

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

CASE No. PU-23-361

Basin Electric Power Cooperative
Roundup-Kummer Ridge 345-kV Transmission Line
Dunn & McKenzie Counties

Short Elliott Hendrickson Inc.
TOPSOIL INSPECTION REPORT

Report Includes:

- 1) Executive Summary
- 2) Construction Inspection Report
- 3) Map Locations of Photographs Taken
- 4) Location-Referenced Photographs



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EXECUTIVE SUMMARY

Date: 4/01/2024

Project: PU-23-361 Roundup-Kummer Ridge 345-kV Trans

Initial Topsoil Removal site visit included inspection and observation of RB Timberline means and methods in the removal and storage of topsoil. Inspector was on-site to document existing conditions throughout the initial area of disturbance. Work included taking photos of working area, edges of construction zone, existing vegetation conditions, and topsoil depth checks. Documentation was conducted to verify contractor is able to successfully segregate topsoil and subsoil in order to return disturbance area back to original conditions within reasonable means.

Initial site of topsoil removal was for a crane pad construction at Structure #366-058. This was approximately a 40'x40' area of topsoil striping where subsoils were intended to be used for pad construction. Due to the project scope, limited areas of topsoil are going to be exposed hence only this location was inspected at initial topsoil removal operations.

Initial conditions showed evidence of frozen ground conditions to approximately 10-12 inch depth. Topsoil was broken up and it was found that topsoil varied between approx. 8" to 12" depth. Due to forecast, topsoil is anticipated to not be under frozen conditions into future work.

Topsoil was broken up by excavator and then peeled back by excavator bucket and stockpiled on up-slope of the proposed crane pad. Topsoil stockpile was tamped with equipment to compact in-place with plans to perform necessary stabilization per permit requirements and erosion requirements. Means and Methods of topsoil removal and segregation were acceptable for contractor to keep segregation in compliance.

No concerning issues were immediately identified during contractor's operations of topsoil removal. Contract plans to use same methodology in topsoil removal moving forward on similar sites where crane pads are to be constructed or temporary access roads.

At time of inspection and observation, Inspector did not find any evidence of concern that Findings of Facts and Conclusion of Law and Order is not being adhered to in this process.


Inspector's Signature



INSPECTOR'S DIARY

Project: PU-23-361 Roundup-Kummer Ridge 345-kV Trans		Contractor: Basin Electric Power Cooperative	
Date: 4/012024	Day: Monday		Subcontractor: FB Timberline
Weather: Partly Cloudy		Temp: 37 F	Inspector: Matthew Schaible
Work Activities: - Staging of equipment and ground mats between structures # 366-30's through #366-40's - Topsoil removal at Structure #366-058 and crane pad construction out of subsoils.			
Labor Force: PCA Consultants - (2) Project Inspectors RB Timberline - (1) Equipment Operator, (1) Superintendent, (1) Environmental inspector			
Contractor Correspondence: * Inspector met with PCA and RB Timberline at Structure #366-057 to discuss the days operations. FB Timberline plans to start topsoil removal at Structure # 366-057 and will then use subsoils to construct a crane pad. * Discussed topsoil depth with RB Timberline superintendent and operator. Contractor thought that there was only a few inches, but after review of the soil and further breaking of the ground it was evident that topsoil was approximately 8" thick. Discussion held was to ensure that topsoil was broken away from the subsoils and segregated. Contractor said it would be stockpiled on topside of pad.			
Other Remarks: * RB Timberline had an internal environmental inspector on-site to review all topsoil removals, wetland areas, and permit adherence for these types of items. TB Timberline's environmental inspector made recommendations to crew about topsoil removal, erosion control measures to install, and methodology of operations.			


Inspector's Signature



INSPECTOR'S DIARY

Date: 4/012024

Project: PU-23-361 Roundup-Kummer Ridge 345-kV Trans Contractor or Sub: Martin Construction

Work Performed & Location:

* TB Timberline had laid out wood matting to protect topsoil disturbance in wetland areas as identified in reporting included with the "Consolidated Application for Certificate of Corridor Compatibility". See photos #1 for example of the matting being laid out.

* Plan for day was to construct a crane pad at structure #366-058. This is a single location and will be assessed for comparability with topsoil removal and segregation requirements due to subsoil being used to construct the pad. No other topsoil removal is planned on the project besides this single site.

* TB Timberline performed topsoil removal at Structure # 366-058 using an excavator. At start, a smooth edged bucket was used to scrape topsoil but due to frost in the soils at approximately 10-12 inches thick, it was not effective. A bucket with teeth was used to break up the topsoil and then piled on the up-slope side of the location. See photos #4, 6, 7, and 9 as evidence of topsoil removal.

* Topsoil was stockpiled and packed with bucket on up-slope side of the pad area. A ditch was cut along the subsoil pad to facilitate drainage around the pad where planned silt fence will be placed for erosion control measures.

* Additional inspection notes can be found in the Daily Construction Observation Report attached below.

