Supplement to the Staff Report of Investigation

Grover Hill Wind Farm
Grover Hill Wind Farm, LLC

Case No. 20-0417-EL-BGN

September 9, 2022

Ohio | Power Siting Board
Mike DeWine, Governor | Jenifer French, Chair

In the Matter of the Application of Grover Hill Wind Farm, LLC for a Certificate of Environmental Compatibility and Public Need.	**)** **)** **)**	**Case No. 20-0417-EL-BGN**

Supplement to the Staff Report of Investigation

Submitted to the
OHIO POWER SITING BOARD

BEFORE THE POWER SITING BOARD OF THE STATE OF OHIO

In the Matter of the Application of Grover Hill Wind, LLC for a Certificate of Environmental Compatibility and Public Need	)))	**Case No. 20-0417-EL-BGN**

Members of the Board:

Chair, Public Utilities Commission
Director, Department of Development
Director, Department of Health
Director, Department of Agriculture
Director, Environmental Protection Agency
Director, Department of Natural Resources
Public Member
Ohio House of Representatives
Ohio Senate

To the Honorable Power Siting Board:

In accordance with the Ohio Revised Code (R.C.) 4906.07(C) and rules of the Ohio Power Siting Board (Board), the staff of the Public Utilities Commission of Ohio (Staff) completed its investigation in the above matter and submitted its findings and recommendations in its Staff Report on January 24, 2022, for consideration by the Board. Since that time, new information regarding impacts from four additional proposed wind turbine sites and an increased wind turbine capacity have compelled the Staff to supplement that Staff Report.

In accordance with R.C. 4906.07(C) and 4906.12, copies of this supplement to the Staff Report have been filed with the Docketing Division of the Public Utilities Commission of Ohio and served upon the Applicant or its authorized representative, the parties of record, and pursuant to Ohio Administrative Code 4906-3-06, the main public libraries of the political subdivisions in the project area.

This Supplement to the Staff Report presents the results of Staff's investigation conducted in accordance with R.C. Chapter 4906 and the rules of the Board. The Staff Report does not purport to reflect the views of the Board nor should any party to the instant proceeding consider the Board in any manner constrained by the findings and recommendations set forth herein.

Respectfully submitted,

Theresa White
Executive Director
Ohio Power Siting Board

Background

On May 3, 2021, Grover Hill Wind, LLC (Applicant) filed an application to construct, operate, and maintain the Grover Hill Wind Farm, with up to 23 wind turbine locations, for a total electric generating capacity of up to 150 megawatts (MW) in Paulding County. On June 7, 2021, and December 21, 2021, the Applicant supplemented the application. Staff investigated the application and two supplements, then issued its Staff Report of Investigation (Staff Report) on January 24, 2022. Staff recommended Grover Hill be issued a Certificate of Environmental Compatibility and Public Need ("Certificate") subject to 51 conditions.

Among other conditions, based on the Applicant's inability to comply with R.C. 4906.10(A)(2), (3) and (5) at excavated turbine locations (and access roads thereto), Staff recommended that the Board exclude these sites from the proposed project (i.e., wind turbine sites T-1, T-26/T-2, T-31, T-34, T-40E, T-42, and T-43).

After the Staff Report was filed, the Applicant supplemented its application four additional times. This current Supplement to the Staff Report of Investigation (Supplemental Staff Report) is Staff's review of those four supplements to the Application, as well as data request responses filed subsequent to the initial Staff Report.[1]

Purpose and Scope

The purpose of this Supplemental Staff Report is to analyze the Applicant's four additional supplements filed subsequently to the January 24, 2022 Staff Report and to modify the original Staff Report's recommended conditions as needed. These supplements propose to remove the excavated turbine sites from consideration (i.e., wind turbine sites T-1, T-26/T-2, T-31, T-34, T-40E, T-42, and T-43), introduce four new wind turbine sites (i.e. wind turbine sites T-26a, T-31a, T-34a, and T-43a), propose four permanent meteorological towers, and propose increased capacity wind turbine models (i.e. Siemens Gamesa SG 5.2-145 and Vestas V162-6.2).

Addition of New Wind Turbine Models

In addition to the wind turbine models analyzed in the Staff Report, the Applicant has proposed to include the possibility of using the Siemens Gamesa SG 5.2-145 and Vestas V162-6.2 wind turbine models. The Vestas V162-6.2 uses a higher rated transformer in the tower compared to the previous Vestas model. The Siemens Gamesa SG 5.2-145 has an improved control system, among

1. On January 24, 2022, the Applicant provided its third supplement which was a memorandum of understanding between the Applicant, the Ohio State Historic Preservation Office, and the John Paulding Historical Society.

On May 26, 2022, the Applicant provided a fourth supplement. This supplement was submitted in order to (1) document the proposed locations within the project area of turbines T-26a, T-31a, T-34a, and T-43a; and (2) add the increased capacity wind turbine models Siemens Gamesa SG 5.2-145 and Vestas V162-6.2.

On July 13, 2022, the Applicant provided a fifth supplement. This fifth supplement included Federal Aviation Administration (FAA) information, National Telecommunication and Information Administration (NTIA) correspondence, and Geotechnical information for proposed wind turbine sites T-26a, T-31a, T-34a, and T-43a.

On July 26, 2022, the Applicant provided a sixth supplement which was a technical assistance letter from the US Fish and Wildlife Service.

On August 16, 2022, the Applicant provided a response to the sixteenth data request from Staff which clarified among other things that the Applicant is proposing four permanent meteorological towers.

other things, compared to the previous model. The dimensions of the improved models are the same as the previous Siemens Gamesa and Vestas models.

Meteorological Towers

The Applicant has clarified that now up to four permanent meteorological towers would be installed. These locations for the permanent meteorological towers are shown on the maps in this report. The height of the meteorological towers would range from 344 to 410 feet tall, dependent on the hub height of the turbine model selected. These towers would be galvanized steel structures equipped with wind velocity directional measuring instruments at three different elevations and a red aviation warning lighting mounted at the top. Each permanent meteorological tower would be a self-supporting, non-guyed structure.

