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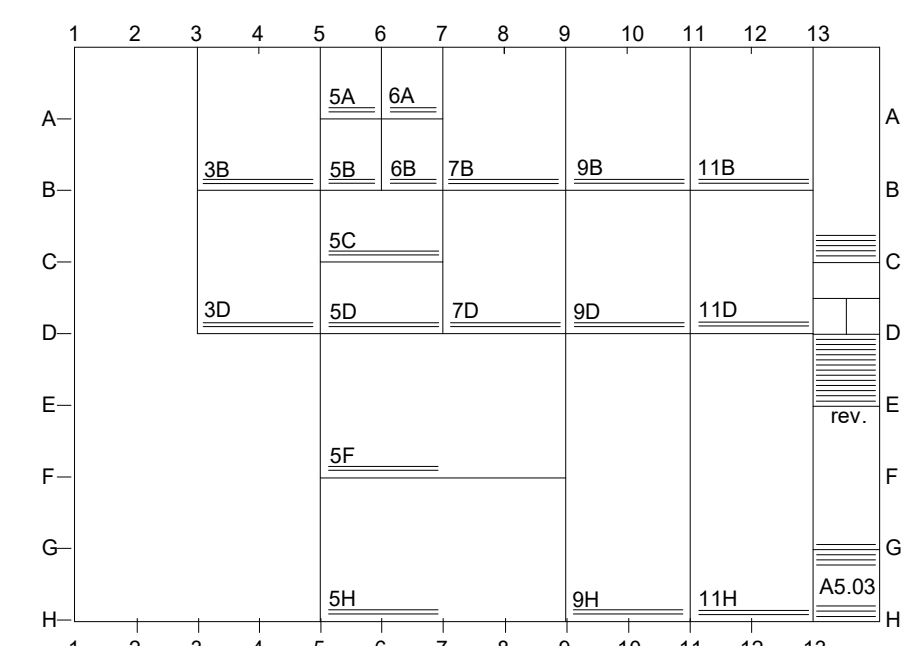


630 N. Liberty Street | Winston-Salem, NC 27101  
p. 336.701.0130 | www.stitchdesignshop.com

DATE: 08/23/2024 PROJECT NUMBER: 24-140

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# DETAIL REFERENCE



DETAILS ARE REFERENCED ACCORDING TO THEIR POSITION ON THE DRAWING SHEET. THE SYSTEM IS SIMILAR TO THAT OF A MAP. THE DRAWING SHEET IS DIVIDED INTO A GRID WITH LETTERS ON THE SIDES AND NUMBERS GOING ACROSS AS SHOWN ABOVE. FOR EXAMPLE DETAIL 9D A5.03 WOULD BE FOUND AT THE INTERSECTION OF LINES 9 AND ON SHEET A5.03

# ABBREVIATIONS

&	and	C.H.	ceiling height	E.C.	electrical contractor	H.B.	hose bibb	MAX.	maximum	Q.T.	quarry tile	SUSP.	suspended
∠	angle	C.I.	cast iron	E.J.	expansion joint	H.C.	hollow core	MBR.	member	R.	riser, radius	SW.	switch
@	at	C.J.	control joint or construction joint	E.W.C.	electric water cooler	H.M.	hollow metal	MECH.	mechanic (al)	R.A.	return air	SYM.	symmetry (ical)
⊕	centerline	C.M.T.	ceramic mosaic tile	E.A.	each	H.P.	horsepower	MED.	medium	R.C.P.	reinforced concrete pipe	T.&B.	top and bottom
	channel	C.M.U.	concrete masonry unit	ELAS.	elastomeric	H.D.W.	hardware	MEMB.	membrane	R.D.	roof drain	T.&G.	tongue and groove
∅	diameter or round	C.T. to C.	ceramic tile center to center	ELEC. CAB.	electric cabinet	HORIZ.	horizontal	MEZZ.	mezzanine	R.H.	right hand	T.	tread
⊥	perpendicular	C.A.B.	cabinet	ELEV.	elevator, elevation	H.T.	height	MFR.	manufacture (er)	R.O.	rough opening	T.C.	top of curb
☐	plate	C.E.M.	cement	EMER.	emergency	HVAC.	heating/ventilating /air conditioning	MIN.	minimum	R.O.W.	right of way	T.P.	top of pavement
#	pound or number	CER.	ceramic	ENCL.	enclose (ure)	H.W.Y.	highway	MISC.	miscellaneous	REBAR.	reinforcing bar	T.P.D.	toilet paper dispenser
A.B.	anchor bolt	CARP.	carpet	ENTR.	entrance	I.P.S.	iron pipe size	MOD.	modified	REC.	recessed	T.W.	top of wall
A.F.F.	above finish floor	CLG.	closet	EQ.	equipment	ID.	inside diameter	MTD.	mounted	RECT.	rectangular	TEL.	telephone
A.P.	access panel	CLR.	clear	EQUIP.	equipment	IN.	inches	MUL.	mullion	REF.	reference	TEMP.	tempered or temperature
A.C.T.	acoustical tile ceiling	CNTR.	counter	ESTB.	establish	INCL.	include (ed) (sion)	N.	north	REFRG.	refrigerator	THRS.	threshold
ABV.	above	COMP.	composition	EXP.	expansion	INSUL.	insulation (ed)	N.I.C.	not in contact	REG.	register	THRES.	threshold
ACOUS.	acoustical	CONF.	conference	EXT.	exterior	INTR.	interior	N.T.S.	not to scale	REINF.	reinforced	TLT.	toilet
ADD.	addendum	CONN.	connection	F.B.O.	furnished by others	INV.	invert	NO. or #	number	REQ.	required	T.V.	television
ADJ.	adjacent or adjustable	CONSTR.	construction	INV. EL.	invert elevation	JAN.	janitor	NOM.	nominal	RET.	return	TYP.	typical
AGG.	aggregate	F.O.C.	face of concrete	OUT.	out to out	K.D.	kiln dried or knock down	O. to O.	out to out	REV.	revisions(s), revised	U.O.N.	unless otherwise noted
AL.	aluminum	F.F.	face of finish	OFF.	office	KIT.	kitchen	O.C.	outside diameter	RFG.	roofing	UNFIN.	unfinished
ALNO.	aluminum anodize	F.O.S.	face of studs	OPP.	opposite	KNCK.	knockout	OFF.	office	RM.	room	UTIL.	utility
APPROX.	approximate	F.S.	full size	O.P.	opposite hand	LAB.	laboratory	O.H.	opposite hand	S.P.	single-ply	V.B.	vinyl base
APT.	apartment	F.T.F.	face to face	OUT.	outvert	L.	left, length	OPNG.	opening	S.S.	solid core	V.C.T.	vinyl composition tile
ARCHT.	architect (ural)	FTSK.	foundation	OZ.	ounce	L.H.	left hand	OPP.	opposite	S.C.	structural control joint	V.I.F.	verify in field
AUTO.	automatic	FIN.	finish (ed)	P.C.	plumbing contractor	L.L.	live load	OPT.	opposite	S.N.D.	sanitary napkin dispenser	V.F.	vinyl fabric
AVG.	average	FLASH'G.	flashing	P.C.F.	pounds per cubic foot	L.P.	low point	P.L.F.	pounds per lineal foot	S.N.R.	sanitary napkin receptacle	V.V.T.	ventilating
B.U.R.	built-up roofing	FLUOR.	fluorescent	P.LAM.	plastic laminate	L.R.	living room	P.L.M.	plastic laminate	S.S.	stainless steel	V.W.F.	vertical
BD.	board	FRFP.	fireproof (ing)	P.S.F.	pounds per square foot	L.W.	living weight	P.S.F.	pounds per square foot	S.T.C.	sound transmission classification	VERT.	vertical
BEV.	beveled	F.P.W.H.	freeze proof wall hydrant	LAB.	laboratory	L.V.	living volume	LAB.	laboratory	SAS.	sanitary	VEST.	vestibule
BITUM.	bituminous	FT.	foot or feet	LAM.	laminated (d)	LAV.	lavatory	P.T.D.	paper towel dispenser	SAN.	sanitized 4 sides	VOL.	volume
BLDG.	building	FTG.	footing	LAV.	lavatory	L.T.	light	P.T.R.	pressure treat (ed)	SCHED.	schedule	W.	west, women
BLK.	black	FURN.	furnish	L.T.	light	L.TG.	lighting	P.T.	plaster	SECT.	section	W.C.	water closet
BLKG.	blocking	FURR.	furring	PLYWD.	plywood	LTV.	louver	PNT(d).	paint (ed)	SFTWD.	softwood	W.F.	wide flange
BR.	beam or bench mark	F.V.	field verify	PNL.	panel	M.C.	medicine cabinet or mechanical contractor	PR.	pair	SHT.	sheet	W.I.	wrought iron
BRG.	bracing	G.B.	grab bar	PNT(d).	paint (ed)	M.H.	manhole	PT.	point	SIM.	similar	W.W.F.	welded wire fabric
BRG.	bearing	G.C.	general contractor	PR.	pair	M.O.	masonry opening	PTD/R.	combination paper towel dispenser & receptacle	SPEC.	specification	WD.	wood
BSMT.	basement	G.G.	gauge	PT.	point	MACH.	machine	PT.	point	SQ. FT.	square foot	WDW.	window
BTW.	between	GA.	gauge	PTD/R.	combination paper towel dispenser & receptacle	MAINT.	maintenance	PNT(d).	paint (ed)	SQ.	square	WP.	waterproofing
C.B.	catch basin	GALV.	galvanized	PT.	point	MACH.	machine	PTD/R.	combination paper towel dispenser & receptacle	STL.	standard	WSC.T.	wainscot
		GL.	glass, glazing	PT.	point	MAINT.	maintenance	PT.	point	STOR.	storage	WT.	weight
		GLV.	galvanized	PVC.	polyvinyl chloride	MAS.	masonry	PVC.	polyvinyl chloride	STRUC.	structure (al)	YD.	yard
		DWG.	drawing	PVMT.	pavement	GYP.	gypsum	MATL.	material (s)	SURF.	surface		
		DWR.	drawers										
		E.	east										

