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

Construction Documents
October 30, 2020

Drawing List
001 TITLE SHEET
G201 SITE PLAN
M201 MECHANICAL AND PLUMBING UPPER TRACK PLAN AND PROFILE
M202 MECHANICAL AND PLUMBING MIDDLE TRACK PLAN AND PROFILE
M203 MECHANICAL AND PLUMBING LOWER TRACK PLAN AND PROFILE
M204 MECHANICAL AND PLUMBING SECTIONS, DETAILS, AND SCHEDULES
M205 MECHANICAL AND PLUMBING SECTIONS, DETAILS, AND SCHEDULES
C201 ELECTRICAL UPPER TRACK PLAN AND PROFILE
C202 ELECTRICAL MIDDLE TRACK PLAN AND PROFILE
C203 ELECTRICAL LOWER TRACK PLAN AND PROFILE
C204 ELECTRICAL SCHEDULES AND DETAILS
1. PROVIDE TEMPORARY FENCING DURING CONSTRUCTION AROUND CONSTRUCTION LIMITS. FACILITY MANAGER SHALL APPROVE CONSTRUCTION LIMITS PRIOR TO ERECTING TEMPORARY FENCING.

2. MINIMIZE BRUSH CLEARING.

3. TREES SHALL NOT BE REMOVED UNLESS SHOWN ON THE CONSTRUCTION DOCUMENTS OR WHERE OTHERWISE APPROVED.

4. CONTRACTOR SHALL PROVIDE PERMANENT SEEDING IN ALL AREAS DISTURBED BY CONSTRUCTION.

5. CONTRACTOR SHALL REPAIR OR REPLACE IN-KIND PAVED DRIVES, WALKWAYS, AND OTHER SURFACES DAMAGED BY CONSTRUCTION ACTIVITIES.
GENERAL NOTES:
1. REMOVE EXISTING VALVE VAULT TIE-IN. REPLACE WITH NEW. SEE "MP501/A - PIPE BRANCH CONNECTION DETAIL FOR ODD NUMBERED VAULTS." INSTALL FACTORY INSULATED PVC PIPING WITH INTEGRAL 1" THICK POLYURETHANE INSULATION BETWEEN TOBOGGAN TRACKS. REPLACE WITH NEW DRAIN FIXTURE INDICATED ON "PLAN VIEW ANCHOR W/ EXPANSION JOINT" ON NOTED DETAIL.
2. CUT DRAIN OPENINGS IN STAINLESS STEEL SHROUD EVERY 20 FT MINIMUM. AT HEAT TRACING AND LOW POINTS IN TRACK INCREASE FREQUENCY OF DRAIN OPENINGS TO EVERY 10 FT. REMOVE INSULATED VALVE BOX UNDER ELEVATED TRACK FOR CONNECTION TO EXISTING PIPE BRANCHES. REPLACE WITH NEW INSULATED VALVE BOX AFTER PIPING IS INSTALLED AND PRESSURE TESTED. REMOVE EXISTING YARD POST HYDRANT. REPLACE WITH NEW. SEE "MP501/B - YARD POST HYDRANT DETAIL." DO NOT CUT CONCRETE WITHIN TOBOGGAN TRACK RUN. EXISTING DEBRIS AND CONFIRM DRAIN PIPING IS FUNCTIONAL PRIOR TO REPLACING DRAIN FIXTURE. PROVIDE PVC TEES AND 1-1/2" PVC BRANCHES. CONNECT TO EXISTING GALVANIZED STEEL PIPE BRANCHES IN PIPE PIT. TYPICAL FOR ALL EVEN NUMBERED VALVE VAULT TIE-INS. INSTALL PIPE GUIDE EVERY 6 FT MAX. SEE "MP502/D - PIPE GUIDE DETAIL." INSTALL PIPE GUILD EVERY 6 FT MAX. REMOVAL INSULATED VALVE BOX UNDER ELEVATED TRACK FOR CONNECTION TO EXISTING IN-SLAB TUBING AS DESCRIBED IN THESE DRAWINGS.

