

1. IT IS THE INTENT OF THESE SPECIFICATIONS TO PROVIDE A COMPLETE INSTALLATION FOR FINISHED WORK, TESTED AND READY FOR OPERATION. THE WORK THROUGHOUT SHALL BE EXECUTED IN THE BEST AND MOST THOROUGH MANNER UNDER THE DIRECTION OF AND TO THE SATISFACTION OF THE OWNER.

2. ALL MATERIALS REQUIRED FOR THIS WORK SHALL BE NEW UNLESS BEST OF ITS RESPECTIVE KINDS, AND FREE FROM DEFECTS AND OF FIRST CLASS QUALITY. BASIS OF QUALITY SHALL BE LATEST STANDARDS OF ASTM, ANSI FEDERAL SPECIFICATIONS OR OTHER ACCEPTABLE STANDARDS.

3. THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR WORK UNTIL ITS COMPLETION AND FINAL ACCEPTANCE AND SHALL REPLACE ANY OF THE SAME WHICH MAY BE DAMAGED, LOST OR STOLEN WITHOUT ADDITIONAL COST TO THE OWNER.

4. THE PLUMBING CONTRACTOR SHALL GUARANTEE ALL WORK PERFORMED AND MATERIALS INSTALLED TO BE FREE FROM INHERENT DEFECTS AND SHALL KEEP IN REPAIR AND REPLACE ANY DEFECTIVE MATERIALS OR WORKMANSHIP, FREE OF COST TO THE TENANT (OWNER) FOR A PERIOD OF ONE (1) YEAR AFTER THE OPENING FOR BUSINESS.

5. ALL WORK SHALL BE DONE ACCORDING TO THE REQUIREMENTS OF ALL APPLICABLE CODES AND LEASE CRITERIA (IF APPLICABLE) AND SHALL RECEIVE THE APPROVAL OF ALL AUTHORITIES HAVING JURISDICTION. PREPARE ALL REQUIRED DOCUMENTS, DRAWINGS AND PERFORM ALL REQUIRED TESTS AND PAY ALL REQUIRED CHARGES TO OBTAIN THESE APPROVALS.

6. CONTRACTOR SHALL BE HELD TO HAVE EXAMINED THE SITE FOR THE WORK BEFORE HAVING SUBMITTED A PROPOSAL. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR CONDITIONS FOUND DURING THE COURSE OF THE CONTRACT.

7. THIS CONTRACTOR MUST PROVIDE LANDLORD'S CONSTRUCTION REPRESENTATIVE WITH COPIES OF REQUIRED INSURANCE AND COPIES TO BE FURNISHED TO THE OWNER BEFORE COMMENCING WORK.

8. SUBMIT THREE (3) SETS OF SHOP DRAWINGS IDENTIFIED WITH PROJECT NAME OF THE FOLLOWING: (1) ELECTRIC HOT WATER HEATER OR REHEATER (2) PLUMBING FIXTURES AND TRIM. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF PIPING LAYOUT TO THE OWNER FOR THEIR FILE.

9. THE PLUMBING SUBCONTRACTOR IS A SUBCONTRACTOR OF THE TENANT'S GENERAL CONTRACTOR.

10. NOTCHING AND BORING OF STRUCTURAL STEEL MEMBERS IS NOT PERMITTED. WHEN HANGING FROM STRUCTURAL STEEL ONLY HANG FROM TOP FLANGE OF BEAMS AND TOP CHORDS OF AT PANEL POINTS OF JOISTS / TRUSSES.

I. WORK RESPONSIBILITY

1. FINISH ALL LABOR, MATERIALS, EQUIPMENT AND CONTRACTORS FOR A COMPLETE SAFE INSTALLATION OF PLUMBING WORK IN FULL CONFORMITY WITH REQUIREMENTS OF ALL AUTHORITIES HAVING JURISDICTION AS INDICATED ON DRAWINGS AND/OR HEREIN SPECIFIED, INCLUDING IN GENERAL THE FOLLOWING:

2. SANITARY DRAINAGE CONNECTIONS TO PLUMBING FIXTURES AND EQUIPMENT REQUIRES SAME WITH FINAL CONNECTIONS TO EXISTING PREINSTALLED OUTLETS PROVIDED BY PRIOR TENANT(S) OR LANDLORD. PLUMBER SHALL VERIFY EXACT LOCATION OF WASTE PIPE OUTLET BEFORE SUBMITTING BID AND NOTIFY THE ARCHITECT OF ANY LOCATION DISCREPANCIES. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CONCRETE SPLICING REQUIRED TO MAKE THE FINAL CONNECTION TO THE EXISTING WASTE PIPING OR CAPPED OUTLETS. SPLICING, EXCAVATING, BACKFILLING AND NEW CONCRETE MUST MEET WITH THE LANDLORD'S APPROVAL.