# PATRIOTS PARK RESTROOM FACILITY

PONDEROSA ROAD  
CAMERON, NC



# MATERIAL DESIGNATIONS

[Symbol]	EARTH	[Symbol]	FINISHED WOOD
[Symbol]	GRAVEL	[Symbol]	PLYWOOD
[Symbol]	CONCRETE	[Symbol]	ROUGH WOOD FRAMING / BLOCKING
[Symbol]	PLASTER,SAND,GROUT, GYPSUM	[Symbol]	BATT INSULATION
[Symbol]	BRICK	[Symbol]	RIGID INSULATION
[Symbol]	CMU	[Symbol]	ACOUSTICAL TILE
[Symbol]	STEEL	[Symbol]	CARPET

# SYMBOLS

[Symbol]	SECTION REFERENCE
[Symbol]	EXTERIOR ELEVATION REFERENCE
[Symbol]	DETAIL REFERENCE / LARGE SCALE PLAN REFERENCE
[Symbol]	INTERIOR ELEVATION REFERENCE
[Symbol]	MILLWORK ELEVATION REFERENCE
[Symbol]	DOOR NUMBER
[Symbol]	ROOM NAME & NUMBER

# REFERENCES:

[Symbol]	SHEET NUMBER
[Symbol]	COLUMN GRID DESIGNATION
[Symbol]	WINDOW/LOUVER/OTHER OPENING
[Symbol]	NEW SPOT ELEVATION
[Symbol]	EXISTING SPOT ELEVATION
[Symbol]	SPECIAL WALL TYPE
[Symbol]	REVISION
[Symbol]	REFERENCE TO TYPICAL NOTE
[Symbol]	NORTH ARROWS

# ARCHITECT

STITCH design shop  
630 N. Liberty Street  
Winston-Salem, NC 27101  
336.701.0130

# CIVIL / LANDSCAPE

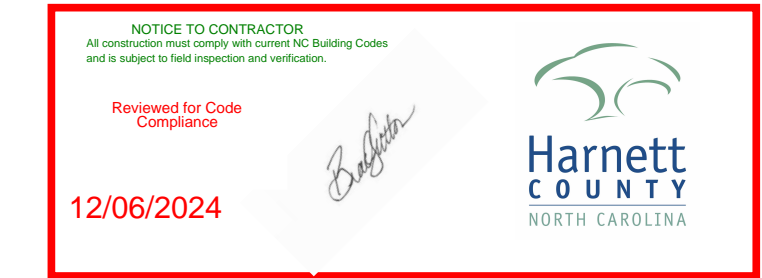
STIMMEL Associates, P.A.  
601 Trade Steet #200  
Winston-Salem, NC 27101

# STRUCTURAL

SELECT Engineering  
1250 Revolution Mill Drive #143  
Greensboro, NC 27405  
978.793.2297

# MEP

Consulting Engineering Services  
111 S. Marshall Street  
Winston-Salem, NC 27101  
336.724.0139



# CONSTRUCTION DOCUMENTS



**Patriots Park**  
 721 Ponderosa Rd, Cameron, NC 28326

CLIENT:  
 DEVON LEONARD  
 STITCH DESIGN SHOP  
 350 LIBERTY STREET  
 WINSTON-SALEM, NC 27101

DATE: 09/03/24  
 REVISIONS:  
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 \_\_\_\_\_  
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 \_\_\_\_\_  
 DRAWN: KMB, DJ, CC  
 JOB NO: 24-015  
 SHEET TITLE:

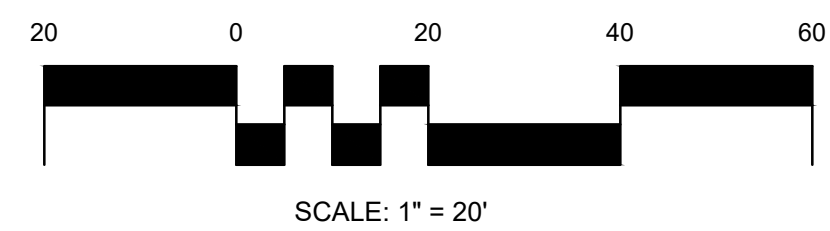
**EXISTING CONDITIONS**

SCALE: AS NOTED  
 SHEET NO.:  
**C-1.00**  
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FOUND NCDOT DISK  
 NORTHING - 561713.5096  
 EASTING - 1965462.511  
 ELEVATION - 332.05

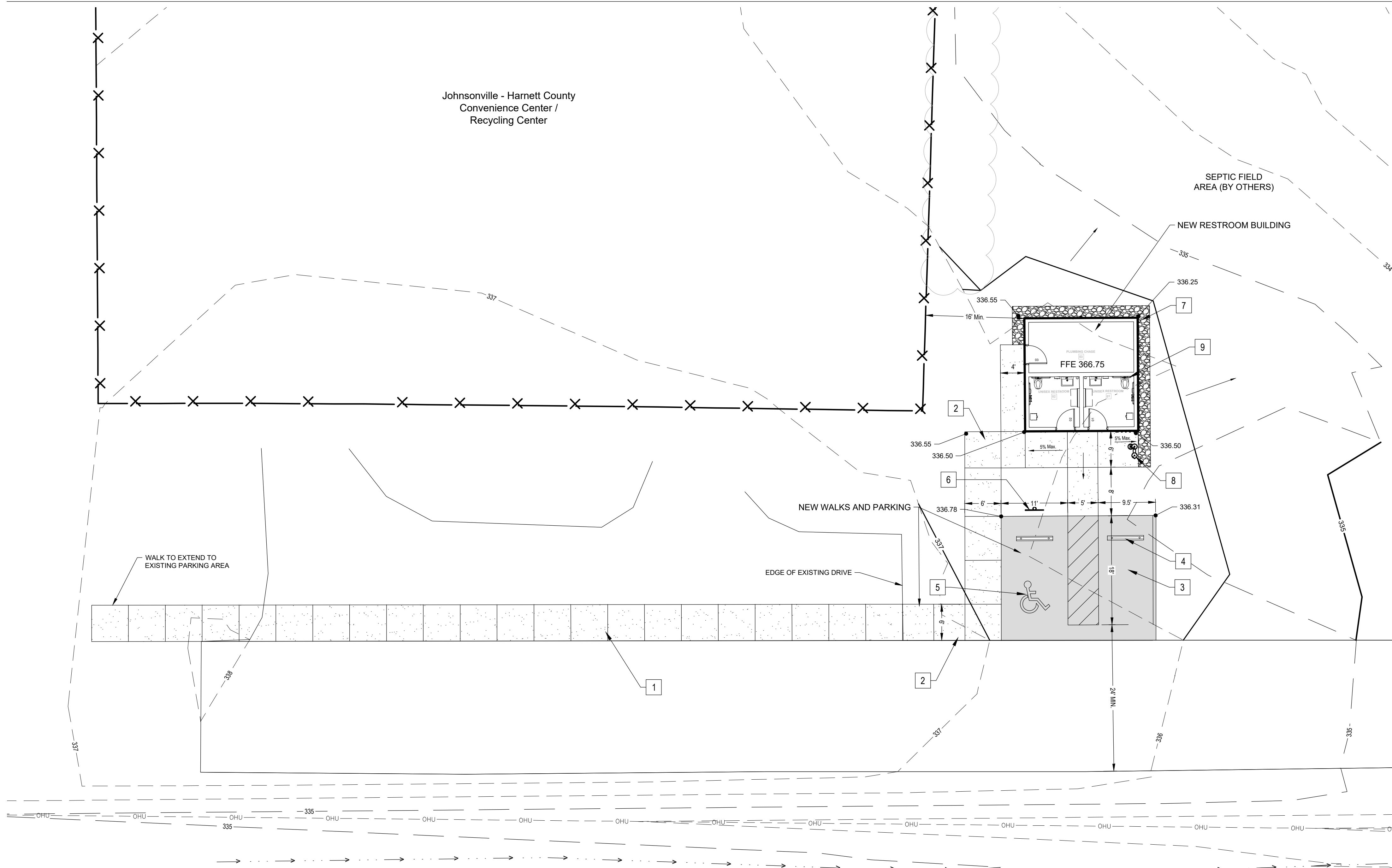
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 SMITH GARDNER ENGINEERS  
 14 N. BOYLAN AVENUE, RALEIGH NC 27603, TEL:(919) 828-0577  
 DATED: MAY 9, 2024



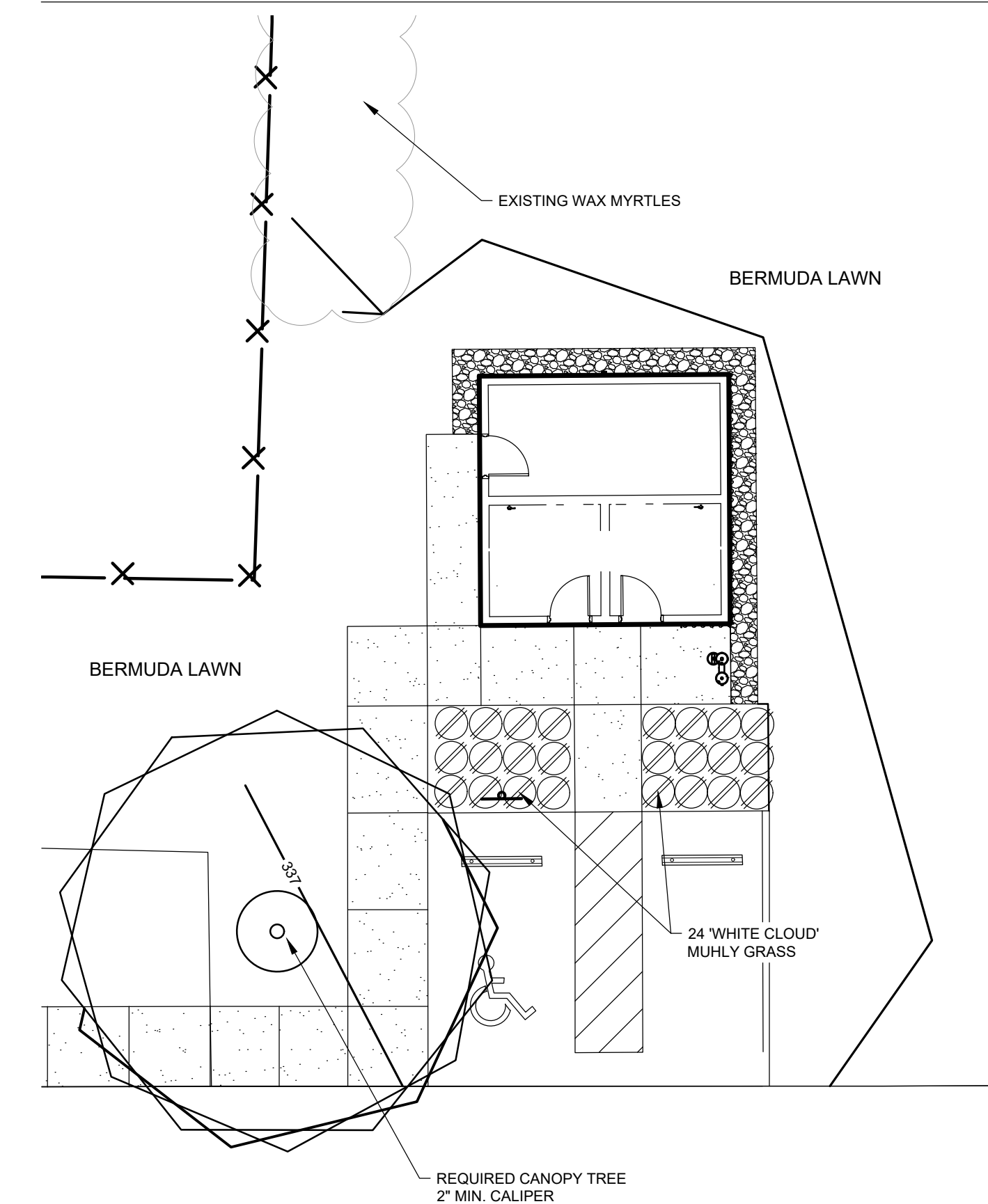
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# SITE - GRADING PLAN



