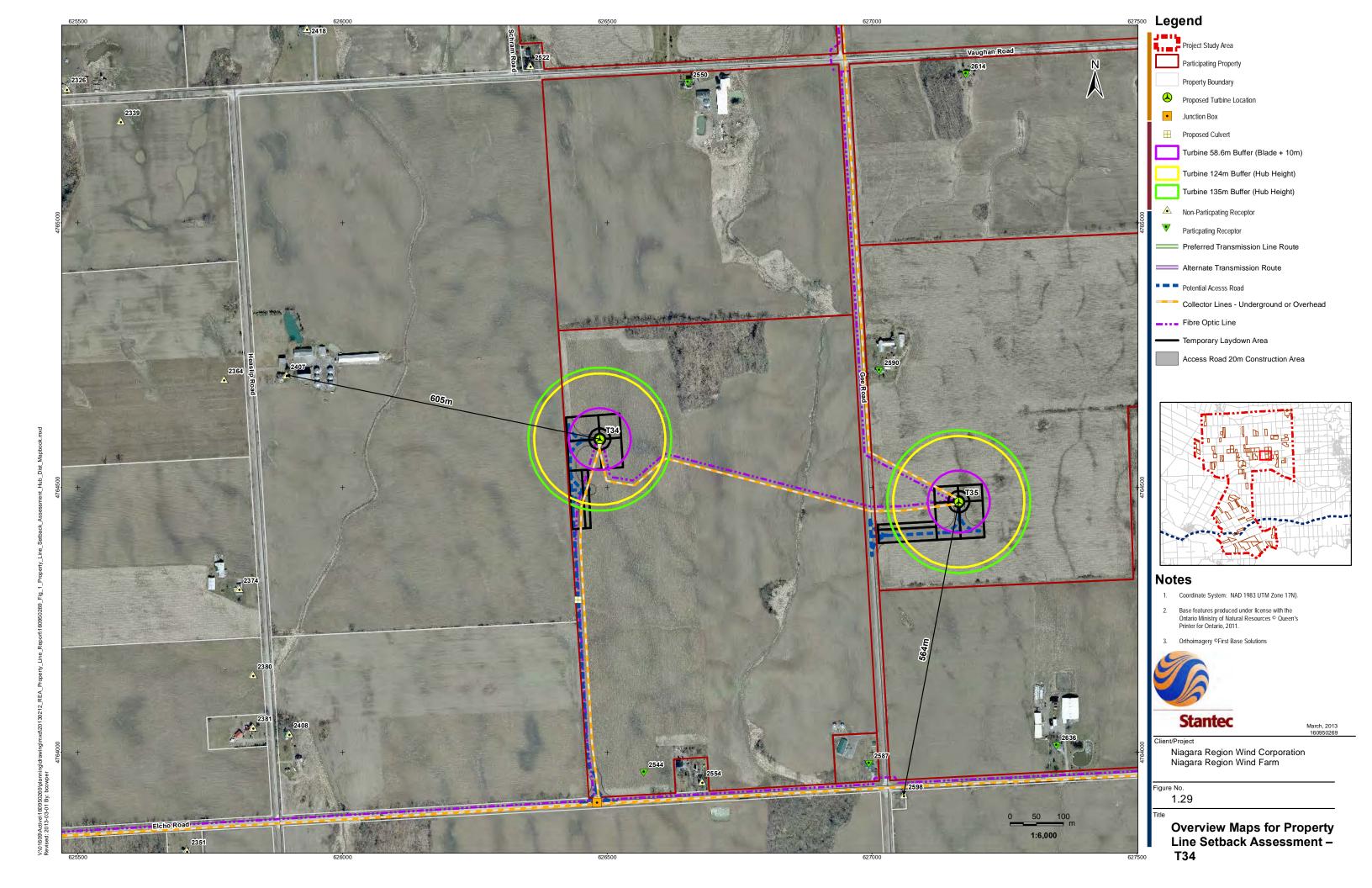
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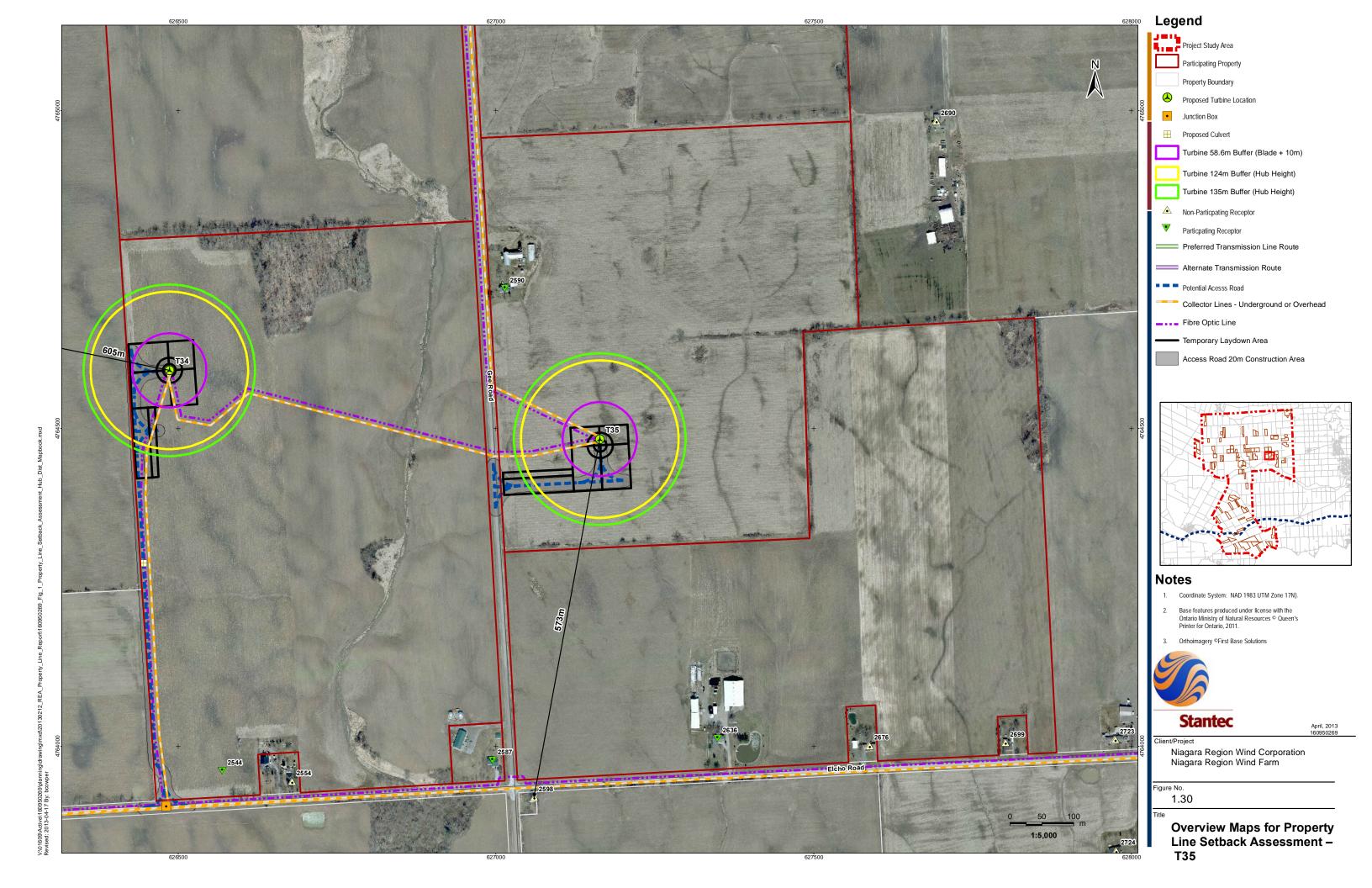
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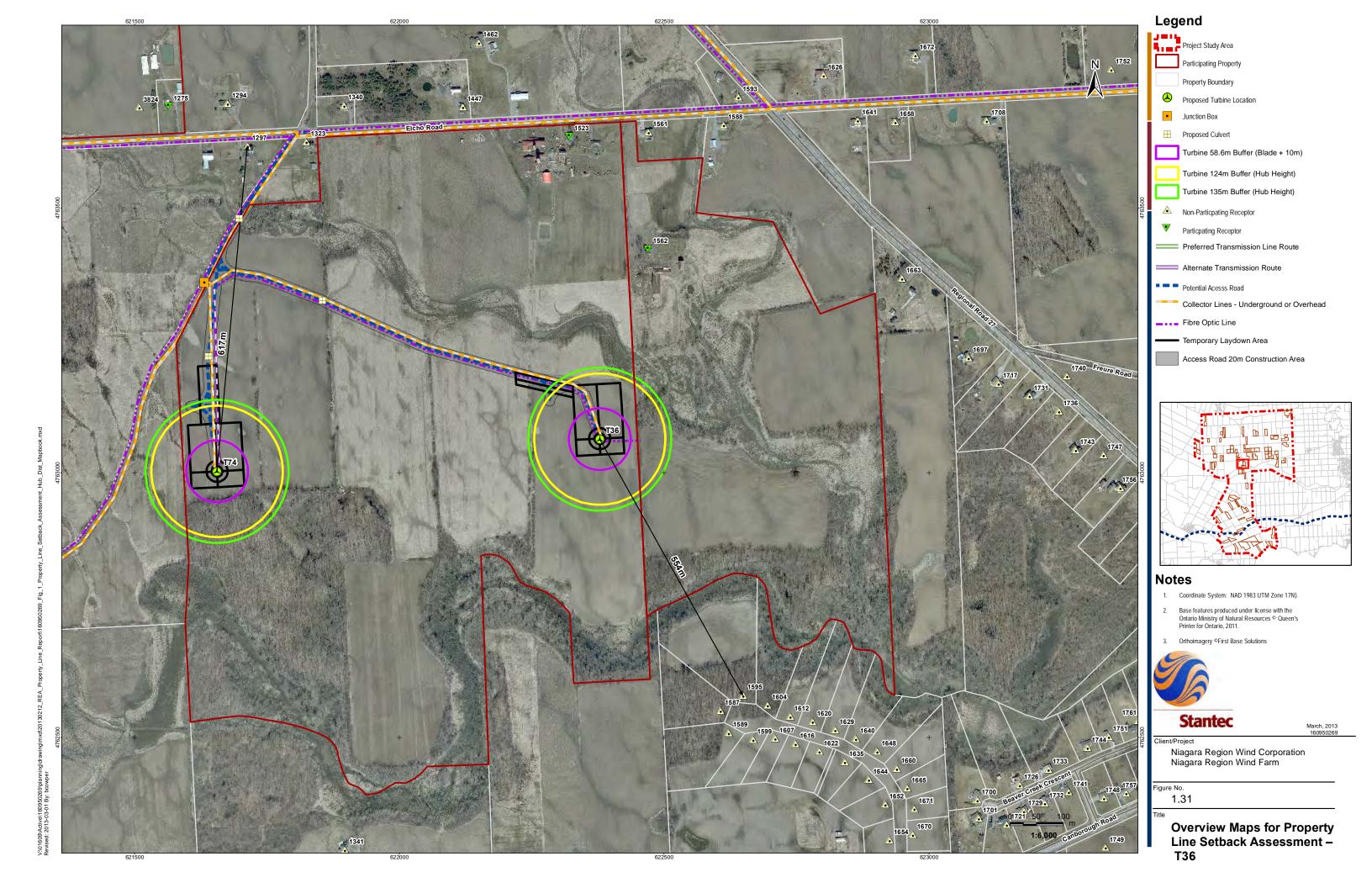


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Project Study Area Participating Property

Property Boundary

Proposed Turbine Location

Distance to Property Boundary

Turbine 58.6m Buffer (Blade + 10m) Turbine 124m Buffer (Hub Height)

Turbine 135m Buffer (Hub Height)

Non-Participating Receptor

Particpating Receptor

Notes

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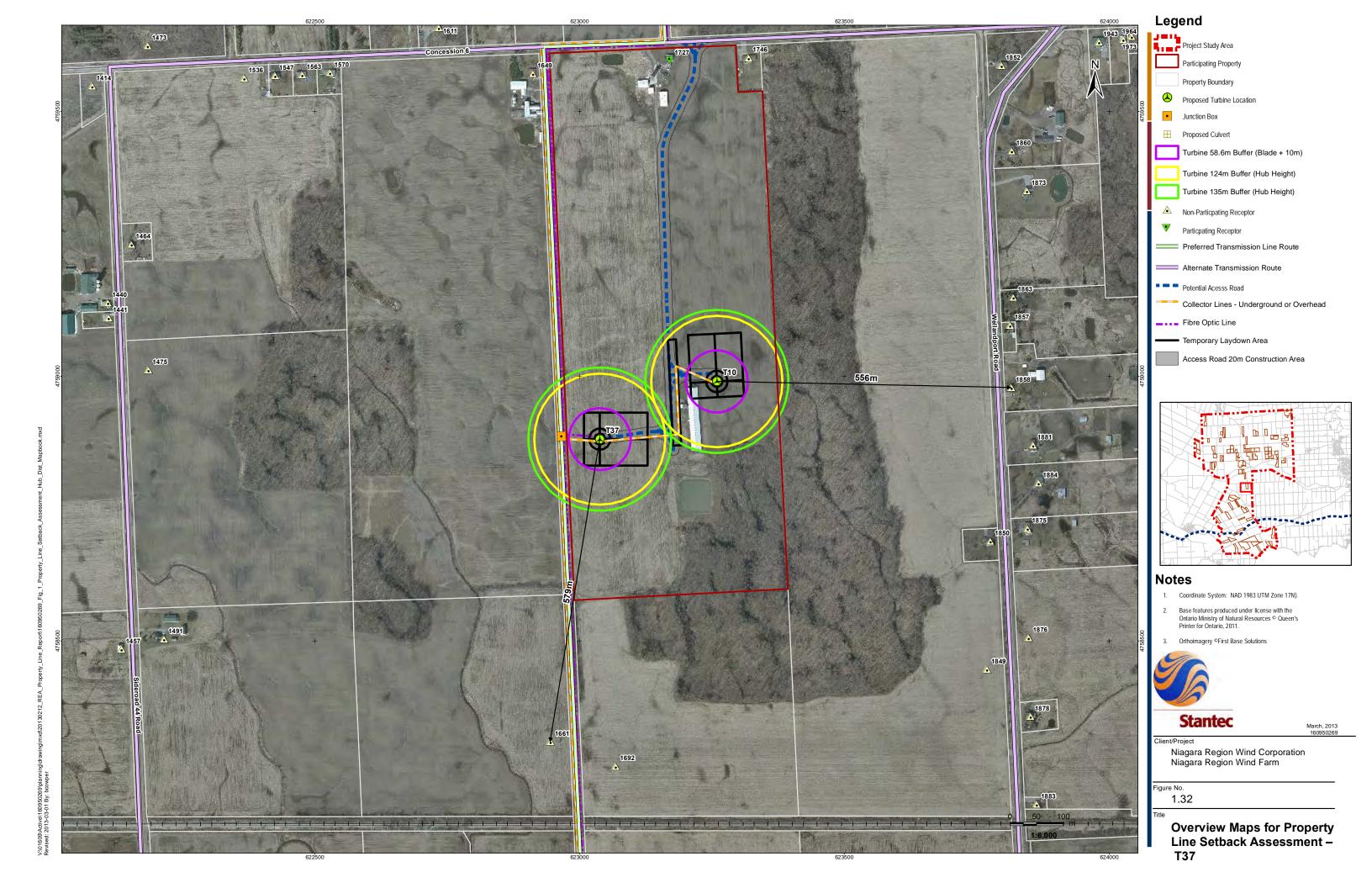


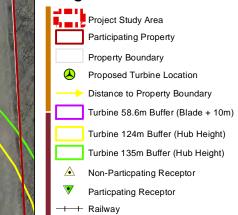
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Figure No.

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Niagara Region Wind Corporation Niagara Region Wind Farm

Figure No.

1.32a

V/01609lActive\160950269\planning\drawing\mxd\20130212_REA_Property_Line_Report\160950269_Fig_1_Property_Line_Setback_Assessment_Hub_Dist_Mapbook.n Revised: 2013-03-01 By: boowper



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Figure No.

1.33a

Title

Proposed Turbine Location

Distance to Property Boundary

Turbine 135m Buffer (Hub Height)

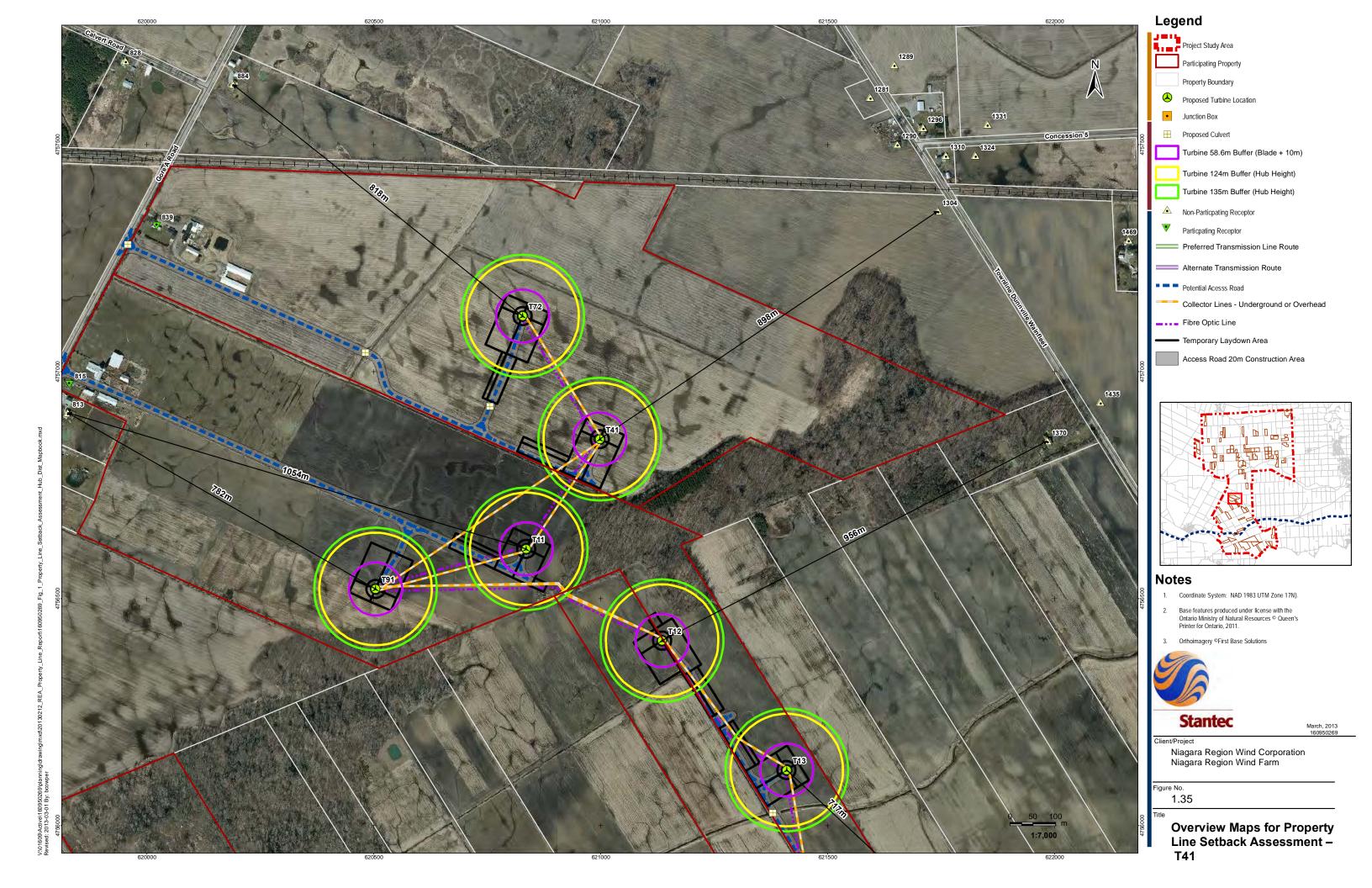
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March, 2013 160950269

