








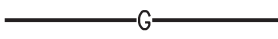




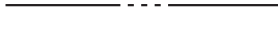
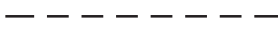




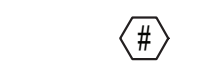

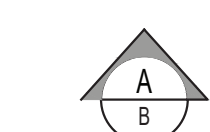



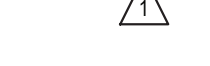
PLUMBING NOTES

1. ALL NEW DOMESTIC HOT AND COLD WATER SUPPLY AND HOT WATER RETURN PIPES SHALL BE COPPER TUBING AND SHALL ORIGINATE ON THE SAME FLOOR FROM THE NEAREST WET COLUMN WITH PROPER ACCESS FOR MAINTENANCE. IF ATTACHED TO DISSIMILAR METAL, A CORROSION INHIBITOR IS TO BE PROVIDED.
2. INSULATE ALL NEW AND EXISTING DOMESTIC HOT AND COLD WATER SUPPLY AND HOT WATER RETURN PIPES.
3. WASTE LINES SHALL BE PROPERLY PITCHED TO PREVENT "TRAPPED" WATER. INSTALL WASTE LINE CONNECTIONS WITH LONG TERM OR 45" \*Y" FITTINGS.
4. RETAIN EXISTING CLEAN OUT CONNECTIONS AND PROVIDE CLEAN OUT CONNECTIONS AT NEW FITTINGS.
5. WHEN CONNECTING NEW DOMESTIC HOT AND COLD WATER SUPPLY AND HOT WATER RETURN PIPES TO EXISTING RISERS, CONTRACTORS SHALL LEAVE A PLUGGED VALVED OUTLET FOR EACH, FOR FUTURE USE.
6. ALL NEW DOMESTIC HOT AND COLD WATER SUPPLY AND HOT WATER RETURN PIPES ATTENDANT FITTINGS MUST BE PROPERLY INSULATED AND COVERED.
7. INDIVIDUAL SHUT-OFF VALVES MUST BE SUPPLIED AND INSTALLED FOR EACH NEW FIXTURE, INCLUDING WATER COOLERS.
8. ALL NEW PIPES ARE TO BE SUPPORTED FROM SLAB OR STEEL BEAMS, NOT FROM EXISTING PIPES OR DUCT WORK.
9. ALL WATER SHUTDOWNS TO BE COORDINATED THROUGH THE BUILDING MANAGER. ALL WATER SHUTDOWNS ARE TO BE PERFORMED OR SUPERVISED BY BUILDING PERSONNEL AT THE DISCRETION OF THE BUILDING MANAGER.
10. PLUMBER SHALL BE RESPONSIBLE THAT ENTIRE INSTALLATION IS IN ACCORDANCE WITH LOCAL AND STATE CODES.
11. PRIVATE BATHROOMS MUST BE INSTALLED ON MINIMUM 4" WASTE LINE.
12. ALL VALVES ARE TO BE PROPERLY TAGGED.
13. ALL DOMESTIC WATER PIPING SHALL BE PROPERLY LABELED.
14. ANY WET COLUMNS USED SHOULD BE PROVIDED WITH A 24" x 24" STEEL SURFACE MOUNTED ACCESS DOOR.
15. HOT WATER HEATERS SERVING PRIVATE BATHROOMS, KITCHENS, ETC. ARE TO BE SUPPLIED FROM THE WET COLUMN THAT SUPPLIES THE COLD WATER TO THESE AREAS.

LINE REPRESENTATION

- NEW COLD WATER PIPING
- NEW HOT WATER PIPING
- NEW HOT WATER PIPING WITH TEMPERATURE MAINTENANCE CABLE
- NEW HOT WATER RECIRCULATION PIPING
- NEW VENT PIPING
- NEW SANITARY OR STORM WATER PIPING ABOVE GROUND
- NEW SANITARY OR STORM WATER PIPING BELOW GROUND
- NEW GAS PIPING
- NEW ACID WASTE PIPING
- EXISTING COLD WATER PIPING TO REMAIN
- EXISTING HOT WATER PIPING TO REMAIN
- EXISTING HOT WATER RECIRCULATION PIPING TO REMAIN
- EXISTING VENT PIPING TO REMAIN
- EXISTING SANITARY OR STORM WATER PIPING ABOVE GROUND TO REMAIN
- EXISTING SANITARY OR STORM WATER PIPING BELOW GROUND TO REMAIN
- EXISTING GAS PIPING
- EXISTING ACID WASTE PIPING
- EXISTING PIPE TO BE REMOVED













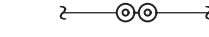






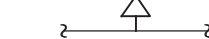


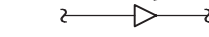
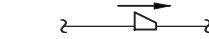











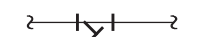


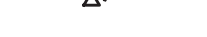












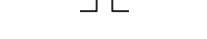









DRAWING NOTATIONS

- DRAWING HEXAGON NOTE TAG
- DRAWING CIRCLE NOTE TAG
- TAG SECTION DESIGNATION ON DRAWING WHERE SECTION IS CUT A-SECTION DESIGNATION B-DRAWING NUMBER
- POINT OF NEW CONNECTION TO EXISTING
- POINT OF DISCONNECTION FROM EXISTING
- REVISION SYMBOL
- PIPING FLOW DIRECTION

ABBREVIATIONS

- AFFABOVE FINISHED FLOOR
- BFPBACKFLOW PREVENTER
- BVABALANCING VALVE ASSEMBLY
- CMCOFFEE MAKER
- COOPCLEAN OUT DECK PLATE
- CWCOLD WATER
- DIA DIAMETER
- DN DOWN
- EWCELECTRIC WATER COOLER
- FAI FRESH AIR INLET
- FCWFILTERED COLD WATER
- FD FLOOR DRAIN
- FFDFUNNEL FLOOR DRAIN
- FL FLOOR
- FS FLOOR SINK
- G GAS
- HB HOSE BIBB
- HW HOT WATER
- HWRHOT WATER RECIRCULATION
- IM ICE MAKER
- LAV LAVATORY
- LDR LEADER
- MIN MINIMUM
- MR MOP RECEPTOR
- P PLUMBING
- RD ROOF DRAIN
- RPZ REDUCED PRESSURE ZONE
- RTU ROOF TOP UNIT
- S SANITARY
- SH SHOWER SERVICE
- SK SINK
- ST STORM
- UR URINAL
- V VENT
- VB VACUUM BREAKER
- VIF VERIFY IN FIELD
- VTR VENT THRU ROOF
- W WASTE
- WH WALL HYDRANT
- WC WATER CLOSET

PLUMBING LEGEND

- PIPE UP
- PIPE DROP
- BOTTOM CONNECTION
- TOP CONNECTION
- UNION
- PIPE SLEEVE
- CAP
- CLEANOUT
- CLEAN OUT DECK PLATE
- P-TRAP
- HOUSE TRAP
- FRESH AIR INLET
- SHOCK ABSORBER
- VACUUM BREAKER
- PRESSURE GAUGE
- THERMOMETER
- MANUAL AIR VENT
- AUTOMATIC AIR VENT
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER
- GATE VALVE
- GATE VALVE
- EXISTING GATE VALVE
- CHECK VALVE
- CHECK VALVE
- EXISTING CHECK VALVE
- BALL VALVE
- EXISTING BALL VALVE
- MIXING VALVE
- OS&Y VALVE
- PRESSURE REDUCING VALVE
- PRESSURE REDUCING VALVE
- SOLENOID VALVE
- BUTTERFLY VALVE
- STRAINER
- STRAINER WITH BLOWOFF
- RELIEF VALVE
- VALVE WITH HOSE BIBB
- PLUG VALVE
- DOMESTIC WATER METER
- DOUBLE DETECTOR CHECK VALVE BALANCING VALVE ASSEMBLY
- FLOOR DRAIN
- FLOOR DRAIN (ELEVATION)
- FUNNEL FLOOR DRAIN (ELEVATION)
- INLINE PUMP
- ROOF DRAIN (ELEVATION)
- PLANTER DRAIN (ELEVATION)
- VENT THROUGH ROOF (ELEVATION)
- TRENCH DRAIN (ELEVATION)
- WALL HUNG WATER CLOSET (ELEVATION)
- FLOOR MOUNTED WATER CLOSET (ELEVATION)
- FLOOR MOUNTED WATER CLOSET (ELEVATION)
- URINAL (ELEVATION)
- LAVATORY (ELEVATION)
- KITCHEN OR PANTRY SINK (ELEVATION)
- ELECTRIC WATER COOLER (ELEVATION)
- MOP RECEPTOR (ELEVATION)
- SLOP SINK (ELEVATION)
- BATHTUB (ELEVATION)
- 2 COMPARTMENT SINK (ELEVATION)
- 3 COMPARTMENT SINK (ELEVATION)

PLUMBING DRAWING LIST

- P-001PLUMBING LEGEND AND NOTES
- P-101PLUMBING SPECIFICATIONS
- P-201PLUMBING BASEMENT FLOOR DEMOLITION PLAN
- P-501PLUMBING BASEMENT FLOOR PLAN
- P-901PLUMBING FLOOR DETAILS

GE Crotonville - Executive Residence Building Water Heater Replacement

Old Albany Post Road,  
Ossining, NY

PRESSURE VESSEL AND HEATER SCHEDULE

DESIGNATION	NO. REQUIRED	MANUFACTURER AND MODEL NUMBER	STORAGE WATER TEMPERATURE (DEG.F)	VOLUME/HEATER (GALS.)	RECOVERY/HEATER (GPH)	TEMPERATURE RISE (DEG. F)	CAPACITY FLOW (G.P.M.)	W.M.P. (PSIG.)	TEST PRESSURE (PSIG.)	DIAMETER (INCHES)	LENGHT/HEIGHT (INCHES)	WIDTH (INCHES)	INLET/OUTLET (INCHES)	GAS LOAD (CFH)	GAS PRESSURE REG. (IN W.C.)	SHELL THICKNESS (INCH.)	PIPE THICKNESS (INCH.)	STEAM LOAD (LBS./HR./HTR.)	MAX. ALLOWABLE PRESSURE DROP THROUGH VALVE	STEAM VALVE (INCH.)	STEAM PRESSURE IN COIL (PSI)	ALLOWABLE PRESSURE DROP IN COIL (PSI)	LOCATION/REMARKS
DHW-1	2	AERCO INN 1060	140			100	20				42/75	28	2	1060	4								PLUMBING EQUIPMENT ROOM @ BASEMENT
ET-1	2	AMTROL ST-5-C		2						8	13												PLUMBING EQUIPMENT ROOM @ BASEMENT
DHW-2	2	AERCO INN 1350	120			80	33				42/75	28	2	1350	4								PLUMBING EQUIPMENT ROOM @ BASEMENT

TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT, THESE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE 2020 ENERGY CONSERVATION SHEET. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON OR TO BE CONSIDERED AS EITHER BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.