# LANDSCAPE PLAN



## SITE REFERENCE NOTES:

- 1 HEAVY DUTY CONCRETE WALK  
SEE DET #1, SHEET C-6.00
- 2 STANDARD CONCRETE WALK, FLUSH WITH ASPHALT PAVING  
SEE DET #2, SHEET C-6.00
- 3 ASPHALT PAVING  
SEE DET #3, SHEET C-6.00
- 4 CONCRETE WHEELSTOP  
SEE DET #4, SHEET C-6.00
- 5 HC PARKING SPACE  
SEE DET #5, SHEET C-6.00
- 6 HC PARKING SIGNAGE  
SEE DET #6, SHEET C-6.00
- 7 3-5" SIZE RIVER STONE GRAVEL - LIGHT COLORS - WITH 5" METAL EDGING. SEE DET #7, SHEET C-6.00
- 8 MOST DEPENDABLE FOUNTAIN, MODEL 440 SSM
- 9 NEW RESTROOMS BUILDING, SEE ARCHITECTURAL DRAWINGS

## GENERAL NOTES:

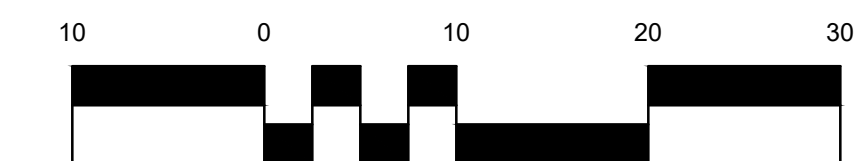
- GENERAL CONTRACTOR TO:
1. VISIT SITE AND BRING TO THE OWNER'S REPRESENTATIVE ATTENTION IN WRITING ANY PROBLEMS OR DISCREPANCIES WITH SITE OR PROJECT PRIOR TO BIDDING AND CONSTRUCTION.
  2. COORDINATE WITH THE OWNER FOR PHASING OF CONSTRUCTION. INSURE HIGH LEVEL OF SAFETY DURING ALL PHASES OF CONSTRUCTION.
  3. CHECK ALL "VERIFY" DIMENSIONS NOTED ON PLANS. REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE IN WRITING PRIOR TO ANY FURTHER CONSTRUCTION.
  5. OBTAIN ALL NECESSARY PERMITS INCLUDING BUT NOT LIMITED TO: BUILDING, GRADING, UTILITY, EROSION CONTROL, LAND DISTURBANCE, RIGHT OF WAY ENCROACHMENT, PUBLIC WATER AND/OR SEWER EXTENSION AND OCCUPANCY.
  6. KEEP ALL PLANTING AND GRASS AREAS FREE OF DEBRIS, STONES, CONSTRUCTION MATERIALS, ETC.
  7. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND UTILITIES SHOWN ON SITE PLAN. UTILITIES SHOWN ON SITE PLAN ARE BASED ON THE SURVEY PROVIDED BY OTHERS MAY NOT BE ALL INCLUSIVE. CONTACT ULOCO OR OTHER APPROPRIATE UTILITY LOCATION SERVICE FOR UTILITY IDENTIFICATION PRIOR TO ANY WORK.
  8. PATCH/REPAIR STREETS, STRUCTURES, ETC. AS NECESSARY AFTER CONNECTION OF PROPOSED UTILITIES.
  9. COORDINATE ANY CONDUIT/IRRIGATION SLEEVES PRIOR TO INSTALLATION OF PAVEMENT
  10. COORDINATE SITE LIGHTING WITH SITE LAYOUT AND ARCHITECTURAL PLANS.

## PLANT LIST

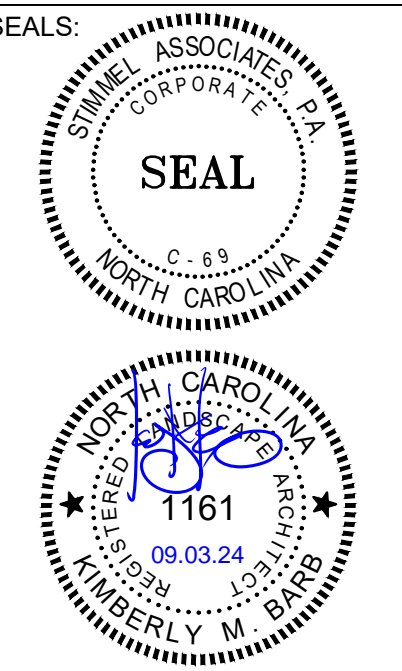
CODE	COUNT	COMMON_NAME	BOTANICAL_NAME	CALIPER	HEIGHT	SPREAD	SPACING	COMMENTS
MG	24	White Muhly Grass	Muhlenbergia capillaris 'White Cloud'	----	15-18"	12-15"	2.5' o.c.	----
OGM	1	'October Glory' Maple	Acer rubrum 'October Glory'	2.5-3"	12-14'	----	----	BB, Specimen, Fall Red Leaves

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SMITH GARDNER ENGINEERS  
14 N. BOYLAN AVENUE, RALEIGH NC 27603, TEL: (919) 828-0577  
DATED: MAY 9, 2024



SCALE: 1" = 10'



PROJECT:

**Patriots Park**  
721 Ponderosa Rd, Cameron, NC 28326

CLIENT:  
DEVON LEONARD  
STITCH DESIGN SHOP  
350 LIBERTY STREET  
WINSTON-SALEM, NC 27101

DATE: 09/03/24  
REVISIONS:

DRAWN: KMB, DJ, CC  
JOB NO: 24-015

SHEET TITLE:  
**SITE,  
GRADING, &  
LANDSCAPE  
PLAN**

SCALE: AS NOTED  
SHEET NO.:

**C-2.00**

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SEALS:

NCBEE CERT. NO.: C-4347



PROJECT:

**Patriots Park**  
 721 Ponderosa Rd, Cameron, NC 28326

CLIENT:

DEVON LEONARD  
 STITCH DESIGN SHOP  
 350 LIBERTY STREET  
 WINSTON-SALEM, NC 27101

DATE: 09/03/24  
 REVISIONS:

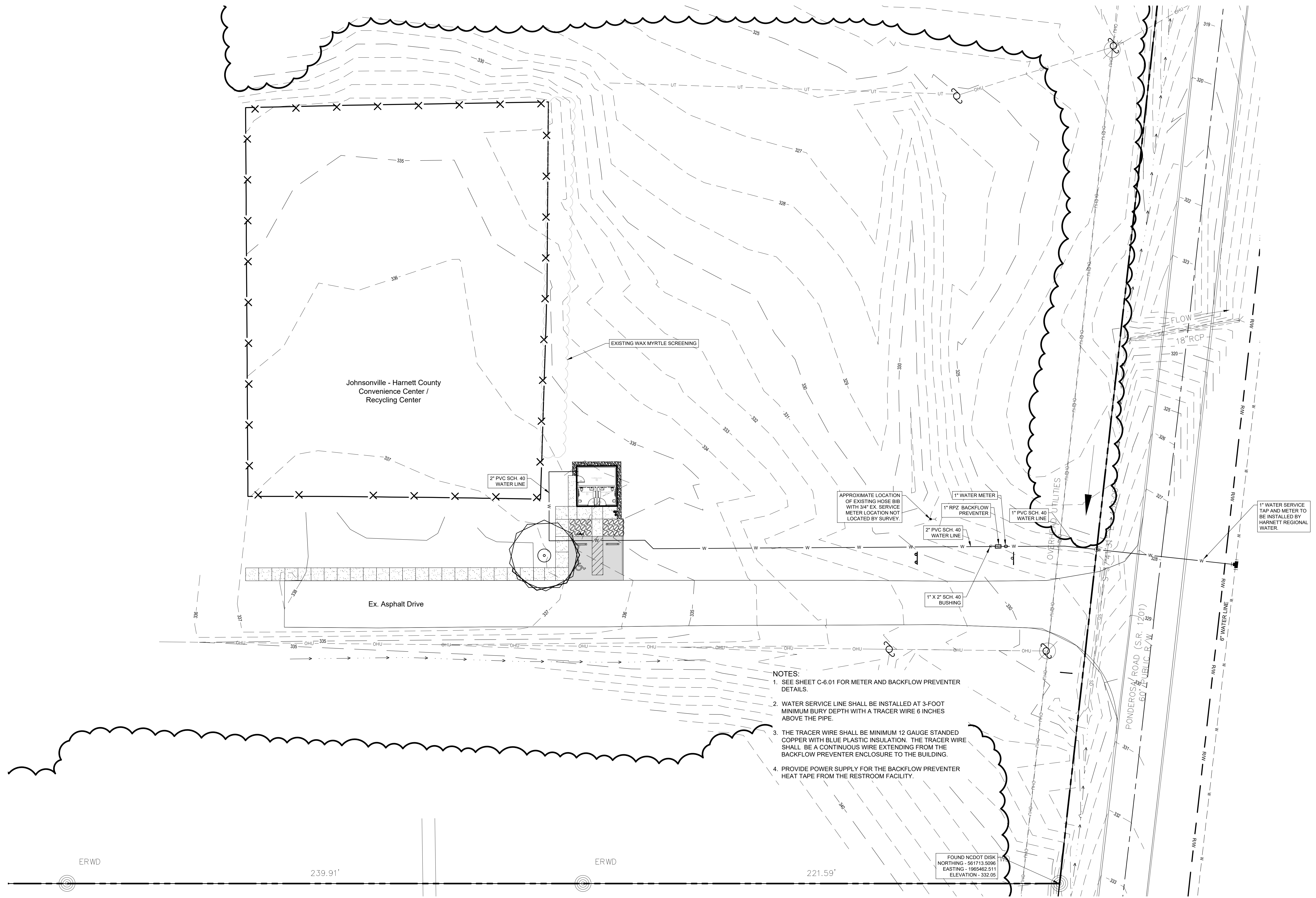
DRAWN: KMB, DJ, CC  
 JOB NO: 24-015  
 SHEET TITLE:

**WATER PLAN**

SCALE: AS NOTED  
 SHEET NO.:

**C-4.00**

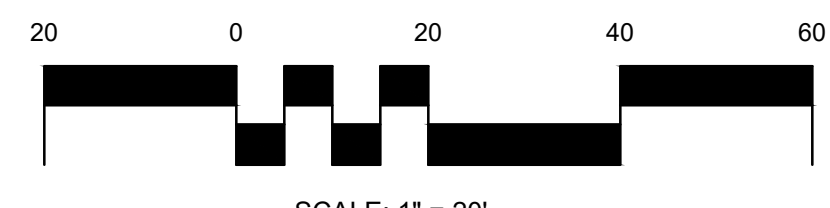
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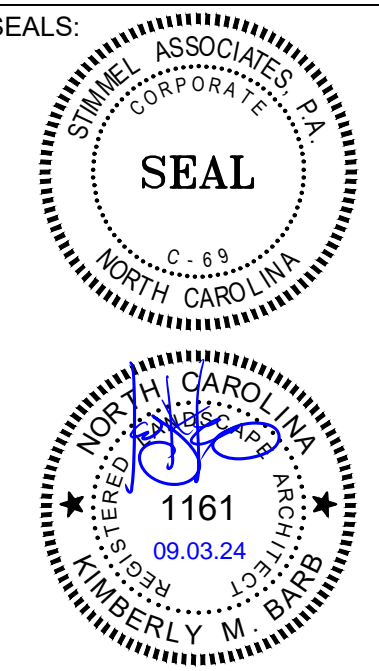
- NOTES:**
- SEE SHEET C-6.01 FOR METER AND BACKFLOW PREVENTER DETAILS.
  - WATER SERVICE LINE SHALL BE INSTALLED AT 3-FOOT MINIMUM BURY DEPTH WITH A TRACER WIRE 6 INCHES ABOVE THE PIPE.
  - THE TRACER WIRE SHALL BE MINIMUM 12 GAUGE STANDED COPPER WITH BLUE PLASTIC INSULATION. THE TRACER WIRE SHALL BE A CONTINUOUS WIRE EXTENDING FROM THE BACKFLOW PREVENTER ENCLOSURE TO THE BUILDING.
  - PROVIDE POWER SUPPLY FOR THE BACKFLOW PREVENTER HEAT TAPE FROM THE RESTROOM FACILITY.