Niagara Region Wind Corporation Niagara Region Wind Farm



Project Study Area Participating Property Property Boundary Proposed Turbine Location Distance to Property Boundary Turbine 58.6m Buffer (Blade + 10m) Turbine 124m Buffer (Hub Height) Turbine 135m Buffer (Hub Height) Non-Particpating Receptor Participating Receptor

Notes

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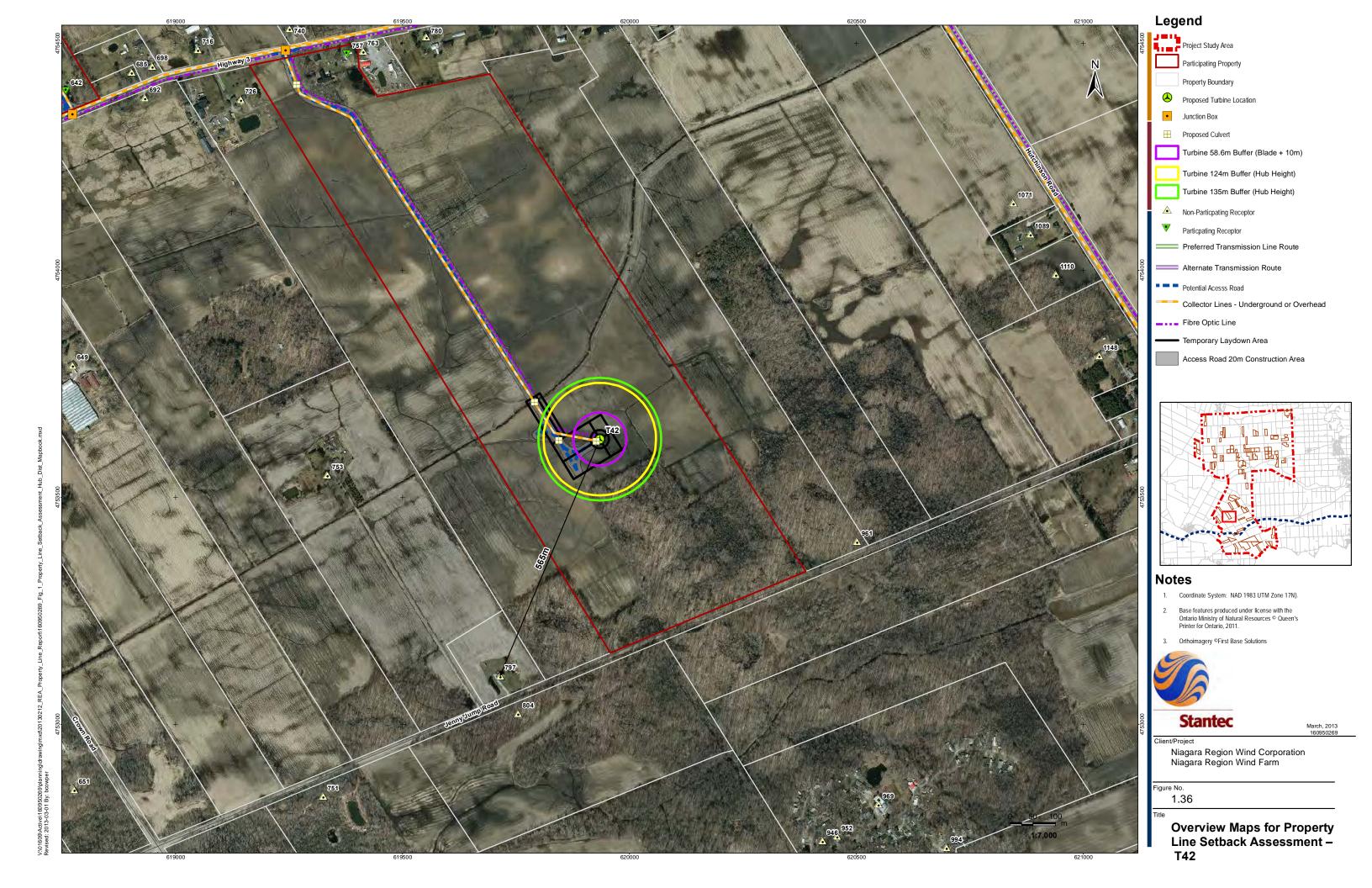


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Niagara Region Wind Corporation Niagara Region Wind Farm

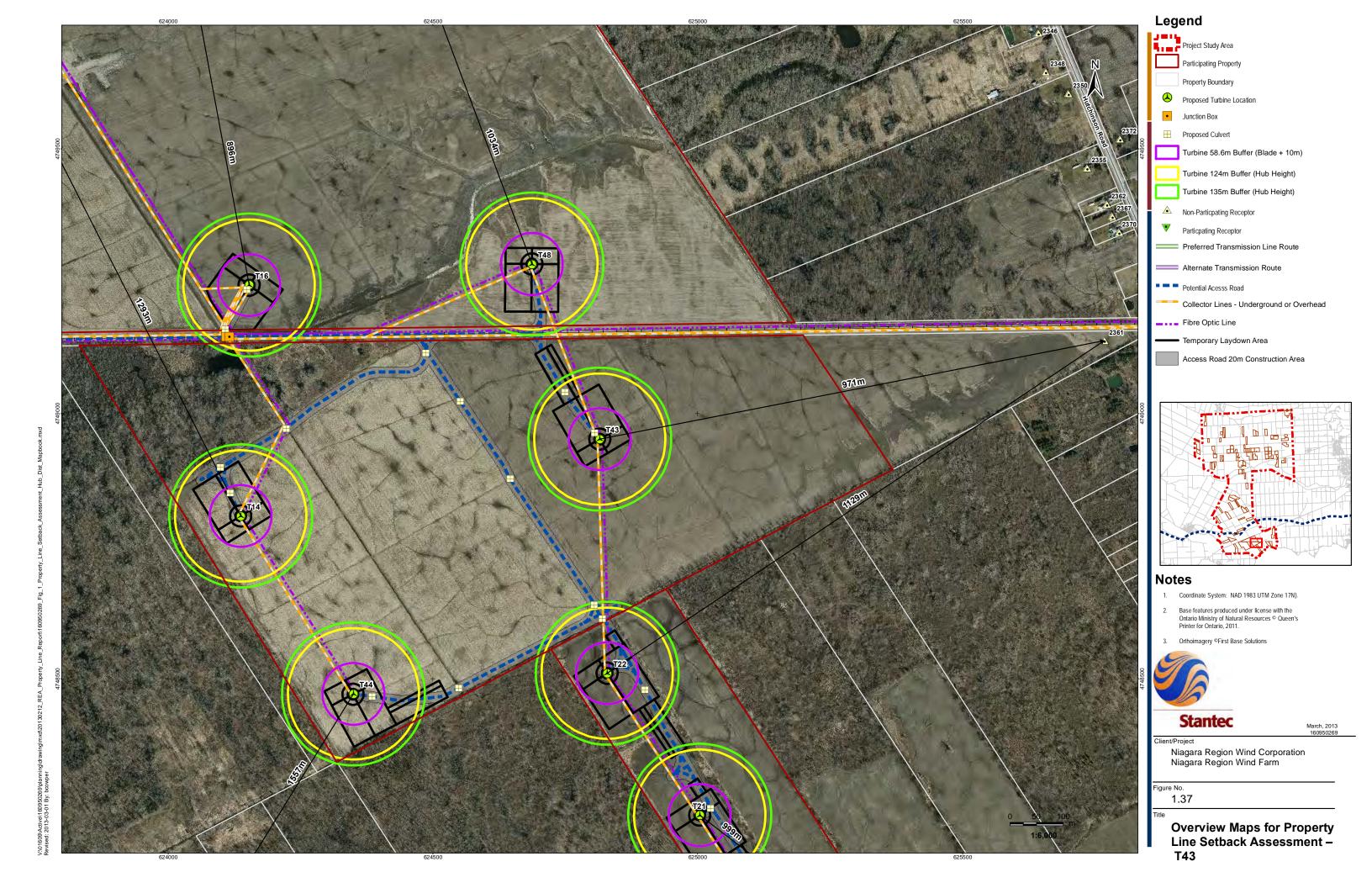
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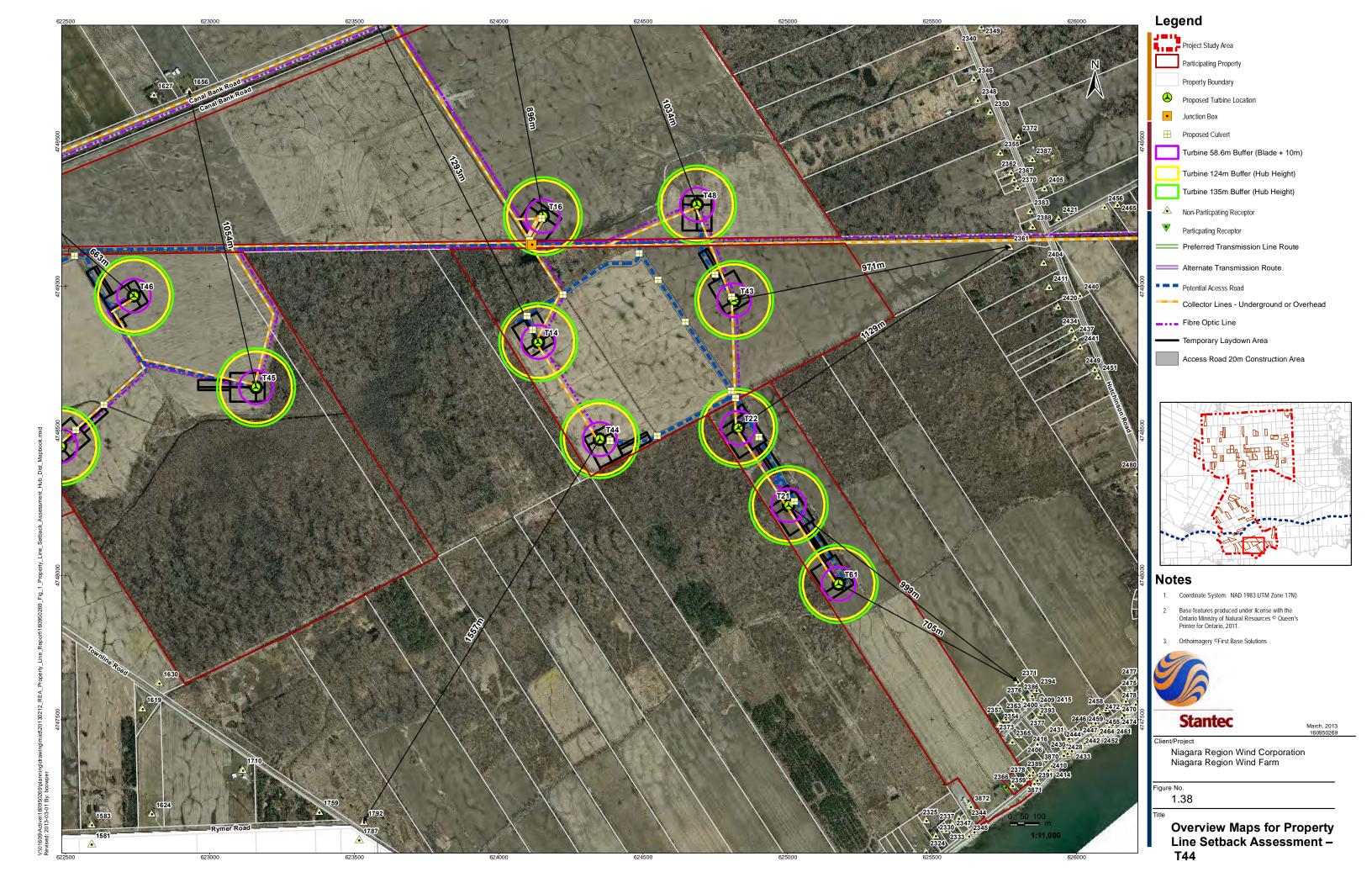


Inset Maps for Property Line Setback - T42

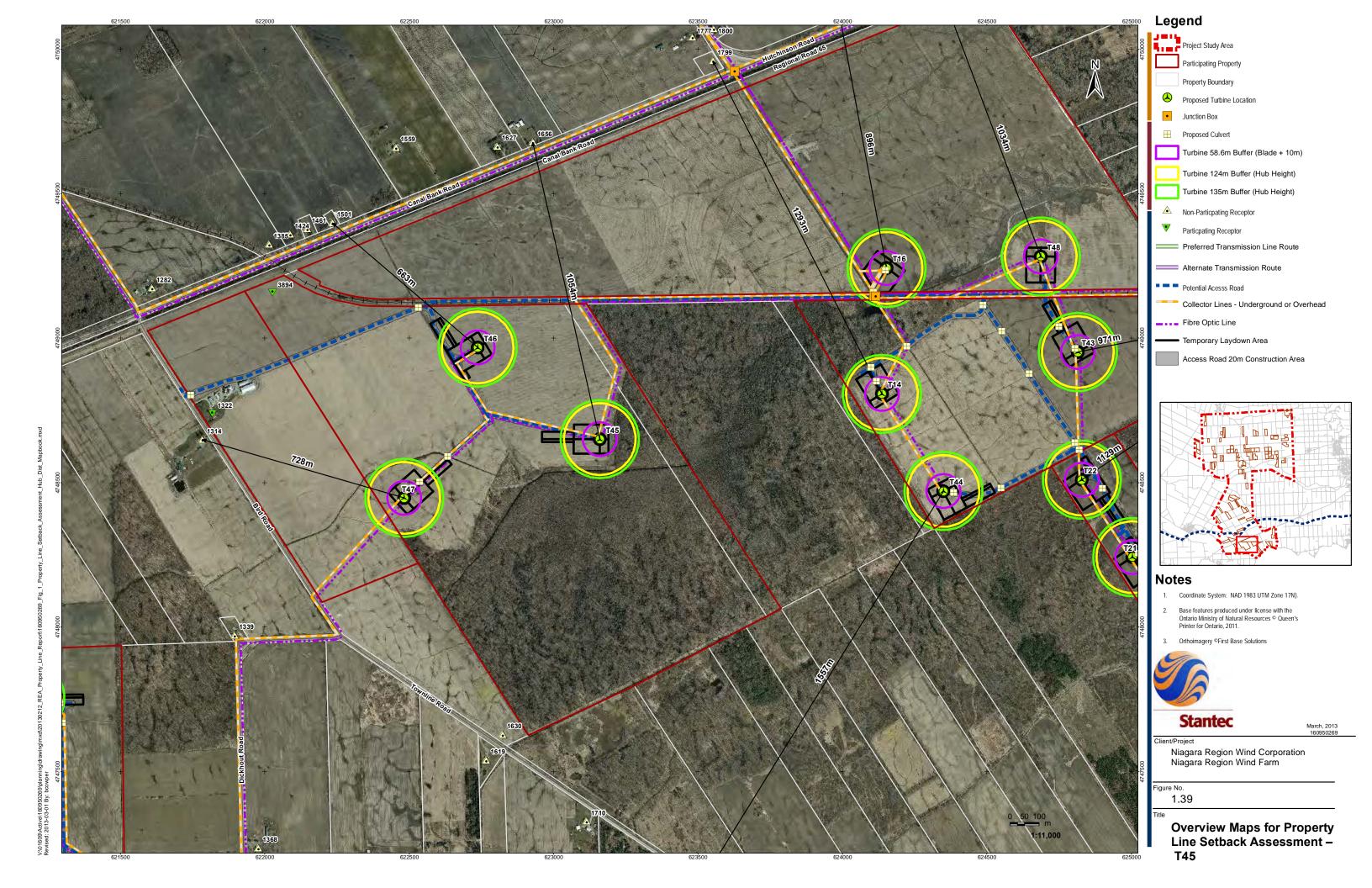
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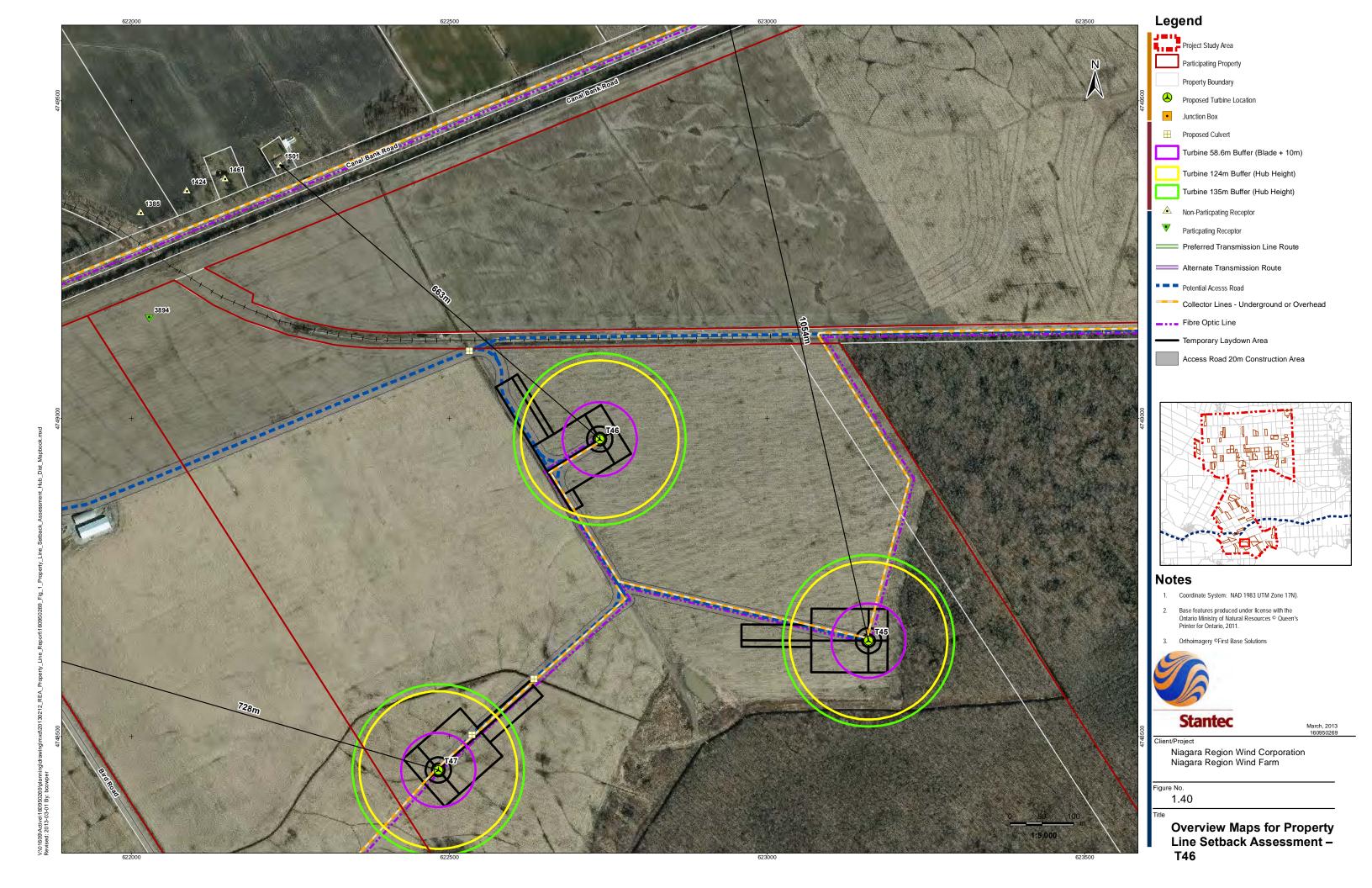
March, 2013 160950269