PLUMBING SPECIFICATIONS		CONJUNCTION WITH THE SUBMITTAL OF THE ALTERNATE, ANY SUBSTITUTION MUST BE SUBMITTED WITH AN EXPLANATION WHY SUBSTITUTION IS BEING UTILIZED. IF THE SUBSTITUTED ITEM DEVIATES FROM THE SPECIFIED ITEM, THOSE DEVIATIONS ARE TO BE IDENTIFIED ON A LINE BY LINE BASIS. IF THE SUBSTITUTION IS BEING UTILIZED FOR FINANCIAL REASONS, THE ASSOCIATED CREDIT MUST BE SIMULTANEOUSLY SUBMITTED.	
PART 1 GENERAL		G. CARRY OUT THE WORK WITH MINIMUM OF NOISE, DUST AND DISTURBANCE.	
1.01 GENERAL REQUIREMENTS:		1.19 UNIT PRICES	
A. THE LATEST EDITION OF AIA DOCUMENTS A201 GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION, OR AS REQUIRED BY THE ARCHITECTURAL DOCUMENTS AND/OR THE STRUCTURAL ENGINEERS DOCUMENTS ARE PART OF THE CONTRACT.		A. SUBMIT THE FOLLOWING LIST OF UNIT PRICES (FURNISH AND INSTALL):	
B. PROVIDE ALL PLUMBING WORK SHOWN ON THE CONTRACT DOCUMENTS. ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE UNIFORM CONSTRUCTION CODE (NJC 5:23), 2015 INTERNATIONAL BUILDING CODE AS ADOPTED BY NEW JERSEY, 2015 NATIONAL STANDARD PLUMBING CODE, 2015 INTERNATIONAL FUEL GAS CODE AS ADOPTED BY NEW JERSEY, LANDLORDS BUILDING STANDARDS, AND ALL AUTHORITIES HAVING JURISDICTION (AIA), APPLICABLE NATIONAL, STATE AND LOCAL CODES, LAWS AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK SHALL BE INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS.		1. FIXTURES - \$ FOR EACH TYPE IN THE DOCUMENTS (INCLUDE ROUGHING)	
C. ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE OF THIS WORK. FINAL ACCEPTANCE SHALL BE DEFINED AS THE TIME AT WHICH THE PLUMBING WORK IS TAKEN OVER AND ACCEPTED BY THE OWNER. ENGAGE THE SERVICES OF VARIOUS MANUFACTURERS SUPPLYING THE EQUIPMENT FOR THE PROPER STARTUP, OPERATION AND TRAINING OF ALL SYSTEMS INSTALLED. INSTRUCT THE OWNERS PERSONNEL IN THE PROPER OPERATION AND SERVICING OF THE EQUIPMENT.		2. PIPING - \$/LF FOR EACH SIZE AND TYPE REQUIRED (INCLUDE HANGERS & INSULATION WHERE APPLICABLE)	
D. BIDDERS SHALL VISIT AND CAREFULLY EXAMINE THE AREA AFFECTED BY THIS WORK TO FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS AND THE DIFFICULTIES THAT WILL AFFECT THE EXECUTION OF THIS WORK BEFORE SUBMITTING PROPOSALS. EXAMINE THE CONTRACT DOCUMENTS OF THIS TRADE AND ALL OTHER TRADES FOR THIS PROJECT. VISIT ALL EXISTING CONDITIONS AT THE SITE, AND BECOME FULLY INFORMED AS TO THE EXTENT AND CHARACTER OF THE WORK IN THE BUILDING. SUBMISSION OF A PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT SUCH AN EXAMINATION HAS BEEN MADE AND LATER CLAIMS WILL NOT BE RECOGNIZED FOR EXTRA LABOR, EQUIPMENT, OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN HAD SUCH AN EXAMINATION BEEN MADE. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ENGINEERS ATTENTION PRIOR TO BID. IF DISCREPANCIES ARE NOT RESOLVED TO CONTRACTORS SATISFACTION THEY SHALL BE QUALIFIED IN THEIR BID SUBMISSION.		PART 2 MATERIALS	
E. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN CONTRACT. IT IS NOT INTENDED TO SPECIFY OR TO SHOW EVERY OFFSET, FITTING, OR COMPONENT. HOWEVER, CONTRACT DOCUMENTS REQUIRE COMPONENTS AND MATERIALS WHETHER OR NOT INDICATED OR SPECIFIED AS NECESSARY TO MAKE THE INSTALLATION COMPLETE AND OPERATIONAL. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID CONFLICT. THE CONTRACTOR SHALL, WITHOUT EXTRA COST TO THE OWNER, MAKE ALL REASONABLE MODIFICATIONS IN THE WORK AS MAY BE REQUIRED TO PREVENT CONFLICT WITH THE WORK OF OTHER TRADES, OR FOR THE PROPER INSTALLATION OF THE WORK.		2.01 PIPING AND FITTINGS	
F. INTERRUPTION OF EXISTING BUILDING SERVICES IN ORDER TO CONNECT NEW PIPING TO EXISTING SHALL BE MADE AT SUCH TIME AS TO CAUSE THE LEAST INTERFERENCE WITH ESTABLISHED BUILDING OPERATING PROCEDURE. ALL EXISTING SERVICE SHUTDOWNS SHALL BE SUPERVISED AND DIRECTED BY BUILDING MANAGEMENT. THE CONTRACTOR SHALL GIVE NOTICE 48 HOURS PRIOR TO ANY SHUTDOWN.		A. SANITARY DRAINAGE AND VENT PIPING, STORM DRAINAGE	
G. ALTHOUGH NOT SPECIFICALLY MENTIONED HEREIN OR SHOWN ON THE DRAWINGS, ANY EQUIPMENT, MATERIALS, ACCESSORIES, OR LABOR REQUIRED FOR A CODE COMPLIANT AND COMPLETE INSTALLATION OF THE PLUMBING WORK SHALL BE FURNISHED AND INSTALLED AS PART OF THE ORIGINAL BID.		1. ABOVEGROUND - CAST IRON HUBLESS PIPE AND FITTINGS COMPLYING WITH CAST IRON CAST IRON SOIL PIPE (CISPI) STANDARD 301 AND/OR ASTM A-889 AND SHALL BE MADE IN THE UNITED STATES, AND MARKED WITH THE COLLECTIVE TRADEMARK OF THE CAST IRON SOIL PIPE INSTITUTE AND LISTED BY NSF INTERNATIONAL. ALL PIPE AND FITTINGS SHALL BE BY THE SAME MANUFACTURER.	
H. PATCH AND/OR REPLACE DAMAGED ARCHITECTURAL COMPONENTS AS A RESULT OF PLUMBING SYSTEMS INSTALLATION. CLEAN UP THE CONSTRUCTION SITE DAILY DURING CONSTRUCTION SO AS NOT TO INTERFERE WITH THE WORK OF OTHER TRADES, AND AFTER THE COMPLETION OF INSTALLATION AND TESTING.		JOHN HUBLESS CAST-IRON SOIL PIPING ACCORDING TO CISPI 310 AND CISPI'S "CAST IRON SOIL PIPE AND FITTINGS HANDBOOK" FOR HUBLESS-COUPLING JOINTS. USE HEAVY DUTY SHIELDED COUPLINGS HAVING NEOPRENE GASKET CONFORMING TO ASTM C 1540 WITH 3" WIDE 304 STAINLESS STEEL CORRUGATED SHELD AND FOUR STAINLESS STEEL BANDS FOR SIZES 1-1/2" THROUGH 4" (3X STAINLESS STEEL BANDS FOR SIZES 5" AND LARGER). ALL COUPLINGS SHALL BE ANKO-HUSKY SERIES HD 2000 HEAVY DUTY OR APPROVED EQUAL.	
I. ALL NECESSARY CUTTING AND PATCHING IN FLOOR SLABS, ROOF SLABS, WALLS, AND CEILINGS FOR THE PLUMBING WORK SHALL BE PERFORMED BY THIS CONTRACTOR. RESTORE TO MATCH EXISTING CONDITIONS.		HORIZONTAL PIPE AND FITTINGS 5" DIA. AND LARGER MUST BE SUITABLY BRACED TO PREVENT HORIZONTAL MOVEMENT. THIS MUST BE DONE AT EVERY BRANCH OPENING OR CHANGE OF DIRECTION BY THE USE OF BRACES, BLOCKS, RODDING, OR OTHER SUITABLE METHOD. TO PREVENT MOVEMENT OR JOINT SEPARATION PER CHAPTER IV OF THE CISPI HANDBOOK.	
