



06 - ELECTRICAL INDEX OF DRAWINGS

[illegible]

TRANSPORTATION PRINCIPAL ENGINEER

				THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: JDV CHECKED BY: MPW SCALE: NONE		<div>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</div> <div>Filename: ...FD-MSH_ELE_0171-0428_E001 (INDEX).dgn</div>		SIGNATURE/ BLOCK: OFFICE OF ENGINEERING APPROVED BY: <div></div>		PROJECT TITLE: WOLCOTT MAINTENANCE FACILITY TANK REPLACMENT		TOWN: WOLCOTT DRAWING TITLE: ELECTRICAL INDEX OF DRAWINGS		PROJECT NO. 0171-0428 DRAWING NO. E-001 SHEET NO. 06.01		
REV.	DATE	REVISION DESCRIPTION		SHEET NO.	Plotted Date: 9/4/2019													

NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING "CALL BEFORE YOU DIG" BEFORE ANY EXCAVATION WORK TAKES PLACE. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY EQUIPMENT AND MATERIAL NEEDED TO IDENTIFY UNDERGROUND UTILITIES THROUGH NON-DESTRUCTIVE METHODS.
2. ALL UNDERGROUND CONDUIT SHALL BE INSTALLED AWAY FROM OTHER UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH ALL OTHER UTILITIES TO ESTABLISH CLEARANCE REQUIREMENTS.
3. THE CONTRACTOR SHALL COORDINATE ANY INTERRUPTIONS IN SERVICE WITH THE ENGINEER.
4. ALL CONDUCTORS SHALL BE IN 3/4" CONDUIT MINIMUM UNLESS OTHERWISE NOTED. ALL POWER CIRCUITS SHALL BE (2)#12, (1)#12G. IF BRANCH CIRCUIT EXCEEDS 150 FEET IN LENGTH CONDUCTORS SHALL BE #10 TO REFLECT VOLTAGE DROP. COMMUNICATION CONDUCTOR QUANTITY AND TYPE AS INDICATED ON THE PLANS. INTRINSICALLY SAFE CONDUCTOR QUANTITY AND TYPE AS PER MONITORING DEVICE REQUIREMENTS.
5. INTRINSICALLY SAFE, COMMUNICATION, AND POWER CONDUCTORS SHALL NOT SHARE RACEWAYS. INTRINSICALLY SAFE RACEWAYS SHALL BE LABELED IN ACCORDANCE WITH NEC SECTION 504.80.
6. ALL CONDUCTORS INSTALLED IN THE BUILDING AT FLOOR LEVEL UP TO AND INCLUDING THE UNIFORMED HEIGHT OF 10 FEET ABOVE FINISHED FLOOR SHALL BE INSTALLED IN RGSC. CONDUCTORS EXTENDING BEYOND THE 10 FOOT HEIGHT SHALL BE EMT. EXCEPTION NON- INTRINSICALLY SAFE COMMUNICATION CONDUCTORS CAN BE SUSPENDED IN DROP CEILING.
7. AN EXPLOSION PROOF FITTING IS REQUIRED AT EACH END OF ANY CONDUIT ENTERING OR LEAVING A CLASS I ZONE. FITTINGS SHALL BE WITHIN 18" OF WIRING DEVICES AND BEFORE ENTERING THE BUILDING.
8. THE CONTRACTOR SHALL INSTALL FIRESTOP AROUND ALL ELECTRICAL CONDUIT PENETRATIONS THROUGH FIRE RATED WALLS.
9. CONDUIT AND CIRCUIT ROUTING IS DIAGRAMMATIC. CONDUIT AND CIRCUITS MOUNTED ON EQUIPMENT SHALL BE ROUTED PER MANUFACTURERS SPECIFICATIONS AND RECOMMENDATIONS.
10. ALL EXTERIOR CONDUIT SWEEPS/STUB UPS PENETRATING PAVED AREAS OR CONCRETE WALKS SHALL BE PVC COATED RGSC. ALL OTHER AREAS SHALL USE RGSC SWEEPS/STUB UPS. CONDUIT INSTALLED IN HAZARDOUS LOCATIONS SHALL TRANSITION FROM PVC 2' MINIMUM BEFORE POINT OF EMERGENCE.

