BowArk Energy Ltd.
Suite 3405 Devon Tower
400 – 3 Ave SW
Calgary, Alberta T2P 4H2

www.bowark.com

September 21, 2018

RE: Lanfine North Wind Power Project and Lanfine South Wind Power Project

Dear neighbour:

Thank you for your ongoing interest in the Lanfine North Wind Power Project and in the Lanfine South Wind Power Project. In September 2017, we hosted our second community open house, and in November 2017, we provided Project updates, including updates on the layout and turbine information.

Accompanying this letter are three documents with further information about the Projects and BowArk and Pattern's public involvement:

- Project Maps showing the infrastructure and reduced Project boundaries for Lanfine North and Lanfine South, updated turbine locations and infrastructure, and updated shadow flicker and noise impacts for Turbine Option B. The Project Map also identifies Lanfine North Turbines and Lanfine South Turbines;
- visual simulations of the Project layouts, with 81 turbines reflecting the updated turbine locations for Turbine Option B; and
- the Alberta Utilities Commission Brochure, *Public involvement in a proposed utility development*.

Project Updates:

We have selected the turbine type (Vestas 3.6 MW) from the two options presented at our September 2017 open house and November 2017 newsletter. This was previously called Option B. The Vestas 3.6 MW has a hub height of 105 metres and a rotor diameter of 136 metres. Lanfine North Wind Power Project will use 42 turbines with a total Project size of 151.2. MW. Lanfine South Wind Power Project will use 39 turbines for for a total Project size of 140.4 MW.

We have also made minor modifications to the wind farm layout. Based on your feedback, we have modified we moved two turbines, turbine 49 and turbine 50, in the Lanfine North Wind Power Project by 570 metres to the east and 625 metres to the south, respectively. We adjusted the collector system (turbine 49 and 50) and access road (turbine 49, 50 and 71) placement in the Lanfine South Wind Power Project. Both Lanfine North and Lanfine South comply with the AUC Rule 012 requirements for noise. We updated the visual simulations to show the changes in turbine locations. Additional visual simulations from new locations near the Project are underway and will be available on our website at **www.bowark.com**.

As a result of the changes, we have identified corresponding shadow flicker impacts on the maps. Shadow flicker analysis can be completed as the "worst case" which assumes cloudless skies during

all daylight hours or "adjusted case" which accounts for cloud cover. Neither of these adjust for orientation of the windows of the house and is considered a "greenhouse" assumption. The orientation of residential windows, trees and structures near the residence have not been incorporated. The shadow flicker results use the same methodology as the results that we provided in November 2017 with the adjusted case. We've also identified houses that are expected to have zero shadow flicker from the Project.

In late 2017, we received the results of the Alberta Electric System Operator's Renewable Electricity Program. Although we were not successful, we continue to move forward with our Phase 2 AUC Application in preparation for future rounds of the Renewable Electricity Program and other opportunities. Accordingly, we have modified our Project schedule (see Updated Project schedulesTable 1).