J. REMOVAL TEMPORARY CONNECTIONS AND RELOCATION OF CERTAIN EXISTING WORK WILL BE NECESSARY FOR THE INSTALLATION OF THE NEW SYSTEMS. ALL EXISTING CONDITIONS ARE NOT COMPLETELY DETAILED ON THE DRAWINGS. THE CONTRACTOR SHALL SURVEY THE SITE AND MAKE ALL NECESSARY CHANGES REQUIRED BASED ON EXISTING CONDITIONS FOR PROPER INSTALLATION OF NEW WORK.		2. UNDERGROUND - CAST IRON HUB AND SPIGOT SERVICE WEIGHT PIPE AND FITTINGS COMPLYING WITH CISPI STANDARD HS-67 AND/OR ASTM A-74-68 AND SHALL BE MADE IN THE UNITED STATES, AND MARKED WITH THE COLLECTIVE TRADEMARK OF THE CAST IRON SOIL PIPE INSTITUTE AND LISTED BY NSF INTERNATIONAL. ALL PIPE AND FITTINGS SHALL BE BY THE SAME MANUFACTURER.	
K. ALL EQUIPMENT INSTALLED OR CONNECTED INTO THE BUILDING STAIRS, RISERS, PLUMBING SYSTEMS AND INFRASTRUCTURE SHALL BE APPROVED IN ADVANCE BY THE BUILDING GROUP TO INSTALLATION. PLAN INSTALLATION OF NEW WORK AND CONNECTIONS TO EXISTING PIPING TO INSURE MINIMUM INTERFERENCE WITH REGULAR OPERATION OF EXISTING FACILITIES. ALL SYSTEM SHUTDOWNS AFFECTING OTHER AREAS SHALL BE COORDINATED WITH BUILDING MANAGEMENT.		JOHN HUB-AND-SPIGOT, CAST-IRON SOIL PIPING WITH GASKETED JOINTS ACCORDING TO CISPI'S "CAST IRON SOIL PIPE AND FITTINGS HANDBOOK" FOR COMPRESSION JOINTS. JOINTS SHALL BE MADE WITH PUSH-ON NEOPRENE RUBBER COMPRESSION GASKET CONFORMING TO CISPI STANDARD HSM-76.	
L. GUARANTEE: THE CONTRACTOR SHALL GUARANTEE AND SERVICE THE ENTIRE INSTALLATION FOR A PERIOD OF ONE YEAR FROM THE DATE OF THE FINAL ACCEPTANCE OF THE INSTALLATION. THE CONTRACTOR SHALL, DURING THE PERIOD OF THE GUARANTEE, REPLACE OR REPAIR AT HIS OWN EXPENSE ANY PIECE OF EQUIPMENT AND/OR MATERIAL WHICH IS FOUND TO BE DEFECTIVE, THE REPLACEMENT OR REPAIR SHALL BE PERFORMED THE SAME DAY OF NOTIFICATION IN AN EMERGENCY FASHION WHEN NOTIFIED BY THE OWNER OR AUTHORIZED REPRESENTATIVE. THE CONTRACTOR SHALL ALSO REPAIR ALL DAMAGE TO SURROUNDING WORK CAUSED BY THE FAILURE, REPAIR OR REPLACEMENT OF DEFECTIVE EQUIPMENT. THE FINAL ACCEPTANCE WILL BE MADE AFTER THE CONTRACTOR HAS DEMONSTRATED THAT HIS WORK FULFILLS THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATION, AND HAS FURNISHED ALL THE REQUIRED CERTIFICATES OF INSPECTION AND APPROVALS.		D. DOMESTIC HOT AND COLD WATER PIPING, INDIRECT WASTE PIPING	
1.02 SCOPE OF WORK		1. PIPING (SOLDERED JOINTS): TYPE L HARD COPPER TUBE, DRAWN TEMPER, COMPLYING WITH ASTM B-88 AND NSF #1.	
A. THE CONTRACTOR SHALL FURNISH AND INSTALL PLUMBING WORK COMPLETE WITH ALL EQUIPMENT, FIXTURES, PIPING, VALVES, AND ACCESSORIES AND ASSOCIATED WORK IN ACCORDANCE ALL NATIONAL, STATE AND LOCAL AUTHORITIES HAVING JURISDICTION, BUILDING MANAGEMENT, DESIGN DRAWINGS AND THIS SPECIFICATION. THE SCOPE OF WORK SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:		2. FITTINGS (SOLDERED JOINTS): WROUGHT COPPER SOLDER JOINT PRESSURE TYPE FITTINGS COMPLYING WITH ASME B.16.22.	
1. <ADO IF REQUIRED> DISCONNECT AND REMOVE PLUMBING EQUIPMENT, FIXTURES, PIPING AND SUPPORTS, REMOVE PIPING BACK TO EXISTING STAIRS AND RISERS AND CAP.		3. SOLDER FILLER METALS: ALLOY 506S OR ALLOY 504-N. 1% (SN) APPROXIMATELY 95%, AND SILVER (AG) APPROXIMATELY 5%, HAVING 0.10% MAXIMUM LEAD (PB) CONTENT.	
2. FURNISH AND INSTALL NEW FIXTURES, PIPING, VALVES, SUPPORTS, SEISMIC BRACING AND RELATED EQUIPMENT. MAKE ALL REQUIRED PIPING CONNECTIONS TO APPLIANCES OR EQUIPMENT FURNISHED BY OTHERS.		4. SOLDERING FLUX: APPLY ASTM B-813, WATER-FLUSHABLE FLUX TO END OF TUBE. JOIN COPPER TUBE AND FITTINGS ACCORDING TO ASTM B-828 OR CDA'S "COPPER TUBE HANDBOOK."	
3. PREPARE AND SUBMIT AS-BUILT DRAWINGS INDICATING ACTION, LOCATIONS OF EQUIPMENT, PIPING, AND VALVES. AS-BUILT DRAWINGS SHALL BE SUBMITTED TO THE OWNER UPON COMPLETION OF INSTALLATION AND TESTING. SUBMIT DIGITAL COPIES IN PDF FORMAT AND DWG AUTOCAD FORMAT.		5. ALL EXPOSED PIPING SHALL BE CHROME PLATED BRASS. ALL PIPE PASSING THROUGH WALLS, FLOORS, CEILINGS, AND PARTITIONS SHALL BE PROVIDED WITH CHROME PLATED BRASS ESCUTCHEONS HELD IN PLACE WITH SET SCREWS.	
4. PERFORM CUTTING, CORING, AND ROUGH PATCHING REQUIRED TO ACCOMMODATE PLUMBING INSTALLATION.		C. FUEL GAS PIPING	
5. PERFORM MAINTENANCE AND PROPER OPERATION OF EXISTING BASE BUILDING SYSTEMS WITHIN THE CONTRACT AREA IN ACCORDANCE WITH THE REQUIREMENTS OF BUILDING MANAGEMENT.		1. PIPING: ASTM A 53A 53M, BLACK STEEL, SCHEDULE 40, TYPE E OR S, GRADE B.	
6. PROVIDE INSULATION OF PIPING, FITTINGS, VALVES. PROVIDE PIPING SYSTEMS IDENTIFICATION. PROVIDE VALVE TAGS AND CHART.		2. MALLEABLE IRON THREADED FITTINGS: ASME B16.3, CLASS 150, STANDARD PATTERN, PIPING UP TO 4" DIAMETER AND BELOW 1/2" PSIG.	
7. COORDINATION WITH WORK OF OTHER TRADES.		3. WROUGHT-STEEL WELDING FITTINGS: STM A 234 234M FOR BUTT WELDING AND SOCKET WELDING. COMPLY WITH AWS D1.10 D10.1 D10.1 FOR WELDING MATERIALS APPROPRIATE FOR WALL THICKNESS AND CHEMICAL ANALYSIS OF STEEL. PIPE BEING WELDED, PIPING 4" AND LARGER AT ANY PRESSURE AND ANY SIZE PIPING WITH GAS PRESSURE ABOVE 1/2" PSIG SHALL BE WELDED.	
8. SCAFFOLDING AND RIGGING.		4. PROTECTIVE COATING FOR UNDERGROUND PIPING: FACTORY-APPLIED, THREE-LAYER COATING OF EPOXY, ADHESIVE, AND PE JOINT COVER KITS. EPOXY PAINT, ADHESIVE, AND HEAT-SHRINK PE SLEEVES.	
9. TESTING AS REQUIRED BY APPLICABLE CODES AND STANDARDS.		5. WHERE PIPING IS EXPOSED TO EXTERIOR, PROVIDE WITH FACTORY APPLIED PROTECTIVE COATING OR USE SCH 40 GALVANIZED STEEL PIPE AND FITTINGS. AFTER GALVANIZED PIPING THREADS HAVE BEEN CUT AND FITTINGS CONNECTED PAINT THE EXPOSED THREADS AND PIPING WITH AN EXTERIOR, NON-RUSTING PAINT TO PROTECT THE AREA OF PIPING WHERE THE GALVANIZATION HAS BEEN REMOVED.	
10. SECURING OF ALL PERMITS AND APPROVALS AND PAYMENT OF FEES.		D. DIECTOR AND SUMP PUMP DISCHARGE PIPING (IF INSTALLED)	
1.03 SHOP DRAWINGS, EQUIPMENT SUBMISSION, MAINTENANCE MANUALS.		1. SCHEDULE 40 GALVANIZED STEEL PIPE ASTM A 53, GALVANIZED CAST IRON DRAINAGE FITTINGS ASME B16.3, AND THREADED JOINTS OR GROOVED-END STEEL PIPE, GROOVED-JOINT SYSTEM FITTINGS AND COUPLINGS AND GROOVED JOINTS.	
A. SUBMIT ONE (1) PRINT OF THE PLUMBING PIPING LAYOUT, CERTIFIED BY ALL TRADES THAT COORDINATION HAS BEEN ESTABLISHED. SUBMIT MANUFACTURERS CATALOG CUTS OF THE FOLLOWING:		2. INSTALL CHECK VALVE AND GATE VALVE ON EACH PUMP DISCHARGE.	
