

HILLCREST SOLAR PROJECT

October 16, 2020

Ohio Power Siting Board
Docketing Division
180 East Broad Street, 11th Floor
Columbus, Ohio 43215-3793
Attn: Grant Zeto

RE: Case Nos. 17-1152-EL-BGN - Hillcrest Solar I, LLC

Notice of Compliance with Certificate Condition #1 - The facility shall be installed at Hillcrest's proposed site as presented in the application and modified by supplemental filings.

Dear Mr. Zeto;

Hillcrest Solar I, LLC ("Hillcrest Solar") is certified to construct a solar-powered electric generation facility in Brown County, Ohio in accordance with the orders issued by the Ohio Power Siting Board ("OPSB") in the above-referenced cases.

On February 28, 2020, Hillcrest Solar filed the Frac Out Plan for the Hillcrest Solar Project in compliance with Certificate Condition #1. While operating under this plan, an inadvertent return was observed on September 24, 2020 during horizontal directional drilling (HDD) operations. Hillcrest Solar has implemented additional erosion and sediment control measures in light of this incident and is working with the applicable agencies to ensure all appropriate restoration and preventative measures are implemented. In furtherance of that effort, a Frac Out Release Response Plan was prepared to mitigate the risk of frac out deposits into environmentally sensitive areas or waterways during future construction activities on the Hillcrest Solar Project.

Attached please find a copy of the Frac Out Release Response Plan regarding compliance with Certificate Condition #1 of the Opinion, Order and Certificate issued on February 15, 2018 in Case No. 17-1152-EL-BGN, Amendment 18-1267-EL-BGA, and Construction Notice 20-0614-EL-BNR.

HILLCREST SOLAR PROJECT

We are available, at your convenience, to answer any questions you may have.

Sincerely,



Julia Mancinelli, Director – Environment

Attachment: Hillcrest Solar Frac Out Release Response Plan

Innergex Renewable Energy Inc.

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Technical Memorandum

Date 10/9/2020

To: Madison Walsh
Hillcrest Solar I, LLC

cc: Julia Mancinelli // Hillcrest Solar I, LLC

From: Bruce Moreira, Neill Mullet, // Cardno Inc.

RE: **Frac Out Release Response Plan for Sterling Run Crossing**

Cardno, Inc.

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Introduction

As part of the Hillcrest Solar Project located near the village of Mt. Orab in Brown County, Ohio, eight (8) buried electrical cables will be installed under Sterling Run (SOH-002) using horizontal directional drilling (HDD) to avoid direct impacts to the stream. The buried electrical cables are required to connect solar panel arrays on the east side of the creek to the project substation located west of the creek. The HDD spans a distance of approximately 950 linear feet between the entry and exit portals and crosses under Sterling Run and an unnamed tributary (non-jurisdictional). Other environmentally sensitive areas within or near the HDD alignment include a wetland area (WOH-009) approximately 140 linear feet northwest of the nearest point on the bore path and an archaeological site (Moon Run Loci 1-3) both within and directly south of the bore path. Upland habitats within the HDD alignment include forested woodlot/hedge row and active and fallow agricultural fields.

1 Incident Summary

During routine NPDES (National Pollutant Discharge Elimination System) inspections by the Environmental Monitor (Cardno) on September 24, 2020, a series of inadvertent returns, also known as “frac-outs,” were observed to have occurred during HDD operations to install one of these underground cables. Drilling fluids consisting of municipally sourced fresh water used for jetting the borehole, as well as drill cuttings (native subsoil) and other geologic substrates, were released to the surface as a sediment slurry hereafter referred to as “frac-out release”. Frac-out release was deposited in several upland locations along the HDD alignment and within the channel of the unnamed tributary, which was dry at the time. Drilling fluids did not contain bentonite or other additives.

Following the incident, work at this location was stopped by Hillcrest Solar I, LLC (Hillcrest Solar) and an initial reconnaissance of the HDD alignment was performed by the Environmental Monitor to gain a preliminary understanding of the nature and extent of potential frac-out impacts. Increased turbidity was noted in Sterling Run for a short distance downstream of the tributary confluence; however, no sediment deposits were observed within the stream, which contained low, but continuous flow at the time. The locations of some of the larger upland surface deposits of frac-out release are depicted in Figure 1 along with other relevant features.

The frac-out occurred during completion of the fifth of eight (8) bores at this HDD location. Drilling operations were suspended upon discovery of the frac-out. When drilling operations were suspended, four (4) of the HDD bores had been completed. Four (4) additional bores, including a completed bore without a pipe feed, remain to be completed at this location when work resumes. HDDs are being performed by Directional Technologies.

Clean-up efforts performed to date by PCL (Prime Construction Contractor) includes removal of frac-out release surface deposits from the dry tributary channel using a vacuum truck and pressure washers to mobilize the material. Sediment surface deposits in less sensitive upland locations have not been removed as PCL is waiting for guidance pending development and approval of this Response Plan. Since the frac-out occurred, sediment surface deposits in upland locations have dewatered naturally, which reduces the potential for sediment transport into nearby watercourses prior to removal.

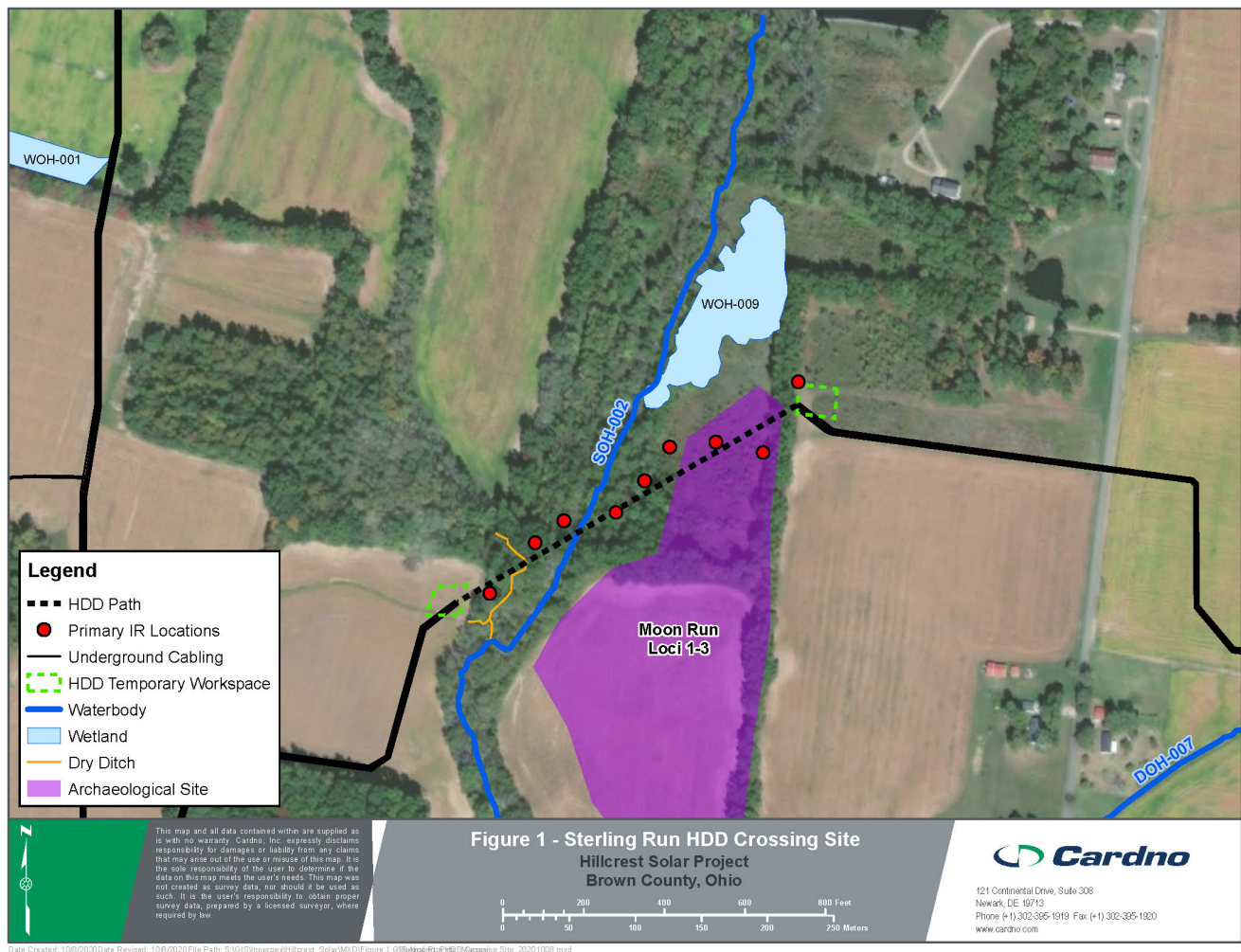


Figure 1 HDD Incident Location

2 Frac Out Response Approach & Sequencing

The likelihood of additional frac-out events during installation of the remaining buried cables is expected to increase given the orientation and close spacing of these HDDs through a geologic formation known to producing frac-outs. Should there be additional frac-out events, it is likely they will occur in close proximity to the previous frac-outs, which either followed or formed preferential pathways to the surface. The potential for frac-outs in new locations also exists.

Although frac-out release deposits contain only natural, non-toxic materials (fresh water and native soil), these deposits have the potential to harm the environment through direct burial of flora and fauna, as well as introduction of sediment or sediment-laden runoff into nearby aquatic habitats, which can adversely affect water quality and instream habitat. Response efforts to remove frac-out surface deposits from the environment can also cause collateral environmental impacts. The overarching goal of response, therefore, is to remove frac-out surface deposits from the environment to the greatest degree possible without causing more harm than would otherwise occur from leaving the material in place.

