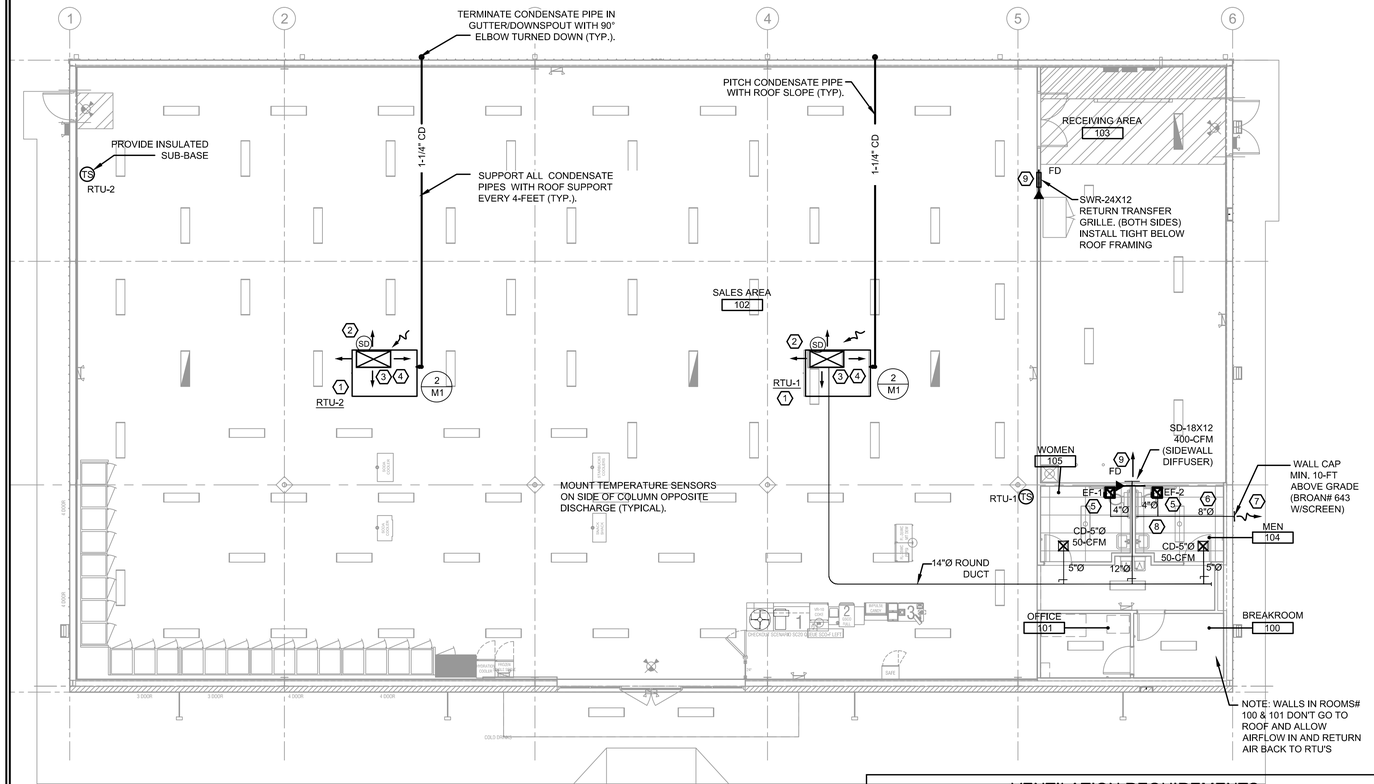


1 M1 MECHANICAL PLAN
SCALE: 1/8" = 1'-0"

NORTH

AIR CONDITIONING UNIT SCHEDULE

MARK	RTU - 1 and RTU-2
AREA	RETAIL SPACE
BTUH SENSIBLE	107,000
BTUH TOTAL	145,000 (12.5-TONS)
ENTERING DB / WB	77,7 / 65,3
AMBIENT TEMP .	95° F
SUPPLY CFM	5,000
EXTERNAL SP.	0,8
OSA CFM	REFER TO PLANS
FAN H.P.	3,7
HEAT Kw	31,8
VOLTAGE / PHASE	208 / 3
MCA	128
FUSE SIZE	150
EER (IEER)	11,0(12,4)
REFRIGERANT	R-410A
MODEL NO.	50TC-D14
MANUFACTURER	CARRIER
UNIT WEIGHT	1,500 lbs (max - confirm by vendor)

NOTES ON ACCESSORIES REQUIRED WITH UNITS:

1. PROVIDE FILTER RACK w/2" 30-35% FILTERS. REPLACE AT END OF JOB AND PROVIDE (2) ADDITIONAL SETS OF SPARE FILTERS TO OWNER
2. PROVIDE SOLID-STATE HEAD PRESSURE CONTROL ON CONDENSER FAN FOR LOW AMBIENT CONTROL
3. PROVIDE 5-MINUTE SOLID STATE DELAY CONTROL TO PREVENT COMPRESSOR FROM SHORT CYCLING
4. INSTALL UNIT PER MANUFACTURER'S SPECIFICATIONS AND GUIDELINES
5. PROVIDE UNIT WITH ELECTRIC HEAT AND SINGLE POINT CONNECTION
6. UNIT DISCONNECT AND CONVENIENCE OUTLET PROVIDED BY DIV-16 (ELECTRICIAN)
7. PROVIDE FACTORY MOUNTED OUTSIDE AIR HOOD WITH AUTOMATIC DAMPER, INCLUDING ECONOMIZER DAMPER WITH BAROMETRIC RELIEF AND DUAL ENTHALPY SENSOR WITH CONTROLS.
8. PROVIDE UNIT WITH SIDE - DISCHARGE SUPPLY/RETURN DUCT CONNECTIONS.
9. PROVIDE SIDE CONNECTIONS
10. PROVIDE COATED COILS ON CONDENSER FOR SALT WATER CORROSION PROTECTION.
11. PROVIDE AS MSAV MULTI-STAGE AIR VOLUME W/ V,F,D, AND BELT DRIVE KIT AS REQUIRED.

NOTES AND SPECIFICATIONS

1. ALL MECHANICAL WORK SHALL BE DONE IN ACCORDANCE WITH THE 2020 FLORIDA BUILDING CODES, NFPA-90A, ALONG WITH ALL LOCAL LAWS AND ORDINANCES AND IN A MANNER SATISFACTORY TO THE OWNER AND AUTHORITY HAVING JURISDICTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL REQUIRED PERMITS, INSPECTIONS AND PAY ALL APPLICABLE FEES.
2. CARRIER PACKAGED HVAC SYSTEMS ARE REQUIRED (NO SUBSTITUTIONS ALLOWED). ALL HVAC EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS WRITTEN INSTALLATION GUIDE. CONTACT HASAN KHALIL AT CARRIER CORPOATION NAT'L ACCOUNTS AT (315) 432-7655 OR EMAIL AT HASAN.KHALIL@CARRIER.COM.
3. PROVIDE CONCENTRIC DIFFUSER KIT AS SPECIFIED BY DOLLAR GENERAL NATIONAL ACCOUNTS HVAC MANUFACTURERS. (NO EXCEPTIONS PERMITTED). CONCENTRIC DIFFUSER KIT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS. CONCENTRIC DIFFUSER SHALL BE HARD DUCTED FROM HVAC UNIT, THE USE OF FLEXIBLE DUCT DROPS ARE NOT ALLOWED, NO EXCEPTIONS.
4. ALL CONDENSATE TO BE SCHEDULE 40 PVC WITH PIPE SUPPORTS AT 4-FEET INTERVALS AND SUPPORTS CLIPPED DOWN TO STANDING SEAMS ON METAL ROOF SYSTEM (SEE DETAILS).
5. SMOKE DETECTORS ARE REQUIRED FOR EACH HVAC UNIT. HVAC CONTRACTOR TO INSTALL IN SUPPLY DUCT DROPS. DETECTORS TO BE FURNISHED AND WIRED BY OTHERS (REFER TO ELECTRICAL PLANS). VERIFY CURRENT ADOPTED STATE AND LOCAL CODE REQUIREMENTS FOR INSTALLATION AND MOUNTING LOCATION OF SMOKE DETECTOR.
6. COORDINATE WITH METAL BUILDING VENDOR ON PROVIDING ROOF CURBS FOR RTU'S. REFER TO SHEET S3, FOR GENERAL NOTES AND DETAILS FOR ROOF CURB INFORMATION (SHOWN ON M1 FOR REFERENCE). CURB TO BE BY ROOF CURB SYSTEMS, LLC. CONTACT GC FOR METAL BUILDING VENDOR AND INCLUDE COST OF CURBS IN PRICE.
7. ALL SUPPLY AND EXHAUST AIR DUCTWORK SHALL BE CONSTRUCTED OF RIGID GALVANIZED SHEET METAL AND BE FABRICATED ACCORDING TO THE LATEST EDITION OF THE SMACNA HVAC DUCT CONSTRUCTION STANDARDS FOR METAL AND FLEXIBLE DUCTWORK. SUPPLY, RETURN AND POSITIVE PRESSURE EXHAUST DUCTWORK SHALL BE SEALED IN ACCORDANCE WITH SMACNA SEAL CLASS C. INSULATE ALL SUPPLY AND RETURN DUCT DROPS TO CONCENTRIC DIFFUSERS WITH FIBERGLASS RIGID BOARD ON EXTERIOR (R-4.2) THAT IS ASTM-E84 COMPLIANT. INSULATE ROUND SUPPLY DUCT FOR OFFICE AREA WITH EXTERNAL FIBERGLASS DUCT WRAP (R-4.2) THAT IS UL-181 COMPLIANT.
8. TESTING OF HVAC UNITS THRU EMS PANEL IS ACCOMPLISHED BY WARMING UP OR COOLING DOWN A SPACE TEMPERATURE SENSOR AND WATCH THE FAN, HEAT AND COOL STAGES CYCLE ON AND OFF. THIS REQUIRES TWO PEOPLE AT ALL TIMES, ONE TO WATCH THE SCREEN AND THE OTHER TO WATCH OPERATION OF THE HVAC UNIT. WHEN COMPLETE, PRESS THE HOME BUTTON TO RETURN TO THE MAIN SCREEN.
9. COORDINATE HVAC SENSORS LOCATIONS WITH SHEET EMS1. LOCATE SPACE TEMPERATURE SENSORS AT 8'-0" A.F.F.
10. POWER TO HVAC UNITS LISTED IN PREFERENCE ORDER.
11. PROVIDE CEILING MOUNTED EXHAUST FAN FOR RESTROOMS, INTERLOCK WITH RESTROOM LIGHTS. EXHAUST FAN SHALL BE VENTED THRU SIDE WALL, NOT THRU THE ROOF.
12. CONCENTRIC DIFFUSERS, AVAILABLE THROUGH YORK, CAN BE USED ON ALL VENDOR'S EQUIPMENT. CONTACT YORK NATIONAL PRICING FOR INFORMATION. LOCATE THE BOTTOM OF DIFFUSER AT 12'-0" AFF. CONTACT NATIONAL ACCOUNTS AT 1-800-481-9738 OR EMAIL YORK-DOLLARGENERAL-BE@JCI.COM.