1. PIPING AND FITTINGS		3. CHECK VALVES - 2" AND SMALLER, LEAD-FREE BRONZE, Y-PATTERN, HORIZONTAL SWING, WITH RENEWABLE SEAT AND DISC. 200 PSI CWP NON-SHOCK, NSFANFIS-618, NIBCO 1413-1/4" FOR THREADED ENDS OR 5-113-LF FOR SOLDER ENDS.	
2. INSULATION		4. CHECK VALVES - 2-1/2" & 3" LOW LEAD, ASME B16.1, MULLWAKE UP97 FOR THREADED ENDS, UP988 FOR SOLDERED ENDS.	
3. FIXTURES, SUPPORTS, TRIM		E. CHECK VALVES ON PUMP DISCHARGE, SILENT CHECK VALVE, FLANGED, CLASS 125, STAINLESS STEEL SPRING & SCREWS, CAST IRON BODY, MULLWAKE MODEL 1800.	
4. VALVES		F. SILENDED VALVE - DE-ENERGIZED CLOSED, ASCO MODEL #82100003, 120 V., WITH BRONZE BODY.	
5. VALVE TAGS AND CHART		G. PRESSURE REDUCING VALVE - 1/2" & 3/4" LEAD FREE, ASSE 1003 LISTED, DIRECT ACTING PRESSURE REDUCING VALVE WITH STRAINER. VALVE SHALL BE WATTS SERIES L2228.	
6. BACKFLOW PREVENTION DEVICES		H. PRESSURE REDUCING VALVE - 20" AND 3" LEAD FREE, ASSE 1003 LISTED, DIRECT ACTING PRESSURE REDUCING VALVE WITH STRAINER. VALVE SHALL BE WATTS SERIES L2228S.	
7. HANGERS AND SUPPORTS, SEISMIC SUPPORTS		2.03 VALVE TAGS AND CHART	
8. FLOOR DRAINS, FLOOR SINKS, FUNNEL DRAINS, CLEANOUTS		A. PROVIDE FOR EACH VALVE, EXCEPT STOP VALVES AT FIXTURES, A 2 INCH DIAMETER BRASS TAG WITH 1 INCH HIGH NUMERAL STAMPED THEREON, SECURED TO THE VALVE BY MEANS OF BRASS S-HOOK OR BRASS CHAIN. EACH SYSTEM TO HAVE A LETTER DESIGNATION AS WELL.	
9. ROOF DRAINS, OVERFLOW ROOF DRAINS		B. FURNISH AN APPROVED, NEATLY DRAWN VALVE CHART, PROPERLY FRAMED, SHOWING THE SIZE AND LOCATION OF EACH VALVE THAT IS TAGGED.	
10. HOSE BIBBS.		2.04 HANGERS AND SUPPORTS	
11. ESCUTCHEONS AND SLEEVES		A. ALL PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND STATE CODES.	
12. WATER HEATER(S)		B. EXCEPT AS OTHERWISE INDICATED, PROVIDE FACTORY FABRICATED HANGERS, CLAMPS, RODS, BUILDING ATTACHMENTS, INSULATION SADDLES AND INSULATION SHIELDS SHALL BE UL LISTED FM GLOBAL APPROVED AND COMPLYING WITH AWS MSS-SP-98. CONTRACTOR SHALL SELECT AND APPLY HANGERS AND SUPPORTS IN ACCORDANCE WITH MSS-SP-98.	
13. LEAK DETECTION SYSTEM		C. ALL INSULATED HORIZONTAL PIPING LARGER THAN 1" DIAMETER SHALL BE HUNG WITH ADJUSTABLE GALVANIZED STEEL CLEVIS HANGERS, COOPER B LINE FIG. B3100. ALL INSULATED COPPER PIPING 1/2" DIAMETER OR SMALLER SHALL BE HUNG WITH ADJUSTABLE SWIVEL HANGER FOR COPPER TUBING, COOPER B LINE B3100CT.	
14. WATER METERS		D. FOR ALL INSULATED HORIZONTAL PIPING PROVIDE CRUSH RESISTANT INSULATION INSERTS AT ALL PIPE SUPPORT POINTS (WHETHER HANGERS OR STRUTS). INSULATION INSERT SHALL BE COOPER B LINE FIG. B338, 360 DEG. CALCIUM SILICATE SHIELD. HANGERS SHALL NOT PENETRATE INSULATION WHERE INSULATED PIPING IS SUPPORTED WITH CLEVIS HANGERS OR SWIVEL HANGERS COOPER B LINE FIG. B310A PRE-GALVANIZED INSULATION SHIELDS MAY BE USED.	
15. HOT WATER TEMPERATURE MAINTENANCE CABLE		E. ALL HORIZONTAL CAST IRON OR UNINSULATED STEEL PIPING SHALL BE HUNG WITH ADJUSTABLE GALVANIZED STEEL CLEVIS HANGERS, COOPER B LINE FIG. B3100 PRE-GALVANIZED STANDARD CLEVIS HANGER.	
16. OPERATION AND MAINTENANCE MANUALS		F. VERTICAL PIPING SHALL BE SUPPORTED BY MEANS OF RISER CLAMPS. RISER CLAMPS SHALL FIT EXACT PIPE SIZE FOR BARE PIPES. FOR CAST IRON PIPES USE TWO BOLT GALVANIZED BLACK STEEL CLAMPS OR FOUR BOLT EXTRA HEAVY GALVANIZED STEEL RISER CLAMPS. FOR COPPER TUBING USE CARBON STEEL COPPER PLATED RISER CLAMP.	
17. MANUFACTURERS CATALOG CUTS OF ALL EQUIPMENT		G. RODS FOR PIPE HANGERS SHALL BE CONTINUOUS THREADED ROD, GALVANIZED STEEL, SIZED FOR THE LOAD REQUIRED.	
B. UPON REQUEST, THE ENGINEER MAY FURNISH DESIGN DRAWINGS TO THE CONTRACTOR TO AID IN DEVELOPMENT OF PIPING SHOP DRAWINGS. THESE SHALL BE FURNISHED IN THE SAME FORMAT FOR WHICH THE DESIGN DRAWINGS WERE CREATED.		H. C-CLAMPS MUST BE INSTALLED WITH RETAINING STRAPS.	
1.04 SUBSTITUTIONS		I. ATTACH HANGER RODS TO THE BUILDING ONLY IN A MANNER APPROVED BY THE ARCHITECT. DO NOT HANG PIPING FROM DUCTWORK OR OTHER PIPING. CHAIN STRAPS, PERFORATED BARS OR WIRE HANGERS SHALL NOT BE PERMITTED.	
A. NO SUBSTITUTE MATERIAL, OR MANUFACTURER OF EQUIPMENT SHALL BE PERMITTED WITHOUT A FORMAL WRITTEN SUBMITTAL TO THE ENGINEER WHICH INCLUDES ALL DIMENSIONAL, PERFORMANCE AND MATERIAL SPECIFICATIONS. ANY CHANGES IN LAYOUT, STRUCTURAL REQUIREMENTS, OR DESIGN DUE TO THE USE OF A SUBSTITUTION SHALL BE SUBMITTED TO THE ENGINEER AS PART OF THIS PROPOSAL. THE CONTRACTOR TAKES FULL RESPONSIBILITY FOR THE SUBSTITUTION AND ALL CHANGES RESULTING FROM SUBSTITUTION. ALL ITEMS SHALL BE SUBMITTED FOR REVIEW IN CONJUNCTION WITH THE SUBMITTAL OF THE ALTERNATE. ANY SUBSTITUTION MUST BE SUBMITTED WITH AN EXPLANATION WHY SUBSTITUTION IS BEING UTILIZED. IF THE SUBSTITUTED ITEM DEVIATES FROM THE SPECIFIED ITEM, THOSE DEVIATIONS ARE TO BE IDENTIFIED ON A LINE BY LINE BASIS. IF THE SUBSTITUTION IS BEING UTILIZED FOR FINANCIAL REASONS, THE ASSOCIATED CREDIT MUST BE SIMULTANEOUSLY SUBMITTED.		J. INTERVALS OF SUPPORTS	
B. PROVIDE ALL PLUMBING WORK SHOWN ON THE CONTRACT DOCUMENTS. ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE UNIFORM CONSTRUCTION CODE (NJC 5:23), 2015 INTERNATIONAL BUILDING CODE AS ADOPTED BY NEW JERSEY, 2015 NATIONAL STANDARD PLUMBING CODE, 2015 INTERNATIONAL FUEL GAS CODE AS ADOPTED BY NEW JERSEY, LANDLORDS BUILDING STANDARDS, AND ALL AUTHORITIES HAVING JURISDICTION (AIA), APPLICABLE NATIONAL, STATE AND LOCAL CODES, LAWS AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK SHALL BE INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS.		1. ALL HORIZONTAL CAST IRON PIPING SHALL BE SUPPORTED ON FIVE FOOT CENTERS AND AT ALL JOINTS. IN ADDITION ALL CAST IRON NON-HUB PIPING AND FITTINGS 5" DIA. AND LARGER MUST BE SUITABLY BRACED TO PREVENT HORIZONTAL MOVEMENT. THIS MUST BE DONE AT EVERY BRANCH OPENING OR CHANGE OF DIRECTION BY THE USE OF BRACES, BLOCKS, RODDING, OR OTHER SUITABLE METHOD. TO PREVENT MOVEMENT OR JOINT SEPARATION PER CHAPTER IV OF THE CAST IRON SOIL PIPE INSTITUTE HANDBOOK.	
C. ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE OF THIS WORK. FINAL ACCEPTANCE SHALL BE DEFINED AS THE TIME AT WHICH THE PLUMBING WORK IS TAKEN OVER AND ACCEPTED BY THE OWNER. ENGAGE THE SERVICES OF VARIOUS MANUFACTURERS SUPPLYING THE EQUIPMENT FOR THE PROPER STARTUP, OPERATION AND TRAINING OF ALL SYSTEMS INSTALLED. INSTRUCT THE OWNERS PERSONNEL IN THE PROPER OPERATION AND SERVICING OF THE EQUIPMENT.		2. ALL HORIZONTAL STEEL SCREWED PIPING SHALL BE SUPPORTED ON TEN FOOT CENTERS.	
D. BIDDERS SHALL VISIT AND CAREFULLY EXAMINE THE AREA AFFECTED BY THIS WORK TO FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS AND THE DIFFICULTIES THAT WILL AFFECT THE EXECUTION OF THIS WORK BEFORE SUBMITTING PROPOSALS. EXAMINE THE CONTRACT DOCUMENTS OF THIS TRADE AND ALL OTHER TRADES FOR THIS PROJECT. VISIT ALL EXISTING CONDITIONS AT THE SITE, AND BECOME FULLY INFORMED AS TO THE EXTENT AND CHARACTER OF THE WORK IN THE BUILDING. SUBMISSION OF A PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT SUCH AN EXAMINATION HAS BEEN MADE AND LATER CLAIMS WILL NOT BE RECOGNIZED FOR EXTRA LABOR, EQUIPMENT, OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN HAD SUCH AN EXAMINATION BEEN MADE. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ENGINEERS ATTENTION PRIOR TO BID. IF DISCREPANCIES ARE NOT RESOLVED TO CONTRACTORS SATISFACTION THEY SHALL BE QUALIFIED IN THEIR BID SUBMISSION.		3. ALL HORIZONTAL COPPER TUBING SHALL BE SUPPORTED BY HANGERS NOT OVER SIX FEET APART FOR TUBING 1-1/4" DIA. AND SMALLER AND NOT OVER TEN FEET APART FOR TUBING 1-1/2" AND LARGER.	
E. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN CONTRACT. IT IS NOT INTENDED TO SPECIFY OR TO SHOW EVERY OFFSET, FITTING, OR COMPONENT. HOWEVER, CONTRACT DOCUMENTS REQUIRE COMPONENTS AND MATERIALS WHETHER OR NOT INDICATED OR SPECIFIED AS NECESSARY TO MAKE THE INSTALLATION COMPLETE AND OPERATIONAL. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID CONFLICT. THE CONTRACTOR SHALL, WITHOUT EXTRA COST TO THE OWNER, MAKE ALL REASONABLE MODIFICATIONS IN THE WORK AS MAY BE REQUIRED TO PREVENT CONFLICT WITH THE WORK OF OTHER TRADES, OR FOR THE PROPER INSTALLATION OF THE WORK.		K. PROVIDE SEISMIC RESTRAINTS FOR ALL PIPING SYSTEMS AND EQUIPMENT AS REQUIRED BY LOCAL AND STATE CODES.	
F. INTERRUPTION OF EXISTING BUILDING SERVICES IN ORDER TO CONNECT NEW PIPING TO EXISTING SHALL BE MADE AT SUCH TIME AS TO CAUSE THE LEAST INTERFERENCE WITH ESTABLISHED BUILDING OPERATING PROCEDURE. ALL EXISTING SERVICE SHUTDOWNS SHALL BE SUPERVISED AND DIRECTED BY BUILDING MANAGEMENT. THE CONTRACTOR SHALL GIVE NOTICE 48 HOURS PRIOR TO ANY SHUTDOWN.		2.05 INSULATION	
G. ALTHOUGH NOT SPECIFICALLY MENTIONED HEREIN OR SHOWN ON THE DRAWINGS, ANY EQUIPMENT, MATERIALS, ACCESSORIES, OR LABOR REQUIRED FOR A CODE COMPLIANT AND COMPLETE INSTALLATION OF THE PLUMBING WORK SHALL BE FURNISHED AND INSTALLED AS PART OF THE ORIGINAL BID.		A. DOMESTIC COLD WATER, HOT WATER, HOT WATER REGR. PIPING, HORIZONTAL STORM PIPING:	
H. PATCH AND/OR REPLACE DAMAGED ARCHITECTURAL COMPONENTS AS A RESULT OF PLUMBING SYSTEMS INSTALLATION. CLEAN UP THE CONSTRUCTION SITE DAILY DURING CONSTRUCTION SO AS NOT TO INTERFERE WITH THE WORK OF OTHER TRADES, AND AFTER THE COMPLETION OF INSTALLATION AND TESTING.		1. JOHNS MANVILLE MICRO-LOK HP FIBER GLASS PIPE INSULATION WITH FACTORY APPLIED ALL SERVICE VAPOR RETARDER JACKET WITH SELF-SEALING CLOSURE LAP, COMPLYING WITH ASTM C841, ASTM C586, ASTM C1138 AND ASTM E84, COMPOSITE PNC 2300 LISTED AND LABELED. FIRE AND SMOKE HAZARD RATINGS NOT TO EXCEED A FLAME SPREAD OF 25 OR SMOKE DEVELOPMENT OF 50.	
I. ALL NECESSARY CUTTING AND PATCHING IN FLOOR SLABS, ROOF SLABS, WALLS, AND CEILINGS FOR THE PLUMBING WORK SHALL BE PERFORMED BY THIS CONTRACTOR. RESTORE TO MATCH EXISTING CONDITIONS.		2. FITTINGS AND VALVES TO BE COVERED WITH JOHNS MANVILLE ZESTON 2000 SERIES STANDARD GAUGE PVC FITTING COVERS WITH HALO TEMPERATURE FIBER GLASS INSERTS.	
J. REMOVAL TEMPORARY CONNECTIONS AND RELOCATION OF CERTAIN EXISTING WORK WILL BE NECESSARY FOR THE INSTALLATION OF THE NEW SYSTEMS. ALL EXISTING CONDITIONS ARE NOT COMPLETELY DETAILED ON THE DRAWINGS. THE CONTRACTOR SHALL SURVEY THE SITE AND MAKE ALL NECESSARY CHANGES REQUIRED BASED ON EXISTING CONDITIONS FOR PROPER INSTALLATION OF NEW WORK.		3. PROVIDE 1" THICK INSULATION FOR DOMESTIC WATER PIPING AND HORIZONTAL STORM PIPING.	
K. ALL EQUIPMENT INSTALLED OR CONNECTED INTO THE BUILDING STAIRS, RISERS, PLUMBING SYSTEMS AND INFRASTRUCTURE SHALL BE APPROVED IN ADVANCE BY THE BUILDING GROUP TO INSTALLATION. PLAN INSTALLATION OF NEW WORK AND CONNECTIONS TO EXISTING PIPING TO INSURE MINIMUM INTERFERENCE WITH REGULAR OPERATION OF EXISTING FACILITIES. ALL SYSTEM SHUTDOWNS AFFECTING OTHER AREAS SHALL BE COORDINATED WITH BUILDING MANAGEMENT.		B. INSULATE ALL EXPOSED DOMESTIC PIPING INCLUDING HOT, COLD AND TEMPERED WATER SUPPLIES UNDER LAVATORIES OR SINKS. INSTALLED COVER SHALL MEET ADA 4.19.4, ADA406.6.5, ICC-ANSI A117.1 606.5, OR GSA & OOD'S ABA 60% S. REQUIREMENT TO "PROTECT AGAINST CONTACT - NO SHARP OR ABRASIVE SURFACES"; PIPE COVER MATERIAL TO BE 1/8" THICK PVC WITH ANTIMICROBIAL, ANTIPLURAL AND UV INHIBITED PROPERTIES. PLUMBERX PRO EXTREME OR APPROVED EQUAL.	
L. GUARANTEE: THE CONTRACTOR SHALL GUARANTEE AND SERVICE THE ENTIRE INSTALLATION FOR A PERIOD OF ONE YEAR FROM THE DATE OF THE FINAL ACCEPTANCE OF THE INSTALLATION. THE CONTRACTOR SHALL, DURING THE PERIOD OF THE GUARANTEE, REPLACE OR REPAIR AT HIS OWN EXPENSE ANY PIECE OF EQUIPMENT AND/OR MATERIAL WHICH IS FOUND TO BE DEFECTIVE, THE REPLACEMENT OR REPAIR SHALL BE PERFORMED THE SAME DAY OF NOTIFICATION IN AN EMERGENCY FASHION WHEN NOTIFIED BY THE OWNER OR AUTHORIZED REPRESENTATIVE. THE CONTRACTOR SHALL ALSO REPAIR ALL DAMAGE TO SURROUNDING WORK CAUSED BY THE FAILURE, REPAIR OR REPLACEMENT OF DEFECTIVE EQUIPMENT. THE FINAL ACCEPTANCE WILL BE MADE AFTER THE CONTRACTOR HAS DEMONSTRATED THAT HIS WORK FULFILLS THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATION, AND HAS FURNISHED ALL THE REQUIRED CERTIFICATES OF INSPECTION AND APPROVALS.		C. SLEEVES THROUGH WALLS AND WHERE SERVING EXPOSED PIPE PENETRATING FLOORS SHALL BE SCHEDULE 40.	