A. SINK SANITARY TO A DISTANCE OF 100 FEET AND REPORT ANY BLOCKAGE.
B. TEST WATER PRESSURE TO INSURE MINIMUM OF 50 PSI.

3. COMPLETE VENT SYSTEM. ALL FIXTURES INDIVIDUALLY VENTED WITH FINAL CONNECTION THROUGH ROOF OR TO EXISTING LANDLORD SUPPLIED COMMON VENT. ROOF PENETRATION AND FLASHING TO BE PERFORMED BY LANDLORD'S ROOFER (IF APPLICABLE). COST OF ROOF PENETRATION AND FLASHING TO BE PART OF THIS CONTRACT, UNLESS NOTED OTHERWISE IN BID PROPOSAL (IF APPLICABLE).

4. DOMESTIC WATER SUPPLY SYSTEM INCLUDING CONNECTION TO EXISTING CAPPED OUTLET AND FINAL CONNECTIONS TO PLUMBING FIXTURES AND EQUIPMENT REQUIRES SAME. VERIFY EXACT LOCATION AND SIZE BEFORE SUBMITTING BID.

5. INSULATION OF ALL HOT AND COLD WATER PIPING, INCLUDING UNDER LAVATORY A.D.A. PIPE WRAPPINGS.

6. FURNISH AND INSTALL WATER METER (IF APPLICABLE) ACCESSIBLE TO UTILITY COMPANY OR LANDLORD'S REPRESENTATIVE FOR MONITORING WATER, BUT METER SHOULD IN NO WAY BE IN THE PATH OF THE A.D.A./C.A.B.O.-ANSI, 5'-0" CIRCULAR PATTERN.

7. COSTS FOR WORKING BELOW TENANT'S SLAB IN ANOTHER TENANT'S SPACE.

8. INSTALLATION OF FLOOR DRAIN, BACKFLOW PREVENTER (IF REQ. BY CODE) PER LANDLORD REQUIREMENT AND CLEANOUT PER LOCAL CODE. COORDINATE ALL LOCATIONS WITH OPERATIONS MANAGER.

9. COMPLETE NATURAL GAS PIPING SYSTEMS (AS APPLICABLE, REFER TO PLANS)

II. GENERAL ITEMS

1. SLEEVES. PROVIDE #22 GAGE GALVANIZED IRON PIPE SLEEVES FOR PIPING THROUGH WALLS AND FLOOR. PACK WITH NON-ASBESTOS ROPE AND FILL WITH EXPANDO NON-SHRINKING CEMENT.

2. ESCUTCHEONS. PROVIDE EXPOSED PIPING, BOTH BARE AND COVERED, WITH CP CAST BRASS ESCUTCHEONS WHERE PASSING THROUGH FLOORS, CEILINGS, WALLS OR PARTITIONS.

3. HANGERS AND SUPPORTS. SUPPORT HORIZONTAL DRAINAGE PIPING AT LEAST EVERY 5 FEET OR AT EVERY HANG CORNER TUBING EVERY 7 FEET AND VERT. PIPE EVERY 10 FEET WITH 'CLEVE' HANGERS AND INSULATION PROTECTION SHIELDS. PIPING SHALL NOT BE SUPPORTED FROM BRIDGES OR OTHER PIPING. ONLY SUPPORT FROM TOP FLANGES OF BEAMS AND TOP CHORDS AT PANELS OF JOIST AND TRUSSES. PROVIDE SHAY AND SEISMIC BRACINGS WHERE REQUIRED BY CODES.

4. TEST. TEST PIPING AND PROVE TIGHT FOR AT LEAST TWO HOURS IN ACCORDANCE WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION AND/OR AS SPECIFIED. TEST SHALL BE PERFORMED IN THE PRESENCE OF OWNER'S REPRESENTATIVE AND LOCAL INSPECTOR. TEST SHALL BE REPEATED IF NECESSARY UNTIL FINAL APPROVAL OF SYSTEM IS OBTAINED.

