

DOCUMENT 00 90 00
ADDENDUM

ADDENDUM NO. [2] Date: April 7, 2022

**RE: Physical Plant Renovation
 Western Technical College
 505 9th Street North
 La Crosse, Wisconsin
 HSR Project 21065**

**FROM: HSR Associates, Inc
 100 Milwaukee Street
 La Crosse, WI 54603
 (608) 784-1830**

To: Prospective Bidders

This addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated March 2022. Acknowledge receipt of this Addendum in the space provided on the bid form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of [1] page, [1] specification section, and [2] 30 x 42 drawings.

CHANGES TO SPECIFICATIONS:

1. Section 05 51 00 Metal Stairs
 - a. Revised section attached hereto
 - b. Paragraph 2.02 Metal Stairs with Metal Treads: Added sub-paragraph G to include galvanized finish.
 - c. Paragraph 2.04 Materials: Added sub-paragraph E to describe requirements for touchup of galvanized surfaces.
 - d. Paragraph 2.06 Galvanizing: Added sub-paragraph D to describe requirements for hot-dip galvanizing.
2. Section 27 10 05 – Structured Cabling for Voice and Data
 - a. Paragraph 2.01 Horizontal Copper Data Wire:
 - i. Paragraph B: Changed “Category 6 performance” to “Category 6A performance”.
 - ii. Paragraph C: Changed “Category 6 performance” to “Category 6A performance”.

CHANGES TO DRAWINGS

3. Sheet A300 WALL/STAIR SECTIONS
 - a. Revised 30”x42” sheet attached hereto.
 - b. 1/A300: Notes updated to clarify exterior stair assembly to be galvanized steel, interior platform assembly to be painted steel.
 - c. 2/A300: Notes updated to clarify exterior stair assembly to be galvanized steel, interior platform assembly to be painted steel.
4. Sheet P100 PLUMBING PLAN
 - a. Revised 30 x 42 sheet attached hereto.
 - b. Relocate water and gas piping for new door opening.

END OF DOCUMENT 00 90 00

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SECTION 05 51 00
METAL STAIRS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Stairs and landings with grating treads.
- B. Structural steel stair framing and supports.
- C. Handrails and guards.

1.02 RELATED REQUIREMENTS

- A. Section 01 40 00 - Quality Requirements: Requirements for Contractor's Design Related Professional Design Services
- B. Section 03 30 00 - Cast-in-Place Concrete: Placement of metal anchors in concrete.
- C. Section 04 20 00 - Unit Masonry: Placement of metal fabrications in masonry, anchoring to existing masonry.
- D. Section 09 91 13 - Exterior Painting: Paint finish.
- E. Section 09 91 23 - Interior Painting: Paint finish.

1.03 REFERENCE STANDARDS

- A. ASTM A6/A6M - Standard Specification for General Requirements for Rolled Structural Steel Bars, Plates, Shapes, and Sheet Piling; 2016.
- B. ASTM A36/A36M - Standard Specification for Carbon Structural Steel; 2014.
- C. ASTM A53/A53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless; 2012.
- D. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2009.
- E. ASTM A283/A283M - Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates; 2013.
- F. ASTM A500/A500M - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes; 2013.
- G. ASTM A501/A501M - Standard Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing; 2014.
- H. ASTM A786/A786M - Standard Specification for Hot-Rolled Carbon, Low-Alloy, High-Strength Low-Alloy, and Alloy Steel Floor Plates; 2015.
- I. ASTM A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardenable; 2016.
- J. ASTM A1011/A1011M - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength; 2015.
- K. ASTM F3125/F3125M - Standard Specification for High Strength Structural Bolts, Steel and Alloy Steel, Heat Treated, 120 ksi (830 MPa) and 150 ksi (1040 MPa) Minimum Tensile Strength, Inch and Metric Dimensions; 2015a.
- L. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination; 2012.
- M. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2015 (Errata 2016).
- N. SSPC-Paint 15 - Steel Joist Shop Primer/Metal Building Primer; 1999 (Ed. 2004).
- O. SSPC-SP 2 - Hand Tool Cleaning; 1982 (Ed. 2004).

1.04 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories.
 - 1. Indicate welded connections using standard AWS A2.4 welding symbols. Indicate net weld lengths.
 - 2. Include the design engineer's seal and signature on each sheet of shop drawings.
 - 3. Capacity of grating treads and platforms.
- C. Welders' Certificates: (Upon request) Submit certification for welders employed on the project, verifying AWS qualification within the previous 12 months.
- D. Designer's Qualification Statement.

1.05 QUALITY ASSURANCE

- A. Design the work of this section under direct supervision of a Professional Engineer experienced in design of this work and licensed in the State in which the Project is located.

PART 2 PRODUCTS

2.01 METAL STAIRS - GENERAL

- A. Metal Stairs: Provide stairs of the design specified, complete with landing platforms, vertical and horizontal supports, railings, and guards, fabricated accurately for anchorage to each other and to building structure.
 - 1. Regulatory Requirements: Provide stairs and railings that comply with most stringent requirements of local, state, and federal regulations; where requirements of Contract Documents exceed those of regulations, comply with Contract Documents.
 - 2. Structural Design: Provide complete stair and railing assemblies that comply with the applicable local code.
 - 3. Dimensions: As indicated on drawings.
 - 4. Shop assemble components; disassemble into largest practical sections suitable for transport and access to site.
 - 5. No sharp or rough areas on exposed travel surfaces and surfaces accessible to touch.
 - 6. Separate dissimilar metals using paint or permanent tape.
- B. Metal Jointing and Finish Quality Levels:
 - 1. Service: Exposed joints tight with face surfaces aligned; underside of stair not covered by soffit is not considered exposed to view.
 - a. Welded Joints: Welded on back side wherever possible.
 - b. Welds Exposed to View: Ground smooth; not required to be flush.
 - c. Bolts Exposed to View: Countersunk flat or oval head bolts; no exposed nuts or screw threads.
 - d. Metal Surfaces to be Painted: Sanded smooth, suitable for satin or matte finish.
- C. Fasteners: Same material or compatible with materials being fastened; type consistent with design and specified quality level.
- D. Anchors and Related Components: Same material and finish as item to be anchored, except where specifically indicated otherwise; provide all anchors and fasteners required.

2.02 METAL STAIRS WITH METAL TREADS

- A. Jointing and Finish Quality Level: Service, as defined above.
- B. Risers: Open.
- C. Treads: Grating with checkered steel plate nosing.
 - 1. Nosing Thickness: 1/4 inch, minimum.
 - 2. Nosing: Plate bent to minimum radius with down return of 1 inch.
 - 3. Anchorage to Stringers: Welded or bolted to carrier angles welded or bolted to stringers.