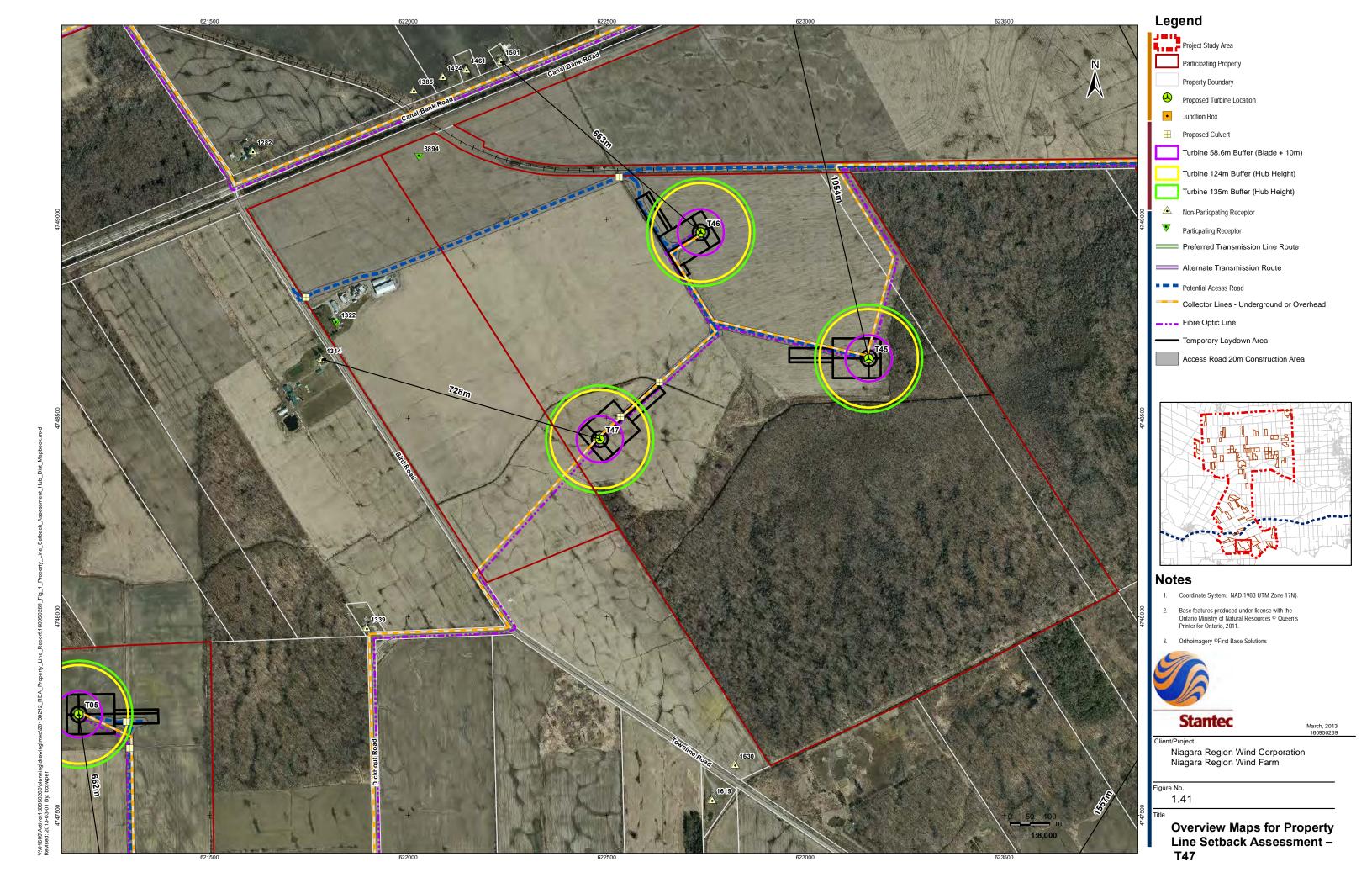
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Revised: 2013-03-01 By: boxwper

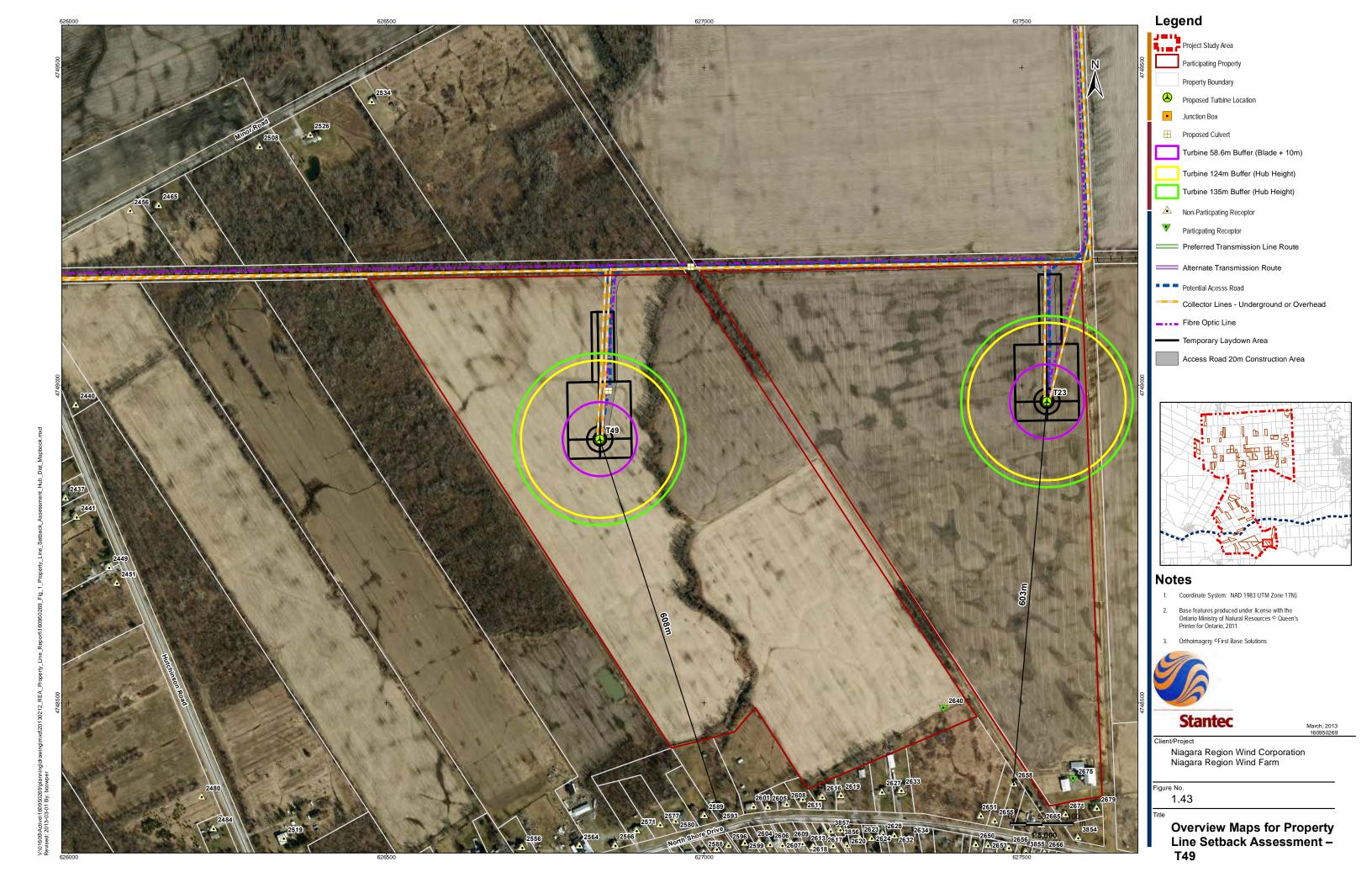


March, 2013 160950269

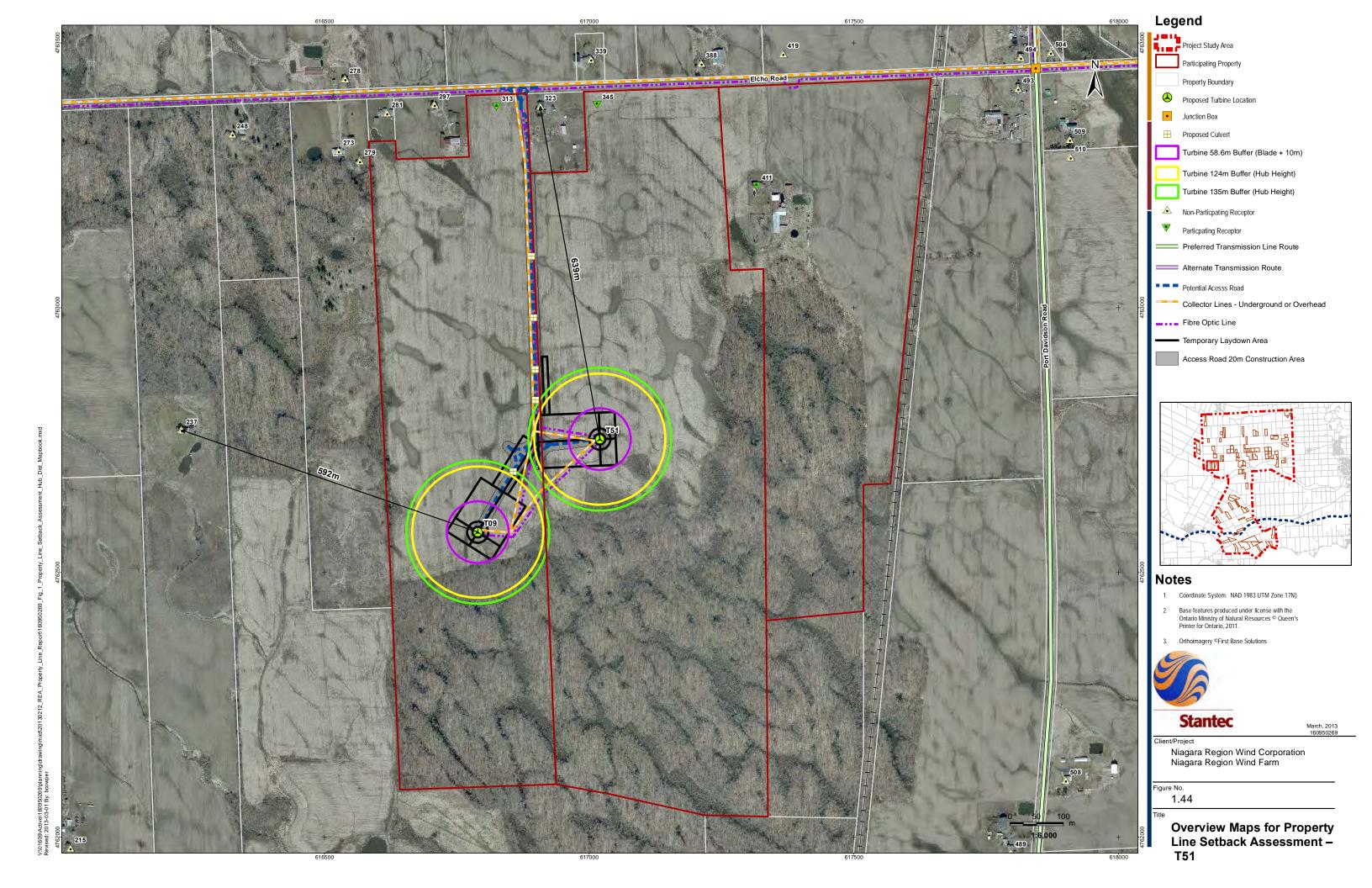


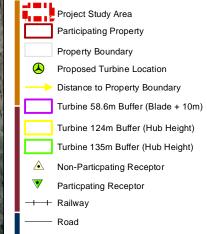
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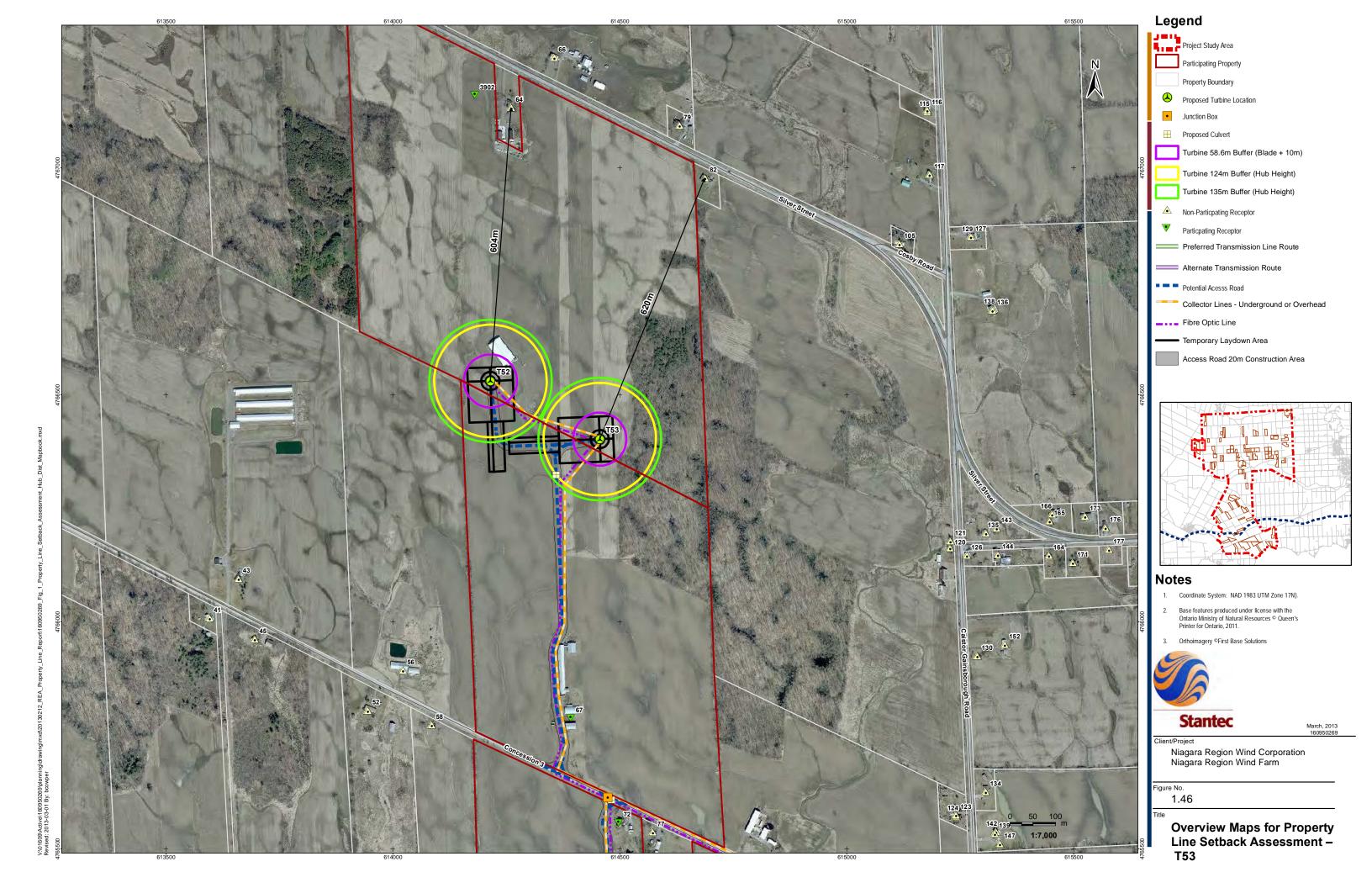
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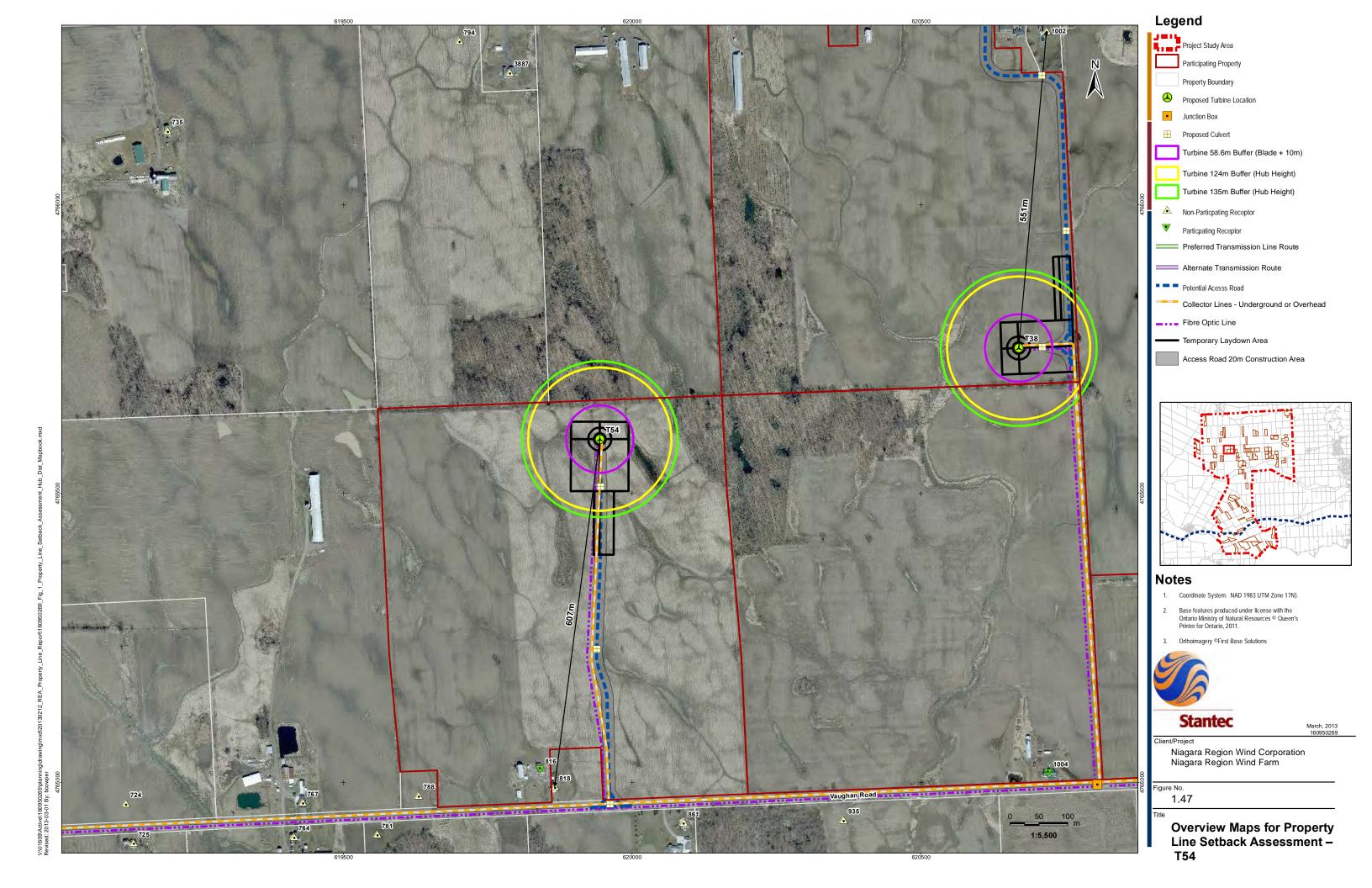




