

ADDENDUM

Client: Department of Natural Resources
Project: Pokagon State Park Toboggan Run Piping Upgrades
Client Project No.: ENG2003780646
Applied Project No.: 19-110
Addendum No.: 2
Date: 11/24/2020

The following changes and clarifications shall be incorporated into the Contract Documents for the above-referenced project. The information contained herein modifies the original Bidding Documents and all prior Addenda as applicable. Requirements of the original Bidding Documents and previous Addenda remain in effect except as modified by this Addendum. Bidders must acknowledge receipt of this Addendum on the Bid Form. Failure to acknowledge receipt of this Addendum may subject Bidder to disqualification.

Bidding Questions

1. QUESTION: GLYCOL SYSTEM:
 - a. Who will be responsible for draining the glycol system and dispose of the glycol fluid?
 - a. RESPONSE: The Contractor shall be responsible for draining the glycol system, disposing of existing glycol, and filling the system.
 - b. If the "contractor" is responsible do you have a procedure and an estimated quantity of fluid?
 - a. RESPONSE: The current pipe volume is unknown. The replacement piping and existing piping at valve vaults will contain most of the system fluid volume. Existing 3" supply and return piping from the chiller in the refrigerant equipment building to the track will also contain system fluid. Please estimate system volume using the piping layout shown on the drawings and stated in this response. In response to this question the facility management team noted the system is currently filled by pumping a 55-gallon barrel of glycol with 75 gallons of water. This process continues with additional barrels until the system is filled.
 - c. New glycol fill - Spec Section 232113-6 mentions a 30% propylene glycol content, what is the fill volume and are there any more specifications for the fluid?
 - a. RESPONSE: In response to this question the facility management team stated for every 55-gallon barrel added, 75 gallons of water is added to create a mixture with a freezing point of -18 deg F or less. This is a greater ratio of glycol to water than stated in the construction documents. Please see changes and clarifications to Specification 23 2113 – Hydronic Piping this Addendum #2.

2. QUESTION: HEAT TRACING:

- a. Has an Electrical Tracing manufacturer or sales representative been involved with the current design that can be contacted?
 - a. RESPONSE: Yes, Beth Scheller with Relcon, Inc helped the design team with selection of the heat tracing. Relcon can be reached at 317-842-0505.
- b. Can someone provide details surrounding how the electrical tracing would be routed from the actual piping shrouds to the vaults?
 - a. RESPONSE: Heat tracing conduit route is clarified on details added to sheet E501 this Addendum #2.
- c. Should the electrical tracing utilize new conduits from the shroud to the vault, is there an existing pipe duct we can use, can they be laid bare?
 - a. RESPONSE: A pipe duct for heat trace routing does not currently exist. Heat tracing conduit route is clarified on details added to sheet E501 this Addendum #2.
- d. Is there an existing pipe chase that the conduits can be installed through under the tracks?
 - a. RESPONSE: An empty space exists where cooling pipe manifolds feed copper tubing within the track. This open space exists under the two inner track shrouds. The two outer track shrouds may not have an existing opening from below. Heat tracing conduit route is clarified on details added to sheet E501 this Addendum #2.
- e. Is there a detail on how the actual tracing would penetrate through the existing concrete slab and into the piping shrouds?
 - a. RESPONSE: Heat tracing conduit route is clarified on details added to sheet E501 this Addendum #2.
- f. It appears that there may not be ample room in the vaults for the heat tracing terminal boxes, can they be mounted above grade and external from the vault?
 - a. RESPONSE: Heat tracing conduit route is clarified on details added to sheet E501 this Addendum #2.
- g. Would vault #13 only require 4 runs of tracing, one for each shroud, whereas the other (2) vaults would require 8 runs?
 - a. RESPONSE: A tee on a single circuit will be used in the heat trace power connector where heat tracing runs in two directions. Heat tracing conduit route is clarified on details added to sheet E501 this Addendum #2.
- h. Could the conduits originating at the Heat trace Control Panel be arranged, based upon the answers from the above questions, all on one side of the track so that boring or undermining the existing track can be avoided? This would only apply if the heat tracing terminal boxes can be mounted remotely from the vaults.
 - a. RESPONSE: To reach each section of track the circuit must pass under the track. Heat tracing conduit route is clarified on details added to sheet E501 this Addendum #2.

- i. Vault #24 is in a precarious position from the track system, is there a design recommendation as to how to install UG conduits to the vault and electrical tracing from the piping shroud to the terminal box or into the vault?
 - a. RESPONSE: Heat tracing conduit route is clarified on details added to sheet E501 this Addendum #2.