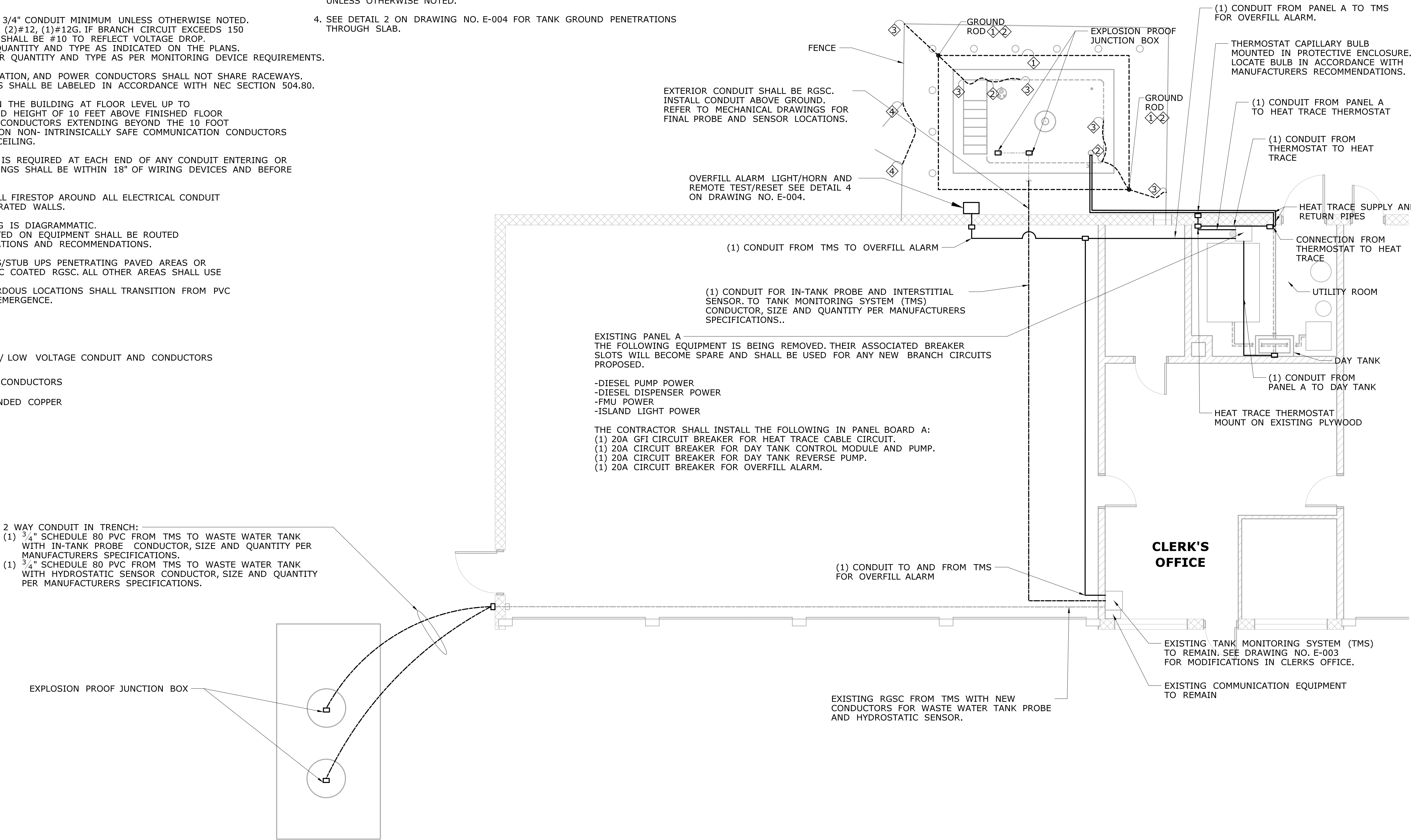
- INTRINSICALLY SAFE / LOW VOLTAGE CONDUIT AND CONDUCTORS
- POWER CONDUIT AND CONDUCTORS
- #2 AWG BARE STRANDED COPPER




GENERAL GROUNDING AND BONDING NOTES:

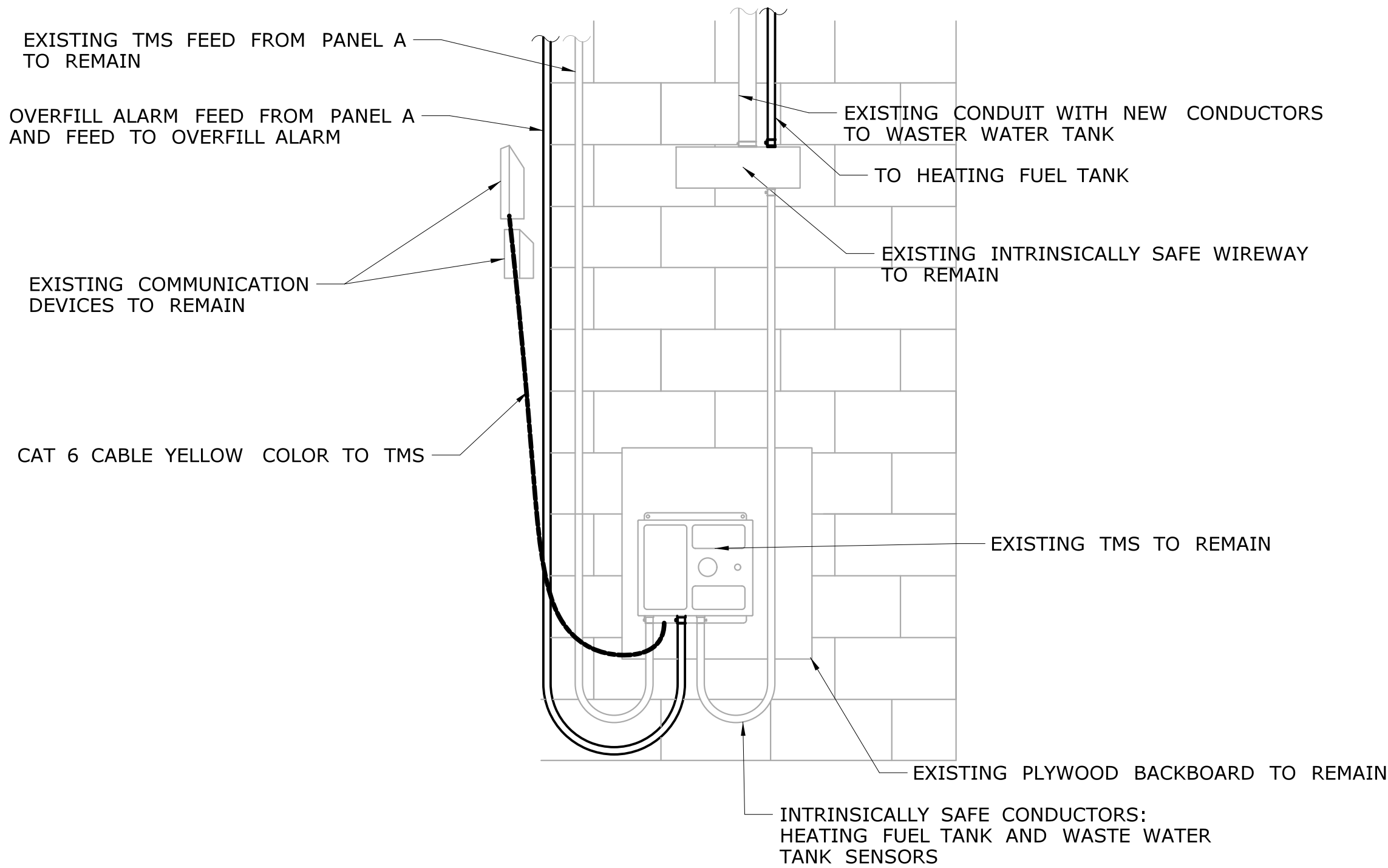
1. BOND AND GROUND ALL METALLIC CONDUITS, ENCLOSURES, CABLES, PROTECTORS, AND OTHER CONDUCTIVE INFRASTRUCTURE AS PER THE NEC AND NFPA 780.
2. CLEAN SURFACES OF NON-CONDUCTIVE COATINGS (SUCH AS PAINT, LACQUER, AND ENAMEL) ON EQUIPMENT TO BE GROUNDED ON CONTACT SURFACES TO ENSURE GOOD ELECTRICAL CONTINUITY OR BE CONNECTED BY MEANS OF FITTINGS DESIGNED SO AS TO MAKE SUCH REMOVAL UNNECESSARY.
3. ALL CONNECTIONS BELOW GRADE SHALL BE EXOTHERMICALLY WELDED UNLESS OTHERWISE NOTED.
4. SEE DETAIL 2 ON DRAWING NO. E-004 FOR TANK GROUND PENETRATIONS THROUGH SLAB.

