

March 18, 2014

RESS & COURIER

Ontario Energy Board
P.O. Box 2319
27th Floor
2300 Yonge Street
Toronto ON M4P 1E4

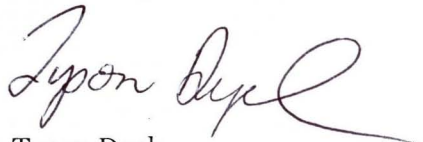
Attention: Ms. K. Walli, Board Secretary

Dear Ms. Walli:

Re: Application by Jericho Wind, Inc. (“Jericho”)

We are counsel to Jericho. Enclosed please find Jericho’s application and pre-filed evidence under Section 41(9) of the *Electricity Act* to determine the location of Jericho’s distribution facilities within certain road allowances.

Yours truly,



Tyson Dyck

Tel 416.865.8136
Fax 416.865.7380
tdyck@torys.com

cc: A. Wiley, NextEra Energy
A. Pinnock, NextEra Energy
B. Greenhouse, NextEra Energy
D. Dudek, NextEra Energy
C. Bowers, NextEra Energy

ONTARIO ENERGY BOARD

IN THE MATTER OF the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15 (Sched. B);

AND IN THE MATTER OF an application by Jericho Wind, Inc. for an Order or Orders pursuant to Section 41(9) of the *Electricity Act, 1998* (as amended) establishing the location of the applicant's distribution facilities within certain road allowances owned by Lambton County, all as set out in this application.

APPLICATION

JERICHO WIND, INC.

March 18, 2014

EXHIBIT LIST

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			<i>Appendix A – List of Chosen Road Allowances</i>
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ONTARIO ENERGY BOARD

IN THE MATTER OF the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15 (Sched. B);

AND IN THE MATTER OF an application by Jericho Wind, Inc. for an Order or Orders pursuant to Section 41(9) of the *Electricity Act, 1998* (as amended) establishing the location of the applicant's distribution facilities within certain road allowances owned by Lambton County, all as set out in this application.

APPLICATION

1. Jericho Wind, Inc. ("**Jericho**" or the "**Applicant**") is a corporation, headquartered in Toronto, that was formed pursuant to the laws of the Province of New Brunswick, and is a wholly owned subsidiary of NextEra Energy Canada, ULC ("**NextEra**"). Jericho is the entity that is developing and that will own and operate the generation and distribution assets associated with the Jericho Wind Energy Centre (the "**Project**") in the Municipality of Lambton Shores and the Township of Warwick, in Lambton County (the "**County**") and in the Municipality of North Middlesex in Middlesex County, Ontario.
2. The Applicant hereby applies to the Ontario Energy Board (the "**Board**") pursuant to Section 41(9) of the *Electricity Act, 1998*, as amended (the "**Electricity Act**") for an order or orders establishing the location of the Applicant's distribution facilities within the public streets, highways and rights-of-way more particularly described in Exhibit B, Tab 6, Schedule 1, Appendix A owned by the County (collectively, the "**Road Allowances**"), all as set out in Exhibit B, Tab 6, Schedule 1 (Proposed Location of Distribution System Within Road Allowances).
3. The Project is expected to be approved for up to 99 wind turbines, 92 of which will be built (collectively, the "**Generation Facilities**"). The Generation Facilities will have a

total nameplate capacity of up to 150 MW. To convey the electricity generated by the Generation Facilities to a transmission system, which is in turn connected to the IESO-controlled grid, the Applicant plans to construct certain distribution facilities (the “**Distribution System**”). These facilities will include approximately 225 km of 34.5 kV distribution lines located on private property and municipal and county right-of-ways, which will convey electricity from each of the wind turbines to a transformer substation, from which a transmission system will convey the electricity to the IESO-controlled grid.

4. As the owner and operator of the Distribution System, Jericho is a “distributor” within the meaning of the Electricity Act and the Board’s decisions in EB-2010-0253, EB-2013-0031 and EB-2013-0233. As a distributor, Jericho has chosen to locate a portion of its Distribution System within approximately 26 km of Road Allowances owned by the County pursuant to the statutory right of distributors under subsections 41(1) and 41(5) of the Electricity Act. These subsections, among other things, give distributors the right to construct and install structures, equipment and other distribution facilities over, under or on any public street or highway without the consent of the owner of, or any other person having an interest in, such public street or highway.
5. In accordance with Section 41(9) of the Electricity Act, Jericho, as the distributor, and the County, as the owner of the Road Allowances, are required only to agree on the exact location of the Distribution System within the Road Allowances, which location shall be determined by the Board in the event of a disagreement.
6. Notwithstanding its statutory rights, Jericho has sought, as is commonplace in Ontario, to negotiate an agreement with the County with respect to the location, construction, operation and maintenance of the Distribution System within the Road Allowances (the “**Proposed Agreement**”).
7. However, the County has to date not approved the execution of the Proposed Agreement. Instead, the County has on two occasions tabled consideration of the Proposed Agreement, despite recommendations from County staff that the Agreement be executed.

Most recently, County has required a sixty day public commenting period for the Proposed Agreement, even though it had already been made available to the public. The result of these events, which are described in further detail in Exhibit B, Tab 5, Schedule 1, is an inability of the parties to reach an agreement regarding the location of the Distribution System in the Road Allowances.

8. Because Jericho and the County cannot reach an agreement with respect to the location of the Distribution System within the Road Allowances, the Applicant requests that the Board issue an order or orders, pursuant to Section 41(9) of the Electricity Act, establishing the location of the Distribution System within the Road Allowances, all as set out in Exhibit B, Tab 6, Schedule 1.
9. Jericho requests that the Board expedite its hearing of this application in accordance with Sections 2.01 and 7.01 of the Board's *Rules of Practice and Procedure* because (i) the only person directly affected by this application is the County as the sole owner of the Road Allowances, and (ii) Jericho anticipates receiving a REA for the Project by in April 2014, and its project schedule requires construction to commence shortly after receipt of its REA.
10. Jericho also requests that the Board, in hearing this application, be guided by its mandate, under Section 1(1)(5) of the *Ontario Energy Board Act, 1998*, to "promote the use and generation of electricity from renewable energy sources in a manner consistent with the policies of the Government of Ontario, including the timely expansion or reinforcement of transmission systems and distribution systems to accommodate the connection of renewable energy generation facilities".
11. The Applicant requests that copies of all documents filed with or issued by the Board in connection with this Application be served on the Applicant and the Applicant's counsel as follows:

(a) The Applicant:

Jericho Wind, Inc.
c/o NextEra Energy Canada, ULC
390 Bay Street, Suite 1720
Toronto, ON M5H 2Y2

Attention: Ms. Ashley Pinnock
Tel: 561-304-5127
Fax: 416-364-2533
Email: Ashley.Pinnock@nexteraenergy.com

(b) The Applicant's Counsel:

Torys LLP
Suite 3000
79 Wellington St. W.
Box 270, TD Centre
Toronto, ON M5K 1N2

Attention: Mr. Tyson Dyck
Tel: 416-865-8136
Fax: 416-865-7380
Email: tdyck@torys.com


12. Additional written evidence, as required, may be filed in support of this Application and may be amended from time to time prior to the Board's final decision.
13. The Applicant requests that the Board proceed by way of written hearing, pursuant to Section 34.01 of the Board's *Rules of Practice and Procedure*.

Dated at Toronto, Ontario, this 18th day of March, 2014.

JERICO WIND, INC.

By its counsel

Torys LLP



Tyson Dyck

SUMMARY OF THE PRE-FILED EVIDENCE

1 **THE APPLICATION AND THE PROJECT**

2 This is an application by Jericho Wind, Inc. (“**Jericho**” or the “**Applicant**”) for an order or
3 orders pursuant to Section 41(9) of the *Electricity Act, 1998* (as amended) (the “**Electricity**
4 **Act**”) establishing the location of the Applicant’s distribution facilities within certain public
5 rights-of-way, streets and highways owned by Lambton County (collectively, the “**Road**
6 **Allowances**”), all as set out in Exhibit B, Tab 6, Schedule 1 (Proposed Location of Distribution
7 System within Road Allowances).

8 Jericho is a corporation, headquartered in Toronto, which was formed pursuant to the laws of the
9 Province of New Brunswick, and is a wholly owned subsidiary of NextEra Energy Canada, ULC
10 (“**NextEra**”). Jericho is the entity that is developing and that will own and operate the
11 generation and distribution assets associated with the Jericho Wind Energy Centre (the
12 “**Project**”) in the Municipality of Lambton Shores and the Township of Warwick in Lambton
13 County (the “**County**”) and in the Municipality of North Middlesex, in Middlesex County,
14 Ontario.

15 The Project is expected to be approved for up to 99 wind turbines, 92 of which will be built
16 (collectively, the “**Generation Facilities**”). The Generation Facilities will have a total
17 nameplate capacity of up to 150 MW. To convey the electricity generated by the Generation
18 Facilities to a transmission system, which is in turn connected to the IESO-controlled grid, the
19 Applicant plans to construct certain distribution facilities (the “**Distribution System**”). These
20 facilities will include approximately 225 km of 34.5 kV distribution lines located on private
21 property and municipal and county right-of-ways, which will convey electricity from each of the
22 wind turbines to a transformer substation, from which a transmission system will convey the
23 electricity to the IESO-controlled grid.

1 **PROPOSED USE OF MUNICIPAL ROAD ALLOWANCES**

2 Pursuant to Sections 41(1) and 41(5) of the Electricity Act and the Board’s decisions in EB-
3 2010-0253, EB-2013-0031 and EB-2013-0233, distributors may construct or install distribution
4 facilities over, under or on any public streets or highways without the consent of the owner of or
5 any other person having an interest in such streets or highways. In this case, Jericho has chosen
6 to locate a portion of the Distribution System within approximately 26 km of Road Allowances
7 that are particularly identified in Exhibit B, Tab 6, Schedule 1, Appendix A. As set out in
8 Exhibit B, Tab 2, Schedule 1 and Exhibit B, Tab 7, Schedule 1, a balance of environmental,
9 social, technical and economic considerations has resulted in Jericho’s decision to locate the
10 Distribution System within the Road Allowances.

11 **PROPOSED ROAD USE AGREEMENT**

12 The only outstanding issue with respect to Jericho’s use of the Road Allowances is the exact
13 location of the Distribution System within the Road Allowances. In this regard, Jericho
14 undertook to negotiate a road use agreement with the County (the “**Proposed Agreement**”) (see
15 Exhibit B, Tab 4, Schedule 1, Appendix A), even though Jericho is not under any statutory
16 obligation to enter into such an agreement. The Proposed Agreement would have, among other
17 things, set out the parties’ agreement regarding the location of the Distribution System within the
18 Road Allowances.

19 However, the County has to date not approved the execution of the Proposed Agreement.
20 Instead, the County has on two occasions tabled consideration of the Proposed Agreement,
21 despite recommendations from County staff that the Agreement be executed. Most recently,
22 County has required a sixty day public commenting period for the Proposed Agreement, even
23 though it had already been made available to the public. The result of these events, which are
24 described in further detail in Exhibit B, Tab 5, Schedule 1, is an inability of the parties to reach
25 an agreement regarding the location of the Distribution System in the Road Allowances.

1 **MITIGATION OF POTENTIAL IMPACTS**

2 Jericho has attempted to ensure that the County would not be prejudiced by the location of the
3 Distribution System within the Road Allowances. Under the Proposed Agreement, Jericho
4 would have provided certain benefits and protections to the County in respect of the
5 construction, installation, operation, maintenance and decommissioning of the Distribution
6 System (see Exhibit B, Tab 4, Schedule 1, Appendix A). For example, Jericho would have
7 undertaken the work at its own expense in accordance with good engineering practices, and used
8 reasonable efforts to avoid unnecessary adverse impacts on the public use of the Road
9 Allowances. Jericho would have also repaired the surface of any Road Allowances that was
10 broken in the course of the work. Moreover, Jericho has conducted a detailed siting process and
11 developed comprehensive mitigation measures for the Project's environmental impacts.

12 **ORDER SOUGHT**

13 Jericho therefore applies to the Board pursuant to Section 41(9) of the Electricity Act for an
14 order or orders establishing the location of the Distribution System within the Road Allowances,
15 all substantially in accordance with Jericho's plans as set out in Exhibit B, Tab 6, Schedule 1
16 (Proposed Location of Distribution System Within Road Allowances).

17 Because of the limited scope of Section 41(9), and because the Applicant and the County have
18 been unable to agree on the exact location of the Distribution System within the Road
19 Allowances (see Exhibit B, Tab 5, Schedule 1), the only issue before the Board is determining
20 that location. The Board has acknowledged the limited scope of, and its limited jurisdiction in,
21 proceedings under Section 41(9) of the Electricity Act for facilities that are similar in nature to
22 the Distribution System. Specifically, in its Decision and Order in the Section 41 application by
23 Plateau Wind Inc. (EB-2010-0253), the Board states as follows:

24 [Section 41 of the Electricity Act] limits the Board's role in this proceeding to a
25 determination of the location of Plateau's proposed Distribution Facilities within
26 the Road Allowances. Given the legislative restriction on the Board's
27 jurisdiction, it is not the Board's role in this proceeding to approve or deny the
28 Project or the Distribution Facilities, to consider the merits, prudence or any

1 environmental, health or economic impacts associated with it or to consider
2 alternatives to the project such as routes for the Distribution Facilities that are
3 outside of the prescribed Road Allowances. Also, it is not within the Board's
4 jurisdiction in this proceeding to consider any aspect of Plateau's proposed wind
5 generation facilities.¹

6 Similarly, in its Decision and Order in the Section 41 application by East Durham Wind, Inc.
7 (EB-2013-0233), the Board stated:

8 Given the scope of subsection 41(9), it is not the Board's role in this proceeding
9 to decide whether the Project should be approved, consider issues relating to wind
10 turbines or renewable energy generally, or consider alternatives to the Project such as
11 routes for the Distribution System that are outside of the Road Allowances. According,
12 the concerns in the letter 1 of comments [relating to the location of wind turbines and
13 their impact on property values, health, and aesthetics, broad environmental issues, and
14 the provincial government's renewable energy policy] are not within the scope of this
15 proceeding.²

16
17 Accordingly, the present application only concerns the question of where Jericho's Distribution
18 System will be located within the Road Allowances. Consideration of the application does not
19 include a consideration of which Road Allowances Jericho has chosen to use.

20 Jericho further requests that the Board establish a written hearing of this application, and that the
21 Board expedite such hearing in accordance with Sections 2.01 and 7.01 of the Board's *Rules of*
22 *Practice and Procedure*, particularly because (i) the only person affected by this application is
23 the County, as the sole owner and controller of the Road Allowances, and (ii) Jericho currently
24 anticipates receiving a REA for the Project in April, 2014, and its project schedule requires
25 construction to commence shortly after receipt of its REA.

26 Jericho also requests that the Board, in hearing this application, be guided by its mandate, under
27 Section 1(1)(5) of the *Ontario Energy Board Act, 1998*, to "promote the use and generation of
28 electricity from renewable energy sources in a manner consistent with the policies of the
29 Government of Ontario, including the timely expansion or reinforcement of transmission systems

¹ Ontario Energy Board, Decision and Order, Section 41 Application by Plateau Wind Inc. (EB-2010-0253), para. 9.

² Ontario Energy Board, Decision and Order, Section 41 Application by East Durham Wind, Inc. (EB-2013-0233),
p. 5.

- 1 and distribution systems to accommodate the connection of renewable energy generation
- 2 facilities”.

THE APPLICANT

1 Jericho Wind, Inc. (the “**Jericho**”) is a corporation, headquartered in Toronto, which was formed
2 pursuant to the laws of New Brunswick for the purposes of developing, constructing and
3 operating the Jericho Wind Energy Centre. Jericho is a wholly owned subsidiary of NextEra
4 Energy Canada, ULC (“**NextEra**”). NextEra constructs, manages and operates wind generation
5 facilities with over 10,000 MW of wind energy generation in North America (installed capacity).

PROJECT DESCRIPTION

1 The Jericho Wind Energy Centre (the “**Project**”) will be located within the Municipality of
2 Lambton Shores and the Township of Warwick, in Lambton County (the “**County**”), and within
3 the Municipality of North Middlesex, in Middlesex County, which are all situated in south-
4 western Ontario.

5 1. **FIT Contract**

6 The Project is being developed pursuant to a Feed-in Tariff (“**FIT**”) contract awarded to the
7 Applicant by the Ontario Power Authority under the Ontario FIT Program. The Project will
8 therefore further the Government of Ontario’s policy objectives of increasing the amount of
9 renewable energy generation that forms part of Ontario’s energy supply mix, while promoting a
10 green economy. To help facilitate these objectives, the distribution facilities that are associated
11 with the Project will deliver electricity from the Project turbines to a transmission system that
12 will in turn deliver the electricity to the IESO-controlled grid.

13 2. **The Generation Facilities and Distribution System**

14 As shown in Appendix A of this Exhibit B, Tab 2, Schedule 1, the site of the Project’s generation
15 facilities (the “**Generation Facilities**”) is situated in the Municipality of Lambton Shores and the
16 Township of Warwick, in Lambton County, Ontario. The Generation Facilities will include 92
17 wind turbine generators and will have a total nameplate capacity of up to 150 MW. Each turbine
18 will consist of a supporting tower, concrete tower foundation, rotor blades and a
19 gearbox/electrical generator housing.

20 The distribution system associated with the Project (the “**Distribution System**”) will convey
21 electricity from the Generation Facilities to a transformer substation. In particular, adjacent to
22 each turbine will be a concrete transformer pad that will transform the electricity to 34.5 kV,
23 making it suitable for transmitting along the collector system. The collector system will consist
24 of primarily underground 34.5 kV feeder circuits that connect and convey electricity from each
25 of the turbines to a transformer substation. Subject to technical considerations, the distribution
26 lines will primarily be buried to a depth of approximately 1 meter by means of trenching or,

1 where being installed underneath watercourses, woodlots or roads, by means of directional
2 drilling. There may be occasional locations where the collection lines are placed above ground
3 on wood, concrete or steel poles for technical reasons, although none are planned at this time.
4 The transformer substation to which the Distribution System connects will step-up the electricity
5 to 115 kV for transmission ultimately to the IESO-controlled grid.

6 The Applicant has secured rights in certain privately owned lots on which certain segments of
7 the Distribution System will be situated. The Distribution System will also occupy
8 approximately 26.3 km of certain public rights-of-way, streets and highways that are owned by
9 the County, as more particularly described in Exhibit B, Tab 6, Schedule 1 (the “**Road**
10 **Allowances**”). Maps illustrating the proposed location of the Distribution System are provided
11 in Appendix A of this Exhibit B, Tab 2, Schedule 1 and in Appendix B of Exhibit B, Tab 4,
12 Schedule 1.

13 3. **Renewable Energy Approval**

14 The Applicant filed an application for a renewable energy approval (“**REA**”) for the Project in
15 accordance with Ontario Regulation 359/09 under the *Environmental Protection Act*. The REA
16 application included a number of reports which considered the potential impacts of, and
17 constraints applicable to, the Distribution System within the Road Allowances and the Project
18 area, including the following:

- 19 • the Natural Heritage Assessment Reports (which assessed potential natural heritage
20 features in the Project area and developed mitigation measures for any potential impacts
21 on any such features identified as significant);
- 22 • the Consultation Report (which included consultation on environmental, social, technical
23 and economic aspects of the Project with regulatory agencies, the local community and
24 the Municipality);
- 25 • the Water Assessment and Waterbody Reports (which assessed water bodies in the
26 Project area and developed mitigation measures for any potential impacts on any such
27 features identified as significant); and

- 1 • the Archeological Assessment Reports, specifically the Stage 1 and 2 Archeological
2 Assessment Reports (which surveyed for archaeological sites in the Project area and
3 developed mitigation measures for any potential impacts on any such sites).¹

4 The REA reports listed above, among others, identified significant environmental, social and
5 other features in the Project area in the vicinity of the Distribution System, determined
6 appropriate setbacks from those features, and proposed additional mitigation measures where
7 appropriate. The proposed location of the Distribution System was determined through an
8 iterative approach and based on the extensive environmental assessment and community
9 consultation process conducted in accordance with Ontario Regulation 359/09. As a result, the
10 proposed location of the Distribution System within the Road Allowances that is set out in
11 Exhibit B, Tab 6, Schedule 1 reflects the best balance of environmental, social, technical and
12 economic considerations.

13 Jericho's REA application was deemed complete by the Ministry of the Environment and Jericho
14 currently anticipates receiving a REA for the Project in April, 2014.

¹ The abovementioned reports, and additional reports submitted as part of the Project's REA application, are publicly available at <http://www.nexteraenergycanada.com/projects/jericho.shtml>

APPENDIX 'A'

**MAP OF PROPOSED GENERATION AND DISTRIBUTION FACILITIES
ASSOCIATED WITH THE PROJECT**



**Jericho Collection
Lambton County**
Ontario, Canada

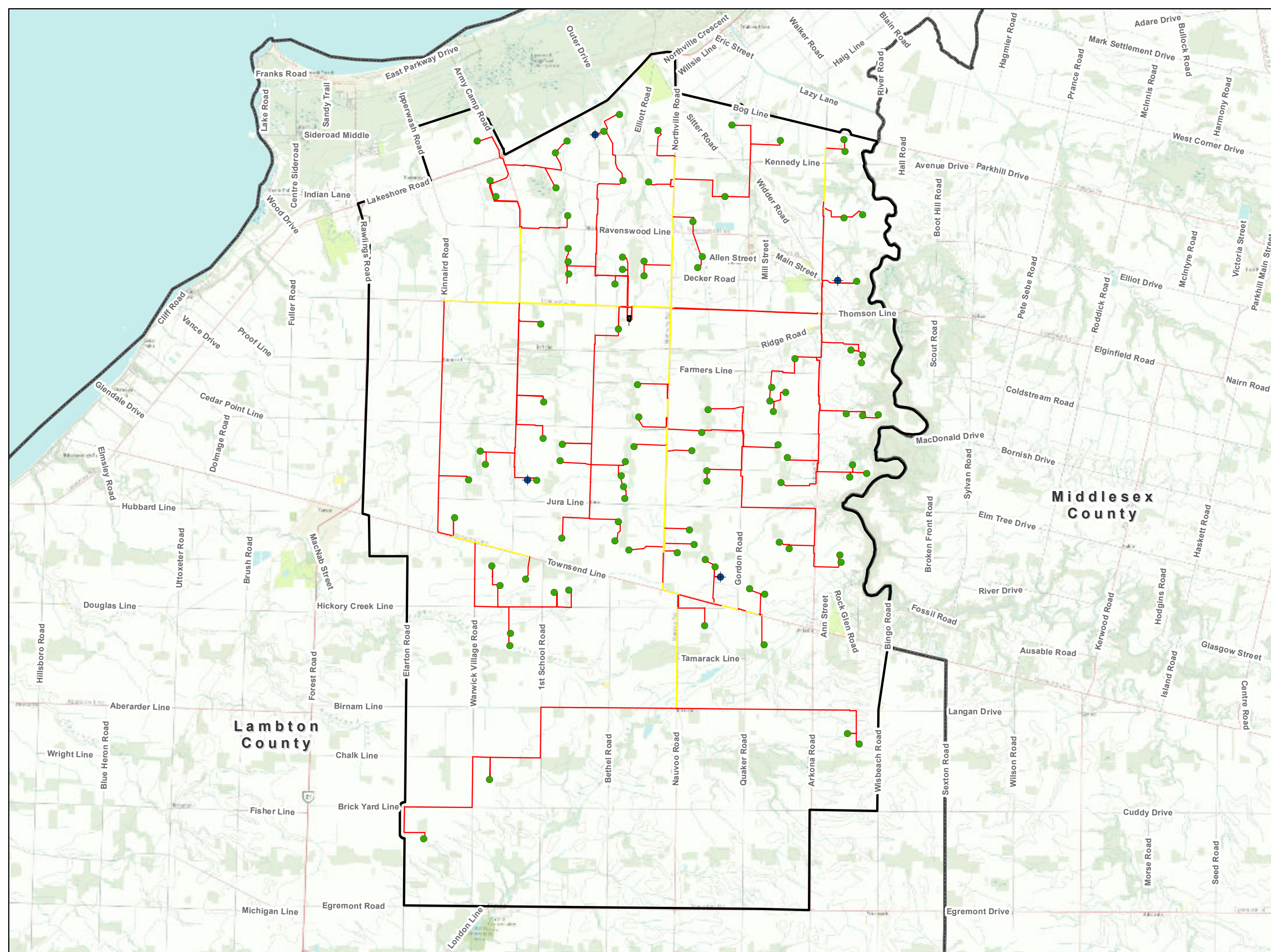
- SVG Turbines
- ◆ Planned MET Towers
- All Other Collection
- Lambton County - ROW Collection
- Substation Fence
- Project Boundary
- Regional Municipal Boundary



Date: 3/5/2014
PROPRIETARY AND CONFIDENTIAL

Projection: NAD_1983_UTM_Zone_17N
Datum: NAD 83

Copyright 2014 NextEra Energy Resources. All rights reserved. This map contains strategic corporate information of a confidential and proprietary nature. This map is not to be distributed beyond NextEra Energy employees, contractors, and consultants. No expressed or implied warranties are conveyed through this material. The materials contained herein may contain inaccuracies and/or are subject to change. The user is warned to keep and maintain this information as confidential and proprietary, and any unauthorized dissemination to those that are not NextEra Energy Resources employees, contractors or consultants will be subject to the full remedies available under the law. All boundaries and locations are approximate and subject to change.



STATUTORY RIGHTS OF DISTRIBUTORS

1 **1. Jericho is a “Distributor”**

2 Under the *Electricity Act, 1998* (the “**Electricity Act**”), a “distribution system” means a system
3 for conveying electricity at voltages of 50 kV or less, and includes any structures, equipment or
4 other things used for that purpose. The same definition is used under the *Ontario Energy Board*
5 *Act, 1998* (the “**OEB Act**”). As described in Exhibit B, Tab 2, Schedule 1, the Applicant’s
6 Distribution System will consist of underground 34.5 kV feeder circuits that connect and convey
7 electricity from each of the turbines to a transformer substation (constructed and owned by the
8 Applicant) which in turn will connect to a transmission system that will connect to the IESO-
9 controlled grid. As such, the Distribution System is a “distribution system” for purposes of the
10 Electricity Act and the OEB Act, including the regulations thereunder.

11 Under this same legislation, a “distributor” is defined simply as a person who owns or operates a
12 “distribution system”. Accordingly, in respect of the Distribution System, the Applicant is a
13 “distributor”. Pursuant to Section 4.0.1(1)(d) of O. Reg. 161/99 under the OEB Act, a distributor
14 will not be required to obtain or hold a distribution license under Section 57(a) of the OEB Act
15 where, as will be the case with Jericho, the distributor distributes electricity for a price no greater
16 than that required to recover all reasonable costs with respect to a distribution system that they
17 own or operate, if the distributor is a generator and distributes electricity solely for the purpose
18 of conveying it into the IESO-controlled grid. While the Applicant will not require a license
19 from the Board in respect of the Distribution System, this will not affect the Applicant’s status as
20 a “distributor” for purposes of the Electricity Act or OEB Act or the regulations thereunder.

21 The above analysis is consistent with the Board’s findings in EB-2010-0253, EB-2013-0031 and
22 EB-2013-0233, in which the Board considered applications under section 41 of the Electricity
23 Act by Plateau Wind Inc., Wainfleet Wind Energy Inc. and East Durham Wind, Inc.,
24 respectively, in circumstances similar to the present application. Copies of the Board’s decisions
25 in EB-2010-0253, EB-2013-0031 and EB-2013-0233 are provided in Appendices A, B and C,
26 respectively, of this Exhibit B, Tab 3, Schedule 1.

1 **2. Rights of Distributors Under Section 41**

2 Pursuant to subsections 41(1) and 41(5) of the Electricity Act, a distributor may construct or
3 install such structures, equipment and other facilities as it considers necessary for the purpose of
4 its distribution system, including poles and lines, within any public street or highway without the
5 consent of the owner of or any other person having an interest in such street or highway — in
6 this case, the Road Allowances of Lambton County (the “**County**”).¹ In the event that a
7 distributor and the owner of the chosen public streets or highways cannot agree to the exact
8 location of the distribution facilities within such public streets or highways, section 41(9) of the
9 Electricity Act provides that the Board shall determine such location.²

10 Under section 41 of the Electricity Act, the Applicant therefore has the right to locate the
11 Distribution System within the Road Allowances and the right to bring this application. These
12 rights arise because the Applicant, as the owner and operator of the Distribution System, is a
13 “distributor” within the meaning given to such term in the Electricity Act. County Staff have
14 acknowledged Jericho’s rights as a distributor under section 41 of the Electricity Act in February
15 19, 2014 report to the County’s Infrastructure and Development Committee (see Exhibit B, Tab
16 5, Schedule 1, Appendix M).

17 Also notable is that subsections 41(2) and (3) of the Electricity Act grant related rights to the
18 distributor to inspect, maintain, repair, alter, remove or replace any structure, equipment or
19 facilities constructed or installed under subsection 41(1), as well as to enter the street or highway
20 at any reasonable time to exercise the powers referred to in subsections 41(1) and (2).³ In this

¹ Section 41(1) states, “A transmitter or distributor may, over, under or on any public street or highway, construct or install such structures, equipment and other facilities as it considers necessary for the purpose of its transmission or distribution system, including poles and lines.” Section 41(5) states, “The exercise of powers under subsections [41] (1), (2) and (3) does not require the consent of the owner of or any other person having an interest in the street or highway.”

² Section 41(9) states, “The location of any structures, equipment or facilities constructed or installed under subsection (1) shall be agreed on by the transmitter or distributor and the owner of the street or highway, and in case of disagreement shall be determined by the Board.”

³ Section 41(2) states, “The transmitter or distributor may inspect, maintain, repair, alter, remove or replace any structure, equipment or facilities constructed or installed under subsection (1) or a predecessor of subsection (1).” Section 41(3) states, “The transmitter or distributor may enter the street or highway at any reasonable time to exercise the powers referred to in subsections (1) and (2).”

1 regard, Jericho has the right, pursuant to section 41(3) of the Electricity Act, to enter into, and
2 travel and carry equipment along the public streets, highways and right-of-ways of the County as
3 Jericho deems necessary to construct, install, operate, maintain and decommission the
4 Distribution System within the Road Allowances.

5 Because of the limited scope of section 41(9), and because the Applicant and the County have
6 been unable to agree on the exact location of the Distribution System within the Road
7 Allowances (see Exhibit B, Tab 5, Schedule 1), the only issue before the Board is determining
8 that location. The Board has acknowledged the limited scope of, and its limited jurisdiction in,
9 proceedings under section 41(9) of the Electricity Act for facilities that are similar in nature to
10 the Distribution System. Specifically, in its Decision and Order in the section 41 application by
11 Plateau Wind Inc. (EB-2010-0253), the Board states as follows:

12 [Section 41 of the Electricity Act] limits the Board's role in this proceeding to a
13 determination of the location of Plateau's proposed Distribution Facilities within
14 the Road Allowances. Given the legislative restriction on the Board's
15 jurisdiction, it is not the Board's role in this proceeding to approve or deny the
16 Project or the Distribution Facilities, to consider the merits, prudence or any
17 environmental, health or economic impacts associated with it or to consider
18 alternatives to the project such as routes for the Distribution Facilities that are
19 outside of the prescribed Road Allowances. Also, it is not within the Board's
20 jurisdiction in this proceeding to consider any aspect of Plateau's proposed wind
21 generation facilities.⁴

22 Similarly, in its Decision and Order in the Section 41 application by East Durham Wind, Inc.
23 (EB-2013-0233), the Board stated:

24 Given the scope of subsection 41(9), it is not the Board's role in this proceeding
25 to decide whether the Project should be approved, consider issues relating to wind
26 turbines or renewable energy generally, or consider alternatives to the Project
27 such as routes for the Distribution System that are outside of the Road Allowances.
28 According, the concerns in the letter 1 of comments [relating to the location of wind
29 turbines and their impact on property values, health, and aesthetics, broad environmental
30 issues, and the provincial government's renewable energy policy] are not within the
31 scope of this proceeding.⁵

⁴ Ontario Energy Board, Decision and Order, Section 41 Application by Plateau Wind Inc. (EB-2010-0253), para. 9.

⁵ Ontario Energy Board, Decision and Order, Section 41 Application by East Durham Wind, Inc. (EB-2013-0233),

- 1 Accordingly, the present application only concerns the question of where Jericho's Distribution
- 2 System will be located within the Road Allowances.

APPENDIX 'A'

DECISION AND ORDER (EB-2010-0253)



EB-2010-0253

IN THE MATTER OF the *Electricity Act, 1998* as amended
(the “*Electricity Act*”);

AND IN THE MATTER OF an application by Plateau Wind
Inc. for an order or orders pursuant to section 41(9) of the
Electricity Act establishing the location of Plateau Wind
Inc.’s distribution facilities within certain road allowances
owned by the Municipality of Grey Highlands.

BEFORE: Paul Sommerville
Presiding Member

Paula Conboy
Member

DECISION AND ORDER

INTRODUCTION

- [1] Plateau Wind Inc. (“Plateau” or the “Applicant”) filed an application dated July 30, 2010 (the “Application”) with the Ontario Energy Board (the “Board”) under subsection 41(9) of the *Electricity Act, 1998*, S.O. 1998, c. 15, Schedule A, as amended (the “*Electricity Act*”) for an order or orders of the Board establishing the location of Plateau’s proposed distribution facilities within road allowances owned by the Municipality of Grey Highlands (“Grey Highlands”). The Board assigned File No. EB-2010-0253 to the application.
- [2] Plateau is in the business of developing wind energy generation projects and the associated distribution facilities in Ontario. Plateau is the corporate entity created to hold and operate the generation and distribution assets of the Plateau Wind Energy Project in Grey County and Dufferin County, Ontario.

- [3] Plateau plans to develop the Plateau Wind Energy Project (the “Project”) which will involve eighteen GE 1.5 megawatt (“MW”) wind turbine generators, together having a nominal nameplate capacity of 27 MW. Twelve of the wind turbine generators are relevant to this Application, eleven of which will be located in Grey Highlands and one of which will be located in Melancthon Township (collectively referred to as the “Turbines”). In total, the Turbines will have a nominal nameplate capacity of 18 MW. Plateau has entered into a feed-in tariff contract with the Ontario Power Authority for the Project.
- [4] As part of the Project, Plateau plans to construct 44 kilovolt (“kV”) overhead and underground electrical distribution facilities to transport the electricity generated from the Turbines to the existing local distribution system of Hydro One Networks Inc. (“HONI”) and ultimately to the IESO-controlled grid. Plateau would like to locate certain portions of the electrical distribution facilities (the “Distribution Facilities”) within road allowances owned by Grey Highlands (the “Road Allowances”).
- [5] Because Plateau and Grey Highlands have not been able to reach an agreement with respect to the location of the Distribution Facilities, Plateau requested that the Board issue an order or orders, pursuant to section 41(9) of the *Electricity Act*, determining the location of Plateau’s Distribution Facilities within the Road Allowances.
- [6] In support of the Application, Plateau filed a brief of documents which included descriptions of Plateau’s proposed Distribution Facilities, list of municipal road allowances proposed for location of the Distribution Facilities, maps showing the road allowances, a copy of the proposed road use agreement and other relevant project documents (collectively the “pre-filed evidence”).

THE PROCEEDING

- [7] The Board has proceeded with this application by way of a written hearing. The procedural steps followed are outlined below:

- | | |
|--|-------------------|
| - Application filed | July 30, 2010 |
| - Notice of Application Issued | August 19, 2010 |
| - The Board issued its Procedural Order No. 1 | October 29, 2010 |
| - Plateau filed its submission | November 8, 2010 |
| - Grey Highlands and Board staff filed their submissions | November 29, 2010 |
| - Plateau filed its reply submission | December 6, 2010 |

Grey Highlands was granted intervenor status and ten parties were granted observer status in this proceeding.

THE LEGISLATION

[8] The Board's authority in this proceeding is derived from section 41 of the *Electricity Act* which states as follows:

Subsection 41. (1)

A transmitter or distributor may, over, under or on any public street or highway, construct or install such structures, equipment and other facilities as it considers necessary for the purpose of its transmission or distribution system, including poles and lines. 1998, c. 15, Sched. A, s. 41 (1).

Subsection 41. (9)

The location of any structures, equipment or facilities constructed or installed under subsection (1) shall be agreed on by the transmitter or distributor and the owner of the street or highway, and in case of disagreement shall be determined by the Board. 1998, c. 15, Sched. A, s. 41 (9).

SCOPE OF PROCEEDING

[9] The above-noted legislation limits the Board's role in this proceeding to a determination of the location of Plateau's proposed Distribution Facilities within the Road Allowances. Given the legislative restriction on the Board's jurisdiction, it is not the Board's role in this proceeding to approve or deny the Project or the Distribution Facilities, to consider the merits, prudence or any environmental, health or economic impacts associated with it or to consider alternatives to the project such as routes for the Distribution Facilities that are outside of the prescribed Road Allowances. Also, it is not within the Board's jurisdiction in this proceeding to consider any aspect of Plateau's proposed wind generation facilities.

EVIDENCE AND SUBMISSIONS

Plateau's Evidence and Submissions

Some key elements of Plateau's evidence and submissions are outlined below:

- [10] During 2008-2009, Plateau carried out an Environmental Assessment for the Project. The final Environmental Assessment report and a Notice of Completion were made publicly available for review and comment from June 12, 2009 to July 11, 2009. On April 14, 2010, Plateau publicly filed its Statement of Completion of the Environmental Assessment after the Ministry of the Environment rejected all requests to elevate the Project to an environmental review/individual environmental assessment.
- [11] Plateau submitted that a balance of environmental, social, technical and economic considerations impacted Plateau's decision on the location of the Turbines and therefore on the location of the Distribution Facilities. An excerpt from the Pre-Filed Evidence which lists the Road Allowances is attached to this Decision and Order as Appendix "A".
- [12] Plateau submitted that the only outstanding issue with respect to Plateau's use of the Road Allowances is the location of the Distribution Facilities within the Road Allowances. In this regard, Plateau undertook to negotiate a standard road use agreement with Grey Highlands.
- [13] According to Plateau's evidence, as a result of the above-noted negotiations, Plateau, the Municipal Staff of Grey Highlands (the "Municipal Staff") and Grey Highlands' legal counsel reached a mutually acceptable agreement with respect to the location, construction, operation and maintenance of the Distribution Facilities within the Road Allowances (the "Proposed Road Use Agreement").
- [14] In negotiating the Proposed Road Use Agreement, Plateau asserted that it addressed the concerns of the Municipal Staff regarding the routing of the Distribution Facilities. In addition, under the Proposed Road Use Agreement, Plateau indicated that it planned to confer certain monetary and non-monetary benefits on and provide numerous protections to Grey Highlands.
- [15] The evidence indicates that on May 17, 2010, the Municipal Staff issued Report PL.10.34 recommending a form of the Proposed Road Use Agreement to the Grey Highlands Committee of the Whole.
- [16] The evidence further indicates that in a letter dated June 24, 2010 to the Grey Highlands Mayor and Members of Council, the Grey Highlands Chief Administrative Officer recommended that the Proposed Road Use Agreement be approved by Grey Highlands Council (the "CAO Recommendation").

- [17] On June 28, 2010, the Grey Highlands Council rejected the CAO Recommendation. As a result, because Plateau and Grey Highlands could not reach an agreement with respect to the location of the distribution facilities, Plateau filed the Application with the Board for an order or orders, pursuant to section 41(9) of the *Electricity Act*, establishing the location of Plateau's Distribution Facilities within the Road Allowances.
- [18] Plateau stated that it has chosen to route certain power lines, poles and other facilities associated with the Distribution System within the Road Allowances pursuant to the statutory right of distributors under section 41(1) of the *Electricity Act*.
- [19] Plateau submitted that the Distribution Facilities as well as other 44 kV electrical facilities which transport the electricity generated from the Turbines to the existing 44 kV local distribution system of HONI, and ultimately to the IESO-controlled grid, is a "distribution system" and that Plateau is a "distributor" as defined in the *Electricity Act*¹. As such, Plateau submitted that it is a distributor and is entitled to the rights of distributors under section 41 of the *Electricity Act*, including the right, under the circumstances, to bring this Application pursuant to Section 41(9) of the *Electricity Act*.
- [20] Plateau submitted that section 4.0.1(1) (d) of O. Reg. 161/99 under the *Ontario Energy Board Act* exempts from the licensing requirements those distributors that distribute electricity for a price no greater than that required to recover all reasonable costs with respect to a distribution system owned or operated by a distributor that is also a generator and that distributes electricity solely for conveying it to the IESO-controlled grid.
- [21] Plateau also submitted that because of the limited scope of section 41(9) and because the two parties have been unable to reach an agreement on the location of the Distribution Facilities within the Road allowances, the only issue before the Board is determining that location.

¹ The *Electricity Act* definitions are as follows:
"distribute", with respect to electricity, means to convey electricity at voltages of 50 kilovolts or less;
"distribution system" means a system for distributing electricity, and includes any structures, equipment or other things used for that purpose;
"distributor" means a person who owns or operates a distribution system.

[22] An excerpt from Plateau's submissions which describes the proposed location of the Distribution Facilities within the Road Allowances is attached as Appendix "B" to this Decision and Order.

Grey Highlands' Submissions

Some key elements of Grey Highlands' submissions are outlined below:

[23] Grey Highlands stated that the Project is a "renewable energy generation facility" as that term is defined under the Electricity Act and Ontario Regulation 160/99 and, as such, it is afforded no rights under section 41 of the *Electricity Act*. Accordingly, Grey Highlands submits that the Board has no authority or jurisdiction to make a determination under subsection 41(9) of the *Electricity Act* as the Applicant is neither a transmitter nor distributor of electricity.

[24] Grey Highlands submitted that the rights bestowed under section 41 of the *Electricity Act* represent a special privilege granted to transmitters and distributors and "Where special privileges are granted under statutory authority, the legislation granting such special privilege must be strictly construed."²

[25] Grey Highlands submitted that, based on section 2 (1) of the *Electricity Act* and sections 1(4) and 1(5) of Ontario Regulation 160/99, any distribution line or lines under 50 kilometres in length that convey electricity from a renewable energy generation facility to a distribution system are not components of a distribution system, but rather are components of the "renewable energy generation facility". Grey Highlands further submitted that :

- a number or combination of distribution lines are not a "distribution system" as defined in the *Electricity Act* if they are components of a "renewable energy generation facility";
- the defined terms "distribution system", "generation facility", "renewable energy generation facility" and "transmission system" are all mutually exclusive.

² Paragraph 7 of Grey Highlands' submission dated November 25, 2010.

- [26] Furthermore, Grey Highlands stated that Section 57 of the *Ontario Energy Board Act* requires all transmitters, distributors and generators to hold a licence issued under authority of that Act.
- [27] Grey Highlands asserted that, if the distribution lines associated with a "renewable energy generation facility" constituted a "distribution system" as defined in the *Electricity Act*, Plateau would be required to be licensed as a distributor under section 57 of the *Ontario Energy Board Act*.
- [28] Grey Highlands further asserted that the Applicant's submission concerning the applicability of subsection 4.0.1(1) (d) of Ontario Regulation 161/99 is erroneous because the Applicant is not in the business of generating electricity and supplying it to the ISEO-controlled grid on a "non-profit basis".
- [29] In its submission Grey Highlands also stated that:
- based on Section 26 of the *Electricity Act*, if the Applicant is a distributor then the Applicant is required to provide access to the distribution lines to "consumers" and the Applicant's evidence does not indicate or identify that consumers will have access to the distribution lines;
 - the Applicant's own description of its proposal indicates that it will deliver electricity to the HONI distribution system and not consumers; and
 - the Applicant does not have a Conditions of Service³ document because it has no intentions of distributing electricity to consumers and because it is not a "distributor".

Board Staff Submissions

Some key elements of Board staff's submissions are outlined below:

- [30] Board staff submitted that, in its view, based on the *Electricity Act* definitions of "distribute", "distribution system" and "distributor", the distribution component of the Applicant's proposed facilities does qualify as a distribution system and that the Applicant is a distributor and therefore has standing to bring an application under section 41 of the *Electricity Act*.

³ A document required under Section 2.4.1 of the Distribution System Code.

[31] Board staff further submitted that Plateau's Distribution System would be exempt, under Section 4.0.1 (d) of Ontario Regulation 161/99, from the licence requirement of section 57(a) of the *OEB Act* because the Distribution System would transport electricity from its generation facilities to the Hydro One distribution system and ultimately to the IESO-controlled grid, and no other use of the Distribution System has been identified by Plateau.

Plateau's Reply Submissions

Some key elements of Plateau's reply submission are outlined below:

- [32] Plateau disagrees with Grey Highlands submission that no aspect of the Project meets the definition of "distributor" under the *Electricity Act* and that Plateau therefore cannot take advantage of the rights afforded to distributors under the section 41 of the *Electricity Act*. Plateau repeated that it clearly was a distributor, as that term is defined in the *Electricity Act* and that; consequently, as a distributor, it is entitled to the rights afforded to distributors under section 41 of the *Electricity Act*.
- [33] Plateau reiterated its submissions in chief that, under section 4.0.1(1) (d) of Ontario Regulation 161/99, it is exempt from the distribution licensing requirement in section 57(a) of the *OEB Act*. It added that it is irrelevant that it will profit from the sale of generated electricity since section 4.0.1(1)(d) only requires that the generated electricity be **distributed** at a price no greater than that required to recover all reasonable costs in order for the licensing exemption to apply.
- [34] Plateau stated that it disagrees with Grey Highlands' assertion that being a "distribution system", "generation facility", "renewable energy generation facility" and "transmission system" are all mutually exclusive terms. Plateau further stated that there is nothing in Section 57 of the *OEB Act* that suggests that there is such mutual exclusivity.
- [35] Plateau further states that the wording of section 4.01(1) (d) of Ontario Regulation 161/99 clearly demonstrates that a person can be both a distributor and a generator and that the exemption applies to a "distributor" that is also a "generator" and distributes electricity solely for the purpose of conveying it to the IESO controlled grid.

- [36] Plateau submitted that the enactment of the *Green Energy and Green Economy Act, 2009* (the “*Green Energy Act*”) amended section 1(1) of the *OEB Act* to require the Board, in carrying out its responsibilities under the *OEB Act* or any other legislation in relation to electricity, to be guided by the objective of promoting “the use and generation of electricity from renewable energy sources in a manner consistent with the policies of the Government of Ontario, including the timely expansion or reinforcement of transmission systems and distribution systems to accommodate the connection of renewable energy generation facilities.” Plateau further stated that the Board must therefore be guided by this objective, among others, in deciding the Application.
- [37] Plateau submitted that the sections in the *Power Corporation Act* and the *Public Utilities Act* that Grey Highlands referenced have been repealed and pertain to a former regulatory regime that is no longer in place.

BOARD FINDINGS

- [38] Given the Board’s limited jurisdiction in this proceeding, there are two decisions that need to be made. The first is a determination of whether Plateau is a “distributor” for the purposes of Section 41 of the *Electricity Act*. If so, the second determination is where should the location of Plateau’s distribution facilities within Grey Highlands’ road allowances be, given that the parties are not able to reach an agreement.
- [39] The Board agrees with Plateau’s and Board staff’s submissions to the effect that the Distribution Facilities, as well as other 44 kV electrical facilities which transport the electricity generated from the Turbines to the existing 44 kV local distribution system of HONI and ultimately to the IESO-controlled grid, are a “distribution system” as defined in the *Electricity Act*.
- [40] The Board disagrees with Grey Highlands’ submission that the defined terms “distribution system”, “generation facility”, “renewable energy generation facility” and “transmission system” are all mutually exclusive since there is nothing in the applicable legislation that would support such an interpretation. Indeed, when the words of the Statute and the Regulation are given their plain meaning, it is evident to the Board that the Legislature intended them to operate precisely as Plateau suggests they should. As the owner of the distribution system that is intended to transport the generated electricity to the IESO, Plateau is a distributor, but one

which has the benefit of the licensing exemption contained in Ontario Regulation 161/99.

- [41] The Board accepts Plateau's and Board staff's submissions that, as the owner or operator of the distribution system, Plateau is a distributor as defined in the *Electricity Act*.
- [42] Accordingly, the Board finds that, as a distributor, Plateau is entitled to bring an application under section 41 of the *Electricity Act* and is entitled to the relief the Board may grant on such an application.
- [43] Since the evidence indicates that Plateau and Grey Highlands could not agree on the location of Plateau's distribution facilities within Grey Highlands' road allowances, it is the Board's role to determine the location of the Distribution Facilities in accordance with section 41 (9) of the *Electricity Act*.
- [44] The Board notes Plateau's evidence that, during the course of negotiations between Plateau and the Municipal Staff regarding a road use agreement, the two parties had reached a mutually acceptable agreement with respect to the location, construction, operation and maintenance of the Distribution Facilities within the Road Allowances (the "Proposed Road Use Agreement") and that the Proposed Road Use Agreement was subsequently rejected by the Grey Highlands Council without apparent explanation.
- [45] The Board also notes that Grey Highlands' submissions focused on Plateau's status as a distributor, its rights under section 41 of the *Electricity Act* and the Board's authority or jurisdiction to make a determination under subsection 41(9) of the *Electricity Act*, but made no submissions regarding any alternative or preferred location for the Distribution Facilities within the Road Allowances.
- [46] In terms of determining the location of the Distribution Facilities, the Board has therefore considered the only evidence provided in this proceeding with respect to proposed location for the Distribution Facilities and that evidence has been provided by Plateau.
- [47] In the absence of any competing proposal, the Board accepts Plateau's proposed location of the Distribution Facilities within the Road allowances in Grey Highlands.
- [48] Furthermore, the Board agrees with Plateau's and Board staff's submissions that Plateau is exempt from the requirement for a distributor licence under Section

4.0.1 (d) of Ontario Regulation 161/99. Contrary to the assertion of Grey Highlands, the fact that Plateau does not require a licence does not imply that they are not a distributor. In the Board's view the Regulation giving rise to the exemption could not be clearer. It specifically contemplates that the "distributor" can be a generator, and that the exemption applies to such a distributor when it distributes electricity "solely for the purpose of conveying it into the IESO-controlled grid." This language really renders the Municipality's argument on this point untenable.

[49] The Board notes that there were a number of interested parties that were granted observer status and took an active role in terms of providing comments regarding various aspects of the Project. Some of the observer comments regarding Plateau's status as a distributor are addressed in the above findings. Other observer concerns were related to health effects, aesthetic impact of the Project and the Turbines as well as the impact on property values. These concerns are not within the scope of this proceeding (see paragraph [9] above) and were not considered by the Board in arriving at this decision.

THE BOARD ORDERS THAT:

- The location of Plateau's Distribution Facilities within the Road Allowances shall be as described in Appendix "A" and Appendix "B" to this Decision and Order except for any changes that are mutually agreed to between Plateau Wind Inc. and the Municipality of Grey Highlands.

DATED at Toronto, January 12, 2011

ONTARIO ENERGY BOARD

Original Signed By

Kirsten Walli
Board Secretary

APPENDIX "A"

TO

DECISION AND ORDER

BOARD FILE NO. EB-2010-0253

DATED: January 12, 2011

EXCERPT FROM PRE-FILED EVIDENCE

(Exhibit B, Tab 3, Schedule 1, Page 6)

**LIST OF MUNICIPAL ROAD ALLOWANCES WITHIN WHICH THE
DISTRIBUTION SYSTEM WILL BE LOCATED**

1. 210 Sideroad Road (also known as Melancthon-Artermesia Townline), between Provincial Highway No. 10 and East Back Line.
PIN: 37265-0133(LT)
2. East Back Line from 210 Sideroad Road to Melancthon Artemisia Townline.
PIN: 37265-0136(LT) and 37265-0134(LT)
3. Melancthon Artemisia Townline from East Back Line to Road 41A.
PIN: 34151-0029(LT)
4. Melancthon Osprey Townline from Road 41A to the access road to Turbine #3.
PIN: 37260-0052(LT)
5. Road 41A, from the Melancthon Artemisia Townline to South Line B Road.
PIN: 37260-0199(LT)
6. South Line 'B' Road from Road 41 A to Grey County Road 2.
PIN: 37260-0198(LT)
7. Centre Line A Road from County Road 2 westerly to Turbine #6 entrance.
PIN: 37260-0125(LT)
8. Centre Line A Road from County Road 2 easterly to Turbines #10 and #12 road entrance.
PIN: 37260-0125(LT)

APPENDIX "B"

TO

DECISION AND ORDER

BOARD FILE NO. EB-2010-0253

DATED: January 12, 2011

EXCERPT FROM PLATEAU'S WRITTEN

SUBMISSIONS DATED NOVEMBER 8, 2010

(Tab 2, Pages 7-9)

1 located over, on or near traveled or untraveled sections of the Road Allowances. The
2 hearing does not concern which Road Allowances that Plateau has chosen to use.

3 **3.0 PROPOSED LOCATION OF THE DISTRIBUTION SYSTEM WITHIN**
4 **THE ROAD ALLOWANCES**

5 Plateau proposes that the location of the Distribution System within the Road Allowances
6 should be as follows:

- 7 • The Distribution System facilities shall generally be located 1.0-1.5 metres from
8 the abutting property line, provided this location is reasonable and meets all
9 applicable safety standards.⁹ A cross-sectional drawing included at Appendix C
10 shows the approximate location of where Plateau proposes to position the poles
11 and other Distribution System facilities within the Road Allowances. As
12 discussed below, this proposal accords with the terms of the proposed road use
13 agreement between Plateau and Grey Highlands.¹⁰
- 14 • Where practicable and with certain exceptions, the Distribution System facilities
15 that Plateau will construct, maintain or install shall not be located under the
16 existing or contemplated traveled portion of any of the Road Allowances.¹¹
17 Rather, Plateau will locate these facilities adjacent to such existing or
18 contemplated traveled portion of such Road Allowances. As discussed below, this
19 proposal accords with the terms of the proposed road use agreement between
20 Plateau and Grey Highlands.¹²

21 In addition to proposing this location for the Distribution System within the Road
22 Allowances, Plateau requests that the Board, pursuant to its authority under section 23(1)
23 of the OEB Act, include the following conditions in its Order:

⁹ For example, once the detailed engineering process is completed, Plateau may be required to slightly deviate from the 1.0-1.5 metre setback to minimize the need for tree cutting, road crossings and guy anchors on private properties, as well as to accommodate the flow of the ditch drainage.

¹⁰ See Exhibit B, Tab 4, Schedule 1, Page 3 of the Application.

¹¹ Exemptions include certain underground road crossings that allow the Distribution System to follow the existing HONI poles in order to minimize the need to place poles on both sides of the Road Allowances.

¹² See Exhibit B, Tab 4, Schedule 1, Page 3 of the Application.

- 1 • Plateau shall acknowledge that the rights to use the Road Allowances are not
2 exclusive rights. In addition, Grey Highland is not precluded from entering into
3 the Road Allowances for its own municipal purposes, and Grey Highlands has no
4 obligation to notify Plateau of such entry provided it does not adversely affect the
5 Distribution System.
- 6 • In constructing or decommissioning the Distribution System within the Road
7 Allowances (the "Work"), Plateau shall use all due care and diligence to prevent,
8 among other things, any unnecessary or unavoidable interference with the
9 travelled portion of any Road Allowance or with any traffic thereon.
- 10 • Prior to the commencement of any Work, Plateau shall file plans with Grey
11 Highlands and/or the Saugeen Valley Conservation Authority detailing the Work.
12 Plateau will undertake the Work in accordance with those plans.¹³
- 13 • Within 30 days of the completion of any construction Work, Plateau shall deposit
14 with Grey Highlands as-constructed plans detailing the location and specifications
15 of any installed infrastructure, including any distribution lines and poles.
- 16 • Plateau shall undertake and complete any Work requiring a permit from Grey
17 Highlands within the time specified in such permit, provided such time is
18 reasonable. Plateau shall also complete such Work so as not to cause unnecessary
19 nuisance or damage to Grey Highlands or any other user of the Road Allowance
20 where the Work is conducted.
- 21 • Prior to the commencement of any Work, Plateau shall obtain any necessary
22 approval of any federal, provincial, county or municipal government or agency.
23 Plateau shall also notify any other person or body operating any equipment,
24 installations, utilities or other facilities within the Road Allowances about the
25 details of the Work, including where it is to be conducted.
- 26 • In the event that it becomes necessary to break, remove, or otherwise pierce the
27 existing surface of any of the Road Allowances to undertake the Work, Plateau
28 shall, in so far as is practical, at its own expense, repair, reinstate, restore, or
29 remediate such surface to the same or better condition than existed prior to the
30 commencement of such Work.¹⁴
- 31 • Subject to section 41 of the OEB Act, if Plateau wishes to relocate any of the
32 Distribution System facilities previously installed, placed or constructed in the

¹³ This condition is in accordance with Section 41 (7) of the Electricity Act, which states: "If a transmitter or distributor exercises a power or entry under this section, it shall, (e) provide reasonable notice of the entry to the owner or other person having authority over the street or highway ..."

¹⁴ This condition is in accordance with Section 41 (7) of the Electricity Act, which states: "If a transmitter or distributor exercises a power or entry under this section, it shall, ... (b) in so far as is practicable, restore the street or highway to its original condition; and (c) provide compensation for any damages caused by the entry."

1 Road Allowances, it shall notify Grey Highlands in writing of its intent to do so,
2 and Grey Highlands shall not unreasonably withhold its consent to such
3 relocation.

4 Notably, none of these requested terms or conditions vary from those already enshrined
5 in the standard road use agreement (the "Proposed Road Use Agreement") that Plateau
6 negotiated with the Municipal Staff of Grey Highlands (the "Municipal Staff") and Grey
7 Highlands' legal counsel.¹⁵ In the negotiations, the parties reached a mutually acceptable
8 agreement with respect to the location, construction, operation and maintenance of the
9 Distribution System within the Road Allowances.¹⁶ In particular, under the Proposed
10 Road Use Agreement, Grey Highlands would have affirmed Plateau's statutory right to
11 use the Road Allowances for the Distribution System and agreed to the location of the
12 Distribution System. In exchange, Plateau would have conferred certain benefits on and
13 provided numerous protections to Grey Highlands. A copy of the Proposed Road Use
14 Agreement is attached at Appendix D.

15 In addition, none of the requested terms and conditions vary substantially from the terms
16 and conditions contained in the agreement between Plateau and Melancthon, which
17 Melancthon Council has already approved, regarding the location of seven turbines and
18 the associated distribution facilities in its jurisdiction.¹⁷ One of these turbines is the
19 Turbine in Melancthon that is part of the Plateau I and II siting area, and some of the
20 distribution facilities will be located on the Melancthon side of some of the Road
21 Allowances that are jointly owned by Melancthon and Grey Highlands.

¹⁵ For a summary of those terms and conditions, see Exhibit B, Tab 4, Schedule 1, Pages 4-7 of the Application.

¹⁶ See Exhibit B, Tab 4, Schedule 1, Pages 1-2 of the Application.

¹⁷ See Exhibit B, Tab 4, Schedule 1, Pages 2-3 of the Application.

APPENDIX 'B'

DECISION AND ORDER (EB-2013-0031)



EB-2013-0031

IN THE MATTER OF the *Ontario Energy Board Act, 1998*, S.O. 1998, c.15, Schedule B;

AND IN THE MATTER OF an application by Wainfleet Wind Energy Inc. for an Order or Orders pursuant to subsection 41(9) of the *Electricity Act 1998*, S.O. 1998, c. 15, Schedule A, as amended, establishing the location of Wainfleet Wind Energy Inc.'s distribution facilities within certain public right-of-way and street owned by the Township of Wainfleet, Regional Municipality of Niagara.

BEFORE: Paula Conboy
Presiding Member

Peter Noonan
Member

DECISION AND ORDER

June 27, 2013

BACKGROUND

Wainfleet Wind Energy Inc. (“Wainfleet Wind” or the “Applicant”) filed an application dated February 4, 2013, with the Ontario Energy Board (the “Board”) under subsection 41(9) of the *Electricity Act, 1998, S.O. 1998, c. 15, Schedule A*, as amended (the “*Electricity Act*”) for an order or orders of the Board establishing the location of Wainfleet Wind’s proposed distribution facilities within certain road allowances owned by the Township of Wainfleet (the “Township”).

The Board issued a Notice of Application (“Notice”) on March 13, 2013.¹

Following the publication of Notice, Ms. Katherine Pilon applied for intervenor status and requested an oral hearing. The Applicant objected to her intervention request on the basis that her proposed intervention was directed at issues outside the scope of subsection 41(9) of the *Electricity Act*. The Board deliberated, and subsequently denied Ms. Pilon’s request to intervene upon the grounds that her proposed intervention dealt with matters that are outside the Board’s jurisdiction under subsection 41(9) of the *Electricity Act*. However, the Board allowed Ms. Pilon to file materials in this proceeding as letters of comment. No other person applied to the Board for intervenor status.

The Board decided to proceed by way of a written hearing process in this matter. Procedural Order No. 1 was issued on April 26, 2013 to set out the process for the conduct of the written hearing.

SCOPE OF PROCEEDING

As stated in the Board’s Notice, the scope of this proceeding is limited to determining the location of the Applicant’s Distribution System within the road allowances owned by the Township.

THE APPLICATION

Wainfleet Wind is an Ontario corporation which carries on the business of developing renewable wind energy generation projects. It has partnered with Rankin Construction Inc., a local contractor which carries on the business of building renewable

¹ The original Notice was issued on March 6, 2013 and a revised Notice was issued on March 13, 2013.

infrastructure. Wainfleet is a distributor of electricity within the meaning of the *Electricity Act*.

The Applicant has entered into a contract with the Ontario Power Authority (“OPA”) and is in the process of developing a 9 MW wind power generating facility with five wind turbines, located in the Township and the Niagara Region.

As part of the project, the Applicant is proposing to construct a 27.6kV underground system (“Distribution System”) that will collect power from the turbines and deliver it to a switching station, proposed to be located on private lands along the unopened road allowance of Sideroad 22 (also known as “Brawn Road”) in the Township. The Applicant proposes to install the Distribution System underground under private and public lands in the Township and elsewhere in the Niagara Region. This Application is made only in reference to the public lands within the authority of the Township. Wainfleet Wind states that its proposed Distribution System is necessary to transmit electricity from the wind turbines to the distribution system, in order to comply with its contractual commitments to the OPA.

The Applicant asserts that it has been unsuccessful in negotiations with the Township to obtain an agreement for the location of the underground Distribution System, including high voltage cables, associated ducts, and a communications cable along and across Concession 1 Road and across the unopened Sideroad 22 road allowance at the location of a municipal drain within the Township. Pursuant to subsection 41(9) of the *Electricity Act*, the Applicant requests that this Board determine the location of structures, equipment and other facilities to be installed under or on Concession 1 Road and unopened Sideroad 22.

In particular, the Applicant requests that the Board determine the location of an underground diagonal crossing of unopened Sideroad 22. The Applicant also intends to carry the Distribution System underground across private lands until the Distribution System intersects Concession 1 Road. The Applicant therefore requests that the Board determine the location of a concrete encased duct bank or directional bore crossing for a perpendicular crossing of Concession 1 Road. Finally, the Applicant requests that the Board determine the location of the Distribution System to be constructed underground within the road allowance of Concession 1 Road to its point of intersection with Station Road, a municipal road under the jurisdiction of the Regional Municipality of Niagara. The project for which the Applicant seeks the approval of this Board is described at

Exhibit B/Tab 2/Schedule 1 and shown on applicable engineering drawings² at Exhibit B/Tab 3/Schedule 1/Appendix A, of the application.

Wainfleet Wind states that the proposed cable installations of the Distribution System are designed to meet or exceed the requirements of the Ontario Electrical Safety Code Standard C22.3-#7, Underground Systems and permanent buried cable markers will be installed at either end of the road crossings as recommended by the Canadian Standards Association. Additional details are provided in the construction notes contained in applicable drawings.

THE RECORD

The record consists of the application, letters of comment submitted by members of the public, interrogatories of Board staff, the Applicant's response to Board staff interrogatories, and the submissions of Board staff and the Applicant.

Although the Township did not apply for intervenor status the Board granted leave to the Township to intervene in this proceeding. However, the Township did not take the opportunity to participate or make any submissions on the issues before the Board. Accordingly, the Applicant is the only formal party in this case.

The Board received a number of letters of comment from Ms. Katherine Pilon. The letters of comment filed by Ms. Pilon relate to her opposition to the wind generation project rather than to the issues pertinent to the decision that the Board must make under subsection 41(9) of the *Electricity Act*. Accordingly, the Board has not relied on any of the letters of comment except for a portion of Ms. Pilon's submissions of April 27 and April 30, 2013 in which she, like the Applicant, provided some additional information on the public utility of Station Road as background information about the project.

Pursuant to Procedural Order No. 1, Board staff submitted interrogatories to Wainfleet Wind. The Applicant provided satisfactory responses to all of the Board staff interrogatories.

On May 27, 2013, Board staff filed a written submission. Board staff observed that the Township staff were consulted about the proposed location of Distribution System and

² For the purpose of this application, the applicable drawings are: Drawing #'s: 123901C1.0, 123901C1.1 to 123901C1.4, 123901C1.14 and 123901C1.15

that the Township has not provided the Applicant with any concerns about the proposed location. The Board staff submission noted that: "In the absence of information to the contrary, the route selected appears to staff to be the most efficient and least invasive."

On June 3, 2013, Wainfleet Wind filed its reply submissions. Wainfleet Wind submitted that its application establishing the location of the Distribution System on road allowances owned by the Township should be approved.

Additionally, Wainfleet Wind also requested that the Board consider an award of costs against the Township. Wainfleet Wind noted that it was forced to bring this application because it was unable to reach an agreement with the Township and that the Township's conduct has inflicted unnecessary costs and inconvenience on Wainfleet Wind. The Applicant submitted that the Board should exercise its discretion to award costs against the Township in favour of Wainfleet Wind in the amount of \$3,500.00 plus the Board's cost of the Application. Wainfleet Wind stated that its request for costs only covers the publishing costs that it incurred as a necessary part of this application.

BOARD FINDINGS

The Applicant is the only formal party in this case. The Township received notice of this application but chose not to seek intervenor status or participate in the proceeding even after the Board, of its own motion, granted leave to the Township to intervene. Ms. Katherine Pilon filed several letters of comment but her concerns were directed at the wind generation facility project which is outside of the scope of this application. None of her comments were specific to the Applicant's request to locate the Distribution System within the Township's road allowances. The application by Wainfleet Wind pursuant to subsection 41(9) of the *Electricity Act* is essentially unopposed.

The Applicant has established that it is a distributor of electricity and that it has a statutory right to place its Distribution System within a municipal road allowance pursuant to subsection 41(1) of the *Electricity Act*. The Board finds that the Applicant and the Township have been unable to agree upon the location of the Distribution System within the road allowances that are the subject of this application. The Board notes that satisfactory responses have been made by the Applicant to the interrogatories posed by Board staff. The engineering drawings for the location of the distribution line and related structures have been considered and the Board finds that they are satisfactory. Therefore, the Board finds that the Applicant has satisfied the

burden of proof under the *Electricity Act* to demonstrate that the proposed location of its Distribution System in the municipal road allowances is appropriate and the application is approved.

In order to ensure that adequate regulatory oversight is provided for this project the Board has decided that the following conditions to its approval will be imposed on the Applicant:

- 1) The Applicant shall advise the Board's designated representative of any proposed material change in the location of the facilities as described in the Plans and Profiles as set out at ExB/T2/S1 and Ex B/T3/S1/Appendix A of the application and shall not make a material change in the Plans and Profiles without prior approval of the Board or its designated representative.
- 2) The Applicant shall designate a person as Project Manager and shall provide the name of the individual to the Board's designated representative. The Project Manager will be responsible for the fulfillment of the Conditions of Approval on the construction site.
- 3) The Board's designated representative for the purpose of this Condition of Approval shall be the Manager, Electricity Facilities and Infrastructure Applications.

As to the question of costs, the Board has decided that this is not an appropriate case in which to award costs. The Township chose not to become a formal party to the Board's proceeding, as it was entitled to, and therefore did not add any delay or cost for the Applicant in this proceeding. Clearly, the Applicant is frustrated by its dealings with the Township and the Board is aware that other legal proceedings have taken place between the Applicant and the Township. However, the Board cannot take cognizance of those matters for the purposes of determining costs in this proceeding. We note that the Applicant requested in its Reply that the question of costs not delay the Board's decision, which would clearly be the result if the Board established a process to determine whether a non-party in the context of this case could, and should, be subjected to an award of costs. All things considered, the Board declines to make a cost order in this case.

THE BOARD ORDERS THAT:

1. The location of Wainfleet Wind's Distribution System on road allowances owned by the Township, as described in the application at Exhibit B/Tab 2/Schedule 1 and in the applicable drawings at Exhibit B/Tab 3/Schedule 1/Appendix A and subject to the Conditions of Approval set out in this Decision and Order is approved.
2. Pursuant to section 30 of the *Ontario Energy Board Act, 1998*, Wainfleet Wind shall pay the Board's costs of and incidental to, this proceeding immediately upon receipt of the Board's invoice.

ISSUED AT Toronto on June 27, 2013

ONTARIO ENERGY BOARD

Original Signed by

Kirsten Walli
Board Secretary

APPENDIX 'C'

DECISION AND ORDER (EB-2013-0233)



EB-2013-0233

IN THE MATTER OF the *Ontario Energy Board Act, 1998*,
S.O. 1998, c.15, Schedule B;

AND IN THE MATTER OF an application by East Durham
Wind, Inc. for an Order or Orders pursuant to subsection
41(9) of the *Electricity Act 1998*, S.O. 1998, c. 15, Schedule
A, as amended, establishing the location of East Durham
Wind Inc.'s distribution facilities within certain road
allowances owned by the Municipality of West Grey.

BEFORE: Emad Elsayed
Presiding Member

Ellen Fry
Member

DECISION AND ORDER

November 7, 2013

DECISION

The location of East Durham's distribution system on road allowances owned by the Municipality of West Grey ("the Municipality") is approved as described in this Decision and Order.

BACKGROUND

East Durham Wind, Inc., ("East Durham") filed an application dated June 14, 2013 with the Ontario Energy Board (the "Board"), under subsection 41(9) of the *Electricity Act, 1998, S.O. 1998, c. 15, Schedule A*, (the "Act") for an order or orders of the Board establishing the location of approximately 9.1 kilometers of East Durham's proposed distribution system within certain public streets, highways and right-of-ways owned by the Municipality in Grey County, Ontario.

The Board issued a Notice of Application and Written Hearing on July 9, 2013. The Municipality and Karen and Syd Parkin (the "Parkins") requested and were granted intervenor status. The Board also received letters of comment from a number of local residents.

The Parkins submitted evidence. The Parkins and Board staff submitted interrogatories on East Durham's evidence. No party filed interrogatories on the evidence submitted by the Parkins. East Durham provided responses to all interrogatories.

East Durham filed its argument-in-chief on September 4, 2013. The Board received submissions from the Municipality and the Parkins. East Durham filed its reply submission on September 19, 2013.

On October 2, 2013, the Board issued a letter requiring East Durham to provide a more complete response to Board staff interrogatory no. 2(ii) by providing the analysis and supporting documentation that underpins its determination that it is appropriate to locate its facilities 1-4 meters from abutting property lines. The letter also asked East Durham to confirm the accuracy of a map provided as part of East Durham's argument-in-chief.

East Durham submitted its response on both matters on October 4, 2013. The Parkins submitted their comments on Oct 7, 2013.

THE APPLICATION

East Durham has entered into a Feed-in-Tariff contract with the Ontario Power Authority and is in the process of developing a wind generation facility, called the East Durham Wind Energy Centre (the “Project”) in the Municipality. The Project will have a total generation capacity of up to 23 MW and includes generation and distribution assets.

As part of the Project, East Durham is proposing to construct an underground distribution system to transmit power generated by the wind turbines to the distribution system of Hydro One Networks Inc. (“Hydro One”) for delivery ultimately to the IESO-controlled grid. Specifically, East Durham is proposing to construct 28.3 kilometers of underground 34.5 kV distribution lines on private and public lands, which will convey power from each of the turbines to a transformer substation. From that point, an overhead 44 kV line will convey the electricity to Hydro One’s distribution system. The components of East Durham’s proposed distribution system are collectively referred to in this Decision and Order as the “Distribution System”.

East Durham proposes to locate approximately 9.1 kilometers of the underground portion of the Distribution System on road allowances that are owned by the Municipality. The road allowances at issue are referred to in this Decision and Order as the “Road Allowances”.

Subsections 41(1) and 41(9) of the Act provide as follows:

41. (1) A transmitter or distributor may, over, under or on any public street or highway, construct or install such structures, equipment and other facilities as it considers necessary for the purpose of its transmission or distribution system, including poles and lines.

41. (9) The location of any structures, equipment or facilities constructed or installed under subsection (1) shall be agreed on by the transmitter or distributor and the owner of the street or highway, and in case of disagreement shall be determined by the Board.

East Durham submits that it is a “distributor” within the meaning of subsection 2(1) of the Act. Accordingly, East Durham submits that it has the right to install facilities for the purpose of the Distribution System under “any public street or highway” pursuant to subsection 41(1) of the Act.

East Durham submits that it has been unsuccessful in its attempts to agree with the Municipality on the location of the portion of the Distribution System that would be on the Road Allowances. The Municipality does not dispute this. East Durham also submits that neither the Municipality nor any other party in this proceeding has proposed an alternate location. This is not disputed. Accordingly, East Durham is applying to the Board under subsection 41(9) for a determination of the location of the portion of the Distribution System that would be installed under the Road Allowances as described below.

