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Architects**
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PROJECT NAME:
**PROPOSED MULTI-
TENANT BUILDING
WITH DRIVE THRU**

PERMIT SUBMISSION
04-18-2022

ADDRESS:
21220 GREENFIELD RD
OAK PARK , MI 48237

NOT FOR
CONSTRUCTION

ALL DIMENSIONS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR COORDINATION OF ALL DIMENSIONS.

JOB NO. 21-0968

D.B./C.B. R.A./P.D

ISSUANCES

NO DESCRIPTION DATE

1 PERMIT SUBMISSION 04/18/22

SHEET TITLE
**DOOR SCHEDULE
& DETAILS**

DWG. NO.

A0.4.1

HARDWARE SETS

HARDWARE SET #1

1 EA	CONTINUOUS HINGE	112HD	626	IVE
1 EA	DEADBOLT	MS1850S	626	ADA
1 EA	CYLINDER	AS REQUIRED	626	IVE
1 EA	PULL/PUSHBAR	9190-10'-STD	626	IVE
1 EA	SURFACE CLOSER	SC71 RWPA	689	FAL
1 SET	SEAL	WEATHER SEALS BY DOOR/FRAME MANUFACTURER		UNI
1 EA	DOOR SWEEP	C627	AL	NGP
1 EA	THRESHOLD	425	MIL	NGP

HARDWARE SET #2

3 EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1 EA	PRIVACY LOCK	T301S DANE	626	FAL
1 EA	KICK PLATE	8400 10" X 1-1/2" LDW	626	IVE
1 EA	WALL STOP	WS407CCV	626	IVE
1 EA	SURFACE CLOSER	SC71 RWPA	689	FAL

HARDWARE SET #3

3 EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1 EA	PANIC HARDWARE	25-R-NL-512	626	FAL
1 EA	RIM CYLINDER	20-057	626	SCH
1 EA	SURFACE CLOSER	4111 SCUSH	689	LCN
1 EA	DRIP CAP	16A	CL	NGP
1 SET	SEALS	5858B	BRN	NGP
1 EA	DOOR SWEEP	C627A	CL	NGP
1 EA	THRESHOLD	425	AL	NGP

HARDWARE SET #4

3 EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1 EA	PANIC HARDWARE	25-R-NL-512	626	FAL
1 EA	RIM CYLINDER	20-057	626	SCH
1 EA	SURFACE CLOSER	4111 SCUSH	689	LCN
1 EA	KICK PLATE	8400 10" X 1 1/2" LDW	626	IVE
1 EA	DRIP CAP	16A	CL	NGP
1 SET	SEALS	5858B	BRN	NGP
1 EA	DOOR SWEEP	C627A	CL	NGP
1 EA	THRESHOLD	425	AL	NGP
1 EA	KEYPAD LOCK			

HARDWARE SET #5

3 EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1 EA	ENTRY/ OFFICE LOCK	T511PG D	626	FAL
1 EA	WALL STOP	WS406407CCV	630	IVE

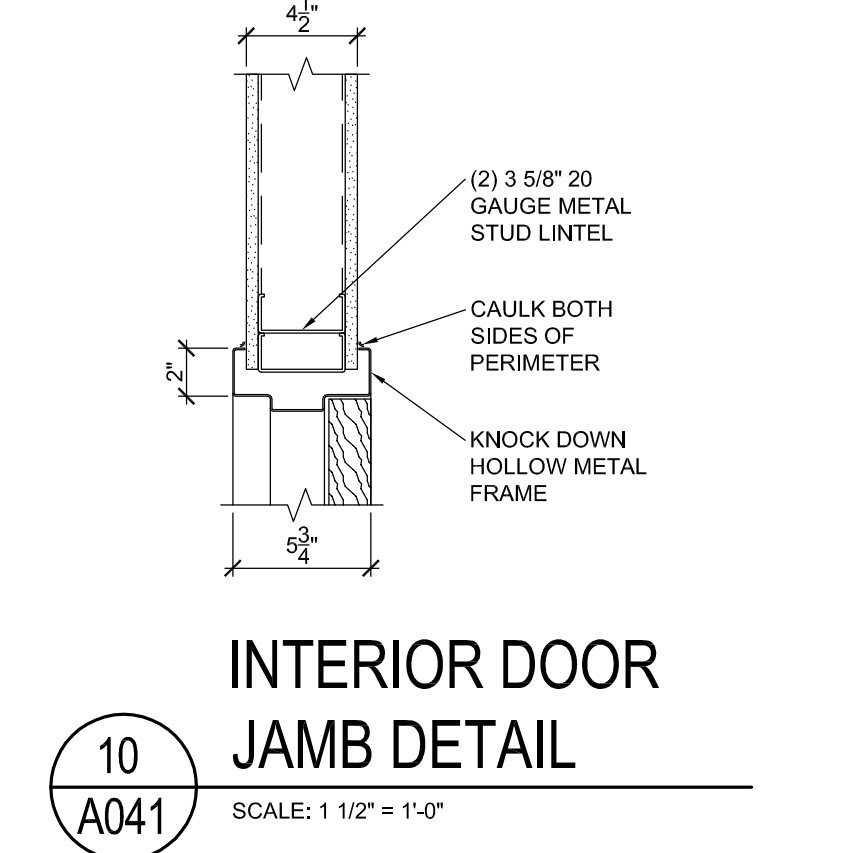
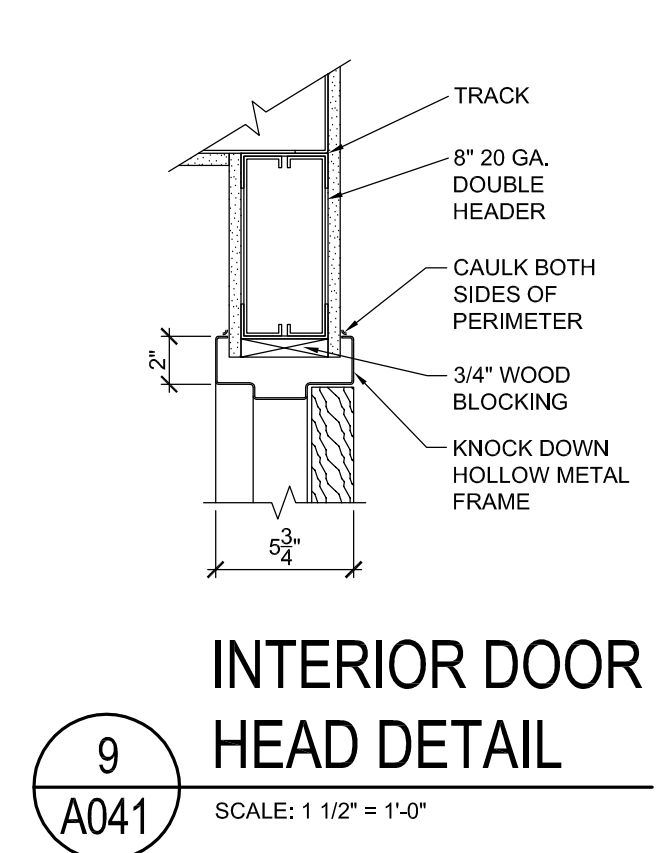
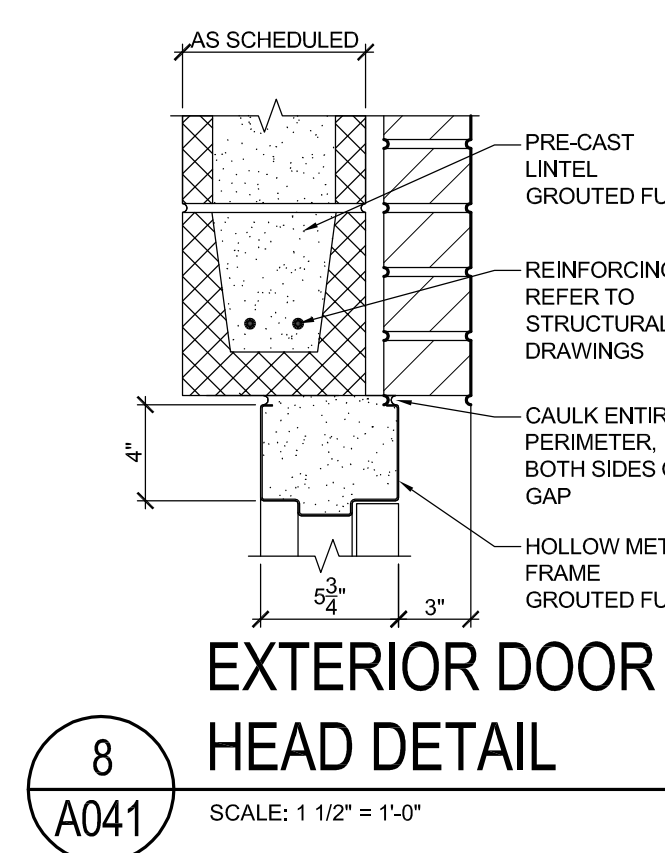
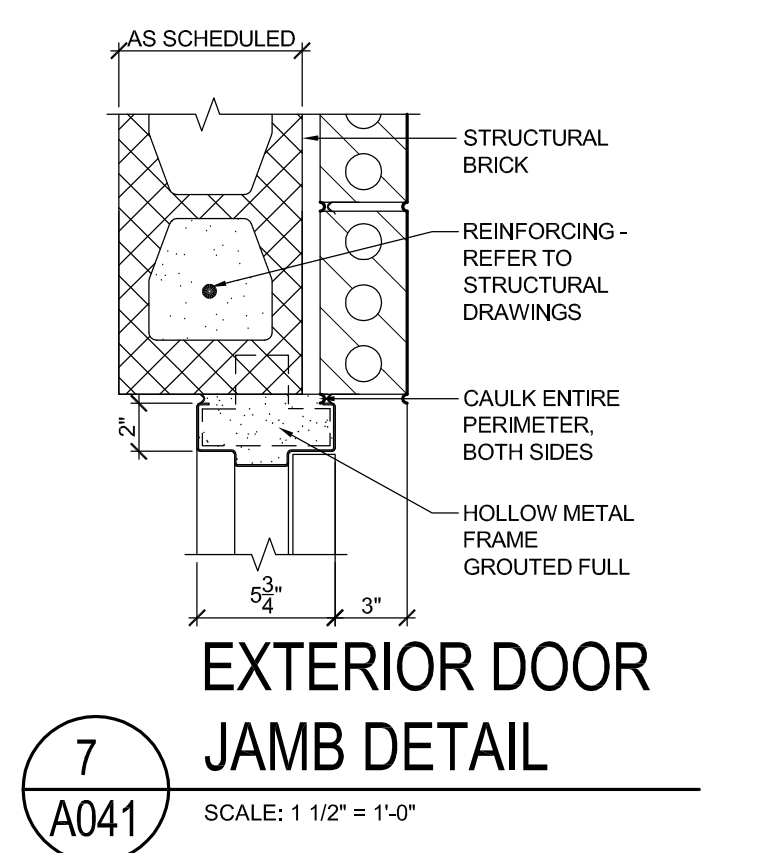
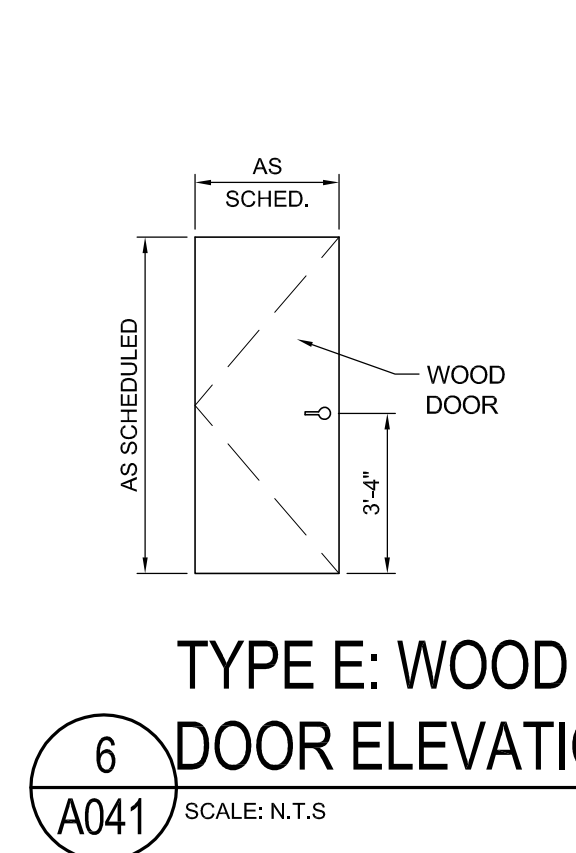
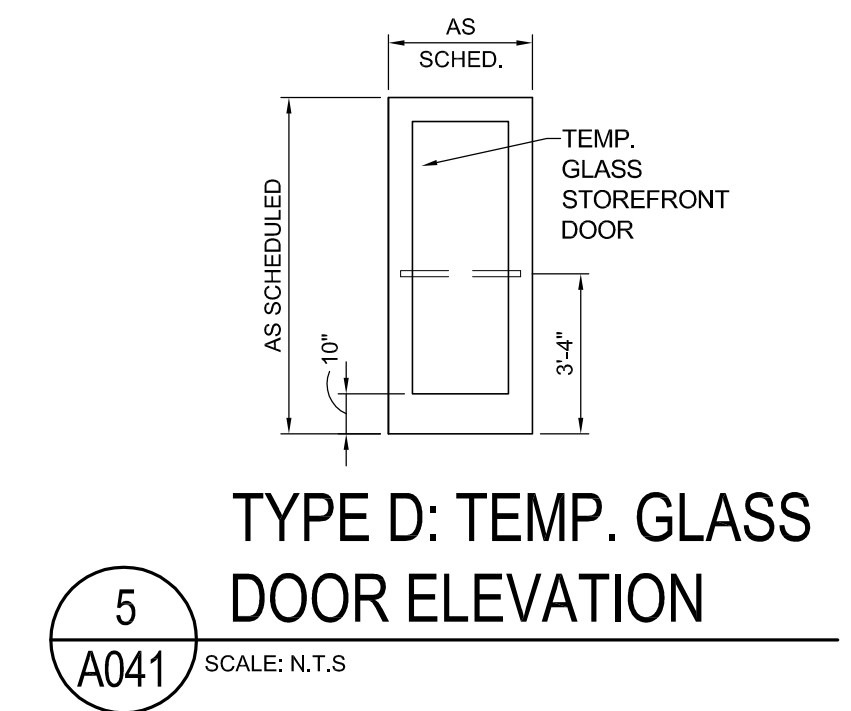
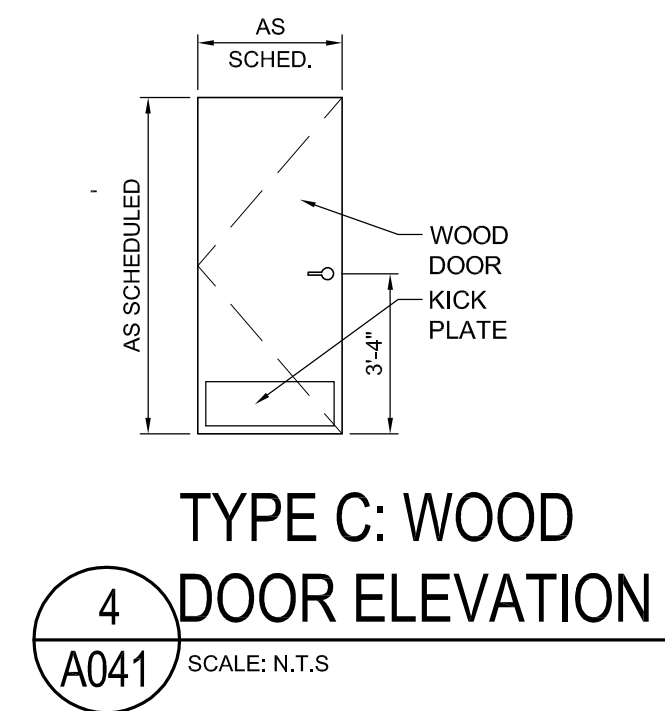
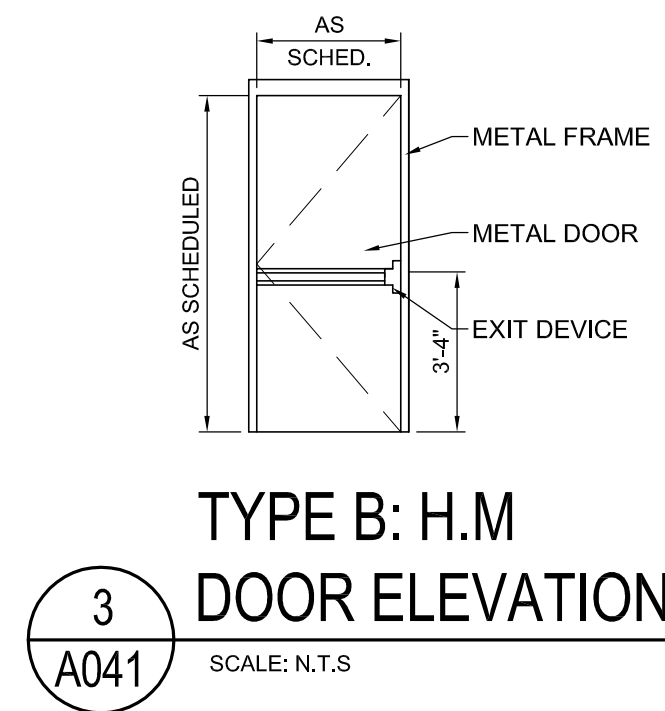
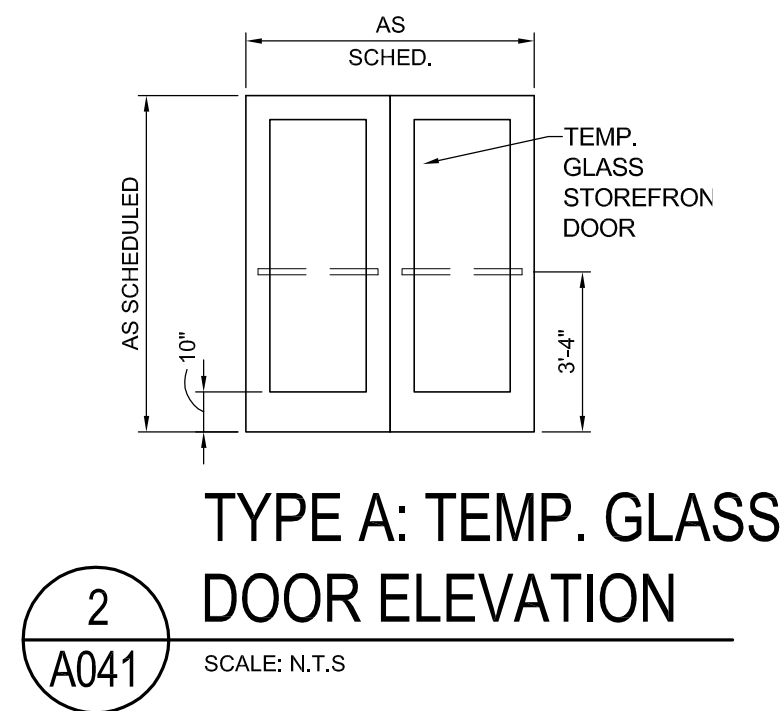
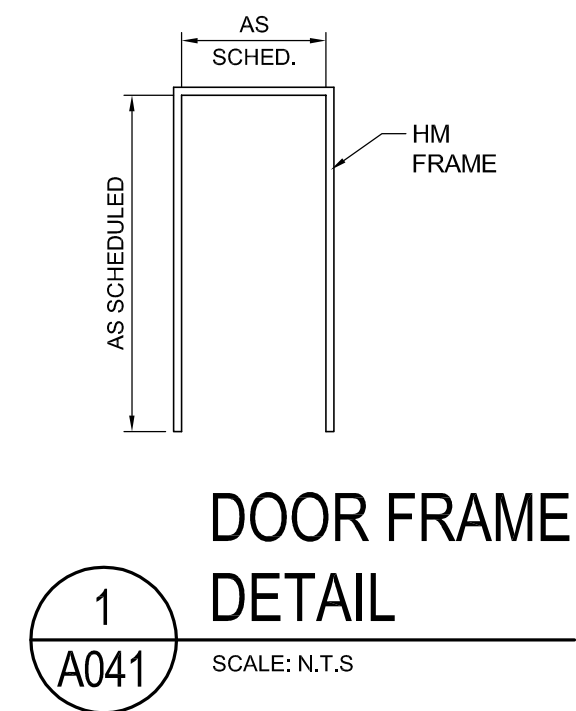
ROOM FINISH SCHEDULE										
NO.	ROOM NAME	FLOOR		BASE		WALL		CEILING		REMARKS
		MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	MAT'L	FIN.	
L01	LEASE AREA	CONCRETE				DRYWALL	PAINTED	2x4 LAY-IN IN 2x4 GRID	PRE-FIN	11'-6" CEILING HEIGHT
L02	B.F. LAV.	CERAMIC TILE	PRE-FIN	CERAMIC TILE	PRE-FIN	DRYWALL	SEMI-GLOSS PAINT	2x4 LAY-IN IN 2x4 GRID	PRE-FIN	9'-0" CEILING HEIGHT
L03	UTILITY ROOM	CONCRETE	PRE-FIN			DRYWALL	PAINTED	EXPOSED JOISTS		
01	DINING ROOM	POLISHED CONCRETE	PRE-FIN	VINYL	PRE-FIN	DRYWALL	PAINTED	EXPOSED JOISTS		
02	SERVICE AREA	QUARRY TILE	PRE-FIN	TILE	PRE-FIN	DRYWALL	PAINTED/ TILE	2x4 LAY-IN IN 2x4 GRID	PRE-FIN	10'-0" CEILING HEIGHT
03	B.F. LAV.	CERAMIC TILE	PRE-FIN	TILE	PRE-FIN	DRYWALL	CERAMIC TILE/ SEMI-GLOSS PAINT	2x4 LAY-IN IN 2x4 GRID	PRE-FIN	9'-0" CEILING HEIGHT
04	B.F. LAV.	CERAMIC TILE	PRE-FIN	TILE	PRE-FIN	DRYWALL	CERAMIC TILE/ SEMI-GLOSS PAINT	2x4 LAY-IN IN 2x4 GRID	PRE-FIN	9'-0" CEILING HEIGHT
05	KITCHEN AREA	QUARRY TILE	PRE-FIN	TILE	PRE-FIN	DRYWALL	PAINTED/ FRP / S.S.	2x4 LAY-IN IN 2x4 GRID	PRE-FIN	10'-0" CEILING HEIGHT
06	STORAGE/ PREP AREA	QUARRY TILE	PRE-FIN	TILE	PRE-FIN	DRYWALL	PAINTED/ FRP / S.S.	2x4 LAY-IN IN 2x4 GRID	PRE-FIN	10'-0" CEILING HEIGHT
07	OFFICE	QUARRY TILE	PRE-FIN	TILE	PRE-FIN	DRYWALL	PAINTED	2x4 LAY-IN IN 2x4 GRID	PRE-FIN	10'-0" CEILING HEIGHT
08	B.F. LAV.	CERAMIC TILE	PRE-FIN	TILE	PRE-FIN	DRYWALL	CERAMIC TILE/ SEMI-GLOSS PAINT	2x4 LAY-IN IN 2x4 GRID	PRE-FIN	9'-0" CEILING HEIGHT
09	W.I.C.	BY COOLER/ FREEZER MANUFACTURER								
10	W.I.F.	BY COOLER/ FREEZER MANUFACTURER								

NOTE:
1. FINISHES TO COMPLY WITH TYPICAL NOTES 2 & 3 ON SHEET A101.

DOOR SCHEDULE

NO.	SIZE	THICK	MATERIAL	TYPE	FRAME	TYPE	HARDWARE SET	REMARKS	
01	(2) 3'-0" x 8'-0"	1-3/4"	ALUM. & GLASS W/ SAFETY GLAZING	FLUSH	H.M.	A	#1		
01.1	3'-6" x 7'-0"	1-3/4"	H.M.	FLUSH	H.M.	B	#3	DOOR TO BE LEGACY (OR EQUAL) DOOR W/ TIMELY FRAME AND KEYPAD LOCK.	
01.2	3'-0" x 8'-0"	1-3/4"	ALUM. & GLASS W/ SAFETY GLAZING	FLUSH	H.M.	D	#1		
L02	3'-0" x 7'-0"	1-3/4"	WOOD	FLUSH	H.M.	C	#2	DOOR TO BE LEGACY (OR EQUAL) DOOR W/ TIMELY FRAME	
L03	3'-6" x 7'-0"	1-3/4"	H.M.	FLUSH	H.M.	B	#4	DOOR TO BE LEGACY (OR EQUAL) DOOR W/ TIMELY FRAME AND KEYPAD LOCK.	
03	3'-0" x 7'-0"	1-3/4"	WOOD	FLUSH	H.M.	C	#2		
04	3'-0" x 7'-0"	1-3/4"	WOOD	FLUSH	H.M.	C	#2		
07	3'-0" x 7'-0"	1-3/4"	WOOD	FLUSH	H.M.	E	#5		
08	3'-0" x 7'-0"	1-3/4"	WOOD	FLUSH	H.M.	C	#2		
09	BY COOLER/ FREEZER MANUFACTURER								
09	BY COOLER/ FREEZER MANUFACTURER								

NOTE:
1. DOORS & HARDWARE TO COMPLY WITH GENERAL NOTES ON SHEET A101.
2. ALL DOORS AND HARDWARE TO BE SELECTED & VERIFIED BY THE TENANT & OWNER.
3. DOOR HARDWARE BASED ON ALLEGION, PLC. OR EQUAL.



WALL LEGEND				
SYMBOL	DESCRIPTION	ASSEMBLY	DETAIL SCALE: 1/2"=1'-0"	REMARKS
P1	PROPOSED INTERIOR WALL	5/8" G.W.B. 3-5/8" 20 GA. METAL STUDS @ 16" O.C. W/ 3" SOUND INSULATION 5/8" G.W.B.		
P2	PROPOSED INTERIOR WALL	5/8" G.W.B. 6" 20 GA. METAL STUDS @ 16" O.C. W/ 3" SOUND INSULATION 5/8" G.W.B.		
P3	PROPOSED INTERIOR WALL	5/8" G.W.B. 3-5/8" METAL STUDS @ 16" O.C. 5/8" G.W.B.		
P4	PROPOSED INTERIOR WALL	5/8" G.W.B. 6" 20 GA. METAL STUDS @ 16" O.C. 5/8" G.W.B.		
P5	PROPOSED FURRING WALL	5/8" G.W.B. OVER 1-5/8" FURRING CHANNELS @ 16" O.C. OVER BLOCK WALL		
P6	PROPOSED COOLER WALL	BY COOLER CONTRACTOR		

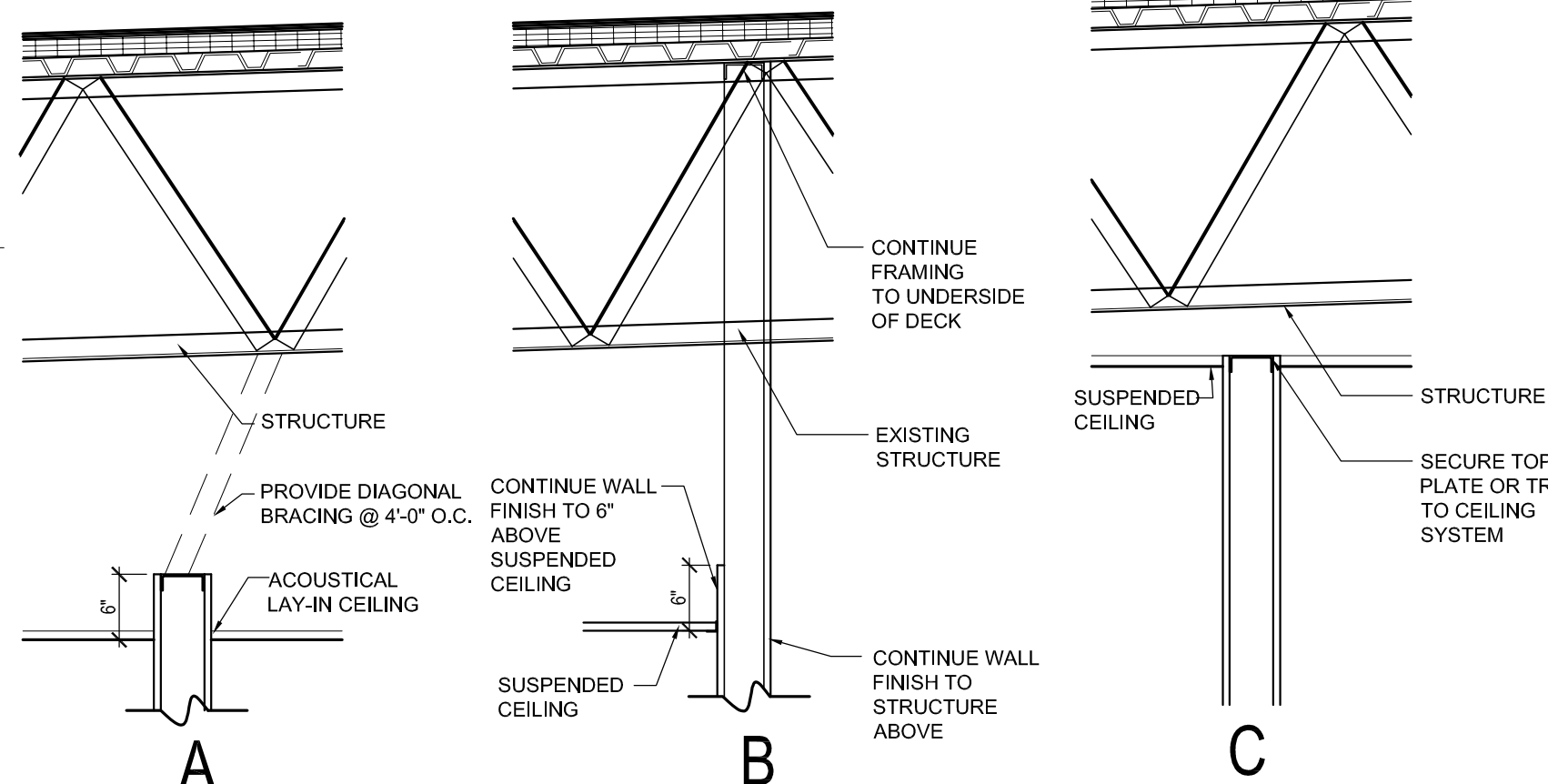
TYPICAL NOTES:

- HARDWARE SELECTED BY OWNER
- ALL INTERIOR FINISH AND TRIM SHALL COMPLY W/ LOCAL ORDINANCES. CURRENT 2015 MICHIGAN BUILDING CODE SECTION, CHAPTER 8
- CLASS C: FLAME SPREAD 76-200, SMOKE DEVELOPMENT 0-450. CONTRACTOR TO SUBMIT DOCS AS REQUIRED.
- PRIOR TO INSTALLATION OF ANY PROPOSED APPLICABLE INTERIOR WALL AND CEILING FINISHES, PROVIDE TO THE CITY'S FIELD INSPECTOR DOCUMENTATION SHOWING THEIR CLASS, FLAME SPREAD AND SMOKE DEVELOPMENT INDEXES.
- INSULATION FLAME SPREAD INDEX REQUIREMENTS SHALL BE IN ACCORDANCE WITH ASTM E 84.
- CONCEALED OR EXPOSED INSTALLATION SHALL HAVE RATING OF NOT MORE THAN 25. INSULATION BETWEEN 2 LAYERS OF NONCOMBUSTIBLE MATERIALS W/NO INTERVENING AIRSPACE SHALL BE ALLOWED TO HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 100.
- SMOKE DEVELOPMENT INDEX RATING OF NOT MORE THAN 450.
- ALL INSULATION TO BE PROPERLY LABELED
- CONTRACTOR TO PROVIDE FIRE EXTINGUISHER ON JOB AS REQUIRED BY BUILDING INSPECTOR.
- PROVIDE MIN. (2) 5# ABC EXTINGUISHERS IN ACCORDANCE WITH NFPA 10 IN EACH TENANT SPACE. LOCATION TO BE VERIFIED WITH BUILDING INSPECTOR.
- PROVIDE INTERNATIONAL SYMBOL FOR HANDICAPPED SIGNS FOR DIRECTION ON RESTROOM ACCESSIBILITY.
- ALL GLAZING IN HAZARDOUS AREA SHALL BE SAFETY GLASS AND COMPLY WITH CURRENT M.B.C. SEC 2406.2 LABELS AND GLASS COMP. WITH CPSC 16CFR PART 1201.

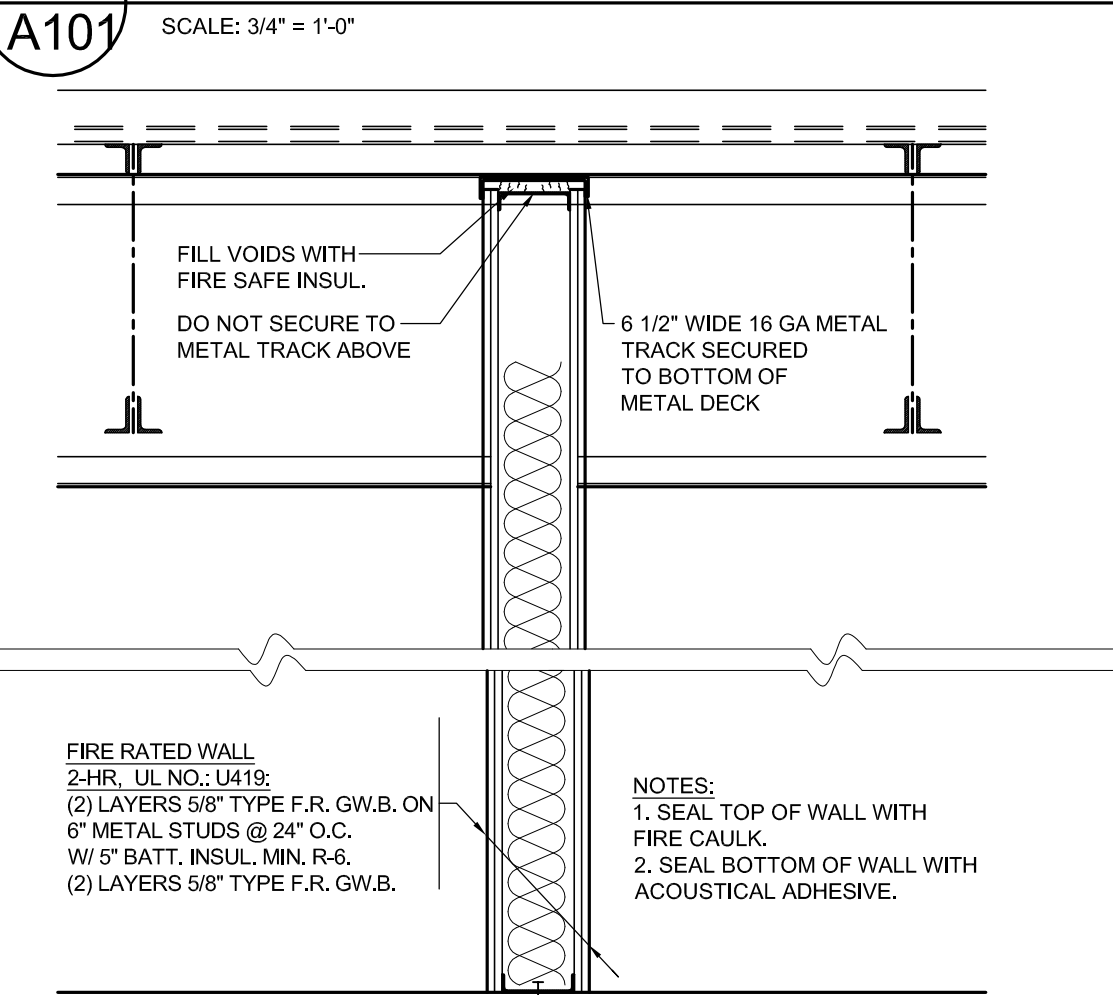
PARTITION CONDITION CODE	
PARTITION TYPE SYMBOL	
P1	PARTITION TYPE - SEE WALL LEGEND
A 1	FIRE RESISTANCE RATING (IN HOURS)
	PARTITION CONDITION CODE - SEE ABOVE

GENERAL NOTES:

- DOOR HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERATIONS TO BE AT 48" A.F.F. MAX. AND 34" A.F.F. MIN.
- DOORS TO HAZARDOUS AREAS TO HAVE HARDWARE W/ ROUGH FINISH
- ALL EXIT DOORS TO HAVE PANIC DEVICE CLOSERS AND SHALL NOT LOCK AGAINST EGRESS OR OTHER HARDWARE COMPLYING W/ SEC. 108.1.8.
- LOCKING DEVICES TO BE ACTIVATED BY NO MORE THAN ONE-HALF TURN, ACTIVATED BY LEVER TYPE.
- ALL DOOR HANDLES TO BE LEVER TYPE.
- ALL VERTICAL CHANGES IN FLOOR ELEVATION, INCLUDING DOOR THRESHOLDS, SHALL BE LIMITED TO 1/4" UNLESS A 1 TO 2 RISE-TO-RUN RATIO PROVIDED IN THE TRANSITION BETWEEN ELEVATIONS; IN WHICH A 1/2" MAX. DIFFERENCE IS ALLOWED. SAID CHANGES IN ELEVATION SHALL COMPLY WITH ICC/ANSI A117.1-2003.
- ALL MILLWORK/CASEWORK COUNTERTOPS HAVE A MAXIMUM 3/4" HEIGHT A.F.F. UNLESS NOTED OTHERWISE.



3 PARTITION CONDITION DETAILS
SCALE: 3/4" = 1'-0"

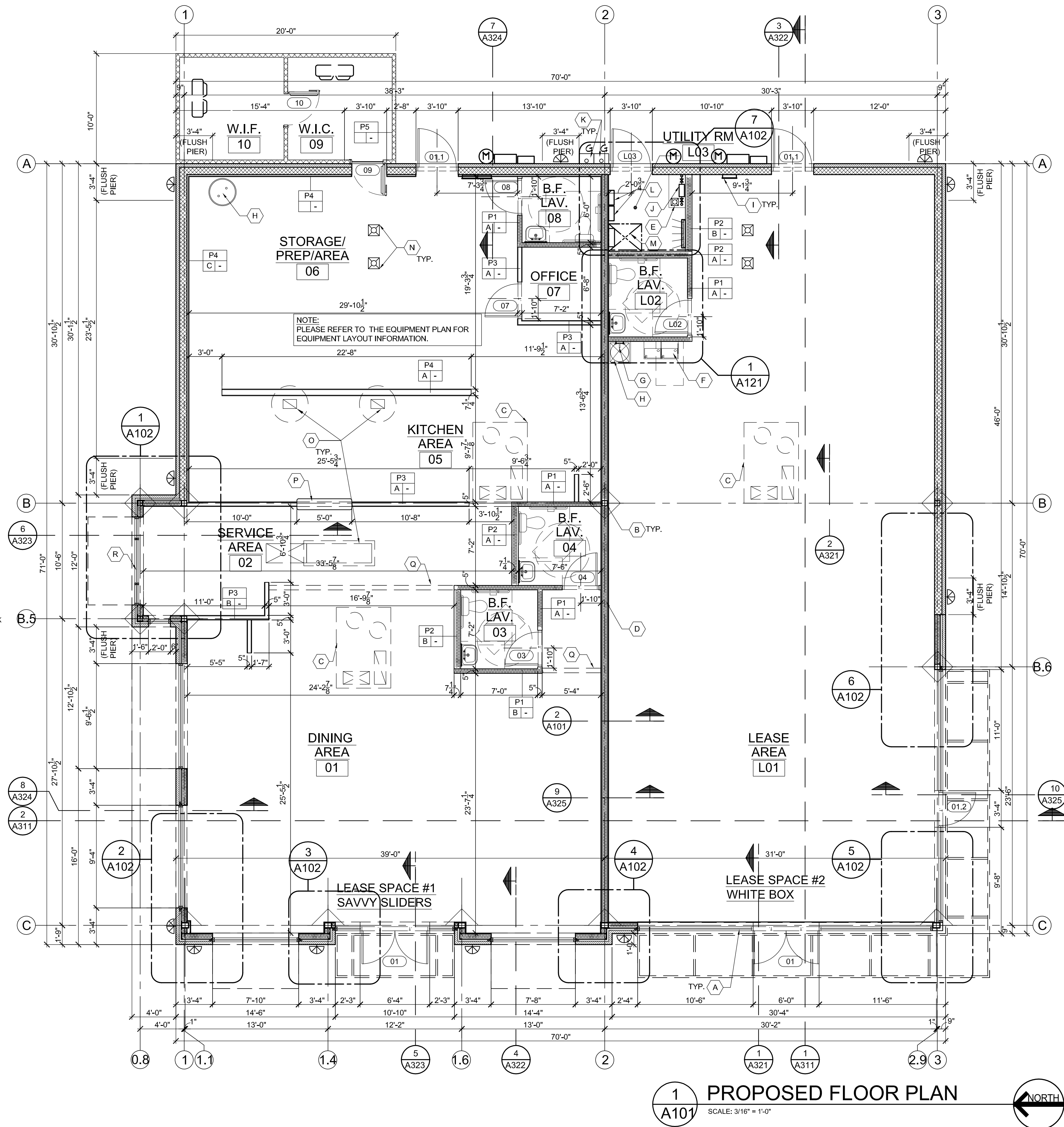


2 TENANT SEP. WALL DETAIL
SCALE: 3/4" = 1'-0"

UL NO.: U419

FLOOR PLAN KEYED NOTES:

- (A) INSUL. TEMP. GLASS SET IN ALUM. FRAME STOREFRONT, (LOW-E)
- (B) STEEL COLUMN. SEE FRAMING PLAN.
- (C) ROOF TOP MECHANICAL UNIT. - SEE MECHANICAL DRAWING.
- (D) DEMISING WALL.
- (E) FLOOR DRAIN. SEE PLUMBING DRAWINGS.
- (F) DRINKING FOUNTAIN, (H+L TYPE)
- (G) SERVICE SINK.
- (H) WATER HEATER. SEE PLUMBING DRAWING FOR ADDITIONAL DETAILS.
- (I) ELECTRICAL PANEL. SEE ELECTRICAL DRAWING.
- (J) WATER METER.
- (K) GAS METER.
- (L) ELECTRICAL EQUIPMENT. SEE ELECTRICAL DRAWING.
- (M) ROOF LADDER. SEE ROOF PLAN FOR ADDITIONAL DETAILS.
- (N) ROOF SUMPS ABOVE. SEE PLUMBING PLANS FOR DETAILS.
- (O) MECHANICAL EQUIPMENT ABOVE. SEE MECHANICAL PLANS FOR ADDITIONAL DETAILS.
- (Q) LINE OF CEILING DROP ABOVE (SEE REFLECTED CEILING PLAN)
- (P) PASS THROUGH WINDOW-SEE KITCHEN ELEVATIONS
- (R) DRIVE-THROUGH WINDOW READY ACCESS MODEL#275 WITH AIR CURTAIN ABOVE READY ACCESS MODEL#A300 (VERIFY WITH OWNER)



1 PROPOSED FLOOR PLAN
SCALE: 3/16" = 1'-0"



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04-18-2022

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SHEET TITLE
PROPOSED FLOOR PLAN

DWG. NO.
A1.0.1



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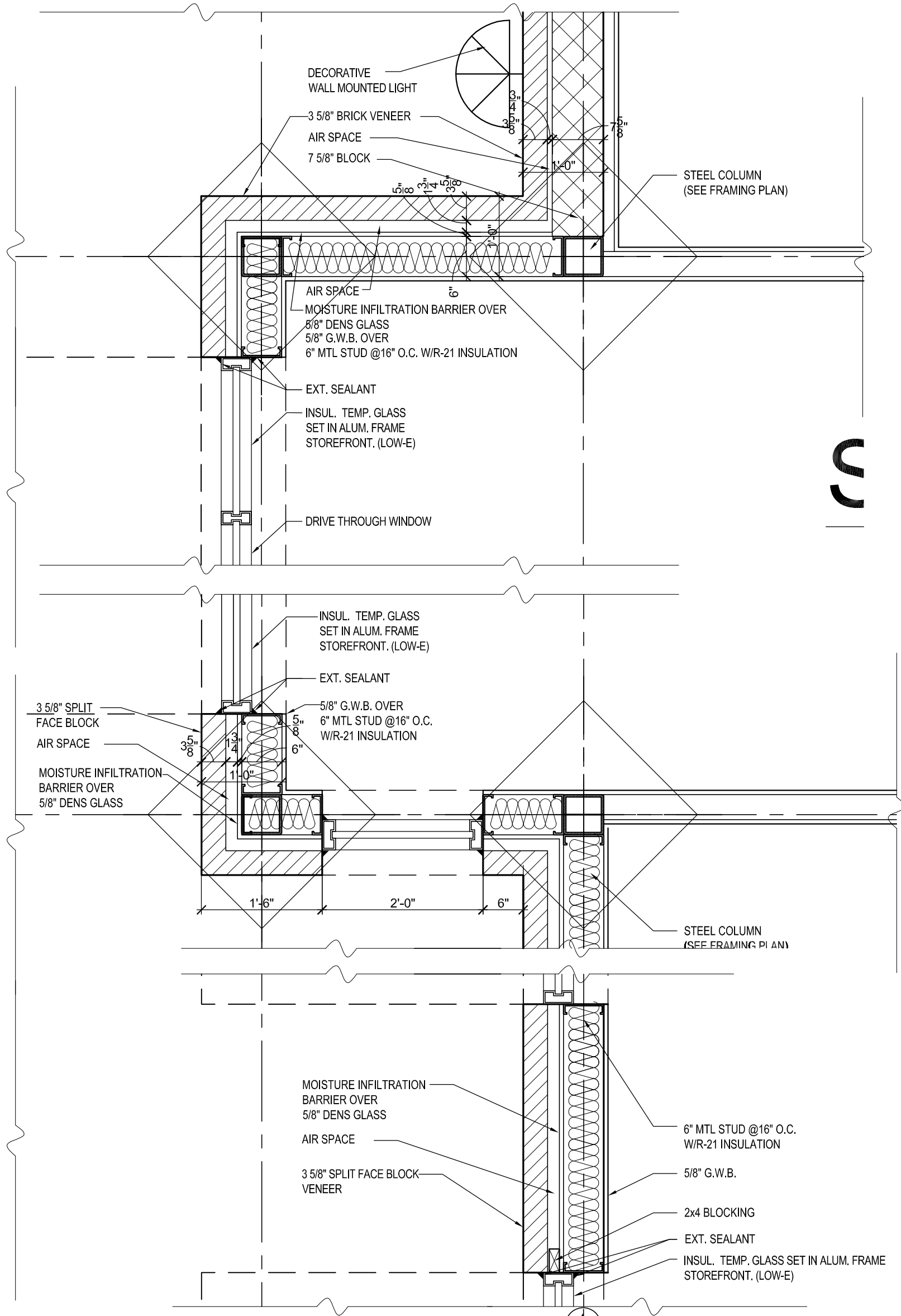
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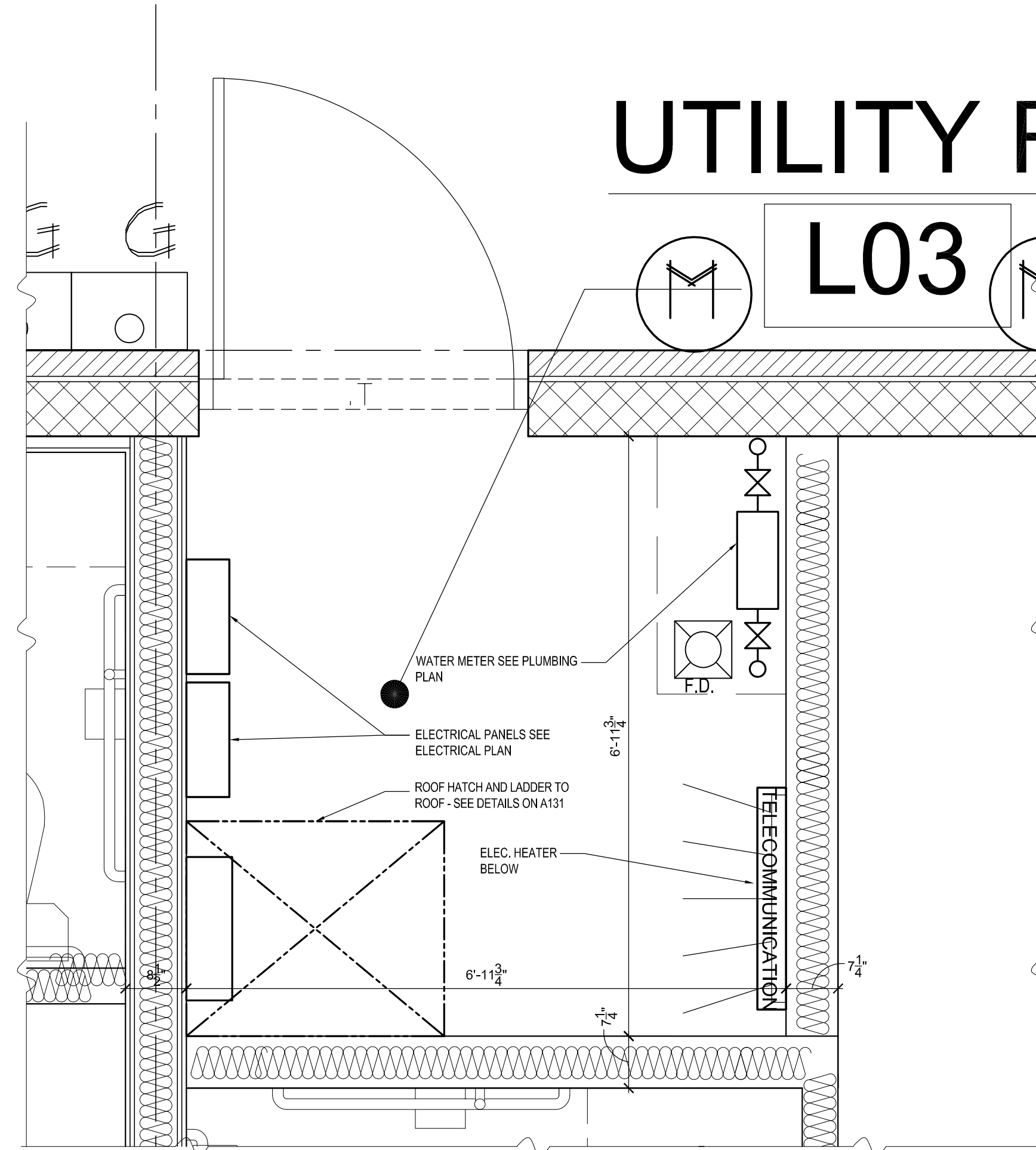
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SHEET TITLE
 PROPOSED
 FLOOR PLAN
 DETAILS

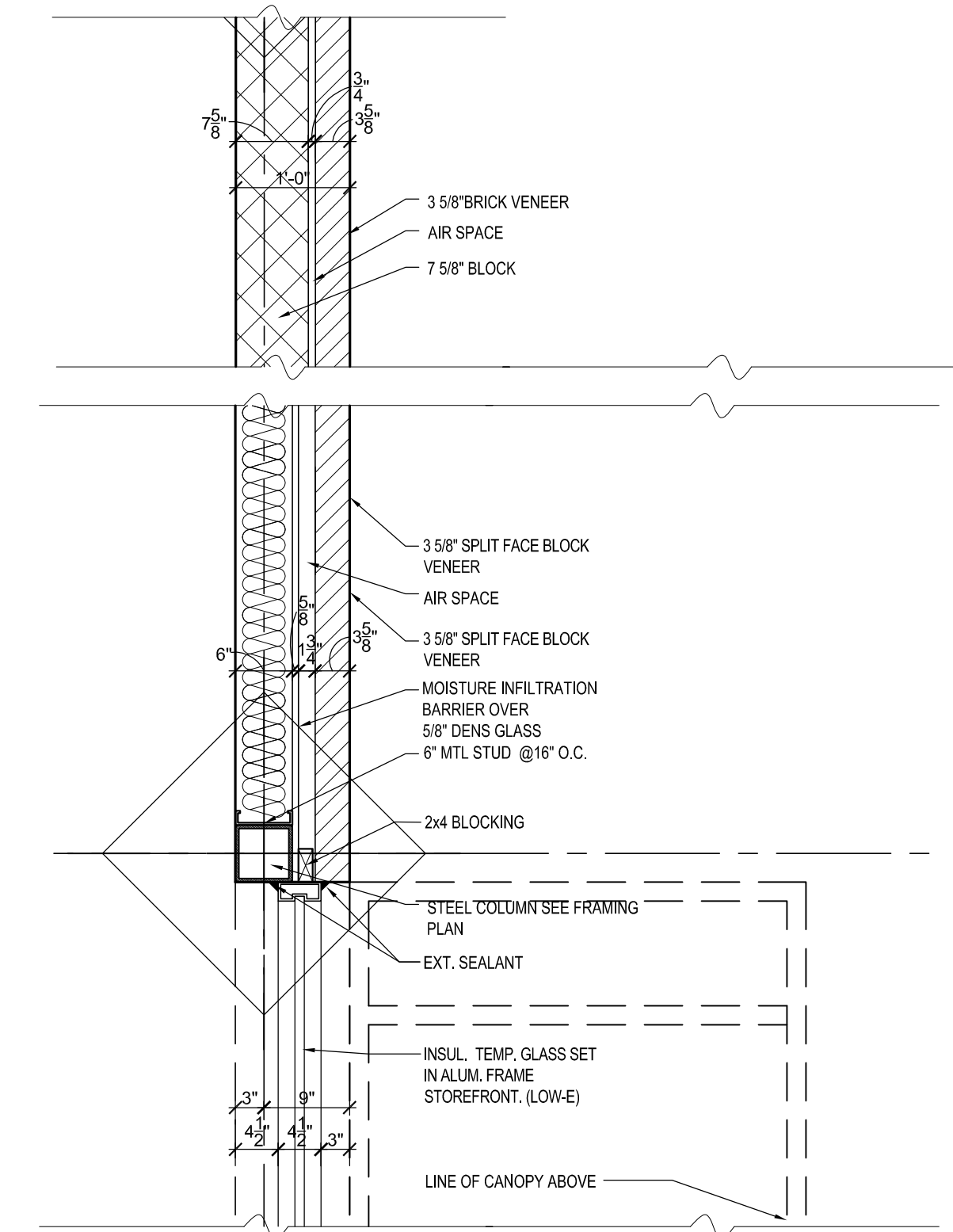
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A1.0.2



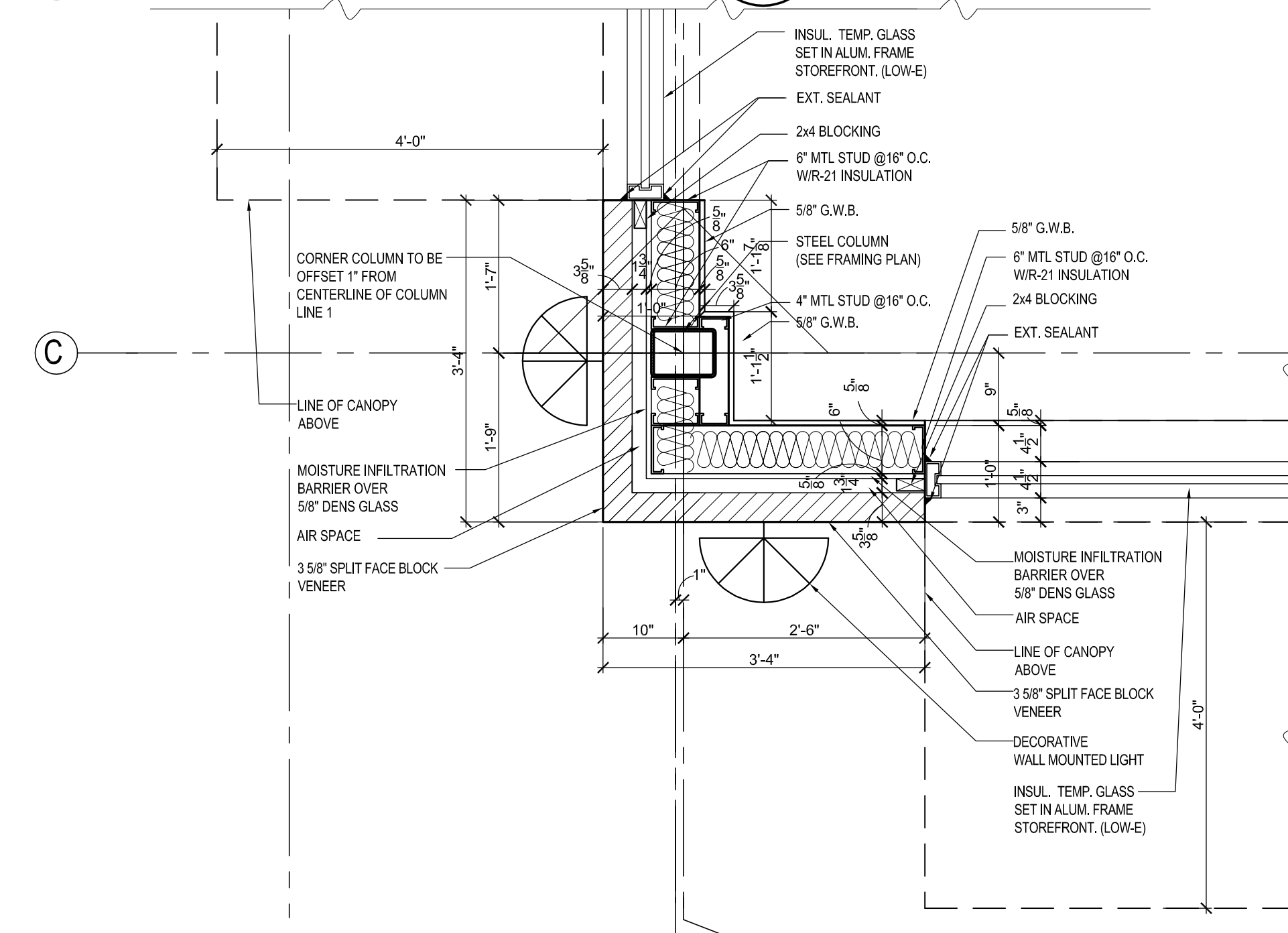
1 WALL / COLUMN DETAIL
 A102 SCALE: 3/4" = 1'-0" NORTH