In order to minimize collateral impact to the environment from incident response, as well as to promote operational efficiency, it is preferable (subject to certain conditions listed below) to clean up frac-out surface deposits as a single operation following completion of all eight HDD borings at this location. This sequencing will ensure that frac-out sites requiring clean-up are not visited multiple times, which is likely to increase collateral damage, to remove new sediment deposits in the event additional frac-outs occur in the same locations.

In order to protect sensitive aquatic resources, additional proactive measures are specified to mitigate the impact of frac-out deposits into Sterling Run and other nearby environmentally sensitive areas.

Prior to resuming HDDs, the following actions shall be completed:

- All sediment and erosion control best management practices (BMPs) shall be installed as specified in the approved Storm Water Pollution Prevention Plan (SWPPP) and/or other relevant documents;
- Exclusion fencing and signage shall be installed around all environmentally sensitive areas (wetlands and archaeological sites) and shall be regularly inspected and monitored and promptly repaired as needed;
- A pedestrian survey shall be conducted to thoroughly document the location and extent of all existing frac-out surface deposits from the previous frac-out. The following information shall be recorded for all identifiable frac-out deposits 1m² or greater in size:
 - GPS location (as either a point feature or polygon depending on size);
 - Estimated dimensions;
 - Average and maximum sediment thickness (in order to estimate volume of material present); and
 - Georeferenced photos of representative conditions;
 - Name, affiliation, and contact information of person conducting the survey and time/date of survey.

This information shall be used to create an inventory of all known frac-out surface deposits considered for clean-up. Similar surveys shall be completed following any subsequent frac-out releases during completion of HDD operations.

- Silt fence reinforced with staked straw bales shall be installed to contain existing surface deposits and prevent sediment migration into nearby watercourses including the dry tributary, Sterling Run, and/or wetlands. Containment shall be of adequate size and configuration to provide additional storage capacity necessary to accommodate drilling fluids from future frac-outs should any occur.
- Temporary rock check dams shall be installed in the unnamed tributary to limit the migration and facilitate clean-up of any new frac-out surface deposits from future frac-outs occurring in or near this feature. Check dams shall conform to the design in the approved Construction Plans. Three (3) check dams situated approximately 20-30 feet apart shall be installed in the tributary spanning the reach where HDD crossings are planned, or as otherwise directed by the Environmental Monitor. As an added precaution to minimize introduction of sediment to Sterling Run, an additional 1-2 check dams shall be installed in the unnamed tributary immediately upstream of its confluence with Sterling Run at a location to be determined by the Environmental Monitor.

- Alternative HDD pathways should be reviewed by PCL's Engineering team to determine if an alternative pathway is feasible (e.g. original HDD alignment that avoids the wetland and archaeological site) and would be preferred if known to reduce the potential for additional frac-outs, especially near environmentally sensitive areas. Any new HDD pathway shall be reviewed and approved by Hillcrest Solar before drilling along a modified alignment may occur. Proposed realignment should also be cleared by Hillcrest Solar environmental and archaeological consultants to ensure that avoidance of environmentally sensitive areas is achieved. Additional coordination with Ohio Historic Preservation Office may also be required.
- Adhere to any recommendations made by Environmental Design & Research (EDR), the qualified archaeologist, in relation to the Moon Run Loci 1-3 archaeological sites and consultation with Ohio Historic Preservation Office.
- Once the measures described above are in place to contain existing frac-out surface deposits and prevent their migration into nearby watercourses, or migration of new frac-out surface deposits from any future frac-outs, HDD operations may resume subject to the requirements outlined below.

Once HDD operations resume, the contractor shall follow procedures outlined in the approved Frac-Out Plan (Attachment A) subject to the following modifications.

As written, the Frac Out Plan specifies that HDD operations shall cease and the location of surface returns shall be identified in the event of a pressure drop or lack of returns in the entrance portal. Given the increased potential for additional frac-outs at the Sterling Run crossing, enhanced monitoring beyond that specified in the Contingency Plan must be performed as specified below.

Continuous monitoring to detect new frac-outs shall be performed at all times when HDD operations are underway. Monitoring shall consist of pedestrian surveys to visually inspect uplands, waterbodies (Sterling Run and unnamed tributary), wetlands, and archaeological sites within or adjacent to the HDD alignment for the presence of new frac-out release deposits on land or in the water. Inspection surveys must be performed at least every two hours while active drilling is occurring. A final survey must also be conducted at the end of each day after drilling has stopped.

PCL shall be responsible for performing the continuous monitoring described above. PCL shall submit daily reports including documentation from each day's surveys to Cardno and Hillcrest Solar by noon the following day. Daily reports must include, at a minimum, an inspection log listing the inspector's name and inspection start and end times for each inspection performed on a given day, as well as a summary of key findings. Inspection logs must clearly document the absence of new frac-outs if no new frac-out release deposits are observed. If new frac-outs occur, the documentation for individual frac-out release deposits 1m² or greater in size listed above must be recorded and submitted as part of the daily reports. Measures to contain frac-out release deposits at new and existing frac-out locations, including representative photographs, must also be documented for inclusion in daily reports.

Work shall stop when conditions specified in the Frac Out Plan are met (e.g., pressure drop or lack of returns in the entrance pit), or when any new frac-out is identified during continuous monitoring regardless of its location.

The guidance below shall dictate the appropriate course of action based on the location of any new frac-out:

- For new frac-outs at previously impacted upland sites, drilling may resume if existing containment is deemed sufficient to prevent the migration of sediment to the dry tributary or Sterling Run. If existing measures are not sufficient, additional silt fencing and straw bale containment shall be installed to the satisfaction of the Environmental Monitor before drilling may resume. Once drilling resumes, any active frac-outs must be monitored closely and continuously. If containment becomes inadequate once again, work shall stop until adequate additional containment or reinforcement is put in place to prevent the introduction of sediment into a watercourse. At any such time as it appears that containment cannot be expanded, work shall stop until an alternative strategy, potentially including interim clean-up, is developed by Hillcrest Solar (supported by Cardno), PCL, and/or geo-technical team.

- For new frac-outs at previously unimpacted upland sites, drilling will cease until adequate containment using silt fence reinforced with staked straw bales is put in place. Once approved by the Environmental Monitor, drilling may resume subject to ongoing monitoring and work stoppage criteria set forth above.
- For frac-outs within the dry tributary at new or previous locations, drilling may resume if the three (3) primary check dams within the HDD crossing reach are adequate to contain the drilling fluid and sediment slurry. If existing measures are not sufficient resulting in the potential migration of sediment or sediment-laden water to Sterling Run, drilling shall cease and clean-up operations to remove frac-out (outlined below) shall commence. Drilling may resume once containment capacity within the unnamed tributary has been restored as determined by the Environmental Monitor.
- For frac-outs within Sterling Run, drilling shall cease and clean-up operations to remove frac-out release (outlined below) shall commence. Removal of minor amounts of sediment released into Sterling Run may be impractical due to flow conditions and may actually cause more harm than good. In such cases, allowing flow to naturally dissipate and redistribute sediment may be the best course of action. If the amount of deposited sediment is sufficient to degrade aquatic habitat or water quality significantly, as determined by the Environmental Monitor, clean-up will be conducted to remove as much sediment as possible without causing further harm to the aquatic environment. Any responsive efforts proposed within Sterling Run shall be approved and supervised by the Environmental Monitor.

3 Sediment Removal Procedures

The response procedures outlined below are intended to achieve the dual objectives of protecting Sterling Run and other environmental sensitive areas from harmful effects of sediment pollution, while minimizing collateral impacts from clean-up that potential cause more harm than allowing deposited material to remain in place.

3.1 Unnamed Tributary

Sediment deposited within the dry tributary is preferably removed using a vacuum truck to recover material while it is still a slurry (e.g., hydrated). Frac-out response should target the removal of frac-out release deposits only and minimize removal of native soils. Difference in soil color/texture should be used to differentiate between drill cuttings and native soils. Concentrated high-pressure spraying should be avoided given its potential to erode the bed and banks of the watercourse and increase the amount of sediment to be removed. If additional water is needed to help mobilize sediments for vacuum recovery, higher volume/low pressure techniques are recommended. Alternatively, pneumatic excavation (dry vacuum) equipment can be used to remove sediment deposits without the need to introduce water to rehydrate sediment prior to recovery.

3.2 Uplands

Removal of frac-out release deposits from upland locations will occur via pneumatic excavation, hydroexcavation (vacuum truck), or manual removal. Pneumatic excavation (dry vacuuming) is the preferred method of removing upland deposits because it minimizes collateral impacts and is likely more efficient than manual removal. However, pneumatic excavation may not be feasible in all locations due to lack of equipment availability, physical access restrictions, and/or suction limitations associated with long hose runs. Hydroexcavation (wet vacuuming) should not be attempted if adding water to rehydrate already dewatered sediment deposits is needed. However, hydroexcavation may be appropriate for recovering frac-out release deposits from fresh frac-outs before dewatering occurs.

In the event that pneumatic or hydroexcavation are not feasible or appropriate, surface deposits will be removed manually using hand tools such as shovels and rakes. Manual removal will target removal of frac-out release deposits and minimize removal of underlying native soil based on observable differences in soil color/texture. Given the inert,

nontoxic nature of the deposits, it is preferable to leave small amounts of frac-out release deposits in place rather than remove natural soil/forest duff or disturb shallow roots. Hand-dug frac-out release deposits will be transported to a staging area using tracked concrete buggies (e.g., motorized wheelbarrows) operating on a single entry-exit path to minimize access-related disturbance. The location of access path must be approved by the Environmental Monitor prior to work commencing. Construction mats will be placed in any wet or low-lying areas or areas where ruts deeper than 6 inches form. Manual removal and transportation of frac-out release will avoid cutting woody vegetation including trees, shrubs, and saplings greater than ½-inch diameter at ground level. Once as much frac-out release is removed as can be without causing more harm, remaining deposits will be smoothed into the surrounding terrain using rakes, brooms, squeegees, or leaf blowers. Care will be taken to minimize damage to vegetation throughout the removal process.

