

## **ADDENDUM NO. 1**

DATE: September 8, 2022

TO: All Bidders

FROM: Penny Owens, Purchasing Agent

SUBJECT: Addendum No. 1 – Fire Station #15 Renovations Project

BIDS TO BE OPENED: September 15, 2022\*\*\* at 11:00 a.m. (Eastern)

This addendum is being published to respond to questions that the City has received from potential bidders. The City's responses hereby become a part of the Contract Documents and modify the original specifications as noted below.

### **Questions:**

QUESTION #1: Is it possible to visit the Fire Station?

Response: Yes. On September 14, 2022 at 2:30 p.m. (ET) Fire Station #15 will be available to bidders who are interested in visiting the project site. Personnel from the Knoxville Fire Department will be available to escort interested bidders through the facility at this date and time.

### **Clarifications:**

ITEM #1 Extension of deadline for questions: Inquiries pertaining to this ITB shall be made in writing and be in the hands of the Purchasing Division by the close of the business day on September 15, 2022. The method of submitting questions remains as specified in the bid documents.

ITEM #2 Postponement of Bid Due Date: The date and time of the opening of bids for this ITB is hereby postponed to \*\*\***September 22, 2022 at 11:00 a.m. (ET)**

ITEM #3 Revised Sheet C600: Please find attached a revised sheet C600, replacing the previous version.

**END OF ADDENDUM NO. 1**



SITE UTILITY PLAN

GENERAL SHEET NOTES

1. FIELD LOCATE ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION. DETERMINE LOCATED, SIZE, MATERIAL & INVERTS. REPORT ANY DISCREPANCIES TO OWNER & ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION & INSTALLATION.

UTILITY CONTACTS

<b>WATER</b> KNOXVILLE UTILITIES BOARD (KUB) 612 N. CONCORD STREET KNOXVILLE, TN 37919 (865) 209-9884	<b>SEWER</b> KNOXVILLE UTILITIES BOARD (KUB) 612 N. CONCORD STREET KNOXVILLE, TN 37919 (865) 209-9884
<b>GAS</b> KNOXVILLE UTILITIES BOARD (KUB) 612 N. CONCORD STREET KNOXVILLE, TN 37919 (865) 209-9884	<b>ELECTRIC</b> KNOXVILLE UTILITIES BOARD (KUB) 612 N. CONCORD STREET KNOXVILLE, TN 37919 (865) 209-9884

UTILITY LEGEND

- PIPE FITTING; SEE DETAIL 2/C800
- PIPE TEE; SEE DETAIL 2/C800
- POST INDICATOR VALVE; SEE DETAIL 4/C800

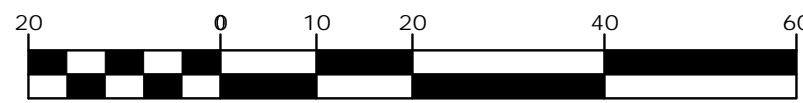
UTILITY KEYED NOTES

- 1 CONNECTION BY KUB; COORDINATE TAP AND VALVE LOCATIONS.
- 2 FOR CONTINUATION SEE PLUMBING PLAN
- 3 6" C-900 PVC FIRE PROTECTION SERVICE LINE; SEE DETAIL 1/C800
- 4 6" REMOVABLE BOLLARD; SEE DETAIL 3/C800
- 5 NOT USED
- 6 6" REDUCED PRESSURE ZONE BACKFLOW DEVICE IN HEATED ENCLOSURE; SEE DETAIL 5/C800
- 7 5' SIDEWALK SHALL NOT EXCEED 5.0% LONG. SLOPE OR 2.0% CROSS SLOPE. SEE ARCH. DRAWING
- 8 MATCH EXISTING SIDEWALK ELEVATION; PROVIDE SMOOTH TRANSITION.