- The Distribution System shall generally be located in the Road Allowances listed on Exhibit B, Tab 6, Schedule 1, Appendix A, as shown in the drawings included in Exhibit B, Tab 6, Schedule 1, Appendix B (and updated in section 2.0 of East Durham's argument-in-chief and in response to the Board's letter dated October 2, 2013).
- Where practicable, and where it meets all applicable engineering, environmental and health and safety standards, the Distribution System lines shall be located 1-4 meters from the abutting property line.
- Where practicable, and where they meet all applicable engineering, environmental and health and safety standards, the diagrams shown at Exhibit B, Tab 6, Schedule 1, Appendices C and D shall be followed in constructing the Distribution System within the Road Allowances.¹

The submissions of the Municipality and the Parkins regarding the various issues are described under Board Findings. Board staff declined to file a submission.

SCOPE OF THE BOARD'S JURISDICTION

As indicated above, the Board's authority in this proceeding is derived from section 41 of the Act.

Subsection 41(9) limits the scope of this proceeding to a determination of the location of the applicable portion of the Distribution System within the Road Allowances.

As indicated above, the Board received a number of letters of comment from local residents. These letters dealt with the location of the Project's wind turbines and their

¹ Pre-filed evidence of East Durham, Ex B/Tab 6/Schedule 1

impact on property values, health, and aesthetics. They also dealt with the Ontario Government's renewable energy policy in general and broad environmental issues.

Given the scope of subsection 41(9), it is not the Board's role in this proceeding to decide whether the Project should be approved, consider issues relating to wind turbines or renewable energy policy generally, or consider alternatives to the Project such as routes for the Distribution System that are outside of the Road Allowances. Accordingly, the concerns in the letters of comment described above are not within the scope of this proceeding.

BOARD FINDINGS

Is The Applicant a Distributor?

The Municipality submitted that the application should be denied because East Durham is not a "distributor" within the meaning of section 41. It submitted that this is the case because East Durham does not own or operate a distribution system and that, until it receives its Renewable Energy Approval ("REA") from the Ministry of the Environment ("MOE"), it will not have the authority to do so. Distinguishing this case from the Board's Decision in the Plateau case², the Municipality submitted that Plateau, at the time of its application, had received MOE approval to construct and operate its "renewable energy generation facilities" which also authorized Plateau to construct, own and operate a distribution system.

In response, East Durham submitted that the Act does not require all necessary approvals to be in place prior to being able to access the rights afforded to a distributor under section 41.

Concerning the Plateau case, East Durham submitted that whether or not Plateau had certain approvals in place at the time of its section 41 application was not cited as a basis for the Decision. East Durham also referred to the Board's more recent Wainfleet Decision³. In that case, according to East Durham, the Board granted the section 41 application prior to Wainfleet having received the REA for its project. East Durham further submitted that the Board's Decision and Order in that case was not made conditional on receipt of the REA.

² EB-2010-0253

³ EB-2013-0031

The Board agrees with East Durham that the Act does not require that all necessary approvals, such as the REA, be obtained prior to granting an application under subsection 41(9). Accordingly, the Board does not consider that there is any relevant basis to distinguish this application from the applications in the Plateau and Wainfleet cases, in which the applicants were considered to be “distributors”. The Board notes, however, that in order to proceed with construction of the Distribution System, East Durham will need to obtain all legally required permits and other approvals.

Proposed Location of the Distribution System

East Durham has provided maps that identify the starting and ending points of the various segments of the Distribution System within Road Allowances. Further, the table at section 2.0 of East Durham's argument-in-chief provides the length and location (i.e. western side of the Road Allowance) of each segment. Concerning the proposed setback of the Distribution System as indicated above, East Durham has proposed that, where practicable, and where it meets all applicable engineering, environmental and health and safety standards, the Distribution System lines shall be located 1-4metres from the abutting property line.

The Municipality submitted that East Durham's application should be denied because East Durham had not provided the “location” of the proposed lines within the Road Allowances. The Municipality submitted that what East Durham provided was not actual locations but merely “guidelines” for determining locations. Although the Municipality acknowledged that East Durham had refined its general description of the proposed locations in its argument-in-chief, it maintained that these locations were not sufficiently precise. The Municipality submitted that it is not its duty to propose locations, and that it should be East Durham who must propose locations.

East Durham submitted that it has proposed a “narrow corridor” which provides the best balance of environmental, social, technical and economic considerations. East Durham also submitted that, given that the Board will be determining the location of the Distribution System in this proceeding prior to the start of construction, the approved location must allow for some reasonable flexibility to ensure that East Durham can address any engineering, environmental, health and safety or other practical challenges that may arise during construction.

East Durham also submitted that in its view section 41 does not require the identification of a “precise” or “exact” location. Section 41, according to East Durham, only states that the “location” shall be agreed upon by the transmitter or distributor and the owner. East Durham argued that this wording makes it a mutual obligation on the distributor and the owner of the Road Allowance. East Durham also submitted that the Municipality, by its own admission, had refused to provide feedback to help refine the proposed locations. East Durham submitted that if the Municipality had provided comments regarding the location and any existing infrastructure in the area, it would have enabled East Durham to further refine the proposed locations.

The Board issued a letter to East Durham, dated October 2, 2013, requesting additional information to support East Durham’s proposed 1-4 meter location parameter. East Durham responded, by letter dated October 4, 2013. East Durham provided examples of municipalities and counties in the vicinity of the Municipality that have adopted policies regarding the location of underground infrastructure that are consistent with the considerations described by East Durham. This included a policy issued by the County of Grey, in which the Municipality is located, titled, Policy for Utility Place on Grey County Rights of Ways.

East Durham also submitted that, as part of its REA application, it undertook various studies in the project area, such as the Natural Heritage Assessment, the Water Assessment, and Archeological Assessment and consulted all stakeholders in keeping with the requirements in Ontario Regulation 359/09. Following these studies and others, East Durham states that its initial proposal was refined and revisions were incorporated where appropriate, to ensure that the proposed location represents the best balance of environmental, social, technical and economic considerations.

The Parkins submitted that the additional information filed by East Durham did not support the request for a 1-4 meter corridor. The Parkins submitted that the requirement for a 1.5 meter setback in the Municipality of Lambton Shores was for overhead utility lines and not underground lines. The Parkins, submitted that although in their view the Municipality would likely not agree, a 1 meter setback from street line would be acceptable to them. The Parkins recommendation was based on the Municipality of Lambton Shores’ Infrastructure Design Guidelines and Construction Standards, dated January 2002.

While section 41 requires that the Board determine a “location” under the road allowance, the Board agrees with East Durham that this wording does not require a precise location. The Board considers that the mapping and location information provided by East Durham is sufficient to determine the location for the purpose of this application.

The Board accepts the evidence of East Durham that it is appropriate to locate the Distribution System lines 1-4 meters from the abutting property line. The Board considers, however, that this location could probably have been refined further if there had been more communication between East Durham and the Municipality. The Board encourages East Durham and the Municipality to consult during construction to address any issues or concerns about the precise location that may arise. As indicated below, the Board has made provision in its decision for any agreement reached as a result of such consultation.

Stray Voltage

The Municipality and the Parkins have raised concerns about the possibility that the Distribution System will cause stray voltage problems. The Parkins filed a copy of a Private Member’s Bill concerning stray voltage and the Ontario *Green Energy Act*. East Durham argued that wind turbines do not cause stray voltage. East Durham further argued that Hydro One oversees stray voltage issues and has developed a protocol to proactively test for stray voltage and mitigate any concerns at no cost to the landowner. East Durham stated that it will assist any concerned landowner in the Project area in this process with Hydro One.

East Durham also argued there is no nexus between the evidence filed by the Parkins concerning stray voltage generally and the issue before the Board in this proceeding (i.e. where portions of the Distribution System should be located within the Road Allowances). East Durham submitted that the Parkins have not filed any evidence suggesting that East Durham’s Distribution System in particular will cause stray voltage or that, if so, the proposed location of a portion of the Distribution System in the Road Allowances is such that stray voltage would cause an adverse impact.

The Board agrees with East Durham that the evidence does not indicate that the portion of the Distribution System proposed to be located in the Road Allowances would necessarily cause stray voltage, or if so, that the proposed location in the Road Allowances would cause an adverse impact due to stray voltage. The Board also notes

that section 4.7 and Appendix H of the Board's *Distribution System Code* sets out the investigation procedures related to stray voltage.

THE BOARD ORDERS THAT:

1. The location of East Durham's Distribution System on Road Allowances owned by the Municipality is approved as follows:
 - a. The Distribution System shall be located in the Road Allowances listed on Exhibit B, Tab 6, Schedule 1, Appendix A, as shown in the drawings included in Exhibit B, Tab 6, Schedule 1, Appendix B (and updated in section 2.0 of East Durham's argument-in-chief and in response to the Board's letter dated October 2, 2013).
 - b. The Distribution System lines shall be located 1-4 meters from the abutting property line unless otherwise agreed between East Durham and the Municipality.
 - c. The diagrams shown at Exhibit B, Tab 6, Schedule 1, Appendices C and D shall be followed in constructing the Distribution System within the Road Allowances.

ADDRESS

Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 27th Floor
Toronto ON M4P 1E4
Attention: Board Secretary
E-mail: Boardsec@ontarioenergyboard.ca
Tel: 1-888-632-6273 (toll free)
Fax: 416-440-7656

DATED at Toronto, November 7, 2013

ONTARIO ENERGY BOARD

Original Signed By

Kirsten Walli
Board Secretary

PROPOSED ROAD USE AGREEMENT

1 As set out in Exhibit B, Tab 5, Schedule 1, Jericho has sought to reach an agreement with the
2 County on the location of the Distribution System within the Road Allowances. In an attempt to
3 formalize such an agreement, among other things, Jericho undertook to negotiate a road use
4 agreement with the County (the “**Proposed Agreement**”), even though Jericho is not under any
5 statutory obligation to enter into such an agreement. As part of these negotiations, Jericho and
6 County staff held various discussions and exchanged various information, including with respect
7 to Jericho’s plans for locating segments of its Distribution System within the Road Allowances.

8 Attached as Appendix A to this Exhibit B, Tab 4, Schedule 1 is a copy of the Proposed
9 Agreement that Jericho finalized with County staff. This is the same version of the agreement
10 that County staff have formally recommended for execution (see Exhibit B, Tab 5, Schedule 1,
11 Appendices I and K). Under the Proposed Agreement, Jericho would have provided certain
12 benefits and protections to the County in respect of the construction, installation, operation,
13 maintenance and decommissioning of the Distribution System, among other things. For
14 example, Jericho would have undertaken the work at its own expense and in accordance with
15 good engineering practices (see section 12), provided insurance coverage (see section 7(h)),
16 repaired the surface of any Road Allowances that was broken in the course of the work (see
17 section 16) and posted security in respect of its obligations under the Proposed Agreement (see
18 sections 38 and 39). Moreover, the Proposed Agreement set out a proposal for the location of
19 the Distribution System within the Road Allowances (see section 7(b) and Schedule B11).

20 However, despite County staff’s recommendation, the County has to date not approved the
21 execution of the Proposed Agreement. As set out further in Exhibit B, Tab 5, Schedule 1, the
22 County’s current position on the Proposed Agreement demonstrates that the parties are unable to
23 reach an agreement regarding the location of the Distribution System in the Road Allowances.

APPENDIX 'A'

PROPOSED ROAD USE AGREEMENT

ROAD USE AGREEMENT

THIS AGREEMENT effective this ____ day of _____, 2014 (the “**Effective Date**”)

B E T W E E N :

THE CORPORATION OF THE COUNTY OF LAMBTON
(hereinafter referred to as the “**County**”)

OF THE FIRST PART

- and -

JERICHO WIND, INC.
a corporation established under the laws
of the Province of New Brunswick
(hereinafter referred to as “**Jericho**”)

OF THE SECOND PART

WHEREAS:

- A. the County is a municipal corporation with the meaning of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended, is governed by Warden and Council and operated by Administration, which is hereby authorized to administer this Agreement in its entirety, including but not limited to decisions with respect to the operation and termination of this Agreement in accordance with its provisions;
- B. the County exercises jurisdiction with respect to approval of certain activities with respect public rights of way, highways, ditches and boulevards within the County of Lambton;
- C. the County owns the roads identified in the Approved Road Use Plans, which is attached hereto as **Schedule “B”** and forms a part of this Agreement;
- D. Jericho is a wind farm owner/operator, has a current registered corporate identity in New Brunswick; has an office and mailing address at 390 Bay Street, Suite 1720, Toronto, ON M5H 2Y2;
- E. Jericho is the owner of the Wind Project, as defined herein;
- F. Jericho is the owner of the Power Purchase Agreement for the Wind Project, all assets of the Wind Project, as provided in the Jericho Asset Document, which is attached hereto as **Schedule “A”**, forms a part of this Agreement but shall be treated as confidential between the parties to extent possible under Applicable Law;

- G. Jericho wishes to make use of certain roads located in the County of Lambton to allow for construction, operation and maintenance of the Wind Project and to deliver components and materials thereto;
- H. pursuant to section 50(3)(d.1) of the *Planning Act*, as amended, the Parties may enter into an agreement that has the effect of granting a use of or right in land directly or by entitlement to renewal for a period of more than twenty-one years;
- I. the County and Jericho enter into this Agreement with respect of the use, installation, construction, maintenance and operation of certain Electrical Infrastructure on, over, under and within the Road Allowances, as defined herein;
- J. subject to Provincial legislation and Ontario Energy Board Approval, and the terms and conditions set forth below with respect to the use of County Road Allowances, the County acknowledges Jericho's right to install, construct, maintain, operate and decommission such Electrical Infrastructure over, along, across or under Road Allowances;
- K. subject to obtaining the necessary approvals from the County for non-electricity transmission related work, Jericho shall have the right to temporarily reconstruct or realign certain portions of the Road Allowances to permit delivery or movement of oversized Wind Project components, including wind turbine blades, tower sections and nacelles;
- L. subject to obtaining an entrance permit from the County, Jericho shall have the right to connect access roads from Wind Project turbines to the Road Allowances to permit ongoing access to the wind turbines during Wind Project operations; and
- M. Jericho warrants that all times throughout the Term of this Agreement, including its option periods, it shall retain assets which have a minimum value of \$5 million dollars.

NOW THEREFORE THIS AGREEMENT WITNESSETH THAT, in consideration of the payment of the sum of TWO DOLLARS (\$2.00) from each Party to the other and other good and valuable consideration, including the terms, covenants and provisions herein, the receipt and sufficiency of which is hereby acknowledged and agreed, the Parties covenant and agree as follows:

A. INTERPRETATION

- 1. The above recitals are true and the same are hereby incorporated into this Agreement by reference.
- 2. Each obligation of the Parties hereto contained in this Agreement, even if not specifically expressed as a covenant, shall be considered for all purposes to be a covenant. Each covenant in this Agreement is a separate and independent covenant and a breach of covenant by any Party will not relieve any other Party from its obligation to perform each of its covenants; except as otherwise provided herein.

Definitions

3. In this Agreement, in addition to terms defined elsewhere in this Agreement, the following terms have the following meanings:
- (a) **“Agreement”** means this Agreement, including all Schedules, as it may be confirmed, amended, modified, supplemented or restated by written agreement between the Parties.
 - (b) **“Anti-Bribery Laws”** mean any anti-bribery law or international convention, as may apply now or in the future, including the Canadian Corruption of Foreign Public Officials Act, the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act and the OECD Convention on Combating Bribery of Foreign Public Officials.
 - (c) **“Applicable Law”** means all present or future applicable laws, statutes, regulations, treaties, judgments and decrees and all present or future applicable published directives, rules, policy statements and orders of any Public Authority and all applicable orders and decrees of courts and arbitrators of like application to the extent, in each case, that the same are legally binding on the Parties in the context of this Agreement.
 - (d) **“Appropriate Emergency Service Providers”** means those emergency service providers set out in **Schedule “C”**, which is attached hereto and forms a part of this Agreement;
 - (e) **“Approved Road Use Plans”** means the diagrams attached as **Schedule “B”** hereto depicting the location of and other aspects in relation to Electrical Infrastructure in Road Allowances, as approved by the County Engineer prior to the execution of this Agreement.
 - (f) **“As-Built Plan”** means a Plan following the placement, installation, construction, re-construction, inspection, maintenance, operation, alteration, enlarging, repairing, replacing, relocating and removing Electrical Infrastructure confirming the exact location and specifications of any Electrical Infrastructure installed over, along, across, under or within the Road Allowances.
 - (g) **“Business Day”** means any day excluding a Saturday, Sunday or statutory holiday in the Province of Ontario, and also excluding any day on which the principal chartered banks located in the County of Lambton are not open for business during normal banking hours.
 - (h) **“Commercial Operation Date”** means the Commercial Operation Date as defined in the Power Purchase Agreement, as defined herein.
 - (i) **“Consulting Engineer”** means an independent qualified professional engineer as appointed by Jericho, from time to time.

- (j) **“County Engineer”** means the individual designated to serve in the position of Manager, Public Works or his/her designate for the Corporation of the County of Lambton duly passed via municipal by-law.
- (k) **“Deliveries”** means the transporting of materials, components and equipment including overweight or over-size cargoes across or along Road Allowances, to provide for the construction, maintenance, repair, replacement, relocation or removal of wind turbines and other infrastructure for the Wind Project.
- (l) **“Distribution Infrastructure”** means infrastructure and systems for the purposes of conveying electricity at voltages of 50 kilovolts or less and includes all structures, equipment or other things used for that purpose including, but not limited to, towers and/or poles, with such wires and/or cables for the distribution of electricity at voltages of 50 kilovolts or less, and all necessary and proper foundations, safety barriers, footings, cross arms and other appliances, facilities and fixtures for use in connection therewith including without limitation, substation facilities and equipment, pads, vaults and junction boxes (whether above or below ground), manholes, handholes, conduits, fiber optics, cables, wires, distribution lines and other conductors of any nature, multiple above or below ground control, communications, data and radio relay systems, and telecommunications equipment, including without limitation, conduits, fiber optics, cables, wires and lines.
- (m) **“Easement Rights”** means the right to place, install, construct, re-construct, inspect, maintain, operate, alter, enlarge, repair, replace, relocate and remove Electrical Infrastructure over, along, across, within or under the Road Allowances provided for this Agreement.
- (n) **“Electrical Infrastructure”** means, collectively, all Distribution Infrastructure and Transmission Infrastructure.
- (o) **“Electrical Infrastructure Work”** means the installing, constructing, operating, inspecting, maintaining, altering, enlarging, repairing, replacing, relocating and removing of Electrical Infrastructure over, along, across, within or under the Road Allowances in connection with the Wind Project.
- (p) **“Entrance(s)”** means one or more points of access across and through the Road Allowances from the travelled portion of the Road Allowances connecting to private lands beyond and certain access roads in and upon adjacent lands used in connection with the Wind Project, which has been approved by the County Engineer
- (q) **“Entrance Work”** means the constructing and maintaining of Entrances to private wind turbine access roads.
- (r) **“Material Change”** has the meaning ascribed to such term in Section 31.

- (s) **“Municipal Infrastructure”** means structures, services or facilities of any kind owned or operated by or for the benefit of the County or its local municipalities, including drains, water mains and culverts.
- (t) **“Parties”** means the County and Jericho collectively, and **“Party”** means any one of them.
- (u) **“Permits”** means those permits required to be obtained by Jericho from the County for the purposes of performing the Work and for the purposes of use of the Road Allowances, along with all requirements for the issuance of such Permits and all fees associated with such Permits, as set out in the Permits and Fees Document, which is attached hereto as **Schedule “D”** and forms a part of this Agreement.
- (v) **“Plan”** means a detailed plan drawn to scale, which:
 - (i) identifies the location, size and elevation of the Electrical Infrastructure;
 - (ii) demonstrate that the installation of the Electrical Infrastructure will comply with applicable safety, technical and regulatory standards and the requirements of Applicable Law; and
 - (iii) show the Road Allowances where the installation of Electrical Infrastructure is proposed and the location of the proposed Electrical Infrastructure or part thereof together with specifications relating to the proposed Electrical Infrastructure or part thereof.
- (w) **“Plans”** means more than one Plan, as defined herein, referred to collectively.
- (x) **“Power Purchase Agreement”**, (hereinafter **“PPA”**) means the Feed-In Tariff Contract made between Jericho and the Ontario Power Authority, including any amendments or renewals thereof.
- (y) **“Public Authority”** means any governmental, federal, provincial, regional, municipal or local body having authority over the County, Jericho, the Wind Project, the Electrical Infrastructure or the Road Allowances.
- (z) **“Repair Work”** means work involving the maintenance, repair and replacement of the Wind Project, including the maintenance, repair and replacement of installed Electrical Infrastructure and Entrances that does not cause the location, elevation, position, layout or route of the Electrical Infrastructure or Entrances to materially change.
- (aa) **“Road Allowances”** means public rights of way, road allowances, streets, sidewalks, highways, walkways, driveways, ditches and boulevards and the allowances therefor, and includes all existing infrastructure located on or within the Road Allowances, all owned, or managed under the legal jurisdiction of the County as shown in the Approved Road Use Plans (**Schedule “B”**).

- (bb) **“Secured Party”** or **“Secured Parties”** means Jericho’s lenders, from time to time.
- (cc) **“Transmission”** means the conveyance of electricity at voltages in excess of 50 kilovolts.
- (dd) **“Transmission Infrastructure”** means infrastructure conveying electricity at voltages in excess of 50 kilovolts and includes all structures, equipment or other things used for that purpose including, but not limited to, a line or lines of towers and/or poles, with such wires and/or cables for the transmission of electricity at voltages in excess of 50 kilovolts, and all necessary and proper foundations, safety barriers, footings, cross arms and other appliances, facilities and fixtures for use in connection therewith including without limitation, pads, vaults and junction boxes manholes, handholes, conduits, fiber optics, cables, wires, transmission lines and other conductors of any nature, multiple above or below ground control, communications, data and radio relay systems, and telecommunications equipment, including without limitation, conduits, fiber optics, cables, wires and lines.
- (ee) **“Tree Work”** means the cutting, trimming, removing or replacing of trees or bushes growing in or extending into, over or under the Road Allowances.
- (ff) **“Wind Project(s)”** means the 150 megawatt renewable energy generating facility known as Jericho Wind Energy Centre and its appurtenant wind turbines, equipment, buildings and Electrical Infrastructure, a portion of which is to be constructed in the County of Lambton for the purpose of supplying electricity in accordance with the PPA.
- (gg) **“Work”** means all work required to be performed by Jericho pursuant to the terms of this Agreement, including, but not limited to, all Deliveries, Electrical Infrastructure Work, Entrance Work, Tree Work, and Repair Work.

Schedules

4. The following schedules to this Agreement are an integral part of this Agreement:

Schedule “A”

Jericho Asset Document

Shows type and value of all current assets owned by Jericho

Schedule “B”

Approved Road Use Plans

Geographically shows the location of the Wind Project; municipal description and location of County Road Allowances; and particulars with respect of the route of Electrical Infrastructure, including but not limited to location of poles,

engineering details of poles (type, material, size, foundation, construction methods, guying details.), electrical transmission line arrangement (height of cables, vertical clearances, expected cable sag/sway, etc.), and the location of any alteration of the County Road Allowances in relation to the installation of said Electrical Infrastructure (ditch grading and guardrails).

Schedule “C”

Appropriate Emergency Service Providers

Schedule “D”

Permits and Fees

Shows all Permits and fees required to be applied for and obtained by Jericho from the County, including but not limited to Oversize/Overweight Permits, Entrance Permits, Signage Permits.

Schedule “E”

Rights and Remedies afforded to Secured Parties

Statutory Rights

5. The Parties agree that nothing contained in this Agreement shall abrogate or prejudice any statutory rights held by any Party under any applicable statute, including but not limited to the *Municipal Act, 2001*, as amended, the *Ontario Energy Board Act, 1998*, as amended, the *Green Energy and Green Economy Act, 2009*, as amended and the *Electricity Act, 1998*, as amended.

B. GRANT OF PERMISSION

Term

6. The rights provided for in this Agreement shall be for a term which is the greater of: (i) thirty (30) years from the Effective Date plus an option in favour of Jericho to extend the term of this Agreement for two (2) further ten (10) year periods, or (ii) from the Effective Date to the expiry of the term of the PPA and any extensions thereof, together with such additional time (not to exceed nine (9) months) as may be reasonably required to complete the decommissioning of the Wind Project, (hereinafter, the “**Term**”).

Grant of Easement

7. The County hereby grants and transfers to Jericho for the duration of the Term, the non-exclusive right, privilege, interest, benefit and easement to enter upon and use the Road

Allowances as identified in the Approved Road Use Plans (**Schedule “B”**) with such persons, vehicles, equipment and machinery as may be necessary for the purpose of placing, installing, constructing, re-constructing, inspecting, maintaining, operating, altering, enlarging, repairing, replacing, relocating and removing Electrical Infrastructure and the right to perform Work over, along, across, within or under the Road Allowances in connection with the Wind Project, subject to the following conditions:

Prior Approvals

- (a) Jericho, prior to the installation, placement, installation, construction, re-construction, inspection, maintenance, operation, alteration, enlarging, repair, replacement, relocation and/or removal of any Electrical Infrastructure over, along, across, within or under the Road Allowances, shall obtain the approval of any Public Authority required by or have the authority pursuant to Applicable Law in connection with such activity.

Notice

- (b) Jericho shall make its best effort, prior to the installation, placement, installation, construction, re-construction, inspection, maintenance, operation, alteration, enlarging, repair, replacement, relocation and/or removal of any Electrical Infrastructure over, along, across, within or under the Road Allowances, to provide notice to all other existing Road Allowance users of the aforementioned installation, placement, installation, construction, re-construction, inspection, maintenance, operation, alteration, enlarging, repair, replacement, relocation and/or removal of any Electrical Infrastructure over, along, across, within or under the Road Allowances.

Transmission Infrastructure Placement

- (c) All Transmission Infrastructure shall be installed above-grade within the Road Allowances in the location specified in the Approved Road Use Plans (**Schedule “B”**) within a reasonable error range and supported by stand facilities (poles) at an appropriate elevation to avoid incompatibilities and/or conflicts with other existing infrastructure;

Distribution Line Placement

- (d) All Distribution Infrastructure shall be installed below-grade and within but under the Road Allowances at an appropriate depth so as to avoid incompatibilities and/or conflicts with other existing and potential infrastructure, except where Jericho in consultation with the County identifies environmental, topographical or other obstacles that require the installation of poles or other above-grade Distribution Infrastructure to permit the distribution of electricity over, around or across the obstacle;

Distance from Travelled Portion and Property Line

- (e) The Parties agree that Jericho shall, provided it is not materially or commercially unreasonable, install Electrical Infrastructure in the following locations within the Road Allowances:
 - (i) in locations between the outer limit of the travelled portion of the roadway and the property line of the Road Allowance;
 - (ii) at depths and/or elevations within the relevant Road Allowance to avoid incompatibilities and/or conflicts with existing infrastructure and, provided it is not materially or commercially unreasonable, avoid incompatibilities and/or conflicts with currently planned infrastructure; and
 - (iii) in consistent locations within the Road Allowances such that the number of road crossings is minimized.

Permits/Fees

- (f) Jericho will obtain all Permits from the County and pay the appropriate fees associated with obtaining the same, which fees are shown in the Permits and Fees Document (**Schedule "D"**). The County shall issue all such Permits within the timelines set out in the County's by-laws or in the relevant statutes or regulations or thirty (30) days following receipt from Jericho of its applications and fees, whichever is less, and, without limiting the generality of the foregoing, in respect of grading, guardrails and culverts related to the Electrical Infrastructure, shall issue approval on the basis of standards typically applied in accordance with the MTO Road Safety Manual;

Legal Compliance

- (g) All actions of Jericho and the County shall be in compliance with Applicable Law;

Insurance Coverage

- (h) Jericho agrees that prior to the placing, installing, constructing, re-constructing, inspecting, maintaining, operating, altering, enlarging, repairing, replacing, relocating and removing Electrical Infrastructure over, along, across, within or under the Road Allowances, Jericho shall arrange for and maintain commercial general liability insurance (hereinafter, the "**CGL**"), insuring Jericho and naming the County as an additional insured. The CGL shall provide, at a minimum limits of liability, not less than five million dollars (\$5,000,000.00) per incident and in the aggregate. In addition, the CGL shall contain a cross liability and severability of interest clause and provide for a minimum of ten (10) days' notice of cancellation of the CGL. Jericho shall upon written request thereof, deliver to the County, from time to time and in any event prior to commencement of the Work,

a copy of a certificate of insurance evidencing that the CGL is in full force and effect. Following the date that is ten (10) years after the Effective Date and every ten (10) years thereafter, the Parties shall, acting reasonably, review the minimum limits of liability of the CGL to determine if appropriate adjustments are required. Jericho may comply with the CGL requirement through any combination of primary and excess/umbrella coverage.

Commencement of Work

- (i) Prior to the commencement of any Work, Jericho shall document, by means of a video recording or other means satisfactory to the County, acting reasonably, the then-existing condition of all Road Allowances or structures that Jericho expects will or may be used for or subject to Work, and both Parties shall receive a complete copy of such video recording or document;
- (j) Jericho agrees to maintain the surface of the Road Allowances for a period of twelve (12) months following the Commercial Operations Date and restore the surface of the Road Allowance to at least the same condition as prior to the commencement of any Work, except in the cases where the alteration to the untraveled portion of the Road Allowance forms part of the Work;
- (k) Jericho agrees the Easement Rights shall be exercised and carried out in a good, safe and workmanlike manner;
- (l) Jericho shall be responsible for any damage caused to the Road Allowances at any time by itself, its agents, employees or contractors and for removing all debris from the work area following the undertaking of any of the Easement Rights contemplated herein;
- (m) Jericho shall, provided it is not materially or commercially unreasonable, protect the integrity and security of all existing equipment, installations, utilities, and other facilities within the Road Allowance or which might otherwise be located in, on, or under the Road Allowances or any adjacent lands;
- (n) Jericho shall make all payments and taking all such steps as may be reasonably necessary to ensure that no construction lien or other lien is registered against the Road Allowances as a result of the undertaking by Jericho of any of the Easement Rights or any other work contemplated in this Agreement and taking such steps as may be required to cause any such registered lien or claim for lien to be discharged or vacated immediately after notice thereof from the County is provided to Jericho.

Non-Exclusive Permission

- 8. The Easement Rights provided for in this Agreement shall constitute a non-exclusive easement. Without limiting the foregoing, the Easement Rights are subject to the rights of the owners of the property adjoining the Road Allowances who are entitled access to and from the Road Allowances from their properties, and subject to the rights and

privileges that the County may grant to other persons on the Road Allowances, all of which rights are expressly reserved; the rights shown on the Approved Road Use Plans and As-Built Plan and specifications only excepted. Jericho hereby acknowledges and agrees that there are other utilities and third parties that do and/or may have similar rights over the Road Allowances and Jericho hereby agree to accommodate the interests of other third parties when exercising the Easement Rights, provided such accommodation is not materially or commercially unreasonable.

9. In respect of and without limiting the foregoing and provided it is not materially or commercially unreasonable, Jericho agrees that when engaging in any Work, it shall ensure there is minimal interference with the traveled portion of any Road Allowances or any pedestrian, vehicular, or other traffic thereon, or any use or operation of any ditch or drain adjacent to such public right-of-way, highway, street, or walkway. Unless otherwise agreed by the County, the Road Allowances shall always be open to pedestrian, vehicular or other traffic and shall be open to the public. Without limiting the generality of the foregoing, Jericho shall be entitled to temporarily close any of the Road Allowances with the prior written consent of the County Engineer, which consent shall not be unreasonably withheld, delayed or conditioned. If Jericho proposes the temporary closure of a Road Allowance, it shall also provide written notice to the Appropriate Emergency Service Providers.

Right of Entry

10. The County reserves its right to enter upon and use the Road Allowances without notice to Jericho for its own purposes and to grant and transfer rights to third parties to enter upon and use the Road Allowances to construct, operate, maintain, alter, repair or relate infrastructure, and to modify the Road Allowances, provided such entry, use, grant or transfer by the County does not adversely affect the Electrical Infrastructure, the Work, the Wind Project or the exercise of Jericho's rights under this Agreement.

Title

11. The County represents that:
 - (a) it has legal and beneficial title to the Road Allowances;
 - (b) it has obtained the full and unconditional due authorization for execution and delivery of this Agreement by all required resolutions and other required municipal approvals;
 - (c) it shall defend its title to the Road Allowances against any person or entity claiming any interest adverse to the County in the Road Allowances during the Term of this Agreement, save and except where such adverse interest arises as a result of the gross negligence or willful misconduct of Jericho or any person for which they are responsible at law;
 - (d) the Permits are the only permits, approvals, consents or authority within the jurisdiction of the County required in connection with the Work and the fees as

set forth in attached hereto are the only fees payable by Jericho in connection with the Permits; and

- (e) the execution and delivery of this Agreement by the County will not result in a breach of any other agreement to which the County is a party and no rights, interests or privileges have been granted in respect of the Road Allowances by the County which will or could adversely affect the rights, interests or privileges granted to Jericho hereunder.

Electrical Infrastructure at Expense of Jericho

- 12. Notwithstanding and without limiting any other term hereof, Jericho agrees and undertakes that all Electrical Infrastructure over, along, across, within or under the Road Allowances will be placed, installed, constructed, re-constructed, inspected, maintained, operated, altered, enlarged, repaired, replaced, relocated and removed at its own expense and in accordance with good engineering practices, and in compliance with Approved Road Use Plans, this Agreement and Applicable Law.

C. ADDITIONAL TERMS AND CONDITIONS RE EASEMENT RIGHTS

Road Closure

- 13. The County agrees, in the event of closing of any Road Allowances, to give Jericho reasonable notice of such closing and to provide Jericho with a further easement over that part of the closed Road Allowances, sufficient to allow Jericho to preserve any part of the Electrical Infrastructure in its then existing location, and to enter upon the closed Road Allowances to maintain and repair such part of the Electrical Infrastructure.

Traffic Effects

- 14. Notwithstanding and without limiting any other term hereof, the Parties acknowledge that the Work from time to time may require the temporary modification of traffic patterns or the imposition of temporary restrictions on public access to or use of the Road Allowances (“**Traffic Effects**”). In the event that Jericho determine that Traffic Effects are required, Jericho agrees to:
 - (a) give five (5) days’ notice of anticipated Traffic Effects to the County Engineer and affected residents and to coordinate with the County Engineer and the Appropriate Emergency Service Providers to minimize and mitigate any adverse impacts of the Traffic Effects and to ensure public safety; and
 - (b) use reasonable efforts to maintain adequate public access to and use of the Road Allowances while Traffic Effects are in progress and to remove the Traffic Effects as soon as reasonably possible when the Traffic Effects are no longer necessary.

Restoration

15. Jericho further agrees that in the event that it becomes necessary to break, remove, or otherwise pierce the existing surface of any of the Road Allowances or any other municipal lands to undertake any placing, installing, constructing, re-constructing, inspecting, maintaining, operating, altering, enlarging, repairing, replacing, relocating and removing Electrical Infrastructure or to undertake any Work over, along, across, within or under the Road Allowances, Jericho in all cases will repair, reinstate and restore such surface at its own expense to the same or better condition which existed prior to the performing of the Work. Jericho also agrees that, except in those cases where breaking, removing or otherwise piercing the untraveled portion of the Road Allowance forms part of the Work, it shall thereafter, for a period of twelve (12) months following the Commercial Operation Date (the “**Interim Period**”), monitor that portion of such restored Road Allowances, at the sole expense of Jericho, and repair any settling thereof directly caused by the placing, installing, constructing, re-constructing, inspecting, maintaining, operating, altering, enlarging, repairing, replacing, relocating and removing Electrical Infrastructure or any of the Work performed over, along, across, within or under the Road Allowances to the satisfaction of the County Engineer, acting reasonably.

Repairs

16. Jericho shall be liable for any and all Repair Work required to be performed on the Electrical Infrastructure or on the Road Allowances due to the existence of the Electrical Infrastructure. Any Repair Work undertaken shall restore the road surface to at least the same condition it was in immediately prior to the use of the Road Allowances by Jericho. In the event that Repair Work is required, Jericho agrees to provide the County with at least five (5) days’ notice that the Repair Work will occur if such Repair Work:
 - (a) will have or is likely to have Traffic Effects;
 - (b) will involve or is likely to involve Tree Work;
 - (c) could present a danger to public health and safety; or
 - (d) is located in Entrances.
17. Subject to the provisions of this Agreement and provided that Repair Work on Electrical Infrastructure complies with this Agreement, Jericho shall be entitled to conduct Repair Work on Electrical Infrastructure without prior approval of the County Engineer.

Emergency

18. Notwithstanding any other provision of this Agreement, in the event of any emergency involving the Electrical Infrastructure, Jericho shall notify the Appropriate Emergency Service Providers immediately upon becoming aware of the situation and shall do all that is necessary and desirable to control the emergency, including such work in and to the Electrical Infrastructure or the Road Allowances as may be required for the purpose. If after reasonable and unsuccessful efforts to communicate with the County and in the

event the emergency, at Jericho's sole determination, Jericho requires immediate access to Electrical Infrastructure, Jericho may enter upon the subject Road Allowances and/or municipal lands without prior notice to the County in order to gain access to such Electrical Infrastructure in order to address such emergency and, in so doing, shall undertake to rectify the Electrical Infrastructure to the standards and as are otherwise required by the terms of this Agreement and to thereafter provide written notification and details and specification of such Repair Work to the County on the next Business Day and to thereafter file amended Plans and drawings detailing such repairs as is otherwise required by this Agreement. Without limiting the foregoing, subject to resolving to the emergency, Jericho agrees that all work completed under this subsection shall maintain the same location of the Electrical Infrastructure as previously approved by the County.

19. Jericho shall be responsible for all costs associated with such emergencies. The Parties hereby agree to cooperate with each other and with the Appropriate Emergency Service Providers and Hydro One Networks Inc. to develop and adopt protocols applicable in the event of an emergency involving the Electrical Infrastructure.

Upgrades Required

20. In the event that the standard, condition or maintenance of any of the Road Allowances is not sufficient to permit Jericho to carry out its desired operations, Jericho shall be solely responsible for carrying out any work or maintenance required to upgrade the Road Allowances, at its own expense.

Locating Infrastructure:

21. Jericho agrees at its sole expense to:
 - (a) mark the location of Electrical Infrastructure installed by Jericho within the Road Allowances with appropriate markings;
 - (b) participate in the "Ontario One Call" system to facilitate ongoing notice to the public of the location of the Electrical Infrastructure; and
 - (c) upon written request of the County, Jericho shall properly and accurately identify the location of any Electrical Infrastructure within the County, and provide such reports to identify the depth of the relevant portion of the Electrical Infrastructure, such request to be made in writing to Jericho with advance notice of twenty (20) days prior to the County or a third party commencing work that may conflict with the Electrical Infrastructure.

Relocation of Installed Infrastructure

Upon Election of Jericho

22. In the event that Jericho wishes to relocate Electrical Infrastructure which has been previously installed in accordance with this Agreement at 100% its own expense, Jericho shall notify the County of such request, in writing, and such request will thereafter be

considered and administered by the County acting reasonably and with diligence giving due consideration to the scope of the works already undertaken by Jericho on the Road Allowances, provided that, in considering and administering such request the County shall be entitled to take into consideration any specific municipal or engineering interests affected by such relocation including any additional facilities located within the Road Allowances. Jericho shall obtain all Permits and/or approvals from the County which are required for any such relocation. Notwithstanding the foregoing, the County shall not be permitted to unreasonably withhold, delay or condition its approval for such request.

Required by the County

23. In the event that the County, in conjunction with an approved municipal plan, and acting reasonably, deems it necessary for the location of the Electrical Infrastructure or Entrances (hereafter, a “**General Relocation**”) to be taken up, removed, or modified within the Road Allowances, the General Relocation and any related installation work shall be conducted at 100% of the expense of Jericho within a reasonable period of time and subject to Force Majeure. Furthermore, in the event poles situated on private property directly adjacent to the Road Allowances located between the Jericho Collection Substation and Arkona Road along Thompson Line (all as identified on **Schedule “B”**), are required to be relocated as part of a widening of such Road Allowances by the County, such relocation shall be conducted at 100% of the expense of Jericho within a reasonable period of time and subject to Force Majeure.
24. Without limiting and in addition to Section 23, in the event that Jericho determines that leave to construct or amendment thereto or any other approval is required from a Public Authority, or any successor thereof, with respect to the proposed General Relocation or related installation work, then the County shall provide such reasonable period of time as is necessary for Jericho to obtain such leave to construct, amendment or other approval before closing or disposing of the Road Allowance, if applicable; provided, however, in the event that any Public Authority’s approval is not provided to Jericho, both Jericho and the County shall be bound to comply with the determination of the Public Authority and shall modify or discontinue the relocation of the Electrical Infrastructure or Entrances as necessary.

Required by Legislation or Lawful Order

25. In the event that a General Relocation is required as a result of the County’s compliance with a legislative requirement, Ministerial order or such other law or order of a body which has the ability to force the County to act then the costs of the General Relocation and/or related installation work associated with the installed Electrical Infrastructure shall be performed by Jericho at 100% its cost.

By Third Party

26. Where the General Relocation under Section 24 is required due to the County accommodating a third party (hereinafter “**Third Party Work**”), the required General Relocation or related installation work shall be conducted by Jericho in accordance with

the terms of this Agreement respecting installation, and the full cost of the amendment or General Relocation shall be borne solely by the third party and paid in advance. The County agrees to provide Jericho with ninety (90) days' notice of the need for any such Third Party Work and to require that the relevant third party or parties bear the full cost of such Third Party Work and indemnify Jericho against all claims and liabilities arising from the amendment or General Relocation as a condition precedent to any such amendment or General Relocation.

Temporary Reconstruction or Realignment of Road Allowances

27. Jericho shall, upon reasonable prior notice to the County, have the right to:
- (a) temporarily reconstruct or realign certain portions of the Road Allowances in order to permit the delivery or movement of oversized Wind Project components, including wind turbine blades, tower sections and nacelles; and
 - (b) connect access roads located on private land and running from the Wind Project turbines to the Road Allowances to permit ongoing access to such wind turbines during the period of commercial operation of the Wind Project.

D. TREE WORK/REPLACEMENT

28. Intentionally Deleted.

Tree Work

29. Notwithstanding applicable statutory rights, in the event that Jericho deems it necessary to perform any Tree Work, Jericho shall be entitled to conduct the Tree Work. In the event that trees are removed from within the Road Allowances, Jericho agrees at its sole expense, to remove the tree stump to a level below grade and to restore and remediate the surface of the Road Allowance.

E. IMPLEMENTATION OF PLANS

30. Intentionally Deleted

Revisions Required

31. In the event that physical features of the Road Allowances or other obstacles or circumstances frustrate the ability of Jericho to complete the placement, installation, construction, re-construction, inspection, maintenance, operation, alteration, enlargement, repair, replacement, relocation and removal of Electrical Infrastructure in compliance in all material respects with the Approved Road Use Plans, Jericho agrees to revise the relevant Plans and submit such revised Plans for review and approval by the County Engineer. If revisions to the Plans are required which would impact either (i) the safety or operation of the Road Allowances or (ii) other existing Road Allowance users, in accordance with applicable engineering and industry standards (such revisions being, a “**Material Change**”), subject to Section 64 of this Agreement, the County agrees to

expedite its review of the Plans submitted and agrees not to unreasonably condition, delay or withhold approval of revised Plans.

Adherence to Approved Road Use Plans

32. Jericho further agrees to commence, perform and complete the placement, installation, construction, re-construction, inspection, maintenance, operation, alteration, enlarging, repairing, replacing, relocating and removing Electrical Infrastructure in compliance with the Approved Road Use Plans, provided there is no material impact on (i) the safety or operation of the Road Allowances or (ii) other existing Road Allowance users, in accordance with current engineering and industry standards or unless otherwise approved by the County Engineer, acting reasonably.

Filing of As-Built Plan Following Installation etc.

33. Following the completed placement, installation, construction, re-construction, inspection, maintenance, operation, alteration, enlarging, repairing, replacing, relocating and removing Electrical Infrastructure and within one hundred eight (180) days after the Commercial Operation Date, Jericho agree to conduct the necessary investigation necessary to produce and file with the County Engineer an As-Built Plan together with a final electronic copy (CD ROM or DVD) prepared in an AUTOCAD, CAD or GIS environment of the As-Built Plan, showing the exact location and specifications of any Electrical Infrastructure installed over, along, across, under or within the Road Allowances and any Entrances. The Parties agree that the County shall not release of any deposits or securities held until the As-Built Plan is filed.

Post-Installation Report and Required Repairs

34. Following the County Engineer's receipt of notice from Jericho confirming that installation of the placement, installation, construction, re-construction, inspection, maintenance, operation, alteration, enlarging, repairing, replacing, relocating and removing Electrical Infrastructure over, along, across, within or under the Road Allowances is complete (the "**Completion Notice**"), the Consulting Engineer shall conduct a further inspection and provide a post-installation report (the "**Post-Installation Report**"), which includes the following:
 - (a) identification of the Road Allowances which in the opinion of the Consulting Engineer, have been damaged or destroyed by Jericho and its employees, agents or contractors during the placement, installation, construction, re-construction, inspection, maintenance, operation, alteration, enlarging, repairing, replacing, relocating and removing Electrical Infrastructure over, along, across, within or under the Road Allowances, hauling, or establishing of Entrances; and
 - (b) identification of the repairs, replacements or remedial work necessary to repair the damaged Road Allowances.

The Consulting Engineer's inspection, for the purposes of producing the Post-Installation Report shall be completed no later than ten (10) business days following receipt by the

County of the Completion Notice. Jericho agree to repair any and all damage to the Road Allowances directly caused by the Work in accordance with the Post-Installation Report (hereinafter referred to as the “**Required Repairs**”). In the event Jericho fails to complete the Required Repairs in a manner and within a timeframe acceptable to the County Engineer acting reasonably, the County may do so at the sole expense of Jericho.

Final Condition Report and Final Repairs

35. Following the expiry of the Interim Period, the County’s Engineer shall forthwith conduct an inspection of the Road Allowances to either (i) confirm its satisfaction that all restoration work has been completed and that the Road Allowances are in the same or better condition which existed prior to the performing of the Work; or (ii) identify those Road Allowances which are not in the same or better condition which existed prior to the performing of the Work and identify the repair, replacement or remedial work required to repair the Road Allowances to the same condition which existed prior to the performing of the Work (the “**Final Condition Report**”). The County Engineer’s inspection, for the purposes of producing the Final Condition Report shall be completed no later than ten (10) Business Days following the expiry of the Interim Period and the Final Condition Report shall be delivered to Jericho not later than ten (10) Business Days following the date of inspection aforesaid. Jericho agrees to repair any damage to the Road Allowances identified in the Final Condition Report (the “**Final Repairs**”) within a reasonable period of time. In the event Jericho fails to complete the Final Repairs in a manner and within a timeframe acceptable to the County Engineer acting reasonably, the County may do so at the sole expense of Jericho.

F. COMPENSATION

For Use of Road Allowances

36. To offset the administrative expenses incurred by the County as a result of the use of its Road Allowances and to further secure covenants of Jericho as set out in this Agreement, Jericho agrees to pay to the County:
- (a) An initial payment of Fifteen Thousand Dollars (\$15,000.00) within thirty (30) days of the Effective Date of this Agreement, which shall *inter alia*, fully compensate the County for all reasonable out of pocket costs incurred in connection with the preparation and implementation of this Agreement including reasonable legal, engineering and inspection costs;
 - (b) An annual fee in the amount of four thousand dollars (\$4,000.00) per kilometer of overhead transmission lines located on County Road Allowances per year, payable by March 31 of every year during the Term of this Agreement. The Parties estimate that Jericho will have approximately three (3) kilometres of overhead transmission lines located within County Road Allowances;
 - (c) A fee (the “**Distribution Fee**”) in the amount of:

- (i) one thousand dollars (\$1,000.00) per road crossing of Distribution Infrastructure; plus
- (ii) one thousand five hundred dollars (\$1,500.00) per kilometer of Distribution Infrastructure buried on County Road Allowances.

The Distribution Fee shall be payable within thirty (30) days following the Effective Date and thereafter once every five (5) years, on the fifth (5th) anniversary of the Effective Date. The Distribution Fee may be amended by the County, from time to time, in accordance with amendments to County by-laws, provided the Distribution Fee charged to Jericho shall be consistent, in all respects, with other such fees charged by the County to similar Road Allowance users. For the purposes of this Agreement, the Parties estimate that Jericho will have approximately twenty-five (25) Distribution Infrastructure road crossings located within County Road Allowances and approximately twenty-six (26) kilometers of Distribution Infrastructure buried on County Road Allowances; and

- (d) The appropriate permit fees, which fees are shown in the Permits and Fees Document (**Schedule "D"**) with respect to those permits Jericho requires in order to engage in desired actions while using the rights identified in this Agreement.

37. All overdue payments payable by Jericho to the County under the terms of this Agreement shall bear interest at the rate of ten (10%) per cent per annum.

First Security Deposit

38. Prior to the commencement of the Work, Jericho shall deposit with the County an irrevocable letter of credit or surety bond in a form satisfactory to the County and from a financial institution satisfactory to the County, acting reasonably (the "**First LC**") in the amount of Five Hundred Thousand Dollars (\$500,000.00), which shall secure the obligations of Jericho pursuant to this Agreement during the initial placement, installation and construction of the Electrical Infrastructure over, along, across, within or under the Road Allowances. Jericho acknowledges and agrees that the County shall be entitled to draw on and use the proceeds from the First LC to complete the Required Repairs if Jericho fails to do so in accordance with Section 34 of this Agreement.

Second Security Deposit

39. Following the completion of any Required Repairs to the satisfaction of the County acting reasonably, the County shall forthwith return the First LC to Jericho and Jericho shall, within five (5) business days of the receipt of the First LC, provide a second irrevocable letter of credit or surety bond in a form satisfactory to the County and from a financial institution satisfactory to the County, acting reasonably (the "**Second LC**") in the amount of Two Hundred and Fifty Thousand Dollars (\$250,000.00), which shall secure the obligations of Jericho with respect to Section 35. Jericho acknowledges and agrees that the County shall be entitled to draw on and use the proceeds of the Second LC to complete the Final Repairs in the event Jericho fails to do so within a reasonable period of time, in accordance with Section 35 of this Agreement. The County shall return

the Second LC to Jericho within five (5) business days following the earlier of, (i) the date on which Jericho notifies the County that the Final Repairs required to be performed by Jericho pursuant to Section 35 have been satisfactorily completed in the opinion of the County, acting reasonably; and (ii) the date which is ninety (90) days following the date of the Final Condition Report.

G. LIABILITY

Risk with Jericho

40. Jericho hereby acknowledges that the placement, installation, construction, reconstruction, inspection, maintenance, operation, alteration, enlarging, repair, replacement, relocation and/or removal of any Electrical Infrastructure by Jericho in accordance with the Easement Rights granted hereunder is performed entirely at the risk of Jericho and that the County shall in no way or under any circumstances will be responsible or liable to Jericho or its contractors, agents, or customers for any damage or losses in consequence thereof, unless due to the negligent or intentional acts of the County or those for whom it is at law responsible.

Indemnification

41. Jericho will indemnify and hold harmless the County, its Warden, Councilors, officers, employees, legal counsel, agents and contractors from and against any and all claims, suits, demands, liabilities, losses, costs, damages, and other expenses of every kind that the County may incur or suffer as a direct consequence of the Easement Rights granted hereunder, except where such claims, suits, demands, liabilities, losses, costs, damages, and other expenses result from the negligence or intentional acts of the County, its Warden, Councilors, officers, employees, legal counsel, agents or contractors.

No Joint Venture, Partnership or Co-ownership

42. The Parties hereby acknowledge and agree that this Agreement is solely a road use agreement and that no relationship is formed between the Parties in the nature of a joint venture, partnership co-ownership arrangement or other similar relationship.

H. ABANDONMENT AND DECOMMISSIONING OF ELECTRICAL INFRASTRUCTURE

Notice of Abandonment

43. During the Term of this Agreement, Jericho may elect to permanently discontinue the use of (hereinafter, “**Abandon**”) any part of the Electrical Infrastructure in which event Jericho shall provide written notice specifying the part of the Electrical Infrastructure to be abandoned and the date when the abandonment will occur.

Removal

44. If Jericho Abandons any part or all of the Electrical Infrastructure, it shall decommission and remove in accordance with the Wind Project's decommissioning plan and the Ministry of Environment ("MOE") requirements in Jericho's Renewable Energy Approval ("REA"). Should Jericho fail to decommission and remove the infrastructure as set out above, the County may, to the extent permitted by Applicable Law, retain necessary personnel to remove the infrastructure and Jericho shall compensate the County for 100% of its cost to decommission and remove the infrastructure. This provision shall survive the termination of this Agreement.

I. DEFAULT

Breach

45. Subject to the rights granted to any Secured Parties hereunder or by the County, in the event that a Party commits a material breach of or omits to comply with any of the provisions of this Agreement (the "**Defaulting Party**") which continues for at least sixty (60) days after written notification of such default is provided to the Defaulting Party, the other Party (the "**Complainant**") shall have the right to terminate this Agreement. However, if the Defaulting Party shall have remedied the breach or shall have commenced to remedy the breach and has diligently pursued the remedying thereof within the sixty (60) days after the initial written notification of default, the Defaulting Party shall be allowed not less than one hundred and fifty (150) days after the expiry of the original notice period to remedy the breach, or such longer period of time as is reasonable in the circumstances. In the event of default by Jericho and without such default being rectified within the time period referred to in this section, the County shall have the right to terminate this Agreement.
46. Intentionally Deleted.

Force Majeure

47. Whenever, and to the extent that a Party will be unable to fulfill or will be delayed or restricted in the fulfillment of any obligations under any provision of this Agreement by reason of:
- (a) strikes;
 - (b) lock-outs;
 - (c) war acts of military authority;
 - (d) rebellion or civil unrest;
 - (e) material or labour shortage not within the control of the affected Party;
 - (f) fire or explosion;

- (g) inclement weather, flood, wind, water, earthquake, or other casualty;
- (h) changes in Applicable Law not wholly or mainly within the control of the affected Party, including the revocation by any Public Authority of any permit, privilege, right, approval, license or similar permission granted to Jericho or the Wind Project;
- (i) any event or matter not wholly or mainly within the control of the affected Party (other than lack of funds or any financial condition of the parties hereto); or,
- (j) acts of God,

(in each case a “**Force Majeure**”) not caused by the default or act of or omission by that Party and not avoidable by the exercise or reasonable effort or foresight by it, then, so long as any such impediment exists, that Party will be relieved from the fulfillment of such obligation and the other Party will not be entitled to compensation for any damage, inconvenience, nuisance or discomfort thereby occasioned. The Party relying on Force Majeure will be required and is entitled to perform such obligation within a period of time immediately following the discontinuance of such impediment that is equal to the period of time that such impediment existed. A Party shall promptly notify the other Party of the occurrence of any Force Majeure, which might prevent or delay, that doing or performance of acts or things required to be done or performed.

J. MISCELLANEOUS

Assignment

- 48. Subject to the provisions in other paragraphs of this Agreement, Jericho shall not assign this Agreement without the written consent of the County, which shall not be unreasonably withheld, delayed or conditioned, except that no consent shall be required for Jericho to assign this Agreement to an affiliated or successor entity, or for purposes of securing indebtedness or other obligations respecting the Electrical Infrastructure or the Wind Project. The County acknowledges that a change in control of Jericho shall not be considered an assignment by Jericho of this Agreement or of any of Jericho's rights and obligations under this Agreement.
- 49. Jericho shall be entitled to assign this Agreement and all of its rights thereunder without the consent of the County to the Secured Parties as security for Jericho's obligations to such Secured Parties which shall be further entitled to assign this Agreement and Jericho's rights thereunder in connection with an enforcement of their security. The County hereby grants to any Secured Party the rights and remedies set forth in this Agreement, including those rights and remedies set forth in **Schedule “E”**. In addition, the County will, from time to time, at the request of the Secured Party, promptly execute and deliver in favour of any Secured Party such consents and acknowledgements granting and confirming the rights and remedies in this Agreement, including those rights and remedies set forth in **Schedule “E”**. The County shall enter into any other reasonable agreements with the Secured Party, as may reasonably be required by Jericho in order to obtain financing from the Secured Party.

50. Jericho shall be entitled, with the written consent of the County, which may not be unreasonably conditioned, delayed, or withheld, to assign this Agreement to a transferee of the Wind Project other than an affiliated or successor company, and Jericho shall thereupon be released from any and all obligations under this Agreement from and after the date of such assignment, provided that such assignee has agreed in writing with the County, in a form acceptable to the assignee and the County, both acting reasonably, to be bound by the provisions of this Agreement from and after the date of the assignment.
51. In the event Jericho applies to the County for consent to a transfer, the County shall have a period of thirty (30) days following receipt of sufficient information to make a determination as to whether the County shall provide or refuse to provide its consent to the proposed transfer. The County's failure to respond within that thirty (30) day period shall be construed as consent by the County.
52. Any documents relating to a transfer or the County's consent will be prepared by the County or its solicitors or their retained agents and all of the legal costs borne as a result by the County together with a reasonable administrative charge of One Thousand Dollars (\$1,000) shall be reimbursed to the County by Jericho on demand.

Dispute Resolution

53. In the event that either Party provides the other Party with written notice of dispute regarding the interpretation or implementation of this Agreement (a "**Dispute**") then both Parties shall use their best efforts to settle the Dispute by consulting and negotiating with each other in good faith to reach a solution satisfactory to both Parties. However, if the Parties do not resolve the Dispute within thirty (30) days following receipt of such notice, then either Party may provide written notice to the other Party (the "**Arbitration Notice**") requiring resolution by arbitration or thereafter the Dispute shall be referred to arbitration in accordance with the provisions of the *Arbitration Act, 1991*.
54. The Parties agree to the following with respect to any arbitration between the Parties:
 - (a) the arbitration tribunal shall consist of an arbitrator appointed by mutual agreement of the Parties or, if the Parties fail to agree on an arbitrator within ten (10) days after receipt of the Arbitration Notice then either Party may apply to a judge of the Ontario Superior Court of Justice to appoint an arbitrator;
 - (b) The arbitrator shall be qualified by education and training to be able to decide upon the matter to be decided;
 - (c) The arbitration shall be conducted in English;
 - (d) The arbitration shall take place in the geographic boundary of the County of Lambton or another place mutually agreed upon by the Parties;
 - (e) The arbitration award shall be given in writing and shall address the question of costs of the arbitration and all related matters;

(f) The arbitration award shall be final and binding on the Parties as to all questions of fact and shall be subject to appeal only with respect to matters of law or jurisdiction.

55. The Parties agree that except to the extent that a matter is specifically the subject of a Dispute, both Parties shall continue to observe and perform the terms and conditions of this Agreement pending the resolution of a Dispute.

Termination by Jericho

56. Jericho may upon six (6) months' notice in writing, terminate this Agreement. Once the notice has been provided, Jericho shall be liable to the County for the provisions of this Agreement to the date of termination. Following the termination date, Jericho will only be liable for those obligations contained in Sections 15, 16, 34, 35, 38, 39, 40, 41 and 44, all of which shall survive such termination.

Further Assurances

57. Each of the Parties covenant and agrees with the other that it will at all times hereafter execute and deliver, at the request of the other, all such further documents, agreements, deeds and instruments, and will do and perform all such acts as may be necessary to give full effect to the intent and meaning of this Agreement.

Notices

58. The parties hereto agree as follows:

Any written notice provided for and contemplated by this Agreement will be delivered to the parties by hand or registered mail at the following addresses:

To the County: The Corporation of the County of Lambton
Attention: County Clerk
789 Broadway Street, Box 3000
Wyoming, ON N0N 1T0

To Jericho: Jericho Wind, Inc.
Attention: Business Management
390 Bay Street, Suite 1720
Toronto, ON, M5H 2Y2, Canada

Phone: (416) 364-9714

With a copy to: Jericho Wind, Inc.
Attention: General Counsel
700 Universe Blvd. LAW/JB
Juno Beach, Florida 33408
Phone: (561) 691-2359

Every such notice shall be deemed to have been received if personally delivered at the time of such delivery and if sent by prepaid registered mail, at the end of five (5) business days after the mailing thereof.

Governing Law

59. This Agreement shall be governed by, and be construed and interpreted in accordance with, the laws of Ontario and the laws of Canada applicable in Ontario.

Counterparts

60. This Agreement may be executed by facsimile or PDF transmission and in one or more counterparts, all of which shall be considered one and the same Agreement.

Binding Covenant

61. This Agreement and the rights granted hereunder are and shall be of the same force and effect, to all intents and purposes, as a covenant running with the Road Allowances. The provisions of this Agreement, including all of the covenants and conditions herein shall extend, be binding upon and enure to the benefit of the County, Jericho and their respective successors and permitted assigns as the case may be.

Severability

62. The invalidity or unenforceability of any provision of covenant contained in this Agreement shall affect the validity or enforceability of such provision or covenant only and any such invalid provision or covenant shall be deemed to be severable from the balance of this Agreement, which shall be enforced to the greatest extent permitted by law.

Amendments to the Agreement

63. No supplement, modification, amendment, or waiver of this Agreement shall be binding unless executed in writing by the Parties.

Amendments to the Approved Road Use Plans

64. Any Material Change to the Approved Road Use Plans will be submitted to the County Engineer for his approval, who will not unreasonably withhold such approval. The Parties agree that once approved, the amended Approved Road Use Plans shall substitute for, and replace the attached **Schedule "B"** as part of this Agreement.

Waiver

65. No supplement, modification, amendment, or waiver of this Agreement shall be binding unless executed in writing by the Parties.

Foreign Corrupt Practices Act and Anti-Bribery Indemnity

66. Notwithstanding anything to the contrary herein, the County, in its administration of this Agreement, shall refrain from offering, giving or promising, directly or indirectly, money or anything of value to a Canadian or foreign governmental official to influence the official in his or her official capacity, induce the official to do or omit to do an act in violation of his or her lawful duty, or to secure any improper advantage in order to assist in obtaining or retaining business for or with, or directing business to, any person. For the purposes of this Section, “**anything of value**” includes, but is not limited to, cash or a cash equivalent, discounts, gifts, use of materials, facilities or equipment, entertainment, drinks, meals, transportation, lodging, insurance benefits, or promise of future employment. “**governmental official**” shall mean any person holding any level of legislative, administrative, or judicial office of the Canadian or a foreign government or any of its departments or agencies or divisions; any person acting on behalf of the Canadian or a foreign government, including a local or provincial agency, enterprise, or organization; any official or agent of a Canadian or a foreign public administration or publicly funded organization; any official of a Canadian or a foreign political party; any officer or agent of a public international organization (e.g., World Bank, International Monetary Fund, World Health Organization, United Nations, World Trade Organization); or any relatives or close family/household members of any of those listed above. The County shall indemnify and hold harmless Jericho from all claims brought against Jericho as a result of the County or its representatives’ failure to comply with Anti-Bribery Law. The County shall immediately report any breach of Anti-Bribery Law by the County or its representatives. The County shall indemnify and hold harmless Jericho from all claims brought against Jericho as a result of the County or its representatives’ failure to comply with Anti-Bribery Law. The County shall immediately report any breach of Anti-Bribery Law by the County or its representatives. Jericho shall have the right to audit the County’s books and records with respect to payments made on behalf of Jericho in the event that Jericho believes that the County has violated this Section 66. Jericho shall have the right to immediately terminate all payments to the County under this Agreement if the County fails to comply with this Section 66.

IN WITNESS WHEREOF the parties hereto affix their hands and seal or corporate seals, attested to by the hand of their authorized officers, as the case may be, at _____, Ontario, this ____ day of _____, 2014 to be effective as of the date first written above.

SIGNED, SEALED AND DELIVERED
in the presence of

**THE CORPORATION OF THE
COUNTY OF LAMBTON**

Warden

Clerk

We have the authority to bind the Corporation

SIGNED, SEALED AND DELIVERED
in the presence of

JERICHO WIND INC.

Per:

Title:

I have the authority to bind the Corporation

SCHEDULE "A"

Jericho Asset Document

Jericho Wind, Inc. ("Jericho") is the project entity for the Jericho Wind Energy Centre ("Jericho Project") located in Middlesex County, Ontario. Jericho is the owner of a Feed-In-Tariff Contract with reference number F-002172-WIN-130-601 (FIT Contract).

The Jericho Project will generate up to 150 megawatts, and Jericho is the owner of wind farm leases and easement agreements to support the infrastructure and facilities for the Jericho Project.

Jericho will own all the turbines and infrastructure for the Jericho Project. Jericho will also have an interest in portions of the transmission lines and facilities supporting the Jericho Project. The estimated value of the assets of the Jericho Project, as of the commercial operation date, will be not less than \$XXXXXXXXXX.

CONFIDENTIAL

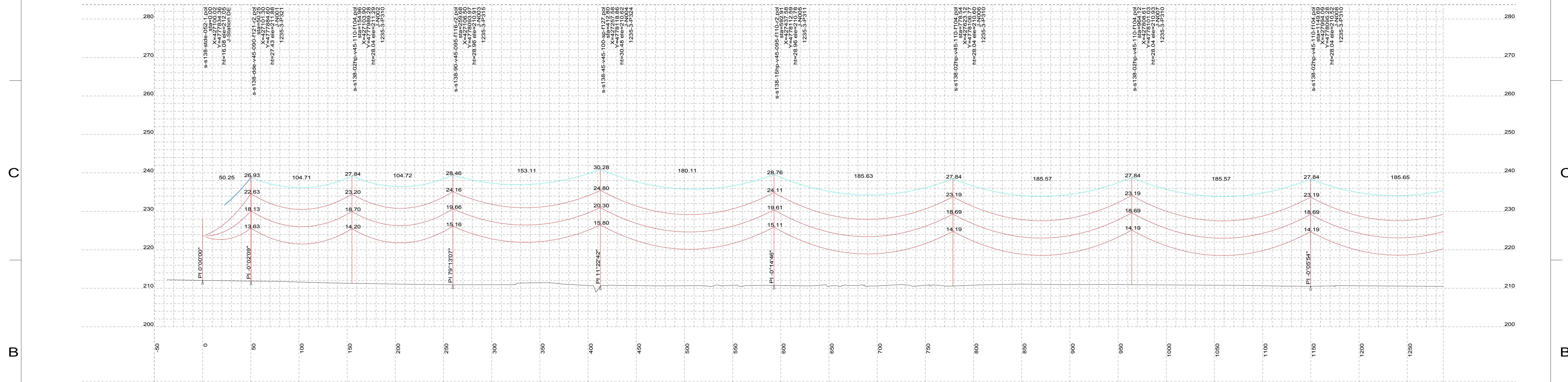
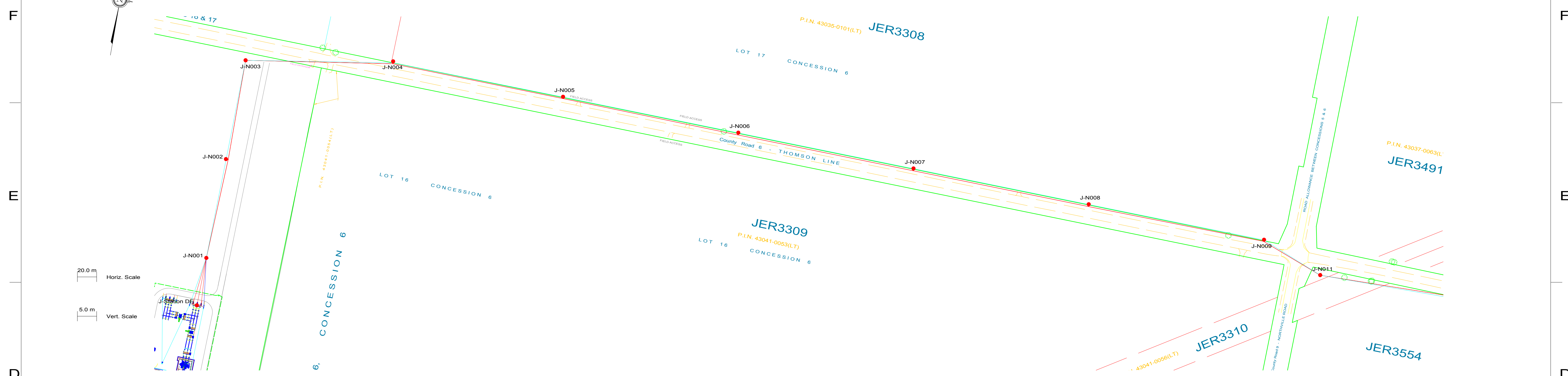
SCHEDULE "B"

Approved Road Use Plans

- B1 Jericho Transmission Plan and Profile**
- B2 Jericho Transmission Foundation Designs**
- B3 Jericho Transmission Pole Configurations**
- B4 Jericho Transmission Pole Clear Zone Mitigation Map**
- B5 Jericho Transmission Pole Clearance from Edge of Roadway**
- B6 Jericho Typical Culvert Cross Section**
- B7a Jericho Transmission Line Construction Methods**
- B7b Jericho Distribution (Collection) Construction Methods**
- B8 Jericho Conductor Horizontal Clearances**
- B9 Jericho Distribution (Collection) Longitudinal Cross-Sections**
- B10 Jericho Distribution (Collection) Perpendicular Cross-Sections**
- B11 Jericho Distribution (Collection) Location Map**
- B12 Improvements to Intersections**

Schedule B1

Jericho Transmission Plan and Profile



PLAN & PROFILE LEGEND:

- 2 x 115kV TRANSMISSION LINE CONDUCTOR (1351.5MCM ACSR DIPPER)
- OPGW
- SHIELD WIRE
- LEGAL LIMIT OF ROAD ALLOWANCE
- ASPHALT EDGE
- EDGE OF SHOULDER
- PROPOSED TRANSMISSION STRUCTURE

STRUCTURE DESCRIPTION LEGEND:

s-s138-02hp-v45-110-f104.pol
 sta
 X
 Y
 ht
 ele
 J-N002
 1235-3-P310

PLS-POLE FILE IDENTIFICATION
 STATION CHAINAGE
 UTM EASTING
 UTM NORTHING
 STRUCTURE HEIGHT ABOVE GROUND (M)
 STRUCTURE NO.
 FRAMING DRAWING NO.

NOTES:

1. CONDUCTOR (1351.5MCM ACSR DIPPER) SAG AT 100°C.
2. OPGW & SHIELD WIRE SAG AT 40°C.
3. ALL DIMENSIONS ARE IN METERS U.N.O.
4. MINIMUM VERTICAL CLEARANCE OVER ROAD WILL BE 6.2 METERS PER CSA C22.3 NO.1.