Addition of Four New Wind Turbine Sites T-26a, T-31a, T-34a, and T-43a

Based on the Applicant's inability to comply with R.C. 4906.10(A)(2), (3) and (5) at excavated turbine locations (and access roads thereto), Staff recommended in the Staff Report that the Board exclude these sites from the proposed project (i.e., wind turbine sites T-1, T-26/T-2, T-31, T-34, T-40E, T-42, and T-43).[2]

Thereafter, the Applicant proposed relocations of four of those sites as four new wind turbine sites: T-26a, T-31a, T-34a, and T-43a. The locations of these new wind turbine sites are included in the maps of this Supplemental Staff Report. The Applicant intends to, and Staff recommends that the Applicant, backfill and remediate all previous wind turbine excavations (i.e., wind turbine sites T-1, T-26/T-2, T-31, T-34, T-40E, T-42, and T-43.

Application Supplemental Review

Staff reviewed the Application supplements for any adverse environmental impacts and for any increased adverse impacts. Land use impacts, public services, facilities, and safety-related impacts remain comparable to the initial Application case and Staff's review documented in the Staff Report. Noise, shadow flicker, cultural resources, geology, communication, aviation, and ecological impacts present impacts that, although different, continue to constitute minimal environmental impact, as described below.

Noise

Noise would be generated during both construction and operation of the wind farm facility. Construction noise would be associated with construction equipment and construction procedures that are common to many large-scale construction activities. However, the adverse impact of this noise would be minimal because of the transient nature of the construction activities, the distance of the activities from most residential structures, the limitation of construction activities to normal daytime working hours, and noise mitigation that has been proposed in the application.

During facility operation, noise would be associated with the nacelle and turbine blades when the units are generating electricity. Staff reviewed the potential noise impacts in the original application and subsequent supplements. With the shift in location of turbines to new proposed turbine sites T-26a, T-31a, T-34a, and T-43a, the Applicant evaluated the ability of the project to

2. In relation to turbine location T-42, the Applicant overlapped the area of disturbance for this turbine with proposed turbine location T-43. Due to the overlap in areas of disturbance for these two turbine locations, Staff considered the two locations to be one-in-the-same for its analysis purposes.

comply with the noise limit in Staff Report conditions 40 and 41. Modeled operational noise impacts due to the shifting of turbines changed slightly at individual receptors and were within the noise limits outlined in Staff Report conditions 40 and 41. Therefore, in relation to noise impact, the proposed turbine shifts would not pose any material increase in environmental impacts as compared to the previously proposed project.

Shadow Flicker

Shadow flicker from wind turbines occurs when rotating wind turbine blades pass between the sun and the viewer at low solar elevation angles. As the blades of a wind turbine rotate in sunny conditions, they cast moving shadows on the ground resulting in alternating changes in light intensity. Shadow flicker intensity is defined as the difference or variation in brightness at a given location in the presence and absence of a shadow. Shadow flicker can be considered a nuisance to nearby observers, and its effects need to be considered during the design of a wind-energy project.

The original shadow flicker model showed 87 non-participating receptors were modeled to receive more than 30 hours per year of shadow flicker. Staff Report condition 42 requires the Applicant to show, at least 30 days prior to construction, that no non-participating receptors will have more than 30 hours of shadow flicker per year. Modeled operational shadow flicker impacts due to the shifting of turbines changed slightly at individual receptors. With the proposed shift in turbines, the number of non-participating receptors modeled to receive more than 30 hours of shadow flicker per year remains at 87. Therefore, in relation to shadow flicker, the shifted turbine locations would not pose any material increase in environmental impacts as compared to the shadow flicker impacts previously evaluated in the Staff Report and mitigated by the conditions proposed therein.

Cultural Resources

The Applicant's cultural resources consultant conducted background and physical surveys and created cultural resource reports with findings and recommendations. In letters dated May 12, 2021 and June 4, 2021, the Ohio Historic Preservation Office (OHPO) agreed with the cultural resources consultant's recommendations and concluded that the project would have no adverse impacts on historic resources. However, in a letter dated December 7, 2021, OHPO rescinded its decision of "no adverse impacts" due to the work on four turbine foundation locations that was conducted prior to the completion of any cultural resource surveys. OHPO then recommended the Applicant develop mitigation for the work completed prior to the completion of any cultural resource surveys and to memorialize this commitment in a memorandum of understanding (MOU).

The Applicant developed and signed with OHPO an MOU outlining the work completed prior to the completion of any cultural resource surveys, the Applicant's mitigation commitments, and the commitment to stop work, notify, and consult with OHPO if previously unidentified archaeology sites are discovered during construction. Additionally, the four newly proposed turbine locations have been studied for cultural resources, with no additional impacts on cultural resources anticipated.

With the results of the cultural resource surveys, OHPO's conclusions, the Applicant's movement of turbine locations to previously studied areas, and the Applicant's commitments to mitigation and follow-up concerning newly discovered archaeology sites, it is Staff's opinion that the Applicant has demonstrated the nature of probable impacts to cultural resources and the minimization of impacts to cultural resources.

Geology

A supplemental geotechnical investigation report evaluating subsurface geological conditions at the four turbine proposed relocation sites was provided to Staff on July 13, 2022. The scope of the field work conducted in late May 2022 by Westwood included hollow-stem auger borings with standard penetration testing targeting a total depth of 60 feet below ground level (BGL); however, due to the bedrock depths found, actual boring depths ranged from 35 to 41 feet BGL. In the event bedrock/auger refusal was encountered prior to 30 feet, rock coring would begin at that given point and terminate at 35 feet BGL. In addition, soil samples were to be collected at all four boring sites for laboratory analysis, and electrical conductivity testing was to be conducted at two of the supplemental turbine sites. Overall, the scope of field work and sample analysis methods were consistent with the previously (2021) acquired geotechnical data and analysis conducted throughout the project area.

Upon review of the boring logs, it was evident to Staff that the boring location coordinates provided conflicted with the aerial imagery provided with the Fourth Supplement to the Application (Part 3 of Attachment A) provided on May 26, 2022. At Staff's request, the Applicant provided corrected boring logs on August 16, 2022. These revisions confirmed that borings were done specifically at the four turbine relocation sites. Therefore, the geological conditions have been adequately evaluated in this application.

