

Varna Wind, Inc.

Amendment to the Water Assessment and Water Body Report – Bluewater Wind Energy Centre

Prepared by:

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Project Number:

60301207

Date:

September, 2013

Table of Contents

		page
1.	Introduction	1
1.1	The Proponent	1
1.2	Project Study Area	1
2.	Proposed Project Modifications.....	2
3.	Edits to the Water Assessment and Water Body Report.....	5
4.	Summary and Conclusions	5

List of Figures

Figure 2-1	Modified Project Location	4
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List of Tables

Table 2-1	Summary of Project Modifications.....	3
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List of Appendices

Appendix A. Project Modifications

Glossary of Terms

mVA mega Volt-Ampere
 NextEra NextEra Energy Canada, ULC
 POI..... Point of Interconnect
 The Project..... Bluewater Wind Energy Centre
 REA..... Renewable Energy Approval

1. Introduction

Varna Wind, Inc. (Varna) is proposing to construct a wind energy centre in the Municipality of Bluewater and the Municipality Huron East in Huron County, Ontario. The following sections of this Renewable Energy Approval (REA) Amendment Report describe the proposed modifications to this Project and resulting updates to the Water Assessment and Water Body Report.

1.1 The Proponent

The Project will be owned and operated by Varna, a wholly owned subsidiary of NextEra Energy Canada, ULC (NextEra). NextEra’s indirect parent company is NextEra Energy Resources, LLC. The proponent has not changed from the initial REA submission.

The primary contacts for the Project are as follows:

Project Proponent	Project Consultant
Nicole Geneau Project Director NextEra Energy Canada, ULC 390 Bay Street, Suite 1720 Toronto, ON M5H 2Y2 Phone:.....1-416-364-9714 Email:Bluewater.Wind@NextEraEnergy.com Website: ..www.NextEraEnergyCanada.com	Marc Rose Senior Environmental Planner AECOM 105 Commerce Valley Drive West, Floor 7 Markham, ON, Canada L3T 7W3 Phone:905-747-7793 Email:.....marc.rose@aecom.com

1.2 Project Study Area

The proposed Project is located in the Municipality of Bluewater and the Municipality Huron East in Huron County, Ontario (refer to **Figure 2-1**). The Project Study Area has not changed from the initial REA submission.

The following co-ordinates define the external boundaries of the Project Study Area:

Longitude	Latitude
-81.680043	43.553413
-81.350138	43.534437
-81.402727	43.471275
-81.679229	43.433866

2. Proposed Project Modifications

Varna is proposing modifications to the Project. These proposed Project modifications are categorized as follows:

- Construction disturbance area modified to reduce or eliminate impacts to Conservation Authority regulation limit; and,
- Infrastructure or construction disturbance area added or changed to optimize project design/constructability.

Table 2-1 summarizes and documents the following about each of the proposed modifications:

1. A description of the modification and a rationale for why the modification is proposed; and
2. New potential environmental effects and corresponding mitigation measures.

Figure 2-1 illustrates the modified Project Location. **Appendix A** contains a series of figures showing the details for each of the modifications.

Table 2-1 Summary of Project Modifications

Label on Figure 2-1	Proposed Modification	Rationale for Proposed Modification	New Potential Environmental Effects	New Mitigation Measures
A1	Addition of road to Turbine 7 to travel north towards Crystal Springs Road	Infrastructure or construction disturbance area added or changed to optimize project design/ constructability	None – no new water body features within 120 m	N/A
A2	Removal of construction disturbance area to the south east of Turbine 10	Construction disturbance area modified to reduce or eliminate impacts to Conservation Authority regulation limit	None – no new water body features within 120 m	N/A
B1	Addition of construction disturbance area to the north of Turbine 32	Construction disturbance area added or changed to optimize project design/ constructability	None – area previously studies for water body features	N/A
B2	Addition of construction disturbance area to the east of Turbine 41	Construction disturbance area added or changed to optimize project design/ constructability	None – area previously studies for water body features	N/A
C1	Addition of construction disturbance area to the west of Turbine 2	Construction disturbance area added or changed to optimize project design/ constructability	None – no new water body features within 120 m	N/A
C2	Addition of construction disturbance area to the south and east of Turbine 14	Construction disturbance area added or changed to optimize project design/ constructability	None – no new water body features within 120 m	N/A
D1	Removal of construction disturbance area to the south west of Turbine 3	Construction disturbance area modified to reduce or eliminate impacts to Conservation Authority regulation limit	None – area previously studies for water body features	N/A
D2	Addition of construction disturbance area to the south of Turbine 17	Construction disturbance area added or changed to optimize project design/ constructability	None – no new water body features within 120 m	N/A
D3	Addition of construction disturbance area to the east of Turbine 4	Construction disturbance area added or changed to optimize project design/ constructability	None – no new water body features within 120 m	N/A
E1-E2	Addition of construction disturbance area for the transmission line in the municipal road right-of-way along Centennial Road	Construction disturbance area added or changed to optimize project design/ constructability	None – area previously studies for water body features	N/A
E3	Addition of construction disturbance area to the north of Turbine 36	Construction disturbance area added or changed to optimize project design/ constructability	None – no new water body features within 120 m	N/A
E4	Addition of construction disturbance area for the transmission line on private property to the north of Centennial Road	Construction disturbance area added or changed to optimize project design/ constructability	None – no new water body features within 120 m	N/A
E5	Addition of construction disturbance area for the transmission line in the municipal road right-of-way along Centennial Road	Construction disturbance area added or changed to optimize project design/ constructability	None – no new water body features within 120 m	N/A
F1	Addition of construction disturbance area for the transmission line in the municipal road right-of-way along Centennial Road	Construction disturbance area added or changed to optimize project design/ constructability	None – area previously studies for water body features	N/A
F2	Addition of construction disturbance area for the transmission line on private property to the north of Centennial Road	Construction disturbance area added or changed to optimize project design/ constructability	None – no new water body features within 120 m	N/A
F3	Addition of construction disturbance area for the transmission line in the municipal road right-of-way along Centennial Road	Construction disturbance area added or changed to optimize project design/ constructability	None – no new water body features within 120 m	N/A
G1-G4	Addition of construction disturbance area for the transmission line in the municipal road right-of-way along Centennial Road	Construction disturbance area added or changed to optimize project design/ constructability	None – no new water body features within 120 m	N/A
H1	Addition of construction disturbance area for the transmission line on private property to the north of Centennial Road	Construction disturbance area added or changed to optimize project design/ constructability	None – no new water body features within 120 m	N/A
H2	Addition of construction disturbance area for the transmission line on private properties to the north of Centennial Road	Construction disturbance area added or changed to optimize project design/ constructability	None – no new water body features within 120 m	N/A
H3-H4	Addition of construction disturbance area for the transmission line in the municipal road right-of-way along Hensall Road	Construction disturbance area added or changed to optimize project design/ constructability	None – area previously studies for water body features	N/A
I1	Addition of construction disturbance area for the transmission line POI to the north of the existing disturbance area	Construction disturbance area added or changed to optimize project design/ constructability	None – no new water body features within 120 m	N/A
I2	Addition of construction disturbance area for the transmission line in the municipal road right-of-way along Hensall Road	Construction disturbance area added or changed to optimize project design/ constructability	None – no new water body features within 120 m	N/A
N/A	Use of a spare 170 mVA transformer to be stored within the existing footprint of the Jericho Wind Energy Centre substation	N/A	N/A	N/A