A. TEST DRAINAGE AND VENT PIPING BY FILLING WITH WATER TO OVERFLOWING AT ROOF, WATER LEVEL TO REMAIN.
B. TEST WATER PIPING WITH WATER 1/2 TIMES THE WORKING PRESSURE.

5. STERILIZATION OF DOMESTIC WATER SYSTEM. BEFORE BEING PLACED IN SERVICE, ALL WATER LINES SHALL BE CHLORINATED TO THE SATISFACTION OF THE ARCHITECT OR LANDLORD'S REPRESENTATIVE, IN ACCORDANCE WITH A.I.A.A. SPECIFICATION C651-05.

6. SLOPE WASTE LINES 2 INCHES AND SMALLER NOT LESS THAN 1/4 INCH PER FOOT. SLOPE LARGER MAINS NOT LESS THAN 1/8 INCH PER FOOT.

7. INSTALL A CLEANOUT AT BASE OF EACH SOIL STACK, AT EACH CHANGE IN DIRECTION, AT INTERVALS NOT OVER 50 FEET AND ELSEWHERE AS SHOWN ON DRAWINGS OR REQUIRED BY LOCAL CODE. CLEANOUTS SHALL NOT BE INSTALLED IN PUBLIC AREAS WITHOUT SPECIFIC PERMISSION BY TENANT'S CONSTRUCTION MANAGER.

III. MATERIALS

1. DRAINAGE AND VENT PIPING. EXTRA HEAVY HUB AND SPIGOT CAST IRON SOIL WITH RUBBER GASKETS CONFORMING TO ASTM C564. (OR APPROVED EQUAL PER LOCAL AND STATE BUILDING CODES) NO-HUB CAST IRON TO HAVE HEAVY DUTY, TYPE 304 STAINLESS STEEL COLLARS CONFORMING TO ASTM A 696, TYPE 304 STAINLESS STEEL SHIELD, TYPE 304 STAINLESS STEEL BANDS AND SLEEVE.
NPS 1 1/2" TO NPS 4", 3" WIDE SHIELD WITH 4 BANDS;
NPS 5" TO NPS 10", 4" WIDE BAND WITH 6 BANDS.

2. WATER PIPING BELOW SLAB. TYPE K HARD COPPER TUBING, WITH CAST BRONZE OR BRIGHT COPPER SOLDER JOINT FITTINGS USING 45-5 SOLDER. WATER PIPING ABOVE SLAB, TYPE L HARD COPPER TUBING USING SILVER SOLDER. ALL WATER SUPPLY PIPING TO CONFORM TO NSF/ANSI 61 AND ASTM B 75, ASTM B 88, ASTM B 281, OR ASTM B 447. ALL PIPE FITTINGS SHALL CONFORM TO ASTM A 696, ASME B 16.15, ASME B 16.16, ASME B 16.22, ASME B 16.25, ASME B 16.26, AND ASME B 16.24.

3. WATER HAMMER ARRESTERS. PROVIDE ON HOT AND COLD WATER BRANCHED TO FIXTURES. J. R. SMITH HYDROKOL MODEL 5020 FOR UP TO 60 FUTURE UNITS. WATER HAMMER ARRESTERS SHALL CONFORM TO ASSE 1012.

4. VALVES. GATE VALVE MATTS SERIES B-5000, CHECK VALVE MATTS SERIES B-5000, BALL VALVE MATTS SERIES B6000 OR B6001 FULL PORT. ALL VALVES 1/2" TO 2" BRASS BODY. VALVES SHALL CONFORM TO NSF/ANSI 61.

5. PRESSURE AND TEMPERATURE RELIEF VALVE. MATTS REGULATING CO. MODEL 101. TIP RELIEF VALVE SHALL CONFORM TO ANSI Z31.22.

6. PRESSURE REDUCING VALVE. MATTS SERIES 25A18 BRASS BODY WITH INTEGRAL 5/8" STRAINER, SEALED CASE FOR 1/2" TO 2 1/2" DIA. TO 300 PSI. PRESSURE REDUCING VALVE SHALL CONFORM TO ASSE 1005.