Following removal of frac-out release surface deposits, bare areas will be seeded with an appropriate mix of native species and cover crop for rapid stabilization. Seed mix should follow guidelines found in SWPPP. Straw mulch will then be applied to minimize soil loss and promote seed germination.

4 Spoil Disposal

Frac-out release material removed during response efforts will be disposed of in accordance with procedures established for the handling and management of drill cuttings recovered during normal HDD operations.

5 Site Restoration

Unless otherwise directed by the Environmental Monitor, PCL shall remove all temporary structures and commence with final site restoration and stabilization actions as specified in the SWPPP and other relevant documents upon successful completion of all HDD activities.

Attachment A

PCL Frac Out Plan

Feb 2020

I.D:	Comment By:	Date:	Comment:	Response:	Completed:
1	Adraina (Innerg	2020-01-14	1.Please modify the table and map to include all HDD locations whether under woodlot/windrow/road/stream or other.		☒
2	Adraina (Innerg	2020-01-14	2.We should append the Open Road Frac-Out Contingency Plan and included some text in the PCL plan stating that this is the guiding principle document (as it was approved as part of the OPSB- see attached).		☒
3					☐
4					☐
5					☐



CONSTRUCTION LEADERS

FRAC-OUT

HILLCREST SOLAR

Revision Log

Date	Revised By	Section	Description
August 29, 2019	Chris Lupson		First Draft
September 23, 2019	Chris Lupson		Owners Comments
January 28, 2020	Chris Lupson		Update

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1. CONSTRUCTION FRAC-OUT PLAN

1.1. INTRODUCTION

At Hillcrest Solar, PCL is purposing the construction method of HDD (Horizontal Directional Drilling) for the direct bury of the 34.4 KV AC cable. In Appendix A, PCL has identified a few locations where HDD would be an ideal construction method.

HDD operation has the potential to inadvertently release drilling fluids into the surface environment from pressurization of the drill hole beyond the containment capability of the overburden soil material or through fractured bedrock into the surrounding rock ("Frac-Out")

This document was prepared by PCL Constructors Canada Inc. ("PCL"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects PCL's professional judgment in light of the scope, schedule and other limitations stated in the document. The information is subject to change based on constructability and site conditions.

1.2. OBJECTIVES OF THE THIS PLAN

- Minimize the potential for a frac-out
- Provide for timely detection of frac-out
- Protect sensitive watercourses and associated vegetation.
- Ensure an organized, timely, and low-impact response to any frac-out release.
- Ensure that all appropriate notifications are made immediately to management and environmental personnel

2. FRAC-OUT PLAN

When choosing the competent sub-contractor to perform the direct bury using HDD, PCL will invite all parties onsite for a kick-off meeting and introduce the work procedure with the trade workers prior to the start of activities, and sensitive resources will be identified with flags or proper signage. Thus, the disturbance of the water bodies, woodlands, and easements will be limited to ditches that have historically been highly impacted by cultivation and do not support rich animal or aquatic presence

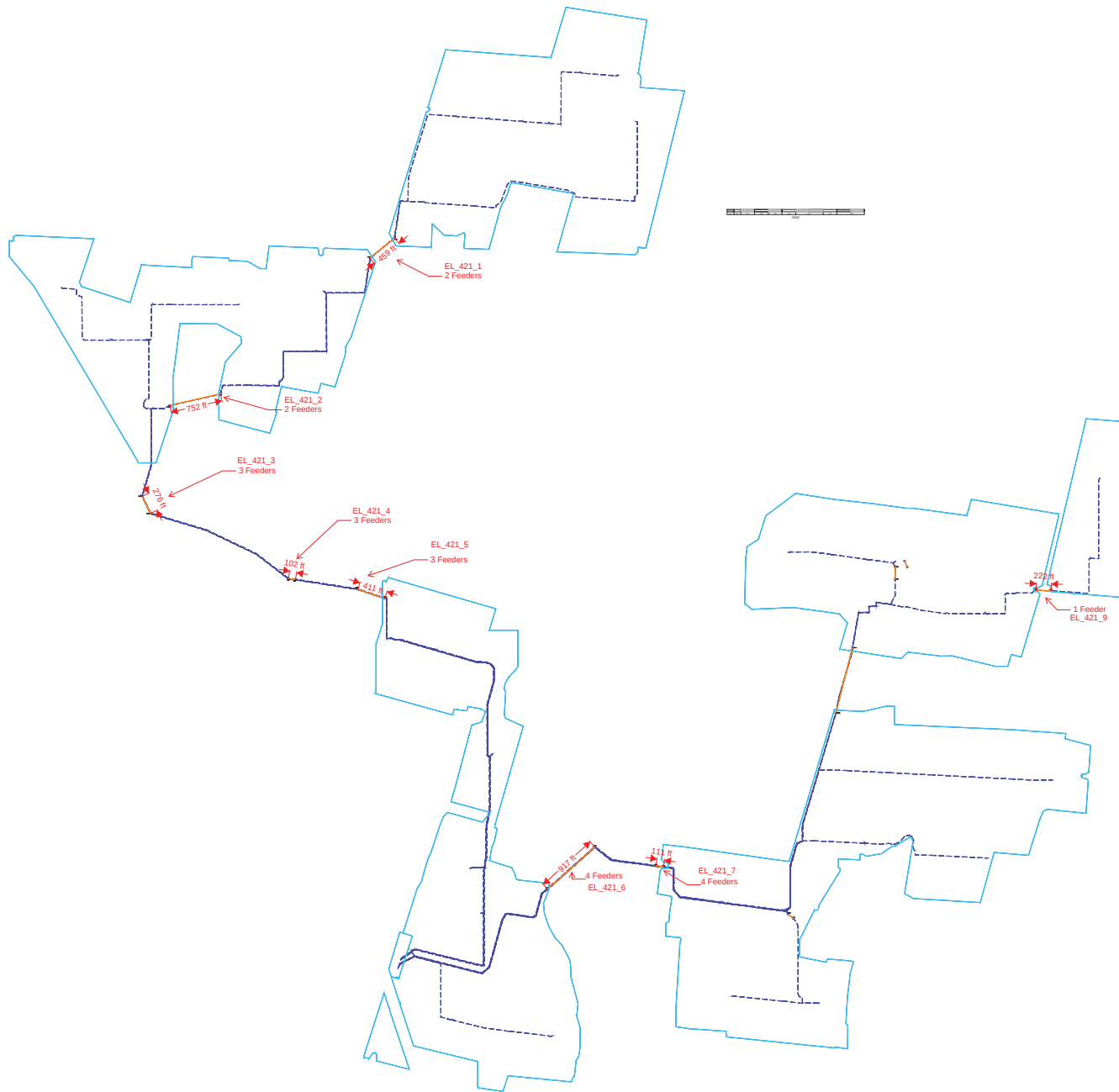
Both PCL and Sub-trade will sign off accepting the terms of the work procedure, and a document will be produced for daily record-keeping and progress.



CONSTRUCTION LEADERS

Frac-out

3. APPENDIX A PLOT PLAN WITH DIRECTIONAL BORE LOCATION



Drawing Number	Casing Diameter (in.)	Boring Distance (ft.)	# of Bores	Total Boring LF (ft.)	Casing Depth (ft.)	Obstruction (Please View Drawing)
EL_421_1	8	459	2	918	3	Crossing County Road 286
EL_421_2	8	752	2	1504	3	Crossing Wetland/Sensitive Area
EL_421_3	8	276	3	828	3	Crossing Wetland/Sensitive Area
EL_421_4	8	102	3	306	3	Crossing Driver Collins Rd.
EL_421_5	8	411	3	1233	3	Crossing Mount Rd.
EL_421_6	8	917	4	3668	3	Crossing Wetland/Sensitive Area
EL_421_7	8	111	4	444	3	Crossing Moon Road.
EL_421_12	8	222	1	222	3	Crossing Mobley Rd.
Total		3250	22	9123		



CONSTRUCTION LEADERS

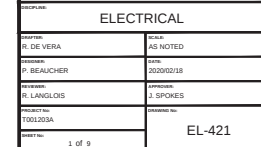
Frac-out

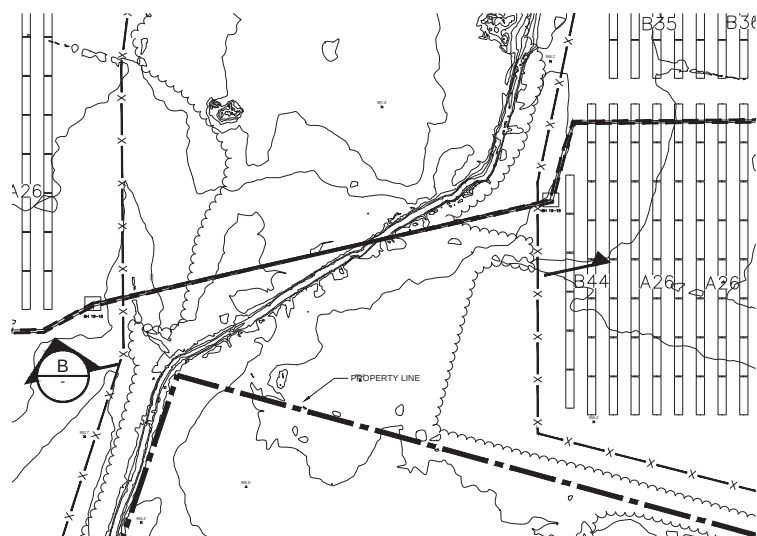
4. APPENDIX B HILLCREST SOLAR FARM HDD BORE PLAN

