

E1.1

E3/1CINITY MAP

PROJECT DATA

SCOPE OF WORK: THIS PROJECT IS THE

CONSTRUCTION OF A 541 SF PRE-FABRICATED DRIVE-THRU

FARMINGTON, AR 72730

ONLY COFFEE SHOP

PROJECT ADDRESS 321 W. MAIN STREET

**ZONING:** C-2 HIGHWAY COMMERCIAL

541 SF GROSS FLOOR AREA:

CONSTRUCTION TYPE:

OCCUPANCY: GROUP B - BUSINESS

OCCUPANT LOAD:

541 SF / 100 = 6 PERSONS

APPLICABLE CODES:

2021 Arkansas Fire Prevention Code 2021 International Building Code 2009 International Energy Conservation Code 2021 International Mechanical Code 2020 National Electrical Code 2018 Arkansas Plumbing Code 2018 Arkansas Gas Code 2014 Arkansas Energy Code 2017 ANSI A117.1 Accessibility Code

2010 ADA

#### PREFABRICATED BUILDING:

THIS BUILDING IS BEING FABRICATED IN A CONTROLLED ENVIRONMENT AND TRANSFERRED TO THE JOB SITE. A 3rd PARTY INSPECTION GROUP HAS BEEN ENGAGED TO CONDUCT THE INSPECTION OF ALL FABRICATION WITHIN THE 7 BREW COFFEE WAREHOUSE. THE INSPECTION WILL INCLUDE STRUCTURAL, FRAMING, BUILDING, PLUMBING AND ELECTRICAL. REFERENCE BUILD AND INSTALL MANUAL FOR REPORT AND CONSTRUCTION METHODS AND PROCEDURES.

PROJECT DIRECTORY

**OWNER/CONTRACTOR** 

ARKIFEX STUDIOS 2 N. COLLEGE AVE. 221 SOUTH AVENUE, FAYETTEVILLE, AR. 72701 SPRINGFIELD, MO 65806 417.773.1605

**BUILDING MANUFACTURER** 

MCI - CTAR 14437 US HWY 62 E GARFIELD, AR 72732 479.366.9884

**MEP ENGINEER** MPW ENGINEERING 110 W. 7TH STREET,

**ARCHITECT** 

SUITE 600 TULSA, OK 74119 918.582.4088

STRUCTURAL ENGINEER

RTM ENGINEERING CONSULTANTS 3045 S KANSAS EXPY, SPRINGFIELD, MO 65807 417.708.9315

SHEET NUMBER	SHEET NAME
1 - ARCHITECTURE	<u> </u>
A0.1	COVER
A0.5	LIFE SAFETY PLAN
A1.0	FOUNDATION PLAN
A1.1	FOUNDATION DETAILS
A1.2	FLOOR PLAN
A1.3	FINISH PLAN
A1.4	FIXTURE PLAN
A1.5	REFLECTED CEILING PLAN
A1.6	ROOF PLAN
A2.0	EXTERIOR ELEVATIONS
A2.1	EXTERIOR ELEVATIONS
A2.2	INTERIOR ELEVATIONS
A2.3	REMOTE COOLER ELEVATION AND FINISHES
A3.0	BUILDING SECTIONS
A3.1	BUILDING SECTIONS
A4.0	SCHEDULES & WDW ELEV'S
A5.0	TRASH ENCLOSURE
AV1.0	SYSTEMS PLAN
2 - STRUCTURAL	
\$0.0	GENERAL NOTES
\$1.0	FOUNDATION PLAN
S2.1	FOUNDATION DETAILS
\$3.0	FRAMING PLANS
\$3.1	FRAMING PLANS
\$4.0	ELEVATIONS
S4.1	SECTIONS & SHEAR WALL
S4.2	DETAILS
3 - PLUMBING	
P1.1	PLUMBING PLAN
P1.2	SANITARY PLAN
4 - MECHANICAL	
M1.0	MECHANICAL SPECIFICATIONS
M1.1	MECHANICAL FLOOR PLAN AND SCHEDULES
M2.1	MECHANICAL ROOF PLAN AND DETAILS
5 - ELECTRICAL	

SHEET INDEX



LIGHTING PLAN POWER PLAN

ELECTRICAL SPECIFICATIONS



#### **GENERAL CONSTRUCTION PROCEDURES**

- ALL CONSTRUCTION SHALL BE EXECUTED IN STRICT COMPLIANCE WITH ALL LOCAL CODES AND ORDINANCES. GENERAL CONTRACTOR SHALL COMPLY WITH ALL CONSTRUCTION REGULATIONS AND PROCEDURES ESTABLISHED BY THE LANDLORD.
- 2. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING APPLICATION FOR AND PROCURING ALL PERMITS AND CERTIFICATES AS MIGHT BE REQUIRED BY GOVERNING AGENCIES AND SHALL BEAR THE COST FOR SUCH PERMITS AND CERTIFICATES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS OF THE SITE.
- EVERY EFFORT HAS BEEN MADE TO A ASSURE ACCURATE CONSTRUCTION DOCUMENTS, BUT IF A CONFLICT EXISTS THE GENERAL CONTRACTOR SHALL CONTACT THE ARCHITECT IMMEDIATELY FOR CLARIFICATION. THESE DOCUMENTS INDICATE THE DESIGN INTENT AND IF EXISTING CONDITIONS ARE IN CONFLICT THE GENERAL CONTRACTOR SHALL CONTACT THE ARCHITECT IMMEDIATELY FOR CLARIFICATION.
- 4. THE GENERAL CONTRACTOR SHALL MAINTAIN DIRECT SUPERVISION OVER ALL SUBCONTRACTORS AND SHARE RESPONSIBILITY FOR THEIR PERFORMANCE AND QUALITY OF WORK. A LIST OF ALL SUBCONTRACTORS SHALL BE PROVIDED TO THE OWNER AND THE ARCHITECT. A COPY OF THIS LIST SHALL BE POSTED ON THE JOB SITE.

heating

hardware

hardwood

hollow metal

heating/ventilating/air conditioning

НМ

HTG

HW

**HVAC** 

HWD

- ALL SIGNAGE AND MOUNTING DEVICES SHALL BE PROVIDED, AND ALL SIGNAGE APPROVALS OBTAINED, BY OWNERS SIGN CONTRACTOR. GENERAL CONTRACTOR SHALL PROVIDE ELECTRICAL POWER AS REQUIRED AND ENSURE SUFFICIENT SPACE AND CLEARANCE IS PROVIDED FOR PROPER INSTALLATION. SIGNAGE CONTRACTOR SHALL APPLY FOR AND SECURE ALL APPROVALS REQUIRED BY ALL LOCAL GOVERNING AGENCIES AND SUPPLY ANY DRAWINGS OR GRAPHIC REPRESENTATIONS REQUIRED BY LANDLORD.
- ALL CONCEALED WOOD BLOCKING USED IN CONSTRUCTION SHALL BE FIRE-RETARDANT TREATED (IF APPLICABLE)
- 7. GENERAL CONTRACTOR SHALL PERFORM AND/OR CAUSE TO BE PERFORMED ALL WORK IN A FIRST-CLASS WORKMANLIKE MANNER AND IN ACCORDANCE WITH EACH TRADE'S ESTABLISHED PROCEDURES AND MANUFACTURER'S RECOMMENDATIONS FOR PRODUCT USE AND INSTALLATION.
- 8. ALL PRODUCTS USED ON THIS PROJECT SHALL BE FIRST QUALITY, NEW AND FREE OF ASBESTOS OR OTHER ENVIRONMENTALLY UNSAFE SUBSTANCES.
- 9. MILLWORK, BASE, DESIGNATED TRIM, ETC. SHALL BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR WHERE INDICATED ON THE DRAWINGS AND/OR SCHEDULES.

system

structure(al)

symmetrical

STRUCT

SYM

SYS

- 10. GENERAL CONTRACTOR SHALL PROVIDE ALUMINUM CORNER GUARDS AT ALL EXPOSED OUTSIDE CORNERS. ALUMINUM GUARDS TO BE 8'-0" LENGTHS AS MANUFACTURED BY INSTITUTIONAL PRODUCTS CORPORATION.
- 11. GENERAL CONTRACTOR SHALL CONTACT ARCHITECT PRIOR TO CONSTRUCTION START DATE TO CONFIRM THAT HE/SHE HAS LATEST APPROVED CONSTRUCTION DOCUMENTS FOR THIS LOCATION.

#### **ABBREVIATIONS**

DN DR DS

DTL

downspout

down

detail

drawing

door

A/C	air conditioning							T&G	tongue and groove
ABV	above	E	east	ICF	insulated concrete form(ing)	PB	panic bar	THK	thick(ness)
AFF	above finished floor	EA	each	ID	inside diameter	PC	precast concrete	TO	top of
ALT	alternate	EL, ELEV	elevation	INT	interior	PCF	per cubic foot	TOS	top of steel
APPROX	approximately	ELECT	electric(al)			PERF	perforate(d)	TOW	top of wall
ARCH	architect(ural)	ELEV	elevation	JT	joint	PH	panic hardware	TS	tube steel
AUTO	automatic	EQ	equal	•	<b>J</b>	PK	parking	TSL	top of slab
,,,,,		EST	estimate	KO	knock out	PLF	pounds per linear foot	TYP	typical
BD	board	EW	each way			PNL	panel(ed)(ing)		3,6100
BEL	below	(E)	existing	LAV	lavatory	PREFAB	prefabricate(d)	UNF	unfinished
BLDG	building	EJ	expansion joint	LBL	label	PRF	preformed	UNO	unless noted otherwise
BO	bottom of	EXT	exterior	LH	left hand	PSC	prestressed concrete	0.10	amoss notes outsi wise
BSMT	basement	2/(1	CAGNO	LL	live load	PSF	pounds per square foot	VAR	varies, variable
BVL	bevel	FA	fire alarm	LPT	low point	PSI	pounds per square inch	VB	vapor barrier
DVL	56461	FBO	furnished by other	LT	light	PT	point	VIF	verify in field
CAB	cabinet	FD	floor drain	LVR	louver	PTC	post-tensioned concrete	VII	verify in field
CCTV	closet circuit television	FE	fire extinguisher	LW	lightweight	1 10	post-terisioned concrete	W	west
CG	corner guard	FEC	fire extinguisher cabinet	LWC	lightweight concrete	R	radius	W	width, wide
CJ	control joint	FF	finished floor	LVVO	lightweight concrete	RA	return air	W/	with
CL	centerline	FFE	finished floor elevation	M	meter(s)	RB	rubber base	W/O	without
CLG	ceiling	FFL	finished floor line	MAX	maximum	RD	roof drain	WB	wood base
CLG	clear	FND	foundation	MBR	member	REF	reference	WC	water closet
CMU		FOC	face of concrete	MECH	mechanical	REV	revision	WD	water closet wood
CNR	concrete masonry unit	FOF	face of concrete						
	corner			MEP	mechanical, electrical, plumbing	RH	right hand	WH	wall hung
CO	cleanout	FOS	face of stud	MFR	manufacture(r)	RM	room	WP	waterproof(ing)
COL	column	FTG	footing	MHO	magnetic hold open	RO ROW	rough opening	WPT	working point
COMP	compress(ed)(ion)(ible)	FUR	furr(ed)	MIN	minimum	ROW	right of way	WR	water resistant
CONC	concrete	0.4		MISC	miscellaneous	0	41-	WTW	wall to wall
CONST	construction	GA	gauge, gage	MM	millimeter(s)	S	south		
CONT	continue, continuous	GALV	galvanized	MRD	metal roof deck	SC	solid core		
5	1 11-	GB	grab bar	MTL	metal	SEC	section		
D	depth	GC	general contractor			SF	square feet (foot)		
DBL	double	GYP BD	gypsum board	N	north	SIM	similar		
DEMO	demolish, demolition			NIC	not in contract	SP	soundproof		
DIAG	diagonal	HB	hose bibb	NOM	nominal	SPEC	specification(s)		
DIAM	diameter	HC	hollow core	NTS	not to scale	SQ	square		
DIM	dimension	HD	heavy duty		_	SS	stainless steel		
DIV	division	HDR	header	OA	overall	STD	standard		
DL	dead load	HT	height	OC	on center	STG	seating		
DNI	al a	1 18 4	h allann maakal	00		CTDLICT	-4m4/-1\		

overhead

opposite

outside diameter

overflow roof drain

opposite hand

OD

ORD



Architect of Record

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Revisions

Description

**A0.1** COVER

project #:

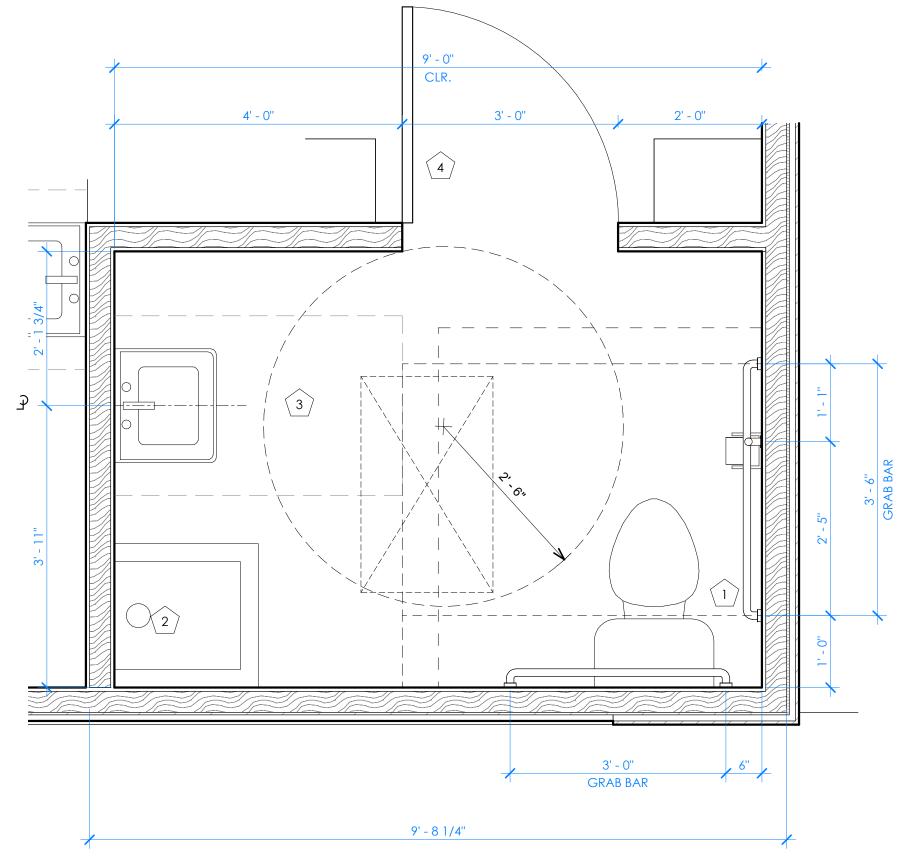
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#### **TOILET PLAN GENERAL NOTES**

- 1. ALL FIXTURES AND GRAB BARS SHALL BE IN COMPLIANCE WITH ADA 604 AND 606 - CONTRACTOR SHALL PROVIDE ADDITIONAL BLOCKING AS REQUIRED.
- 2. CONTRACTOR SHALL PROVIDE A ROLL-OUT TYPE WATER-PROOF MEMBRANE AT TOILET - RETURN MEMBRANCE UP WALL

#### **TOILET PLAN KEYNOTES**

1	FIXTURES AND GRAB BARS SHALL BE IN COMPLIANCE WITH ADA 604 AND 606 - CONTRACTOR SHALL PROVIDE ADDITIONAL BLOCKING AS REQUIRED.
2	MOP SINK - RE: PLUMBING DRAWINGS
3	30" X 48" CLEAR SPACE AT LAVATORY
4	HM DOOR AND FRAME AT TOILET ROOM - RE: DOOR SCHEDULE



ENLARGED RESTROOM

#### LIFE SAFETY LEGEND

MEASURED TRAVEL DISTANCE PORTABLE CLASS K FIRE EXTINGUISHER; WALL MOUNTED

EXIT REQUIRED BY TABLE 1006.3.2, 2018 IBC

REMOTE POINT

#### PROJECT DATA

SCOPE OF WORK:

THIS PROJECT IS THE CONSTRUCTION OF A DRIVE-THRU COFEE SHOP

CONSTRUCTION TYPE: V-B

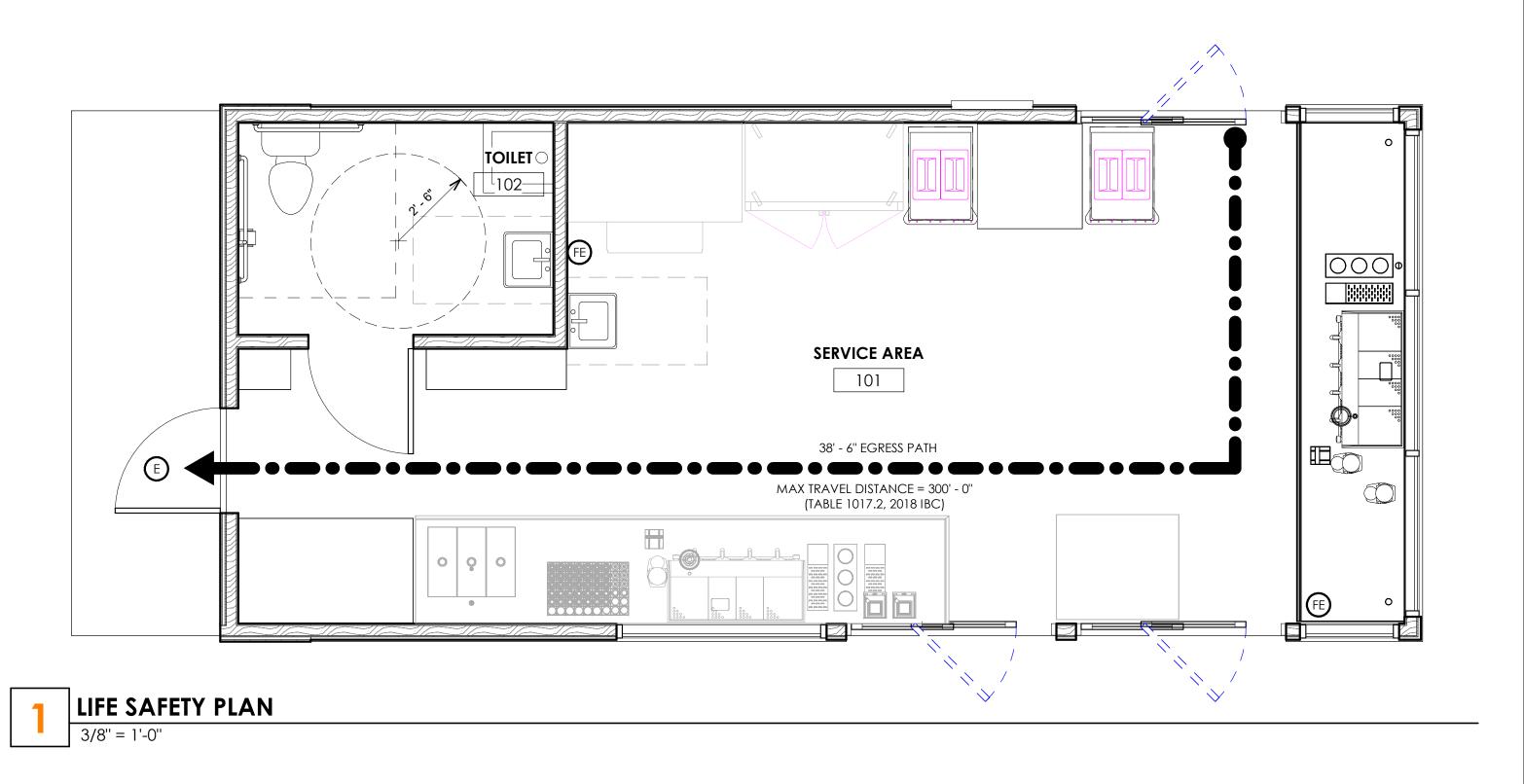
**GROSS FLOOR AREA:** 541 SF

OCCUPANCY: GROUP B - BUSINESS

OCCUPANT LOAD: 541 SF / 100 = 6 PERSONS

1 MEANS OF EGRESS REQUIRED

36" (TABLE 1020.2, 2018 IBC) MINIMUM EGRESS WIDTH:



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> 321 W. MAIN STARMINGTON, Revisions Description

**A0.5** LIFE SAFETY PLAN

project #: 7/18/2024 10:01:54 AM

#### **FOUNDATION / FLOOR FRAMING PLAN KEYNOTES**

- 0" CONTINUOUS CONCRETE FOOTINGS - RE: DTL 1/A1/1 3"x3"x1/4" ANGLE AT 48" O.C. AND AS SHOWN AT EACH END - RE: DTL 1/A1.1 16" x 8" FOUNDATION VENTS - TYP. OF (4) - COORDINATE WITH STRUCTURAL DRAWINGS. 12" x 20" FOUNDATION VENT WELL - TYP. OF (4) - COORDINATE WITH STRUCTURAL DRAWINGS.

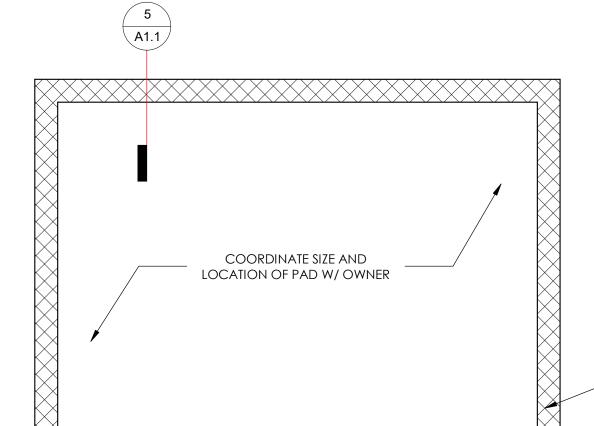
CONCRETE FOOTINGS FOR CANOPY. SEE CIVIL DRAWINGS

#### PREFABRICATED BUILDING

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GC IS RESPONSIBLE FOR COORDINATING AND **VERIFYING CANOPY FOOTING LOCATIONS WITH** BUILDING MANUFACTURER AND CANOPY PROVIDER. GC WILL BE RESPONSIBLE FOR REFERENCING STRUCTURAL DRAWINGS WITH FOUNDATION PLAN AND CANOPY DRAWINGS. FAILIER TO DO SO COULD CAUSE MISSALIGNMENT BETWEEN CANOPY COLUMNS AND FOOTINGS.

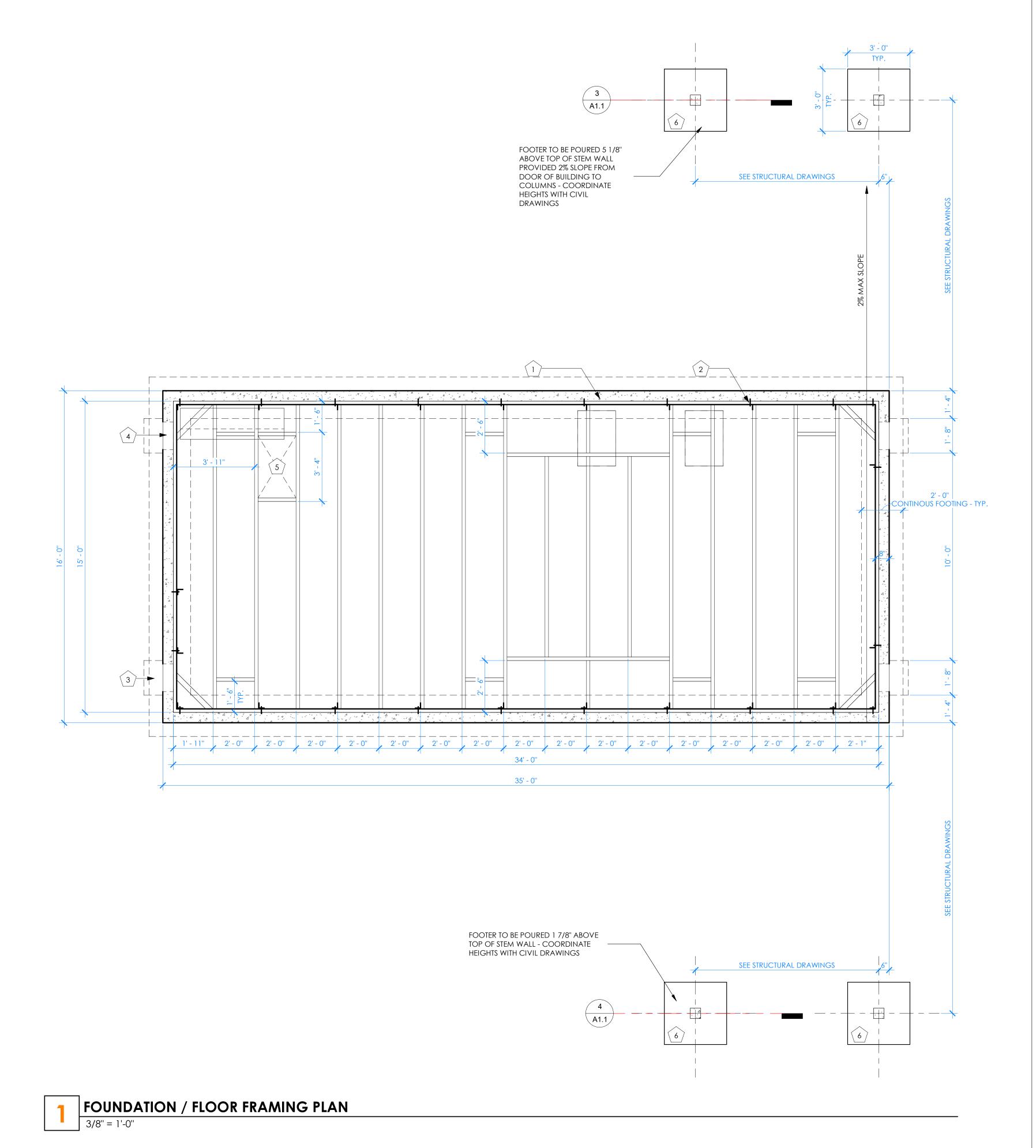
#### COORDINATE FOOTING HEIGHTS WITH CIVIL DRAWINGS



— NOLAKE REMOTE WALK-IN

w/ OWNER

COOLER, COORDINATE LOCATION





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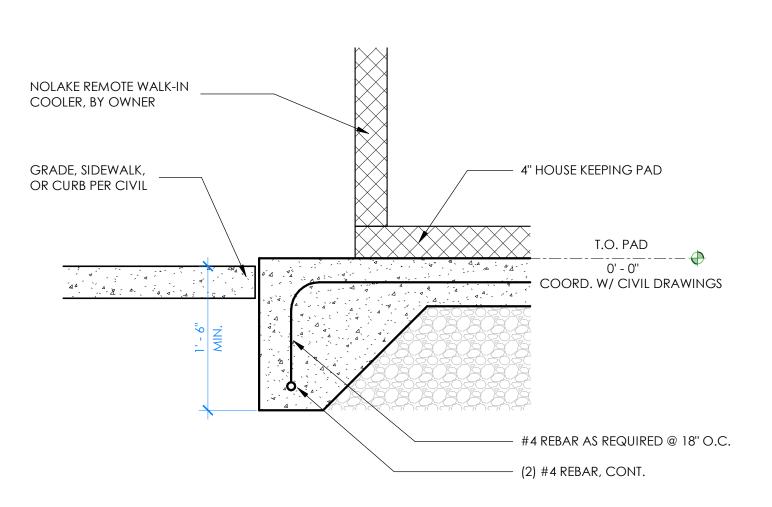
project except by agreement in writing with appropriate compensation to the Architect. methods and techniques, sequences or procedures or fo safety precautions and programs in connection with the

Revisions

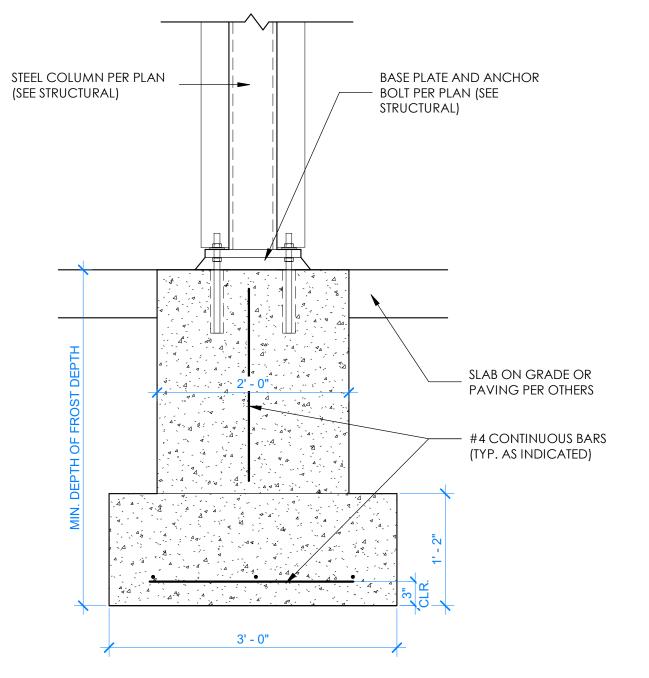
A1.0 FOUNDATION PLAN

project #:

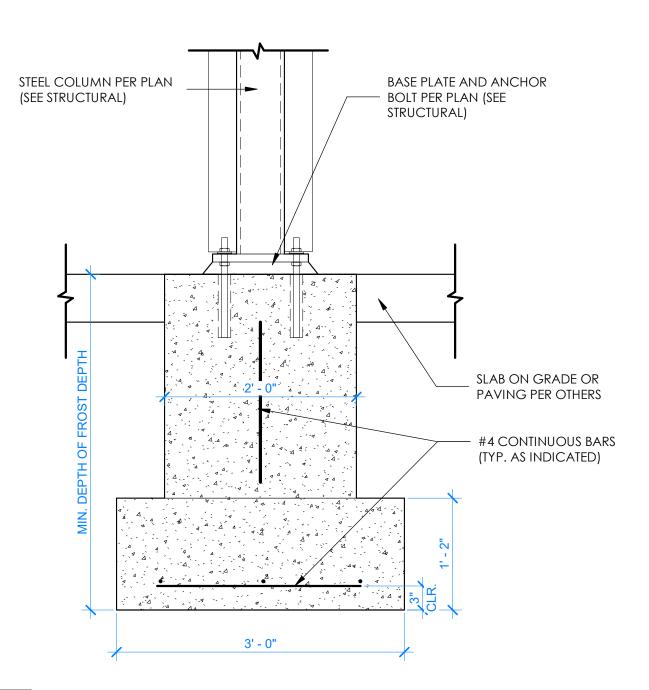
7/18/2024 10:01:56 AM



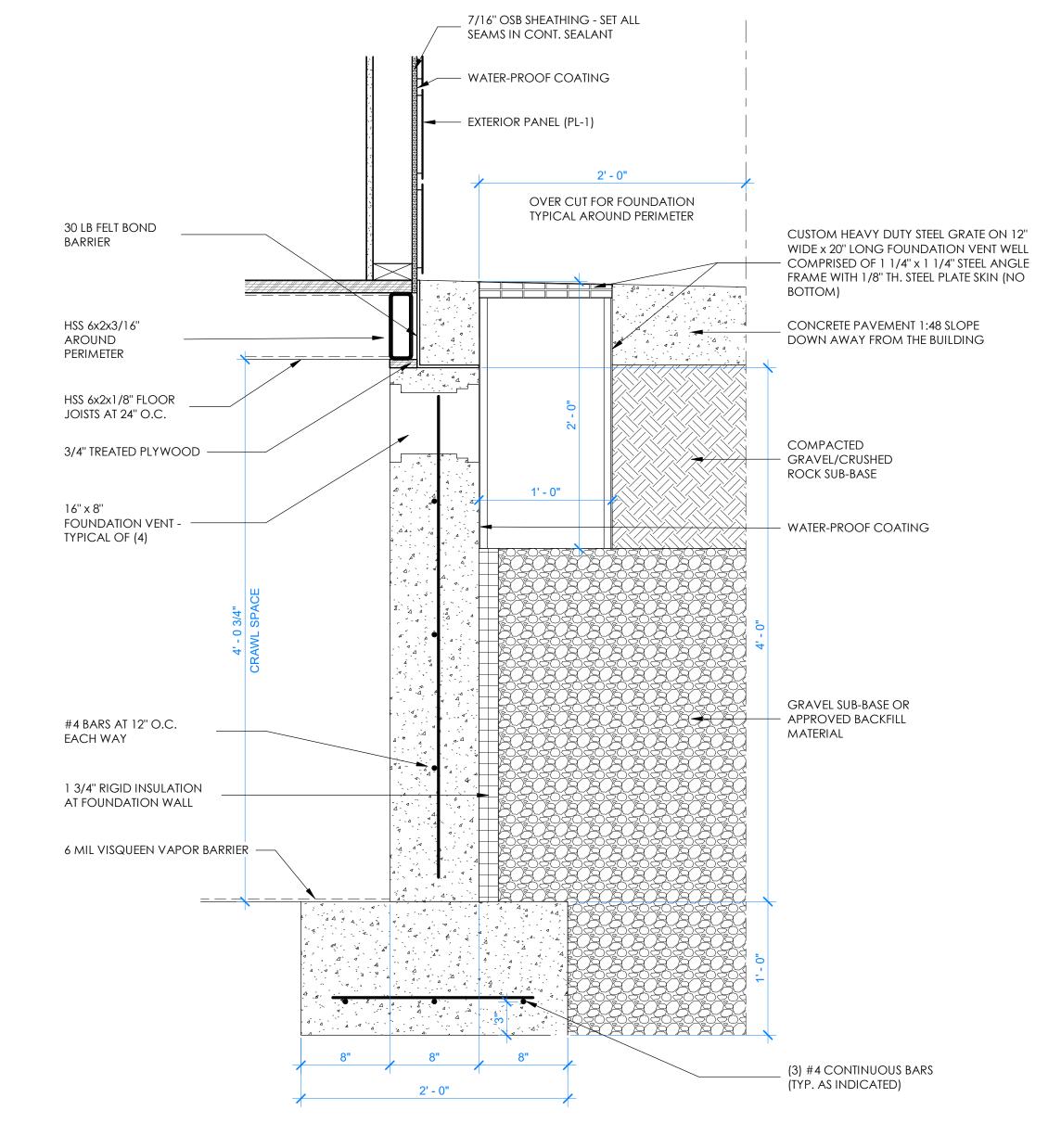
# COOLER PAD DETAIL







CANOPY FOOTING - RIGHT SIDE

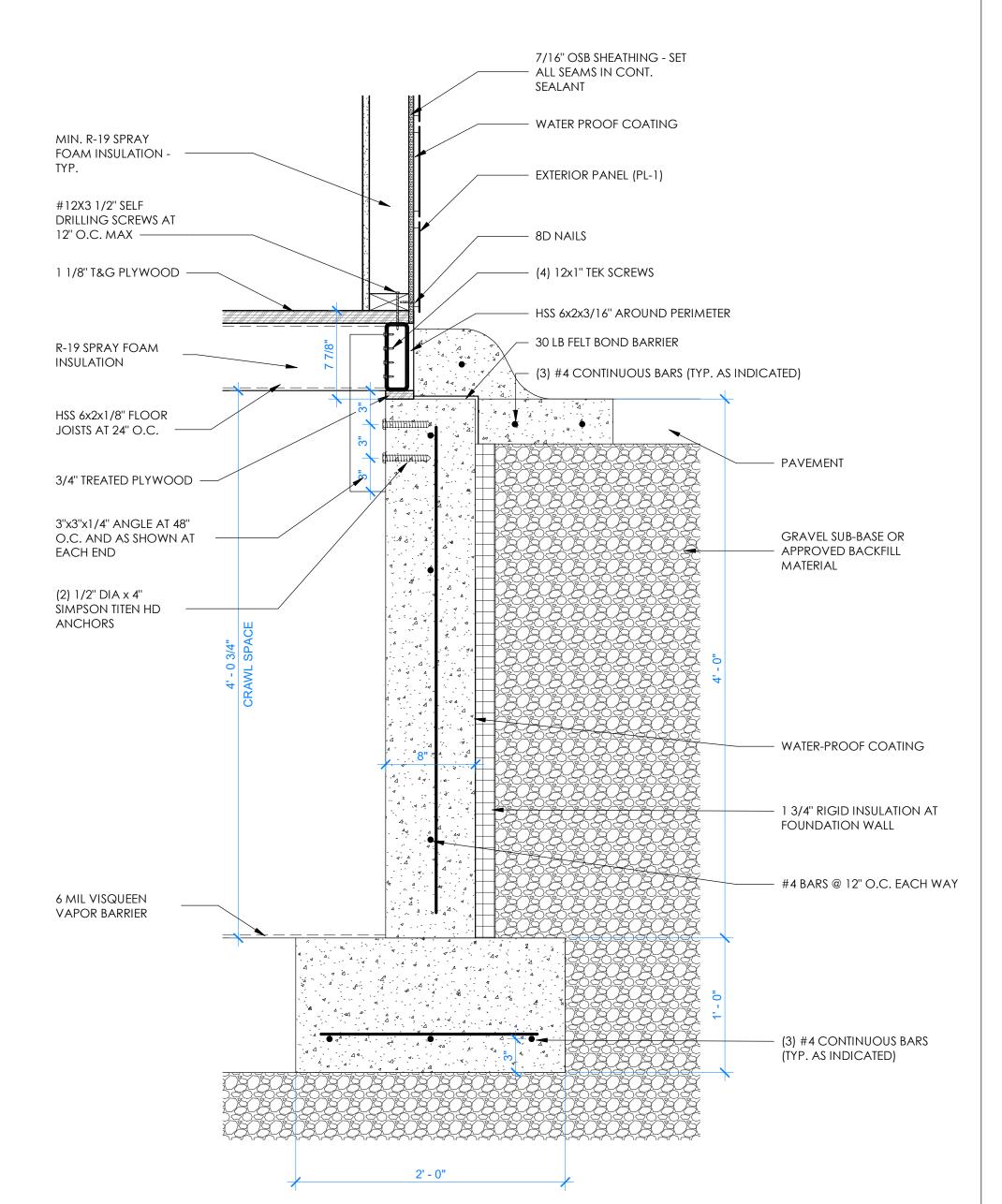


# FOUNDATION VENT WELL

#### PREFABRICATED BUILDING

THIS BUILDING IS BEING FABRICATED IN A CONTROLLED ENVIRONMENT AND TRANSFERRED TO THE JOB SITE. THERE IS TO BE 3rd PARTY INSPECTIONS OF ALL FABRICATION WITHIN THE 7 BREW COFFEE WAREHOUSE. THE INSPECTION WILL INCLUDE STRUCTURAL, FRAMING, BUILDING, PLUMBING AND ELECTRICAL.

GC IS RESPONSIBLE FOR COORDINATING AND **VERIFYING CANOPY FOOTING LOCATIONS WITH BUILDING MANUFACTURER AND CANOPY** PROVIDER. GC WILL BE RESPONSIBLE FOR REFERENCING STRUCTURAL DRAWINGS WITH FOUNDATION PLAN AND CANOPY DRAWINGS. FAILURE TO DO SO COULD CAUSE MISALIGNMENT BETWEEN CANOPY COLUMNS AND FOOTINGS.



**FOUNDATION DETAIL** 



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methods and techniques, sequences or procedures or for safety precautions and programs in connection with the

Contractor is responsible for construction means

TREET, AR 7 32 FA

Revisions Description

> **A1.1** FOUNDATION **DETAILS**

project #:

7/18/2024 10:01:57 AM

#### PREFABRICATED BUILDING

THIS BUILDING IS BEING FABRICATED IN A CONTROLLED ENVIRONMENT AND TRANSFERRED TO THE JOB SITE. THERE IS TO BE 3rd PARTY INSPECTIONS OF ALL FABRICATION WITHIN THE 7 BREW COFFEE WAREHOUSE. THE INSPECTION WILL INCLUDE STRUCTURAL, FRAMING, BUILDING, PLUMBING AND ELECTRICAL.

#### **FLOOR PLAN GENERAL NOTES**

- . ALL DIMENSIONS ARE TO STUD FACES, WINDOW JAMBS, AND DOOR JAMBS U.N.O.
- 2. ALL GYPSUM BOARD TO BE 5/8" TYPE 'X', WET LOCATIONS ARE TO HAVE 5/8" TYPE 'X' WATER RESISTANT GREENBOARD. INTERIOR WALLS TO HAVE WATERPROOF WALL COVERINGS.
- 3. ALL INTERIOR GYPSUM BOARD WALLS TO RECEIVE 5" PROTECT-ALL RUBBER BASE (VB-1)
- 4. SEAL AROUND ALL INTERIOR JOINTS AT DOORS AND WINDOWS.

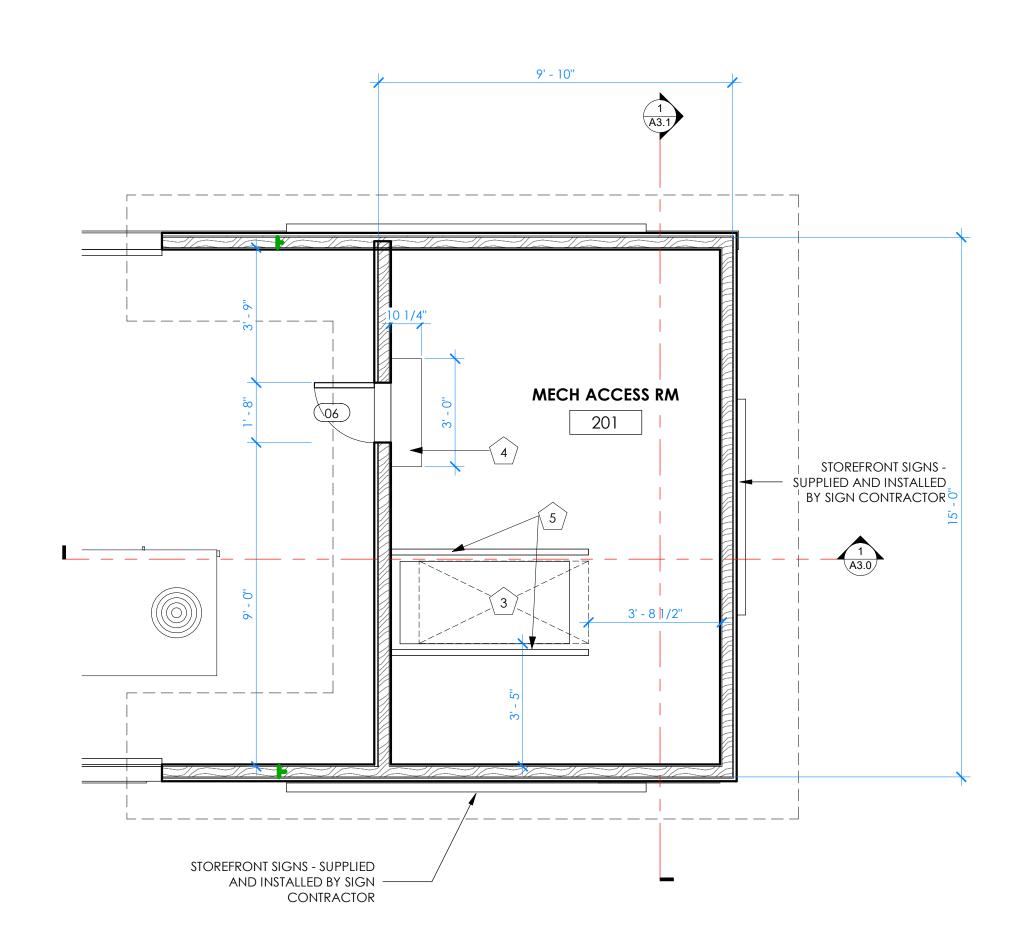
#### **FLOOR PLAN KEYNOTES**

1	ACCESS DOOR FOR CRAWLSPACE ACCESS
2	MOP SINK RE: PLUMBING DRAWINGS
3	MECH. ACCESS DOOR AND LADDER - SUPPLIED BY OWNER.
4	STEP-UP TO ROOFING MEMBRANE. CENTER ON DOOR.
5	HAND RAIL - EACH SIDE OF MECH. ACCESS DOOR AND

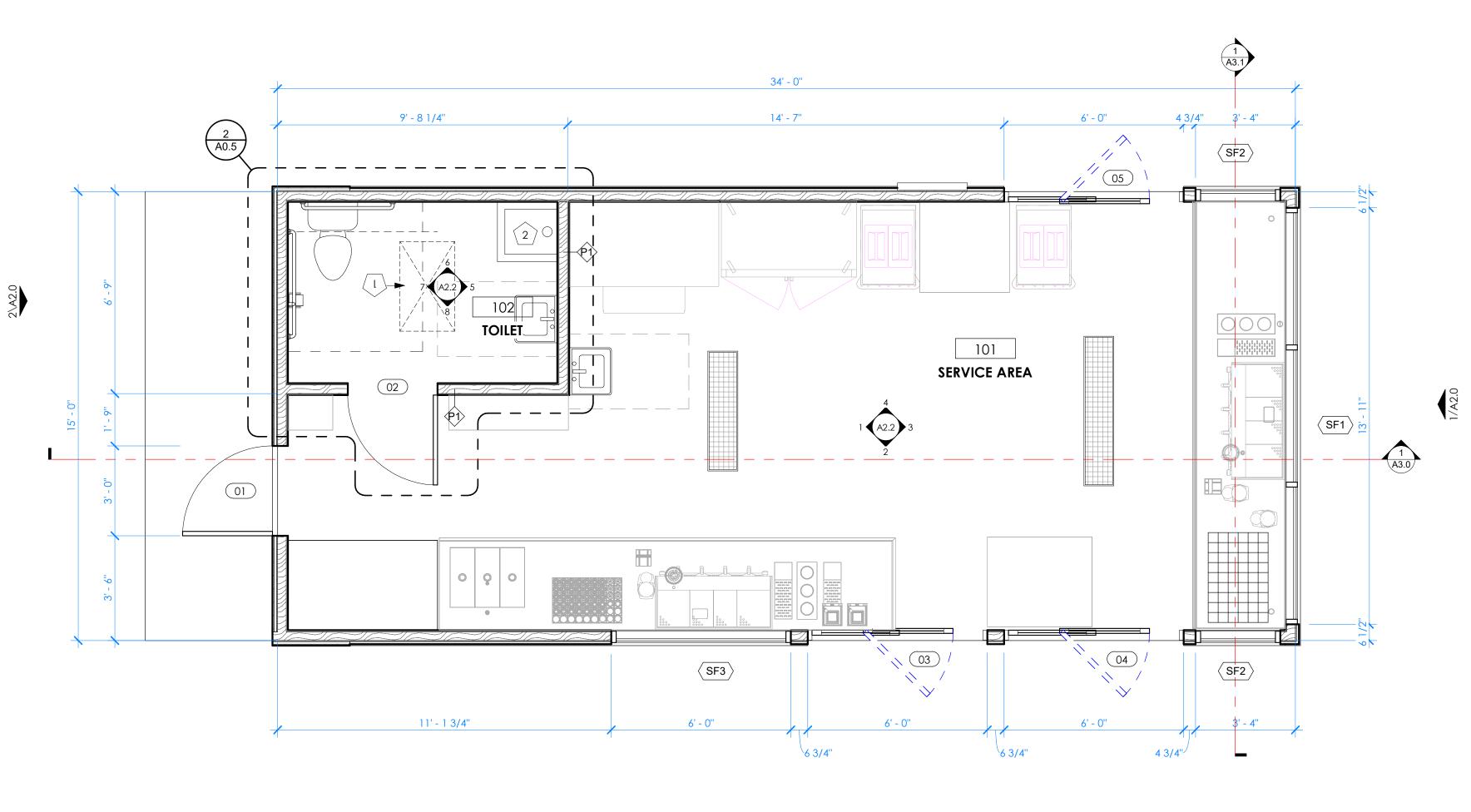
#### **WALL TYPE LEGEND**

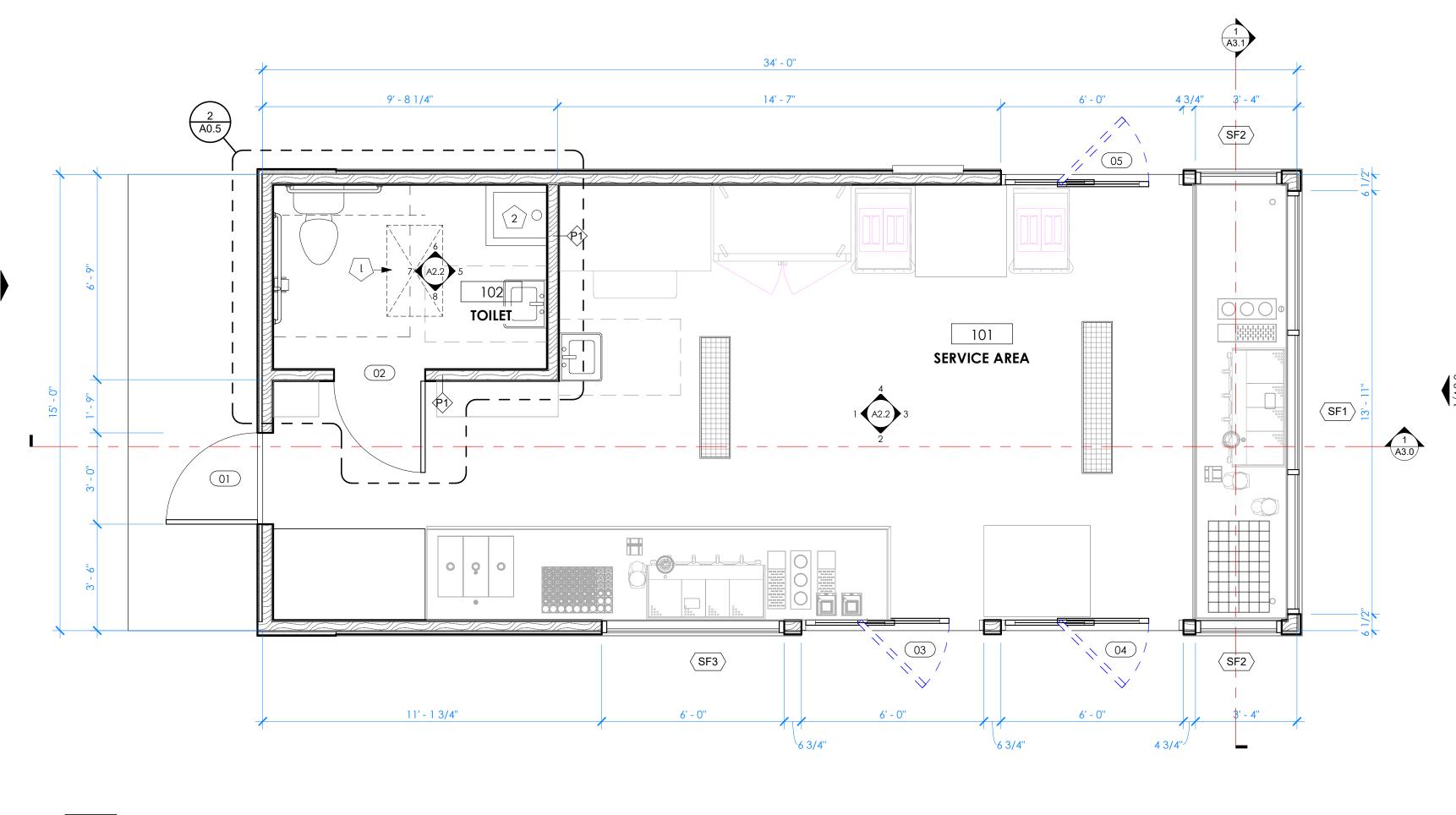
5/8" GYP BD EACH SIDE OF 2x4 WOOD STUDS @ 16" o.c. TO 6" ABOVE FINISHED CEILING.