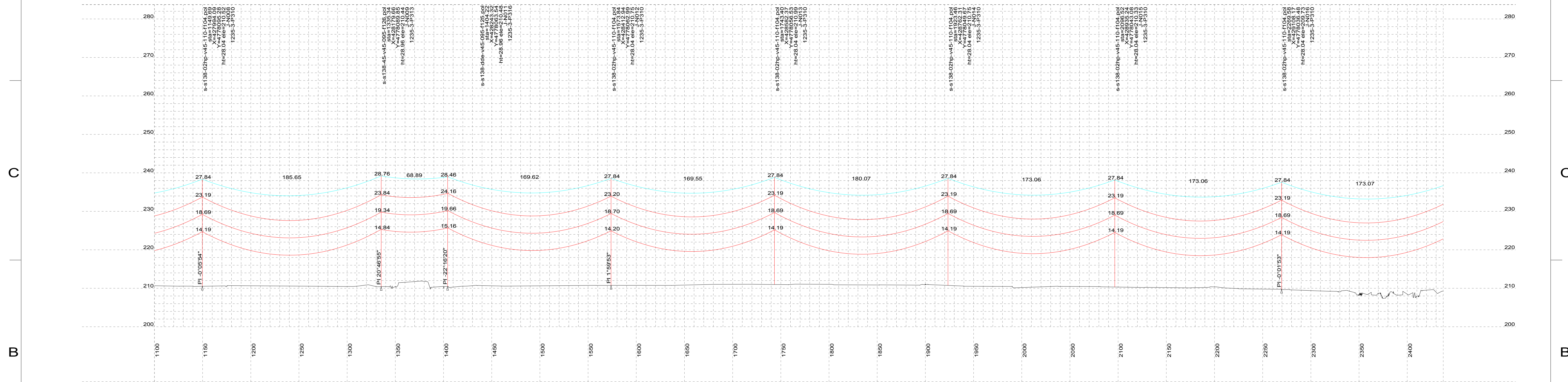
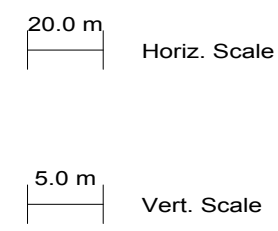
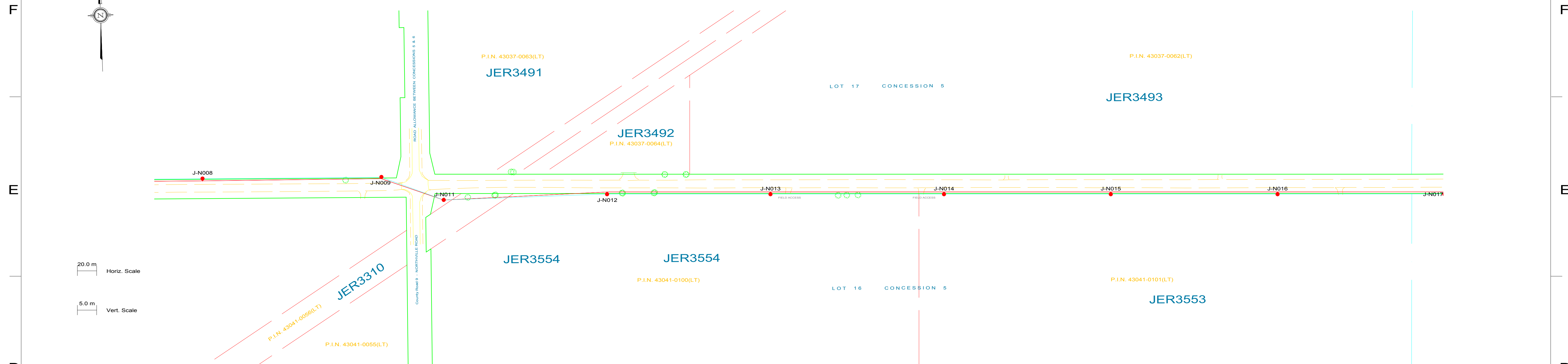
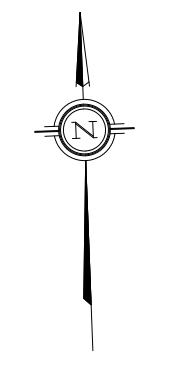


Chimax Inc.
 Engineering Company
 3550 Fourteenth Ave. East, Suite 506
 Markham, On., L3R 0A9
 Email: chimax@chimax.ca

CLIENT PROJECT MGR. DEPARTMENT MGR. PROJECT MGR. PROJECT PHASE		AREA JERICO WIND PROJECT 1CCT 115KV TRANSMISSION LINE		SUBJECT STEEL POLE DESIGN PLAN & PROFILE DRAWINGS SHEET 1 OF 7		CLIENT DWG. NO. DRAWING NO. 1235-3-P012-S1	
M 22/01/14 ISSUED FOR ROAD USE AGREEMENT REV/ DMMYY		M.H. E.K. DR CHK APP APP APP APP		M 22/01/14 ISSUED FOR ROAD USE AGREEMENT ISS DMMYY APP		REF NUMBER TITLE REFERENCES	
9		8		7		6	
5		4		3		2	



PLS-CADD Drawing



- PLAN & PROFILE LEGEND:**
- 2 x 115kV TRANSMISSION LINE CONDUCTOR (1351.5MCM ACSR DIPPER)
 - OPGW
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 - LEGAL LIMIT OF ROAD ALLOWANCE
 - ASPHALT EDGE
 - EDGE OF SHOULDER
 - PROPOSED TRANSMISSION STRUCTURE

- STRUCTURE DESCRIPTION LEGEND:**
- s-s138-02hp-v45-110-f104.pol
 - sta
 - X
 - Y
 - ht
 - ele
 - J-N002
 - 1235-3-P310

- NOTES:**
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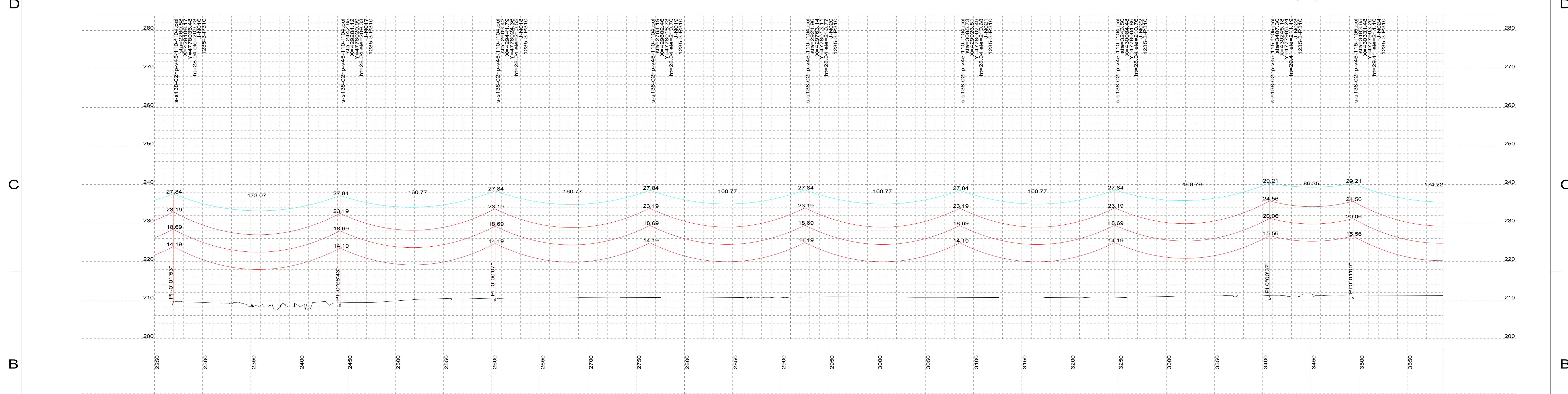
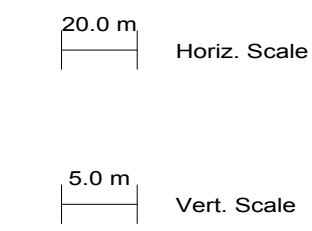
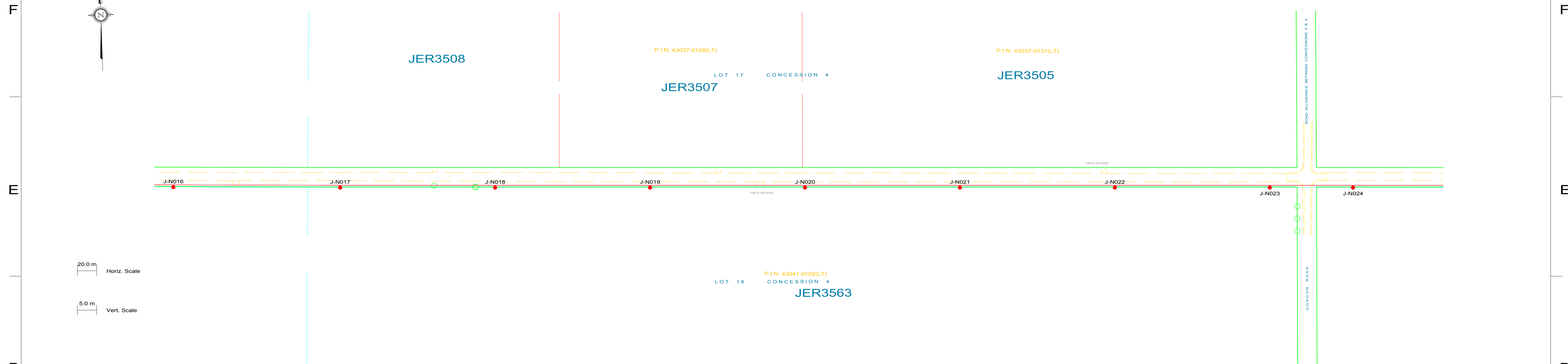
REV	DDMMYY	ISSUED FOR ROAD USE AGREEMENT	REVISION	M.H.	E.K.	DR	CHK	APP	APP	APP	ISS	DDMMYY	APP	ISSUED FOR	REF	NUMBER	TITLE
M	22/01/14	ISSUED FOR ROAD USE AGREEMENT									M	22/01/14	ISSUED FOR ROAD USE AGREEMENT				

PROJECT NO.	ACTIVITY NO.	BY	DDMMYY	SUBJECT
		DSN E.KWONG	21/08/12	JERICO WIND PROJECT 1CCT 115KV TRANSMISSION LINE
		DRN M.HUANG	21/08/12	
SCALE	PACKAGE CODE	CHK	APP	
N.T.S.				

CLIENT PROJECT MGR.	DEPARTMENT MGR.	PROJECT MGR.	
PROJECT PHASE			AREA
			JERICO WIND PROJECT 1CCT 115KV TRANSMISSION LINE
STAMP/SEAL			CLIENT DWG. NO.
PROPRIETARY INFORMATION: THIS DRAWING IS THE PROPERTY OF CHIMAX INC. AND IS NOT TO BE LOANED OR REPRODUCED IN ANY WAY WITHOUT THE PERMISSION OF CHIMAX INC.			DRAWING NO. 1235-3-P012-S2
			REV. M



PLS-CADD Drawing



PLAN & PROFILE LEGEND:

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STRUCTURE DESCRIPTION LEGEND:

- s-s138-02hp-v45-110-f104.pol
- sta
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- PLS-POLE FILE IDENTIFICATION
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- GROUND ELEVATION (M)
- STRUCTURE NO.
- FRAMING DRAWING NO.

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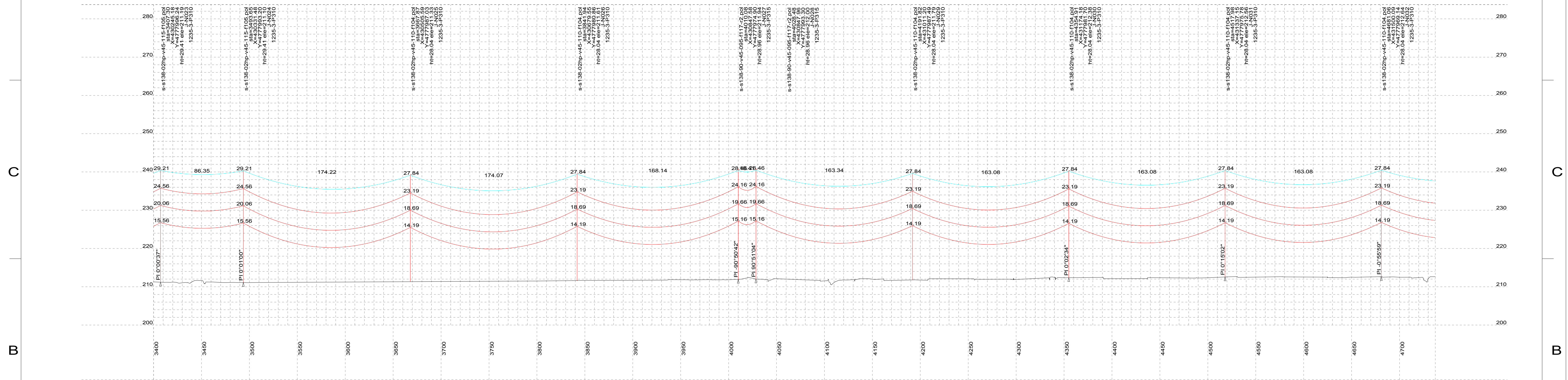
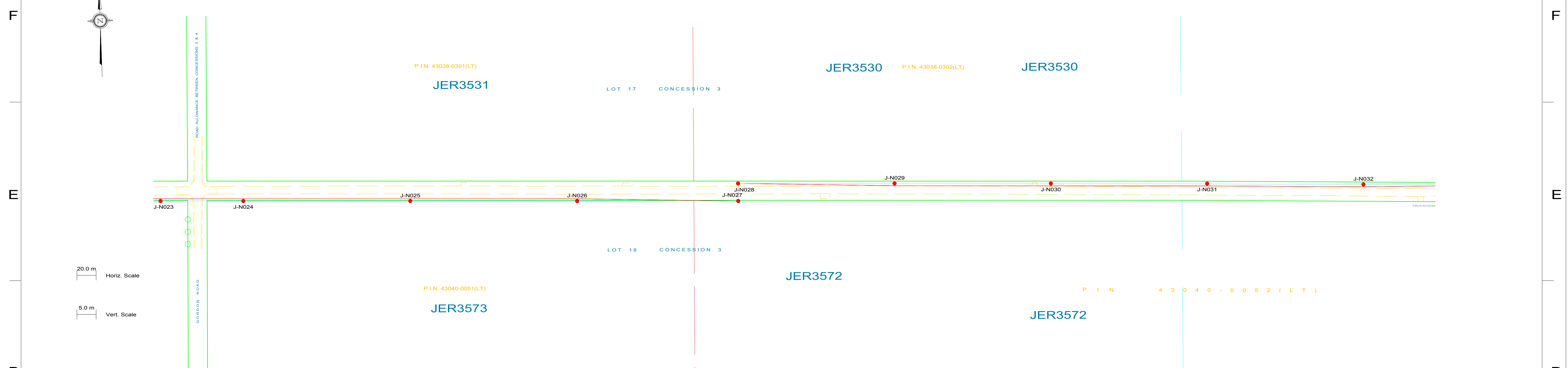
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PROJECT PHASE				AREA	
PROJECT NO.				SUBJECT	
ACTIVITY NO.		BY	DDMMYY	SUBJECT	
SCALE		DRN	21/08/12	JERICO WIND PROJECT 1CCT 115KV TRANSMISSION LINE	
PACKAGE CODE		DRN	M.HUANG	CLIENT DWG. NO.	
N.T.S.		CHK		DRAWING NO.	
		APP		1235-3-P012-S3	
				REV.	
				M	

REV	DDMMYY	ISSUED FOR ROAD USE AGREEMENT	REVISION	M.H.	E.K.	DR	CHK	APP	APP	APP	ISS	DDMMYY	APP	ISSUED FOR ROAD USE AGREEMENT	REF	NUMBER	TITLE
M	22/01/14	ISSUED FOR ROAD USE AGREEMENT									M	22/01/14	ISSUED FOR ROAD USE AGREEMENT				

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PLS-CADD Drawing



PLAN & PROFILE LEGEND:

- 2 x 115kV TRANSMISSION LINE CONDUCTOR (1351.5MCM ACSR DIPPER)
- OPGW
- SHIELD WIRE
- LEGAL LIMIT OF ROAD ALLOWANCE
- ASPHALT EDGE
- EDGE OF SHOULDER
- PROPOSED TRANSMISSION STRUCTURE

STRUCTURE DESCRIPTION LEGEND:

- s-s138-02hp-v45-110-f104.pol
- sta
- X
- Y
- ht
- ele
- J-N002
- 1235-3-P310

- NOTES:**
1. CONDUCTOR (1351.5MCM ACSR DIPPER) SAG AT 100°C.
 2. OPGW & SHIELD WIRE SAG AT 40°C.
 3. ALL DIMENSIONS ARE IN METERS U.N.O.
 4. MINIMUM VERTICAL CLEARANCE OVER ROAD WILL BE 6.2 METERS PER CSA C22.3 NO.1.



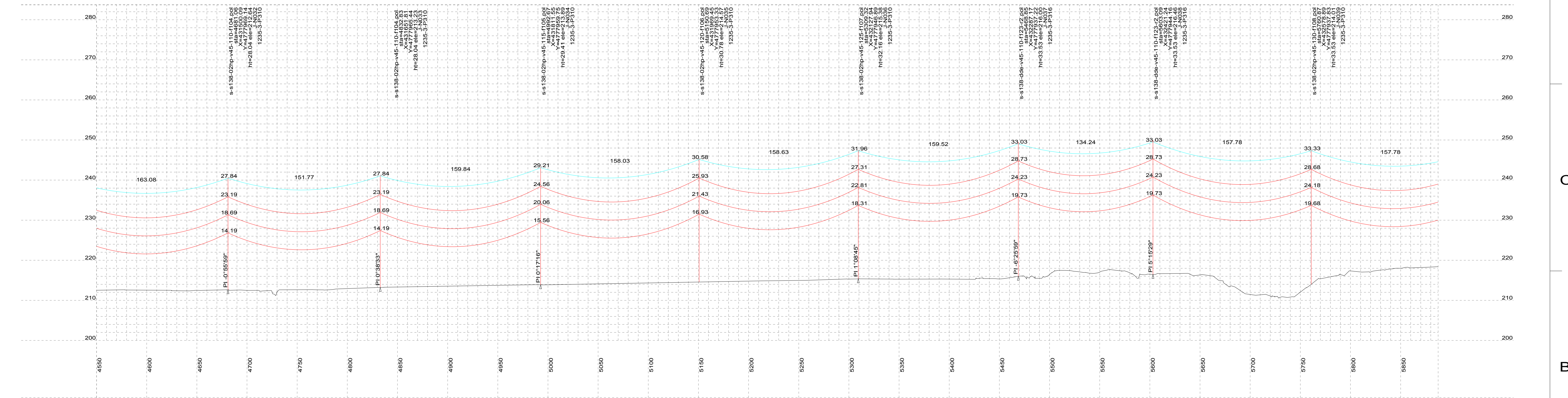
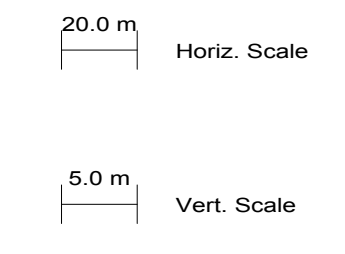
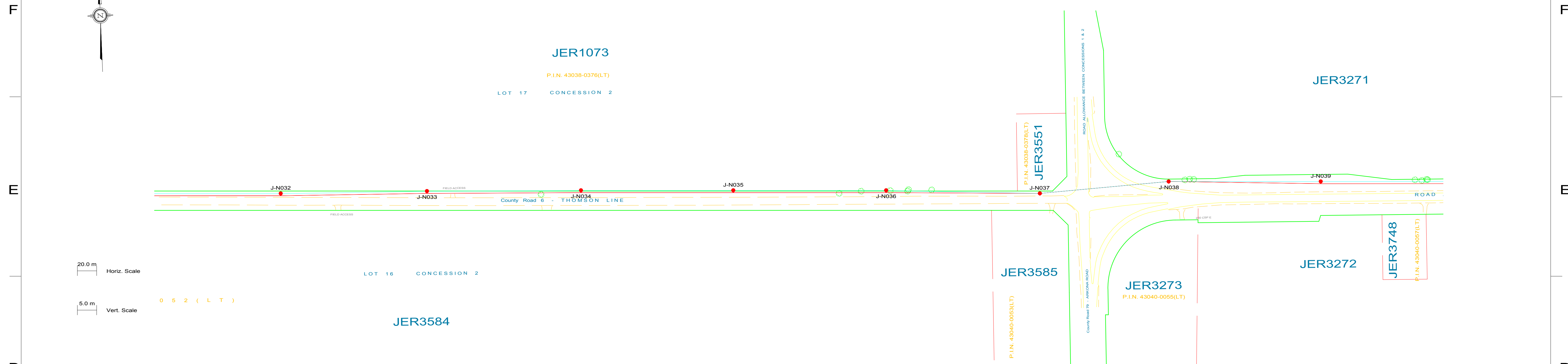
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 3550 Fourteenth Ave. East, Suite 506
 Markham, On., L3R 0A9
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REV	DDMMYY	REVISION	DR	CHK	APP	APP	APP	ISS	IDMMYY	APP	ISSUED FOR	REF	NUMBER	TITLE	REFERENCES
M	22/01/14	ISSUED FOR ROAD USE AGREEMENT						M	22/01/14		ISSUED FOR ROAD USE AGREEMENT				

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CLIENT PROJECT MGR. DEPARTMENT MGR. PROJECT MGR.			AREA			SUBJECT		
PROJECT PHASE			JERICO WIND PROJECT			1CCT 115KV TRANSMISSION LINE		
PROJECT NO.	ACTIVITY NO.	BY	DDMMYY	SUBJECT		CLIENT DWG. NO.		
		DSN E.KWONG	21/08/12	STEEL POLE DESIGN PLAN & PROFILE DRAWINGS SHEET 4 OF 7		DRAWING NO.		
		DRN M.HUANG	21/08/12			1235-3-P012-S4		
SCALE	PACKAGE CODE	CHK	APP			REV.		
N.T.S.						M		



PLS-CADD Drawing



- PLAN & PROFILE LEGEND:**
- 2 x 115kV TRANSMISSION LINE CONDUCTOR (1351.5MCM ACSR DIPPER)
 - OPGW
 - SHIELD WIRE
 - LEGAL LIMIT OF ROAD ALLOWANCE
 - ASPHALT EDGE
 - EDGE OF SHOULDER
 - PROPOSED TRANSMISSION STRUCTURE

- STRUCTURE DESCRIPTION LEGEND:**
- s-s138-02hp-v45-110-f104.pol
 - sta
 - X
 - Y
 - ht
 - ele
 - J-N002
 - 1235-3-P310

- NOTES:**
1. CONDUCTOR (1351.5MCM ACSR DIPPER) SAG AT 100°C.
 2. OPGW & SHIELD WIRE SAG AT 40°C.
 3. ALL DIMENSIONS ARE IN METERS U.N.O.
 4. MINIMUM VERTICAL CLEARANCE OVER ROAD WILL BE 6.2 METERS PER CSA C22.3 NO.1.



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 Markham, On. L3R 0A9
 Email: chimax@chimax.ca

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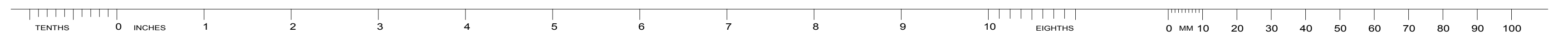
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PROJECT PHASE			JERICO WIND PROJECT 1CCT 115KV TRANSMISSION LINE	
PROJECT NO.	ACTIVITY NO.	BY	DDMMYY	SUBJECT
		DSN E.KWONG	21/08/12	
		DRN M.HUANG	21/08/12	
SCALE	PACKAGE CODE	CHK		
N.T.S.		APP		

CLIENT DWG. NO.	REV.
DRAWING NO. 1235-3-P012-S5	M

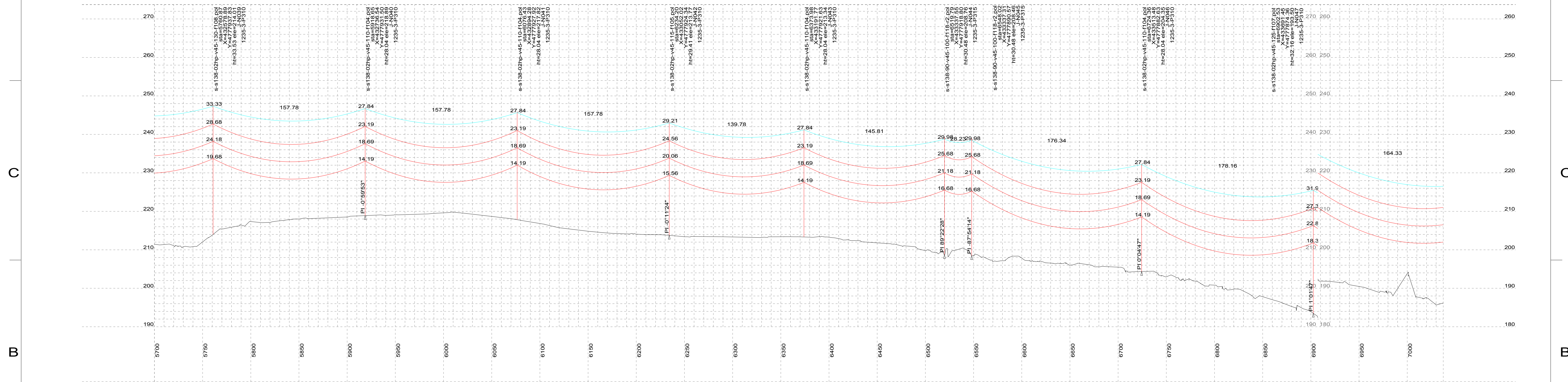
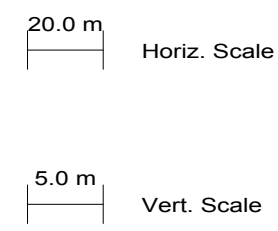
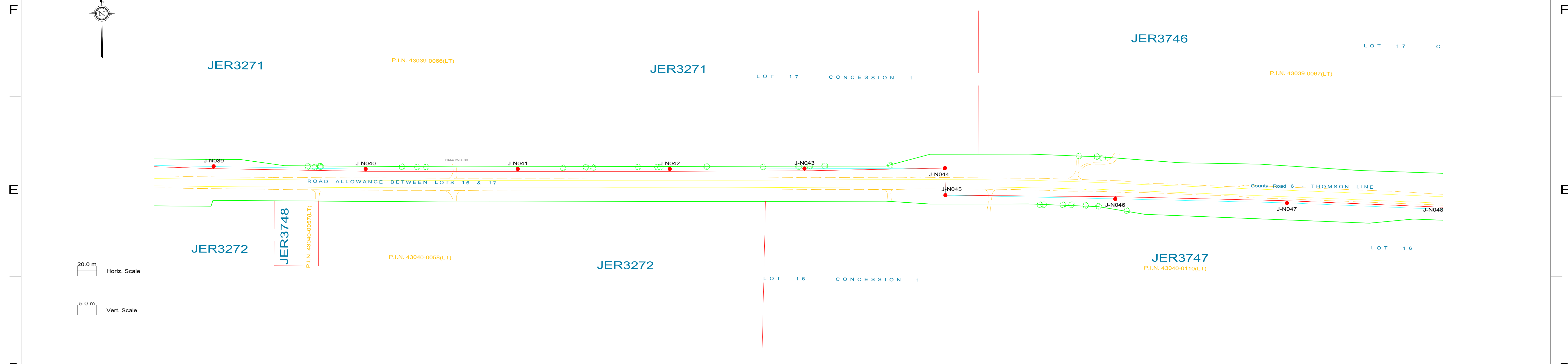
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**STEEL POLE DESIGN
 PLAN & PROFILE DRAWINGS
 SHEET 5 OF 7**

CAD FILE: PLS-Cadd 1235-3-P012-P1



PLS-CADD Drawing



- PLAN & PROFILE LEGEND:**
- 2 x 115kV TRANSMISSION LINE CONDUCTOR (1351.5MCM ACSR DIPPER)
 - OPGW
 - SHIELD WIRE
 - LEGAL LIMIT OF ROAD ALLOWANCE
 - ASPHALT EDGE
 - EDGE OF SHOULDER
 - PROPOSED TRANSMISSION STRUCTURE

- STRUCTURE DESCRIPTION LEGEND:**
- s-s138-02hp-v45-110-f104.pol
 - sta
 - X
 - Y
 - ht
 - ele
 - J-N002
 - 1235-3-P310

- NOTES:**
1. CONDUCTOR (1351.5MCM ACSR DIPPER) SAG AT 100°C.
 2. OPGW & SHIELD WIRE SAG AT 40°C.
 3. ALL DIMENSIONS ARE IN METERS U.N.O.
 4. MINIMUM VERTICAL CLEARANCE OVER ROAD WILL BE 6.2 METERS PER CSA C22.3 NO.1.



Chimax Inc.
 Engineering Company
 3550 Fourteenth Ave. East, Suite 506
 Markham, On., L3R 0A9
 Email: chimax@chimax.ca

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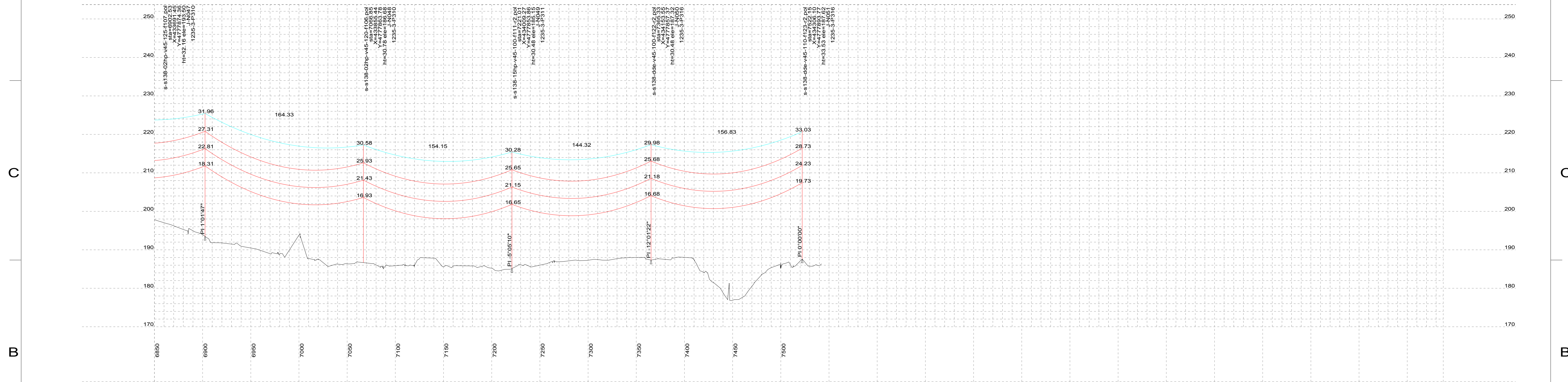
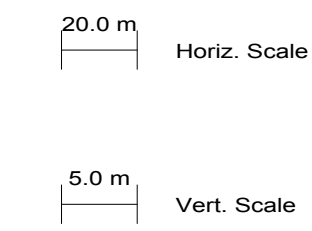
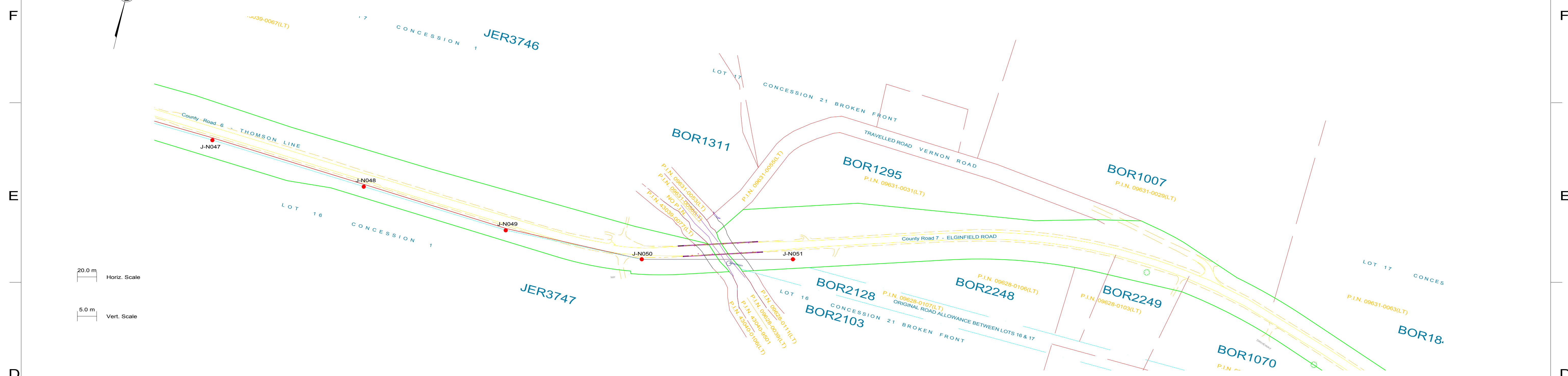
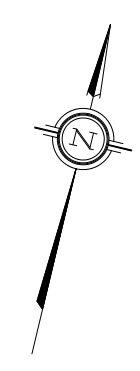
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PROJECT PHASE			SUBJECT	
PROJECT NO.	ACTIVITY NO.	BY	DDMMYY	SUBJECT
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		DRN M.HUANG	21/08/12	
SCALE	PACKAGE CODE	CHK	APP	SUBJECT
N.T.S.				

CLIENT DWG. NO.	REV.
DRAWING NO.	M
1235-3-P012-S6	

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PLS-CADD Drawing



PLAN & PROFILE LEGEND:

- 2 x 115kV TRANSMISSION LINE CONDUCTOR (1351.5MCM ACSR DIPPER)
- OPGW
- SHIELD WIRE
- LEGAL LIMIT OF ROAD ALLOWANCE
- ASPHALT EDGE
- EDGE OF SHOULDER
- PROPOSED TRANSMISSION STRUCTURE

STRUCTURE DESCRIPTION LEGEND:

- s-s138-02hp-v45-110-f104.pol
- sta
- X
- Y
- ht
- ele
- J-N002
- 1235-3-P310

- PLS-POLE FILE IDENTIFICATION
- STATION CHAINAGE
- UTM EASTING
- UTM NORTHING
- STRUCTURE HEIGHT ABOVE GROUND (M)
- STRUCTURE ELEVATION (M)
- STRUCTURE NO.
- FRAMING DRAWING NO.

NOTES:

1. CONDUCTOR (1351.5MCM ACSR DIPPER) SAG AT 100°C.
2. OPGW & SHIELD WIRE SAG AT 40°C.
3. ALL DIMENSIONS ARE IN METERS U.N.O.
4. MINIMUM VERTICAL CLEARANCE OVER ROAD WILL BE 6.2 METERS PER CSA C22.3 NO.1.



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REV	DDMMYY	ISSUED FOR ROAD USE AGREEMENT	REVISION	DR	CHK	APP	APP	APP	APP	ISS	DDMMYY	APP	ISSUED FOR ROAD USE AGREEMENT	REF	NUMBER	TITLE
M	22/01/14	ISSUED FOR ROAD USE AGREEMENT								M	22/01/14	APP	ISSUED FOR ROAD USE AGREEMENT			

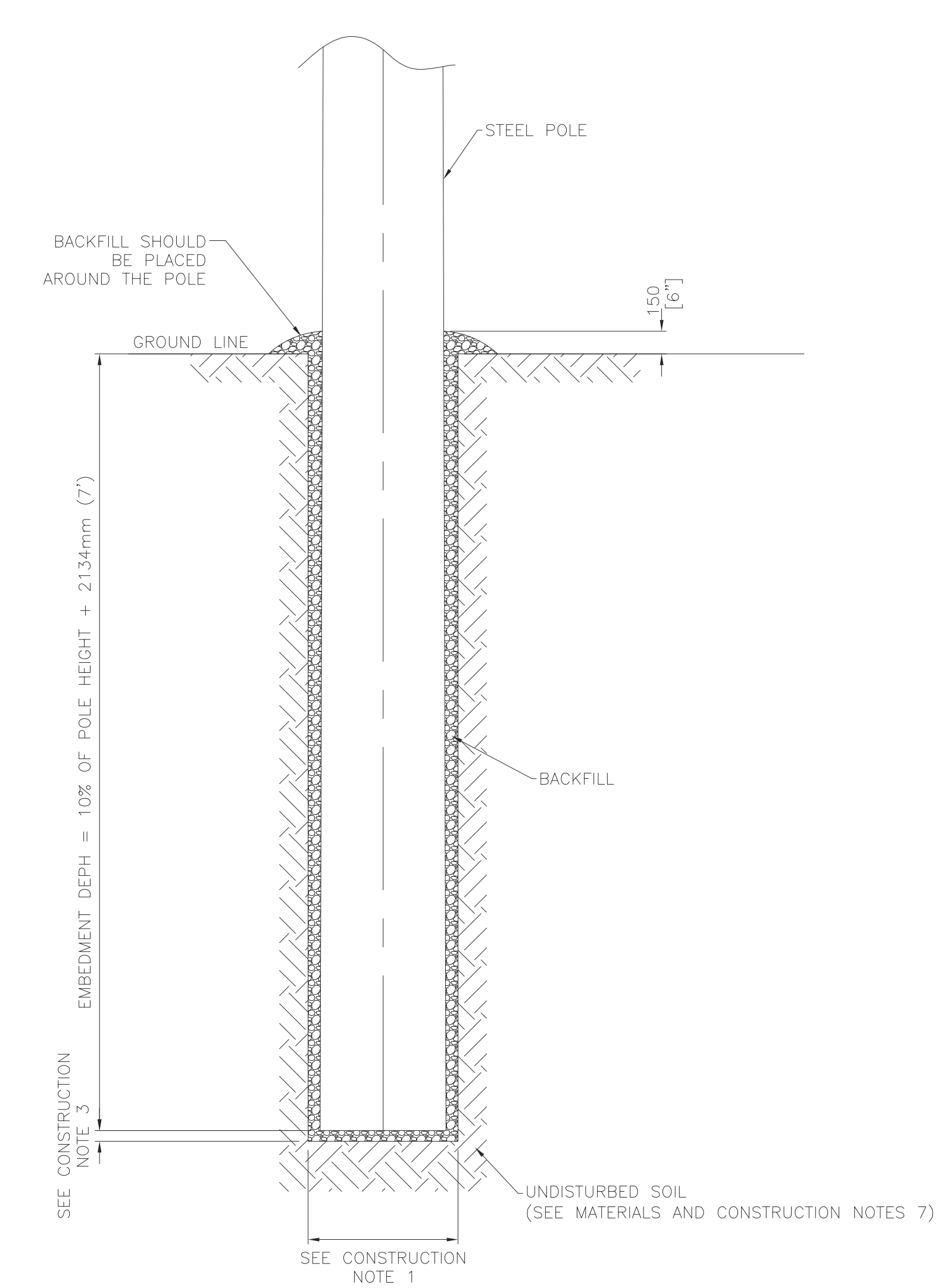
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CLIENT PROJECT MGR. DEPARTMENT MGR. PROJECT MGR.			AREA	
PROJECT PHASE			JERICOHO WIND PROJECT 1CCT 115KV TRANSMISSION LINE	
PROJECT NO.	ACTIVITY NO.	BY	DDMMYY	SUBJECT
		DSN E.KWONG	21/08/12	STEEL POLE DESIGN PLAN & PROFILE DRAWINGS SHEET 7 OF 7
		DRN M.HUANG	21/08/12	
		CHK		
SCALE	PACKAGE CODE	CHK		
N.T.S.		APP		

CLIENT DWG. NO.	
DRAWING NO.	1235-3-P012-S7
REV.	M

Schedule B2

Jericho Transmission Foundation Designs



SECTION VIEW
TYPICAL DIRECT EMBEDMENT DETAILS FOR
POLE FOUNDATION

GENERAL NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE PLAN AND PROFILE DRAWINGS (DWG#1235-3-P012), ANCHOR BOLT DRAWINGS AND STAKING INFORMATION.
2. FOR POLE FRAMING DETAILS, SEE DWG#1235-2-P3XX SERIES.
3. ALL DIMENSIONS AS SHOWN ARE METRIC IN MILLIMETERS U.N.O.

DESIGN ASSUMPTION

1. GROUND WATER LEVEL IS DESIGNED AT GRADE.
2. FROST DEPTH IS 1.2m (4') BELOW GRADE.
3. BASED ON THE INFORMATION ON BOREHOLE RECORD, THE FOLLOWING DESIGN PARAMETER AND ASSUMPTIONS ARE ADOPTED FOR THE FOUNDATION DESIGN:
 - A. FROM 0m TO 1.2m BELOW GRADE, ASSUMED LOOSE CONDITION WITH FRICTION ANGLE = 20 DEG
 - B. FROM 1.2m TO 1.6m BELOW GRADE, AVERAGE PENETRATION INDEX 'N' = 8 (COHESIVE) FOR STRUCTURE B-N001 TO B-N027, AND 'N' = 5 (COHESIVE) FOR STRUCTURE B-N028 TO B-N082
 - C. FROM 1.6m TO 2.4m BELOW GRADE, AVERAGE PENETRATION INDEX 'N' = 10 (COHESIVE)
 - D. FROM 2.4m BELOW GRADE, AVERAGE PENETRATION INDEX 'N' = 15 (COHESIVE)

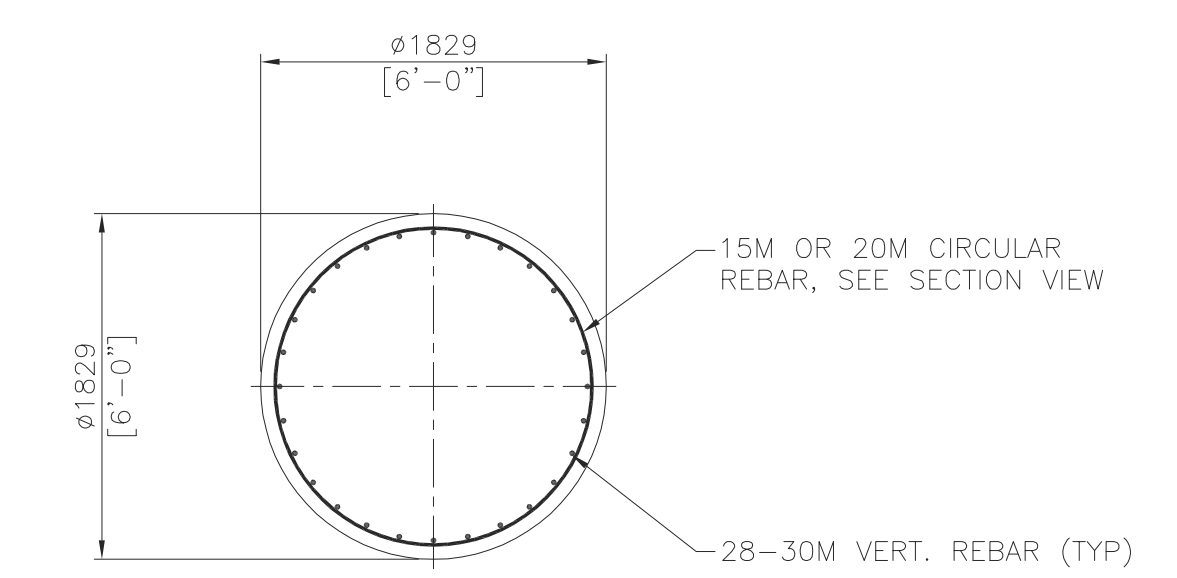
FOUNDATION MATERIAL AND CONSTRUCTION NOTES

1. MINIMUM DIAMETER OF HOLE EXCAVATION SHALL BE POLE BUTT DIAMETER + 300mm (12").
2. DEPTH OF HOLE IN SLOPING GROUND SHALL BE MEASURED FROM THE LOWER SIDE OF HOLE.
3. A MINIMUM OF 450mm (18") OF CRUSH STONE OR ROCKS SHALL BE USED AND TO BACKFILL THE BOTTOM OF THE POLE HOLE, PROPER COMPACTION OF BACKFILL MATERIAL SHALL BE ENSURED. THE CONTRACTOR SHALL ENSURE THE MINIMUM POLE EMBEDMENT DEPTH IS ACHIEVED WITH THE BACKFILL.
4. ALL EXCAVATIONS SHALL BE PERFORMED IN A MANNER THAT SHALL ENSURE PROPER DRAINAGE DURING THE COURSE OF WORK. FLOODED EXCAVATIONS SHALL BE DEWATERED AND ALL MUCK SHALL BE REMOVED BEFORE PROCEEDING WITH WORK. ALL EXCAVATIONS SHALL BE SUFFICIENTLY SUPPORTED TO PREVENT COLLAPSE.
5. AFTER EXCAVATION, EXPOSED SOIL SURFACES SHALL BE PROTECTED PRIOR TO POLE PLACEMENT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADOPT PROPER CONSTRUCTION AND EXCAVATION METHOD BASED ON THE SOIL CONDITION FOUND ON SITE.
6. ALL EXCAVATION, BACKFILL AND INSTALLATION SHALL BE INSPECTED BY A QUALIFIED GEOTECHNICAL PERSONNEL.
7. PRIOR TO THE PLACEMENT OF POLE, EXCAVATION SHALL BE INSPECTED BY QUALIFIED GEOTECHNICAL PERSONNEL TO CONFIRM THAT THE SOIL PROPERTIES ARE CONSISTENT WITH THE GEOTECHNICAL INVESTIGATION REPORT AND DESIGN PARAMETERS.
8. ALL BACKFILL SURROUNDING FOUNDATIONS SHALL BE SELF-COMPACTED SCREENING OR WELL GRADED PIT RUN GRAVEL THAT CONFORMS TO RECOMMENDED SPECIFICATIONS FOR GRANULAR MATERIALS IN THE GEOTECHNICAL REPORT AND SHALL BE COMPACTED TO 95% SPMD WITH MAX LIFT OF 300mm.
9. SAFETY MEASURES SHALL BE PROVIDED AFTER EXCAVATION TO ENSURE WORKPLACE SAFETY.
10. IN ADDITION TO THE CONSTRUCTION NOTES STATED ABOVE, ALL CONSTRUCTION WORKS SHALL BE PERFORMED IN ACCORDANCE WITH PROJECT SPECIFICATIONS AS LISTED AS FOLLOWS WHEN THEY ARE APPLICABLE:
 - A. CAISSON DRILLING
 - B. FOUNDATION EXCAVATION AND FILL
 - C. REINFORCED CONCRETE

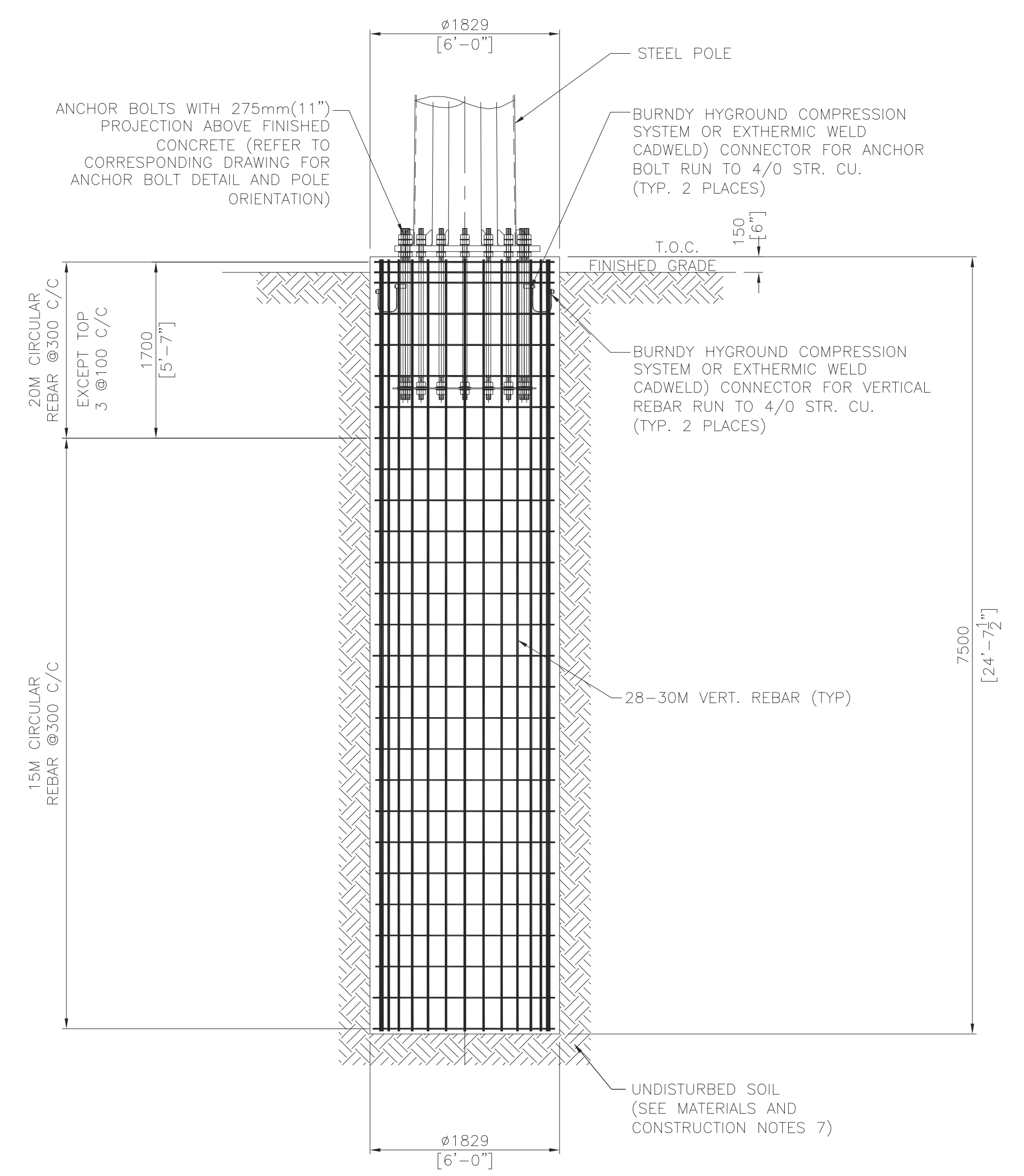
NOT FOR CONSTRUCTION
DESIGN IN PROGRESS



										APPROVED FOR CONSTRUCTION																	
										CLIENT PROJECT MGR.		DEPARTMENT MGR.		PROJECT MGR.		AREA		JERICO WIND PROJECT									
										PROJECT NO.		ACTIVITY NO.		PACKAGE CODE		SUBJECT											
										SCALE		NTS (D-SIZE)		BY		D/M/Y		1CCT 115kV TRANSMISSION LINE DIRECT EMBEDMENT POLE FOUNDATION									
										DSN. K.WONG		DRN. J.CHEN		13/05/13		13/05/13		CLIENT DWG. NO.									
										STAMP/SEAL		PROPRIETARY INFORMATION: THIS DRAWING IS THE PROPERTY OF CHIMAX INC. AND IS NOT TO BE LOANED OR REPRODUCED IN ANY WAY WITHOUT THE PERMISSION OF CHIMAX INC.		REV. NUMBER		TITLE		DRAWING NO.		REV.							
										ISS		D/M/Y		APP		ISSUED FOR		REFERENCES		1235-3-C001		B					
										B		12/09/13		ISSUED FOR PERMIT		J.C.		M.H.		CADD FILE ADDRESS 1235-3-C001-B							
										A		14/05/13		ISSUED FOR TENDER		J.C.		W.L.									
										REV		D/M/Y		REVISION		DR		CHK		APP		APP		APP		APP	



TOP VIEW



SECTION VIEW

TYPICAL DETAILS FOR POLE FOUNDATION TYPE A

GENERAL NOTES

- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE PLAN AND PROFILE DRAWINGS (DWG#1235-3-P012), ANCHOR BOLT DRAWINGS AND STAKING INFORMATION.
- FOR POLE FRAMING DETAILS, SEE DWG#1235-2-P3XX SERIES.
- FOR ANCHOR BOLT DETAILS, SEE DWG#1235-3-F101 AND 102.
- ALL DIMENSIONS AS SHOWN ARE METRIC IN MILLIMETERS U.N.O.

DESIGN ASSUMPTION

- GROUND WATER LEVEL IS DESIGNED AT GRADE.
- FROST DEPTH IS 1.2m (4') BELOW GRADE.
- BASED ON THE INFORMATION ON BOREHOLE RECORD, THE FOLLOWING DESIGN PARAMETER AND ASSUMPTIONS ARE ADOPTED FOR THE FOUNDATION DESIGN:
 - FROM 0m TO 1.2m BELOW GRADE, ASSUMED LOOSE CONDITION WITH FRICTION ANGLE = 20 DEG.
 - FROM 1.2m TO 1.6m BELOW GRADE, AVERAGE PENETRATION INDEX 'N' = 8 (COHESIVE) FOR STRUCTURE B-N001 TO B-N027, AND 'N' = 5 (COHESIVE) FOR STRUCTURE B-N028 TO B-N082.
 - FROM 1.6m TO 2.4m BELOW GRADE, AVERAGE PENETRATION INDEX 'N' = 10 (COHESIVE)
 - FROM 2.4m BELOW GRADE, AVERAGE PENETRATION INDEX 'N' = 15 (COHESIVE)

FOUNDATION MATERIAL AND CONSTRUCTION NOTES

- CONCRETE MATERIAL, DESIGN, TESTING AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH CSA STANDARD CAN 2-A23 SERIES.
- CONCRETE SPECIFICATION SUPPLY AND DELIVERY OF CONCRETE SHALL BE AS FOLLOWS:
 - MINIMUM COMPRESSIVE STRENGTH: 35 MPa AT 28 DAYS.
 - SPECIFICATIONS ON PORTLAND CEMENT: TYPE GU NORMAL PORTLAND CEMENT, EXPOSURE CLASS C-1.
 - 4%-7% AIR CONTENT.
 - MIN. 3 CYLINDERS TESTING WITH ONE AT 7 DAYS AND TWO AT 28 DAYS ARE REQUIRED UNLESS OTHERWISE SPECIFIED, MINIMUM CONCRETE COVER TO REINFORCEMENT SHALL BE AS FOLLOWS:
 - CONCRETE CAST AGAINST SOIL = 75mm
 - FORMED CONCRETE WITH DIRECT CONTACT TO SOIL = 50mm
 - CONCRETE SURFACE EXPOSED TO WEATHER = 50mm
- REINFORCING STEEL SHALL BE DEFORMED STEEL BAR WITH MINIMUM YIELD STRENGTH OF 400 MPa (60PSI) AND CONFIRMING TO CSA G30.12 GR.400 EXCEPT TIES AND STIRRUPS WHICH SHALL BE GRADE 300.
- MINIMUM SPLICES, LAPS AND HOOKS SHALL BE IN ACCORDANCE WITH CAN 3-A23.1
- ALL OTHER STEEL MATERIAL SHALL BE CSA-G40.21-M300W U.N.O. AND SHALL BE HOT DIP GALVANIZED FINISH ACCORDING TO CSA-G164 U.N.O.
- ALL EXCAVATIONS SHALL BE PERFORMED IN A MANNER THAT SHALL ENSURE PROPER DRAINAGE DURING THE COURSE OF WORK. FLOODED EXCAVATIONS SHALL BE DEWATERED AND ALL MUCK SHALL BE REMOVED BEFORE PROCEEDING WITH WORK. ALL EXCAVATIONS SHALL BE SUFFICIENTLY SUPPORTED TO PREVENT COLLAPSE.
- AFTER EXCAVATION, EXPOSED SOIL SURFACES SHALL BE PROTECTED PRIOR TO CONCRETE CASTING. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADOPT PROPER CONSTRUCTION AND EXCAVATION METHOD BASED ON THE SOIL CONDITION FOUND ON SITE PRIOR TO THE PLACEMENT OF CONCRETE. BOTTOM OF FOUNDATIONS SHALL BE INSPECTED BY QUALIFIED GEOTECHNICAL PERSONNEL TO CONFIRM THAT THE SOIL PROPERTIES ARE CONSISTENT WITH THE GEOTECHNICAL INVESTIGATION REPORT AND DESIGN PARAMETERS BEFORE PLACING CONCRETE, CONTRACTOR SHALL VERIFY ANCHOR BOLTS AND LOCATIONS OF ALL MECHANICAL, UTILITY SERVICES FOR EMBEDDED ITEMS, HOLES, ETC.
- PROPER VIBRATION METHODS SHALL BE USED DURING CONCRETING.
- CONCRETE SHALL BE ADEQUATELY CURED BY ADDITIONAL MOISTURE AND/OR COVERED BY WATER RETAINING MATERIAL AFTER POURING.
- ALL EXPOSED CONCRETE EDGES SHALL HAVE A 25mm CHAMFER.
- ALL BACKFILL SURROUNDING FOUNDATIONS SHALL BE WELL GRADED PIT RUN GRAVEL THAT CONFORMS TO RECOMMENDED SPECIFICATIONS FOR GRANULAR MATERIALS IN THE GEOTECHNICAL REPORT AND SHALL BE COMPACTED TO 95% SPMD WITH MAX LIFT OF 300mm.
- ALL BACKFILL UNDER FOUNDATIONS SHALL BE LEAN CONCRETE MIX OR GRANULAR B MATERIAL AND SHALL BE COMPACTED TO 100% SPMD WITH MAX LIFT OF 200mm.
- SAFETY MEASURES SHALL BE PROVIDED AFTER EXCAVATION TO ENSURE WORKPLACE SAFETY.

NOT FOR CONSTRUCTION
DESIGN IN PROGRESS



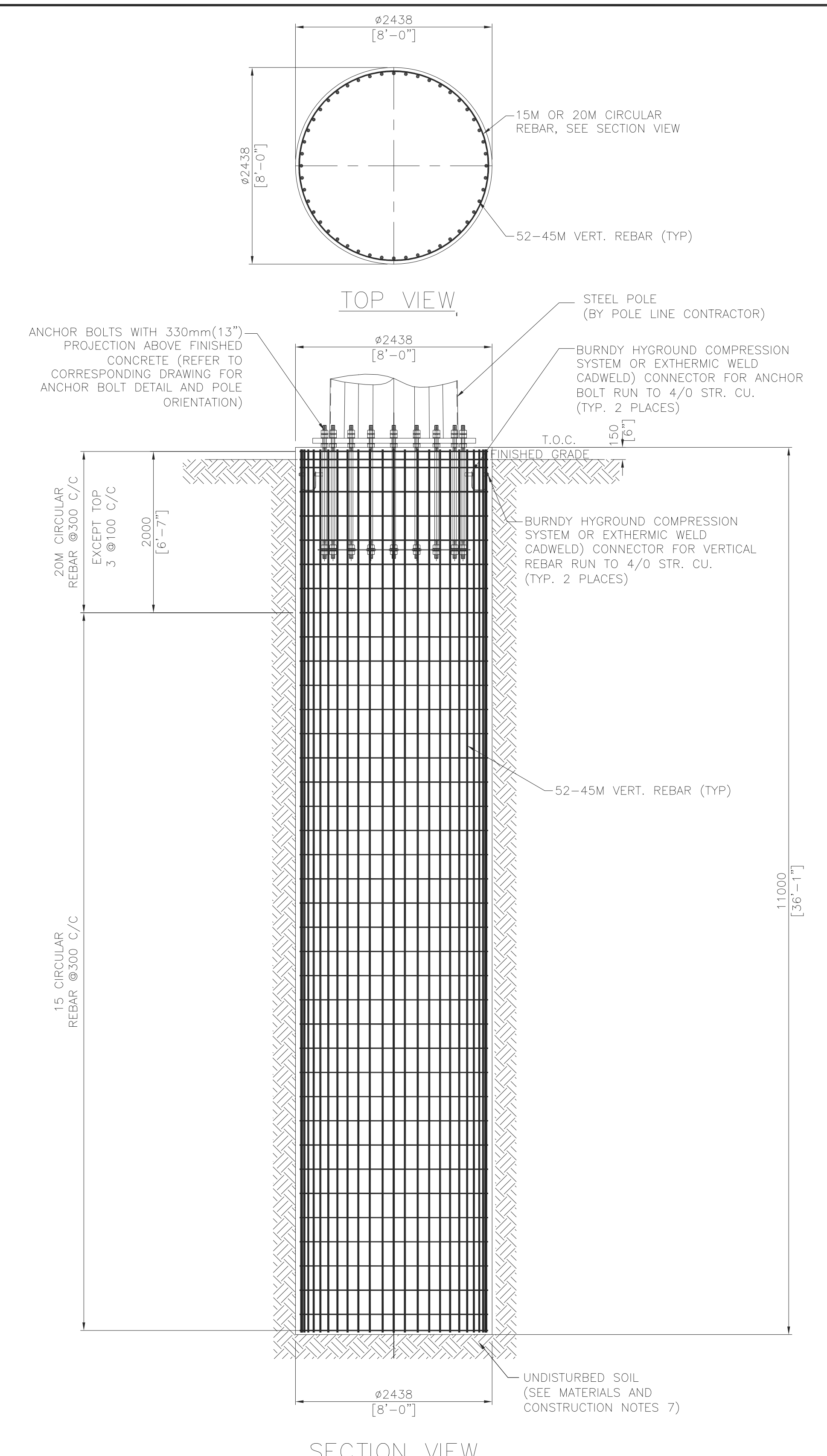
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PROJECT PHASE										PROJECT NO.		ACTIVITY NO.		PACKAGE CODE		SUBJECT		DRAWING NO.	
SCALE										NTS (D-SIZE)		BY		D/M/Y		1235-3-C002		REV. B	
STAMP/SEAL										DSN. K.WONG		DRN. J.CHEN		13/05/13		13/05/13		CADD FILE ADDRESS	
1CCT 115kV TRANSMISSION LINE POLE FOUNDATION TYPE A										1235-3-C002-B									

B	12/09/13	ISSUED FOR PERMIT	J.C.	M.H.														
A	14/05/13	ISSUED FOR TENDER	J.C.	W.L.														
REV	D/M/Y	REVISION	DR	CHK	APP	APP	APP	APP	ISS	D/M/Y	APP							

B	12/09/13	ISSUED FOR PERMIT																
A	14/05/13	ISSUED FOR TENDER																
REV	D/M/Y	ISSUED FOR																

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REF	NUMBER	TITLE	REFERENCES	

CADD FILE ADDRESS	1235-3-C002-B
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TYPICAL DETAILS FOR
POLE FOUNDATION TYPE B

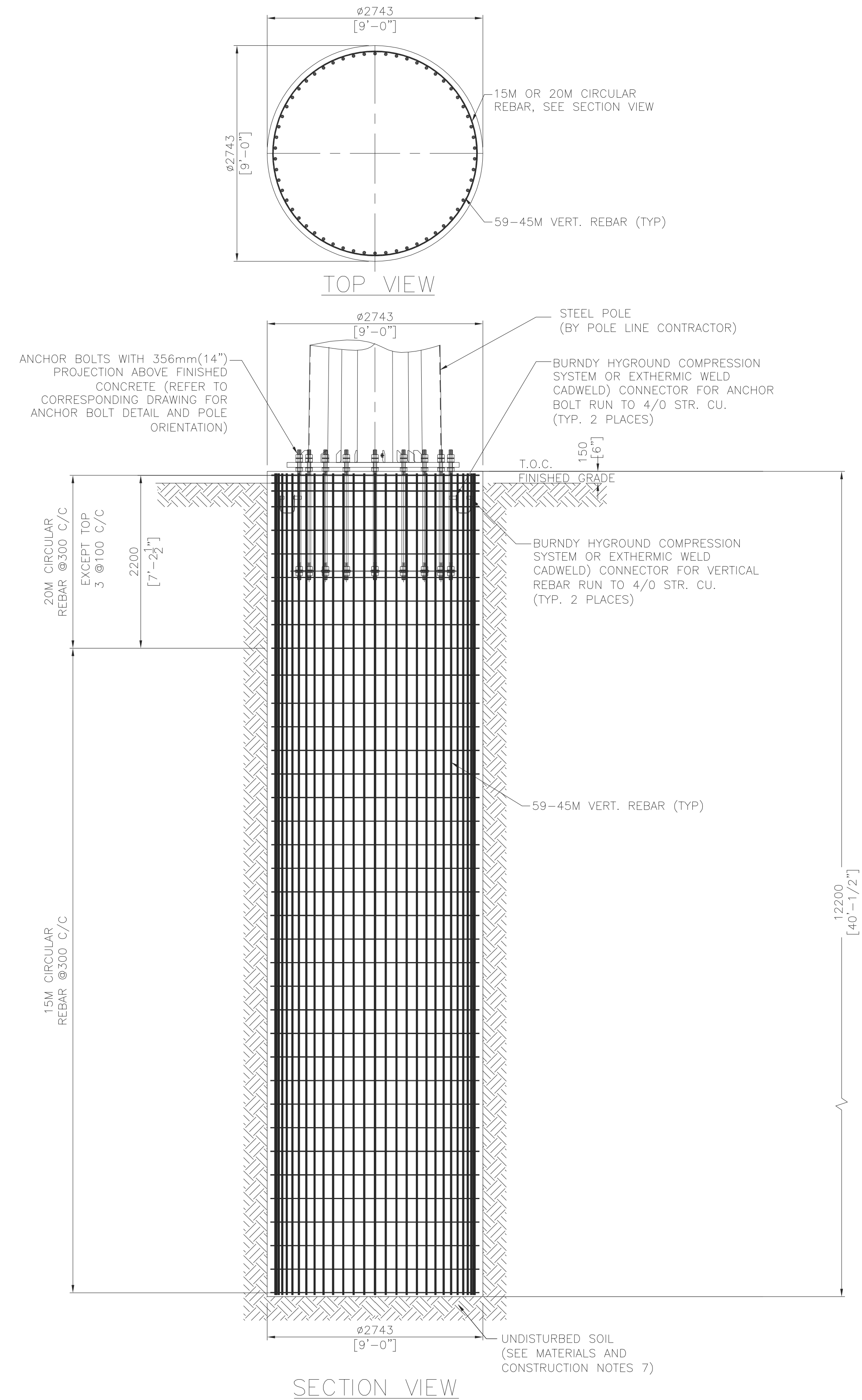
- GENERAL NOTES**
- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE PLAN AND PROFILE DRAWINGS (DWG#1235-3-P012), ANCHOR BOLT DRAWINGS AND STAKING INFORMATION.
 - FOR POLE FRAMING DETAILS, SEE DWG#1235-2-P3XX SERIES.
 - FOR ANCHOR BOLT DETAILS, SEE DWG#1235-3-F101 AND 102.
 - ALL DIMENSIONS AS SHOWN ARE METRIC IN MILLIMETERS U.N.O.
- DESIGN ASSUMPTION**
- GROUND WATER LEVEL IS DESIGNED AT GRADE.
 - FROST DEPTH IS 1.2m (4') BELOW GRADE.
 - BASED ON THE INFORMATION ON BOREHOLE RECORD, THE FOLLOWING DESIGN PARAMETER AND ASSUMPTIONS ARE ADOPTED FOR THE FOUNDATION DESIGN:
 - FROM 0m TO 1.2m BELOW GRADE, ASSUMED LOOSE CONDITION WITH FRICTION ANGLE = 20 DEG.
 - FROM 1.2m TO 1.6m BELOW GRADE, AVERAGE PENETRATION INDEX 'N' = 8 (COHESIVE) FOR STRUCTURE B-N001 TO B-N027, AND 'N' = 5 (COHESIVE) FOR STRUCTURE B-N028 TO B-N082.
 - FROM 1.6m TO 2.4m BELOW GRADE, AVERAGE PENETRATION INDEX 'N' = 10 (COHESIVE).
 - FROM 2.4m BELOW GRADE, AVERAGE PENETRATION INDEX 'N' = 15 (COHESIVE).
- FOUNDATION MATERIAL AND CONSTRUCTION NOTES**
- CONCRETE MATERIAL, DESIGN, TESTING AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH CSA STANDARD CAN 2-A23 SERIES.
 - CONCRETE SPECIFICATION SUPPLY AND DELIVERY OF CONCRETE SHALL BE AS FOLLOWS:
 - MINIMUM COMPRESSIVE STRENGTH: 35 MPa AT 28 DAYS.
 - SPECIFICATIONS ON PORTLAND CEMENT: TYPE GU NORMAL PORTLAND CEMENT, EXPOSURE CLASS C-1.
 - 4%-7% AIR CONTENT.
 - MIN. 3 CYLINDERS TESTING WITH ONE AT 7 DAYS AND TWO AT 28 DAYS ARE REQUIRED UNLESS OTHERWISE SPECIFIED, MINIMUM CONCRETE COVER TO REINFORCEMENT SHALL BE AS FOLLOWS:
 - CONCRETE CAST AGAINST SOIL = 75mm
 - FORMED CONCRETE WITH DIRECT CONTACT TO SOIL = 50mm
 - CONCRETE SURFACE EXPOSED TO WEATHER = 50mm
 - REINFORCING STEEL SHALL BE DEFORMED STEEL BAR WITH MINIMUM YIELD STRENGTH OF 400 MPa (60PSI) AND CONFIRMING TO CSA G30.12 GR.400 EXCEPT TIES AND STIRRUPS WHICH SHALL BE GRADE 300.
 - MINIMUM SPLICES, LAPS AND HOOKS SHALL BE IN ACCORDANCE WITH CAN 3-A23.1
 - ALL OTHER STEEL MATERIAL SHALL BE CSA-G40.21-M300W U.N.O. AND SHALL BE HOT DIP GALVANIZED FINISH ACCORDING TO CSA-G164 U.N.O.
 - ALL EXCAVATIONS SHALL BE PERFORMED IN A MANNER THAT SHALL ENSURE PROPER DRAINAGE DURING THE COURSE OF WORK. FLOODED EXCAVATIONS SHALL BE DEWATERED AND ALL MUCK SHALL BE REMOVED BEFORE PROCEEDING WITH WORK. ALL EXCAVATIONS SHALL BE SUFFICIENTLY SUPPORTED TO PREVENT COLLAPSE.
 - AFTER EXCAVATION, EXPOSED SOIL SURFACES SHALL BE PROTECTED PRIOR TO CONCRETE CASTING. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADOPT PROPER CONSTRUCTION AND EXCAVATION METHOD BASED ON THE SOIL CONDITION FOUND ON SITE PRIOR TO THE PLACEMENT OF CONCRETE. BOTTOM OF FOUNDATIONS SHALL BE INSPECTED BY QUALIFIED GEOTECHNICAL PERSONNEL TO CONFIRM THAT THE SOIL PROPERTIES ARE CONSISTENT WITH THE GEOTECHNICAL INVESTIGATION REPORT AND DESIGN PARAMETERS BEFORE PLACING CONCRETE, CONTRACTOR SHALL VERIFY ANCHOR BOLTS AND LOCATIONS OF ALL MECHANICAL, UTILITY SERVICES FOR EMBEDDED ITEMS, HOLES, ETC.
 - PROPER VIBRATION METHODS SHALL BE USED DURING CONCRETING.
 - CONCRETE SHALL BE ADEQUATELY CURED BY ADDITIONAL MOISTURE AND/OR COVERED BY WATER RETAINING MATERIAL AFTER POURING.
 - ALL EXPOSED CONCRETE EDGES SHALL HAVE A 25mm CHAMFER.
 - ALL BACKFILL SURROUNDING FOUNDATIONS SHALL BE WELL GRADED PIT RUN GRAVEL THAT CONFORMS TO RECOMMENDED SPECIFICATIONS FOR GRANULAR MATERIALS IN THE GEOTECHNICAL REPORT AND SHALL BE COMPACTED TO 95% SPMD WITH MAX LIFT OF 300mm.
 - ALL BACKFILL UNDER FOUNDATIONS SHALL BE LEAN CONCRETE MIX OR GRANULAR B MATERIAL AND SHALL BE COMPACTED TO 100% SPMD WITH MAX LIFT OF 200mm.
 - SAFETY MEASURES SHALL BE PROVIDED AFTER EXCAVATION TO ENSURE WORKPLACE SAFETY.

NOT FOR CONSTRUCTION
DESIGN IN PROGRESS



Chimax Inc.
Engineering Company
3950 Fourteenth Ave. East, Suite 506
Markham, On. L3R 0A9
Email: chimax@chimax.ca

APPROVED FOR CONSTRUCTION				CLIENT PROJECT MGR. DEPARTMENT MGR. PROJECT MGR.		AREA JERICO WIND PROJECT		CLIENT DWG. NO.	
PROJECT PHASE				PROJECT NO.		ACTIVITY NO.		PACKAGE CODE	
SCALE NTS (D-SIZE)				DSN. K.WONG		BY J.CHEN		D/M/Y 13/05/13	
SUBJECT				1CCT 115kV TRANSMISSION LINE POLE FOUNDATION TYPE B					
DRAWING NO.				1235-3-C003					
REV.				B					
CADD FILE ADDRESS				1235-3-C003-B					
STAMP/SEAL				PROPRIETARY INFORMATION THIS DRAWING IS THE PROPERTY OF CHIMAX INC. AND IS NOT TO BE LOANED OR REPRODUCED IN ANY WAY WITHOUT THE PERMISSION OF CHIMAX INC.					
REV				D/M/Y		ISS		ISSUED FOR	
DR				CHK		APP		APP	
J.C.				M.H.		J.C.		W.L.	
B				12/09/13		ISSUED FOR PERMIT		REF	
A				14/05/13		ISSUED FOR TENDER		NUMBER	
T				T		T		TITLE	
R				R		R		REFERENCES	



TYPICAL DETAILS FOR
POLE FOUNDATION TYPE C

GENERAL NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE PLAN AND PROFILE DRAWINGS (DWG#1235-3-P012), ANCHOR BOLT DRAWINGS AND STAKING INFORMATION.
2. FOR POLE FRAMING DETAILS, SEE DWG#1235-2-P3XX SERIES.
3. FOR ANCHOR BOLT DETAILS, SEE DWG#1235-3-F101 AND 102.
4. ALL DIMENSIONS AS SHOWN ARE METRIC IN MILLIMETERS U.N.O.

DESIGN ASSUMPTION

1. GROUND WATER LEVEL IS DESIGNED AT GRADE.
2. FROST DEPTH IS 1.2m (4') BELOW GRADE.
3. BASED ON THE INFORMATION ON BOREHOLE RECORD, THE FOLLOWING DESIGN PARAMETER AND ASSUMPTIONS ARE ADOPTED FOR THE FOUNDATION DESIGN:
 - A. FROM 0m TO 1.2m BELOW GRADE, ASSUMED LOOSE CONDITION WITH FRICTION ANGLE = 20 DEG.
 - B. FROM 1.2m TO 1.6m BELOW GRADE, AVERAGE PENETRATION INDEX 'N' = 8 (COHESIVE) FOR STRUCTURE B-N001 TO B-N027, AND 'N' = 5 (COHESIVE) FOR STRUCTURE B-N028 TO B-N082.
 - C. FROM 1.6m TO 2.4m BELOW GRADE, AVERAGE PENETRATION INDEX 'N' = 10 (COHESIVE).
 - D. FROM 2.4m BELOW GRADE, AVERAGE PENETRATION INDEX 'N' = 15 (COHESIVE).