GROUNDING AND BONDING KEY NOTES:

- ① BURIED GROUNDING RING CONSISTING OF #2 AWG BARE STRANDED COPPER 12" FROM TANK FOUNDATION AND 30" DEEP MINIMUM. (2) 3/4" X 10' COPPER CLAD GROUND RODS AT OPPOSING CORNERS CONNECTED TO GROUNDING RING
- ② BOND TANK PER MANUFACTURES SPECIFICATIONS TO GROUND ROD WITH #2 AWG BARE STRANDED COPPER. GROUND WIRE SHALL BE CONTINUOS TO GROUND ROD.
- ③ BOND STAIRS/FALL PROTECTION/FENCE WITH UL LISTED MECHANICAL GROUNDING CONNECTOR AND #2 AWG BARE STRANDED COPPER CONDUCTOR TO GROUNDING ROD/RING.
- ④ BOND GATE OPENING WITH #2 AWG BARE STRANDED COPPER. BURRIED 18" DEEP MINIMUM. WITH UL LISTED MECHANICAL GROUNDING CONNECTOR.

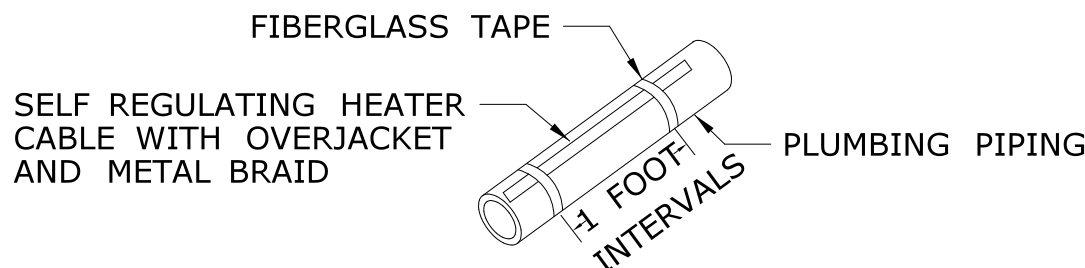


				DESIGNER/DRAFTER: JDV		 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	SIGNATURE/ BLOCK: OFFICE OF ENGINEERING APPROVED BY: 	PROJECT TITLE: WOLCOTT MAINTENANCE FACILITY TANK REPLACEMENT	TOWN: WOLCOTT	PROJECT NO. 0171-0428		
				CHECKED BY: MPW							DRAWING TITLE: ELECTRICAL SITE PLAN	SHEET NO. E-002 06.02
				SCALE IN FEET  SCALE 1"=5'								
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 9/4/2019		Filename: ...\\FD_MSH_ELE_0171_0428_E002 (Wolcott Site Plan).dgn						



REMOVE THE FOLLOWING:
DISCONNECT, PUMP CONTROLLER,
JUNCTION BOX. REMOVE CONDUIT
TO ABOVE CEILING AND ABANDON
THE REMAINING.
REMOVE CONDUCTORS TO SOURCE.

RE-SUPPORT COMMUNICATION CABLES
THAT WERE ZIP-TIED TO REMOVED
CONDUIT



THE CABLE SHOULD FIT SNUGLY AGAINST THE PIPE AND BE
SECURED AT ONE (1) FOOT INTERVALS, AS SHOWN (TYP).