FOUND NCDOT DISK  
 NORTHING - 561713.5096  
 EASTING - 1965462.511  
 ELEVATION - 332.05

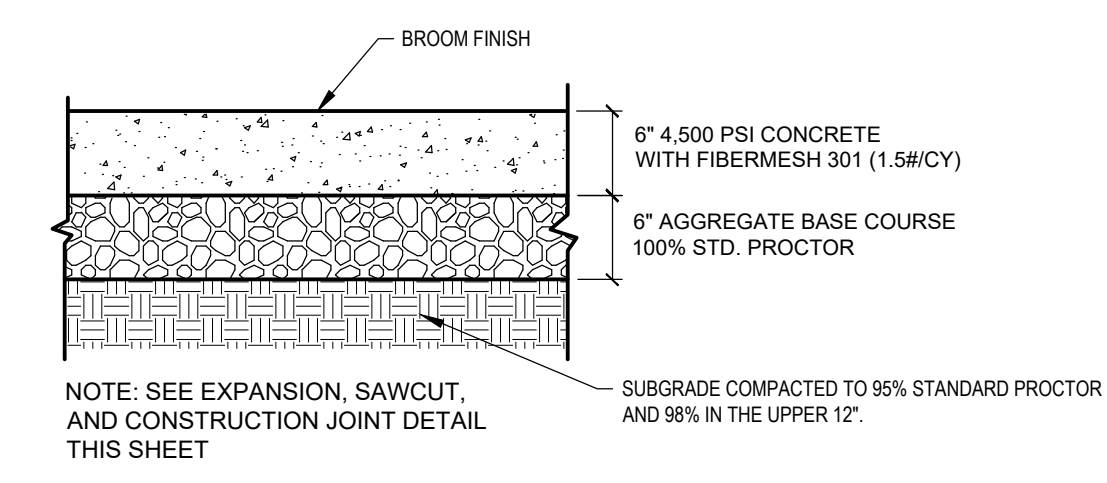
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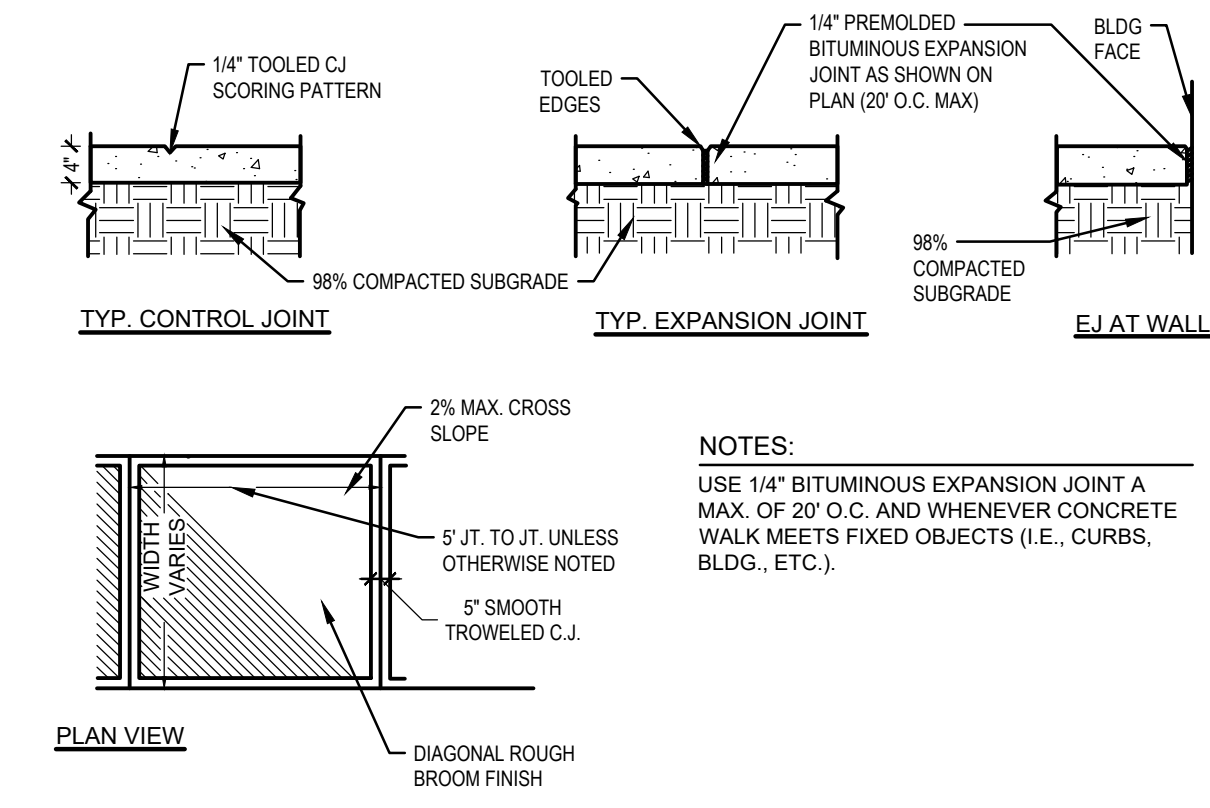




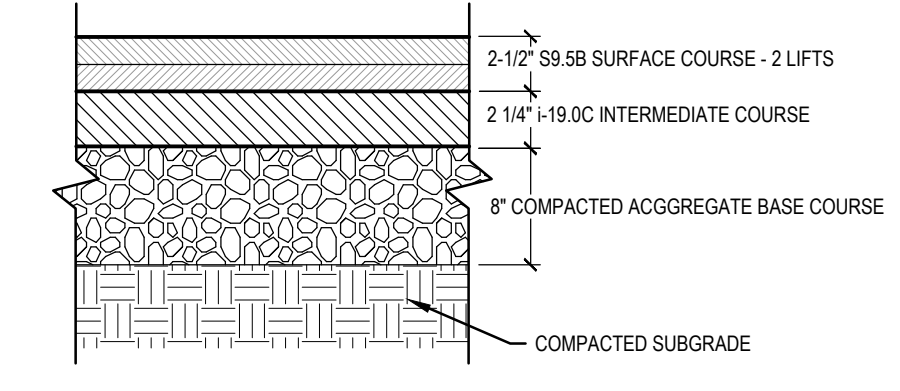
PROJECT:



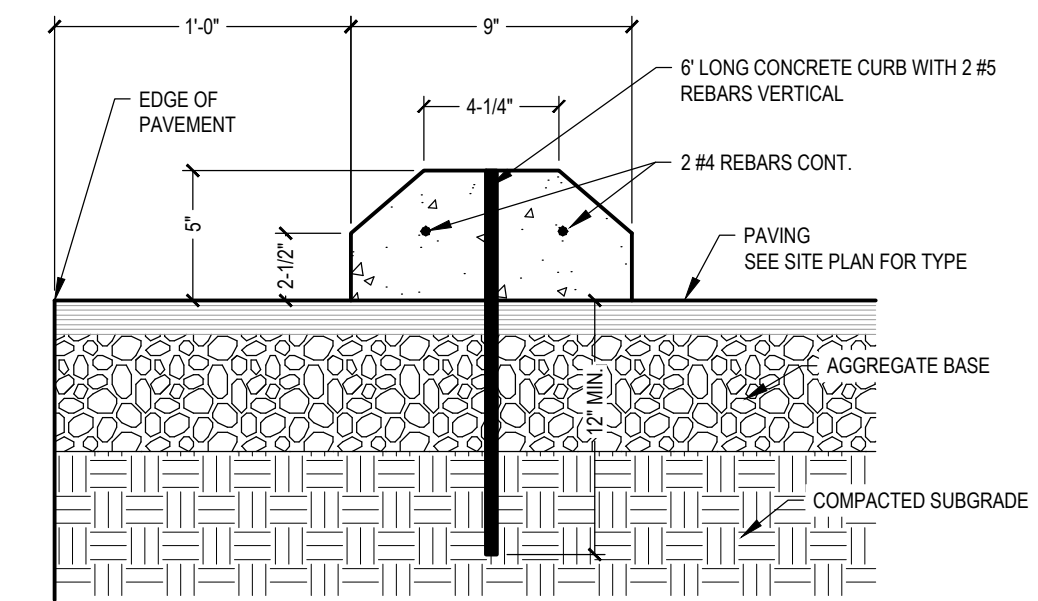
**1 HEAVY DUTY CONCRETE**  
 SCALE: NTS



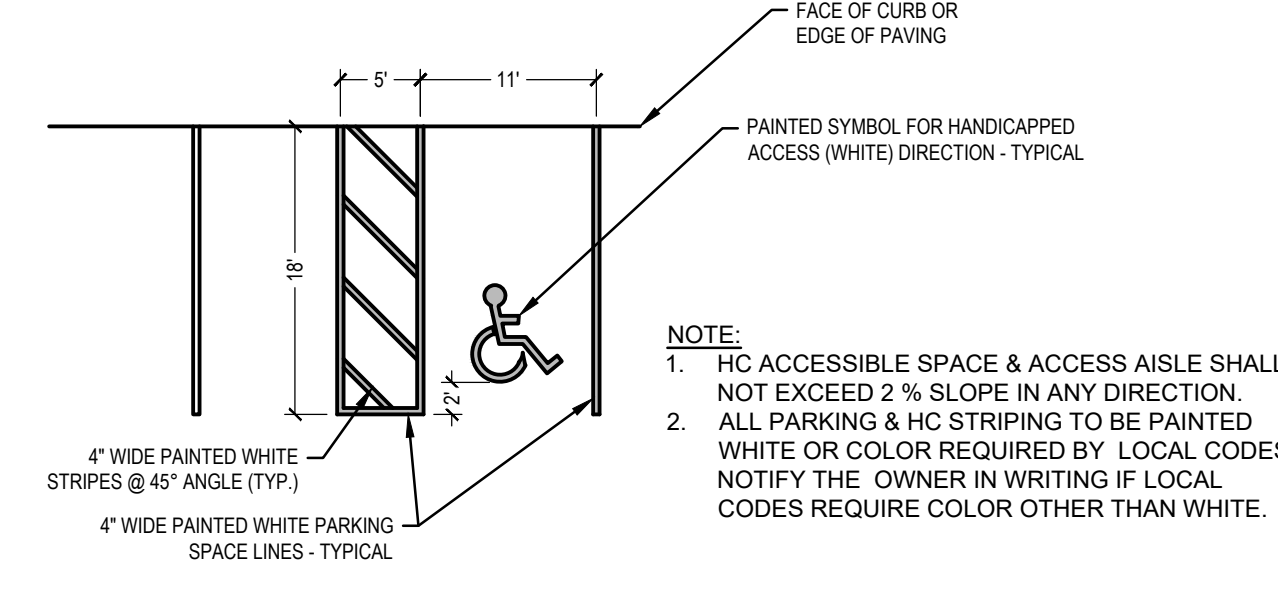
**2 CONCRETE WALK**  
 SCALE: NTS



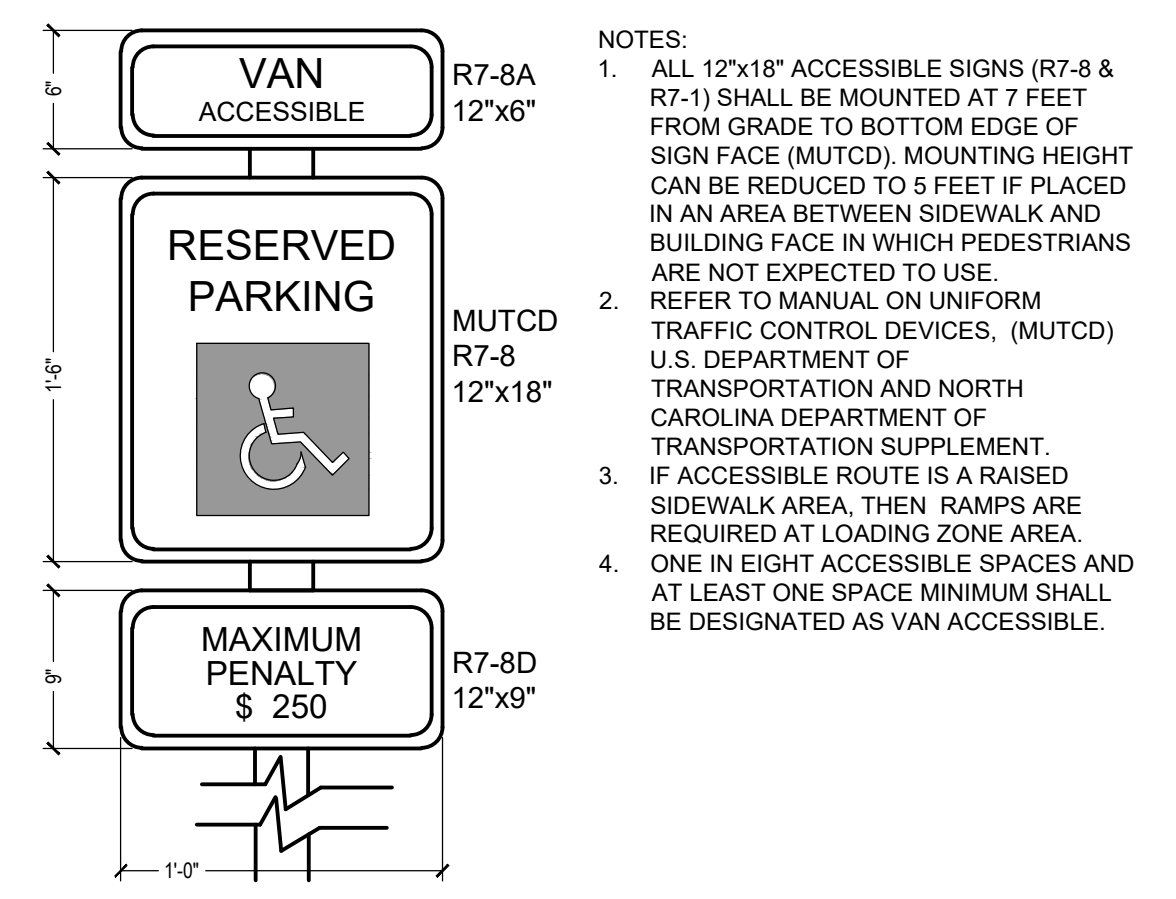
**3 ASPHALT PAVEMENT**  
 SCALE: NTS



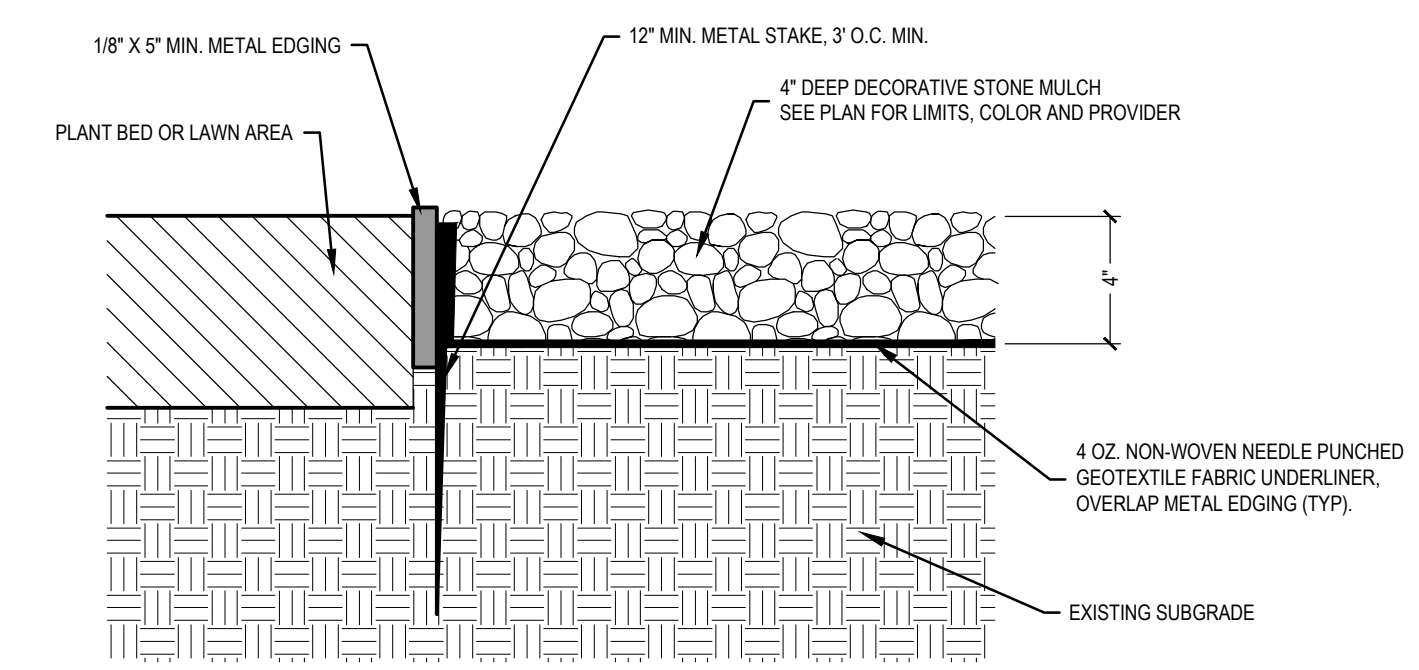
**4 CONCRETE WHEEL STOP**  
 SCALE: NTS



**5 ACCESSIBLE PARKING SPACE**  
 SCALE: NTS



**6 ACCESSIBLE PARKING SIGNAGE**  
 SCALE: NTS



