



MANHOLE REPLACEMENT SITE PLAN

GENERAL NOTES

1. THESE MECHANICAL CONSTRUCTION DOCUMENTS ARE BASED UPON DESIGN CRITERIA DERIVED FROM THE FOLLOWING HANDBOOKS, STANDARDS AND CODES.
 ASHRAE: HANDBOOKS
 ASHRAE: STANDARD 55
 ASHRAE: STANDARD 62
 ASHRAE: LOAD CALCULATIONS MANUAL, 2ND EDITION
 ASPE: DATA BOOK
 BOCA: NATIONAL MECHANICAL CODE
 BOCA: NATIONAL PLUMBING CODE
 BOCA: NATIONAL FIRE PREVENTION CODE
 NEC: NATIONAL ELECTRICAL CODE
 SMACNA: HVAC SYSTEMS AND DUCT DESIGN, 3RD EDITION
2. INSTALLATIONS SHALL CONFORM WITH ALL FEDERAL, STATE AND LOCAL LAWS, ORDINANCES, CODES, ETC., AND SAME ARE MADE A PART OF THESE CONTRACT DOCUMENTS, THE SAME AS IF REPEATED HEREIN.
3. CONTRACTOR SHALL INCLUDE IN BID ALL COSTS REQUIRED TO COMPLETELY AND PROPERLY INSTALL ALL WORK REQUIRED FOR PROJECT.
4. SEE SPECIFIC PIPING DETAILS FOR EQUIPMENT CONNECTIONS SHOWING VALVES AND FITTING ACCESSORIES.
5. CONTRACTOR SHALL MAINTAIN ONE SET OF BLUEPRINT DRAWINGS SHOWING EACH OF THE THREE (3) PRE-FABRICATED MANHOLES SHOWING INVERTS, VALVES, STEAM TRAPS, ACCESSORIES AND CONNECTIONS TO THE STEAM DISTRIBUTION SYSTEM.
6. CONTRACTOR SHALL INCLUDE IN BID ALL COSTS FOR CUTTING AND PATCHING REQUIRED TO INSTALL NEW OR REMOVE EXISTING WORK.
7. ANY REQUIRED REMOVAL, RELOCATION OR REPLACEMENT OF EXISTING CONDUIT, PIPING, COMMUNICATION SYSTEM WIRING, ETC., RELATED TO THE COMPLETION OF THIS PROJECT SHALL BE INCLUDED IN THE CONTRACTOR'S BID AT NO ADDITIONAL COST TO THE OWNER.
8. CLEARANCES INDICATED ARE BASED UPON THE BEST AVAILABLE INFORMATION; THE CONTRACTOR SHALL VERIFY PIPING SIZE, INVERTS, ANGLES OF ENTRY, ETC. ROUTING PRIOR TO SUBMITTING A BID TO PROVIDE INSTALL THE PRE-FABRICATED AND PRE-PIPED MANHOLES INCLUDING COSTS AS REQUIRED TO COMPLETE WORK AS SHOWN OR INTENDED.
9. CONTRACTOR SHALL FIELD VERIFY THE EXACT SIZE AND LOCATION OF ALL EXISTING WORK PRIOR TO CONSTRUCTION. ALL EXISTING WORK SHOWN INDICATES LOCATION ROUTING AS DERIVED FROM EXISTING DRAWINGS. IN THE EVENT OF CONFLICT CONTACT THE PROJECT ENGINEER FOR A DECISION.
10. DURING THE REMOVAL OF ITEMS NOT INDICATED, CAUTION SHALL BE USED TO ELIMINATE DAMAGE TO EQUIPMENT HAVING SALVAGE VALUE. ALL REUSABLE SALVAGED MATERIAL SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE RETAINED FOR HIS INSPECTION. ONLY ITEMS SO INSPECTED AND REJECTED BY THE OWNER SHALL BE DISPOSED OF BY THE CONTRACTOR. ALL OTHER SUCH ITEMS SHALL BE TURNED OVER AND DEPOSITED AS DIRECTED BY THE OWNER.
11. ADJACENT AREAS AND SERVICES TO OTHER AREAS MUST REMAIN IN OPERATION DURING CONSTRUCTION AND DEMOLITION. THE OWNER'S REPRESENTATIVE WILL EXPLAIN AS MANY CRITERIA FOR OPERATION AS POSSIBLE PRIOR TO CONSTRUCTION. THE CONTRACTOR WILL THEN SUBMIT A WORK SCHEDULE FOR APPROVAL. CONTRACTOR COOPERATION SHALL BE EXPECTED IN ALL CONDITIONS.
12. REFUSE OR MATERIALS SHALL NOT BE ALLOWED TO BLOCK OR OTHERWISE IMPAIR CIRCULATION AND MOVEMENT ON SIDEWALKS OR OTHER TRAFFIC AREAS.
13. CONNECT ALL PIPING AND EQUIPMENT TO EXISTING AS REQUIRED.
14. ALL PIPING, FITTINGS, INSULATION, ETC. USED FOR RECONNECTION OF PIPING SYSTEMS SHALL BE OF EQUAL OR GREATER QUALITY TO THE EXISTING MATERIALS.
15. EXISTING ITEMS OR SURFACES TO REMAIN WHICH ARE DAMAGED AS A RESULT OF THIS WORK SHALL BE REFINISHED REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER.