WARNING
TO PREVENT POSSIBLE DAMAGE TO THE
HEATING CABLE, DO NOT FASTEN WITH
METAL STRAPS, WIRE, VINYL ELECTRICAL
TAPE OR DUCT TAPE.

1
E-003

CLERK'S OFFICE WALL - MODIFICATIONS

NOT TO SCALE

2
E-003

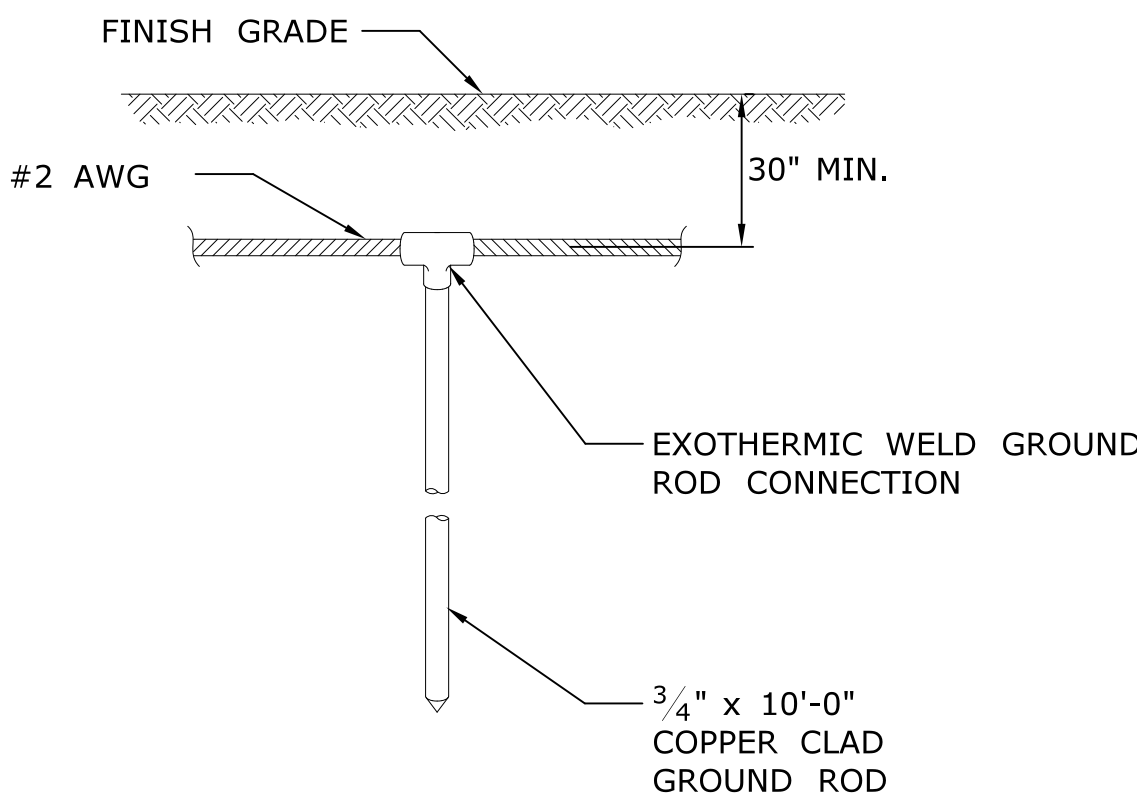
CLERK'S OFFICE WALL - EXISTING EQUIPMENT