The data extrapolated and conclusions made from this supplemental investigation were consistent, with minor variations, to previous geotechnical data and analysis submitted in the administrative record of the subject application. Therefore, geotechnical engineering recommendations made by Westwood did not change when compared to the previously submitted recommendations. Staff's conclusions made in the January 24, 2022 Staff Report also remain unchanged. However, with the August 16, 2022, data request response, the Applicant indicated it now intends to install four permanent meteorological towers. Geotechnical data was previously acquired for two of the proposed towers. Staff recommends the Applicant perform comparable geotechnical studies and analysis at the remaining two tower locations.

Communications: Microwave Paths and NTIA Correspondence

Microwave communication systems are wireless point-to-point links that communicate between two antennas and require clear line-of-site conditions between each antenna. The Applicant identified four licensed microwave paths intersecting the project area. A Worst-Case Fresnel Zone (WCFZ) was calculated for each of the microwave paths identified. The WCFZ represents the area or path in which a turbine or other structure might cause a deflection of microwave signals.

Staff concurs with the Applicant that proposed wind turbine location T-31a is close to an existing microwave communication beam path. Staff notes that T-31a is approximately 360 feet away from the WCFZ of the microwave path for Sprint Spectrum LP. The blade length for the Vestas V162 wind turbine, which has the longest blade length of the models under consideration, is shorter than that distance, and the Applicant does not anticipate interference with that microwave path. Staff has recommended that the Applicant accurately survey the distance to the microwave path WCFZ and distance to the wind turbine per condition 44. Also, Staff has recommended avoidance or mitigation measures prior to commencement of construction.

The Applicant has committed to denote the beam paths on the final construction plans near turbines, so that construction cranes are not placed in the beam paths during construction except for temporary crossing during transportation.

Wind turbines can interfere with civilian and military radar in some scenarios. Potential interference is highly site-specific and depends on local features, the type of radar, and wind farm characteristics. To evaluate this potential, the Applicant sent a notification letter to the National Telecommunications and Information Administration (NTIA) on April 4, 2022, for the most current wind farm layout. Upon receipt of notification, the NTIA provided plans for the proposed facility to the federal agencies represented in the Interdepartment Radio Advisory Committee. This committee, in a letter dated June 3, 2022, did not identify any concerns regarding radio frequency blockage and had no issues with turbine placement in the project area.

The wind farm will be in the line of sight of multiple aviation surveillance radar systems. This concern was evaluated by the Federal Aviation Administration (FAA) during its review of the aeronautical studies. In the FAA's determination of no hazard letters, the FAA determined that the wind farm project would not create a substantial adverse impact to those multiple aviation surveillance radar systems' operations at this time.

No other adverse impacts to AM or FM radio, cable television, land mobile, public safety communications, or other omnidirectional transmitting stations are expected. Impacts to radar systems and television reception would be mitigated. Staff continues to recommend that the Applicant be required to mitigate any impacts to these communication systems, if they are observed during operation of the facility, as outlined in the Conditions 44 and 45 of the Staff Report.

Aviation[3]

The FAA and Ohio Department of Transportation (ODOT) Office of Aviation administer regulatory programs to evaluate and authorize certain obstructions near airports and provide navigable airspace analysis.

FAA

The FAA conducted an aeronautical study to determine whether the four proposed relocated wind turbines (i.e., T-26a, T-31a, T-34a, and T-43a) would create a hazard to navigable airspace. The FAA recognized the proposed aeronautical studies for each wind turbine represent minor location changes and did not cause any additional adverse effects as described in prior aeronautical study for the wind farm conducted in June 2021 and that was noted in the Staff Report.

The FAA determined that the proposed construction of the four re-located wind turbines would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any air navigation facility and would not be a hazard to air navigation provided the conditions set forth in the FAA determination of no hazard letters are met.

3. The FAA is the authority in the U.S. government responsible for regulating all aspects of civil aviation, including issuing determinations on petitions for objects that penetrate the nation's airspace. The FAA conducts aeronautical studies for new structures that will exceed 200 feet in height under the provisions of 49 U.S.C. 44718, and applicable 14 CFR Part 77. Pursuant to R.C. 4561.32, ODOT regulates the height and location of structures and objects within any airport's clear zone surface, horizontal surface, conical surface, primary surface, approach surface, or transitional surface.

Since the time the Staff Report was filed in January 2022, Staff has received inquiries from the public questioning whether all wind turbines at a wind farm require aviation warning lights. The FAA allows (at most wind farms) that not all wind turbine units within a wind farm need to be lighted. Often the FAA allows obstruction lights to be placed along the perimeter of the wind farm, dependent on the wind farm configuration and turbine height.[4] Malfunctioning lighting requires reporting via the FAA's Notice to Air Missions (NOTAM) notification program.[5] To avoid confusion to the public, Staff recommends that prior to preconstruction, the Applicant provide a map of its final layout, and as geographically referenced electronic data, which indicates the wind turbine lighting configuration it will implement and which turbines will be lighted.

ODOT Office of Aviation

ODOT Office of Aviation has access to the same aeronautical studies submitted to the FAA and often performs a simultaneous review. ODOT Office of Aviation implements R.C. 4561.31, which is a construction permit program for structures affecting airport operations. For proposed major utility facilities and economically significant wind farms, participation in the Ohio Power Siting Board process, pursuant to R.C. 4561.31(E) and R.C. 4906.10(A)(5), replaces the permitting process.

Staff contacted ODOT Office of Aviation during the review of the proposed application and included the proposed new wind turbine locations of T-26a, T-31a, T-34a, and T-43a (in accordance with R.C. 4906.10(A)(5) and 4561.32) to coordinate review of potential impacts of the facility on airspace navigation. ODOT Office of Aviation provided its recommendations, in accordance with R.C. 4561.341, to address airspace navigation issues in a letter to Staff dated October 29, 2021 and updated that letter on August 19, 2022 to account for the four new wind turbine locations.