- D. Landings: Same construction as treads, supported and reinforced as required to achieve design load capacity. Install 1 1/2 inch wide aluminum oxide grit strips 6 inches on center across landings.
- E. Railings: Steel pipe railings.
- F. Finish: Shop- or factory-prime painted where noted
- G. Finish: Galvanized after fabrication, except sheet components are to be galvanized before fabrication where noted.

2.03 HANDRAILS AND GUARDS

- A. Wall-Mounted Rails: Round black schedule 40 unpainted.
 - 1. Pipe Rails: 1 1/4 inch nominal (1.66 inch O.D.) Round pipe unless otherwise indicated.
 - a. Steel Handrail Wall Bracket: 1980ST offered by The Wagner Companies.
 - b. Steel Handrail Connection to Guard Rail Post: 1980ST with 3535 adapter.
- B. Guards:
 - 1. Rails: Round pipe unless otherwise indicated.
 - a. 1 1/4 inch nominal (1.66 inch O.D.).
 - 2. End and Intermediate Posts: Same material and size as top rails.
 - a. Horizontal Spacing: As detailed.
 - b. Mounting: Welded to top surface of stringer or welded in sleeves set in concrete.

2.04 MATERIALS

- A. Steel Sections: ASTM A 36/A 36M.
- B. Steel Tubing: ASTM A500/A500M or ASTM A501/A501M structural tubing, round and shapes as indicated.
- C. Steel Plates: ASTM A6/A6M or ASTM A283/A283M.
- D. Pipe: ASTM A 53/A 53M, Grade B Schedule 40, black finish.
- E. Touch-Up Primer for Galvanized Surfaces: Fabricator's standard, complying with VOC limitations of authorities having jurisdiction.
 - 1. ZRC Worldwide; Galvillite. www.zrcworldwide.com.
- F. Checkered Plate: ASTM A786/A786M, rolled steel floor plate; manufacturer's standard pattern.

2.05 ACCESSORIES

- A. Steel Bolts, Nuts, and Washers: ASTM F3125/F3125M, Type 1, and galvanized to ASTM A153/A153M where connecting galvanized components.
- B. Welding Materials: AWS D1.1/D1.1M; type required for materials being welded.
- C. Shop and Touch-Up Primer: SSPC-Paint 15, and comply with VOC limitations of authorities having jurisdiction.

2.06 SHOP FINISHING

- A. Clean surfaces of rust, scale, grease, and foreign matter prior to finishing.
- B. Do not prime surfaces in direct contact with concrete or where field welding is required.
- C. Prime Painting: Use specified shop- and touch-up primer.
 - 1. Preparation of Steel: In accordance with SSPC-SP 2, Hand Tool Cleaning.
 - 2. Number of Coats: One.
- D. Galvanizing: Hot-dip galvanize to minimum requirements of ASTM A123/A123M.
 - 1. Touch up abraded areas after fabrication using specified touch-up primer for galvanized surfaces.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that field conditions are acceptable and are ready to receive work.

3.02 PREPARATION

- A. When field welding is required, clean and strip primed steel items to bare metal.
- B. Supply items required to be cast into concrete and embedded in masonry with setting templates.

3.03 INSTALLATION

- A. Install components plumb and level, accurately fitted, free from distortion or defects.
- B. Provide anchors, plates, angles, hangers, and struts required for connecting stairs to structure.
- C. Allow for erection loads, and for sufficient temporary bracing to maintain true alignment until completion of erection and installation of permanent attachments.
- D. Provide welded field joints where specifically indicated on drawings. Perform field welding in accordance with AWS D1.1/D1.1M.
- E. Other field joints may be either welded or bolted provided the result complies with the limitations specified for jointing quality levels.
- F. Obtain approval prior to site cutting or creating adjustments not scheduled.
- G. After erection, prime welds, abrasions, and surfaces not shop primed or galvanized, except surfaces to be in contact with concrete.

3.04 TOLERANCES

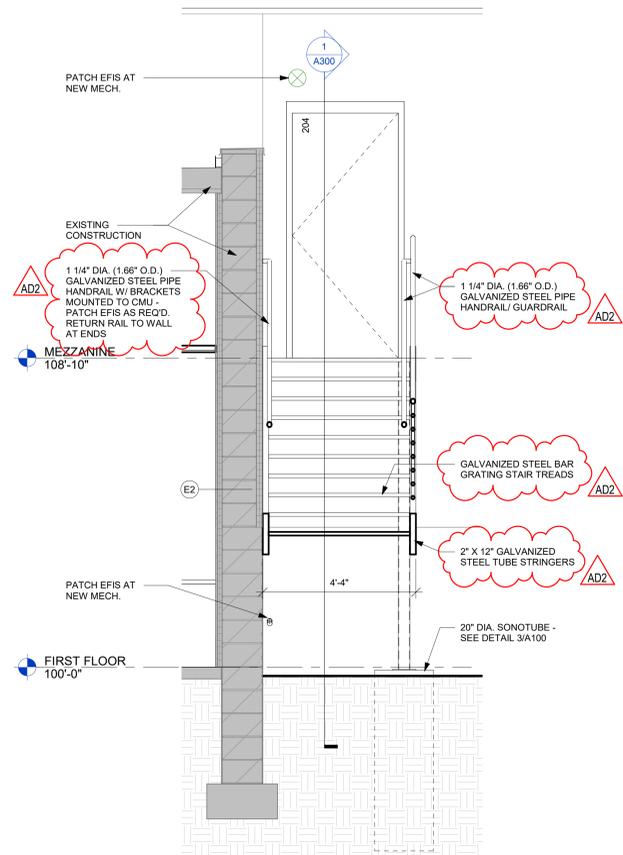
- A. Maximum Variation From Plumb: 1/4 inch per story, non-cumulative.
- B. Maximum Offset From True Alignment: 1/4 inch.