7. PRESSURE GAUGE. AMETEK DIV. OF U.S. GAUGE SERIES P-500, UP TO 4-1/2" DIA, 1/4" STEM, ALUMINUM CASE, BLACK FINISH.

8. AIR VENT. HOFFMAN #19 WATER MAIN VENT VALVE.

9. WATER METER. HERSEY CO. MODEL 400 SERIES 1/2". WATER METER SHALL CONFORM TO ALL APPLICABLE PARTS OF ANSI/ANNA C100 AND NSF/ANSI 61.

10. VACUUM RELIEF VALVE. MATTS MODEL 136-M BRASS BODY, 1/2" NPT LINE SIZE. VACUUM RELIEF VALVES SHALL CONFORM TO ANSI Z31.22.

11. EXPANSION TANK. ANTIROL THERMAL EXPANSION TANK MODEL ST. CONTRACTOR TO VERIFY SIZE REQUIRED FOR EXPANSION TANK PRIOR TO BID. THERMAL EXPANSION TANK TO CONFORM TO NSF/ANSI 61.

12. TRAP PRIMER. PRECISION PLUMBING PRODUCTS INC. MODEL P1-500 UP TO FOUR CONNECTIONS. OPTIONAL DISTRIBUTION UNIT REQUIRED FOR 2, 3 AND FOUR DRAIN LINES. TRAP PRIMER TO CONFORM TO ASSE 1046 OR ASSE 1044.

13. MIXING VALVE. MATTS SERIES M4V MIXING VALVE, 1/2" LINE SIZE. MIXING VALVE SHALL CONFORM TO ASSE 1011, ASSE 1064 & ASSE 1070.

14. BACKFLOW PREVENTER. ZURN MODEL 475X12 REDUCED PRESSURE PRINCIPLE ASSEMBLY BACKFLOW PREVENTER, LINE SIZE 3/4" TO 2" TO MATCH INLET WATER LINE SIZE. PREVENTER SHALL CONFORM TO ASSE 1013 AND ANNA 2511.

IV. INSULATION

1. ALL HOT AND COLD WATER PIPING AND FITTINGS SHALL BE INSULATED WITH 1" THICK RIGID FIBERGLASS WITH VAPOR BARRIER, UNIVERSAL JACKET PASTED WITH VAPOR BARRIER CEMENT. VAPOR BARRIER NOT REQUIRED ON HOT WATER PIPING.

2. ALL ADA CONFORMING, INELCHAIR ACCESSIBLE LAVATORY P-TRAP AND ANGLE VALVE ASSEMBLIES TO BE COVERED WITH THE MOLDED, ANTIMICROBIAL TRUBER, INC. "LAV-GUARD" UNDER-SINK PROTECTIVE PIPE COVER MODEL #105.

V. SPECIFIC PLUMBING SPECIFICATIONS

1. INSTALL NEW ONLY IF EXISTING DOES NOT MEET CURRENT ADA/CABO-ANSI (AS APPLICABLE) STANDARDS, OR IS DAMAGED, NOT IN WORKING ORDER OR NOT EXISTING AS APPLICABLE.

2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SUPPLY HANDICAPPED TOILET FIXTURES, IF REQUIRED BY CODE OR NOTED ON THE DRAWINGS, UTILIZING THE SPECIFICATION ABOVE AS A STANDARD AND MEETING CODE REQUIREMENTS. SPACING OF FIXTURES TO BE COORDINATED WITH THE GENERAL CONTRACTOR AS WELL AS THE PLUMBING INSPECTOR'S REQUIREMENTS.

VI. LANDLORD'S CRITERIA

1. THE PLUMBING CONTRACTOR IS TO BECOME FAMILIARIZED WITH LANDLORD'S CRITERIA FOR THIS LOCATION AND INCLUDE ANY WORK REQUIRED OF THIS CRITERIA, WHICH IS NOT SPECIFICALLY NOTED IN THESE DRAWINGS AND SPECIFICATIONS.

VII. ELASTOMERIC WATERPROOFING MEMBRANE

1. DESCRIPTION. MANUFACTURER'S PROPRIETARY ELASTOMERIC COMPOUND FORMULATED FOR USE AS HEAVY DUTY WATERPROOF MEMBRANE UNDER CERAMIC TILE FLOORS.

2. REQUIRED IN NET AREAS:
a. TOILET ROOMS
b. FLOOR MUST PITCH TO FLOOR DRAIN.

3. ACCEPTABLE MANUFACTURERS:
a. BOSTIC CONSTRUCTION PRODUCTS, HATFIELD VALLEY, PA.
b. MAPEI CORPORATION, ELK GROVE VILLAGE, IL.
c. THE NOBLE COMPANY, GRAND HAVEN, MI.
d. LATIGRETE INTERNATIONAL, BETHANY, CT.