ODOT Office of Aviation found that the location and height of all 23 wind turbine structures would exceed 499 feet above ground level and would constitute an obstruction to air navigation by exceeding the obstruction standards in 14 C.F.R. Part 77.17. ODOT Office of Aviation further advised that its determination is limited by statute to include only impacts to the clear zone, horizontal, conical, primary, approach and transitional surfaces of airports that have been issued a commercial operating certificate. These surfaces are outlined in 14 CFR Part 77.19 and 77.21 and are clearance areas or perimeters around airports. ODOT Office of Aviation confirmed that none of the proposed wind turbine structures (including T-26a, T-31a, T-34a, or T-43a) would impact those surfaces.

With inclusion of T-26a, T-31a, T-34a, and T-43a into the wind farm layout, Staff only has one additional recommended condition pertaining to Aviation where the Applicant would provide a wind turbine aviation lighting layout map. Additionally, the Grover Hill Wind Farm would be required to comply with Ohio Adm.Code 4906-4-09, the FAA determination of no hazard letters, and file any authorizations for crane use. These were outlined in Conditions 4, 46, and 48 of the Staff Report filed on January 24, 2022.

4. "FAA Advisory Circular 70/7460-1 M, Obstruction Marking and Lighting" (latest revision November 16, 2020), accessed August 25, 2022, https://www.faa.gov/documentLibrary/media/Advisory_Circular/Advisory_Circular_70_7460_1M.pdf.

5. *Ibid*.

Errata in Staff Report Condition No. 35

Staff noticed a typographical error in Condition 35 of the Staff Report, which mentioned the wrong county's engineer. Staff Recommends that Staff Report Condition No. 35 be deleted and that it read as follows:

(35) Prior to commencement of construction activities that require transportation permits, the Applicant shall obtain all such permits. The Applicant shall coordinate with the appropriate authority regarding any temporary road closures, road use agreements, driveway permits, lane closures, road access restrictions, and traffic control necessary for construction and operation of the proposed facility. Coordination shall include, but not be limited to, the Paulding County Engineer, ODOT, local law enforcement, and health and safety officials. The Applicant shall detail this coordination as part of a final transportation management plan submitted to Staff prior to the preconstruction conference for review and confirmation by Staff that it complies with this condition and then file the plan on the public docket. This final transportation management plan would include any county required road use maintenance agreement/s. All local county and township roads used for construction traffic should be monitored at sufficient frequency during construction to ensure these roads remain safe for local traffic. Any damaged local public roads, culverts and bridges would be repaired promptly to their previous or better condition by the Applicant under the guidance of the appropriate regulatory authority. Any temporary improvements would be removed unless the appropriate regulatory authority request that they remain in place.

Prior Excavation Activities

Staff notes that the Applicant intends to restore the prior excavation sites to original condition. With the inclusion of T-26a, T-31a, T-34a, and T-43a into the wind farm layout, Staff notes that the six excavations at wind turbine sites T-1, T-26/T-2, T-31, T-34, T-40E, and T-42 are no longer part of the proposed Grover Hill Wind Farm layout. The Applicant intends and Staff has recommended, in Condition 8, that the Applicant restore the land to its original condition by proper backfill and remediation of these six excavation sites. Staff further notes that the Board has transferred Parcel ID No. 24-15S-001-02 from the Northwest Ohio Wind Farm to the Applicant, which had wind turbine excavation work performed by Northwest Ohio Wind, LLC at its T55 site.[6] The Applicant intends, and Staff has recommended in Condition 8, proper backfill and decommission of that site to restore the land to its original condition. The associated access roads to these wind turbine excavations (whether performed by the Applicant or Northwest Ohio Wind, LLC) will be incorporated into the Grover Hill Wind Farm layout or will remain per landowner request.

It is Staff's understanding that the Applicant would backfill and revegetate the prior wind turbine excavation sites (T-1, T-26/T-2, T-31, T-34, T-40E, T-42, and Northwest Ohio Wind's T55) during the civil construction phase when its construction personnel are working near those sites. The

6. On January 7, 2022, the Applicant filed a joint application with Northwest Ohio Wind, LLC to transfer a portion of the Northwest Ohio Wind project area to the Applicant. (See OPSB case numbers 13-197-EL-BGN, 16-1687-EL-BGA, and 17-1099-EL-BGA.). The Board granted that motion on February 17, 2022.

Applicant would complete that work for all seven excavation sites within 12 months of commencement of construction activities for the wind farm, but not later than March 31, 2025.[7]

Staff recommends that the Applicant properly backfill and decommission the prior wind turbine excavation sites T-1, T-26/T-2, T-31, T-34, T-40E, T-42, and Northwest Ohio Wind, LLC T55 (which is located at 41°2'14.47"N and 84°29'54.80"W on Parcel ID No. 24-15S-001-02) within 12 months of commencement of construction activities for the wind farm but not later than March 31, 2025. This recommendation would be in lieu of Staff Report condition 8. Additionally, the Grover Hill Wind Farm would be required to implement a special performance bond until these wind turbine excavation sites are decommissioned. This performance bond was outlined in Condition 9 of the Staff Report filed on January 24, 2022.

Clarification of Turbine Numbering and Confirmation of Setbacks

Since the Application was initially filed, the turbine numbers have been renumbered multiple times. For example, there were two separate turbine sites identified as T-40 (e.g., T-40 and T-40E). Also, T-2 was renumbered as T-26 then mislabeled at one point as T-1 and now there is nearby separate turbine site T-26a. Lastly, Staff has received a few public inquiries about the distance from various proposed turbines to parcels or residences. To clear up any confusion for the public and other interested parties, Staff recommends that the Applicant file a demonstration to Staff that the wind turbine model selected for each turbine location of its final layout complies with the setback distances outlined in Ohio Adm.Code 4906-4-08(C)(2)(b) and file this demonstration on the docket.

