

BUILDING CODE REVIEW

CITY OF AUSTIN, TEXAS
 INTERNATIONAL BUILDING CODE, 2021
 INTERNATIONAL FIRE CODE, 2021
 INTERNATIONAL PLUMBING CODE, 2021
 INTERNATIONAL FUEL GAS CODE, 2021
 INTERNATIONAL MECHANICAL CODE, 2021
 INTERNATIONAL ENERGY CONSERVATION CODE, 2021
 INTERNATIONAL ELECTRICAL CODE, 2021
 NATIONAL ELECTRICAL CODE, 2020

CHAPTER 3 - USE AND OCCUPANCY CLASSIFICATION
 GROUP S-2 - LOW HAZARD STORAGE (SECTION 311.3)

CHAPTER 4 - SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY
 S-2 OCCUPANCY - NOT APPLICABLE

CHAPTER 5 - GENERAL BUILDING HEIGHTS AND AREAS
 TYPE II-B (NON-SPRINKLERED) CONSTRUCTION

TABLE 504.3 ALLOWABLE BUILDING HEIGHT ABOVE GRADE PLANE
 GROUP S-2
 ALLOWABLE HEIGHT = 55'-0"
 PROPOSED HEIGHT = 18'-10"

TABLE 504.4 ALLOWABLE BUILDING HEIGHT ABOVE GRADE PLANE
 GROUP S-2
 STORIES ALLOWED = 3
 STORIES PROPOSED = 1

TABLE 506.2 ALLOWABLE AREA FACTOR
 ALLOWABLE AREA (S-2 1 STORY NON-SPRINKLERED) = 26,000 S.F.
 PROPOSED AREA = 8,330 S.F.

TABLE 508.4 REQUIRED SEPARATION OF OCCUPANCIES (HOURS)
 GROUP S-2 - BUSINESS OCCUPANCIES = NO SEPARATION REQUIRED
 PROVIDED = NO SEPARATION PROVIDED

CHAPTER 6 - TYPES OF CONSTRUCTION
 (SECTION 602.2) TYPE II-B (NON-SPRINKLERED)
 TYPE I & II CONSTRUCTION ARE THOSE TYPES OF CONSTRUCTION IN WHICH THE BUILDING ELEMENTS SPECIFIED IN TABLE 601 ARE OF NONCOMBUSTIBLE MATERIALS, EXCEPT AS PERMITTED IN SECTION 603 AND ELSEWHERE IN THIS CODE.

(TABLE 601) FIRE-RESISTANT RATING REQUIRED FOR BUILDING ELEMENTS BEARING WALLS
 (EXTERIOR - TYPE II-B) = 0HR RATING
 (INTERIOR - TYPE II-B) = 0HR RATING

NON-LOAD BEARING WALLS AND PARTITIONS-EXTERIOR (SEE TABLE 705.5)
 NON-LOAD BEARING WALLS AND PARTITIONS-INTERIOR (0 HR RATING)

CHAPTER 7 - FIRE AND SMOKE PROTECTION FEATURES
 OPEN BUSINESS SPACE - NONE REQUIRED
 UN-SPRINKLERED

TABLE 705.5 FIRE RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE
 $5 < X < 10$ (IB) = 1 HR RATED (EAST WALL = 4'-11" FROM PROPERTY LINE)
 $10 \leq X < 30$ (IB) = 0 HR RATED (WEST WALL = 10'-1" FROM PROPERTY LINE)

SECTION 718.4 DRAFTSTOPPING:
 718.4 OTHER GROUPS. DRAFTSTOPPING SHALL BE INSTALLED IN ATTICS AND CONCEALED ROOF SPACES, SUCH THAT ANY HORIZONTAL AREA DOES NOT EXCEED 3,000 SQUARE FEET. (NO CONCEALED ROOF SPACES TO BE >3,000 S.F.)

CHAPTER 8 - INTERIOR FINISHES
 TABLE 803.13 INTERIOR WALL AND CEILING FINISH REQUIREMENTS (NON-SPRINKLERED)
 GROUP S-2 - LOW-HAZARD STORAGE OCCUPANCY -
 EXIT ENCLOSURES AND EXIT PASSAGEWAYS = B
 CORRIDORS = B
 ROOMS AND ENCLOSED SPACES = C

SECTION 804 - INTERIOR FLOOR FINISH
 804.4 INTERIOR FLOOR FINISH REQUIREMENTS -
 MATERIALS IN EXIT ENCLOSURES, EXIT PASSAGEWAYS, CORRIDORS AND ROOMS OR SPACES NOT SEPARATED FROM CORRIDORS BY FULL HEIGHT PARTITIONS -
 MINIMUM CRITICAL RADIANT FLUX = NOT LESS THAN CLASS II
 MATERIALS IN ALL AREAS SHALL COMPLY WITH THE DOCPF-1 "PILL TEST" (CPSIC 16 CFR, PART 1630)

CHAPTER 9 - FIRE PROTECTION SYSTEMS

AUTOMATIC SPRINKLER SYSTEMS
 REQUIRED = NO
 PROVIDED = NO

PORTABLE FIRE EXTINGUISHERS
 REQUIRED = YES
 PROVIDED = YES

SEE EGRESS / ACCESSIBILITY PLAN FOR LOCATIONS

FIRE ALARM AND DETECTION SYSTEMS
 REQUIRED = YES (BETWEEN 501-2500 S.F. OF HIGH PILE STORAGE AREA)
 PROVIDED = YES

CHAPTER 10 - MEANS OF EGRESS

SECTION 1004 OCCUPANT LOAD
 GROUP S-2 - LOW-HAZARD STORAGE OCCUPANCY (WAREHOUSE)
 (8,330 S.F.) 1 PER 500 GROSS = 17 OCCUPANTS

SECTION 1005 MEANS OF EGRESS SIZING
 GROUP S-2 - LOW-HAZARD STORAGE OCCUPANCY (WAREHOUSE)
 17 (2) $\geq 3.4'$ (REQUIRED) $> 3.4'$ (PROVIDED)

SECTION 1006 MEANS OF EGRESS ILLUMINATION
 1006.1 ILLUMINATION REQUIRED - THE MEANS OF EGRESS, INCLUDING THE EXIT DISCHARGE, SHALL BE ILLUMINATED AT ALL TIMES THE BUILDING SPACE SERVED BY THE MEANS OF EGRESS IS OCCUPIED.

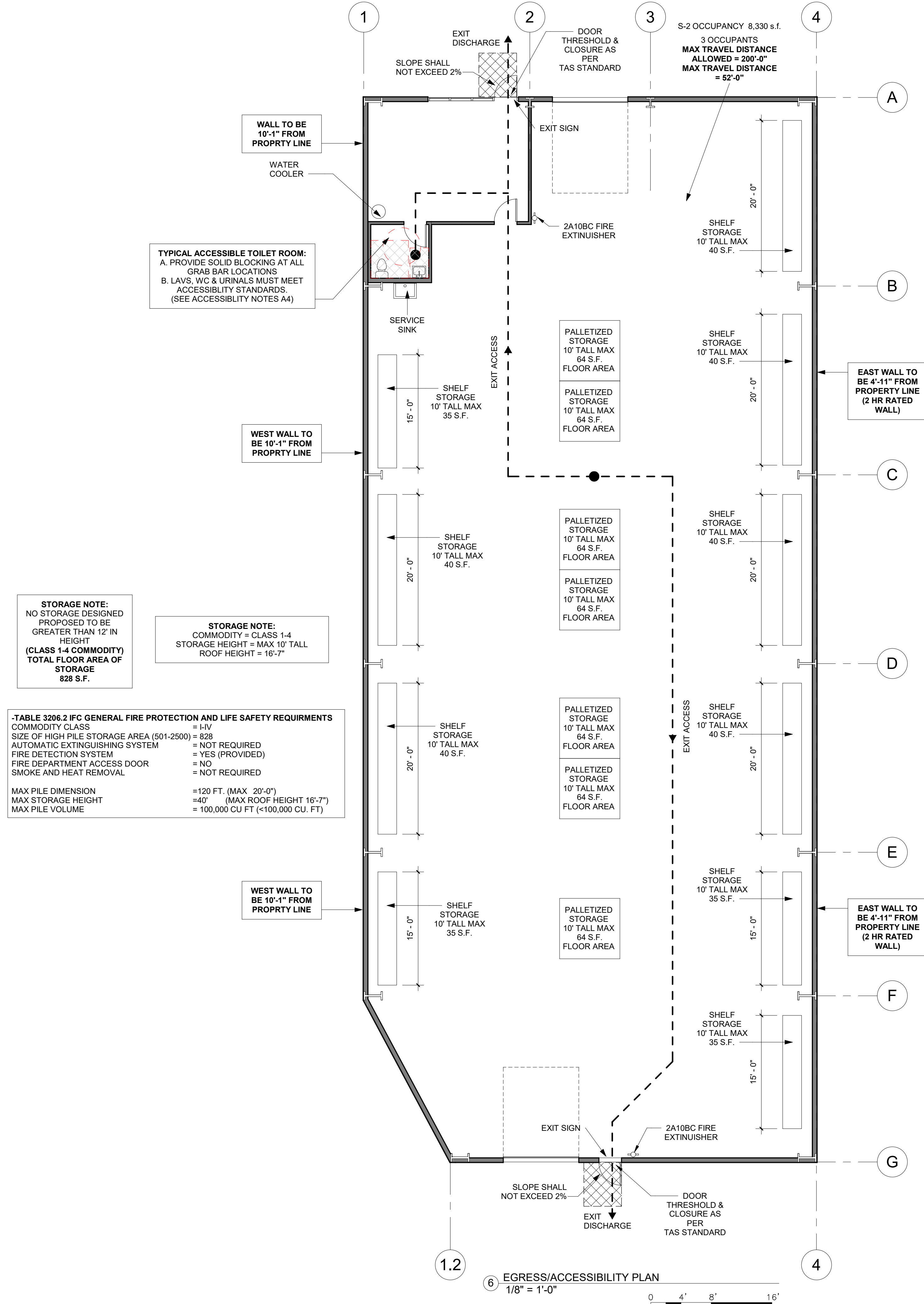
SECTION 1011 EXIT SIGNS
 1011.1 WHERE REQUIRED - EXITS AND EXIT ACCESS DOORS SHALL BE MARKED BY AN APPROVED EXIT SIGN READILY VISIBLE FROM ANY DIRECTION OF EGRESS TRAVEL. ACCESS TO EXITS SHALL BE MARKED BY READILY VISIBLE EXIT SIGNS IN CASES WHERE THE EXIT OR THE PATH OF EGRESS TRAVEL IS NOT IMMEDIATELY VISIBLE TO THE OCCUPANTS. EXIT SIGN PLACEMENT SHALL BE SUCH THAT NO POINT IN AN EXIT ACCESS CORRIDOR IS MORE THAN 100 FT OR THE LISTED VIEWING DISTANCE FOR THE SIGN, WHICHEVER IS LESS, FROM THE NEAREST VISIBLE EXIT SIGN. (SEE PLAN FOR LOCATIONS)