MECHANICAL KEYED NOTES:

1. RTU-1 AND RTU-2. PROVIDE AND INSTALL NEW PACKAGE ROOF-TOP UNIT. SEE SCHEDULE FOR UNIT INFORMATION.
2. SMOKE DETECTOR TO BE INSTALLED IN SUPPLY AIR DUCTWORK FOR ROOF-TOP UNITS. FIELD COORDINATE WITH FIRE ALARM SYSTEM USED AND LOCAL CODES.
3. INSTALL CONCENTRIC DIFFUSER KIT BY YORK TO FIT CARRIER UNITS. INCLUDE FACTORY INSTALLED TRANSITION ADAPTER AT RTU. COORDINATE WITH LIGHT FIXTURES.
4. SUPPLY REGISTER MOUNTED ON DUCTWORK. BALANCE AT 4,000 cfm EACH.
5. EXHAUST FAN TO BE MOUNTED ON CEILING w/DUCTWORK ROUTED TO SIDEWALL. PROVIDE STORM PROOF WALL CAP w/BACKDRAFT DAMPER (TYP.).
6. 8"Ø EXHAUST DUCT TO WALL CAP.
7. WALL CAP w/BACKDRAFT DAMPER.
8. 8"Ø DUCT (w/DAMPERS) SPLIT TO TWO 4"Ø DUCTS.
9. FIRE DAMPER AT WALL (SEE DETAILS M2)

SMOKE DETECTOR NOTES:

1. THE DUCT SMOKE DETECTORS SHALL BE INSTALLED TO STOP THE FAN IN THE HVAC DUCT SYSTEM OVER 2,000cfm (RTU-1 AND RTU-2)
2. DETECTORS WITH ALARMS TO BE FURNISHED AND WIRED BY OTHERS. REFER TO ELECTRICAL PLAN # E1 FOR SPECIFICATIONS OF DETECTORS. COORDINATE WITH ELECTRICIAN FOR FINAL LOCATIONS OF DETECTORS IN SUPPLY DUCT DROPS PER CODE.
3. SMOKE DETECTORS SHALL BE INSTALLED IN ACCORDANCE WITH FBC 2020 7th EDITION OF MECHANICAL CODE, SECTION 606.

EQUIPMENT LABEL SPECIFICATIONS:

1. ALL HVAC EQUIPMENT SHALL BE FURNISHED WITH BLACK LAMINATED PLASTIC LABEL w/WHITE ENGRAVED LETTERING AND FASTENED MECHANICALLY TO THE EQUIPMENT.
2. LABEL SHALL HAVE THE FOLLOWING INFORMATION w/1/2" LETTERING:
   EQUIPMENT #
   SUITE/SPACE #

VENTILATION REQUIREMENTS

ROOM NUMBER	ROOM NAME	NET AREA (SF)	PEOPLE PER 1,000 sq. ft.	NO. OF PEOPLE	CFM PER PERSON	CFM PER SQFT	CALCULATED OSA CFM	OSA PROVIDED CFM
100	BREAK ROOM	72	(ACTUAL)	1	5	0,06	9	10
101	OFFICE	70	5	1	5	0,06	9	10
102	SALES AREA	5,649	15	85	7,5	0,12	1,315	1,320
103	RECEIVING AREA	965	-	4	-	0,12	116	120
104	MEN'S RESTROOM	78	-	-	70 PER TOILET		70	-110 (EXH)
105	WOMEN'S RESTROOM	78	-	-	70 PER TOILET		70	-110 (EXH)
						TOTAL AMOUNT OF OSA PROVIDED:		1,240

TABLE NOTES: BASED ON 2017 FBC MECHANICAL - TABLE 403.3.1.1, INCLUDING FOOTNOTE 'a'.

AIR BALANCE ANALYSIS

MARK	SUPPLY AIR	OSA INTAKE	RETURN AIR	EXHAUST AIR	BLDG. PRESSURE
RTU-1	5,000	730	4,270	-	-
RTU-2	5,000	730	4,270	-	-
EF-1	-	-	-	110	-110
EF-2	-	-	-	110	-110
-	-	-	-	-	-
TOTALS:	**10,000**	**1,460**	**8,540**	**220**	**+1,240**

SYMBOL LEGEND

- EXHAUST FAN
- SUPPLY AIR DIFFUSER
- TS — TEMPERATURE SENSOR
- RETURN/EXHAUST AIRFLOW
- SUPPLY AIRFLOW
- VOLUME DAMPER
- CD — CONDENSATE PIPE
- FIRE DAMPER (FD)

SEQUENCE OF OPERATION (A/C UNITS)

A. **SUPPLY FANS: THE EVAPORATOR FAN WILL RUN CONTINUOUSLY DURING OCCUPIED HOURS, AND CYCLE ON/OFF WITH COOLING/HEATING WHEN IN UN-OCCUPIED MODE, AS PROGRAMMED.**

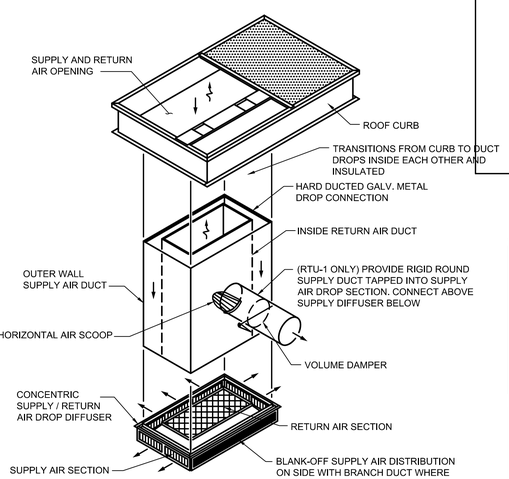
B. **OUTSIDE AIR DAMPER (RTU'S): OPEN WHEN EVAPORATOR RUNS (SEE ITEM "A" ABOVE)**

C. **COOLING COIL: WHEN SPACE AIR TEMP IS ABOVE SETPOINT (75'F OCCUPIED/80'F UNOCCUPIED) THE COMPRESSOR SYSTEM SHALL ENERGIZE IN STAGES TO MAINTAIN SPACE SETPOINT.**

D. **HEATING COIL: WHEN SPACE AIR TEMP IS BELOW SETPOINT (68'F OCCUPIED/60'F UNOCCUPIED) THE ELECTRIC HEATER WILL ENERGIZE IN STAGES TO MAINTAIN HEATING SPACE SETPOINT.**

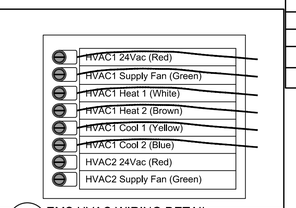
SEQUENCE OF OPERATION (EXHAUST FANS)

A. **RESTROOM FAN: FAN WILL START AND RUN FULL SPEED WHEN OCCUPANCY SENSOR IS TRIGGERED.**

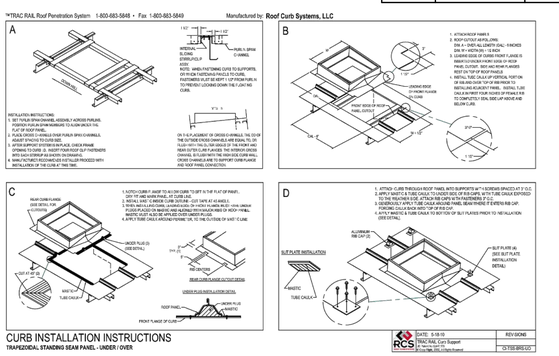


NOTE:
INSTALL HORIZONTAL AIR SCOOP HAVING A CONTINUOUSLY CURVED CROSS SECTION AND BALANCING DAMPER AT DUCT CONNECTION TO DIVERT SUPPLY AIR INTO THE CONNECTED DUCTWORK. LENGTH OF SCOOP SHALL BE LIMITED TO THE WIDTH OF THE SUPPLY AIR ANNULAR SPACE.

2 M1 TYPICAL SUPPLY DROP WITH BRANCH CONNECTION
SCALE: N.T.S.



3 M1 EMS HVAC WIRING DETAIL
SCALE: N.T.S.



4 M1 ROOF CURB SYSTEMS, LLC
SCALE: N.T.S.

WIND LOAD CODE COMPLIANCE NOTE:
CURB SHOWN FOR GENERAL INSTALLATION INTENT. CURB SHALL BE SECURED TO MEET LOCAL WIND LOAD AS DETAILED ON METAL BUILDING STRUCTURAL PLANS AND DETAILS FOR TIE-DOWN OF RTU TO ROOF CURB AND ROOF CURB TO ROOF STRUCTURE..

AIR DEVICE SCHEDULE

GENERAL				CONSTRUCTION					
MARK	TYPE	FUNCTION	FRAME SIZE	PATTERN	MATERIAL	FINISH	MFG.	MODEL	NOTES
CD	CEILING DIFFUSER	SUPPLY	12x12	LOUVERED FACE	ALUMINUM	WHITE	PRICE	AMD	1
SD	SIDEWALL DIFFUSER	SUPPLY	SEE PLANS	LOUVERED FACE	STEEL	WHITE	PRICE	520	1
SWR	SIDEWALL GRILLE	RETURN	SEE PLANS	BLADES	STEEL	WHITE	PRICE	530	1

NOTE: 1 PROVIDE WITH OPPOSED BLADE DAMPER.

EXHAUST FAN SCHEDULE

UNIT NO.	SERVICE	LOCATION	CFM	E.S.P. (IN W.G.)	ELECTRICAL DATA WATTS	VOLTS	PHASE	R.P.M. HI/LO	SONES	DRIVE	MANUFACTURER MODEL NUMBER	REMARKS
EF-1	TOILET	CEILING	110	,125	156	120	1	-	4,0	DIRECT	NUTONE #672R	1, 2, 3, 4, 5
EF-2	TOILET	CEILING	110	,125	156	120	1	-	4,0	DIRECT	NUTONE #672R	1, 2, 3, 4, 5
-	-	-	-	-	-	-	-	-	-	-	-	-

REMARKS:

1. PROVIDE UNIT MOUNTED DISCONNECT
2. PROVIDE BACKDRAFT DAMPER & WALL CAP TO SERVE BOTH FANS
3. PROVIDE SPEED CONTROLLER
4. INTERLOCK FAN WITH LIGHT SWITCH BY ELECTRICIAN
5. FANS TO BE U.L. LISTED & AMCA CERTIFIED.

JAMES BLYTHE
REGISTERED ARCHITECT
RA LEED AP BD+C
3324 W. UNIVERSITY AVE
PMB#151
GAINESVILLE, FL. 32607
AR94452

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3917 NW 97TH BOULEVARD, GAINESVILLE, FL 32606
PH 877.309.1029 / FAX 800.216.7809
WWW.CONCEPTCOMPANIES.NET

DOLLAR GENERAL

SR 19 & CR 242
LAKE CITY, FL 32024
STORE #TBD
2019 PROTOTYPE - PLAN 'DGP-D' - 9,100 SQ. FT.

DRAWING DATE: / DRAWN BY:
03/01/2021 - JEM

REVISION DATE: / REVISED BY:

PROJECT NUMBER:
4000.23

DRAWING TITLE:
MECHANICAL PLAN

SHEET NO.
M1

THIS ITEM HAS BEEN ELECTRONICALLY SIGNED & SEALED BY MATTHEW D. LEWIS, P.E., USING A DIGITAL SIGNATURE.
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED & SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

MATTHEW D. LEWIS No 56189 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by matthew d lewis
DN: C=US, E=matthew.d.lewis@outlook.com, O=Stepanek-Lewis and Associates, CN=matthew d lewis
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Location: your signing location here
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21-006
MATTHEW D. LEWIS, P.E. FL LIC#56189

MIAMI TECH INC.