PLAN NOTES:
3. DRAIN OPENINGS ON ELEVATED TRACK AT TOP OF RUN. DO NOT CUT STAINLESS STEEL TRACK SHROUD WITH DRAIN CUTS AS DESCRIBED ON "MP501/C - EXPANSION JOINT DETAIL." APPLY LABEL TO STAINLESS STEEL TRACK SHROUD INDICATING LOCATION OF ANCHOR DETAIL" AND "PLAN VIEW ANCHOR W/ EXPANSION JOINT" ON NOTED DETAIL. APPLY LABEL TO STAINLESS STEEL TRACK SHROUD INDICATING LOCATION OF "PLAN VIEW ANCHOR ONLY" ON NOTED DETAIL.
4. PROVIDE PVC TEES AND 1-1/2" PVC BRANCHES CONNECT TO EXISTING GALVANIZED STEEL PIPE BRANCHES IN PIPE PIT. TYPICAL FOR ALL EVEN NUMBERED VALVE VAULT TIE-INS. INSTALL PIPE GUIDE EVERY 6 FT MAX. SEE "MP502/D - PIPE GUIDE DETAIL." INSTALL PIPE GUILD EVERY 6 FT MAX. CUT DRAIN OPENINGS IN STAINLESS STEEL SHROUD EVERY 20 FT MINIMUM. AT HEAT TRACING AND LOW POINTS IN TRACK INCREASE FREQUENCY OF DRAIN OPENINGS TO EVERY 10 FT. REMOVE INSULATED VALVE BOX UNDER ELEVATED TRACK FOR CONNECTION TO EXISTING IN-SLAB TUBING AS DESCRIBED IN THESE DRAWINGS.

MECHANICAL AND PLUMBING UPPER TRACK PLAN AND PROFILE

MATCH LINE SEE MP302 FOR CONTINUATION
GENERAL NOTES:

1. REMOVE STAINLESS STEEL SHEET METAL, SHIELDING AND PIPE MASK. INSTALL NEW PIPE AND LEAD SHIELDING PER SPECIFICATION. INSTALL ALL NEW ELECTRICAL CONDUIT AND THE EXISTING SIGNAL WIRES. INSTALL NEW ELECTRICAL CONDUIT, CONDUIT JACKETS AND LABELS SIMILARLY TO THOSE DESCRIBED ON "MP502/F - PIPE EXPANSION JOINT AND PIPE ANCHOR DETAIL," ANCHORS ON EACH END OF THE PIPE LENGTH, AND "PLAN VIEW ANCHOR W/ EXPANSION JOINT" ON NOTED DETAIL.

2. REPLACE EXISTING BACKFLOW PREVENTER. SEE "MP501/A - PIPE BRANCH CONNECTION DETAIL FOR ODD NUMBERED VALVE VAULT TIE-IN." ACCEPTED. REMOVE EXISTING 2"DIA DRAIN FIXTURE IN MAINTENANCE PATH BETWEEN TOBOGGAN TRACKS. SEE "MP502/C - HEAT TRACE GUIDE DETAIL." REQUIREMENTS. COORDINATE WITH ELECTRICAL CONTRACTOR. EXPANSION JOINT LABEL DETAIL." REVIEW ELECTRICAL SHEETS FOR ADDITIONAL HEAT TRACE REQUIREMENTS. REMOVE EXISTING BACKFLOW PREVENTER. REPLACE EXISTING EXPANSION TANK. DISCONNECT EXISTING PIPE CONNECTION. PROVIDE PVC TEES AND 1-1/2" PVC BRANCHES. CONNECT TO EXISTING GALVANIZED STEEL PIPE BRANCHES IN PIPE PIT. TYPICAL FOR ALL ODD NUMBERED VALVE VAULT TIE-IN.