COOLER WALL - BY MANUFACTURER









FIRST FLOOR PLAN



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321 W. MAIN STARMINGTON,

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A1.2 FLOOR PLAN

project #:

7/18/2024 10:01:59 AM

FINISH MATERIALS SCHEDULE					
SYMBOL	ITEM	DESCRIPTION	REMARKS		
PL-1	CEMENT PANEL	NICHIHA - MODERN BRICK FINISH: MIDNIGHT	EXTERIOR WAINSCOT AND REAR WALL  a.		
FRP-1	FRP WALL COVERING	MARLITE OR APPROVED EQUAL FINISH: P199 / P100 / S100 SIZE: 4'x9'x3/32"	SERVICE AREA AND TOILET b.		
PT-1	PAINT	SHERWIN WILLIAMS COLOR: "SALTY DOG" SW 9177 FINISH: SATIN / SEMI-GLOSS FINISH	BOLLARDS b, d.		
PT-2	PAINT	SHERWIN WILLIAMS COLOR: "FIRST STAR" SW 7646 FINISH: SATIN / SEMI-GLOSS FINISH	DOORS AND FRAMES b, d.		
MP-1	METAL PANEL	KINGSPAN MORIN MX-1.0 COLOR: ZINC GRAY FINISH: SMOOTH	exterior siding a.		
MP-2	BRAKE METAL	KINGSPAN COLOR: REGAL BLUE FINISH: SMOOTH	metal roof and canopies a.		
MP-3	CANOPY COLUMNS	CUSTOM POWDERCOATING COLOR: REGAL BLUE - RAL 5003 FINISH: SMOOTH	CANOPIES a.		
MP-4	BRAKE METAL	KINGSPAN COLOR: ZINC GRAY FINISH: SMOOTH	METAL COPING AT SIDE WALLS  a.		
WC-1	DECORATIVE WALL COVERING	CUSTOM VINYL WALL COVERING	COOLER WALLS d.		
VT-1	RESILIENT VINYL FLOORING AND BASE	PROTECT-ALL FLOORING COLOR: DARK GRAY	SERIVCE AREA AND TOILET a.		
	RESILIENT VINYL BASE	PROTECT-ALL BASE COLOR: LIGHT GRAY	SERVICE AREA AND TOILET a.		

FINISH MATERIALS SCHEDULE NOTES

ITEMS LISTED IN FINISH MATERIALS SCHEDULE MAY NOT BE USED IN PROJECT. COORDINATE WITH DRAWING SET. IF ITEMS LISTED ARE IN CONFLICT WITH MATERIALS CALLED OUT IN THE DRAWING SET, CONTACT THE ARCHITECT.

a. PROVIDED BY 7BREW AND INSTALLED BY 7BREW.

b. ALL MATERIALS AND WORK PROVIDED AND INSTALLED BY CONTRACTOR

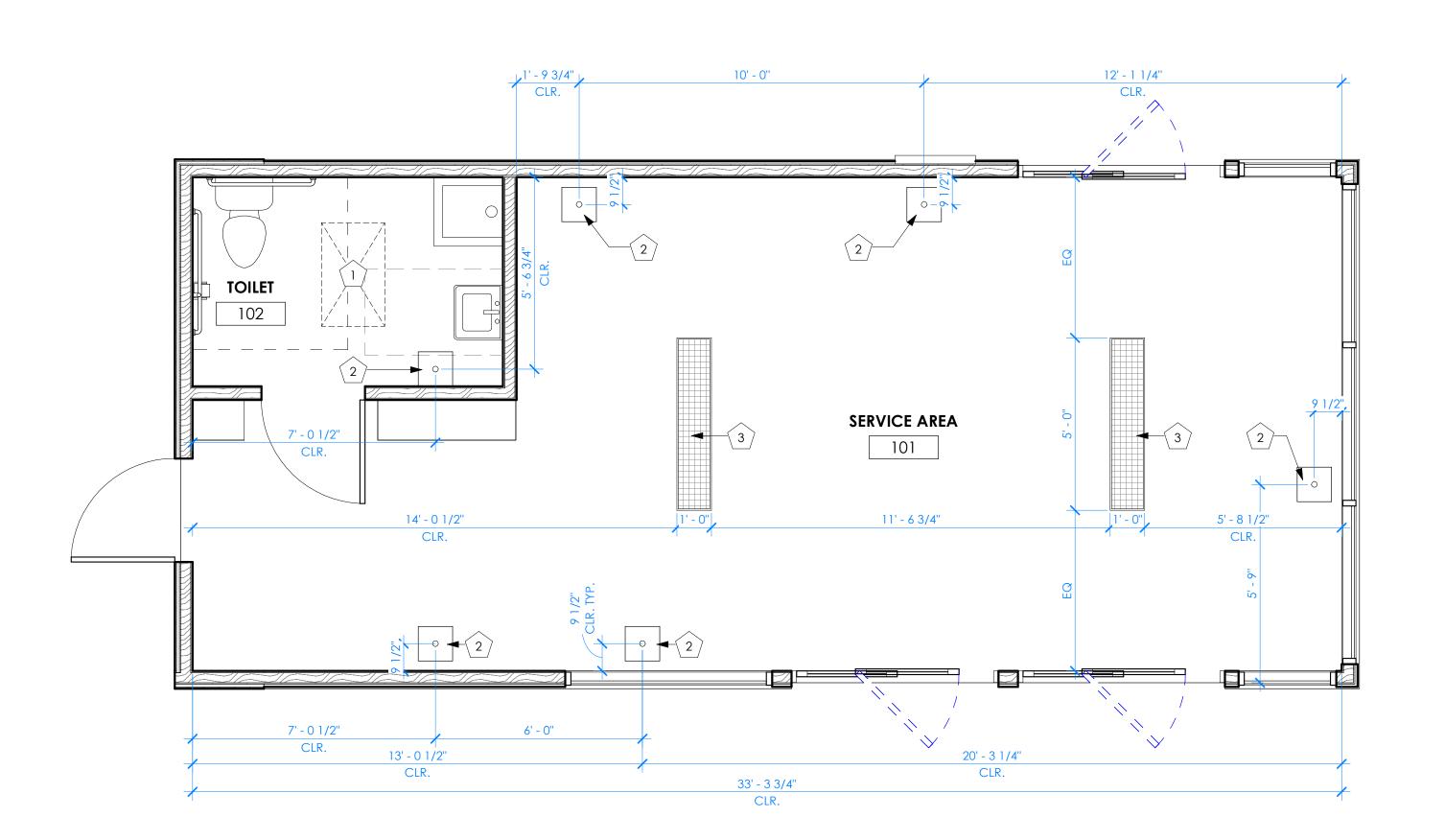
c. PROVIDED BY 7BREW AND INSTALLED BY GENERAL CONTRACTOR. d. PROVIDED BY AND INSTALLED BY SIGN CONTRACTOR.

#### FLOOR FINISH GENERAL NOTES

PROTECT-ALL VINYL FLOORING AND COVE BASE THROUGHOUT SERVICE AREA AND TOILET - TYP.

#### FLOOR FINISH KEYNOTES

1	ACCESS DOOR FOR CRAWLSPACE ACCESS. COORDINATE LOCATION W/ FOUNDATION PLAN
2	12"x12" FLOOR SINK WITH 3/4 GRATE
3	12"X60" FLOOR DRAIN AND GRID GRATE



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



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321 w. main street Farmington, ar 72730

Revisions

Description

**A1.3** FINISH PLAN

project #:

7/18/2024 10:02:00 AM

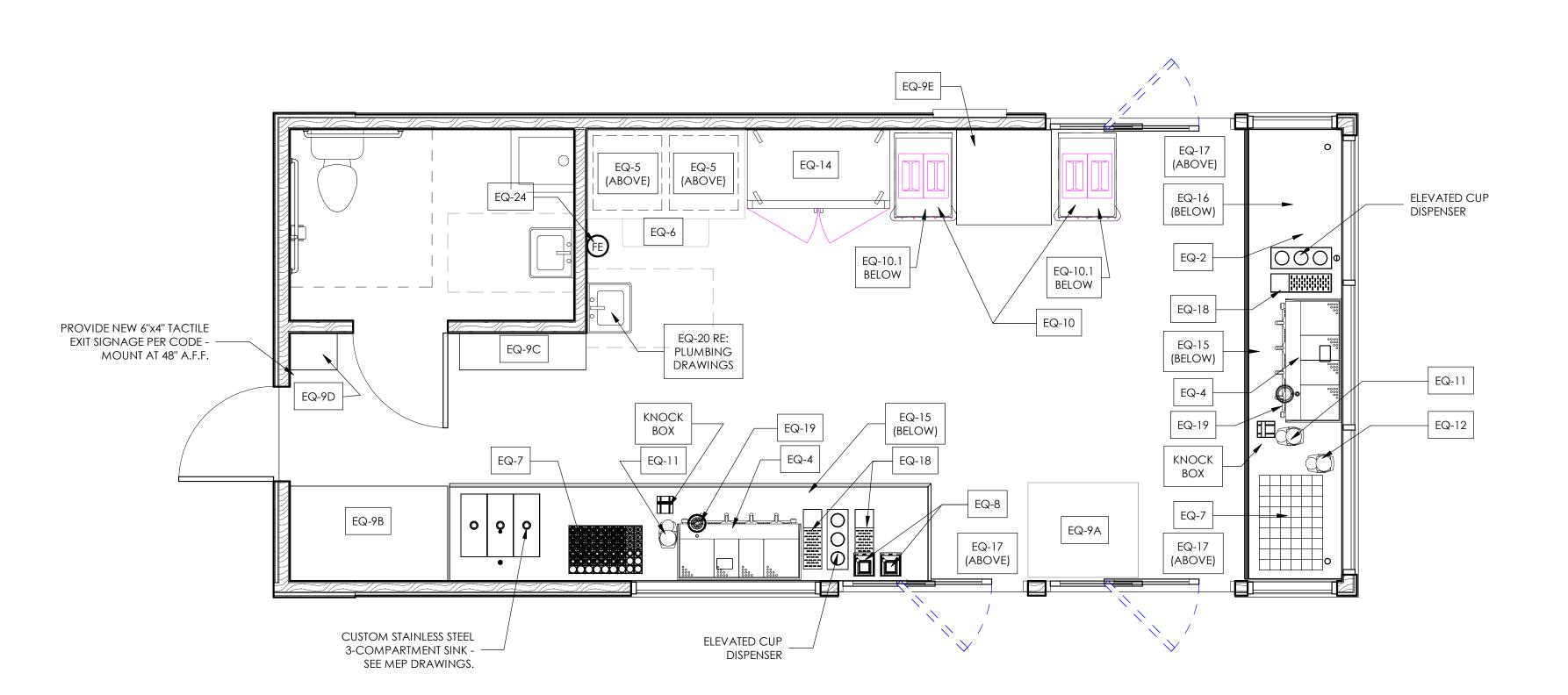
TEM NO.	QTY.	MANUFACTURER	PRODUCT	PRODUCT NO.	SIZE	NOTES
EQ-1	1	NORLAKE / KOLPAK / APPROVED EQ	REMOTE WALK-IN COOLER	KL771014	675 CUBIC SF	В
EQ-1.2	1	NORLAKE - CAPSULE PAK	WALK-IN CONDENSER	CPB100JC-E-4-EV		В
EQ-2	1	BUNN WATER HEATER	HOT WATER MACHINE	H5X - ELEMENT		
EQ-3	1	LA MARZOCCO	ESPRESSO MACHINE	linea pb (av) - 3		
EQ-4	2	LAMARZOCCO	ESPRESSO MACHINE	LINEA PB (AV) - 4		
EQ-5	2	MANITOWOC	ICE MAKER HEADS	IYF 1800 C		Α
EQ-6	1	MANITOWOC	ICE MAKER BIN	LB 1760	60"	
EQ-7	27	TORRANI	SYRUP RACK			С
EQ-8	3	VITAMIX	BLENDER			С
EQ-9	3	STAINLESS STEEL SHELVING UNITS	STAINLESS STEEL STORAGE SHELVING		(A) SS 42" X 36" X 36" (B) SS 36" X 60" X 72" (C) SS 14" X 36" X 80" (D) SS 14" X 18" X 36" (E) SS 36" X 36" X 36"	В
EQ-10	2	SPACEMAN	CHILLER MACHINE	6695-C		
EQ-10.1	1	SPACEMAN	STAND/ROLLER CART	CART - 550		
EQ-11	3	MAZZER	COFFEE BEAN GRINDER	robur s nero		
EQ-12	1	MAZZER	DECAF COFFEE BEAN GRINDER	Super Jolly pro V (E) NERO		
EQ-13	3	RUBBERMAID	TRASH CONTAINER			С
EQ-14	1	ATOSA	REACH-IN COOLER	MCF8723GR	54"	В
EQ-15	3	LA CROSSE	MOBILE ICE BINS	513034 CL-24ICCAB-31	36"	В
EQ-16	1	TRAULSEN	UNDERCOUNTER COOLER	CULC-36R-GD	36"	В
EQ-17	3	STRONGWAY	AIR CURTAIN	49947	36"	D
EQ-18	4	BLEND TECH	RAPID RINSER			В
EQ-19	3	T&S BRASS	RINSE WELL W/ STEM	B-2282-01-F05		
EQ-20	1	ATOSA	hand wash sink	mrs-hs-18(w)	18" X 14" X 5"	В
EQ-21	2	EPOXY COATED WALL SHELF	WALL MOUNTED SHELF		48" X 14"	В
EQ-22	4	EPOXY COATED SHELVING UNIT	COOLER SHELVING		(2) 24" X 48" (2) 24" X 60"	В
EQ-23	1	STAINLESS WALL SHELF	WALL MOUNTED SHELF		36" X 14"	В
EQ-24	1	MULTIPURPOSE DRY CHEMICAL (2A:10BC) FIRE EXTINGUISHER	FIRE EXTINGUISHER	PER NFPA 10		С

#### GENERAL SCHEDULE NOTES

ALL EQUIPMENT TO BE INSTALLED BY A LICENSED INSTALLER AND TO THE MANUFACTURER'S SPECIFICATIONS

#### EQUIPMENT SCHEDULE NOTES

- A. REMOTE CONDENSOR IF 1800C
- B. EQUIPMENT MANUFACTURER SPEC IS OPTIONAL BUT MUST BE EQUAL APPROVED BY 7BREW U.N.O C. PROVIDED BY SMALLWARES PROVIDER
- D. PROVIDED BY BUILDING MANUFACTURER



1 FIXTURE PLAN

3/8" = 1'-0"



Architect of Record

MICHAEL R. HAMPTON
License Number 9387

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7 BREW DRIVE-THRI
321 W. MAIN STREET
FARMINGTON, AR 72730

Revisions

No. Description Date

**A1.4**FIXTURE PLAN

project #:

7/18/2024 10:02:02 AM

#### PREFABRICATED BUILDING

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#### **RCP KEYNOTES**

KEYNOTE

1	PRE-ENGINEERED CANOPY AND FRAMING - SEE STRUCTURAL DRAWINGS
2	LED NEON FLEX LIGHTING AS INDICATED (SHOWN DASHED) - TYP RE: ELECTRICAL DRAWINGS
3	MECH. ACCESS DOOR AND LADDER - SUPPLIED BY OWNER
4	4" LED CAN LIGHTS WITH EXTENDER COLLIER, TYP SEE MEP DRAWINGS
5	EXTERIOR LIGHT BOX
6	exit signage - see mep drawings
7	SECURITY LIGHT, TYP SEE MEP DRAWINGS
8	AIR CURTAIN ABOVE SLIDING WINDOW - SEE MEP DRAWINGS
9	SUPPLY AND RETURN CONCENTRIC DIFFUSERS - SEE MECHANICAL DRAWINGS
10	2x4 LIGHT RECESSED INTO ACOUTIC CEILING GRID - SEE MEP DRAWINGS
11	2x4 NIGHT LIGHT RECESSED INTO ACOUSTIC CEILING GRID - SEE MEP DRAWINGS
12	LIGHT FIXTURE IN CRAWL SPACE BELOW
13	REGAL BLUE BRAKE METAL FASCIA (MP-2)
14	REGAL BLUE SOFFIT PANEL (MP-2)

#### **CEILING FINISH LEGEND**

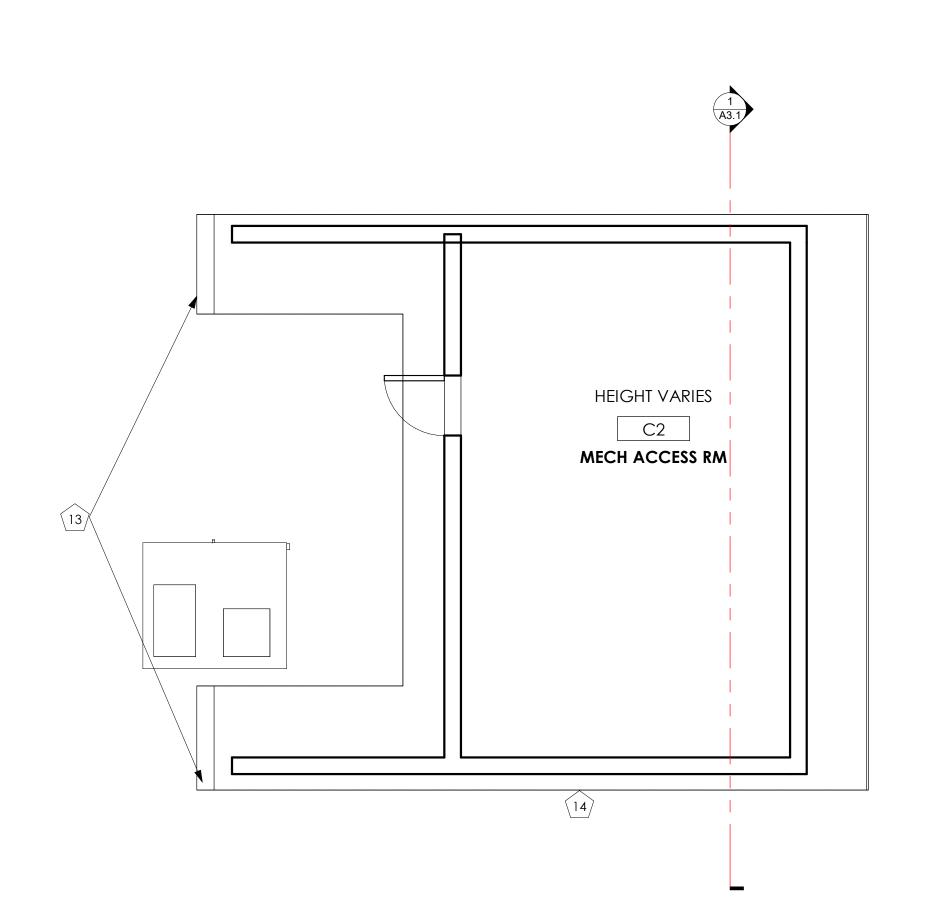
C1 2x4 LAY-IN ACOUSTIC CEILING TILE

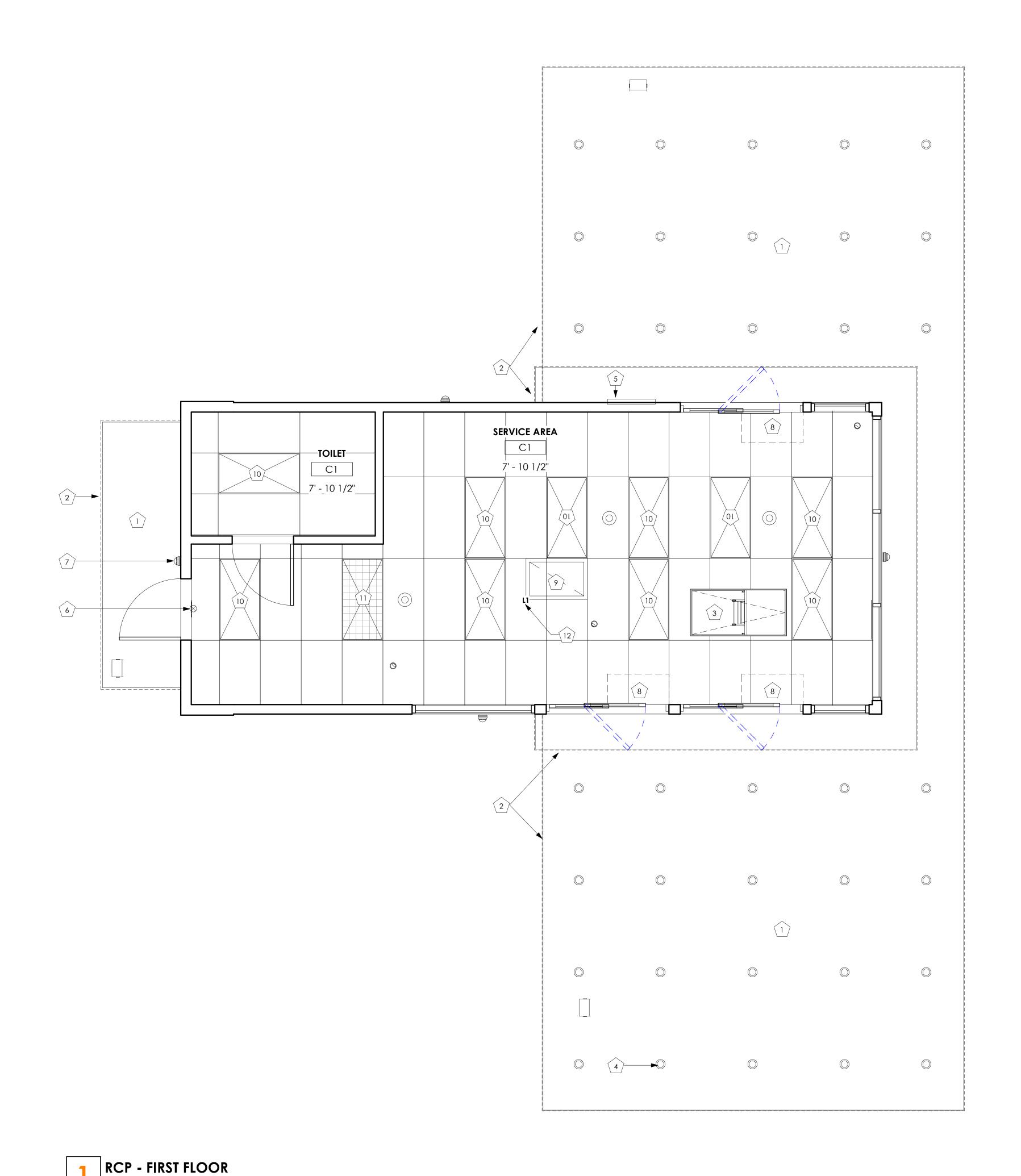
C2 OPEN TO STRUCTURE ABOVE - PAINTED

C3 COOLER PANEL CEILING, PROVIDED BY MANUFACTURER

#### **RCP NOTES**

- 1. ALL DIMENSIONS ARE TO FACE OF FINISHED WALLS/SOFFITS AND CENTERLINE OF FIXTURES, U.N.O.
- 2. ALL INTERIOR GYPSUM BOARDS CEILINGS TO BE LEVEL IV FINISH, PAINTED, U.N.O.
- 3. ALL GYPSUM BOARD CEILINGS TO BE 5/8" TYPE 'X'. ALL WET LOCATIONS TO BE 5/8" TYP 'X' WATER RESISTANT GREENBOARD.
- 4. LIGHTING, SPRINKLERS, HVAC DIFFUSERS & VENT LOCATIONS







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A1.5 REFLECTED CEILING PLAN

project #:

7/18/2024 10:02:03 AM

RCP - MECH ACCESS ROOM

#### **ROOF PLAN KEYNOTES**

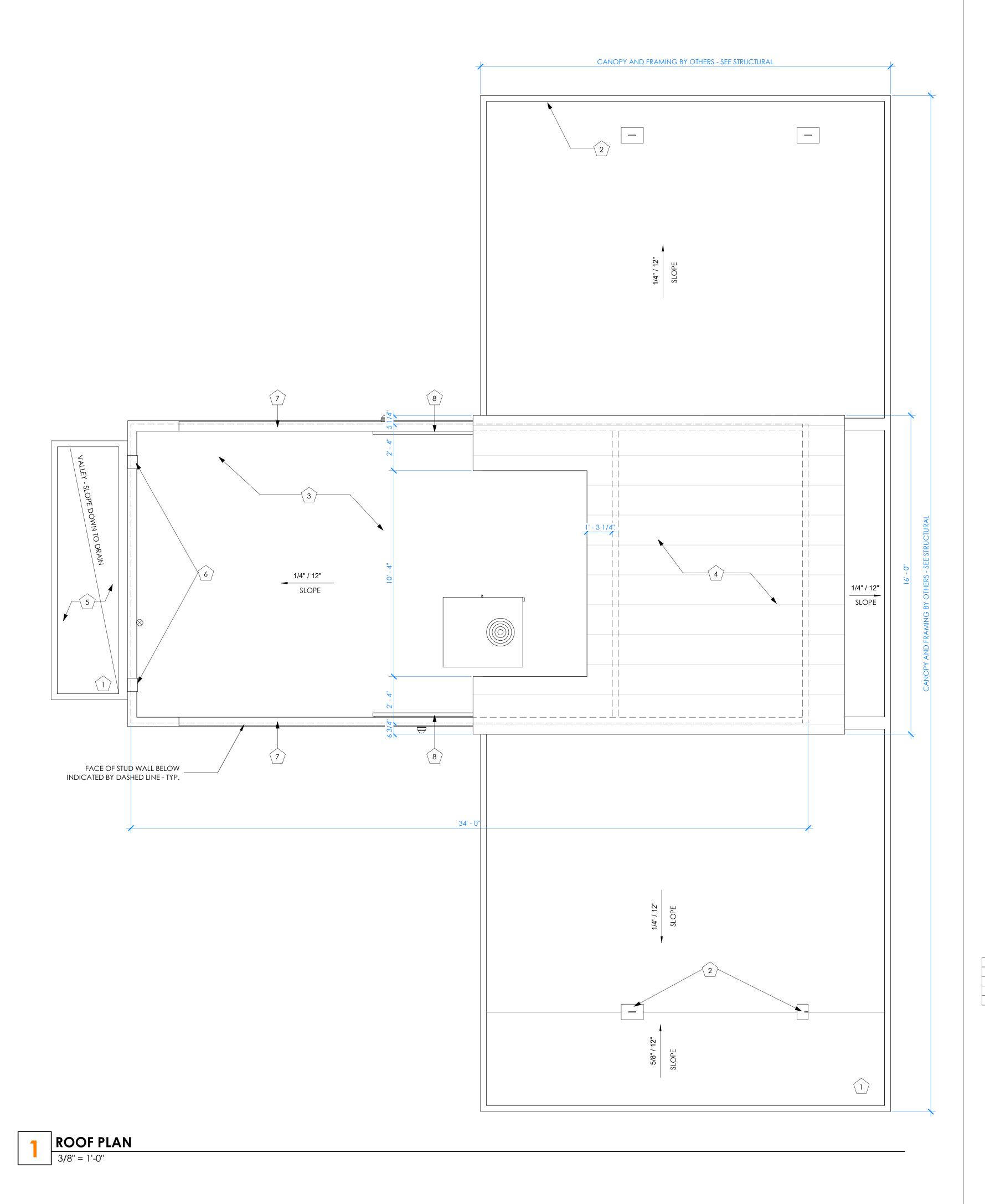
1	PRE-ENGINEERED CANOPY AND FRAMING - SEE STRUCTURAL DRAWINGS
2	ROOF DRAIN
3	EPDM ROOFING ON 5/8" CDX ROOF SHEATHING - ATTACH TO HSS FRAMING WITH #12 SELF-DRILLING SCREWS @ 6" o.c. AT PANEL EDGES AND 12" o.c. FILLED.
4	CORRUGATED ARC METAL ROOF WITH KYNAR COATING ON #15 FELT ON 5/8" CDX PLYWOOD ROOF SHEATHING WITH MINIMUM #8 SELF-DRILLING SCREWS AT 6" o.c. ON ALL EDGES AND 12" o.c. ALONG INTERMEDIATE FRAMING MEMBERS.
5	EDPM ROOFING ON 5/8" CDX ROOF SHEATING ON BUILT-UP 2x CRICKET FRAMING.
6	8" WIDE X 4" HIGH EPDM ROOF SCUPPER WITH SHEET METAL UNDERLAYMENT AT REAR WALL.
7	BRAKE METAL CAP - SEE ELEVATIONS

KEYNOTE

#### PREFABRICATED BUILDING

8 3'-6" GUARDRAIL

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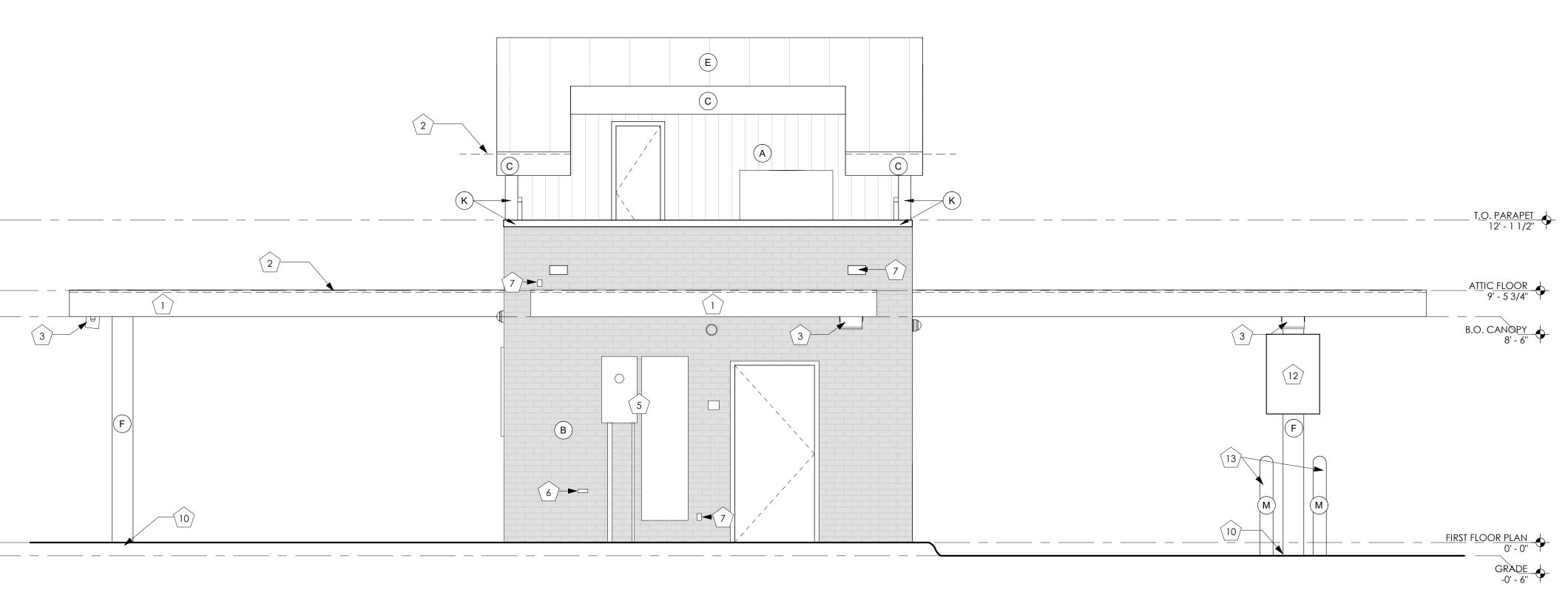
Contractor is responsible for construction means methods and techniques, sequences or procedures or for safety precautions and programs in connection with the

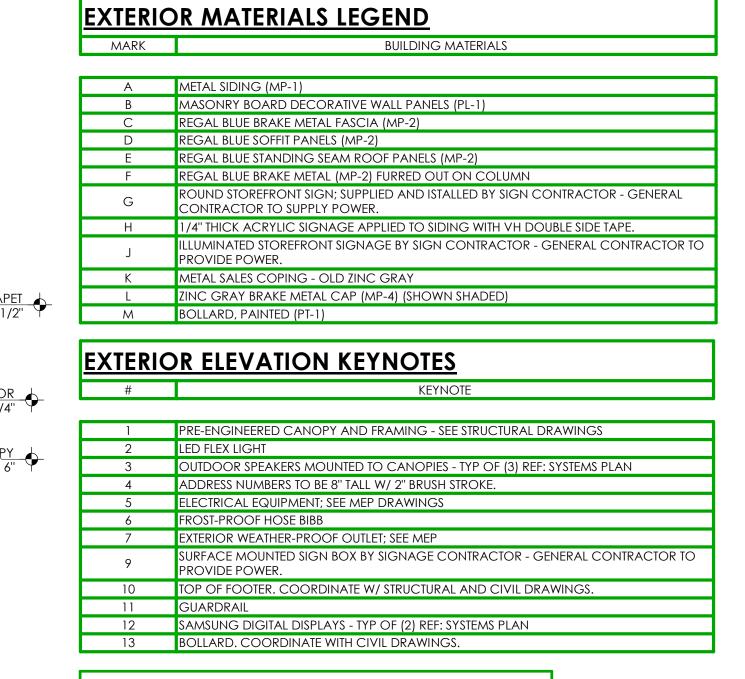
Revisions

A1.6 ROOF PLAN

project #:

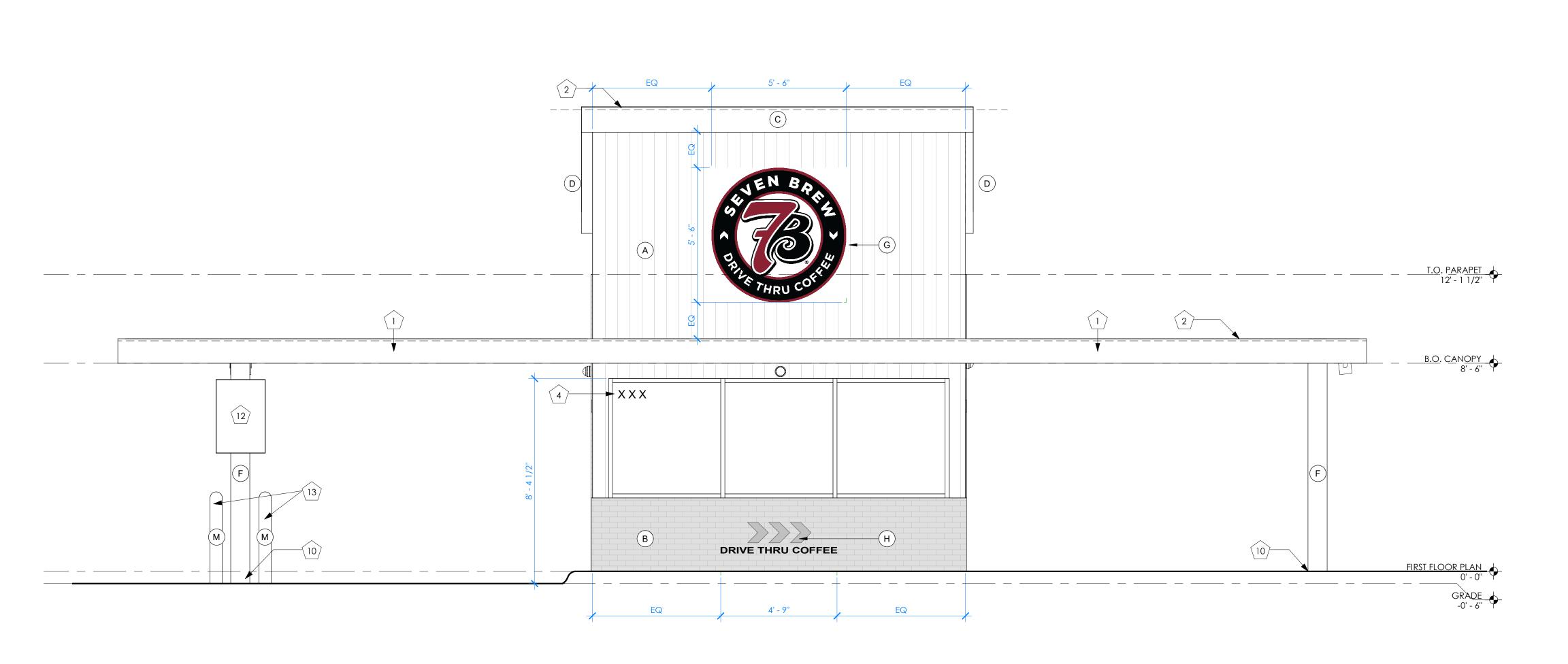
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#### PREFABRICATED BUILDING

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7 BREW DRIVE-THRU

Architect of Record

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A2.0

EXTERIOR

Revisions

ELEVATIONS

project #:

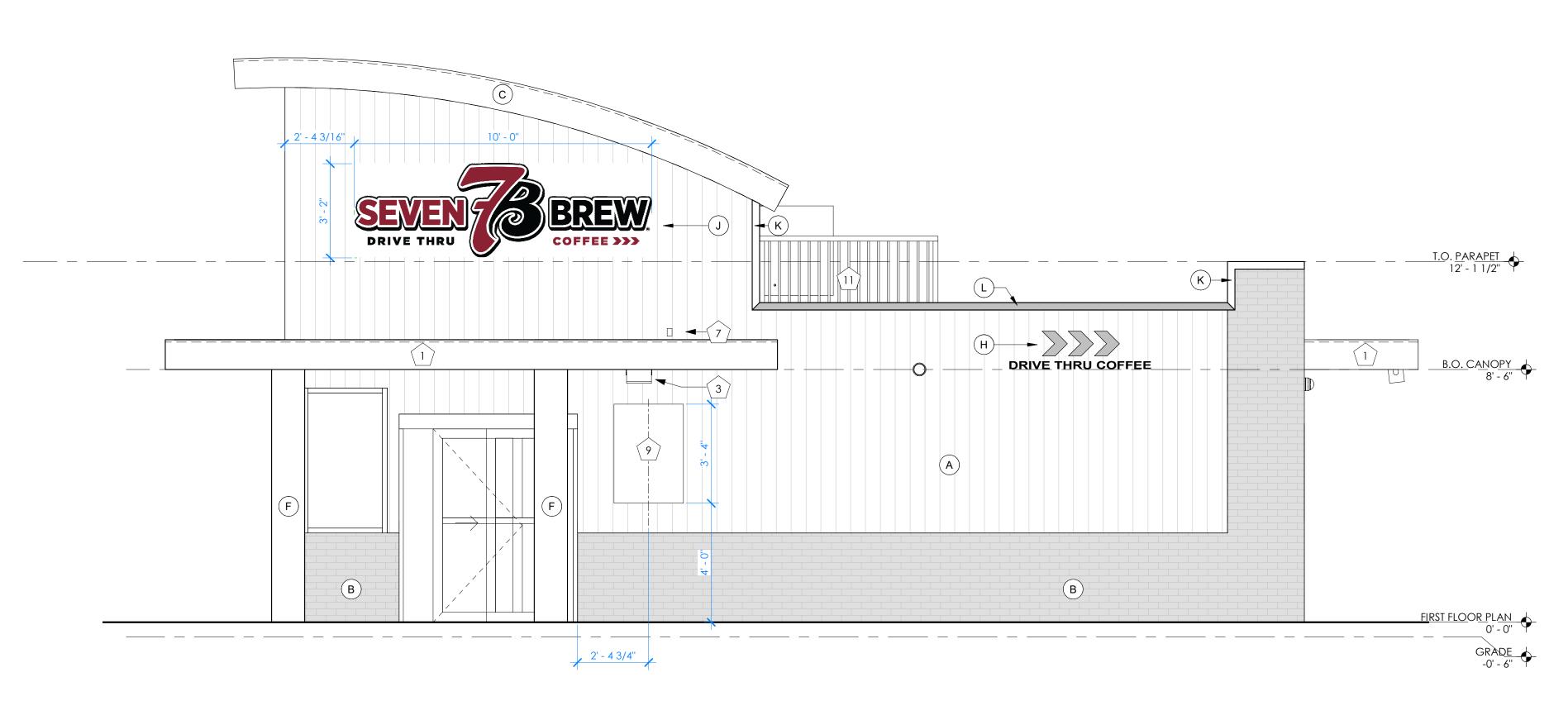
date: 7/18/2024 10:02:05 AM

18/2024 10:02:05 AM

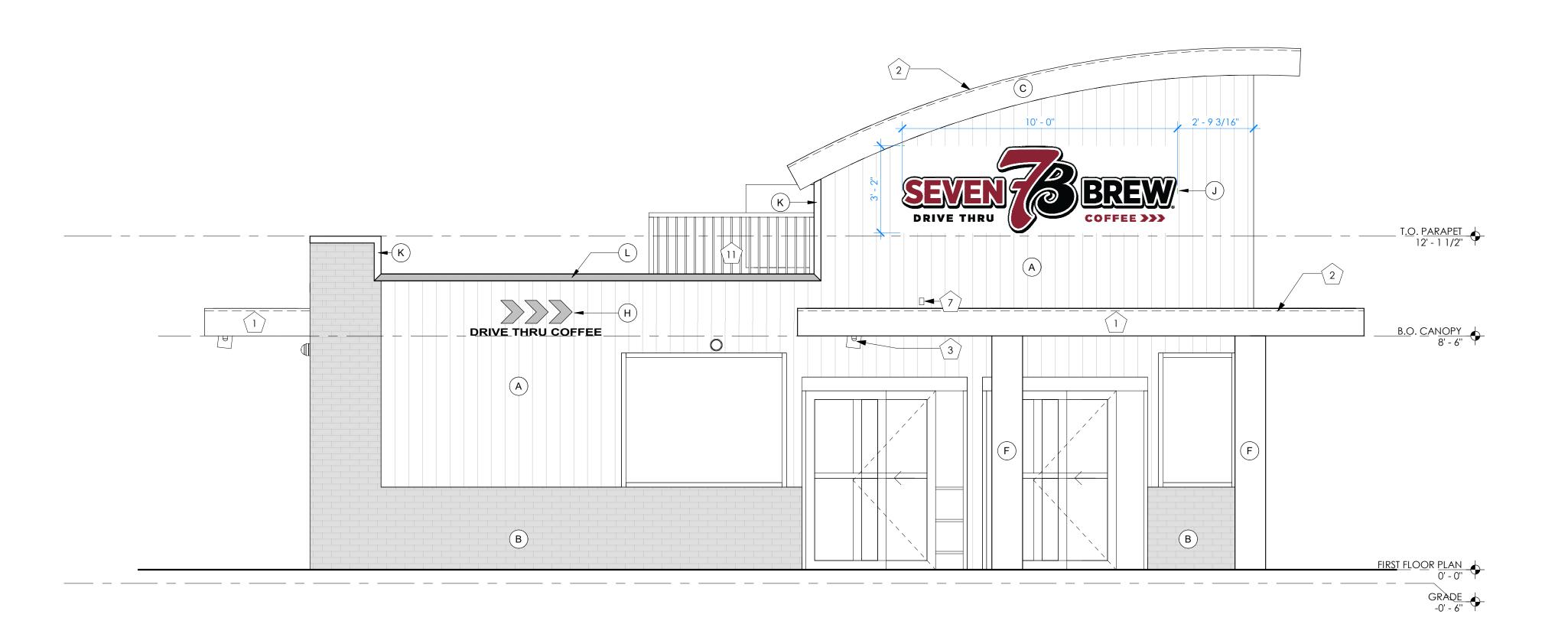
1 EXTERIOR ELEVATION
3/8" = 1'-0"

2 EXTERIOR ELEVATION

3/8" = 1'-0"



2 EXTERIOR ELEVATION



**EXTERIOR ELEVATION** 

#### EXTERIOR MATERIALS LEGEND

BUILDING MATERIALS

Α	METAL SIDING (MP-1)
В	MASONRY BOARD DECORATIVE WALL PANELS (PL-1)
С	REGAL BLUE BRAKE METAL FASCIA (MP-2)
D	REGAL BLUE SOFFIT PANELS (MP-2)
Е	REGAL BLUE STANDING SEAM ROOF PANELS (MP-2)
F	REGAL BLUE BRAKE METAL (MP-2) FURRED OUT ON COLUMN
G	ROUND STOREFRONT SIGN; SUPPLIED AND ISTALLED BY SIGN CONTRACTOR - GENERAL CONTRACTOR TO SUPPLY POWER.
Н	1/4" THICK ACRYLIC SIGNAGE APPLIED TO SIDING WITH VH DOUBLE SIDE TAPE.
J	ILLUMINATED STOREFRONT SIGNAGE BY SIGN CONTRACTOR - GENERAL CONTRACTOR TO PROVIDE POWER.
K	METAL SALES COPING - OLD ZINC GRAY
L	ZINC GRAY BRAKE METAL CAP (MP-4) (SHOWN SHADED)
M	BOLLARD, PAINTED (PT-1)

#### **EXTERIOR ELEVATION KEYNOTES**

KEYNOTE

1	PRE-ENGINEERED CANOPY AND FRAMING - SEE STRUCTURAL DRAWINGS
2	LED FLEX LIGHT
3	OUTDOOR SPEAKERS MOUNTED TO CANOPIES - TYP OF (3) REF: SYSTEMS PLAN
4	ADDRESS NUMBERS TO BE 8" TALL W/ 2" BRUSH STROKE.
5	ELECTRICAL EQUIPMENT; SEE MEP DRAWINGS
6	FROST-PROOF HOSE BIBB
7	EXTERIOR WEATHER-PROOF OUTLET; SEE MEP
9	SURFACE MOUNTED SIGN BOX BY SIGNAGE CONTRACTOR - GENERAL CONTRACTOR TO PROVIDE POWER.
10	TOP OF FOOTER. COORDINATE W/ STRUCTURAL AND CIVIL DRAWINGS.
11	GUARDRAIL
12	Samsung digital displays - typ of (2) ref: systems plan
13	ROLLARD, COORDINATE WITH CIVIL DRAWINGS

#### **EXTERIOR ELEVATION GENERAL NOTES**

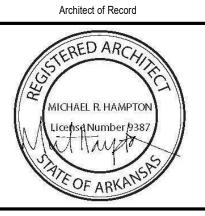
1. COORDINATE LOCATIONS AND POWER REQUIREMENTS OF ALL ELECTRICAL EQUIPMENT WITH MEP DRAWINGS.

2. BRICK MANUFACTURER, TYPE, AND COLOR ARE SUBJECT TO CHANGE. CONFIRM FINAL MATERIAL WITH PROJECT OWNER AND ARCHITECT.

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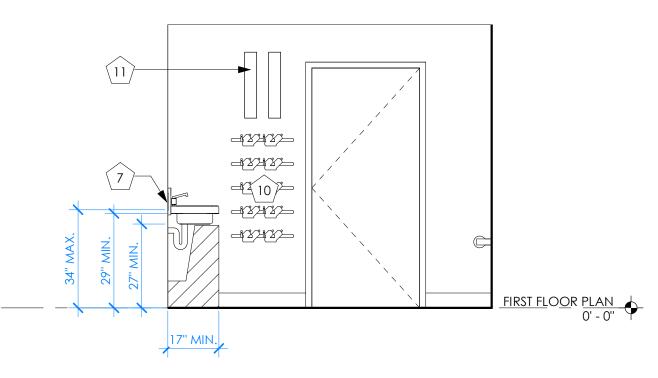
321 W. MAI FARMINGTO

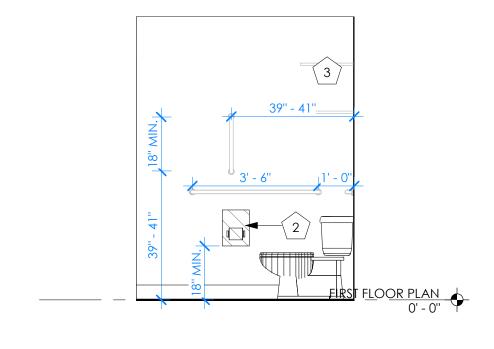
Revisions

**A2.1 EXTERIOR ELEVATIONS** 

project #:

7/18/2024 10:02:07 AM





# **TOILET ELEVATION KEYNOTES**

WATER FILTERS

BE COMPATIBLE WITH 2010 ADA STANDARDS.

HAVE MIN. RADIUS OF 1/8" - 1 1/2" DIA.

DRAWINGS.