CHAPTER 29 - PLUMBING SYSTEMS

SECTION 2902.2 SEPARATE FACILITIES
 EXCEPTION 2: SEPARATE FACILITIES SHALL NOT BE REQUIRED IN STRUCTURES OR TENANT SPACES WITH A TOTAL OCCUPANT LOAD, INCLUDING BOTH EMPLOYEES AND CUSTOMERS, OF 15 OR FEWER
 1 PER 100 = 17 OCCUPANTS
 1 RESTROOM REQUIRED, 1 SINGLE USE RESTROOM PROVIDED

DRINKING FOUNTAINS: 1 PER 100
 REQUIRED = 1
 PROVIDED = TENANT TO PROVIDE WATER BOTTLE

SERVICE SINK
 REQUIRED = 1
 PROVIDED = 1 SEE PLAN FOR LOCATION

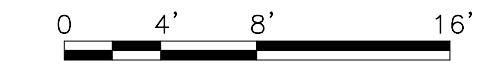


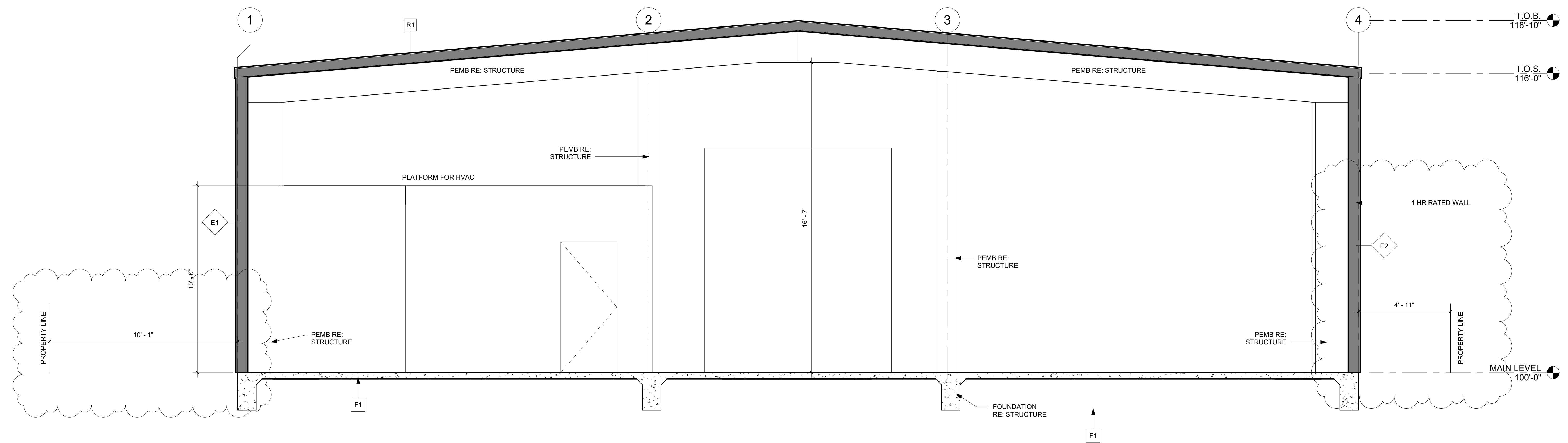
STORAGE NOTE:
 NO STORAGE DESIGNED PROPOSED TO BE GREATER THAN 12' IN HEIGHT
 (CLASS 1-4 COMMODITY)
 TOTAL FLOOR AREA OF STORAGE
 828 S.F.

STORAGE NOTE:
 COMMODITY = CLASS 1-4
 STORAGE HEIGHT = MAX 10' TALL
 ROOF HEIGHT = 16'-7"

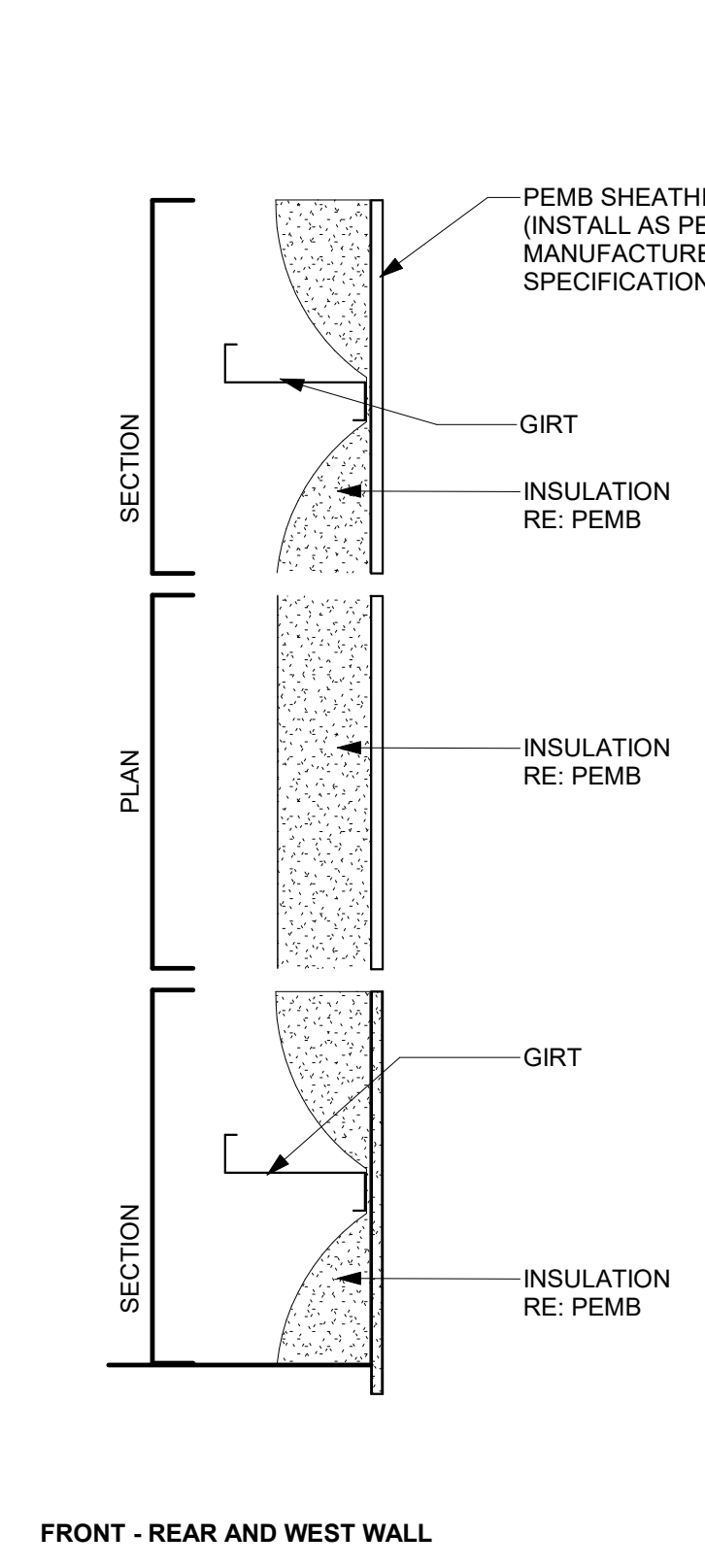
TABLE 3206.2 IFC GENERAL FIRE PROTECTION AND LIFE SAFETY REQUIREMENTS
 COMMODITY CLASS = I-IV
 SIZE OF HIGH PILE STORAGE AREA (501-2500) = 828
 AUTOMATIC EXTINGUISHING SYSTEM = NOT REQUIRED
 FIRE DETECTION SYSTEM = YES (PROVIDED)
 FIRE DEPARTMENT ACCESS DOOR = NO
 SMOKE AND HEAT REMOVAL = NOT REQUIRED
 MAX PILE DIMENSION = 120 FT. (MAX 20'-0")
 MAX STORAGE HEIGHT = 40' (MAX ROOF HEIGHT 16'-7")
 MAX PILE VOLUME = 100,000 CU FT (<100,000 CU. FT)

EGRESS/ACCESSIBILITY PLAN
 1/8" = 1'-0"