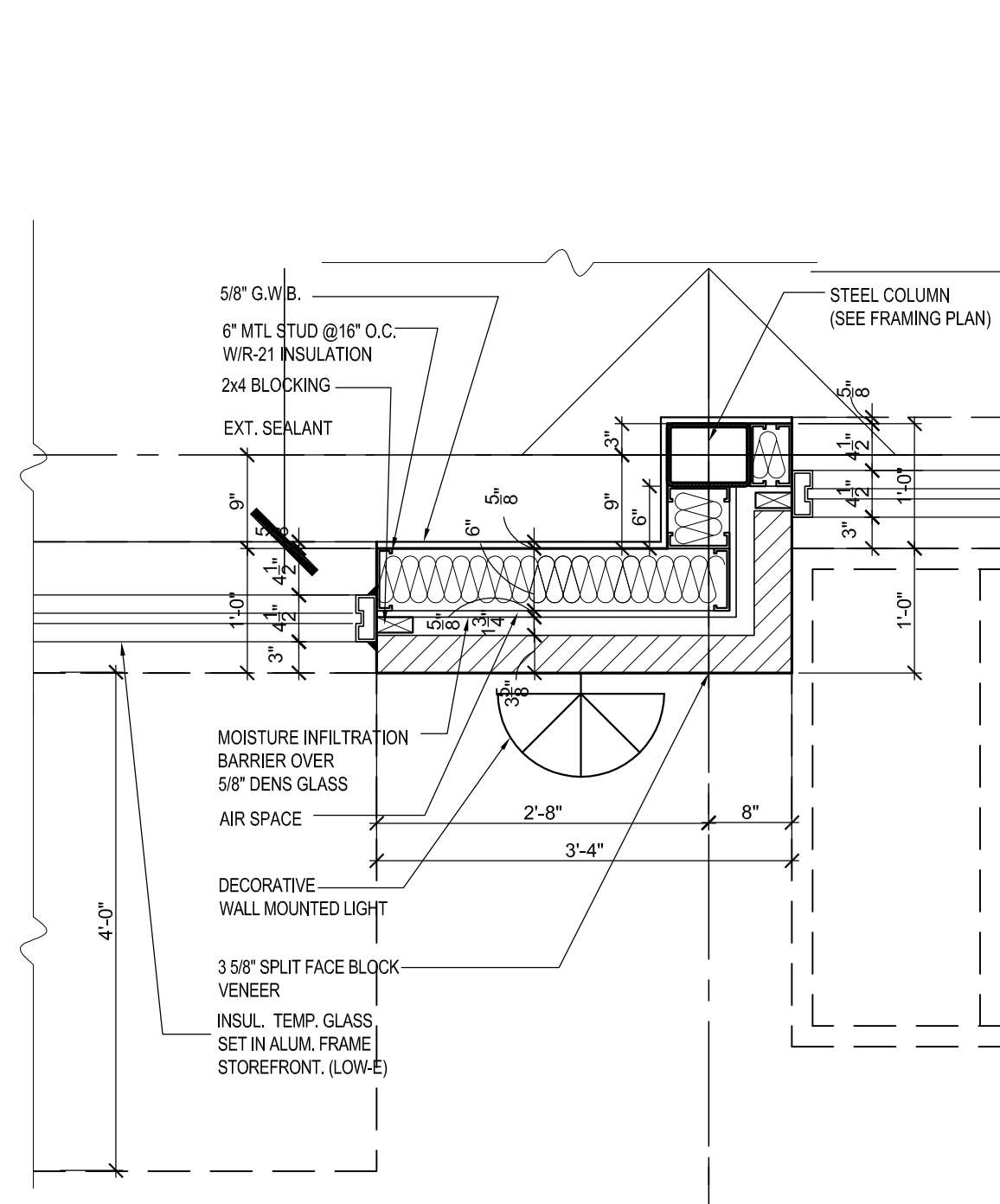
7 UTILITY ROOM DETAILS
 A102 SCALE: 3/4" = 1'-0" NORTH



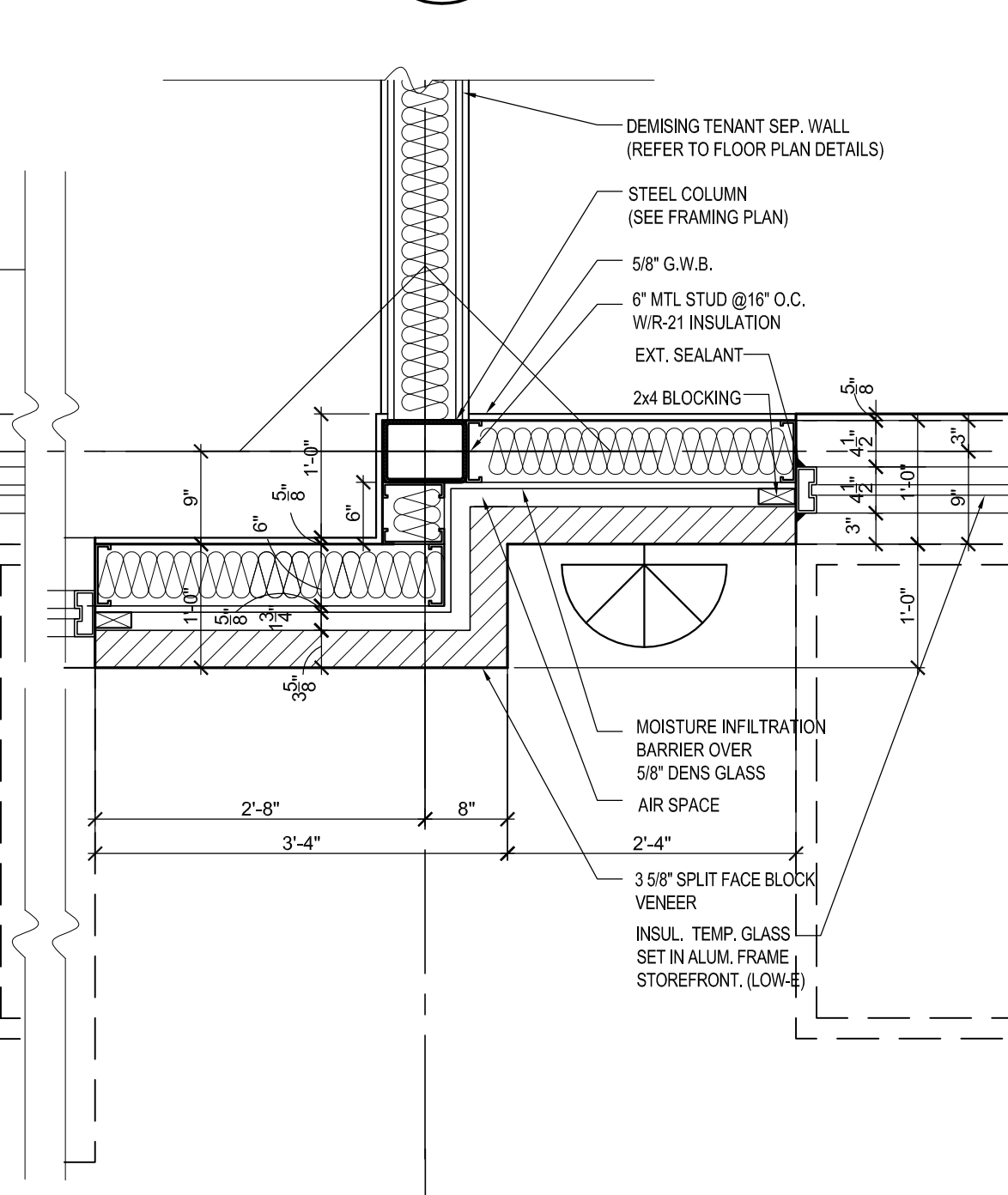
6 WALL / COLUMN DETAIL
 A102 SCALE: 3/4" = 1'-0" NORTH



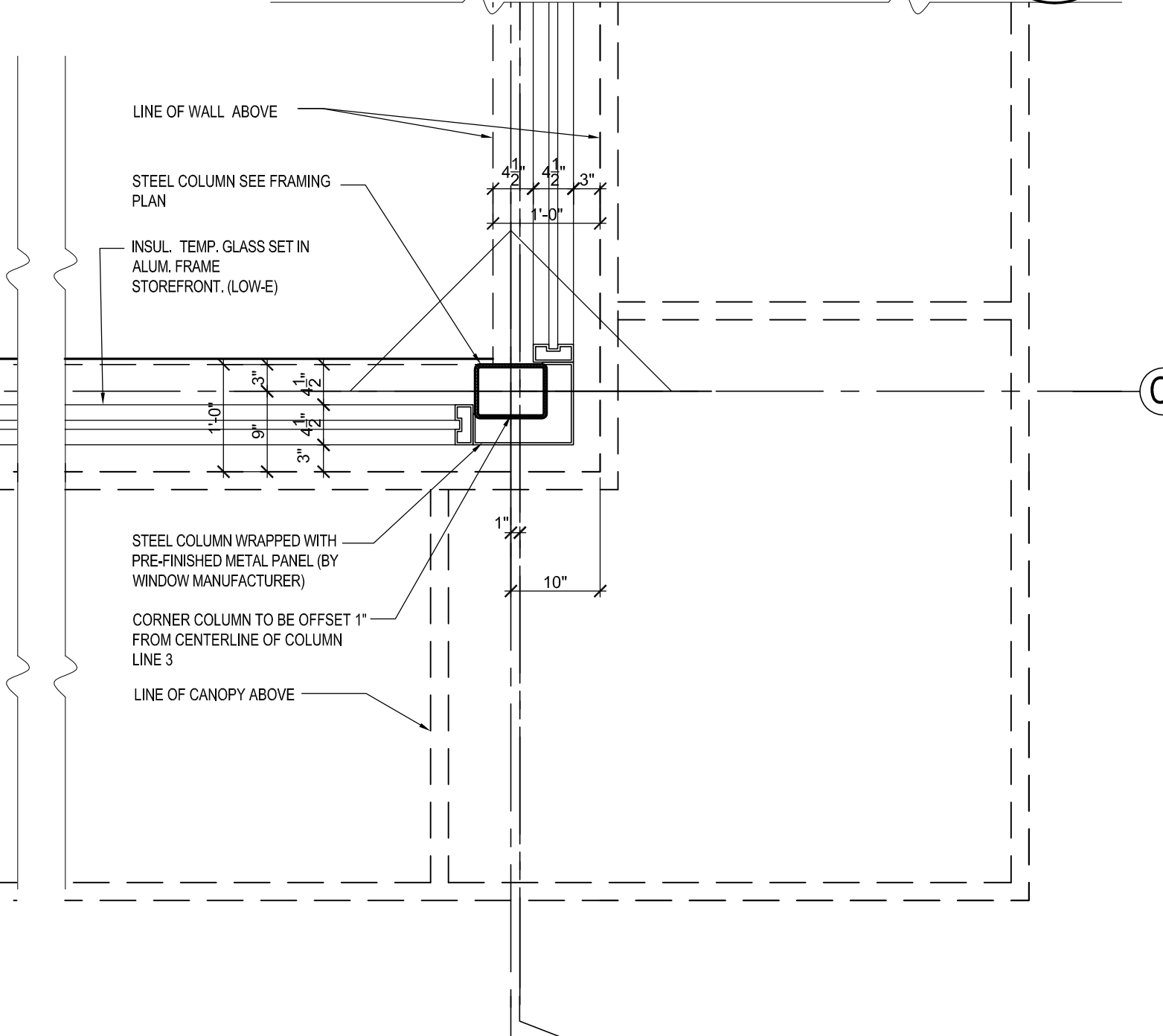
2 WALL / GLASS DETAIL
 A102 SCALE: 3/4" = 1'-0" NORTH



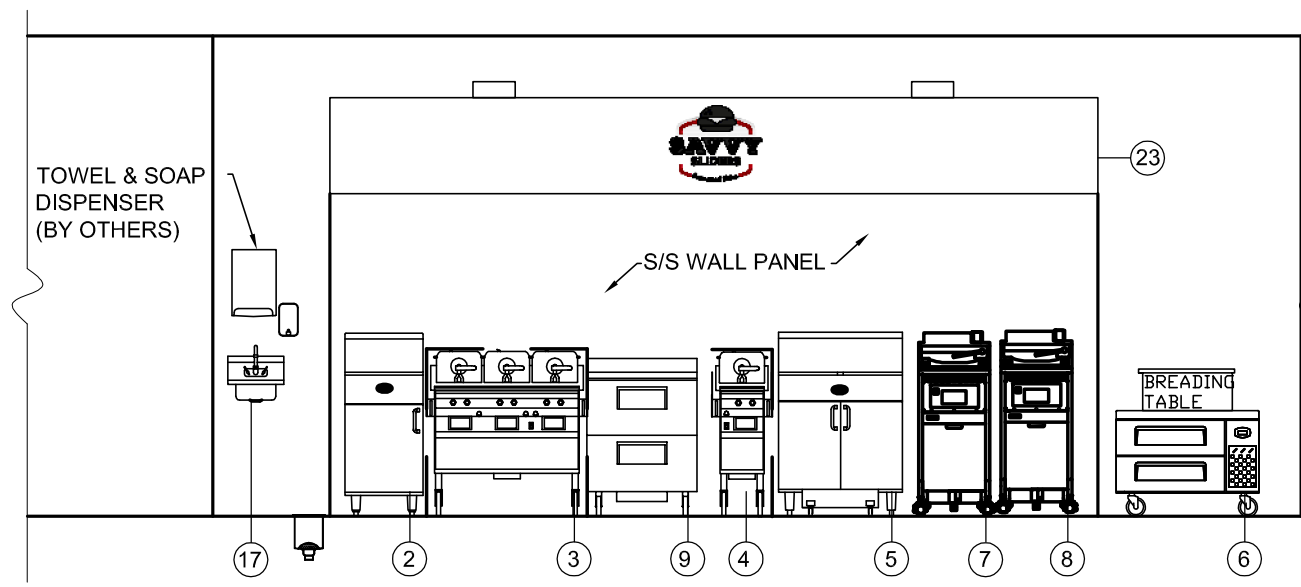
3 WALL / GLASS DETAIL
 A102 SCALE: 3/4" = 1'-0" NORTH



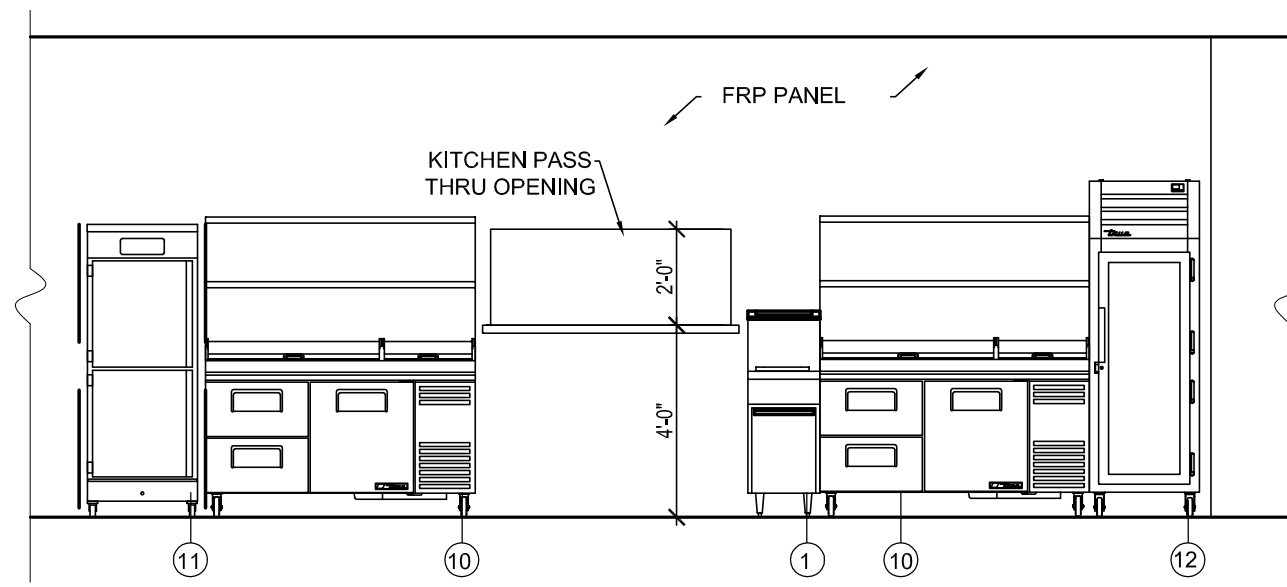
4 WALL / GLASS DETAIL
 A102 SCALE: 3/4" = 1'-0" NORTH



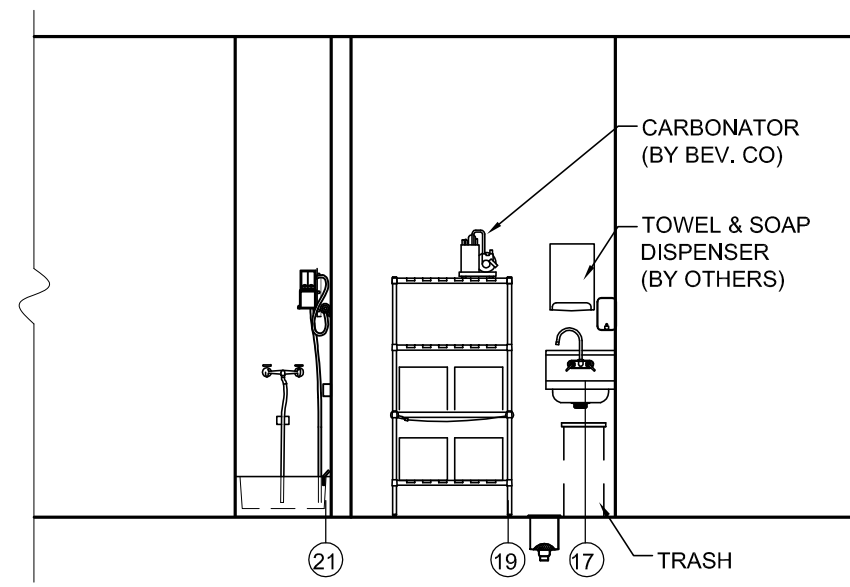
5 WALL / GLASS DETAIL
 A102 SCALE: 3/4" = 1'-0" NORTH



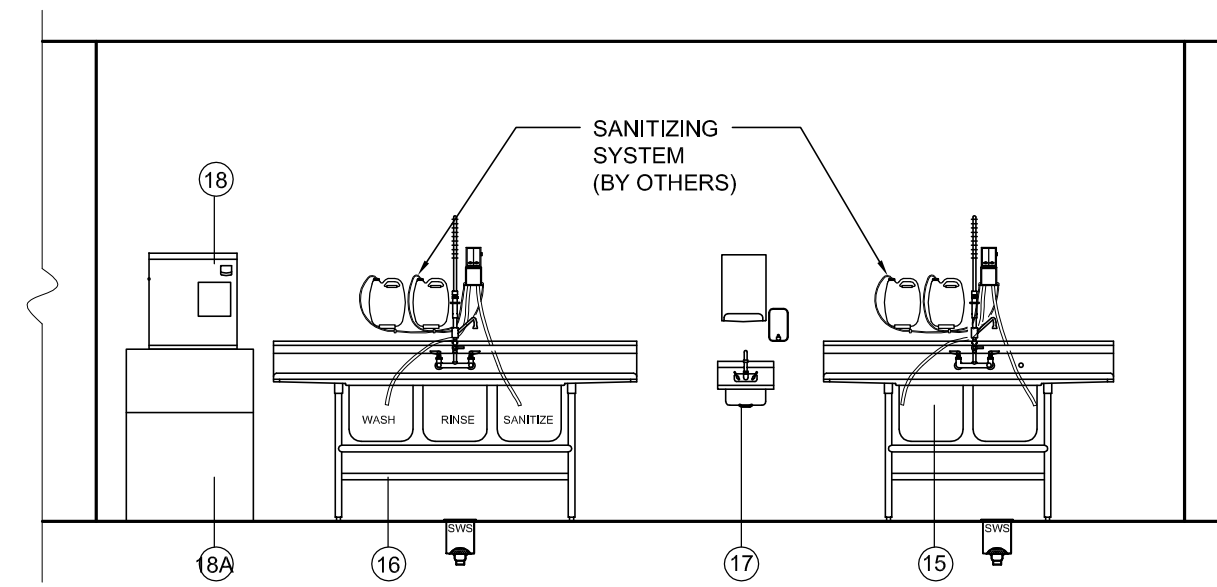
2 ELEVATION A
A111 SCALE: 1/4" = 1'-0"



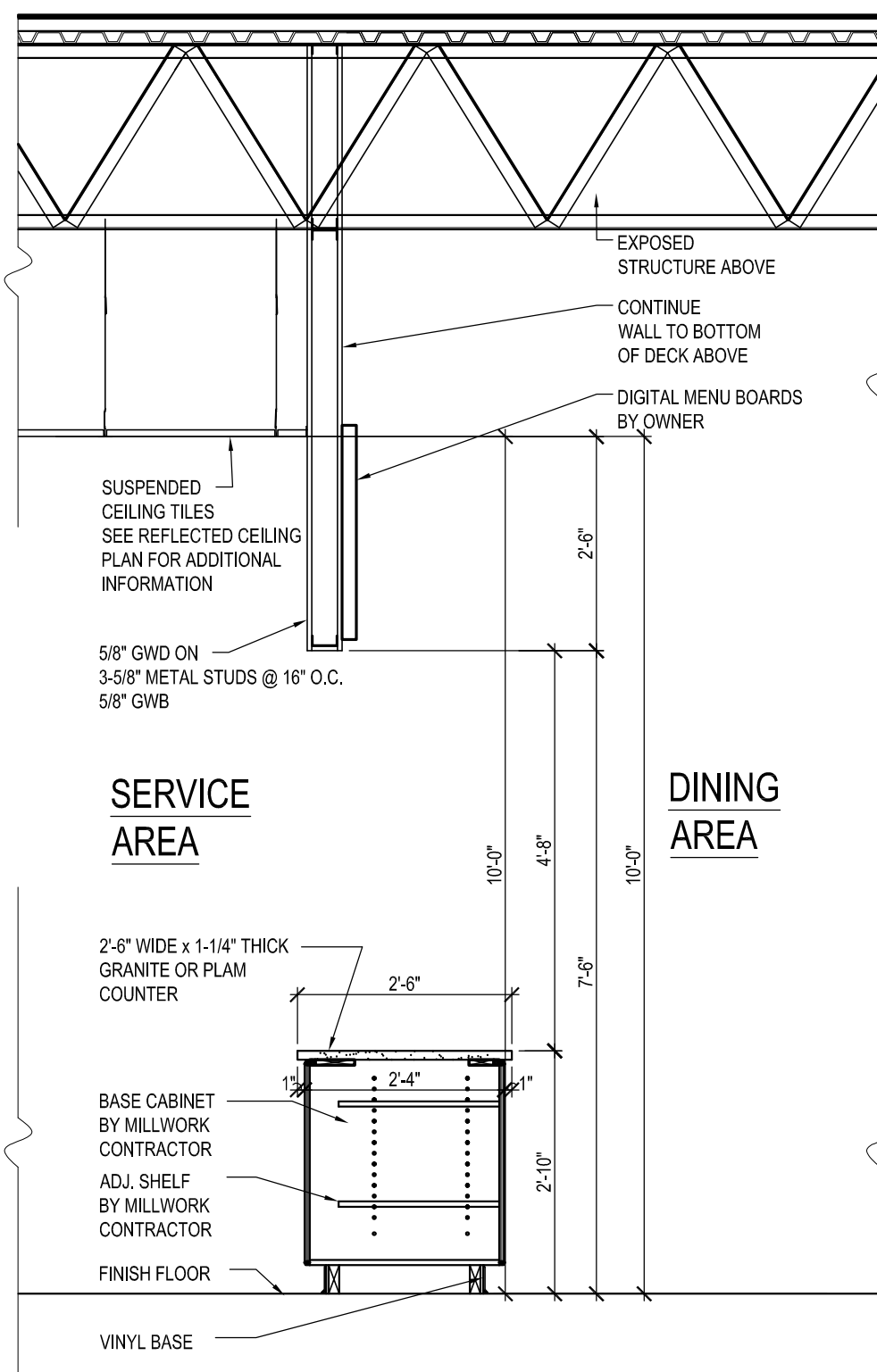
3 ELEVATION B
A111 SCALE: 1/4" = 1'-0"



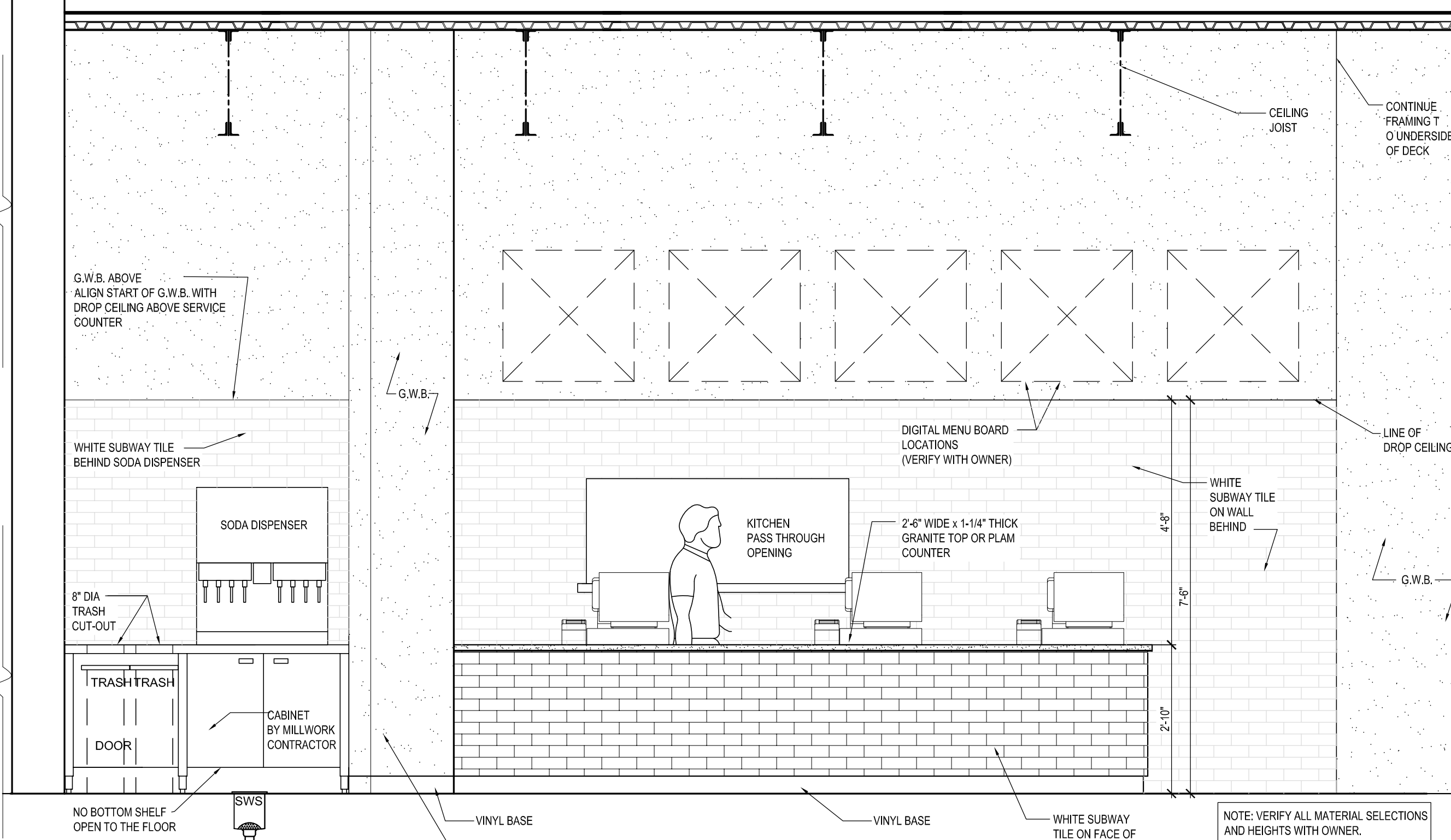
4 ELEVATION C
A111 SCALE: 1/4" = 1'-0"



5 ELEVATION D
A111 SCALE: 3/16" = 1'-0"



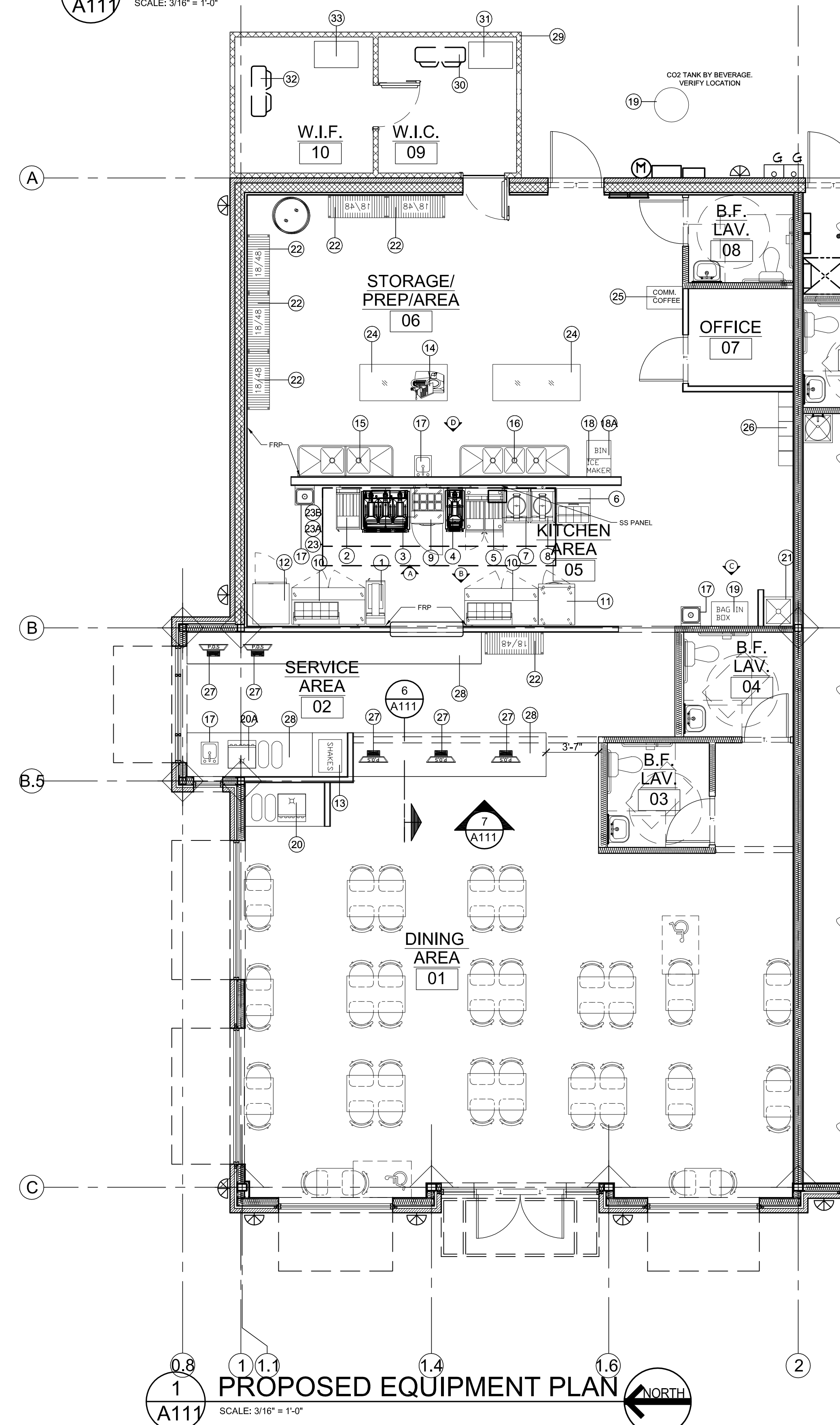
6 SERVICE COUNTER SECTION
A111 SCALE: 1/2" = 1'-0"



7 SERVICE COUNTER ELEVATION
A111 SCALE: 1/2" = 1'-0"

UNIT NO.	EQUIP NAME	BRAND	MODEL	AMP	BTU	VOLT/PH	CFM	INLET	GAS	REMARKS	PLUMBING NEEDED
1	DUMP STATION	ROYAL	RFT-DS	6		120V/1PH				HEAT LAMP	
2	75LB FRYER	ROYAL	RFT-75		152K			3/4	YES		
3	2 SIDED GRILL	TAYLOR	L810	38(2)		208/230/3ph				nema 15-50p(2)	
4	2 SIDED GRILL	TAYLOR	L82B	27		208/230/3ph				nema 15-50p(2)	
5	FILTER FRYER	ROYAL	RFT75XX2	7	152K(2)	120V/1PH		3/4	YES	TOTAL BTU 304K	
6	CHEF BASE	AVANTCO	178CBE36HC	2.5		120V/1PH					
7	PRESSURE FRYER	BROASTER	E-18G	15	50000	120V/1PH		1/2	YES		
8	PRESSURE FRYER	BROASTER	E-18G	15	50000	120V/1PH		1/2	YES		
9	REFRIG WORKTOP	TRUE	TWT-27D-2HC	15		120V/1PH				capped 3" gas behind unit	
10	REFRIG WORKTOP	TRUE	TPP-AT-67D-2HC	15		115V/1PH					
11	FREEZER	TRUE	STR1F-1S-HC	15		115V/1PH					
12	HOLDING CABINET	WINSTON	HOV3 - 05 UV	20		120V/1PH					
13	SHAKE FREEZER	TAYLOR	441	20		208/230/1PH					
14	SLICER	BERKEL	829A	2.9		115V/1PH					
15	TWO COMP SINK	EAGLE	314								YES
16	THREE COMP SINK	EAGLE	412								YES
17	HAND SINK										YES
18	ICE MAKER	BLUEAIR	BLMI - 500 AD	14		115V/1PH					YES
18A	ICE MAKER BIN	BLUEAIR	BLIB-300S								
19	B&B CARBONATOR	PEPSI		10		120V/1PH				VERIFY W/BEVERAGE CO	
19A	CO2 TANK ALARM	PEPSI		5		120V/1PH				VERIFY W/BEVERAGE CO	
20	ICE DRINK DISPENSER	CORNELIUS	ENDURO 175	3.0		120V				VERIFY W/BEVERAGE CO	
20A	DROP-IN POST-MIX DISPENSER	CORNELIUS	2323 UNIVERSAL	1.5		115V				VERIFY W/BEVERAGE CO	
21	MOP SINK W/ HOLDER										YES
22	DRY STORAGE SHELVING	ADVANCE TABCO									
23	COOKLINE HOOD	ADM/CUSTOM	SEE VENTILATION								
23A	EXHAUST	ADM/CUSTOM	SEE VENTILATION	6.0 (2)		120V/1PH					
23B	MUA	ADM/CUSTOM	SEE VENTILATION	5.9		208V/3PH					
24	SS TABLE	BY OWNER									
25	COFFEE AND TEA BREWER	BUNN	ITCB HV SINGLE	14		120V					
26	LOCKERS	BY OWNER									
27	POS										
28	CASHIER COUNTER	CUSTOM	BY MILLWORK CONT.								
29	WALK IN COOLER/ FREEZER		SRC REFRIGERATION							SEE MFR. DRAWINGS	
30	COOLER EVAPORATOR COIL		SRC REFRIGERATION							SEE MFR. DRAWINGS	
31	REMOTE COOLER CONDENSER		SRC REFRIGERATION	20		208/230/3ph				SEE MFR. DRAWINGS	
32	FREEZER EVAPORATOR COIL		SRC REFRIGERATION							SEE MFR. DRAWINGS	
33	REMOTE FREEZER CONDENSER		SRC REFRIGERATION	30		208/230/3ph				SEE MFR. DRAWINGS	
34	WATER HEATER	CUSTOM	SEE PLUMBING								

NOTE:
VERIFY ALL EQUIPMENT AND EQUIPMENT REQUIREMENTS WITH TENANT/OWNER.
CONTRACTOR TO FIELD VERIFY ALL WORK AND NOTIFY THE OWNER, ARCHITECT AND FOOD SERVICE SUPPLIER OF ANY DISCREPANCIES IN THE DOCUMENTS, SPECIFICATION SHEETS AS WELL AS ANY UNSEEN OR CHANGED FIELD CONDITIONS. FOOD SERVICE EQUIPMENT SUPPLIER TO VERIFY THAT SIZES INDICATED ON THE DRAWING AND SITE CONDITIONS MEET THE CRITERIA OF ITEMS SPECIFIED.



1 PROPOSED EQUIPMENT PLAN
A111 SCALE: 3/16" = 1'-0"

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PROJECT NAME:
PROPOSED MULTI-TENANT BUILDING WITH DRIVE THRU

PERMIT SUBMISSION
04-18-2022

ADDRESS:
21220 GREENFIELD RD
OAK PARK, MI 48237

NOT FOR CONSTRUCTION

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JOB NO. 21-0968
D.B./C.B. R.A./P.D.
ISSUANCES
NO DESCRIPTION DATE
1 PERMIT SUBMISSION 04/18/22

SHEET TITLE
PROPOSED EQUIPMENT PLAN
DWG. NO.
A1.1.1



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BARRIER FREE DESIGN NOTES FOR LAVS:

- REQUIRED ACCESSIBLE TOILET FACILITIES SHALL COMPLY WITH THE CHAPTER 11 OF MICHIGAN BUILDING CODE - 2015, ICC / ANSIA117.1-2015 AND MICHIGAN PLUMBING CODE.
- PROVIDE TOILET ROOM ACCESS FOR MEN AND WOMEN WOMEN BARRIER FREE WITH A 5' X 5' CLEAR FLOOR SPACE AND 32" MINIMUM CLEAR DOOR OPENING.
- WATER CLOSET MUST BE LOCATED 18" TO THE CENTERLINE FROM THE ADJACENT WALL. THE SEAT MUST BE 17" ABOVE FINISH FLOOR AND FLUSH CONTROLS NOT HIGHER THAN 36" A.F.F.
- LAVATORIES SHALL PROJECT A MINIMUM OF 17" FROM THE WALL WITH THE BOTTOM EDGE NOT LESS THAN 29" ABOVE THE FLOOR AND WITH A FRONT OPENING NOT LESS THAN 30" WIDE. MAXIMUM WATER TEMPERATURE OUTLETS NOT TO EXCEED 120 DEGREES FAHRENHEIT. FAUCETS SHALL BE LEVER OR PUSH-BUTTON TYPE. EXPOSED HOT WATER & DRAIN LINES TO BE INSULATED.
- TOILET ROOM ACCESSORIES SHALL BE MOUNTED WITH THE CONTROLS NO MORE THAN 40" ABOVE THE FLOOR. MIRRORS SHALL BE INSTALLED NO MORE THAN 36" ABOVE THE FLOOR. ACCESSORIES SHALL NOT BE LOCATED WITHIN 24" OF A CORNER.
- TOILET PAPER DISPENSER SHALL BE MOUNTED 18" - 48" A.F.F. IF MOUNTED ABOVE GRAB BARS. LOCATE 24"-36" FROM REAR WALL. IF MOUNTED BELOW GRAB BAR, LOCATE 24"-42" FROM REAR WALL.
- PROVIDE SIGNS SHOWING INDICATION OF GENDER AND THE INTERNATIONAL SYMBOL FOR THE HANDICAPPED ON THE EXTERIOR OF THE DOORS. INSTALL ADJACENT TO THE LATCH SIDE OF THE DOOR.
- HORIZONTAL GRAB BARS ARE TO BE POSITIONED 33" TO 36" MAXIMUM ABOVE THE FINISH FLOOR AND SHALL BE 42" LONG ON THE NEAREST SIDE WALL, 12" FROM THE REAR WALL AND A MINIMUM 36" GRAB BAR ON THE REAR WALL, 6" FROM THE SIDE WALL. VERTICAL GRAB BARS SHALL BE 16" MIN. IN LENGTH AND SHALL BE MOUNTED WITH THE BOTTOM OF THE BAR LOCATED BETWEEN 39" AND 41" ABOVE THE FLOOR AND WITH THE CENTERLINE OF THE BAR LOCATED BETWEEN 39"-41" FROM THE REAR WALL.

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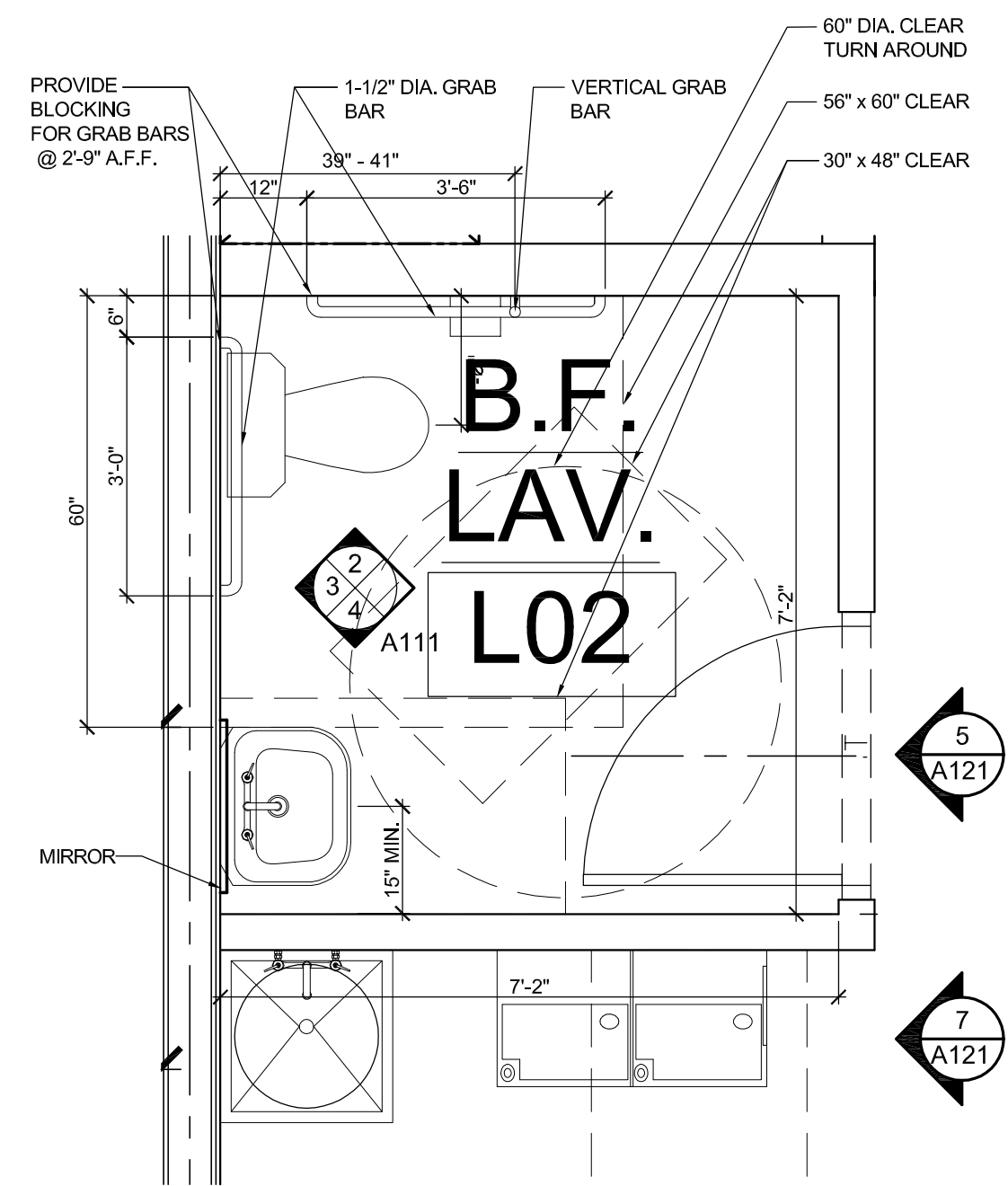
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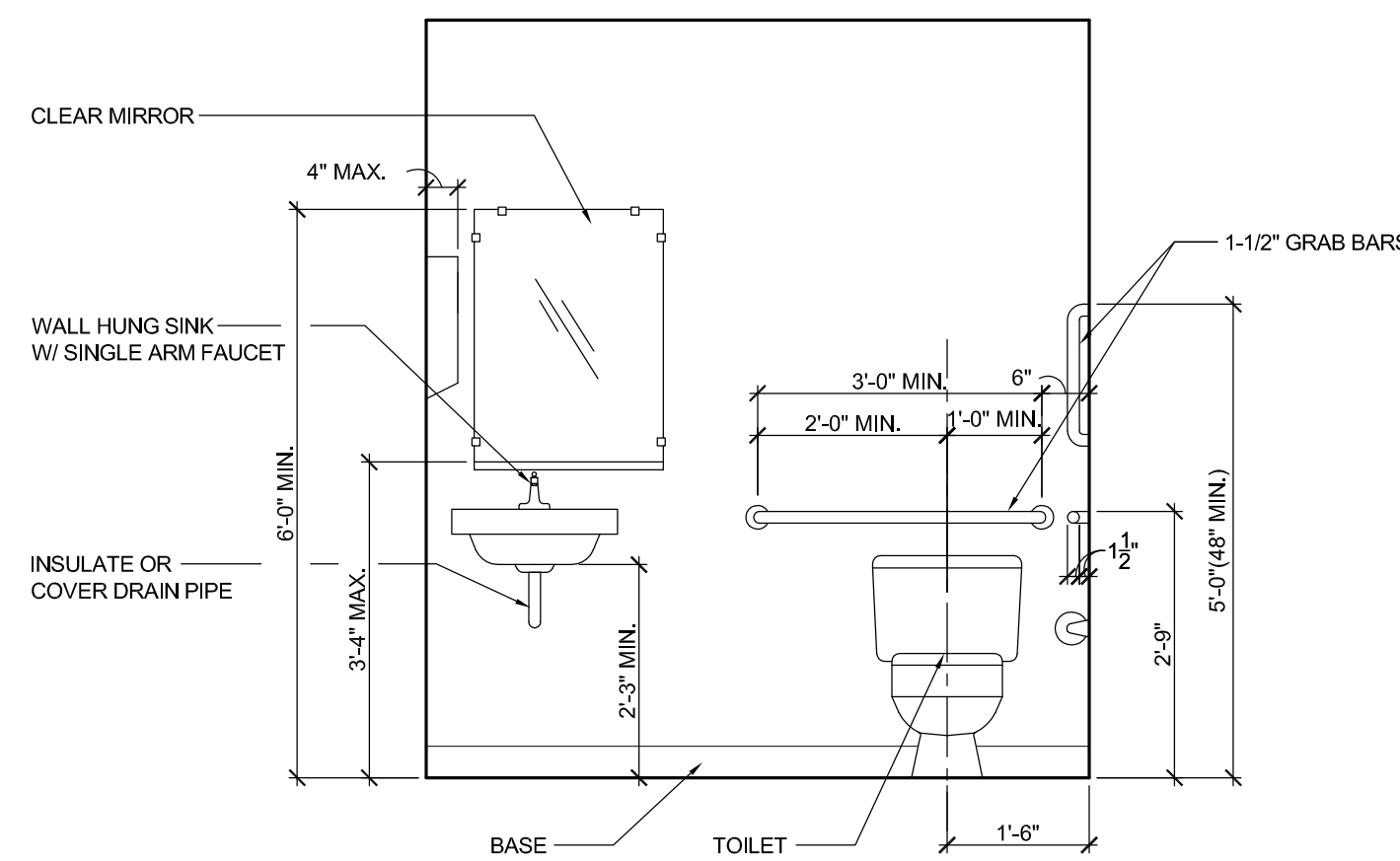
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ISSUANCES

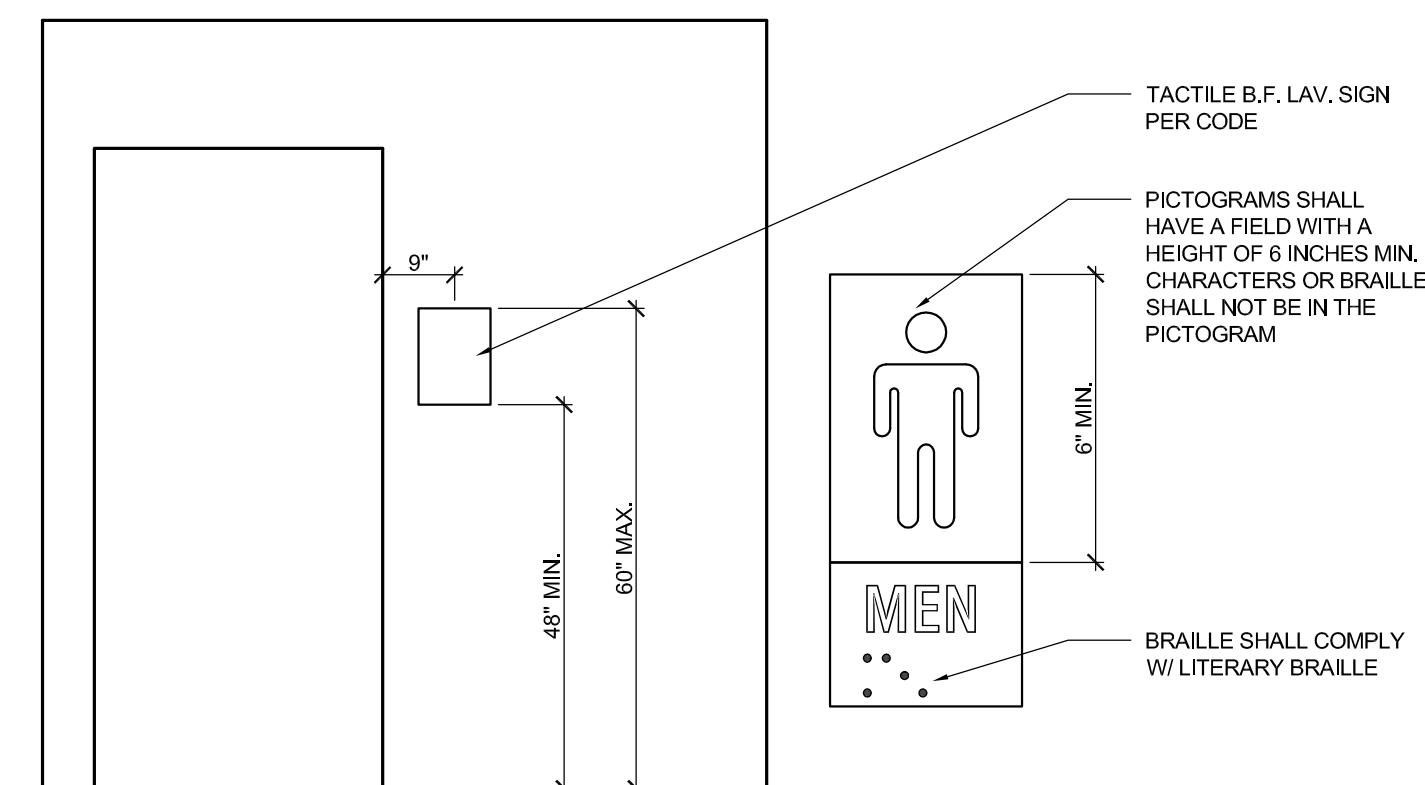
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1	PERMIT SUBMISSION	04/18/22



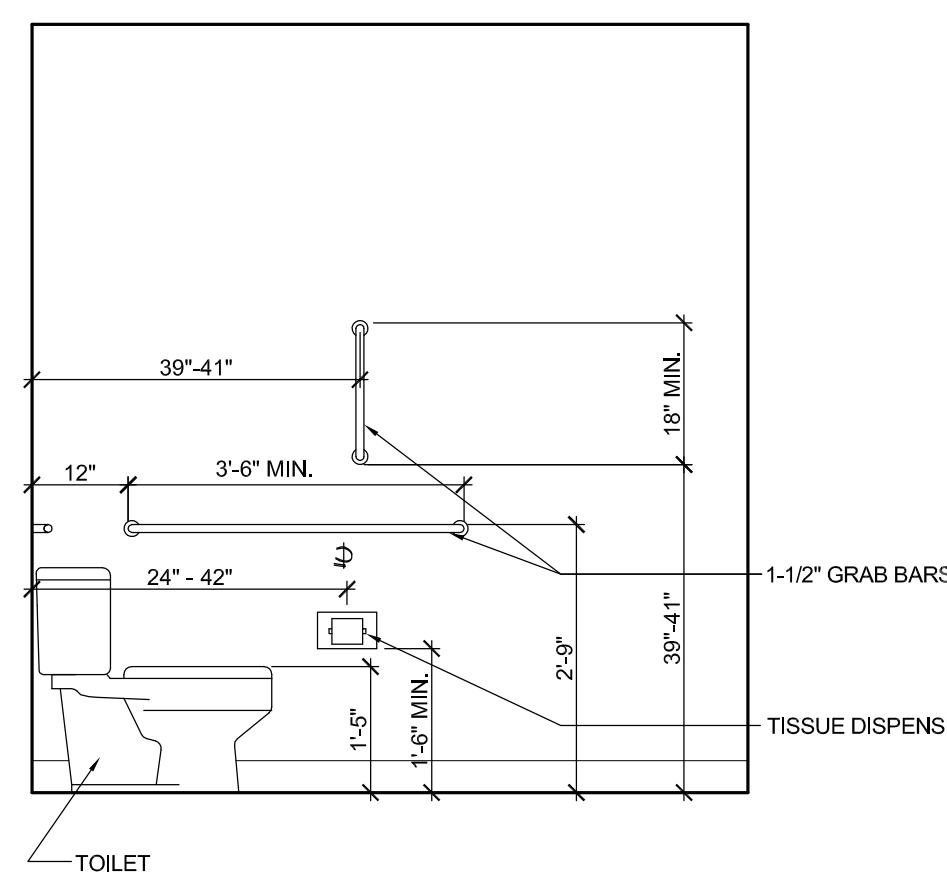
1 B.F. LAV. PLAN
SCALE: 1/2" = 1'-0"
NORTH



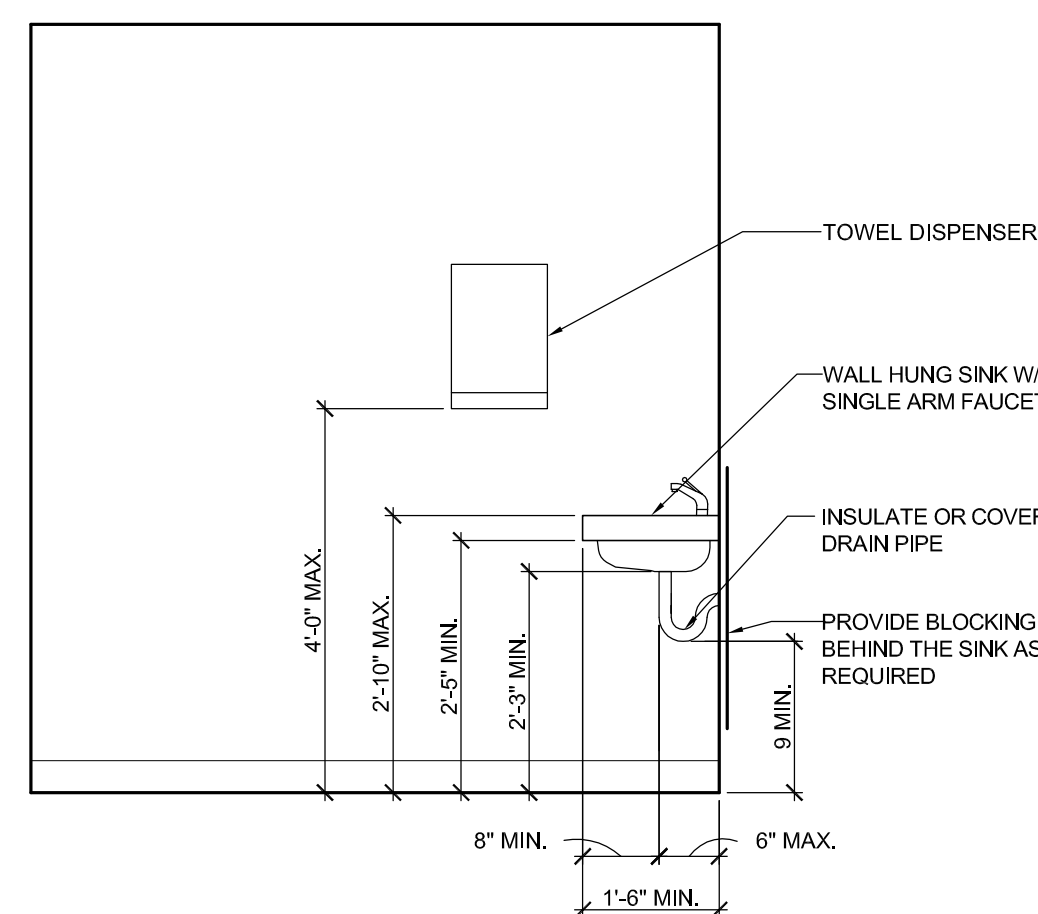
3 B.F. LAV. ELEVATION
SCALE: 1/2" = 1'-0"



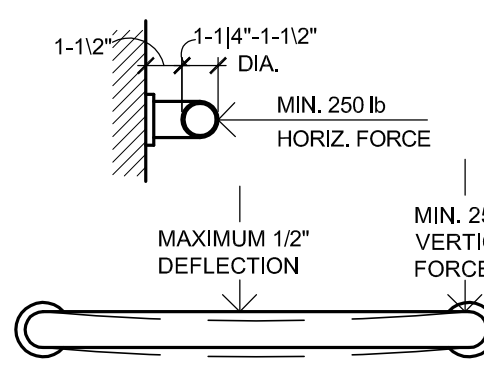
5 B.F. LAV. ELEVATION
SCALE: 1/2" = 1'-0"



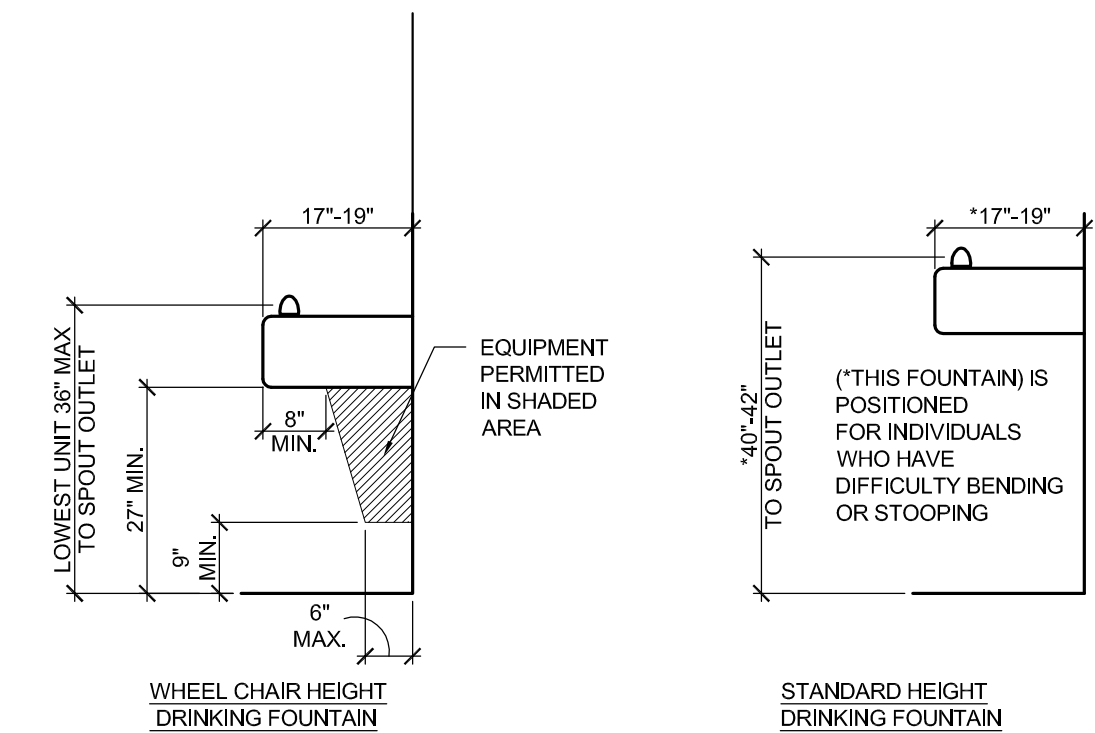
2 B.F. LAV. ELEVATION
SCALE: 1/2" = 1'-0"