FOUNDATION MATERIAL AND CONSTRUCTION NOTES

1. CONCRETE MATERIAL, DESIGN, TESTING AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH CSA STANDARD CAN 2-A23 SERIES.
2. CONCRETE SPECIFICATION
SUPPLY AND DELIVERY OF CONCRETE SHALL BE AS FOLLOWS:
 - A. MINIMUM COMPRESSIVE STRENGTH: 35 MPa AT 28 DAYS.
 - B. SPECIFICATIONS ON PORTLAND CEMENT: TYPE GU NORMAL PORTLAND CEMENT, EXPOSURE CLASS C-1.
 - C. 4%-7% AIR CONTENT.
 - D. MIN. 3 CYLINDERS TESTING WITH ONE AT 7 DAYS AND TWO AT 28 DAYS ARE REQUIRED UNLESS OTHERWISE SPECIFIED, MINIMUM CONCRETE COVER TO REINFORCEMENT SHALL BE AS FOLLOWS:
 - CONCRETE CAST AGAINST SOIL = 75mm
 - FORMED CONCRETE WITH DIRECT CONTACT TO SOIL = 50mm
 - CONCRETE SURFACE EXPOSED TO WEATHER = 50mm
3. REINFORCING STEEL SHALL BE DEFORMED STEEL BAR WITH MINIMUM YIELD STRENGTH OF 400 MPa (60PSI) AND CONFIRMING TO CSA G30.12 GR.400 EXCEPT TIES AND STIRRUPS WHICH SHALL BE GRADE 300.
4. MINIMUM SPLICES, LAPS AND HOOKS SHALL BE IN ACCORDANCE WITH CAN 3-A23.1
5. ALL OTHER STEEL MATERIAL SHALL BE CSA-G40.21-M300W U.N.O. AND SHALL BE HOT DIP GALVANIZED FINISH ACCORDING TO CSA-G164 U.N.O.
6. ALL EXCAVATIONS SHALL BE PERFORMED IN A MANNER THAT SHALL ENSURE PROPER DRAINAGE DURING THE COURSE OF WORK. FLOODED EXCAVATIONS SHALL BE DEWATERED AND ALL MUCK SHALL BE REMOVED BEFORE PROCEEDING WITH WORK. ALL EXCAVATIONS SHALL BE SUFFICIENTLY SUPPORTED TO PREVENT COLLAPSE.
7. AFTER EXCAVATION, EXPOSED SOIL SURFACES SHALL BE PROTECTED PRIOR TO CONCRETE CASTING. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADOPT PROPER CONSTRUCTION AND EXCAVATION METHOD BASED ON THE SOIL CONDITION FOUND ON SITE PRIOR TO THE PLACEMENT OF CONCRETE. BOTTOM OF FOUNDATIONS SHALL BE INSPECTED BY QUALIFIED GEOTECHNICAL PERSONNEL TO CONFIRM THAT THE SOIL PROPERTIES ARE CONSISTENT WITH THE GEOTECHNICAL INVESTIGATION REPORT AND DESIGN PARAMETERS BEFORE PLACING CONCRETE, CONTRACTOR SHALL VERIFY ANCHOR BOLTS AND LOCATIONS OF ALL MECHANICAL, UTILITY SERVICES FOR EMBEDDED ITEMS, HOLES, ETC.
8. PROPER VIBRATION METHODS SHALL BE USED DURING CONCRETING.
9. CONCRETE SHALL BE ADEQUATELY CURED BY ADDITIONAL MOISTURE AND/OR COVERED BY WATER RETAINING MATERIAL AFTER POURING.
10. ALL EXPOSED CONCRETE EDGES SHALL HAVE A 25mm CHAMFER.
11. ALL BACKFILL SURROUNDING FOUNDATIONS SHALL BE WELL GRADED PIT RUN GRAVEL THAT CONFORMS TO RECOMMENDED SPECIFICATIONS FOR GRANULAR MATERIALS IN THE GEOTECHNICAL REPORT AND SHALL BE COMPACTED TO 95% SPMD WITH MAX LIFT OF 300mm.
12. ALL BACKFILL UNDER FOUNDATIONS SHALL BE LEAN CONCRETE MIX OR GRANULAR B MATERIAL AND SHALL BE COMPACTED TO 100% SPMD WITH MAX LIFT OF 200mm.
13. SAFETY MEASURES SHALL BE PROVIDED AFTER EXCAVATION TO ENSURE WORKPLACE SAFETY.

NOT FOR CONSTRUCTION
DESIGN IN PROGRESS



Chimax Inc.
Engineering Company
3950 Fourteenth Ave. East, Suite 506
Markham, On. L3R 0A9
Email: chimax@chimax.ca

										APPROVED FOR CONSTRUCTION			AREA		JERICHO WIND PROJECT		CLIENT DWG. NO.	
										CLIENT PROJECT MGR. DEPARTMENT MGR. PROJECT MGR.			PROJECT PHASE		SUBJECT		DRAWING NO.	
										PROJECT NO.			ACTIVITY NO.		PACKAGE CODE		CLIENT DWG. NO.	
										SCALE			NTS (D-SIZE)		BY		D/M/Y	
										DSN. K.WONG			DRN. J.CHEN		13/05/13		13/05/13	
										1CCT 115kV TRANSMISSION LINE			POLE FOUNDATION TYPE C		1235-3-C004		REV. B	
										CADD FILE ADDRESS			1235-3-C004-B					

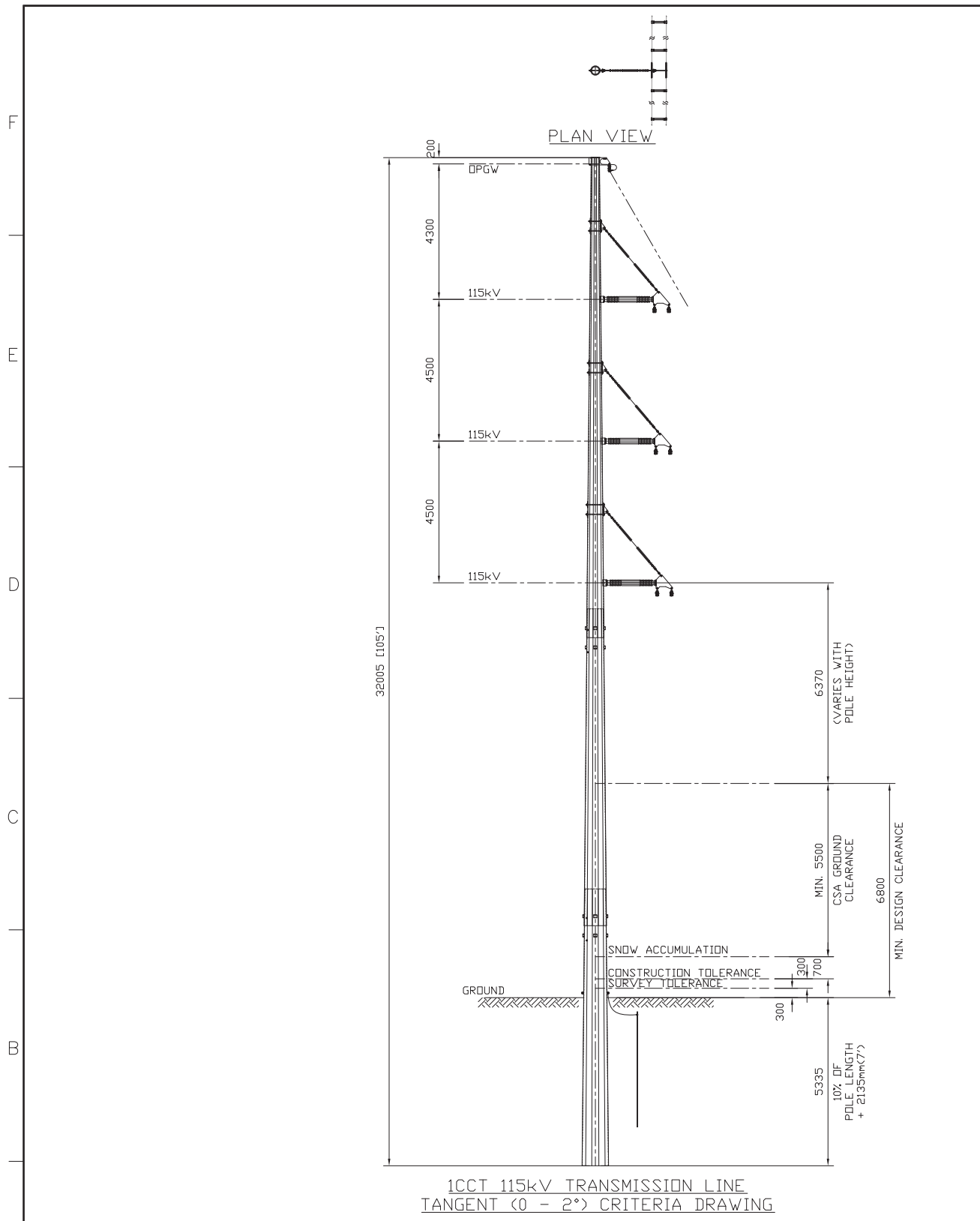
REV	D/M/Y	REVISION	DR	CHK	APP	APP	APP	ISS	D/M/Y	APP	ISSUED FOR
B	12/09/13	ISSUED FOR PERMIT						B	12/09/13		ISSUED FOR PERMIT
A	14/05/13	ISSUED FOR TENDER						A	14/05/13		ISSUED FOR TENDER

REF	NUMBER	TITLE

STAMP/SEAL
PROPRIETARY INFORMATION.
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Schedule B3

Jericho Transmission Pole Configurations



1CCT 115kV TRANSMISSION LINE
TANGENT (0 - 2°) CRITERIA DRAWING

DESIGN NOTES:

THE PROPOSED STRUCTURE FRAMING, POLE REQUIREMENT AND RECOMMENDATION STANDARD SPAN ARE BASED ON THE FOLLOWING DESIGN DATA:

- A. DESIGN CRITERIA**
- METEOROLOGICAL LOCATION: GODERICH
 - MINIMUM DESIGN LOADING
 - CSA 22.3 No.1 (LIMIT STATE DESIGN) - CSA HEAVY CONDITION
 - HOURLY WIND: 400 Pa
 - RADIAL ICE THICKNESS: 12.5 mm (1/2")
 - CONDUCTOR TEMPERATURE: -20°C
 - CSA 22.3 No.60826 (IEC RELIABILITY DESIGN) - 1/50 PERIOD
 - IEC ICE (1/50): 20 mm @ -10°C
 - IEC WIND (1/50): 111 km/h (582.77 Pa) @ -10°C
 - COMBINED ICE (85%) & WIND (60%): 17 mm & 349.66 Pa @ -10°C
- WIRE ADJUSTMENT MODELS & MATERIAL FACTORS AS PER CSA 22.3 No. 60826.
- B. CLEARANCE CRITERIA**
- MEAN ANNUAL SNOW ACCUMULATION: 0.7 m
 - ADDITIONAL SURVEY TOLERANCE: 0.3 m
 - ADDITIONAL CONSTRUCTION TOLERANCE: 0.3 m
 - VERTICAL GROUND CLEARANCE:
 - MINIMUM CSA 22.3 No.1 VERTICAL GROUND CLEARANCE: 5.50 m
 - DESIGN VERTICAL GROUND CLEARANCE: 6.80 m
 - VERTICAL GROUND CLEARANCE LOADING CONDITIONS
 - PHASE CONDUCTOR
 - MAXIMUM CONDUCTOR TEMPERATURE: 100°C
 - DESIGN CONDUCTOR TEMPERATURE (AS PER IEEE STD. 738): 12.5 mm (1/2")
 - RADIAL ICE THICKNESS (CLEARANCE): 12.5 mm (1/2")
 - PHASE CLEARANCE CONDITIONS:
 - HOURLY WIND (NATIONAL BUILDING CODE 1/50): 550 Pa (~108 km/hr)
 - HOURLY WIND (NATIONAL BUILDING CODE 1/30): 500 Pa (~103 km/hr)
 - GALLOPING:
 - GALLOPING SWING: 290 Pa
 - GALLOPING ICE: 12.5 mm (1/2")
- C. WIND POWER PROJECT CIRCUITS DATA**
- MERCHANT CIRCUIT(S)
 - NOMINAL SYSTEM VOLTAGE: 121 kV
 - NUMBER OF PHASES: 3 (THREE)
 - SYSTEM FREQUENCY: 60 Hz
 - NUMBER OF CIRCUIT: 1 (ONE)
 - MAXIMUM CIRCUIT CURRENT: 2696A
 - PHASE CONDUCTOR SIZE: 2 x 1351.5MCM ACSR (DIPPER)
 - DESIGN CONDUCTOR TEMPERATURE: 100°C

REV	D/M/Y	REVISION	DR	CHK	APP	APP	APP	ISS	D/M/Y	APP	ISSUED FOR	REF	NUMBER	TITLE	REFERENCES
C	17/07/13	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION	J.C.	M.H.				C	17/07/13		ISSUED FOR LEAVE TO CONSTRUCT APPLICATION				
B	22/11/12	ISSUED FOR REVIEW	J.C.	M.H.				B	22/11/12		ISSUED FOR REVIEW				
A	12/09/12	ISSUED FOR REVIEW	D.M.	E.K.				A	12/09/12		ISSUED FOR REVIEW				

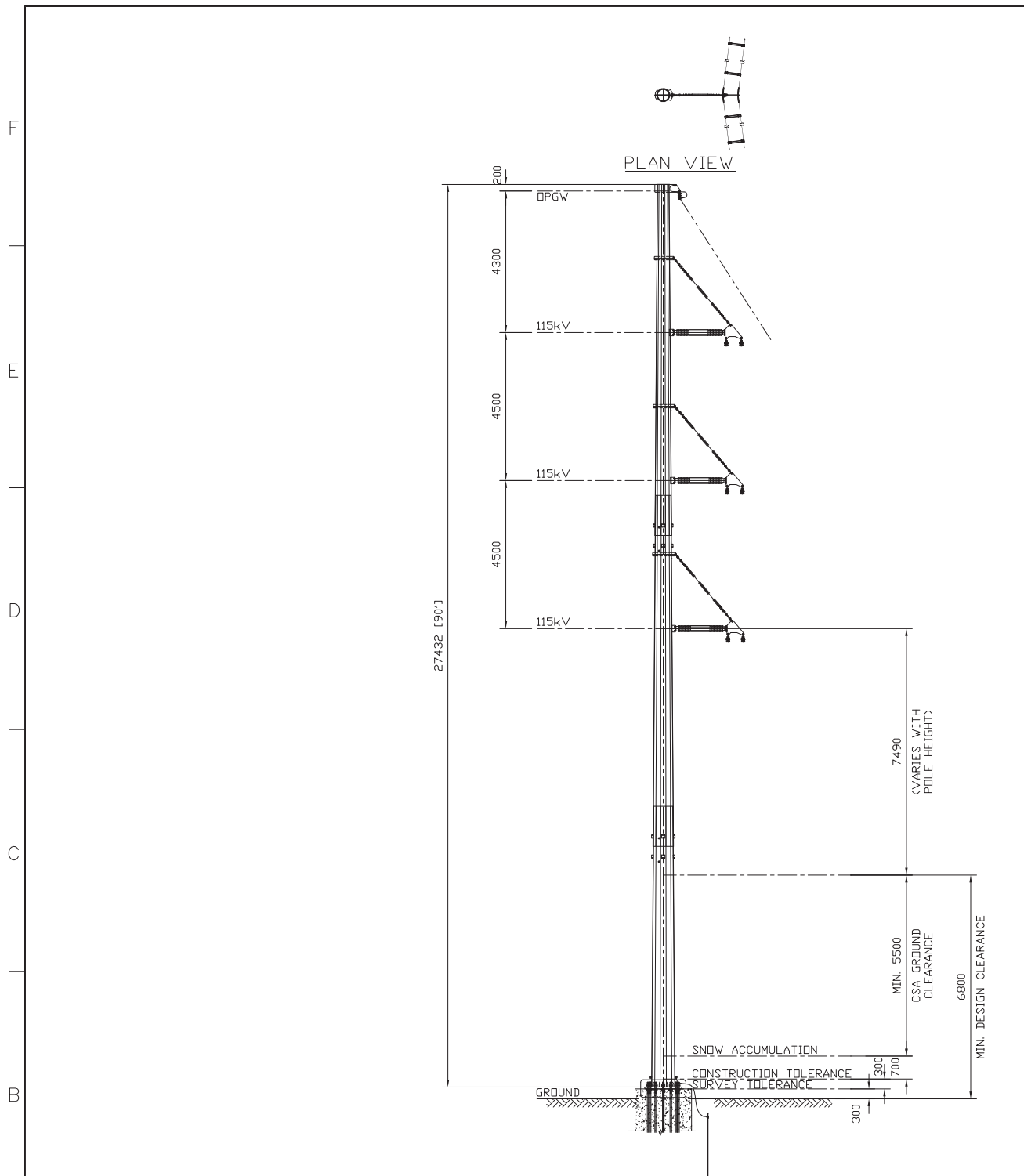
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APPROVED FOR CONSTRUCTION		
CLIENT PROJECT MGR.	DEPARTMENT MGR.	PROJECT MGR.
PROJECT PHASE		AREA
		NEXTERA 5-PACK TRANSMISSION LINE
PROJECT NO.	ACTIVITY NO.	PACKAGE CODE
SCALE		BY
N.T.S. (11"x17")		D.M.
DRN.	D.MAO	D/M/Y
		11/09/12

SUBJECT	
1CCT 115kV TRANSMISSION LINE DOUBLE CONDUCTOR CONFIGURATION TANGENT (0 - 2°) CRITERIA DRAWING	



CLIENT DWG. NO.	
DRAWING NO.	1235-3-P310A
REV.	C
CADD FILE ADDRESS	1235-3-P310A-C



1CCT 115kV TRANSMISSION LINE
LIGHT ANGLE (2 - 15°) CRITERIA DRAWING

DESIGN NOTES:

THE PROPOSED STRUCTURE FRAMING, POLE REQUIREMENT AND RECOMMENDATION STANDARD SPAN ARE BASED ON THE FOLLOWING DESIGN DATA:

- A. DESIGN CRITERIA**
- METEOROLOGICAL LOCATION: GODERICH
 - MINIMUM DESIGN LOADING
 - CSA 22.3 No.1 (LIMIT STATE DESIGN) - CSA HEAVY CONDITION
 - HOURLY WIND: 400 Pa
 - RADIAL ICE THICKNESS: 12.5 mm (1/2")
 - CONDUCTOR TEMPERATURE: -20°C
 - CSA 22.3 No.60826 (IEC RELIABILITY DESIGN) - 1/50 PERIOD
 - IEC ICE (1/50): 20 mm @ -10°C
 - IEC WIND (1/50): 111 km/h (582.77 Pa) @ -10°C
 - COMBINED ICE (85%) & WIND (60%): 17 mm & 349.66 Pa @ -10°C
- WIRE ADJUSTMENT MODELS & MATERIAL FACTORS AS PER CSA 22.3 No. 60826.
- B. CLEARANCE CRITERIA**
- MEAN ANNUAL SNOW ACCUMULATION: 0.7 m
 - ADDITIONAL SURVEY TOLERANCE: 0.3 m
 - ADDITIONAL CONSTRUCTION TOLERANCE: 0.3 m
 - VERTICAL GROUND CLEARANCE:
 - MINIMUM CSA 22.3 No.1 VERTICAL GROUND CLEARANCE: 5.50 m
 - DESIGN VERTICAL GROUND CLEARANCE: 6.80 m
 - VERTICAL GROUND CLEARANCE LOADING CONDITIONS
 - PHASE CONDUCTOR
 - MAXIMUM CONDUCTOR TEMPERATURE: 100°C
 - DESIGN CONDUCTOR TEMPERATURE (AS PER IEEE STD. 738): 12.5 mm (1/2")
 - RADIAL ICE THICKNESS (CLEARANCE): 12.5 mm (1/2")
 - PHASE CLEARANCE CONDITIONS:
 - HOURLY WIND (NATIONAL BUILDING CODE 1/50): 550 Pa (-108 km/hr)
 - HOURLY WIND (NATIONAL BUILDING CODE 1/30): 500 Pa (-103 km/hr)
 - GALLOPING
 - GALLOPING SWING: 290 Pa
 - GALLOPING ICE: 12.5 mm (1/2")
- C. WIND POWER PROJECT CIRCUITS DATA**
- MERCHANT CIRCUIT(S)
 - NOMINAL SYSTEM VOLTAGE: 121 kV
 - NUMBER OF PHASES: 3 (THREE)
 - SYSTEM FREQUENCY: 60 Hz
 - NUMBER OF CIRCUIT: 1 (ONE)
 - MAXIMUM CIRCUIT CURRENT: 2696A
 - PHASE CONDUCTOR SIZE: 2 x 1351.5MCM ACSR (DIPPER)
 - DESIGN CONDUCTOR TEMPERATURE: 100°C

REV	D/M/Y	REVISION	DR	CHK	APP	APP	APP	ISS	D/M/Y	APP	ISSUED FOR	REF	NUMBER	TITLE	REFERENCES
C	17/07/13	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION	J.C.	M.H.					C	17/07/13	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION				
B	22/11/12	ISSUED FOR REVIEW	J.C.	M.H.					B	22/11/12	ISSUED FOR REVIEW				
A	12/09/12	ISSUED FOR REVIEW	D.M.	E.K.					A	12/09/12	ISSUED FOR REVIEW				

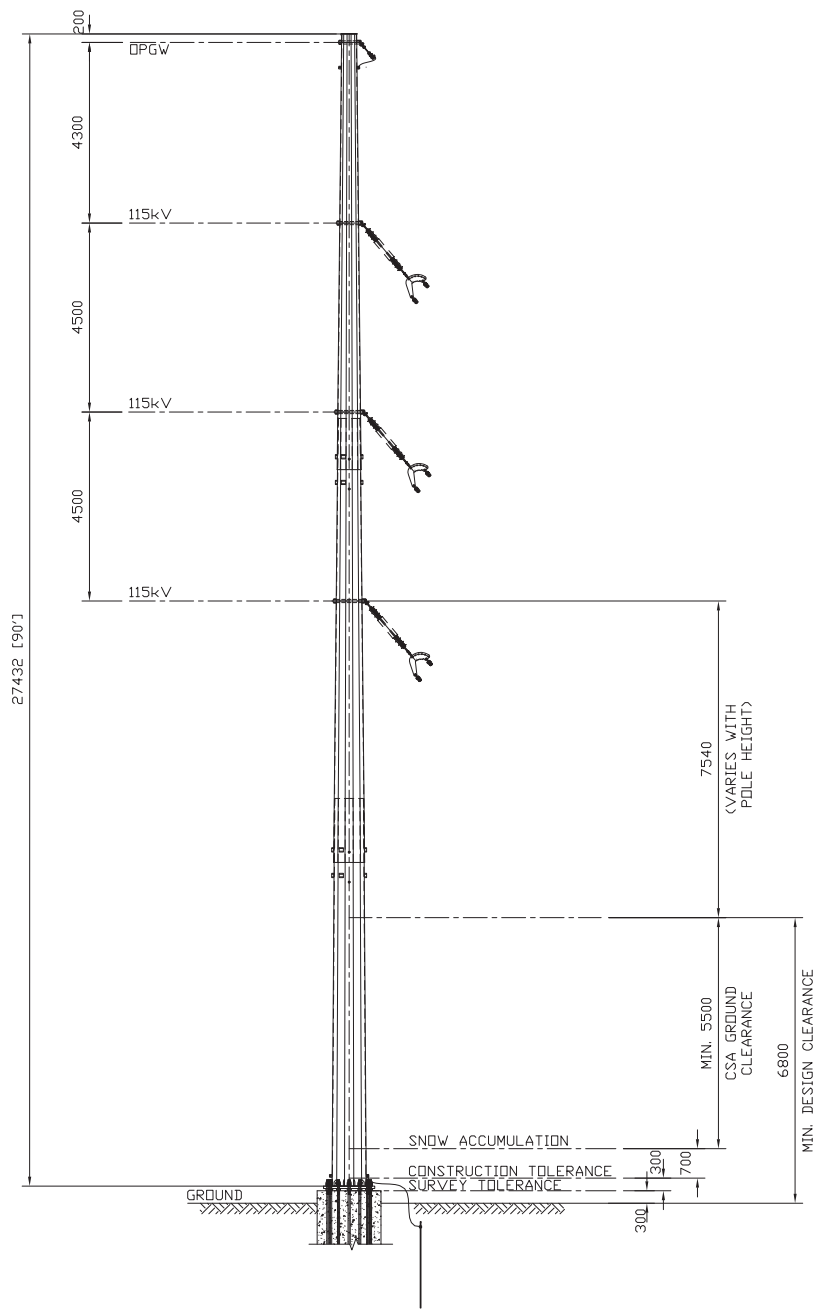
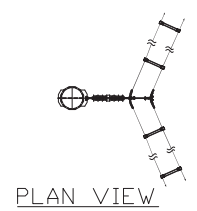
STAMP/SEAL
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APPROVED FOR CONSTRUCTION		
CLIENT PROJECT MGR.	DEPARTMENT MGR.	PROJECT MGR.
PROJECT PHASE		AREA
		NEXTERA 5-PACK TRANSMISSION LINE
PROJECT NO.	ACTIVITY NO.	PACKAGE CODE
SCALE		BY
N.T.S. (11"x17")		D.M.
		D/M/Y
		11/09/12

SUBJECT	
1CCT 115kV TRANSMISSION LINE DOUBLE CONDUCTOR CONFIGURATION LIGHT ANGLE (2 - 15°) CRITERIA DRAWING	



CLIENT DWG. NO.	
DRAWING NO.	1235-3-P311A
REV.	C
CADD FILE ADDRESS	1235-3-P311A-C



1CCT 115kV TRANSMISSION LINE
MEDIUM ANGLE (15 - 45°) CRITERIA DRAWING

DESIGN NOTES:

THE PROPOSED STRUCTURE FRAMING, POLE REQUIREMENT AND RECOMMENDATION STANDARD SPAN ARE BASED ON THE FOLLOWING DESIGN DATA:

- A. DESIGN CRITERIA**
- METEOROLOGICAL LOCATION: GODERICH
 - MINIMUM DESIGN LOADING
 - CSA 22.3 No.1 (LIMIT STATE DESIGN) - CSA HEAVY CONDITION
 - HOURLY WIND: 400 Pa
 - RADIAL ICE THICKNESS: 12.5 mm (1/2")
 - CONDUCTOR TEMPERATURE: -20°C
 - CSA 22.3 No.60826 (IEC RELIABILITY DESIGN) - 1/50 PERIOD
 - IEC ICE (1/50): 20 mm @ -10°C
 - IEC WIND (1/50): 111 km/h (582.77 Pa) @ -10°C
 - COMBINED ICE (85%) & WIND (60%): 17 mm & 349.66 Pa @ -10°C
- WIRE ADJUSTMENT MODELS & MATERIAL FACTORS AS PER CSA 22.3 No. 60826.
- B. CLEARANCE CRITERIA**
- MEAN ANNUAL SNOW ACCUMULATION: 0.7 m
 - ADDITIONAL SURVEY TOLERANCE: 0.3 m
 - ADDITIONAL CONSTRUCTION TOLERANCE: 0.3 m
 - VERTICAL GROUND CLEARANCE:
 - MINIMUM CSA 22.3 No.1 VERTICAL GROUND CLEARANCE: 5.50 m
 - DESIGN VERTICAL GROUND CLEARANCE: 6.80 m
 - VERTICAL GROUND CLEARANCE LOADING CONDITIONS
 - PHASE CONDUCTOR
 - MAXIMUM CONDUCTOR TEMPERATURE: 100°C
 - DESIGN CONDUCTOR TEMPERATURE (AS PER IEEE STD. 738): 12.5 mm (1/2")
 - RADIAL ICE THICKNESS (CLEARANCE): 12.5 mm (1/2")
 - PHASE CLEARANCE CONDITIONS:
 - HOURLY WIND (NATIONAL BUILDING CODE 1/50): 550 Pa (~108 km/hr)
 - HOURLY WIND (NATIONAL BUILDING CODE 1/30): 500 Pa (~103 km/hr)
 - GALLOPING
 - GALLOPING SWING: 290 Pa
 - GALLOPING ICE: 12.5 mm (1/2")
- C. WIND POWER PROJECT CIRCUITS DATA**
- MERCHANT CIRCUIT(S)
 - NOMINAL SYSTEM VOLTAGE: 121 kV
 - NUMBER OF PHASES: 3 (THREE)
 - SYSTEM FREQUENCY: 60 Hz
 - NUMBER OF CIRCUIT: 1 (ONE)
 - MAXIMUM CIRCUIT CURRENT: 2696A
 - PHASE CONDUCTOR SIZE: 2 x 1351.5MCM ACSR (DIPPER)
 - DESIGN CONDUCTOR TEMPERATURE: 100°C

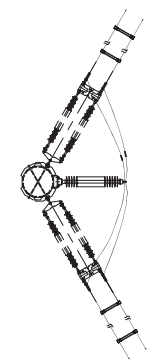


REV	D/M/Y	REVISION	DR	CHK	APP	APP	APP	APP	ISS	D/M/Y	APP	ISSUED FOR	REF	NUMBER	TITLE	REFERENCES
C	17/07/13	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION	J.C.	M.H.						C	17/07/13	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION				
B	22/11/12	ISSUED FOR REVIEW	J.C.	M.H.						B	22/11/12	ISSUED FOR REVIEW				
A	12/09/12	ISSUED FOR REVIEW	D.M.	E.K.						A	12/09/12	ISSUED FOR REVIEW				

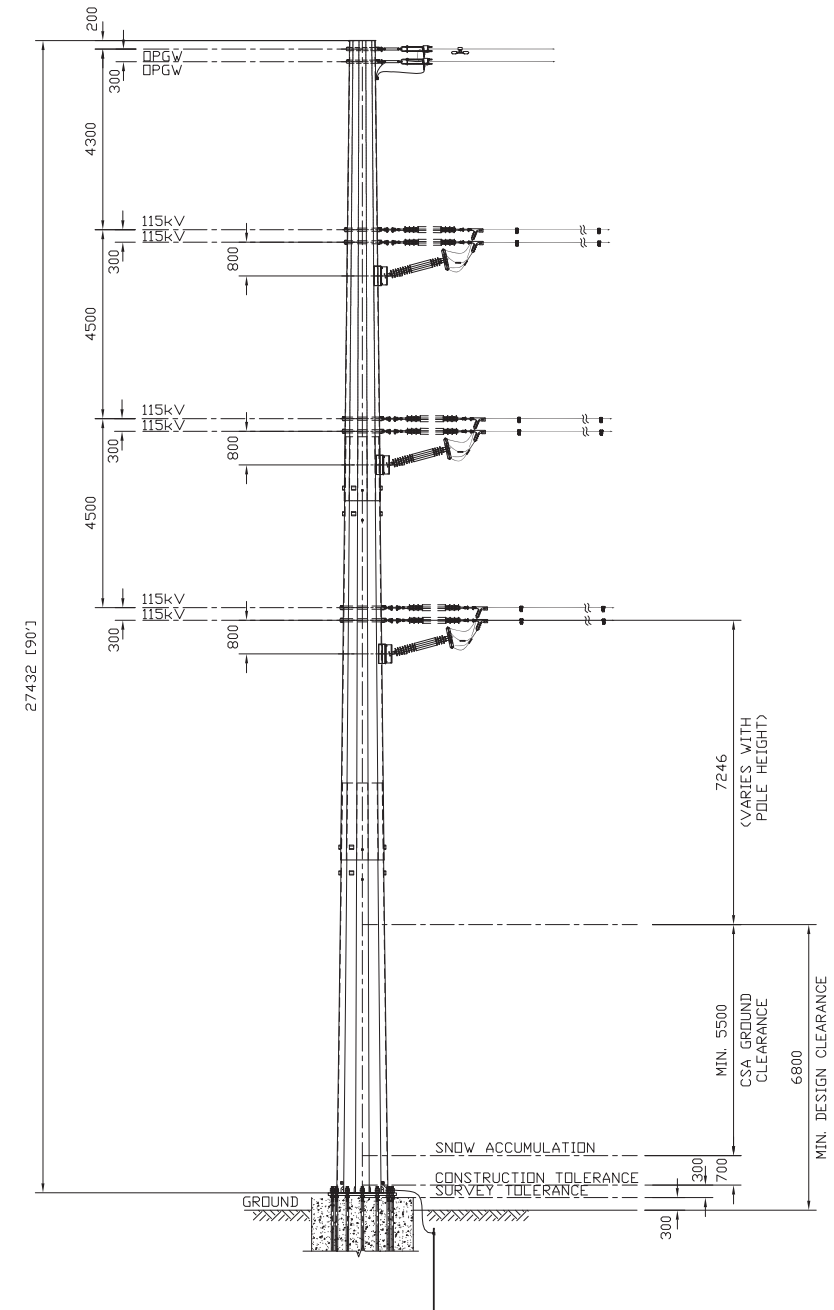
APPROVED FOR CONSTRUCTION

CLIENT PROJECT MGR.	DEPARTMENT MGR.	PROJECT MGR.	AREA	NEXTERA 5-PACK TRANSMISSION LINE
PROJECT NO.	ACTIVITY NO.	PACKAGE CODE	SUBJECT 1CCT 115kV TRANSMISSION LINE DOUBLE CONDUCTOR CONFIGURATION MEDIUM ANGLE (15 - 45°) CRITERIA DRAWING	
SCALE N.T.S. (11"x17")	BY DSN. E.KWONG DRN. D.MAO	D/M/Y 11/09/12 11/09/12	CLIENT DWG. NO.	
STAMP/SEAL PROPRIETARY INFORMATION: THIS DRAWING IS THE PROPERTY OF CHIMAX INC. AND IS NOT TO BE LOANED OR REPRODUCED IN ANY WAY WITHOUT THE PERMISSION OF CHIMAX INC.			DRAWING NO. 1235-3-P313A	REV. C

CADD FILE ADDRESS
1235-3-P313A-C



PLAN VIEW



1CCT 115kV TRANSMISSION LINE
HEAVY ANGLE (45 - 60°) CRITERIA DRAWING

DESIGN NOTES:

THE PROPOSED STRUCTURE FRAMING, POLE REQUIREMENT AND RECOMMENDATION STANDARD SPAN ARE BASED ON THE FOLLOWING DESIGN DATA:

- A. DESIGN CRITERIA**
1. METEOROLOGICAL LOCATION: GODERICH
 2. MINIMUM DESIGN LOADING
 - 2.1. CSA 22.3 No.1 (LIMIT STATE DESIGN) - CSA HEAVY CONDITION
 - HOURLY WIND: 400 Pa
 - RADIAL ICE THICKNESS: 12.5 mm (1/2")
 - CONDUCTOR TEMPERATURE: -20°C
 - 2.2. CSA 22.3 No.60826 (IEC RELIABILITY DESIGN) - 1/50 PERIOD
 - (i) IEC ICE (1/50): 20 mm @ -10°C
 - (ii) IEC WIND (1/50): 111 km/h (582.77 Pa) @ -10°C
 - (iii) COMBINED ICE (85%) & WIND (60%): 17 mm & 349.66 Pa @ -10°C
- B. CLEARANCE CRITERIA**
1. MEAN ANNUAL SNOW ACCUMULATION: 0.7 m
 2. ADDITIONAL SURVEY TOLERANCE: 0.3 m
 3. ADDITIONAL CONSTRUCTION TOLERANCE: 0.3 m
 4. VERTICAL GROUND CLEARANCE:
 - 4.1. MINIMUM CSA 22.3 No.1 VERTICAL GROUND CLEARANCE: 5.50 m
 - 4.2. DESIGN VERTICAL GROUND CLEARANCE: 6.80 m
 5. VERTICAL GROUND CLEARANCE LOADING CONDITIONS
 - 5.1. PHASE CONDUCTOR
 - (i) MAXIMUM CONDUCTOR TEMPERATURE: 100°C
 - (ii) DESIGN CONDUCTOR TEMPERATURE (AS PER IEEE STD. 738): 12.5 mm (1/2")
 - (iii) RADIAL ICE THICKNESS (CLEARANCE): 12.5 mm (1/2")
 6. PHASE CLEARANCE CONDITIONS:
 - (i) HOURLY WIND (NATIONAL BUILDING CODE 1/50): 550 Pa (~108 km/hr)
 - (ii) HOURLY WIND (NATIONAL BUILDING CODE 1/30): 500 Pa (~103 km/hr)
 - (iii) GALLOPING
 - GALLOPING SWING: 290 Pa
 - GALLOPING ICE: 12.5 mm (1/2")
- C. WIND POWER PROJECT CIRCUITS DATA**
1. MERCHANT CIRCUIT(S)
 - 1.1. NOMINAL SYSTEM VOLTAGE: 121 kV
 - 1.2. NUMBER OF PHASES: 3 (THREE)
 - 1.3. SYSTEM FREQUENCY: 60 Hz
 - 1.4. NUMBER OF CIRCUIT: 1 (ONE)
 - 1.5. MAXIMUM CIRCUIT CURRENT: 2696A
 - 1.6. PHASE CONDUCTOR SIZE: 2 x 1351.5MCM ACSR (DIPPER)
 - 1.7. DESIGN CONDUCTOR TEMPERATURE: 100°C

REV	D/M/Y	REVISION	DR	CHK	APP	APP	APP	ISS	D/M/Y	APP	ISSUED FOR	REF	NUMBER	TITLE	REFERENCES
C	17/07/13	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION		J.C.	M.H.				C	17/07/13	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION				
B	22/11/12	ISSUED FOR REVIEW		J.C.	M.H.				B	22/11/12	ISSUED FOR REVIEW				
A	12/09/12	ISSUED FOR REVIEW		D.M.	E.K.				A	12/09/12	ISSUED FOR REVIEW				

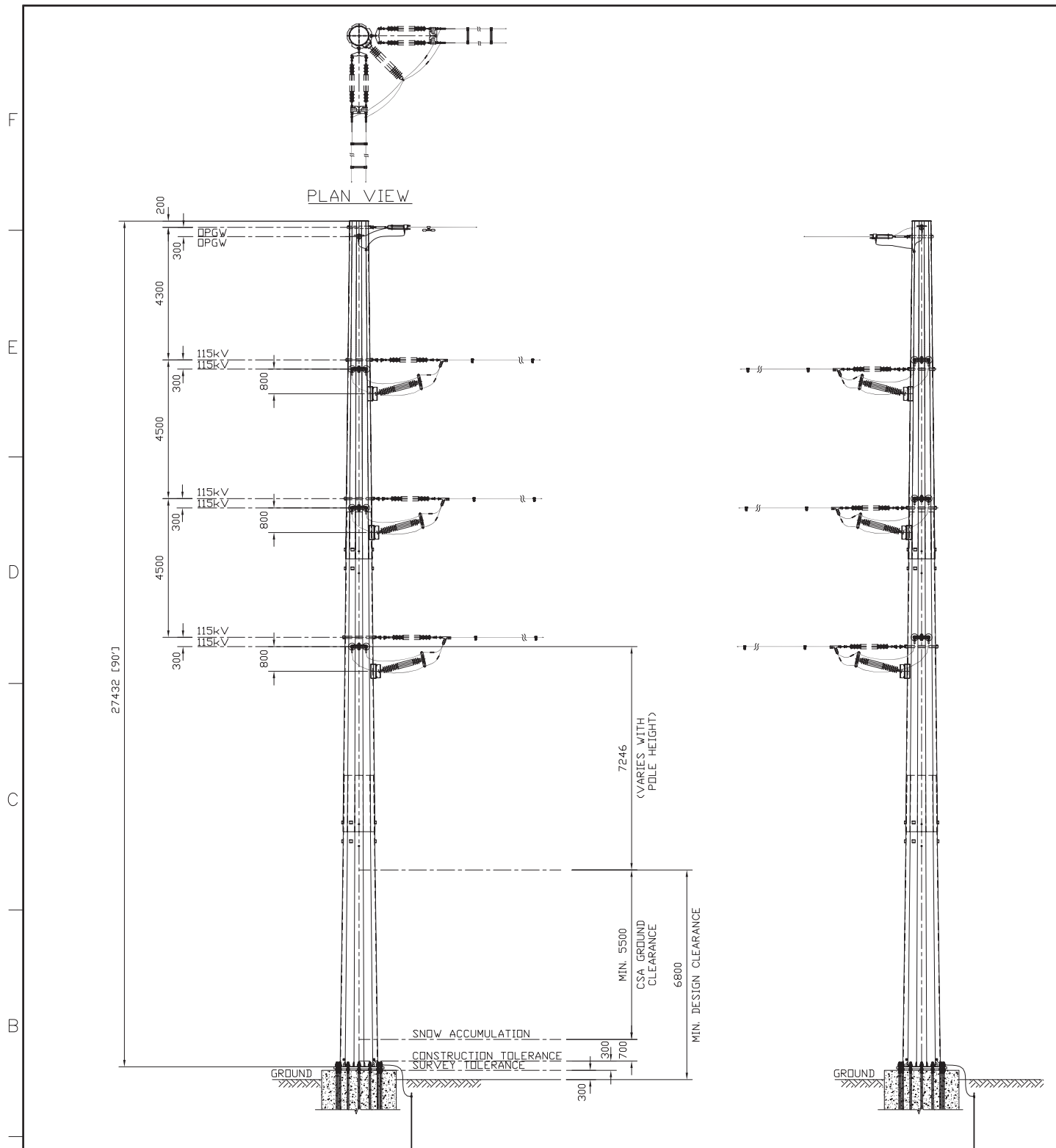
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APPROVED FOR CONSTRUCTION		
CLIENT PROJECT MGR.	DEPARTMENT MGR.	PROJECT MGR.
PROJECT PHASE		AREA
PROJECT NO.	ACTIVITY NO.	PACKAGE CODE
SCALE		BY
N.T.S. (11"x17")		D/M/Y
DSN.	E.KWONG	11/09/12
DRN.	D.MAO	11/09/12

SUBJECT	
1CCT 115kV TRANSMISSION LINE DOUBLE CONDUCTOR CONFIGURATION HEAVY ANGLE (45 - 60°) CRITERIA DRAWING	



CLIENT DWG. NO.	
DRAWING NO.	1235-3-P314A
REV.	C
CADD FILE ADDRESS	1235-3-P314A-C



1CCT 115kV TRANSMISSION LINE
HEAVY ANGLE (60 - 90°) CRITERIA DRAWING

DESIGN NOTES:
THE PROPOSED STRUCTURE FRAMING, POLE REQUIREMENT AND RECOMMENDATION STANDARD SPAN ARE BASED ON THE FOLLOWING DESIGN DATA:

- A. DESIGN CRITERIA**
- METEOROLOGICAL LOCATION: GODERICH
 - MINIMUM DESIGN LOADING
 - CSA 22.3 No.1 (LIMIT STATE DESIGN) - CSA HEAVY CONDITION
 - HOURLY WIND: 400 Pa
 - RADIAL ICE THICKNESS: 12.5 mm (1/2")
 - CONDUCTOR TEMPERATURE: -20°C
 - CSA 22.3 No.60826 (IEC RELIABILITY DESIGN) - 1/50 PERIOD
 - IEC ICE (1/50): 20 mm @ -10°C
 - IEC WIND (1/50): 111 km/h (582.77 Pa) @ -10°C
 - COMBINED ICE (85%) & WIND (60%): 17 mm & 349.66 Pa @ -10°C
- WIRE ADJUSTMENT MODELS & MATERIAL FACTORS AS PER CSA 22.3 No. 60826.
- B. CLEARANCE CRITERIA**
- MEAN ANNUAL SNOW ACCUMULATION: 0.7 m
 - ADDITIONAL SURVEY TOLERANCE: 0.3 m
 - ADDITIONAL CONSTRUCTION TOLERANCE: 0.3 m
 - VERTICAL GROUND CLEARANCE:
 - MINIMUM CSA 22.3 No.1 VERTICAL GROUND CLEARANCE: 5.50 m
 - DESIGN VERTICAL GROUND CLEARANCE: 6.80 m
 - VERTICAL GROUND CLEARANCE LOADING CONDITIONS
 - PHASE CONDUCTOR
 - MAXIMUM CONDUCTOR TEMPERATURE: 100°C
 - DESIGN CONDUCTOR TEMPERATURE (AS PER IEEE STD. 738): 12.5 mm (1/2")
 - RADIAL ICE THICKNESS (CLEARANCE): 12.5 mm (1/2")
 - PHASE CLEARANCE CONDITIONS:
 - HOURLY WIND (NATIONAL BUILDING CODE 1/50): 550 Pa (~108 km/hr)
 - HOURLY WIND (NATIONAL BUILDING CODE 1/30): 500 Pa (~103 km/hr)
 - GALLOPING
 - GALLOPING SWING: 290 Pa
 - GALLOPING ICE: 12.5 mm (1/2")
- C. WIND POWER PROJECT CIRCUITS DATA**
- MERCHANT CIRCUIT(S)
 - NOMINAL SYSTEM VOLTAGE: 121 kV
 - NUMBER OF PHASES: 3 (THREE)
 - SYSTEM FREQUENCY: 60 Hz
 - NUMBER OF CIRCUIT: 1 (ONE)
 - MAXIMUM CIRCUIT CURRENT: 2696A
 - PHASE CONDUCTOR SIZE: 2 x 1351.5MCM ACSR (DIPPER)
 - DESIGN CONDUCTOR TEMPERATURE: 100°C

REV	D/M/Y	REVISION	DR	CHK	APP	APP	APP	APP	ISS	D/M/Y	APP	ISSUED FOR	REF	NUMBER	TITLE	REFERENCES
C	17/07/13	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION	J.C.	M.H.					C	17/07/13		ISSUED FOR LEAVE TO CONSTRUCT APPLICATION				
B	22/11/12	ISSUED FOR REVIEW	J.C.	M.H.					B	22/11/12		ISSUED FOR REVIEW				
A	12/09/12	ISSUED FOR REVIEW	D.M.	E.K.					A	12/09/12		ISSUED FOR REVIEW				

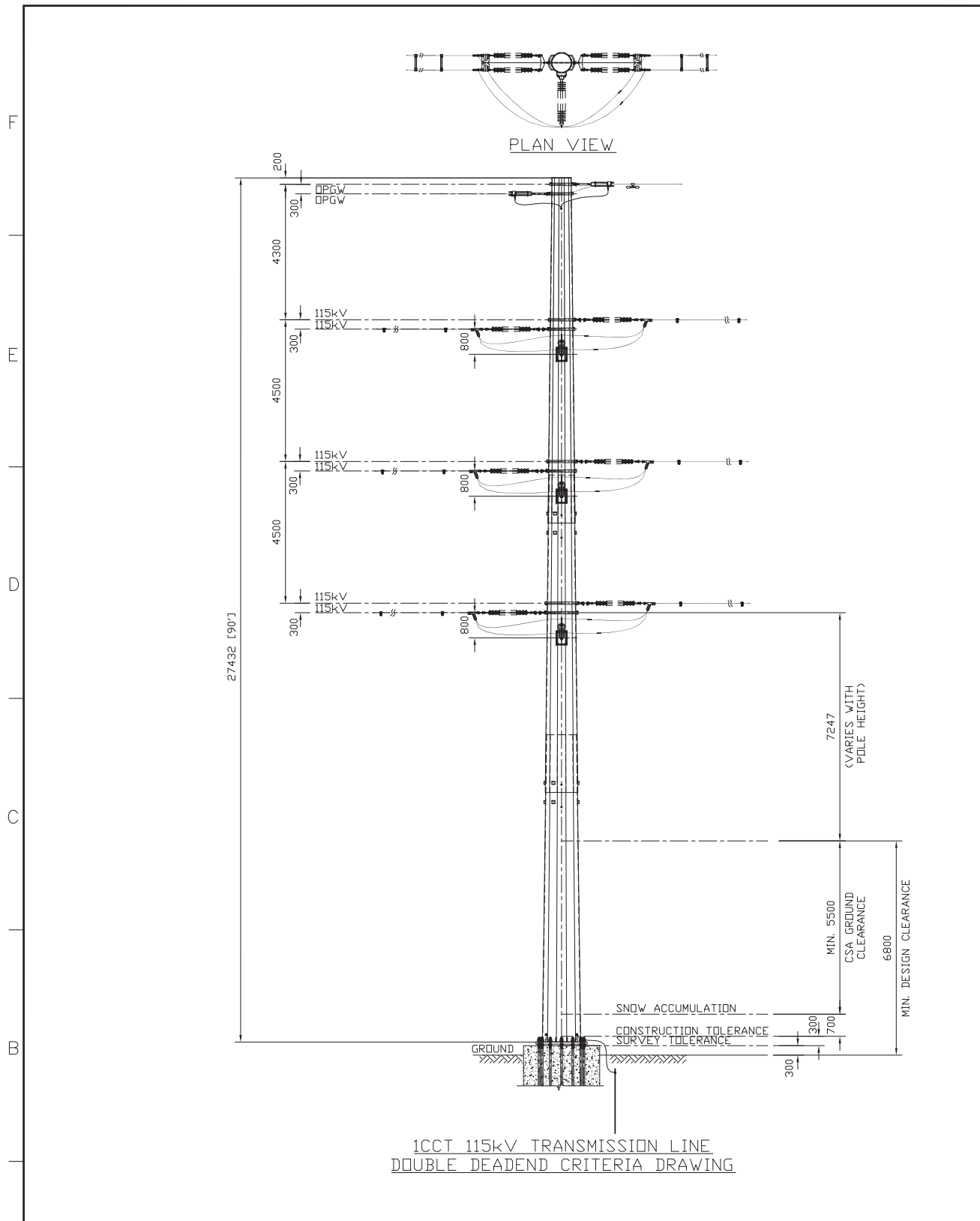
STAMP/SEAL
PROPRIETARY INFORMATION:
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APPROVED FOR CONSTRUCTION		
CLIENT PROJECT MGR.	DEPARTMENT MGR.	PROJECT MGR.
PROJECT PHASE		AREA
PROJECT NO.		ACTIVITY NO.
PACKAGE CODE		D/M/Y
DSN.	E.KWONG	11/09/12
DRN.	D.MAO	11/09/12

CLIENT DWG. NO.	1CCT 115kV TRANSMISSION LINE DOUBLE CONDUCTOR CONFIGURATION HEAVY ANGLE (60 - 90°) CRITERIA DRAWING
DRAWING NO.	1235-3-P315A
REV.	C



CADD FILE ADDRESS
1235-3-P315A-C



DESIGN NOTES:

THE PROPOSED STRUCTURE FRAMING, POLE REQUIREMENT AND RECOMMENDATION STANDARD SPAN ARE BASED ON THE FOLLOWING DESIGN DATA:

- A. DESIGN CRITERIA**
- | | |
|--|------------------------------|
| 1. METEOROLOGICAL LOCATION: | GODERICH |
| 2. MINIMUM DESIGN LOADING | |
| 2.1. CSA 22.3 No.1 (LIMIT STATE DESIGN) - CSA HEAVY CONDITION | 400 Pa |
| HOURLY WIND | 12.5 mm (1/2") |
| RADIAL ICE THICKNESS | -20°C |
| CONDUCTOR TEMPERATURE | |
| 2.2. CSA 22.3 No.60826 (IEC RELIABILITY DESIGN) - 1/50 PERIOD | |
| (i) IEC ICE (1/50) | 20 mm @ -10°C |
| (ii) IEC WIND (1/50) | 111 km/h (582.77 Pa) @ -10°C |
| (iii) COMBINED ICE (85%) & WIND (60%) | 17 mm & 349.66 Pa @ -10°C |
| WIRE ADJUSTMENT MODELS & MATERIAL FACTORS AS PER CSA 22.3 No. 60826. | |
- B. CLEARANCE CRITERIA**
- | | |
|--|---------------------|
| 1. MEAN ANNUAL SNOW ACCUMULATION: | 0.7 m |
| 2. ADDITIONAL SURVEY TOLERANCE: | 0.3 m |
| 3. ADDITIONAL CONSTRUCTION TOLERANCE: | 0.3 m |
| 4. VERTICAL GROUND CLEARANCE: | |
| 4.1. MINIMUM CSA 22.3 No.1 VERTICAL GROUND CLEARANCE | 5.50 m |
| 115kV / 138kV CONDUCTOR | |
| 4.2. DESIGN VERTICAL GROUND CLEARANCE | 6.80 m |
| 115kV / 138kV CONDUCTOR | |
| 5. VERTICAL GROUND CLEARANCE LOADING CONDITIONS | |
| 5.1. PHASE CONDUCTOR | |
| (i) MAXIMUM CONDUCTOR TEMPERATURE | 100°C |
| (ii) DESIGN CONDUCTOR TEMPERATURE (AS PER IEEE STD. 738) | |
| (iii) RADIAL ICE THICKNESS (CLEARANCE) | 12.5 mm (1/2") |
| 6. PHASE CLEARANCE CONDITIONS: | |
| (i) HOURLY WIND (NATIONAL BUILDING CODE 1/50) | 550 Pa (~108 km/hr) |
| (ii) HOURLY WIND (NATIONAL BUILDING CODE 1/30) | 500 Pa (~103 km/hr) |
| (iii) GALLOPING | |
| GALLOPING SWING | 290 Pa |
| GALLOPING ICE | 12.5 mm (1/2") |
- C. WIND POWER PROJECT CIRCUITS DATA**
- | | |
|-----------------------------------|-----------------------------|
| 1. MERCHANT CIRCUIT(S) | |
| 1.1. NOMINAL SYSTEM VOLTAGE | 121 kV |
| 1.2. NUMBER OF PHASES | 3 (THREE) |
| 1.3. SYSTEM FREQUENCY | 60 Hz |
| 1.4. NUMBER OF CIRCUIT | 1 (ONE) |
| 1.5. MAXIMUM CIRCUIT CURRENT | 2696A |
| 1.6. PHASE CONDUCTOR SIZE | 2 x 1351.5MCM ACSR (DIPPER) |
| 1.7. DESIGN CONDUCTOR TEMPERATURE | 100°C |

REV		17/07/13	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION			J.C.	M.H.																								
D/M/Y						DR	CHK	APP	APP	APP	ISS	D/M/Y	APP	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION			REF	NUMBER	TITLE	REFERENCES											

STAMP/SEAL

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APPROVED FOR CONSTRUCTION			
CLIENT PROJECT MGR.	DEPARTMENT MGR.	PROJECT MGR.	AREA
			NEXTERA 5-PACK TRANSMISSION LINE
PROJECT NO.	ACTIVITY NO.	PACKAGE CODE	SUBJECT
			1CCT 115kV TRANSMISSION LINE DOUBLE DEADEND CRITERIA DRAWING
SCALE	BY	D/M/Y	
N.T.S. (11"x17")	DSN. E.KWONG DRN. J.CHEN	15/07/13 15/07/13	



Chimax Inc.

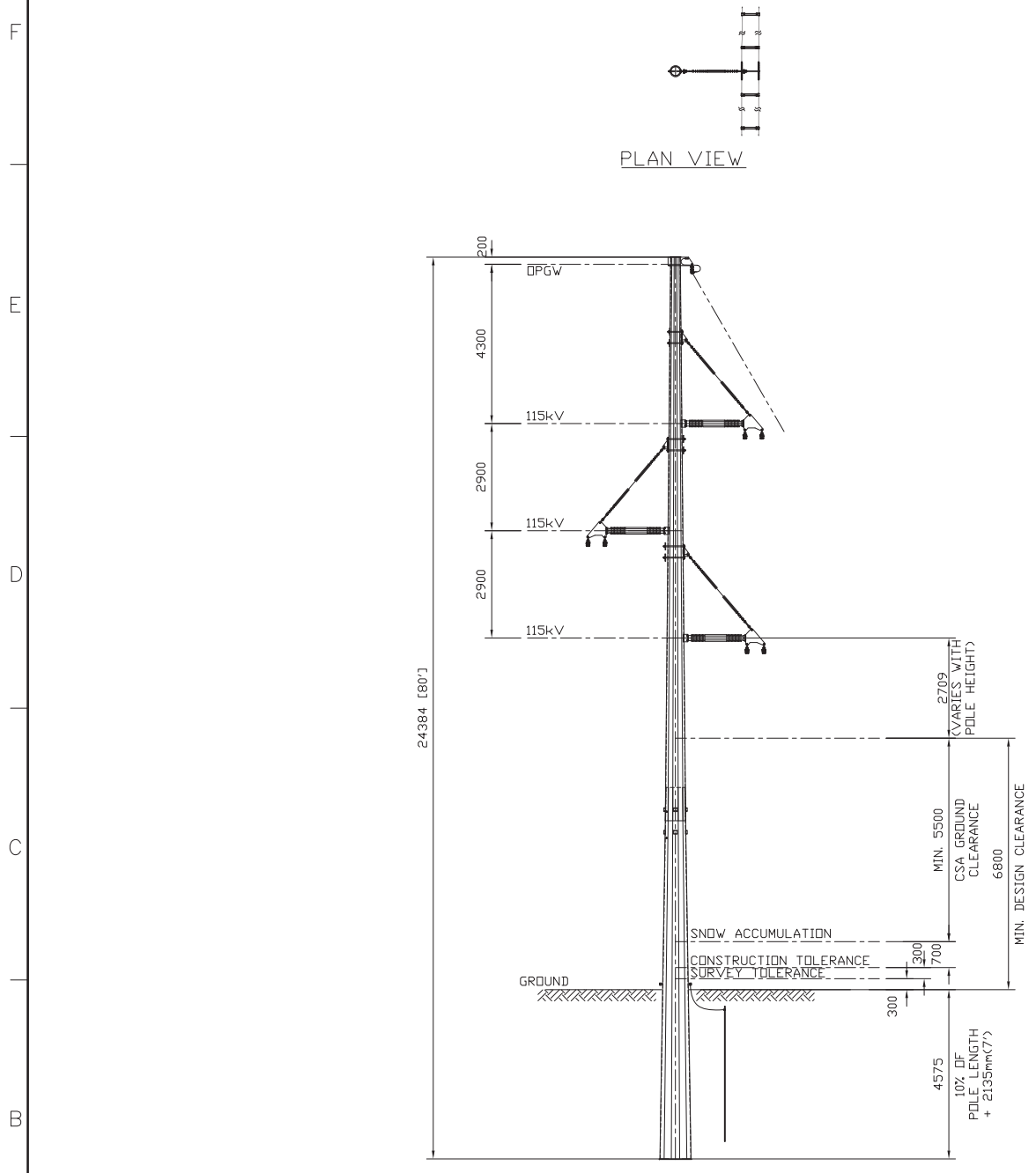
Engineering Company
3950 Fourteenth Ave. East, Suite 508
Markham, On. L3R 0A9
Email: chimax@chimax.ca

CLIENT DWG. NO.

DRAWING NO.
1235-3-P316A

REV.
A

CADD FILE ADDRESS
1235-3-P316A-A



1CCT 115kV TRANSMISSION LINE
TANGENT (0 - 2°) TRIANGULAR CONFIGURATION CRITERIA DRAWING

- DESIGN NOTES:**
- THE PROPOSED STRUCTURE FRAMING, POLE REQUIREMENT AND RECOMMENDATION STANDARD SPAN ARE BASED ON THE FOLLOWING DESIGN DATA:
- A. DESIGN CRITERIA**
- METEOROLOGICAL LOCATION: GODERICH
 - MINIMUM DESIGN LOADING
 - CSA 22.3 No.1 (LIMIT STATE DESIGN) - CSA HEAVY CONDITION
 - HOURLY WIND: 400 Pa
 - RADIAL ICE THICKNESS: 12.5 mm (1/2")
 - CONDUCTOR TEMPERATURE: -20°C
 - CSA 22.3 No.60826 (IEC RELIABILITY DESIGN) - 1/50 PERIOD
 - IEC ICE (1/50): 20 mm @ -10°C
 - IEC WIND (1/50): 111 km/h (582.77 Pa) @ -10°C
 - COMBINED ICE (85%) & WIND (60%): 17 mm & 349.66 Pa @ -10°C
- WIRE ADJUSTMENT MODELS & MATERIAL FACTORS AS PER CSA 22.3 No. 60826.
- B. CLEARANCE CRITERIA**
- MEAN ANNUAL SNOW ACCUMULATION: 0.7 m
 - ADDITIONAL SURVEY TOLERANCE: 0.3 m
 - ADDITIONAL CONSTRUCTION TOLERANCE: 0.3 m
 - VERTICAL GROUND CLEARANCE:
 - MINIMUM CSA 22.3 No.1 VERTICAL GROUND CLEARANCE: 5.50 m
 - DESIGN VERTICAL GROUND CLEARANCE: 6.80 m
 - VERTICAL GROUND CLEARANCE LOADING CONDITIONS
 - PHASE CONDUCTOR
 - MAXIMUM CONDUCTOR TEMPERATURE: 100°C
 - DESIGN CONDUCTOR TEMPERATURE (AS PER IEEE STD. 738): 12.5 mm (1/2")
 - RADIAL ICE THICKNESS (CLEARANCE): 12.5 mm (1/2")
 - PHASE CLEARANCE CONDITIONS:
 - HOURLY WIND (NATIONAL BUILDING CODE 1/50): 550 Pa (~108 km/hr)
 - HOURLY WIND (NATIONAL BUILDING CODE 1/30): 500 Pa (~103 km/hr)
 - GALLOPING
 - GALLOPING SWING: 290 Pa
 - GALLOPING ICE: 12.5 mm (1/2")
- C. WIND POWER PROJECT CIRCUITS DATA**
- MERCHANT CIRCUIT(S)
 - NOMINAL SYSTEM VOLTAGE: 121 kV
 - NUMBER OF PHASES: 3 (THREE)
 - SYSTEM FREQUENCY: 60 Hz
 - NUMBER OF CIRCUIT: 1 (ONE)
 - MAXIMUM CIRCUIT CURRENT: 2696A
 - PHASE CONDUCTOR SIZE: 2 x 1351.5MCM ACSR (DIPPER)
 - DESIGN CONDUCTOR TEMPERATURE: 100°C

REV	D/M/Y	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION	J.C.	M.R.	DR	CHK	APP	APP	APP	APP	ISS	D/M/Y	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION	REF	NUMBER	TITLE
A	17/07/13	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION										17/07/13	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION			

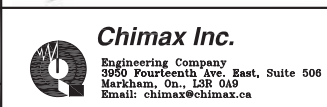
APPROVED FOR CONSTRUCTION

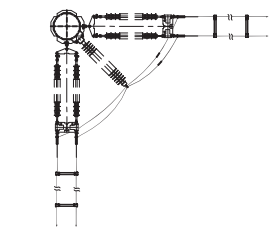
CLIENT PROJECT MGR.	DEPARTMENT MGR.	PROJECT MGR.	AREA	NEXTERA 5-PACK TRANSMISSION LINE
PROJECT NO.	ACTIVITY NO.	PACKAGE CODE	SUBJECT	
			1CCT 115kV TRANSMISSION LINE DOUBLE CONDUCTOR CONFIGURATION TANGENT (0 - 2°) TRIANGULAR CONFIGURATION CRITERIA DRAWING	
SCALE	BY	D/M/Y	CLIENT DWG. NO.	
N.T.S. (11"x17")	DSN. E.KWONG	15/07/13	DRAWING NO. 1235-3-P318A	
	DRN. J.CHEN	15/07/13	REV. A	

STAMP/SEAL

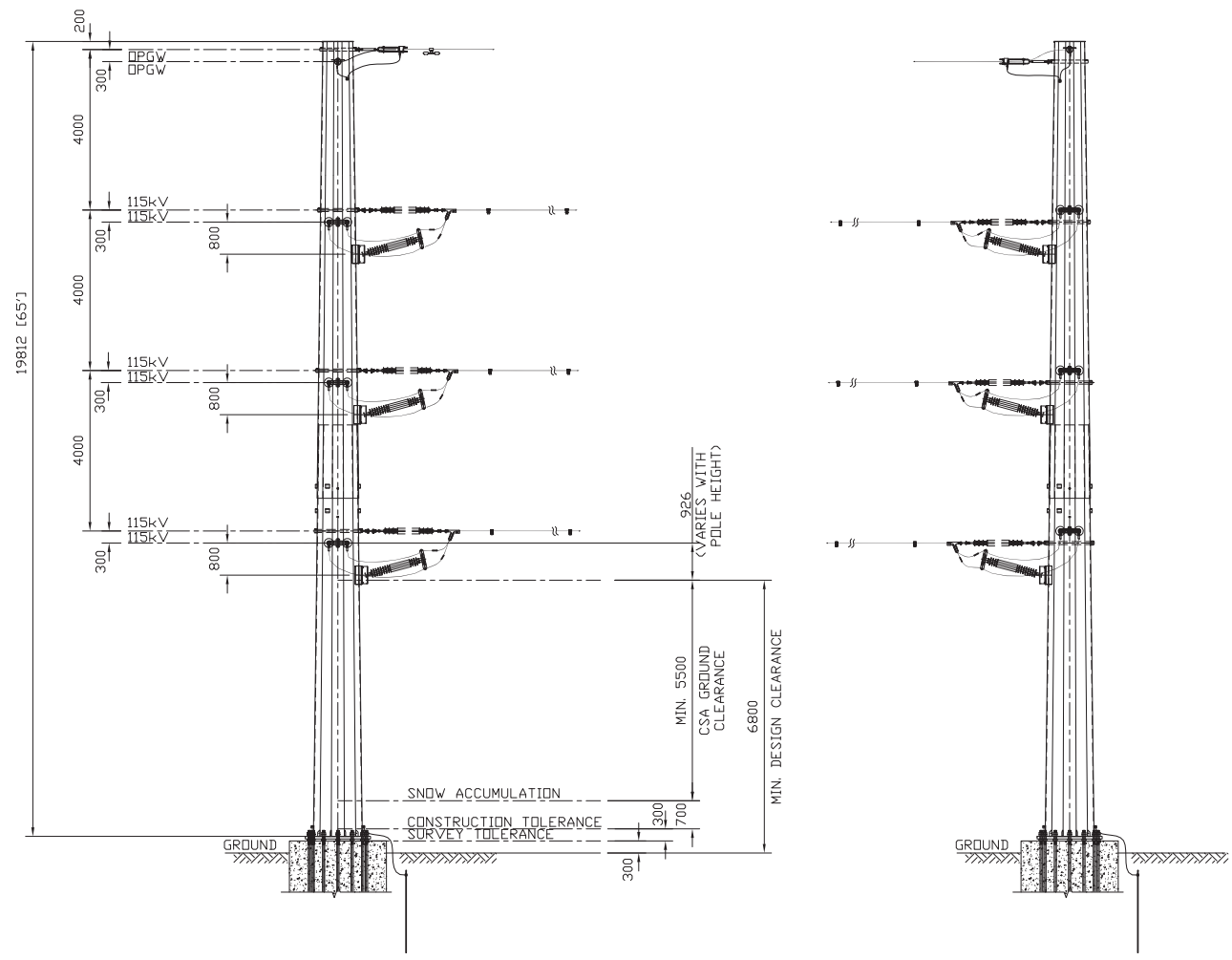
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CADD FILE ADDRESS
1235-3-P318A-A





PLAN VIEW



1CCT 115kV TRANSMISSION LINE
HEAVY ANGLE (60 - 90°) CRITERIA DRAWING
(4M SEPARATION)

DESIGN NOTES:

THE PROPOSED STRUCTURE FRAMING, POLE REQUIREMENT AND RECOMMENDATION STANDARD SPAN ARE BASED ON THE FOLLOWING DESIGN DATA:

- A. DESIGN CRITERIA**
1. METEOROLOGICAL LOCATION: GODERICH
 2. MINIMUM DESIGN LOADING
 - 2.1. CSA 22.3 No.1 (LIMIT STATE DESIGN) - CSA HEAVY CONDITION

HOURLY WIND	400 Pa
RADIAL ICE THICKNESS	12.5 mm (1/2")
CONDUCTOR TEMPERATURE	-20°C
 - 2.2. CSA 22.3 No.60826 (IEC RELIABILITY DESIGN) - 1/50 PERIOD

(i) IEC ICE (1/50)	20 mm @ -10°C
(ii) IEC WIND (1/50)	111 km/h (582.77 Pa) @ -10°C
(iii) COMBINED ICE (85%) & WIND (60%)	17 mm & 349.66 Pa @ -10°C
- WIRE ADJUSTMENT MODELS & MATERIAL FACTORS AS PER CSA 22.3 No. 60826.
- B. CLEARANCE CRITERIA**
1. MEAN ANNUAL SNOW ACCUMULATION: 0.7 m
 2. ADDITIONAL SURVEY TOLERANCE: 0.3 m
 3. ADDITIONAL CONSTRUCTION TOLERANCE: 0.3 m
 4. VERTICAL GROUND CLEARANCE:
 - 4.1. MINIMUM CSA 22.3 No.1 VERTICAL GROUND CLEARANCE
115kV / 138kV CONDUCTOR: 5.50 m
 - 4.2. DESIGN VERTICAL GROUND CLEARANCE
115kV / 138kV CONDUCTOR: 6.80 m
 5. VERTICAL GROUND CLEARANCE LOADING CONDITIONS
 - 5.1. PHASE CONDUCTOR

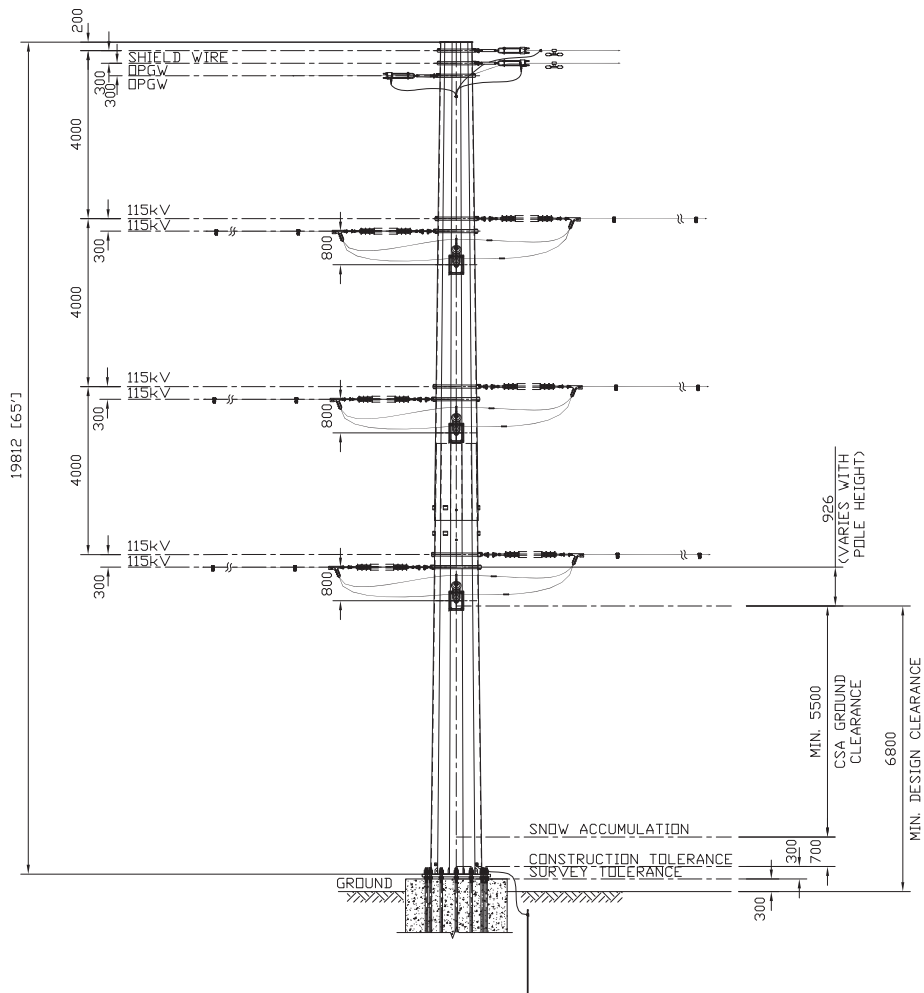
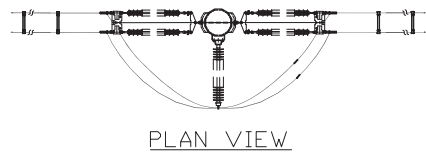
(i) MAXIMUM CONDUCTOR TEMPERATURE	100°C
(ii) DESIGN CONDUCTOR TEMPERATURE (AS PER IEEE STD. 738)	
(iii) RADIAL ICE THICKNESS (CLEARANCE)	12.5 mm (1/2")
 6. PHASE CLEARANCE CONDITIONS:

(i) HOURLY WIND (NATIONAL BUILDING CODE 1/50)	550 Pa (~108 km/hr)
(ii) HOURLY WIND (NATIONAL BUILDING CODE 1/30)	500 Pa (~103 km/hr)
(iii) GALLOPING	
GALLOPING SWING	290 Pa
GALLOPING ICE	12.5 mm (1/2")
- C. WIND POWER PROJECT CIRCUITS DATA**
1. MERCHANT CIRCUIT(S)
 - 1.1. NOMINAL SYSTEM VOLTAGE: 121 kV
 - 1.2. NUMBER OF PHASES: 3 (THREE)
 - 1.3. SYSTEM FREQUENCY: 60 Hz
 - 1.4. NUMBER OF CIRCUIT: 1 (ONE)
 - 1.5. MAXIMUM CIRCUIT CURRENT: 2696A
 - 1.6. PHASE CONDUCTOR SIZE: 2 x 1351.5MCM ACSR (DIPPER)
 - 1.7. DESIGN CONDUCTOR TEMPERATURE: 100°C



REV	D/M/Y	REVISION	J.C.	M.H.	DR	CHK	APP	APP	APP	APP	ISS	D/M/Y	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION	REF	NUMBER	TITLE
A	17/07/13	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION										17/07/13	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION			

APPROVED FOR CONSTRUCTION					
CLIENT PROJECT MGR.		DEPARTMENT MGR.		PROJECT MGR.	
PROJECT PHASE			AREA		
			NEXTERA 5-PACK TRANSMISSION LINE		
PROJECT NO.	ACTIVITY NO.	PACKAGE CODE		SUBJECT	
				1CCT 115kV TRANSMISSION LINE DOUBLE CONDUCTOR CONFIGURATION HEAVY ANGLE (60 - 90°) CRITERIA DRAWING (4M SEPARATION)	
SCALE		BY		D/M/Y	
N.T.S. (11"x17")		DSN. E.KWONG		17/05/13	
		DRN. J.CHEN		17/05/13	
STAMP/SEAL				CLIENT DWG. NO.	
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				1235-3-P319A	
				REV.	
				A	
CADD FILE ADDRESS					
1235-2-P319A-A					



1CCT 115kV TRANSMISSION LINE
DOUBLE DEADEND CRITERIA DRAWING
(FOR BORNISH STATION TAP)

DESIGN NOTES:

THE PROPOSED STRUCTURE FRAMING, POLE REQUIREMENT AND RECOMMENDATION STANDARD SPAN ARE BASED ON THE FOLLOWING DESIGN DATA:

- A. DESIGN CRITERIA**
- METEOROLOGICAL LOCATION: GODERICH
 - MINIMUM DESIGN LOADING
 - CSA 22.3 No.1 (LIMIT STATE DESIGN) - CSA HEAVY CONDITION
 - HOURLY WIND: 400 Pa
 - RADIAL ICE THICKNESS: 12.5 mm (1/2")
 - CONDUCTOR TEMPERATURE: -20°C
 - CSA 22.3 No.60826 (IEC RELIABILITY DESIGN) - 1/50 PERIOD
 - IEC ICE (1/50): 20 mm @ -10°C
 - IEC WIND (1/50): 111 km/h (582.77 Pa) @ -10°C
 - COMBINED ICE (85%) & WIND (60%): 17 mm & 349.66 Pa @ -10°C
- WIRE ADJUSTMENT MODELS & MATERIAL FACTORS AS PER CSA 22.3 No. 60826.
- B. CLEARANCE CRITERIA**
- MEAN ANNUAL SNOW ACCUMULATION: 0.7 m
 - ADDITIONAL SURVEY TOLERANCE: 0.3 m
 - ADDITIONAL CONSTRUCTION TOLERANCE: 0.3 m
 - VERTICAL GROUND CLEARANCE:
 - MINIMUM CSA 22.3 No.1 VERTICAL GROUND CLEARANCE 115kV / 138kV CONDUCTOR: 5.50 m
 - DESIGN VERTICAL GROUND CLEARANCE 115kV / 138kV CONDUCTOR: 6.80 m
 - VERTICAL GROUND CLEARANCE LOADING CONDITIONS
 - PHASE CONDUCTOR
 - MAXIMUM CONDUCTOR TEMPERATURE: 100°C
 - DESIGN CONDUCTOR TEMPERATURE (AS PER IEEE STD. 738): 100°C
 - RADIAL ICE THICKNESS (CLEARANCE): 12.5 mm (1/2")
 - PHASE CLEARANCE CONDITIONS:
 - HOURLY WIND (NATIONAL BUILDING CODE 1/50): 550 Pa (~108 km/hr)
 - HOURLY WIND (NATIONAL BUILDING CODE 1/30): 500 Pa (~103 km/hr)
 - GALLOPING
 - GALLOPING SWING: 290 Pa
 - GALLOPING ICE: 12.5 mm (1/2")
- C. WIND POWER PROJECT CIRCUITS DATA**
- MERCHANT CIRCUIT(S)
 - NOMINAL SYSTEM VOLTAGE: 121 kV
 - NUMBER OF PHASES: 3 (THREE)
 - SYSTEM FREQUENCY: 60 Hz
 - NUMBER OF CIRCUIT: 1 (ONE)
 - MAXIMUM CIRCUIT CURRENT: 2696A
 - PHASE CONDUCTOR SIZE: 2 x 1351.5MCM ACSR (DIPPER)
 - DESIGN CONDUCTOR TEMPERATURE: 100°C



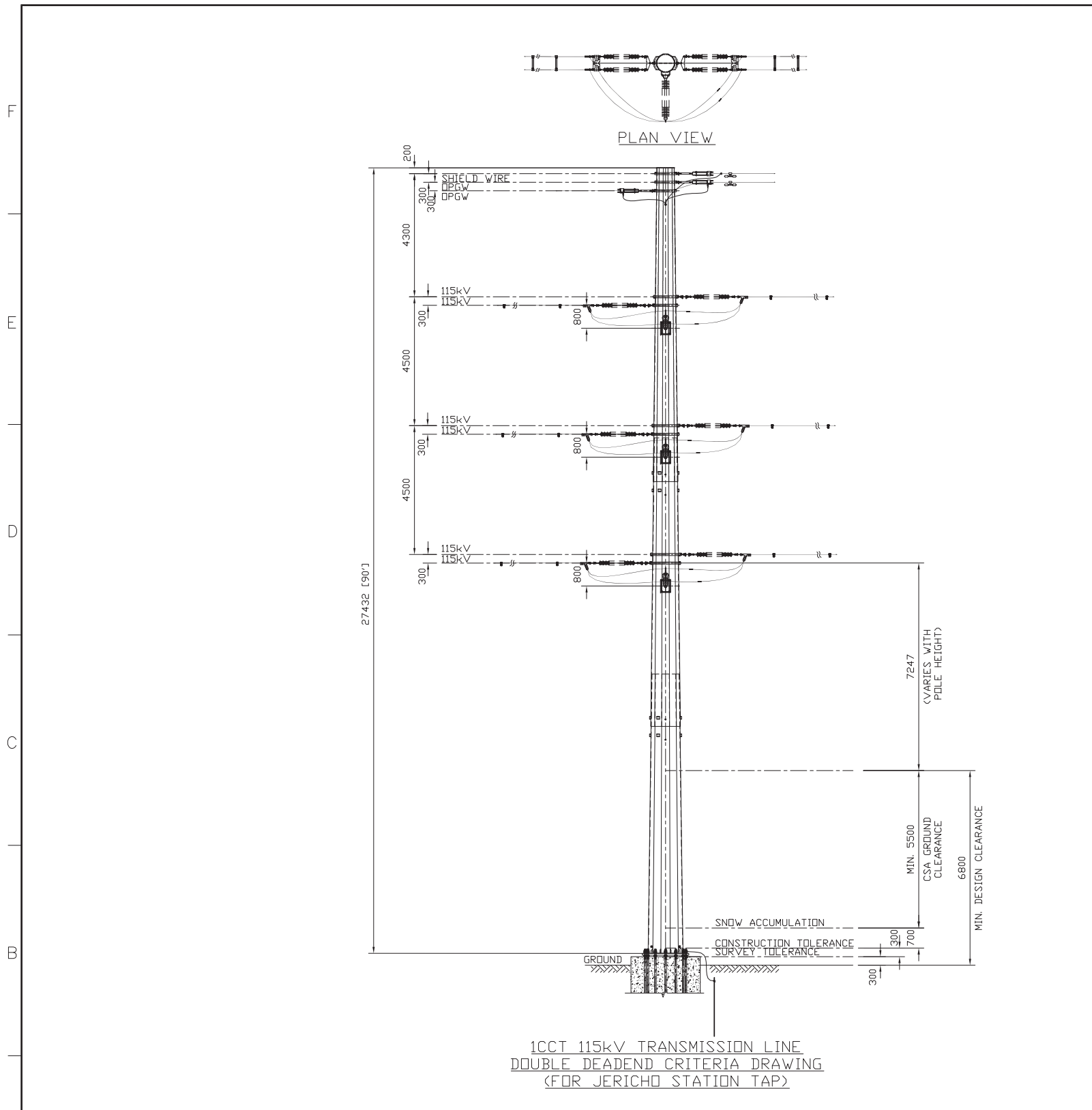
Chimax Inc.
Engineering Company
9850 Fourteenth Ave. East, Suite 508
Markham, On. L3R 0A9
Email: chimax@chimax.ca

REV	D/M/Y	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION	J.C.	M.H.	DR	CHK	APP	APP	APP	APP	ISS	D/M/Y	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION	REF	NUMBER	TITLE
A	17/07/13	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION										17/07/13	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION			

STAMP/SEAL
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WITHOUT THE PERMISSION OF CHIMAX INC.