3. QUESTION: ALTERNATE 2 - LIGHT POLES:
 - a. The existing lighting poles currently have seal-tite leaving an enclosure and running underground penetrating the side of the light fixture poles. Is it the intent of this bid package to simply disconnect the existing seal-tite and re-connect it in the same fashion to the new lighting fixtures poles?
 - a. RESPONSE: Yes, the intent is to reuse the existing cable and conduit.
 - b. Explain what is meant by the note on drawing E-301 as abandon existing wiring, note appears between Vault 6 & 7?
 - a. RESPONSE: This note identifies the location of abandoned underground electrical power and signal wires.
 - c. What is to be done with the existing light poles if ALT #2 is accepted?
 - a. RESPONSE: If Alternate #2 is accepted the existing light poles to be removed become possession of the Contractor. The Contractor shall remove the light poles from the property.

4. QUESTION: MISCELLANEOUS
 - a. Is this project fully funded or is the current purpose to provide budgeting?
 - a. RESPONSE: This is a publicly bid project with available funding. The State reserves the right to reject any and/or all bids.
 - b. Is there a limit of on-site working hours, Monday through Friday, can we work Saturdays, 8 or 10 hours per day?
 - a. RESPONSE: Working hours are Monday through Friday 7am – 7pm; excluding State Holidays.
 - c. Is there a potential project award date and what would be the timing for the project execution?
 - a. RESPONSE: As per the Instructions To Bidders, bids may not be withdrawn without written consent of the Director for a period of 60 days after bid opening. As conditions and State processes allow, bids are typically acted upon within the 60 day time period. Please refer to modifications to the Notice To Bidders contained in Addendum 1 for construction time period including completion date, and starting date for on-site work.

SPECIFICATIONS

22 2113 – HYDRONIC PIPING

1. Remove in its entirety paragraph 3.6.A and sub-paragraph 3.6.A.1.
2. Replace paragraph 3.6.A and sub-paragraph 3.6.A.1 with the following:
 - A. Fill systems that have antifreeze or glycol solutions with the following concentrations and properties:
 1. Glycol Cooling-Water Piping: Minimum of 45 percent propylene glycol with a freezing point of -18 F or lower.

DRAWINGS

MP301 – MECHANICAL AND PLUMBING UPPER TRACK PLAN AND PROFILE

1. Add the following general note #2:
CALL 411 FOR A UTILITY LOCATE PRIOR TO DIGGING OR ANY UNDERGROUND CONSTRUCTION ACTIVITY. PROTECT ALL EXISTING BURIED UTILITIES FROM DAMAGE.

MP302 – MECHANICAL AND PLUMBING MIDDLE TRACK PLAN AND PROFILE

1. Add the following general note #2:
CALL 411 FOR A UTILITY LOCATE PRIOR TO DIGGING OR ANY UNDERGROUND CONSTRUCTION ACTIVITY. PROTECT ALL EXISTING BURIED UTILITIES FROM DAMAGE.

MP303 – MECHANICAL AND PLUMBING LOWER TRACK PLAN AND PROFILE

1. Add the following general note #2:
CALL 411 FOR A UTILITY LOCATE PRIOR TO DIGGING OR ANY UNDERGROUND CONSTRUCTION ACTIVITY. PROTECT ALL EXISTING BURIED UTILITIES FROM DAMAGE.

E301 – ELECTRICAL UPPER TRACK PLAN AND PROFILE

1. Add the following general note #12:
CALL 411 FOR A UTILITY LOCATE PRIOR TO DIGGING OR ANY UNDERGROUND CONSTRUCTION ACTIVITY. PROTECT ALL EXISTING BURIED UTILITIES FROM DAMAGE.

E302 – ELECTRICAL MIDDLE TRACK PLAN AND PROFILE

1. Add the following general note #12:
CALL 411 FOR A UTILITY LOCATE PRIOR TO DIGGING OR ANY UNDERGROUND CONSTRUCTION ACTIVITY. PROTECT ALL EXISTING BURIED UTILITIES FROM DAMAGE.

E303 – ELECTRICAL LOWER TRACK PLAN AND PROFILE

1. Add the following general note #12:
CALL 411 FOR A UTILITY LOCATE PRIOR TO DIGGING OR ANY UNDERGROUND CONSTRUCTION ACTIVITY. PROTECT ALL EXISTING BURIED UTILITIES FROM DAMAGE.