NOT TO SCALE

HEATER CABLE
INSTALLATION

NOT TO SCALE

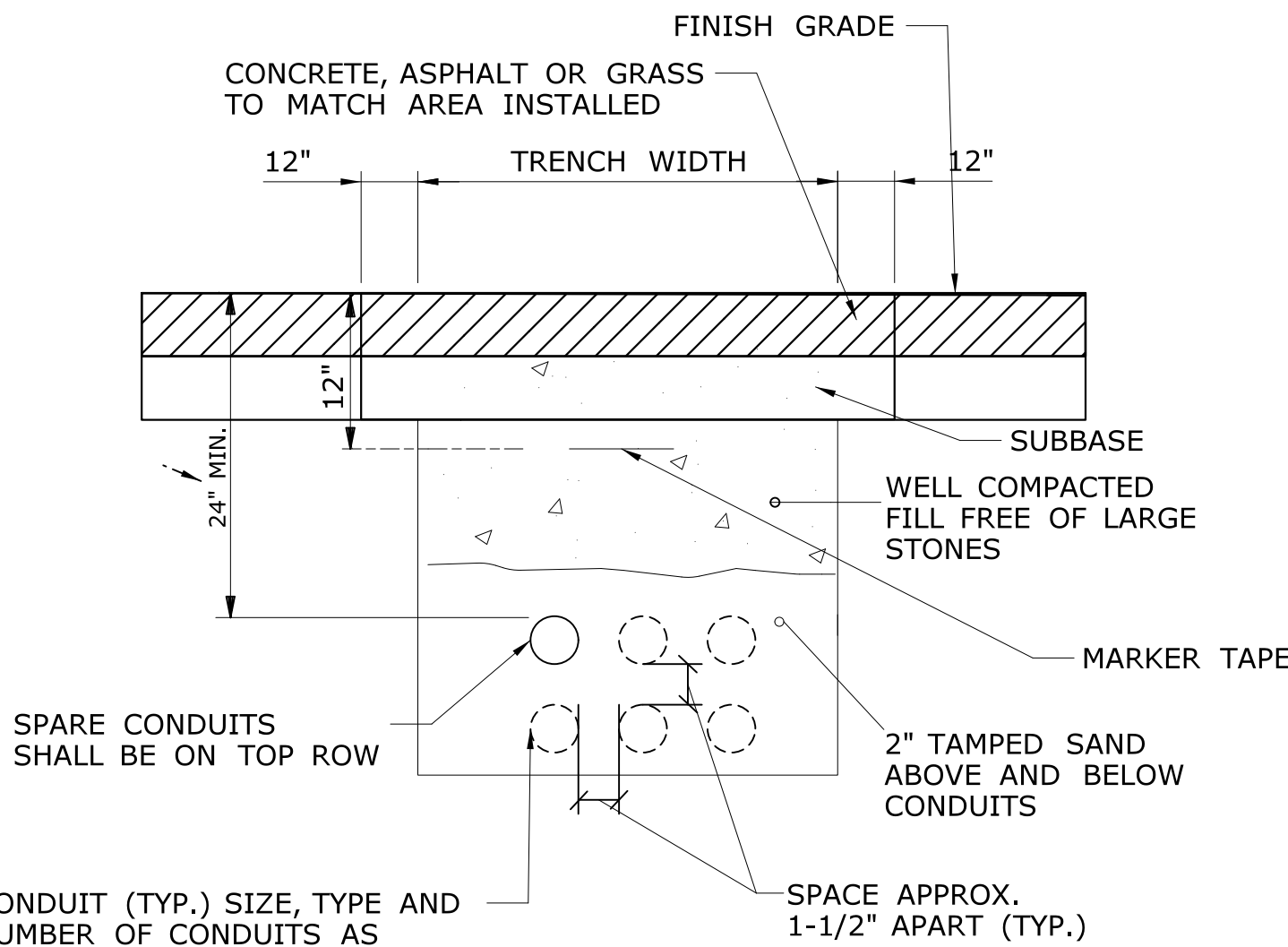
3
E-003



5
E-003

GROUND ROD DETAIL

NOT TO SCALE

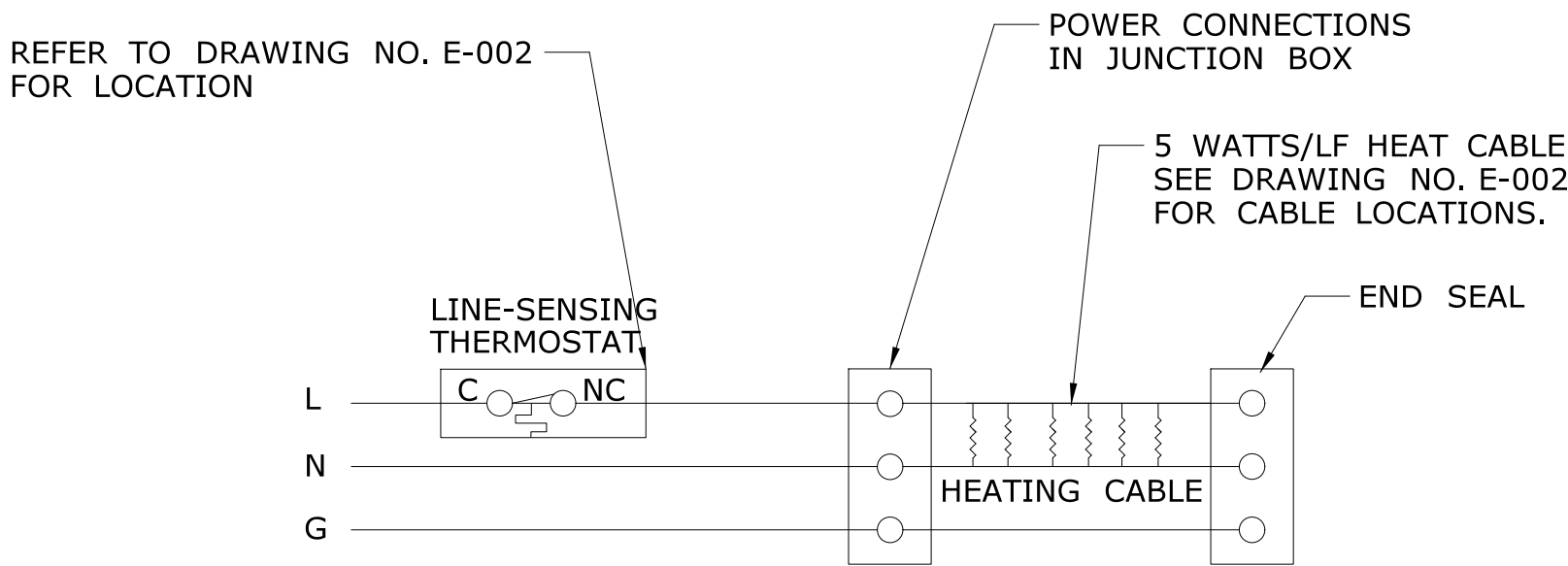


CONDUIT (TYP.) SIZE, TYPE AND
NUMBER OF CONDUITS AS
INDICATED ON ELECTRICAL SITE
PLAN. REFER TO DRAWING
NO. E-002

CONDUIT TRENCH

NOT TO SCALE



6
E-003



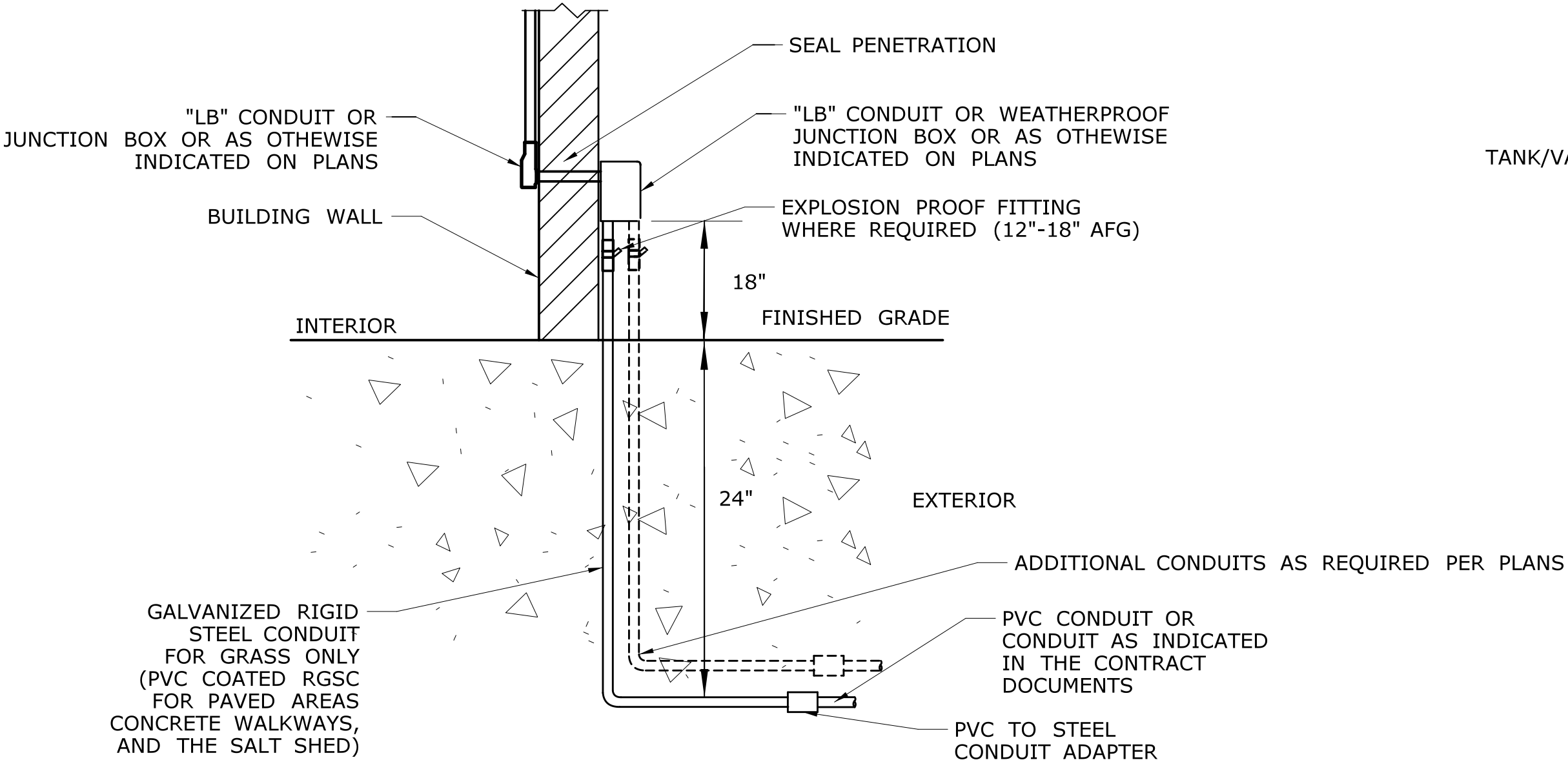
TERMINAL BLOCK
CONNECTION

NOT TO SCALE