Know what's below.  
Call before you dig.  
In Tennessee call 811 or 1-800-351-1111

GRAPHIC SCALE



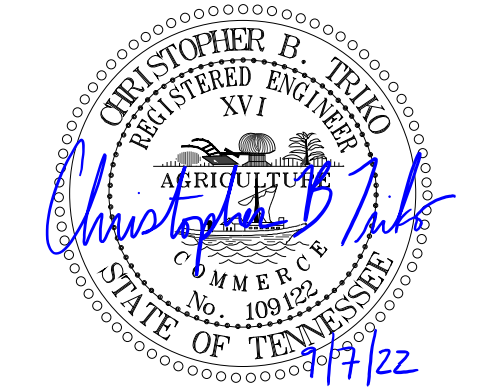
1 INCH = 20'

MBI

ENGINEER:

MBI COMPANIES INC.  
299 N. WEISGARBER ROAD  
KNOXVILLE, TN 37919  
PHONE: (865) 584-0999  
FAX: (865) 584-5213  
WEB: mbicompanies.com  
CONSULTANT

SEAL:



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PROJECT INFORMATION

PROJECT:

KNOXVILLE FIRE  
STATION #15  
RENOVATION

PROJECT ADDRESS:

5301 JACKSBORO PIKE  
KNOXVILLE, TN 37918

PROJECT NO.: 210939

ACTIVE DESIGN PHASE

- ☐ FOR REVIEW ONLY
- ☐ FOR PERMITTING ONLY
- ☐ SCHEMATIC DESIGN
- ☐ DESIGN DEVELOPMENT
- ☐ CONSTRUCTION BIDDING
- ☒ CONSTRUCTION DOCUMENTS
- ☐ AS-BUILT RECORD SET

REVISION INFORMATION

NO.	DATE	DESCRIPTION
01	08/17/2022	SIDEWALK
02	09/07/2022	FIRE LINE

KEY PLAN

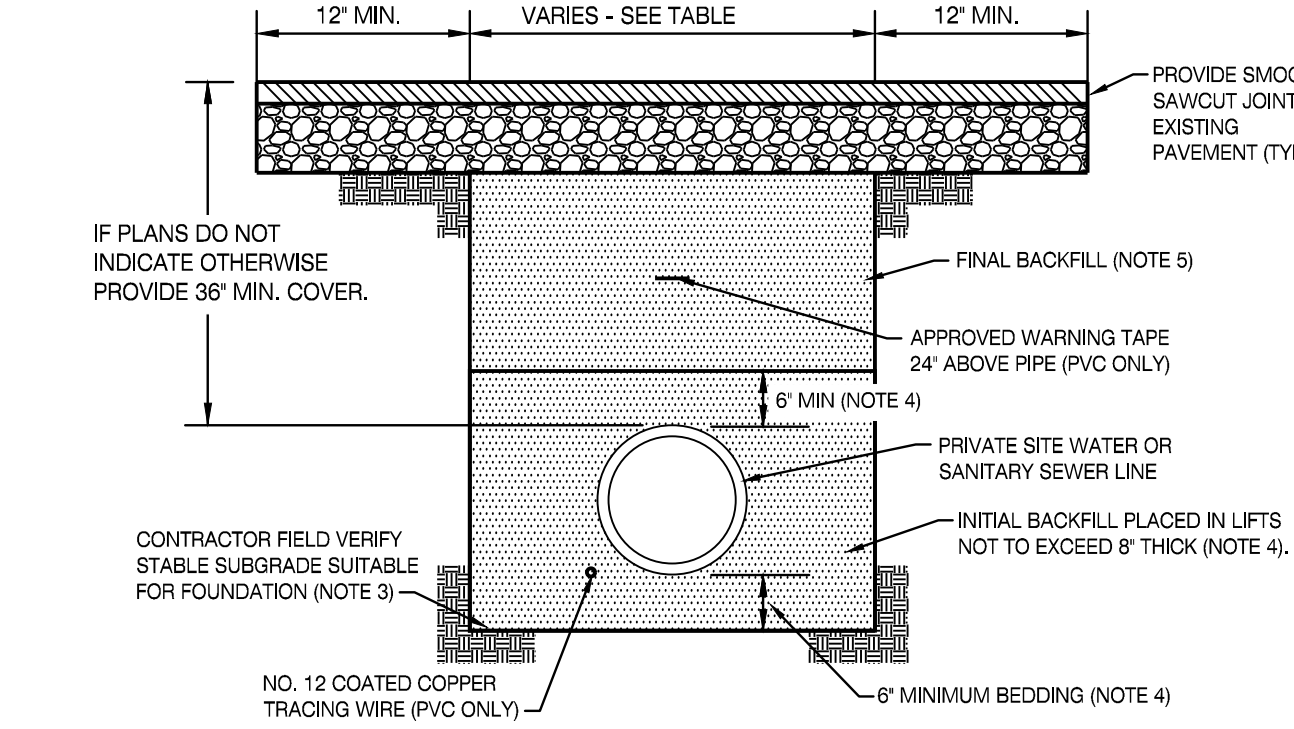
SHEET INFORMATION

SHEET ISSUED: 08/27/2022  
DESIGNED BY: A.M.A.  
DRAWN BY: A.M.A.  
REVIEWED BY: C.B.T.  
SHEET TITLE:

SHEET NO.:

C600



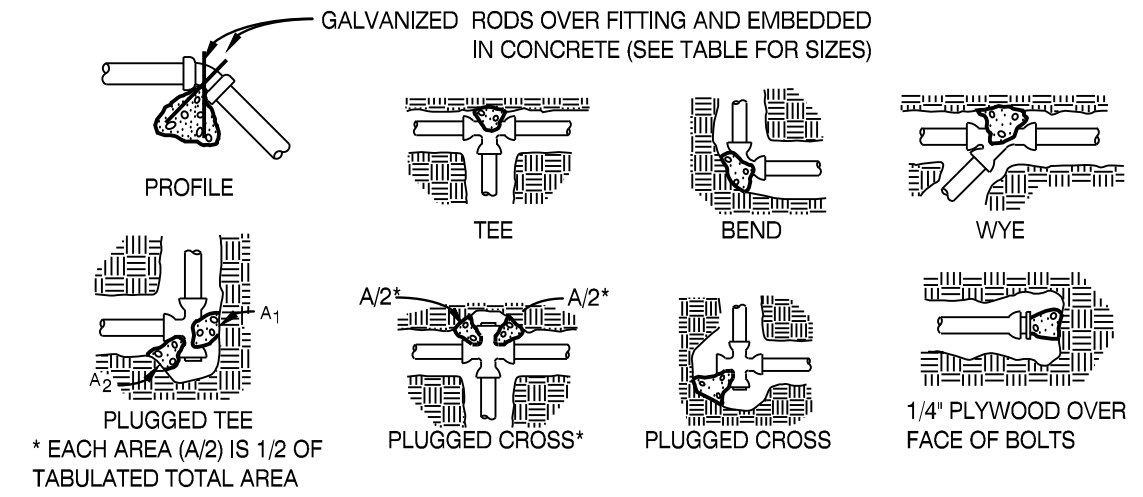


- NOTES:
1. ALL PRIVATE SITE UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE PLUMBING CODE, LOCAL UTILITY REQUIREMENTS, AND THE LOCAL AGENCY HAVING JURISDICTION OVER BUILDING CONSTRUCTION.
  2. THIS DETAIL ADDRESSES A TRENCH TYPE INSTALLATION. THIS DETAIL DOES NOT ADDRESS OSHA TRENCH SAFETY REQUIREMENTS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO MEET ALL HEALTH AND SAFETY ISSUES REGARDING TRENCH SAFETY.
  3. WHERE THE TRENCH BOTTOM IS UNSUITABLE FOR FOUNDATION IN THE OPINION OF THE PROJECT GEOTECHNICAL ENGINEER, THE CONTRACTOR SHALL STABILIZE THE TRENCH BOTTOM ACCORDING TO THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER.
  4. BEDDING AND INITIAL BACKFILL TO 6" ABOVE THE CROWN OF THE PIPE SHALL BE #57 CRUSHED STONE. ELIMINATE VOIDS BY KNIFING UNDER AND AROUND PIPE WITH SHOVEL OR OTHER MEANS AT THE DISCRETION OF THE CONTRACTOR.
  5. FINAL BACKFILL FOR ALL PIPES LOCATED IN PAVED AREAS SHALL BE COMPACTED #57 CRUSHED STONE MEETING THE REQUIREMENTS OF THE STATE'S DEPARTMENT OF TRANSPORTATION.
  6. FOR GRASS OR LANDSCAPED AREAS, PROVIDE #57 CRUSHED STONE INITIAL BACKFILL TO 6" ABOVE CROWN OF PIPE AND COVER GRAVEL WITH A NONWOVEN GEOTEXTILE TO PREVENT MIGRATION OF FINES. FINAL BACKFILL TO SURFACE SHALL BE SOIL FREE OF FOREIGN DEBRIS. SOIL BACKFILL SHALL BE PLACED IN 6" LOOSE LIFTS AND BE COMPACTED TO 90% STANDARD DENSITY PER AASHTO T-99 OR PER PROJECT SPECIFICATIONS, WHICHEVER IS MORE STRINGENT. TOP 6" SHALL BE TOPSOIL FROM SITE STRIPPING OPERATIONS LOOSELY PLACED.
  7. IF PLANS AND SPECIFICATIONS DO NOT INDICATE OTHERWISE, PAVEMENT REPAIR SHALL MATCH EXISTING SECTION AS A MINIMUM REQUIREMENT.