END OF SECTION



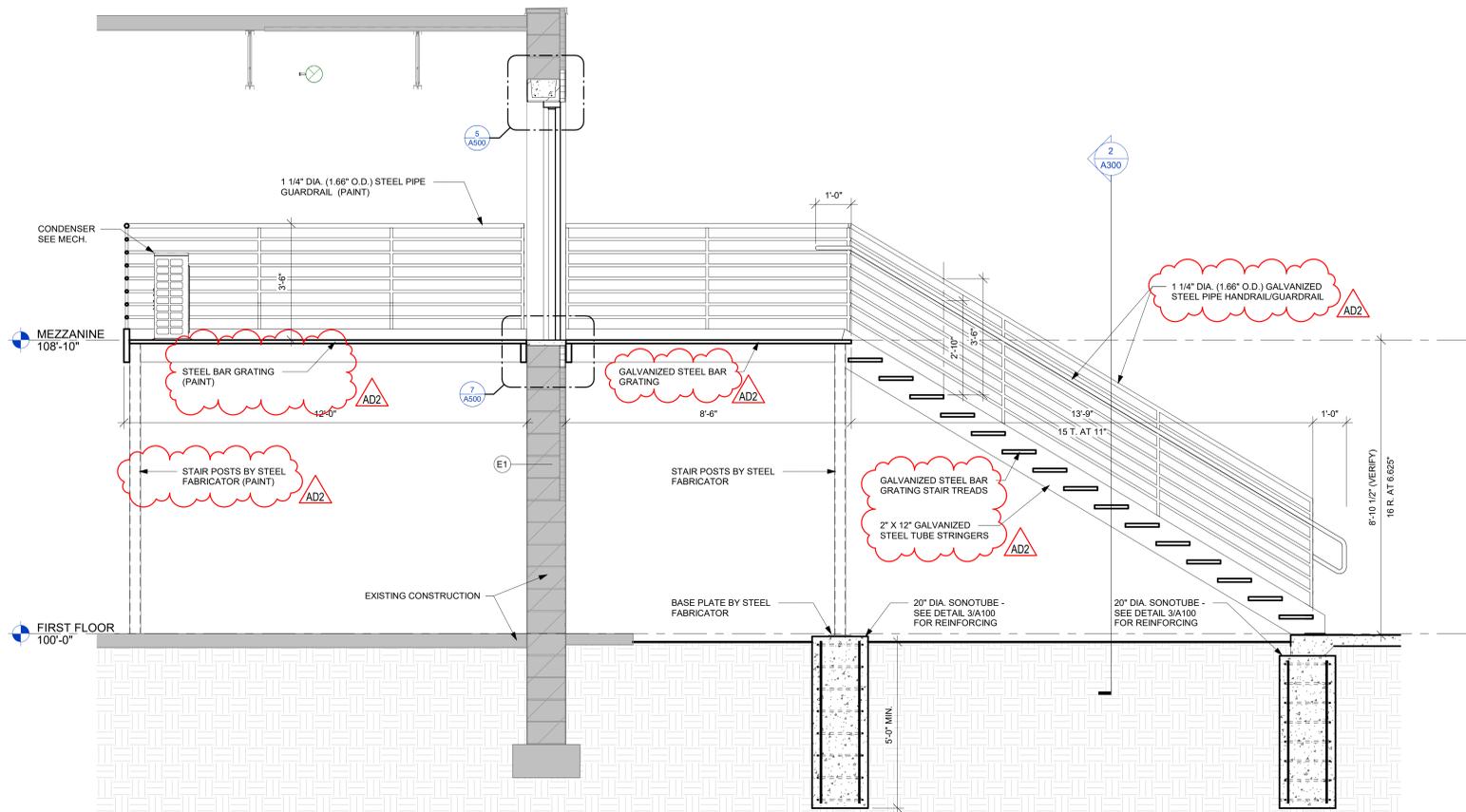
Consultant:

WESTERN TECHNICAL COLLEGE
PHYSICAL PLANT RENOVATION
505 9TH STREET NORTH
LA CROSSE, WISCONSIN
WALL/STAIR SECTIONS



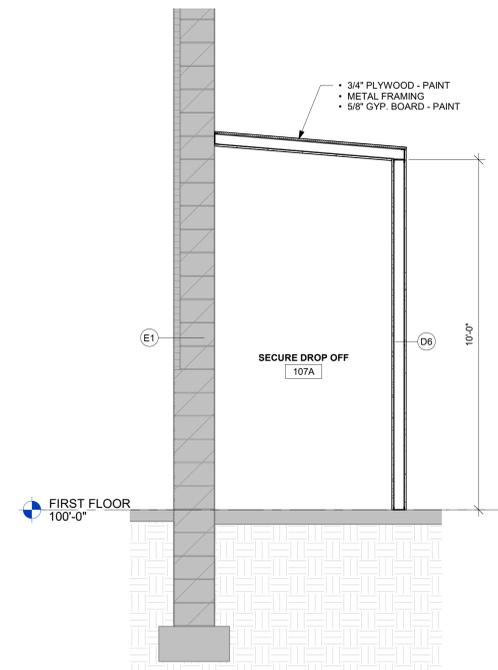
2 STAIR SECTION
1/2" = 1'-0"

INFO BID 1



1 STAIR SECTION
1/2" = 1'-0"

INFO BID 1



3 WALL SECTION
1/2" = 1'-0"

STRUCTURAL NOTES:

MATERIALS STRENGTHS AND STANDARDS
THE MATERIAL STRENGTHS AND STANDARDS LISTED HERE REPRESENT A SELECTED SUMMARY OF THE REQUIREMENTS NOTES IN THE SPECIFICATIONS. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION. IN CASE OF DISCREPANCY BETWEEN THESE NOTES AND THE SPECIFICATIONS, THESE NOTES SHALL GOVERN.

SOILS	DESIGN SOIL BEARING CAPACITY FOR SPREAD/STRIP FOOTINGS	2,000 PSF (ASSUMED)
CONCRETE (28 DAY STRENGTH)	FOUNDATION WALLS OR PIERS	$f'_c = 4,000$ PSI
	CONCRETE TOPPING SLAB	$f'_c = 3,000$ PSI
	INTERIOR SLAB-ON-GRADE	$f'_c = 4,000$ PSI
	EXTERIOR SLAB-ON-GRADE	$f'_c = 4,500$ PSI
MASONRY	CONCRETE MASONRY UNIT ASSEMBLY	$f'_m = 2,500$ PSI
	CONCRETE MASONRY UNIT (ASTM C90 - NORMAL WEIGHT)	3,250 PSI
	MORTAR (ASTM C270)	TYPE S
	GROUT (ASTM C476)	$f'_c = 3,000$ PSI
	ANCHOR RODS (ASTM F1554, GRADE 36)	$f_u = 36,000$ PSI
STRUCTURAL STEEL (SHAPES)	WF, WT SECTIONS (ASTM A992)	$f_y = 50,000$ PSI, $f_u = 65,000$ PSI
	HSS SHAPES - RECTANGULAR (ASTM A500, GRADE C)	$f_y = 50,000$ PSI, $f_u = 65,000$ PSI
	PLATES (ASTM A36)	$f_y = 36,000$ PSI, $f_u = 58,000$ PSI
	HIGH STRENGTH BOLTS (1 1/2" MAXIMUM DIAMETER)	A325 UNF
	TENSION CONTROL BOLTS	F1552 UNF
	WELDING ELECTRODES	E70XX

Project Title:

HSR Project Number: **21065**

Project Date: **MAR 2022**

Drawn By: **HSR**

Key Plan:

Revisions:

No.	Description	Date
AD2	Addendum #2	4/7/2022

Graphic Scale:

0' 6" 1' 2' 3'

Last Update:

4/6/2022 1:58:36 PM

A300



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PHYSICAL PLAN RENOVATION
 PROJECT LOCATION: 505 9TH STREET NORTH
 LA CROSSE, WISCONSIN
PLUMBING PLAN

Project Title: **WESTERN TECHNICAL COLLEGE PHYSICAL PLAN RENOVATION**

Project Number: **21065**

Project Date: **MAR 2022**

Drawn By: **RGJ**

Key Plan:

No.	Description	Date
AD2	Addendum #2	4/7/2022

Graphic Scale:

Last Update:
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P100

GENERAL PLUMBING NOTES:

- BUILDING SYSTEMS MUST REMAIN OPERATIONAL, UNLESS OTHERWISE PERMITTED BY OWNER. COORDINATE AS REQUIRED.
- PATCH ALL HOLES THROUGH FLOORS W/IRON-REINFORCED GROUT.
- ALL WORK TO BE SCHEDULED AS DIRECTED BY OWNER. COORDINATE AS REQUIRED.
- PORTIONS OF THE BUILDING WILL BE CONTINUOUSLY OCCUPIED DURING THE CONSTRUCTION PERIOD. AVOID INTERFERENCE WITH BUILDING FUNCTION. COORDINATE TIMING OF CONSTRUCTION WORK WITH THE OWNER.
- THIS PLAN HAS BEEN PRODUCED UTILIZING THE EXISTING PLANS AND IS NOT INTENDED TO BE ALL-INCLUSIVE.
- VISIT THE BUILDING SITE AND BECOME THOROUGHLY FAMILIAR WITH ALL EXISTING CONDITIONS AFFECTING THE WORK.
- VERIFY ALL MEASUREMENTS, PIPE SIZES, PIPE LOCATIONS, ELEVATIONS, ETC., AT SITES.
- NEW, COORDINATE, AND SCHEDULE INSTALLATION OF WORK WITH OTHER TRADES.
- INSTALL ALL WORK SUBSTANTIALLY AS SHOWN ON THE DRAWINGS UNLESS OTHERWISE APPROVED BY OWNER.
- INSTALL ALL WORK SUBSTANTIALLY AS SHOWN ON THE DRAWINGS. DEVIATIONS FROM LOCATIONS OF PIPING INDICATED ON THE DRAWINGS MAY HAVE TO BE MADE AT NO ADDITIONAL COST TO THE OWNER IN ORDER TO CLEAR THE WORK OF THE OTHER TRADES. HOWEVER, ALL SUCH DEVIATIONS SHALL BE PREVIOUSLY APPROVED BY THE OWNERS REPRESENTATIVE.
- REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL ROOF DRAINS, PLUMBING FIXTURES, STRUCTURAL DIMENSIONS AND LAYOUT.
- IT IS THE INTENT OF THESE DRAWINGS THAT EACH AFFECTED SYSTEM BE COMPLETELY WORKING, TESTED, AND OPERATIONAL AT THE END OF THE COMPLETE WORKING, TESTING, AND OPERATION PERIOD.
- CONFLICT BETWEEN DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BID OPENING. THE ENGINEER RESERVES THE RIGHT TO FINAL DECISION.
- INCLUDE ALL PLUMBING RELATED CUTTING, PATCHING AND/OR REMOVAL AND REPLACEMENT OF EXISTING WALLS, FLOORS & CEILINGS UNLESS OTHERWISE INDICATED.
- NO JOINTS SHALL BE INSTALLED IN UNDERFLOOR WATER PIPING.
- ALL WATER PIPING SHALL BE SO INSTALLED TO FACILITATE COMPLETE DRAINAGE.
- ALL FIXTURE WATER SUPPLY FLOW RATES SHALL CONFORM TO SPS 384.20(3).
- DOMESTIC WATER PIPE SIZING SHALL CONFORM TO SPS 382.40(7), FRICTION LOSS METHOD AND MAXIMUM FLOW VELOCITY OF 8 FPS.
- BACKFLOW PROTECTION SHALL BE PROVIDED TO ALL FIXTURES AND EQUIPMENT, CONFORMING TO SPS 382.41(3).
- BACKFLOW PROTECTION IS NOT REQUIRED ON ANY VALVES WITH HOSE THREAD CONNECTIONS USED FOR OBTAINING WATER SAMPLES OR ON LAUNDRY UNITS, CONFORMING TO SPS 382.41(3)(b).
- BACKFLOW PROTECTION IS NOT REQUIRED ON ANY DRAIN VALVES WITH HOSE THREAD CONNECTIONS LOCATED ON WATER PIPING, WATER HEATERS, OR PRESSURE TANKS AND USED ONLY FOR DRAINING PURPOSES, CONFORMING TO SPS 382.41(3)(c).
- EACH FIXTURE, APPLIANCE, EQUIPMENT, WALL HYDRANT AND HOSE BIBB SHALL BE VALVED, CONFORMING TO SPS 382.40(a)(b).
- FURNISH AND INSTALL SLEEVES FOR ALL PIPING PASSING THROUGH CONCRETE FOUNDATION WALLS. REFER TO STRUCTURAL DRAWINGS FOR INSTALLATION REQUIREMENTS OF PIPING ROUTED BELOW FOOTINGS. PROVIDE SLEEVE AND CONCRETE FILL FOR PIPING PASSING BENEATH FOOTING.
- UNLESS NOTED OTHERWISE ALL WASTE, DRAIN, AND SEWER PIPING 3" AND LARGER SHALL BE INSTALLED AT A SLOPE OF 1/8" PER FOOT AND WASTE, DRAIN, AND SEWER PIPING 2" AND SMALLER AT 1/4" PER FOOT.
- CONNECT VENT PIPING ABOVE THE CENTERLINE OF HORIZONTAL DRAIN PIPING IN CONFORMANCE TO SPS 382.31(15)(b).
- FIXTURE VENTS SHALL CONNECT TO OTHER BRANCH VENTS A MINIMUM OF 3' ABOVE THE FLOOR, CONFORMING TO SPS 382.31(15)(b).
- THE INSTALLATION OF PVC DWV PIPING IN BUILDING SHALL CONFORM TO SPS 384.04(14) WHEN APPLICABLE.
- WASTE STACK BASE CONNECTIONS SHALL BE MADE USING LONG SWEEP FITTINGS.
- CLEANOUTS SHALL CONFORM TO SPS 382.35(6) TABLE 82.35.
- ALL WATER CLOSETS SHALL BE WATER CONSERVING TYPE, USING A MAXIMUM OF 1.6 GALLONS PER FLUSH CONFORMING TO SPS 384.20(3).
- ALL PUBLIC LAVATORY FAUCETS WHETHER MANUAL OR SENSOR TYPE SHALL USE A MAXIMUM OF 2.2 GPM AND METERING LAVATORY FAUCETS SHALL ALLOW A MAXIMUM OF 0.25 GALLON PER METERING CYCLE, CONFORMING TO SPS 384.20(3).
- ALL SINK FAUCETS SHALL USE A MAXIMUM OF 2.2 GPM, CONFORMING TO SPS 384.20(3).
- ALL SHOWERS SHALL BE CONTROLLED BY THERMOSTATIC MIXING VALVE OR INDIVIDUALLY CONTROLLED BY PRESSURE-BALANCED MIXING VALVE, CONFORMING TO SPS 382.40(8)(g).
- ALL SHOWER HEADS SHALL BE WATER CONSERVING TYPE, USING A MAXIMUM OF 2.5 GPM, CONFORMING TO SPS 384.20(3).
- ALL LINE VALVES WHICH SERVE TWO OR MORE PLUMBING FIXTURES SHALL HAVE A FLOW OPENING NOT LESS THAN ONE NOMINAL PIPE SIZE SMALLER THAN THE NOMINAL SIZE OF THE PIPING CONNECTING TO THE VALVE, CONFORMING TO SPS 384.30(5)(b).
- EXPOSED DOMESTIC WATER PIPING BELOW STAINLESS STEEL SINKS AND COUNTERTOPS LOCATED IN SCHOOL KITCHENS SHALL BE PAINTED TO MATCH WALL AND PER MANUFACTURER'S RECOMMENDATIONS.
- CUTTING AND NOTCHING OF OUTER FIBERS OF STRUCTURAL MEMBERS IS NOT PERMITTED. MAY OCCUR IN NON-BEARING PARTITIONS, HOUSING COVER, WHEN NOTCH EXCEEDS 25% OF STUD WIDTH. THE AFFECTED STUDS SHALL BE ADEQUATELY REINFORCED. TOP MEMBERS OF TWO MEMBER PLATES MORE THAN 1/2 THEIR WIDTH SHALL REQUIRE PLATES TO BE REINFORCED WITH 18 GAUGE STEEL STRIPS.
- CUTTING, NOTCHING OR BORING OF METAL STUD WALL SYSTEM IS NOT PERMITTED UNLESS APPROVED BY THE MANUFACTURER AND THE STRUCTURAL INTEGRITY HAS NOT BEEN REDUCED TO UNACCEPTABLE LEVELS.
- BORED HOLES ARE PERMITTED IN THE MIDDLE ONE-THIRD OF JOIST OR STUD DEPTH.
- WHEN PIPING PASSES THROUGH SMOKE SEPARATION ASSEMBLIES, DRAFT STOPPING, CONSISTING OF MINERAL WOOL OR FIBERGLASS INSULATION, SHALL BE PACKED AROUND PIPING PENETRATING FACE OF ASSEMBLY.
- EACH LIVING UNIT IS SEPARATED FROM OTHER LIVING UNITS, COMMON USE AREAS AND FROM THE EXIT ACCESS CORRIDORS WITH A REQUIRED ONE HOUR FIRE RATED ASSEMBLY (WALLS, FLOORS, & CEILINGS). SEE SECTION 07 84 00.
- PLASTIC PIPE MAY PENETRATE REQUIRED FIRE-RESISTIVE RATED FLOORS, WALLS, CEILINGS AND FIRE RATED ASSEMBLIES PROTECTED WITH AN APPROVED FIRE-STOP SYSTEM HAVING AN F-RATING NOT LESS THAN THE HOURLY RATING OF THE ASSEMBLY BEING PENETRATED. SEE SECTION 07 84 00.
- CORE DRILL OPENINGS IN EXISTING FLOORWALL AS REQUIRED. SIZE OF OPENINGS SHALL NOT EXCEED 1" LARGER THAN THE O.D. OF THE PIPING PENETRATING THE ASSEMBLY. COORDINATE WITH DRAFT/FIRE STOPPING REQUIREMENTS.
- NEW OPENINGS UP TO 4" DIAMETER MAY BE CORED THROUGH THE EXISTING SLAB IF THEY ARE PLACED NO CLOSER THAN 2" CLEAR OF THE OUTSIDE FACE OF THE COLUMNS. TOP BAR REINFORCING IS LOCATED AND IS NOT CUT AND NOT MORE THAN ALTERNATE BOTTOM BAR SLAB REINFORCING IS CUT. LOCATE BEFORE CORING.
- NEW OPENINGS MAY BE CORED THROUGH THE EXISTING SLAB IF THEY ARE PLACED NO CLOSER THAN 2" CLEAR OF THE OUTSIDE FACE OF THE COLUMNS AND NOT MORE THAN ONE TOP AND ONE BOTTOM BAR SLAB REINF. IS CUT. AT EACH LOCATION AND OPENINGS ARE SPACED SO A MINIMUM OF TWO UN-CUT TOP AND BOTTOM BARS REMAIN BETWEEN OPENINGS. DO NOT CUT TOP BARS AT THE 4" OPENING. LOCATE BEFORE CORING.
- IDENTIFY PIPING LOCATED ABOVE CEILINGS PRIOR TO CEILING GRID INSTALLATION.
- HOT WATER DISTRIBUTION PIPING IS TO BE INSTALLED PER INTERNATIONAL ENERGY CONSERVATION CODE (IECC) SECTION C404 SPECIFYING THE MAXIMUM ALLOWABLE PIPE LENGTH FROM A HEAT SOURCE.