Legend

- Transmission Line Study Area
- Wind Energy Centre Study Area
- Properties
- Layout Modification Locations
- Change Map Extent
- August 2013 - 120m Area of Investigation
- January 2013 - 120m Area of Investigation

Turbines and Permanent Meteorological Tower

- Added
- Removed
- No Change

Layout Modification (Type, Status)

- Collection Line, Added
- Road, Added
- Collection Line, Removed
- Road, Removed
- Collection Line, No Change
- Access Road, No Change
- Transmission Line, No Change

Modification to Disturbance Areas Status

- Added
- Removed
- No Change

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**Bluewater Wind Energy Centre
REA Amendment**

Project Location

September 2013
Project 60155032

Figure 2-1

Path: G:\CA\KCN-Environment\60155032_BLV_Lay\LayoutChanges_20130608.mxd

3. Edits to the Water Assessment and Water Body Report

There are no edits to the Water Assessment and Water Body Report resulting from the modifications described in **Table 2-1**.

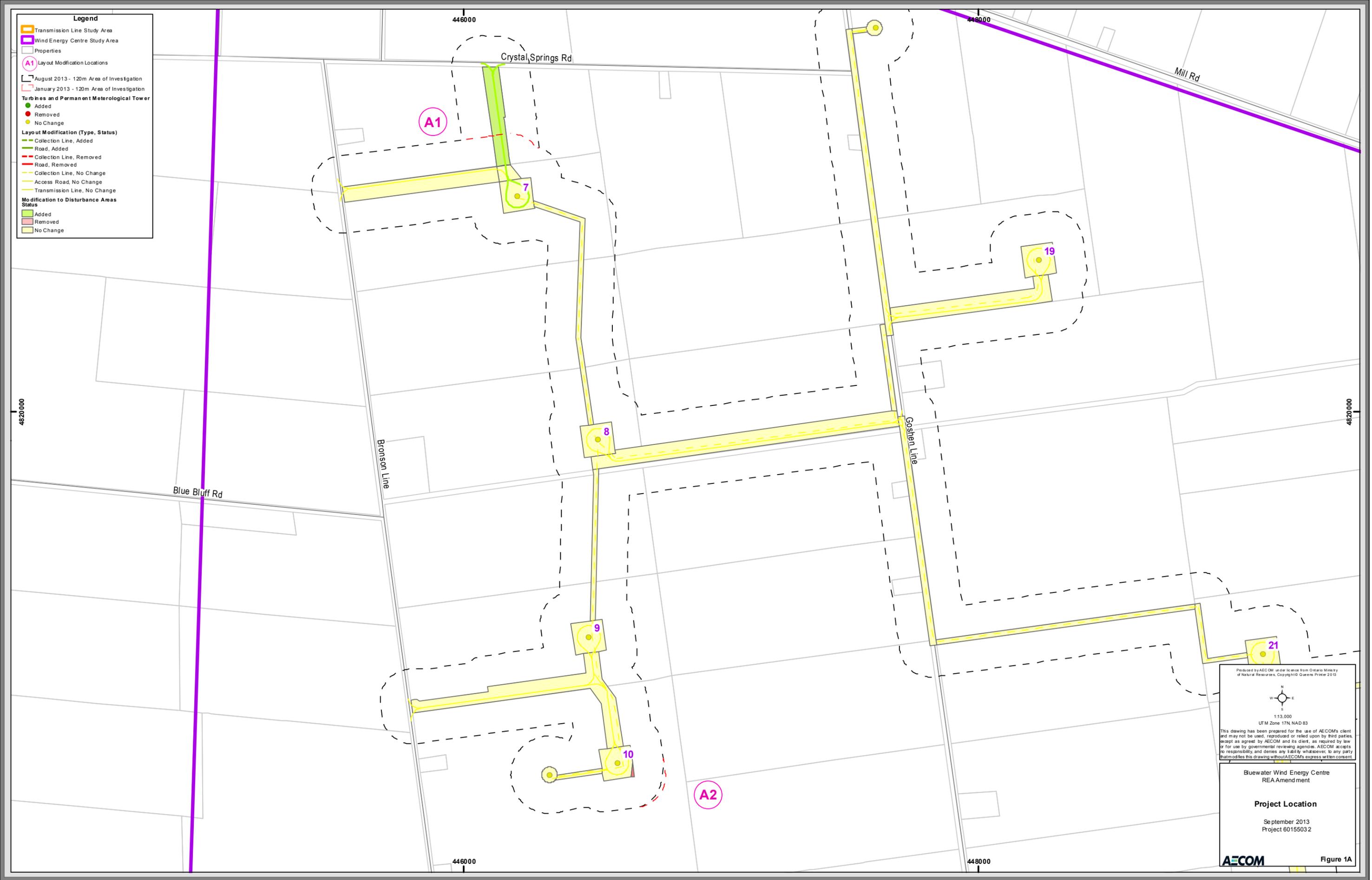
4. Summary and Conclusions

The Project modifications described in this REA Amendment do not change the overall conclusion of the Water Assessment and Water Body Report which states that “all of the potential effects from the construction and operation of the Project can be mitigated so that the effect on the water bodies are reduced to no residual effects, or low in the case of water body crossings”.