MINIMUM TRENCH WIDTHS	
PIPE DIA. (IN.)	MIN. WIDTH (IN.)
< 4	18
4	21
6	23
8	26

- NOTES:
1. KEEP CONCRETE CLEAR OF JOINT AND JOINT ACCESSORIES.
  2. CONCRETE THRUST BLOCKING SHALL BE POURED AGAINST UNDISTURBED EARTH.
  3. REQUIRED VOLUMES OR BEARING AREAS AT FITTINGS SHALL BE AS INDICATED BELOW, ADJUSTED, IF NECESSARY, TO CONFORM TO THE TEST PRESSURE(S) AND ALLOWABLE SOIL BEARING STRESS(ES) STATED IN THE SPECIFICATIONS.
  4. THRUST BLOCK VOLUMES FOR VERTICAL BENDS HAVING UPWARD RESULTANT THRUSTS ARE BASED ON TEST PRESSURE OF 150 PSIG AND THE WEIGHT OF CONCRETE = 4050 LBS/CU YD. TO COMPUTE VOLUMES FOR DIFFERENT TEST PRESSURES, USE THE FOLLOWING EQUATION:  
VOLUME = (TEST PRESS./150) X (TABLE VALUE).
  5. BEARING AREAS FOR HORIZONTAL BEND THRUST BLOCKS ARE BASED ON TEST PRESSURE OF 150 PSIG AND AN ALLOWABLE SOIL BEARING STRESS OF 2000 LBS/SQ FT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, MULTIPLY TABLE VALUES BY THE FACTOR (13.33/(P/S)), WHERE:  
  
 $P_b$  = ACTUAL TEST PRESSURE, PSIG  
 $S_b$  = ACTUAL SOIL BEARING PRESSURE, PSF.
  6. THRUST BLOCKS FOR VERTICAL BENDS HAVING DOWNWARD RESULTANT THRUSTS SHALL BE THE SAME AS FOR HORIZONTAL BENDS.
  7. BEARING AREAS, VOLUMES, AND SPECIAL BLOCKING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER THIS STANDARD.
  8. BEARING AREA OF THRUST BLOCK SHALL NOT BE LESS THAN 1.0 SQ. FT.
  9. VERTICAL BENDS THAT REQUIRE A THRUST BLOCK VOLUME EXCEEDING 5 CUBIC YARDS REQUIRE SPECIAL BLOCKING DETAILS. SEE PLANS FOR VOLUMES SHOWN TO LEFT OF SOLID LINE IN TABLE.
  10. TEST PRESSURES ARE SHOWN IN THE PIPING SCHEDULE.
  11. ALLOWABLE SOIL BEARING STRESS IS 2000 LBS/SQ FT.

BEARING AREA OF THRUST BLOCKS IN SQ. FT. (HORIZONTAL BENDS)								VOLUME OF THRUST BLOCK IN CUBIC YARDS (VERTICAL BENDS)												
FITTING SIZE	TEE, WYE, PLUG, OR CAP	90° BEND PLUGGED CROSS	TEE PLUGGED RUN		BEND ANGLE			FITTING SIZE	BEND ANGLE											
			A1	A2	45°	22 1/2°	11 1/4°													
4	1.0	1.4	1.9	1.4	1.0	-	-	6	1.1	0.4	0.2									
6	2.1	3.0	4.3	3.0	1.6	1.0	-	8	4.0	1.5	0.6									
8	3.8	5.3	7.6	5.4	2.9	1.5	1.0	10	6.0	2.3	0.9									
10	5.9	8.4	11.8	8.4	4.6	2.4	1.2	12	8.5	3.2	1.3									
12	8.5	12.0	17.0	12.0	6.8	3.4	1.7	14	11.5	4.3	1.8									
14	11.5	16.3	23.0	16.3	8.9	4.6	2.3	16	14.8	5.6	2.3									
16	15.0	21.3	30.0	21.3	11.6	6.0	3.0	<table><tr><th>FITTING SIZE</th><th>RQD SIZE</th><th>EMBEDMENT</th></tr><tr><td>12" AND LESS</td><td>#6</td><td>30"</td></tr><tr><td>14"-16"</td><td>#8</td><td>36"</td></tr></table>				FITTING SIZE	RQD SIZE	EMBEDMENT	12" AND LESS	#6	30"	14"-16"	#8	36"
FITTING SIZE	RQD SIZE	EMBEDMENT																		
12" AND LESS	#6	30"																		
14"-16"	#8	36"																		
18	19.0	27.0	38.0	27.0	14.6	7.6	3.8													
20	23.5	33.3	47.0	33.3	18.1	9.4	4.7													
24	34.0	48.0	68.0	48.0	26.2	13.6	6.8													