4
E-003

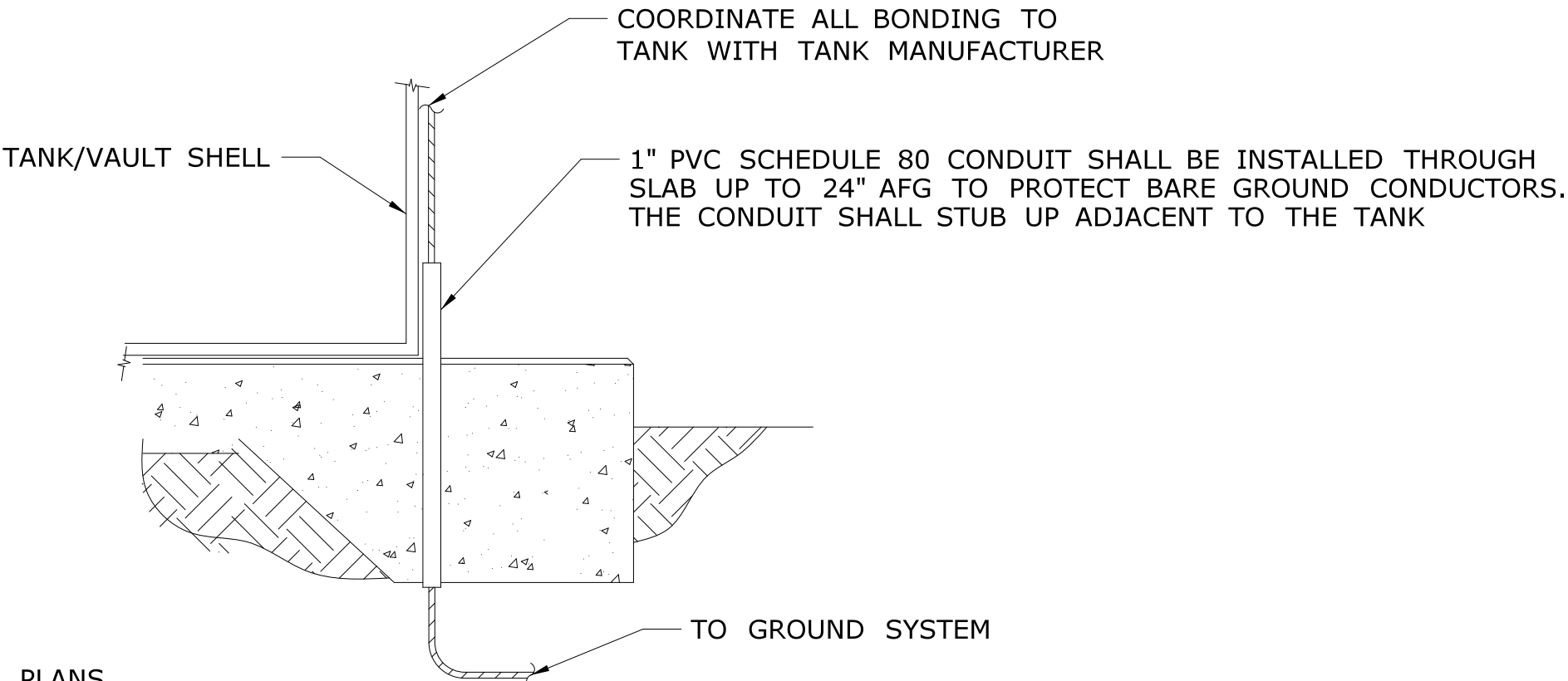
				THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: JDV CHECKED BY: MPW SCALE: NONE		 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION Filename: ...\\FD_MSH_ELE_0171_0428_E003 (MISC DETAILS 1).dgn		SIGNATURE/ BLOCK: OFFICE OF ENGINEERING APPROVED BY: 		PROJECT TITLE: WOLCOTT MAINTENANCE FACILITY TANK REPLACEMENT		TOWN: WOLCOTT		PROJECT NO. 0171-0428	
														DRAWING TITLE: MISCELLANEOUS DETAILS 1		DRAWING NO. E-003	
REV.		DATE		REVISION DESCRIPTION		SHEET NO.		Plotted Date: 9/4/2019								SHEET NO. 06.03	

NOTE:
CONDUIT STUB-UP DETAIL SHALL APPLY TO EXISTING- TO-REMAIN SLAB/WALL INSTALLATIONS AND INSTALLATIONS THAT REQUIRE EXPLOSION PROOF FITTING MOUNTED TO THE EXTERIOR OF THE BUILDING. CONDUIT ENTRANCES FOR NEW CONSTRUCTION SHALL SWEEP UNDER GRADE INTO THE BUILDING.