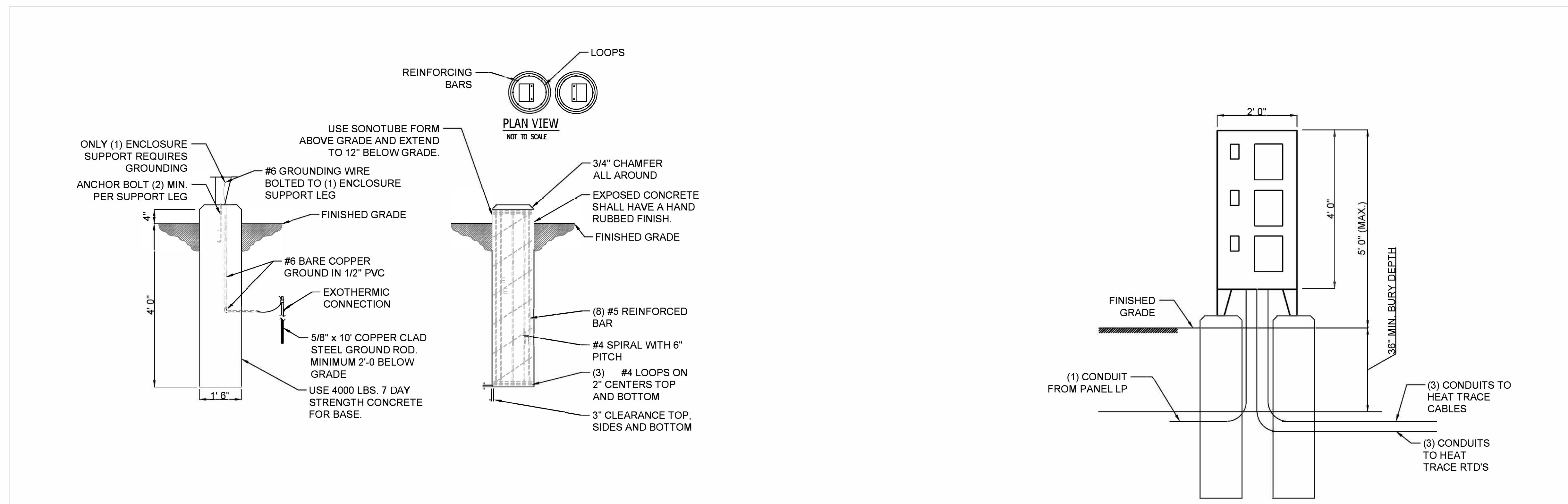
E501 – ELECTRICAL SCHEDULES AND DETAILS

1. Replace this sheet in its entirety with the attached sheet of the same name.

END

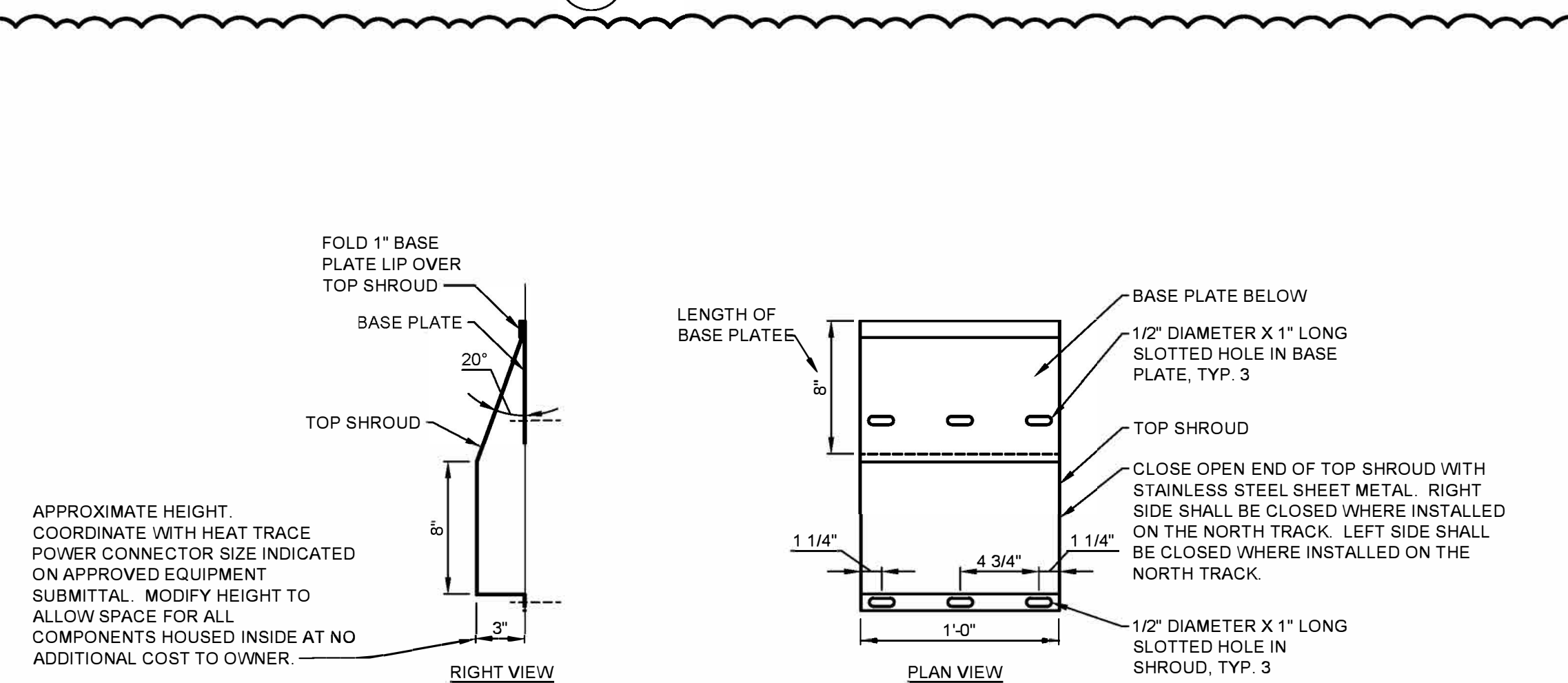
LIGHTING FIXTURE SCHEDULE											
TYPE	TYPE	DESCRIPTION	MOUNTING		LED LAMP			MANUFACTURERS	WATT	NOTES	
			TYPE	HEIGHT	Lumens	COLOR/ CRI	/Watts				
L1	POLE MOUNTED AREA LIGHT	DIE-CAST ALUMINUM; THERMOSET POWDER COAT; DISTRIBUTION TYPE 3 MEDIUM, 70 CRI; UNIVERSAL DRIVER; ROUND POLE ADAPTER; FINISH - DARK BRONZE.	ARM	30'	49,000	4000K, >70	>110	480 1PH	LITHONIA D-SERIES, BEACON MATRIX SERIES, COOPER GLEON SERIES	430	1,2