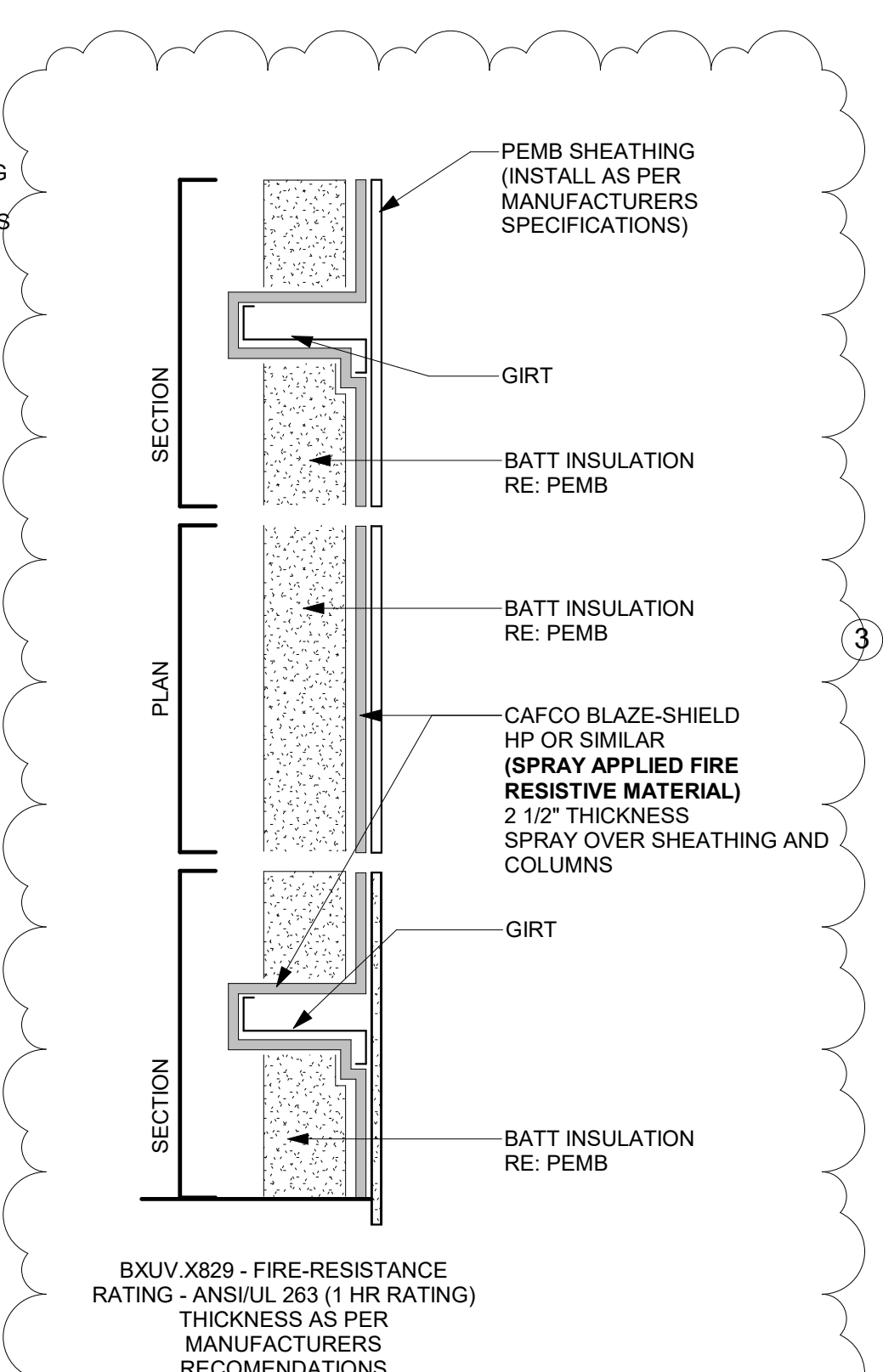




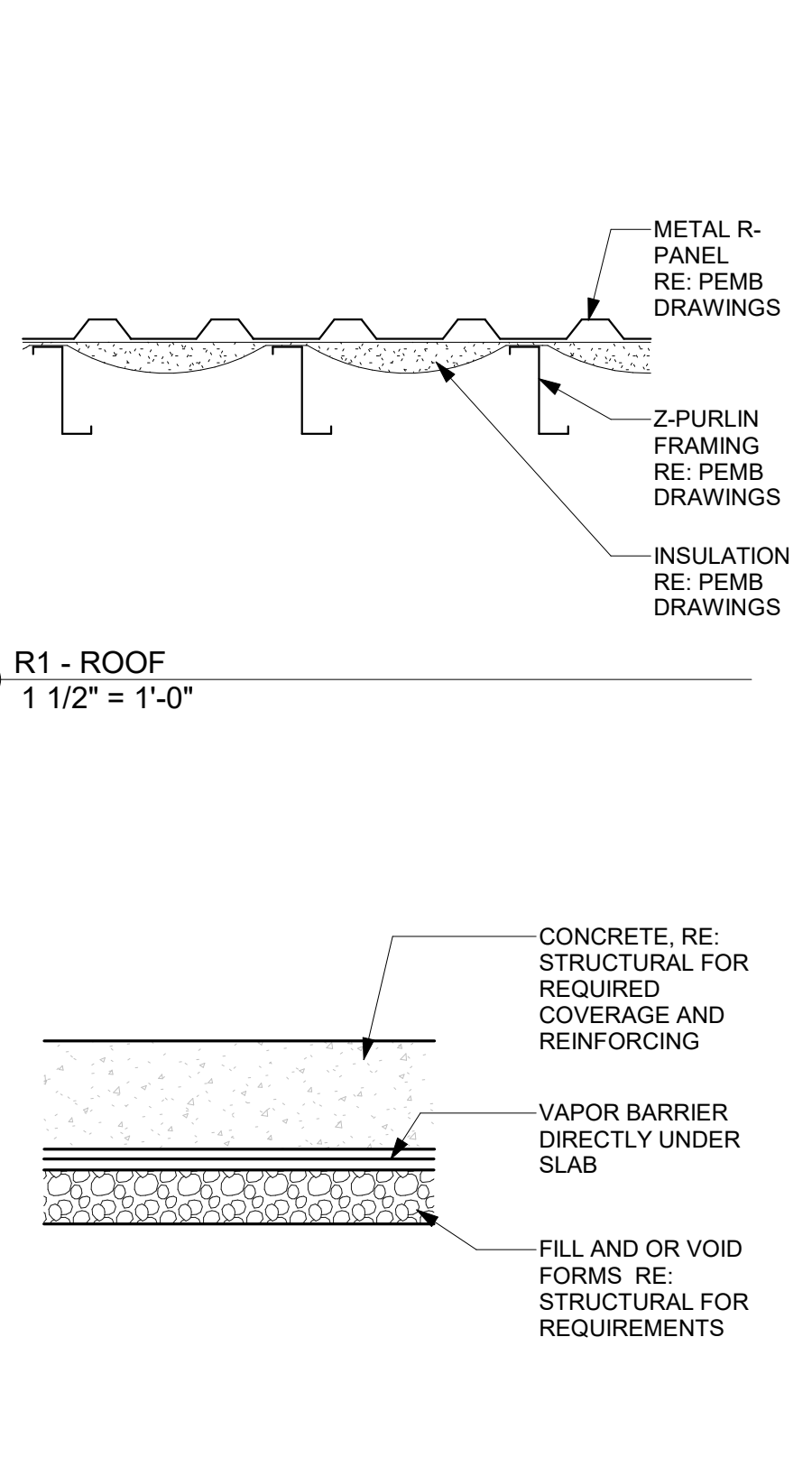
1 TYPICAL BUILDING SECTION
 3/8" = 1'-0"



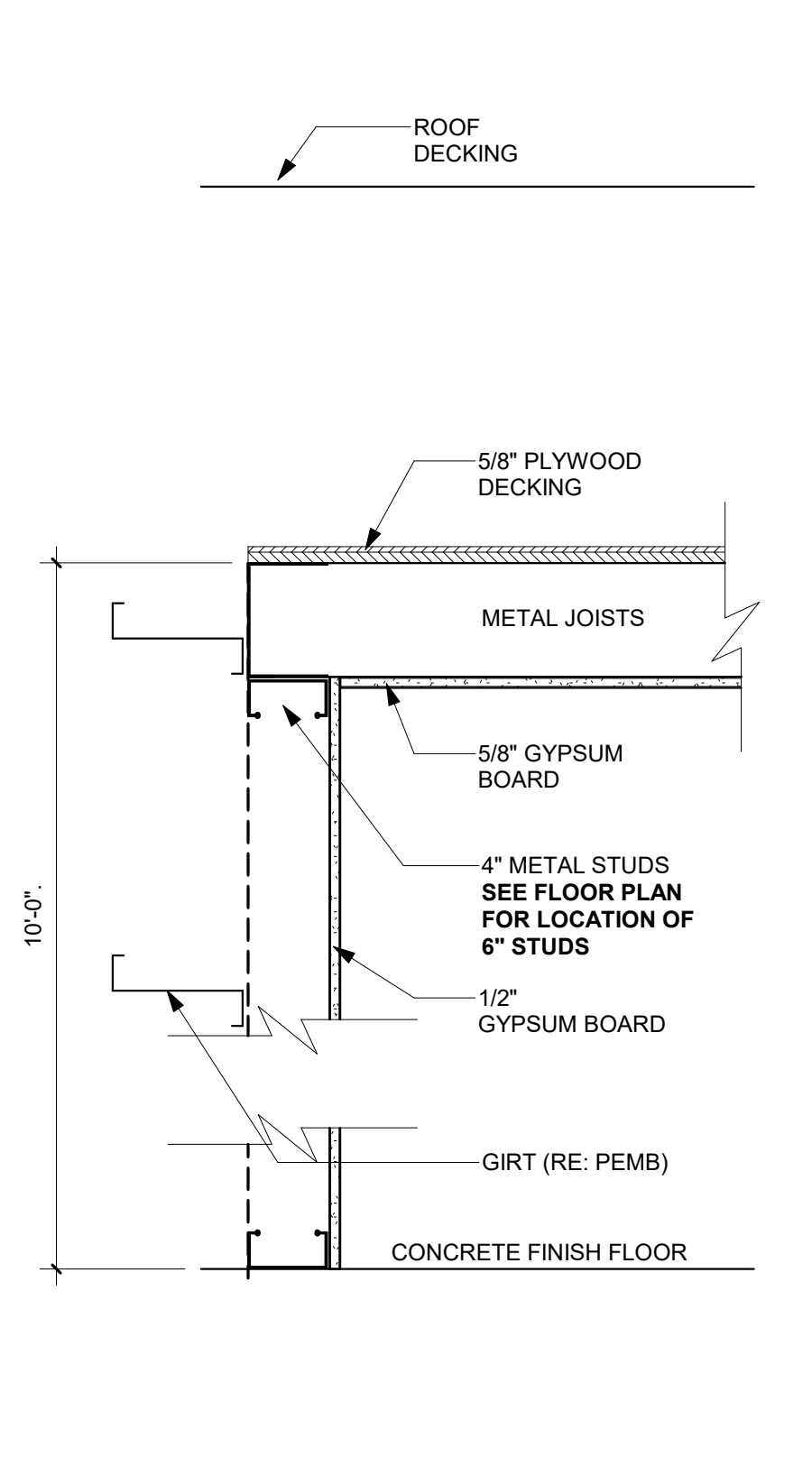
2 E1 - EXT. WALL - METAL
 1 1/2" = 1'-0"