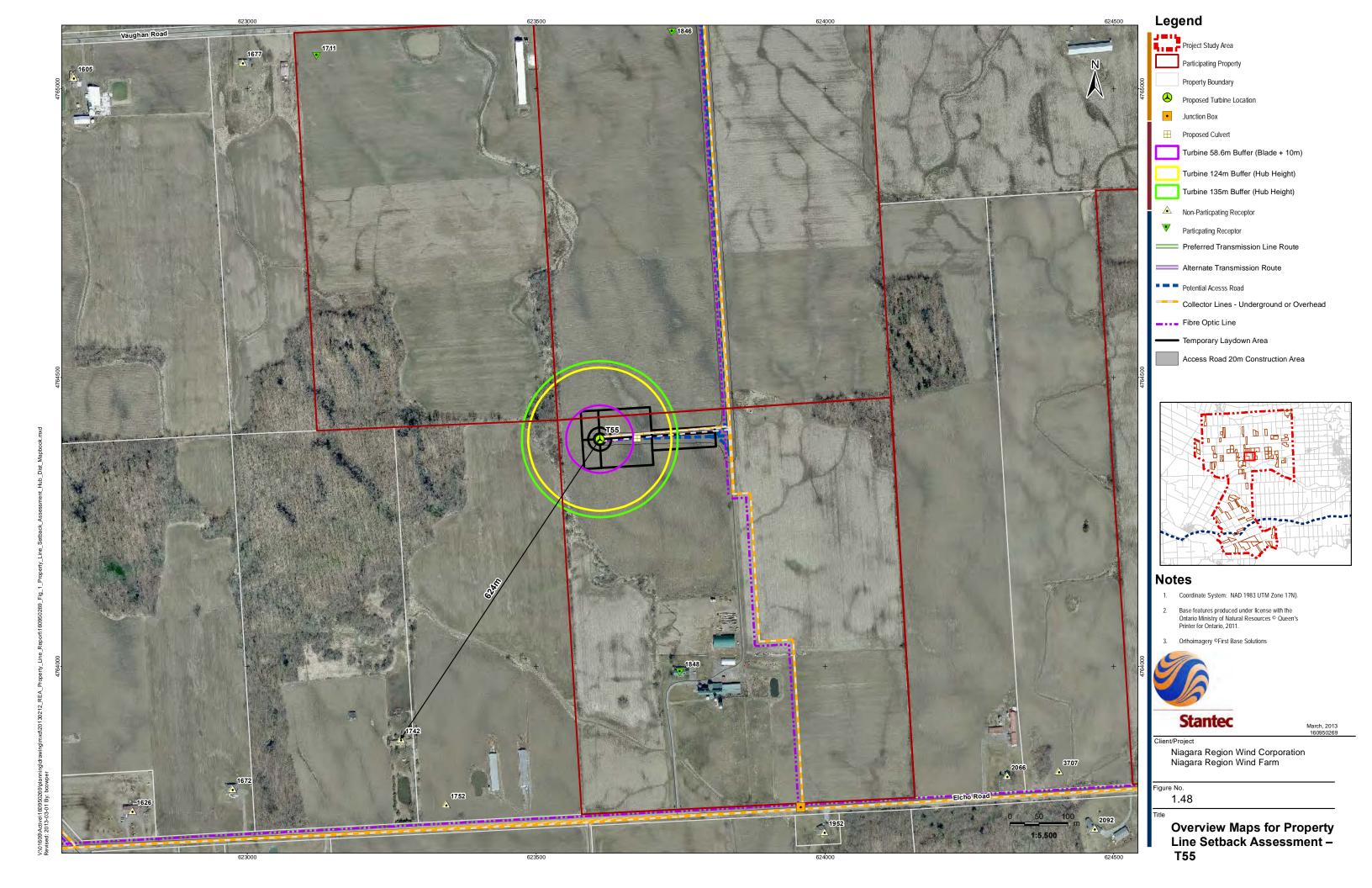
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Project Study Area Participating Property Property Boundary Proposed Turbine Location Distance to Property Boundary Turbine 58.6m Buffer (Blade + 10m) Turbine 124m Buffer (Hub Height) Turbine 135m Buffer (Hub Height) Non-Particpating Receptor Participating Receptor ─── Railway

Notes

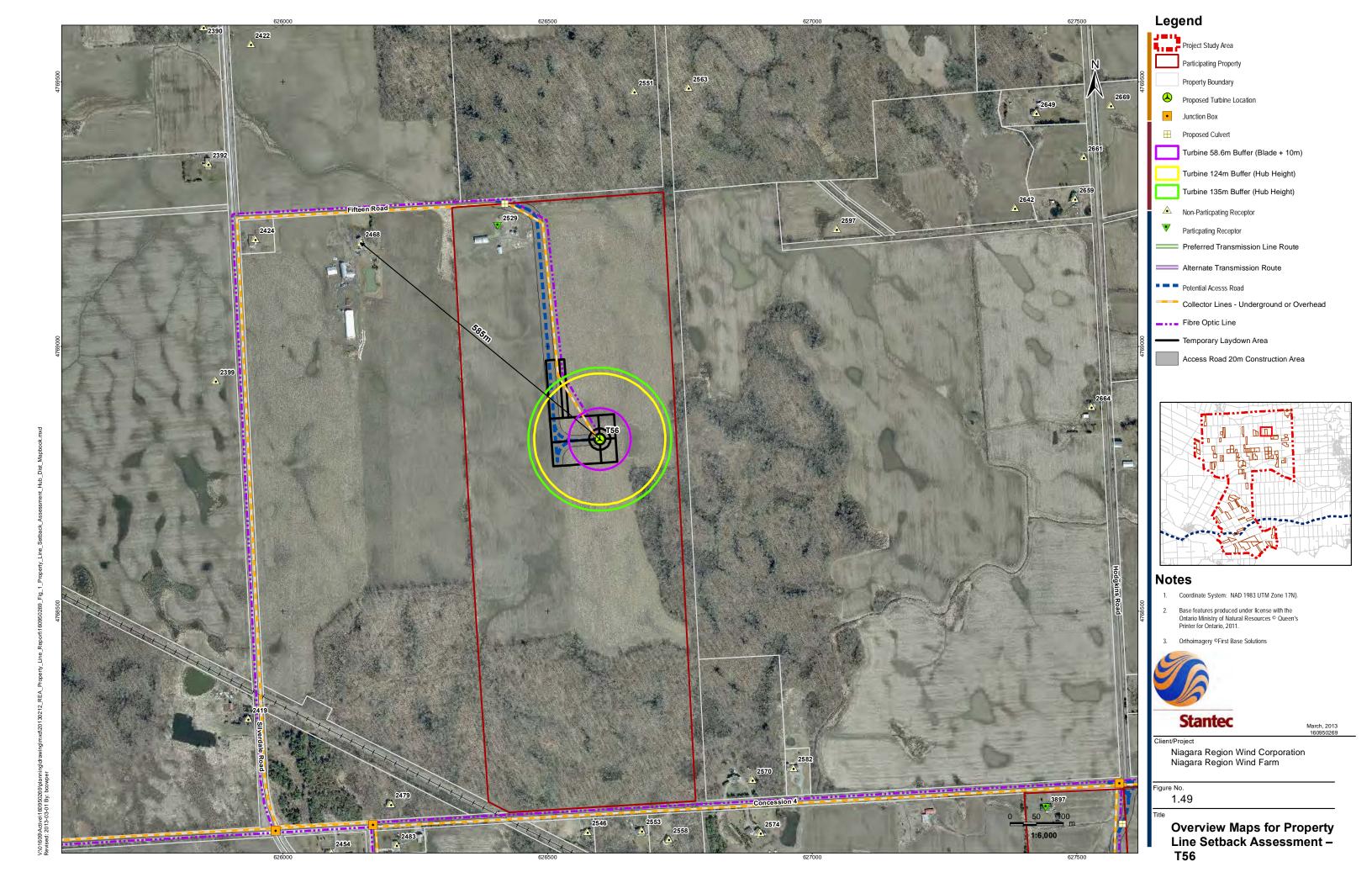
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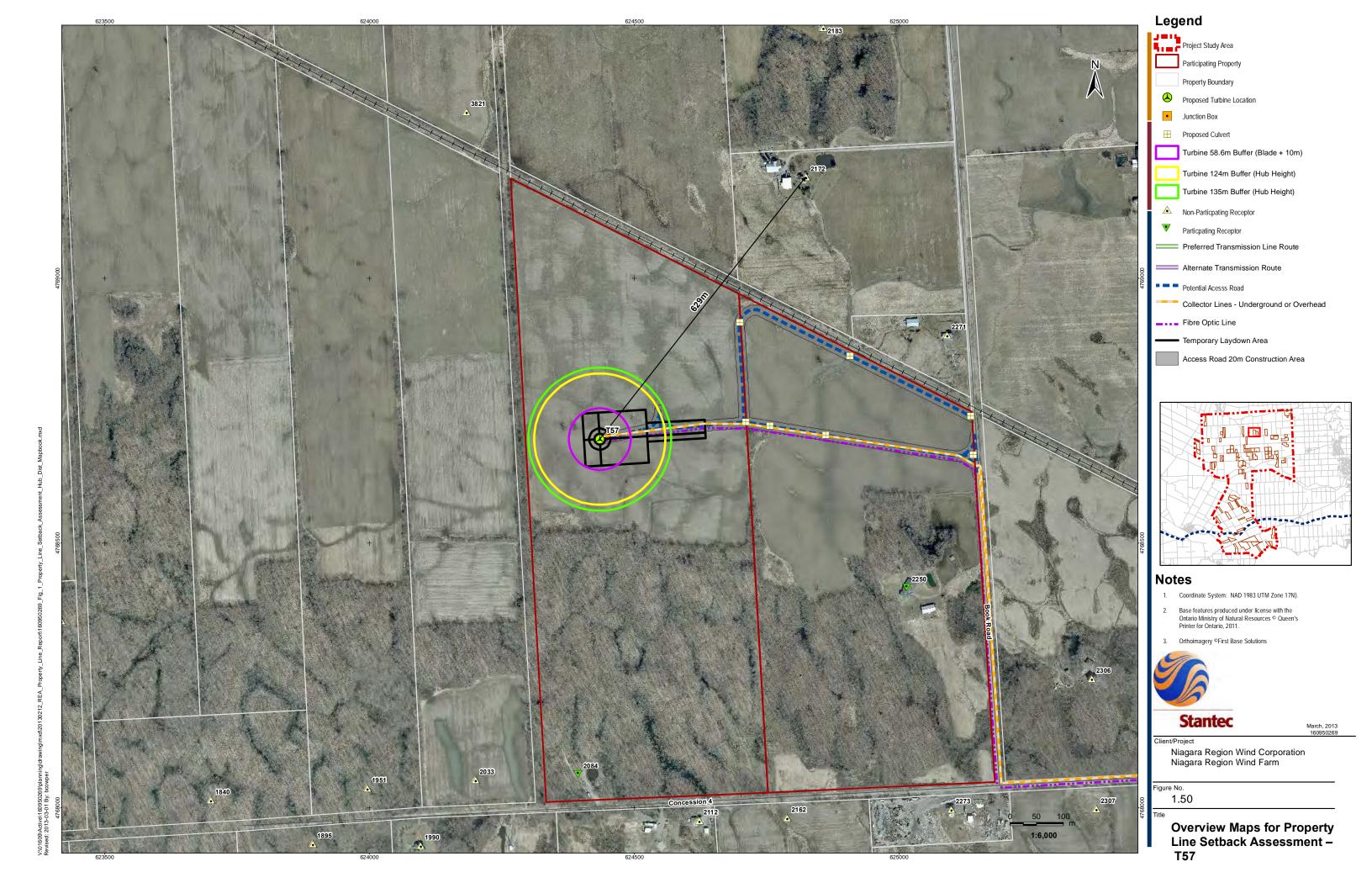
Stantec

Niagara Region Wind Corporation Niagara Region Wind Farm

1.48a

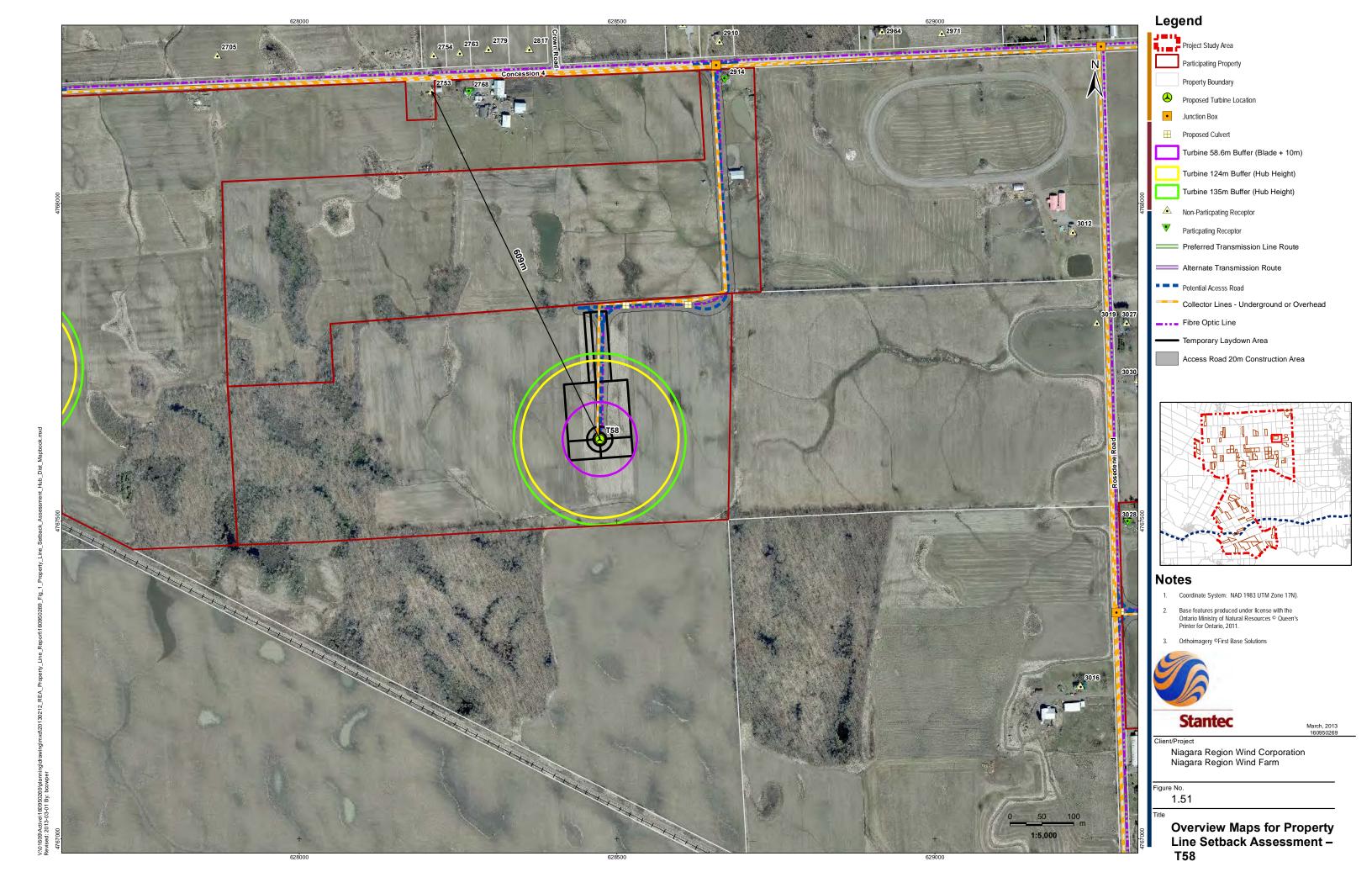


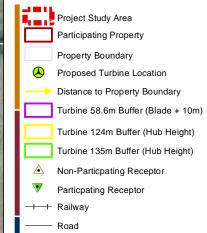
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Inset Maps for Property Line Setback - T57

Legend





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Figure No.