4 B.F. LAV. ELEVATION
SCALE: 1/2" = 1'-0"



6 GRAB BAR DETAILS
SCALE: 1 1/2" = 1'-0"



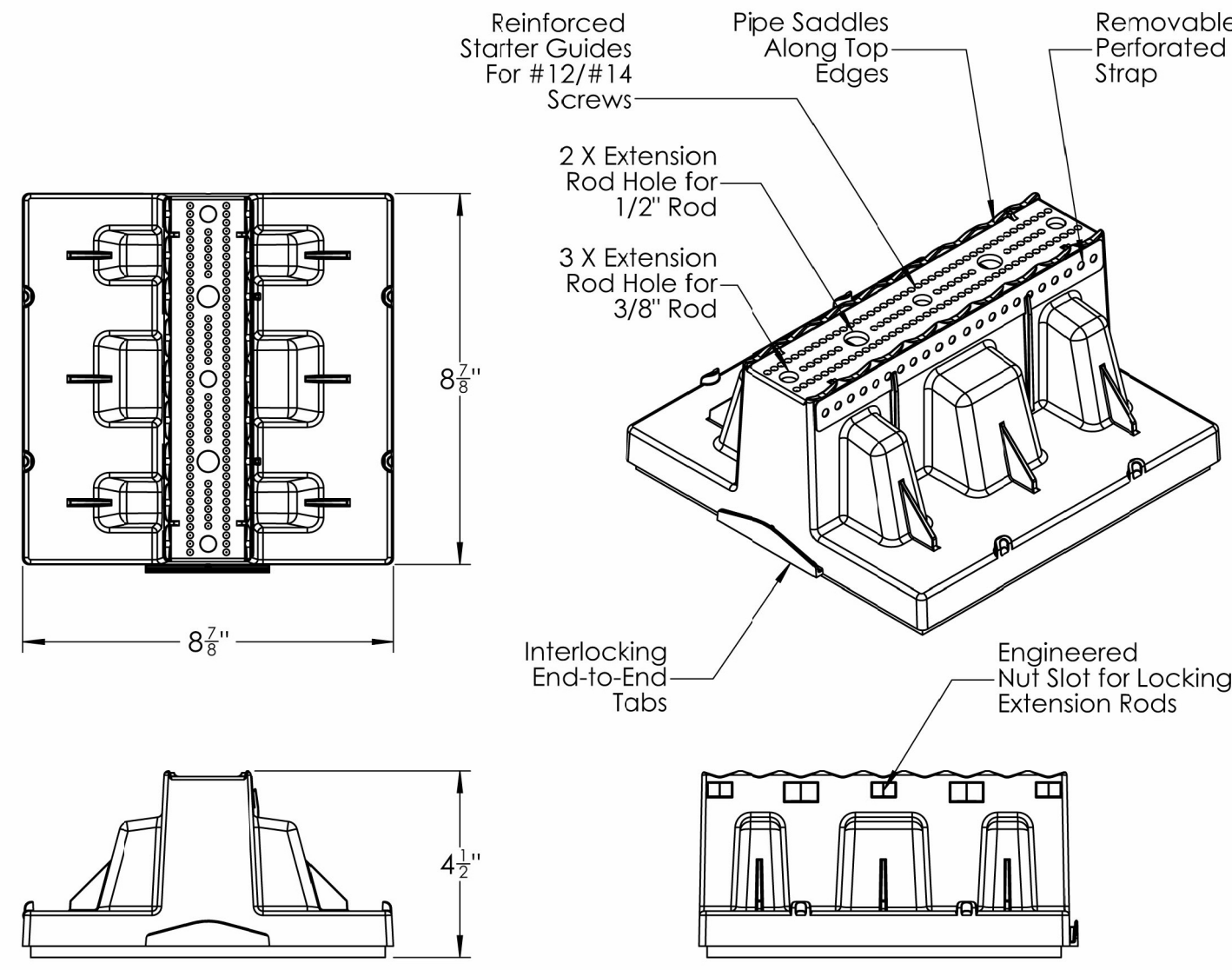
7 DRINKING FOUNTAIN ELEVATION
SCALE: 1/2" = 1'-0"

SHEET TITLE
BATHROOM DETAILS

DWG. NO.
A1.2.1

010 Roof Top Blox - RTB-01

BILL OF MATERIALS			
COMPONENT	PART NUMBER	QTY.	JOB QTY
Roof Top Blox	RTB-01	1	

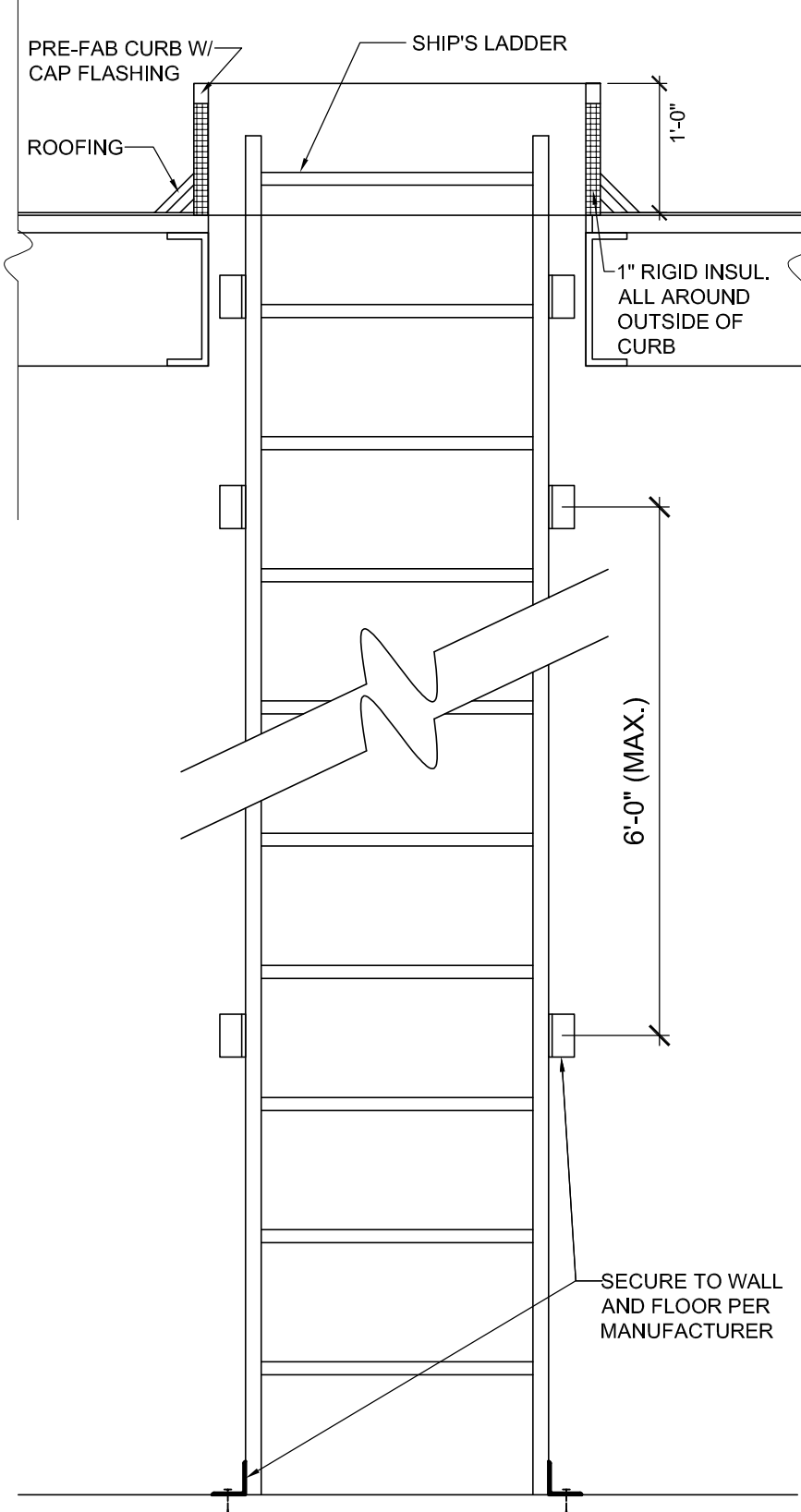


NOTE: ALL GAS PIPING ON ROOF SHALL BE COATED W/ RUST INHIBITIVE PAINT

1. Remove all loose gravel under Roof Top Blox base
 2. Space Blox every 7' along piping system
 3. Install piping system low on Blox for best stability
 4. Maximum 14' overall piping height on single Blox
 5. Use rollers on long pipe runs for thermal expansion
 6. Maximum temperature rating is 200°F/93°C
 7. Use STR-04 strut for point loads over 250lb/113kg
 8. Use 120 lb max torque and locate on Blox center nuts
 9. Use SCB-07 brackets to secure Blox in final position
 10. Check membrane (Mg. and adhesive compatibility)
 11. Check local codes and regulations prior to installation

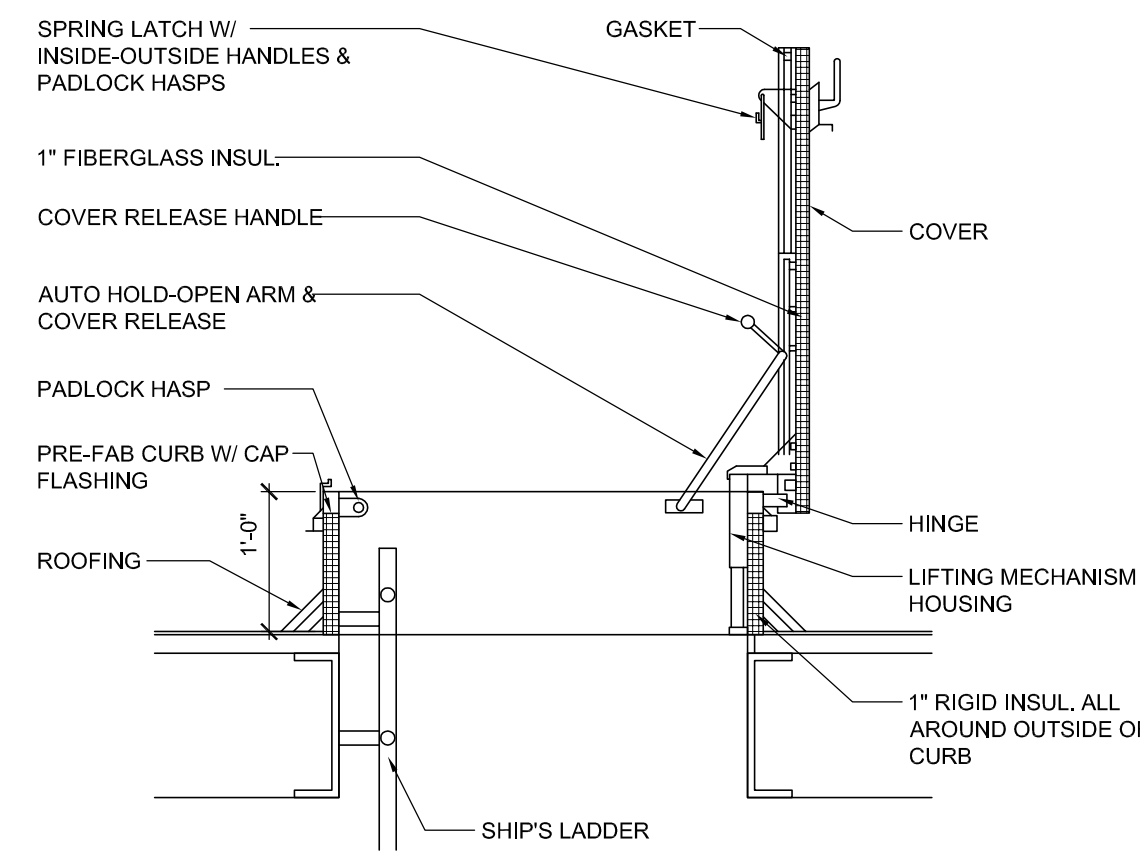
Specification:
 Roof top support blocks for gas piping, plumbing, HVAC, conduit, cable tray, and mechanical equipment shall be **Roof Top Blox (RTB-01)**. The support Blox must be designed to eliminate roof penetrations, flashing or damage to roofing membranes. Support body shall be made of recycled UV-resistant Polypropylene Copolymer. Base platform material shall be 1" thick, zinc-plated, type 4 closed cell structural foams to distribute and evenly cushion loads. Support top surface shall have molded-in pipe engaging saddles and strut mounting cradles. The top surface shall also have screw guide rods (ROD-03) using side-entry nut slots to allow fast top side assembly and piping height adjustments. Aluminum rollers (ROL-05 or ROL-06) shall be installed on long piping runs. Securing brackets (SCB-07) and adhesive (ADH-12) recommended for permanently securing Blox into its final installed position, anchoring against wind, rain and snow loads.

Roof Top Blox
 Adjustable Piping Support
 US PAT. 7,791,131 CAN. PAT. 2,675,158
 RTB-01
 Max Load Per Blox: Single Point: 250 lb/113 kg
 Dual Point or Strut-Mounted Load: 350 lb/158 kg
 P: (860) 979-0345 www.rooftopblox.com
 F: (860) 871-9218 info@rooftopblox.com

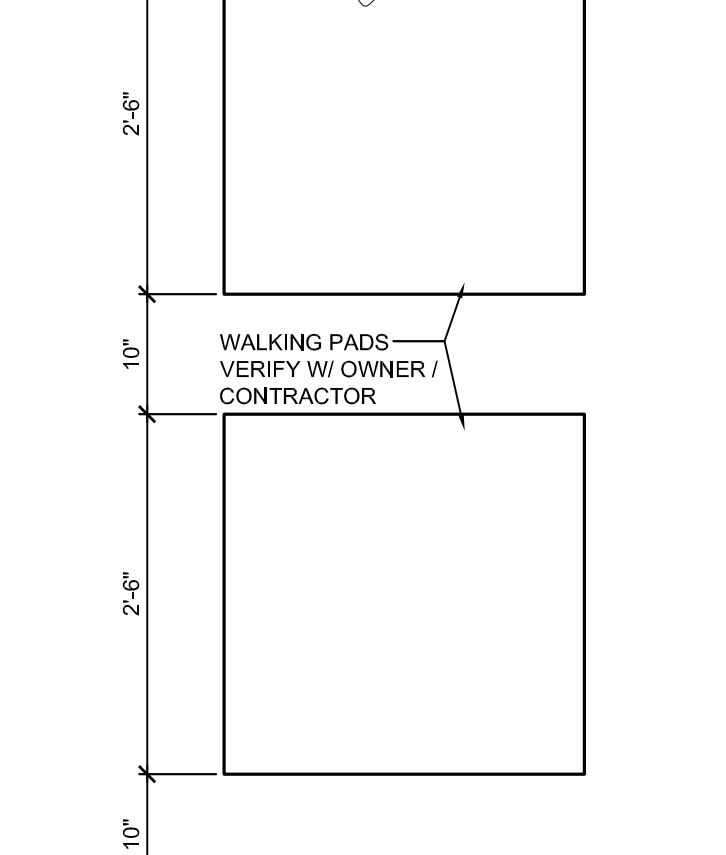


NOTE: MANUFACTURER TO COMPLY WITH ALL CODE REQUIREMENTS

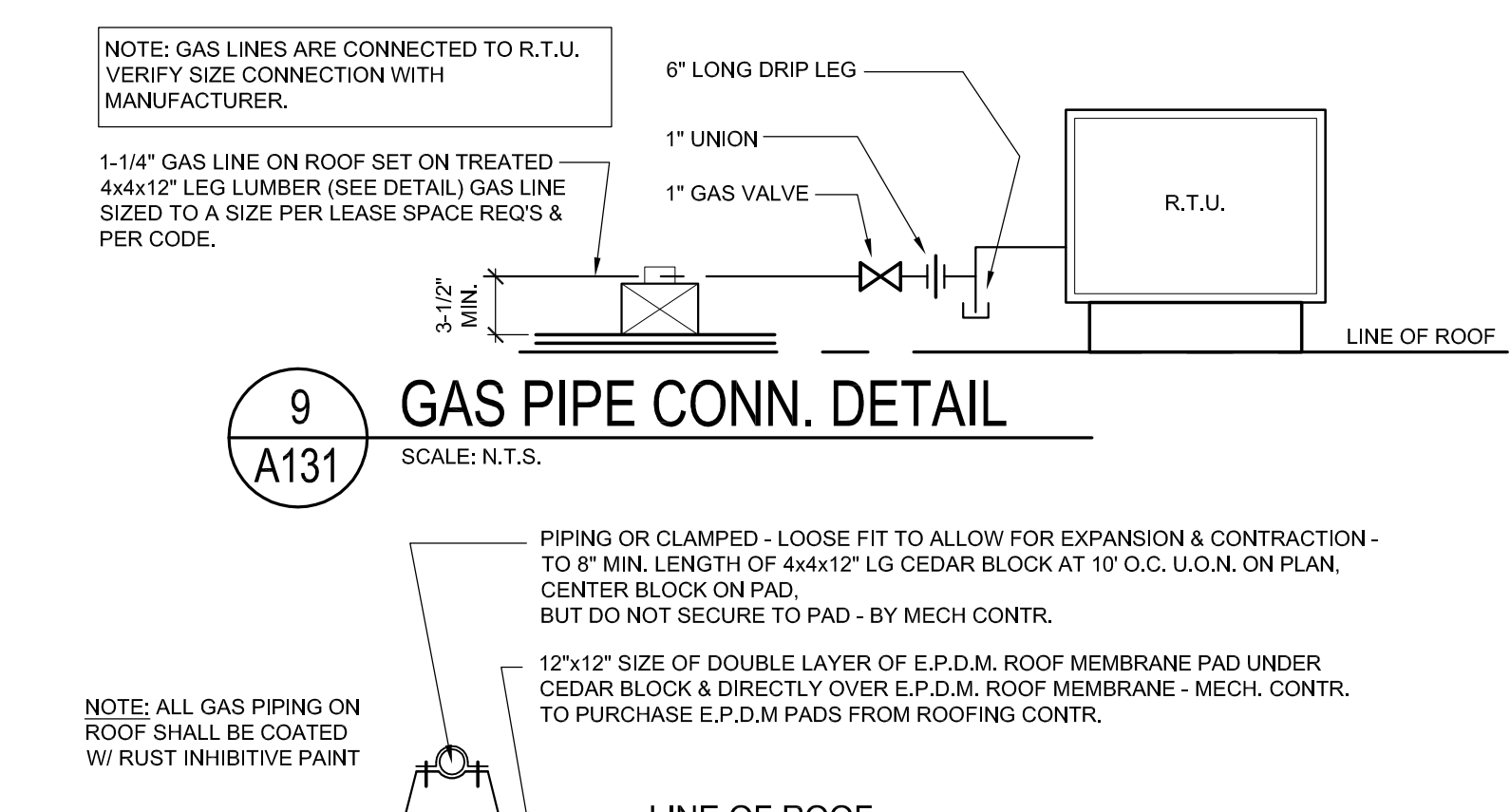
6 ROOF SCUTTLE / LADDER SECTION
 SCALE: 3/4" = 1'-0"



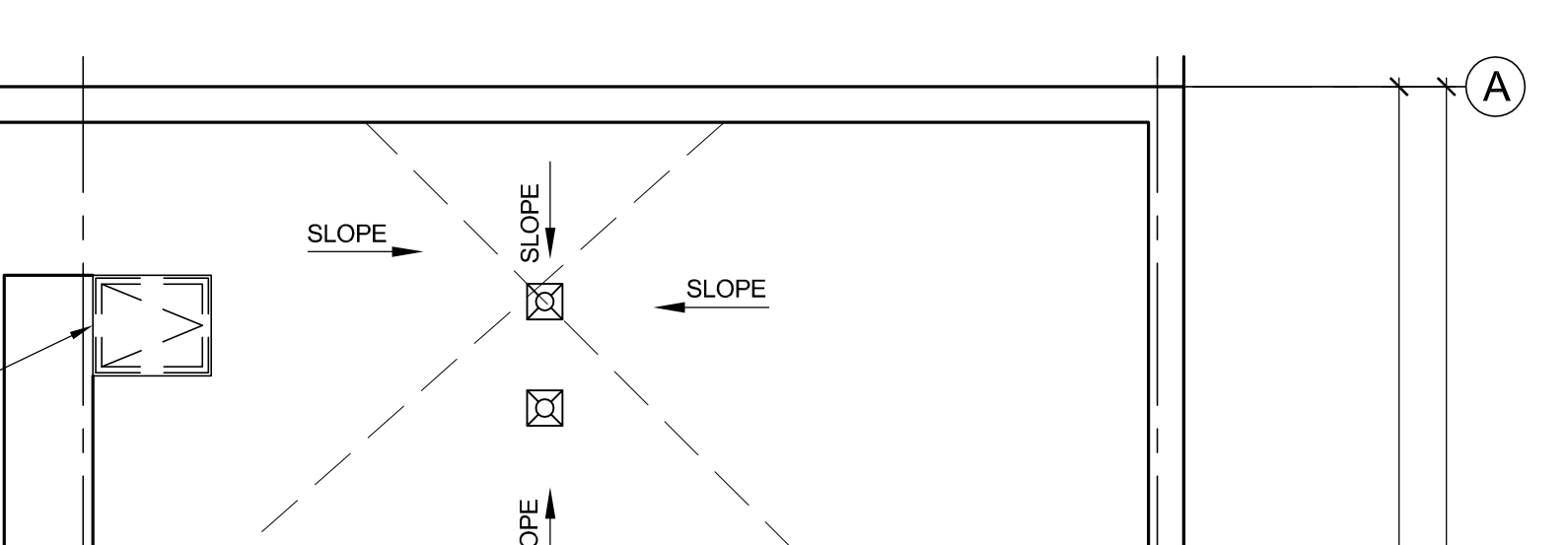
7 ROOF SCUTTLE SECTION
 SCALE: 3/4" = 1'-0"



8 WALKING PAD DETAIL
 SCALE: 3/4" = 1'-0"

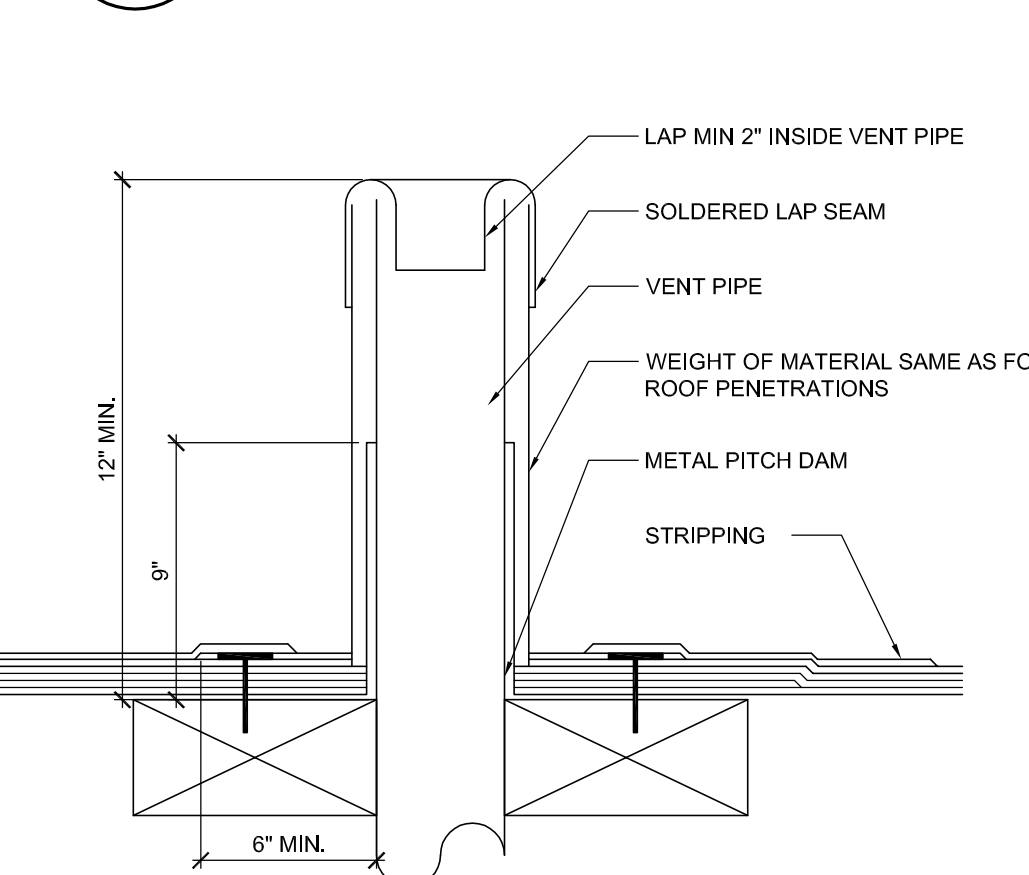


9 GAS PIPE CONN. DETAIL
 SCALE: N.T.S.

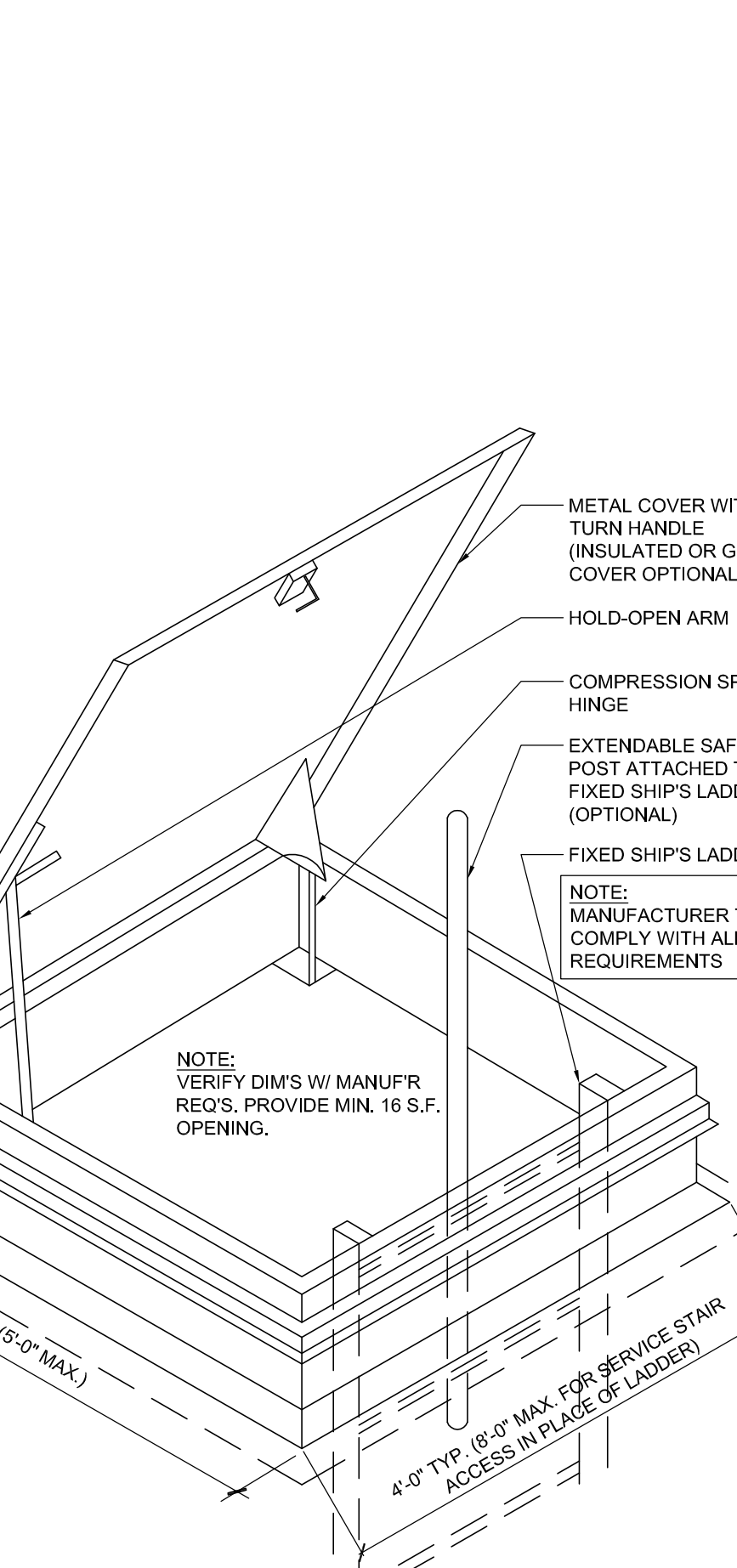


10 GAS PIPE SUPPORT DETAIL
 SCALE: N.T.S.

4 GAS PIPE SUPPORT DETAIL
 SCALE: N.T.S.

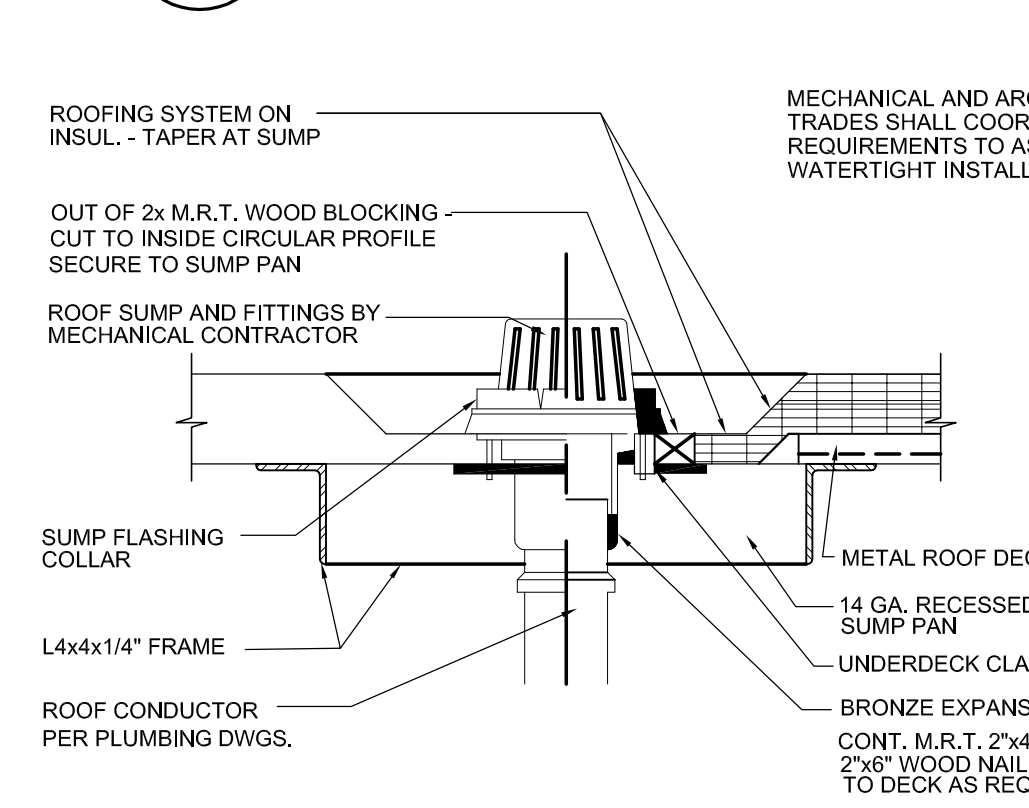


6 ROOF SCUTTLE / LADDER SECTION
 SCALE: 3/4" = 1'-0"

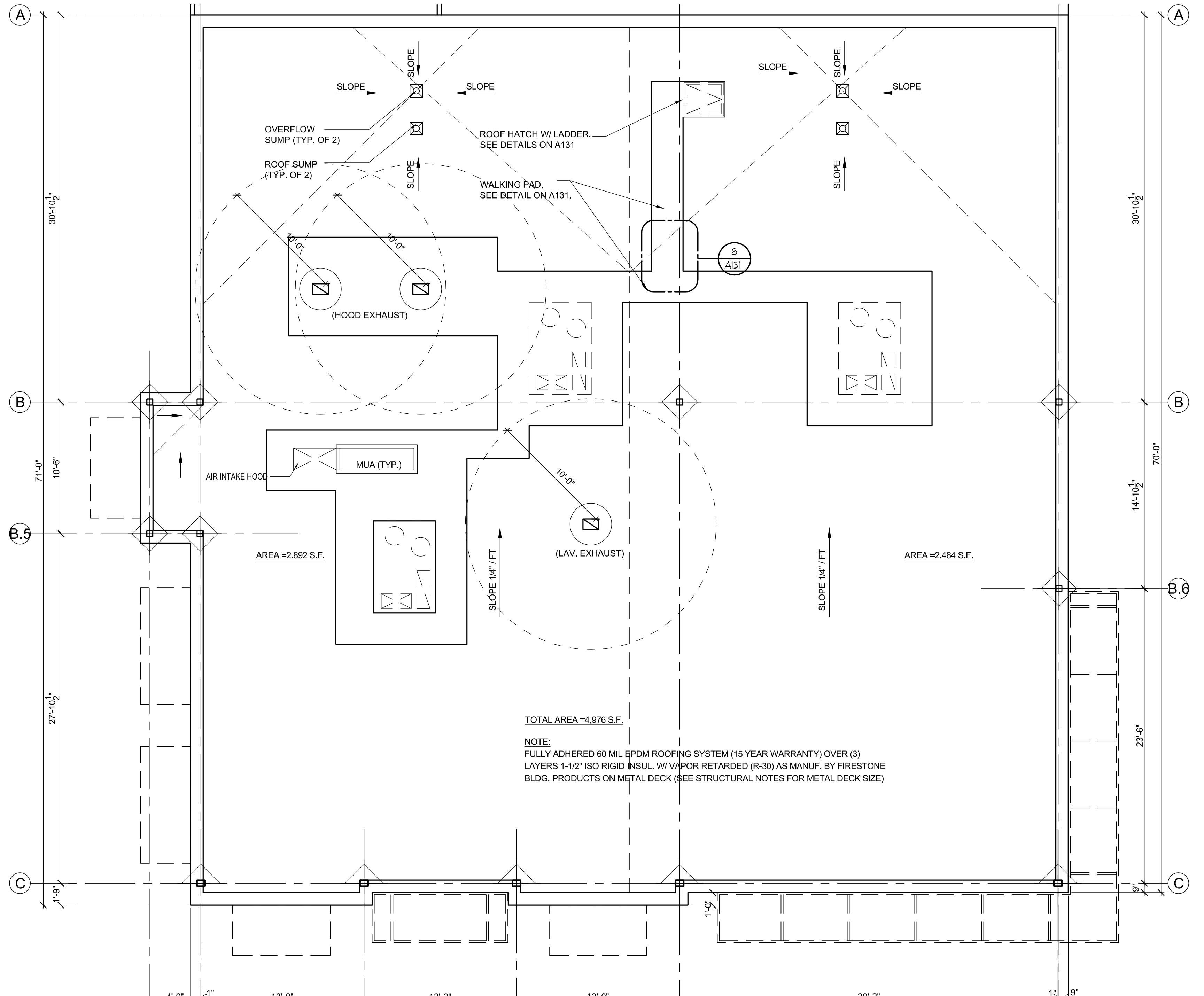


5 ROOF SCUTTLE DETAIL
 SCALE: 3/4" = 1'-0"

3 PIPE FLASHING DETAIL
 SCALE: N.T.S.



2 TYPICAL PLAN SUMP DETAIL
 SCALE: N.T.S.



1 ROOF PLAN
 SCALE: 1/8" = 1'-0"

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SHEET TITLE
ROOF PLAN

DWG. NO.
A1.3.1



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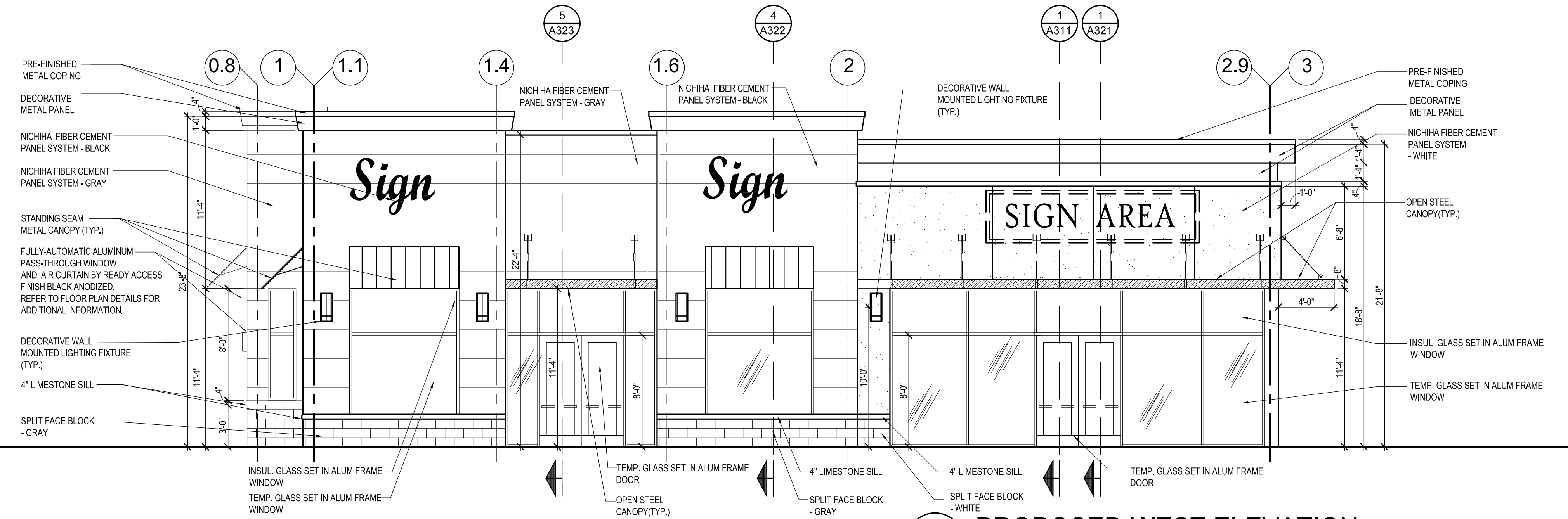
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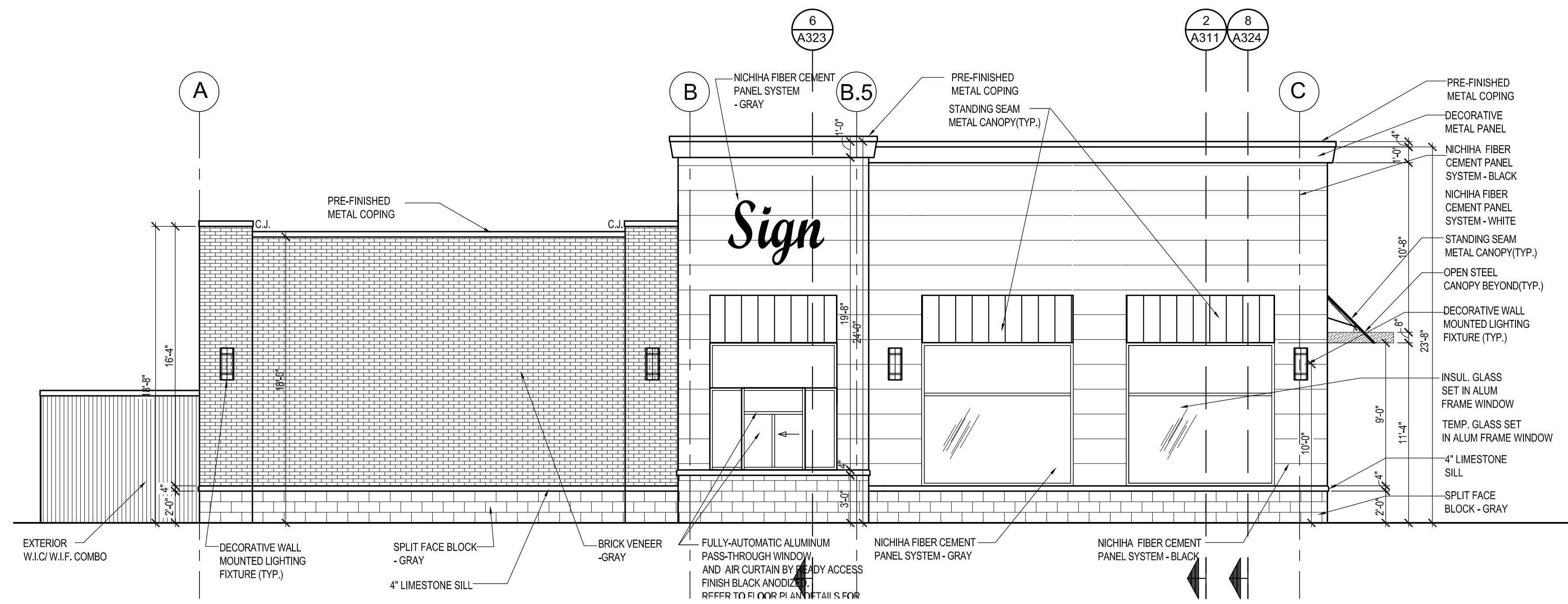
SHEET TITLE
**BUILDING
 ELEVATIONS**

DWG. NO.
A2.0.1

WEST ELEVATION FACADE AREA: 1,644 SQ.FT
 FENESTRATION AREA: 584 SQ.FT.
 TOTAL FENESTRATION AREA: 35.5%
 METAL PANEL AREA: 92 SQ.FT
 TOTAL METAL PANEL AREA: 5%



1 PROPOSED WEST ELEVATION
 SCALE: 3/16" = 1'-0"



2 PROPOSED NORTH ELEVATION
 SCALE: 3/16" = 1'-0"

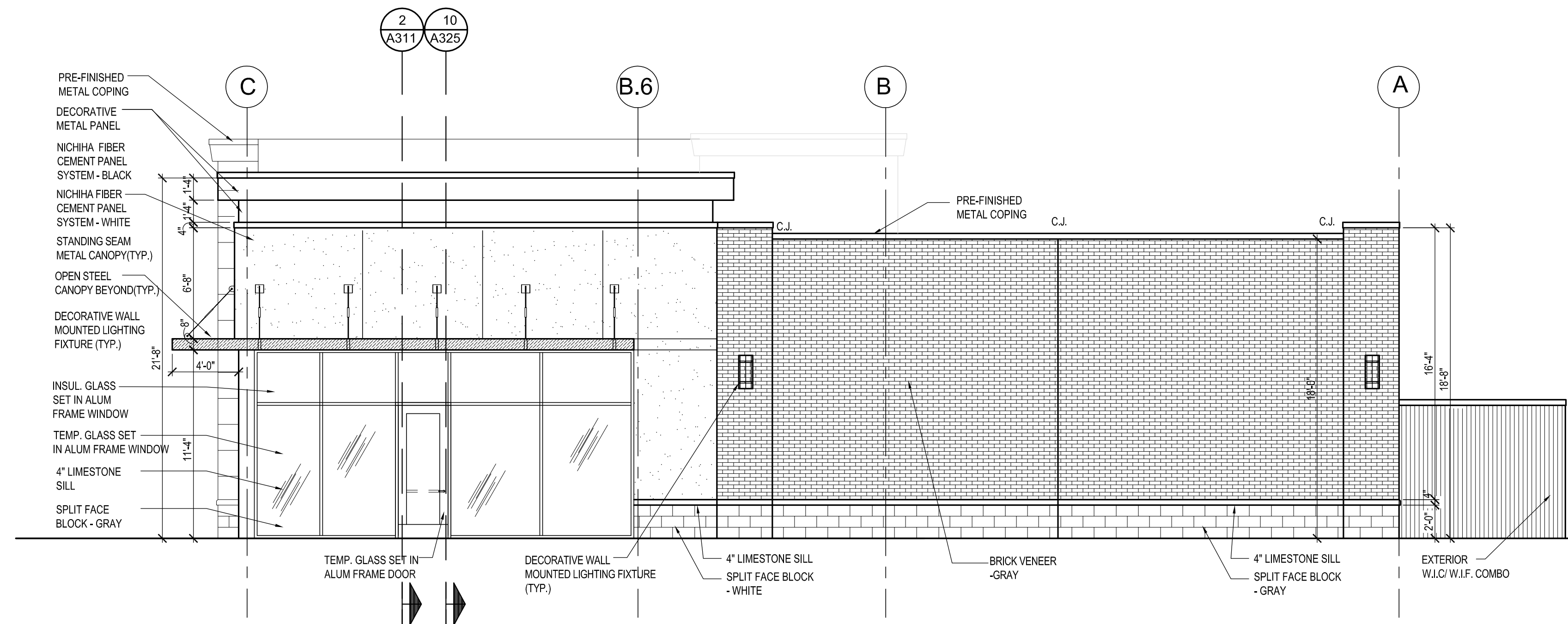


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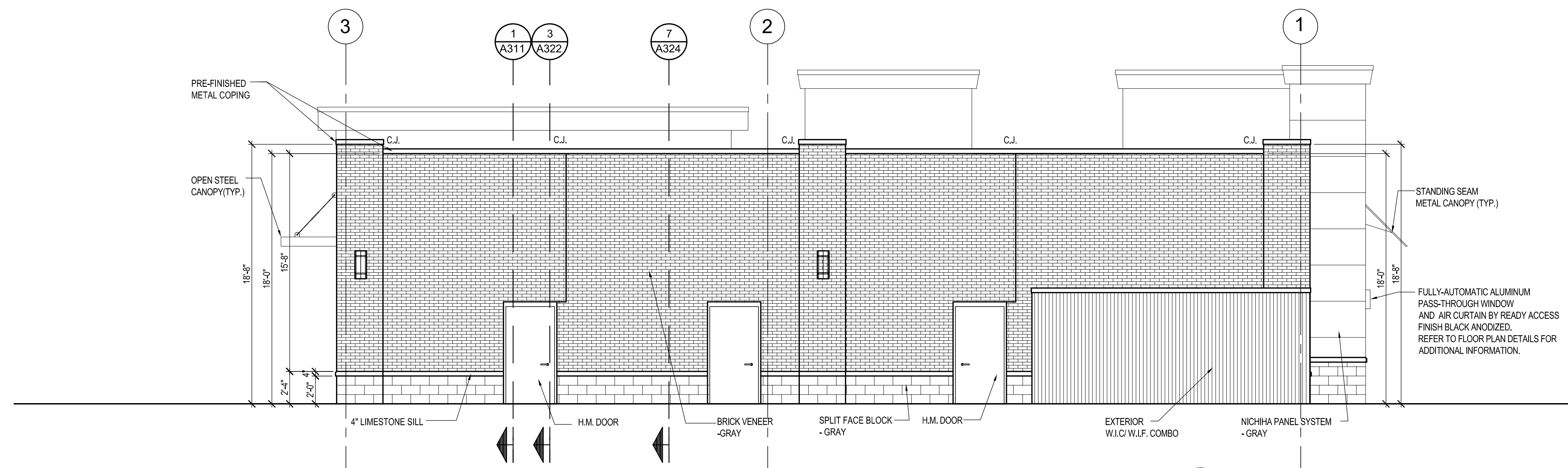
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3 PROPOSED SOUTH ELEVATION
 A202 SCALE: 3/16" = 1'-0"



4 PROPOSED EAST ELEVATION
 A202 SCALE: 3/16" = 1'-0"

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 CONSTRUCTION

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ISSUANCES		
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SHEET TITLE
 BUILDING
 ELEVATIONS

DWG. NO.

A2.0.2



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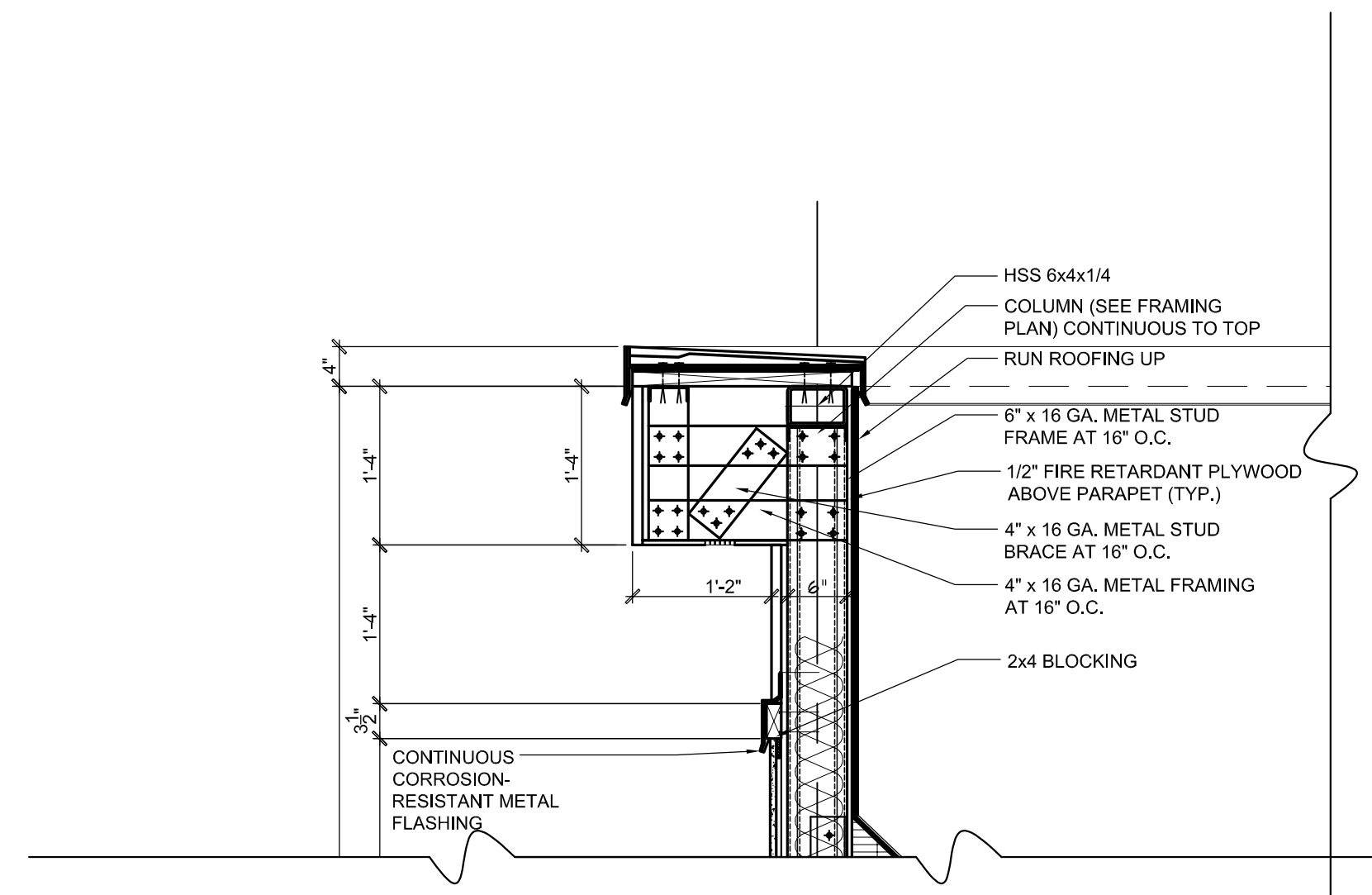
ISSUANCES

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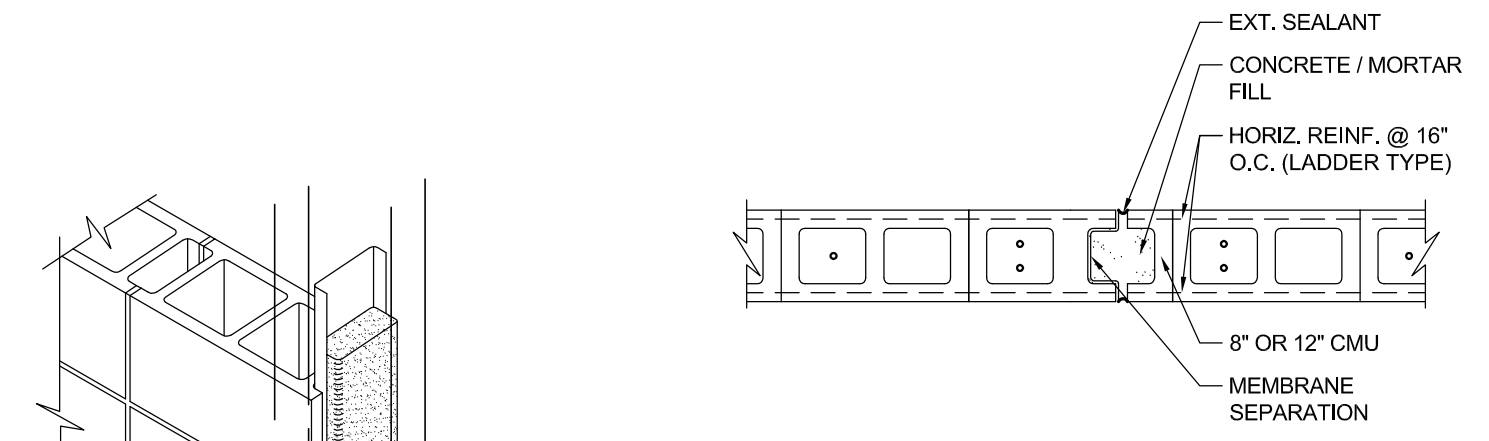
SHEET TITLE
 BUILDING
 SECTIONS

DWG. NO.