CONTRACTOR EQUIPMENT:

TB Timberline - (1) CAT 330 Excavator with smooth bucket & teeth bucket

Inspector's Signature



Daily Construction Observation Report

Job No./file	
NDPSC 178398	
Date	
04/01/2024	

Project: Roundup to Kummer Ridge 345kV Transmission Facility

Location: Near Structure #

RPR Name: Matt Schaible

Start Time: 11:05 AM

End Time: 4:29 PM

Morning Weather: Sunny

Afternoon Weather: Partly Cloudy

Temp. (F): High 43 Low 31

Rainfall (in): 0

Utility Conflicts: No

Overall Comments: Started Construction inspection at Structure #366-057 & #366-058. Wood matting was being spread at Structure #366-30 through #366-40's to limit impact to site vegetation and soils. See image #1 for example at Structure #366-057 site. Crain pad was excavated at Structure #366-058 using excavator and flat bucket for topsoil removal.

Prime Contractor: Forbes Bro

Foreman Name:

of Crews: 4

Equipment Onsite: CAT 330 Excavator

Contractor Notes: PCA Group was on-site for inspection duties. Forbes Bro was the Prime contractor with Timberline Construction as the subcontractor doing earthwork removal, drilling and Crain pad construction installation .

Observations

Time: 4:45 PM

Description: Topsoil Removal

Comments: Use of excavator with flat bucket to peel back topsoil. Topsoil is frozen resulting in shaving of topsoil to remove. Upon inspection it was found that the topsoil is only approximately 4" thick in this area before it is changing to sandy loam subsoil

Time: 5:04 PM

Description: Topsoil chipping

Comments: Excavator used bucket with teeth to break topsoil up to then scrape off with smooth bucket

Time: 6:34 PM

Description: Access Mat Staging

Comments: Timberline staging wood plank mats throughout access areas to provide soil stability through wetlands or soft soil

Time: 6:47 PM

Description: Subsoil starting to be used to level Crain pad out

Comments: After topsoil, subsoil started to be cut and shaped for pad area. Kept within the limits of the topsoil stripping

Time: 7:38 PM

Description: Additional topsoil removal

Comments: Removed an additional 10'x30' strip of topsoil for blending of flat pad to slope of hill. Took topsoil and stockpile on top of the hillside.

Time: 7:44 PM

Description: Erosion plan

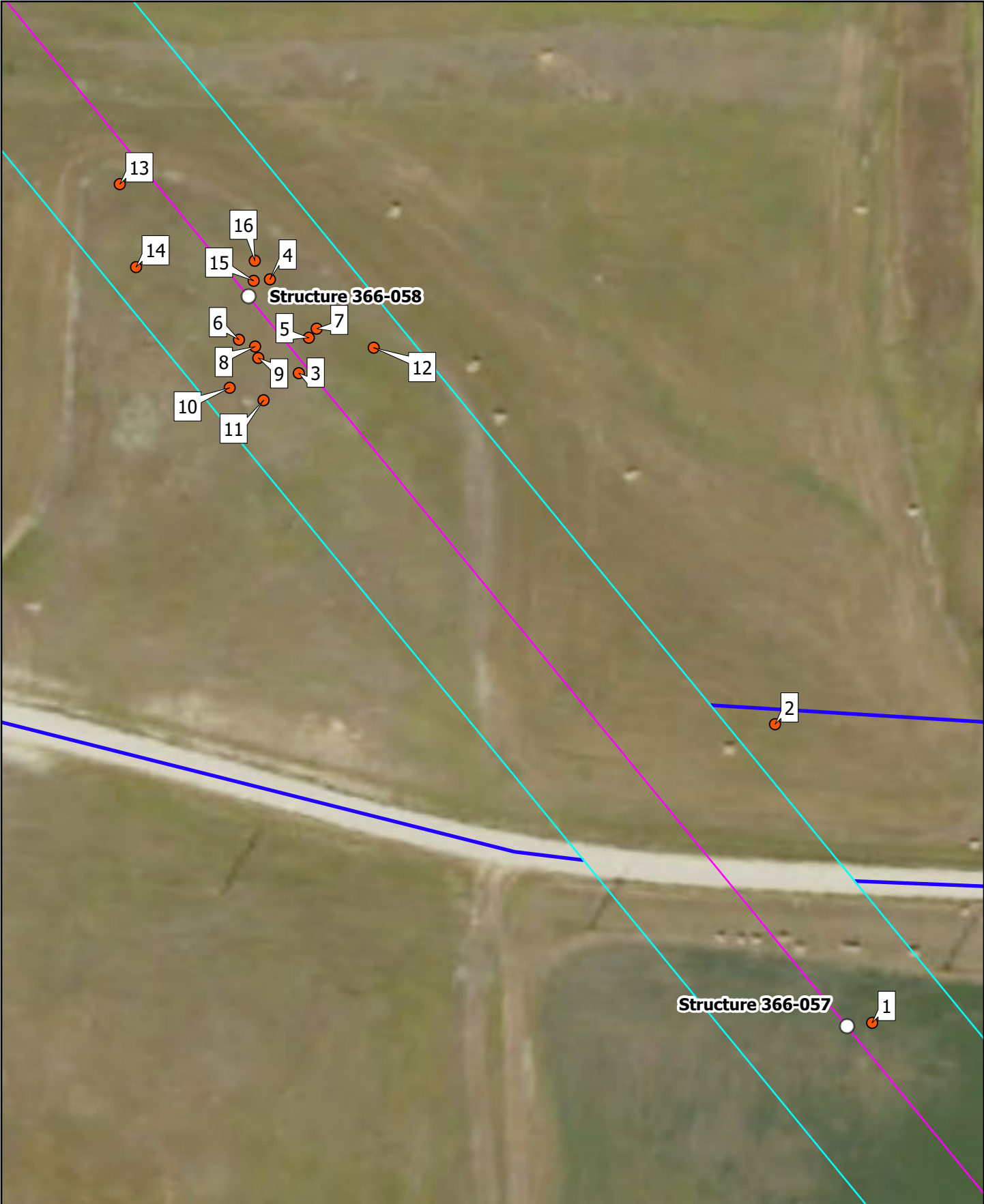
Comments: Contractor plans to cut a ditch on uphill side of pad between topsoil pile and pad to channel any drainage/sediment along the sides of pad to then capture it at bottom in one location by use of silt fence.