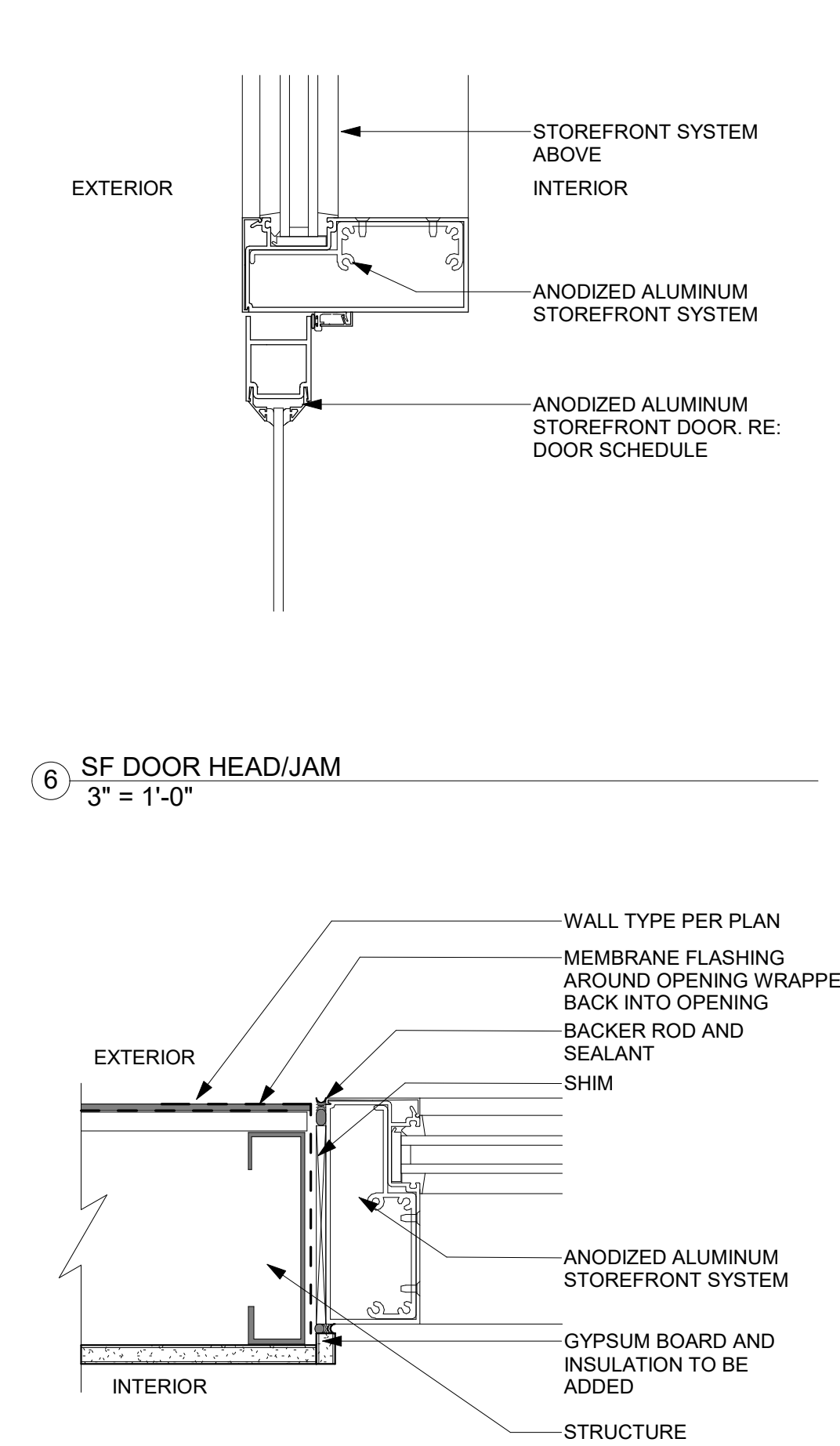
10 E2 - EXT. WALL - METAL (1 hr rated)
 1 1/2" = 1'-0"



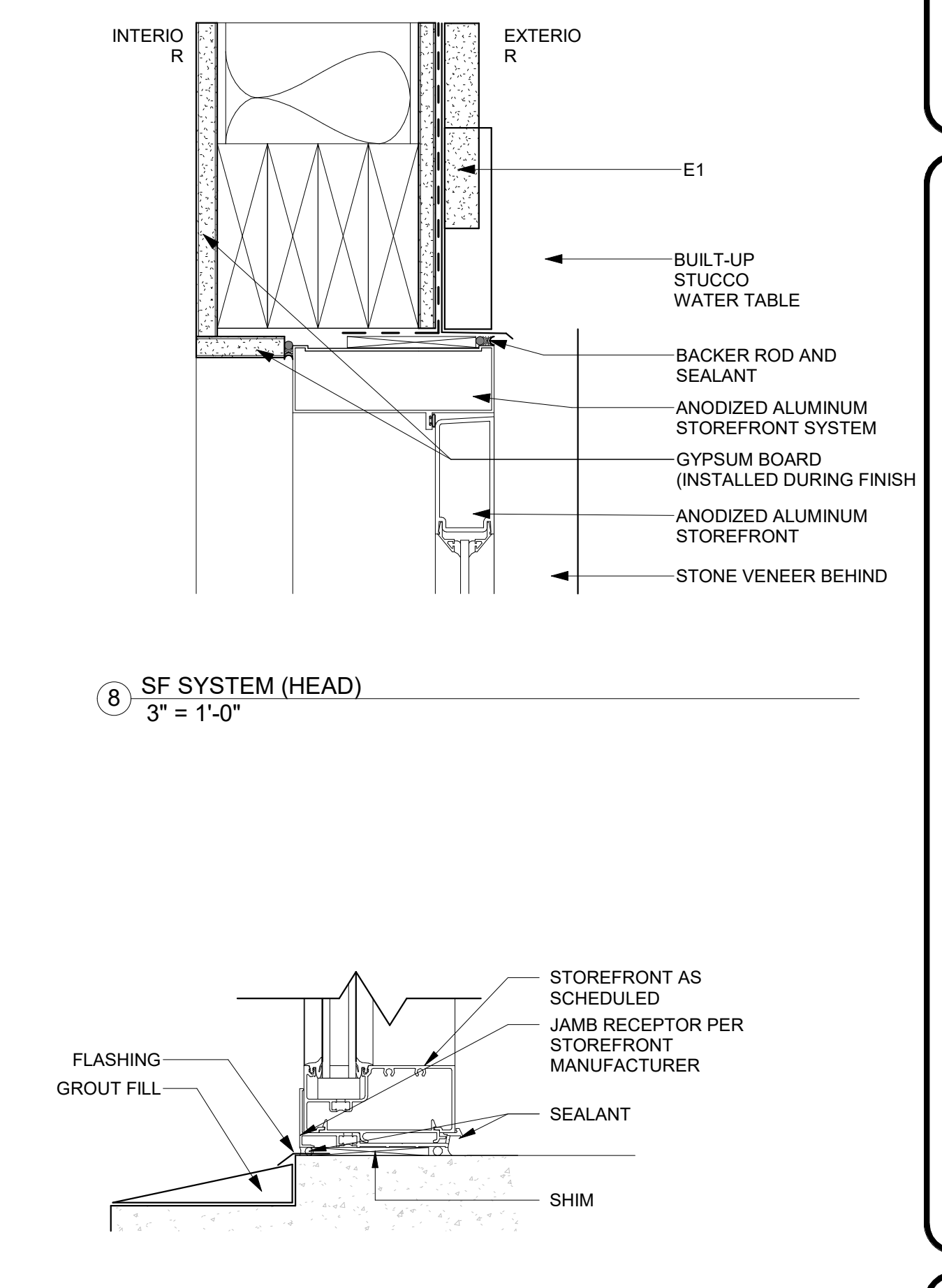
3 R1 - ROOF
 1 1/2" = 1'-0"



5 P1 - INTERIOR WALL
 1 1/2" = 1'-0"

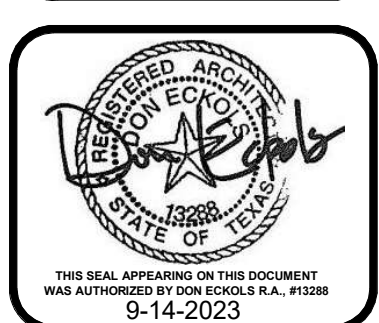


6 SF DOOR HEAD/JAM
 3" = 1'-0"



8 SF SYSTEM (HEAD)
 3" = 1'-0"

NOTE:
 SEE ELEVATION 3 /A6 FOR STOREFRONT SIZING

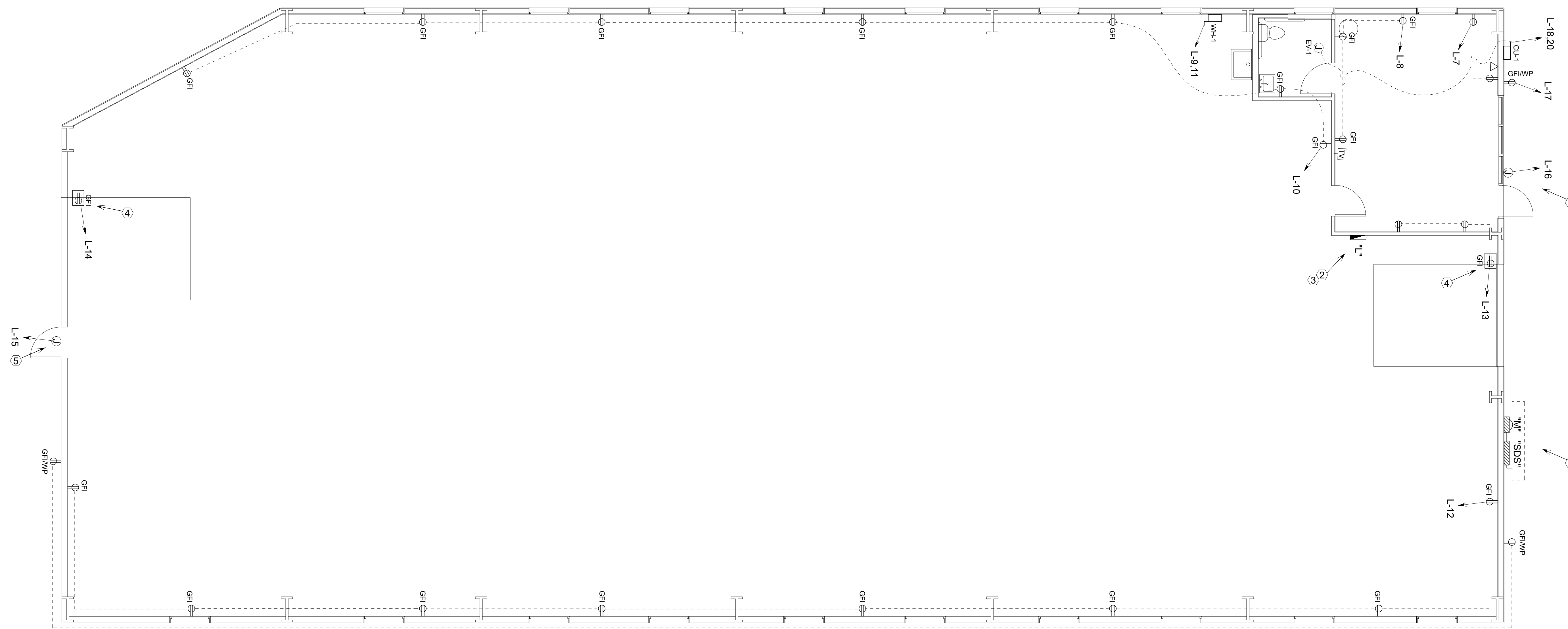


General Notes:

- 1 - All receptacles and switches shall be 20 amperes.
- 2 - MC cable shall only be used for Lite Whips and in wall use only.
- 3 - All home-runs shall be hard piped.
- 4 - Conductors and equipment shall be approved and acceptable by 2020 national electric code.
- 5 - All wiring shall be accordance with 2020 NEC.