Table 1: Updated Project schedules

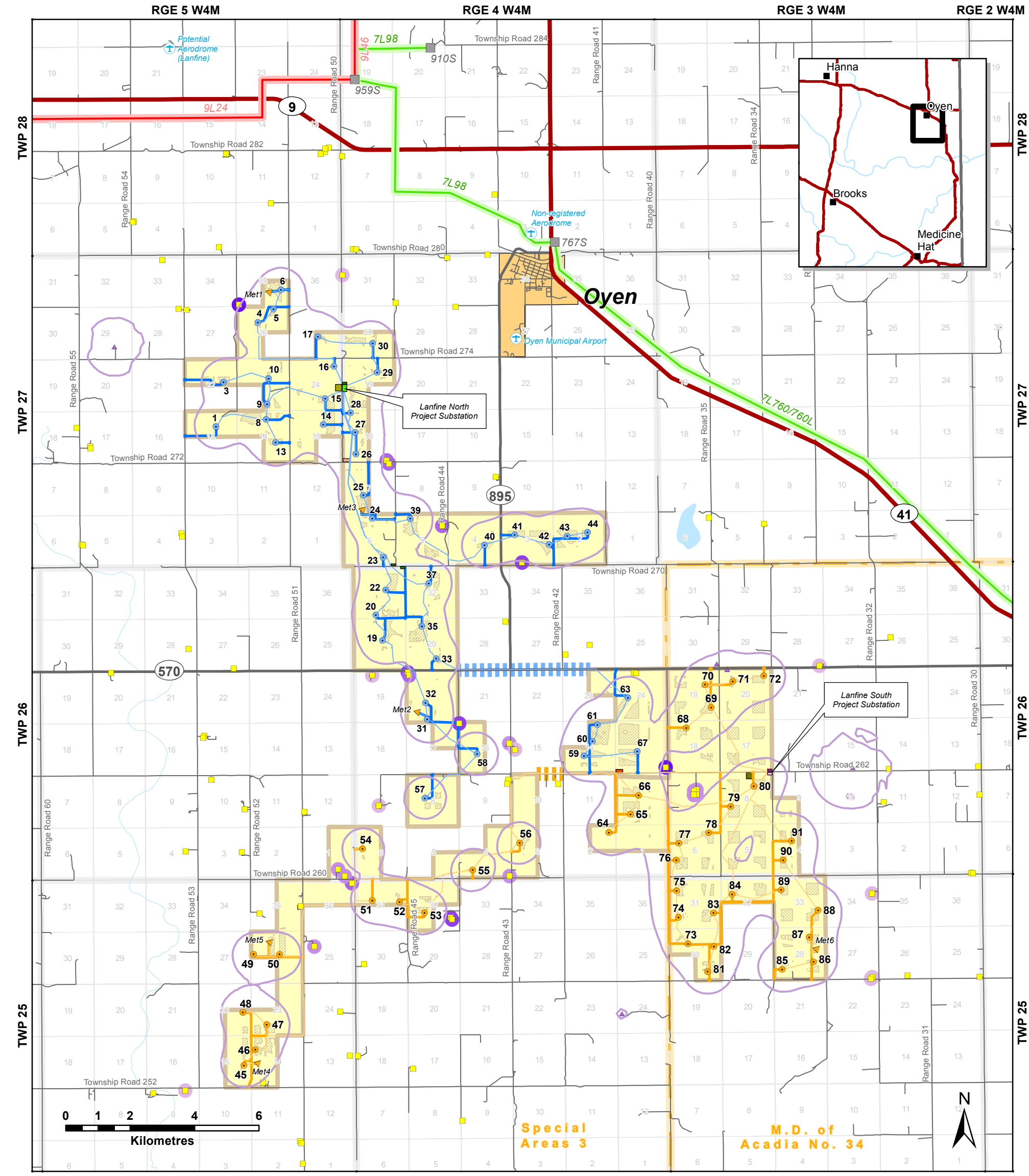
Milestone	**Former November 2017 Schedule**	**Updated September 2018 Schedule**
Submission to the Alberta Utilities Commission for Phase 2 Buildable Areas Application	Fall 2017	Q4 2018
Alberta Utilities Commission approval anticipated	2018	2019
Final Project engineering complete	Fall 2018	Fall 2019
Site mobilization Lanfine North	Winter 2019	Spring 2020
Commercial operations Lanfine North	2019	Fall 2020
Site mobilization Lanfine South	Winter 2020	Spring 2020
Commercial operations Lanfine South	2020	Winter 2020

We continue to engage with the community, landowners, and local government, and I look forward to continuing the dialogue during the Projects' development phases. If you have any questions or if you want more information, please contact us toll-free at **1-844-421-2028** or at **lanfinewind@bowark.com**. Or please visit our website at **www.bowark.com**.

Kind regards,



Keith Knudsen
Project Manager
BowArk Energy Ltd.
403-585-6761
kknudsen@bowark.com



BowArk

Pattern Development

Lanfine North and Lanfine South Wind Power Projects

Proposed Project Map Vestas

Date: 15 Aug 2018
Version: 7

Prepared By: WSP Canada Inc.
Author: S. Schnick
Reviewed: A. Louro
Approved: R. Istchenko

Notes and Data Sources:
Project Land provided by BowArk. Buildable Area derived by WSP. Turbine layout and proposed infrastructure provided by BowArk. Populated places, roads, Alberta Township System, and municipal boundaries from AltaLIS, licensed under the Open Government Licence – Alberta. Existing transmission lines and substations derived by WSP based on AESO AIES map provided by BowArk. Shadow flicker estimates and sound level contours based on Vestas 3.6 MW turbine with rotor diameter of 136 m and hub height of 105 m using 81 turbine locations. Sound level contours and third-party sound sources provided by RWDI. Airstrips and aerodromes derived by WSP.