1.05 QUALITY ASSURANCE		D. ALL SLEEVES THROUGH RATED WALLS OR PARTITIONS SHALL FORM A U.L. CLASSIFIED FIRESTOP CAPABLE OF RETURNING THE WALL OR PARTITION BACK TO ITS UNPENETRATED FIRE RESISTANCE.	
A. ALL PIPES SHALL BE MARKED TO INDICATE MANUFACTURER AND ASTM STANDARD. EACH FULL PIPE LENGTH SHALL HAVE THE MANUFACTURER'S NAME CAST, STAMPED OR ROLLED ON.		E. FIRESTOPPING CAULK SHALL BE SIMILAR TO 3M CP 250+ CAULK. FIRE STOPPING WRAP SHALL BE SIMILAR TO 3M FS-195 - WRAPSTRIP.	
B. EACH FITTING SHALL HAVE THE MANUFACTURER'S SYMBOL & PRESSURE RATING CAST, STAMPED OR ROLLED ON.		2.07 ESCUTCHEONS	
C. ALL NEW COMPONENTS OF THE PLUMBING SYSTEM MUST CONFORM TO LOCAL AND STATE BUILDING AND PLUMBING CODES AND BUILDING STANDARDS.		A. INSTALL ESCUTCHEONS ON BOTH SIDES OF CONSTRUCTION WHEREVER PIPES PASS THROUGH WALLS, FLOORS, PARTITIONS OR CEILINGS. ESCUTCHEONS SHALL BE HELD IN PLACE WITH SET SCREWS. TAKE SPECIAL CARE TO PROTECT THE ESCUTCHEONS DURING THE COURSE OF CONSTRUCTION.	
1.06 COORDINATION WITH BUILDING MANAGEMENT		B. ESCUTCHEON APPLICATION SCHEDULE	
A. THE PLUMBING CONTRACTOR IS TO OBTAIN A COPY OF THE BUILDING RULES AND REGULATIONS FOR TENANT ALTERATIONS PRIOR TO BID SUBMISSION IN ORDER TO DETERMINE THE BUILDING MANAGEMENTS MINIMUM MATERIAL REQUIREMENTS AND THE EXTENT OF WORK REQUIRED TO BE PERFORMED ON PREMISE TIME, INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:		1. FINISHED SPACES SHALL BE POLISHED BRASS	
1. SHUT-DOWNS OF BUILDING SERVICES		2. UNFINISHED SPACES SHALL BE PLAIN BRASS OR CAST IRON.	
2. NOISY WORK, INCLUDING CORE DRILLING		2.08 PIPE IDENTIFICATION	
3. WORK IN OTHER TENANTS SPACES		A. INSTALL MANUFACTURED PIPE MARKERS ON EACH PIPING SYSTEM. INSTALL WITH FLUX INDICATION ARROWS SHOWING DIRECTION OF FLOW. LOCATE PIPE MARKERS EVERY TWENTY FEET ON EACH PIPE AND AT A MINIMUM OF ONCE IN EACH ROOM.	
4. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR ADHERING TO THE BUILDING OWNERS RULES AND REGULATIONS. ANY DISCREPANCIES BETWEEN THE CONTRACT DOCUMENTS AND THE BUILDINGS RULES AND REGULATIONS SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER WITH THE BID FOR REVIEW.		B. COMPLY WITH ASME A13.1 SCHEME FOR THE IDENTIFICATION OF PIPING SYSTEMS FOR LETTER SIZE, LENGTH OF COLOR, FIELD, COLORS, AND VIEWING ANGLES OF IDENTIFICATION DEVICES FOR PIPING.	
5. PRIOR TO THE START OF ANY BUILDING PLUMBING SYSTEM MODIFICATIONS, THE PROPERTY MANAGER SHALL BE PROVIDED WITH A MINIMUM OF 24 HOURS NOTICE IN ORDER INTERRUPTION OF EXISTING BUILDING SERVICES IN ORDER TO CONNECT NEW PIPING TO EXISTING SHALL BE MADE AT SUCH TIME AS TO CAUSE THE LEAST INTERFERENCE WITH ESTABLISHED BUILDING OPERATING PROCEDURE. THE CONTRACTOR SHALL NOT INTERRUPT THE SERVICE WITHOUT WRITTEN PERMISSION OF BUILDING MANAGEMENT.		C. FURNISH AND INSTALL NEW PLUMBING FIXTURES AND TRIM WHERE SHOWN ON THE CONTRACT DRAWINGS. THE ARCHITECT'S INTERIOR FINISH DRAWINGS SHALL BE FOLLOWED FOR THE LOCATION OF ALL NEW FIXTURES.	
6. CONTRACTOR SHALL MAINTAIN RECORD DRAWING PRINTS ON JOB SITE AND RECORD, AT TIME OF OCCURRENCE, DEVIATIONS FROM CONTRACT DOCUMENTS.		D. REFER TO ARCHITECT'S DRAWINGS FOR SPECIFICATIONS OF FIXTURES AND FAUCETS.	
7. NAMES AND ADDRESS OF LOCAL SUPPLIERS FOR THE ITEMS INCLUDED.		E. FIXTURES SHALL COMPLY WITH ALL STANDARDS AND ADA REQUIREMENTS AND SHALL HAVE MAXIMUM FLOW RATES AS REQUIRED BY LOCAL AND STATE WATER CONSERVATION REQUIREMENTS.	
8. AT THE COMPLETION OF WORK AND BEFORE FINAL ACCEPTANCE, PROVIDE AS-BUILT DRAWINGS OF THE INSTALLATION. IN AUTO-CAD 2014 OR NEWER. AN ELECTRONIC COPY (AUTOCAD FORMAT) OF ALL BUILDING DRAWINGS WILL BE PROVIDED TO THE PLUMBING CONTRACTOR BY THE CONSULTANT AT NO COST. (ARCHITECTURAL DRAWINGS IN AUTOCAD FORMAT MUST BE OBTAINED FROM THE ARCHITECT). THE DRAWINGS WILL REFLECT THE BID AND/OR CONSTRUCTION SET OF DRAWINGS. SHOULD THE CONTRACTOR REQUIRE ADDITIONAL ELECTRONIC COPIES DURING CONSTRUCTION, A COST OF \$250.00 PER DRAWING WILL BE CHARGED BY THE CONSULTANT.		F. EACH FIXTURE SUPPLY CONNECTION SHALL BE PROVIDED WITH INDIVIDUAL SHUT-OFF OR STOP VALVES.	
9. CLEARLY INDICATE THE WORDS "AS-BUILT" IN THE TITLE BLOCK COLUMN OF THE DRAWINGS AS WELL AS THE PLUMBING CONTRACTOR'S NAME AND ADDRESS.		G. ALL TRIM, FITTINGS, TRAPS, ETC. EXPOSED TO VIEW AT FIXTURES SHALL BE HEAVY CHROME PLATED FINISH. PROVIDE ONE PIECE CAST BRASS CHROMIUM PLATED ESCUTCHEONS WITH SET SCREWS FOR PIPES PENETRATING THE WALL.	
10. SUBMIT A SINGLE PRINT TO CONSULTANT FOR REVIEW. WHEN FOUND ACCEPTABLE BY THE CONSULTANT, SUBMIT THREE SETS OF PRINTS TOGETHER WITH THE CAD DISK FOR PRESENTATION TO THE LANDLORD AND TENANT.		H. PRIOR TO FINAL ACCEPTANCE BY THE TENANT/OWNER ADJUST ALL FAUCETS AND FLUSH VALVES FOR PROPER FLOW IN ACCORDANCE WITH MANUFACTURERS INSTALLATION REQUIREMENTS AND RECOMMENDATIONS.	
1.07 AS-BUILT DRAWINGS.		I. PLUMBING CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL PLUMBING FIXTURES FROM DAMAGE.	
A. CONTRACTOR SHALL MAINTAIN RECORD DRAWING PRINTS ON JOB SITE AND RECORD, AT TIME OF OCCURRENCE, DEVIATIONS FROM CONTRACT DOCUMENTS.		J. INSULATE ALL EXPOSED DOMESTIC PIPING INCLUDING HOT, COLD AND TEMPERED WATER SUPPLIES UNDER LAVATORIES OR SINKS TO COMPLY WITH ADA REQUIREMENTS. SEE INSULATION SECTION FOR SPECIFICATION OF MATERIAL.	
B. AT THE COMPLETION OF WORK AND BEFORE FINAL ACCEPTANCE, PROVIDE AS-BUILT DRAWINGS OF THE INSTALLATION. IN AUTO-CAD 2014 OR NEWER. AN ELECTRONIC COPY (AUTOCAD FORMAT) OF ALL BUILDING DRAWINGS WILL BE PROVIDED TO THE PLUMBING CONTRACTOR BY THE CONSULTANT AT NO COST. (ARCHITECTURAL DRAWINGS IN AUTOCAD FORMAT MUST BE OBTAINED FROM THE ARCHITECT). THE DRAWINGS WILL REFLECT THE BID AND/OR CONSTRUCTION SET OF DRAWINGS. SHOULD THE CONTRACTOR REQUIRE ADDITIONAL ELECTRONIC COPIES DURING CONSTRUCTION, A COST OF \$250.00 PER DRAWING WILL BE CHARGED BY THE CONSULTANT.		K. WATER CLOSETS - FOR WALL HUNG FIXTURE PROVIDE APPROPRIATE CARRIER, JAY R. SMITH OR EQUAL.	
C. CLEARLY INDICATE THE WORDS "AS-BUILT" IN THE TITLE BLOCK COLUMN OF THE DRAWINGS AS WELL AS THE PLUMBING CONTRACTOR'S NAME AND ADDRESS.		PART 3 EXECUTION	
D. SUBMIT A SINGLE PRINT TO CONSULTANT FOR REVIEW. WHEN FOUND ACCEPTABLE BY			