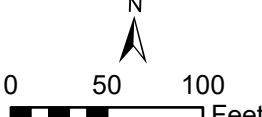
Time: 9:14 PM

Description: Finished Pad with Drainage Ditch

Comments: Constructed a ditch along the perimeter of the pad to direct flow to the NW corner which is downhill. Plan to install sediment fence along the south boarder to collect any sediment runoff.

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		<p>Project: NDPSC 178398 Print Date: 4/17/2024</p> <p>Map by: tschwarz Projection: NAD 1983 State Plane North Dakota North Source: USDA-FSA Aerial Photography Field Office, SEH, Inc</p>	<p>Topsoil Removal & Construction Inspection Photo Location Map</p> <p>Roundup to Kummer Ridge 345kV Line</p>	<p>Figure 1</p>
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This map is neither a legally recorded map nor a survey map and is not intended to be used as one. This map is a compilation of records, information, and data gathered from various sources listed on this map and is to be used for reference purposes only. SEH does not warrant that the Geographic Information System (GIS) Data used to prepare this map are error free, and SEH does not represent that the GIS Data can be used for navigational, tracking, or any other purpose requiring exacting measurement of distance or direction or precision in the depiction of geographic features. The user of this map acknowledges that SEH shall not be liable for any damages which arise out of the user's access or use of data provided.

Point 1, Structure #366-057 site layout. Example of matting in use for site disturbance limitation



Point 2, Between Structure #366-057 & #366-058. Alignment and Flagging



Point 3, Structure #366-058. Start of topsoil removal



Point 4, Structure # 366-058. Topsoil removal depth shallow at approx. 4"



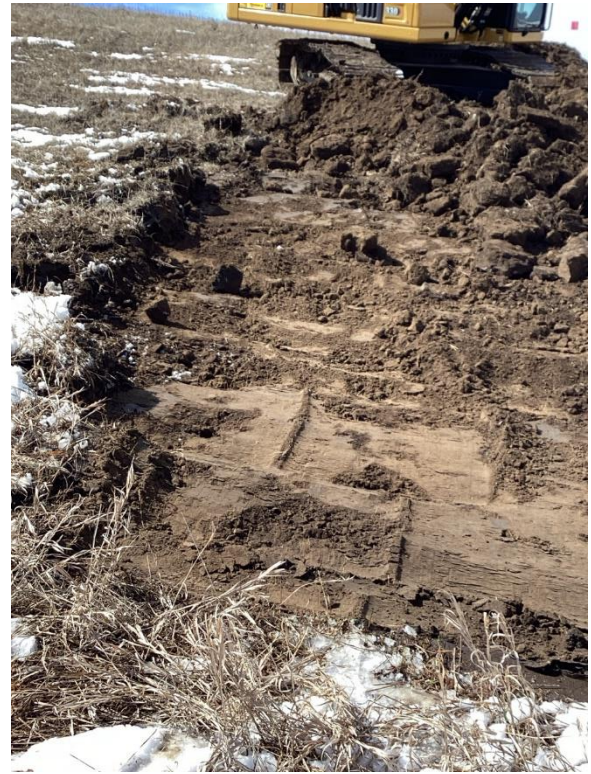
Point 5, Structure #366-058. Broken up topsoil with tooth bucket



Point 6, Structure 366-058. Evidence of topsoil layers



Point 7, Structure #366-058. Topsoil Removal



Point 8, Structure #366-058. Start of subsoil cut and clear line of soil type transition



Point 9, Structure #366-058. Finished topsoil storage pile



Point 10, Structure #336-058. Topsoil Pile



Point 11, Structure #336-058. Existing vegetation (example)



Point 12, Structure #336-058. Pad construction



Point 13, West of Structure #336-058. Wetland crossing near pad excavation.



Point 14, Structure #338-058. Pad construction from east side



Point 15, Structure #338-058. Drainage ditch cut along pad bottom



Point 16, Structure #336-058. Finished pad after topsoil and grading complete