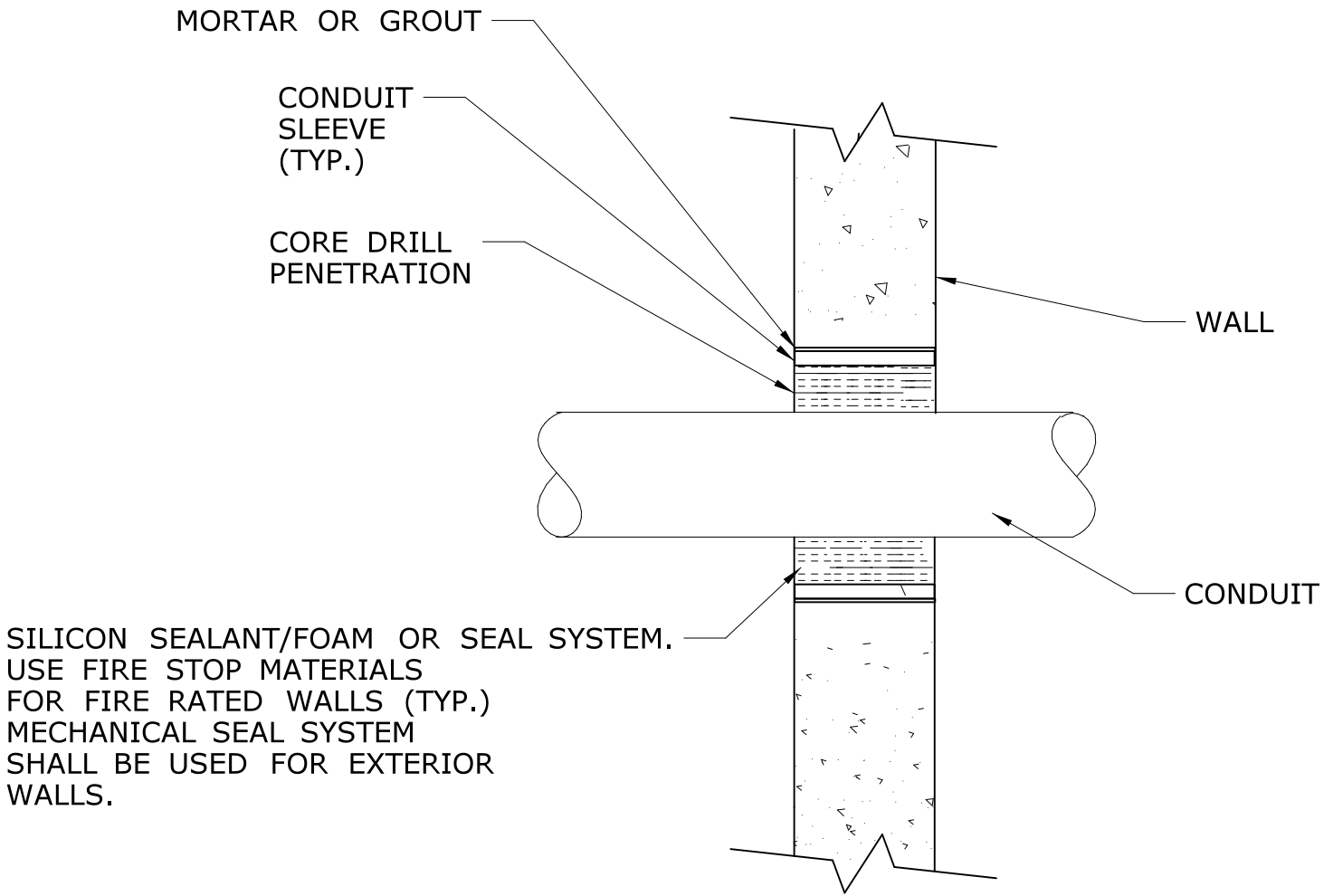
**CONDUIT
STUB-UP DETAIL**
NOT TO SCALE

1
E-004



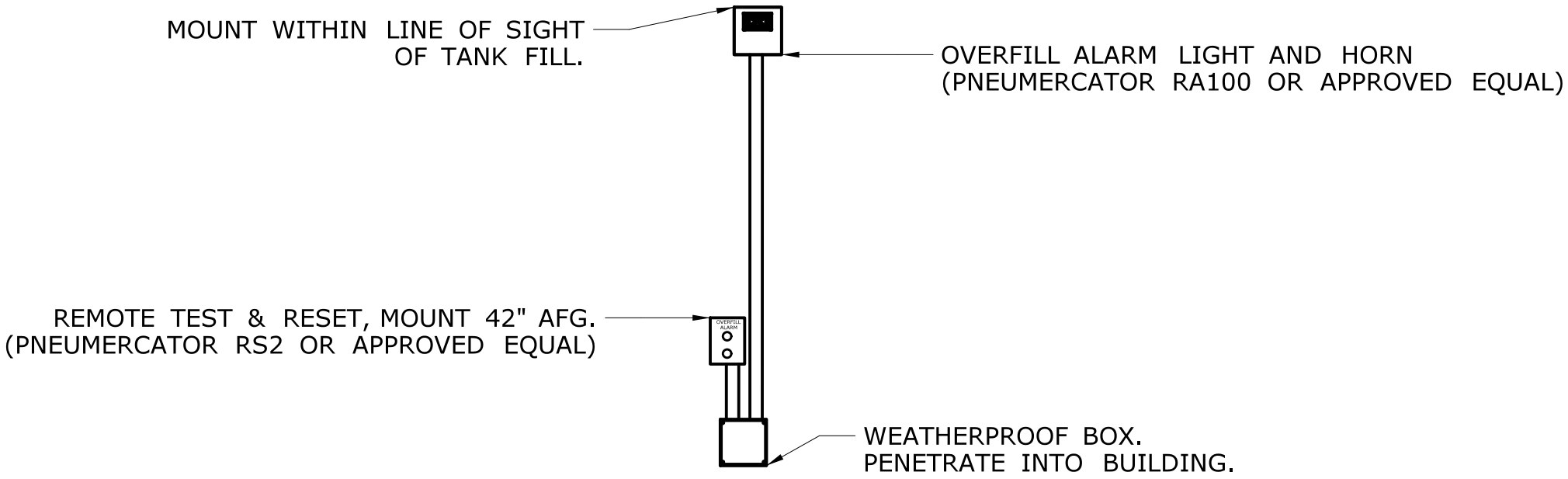
2 TANK GROUNDING DETAIL
NOT TO SCALE

E-004



3 WALL PENETRATION DETAIL
NOT TO SCALE

E-004



4 OVERFILL ALARM DETAIL
NOT TO SCALE

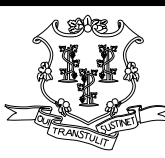
E-004


REV.	DATE	REVISION DESCRIPTION	SHEET NO.

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Plotted Date: 9/4/2019


DESIGNER/DRAFTER: JDV
CHECKED BY: MPW
SCALE: NONE

**STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION**



Filename: ...\\FD_MSH_ELE_0171_0428_E004 (MISC DETAILS 2).dgn

SIGNATURE/
BLOCK:
OFFICE OF ENGINEERING

APPROVED BY:


PROJECT TITLE:
**WOLCOTT
MAINTENANCE FACILITY
TANK REPLACEMENT**

TOWN:
WOLCOTT

DRAWING TITLE:
**MISCELLANEOUS DETAILS
2**

PROJECT NO.
0171-0428

DRAWING NO.
E-004

SHEET NO.
06.04