4. INSTALLATION (2 COATS)
a. INSTALL OVER CURED CEMENT MORTAR BED AND CONCRETE FLOORS AS APPLICABLE, IN STRICT COMPLIANCE WITH MANUFACTURER'S INSTRUCTIONS.
b. FLASH MEMBRANE 4" UP ADJACENT WALLS AND RESTRAINING SURFACES AS RECOMMENDED BY MANUFACTURER.
c. ALLOW MEMBRANE TO CURE PRIOR TO SETTING TILE.
d. DO NOT ALLOW CONSTRUCTION TRAFFIC ON MEMBRANE.
e. MUST BE SLEEVED AND CALLED.

03 PLUMBING NOTES
P.I.O. SCALE: NO SCALE

COORDINATION NOTE

THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL SERVICES PRIOR TO CUTTING OR DIGGING. ALL SERVICES MUST BE RESTORED TO ORIGINAL SERVICE IF DISTURBED DURING WORK.

NOTICE TO CONTRACTORS:
ALL CONTRACTORS PRIOR TO BID SUBMISSION SHALL VISIT PROPOSED WORK SITE AND FIELD VERIFY ALL EXISTING CONDITIONS. ANY CONDITIONS THAT DIFFER FROM THIS PLAN SHALL BE REPORTED TO ARCHITECT/ENGINEER SO THAT NEW AND REVISED DRAWINGS OR INFORMATION MAY BE ISSUED. MODIFICATIONS TO SCOPE OF WORK WHICH RESULTS FROM CONTRACTORS NEGLIGENCE TO VISIT THE SITE PRIOR TO SUBMITTING BID, SHALL BE THE CONTRACTORS SOLE RESPONSIBILITY.