HILLCREST SOLAR PROJECT
DIRECTIONAL BORE PRICING PACKAGE

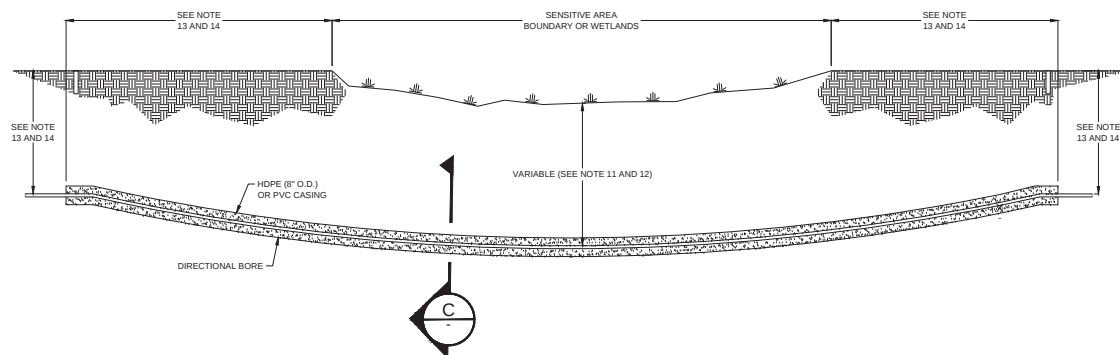
Mt. Orab, Ohio

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EL_421_12	8	222	1	222	3	Crossing Mobley Rd.
Total		3250	22	9123		





LOCATION OF BORE CROSSING
NTS



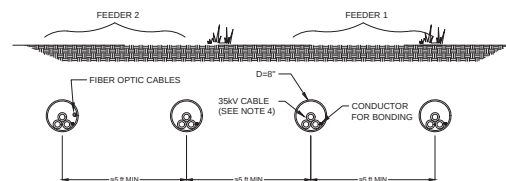
B DIRECTIONAL BORE SENSITIVE AREA CROSSING DETAIL
NTS

NOTES:

1. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
2. ENSURE MINIMUM 2" DISTANCE BETWEEN COPPER GROUND CONDUCTORS AND INSULATED CABLES. (SIZE TBD BY PSS)
3. APPROPRIATE MARKING RIBBON SHALL BE INSTALLED AS PER NEC (Table 300.50 note b) AND SHOULD INSTALLED ON ALL CABLES THAT ARE BURIED 30" AND MORE BELOW GRADE. WARNING RIBBON TO BE AT LEAST 12" ABOVE THE CONDUCTORS.
4. REFER TO SINGLE LINE DIAGRAM FOR CABLE TYPE AND SIZE.
5. REFER TO TELECOM DRAWING FOR FIBER ROUTING AND QUANTITIES.
6. LEAVE ADEQUATE SPACING BETWEEN FIBER AND OTHER CONDUCTORS IN TRENCH IN ANTICIPATION OF FUTURE SERVICING.
7. PRIOR TO INSTALLATION CABLE ROUTING TO BE STAKED FOR APPROVAL BY LOCAL MUNICIPALITY.

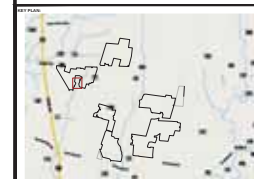
DIRECT BORE NOTES:

8. INFORMATION PROVIDED IS BASED ON AVAILABLE LAND SURVEY AND INFORMATION PROVIDED BY UTILITY. A SITE SPECIFIC VALIDATION OF THE PROPERTY LINE AND UNDERGROUND UTILITY SHALL BE DONE BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR TO DETERMINE FINAL DEPTH AND LOCATION TO AVOID EXISTING INFRASTRUCTURE AND UTILITIES.
9. INSTALL BELL ENDS AT BOTH ENDS OF BORE SLEEVE.
10. ALL DIRECTIONAL DRILLING AS PER LOCAL CODES.
11. DIRECTIONAL BORE TO BE A MINIMUM BELOW FINAL GRADE DEPTH OF (TO BE CONFIRMED):
 - 3ft UNDER CITY ROAD.
 - 3ft UNDER ROADWAYS ON PROPERTY / SENSITIVE AREA.
 - 2ft UNDER BOTTOM GRADE OF DITCHES.
 - 2ft UNDER CULVERT.
 - 2ft UNDER MUNICIPAL DRAIN.
 - 5ft UNDER WETLAND.
 - 8ft UNDER WOODED AREAS UP TO TREE DRIP LINE (EXTENT OF TREE CANOPY / CROWN).
12. DIRECTIONAL BORE TO BE A MINIMUM RADIAL DISTANCE OF OTHER UTILITIES
 - 1ft FROM GAS PIPE.
 - 4ft FROM MUNICIPAL WATER MAINS.
13. DIRECTIONAL BORE SHALL END WITH A MINIMUM OF 5 FEET OF STRAIGHT HORIZONTAL SECTION OF CONDUIT AT BOTH END.
14. DIRECTIONAL BORE CONDUIT ENDS SHALL BE AT A MINIMUM OF:
 - 20ft FROM PROPERTY LINES
 - 40ft FROM THE EDGE ANY AND ALL PUBLIC ROADS (EDGE OF PAVEMENT).
 - 35ft FROM WETLAND AND SENSITIVE AREA BOUNDARY.
 - 4ft UNDER GRADE IN FARM LAND AND OTHER AREA OUTSIDE THE FENCE PERIMETER.
 - 3ft UNDER FINISH GRADE WITHIN THE FENCE AREA.
16. BORE CONDUIT TO BE CLEANED AND PREPARED BEFORE CABLE ARE INSTALLED.
17. BEFORE BACKFILLING, SEAL BORE CONDUIT ENDS AFTER CABLE INSTALLATIONS.
18. DUE TO CABLE CAPACITY LIMITATIONS, MAXIMUM DIRECTIONAL BORE DEPTH SHALL NOT EXCEED TBD BY PSS FOR #4/0 AWG CABLE AND LARGER, (INCLUDING 750kcmil) AND TBD BY PSS FOR 1000kcmil CABLE AND LARGER (INCLUDING 1250kcmil).



C POWER CABLES, GROUNDING AND FIBRE OPTIC BORE TRENCH DETAIL
NTS

A	2020/02/18	IFC/FOR PERMIT APPLICATION		R
No.	Date	Description		By



DESIGNED BY	APPROVED BY
T00121	
	
5935 Airport Rd Suite 500 Mississauga ON L4V 1W5	Phone: 905 695-1005 www.cima.ca

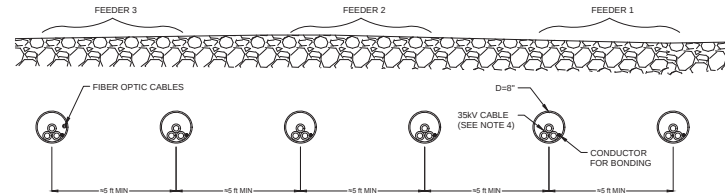
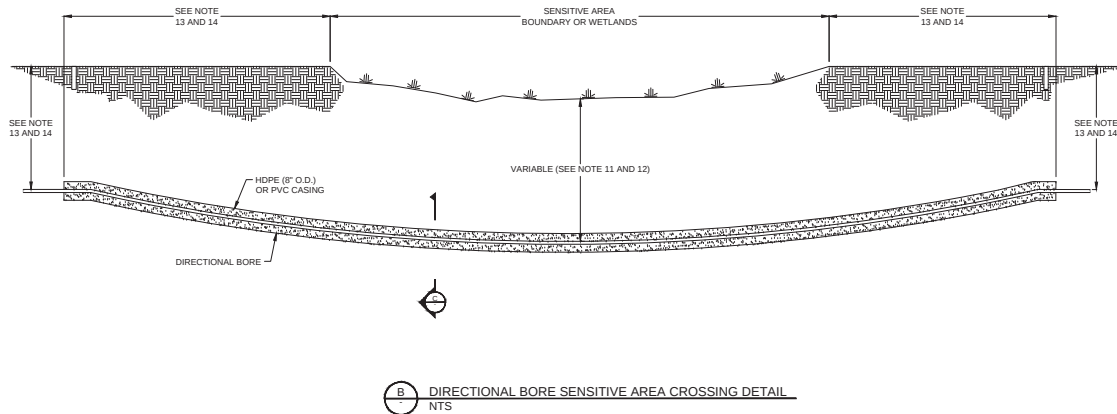
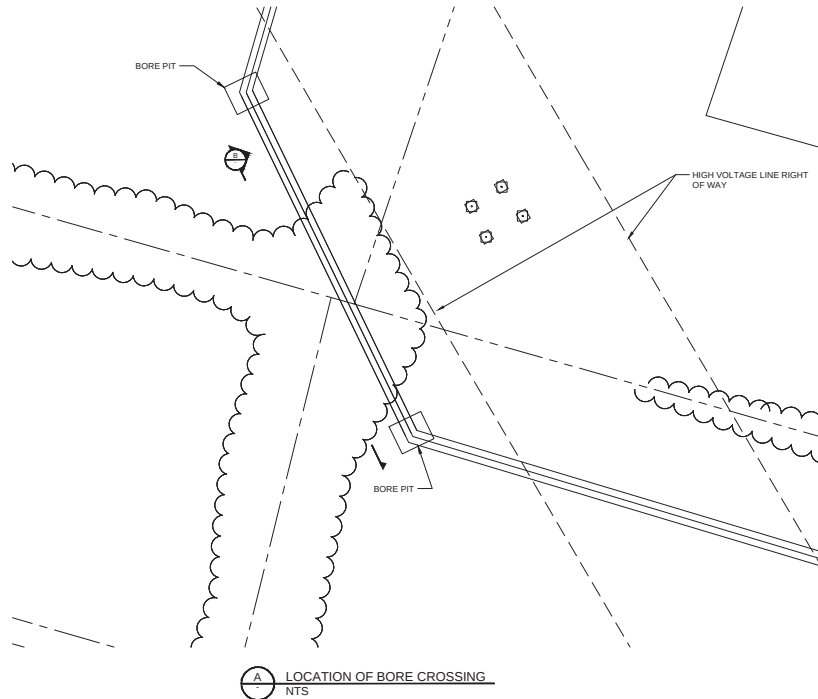
ARUP