PLAN NOTES

1. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF THE EXISTING THREE (3) CONCRETE MANHOLES IDENTIFIED ON THE M1 DRAWING AS MANHOLE 1, 2 AND 3. ALL EXISTING INTERNAL COMPONENTS SUCH AS GATE VALVES, BUTTERFLY VALVES, BALL VALVES, STEAM TRAPS AND ACCESSORIES SHALL BE SALVAGED AND INSPECTED BY THE OWNER'S REPRESENTATIVE FOR PROPER DISPOSITION.
2. THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) PERMA-PIPE (OR EQUAL), PRE-FABRICATED AND PIPED MAN-HOLES CONSTRUCTED OF 1/4" MIN. SMOOTH WALL BLACK STEEL TO REPLACE MANHOLES 2 AND 3. THE OUTER SURFACE SHALL BE COATED WITH SPRAY APPLIED, 30 MIL MINIMUM URETHANE. A PNEUMATIC PAINT SHALL BE USED TO PROTECT THE INNER SURFACES. MANHOLES SHALL BE EQUIPPED WITH CONDUIT STUB-OUTS, END SEALS, STEEL LADDER, VENTS, SUMPS & LIFTING EYES. PROVIDE & INSTALL IN CONCRETE ANCHOR AS DIRECTED BY MANUFACTURER. PROVIDE & INSTALL STRAIGHT PIPING IN PLACE OF MANHOLE NO. 1.
3. THE CONTRACTOR SHALL PROVIDE THE MANHOLE MANUFACTURER WITH ENGINEERING DRAWINGS REFLECTING THE INTENT OF DESIGN AS REPRESENTED IN THE STEAM ISOLATION VALVE DRAWINGS SHOWN ON DRAWING M2. THE MANHOLE MANUFACTURER SHALL THEN PROVIDE THESE PRE-PIPED STEAM ISOLATION VALVES, CONDENSATE TRAPS AND OTHER ACCESSORIES IN THE MANHOLES TO INSURE A PROPERLY WORKING SYSTEM WHICH ALLOWS SIMPLE GRADE LEVEL ACCESS TO ACTUATORS ISOLATING STEAM DISTRIBUTION AND ACCESS FOR MAINTENANCE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE MANHOLE MANUFACTURER WITH ALL INVERT ELEVATIONS, PIPE SIZES AND ANGLES OF ENTRY AND EGRESS PRIOR TO ORDERING THE MANHOLES. ON SITE VERIFICATION OF DATA BY A FACTORY REPRESENTATIVE IS SUGGESTED. SUBMITTALS TO THE OWNER'S REPRESENTATIVE IS REQUIRED.
5. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH FOUR (4) WRENCHES CAPABLE OF TURNING THE GATE VALVE ACTUATORS AT THE GRADE LEVEL ACCESS.
6. EXISTING MANHOLE APPROXIMATE WEIGHTS: MANHOLE 1: 53,282#; MANHOLE 2: 56,782#; MANHOLE 3: 60,282#



STEAM ISOLATION VALVES
 CAPITOL COMPLEX
 1900 KANAWHA BOULEVARD EAST
 CHARLESTON, WEST VIRGINIA 25305

REVISIONS	
DATE	NO.

SEAL

REVISED	
DATE	SCALE
5/25/2011	NOTED
DRAWN BY GMH	CHK. BY
DRAWING NUMBER	
M1	