Foreword

This publication details the installation requirements for dynamic application fire dampers as manufactured by Miami Tech Inc. Use of this manual for systems or products not manufactured or supplied by Miami Tech Inc shall not be applicable.

All products covered by this manual have been tested in accordance with UL555 and are authorized to bear the UL classification mark for fire dampers. Specific Fire Damper model numbers and their corresponding UL file numbers may be found in UL's Fire Resistance Directory. Miami Tech Inc. Fire Dampers have meet current UL requirements for Dynamic Curtain Style Fire Dampers July 2002.

For specific fire damper location requirements, duct construction and connection or installation practices, refer to the following codes or standards:

NFPA Publications:

NFPA 90A - Standard for the Installation of Air-Conditioning and Ventilation Systems

UL Publications:

UL555 - Standard for Safety, Fire Dampers, Dynamic Dampers 7/2002.

SMACNA Publications:

Fire, Smoke and Radiation Damper Installation Guide for HVAC Systems Guide

HVAC Duct Construction Standards – Metal and Flexible

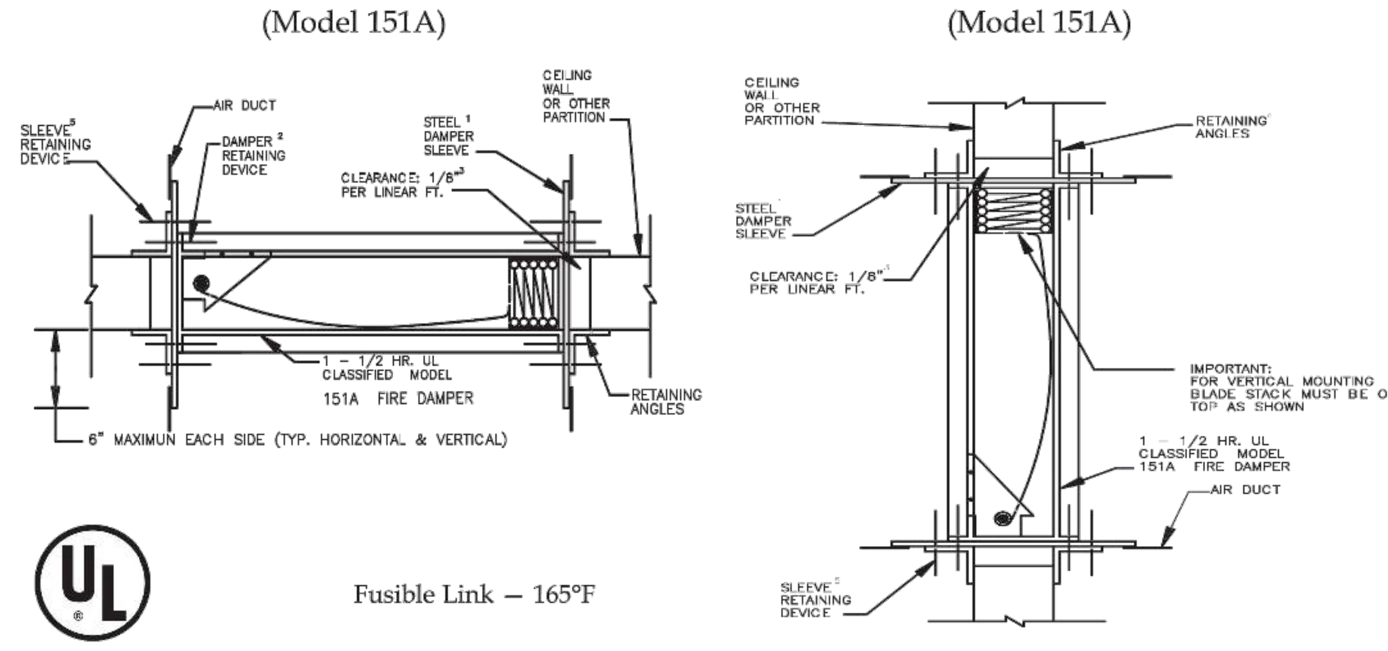
The Installation Instructions found within this manual have been specifically drawn and detailed to meet the requirements of UL555. Some jurisdictions may require additional or different installation methods; therefore, consult with the authority having jurisdiction for specific differences. For these cases, the requirements defined by the authority having jurisdiction will take precedence over the documents contained herein.

MIAMI TECH INC

1/2003

Model 151A • 1.5 Hour Single Section Dynamic Fire Damper

HORIZONTAL MOUNTING (Model 151A) **VERTICAL MOUNTING** (Model 151A)



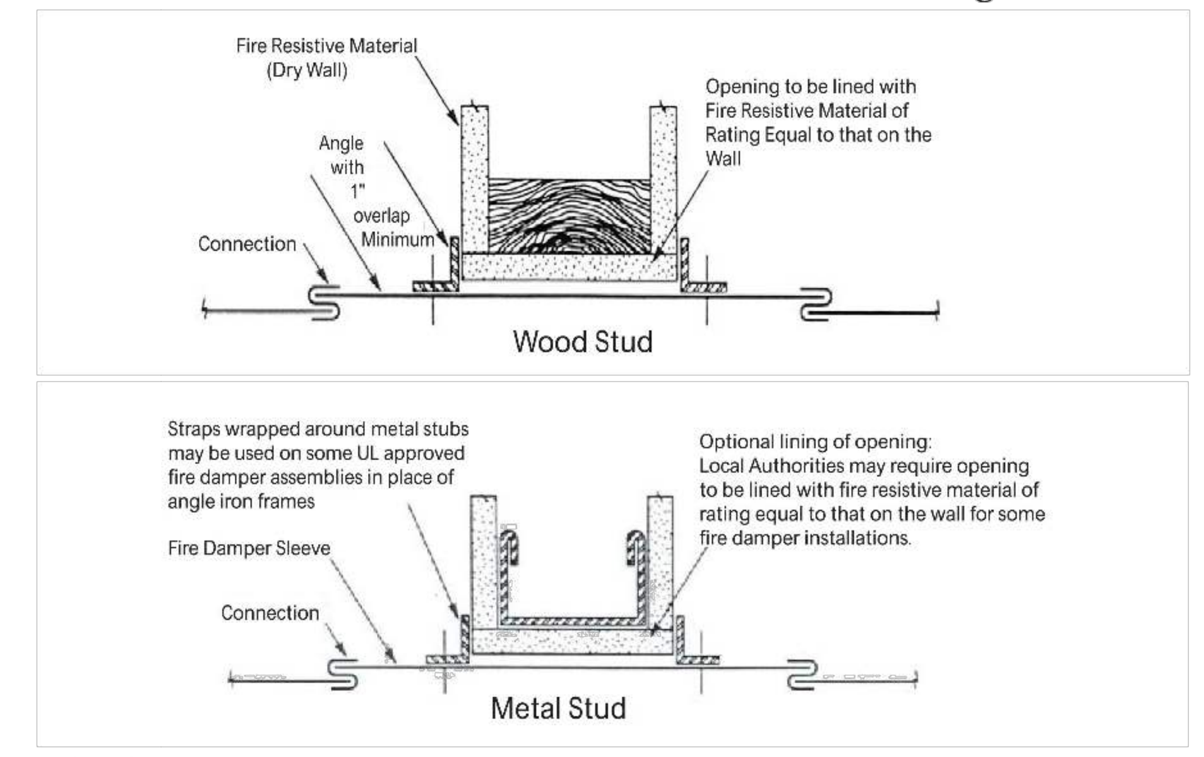
Fusible Link — 165°F

NOTES:

1. Sleeve shall be of the same or heavier gauge as the duct to which it is attached. Gauges shall conform to SMACNA or ASHRAE Duct Standards. When the following duct-sleeve connections are used, minimum gauge of the sleeve shall be 16 gauge on dampers not exceeding 24" wide x 24" high and 14 gauge on larger dampers: (a) angle reinforced standing seam, (b) angle reinforced pocket lock, (c) companion angle, or (d) metal fasteners spaced approximately 16" on center. Refer to the latest edition of UL 555 for connections which may be used in all systems.
2. Damper is secured to sleeve by the use of either 1/4" diameter steel nuts and bolts, No. 10 sheetmetal screws, 1/4" diameter steel rivets, or 1/2" long welds...all of which must be 6" on center and a maximum of 1 3/4" from the ends.
3. Fire dampers shall have clearance of 1/8" per linear foot on width and height. The unit (damper and sleeve) may rest on the bottom of the opening and need not be centered.
4. Retaining angles shall be a minimum of 1 1/2" x 1 1/2" x 16 gauge steel. Angles increase in size proportionally, so that there will be a minimum of 1" overlap on the partition, and angles must also cover corners of opening.
5. The sleeve is retained in the partition opening by the use of either 1/4" diameter steel nuts and bolts, No. 10 sheetmetal screws, 1/4" diameter steel pop rivets or 1/2" long welds...all of which must be 6" on center and no more than 2" from the ends. Devices are to attach angle to sleeve only.
6. This installation is for dampers which are to be installed in masonry walls only. See Installation for Alternate Framing Methods on page 5, for wood stud and metal stud partition.
7. Connecting ducts shall be terminated at the sleeve or transition collar where a draw-band type breakaway joint is used.
8. Maximum duct size of single section Model 151A unit is 24" wide x 24" high.

MIAMI TECH INC

Model 150 & 151 • Alternate Framing Methods



NOTES:

1. **Thickness and type of fire resistive material may vary with the jurisdiction. Specific framing requirements of openings should be provided in the architectural and structural drawings that are submitted for building permits.**
2. Sleeve shall be 14 gauge when the following duct-sleeve connection is: (a) angle reinforced standing seam, (b) angle reinforced pocket, (c) companion angles, (d) metal fasteners spaced approximately 16" on center. Refer to latest edition of UL 555 for connections with may be used in all systems. Gauges shall conform to SMACNA or ASHRAE Duct Standards.
3. Damper is secured to sleeve by the use of either 1/4" diameter steel nuts and bolts, No. 10 sheetmetal screws, 1/4" diameter steel rivets, or 1/2" long welds...all of which must be 6" on center and a maximum of 1 3/4" from the ends.
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6. The sleeve is retained in the partition opening by the use of either 1/4" diameter steel nuts and bolts, No. 10 sheetmetal screws, 1/4" diameter steel pop rivets or 1/2" long welds...all of which must be 6" on center and no more than 2" from the ends. Devices are to attach angle to sleeve only.
7. For Horizontal Mount Dampers, the assembly is formed by using a full length 1/8" by 5" wide mullion plate with 1/4" diameter steel nuts and bolts, spaced 6" on center and a maximum of 3/4" from corners attaching frames to mullion plate.
8. For Vertical Mount Dampers, the damper frames are butted together and fastened with either No. 10 x 3/4" long sheetmetal screws, 1/4" diameter steel rivets, 1/4" diameter steel nuts and bolts, or 1/2" long welds all of which must be spaced at 4" on center and maximum of 3/4" from corners of dampers.
9. Connecting ducts shall be terminated at the sleeve.
10. Maximum duct size of single section vertical only unit is 24" wide x 24" high.