Appendix A

Project Modifications

- Legend**
- Transmission Line Study Area
 - Wind Energy Centre Study Area
 - Properties
 - A1 Layout Modification Locations
 - August 2013 - 120m Area of Investigation
 - January 2013 - 120m Area of Investigation
- Turbines and Permanent Meteorological Tower**
- Added
 - Removed
 - No Change
- Layout Modification (Type, Status)**
- Collection Line, Added
 - Road, Added
 - Collection Line, Removed
 - Road, Removed
 - Collection Line, No Change
 - Access Road, No Change
 - Transmission Line, No Change
- No modification to Disturbance Areas Status**
- Added
 - Removed
 - No Change



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**Bluewater Wind Energy Centre
REA Amendment**

Project Location

September 2013
Project 60155032

Legend

- Transmission Line Study Area
- Wind Energy Centre Study Area
- Properties
- A1 Layout Modification Locations
- August 2013 - 120m Area of Investigation
- January 2013 - 120m Area of Investigation

Turbines and Permanent Meteorological Tower

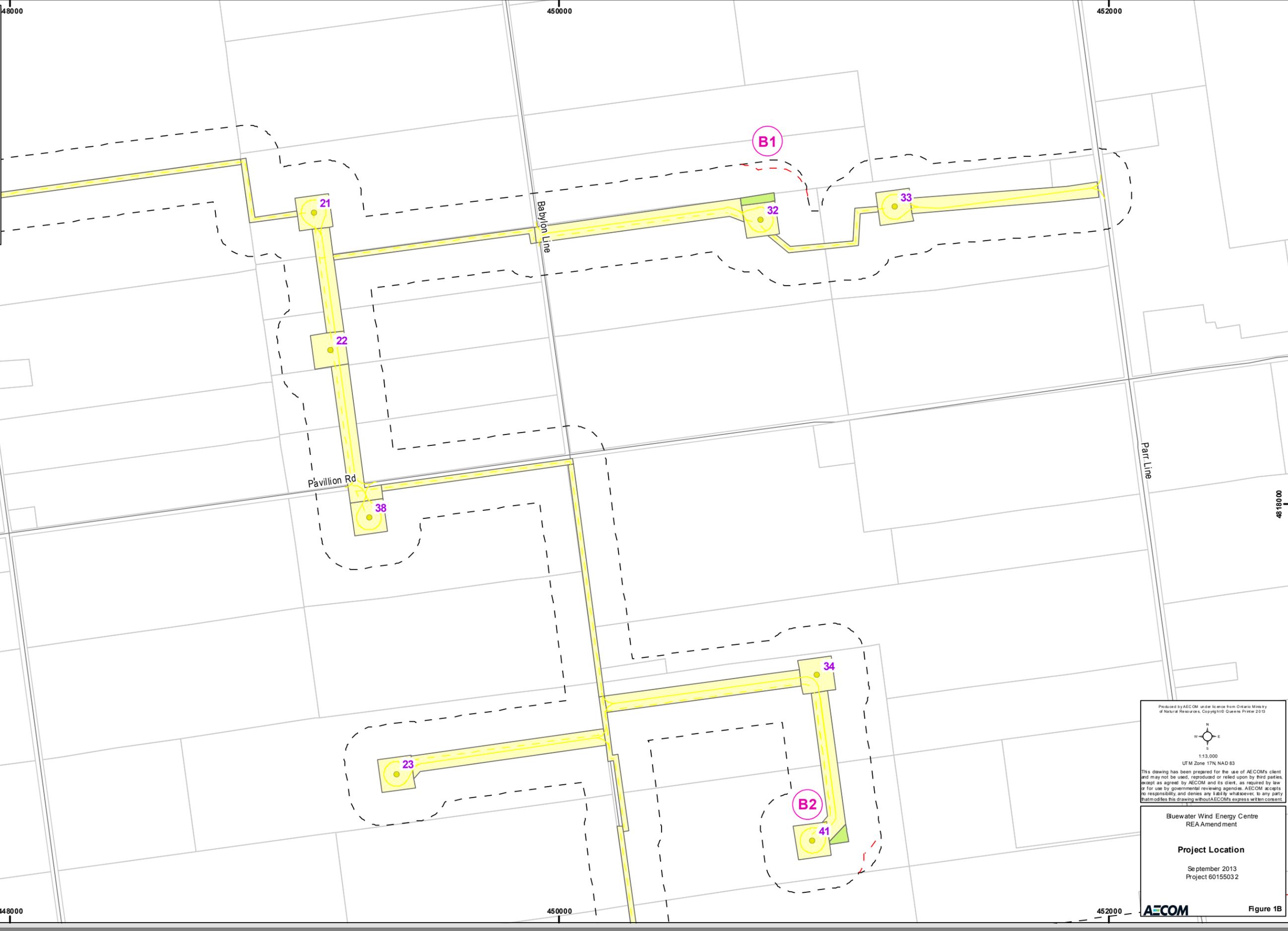
- Added
- Removed
- No Change

Layout Modification (Type, Status)

- Collection Line, Added
- Road, Added
- Collection Line, Removed
- Road, Removed
- Collection Line, No Change
- Access Road, No Change
- Transmission Line, No Change

No modification to Disturbance Areas Status

- Added
- Removed
- No Change



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Bluewater Wind Energy Centre
REA Amendment

Project Location

September 2013
Project 60155032

AECOM

Figure 1B

Legend

- Transmission Line Study Area
- Wind Energy Centre Study Area
- Properties
- A1 Layout Modification Locations
- August 2013 - 120m Area of Investigation
- January 2013 - 120m Area of Investigation