Key Notes:

- ① - Install meter (M) and service disconnect switch (SDS) at outside.
- ② - Install Panel "L" inside of building.
- ③ - Label all circuits identified to outlets and equipments.
- ④ - Install power for roll-up door.
- ⑤ - Install power for outside sign.

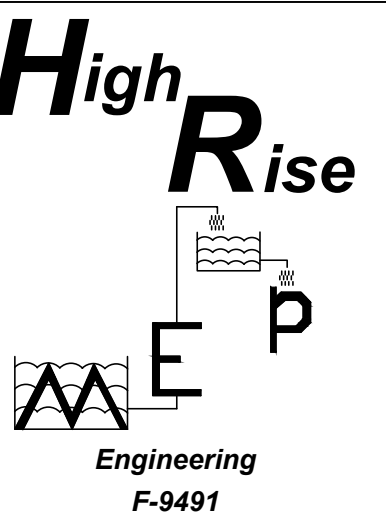


① Power plan
Scale: 3/16" = 1'-0"

Engineer

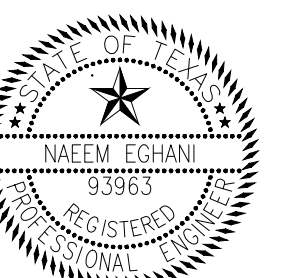
High Rise MEP Engineering
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Mechanical - Electrical
Plumbing

Gardenia Warehouse
2205 Gardenia Drive
Austin, Texas



Issue Date: 09/18/23

Revisions		
No.	Date	Description



Naeem Eghani

Project Number: 092303
Drawn By: NE
Designed By: NE
Checked By: Naeem Eghani, PE
Sheet Title: Power
Sheet Number: E-2

Engineer

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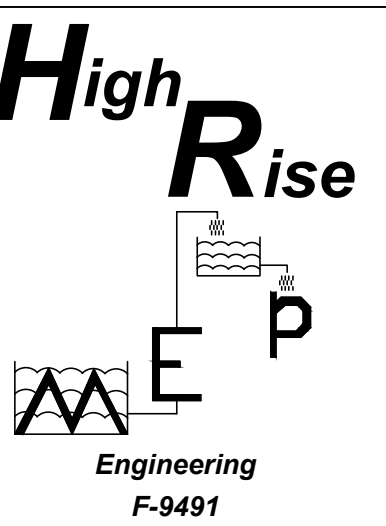
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Heat Pump														
MAKE	OUTDOOR UNIT		SEER2	HSPF2	COOLING BTU/H	HEATING BTU/H	ELECTRICAL MCA / MCOP	W / D / H	WEIGHT	INDOOR UNIT		EVAPORATOR AIR OUTSIDE AIR	W / D / H	WEIGHT
	MARK	MODEL								MARK	MODEL			
LENNOX	CU-1	MLA012S4S-1P	18	10	12,000	12,000	230V / 1Ø / 60HZ 9A / 20A	34 / 14 / 21	88 LBS	EV-1	MMDB012S4-2P	400 CFM 40 CFM	30 / 19 / 7	38 LBS

Outside Air								
Space description	living Area (SQFT)	Outside Air criteria ACH	Outside Air required (CFM)	No. of People	Outside Air criteria (CFM/PERSON)	Minimum Outside Air required (CFM)	Outside Air (A) + (B) (CFM)	Outside Air Provided CFM AIR PROVIDE BY:
OFFICE	340	0.06	20 (A)	2	5	10 (B)	30 CFM	40 CFM BY "EV-1"
NOTE: ① - Table 403.3.1.1 of 2021 UMC.								

Restroom - Exhaust fan							
MARK	MAKE	MODEL NO.	SP	CAPACITIES	AMP / WATT	DUCT SIZE	REMARK
EF	BROAN	L 100 MG	0.125	115 CFM	1.1 / 87	6"	1
1- Install rain cap and bird screen at the end of exhaust duct.							

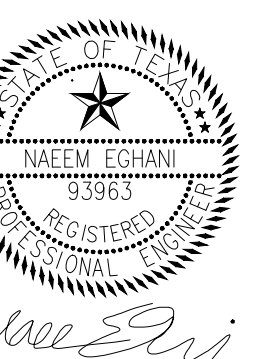
DIFFUSER						
MARK	MAKE	MODEL #	DESCRIPTION	NECK SIZE	FINISH	REMARKS
A	SPECAIRE	AM5	CEILING DIFFUSER	8,10,12_Ø	OWNER OPTION	16X16
B	SPECAIRE	AM5	CEILING DIFFUSER	4,6_Ø	OWNER OPTION	10X10
R	SPECAIRE	FBH1	RETURN , BACK FILTER	8,10,12_Ø	OWNER OPTION	24X24 & 24X12



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Project Number: 092303

Drawn By: NE

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Checked By: Naeem Eghani, PE

Sheet Title: Mechanical spec

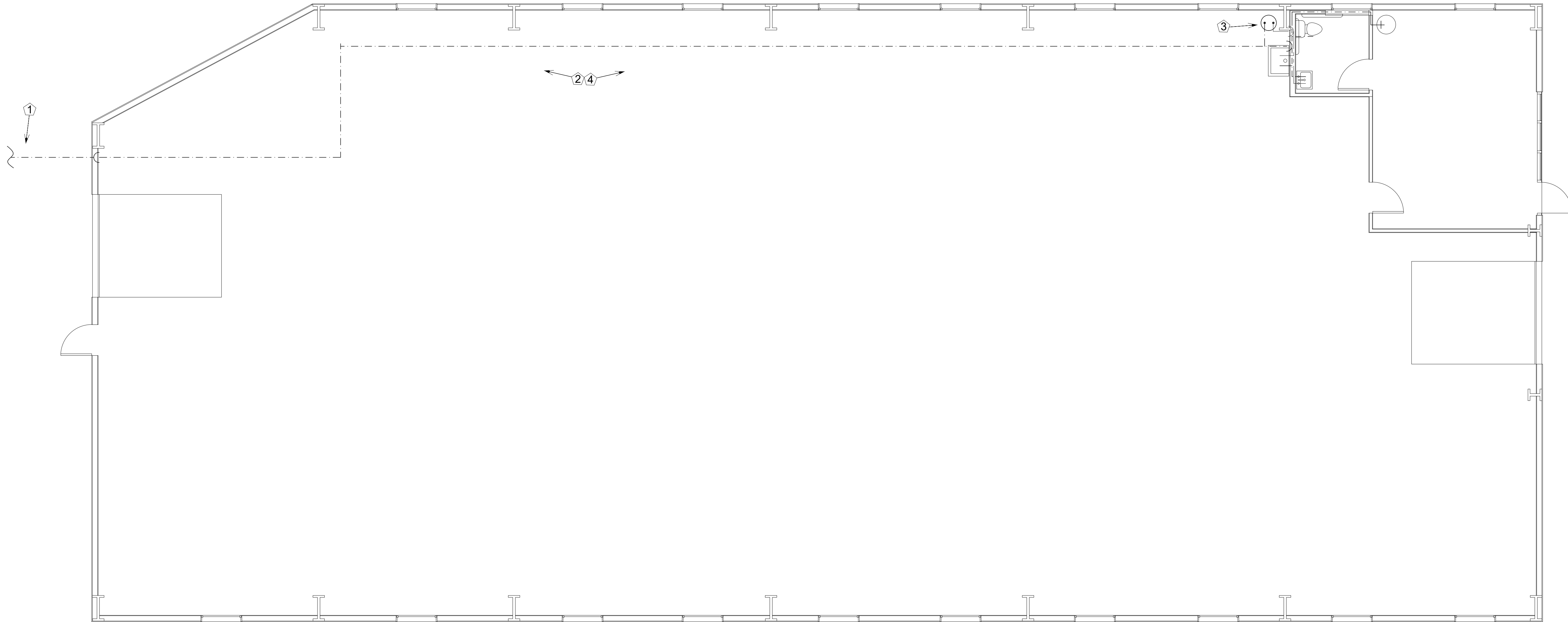
Sheet Number: M-2

General Note

1- All plumbing installation shall be per 2021 Uniform Plumbing Code (UPC) and city of Austin amendments.