APPROVED FOR CONSTRUCTION			AREA	
CLIENT PROJECT MGR.	DEPARTMENT MGR.	PROJECT MGR.	NEXTERA 5-PACK TRANSMISSION LINE	
PROJECT NO.	ACTIVITY NO.	PACKAGE CODE	SUBJECT	
			1CCT 115kV TRANSMISSION LINE DOUBLE CONDUCTOR CONFIGURATION DOUBLE DEADEND CRITERIA DRAWING (FOR BORNISH STATION TAP)	
SCALE	BY	D/M/Y		
N.T.S. (11"x17")	DSN. E.KWONG	15/07/13		
	DRN. J.CHEN	15/07/13		

CLIENT DWG. NO.	REV.
	A
DRAWING NO.	
1235-3-P320A	
CADD FILE ADDRESS	
1235-3-P320A-A	



1CCT 115kV TRANSMISSION LINE
DOUBLE DEADEND CRITERIA DRAWING
(FOR JERICHO STATION TAP)

DESIGN NOTES:

THE PROPOSED STRUCTURE FRAMING, POLE REQUIREMENT AND RECOMMENDATION STANDARD SPAN ARE BASED ON THE FOLLOWING DESIGN DATA:

- A. DESIGN CRITERIA**
- METEOROLOGICAL LOCATION: GODERICH
 - MINIMUM DESIGN LOADING
 - CSA 22.3 No.1 (LIMIT STATE DESIGN) - CSA HEAVY CONDITION
 - HOURLY WIND: 400 Pa
 - RADIAL ICE THICKNESS: 12.5 mm (1/2")
 - CONDUCTOR TEMPERATURE: -20°C
 - CSA 22.3 No.60826 (IEC RELIABILITY DESIGN) - 1/50 PERIOD
 - IEC ICE (1/50): 20 mm @ -10°C
 - IEC WIND (1/50): 111 km/h (582.77 Pa) @ -10°C
 - COMBINED ICE (85%) & WIND (60%): 17 mm & 349.66 Pa @ -10°C
- WIRE ADJUSTMENT MODELS & MATERIAL FACTORS AS PER CSA 22.3 No. 60826.
- B. CLEARANCE CRITERIA**
- MEAN ANNUAL SNOW ACCUMULATION: 0.7 m
 - ADDITIONAL SURVEY TOLERANCE: 0.3 m
 - ADDITIONAL CONSTRUCTION TOLERANCE: 0.3 m
 - VERTICAL GROUND CLEARANCE:
 - MINIMUM CSA 22.3 No.1 VERTICAL GROUND CLEARANCE: 5.50 m
 - DESIGN VERTICAL GROUND CLEARANCE: 6.80 m
 - VERTICAL GROUND CLEARANCE LOADING CONDITIONS
 - PHASE CONDUCTOR
 - MAXIMUM CONDUCTOR TEMPERATURE: 100°C
 - DESIGN CONDUCTOR TEMPERATURE (AS PER IEEE STD. 738): 12.5 mm (1/2")
 - RADIAL ICE THICKNESS (CLEARANCE): 12.5 mm (1/2")
 - PHASE CLEARANCE CONDITIONS:
 - HOURLY WIND (NATIONAL BUILDING CODE 1/50): 550 Pa (~108 km/hr)
 - HOURLY WIND (NATIONAL BUILDING CODE 1/30): 500 Pa (~103 km/hr)
 - GALLOPING
 - GALLOPING SWING: 290 Pa
 - GALLOPING ICE: 12.5 mm (1/2")
- C. WIND POWER PROJECT CIRCUITS DATA**
- MERCHANT CIRCUIT(S)
 - NOMINAL SYSTEM VOLTAGE: 121 kV
 - NUMBER OF PHASES: 3 (THREE)
 - SYSTEM FREQUENCY: 60 Hz
 - NUMBER OF CIRCUIT: 1 (ONE)
 - MAXIMUM CIRCUIT CURRENT: 2696A
 - PHASE CONDUCTOR SIZE: 2 x 1351.5MCM ACSR (DIPPER)
 - DESIGN CONDUCTOR TEMPERATURE: 100°C

REV	D/M/Y	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION	J.C.	M.H.	DR	CHK	APP	APP	APP	ISS	D/M/Y	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION	REF	NUMBER	TITLE
A	17/07/13	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION									17/07/13	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION			

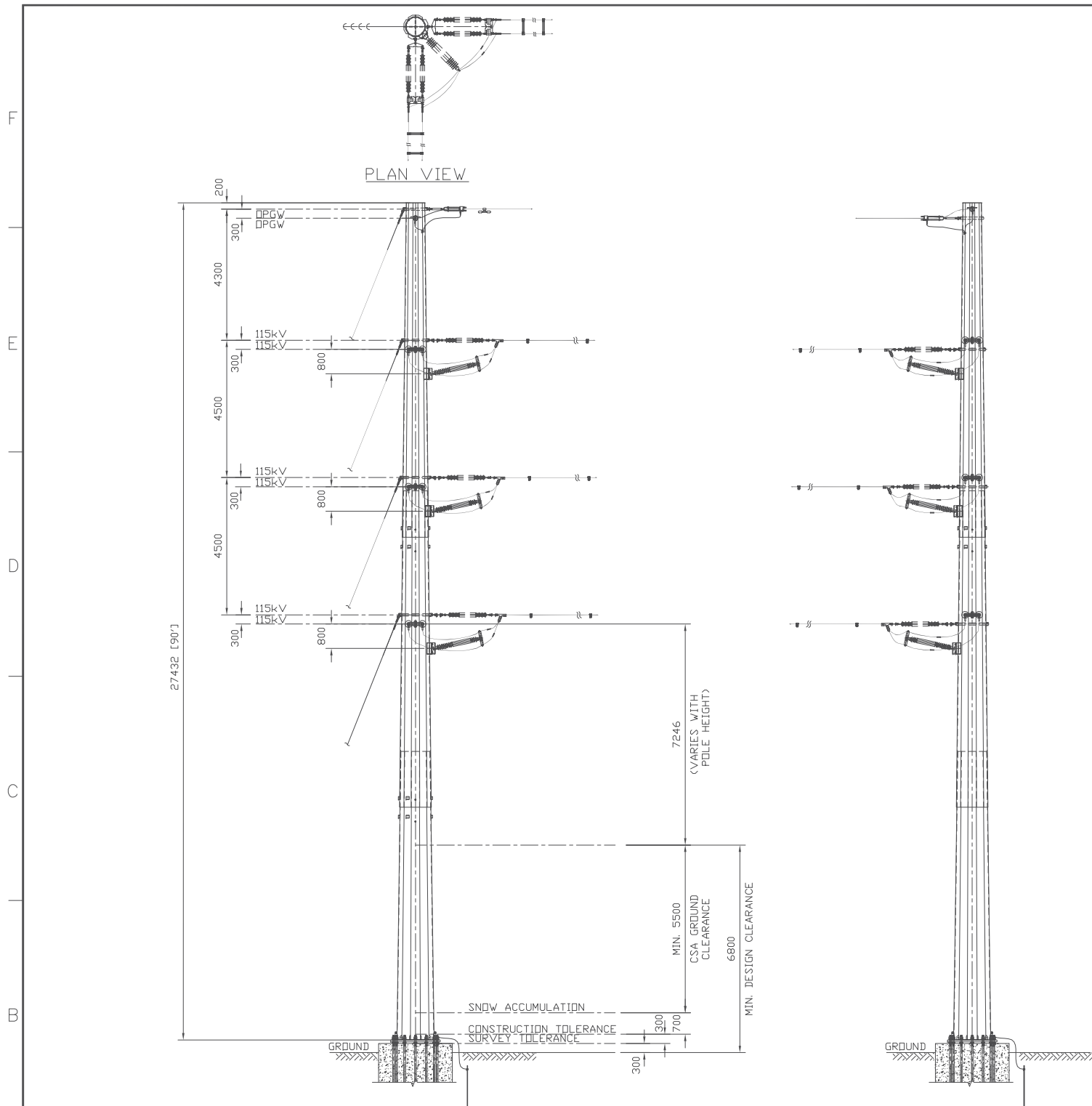
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APPROVED FOR CONSTRUCTION			
CLIENT PROJECT MGR.	DEPARTMENT MGR.	PROJECT MGR.	
PROJECT PHASE		AREA	NEXTERA 5-PACK TRANSMISSION LINE
PROJECT NO.	ACTIVITY NO.	PACKAGE CODE	SUBJECT
			1CCT 115kV TRANSMISSION LINE DOUBLE CONDUCTOR CONFIGURATION DOUBLE DEADEND CRITERIA DRAWING (FOR JERICHO STATION TAP)
SCALE	BY	D/M/Y	
N.T.S. (11"x17")	DSN. E.KWONG DRN. J.CHEN	15/07/13	



Chimax Inc.
Engineering Company
9950 Fourteenth Ave. East, Suite 508
Markham, On. L3R 0A9
Email: chimax@chimax.ca

CLIENT DWG. NO.	
DRAWING NO.	1235-3-P321A
REV.	A
CADD FILE ADDRESS	1235-3-P321A-A



1CCT 115kV TRANSMISSION LINE
HEAVY ANGLE (60 - 90°) CRITERIA DRAWING
(WITH DOWN GUY)

- DESIGN NOTES:**
- THE PROPOSED STRUCTURE FRAMING, POLE REQUIREMENT AND RECOMMENDATION STANDARD SPAN ARE BASED ON THE FOLLOWING DESIGN DATA:
- A. DESIGN CRITERIA**
- METEOROLOGICAL LOCATION: GODERICH
 - MINIMUM DESIGN LOADING
 - CSA 22.3 No.1 (LIMIT STATE DESIGN) - CSA HEAVY CONDITION
 - HOURLY WIND: 400 Pa
 - RADIAL ICE THICKNESS: 12.5 mm (1/2")
 - CONDUCTOR TEMPERATURE: -20°C
 - CSA 22.3 No.60826 (IEC RELIABILITY DESIGN) - 1/50 PERIOD
 - (i) IEC ICE (1/50): 20 mm @ -10°C
 - (ii) IEC WIND (1/50): 111 km/h (582.77 Pa) @ -10°C
 - (iii) COMBINED ICE (85%) & WIND (60%): 17 mm & 349.66 Pa @ -10°C
- WIRE ADJUSTMENT MODELS & MATERIAL FACTORS AS PER CSA 22.3 No. 60826.
- B. CLEARANCE CRITERIA**
- MEAN ANNUAL SNOW ACCUMULATION: 0.7 m
 - ADDITIONAL SURVEY TOLERANCE: 0.3 m
 - ADDITIONAL CONSTRUCTION TOLERANCE: 0.3 m
 - VERTICAL GROUND CLEARANCE:
 - MINIMUM CSA 22.3 No.1 VERTICAL GROUND CLEARANCE: 5.50 m
 - DESIGN VERTICAL GROUND CLEARANCE: 6.80 m
 - VERTICAL GROUND CLEARANCE LOADING CONDITIONS
 - PHASE CONDUCTOR
 - (i) MAXIMUM CONDUCTOR TEMPERATURE: 100°C
 - (ii) DESIGN CONDUCTOR TEMPERATURE (AS PER IEEE STD. 738): 100°C
 - (iii) RADIAL ICE THICKNESS (CLEARANCE): 12.5 mm (1/2")
 - PHASE CLEARANCE CONDITIONS:
 - (i) HOURLY WIND (NATIONAL BUILDING CODE 1/50): 550 Pa (~108 km/hr)
 - (ii) HOURLY WIND (NATIONAL BUILDING CODE 1/30): 500 Pa (~103 km/hr)
 - (iii) GALLOPING
 - GALLOPING SWING: 290 Pa
 - GALLOPING ICE: 12.5 mm (1/2")
- C. WIND POWER PROJECT CIRCUITS DATA**
- MERCHANT CIRCUIT(S)
 - NOMINAL SYSTEM VOLTAGE: 121 kV
 - NUMBER OF PHASES: 3 (THREE)
 - SYSTEM FREQUENCY: 60 Hz
 - NUMBER OF CIRCUIT: 1 (ONE)
 - MAXIMUM CIRCUIT CURRENT: 2696A
 - PHASE CONDUCTOR SIZE: 2 x 1351.5MCM ACSR (DIPPER)
 - DESIGN CONDUCTOR TEMPERATURE: 100°C

NOTES:

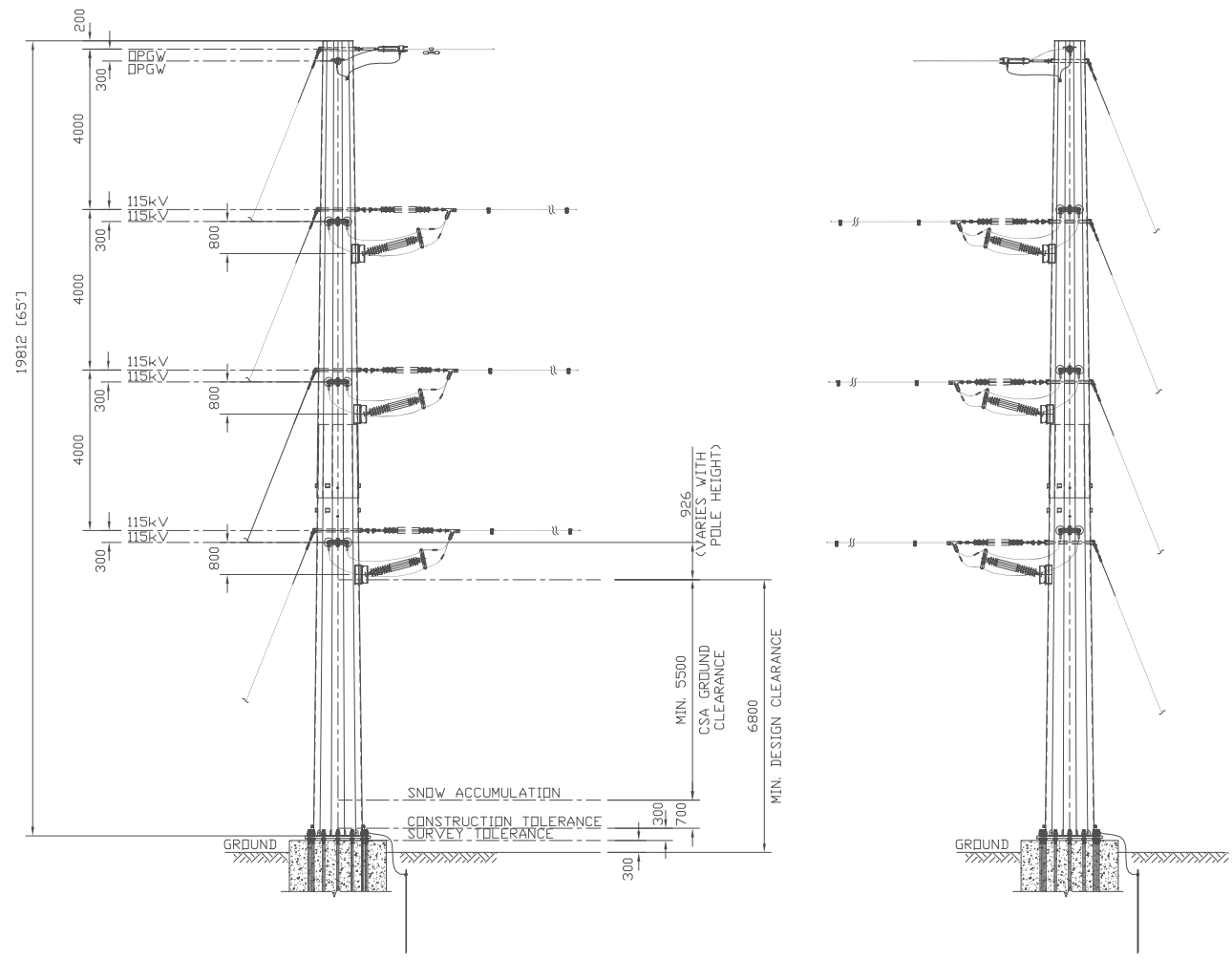
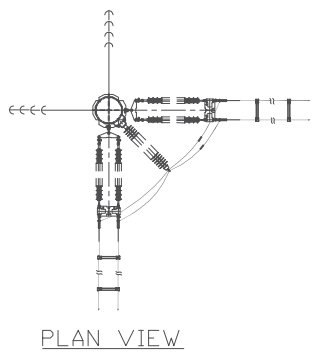
- ALL DIMENSIONS ARE IN MILLIMETER, U.N.O.

REV	D/M/Y	REVISION	J.C.	M.R.	DR	CHK	APP	APP	APP	APP	ISS	D/M/Y	APP	ISSUED FOR	REF	NUMBER	TITLE
A	22/08/13	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION										22/08/13		ISSUED FOR LEAVE TO CONSTRUCT APPLICATION			

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APPROVED FOR CONSTRUCTION			AREA: NEXTERA 5-PACK TRANSMISSION LINE		
CLIENT PROJECT MGR.	DEPARTMENT MGR.	PROJECT MGR.	SUBJECT: 1CCT 115kV TRANSMISSION LINE DOUBLE CONDUCTOR CONFIGURATION HEAVY ANGLE (60 - 90°) CRITERIA DRAWING (WITH DOWN GUY)		
PROJECT NO.	ACTIVITY NO.	PACKAGE CODE	CLIENT DWG. NO.		
SCALE: N.T.S. (11"x17")	BY: DSN, E.KWONG	D/M/Y: 21/08/13	DRAWING NO. 1235-3-P322A		
	DRN, J.CHEN	D/M/Y: 21/08/13	REV. A		
CADD FILE ADDRESS: 1235-3-P322A-A					





1CCT 115kV TRANSMISSION LINE
HEAVY ANGLE (60 - 90°) CRITERIA DRAWING
(4M SEPARATION WITH DOWN GUY)

DESIGN NOTES:

THE PROPOSED STRUCTURE FRAMING, POLE REQUIREMENT AND RECOMMENDATION STANDARD SPAN ARE BASED ON THE FOLLOWING DESIGN DATA:

- A. DESIGN CRITERIA**
- METEOROLOGICAL LOCATION: GODERICH
 - MINIMUM DESIGN LOADING
 - CSA 22.3 No.1 (LIMIT STATE DESIGN) - CSA HEAVY CONDITION
 - HOURLY WIND: 400 Pa
 - RADIAL ICE THICKNESS: 12.5 mm (1/2")
 - CONDUCTOR TEMPERATURE: -20°C
 - CSA 22.3 No.60826 (IEC RELIABILITY DESIGN) - 1/50 PERIOD
 - (i) IEC ICE (1/50): 20 mm @ -10°C
 - (ii) IEC WIND (1/50): 111 km/h (582.77 Pa) @ -10°C
 - (iii) COMBINED ICE (85%) & WIND (60%): 17 mm & 349.66 Pa @ -10°C
 - WIRE ADJUSTMENT MODELS & MATERIAL FACTORS AS PER CSA 22.3 No. 60826.
- B. CLEARANCE CRITERIA**
- MEAN ANNUAL SNOW ACCUMULATION: 0.7 m
 - ADDITIONAL SURVEY TOLERANCE: 0.3 m
 - ADDITIONAL CONSTRUCTION TOLERANCE: 0.3 m
 - VERTICAL GROUND CLEARANCE:
 - MINIMUM CSA 22.3 No.1 VERTICAL GROUND CLEARANCE: 5.50 m
 - DESIGN VERTICAL GROUND CLEARANCE: 6.80 m
 - VERTICAL GROUND CLEARANCE LOADING CONDITIONS
 - PHASE CONDUCTOR
 - (i) MAXIMUM CONDUCTOR TEMPERATURE: 100°C
 - (ii) DESIGN CONDUCTOR TEMPERATURE (AS PER IEEE STD. 738): 12.5 mm (1/2")
 - (iii) RADIAL ICE THICKNESS (CLEARANCE): 12.5 mm (1/2")
 - PHASE CLEARANCE CONDITIONS:
 - (i) HOURLY WIND (NATIONAL BUILDING CODE 1/50): 550 Pa (~108 km/hr)
 - (ii) HOURLY WIND (NATIONAL BUILDING CODE 1/30): 500 Pa (~103 km/hr)
 - (iii) GALLOPING
 - GALLOPING SWING: 290 Pa
 - GALLOPING ICE: 12.5 mm (1/2")
- C. WIND POWER PROJECT CIRCUITS DATA**
- MERCHANT CIRCUIT(S)
 - NOMINAL SYSTEM VOLTAGE: 121 kV
 - NUMBER OF PHASES: 3 (THREE)
 - SYSTEM FREQUENCY: 60 Hz
 - NUMBER OF CIRCUIT: 1 (ONE)
 - MAXIMUM CIRCUIT CURRENT: 2696A
 - PHASE CONDUCTOR SIZE: 2 x 1351.5MCM ACSR (DIPPER)
 - DESIGN CONDUCTOR TEMPERATURE: 100°C

NOTES:

- ALL DIMENSIONS ARE IN MILLIMETER, U.N.O.

REV	D/M/Y	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION	J.C.	M.R.	DR	CHK	APP	APP	APP	ISS	D/M/Y	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION	REF	NUMBER	TITLE
A	22/08/13	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION									22/08/13	ISSUED FOR LEAVE TO CONSTRUCT APPLICATION			

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APPROVED FOR CONSTRUCTION			
CLIENT PROJECT MGR.	DEPARTMENT MGR.	PROJECT MGR.	AREA
PROJECT PHASE			NEXTERA 5-PACK TRANSMISSION LINE
PROJECT NO.	ACTIVITY NO.	PACKAGE CODE	SUBJECT
			1CCT 115kV TRANSMISSION LINE DOUBLE CONDUCTOR CONFIGURATION HEAVY ANGLE (60 - 90°) CRITERIA DRAWING (4M SEPARATION WITH DOWN GUY)
SCALE	BY	D/M/Y	
N.T.S. (11"x17")	DSN, E.KWONG	17/05/13	
	DRN, J.CHEN	17/05/13	



CLIENT DWG. NO.	REV.
	A
DRAWING NO.	
1235-3-P323A	
CADD FILE ADDRESS	
1235-3-P323A-A	

Schedule B4

Jericho Transmission Pole Clear Zone Mitigation Map



JERICHO TRANSMISSION LINE KEYPLAN
NOT TO SCALE

LEGEND FOR SHEETS CZS-1 TO CZS-7

- RIGHT OF WAY
- EXISTING 3 CABLE GUIDE RAIL
- PROPOSED 3 CABLE GUIDE RAIL
- PROPOSED 3 CABLE GUIDE RAIL END TREATMENT
- EXISTING STEEL BEAM GUIDE RAIL
- PROPOSED STEEL BEAM GUIDE RAIL
- PROPOSED STEEL BEAM GUIDE RAIL END TREATMENT
- PROPOSED GRADING

EXISTING SERVICES	DRAWING #, SOURCE	DATE	AS CONSTRUCTED SERVICES	COMPLETION

DETAILS	No.	REVISIONS	DATE	CONSULTANT
DESIGN RWC	1	ISSUE FOR LEAVE TO CONSTRUCT	2013-10-07	
DRAWN BY MWB	2	ISSUE FOR LTC AMMENDMENT	2013-11-20	
CHECKED RWC				
APPROVED RWC				
DATE 2013-08-29				
JTLsite G&G.dwg				

CONSULTANT OR DIVISION

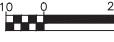


IBI Group
203 - 350 Oxford Street West
London ON N6H 1T3 Canada
tel 519 472 7328
fax 519 472 9354

ENGINEER'S STAMP

NEXT ERA ENERGY

SCALE
1:1000



TITLE

JERICHO WIND ENERGY CENTRE
MUNICIPALITY OF N. MIDDLESEX AND LAMBTON COUNTY

JTLSITE G&G - KEYPLAN

PROJECT No. 34938

SHEET No. 01

PLAN FILE No.

J:\34938-velich-Trans\5.8 Drawings\G&G\Current\JTLsite G&G.dwg



J:\34938-jericho-wind\Drawings\G&G\Current\JTLsite G&G.dwg

EXISTING SERVICES	DRAWING #, SOURCE	DATE	AS CONSTRUCTED SERVICES	COMPLETION	DETAILS	No.	REVISIONS	DATE	CONSULTANT
					DESIGN	RWC	1	ISSUED FOR LEAVE TO CONSTRUCT	2013-10-07
					DRAWN BY	MWB	2	ISSUED FOR LTC AMMENDMENT	2013-11-20
					CHECKED	RWC			
					APPROVED	RWC			
					DATE	2013-08-29			
					JTLsite G&G.dwg				

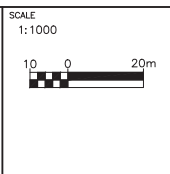
CONSULTANT OR DIVISION



IBI Group
 203 - 350 Oxford Street West
 London ON N6H 1T3 Canada
 tel 519 472 7328
 fax 519 472 9354

ENGINEER'S STAMP

NEXT ERA ENERGY



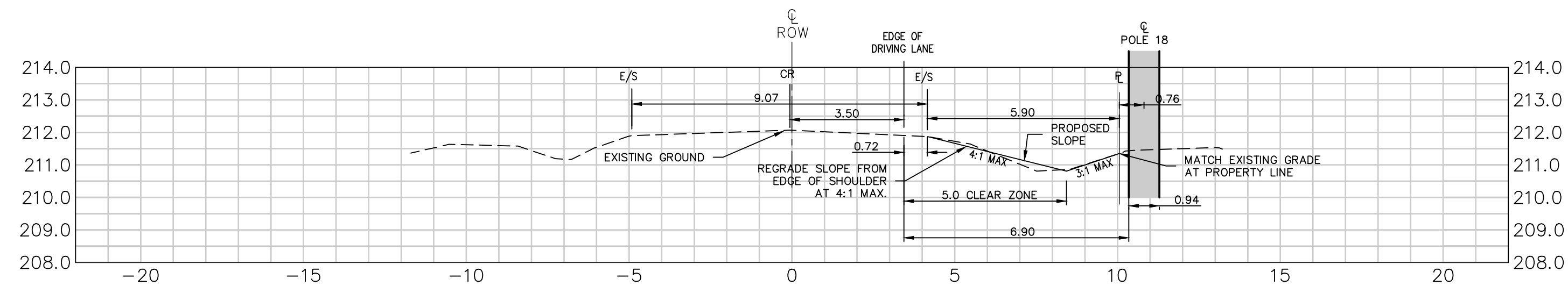
TITLE
 JERICO WIND ENERGY CENTRE
 MUNICIPALITY OF N. MIDDLESEX AND LAMBTON COUNTY

JTLSITE G&G - 3
 J-N034 TO J-N049

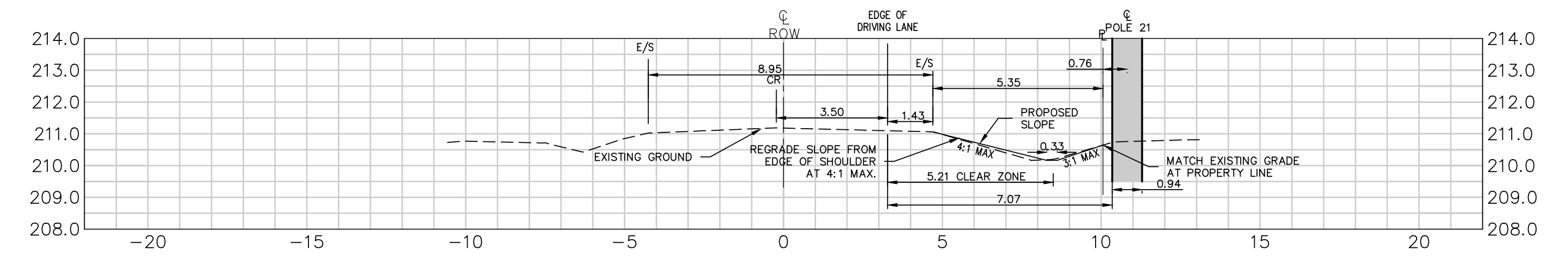
PROJECT No.
34938

SHEET No.
CZS-3

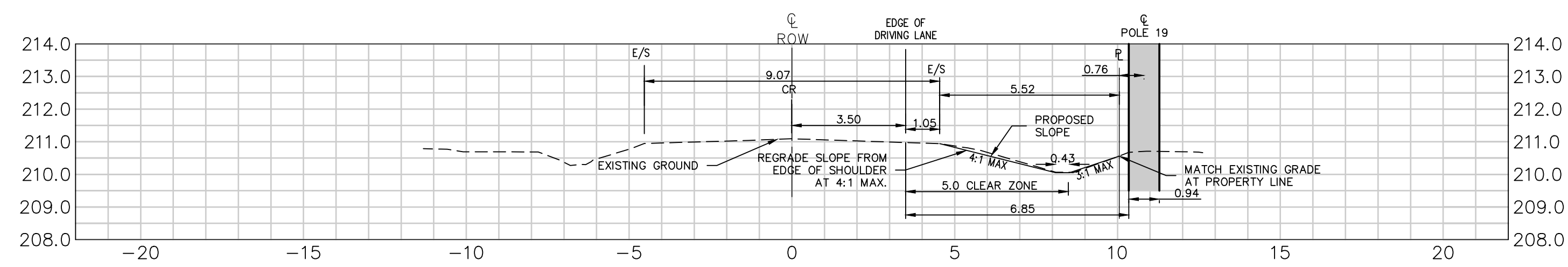
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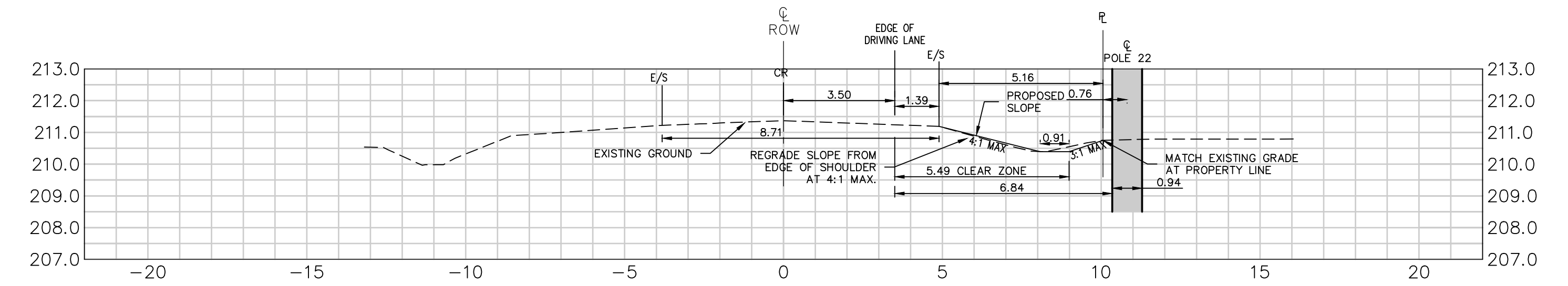
J-N018 - 4+288.7 Thomson Line



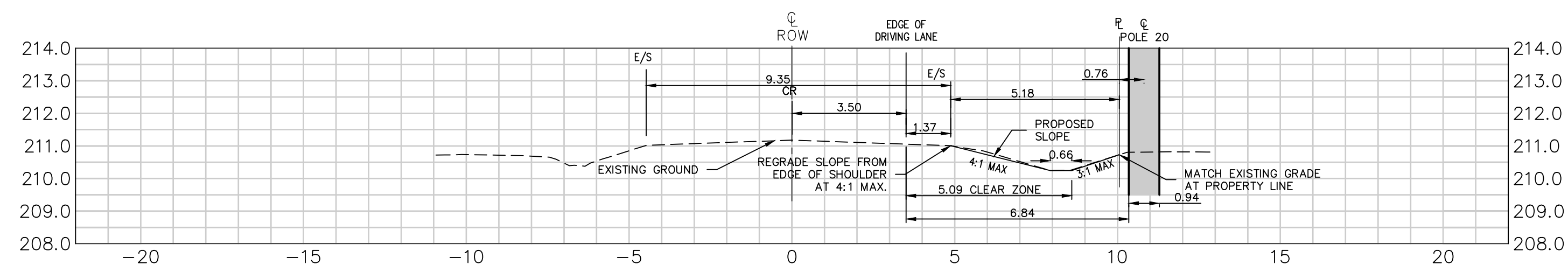
J-N021 - 4+771.1 Thomson Line



J-N019 - 4+449.5 Thomson Line



J-N022 - 4+931.9 Thomson Line



J-N020 - 4+610.3 Thomson Line

J:\34938-jericho-Trans\S3.8 Drawings\Civil\Current\JTL-Mit-Mitigation-Sections.dwg

EXISTING SERVICES	DRAWING #, SOURCE	DATE	AS CONSTRUCTED SERVICES	COMPLETION	DETAILS	No.	REVISIONS	DATE	CONSULTANT
					DESIGN	1	ISSUED FOR LTC AMMENDMENT	2013-11-20	
					DRAWN BY				
					CHECKED				
					APPROVED				
					DATE				
					CS-01.DWG				

CONSULTANT OR DIVISION

IBI GROUP

IBI Group
203 - 350 Oxford Street West
London ON N6H 1T3 Canada

tel 519 472 7328
fax 519 472 9354

ENGINEER'S STAMP

NEXT ERA ENERGY

SCALE

HORZ 1:150
VERT 1:150

1.5 0 3m
HORIZONTAL

1.5 0 3m
VERTICAL

TITLE

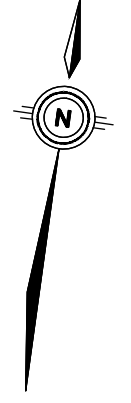
JERICHO WIND ENERGY CENTRE
MUNICIPALITY OF N. MIDDLESEX AND LAMBTON COUNTY

JTL MITIGATION - P18 TO P22
DITCH CROSS SECTIONS

PROJECT No. 34938

SHEET No. CS-01

PLAN FILE No.



CULTIVATION

THOMSON LINE

STEEL BEAM GUIDE RAIL C/W EXTRUDER
TERMINAL SYSTEMS
O.P.S.D. 912.130
O.P.S.D. 912.531
O.P.S.D. 922.530

1.736m DIAMETER POLE W/ 2.743m
DIAMETER FOUNDATION

BELL CANADA

UTILITY MARKER

INV. 215.29

EX. DITCH

22.5' BEND

FACE OF SBGR SET 0.30m
FROM EDGE OF GRAVEL AND
1.0m FROM EDGE OF P37
FOUNDATION.

EDGE OF GRAVEL

FACE OF SBGR APPROXIMATELY 2.0m
OFFSET FROM PROPERTY LINE

300mm HDPE CULVERT
@ 0.50%

DICB W/ 300mm
CONNECTION TO
CULVERT

PROPERTY LINE

J-N037

EX. DITCH

EDGE OF GRAVEL

45' BEND

AREA BETWEEN ROAD AND
GUIDE RAIL SHALL BE GRADED
TO A 10% SLOPE OR LESS THEN
BLENDED TO MATCH ELEVATIONS
AT PROPERTY LINE.

ARKONA ROAD

EDGE OF ASPHALT

GRAVEL SHOULDER

WIRE CROSSING
CLEARANCE
= 7.3m

EDGE OF ASPHALT

CULTIVATION

DETAILS	No.	REVISIONS	DATE
DESIGN	RWC	1	ISSUED FOR REVIEW
DRAWN BY	MPB		
CHECKED	RWC		
APPROVED	RWC		
DATE	2013-11-22		

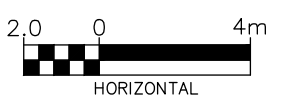
CONSULTANT OR DIVISION



IBI Group
203 - 350 Oxford Street West
London ON N6H 1T3 Canada
tel 519 472 7328
fax 519 472 9354

ENGINEER'S STAMP

SCALE
HORZ 1:200



HORIZONTAL

JERICO WIND ENERGY CENTRE
MUNICIPALITY OF N. MIDDLESEX AND LAMBTON COUNTY

MITIGATION MEASURES
P37

P-37.DWG PROJECT No. 34938 SHEET No. P-37

Schedule B5

Jericho Transmission Pole Clearance from Edge of Roadway



**Jericho Transmission Line
Lambton County**

Ontario, Canada

** Pole location in private easement*

Date: 1/21/2014

PROPRIETARY AND CONFIDENTIAL

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Jericho Transmission Line Lambton County		Jericho Transmission Line Lambton County	
Pole Distances -Rev K		Pole Distances -Rev K	
Pole #	Horizontal Distance from E/P to edge of pole	Pole #	Horizontal Distance from E/P to edge of pole
J-N003*	2.60	J-N027*	7.17
J-N004	6.78	J-N028	2.52
J-N005	6.19	J-N029	2.88
J-N006	5.57	J-N030	3.26
J-N007	5.83	J-N031	3.44
J-N008	6.15	J-N032	3.88
J-N009	5.96	J-N033	6.59
J-N010	deleted	J-N034	7.73
J-N011*	11.89	J-N035	6.80
J-N012*	6.73	J-N036	6.17
J-N013*	6.99	J-N037	2.18
J-N014*	7.06	J-N038	7.79
J-N015*	7.24	J-N039	12.73
J-N016*	7.28	J-N040	11.22
J-N017*	7.17	J-N041	11.54
J-N018*	6.91	J-N042	11.27
J-N019*	6.84	J-N043	11.41
J-N020*	6.84	J-N044	11.16
J-N021*	7.07	J-N045	7.64
J-N022*	6.84	J-N046	8.85
J-N023*	6.58	J-N047	5.98
J-N024*	7.54	J-N048	6.04
J-N025*	7.53	J-N049	5.80
J-N026*	7.55	J-N050	3.41

Edge of Road Surface

Edge of Shoulder

Distance in meters

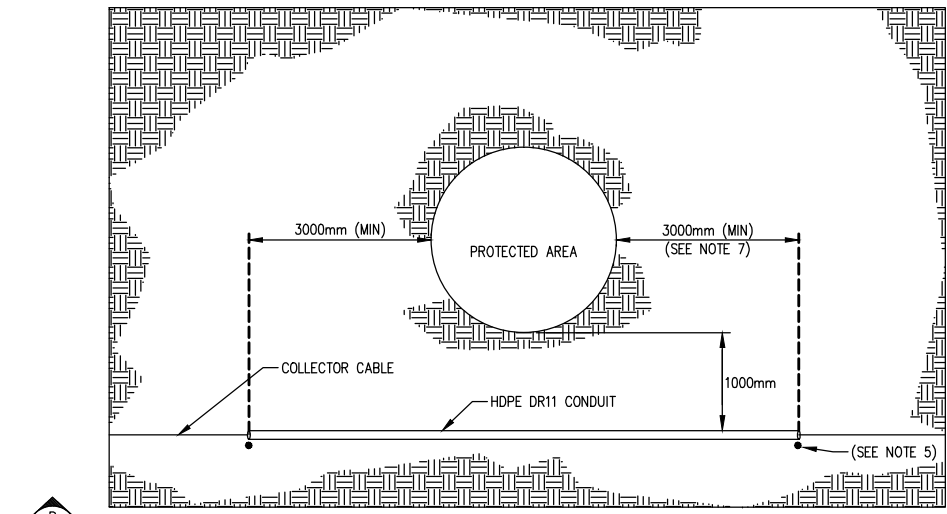
Closest Face of Pole

Pole #

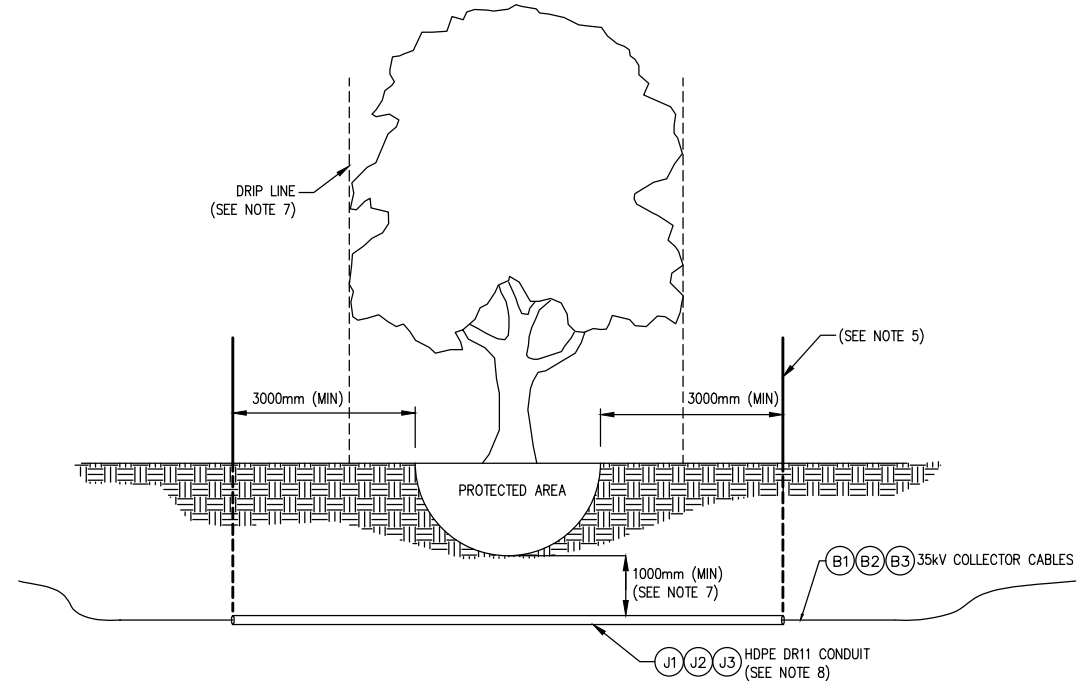


Schedule B6

Jericho Typical Culvert Cross Section



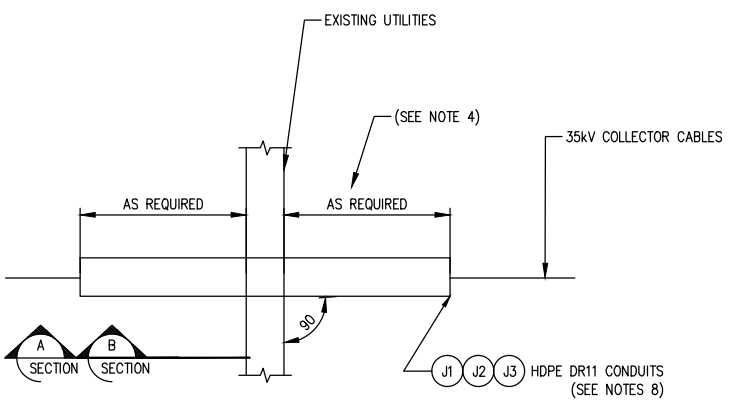
DETAIL 1
NTS:
34.5kV COLLECTION
EXISTING VEGETATION CROSSING
TYP



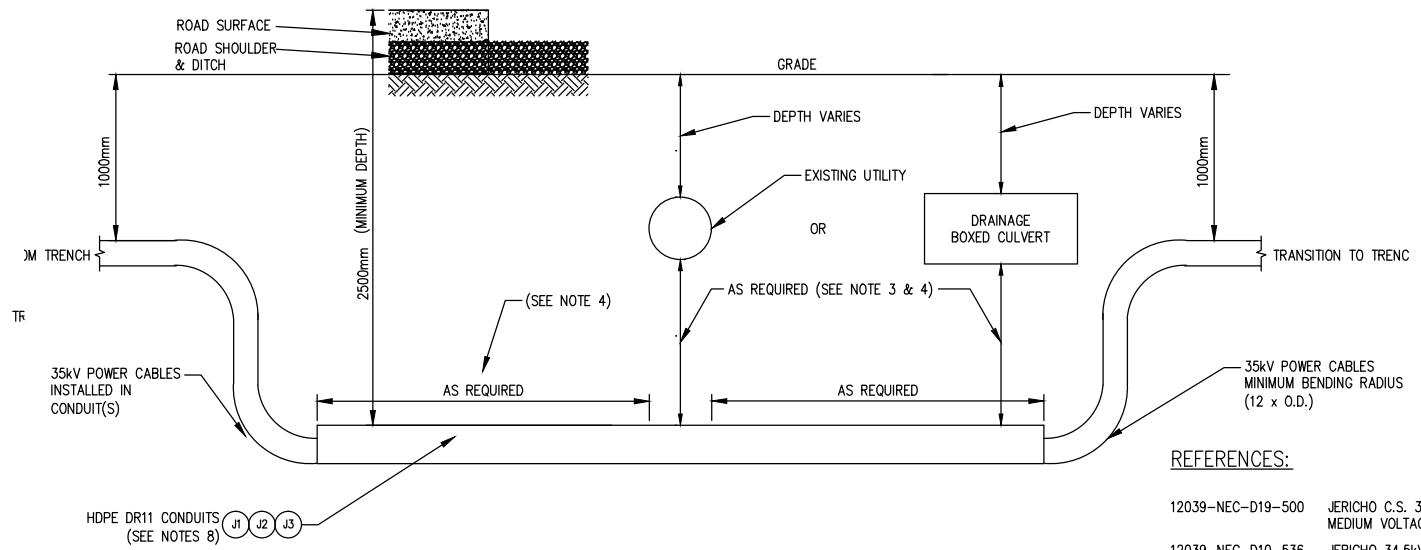
SECTION - B
NTS:
34.5kV COLLECTION
EXISTING VEGETATION CROSSING

NOTES:

- INSTALLATION SHALL COMPLY WITH OESC 2012, 25TH EDITION.
- EXISTING UTILITIES SHALL BE POT-HOLE LOCATED PRIOR TO TRENCHING.
- CONTRACTOR SHALL MAINTAIN MINIMUM SEPARATION BETWEEN CONDUITS/CASINGS AND UTILITIES AS FOLLOWS:
 - UNION GAS 610mm
 - BELL TELECO 1000mm
 - FIBER LINE 300mm
 - UNKNOWN 610mm
 THE CONTRACTOR SHALL CONSULT WITH UTILITIES OWNERS TO ENSURE THE REQUIREMENT FOR THE SEPARATION PRIOR TO PROCEEDING WITH EXCAVATION, BORING AND DRILLING. ALL CROSSINGS SHALL BE PERPENDICULAR TO EXISTING UTILITIES.
- CASING SHALL BE INSTALLED AT THE SAME DEPTH FOR ENTIRE WIDTH OF EASEMENT ROAD ALLOWANCE. CONTRACTOR TO VERIFY THE REQUIREMENT ON EXTENDING THE CABLE CONDUITS ON EITHER SIDE OF THE UTILITIES. CONTRACTOR SHALL FOLLOW GUIDELINES OF CROSSING PERMITS/APPROVALS. (ISSUED FROM UTILITIES OWNERS).
- CONTRACTOR SHALL PROVIDE WARNING SIGNS FOR EVERY 15m WHERE WARNING TAPE IS NOT INSTALLED. IF NOT FEASIBLE, CONTRACTOR SHALL NOTIFY ESA INSPECTOR FOR INSPECTION AND APPROVAL.
- CONTRACTOR, IN CONJUNCTION WITH NEXTERA ENERGY CANADA, SHALL VERIFY LOCATIONS OF ALL EXISTING UTILITIES, AND OBTAIN ALL NECESSARY PERMITS BEFORE ANY EXCAVATION/BORING/DRILLING IS STARTED. CONTRACTOR SHALL NOTIFY M.T.O. (FOR HIGHWAY CROSSING), ONTARIO ONE CALL AND UTILITY OWNERS AT LEAST 5 DAYS PRIOR TO COMMENCING WITH ANY WORK IN THE R.O.W. (RIGHT OF WAY). FOR MORE INFORMATION VISIT WWW.ON1CALL.COM OR CALL 1-800-400-2255.
- CONTRACTOR SHALL AVOID TRENCHING WITHIN 'DRIP LINE' OF TREES. IF NEEDED SHALL BE WITH PRIOR APPROVAL OR PERMIT FROM MTO OR CONCERNED AUTHORITY. CONTRACTOR SHALL FOLLOW GUIDELINES OF CONSERVATION BY-LAWS ENFORCED BY COUNTY AUTHORITY.
- CONTRACTOR SHALL USE HDPE CONDUITS WITH DR11 RATING FOR HWYS/ROAD/WATER/UTILITY/VEGETATION CROSSINGS. THE CONDUIT SIZES SHALL BE AS FOLLOWS:
 - 6" FOR ALL 4/0 AWG 35kV CABLES IN TREFOIL CONFIGURATION
 - 8" FOR 1000 OR 500MCM 35kV CABLES IN TREFOIL CONFIGURATION
 - 10" FOR 1250MCM 35kV CABLES IN TREFOIL CONFIGURATION
 REFER TO DRAWING 12039-NEC-D10-536 FOR SPECIAL CROSSINGS
- UNDERGROUND POWER CABLES AND FIBER OPTIC CABLES SHALL BE AT A MINIMUM DEPTH OF 500mm(MIN) BELOW DITCH INVERTS BOTTOM SURFACE WHILE CROSSING HIGHWAY (e.g. 402)
- CONTRACTOR SHALL ENSURE THAT CABLE SPLICES/TERMINALS ARE ARRANGED SO THAT NO BARE UNGROUNDED, CURRENT CARRYING METAL PARTS ARE EXPOSED TO ACCIDENTAL CONTACT WITHIN SUBSURFACE CHAMBERS/SERVICE BOXES.
- CONTRACTOR SHALL INSTALL FIBER OPTIC CABLES IN A SEPARATE HDPE OR PVC SCHEDULE 40 CONDUITS FOR ALL CROSSINGS VIA HORIZONTAL DIRECTIONAL DRILLING (HDD)
- CONTRACTOR SHALL PLACE MARKER BALLS: ABOVE ALL CABLE SPLICES, DEFLECTION POINTS, AT EACH END OF WATER / ROAD / RAILWAY / UTILITY/ VEGETATION CROSSINGS, SLACK LOOPS, AND CONDUIT ENDS OF HORIZONTALLY DIRECTIONAL DRILLING (HDD). EACH MARKER BALL SHALL BE PLACED NOT MORE THAN 1.5 METER BELOW GRADE FOR ALL LOCATIONS. CONTRACTOR SHALL MAINTAIN MINIMUM 2.4 METER OF HORIZONTAL DISTANCE BETWEEN MARKER BALLS FOR ADJACENT TRENCHES. A MARKER BALL SHALL BE PLACED AT EVERY 150 METER (MAX) OF LINEAR RUN OF ALL TRENCHES.
- CONTRACTOR SHALL REFER TO DRAWING REFERENCES FOR BILL OF MATERIALS.
- ALL DRAWING REFERENCES PREFIXED WITH 12039-NEC-



DETAIL 2
NTS:
UTILITY CROSSING
34.5kV COLLECTION
TYP



SECTION - A
NTS:
34.5kV COLLECTION
- MINIMUM SEPARATION FROM UTILITIES

REFERENCES:

- 12039-NEC-D19-500 JERICHO C.S. 34.5kV COLLECTOR SYSTEM MEDIUM VOLTAGE BOM
- 12039-NEC-D10-536 JERICHO 34.5kV COLLECTOR SYSTEM SPECIAL CROSSINGS SH1 & 2

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A	29/11/13	ISSUED FOR PERMITTING	MW	KP

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Engineering & Construction Specialists
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NEXTERA ENERGY
CANADA

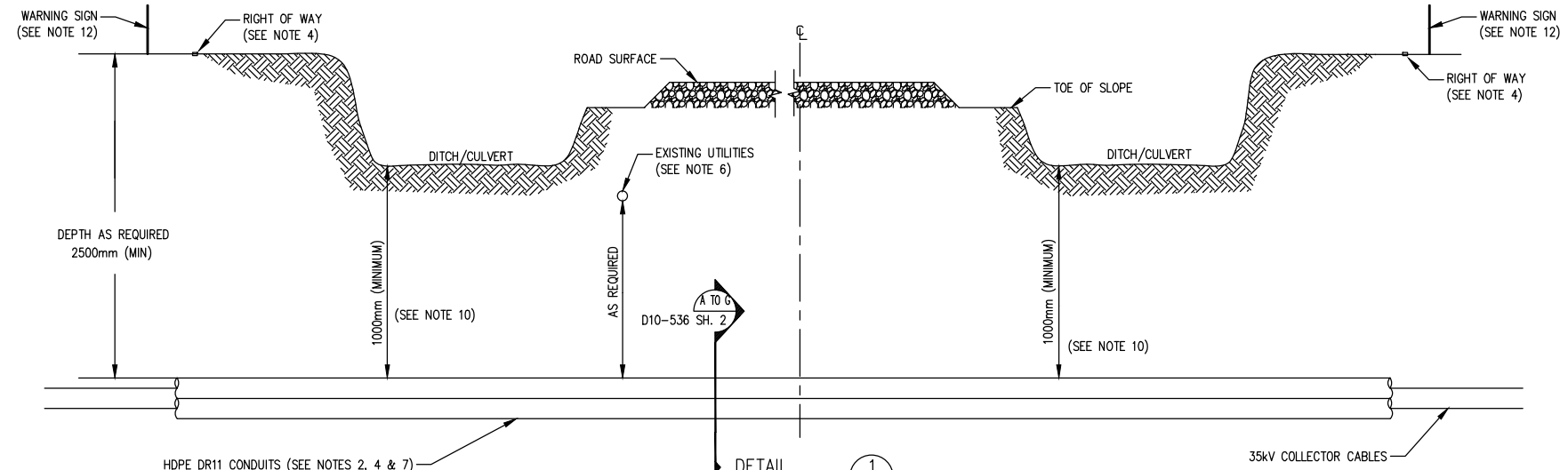
CLIENT:
NEXTERA ENERGY CANADA

TITLE:
JERICHO
34.5kV COLLECTOR SYSTEM
VEGETATION & UTILITY CROSSING

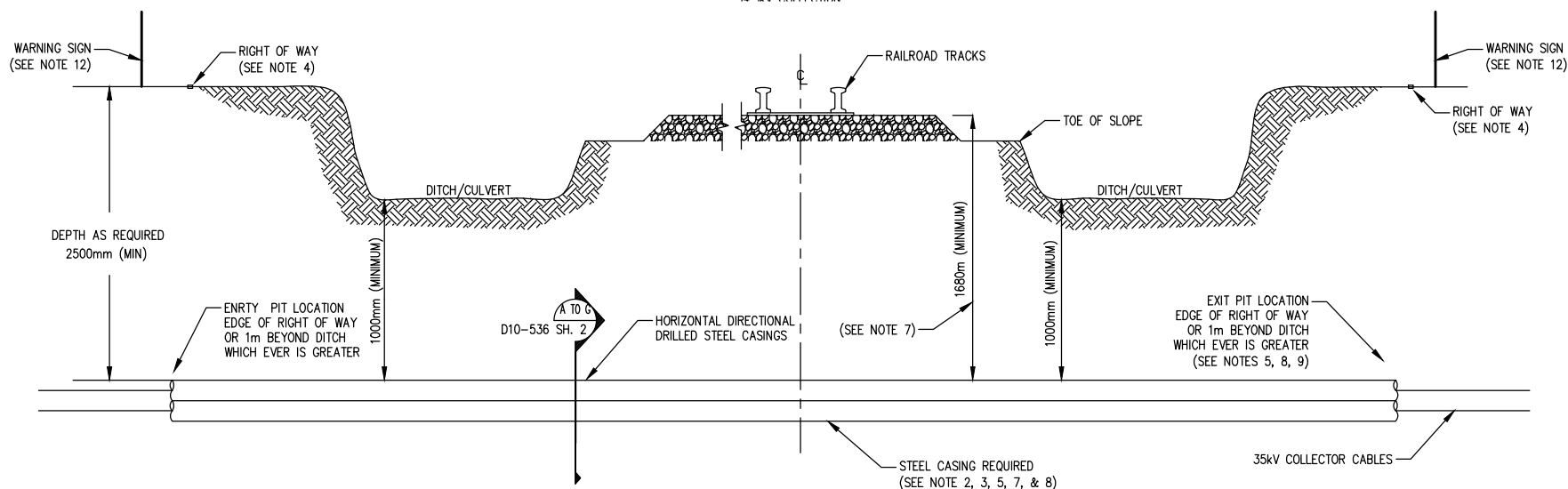
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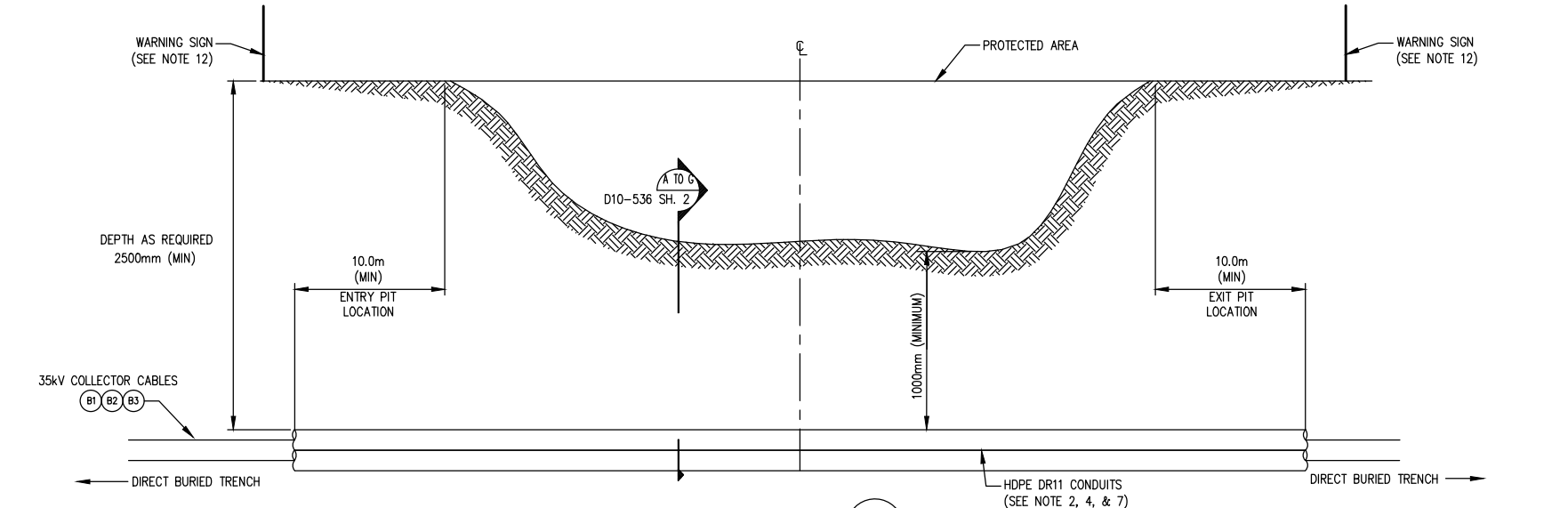
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DETAIL 1
 NTS:
 TYP
 HIGHWAY/ROAD CROSSING
 34.5kV COLLECTION



DETAIL 2
 NTS:
 TYP
 RAILROAD CROSSING
 34.5kV COLLECTION



DETAIL 3
 SCALE:
 TYP
 WATER/RESTRICTED DISTURBANCE CROSSING
 34.5 kV COLLECTION
 SCALE: N.T.S.

NOTES:

- INSTALLATION SHALL COMPLY WITH OESC 2012, 25TH EDITION
- CONTRACTOR SHALL INSTALL 35kV COLLECTION CABLES IN CONDUITS/CASINGS WHEN CROSSING ROADS/HIGHWAYS/RAILWAY/WATER COURSES/UTILITIES/PROTECTED DISTURBANCE AREAS. THE 35kV COLLECTION CABLES SHALL BE PERPENDICULAR TO ALL CROSSINGS. CONTRACTOR SHALL PLACE CABLE MARKERS ON EACH SIDE OF ALL CROSSINGS. CABLE SPLICES SHALL BE PROVIDED ON ONE SIDE OF THE CROSSINGS.
- CONTRACTOR SHALL ENSURE THAT STEEL CASING MATERIAL MEETS CSA Z245.1 CANADIAN STANDARD FOR ELECTRICAL RIGID STEEL CONDUITS FOR RAILWAY CROSSINGS.
- FOR HWY/ROAD CROSSINGS, BORE PITS SHALL BE LOCATED AT LEAST 3000mm FROM EDGE OF RIGHT OF WAY, (SUBJECT TO MTO APPROVAL FOR HWY CROSSINGS. E.G. 402 HWY)
- FOR RAILWAY CROSSINGS, BORE PITS SHALL BE LOCATED 3050mm FROM EDGE OF RIGHT OF WAY AND SUBJECT TO RAILWAY AUTHORITY APPROVAL. THE BORE PIT SHALL START A MINIMUM 1.6m FROM THE TOE OF THE SLOPE SUBJECT TO APPROVAL FROM RAILWAY AUTHORITY.
- CONTRACTOR SHALL MAINTAIN A MINIMUM SEPARATION BETWEEN CONDUITS/CASINGS AND UTILITIES AS FOLLOWS:

UNION GAS	610mm	POWER DISTRIBUTION CABLES	300mm
BELL TELCO	1000mm	DRAINAGE TILE OR BOXED CULVERT	1000mm
FIBER LINE	300mm	GAS WELLS	610mm
UNKNOWN	610mm	OIL PIPELINE	300mm

 THE CONTRACTOR SHALL CONSULT WITH UTILITIES OWNERS TO ENSURE THE REQUIREMENT FOR THE SEPARATION PRIOR TO PROCEEDING WITH EXCAVATION, BORING AND DRILLING. ALL CROSSINGS SHALL BE PERPENDICULAR TO EXISTING UTILITIES.
- CONTRACTOR SHALL USE HDPE CONDUITS WITH DR11 RATING FOR HWYS/ROAD/WATER/UTILITY/VEGETATION CROSSINGS. THE CONDUIT/CASINGS SHALL BE INSTALLED 2500mm (MINIMUM) BELOW GRADE/ROAD SURFACE AND 1680mm BELOW RAILWAY TRACK BOTTOM SURFACE. THE CONDUIT/CASING SIZES SHALL BE AS FOLLOWS:
 - 6" FOR ALL 4/0 AWG 35kV CABLES IN TREFOIL CONFIGURATION
 - 8" FOR 1000 OR 500MCM 35kV CABLES IN TREFOIL CONFIGURATION
 - 10" FOR 1250MCM 35kV CABLES IN TREFOIL CONFIGURATION
 CONTRACTOR SHALL MAINTAIN 200mm (MINIMUM) OF SEPARATION BETWEEN ADJACENT CONDUITS/CASINGS FOR INSTALLATION IN A BORE HOLE AS SHOWN IN THE DRAWING. REFER TO DRAWING 12039-NEC-D10-534 FOR UTILITIES AND VEGETATION CROSSINGS
- THE STEEL CASING PIPE UNDER RAILWAY TRACKS AND ACROSS RIGHT OF WAYS MUST EXTEND GREATEST OF THE FOLLOWING:
 (i) 0.6m BEYOND THE TOE OF THE SLOPE
 (ii) 1.0m BEYOND THE DRAINAGE DITCH
 (iii) 7.5m FROM THE CENTER OF THE OUTSIDE TRACK
 THE ARRANGEMENT SUBJECT TO APPROVAL FROM RAILWAY AUTHORITY. CASING MUST NOT EXTEND PAST THE RAILWAY RIGHT OF WAY.
- CONTRACTOR, IN CONJUNCTION WITH NEXTERA ENERGY CANADA, SHALL VERIFY LOCATIONS OF ALL EXISTING UTILITIES, AND OBTAIN ALL NECESSARY PERMITS BEFORE ANY EXCAVATION/BORING/DRILLING IS STARTED. CONTRACTOR SHALL NOTIFY M.T.O., ONTARIO ONE CALL AND UTILITY OWNERS AT LEAST 5 DAYS PRIOR TO COMMENCING WITH ANY WORK IN THE R.O.W. (RIGHT OF WAY). FOR MORE INFORMATION VISIT WWW.ONICALL.COM OR CALL 1-800-400-2255.
- UNDERGROUND POWER CABLES AND FIBER OPTIC CABLES SHALL BE AT A MINIMUM DEPTH OF 5000mm (MIN) BELOW DITCH INVERTS BOTTOM SURFACE WHILE CROSSING HIGHWAY (e.g. 402).
- CABLE SPLICES/TERMINALS MUST BE ARRANGED SO THAT NO BARE UNGROUNDED, CURRENT CARRYING METAL PARTS ARE EXPOSED TO ACCIDENTAL CONTACT WITHIN SUBSURFACE CHAMBERS/SERVICE BOXES.
- CONTRACTOR SHALL PROVIDE WARNING SIGNS FOR EVERY 15m WHERE WARNING TAPE IS NOT INSTALLED. IF NOT FEASIBLE, CONTRACTOR SHALL NOTIFY ESA INSPECTOR FOR INSPECTION AND APPROVAL.
- CONTRACTOR SHALL PLACE MARKER BALLS ABOVE ALL CABLE SPLICES, DEFLECTION POINTS, AT EACH END OF WATER/ROAD/RAILWAY/UTILITY/VEGETATION CROSSINGS, SLACK LOOPS, AND CONDUIT ENDS OF HORIZONTALLY DIRECTIONAL DRILLING (HDD). EACH MARKER BALL SHALL BE PLACED NOT MORE THAN 1.5 METER BELOW GRADE FOR ALL LOCATIONS. CONTRACTOR SHALL MAINTAIN MINIMUM 2.4 METER OF HORIZONTAL DISTANCE BETWEEN MARKER BALLS FOR ADJACENT TRENCHES. MARKER BALLS SHALL BE PLACED AT EVERY 150 METER (MAX) OF LINEAR RUN OF ALL TRENCHES.
- ALL DRAWING REFERENCES PREFIXED WITH 12039-NEC-

REFERENCES:

- 12039-NEC-D1-500 JERICO 34.5kV COLLECTOR SYSTEM FEEDER CIRCUIT SINGLE LINE DIAGRAM
- 12039-NEC-D10-534 JERICO 34.5kV COLLECTOR SYSTEM VEGETATION & UTILITY CROSSING

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REV.	DATE	DESCRIPTION	CHK'D	APP'D
REVISIONS				
 Tel 905-688-6857 Fax 905-688-6926 onel@one.com				
CLIENT: NEXTERA ENERGY CANADA				
TITLE: JERICO 34.5kV COLLECTOR SYSTEM SPECIAL CROSSINGS				
DRAWN BY:	CHECKED BY:	APPROVED BY:	SHEET No.	
W.GORE	M.WASAY	K.PATEL	1	
SCALE:	DATE:	DWG. No.	REV.	
NTS	13/09/12	12039-NEC-D10-536	A	

Schedule B7a

Jericho Transmission Line Construction Methods

Support Structure Assembly and Erection

Support structure assembly will begin with auger drilling of a cylindrical shaft in the soil of appropriate diameter and depth to provide necessary support to the structure. For direct-embedded poles, the bottom section of the pole will be centered in this drilled shaft and the gap between the pole and the soil will be backfilled with crushed rock. For base-plated tubular steel poles, a steel reinforcing bar “cage” and an anchor bolt “cage” will be placed in the shaft and the shaft will be filled with concrete to create a sturdy concrete foundation for the structure. Once the concrete has cured to an acceptable strength, the remaining structure will be assembled and erected on top of this foundation.