METAL OR WOOD STUD FRAMING FOR FIRE DAMPERS IN WALLBOARD PARTITIONS

NOTE: Gypsum Wallboard screwed to all stud and runner flanges. 12" O.C. maximum, surrounding opening

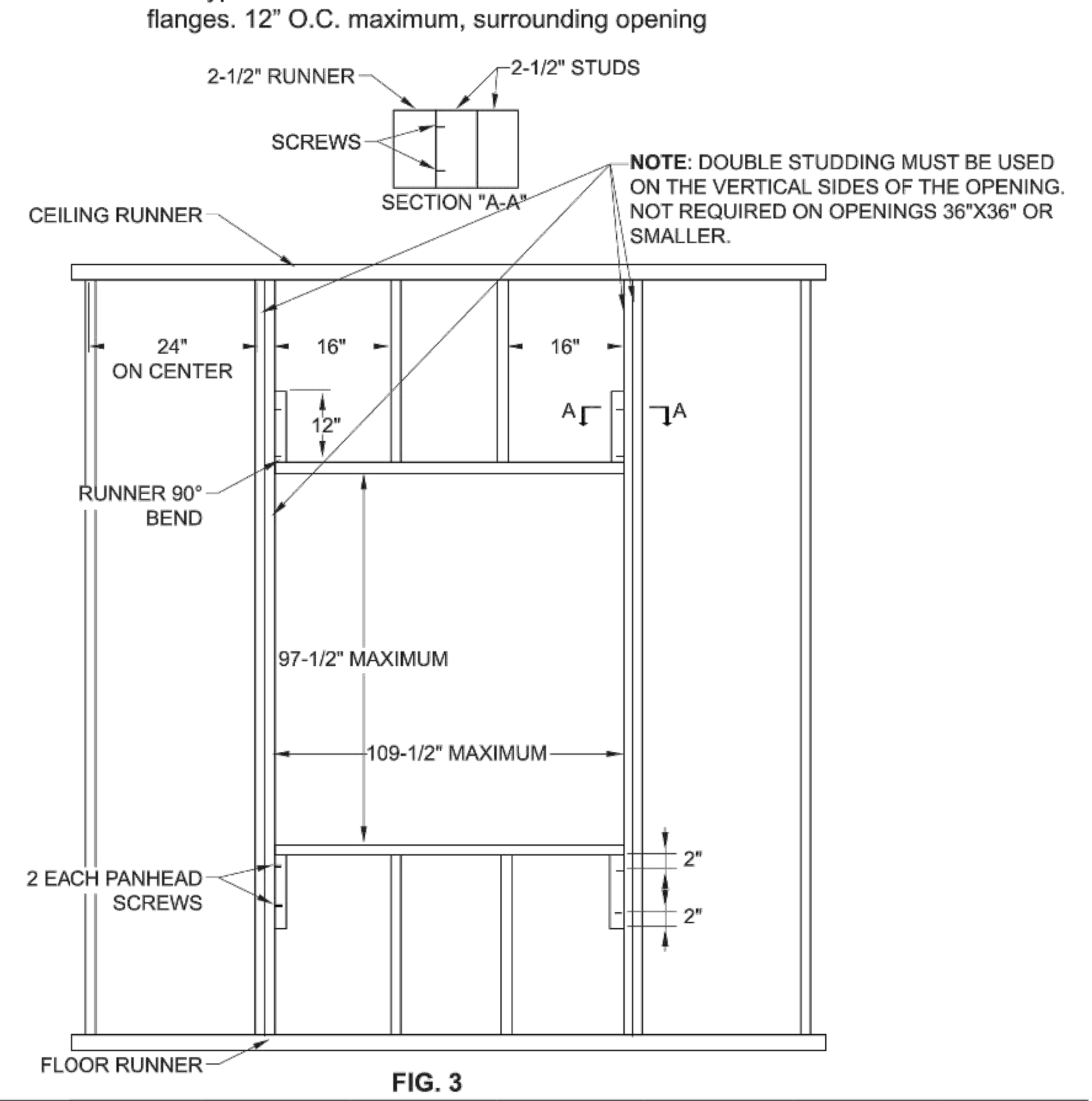
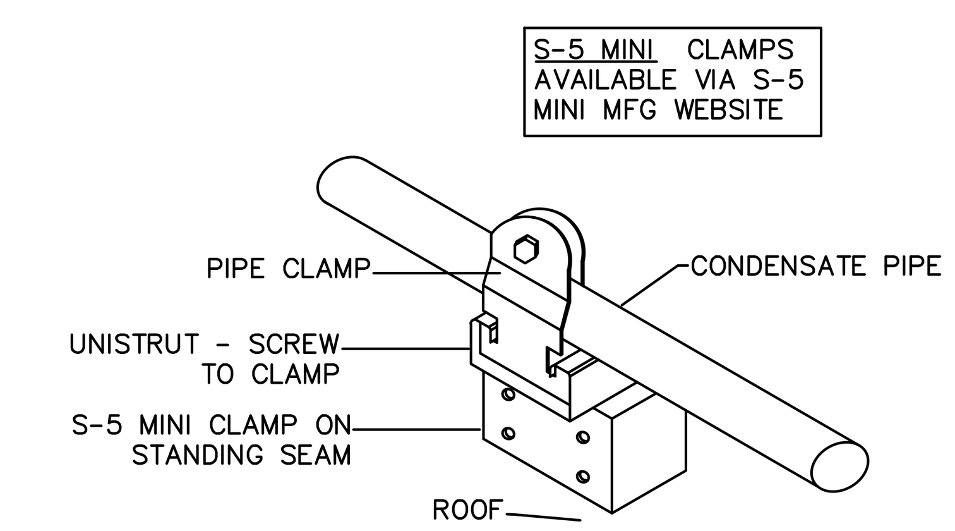


FIG. 3

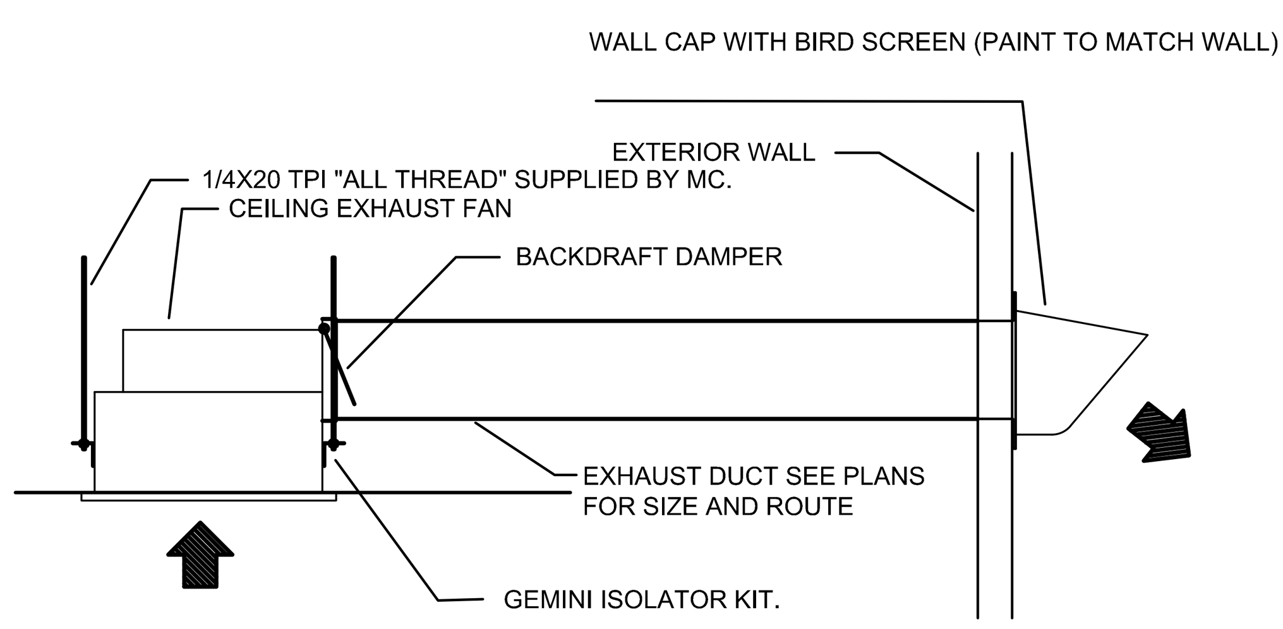
MAXIMUM SIZE TABLE								
MODEL	Single Section				Multiple Section			
	Vertical		Horizontal		Vertical		Horizontal	
	Max. Width	Max. Height	Max. Width	Max. Height	Max. Width	Max. Height	Max. Width	Max. Height
MFD	60	60	40	40	120	120	80	40
MFD3	48	48	40	40	-	-	80	40
MDFD	36	36	18	18	-	-	36	36
MDFD3	36	36	18	18	-	-	36	36
MFDS	48	48	48	48	-	-	-	-
MFDS3	48	48	48	48	-	-	-	-
MDFDS	36	36	18	18	-	-	36	36
MDFDS3	36	36	18	18	-	-	36	36
MFDUS	48	48	-	-	-	-	-	-
MFDUS3	48	48	-	-	-	-	-	-

NOTE: For maximum single section sizes refer to maximum size table. For openings larger than given for single section, multiple dampers are required. For openings larger than given in multiple sections a 12" wide brick or reinforced mullion must be provided between adjacent assemblies.

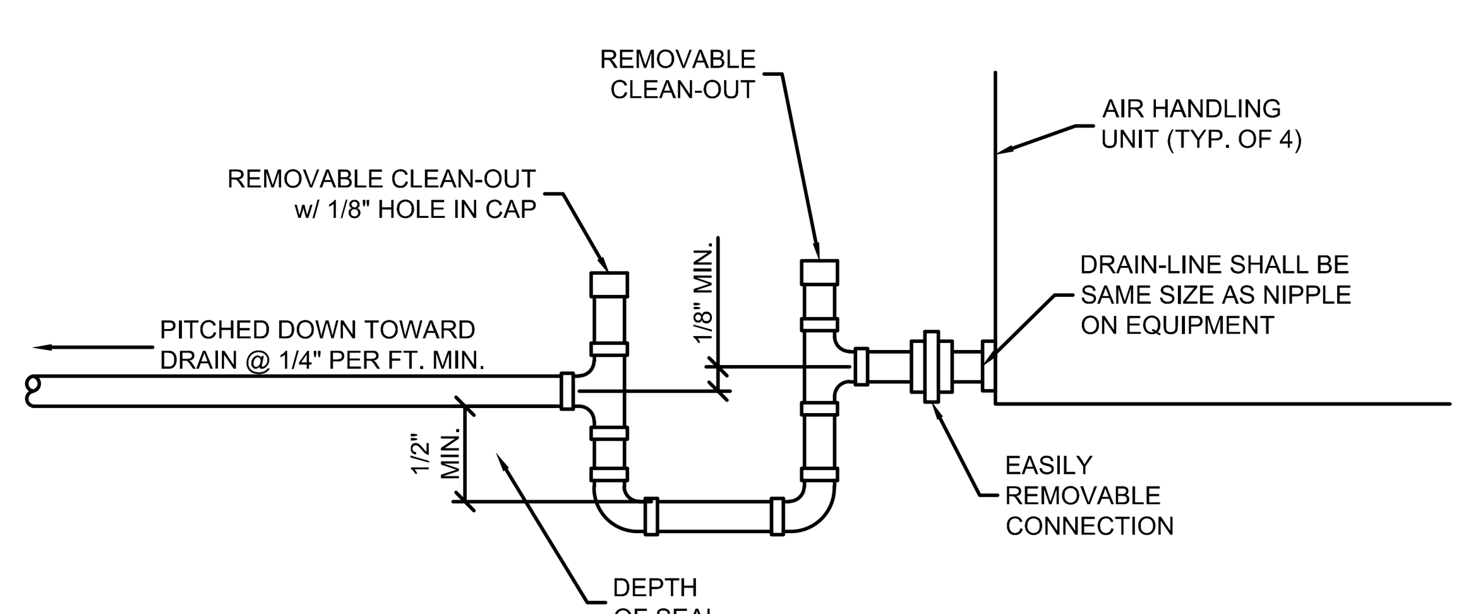
Litho in U.S.A.