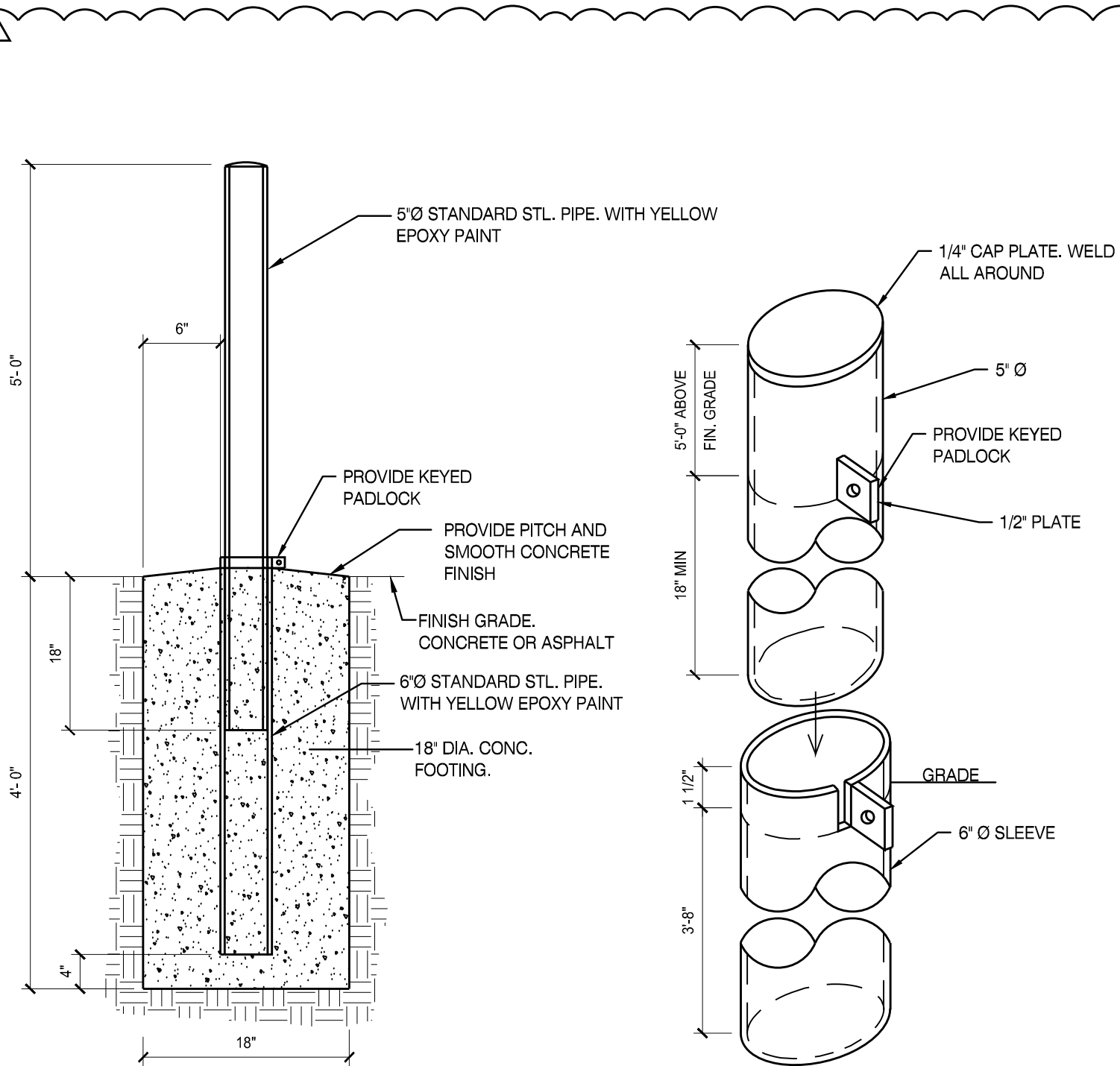


## WATER AND SEWER TRENCH

1

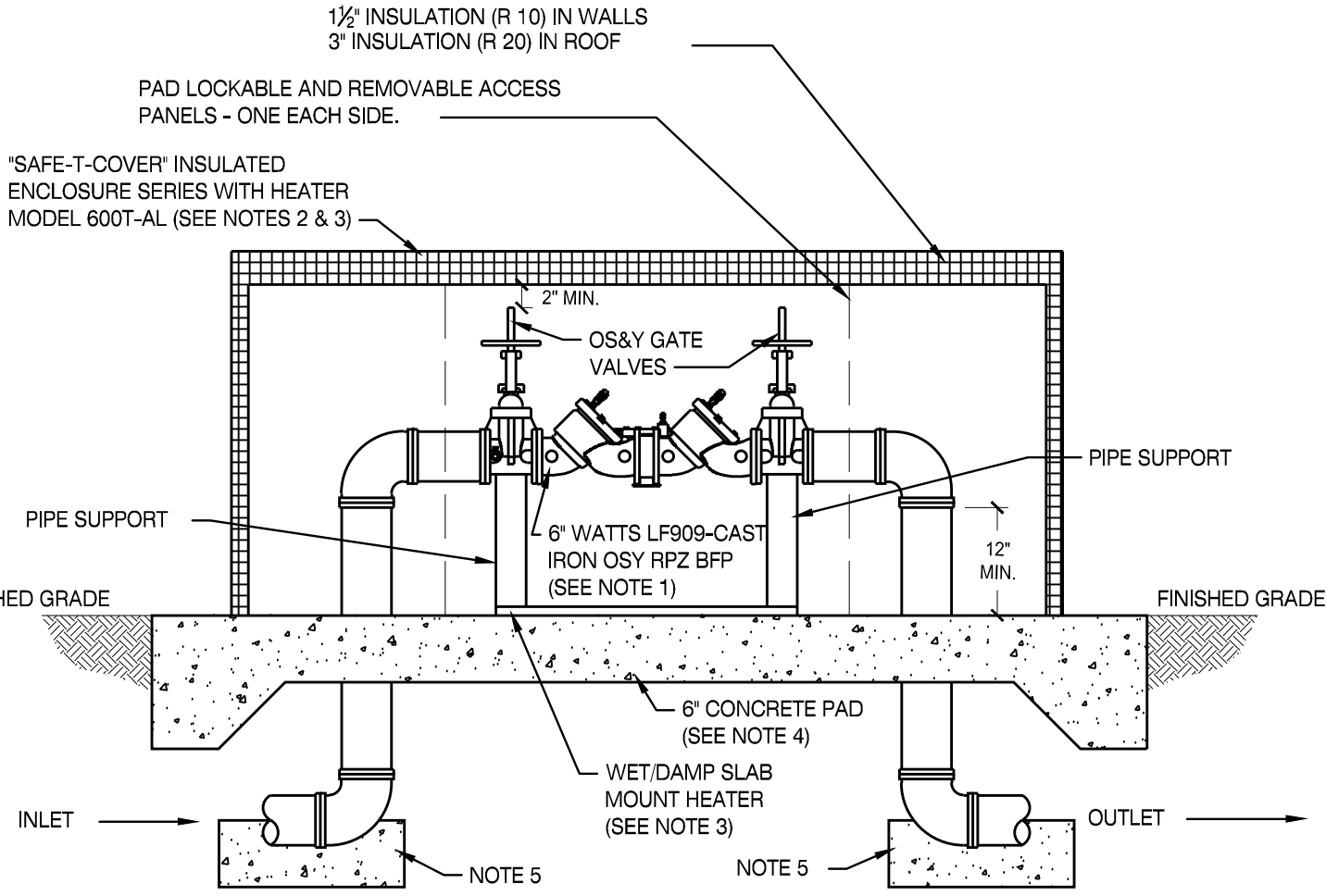
## THRUST BLOCK

2



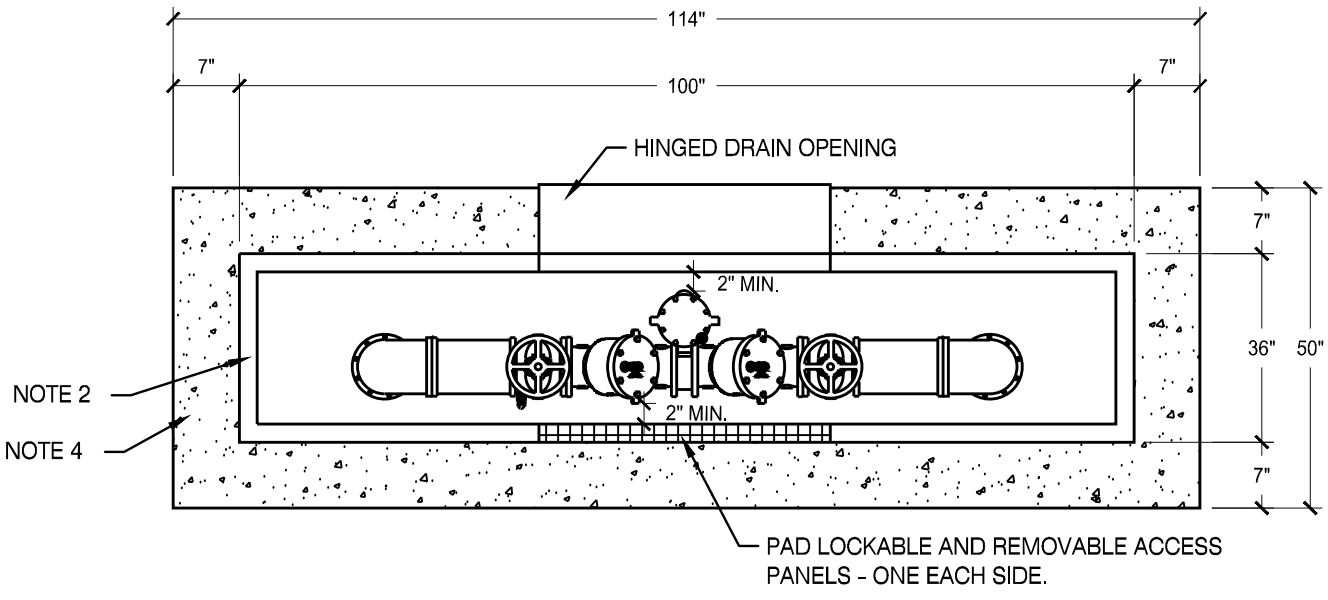
## 6" REMOVEABLE PIPE BOLLARD

3

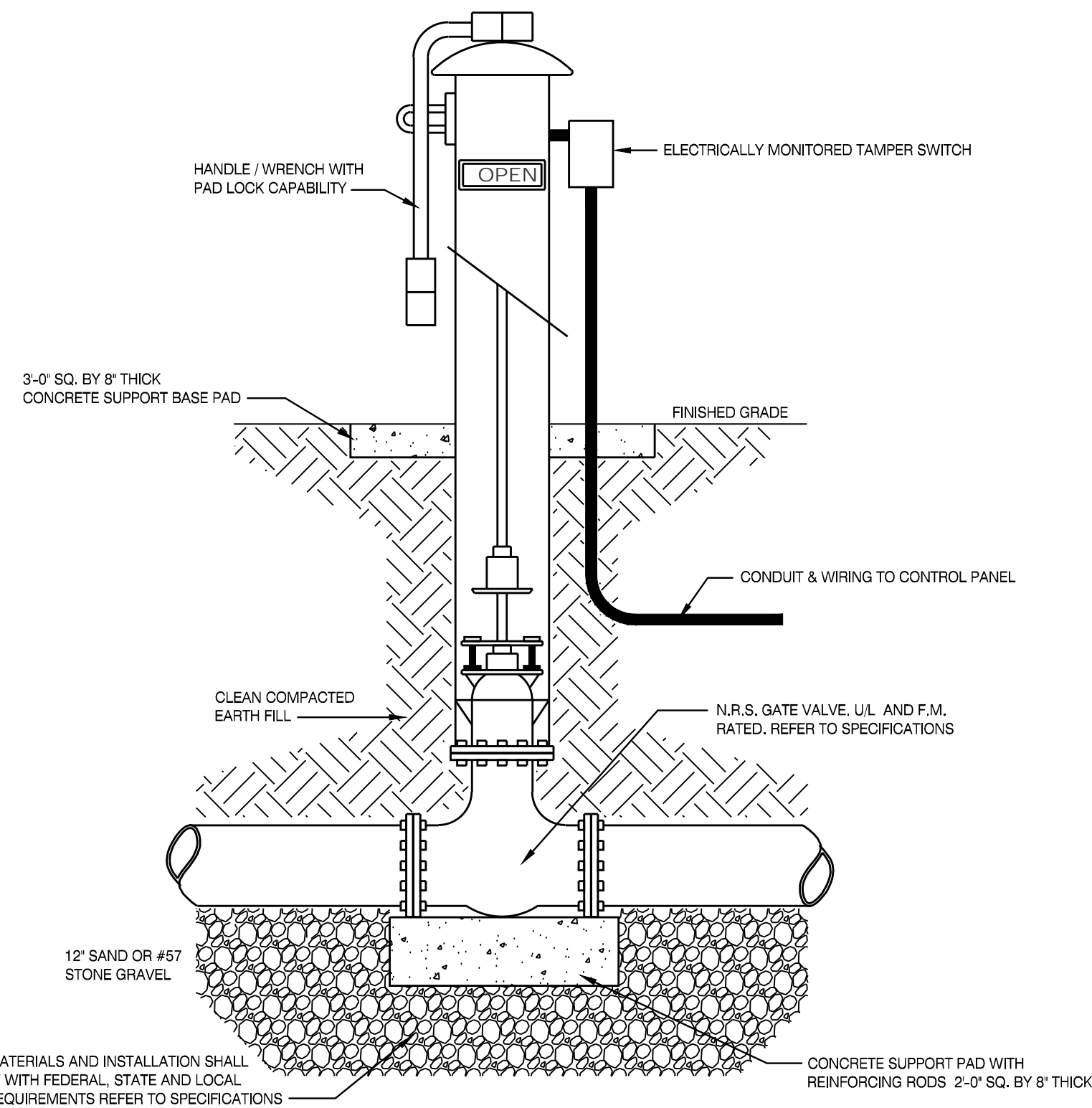


## 6" RPZ BACKFLOW DEVICE IN HEATED ENCLOSURE

5



1. UTILITY APPROVED REDUCED PRESSURE ZONE BACKFLOW PREVENTION ASSEMBLY WITH DETECTOR METER (PDA) AND OS&Y GATE VALVES. PROVIDE 6" WATTS LF909-CAST IRON OSY OR APPROVED EQUAL.