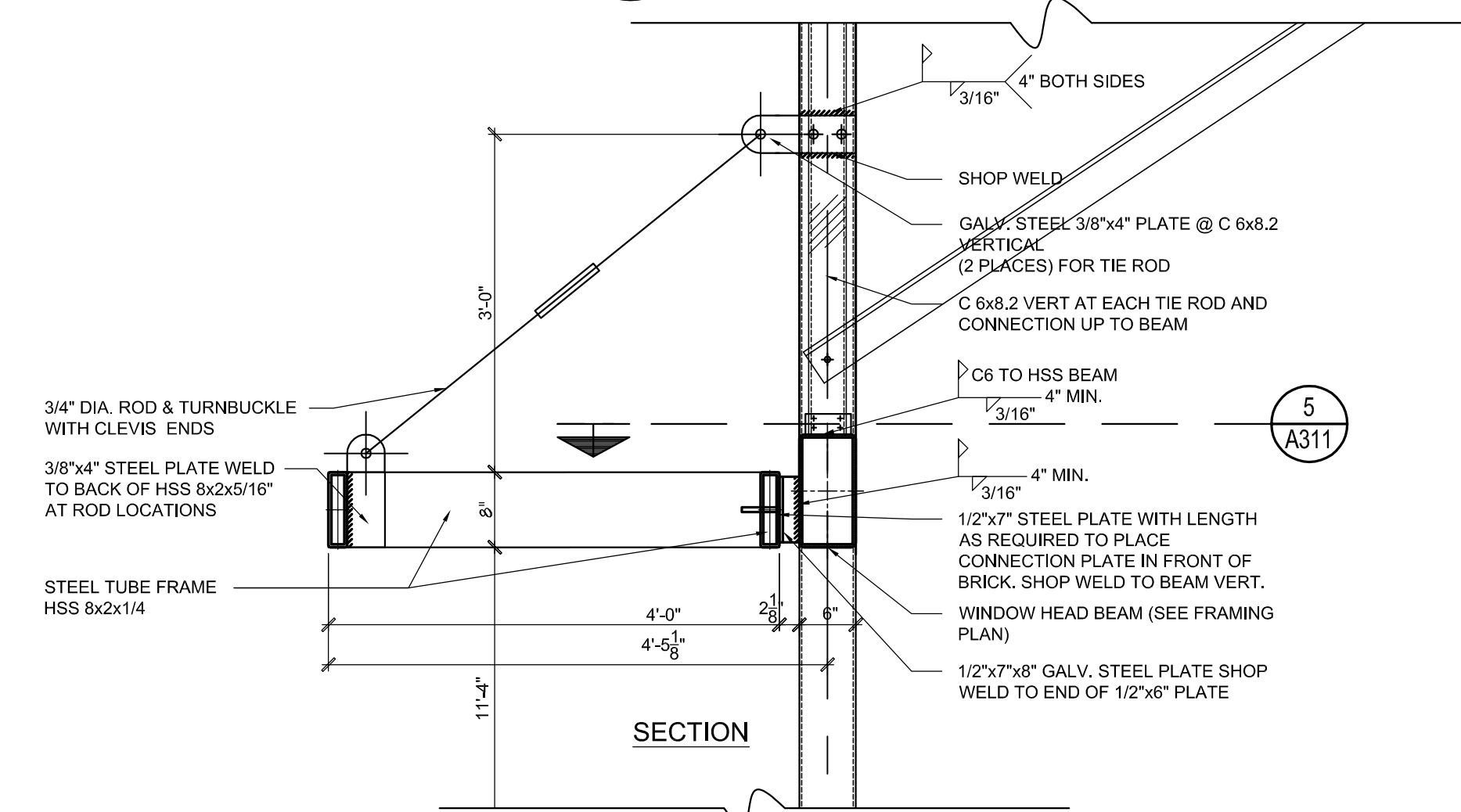
A3.1.1



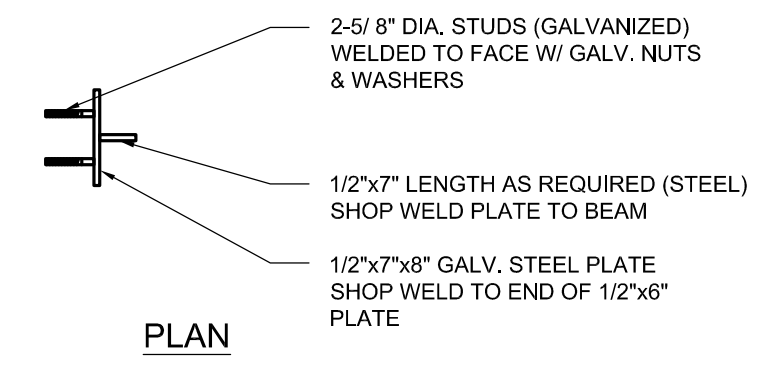
7 WALL SECTION DETAIL
 SCALE: 3/4" = 1'-0"



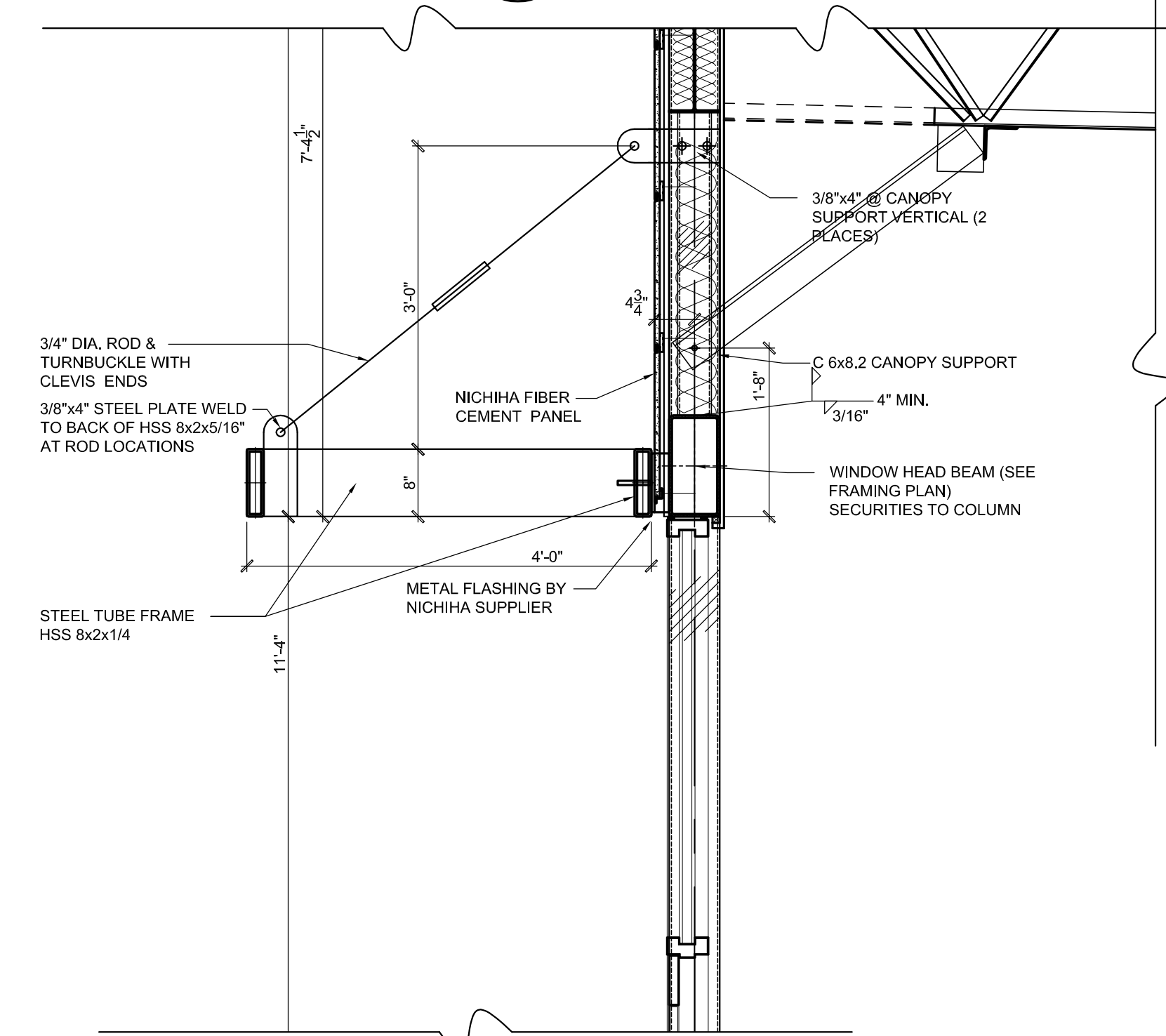
6 MASONRY CONTROL JOINT
 SCALE: 3/4" = 1'-0"



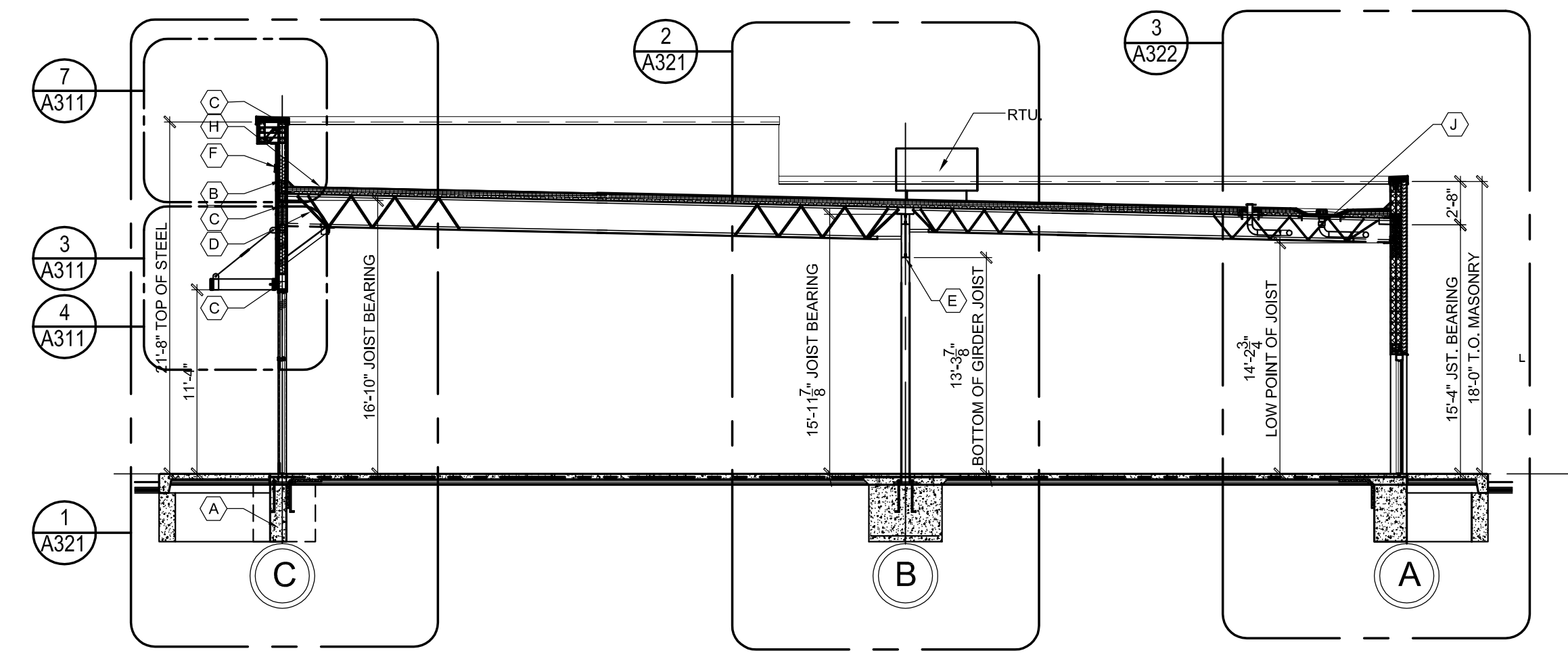
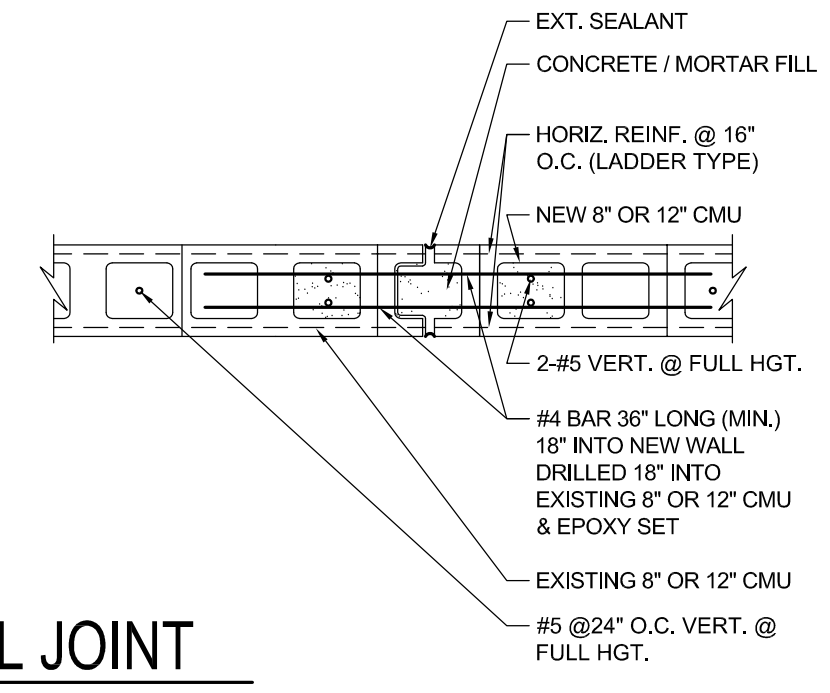
3 CANOPY STEEL DETAIL
 SCALE: 3/4" = 1'-0"



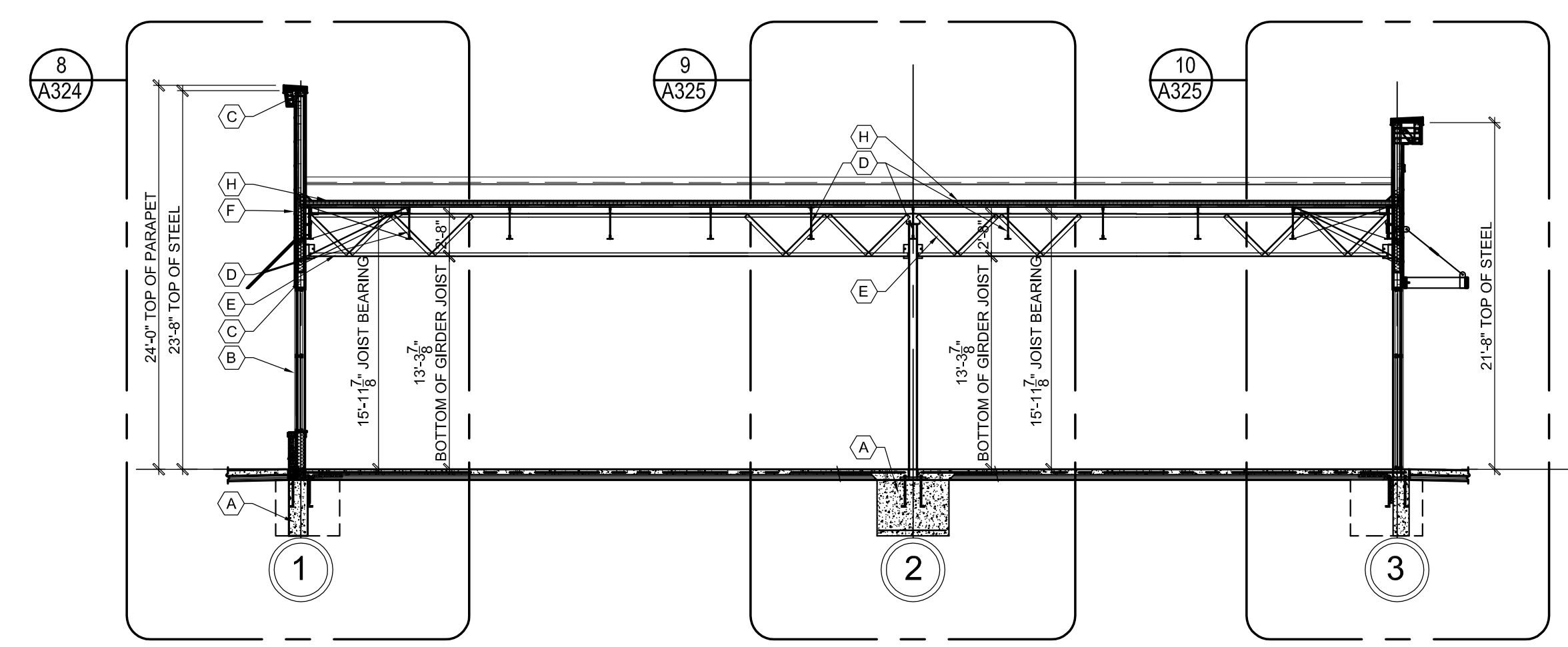
5 CANOPY DETAIL
 SCALE: 3/4" = 1'-0"



4 CANOPY DETAIL
 SCALE: 3/4" = 1'-0"



1 BUILDING SECTION
 SCALE: 1/8" = 1'-0"



2 BUILDING SECTION
 SCALE: 1/8" = 1'-0"



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ISSUANCES

NO	DESCRIPTION	DATE
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SHEET TITLE
SECTIONS

DWG. NO.

A3.2.1

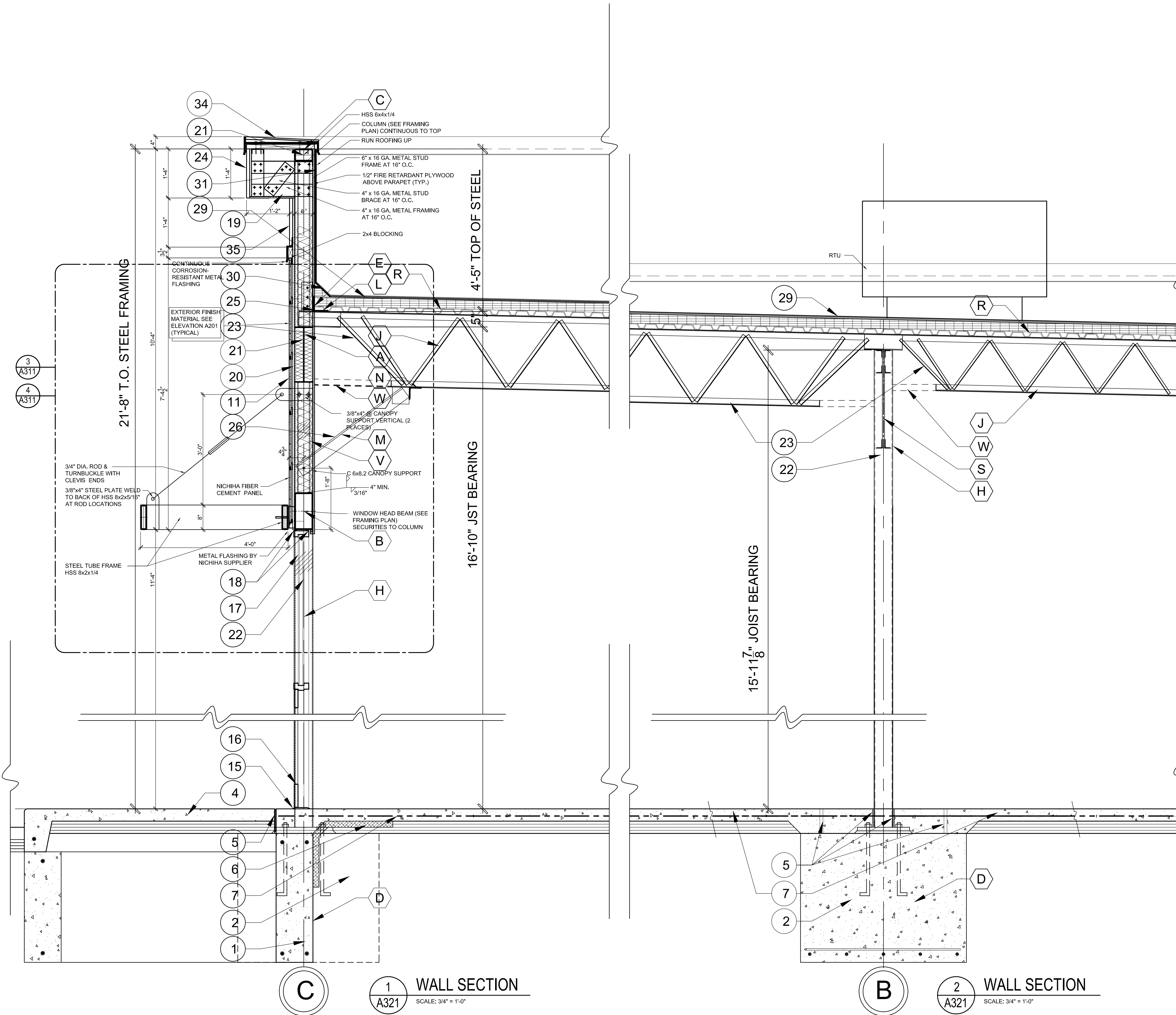
BUILDING SECTION STRUCTURAL KEYED NOTES:

- (A) ROOF BEAM SEE FRAMING PLAN
- (B) WINDOW HEAD BEAM PER PLAN
- (C) 6"x16 GA. METAL STUDS FRAME @ 16" O.C. HSS 6x4x1/4" CONT. TOP
- (D) FOOTING. SEE FOUNDATION PLAN.
- (E) PROVIDE CLIP L FASTENED TO STEEL BEAM OR PERIMETER ANGEL WITH MINIMUM 3 SCREWS
- (F) NOT USED
- (G) CLIP AT EACH L.G-STUD TO BEAM WEB
- (H) COLUMN (SEE FRAMING PLAN)
- (J) JOIST (SEE FRAMING PLAN)
- (K) 3/8" PLATE CONNECTION WITH 2-3/4" DIA. BOLTS FROM BEAM WEB TO EACH FRAME VERTICAL
- (L) CONTINUOUS L4x4x1/4 WELDED TO JOIST ENDS OR ALONG BEAM w/ CLIP L CONNECTION TO FRAME SEE FRAMING PLAN
- (M) L4x4x1/4 BRACE TO VERTICAL TIE (V)
- (N) L4x4x1/4 BETWEEN JOIST FOR BRACE CONNECTION w/ CLIP ANGLE LOCATE @ BOTTOM CHORD PANEL POINT.
- (P) CONT. L4x4x1/4 WITH 1/2" DIA. BOLTS @ 24" O.C. TO WALL
- (Q) CONTINUOUS L5x5x3/8" SECURED ON BACK OF METAL FRAME.
- (R) ROOF DECK: 1-1/2" 22GA, TYPE B, 3 SPAN MIN.
- (S) STEEL GIRDER TRUSSES.
- (T) CONT. L4x4x1/4 WITH 1/2" DIA. BOLTS @ 24" O.C. WELD TO BEAM OR JOIST PARALLEL TO WALL AT 24" O.C. OR TO JOIST ENDS AT CROSSING.
- (U) BOND BEAM WITH 2-#5 BARS TOP & BOTTOM
- (V) VERT. TIE AT MID POINT OF BEAMS W/ HSS6x4x1/4"
- (W) EXTEND JOIST BOTTOM CHORD @ COL. LINES ONLY. CONNECT TO THE STEEL COL. OR BLOCK WALL WITH A CLIP ANGLE.
- (X) L4x4x1/4 DIAGONAL BRACE @ EACH JOIST WITH 4" DIA. STUB. COL. WELDED TO TOP CHORD OF JOIST @ PANEL POINT. WITH CLIP L ON TOP FOR BRACE CONNECTION.
- (Y) #5 DOWELS PER WALL REINF. SCHEDULE
- (Z) WALL REINFORCED PER SCHEDULE

BUILDING SECTION ARCHITECTURAL KEYED NOTES:

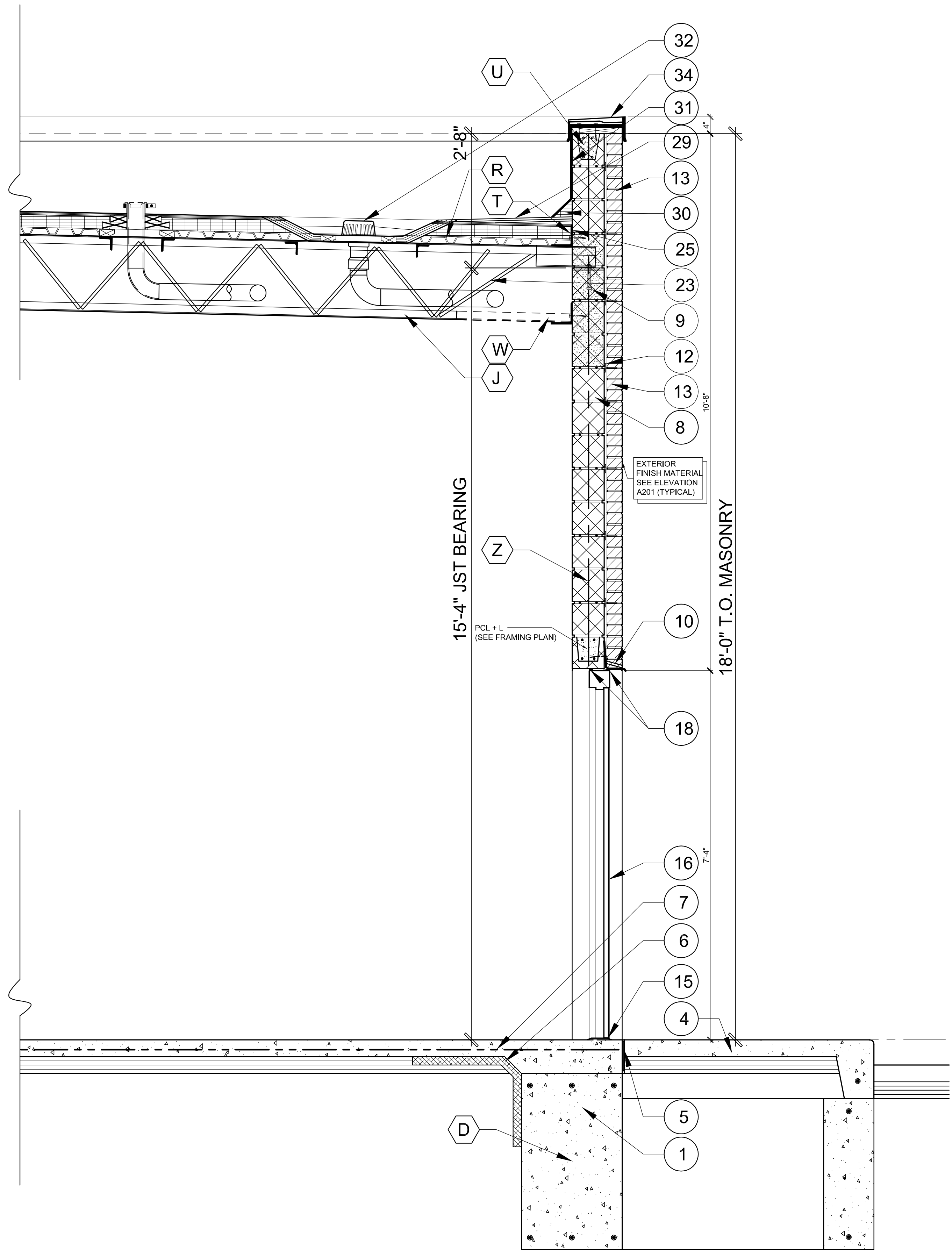
- (1) CONC. TRENCH FOOTING (SEE FOUNDATION PLAN AND DETAILS FOR MORE INFO.)
- (2) COLUMN FOOTING (SEE FOUNDATION PLAN FOR INFO)
- (3) PROVIDE DOWELS (SEE FRAMING ELEVATIONS FOR DETAILS)
- (4) CONC. WALK PITCH 1/4" PER FOOT.
- (5) 1/2" EXP. JOINT.
- (6) 2"x24" RIGID INSULATION @ PERIMETER
- (7) 4" CONC. SLAB OVER 6#6 REINF. W.W.F. OVER 6 MIL VAPOR BARRIER (LAP MINIMUM 6") OVER 4" COMP. SAND.
- (8) 6" OR 12" CMU W/ HORIZ. REINF. @ 16" O.C. (LADDER TYPE) FOAM INSUL. CORE FILLED.
- (9) GROUT COURSES AS SHOWN.
- (10) CONTINUOUS CORROSION-RESISTANT METAL FLASHING WITH WEEP HOLES @ 32" O.C.
- (11) 5/8" NICHHA FIBER CEMENT PANEL SYSTEM, 1/2" AIR SPACE, MOISTURE INFILTRATION BARRIER OVER 5/8" DENS GLASS OVER 6" BRICK FRAME @ 48" O.C. WITH 6" LIGHT GAGE METAL STUDS @ 16" O.C. W/ R-21 BATT INSULATION 5/8" G.W.B
- (11a) 3-5/8" SPLIT FACE BLOCK OR BRICK VENEER, AIR SPACE, MOISTURE INFILTRATION BARRIER OVER 5/8" DENS GLASS OVER 6" BRICK FRAME @ 48" O.C. WITH 6" LIGHT GAGE METAL STUDS @ 16" O.C. W/ R-21 BATT INSULATION 5/8" G.W.B
- (12) BRICK TIES 16" O.C. HORIZ. & VERT. TYPE
- (13) 3-5/8" BRICK VENEER
- (14) SPLIT FACE BLOCK
- (15) THRESHOLD MAX RISE 1/2"
- (16) DOOR (SEE DOOR SCHEDULE)
- (17) WINDOW (SEE ELEVATIONS FOR SIZE)
- (18) CONT. EXT. SEALANT
- (19) 4"x16 GA MTL. STUD FRAMING @ 16" O.C.
- (20) 5/8" DENS GLASS ON 4" MTL. STUD @ 16" O.C.
- (21) STEEL BEAM (SEE FRAMING FOR SIZES)
- (22) STEEL COLUMN (SEE FRAMING PLAN FOR SIZE)
- (23) STEEL JOIST (SEE FRAMING PLAN FOR SIZE)
- (24) DECORATIVE METAL PANEL (SEE ELEVATIONS)
- (25) STEEL ANGLE (SEE FRAMING PLAN FOR SIZE)
- (26) STEEL BRACE (SEE FRAMING PLAN FOR SIZE)
- (27) 3-5/8" (H) LIMESTONE SILL
- (28) NICHHA FIBER CEMENT PANEL SYSTEM
- (29) FULLY ADHERED 60 MIL EPDM ROOFING SYSTEM (15 YEAR WARRANTY) OVER (3) LAYERS 1-1/2" ISO RIGID INSUL. (COMPLY W/ ASTM C 1289, TYPE II, CLASS 1) W/ VAPOR RETARDED (R-30) AS MANUF. BY FIRESTONE BLDG. PRODUCTS ON METAL DECK (SEE STRUCTURAL NOTES FOR METAL DECK SIZE)
- (30) CANT.
- (31) RUN ROOFING UP AND RETURN UNDER THE COPING.
- (32) ROOF SUMP (SEE ROOF PLAN DETAIL)
- (33) 8"x16" VENTS @ 8'-0" O.C. (SEE ROOF PLAN)
- (34) 4" METAL COPING OVER 2x P.T. WOOD NAILED W/ ANCHORS @ 48" O.C. TO TOP OF BRICK FRAME OR STUD WALL
- (35) DECORATIVE METAL PANEL (SEE ELEVATIONS) OVER MOISTURE INFILTRATION BARRIER OVER FIRE RETARDANT PLYWOOD OVER 4"x16 GA METAL STUD FRAME @ 16" O.C.

NOTE:
 THE ANCHORED MASONRY VENEER SHALL CONFORM TO THE REQUIREMENTS OF SECTIONS 6.1 AND 6.2 OF TMS402/ACI 530/ASCE 5.

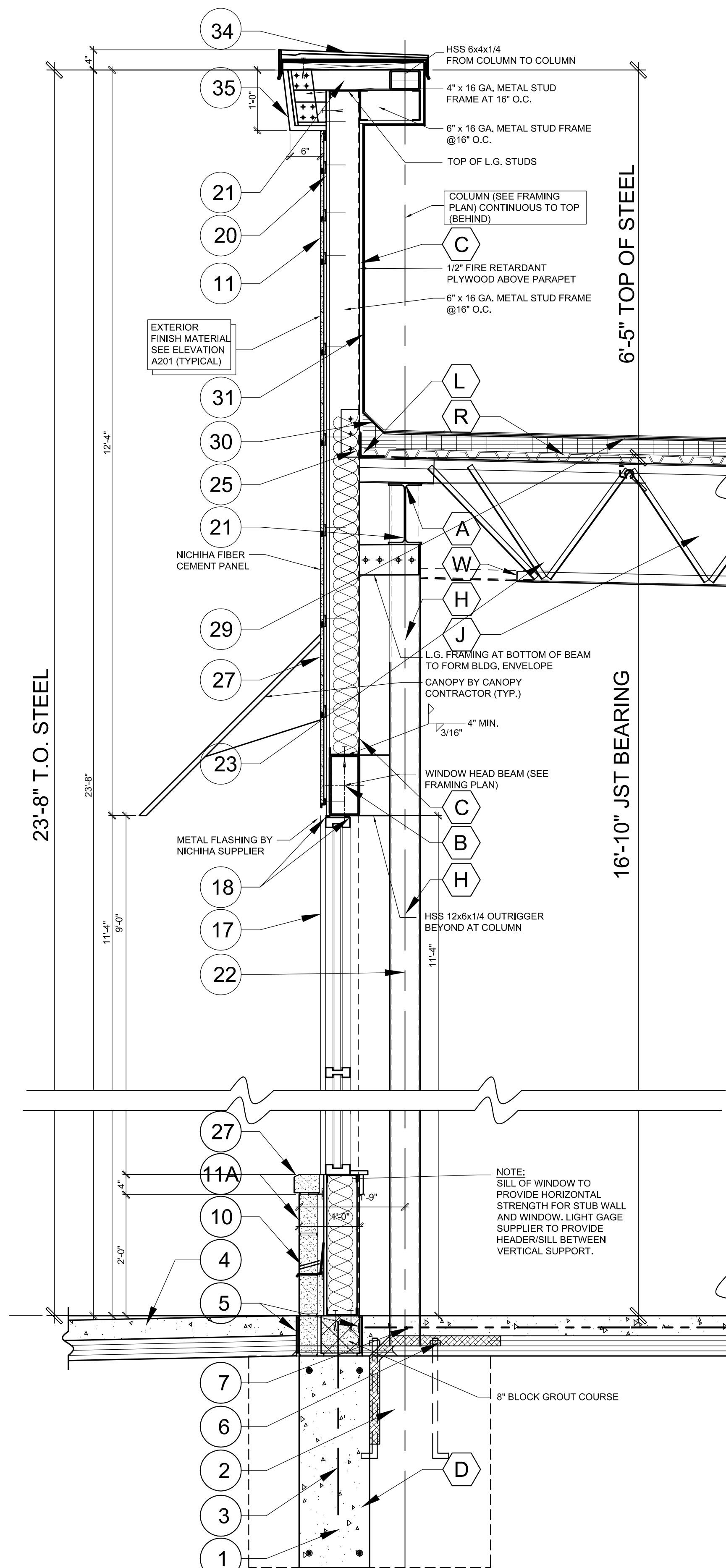


1 WALL SECTION
 A321 SCALE: 3/4" = 1'-0"

2 WALL SECTION
 A321 SCALE: 3/4" = 1'-0"



3 WALL SECTION
 SCALE: 3/4" = 1'-0"
 A322



4 WALL SECTION
 SCALE: 3/4" = 1'-0"
 A322

- BUILDING SECTION STRUCTURAL KEYED NOTES:**
- (A) ROOF BEAM SEE FRAMING PLAN
 - (B) WINDOW HEAD BEAM PER PLAN
 - (C) 6"x16 GA. METAL STUDS FRAME @ 16" O.C. HSS 6x4x1/4" CONT. TOP
 - (D) FOOTING, SEE FOUNDATION PLAN.
 - (E) PROVIDE CLIP L FASTENED TO STEEL BEAM OR PERIMETER ANGEL WITH MINIMUM 3 SCREWS
 - (F) NOT USED
 - (G) CLIP AT EACH L-G-STUD TO BEAM WEB
 - (H) COLUMN (SEE FRAMING PLAN)
 - (I) JOIST (SEE FRAMING PLAN)
 - (J) 3/8" PLATE CONNECTION WITH 2-3/4" DIA. BOLTS FROM BEAM WEB TO EACH FRAME VERTICAL
 - (K) CONTINUOUS L4x4x1/4 WELDED TO JOIST ENDS OR ALONG BEAM w/ CLIP L CONNECTION TO FRAME SEE FRAMING PLAN
 - (L) L4x4x1/4 BRACE TO VERTICAL TIE (V)
 - (M) L4x4x1/4 BETWEEN JOIST FOR BRACE CONNECTION w/ CLIP ANGLE LOCATE @ BOTTOM CHORD PANEL POINT.
 - (N) CONT. L4x4x1/4 WITH 1/2" DIA. BOLTS @ 24" O.C. TO WALL
 - (O) CONTINUOUS L5x5x3/8" SECURED ON BACK OF METAL FRAME.
 - (P) ROOF DECK: 1-1/2", 22GA, TYPE B, 3 SPAN MIN.
 - (Q) STEEL GIRDER TRUSSES.
 - (R) CONT. L4x4x1/4 WITH 1/2" DIA. BOLTS @ 24" O.C. WELD TO BEAM OR JOIST PARALLEL TO WALL AT 24" O.C. OR TO JOIST ENDS AT CROSSING.
 - (S) BOND BEAM WITH 2-#5 BARS TOP & BOTTOM
 - (T) VERT. TIE AT MID POINT OF BEAMS W/ HSS6x4x1/4"
 - (U) EXTEND JOIST BOTTOM CHORD @ COL. LINES ONLY, CONNECT TO THE STEEL COL. OR BLOCK WALL WITH A CLIP ANGLE.
 - (V) L4x4x1/4 DIAGONAL BRACE @ EACH JOIST WITH 4" DIA. STUB. COL. WELDED TO TOP CHORD OF JOIST @ PANEL POINT. WITH CLIP L ON TOP FOR BRACE CONNECTION.
 - (W) #5 DOWELS PER WALL REINF. SCHEDULE
 - (Z) WALL REINFORCED PER SCHEDULE

- BUILDING SECTION ARCHITECTURAL KEYED NOTES:**
- (1) CONC. TRENCH FOOTING (SEE FOUNDATION PLAN AND DETAILS FOR MORE INFO.)
 - (2) COLUMN FOOTING (SEE FOUNDATION PLAN FOR INFO)
 - (3) PROVIDE DOWELS (SEE FRAMING ELEVATIONS FOR DETAILS)
 - (4) CONC. WALK PITCH 1/4" PER FOOT.
 - (5) 1/2" EXP. JOINT.
 - (6) 2"x24" RIGID INSULATION @ PERIMETER
 - (7) 4" CONC. SLAB OVER 6#6 REINF. W.W.F. OVER 6 MIL. VAPOR BARRIER (LAP MINIMUM 6") OVER 4" COMP. SAND.
 - (8) 8" OR 12" CMU W/ HORIZ. REINF. @ 16" O.C. (LADDER TYPE) FOAM INSUL. CORE FILLED.
 - (9) GROUT COURSES AS SHOWN.
 - (10) CONTINUOUS CORROSION-RESISTANT METAL FLASHING WITH WEEP HOLES @ 32" O.C.
 - (11) 5/8" NICHHA FIBER CEMENT PANEL SYSTEM, 1/2" AIR SPACE, MOISTURE INFILTRATION BARRIER OVER 5/8" DENS GLASS OVER 6" BRICK FRAME @ 48" O.C. WITH 6" LIGHT GAGE METAL STUDS @ 16" O.C. W/ R-21 BATT INSULATION 5/8" G.W.B.
 - (11A) 3-5/8" SPLIT FACE BLOCK OR BRICK VENEER, AIR SPACE, MOISTURE INFILTRATION BARRIER OVER 5/8" DENS GLASS OVER 6" BRICK FRAME @ 48" O.C. WITH 6" LIGHT GAGE METAL STUDS @ 16" O.C. W/ R-21 BATT INSULATION 5/8" G.W.B.
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 - (15) THRESHOLD MAX RISE 1/2"
 - (16) DOOR (SEE DOOR SCHEDULE)
 - (17) WINDOW (SEE ELEVATIONS FOR SIZE)
 - (18) CONT. EXT. SEALANT
 - (19) 4"x16 GA MTL. STUD FRAMING @ 16" O.C.
 - (20) 5/8" DENS GLASS ON 4" MTL. STUD @ 16" O.C.
 - (21) STEEL BEAM (SEE FRAMING FOR SIZES)
 - (22) STEEL COLUMN (SEE FRAMING PLAN FOR SIZE)
 - (23) STEEL JOIST (SEE FRAMING PLAN FOR SIZE)
 - (24) DECORATIVE METAL PANEL (SEE ELEVATIONS)
 - (25) STEEL ANGLE (SEE FRAMING PLAN FOR SIZE)
 - (26) STEEL BRACE (SEE FRAMING PLAN FOR SIZE)
 - (27) 3-5/8" (H) LIMESTONE SILL
 - (28) NICHHA FIBER CEMENT PANEL SYSTEM
 - (29) FULLY ADHERED 60 MIL EPDM ROOFING SYSTEM (15 YEAR WARRANTY) OVER (3) LAYERS 1-1/2" ISO RIGID INSUL. (COMPLY W/ ASTM C 1289, TYPE II, CLASS 1) W/ VAPOR RETARDER (R-30) AS MANUF. BY FIRESTONE BLDG. PRODUCTS ON METAL DECK (SEE STRUCTURAL NOTES FOR METAL DECK SIZE)
 - (30) CANT.
 - (31) RUN ROOFING UP AND RETURN UNDER THE COPING.
 - (32) ROOF SUMP (SEE ROOF PLAN DETAIL)
 - (33) 8"x16" VENTS @ 8'-0" O.C. (SEE ROOF PLAN)
 - (34) 4" METAL COPING OVER 2x4 T. WOOD NAILED W/ ANCHORS @ 48" O.C. TO TOP OF BRICK FRAME OR STUD WALL
 - (35) DECORATIVE METAL PANEL (SEE ELEVATIONS) OVER MOISTURE INFILTRATION BARRIER OVER FIRE RETARDANT PLYWOOD OVER 4"x16 GA METAL STUD FRAME @ 16" O.C.

NOTE: THE ANCHORED MASONRY VENEER SHALL CONFORM TO THE REQUIREMENTS OF SECTIONS 6.1 AND 6.2 OF TMS402/ACI 530/ASCE 5.

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PROJECT NAME:
 PROPOSED MULTI-TENANT BUILDING WITH DRIVE THRU

PERMIT SUBMISSION
 04-18-2022

ADDRESS:
 21220 GREENFIELD RD
 OAK PARK , MI 48237

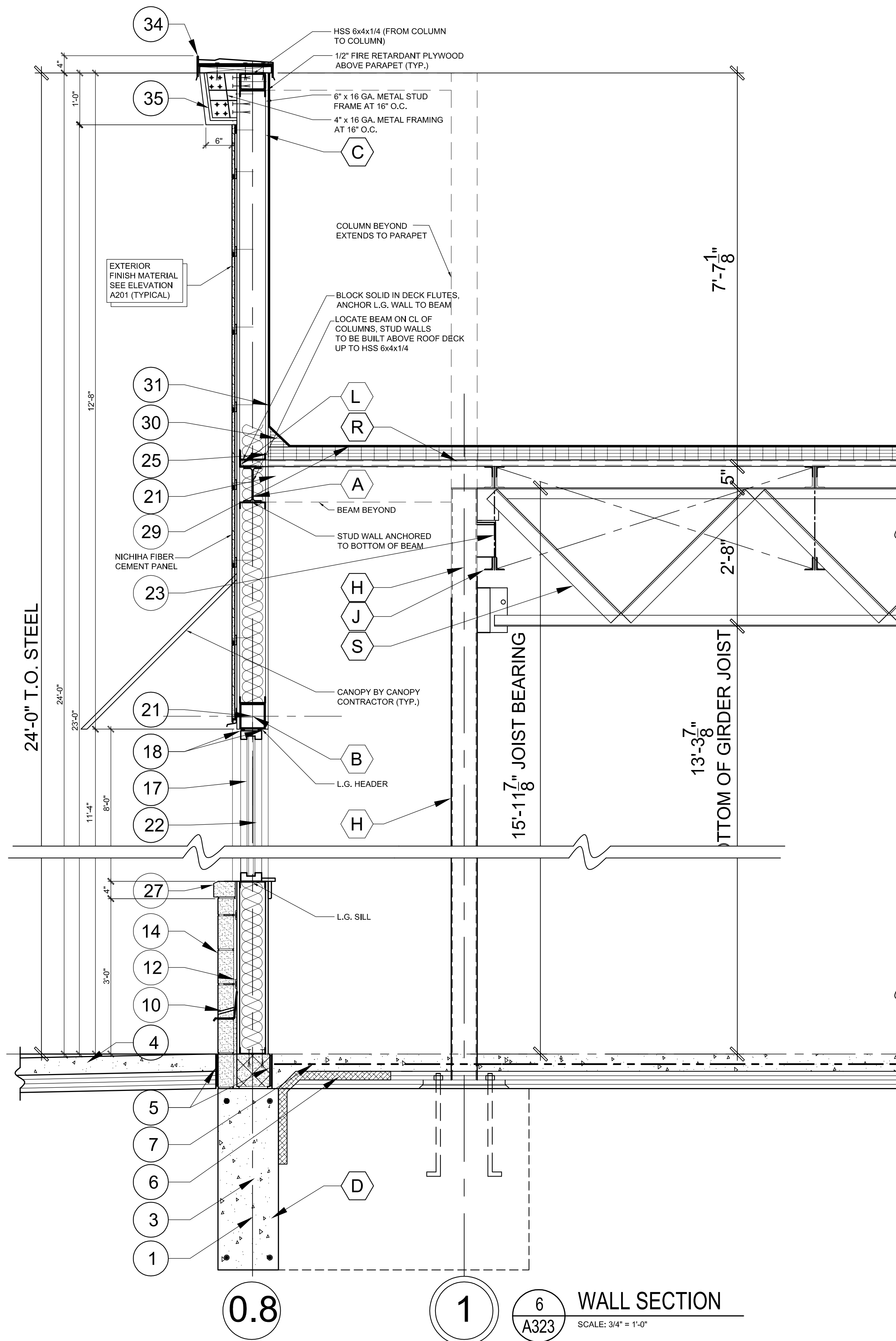
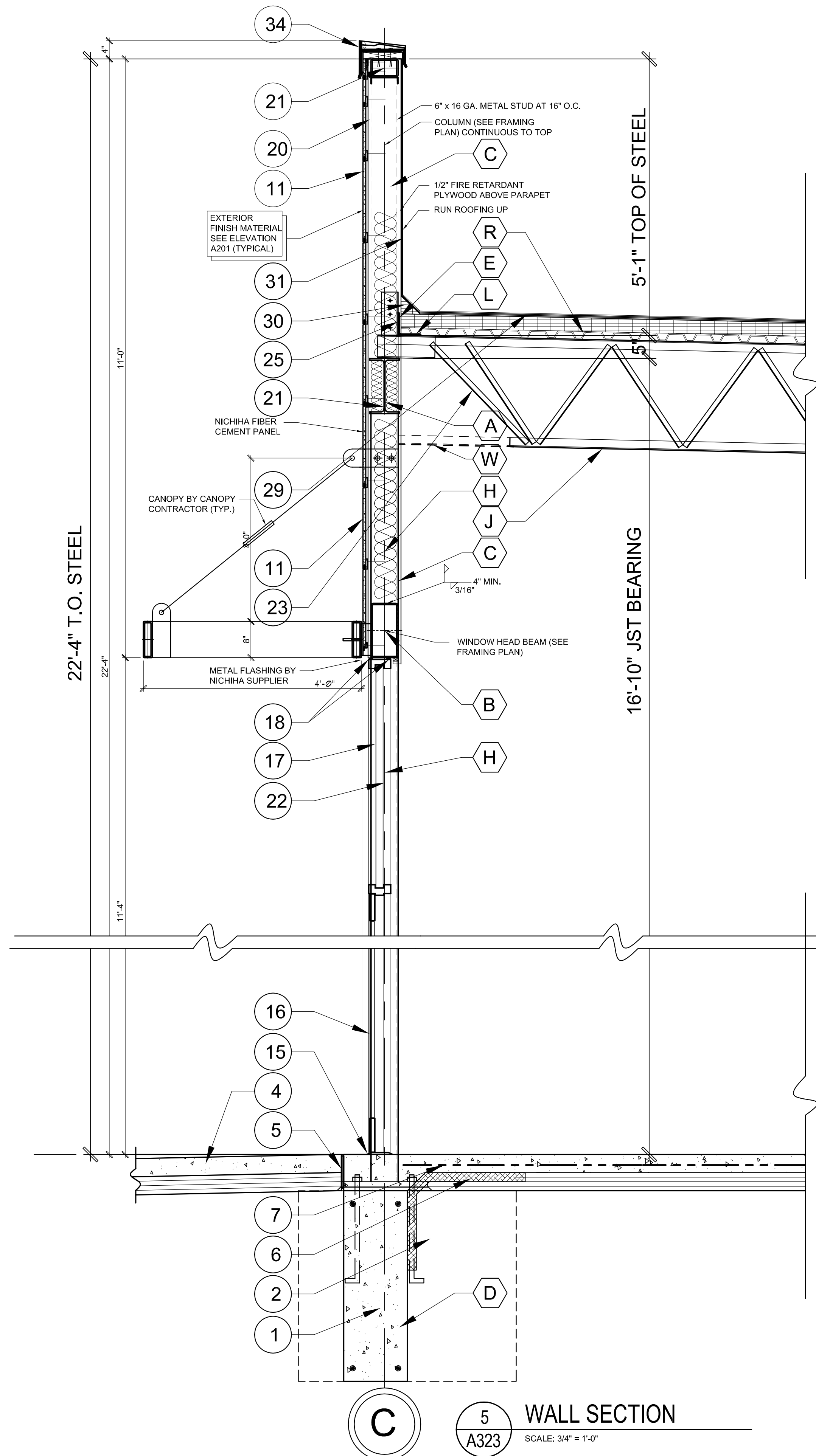
NOT FOR CONSTRUCTION

ALL DIMENSIONS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR COORDINATION OF ALL DIMENSIONS.

JOB NO.	21-0968
D.B./C.B	R.A./P.D
ISSUANCES	
NO DESCRIPTION	DATE
1 PERMIT SUBMISSION	04/18/22

SHEET TITLE
SECTIONS

DWG. NO.
A3.2.2



- BUILDING SECTION STRUCTURAL KEYED NOTES:**
- (A) ROOF BEAM SEE FRAMING PLAN
 - (B) WINDOW HEAD BEAM PER PLAN
 - (C) 6"x16 GA. METAL STUDS FRAME @ 16" O.C. HSS 6x4x1/4" CONT. TOP
 - (D) FOOTING. SEE FOUNDATION PLAN.
 - (E) PROVIDE CLIP L FASTENED TO STEEL BEAM OR PERIMETER ANGEL WITH MINIMUM 3 SCREWS
 - (F) NOT USED
 - (G) CLIP AT EACH L.G. STUD TO BEAM WEB
 - (H) COLUMN (SEE FRAMING PLAN)
 - (I) JOIST (SEE FRAMING PLAN)
 - (K) 3/8" PLATE CONNECTION WITH 2-3/4" DIA. BOLTS FROM BEAM WEB TO EACH FRAME VERTICAL
 - (L) CONTINUOUS L4x4x1/4 WELDED TO JOIST ENDS OR ALONG BEAM w/ CLIP L CONNECTION TO FRAME SEE FRAMING PLAN
 - (M) L4x4x1/4 BRACE TO VERTICAL TIE (V)
 - (N) L4x4x1/4 BETWEEN JOIST FOR BRACE CONNECTION w/ CLIP ANGLE LOCATE @ BOTTOM CHORD PANEL POINT.
 - (O) CONT. L4x4x1/4 WITH 1/2" DIA. BOLTS @ 24" O.C. TO WALL
 - (P) CONTINUOUS L5x5x3/8" SECURED ON BACK OF METAL FRAME.
 - (R) ROOF DECK: 1-1/2", 22GA. TYPE B, 3 SPAN MIN.
 - (S) STEEL GIRDER TRUSSES.
 - (T) CONT. L4x4x1/4 WITH 1/2" DIA. BOLTS @ 24" O.C. WELD TO BEAM OR JOIST PARALLEL TO WALL AT 24" O.C. OR TO JOIST ENDS AT CROSSING.
 - (U) BOND BEAM WITH 2-#5 BARS TOP & BOTTOM
 - (V) VERT. TIE AT MID POINT OF BEAMS W/ HSS6x4x1/4"
 - (W) EXTEND JOIST BOTTOM CHORD @ COL. LINES ONLY. CONNECT TO THE STEEL COL. OR BLOCK WALL WITH A CLIP ANGLE.
 - (X) L4x4x1/4 DIAGONAL BRACE @ EACH JOIST WITH 4" DIA. STUB. COL. WELDED TO TOP CHORD OF JOIST @ PANEL POINT. WITH CLIP L ON TOP FOR BRACE CONNECTION.
 - (Y) #5 DOWELS PER WALL REINF. SCHEDULE
 - (Z) WALL REINFORCED PER SCHEDULE

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 - (2) COLUMN FOOTING (SEE FOUNDATION PLAN FOR INFO)
 - (3) PROVIDE DOWELS (SEE FRAMING ELEVATIONS FOR DETAILS)
 - (4) CONC. WALK PITCH 1/4" PER FOOT.
 - (5) 1/2" EXP. JOINT.
 - (6) 2"x24" RIGID INSULATION @ PERIMETER
 - (7) 4" CONC. SLAB OVER 8#6 REINF. W/W.F. OVER 6 MIL. VAPOR BARRIER (LAP MINIMUM 6") OVER 4" COMP. SAND.
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 - (16) DOOR (SEE DOOR SCHEDULE)
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 - (18) CONT. EXT. SEALANT
 - (19) 4"x16 GA MTL. STUD FRAMING @ 16" O.C.
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 - (27) 3-5/8" (H) LIMESTONE SILL
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 - (29) FULLY ADHERED 60 MIL EPDM ROOFING SYSTEM (15 YEAR WARRANTY) OVER (3) LAYERS 1-1/2" ISO RIGID INSUL. (COMPLY W/ ASTM C 1289, TYPE II, CLASS 1) W/ VAPOR RETARDED (R-30) AS MANUF. BY FIRESTONE BLDG. PRODUCTS ON METAL DECK (SEE STRUCTURAL NOTES FOR METAL DECK SIZE)
 - (30) CANT.
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 - (35) DECORATIVE METAL PANEL (SEE ELEVATIONS) OVER MOISTURE INFILTRATION BARRIER OVER FIRE RETARDANT PLYWOOD OVER 4"x16 GA METAL STUD FRAME @ 16" O.C.

NOTE:
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248.457.6903
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PROJECT NAME:
PROPOSED MULTI-TENANT BUILDING WITH DRIVE THRU

PERMIT SUBMISSION
04-18-2022

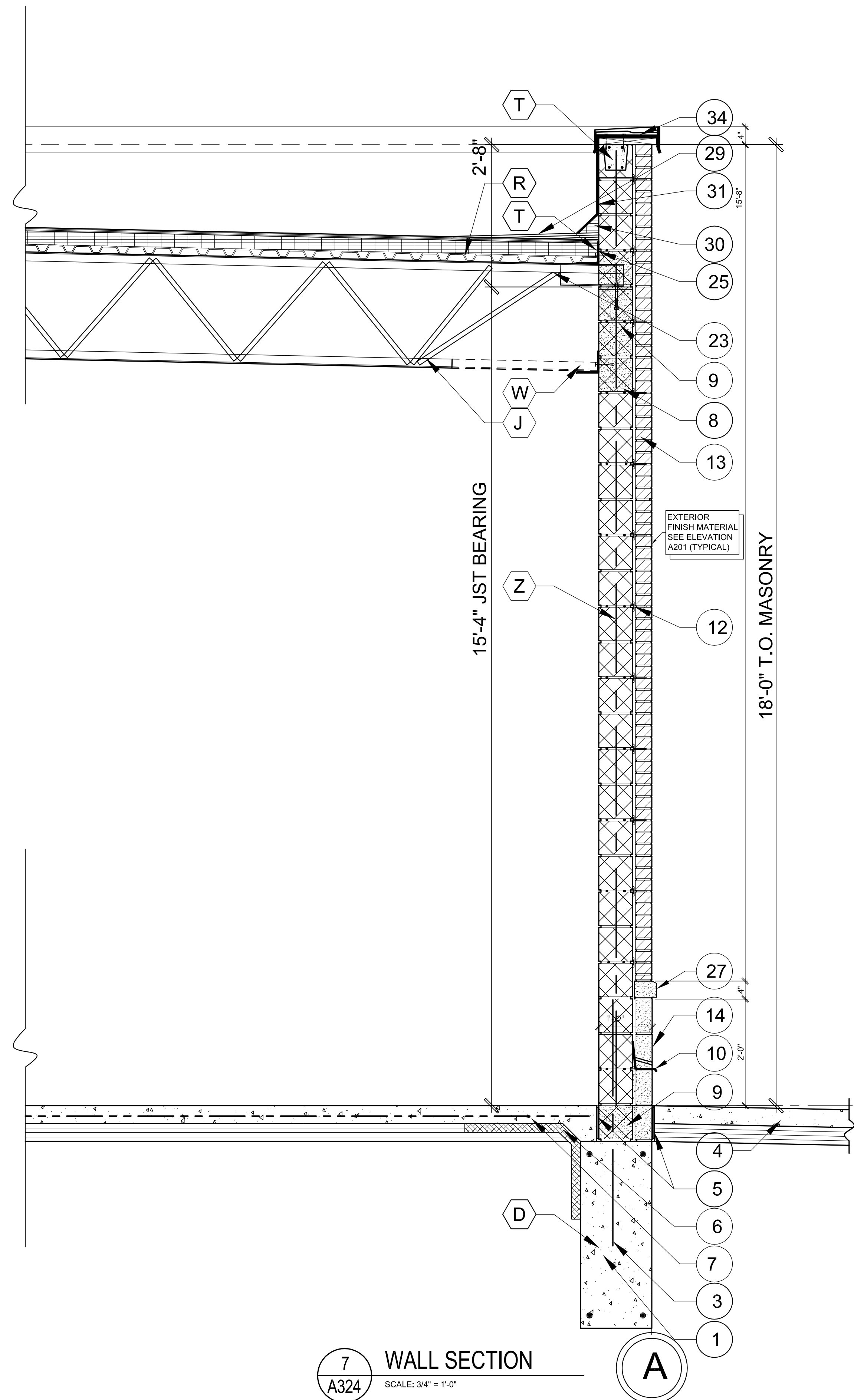
ADDRESS:
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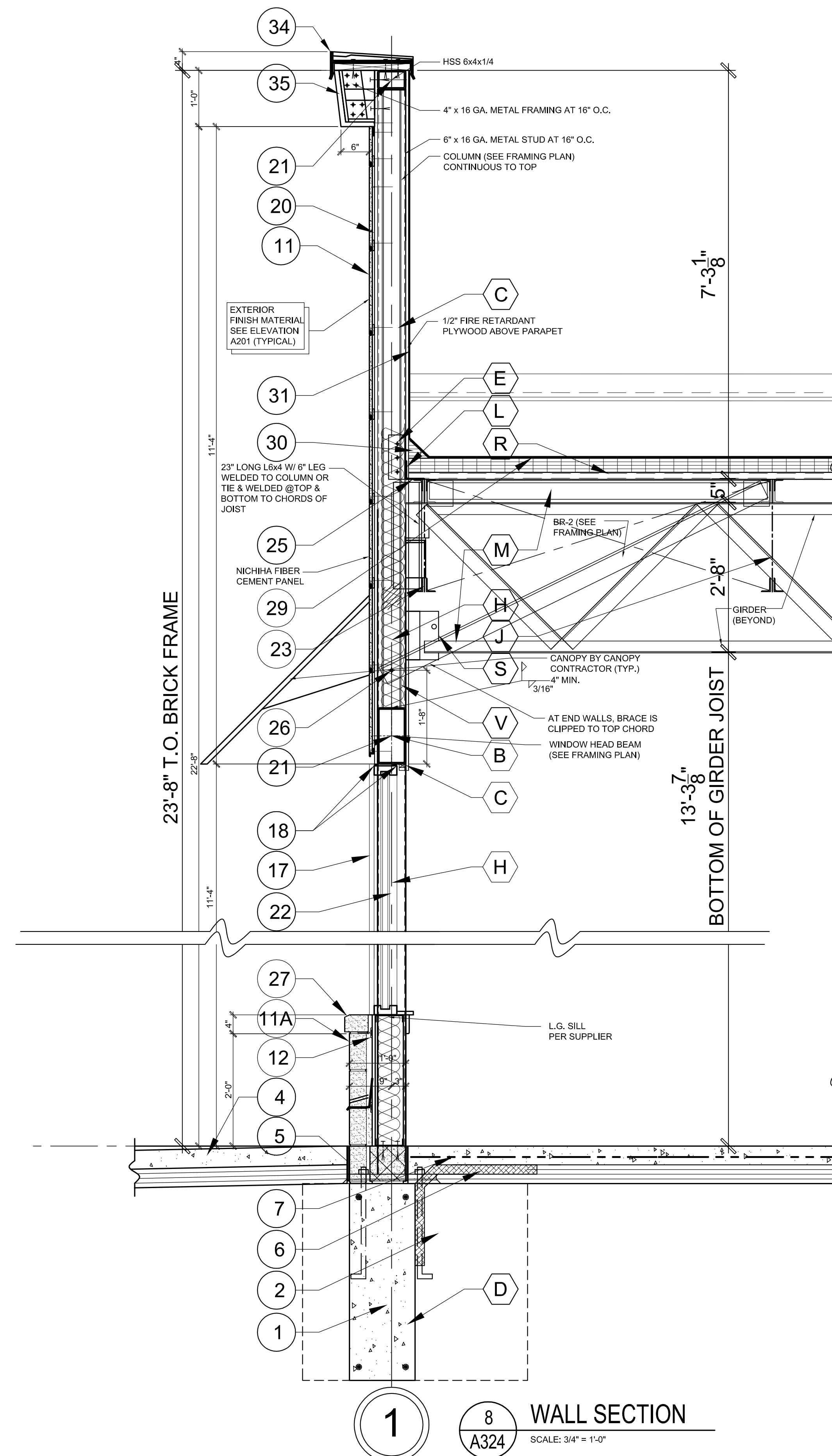
JOB NO.	21-0968
D.B./C.B	R.A./P.D
ISSUANCES	
NO DESCRIPTION	DATE
1 PERMIT SUBMISSION	04/18/22

SHEET TITLE
SECTIONS

DWG. NO.
A3.2.3



7 WALL SECTION
A324 SCALE: 3/4" = 1'-0"



8 WALL SECTION
A324 SCALE: 3/4" = 1'-0"

BUILDING SECTION STRUCTURAL KEYED NOTES:

- (A) ROOF BEAM SEE FRAMING PLAN
- (B) WINDOW HEAD BEAM PER PLAN
- (C) 6"x16 GA. METAL STUDS FRAME @ 16" O.C. HSS 6x4x1/4" CONT. TOP
- (D) FOOTING. SEE FOUNDATION PLAN.
- (E) PROVIDE CLIP L FASTENED TO STEEL BEAM OR PERIMETER ANGEL WITH MINIMUM 3 SCREWS
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- (P) CONT. L4x4x1/4 WITH 1/2" DIA. BOLTS @ 24" O.C. TO WALL
- (Q) CONTINUOUS L5x5x3/8" SECURED ON BACK OF METAL FRAME.
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- (Z) WALL REINFORCED PER SCHEDULE

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PROJECT NAME:
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TENANT BUILDING
WITH DRIVE THRU

PERMIT SUBMISSION
04-18-2022

ADDRESS:
21220 GREENFIELD RD
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NOT FOR
CONSTRUCTION

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JOB NO. 21-0968

D.B./C.B. R.A./P.D

ISSUANCES

NO	DESCRIPTION	DATE
1	PERMIT SUBMISSION	04/18/22

SHEET TITLE
SECTIONS

DWG. NO.
A3.2.4



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 OAK PARK , MI 48237

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ALL DIMENSIONS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR COORDINATION OF ALL DIMENSIONS.

JOB NO.	21-0968
D.B./C.B.	R.A./P.D
ISSUANCES	
NO DESCRIPTION	DATE
1 PERMIT SUBMISSION	04/18/22

SHEET TITLE
SECTIONS

DWG. NO.