Coordinate System: NAD 1983 UTM Zone 12N
Scale: 1:120,000 when printed at 11" × 17"

- Project Land
- Buildable Area
- Proposed Permanent Meteorological Tower
- Residence
- Existing ATCO Substation
- Existing Transmission Line (240 kV)
- Existing Transmission Line (138 kV)

Lanfine North

- Proposed Turbine Location
- Proposed Underground Collector Line
- Proposed Road
- Proposed Laydown Area
- Proposed Batch Plant
- Proposed Collector Right-of-Way (Underground or Above Ground)
- Proposed Substation
- Potential O&M Yard and Building Location

- Major Highway
- Minor Highway
- Road
- City, Town or Village
- Airstrip or Aerodrome
- Municipal District and County Boundary
- Waterbody

Lanfine South

- Proposed Turbine Location
- Proposed Underground Collector Line
- Proposed Road
- Proposed Laydown
- Proposed Batch Plant
- Proposed Collector Right-of-Way (Underground or Above Ground)
- Proposed Substation
- Potential O&M Yard and Building Location

- Township Line
- Section Line

Shadow Flicker Hours Per Year (Corrected Case)

- Between 0 and 4 hours
- Between 4 and 8 hours
- Between 8 and 12 hours
- Between 12 and 16 hours
- Between 16 and 20.5 hours
- Sound Level (38.3 dBA)
- Third-party Energy Facility Sound Source

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Title: Photomontage: Baron

Project: Lanfine North and Lanfine South Wind Power Projects

BowArk

Pattern Development

Datum: NAD 83
Projection: UTM Zone 12N

Scale: N.T.S.

Date: 2018-09-19

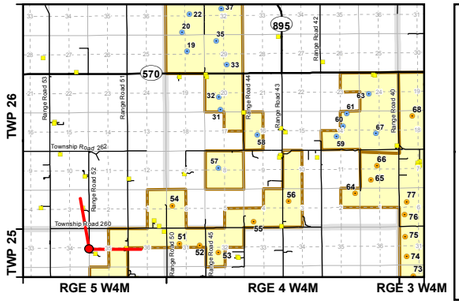
Version: 2

Notes:
Photographs taken with Nikon D60 DSLR camera and 35 mm lens. Panoramic view compiled from four individual photographs. Photomontage simulated using Vestas 3.6 MW turbine with rotor diameter of 136 m and hub height of 105 m using 81 turbine locations (Layout L07 provided by BowArk 16 Feb 2018).

Data Sources:
Project Land provided by BowArk (updated 28 Oct 2017). Populated places, roads, Alberta Township System, and municipal boundaries from AltaLIS, licensed under the Open Government Licence – Alberta.

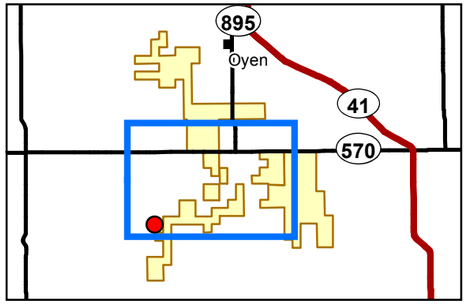
Prepared By: WSP Canada Inc.
Author: J. McRae
Reviewed: A. Louro
Approved: R. Istchenko

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Legend:

- Photo Location and Field of View
- Project Land
- North Proposed Turbine Location
- South Proposed Turbine Location
- Residence
- Major Highway
- Minor Highway
- Road
- Township Line
- Section Line
- Quarter-section Line