750 N. St Paul Street, Suite 1950
Dallas TX 75201
Tel (214) 429 3724
www.arup.com

HILLCREST 200MW SOLAR FARM

DIRECTIONAL BORE
B.H. 19-18

ELECTRICAL	
PROJECT NO: R. DE VIERA DESIGNER: P. BEAUCHER REVIEWER: R. LANGLOIS PROJECTED Date: T001203A SHEET No: 2 of 9	REVISE: AS NOTED DATE: 2020/02/18 APPROVED: J. SPOKES DATED/REVISED By: EL-421



C POWER CABLES, GROUNDING AND FIBRE OPTIC BORE TRENCH DETAIL
NTS

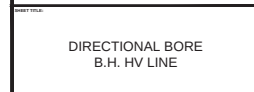
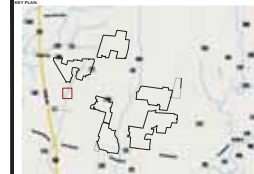
NOTES:

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- REFER TO SINGLE LINE DIAGRAM FOR CABLE TYPE AND SIZE.
- REFER TO TELECOM DRAWING FOR FIBER ROUTING AND QUANTITIES.
- LEAVE ADEQUATE SPACING BETWEEN FIBER AND OTHER CONDUCTORS IN TRENCH IN ANTICIPATION OF FUTURE SERVICING.
- PRIOR TO INSTALLATION CABLE ROUTING TO BE STAKED FOR APPROVAL BY LOCAL MUNICIPALITY.

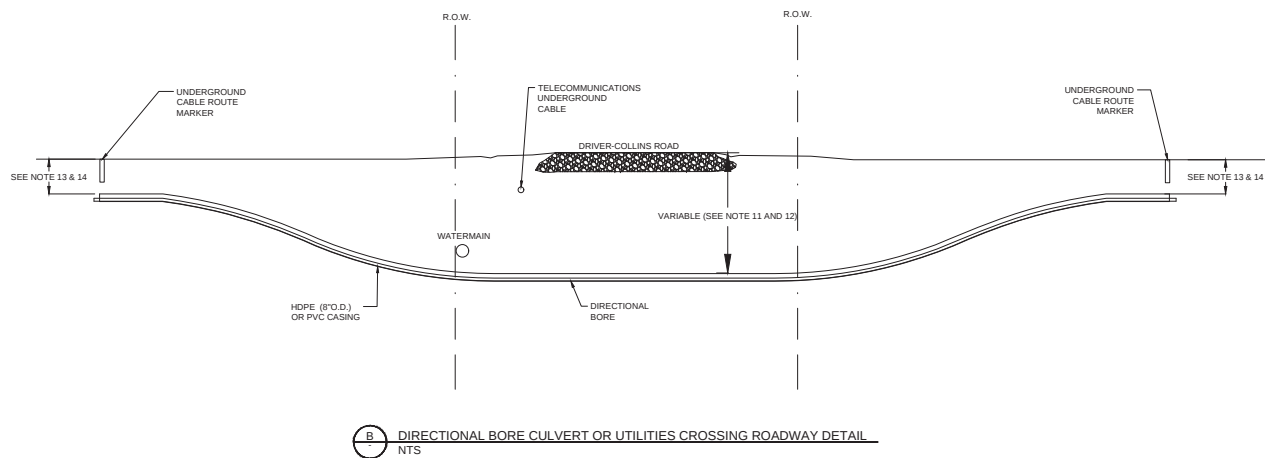
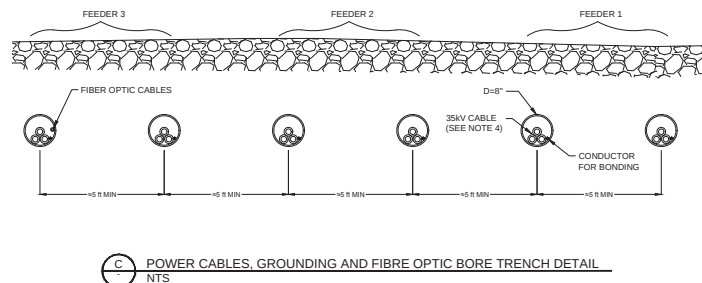
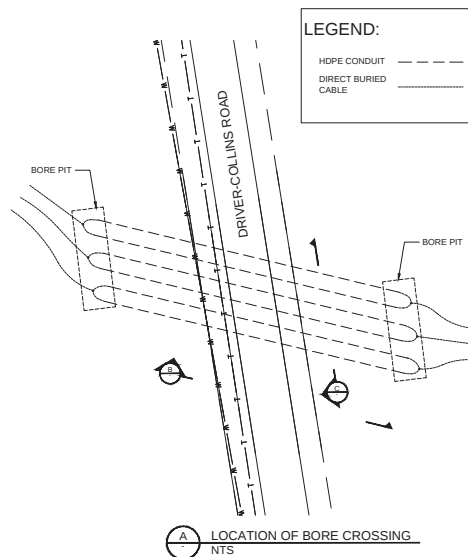
DIRECT BORE NOTES:

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 - 3R UNDER ROADWAYS ON PROPERTY / SENSITIVE AREA.
 - 2R UNDER BOTTOM GRADE OF DITCHES.
 - 2R UNDER CULVERT.
 - 2R UNDER MUNICIPAL DRAIN.
 - 5R UNDER WETLAND.
 - 8R UNDER WOODED AREAS UP TO TREE DRIP LINE (EXTENT OF TREE CANOPY / CROWN).
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- DUE TO CABLE AMPACITY LIMITATIONS, MAXIMUM DIRECTIONAL BORE DEPTH SHALL NOT EXCEED TBD BY PSS FOR #40 AWG CABLE AND LARGER, (INCLUDING 750kcmil) AND TBD BY PSS FOR 1000kcmil CABLE AND LARGER (INCLUDING 1250kcmil).

No.	Date	Description	By
A	2020/02/18	IFC FOR PERMIT APPLICATION	PL



ELECTRICAL	
DESIGNED BY: P. BEAUCHER	CHECKED BY: P. LANGLOIS
DATE: 2020/02/18	DATE: 2020/02/18
PROJECT: HILLCREST 200MW SOLAR FARM	PROJECT: HILLCREST 200MW SOLAR FARM
DRAWING NO: T001-2024	DRAWING NO: T001-2024
3 of 9	EL-421



NOTES:

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17. DUE TO CABLE AMPLACITY LIMITATIONS, MAXIMUM DIRECTIONAL BORE DEPTH SHALL NOT EXCEED TBD BY PSS FOR 40R AVG CABLE AND LARGER, (INCLUDING 750cm²) AND TBD BY PSS FOR 100cm² CABLE AND LARGER (INCLUDING 125cm²).

A	2020/02/18	IFC/FOR PERMIT APPLICATION	RL
No.	Date	Description	Ry



APPROVED BY
 APPROVED BY
 TOOLS
 5935 Airport Rd Suite 500
 Mississauga ON L4V 1W5
 Phone: 905 695-1005
www.cima.ca

ARUP

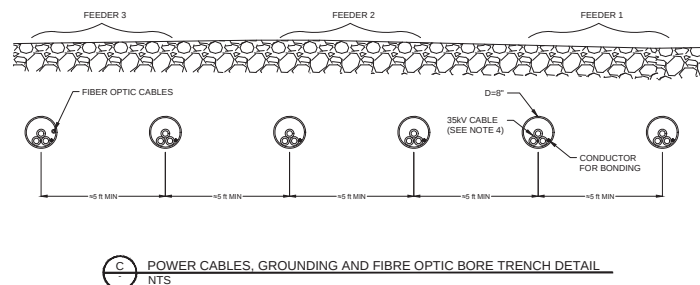
750 N St Paul Street, Suite 1950
Dallas TX 75201
Tel (214) 429 3724
www.arup.com



HILLCREST 200MW SOLAR FARM

DIRECTIONAL BORE
B.H. DRIVER COLLINS

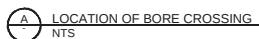
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DESIGNER: R. DE VERA	SCALE: AS NOTED
DESIGNED BY: P. BEAUCHER	DATE: 2020/02/18
REVISOR: R. LANGLOIS	APPROVED: J. SPOKES
PROJECT No. T001203A	DRAWING No. EL-421
SHEET No. 4 of 9	



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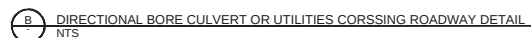
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18. DUE TO CABLE AMPLACITY LIMITATIONS, MAXIMUM DIRECTIONAL BORE DEPTH SHALL NOT EXCEED TWO BY PSS FOR 400 AWG CABLE AND LARGER, (INCLUDING 750cmH) AND TWO BY PSS FOR 1000cmH CABLE AND LARGER (INCLUDING 1250cmH).