Turbines and Permanent Meteorological Tower

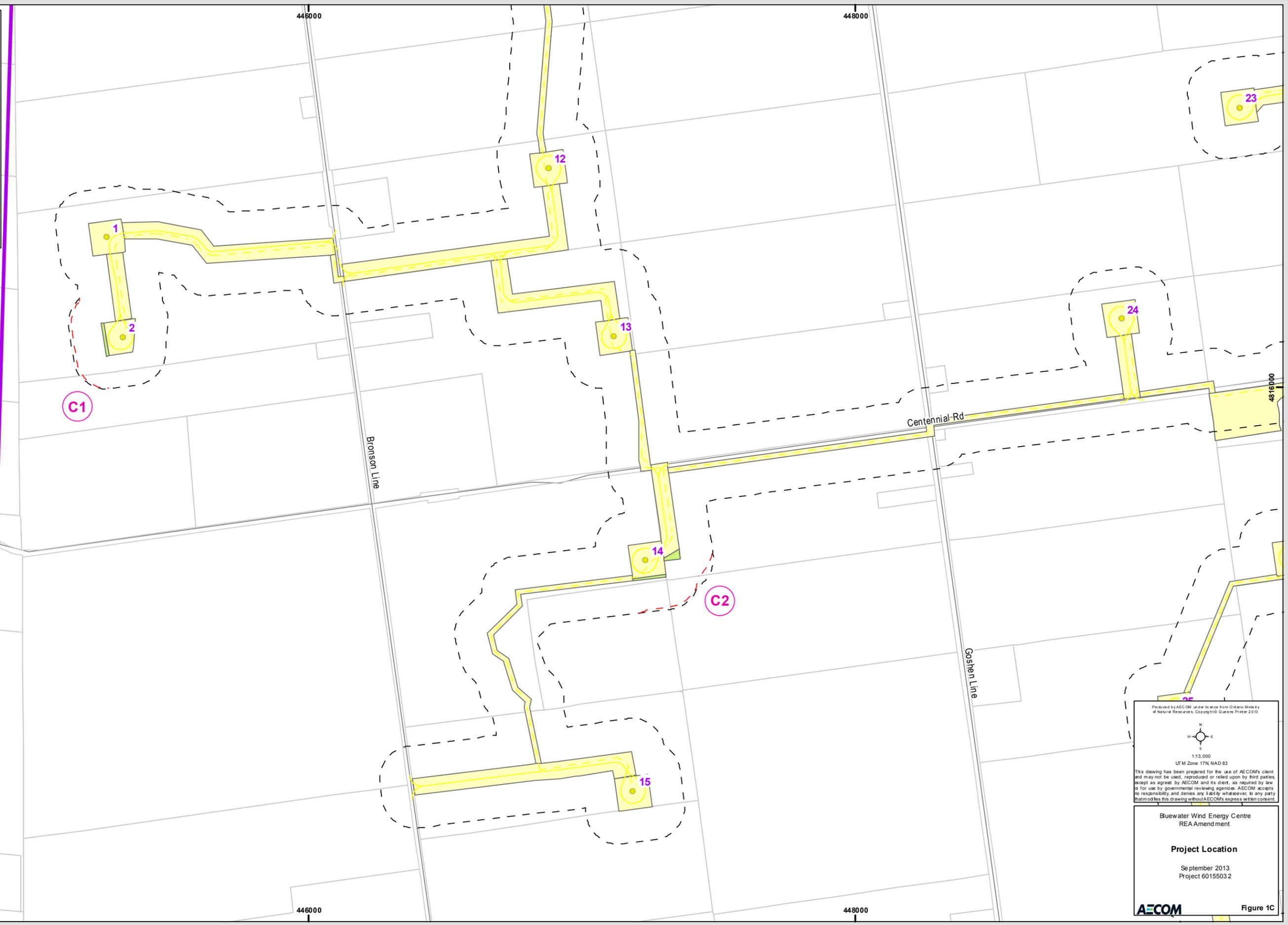
- Added
- Removed
- No Change

Layout Modification (Type, Status)

- Collection Line, Added
- Road, Added
- Collection Line, Removed
- Road, Removed
- Collection Line, No Change
- Access Road, No Change
- Transmission Line, No Change

Modification to Disturbance Areas Status

- Added
- Removed
- No Change



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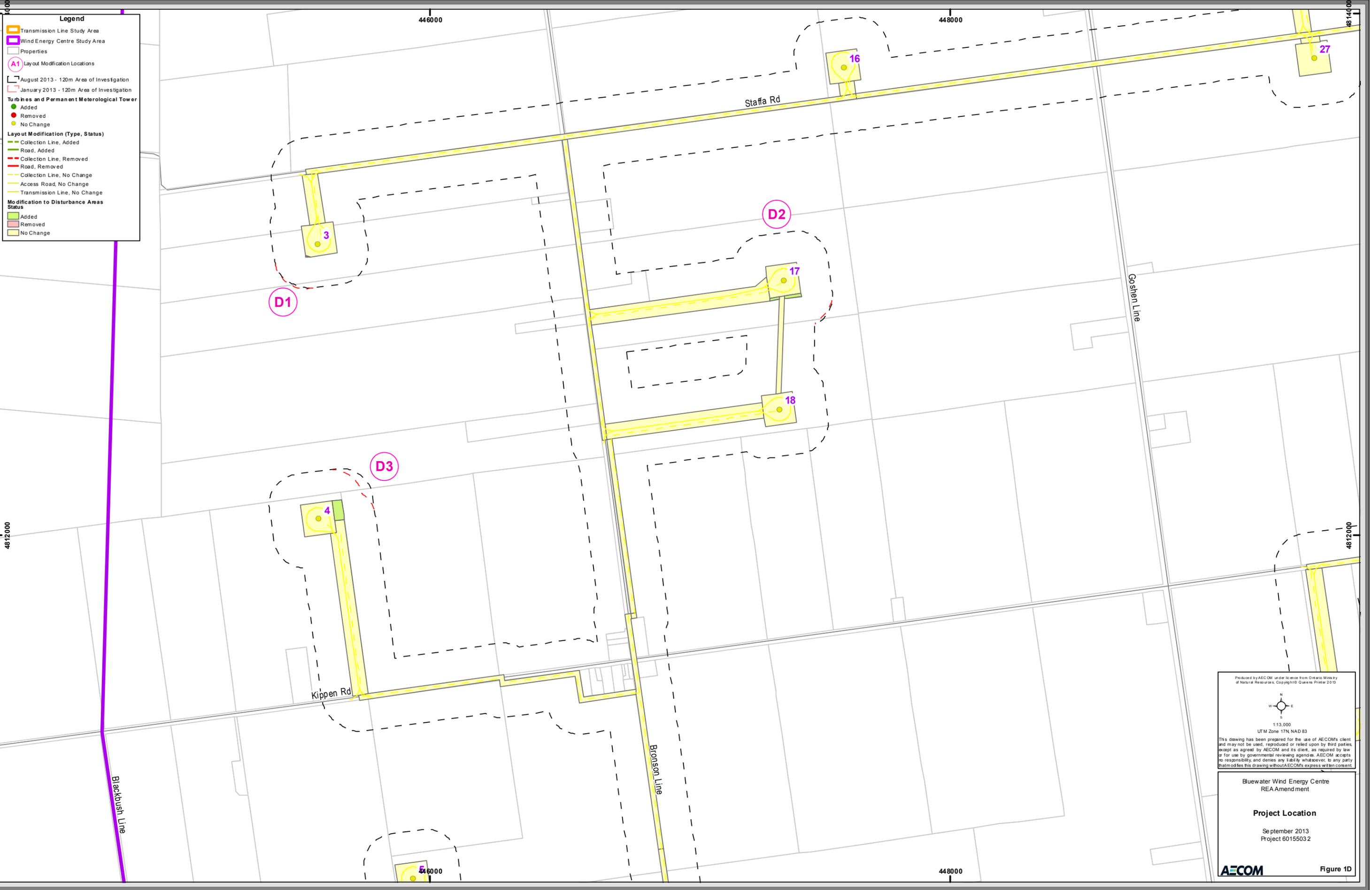
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Bluewater Wind Energy Centre
 REA Amendment