Recommended Findings

Staff recommends that the Board accept this Supplement to the Staff Report as supplemental to the January 24, 2022, Staff Report and replaces the following conditions listed therein with the following conditions: 1, 8, 11, 12, and 35. Staff also finds that Condition 10 is no longer necessary and recommends that it be deleted. In addition, Staff also recommends adding a new condition, (Condition 52) to be included as applicable to this facility.

Conditions

(1) The Applicant shall not construct wind turbines at the turbine locations for which the Applicant conducted prior excavation activities, specifically turbine sites T-1 (41°01’46.28”N, 84°29’30.80”W), T-26/T-2 (41°01’50.42” N, 84°28’56.16”W), T-31(41°0’35.54”N, 84°29’22.93”W), T-34(41°0’44.51”N, 84°28’8.44”W), T-40E (40°59’54.77” N, 84°29’30.89”W), T-42 (40°59’56.51”N, 84°28’53.87”W), and T-43 (40°59’57.79” N, 84°28’53.86” W).

(8) Within 12 months after commencement of construction activities of the wind farm, but not later than March 31, 2025, the Applicant shall properly backfill, decommission, and revegetate the prior wind turbine excavation sites T-1, T-26/T-2, T-31, T-34, T-40E, T-42, and Northwest Ohio Wind, LLC T55 (which is located at 41°2'14.47"N and 84°29'54.80"W on Parcel ID No. 24-15S-001-02) and any access roads not incorporated into the wind farm layout.

7. Grover Hill Wind, LLC’s Response to Seventeenth Data Request from Staff of the OPSB, Data Requests #1 (August 30, 2022).

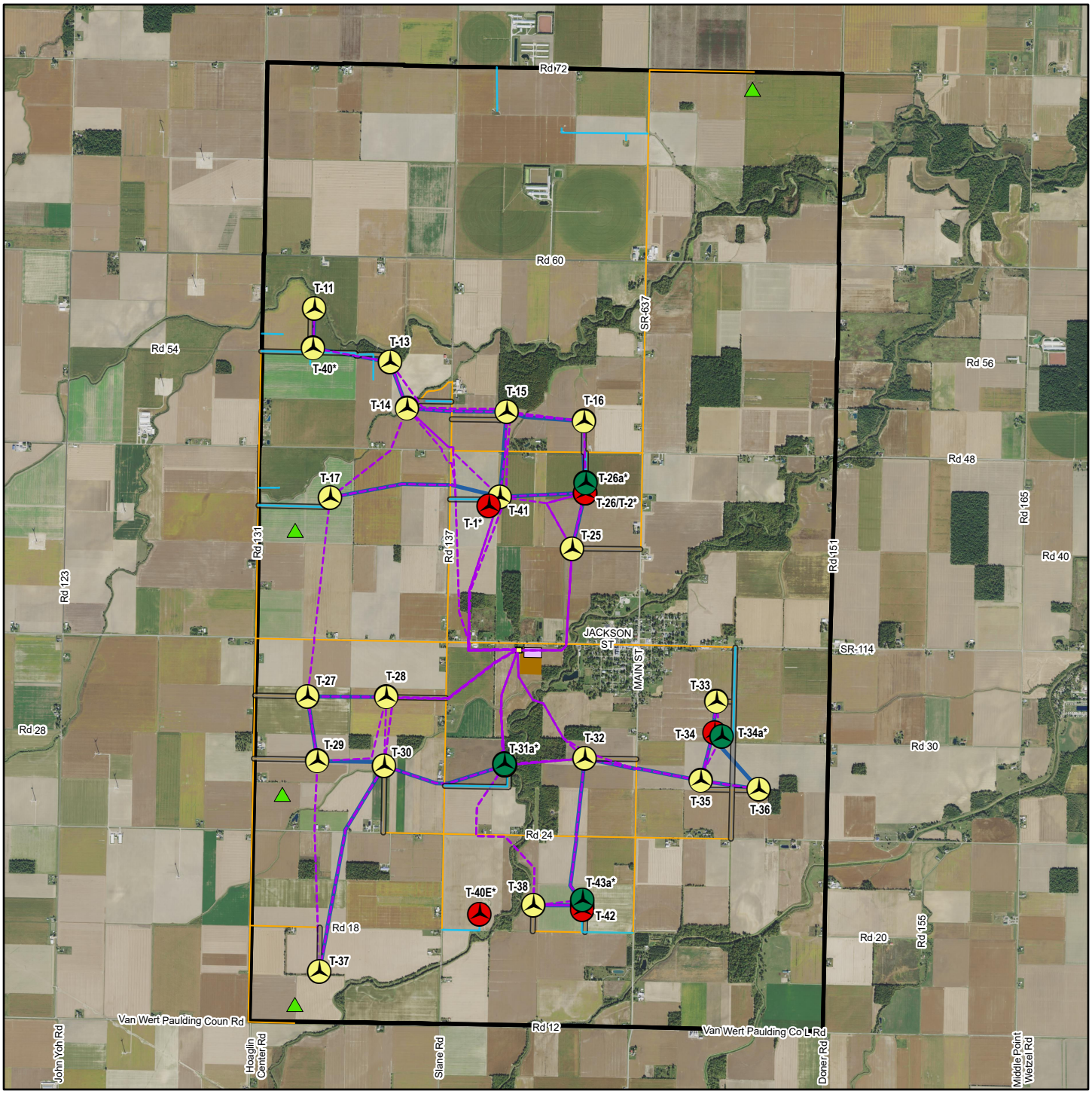
(10) [Staff recommends that this condition be deleted.]

(11) At least 30 days prior to the preconstruction conference, the Applicant shall demonstrate to Staff that the wind turbine model selected for each turbine location complies with the setback distances outlined in Ohio Adm.Code 4906-4-08(C)(2)(b) and file this demonstration on the docket.

(12) At least 30 days prior to the preconstruction conference, the Applicant shall provide Staff, for review and acceptance, the final geotechnical engineering report. This shall include a summary statement addressing the geologic and soil suitability as well as the hydrogeologic compatibility. The final geotechnical report shall include a geotechnical evaluation of the two most recently proposed meteorological tower sites. Geotechnical data acquisition means and analysis methods consistent with that previously acquired at the subject site are appropriate.