1.51a

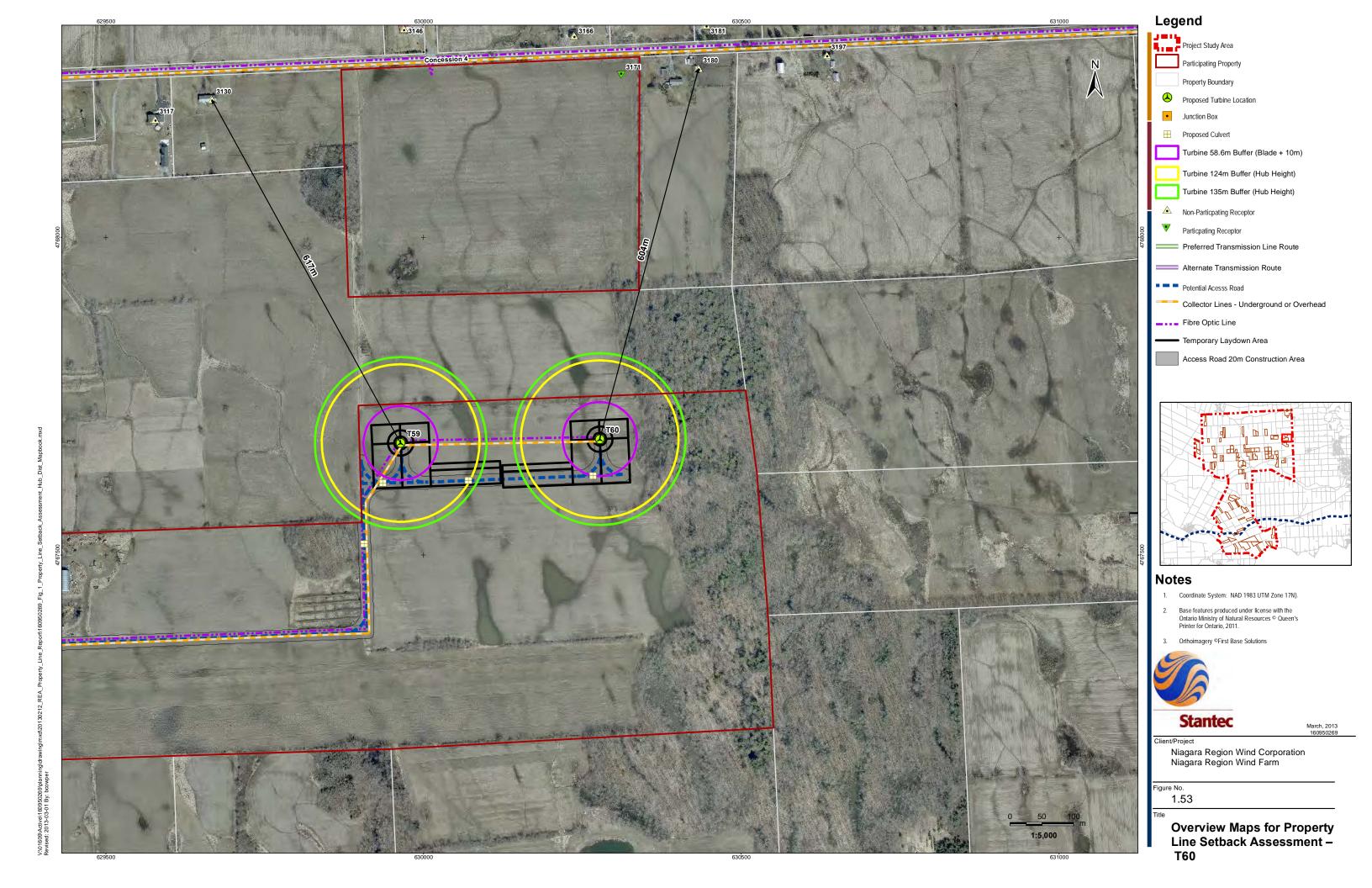
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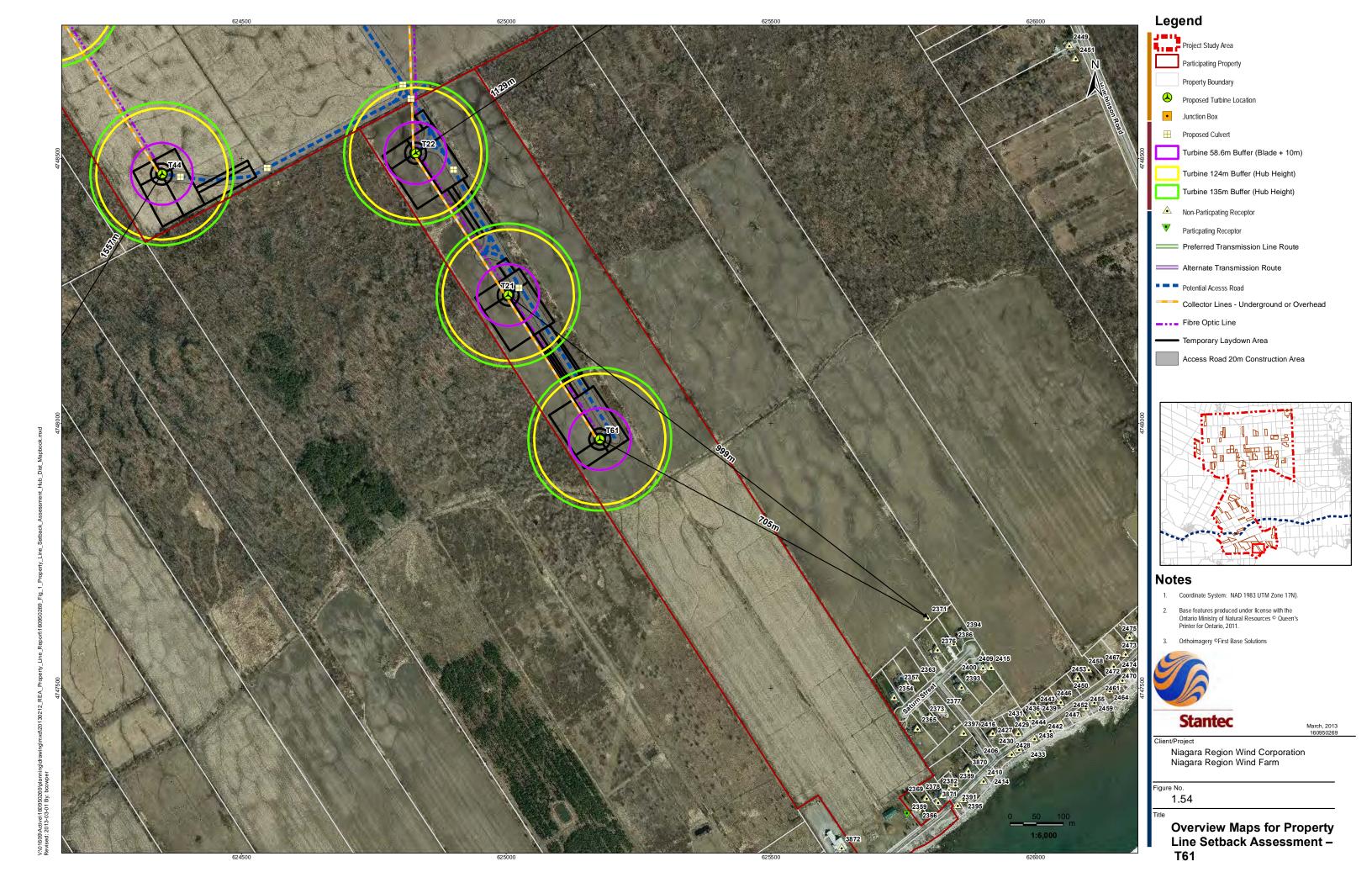
T59

Property Line Setback - T59

March, 2013 160950269

Legend





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Project Study Area

Participating Property

Property Boundary Proposed Turbine Location

Distance to Property Boundary

Turbine 58.6m Buffer (Blade + 10m)

Turbine 124m Buffer (Hub Height) Turbine 135m Buffer (Hub Height)

Non-Particpating Receptor

Participating Receptor

Coordinate System: NAD 1983 UTM Zone 17N).

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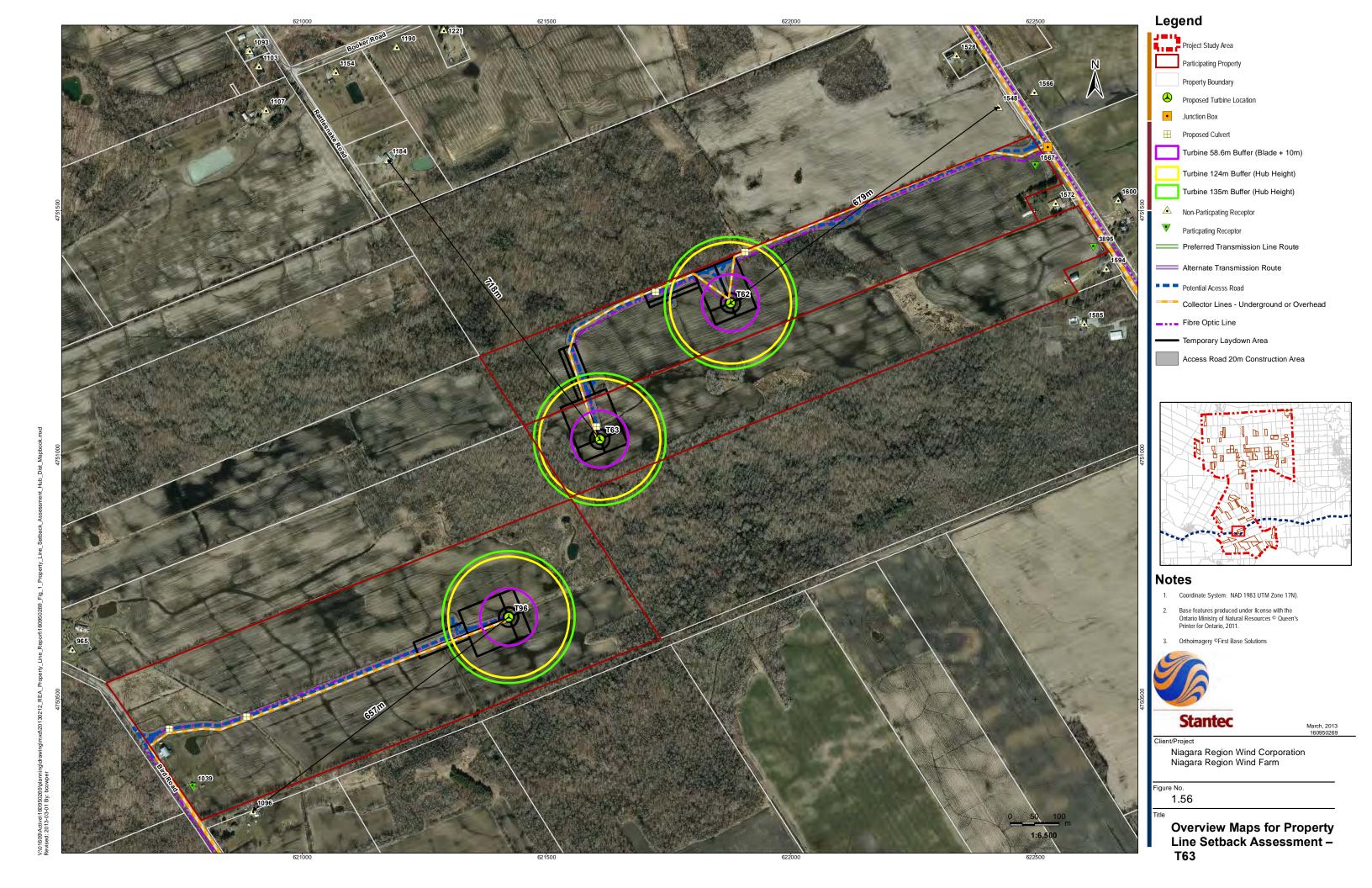
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1.55a





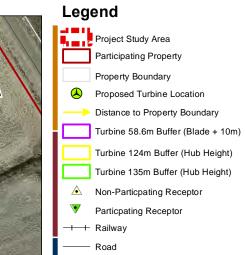
- Coordinate System: NAD 1983 UTM Zone 17N).
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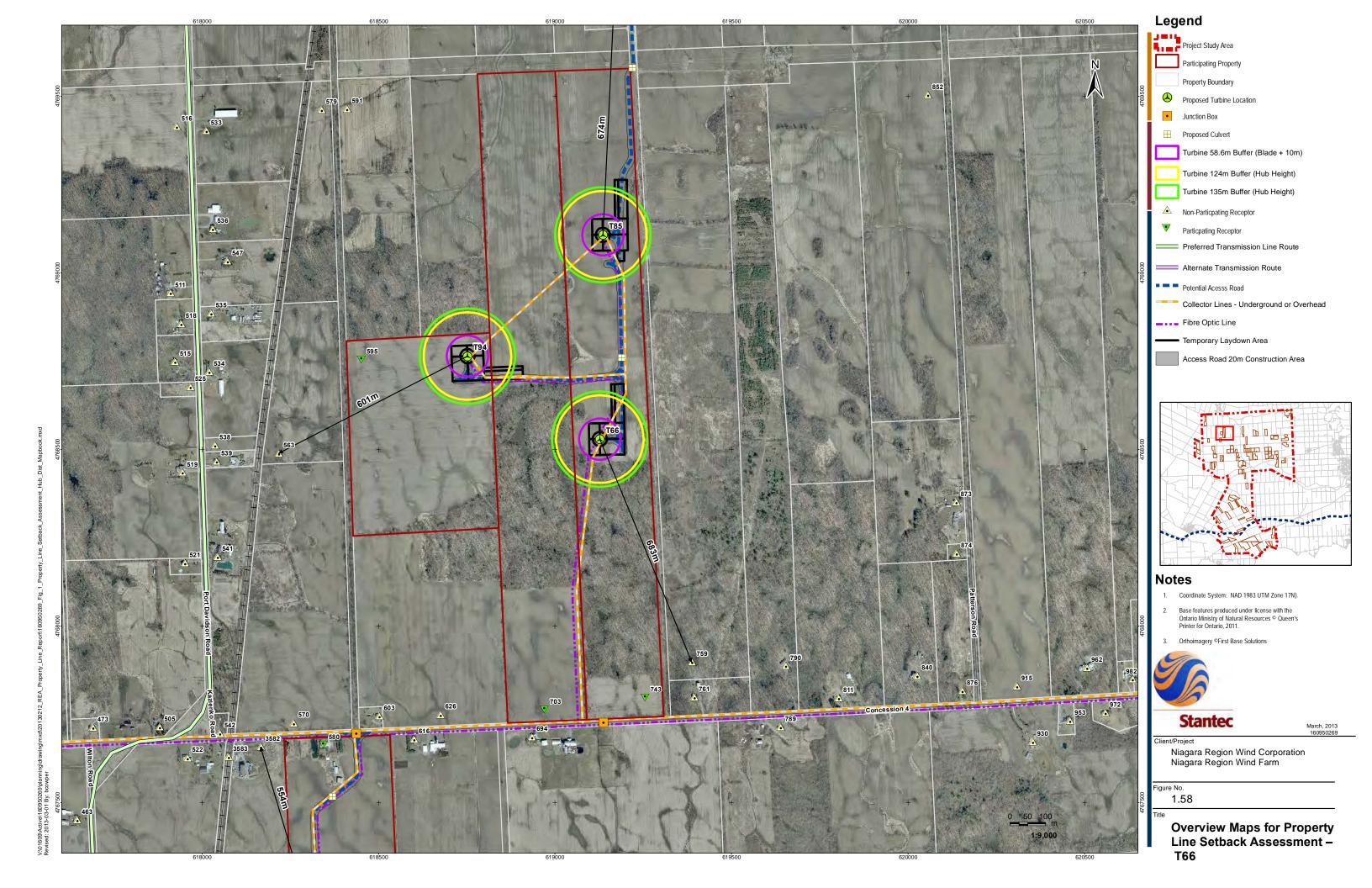


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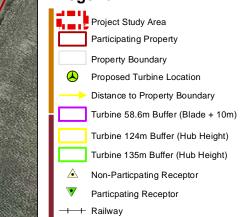






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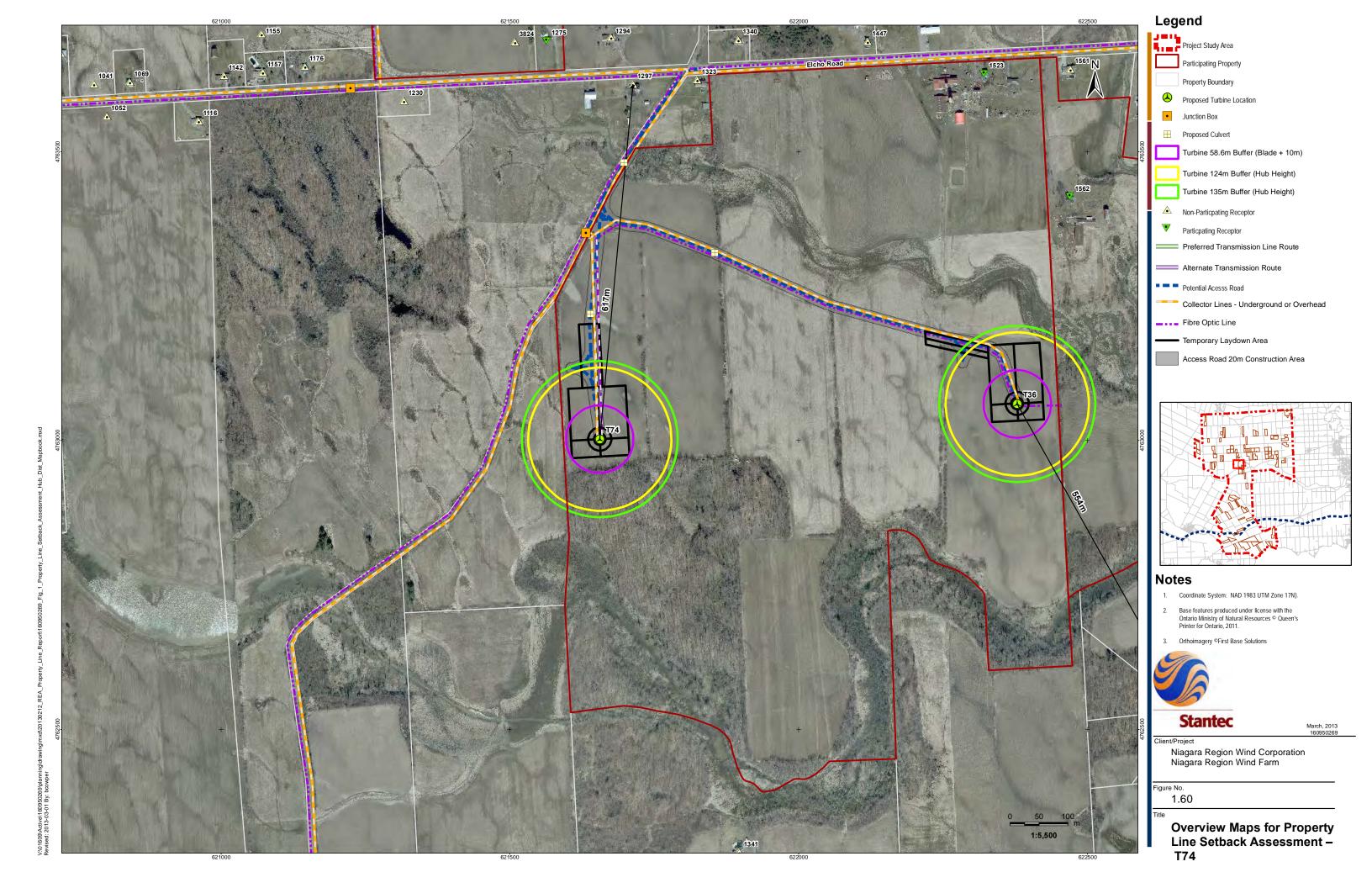
- Coordinate System: NAD 1983 UTM Zone 17N).
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Figure No.