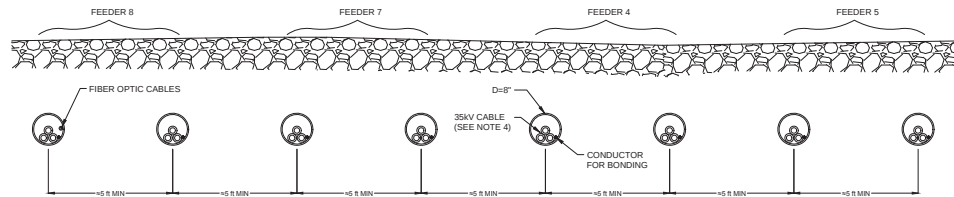
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REPORT ON:	AS NOTED	SCALE:	
R. DE VERA		DATE:	20/20/2018
PREPARED BY:		APPROVED BY:	
P. BEAUCHER		J. SPOKES	
REVISIONS:		PROJECT No:	
R. LANGLOIS		T001203A	
		DRAWING No:	
HEET No:			
	5 of 9		EL-421



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EL-421

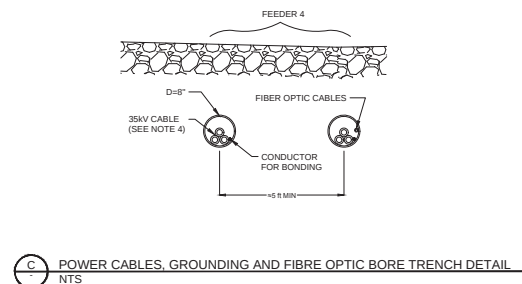


NOTES:

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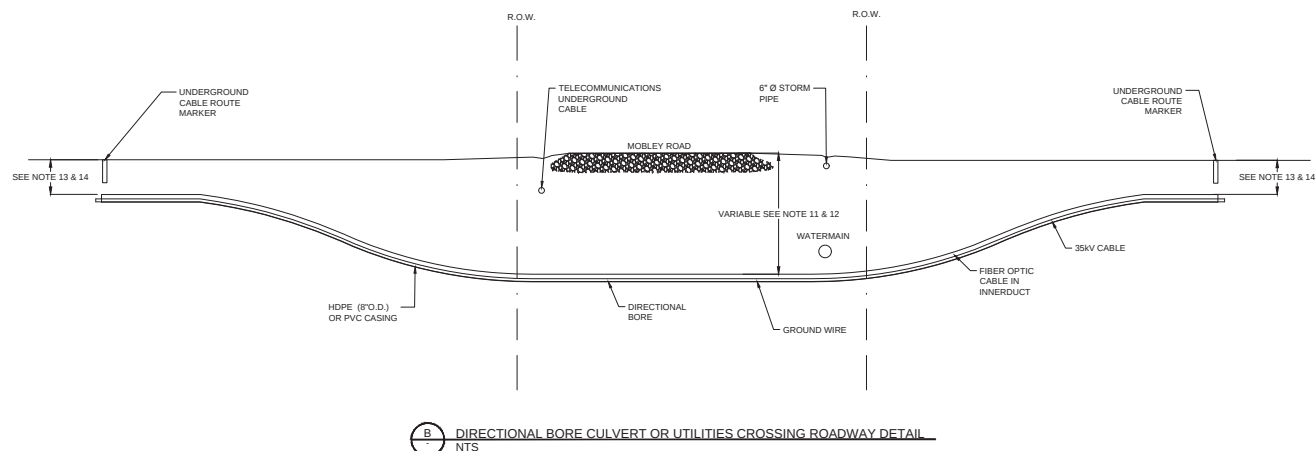
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[illegible]



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[illegible]



5. APPENDIX C HILLCREST SOLAR FARM FRAC-OUT CONTINGENCY AND EMERGENCY RESPONSE PLAN

HILLCREST SOLAR FARM

RESPONSE AND MITIGATION CONTINGENCY PLAN

FOR

FRAC OUTS ARISING FROM

HORIZONTAL DIRECTIONAL DRILLING

June, 2017

I. Introduction

Horizontal directional drilling (“HDD”) operations have the potential to inadvertently release drilling fluids into the surface environment from pressurization of the drill hole beyond the containment capability of the overburden soil material or through fractured bedrock into the surrounding rock (“frac out”). Drilling muds used in HDD to remove cuttings from the borehole and stabilize the borehole consist largely of a bentonite clay-water mixture. Bentonite is not classified as a toxic or hazardous substances, but if released into water bodies has the potential to adversely impact aquatic species.

Seepage of drilling fluid is most likely to occur near the bore entry and exit points where the drill head is shallow. Frac-outs can occur, however, in any location along a directional bore. This plan establishes operational procedures and responsibilities for the prevention, containment, and remediation of any of frac-outs that may occur in connection with the proposed HDD as part of the construction of the Hillcrest Solar Farm in Brown County, Ohio.

The objectives of this plan are to:

1. Minimize the potential for a frac-out associated with HDD;
2. Provide for the timely detection of frac-outs;
3. Protect sensitive water courses and associated riparian vegetation;
4. Ensure an organized, timely, and low-impact response to any frac-out and release of drilling material; and
5. Ensure that all appropriate notifications are made immediately to management and environmental personnel.

II. Description of Work

Drilling operations will be carefully monitored to determine if and when a frac-out may be occurring. Operations will be halted immediately upon detection of a significant decline in drilling pressure or other evidence that a frac-out may be occurring. The clean-up of all spills shall begin immediately. Management and environmental personnel shall be notified immediately of any spills and shall be consulted regarding remediation procedures. Spill response kits shall be maintained on-site and used if a frac-out occurs. A vacuum truck and containment materials, such as straw bales, shall also be readily available. In the event of a frac-out, the on-site supervisor of construction activities (“Site Supervisor”) will conduct an evaluation of the situation and direct recommended mitigation actions, based on the following guidelines:

1. If the frac-out is minor, easily contained, has not reached the surface, and is not threatening sensitive resources, then drilling operations may resume after use of a leak-stopping compound or redirection of the bore; and
2. If the frac-out has reached the surface, any material contaminated with bentonite shall be removed by hand to a depth of 48 inches, contained and properly disposed

of, as required by law. The drilling contractor shall be responsible for ensuring that the bentonite either is properly disposed of at an approved disposal facility or properly recycled in an approved manner. The Site Supervisor shall notify and take any necessary follow-up response actions in coordination with the relevant regulatory agency representatives. The Site Supervisor shall coordinate the mobilization of equipment stored at off-site locations (e.g., vacuum trucks) on an as needed basis.

III. Site Supervisor Responsibilities

The Site Supervisor has ultimate responsibility for implementing this plan. The Site Supervisor shall ensure that all relevant employees are trained prior to drilling. The Site Supervisor shall be notified immediately when a frac-out is detected. The Site Supervisor shall be responsible for ensuring that environmental personnel are aware of the frac-out, and coordinate personnel, response, remediation, and regulatory agency notification. The Site Supervisor shall ensure all waste materials are properly containerized, labeled, and removed from the site to an approved disposal facility by personnel experienced in the removal, transport and disposal of drilling mud.

The Site Supervisor shall be familiar with all aspects of the drilling activity, the contents of this plan and the conditions of approval under which the HDD is authorized to take place. The Site Supervisor shall have the authority to stop work and commit the resources (personnel and equipment) necessary to implement this plan. The Site Supervisor shall ensure that a copy of this plan is available (at the project work site) and accessible to all construction personnel. The Site Supervisor shall ensure that all workers are properly trained and familiar with the necessary procedures for response to a frac-out, prior to commencement of drilling operations.

IV. Equipment

The Site Supervisor shall ensure that:

1. Spill responses kit and spill containment materials are available on-site at all times, and that the equipment is in good working order;
2. Equipment required to contain and remediate a frac-out release either will either be available at the work site or readily available at an offsite location within 15-minutes of the bore site; and
3. If equipment is required to be operated adjacent to a water course, absorbent pads and plastic sheeting for placement beneath motorized equipment shall be used to protect sensitive areas from engine fluids.

V. Training

Prior to the start of construction, the Site Supervisor shall ensure that relevant workers receive training in the following areas:

1. The provisions of this plan, equipment maintenance and site-specific permit and monitoring requirements;

2. Inspection procedures for release prevention and containment equipment and materials;
3. Contractor/employee obligations to immediately stop the drilling operation upon first evidence of the occurrence of a frac-out and to immediately report any frac-out releases;
4. Contractor/employee responsibilities in the event of a release;
5. Operation of release prevention and control equipment and the location of release control materials, as necessary and appropriate; and
6. Protocols for communication with relevant regulatory agency representatives who might be on-site during the remediation effort.

VI. Procedures

The following procedures shall be followed each day, prior to the start of work. This plan shall be available on-site during all construction. The Site Supervisor shall be on-site at any time that HDD is occurring or is planned to occur. The Site Supervisor shall ensure that a briefing is held at the start of each day of HDD to review the appropriate procedures to be followed in case of a frac-out. Questions shall be answered and clarification given on any point over which the HDD operating crew or other employees or contractors have concerns.

A. Drilling

Drilling pressures shall be closely monitored so they do not exceed those needed to penetrate the target formation. Pressure levels shall be monitored randomly by the operator. Pressure levels shall be set at a minimum level to prevent frac-outs. During the pilot bore, the drilled annulus shall be maintained. Cutters and reamers shall be pulled back into previously-drilled sections after each new joint of pipe is added.

Exit and entry pits shall be enclosed by silt fences and straw or similar material. A spill kit shall be on-site and used if a frac-out occurs. A vacuum truck shall be readily available prior to and during all HDD operations. Containment materials (straw, silt fencing, sand bags, frac-out spill kits, etc.) shall be staged on-site at locations where they are readily available and easily mobilized for immediate use in the event of a frac-out. If necessary, barriers (straw bales or sedimentation fences) between the bore site and the edge of the water source, shall be constructed, prior to drilling, to prevent released bentonite material from reaching the water.