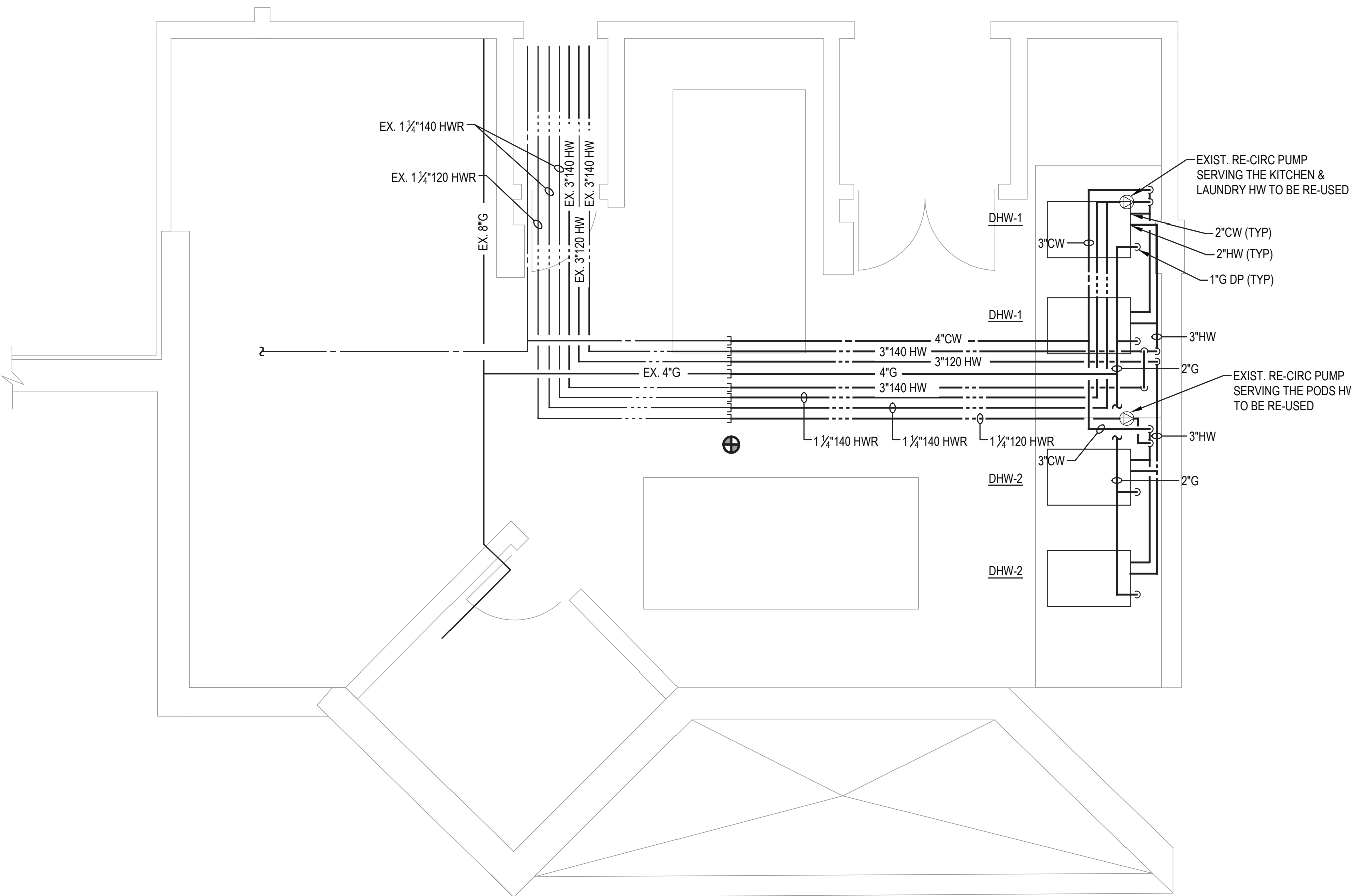


F. CONTRACTOR TO DISCONNECT ALL ELECTRICAL CIRCUITING AND CONTROLS AS NECESSARY.

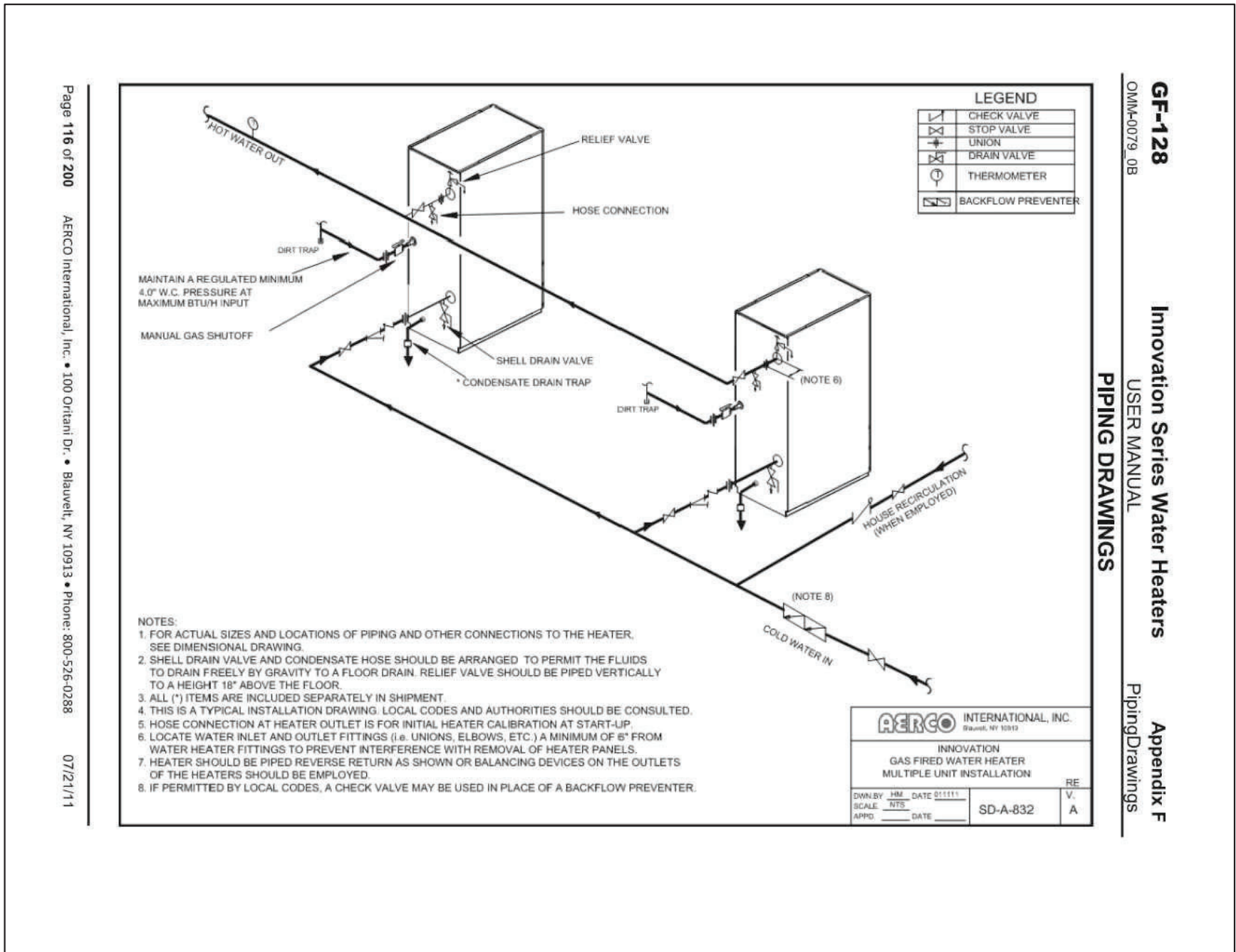
- ① CONTRACTOR SHALL DECOMMISSION AND REMOVE EXISTING GAS-FIRED WATER HEATER. DISCONNECT AND REMOVE ALL EXISTING CW, HW & HWR PIPING FROM THE WATER HEATER TO THE STORAGE TANK.
- ② CONTRACTOR SHALL DECOMMISSION AND REMOVE EXISTING 750 GALLONS HOT WATER STORAGE TANK. DISCONNECT AND REMOVE ALL EXISTING CW, HW & HWR PIPING FROM THE STORAGE TANK TO POINT OF DISCONNECTION TO THE EXISTING.
- ③ CONTRACTOR SHALL DECOMMISSION AND REMOVE EXISTING TWO (2) GAS-FIRED WATER HEATER. DISCONNECT AND REMOVE ALL EXISTING CW, HW & HWR PIPING FROM THE WATER HEATER TO THE STORAGE TANK.
- ④ CONTRACTOR SHALL DECOMMISSION AND REMOVE EXISTING SIX (6) 500 GALLONS HOT WATER STORAGE TANK. DISCONNECT AND REMOVE ALL EXISTING CW, HW & HWR PIPING FROM THE STORAGE TANK TO POINT OF DISCONNECTION TO THE EXISTING.