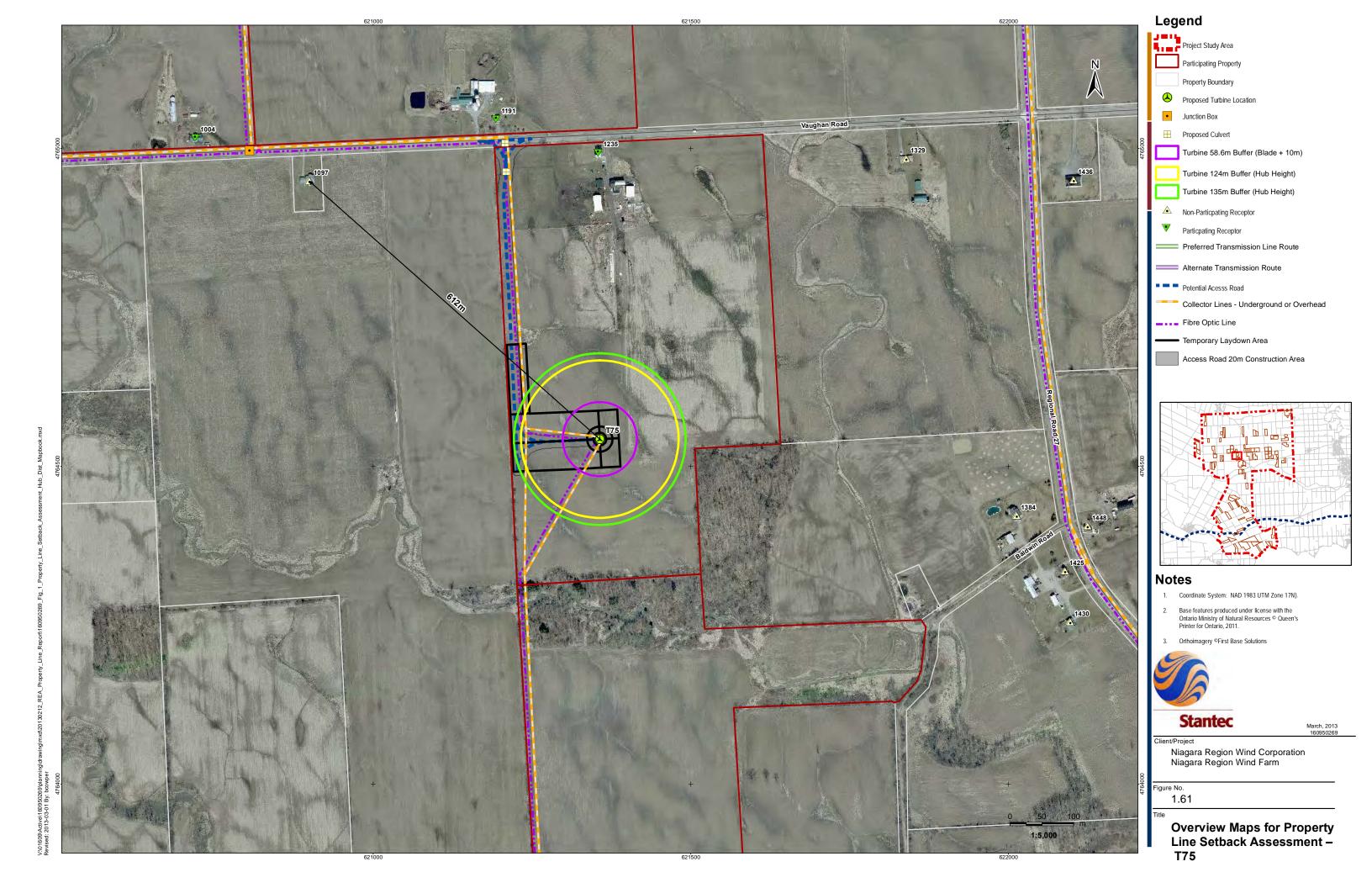
Project Study Area Participating Property Property Boundary Proposed Turbine Location Distance to Property Boundary Turbine 58.6m Buffer (Blade + 10m) Turbine 124m Buffer (Hub Height) Turbine 135m Buffer (Hub Height) Non-Participating Receptor Particpating Receptor +-+ Railway

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Figure No.

1.61a

Title

Property Boundary

Proposed Turbine Location

Turbine 58.6m Buffer (Blade + 10m)

Turbine 124m Buffer (Hub Height)

Turbine 135m Buffer (Hub Height)

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Project Study Area

Participating Property

Property Boundary

Proposed Turbine Location

Junction Box

Proposed Culvert

Turbine 58.6m Buffer (Blade + 10m)

Turbine 124m Buffer (Hub Height)

Turbine 135m Buffer (Hub Height)

▲ Non-Particpating Receptor

Participating Receptor

Preferred Transmission Line Route

Alternate Transmission Route

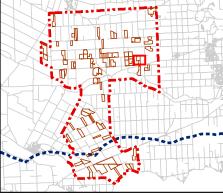
Potential Acesss Road

Collector Lines - Underground or Overhead

Fibre Optic Line

Temporary Laydown Area

Access Road 20m Construction Area



Notes

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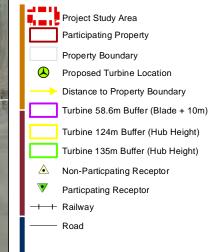
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1.63

Overview Maps for Property Line Setback Assessment -

T78



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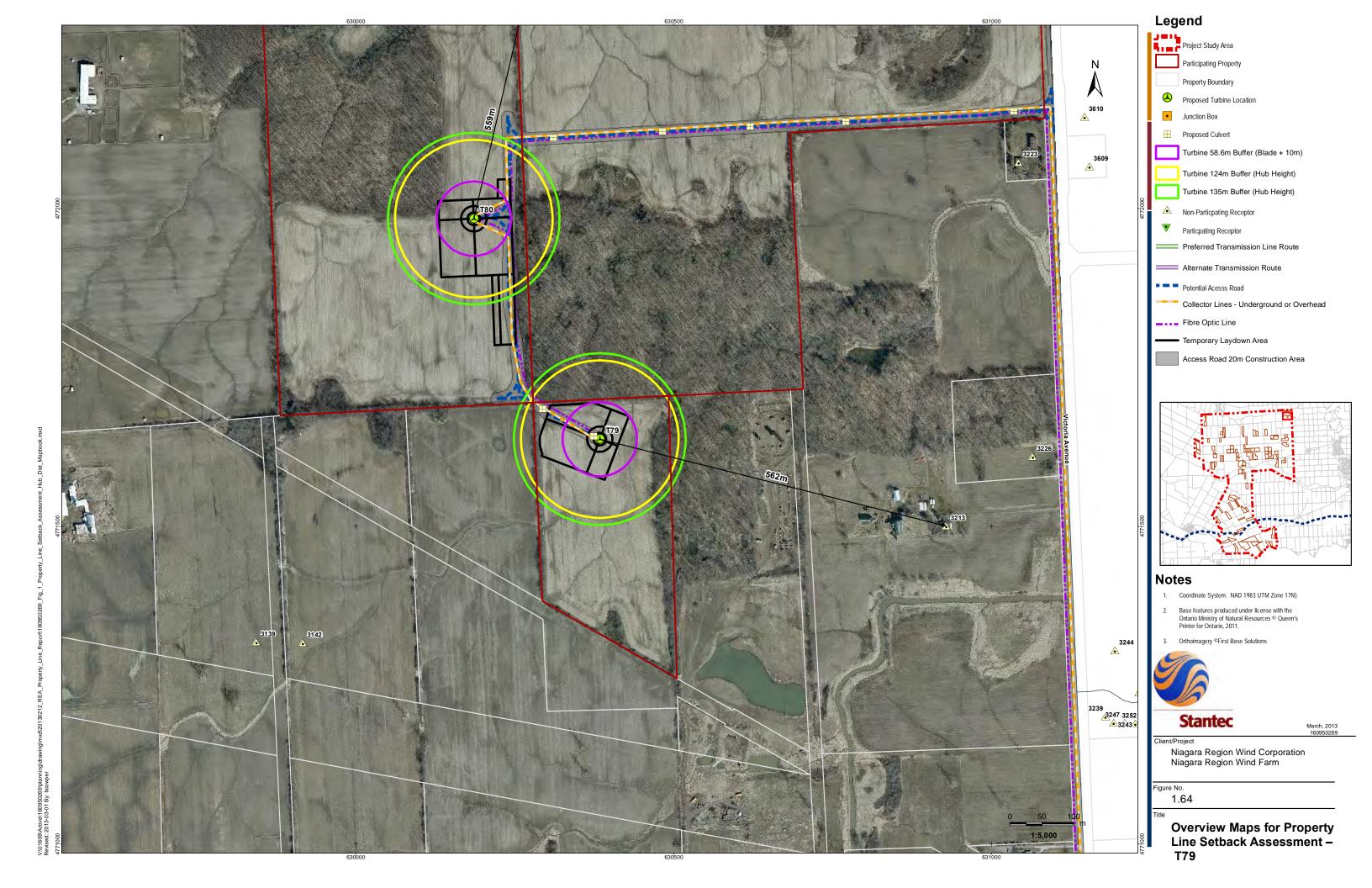
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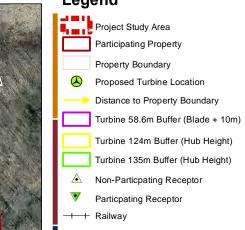
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Figure No.

1.63a





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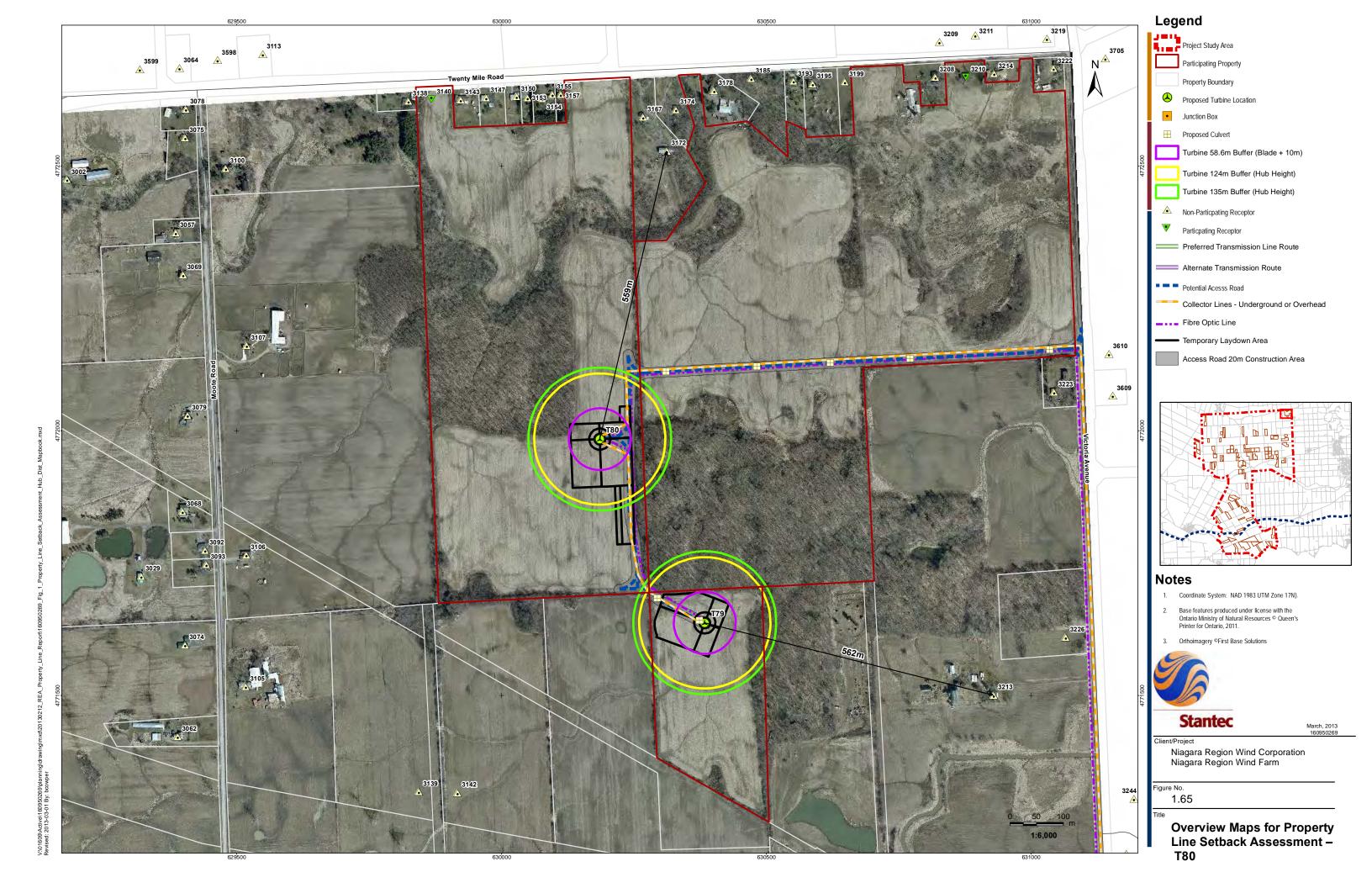


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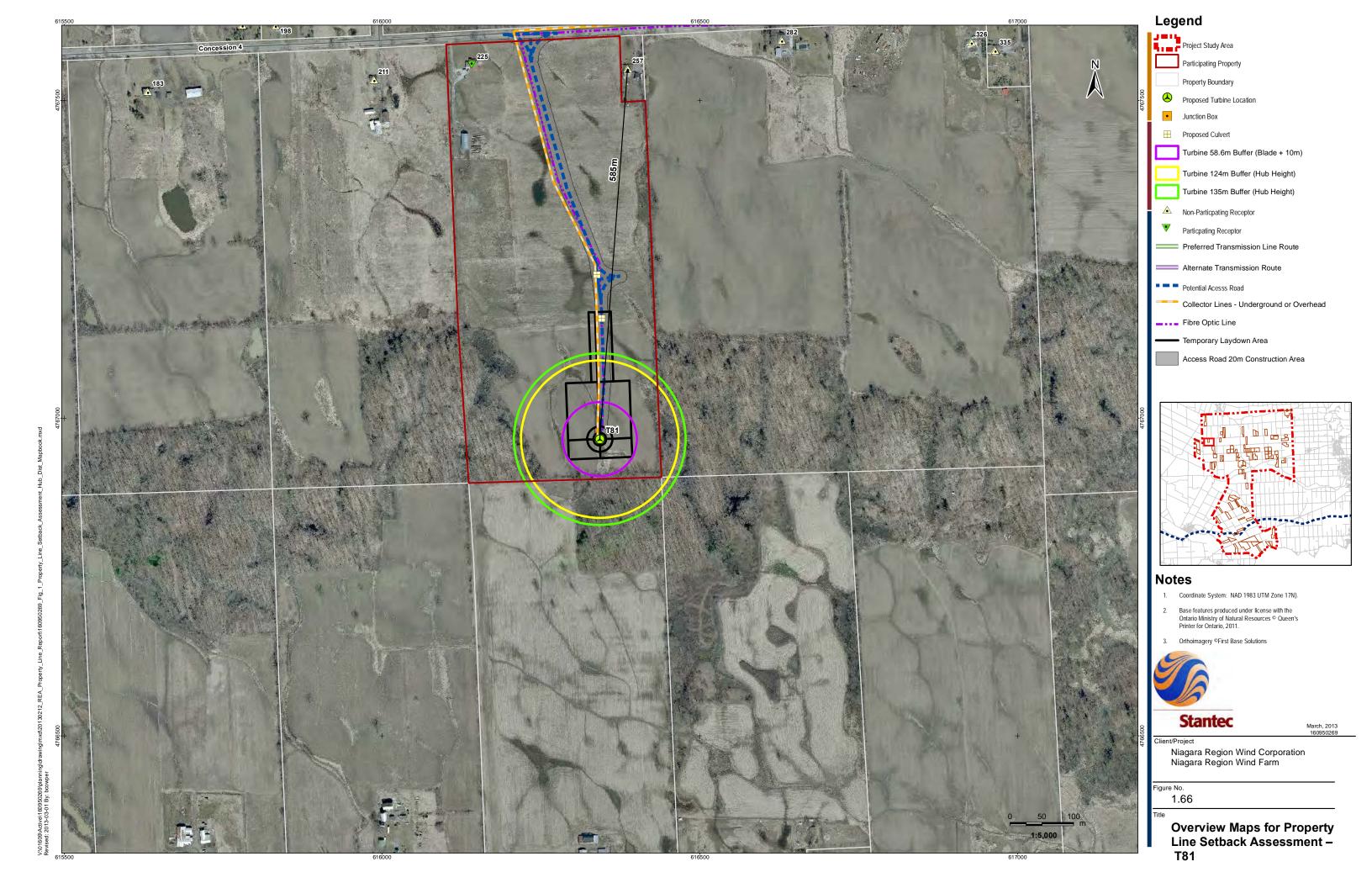
March, 2013 160950269

Niagara Region Wind Corporation Niagara Region Wind Farm

Figure No. 1.64a



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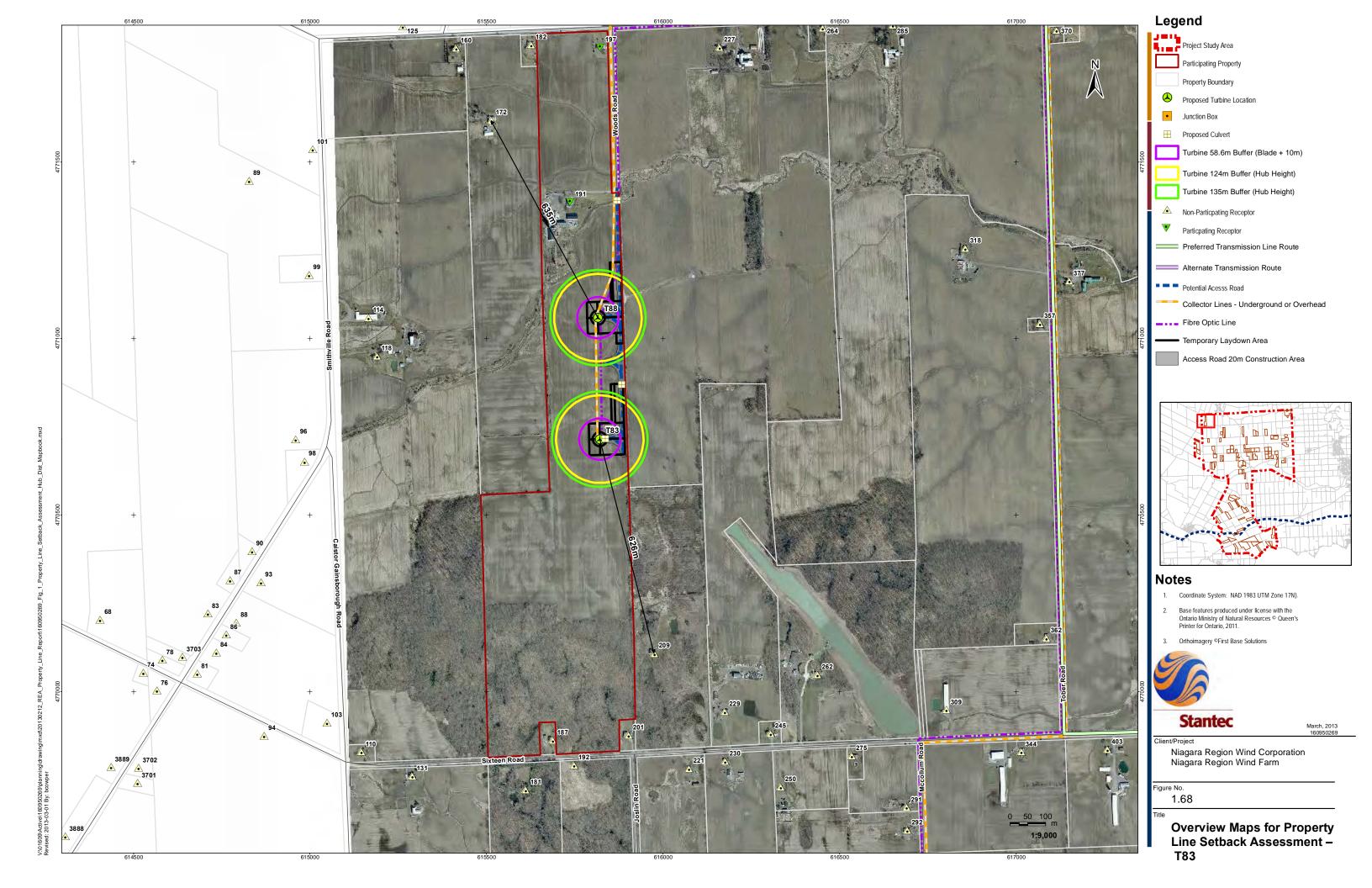
Niagara Region Wind Corporation Niagara Region Wind Farm

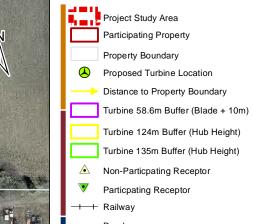
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1.66a



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Figure No.