A3.2.5

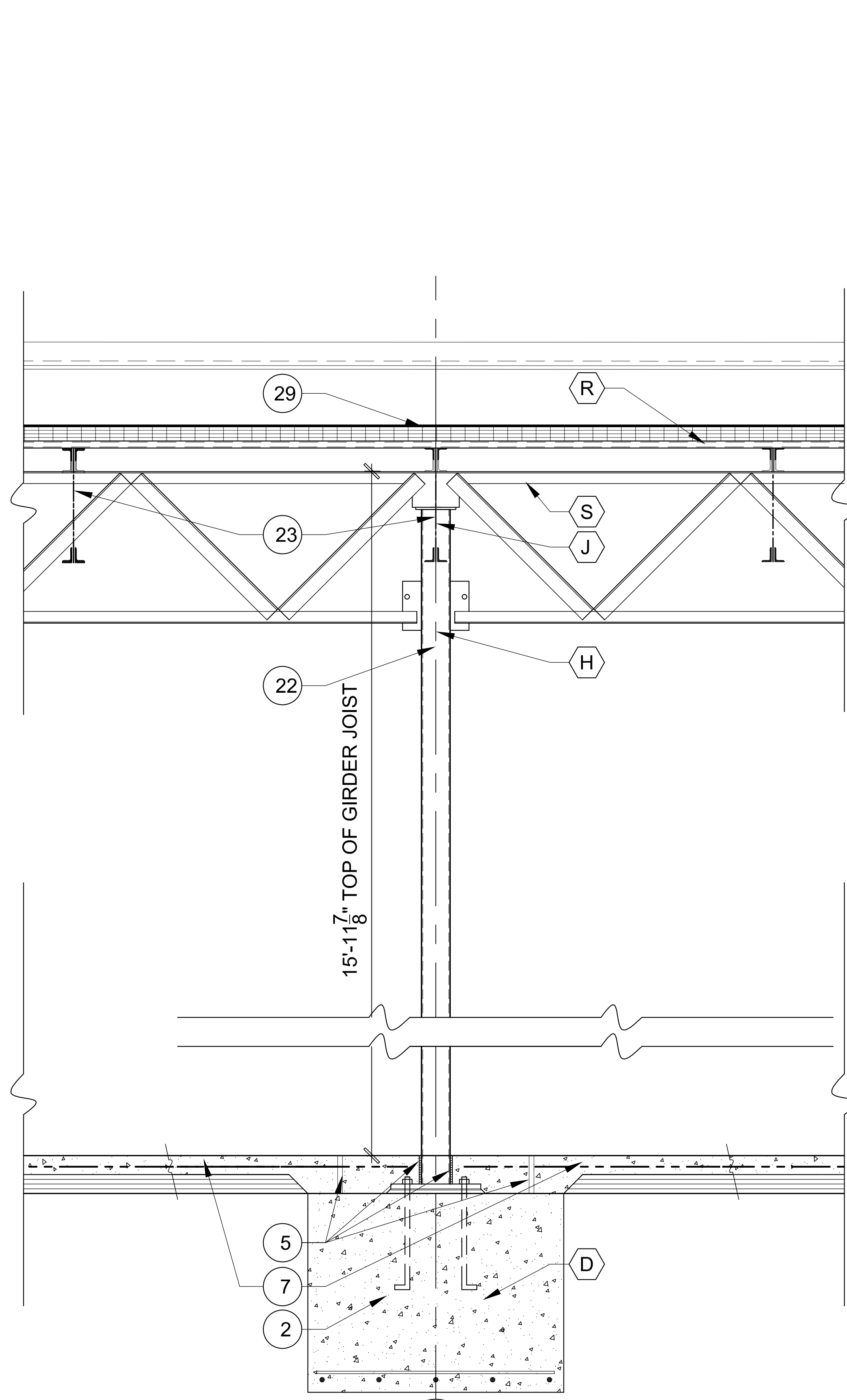
BUILDING SECTION STRUCTURAL KEYED NOTES:

- (A) ROOF BEAM SEE FRAMING PLAN
- (B) WINDOW HEAD BEAM PER PLAN
- (C) 6"x16 GA. METAL STUDS FRAME @ 16" O.C. HSS 6"x4"x1/4" CONT. TOP
- (D) FOOTING, SEE FOUNDATION PLAN.
- (E) PROVIDE CLIP L FASTENED TO STEEL BEAM OR PERIMETER ANGEL WITH MINIMUM 3 SCREWS
- (F) NOT USED
- (G) CLIP AT EACH L-G-STUD TO BEAM WEB
- (H) COLUMN (SEE FRAMING PLAN)
- (J) JOIST (SEE FRAMING PLAN)
- (K) 3/8" PLATE CONNECTION WITH 2-3/4" DIA. BOLTS FROM BEAM WEB TO EACH FRAME VERTICAL
- (L) CONTINUOUS L4x4x1/4 WELDED TO JOIST ENDS OR ALONG BEAM w/ CLIP L CONNECTION TO FRAME SEE FRAMING PLAN
- (M) L4x4x1/4 BRACE TO VERTICAL TIE (V)
- (N) L4x4x1/4 BETWEEN JOIST FOR BRACE CONNECTION w/ CLIP ANGLE LOCATE @ BOTTOM CHORD PANEL POINT.
- (P) CONT. L4x4x1/4 WITH 1/2" DIA. BOLTS @ 24" O.C. TO WALL
- (Q) CONTINUOUS L5x5x3/8" SECURED ON BACK OF METAL FRAME.
- (R) ROOF DECK: 1-1/2" 22GA. TYPE B, 3 SPAN MIN.
- (S) STEEL GIRDER TRUSSES.
- (T) CONT. L4x4x1/4 WITH 1/2" DIA. BOLTS @ 24" O.C. WELD TO BEAM OR JOIST PARALLEL TO WALL AT 24" O.C. OR TO JOIST ENDS AT CROSSING.
- (U) BOND BEAM WITH 2-#5 BARS TOP & BOTTOM
- (V) VERT. TIE AT MID POINT OF BEAMS W/ HSS6x4x1/4"
- (W) EXTEND JOIST BOTTOM CHORD @ COL. LINES ONLY. CONNECT TO THE STEEL COL. OR BLOCK WALL WITH A CLIP ANGLE.
- (X) L4x4x1/4 DIAGONAL BRACE @ EACH JOIST WITH 4" DIA. STUB. COL. WELDED TO TOP CHORD OF JOIST @ PANEL POINT. WITH CLIP L ON TOP FOR BRACE CONNECTION.
- (Y) #5 DOWELS PER WALL REINF. SCHEDULE
- (Z) WALL REINFORCED PER SCHEDULE

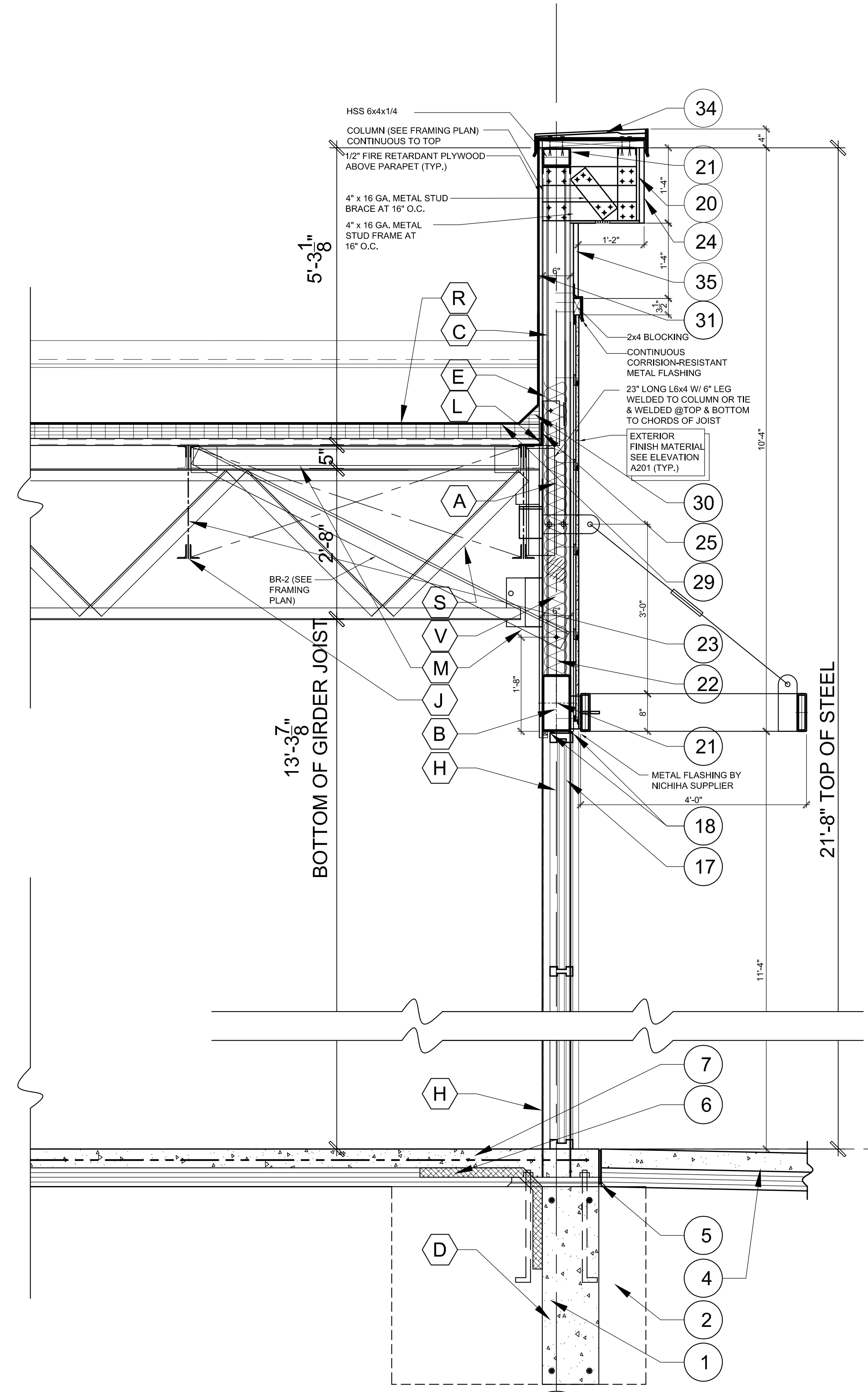
BUILDING SECTION ARCHITECTURAL KEYED NOTES:

- (1) CONC. TRENCH FOOTING (SEE FOUNDATION PLAN AND DETAILS FOR MORE INFO.)
- (2) COLUMN FOOTING (SEE FOUNDATION PLAN FOR INFO)
- (3) PROVIDE DOWELS (SEE FRAMING ELEVATIONS FOR DETAILS)
- (4) CONC. WALK PITCH 1/4" PER FOOT.
- (5) 1/2" EXP. JOINT.
- (6) 2"x24" RIGID INSULATION @ PERIMETER
- (7) 4" CONC. SLAB OVER 6/8 REINF. W.W.F. OVER 6 MIL. VAPOR BARRIER (LAP MINIMUM 6") OVER 4" COMP. SAND.
- (8) 8" OR 12" CMU W/ HORIZ. REINF. @ 16" O.C. (LADDER TYPE) FOAM INSUL. CORE FILLED.
- (9) GROUT COURSES AS SHOWN.
- (10) CONTINUOUS CORROSION-RESISTANT METAL FLASHING WITH WEEP HOLES @ 32" O.C.
- (11) 5/8" NICHHA FIBER CEMENT PANEL SYSTEM, 1/2" AIR SPACE, MOISTURE INFILTRATION BARRIER OVER 5/8" DENS GLASS OVER 6" BRICK FRAME @ 48" O.C. WITH 6" LIGHT GAGE METAL STUDS @ 16" O.C. W/ R-21 BATT INSULATION 5/8" G.W.B.
- (11A) 3-5/8" SPLIT FACE BLOCK OR BRICK VENEER, AIR SPACE, MOISTURE INFILTRATION BARRIER OVER 5/8" DENS GLASS OVER 6" BRICK FRAME @ 48" O.C. WITH 6" LIGHT GAGE METAL STUDS @ 16" O.C. W/ R-21 BATT INSULATION 5/8" G.W.B.
- (12) BRICK TIES 16" O.C. HORIZ. & VERT. TYPE
- (13) 3-5/8" BRICK VENEER
- (14) SPLIT FACE BLOCK
- (15) THRESHOLD MAX RISE 1/2"
- (16) DOOR (SEE DOOR SCHEDULE)
- (17) WINDOW (SEE ELEVATIONS FOR SIZE)
- (18) CONT. EXT. SEALANT
- (19) 4"x16 GA MTL. STUD FRAMING @ 16" O.C.
- (20) 5/8" DENS GLASS ON 4" MTL. STUD @ 16" O.C.
- (21) STEEL BEAM (SEE FRAMING FOR SIZES)
- (22) STEEL COLUMN (SEE FRAMING PLAN FOR SIZE)
- (23) STEEL JOIST (SEE FRAMING PLAN FOR SIZE)
- (24) DECORATIVE METAL PANEL (SEE ELEVATIONS)
- (25) STEEL ANGLE (SEE FRAMING PLAN FOR SIZE)
- (26) STEEL BRACE (SEE FRAMING PLAN FOR SIZE)
- (27) 3-5/8" (H) LIMESTONE SILL
- (28) NICHHA FIBER CEMENT PANEL SYSTEM
- (29) FULLY ADHERED 60 MIL EPDM ROOFING SYSTEM (15 YEAR WARRANTY) OVER (3) LAYERS 1-1/2" ISO RIGID INSUL. (COMPLY W/ ASTM C 1289, TYPE II, CLASS 1) W/ VAPOR RETARDED (R-30) AS MANUF. BY FIRESTONE BLDG. PRODUCTS ON METAL DECK (SEE STRUCTURAL NOTES FOR METAL DECK SIZE)
- (30) CANT.
- (31) RUN ROOFING UP AND RETURN UNDER THE COPING.
- (32) ROOF SUMP (SEE ROOF PLAN DETAIL)
- (33) 8"x10" VENTS @ 8'-0" O.C. (SEE ROOF PLAN)
- (34) 4" METAL COPING OVER 2x P.T. WOOD NAILED W/ ANCHORS @ 48" O.C. TO TOP OF BRICK FRAME OR STUD WALL
- (35) DECORATIVE METAL PANEL (SEE ELEVATIONS) OVER MOISTURE INFILTRATION BARRIER OVER FIRE RETARDANT PLYWOOD OVER 4"x16 GA METAL STUD FRAME @ 16" O.C.

NOTE:
 THE ANCHORED MASONRY VENEER SHALL CONFORM TO THE REQUIREMENTS OF SECTIONS 6.1 AND 6.2 OF TMS402/ACI 530/ASCE 5.



2 WALL SECTION
 9 A325 SCALE: 3/4" = 1'-0"



10 WALL SECTION
 3 A325 SCALE: 3/4" = 1'-0"

MASONRY NOTES:

- ALL MASONRY WORK SHALL BE IN ACCORDANCE WITH THE LATEST BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530/ASCS) AND SPECIFICATIONS FOR MASONRY STRUCTURES (ACI 530.1/ASCE 5/TMS 402) AND N.C.M.A. SPECIFICATION. MASONRY Laid IN TEMPERATURES OF THE OUTSIDE AIR BELOW 40 DEGREES F. SHALL BE PROTECTED IN ACCORDANCE WITH THE PROVISIONS OF ACI 530/ASCE 5. FROZEN MATERIALS SHALL NOT BE USED, NOR SHALL FROZEN MASONRY BE BUILT UPON.
- ALL BLOCK SHALL CONFORM TO ASTM C90 AND C145, TYPE 1, GRADE N.
- MORTAR SHALL BE TYPE "S" (1500 PSI) CONFORMING TO ASTM C-270.
- MASONRY COMPRESSIVE STRENGTH $F_m = 1500$ PSI MINIMUM.
- PROVIDE G.D.G. (MIN. COATING = 1.5 OZ./SQ. FT. PER ASTM A 153 FOR EXTERIOR WORK) HORIZONTAL WIRE TYPE REINFORCING WITH 9 GAUGE SIDE AND CROSS MEMBERS IN EVERY 2-ND COURSE, IN ALL MASONRY WALLS.
- WALLS WITH VERTICAL REINFORCING SHALL ONLY HAVE "LADDER" TYPE REINFORCING.
- ALL REINFORCING BARS, DOWELS AND TIES SHALL CONFORM TO ASTM A615, GRADE 60.
- ALL MASONRY BEARING STEEL BEAMS AND UNTELS TO BEAR 8" MINIMUM ON 3 COURSES SOLID MASONRY, WITH BEARING PLATES AS NOTED.
- ALL MASONRY BELOW GRADE SHALL BE GROUTED SOLID.
- MASONRY GROUT SHALL CONFORM TO ASTM C 476, WITH PEA GRAVEL AGGREGATE AND A MINIMUM STRENGTH OF 2000 PSI, BUT NOT LESS THAN SPECIFIED F_m . NO LIME SHALL BE USED.
- THE MASONRY CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ALL TEMPORARY SHORING AND FALSE WORK REQUIRED TO WITHSTAND WIND LOADS AND TEMPORARY CONSTRUCTION LOADS. ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH ALL OSHA REQUIREMENTS.

CONCRETE NOTES

- PROPORTIONING AND DESIGN OF MIXES:
 - CONCRETE COMPRESSIVE STRENGTH:
 - 3,000 PSI AT 28 DAYS FOR FOUNDATION, WALLS AND INTERIOR SLABS.
 - 4,000 PSI AT 28 DAYS (6% +/-1%) AIR ENTRAINED FOR EXTERIOR SLABS, WALKS AND CURBING. PRIOR APPROVAL OF CONCRETE MIX REQUIRED.
 - ADMITTURES: USE WATER-REDUCING ADMIXTURES IN STRICT COMPLIANCE WITH THE MANUFACTURER'S DIRECTIONS. ADMIXTURES TO INCREASE CEMENT DISPERSION, OR PROVIDE INCREASED WORKABILITY IN LOW SLUMP CONCRETE, MAY BE USED AT THE CONTRACTOR'S OPTION SUBJECT TO THE ENGINEER'S ACCEPTANCE. USE OF CALCIUM CHLORIDE IS NOT PERMITTED.
 - SLUMP LIMITS: NOT LESS THAN 1", NOT MORE THAN 4"
- CONCRETE PLACEMENT:
 - COMPLY WITH ACI-318 AND AS HEREIN SPECIFIED.
 - DEPOSIT CONCRETE CONTINUOUSLY OR IN LAYERS OF SUCH THICKNESS THAT NO CONCRETE WILL BE PLACED ON CONCRETE THAT HAS HARDENED SUFFICIENTLY TO CAUSE THE FORMATION OF COLD JOINTS OR PLANES OF WEAKNESS THROUGH THE SECTION. DEPOSIT CONCRETE AS NEARLY AS PRACTICABLE TO ITS FINAL LOCATION TO AVOID SEGREGATION DUE TO REHANDLING OR FLOWING.
 - CONSOLIDATE PLACED CONCRETE BY MECHANICAL VIBRATING EQUIPMENT SUPPLEMENTED BY HAND SPADING, RAKING OR TAMPING. LIMIT THE DURATION OF VIBRATION TO THE TIME NECESSARY TO CONSOLIDATE THE CONCRETE AND COMPLETE EMBEDMENT OF REINFORCEMENT AND OTHER EMBEDDED ITEMS WITHOUT CAUSING SEGREGATION OF THE MIX. DEPOSIT AND CONSOLIDATE CONCRETE SLABS IN A CONTINUOUS OPERATION, WITHIN THE LIMITS OF CONSTRUCTION JOINTS, UNTIL THE PLACING OF A PANEL OR SECTION IS COMPLETED. CONSOLIDATE CONCRETE DURING PLACING OPERATIONS SO THAT CONCRETE IS THOROUGHLY WORKED AROUND REINFORCEMENT AND OTHER EMBEDDED ITEMS AND INTO CORNERS. BRING SLAB SURFACES TO THE CORRECT LEVEL WITH A STRAIGHT EDGE AND STRIKE OFF. USE BULL FLOATS OR DERBIES TO SMOOTH THE SURFACE.
 - COLD WEATHER PLACING: PROTECT CONCRETE WORK FROM PHYSICAL DAMAGE OR REDUCED STRENGTH WHICH COULD BE CAUSED BY FROST, FREEZING ACTIONS, OR LOW TEMPERATURES, IN COMPLIANCE WITH ACI-306 AND MBC 2015, SECTION 1905.12. DO NOT USE FROZEN MATERIALS OR MATERIALS CONTAINING ICE OR SNOW. DO NOT PLACE CONCRETE ON FROZEN SUBGRADE OR ON SUBGRADE CONTAINING FROZEN MATERIALS.
 - HOT WEATHER REQUIREMENTS. DURING HOT WEATHER, PROPER ATTENTION SHALL BE GIVEN TO INGREDIENTS, PRODUCTION METHODS, HANDLING, PLACING, PROTECTION, AND CURING TO PREVENT EXCESSIVE CONCRETE TEMPERATURE OR WATER EVAPORATION THAT COULD IMPAIR THE REQUIRED STRENGTH OR SERVICEABILITY OF THE MEMBER OF STRUCTURE. (MBC 2015, SECTION 1905.13)
- CONCRETE CURING AND PROTECTION:
 - PROTECT FRESHLY PLACED CONCRETE FROM PREMATURE DRYING AND EXCESSIVE COLD OR HOT TEMPERATURE. AND MAINTAIN WITHOUT DRYING AT A RELATIVELY CONSTANT TEMPERATURE FOR A PERIOD OF TIME NECESSARY FOR HYDRATION OF CEMENT AND PROPER HARDENING.
 - START INITIAL CURING AS SOON AS FREE WATER HAS DISAPPEARED FROM CONCRETE SURFACE AFTER PLACING AND FINISHING. WEATHER PERMITTING, KEEP CONTINUOUSLY MOIST FOR NOT LESS THAN 72 HOURS.
 - CURING METHODS: PERFORM CURING OF CONCRETE BY MOIST CURING BY MOISTURE-RETAINING COVER CURING OR BY MEMBRANE CURING AS REQUIRED ACCORDING TO THE RECOMMENDATIONS OF THE ACI FOR THE PARTICULAR WORK.

GENERAL NOTES FOR STRUCTURAL FRAMING

- STEEL DESIGN, FABRICATION, AND ERECTION TO BE IN ACCORDANCE WITH THE LATEST AISC 360 SPECIFICATIONS, AND TO MBC 2015, SECTION 2205.
- STEEL JOISTS TO BE DESIGNED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS OF THE STEEL JOIST INSTITUTE. BRIDGING TO BE IN ACCORDANCE WITH SJI SPECIFICATION. ADDITIONAL X BRIDGING SHALL BE NOTED ON PLANS.
- ALL STEEL DECK AND ITS INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF THE STEEL DECK INSTITUTE.
- STEEL DESIGN, FABRICATION AND ERECTION TO BE IN ACCORDANCE WITH THE LATEST AISC MANUAL AND SPECIFICATION FOR STRUCTURAL STEEL FOR BUILDINGS. ALL WIDE FLANGE BEAMS AND COLUMNS SHALL CONFORM TO THE LATEST ASTM. SERIAL DESIGNATION A992, GR50. ALL MISCELLANEOUS STEEL PLATES, BARS, ANGLES, ETC., SHALL CONFORM TO ASTM A36; STEEL TUBING TO BE ASTM A500, GRADE B; STEEL PIPE ASTM, A-53, GRADE B.
- ALL LIGHT GAUGE STEEL FRAMING AND INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF THE LATEST AISI STANDARDS FOR COLD-FORMED CONSTRUCTION.
- TOP OF STEEL IS HEIGHT ABOVE FINISHED CONCRETE FLOOR.
- REFER TO FOUNDATION PLAN AND DETAILS FOR BOTTOM OF STEEL ELEVATIONS.
- VERIFY EXACT SIZE AND LOCATION OF ALL ROOF OPENINGS WITH MECHANICAL CONTRACTOR. PROVIDE ANGLE FRAMES AROUND ALL ROOF OPENINGS.
- ALL FIELD CONNECTIONS TO BE MADE WITH 3/4" DIAM. H.S. BOLTS OR EQUIVALENT WELDS UNLESS NOTED. BOLTED CONNECTIONS SHALL UTILIZE ASTM A-325 BOLTS TIGHTENED TO A "SNUG TIGHT" CONDITION (UNLESS NOTED OTHERWISE). SHOP CONNECTIONS TO BE WELDED (E 70XX). WELDED CONNECTIONS SHALL CONFORM WITH THE LATEST AWS D1.1 "SPECIFICATIONS FOR WELDING IN BUILDING CONSTRUCTION".
- STEEL BEAMS BEARING ON MASONRY SHALL HAVE MINIMUM 8" BEARING LENGTH UNLESS NOTED. BEAR ON BEARING PLATE SET IN GROUTED CORES WITH ANCHORS. GROUT 3 COURSES SOLID BELOW BEARING.
- EXTEND ALL BRIDGING REQUIRED IN JOISTS TO MASONRY WALLS AND ANCHOR USING CLIP ANGLES OR GROUTED IN STRAP ANCHORS.
- STEEL JOISTS BEARING ON MASONRY TO BEAR ON 1/4" WELD PLATE SET IN GROUTED CORES WITH STRAP ANCHORS. GROUT 3 COURSES SOLID BELOW BEARING. WELD JOISTS TO PLATE WITH 2" LONG BEAD ON EACH SIDE OF JOIST. WHERE NOTED, EXTEND BOTTOM CHORDS OF JOIST TO WALL AND ANCHOR USING CLIP ANGLES OR GROUTED IN STRAP ANCHORS.
- THE STEEL FABRICATOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW BY THE ENGINEER AND ARCHITECT PRIOR TO FABRICATION. SHOP DRAWINGS SHALL INCLUDE CONNECTION DETAILS FOR ALL STRUCTURAL STEEL MEMBERS. ALLOW 10 WORKING DAYS MINIMUM FOR EACH STAGE OF THE REVIEW PROCESS.
- THE STEEL ERECTOR IS SOLELY RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ALL TEMPORARY GUYS, BRACES, FALSE WORK, CRIBBING AND OTHER ELEMENTS REQUIRED FOR THE SAFE AND PROPER INSTALLATION OF ALL BUILDING ELEMENTS UNTIL THE STRUCTURE IS PERMANENTLY BRACED. THE FABRICATOR AND ERECTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH OSHA REQUIREMENTS.
- THE DESIGN ENGINEER IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR OTHER JOB SITE CONDITIONS.
- VERIFY EXISTING DIMENSIONS AND CONDITIONS IN FIELD PRIOR TO CONSTRUCTION.

COLD FORMED STEEL FRAMING NOTES -

- ALL COLD FORMED STEEL FRAMING MEMBERS, THEIR DESIGN, FABRICATION, AND ERECTION SHALL CONFORM TO THE "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" OF THE A.I.S.I. (LATEST EDITION, AND TO MBC 2015, SECTION 2210).
- ALL FRAMING MEMBERS SHALL BE FORMED FROM STEEL CONFORMING TO ASTM A446 WITH A MINIMUM YIELD STRENGTH AS FOLLOWS:
 - 14 & 16 GAUGE MEMBERS; FY = 50 KSI (GRADE D)
 - 18 & 20 GAUGE MEMBERS; FY = 33 KSI (GRADE A)
- ALL FRAMING MEMBERS SHALL BE GALVANIZED WITH A G-60 COATING MEETING THE REQUIREMENTS OF ASTM A452.
- MEMBERS SHALL BE THE MANUFACTURER'S STANDARD "C" SHAPED STUDS / JOISTS OF THE SIZE, FLANGE WIDTH, AND GAUGE INDICATED. ALL MEMBERS SHALL HAVE A MINIMUM TURN OF 1/2" AND SATISFY THE MINIMUM PROPERTIES AS PER GALE/INCOR OR APPROVED EQUAL.
- THE GAUGE OF ALL TRACKS SHALL BE NO LIGHTER THAN THE FRAMING BEING CONNECTED, UNLESS OTHERWISE INDICATED.
- ALL WELDING, WHERE USED, SHALL BE IN CONFORMANCE WITH THE AMERICAN WELDING SOCIETY SPECIFICATION D1.3. ALL WELDS SHALL BE TOUCHED UP WITH ZINC RICH PAINT.
- ALL STRUCTURAL MEMBERS SHALL BE PROPERLY CONNECTED TO EACH OTHER AND TO THE SUPPORTING BACK-UP FRAMING. FASTENINGS SHALL BE MADE WITH SELF TAPPING SCREWS OR WELDS OF SUFFICIENT SIZE TO INSURE THE CONNECTION STRENGTH.
- PROVIDE BRIDGING FOR JOISTS AT MIDSPAN AND AT A MAXIMUM SPACING NOT TO EXCEED 6'-0". ALL BRIDGING SHALL BE INSTALLED PRIOR TO THE ADDITION OF ANY LOADING. CONNECT BRIDGING TO EACH MEMBER MANUFACTURER'S REQUIREMENTS.
- PROVIDE WEB STIFFENERS AT JOIST BEARINGS IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.
- PROVIDE THE MANUFACTURER'S STANDARD TRACK, CLIP ANGLES, BRACING, REINFORCEMENTS, FASTENERS AND ACCESSORIES AS REFERENCED BY THE MANUFACTURER FOR THE APPLICATION INDICATED AND AS NEEDED TO PROVIDE A COMPLETE FRAMING SYSTEM, UNLESS OTHERWISE NOTED. INSTALL THE METAL FRAMING SYSTEM IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS.
- THE CONTRACTOR SHALL SUBMIT THE FOLLOWING FOR APPROVAL:
 - MANUFACTURER'S PRODUCT DATA AND LATEST TECHNICAL DATA.
 - ERECTION DRAWINGS SHOWING THE NUMBER, TYPE, LOCATION, AND SPACING OF ALL MEMBERS. ALL CONNECTIONS AND ATTACHMENTS SHALL BE CLEARLY SHOWN.
 - THE PROPERTIES OF ALL FRAMING MEMBERS THAT ARE USED IN LOAD BEARING APPLICATIONS, DEMONSTRATING CONFORMANCE WITH THE MINIMUM ACCEPTABLE PROPERTIES NOTED HEREIN.
 - STRUCTURAL CALCULATIONS FOR ALL CONNECTIONS, MEMBER SIZES, PLACEMENT, ETC. BEARING THE SEAL OF A MICHIGAN P.E.

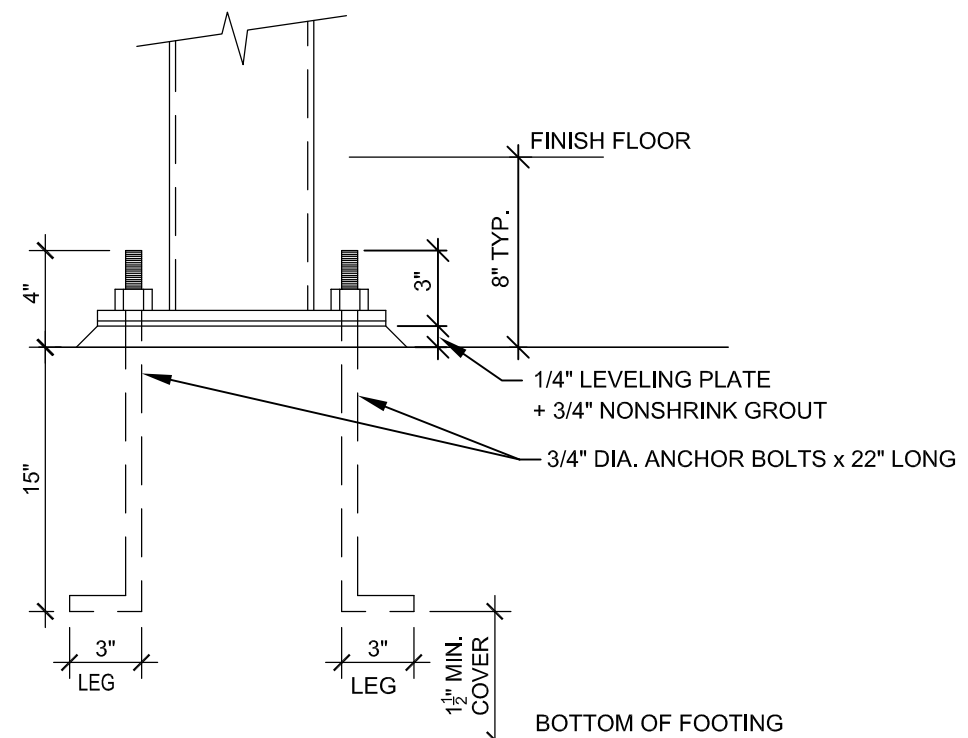
FOUNDATION NOTES

- ALL FOOTINGS SHOULD EXTEND THROUGH NON-ENGINEERED FILL SOILS. SOILS CONTAINING A SIGNIFICANT AMOUNT OF ORGANIC SUBSTANCES OR EXCESSIVELY WEAK SOILS. FOUNDATIONS ARE DESIGNED TO BEAR ON VIRGIN, UNDISTURBED SOIL WITH A MINIMUM ALLOWABLE BEARING PRESSURE AS NOTED ON THE PLANS OR SCHEDULES. THE SERVICES OF A QUALIFIED SOILS ENGINEER SHALL BE ENGAGED TO INSPECT THE SOILS IN THE FOOTING EXCAVATIONS PRIOR TO CONCRETING IN ORDER TO ENSURE THAT THE SOILS HAVE THE REQUIRED BEARING CAPACITY OF 2,000 P.S.F.
- BOTTOMS OF FOUNDATION EXCAVATIONS SHALL BE FLAT LEVEL PLANES AND SHALL BE CLEAN AND FREE OF DEBRIS PRIOR TO PLACING CONCRETE.
- CONCRETE WORK AND PLACEMENT SHALL CONFORM TO THE LATEST SPECIFICATIONS OF THE AMERICAN CONCRETE INSTITUTE (ACI 318-05).
- CONCRETE COMPRESSIVE STRENGTH:
 - 3,000 PSI AT 28 DAYS FOR FOUNDATION, WALLS AND INTERIOR SLABS.
 - 4,000 PSI AT 28 DAYS (6% +/-1%) AIR ENTRAINED FOR EXTERIOR SLABS, WALKS AND CURBING.
- ALL REINFORCING BARS, DOWELS, AND TIES SHALL CONFORM TO ASTM A615 GRADE 60. REINFORCING STEEL SHALL BE KEPT CLEAN AND FREE OF DIRT OR MUD.
- EXTEND ALL REINFORCING AROUND CORNERS FOR CONTINUITY. MINIMUM LAP TO BE 24"
- ALL WELDED WIRE FABRIC, WHERE USED, SHALL CONFORM WITH ASTM A-185 AND SHALL BE POSITIONED AT THE MID-HEIGHT OF SLAB.
- ALL REINFORCING SHALL BE PLACED AND SECURELY TIED IN PLACE SUFFICIENTLY AHEAD OF PLACING CONCRETE TO ALLOW INSPECTION AND CORRECTION, IF NECESSARY, WITHOUT DELAYING THE CONCRETING OPERATION.

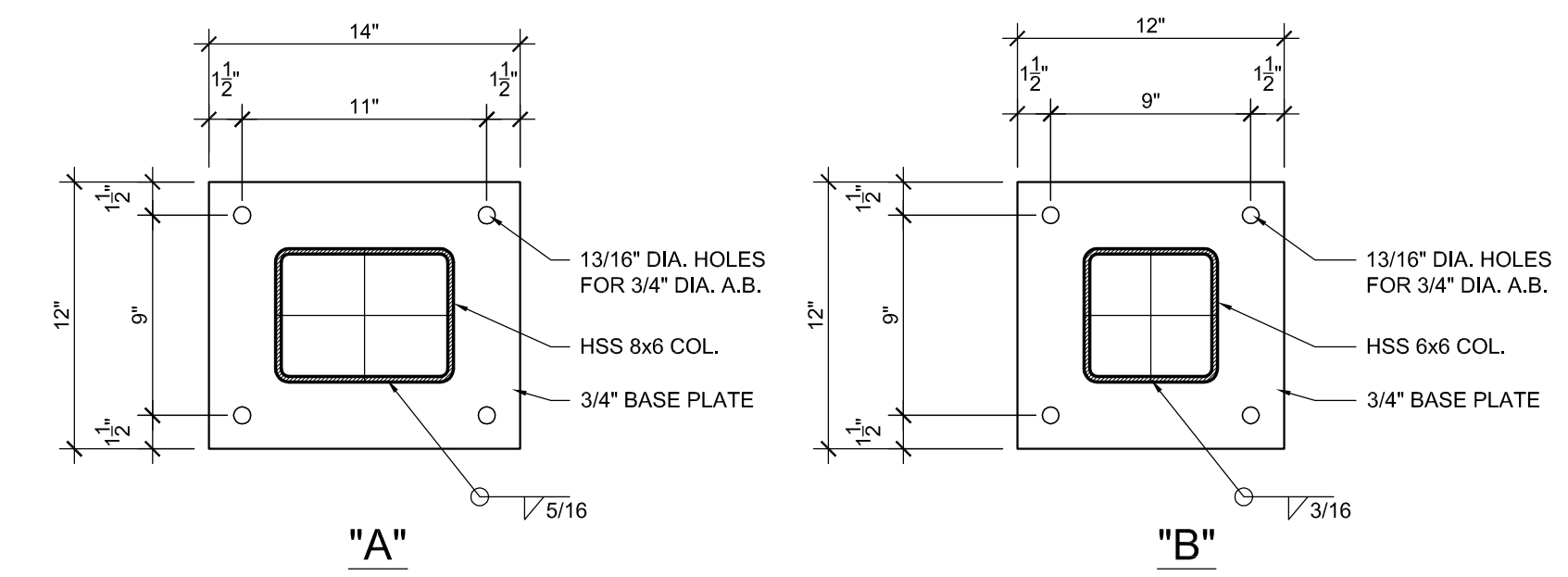
SUBGRADE PREPARATION IN BUILDING ENVELOPE

SOIL PREPARATION PROCEDURES AS RECOMMENDED BY THE PROJECT SOILS ENGINEER SHALL BE FOLLOWED. AT A MINIMUM, THE FOLLOWING PROCEDURE IS TO BE ADHERED TO.

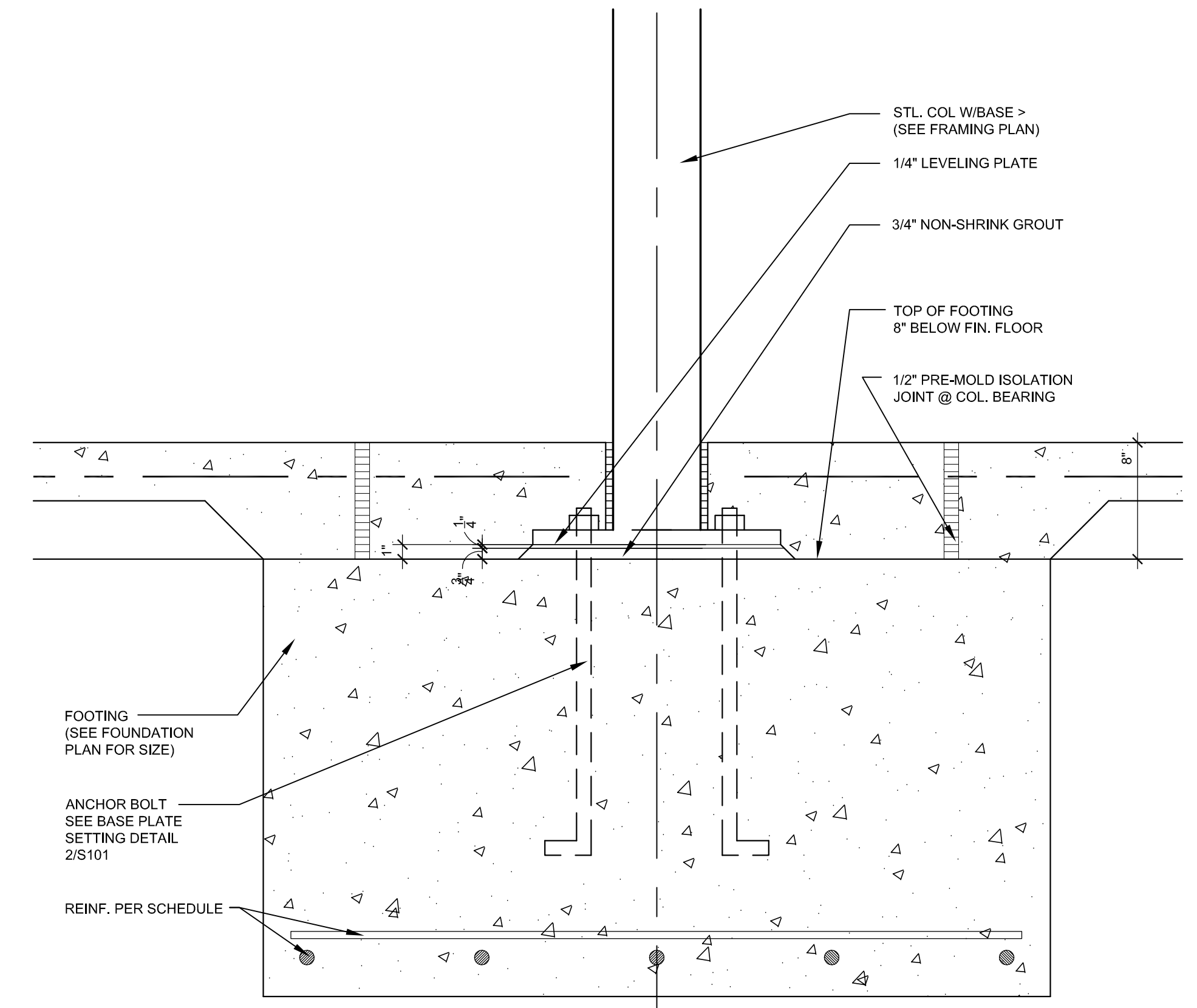
ALL SOILS WITH SIGNIFICANT ORGANICS AND ANY OTHER UNDESIRABLE TOPSOILS SHALL BE STRIPPED FROM THE SITE. THE SITE SHALL THEN BE EXAMINED BY A QUALIFIED SOILS ENGINEER TO EVALUATE THE NEED FOR FURTHER REMOVAL OF ANY OTHER UNDESIRABLE MATERIALS. IF ANY, THE SITE SHALL THEN BE PROOF-ROLLED WITH EQUIPMENT AS RECOMMENDED BY THE SOILS ENGINEER. ANY SOFT OR LOOSE SPOTS DETECTED BY PROOF-ROLLING SHALL EITHER BE RECOMPACTED OR REMOVED AND REPLACED WITH AN ENGINEERED FILL. ALL MATERIALS PLACED AS A FILL SHALL BE ENGINEERED, PLACED IN LEVEL LIFTS NOT EXCEEDING NINE INCHES (9") IN LOOSE THICKNESS AND COMPACTED TO AT LEAST NINETY-FIVE PERCENT (95%) OF THE MAXIMUM LABORATORY DENSITY FOLLOWING ASTM D-1557 PROCEDURES (MODIFIED PROCTOR TEST). INSPECTION AND TESTING SHALL BE PERFORMED TO ENSURE THAT SUITABLE MATERIALS ARE BEING USED FOR CONTROLLED FILLS AND THAT THEY ARE PROPERLY PLACED AND COMPACTED.



2 BASE PLATE SETTING DETAIL
SCALE: 1 1/2" = 1'-0"



3 BASE PLATE DETAILS
SCALE: 1 1/2" = 1'-0"



1 COLUMN FOOTING
SCALE: 1 1/2" = 1'-0"

NOTE:
REFER TO THE SECTIONS FOR ADDITIONAL FOUNDATION AND FRAMING INFORMATION. THE SECTIONS ARE PART OF THE FOUNDATION & FRAMING DRAWINGS.

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PROJECT NAME:
PROPOSED MULTI-TENANT BUILDING WITH DRIVE THRU

PERMIT SUBMISSION
04-18-2022

ADDRESS:
21220 GREENFIELD RD
OAK PARK , MI 48237

NOT FOR CONSTRUCTION

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SHEET TITLE
FOUNDATION & FRAMING NOTES & DETAILS

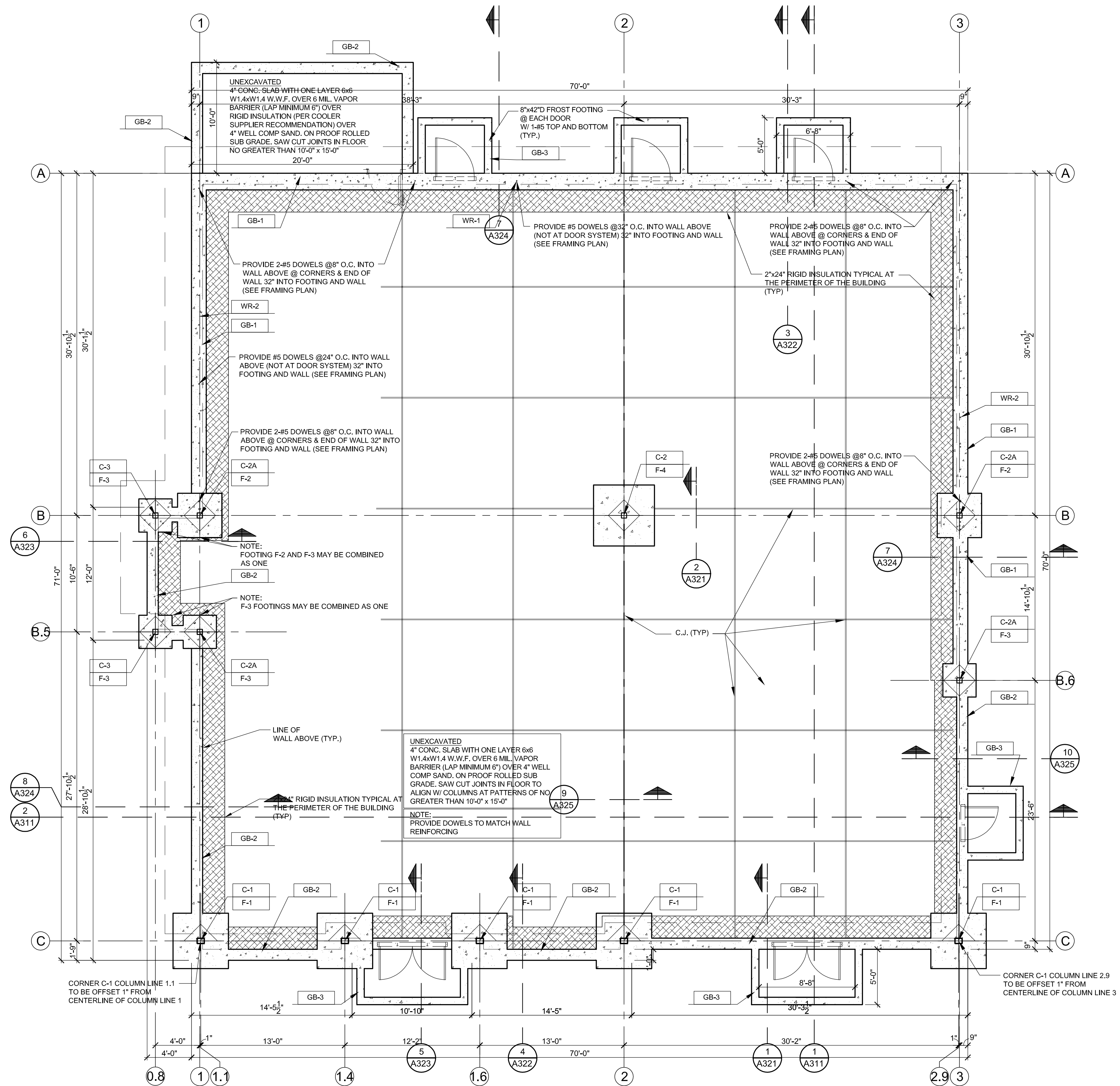
DWG. NO.
S1.0.1

FOOTING SCHEDULE		(2,000 PSF SOIL DESIGN PRESSURE)		
MARK	SIZE	DEPTH	REINFORCING	NOTES
F-1	5'-0" x 5'-0"	SEE NOTE #6	5 #5 EW BOT.	1, 2, 5, 6
F-2	4'-0" x 4'-0"	SEE NOTE #6	4 #5 EW BOT.	1, 2, 5, 6
F-3	3'-0" x 3'-0"	SEE NOTE #6	NONE	1, 2, 5, 6
F-4	5'-6" x 5'-6"	2'-0" MIN.	5 #5 EW BOT.	1, 5, 6
GB-1	16" MIN	SEE NOTE #6	2 #5 T&B CONT.	3, 4, 5
GB-2	12" MIN	SEE NOTE #6	2 #5 T&B CONT.	3, 5
GB-3	8" MIN	SEE NOTE #6	1 #5 T&B CONT.	5, 6

FOOTING NOTE:

- CENTER FOOTING UNDER BLDG. COLUMN.
- TRENCH FOOTING ENLARGEMENT, TRENCH REINF. RUNS CONTINUOUS THRU FOOTING.
- ENLARGE AT COL. FTGS AND WHERE REQUIRED FOR BRICK PIER.
- PROVIDE DOWELS FROM FTGS. INTO WALL TO MATCH WALL REINFORCING. WHERE MASONRY WALL ABOVE SOIL CAPACITY TO BE FIELD VERIFIED CONTINUOUSLY BY SOILS ENGINEER. INCREASE DEPTH OF FOOTING TO MAINTAIN CONSISTENT SOIL CAPACITY. STEP FOOTING DOWN A MAXIMUM OF 1'-0" IN 2'-0" WITH REINFORCING CONTINUOUS.
- FOOTING DEPTH TO BE MINIMUM OF 3'-6", AND BASED UPON FIELD DIRECTION OF SOILS ENGINEER WILL BE DEEPENED TO OBTAIN MINIMUM OF 2,000 PSF BEARING CAPACITY.

WALL REINFORCING SCHEDULE		
MARK	SIZE & SPACING	COMMENTS
WR-1	#5 VERT. @ 32" O.C. FULL HT.	w/ DOWELS MATCHING INTO FOUNDATION BELOW. GROUT CORES SOLID w/ CONCRETE GROUT LADDER TYPE HORIZ. REINF., EVERY OTHER COURSE
WR-2	#5 VERT. @ 24" O.C. FULL HT.	w/ DOWELS MATCHING INTO FOUNDATION BELOW. GROUT CORES SOLID w/ CONCRETE GROUT LADDER TYPE HORIZ. REINF., EVERY OTHER COURSE



1 FOUNDATION PLAN
 SCALE: 3/16" = 1'-0"
 NORTH

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PROJECT NAME:
PROPOSED MULTI-TENANT BUILDING WITH DRIVE THRU

PERMIT SUBMISSION
 04-18-2022

ADDRESS:
 21220 GREENFIELD RD
 OAK PARK, MI 48237

NOT FOR CONSTRUCTION

ALL DIMENSIONS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR COORDINATION OF ALL DIMENSIONS.

JOB NO.	21-0968
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ISSUANCES	
NO DESCRIPTION	DATE
1 PERMIT SUBMISSION	04/18/22

SHEET TITLE
FOUNDATION PLAN

DWG. NO.
S1.1.1

MARK	SIZE	CAP PLATE	BASE PLATE / TYPE	ANCHOR BOLTS	NOTES
C-1	HSS 8 x 6 x 3/8"	AS REQ'D	14x12x3/4 / "A"	4-3/4" ϕ	1, 2
C-2	HSS 6 x 6 x 3/8"	AS REQ'D	12x12x3/4 / "B"	4-3/4" ϕ	4
C-2A	HSS 6 x 6 x 3/8"	AS REQ'D	12x12x3/4 / "B"	4-3/4" ϕ	3, 4
C-3	HSS 6 x 6 x 1/4"	AS REQ'D	12x12x3/4 / "B"	4-3/4" ϕ	3, 4

COLUMN SCHEDULE NOTES:

- MAJOR AXIS OF COLUMN PARALLEL WITH WALL.
- CONNECT BEAMS USING 1/2" PLATE. SHEAR TABS WITH BOLTS PER TYPICAL AISC DETAILING PRACTICE.
- WHERE ADJACENT TO MASONRY, PROVIDE 1"x1/8" STRAPS WELDED TO COLUMN AT 32" O.C. VERT. SPACING. GROUT SOLID AT STRAP BENT INTO MASONRY CORES.
- PROVIDE 3/4" CAP PLATE FOR GIRDER BEARING

MARK	DESCRIPTION	COMMENTS	BOLT TO WALL (WHERE MASONRY)
A-1	L4 x 4 x 1/4"	WELD TO TOP CHORD OF BEAM OR JOIST W/ 4" WELD @ 24" O.C.	24" O.C. W/ 1/2" DIA. x 5" ANCHORS
A-2	L4 x 4 x 1/4"	WELD TO TOP CHORD OF JOIST W/ 4" WELD	24" O.C. W/ 1/2" DIA. x 5" ANCHORS

BRACING BR:

- BR-1 L4x4x1/4 BRACE, L4x4x1/4 BETWEEN BOT. CHORD AT PANEL POINT, TYP. BRACE TO VERT TIE AT FRONT WALL
- BR-2 L4x4x1/4 BRACE TO VERT TIE @ END WALL, UP TO TOP CHORD OF JOIST
- BR-3 L4x4x1/4 BRACING AT BOTTOM OF DECK, TYP. @ END WALL WIND COLUMN

BP SCHEDULE:

- BP-1 = 6" x 3/8" x 10" BEARING PLATE W/ 2 1/2" DIA x 5" LONG STUD ANCHORS. TYPICAL AT ALL JOISTS.

MARK	SIZE & SPACING	COMMENTS
WR-1	#5 VERT. @ 32" O.C. FULL HT.	w/ DOWELS MATCHING INTO FOUNDATION BELOW. GROUT CORES SOLID w/ CONCRETE GROUT LADDER TYPE HORIZ. REINF., EVERY OTHER COURSE
WR-2	#5 VERT. @ 24" O.C. FULL HT.	w/ DOWELS MATCHING INTO FOUNDATION BELOW. GROUT CORES SOLID w/ CONCRETE GROUT LADDER TYPE HORIZ. REINF., EVERY OTHER COURSE

MARK	DESCRIPTION	COMMENTS	BOLT TO WALL
PCL+L	L5 x 3-1/2 x 1/4" LLV	L SECURE TO WALL	1/2" DIA. x 5" ANCHORS @ 24" O.C.

NOTE:
PCL = 12" OR 8" PRECAST MASONRY LINTEL WITH 2-#4 BARS TOP & BOTTOM

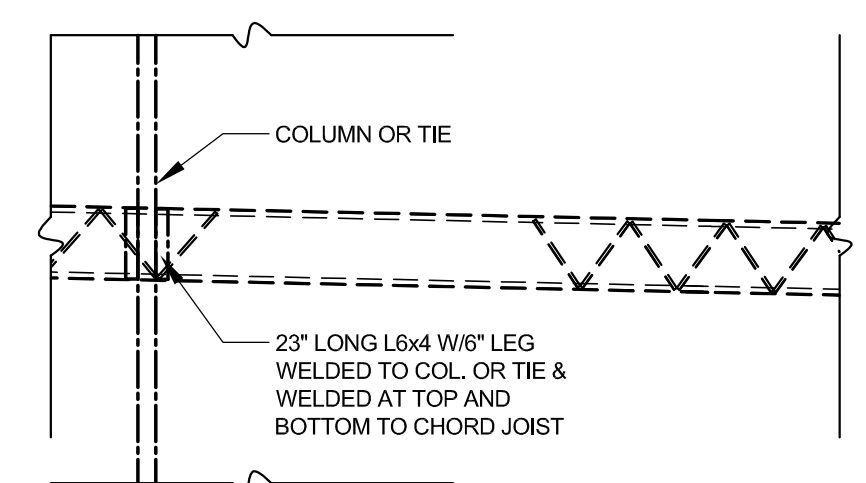
1-1/2"x20 GA. TYPE B ROOF DECK
3 SPAN MINIMUM
NOTE:
METAL ROOF DECK TO CONFORM TO AISI 100 OR SID-RD1.0.

DECK FASTENING PATTERN:
36/5, 5/8 PUDDLE WELD, 2-#10 TEK SIDELAP

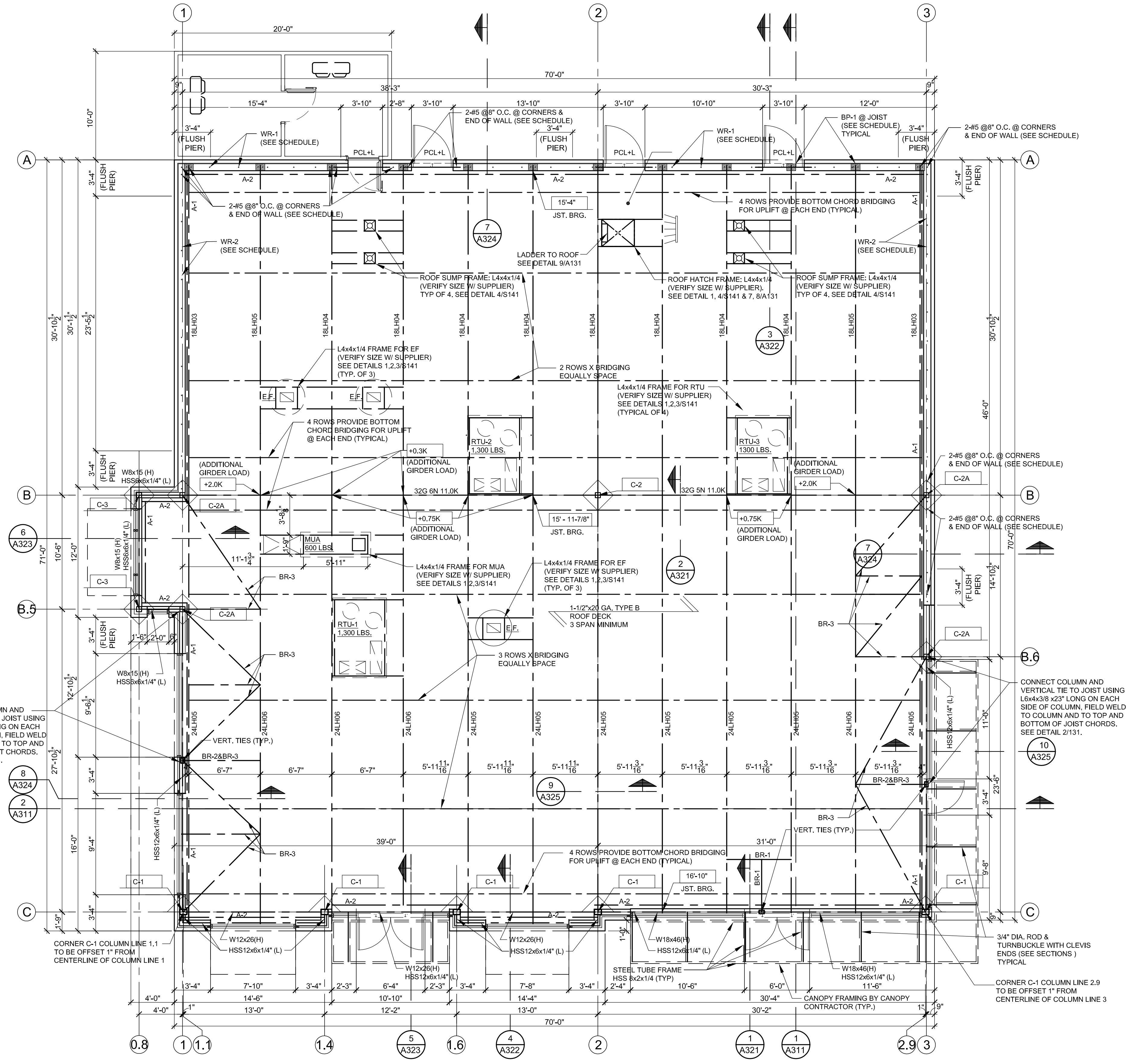
ROOF DESIGN LOAD
SNOW—30PSF
DRIFT—PER ASCE-7-10
DEAD LOAD—20PSF
MECH. UNITS—1300# EACH

NOTE:
JOIST DESIGN INCLUDES DRIFT LOADS DUE TO PARAPETS AND MECHANICAL UNIT LOADING. REFER TO STRUCTURAL ANALYSIS FOR DETAIL.