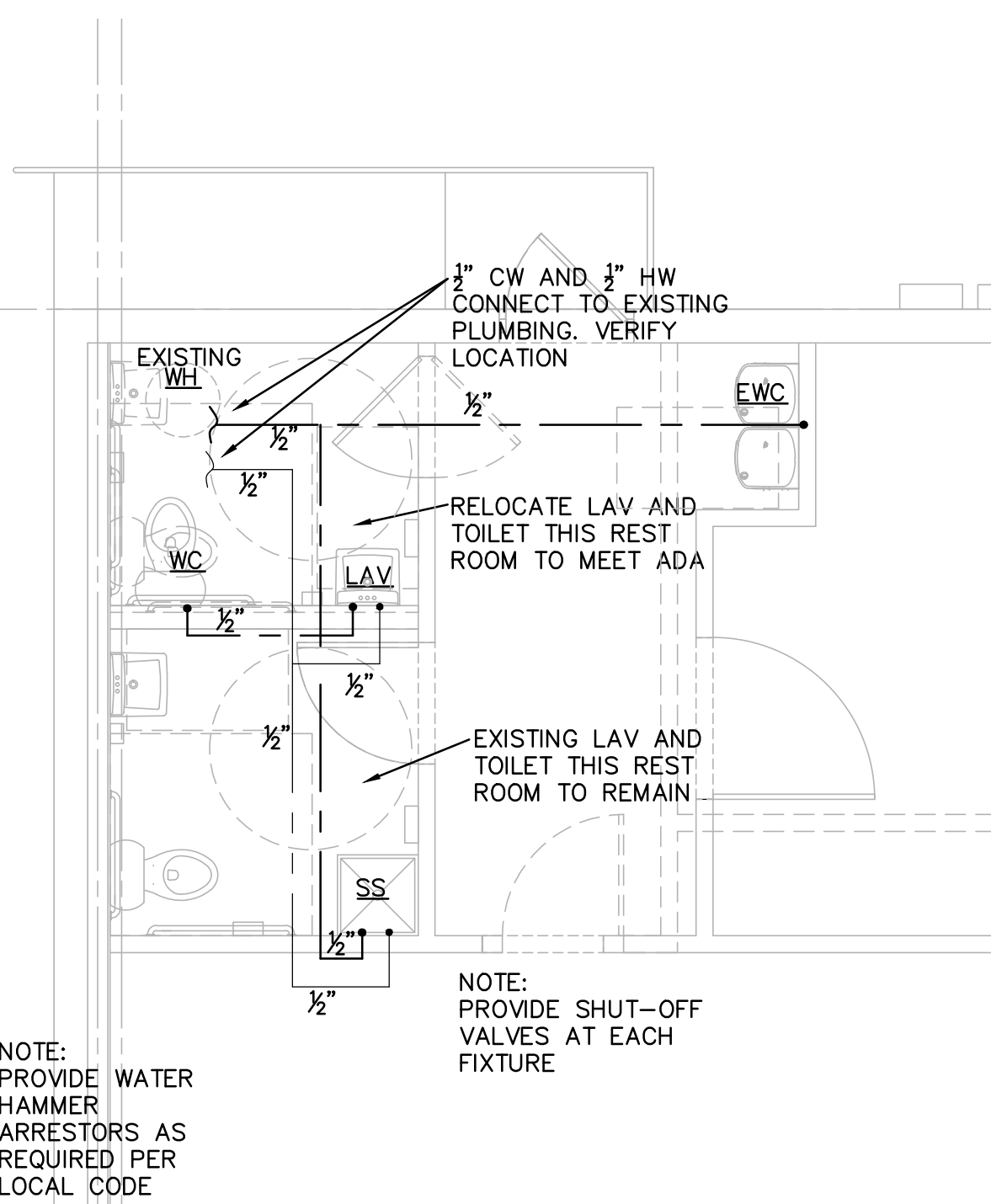
FIRE PROTECTION

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR CONTRACTING WITH A CERTIFIED FIRE PROTECTION SPECIALIST. FIRE PROTECTION SPECIALIST IS TO PROVIDE, FOR APPROVAL CONSTRUCTION DOCUMENTS AND SPECIFICATIONS TO THE GOVERNING AUTHORITIES HAVING JURISDICTION. THE DOCUMENTS SHALL INCLUDE BUT NOT BE LIMITED TO THE INSTALLATION OF A NEW FIRE PROTECTION SYSTEM AND/OR THE ADJUSTMENT OF AN EXISTING SPRINKLER SYSTEM.

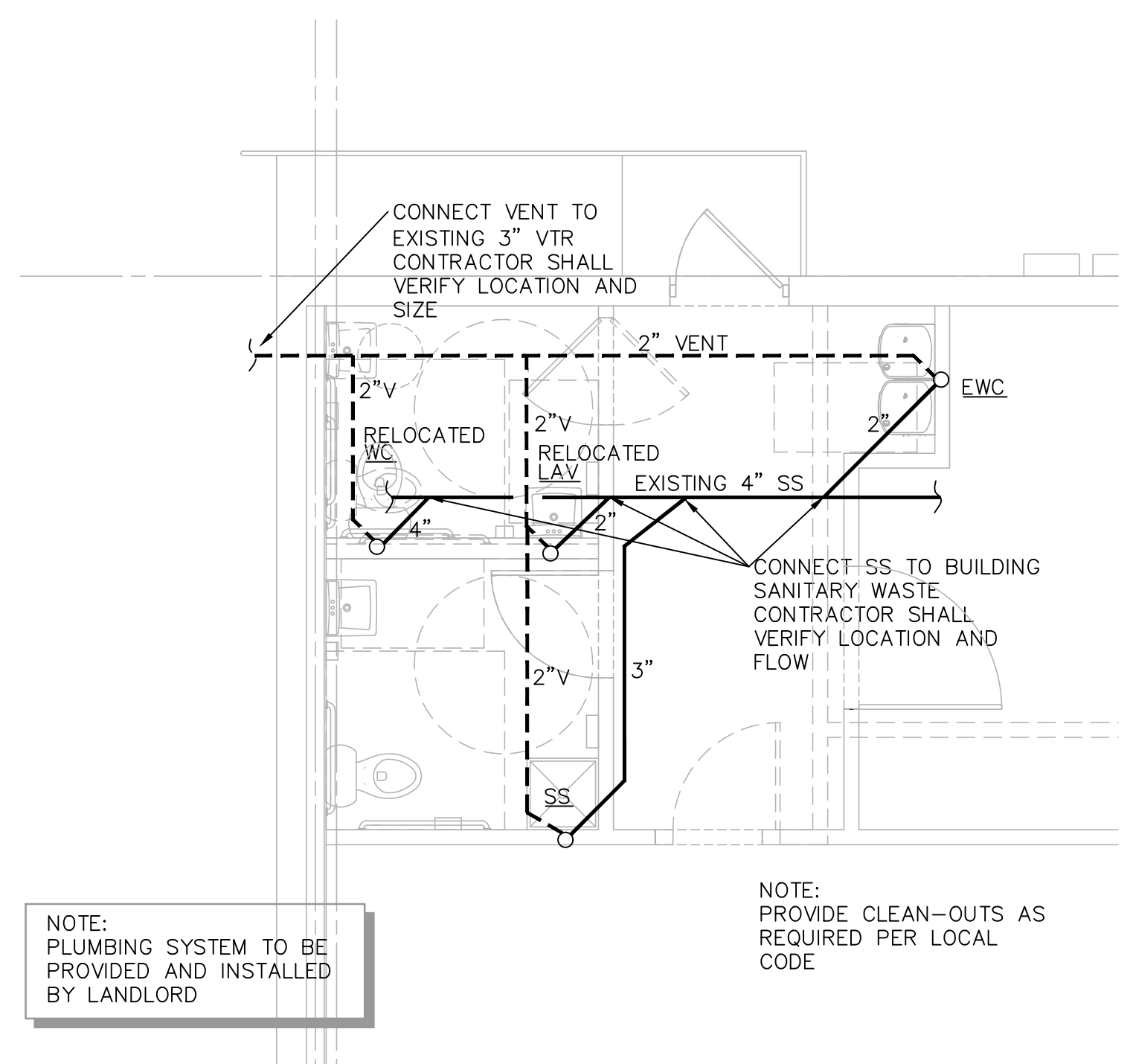
FIRE PROTECTION SPECIALIST IS TO INSPECT, REPAIR AND PERFORM MAINTENANCE TO THE EXISTING FIRE SYSTEM. THE FIRE PROTECTION SYSTEM SHALL BE COORDINATED WITH ALL OTHER TRADES AND ARCHITECTURAL CHARACTERISTICS OF THE PROJECT.