#### CONTRACTOR SHALL PROVIDE A ROLL-OUT TYPE WATERPROOF MEMBRANE AT TOILET - RETURN MEMBRANE UP WALL MIN. 6". T-1) TOILET PAPER HOLDER 3 STAINLESS STEEL SHELVING 4 MOP SINK - SEE MEP DRAWINGS 1/4" CLEAR MIRROR (T-2) PAPER TOWEL HOLDER MOUNTED AT 42" A.F.F. PROVIDE 2x WOOD BLOCKING BEHIND LAVATORY AS INDICATED FOR ADDITIONAL SUPPORT 8 BROOM AND MOP HOLDER 9 WATER HEATER 10 RPZ VALVES; SEE MEP DRAWINGS

**TOILET ELEVATION GENERAL NOTES** 

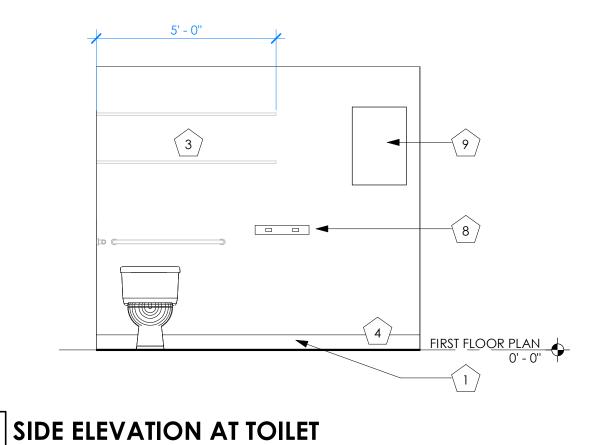
GRAB BARS AND ANY OTHER SURFACE ADJACENT TO IT SHALL BE FREE OF ANY SHARP OR ABRASIVE ELEMENTS. EDGES SHALL

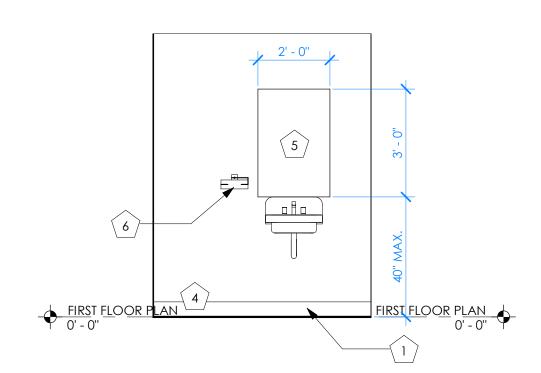
B. TOILET PAPER HOLDER MUST BE LOCATED IN SUCH A WAY TO

4. PROVIDE PROTECTIVE COVER TO EXPOSED PIPES - SEE MEP

ALL WALLS TO BE 5/8" TYPE 'WRX' GYP. BD (PT-2) WITH 48" (MIN.) FRP WAINSCOT AND 1/4" PROTECT-ALL RUBBER BASE

# SIDE ELEVATION AT LAVATORY

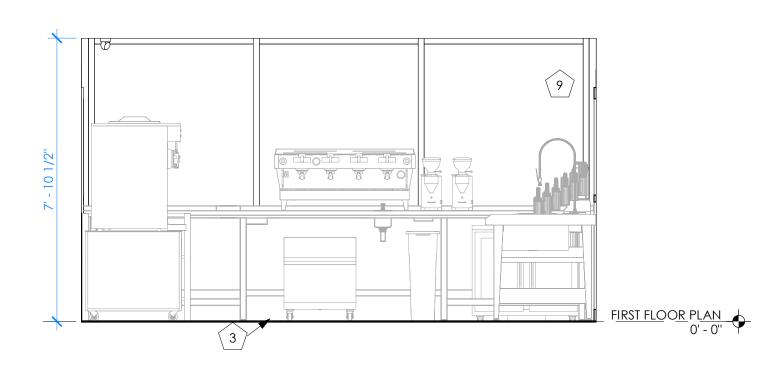




7 FRONT ELEVATION AT LAVATORY

# FRONT ELEVATION AT TOILET

# 0 2

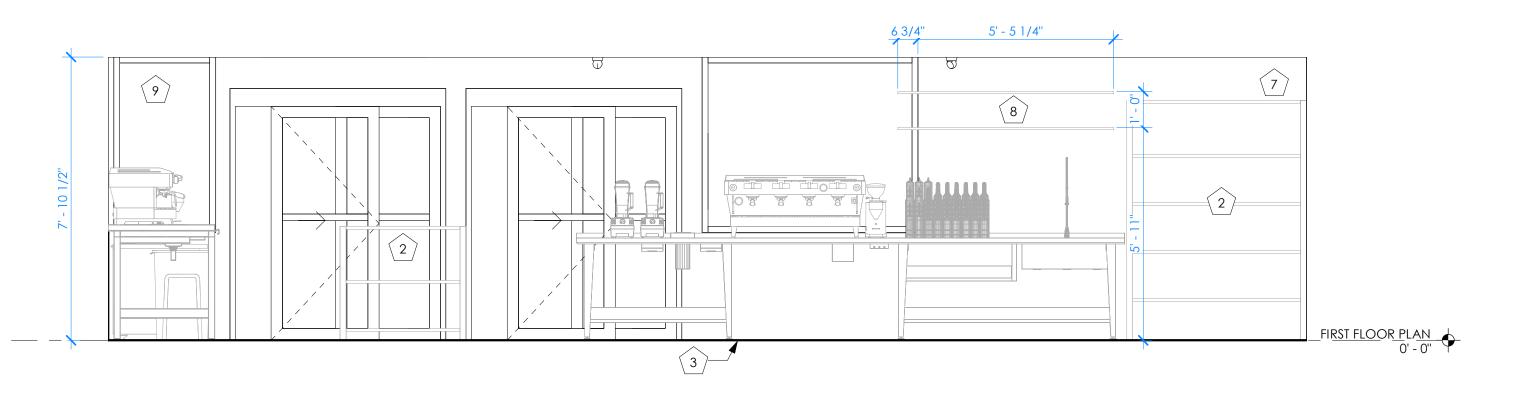


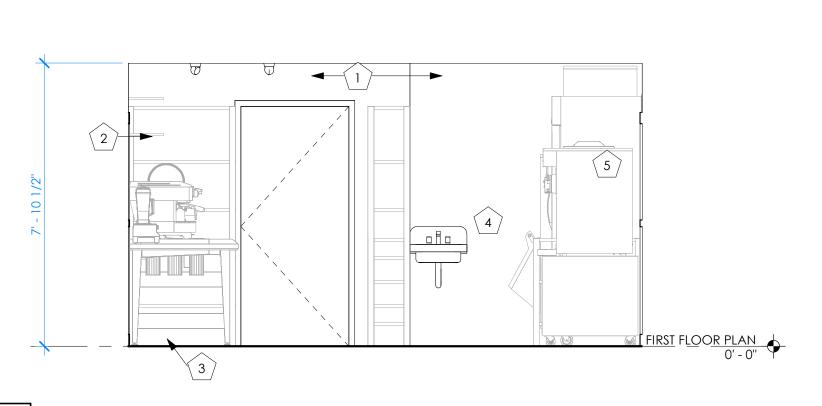


#### INTERIOR ELEVATION 3/8" = 1'-0" LOOKING AT RESTROOM DOOR

INTERIOR ELEVATION

3/8" = 1'-0" LOOKING AT STORAGE SHELVING





INTERIOR ELEVATION 3/8" = 1'-0" LOOKING AT BACK DOOR

INTERIOR ELEVATION

3/8" = 1'-0" LOOKING AT MAIN COUNTER

#### **INTERIOR ELEVATION KEYNOTES**

1	FRP WALL PANELS (FRP-1) ON 5/8" TYPE 'X' GYP BD SUBSTRATE
2	STAINLESS STEEL SHELVING
3	PROTECT-ALL RUBBER BASE (VB-1) - TYP
4	NEW MULTIPURPOSE DRY CHEMICAL (2A:10BC) FIRE EXTINGUISHER (PER NFPA 10)
5	REACH IN MERCHANDISER
6	MANITOWOC ICE BIN
7	DATA RACK
8	EPOXY COATED WIRE SHELVING
9	32" SECURITY DISPLAY

**A2.2** 

321 W. MAIN ST FARMINGTON,

Revisions

Description

Architect of Record

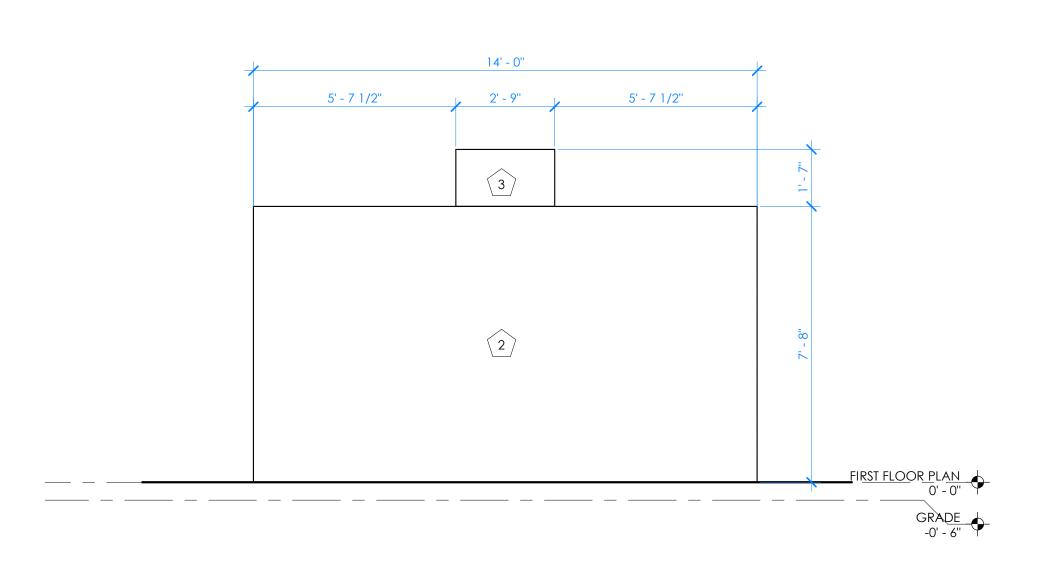
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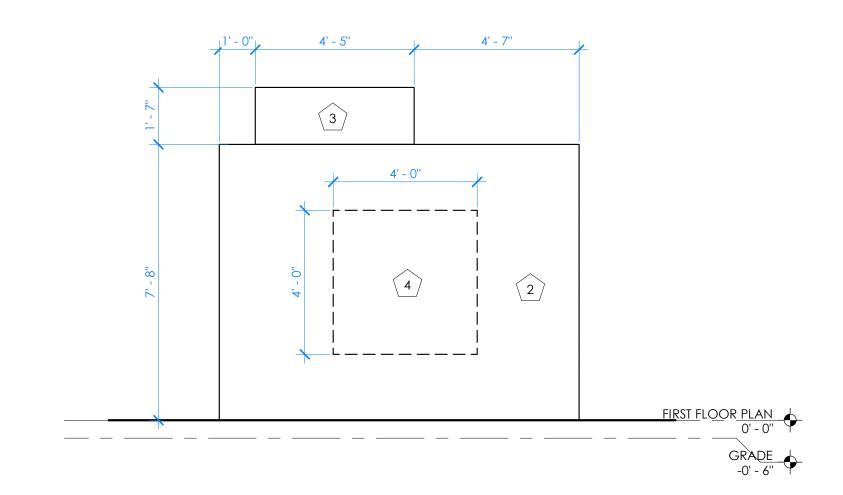
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INTERIOR **ELEVATIONS** 

project #:

7/18/2024 10:02:14 AM





REMOTE COOLER - EXTERIOR ELEVATION

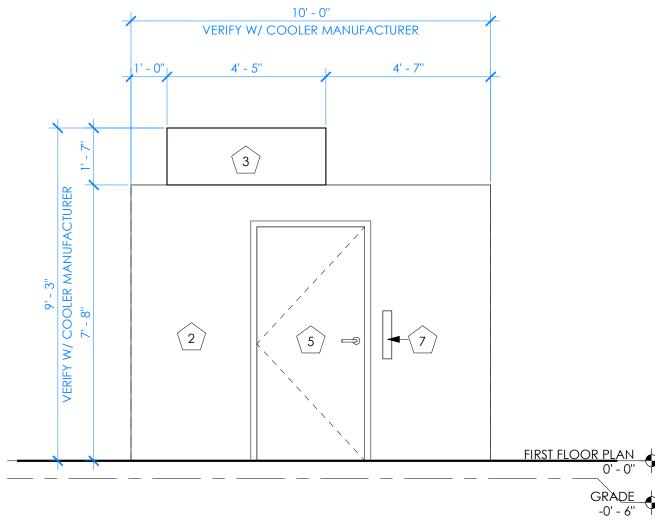


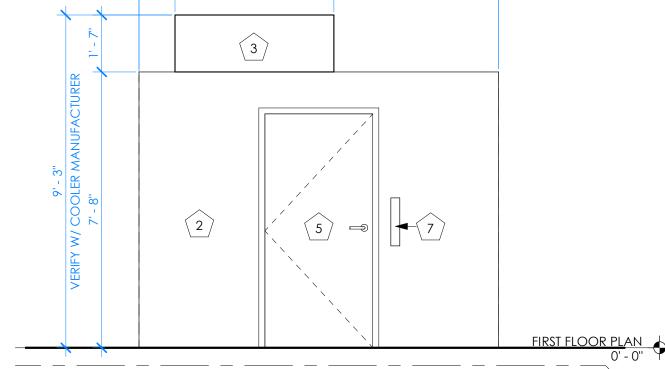
1. LOCATION OF REMOTE COOLER MAY VARY. COORDINATE LOCATION WITH CIVIL ENGINEER DRAWINGS.

2. ALL DRAWINGS ARE BASED OFF NORLAKE - KOLD LOCKER  $^{\text{TM}}$ KL771014 AND MANUFACTURER'S PHYSICAL SPECIFICATIONS. COORDINATE WITH OWNER FOR REMOTE COOLER TYPE AND SPECIFICATIONS.

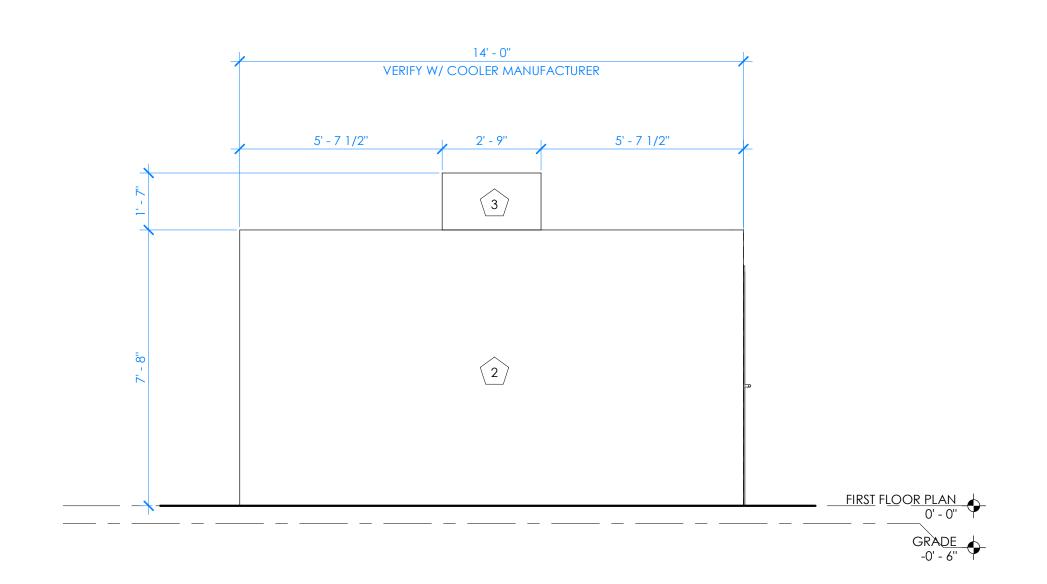
REMOTE COOLER KEYNOTES							
#	KEYNOTE						
1	WALK-IN COOLER. VERIFY DIMENSIONS W/ COOLER MANUFACTURER						
2	VINYL WRAP - SUPPLIED AND INSTALLED BY OWNER						
3	WALK-IN COOLER CONDENSER						
4	LOCATION OF GRAPHIC QR CODE MENU - CENTER ON REMOTE COOLER.						
5	36" COOLER DOOR						
6	EPOXY COATED WIRE SHELVING - (2) 24" x 48" & (2) 24" x 60"						
7	COOLER LOCK & CONTROLS - COORDINATE WITH MEP DRAWINGS.						

# 4 REMOTE COOLER - LEFT SIDE ELEVATION

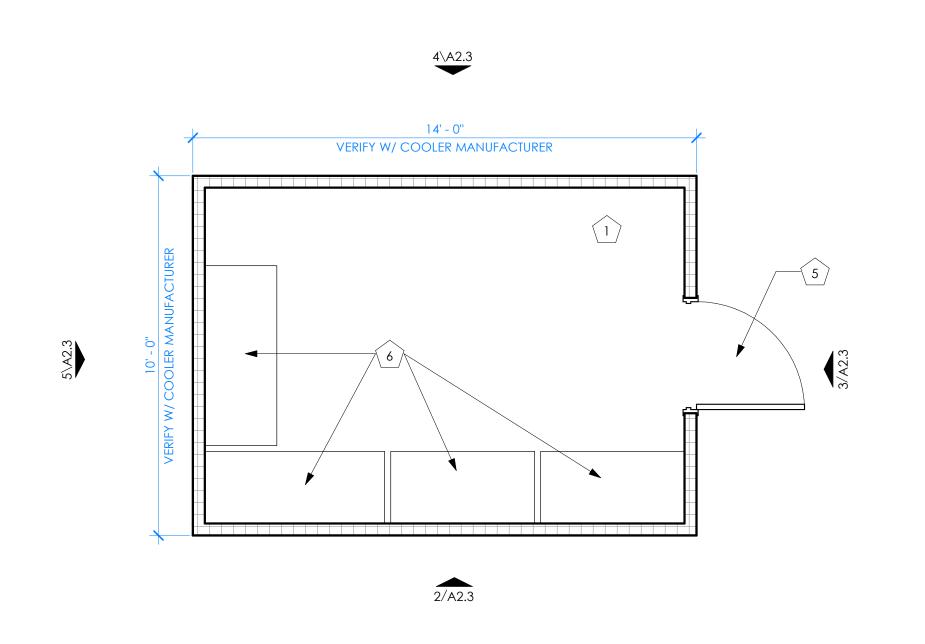




# REMOTE COOLER - FRONT ELEVATION 3/8" = 1'.0"







REMOTE COOLER PLAN
3/8" = 1'-0"

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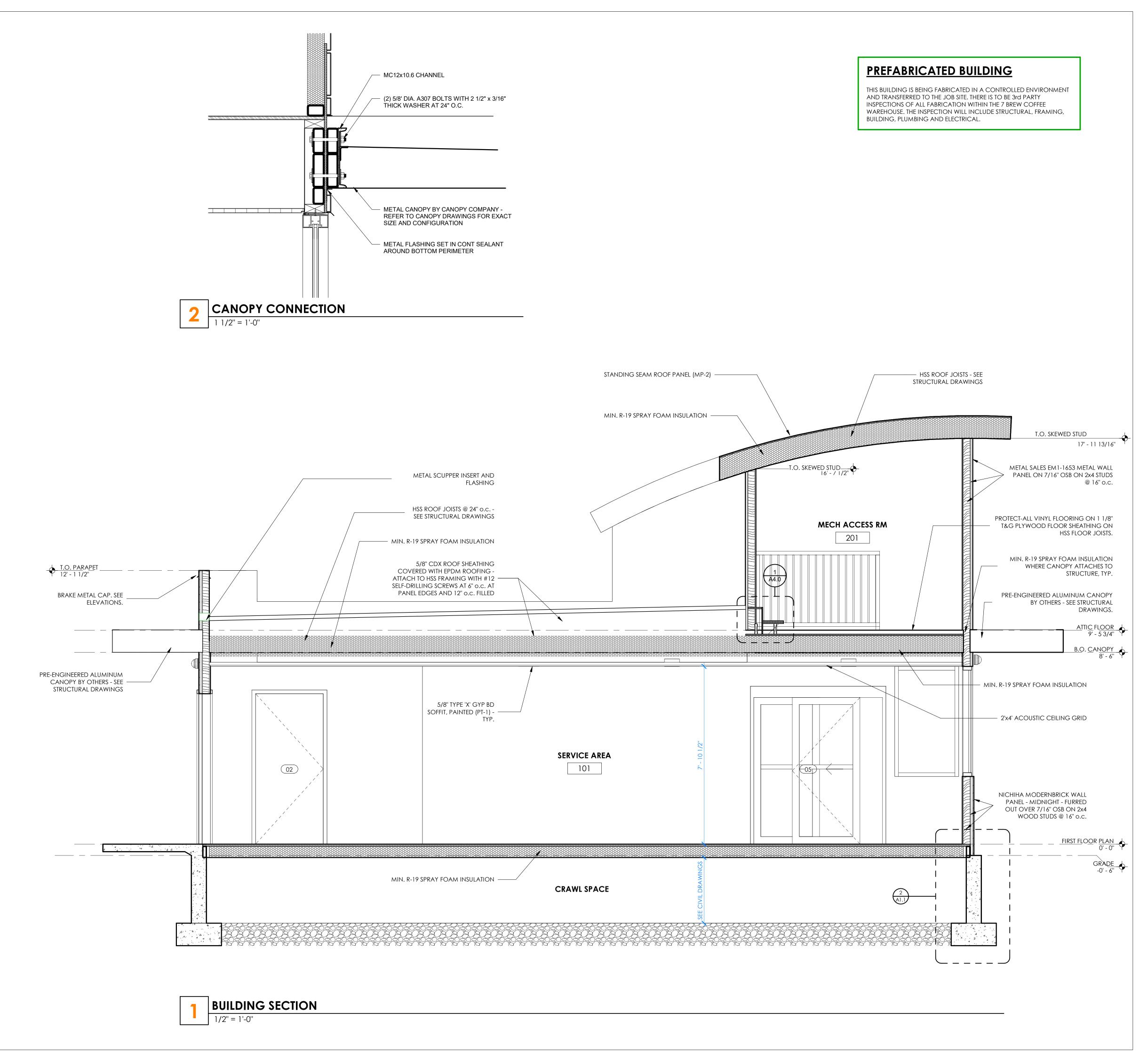
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**A2.3** 

REMOTE COOLER ELEVATION AND FINISHES

project #:

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321 W. MAIN STREET FARMINGTON, AR 72730 

Revisions Description

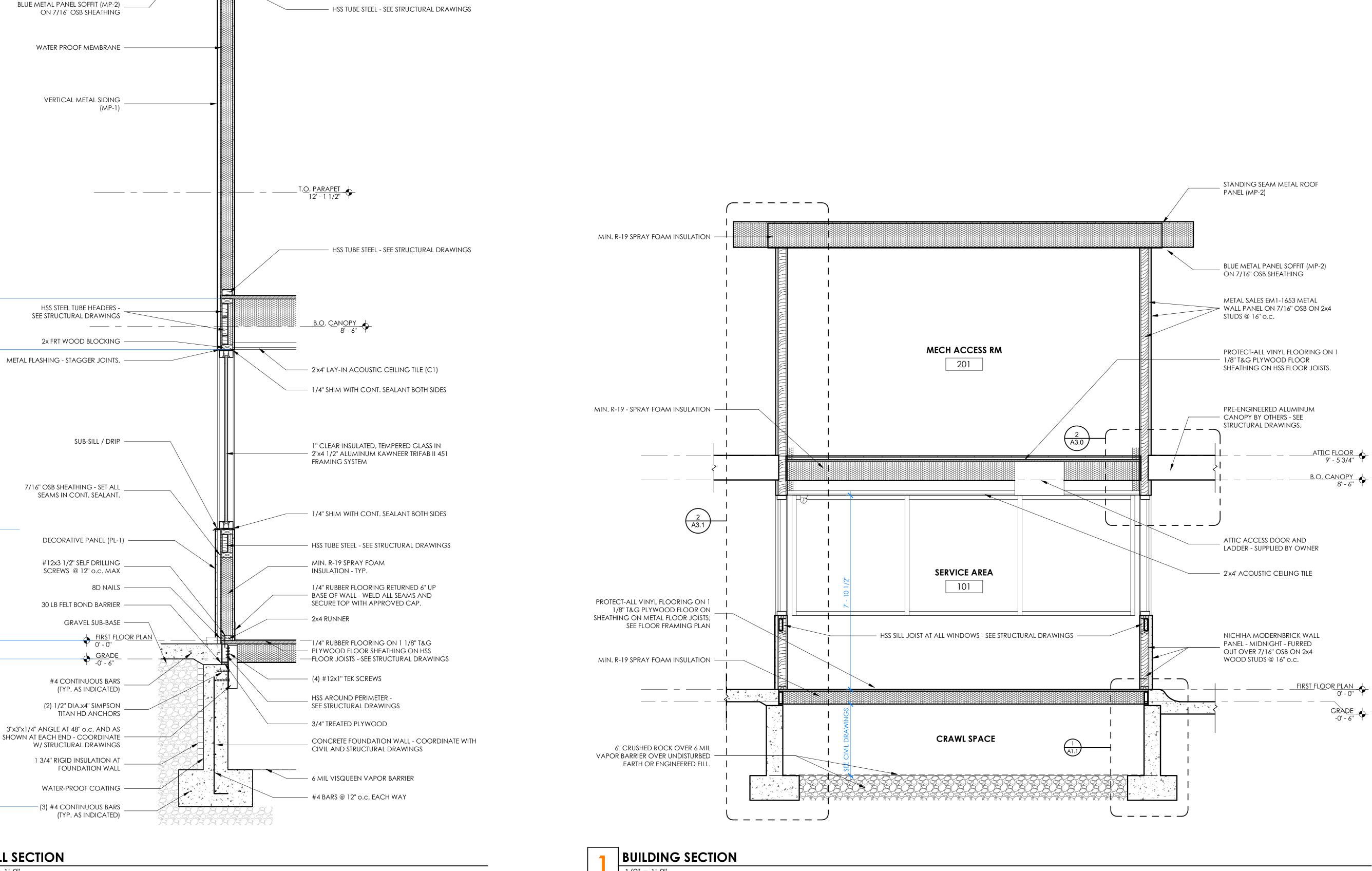
A3.0 BUILDING SECTIONS

project #:

7/18/2024 10:02:15 AM



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HSS TUBE STEEL - SEE STRUCTURAL DRAWINGS

STANDING SEAM ROOF PANEL (MP-2)

MIN. R-19 SPRAY FOAM INSULATION

SEWEN BREW.

MICHAEL R. HAMPTON
Licensel Number 9387

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**7 BREW DRIVE-THR**321 W. MAIN STREET
FARMINGTON, AR 72730

No. Description Date

A3.1
BUILDING SECTIONS

project #:

7/18/2024 10:02:16 AM

#### **DOOR SCHEDULE** DOOR FRAME DETAILS NOTES MARK WIDTH HEIGHT THKNS ELEV MAT'L/FIN ELEV MAT'L/FIN HEAD JAMB THRES'D 01 3'-0" 6'-8" 0'-13/4" A HM/F1 A HM/PT 4/A5.0 4/A5.0 SIM 2/A5.0 a,b,c 02 3' - 0" 6' - 8" 0' - 1 3/4" B HM/F1 HM/PT 3/A5.0 N.A. N.A. a.b.c 03 6' - 0" 6' - 8" 0' - 2" C AL/F2 AL/F2 2/A5.0 a,d 4/A5.0 2/A5.0 04 6' - 0" 6' - 8" 0' - 2" C AL/F2 AL/F2 4/A5.0 2/A5.0 2/A5.0 a,d

06 1'-8" 5'-0" 0'-13/4" D HM/PT D HM/PT 3/A5.0 4/A5.0 SIM 1/A5.0

05 6'-0" 6'-8" 0'-2" C AL/F2 C AL/F2 4/A5.0

06 EXTERIOR PASSAGE 1 1/2" Pr 4 1/2" BB Hinges - NRP; Wallstop and Weatherstripping / Rain Drip at Exterior Door

DOOR HARDWARE SCHEDULE							
MARK	TYPE	DESCRIPTION	FINISH				
01	EXTERIOR PASSAGE	1 1/2" Pr 4 1/2" BB Hinges - NRP; Wallstop and Weatherstripping / Rain Drip at Exterior Doors; Self Closer; Detex ECL - 600 Panic Hardware	BRUSHED SS				
02	INTERIOR PASSAGE	1 1/2" Pr 4 1/2" BB Hinges - NRP	BRUSHED SS				
03	SLIDING DOOR	Manufacturer's Standard Operating Hardware	PRE FIN				
04	SLIDING DOOR	Manufacturer's Standard Operatina Hardware	PRE FIN				

5/8" GYP BD ON

WOOD STUDS

- SEALANT

INTERIOR SIDE OF 2x4

HEADER; SEE STRUCT. DBL STUDS AT JAMB

DOOR; SEE SCHED

HARDWARE TYPES						
HARDWARE	MANUFACTURER	APPROVED				
HINGES	Stanley #CB0700	Yes				
LOCKSET	Schlage	Yes				
LOCIOLI	55.116.95					

**EXTERIOR PANEL -**SEE ELEVATIONS

7/16" OSB, TYP. -

DR HEAD @ 3" INSUL PANEL

**@ INTERIOR DOOR** 

05 SLIDING DOOR Manufacturer's Standard Operating Hardware

#### **DOOR HARDWARE SCHEDULE GENERAL NOTES**

1. THRESHOLD HEIGHTS SHALL BE NO GREATER THAN 1/2". 2. RAISED THRESHOLD AND LEVEL CHANGES SHALL BE

2/A5.0 2/A5.0

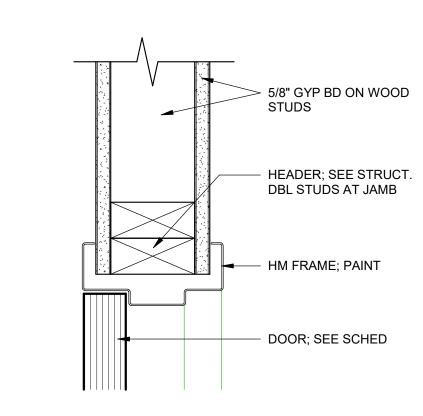
a,d

a,b,c

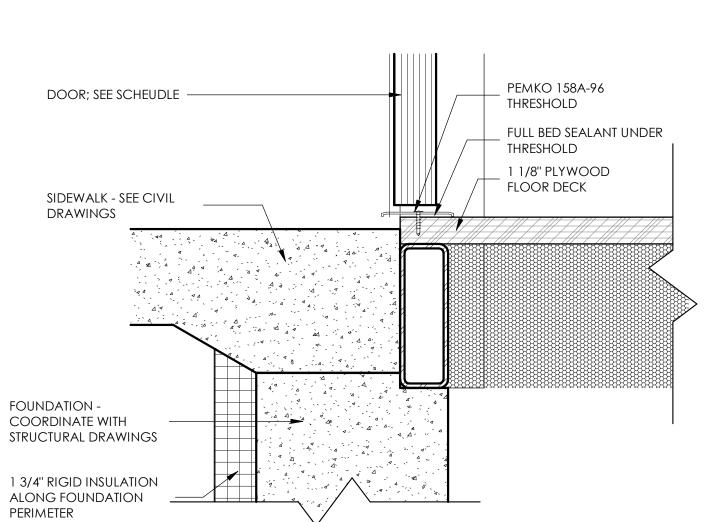
PRE FIN

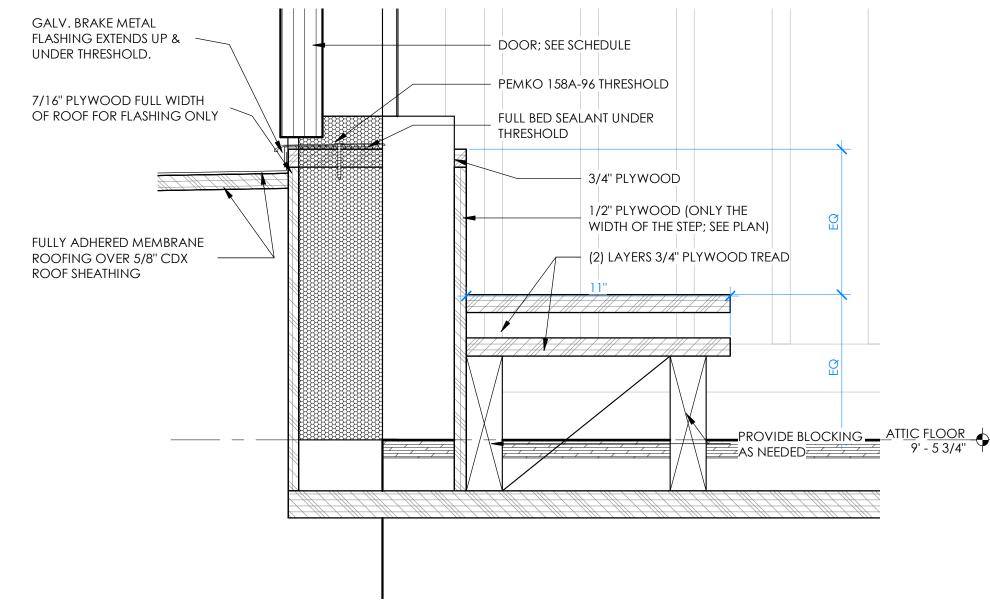
BRUSHED SS

- BEVELED WITH A SLOPE NO GREATER THAN 1:2. 3. DOOR HARDWARE SHALL BE APPROVED LEVERS OR
- PUSH/PULL HANDLES.
- 4. NO ELECTRONIC LOCKING SYSTEM SHALL BE INSTALLED OR OPERATED WITHOUT THE PRIOR APPROVAL OF THE FIRE PREVENTION BUREAU.









**DOOR SCHEDULE NOTES** 

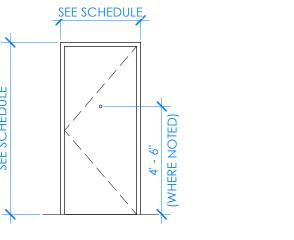
- a. REFER TO DOOR ELEVATIONS FOR SPECIFICATIONS. b. PAINT TO MATCH ADJACENT FINISHES.
- c. REFER TO CODE COMPLIANCE DOOR NOTES (BELOW) FOR ADDITIONAL REQUIREMENTS.
- d. 6'-0" HORTON AUTOMATICS DOOR PROSLIDE SERIES 2003 BELT DRIVE SLIDING DOOR SYTEM.

#### CODE COMPLIANCE DOOR NOTES

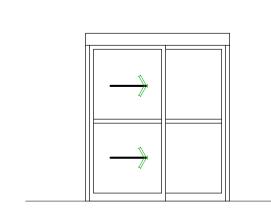
ALL EXIT DOORS SHALL CONFORM TO THE FOLLOWING PROVISIONS OF THE INTERNATIONAL BUILDING CODE (IBC):

- 1. THE EXIT DOORS SHALL BE OPERABLE FROM THE INSIDE
- WITHOUT THE USE OF ANY SPECIAL KNOWLEDGE OR EFFORT WHEN THE BUILDING IS OCCUPIED.
- 2. ALL HAND-ACTIVATED DOOR OPENING HARDWARE SHALL BE CENTERED BETWEEN 34" TO 48" A.F.F. AND SHALL BE OPERATED WITH A SINGLE EFFORT BY LEVER TYPE HARDWARE.
- 3. DOOR LEADING TO UNISEX TOILET ROOM SHALL BE INDENTIFIED WITH A 12" DIAMETER CIRCLE WITH A TRIANGLE SUPERIMPOSED ON THE CIRCLE AND WITHIN THE 12" DIAMETER. SIGN/SYMBOL SHALL BE MOUNTED ON THE WALL, ON THE LATCH SIDE OF THE DOOR AND 60" A.F.F. AND NO MORE THAN 8" FROM THE EDGE OF THE DOOR TO THE EDGE OF THE SIGN.

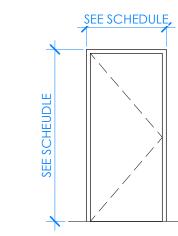
#### **DOOR ELEVATIONS**



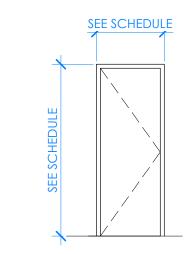
HM - 16 GA. INSULATED HOLLOW METAL FRAME, (BRUSHED ALUMINUM FINISH) CLOSER, AND SEAL - PROVIDE 'DETEX' ECL-600 (OR EQUAL) PANIC HARDWARE - 1 1/2 PAIR STANLEY #CB0700 TWO KNUCKLE HINGES - STANLEY #803969 (OR EQUAL) STEEL-BRIGHT BRASS, 170 DEGREE, WIDE ANGLE DOOR VIEWER.



6' - 0" TORMAX 9200 SERIES MANUAL DOOR SYSTEM WITH OLD CASTLE GLASS OR APPROVED **EQUAL** 

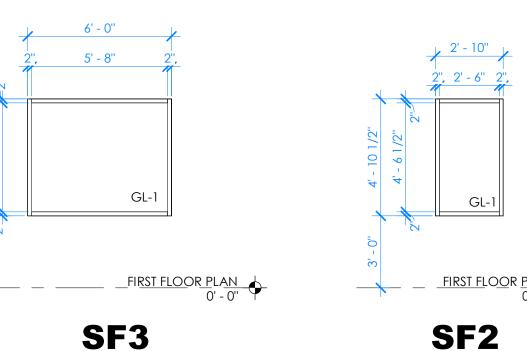


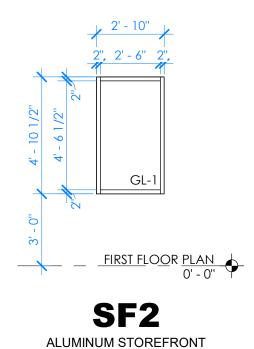
HM - 16 GA. INSULATED (PAINTED) WITH HOLLOW METAL FRAME (PAINTED) WITH CLOSER - PROVIDE SCHLAGE PRIVACY LOCK WITH 'SATURN' LEVER HANDLE (BRUSHED ALUM.) 1 1/2 PAIR BUTT HINGES

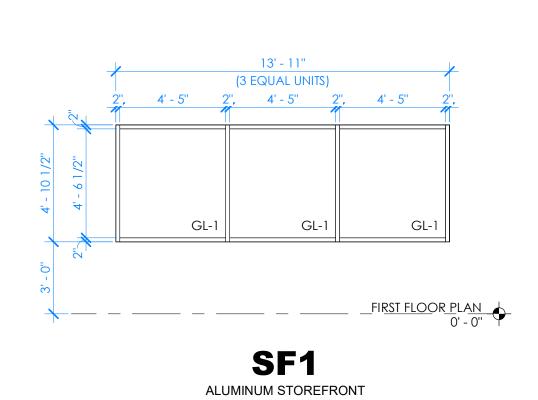


HM - 16 GA. INSULATED HOLLOW METAL DOOR (PAINTED) WITH METAL FRAME (PAINTED) AND SEALS - 1 1/2 PAIR STANLEY #CB0700 TWO KNUCKLE HINGES

#### WINDOW ELEVATIONS







#### **WINDOW ELEVATION GENERAL NOTES**

- 1. VERIFY DIMENSIONS OF ALL ROUGH OPENINGS PRIOR TO ORDERING
- 2. PROVIDE BACKER ROD & SEALANT AROUND ALL OPENINGS.
- 3. FOLLOW MANUFACTURER SPECIFICATIONS FOR PROPER STOREFRONT INSTALLATION.

**ALUMINUM STOREFRONT** 

- 4. NOTIFY ARCHITECT OF ANY DISCREPANCIES CONTAINED WITHIN WINDOW ELEVATIONS.
- 5. STOREFRONTS TO BE ANODIZED DARK BRONZE. CONFRIM WITH ARCHITECT AND OWNER.

#### **GLAZING SCHEDULE**

GL-1 1" CLEAR INSULATED, TEMPERED GLASS (LOW E3 - ARGON) IN 2" X 4 1/2" ALUMINUM KAWNEER TRIFAB VERSAGLAZE 451 FRAMING SYSTEM.

# Revisions Description

R A

32 FA

Architect of Record

Drawings and Specifications as instruments of service

project except by agreement in writing with appropriate compensation to the Architect.

Contractor is responsible for construction means methods and techniques, sequences or procedures or for safety precautions and programs in connection with the

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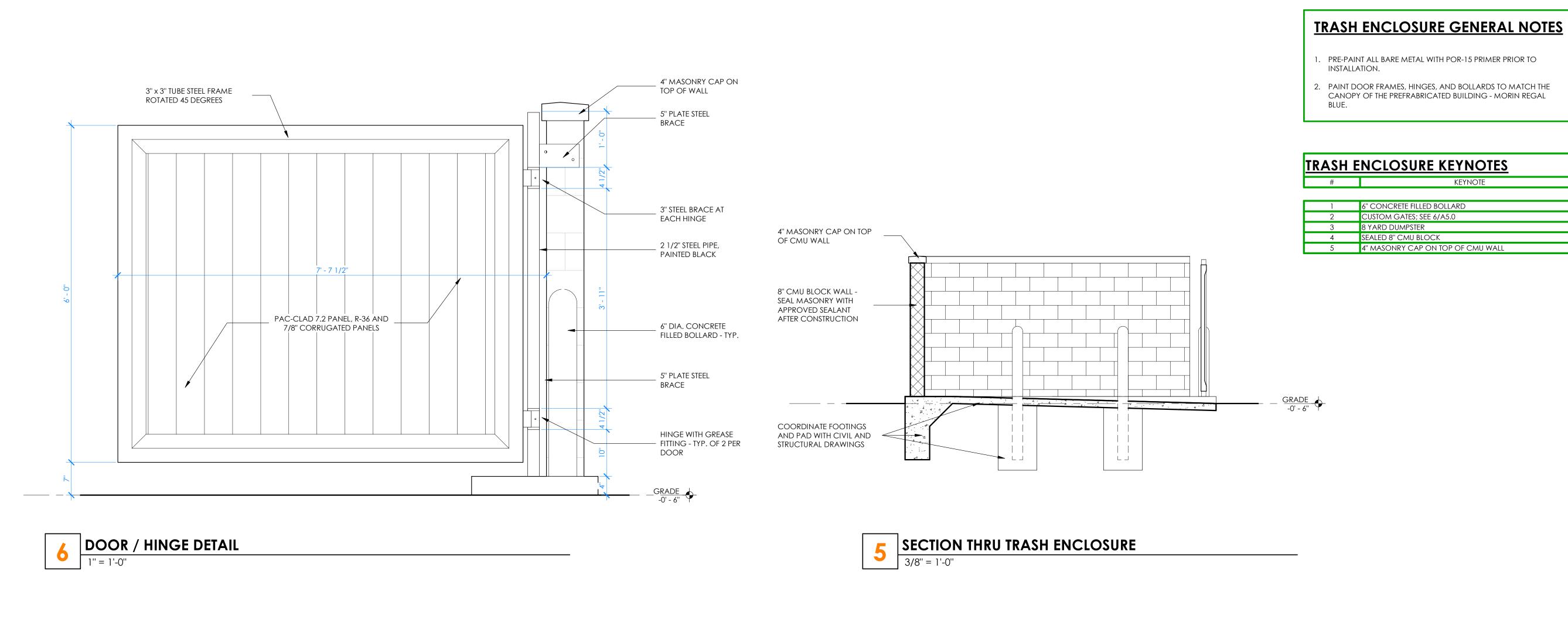
**A4.0** SCHEDULES & WDW ELEV'S

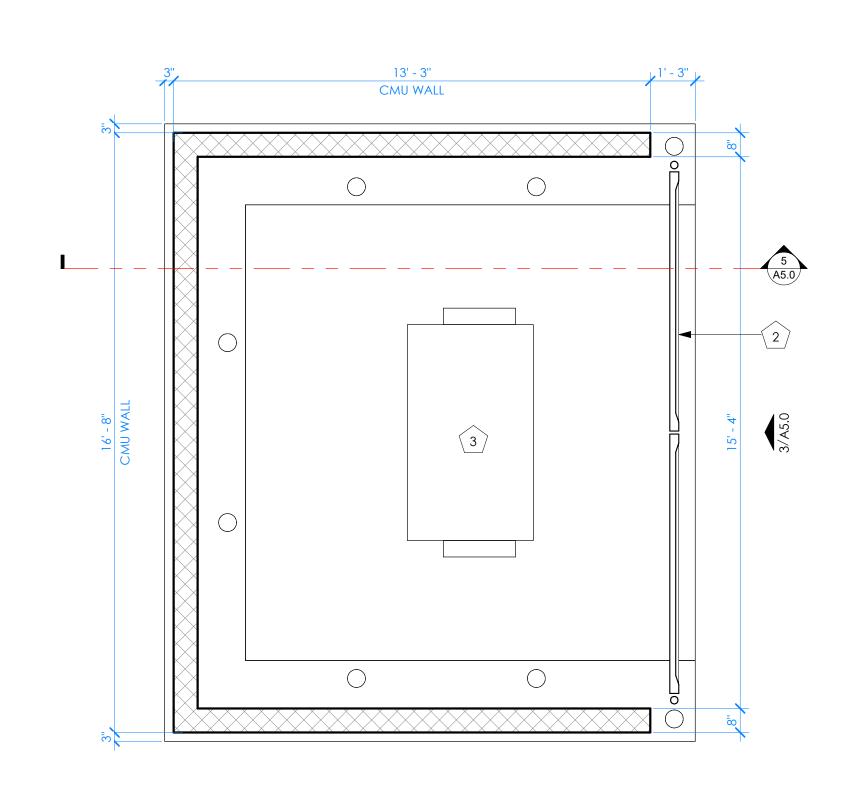
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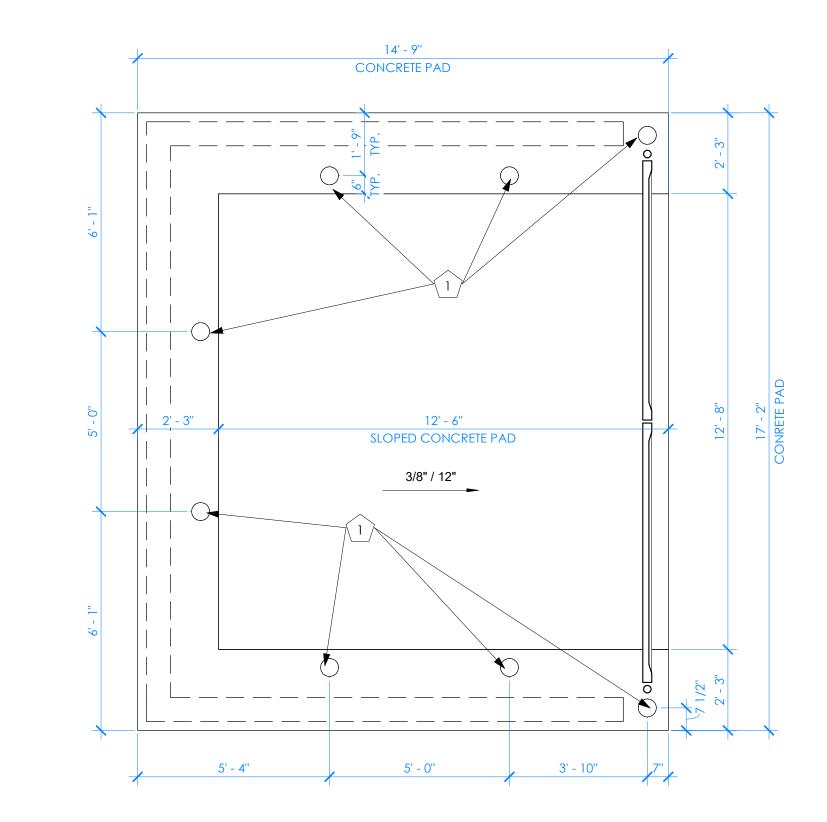
DOOR THRESHOLD @ MAIN FLR EXTERIOR DOOR

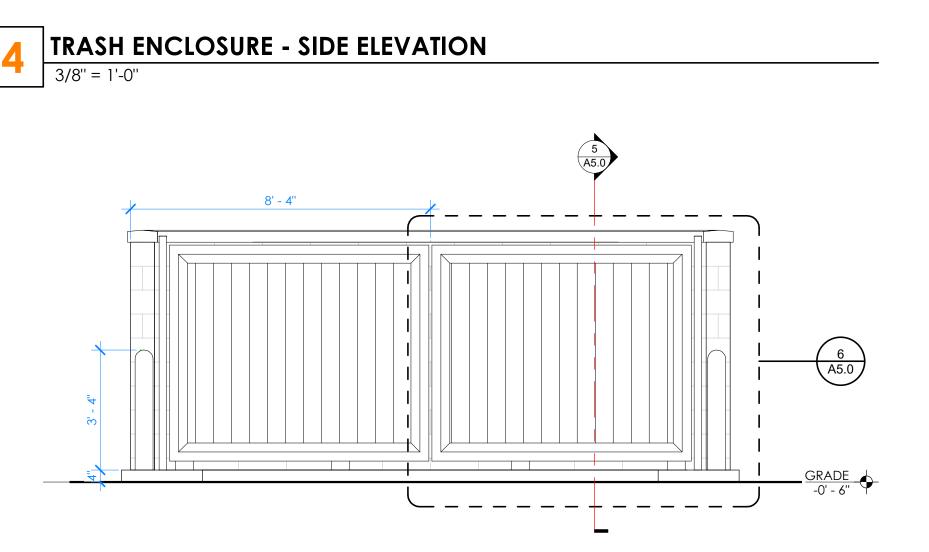
DOOR THRESHOLD

@ MECH ACCESS RM DOOR









TRASH ENCLOSURE - FRONT ELEVATION

3/8" = 1'-0"

TRASH ENCLOSURE

3/8" = 1'-0"

TRASH ENCLOSURE - CONCRETE PLAN

3/8" = 1'-0"



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BREW DRIVE-THRU

Revisions

Description

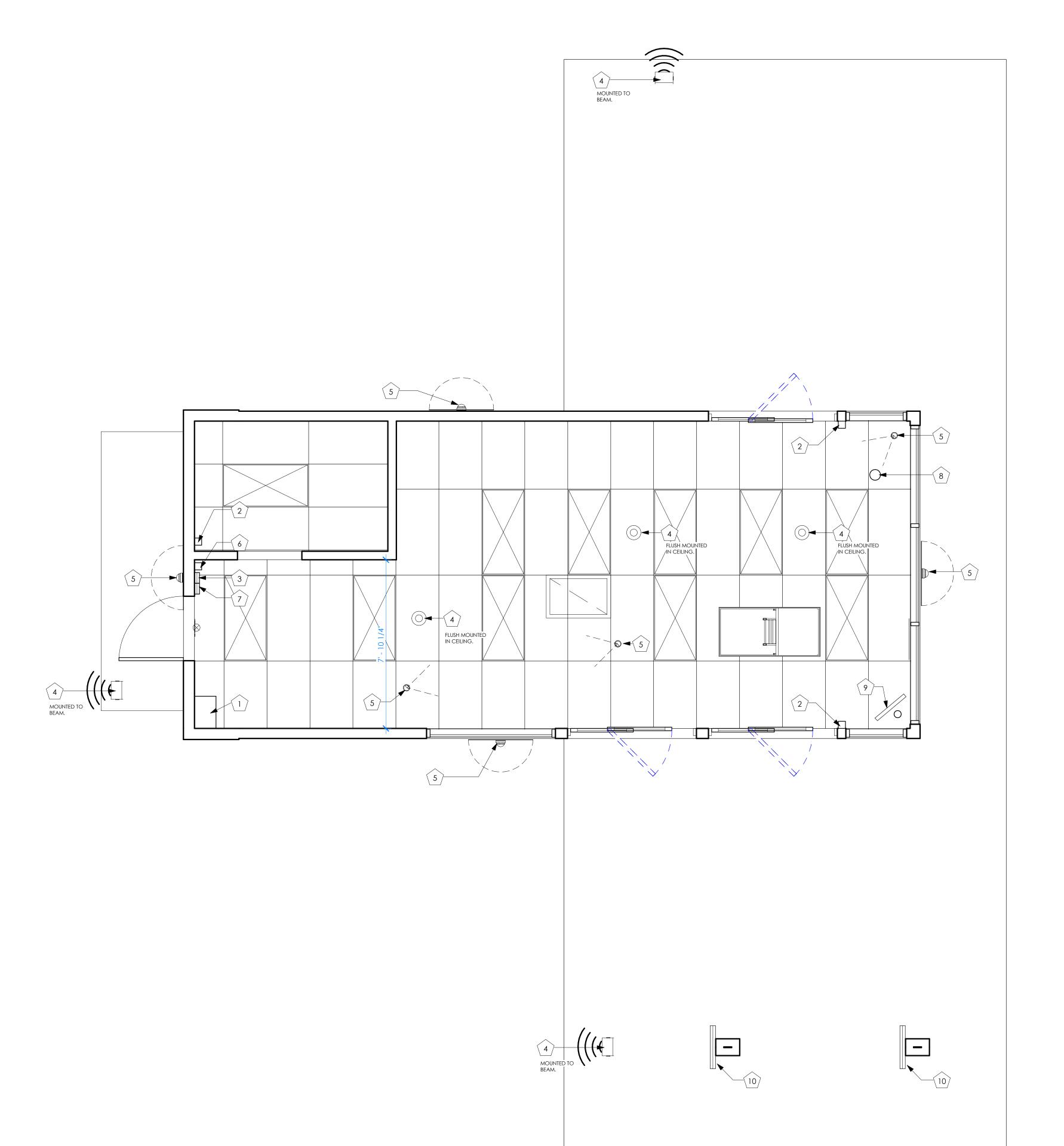
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No. Description Date

**A5.0**TRASH ENCLOSURE

project #:

7/18/2024 10:02:18 AM



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Revisions

**AV1.0** SYSTEMS PLAN

project #:

7/18/2024 10:02:19 AM

AUDIO VISUAL FLOOR PLAN

**SYSTEMS PLAN KEYNOTES** 

DATA RACK - INSTALLED IN FIELD BY I.T. PROVIDER

SPEAKERS - INSTALLED IN FIELD BY I.T. PROVIDER

ISTALLED IN FIELD BY I.T. PROVIDER

**SYSTEMS PLAN GENERAL NOTES** 

COORDINATE LOCATIONS OF ALL SYSETMS WITH MEP DRAWINGS.