3. INSTALL PVC COMPACT BALL VALVE WITH SOCKET ENDS AND EXTENDED HANDLE TO ALLOW FOR VISUAL INSPECTION AND ELECTRICAL DEVICES REQUIRED FOR A FULLY OPERATIONAL PUMP REPLACEMENT. REPLACE EXISTING BACKFLOW PREVENTER. SEE "MP501/A - PIPE BRANCH CONNECTION DETAIL FOR ODD NUMBERED VALVE VAULT TIE-IN." ACCEPTED. REMOVE EXISTING 2"DIA DRAIN FIXTURE IN MAINTENANCE PATH BETWEEN TOBOGGAN TRACKS. SEE "MP502/C - HEAT TRACE GUIDE DETAIL." REPLACE EXISTING EXPANSION TANK. DISCONNECT EXISTING PIPE CONNECTION. PROVIDE PVC TEES AND 1-1/2" PVC BRANCHES. CONNECT TO EXISTING GALVANIZED STEEL PIPE BRANCHES IN PIPE PIT. TYPICAL FOR ALL EVEN NUMBERED VALVE VAULT TIE-IN.

4. TYPICAL PIPE GUIDE. INSTALL PIPE GUILD EVERY 6FT MAX. SEE "MP502/D - PIPE POST HYDRANT DETAIL."

5. PVC COMPACT BALL VALVE AND EXTENDED HANDLE TO ALLOW FOR VISUAL INSPECTION AND ELECTRICAL DEVICES REQUIRED FOR A FULLY OPERATIONAL PUMP REPLACEMENT. REPLACE EXISTING BACKFLOW PREVENTER. SEE "MP501/A - PIPE BRANCH CONNECTION DETAIL FOR ODD NUMBERED VALVE VAULT TIE-IN." ACCEPTED. REMOVE EXISTING 2"DIA DRAIN FIXTURE IN MAINTENANCE PATH BETWEEN TOBOGGAN TRACKS. SEE "MP502/C - HEAT TRACE GUIDE DETAIL." REPLACE EXISTING EXPANSION TANK. DISCONNECT EXISTING PIPE CONNECTION. PROVIDE PVC TEES AND 1-1/2" PVC BRANCHES. CONNECT TO EXISTING GALVANIZED STEEL PIPE BRANCHES IN PIPE PIT. TYPICAL FOR ALL EVEN NUMBERED VALVE VAULT TIE-IN.

6. PVC COMPACT BALL VALVE AND EXTENDED HANDLE TO ALLOW FOR VISUAL INSPECTION AND ELECTRICAL DEVICES REQUIRED FOR A FULLY OPERATIONAL PUMP REPLACEMENT. REPLACE EXISTING BACKFLOW PREVENTER. SEE "MP501/A - PIPE BRANCH CONNECTION DETAIL FOR ODD NUMBERED VALVE VAULT TIE-IN." ACCEPTED. REMOVE EXISTING 2"DIA DRAIN FIXTURE IN MAINTENANCE PATH BETWEEN TOBOGGAN TRACKS. SEE "MP502/C - HEAT TRACE GUIDE DETAIL." REPLACE EXISTING EXPANSION TANK. DISCONNECT EXISTING PIPE CONNECTION. PROVIDE PVC TEES AND 1-1/2" PVC BRANCHES. CONNECT TO EXISTING GALVANIZED STEEL PIPE BRANCHES IN PIPE PIT. TYPICAL FOR ALL EVEN NUMBERED VALVE VAULT TIE-IN.

7. PVC COMPACT BALL VALVE AND EXTENDED HANDLE TO ALLOW FOR VISUAL INSPECTION AND ELECTRICAL DEVICES REQUIRED FOR A FULLY OPERATIONAL PUMP REPLACEMENT. REPLACE EXISTING BACKFLOW PREVENTER. SEE "MP501/A - PIPE BRANCH CONNECTION DETAIL FOR ODD NUMBERED VALVE VAULT TIE-IN." ACCEPTED. REMOVE EXISTING 2"DIA DRAIN FIXTURE IN MAINTENANCE PATH BETWEEN TOBOGGAN TRACKS. SEE "MP502/C - HEAT TRACE GUIDE DETAIL." REPLACE EXISTING EXPANSION TANK. DISCONNECT EXISTING PIPE CONNECTION. PROVIDE PVC TEES AND 1-1/2" PVC BRANCHES. CONNECT TO EXISTING GALVANIZED STEEL PIPE BRANCHES IN PIPE PIT. TYPICAL FOR ALL EVEN NUMBERED VALVE VAULT TIE-IN.