Equipment required for construction will likely include a combination of cranes, trucks, and augers.

Conductor Stringing

Once a series of support structures have been erected along the transmission line, the conductor stringing phase can begin. Specialized equipment will be attached to insulators that will properly support and protect the conductor during the pulling, tensioning, and sagging operations. Once the conductors and shield wire are in place, and tension and sag have been verified, suspension units are installed at each suspension point to maintain conductor position. Conductor stringing will continue until the transmission line construction is complete.

Schedule B7b

Jericho Distribution (Collection) Construction Methods

In general, wind farm collection power cable will be direct-buried in an open-cut trench at a typical depth below grade of 1 meter in accordance with governing codes and standards. A fiber optic cable for wind farm communication and control will normally be co-located with the power cables. Each excavated trench will be backfilled with compacted native and/or imported material to original grade. Typical equipment for this activity consists of trenchers, backhoes, skid-steer loaders, compactors, utility trucks, and cable reel deployment rigs.

At times, it may be necessary to install power and fiber cables using directional drilling. In these instances, the power and fiber cables will be inside a polyethylene casing.

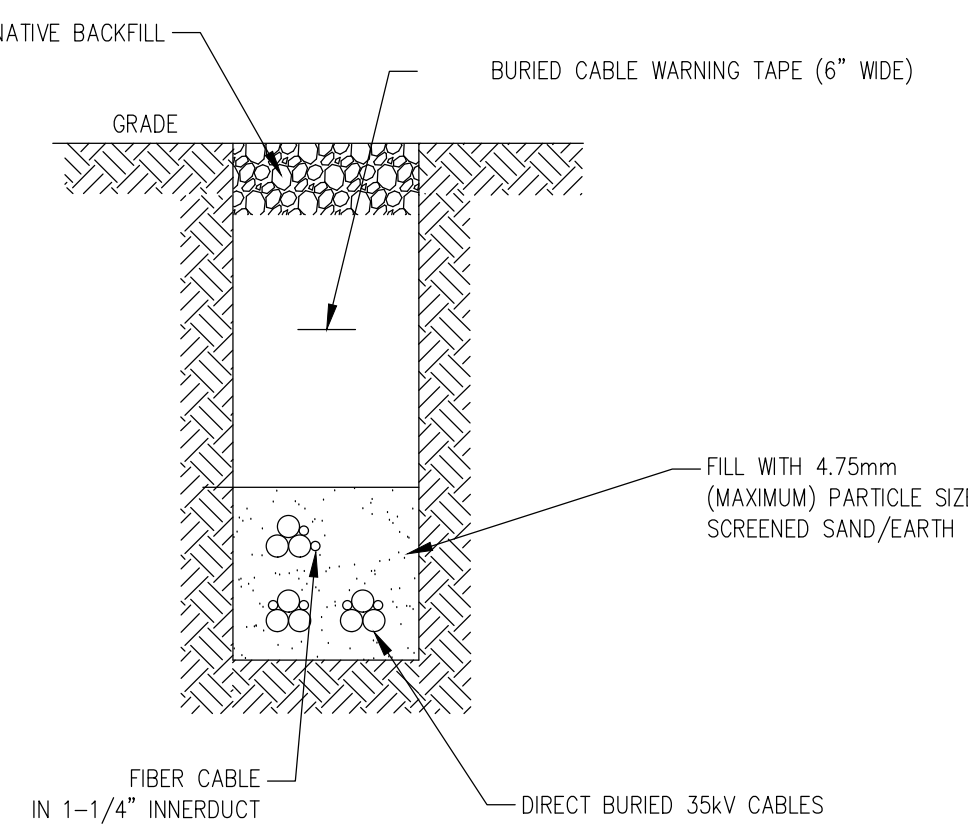
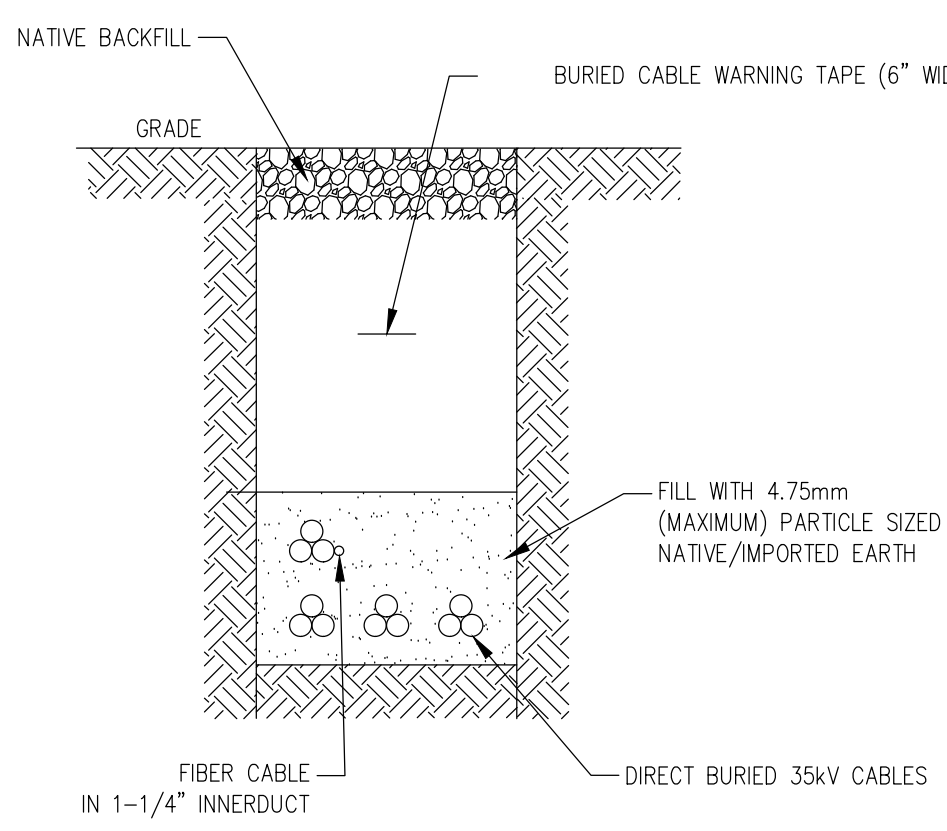
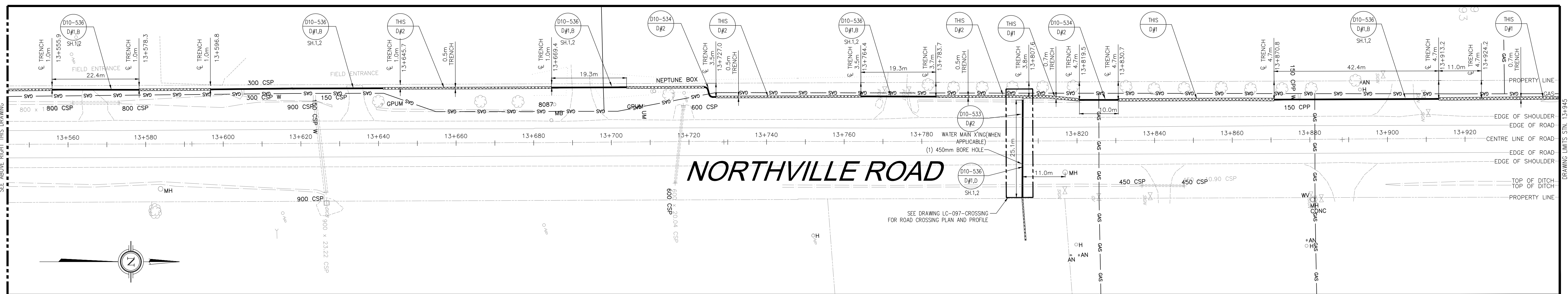
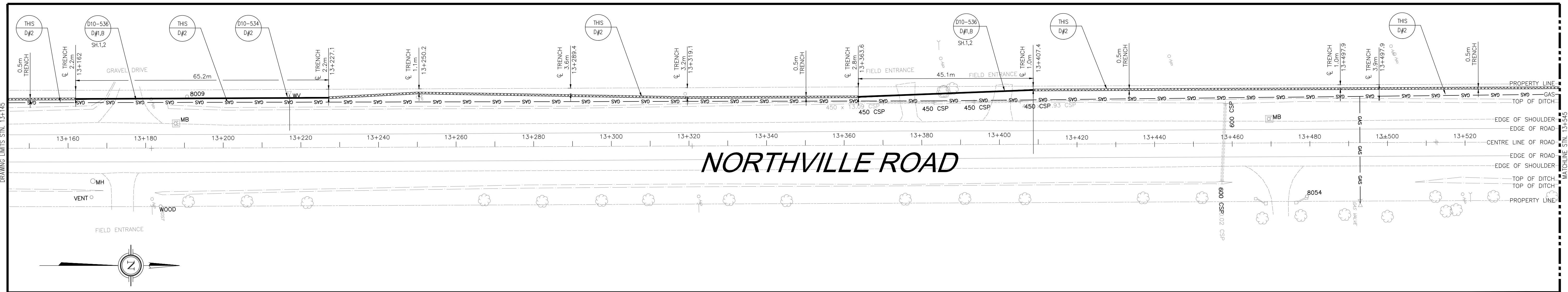
Schedule B8

Jericho Conductor Horizontal Clearances

The horizontal cable clearance is defined for cable under conductor Blowout Wind condition as specified in CSA C22.3 No.1 Section 5.2.7 & A5.2.7. The horizontal clearance requirements are specified in CSA C22.3 No.1 Table 6 (Railroad), Table 9 (building, signs, fence, etc.), Table 10 (bridges) and Table 35 (flashover for tree pruning).

Schedule B9

Jericho Distribution (Collection) Longitudinal Cross-Sections



DETAIL 1
 NTS:
 1 - 1000 KCMIL 3 ϕ CIRCUIT - TWO(2) CABLES PER PHASE
 1 - 500 KCMIL 3 ϕ CIRCUIT
 1 - 4/0 AWG 3 ϕ CIRCUIT
 IN A NARROW TRENCH
 FOR 34.5kV COLLECTION SYSTEM

DETAIL 2
 NTS:
 1 - 1000 KCMIL 3 ϕ CIRCUIT - TWO(2) CABLES PER PHASE
 1 - 500 KCMIL 3 ϕ CIRCUIT
 IN A NARROW TRENCH
 FOR 34.5kV COLLECTION SYSTEM

LEGEND:

	350mm DIRECTIONAL BORE (U.N.O.)
	34.5kV COLLECTION FEEDER TRENCH
	GAS UNION GAS LINE
	DRAWING REFERENCE PREFIXED BY 12039-NEC- DETAIL REFERENCE, SECTION #
	MVJB MEDIUM VOLTAGE JUNCTION BOX
	MES METAL ENCLOSED SWITCHGEAR

Drawings representing the Distribution (collection) system in county Road Allowance in such form included herein must be submitted prior to construction and after construction in as-built form to the County for review and acceptance.

- NOTES:**
- INSTALLATION SHALL COMPLY WITH OESC 2012, 25TH EDITION.
 - CONTRACTOR SHALL EXERCISE/IMPLEMENT ROAD USER AGREEMENT WITH CONCERNED AUTHORITIES OF TOWNSHIP/COUNTY/MUNICIPALITIES FOR THE RIGHT TO USE CERTAIN PORTION OF ROAD ALLOWANCES.
 - CONTRACTOR SHALL REPORT ANY OBSTRUCTIONS AFFECTING THEIR PERFORMANCE BEFORE PROCEEDING WITH ANY WORK.
 - CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UTILITIES BEFORE ANY EXCAVATION/BORING/DRILLING IS STARTED. CONTRACTOR MUST NOTIFY ONTARIO ONE CALL AND UTILITY OWNERS AT LEAST 5 DAYS PRIOR TO COMMENCING ANY WORK. FOR MORE INFORMATION, VISIT WWW.ON1CALL.COM OR CALL 1-800-400-2255.
 - CONTRACTOR SHALL USE HDPE DR11 RATED CONDUITS FOR ROAD, HIGHWAY, UTILITIES, VEGETATION, AND PROTECTED AREA CROSSINGS FOR INSTALLATION VIA HORIZONTAL DIRECTIONAL DRILLING (HDD). CONTRACTOR SHALL USE STEEL CASINGS FOR RAILWAY CROSSINGS VIA HDD. CONTRACTOR SHALL INSTALL FIBER OPTIC CABLES IN A SEPARATE HDPE/PVC SCH. 40 CONDUITS FOR ALL CROSSINGS.
 - THE CONTRACTOR MUST FIELD CHECK AND VERIFY INSTALLATION DETAIL SUCH AS DIMENSION, ELEVATION, SITE CONDITION ETC. AND REPORT ANY DISCREPANCIES TO THE SITE MANAGER (ENGINEER) PRIOR TO COMMENCING ANY WORK/FABRICATION.
 - DRAWINGS BASED ON CALLON DIETZ SITE PLAN DRAWINGS.
 - ALL DRAWING REFERENCES PREFIXED WITH 12039-NEC-

REFERENCE DRAWINGS:

12039-NEC-D10-536, SHT.1	34.5kV COLLECTOR SYSTEM SPECIAL CROSSINGS
12039-NEC-D10-536, SHT.2	34.5kV COLLECTOR SYSTEM SPECIAL CROSSINGS
LC-097-CROSSING	CABLE CROSSING NORTHVILLE ROAD AT TURBINE 58

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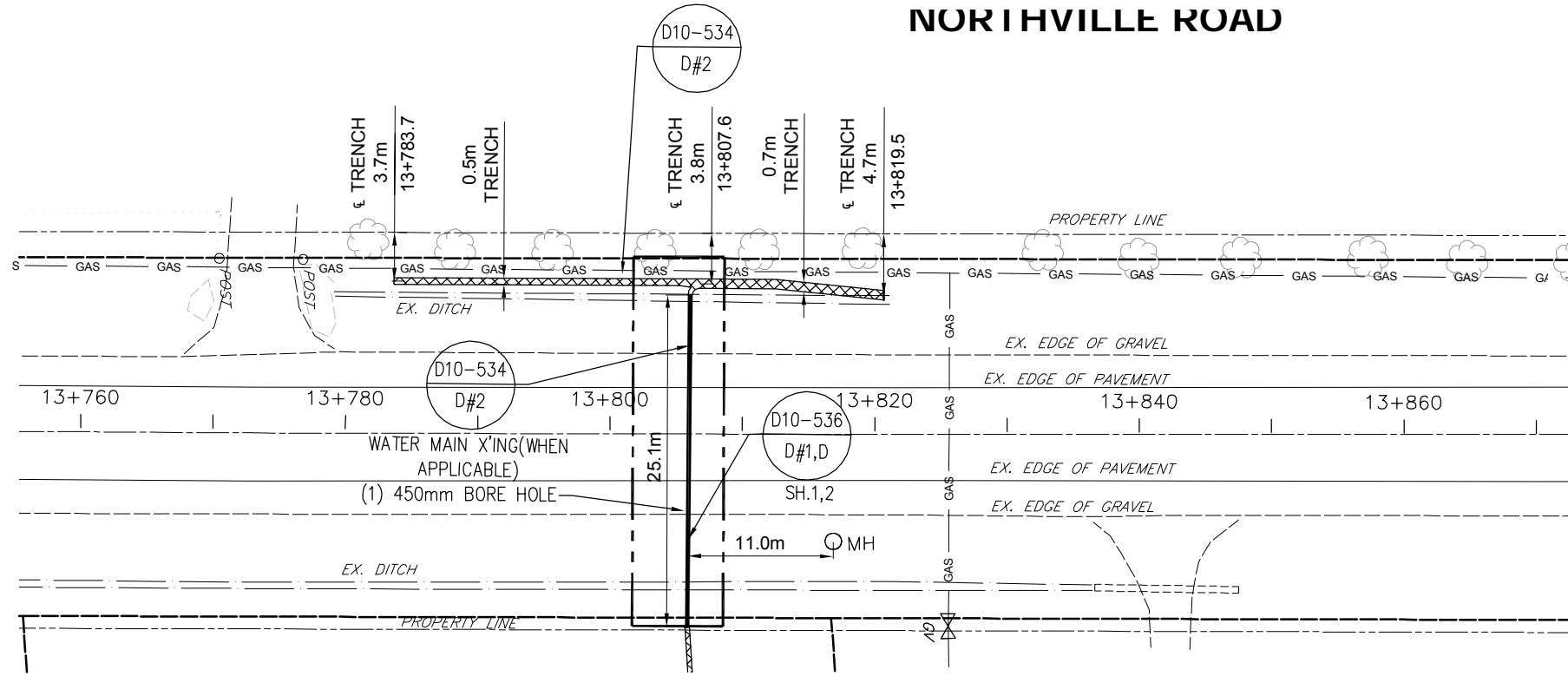
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SHEET No.:	X
REV.:	A

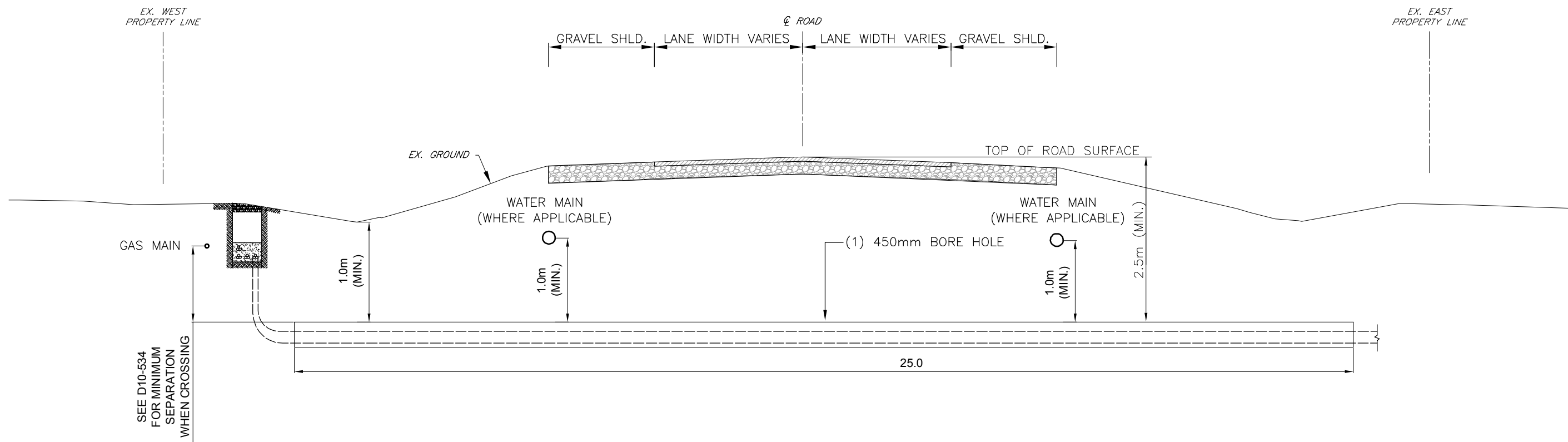
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Jericho Distribution (Collection) Perpendicular Cross-Sections

NORTHVILLE ROAD



HORZ. 1:500



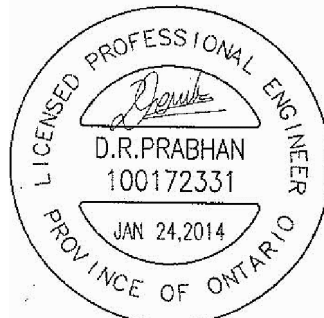
SEE D10-534 FOR MINIMUM SEPARATION WHEN CROSSING

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A	INFORMATION FOR PERMITTING	12/05/13	K.P.

**NEXTERA ENERGY CANADA, ULC
JERICHO WIND ENERGY CENTRE
CABLE CROSSING
NORTHVILLE ROAD AT TURBINE 58**

SCALE: AS NOTED DATE: OCTOBER 2013

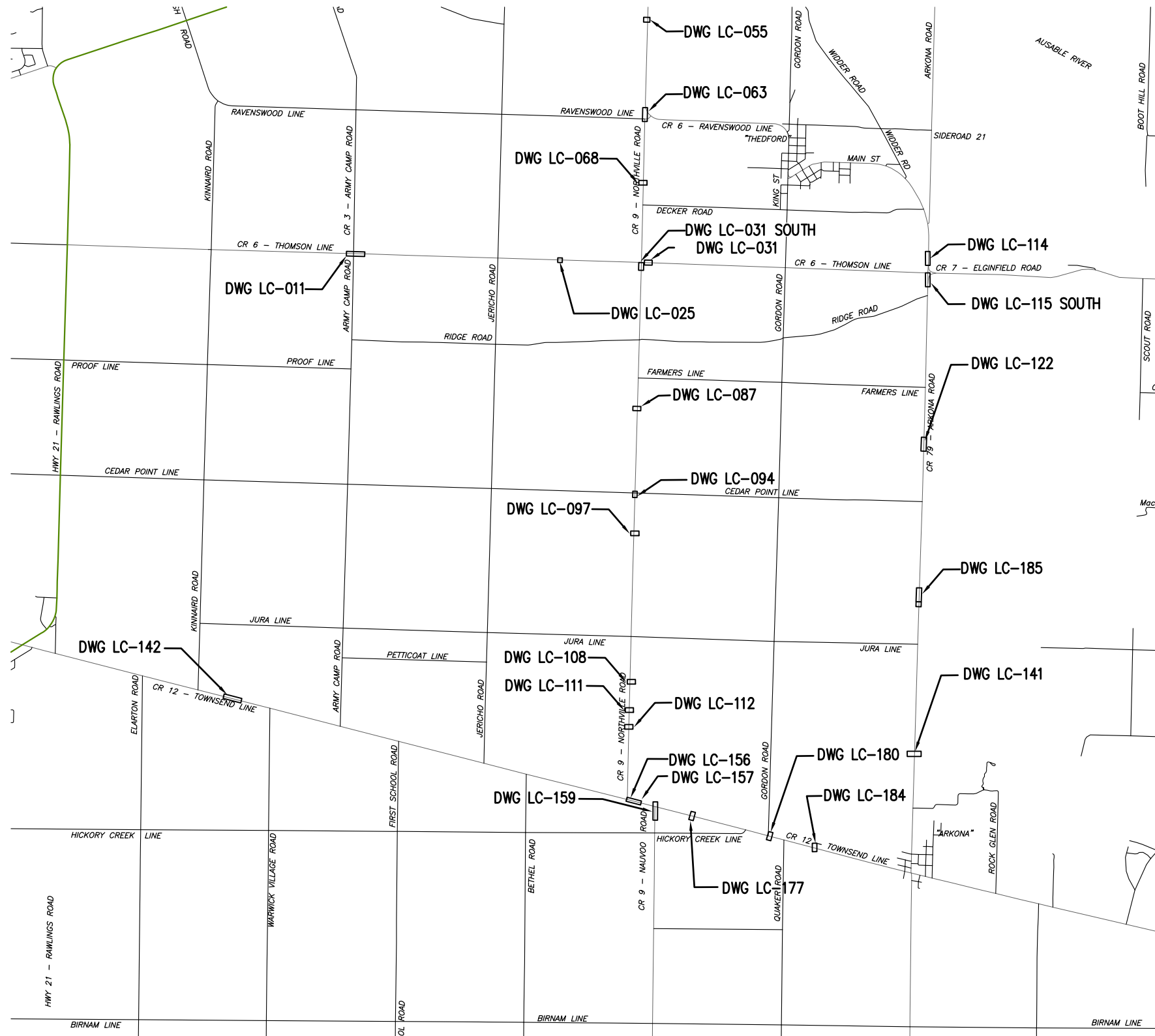


C.C. Tatham & Associates Ltd.
Consulting Engineers

Collingwood Bracebridge Orillia Barrie

DWG. No.
LC-097-CROSSING

C.C. TATHAM & ASSOCIATES Ltd.
FILE NO. 412414-1



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A	INFORMATION FOR PERMITTING	06/11/13	K.P.

NEXTERA ENERGY CANADA, ULC JERICHO WIND ENERGY CENTRE	
CROSSING INDEX SHEET	
SCALE: N.T.S.	DATE: OCTOBER 2013



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 Consulting Engineers

Collingwood Bracebridge Orillia Barrie

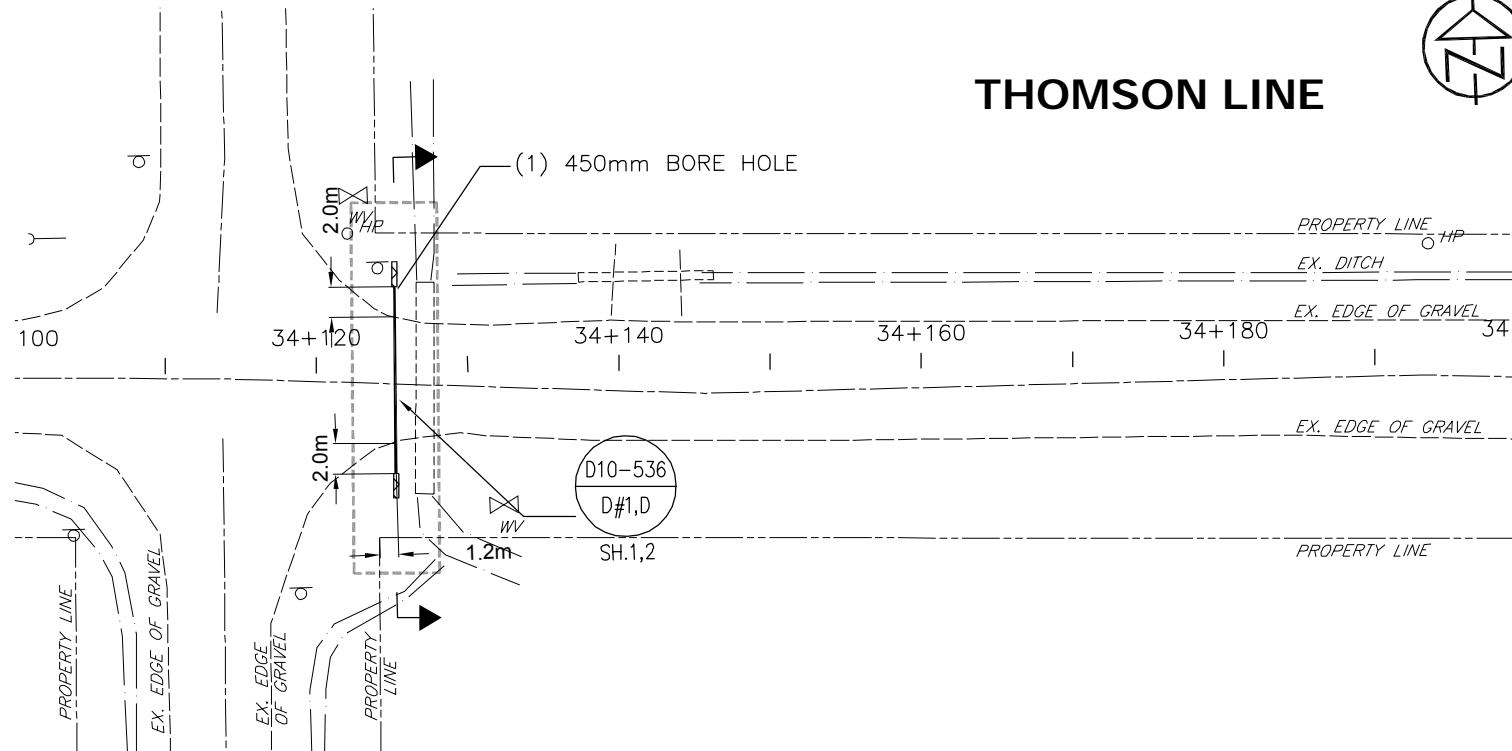
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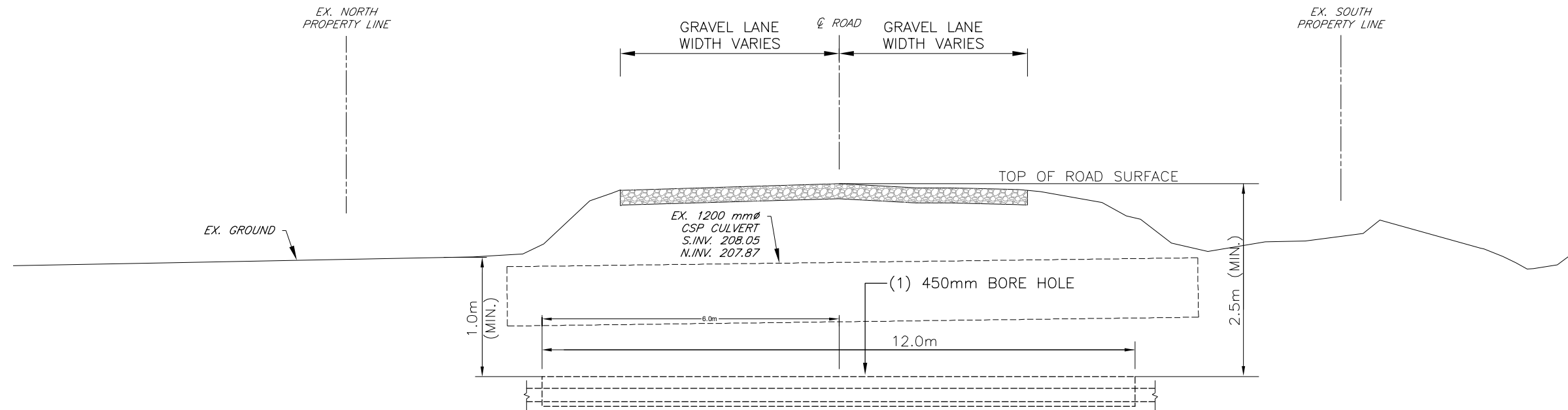
THOMSON LINE



ARMY CAMP ROAD



HORZ. 1:500



HORZ. 1:100

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B	RESUBMITTED TO COUNTY FOR PERMITTING	12/05/13	K.P.
A	INFORMATION FOR PERMITTING	06/11/13	K.P.

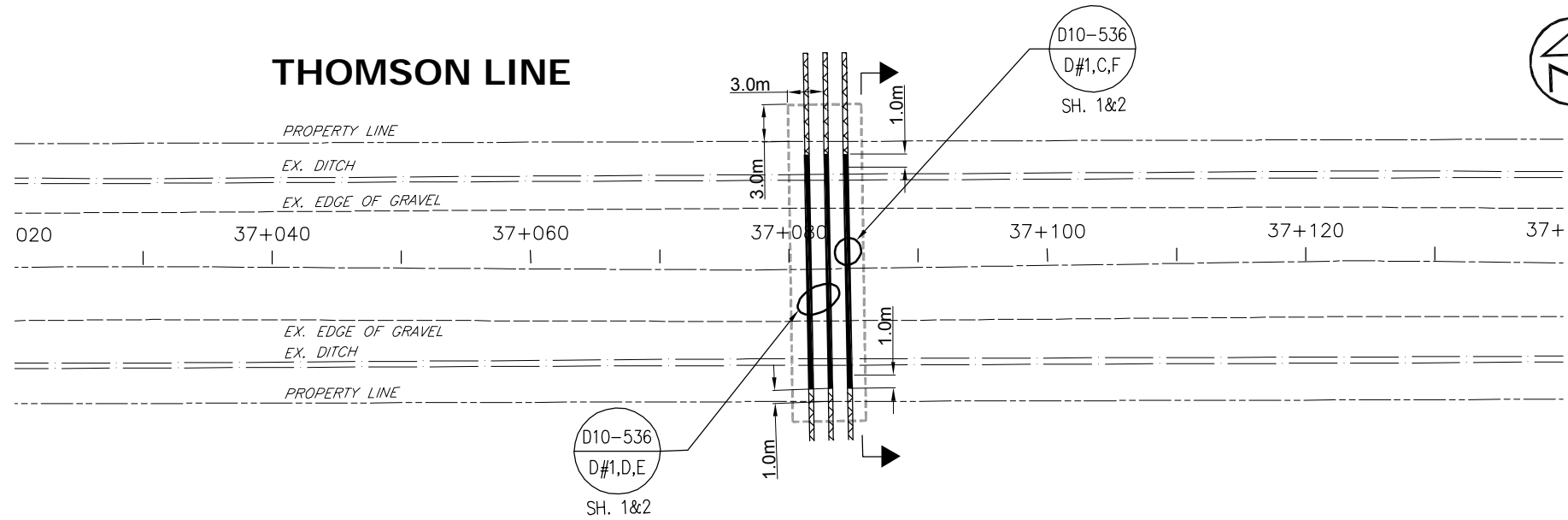
NEXTERA ENERGY CANADA, ULC JERICO WIND ENERGY CENTRE CABLE CROSSING THOMSON LINE AT ARMY CAMP ROAD	
SCALE: AS NOTED	DATE: OCTOBER 2013

DWG. No. LC-011-CROSSING
C.C. TATHAM & ASSOCIATES Ltd. FILE NO. 412414-1

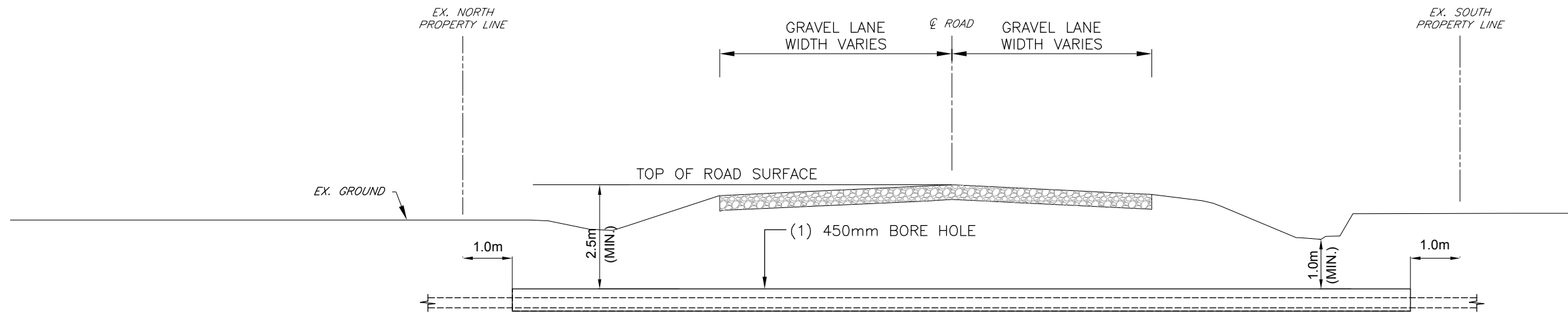
C.C. Tatham & Associates Ltd.
Consulting Engineers

Collingwood Bracebridge Orillia Barrie

THOMSON LINE



HORZ. 1:500



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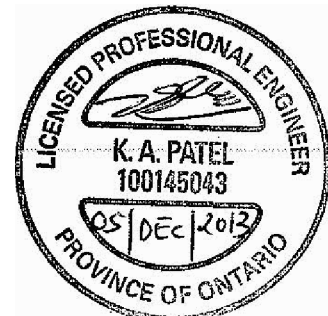
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B	RESUBMITTED TO COUNTY FOR PERMITTING	12/05/13	K.P.
A	INFORMATION FOR PERMITTING	06/11/13	K.P.

NEXTERA ENERGY CANADA, ULC
JERICO WIND ENERGY CENTRE
CABLE CROSSING
THOMSON LINE AT TURBINE 26

SCALE: AS NOTED
DATE: OCTOBER 2013

DWG. No.
LC-025-CROSSING

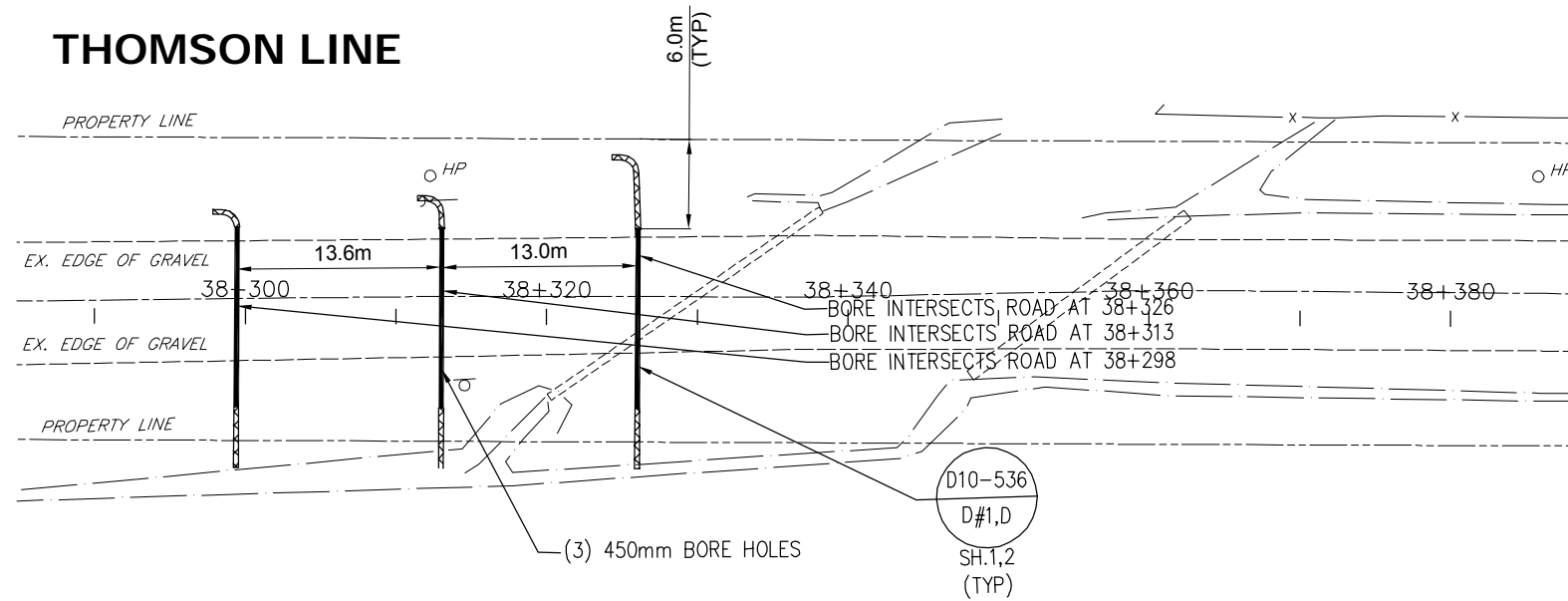
C.C. TATHAM & ASSOCIATES Ltd.
FILE NO. 412414-1



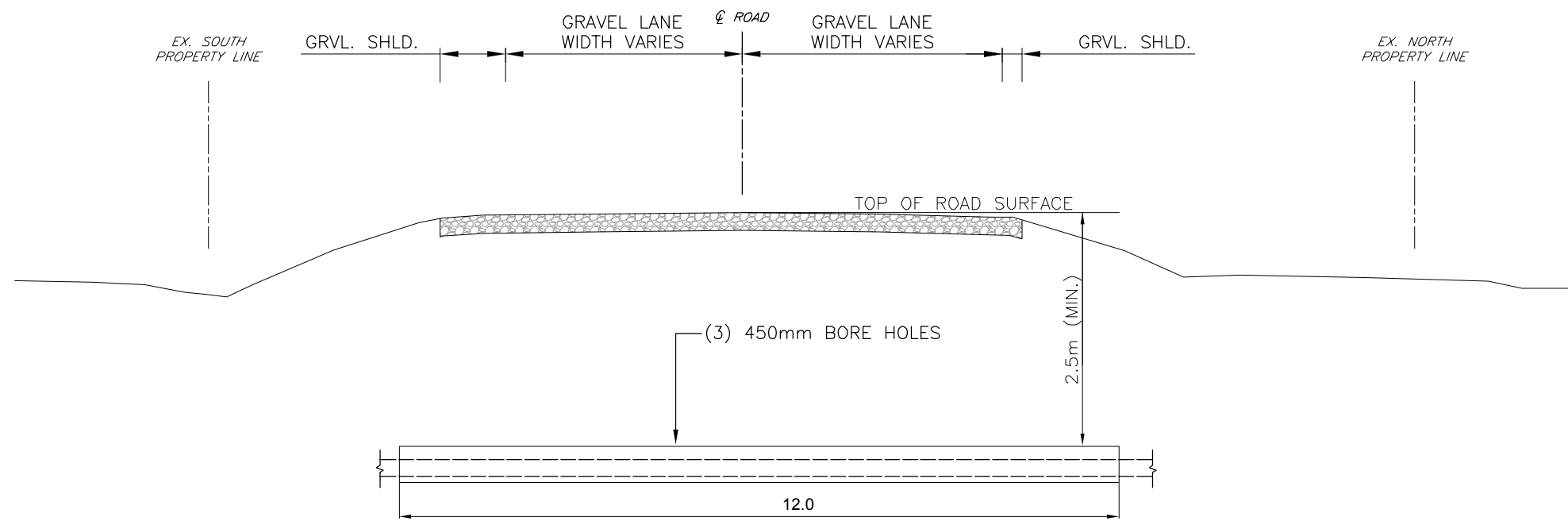
C.C. Tatham & Associates Ltd.
Consulting Engineers

Collingwood Bracebridge Orillia Barrie

THOMSON LINE



HORZ. 1:500



HORZ. 1:100

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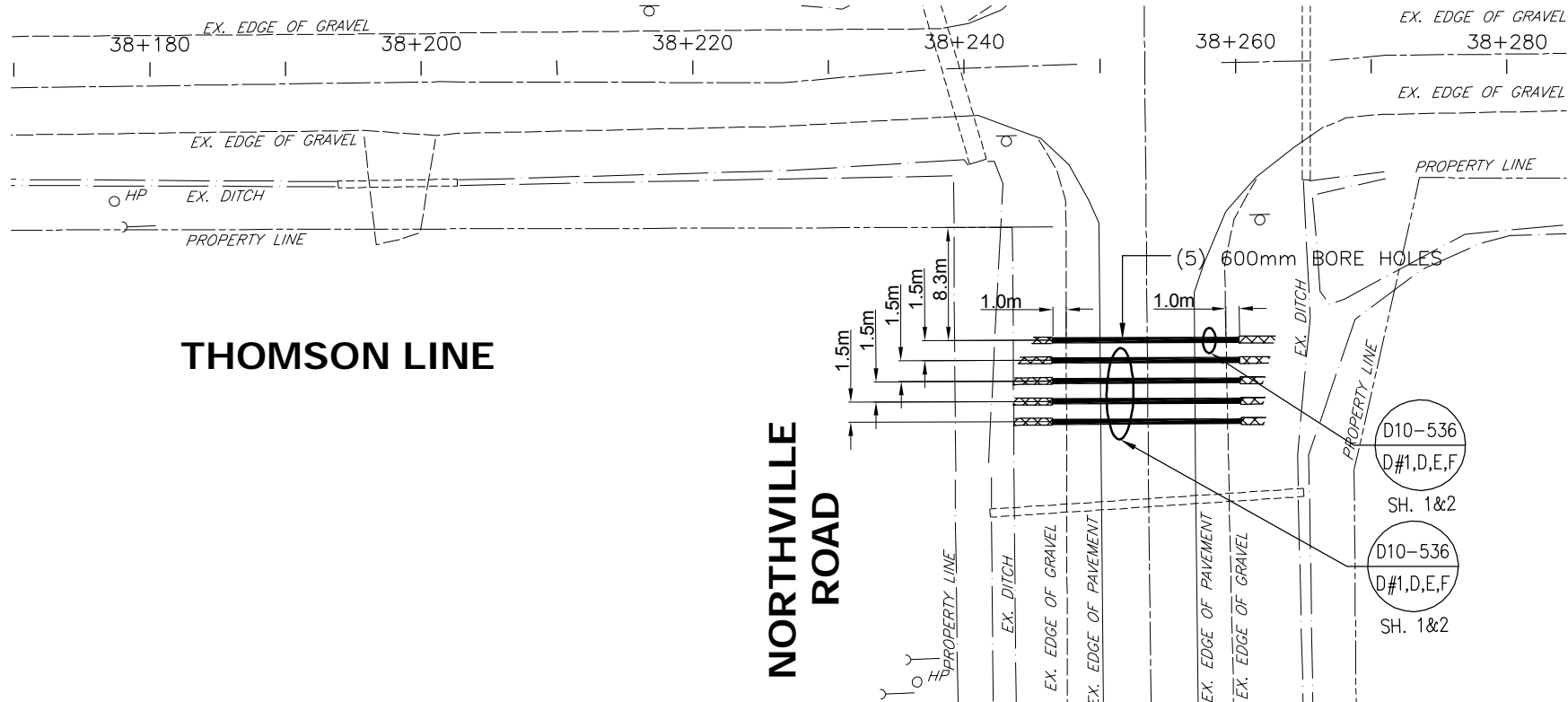
NO.	REVISIONS	DATE	INITIAL
B	RESUBMITTED TO COUNTY FOR PERMITTING	12/05/13	K.P.
A	INFORMATION FOR PERMITTING	06/11/13	K.P.

NEXTERA ENERGY CANADA, ULC
JERICO WIND ENERGY CENTRE
CABLE CROSSING
THOMSON LINE EAST OF NORTHVILLE ROAD

SCALE: AS NOTED
DATE: OCTOBER 2013

DWG. No.
LC-031-CROSSING

C.C. TATHAM & ASSOCIATES Ltd.
FILE NO. 412414-1

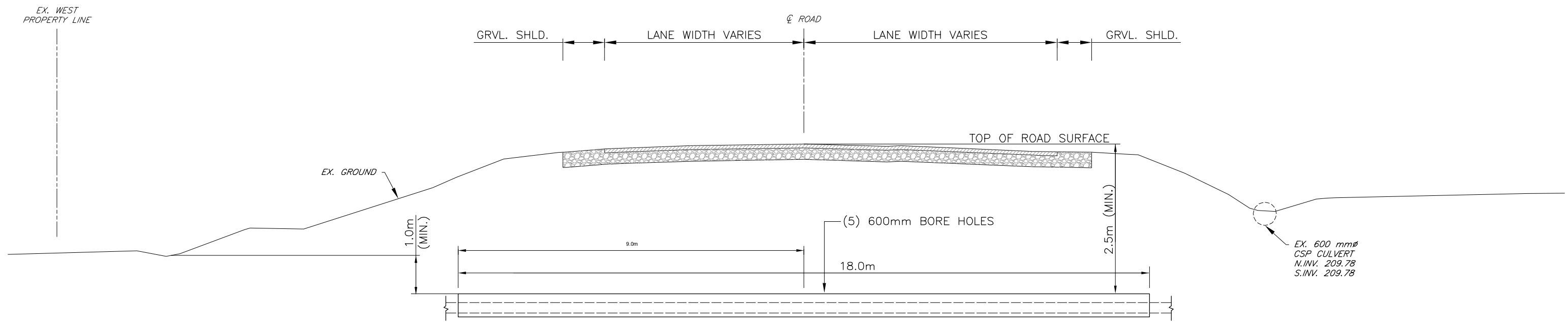


THOMSON LINE

NORTHVILLE ROAD

(5) 600mm BORE HOLES
D10-536
D#1,D,E,F
SH. 1&2

HORZ. 1:500



HORZ. 1:100

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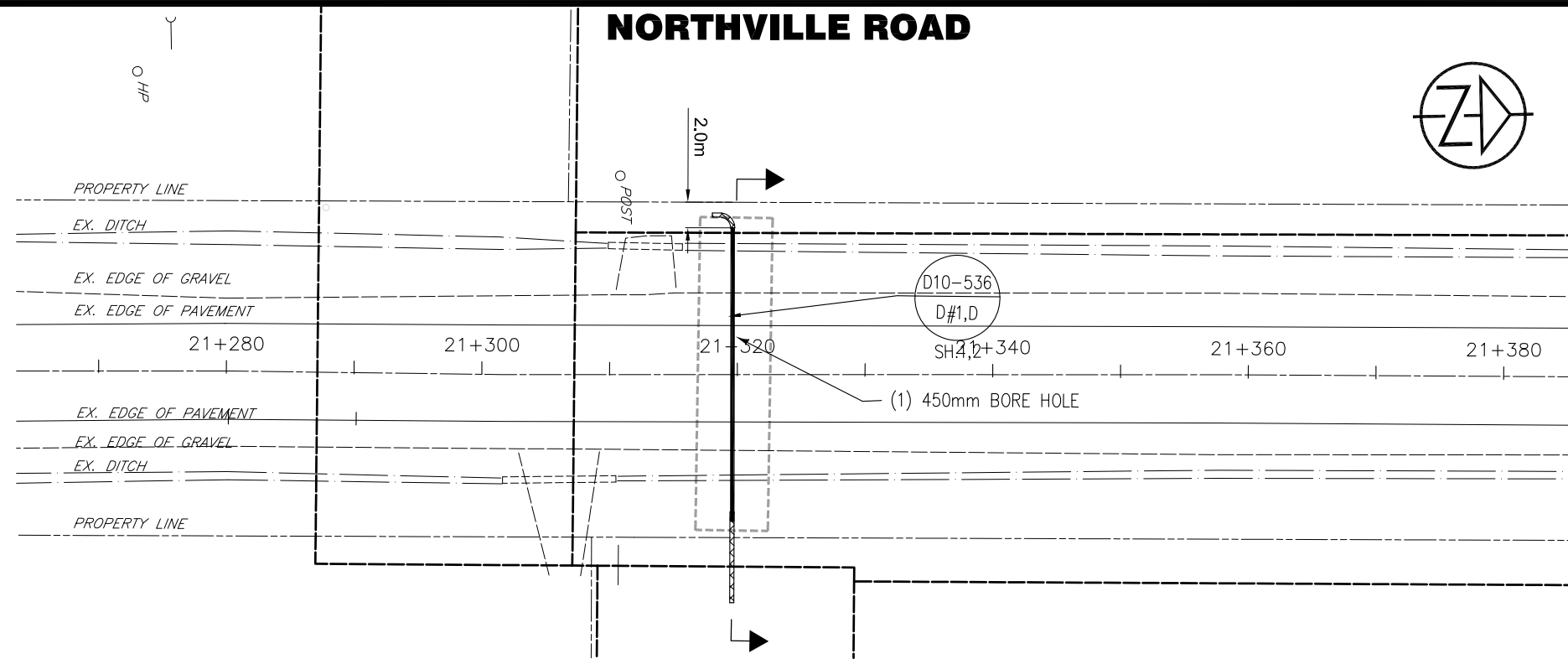
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A	INFORMATION FOR PERMITTING	06/11/13	K.P.
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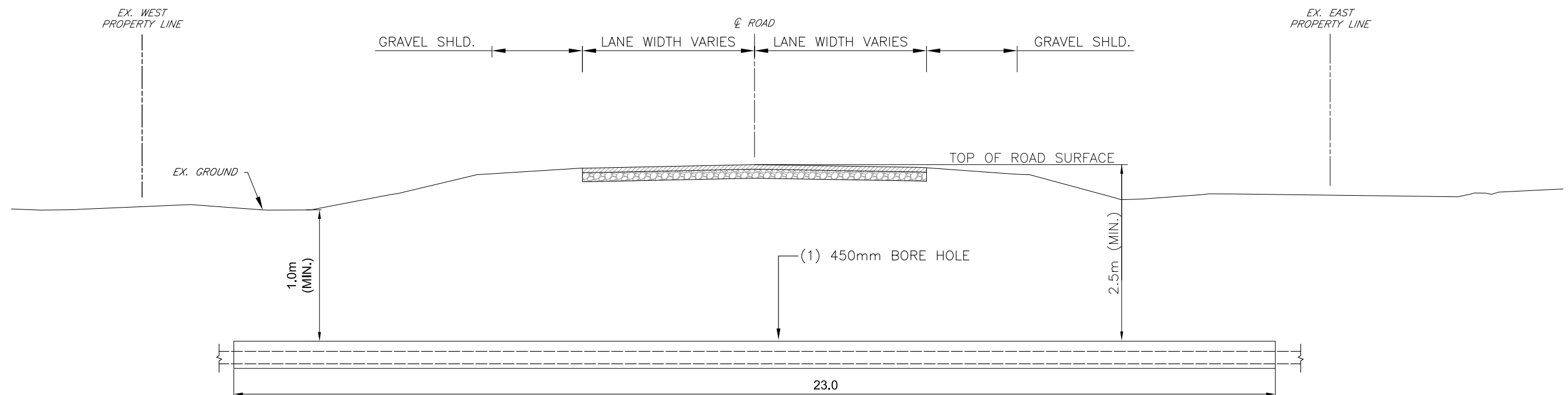
NEXTERA ENERGY CANADA, ULC
JERICO WIND ENERGY CENTRE
CABLE CROSSING
NORTHVILLE ROAD AT THOMSON LINE

SCALE: AS NOTED
DATE: OCTOBER 2013

DWG. No.
LC-031-CROSSING SOUTH
C.C. TATHAM & ASSOCIATES Ltd.
FILE NO. 412414-1



HORZ. 1:500



HORZ. 1:100

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NO.	REVISIONS	DATE	INITIAL

NEXTERA ENERGY CANADA, ULC
JERICO WIND ENERGY CENTRE
CABLE CROSSING
NORTHVILLE ROAD AT TURBINE 20

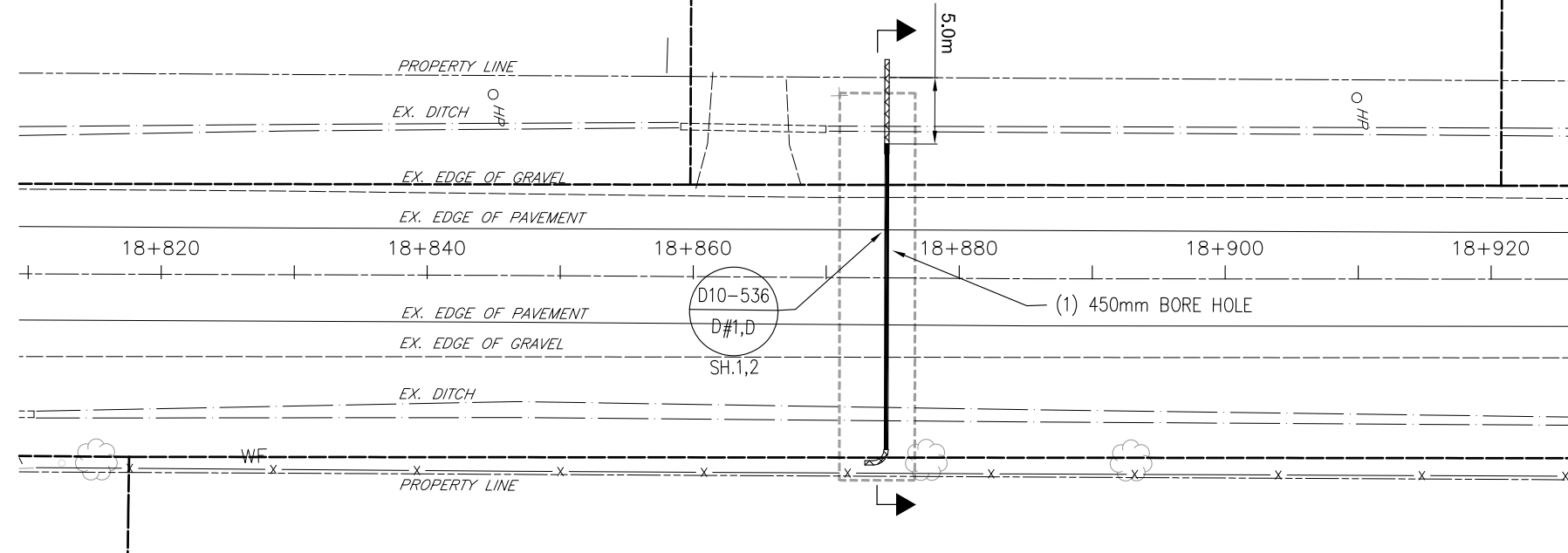
SCALE: AS NOTED

DATE: OCTOBER 2013

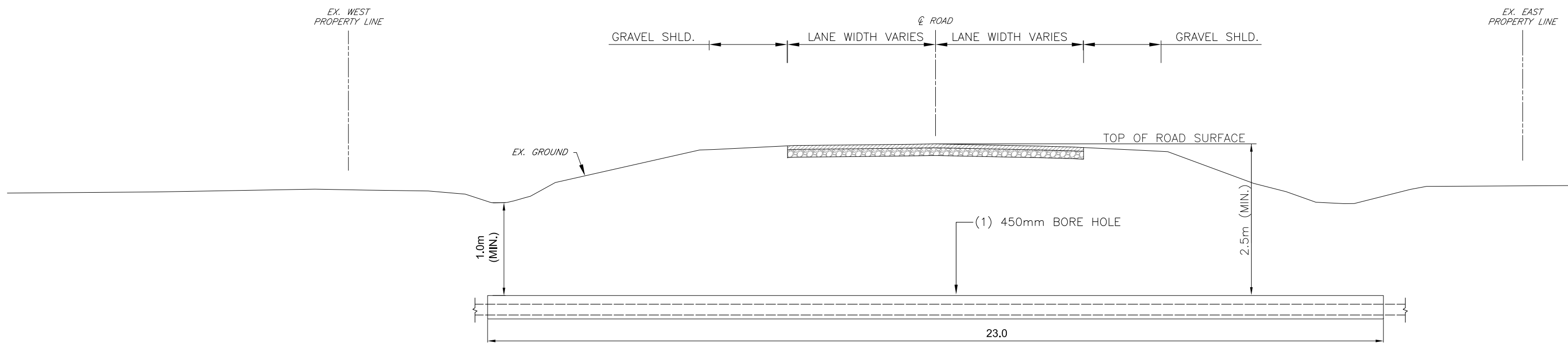
DWG. No.
LC-055-CROSSING

C.C. TATHAM & ASSOCIATES Ltd.
FILE NO. 412414-1

NORTHVILLE ROAD



HORZ. 1:500



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NO.	REVISIONS	DATE	INITIAL

NEXTERA ENERGY CANADA, ULC
JERICO WIND ENERGY CENTRE
CABLE CROSSING
NORTHVILLE ROAD AT TURBINE 22

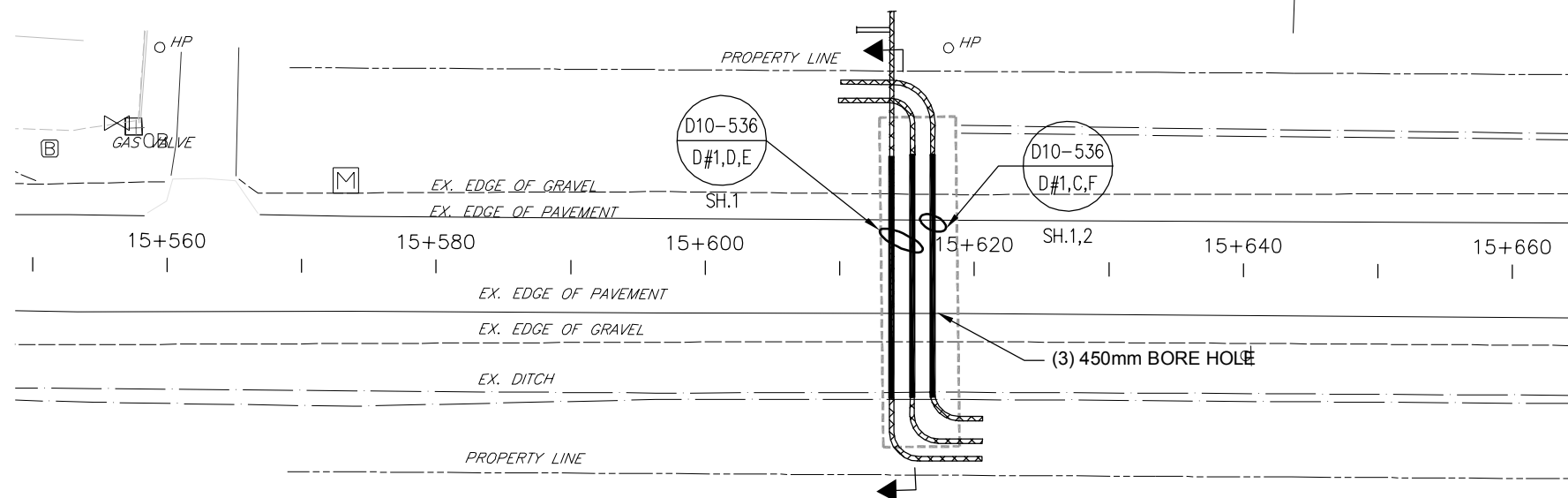
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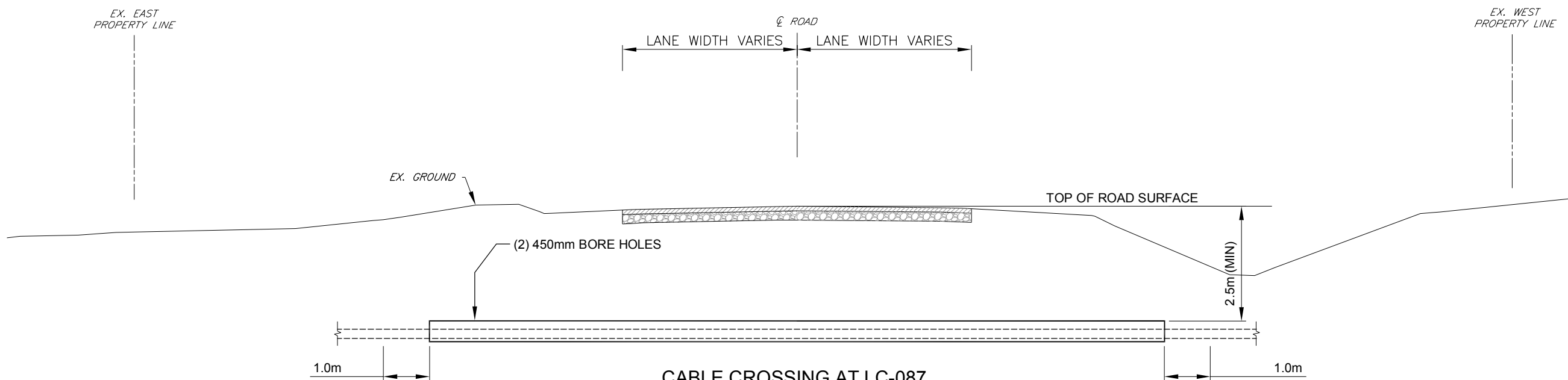
DWG. No.
LC-068-CROSSING

C.C. TATHAM & ASSOCIATES Ltd.
FILE NO. 412414-1

NORTHVILLE ROAD



HORZ. 1:500



**CABLE CROSSING AT LC-087
NORTHVILLE ROAD AT TURBINE 45**

SCALE: 1:100

HORZ. 1:100

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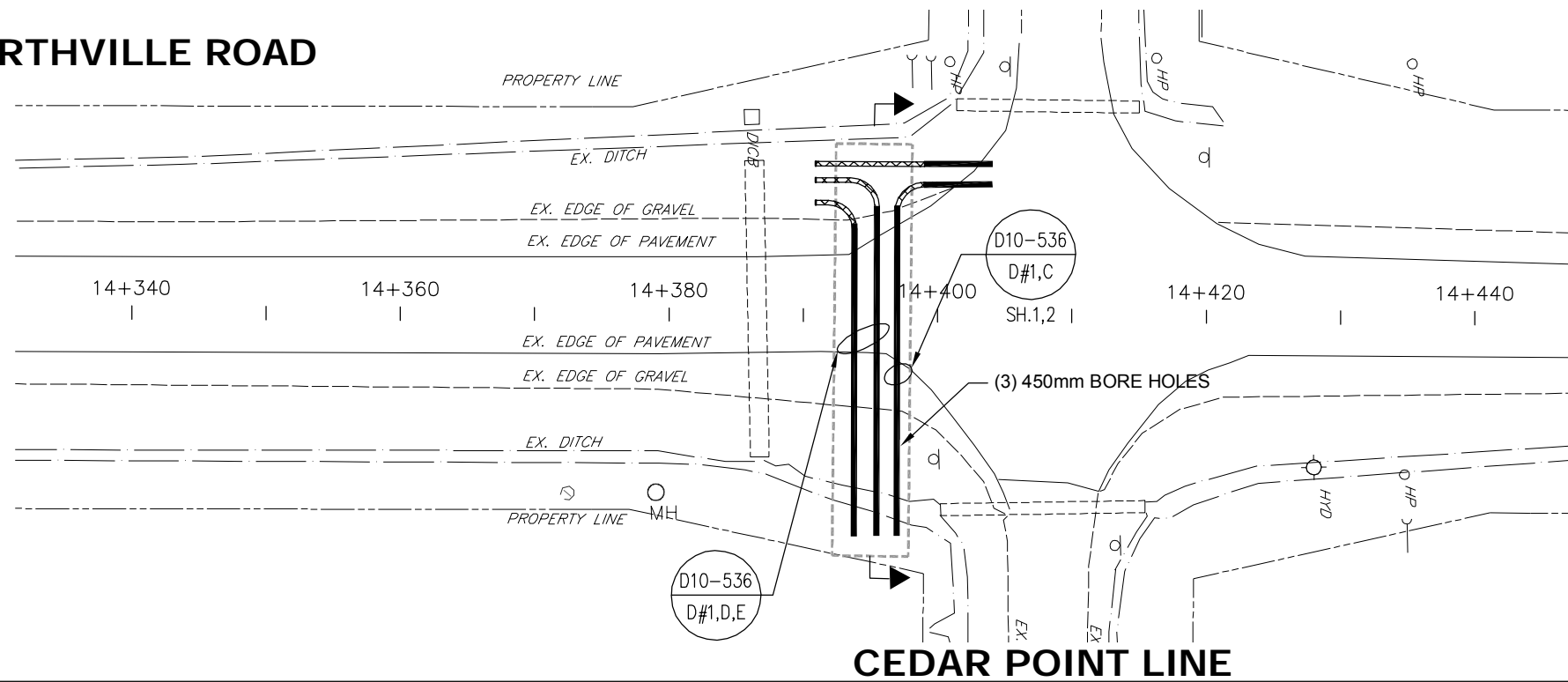
**NEXTERA ENERGY CANADA, ULC
JERICHO WIND ENERGY CENTRE
CABLE CROSSING
NORTHVILLE ROAD AT TURBINE 45**

DWG. No.
LC-087-CROSSING

SCALE: AS NOTED DATE: OCTOBER 2013

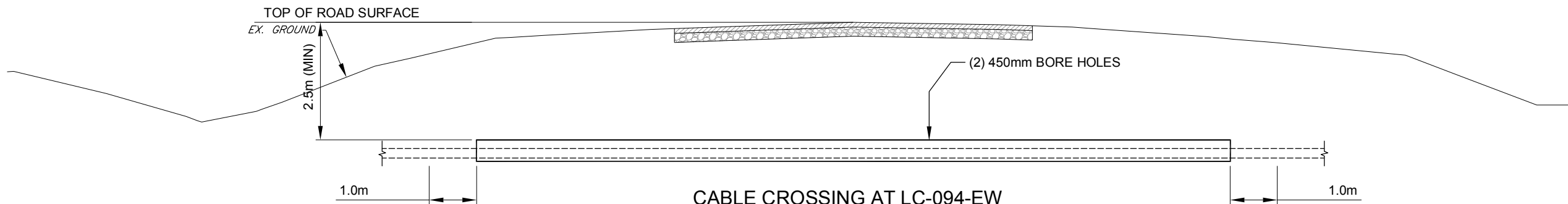
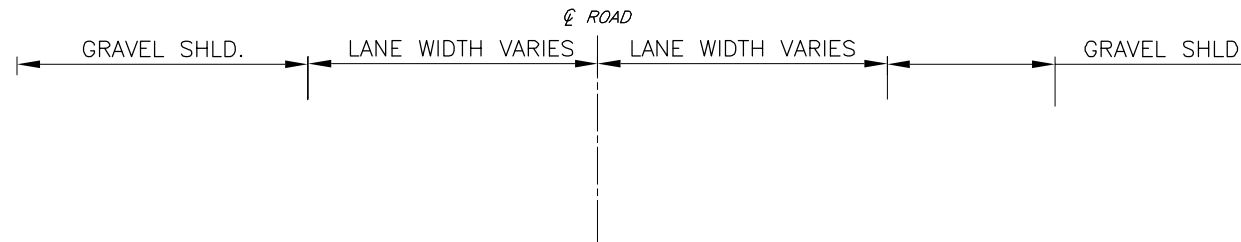
C.C. TATHAM & ASSOCIATES Ltd.
FILE NO. 412414-1

NORTHVILLE ROAD



CEDAR POINT LINE

HORZ. 1:500



**CABLE CROSSING AT LC-094-EW
NORTHVILLE ROAD AT CEDAR POINT LINE**

SCALE: 1:100

HORZ. 1:100

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A	INFORMATION FOR PERMITTING	06/11/13	K.P.