FIELD BY SECURITY PROVIDER THERMOSTAT - INSTALLED IN FACTORY

SECURITY PROVIDER

FIELD BY IT PROVIDER

BY IT PROVIDER

PANIC BUTTON, TYP OF (3) MOUNTED 44" A.F.F. - INSTALLED IN

SECURITY CAMERA - INSTALLED IN FIELD BY SECURITY PROVIDER OLUME CONTROLLER, MOUNTED UNDER ALARM PANEL -

SECURITY KEY PAD ALARM PANEL- INSTALLED IN FIELD BY

WIRELESS ACCESS POINT, CEILING MOUNTED - INSTALLED IN

TV DROP MOUNT FOR SECURITY MONITOR - INSTALLED IN FIELD

SAMSUNG DIGITAL DISPLAYS - TV'S INSTALLED IN FIELD BY I.T. PROVIDER - CHASE FOR DATA CABLE INSTALLED AT BUILDING MANUFACTURING FACILITY

#### LOADING TABLE AND CODE INFORMATION 2021 ARKANSAS FIRE PREVENTION CODE (2021 IBC W/ AR AMMENDMENTS) DEAD LOADS A. ROOF DEAD LOAD 20 PSF B. FLOOR / ATTIC DEAD LOAD 20 PSF LIVE LOADS 20 PSF A. ROOF LIVE LOAD (w/ TRIBUTARY REDUCTION) B. FLOOR / ATTIC LIVE LOAD 50 PSF SNOW LOADS A. GROUND SNOW LOAD (pg) 10 PSF 12 PSF B. FLAT ROOF SNOW LOAD (pf WIND LOAD DESIGN CRITERIA A. ULTIMATE DESIGN WIND SPEED (Vult) 110 MPH B. RISK CATEGORY C. EXPOSURE CATEGORY D. INTERNAL PRESSURE COEFFICIENT (GCpi) +/- 0.18 SEISMIC LOAD DESIGN CRITERIA A. RISK CATEGORY ll l B. IMPORTANCE FACTOR (le) 1.0 C. SPECTRAL RESPONSE ACCELERATIONS AND COEFFICIENTS 0.157 SHORT PERIOD ACCELERATION (Ss 0.089 LONG PERIOD ACCELERATION (S1) SHORT PERIOD RESPONSE (SDs) 0.167 0.143 LONG PERIOR RESPONSE (SD1 D. SITE CLASS E. SEISMIC DESIGN CATEGORY TABLE 12.2-1.A.18 SEISMIC FORCE RESISTING SYSTEM (LFWS FSB) ELF G. ANALYSIS PROCEDURE H. RESPONSE MODIFICATION FACTOR (R) SYSTEM OVERSTRENGTH FACTOR $(\Omega)$ DEFLECTION AMPLIFICATION FACTOR (Cd)

#### MASONRY VENEER SPECIFICATIONS

MASONRY SHALL BE INSTALLED BY A QUALIFIED INSTALLER WHO EMPLOYS EXPERIENCED MASONS AND

STORE ALL MASONRY AND MASONRY ACCESSORIES ACCORDING TO MANUFACTURER'S REQUIREMENTS, INCLUDING METAL ITEMS, TO PREVENT CORROSION AND ACCUMULATION OF DIRT AND OIL. DURING CONSTRUCTION, COVER TOPS OF WALLS. PROJECTIONS, AND SILLS WITH WATERPROOF SHEETING AT END OF EACH DAY'S WORK. COVER

PARTIALLY COMPLETED MASONRY WHEN CONSTRUCTION IS NOT IN PROGRESS. DO NOT USE FROZEN MATERIALS OR MATERIALS MIXED OR COATED WITH ICE OR FROST. DO NOT BUILD ON FROZEN SUBSTRATES. REMOVE AND REPLACE MASONRY DAMAGED BY FROST OR FREEZING CONDITIONS. COMPLY WITH COLD-WEATHER CONSTRUCTION REQUIREMENTS CONTAINED IN ACI 530.1/ASCE 6/TMS 602.

COMPLY WITH HOT-WEATHER CONSTRUCTION REQUIREMENTS CONTAINED IN ACI 530.1/ASCE 6/TMS

ADVISE INSTALLERS OF OTHER WORK ABOUT SPECIFIC REQUIREMENTS FOR PLACEMENT OF REINFORCEMENT VENEER ANCHORS, FLASHING, AND SIMILAR ITEMS TO BE BUILT INTO MASONRY

MASONRY SHALL COMPLY WITH OWNER'S AND ARCHITECTS REQUIREMENTS AND SHALL MEET RELEVANT ASTM'S.

BRICK MASONRY UNITS SHALL COMPLY WITH ASTM C SHALL HAVE AN INITIAL RATE OF ABSORPTION LESS THAN 30g/MIN/30SI WHEN TESTED PER ASTM C67. B. SHALL BE RATED AS "NOT EFFLORESCED" PER

SHALL BE GRADE SW (SEVERE WEATHERING) MIN COMPRESSIVE STRENGTH SHALL BE 6000 PSI. MORTAR MATERIALS

PORTLAND CEMENT: ASTM C 150 TYPE LOR II EXCEPT TYPE III MAY BE USED FOR COLD-WEATHER CONSTRUCTION ALKALL CONTENT OF CEMENT SHALL NOT EXCEED 0.60 PERCENT PER ASTM C 114. HYDRATED LIME: ASTM C 207, TYPE S. PORTLAND CEMENT-LIME MIX: PACKAGED BLEND OF PORTLAND CEMENT COMPLYING WITH ASTM C 150

TYPE I OR III, AND HYDRATED LIME COMPLYING WITH ASTM C 207. MORTAR CEMENT: ASTM C 1329

MASONRY CEMENT: ASTM C 91. DO NOT USE CALCIUM CHLORIDE.

MORTAR FOR MASONRY: COMPLY WITH ASTM C 270 PROVIDE TIES FOR BRICK MASONRY UNITS AT 16/32 PATTERN MAX

TIES SHALL BE TRIANGULAR SHAPED WIRE MADE FROM 0.187 IN MINIMUM DIAMETER GALV WIRE AND SHALL EXTEND AT LEAST HALEWAY THROUGH VENEER PROVIDE CAVITY PER ARCHITECTURAL DRAWINGS BETWEEN MASONRY AND BACKUP CONSTRUCTION UNLESS OTHERWISE INDICATED OR BELOW GRADE

KEEP CAVITY FREE OF MORTAR DROPPINGS AND WEEP HOLE/VENT PRODUCTS: PROVIDE WEEPS PER ARCHITECTURAL DRAWINGS AND PER MASONRY

VARIATION FROM PLUMB: FOR VERTICAL LINES AND SURFACES, DO NOT EXCEED 1/4" IN 10 FEET OR MORE. VERIFY REQUIREMENTS WITH ARCHITECTURAL

DRAWINGS AND SPECIFICATIONS. THE MORE

STRINGENT REQUIREMENTS SHALL CONTROL

**ABBREVIATIONS** A.B.= ANCHOR BOLT

ACI= AMERICAN CONCRETE INSTITUTE AISC= AMERICAN INSTITUTE OF STEEL CONSTRUCTION AISI= AMERICAN IRON AND STEEL INSTITUTE

 28-DAY COMPRESSIVE STRENGTH: 3000 PSI MAXIMUM WATER TO CEMENT RATIO: 0.52 ARCH= ARCHITECTURE/ARCHITECT SI LIMP: ASTM= AMERICAN SOCIETY FOR TESTING AND MATERIALS CONCRETE FOR EXTERIOR USES, SIDEWALKS, A W = AFTER WEI DING RETAINING WALLS, BASEMENT WALLS, AND EXTERIOR AWS= AMERICAN WELDING SOCIETY SLABS ON GRADE SHALL BE AS FOLLOWS: BAR= REBAR 28-DAY COMPRESSIVE STRENGTH: B.O.= BOTTOM OF MAXIMUM WATER TO CEMENT RATIO: 0.45 B.O.A.= BACK OF ANGLE B.O.F. = BOTTOM OF FOOTING AIR-ENTRAINMENT

**CONCRETE NOTES** 

REINFORCING.

CONCRETE FOR FOUNDATIONS, FOOTINGS AND

INTERIOR SLABS ON GRADE SHALL BE AS FOLLOWS

WELDED WIRE FABRIC SHALL CONFORM TO ASTM

WIRE 1" TO 2" BELOW TOP SURFACE OF SLABS ON

GRADE. PROVIDE CHAIRS, BOLSTERS OR OTHER

IF ADDITIONAL FLOWABILITY IS REQUIRED FOR

PLACEMENT OF ANY CONCRETE MIX, A WATER-

REDUCING ADDITIVE CONFORMING TO ASTM C494

WATER MAY BE ADDED TO THE MIX AT THE SITE.

SLUMP FOR CONCRETE CONTAINING WATER-

IS ADDED TO CONCRETE WITH A 2"-4" SLUMP.

REDUCING OR HIGH-RANGE WATER-REDUCING

TYPE A, D, E OR F SHALL BE USED. NO ADDITIONAL

ADMIXTURE SHALL NOT EXCEED 8" AFTER ADMIXTURE

INTERIOR SLABS SHALL HAVE SMOOTH TROWELED

FINISH AND EXTERIOR SLABS SHALL HAVE LIGHT

BROOM FINISH, UNO. ALL SLABS SHALL HAVE A

CURING COMPOUND COMPLYING WITH ASTM C309

APPLIED TO SURFACE. EXCEPTIONS ARE WHERE

FLOOR FINISHES REQUIRE SCRATCH FINISH AND

APPROVED MEANS TO PROPERLY LOCATE

A185. LAP FABRIC 9" ON SIDES AND ENDS. MAINTAIN

. B.O.S.= BOTTOM OF STEEL AIR-ENTRAINING ADMIXTURE SHALL CONFORM TO ASTM C260. NO LIME SAND FINE AGGREGATE MAY BE USED IN CONCRETE EXPOSED TO WEATHER, VIEW, OR IN CANT= CANTILEVERED CIP = CAST-IN-PLACE HORIZONTAL APPLICATIONS. 18. C.J.P.= COMPLETE JOINT PENETRATION WELD ALL REINFORCING STEEL SHALL CONFORM TO ASTM 9. CL= CENTERLINE A615 GRADE 60

CMU= CONCRETE MASONRY UNIT 2. COL= COLUMN 23. CONC= CONCRETE CONN= CONNECTION CONT= CONTINUOUS 6. D.B.= DECK BEARING D.B.A.= DEFORMED BAR ANCHOR

. BRG= BEARING

. BTM= BOTTOM

0 CLR= CLEAR

7. EPS=

38. EQ=

12. F.F.=

15. F.S.=

18. GA=

. (H)=

I.D.=

). J.B.=

33. KSI=

64. (L)=

66. LB=

68. LL=

9. MIL=

). MIN=

1. PPT=

S. PSI=

03. SDI=

104. SIM=

105. SJI=

106. SL=

12. T&B=

123. W=

MTL= METAL

84. N.S.= NEAR SIDE

85 NTS = NOTTO SCALE

87 O.C. = ON CENTER

86 NW = NORMAL WEIGHT

B. REINF= REINFORCING

100. RTU= ROOF TOP UNIT

107. S.O.G.= SLAB ON GRADE

108. SPECS= SPECIFICATIONS

114. T.O.F.= TOP OF FOOTING

116. T.O.S.= TOP OF STEEL

119 UI = UI TIMATE I OAD

117 TOW = TOP OF WALL

118. TYP= TYPICAL

121 VERT= VERTICAL

124. WL= WIND LOAD

127. (#)= QUANTITY

125. W.P.= WORK POINT

115. T.O.P.= TOP OF PEDESTAL

109. STD= STANDARD

110. STL= STEEL

13. T.O.= TOP OF

SIMII AR

SNOW LOAD

**THICKNESS** 

TOP AND BOTTOM

120. U.N.O.= UNLESS NOTED OTHERWISE

122. VLD= VERTICAL LEG DOWN

126. WWF= WELDED WIRE FABRIC

WIDTH

101. S.C.= SLIP CRITICAL

02. SCH= SCHEDULE

99. REQ= REQUIRE

88. O.D.= OUTSIDE DIAMETER

89. OPP= OPPOSITE / OPPOSITE HAND

P.C.F.= POUNDS PER CUBIC FOOT

. PLF= POUNDS PER LINEAR FOOT

. PSF= POUNDS PER SQUARE FOOT

POST TENSIONED

STEEL DECK INSTITUTE

STEEL JOIST INSTITUTE

43. FND= FOUNDATION

46. FTG= FOOTING

44. F.O.W.= FACE OF WALL

47. F.V.= FIELD VERIFY

49. GALV= GALVANIZED

). G.B.= GRADE BEAM

H&I = HIGH & I OW

5. HORIZ= HORIZONTAL

58. INFO= INFORMATION

LOW

LENGTH

POUND

LIVE LOAD

69. LLH= LONG LEG HORIZONTAL

70. LLV= LONG LEG VERTICAL

. LONG= LONGITUDINAL

L.P.= LAYOUT POIN

4. LW= LIGHTWEIGHT

. MECH= MECHANICAL

B MFR= MANUFACTURER

MINIMUM

. MISC= MISCELLANEOUS

3 NIC = NOT IN CONTRACT

. MAX= MAXIMUM

9. INT= INTERIOR

GAGE / GAUGE

. G.C.= GENERAL CONTRACTOR

54. H.A.S.= HEADED ANCHOR STUD

JOIST BEARING

1000 POUNDS

1. J.B.E.= JOIST BEARING ELEVATION

67. LGSF= LIGHT-GAGE STEEL FRAMING

3. LVL= LAMINATED VENEER LUMBER

MEP= MECHANICAL, ELECTRICAL, PLUMBING

DOWNER ACTUATED EASTENIS

PRESERVATIVE PRESSURE TREATED

PEMB= PRE-ENGINEERED METAL BUILDING

POUNDS PER SQUARE INCH

THOUSANDS OF AN INCH

. IBC= INTERNATIONAL BUILDING CODE

KIPS PER SQUARE INCH

INSIDE DIAMETER

3. D.E.= DIA= ). DL= DEAD LOAD 1. DTL= **DETAIL** DWG= DRAWING EXISTING 34. EA= EACH FACH FACE 35. E.F.= FI FVATION

EXPANDED POLYSTYRENE

FOUAL 39. E.W.= EACH WAY 40. EXT= EXTERIOR CONCRETE COMPRESSIVE STRENGTH FINISHED FLOOR

WHERE CURING COMPOUNDS ARE NOT COMPATIBLE WITH ADHESIVES, ETC. CONTRACTOR SHALL COORDINATE ALL CONCRETE SEALERS, CURING COMPOUNDS, ETC TO ENSURE COMPATIBILITY WITH FLOORING ADHESIVES FOR FLOORING INDICATED IN THE FLOOR PLANS AND FLOOR FINISH PLANS AS APPLICABLE. TESTING OF FRESH CONCRETE SHALL BE DONE BY A

QUALIFIED TESTING LABORATORY RETAINED BY THE OWNER AND APPROVED BY THE ENGINEER. TESTING SHALL INCLUDE: SLUMP

AIR CONTENT CONCRETE TEMPERATURE 28 DAY COMPRESSIVE STRENGTH NOTE ANY WATER OR ADMIXTURES ADDED ON-

REFER TO ASTM C172 AND C94. PERFORM ONE SLUMP AND ONE AIR CONTENT TEST FOR EACH DAYS POUR AND ADDITIONAL TESTS WHEN THE CONCRETE CONSISTENCY SEEMS TO HAVE CHANGED IN THE OPINION OF THE INSPECTOR. REFER TO ASTM C143, C173 AND C231. PERFORM TEMPERATURE TESTS HOURLY WHEN THE AMBIENT AIR TEMPERATURE IS BELOW 40 DEGREES F OR ABOVE 80 DEGREES F AND ONE TEMPERATURE TEST FOR EACH SET OF COMPRESSIVE-STRENGTH SPECIMENS. REFER TO ASTM C1064. PERFORM ONE COMPRESSIVE-STRENGTH TEST FOR EACH DAYS POUR AND AN ADDITIONAL TEST FOR EACH 50 CUBIC YARD MORE THAN THE FIRST 25 CUBIC YARD. TEST ONE SPECIMEN AT 7 DAYS AND 2 SPECIMENS AT 28 DAYS.

REFER TO ASTM C31 AND C39. CONCRETE FOR GROUTING MASONRY UNITS IS SPECIFIED IN CONCRETE MASONRY UNIT NOTES. WHERE FOOTINGS, WALLS, OR OTHER STRUCTURA ELEMENTS INTERSECT, CORNER OR TEE, PROVIDE CORNER BARS WITH REQUIRED LAP LENGTHS TO PROVIDE CONTINUITY OF HORIZONTAL STEEL

REINFORCING UNO. PROVIDE A MINIMUM OF 3" COVER FOR ANCHOR **BOLTS AND LOCATE HORIZONTAL REINFORCEMENT** TO THE OUTSIDE FOR ANCHOR BOLT CONTAINMENT, PROVIDE TEMPORARY SHORING AND BRACING OF ALL

STRUCTURAL AND MISCELLANEOUS ELEMENTS LINTIL CONCRETE HAS OBTAINED 80% OF DESIGN STRENGTH AND ALL PERMANENT BRACING ELEMENTS ARE INSTALLED. INLESS NOTED OF CONSTRUCTION JOINTS IN SLABS ON GRADE AT

APPROXIMATELY 50 FEET IN EACH DIRECTION PROVIDE CONTROL JOINTS IN SLABS ON GRADE AT APPROXIMATELY 10 FEET ON CENTER IN EACH DIRECTION. JOINTS SHALL FORM NEARLY SQUARE SHAPES. CONTRACTOR SHALL COORDINATE JOINT LOCATIONS WITH TILE LAYOUT AS SHOWN IN THE FLOOR PLANS AND FLOOR FINISH PLANS AS

APPLICABLE. WHERE DOWELS, BOLTS OR INSERTS ARE CALLED TO BE ANCHORED TO CAST IN PLACE OR PRECAST CONCRETE ELEMENTS USING EPOXY ADHESIVES USE ANCHORAGE SYSTEM FOUAL TO "HILTI" HIT RE 500 INJECTION ADHESIVE. FOLLOW ALL MANUFACTURERS RECOMMENDATIONS. ALTERNATE ANCHORAGE SYSTEMS MAY BE USED WITH ENGINEER'S PRIOR APPROVAL

SAWN CONTROL JOINTS SHALL BE PLACED AS SOON AS CONCRETE IS ABLE TO BE SAWN WITHOUT PULLING OUT AGGREGATE FROM FLOOR. SLABS SHALL NOT BE LEFT OVERNIGHT, OR ANY REASONABLE AMOUNT OF TIME, WITHOUT SAWING JOINTS. WEATHER IS CRITICAL TO SCHEDULE OF SAWN JOINTS. IF LARGE AREAS OF SLAB ARE POURED AT ONE TIME, SEVERAL SAWS MAY BE REQUIRED TO PROVIDE JOINTS IN TIME TO PREVENT SHRINKAGE CRACKING. PROPER JOINTING OF SLAB IS CRITICAL REFER TO ACI MANUAL OF CONCRETE PRACTICE FOR PROPER JOINTING TECHNIQUES

DETAILING, MATERIALS AND INSTALLATION OF CONCRETE REINFORCING STEEL SHALL MEET REQ. AS SET FORTH BY CRSI AND THE AMERICAN CONCRETE INSTITUTE AND THE APPLICABLE BUILDING CODE. SHOP DRAWINGS SHALL BE SUBMITTED INDICATING COMPLETE INFORMATION REQUIRED FOR CONSTRUCTION OF THE REINFORCED CONCRETE ELEMENTS. SHOP DRAWINGS SHALL INCLUDE LAYOUT AND DIMENSIONS OF REINFORCING INCLUDING ANY OPENINGS, CONVENTIONAL REINFORCEMENT DETAILS, CONNECTION DETAILS

PROCEDURES AND SEQUENCES ETC.

WEATHER, REFER TO ACI 306.1.

**GENERAL FOUNDATION & SLAB ON GRADE** 

A SOIL INVESTIGATION HAS BEEN DONE FOR THIS SITE THIS REPORT SHALL BE CONSIDERED A PART OF THESE FOUNDATION NOTES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN, BE FAMILIAR WITH, AND ADHERE TO THE RECOMMENDATIONS IN THE REPORT. IF ANY RECOMMENDATION IN THE REPORT CONFLICTS WITH OTHER REQUIREMENTS IN THE CONTRACT DOCUMENTS NOTIFY THE ENGINEER FOR CLARIFICATION (FOR BIDDING PURPOSES UTILIZE

THE MORE STRINGENT REQUIREMENT UNTIL FORMAL CLARIFICATION IS ISSUED). IN THE AREA OF THE STRUCTURE, EXISTING ORGANIC MATERIAL, UNSUITABLE SOIL. ABANDONED FOOTINGS. UTILITIES AND ANY OTHER EXISTING UNSUITABLE MATERIALS SHALL BE REMOVED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT. ALL FILL AND COMPACTION SHALL BE AS RECOMMENDED BY THE GEOTECHNICAL REPORT. ADEQUATE FIELD DENSITY AND MOISTURE CONTENT TESTS SHALL BE PERFORMED TO ENSURE COMPLIANCE WITH

REQUIREMENTS. TESTING OF CONTROLLED STRUCTURAL FILL SHALL BE DONE BY A QUALIFIED TESTING LABORATORY RETAINED BY THE OWNER. SEE STRUCTURAL DRAWINGS FOR REQUIRED SPECIAL INSPECTIONS AND TESTING. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WORK WITH INSPECTOR. AFTER STRIPPING SITE AND PRIOR TO

PLACEMENT OF ANY FILL. NOTIFY SPECIAL INSPECTOR/TESTING AGENCY FOR INSPECTION OF SOIL CONDITIONS INSPECTION SHALL INCLUDE PROOF ROLLING SITE WITH HEAVY EQUIPMENT PROVIDED BY THE CONTRACTOR AFTER EXCAVATION FOR FOUNDATIONS AND PRIOR TO PLACEMENT OF STEEL REINFORCEMENT OR CONCRETE, NOTIFY SPECIAL INSPECTOR/TESTING AGENCY FOR INSPECTION OF SOIL CONDITIONS. WHEN SOIL OF INADEQUATE STRENGTH IS NOTED, CONTRACTOR SHALL FURTHER DEEPEN **EXCAVATIONS UNTIL SUITABLE BEARING** CONDITIONS ARE VERIFIED BY TESTING OVEREXCAVATIONS MAY BE BACKFILLED WITH SUITABLE COMPACTED ENGINEERED FILL SUITABLE GRANULAR BASE, OR STRUCTURAL CONCRETE BACKFILL (SEE GEOTECHNICAL

REPORT FOR RECOMMENDATIONS) EXTERIOR FOOTINGS SHALL BEAR AT MIN. DEPTHS AS NOTED IN FOUNDATION DETAILS AND PLANS, 36" MINIMUM BELOW EXTERIOR FINISH GRADE, OR INTO APPROVED BEARING STRATA. WHICHEVER DEPTH IS GREATER. NOTE THAT FOOTING BEARING ELEVATIONS GIVEN ON THE PLANS ARE ESTIMATED DEPTHS ONLY. WHERE UNSUITABLE SOIL IS ENCOUNTERED, FOOTING DEPTHS MAY VARY **EXCAVATION FOR FOOTINGS SHALL BE CUT TO** 

ACCURATE SIZE AND DIMENSIONS AS SHOWN ON PLANS. ALL SOIL BELOW SLABS AND FOOTINGS SHALL BE PROPERLY COMPACTED AND SUBGRADE BROUGHT TO A REASONABLE TRUE AND LEVEL PLANE BEFORE PLACING CONCRETE. CONTINUOUS FOOTINGS AND INDIVIDUAL FOOTINGS ARE DESIGNED FOR A NET ALLOWABLE SOIL

BEARING OF CONTINUOUS FOOTINGS: 1500 PSF INDIVIDUAL FOOTINGS: 1500 PSF FOR EITHER NATURALLY OCCURRING SOIL OR COMPACTED ENGINEERED FILL.

TYPICAL SLABS ON GRADE THICKNESS: 6" THICK NORMAL WEIGHT CONCRETE REINFORCING: 6x6-W2.9xW2.9 WELDED WIRE FABRIC (WWF)

VAPOR BARRIÉR: 15 MIL., (ASTM E1745 CLASS A) SUBGRADE: A MINIMUM OF 4" OF FREE-DRAINING GRANULAR BASE, COMPACTED PER RECOMMENDATIONS OF GEOTECHNICAL ENGINEER.

MAINTAIN REINFORCING 1"-2" BELOW TOP SURFACE OF SLABS ON GRADE. PROVIDE BOLSTERS CHAIRS OR OTHER MEANS APPROVED IN WRITING BY THE ENGINEER TO PROPERLY LOCATE REINFORCING, GRANULAR BASE SHALL BE #57 STONE OR APPROVED **EQUAL UNLESS OTHERWISE INDICATED IN D448 FOR GRADATION** IN SOME CASES 1.5 POUNDS (MIN) OF POLYPROPYLENE FIBRILLATED FIBERS PER

CUBIC YARD REINFORCING MAY BE SUBSTITUTED FOR THE WWF REINFORCING ANY VISIBLE FIBERS REMAINING AFTER CONCRETE HAS CURED SHALL BE TORCHED OFF. THIS SUBSTITUTION IS NOT ALWAYS APPROPRIATE AND SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL OF THE FNGINFFR DRAINAGE FILL: SEE GEOTECHNICAL REPORT.

CONTRACTOR IS RESPONSIBLE TO MAINTAIN **EXCAVATIONS AND BACKFILL MATERIALS AT AN** APPROPRIATE MOISTURE CONTENT FOR PROPER SOIL BEARING CAPACITY AND COMPACTION OF BACKFILL MATERIALS WITH REGARD TO THE REQUIREMENTS OF THE SOILS REPORT. CONTRACTOR SHALL COORDINATE WITH THE CIVIL / SITE DRAWINGS TO DETERMINE WHETHER FOUNDATION DRAINS AROUND PERIMETER OF BUILDING AND/OR UNDER THE SLAB-ON-GRADE

SHALL BE REQUIRED AND, IF SO, SHALL RUN TO DAYLIGHT OR EXTENDED TO THE STORM SEWER PLACED AT THE INTERFACE BETWEEN THE DRAINAGE FILL AND FITHER NATURAL OR

#### **WOOD FRAMING NOTES**

WOOD FRAMING INCLUDING MISCELLANEOUS BEAMS, LINTELS, HEADERS, ETC. SHALL BE #2 GRADE DOUGLAS FIR-LARCH (Fb = 900 PSI). LIGHT FRAMING SUCH AS PLATES, SILLS, CRIPPLES, BLOCKING AND ROOF FRAMING NOT OTHERWISE SPECIFIED SHALL BE #3 GRADE DOUGLAS FIR-LARCH (Fb = 525 PSI) OR BETTER

STUDS SHALL BE #1/#2 GRADE SPRUCE-PINE-FIR (Fb = 875 PSI. Fc = 1150 PSI) OR BETTER. ALL WOOD FRAMING SHALL BE SELECTED SUCH THAT NO LUMBER WITH LARGE KNOTS, WARPS, SPLITS. OR DEFECTS IS USED WHERE CALLED FOR ON PLANS TO USE FRAMING

ANCHORS AND HARDWARE, USE Z-MAX GALVANIZED STEEL FRAMING ANCHORS EQUAL TO SIMPSON. ALL LUMBER IN CONTACT WITH CONCRETE OR MASONRY SHALL BE "TREATED" AND SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF AWPA STANDARD U1 TO THE REQUIREMENTS OF USE CATEGORY 2 (UC2). ALL LUMBER FOR EXTERIOR USES. INCLUDING

DECKING, DECK JOIST, RAILINGS, OR ANY LUMBER EXPOSED TO WEATHER SHALL BE "TREATED" AND COMPLY WITH APPLICABLE REQUIREMENTS OF AWPA STANDARD U1 TO THE REQUIREMENTS OF USE CATEGORY 3B (UC3B).

ALL "TREATED" LUMBER WITH FIELD-CUT ENDS SHALL BE TREATED WITH PRESERVATIVES IN

ACCORDANCE WITH AWPA STANDARD M4. WOOD FRAMING, ROUGH CARPENTRY, AND MISCELLANEOUS WOOD CARPENTRY WORK SHALL BE GOVERNED BY ADOPTED INTERNATIONAL BUILDING CODE REQUIREMENTS. ALL SUCH WORK SHALL COMPLY WITH CONSTRUCTION, CONNECTION AND GENERAL REQUIREMENTS OF CHAPTER 23 OF THE CODE. IT SHALL BE A REQUIREMENT OF THIS CONTRACT THAT THE CONTRACTOR PROVIDE A

COPY OF THIS CHAPTER TO ALL PERTINENT PARTIES. SILL PLATE SHALL BE CONNECTED TO THE FOUNDATION WALL WITH 5/8"Ø x 8" (MIN) SIMPSON TITEN HD @ 4'-0" O.C. (MAX)- SEE SHEAR WALL SCHEDULE FOR REQUIRED SPACING AND ADDITIONAL REQUIREMENTS. THERE SHALL BE A MINIMUM OF TWO ANCHOR BOLTS PER SECTION OF PLATE AND ANCHOR BOLTS SHALL BE PLACED 12" FROM END OF PLATE AND NO CLOSER THAN 3" FROM EDGE OF PLATE, REFER TO IBC CHAPTER 23. ALL BEAMS BEARING PERPENDICULAR TO WALL FRAMING SHALL BE SUPPORTED BY MULTIPLE STUDS FOR THE FULL WIDTH OF THE BEAM, UNO. MULTIPLE

STUDS SHALL BE CONTINUED TO FOUNDATION. REFER TO NDS SECTION 15.3.3 FOR NAILING REQUIREMENTS FOR MULTIPLE STUDS.

LAMINATED VENEER LUMBER (LVL) BEAMS AS CALLED OUT IN THE PLANS ARE SIZED AS PER TRUSS JOIST CORPORATION" RECOMMENDATIONS. ALTERNATE LVL BEAMS WILL BE CONSIDERED IF PROPER DESIGN INFORMATION IS SUBMITTED AND APPROVED AS EQUAL. (Fb = 2600 PSI, E =  $1.9.10^6$ 

REFER TO BEARING WALL SCHEDULE AND PLAN FOR BLOCKING REQUIREMENTS AT BEARING WALLS. REFER TO SHEAR WALL SCHEDULE AND PLAN FOR ANY ADDITIONAL REQUIRED BLOCKING.

REFER TO SHEET S4.1 FOR STANDARD FRAMING

#### POST-INSTALLED ANCHOR NOTES

CONTINUOUS INSPECTIONS ARE REQUIRED FOR POST INSTALLED ANCHOR BOLTS INCLUDING TYPE, SIZE, LENGTH, DRILLING METHOD, HOLE CLEANING PROCEDURES, AND ANCHOR INSTALLATION AND SETTING PROCEDURES. ADHESIVE ANCHORS SHALL BE INSTALLED BY AN ADHESIVE ANCHOR INSTALLER WHO HAS BEEN

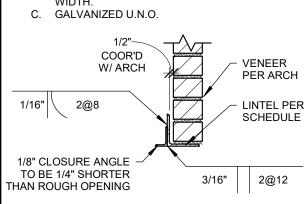
CERTIFIED BY ACI AND TRAINED BY THE MANUFACTURER. ANCHORS SHALL BE INSTALLED IN ACCORDANCE

WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS WHERE BOLTS ARE CALLED TO BE EPOXIED TO CAST IN PLACE CONCRETE ELEMENTS, USE ANCHORAGE SYSTEM EQUAL TO "HILTI" HIT-HY-200 V3 + HAS-V-36. FOLLOW THE MANUFACTURES RECOMMENDATIONS.

#### MASONRY LINTEL NOTES AND DETAIL MASONRY VENEER LINTELS SHALL BE AS FOLLOWS:

U.N.O. ON DRAWINGS A. OPENING WIDTH LINTEL • 0' TO 6' L4x4x1/4

B. MINIMUM END BEARING LENGTH SHALL BE 6" FOR OPENINGS LESS THAN OR EQUAL TO 6'-0" IN



#### **WOOD SHEATHING & DECKING NOTES**

RATED 24/16 STRUCTURAL 1 EXPOSURE 1 PANÉLS. NAIL TO SUPPORTS WITH 8d COMMON NAILS AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS. PROVIDE SOLID BLOCKING AT ALL PANEL EDGES. SEE SHEAR WALL SCHEDULE FOR REQUIREMENTS AT SHEAR WALLS. PANELS. "H" CLIPS MAY BE USED AT THE

ROOF DECKING SHALL BE 19/32" (5/8") STRUCTURAL EXPOSURE I APA RATED 40/20 TONGUE AND GROOVE CONTRACTOR'S OPTION IN LIEU OF T&G. NAIL TO SUPPORTS WITH 10d COMMON NAILS AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERIOR SUPPORTS. REDUCE SPACING TO 4" O.C. AT EDGES AND INTERIOR SUPPORTS WITHIN 4'-0" OF BUILDING

TYPICAL WALL SHEATHING SHALL BE 7/16" (1/2") APA

FLOOR DECKING SHALL BE 23/32" (3/4") ADVANTECH PANELS T&G. GLUE AND NAIL TO SUPPORTS WITH 10d RING-SHANK OR SPIRAL THREADED NAILS AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS. GLUE SHALL MEET APA SPEC AFG-01. WOOD STRUCTURAL PANELS SHALL BE OSB OR

PLYWOOD WITH (4) OR MORE PLIES AND SHALL COMPLY WITH DOC PS 1 OR PS 2. PANELS SHALL BE INSTALLED WITH THE STRENGTH AXIS (LONG DIRECTION) PERPENDICULAR TO SUPPORTS.

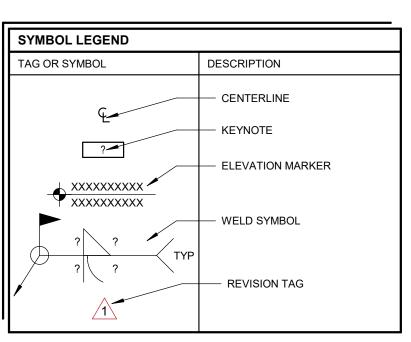
#### **COMPONENTS AND CLADDING WIND PRESSURE**

BUILDING FLEMENTS SHALL BE DESIGNED FOR THE APPROPRIATE COMPONENTS AND CLADDING WIND PRESSURES GIVEN IN THE TABLES BELOW BASED ON THE FLEMENT'S ZONE AND EFFECTIVE WIND AREA. PRESSURES PROVIDED ARE ULTIMATE AND ARE UNFACTORED.

ZONE 2. 3 AND 5 PRESSURES SHALL BE APPLIED WITHIN 11'-6" OF ALL WALL AND ROOF EDGES AND CORNERS PER ASCE 7-10 FIGURES 30.4-1 & 30.4-2A.

ELEMENTS WITH TRIBUTARY AREAS GREATER THAN 700 SQUARE FEET SHALL BE PERMITTED TO BE DESIGNED USING THE PROVISIONS FOR MWFRS.

DEGIGINED GOING	THETROV	1010110	TOR MINT ING.				
ROOF C&C PRESSURES							
	GROSS UF	PLIFT					
OPEN WEB	ZONE 1	27 P	SF				
JOISTS	ZONE 2	32 P	SF				
	ZONE 3	32 P	SF				
METAL DECK	ZONE 1	29 P	SF				
METAL DECK	ZONE 2	49 P	SF				
	ZONE 3	73 P	SF				
NET UPLIFT							
	ZONE 1	24 P	SF				
OPEN WEB	ZONE 2	29 P	SF				
JOISTS	ZONE 3	29 P	SF				
METAL DEOK	ZONE 1	27 P	SF				
METAL DECK	ZONE 2	47 P	SF				
	ZONE 3	71 P	SF				
WALL	. C&C PRI	ESSUF	RES				
EFFECTIVE WIND AREA (FT²)	ZONE 4 PRESS	—	ZONE 5 NEG. PRESSURE				



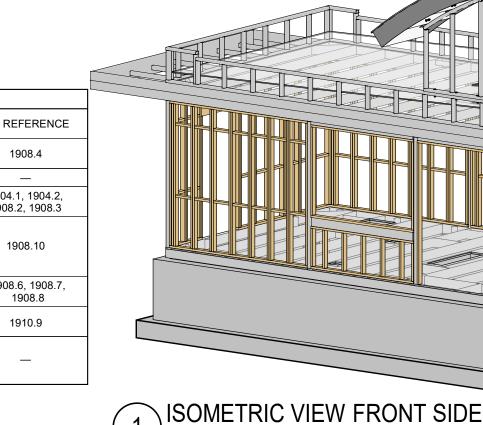
#### AT RETAINING WALLS FILTER FABRIC SHALL BE TYPICAL LINTEL DETAIL COMPACTED SUBGRADE PERFORATED DRAINS SHALL ALSO BE WRAPPED WITH FILTER FABRIC. ISOMETRIC VIEWS FOR REFERENCE ONLY WHEN PLACING CONCRETE IN HOT WEATHER, REFER TO ACI 301, WHEN PLACING CONCRETE IN COLD

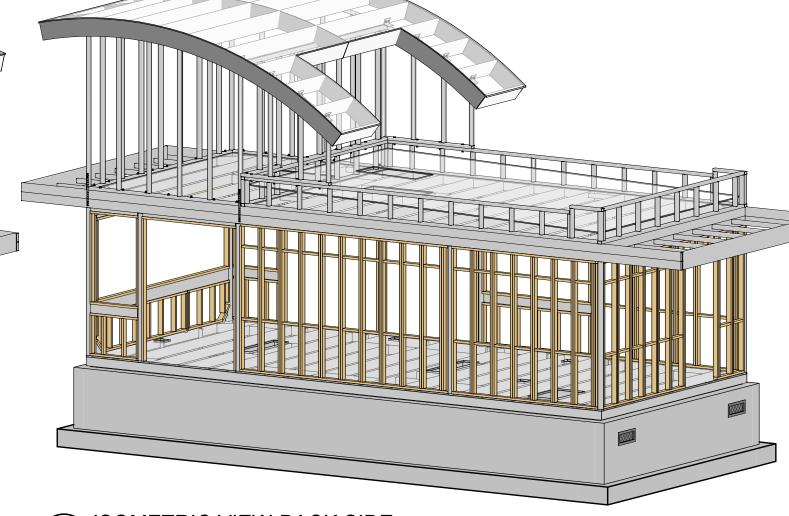
#### STATEMENT OF SPECIAL INSPECTIONS SPECIAL INSPECTIONS ARE REQUIRED FOR THIS STRUCTURE IN ACCORDANCE WITH CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE FOR THE ITEMS NOTED IN THE TABLE ON THIS SHEET TESTING SHALL BE PERFORMED BY A QUALIFIED TESTING LABORATORY RETAINED BY THE OWNER AND APPROVED BY THE ENGINEER A LETTER OF SUBSTANTIAL COMPLETION SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT BY THE SPECIAL INSPECTION PROVIDER PRIOR TO THE

FINAL INSPECTION.

IBC	TABLE 1705.6 REQUIRED VERIFICATION AND INSPECTION OF SOILS		
VE	RIFICATION AND INSPECTION TASK	CONTINUOUS	PERIODIC
1.	VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	_	Х
2.	VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	_	Х
3.	PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	_	Х
4.	VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	x	_
5.	PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	_	Х

	VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCE
1.	INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT.	_	Х	ACI 318 CH. 20, 25.2,25.3, 26.6.1-26.6.3	1908.4
2.	INSPECT ANCHORS CAST IN CONCRETE.	_	Х	ACI 318: 17.8.2	_
3.	VERIFY USE OF REQUIRED DESIGN MIX.	_	Х	ACI 218: CH. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
4.	PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	x	_	ASTM C 172 ASTM C 31 ACI 318: 26.5, 26.12	1908.10
5.	INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	Х	_	ACI 318: 26.5	1908.6, 1908.7, 1908.8
3.	VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	_	Х	ACI 318: 26.5.3-26.5.5	1910.9
7.	INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	_	Х	ACI 318: 26.11.1.2(b)	_





ISOMETRIC VIEW BACK SIDE

**SO.0** GENERAL NOTES

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Revisions

Description

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project #: date:

SCHEDULE - SPECIAL INSPECTIONS

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STRAIGHT DOWEL DEVELOPMENT LENGTHS (INCHES)									
			COMPRESSION						
BAR		OTHER BARS			TOP BARS			COMPRESSION	
SIZE	3000 PSI CONCRETE	4000 PSI CONCRETE	5000 PSI CONCRETE	3000 PSI CONCRETE	4000 PSI CONCRETE	5000 PSI CONCRETE	3000 PSI CONCRETE	4000 PSI CONCRETE	5000 PSI CONCRETE
#3	17	15	13	22	19	17	9	8	8
#4	22	19	17	29	25	22	11	10	9
#5	28	24	22	36	31	28	14	12	12
#6	33	29	26	43	37	33	17	15	14
#7	48	42	37	63	54	49	20	17	16
#8	55	48	43	72	62	55	22	19	18
#9	62	54	48	81	70	63	25	22	21
#10	70	61	54	91	79	70	28	25	23
#11	78	67	60	101	87	78	31	27	25

TOP BARS ARE HORIZONTAL REINFORCEMENT PLACED SO THAT MORE THAN 12" OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE LAP SPLICE LENGTHS ARE BASED ON BARS SPACED AT (2) BAR DIAMETERS OR MORE ON CENTER W/ (1) BARS DIAMATER MINIMUM ON CONCRETE COVER. NOTIFY ENGINEER IF SPACING IS LESS THAN (2) BAR DIAMETERS.

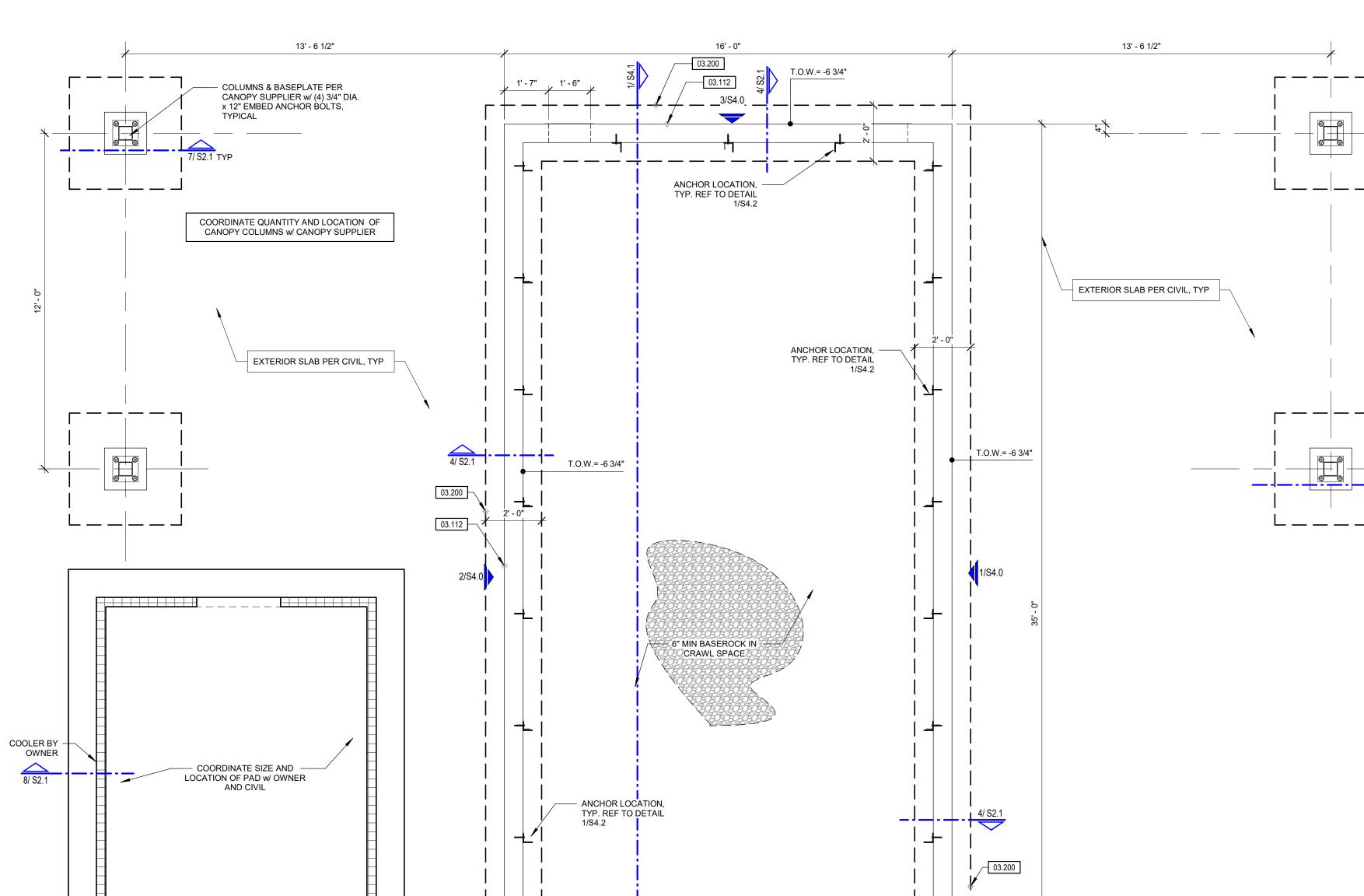
LAP SPLICE LENGTHS (INCHES)									
		Т	ENSION (CLASS	B SPLICE)			COMPRESSION		
BAR		OTHER BARS			TOP BARS				
SIZE	3000 PSI CONCRETE	4000 PSI CONCRETE	5000 PSI CONCRETE	3000 PSI CONCRETE	4000 PSI CONCRETE	5000 PSI CONCRETE	4000 PSI 5000 PSI CONCRETE		
#3	22	19	17	28	24	22	12		
#4	29	25	22	37	32	29	15		
#5	36	31	28	47	40	36	19		
#6	43	37	33	56	48	43	23		
#7	63	54	49	81	70	63	27		
#8	72	62	55	93	80	72	30		
#9	81	70	63	105	91	81	34		
#10	91	79	70	118	102	91	38		
#11	101	87	78	131	113	101	43		
NOTES:	<del>-</del>	-	-	-	-	-			

TOP BARS ARE HORIZONTAL REINFORCEMENT PLACED SO THAT MORE THAN 12" OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE REINFORCEMENT. LAP SPLICE LENGTHS ARE BASED ON BARS SPACED AT (2) BAR DIAMETERS OR MORE ON CENTER W/ (1) BAR DIAMETER MINMUM OF CONCRETE COVER. NOTIFY ENGINEER IF SPACING IS LESS THAN (2) BAR DIAMETERS.

03.112

		EMBEDMENT		EXTEN	SION	
BAR SIZE	3000 PSI CONCRETE	4000 PSI CONCRETE	5000 PSI CONCRETE	90 DEG HOOK	180 DEG HOOK	MINIMUM RADIUS OF BEND (INCHES)
#3	8	7	6	4.5	2.5	1.50
#4	11	9	8	6.0	2.5	2.00
#5	14	12	11	7.5	2.5	2.50
#6	16	14	13	9.0	3.0	3.00
#7	19	17	15	10.5	3.5	3.50
#8	22	19	17	12.0	4.0	4.00
#9	25	21	19	13.5	4.5	5.64
#10	28	24	22	15.2	5.1	6.35
#11	31	27	24	16.9	5.6	7.05

EXTENTION 180 DEG HOOK **KEYNOTE LEGEND** 



- COORDINATE LOCATION SIZE AND QUANTITY OF CRAWL SPACE VENTS WITH OWNER

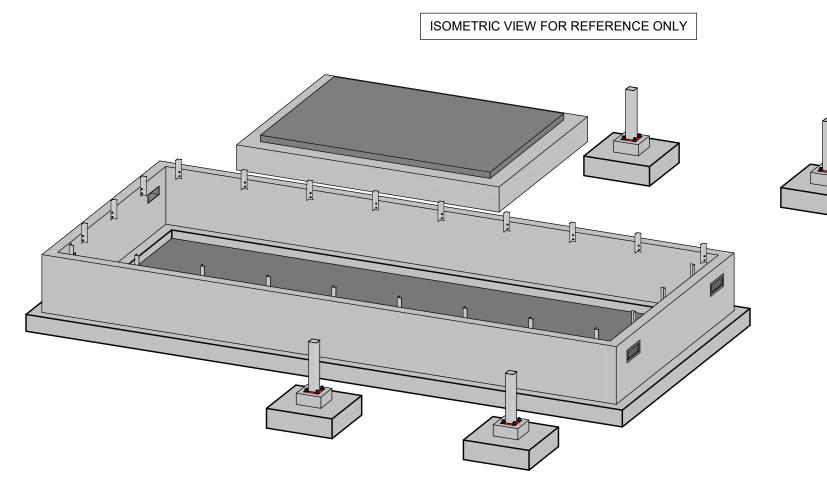
ANCHOR LOCATION, -TYP. REF TO DETAIL

4/S4.0

DESCRIPTION DASHED LINE INDICATES FOUNDATION BELOW.

#### PLAN NOTES - FOUNDATION

- PROVIDE ADDITIONAL REINFORCING AS NOTED ON PLANS AND
- WHERE ONLY ONE CURTAIN OF REINFORCING IS REQUIRED BARS SHALL BE CENTERED IN WALL.
- COORDINATE ALL OPENING DIMENSIONS WITH ARCHITECTURAL. DOWEL ALL SIDEWALKS AT DOORS TO BUILDINGS SLAB WITH #4 x
- 24" DOWELS @ 16" O.C. MAX. GREASE ONE END. COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL PRIOR TO
- COORDINATE ALL UNDERSLAB PLUMBING, DRAINS, ETC. WITH ARCHITECTURAL AND MEP.
- SLOPE FLOORS TO FLOOR DRAINS. COORDINATE SLOPE EXTENTS WITH ARCHITECTURAL AND MEP.
- PROVIDE CONTROL JOINTS PER DETAILS ON SHEET S2.1 AND GENERAL NOTES.