Project Location
 September 2013
 Project 60155032

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Figure 1C



Legend

- Transmission Line Study Area
- Wind Energy Centre Study Area
- Properties
- A1 Layout Modification Locations
- August 2013 - 120m Area of Investigation
- January 2013 - 120m Area of Investigation

Turbines and Permanent Meteorological Tower

- Added
- Removed
- No Change

Layout Modification (Type, Status)

- Collection Line, Added
- Road, Added
- Collection Line, Removed
- Road, Removed
- Collection Line, No Change
- Access Road, No Change
- Transmission Line, No Change

No modification to Disturbance Areas Status

- Added
- Removed
- No Change

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REA Amendment

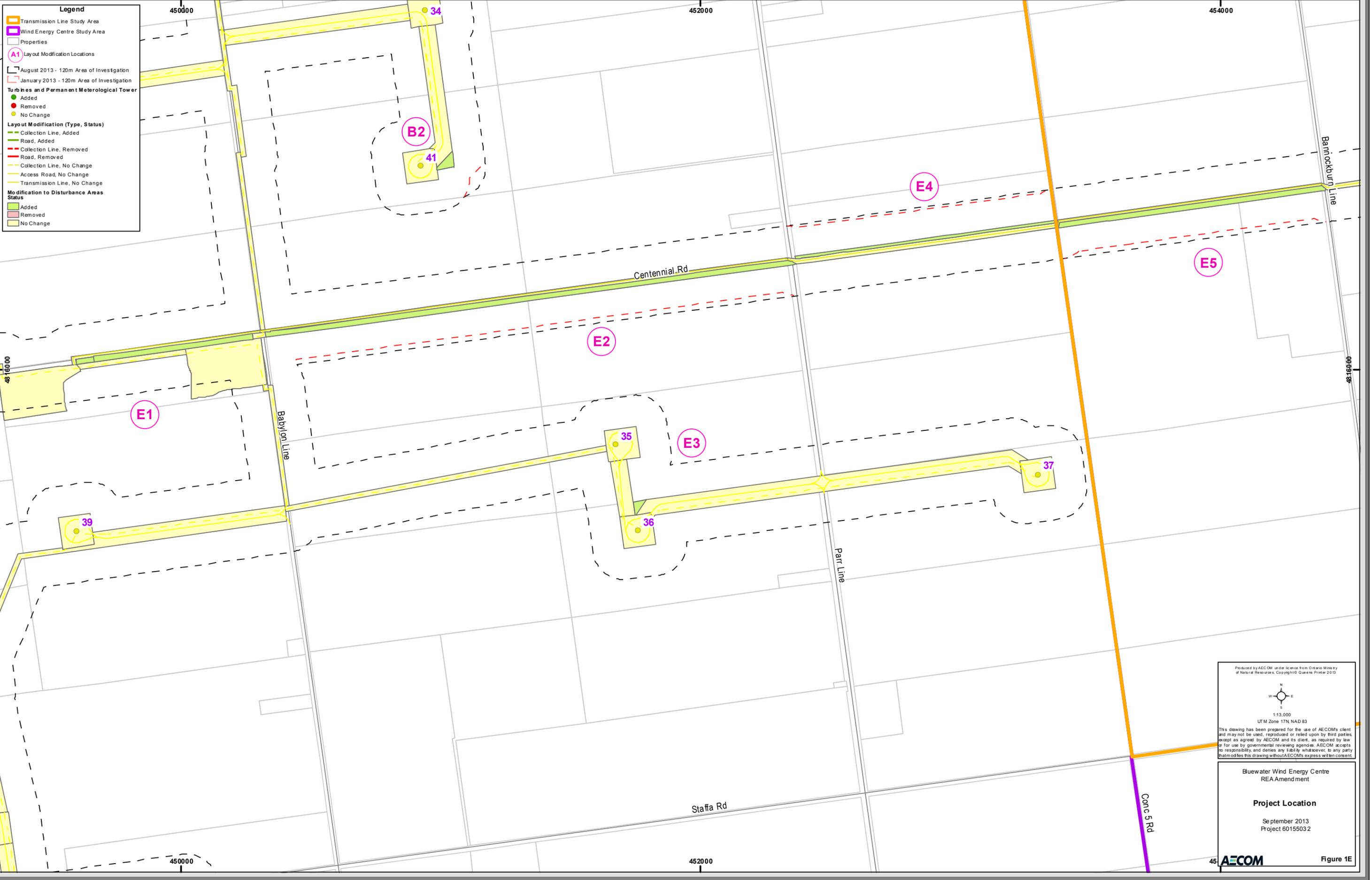
Project Location

September 2013
Project 60155032

AECOM Figure 1D

Legend

- Transmission Line Study Area
- Wind Energy Centre Study Area
- Properties
- A1 Layout Modification Locations
- August 2013 - 120m Area of Investigation
- January 2013 - 120m Area of Investigation
- Turbines and Permanent Meteorological Tower**
 - Added
 - Removed
 - No Change
- Layout Modification (Type, Status)**
 - Collection Line, Added
 - Road, Added
 - Collection Line, Removed
 - Road, Removed
 - Collection Line, No Change
 - Access Road, No Change
 - Transmission Line, No Change
- No modification to Disturbance Areas Status**
 - Added
 - Removed
 - No Change