Once the drill rig is in place, and drilling begins, the drill operator shall stop work whenever the pressure in the drill rig significantly drops or there is a lack of returns in the entrance pit. If either of these occur, the Site Supervisor shall be informed that a possible frac-out has occurred. The Site Supervisor and the drill rig operator(s) shall work to coordinate the likely location of the frac-out. The location of the frac-out shall be recorded and notes made on the location and measures taken to address the concern. The following subsections shall be adhered to when addressing a frac-out situation.

Water containing mud, silt, bentonite, or other pollutants from equipment washing or other activities, shall not be allowed to enter any water course. The bentonite used in the drilling process shall be either disposed of at an approved disposal facility or recycled in an approved manner. Other construction materials and wastes shall be recycled, or disposed of, as appropriate.

B. Vacuum Truck

A vacuum truck shall be staged at a location from which it can be mobilized and relocated so that any place along the drill shot, can be reached by the apparatus, within ten (10) minutes of information indicating a possible frac-out.

C. Field Response

The response of the field crew to a frac-out release shall be immediate and in accordance with procedures set forth in this plan. All appropriate emergency actions that do not pose additional threats to sensitive resources will be taken, as follows:

1. Boring shall stop immediately;
2. The bore stem shall be pulled back to relieve pressure on the frac-out;
3. The Site Supervisor shall be notified to ensure that management and environmental personnel are notified, adequate response actions are taken and required notifications are made;
4. The Site Supervisor shall evaluate the situation and recommend the type and level of response warranted, including the level of notification required;
5. If the frac-out is minor, easily contained, has not reached the surface and is not threatening any sensitive resources, then a leak-stopping compound shall be employed to block the frac-out. If the use of leak-stopping compound is not fully successful, then the bore stem shall be redirected to a new location along the desired drill path (i.e., where a frac-out has not occurred);
6. If the frac-out has reached the surface, any material contaminated with bentonite shall be removed by hand, to a depth of 48 inches, contained and properly disposed of, as required by law. A dike or berm may be constructed around the frac-out to entrap released drilling fluid, if necessary. Clean sand shall be deployed and the area returned to pre-project contours; and
7. If a frac-out occurs, reaches the surface and becomes widespread, the Site Supervisor shall authorize a vacuum truck and bulldozer stored off-site to be mobilized. The vacuum truck may be either positioned at either end of the line of the drill so that the frac-out can be reached by crews on foot, or may be pulled by a bulldozer, so that contaminated soils can be vacuumed up.

D. Response Close-out Procedures

1. When the release has been contained and remediated, response close-out activities shall be conducted at the direction of the Site Supervisor. These activities shall include those below.
2. The recovered drilling fluid shall either be recycled or transported to an approved facility for disposal. No recovered drilling fluids may be discharged into streams, storm drains or any other water source;
3. All frac-out excavation and remediation sites shall be returned to pre-project contours using clean fill, as necessary; and
4. All containment measures (fiber rolls, straw bale, etc.) shall be removed, unless otherwise specified by the Site Supervisor.

E. Resumption of HDD

For minor releases not necessitating external notification, HDD may continue, if full containment is achieved through the use of a leak-stopping compound or redirection of the bore and the clean-up crew remains at the frac-out location throughout the HDD activity. For releases necessitating external notification, HDD activities shall not restart without prior approval from the Site Supervisor.

F. Bore Abandonment

Abandonment of the bore will only be required when all efforts to control the frac-out within the existing directional bore have failed.

VII. Notification

In the event of a frac-out that reaches a water source, the Site Supervisor shall notify safety personnel so they can notify the appropriate regulatory agencies. All agency notifications will occur within 24 hours and proper documentation will be created in a timely and complete manner. The following information will be provided:

1. Name and telephone number of person reporting;
2. Location of the release;
3. Date and time of release;
4. Type and quantity, estimated size of release;
5. How the release occurred;
6. The type of activity that was occurring around the area of the frac-out;
7. Description of any sensitive areas, and their location in relation to the frac-out; and

8. Description of the methods used to remediate the site.

A. Communicating with Regulatory Agency Personnel

All employees and subcontractors shall adhere to the following protocols when regulatory agency personnel arrive on site. Regulatory agency personnel shall be required to comply with appropriate safety rules. Only the Site Supervisor, safety personnel and environmental should coordinate communication with regulatory agency personnel.

B. Documentation

The Site Supervisor shall record the frac-out event in his or her daily log. The log will include the following:

1. Details on the release event, including an estimate of the amount of bentonite released;
2. The location and time of release;
3. The size of the area impacted, and the success of the remediation action;
4. Name and telephone number of person reporting;
5. Date;
6. How the release occurred;
7. The type of activity that was occurring around the area of the frac-out;
8. Description of any sensitive areas, and their location in relation to the frac-out;
9. Description of the methods used to remediate the site;
10. Listing of the water-related permits for the project.

VIII. Project Completion and Clean-up

1. All materials and any rubbish-construction debris shall be removed from the construction zone at the end of each work day;
2. Sump pits at bore entry and exits will be filled and returned to natural grade; and
3. All protective measures (fiber rolls, straw bale, silt fence, etc.) will be removed unless otherwise specified by the Site Supervisor.

Attachment B

HDD Archaeological Site Assessment

October 2020



Environmental Design & Research,
Landscape Architecture, Engineering & Environmental Services, D.P.C.
217 Montgomery Street, Suite 1000, Syracuse, New York 13202
P. 315.471.0688 • F. 315.471.1061 • www.edrdpc.com

memorandum

To: Ms. Krista Horrocks
Project Reviews Manager
Ohio History Connection
800 E. 17th Avenue
Columbus, Ohio 43211-2474
EDR Project No: 19035

From: T. Arron Kotlensky, RPA
Senior Archaeologist
Environmental Design and Research, D.P.C.

Date: October 8, 2020

Reference: Hillcrest Solar Project (2017-BRO-39360)
Green Township, Brown County, Ohio
HDD Drilling Site Inspection and Archaeological Site Assessment

Introduction

On behalf of Hillcrest Solar I, LLC (Hillcrest Solar), Environmental Design & Research, Landscape Architecture, Engineering, & Environmental Services, D.P.C. (EDR) completed a site inspection on September 30, 2020 for the Hillcrest Solar Project (the Project), located in Green Township, Brown County, Ohio. EDR Senior Archaeologist Arron Kotlensky conducted a site inspection to document inadvertent returns of drilling material (described hereafter as “frac out releases” or “FORs”) to the ground surface in the vicinity of three archaeological sites (33-BR-206, 33-BR-207, and 33-BR-208) near Moon Run.

EDR’s primary goal for the site inspection was to identify the locations of FORs and their extents with respect to Sites 33-BR-206, 33-BR-207, and 33-BR-208 and to document impacts, if any, to these archaeological sites and their surroundings. Based on identification of the FORs through pedestrian survey of the HDD corridor and information provided by Hillcrest Solar, EDR determined that only Site 33-BR-208 (“Moon Run Locus 3”) had been affected by frac out releases and that nearby Sites 33-BR-206 and 33-BR-207 had not been affected by similar frac out releases. EDR also discussed with a Hillcrest Solar representative measures for avoiding future FORs in the vicinity of archaeological sites and these considerations are provided at the conclusion to this memorandum.

After completing project site and safety orientation at the Project operations management center on Ohio Route 286, Jason Sirois (Hillcrest Solar) and Don Demars (PCL, project design contractor) accompanied Mr. Kotlensky during the site inspection and provided information regarding the FORs.

According to Hillcrest Solar, an unknown number of FORs occurred in the process of completing horizontal directional drilling (HDD) for the sub-surface installation of eight, 8-inch diameter electrical conduits for the Project, with four

conduit bores completed to date and a fifth bore partially completed. The HDD installation work was being undertaken on an approximately 492-foot (150-meter) long and 50-foot (15-meter) wide corridor that spans Moon Run along a southwest-to-northeast course. The Hillcrest Solar representative further indicated that the FORs were identified on September 24, 2020 by Hillcrest Solar personnel and resulted in a stop-work order of all HDD work in the Moon Run location; Hillcrest Solar added that HDD work had been ongoing in this location for approximately two weeks prior to the identification of the FORs.

EDR understands that HDD is favored as an installation method in the Moon Run location of the project to avoid open trenching methods of excavation to satisfy project design constraints. The observed drilling material was composed of a yellowish-brown silty clay-rich slurry and, according to Hillcrest Solar and its sub-contractors, is composed of soil sediments and water as a stabilizing agent alone and does not contain chemical agents or compounds per project-specific restrictions.

Site 33-BR-208 Background

The site description below is extracted from *Phase I Archaeological Survey, Hillcrest Solar Project, Green Township, Brown County, Ohio*. Prepared by EDR (2019, pp. 23-25):

Site Moon Run Locus-3 (33-BR-208) is a sub-surface pre-contact lithic scatter located overlooking the eastern bank of Sterling Run in an abandoned, overgrown agricultural field approximately 905-feet (275-meters) west of Moon Road and 4,010-feet (1,222-meters) north of the intersection of Moon Road and County Route 8-C (see Figure 9, Sheet 16; Figure 10, Sheet 3). The site is located on elevated terrain which gently slopes to the northwest down to Sterling Run. Soils at the site are mapped as Westboro-Schaffer silt loams, which are classified as somewhat poorly drained (ESRI and NRCS, 2019). Vegetation in the vicinity consisted of a ground covering of poison ivy and greenbrier with patches of young secondary forest growth. a limited amount of detritus from last year's soy harvest and young row crop. Ground surface visibility at the time of recording was completely obstructed by vegetation. Modern and historic period impacts to the site area include plowing and disking associated with agricultural use. Overall the site is lightly to moderately disturbed.