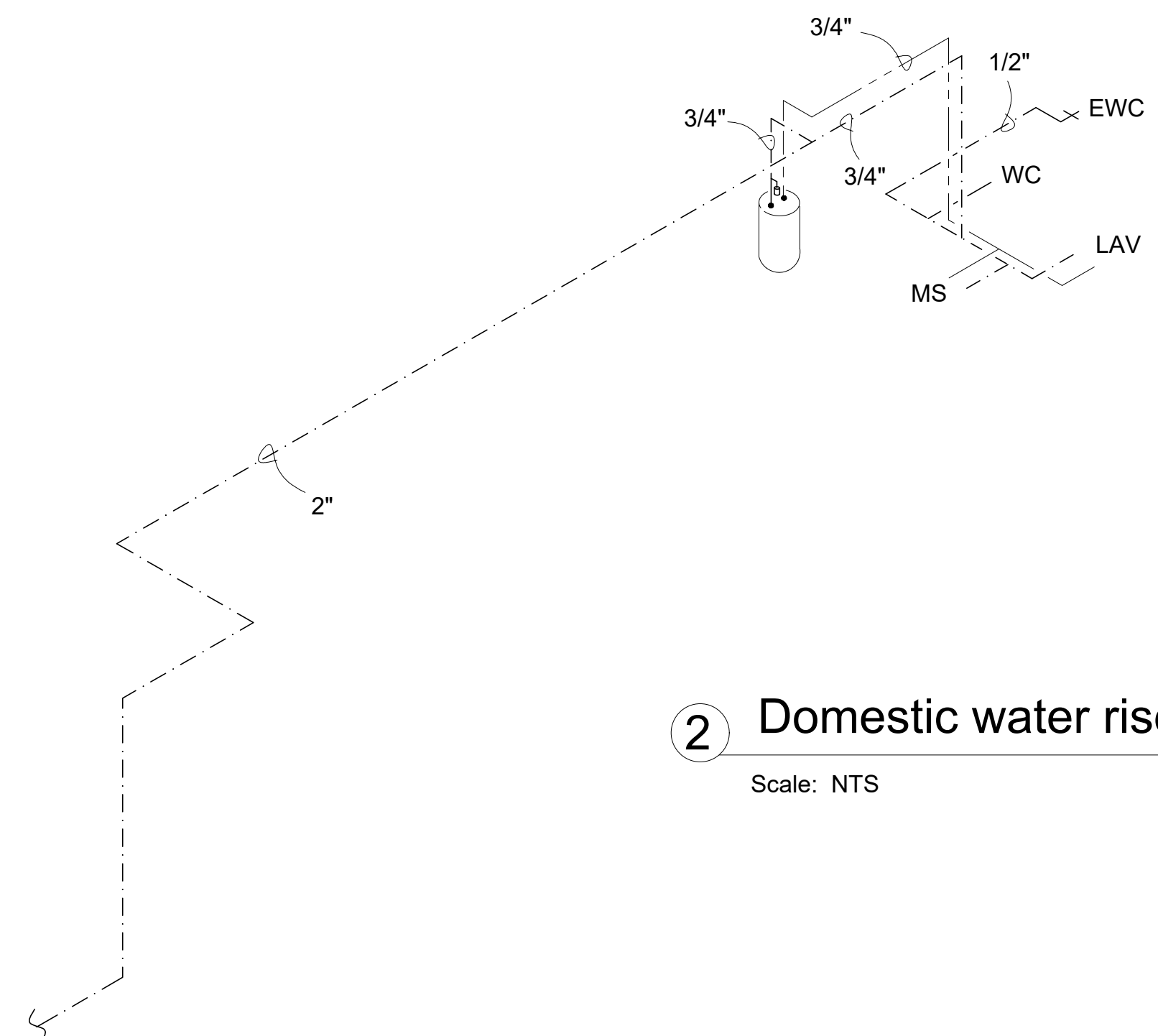
key notes :

- ① - Water line from water meter to building, see civil utility plan.
- ② - Route water line near ceiling inside building.
- ③ - Install water heater (WH-1) on housekeeping pad.
- ④ - Install 1" insulation on all cold and hot water line.
- ⑤ - See riser diagram for pipe sizing.



① Domestic water plan

Scale: 3/16"=1'-0"



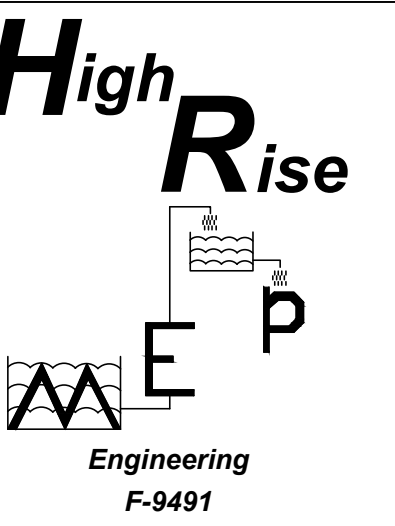
② Domestic water riser

Scale: NTS

Engineer

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Naeem Eghani

Project Number: 092303

Drawn By: NE

Designed By: NE

Checked By: Naeem Eghani, PE

Sheet Title: Water

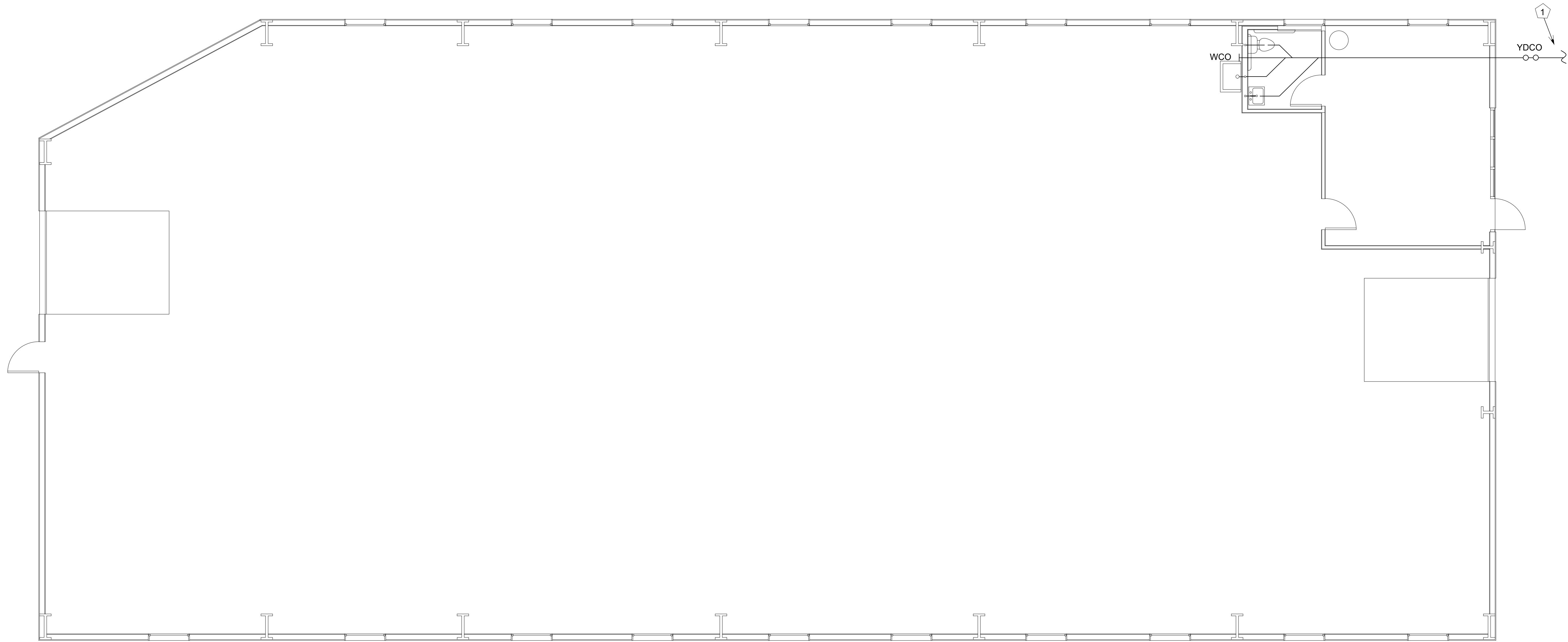
Sheet Number: P-1

General Note

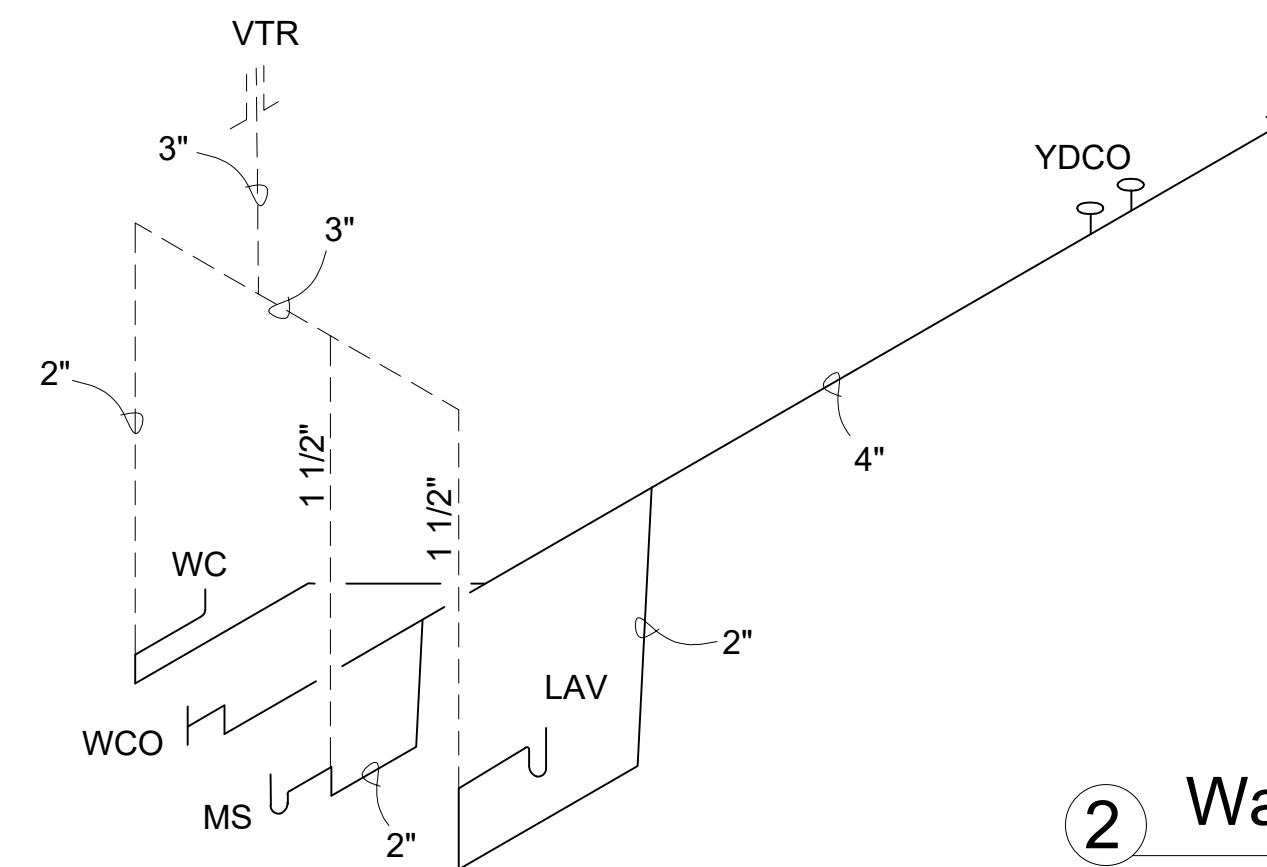
1- All plumbing installation shall be per 2021 Uniform Plumbing Code (UPC) and city of Austin amendments.