FOUNDATION ISOMETRIC

FOUNDATION PLAN

3/8" = 1'-0"

1' - 6" 1' - 7"

project #: date:

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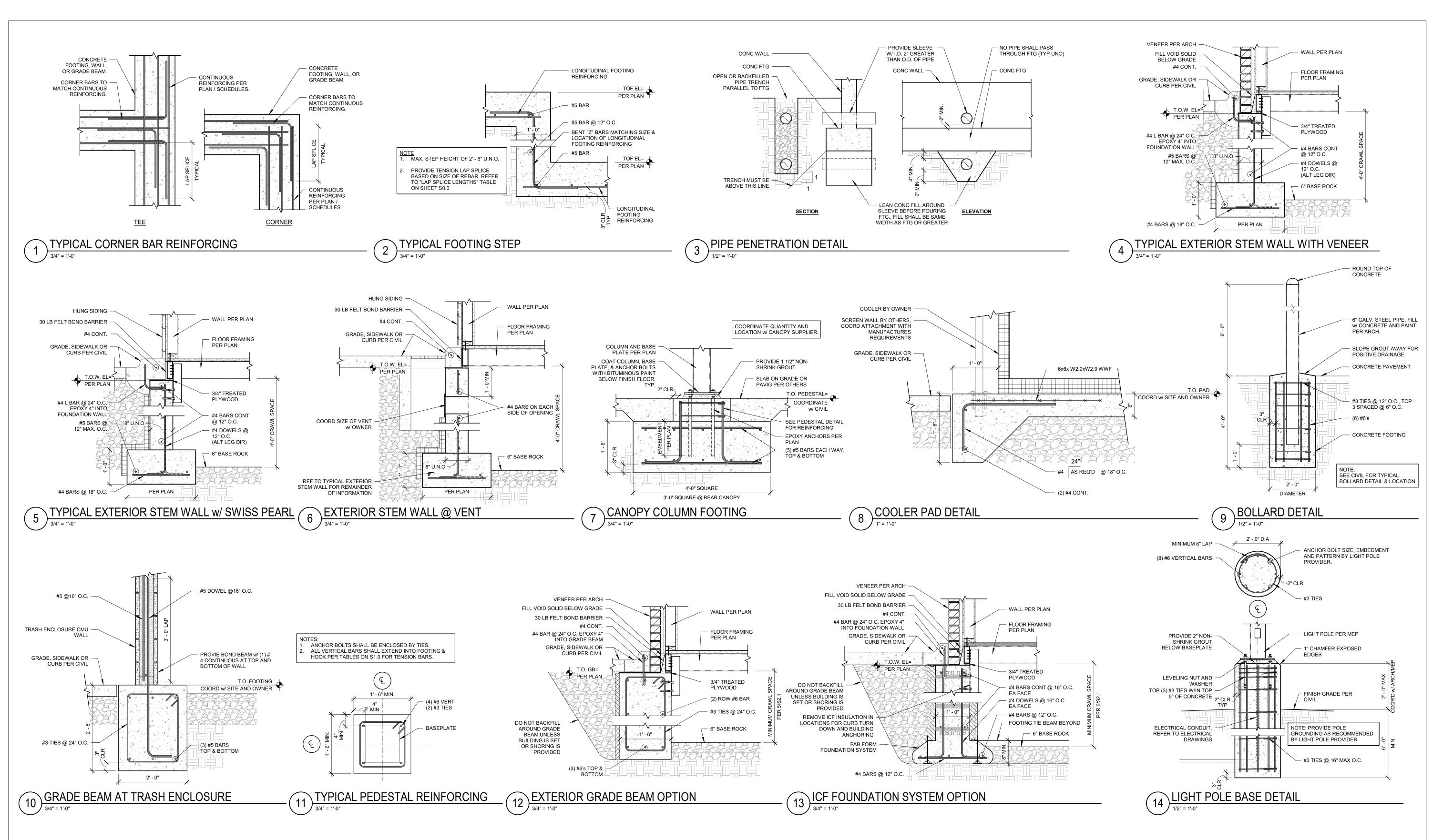
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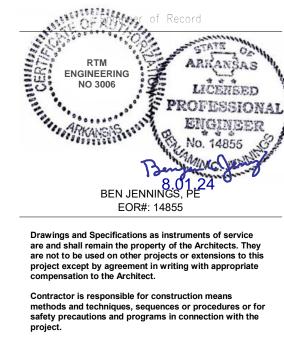
\$1.0 FOUNDATION PLAN

Revisions

Description







# methods and techniques, sequences or procedures or for safety precautions and programs in connection with the project. RTM ENGINEERING CONSULTANTS, LLC 3045 S. KANSAS EXPRESSWAY SPRINGFIELD, MO 65807 PHONE: 417.708.9315 engineering consultants AR COA: 3006

**7 BREW DRIVE-TH**321 W. MAIN STREET
FARMINGTON, AR 72730

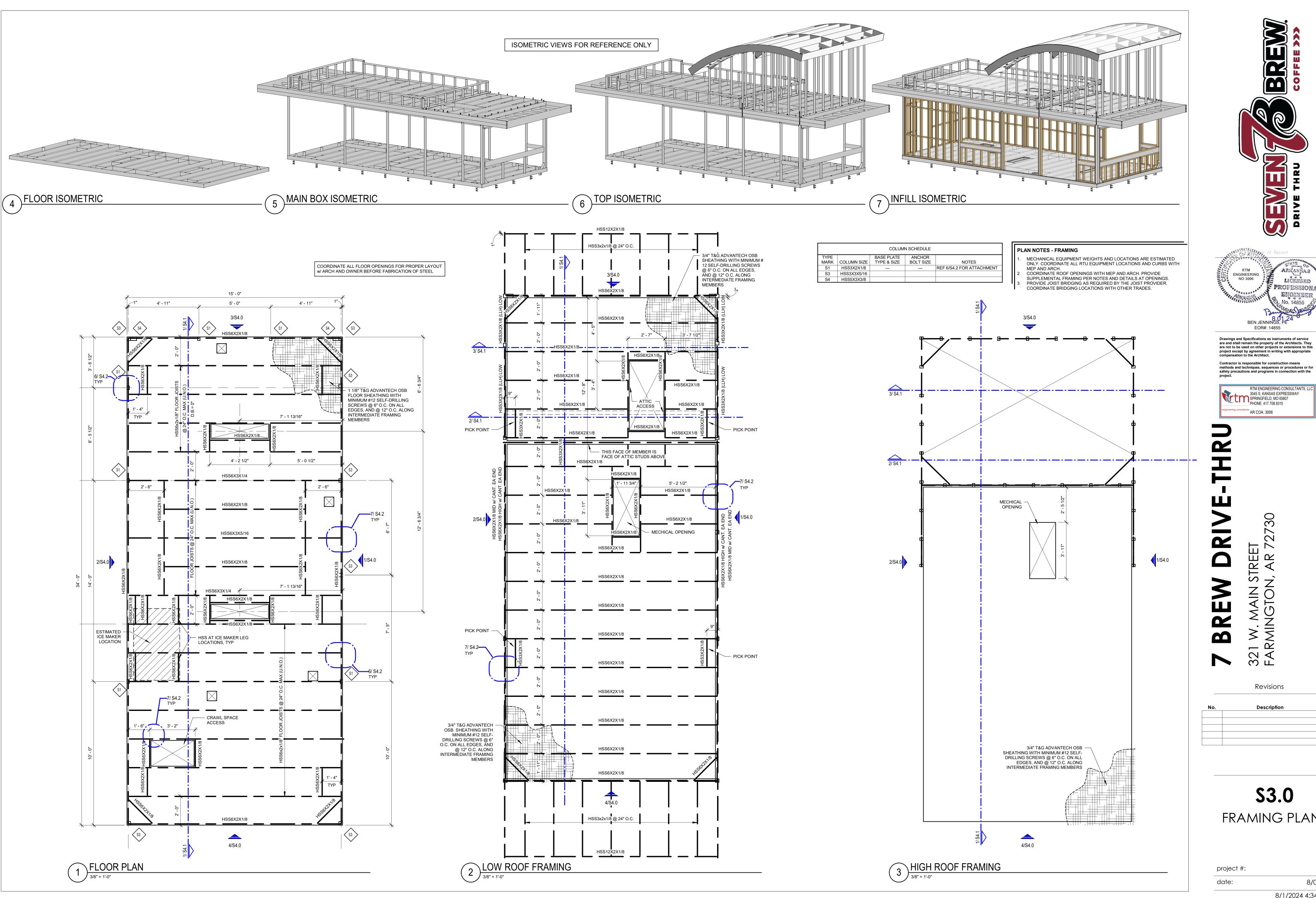
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**\$2.1**FOUNDATION DETAILS

project #:

date: 8/01/2024

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321 W. MAIN STREET FARMINGTON, AR 727

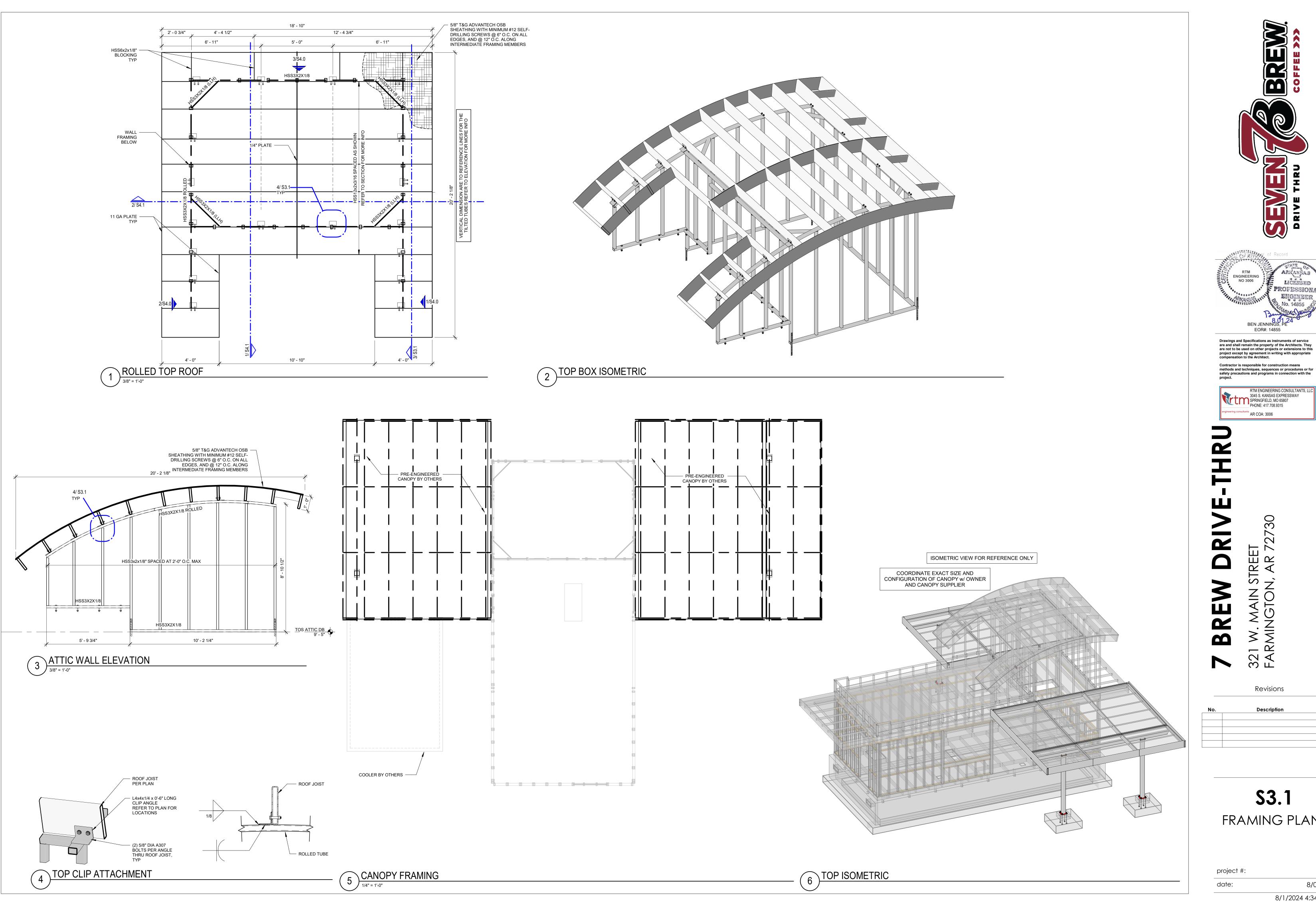
Revisions Description

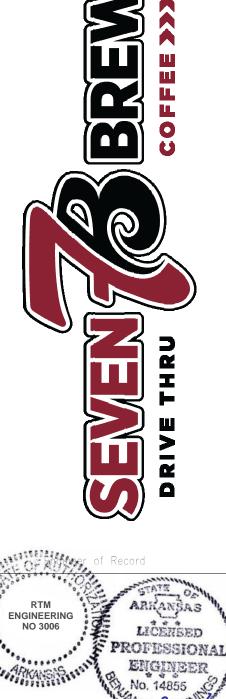
**S3.0** FRAMING PLANS

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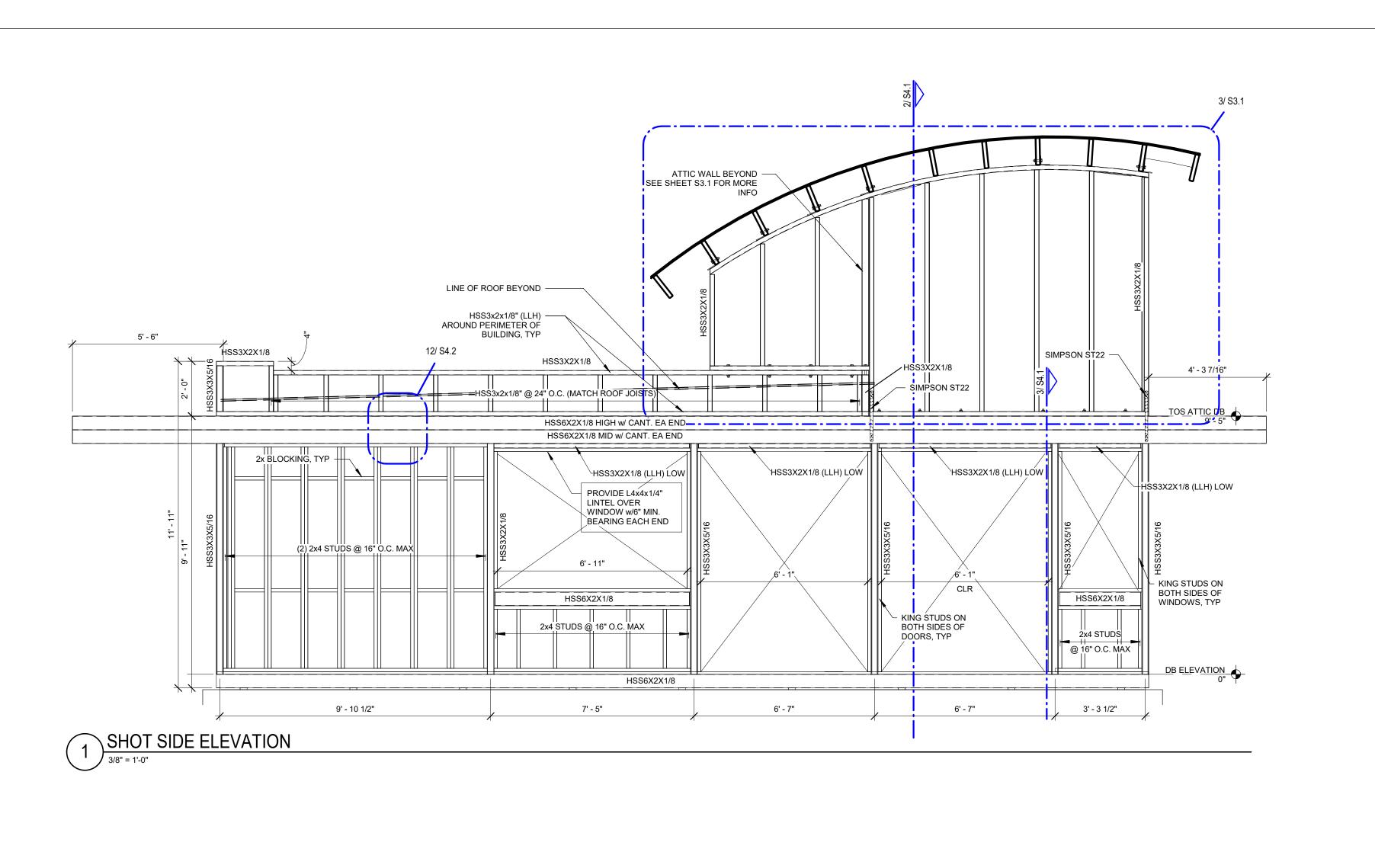
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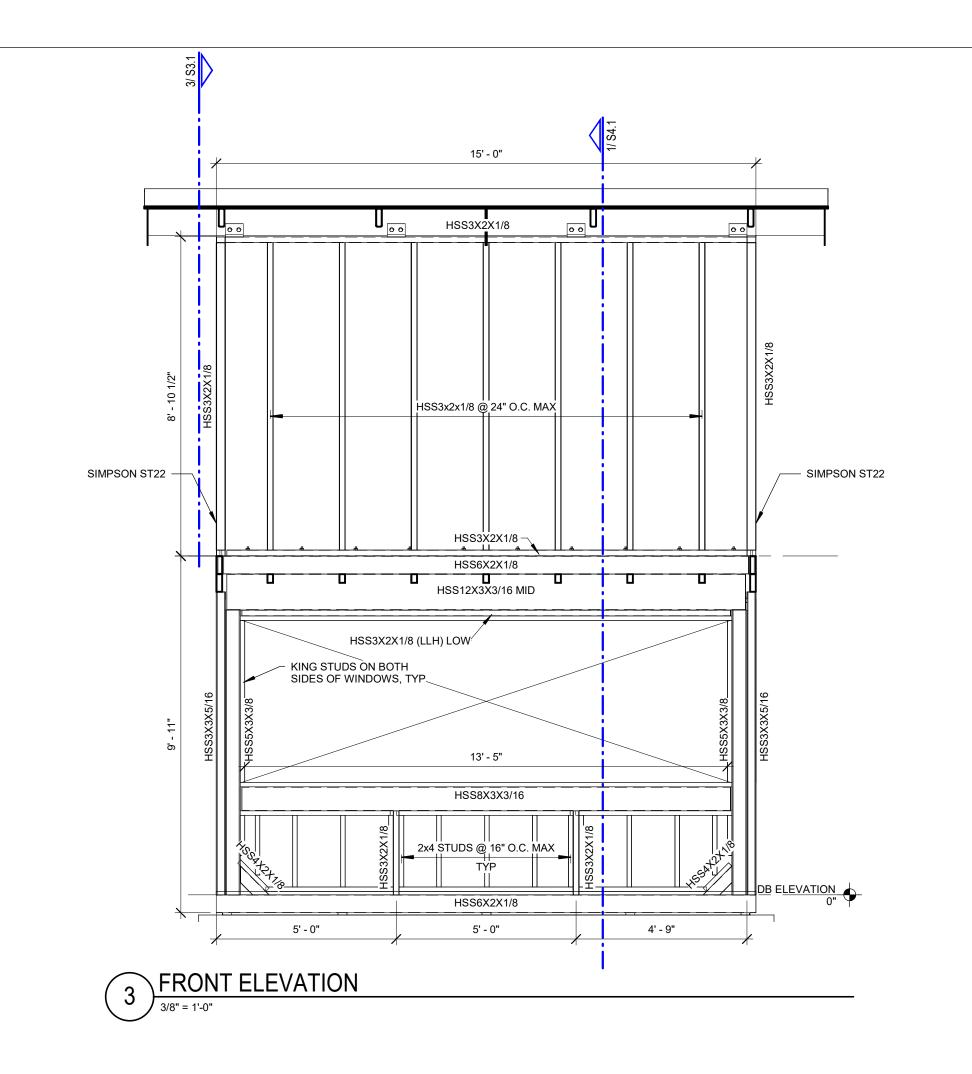
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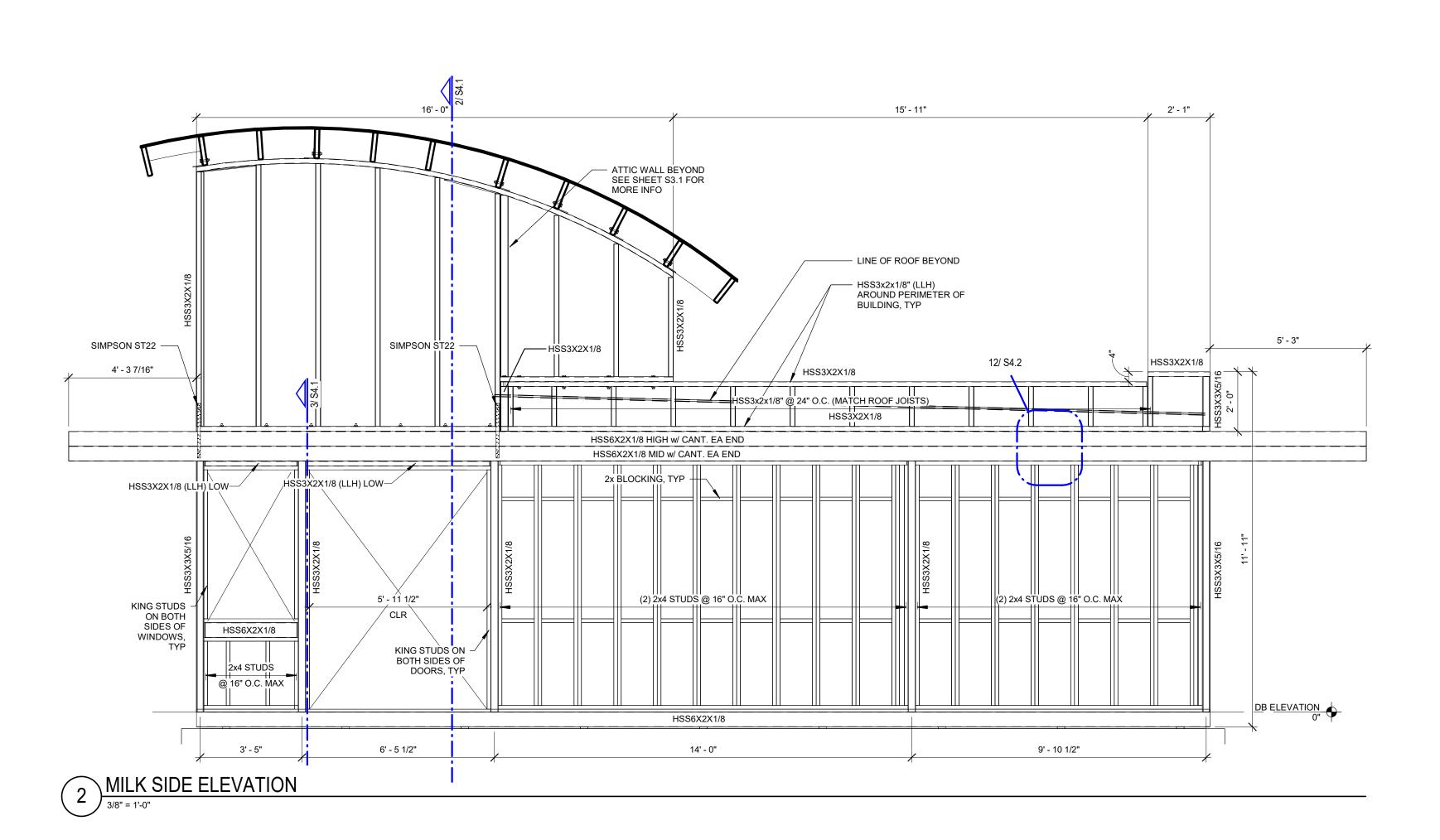
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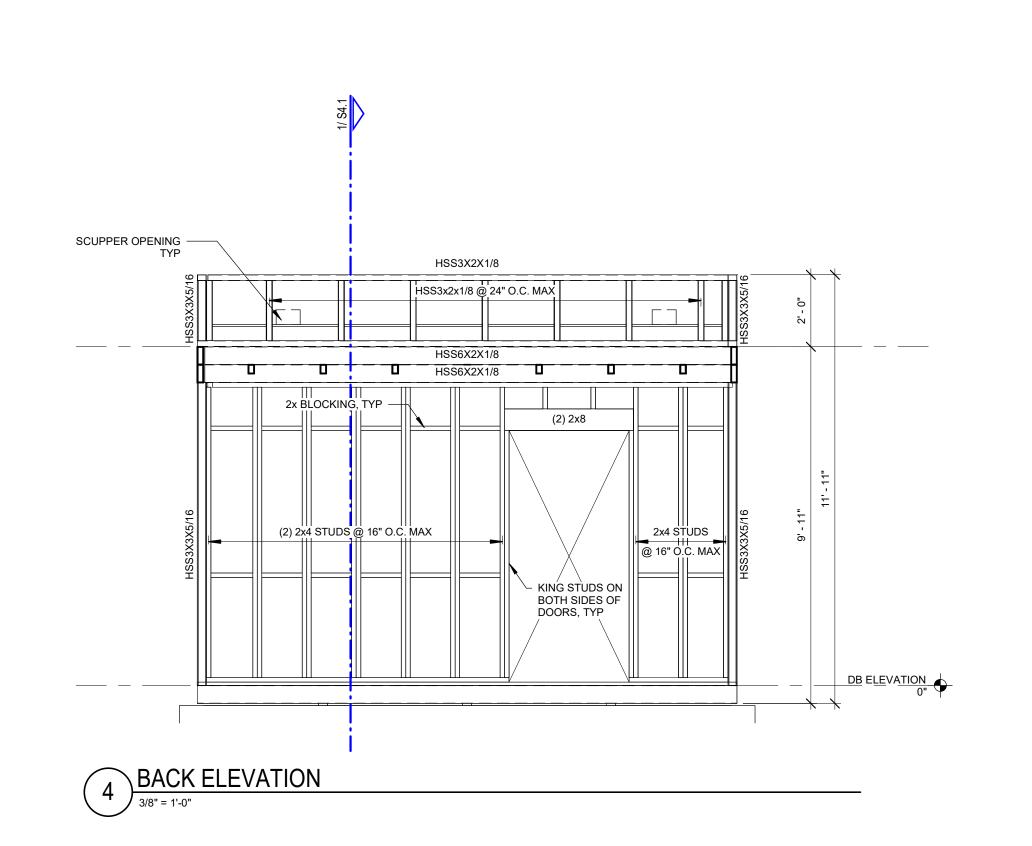
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STREET V, AR 7.

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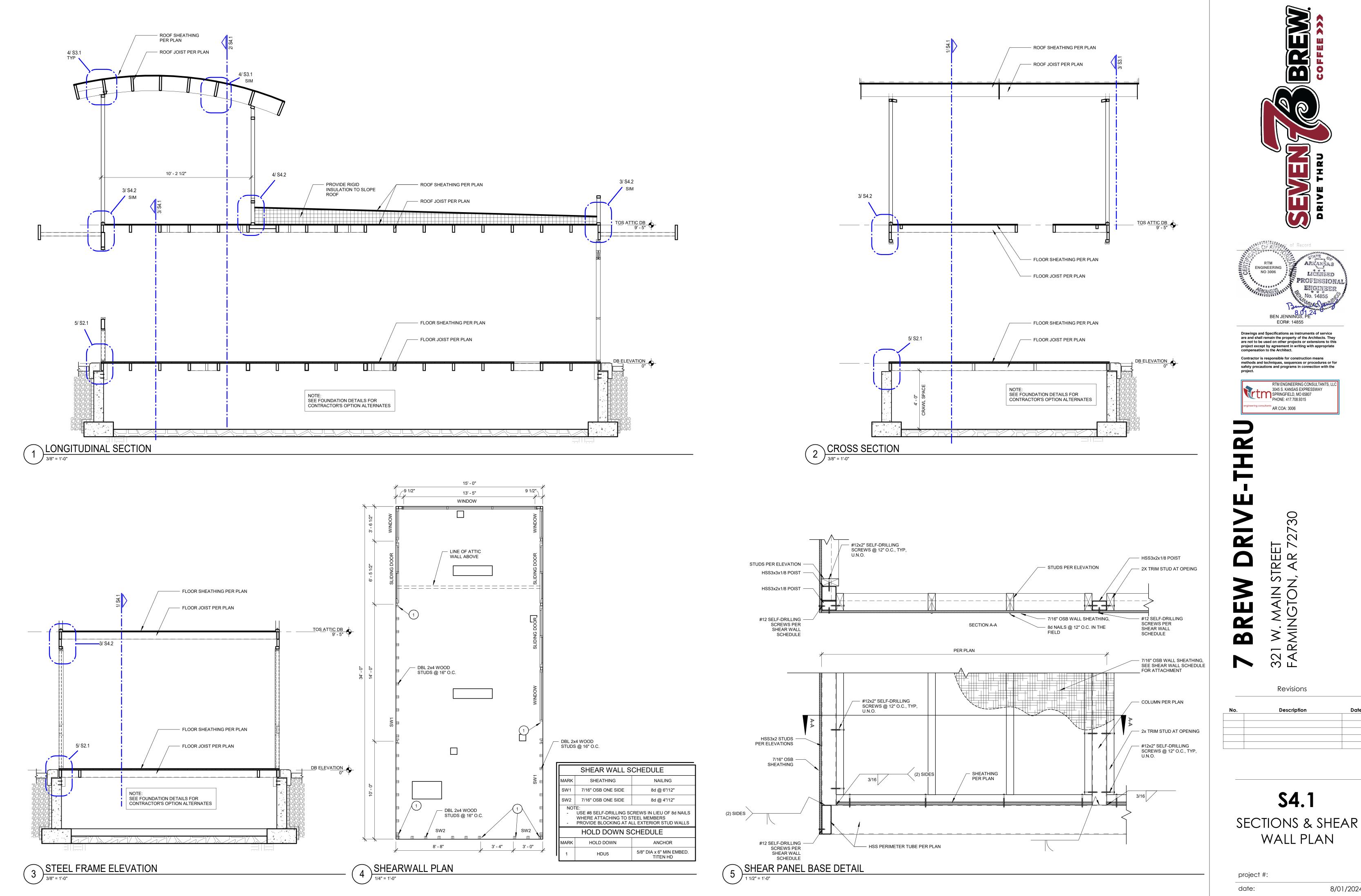
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32 FAI Revisions Description

**S4.0** FRAMING **ELEVATIONS** 

project #: date:

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Revisions

Description

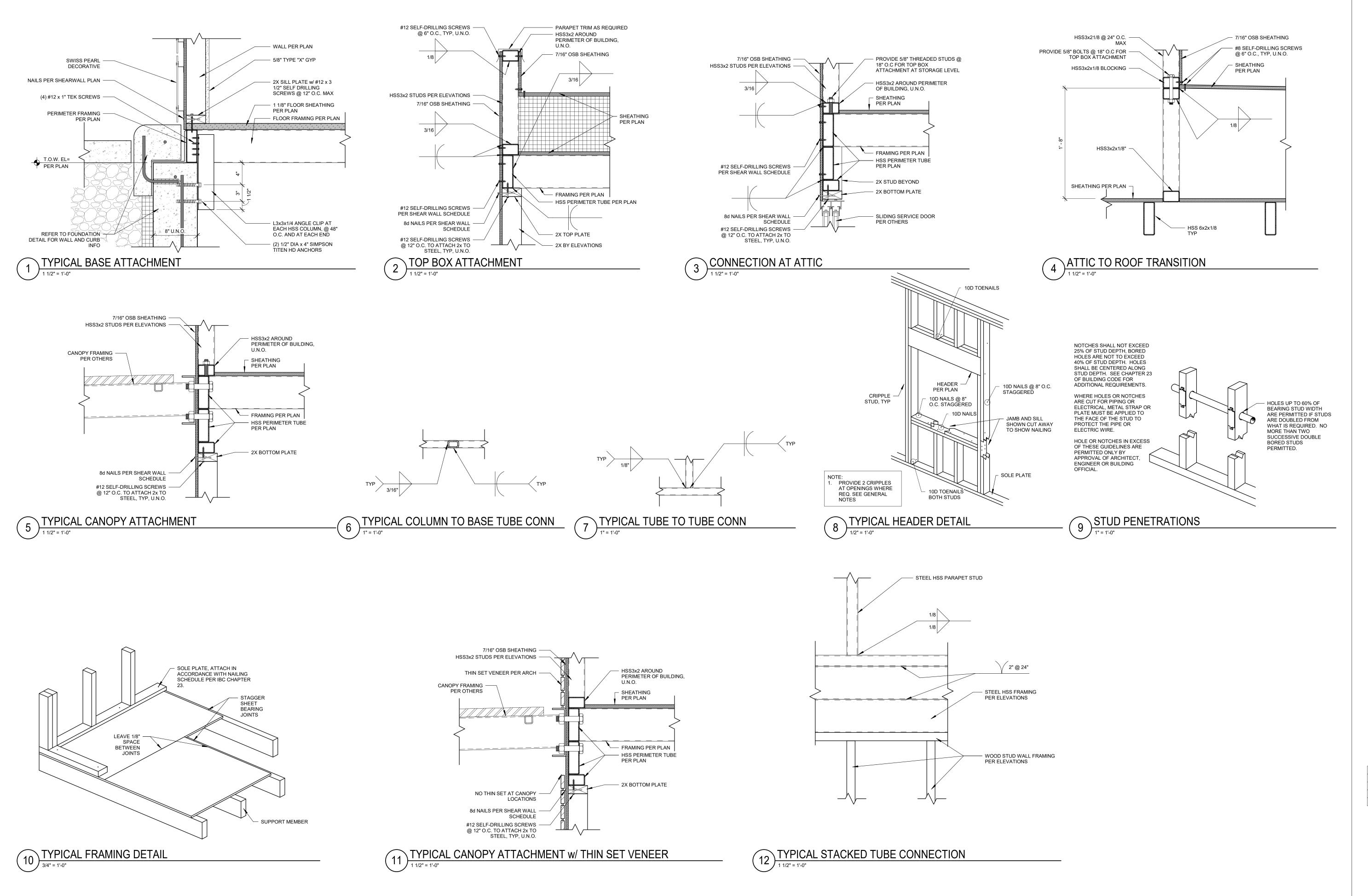
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WALL PLAN

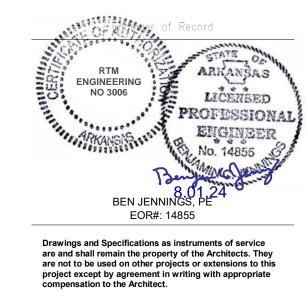
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**ENGINEERING** 







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**S4.2** FRAMING DETAILS

project #: 8/01/2024 date:

#### PLUMBING KEYED NOTES

1) NOT USED

(2) CONNECT NEW 1" DOMESTIC WATER SUPPLY TO EXISTING WATER SERVICE, REFER TO CIVIL PLANS.

- (3) TANK WATER HEATER (WH-1)TO BE LOCATED ABOVE MS1 ON SUPPORT PLATFORM. PROVIDE TEMPERATURE AND PRESSURE RELIEF VALVE. PROVIDE CIRCULATION PUMP AND EXPANSION TANK IF REQUIRED BY LOCAL CODE.
- 4 1/2" FW TO BEVERAGE EQUIPMENT. PROVIDE BACKFLOW PREVENTION CONFORMING TO ASSE 1022 AT POINT OF CONNECTION TO EACH BEVERAGE DISPENSING EQUIPMENT AND ICE MACHINE
- (5) RPZ TO BE LOCATED IN RESTROOM, EXPOSED.
  INSTALL 12"-30" A.F.F. AND 12" MIN. FROM ANY WALL
  OR OBSTRUCTION. ROUTE RELIEF VALVE TO FLOOR
  SINK BELOW.
- 6 PROVIDE FLOOR DRAIN TRAP PRIMER, SIMILAR TO JAY R. SMITH #2699
- 7) 1/2" FW LINE UP WALL FOR ICE MAKER, PROVIDE SHUT OFF VALVE.

#### PLUMBING NOTES

CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS BEFORE SUBMITTING BID. ANY CHANGES REQUIRED DUE TO INCORRECT EXISTING INFORMATION WILL BE THE CONTRACTOR'S RESPONSIBILITY.

PROVIDE SEISMIC BRACING BASED ON APPROPRIATE SEISMIC ZONE REQUIREMENTS PER SMACNA PUBLISHED SEISMIC DETAILS, LOCAL AND NATIONAL CODES. CONTRACTOR'S RESPONSIBILITY INCLUDES STRUCTURAL ENGINEER'S CERTIFICATION ON DETAILS SUBMITTED FOR PERMITTING.

#### **GENERAL NOTE**

ALL PLUMBING FIXTURES SHOWN ON THIS SHEET ARE SCHEDULED ON SHEET P1.2.



GENERAL NOTES:

INSTALL WATER HEATERS COMPLETE PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 PROVIDE TEMPERATURE AND PRESSURE RELIEF VALVE PER ASME OR AGA APPROVAL. PIPE TO MOP SINK.

REMARKS:

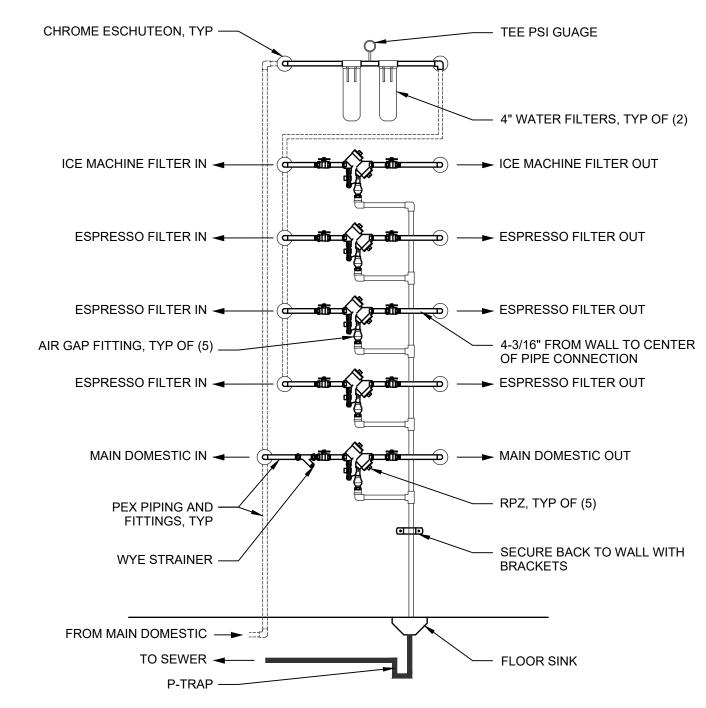
A INSTALL WATER HEATE

INSTALL WATER HEATERS PER DETAIL 4/P1.1.
PROVIDE MANUFACTURER'S SAFETY PAN AND OVERFLOW DRAIN. PIPE TO MOP SINK.

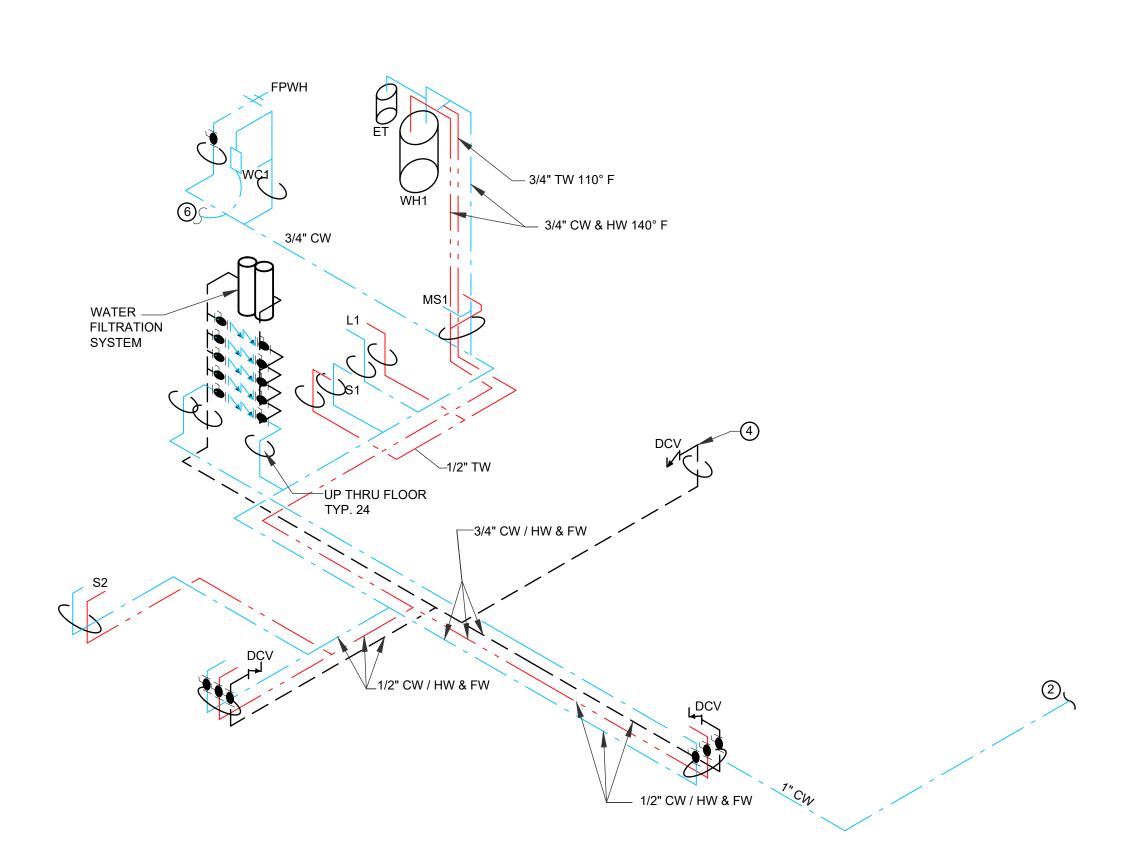
PROVIDE EXPANSION TANK (ET) "AMTROL ST-5" IF REQUIRED BY LOCAL CODE AUTHORITY. REFER TO WATER HEATER DETAIL. PROVIDE WATER HEATER MANUFACTURER'S WALL MOUNTING BRACKET.

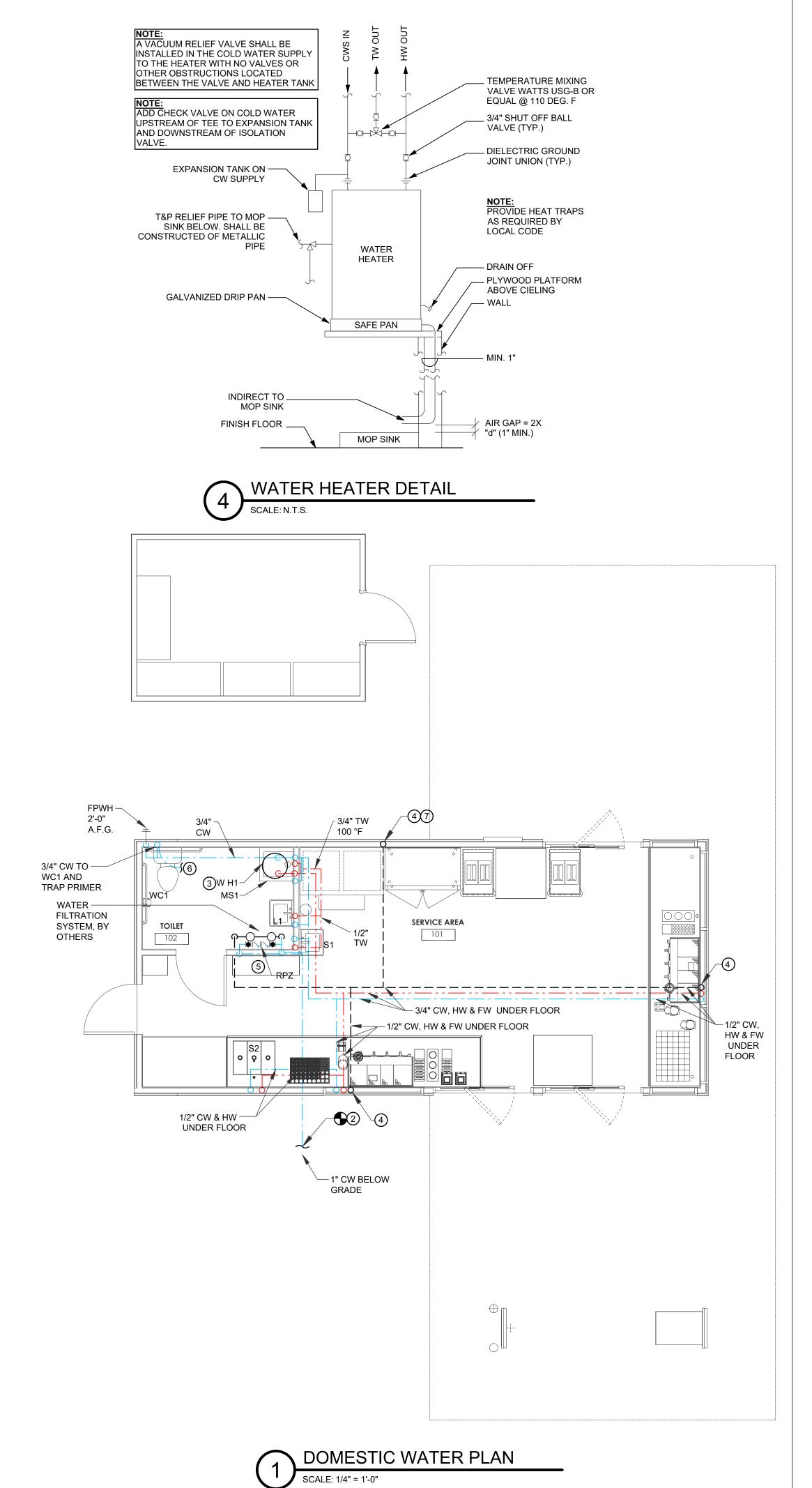
140 °F OUTLET TEMPERATURE.

ABBREVIATIONS: GPH = GALLONS PER HOUR.













Drawings and Specifications as instruments of service are and shall remain the property of the Architects. They are not to be used on other projects or extensions to this project except by agreement in writing with appropriate compensation to the Architect.

Contractor is responsible for construction means methods and techniques, sequences or procedures or for safety precautions and programs in connection with the

**>** MPW

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**ZEW DRIVE-TH**MAIN STREET

Revisions

No. Description Date

P1.1
PLUMBING
PLAN

project #: 32224011 date: 8/01/2024



#### PLUMBING KEYED NOTES

1) CONNECT NEW 4" SANITARY SEWER TO EXISTING, FIELD VERIFY EXACT LOCATION, REFER TO CIVIL PLANS.

(2) COORDINATE EXACT SUMP PUMP LOCATION IN CRAWLSPACE WITH ARCHITECTURAL PLANS. SUMP PUMP TO DISCHARGE TO GREEN SPACE SO AS TO NOT CAUSE A NUISANCE OR EROSION.

#### PLUMBING NOTES

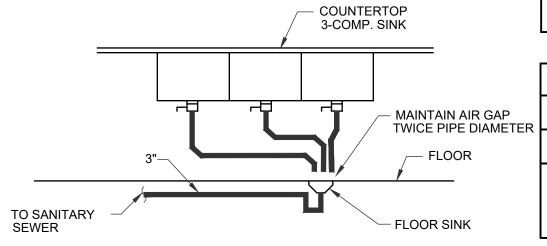
CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS BEFORE SUBMITTING BID. ANY CHANGES REQUIRED DUE TO INCORRECT EXISTING INFORMATION WILL BE THE CONTRACTOR'S RESPONSIBILITY.

PROVIDE SEISMIC BRACING BASED ON APPROPRIATE SEISMIC ZONE REQUIREMENTS PER SMACNA PUBLISHED SEISMIC DETAILS, LOCAL AND NATIONAL CODES. CONTRACTOR'S RESPONSIBILITY INCLUDES STRUCTURAL ENGINEER'S CERTIFICATION ON DETAILS SUBMITTED FOR PERMITTING.

					Pl	UMBING	FIXTUR	E SCHEDULE	
MARK	FIXTURE	BRANCH SIZES (MINIMUM)  CW HW WASTE VENT		MANUFACTURER	MODEL	DESCRIPTION	NOTES		
WC1	WATER CLOSET HANDICAP	1/2"		4"	2"	AMERICAN STANDARD	CADET 2467.016	16-1/2"H ELONGATED BOWL, 1.6 GPF. PROVIDE AMERICAN STANDARD SEAT 5311.012 "LAUREL" WITHOUT COVER.	1,2
L1	LAVATORY	1/2"	1/2"	2"	1 1/2"	KOHLER	BRENHAM K-1997-1L	WALL HUNG WITH CARRIER ARM HANGERS, VITREOUS CHINA, ADA COMPLIANT. WHITE FINISH AND 1-1/4 " P-TRAP	1,3
MS1	MOP SINK	1/2"	1/2"	3"	1 1/2"	AMERICAN STANDARD	FLORWELL 7741.00.020	28"X28"X13" ENAMELED CAST IRON SERVICE SINK, GLOSSY WHITE FINISH, WALL MOUNTED WITH K-8998 P-TRAP.	1
S1	HAND SINK	1/2"	1/2"	2"	1 1/2"	ATOSA	MRS-HS-18(W)	STAINLESS STEEL HAND SINK, 14 W x 10 L x 5 D BOWL SIZE. INCLUDES FAUCET AND STRAINER. 1-1/2" DRAIN OPENING. PROVIDE WITH P-TRAP	3
S2	3-COMP SINK	1/2"	1/2"	3"	1 1/2"			CUSTOM 3 COMPARTMENT SINK BY OWNER	
FS1	FLOOR SINK			3"	1 1/2"	MIFAB	FS720-30-175	FLOOR SINK: PROVIDE 3/4 NICKEL BRONZE GRATE.	
TD1	TRENCH DRAIN			3"				60"X12" CUSTOM STAINLESS STEEL TRENCH DRAIN BY OWNER.	
WHA	WATER HAMMER ARRESTOR					ZURN	Z-1700	CONFORM TO PDI WH-201, ASSE 1010 TEMP TO 300°F, MAX 125 PSIG WORKING PRESSURE	
	BALL VALVE					WILKINS	850	FULL PORT BRASS BALL VALVE WITH LEVER HANDLE	
RPZ	REDUCED PRESSURE ZONE ASSEMBLY	3/4"				WATTS	LF009M3QT	LEAD FREE CAST COPPER SILICON ALLOY BODY, INTERNAL RELIEF VALVE, BALL VALVE TEST COCKS, ASSE 1013 APPROVED. PROVIDE WITH QUARTER TURN BALL VALVES (QT ACCESSORY)	
FPWH	FREEZE-PROOF WALL HYDRANT	3/4"				WOODFORD	B65	CONCEALED BOX TYPE, AUTOMATIC DRAINING, FREEZELESS WALL HYDRANT WITH SINGLE CHECK HOSE CONNECTION ANIT-SIPHON VACUUM BREAKER. ASSE 1019-B APPROVED. 3/4" N.P.T. INLET AND 3/4" H.P.T. OUTLET.	
DCV	DUAL CHECK VALVE					WATTS	SD-3	ASSE 1022 DUAL CHECK BACKFLOW PREVENTER.	
FCO	FLOOR CLEANOUT					ZURN	Z-1400	CAST IRON OR PVC BODY, ROUND EXTRA HEAVY-DUTY CAST OR DUCTILE IRON TOP, POLYPROPYLENE OR ABS PLUG, ADJUSTABLE TO FINISH SURFACE.	
TWCO	TWO-WAY CLEANOUT					ZURN	Z-1449 / Z-1474	CAST IRON OR PVC BODY, ROUND EXTRA HEAVY-DUTY CAST OR DUCTILE IRON TOP, POLYPROPYLENE OR ABS PLUG, ADJUSTABLE TO FINISH SURFACE.	
ET	EXPANSION TANK	3/4"				AMTROL	ST-5	EXPANSION TANK. AMTROL, THERM-X-TROL MODEL ST-5, 2.0 GAL FOR WATER HEATER	

#### NOTES:

- 1. ALL FIXTURES TO BE WHITE.
- 2. MOUNT CONTROLS ON ACCESSIBLE / WIDE SIDE OF TOILET.
- 3. PROVIDE TRUEBRO GUARD PROTECTIVE PIPE COVERS ON EXPOSED WATER AND DRAIN LINES. NOT USED.
- 5. SIZE PER MANUFACTURERS RECOMMENDATIONS.
- 6. SIZE PER PIPING SIZE ON PLANS.



ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITIONS OR MEET LOCAL CODE REQUIREMENTS. DWV COPPER PIPE, FITINGS AND CONNECTORS ALL AROUND SINK.