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Bluewater Wind Energy Centre
REA Amendment

Project Location

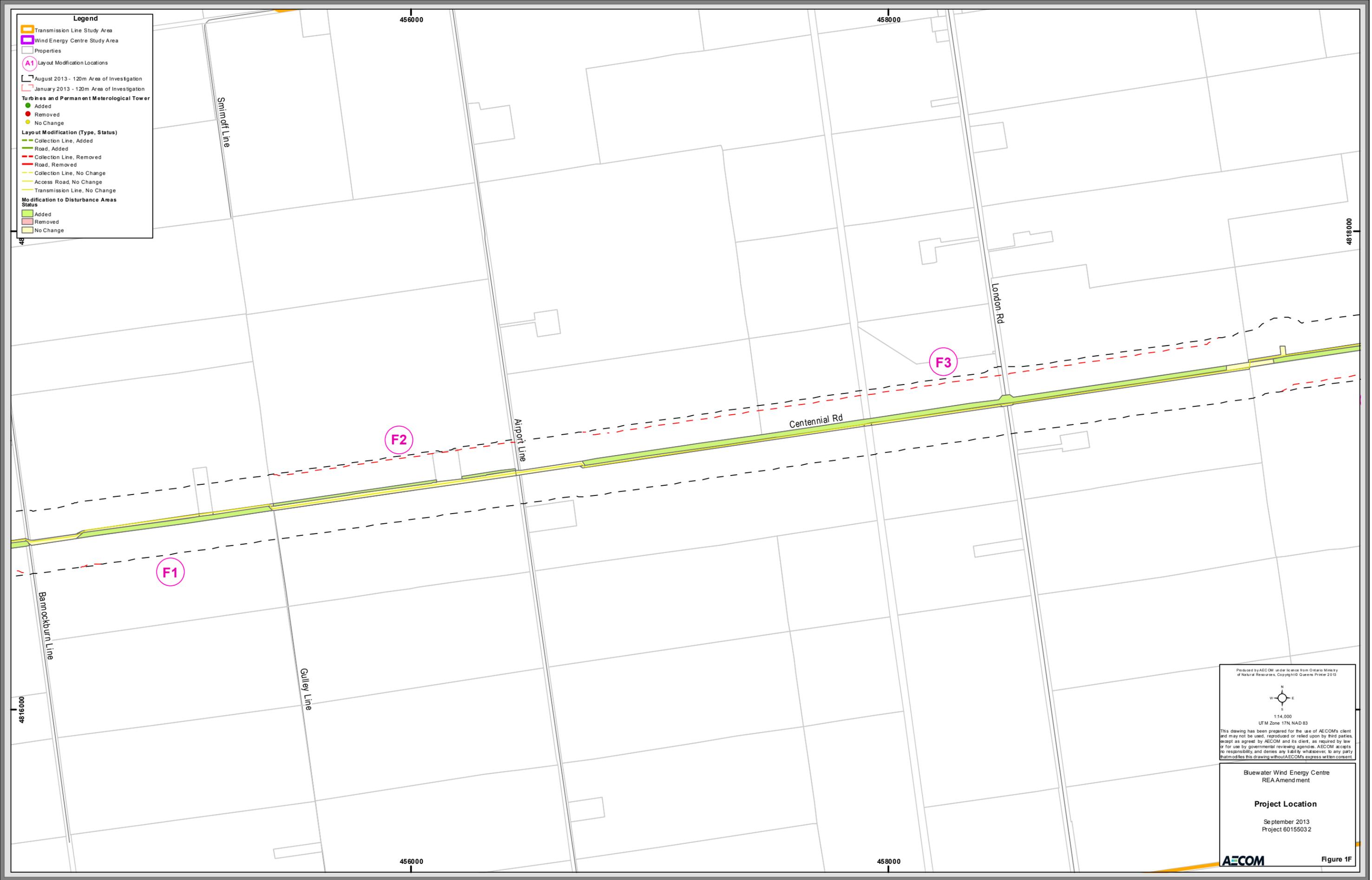
September 2013
Project 60155032

AECOM

Figure 1E

Legend

- Transmission Line Study Area
- Wind Energy Centre Study Area
- Properties
- A1 Layout Modification Locations
- August 2013 - 120m Area of Investigation
- January 2013 - 120m Area of Investigation
- Turbines and Permanent Meteorological Tower**
- Added
- Removed
- No Change
- Layout Modification (Type, Status)**
- Collection Line, Added
- Road, Added
- Collection Line, Removed
- Road, Removed
- Collection Line, No Change
- Access Road, No Change
- Transmission Line, No Change
- No Modification to Disturbance Areas Status**
- Added
- Removed
- No Change