DESIGN LOAD NOTE:
JOIST SUPPLIER TO PROVIDE FOR 8 PSF NET UPLIFT TYPICAL



2 CONNECTION DETAIL
SCALE: 3/16" = 1'-0"



1 ROOF FRAMING PLAN
SCALE: 3/16" = 1'-0"

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SHEET TITLE
ROOF FRAMING PLAN

DWG. NO.
S1.3.1



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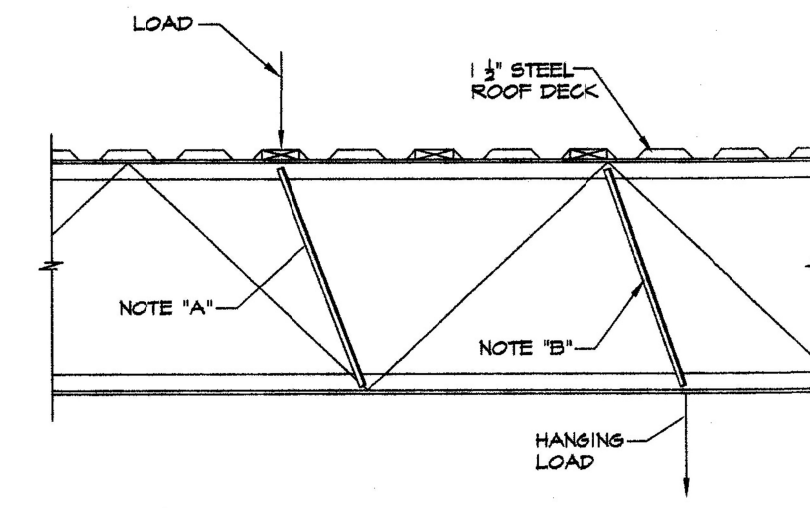
ISSUANCES

NO	DESCRIPTION	DATE
1	PERMIT SUBMISSION	04/18/22

SHEET TITLE
FRAMING DETAILS

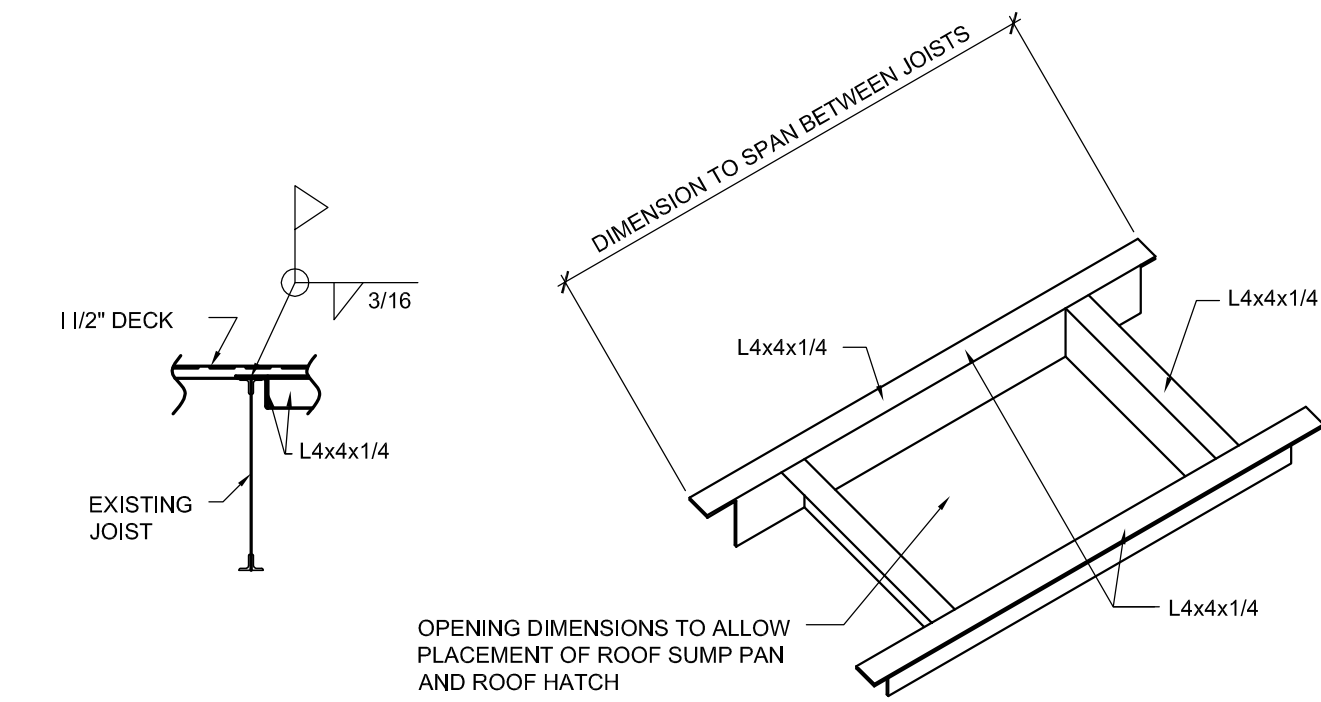
DWG. NO.

S1.4.1



NOTE 'A'
 SUPPORT TOP CHORD OF JOIST $\frac{1}{2}$ "- $\frac{1}{4}$ "- $\frac{1}{4}$ " WELDED TO TOP CHORD OF JOIST AT POINT OF LOAD AND TO BOTTOM CHORD AT PANEL POINT WHEN LOAD IS FARTHER THAN 6" FROM TOP CHORD PANEL POINT.

NOTE 'B'
 SUPPORT BOTTOM CHORD OF JOIST $\frac{1}{2}$ "- $\frac{1}{4}$ "- $\frac{1}{4}$ " WELDED TO BOTTOM CHORD OF JOIST AT LOAD AND TO TOP CHORD AT PANEL POINT WHEN LOAD IS FARTHER THAN 6" FROM BOTTOM CHORD PANEL POINT.

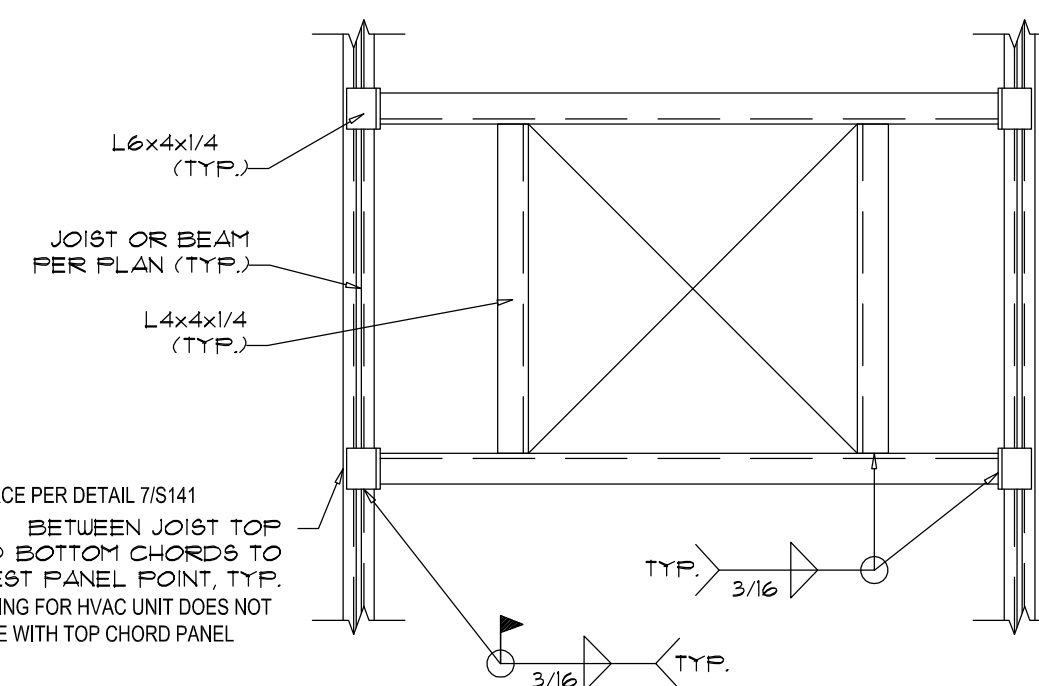


OPENING DIMENSIONS TO ALLOW PLACEMENT OF ROOF SUMP PAN AND ROOF HATCH

2 MECHANICAL SUPPORT DETAIL
 S141 SCALE: N.T.S.

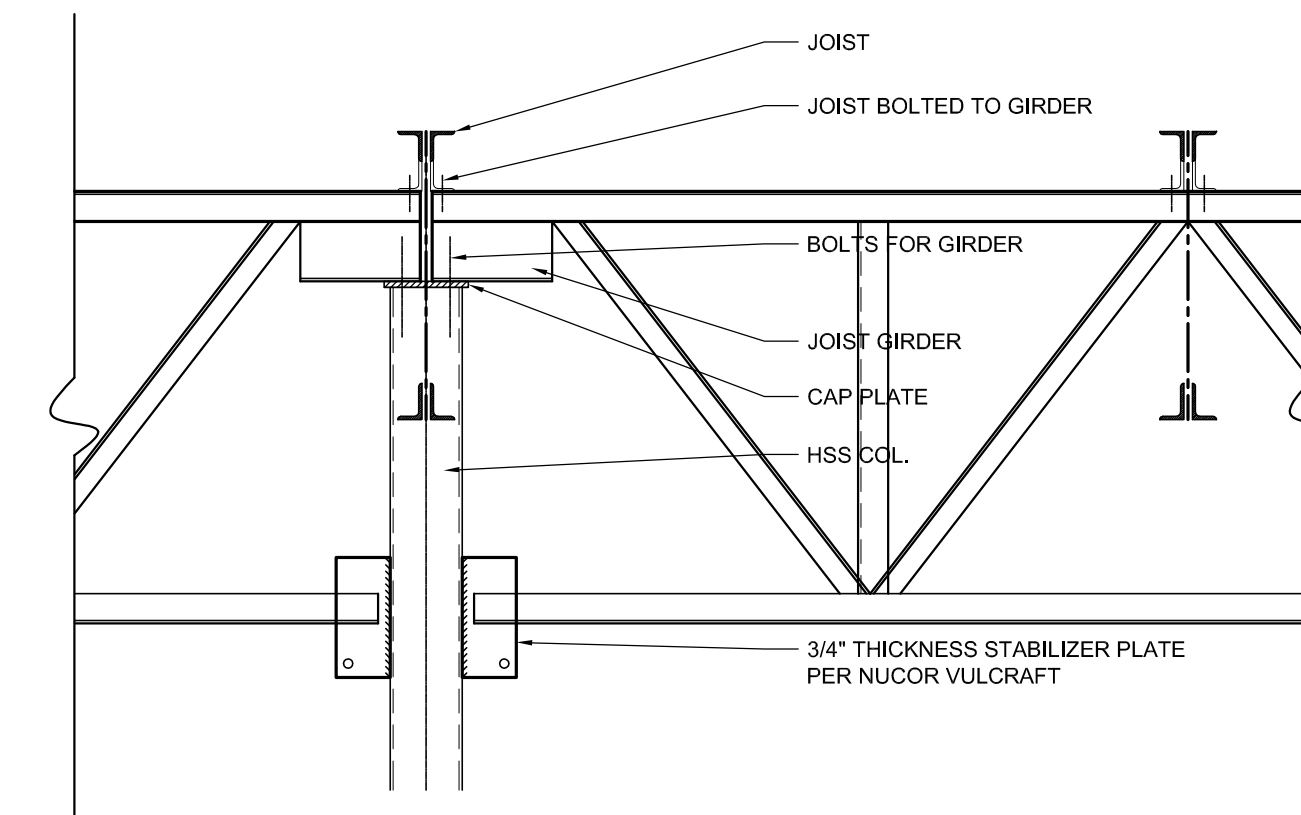
4 ROOF SUMP AND ROOF HATCH FRAMING DETAIL
 S141 SCALE: 1/2" = 1'-0"

NOTE:
 SEE MECH. PLANS FOR LOCATION, SIZE AND NUMBER OF OPENINGS.

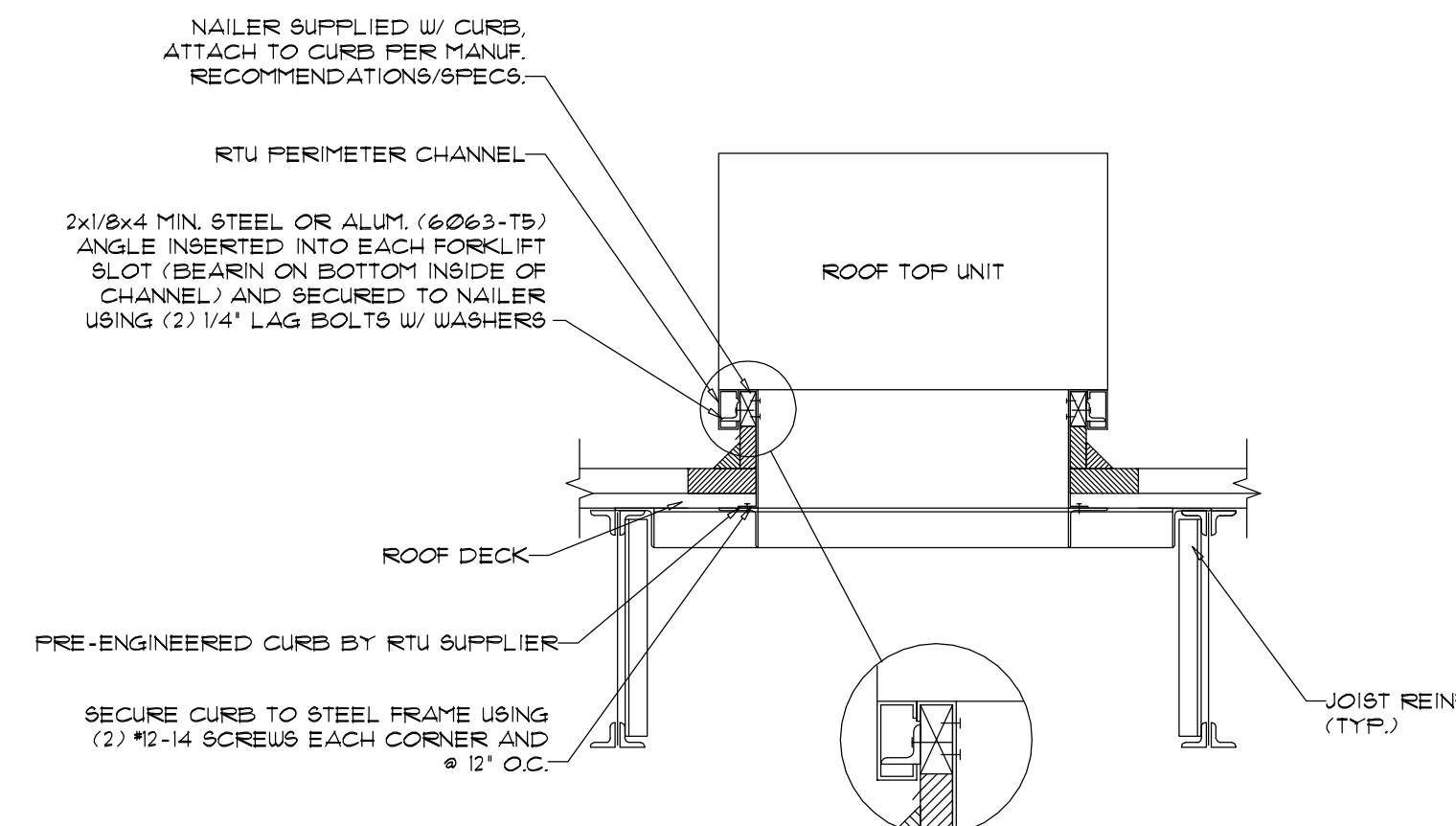


REINFORCE PER DETAIL JIS141 BETWEEN JOIST TOP AND BOTTOM CHORDS TO NEAREST PANEL POINT, TYP. (IF FRAMING FOR HVAC UNIT DOES NOT CONFORM WITH TOP CHORD PANEL POINTS)

PLAN



5 TYPICAL GIRDER / COLUMN CONNECTION ELEVATION DETAIL
 S141 SCALE: 3/4" = 1'-0"



NAILER SUPPLIED W/ CURB. ATTACH TO CURB PER MANUF. RECOMMENDATIONS/SPECS.

RTU PERIMETER CHANNEL

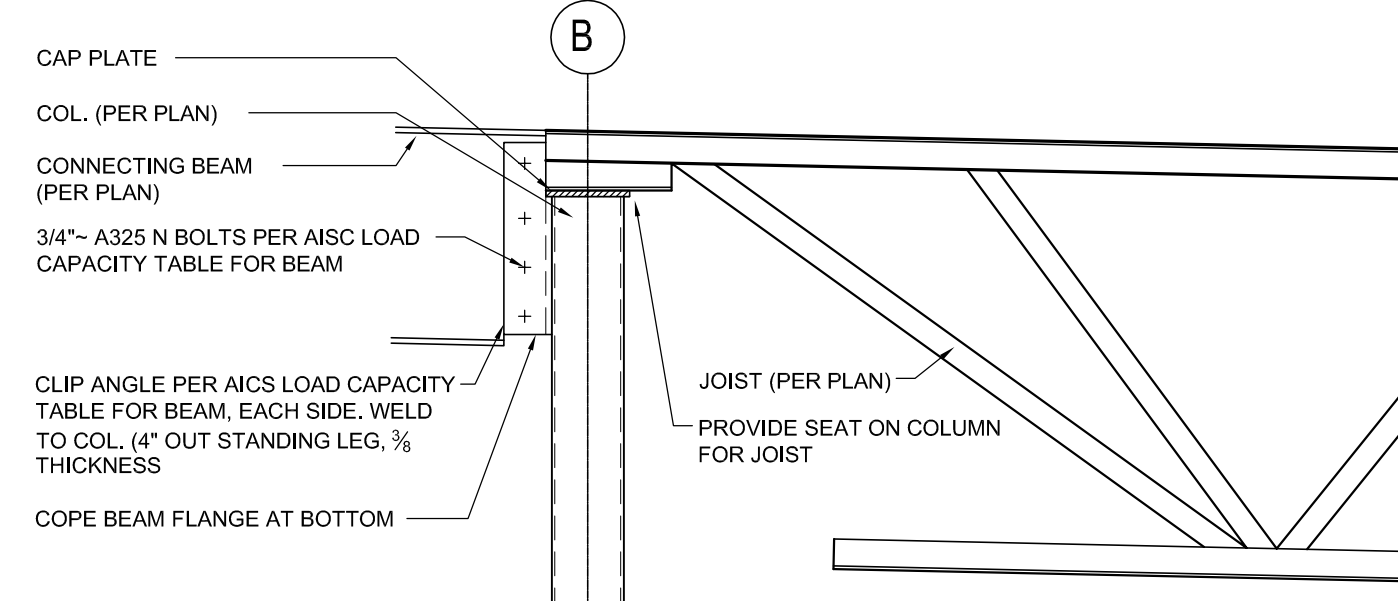
2x1/8x4 MIN. STEEL OR ALUM. (6063-T5) ANGLE INSERTED INTO EACH FORKLIFT SLOT (BEARING ON BOTTOM INSIDE OF CHANNEL) AND SECURED TO NAILER USING (2) 1/4" LAG BOLTS W/ WASHERS

PRE-ENGINEERED CURB BY RTU SUPPLIER

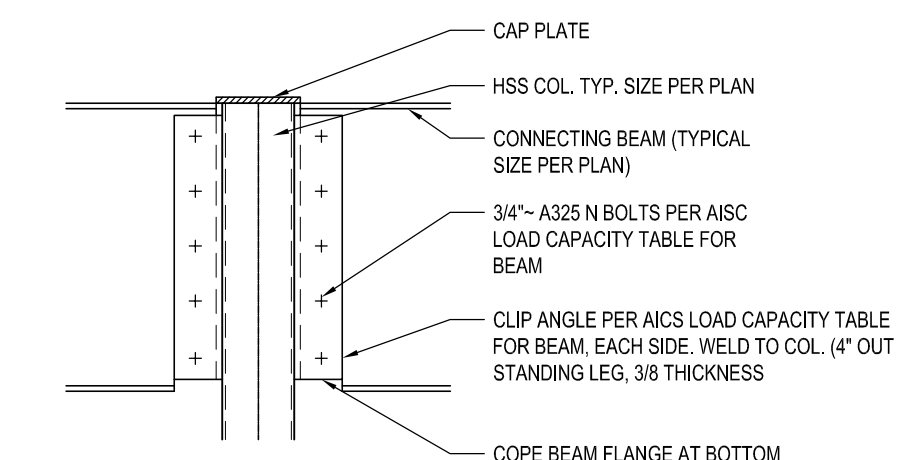
SECURE CURB TO STEEL FRAME USING (2) #12-14 SCREWS EACH CORNER AND @ 12" O.C.

SECTION

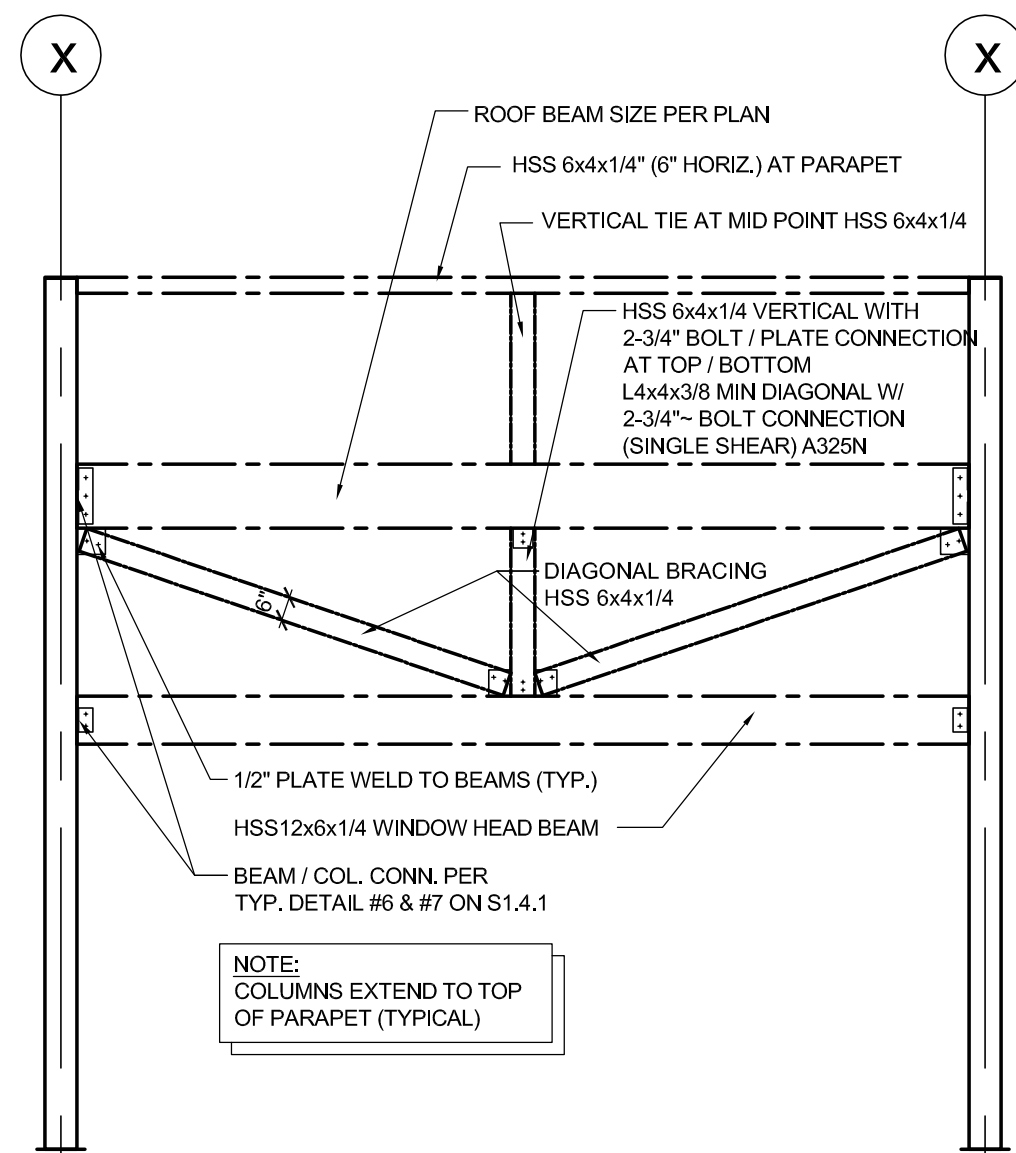
3 ROOF TOP UNIT FRAMING DETAIL
 S141 SCALE: N.T.S.



6 TYPICAL COLUMN TO BEAM CONNECTION DETAIL (HSS COL'S)
 S141 SCALE: 3/4" = 1'-0"



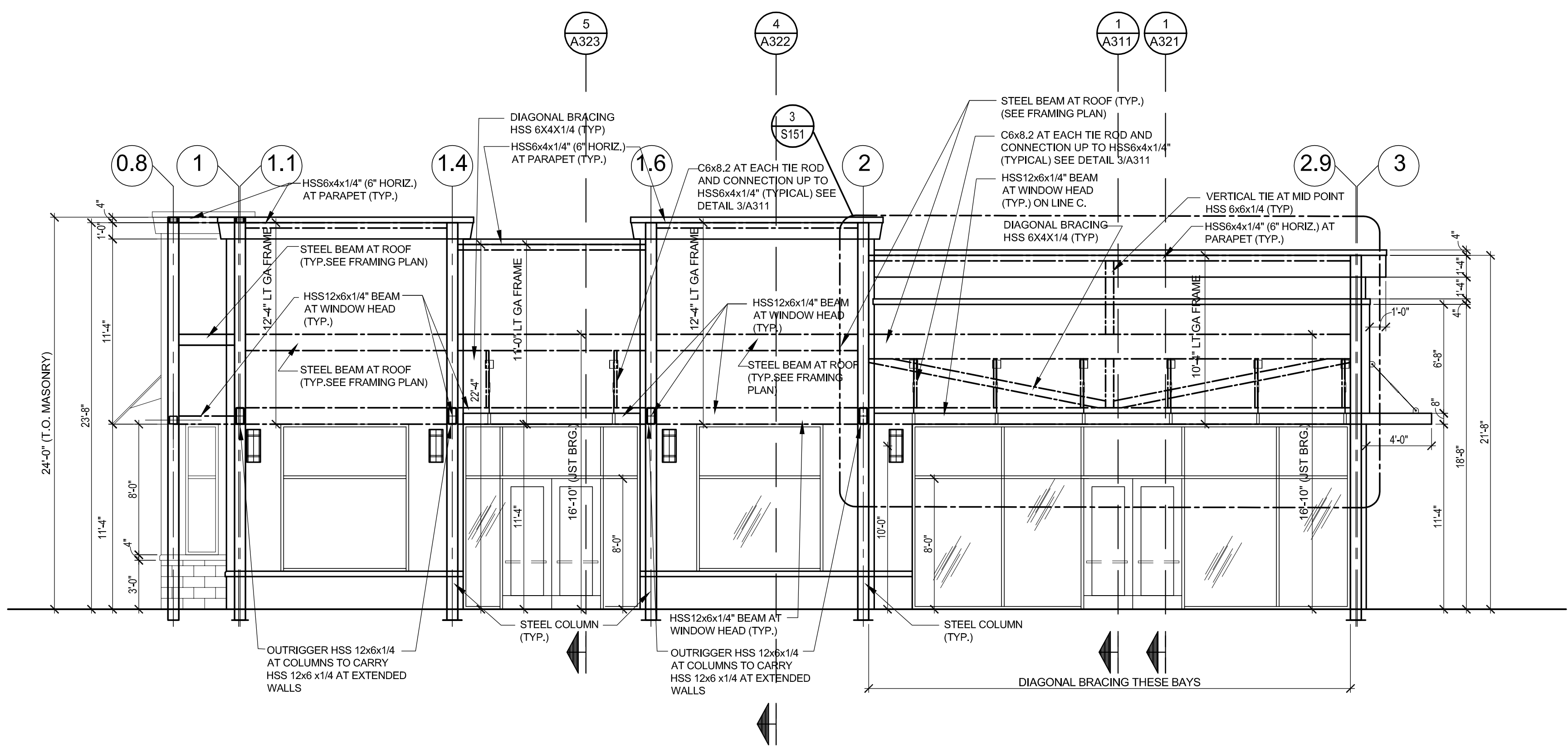
7 TYPICAL BEAM / COLUMN CONNECTION ELEVATION DETAIL
 S141 SCALE: 3/4" = 1'-0"



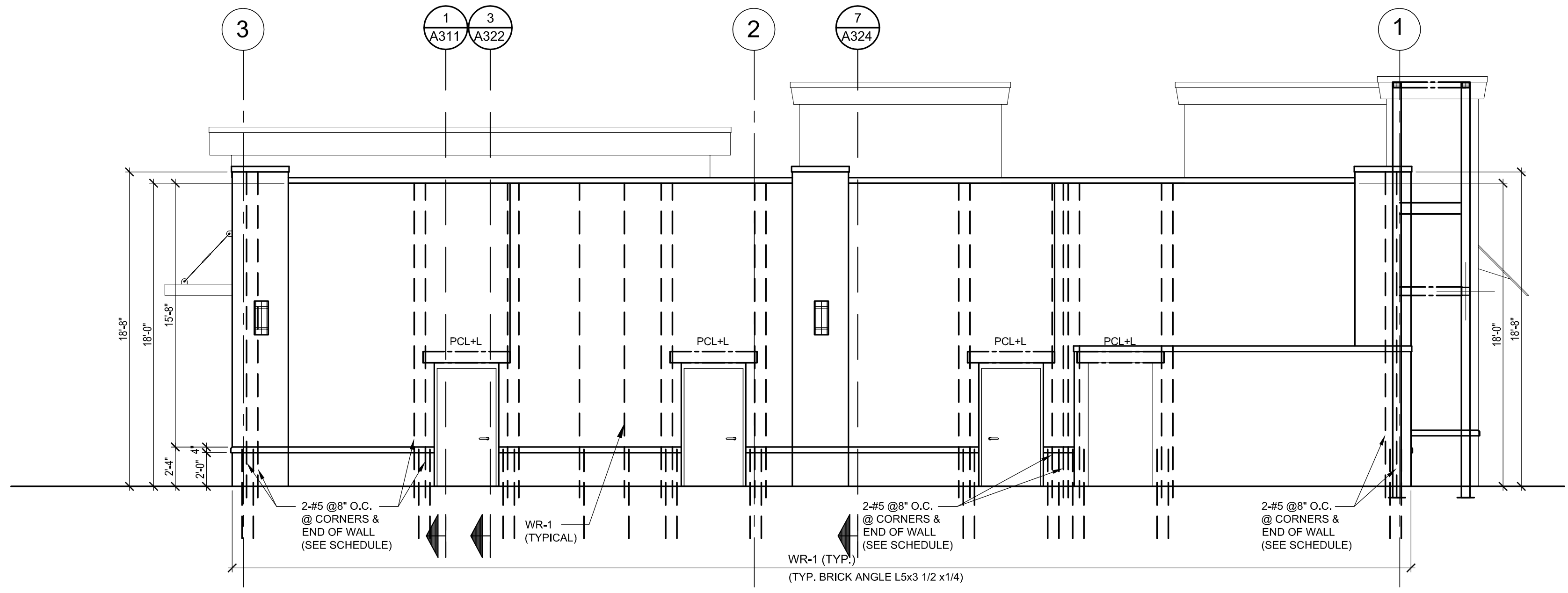
3 TYPICAL DIAGONAL BRACING DETAIL
S151 SCALE: 1/4" = 1'-0"

WALL REINFORCING SCHEDULE		
MARK	SIZE & SPACING	COMMENTS
WR-1	#5 VERT. @ 32" O.C. FULL HT.	w/ DOWELS MATCHING INTO FOUNDATION BELOW. GROUT CORES SOLID w/ CONCRETE GROUT LADDER TYPE HORIZ. REINF., EVERY OTHER COURSE
WR-2	#5 VERT. @ 24" O.C. FULL HT.	w/ DOWELS MATCHING INTO FOUNDATION BELOW. GROUT CORES SOLID w/ CONCRETE GROUT LADDER TYPE HORIZ. REINF., EVERY OTHER COURSE

BP SCHEDULE:
 BP-1 = 6" x 3/8" x 10" BEARING PLATE W/ 1/2" DIA x 5" LONG STUD ANCHORS. TYPICAL AT ALL JOIST
 BP-2 = 8" x 3/8" x 10" BEARING PLATE W/ 1/2" DIA x 5" LONG STUD ANCHORS. TYPICAL AT ALL BEAM



1 WEST ELEVATION
S151 SCALE: 3/16" = 1'-0"



2 EAST ELEVATION
S151 SCALE: 3/16" = 1'-0"

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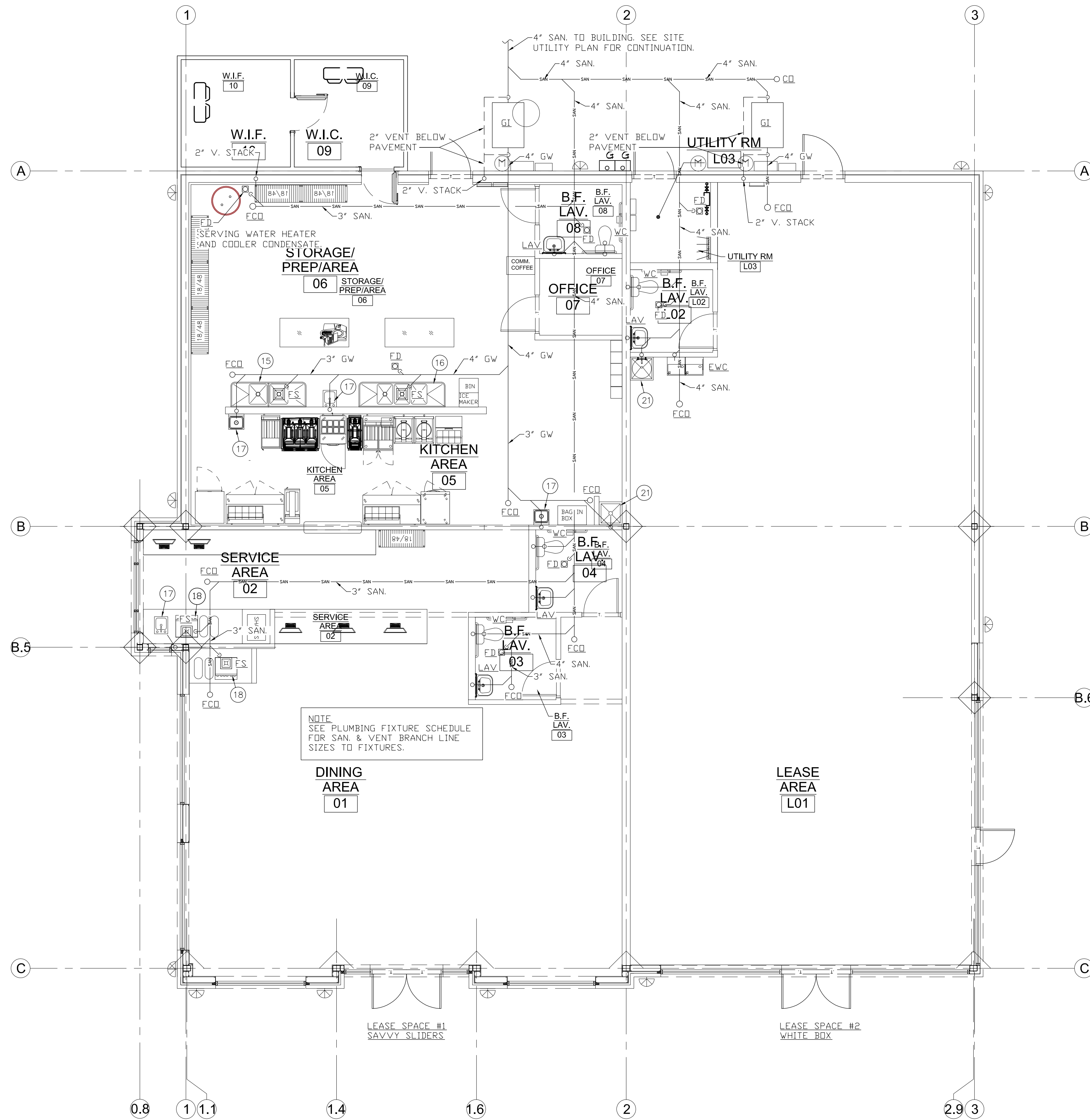
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SHEET TITLE
FRAMING ELEVATIONS

DWG. NO.
S1.5.1



1 SANITARY & VENT FLOOR PLAN
 SCALE: 3/16" = 1'-0"
 NORTH

PLUMBING ABBREVIATION LIST

AC UNIT	AIR CONDITIONING UNIT
AFF	ABOVE FINISHED FLOOR
AMPS	AMPERES
APPROX	APPROXIMATE
BFF	BELOW FINISHED FLOOR
BTU/HR	BRITISH THERMAL UNITS PER HOUR
CAP	CAPACITY
CFM	CUBIC FEET PER MINUTE
CI	CAST IRON
CO	CLEAN OUT
CWV	COMBINATION WASTE & VENT
COMP	COMPRESSOR
COND	CONDENSATE
CONTR	CONTRACTOR
CW	DOMESTIC COLD WATER
DB	DRY BULB
DN	DOWN
EWC	ELECTRIC WATER COOLER
EXH	EXHAUST
EXIST	EXISTING
F	FAHRENHEIT
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN
FLA	FULL LOAD AMPERES
FLEX	FLEXIBLE
FP	FIRE PROTECTION
FS	FLOOR SINK
FT	FEET
G	GAS
GW	GREASE WASTE
GD	GUTTER DRAIN
GPM	GALLONS PER MINUTE
GUH	GAS UNIT HEATER
HB	HOSE BIBB
HP	HORSEPOWER
HW	HOT WATER
HWR	HOT WATER RETURN
HZ	HERTZ
IE	INVERT ELEVATION
IN	INCHES
KW	KILOWATTS
MANUF	MANUFACTURER
MAX	MAXIMUM
LAV	LAVATORY
MEZZ	MEZZANINE
MIN	MINIMUM
PE	POWER EXHAUSTER
PNL	PANEL
PRV	PRESSURE RELIEF VALVE
PSIG	POUNDS PER SQUARE INCH - GAUGE
PVB	PRESSURE VACUUM BREAKER
RA	RETURN AIR
RF	RETURN AIR FAN
RLA	RATED LOAD AMPERES
SAN	SANITARY
TYP	TYPICAL
UR	URINAL
V	VOLTS
V.	VENT
VTR	VENT THRU ROOF
W	WASTE
WB	WET BULB
WC	WATER CLOSET
WCO	WALL CLEANOUT
WH	WATER HEATER
⊕	CONNECT NEW TO EXISTING



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SHEET TITLE
SAN. & VENT PLUMBING PLAN

DWG. NO.
P1.0.1



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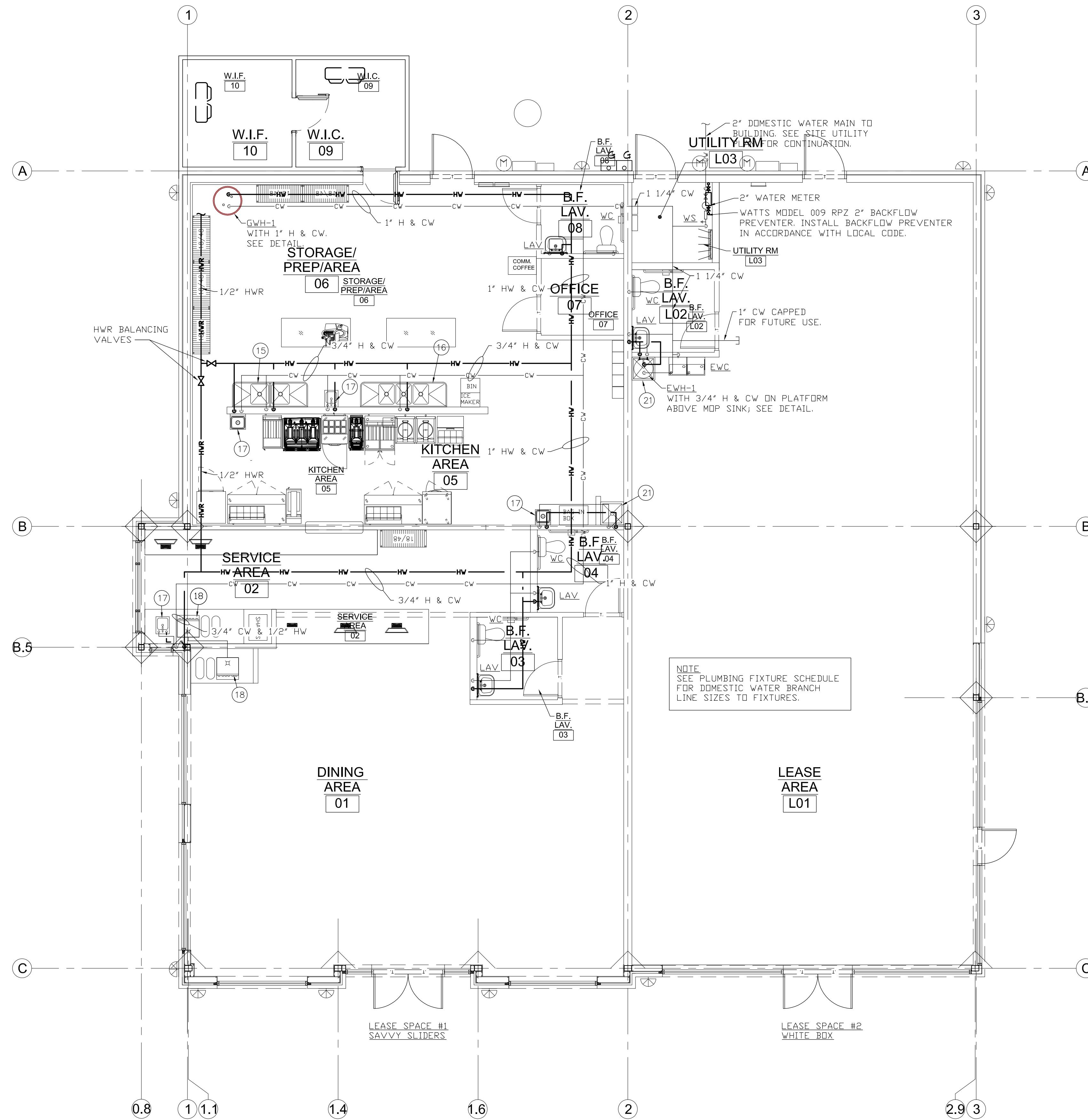
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SHEET TITLE
DOMESTIC WATER PLUMBING PLAN & SPECIFICATIONS

DWG. NO.

P1.0.2



1 DOMESTIC WATER FLOOR PLAN
 SCALE: 3/16" = 1'-0"
 NORTH

PLUMBING SPECIFICATIONS:

GENERAL

1. PLUMBING CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS.
2. PLUMBING INSTALLATION SHALL COMPLY WITH ALL LOCAL CODES.
3. INSTALL NEW PLUMBING LINES TO CONNECT NEW PLUMBING EQUIPMENT AND FIXTURES INDICATED ON PLANS. NEW FIXTURES SHALL BE INSTALLED PER ADA REQUIREMENTS, LOCAL CODES AND MANUFACTURERS REQUIREMENTS.
4. INCLUDE ALL NECESSARY ANCHORS, BRACES, MISCELLANEOUS STEEL, WALL BRACKETS AND RISER CLAMPS REQUIRED FOR A PROPER INSTALLATION.
5. VENT LINES THRU ROOF SHALL BE 3" MINIMUM AND SHALL TERMINATE 24" ABOVE ROOF.
6. PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL SHOCK ABSORBERS OR AIR CHAMBERS AT EACH HOT AND COLD WATER FIXTURE CONNECTION. CHAMBERS SHALL BE 18" HIGH AND OF THE SAME DIAMETER AS THE FIXTURE CONNECTION BUT NOT LESS THAN 1/2".
7. SUPPORT ALL RISERS AT BASE.
8. MAKE FINISHED PIPING CLEAN, FREE FROM FOREIGN MATTER AND WITH NO BURRS, WELDING ICICLES OR OTHER OBSTRUCTIONS.
9. INSTALL ALL PIPING TO PERMIT EASY DRAINING. ADJUST HANGERS AND SUPPORTS TO ELIMINATE SAG POCKETS. PROVIDE HOSE END DRAIN VALVES AT ALL LOW POINTS TO PERMIT DRAINING OF THE ENTIRE DOMESTIC WATER SYSTEM.
10. INSTALL PIPING TO PERMIT EXPANSION AND CONTRACTION WITHOUT UNDUE STRESS, PARTICULARLY AT FLASHING AND EQUIPMENT.
11. SUPPORT PIPING FROM ROOF BEAMS, TRUSSES OR JOIST. DO NOT HANG OR SUPPORT PIPING FROM ROOF DECK.
12. NEW PIPING SHALL RUN CONCEALED IN FINISHED AREAS.
13. WHERE PIPES PASS THRU FINISHED WALLS OR CEILING, INSTALL A STEEL OR BRASS ESCUTCHEON PLATE WITH SET SCREW.
14. PERMANENTLY LABEL AND TAG ALL VALVES INDICATING THE PART OF THE SYSTEM CONTROLLED.
15. WARRANTY ALL WORKMANSHIP, MATERIALS AND PERFORMANCE FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE.
16. INSTALL ALL PIPING PARALLEL OR AT RIGHT ANGLES WITH BEAMS, WALLS, OR OTHER BUILDING LINES. INSTALL ALL EXPOSED PIPING AS CLOSE AS PRACTICAL TO WALLS, COLUMNS, OR OVER HEAD CONSTRUCTION TO PROVIDE MAXIMUM HEAD ROOM AND MINIMUM INTERFERENCE WITH USABLE BUILDING SPACE.

WATER

1. NEW DOMESTIC WATER LINES SHALL BE TYPE "L" HARD COPPER WITH SOLDERED COPPER JOINTS AND FITTINGS.
2. SHOCK ABSORBERS AND SHUT-OFF VALVES ARE TO BE PROVIDED AT EACH FIXTURE OR GROUP OF FIXTURES.
3. PROVIDE 1/2" THICK, HEAVY DUTY FIBERGLAS PIPE INSULATION WITH VAPOR BARRIER JACKET ON NEW WATER LINES. COLD WATER LINES SHALL HAVE 1/2" THICK INSULATION. HOT WATER LINES SHALL HAVE 3/4" THICK INSULATION.
4. NEW DOMESTIC WATER LINES SHALL BE THOROUGHLY TREATED AND STERILIZED WITH A LIQUID CHLORINE GAS, WATER SOLUTION IN AMOUNTS OF 250PPM CHLORINE CALCULATED ON THE VOLUME OF WATER IN THE NEW PIPING SYSTEM OR AS DIRECTED BY THE LOCAL HEALTH DEPARTMENT.
5. AFTER STERILIZING, FLUSH ALL LINES THOROUGHLY.

SANITARY & VENT

1. PRIOR TO INSTALLATION OF NEW SANITARY LINES, CHECK AND CONFIRM INVERT ELEVATIONS REQUIRED FOR SEWER CONNECTIONS AND ENSURE THAT THESE CAN BE PROPERLY CONNECTED WITH SLOPE FOR DRAINAGE.
2. NEW SANITARY AND VENT PIPING SHALL BE PVC SCHEDULE 40 ASTM 1488. SANITARY LINES BELOW FLOOR SHALL BE 3" MINIMUM.
3. SANITARY AND WASTE LINES 2 1/2" AND SMALLER SHALL PITCH NOT LESS THAN 1/4" TO THE FOOT. LARGER PIPE SHALL PITCH NOT LESS THAN 1/8" TO THE FOOT.
4. CONTRACTOR SHALL PROVIDE A CLEAN OUT FOR THE SANITARY LINE EVERY 90 FT AND EVERY CHANGE IN DIRECTION.

GAS

1. GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL ASTM A-120-84 PIPE. PIPE SIZES LARGER THAN 2" SHALL HAVE BUTT WELDED JOINTS. PIPE SIZES 2" AND UNDER SHALL HAVE THREADED JOINTS.
2. PROVIDE DRIP LEGS AND CAPS FOR MOISTURE REMOVAL AT ALL EQUIPMENT.
3. PROVIDE AND INSTALL MAXITROL TYPE 325 GAS PRESSURE AT ALL GAS FIRED APPLIANCE. INSTALL REGULATORS SIZED PER EQUIPMENT PRESSURE REQUIREMENTS.



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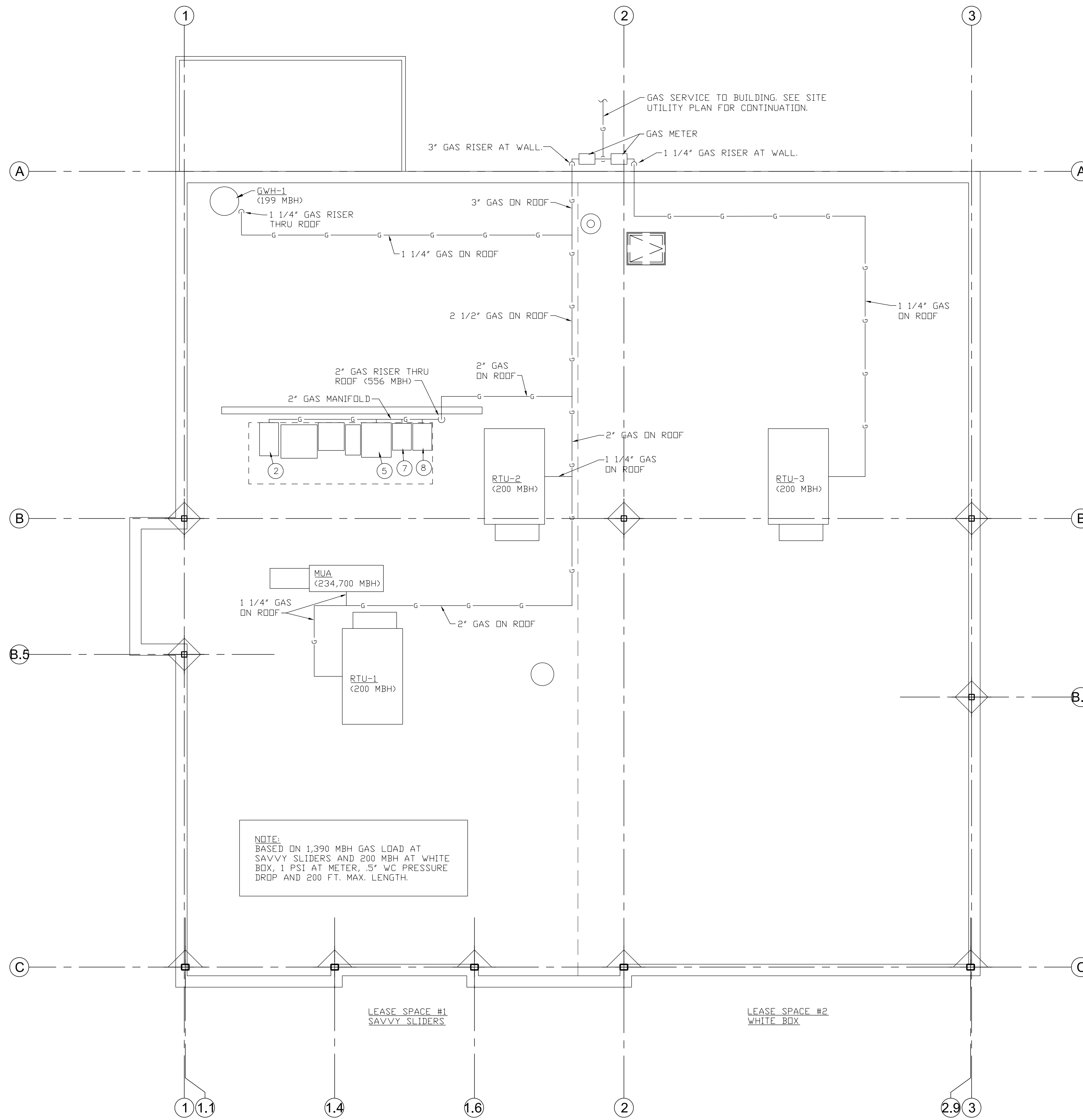
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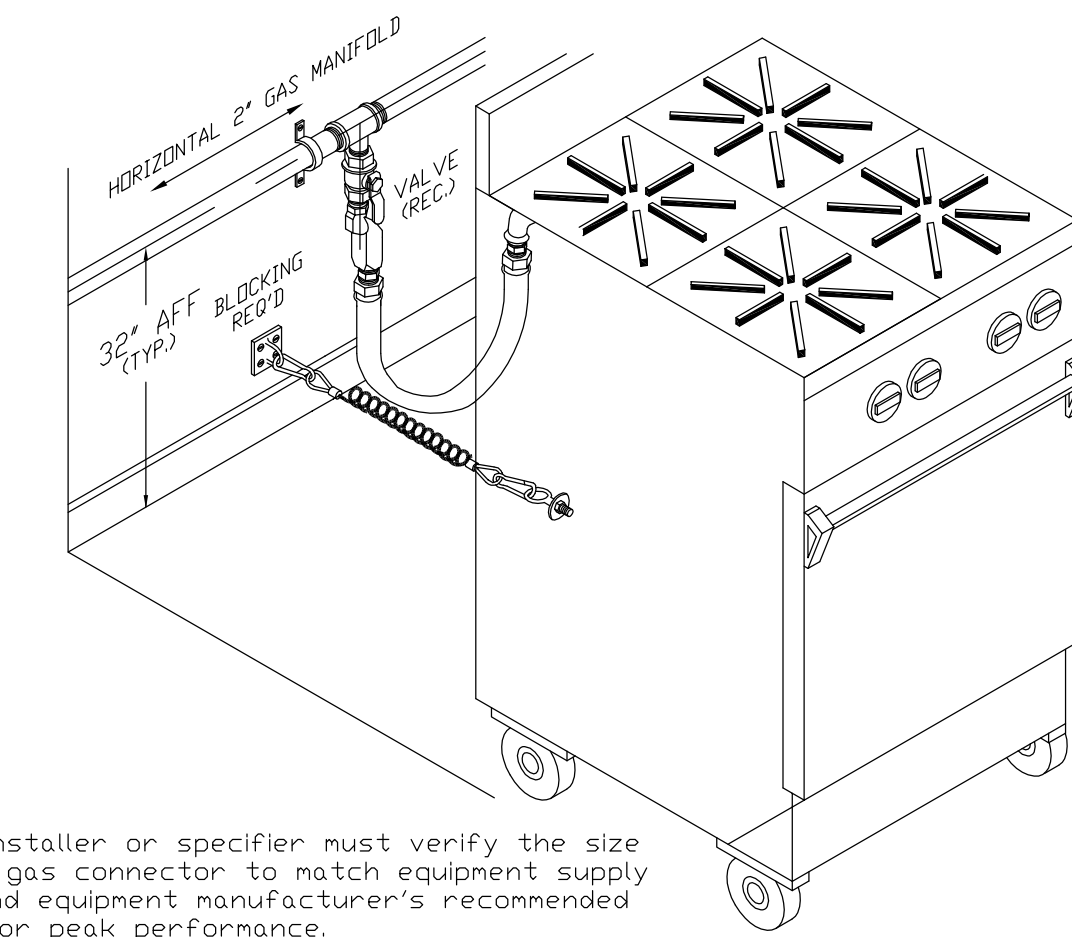
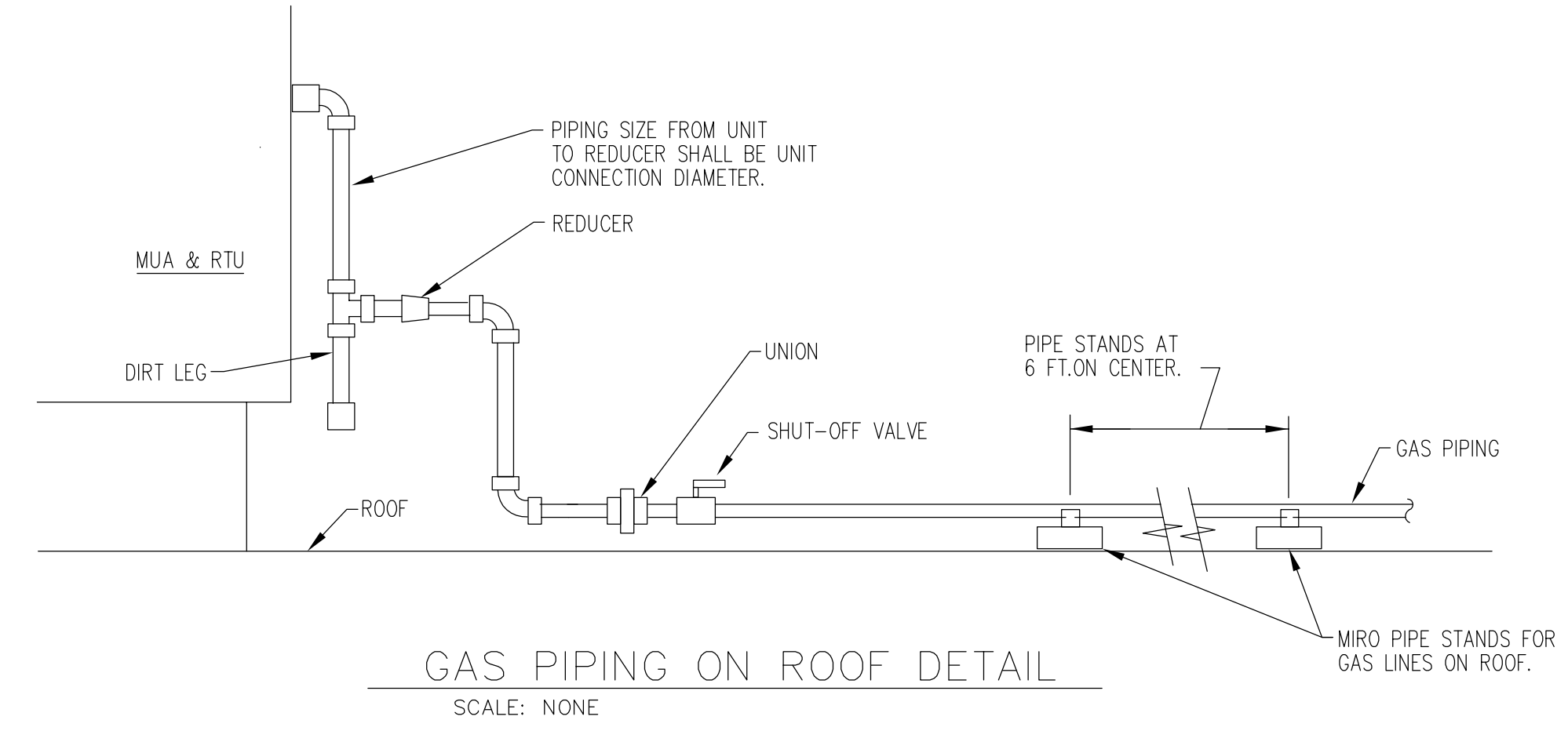
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ISSUANCES

NO	DESCRIPTION	DATE
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1
M103
GAS PIPING ROOF PLAN
SCALE: 3/16" = 1'-0"
NORTH



NOTE: Installer or specifier must verify the size
of the gas connector to match equipment supply
inlet and equipment manufacturer's recommended
BTU'S for peak performance.