NOTES:
1. CONTRACTOR TO VERIFY FIXTURE MOUNTING REQUIREMENT TO EXISTING CONCRETE POLE BASE PRIOR TO PURCHASE.
2. PROVIDE (1) 30' TALL ROUND TAPERED ALUMINUM POLE WITH A SINGLE 4' UPSWEEP MAST ARM AND HANDHOLE. COLOR TO MATCH LIGHT FIXTURE. PROVIDE BASE COVER PLATE WHICH COVERS POLE BASE AND ANCHOR BOLTS. POLE SHALL BE CAPABLE OF WITHSTANDING 80MPH WINDS WITH 30% ADDITIONAL GUST FACTOR.
ADD ALTERNATE #2. REPLACEMENT OF LIGHT POLES AND LIGHT FIXTURES DESCRIBED IN FIXTURE SCHEDULE ABOVE SHALL BE INCLUDED ONLY IF ADD ALTERNATE 2 IS ACCEPTED.



B HEAT TRACE CONTROL ENCLOSURE SUPPORT DETAIL
SCALE: NONE

A HEAT TRACE CONTROL PANEL DETAIL
SCALE: NONE



APPROXIMATE HEIGHT. COORDINATE WITH HEAT TRACE POWER CONNECTOR SIZE INDICATED ON APPROVED EQUIPMENT SUBMITTAL. MODIFY HEIGHT TO ALLOW SPACE FOR ALL COMPONENTS HOUSED INSIDE AT NO ADDITIONAL COST TO OWNER.

NOTES:
1. FABRICATE HAND PROTECTOR SHROUD, INCLUDING TOP SHROUD AND BASE PLATE, WITH 16GA STAINLESS STEEL SHEET METAL.
2. FASTEN TO TRACK WITH 1/4" ANCHOR BOLT, WASHER AND NUT IN EACH SLOTTED HOLD INDICATED. ALL FASTENING HARDWARE SHALL BE STAINLESS STEEL.

D HAND PROTECTOR SHROUD DETAIL
SCALE: NONE

C HEAT TRACE CONDUIT CONNECTION DETAIL
SCALE: NONE

OWNER
Department of Natural Resources
Division of Engineering
402 W. Washington Street, Room W299
Indianapolis, IN 46204

PROJECT
**Pokagon State Park
Toboggan Run Piping
Upgrades
Public Works Project No.
ENG2003780646**

Construction Documents
October 30, 2020

NO.	DATE	DESCRIPTION
1	11/24/2020	ADDENDUM #2

DESIGNED BY	CERTIFICATION
NDL	
CHECKED BY	
LDH	
APPROVED BY	
NDL	
PROJECT NO.	19-110

**ELECTRICAL
SCHEDULES AND
DETAILS**

SHEET NUMBER

E501