8. PVC COMPACT BALL VALVE AND EXTENDED HANDLE TO ALLOW FOR VISUAL INSPECTION AND ELECTRICAL DEVICES REQUIRED FOR A FULLY OPERATIONAL PUMP REPLACEMENT. REPLACE EXISTING BACKFLOW PREVENTER. SEE "MP501/A - PIPE BRANCH CONNECTION DETAIL FOR ODD NUMBERED VALVE VAULT TIE-IN." ACCEPTED. REMOVE EXISTING 2"DIA DRAIN FIXTURE IN MAINTENANCE PATH BETWEEN TOBOGGAN TRACKS. SEE "MP502/C - HEAT TRACE GUIDE DETAIL." REPLACE EXISTING EXPANSION TANK. DISCONNECT EXISTING PIPE CONNECTION. PROVIDE PVC TEES AND 1-1/2" PVC BRANCHES. CONNECT TO EXISTING GALVANIZED STEEL PIPE BRANCHES IN PIPE PIT. TYPICAL FOR ALL EVEN NUMBERED VALVE VAULT TIE-IN.

9. PVC COMPACT BALL VALVE AND EXTENDED HANDLE TO ALLOW FOR VISUAL INSPECTION AND ELECTRICAL DEVICES REQUIRED FOR A FULLY OPERATIONAL PUMP REPLACEMENT. REPLACE EXISTING BACKFLOW PREVENTER. SEE "MP501/A - PIPE BRANCH CONNECTION DETAIL FOR ODD NUMBERED VALVE VAULT TIE-IN." ACCEPTED. REMOVE EXISTING 2"DIA DRAIN FIXTURE IN MAINTENANCE PATH BETWEEN TOBOGGAN TRACKS. SEE "MP502/C - HEAT TRACE GUIDE DETAIL." REPLACE EXISTING EXPANSION TANK. DISCONNECT EXISTING PIPE CONNECTION. PROVIDE PVC TEES AND 1-1/2" PVC BRANCHES. CONNECT TO EXISTING GALVANIZED STEEL PIPE BRANCHES IN PIPE PIT. TYPICAL FOR ALL EVEN NUMBERED VALVE VAULT TIE-IN.

10. PVC COMPACT BALL VALVE AND EXTENDED HANDLE TO ALLOW FOR VISUAL INSPECTION AND ELECTRICAL DEVICES REQUIRED FOR A FULLY OPERATIONAL PUMP REPLACEMENT. REPLACE EXISTING BACKFLOW PREVENTER. SEE "MP501/A - PIPE BRANCH CONNECTION DETAIL FOR ODD NUMBERED VALVE VAULT TIE-IN." ACCEPTED. REMOVE EXISTING 2"DIA DRAIN FIXTURE IN MAINTENANCE PATH BETWEEN TOBOGGAN TRACKS. SEE "MP502/C - HEAT TRACE GUIDE DETAIL." REPLACE EXISTING EXPANSION TANK. DISCONNECT EXISTING PIPE CONNECTION. PROVIDE PVC TEES AND 1-1/2" PVC BRANCHES. CONNECT TO EXISTING GALVANIZED STEEL PIPE BRANCHES IN PIPE PIT. TYPICAL FOR ALL EVEN NUMBERED VALVE VAULT TIE-IN.
1. REPLACEMENT OF LIGHT POLES AND LIGHT FIXTURES SHALL BE INCLUDED ONLY IF ADD ALTERNATE 2 IS ACCEPTED. REMOVE EXISTING POLE AND LIGHT FIXTURE. EXISTING ANCHOR BOLTS, CONCRETE POLE BASE, CONDUIT & WIRING SHALL BE RE-USED. USE CAUTION TO PROTECT EXISTING MATERIAL THAT WILL REMAIN DURING POLE REMOVAL. PROVIDE NEW POLE WITH UPSWEEP MAST ARM AND LED FIXTURE (REFERENCE LIGHTING SCHEDULE ON DRAWING E501). THIS SHALL INCLUDE ALL ASSOCIATED EQUIPMENT (ANCHOR BOLT ADAPTER - IF REQUIRED, SHIMS, ETC.) NECESSARY FOR A COMPLETE INSTALLATION. GROUT UNDER BASE PLATE AFTER POLE IS PLUMB.