**NEXTERA ENERGY CANADA, ULC
JERICO WIND ENERGY CENTRE
CABLE CROSSING
NORTHVILLE ROAD AT CEDAR POINT LINE**

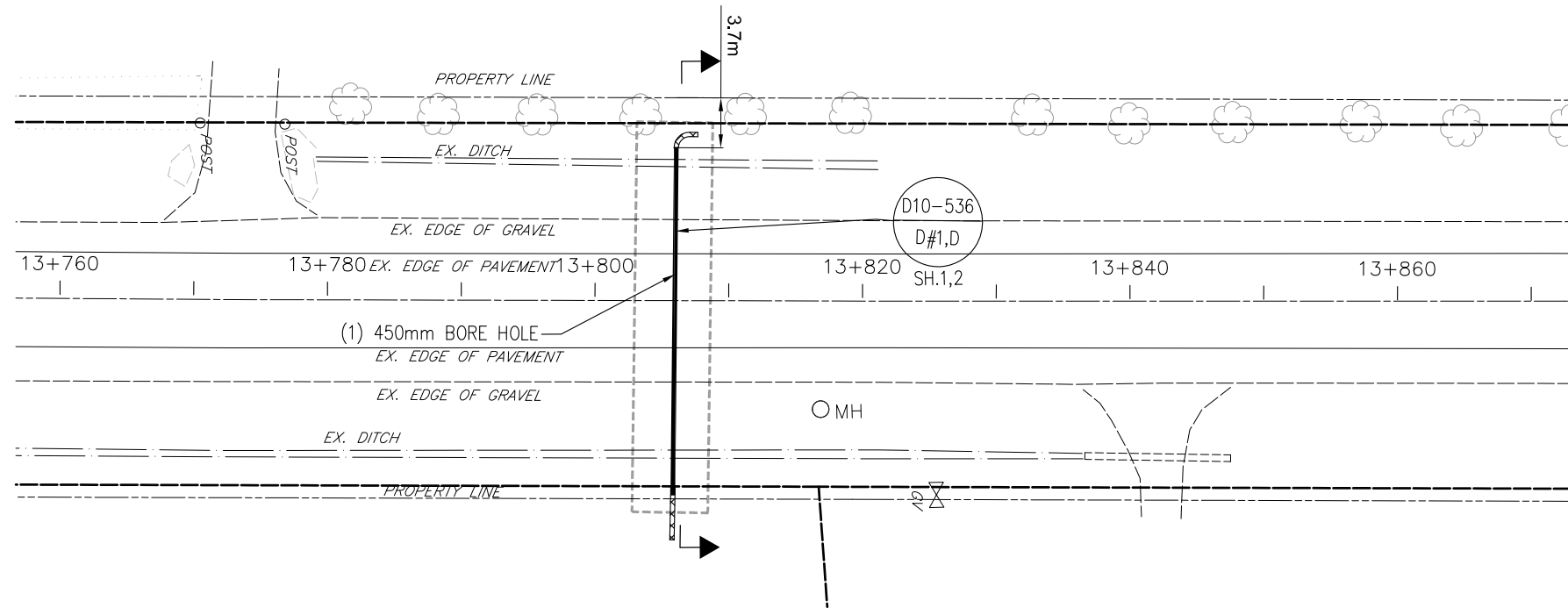
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DATE: OCTOBER 2013

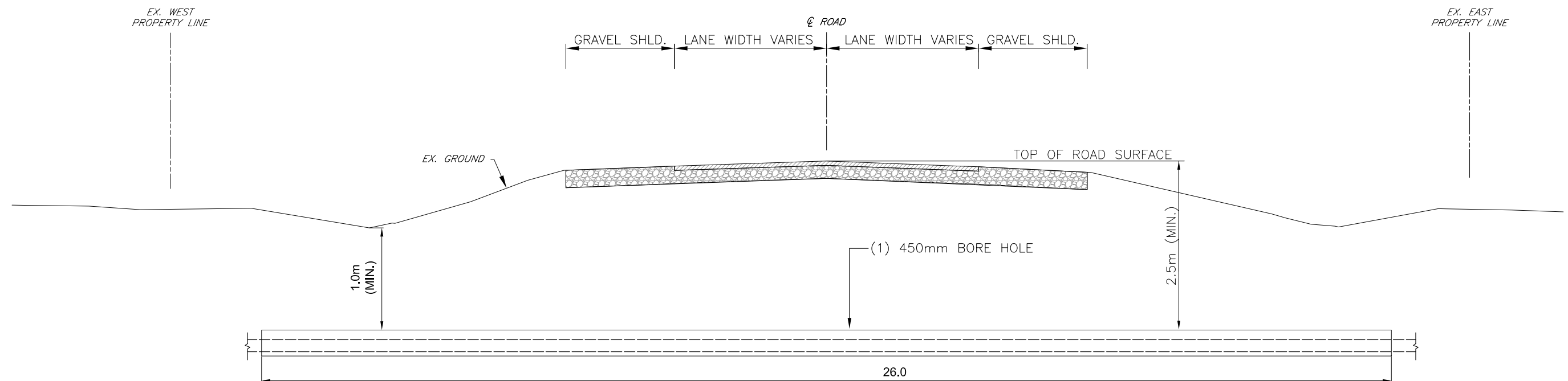
DWG. No.
LC-094-CROSSING

C.C. TATHAM & ASSOCIATES Ltd.
FILE NO. 412414-1

NORTHVILLE ROAD



HORZ. 1:500



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NEXTERA ENERGY CANADA, ULC
JERICO WIND ENERGY CENTRE
CABLE CROSSING
NORTHVILLE ROAD AT TURBINE 58

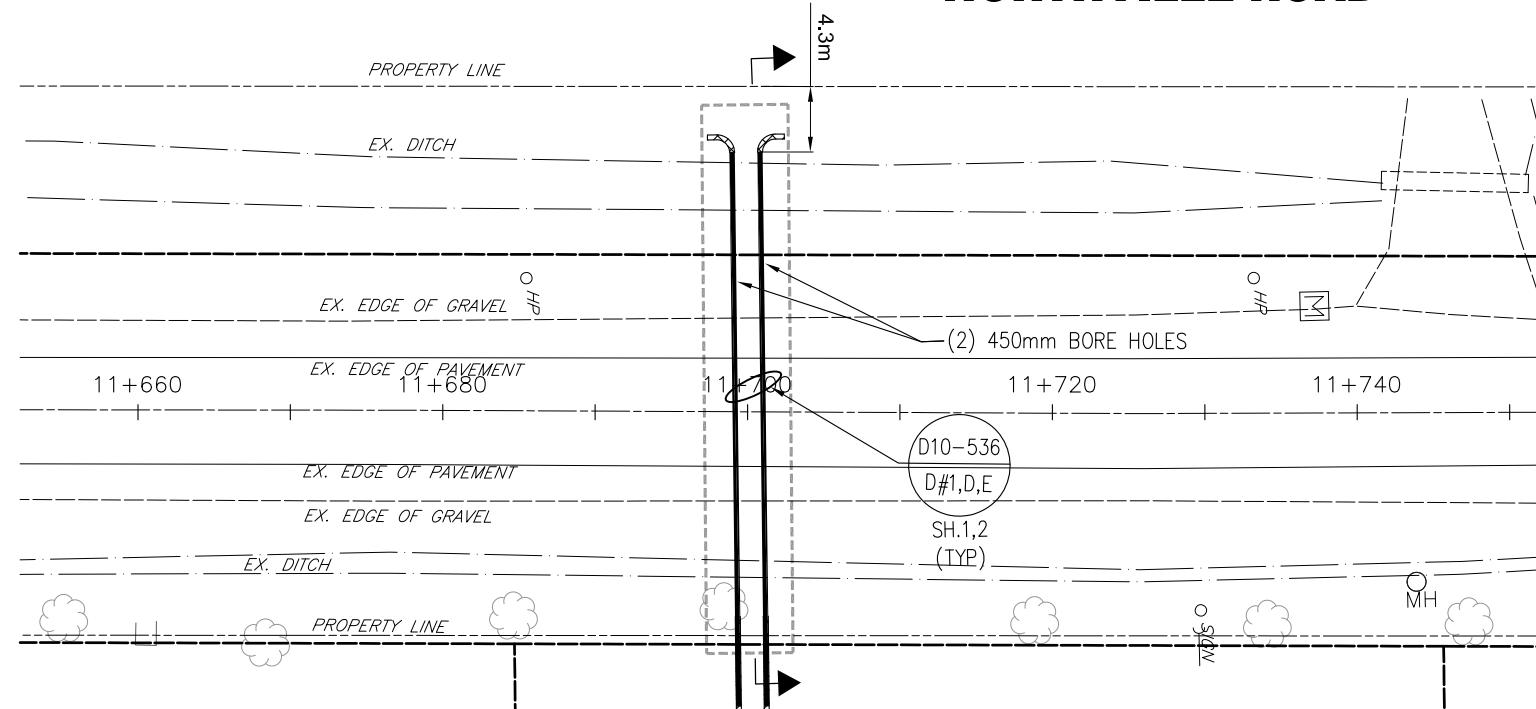
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DATE: OCTOBER 2013

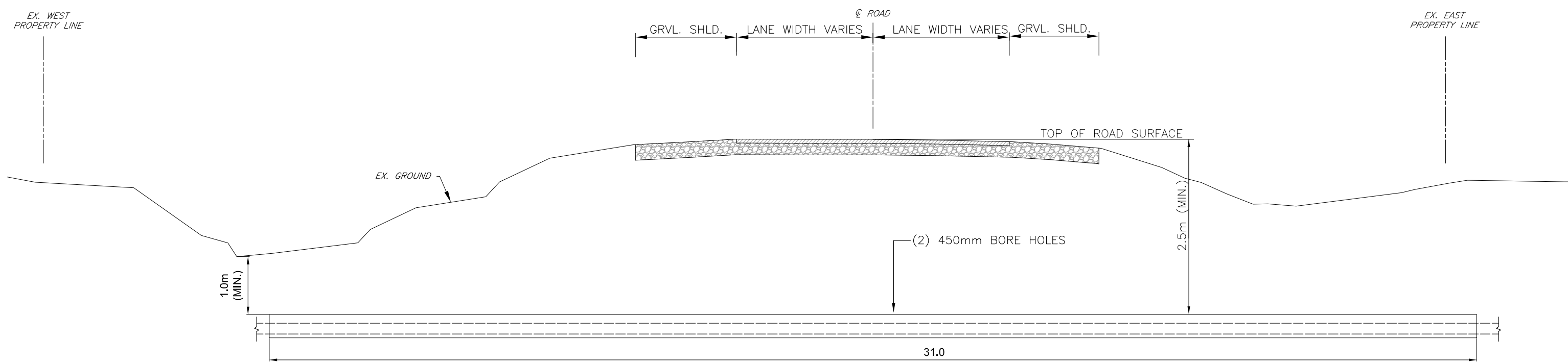
DWG. No.
LC-097-CROSSING

C.C. TATHAM & ASSOCIATES Ltd.
FILE NO. 412414-1

NORTHVILLE ROAD



HORZ. 1:500



HORZ. 1:100

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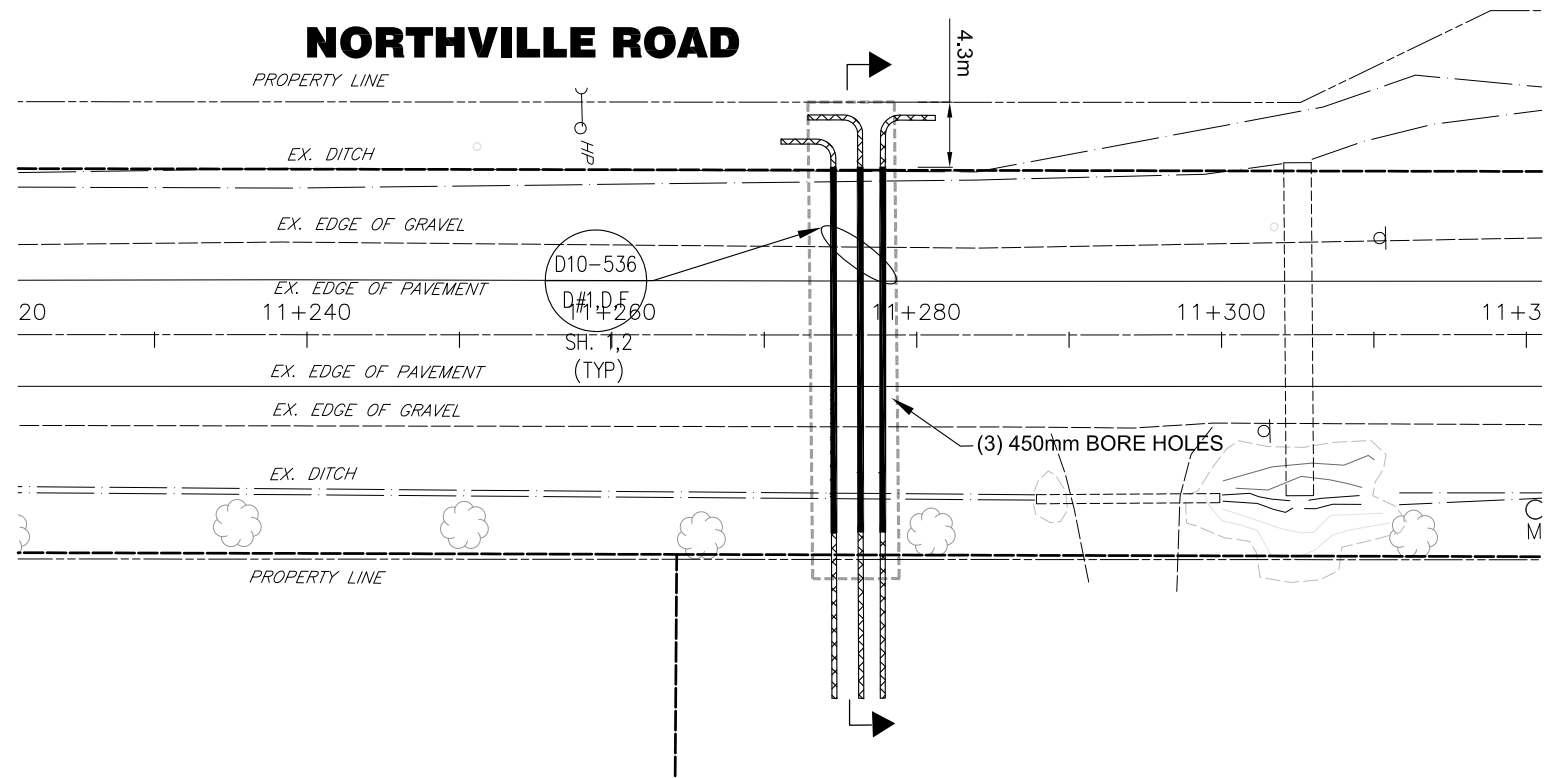
**NEXTERA ENERGY CANADA, ULC
JERICHO WIND ENERGY CENTRE
CABLE CROSSING
NORTHVILLE ROAD AT TURBINE 60**

DWG. No.
LC-108-CROSSING

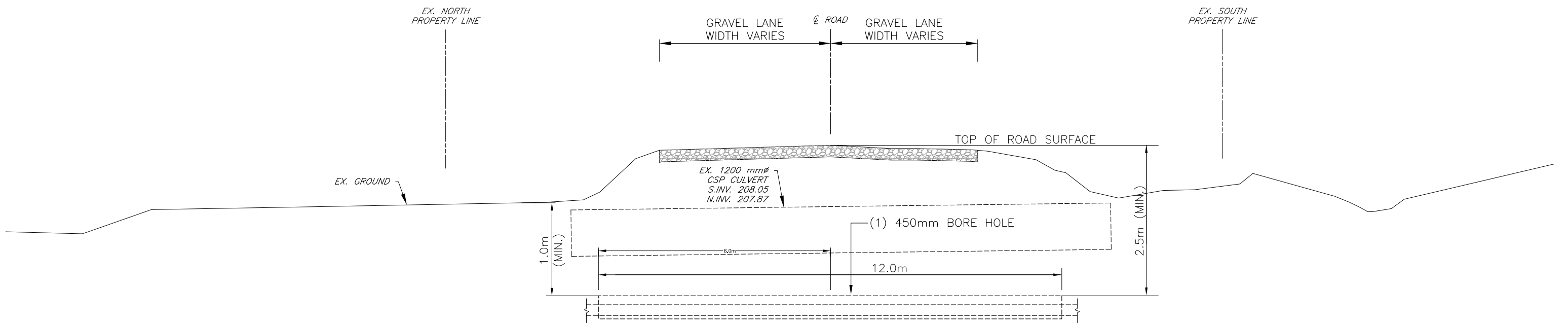
SCALE: AS NOTED DATE: OCTOBER 2013

C.C. TATHAM & ASSOCIATES Ltd.
FILE NO. 412414-1

NORTHVILLE ROAD



HORZ. 1:500



HORZ. 1:100

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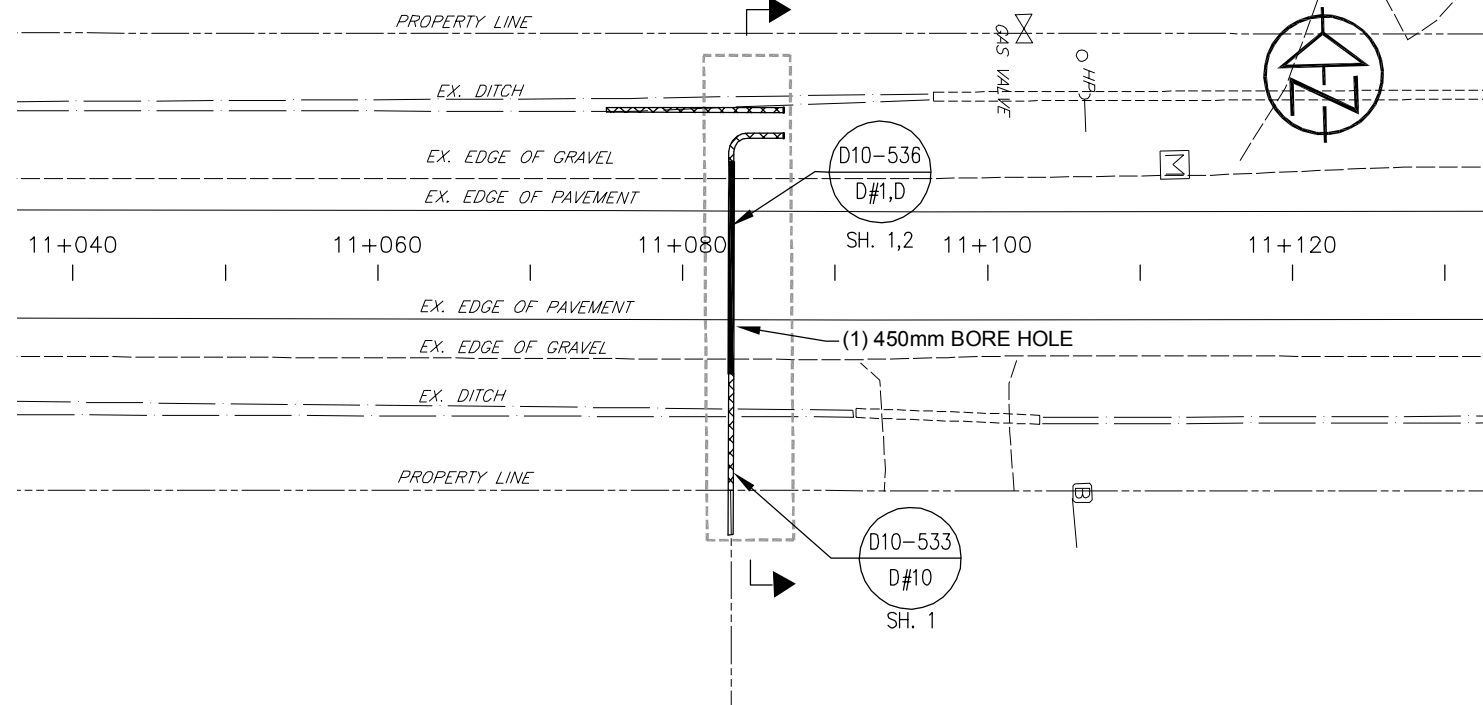
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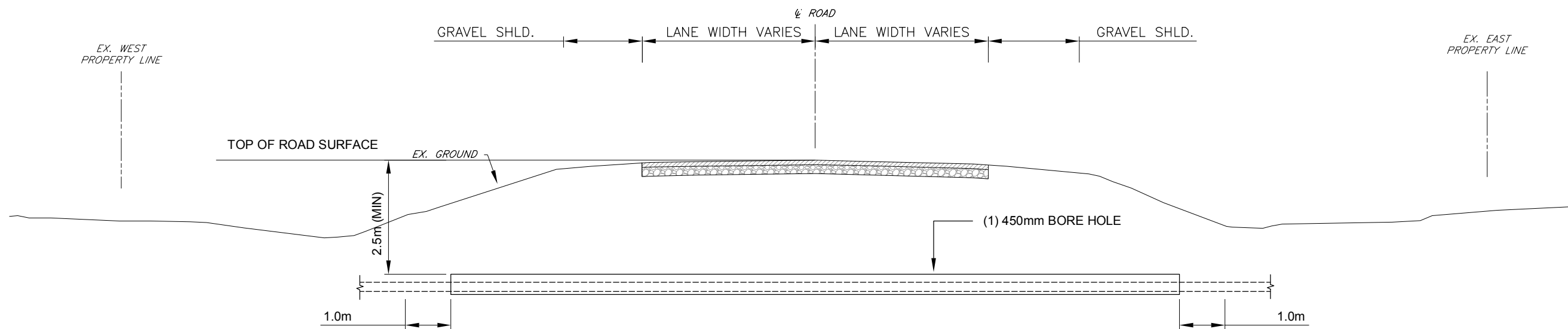
NEXTERA ENERGY CANADA, ULC JERICO WIND ENERGY CENTRE CABLE CROSSING NORTHVILLE ROAD AT TURBINE 61	
SCALE: AS NOTED	DATE: OCTOBER 2013

DWG. No. LC-111-CROSSING
C.C. TATHAM & ASSOCIATES Ltd. FILE NO. 412414-1

NORTHVILLE ROAD



HORZ. 1:500



**CABLE CROSSING AT LC-112
NORTHVILLE ROAD AT TURBINE 62**
SCALE: 1:100

HORZ. 1:100

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**NEXTERA ENERGY CANADA, ULC
JERICHO WIND ENERGY CENTRE
CABLE CROSSING
NORTHVILLE ROAD AT TURBINE 62**

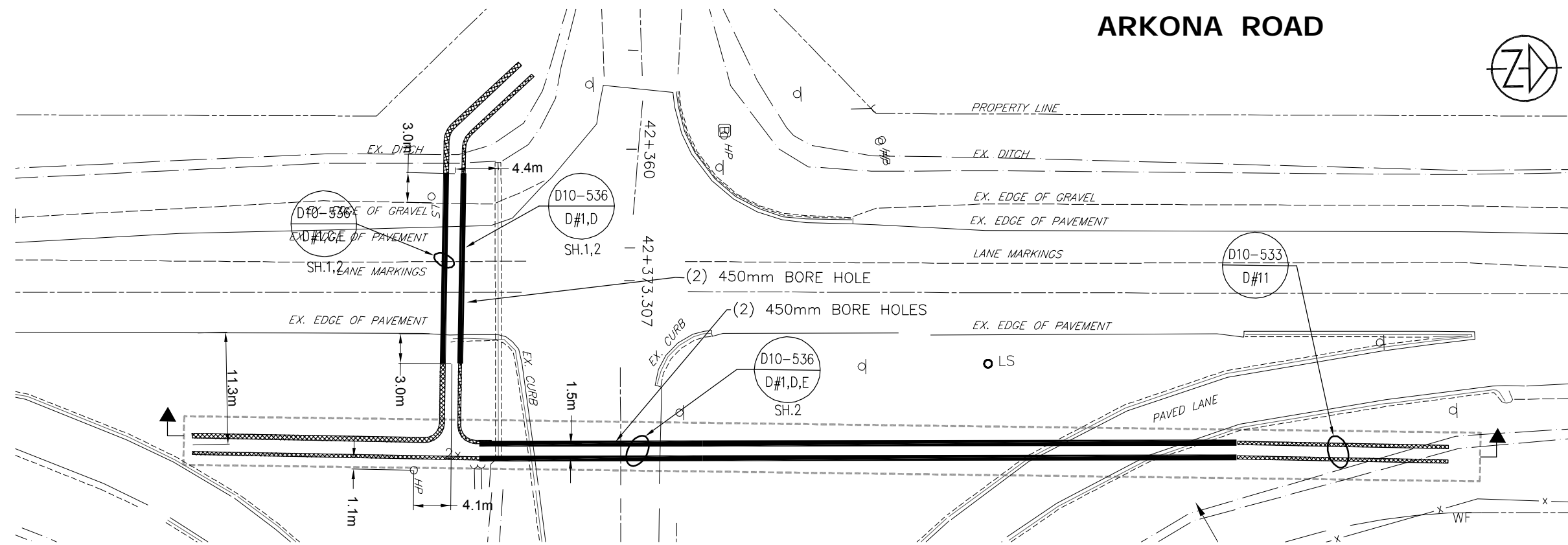
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DATE: OCTOBER 2013

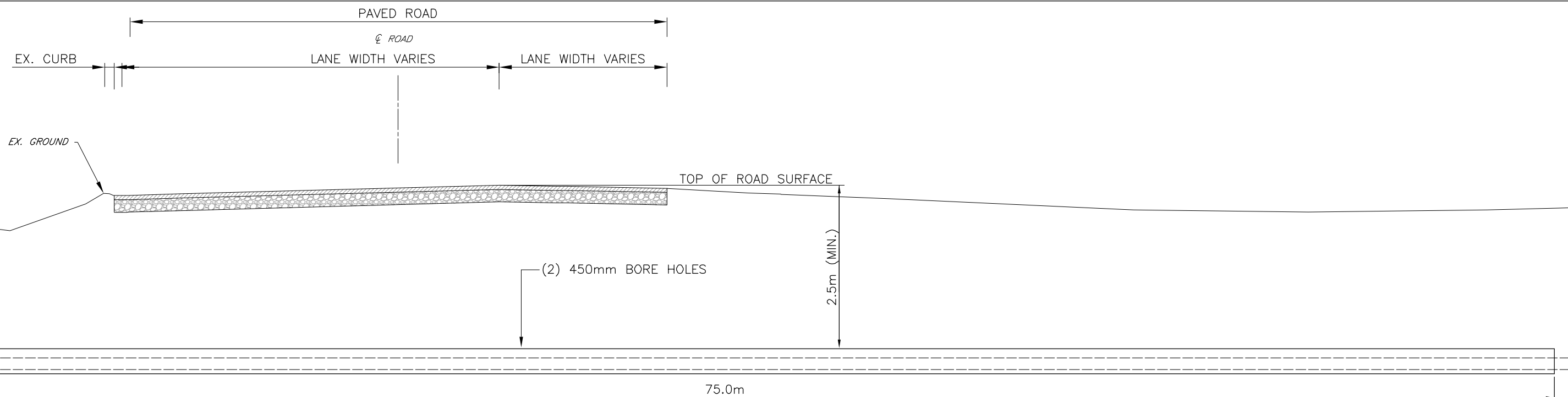
DWG. No.
LC-112-CROSSING

C.C. TATHAM & ASSOCIATES Ltd.
FILE NO. 412414-1

ARKONA ROAD



HORZ. 1:500



HORZ. 1:100

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Consulting Engineers

Collingwood Bracadrigde Orillia Barrie

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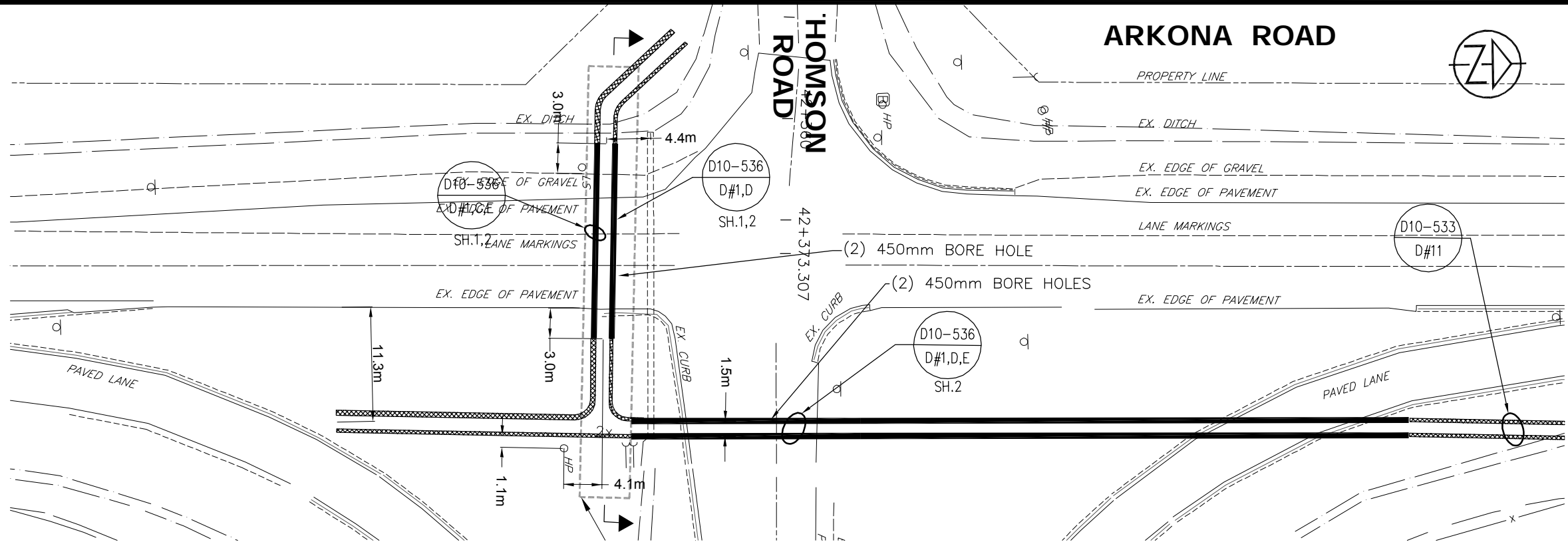
NO.	REVISIONS	DATE	INITIAL
B	RESUBMITTED TO COUNTY FOR PERMITTING	12/05/13	K.P.
A	INFORMATION FOR PERMITTING	06/11/13	K.P.

NEXTERA ENERGY CANADA, ULC
JERICHO WIND ENERGY CENTRE
CABLE CROSSING
ARKONA ROAD AT ELGINFIELD ROAD SOUTH

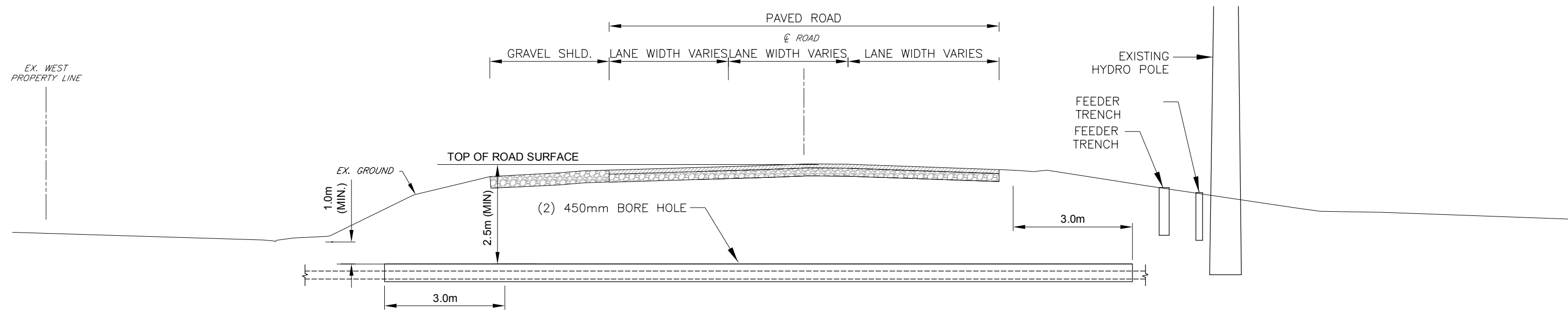
SCALE: AS NOTED

DATE: OCTOBER 2013

DWG. No.
LC-114-CROSSING
C.C. TATHAM & ASSOCIATES Ltd.
FILE NO. 412414-1



HORZ. 1:500



HORZ. 1:100

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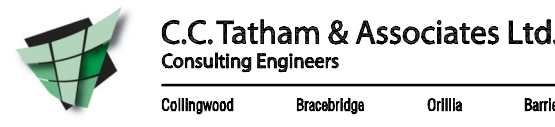
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NO.	REVISIONS	DATE	INITIAL

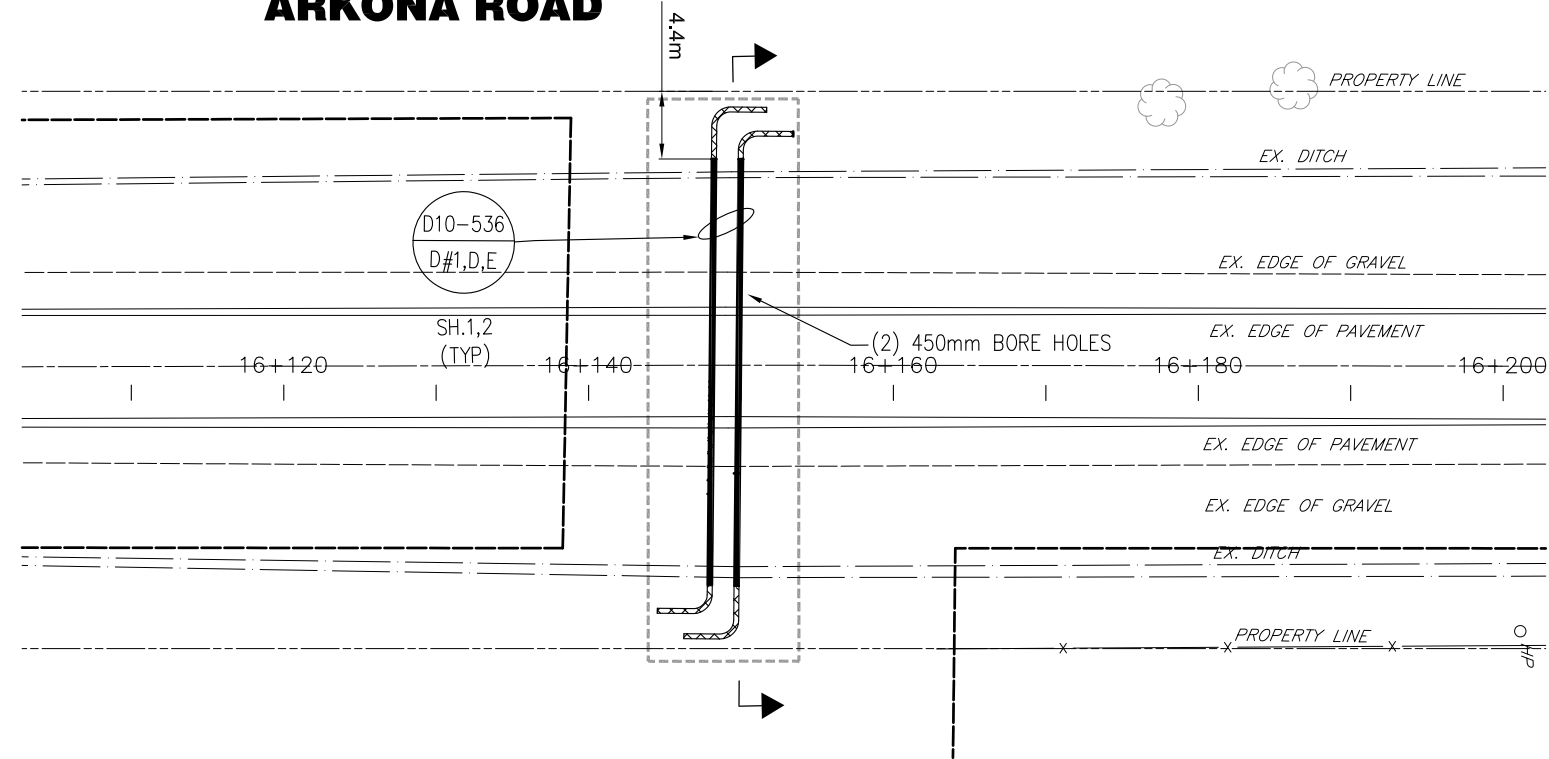
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 JERICO WIND ENERGY CENTRE
 CABLE CROSSING
 ARKONA AT THOMSON LINE EAST**

SCALE: AS NOTED DATE: OCTOBER 2013

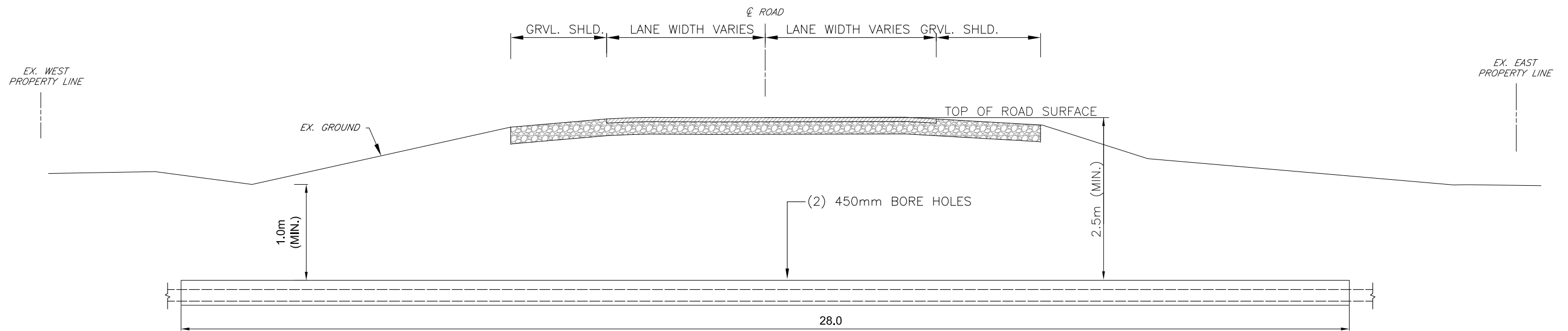
DWG. No.
LC-115-CROSSING

C.C. TATHAM & ASSOCIATES Ltd.
 FILE NO. 412414-1

ARKONA ROAD



HORZ. 1:500



HORZ. 1:100

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Collingwood Bracebridge Orillia Barrie

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NO.	REVISIONS	DATE	INITIAL
A	INFORMATION FOR PERMITTING	12/05/13	K.P.

**NEXTERA ENERGY CANADA, ULC
JERICHO WIND ENERGY CENTRE
CABLE CROSSING
ARKONA ROAD**

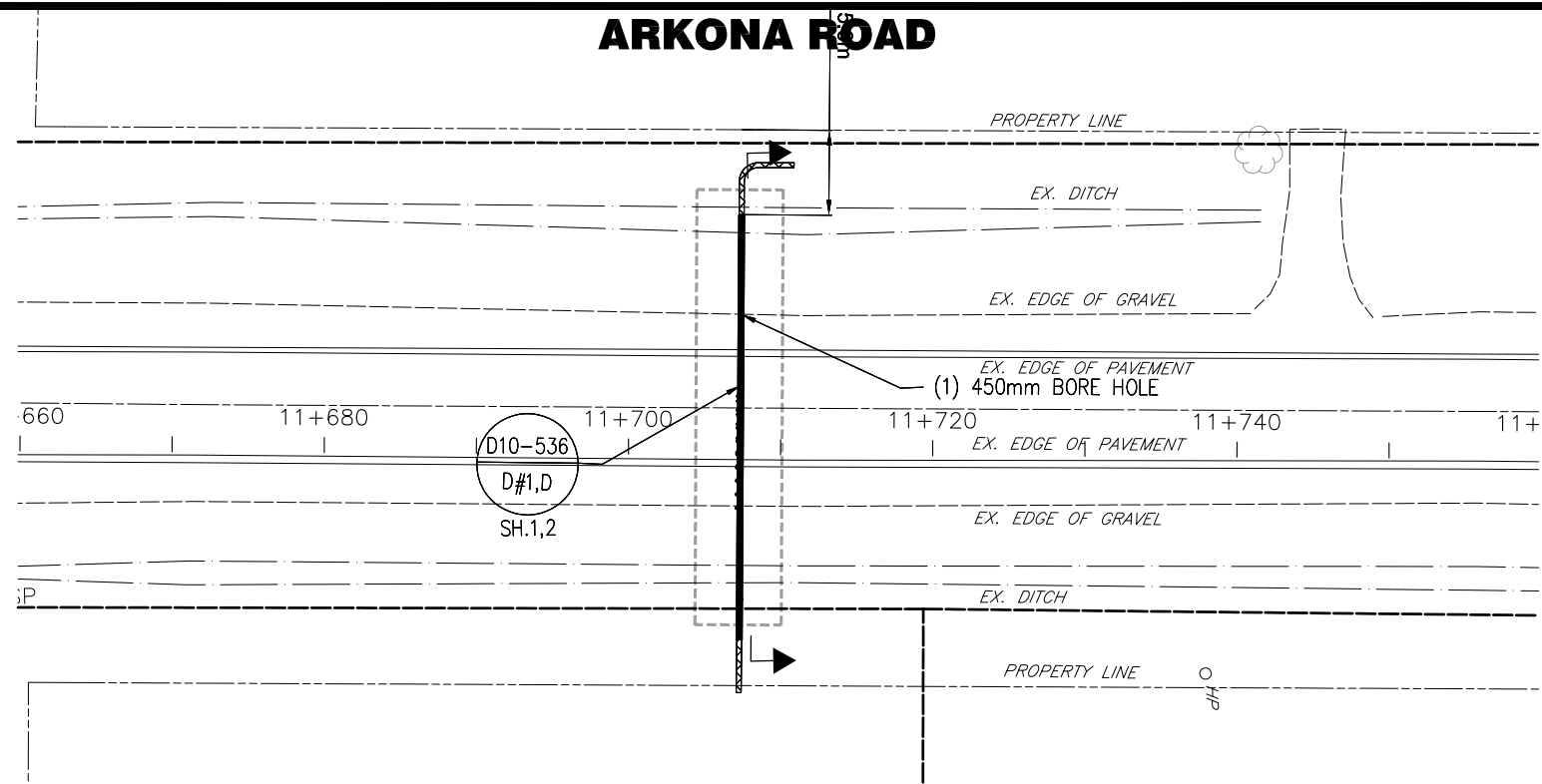
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C.C. TATHAM & ASSOCIATES Ltd.
FILE NO. 412414-1

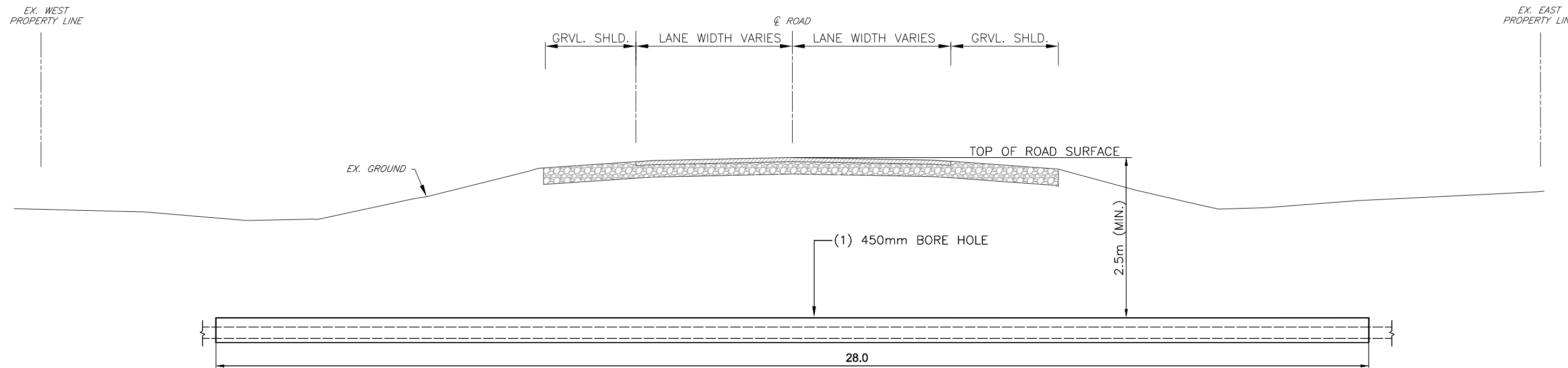
SCALE: AS NOTED

DATE: OCTOBER 2013

ARKONA ROAD



HORZ. 1:500



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NO.	REVISIONS	DATE	INITIAL

NEXTERA ENERGY CANADA, ULC
JERICO WIND ENERGY CENTRE
CABLE CROSSING
ARKONA ROAD AT TURBINE 108

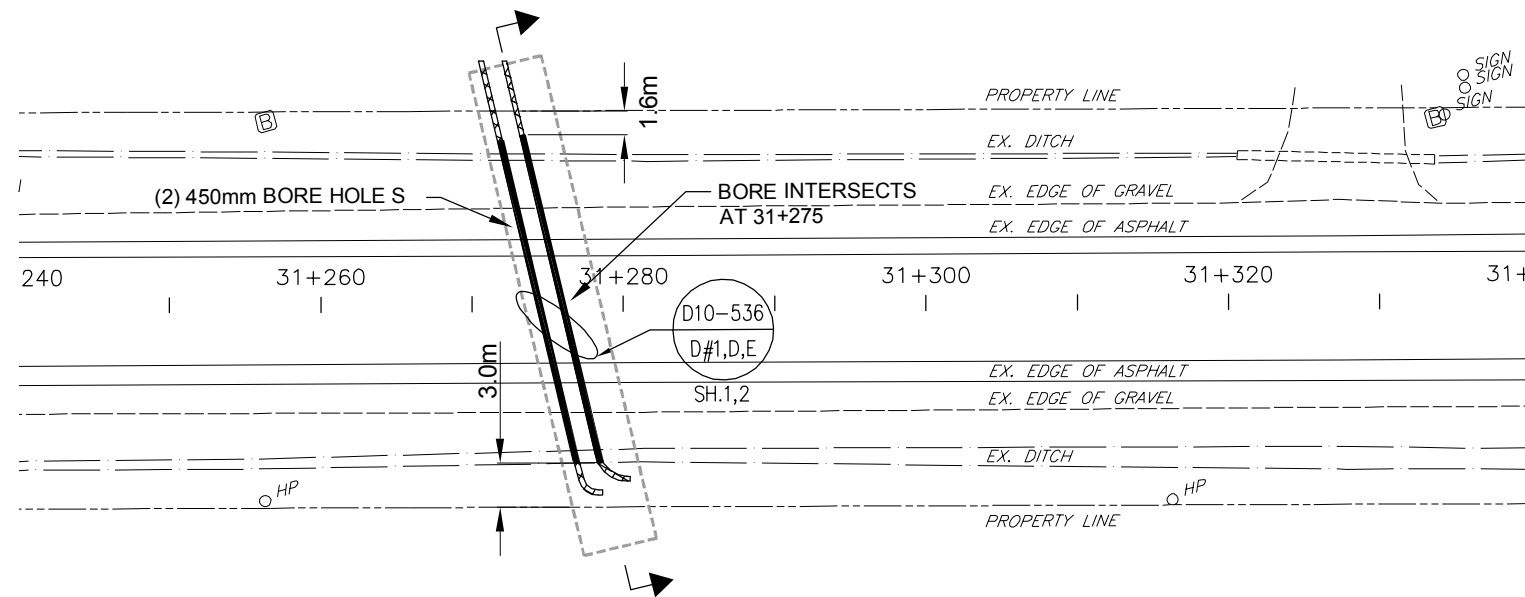
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LC-141-CROSSING

C.C. TATHAM & ASSOCIATES Ltd.
FILE NO. 412414-1

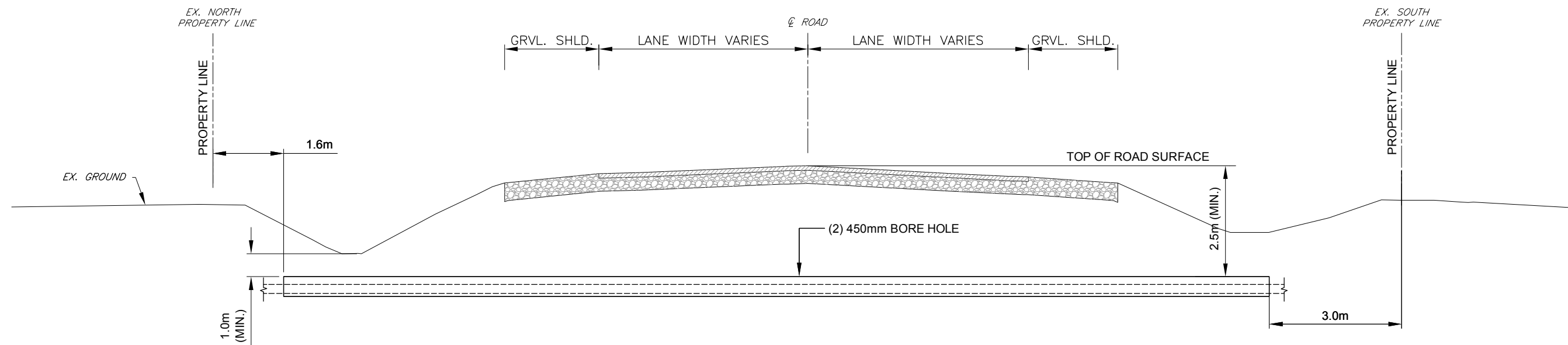
SCALE: AS NOTED

DATE: OCTOBER 2013

TOWNSEND LINE



HORZ. 1:500



HORZ. 1:100

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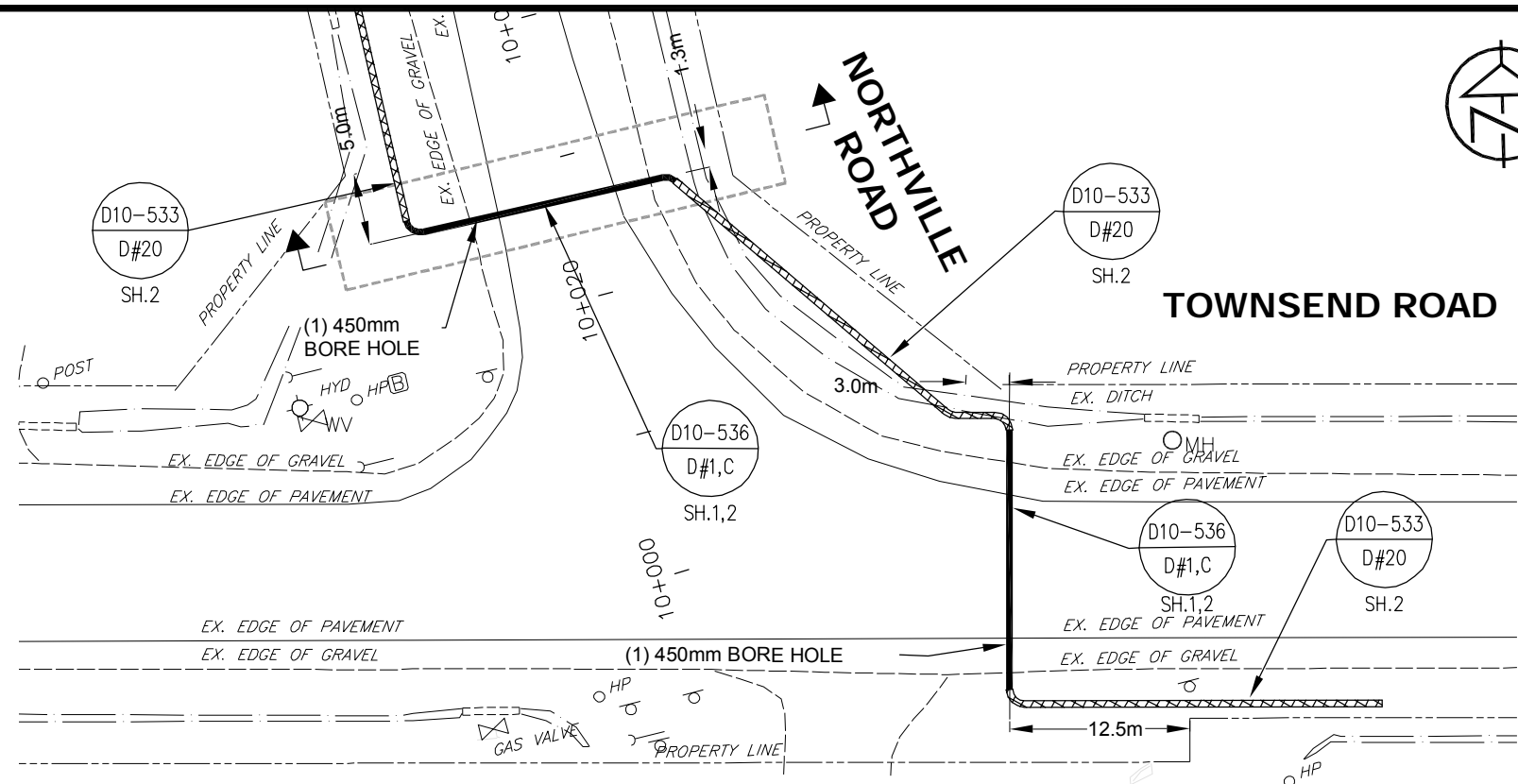
Collingwood Bracebridge Orillia Barrie

NOT FOR CONSTRUCTION

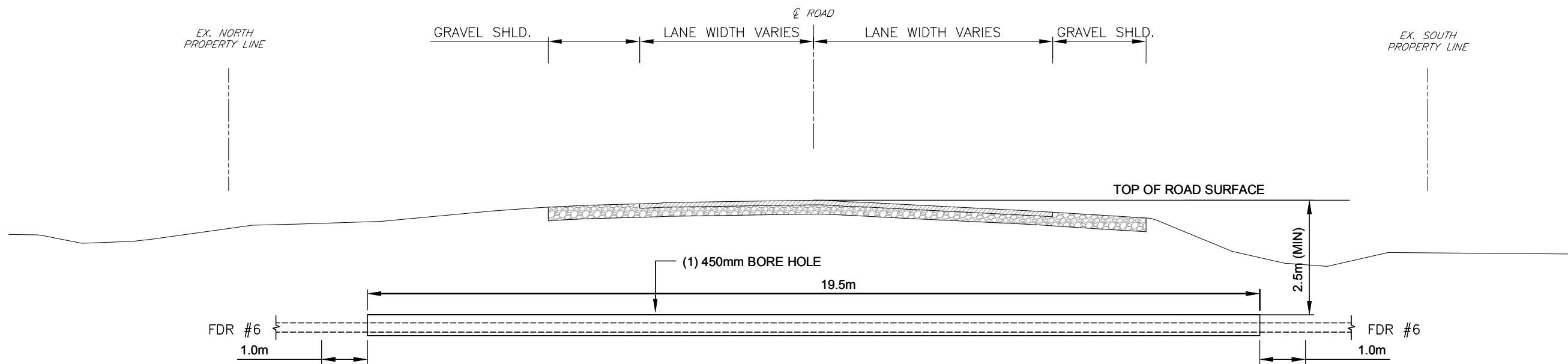
NO.	REVISIONS	DATE	INITIAL
B	RESUBMITTED TO COUNTY FOR PERMITTING	12/05/13	K.P.
A	INFORMATION FOR PERMITTING	06/11/13	K.P.

NEXTERA ENERGY CANADA, ULC JERICO WIND ENERGY CENTRE CABLE CROSSING TOWNSEND LINE AT TURBINE 38	
SCALE: AS NOTED	DATE: OCTOBER 2013

DWG. No. LC-142-CROSSING
C.C. TATHAM & ASSOCIATES Ltd. FILE NO. 412414-1



HORZ. 1:500



HORZ. 1:100

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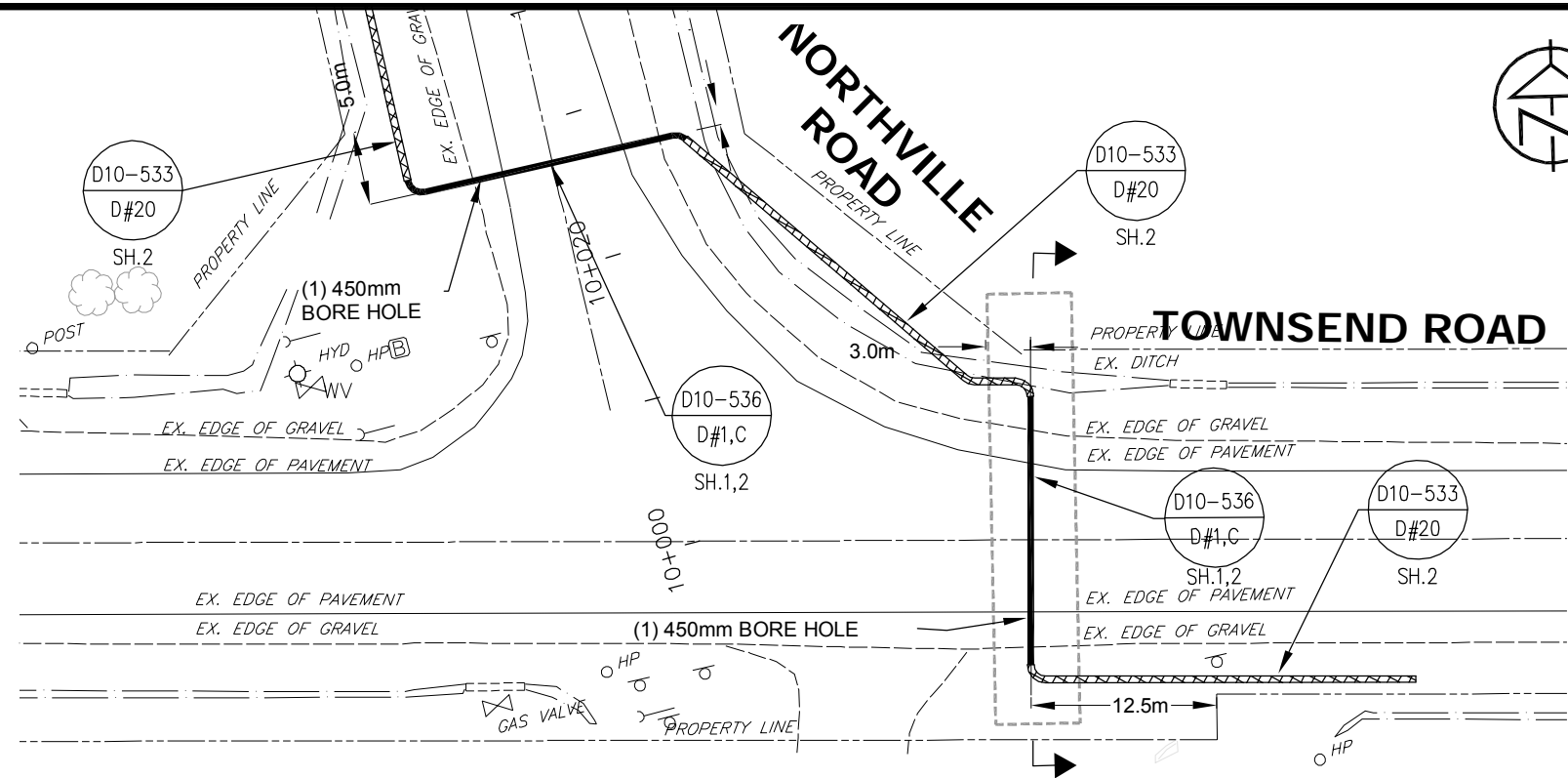
NO.	REVISIONS	DATE	INITIAL
B	RESUBMITTED TO COUNTY FOR PERMITTING	12/05/13	K.P.
A	INFORMATION FOR PERMITTING	06/11/13	K.P.

**NEXTERA ENERGY CANADA, ULC
 JERICO WIND ENERGY CENTRE
 CABLE CROSSING
 NORTHVILLE ROAD AT TOWNSEND LINE**

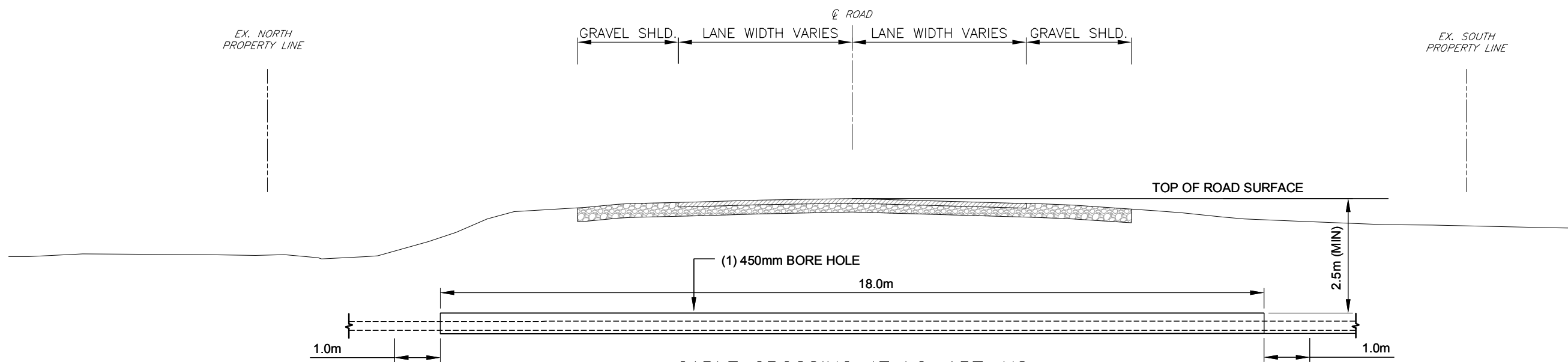
SCALE: AS NOTED DATE: OCTOBER 2013

DWG. No.
LC-156-CROSSING

C.C. TATHAM & ASSOCIATES Ltd.
 FILE NO. 412414-1



HORZ. 1:500



CABLE CROSSING AT LC-157-NS
NORTHVILLE ROAD AT TOWNSEND LINE

SCALE: 1:100

HORZ. 1:100

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**NEXTERA ENERGY CANADA, ULC
JERICO WIND ENERGY CENTRE
CABLE CROSSING
NORTHVILLE ROAD AT TOWNSEND LINE WEST**

SCALE: AS NOTED

DATE: OCTOBER 2013

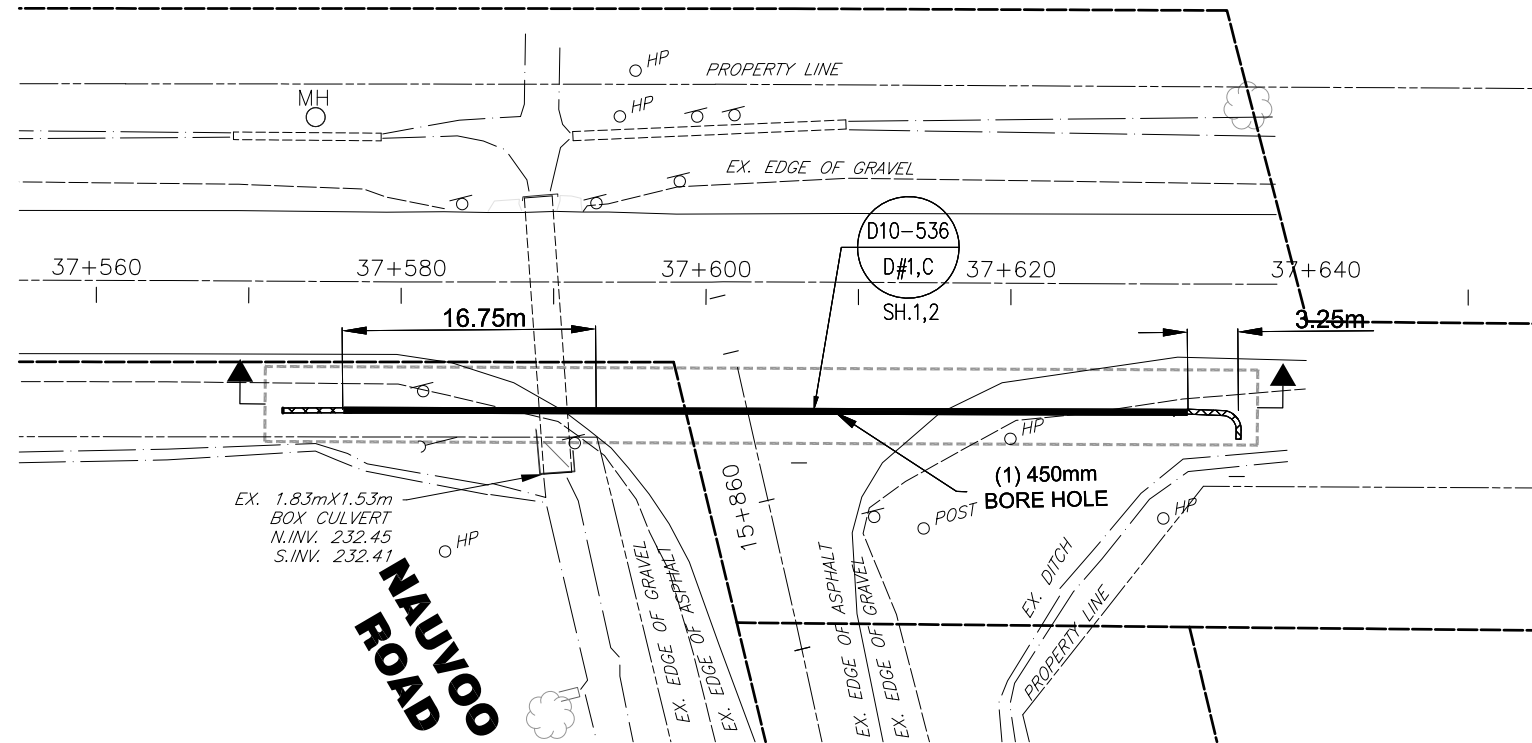
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Collingwood Bracebridge Orillia Barrie

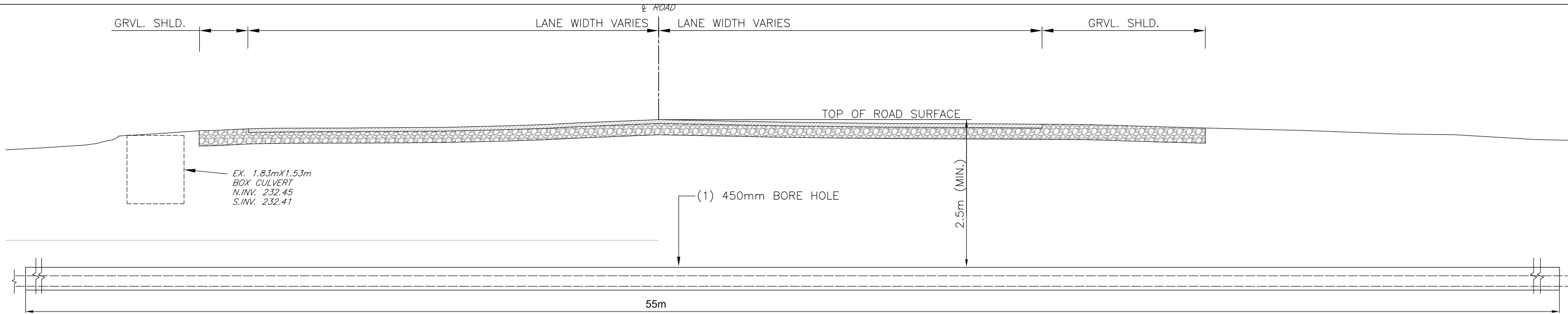
DWG. No.
LC-157

C.C. TATHAM & ASSOCIATES Ltd.
FILE NO. 412414-1

TOWNSEND LINE



HORZ. 1:500



HORZ. 1:100

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NO.	REVISIONS	DATE	INITIAL

**NEXTERA ENERGY CANADA, ULC
JERICHO WIND ENERGY CENTRE
CABLE CROSSING
TOWNSEND LINE AT NAUVOO ROAD**

SCALE: AS NOTED

DATE: OCTOBER 2013

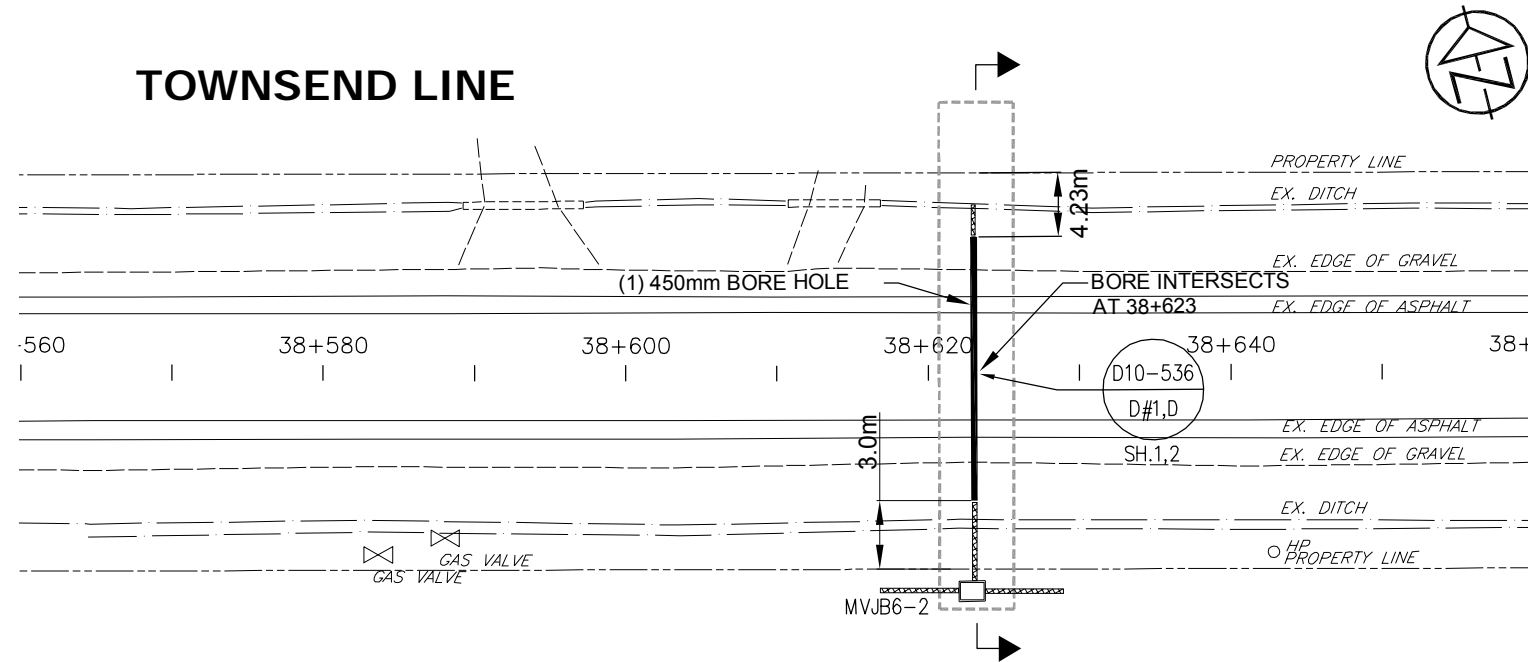
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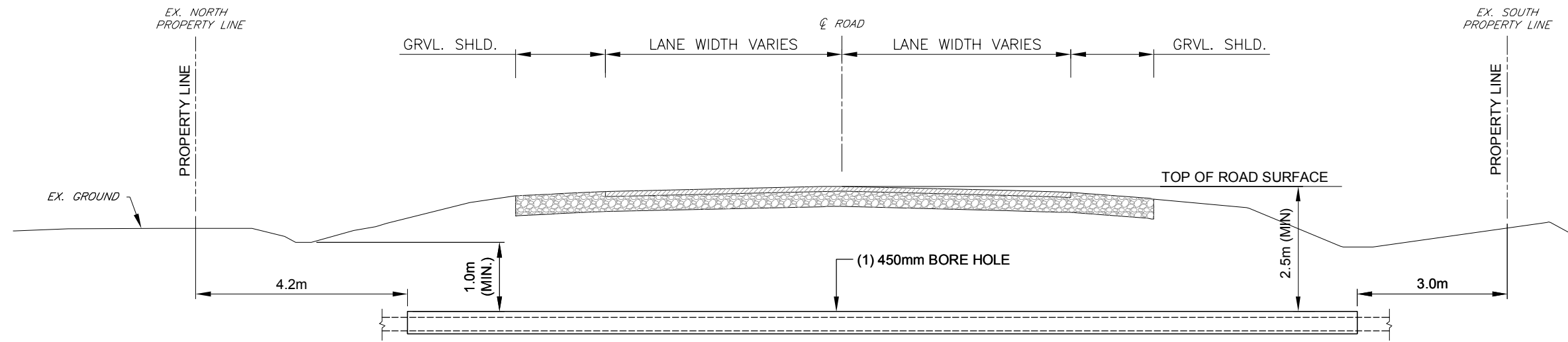
DWG. No.
LC-159-CROSSING

C.C. TATHAM & ASSOCIATES Ltd.
FILE NO. 412414-1

TOWNSEND LINE



HORZ. 1:500



HORZ. 1:100 VERT. 1:50

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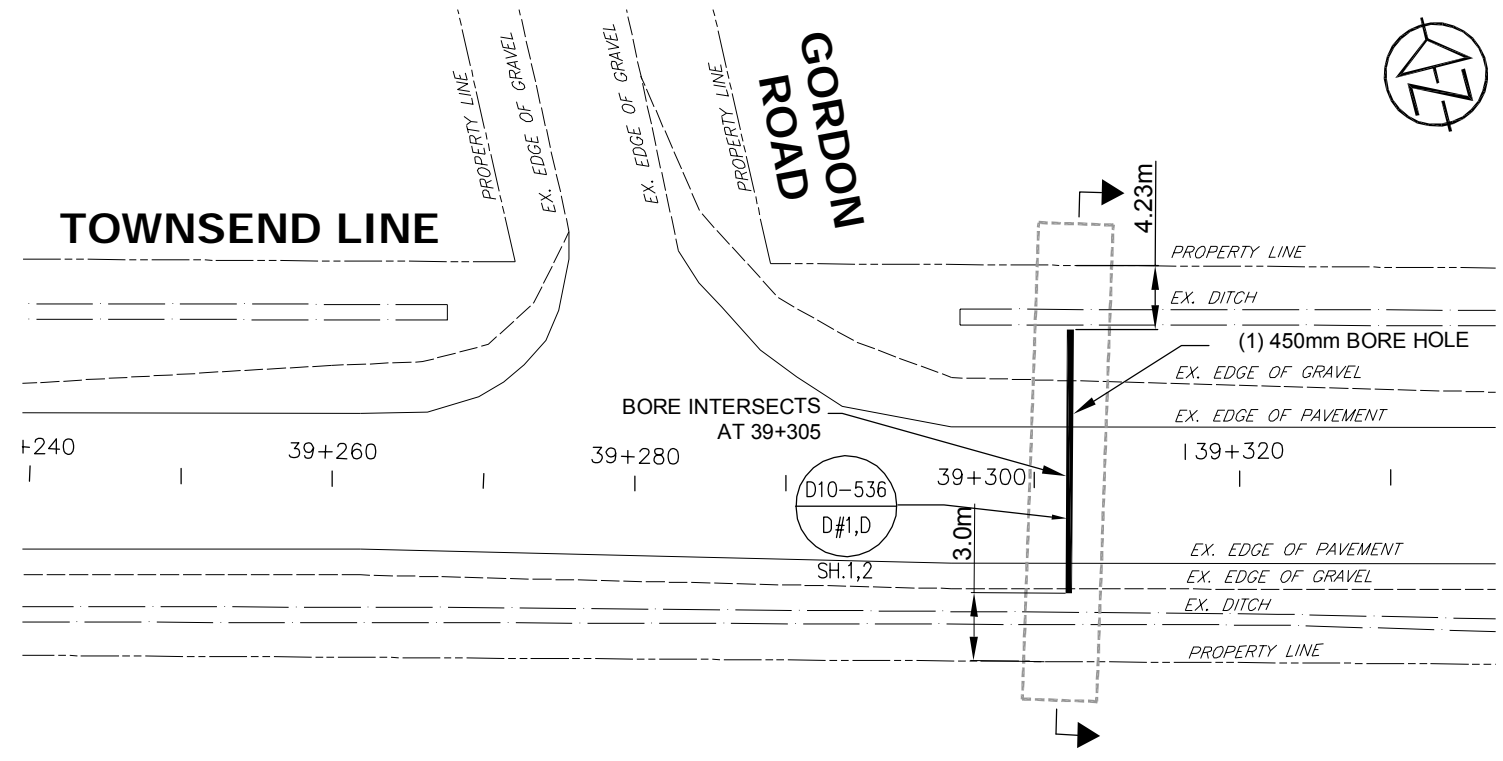
NO.	REVISIONS	DATE	INITIAL
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A	INFORMATION FOR PERMITTING	06/11/13	K.P.