1.68a



Project Study Area
Participating Property
Property Boundary
Proposed Turbine Location
Distance to Property Boundary
Turbine 58.6m Buffer (Blade + 10m)
Turbine 124m Buffer (Hub Height)
Turbine 135m Buffer (Hub Height)
Non-Particpating Receptor
Particpating Receptor
Railway

Notes

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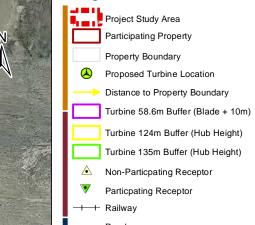
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Figure No. 1.69a



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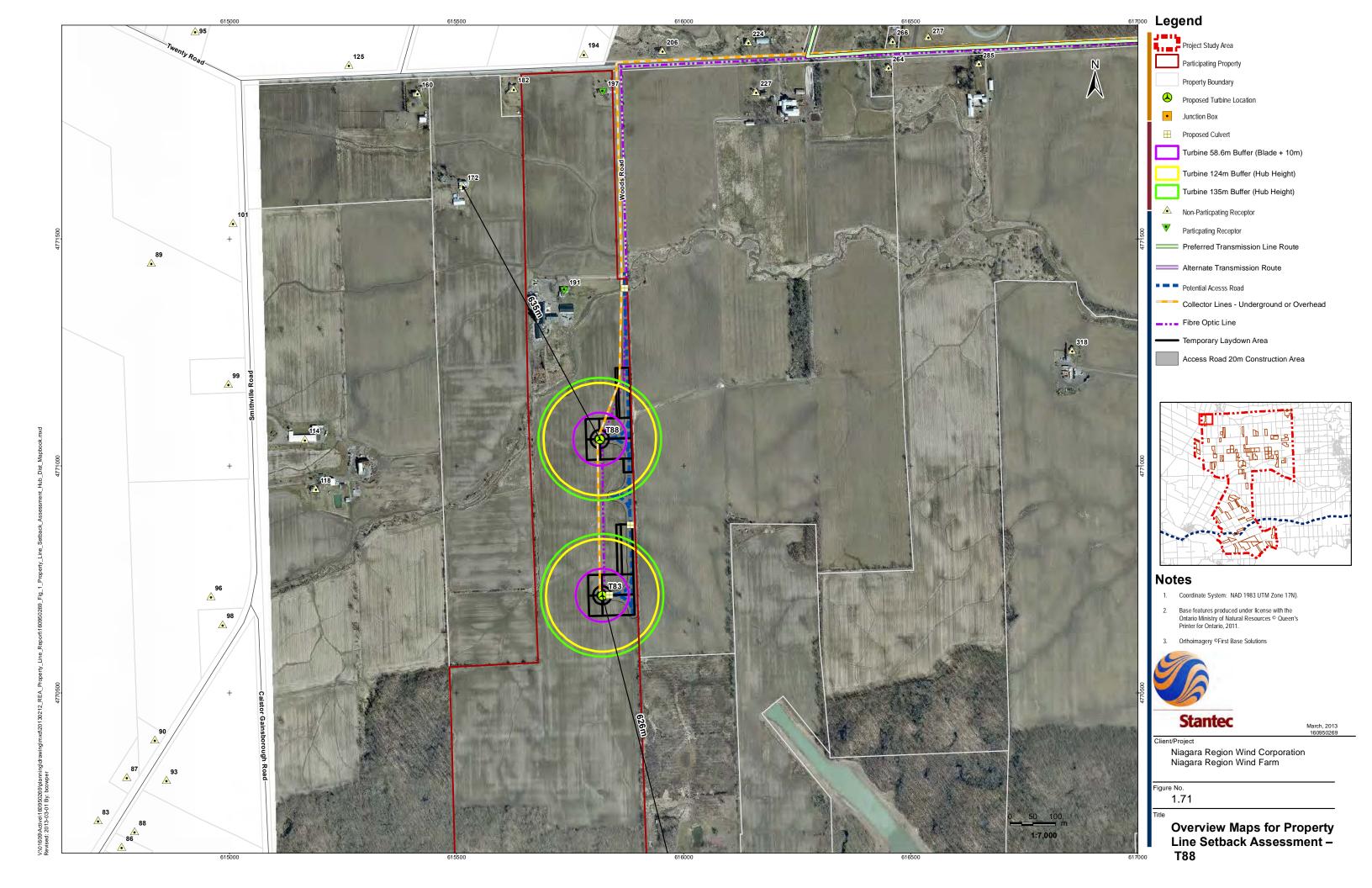
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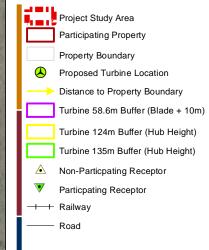
Niagara Region Wind Corporation Niagara Region Wind Farm

Figure No.

1.70a

Title





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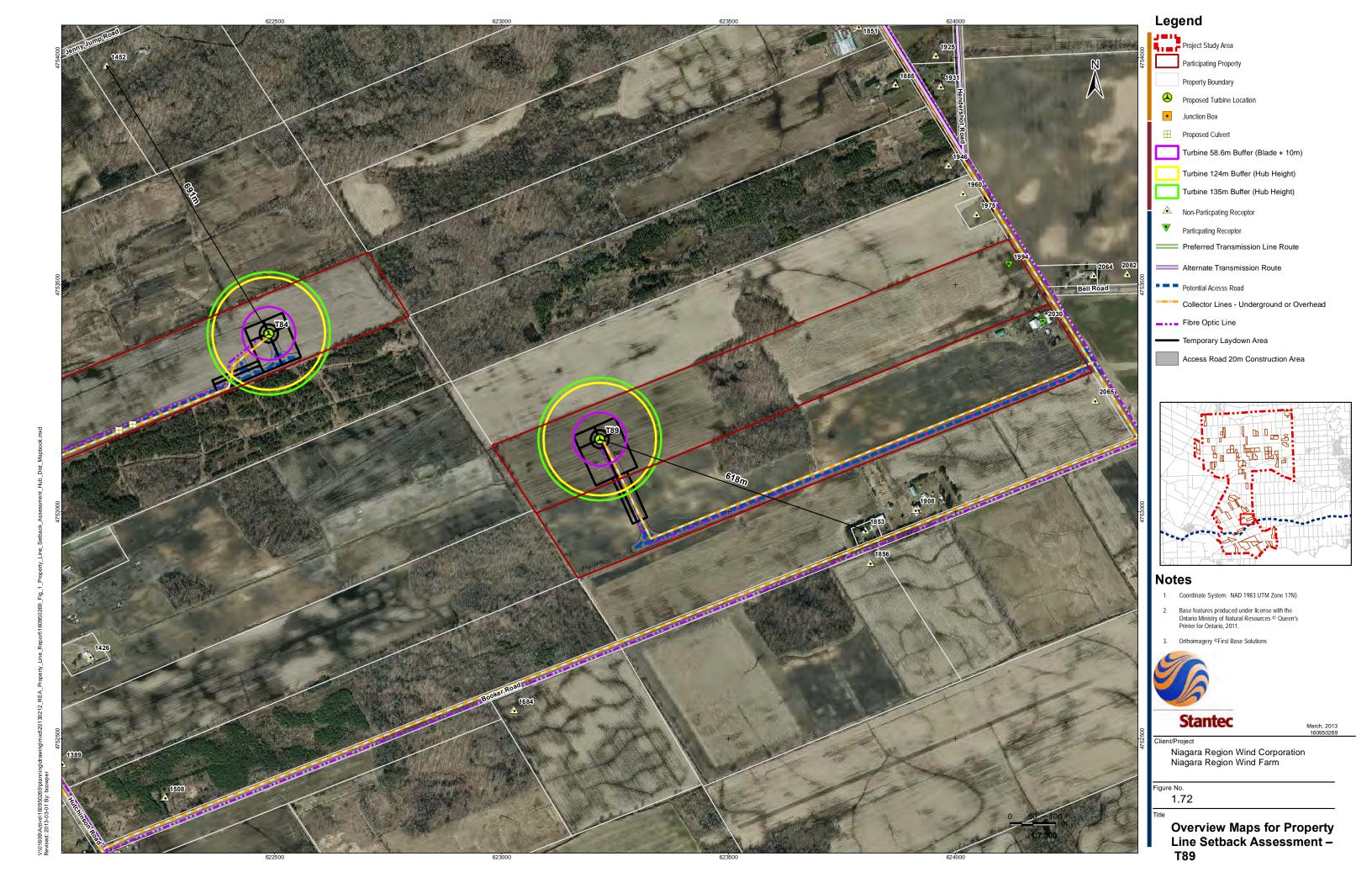
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Niagara Region Wind Corporation Niagara Region Wind Farm

Figure No. 1.71a

Title





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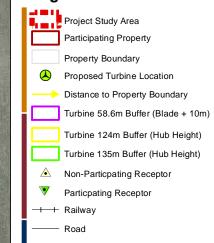
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Title



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Niagara Region Wind Corporation Niagara Region Wind Farm

Figure No.

1.74a

Title

Project Study Area
Participating Property
Property Boundary
Proposed Turbine Location
Distance to Property Boundary
Turbine 58.6m Buffer (Blade + 10m)
Turbine 124m Buffer (Hub Height)
Turbine 135m Buffer (Hub Height)

Non-Particpating Receptor

▼ Particpating Receptor

— Road

Notes

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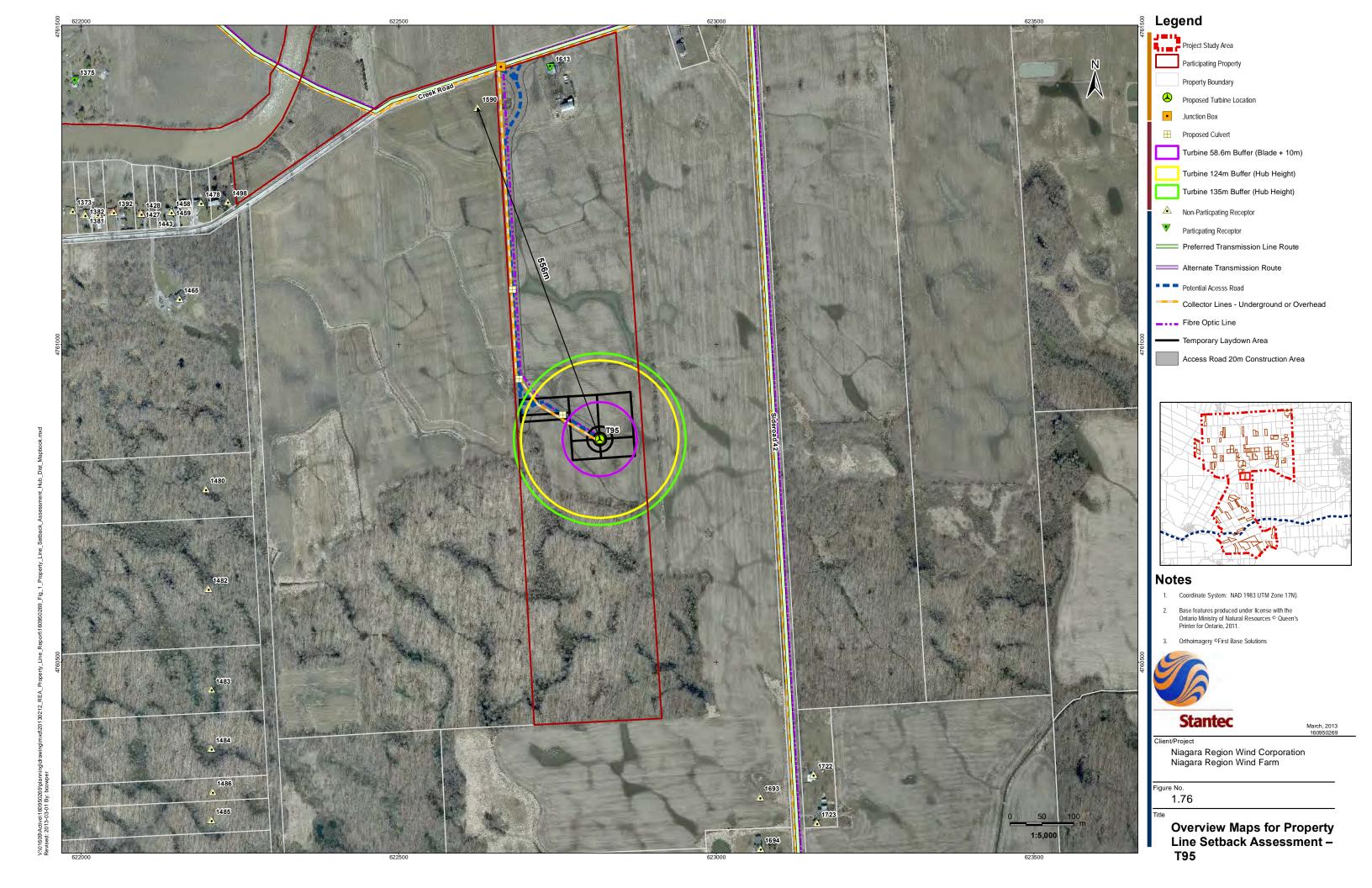
nt/Project

Niagara Region Wind Corporation Niagara Region Wind Farm

Figure No.

1.75a

Title



Project Study Area Participating Property Property Boundary

Proposed Turbine Location

Distance to Property Boundary Turbine 58.6m Buffer (Blade + 10m)

Turbine 124m Buffer (Hub Height)

Turbine 135m Buffer (Hub Height)

Non-Participating Receptor

Particpating Receptor

+-+ Railway

Notes

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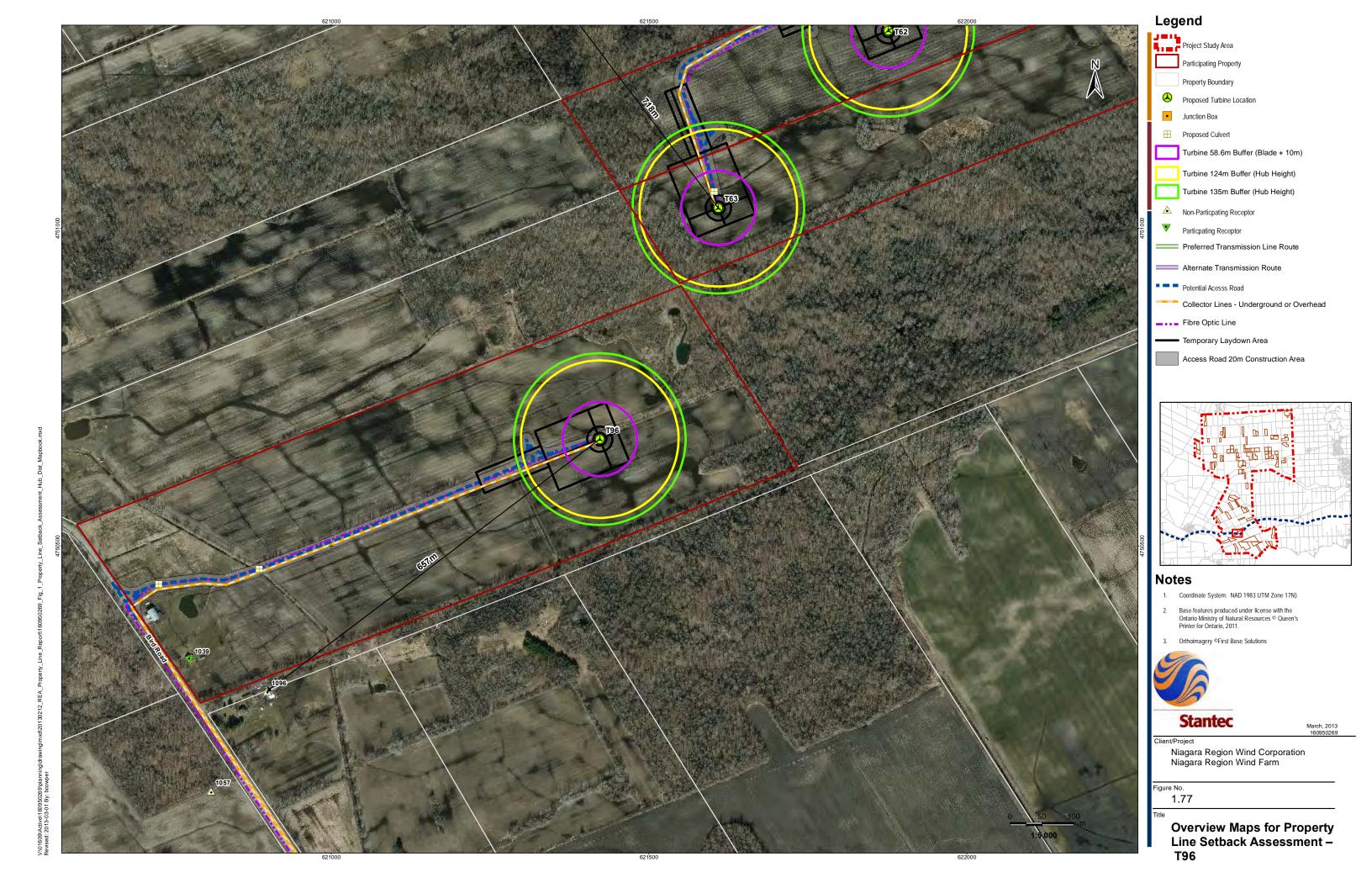


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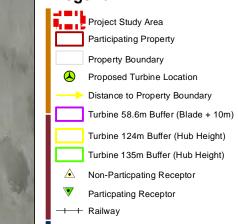
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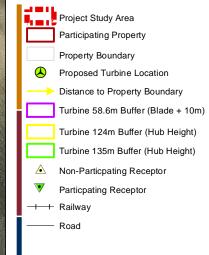
nt/Project

Niagara Region Wind Corporation Niagara Region Wind Farm

Figure No.