1 / M2 S-5 MINI ROOF CONDENSATE PIPE SUPPORT (METAL BUILDING)
SCALE: N.T.S.



2 / M2 CEILING FAN TO WALL CAP
SCALE: N.T.S.



3 / M2 CONDENSATE TRAP
SCALE: N.T.S.

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GAINESVILLE, FL. 32607
AR94452

CONCEPT COMPANIES

DOLLAR GENERAL

SR 19 & CR 242
LAKE CITY, FL 32024
STORE #TBD
2019 PROTOTYPE - PLAN 'DGP-D' - 9,100 SQ. FT.

Digitally signed by matthew d lewis
DN: C=US, O=Unaffiliated, OU=A01427E0000016587488F4F00002430, CN=matthew d lewis
Reason: I am the author of this document
Location: your signing location here
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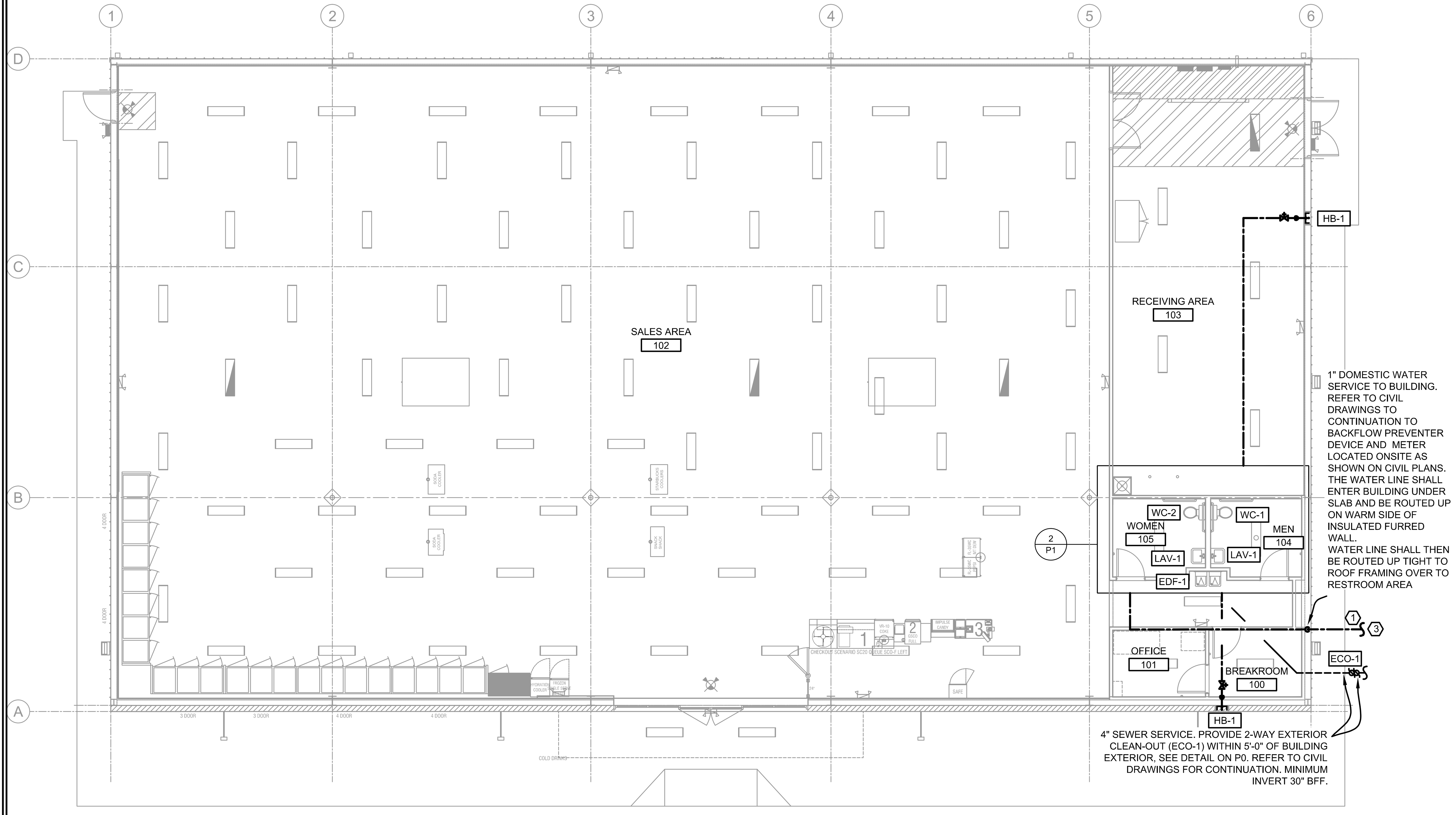
DRAWING DATE: / DRAWN BY: 03/01/2021 - JEM

REVISION DATE: / REVISED BY:

PROJECT NUMBER: 4000.213

DRAWING TITLE: FIRE DAMPER DETAILS

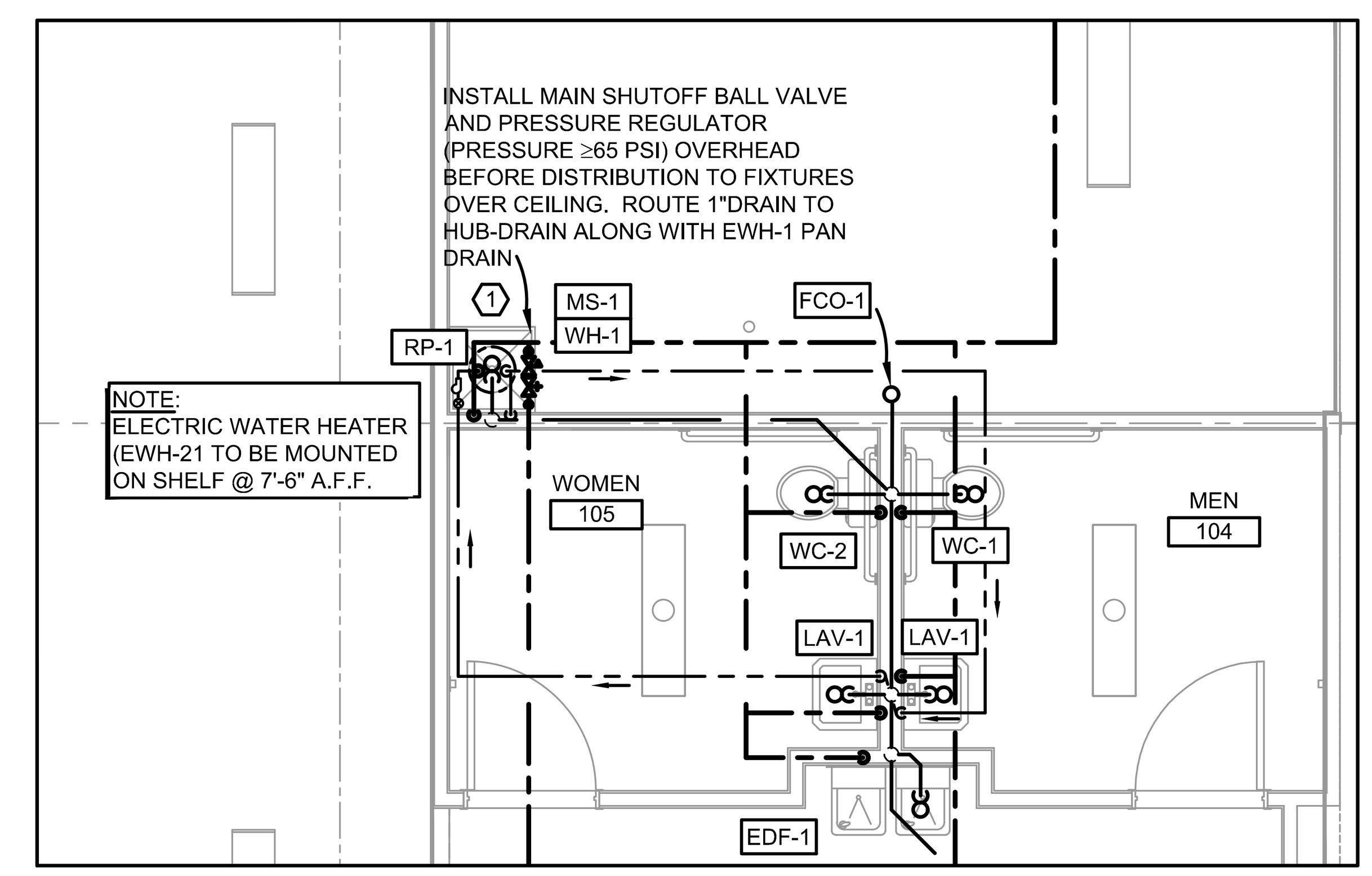
SHEET NO. M2



1 PLUMBING PLAN
P1 SCALE: 1/8" = 1'-0"
NORTH

GENERAL PLUMBING NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2020 FLORIDA BUILDING CODES (7TH EDITION)
2. PROVIDE ALL BACKING, SUPPORTS AND CARRIERS FOR FIXTURES.
3. CONTRACTOR SHALL PROVIDE APPROVED ACCESS DOORS IN FRAMED HOLES FOR ALL VALVES AND TRAP PRIMERS WHICH MUST BE LOCATED IN INACCESSIBLE LOCATIONS.
4. ALL WATER PIPING SHALL BE PITCHED IN DIRECTION OF FLOW TO ALLOW FOR SYSTEM DRAINING.
5. INSTALL WATER MAIN SHUT-OFF VALVE UPSTREAM FROM PRESSURE REGULATOR.
6. INSTALL WATER PRESSURE REGULATOR WHERE AVAILABLE UTILITY PRESSURE EXCEEDS 70 PSI. SET PRESSURE REGULATOR AT 65 PSI.
7. PROVIDE BACKFLOW PREVENTER ASSEMBLY WITH TAMPER RESISTANT ACCESS CABINET PER LOCAL CODE.
8. ROUTE WATER PIPING IN SALES AREA, OVERHEAD AS HIGH AS POSSIBLE.
9. DRAIN, WASTE AND VENT LINES SHALL PASS INSPECTION UNDER HEAD OF WATER BY SYSTEM WITH WATER TO TOP OF HIGHEST VENT STACK.
10. WATER LINES SHALL PASS INSPECTION OF FOUR (4) HOURS UNDER 150 PSI PRESSURE. BEFORE ANY USE OF SYSTEM IS MADE FOR DOMESTIC PURPOSES, IT SHALL BE DISINFECTED BY SLOWLY FILLING WITH WATER TO WHICH A DISINFECTING AGENT HAS BEEN INJECTED AT A RATE OF 50 P.P.M. OF CHLORINE, WHICH SHOULD BE ALLOWED TO STAND IN THE PIPING FOR AT LEAST 24 HOURS, AFTER WHICH TESTS FOR RESIDUAL CHLORINE SHALL SHOW NOT LESS THAN FIVE (5) P.P.M. OF RESIDUAL CHLORINE AT EVERY WATER OUTLET IN THE BUILDING. IF THE RESIDUAL IS LESS THAN FIVE PPM, THE DISINFECTION SHALL BE REPEATED UNTIL THE REQUIRED RESIDUAL IS OBTAINED AT EVERY OUTLET. AFTER REQUIRED RESIDUAL IS OBTAINED AT EVERY OUTLET, THE SYSTEM SHALL BE FLUSHED UNTIL THE CHLORINE LEVEL AT EVERY OUTLET IS REDUCED TO THAT OF INCOMING WATER SUPPLY. IF STRICTER LOCAL REQUIREMENTS ARE IN PLACE, THOSE SHALL BE FOLLOWED.
11. CONTRACTOR RESPONSIBLE FOR ALL PUBLIC UTILITY CONNECTIONS.
12. ALL PLUMBING MATERIALS SHALL COMPLY WITH CODE.
13. REFER TO SHEET P2 FOR MATERIALS.