NEXTERA ENERGY CANADA, ULC
JERICO WIND ENERGY CENTRE
CABLE CROSSING
TOWNSEND LINE AT TURBINE 63 & 64

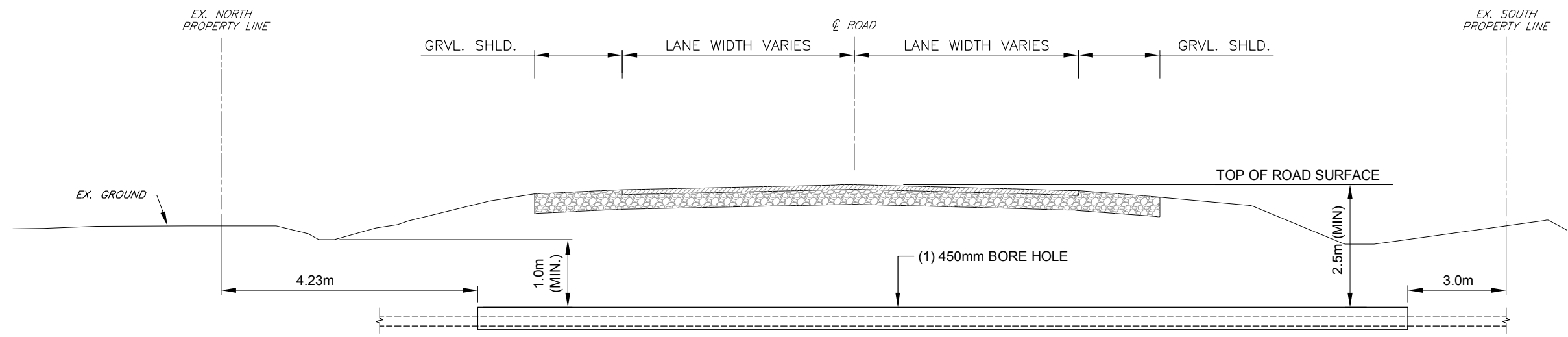
SCALE: AS NOTED
DATE: OCTOBER 2013

DWG. No.
LC-177-CROSSING

C.C. TATHAM & ASSOCIATES Ltd.
FILE NO. 412414-1



HORZ. 1:500



HORZ. 1:100 VERT. 1:50

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A	INFORMATION FOR PERMITTING	06/11/13	K.P.

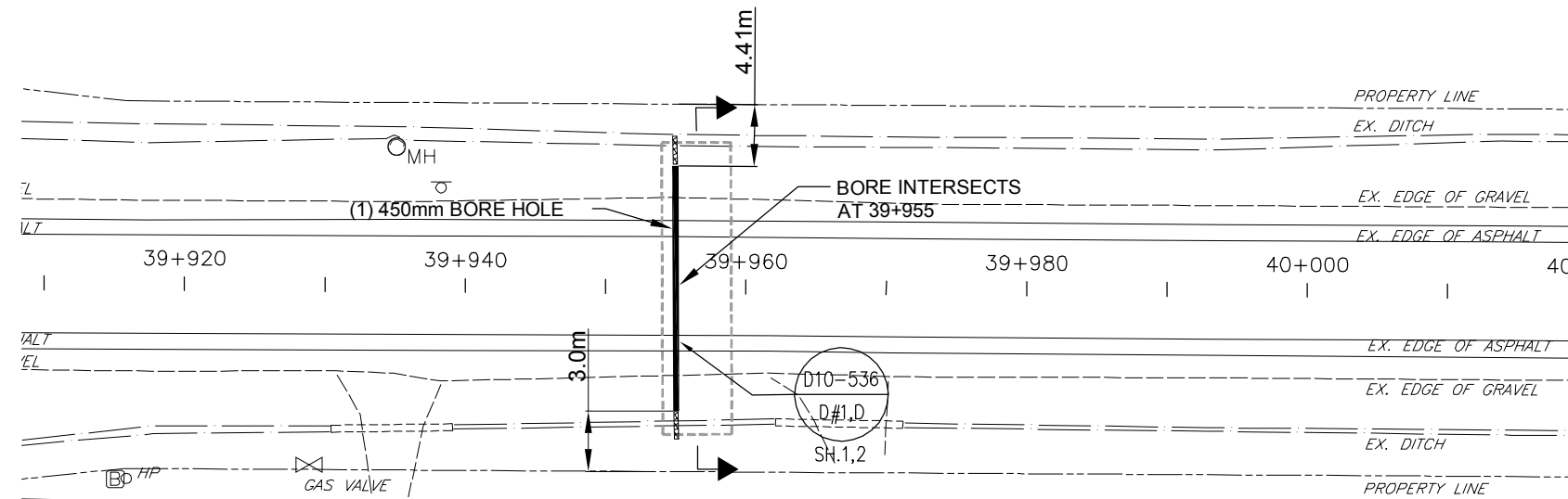
NEXTERA ENERGY CANADA, ULC
JERICO WIND ENERGY CENTRE
CABLE CROSSING
TOWNSEND LINE AT GORDON ROAD

SCALE: AS NOTED
 DATE: OCTOBER 2013

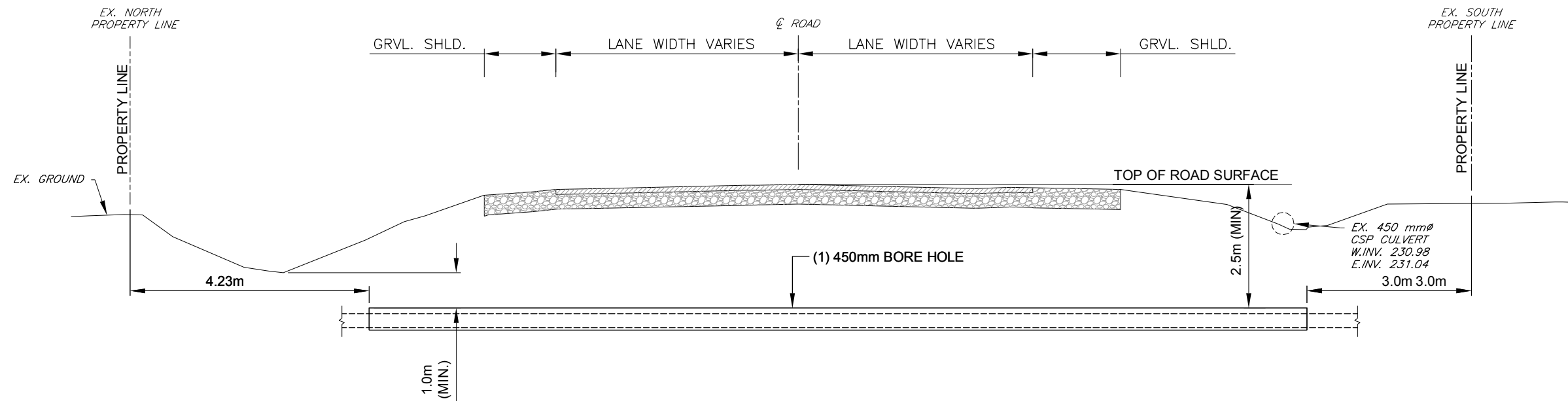
DWG. No.
LC-180-CROSSING

C.C. TATHAM & ASSOCIATES Ltd.
 FILE NO. 412414-1

TOWNSEND LINE



HORZ. 1:500



HORZ. 1:100 VERT. 1:50

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NEXTERA ENERGY CANADA, ULC
JERICO WIND ENERGY CENTRE
CABLE CROSSING
TOWNSEND LINE AT TURBINE 94

SCALE: AS NOTED
DATE: OCTOBER 2013

DWG. No.
LC-184-CROSSING
C.C. TATHAM & ASSOCIATES Ltd.
FILE NO. 412414-1

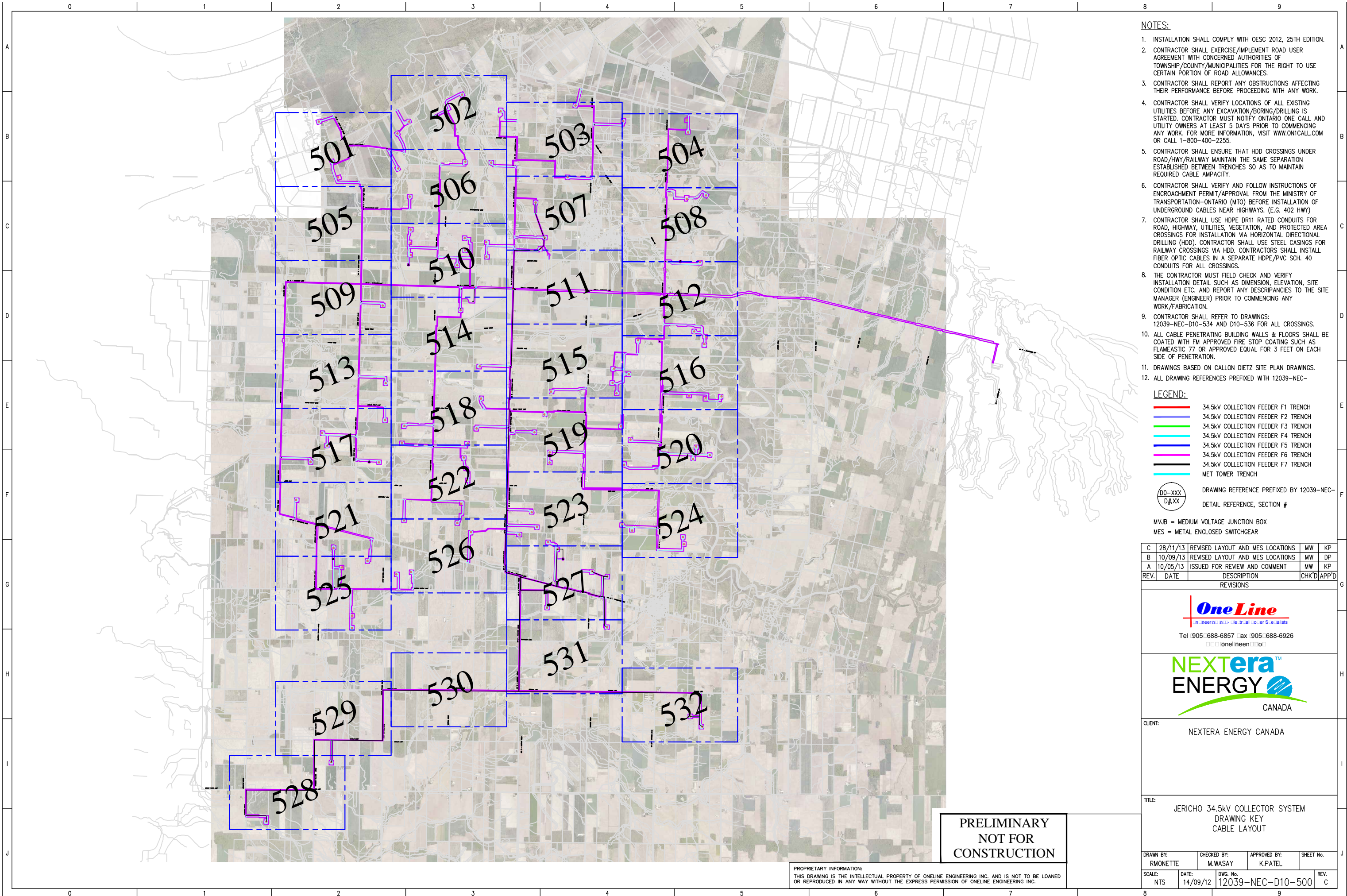


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Consulting Engineers

Collingwood Bracebridge Orillia Barrie

Schedule B11

Jericho Distribution (Collection) Location Map



- NOTES:**
1. INSTALLATION SHALL COMPLY WITH OESC 2012, 25TH EDITION.
 2. CONTRACTOR SHALL EXERCISE/IMPLEMENT ROAD USER AGREEMENT WITH CONCERNED AUTHORITIES OF TOWNSHIP/COUNTY/MUNICIPALITIES FOR THE RIGHT TO USE CERTAIN PORTION OF ROAD ALLOWANCES.
 3. CONTRACTOR SHALL REPORT ANY OBSTRUCTIONS AFFECTING THEIR PERFORMANCE BEFORE PROCEEDING WITH ANY WORK.
 4. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UTILITIES BEFORE ANY EXCAVATION/BORING/DRILLING IS STARTED. CONTRACTOR MUST NOTIFY ONTARIO ONE CALL AND UTILITY OWNERS AT LEAST 5 DAYS PRIOR TO COMMENCING ANY WORK. FOR MORE INFORMATION, VISIT WWW.ONTCALL.COM OR CALL 1-800-400-2255.
 5. CONTRACTOR SHALL ENSURE THAT HDD CROSSINGS UNDER ROAD/HWY/RAILWAY MAINTAIN THE SAME SEPARATION ESTABLISHED BETWEEN TRENCHES SO AS TO MAINTAIN REQUIRED CABLE AMPACITY.
 6. CONTRACTOR SHALL VERIFY AND FOLLOW INSTRUCTIONS OF ENCROACHMENT PERMIT/APPROVAL FROM THE MINISTRY OF TRANSPORTATION-ONTARIO (MTO) BEFORE INSTALLATION OF UNDERGROUND CABLES NEAR HIGHWAYS. (E.G. 402 HWY)
 7. CONTRACTOR SHALL USE HDPE DR11 RATED CONDUITS FOR ROAD, HIGHWAY, UTILITIES, VEGETATION, AND PROTECTED AREA CROSSINGS FOR INSTALLATION VIA HORIZONTAL DIRECTIONAL DRILLING (HDD). CONTRACTOR SHALL USE STEEL CASINGS FOR RAILWAY CROSSINGS VIA HDD. CONTRACTORS SHALL INSTALL FIBER OPTIC CABLES IN A SEPARATE HDPE/PVC SCH. 40 CONDUITS FOR ALL CROSSINGS.
 8. THE CONTRACTOR MUST FIELD CHECK AND VERIFY INSTALLATION DETAIL SUCH AS DIMENSION, ELEVATION, SITE CONDITION ETC. AND REPORT ANY DISCREPANCIES TO THE SITE MANAGER (ENGINEER) PRIOR TO COMMENCING ANY WORK/FABRICATION.
 9. CONTRACTOR SHALL REFER TO DRAWINGS: 12039-NEC-D10-534 AND D10-536 FOR ALL CROSSINGS.
 10. ALL CABLE PENETRATING BUILDING WALLS & FLOORS SHALL BE COATED WITH FM APPROVED FIRE STOP COATING SUCH AS FLAMEASTIC 77 OR APPROVED EQUAL FOR 3 FEET ON EACH SIDE OF PENETRATION.
 11. DRAWINGS BASED ON CALLON DIETZ SITE PLAN DRAWINGS.
 12. ALL DRAWING REFERENCES PREFIXED WITH 12039-NEC-

- LEGEND:**
- 34.5kV COLLECTION FEEDER F1 TRENCH
 - 34.5kV COLLECTION FEEDER F2 TRENCH
 - 34.5kV COLLECTION FEEDER F3 TRENCH
 - 34.5kV COLLECTION FEEDER F4 TRENCH
 - 34.5kV COLLECTION FEEDER F5 TRENCH
 - 34.5kV COLLECTION FEEDER F6 TRENCH
 - 34.5kV COLLECTION FEEDER F7 TRENCH
 - MET TOWER TRENCH
- DO-XXX
D#XX DRAWING REFERENCE PREFIXED BY 12039-NEC-
 DETAIL REFERENCE, SECTION #

MVJB = MEDIUM VOLTAGE JUNCTION BOX
 MES = METAL ENCLOSED SWITCHGEAR

REV.	DATE	DESCRIPTION	CHK'D	APP'D
C	28/11/13	REVISED LAYOUT AND MES LOCATIONS	MW	KP
B	10/09/13	REVISED LAYOUT AND MES LOCATIONS	MW	DP
A	10/05/13	ISSUED FOR REVIEW AND COMMENT	MW	KP

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 Engineering & Electrical Consultants
 Tel: 905-688-6857 Fax: 905-688-6926
 oneline.com

NEXTERA ENERGY
 CANADA

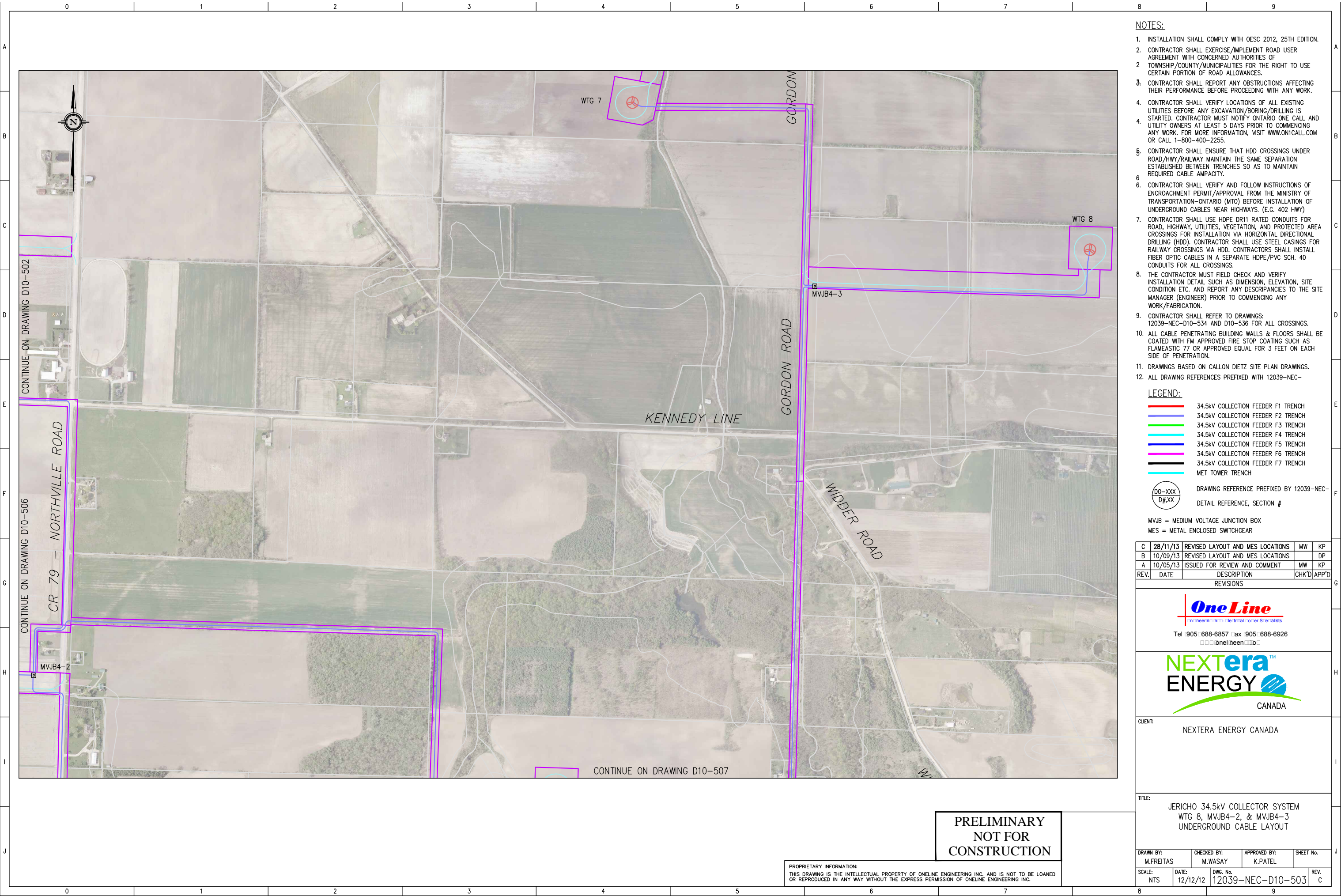
CLIENT: NEXTERA ENERGY CANADA

TITLE: JERICO 34.5kV COLLECTOR SYSTEM
 DRAWING KEY
 CABLE LAYOUT

DRAWN BY: RMONETTE	CHECKED BY: M.WASAY	APPROVED BY: K.PATEL	SHEET No.
SCALE: NTS	DATE: 14/09/12	DWG. No. 12039-NEC-D10-500	REV. C

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 CONSTRUCTION**

PROPRIETARY INFORMATION:
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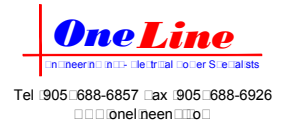
- NOTES:**
1. INSTALLATION SHALL COMPLY WITH OESC 2012, 25TH EDITION.
 2. CONTRACTOR SHALL EXERCISE/IMPLEMENT ROAD USER AGREEMENT WITH CONCERNED AUTHORITIES OF TOWNSHIP/COUNTY/MUNICIPALITIES FOR THE RIGHT TO USE CERTAIN PORTION OF ROAD ALLOWANCES.
 3. CONTRACTOR SHALL REPORT ANY OBSTRUCTIONS AFFECTING THEIR PERFORMANCE BEFORE PROCEEDING WITH ANY WORK.
 4. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UTILITIES BEFORE ANY EXCAVATION/BORING/DRILLING IS STARTED. CONTRACTOR MUST NOTIFY ONTARIO ONE CALL AND UTILITY OWNERS AT LEAST 5 DAYS PRIOR TO COMMENCING ANY WORK. FOR MORE INFORMATION, VISIT WWW.ONICALL.COM OR CALL 1-800-400-2255.
 5. CONTRACTOR SHALL ENSURE THAT HDD CROSSINGS UNDER ROAD/HWY/RAILWAY MAINTAIN THE SAME SEPARATION ESTABLISHED BETWEEN TRENCHES SO AS TO MAINTAIN REQUIRED CABLE AMPACITY.
 6. CONTRACTOR SHALL VERIFY AND FOLLOW INSTRUCTIONS OF ENCROACHMENT PERMIT/APPROVAL FROM THE MINISTRY OF TRANSPORTATION-ONTARIO (MTO) BEFORE INSTALLATION OF UNDERGROUND CABLES NEAR HIGHWAYS. (E.G. 402 HWY)
 7. CONTRACTOR SHALL USE HDPE DR11 RATED CONDUITS FOR ROAD, HIGHWAY, UTILITIES, VEGETATION, AND PROTECTED AREA CROSSINGS FOR INSTALLATION VIA HORIZONTAL DIRECTIONAL DRILLING (HDD). CONTRACTOR SHALL USE STEEL CASINGS FOR RAILWAY CROSSINGS VIA HDD. CONTRACTORS SHALL INSTALL FIBER OPTIC CABLES IN A SEPARATE HDPE/PVC SCH. 40 CONDUITS FOR ALL CROSSINGS.
 8. THE CONTRACTOR MUST FIELD CHECK AND VERIFY INSTALLATION DETAIL SUCH AS DIMENSION, ELEVATION, SITE CONDITION ETC. AND REPORT ANY DISCREPANCIES TO THE SITE MANAGER (ENGINEER) PRIOR TO COMMENCING ANY WORK/FABRICATION.
 9. CONTRACTOR SHALL REFER TO DRAWINGS: 12039-NEC-D10-534 AND D10-536 FOR ALL CROSSINGS.
 10. ALL CABLE PENETRATING BUILDING WALLS & FLOORS SHALL BE COATED WITH FM APPROVED FIRE STOP COATING SUCH AS FLAMEASTIC 77 OR APPROVED EQUAL FOR 3 FEET ON EACH SIDE OF PENETRATION.
 11. DRAWINGS BASED ON CALLON DIETZ SITE PLAN DRAWINGS.
 12. ALL DRAWING REFERENCES PREFIXED WITH 12039-NEC-

- LEGEND:**
- 34.5kV COLLECTION FEEDER F1 TRENCH
 - 34.5kV COLLECTION FEEDER F2 TRENCH
 - 34.5kV COLLECTION FEEDER F3 TRENCH
 - 34.5kV COLLECTION FEEDER F4 TRENCH
 - 34.5kV COLLECTION FEEDER F5 TRENCH
 - 34.5kV COLLECTION FEEDER F6 TRENCH
 - 34.5kV COLLECTION FEEDER F7 TRENCH
 - MET TOWER TRENCH

DRAWING REFERENCE PREFIXED BY 12039-NEC-
DETAIL REFERENCE, SECTION #

MVJB = MEDIUM VOLTAGE JUNCTION BOX
MES = METAL ENCLOSED SWITCHGEAR

REV.	DATE	DESCRIPTION	CHK'D	APP'D
C	28/11/13	REVISED LAYOUT AND MES LOCATIONS	MW	KP
B	10/09/13	REVISED LAYOUT AND MES LOCATIONS		DP
A	10/05/13	ISSUED FOR REVIEW AND COMMENT	MW	KP
REVISIONS				



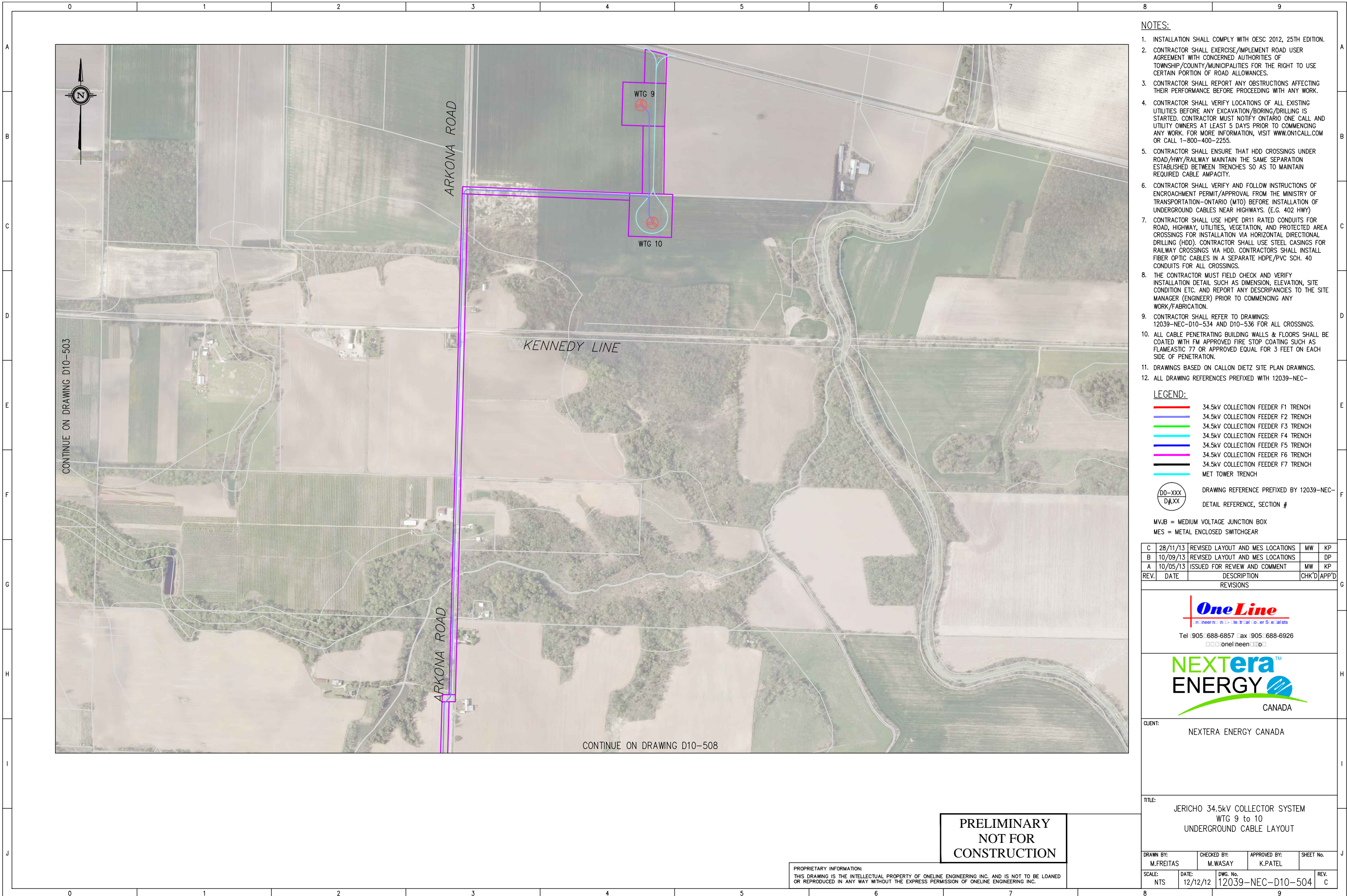
CLIENT: NEXTERA ENERGY CANADA

TITLE: JERICO 34.5kV COLLECTOR SYSTEM
WTG 8, MVJB4-2, & MVJB4-3
UNDERGROUND CABLE LAYOUT

DRAWN BY: M.FREITAS	CHECKED BY: M.WASAY	APPROVED BY: K.PATEL	SHEET No.
SCALE: NTS	DATE: 12/12/12	DWG. No. 12039-NEC-D10-503	REV. C

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CONSTRUCTION**

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NOTES:

1. INSTALLATION SHALL COMPLY WITH OESC 2012, 25TH EDITION.
2. CONTRACTOR SHALL EXERCISE/IMPLEMENT ROAD USER AGREEMENT WITH CONCERNED AUTHORITIES OF TOWNSHIP/COUNTY/MUNICIPALITIES FOR THE RIGHT TO USE CERTAIN PORTION OF ROAD ALLOWANCES.
3. CONTRACTOR SHALL REPORT ANY OBSTRUCTIONS AFFECTING THEIR PERFORMANCE BEFORE PROCEEDING WITH ANY WORK.
4. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UTILITIES BEFORE ANY EXCAVATION/BORING/DRILLING IS STARTED. CONTRACTOR MUST NOTIFY ONTARIO ONE CALL AND UTILITY OWNERS AT LEAST 5 DAYS PRIOR TO COMMENCING ANY WORK. FOR MORE INFORMATION, VISIT WWW.ONTCALL.COM OR CALL 1-800-400-2255.
5. CONTRACTOR SHALL ENSURE THAT HDD CROSSINGS UNDER ROAD/HWY/RAILWAY MAINTAIN THE SAME SEPARATION ESTABLISHED BETWEEN TRENCHES SO AS TO MAINTAIN REQUIRED CABLE AMPACITY.
6. CONTRACTOR SHALL VERIFY AND FOLLOW INSTRUCTIONS OF ENCROACHMENT PERMIT/APPROVAL FROM THE MINISTRY OF TRANSPORTATION-ONTARIO (MTO) BEFORE INSTALLATION OF UNDERGROUND CABLES NEAR HIGHWAYS. (E.G. 402 HWY)
7. CONTRACTOR SHALL USE HDPE DR11 RATED CONDUITS FOR ROAD, HIGHWAY, UTILITIES, VEGETATION, AND PROTECTED AREA CROSSINGS FOR INSTALLATION VIA HORIZONTAL DIRECTIONAL DRILLING (HDD). CONTRACTOR SHALL USE STEEL CASINGS FOR RAILWAY CROSSINGS VIA HDD. CONTRACTORS SHALL INSTALL FIBER OPTIC CABLES IN A SEPARATE HDPE/PVC SCH. 40 CONDUITS FOR ALL CROSSINGS.
8. THE CONTRACTOR MUST FIELD CHECK AND VERIFY INSTALLATION DETAIL SUCH AS DIMENSION, ELEVATION, SITE CONDITION ETC. AND REPORT ANY DESCRIPTANCIES TO THE SITE MANAGER (ENGINEER) PRIOR TO COMMENCING ANY WORK/FABRICATION.
9. CONTRACTOR SHALL REFER TO DRAWINGS: 12039-NEC-D10-534 AND D10-536 FOR ALL CROSSINGS.
10. ALL CABLE PENETRATING BUILDING WALLS & FLOORS SHALL BE COATED WITH FM APPROVED FIRE STOP COATING SUCH AS FLAMEASTIC 77 OR APPROVED EQUAL FOR 3 FEET ON EACH SIDE OF PENETRATION.
11. DRAWINGS BASED ON CALLON DIETZ SITE PLAN DRAWINGS.
12. ALL DRAWING REFERENCES PREFIXED WITH 12039-NEC-

LEGEND:

- 34.5kV COLLECTION FEEDER F1 TRENCH
- 34.5kV COLLECTION FEEDER F2 TRENCH
- 34.5kV COLLECTION FEEDER F3 TRENCH
- 34.5kV COLLECTION FEEDER F4 TRENCH
- 34.5kV COLLECTION FEEDER F5 TRENCH
- 34.5kV COLLECTION FEEDER F6 TRENCH
- MET TOWER TRENCH

 DRAWING REFERENCE PREFIXED BY 12039-NEC-
DETAIL REFERENCE, SECTION #

MVJB = MEDIUM VOLTAGE JUNCTION BOX
MES = METAL ENCLOSED SWITCHGEAR

C	28/11/13	REVISED LAYOUT AND MES LOCATIONS	MW	KP
B	10/09/13	REVISED LAYOUT AND MES LOCATIONS		DP
A	10/05/13	ISSUED FOR REVIEW AND COMMENT	MW	KP
REV.	DATE	DESCRIPTION	CHK'D	APP'D

OneLine
Engineering & Electrical Consultants
Tel: 905-688-6857 Fax: 905-688-6926
oneline.ca

NEXTERA ENERGY
CANADA

CLIENT: NEXTERA ENERGY CANADA

TITLE: JERICHO 34.5kV COLLECTOR SYSTEM
WTG 9 to 10
UNDERGROUND CABLE LAYOUT

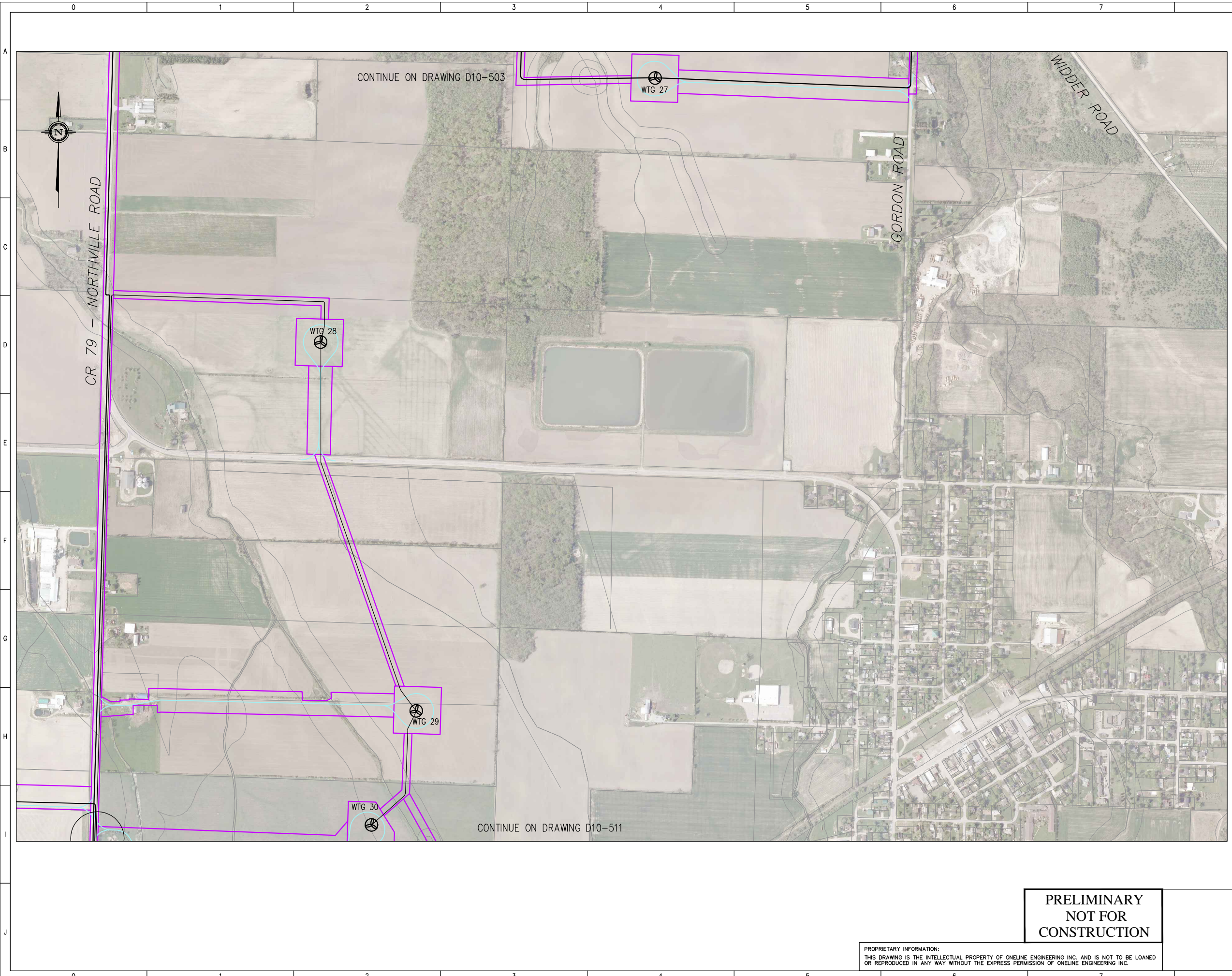
DRAWN BY: M.FREITAS	CHECKED BY: M.WASAY	APPROVED BY: K.PATEL	SHEET No.
SCALE: NTS	DATE: 12/12/12	DWG. No. 12039-NEC-D10-504	REV. C

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CONTINUE ON DRAWING D10-503

CONTINUE ON DRAWING D10-508



CONTINUE ON DRAWING D10-503

CONTINUE ON DRAWING D10-511

NOTES:

1. INSTALLATION SHALL COMPLY WITH OESC 2012, 25TH EDITION.
2. CONTRACTOR SHALL EXERCISE/IMPLEMENT ROAD USER AGREEMENT WITH CONCERNED AUTHORITIES OF TOWNSHIP/COUNTY/MUNICIPALITIES FOR THE RIGHT TO USE CERTAIN PORTION OF ROAD ALLOWANCES.
3. CONTRACTOR SHALL REPORT ANY OBSTRUCTIONS AFFECTING THEIR PERFORMANCE BEFORE PROCEEDING WITH ANY WORK.
4. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UTILITIES BEFORE ANY EXCAVATION/BORING/DRILLING IS STARTED. CONTRACTOR MUST NOTIFY ONTARIO ONE CALL AND UTILITY OWNERS AT LEAST 5 DAYS PRIOR TO COMMENCING ANY WORK. FOR MORE INFORMATION, VISIT WWW.ON1CALL.COM OR CALL 1-800-400-2255.
5. CONTRACTOR SHALL ENSURE THAT HDD CROSSINGS UNDER ROAD/HWY/RAILWAY MAINTAIN THE SAME SEPARATION ESTABLISHED BETWEEN TRENCHES SO AS TO MAINTAIN REQUIRED CABLE AMPACITY.
6. CONTRACTOR SHALL VERIFY AND FOLLOW INSTRUCTIONS OF ENCROACHMENT PERMIT/APPROVAL FROM THE MINISTRY OF TRANSPORTATION-ONTARIO (MTO) BEFORE INSTALLATION OF UNDERGROUND CABLES NEAR HIGHWAYS. (E.G. 402 HWY)
7. CONTRACTOR SHALL USE HDPE DR11 RATED CONDUITS FOR ROAD, HIGHWAY, UTILITIES, VEGETATION, AND PROTECTED AREA CROSSINGS FOR INSTALLATION VIA HORIZONTAL DIRECTIONAL DRILLING (HDD). CONTRACTOR SHALL USE STEEL CASINGS FOR RAILWAY CROSSINGS VIA HDD. CONTRACTORS SHALL INSTALL FIBER OPTIC CABLES IN A SEPARATE HDPE/PVC SCH. 40 CONDUITS FOR ALL CROSSINGS.
8. THE CONTRACTOR MUST FIELD CHECK AND VERIFY INSTALLATION DETAIL SUCH AS DIMENSION, ELEVATION, SITE CONDITION ETC. AND REPORT ANY DISCREPANCIES TO THE SITE MANAGER (ENGINEER) PRIOR TO COMMENCING ANY WORK/FABRICATION.
9. CONTRACTOR SHALL REFER TO DRAWINGS: 12039-NEC-D10-534 AND D10-536 FOR ALL CROSSINGS.
10. ALL CABLE PENETRATING BUILDING WALLS & FLOORS SHALL BE COATED WITH FM APPROVED FIRE STOP COATING SUCH AS FLAMEASTIC 77 OR APPROVED EQUAL FOR 3 FEET ON EACH SIDE OF PENETRATION.
11. DRAWINGS BASED ON CALLON DIETZ SITE PLAN DRAWINGS.
12. ALL DRAWING REFERENCES PREFIXED WITH 12039-NEC-

LEGEND:

- 34.5kV COLLECTION FEEDER F1 TRENCH
- 34.5kV COLLECTION FEEDER F2 TRENCH
- 34.5kV COLLECTION FEEDER F3 TRENCH
- 34.5kV COLLECTION FEEDER F4 TRENCH
- 34.5kV COLLECTION FEEDER F5 TRENCH
- 34.5kV COLLECTION FEEDER F6 TRENCH
- 34.5kV COLLECTION FEEDER F7 TRENCH
- MET TOWER TRENCH

DRAWING REFERENCE PREFIXED BY 12039-NEC-
 DETAIL REFERENCE, SECTION #

MVJB = MEDIUM VOLTAGE JUNCTION BOX
 MES = METAL ENCLOSED SWITCHGEAR

D	11/12/13	UPDATED CABLE ROUTING	MW	KP
C	28/11/13	REVISED LAYOUT AND MES LOCATIONS	MW	KP
B	10/09/13	REVISED LAYOUT AND MES LOCATIONS		DP
A	10/05/13	ISSUED FOR REVIEW AND COMMENT	MW	KP
REV.	DATE	DESCRIPTION	CHK'D	APP'D



Tel 905-688-6857 Fax 905-688-6926
 oneline.com



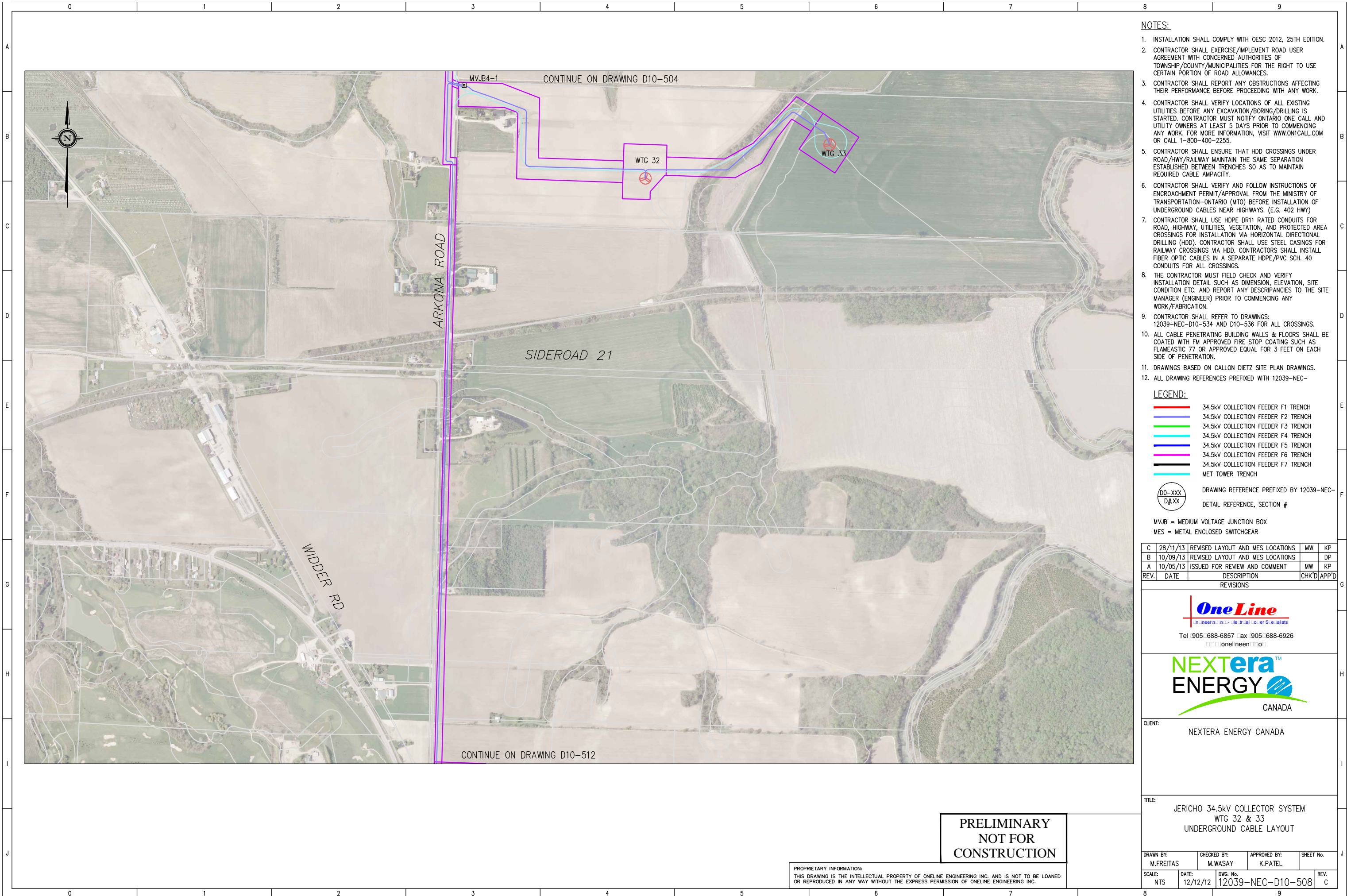
CLIENT: NEXTERA ENERGY CANADA

TITLE: JERICO 34.5kV COLLECTOR SYSTEM
 WTC 27, 28, 29 & 30
 UNDERGROUND CABLE LAYOUT

**PRELIMINARY
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 CONSTRUCTION**

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DRAWN BY:	CHECKED BY:	APPROVED BY:	SHEET No.
M.FREITAS	M.WASAY	K.PATEL	
SCALE:	DATE:	DWG. No.	REV.
NTS	12/12/12	12039-NEC-D10-507	D



- NOTES:**
1. INSTALLATION SHALL COMPLY WITH OESC 2012, 25TH EDITION.
 2. CONTRACTOR SHALL EXERCISE/IMPLEMENT ROAD USER AGREEMENT WITH CONCERNED AUTHORITIES OF TOWNSHIP/COUNTY/MUNICIPALITIES FOR THE RIGHT TO USE CERTAIN PORTION OF ROAD ALLOWANCES.
 3. CONTRACTOR SHALL REPORT ANY OBSTRUCTIONS AFFECTING THEIR PERFORMANCE BEFORE PROCEEDING WITH ANY WORK.
 4. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UTILITIES BEFORE ANY EXCAVATION/BORING/DRILLING IS STARTED. CONTRACTOR MUST NOTIFY ONTARIO ONE CALL AND UTILITY OWNERS AT LEAST 5 DAYS PRIOR TO COMMENCING ANY WORK. FOR MORE INFORMATION, VISIT WWW.ONTCALL.COM OR CALL 1-800-400-2255.
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 6. CONTRACTOR SHALL VERIFY AND FOLLOW INSTRUCTIONS OF ENCROACHMENT PERMIT/APPROVAL FROM THE MINISTRY OF TRANSPORTATION-ONTARIO (MTO) BEFORE INSTALLATION OF UNDERGROUND CABLES NEAR HIGHWAYS. (E.G. 402 HWY)
 7. CONTRACTOR SHALL USE HDPE DR11 RATED CONDUITS FOR ROAD, HIGHWAY, UTILITIES, VEGETATION, AND PROTECTED AREA CROSSINGS FOR INSTALLATION VIA HORIZONTAL DIRECTIONAL DRILLING (HDD). CONTRACTOR SHALL USE STEEL CASINGS FOR RAILWAY CROSSINGS VIA HDD. CONTRACTORS SHALL INSTALL FIBER OPTIC CABLES IN A SEPARATE HDPE/PVC SCH. 40 CONDUITS FOR ALL CROSSINGS.
 8. THE CONTRACTOR MUST FIELD CHECK AND VERIFY INSTALLATION DETAIL SUCH AS DIMENSION, ELEVATION, SITE CONDITION ETC. AND REPORT ANY DISCREPANCIES TO THE SITE MANAGER (ENGINEER) PRIOR TO COMMENCING ANY WORK/FABRICATION.
 9. CONTRACTOR SHALL REFER TO DRAWINGS: 12039-NEC-D10-534 AND D10-536 FOR ALL CROSSINGS.
 10. ALL CABLE PENETRATING BUILDING WALLS & FLOORS SHALL BE COATED WITH FM APPROVED FIRE STOP COATING SUCH AS FLAMEASTIC 77 OR APPROVED EQUAL FOR 3 FEET ON EACH SIDE OF PENETRATION.
 11. DRAWINGS BASED ON CALLON DIETZ SITE PLAN DRAWINGS.
 12. ALL DRAWING REFERENCES PREFIXED WITH 12039-NEC-

- LEGEND:**
- 34.5kV COLLECTION FEEDER F1 TRENCH
 - 34.5kV COLLECTION FEEDER F2 TRENCH
 - 34.5kV COLLECTION FEEDER F3 TRENCH
 - 34.5kV COLLECTION FEEDER F4 TRENCH
 - 34.5kV COLLECTION FEEDER F5 TRENCH
 - 34.5kV COLLECTION FEEDER F6 TRENCH
 - 34.5kV COLLECTION FEEDER F7 TRENCH
 - MET TOWER TRENCH
- DRAWING REFERENCE PREFIXED BY 12039-NEC-
 D#XX DETAIL REFERENCE, SECTION #

MVJB = MEDIUM VOLTAGE JUNCTION BOX
 MES = METAL ENCLOSED SWITCHGEAR

C	28/11/13	REVISED LAYOUT AND MES LOCATIONS	MW	KP
B	10/09/13	REVISED LAYOUT AND MES LOCATIONS		DP
A	10/05/13	ISSUED FOR REVIEW AND COMMENT	MW	KP
REV.	DATE	DESCRIPTION	CHK'D	APP'D
REVISIONS				

OneLine
 Engineering & Electrical Consultants
 Tel: 905-688-6857 Fax: 905-688-6926
 onelineen

NEXTERA ENERGY
 CANADA

CLIENT: NEXTERA ENERGY CANADA

TITLE: JERICO 34.5kV COLLECTOR SYSTEM
 WTG 32 & 33
 UNDERGROUND CABLE LAYOUT

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 CONSTRUCTION**

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DRAWN BY: M.FREITAS	CHECKED BY: M.WASAY	APPROVED BY: K.PATEL	SHEET No.
SCALE: NTS	DATE: 12/12/12	DWG. No. 12039-NEC-D10-508	REV. C


CONTINUE ON DRAWING D10-505

NOTES:

1. INSTALLATION SHALL COMPLY WITH OESC 2012, 25TH EDITION.
2. CONTRACTOR SHALL EXERCISE/IMPLEMENT ROAD USER AGREEMENT WITH CONCERNED AUTHORITIES OF TOWNSHIP/COUNTY/MUNICIPALITIES FOR THE RIGHT TO USE CERTAIN PORTION OF ROAD ALLOWANCES.
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12. ALL DRAWING REFERENCES PREFIXED WITH 12039-NEC-

LEGEND:

- 34.5kV COLLECTION FEEDER F1 TRENCH
- 34.5kV COLLECTION FEEDER F2 TRENCH
- 34.5kV COLLECTION FEEDER F3 TRENCH
- 34.5kV COLLECTION FEEDER F4 TRENCH
- 34.5kV COLLECTION FEEDER F5 TRENCH
- 34.5kV COLLECTION FEEDER F6 TRENCH
- 34.5kV COLLECTION FEEDER F7 TRENCH
- MET TOWER TRENCH

 DRAWING REFERENCE PREFIXED BY 12039-NEC-
 DETAIL REFERENCE, SECTION #

MVJB = MEDIUM VOLTAGE JUNCTION BOX
 MES = METAL ENCLOSED SWITCHGEAR

C	28/11/13	REVISED LAYOUT AND MES LOCATIONS	MW	KP
B	10/09/13	REVISED LAYOUT AND MES LOCATIONS		DP
A	10/05/13	ISSUED FOR REVIEW AND COMMENT	MW	KP
REV.	DATE	DESCRIPTION	CHK'D	APP'D
REVISIONS				



CLIENT: NEXTERA ENERGY CANADA

TITLE: JERICHO 34.5kV COLLECTOR SYSTEM
 MES2-1
 UNDERGROUND CABLE LAYOUT

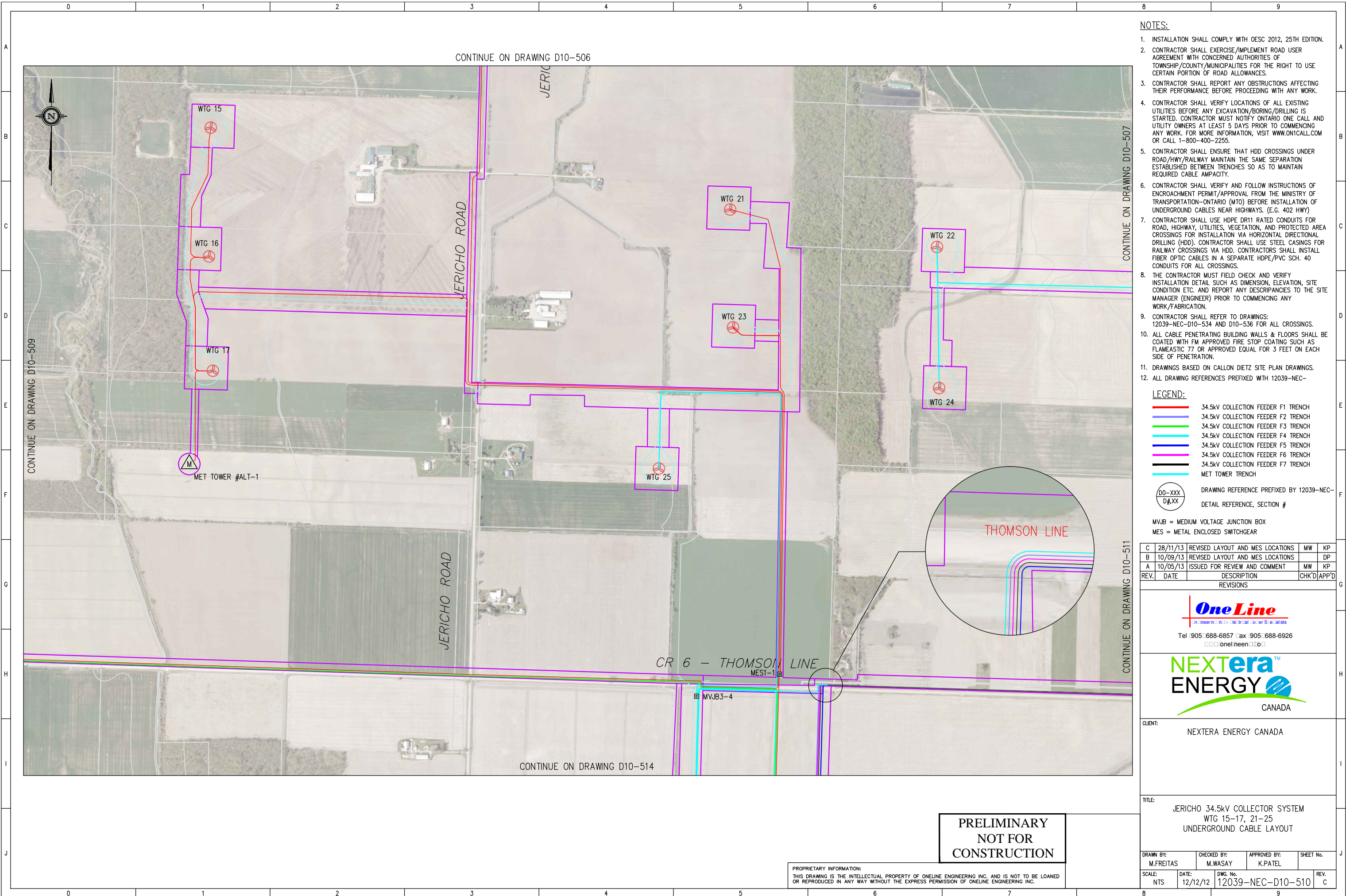
DRAWN BY: M.FREITAS	CHECKED BY: M.WASAY	APPROVED BY: K.PATEL	SHEET No.
SCALE: NTS	DATE: 12/12/12	DWG. No. 12039-NEC-D10-509	REV. C



CONTINUE ON DRAWING D10-513

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- NOTES:**
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 3. CONTRACTOR SHALL REPORT ANY OBSTRUCTIONS AFFECTING THEIR PERFORMANCE BEFORE PROCEEDING WITH ANY WORK.
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 7. CONTRACTOR SHALL USE HDPE DR11 RATED CONDUITS FOR ROAD, HIGHWAY, UTILITIES, VEGETATION, AND PROTECTED AREA CROSSINGS FOR INSTALLATION VIA HORIZONTAL DIRECTIONAL DRILLING (HDD). CONTRACTOR SHALL USE STEEL CASINGS FOR RAILWAY CROSSINGS VIA HDD. CONTRACTORS SHALL INSTALL FIBER OPTIC CABLES IN A SEPARATE HDPE/PVC SCH. 40 CONDUITS FOR ALL CROSSINGS.
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 9. CONTRACTOR SHALL REFER TO DRAWINGS: 12039-NEC-D10-534 AND D10-536 FOR ALL CROSSINGS.
 10. ALL CABLE PENETRATING BUILDING WALLS & FLOORS SHALL BE COATED WITH FM APPROVED FIRE STOP COATING SUCH AS FLAMEASTIC 77 OR APPROVED EQUAL FOR 3 FEET ON EACH SIDE OF PENETRATION.
 11. DRAWINGS BASED ON CALLON DIETZ SITE PLAN DRAWINGS.
 12. ALL DRAWING REFERENCES PREFIXED WITH 12039-NEC-

- LEGEND:**
- 34.5kV COLLECTION FEEDER F1 TRENCH
 - 34.5kV COLLECTION FEEDER F2 TRENCH
 - 34.5kV COLLECTION FEEDER F3 TRENCH
 - 34.5kV COLLECTION FEEDER F4 TRENCH
 - 34.5kV COLLECTION FEEDER F5 TRENCH
 - 34.5kV COLLECTION FEEDER F6 TRENCH
 - 34.5kV COLLECTION FEEDER F7 TRENCH
 - MET TOWER TRENCH
- DO-XXX
D#XX DRAWING REFERENCE PREFIXED BY 12039-NEC-
 DETAIL REFERENCE, SECTION #

MVJB = MEDIUM VOLTAGE JUNCTION BOX
 MES = METAL ENCLOSED SWITCHGEAR

REV.	DATE	DESCRIPTION	CHK'D	APP'D
C	28/11/13	REVISED LAYOUT AND MES LOCATIONS	MW	KP
B	10/09/13	REVISED LAYOUT AND MES LOCATIONS		DP
A	10/05/13	ISSUED FOR REVIEW AND COMMENT	MW	KP

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NEXTERA ENERGY
 CANADA

CLIENT: NEXTERA ENERGY CANADA

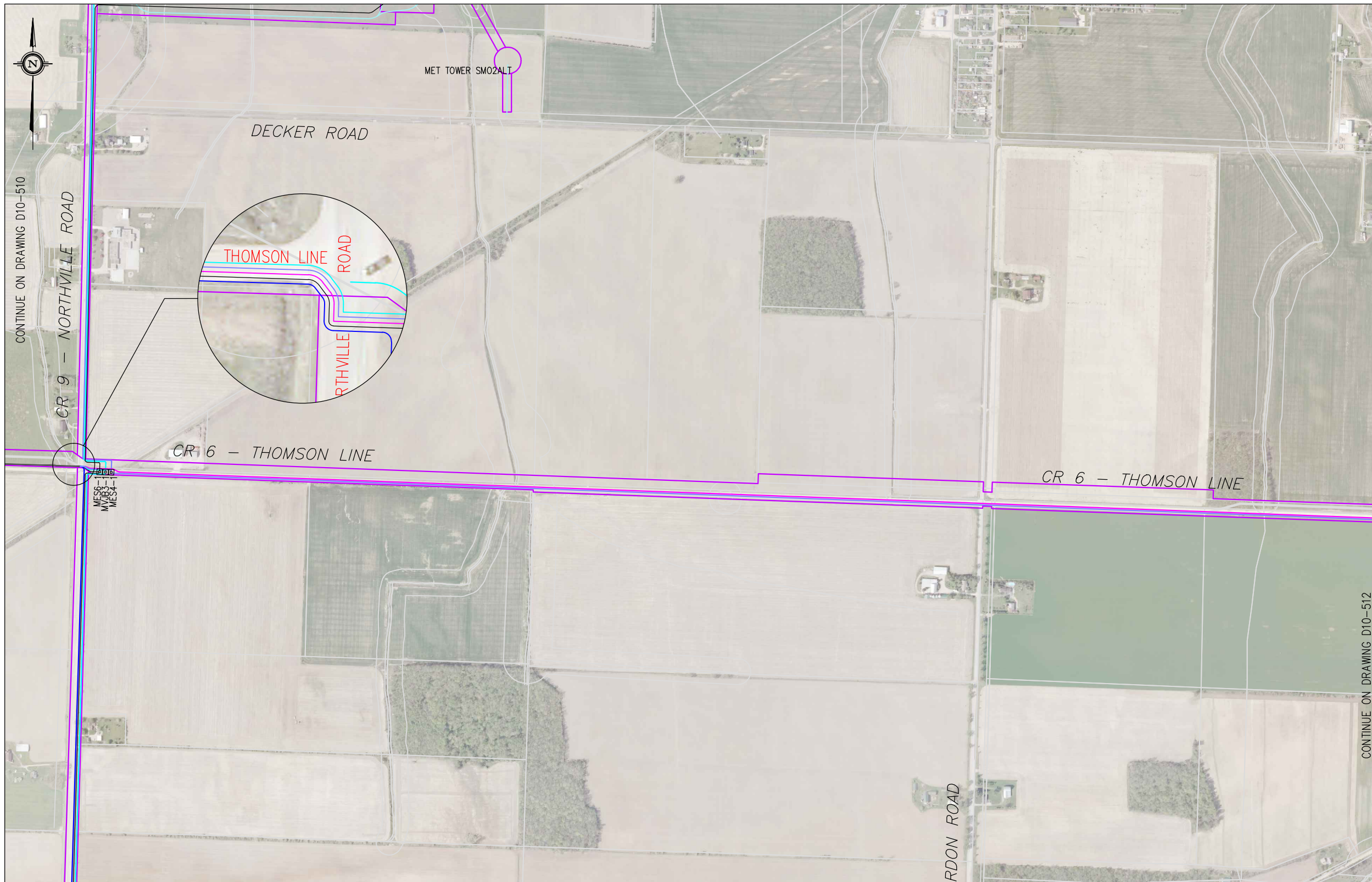
TITLE: JERICHO 34.5kV COLLECTOR SYSTEM
 WTG 15-17, 21-25
 UNDERGROUND CABLE LAYOUT

DRAWN BY: M.FREITAS	CHECKED BY: M.WASAY	APPROVED BY: K.PATEL	SHEET No.
SCALE: NTS	DATE: 12/12/12	DWG. No. 12039-NEC-D10-510	REV. C

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CONSTRUCTION**

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CONTINUE ON DRAWING D10-507



NOTES:

1. INSTALLATION SHALL COMPLY WITH OESC 2012, 25TH EDITION.
2. CONTRACTOR SHALL EXERCISE/IMPLEMENT ROAD USER AGREEMENT WITH CONCERNED AUTHORITIES OF TOWNSHIP/COUNTY/MUNICIPALITIES FOR THE RIGHT TO USE CERTAIN PORTION OF ROAD ALLOWANCES.
3. CONTRACTOR SHALL REPORT ANY OBSTRUCTIONS AFFECTING THEIR PERFORMANCE BEFORE PROCEEDING WITH ANY WORK.
4. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UTILITIES BEFORE ANY EXCAVATION/BORING/DRILLING IS STARTED. CONTRACTOR MUST NOTIFY ONTARIO ONE CALL AND UTILITY OWNERS AT LEAST 5 DAYS PRIOR TO COMMENCING ANY WORK. FOR MORE INFORMATION, VISIT WWW.ONICALL.COM OR CALL 1-800-400-2255.
5. CONTRACTOR SHALL ENSURE THAT HDD CROSSINGS UNDER ROAD/HWY/RAILWAY MAINTAIN THE SAME SEPARATION ESTABLISHED BETWEEN TRENCHES SO AS TO MAINTAIN REQUIRED CABLE AMPACITY.
6. CONTRACTOR SHALL VERIFY AND FOLLOW INSTRUCTIONS OF ENCROACHMENT PERMIT/APPROVAL FROM THE MINISTRY OF TRANSPORTATION-ONTARIO (MTO) BEFORE INSTALLATION OF UNDERGROUND CABLES NEAR HIGHWAYS. (E.G. 402 HWY)
7. CONTRACTOR SHALL USE HDPE DR11 RATED CONDUITS FOR ROAD, HIGHWAY, UTILITIES, VEGETATION, AND PROTECTED AREA CROSSINGS FOR INSTALLATION VIA HORIZONTAL DIRECTIONAL DRILLING (HDD). CONTRACTOR SHALL USE STEEL CASINGS FOR RAILWAY CROSSINGS VIA HDD. CONTRACTORS SHALL INSTALL FIBER OPTIC CABLES IN A SEPARATE HDPE/PVC SCH. 40 CONDUITS FOR ALL CROSSINGS.
8. THE CONTRACTOR MUST FIELD CHECK AND VERIFY INSTALLATION DETAIL SUCH AS DIMENSION, ELEVATION, SITE CONDITION ETC. AND REPORT ANY DISCREPANCIES TO THE SITE MANAGER (ENGINEER) PRIOR TO COMMENCING ANY WORK/FABRICATION.
9. CONTRACTOR SHALL REFER TO DRAWINGS: 12039-NEC-D10-534 AND D10-536 FOR ALL CROSSINGS.
10. ALL CABLE PENETRATING BUILDING WALLS & FLOORS SHALL BE COATED WITH FM APPROVED FIRE STOP COATING SUCH AS FLAMEASTIC 77 OR APPROVED EQUAL FOR 3 FEET ON EACH SIDE OF PENETRATION.
11. DRAWINGS BASED ON CALLON DIETZ SITE PLAN DRAWINGS.
12. ALL DRAWING REFERENCES PREFIXED WITH 12039-NEC-

LEGEND:

- 34.5kV COLLECTION FEEDER F1 TRENCH
- 34.5kV COLLECTION FEEDER F2 TRENCH
- 34.5kV COLLECTION FEEDER F3 TRENCH
- 34.5kV COLLECTION FEEDER F4 TRENCH
- 34.5kV COLLECTION FEEDER F5 TRENCH
- 34.5kV COLLECTION FEEDER F6 TRENCH
- 34.5kV COLLECTION FEEDER F7 TRENCH
- MET TOWER TRENCH

DRAWING REFERENCE PREFIXED BY 12039-NEC-
DETAIL REFERENCE, SECTION #

MVJB = MEDIUM VOLTAGE JUNCTION BOX
MES = METAL ENCLOSED SWITCHGEAR

C	28/11/13	REVISED LAYOUT AND MES LOCATIONS	MW	KP
B	10/09/13	REVISED LAYOUT AND MES LOCATIONS		DP
A	10/05/13	ISSUED FOR REVIEW AND COMMENT	MW	KP
REV.	DATE	DESCRIPTION	CHK'D	APP'D
REVISIONS				



CLIENT: NEXTERA ENERGY CANADA

TITLE: JERICO 34.5kV COLLECTOR SYSTEM
MVJB3-1, MES4-1, MES6-1
UNDERGROUND CABLE LAYOUT

DRAWN BY: M.FREITAS	CHECKED BY: M.WASAY	APPROVED BY: K.PATEL	SHEET No.
SCALE: NTS	DATE: 12/12/12	DWG. No. 12039-NEC-D10-511	REV. C

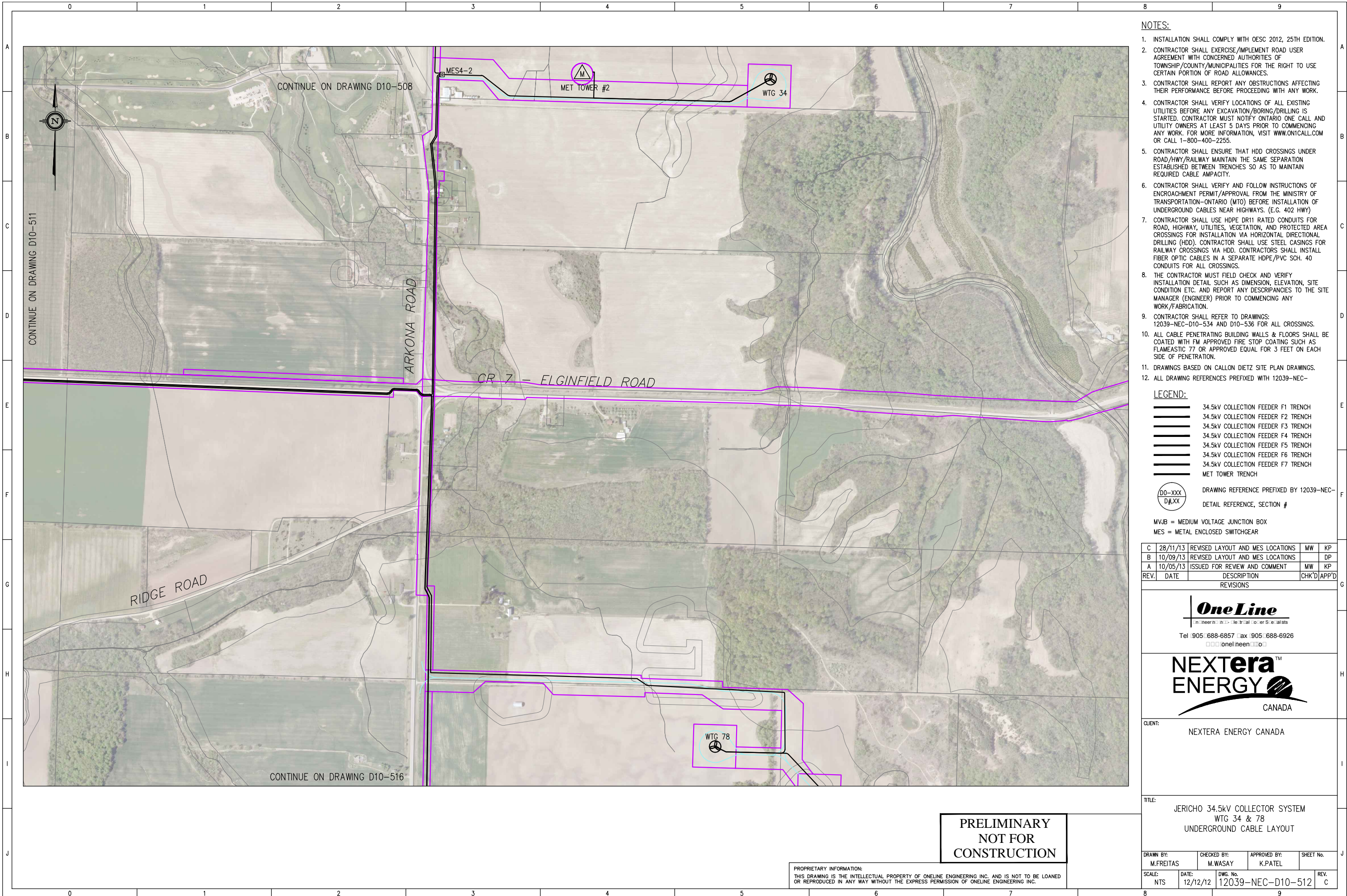
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CONTINUE ON DRAWING D10-515

CONTINUE ON DRAWING D10-512

CONTINUE ON DRAWING D10-510



- NOTES:**
1. INSTALLATION SHALL COMPLY WITH OESC 2012, 25TH EDITION.
 2. CONTRACTOR SHALL EXERCISE/IMPLEMENT ROAD USER AGREEMENT WITH CONCERNED AUTHORITIES OF TOWNSHIP/COUNTY/MUNICIPALITIES FOR THE RIGHT TO USE CERTAIN PORTION OF ROAD ALLOWANCES.
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 8. THE CONTRACTOR MUST FIELD CHECK AND VERIFY INSTALLATION DETAIL SUCH AS DIMENSION, ELEVATION, SITE CONDITION ETC. AND REPORT ANY DISCREPANCIES TO THE SITE MANAGER (ENGINEER) PRIOR TO COMMENCING ANY WORK/FABRICATION.
 9. CONTRACTOR SHALL REFER TO DRAWINGS: 12039-NEC-D10-534 AND D10-536 FOR ALL CROSSINGS.
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 - ▬ 34.5kV COLLECTION FEEDER F2 TRENCH
 - ▬ 34.5kV COLLECTION FEEDER F3 TRENCH
 - ▬ 34.5kV COLLECTION FEEDER F4 TRENCH
 - ▬ 34.5kV COLLECTION FEEDER F5 TRENCH
 - ▬ 34.5kV COLLECTION FEEDER F6 TRENCH
 - ▬ 34.5kV COLLECTION FEEDER F7 TRENCH
 - ▬ MET TOWER TRENCH
- DRAWING REFERENCE PREFIXED BY 12039-NEC-
 DETAIL REFERENCE, SECTION #
- MVJB = MEDIUM VOLTAGE JUNCTION BOX
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C	28/11/13	REVISED LAYOUT AND MES LOCATIONS	MW	KP
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CANADA

CLIENT: NEXTERA ENERGY CANADA

TITLE: JERICO 34.5kV COLLECTOR SYSTEM
WTG 34 & 78
UNDERGROUND CABLE LAYOUT

DRAWN BY: M.FREITAS	CHECKED BY: M.WASAY	APPROVED BY: K.PATEL	SHEET No.
SCALE: NTS	DATE: 12/12/12	DWG. No. 12039-NEC-D10-512	REV. C

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