(35) Prior to commencement of construction activities that require transportation permits, the Applicant shall obtain all such permits. The Applicant shall coordinate with the appropriate authority regarding any temporary road closures, road use agreements, driveway permits, lane closures, road access restrictions, and traffic control necessary for construction and operation of the proposed facility. Coordination shall include, but not be limited to, the Paulding County Engineer, ODOT, local law enforcement, and health and safety officials. The Applicant shall detail this coordination as part of a final transportation management plan submitted to Staff prior to the preconstruction conference for review and confirmation by Staff that it complies with this condition and then file the plan on the public docket. This final transportation management plan would include any county required road use maintenance agreement/s. All local county and township roads used for construction traffic should be monitored at sufficient frequency during construction to ensure these roads remain safe for local traffic. Any damaged local public roads, culverts and bridges would be repaired promptly to their previous or better condition by the Applicant under the guidance of the appropriate regulatory authority. Any temporary improvements would be removed unless the appropriate regulatory authority request that they remain in place.

(52) At least 30 days prior to the preconstruction conference, the Applicant shall place on the docket a map of its final wind turbine layout, and as geographically referenced electronic data, which indicates the wind turbine lighting configuration it will implement and that demonstrates which turbines and meteorological towers will be lighted.



Paulding County

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Miles

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NAD 83 SP Ohio North (Feet)

- Additional Proposed Turbine Site
- Excavated Turbine Site
- Proposed Turbine Site
- Permanent Met Tower
- Collection Line
- Previously Constructed Access Road
- Proposed Access Road
- Delivery Route
- Crane Path
- O&M Building
- Collection Substation
- Laydown Yard
- Project Boundary