2 PARTIAL PLAN TOILET AREA
P1 SCALE: 1/4"=1-0'

SANITARY INVERT NOTE:
REQUIRED INVERT AT FURTHEEST POINT OF CONNECTION AT MOP SINK AREA TO PROPOSED SEWER SERVICE IS APPROXIMATELY 24" BELOW FINISHED FLOOR BASED ON TOTAL LENGTH OF 35'+/- SLOPED AT 1/8" PER FT AND STARTING INVERT OF 18" BELOW FINISHED FLOOR. CONTRACTOR TO FIELD VERIFY THE INVERT AND LOCATION OF SANITARY LINE AS SHOWN ON CIVIL DRAWINGS.

NOTES:
1. REFER TO SHEET P2, FOR ROUTING OF DOMESTIC WATER, SANITARY SEWER AND SANITARY VENT PIPING.
2. DOMESTIC WATER, SANITARY SEWER AND SANITARY VENT PIPE ROUTING ARE DIAGRAMMATIC ONLY, COORDINATE PIPE ROUTING WITH FIELD CONDITIONS. REFER TO PIPING DIAGRAMS ON SHEET P2.

PLUMBING FIXURE SCHEDULE

REFER TO MATERIALS ON P2

MARK	DESCRIPTION	HW CONNECTION	CW CONNECTION	WASTE CONNECTION	VENT CONNECTION	REMARKS
LAV-1	ADA LAVATORY	1/2"	1/2"	2"	1-1/2"	20"X18" WALL HUNG ADA LAVATORY W/ FRONT OVERFLOW, CONCEALED HANGERS & 4" CENTERS. AMERICAN STANDARD LUCERNE #0355.012 OR EQUAL. FAUCET SHALL BE POLISHED CHROME-PLATED CAST BRASS BODY WITH 4" SPOUT, 4" BRASS WRIST BLADE, 0.5 GPM SPRAY AND GRID STRAINER DRAIN. AMERICAN STANDARD MONTERREY #5502.175 WITH WATTS MODEL USG-B-M1 TEMPERING VALVE OR EQUAL. INSULATE EXPOSED DRAIN & WATER PIPES WITH TRUEBRO LAV GUARD KIT #102 E-Z. PROVIDE SUPPLY LINES, STOP VALVES & P-TRAP.
WC-1	ADA WATER CLOSET	-	1/2"	4"	2"	FLOOR MOUNTED ADA VITREOUS CHINA ELONGATED 1.6 FLUSH GALLON CLOSE COUPLED TWO PIECE SIPHON JET WATER CLOSET & FLUSH TANK WITH 12" ROUGH-IN, AMERICAN STANDARD CHAMPION 4 "RIGHT HEIGHT" #2002.014 OR EQUAL. PROVIDE STOP VALVE, FLEXIBLE SUPPLY LINE & OPEN FRONT SEAT (AMERICAN STANDARD #5901.100 OR EQUAL).
WC-2	ADA WATER CLOSET RIGHT-HAND TRIP LEVER	-	1/2"	4"	2"	FLOOR MOUNTED ADA VITREOUS CHINA ELONGATED 1.6 FLUSH GALLON CLOSE COUPLED TWO PIECE SIPHON JET WATER CLOSET & FLUSH TANK WITH 12" ROUGH-IN, AMERICAN STANDARD CHAMPION 4 "RIGHT HEIGHT" #2002.014 OR EQUAL WITH ALTERNATE TANK ASSEMBLY #4266.804 (RIGHT HAND TRIP LEVER). PROVIDE STOP VALVE, FLEXIBLE SUPPLY LINE & OPEN FRONT SEAT (AMERICAN STANDARD #5901.100 OR EQUAL).
EWH-1	ELECTRIC WATER HEATER	3/4"	3/4"	-	-	PROVIDE 10 GALLON ELECTRIC WATER HEATER, 1.65KW @ 120V WITH MANUFACTURER SUPPLIED TEMPERATE AND PRESSURE RELIEF VALVE. (A.O. SMITH #EJC-10, OR EQUAL). SET WATER HEATER TEMPERATURE AT 110°F MAXIMUM. PROVIDE THERMAL EXPANSION TANK. (AMTROL THERM-X-TROL ST-12, OR EQUAL). EXPANSION TANK SUPPORT: IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE SUPPORT FOR THE EXPANSION TANK. SUPPORT TO ADJACENT WALL OR FROM EXISTING STRUCTURE ABOVE WITH UNISTRUT. DO NOT SUPPORT FROM PIPE ALONE. PROVIDE DRAIN PAN UNDER WATER HEATER. PROVIDE SEISMIC STRAPPING ON WATER HEATER. TERMINATE (EWH-1) DRAIN LINE IN MOP SINK (MS-1). PROVIDE FULL SIZE T&P RELIEF LINE. REFER TO WATER HEATER DETAIL ON SHEET P2 FOR ADDITIONAL INFORMATION.
MS-1	MOP SINK	3/4"	3/4"	3"	2"	24" X 24" MOLDED STONE MOP SERVICE BASIN, WITH 3' DRAIN. FIAT #MSB-2424 OR EQUAL. PROVIDE SERVICE FAUCET WITH PAIL HOOK & INTEGRAL VACUUM BREAKER, MOP BRACKET, FLAT STAINLESS STEEL STRAINER AND HOSE & BRACKET. FIAT #830 AA, 889 CC, 1453 BB & 832 AA OR EQUAL. PROVIDE SUPPLY LINES AND P-TRAP.
EDF-1	BARRIER FREE ELECTRIC DRINKING FOUNTAIN	-	1/2"	2"	1-1/2"	TWO-STATION, WALL MOUNTED, ELECTRIC DRINKING FOUNTAIN, BARRIER-FREE ACCESS (ADA), FRONT ONLY EASY TOUCH CONTROL, HIGH UNIT ON RIGHT. ELKAY #EZTLRDDC OR EQUAL. PROVIDE SUPPLY LINE, STOP VALVE & P-TRAP. PROVIDE CANE APRON AS REQUIRED.
HD-1	HUB DRAIN	-	-	3"	2"	PROVIDE 3" PIPE SIZE WITH FUNNEL& TRAP GUARD INSERT FOR PROTECITON. JOSAM, ZURN OR EQUAL.
WH-1	WALL HYDRANT	-	3/4"	-	-	FREEZE-PROOF WALL HYDRANT WITH BRONZE BODY & ANTI-SIPHON VACUUM BREAKER, BOX AND LOCKING COVER. PROVIDE WITH HOSE CONNECTION AND MOUNT AT 24" ABOVE GRADE. WOODFORD #B65 OR EQUAL.
WCO-1	WALL CLEAN-OUT	-	-	AS SHOWN ON PLANS	-	SIZE & INSTALL AS SHOWN ON PLANS. JOSAM, ZURN OR EQUAL.
ECO-1	EXTERIOR CLEAN-OUT	-	-	4"	-	PROVIDE TRAFFIC RATED, 2-WAY, EXTERIOR CLEANOUT. TYLER PIPE #003519, OR EQUAL.
FCO-1	FLOOR CLEAN-OUT	-	-	AS SHOWN ON PLANS	-	PROVIDE ADJUSTABLE FLOOR CLEANOUT WITH WATERTIGHT TAPERED THREADED PLUG AND ROUND SCORIATED SECURED TOP, ADJUSTABLE TO FINISHED FLOOR. SIZE & INSTALL AS SHOWN ON PLANS. JOSAM, ZURN OR EQUAL.
RP-1	HOT WATER RECIRC PUMP	3/4"	3/4"	-	-	HOT WATER RECIRCULATION PUMP. TACO#003B. 115 V, 0.43 AMP, 1/40 HP, 1/2"CONNECTIONS, 4 FT HEAD. PROVIDE BALANCE VALVE, AQUASTAT & 7-DAY PROGRAMMABLE TIMER.

SYMBOL LEGEND

—SAN—	SANITARY PIPING
- -SAN BLW.- -	SANITARY PIPING BELOW
----V----	VENT PIPING
—GAS—	GAS PIPING
—CW—	COLD WATER PIPING
—HW—	HOT WATER PIPING
	SHUT-OFF VALVE
	BACKFLOW PREVENTER
	PRESSURE REGULATOR
	WALL CLEANOUT
	FREEZE-PROOF HOSE BIBB
	2-WAY EXTERIOR CLEANOUT
	FLOOR CLEANOUT

CIVIL ENGINEERING DESIGN COORDINATION NOTICE

NOTICE TO ALL PARTIES HAVING AN INTEREST IN THIS CONSTRUCTION PROJECT:
1. CIVIL ENGINEERING FOR THIS PROJECT IS BEING PERFORMED BY OTHERS.
2. CONTRACTORS RELYING ON DOCUMENTS NOT COORDINATED WITH THE CIVIL ENGINEERING WORK SHALL DO SO AT THEIR OWN RISK.
3. COORDINATION WITH THE CIVIL ENGINEERING DOCUMENTS HAS BEEN COMPLETED ONLY AS SHOWN BELOW.