XX OF XX

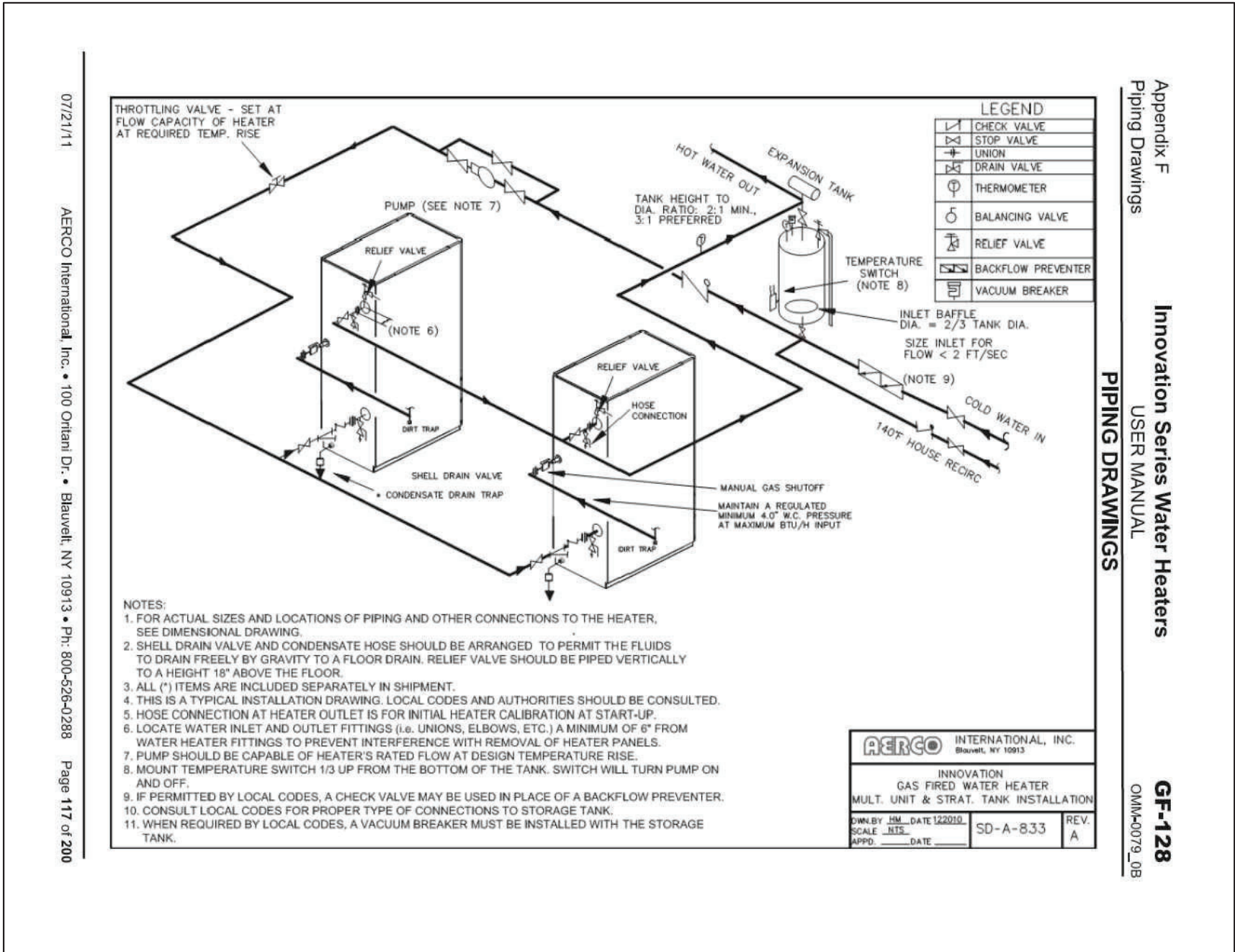




PLUMBING - BASEMENT PART PLAN  
SCALE: 1/2"=1'-0"



DWH-1: AERCO INNO 1060 - MANUFACTURER'S PIPING DETAIL (FOR REFERENCE)



DWH-2: AERCO INNO 1350 - MANUFACTURER'S PIPING DETAIL (FOR REFERENCE)

PLUMBING GENERAL NOTES

- ROUTING OF WASTE, VENT, AND DOMESTIC WATER PIPING IS SHOWN DIAGRAMMATICALLY ONLY. PLUMBING CONTRACTOR MUST DETERMINE EXACT ROUTING OF NEW PIPING COORDINATED WITH ALL NEW AND EXISTING CONDITIONS. FIELD VERIFY EXACT SIZES OF THE EXIST. CW, HW, HWR PIPING.
- THE PLUMBING CONTRACTOR SHALL COORDINATE ALL NEW WORK WITH THE EXISTING CONDITIONS AND THE NEW WORK OF ALL OTHER TRADES ON THE JOB SITE AND SHALL BE RESPONSIBLE TO REPAIR AND REPLACE ANY EXISTING SUSPENDED CEILINGS AND / OR FINISHES DAMAGED BY THE INSTALLATION OF EQUIPMENT, PIPING, FIXTURES, ETC, UNDER THE PLUMBING CONTRACT. CONTRACTOR TO VERIFY ON SITE THE EXACT LOCATION OF EXISTING SAN, VENT, CW & HW RISER PIPE BEFORE INSTALLING ANY NEW WORK.
- ALL FIRE PROOFING WORK AFFECTED BY NEW INSTALLATION ARE TO BE RESTORED TO ITS ORIGINAL CONDITION AND THE REQUIRED RATING.
- PLUMBING INSTALLATION SHALL BE IN ACCORDANCE WITH LOCAL BUILDING CODES AND BUILDING STANDARD FOR ALTERATION CONSTRUCTION.
- ANY HOT AND COLD WATER REQUESTS FOR SHUT RISER DOWNS SHALL BE MADE TO THE BUILDING 2 WEEKS IN ADVANCE.
- CONTRACTOR SHALL PROVIDE AN ALLOWANCE IN HIS BID PRICE TO MODIFY EXISTING PLUMBING SYSTEM UPON THE REQUEST OF THE CLIENT TO ACCOMMODATE THE NEW SCOPE OF WORK.
- CONTRACTOR SHALL COORDINATE WITH THE ELECTRICIAN FOR ANY POWER REQUIREMENT ON WATER HEATER AND CIRCULATION PUMP.
- REMOVE EXISTING TEMPERATURE MIXING VALVE AND RELATED TEMPERED WATER, HOT & COLD WATER SERVICES LINES TO EXISTING WATER HEATERS, CAP EXISTING HW, CW, HWR LINES IN THE CEILING WHERE INDICATED ON THE FLOOR PLAN.
- CONTRACTOR TO COORDINATE WITH THE ELECTRICIAN ALL NEW CONNECTIONS/RECONNECTIONS OF ANY ELECTRICAL CIRCUITING AND CONTROLS AS NECESSARY, I.E., CIRCULATION PUMP, AQUASTAT, ETC.
- CONTRACTOR TO PROVIDE AN ALLOWANCE IN HIS BID PRICE TO FURNISH & INSTALL NEW CIRCULATION PUMPS UPON THE REQUEST OF THE CLIENT.

GE Crotonville - Executive Residence Building Water Heater Replacement

Old Albany Post Road,  
Ossining, NY

Sod

10/29/21 ISSUED FOR REVIEW

Date Issued Revision No.



825 Eighth Avenue, FL18 | New York, NY 10019  
212.944.7722 | amagroupusa.com

Drawing Title:  
PLUMBING  
BASEMENT FLOOR PART PLAN

Scale: 1/2"=1'-0" Issue Date: 10/XX/2021

Proj. Manager: RR Proj. Engineer: -

AMA Project No:  
G003-03-017

Drawing No:

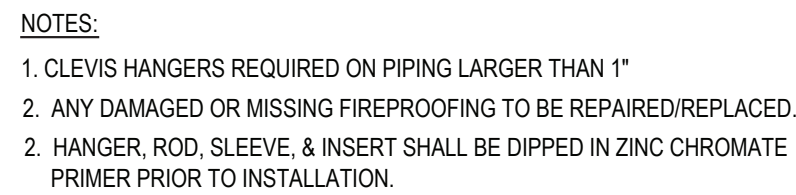
P-501

NYC DCB NUMBER:

TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT, THESE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE 2020 ENERGY CONSERVATION  
THIS PLAN IS APPROVED ONLY FOR THE WORK ON THE APPLICATION SPECIFICATION SHEET. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON OR TO BE CONSIDERED AS EITHER BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.



Old Albany Post Road,  
Ossining, NY



## TYPICAL HANGER DETAILS

PL-002



PL-009

PIPE DIAMETER	SHIELD LENGTH	SHIELD THICKNESS USSG
UP TO 3"	12"	18
4"	15"	16
5"	18"	16
6"	21"	16
8" & LARGER	24"	14



PL-005

- A. PIPING PASSING THROUGH WALLS SHALL HAVE A TRIM OPENING CUT NO GREATER THAN NECESSARY FOR THE INSTALLATION OF A SLEEVE SECURED THEREIN.
- B. PIPING PASSING THROUGH CONCRETE FLOORS SHALL HAVE AN OPENING CORE DRILLED SO THAT THE SPACE BETWEEN THE OPENING AND THE PIPE SHALL NOT EXCEED ONE-HALF INCH.
- C. ANNUAL SPACES BETWEEN PIPING AND SLEEVES OR CORE DRILLED FLOOR OPENINGS SHALL BE PACKED WITH MINERAL WOOL AND SEALED, TO RETAIN THE FIRE INTEGRITY OF THE WALLS AND FLOORS, WITH A NON-HARDENING COMPOUND SIMILAR OR EQUAL TO DUXSEAL AS MANUFACTURED BY THE J.M. CLIPPER CORP.



- 1 GAS FIRED STORAGE WATER HEATER
- 2 GATE VALVE
- 3 CHECK VALVE
- 4 EXPANSION TANK-AMTROL  
THERM-X-TROL MODEL #ST-12
- 5 HEAT MAINTENANCE POWER CONNECTION.  
COORDINATE ELECTRICAL WIRING WITH  
ELECTRICAL CONTRACTOR
- 6 UNION
- 7 COLD WATER TANK INLET
- 8 HOT WATER TANK OUTLET
- 9 COMBINATION TEMPERATURE AND  
PRESSURE RELIEF VALVE
- 10 HEATER DRAIN VALVE
- 11 TANK CLEANOUT
- 12 WEDGE PLUG VALVE WITH LEVER HANDLE
- 13 GAS INLET REGULATOR/CONTROL VALVE
- 14 DRIP POCKET WITH CAP
- 15 CONDENSING FLUE CONNECTION
- 16 HOUSEKEEPING PAD
- 17 AUTOMATIC AIR RELEASE VALVE WATTS  
MODEL #FVA-1/8"
- 18 VACUUM RELIEF VALVE WATTS #N36
- 19 HOT WATER RETURN
- 20 CIRCULATION PUMP (EXIST TO BE REUSED)
- 21 AQUASTAT
- 22 THERMOSTAT