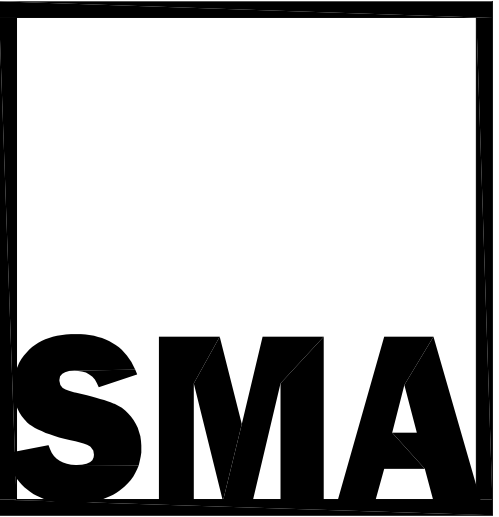
GAS PIPING SCHEDULE (LEASE SPACE #1 SAVVY SLIDERS)

EQUIPMENT	QUANTITY	GAS SIZE	GAS INPUT	TOTAL
RTU-1	1	SEE PLAN	200 MBH	200 MBH
RTU-2	1	SEE PLAN	200 MBH	200 MBH
MUA-1	1	SEE PLAN	235 MBH	235 MBH
GWH-1 GAS WATER HEATER	1	SEE PLAN	199 MBH	199 MBH
② 75 LB. FRYER	1	3/4"	152 MBH	152 MBH
⑤ FILTER FRYER	2	3/4"	152 MBH	304 MBH
⑦ PRESSURE FRYER	1	1/2"	50 MBH	50 MBH
⑧ PRESSURE FRYER	1	1/2"	50 MBH	50 MBH
TOTAL GAS LOAD				1,390 MBH

SHEET TITLE
**GAS PIPING PLAN,
DETAILS AND
SCHEDULE**

DWG. NO.

P1.0.3



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PROJECT NAME:
 PROPOSED MULTI
 TENANT BUILDING
 WITH DRIVE THRU

PERMIT SUBMISSION
 04-18-2022

ADDRESS:
 21220 GREENFIELD RD
 OAK PARK , MI 48237

NOT FOR
 CONSTRUCTION

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JOB NO. 21-0968

D.B./C.B. R.A./P.D

ISSUANCES

NO DESCRIPTION DATE

1 PERMIT SUBMISSION 04/18/22

SHEET TITLE
**PLUMBINGS DETAILS
 AND SCHEDULES**

DWG. NO.

P1.0.5

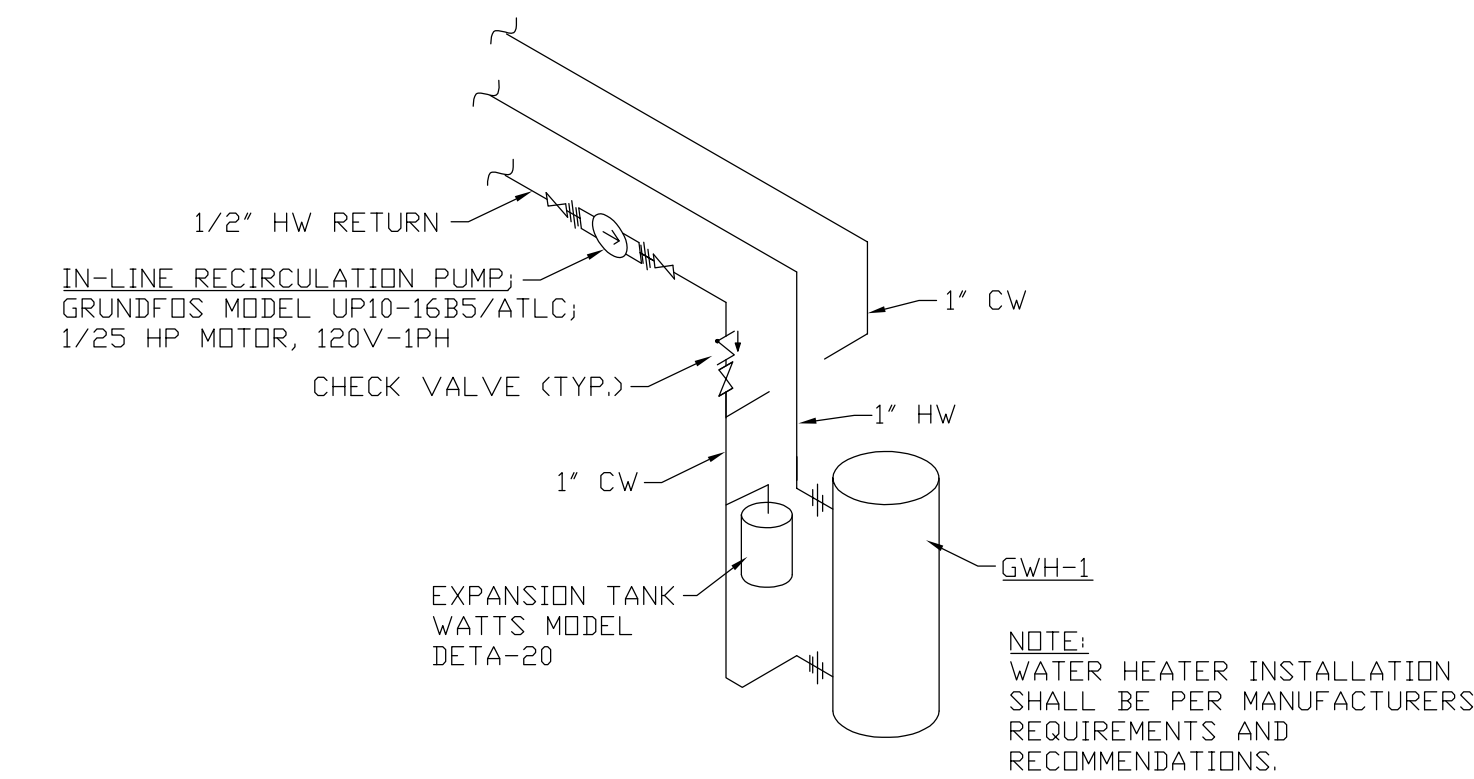
PLUMBING FIXTURE SCHEDULE								
EQUIPMENT	SANITARY	GREASE WASTE	VENT	CW	HW	MANUFACTURER	MODEL	REMARKS
WC ADA WATER CLOSET (TANK TYPE)	4"	-	2"	1/2"	-	KOHLER	K-3493	INCLUDE TANK COVER LOCKS. PROVIDE BENEKE 523SS SEAT.
LAV WALL HUNG LAVATORY	1-1/2"	-	1-1/2"	1/2"	1/2"	KOHLER	K-2005-0	PROVIDE AMERICAN STANDARD MODEL 1480.115 FAUCET. PROVIDE TEMPERING VALVE AT SINK.
WCO WALL CLEAN OUT	-	-	-	-	-	J.R. SMITH	---	WALL CLEAN OUT WITH ROUND ACCESS COVER.
ECO FLOOR CLEAN OUT	-	-	-	-	-	J.R. SMITH	4020 SERIES	
ED FLOOR DRAIN	3"	3"	1-1/2"	-	-	J.R. SMITH	2005-A-B-PB-U	PROVIDE INLINE TRAP SEAL AT FLOOR DRAIN (SEE NOTE BELOW).
ES FLOOR SINK	3"	3"	1-1/2"	-	-	J.R. SMITH	3100 SERIES	12" SQUARE TOP, 6" DEEP, DOME STRAINER AND 1/2 GRATE
GI GREASE INTERCEPTOR	4"	4"	2"	-	-	SCHIER	GB-75	75 GPM FLOW, 861 LBS. GREASE CAPACITY; FULLY RECESSED IN FLOOR.
EWCO ELECTRIC WATER COOLER	1-1/4"	-	1-1/4"	1/2"	-	ELKAY	EZSTLR8C	
15 2 COMPARTMENT	-	-	-	1/2"	1/2"	-	-	PROVIDED BY OWNER. 1" INDIRECT WASTE TO FLOOR SINK FROM EACH COMPARTMENT.
16 3 COMPARTMENT SINK	-	-	-	1/2"	1/2"	-	-	PROVIDED BY OWNER. 1" INDIRECT WASTE TO FLOOR SINK FROM EACH COMPARTMENT.
17 HAND SINK	-	1-1/2"	1-1/2"	1/2"	1/2"	-	-	PROVIDED BY OWNER.
18 SODA & ICE MACHINE	-	-	-	1/2"	-	-	-	PROVIDED BY OWNER. 1" INDIRECT WASTE TO NEW FLOOR SINK.
21 MOP SINK	-	3"	1-1/2"	1/2"	1/2"	FIAT	MSBID2424	PROVIDE T&S MODEL B-0665-BSTR FAUCET
WS WALL SPIGOT	-	-	-	1/2"	-	CHICAGO FAUCET	387-XKCP	

TEMPERING VALVE NOTE:
 PROVIDE A HOT WATER TEMPERING VALVE AT EACH HAND SINK FAUCET. TEMPERING VALVE SHALL LIMIT WATER TEMPERATURE TO 110 DEG F AND COMFORMS WITH ASSE 1070 AND 2015 MICHIGAN PLUMBING CODE.

FLOOR DRAIN TRAP SEAL NOTE:
 CONTRACTOR SHALL INSTALL SURESEAL INLINE TRAP SEAL MODEL SS3000 AT ALL FLOOR DRAINS.

HOT WATER CALCULATION			
EQUIPMENT	QUANTITY	USAGE GPH	TOTAL GPH
LAVATORY	3	5	15
HAND SINK	4	5	20
3 COMPARTMENT SINK	1	60	60
2 COMPARTMENT SINK	1	40	40
ICE MAKER	1	1	1
MDP SINK	1	15	15
TOTAL HOT WATER USAGE			151

NATURAL GAS REQUIRED FOR HOT WATER HEATER = $\frac{151 \times 100 \times 8.33}{0.95(\text{OPERATING EFF.})} = 132,000 \text{ BTUH}$

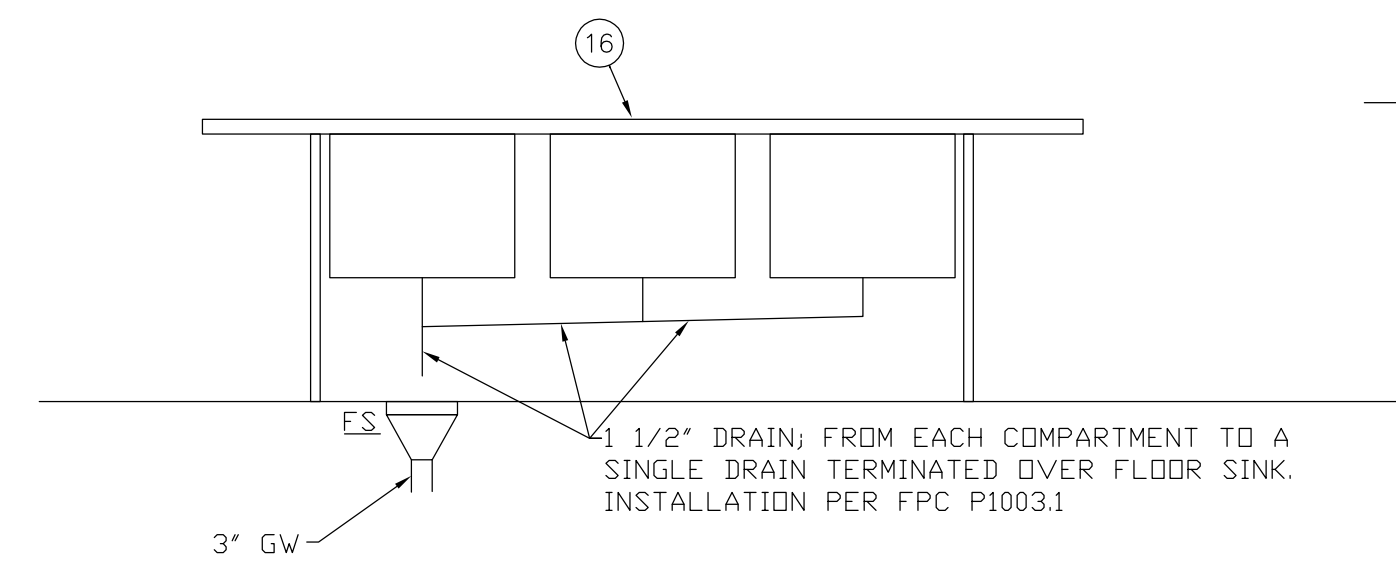


GAS WATER HEATER DETAIL
 Scale: N.T.S.

WATER HEATER SCHEDULE										
SYMBOL	SERVICE	MANUFACTURER & MODEL	CAPACITY	RECOVERY AT 100 DEG F RISE	INTAKE & VENT PIPE	ELECTRICAL			GAS INPUT (MBH)	WATER CONN.
						V	PH	HZ		
GWH-1	SAVVY SLIDERS	BRADFORD WHITE MODEL EF-60T-199	60 GALLONS	223 GPH	4" PVC	120	1	60	199	1"

NOTES/ACCESSORIES

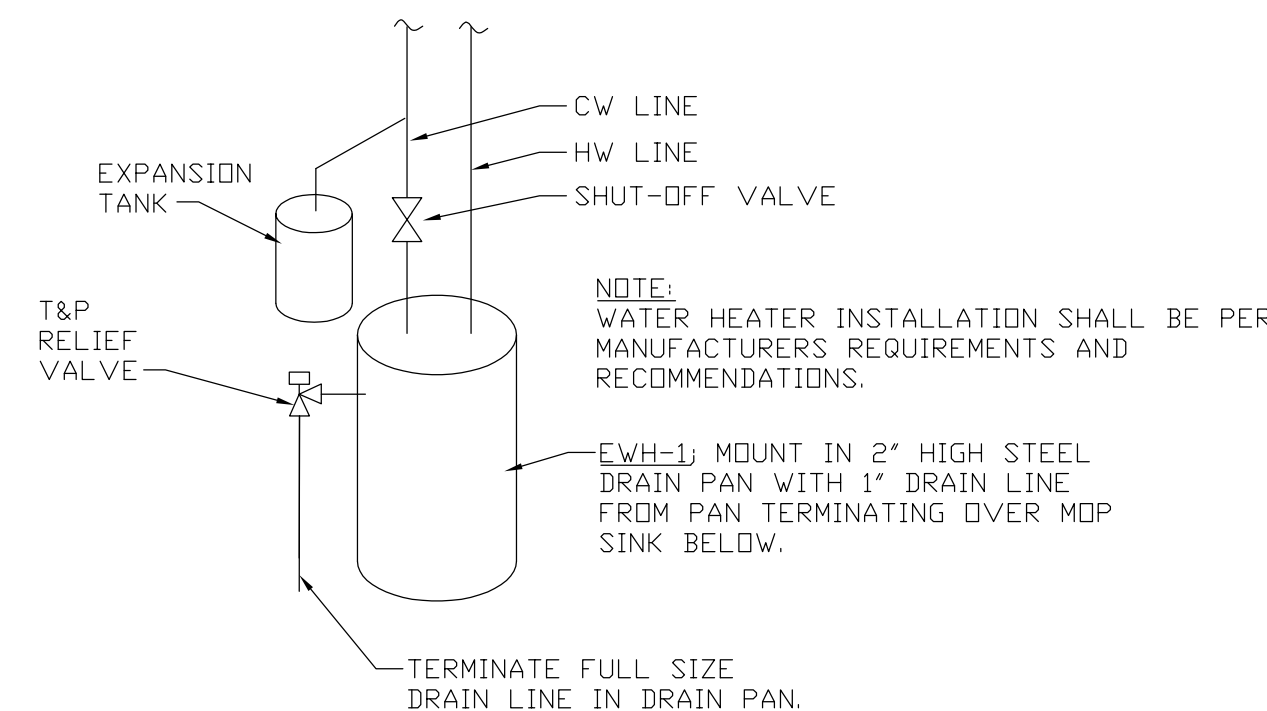
- A. VENT AND COMBUSTION AIR INTAKE PIPING MATERIALS SHALL BE SCHEDULE 40 PVC INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
- B. PROVIDE 4" VENT AND AIR INTAKE LINES WITH JOINT SEALED IN ACCORDANCE WITH THE WATER HEATER MANUFACTURER'S INSTRUCTIONS.
- C. PROVIDE TEMP. & PRESSURE RELIEF TAPPING AND VALVE.



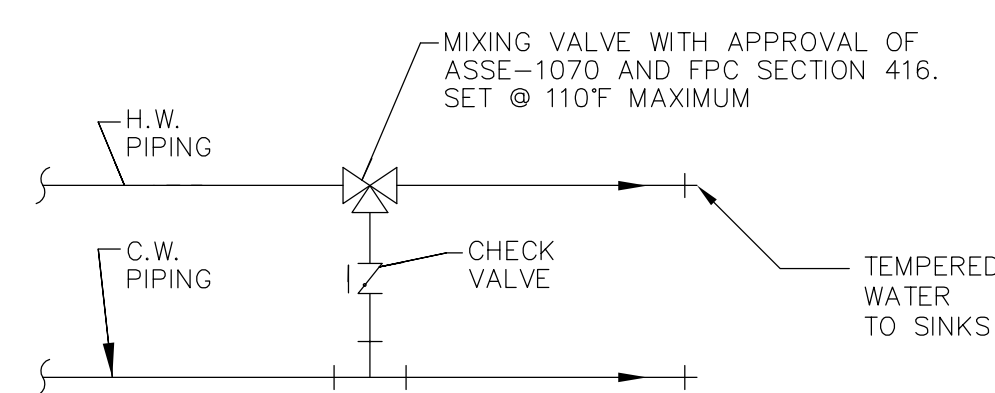
3 COMP'T SINK WASTE ELEVATION
 SCALE: NONE

WATER HEATER SCHEDULE									
SYMBOL	SERVICE	MANUFACTURER & MODEL	TYPE	STORAGE CAP.	ELECTRICAL			INPUT KW	RECOVER Y @ 90 DEG. TD
					V	PH	HZ		
EWH-1	TOILET ROOM AND MOP SINK	STATE MODEL PCE-10-10MSA	COMMERCIAL	10 GAL.	208	3	60	4.0	18 GAL/HR

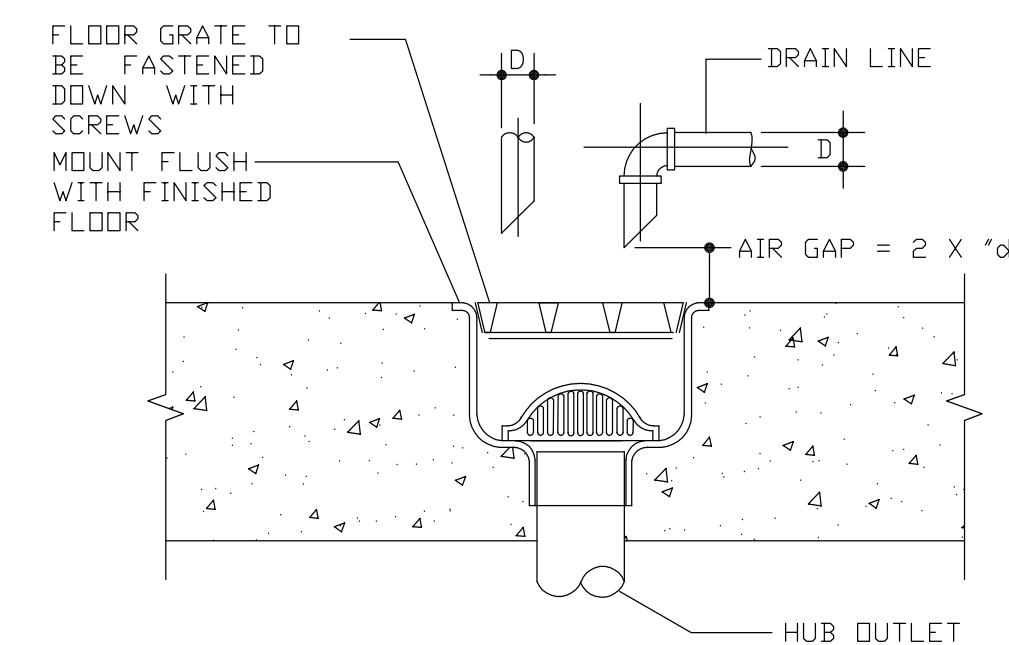
NOTE: CONTRACTOR SHALL PROVIDE AND INSTALL T&P RELIEF VALVE WATTS MODEL 100XL.



ELECTRIC WATER HEATER DETAIL
 SCALE: NONE

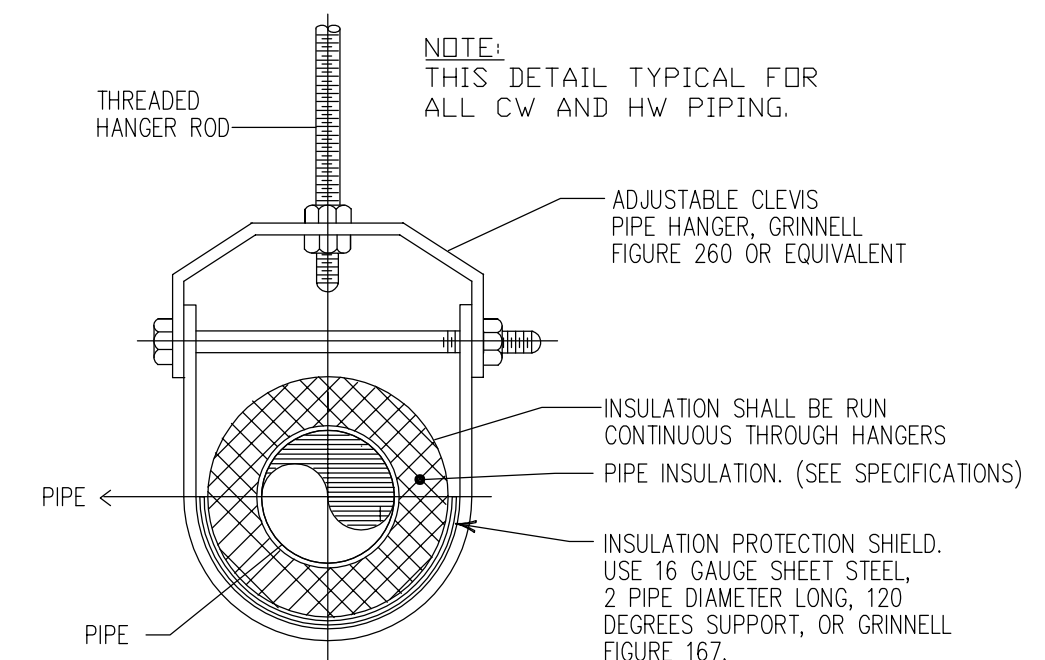


TEMPERING VALVE DETAIL FOR LAV & HAND SINKS
 Scale: N.T.S.



NOTE: FLOOR SINK COVER FLUSH WITH TILE OR FLUSH WITH CONCRETE FLOOR IN AREA WITH NO TILE

FLOOR SINK DETAIL
 Scale: N.T.S.



PIPING SUPPORT DETAIL
 SCALE: NONE



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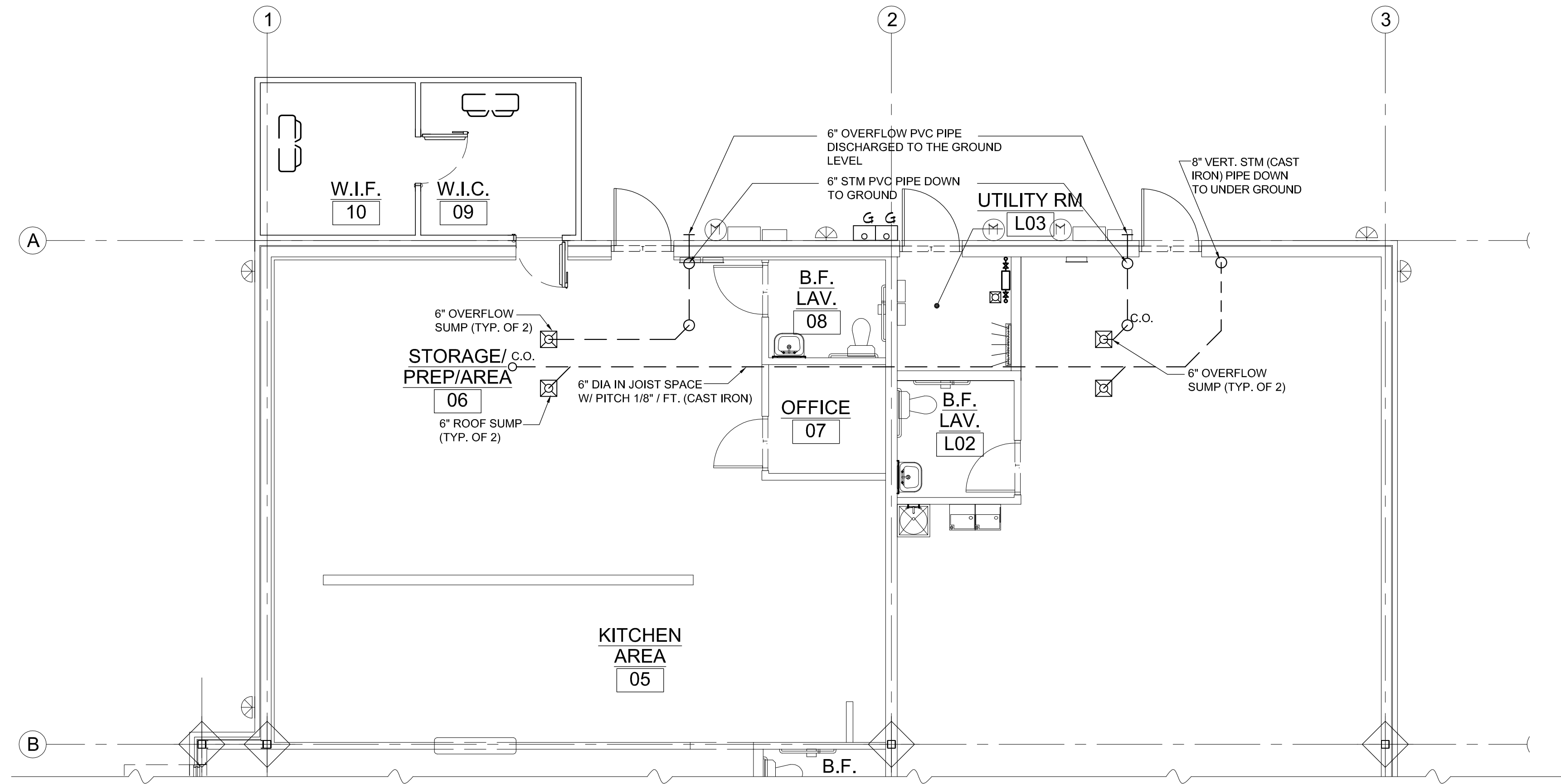
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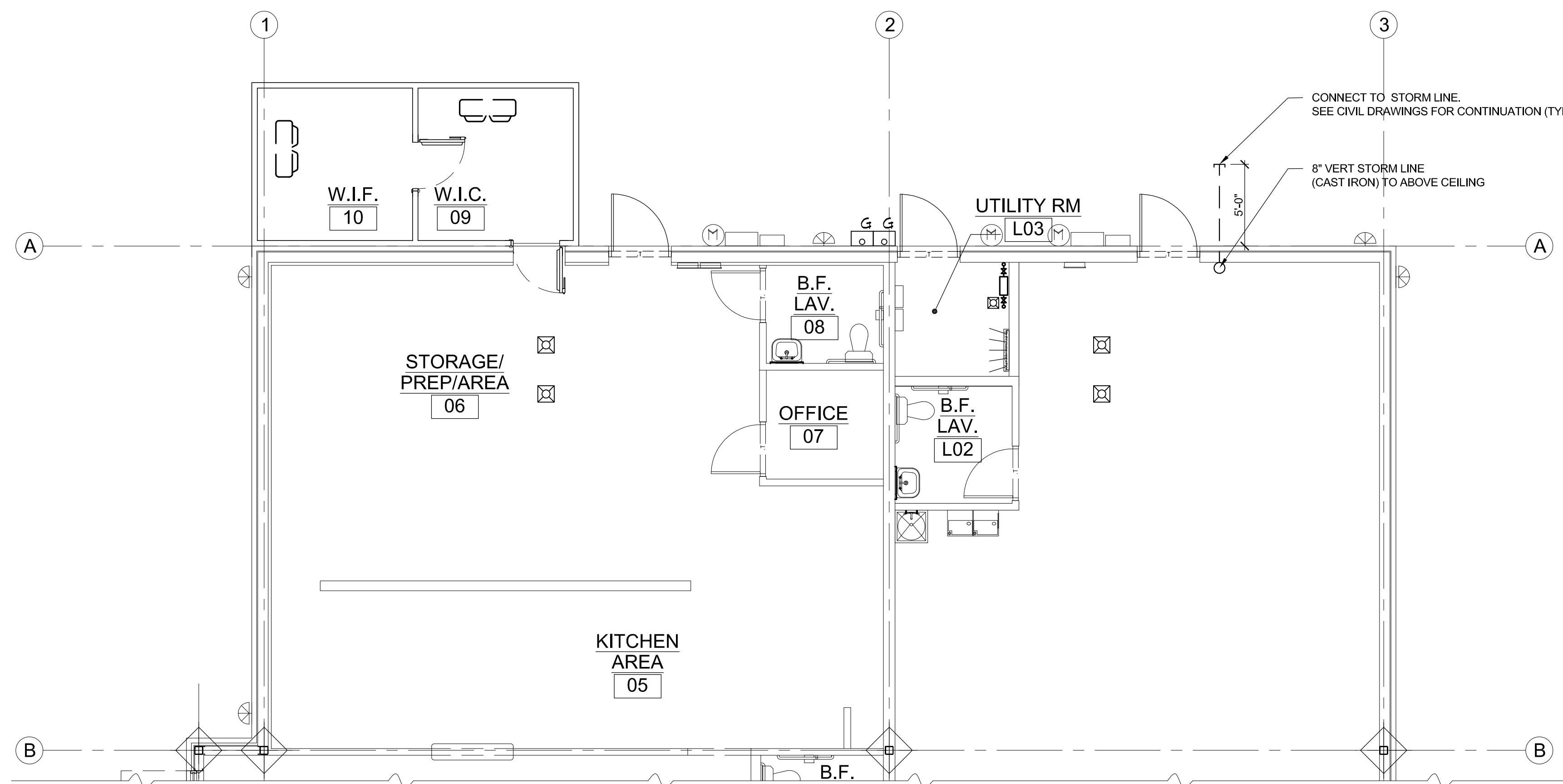
SHEET TITLE
ROOF DRAINAGE PLAN

DWG. NO.

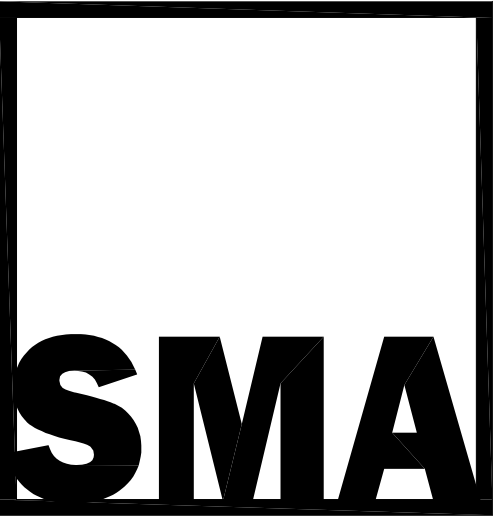
P1.0.6



2 ROOF DRAINAGE PLAN
 SCALE: 3/16" = 1'-0"



1 UNDER GROUND ROOF DRAINAGE PLAN
 SCALE: 3/16" = 1'-0"



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SHEET TITLE
 MECHANICAL
 PLAN

DWG. NO.

M1.0.1

MECHANICAL ABBREVIATION LIST

AC UNIT	AIR CONDITIONING UNIT	FT	FEET
AFF	ABOVE FINISHED FLOOR	HP	HORSEPOWER
AMPS	AMPERES	HZ	HERTZ
APPROX	APPROXIMATE	IE	INVERT ELEVATION
BFF	BELOW FINISHED FLOOR	IN	INCHES
BTU/HR	BRITISH THERMAL UNITS PER HOUR	KW	KILOWATTS
CAP	CAPACITY	MANUF	MANUFACTURER
CFM	CUBIC FEET PER MINUTE	MAX	MAXIMUM
COMP	COMPRESSOR	MEZZ	MEZZANINE
COND	CONDENSATE	MIN	MINIMUM
CONTR	CONTRACTOR	PE	POWER EXHAUSTER
DB	DRY BULB	PNL	PANEL
DN	DOWN	RA	RETURN AIR
EF	EXHAUST AIR FAN	RF	RETURN AIR FAN
EH	EXHAUST HOOD	RLA	RATED LOAD AMPERES
EVAP	EVAPORATOR	RPM	REVOLUTIONS PER MINUTE
EXH	EXHAUST	SA	SUPPLY AIR
EXIST	EXISTING	TA	TRANSFER AIR
F	FAHRENHEIT	T'STAT	THERMOSTAT
FCO	FLOOR CLEAN OUT	TYP	TYPICAL
FLA	FULL LOAD AMPERES	V	VOLTS
FLEX	FLEXIBLE	⊕	DOOR LOUVER
		⊗	CONNECT NEW TO EXISTING

GRILLES, REGISTERS AND DIFFUSERS
 (BASED ON TITUS OR EQUAL BY PRICE)

ITEM	MODEL	SIZE	NECK SIZE	FRAME	MATERIAL	REMARKS
RG-1	50F	22" X 22"	24" X 24"	ALUMINUM		SEE NOTE 2
CD-1	TDCA-A41	6-12" DIA.	24" SQ.	STEEL		SEE NOTE 1

- NOTES:
 1. DIFFUSERS SHALL BE INSTALLED IN A LAY-IN & DRYWALL TYPE CEILING AND SHALL BE FULLY ADJUSTABLE.
 2. 1/2" X 1/2" X 1/2" ALUMINUM CORE WITH ALUMINUM BORDER FOR INSTALLATION IN LAY-IN TYPE CEILING.

EXHAUST FAN SCHEDULE

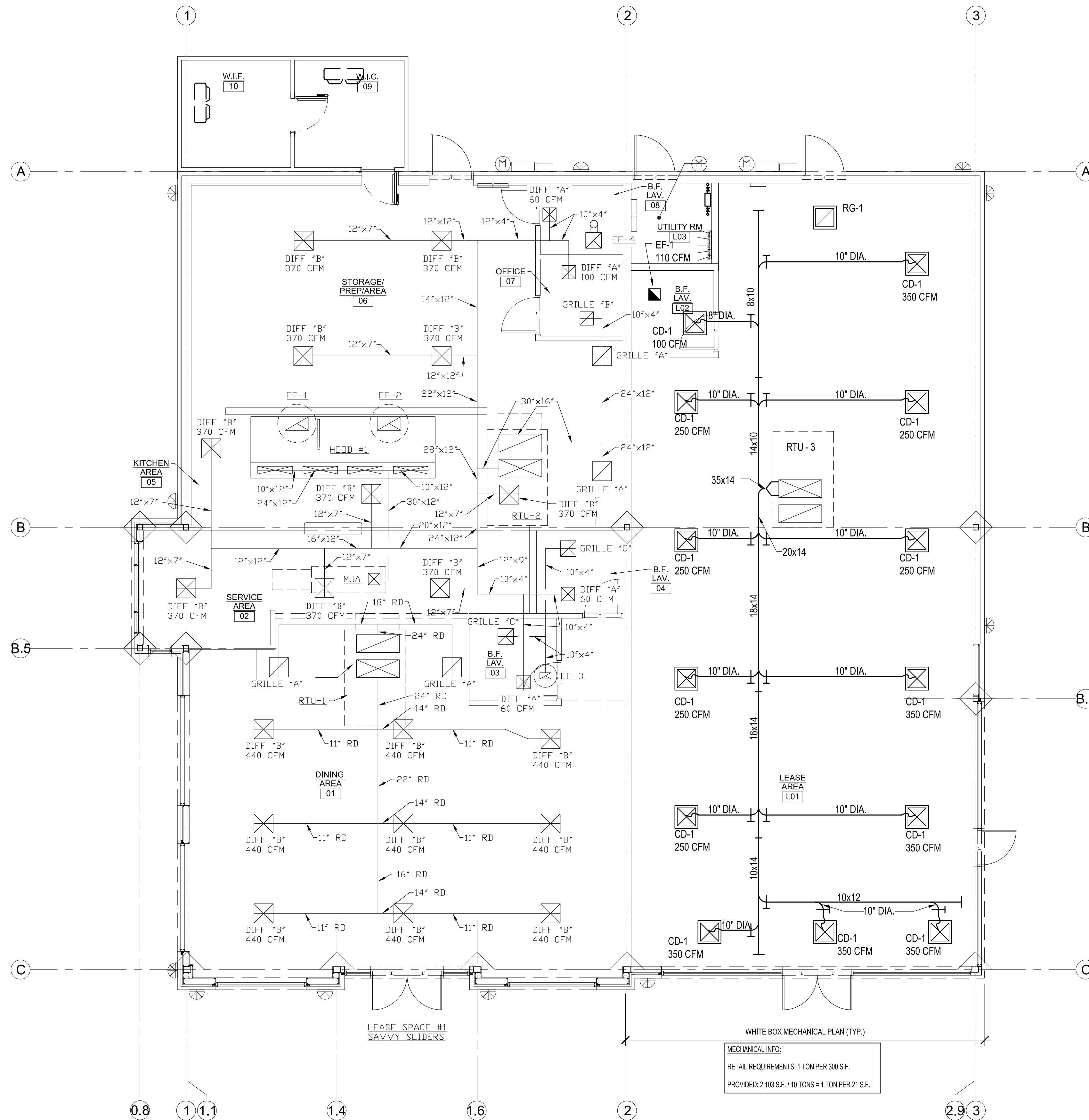
ITEM	MANUFACTURER	MODEL #	SERVICE	LOCATION	CFM	DRIVE	AMPS	PHASE	VOLTAGE
EF-1	BROAN	QT 110E	RESTROOMS	CEILING	110	DIRECT	0.7	1	120

DIFFUSER, REGISTER AND GRILLE SCHEDULE

SYMBOL	TYPE	MODEL	NECK SIZE	REMARKS
DIFF 'A'	S.A. DIFFUSER	TMSA	6" RD.	TYPE 1 PATTERN A4; WITH DAMPER AND GRID
DIFF 'B'	S.A. DIFFUSER	TMSA	10" RD.	TYPE 1 PATTERN A4; WITH DAMPER AND GRID
GRILLE 'A'	R.A. GRILLE	TYPE 50F	24" X 24"	
GRILLE 'B'	R.A. GRILLE	TYPE 50F	10" X 10"	
GRILLE 'C'	EXHAUST GRILLE	TYPE 50F5	10" X 60"	WITH DAMPER

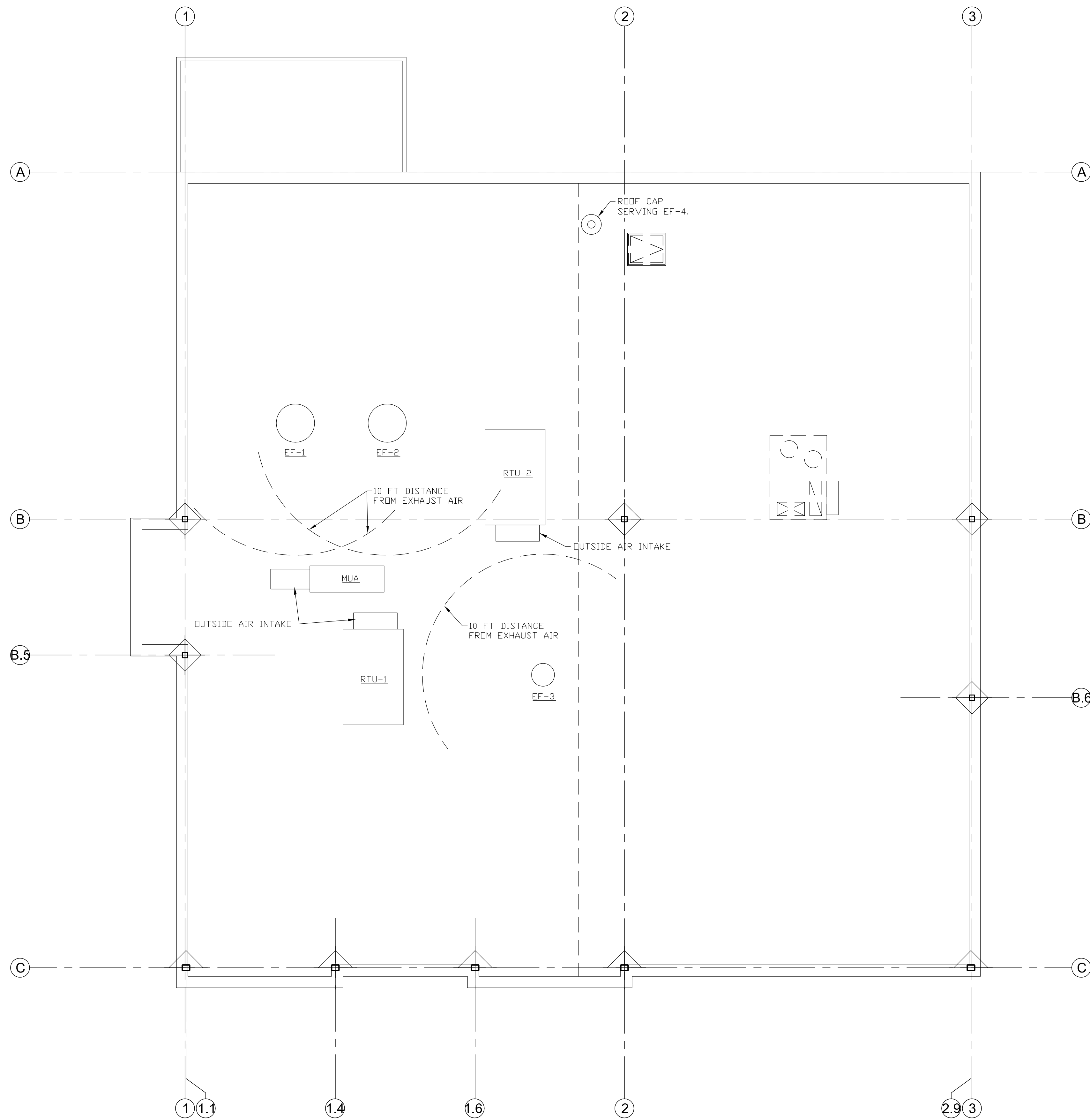
NOTE:
 SELECTION BASED ON 'TITUS' MODELS. ALTERNATE MANUFACTURER SHALL BE KRUEGER OR METALAIRE.

NOTE:
 SEE A.D.M. AIR CONTROL PLANS FOR EXHAUST HOOD, EXHAUST FANS AND MAKE-UP AIR UNIT SERVING FOOD PREPARATION AREA.



WHITE BOX MECHANICAL PLAN (TYP.)
 MECHANICAL INFO:
 RETAIL REQUIREMENTS: 1 TON PER 300 S.F.
 PROVIDED: 2,103 S.F. / 10 TONS = 1 TON PER 21 S.F.

1 MECHANICAL PLAN
 M101 SCALE: 3/16" = 1'-0"
 NORTH



1
M102 MECHANICAL ROOF PLAN
SCALE: 3/16" = 1'-0"

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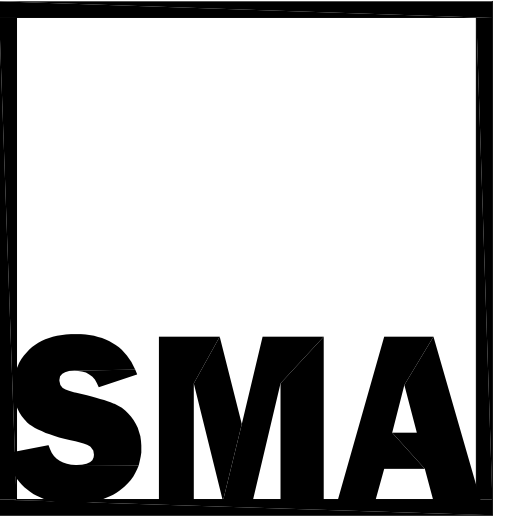
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SHEET TITLE
MECHANICAL
ROF PLAN

DWG. NO.
M1.0.2



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ROOF TOP UNIT SCHEDULE																		
SYMBOL	SERVICE	MFG & MODEL NUMBER	SUPPLY FAN			OUTSIDE AIR		COOLING CAPACITY			HEATING CAPACITY		ELECTRICAL					NET WEIGHT (LBS)
			CFM	APPROX. EXT. S.P. W.G.	HP	MINIMUM CFM	MAXIMUM CFM	TOTAL (MBH)	SENSIBLE (MBH)	LATENT (MBH)	HEATING METHOD	CAPACITY (MBH)	VOLT	PH	HZ	MCA	MDP	
RTU-1	DINING AREA	TRANE YHC-120	4,000	0.60	2.75	550	4,000	117.0	89.6	27.4	GAS	200 / 160	208/230	3	60	48	60	1,503
RTU-2	KITCHEN	TRANE YHC-120	4,000	0.60	2.75	400	4,000	117.0	89.6	27.4	GAS	200 / 160	208/230	3	60	48	60	1,503
RTU-3	LEASE AREA L01	TRANE YHC-120	4,000	0.60	2.75	400	4,000	117.0	89.6	27.4	GAS	200 / 160	208 / 230	3	60	48		

ROOF TOP AC UNIT NOTES:

- A. UNITS SHALL HAVE 100% OUTSIDE AIR INTERGRATED ENTHALPY ECONOMIZER WITH BAROMETRIC RELIEF HOOD.
- B. UNITS SHALL HAVE FACTORY INSTALLED FUSED DISCONNECT SWITCH.
- C. UNITS SHALL HAVE ROOF CURB SUPPLIED BY A/C UNIT MANUFACTURER.
- D. UNITS SHALL HAVE FACTORY OPTION RETURN AIR SMOKE DETECTOR.
- E. UNITS SHALL HAVE OPTIONAL POWERED 115V. CONVENIENCE OUTLET.
- F. UNITS SHALL HAVE 5 YEAR COMPRESSOR WARRANTY.
- G. PROVIDE HONEYWELL T7300 PROGRAMMABLE ROOM THERMOSTAT.
- H. DESIGN DRAWING BASED ON TRANE, ACCEPTABLE ALTERNATE MANUFACTURER IS CARRIER, YORK OR AAO.

POWER EXHAUSTER										
SYMBOL	SERVICE	TYPE	DRIVE	CFM	EXT. STAT. PRESSURE	ELECTRICAL				MANUFACTURER, MODEL AND REMARKS
						HP	VOLT	PH	HZ	
EF-3	TOILET ROOMS	CENTRIFUGAL	BELT	140	.25" WG	1/6	120	1	60	COOK MODEL ACEB-60C2B CONTROL WITH LIGHTS.
EF-4	TOILET ROOM	CEILING MTD.	DIRECT	70	.25" WG	50 WATTS	120	1	60	COOK MODEL GC-146 INTERLOCK WITH LIGHTS.

NOTE:

- 1. PROVIDE OPTIONAL ROOF CURB AND BACKDRAFT DAMPER FOR EF-3.
- 2. PROVIDE OPTIONAL ROOF CAP WITH BACKDRAFT DAMPER FOR EF-4.

NOTE:

SEE A.D.M. AIR CONTROL PLANS FOR EXHAUST HOOD, EXHAUST FANS AND MAKE-UP AIR UNIT SERVING FOOD PREPARATION AREA.

AIR BALANCE SCHEDULE			
SERVICE	OUTSIDE AIR	EXHAUST AIR	COMMENT
RTU-1	550 CFM	---	10 TDN CAPACITY; SERVING DINING AREA
RTU-2	400 CFM	---	10 TDN CAPACITY; SERVING KITCHEN
MUA-1	2,560 CFM	---	SEE A.D.M. AIR CONTROL PLANS
EF-1	---	1,600 CFM	SEE A.D.M. AIR CONTROL PLANS
EF-2	---	1,600 CFM	SEE A.D.M. AIR CONTROL PLANS
TOILET ROOMS	---	210 CFM	SEE EF-3, 4 & 5 SCHEDULE
TOTAL	3,510 CFM	3,410 CFM	

VENTILATION SCHEDULE (PER MMC 403.3)								
SERVICE	PEOPLE O.A. RATE	PEOPLE	PEOPLE O.A.	AREA O.A. RATE	AREA	AREA O.A.	AREA+PEOPLE CODE O.A.	DESIGN O.A. RATE
DINING AREA	7.5 CFM/PR	50	375 CFM	.18 CFM/SQ.FT.	890 SQ.FT.	160 CFM	535 CFM	550 CFM

MECHANICAL SPECIFICATIONS:

GENERAL

- ALL WORK SHALL BE IN ACCORDANCE WITH EQUIPMENT MANUFACTURER'S REQUIREMENTS AND RECOMMENDATIONS.
- THE MECHANICAL PLANS ARE DIAGRAMMATIC. CONTRACTOR SHALL FIELD VERIFY AND DETERMINE EXISTING CONDITIONS AND LIMITATIONS UNDER WHICH THE WORK IS TO BE PERFORMED. THE SUBMISSION OF A BID SHALL BE CONSIDERED AS INDICATING SUCH KNOWLEDGE THAT SUCH EXAMINATION HAS BEEN MADE AND VERIFIED.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE STATE AND LOCAL BUILDING, MECHANICAL CODES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL NECESSARY PERMITS REQUIRED TO COMPLETE THE PROJECT.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
- CONTRACTOR SHALL WARRANTY ALL WORKMANSHIP, MATERIALS AND PERFORMANCE FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE.

HVAC EQUIPMENT

- INSTALL NEW HVAC EQUIPMENT PER THE MANUFACTURER'S REQUIREMENTS AND RECOMMENDATIONS.
- CONTRACTOR SHALL PROVIDE ONE-YEAR LABOR WARRANTY FOR ALL WORK ASSOCIATED WITH THIS PROJECT. EQUIPMENT MANUFACTURER SHALL PROVIDE ONE YEAR PARTS WARRANTY.
- NEW EQUIPMENT SHALL BE SECURED IN ACCORDANCE WITH STATE BUILDING AND ENERGY CODE.

AIR BALANCE

- CONTRACTOR SHALL PROVIDE PROPER TESTING, ADJUSTING AND BALANCING OF THE SYSTEM TO ACHIEVE SPECIFIED PERFORMANCE.
- AIR BALANCE REPORT SHALL INCLUDE RTU, MUA & EXHAUST FAN PERFORMANCE WITH A LIST OF SCHEDULED AIR FLOW. REPORT SHALL INCLUDE THE FOLLOWING INFORMATION:
 - A)EQUIPMENT MANUFACTURER, MODEL SERIAL NUMBER AND COMPLETE NAMEPLATE DATA.
 - B)EQUIPMENT DESIGN SUPPLY AND OUTSIDE AIR CFM AND FINAL TEST SUPPLY AND OUTSIDE AIR CFM.
 - C)FAN MOTOR VOLTAGE, HORSEPOWER, COMPLETE NAMEPLATE DATA AND MOTOR SERVICE FACTOR.
 - D)DESIGN AIR FLOW AND FINAL TEST AIR FLOW AT EACH DIFFUSER, REGISTER AND GRILLE.
- ALL TESTING PROCEDURES SHALL BE PER ASSOCIATED AIR BALANCING COUNCIL (AABC) PROCEDURAL STANDARDS FOR TESTING, ADJUSTING AND BALANCING OF ENVIRONMENTAL SYSTEMS THROUGH AN APPROVED CERTIFIED AGENCY AND TECHNICIAN COMPLETE WITH SUBMITTAL REPORT.

WARRANTY

- CONTRACTOR SHALL WARRANTY ALL WORKMANSHIP, MATERIALS AND PERFORMANCE FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE.
- NEW ROOFTOP A.C. UNIT SHALL HAVE A 5 YEAR COMPRESSOR WARRANTY BY THE MANUFACTURER.

IDENTIFICATION

- PROVIDE PLASTIC ENGRAVED EQUIPMENT TAGS ON ALL NEW EQUIPMENT.
- PROVIDE A PLASTIC NAMEPLATE ON ELECTRICAL PANEL NEAR FUSE SWITCH TO IDENTIFY EQUIPMENT SERVED.

SHEET METAL

- ALL SHEET METAL WORK SHALL BE IN ACCORDANCE WITH INDUSTRY STANDARDS, PUBLISHED BY THE SHEET METAL & AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, INC., AND THE LATEST ASHRAE GUIDE, APPLICABLE TO LOW PRESSURE SYSTEMS.
- NEW DUCTWORK SHALL BE MINIMUM 26 GAUGE GALVANIZED SHEET METAL. DUCTWORK SHALL SECURELY BRACED TO PREVENT VIBRATION.
- PROVIDE TURNING VANES IN ALL 90 DEGREE ELBOWS AND AIR EXTRACTORS AT ALL BRANCH DUCT TAKE-OFFS.
- NEW SUPPLY & RETURN DUCTWORK IN UNCONDITIONED SPACES SHALL HAVE 1" THICK, 3/4 LB DENSITY, EXTERNAL FIBERGLAS DUCT INSULATION WITH VAPOR BARRIER AND TAPED JOINTS.
- SEE A.D.M. AIR CONTROL PLANS FOR GREASE EXHAUST DUCT SPECIFICATIONS.

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NO	DESCRIPTION	DATE
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SHEET TITLE
**MECHANICAL
 SPEC'S AND
 SCHEDULES**

DWG. NO.
M1.0.3



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SHEET TITLE
ELECTRICAL SCHEDULES AND NOTES

DWG. NO.
E1.0.0

GENERAL NOTES: ELECTRICAL

- ELECTRICAL SERVICE SHALL BE VERIFIED ON SITE.
- THE ELECTRICAL CONTRACTOR SHALL COMPLY WITH AND ALL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS, ORDINANCES REGULATIONS, AS WELL AS THE RULES AND STANDARDS OF THE NATIONAL BOARD OF FIRE UNDERWRITERS, THE NATIONAL ELECTRICAL CODE, THE NATIONAL SAFETY CODE, A.I.E.E. AND OSHA.
- THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND CERTIFICATES OF INSPECTION FOR ALL WORK.
- SHOULD ANY FIELD CONDITIONS PREVENT THE INSTALLATION OF UTILITIES SHOWN, THE CONTRACTOR IS REQUIRED TO MAKE ANY MINOR DEVIATIONS THEREFROM AS DETERMINED BY THE OWNER WITHOUT ANY ADDITIONAL COST.
- THE CONTRACTOR SHALL VISIT THE PROJECT SITE AND SHALL EXAMINE TO HIS SATISFACTION ALL OF THE PHYSICAL CONDITIONS.
- ELECTRICAL CONTRACTOR SHALL GUARANTEE AGAINST MECHANICAL AND ELECTRICAL DEFECTS OF ANY OR ALL EQUIPMENT, MATERIALS AND WORKMANSHIP.
- ELECTRICAL CONTRACTOR TO PROVIDE LAYOUTS AS SHOWN.
- VERIFY ADDITIONAL UNITS REQUIRED BY OWNER/TENANT.
- ALL FLUORESCENT FIXTURES TO HAVE T8 LAMPS & ELECTRONIC BALLAST.
- PROVIDE OCCUPANCY SENSORS WHERE REQUIRED BY AHJ.
- TENANT TO PROVIDE FINAL LEASE PLANS.

ELECTRICAL SPECIFICATIONS

- ALL WORK TO BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE.
- CONTRACTOR TO VERIFY SIZE AND LOCATION OF TRANSFORMER WITH ELECTRIC CO.
- GUARANTEE BY THE ELECTRICAL CONTRACTOR TO THE OWNER FOR ONE YEAR WARRANTING AGAINST DEFECTS IN WORKMANSHIP, MATERIALS AND OPERATION.
- ELECTRICAL PANELS: CIRCUIT BREAKER TYPE, PAINTED STEEL CABINET AND DOOR, TYPED DIRECTORY.
- ALL GROUNDING PER NATIONAL ELECTRIC CODE (N.E.C.) 250.
- ALL CONDUCTORS IN EMT CONDUIT MIN. SIZE 1/2"
- ALL CONDUCTORS BASED ON COPPER.
- ALL BATTERY PACK, EXIT AND EMERGENCY LIGHTING TO BE TIED TO LOCAL LIGHTING CIRCUIT AHEAD OF SWITCHING.
- BUILDING AND CONSTRUCTION WIRE SHALL BE COPPER, TYPE THHN, OR XHHW, 600VOLTS, MIN. SIZE WIRE SHALL BE NO 12.
- DISCONNECT SWITCHES SHALL BE HEAVY DUTY TYPE WITH FULL COVER INTERLOCK AND PROVISIONS FOR PADLOCKING.
- FIXTURES SHALL BE COMPLETELY WIRED, EQUIPPED WITH LAMPS, BALLASTS OR DRIVERS AND BE LISTED WITH UNDERWRITERS LABORATORIES.
- THE ELECTRICAL CONTRACTOR SHALL COORDINATE LOCATIONS OF HIS EQUIPMENT AND WORK WITH OTHER BUILDING TRADES TO AVOID INTERFERENCE BETWEEN HIS WORK AND THE WORK OF OTHER BUILDING TRADES.
- CUTTING AND PATCHING REQUIRED SHALL BE PERFORMED AS PART OF ELECTRICAL WORK, UNLESS SPECIFICALLY SHOWN ON DRAWINGS AS BEING OTHERWISE. WORK SHALL BE DONE BY THOSE SKILLED IN THE TRADE INVOLVED. PATCHED AREAS SHALL BE RETURNED TO LIKE NEW CONDITION.
- HOLES THROUGH WALLS OR PARTITIONS REQUIRED FOR ELECTRICAL WORK SHALL BE NEATLY CUT TO SIZE AND SEALED TO MATCH RATING OF WALL PENETRATED, FOR A NEAT AND FINISHED APPEARANCE.
- HOLES THROUGH THE EXTERIOR WALLS SHALL BE SEALED FROM ENTRANCE OF MOISTURE, DUST, ETC.
- ALL ELECTRICAL MATERIALS SHALL BE NEW AND BEAR THE "UL" LABEL OR LISTING.
- VERIFY EXACT LIGHTING FIXTURE MANUFACTURER, TYPE, AND LOCATIONS WITH THE OWNER.
- ALL EXTERIOR LIGHTING TO BE CONTROLLED VIA PHOTO, CELL/ ASTRONOMICAL TIMER (PHOTO CELL; LIGHTS ON; TIMER; LIGHTS OFF)
- TEST CIRCUITS AS SOON AS THE CONDUCTORS ARE INSTALLED AND MAKE FINAL OPERATING TESTS WHEN WORK IS COMPLETED.
- DISCONNECT TO BE "FUSIBLE" & "CURRENT LIMITING TYPE".
- ALL BREAKERS USED AS LIGHT SWITCHES TO BE S.W.D. TYPE.
- OBTAIN NECESSARY PERMITS AND INSPECTIONS.
- ELECTRICAL CONTRACTOR SHALL VERIFY FINAL LOADS AND CAPACITIES PRIOR TO COMMENCING WORK.
- COORDINATE ALL EQUIPMENT REQUIREMENTS WITH MANUFACTURERS DRAWINGS, INSTALLATION TRADES REQUIREMENTS, MECHANICAL AND VENTILATION LAYOUT DRAWINGS AND OWNER PRIOR TO COMMENCING WORK.
- ALL ELECTRICAL OUTLETS IN KITCHEN, SERVICE AND PREP AREAS AND OUTLETS WITHIN 6' OF SINKS TO BE GFI TYPE.