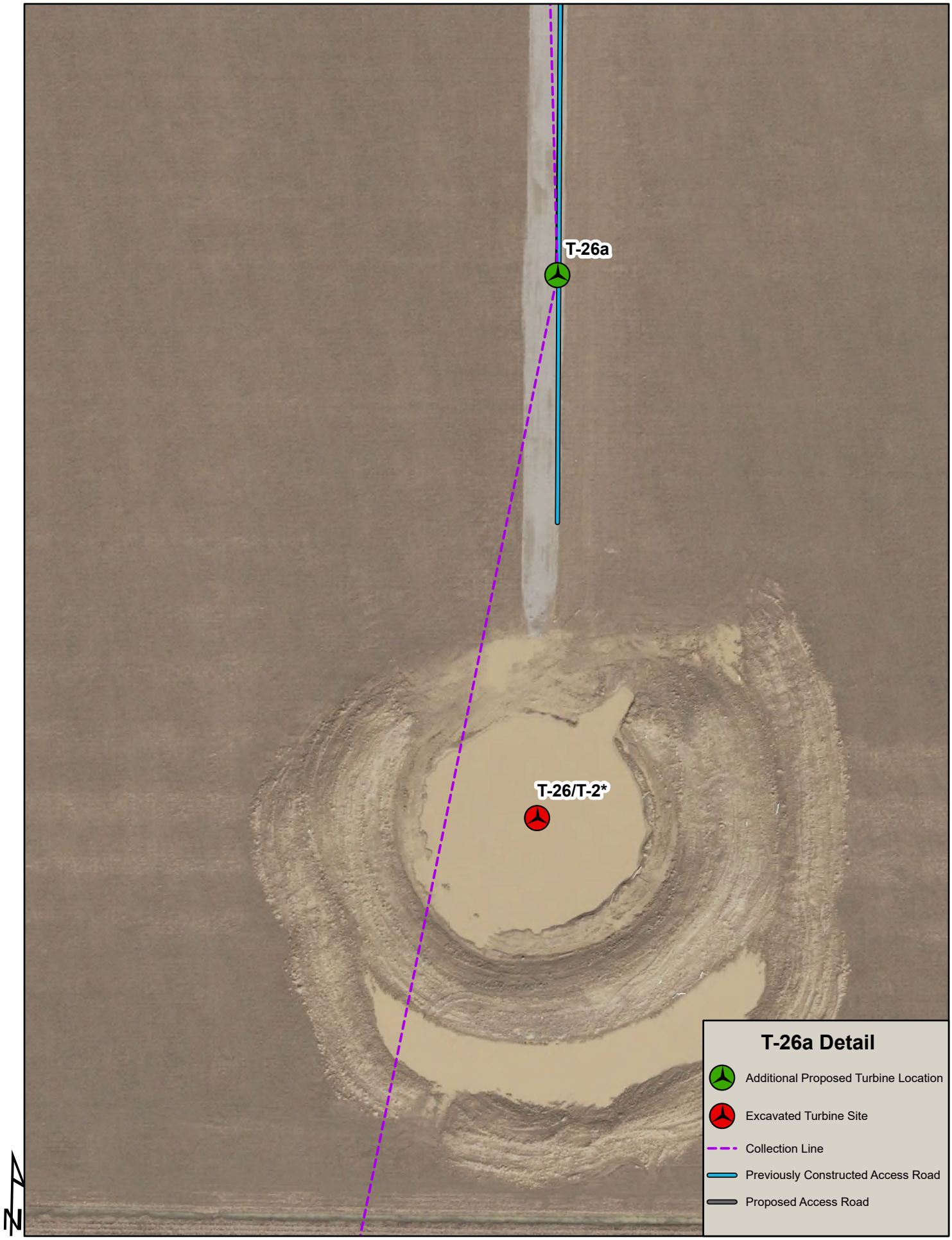
Overview Map

20-0417-EL-BGN

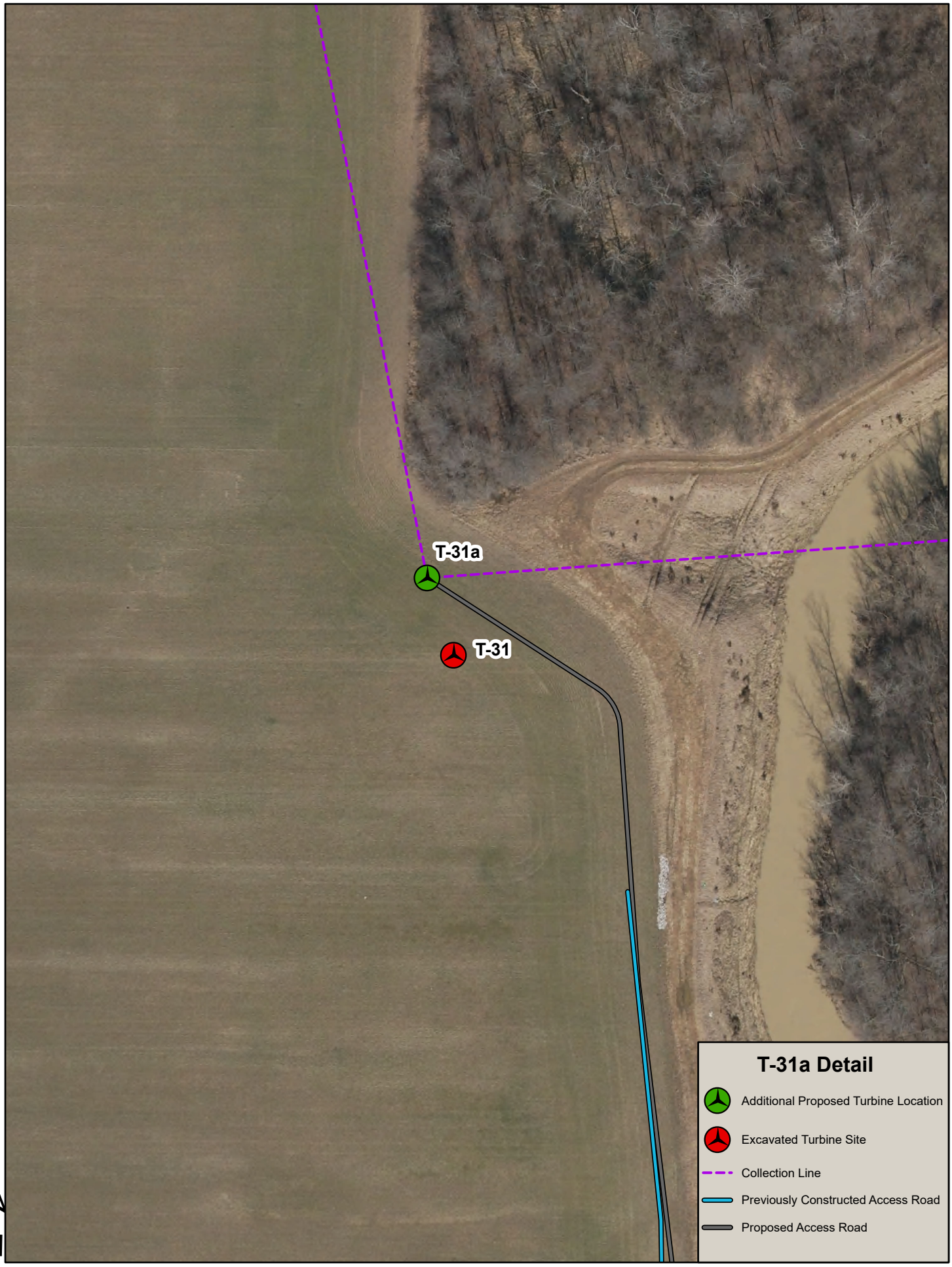
Grover Hill Wind

*The Applicant has renamed several of the six previously excavated turbine sites over the course of its work. Site T-1 and T-2/T-26 were referenced at different times as "T-1," "T-2," and "T-26." The Applicant distinguished "T-1" and "T-2" with geographic coordinates for each site, confirming that the sites are correct as shown on the map. The Applicant also referenced two separate sites as "T-40," one location being a previously excavated site and the other a proposed site. The previously excavated site labeled "T-40" is not included in the Applicant's proposed final layout but is included here labeled as "T-40E." The Applicant has proposed four additional turbine locations T-26a, T-31a, T-34a and T-43a which have been renamed to distinguish from nearby previously excavated turbine sites. T-31 is hidden by T-31a in this map, see detail map for exact location.

Maps are presented solely for the purpose of providing a visual representation of the project in the staff report, and are not intended to modify the project as presented by the Applicant in its certified application and supplemental materials.