2. PUMP P-1 WILL BE REPLACED. COORDINATE WITH MECHANICAL CONTRACTOR TO PERFORM A DE-TERMINATION AND A RE-TERMINATION. REFERENCE MECHANICAL DRAWINGS FOR FURTHER INFORMATION.

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL CODES AND ORDINANCES.
2. COORDINATE WORK WITH ALL OTHER DISCIPLINES.
3. EXISTING DEVICES, CIRCUIT NUMBERS, AND LOCATIONS ARE BASED ON CASUAL OBSERVATION, HISTORICAL DOCUMENTS, AND CONVERSATIONS WITH OWNER. NOT ALL EXISTING DEVICES, LIGHTING FIXTURES, ETC. MAY BE SHOWN. CONTRACTOR SHALL FIELD VERIFY ALL ELECTRICAL EQUIPMENT PRIOR TO REMOVAL.
4. ALL DEVICES, EQUIPMENT, ETC. SHOWN ON THIS DRAWING TO BE REMOVED SHALL BE REMOVED AS NOTED. OWNER SHALL HAVE RIGHT OF FIRST REFUSAL FOR ALL EQUIPMENT THAT IS REMOVED.
5. PROVIDE NEW PANEL DIRECTORIES IN PANEL(S) BEING REVISED AS PART OF THIS PROJECT.
6. ELECTRICAL CONTRACTOR SHALL VERIFY AVAILABILITY AND CAPACITY OF EACH CIRCUIT AND DISTRIBUTION SYSTEM PRIOR TO INSTALLATION.
7. ALL CIRCUITS SHALL CONSIST OF 3/4"C, 2-#12 & #12 GND UNLESS OTHERWISE NOTED. DEVICE SHALL BE WIRED TO CIRCUIT INDICATED. AVAILABILITY OF NEW CIRCUITS SHALL BE VERIFIED BY CONTRACTOR AND FIELD ASSIGNED.
8. REFER TO DRAWING E501 FOR LIGHTING FIXTURE SCHEDULE.
9. INSTALLATIONS SHALL INCLUDE ALL EQUIPMENT, MATERIAL AND ALL ASSOCIATED HARDWARE FOR A COMPLETE SYSTEM.
10. STORE AND PROTECT ALL EQUIPMENT IN A CLEAN, DRY LOCATION UNTIL READY FOR INSTALLATION.

GENERAL NOTES:
- 1. MEASUREMENTS OF LIGHT POLES AND LIGHT FIXTURES SHALL BE INCLUDED ONLY IF TOTAL DRAWING ETA IS ACCEPTED. REMOVE EXISTING POLES AND LIGHT FIXTURES AS PART OF THIS PROJECT.
- 2. PUMP P-1 WILL BE REPLACED. COORDINATE WITH MECHANICAL CONTRACTOR TO PERFORM A DE-TERMINATION AND A RE-TERMINATION. REFERENCE MECHANICAL DRAWINGS FOR FURTHER INFORMATION.
GENERAL NOTES:
1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL CODES, RULES, REGULATIONS, AND STANDARDS.
2. INSTRUCTIONS AND SPECIFICATIONS ARE BASED UPON A COMPLETE PROJECT SPECIFICATIONS AND CONSTRUCTION DOCUMENTS.
3. ALL WORK WILL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND CONSTRUCTION DOCUMENTS.
4. PROVIDE A CLEARANCE OF 12" OR MORE FOR HEAT TRACE CABLES AND CIRCUITS.
5. PROVIDE A CLEARANCE OF 12" FOR HEAT TRACE CABLES AND CIRCUITS.
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GENERAL NOTES:

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL CODES AND ORDINANCES.