PANEL LP- A SCHEDULE						
VOLTAGE: 120/208V - 3PH - 4W						
DESCRIPTION	KVA	C.B. SIZE	A	B	C	DESCRIPTION
LIGHTING	0.9	1			2	UNIT #18
LIGHTING	1.1	3			4	UNIT #20
2 MENU BOARD	0.6	5			6	UNIT #25
UNIT #1	0.8	7			8	UNIT #3
UNIT #5	0.9	11			12	3 #6 & 1 # 10 (G) -1°C
UNIT #6	0.4	13			14	UNIT #3
UNIT #7	1.8	15			16	3 #6 & 1 # 10 (G) -1°C
UNIT #8	1.8	17			18	
UNIT #9	1.8	19			20	UNIT #4
UNIT #10	1.8	21			22	3 #6 & 1 # 10 (G) -3/4°C
UNIT #11	1.8	23			24	
UNIT #12	2.4	25			26	WINDOW OPERATOR
UNIT #14	0.4	27			28	(2) UNIT #27
4	0.8	29			30	(3) UNIT #27
3	0.6	31			32	WINDOW
5	1.0	33			34	WINDOW
SPARE		35			36	SIGN
SPARE		37			38	UNIT 19
SPARE		39			40	UNIT 19A
SPARE		41			42	SPARE
		19.5				51.5

TYPE OF MOUNTING: ALL CIRCUIT BREAKERS SHALL BE 20A-1P BE 20A-1P UNLESS OTHERWISE NOTED

GRD BUS

MAINS: 200A-3P MB

TOTAL CONNECTED LOAD: 71 KVA
 TOTAL DEMAND LOAD: 53.5 KVA
 AMPERES: 149 AMP

PANEL LP- B SCHEDULE						
VOLTAGE: 120/208V - 3PH - 4W						
DESCRIPTION	KVA	C.B. SIZE	A	B	C	DESCRIPTION
SPARE		1			2	EF-1
SPARE		3			4	EF-2
UNIT 13	4.0	5			6	MUA
2# 10 & 1# 10(G)-3/4°C		7	25		8	3# 12 & 1# 12(G)-1/2°C
		9			10	
SPARE		11			12	SPARE
RTU-1	15.0	13			14	RTU-2
3# 6 & 1# 10(G)-1°C		15			16	3# 6 & 1# 10(G)-1°C
		17	60		18	
UNIT #31		19			20	UNIT#33
3# 10 & 1# 10(G)-3/4°C	7.2	21			22	3# 8 & 1# 10(G)-3/4°C
		23	30		24	
UNIT #30	1.2	25			26	UNIT#32
AIR CURTAIN	7.1	27			28	SPARE
3# 8 & 1# 10(G)-3/4°C		29	40		30	SPARE
		31			32	
		33			34	
		35			36	
		37			38	
		39			40	
		41			42	
		34.5				35.8

TYPE OF MOUNTING: ALL CIRCUIT BREAKERS SHALL BE 20A-1P BE 20A-1P UNLESS OTHERWISE NOTED

GRD BUS

MAINS: 225A-3P MB

TOTAL CONNECTED LOAD: 70.3 KVA
 TOTAL DEMAND LOAD: 62.9 KVA
 AMPERES: 175 AMP

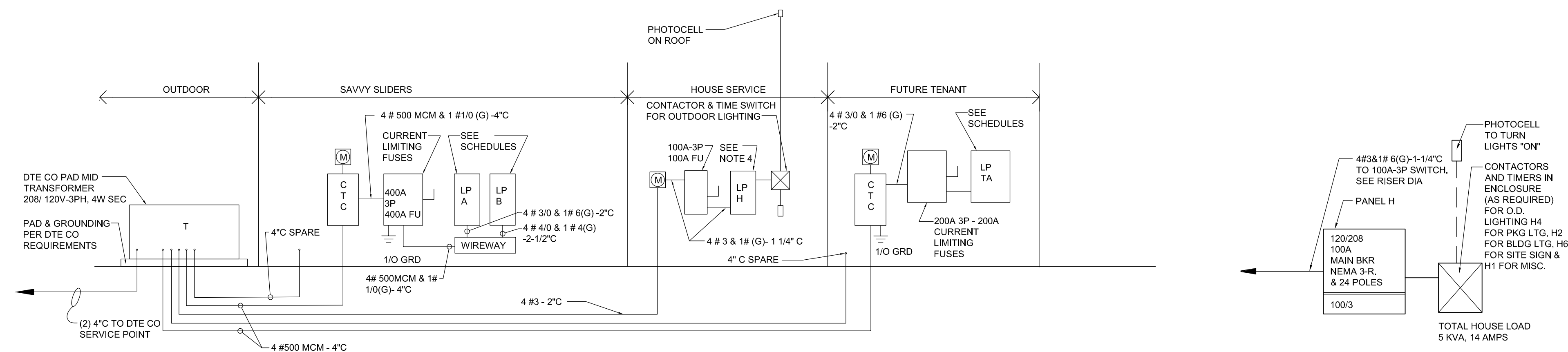
PANEL LP-TA SCHEDULE						
VOLTAGE: 120/208V - 3- - 4W (TYPICAL TENANT SHELL ONLY)						
DESCRIPTION	KVA	C.B. SIZE	A	B	C	DESCRIPTION
LIGHTING	0.9	1			2	1.0 5
SIGN	1.2	3			4	0.6 3
WINDOW DISPALY	2.2	5			6	0.8 4
WINDOW DISPALY	2.4	7			8	1.2 ELECT. WATER HEATER
WINDOW DISPALY	2.4	9			10	SPARE
SPARE		11			12	15.0 ROOF TOP UNIT
SPARE		13			14	3# 6 & 1# 10(G)-1°C
SPARE		15			16	
SPARE		17			18	SPARE
SPARE		19			20	SPARE
		21			22	
		23			24	
		25			26	
		27			28	
		29			30	
		31			32	
		33			34	
		35			36	
		37			38	
		39			40	
		41			42	
		9.1				18.6

TYPE OF MOUNTING: ALL CIRCUIT BREAKERS SHALL BE 20A-1P BE 20A-1P UNLESS OTHERWISE NOTED

GRD BUS

MAINS: 200A-3P MB

TOTAL CONNECTED LOAD: 27.7 KVA
 AMPERES: 77 AMP



1 ELECTRICAL RISER DIAGRAM
 SCALE: N.T.S.

- RISER DIAGRAM NOTES:**
- ALL WIRE SIZES ARE BASED ON CU CONDUCTORS. AL CONDUCTORS MAY BE USED OF EQUAL AMPACITIES WHEN APPROVED BY OWNER AND AUTHORITIES HAVING JURISDICTION.
 - CONNECT SERVICE GROUNDS TO CONCRETE ENCASED ELECTRODE, METALLIC COLD WATER SERVICE PIPE AND BUILDING STEEL PER NEC 250.
 - CO-ORDINATE SERVICE TO BUILDING WITH DTE CO.
 - HOUSE PANEL - 120 / 208V 3PH- 4W (24) TOTAL CIRCUIT. SEE RISERS.

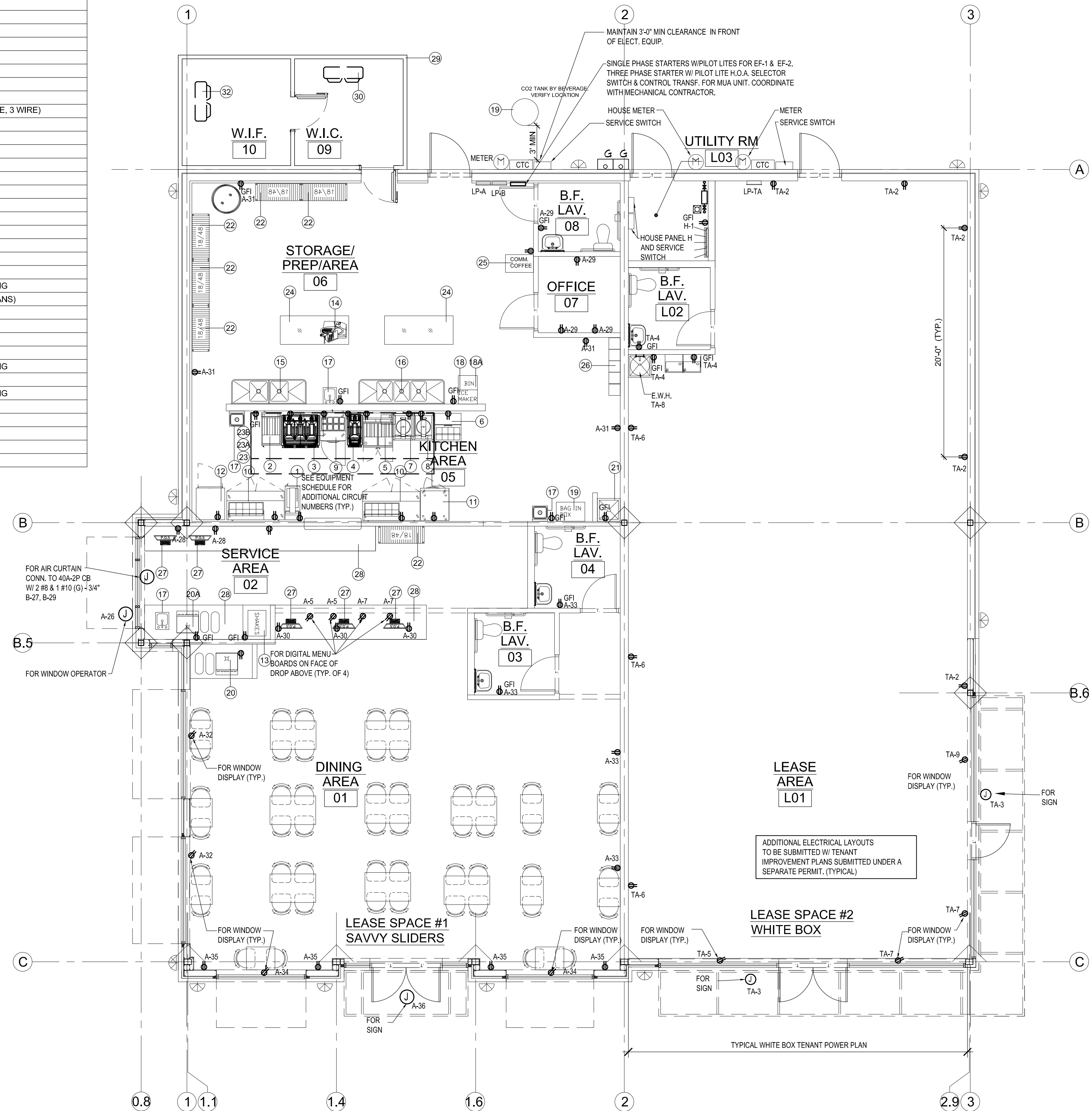
2 HOUSE PANEL RISER DIAGRAM
 SCALE: N.T.S.

DWG. NO.
E1.0.0

COOK LINE EQUIPMENT SCHEDULE												
UNIT NO.	EQUIP NAME	BRAND	MODEL	AMP	BTU	VOLT/PH	CFM	INLET	GAS	REMARKS	PLUMBING NEEDED	ELECTRICAL CIRCUITS
1	DUMP STATION	ROYAL	RFT-DS	6		120V/1PH				HEAT LAMP		A-9
2	75LB FRYER	ROYAL	RFT-75		152K			3/4	YES			
3	2 SIDED GRILL	TAYLOR	L828	38(2)		208/230/3ph				nema 15-50p(2)		A-8, 10, 12; A-14, 16, 18 (2 UNITS)
4	2 SIDED GRILL	TAYLOR	L828	27		208/230/3ph				nema 15-50p(2)		A-20, 22, 24
5	FILTER FRYER	ROYAL	RFT75XX2	7	152K(2)	120V/1PH		3/4	YES	TOTAL BTU 304K		A-11
6	CHEF BASE	AVANTCO	178CB36HC	2.5		120V/1PH						A-13
7	PRESSURE FRYER	BROASTER	E-18G	15	50000	120V/1PH		1/2	YES			A-15
8	PRESSURE FRYER	BROASTER	E-18G	15	50000	120V/1PH		1/2	YES			A-17
9	REFRIG WORKTOP	TRUE	TWT-27D-2HC	15		120V/1PH				capped 3" gas behind unit		A-19
10	REFRIG WORKTOP	TRUE	TPP-AT-67D-2-HC	15		115V/1PH						A-21
11	FREEZER	TRUE	STR1F-1S-HC	15		115V/1PH						A-23
12	HOLDING CABINET	WINSTON	HOV3 - 05 UV	20		120V/1PH						A-25
13	SHAKE FREEZER	TAYLOR	441	20		208/230/1PH						B-5, 7 (2 POLE, 3 WIRE)
14	SLICER	BERKEL	829A	2.9		115V/1PH						A-27
15	TWO COMP SINK	EAGLE	314								YES	
16	THREE COMP SINK	EAGLE	412								YES	
17	HAND SINK										YES	
18	ICE MAKER	BLUEAIR	BLMI - 500 AD	14		115V/1PH					YES	A-2
18A	ICE MAKER BIN	BLUEAIR	BLIB-300S									
19	B&B CARBONATOR	PEPSI		10		120V/1PH				VERIFY W/BEVERAGE CO		A-38
19A	CO2 TANK ALARM	PEPSI		5		120V/1PH				VERIFY W/BEVERAGE CO		A-40
20	ICE DRINK DISPENSER	CORNELIUS	ENDURO 175	3.0		120V				VERIFY W/BEVERAGE CO		A-4
20A	DROP-IN POST-MIX DISPENSER	CORNELIUS	2323 UNIVERSAL	1.5		115V				VERIFY W/BEVERAGE CO		A-4
21	MOP SINK W/ HOLDER										YES	
22	DRY STORAGE SHELVING	ADVANCE TABCO										
23	COOKLINE HOOD	ADM/CUSTOM	SEE VENTILATION									SEE DRAWING
23A	EXHAUST	ADM/CUSTOM	SEE VENTILATION	6.0 (2)		120V/1PH						B2 & B4 (2 FANS)
23B	MUA	ADM/CUSTOM	SEE VENTILATION	5.9		208V/3PH						B6, 8, 10
24	SS TABLE	BY OWNER										
25	COFFEE AND TEA BREWER	BUNN	ITCB HV SINGLE	14		120V						A-6
26	LOCKERS	BY OWNER										
27	POS											SEE DRAWING
28	CASHIER COUNTER	CUSTOM	BY MILLWORK CONT.									
29	WALK IN COOLER/ FREEZER		SRC REFRIGERATION							SEE MFR. DRAWINGS		SEE DRAWING
30	COOLER EVAPORATOR COIL		SRC REFRIGERATION							SEE MFR. DRAWINGS		B-25
31	REMOTE COOLER CONDENSER		SRC REFRIGERATION	20		208/230/3ph				SEE MFR. DRAWINGS		B-19, 21, 23
32	FREEZER EVAPORATOR COIL		SRC REFRIGERATION							SEE MFR. DRAWINGS		B-26
33	REMOTE FREEZER CONDENSER		SRC REFRIGERATION	30		208/230/3ph				SEE MFR. DRAWINGS		B-20, 22, 24
34	WATER HEATER	CUSTOM	SEE PLUMBING									

POWER	
	DUPLEX OUTLET VERIFY FINAL LOCATION W/ TENANT
	DUPLEX OUTLET W/ GROUND FAULT INTERRUPTER VERIFY FINAL LOCATION W/ TENANT
	QUADPLEX OUTLET VERIFY FINAL LOCATION W/ TENANT
	LIGHT SWITCH
	DIMMER SWITCH
	3-WAY SWITCH, 4-WAY SWITCH
	DUAL SWITCHING 1/2 LAMPS ON 1ST. SWITCH 1/2 LAMPS ON 2ND. SWITCH
	MOTION SENSOR; SENSOR SW
	TELEPHONE OR CABLE JACK - VERIFY FINAL LOCATION W/ TENANT.
	JUNCTION BOX
	WEATHERPROOF
T-1	TYPICAL PANEL CIRCUIT NO. 1

NOTES:
1. TELEPHONE SYSTEM TO BE PROVIDED BY TENANT.
2. VERIFY OUTLET LOCATION & HEIGHT W/ TENANT.
3. PROVIDE WP GFI RECEPTACLE WITHIN 25' OF ROOF TOP UNIT.



1 POWER PLAN
E101 SCALE: 3/16" = 1'-0"
NORTH

SMA
Serra Marko Associates
Architects
189 E. Big Beaver, Ste 106
Troy, MI 48083
s-m-associates.com
248.457.6903
info@s-m-associates.com

PROJECT NAME:
PROPOSED MULTI-TENANT BUILDING WITH DRIVE THRU

PERMIT SUBMISSION
04-18-2022

ADDRESS:
21220 GREENFIELD RD
OAK PARK , MI 48237

NOT FOR CONSTRUCTION

ALL DIMENSIONS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR COORDINATION OF ALL DIMENSIONS.

JOB NO.	21-0968
D.B./C.B	R.A./P.D
ISSUANCES	
NO DESCRIPTION	DATE
1 PERMIT SUBMISSION	04/18/22

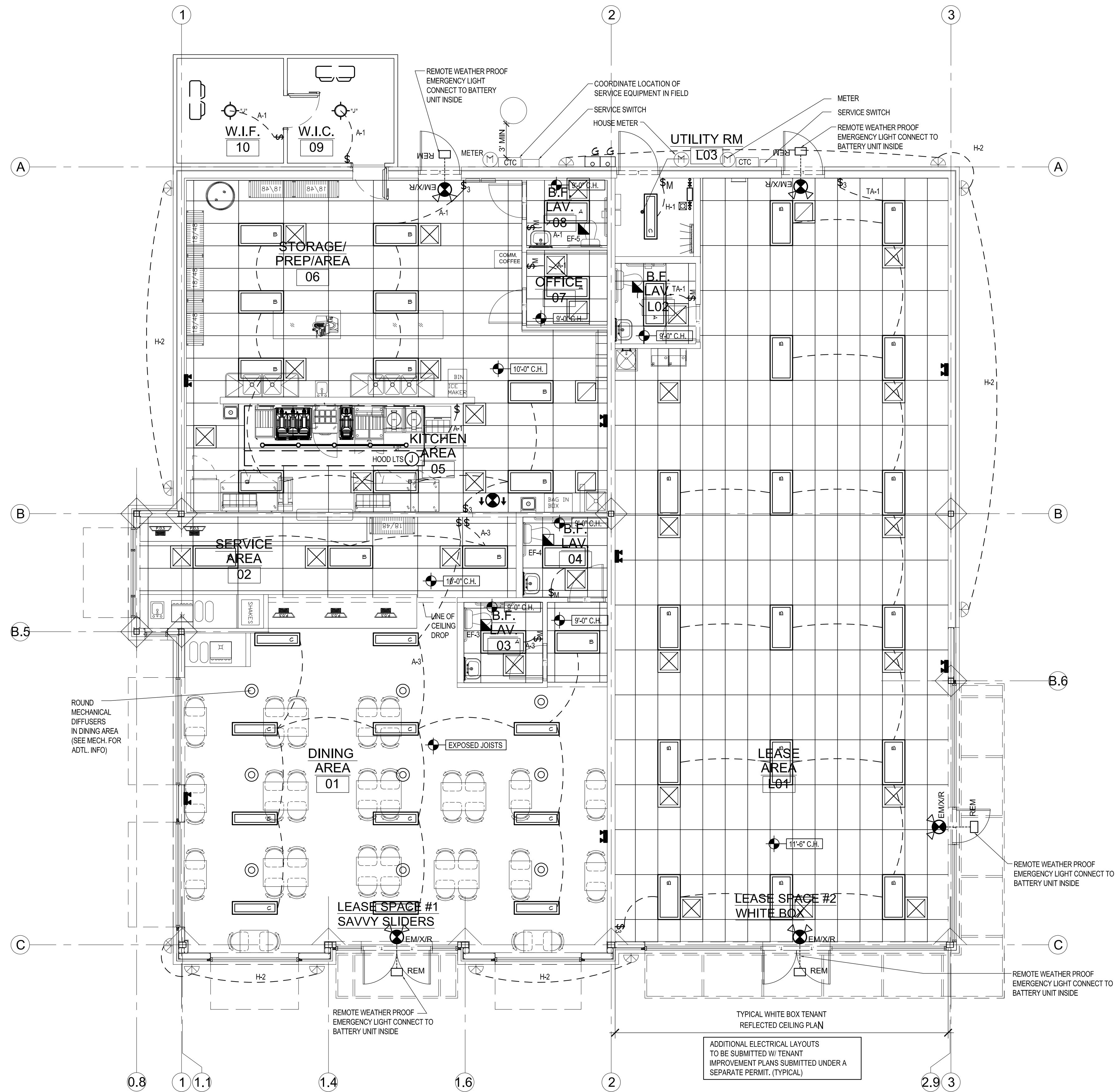
SHEET TITLE
POWER PLAN

DWG. NO.
E1.0.1

ELECTRICAL LIGHTING SCHEDULE		
LIGHTING		LOCATION
	NEW 2'x4' LED LAY-IN GRID LIGHT FIXTURE, SELECTED BY CONTRACTOR AND APPROVED BY TENANT, 44 W MAX.	B.F. LAV.
	NEW 2'x4' LED LAY-IN GRID LIGHT FIXTURE, SELECTED BY CONTRACTOR AND APPROVED BY TENANT, 54 W MAX.	LEASE SPACE
	NEW 1'x4' LED LIGHT, SELECTED BY CONTRACTOR AND APPROVED BY OWNER, 30 W MAX.	
	BY COOLER CONTRACTOR	COOLER
	BY HOOD CONTRACTOR	HOOD
	DECORATIVE WALL MOUNTED LIGHT @ 10'-0" HIGH (TYP.) VERIFY WITH TENANT, REFER TO PHOTOMETRIC PLAN FOR ADDITIONAL DETAILS.	
	WALL OR CLG. MTD. SELF CONTAINED EXIT FIXTURE W/ ARROWS INDICATED, ISOLITE RS SERIES OR EQUAL.	
	EXIT LIGHT W/ EMERGENCY HEADS	
	COMBO EMERGENCY/EXIT LIGHT, 6 VOLTS WITH 22 WATT BATTERY CAPACITY FOR REMOTE HEAD, ISOLITE CMB SERIES OR EQUAL.	
	REMOTE EMERGENCY HEAD - WEATHERPROOF ISOLITE SB12W OR EQUAL.	
	WALL OR CLG. MTD. EMERGENCY BATTERY UNIT W/ 2 SIDE MTD. ADJUSTABLE HEADS W/ BATTERY BACK-UP ISOLITE EL2 SERIES OR EQUAL.	

NOTE:
EMERGENCY POWER SHALL HAVE A MINIMUM OPERATION OF 90 MINUTES.

MECHANICAL DISTRIBUTION	
	SUPPLY AIR GRILLE - SEE MECHANICAL PLAN
	RETURN AIR GRILLE - SEE MECHANICAL PLAN
	SUPPLY AIR GRILLE - SEE MECHANICAL PLAN
	EXHAUST FAN - SEE MECHANICAL PLAN



1 LIGHTING AND REFLECTED CEILING PLAN
E102 SCALE: 3/16" = 1'-0" NORTH

PROJECT NAME:
PROPOSED MULTI-
TENANT BUILDING
WITH DRIVE THRU

PERMIT SUBMISSION
04-18-2022

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21220 GREENFIELD RD
OAK PARK, MI 48237

NOT FOR
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JOB NO.	21-0968
D.B./C.B.	R.A./P.D.
ISSUANCES	
NO DESCRIPTION	DATE
1 PERMIT SUBMISSION	04/18/22

SHEET TITLE
LIGHTING AND
REFLECTED
CEILING PLAN

DWG. NO.
E1.0.2



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 WITH DRIVE THRU

PERMIT SUBMISSION
 04-18-2022

ADDRESS:
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 OAK PARK, MI 48237

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JOB NO. 21-0968

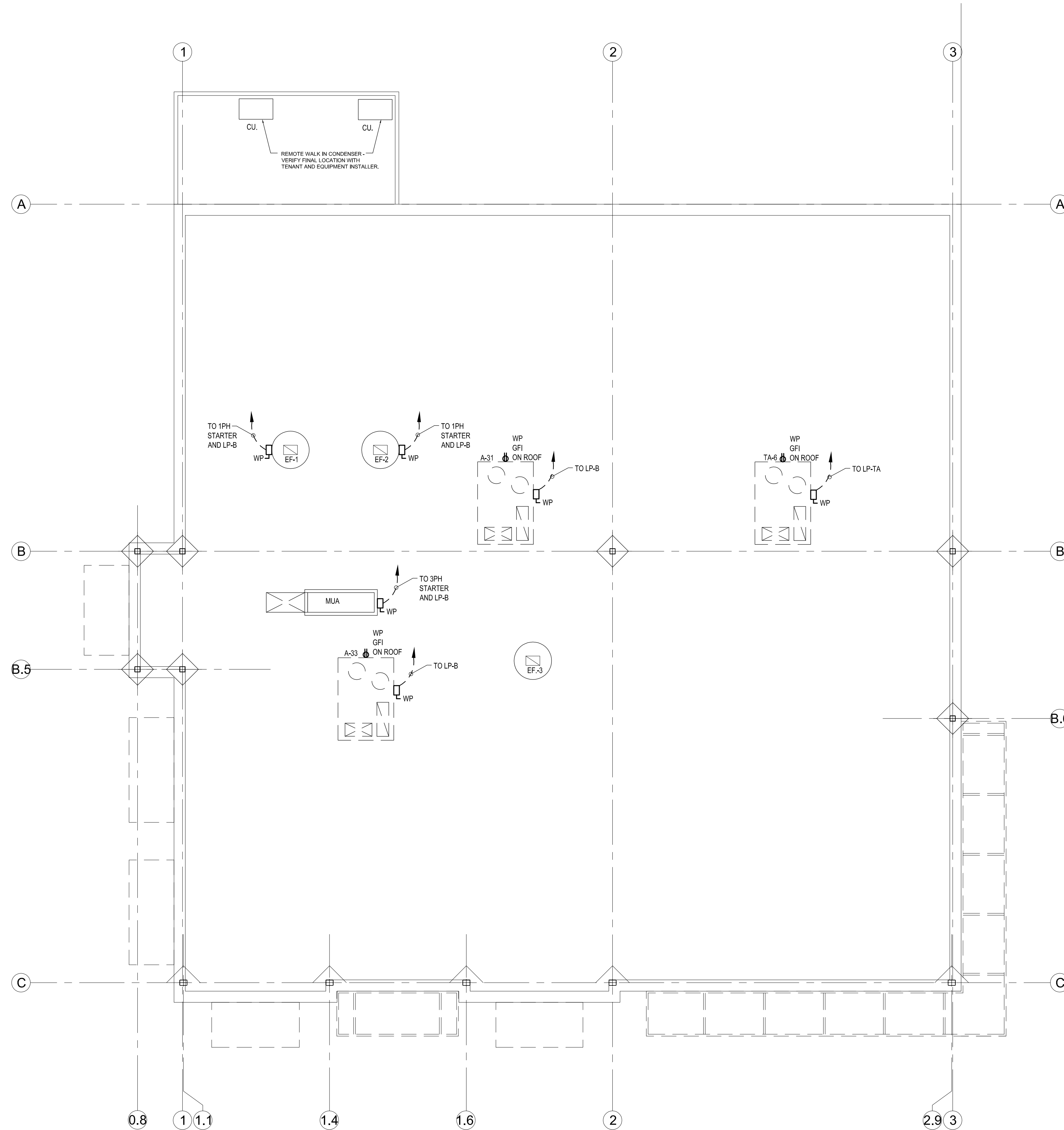
D.B./C.B. R.A./P.D.

ISSUANCES

NO	DESCRIPTION	DATE
1	PERMIT SUBMISSION	04/18/22

SHEET TITLE
ELECTRICAL ROOF PLAN

DWG. NO.
E1.0.3



1 **ELECTRICAL ROOF PLAN**
 E103 SCALE: 3/16" = 1'-0"

SMA

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Troy, MI 48083

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PROJECT NAME:
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PERMIT SUBMISSION
04-18-2022

ADDRESS:
21220 GREENFIELD RD
OAK PARK, MI 48237

NOT FOR
CONSTRUCTION

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CONTRACTOR IS SOLELY RESPONSIBLE
FOR COORDINATION OF ALL DIMENSIONS.

JOB NO. 21-0968

D.B./C.B. R.A./P.D.

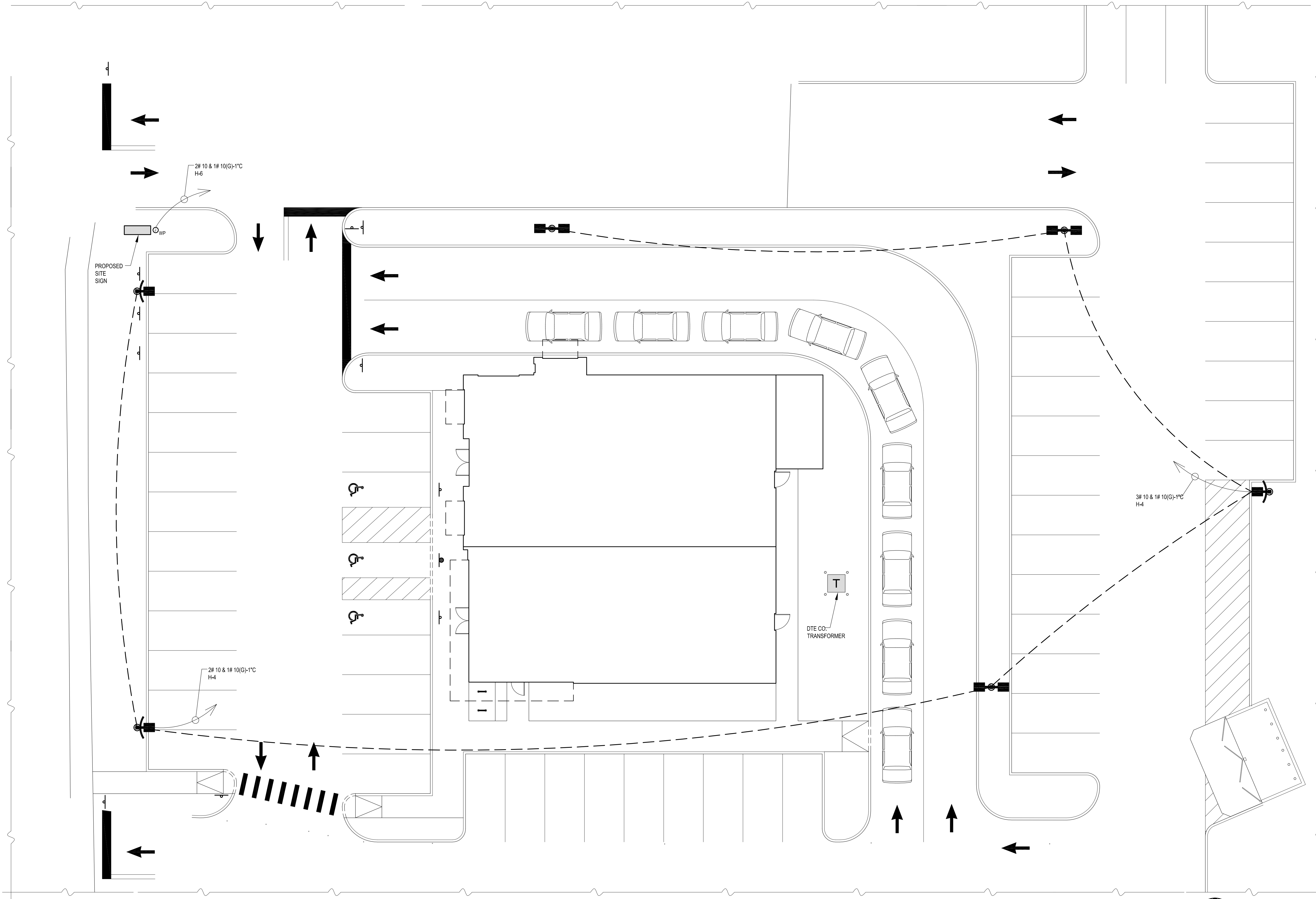
ISSUANCES

NO	DESCRIPTION	DATE
1	PERMIT SUBMISSION	04/18/22

SHEET TITLE
ELECTRICAL
SITE PLAN

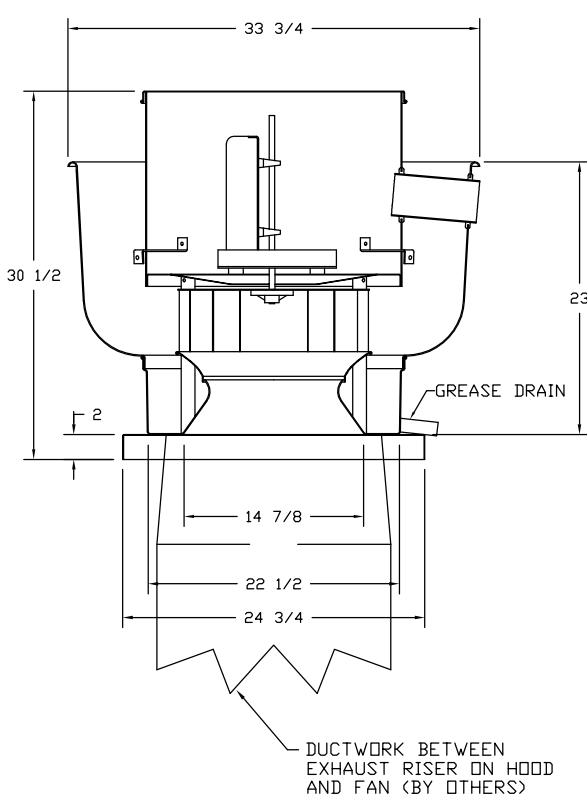
DWG. NO.

E1.0.4

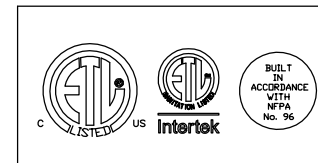
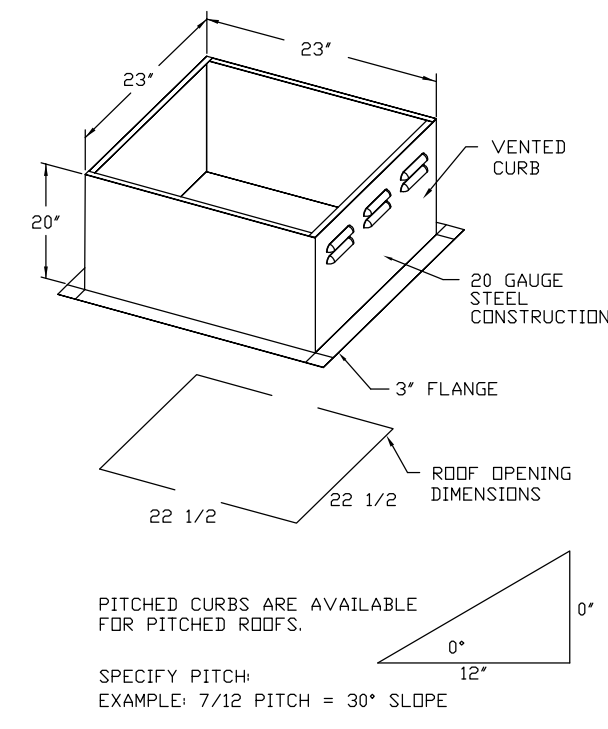


1 ELECTRICAL SITE PLAN
E104 SCALE: 1"=0' = 10'-0" NORTH

FANS #1, #2 - AUBIS EXHAUST FAN



- FEATURES:**
- ROOF MOUNTED FAN
 - RESTAURANT MODEL
 - UL710 AND UL769 AND UL-C-5645
 - AMCA 8300 AND AIR CERTIFIED
 - WIRING FROM MOTOR TO DISCONNECT SWITCH
 - WEATHERPROOF DISCONNECT
 - HIGH HEAT OPERATION 300°F (149°C)
 - GREASE CLASSIFICATION TESTING
- NORMAL TEMPERATURE TEST**
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THEIR NORMAL TEMPERATURES AND WITHOUT ANY DEGRADING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.
- ABNORMAL FLARE-UP TEST**
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.
- OPTIONS:**
- GREASE BOX
 - HINGE KIT - SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS.

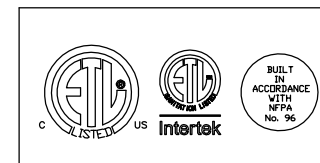
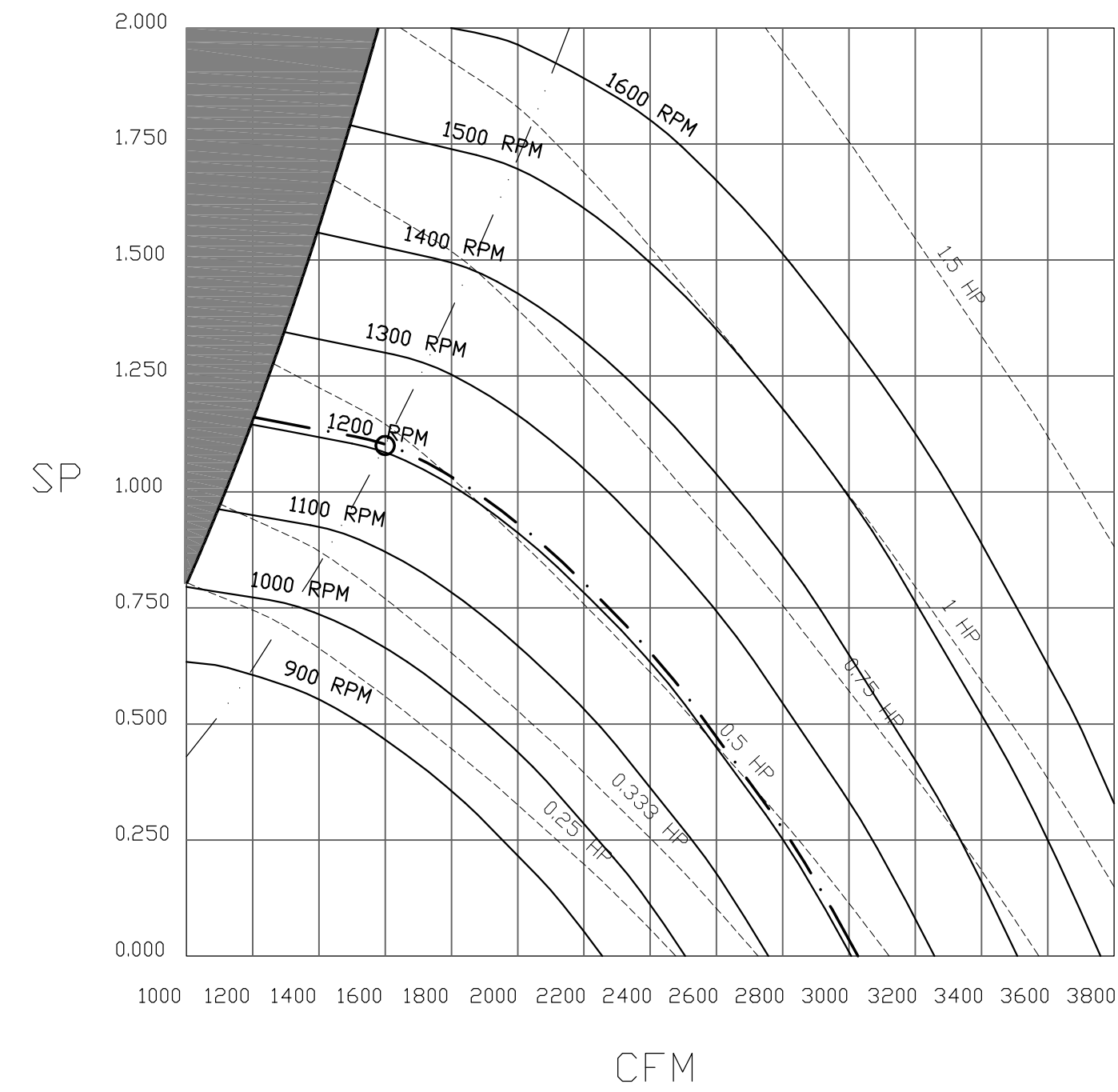


A.D.M. Air Control

JOB Savvy Sliders	
LOCATION	REDFORD, MI.
DATE	9/3/2019
DWC #	5
REV.	SCALE 3/8" = 1'-0"

FANS #1 #2 - EXHAUST PERFORMANCE CURVES.

1600 CFM, 1.1 SP @ 1208 RPM and 0.544 BHP at 623 feet and 70 deg F
* Please note that these curves were adjusted for job specific temperature and altitude.



A.D.M. Air Control

JOB Savvy Sliders	
LOCATION	REDFORD, MI.
DATE	9/3/2019
DWC #	6
REV.	SCALE 3/8" = 1'-0"

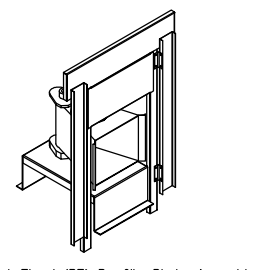
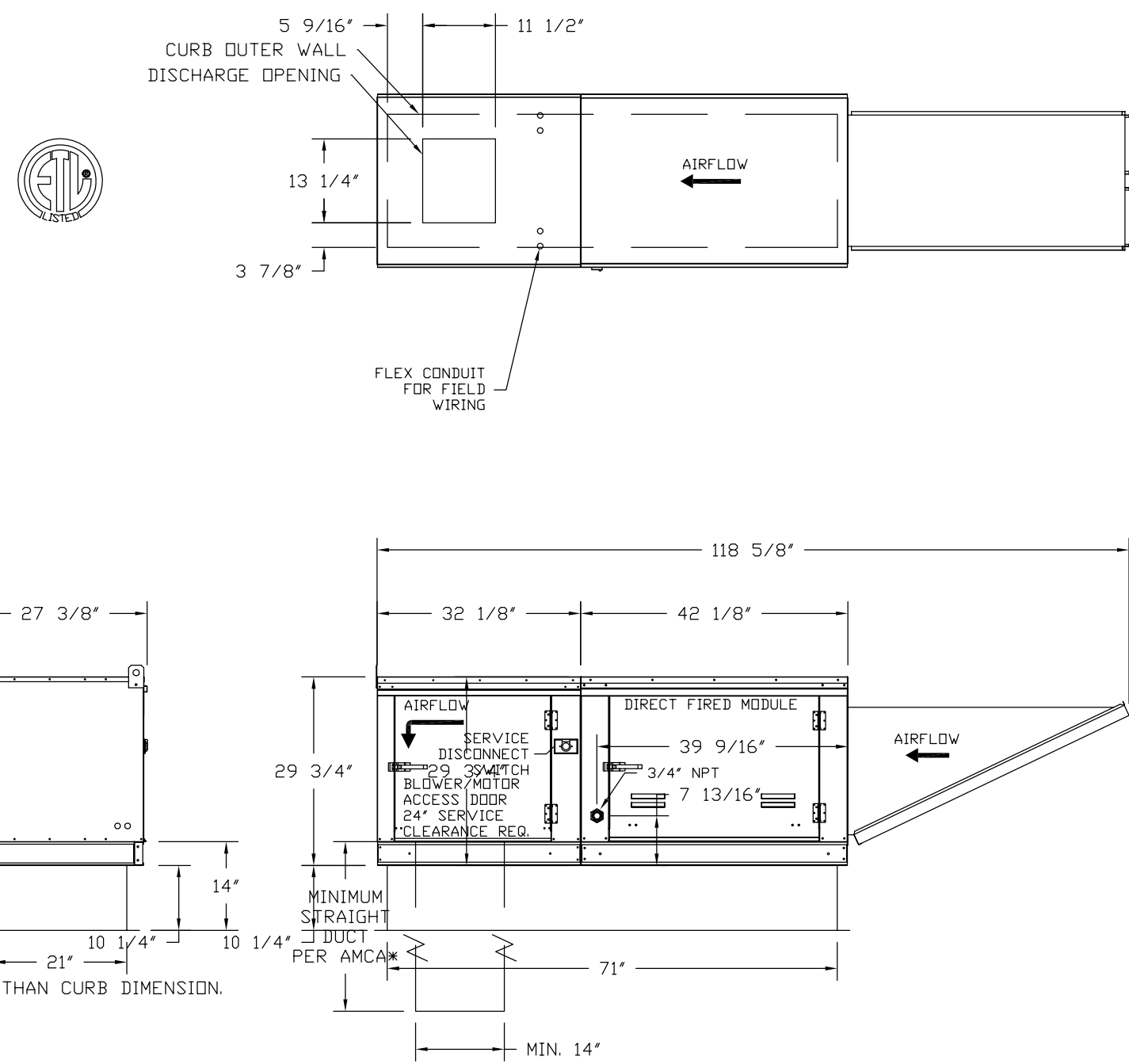
FAN #3 ADM-10250-G10 - HEATER

- DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 10" BLOWER
- INTAKE HOOD WITH E2 FILTERS
- DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT
- LOW FIRE START - ALLOWS THE BURNER CIRCUIT TO ENERGIZE WHEN THE MODULATION CONTROL IS IN A LOW FIRE POSITION.
- GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE
- GAS PRESSURE GAUGE, -5 TO +15 INCHES WC, 2.5" DIAMETER, 1/4" THREAD SIZE
- FIELD WIRED EXHAUST CONTACTOR BEFORE AIRFLOW SWITCH - RATED 23 AMPS. STARTS UP TO (2) SINGLE PHASE MOTORS. 2HP MAX. 115V, 3HP MAX. 240V. STARTS ONE THREE PHASE MOTOR. 5HP MAX. 208V, 7.5HP MAX. 230V, 15HP MAX. 460V. OVERLOAD NOT INCLUDED
- EXHAUST ON FIRE

*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 14" x 14"

SUPPLY SIDE HEATER INFORMATION

WINTER TEMPERATURE = -10°F. TEMP. RISE = 80°F.
BTUs CALCULATED OFF ACTUAL AIR DENSITY
OUTPUT BTUs AT ALTITUDE OF 0.0 FT. = 220861
INPUT BTUs AT ALTITUDE OF 623 FT. = 240067
OUTPUT BTUs AT ALTITUDE OF 623 FT. = 215034
INPUT BTUs AT ALTITUDE OF 623 FT. = 234711



Direct Fired SF Profile Plate Assembly

Direct Fired Profile Plate Specifications:

Direct fired burners shall have patented (US Patent No. US6280280), self-adjusting profile plates designed to ensure proper air velocity and pressure drop across the burner profile plates. The profile plates shall be made of 304 stainless steel. The burner profile plates shall be configured with the burner mounted upstream of the burner. The arrangement shall ensure a constant air flow, regardless of hot air temperature.

Notes:

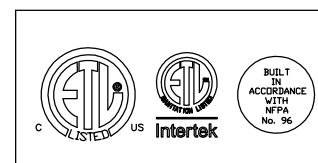
Profile plates shall be engineered to automatically react to the modulation of a flame or stream, without the need for any motors or actuators to manually adjust them. All the features of SF units are designed for direct control ventilation (DCV) equipment.

Specifications:

All profile plate assemblies shall be included in the SF unit's ETL listing and copy with complete safety instructions ANSI Z39.1 and CSA 37 (non-recirculating) of heaters and ANSI Z89.1 (recirculating) of heaters.

General Construction:

- Profile plates shall be formed from 304 stainless steel.
- Profile plates shall be 1/8" thick.
- Profile plates shall be mounted along the same plane as the discharge of the burner.
- Profile plates shall be supported by properly mounted spring clips.
- Spring clips shall be made from galvanized steel.

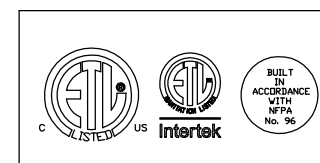
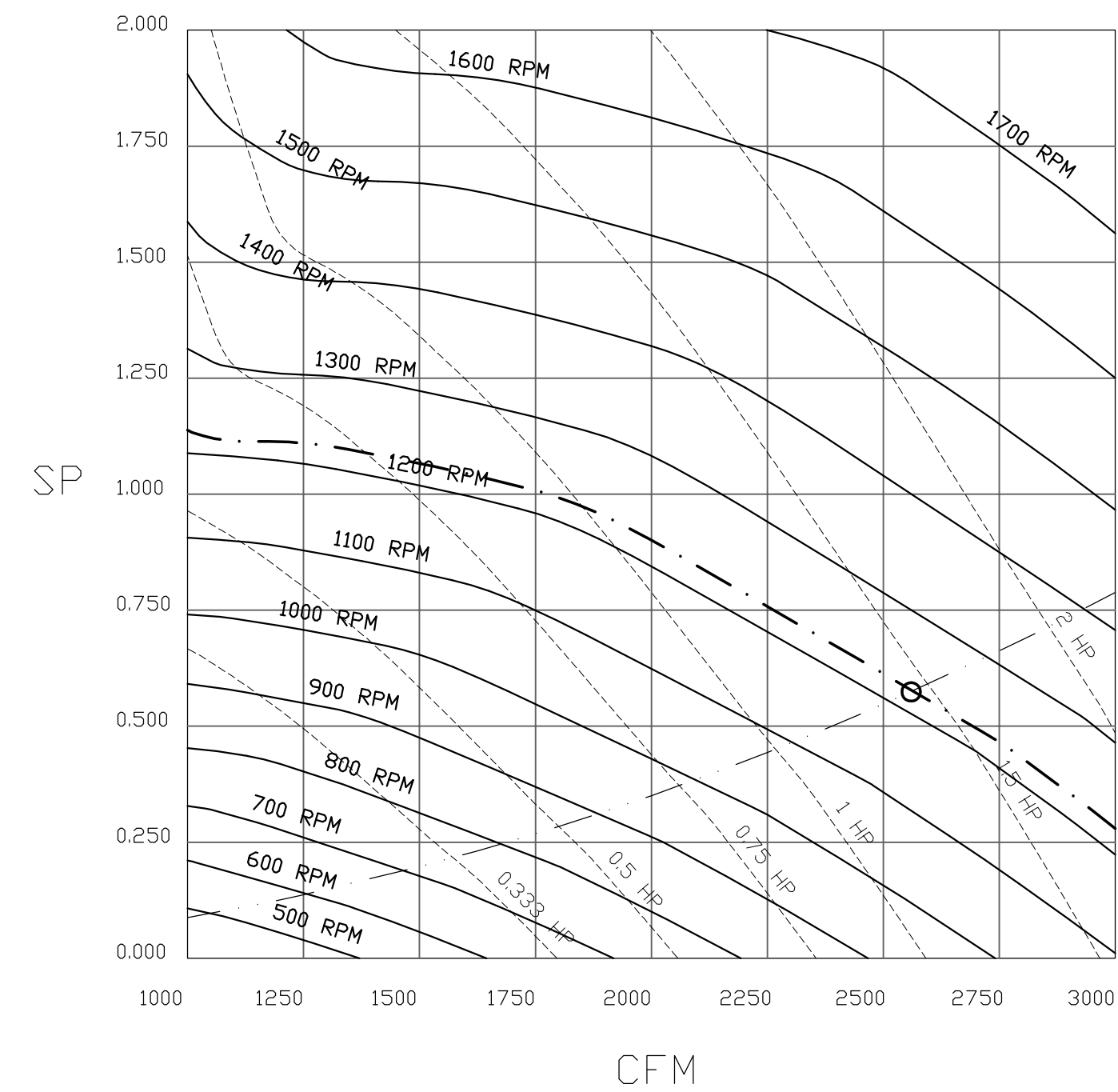


A.D.M. Air Control

JOB Savvy Sliders	
LOCATION	REDFORD, MI.
DATE	9/3/2019
DWC #	7
REV.	SCALE 3/8" = 1'-0"

FAN#3 - HEATER PERFORMANCE CURVES.

2560 CFM, 0.574 SP @ 1224 RPM and 1.426 BHP at 623 feet and 70 deg F
* Please note that these curves were adjusted for job specific temperature and altitude.



A.D.M. Air Control

JOB Savvy Sliders	
LOCATION	REDFORD, MI.
DATE	9/3/2019
DWC #	8
REV.	SCALE 3/8" = 1'-0"

SMA
Serra Marko Associates
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PROJECT NAME:
PROPOSED MULTI
TENANT BUILDING
WITH DRIVE THRU

PERMIT SUBMISSION
04-18-2022

ADDRESS:
21220 GREENFIELD RD
OAK PARK, MI 48237

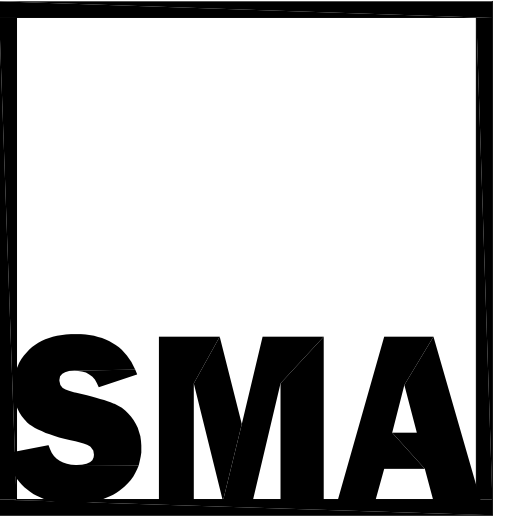
NOT FOR
CONSTRUCTION

ALL DIMENSIONS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR COORDINATION OF ALL DIMENSIONS.

JOB NO.	21-0968
D.B./C.B	R.A./P.D
ISSUANCES	DATE
1 PERMIT SUBMISSION	04/18/22

SHEET TITLE
A.D.M. AIR
CONTROL

DWG. NO.
ADM 2



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D.B./C.B. R.A./P.D.

ISSUANCES

NO DESCRIPTION DATE

1 PERMIT SUBMISSION 04/18/22

SHEET TITLE
A.D.M. AIR
CONTROL

DWG. NO.

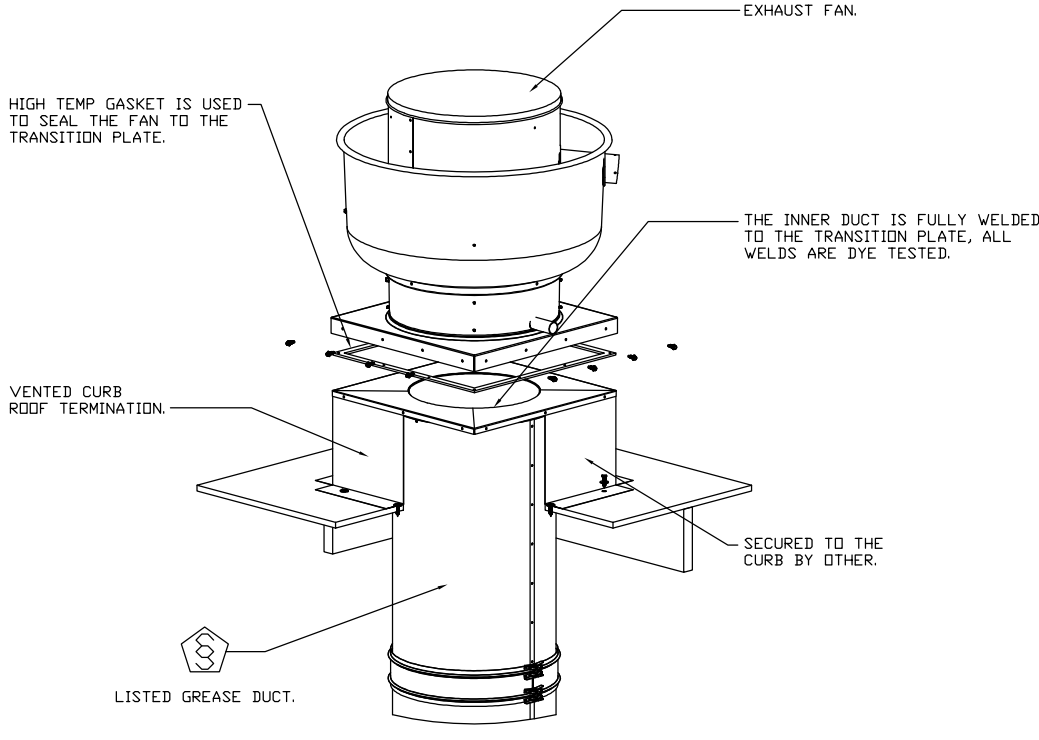
ADM 3

GREASE DUCT & CHIMNEY SPECIFICATIONS:
PROVIDE GREASE DUCT EQUAL TO A.D.M. AIR CONTROL MODEL "DW"
ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "DW"
IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING
CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "DW"
DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER
THE MANUFACTURES INSTALLATION GUIDE.
PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER.
PER MANUFACTURES LISTING MODEL "DW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE
SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12".
DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE
ACCUMULATION IN HORIZONTAL RUNS.

IF THE DUCT OR CHIMNEY IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE
UL-2221 OR UL-103 HT LISTED DOUBLE WALL GREASE DUCT OR DOUBLE WALL CHIMNEY
EQUAL TO A.D.M. AIR CONTROL MODEL "DW- 2R, 2R TYPE HT, 3R, OR 3Z" ROUND 20 GAUGE
430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.

CUSTOMER APPROVAL TO MANUFACTURE:

Approved as Noted
Approved with NO Exception Taken
Revise and Resubmit
SIGNATURE _____
Your Title _____ Date _____



A.D.M. Air Control

JOB Savvy Sliders	
LOCATION REDFORD, MI.	
DATE 9/3/2019	JOB # 3966415
DWG # 9	DRAWN BY Janet Engstrom
REV.	SCALE 3/8" = 1'-0"