2. UTILITY APPROVED INSULATED AND HEATED ENCLOSURE. ENCLOSURE AND HEATER CERTIFIED TO AMERICAN SOCIETY OF SANITARY ENGINEERING STANDARD 1060, CLASS I (FREEZE PROTECTION.) PROVIDE MODEL 600T-AL SAFE-T-COVER (BY HYDROCOWL, INC. 800-245-6333) OR APPROVED EQUAL.
3. HEAT SOURCE MUST BE CERTIFIED FOR WET/DAMP APPLICATION. PROVIDE MODEL H0R2000 SAFE-T-COVER (BY HYDROCOWL, INC. 800-245-6333) OR APPROVED EQUAL. CONTRACTOR COORDINATE TO PROVIDE 2000W, 240V, 1 PHASE POWER SUPPLY. FURNISH BUCK-BOOST TRANSFORMER IF NECESSARY.
4. CONCRETE PAD - 3000 PSI (6" THICK) WITH WELDED WIRE FABRIC, 4x4 - W/4xW/4.
5. UTILITY APPROVED FITTINGS AND THRUST BLOCK AT ALL BENDS.
6. COORDINATE PIPE MATS AND REQUIREMENTS AND APPROVALS WITH UTILITY. COORDINATE ALL REQUIRED INSPECTIONS AND TESTING WITH UTILITY FOR FINAL APPROVALS.



## POST INDICATOR VALVE

4

MBI

ENGINEER

MBI COMPANIES INC.  
299 N. WEISGARBER ROAD  
KNOXVILLE, TN 37919  
PHONE: (865) 584-0399  
FAX: (865) 584-5213  
WEB: mbicompanies.com  
CONSULTANT

SEAL

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PROJECT INFORMATION

PROJECT:

KNOXVILLE FIRE STATION #15 RENOVATION

PROJECT ADDRESS:

5301 JACKSBORO PIKE  
KNOXVILLE, TN 37919

PROJECT NO.: 210539

ACTIVE DESIGN PHASE

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☐ AS-BUILT RECORD SET

REVISION INFORMATION

NO.	DATE	DESCRIPTION
01	08/07/2022	FIRE LINE

KEY PLAN

SHEET INFORMATION

SHEET ISSUED: 06/27/2022

DESIGNED BY: A.M.A.

DRAWN BY: A.M.A.

REVIEWED BY: C.B.T.

SHEET TITLE:

CIVIL DETAILS

SHEET NO.: C800