	SUMP PU	IMP AN	ID BASIN	SCHEDU	JLE
MARK	MANUFACTURER MODEL	PUMP MODEL	SLOTTED BASIN DIMENSIONS	GPM @ 5FT OF HEAD	NOTES
SP1	ZOELLER KIT 108	53	12-1/4" <b>Ø</b> X 14-7/8"	43	1-3

- PROVIDE WITH ACCESSIBLE ELECTRICAL POWER OUTLET. PROVIDE WITH OPTIONAL CHECK VALVE. PROVIDE WITH ZOELLER BRANDED POLYETHYLENE SLOTTED BASIN
- AND BASIN COVER

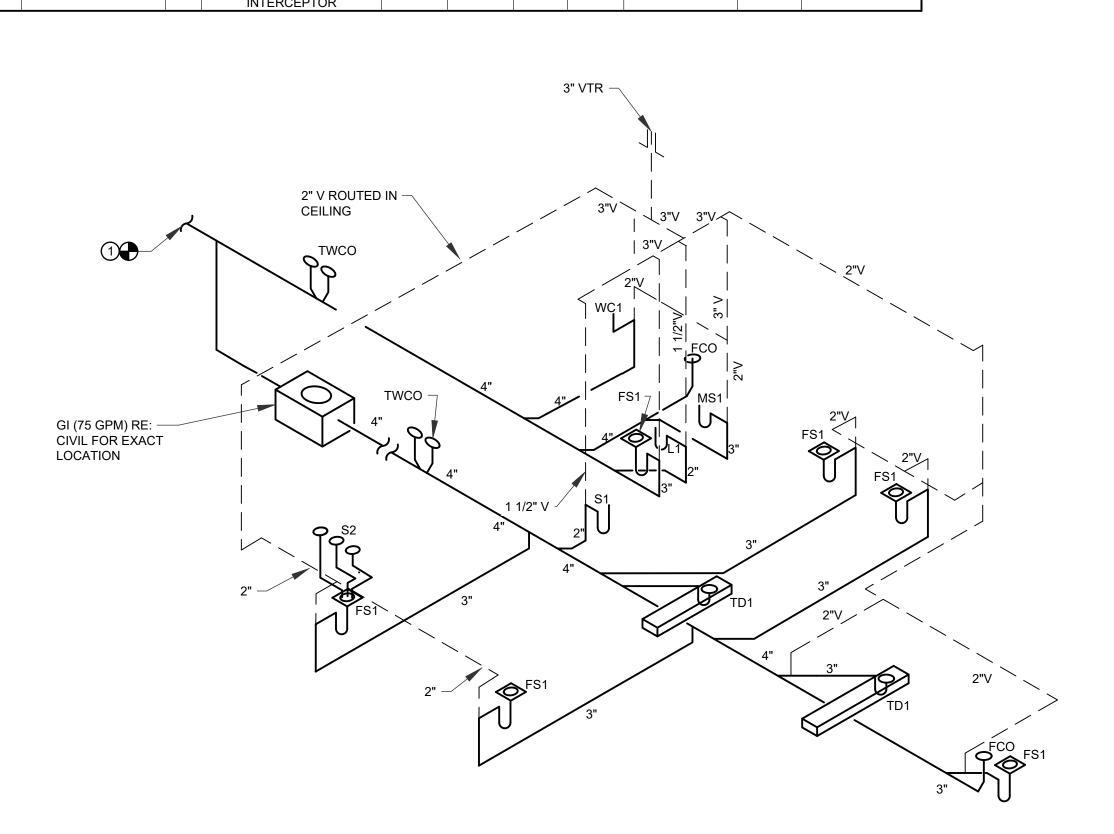
GREASE TRAP CALCULATIONS QTY. **GALLONS** VOLUME **BOWL SIZE** VOLUME 10.3"x14"x10.3" | 1485.3 CU. IN. 4455.8 CU.IN. 19.3 12"x12"x6" 864.0 CU. IN. 2592.0 CU.IN. 11.2 8640.0 CU.IN. 60"x12" 4320.0 CU. IN. 37.4 14"x10"x5" 700.0 CU. IN. 700.0 CU.IN. 3.0 TOTAL GALLONS 70.9

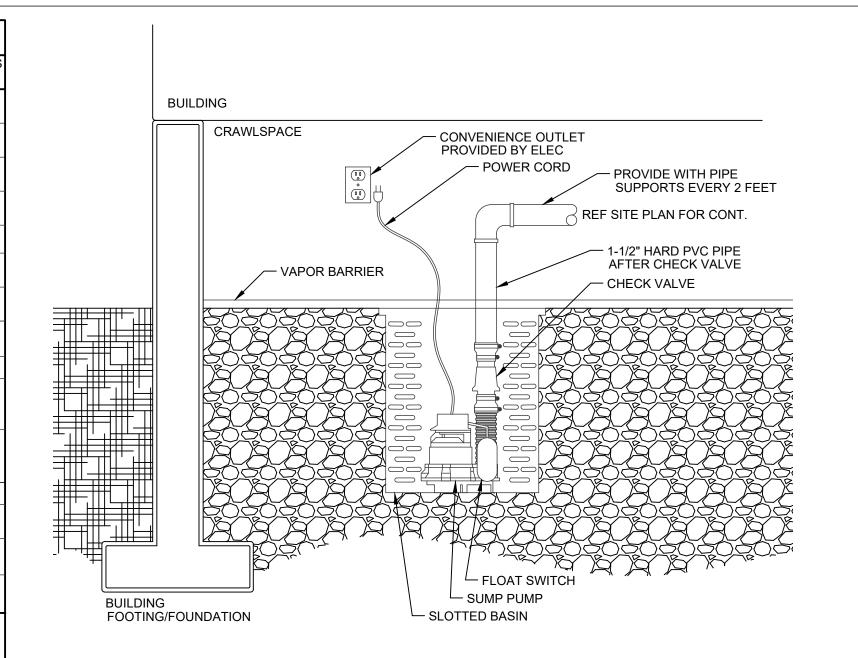
• 75% FILL FACTOR: 70.9 x 0.75 = 53.2 • ONE-MINUTE DRAIN TIME: 53.2 / 1 = 53.2 GPM

- PROPOSED GREASE TRAP SIZE: 75 GPM
- PROPOSED MAKE/MODEL: SCHIER PRODUCTS / GB-75

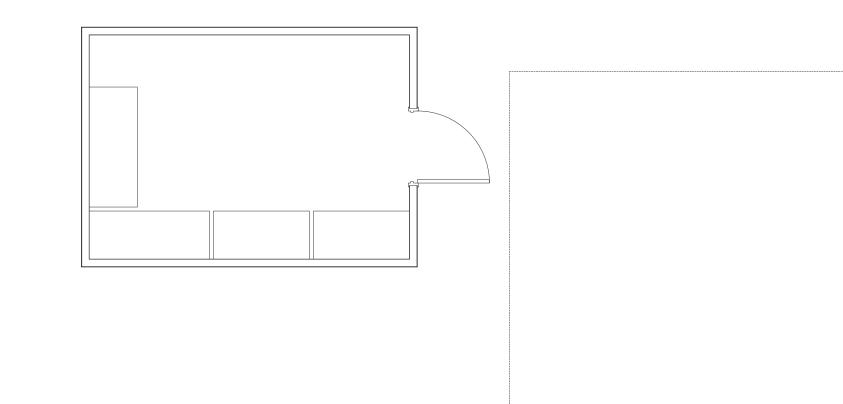
	3 COMPARTMENT SINK DETAIL
(4)	SCALE: N.T.S.

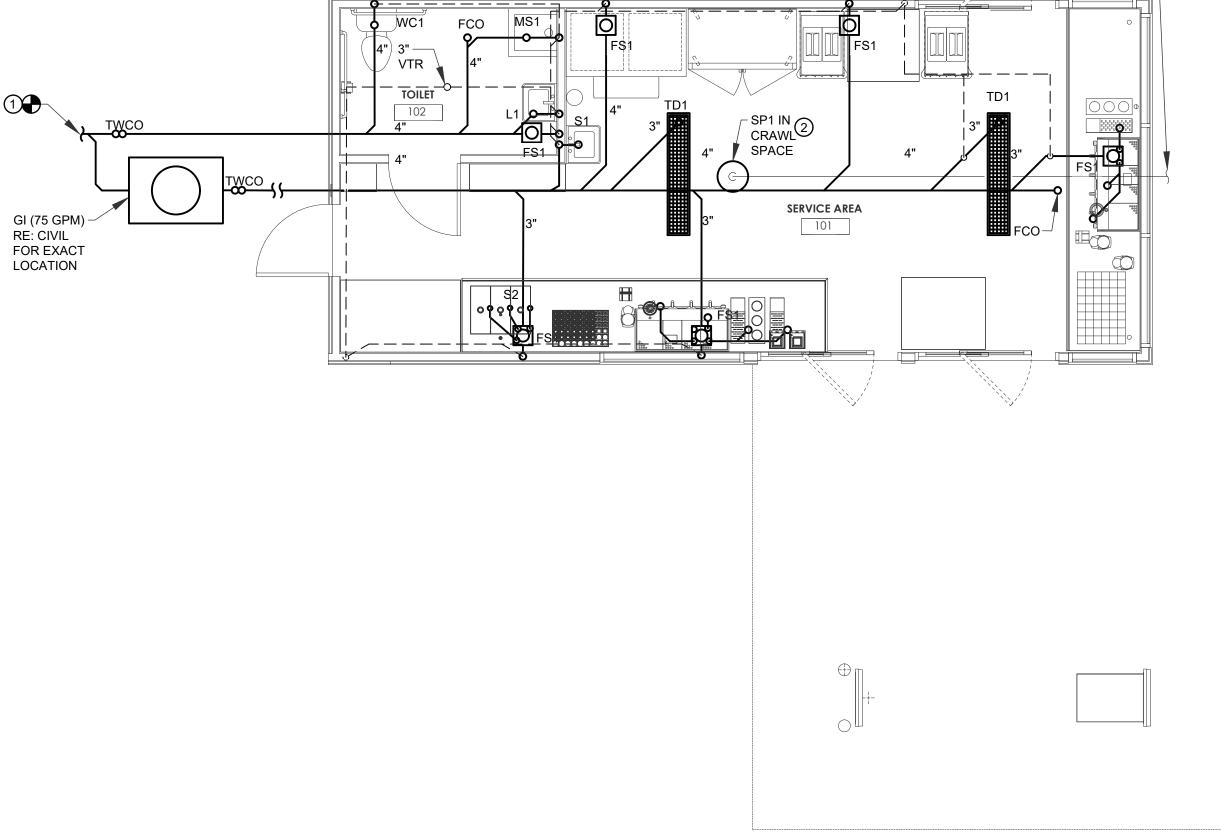
	GREASE INTERCEPTOR SCHEDULE									
MARK	MANUFACTURER & MODEL	QTY	DESCRIPTION		CONNECTION SIZE (IN) INLET OUTLET		CAPACITY (GAL)  LIQUID GREASE / SOLIDS		NUMBER OF COVERS	DIMENSIONS L" x W" x H"
GI	SCHIER GB-75	1	HYDROMECHANICAL IN GROUND GREASE	4"	4"	GPM 75	125	118 / 31	1	47" x 33" x 39 3/4"





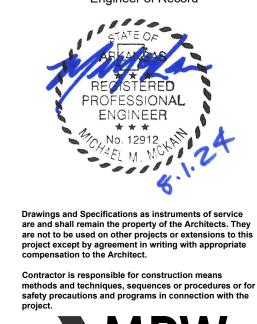






SANITARY PLAN

Engineer of Record



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REFERENCE CIVIL — GREENSPACE

DISCHARGE LOCATIONS

321 W. MAIN S-FARMINGTON,

Revisions

P1.2

SANITARY PLAN

project #:

date:

32224011 8/01/2024

SANITARY RISER

#### **DIVISION 15**

#### 15A 1-1 GENERAL REQUIREMENTS

REQUIREMENTS UNDER DIVISION ONE AND THE GENERAL AND SUPPLEMENTARY CONDITIONS OF THESE SPECIFICATIONS SHALL BE A PART OF THIS SECTION. CONTRACTOR SHALL BECOME THOROUGHLY ACQUAINTED WITH ITS CONTENTS AS TO REQUIREMENTS THAT AFFECT THIS DIVISION OR SECTION. THE WORK REQUIRED UNDER THIS SECTION INCLUDES MATERIAL. EQUIPMENT, APPLIANCES, TRANSPORTATION, SERVICES, AND LABOR REQUIRED TO COMPLETE THE ENTIRE SYSTEM AS REQUIRED BY DRAWINGS

THE SPECIFICATIONS AND DRAWINGS FOR THE PROJECT ARE COMPLEMENTARY, AND PORTIONS OF THE WORK DESCRIBED IN ONE SHALL BE PROVIDED AS IF DESCRIBED IN BOTH. IN THE EVENT OF DISCREPANCIES, NOTIFY THE ENGINEER AND/OR OWNER AND REQUEST CLARIFICATION PRIOR TO PROCEEDING WITH THE WORK INVOLVED.

#### 15A 1-2 INSPECTION OF SITE

PRIOR TO SUBMITTING BID, VISIT THE SITE OF THE PROPOSED WORK AND BECOME FULLY INFORMED AS TO THE CONDITIONS UNDER WHICH THE WORK IS TO BE DONE. FAILURE TO DO SO WILL NOT BE CONSIDERED SUFFICIENT JUSTIFICATION TO REQUEST OR OBTAIN EXTRA COMPENSATION OVER AND ABOVE THE CONTRACT PRICE.

#### 15A 1-3 MATERIAL AND WORKMANSHIP

PROVIDE NEW MATERIAL, EQUIPMENT, AND APPARATUS UNDER THIS CONTRACT UNLESS OTHERWISE STATED HEREIN, OF BEST QUALITY NORMALLY USED FOR THE PURPOSE IN GOOD COMMERCIAL PRACTICE, AND FREE FROM ANY DEFECTS. MODEL NUMBERS LISTED IN THE SPECIFICATIONS OR SHOWN ON THE DRAWINGS ARE NOT NECESSARILY INTENDED TO DESIGNATE THE REQUIRED TRIM, WRITTEN DESCRIPTION OF THE OF THE TRIM GOVERN MODEL NUMBERS.

WORK PERFORMED UNDER THIS CONTRACT SHALL PROVIDE A NEAT AND "WORKMANLIKE" APPEARANCE WHEN COMPLETED, TO THE SATISFACTION OF THE ARCHITECT AND ENGINEER. WORKMANSHIP SHALL BE THE FINEST POSSIBLE BY EXPERIENCED MECHANICS. INSTALLATIONS SHALL COMPLY

THE COMPLETE INSTALLATION SHALL FUNCTION AS DESIGNED AND INTENDED WITH RESPECT TO EFFICIENCY, CAPACITY, NOISE LEVEL, ECT. ABNORMAL NOISE CAUSED BY RATTLING EQUIPMENT, PIPING, DUCTS, AIR DEVICES, AND SQUEAKS IN MOVING COMPONENTS WILL NOT BE ACCEPTABLE. IN GENERAL, MATERIALS AND EQUIPMENT SHALL BE OF COMMERCIAL

SPECIFICATION GRADE IN QUALITY. LIGHT DUTY AND RESIDENTIAL TYPE EQUIPMENT WILL NOT BE ACCEPTED.

REMOVE FROM THE PREMISES WASTE MATERIAL PRESENT AS A RESULT OF WORK, INCLUDING CARTONS, CRATING, PAPER, AND STICKERS, ETC. CLEAN EQUIPMENT INSTALLED UNDER THIS CONTRACT TO PRESENT A NEAT AND CLEAN INSTALLATION AT THE TERMINATION OF THE

REPAIR OR REPLACE PUBLIC AND PRIVATE PROPERTY DAMAGED AS A RESULT OF WORK PERFORMED UNDER THIS CONTRACT TO THE SATISFACTION OF AUTHORITIES AND REGULATIONS HAVING JURISDICTION.

#### 15A 1-4 COORDINATION

COORDINATE WORK WITH THAT OF OTHER TRADES SO THAT THE VARIOUS COMPONENTS OF THE SYSTEMS WIL BE INSTALLED AT THE PROPER TIME, WILL FIT THE AVAILABLE SPACE, AND WILL ALLOW PROPER SERVICE ACCESS TO THOSE ITEMS REQUIRING MAINTENANCE. COMPONENTS WHICH ARE INSTALLED WITHOUT REGARD TO THE ABOVE SHALL BE RELOCATED AT NO ADDITIONAL COST TO THE OWNER.

UNLESS OTHERWISE INDICATED, THE GENERAL CONTRACTOR WILL PROVIDE CHASES AND OPENINGS IN BUILDING CONSTRUCTION REQUIRED FOR INSTALLATION OF THE SYSTEMS SPECIFIED HEREIN. CONTRACTOR SHALL TAKE HIS OWN MEASUREMENTS AT THE BUILDING, AS VARIATIONS MAY OCCUR. CONTRACTOR WILL BE HELD RESPONSIBLE FOR ERRORS THAT COULD HAVE BEEN AVOIDED BY PROPER CHECKING AND INSPECTION.

PROVIDE MATERIALS WITH TRIM THAT WILL PROPERLY FIT THE TYPES OF CEILING, WALL, OR FLOOR FINISHES ACTUALLY INSTALLED. MODEL NUMBERS LISTED IN THE SPECIFICATIONS OR SHOWN ON THE DRAWINGS ARE NOT INTENDED TO DESIGNATE THE REQUIRED TRIM.

WORK PERFORMED UNDER THIS CONTRACT SHALL, AT MINIMUM, BE IN CONFORMANCE WITH APPLICABLE NATIONAL, STATE AND LOCAL CODES HAVING JURISDICTION. EQUIPMENT FURNISHED AND ASSOCIATED INSTALLATION WORK PERFORMED UNDER THIS CONTRACT SHALL BE IN STRICT COMPLIANCE WITH CURRENT APPLICABLE CODES ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION INCLUDING ANY AMENDMENTS AND STANDARDS AS SET FORTH BY THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA), UNDERWRITERS LABORATORIES (UL), OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME), AMERICAN SOCIETY OF HEATING, REFRIGERATION, AND AIR CONDITIONING ENGINEERS (ASHRAE), AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI), AMERICAN SOCIETY OF TESTING MATERIALS (ASTM) AND OTHER NATIONAL STANDARDS AND CODES WHERE APPLICABLE. WHERE THE CONTRACT DOCUMENTS EXCEED THE REQUIREMENTS OF THERE REFERENCED CODES, STANDARDS, ETC., THE CONTRACT DOCUMENTS SHALL TAKE

PROCURE AND PAY FOR PERMITS AND LICENSES REQUIRED FOR THE ACCOMPLISHMENT OF THE WORK HEREIN DESCRIBED. WHERE REQUIRED, OBTAIN, PAY FOR AND FURNISH CERTIFICATES OF INSPECTION TO OWNER. CONTRACTOR WILL BE HELD RESPONSIBLE FOR VIOLATIONS OF THE LAW.

#### 15A 1-6 PROTECTION OF EQUIPMENT AND MATERIALS

STORE AND PROTECT FROM DAMAGE EQUIPMENT AND MATERIALS DELIVERED TO JOB SITE. COVER WITH WATERPROOF, TEAR-RESISTANT, HEAVY TARP OR POLYETHYLENE PLASTIC AS REQUIRED TO PROTECT FROM PLASTER, DIRT, PAINT, WATER, OR PHYSICAL DAMAGE. EQUIPMENT AND MATERIAL THAT HAS BEEN DAMAGED BY CONSTRUCTION ACTIVATES WILL BE REJECTED, AND CONTRACTOR IS OBLIGATED TO FURNISH NEW EQUIPMENT AND MATERIAL OF A LIKE KIND.

KEEP PREMISES ROOM CLEAN FROM FOREIGN MATERIAL CREATED DURING WORK PERFORMED UNDER THIS CONTRACT. PIPING, EQUIPMENT, ETC., SHALL HAVE A NEAT AND CLEAN APPEARANCE AT THE TERMINATION OF THE WORK.

PLUG OR CAP OPEN ENDS OF DUCTWORK AND PIPING SYSTEMS WHILE STORED OR INSTALLED DURING CONSTRUCTION WHEN NOT IN USE TO PREVENT THE ENTRANCE OF DEBRIS INTO THE SYSTEMS.

KEEP THE MANUFACTURER PROVIDED PROTECTIVE COVERING ON FLOOR DRAINS, FLOOR SINKS, AND TRENCH DRAINS DURING CONSTRUCTION. REMOVE COVERINGS AT THE TERMINATION OF THE WORK AND POLISH EXPOSED SURFACES.

#### 15A 1-7 OPERATION AND MAINTENANCE INSTRUCTIONS

COLLECT AND COMPILE A COMPLETE BROCHURE OF FIXTURES, MATERIALS, AND EQUIPMENT FURNISHED AND INSTALLED ON THIS PROJECT. INCLUDE OPERATIONAL AND MAINTENANCE INSTRUCTIONS, MANUFACTURER'S CATALOG SHEETS, WIRING DIAGRAMS, PARTS LISTS, APPROVED SHOP DRAWINGS, AND DESCRIPTIVE LITERATURE FURNISHED BY THE MANUFACTURER. INCLUDE AN INSIDE COVER SHEET THAT LISTS THE PROJECT NAME, DATE, OWNER, ARCHITECT, ENGINEER, GENERAL CONTRACTOR, SUBCONTRACTOR, AND AN INDEX OF CONTENTS.

SUBMIT COPIES OF LITERATURE BOUND IN APPROVED BINDERS TO THE ARCHITECT AND OWNER AT THE TERMINATION OF THE WORK. PAPER CLIPS, STAPLES, RUBBER BANDS, AND MAILING ENVELOPES ARE NOT CONSIDERED APPROVED BINDERS. FINAL APPROVAL OF PLUMBING SYSTEMS WILL BE WITHHELD UNTIL THIS EQUIPMENT BROCHURE IS DEEMED COMPLETE BY THE ARCHITECT, ENGINEER, AND OWNER.

#### 15A 1-8 WARRANTIES

WARRANT EACH SYSTEM AND EACH ELEMENT THEREOF AGAINST ALL DEFECTS DUE TO FAULTY WORKMANSHIP, DESIGN OR MATERIAL FOR A PERIOD OF 12 MONTHS FROM DATE OF SUBSTANTIAL COMPLETION, UNLESS SPECIFIC ITEMS ARE NOTED TO CARRY A LONGER WARRANTY IN THE CONSTRUCTION DOCUMENTS OR MANUFACTURER'S STANDARD WARRANTY EXCEEDS 12 MONTHS. REMEDY ALL DEFECTS, OCCURRING WITHIN THE WARRANTY PERIOD(S) STATED IN THE GENERAL CONDITIONS AND DIVISION 1.

WARRANTIES SHALL INCLUDE LABOR AND MATERIAL. MAKE REPAIRS OR REPLACEMENTS WITHOUT ANY ADDITIONAL COST TO

#### PERFORM THE REMEDIAL WORK PROMPTLY, UPON WRITTEN NOTICE FROM THE ENGINEER OR OWNER.

AT THE TIME OF SUBSTANTIAL COMPLETION, DELIVER TO THE OWNER ALL WARRANTIES, IN WRITING AND PROPERLY EXECUTED, INCLUDING TERM LIMITS FOR WARRANTIES EXTENDING BEYOND THE ONE YEAR PERIOD, EACH WARRANTY INSTRUMENT BEING ADDRESSED TO THE OWNER AND STATING THE COMMENCEMENT DATE AND TERM.

#### 15A 1-9 CUTTING AND PATCHING

PERFORM CUTTING OF WALLS, FLOORS, CEILINGS, ETC. AS REQUIRED TO INSTALL WORK UNDER THIS SECTION. OBTAIN PERMISSION FROM THE ARCHITECT PRIOR TO CUTTING. DO NOT CUT OR DISTURB STRUCTURAL MEMBERS WITHOUT PRIOR APPROVAL FROM THE ARCHITECT. CUT HOLES AS SMALL AS POSSIBLE. GENERAL CONTRACTOR SHALL PATCH WALLS, FLOORS, ETC. AS REQUIRED BY WORK UNDER THIS SECTION. PATCHING SHALL MATCH THE ORIGINAL MATERIAL AND CONSTRUCTION. REPAIR AND REFINISH AREAS DISTURBED BY WORK TO THE CONDITION OF ADJOINING SURFACES IN A MANNER SATISFACTORY TO THE ARCHITECT.

COORDINATE WITHOUT DELAY ROUGHING-IN WITH GENERAL CONSTRUCTION. CONCEAL PIPING AND CONDUIT ROUGH-IN EXCEPT IN UNFINISHED AREAS AND WHERE OTHERWISE SHOWN.

#### 15A 1-11 STRUCTURAL STEEL

STRUCTURAL STEEL USED FOR PIPE SUPPORTS, EQUIPMENT SUPPORTS, ETC., SHALL BE NEW, CLEAN, AND CONFORM TO ASTM DESIGNATION A-36.

SUPPORT PLUMBING AND MECHANICAL EQUIPMENT AND PIPING FROM THE BUILDING STRUCTURE. DO NOT SUPPORT PLUMBING EQUIPMENT FORM CEILINGS, OTHER MECHANICAL OR ELECTRICAL COMPONENTS, AND OTHER NON-STRUCTURAL ELEMENTS.

PROVIDE ACCESS DOORS IN CEILING AND WALLS WHERE INDICATED OR REQUIRED FOR ACCESS TO CONCEALED VALVES AND EQUIPMENT INSTALLED UNDER THIS SECTION. PROVIDE CONCEALED HINGES, SCREWDRIVER-TYPE LOCK, ANCHOR STRAPS MANUFACTURED BY MILCOR, ZURN, TITUS, OR EQUAL. OBTAIN ARCHITECT'S APPROVAL OF TYPE, SIZE, LOCATION, AND

#### 15A 1-13 PENETRATIONS

SEAL FLOOR, EXTERIOR WALL, AND ROOF PENETRATIONS WATER AND WEATHERTIGHT WITH APPROPRIATE NON-SHRINK NON-HARDENING COMMERCIAL CONSTRUCTION SEALANT. SEAL ROOF PENETRATIONS WITH 4 POUND PER SQUARE FOOT LEAD FLASHING. PROVIDE A SLEEVE, AND SEAL NON-FIRE-RATED FLOOR AND WALL PENETRATIONS WITH FIBERGLASS PACKING AND SILICONE CAULK (FOR ACOUSTICAL INSULATION).

COORDINATE FIRE RATING REQUIREMENTS AND LOCATIONS WITH THE ARCHITECT. SEAL PENETRATIONS OF FIRE-RATED ASSEMBLIES WITH 3M CP-25 FIRE BARRIER CAULK (PROVIDE THICKNESS AND METHOD AS REQUIRED AND RECOMMENDED BY MANUFACTURER) TO MAINTAIN THE FIRE RESISTANCE RATING OF FIRE-RATED ASSEMBLIES.

SEAL EXTERIOR WALL PENETRATIONS BELOW GRADE WITH CAST IRON WALL PIPES AND MODULAR MECHANICAL SLEEVE SEALS, MANUFACTURED BY THUNDERLINE/LINK SEAL, CALPICO, INC AND METRAFLEX.

PROVIDE SLEEVES FOR HORIZONTAL PIPE PASSING THROUGH OR UNDER FOUNDATION. SLEEVES SHALL BE CAST IRON SOIL PIPE TWO NOMINAL PIPE SIZES LARGER THAN THE PIPE SERVED.

PROVIDE SLEEVES FOR VERTICAL PIPE PASSING THROUGH SLAB ON GRADE, SLEEVES SHALL BE SCHEDULE 40 PVC PIPE, TWO NOMINAL PIPE SIZES LARGER THAN THE PIPE SERVED. SEAL WATER-TIGHT WITH SILICONE CAULK.

#### 15B: HEATING, VENTILATION, AND AIR CONDITIONING.

#### **15B 1-1 DUCTWORK**

ALL DUCTWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASHRAE AND SMACNA STANDARDS CORRESPONDING TO THE SYSTEM PRESSURE. DUCTWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS FOR A TWO-INCH PRESSURE RATING AND SEAL CLASS B.

SUPPLY AND RETURN DUCTWORK INSIDE THE BUILDING SHALL BE INSULATED WITH 1" THICK ACOUSTICAL LINING WITH A MINIMUM R-VALUE OF 4.5 OR EXTERNALLY WRAPPED WITH 2" THICK GLASS FIBER DUCT WRAP. INSULATE SUPPLY AND RETURN DUCTWORK LOCATED OUTSIDE THE BUILDING WITH 2" LINER AND SEAL SEAMS WEATHER TIGHT. DEDICATED OUTSIDE AIR SUPPLY DUCTWORK LOCATED WITHIN THE BUILDING SHALL BE INSULATED WITH 2" DUCT WRAP.

FLEXIBLE DUCTWORK MAINS ARE NOT PERMITTED. PROVIDE MAXIMUM 5'-0" FLEXIBLE DUCT CONNECTIONS TO CEILING

FURNISH AND INSTALL VOLUME/BALANCE DAMPERS AT ALL BRANCH DUCTS TO DIFFUSERS. LOCATE DAMPERS A MINIMUM OF 4'-0" AWAY FROM DIFFUSERS.

INSTALL VTR'S EXHAUST FANS, AND FLUES A MINIMUM OF 5'-0" FROM PARAPET OR OUTSIDE WALL AND 10'-0" MINIMUM FROM EQUIPMENT WITH OUTSIDE AIR INTAKE.

#### 15B 1-2 ELECTRICAL WIRING

LINE VOLTAGE WIRING SHALL BE FURNISHED BY DIVISION 16. LINE VOLTAGE CONTROL AND INTERLOCK WIRING FOR MECHANICAL SYSTEMS SHALL ALSO BE FURNISHED BY DIVISION 16 CONTRACTOR. LOW VOLTAGE CONTROL WIRING SHALL BE BY THE DIVISION 15 CONTRACTOR. PROVIDE WIRING DIAGRAMS TO THE DIVISION 16 CONTRACTOR AS REQUIRED FOR PROPER EQUIPMENT HOOKUP.

IF DEFECTS OCCUR DURING THE ONE YEAR GUARANTEE PERIOD, REPAIR OR REPLACE SUCH DEFECTS AT NO EXPENSE TO THE COORDINATE WITH THE DIVISION 16 CONTRACTOR THE ACTUAL WIRE SIZING AMPS FOR MECHANICAL EQUIPMENT (FROM THE EQUIPMENT NAMEPLATE) TO ENSURE PROPER INSTALLATION.

ALL TEMPERATURE SENSORS, FAN SWITCHES, AND SPEED CONTROLS SHALL BE INSTALLED 48" ABOVE THE FLOOR FOR ADA

#### 15B 1-3 FINAL TESTING AND ADJUSTMENTS

AIR BALANCE SHALL BE PERFORMED BY AN INDEPENDENT AIR BALANCE CONTRACTOR. BALANCE EACH SUPPLY, RETURN, AND OUTSIDE AIR DEVICE WITHIN 5% OF REQUIREMENTS AND FURNISH A REPORT TO THE CONSTRUCTION MANAGER,. THE ENTIRE HVAC SYSTEM MUST BE FULLY OPERABLE, BALANCED, AND APPROVED BY OWNER'S REPRESENTATIVE ON THE DAY TENANT OPENS FOR BUSINESS.

ADJUST THERMOSTATS AND CONTROL DEVICES TO OPERATE AS INTENDED. ADJUST BURNERS, PUMPS, FANS, ETC. FOR PROPER AND EFFICIENT OPERATION. CERTIFY TO ARCHITECT THAT ADJUSTMENTS HAVE BEEN MADE AND THAT SYSTEM IS OPERATING SATISFACTORILY. CALIBRATE, SET AND ADJUST AUTOMATIC TEMPERATURE CONTROLS. CHECK PROPER SEQUENCING OF INTERLOCK SYSTEMS, AND OPERATION OF SAFETY CONTROLS

#### 15C: PLUMBING

#### 15C 1-1 PIPING MATERIALS

MATERIALS SPECIFIED OR NOTED ON THE DRAWINGS ARE SUBJECT TO THE APPROVAL OF LOCAL CODE AUTHORITIES. VERIFY APPROVAL BEFORE INSTALLING ANY MATERIAL OR JOINING METHOD.

DOMESTIC WATER (COLD, HOT, SOFT): DOMESTIC WATER PIPING INSTALLED ABOVE OR BELOW THE FLOOR SLAB INSIDE THE BUILDING SHALL BE TYPE "L" HARD TEMPER COPPER TUBE WITH WROUGHT COPPER OR PEX PIPING AND FITTINGS.

FITTINGS AND SOLDERED CONNECTIONS MADE UP WITH 95/5 SOLDER. BRAZED MECHANICALLY FORMED TEE CONNECTIONS (T-DRILL) MAY BE USED IN COPPER LINES WHERE APPROVED BY CODE CONNECTION SHALL BE MADE WITH BRAZED SILVER SOLDER (SILFOS) JOINTS IN CONFORMANCE WITH MANUFACTURER'S INSTRUCTIONS.

UNDERGROUND DOMESTIC WATER PIPING SHALL BE TYPE "K" SOFT TEMPER COPPER TUBING WITH FLARED COPPER ALLOY FITTINGS AND CONNECTIONS. OR TYPE "K" HARD TEMPER COPPER TUBING WITH CONVENTIONAL WROUGHT COPPER FITTINGS AND SILVER SOLDER (SILFOS) JOINTS. INSTALL AS FEW UNDERGROUND COPPER PIPING JOINTS AS POSSIBLE. AT BUILDING SERVICE ENTRANCE. NO JOINTS SHALL BE INSTALLED UNDER OR WITHIN 5 FEET OF THE BUILDING. INSTALL DOMESTIC WATER PIPING BELOW GRADE OUTSIDE BUILDING AT ADEQUATE DEPTH TO PREVENT FREEZING.

INTERIOR WASTE AND VENT BELOW SLAB, WASTE AND AVERT PIPE BELOW SLAB INSIDE BUILDING SHALL BE STANDARD WEIGHT CAST IRON SOIL PIPE WITH HUB AND SPIGOT FITTINGS WITH NEOPRENE GASKET JOINTS. HUBLESS WASTE AND VENT PIPE IS NOT PERMITTED BELOW BASE SLAB. PVC DWV PIPE WITH SOCKET FITTINGS AND SOLVENT WELD JOINTS IS ALSO PERMITTED WHERE APPROVED BY CODE.

INTERIOR WASTE AND VENT ABOVE SLAB: WASTE AND VENT PIPE ABOVE SLAB INSIDE BUILDING SHALL BE HUBLESS CAST IRON SOIL PIPE AND FITTINGS WITH HUBLESS COUPLINGS. PVC DWV PIPE WITH SOCKET FITTINGS AND SOLVENT WELD JOINTS IS ALSO PERMITTED WHERE APPROVED BY CODE AND LOCAL AUTHORITY HAVING JURISDICTION.

INDIRECT AND CONDENSATE DRAIN INSIDE BUILDING: INDIRECT AND CONDENSATE DRAIN PIPE INSTALLED INSIDE THE BUILDING SHALL BE TYPE "M" HARD COPPER WITH WROUGHT COPPER FITTINGS FOR 1" AND SMALLER AND "DWV" COPPER WITH WROUGHT COPPER DRAINAGE PATTERN FITTINGS FOR 1-1/4" AND LARGER HARD TEMPER COPPER TUBE AND SOLDERED CONNECTIONS MADE WITH 95/5 SOLDER. INSTALL CLEANOUTS AT ELBOWS GREATER THAN 45 DEGREES.

GAS PIPING: SCHEDULE 40 BLACK CARBON STEEL WITH MALLEABLE IRON THREADED FITTINGS. PAINT ALL GAS PIPING EXPOSED TO WEATHER WITH ONE COAT OF PRIMER, AND TWO COATS OF RUST-PROOF PAINT. COLOR SHALL MATCH BUILDING COLORS. COORDINATE WITH GENERAL CONTRACTOR.

#### 15C 1-2 PIPING AND EQUIPMENT INSULATION

DOMESTIC COLD WATER, HOT WATER, INDIRECT AND CONDENSATE DRAIN PIPE (METALLIC PIPING WITHIN BUILDING): 1" ONE-PIECE FIBERGLASS COVERING WITH FIRE-RESISTANT JACKET WITH SELF-SEALING LAP TO PROVIDE A CONTINUOUS VAPOR BARRIER BY CERTAINTEED, OWENS-CORNING OR ARMSTRONG. FOR PIPING AT HANGERS PROVIDE 8" LONG SECTIONS OF HIGH DENSITY, HIGH TEMPERATURE CALCIUM SILICATE BY JOHNS-MANVILLE, FIBERGLASS BY KNAUF, OR 8" LONG STYROFOAM BILLETS BY DOW. INSULATION SHALL BE CONTINUOUS ALONG THE PIPE SURFACE, EXCEPT AT VALVES, UNIONS, AND WHERE PIPING IS EXPOSED AT FIXTURES.

FOR HOT AND COLD WATER PIPING INSTALLED INSIDE MASONRY UNITS OF WALLS, PROVIDE 1" FLEXIBLE UNICELLULAR

COVER FITTINGS WITH ZESTON, KNAUF, OR EQUAL ONE-PIECE PVC PREMOLDED INSULATING COVERS. FITTING COVERS, JACKETS AND ADHESIVES SHALL NOT EXCEED FLAME SPREAD RATING OF 25 AND SMOKE DEVELOPMENT RATING OF 50 PER ASTM E84. AT ALL ELBOWS AND TEES, FILL VOIDS BETWEEN COVERS AND PIPING WITH FIBERGLASS INSULATION AND TAPE JOINTS. INSTALL PIPE INSULATION IN COMPLIANCE WHIT MANUFACTURER'S RECOMMENDATIONS. WHERE PREMOLDED INSULATING FITTINGS ARE NOT APPROVED BY LOCAL AUTHORITIES, MITER INSULATION AT FITTINGS.

#### 15C 1-3 PIPING INSTALLATION

GENERAL: CLEAN PIPE THOROUGHLY PRIOR TO INSTALLATION. REAM ENDS OF PIPE TO REMOVE BURRS. CUT PIPE ACCURATELY TO MEASUREMENTS TAKEN ON THE JOB. INSTALL WITH ADEQUATE CLEARANCE FOR INSTALLATION OF COVERINGS WHERE REQUIRED. PIPE SHALL NOT BE SPRUNG OR BENT. NEATLY ALIGN PIPE, CONNECT IT SECURELY, AND SUPPORT IT FROM THE BUILDING STRUCTURE WITH HANGERS AS SPECIFIED BELOW. PROVIDE CHROME-PLATED ESCUTCHEONS ON PIPES PASSING THROUGH CEILINGS, FLOORS OR WALLS OF FINISHED SPACES. RUN PIPES FREELY THROUGH FLOOR AND WALL PENETRATIONS USING PIPE SLEEVES. DO NOT GROUT IN PLACE UNLESS REQUIRED FOR STRUCTURAL FIRE INTEGRITY. INSTALL PIPE CONCEALED IN FINISHES SPACES WHEREVER POSSIBLE. USE A DIELECTRIC UNION WHERE FERROUS AND COPPER PIPE CONNECT. DIELECTRIC UNION SHALL HAVE A ZINC-PLATED STEEL BODY, A THREADED NYLON INSERT, AND INSULATING PRESSURE GASKET. NO FERROUS METAL-TO-COPPER CONNECTION MADE WITHOUT INSULATING UNIONS WILL BE ALLOWED.

HANGER SUPPORTS: PIPE HANGERS SHALL BE AS DESCRIBED IN THE SPECIFICATIONS BY B-LINE OR EQUAL BY ANVIL. MICHIGAN, TRUSCON, OR UNISTRUT. CONNECT HANGERS TO THE STRUCTURE WITH SIDE BEAM CONNECTORS AND ALL THREAD HANGER ROD. PROVIDE ENGINEERED SUPPORT STRUTS BETWEEN JOISTS AND OTHER STRUCTURAL MEMBERS AS REQUIRED TO PROVIDE A RIGID HANGING INSTALLATION. DO NOT HANG PIPES FROM OTHER PIPES, CONDUIT OR DUCTWORK. PROVIDE HANGER RODS AND SPACE HANGERS AT INTERVALS AS REQUIRED.

SOIL, WASTE AND STORM: GRADE SOIL AND WASTE PIPING TO A UNIFORM SLOPE OF NOT LESS THAN 1/8" PER FOOT FOR PIPING 4" OR LARGER, AND NOT LESS THAN 1/4" PER FOOT FOR PIPING 3" OR SMALLER. SLOPE STORM PIPING AT 1/8" PER FOOT. LAY PIPE AT UNIFORM SLOPE, FREE FROM SAGS, WITH HUB END UPSTREAM. SUPPORT PIPE AT EACH JOINT. MAKE CHANGES IN DIRECTION FROM HORIZONTAL TO VERTICAL, AT FIXTURE BRANCHES AND OTHER BRANCH CONNECTION WITH SANITARY "TEES" OR SHORT SWEEP "ELLS". MAKE CHANGES IN DIRECTION FROM VERTICAL TO HORIZONTAL OR IN THE HORIZONTAL WITH LONG RADIUS FITTINGS, LONG SWEEPING "ELLS", COMBINATION "Y" FITTINGS, OR 45 DEGREE "ELLS" (1/8 BEND FITTINGS) AND "Y" FITTINGS.

DOMESTIC WATER: ARRANGE COLD, HOT AND HOT WATER RECIRCULATION PIPING TO DRAIN AT THE LOWEST POINT IN EACH SYSTEM. INSTALL AT LEAST ONE PIPE UNION ADJACENT TO ALL SHUTOFF VALVES, AT CONNECTION POINT OF EACH PIECE OF EQUIPMENT, AND ELSEWHERE IN THE SYSTEM WHERE REQUIRED TO ALLOW PROPER MAINTENANCE. PROVIDE UNIONS OF THE GROUND JOINT TYPE. MAKE ALLOWANCE FOR EXPANSION AND CONTRACTION WHERE REQUIRED BY THE INSTALLATION. WHERE WATER PIPING OCCURS IN EXTERIOR WALLS, HOLD PIPE AS CLOSE AS POSSIBLE TO THE INTERIOR FACE OF WALL AND INSTALL INSULATION BATT OR OTHER INSULATION (MINIMUM R8) BETWEEN PIPING AND THE EXTERIOR WALL FACE.

#### 15C 1-4 SYSTEM TESTING AND ADJUSTING

UPON COMPLETION OF EACH PHASE OF THE INSTALLATION, TEST EACH SYSTEM IN CONFORMANCE WITH LOCAL CODE REQUIREMENTS AND LANDLORD CRITERIA. FURNISH LABOR AND EQUIPMENT REQUIRED TO TEST PLUMBING WORK INSTALLED UNDER THIS CONTRACT, AND ASSUME COST INVOLVED IN MAKING THE TESTS, AND REPAIRING AND/OR REPLACING DAMAGE RESULTING THERE FROM.

NOTIFY THE ARCHITECT AND THE AUTHORITY HAVING JURISDICTION, THREE (3) WORKING DAYS PRIOR TO MAKING PLUMBING SYSTEM TEST. LEAVE CONCEALED WORK UNCOVERED UNTIL THE REQUIRED TEST HAVE BEEN COMPLETED, BUT IF NECESSARY DUE TO CONSTRUCTION PROCEDURE. TEST ON PORTIONS OF THE WORK MAY BE MADE. AND WHEN SATISFACTORY. THE WORK MAY BE CONCEALED. TEST PIPING BEFORE INSULATION IS INSTALLED, AND BEFORE BACKFILL. PIPES, JOINTS, FLANGES, VALVE STEMS, ETC. SHALL BE LEAK TIGHT. REPAIR OR REPLACE SYSTEM DEFECTS WITH NEW MATERIALS. CAULKING OF DEFECTIVE JOINTS, CRACKS OR HOLES WILL NOT BE PERMITTED. REPEAT TEST AFTER DEFECTS HAVE BEEN ELIMINATED. MAKE TESTS IN THE PRESENCE OF THE ADMINISTRATIVE AUTHORITY AND/OR THE OWNER'S AUTHORIZED REPRESENTATIVE.

THE WORK TO BE PERFORMED UNDER THIS CONTRACT SHALL INCLUDE THE FURNISHING, INSTALLATION, AND CONNECTION OF PLUMBING SYSTEMS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATIONS. BY SIGNING THE CONTRACT, THE CONTRACTOR ACKNOWLEDGES THAT HE HAS ACQUAINTED HIMSELF WITH THE SITE AND THE EXISTING CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED, AND THE DRAWINGS AND SPECIFICATIONS PERTAINING THERETO, AND HE INDICATES THAT HE WILL COMPLY WITH THE REQUIREMENTS AND INTENT OF PERTINENT DOCUMENTS IN THE PERFORMANCE OF THE WORK.

GUARANTEE THAT THE PLUMBING INSTALLED UNDER THIS CONTRACT IS FREE OF DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ON (1) YEAR FROM THE DATE OF JOB ACCEPTANCE BY THE OWNER. THIS SHALL INCLUDE A GUARANTEE OF FREE CIRCULATION OF LIQUIDS THROUGHOUT THE SYSTEM AS INTENDED WITHOUT LEAKS, EXCESSIVE NOISE, OR WATER

OWNER, AND TO THE SATISFACTION OF THE OWNER, ARCHITECT AND ENGINEER.



Engineer of Record



project except by agreement in writing with appropriate Contractor is responsible for construction means methods and techniques, sequences or procedures or fo safety precautions and programs in connection with the



 $\alpha$ 

Revisions

project #:

date:

32224011

8/01/2024

#### HVAC KEYED NOTES

- (1) MAINTAIN 10 HORIZONTAL FEET FROM AIR INTAKE OF RTU-1.
- 2 PROVIDE AND INSTALL NEW 7-DAY PROGRAMMABLE THERMOSTAT SIMILAR TO HONEYWELL RTH7600D WITH LOCKABLE COVER. MOUNT 54" A.F.F., COORDINATE EXACT LOCATION WITH OWNER.
- 3 FULL SIZE SUPPLY AND RETURN AIR DUCT FROM RTU-1. TRANSITION TO RETURN PLENUM BOX AND SUPPLY DUCTWORK, ROUTE AS HIGH AS POSSIBLE
- (4) THERMOSTAT SHALL BE A TRANE / MITSUBISHI ELECTRIC WIRED ZONE CONTROLLER MODEL TAR-40MAAU. INSTALL THERMOSTAT WITH LOCKABLE COVER. MOUNT 54" A.F.F., COORDINATE EXACT LOCATION WITH OWNER.

#### **GENERAL NOTES**

- A. COORDINATE WITH THE WORK OF OTHER SECTIONS, EQUIPMENT FURNISHED BY G.C., REQUIREMENTS OF THE OWNER, AND WITH THE CONSTRAINTS OF THE EXISTING CONDITIONS OF THE PROJECT SITE. PROVIDE DUCT RISES AND DROPS AS REQUIRED FOR FIELD INSTALLATION AND TRADE.
- B. DRAWINGS FOR HVAC WORK ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENT. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS. REFER TO MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. PROVIDE DUCTWORK, CONNECTIONS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY FOR A COMPLETE SYSTEM.
- C. ALL WORK SHALL COMPLY WITH STATE AND LOCAL CODE REQUIREMENTS AS APPROVED AND AMENDED BY THE AUTHORITY HAVING JURISDICTION. PURCHASE ALL PERMITS ASSOCIATED WITH THE WORK. OBTAIN ALL INSPECTIONS REQUIRED BY CODE.
- ). AT JOB COMPLETION, AN AIR BALANCE REPORT SHALL BE PROVIDED TO THE LANDLORD BY AN AABC-CERTIFIED AIR BALANCE CONTRACTOR AT THE TENANT'S EXPENSE.
- E. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS BEFORE SUBMITTING BID. ANY CHANGES REQUIRED DUE TO INCORRECT EXISTING INFORMATION WILL BE THE CONTRACTOR'S RESPONSIBILITY.
- . LABEL ALL EQUIPMENT TO IDENTIFY COMPONENT, TENANT NAME, AND SPACE NUMBER.

	IANICAL SYMBOLS SAPPLY ONLY WHEN USED ON DRAWINGS)					
	SQUARE CEILING SUPPLY AIR DIFFUSER					
	RETURN OR EXHAUST AIR GRILLE					
₩\-	AIR FLOW DIRECTON					
	EXHAUST FAN					
T/RS	THERMOSTAT / REMOTE SENSOR					
$\bigcirc_{D}$	DUCT MOUNTED SMOKE DETECTOR					
	BRANCH DUCT TAKEOFF W/ MAN. DAMPER					
FD	FIRE DAMPER					
	CROSS-SECTION SUPPLY AIR DUCT					
	CROSS-SECTION RETURN AIR DUCT					
Kr.	TURNING VANES					
	FLEXIBLE CONNECTION					
	FLEXIBLE DUCT					
4	RECTANGULAR MAN. BALANCING DAMPER					
8 0 3	ROUND MANUAL BALANCING DAMPER					
	SPLITTER / DAMPER					
O.A./R.A./S.A.	OUTSIDE AIR/RETURN AIR/SUPPLY AIR					

	Al	R DEVICE S	CHEDULE	
MARK	DESCRIPTION	FRAME SIZE (DUCT SIZE)	MANUFACTURER MODEL	TYPE NOTES
CD1	3 CONE DIFFUSER	12X12	TITUS TMSA-AA	LAY-IN 1,2,3
CD2	DUCT MOUNTED DIFFUSER	20X8	TRUAIRE 210VM	DUCT MOUNTED 1,2,3
CD3	DUCT MOUNTED DIFFUSER	16X10	TRUAIRE 210VM	DUCT MOUNTED 1,2,3
RG1	LOUVERED RETURN GRILLE	24X24	TITUS 50F	LAY-IN 1,2,3
NOTES:				

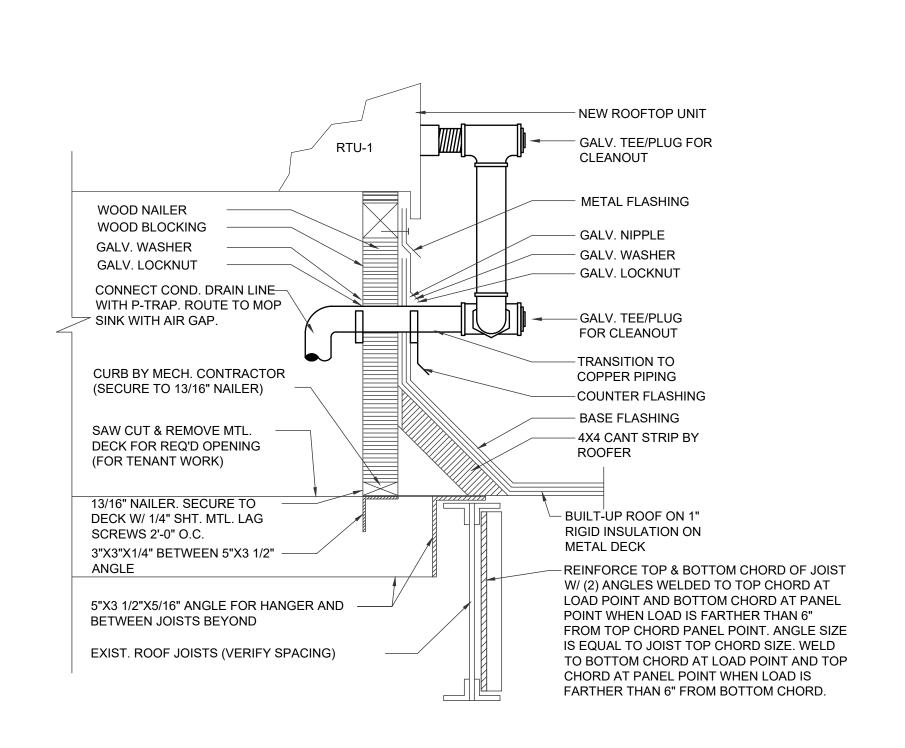
- 1. CONTRACTOR MUST SELECT SCHEDULED MATERIALS OR APROVED EQUAL.
- APPROVED MANUFACTURERS ARE: PRICE, CARNES, METAL-AIRE, AND J&J.
- 2. PROVIDE WITH OPPOSED BLADE DAMPER.
- 3. PROVIDE WITH STANDARD #26 WHITE FINISH.

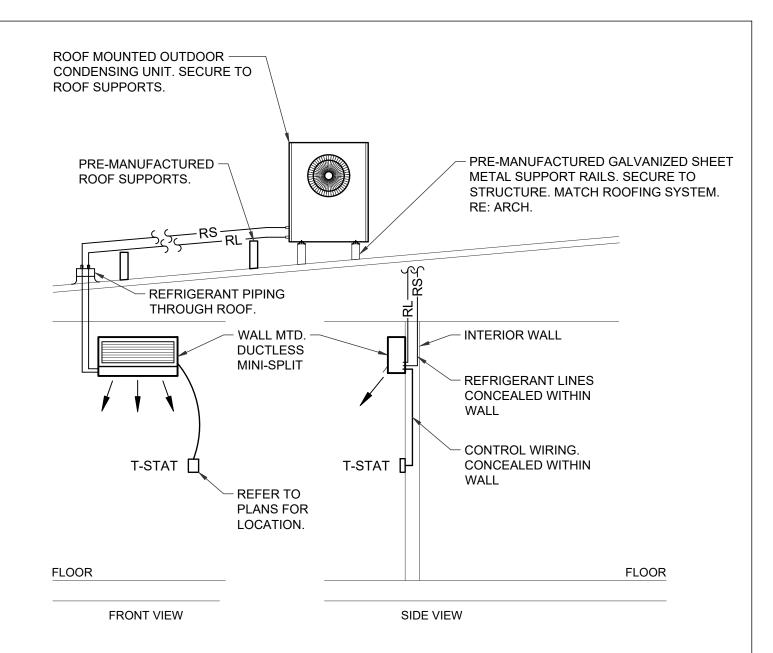
AIR CURTAIN SCHEDULE								
MARK	MANUFACTURER /	HEAT KW	FAN HP	VELOCITY	V/PH/HZ	MCA/MOCP	WEIGHT	NOTES
	MODEL		CFM	FPM			LB	
AC-1	STRONGWAY		0.5	3600	120/1/60	2.8/20	34	1,2
	49947 - 36"		816					

- GENERAL INFORMATION (ALL UNITS): PROVIDED WITH REMOTE CONTROL.
- 2. PROVIDE WITH FACTORY WALL BRACKET.