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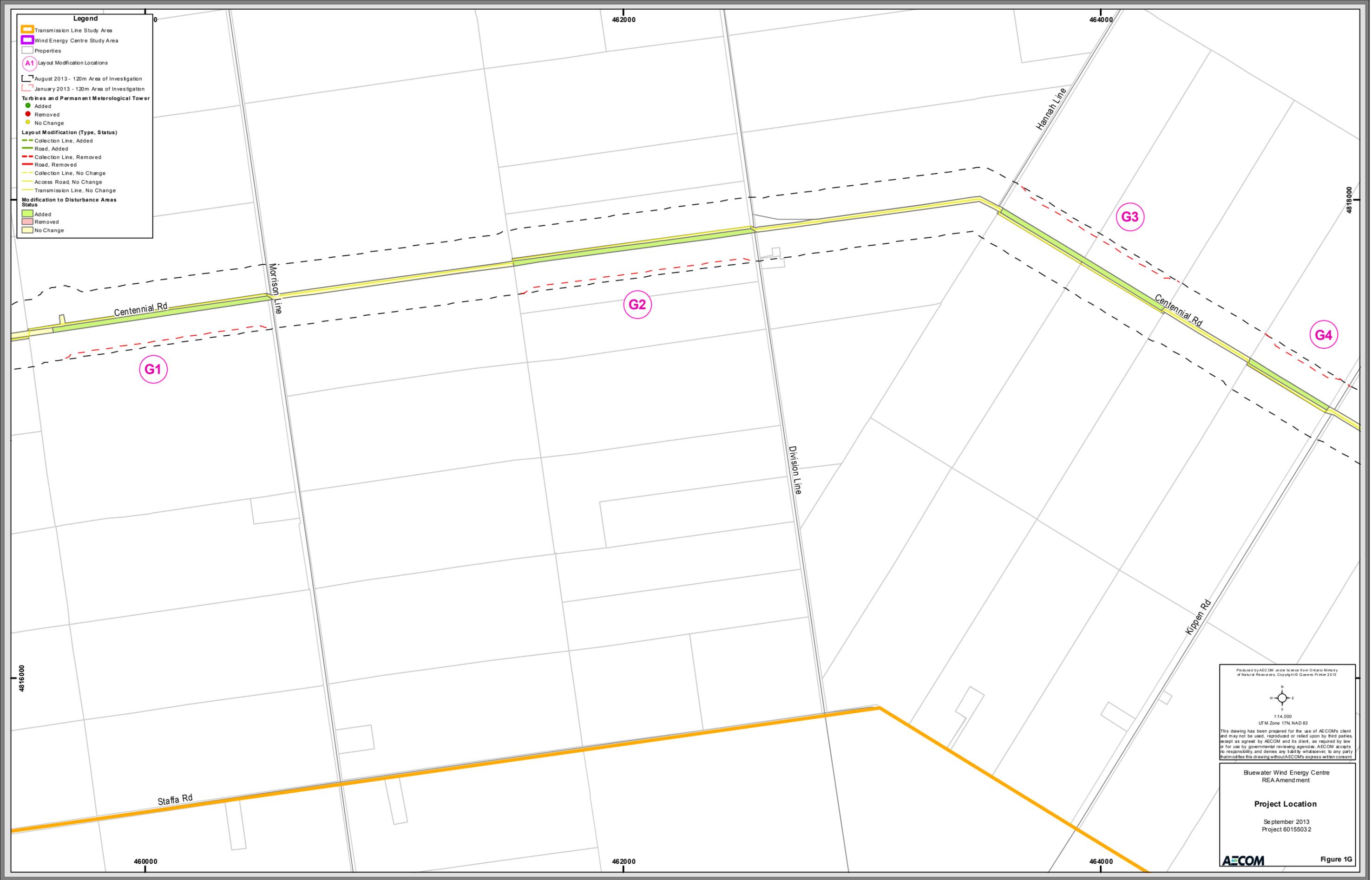
Bluewater Wind Energy Centre
REA Amendment

Project Location

September 2013
Project 60155032

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Figure 1F



Legend

- Transmission Line Study Area
- Wind Energy Centre Study Area
- Properties
- A1 Layout Modification Locations
- August 2013 - 120m Area of Investigation
- January 2013 - 120m Area of Investigation
- Turbines and Permanent Meteorological Tower**
 - Added
 - Removed
 - No Change
- Layout Modification (Type, Status)**
 - Collection Line, Added
 - Road, Added
 - Collection Line, Removed
 - Road, Removed
 - Collection Line, No Change
 - Access Road, No Change
 - Transmission Line, No Change
- Modification to Disturbance Areas Status**
 - Added
 - Removed
 - No Change

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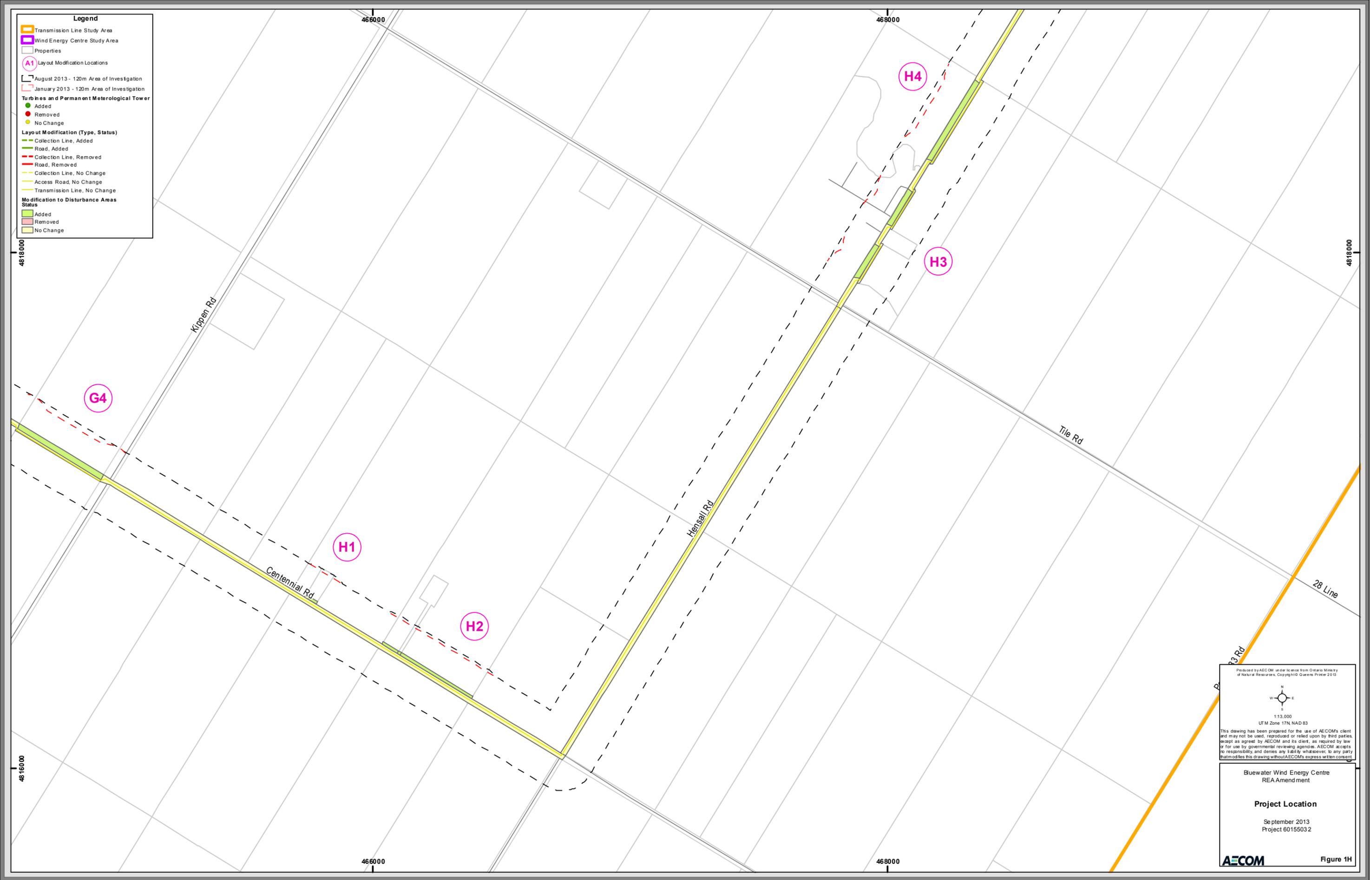
Project Location