CIVIL ENGINEERING CONSULTANT IS: CHW, INC., CHRIS THORNTON
PHONE: (386) 518-6529

CIVIL SHEET DWG. NO.	CIVIL SHEET DWG. TITLE	REV. NO.	REV. DATE	REV. NO.	REV. DATE	REV. NO.	REV. DATE
CAD FILE	UTILITY PLAN	-	2/10/21				

COORDINATION CHECKED BY:	INITIAL	DATE	INITIAL	DATE	INITIAL	DATE
	ML	03-01-21				

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Digitally signed by matthew d lewis
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Reason: I am the author of this document
Location: your signing location here
Date: 2021-03-09 10:29:49

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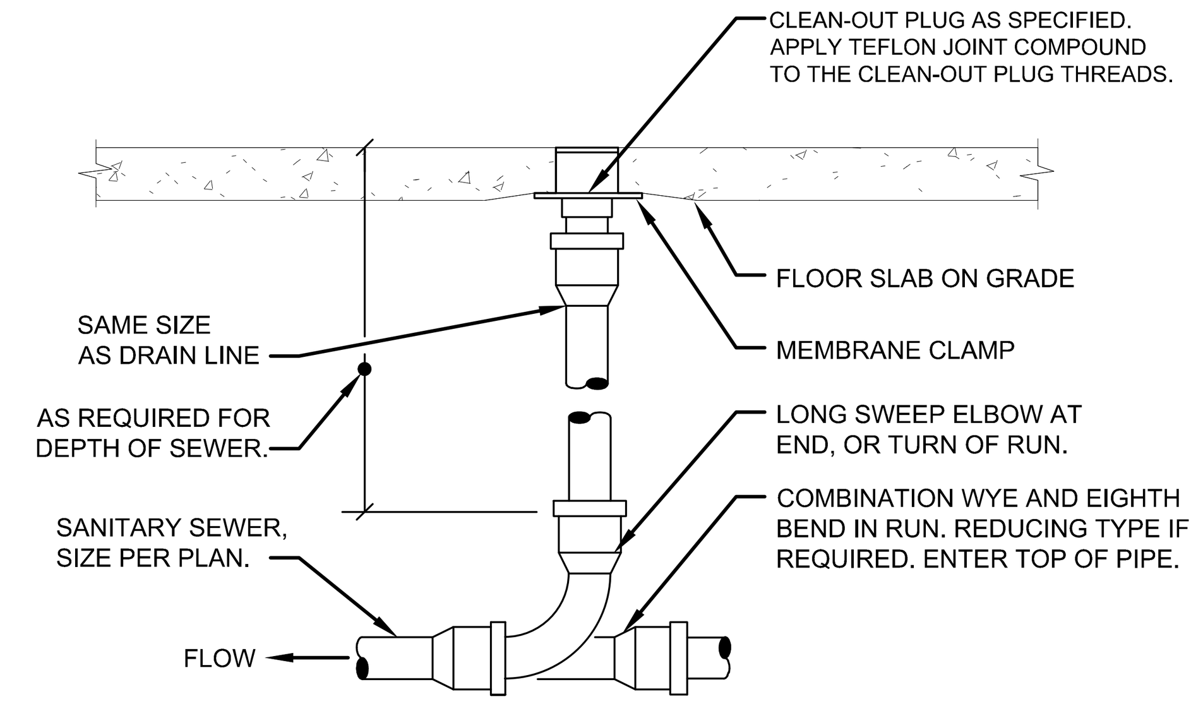
AR94452

CONCEPT COMPANIES

DOLLAR GENERAL
SR 19 & CR 242
LAKE CITY, FL 32024
STORE #TBD
2019 PROTOTYPE - PLAN 'DGP-D' - 9,100 SQ. FT.

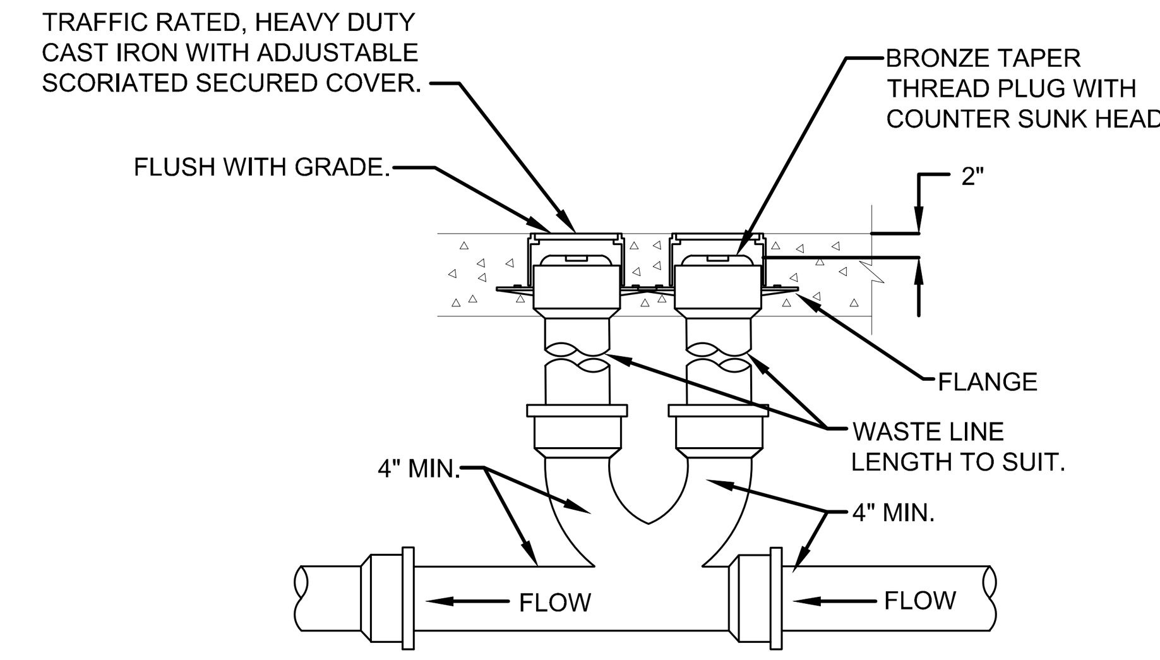
DRAWING DATE: / DRAWN BY: 03/01/2021 - JEM
REVISION DATE: / REVISED BY:
PROJECT NUMBER: 4000.213
DRAWING TITLE: PLUMBING PLAN
SHEET NO. P1

1 NOT USED
P2 SCALE: N.T.S.



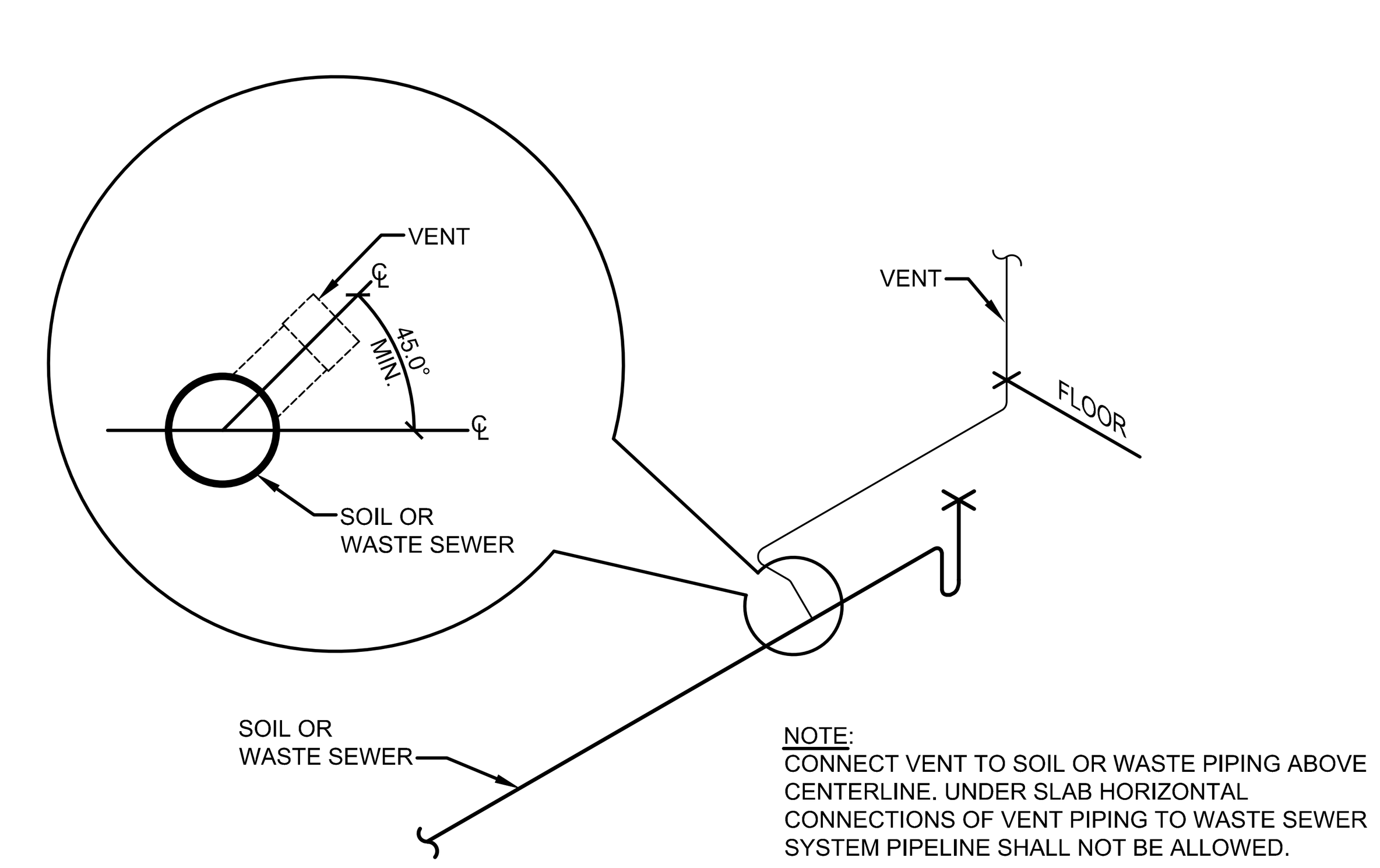
NOTES:
1. REFER TO SCHEDULE FOR ADDITIONAL INFORMATION. LOCATE FLOOR CLEAN-OUT AT END OF RUN, TURNS OF PIPE GREATER THAN 45°, 50' INTERVALS ON STRAIGHT RUNS, AND/OR WHERE SHOWN ON PLANS & RISERS. PROVIDE BACKFILL AS REQUIRED. LOCATE CLEAN-OUT WHERE THERE IS 18" CLEAR AROUND, FOR ACCESSIBILITY. COORDINATE WITH LOCAL CODES AND AUTHORITY HAVING JURISDICTION FOR ANY ADDITIONAL REQUIREMENTS.
2. PROVIDE FLOOR CLEAN-OUT WITH ADJUSTABLE COVER. CLEAN-OUT COVER SHALL BE SUITABLE FOR RESPECTIVE FLOOR COVERING (RECESSED FOR TILE, SCORIATED FOR UNFINISHED FLOORS, ETC.). CLEAN THE TOP OF EXPOSED FLOOR CLEAN-OUT AFTER INSTALLATION.