1.78a





Notes

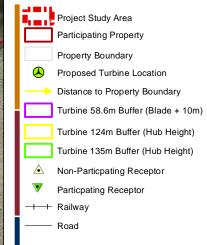
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Figure No. 1.79a



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Figure No.

1.80a

NIAGARA REGION WIND FARM PROPERTY LINE SETBACK ASSESSMENT REPORT

Appendix B

Table Summarizing Individual Property Line Setback Assessments

NIAGARA REGION WIND FARM

		Attachment B:	Property Line	Assessment Summary		
Turbine ID	Distance to Property Line (m)	Length of Overlap for 124m hub height (m)	Length of Overlap for 135m hub height (m)	Features Within Overlap	Potential Adverse Impacts	Preventative Measures
T01- West	64	60	71	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined
T01- North	61	63	74	Building/Structure: Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse.	In the turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T01- Northea st	69	55	66	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse. Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents.
T02 - North	92	32	43	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.

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		Attachment B:	Property Line	Assessment Summary		
Turbine ID	Distance to Property Line (m)	Length of Overlap for 124m hub height (m)	Length of Overlap for 135m hub height (m)	Features Within Overlap	Potential Adverse Impacts	Preventative Measures
T02 - East	124	0	11	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction.
T03- West	56*	68	77	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse.	*T03 is located within 56 m of the west property boundary which is less than 58.6 m (blade length + 10m). As such, NRWC has entered into an agreement with this landowner to permit the location of the turbine within 56 m in compliance with section 53(20(b) of O.Reg.359/09. See Appendix C. The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents.
T03- Northwe st	89	35	46	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction.
T04- West	89	35	46	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse. Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents.
T04-	95	29	40	Infrastructure:	Adverse impacts to agricultural land, including crop damage and soil	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing

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		Attachment B:	Property Line	Assessment Summary		
Turbine ID	Distance to Property Line (m)	Length of Overlap for 124m hub height (m)	Length of Overlap for 135m hub height (m)	Features Within Overlap	Potential Adverse Impacts	Preventative Measures
East				Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse.	system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents.
T05	77	47	58	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse. Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T06	70	54	65	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T08	66	58	69	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse. Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T10	114	9	21	Infrastructure: Land Use and Businesses	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction.

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		Attachment B:	Property Line	Assessment Summary		
Turbine ID	Distance to Property Line (m)	Length of Overlap for 124m hub height (m)	Length of Overlap for 135m hub height (m)	Features Within Overlap	Potential Adverse Impacts	Preventative Measures
				Hedgerows: Woodlots: Watercourses: Building/Structure:	vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse.	In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T11	119	5	16	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T13	66	58	69	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure :	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse. Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents.
T14	90	34	45	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T16	85	25	25	Infrastructure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.

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		Attachment B:	Property Line	Assessment Summary		
Turbine ID	Distance to Property Line (m)	Length of Overlap for 124m hub height (m)	Length of Overlap for 135m hub height (m)	Features Within Overla	o Potential Adverse Impacts	Preventative Measures
				Building/Structure:	Adverse impacts to infrastructure, including damage to roads, railways, utility lines and pipelines, may occur in the unlikely event of a turbine collapse. Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse.	The turbine meets the setback distance from public road right of ways and railway easements (blade length plus 10 metres) as prescribed in O. Reg. 359/09. In the unlikely event of damage to roadways or railways due to turbine collapse, NRWC will compensate the owner for any restoration. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents.
T18- South (Railwa y easeme nt)	65	23	23	Infrastructure:	Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse. Adverse impacts to infrastructure, including damage to roads, railways, utility lines and pipelines, may occur in the unlikely event of a turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents. The turbine meets the setback distance from public road right of ways and railway easements (blade length plus 10 metres) as prescribed in O. Reg. 359/09. In the unlikely event of damage to roadways or railways due to turbine collapse, NRWC will compensate the owner for any restoration.
T18- Southea st	101	23	34	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T18- South	91	33	44	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T18- South	88	36	47	Infrastructure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction.

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		Attachment B:	Property Line	Assessment Summary		
Turbine ID	Distance to Property Line (m)	Length of Overlap for 124m hub height (m)	Length of Overlap for 135m hub height (m)	Features Within Overlap	Potential Adverse Impacts	Preventative Measures
				Woodlots: Watercourses: Building/Structure :	vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse.	In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T19	65	69	70	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse. Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents.
T20	80	44	55	Infrastructure: Land Use and Businesses Hedgerows: Woodlots:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T21	66	58	69	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T22	65	59	70	Infrastructure: Land Use and Businesses Hedgerows: Woodlots:	Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse. Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.

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PROPERTY LINE SETBACK ASSESSMENT REPORT Attachment B - Individual Property Line Setback Assessments

Attachment B: **Property Line Assessment Summary Distance** Length of Lenath of **Turbine** Overlap for Overlap for to **Features Within Overlap Potential Adverse Impacts Preventative Measures** 124m hub 135m hub ID **Property** height (m) height (m) Line (m) Building/Structure: 21 Adverse impacts to hedgerows, including The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, Infrastructure: 21 T23-62 vegetation damage and disturbance to and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing Land Use and East related wildlife habitat, may occur in the system to prevent ice formation and ice throw. Businesses unlikely event of turbine collapse. (railway In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or \boxtimes Hedgerows: easeme replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents. Woodlots: nt) Watercourses: Building/Structure 58 Adverse impacts to agricultural land, The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, Infrastructure: 47 T23-83 including crop damage and soil and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing \boxtimes Land Use and East compaction, may occur in the unlikely system to prevent ice formation and ice throw. Businesses event of turbine collapse. (farm) In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop Hedgerows: damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. Woodlots: Watercourses: Building/Structure 16 Infrastructure: Adverse impacts to agricultural land, The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, T27-61 5 including crop damage and soil and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing \boxtimes Land Use and East compaction, may occur in the unlikely system to prevent ice formation and ice throw. Businesses event of turbine collapse. (easem In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop \boxtimes Hedgerows: ent) damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. Adverse impacts to hedgerows, including vegetation damage and disturbance to Woodlots: In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or related wildlife habitat, may occur in the replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined Watercourses: unlikely event of turbine collapse. in the REA documents. Building/Structure 69 Adverse impacts to agricultural land, The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, Infrastructure: T27-58 including crop damage and soil and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing \boxtimes East Land Use and compaction, may occur in the unlikely system to prevent ice formation and ice throw. Businesses event of turbine collapse. (farm) In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop \boxtimes Hedgerows: damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. Adverse impacts to hedgerows, including vegetation damage and disturbance to Woodlots: In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or related wildlife habitat, may occur in the replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined Watercourses: unlikely event of turbine collapse. in the REA documents. П Building/Structure 7 Infrastructure: Adverse impacts to agricultural land, The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, T28-7 and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing including crop damage and soil \boxtimes Land Use and East compaction, may occur in the unlikely system to prevent ice formation and ice throw. Businesses event of turbine collapse. (easem In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop

damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction.

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Adverse impacts to hedgerows, including

Hedgerows:

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		Attachment B:	Property Line	Assessment Summary		
Turbine ID	Distance to Property Line (m)	Length of Overlap for 124m hub height (m)	Length of Overlap for 135m hub height (m)	Features Within Overlap	Potential Adverse Impacts	Preventative Measures
				Woodlots: Watercourses: Building/Structure :	vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse.	In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T28- East (farm)	68	56	67	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T29	81	43	54	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents.
T31 - North	93	31	42	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse. Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T31 – Northea st	132	0	3	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.

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		Attachment B:	Property Line	Assessment Summary		
Turbine ID	Distance to Property Line (m)	Length of Overlap for 124m hub height (m)	Length of Overlap for 135m hub height (m)	Features Within Overlap	Potential Adverse Impacts	Preventative Measures
T32	85	39	50	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse. Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents.
T33- Northwe st	96	28	39	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T33- North	62	62	73	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse. Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents.
T33- West (Road easeme nt)	62	10	10	Infrastructure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse. Adverse impacts to infrastructure,	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents. The turbine meets the setback distance from public road right of ways and railway easements (blade length plus 10 metres) as prescribed in

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		Attachment B:	Property Line	Assessment Summary		
Turbine ID	Distance to Property Line (m)	Length of Overlap for 124m hub height (m)	Length of Overlap for 135m hub height (m)	Features Within Overlap	Potential Adverse Impacts	Preventative Measures
					including damage to roads, railways, utility lines and pipelines, may occur in the unlikely event of a turbine collapse.	O. Reg. 359/09. In the unlikely event of damage to roadways or railways due to turbine collapse, NRWC will compensate the owner for any restoration.
T34	65	59	40	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction.
T37- East (easem ent)	62	20	20	Infrastructure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse. Adverse impacts to infrastructure, including damage to roads, railways, utility lines and pipelines, may occur in the unlikely event of a turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents. The turbine meets the setback distance from public road right of ways and railway easements (blade length plus 10 metres) as prescribed in O. Reg. 359/09. In the unlikely event of damage to roadways or railways due to turbine collapse, NRWC will compensate the owner for any restoration.
T37- East (farm)	82	42	53	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T38	102	22	33	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.

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Turbine ID	Distance to Property Line (m)	Length of Overlap for 124m hub height (m)	Length of Overlap for 135m hub height (m)	Features Within Overla	Potential Adverse Impacts	Preventative Measures
T44- West	95	29	40	Infrastructure:	Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse. Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T44- South	99	25	36	Infrastructure:	Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T44	133	0	2	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T48	117	7	18	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction.
T52	66	58	69	Infrastructure: Land Use and Businesses Hedgerows: Woodlots:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined

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		Attachment B:	Property Line	Assessment Summary		
Turbine ID	Distance to Property Line (m)	Length of Overlap for 124m hub height (m)	Length of Overlap for 135m hub height (m)	Features Within Overlap	Potential Adverse Impacts	Preventative Measures
T54- West	109	15	26	Watercourses:	unlikely event of turbine collapse. Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse. Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse.	in the REA documents. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents. The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined
				Building/Structure :	Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse.	in the REA documents. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents.
T54- North	67	57	68	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse. Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse. Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents.
T55- Northwe st	80	44	55	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses:	Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse. Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents.

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Turbine ID	Distance to Property Line (m)	Length of Overlap for 124m hub height (m)	Length of Overlap for 135m hub height (m)	Features Within Ov	erlap	Potential Adverse Impacts	Preventative Measures
				Building/Structure :			
T55- West	71	53	64	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:		Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse. Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse. Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents.
T59- West	65	59	70	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:		Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents.
T59- North	61	62	73	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:		Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T60	68	56	67	Infrastructure: Land Use and Businesses Hedgerows: Woodlots:		Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined

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Turbine ID	Distance to Property Line (m)	Length of Overlap for 124m hub height (m)	Length of Overlap for 135m hub height (m)	Features Within Overlap	Potential Adverse Impacts	Preventative Measures
				Watercourses:	unlikely event of turbine collapse.	in the REA documents.
				Building/Structure:	Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse.	
T61	65	59	70	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse. Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents.
T62	89	35	46	Infrastructure:	Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T63	115	8	19	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T74	63	61	72	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse. Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents.

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Turbine ID	Distance to Property Line (m)	Length of Overlap for 124m hub height (m)	Length of Overlap for 135m hub height (m)	Features Within Overlap	Potential Adverse Impacts	Preventative Measures
					event of turbine collapse.	
T76 - North	119	9	16	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T76 - Northea st	128	0	7	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T78	104	20	31	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T79- West	102	22	33	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T79- East	110	14	25	Infrastructure:	Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw.

NIAGARA REGION WIND FARM

		Attachment B:	Property Line	Assessment Summary		
Turbine ID	Distance to Property Line (m)	Length of Overlap for 124m hub height (m)	Length of Overlap for 135m hub height (m)	Features Within Overlap	Potential Adverse Impacts	Preventative Measures
T81- South	63	61	72	Businesses Hedgerows: Woodlots: Watercourses: Building/Structure: Land Use and Businesses Hedgerows: Woodlots: Watercourses:	event of a turbine collapse. Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse. Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse.	In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents. The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T81- East	94	30	41	Building/Structure:	Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse. Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents.
T81- Southea st	114	10	21	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T82	97	27	38	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse. Adverse impacts to potential	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.

NIAGARA REGION WIND FARM

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Turbine ID	Distance to Property Line (m)	Length of Overlap for 124m hub height (m)	Length of Overlap for 135m hub height (m)	Features Within Overlap	Potential Adverse Impacts	Preventative Measures
					watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse.	In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents.
T83	78	46	57	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T84- South	82	42	53	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse. Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents.
T84- North	82	42	53	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T85- East (easem ent)	101	21	21	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T85- East	122	2	13	Infrastructure: ☐ Land Use and ☐	Adverse impacts to agricultural land, including crop damage and soil	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing

NIAGARA REGION WIND FARM

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Turbine ID	Distance to Property Line (m)	Length of Overlap for 124m hub height (m)	Length of Overlap for 135m hub height (m)	Features Within Overlap	Potential Adverse Impacts	Preventative Measures
(farm)				Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse.	system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T88	70	54	65	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure :	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T89	75	49	60	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T93	67	56	67	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse. Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents.
T94	62	62	73	Infrastructure: Land Use and Businesses Hedgerows: Woodlots:	Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse. Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.

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		Attachment B:	Property Line	Assessment Summary		
Turbine ID	Distance to Property Line (m)	Length of Overlap for 124m hub height (m)	Length of Overlap for 135m hub height (m)	Features Within Overlap	Potential Adverse Impacts	Preventative Measures
				Watercourses: ⊠ Building/Structure : □	event of turbine collapse.	In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents.
T95 - East	68	56	67	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse. Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents.
T95 – West	129	0	6	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.
T97	99	25	36	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to woodlots, including soil compaction, damage or loss of trees and vegetation, may occur in the unlikely event of a turbine collapse. Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents.
T98	116	8	19	Infrastructure: Land Use and Businesses Hedgerows: Woodlots:	Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to potential watercourses, including siltation and alteration, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to a watercourse due to turbine collapse, NRWC will coordinate, at their own cost, all restoration activities to return the watercourse and site drainage to its original condition. Other mitigation measures are outlined in the REA documents.

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		Attachment B:	chment B: Property Line Assessment Summary						
Turbine ID	Distance to Property Line (m)	Length of Overlap for 124m hub height (m)	Length of Overlap for 135m hub height (m)	Features Within Overlap		Potential Adverse Impacts	Preventative Measures		
				Watercourses:	\boxtimes				
				Building/Structure :					
T99	92	31	42	Infrastructure: Land Use and Businesses Hedgerows: Woodlots: Watercourses: Building/Structure:		Adverse impacts to agricultural land, including crop damage and soil compaction, may occur in the unlikely event of turbine collapse. Adverse impacts to hedgerows, including vegetation damage and disturbance to related wildlife habitat, may occur in the unlikely event of turbine collapse.	The turbines will be constructed and designed by professional engineers, undergo regular maintenance and monitoring by operational staff, and contain shutdown mechanisms in instances such as extreme weather or malfunction. The turbines are also equipped with a de-icing system to prevent ice formation and ice throw. In the unlikely event of damage to agricultural land due to turbine collapse, landowners would be compensated by NRWC for any crop damage. Other mitigation measures are outlined in the REA documents to mitigate soil compaction. In the unlikely event of damage to vegetation due to turbine collapse, NRWC will coordinate, at NRWC cost, all necessary restoration or replanting. NRWC will additionally compensate the landowner for any vegetation loss. Other mitigation measures for vegetation are outlined in the REA documents.		

NIAGARA REGION WIND FARM PROPERTY LINE SETBACK ASSESSMENT REPORT

Appendix C

Copy of Landowner Agreement for Adjacent Turbine

ABUTTING LAND OWNER'S ACKOWLEDGEMENT AND CONSENT AGREEMENT

This Abutting Land Owner's Acknowledgement and Consent Agreement made as of the 1st day of March, 2013 by and between (the "Abutting Land Owner") and NIAGARA REGION WIND CORPORATION ("NRWC").

Whereas NRWC has been awarded a feed-in tariff contract from the Ontario Power Authority for the development, construction and operation of a 230 megawatt renewable energy generation facility in the Niagara Region at which wind is used to generate electricity through the use of wind turbines (the "Wind Facility");

And Whereas the Abutting Land	Owner owns property described in
	ner's Property") and which is shown in green on Schedule
"A" attached hereto;	
And Whereas the Abutting Land (Owner's Property is adjacent to and abuts property on the east
	(the "Participating Land Owner"), which
property is described in	
	(the "Participating Land Owner's
Property") and which is outlined i intends to construct one wind turbin	n red on Schedule "A" attached hereto, and on which NRWC ne as part of the Wind Facility;

And Whereas the Abutting Land Owner is the son of the Participating Land Owner and there is no fencing along the boundary and lot line of the Abutting Land Owner's Property and the Participating Land Owner's Property, which are farmed as if one farm;

And whereas the wind turbine to be constructed on the Participating Land Owner's Property is marked as turbine T03 on Schedule "A" (the "Turbine"), which location is approximately 56 metres from the boundary lot line between the Abutting Land Owner's Property and the Participating Land Owner's Property, being a closer setback than required by the Renewable Energy Approval (REA) Regulation (O. Reg. 359/09);

And whereas the Abutting Land Owner has agreed with NRWC to provide his written consent to the location of the Turbine as set out on Schedule "A".

Now therefore, in consideration of the sum of \$1.00 and other good and valuable consideration, now paid by NRWC to the Abutting Land Owner, the receipt and sufficiency of which are hereby acknowledged, the Abutting Land Owner acknowledges and agrees as follows:

- 1. The Abutting Land Owner acknowledges the location of the Turbine on the Participating Land Owner's Property as set out on Schedule "A" attached hereto.
- 2. The Abutting Land Owner further acknowledges that the setback of the Turbine on the Participating Land Owner's Property is approximately 56 metres from the boundary lot line between the Abutting Land Owner's Property and the Participating Land Owner's Property,

being a closer setback than required by the Renewable Energy Approval (REA) Regulation (O. Reg. 359/09).

3. The Abutting Land Owner hereby consents to the location of the Turbine and consents to the closer setback.

IN WITNESS WHEREOF, this Abutting Land Owner's Acknowledgement and Consent Agreement is executed by the Abutting Land Owner.







egend		Beamer Property Boundary	And the	Distance to Property Boundary
	(T) (II)	Participating Property		Potential Acesss Road
	1	Property Boundary		Collector Lines - Underground or Ov
		Proposed Turbine Location		Fibre Optic Line
	-	Participating Receptor		Road

Access Road 20m Construction Area

Notes

Coordinate System: NAD 1983 UTM Zone 17N.
 Base features produced under license with the Ontario
 Ministry of Natural Resources © Queen's Printer for Ontario, 2011.

▲ Non-Participating Receptor

Niagara Region Wind Corporation Niagara Region Wind Farm

Clause Mar	
Figure No.	
4	
1	

Beamer Land Agreement