Key notes:

- ① - Route waste water line from building out, see civil utility plan.
- ② - Install wall clean out (WCO) and yard double clean out (YDCO) on sewer line.
- ③ - Route vent line through roof out (VTR), install rain cap and bird screen at the end.
- ④ - See riser diagram for pipe sizing.



① Waste water plan
Scale: 3/6"=1'-0"

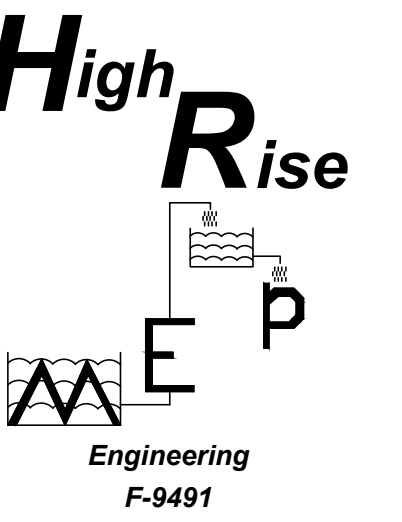


② Waste water riser
Scale: NTS

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Revisions

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Naem Eghani

Project Number: 092303

Drawn By: NE

Designed By: NE

Checked By: Naem Eghani, PE

Sheet Title: Sewer

Sheet Number: P-2

FIXTURE AND EQUIPMENT SCHEDULE					
MARK	FIXTURE / EQUIPMENT	MODEL NO.	SIZE / CAPACITY	TRIM / ACCESSORIES	REMARKS
WC	WATER CLOSET	AMERICAN STANDARD ELONGATED BOWL VITREOUS CHINA	TANK 1.28 GPF	WHITE, CHURCH 9500C SEAT OPEN FRONT TYPE SEAT	WC-1 AT ADA HEIGHT
LAV	WALL MOUNT LAVATORY	AMERICAN STANDARD 0321.026		WHITE, 2385.403 FAUCET, SUPPLIES WITH STOPS, WALL HANGER, CHROME PLATED P-TRAP, STRAINER DRAIN & SUPPLY INSUL. PER A.D.A. REQUIREMENTS	ADA COMPLIANCE
MS	MOP SINK	ADVANCE TABCO 9-OP-20 FLOOR MOUNTED	2" PIPE SIZE	K-240 SERVICE FAUCET K-242 MOP HANGER	
WC0	WALL CLEAN OUT				
DYC0	DOUBLE YARD CLEAN OUT				

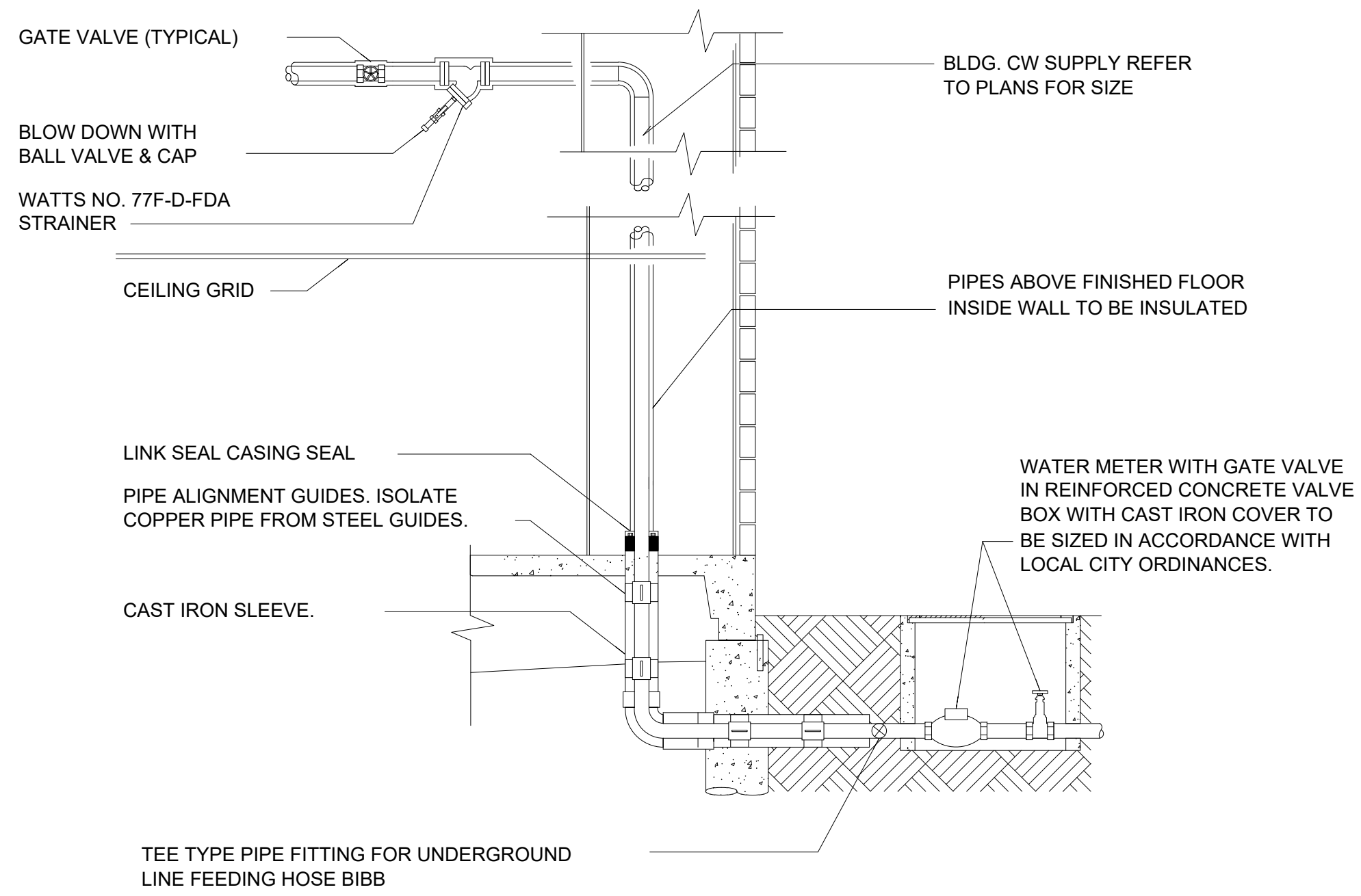
NOTES:
 1. FIXTURE MANUFACTURER SHALL BE EQUAL TO LISTED ONE.
 2. PROVIDE ALL CARRIERS AND SUPPORT MATERIALS REQUIRED FOR A SOLID AND SECURE INSTALLATION.

FIXTURE UNIT COUNT							
FIXTURE	QUANTITY			WATER F.U.		SEWER F.U.	
	NEW	EXISTING	ACCU.	EACH	TOTAL	EACH	TOTAL
WC	1	-		2.5	2.5	4	4
LAV	1	-		1	1	1	1
MS	1	-		1.5	1.5	3	3
TOTAL					5.0		8.0

U.P.C. CHART A 103.1 (2) : 5 F.U. = 5 GPM

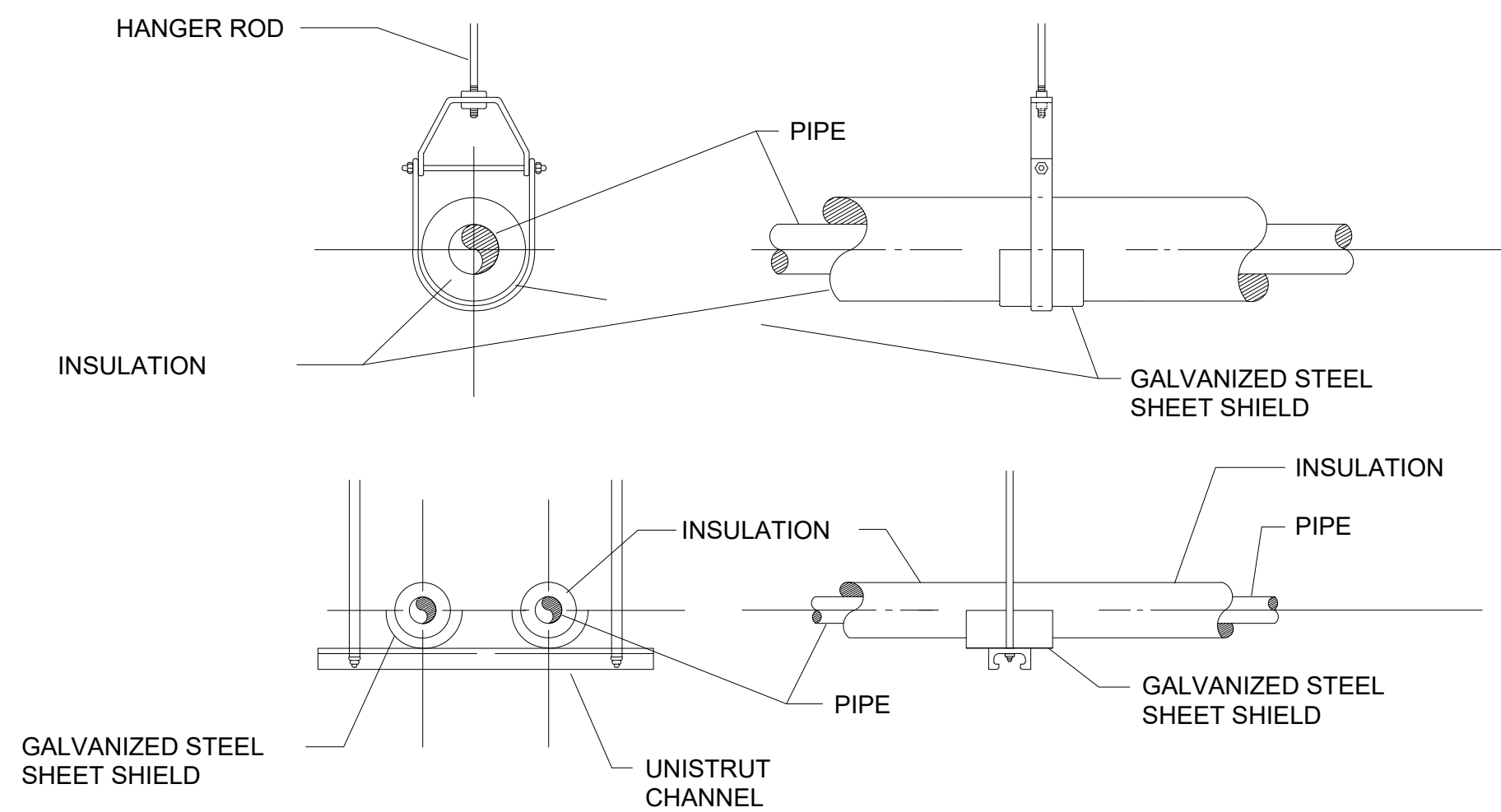
ELECTRIC WATER HEATER TANK TYPE						
MARK	MANUFACTURE MODEL	KW INPUT	CAPACITY	HEIGHT / DIAMETER	ELECTRICAL REQUIREMENT V/I/O/A	WEIGHT
WH-1	A.O. SMITH DSE-10	3 KW	10 GAL.	28" / 22"	208 / 1 / 14.4	116 LBS.