3 FLOOR CLEANOUT
P2 SCALE: N.T.S.



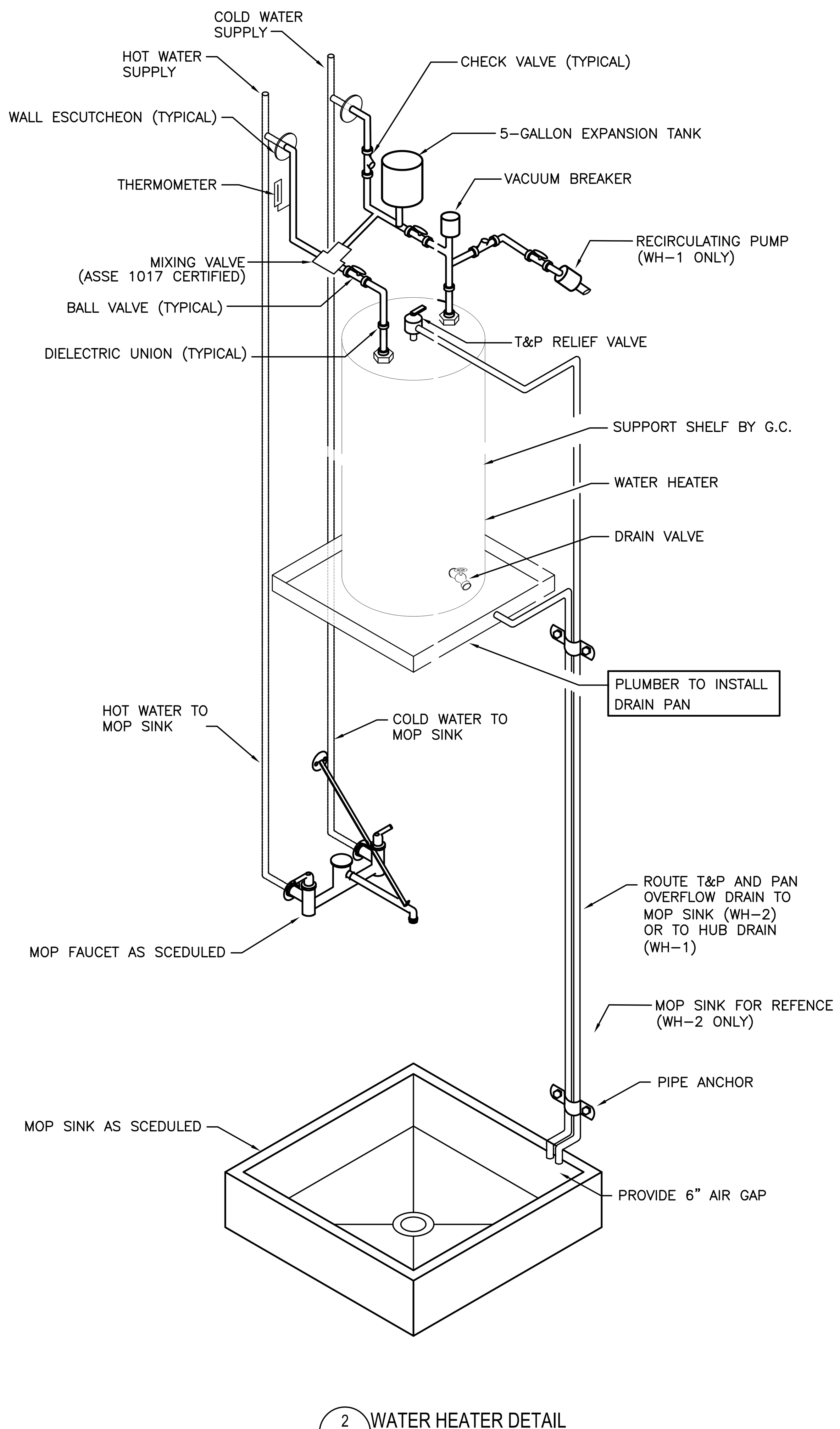
NOTES:
1. CLEAN-OUT SHALL BE TRAFFIC RATED.
2. ECO-1 SHALL BE INSTALLED WITHIN 5'-0" OF THE BUILDING EXTERIOR.

4 2-WAY YARD CLEANOUT
P2 SCALE: N.T.S.



NOTE:
CONNECT VENT TO SOIL OR WASTE PIPING ABOVE CENTERLINE. UNDER SLAB HORIZONTAL CONNECTIONS OF VENT PIPING TO WASTE SEWER SYSTEM PIPELINE SHALL NOT BE ALLOWED.

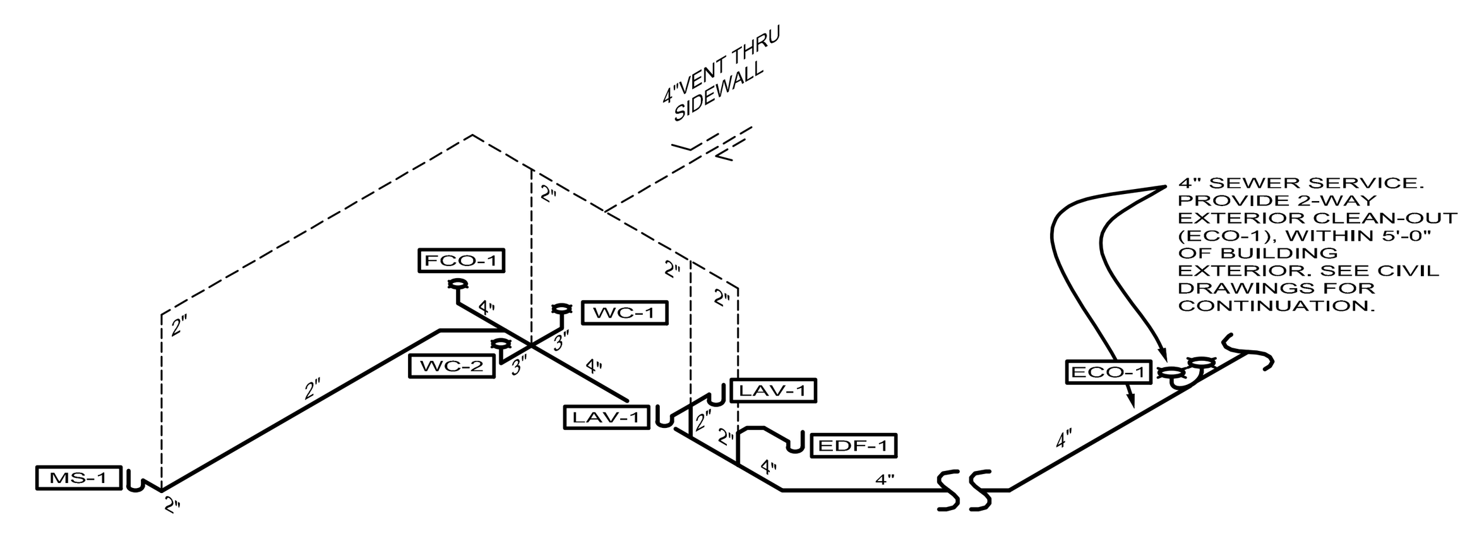
5 VENT PIPE INSTALLATION
P2 SCALE: N.T.S.



2 WATER HEATER DETAIL
P2 SCALE: N.T.S.

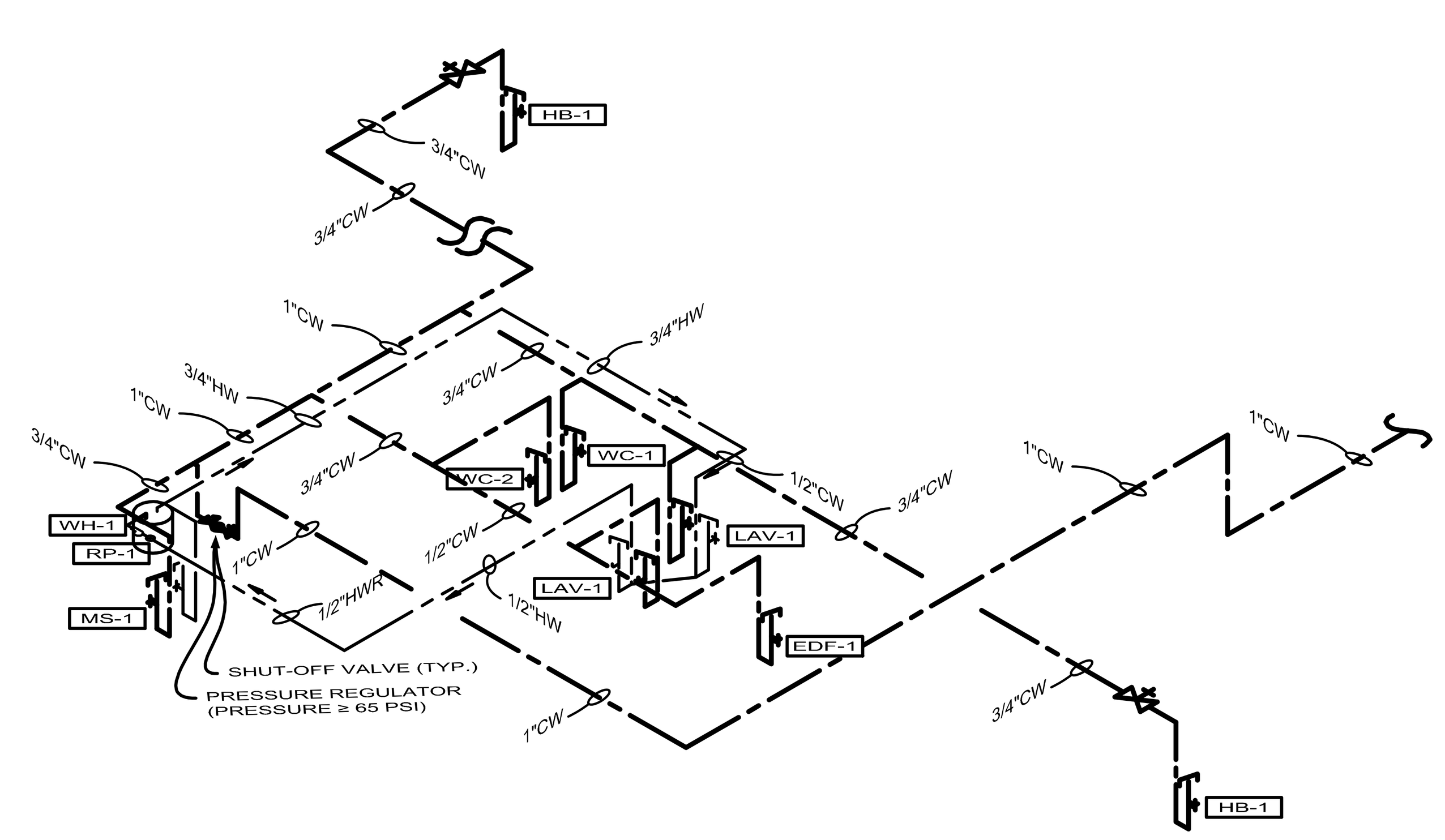
MATERIALS

1. DRAIN, WASTE AND VENT
   A. SCHEDULE 40 AND 80 PVC OR ABS PIPING WITH DWV PATTERN FITTINGS TO BE USED UNLESS OTHERWISE REQUIRED BY LOCAL CODE.
2. HOT AND COLD WATER
   A. ABOVE GRADE.
      a) TYPE "L" COPPER TUBING, HARD TEMPER, COLD DRAWN WITH WROUGHT COPPER LEAD FREE SWEAT FITTINGS. CONNECTIONS TO FIXTURES AND EQUIPMENT SHALL BE MADE WITH 85% RED BRASS IPS SIZE PIPE OR COMPRESSION ANGLE STOPS. PROVIDE DIELECTRIC UNIONS WHERE CONNECTING PIPING OF DISSIMILAR MATERIALS. NOTE: INSULATE ALL HOT WATER PIPING WITH 1" THICK ARMAFLEX PIPE KITS (FLEXIBLE UNICELLULAR)
   B. BELOW GRADE.
      b) TYPE "K" COPPER TUBING, HARD OR SOFT TEMPER, WITH WROUGHT COPPER LEAD FREE SWEAT FITTINGS. NOTE: NO FITTINGS SHALL BE PERMITTED BELOW GRADE INSIDE BUILDING.



SANITARY SEWER NOTES:
1. EWH-1 TO DRAIN INTO MOP SINK (MS-1)
2. REFER TO SHEET P1 FOR ADDITIONAL INFORMATION.

7 SANITARY & VENT ISO
P2 SCALE: N.T.S. 13-DFU



DOMESTIC WATER NOTES:
1. REFER TO CIVIL DRAWINGS FOR EXACT LOCATION OF CONNECTION POINT TO EXISTING DOMESTIC WATER PIPING.
2. PRESSURE REGULATOR TO BE ≥ 65 PSI.

8 DOMESTIC WATER ISO
P2 SCALE: N.T.S. 16-WSFU

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