2. IF NEEDED, ADDITIONAL HEAT TRACE DRAWINGS MAY BE PROVIDED ONDRAWING E303.

3. PROVIDE APPROXIMATELY (4) 25’ RUNS OF HEAT TRACE AT LOCATIONS SHOWN ON DRAWING E302 AND DRAWING E303.

4. PROVIDE (1) HEAT TRACE TERMINAL BOX FOR EACH HEAT TRACE LOCATION SHOWN ON DRAWING E303.

5. IT SHALL BE A NEMA 4X ENCLOSURE WITH A BACK PANEL, TERMINAL BLOCKS AND A рычажный замок. IT SHALL BE INSTALLED IN THE NEAREST VALVE VAULT WHERE AN ACCESS HOLE IS PROVIDED. IT SHALL BE LOCKABLE AND ACCESSIBLE.

6. PROVIDE (1) 3/4” CONDUIT (POWER) FROM HEAT TRACE CONTROL PANEL TO RTD.

7. PROVIDE (1) HEAT TRACE TERMINAL BOX IN ROOM W299 WHERE ALLOWABLE.

8. THIS SHALL INCLUDE ALL ASSOCIATED HARDWARE FOR A COMPLETE SYSTEM.

9. PROVIDE NEW (UPDATED) PANEL DIRECTORY IN PANEL(S) BEING REVISED AS PART OF THIS PROJECT.

10. FIELD VERIFY ALL ELECTRICAL EQUIPMENT PRIOR TO REMOVAL.

11. PROVIDE APPROXIMATELY 300’ OF HEAT TRACE CABLE FROM HEAT TRACE TERMINAL BOX (VALVE VAULT NO. 24) WITH 2-#6 AWG & #6 GND.

12. PROVIDE (1) HEAT TRACE TERMINAL BOX MOUNTING LOCATION). CONTRACTOR/HEAT TRACE INSTALLATION.

13. PROVIDE EACH HEAT TRACE CONTROLLER WITH A PLATINUM RTD. COORDINATE WITH MANUFACTURER FOR APPROVAL.

14. PROVIDE (1) 3/4” CONDUITS (CONTROL) FROM HEAT TRACE CONTROL PANEL TO RTD.

15. PROVIDE (1) 3/4” CONDUITS (POWER) FROM HEAT TRACE CONTROL PANEL #3.

16. PROVIDE ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL CODES AND ORDINANCES.

17. PROVIDE (1) HEAT TRACE TERMINAL BOX MOUNTING LOCATION). CONTRACTOR/HEAT TRACE INSTALLATION.

18. PROVIDE ALL CIRCUITS SHALL CONSIST OF 3/4"C, 2-#12 & #12 GND UNLESS OTHERWISE NOTED.

19. PROVIDE ALL EXISTING DEVICES, CIRCUIT NUMBERS, AND LOCATIONS ARE BASED ON CASUAL MECHANICAL DRAWINGS FOR ADDITIONAL HEAT TRACE INFORMATION. COORDINATE WORK WITH ALL OTHER DISCIPLINES.

20. PROVIDE (1) HEAT TRACE TERMINAL BOX MOUNTING LOCATION). CONTRACTOR/HEAT TRACE INSTALLATION.

21. PROVIDE (1) HEAT TRACE TERMINAL BOX MOUNTING LOCATION). CONTRACTOR/HEAT TRACE INSTALLATION.

22. PROVIDE (1) HEAT TRACE TERMINAL BOX MOUNTING LOCATION). CONTRACTOR/HEAT TRACE INSTALLATION.

23. PROVIDE (1) HEAT TRACE TERMINAL BOX MOUNTING LOCATION). CONTRACTOR/HEAT TRACE INSTALLATION.

24. PROVIDE (1) HEAT TRACE TERMINAL BOX MOUNTING LOCATION). CONTRACTOR/HEAT TRACE INSTALLATION.

25. PROVIDE (1) HEAT TRACE TERMINAL BOX MOUNTING LOCATION). CONTRACTOR/HEAT TRACE INSTALLATION.

26. PROVIDE (1) HEAT TRACE TERMINAL BOX MOUNTING LOCATION). CONTRACTOR/HEAT TRACE INSTALLATION.

27. PROVIDE (1) HEAT TRACE TERMINAL BOX MOUNTING LOCATION). CONTRACTOR/HEAT TRACE INSTALLATION.

28. PROVIDE (1) HEAT TRACE TERMINAL BOX MOUNTING LOCATION). CONTRACTOR/HEAT TRACE INSTALLATION.

29. PROVIDE (1) HEAT TRACE TERMINAL BOX MOUNTING LOCATION). CONTRACTOR/HEAT TRACE INSTALLATION.

30. PROVIDE (1) HEAT TRACE TERMINAL BOX MOUNTING LOCATION). CONTRACTOR/HEAT TRACE INSTALLATION.

PLAN NOTES:

1. INSTALLATION WITH MECHANICAL CONTRACTOR.

2. REFERENCES TO PLAN AND PROFILE HORIZONTAL SCALE: 1”=20’.

3. GENERAL NOTES:

4. INSTALLATIONS SHALL INCLUDE ALL EQUIPMENT, MATERIAL AND ALL ASSOCIATED HARDWARE FOR A COMPLETE AND OPERATIONAL HEAT TRACE SYSTEM. REFERENCE RESPONSIBLE PROJECT ENGINEER.

5. CONTRACTOR SHALL PROVIDE ALL MATERIAL STORED AND PROTECTED IN A CLEAN, DRY LOCATION UNTIL READY FOR STORAGE.

6. ALL EQUIPMENT CIRCuits SHALL BE IDENTIFIED IN DUCT OR AT EQUIPMENT.

7. CONTRACTOR SHALL PROVIDE ALL MATERIAL STORED AND PROTECTED IN A CLEAN, DRY LOCATION UNTIL READY FOR INSTALLATION.

8. ALL CIRCUITS SHALL CONSIST OF 3/4"C, 2-#12 & #12 GND UNLESS OTHERWISE NOTED.

9. PROVIDE (1) HEAT TRACE TERMINAL BOX FOR EACH HEAT TRACE LOCATION SHOWN ON DRAWING E302 AND DRAWING E303.

10. CONTRACTOR SHALL PROVIDE ALL MATERIAL STORED AND PROTECTED IN A CLEAN, DRY LOCATION UNTIL READY FOR INSTALLATION.

11. PROVIDE APPROXIMATELY (4) 25’ RUNS OF HEAT TRACE AT LOCATIONS SHOWN ON DRAWING E302 AND DRAWING E303.

12. PROVIDE (1) HEAT TRACE TERMINAL BOX FOR EACH HEAT TRACE LOCATION SHOWN ON DRAWING E303.

13. PROVIDE (1) HEAT TRACE TERMINAL BOX FOR EACH HEAT TRACE LOCATION SHOWN ON DRAWING E303.

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30. PROVIDE (1) HEAT TRACE TERMINAL BOX FOR EACH HEAT TRACE LOCATION SHOWN ON DRAWING E303.
CONDUIT FROM PANEL LP
3' 0" (MAX.)
4' 0"
2' 0"
36" MIN. BURY DEPTH
FINISHED GRADE

(3) CONDUITS TO HEAT TRACE RTD'S
PLAN VIEW
ONLY (1) ENCLOSURE
SUPPORT REQUIRES GROUNDING
#6 GROUNDING WIRE
BOLTED TO (1) ENCLOSURE SUPPORT LEG
4"
4' 0"
1' 6"
ANCHOR BOLT (2) MIN.
PER SUPPORT LEG
#6 BARE COPPER GROUND IN 1/2" PVC
5/8" x 10' COPPER CLAD STEEL GROUND ROD.
MINIMUM 2'-0 BELOW GRADE
EXOTHERMIC CONNECTION
LOOPS
3/4" CHAMFER ALL AROUND
EXPOSED CONCRETE SHALL HAVE A HAND RUBBED FINISH.
(8) #5 REINFORCED BARS
FINISHED GRADE
#4 SPIRAL WITH 6" PITCH
(3) #4 LOOPS ON 2" CENTERS TOP
AND BOTTOM
3" CLEARANCE TOP, SIDES AND BOTTOM
REINFORCING BARS
(3) CONDUITS TO HEAT TRACE CABLES
USE SONOTUBE FORM ABOVE GRADE AND EXTEND TO 12" BELOW GRADE.
USE 4000 LBS. 7 DAY STRENGTH CONCRETE FOR BASE.