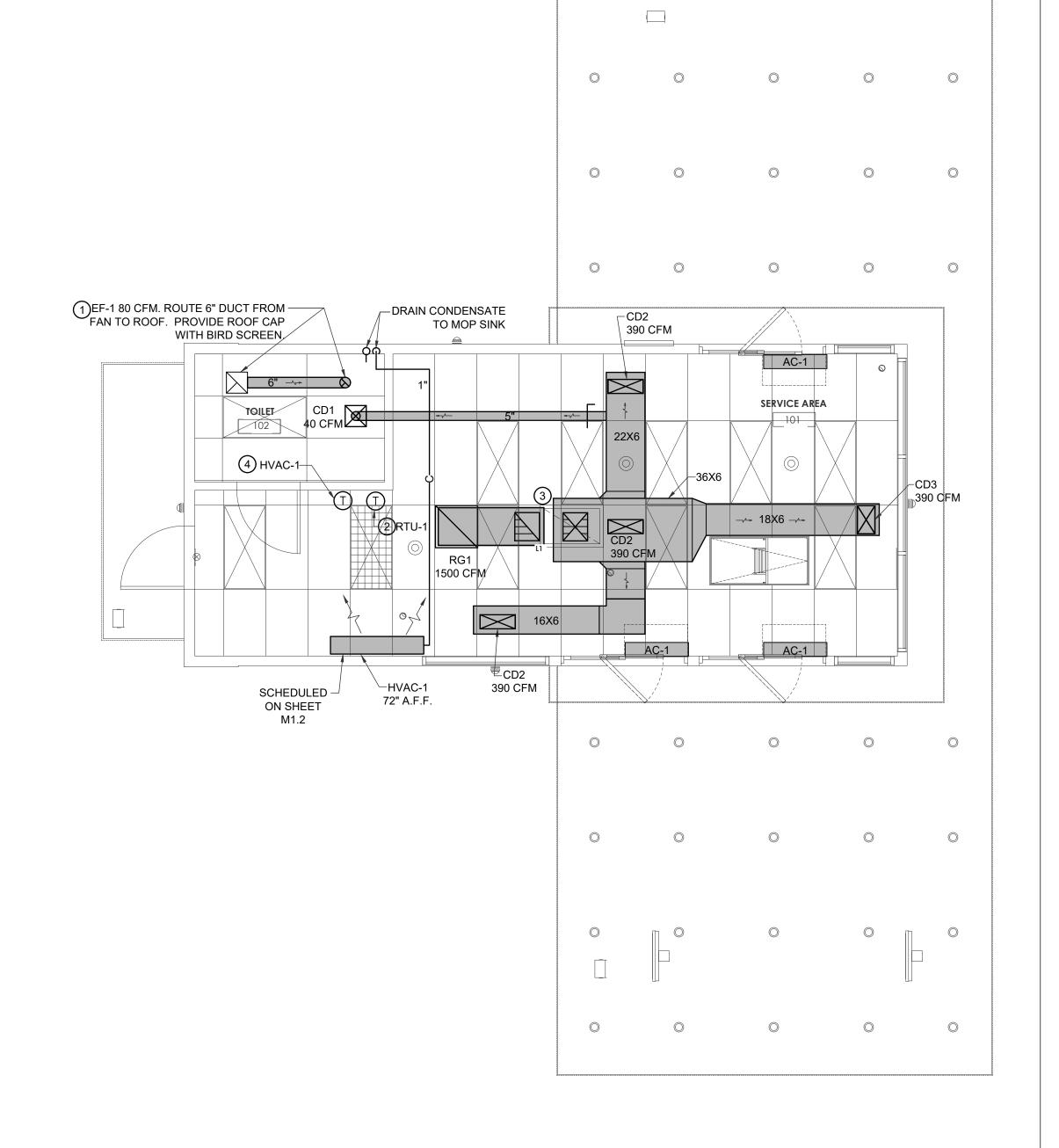
	EXHAUST FAN SCHEDULE								
MARK	MANUFACTURER /	INPUT WATTS	ESP	V/PH/HZ					
	MODEL	SONES	CFM						
EF-1	BROAN	14.9	0.25	120/1/60					
1	AE50110DCL	1.4	80						

- GENERAL INFORMATION (ALL UNITS):
- 1. FAN OPERATION SHALL BE INTERLOCKED WITH LIGHT SWITCH 2. CONTRACTOR SHALL CHOOSE A SCHEDULED UNIT OR A COMPARABLE
- UNIT OF A DIFFERENT MANUFACTURER.
- 3. PROVIDE WITH BACKDRAFT DAMPER.





WALL MOUNTED











Drawings and Specifications as instruments of service are and shall remain the property of the Architects. They are not to be used on other projects or extensions to this project except by agreement in writing with appropriate Contractor is responsible for construction means methods and techniques, sequences or procedures or for safety precautions and programs in connection with the

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R A

Revisions Description

> M1.1 MECHANICAL FLOOR PLAN & **SCHEDULES**

32224011 8/01/2024 date:

#### **HVAC KEYED NOTES**

- 1) INSTALL NEW ROOFTOP UNIT AS SCHEDULED, PROVIDE AND INSTALL FACTORY ROOF CURB. BALANCE SUPPLY AIR TO 1500 CFM AND OUTSIDE AIR TO 100 CFM.
- (2) MAINTAIN 10 HORIZONTAL FEET FROM AIR INTAKE OF RTU-1.

#### **GENERAL NOTES**

- A. COORDINATE WITH THE WORK OF OTHER SECTIONS, EQUIPMENT FURNISHED BY G.C., REQUIREMENTS OF THE OWNER, AND WITH THE CONSTRAINTS OF THE EXISTING CONDITIONS OF THE PROJECT SITE. PROVIDE DUCT RISES AND DROPS AS REQUIRED FOR FIELD INSTALLATION AND TRADE.
- B. DRAWINGS FOR HVAC WORK ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENT. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS. REFER TO MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. PROVIDE DUCTWORK, CONNECTIONS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY FOR A COMPLETE SYSTEM.
- ALL WORK SHALL COMPLY WITH STATE AND LOCAL CODE REQUIREMENTS AS APPROVED AND AMENDED BY THE AUTHORITY HAVING JURISDICTION. PURCHASE ALL PERMITS ASSOCIATED WITH THE WORK. OBTAIN ALL INSPECTIONS REQUIRED BY CODE.
- ). AT JOB COMPLETION, AN AIR BALANCE REPORT SHALL BE PROVIDED TO THE LANDLORD BY AN AABC-CERTIFIED AIR BALANCE CONTRACTOR AT THE TENANT'S EXPENSE.
- E. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS BEFORE SUBMITTING BID. ANY CHANGES REQUIRED DUE TO INCORRECT EXISTING INFORMATION WILL BE THE CONTRACTOR'S RESPONSIBILITY.
- LABEL ALL EQUIPMENT TO IDENTIFY COMPONENT, TENANT NAME, AND SPACE NUMBER.

	MECHANICAL SYMBOLS (SYMBOLS APPLY ONLY WHEN USED ON DRAWINGS)									
*\\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\	SQUARE CEILING SUPPLY AIR DIFFUSER									
	RETURN OR EXHAUST AIR GRILLE									
<b>◆</b> √	AIR FLOW DIRECTON									
	EXHAUST FAN									
T/RS	THERMOSTAT / REMOTE SENSOR									
$\bigcirc_{D}$	DUCT MOUNTED SMOKE DETECTOR									
	BRANCH DUCT TAKEOFF W/ MAN. DAMPER									
fD 1	FIRE DAMPER									
$\boxtimes$	CROSS-SECTION SUPPLY AIR DUCT									
	CROSS-SECTION RETURN AIR DUCT									
KKKKK	TURNING VANES									
	FLEXIBLE CONNECTION									
	FLEXIBLE DUCT									
4	RECTANGULAR MAN. BALANCING DAMPER									
8	ROUND MANUAL BALANCING DAMPER									
	SPLITTER / DAMPER									
O.A./R.A./S.A.	OUTSIDE AIR/RETURN AIR/SUPPLY AIR									

					MINI	-SPL	IT S	CHE	DUL	E						
MARK	AREA SERVED	MFR: TRANE/MITSUBISHI MODEL NO.	S/A CFM	O/A CFM	ESP	EDB EWB	LDB LWB	NOM. TONS	TOT. COOL MBH	SEN. COOL MBH	SEER (EER)	ELEC HTR KW	VOLTS/PH/HZ	MCA	МОСР	REMARKS
HVAC-1	101 SERVICE	TPKA0A0361KA70A	920			80		2	36		18.8		200 220 //4/00	1.0	-	A,B,E,G,H,I,J,K,L
HCU-1	AREA	TRUYA0361KA70BA	920	-	_	67	_	3	30	-	(10.8)	_	208-230V/1/60	25.0	31	A,D,E,O,I I,I,O,IX,E
~																

- 1. INDOOR PACKAGED FAN/COIL UNIT(S) WITH COOLING COILS, VERTICAL OR HORIZONTAL DISCHARGE SUPPLY WITH MATCHING OUTDOOR AIR-COOLED CONDENSING UNIT INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS. DE-RATE OUTDOOR UNITS BASED ON ENTERING AMBIENT AIR 105° AMB WITH 80°Fdb/67°Fwb ENTERING AIR. 2. CONTRACTOR SHALL COORDINATE PLACEMENT OF CONDENSING UNITS (HCU) WITH OTHER TRADES. CONCEAL ALL REFRIGERANT LINES. ROUTE TO EXTERIOR WALL PENETRATION LOCATION.
- 3. CONTRACTOR SHALL PROVIDE A COMPLETE FUNCTIONING SYSTEM.
- 4. CONTRACTOR SHALL BE RESPONSIBLE FOR UNIT MODIFICATIONS TO PROVIDE THE CONFIGURATION SHOWN ON DRAWINGS. 5. INSTALLING CONTRACTOR SHALL BE CERTIFIED BY THE MANUFACTURER TO BID AND INSTALL THE EQUIPMENT.
- 6. FIELD INSTALLED DISCONNECT SWITCHES FOR EACH INDOOR UNIT & CONDENSING UNIT SHALL BE PROVIDED BY DIVISION 26 ELECTRICAL WORK. REFER TO ELECTRICAL DRAWINGS.
- PROVIDE LABEL FOR EACH PIECE OF MECHANICAL EQUIPMENT. COORDINATE LABEL NAMING CONVENTION WITH OWNER.

#### 8. OUTDOOR UNIT SHALL ELECTRICALLY POWER INDOOR UNIT

- A. OUTDOOR UNITS SHALL BE SUPPLIED AS COMPLETE SYSTEMS WITH EXPANSION VALVES (TXV), FILTER-DRYERS, SIGHT GLASS, LOW AMBIENT KIT, CRANKCASE HEATER, FREEZE STAT, HAIL GUARDS AND R410A REFRIGERANT PIPING IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- B. REFRIGERANT LINES TYPE ACR COPPER. SIZE AS RECOMMENDED BY MANUFACTURER. INSULATE SUCTION LINES (1/2" ARMAFLEX). CONTRACTOR SHALL VERIFY WITH THE UNIT MANUFACTURER THAT REFRIGERANT LINES ARE WITHIN THE RECOMMENDED ALLOWABLE LINE LENGTHS OF RUN AND RISE. CONTACT ARCHITECT OR ENGINEER IF LINE LENGTHS EXCEED THESE REQUIREMENTS.
- C. INSTALL OUTDOOR UNIT ON A 4" THICK MINIMUM REINFORCED CONCRETE HOUSE PAD. ANCHOR UNITS TO HOUSE PAD IN TWO LOCATIONS MINIMUM.
- PROVIDE MANUFACTURER'S SINGLE POINT WIRING KIT FOR UNITS WITH 15 & 20 KW FUSED HEATERS FOR 2 WIRE OPERATION.
- PROVIDE MANUFACTURER'S CONDENSATE TRAP KIT FOR UNIT. INSTALL MINI-SPLIT FAN/COIL UNITS WITH MATCHING OUTDOOR AIR-COOLED HEAT PUMPS. INSTALL ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
- G. WALL MOUNTED DUCTLESS MINI-SPLIT FAN COIL UNIT WITH INTEGRAL FACTORY INSTALLED WASHABLE FILTERS. H. PROVIDE FAN/COIL UNIT WITH INTEGRAL CONDENSATE PUMP ACCESSORY.
- COOLING ONLY UNIT FOR UNITS SPECIFIED. J. PROVIDE WALL MOUNTED INDOOR DUCTLESS FAN COIL UNIT WITH MATCHED OUTDOOR CONDENSING UNIT CONNECTED ONLY BY REFRIGERANT PIPING AND ELECTRICAL
- K. PROVIDE MANUFACTURERS HARD-WIRED WALL MOUNTED THERMOSTAT.
- L. PROVIDE MANUFACTURERS CONDENSATE PUMP WHERE GRAVITY DRAIN INSTALLATIONS ARE NOT POSSIBLE.

	ROOFTOP UNIT SCHEDULE								
MARK SIZE	MANUFACTURER MODEL NO. TYPE	CFM ESP* O/A	COOLING TOTAL (MBH)	HEATING MODEL INPUT (KW)	VOLTS PHASE HERTZ	MCA1 MOCP1	MCA2 MOCP2	UNIT WEIGHT	NOTES SEER AFUE
RTU-1 4 TON	YORK PHE4B4824A PACKAGED A/C	1600 0.75" 100	43.3	6HK16501006 8.8	230 1 60	45 50	50 60	479 lbs.	1,2,3,4 14.0 80.0

PROPER REFRIGERANT

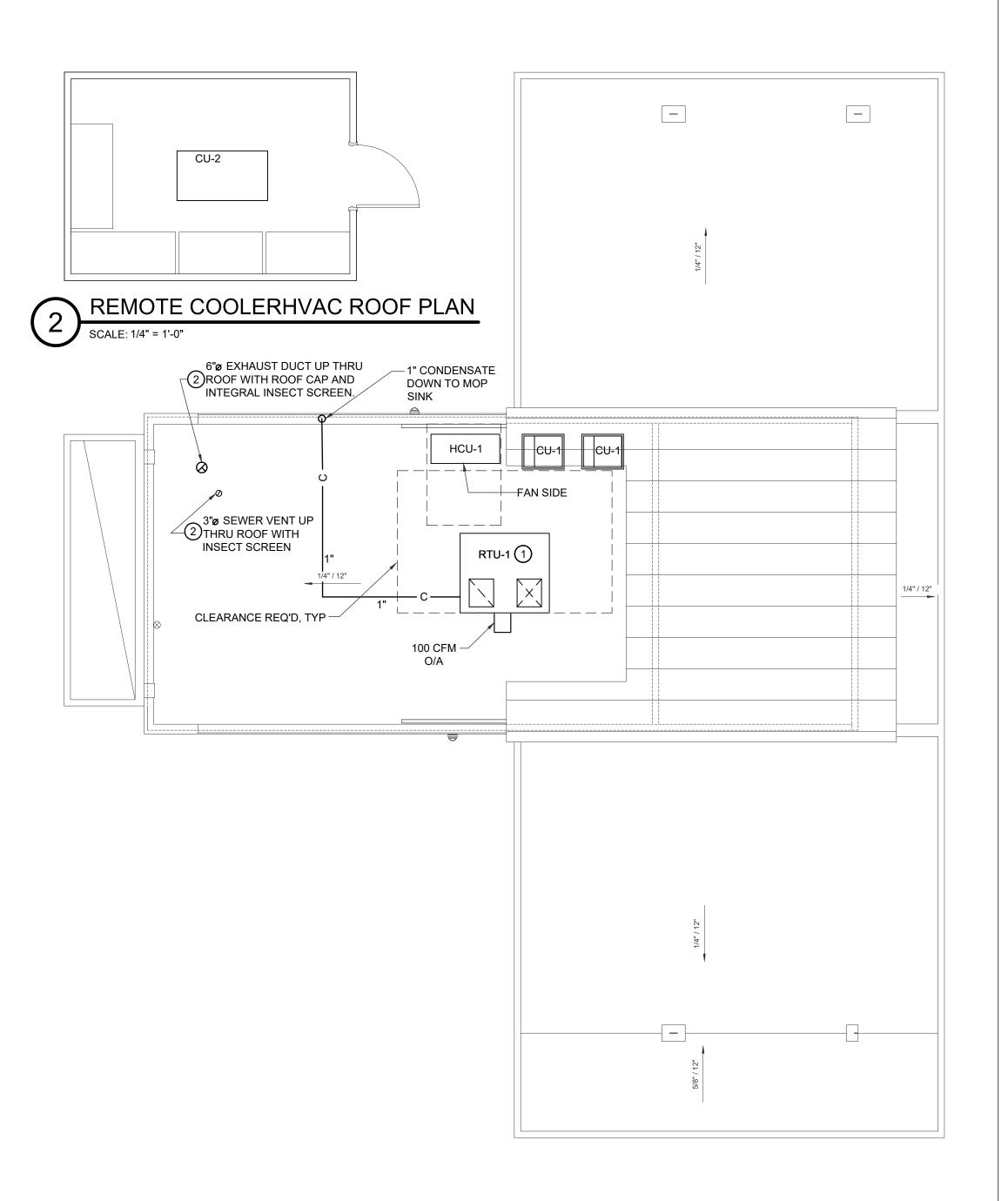
- 1. COOLING CAPACITY BASED ON 80-DEG F DB AND 67-DEG F WB EVAPORATOR COIL ENTERING AIR TEMPERATURE WITH 95-DEG F DB AMBIENT AIR CONDITIONS ON CONDENSING UNIT.
- 2. MANUFACTURER AND MODEL NUMBER LISTED ABOVE REPRESENTS A STANDARD. CONTRACTOR SHALL CHOOSE A
- SCHEDULED UNIT OR A COMPARABLE UNIT OF A DIFFERENT MANUFACTURER. 3. INSTALL SMOKE DETECTORS IN RETURN/SUPPLY DUCT AS REQUIRED BY LOCAL CODE.
- \* ESP = STATIC PRESSURE AVAILABLE TO UNIT. (NOT INCLUDING THE COIL.)

4. PROVIDE WITH 100% ECONOMIZER WITH BAROMETRIC RELIEF DAMPER.

E	EQUIPMENT CONDENSING UNIT SCHEDULE									
MARK SIZE	MANUFACTURER MODEL NO. TYPE	AMPS	VOLTS PHASE HERTZ	REF TYPE	UNIT WEIGHT	UNIT SIZE	NOTES			
CU-1	MANITOWOC CVD 1800	25.0A	208-230 1 / 3 60	R-404 / R-410	195 lbs.	34x24x56	1			
CU-2 NORLAKE CPF200JC-E-4-EV 15.7A 230 R-449A 397 lbs. 46x54x25 1										
NO	TES:									

1. REFRIGERATION UNITS COME UNCHARGED AND WILL NEED TO BE CHARGED ON

SITE ONCE INSTALLED. REFERENCE MANUFACTURERS SPECIFICATIONS FOR









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Description

Revisions

M1.2 MECHANICAL ROOF PLAN & DETAILS

date:

32224011 8/01/2024

NOTES			LIGHT FIXTURE	SCHE	EDULE		
ALL EQUIPMENT SHALL BE UNDERWRITER'S	MARK	MANUFACTURER	CATALOG NO.	NO.	LAMPS TYPE	VOLTS	MOUNTING
LABORATORIES, INC. LABELS (UL) LISTED.  NO COMBUSTIBLE MATERIALS SHALL BE INSTALLED	А	ATLAS	FAELP24LEDU	-	LED(INCLUDED)	120	SURFACE
IN THE CEILING PLENUM. ALL EQUIPMENT AND MATERIALS INSTALLED IN THE PLENUM CEILING AREAS SHALL BE APPROVED FOR THE PURPOSE BY UL AND THE APPLICABLE CODE AUTHORITY	AE	ATLAS	FAELP24LEDU-EB	-	LED(INCLUDED)	120	SURFACE
	В	NORA	NELOCAC-6RP940W/NLOCAC-6RBN	-	RAB 12W 6" LED DLED6R12YN	120	SURFACE
ADA NOTE	С	DECORS	DU-SQ-HW12 BLUE W/SHROUD	-	LED(INCLUDED)	120	SURFACE
LIGHT SWITCHES, ELECTRICAL OUTLETS, AND OTHER ENVIRONMENTAL CONTROLS SHALL HAVE OPERABLE PARTS TO THE CONTROLS LOCATED NO HIGHER THAN 48",	D	GLLS	NL11D1012WEBLU120J S270 BLUE NEON 120V	-	LED(INCLUDED)	120	SURFACE
AND NO LOWER THAN 15".	ЕМ	SAYLITE	LED-R1	-	LED(INCLUDED)	120	SURFACE
# KEYED NOTES	F	SAYLITE	VPC-18W-1500L-MV-W/GUARD	-	LED(INCLUDED)	120	SURFACE

110 CFM QUIET EXHAUST FAN

S48W5000LDMV40K

NE-902-LED-B

CLPU-1-G-W-RC-SDT

BROAN OR EQUAL

SAYLITE

NORA

SAYLITE

EXIT LIGHT: UNLESS NOTED OTHERWISE

NEW LIGHT FIXTURE TO BE LOCATED IN CRAWL SPACE BELOW. VERIFY FINAL MOUNTING LOCATION IN FIELD. PROVIDE

TOGGLE LIGHT SWITCH AT ENTRANCE OF CRAWL SPACE. CONNECT TO CIRCUITRY AS

STORE SIGNAGE: SEE ARCH. DRAWINGS FOR ELEVATION. PROVIDE DISCONNECTING

MEANS AS REQUIRED. CONTROLLED BY

LIGHTING. COORDINATE FINAL MOUNTING

PROVIDE (1) 1" CONDUIT TO MONUMENT SIGN FOR POWER, REF CIVIL DRAWINGS FOR

4. TRANSFORMER FOR LEDNEON-FLEX

6. PROVIDE LEVITON MULTI-TECHNOLOGY OCCUPANCY SENSOR (OSSMT-GDW) FOR ATTIC LIGHT FIXTURE WITH NO MORE THAN 10

NEW SURFACE LIGHT FIXTURE TO BE

UN-CONTROLLED LEG OF LIGHTING

LOCATED IN ATTIC. CONNECT TO CIRCUITRY

NIGHT LIGHTS ARE MARKED 'NL'. CONNECT TO

LOCATION IN ATTIC IN FIELD.

UNSWITCHED LEG OF CIRCUIT.

SHOWN.

TIMECLOCK.

EXACT LOCATION.

MINUTE SETTING, TYP.

CIRCUITRY SHOWN, TYP.

AS SHOWN.

MOUNT ON WALL ABOVE DOOR. CONNECT TO

- 1. FIXTURES SHALL BE PROVIDED BY OWNER AND INSTALLED BY GENERAL CONTRACTOR.
- 2. PROVIDE FIXTURE WITH EMERGENCY BATTERY BACK UP WHERE INDICATED ON PLANS.
- 3. FIXTURE TO BE CONTROLLED WITH 0-10V DIMMER AT BACK OF HOUSE.

4.	PROVIDE ALL NECESSARY LEDNEON-FLEX CONNECTORS AS REQUIRED FOR SURFACES AND APPLICATION. PROVIDE DMX RGB CONTROLLER. RUNS OVER 18M SHALL BE FED FROM BOTH
	ENDS PER MANUFACTURERS INSTRUCTIONS.

LED(INCLUDED)

LED(INCLUDED)

LED(INCLUDED)

LED(INCLUDED)

120

120

120

120

RECESSED

SURFACE

SURFACE

SURFACE

	ELECTRICAL SYMBOL LEGEN	ND (NO	T ALL SYMBOLS USED)
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
			WIRING CONCEALED IN CEILING OR WALL
0	RECESSED 2'X4' LAY-IN, LETTER INDICATES TYPE,	/	WIRING CONCEALED IN FLOOR
	CROSS-HATCHED INDICATES NIGHT LIGHT	0/0/0	CEILING MOUNTED/WALL MOUNTED/FLOOR MOUNTED
R	CHAIN HUNG FIXTURE, LETTER INDICATES TYPE		DUPLEX RECEPTACLE,3W,20A,125V GROUNDING TYPE
	CROSS-HATCHED INDICATES NIGHT LIGHT	₩/₩/₩	CEILING MOUNTED/WALL MOUNTED/FLOOR MOUNTED
EM	,		QUADRUPLEX RECEPTACLE,3W,20A,125V GROUNDING TYPE  DUPLEX RECEPTACLE  ABOVE COUNTER/ GROUND FAULT INTERRUPTER
M	RECESSED DOWNLIGHT, LETTER INDICATES TYPE	AC/GFI	DUPLEX RECEPTACLE/BELOW DRAWER/ISOLATED GFI
	TRACK LIGHTING, LETTER INDICATES TYPE,		TELEPHONE/DATA OUTLET
Δ Δ c c	ARROWS INDICATE AIMING, IF ANY	□ 60A	DISCONNECT SWITCH, 30A UNLESS NOTED FUSIBLE IF FUSE DESCRIPTION IS SHOWN. VOLTAGE
В	TRACK MOUNTED FLOURESCENT LIGHTING,	FRS-50	RATING AND NUMBER OF POLES AS REQUIRED
	LETTER INDICATES TYPE	T	THERMOSTAT
	EXIT SIGN WALL-MOUNTED/CEILING MOUNTED	<u>Ś</u>	AUDIO SPEAKER
$\bigotimes_{x} \sqrt{\bigotimes_{x}}$	LETTER INDICATES TYPE, DIRECTIONAL ARROWS AS SHOWN		FIRE ALARM STROBE
\$	SINGLE POLE TOGGLE SWITCH: 20A, 120/277V	EKO	FIRE ALARM HORN STROBE
J	JUNCTION BOX		DUCT MOUNTED SMOKE DETECTOR
	HOMERUN TO PANELBOARD AS NOTED. ONE CIRCUIT PER	—	DOCT WOONTED SMOKE DETECTOR
LP-1,3	ARROWHEAD. CIRCUIT NUMBERS SHOWN NEAR ARROWHEAD 20A BREAKER EACH CIRCUIT UNLESS NOTED. ONE CONDUIT	<b>—</b>	SMOKE DETECTOR
	PER HOMERUN, SIZE AS REQUIRED. #12 CU W/INSULATION UNLESS NOTED. NEUTRAL AND GROUND FOR EACH HOMERUN	F	FIRE ALARM PULL STATION
\$D	SINGLE POLE DIMMER SWITCH	(S)	OCCUPANCY SENSOR

	LABEL AS SHOWN	TIMECLOCK  MANUFACTURER	MOTOR		SETTING NOTES
NO.	LOAD SERVED	CATALOG NO.	VOLTS CCT. NO.	CONTACT	INITIAL TIME
TS1	ALL LIGHTING	TORK DTS200B	120V 2P	20A 120V SPDT	INDOOR, 7 DAY, 24 HR NOTES: 1

ACCESS. & NOTES

1,3

1,2,3

1,4

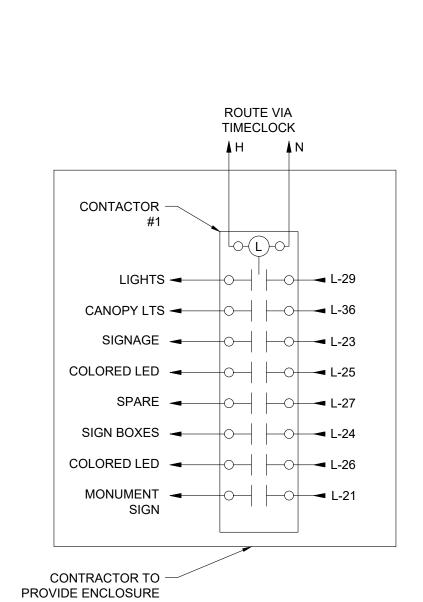
1,2

1,2

1,2

SCALE: 1/4" = 1'-0"

#### TYP. OF 6 $\frown$ PROVIDE LEVITON B L-26 MULTI-TECHNOLOGY WP/WR/GFCI (3) L-23 2 L-25 OCCUPANCY SENSOR WP/WR/GFCI (OSSMT-GDW) WITH NO MORE THAN 10 MIN \_SETTING, TYP. 2 L-25 🖚 EXTERIOR SIGN BOX -WP/WR/GFCI TYP. OF 6 — METER — R (ABOVE) (7) PANEL "L" NEMA 3R TIME CLOCK / -CONTACTOR(S) IN ATTIC ELECTRICAL CONTRACTOR SHALL REFER TO CIVIL SITE L-26 | PLAN FOR FINAL LOCATION OF REMOTE COOLER 1-26 WR/WR/GFCI 2 L-25 WP/WR/GFCI 3 L-23 TYP. OF 6 -8 TYP. EXTERIOR DIGITAL DISPLAYS, COORDINATE WITH ARCHITECTURAL DRAWINGS FOR EXACT LOCATION PRIOR TO ROUGH-IN, PROVIDE CONDUIT FOR DATA PROVIDER LIGHTING PLAN

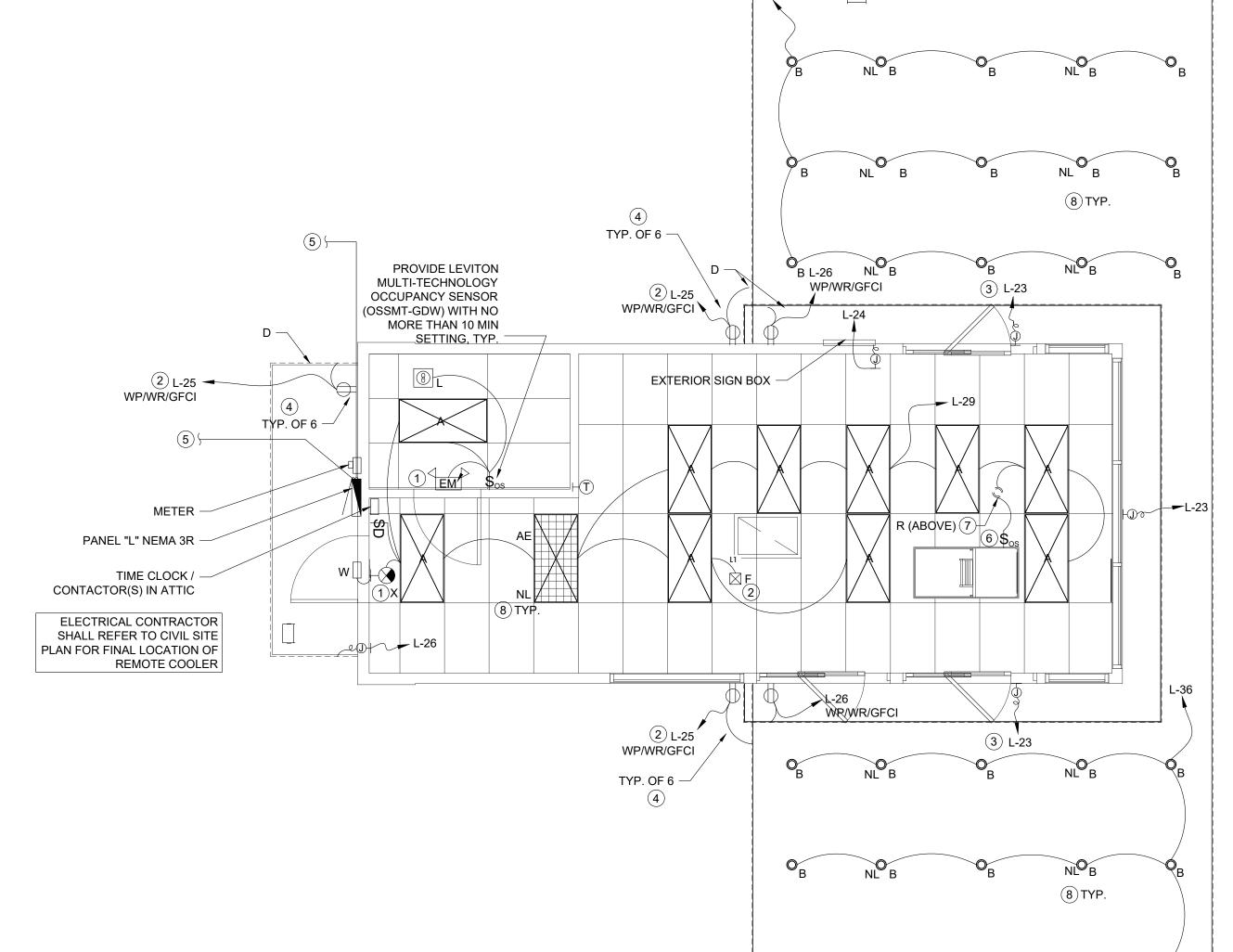


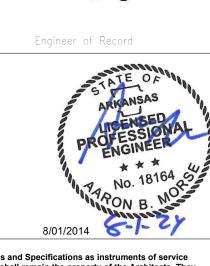
**CONTACTOR DETAIL** SCALE: N.T.S.

FOR CONTACTORS

**E1.1** LIGHTING PLAN

project #: 32224011 8/01/2024 date:





Drawings and Specifications as instruments of service are and shall remain the property of the Architects. They are not to be used on other projects or extensions to this project except by agreement in writing with appropriate compensation to the Architect. Contractor is responsible for construction means

methods and techniques, sequences or procedures or for safety precautions and programs in connection with the

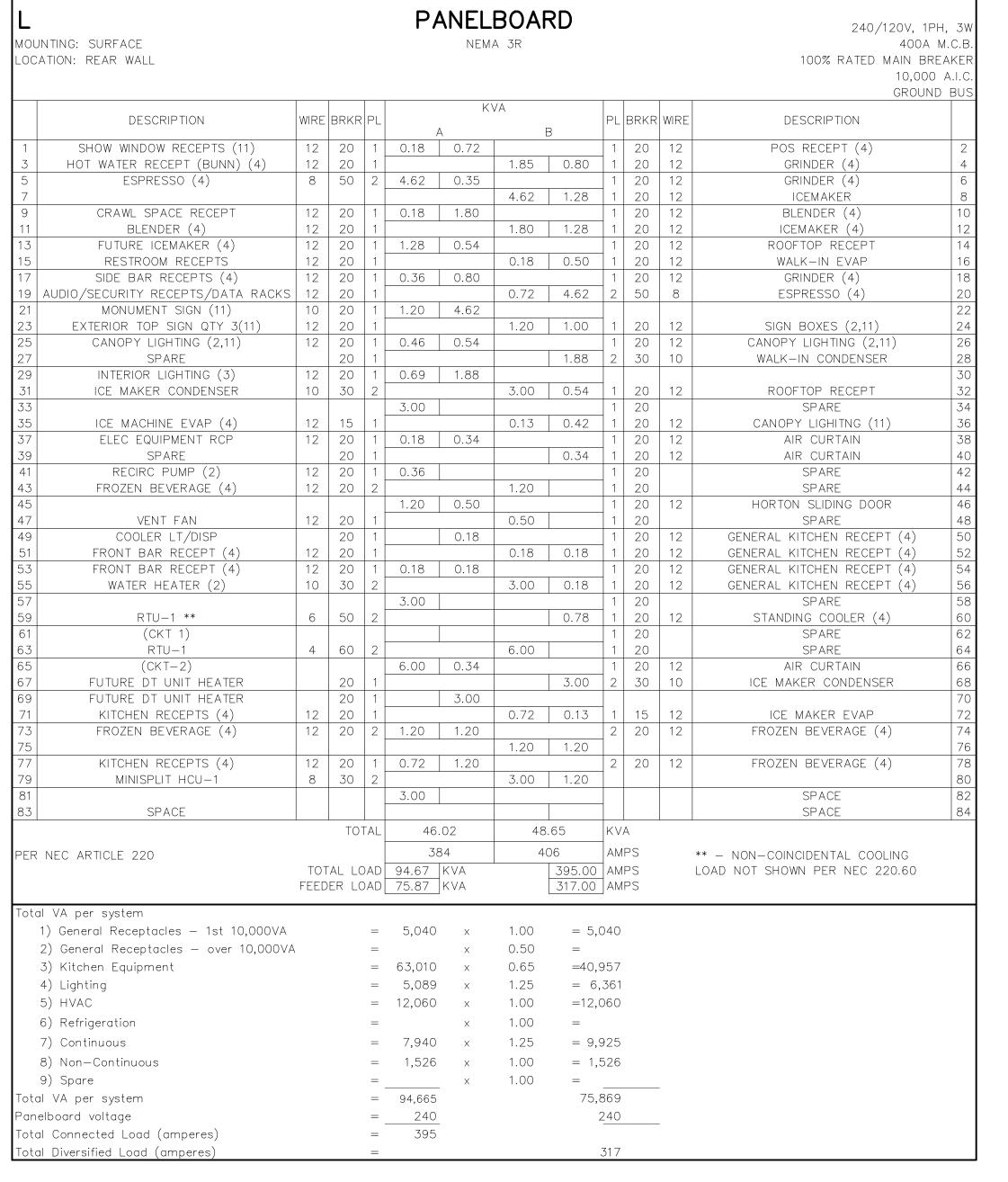
# 

BREW

i Street n, ar 72730

Revisions

Description



(3) 500KCMIL -(1) #3 G 2 -1/2" C

1

#1/0 CU -

TYP.

- NG BOND

SLAB REBAR

─ COLD WATER PIPE

**GROUND RODS (2)** 

3/4" X 10' COPPER

**CLAD 5' OUTSIDE** 

BUILDING 10' CENTER TO

CENTER

SCALE: N.T.S.

BUILDING.

RECEPTACLE TO BE MOUNTED IN CRAWL SPACE TO SERVICE SUMP PUMP. ELECTRICAL CONTRACTOR TO PROVIDE RECEPTACLE WITH GFCI PROTECTION.

**#** POWER KEYED NOTES

- RECEPTACLES TO BE MOUNTED BELOW CANOPY IN SOFFIT OR ON BUILDING -REFERENCE ARCHITECTURAL SHEET A4.2 FOR
- SPECIFIC MOUNTING LOCATIONS. AIR CURTAIN TO BE MOUNTED ABOVE SERVICE WINDOW / DOOR. AIR CURTAIN DISCONNECTING
- SAME HEIGHT. PROVIDE POWER FOR SLIDING DOOR. INSTALL PER MANUFACTURER REQUIREMENTS AND

INSTALLATION GUIDELINES.

REQUIREMENTS.

MEANS TO BE ADJACENT TO AIR CURTAIN AT

- PROVIDE POWER FOR VENT FANS ABOVE CEILING LOCATED WITHIN ATTIC. COORDINATE FINAL POWER CONNECTION IN FIELD PER SITE
- PROVIDE RECEPTACLE MOUNTED ON CEILING FOR CHILLER MACHINE CIRCUITRY.
- PROVIDE QUADRAPLEX RECEPTACLE WITH USB AT 66" AFF.
- FUTURE UNIT HEATER RECEPTACLES: CONNECT TO CIRCUITRY AS SHOWN. REFERENCE ARCHITECTURAL PLANS FOR FINAL MOUNTING HEIGHT.
- PROVIDE GFIC BREAKER FOR RECEPTACLES. RECEPTACLE MUST BE WEATHER RESISTANT AND IN A RECESSED / LOW PROFILE BOX. OUTLET TO BE MOUNTED ON BOTTOM SIDE OF CANOPY IN SOFFIT OR BEAM FOR DIGITAL DISPLAYS.
- 10 MINI-SPLIT PROVIDE POWER AND CONTROL WIRING BETWEEN OUTDOOR CONDENSER AND INDOOR UNIT PER MANUFACTURER'S INSTRUCTIONS. REF MECH.

**NOTES** 

- ALL EQUIPMENT SHALL BE UNDERWRITER'S LABORATORIES, INC. LABELS (UL) LISTED.
- NO COMBUSTIBLE MATERIALS SHALL BE INSTALLED IN THE CEILING PLENUM. ALL EQUIPMENT AND MATERIALS INSTALLED IN THE PLENUM CEILING AREAS SHALL BE APPROVED FOR THE PURPOSE BY UL AND THE APPLICABLE CODE AUTHORITY.
- ALL 240/120V RATED RECEPTACLES IN KITCHEN AREA SHALL BE GFCI PROTECTED.
- ALL PANELS, DISCONNECTS AND TRANSFORMERS USING ENGRAVED NAMEPLATES, WHITE LETTERING ON BLACK BACKGROUND. NAMEPLATES SHALL IDENTIFY PANEL DESIGNATION (NAME), VOLTAGE, PHASE AND WIRE CONFIGURATION.
- ELECTRICAL CONTRACTOR TO PROVIDE "MAIN DISCONNECT" LABEL WITH 1" HIGH WHITE LETTERS ON A RED BACKGROUND, ON PANEL "L" 400A MCB.

PANEL "L" NEMA 3R

WP/WR/GFCI

#### ADA NOTES

REMOTE CONDENSING -

L-79,81

30A / 2P

— WP/WR/GFCI

L-63,65

60A / 2P / 60AF -

L-31,33

30A / 2P / NF -

UNITS - PROVIDED BY OTHERS

OPTIONAL MINI-SPLIT CONDENSER

LIGHT SWITCHES, ELECTRICAL OUTLETS, AND OTHER ENVIRONMENTAL CONTROLS SHALL HAVE OPERABLE PARTS TO THE CONTROLS LOCATED NO HIGHER THAN 48" AND NO LOWER THAN 15".

WATER HEATER -

L-55,57 L-41-

L-15 -GFCI, +44"

- HVAC1

ABOVE

30A / 2P/NF

+80" A.F.F.

**POWER PLAN** 

SCALE: 1/4" = 1'-0"

- CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE, ACCURATE, TYPEWRITTEN PANELBOARD IDENTIFICATION SCHEDULE.
- CONTRACTOR SHALL PROVIDE IDENTIFICATION FOR





methods and techniques, sequences or procedures or for safety precautions and programs in connection with the

STREET V, AR 727( 

 $\mathbf{\Omega}$ 

L-69 (8)

L-53 -

WP/WR/GFCI

L-32

WP/WR/GFCI

L-(43,45) L-(74,76) L-(73,75) L-(78,80) CLG CLG CLG CLG

WP/WR/GFCI

Revisions Description

**E2.1** 

POWER PLAN

project #:	32224011
date:	8/01/2024

#### PANELBOARD NOTES

- (1) TERMINATE GROUND ON ISOLATED GROUND BUS. (2) INSTALL LOCKING DEVICE FURNISHED WITH PANELBOARD (LOCK-OFF FOR MAINTENANCE).
- (3) INSTALL LOCKING DEVICE FURNISHED WITH PANELBOARD (LOCK-ON FOR CRITICAL LOAD).
- (4) GFI BREAKER FOR PERSONNEL PROTECTION
- (5) GFI BREAKER FOR EQUIPMENT PROTECTION
- (6) CONDUCTOR SIZE HAS BEEN INCREASED FOR VOLTAGE DROP. SIZE EQUIPMENT GROUNDING CONDUCTOR PROPORTIONALLY PER NEC.
- (7) REFER TO ONE-LINE DIAGRAM FOR AVAILABLE FAULT

#### CURRENT FOR INTERRUPTING RATINGS. (8) REFER TO ONE-LINE DIAGRAM FOR WIRE SIZES. (9) FACTORY WIRED TO LOAD. (10) SHUNT-TRIP BREAKER (11) THRU PHOTOCELL/TIMER. NOTE - NOT ALL NOTES WILL APPLY TO ALL PROJECTS.

#### RECEPTACLE TO BE MOUNTED ON INSIDE OF ARCHED ROOF IN SOFFIT, TYP OF (2) **ONE-LINE KEYED NOTES** ELECTRIC METER -PROVIDE (1) 3", SCH. 40 PVC SECONDARY CONDUIT PER UTILITY PROVIDER FROM UTILITY POLE TO 2 NEW METER SURFACE MOUNTED TO TOP BREAKER SHALL NOT BE HIGHER THAN 6'-6" FROM FINISHED GRADE. 3 NEW 240/120 VOLT, SINGLE PHASE, NEMA 3R, 400 AMP MCB PANEL. 4 NEW TIME CLOCK REFER TO SCHEDULE. 5 NEW CONTACTOR ENCLOSURE. RE 2/E1.1. PANEL "L" SURGE PROTECTION DEVICE —

**REAR ELEVATION** SCALE: 1/4" = 1'-0"

#### 16A 1-1 GENERAL REQUIREMENTS

ALL REQUIREMENTS UNDER DIVISION 1 AND THE GENERAL AND SUPPLEMENTAL CONDITIONS OF THESE SPECIFICATIONS APPLY TO THIS SECTION AND DIVISION. WHERE THE REQUIREMENTS OF THIS SECTION AND DIVISION EXCEED THOSE OF DIVISION 1, THIS SECTION AND DIVISION TAKE PRECEDENCE. BECOME THOROUGHLY FAMILIAR WITH ALL THEIR CONTENTS AS TO REQUIREMENTS THAT AFFECT THIS DIVISION, SECTION OR BOTH, WORK REQUIRED UNDER THIS DIVISION INCLUDES ALL MATERIAL, EQUIPMENT, APPLIANCES, AND LABOR REQUIRED TO COMPLETE THE ENTIRE ELECTRICAL SYSTEM AS REQUIRED BY THE DRAWINGS AND SPECIFICATIONS, OR REASONABLY INFERRED TO BE NECESSARY TO FACILITATE EACH SYSTEMS FUNCTIONING AS IMPLIED BY THE DESIGN AND THE EQUIPMENT SPECIFIED.

THE SPECIFICATIONS AND DRAWINGS FOR THE PROJECT ARE COMPLEMENTARY, AND PORTIONS OF THE WORK DESCRIBED IN ONE, SHALL BE PROVIDED AS IF DESCRIBED IN BOTH. IN THE EVENT OF DISCREPANCIES, NOTIFY THE ENGINEER AND REQUEST CLARIFICATION PRIOR TO PROCEEDING WITH THE WORK INVOLVED.

DRAWINGS ARE GRAPHIC REPRESENTATIONS OF THE WORK UPON WHICH THE CONTRACT IS BASED. THEY SHOW THE MATERIALS AND THEIR RELATIONSHIP TO ONE ANOTHER, INCLUDING SIZES, SHAPES LOCATIONS, AND CONNECTIONS, THEY ALSO CONVEY THE SCOPE OF WORK INDICATING THE INTENDED GENERAL ARRANGEMENT OF THE EQUIPMENT, FIXTURES, OUTLETS AND CIRCUITS WITHOUT SHOWING ALL OF THE EXACT DETAILS AS TO ELEVATIONS, OFFSETS, CONTROL LINES, AND OTHER INSTALLATION REQUIREMENTS, USE OF THE DRAWINGS AS A GUIDE WHEN LAYING OUT THE WORK AND TO VERIFY THAT MATERIALS AND FOUIPMENT WILL FIT INTO THE DESIGNATED. SPACES, AND WHICH, WHEN INSTALLED PER MANUFACTURES' REQUIREMENTS. WILL ENSURE A COMPLETE. COORDINATED SATISFACTORY AND PROPERLY OPERATING SYSTEM.

SPECIFICATIONS DEFINE THE QUALITATIVE REQUIREMENTS FOR PRODUCTS, MATERIALS, AND WORKMANSHIP UPON WHICH THE CONTRACT IS BASED.

#### 16A 1-2 PRE-BID SITE INSPECTION

PERSONALLY INSPECT THE SITE OF THE PROPOSED WORK AND BECOME FULLY INFORMED OF CONDITIONS UNDER WHICH THE WORK IS TO BE DONE. FAILURE TO DO SO WILL NOT BE CONSIDERED SUFFICIENT JUSTIFICATION TO REQUEST OR OBTAIN EXTRA COMPENSATION OVER AND ABOVE THE CONTRACT PRICE.

#### 16A 1-3 MATERIAL AND WORKMANSHIP

PROVIDE ALL MATERIAL AND EQUIPMENT NEW AND IN FIRST CLASS CONDITION. PROVIDE MARKINGS OR A NAMEPLATE FOR ALL MATERIAL AND EQUIPMENT IDENTIFYING THE MANUFACTURER AND PROVIDING SUFFICIENT REFERENCE TO ESTABLISH QUALITY, SIZE AND CAPACITY. ALL WORKMANSHIP SHALL BE OF THE FINEST POSSIBLE BY EXPERIENCED MECHANICS OF THE PROPER TRADE. IN GENERAL, PROVIDE COMMERCIAL SPECIFICATION GRADE QUALITY FOR ALL MATERIALS AND EQUIPMENT. LIGHT DUTY AND RESIDENTIAL TYPE EQUIPMENT WILL NOT BE ACCEPTABLE PROVIDE ALL HOIST, SCAFFOLDS, STAGING, RUNWAYS, TOOLS, MACHINERY AND EQUIPMENT REQUIRED FOR THE PERFORMANCE OF THE ELECTRICAL WORK. STORE AND MAINTAIN MATERIAL AND EQUIPMENT IN CLEAN CONDITION, AND PROTECTED FROM WEATHER, MOISTURE, AND PHYSICAL DAMAGE.

FURNISH ONLY MATERIAL AND EQUIPMENT THAT ARE LISTED LABELED, OR BOTH, BY A NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL), WHENEVER ANY LISTING OR LABELING EXIST FOR THE TYPES OF MATERIAL AND EQUIPMENT SPECIFIED.

COORDINATE ALL WORK WITH OTHER DIVISION AND TRADES SO THAT THE VARIOUS COMPONENTS OF THE ELECTRICAL SYSTEMS ARE INSTALLED AT THE PROPER TIME. FIT THE AVAILABLE SPACE AND ALLOW PROPER SERVICE ACCESS TO ALL EQUIPMENT. REFER TO ALL DRAWINGS, INCLUDING, BUT NOT LIMITED TO, CIVIL ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND PLUMBING, AND TO RELEVANT EQUIPMENT SUBMITTALS AND SHOP DRAWINGS TO DETERMINE THE EXTENT OF THE CLEAR SPACES. MAKE ALL OFFSETS REQUIRED TO CLEAR EQUIPMENT, BEAMS AND OTHER STRUCTURAL MEMBER, AND TO FACILITATE CONCEALING RACEWAYS IN THE MANNER ANTICIPATED IN THE DESIGN. PROVIDE MATERIALS WITH FRIM HAT WILL FIT PROPERLY THE TYPES OF CEILING, WALL OR FLOOR FINISHES ACTUALLY INSTALLED

#### 16A 1-5 DEFINITIONS

WHENEVER USED IN THESE SPECIFICATIONS OR DRAWINGS, THE FOLLOWING TERMS SHALL HAVE THE INDICATED MEANINGS.

FURNISH: "TO SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLING, INSTALLING, AND SIMILAR

INSTALL: "TO PERFORM ALL OPERATIONS AT THE PROJECT SITE, INCLUDING, BUT NOT LIMITED TO, AND AS REQUIRED, UNLOADING, UNPACKING ASSEMBLING FRECTING PLACING ANCHORING APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING. CLEANING, TESTING, COMMISSIONING, STARTING UP AND SIMILAR OPERATIONS, COMPLETE, AND READY FOR THE INTENDED USE."