EXPANSION TANK					
MARK	MANUFACTURE MODEL	CAPACITY	DIAMETER / HEIGHT	CONNECTION SIZE	WEIGHT
EXP	THERM-X-TROL ST-5	2 GAL.	8" / 13"	3/4"	5 LBS.



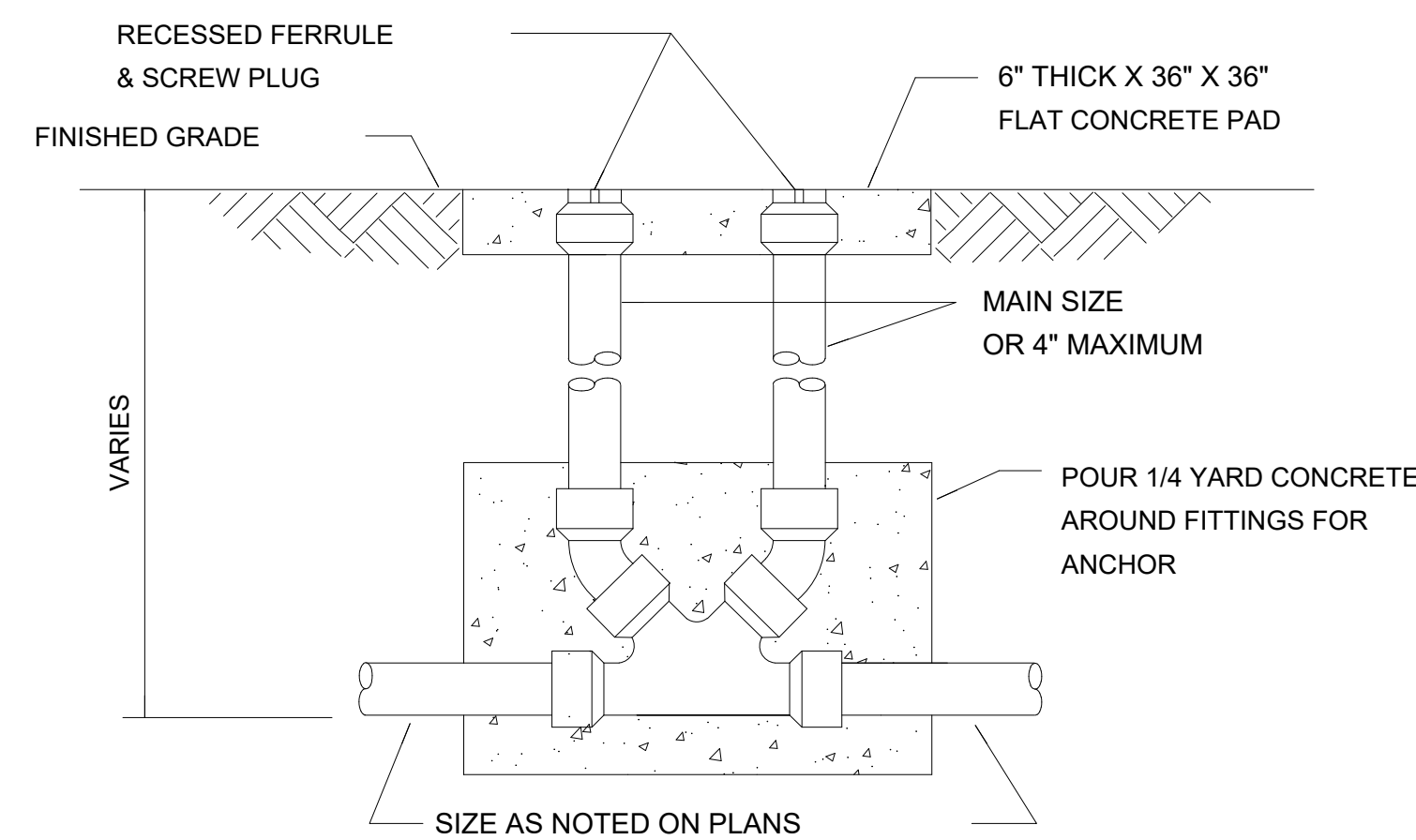
1 WATER SERVICE ENTRY DETAIL

SCALE: NTS



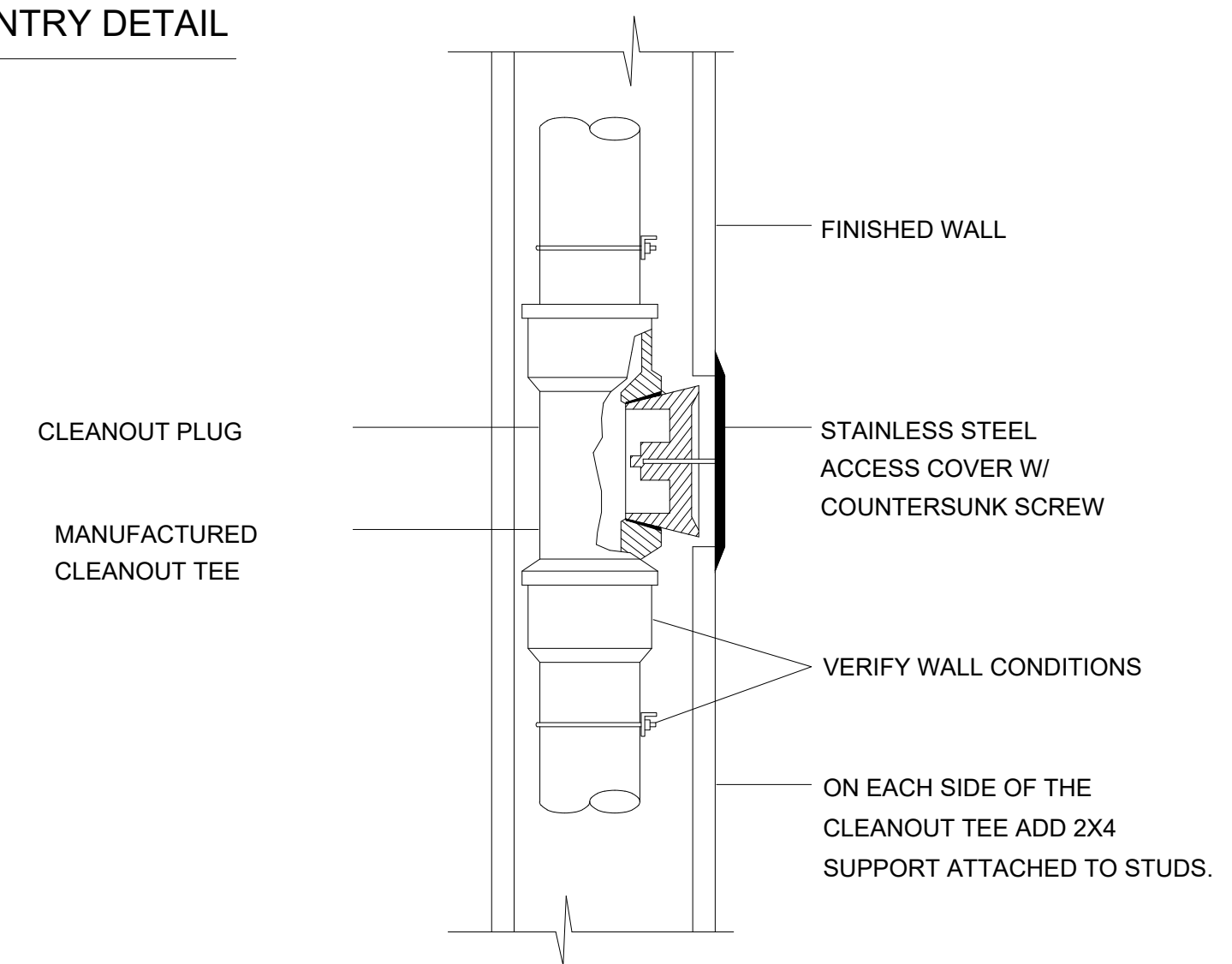
2 WATER PIPING HANGERS

SCALE: NTS



3 DOUBLE CLEANOUT DETAIL

SCALE: NTS



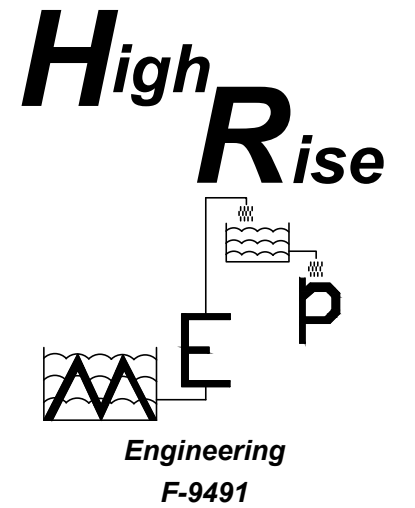
4 WALL CLEANOUT DETAIL

SCALE: NTS

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 Checked By: Naeem Eghani, PE
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 Sheet Number: P-3