September 2013
Project 60155032

AECOM Figure 1G

Legend

- Transmission Line Study Area
- Wind Energy Centre Study Area
- Properties
- A1 Layout Modification Locations
- August 2013 - 120m Area of Investigation
- January 2013 - 120m Area of Investigation
- Turbines and Permanent Meteorological Tower**
- Added
- Removed
- No Change
- Layout Modification (Type, Status)**
- Collection Line, Added
- Road, Added
- Collection Line, Removed
- Road, Removed
- Collection Line, No Change
- Access Road, No Change
- Transmission Line, No Change
- Modification to Disturbance Areas Status**
- Added
- Removed
- No Change



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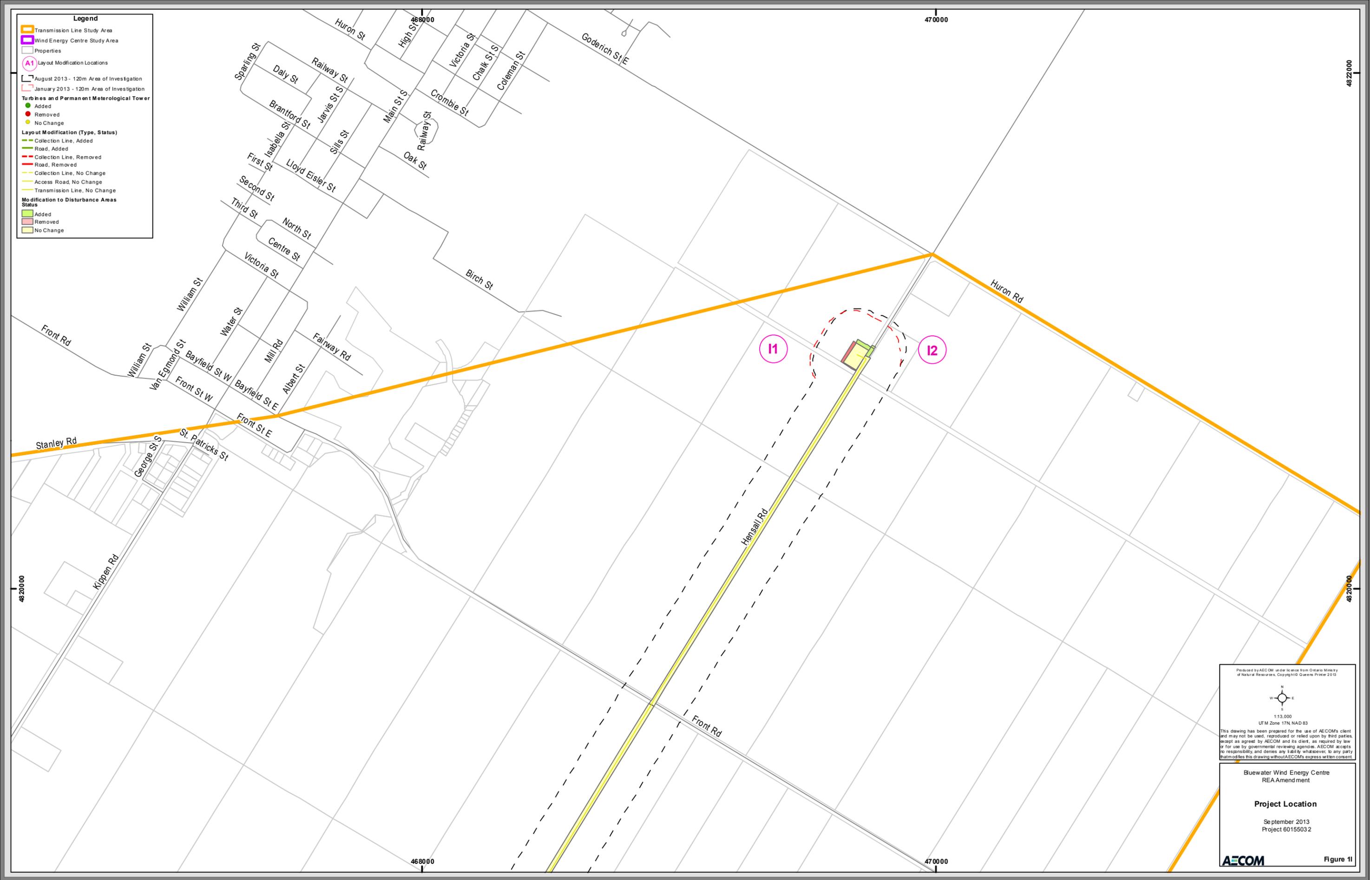
Bluewater Wind Energy Centre
REA Amendment

Project Location

September 2013
Project 60155032

AECOM Figure 1H

- Legend**
- Transmission Line Study Area
 - Wind Energy Centre Study Area
 - Properties
 - A1 Layout Modification Locations
 - August 2013 - 120m Area of Investigation
 - January 2013 - 120m Area of Investigation
 - Turbines and Permanent Meteorological Tower**
 - Added
 - Removed
 - No Change
 - Layout Modification (Type, Status)**
 - Collection Line, Added
 - Road, Added
 - Collection Line, Removed
 - Road, Removed
 - Collection Line, No Change
 - Access Road, No Change
 - Transmission Line, No Change
 - Modification to Disturbance Areas Status**
 - Added
 - Removed
 - No Change



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Bluewater Wind Energy Centre
REA Amendment

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AECOM Figure 11