1 inch = 63 feet



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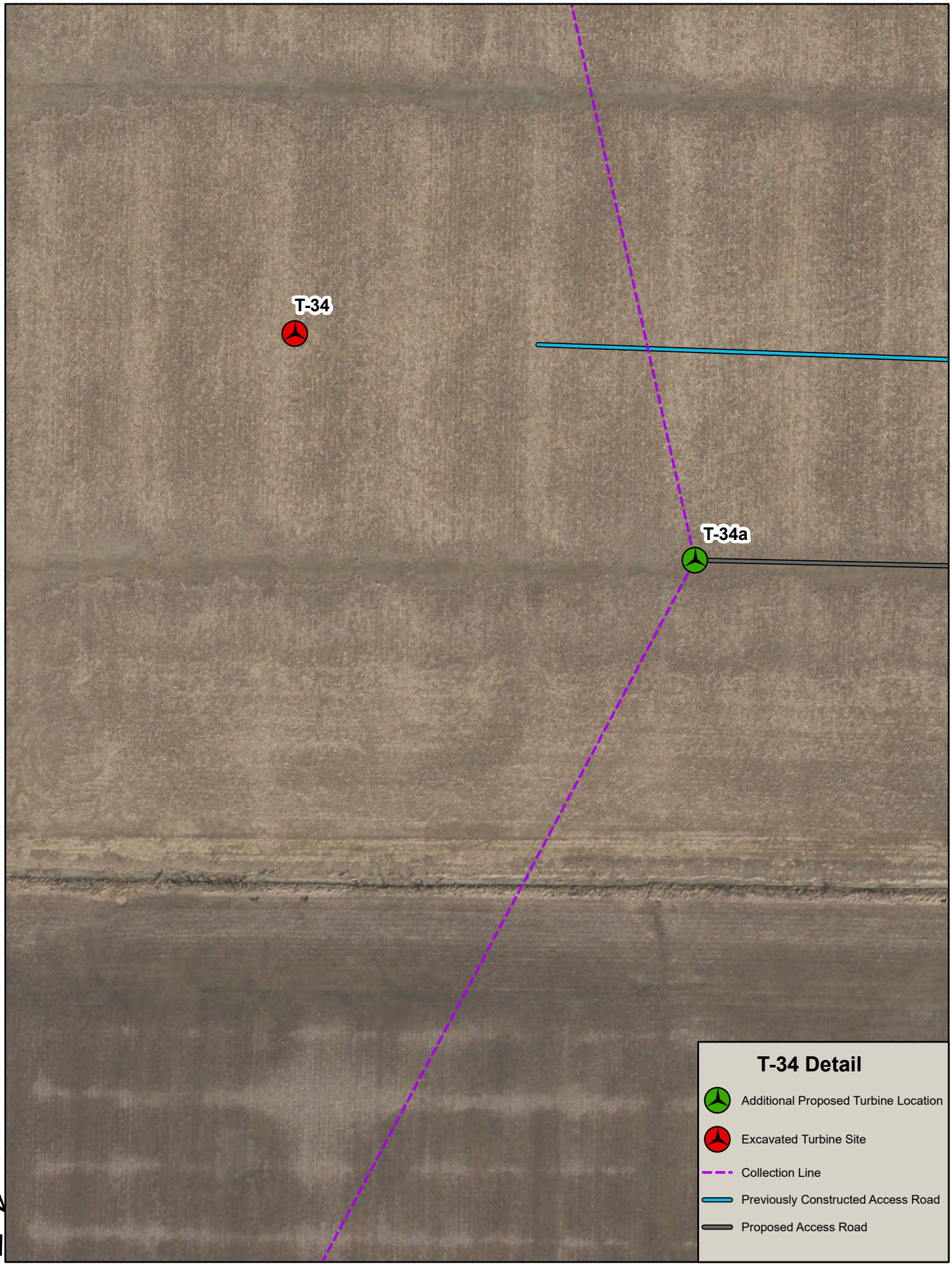
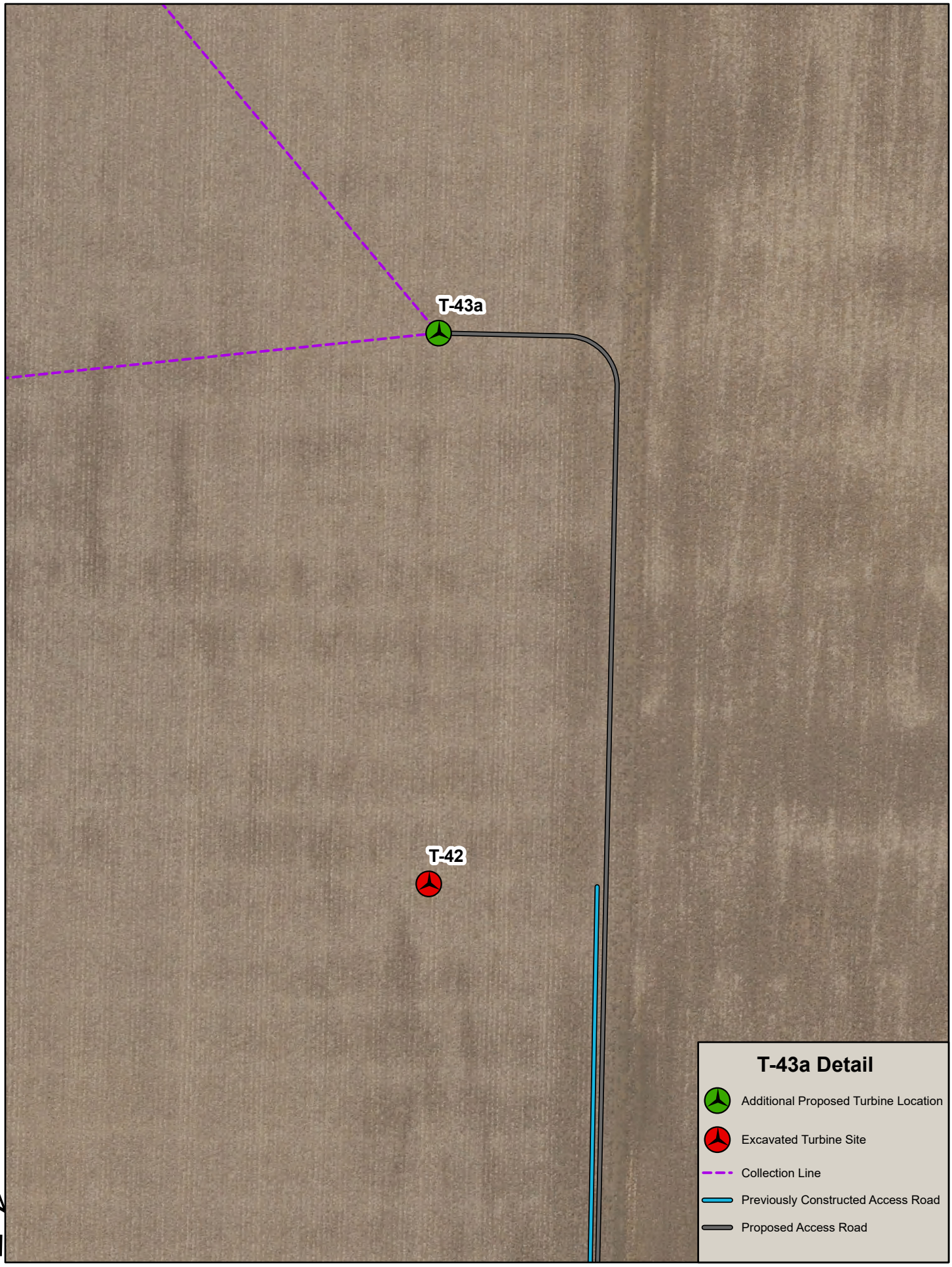


1 inch = 63 feet



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