REMOVAL NOTES:

- REMOVE ALL EXISTING PLUMBING & FIRE PROTECTION PIPING (INCLUDING PIPING IN WALLS BEING REMOVED, CHASES BEING REMOVED, OR ABOVE CEILINGS), FIXTURES, EQUIPMENT, DEVICES, ETC., WITHIN BUILDING, INCLUDING BUT NOT LIMITED TO THAT WHICH IS SHOWN IN FIELD. VERIFY LOCATION AND SIZE OF PIPING, FIXTURES, ETC., AS REQUIRED. OTHER PIPING EXISTING, AND IS NOT SHOWN OR INDICATED TO BE RE-USED, SHALL BE REMOVED. DISPOSE OF ALL REMOVED MATERIAL OFF SITE.
- PIPING IN REMAINING WALLS OR CHASES CONNECTED TO PLUMBING FIXTURES OR EQUIPMENT REMAINING SHALL NOT BE REMOVED. SEE REMODELING PLAN FOR RECONNECTION.
- REMOVE THE LISTED PLUMBING FIXTURES OR EQUIPMENT AND RESPECTIVE WATER, WASTE, VENT, GAS, AND COMPRESSED AIR PIPING TO POINT OF RECONNECTION IN REMODELING OR TO MAIN, UNLESS PIPING IS BELOW FLOORS ON GRADE OR ABOVE NON-ACCESSIBLE CEILINGS, AND CAPPLUG BELOW FLOOR, ABOVE CEILING AND/OR PIPING REMAINING WALLS AS REQUIRED, OR AS OTHERWISE SHOWN OR INDICATED ON PLANS. PATCH TO MATCH EXISTING FINISHES, UNLESS OTHERWISE SHOWN OR INDICATED ON ARCHITECTURAL PLANS.
- ALL FIXTURES AND RELATED EQUIPMENT (FAUCETS, DRAIN ASSEMBLIES, MIXING VALVES, CHAIR SUPPORTS, CONTROLS, ETC.) REMOVED SHALL BE FURNISHED TO THE OWNER, OR DISPOSED OF AT THEIR DIRECTION. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO AVOID DAMAGE DURING FIXTURE REMOVAL, INCLUDING STALL TYPE URINALS. COORDINATE WITH THE OWNER.