THE MODIFIED FIRE SPRINKLER SYSTEM SHALL CONFORM WITH ALL LOCAL CODES AND AUTHORITY HAVING JURISDICTION RULES AND REGULATIONS FOR A FULLY OPERATIONAL AND FUNCTIONAL FIRE SUPPRESSION SYSTEM.

SPRINKLER HEADS AND OTHER PENETRATIONS OF THE SUSPENDED CEILING SHALL HAVE A 2" OVERSIZE RING, SLEEVE, OR ADAPTOR THROUGH THE CEILING TILE TO ALLOW FOR FREE MOVEMENT OF AT LEAST 1" IN ALL HORIZONTAL DIRECTIONS.



1 PLUMBING SUPPLY PLAN
1/4" = 1'-0"



2 WASTE LINES PLAN
1/4" = 1'-0"

MARK	FIXTURE	MANUFACTURER & MODEL NO.	FIXTURE CONNECTIONS				REMARKS
			CH	HN	N	V	
EWC	ELEC. WATER COOLER	ELKAY MODEL NO. E20106	1/2"	--	2"	2"	FURNISH WITH STANDARD CABINET FINISH, TOUCH PAD ARCHITECT TO SPEC. COLOR.
SS	SERVICE SINK	GRANE PLUMBING MODEL HEB2424, 24x24x10 MOP BASIN, WHITE.	1/2"	1/2"	3"	2"	FURNISH WITH FIAT #830-AA FAUCET.
ECC	FLOOR CLEANOUT	JOSAM SERIES 80560 ADJUSTABLE CLEANOUT. SEE PLUMBING PLAN AND ISOMETRICS FOR SIZE.					
NWC	WALL CLEANOUT	JOSAM SERIES 58410 (OR APPROVED EQUIVALENT) TEE CLEANOUT FOR USE IN WALLS. PROVIDE WITH JOSAM SERIES 80500 WALL ACCESS COVER. SEE PLUMBING PLAN AND ISOMETRICS FOR SIZE.					

NOTES:

- ALL FIXTURES SHALL HAVE AN INDIVIDUAL SHUTOFF VALVE.
- ALL FIXTURES SHALL BE PROVIDED IN A SHUTTROL.
- INSTALL A METER AND/ OR BACKFLOW PREVENTOR AS LOCAL CODE REQUIRES.

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Revisions

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