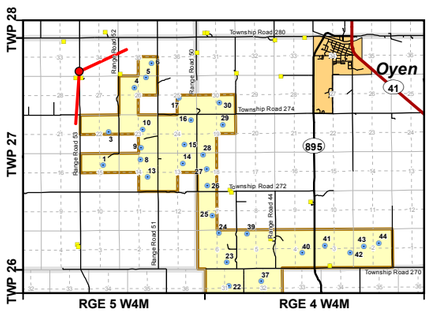
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Project:	Lanfine North and Lanfine South Wind Power Projects
BowArk / Pattern Development	Datum: NAD 83 Projection: UTM Zone 12N
	Scale: N.T.S.
	Date: 2018-09-19
	Version: 2

Notes:
Photographs taken with Nikon D60 DSLR camera and 35 mm lens. Panoramic view compiled from four individual photographs. Photomontage simulated using Vestas 3.6 MW turbine with rotor diameter of 136 m and hub height of 105 m using 81 turbine locations (Layout L07 provided by BowArk 16 Feb 2018).

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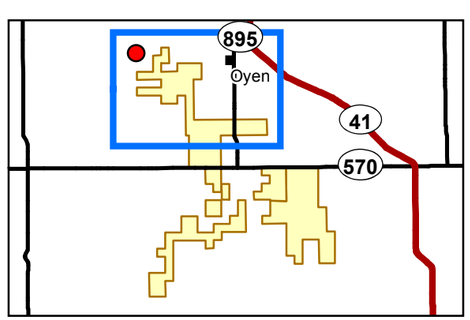
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Legend:

- Photo Location and Field of View
- North Proposed Turbine Location
- Project Land
- Residence
- Major Highway
- Minor Highway
- Road
- City, Town, Village or Settlement
- Township Line
- Section Line
- Quarter-section Line







Title: Photomontage: Highway 570

Project: Lanfine North and Lanfine South Wind Power Projects

BowArk

Pattern Development

Datum: NAD 83
Projection: UTM Zone 12N

Scale: N.T.S.

Date: 2018-09-19

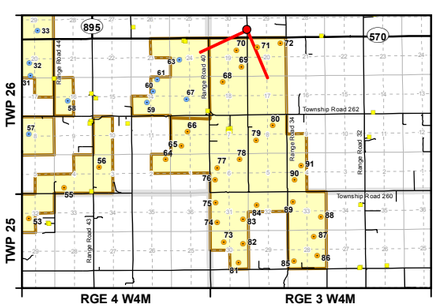
Version: 2

Notes:
Photographs taken with Nikon D60 DSLR camera and 35 mm lens. Panoramic view compiled from five individual photographs. Photomontage simulated using Vestas 3.6 MW turbine with rotor diameter of 136 m and hub height of 105 m using 81 turbine locations (Layout L07 provided by BowArk 16 Feb 2018).

Data Sources:
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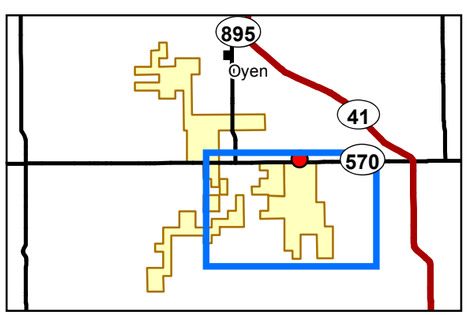
Prepared By: WSP Canada Inc.
Author: J. McRae
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Approved: R. Istchenko

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Legend:

- Photo Location and Field of View
- North Proposed Turbine Location
- South Proposed Turbine Location
- Project Land
- Residence
- Major Highway
- Minor Highway
- Road
- Township Line
- Section Line
- Quarter-section Line







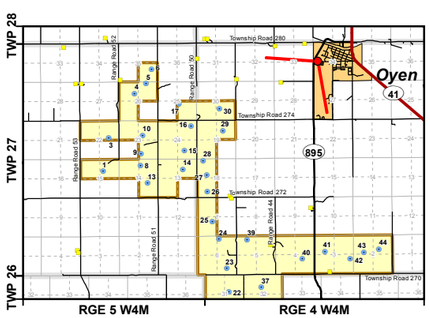
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Project:	Lanfine North and Lanfine South Wind Power Projects
BowArk / Pattern Development	Datum: NAD 83 Projection: UTM Zone 12N
	Scale: N.T.S.
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Legend:

- Photo Location and Field of View
- Project Land

Proposed Turbine Locations

- North Proposed Turbine Location
- Residence
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