FIXTURE REMOVAL	
TRIANGLE NUMBER	DESCRIPTION
1	SINK
2	WATER COOLER
3	STORM PIPING

ABBREVIATIONS

A	COMPRESSED AIR
AF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
BT	BATHTUB
CB	CATCH BASIN
CO	CLEANOUT
CS	COLD SOFT WATER
CS5	CLINICAL FLUSHING RIM SINK
CW	COLD WATER
CWH	COLD WATER HARD
CWV	CLEAR WATER VENT
CWW	CLEAR WATER WASTE
DCV	DOUBLE DETECTOR CHECK VALVE
DI	DEIONIZED WATER
DSN	DOWNSPOUT NOZZLE
DW	DISHWASHER
E	EXISTING
EC	ELECTRICAL CONTRACTOR
EEW	EMERGENCY EYEWASH
ESEW	EMERGENCY SHOWER/EYEWASH
F	FIRE PROTECTION WATER SERVICE
FCO	FLOOR CLEANOUT
FPC	FIRE PROTECTION CONTRACTOR
G	NATURAL GAS
GC	GENERAL CONTRACTOR
HB	HOSE BIBB
HC	HVAC CONTRACTOR
HW	HOT WATER
HWR	HOT WATER RECIRCULATION
IE	INVERT ELEVATION
L	LAVATORY
LT	LAUNDRY TRAY
MA	MEDICAL COMPRESSED AIR
MAC	MEDICAL AIR COMPRESSOR
MB	MOP BASIN
MH	MANHOLE
MV	MEDICAL VACUUM
MVP	MEDICAL VACUUM PUMP
N	NITROGEN
NO	NITROUS OXIDE
NPC	NON-POTABLE COLD WATER
NPCS	NON-POTABLE COLD SOFT WATER
NPH	NON-POTABLE HOT WATER
NPR	NON-POTABLE HOT RECIRCULATION
OX	OXYGEN
PC	PLUMBING CONTRACTOR
PRV	PRESSURE REGULATING VALVE
RO	REVERSE OSMOSIS WATER
RBPB	REDUCED PRESSURE ZONE BACKFLOW PREVENTER
S	SINK
SAN	SANITARY
SH	SHOWER
SPR	SPRINKLER PIPING
ST	STORM
T	TEMPERED WATER
TMV	THERMOSTATIC MIXING VALVE
UR	URINAL
V	VENT
VTR	VENT THRU ROOF
W	DOMESTIC WATER SERVICE
WAGD	WASTE ANESTHETIC GAS DISPOSAL
WC	WATER CLOSET
WCO	WALL CLEAN OUT
WF	WASH FOUNTAIN
WM	WASHING MACHINE WALL BOX
WH	WALL HYDRANT
WHA	WATER HAMMER ARRESTOR
WHR	WATER HEATER
WS	WATER SOFTENER
YCO	YARD CLEANOUT

PLUMBING SPECIFICATIONS:

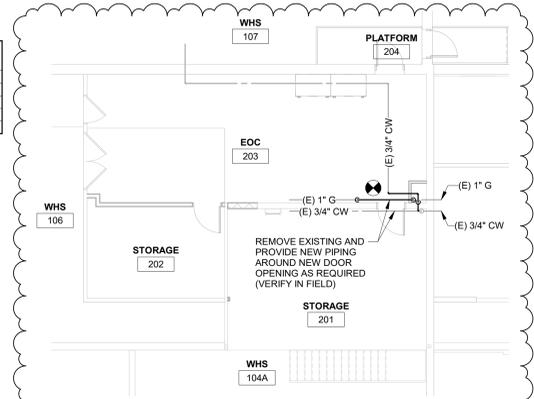
- CODE: COMPLY WITH ALL LOCAL AND STATE BUILDING CODES. SECURE PERMITS FROM PROPER OFFICES AND PAY FEES. FURNISH OWNER WITH ONE COPY OF ALL PERMITS.
- AS-BUILT DRAWINGS: SUBMIT COPY TO OWNER AT COMPLETION OF PROJECT.
- SANITARY DRAIN, WASTE AND VENT PIPING: SCHEDULE 40 PVC DWV PIPE AND FITTINGS.
- DOMESTIC WATER PIPING:
- TYPE I COPPER WATER TUBE, HARD TEMPER, ASTM B88, WITH CAST COPPER PRESSURE FITTINGS, ANSI B16.18, WROUGHT COPPER PRESSURE FITTINGS, ANSI B16.22, LEAD FREE (< 2%) SOLDER, ASTM B32, FLUX, ASTM B813 OR:
 - MECHANICALLY FORMED TEE CONNECTIONS AS CREATED BY T-DRILL JOINTS SHALL BE BRAZED USING SIL-FOS. ALL JOINTS CREATED IN THIS MANNER SHALL BE INSTALLED (BRAZED) IN COMPLIANCE WITH CODE AND THE MANUFACTURER'S RECOMMENDATIONS. SOFT SOLDERED JOINTS SHALL NOT BE PERMITTED. THE BRANCH TUBE SHALL BE NOTCHED AND CONTAIN A DOUBLE DIMPLE. THE FIRST TO INSURE PROPER PENETRATION INTO THE MAIN LINE. THE SECOND DIMPLE WILL SERVE AS A VISUAL INSPECTION POINT.
 - COPPER TUBE PRESS WATER FITTINGS AND COUPLINGS AS PROVIDED BY VEGA PROGRESS OR NIBCO PRESS SYSTEM.
 - GROOVED FITTINGS AND COUPLINGS AS PROVIDED BY VICTUALIC OR ANVIL GRUWLOK.
 - USE ELECTRIC UNIONS OR BRASS CONVERTOR FITTINGS TO CONNECT COPPER TUBING TO STEEL TANKS, HEATERS, OR PIPING.
- DOMESTIC WATER PIPING (ABOVE FLOOR): TYPE I COPPER WATER TUBE, HARD TEMPER, ASTM B88, WITH CAST COPPER PRESSURE FITTINGS, ANSI B16.18, WROUGHT COPPER PRESSURE FITTINGS, ANSI B16.22, LEAD FREE (< 2%) SOLDER, ASTM B32, FLUX, ASTM B813.
- PRESS SYSTEM VALVES (WATER): NIBCO, APOLLO, BALL VALVES, 2" AND SMALLER, NIBCO #PF-585-70 (MALE END) OR PS-585-70 (FEMALE END), FULL PORT TWO PIECE (1/2" - 2" SIZES), PTFE STEM PACKING, GLAND NUT, BRONZE BODY (LESS THAN 15% ZINC), CHROME PLATED BALL, REINFORCED TEFLOON SEALS (RPTF), BLOW-OUT PROOF STEM, ADJUSTABLE PACKING GLAND, 600 PSI WOG, 250°F MAXIMUM OPERATING TEMPERATURE. CONTRACTOR SHALL INSTALL BRONZE BALL VALVES AS SPECIFIED AND WHERE SHOWN ON DRAWINGS. IF BRASS BALL VALVES ARE SUBSTITUTED AND INSTALLED, THE CONTRACTOR WILL BE REQUIRED TO REPLACE EACH WITH AS SPECIFIED OR TO PROVIDE A CREDIT OF \$150 FOR EACH VALVE SUBSTITUTION, AND WILL BE REQUIRED TO IF ACCEPTABLE WILL PROCESS A CHANGE ORDER.
- BALL VALVES (WATER): APOLLO, CRANE, HAMMOND, JOMAR, KITZ, MILWAUKEE, NIBCO, VEGA PROGRESS, WATTS, HEATERS, OR PRESSURE TANKS AND USED ONLY FOR DRAINING PURPOSES, CONFORMING TO SPS 382.41(3)(b).
- THREADED ENDS OR APOLLO #70LF-200 SERIES, SOLDER ENDS, RPTFE STEM PACKING, GLAND NUT, LEAD FREE BRONZE BODY (LESS THAN 15% ZINC), CHROMIUM PLATED LEAD FREE BRASS BALL, LEAD FREE BRASS STEM, REINFORCED TEFLOON SEALS (RPTFE), 600 PSI CWP, ALL MATERIALS IN CONTACT WITH POTABLE WATER SHALL NOT CONTAIN MORE THAN 0.25% LEAD CONTENT PER SDWA 1417A(V)(1)(A) - 2011 NSF/ANSI STANDARD 372 "LEAD FREE" ANSI 3RD PARTY CERTIFIED, MAXIMUM TEMPERATURE RATING SHALL BE 270°F.
- PIPE INSULATION: PROVIDE COMPOSITE PIPING INSULATION (INSULATION, JACKETS, COVERINGS, SEALERS, MASTICS, AND ADHESIVES) WITH RATINGS NOT EXCEEDING FLAME SPREAD OF 25 AND A SMOKE DEVELOPED OF 50 (TEST METHOD ASTM E-84). COMPLY WITH ALL CODES REGARDING THE USE OF FOAM INSULATION. INSULATE PIPING LOCATED IN OTHER SPACES: DOMESTIC COLD WATER PIPING & RAINWATER PIPING, RIGID FIBERGLASS INSULATION WITH MINIMUM NOMINAL DENSITY OF 3 LBS. PER CU. FT. AND THERMAL CONDUCTIVITY OF NOT MORE THAN 0.23 AT 75 DEGREES F MEAN TEMPERATURE, SUITABLE FOR TEMPERATURES TO 450 DEGREES F WITH VAPOR BARRIER JACKET.
- | SERVICE | INSULATION TYPE | PIPE SIZE | INSULATION THICKNESS |
|---------------|------------------|----------------|----------------------|
| 1. HOT WATER | RIGID FIBERGLASS | 1" AND SMALLER | 1/2" |
| 2. COLD WATER | RIGID FIBERGLASS | 2" AND SMALLER | 1/2" |
- TESTING: TESTING OF NEW PIPE & FITTINGS AS REQUIRED, (DOMESTIC WATER - CITY PRESSURE, 15 MINUTES, NO LEAKS).

PLUMBING FIXTURES:

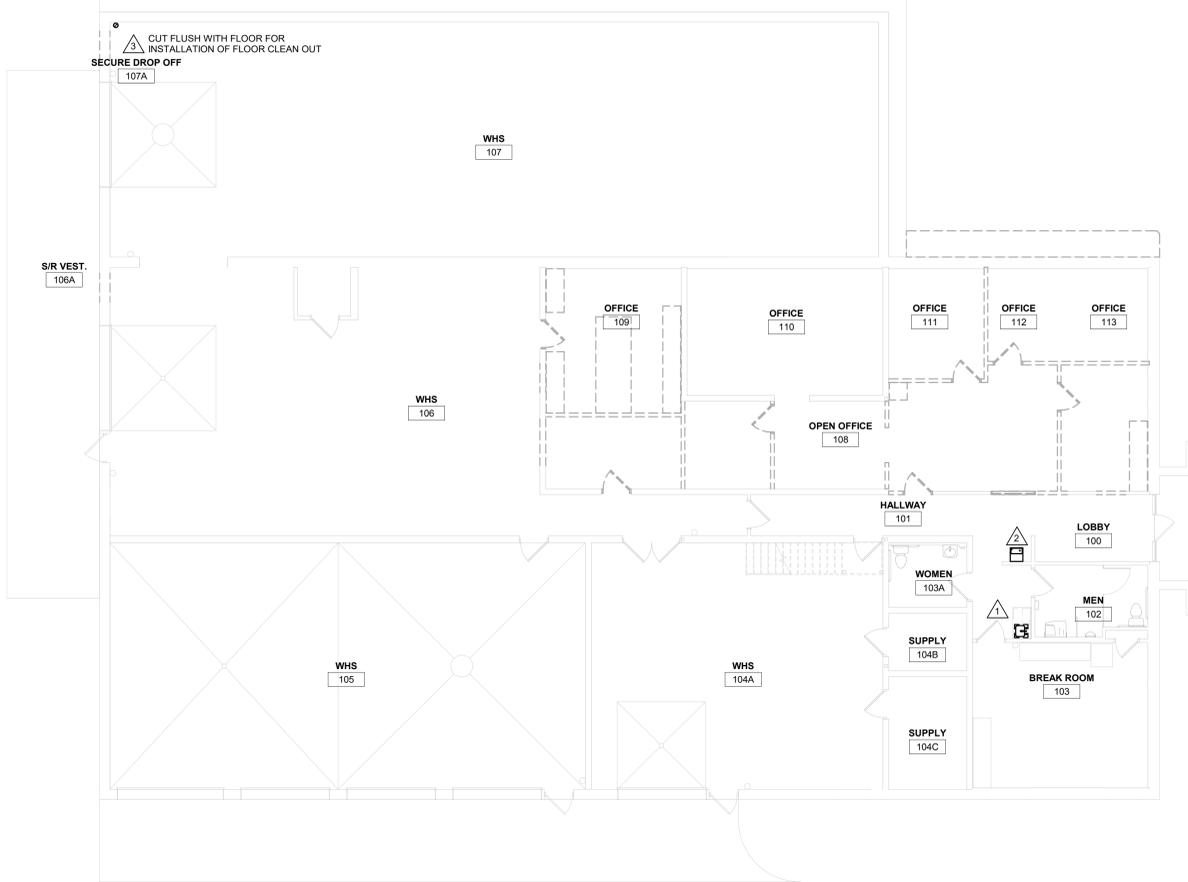
- AS FOLLOWING OR EQUIVALENT:
- SINK (S-1)
- DROP IN, SINGLE COMPARTMENT, 18 GAUGE STAINLESS STEEL, LEDGEBACK AND SELF-RIMMING FRAME, 3 HOLES, 3 1/2" DRAIN SIZE, SOUND DAMPEN UNDERSIDE.
 - SINK: ELKAY "LUSTERTONE" NO. LRAD202265PD WITH OVERALL DIMENSIONS OF 19-1/2" X 22" X 6-1/2" INCHES, PERFECT DRAIN FAUCET, CHICAGO FAUCET MODEL 386-353636BWP WITH 1" CENTERS, 5 1/4" GOOSENECK SWING SPOUT WHICH CAN BE LOCKED RIGID, ADA COMPLIANT LEVER HANDLES, 1.5 GPM AERATOR, CERAMIC CARTRIDGES POLISHED CHROME.
 - DRAIN: ELKAY PERFECT DRAIN INCLUDED WITH SINK.
 - CONNECT TO EXISTING PIPING IN WALL.
- ELECTRIC WATER COOLER (ECW-1)
- ELKAY BOTTLE FILLING STATION LZ8WSP: WATER COOLER, STAINLESS STEEL FINISH, HIGH EFFICIENCY, ADA COMPLIANT, W/ BOTTLE FILLER, VANDAL RESISTANT, WALL MOUNT, SINGLE STATION, 8 GPH CHILLING CAPACITY, 115/60HZ POWER REQUIREMENTS.
 - CONNECT TO EXISTING PIPING IN WALL.

FIXTURE UNIT SUMMARY									
FIXTURE SYMBOL	FIXTURE DESCRIPTION	COUNT	PIPE SIZE				FIXTURE UNITS		
			WASTE	VENT	CW	HW	DFU	CWFU	HWFU
EW-C-1	B-LEVEL ELECTRIC WATER COOLER	1	2"	1 1/2"	1 1/2"	1 1/2"	0.5	0.25	0
S-1	1 COMPARTMENT STAINLESS STEEL DROP IN SINK	1	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1	1	1
Grand total:		2	1.5		1.25		1		

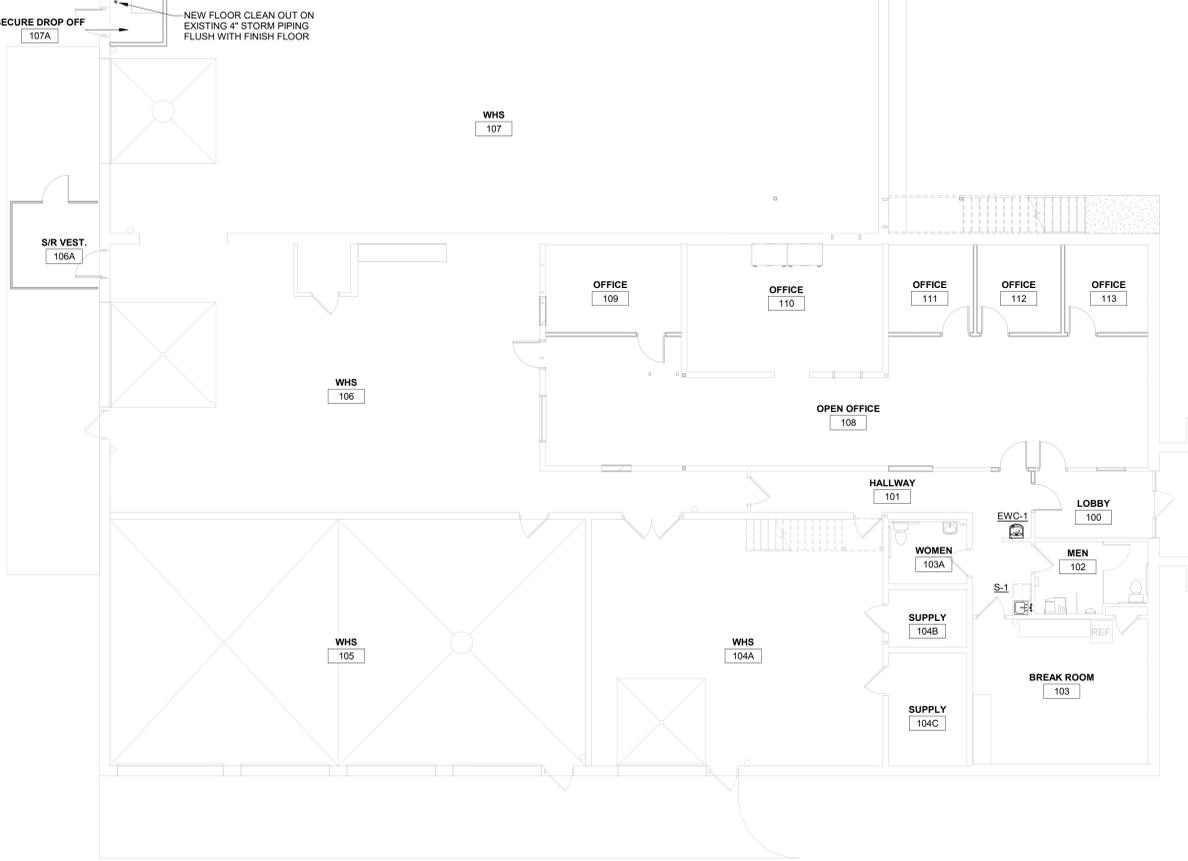
PLUMBING SHEET INDEX	
P100	PLUMBING PLAN



3 SECOND FLOOR PLAN
1/8" = 1'-0"



1 FIRST FLOOR DEMO PLAN
1/8" = 1'-0"



2 FIRST FLOOR PLAN
1/8" = 1'-0"