PROVIDE: "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."

FURNISHED BY OWNER (OR OWNER-FURNISHED) OR FURNISHED BY OTHERS: "AN ITEM FURNISHED BY THE OWNER OR UNDER OTHER DIVISIONS OR CONTRACTS AND INSTALLED UNDER THE REQUIREMENTS OF THIS DIVISION, COMPLETE AND READY FOR THE INTENDED USE INCLUDING ALL ITEMS INCIDENTAL TO THE WORK NECESSARY FOR PROPER INSTALLATION AND OPERATION. INCLUDE THE INSTALLATION UNDER THE WARRANTY REQUIRED BY THIS

ENGINEER: WHERE REFERRED TO IN THIS DIVISION "ENGINEER" IS THE ENGINEER OF RECORD AND THE DESIGN PROFESSION FOR THE WORK UNDER THIS DIVISION, AND IS A CONSULTANT TO, AND AN AUTHORIZED REPRESENTATIVE OF, THE ARCHITECT, AS DEFINED IN THE GENERAL AND/OR SUPPLEMENTARY CONDITIONS. WHEN USED IN THIS DIVISION, IT MEANS INCREASED INVOLVEMENT BY, AND OBLIGATIONS TO, THE ENGINEER, IN ADDITION TO INVOLVEMENT BY, AND OBLIGATIONS TO THE "ARCHITECT

AHJ: THE LOCAL CODE AND/OR INSPECTION AGENCY (AUTHORITY) HAVING JURISDICTION OVER THE WORK.

NRTL: NATIONALLY RECOGNIZED TESTING LABORATORY, AS DEFINED AND LISTED BY OSHA IN 29 CFR 1910.7 (E.G., UL, ETL, CSA), AND ACCEPTABLE TO THE AHJ OVER THIS PROJECT.

THE TERMS "APPROVED EQUAL", "EQUIVALENT", OR "EQUAL", ARE USED SYNONYMOUSLY AND SHALL MEAN "ACCEPTED BY OR ACCEPTABLE TO THE ENGINEER AS EQUIVALENT TO THE ITEM OR MANUFACTURER SPECIFIED". THE TERM "APPROVED" SHALL MEAN LABELED, LISTED, OR BOTH, BY AN NRTL, AND ACCEPTABLE TO THE AHJ OVER THIS PROJECT.

#### 16A 1-6 DIMENSION AND LAYOUTS

DRAWINGS ARE SCHEMATIC IN NATURE, SHOW THE VARIOUS COMPONENTS OF THE SYSTEMS APPROXIMATELY TO SCALE AND ATTEMPT TO INDICATE HOW THEY WILL BE INTEGRATED WITH OTHER PARTS OF THE WORK. FIGURED DIMENSIONS TAKE PRECEDENCE TO SCALED DIMENSIONS, DETERMINE EXACT LOCATIONS BY JOB MEASUREMENTS BY CHECKING THE REQUIREMENTS OF OTHER TRADES AND BY REVIEWING ALL CONTRACT DOCUMENTS CORRECT FRRORS THAT COULD HAVE REEN AVOIDED BY PROPER CHECKING AND INSPECTION, AT NO ADDITIONAL COST TO THE OWNER.

#### 16A 1-7 ORDINANCES AND CODES

COMPLY, AT A MINIMUM, NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) CODES, STATE AND LOCAL BUILDING CODES, AND ALL OTHER APPLICABLE CODES AND ORDINANCES FOR PERFORMANCE WORKMANSHIP, EQUIPMENT, AND MATERIALS, ADDITIONALLY,

COMPLY WITH RULES AND REGULATIONS OF PUBLIC UTILITIES AND MUNICIPAL DEPARTMENTS AFFECTED BY CONNECTION OF SERVICES

WHERE CONFLICTS BETWEEN VARIOUS CODES, ORDINANCES, RULES, AND REGULATIONS EXIST, COMPLY WITH THE MOST STRINGENT. WHEREVER REQUIREMENTS OF THESE SPECIFICATIONS, DRAWINGS OR BOTH, EXCEED THOSE OF THE ABOVE ITEMS, THE REQUIREMENTS OF THESE SPECIFICATIONS, DRAWINGS, OR BOTH, SHALL GOVERN CODE COMPLIANCE, AT A MINIMUM, IS MANDATORY. CONSTRUE NOTHING IN THESE CONSTRUCTION DOCUMENTS AS PERMITTING WORK NOT IN COMPLIANCE, AT A MINIMUM, WITH THESE

BRING ALL CONFLICTS OBSERVED BETWEEN CODES, ORDINANCES RULES, REGULATIONS AND THESE DOCUMENTS TO THE ENGINEER'S ATTENTION FOR FINAL RESOLUTION. CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY VIOLATION OF THE LAW.

PROVIDE AND MAINTAIN ALL NECESSARY SIGNAL LIGHTS AND GUARDS FOR THE SAFETY OF THE PUBLIC. OBTAIN AND PAY FOR ALL PERMITS FOR WORK IN THIS DIVISION.

16A 1-8 MANUFACTURERS

INTRODUCED, THE FOLLOWING REQUIREMENTS APPLY TO PRODUCT A. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH

IN OTHER ARTICLES WHERE LIST OF MANUFACTURERS ARE

REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE MANUFACTURERS SPECIFIED.

WHERE A LIST IS PROVIDED. MANUFACTURERS ARE LISTED ALPHABETICALLY AND NOT IN ACCORDANCE WITH ANY RANKING OR PREFERENCE.

16A 1-9 SUBMITTALS

ASSEMBLE AND SUBMIT TO THE ARCHITECT, FOR ENGINEER'S REVIEW. MANUFACTURERS' PRODUCT LITERATURE FOR MATERIAL AND EQUIPMENT TO BE FURNISHED. INSTALLED. OR WITH, UNDER THIS DIVISION, INCLUDING SHOP DRAWINGS, MANUFACTURERS' PRODUCT DATA AND PERFORMANCE SHEETS, SAMPLES, AND OTHER SUBMITTALS REQUIRED BY THIS DIVISION. PROVIDE THE NUMBER OF SUBMITTALS REQUIRED BY DIVISION 1. BEFORE SUBMITTING, VERIFY THAT ALL MATERIALS AND EQUIPMENT SUBMITTED ARE MUTUALLY COMPATIBLE AND SUITABLE FOR THE INTENDED USE AND FIT THE AVAILABLE SPACES, AND ALLOW AMPLE AND CODE-REQUIRED ROOM FOR ACCESS AND MAINTENANCE. SUBMITTALS SHALL CONTAIN THE FOLLOWING INFORMATION. SUBMITTALS NOT SO IDENTIFIED WILL BE RETURNED TO THE CONTRACTOR WITHOUT ACTION:

A. THE PROJECT NAME.

B. APPLICABLE SPECIFICATION SECTION AND PARAGRAPH . THE SUBMITTAL DATE

D. THE CONTRACTOR'S STAMP, WHICH SHALL CERTIFY THAT THE STAMPED DRAWINGS HAVE BEEN CHECKED BY THE CONTRACTOR, COMPLY WITH THE DRAWINGS AND SPECIFICATIONS, AND HAVE BEEN COORDINATED WITH OTHER TRADES.

TRANSMIT SUBMITTALS AS EARLY AS REQUIRED TO SUPPORT THE PROJECT SCHEDULE. ALLOW FOR TWO WEEKS ENGINEER REVIEW TIME, PLUS MAILING TIME, PLUS A DUPLICATION OF THIS TIME FOR RESUBMITTALS, IF REQUIRED. TRANSMIT SUBMITTALS AS SOON AS POSSIBLE AFTER NOTICE TO PROCEED AND BEFORE CONSTRUCTION STARTS. THE ENGINEER'S SUBMITTAL REVIEWS WILL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS IN DIMENSIONS, DETAILS, SIZE OF MEMBERS, OR QUANTITIES OR OMITTING COMPONENTS OR FITTINGS OR COORDINATING ITEMS WITH ACTUAL BUILDING CONDITION.

16A 1-10 ADJUSTING, ALIGNING AND TESTING

ADJUST, ALIGN, AND TESTALL ELECTRICAL EQUIPMENT ON THIS PROJECT PROVIDED UNDER THIS DIVISION AND ALL ELECTRICAL EQUIPMENT FURNISHED BY OTHERS FOR INSTALLATION OR WIRING UNDER THIS DIVISION, FOR PROPER OPERATION.

TEST ALL SYSTEMS AND EQUIPMENT ACCORDING TO THE REQUIREMENTS IN NETA ATS (LATEST EDITION).

MAINTAIN THE FOLLOWING ON THE PROJECT PREMISES AT ALI TIMES: A TRUE RMS READING VOLTMETER. A TRUE RMS READING AMMETER, AND A MEGOHMMETER INSULATION RESISTANCE TESTER PROVIDE TEST DATA READINGS AS REQUESTED OR AS REQUIRED BY THE ENGINEER

16A 1-11 OPERATION AND MAINTENANCE INSTRUCTIONS

SUBMIT TO THE ARCHITECT, FOR ENGINEER'S REVIEW, COPIES EACH OF OPERATIONS AND MAINTENANCE INSTRUCTION MANUALS, APPROPRIATELY BOUND INTO MANUAL FORM INCLUDING APPROVED COPIES OF THE FOLLOWING REVISED IF NECESSARY 1 SHOW SYSTEM AND EQUIPMENT AS ACTUALLY INSTALLED. PROVIDE THE NUMBER OF SUBMITTALS REQUIRED BY DIVISION 1 AND INCLUDE AT A MINIMUM THE FOLLOWING INFORMATION:

A. MANUFACTURERS' CATALOG AND PRODUCT DATE SHEETS B. WIRING DIAGRAMS

C. MAINTENANCE INSTRUCTIONS D. OPERATING INSTRUCTIONS E. PARTS LISTS

SERVICES AND SPARE PARTS.

16A 1-12 SYSTEM START UP

F. TEST REPORTS AS DEFINED IN NETA ATS FOR THE SYSTEMS AND EQUIPMENT PROVIDED AND INSTALLED UNDER THIS CONTRACT. G. NAMES, ADDRESSES, TELEPHONE NUMBERS, AND E-MAIL ADDRESSES OF LOCAL CONTACTS FOR WARRANTY

SUBMIT MANUALS PRIOR TO REQUESTING THE FINAL PUNCH LIST AND BEFORE ANY REQUEST FOR SUBSTANTIAL COMPLETION. ALSO PROVIDE ADEQUATE VERBAL INSTRUCTIONS OF SYSTEM OPERATIONS TO OWNER'S REPRESENTATIVE AT THE COMPLETION OF, AND BEFORE FINAL ACCEPTANCE OF, THE WORK.

PRIOR TO STARTING UP THE ELECTRICAL SYSTEMS, CHECK ALL COMPONENTS AND DEVICES, LUBRICATE ITEMS ACCORDINGLY, AND TIGHTEN SCREWS AND BOLTS FOR CONNECTORS AND TERMINALS ACCORDING TO MANUFACTURER'S PUBLISHED TORQUE-TIGHTENING VALUES. IF MANUFACTURE'S TORQUE VALUES ARE NOT INDICATED, USE THOSE SPECIFIED IN UL 486A. ADJUST TAPS ON EACH TRANSFORMER FOR RATED SECONDARY VOLTAGE. CHECK AND RECORD BUILDING'S SERVICE ENTRANCE VOLTAGE, GROUNDING CONDITIONS, GROUNDING RESISTANCE, AND PROPER PHASING. BALANCE ALL SINGLE-PHASE LOADS AT EACH PANELBOARD, REDISTRIBUTING BRANCH CIRCUIT CONNECTIONS UNTIL BALANCE IS ACHIEVED. DO NOT TYPE UP FINAL PANELBOARD DIRECTORIES UNTIL ALL RE-BALANCING AND REDISTRIBUTION OF CIRCUITS ARE COMPLETE. REPLACE ALL BURNED-OUT LAMPS AND LAMPS USED FOR TEMPORARY CONSTRUCTION LIGHTING IN PERMANENT LIGHT FIXTURES. AFTER ALL SYSTEMS HAVE BEEN INSPECTED AND ADJUSTED, CONFIRM ALL OPERATION FEATURES REQUIRED BY THE DRAWINGS AND SPECIFICATIONS AND MAKE FINAL ADJUSTMENTS AS

16A 1-13 WARRANTIES

NECESSARY.

WARRANT EACH SYSTEM AND EACH ELEMENT THEREOF AGAINST ALL DEFECTS DUE TO FAULTY WORKMANSHIP, DESIGN OR MATERIAL FOR A PERIOD OF 12 MONTHS FROM DATE OF SUBSTANTIAL COMPLETION, UNLESS SPECIFIC ITEMS ARE NOTED TO CARRY A LONGER WARRANTY IN THE CONSTRUCTION DOCUMENTS OR MANUFACTURER'S STANDARD WARRANTY EXCEEDS 12 MONTHS REMEDY ALL DEFECTS OCCURRING WITHIN THE WARRANTY PERIOD(S). AS STATED IN THE GENERAL CONDITIONS AND DIVISION 1. ALSO WARRANT THE FOLLOWING ADDITION ITEMS:

A. ALL RACEWAYS ARE FREE FROM OBSTRUCTIONS, HOLES CRUSHING, OR BREAKS OF ANY NATURE. B. ALL RACEWAY SEALS ARE EFFECTIVE

C. THE ENTIRE ELECTRICAL SYSTEM IS FREE FROM ALL SHORT CIRCUITS AND UNWANTED OPEN CIRCUITS AND GROUNDS THE ABOVE WARRANTIES SHALL INCLUDE LABOR AND MATERIAL MAKE REPAIRS OR REPLACEMENTS WITHOUT ANY ADDITION

COST TO THE OWNER. PERFORM THE REMEDIAL WORK PROMPTLY, UPON WRITTEN NOTICE

AT THE TIME OF SUBSTANTIAL COMPLETION, DELIVER TO THE OWNER ALL WARRANTIES, IN WRITING AND PROPERLY EXECUTED, INCLUDING TERM LIMITS FOR WARRANTIES EXTENDING BEYOND THE ONE YEAR PERIOD, EACH WARRANTY INSTRUMENT BEING ADDRESSED TO THE OWNER AND STATING THE COMMENCEMENT DATE AND TERM.

16A 2 ELECTRICAL WORK 16A 2-3 CUTTING AND PATCHING

FROM THE ENGINEER OR OWNER.

FOLLOWING THE REQUIREMENTS IN DIVISION 1, CUT WALLS, FLOORS CEILINGS, AND OTHER PORTIONS OF THE FACILITY AS REQUIRED TO PERFORM WORK UNDER THIS DIVISION, OBTAIN PERMISSION OF THE ENGINEER, OWNER, OR BOTH, BEFORE DOING ANY CUTTING. CUT ALL HOLES AS SMALL AS POSSIBLE. PATCH WALLS, FLOORS, AND OTHER PORTIONS OF THE FACILITY AS REQUIRED BY WORK UNDER

THIS DIVISION. ALL PATCHING SHALL BE THOROUGHLY FIRST

CLASS AND SHALL MATCH THE ORIGINAL MATERIAL AND

#### CONSTRUCTION, INCLUDING FIRE RATINGS IF APPLICABLE. <u>16A 2-4 ROUGH-IN</u>

COORDINATE WITHOUT DELAY ALL ROUGHING-IN WITH OTHER DIVISION. CONCEAL ALL RACEWAYS EXCEPT IN UNFINISHED AREAS AND WHERE OTHERWISE INDICATED ON THE DRAWINGS.

16A 2-5 RACEWAYS

METALLIC CONDUIT AND TUBING:

A. ELECTRICAL METALLIC TUBING AND FITTINGS (EMT): ANSI C80.3. UL 797

B. FLEXIBLE METAL CONDUIT (FMC); ZINC-COATED STEEL. UL 1 C INTERMEDIATE METAL CONDUIT (IMC): HOT-DIPPED GALVANIZED RIGID STEEL CONDUIT: ANSI C80.6, UL 1242 D. LIQUIDTIGHT FLEXIBLE METAL CONDUIT (LFMC): FLEXIBLE STEEL CONDUIT WITH PVC JACKET: UL 360

E. RIGID METAL CONDUIT (RMC): 1. HOT-DIP GALVANIZED RIGID STEEL CONDUIT (GRS): ANSI C80.1 UL 6 2. RIGID ALUMINUM CONDUIT (RAC): ANSI C80.5, UL6A

F. PLASTIC-COATED IMC, RMC, AND FITTINGS: NEMA RN 1, UL G. IMC AND RMC FITTINGS: NEMA FB 1+- COMPATIBLE WITH CONDUIT TYPE AND MATERIAL, UL LISTED.

NON-METALLIC CONDUIT AND TUBING:

A. ELECTRICAL NONMETALLIC TUBING (ENT): NEMA TC13

B. LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT (LFNC): C. RIGID NONMETALLIC CONDUIT (RNC): SCHEDULE 40 PVC: NEMA TC2, UL 651 D. ENT AND RNC FITTINGS: NEMA TC 3, TC 6+- UL 514,

COMPATIBLE WITH CONDUIT/TUBING TYPE AND

#### 16A 2-6 RACEWAY INSTALLATION

MATERIAL, UL LISTED.

INSTALL ALL CIRCULAR RACEWAYS CONCEALED ABOVE SUSPENDED CEILINGS OR CONCEALED IN WALLS OR FLOORS WHEREVER POSSIBLE EXCEPT WHERE OTHERWISE INDICATED. PROVIDE GRS FOR ALL CONDUITS RUN UNDERGROUND. EXPOSED TO WEATHER. OR EXPOSED TO OTHER HAZARDOUS CONDITIONS PROVIDE GRS INSTALLED BELOW GRADE WITH CORROSION RESISTANT BONDED-PLASTIC OR APPROVED MASTIC COATING THIS SHALL INCLUDE THE 90-DEGREE ELBOW BELOW GRADE AND THE ENTIRE VERTICAL TRANSITION TO ABOVE GRADE, ALL OTHER RACEWAY MAY BE EMT WHERE APPROVED BY LOCAL CODE. USE COMPRESSION TYPE FITTINGS FOR EMT, WITH ALL FITTINGS UL LISTED FOR THE ENVIRONMENT IN WHICH THEY ARE USED. AT CONTRACTOR'S OPTION. PVC CONDUIT MAY BE USED UNDERGROUND WHERE PERMITTED BY LOCAL CODE AND WHERE NOT SPECIFICALLY RESTRICTED BY THESE DOCUMENTS.

USE FMC FOR FINAL CONNECTION TO EACH MOTOR AND TRANSFORMER, AND TO ANY DEVICE THAT WOULD OTHERWISE TRANSMIT MOTION, VIBRATION, OR NOISE. WHERE EXPOSED TO LIQUIDS, VAPORS OR SUNLIGHT, USE LFMC. PROVIDE ALL FMC AND LFMC WITH INSULATED GROUND WIRE.

INSTALL RACEWAYS PARALLEL TO BUILDING LINES.

INSTALL RACEWAYS TO REQUIREMENTS OF STRUCTURE AND TO REQUIREMENTS OF ALL OTHER WORK ON THE PROJECT. INSTALL RACEWAY TO CLEAR ALL OPENINGS, DEPRESSIONS, PIPES, DUCTS REINFORCING STEEL AND OTHER IMMOVABLE OBSTACLES INSTALL RACEWAYS SET IN FORMS FOR CONCRETE STRUCTURE IN SUCH A MANNER THAT INSTALLATION WILL NOT AFFECT THE STRENGTH OF STRUCTURE EXCEPT WHERE APPROVED IN WRITING BY THE ENGINEER INSTALL NO RACEWAY IN A SLAB-ON-GRADE LOCATE RACEWAY BELOW GRANULAR FILL BELOW SLABS-ON-GRADE.

INSTALL RACEWAYS CONTINUOUS BETWEEN CONNECTION TO OUTLETS, BOXES AND CABINETS WITH A MINIMUM POSSIBLE NUMBER OF BENDS AND NOT MORE THAN THE EQUIVALENT OF FOUR 90-DEGREE BENDS BETWEEN CONNECTIONS. USE MANUFACTURED ELBOWS FOR ALL 45- AND 90- DEGREE BENDS. UNLESS APPROVED BY THE ENGINEER IN ADVANCE. MAKE OTHER BENDS SMOOTH AND EVEN AND WITHOUT FLATTENING RACEWAY OR FI AKING GALVANIZED OR ENAMEL. RADII OF BENDS SHALL BE AS LONG AS POSSIBLE AND NEVER SHORTER THAN THE CORRESPONDING TRADE ELBOW. USE LONG RADIUS ELBOWS WHERE NECESSARY, INDICATED, OR BOTH.

SECURELY FASTEN RACEWAYS IN PLACE WITH APPROVED STRAPS HANGERS AND STEEL SUPPORTS AS REQUIRED. ATTACH RACEWAY SUPPORTS TO THE BUILDING STRUCTURE. HANG SINGLE RACEWAYS FOR FEEDERS WITH MALLEABLE SPLIT RING HANGERS WITH ROD AND TURNBUCKLE SUSPENSION FROM INSERTS SPACED NOT OVER 10 FEET APART IN CONSTRUCTION ABOVE, CLAMP GROUPS OF HORIZONTAL FEEDER FACEWAYS TO STEEL CHANNELS THAT ARE SUSPENDED FROM INSERTS SPACED NOT OVER 10 FEET APART IN CONSTRUCTION ABOVE. SECURELY CLAMP VERTICAL FEEDER RACEWAYS TO STRUCTURAL STEEL MEMBERS ATTACHED TO STRUCTURE. INSTALL CABLE CLAMPS FOR SUPPORT OF VERTICAL FEEDERS WHERE REQUIRED. ADD RACEWAY SUPPORTS WITHIN 12 INCHES OF ALL BENDS, ON BOTH SIDES OF THE BENDS. DO NOT

REAM RACEWAY ENDS, THOROUGHLY CLEAN RACEWAYS BEFORE INSTALLATION, AND KEEP CLEAN AFTER INSTALLATION. PLUG OR COVER OPENINGS AND BOXES AS REQUIRED TO KEEP RACEWAYS CLEAN DURING CONSTRUCTION AND FISH ALL RACEWAYS CLEAR OF OBSTRUCTIONS BEFORE PULLIN CONDUCTORS WIRES. PROVIDE RACEWAYS OF AMPLE SIZE FOR PULLING OF WIRE AND NOT SMALLER THAN CODE REQUIREMENTS AND NOT LESS THAN 1/2-INCH IN SIZE, UNLESS INDICATED OTHERWISE ON DRAWINGS.

SUPPORT RACEWAYS FROM SUSPENDED CEILING COMPONENTS.

PROTECT ALL RACEWAY INSTALLATIONS AGAINST DAMAGE DURING CONSTRUCTION. REPAIR ALL RACEWAYS DAMAGED OR MOVED OUT OF LINE AFTER ROUGHING-IN TO MEET ENGINEER'S APPROVAL WITHOUT ADDITION COST TO THE OWNER.

ALIGN AND INSTALL TRUE AND PLUMB ALL RACEWAY TERMINATIONS AT PANELBOARDS, SWITCHBOARDS, MOTOR CONTROL, EQUIPMENT AND JUNCTION BOXES.

INSTALL APPROVED EXPANSION/DEFLECTION FITTINGS WHERE RACEWAYS PASS THROUGH OR ACROSS EXPANSION JOINTS. INSTALL A PULL WIRE IN EACH EMPTY RACEWAY THAT IS LEFT FOR

MONOFILAMENT PLASTIC LINE WITH NOT LESS THAN 200-LB TENSILE

STRENGTH. LEAVE AT LEAST 12 INCHES OF SLACK AT EACH END OF

INSTALLATION OF CONDUCTORS OR CABLES UNDER OTHER

DIVISIONS OR CONTRACTS USE POLYPROPYLENE OR

OF PULL WIRE.

MAKE ALL JOINTS AND CONNECTIONS IN A MANNER THAT WILL ENSURE MECHANICAL STRENGTH AND ELECTRICAL CONTINUITY INSTALL CONDUIT-SEALING FITTINGS IN ALL RACEWAYS PASSING FROM NON-HEATED TO HEATED SPACES.

16A 2-7 BUSHINGS AND LOCKNUTS

BETTS CORPORATION, UNISTRUT.

RIGIDLY CLAMP CONDUITS ENTERING SHEET METAL BOXES TO THE BOX WITH A BUSHING AND LOCKNUT ON THE INSIDE AND A LOCKNUT ON THE OUTSIDE. CONDUIT SHALL ENTER THE BOX SQUARELY. PROVIDE BUSHINGS AND LOCKNUTS MADE OF GALVANIZED MALLEABLE IRON WITH SHARP, CLEAN-CUT THREADS. WHERE EMT ENTERS A BOX, PROVIDE APPROVED EMT COMPRESSION CONNECTORS USE INSULATED AND/OR GROUNDING BUSHINGS WHEREVER CONNECTION IS SUBJECT TO VIBRATION OR MOISTURE, WHEN REQUIRED BY NFPA 70, OR BOTH.

16A 2-8 SUPPORT SYSTEMS STEEL SLOTTED SUPPORT SYSTEMS (SLOTTED CHANNEL): COMPLY WITH MFMA-3, FACTORY-FABRICATED COMPONENTS FOR FIELD ASSEMBLY 12-GAUGE. 1-5/8-INCH BY 1-5/8-INCH COPPER B-LINE ERICO INTERNATIONAL CORPORATION, POWER-STRUT, THOMAS

METALLIC COATING: HOT-DIP GALVANIZED AFTER FABRICATION AND APPLIED ACCORDING TO MFMA-3

NONMETALLIC COATINGS: MANUFACTURER'S STANDARD PVC, POLYURETHANE, OR POLYESTER COATING APPLIED ACCORDING TO

PAINTED COATINGS: MANUFACTURER'S STANDARD PAINTED COATING APPLIED ACCORDING TO MFMA-3.

STAINLESS STEEL? TYPE 304, PER ASTM A240. ALUMINUM (EXTRUDED)? TYPE 6063-T6, PER ASTM B221

FIELD FABRICATION

WHERE FIELD CUTTING OF STANDARD LENGTHS OF CHANNEL ARE REQUIRED, MAKE CUTS STRAIGHT AND PERPENDICULAR TO MANUFACTURED SURFACES.

FOR FIELD-CUT OR DAMAGED SURFACES OF COATED CHANNELS,

DRESS CUT ENDS DAMAGED SURFACES OR BOTH WITH AN

ABRASIVE MATERIAL (E.G. FILE, GRINDING STONE, OR SIMILAR) AND CLEANER TO REMOVE OILS, RUST, SHARP EDGES AND SHARDS. FOR CHANNEL WITH FACTORY-APPLIED COATING, RE-FINISH CUT EDGES EIGHT COATING COMPATIBLE WITH THE FACTORY FINISH

AND AS RECOMMENDED BY THE MANUFACTURER (E.G., MANUFACTURER'S TOUCH-UP PAINT OR ZINC-RICH COLD-GALVANIZING COMPOUND, AS APPLICABLE).

16A 2-9 CONDUCTORS

PROVIDE COPPER CONDUCTORS, WITH UL LABEL, AND 600V

SERVICE LATERAL CONDUCTORS? TYPE THWN OR XHHW WITH

ALL FEEDER AND BRANCH CIRCUIT CONDUCTORS NO. 8 AWG AND LARGER? STRANDED, TYPE THWN OR XHHW INSULATION.

ALL CONDUCTORS, NO 10 AWG AND SMALLER, USED FOR POWER AND LIGHTING CIRCUITS? SOLID COPPER, TYPE THWN (WET OR DAMP LOCATIONS, OR IN CONDUIT BELOW GRADE OR SLAB), TYPE THHN (DRY LOCATIONS ONLY AND ABOVE GRADE) INSULATION, OR DUAL-RATED TYPE THHN/THWN.

ALL BRANCH CIRCUIT WIRING? NOT SMALLER THAN NO. 12 AWG. IF NO CONDUCTOR SIZE IS INDICATED ON THE DRAWINGS FOR A BRANCH CIRCUIT, PROVIDE NO. 12 AWG CONDUCTORS AND A 20A CIRCUIT BREAKER.

CONDUCTORS FIELD-INSTALLED WITHIN FLUORESCENT LIGHT FIXTURE CHANNELS: TYPE THHN.

CONTROL WIRING: STRANDED COPPER CONDUCTORS. 600V INSULATION, OF THE PROPER TYPE, SIZE AND NUMBER AS REQUIRED TO ACCOMPLISH SPECIFIED FUNCTION. MINIMUM SIZE: NO. 18 AWG, UNLESS OTHERWISE NOTED.

16A 2-10 WIRING INSTALLATION

EXCEPT WHERE SPECIFIED OR INDICATED, FOR LOW-VOLTAGE WIRING, INSTALL ALL WIRING IN APPROVED RACEWAY AND **ENCLOSURES** 

SUPPORT ALL CONDUCTORS AND CABLES IN VERTICAL INSTALLATIONS, AS REQUIRED BY NFPA 70, BY INSTALLING CABLE SUPPORTS OR PLUG-TYPE CONDUIT RISER SUPPORTS, OR WIRE-MESH SAFETY GRIPS.

INSTALL ALL CONDUCTORS AND CABLE IN RACEWAYS CONTINUOUS WITHOUT TAPS OR SPLICES. SPLICE OR TAP ONLY IN APPROVED BOXES AND ENCLOSURES WITH APPROVED SOLDERLESS CONNECTORS, OR CRIMP CONNECTORS AND TERMINAL BLOCKS FOR CONTROL WIRING, AND KEEP TO THE MINIMUM REQUIRED. INSULATE ALL SPLICES, TAPS, AND JOINTS AS REQUIRED BY

ALL MATERIAL USED TO TERMINATE, SPLICE, OR TAP CONDUCTORS: DESIGNED FOR, PROPERLY SIZED FOR, AND UL LISTED FOR SPECIFIC APPLICATION AND CONDUCTORS INVOLVED. AND INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, USING THE MANUFACTURER'S RECOMMENDED TOOLS.

WHERE WIRING IS INDICATED AS INSTALLED, BUT THE CONNECTION IS INDICATED "FUTURE" OR "BY OTHER DIVISION, TRADES, OR CONTRACTS", LEAVE A MINIMUM 3-FOOT "PIGTAIL" AT THE BOX, TAPE THE ENDS OF THE CONDUCTORS, AND COVER THE BOX.

THE NUMBER OF THE CONDUCTORS IN A SPECIFIC RACEWAY "HOME RUN" IS INDICATED WITH CROSS LINES (TICK MARKS) ON EACH "CIRCUIT RUN" ON THE DRAWINGS. IN GENERAL. THE DIRECTION OF BRANCH CIRCUIT "HOME RUN" ROUTING IS INDICATED ON THE DRAWINGS COMPLETE WITH CIRCUIT NUMBERS AND PANELBOARD DESIGNATION. CONTINUE ALL SUCH "HOME RUN" WIRING TO THE DESIGNATED PANELBOARD, AS THOUGH "CIRCUIT RUNS" WHERE INDICATED IN THEIR FINTIRFTY

WHEN MULTIPLE HOME RUNS ARE COMBINED INTO A SINGLE RACEWAY SUCH THAT THE NUMBER OF CONDUCTORS EXCEEDS FOUR (CONDUCTOR COUNT IS MADE UP OF ANY COMBINATION OF PHASE AND NEUTRAL CONDUCTORS), THE FOLLOWING RESTRICTIONS APPLY, WHICH ARE IN ADDITION TO THOSE IN NFPA 70.

NORMAL OR NONESSENTIAL CIRCUITS

MAXIMUM OF 16 CONDUCTORS IN A SINGLE RACEWAY, FOR UP TO EIGHT CONDUCTORS IN A RACEWAY, MINIMUM RACEWAY SIZE? 3/4 -INCH FOR GREATER THAN EIGHT CONDUCTORS. MINIMUM RACEWAY SIZE: 1-INCH. DO NOT INSTALL ANY OTHER TYPE OF CIRCUIT IN THIS

THE MINIMUM WIRE SIZE FOR ALL CONDUCTORS IN THIS RACEWAY: NO. 10 AWG. ONLY 15A AND 20A BRANCH CIRCUIT HOMERUNS MAY BE COMBINED INTO ONE RACEWAY.

DO NOT USE MULTI-CONDUCTOR CIRCUITS, WITH A SHARED NEUTRAL, FOR ANY GFCI CIRCUIT BREAKER OR RECEPTACLE CIRCUIT. FOR BRANCH CIRCUITS FED FROM GFCI CIRCUIT BREAKERS, LIMIT THE ONE-WAY CONDUCTOR LENGTH TO 100 FEET BETWEEN THE PANELBOARD AND THE MOST REMOTE RECEPTACLE OR LOAD ON

THE GFCI CIRCUIT. WIRING SHALL HAVE INSULATION OF THE PROPER COLOR TO MATCH COLOR CODE SYSTEM IN THE TABLE BELOW. IN LARGER SIZES, WHERE PROPERLY COLORED INSULATION IS NOT AVAILABLE, USE VINYL PLASTIC ELECTRICAL TAPE OF THE APPROPRIATE COLOR AROUND EACH CONDUCTOR AT LL TERMINATION POINTS, JUNCTION AND PULL BOXES.

SYSTEM VOLTAGE CONDUCTOR TYPE PHASE B PHASE C BLUE NEUTRAL EQUIPMENT GROUND GREEN ISOLATED GROUND GREEN W/YELLOWSTRIPE 480Y/277 PHASE A **BROWN** PHASE B ORANGE PHASE C YELLOW

PROPERLY NUMBER ALL TERMINAL BLOCKS AND WIRE TERMINALS FOR CONTROL WIRING FOR IDENTIFICATION WITH VINYL STICK-ON MARKERS OR EQUIVALENT. PROVIDE AN EQUIPMENT-GROUNDING CONDUCTOR, OR BONDING JUMPER, AS APPLICABLE, IN ALL BRANCH CIRCUITS AND FEEDERS, SIZED IN ACCORDANCE WITH NFPA 70 TABLES 250.66 OR 250.122, AS APPLICABLE, UNLESS INDICATED AS LARGER ON THE DRAWINGS.

EQUIPMENT GROUND GREEN

W/YELLOWSTRIPE

ISOLATED GROUND

VOLTAGE DROP IN BRANCH CIRCUITS SHALL NOT EXCEED 2 PERCENT. 16A 2-11 JUNCTION BOXES, PULL BOXES, CABINETS, AND WIREWAYS

PROVIDE JUNCTION BOXES, PULL BOXES, CABINETS AND WIREWAYS WHEREVER NECESSARY FOR PROPER INSTALLATION OF VARIOUS ELECTRICAL SYSTEMS ACCORDING TO NEPA 70 AND WHERE INDICATED ON THE DRAWINGS SIZE AS REQUIRED FOR THE SPECIFIC FUNCTION OR AS REQUIRED BY NFPA 70. WHICHEVER IS LARGER. CONSTRUCTION SHALL BE OF A NEMA DESIGN SUITABLE FOR THE ENVIRONMENT INSTALLED

JUNCTION BOXES INSTALLED BEHIND WALL CASES, AND IN OR ON OTHER STORE FIXTURES. EXCEPT WHERE OTHERWISE SPECIFIED. SHALL BE 4-INCH SQUARE OR LARGER, WITH GALVANIZED COVERS 16A 2-12 OUTLET BOXES

ALL OUTLETS INCLUDING LIGHT FIXTURE, SWITCH, RECEPTACLE, AND SIMILAR OUTLETS: NATIONAL ELECTRICAL, APPLETON, STEEL CITY, RACO, OR APPROVED EQUAL, GALVANIZED STEEL KNOCKOUT BOXES, SUITABLE IN DESIGN TO THE PURPOSE THEY SERVE AND THE SPACE THEY OCCUPY. SIZE AS REQUIRED FOR THE SPECIFIC FUNCTION OR AS REQUIRED BY NFPA 70, WHICHEVER IS LARGER. SET ALL OUTLET BOXES IN WALLS, COLUMNS, FLOORS, OR CEILINGS SO THEY ARE FLUSH WITH THE FINISHED SURFACE, ACCURATELY SET, AND RIGIDLY SECURED IN POSITION. PROVIDE PLASTER RINGS. EXTENSION RINGS AND/OR MASONRY RINGS AS REQUIRED FOR FLUSH MOUNTING. PROVIDE APPROVED CAST OUTLET BOXES, WITH HUBS AND WEATHERPROOF COVERS, IN ALL AREAS SUBJECT TO DAMP, WET, OR HARSH CONDITIONS.

#### 16A 2-13 OUTLET LOCATIONS

COORDINATE LOCATIONS OF OUTLETS BOXES, OUTLETS ARE ONLY APPROXIMATELY LOCATED ON THE SMALL SCALE DRAWINGS. USE GREAT CARE IN THE ACTUAL LOCATION BY CONSULTING THE VARIOUS LARGE SCALE DETAILED DRAWINGS USED BY OTHER DIVISION TRADES, AND BY SECURING DEFINITE LOCATIONS FROM THE ARCHITECT.

16A 2-14 MOUNTING HEIGHTS UNLESS NOTED OTHERWISE, INSTALL WIRING DEVICES AS INDICATED

BELOW (NOTE: ALL DIMENSIONS ARE TO THE BOTTOM OF THE OUTLET BOX UNLESS NOTED OTHERWISE): A. RECEPTACLES:

> A. VERTICALLY WITH THE GROUND SLOT MOUNTED AT THE TOP: 16 INCHES ABOVE FINISHED FLOOR.

MOUNTED AT THE BOTTOM: 16 INCHES ABOVE FINISHED FLOOR. 2. ABOVE COUNTERS:

B HORIZONTALLY WITH NEUTRAL SLOT

A. FOR 36-INCH HIGH COUNTER TOPS: 44 INCHES ABOVE FINISHED FLOOR, VERTICALLY. FOR 34-INCH HIGH COUNTER TOPS:

VERTICALLY 3. MECHANICAL AND ELECTRICAL EQUIPMENT ROOMS AND JANITORS CLOSETS: 44 INCHES ABOVE FINISHED FLOOR,

40 INCHES ABOVE FINISHED FLOOR,

4. WEATHERPROOF EXTERIOR RECEPTACLES: 24 INCHES ABOVE FINISHED GRADE OR AS INDICATED ON DRAWINGS VERTICALLY

5. GFCI RECEPTACLES: SAME AS GENERAL

7. TVSS RECEPTACLES: SAME AS GENERAL

RECEPTACLES. 6. ISOLATED GROUND RECEPTACLES: SAME AS GENERAL RECEPTACLES.

RECEPTACLES.

8. CONCRETE BLOCK WALLS: DIMENSIONS ABOVE MAY BE ADJUSTED SLIGHTLY, AS REQUIRED TO COMPENSATE FOR VIABLE JOINT DIMENSIONS, SUCH THAT BOTTOM OR TOP OF BOXES, AS APPLICABLE, ARE AT BLOCK

#### B. SWITCHES:

1. GENERAL: 44 INCHES ABOVE FINISHED FLOOR.

2. ABOVE COUNTERS, SAME AS FOR RECEPTACLES. 3. CONCRETE BLOCK WALLS: 40 INCHES ABOVE FINISHED FLOOR (DIMENSIONS MAY BE ADJUSTED SLIGHTLY AS REQUIRED TO COMPENSATE FOR VARIABLE JOINT DIMENSIONS. SUCH THAT BOTTOM OF BOXES ARE

AT BLOCK JOINTS).

C. TELEPHONE/DATA OUTLET BOXES: 1. GENERAL: MATCH MOUNTING HEIGHT OF ADJACENT WIRING DEVICE LISTED ABOVE.

2. WALL-MOUNTED TELEPHONE: 40 INCHES ABOVE FINISHED FLOOR.

#### 16A 2-15 WIRING DEVICES

PROVIDE THE FOLLOWING WIRING DEVICES WHERE SHOWN ON DRAWINGS OR REQUIRED. MINOR CHANGES RELATIVE TO THE LOCATION OF ELECTRICAL EQUIPMENT MAY BE MADE TO COMPLY WITH STRUCTURAL AND BUILDING REQUIREMENTS AS DETERMINED IN THE COURSE OF CONSTRUCTION. PROVIDE ALL WIRING DEVICES OF THE SAME MANUFACTURER AND NOT MIXED ON THE PROJECT. TO THE MAXIMUM EXTENT POSSIBLE. PROVIDE THE COLOR OF TOGGLES AND RECEPTACLES AS REQUESTED BY THE ENGINEER.

TYPE OF DEVICE HUBBELL SIMPLEX RECEPTACLE HBL 5361 SIMPLEX RECEPTACLE HBL 5361 5361 DUPLEX RECEPTACLE HBL 5362 5362 HBL 1221 PS 20 AC1 1221-2 HBL 1223 PS 20 AC3 1223-2

16A 2-16 SWITCH AND OUTLET COVER PLATES

SWITCH AND OUTLET PLATES: COLORED, SMOOTH NYLON BY THE SAME MANUFACTURER AS THE WIRING DEVICES. WHEREVER POSSIBLE. VERIFY DESIRED MATERIALS AND COLORS WITH ENGINEER BEFORE INSTALLATION. SWITCH PLATES IN UNFINISHED ROOMS AND SPACES: STAMPED STEEL, CADMIUM PLATED. INSTALL GROUPS OF SWITCHES UNDER ONE GANGED-PLATE, USUALLY HORIZONTALLY OR, WHERE REQUIRED BY DETAILS, VERTICALLY.

SET ALL COVER PLATES PLUMB, PARALLEL, AND FINISHED FLUSH WITH THE WALL

16A 2-18 FIRESTOPPING FLOOR AND WALL PENETRATIONS FIRE-RESISTANT PENETRATION SEALANTS: TWO-PART, FOAMED-IN-PLACE, SILICONE SEALANT FORMULATED FOR USE IN THROUGH-PENETRATION FIRE-STOPPING AROUND CABLES, RACEWAYS, AND CABLE TRAY PENETRATIONS THROUGH FIRE-RATED WALLS AND FLOORS. SEALANTS AND ACCESSORIES SHALL HAVE FIRE-RESISTANT RATINGS INDICATED, AS ESTABLISHED BY TESTING IDENTICAL ASSEMBLIES IN ACCORDANCE WITH ASTM E 814, BY UNDERWRITERS' LABORATORIES, INC, OR OTHER NRTL ACCEPTABLE TO AHJ.

#### PRODUCTS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS,

PROVIDE ONE OF THE FOLLOWING: 1. "3M FIRE STOP FOAM 2001," 3M CORP. . "METACAULK 835," RECTORSEAL

"SPECSEAL PENSIL 200 SILICONE FOAM," SPECIFY TECHNOLOGY INC. 4. "FIRE STOP SYSTEM," UNITED STATES GYPSUM

16A 2-19 EQUIPMENT IDENTIFICATION

BEING APPLIED.

PROVIDE EQUIPMENT IDENTIFICATION NAMEPLATES ON ALL PANELBOARDS, SWITCHES, AND WHERE INDICATED ON THE DRAWINGS.

NAMEPLATES: A. ENGRAVED, CONTRASTING COLOR, THREE-LAYER. LAMINATED PLASTIC INDICATING THE NAME OF THE

EQUIPMENT, LOAD, OR CIRCUIT AS DESIGNATED ON THE DRAWINGS AND IN THE SPECIFICATIONS. B. FIELD-APPLIED PERMANENT EPOXY ADHESIVE COMPATIBLE WITH THE EQUIPMENT FINISH, ATTACHMENT METHOD SHALL BE ACCEPTABLE TO THE MANUFACTURERS OF THE EQUIPMENT TO WHICH THE NAMEPLATES ARE

C. COLOR: BLACK BACKGROUND WITH WHITE LETTERS FOR NORMAL POWER: LETTER HEIGHT: 1/2-INCH MINIMUM.

#### 16A 3 ELECTRICAL SERVICE AND GROUNDING

16A 3-3 GROUNDING

GROUND TO BUILDING STEEL. PERMANENTLY AND EFFECTIVELY GROUND AND BOND THE ELECTRICAL INSTALLATION IN A THOROUGH AND EFFICIENT MANNER, AND IN CONFORMANCE, AT A MINIMUM, WITH NFPA 70, OR THESE DOCUMENTS, WHERE THEY EXCEED CODE REQUIREMENTS.

16A 4 DISTRIBUTION AND CONTROL EQUIPMENT

#### 16A 4-3 LIGHTING AND APPLIANCE PANELBOARDS

PANELBOARDS: SQUARE D TYPE NQOD (FOR 240/208V SERVICE) OR NF (FOR 480V SERVICE) OR APPROVED EQUAL BY SIEMENS, CUTLER HAMMER, OR GENERAL ELECTRIC, AS SCHEDULED ON THE DRAWINGS, COMPLETE WITH COPPER BUSSING AND BOLT-ON THERMAL MAGNETIC. MOLDED CASE CIRCUIT BREAKERS ASSEMBLED IN A DEAD-FRONT FINISHED CABINET CONTAINING A CIRCUIT BREAKER CONTROLS. FULLY-RATED AND WITH THE INTEGRATED SHORT CIRCUIT CURRENT RATINGS INDICATED ON THE DRAWINGS, PLUG-IN TYPE BREAKERS WILL NOT BE ACCEPTABLE. ALL TWO AND THREE POLE BREAKERS: COMMON TRIP TYPE BREAKERS USED AS SWITCHES FOR 120V OR 211V LIGHTING CIRCUITS: APPROVED FOR THE PURPOSE AND MARKED "SWD" BREAKERS USED FOR THE PROTECTION OF HVAC AND REFRIGERATION EQUIPMENT: HACR TYPE.

CONTRACTOR SHALL BALANCE PANEL TO WITHIN 10 PERCENT AND

#### PROVIDE REPORT TO CONSTRUCTION MANAGER.

16A 4-4 DISCONNECT SWITCHES DISCONNECT SWITCHES: SQUARE D, SIEMENS, CUTLER HAMMER, OR GENERAL ELECTRIC FUSED OR NON-FUSED (AS INDICATED ON DRAWINGS OR REQUIRED) NEMA KSI, HEAVY DUTY, EXTERNALLY OPERATED, VISIBLE-BLADE SAFETY SWITCHES, CLASS R REJECTION FEATURE WHEN APPLICABLE, NEMA ENCLOSURE TYPE INDICATED ON THE DRAWINGS OR SUITABLE FOR THE ENVIRONMENT IN WHICH

EQUIPMENT, AT ALL OTHER POINTS REQUIRED BY NFPA 70, OR WHERE INDICATED ON THE DRAWINGS.

INSTALLED.

16A 4-6 FUSES PROVIDE EACH CIRCUIT AND SET OF FUSE CLIPS THROUGHOUT THE WORK WITH BUSSMANN, FERRAZ SHAWMUT, OR LITTLEFUSE FUSES. SIZES AND TYPES AS REQUIRED OR INDICATED, ALL FUSES LARGER THAN 600A: UL CLASS L. SIMILAR TO TYPE KRP-C BUSSMANN LOW PEAK OR EQUAL. FUSES USED TO PROTECT MOTORS: UL CLASS RK5, BUSSMANN FUSETRON OR EQUAL. ALL FUSED DEVISES SHALL BE LABELED AS TO TYPE AND SIZE OF FUSE

FURNISH THREE SPARE FUSES OF EACH SIZE AND TYPE USED ON

THE PROJECT (EXCEPT FOR MAIN SWITCH FUSES, FURNISH ONE SPARE), NEATLY CONTAINED IN A PROPERLY LABELED CABINET.

16A 5 LIGHT FIXTURES, LAMPS AND BALLASTS

#### 16A 5-2 LIGHT FIXTURES

REFER TO LIGHT FIXTURE SCHEDULE ON SHEET E1.1 FOR LIGHTING INFORMATION, PROVIDE ALL NECESSARY ACCESSORIES, MATERIAL AND LABOR TO SECURELY HANG, CLEAN, AND MAKE LIGHT FIXTURES COMPLETELY READY FOR USE LIGHT FIXTURE MODEL NUMBERS SCHEDULED ON THE DRAWINGS SHOW ONLY THE MANUFACTURER GRADE AND STYLE OF LIGHT FIXTURES REQUIRED PROVIDE: ALL HANGERS, SUPPORTS, AND MISCELLANEOUS HARDWARE REQUIRED TO INSTALL LIGHT FIXTURES, PROPER TRIM TO FIT EACH CEILING CONDITION ACTUALLY ENCOUNTERED. ADDITIONAL TIE WIRES CONNECTED TO STRUCTURE TO CONFORM TO

SURFACE-MOUNT ALL FLUORESCENT LIGHT FIXTURES LOCATED IN AREAS WITHOUT SUSPENDED CEILINGS UNLESS OTHERWISE INDICATED ON THE DRAWINGS, PROVIDE RIGID METAL SPACERS FINISHED IN WHITE ENAMEL BETWEEN THE TOP OF EACH LIGHT FIXTURE AND THE CEILING ABOVE TO MAINTAIN A 1-1/2 INCH SPACE. SPACERS SHALL BE APPROVED BEFORE INSTALLATION.

INSTALL ALL FLUORESCENT LIGHT FIXTURES LOCATED IN AREAS

WITHOUT CEILINGS IMMEDIATELY BELOW THE ROOF FRAMING

MEMBERS. OR SUSPENDED FROM CHAIN HANGERS SUITABLE IN

WHIP TO A JUNCTION BOX. THE WHIP SHALL BE OF SUFFICIENT

LENGTH TO ALLOW THE LIGHT FIXTURE TO BE RELOCATED WITHIN A

UBC 25-213 SEISMIC REQUIREMENTS WHERE REQUIRED.

LENGTH TO PROVIDE THE INDICATED MOUNTING HEIGHT. HANGERS: "HYDEE" HANGER TYPE FOR OUTLET BOX MOUNTING. COMPLETE WITH GROUNDING RECEPTACLE, PLUG, 3-WIRE CORD AND NECESSARY CHAIN. THROUGH WIRING OF RECESSED LIGHT FIXTURES, IN SUSPENDED CEILING, IS NOT PERMITTED. CONNECT EACH LIGHT FIXTURE BY A

16A 6 MISCELLANEOUS ELECTRICAL 16A 6-3 TELEPHONE SYSTEM PROVISIONS

PROVIDE INCOMING TELEPHONE SERVICE RACEWAYS AS INDICATED ON DRAWINGS OR AS REQUIRED BY THE SERVING TELEPHONE COMPANY, PROVIDE 3/4-INCH THICK PLYWOOD BOARD. FIRE-RETARDENT-TREATED AND STAMPED FRT. SECURELY ANCHORED TO THE WALL, AT THE LOCATION AND OF THE SIZE INDICATED ON THE DRAWINGS PROVIDE FILISH MOUNTED TELEPHONE OUTLET BOXES WITH 3/4-INCH EMT STUB-UP CONCEALED TO ACCESSIBLE CEILING SPACE AT LOCATIONS AS INDICATED ON THE DRAWINGS.

16A 6-3 TELEPHONE SYSTEM PROVISIONS

PROVIDE INCOMING TELEPHONE SERVICE RACEWAYS AS INDICATED ON DRAWINGS OR AS REQUIRED BY THE SERVING TELEPHONE COMPANY, PROVIDE 3/4-INCH THICK PLYWOOD BOARD FIRE-RETARDENT-TREATED AND STAMPED FRT. SECURELY ANCHORED TO THE WALL, AT THE LOCATION AND OF THE SIZE INDICATED ON THE DRAWINGS. PROVIDE FLUSH MOUNTED TELEPHONE OUTLET BOXES WITH 3/4-INCH EMT CONCEALED TO ACCESSIBLE CEILING SPACE AT LOCATIONS AS INDICATED ON

### Drawings and Specifications as instruments of service are and shall remain the property of the Architects. They are not to be used on other projects or extensions to this project except by agreement in writing with appropriate Contractor is responsible for construction means methods and techniques, sequences or procedures or for safety precautions and programs in connection with the

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Revisions

Description

project #: 32224011 date: 8/01/2024