Moon Run Locus-3...is a confined, moderate density lithic scatter consisting of 13 pieces of lithic debitage and one piece of thermally-altered rock.

EDR archaeologists excavated 40 shovel tests (A3.03–A3.07 and MR3.01--MR3.35) during delineation efforts, recovering pre-contact Native American materials in nine shovel tests, noted in Table 6 above. The typical soil encountered in shovel tests consisted of light brownish gray (10YR 6/2) silt loam between which generally extended from 0 to between 20 and 30 cmbs, and overlaid a yellowish brown (10YR 5/6) silty clay loam with oxidation. Shovel tests were terminated at a minimum of 10 cm into the second horizon which was interpreted as sterile subsoil. No evidence of buried features was encountered during shovel test excavation at this site.

Moon Run Locus-3...is within the Archaeological Study Area for the proposed Project and is unevaluated for NRHP eligibility. This site will be avoided by Project design and will not be impacted by Project construction. There will be no effect to significant cultural resources and no further archaeological investigation is recommended.

Impacts to Site 33-BR-208

During the site inspection on September 30, 2020, Mr. Kotlensky conducted a pedestrian reconnaissance of the site boundary, site interior, and its surroundings to identify FORs and their extents (see Figure 1, attached). He used a combination of geo-referenced photography and GPS-enabled mapping to document the FORs and their contexts. He identified a total of three relatively small-area FORs within the site boundary and a larger FOR immediately to the south of the site boundary. The three frac out releases (FORs 1 – 3) observed within the site cover 32 square feet (3 square meters) or less each in area (see Photographs 1-3, attached), while the FOR mapped 7 feet (2 meters) south of the site (FOR 4) covers an area of approximately 258 square feet (24 square meters) (Photographs 4, 5). Pedestrian reconnaissance of the site and its surroundings revealed no significant disturbance to the existing vegetation or landform by the FORs (Photographs 6-8).

The measured depth of drilling material in the four FORs did not exceed 4 inches (10 centimeters) and no artifacts or other cultural materials were observed on the surface of the drilling material. According to Hillcrest Solar, the drilling material likely returned to the surface through fissures in the soil stratigraphy formed by rodent burrows or natural breaks in the soil that extend from the plowzone horizon into the subsoil horizons below.

Conclusions and Recommendations

Considering the shallow depth and relatively constrained surface coverage of the four FORs observed within and adjacent to Site 33-BR-208, EDR is of the opinion that subsurface archaeological deposits were not disturbed, and that the site has not become inaccessible to future investigations due to the depth of observed drilling material. EDR is also of the opinion that subsurface inspection of the FORs would offer minimal information and have the potential to adversely impact intact archaeological deposits.

Given the inert and benign characteristics of the drilling material observed during the site inspection, EDR recommends that the four FORs within and adjacent to Site 33-BR-208 remain in situ and undisturbed as their removal by hand or mechanical means may adversely impact the site.

During the site inspection, the Hillcrest Solar representative indicated to Mr. Kotlensky that the initial HDD bore alignment avoided a path through Site 33-BR-208 and EDR recommends considering returning to this earlier HDD bore alignment to avoid further impacts to the site or presenting an updated engineering approach for the current alignment that demonstrates avoidance of future impacts to the site. EDR anticipates that consultation with OHPO is necessary prior to finalizing any rerouting designs and the recommencement of the HDD work around Site 33-BR-208.

We appreciate this opportunity to assist the Ohio Historic Preservation Office in fulfilling its objectives of protecting Ohio's cultural resources. We look forward to your comments and please contact me at akotlensky@edrdpc.com or 412-334-2128 at your earliest convenience if you have any questions on this memorandum.

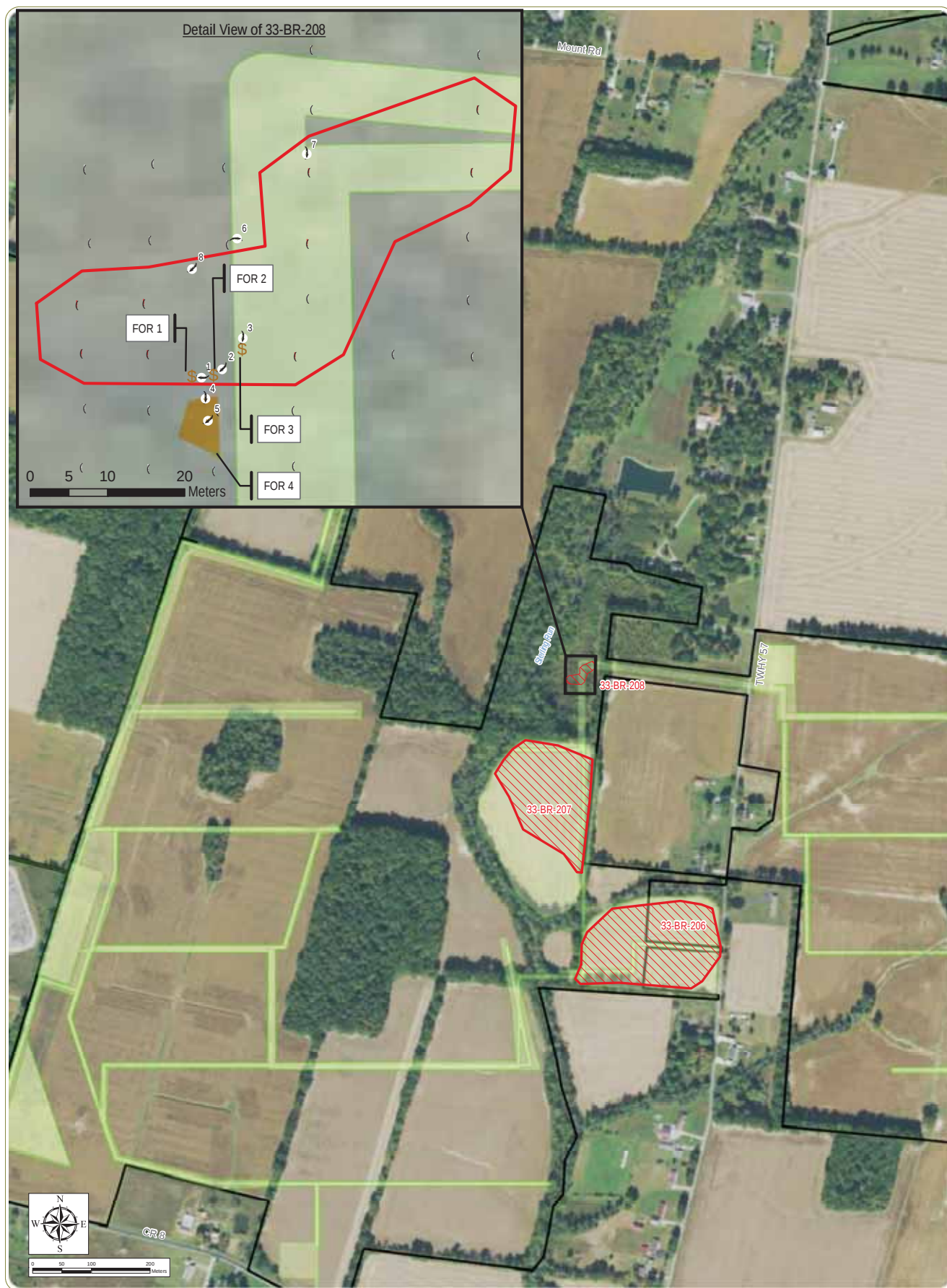
Sincerely,



T. Arron Kotlensky, RPA
Senior Archaeologist
Environmental Design and Research, D.P.C.

Copies To: Madison Walsh (Hillcrest Solar); Julia Mancinelli (Hillcrest Solar); Jason Sirois (Hillcrest Solar)

Attachments: Figure 1: HDD Drilling Site Inspection and Archaeological Site Assessment
Photolog: Photographs 1-8



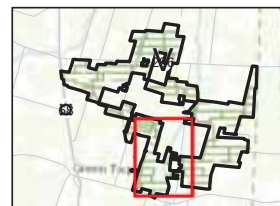
Hillcrest Solar Project

Green Township, Brown County, Ohio

Figure 1: HDD Drilling Site Inspection and Archaeological Site Assessment

Notes: 1. Basemap: USDA NAIP "CONUS PRIME" orthoimagery map service. 2. This map was generated in ArcMap on October 6, 2020. 3. This is a color graphic. Reproduction in grayscale may misrepresent the data.

- | | |
|-----------------------------|---------------------------|
| (Photograph Location | FOR Location |
| Phase I Shovel Test Results | Archaeological Site |
| (No Cultural Material | Archaeological Study Area |
| (Pre-Contact Artifact(s) | Project Area |



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Photo 1

Overview of FOR 1 within Site 33-BR-208. View to the west.



Photo 2

Depth of FOR 2.



Photo 3

Depth of FOR 3.



Photo 4

Overview of FOR 4. View to the south.



Photo 5

Depth of FOR 4.



Photo 6

Overview of central area of Site 33-BR-208. View to the east.



Photo 7

Overview of central area of Site 33-BR-208. View to the south.



Photo 8

Overview of southern area of Site 33-BR-208. View to the southwest.

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

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in

Case No(s). 17-1152-EL-BGN

Summary: Notice Notice of Compliance with Condition No. 1 - FracOut Release Response Plan electronically filed by Ms. Julia M Mancinelli on behalf of Hillcrest Solar I, LLC