**7 STONE BORDER AND EDGING**  
 SCALE: NTS

**Patriots Park**  
 721 Ponderosa Rd, Cameron, NC 28326

CLIENT:  
 DEVON LEONARD  
 STITCH DESIGN SHOP  
 350 LIBERTY STREET  
 WINSTON-SALEM, NC 27101

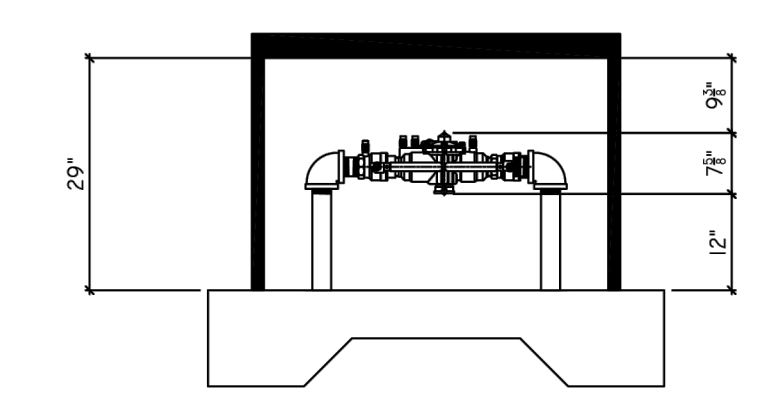
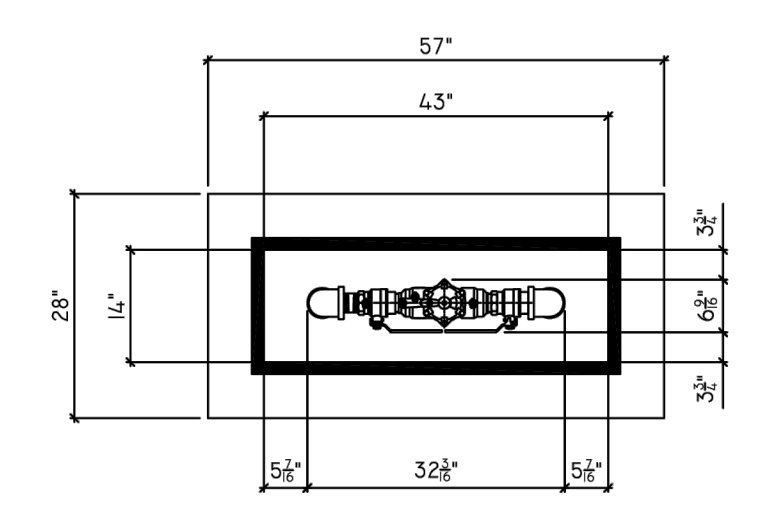
DATE: 09/03/24  
 REVISIONS:

DRAWN: KMB, DJ, CC  
 JOB NO: 24-015  
 SHEET TITLE:

**SITE DETAILS**

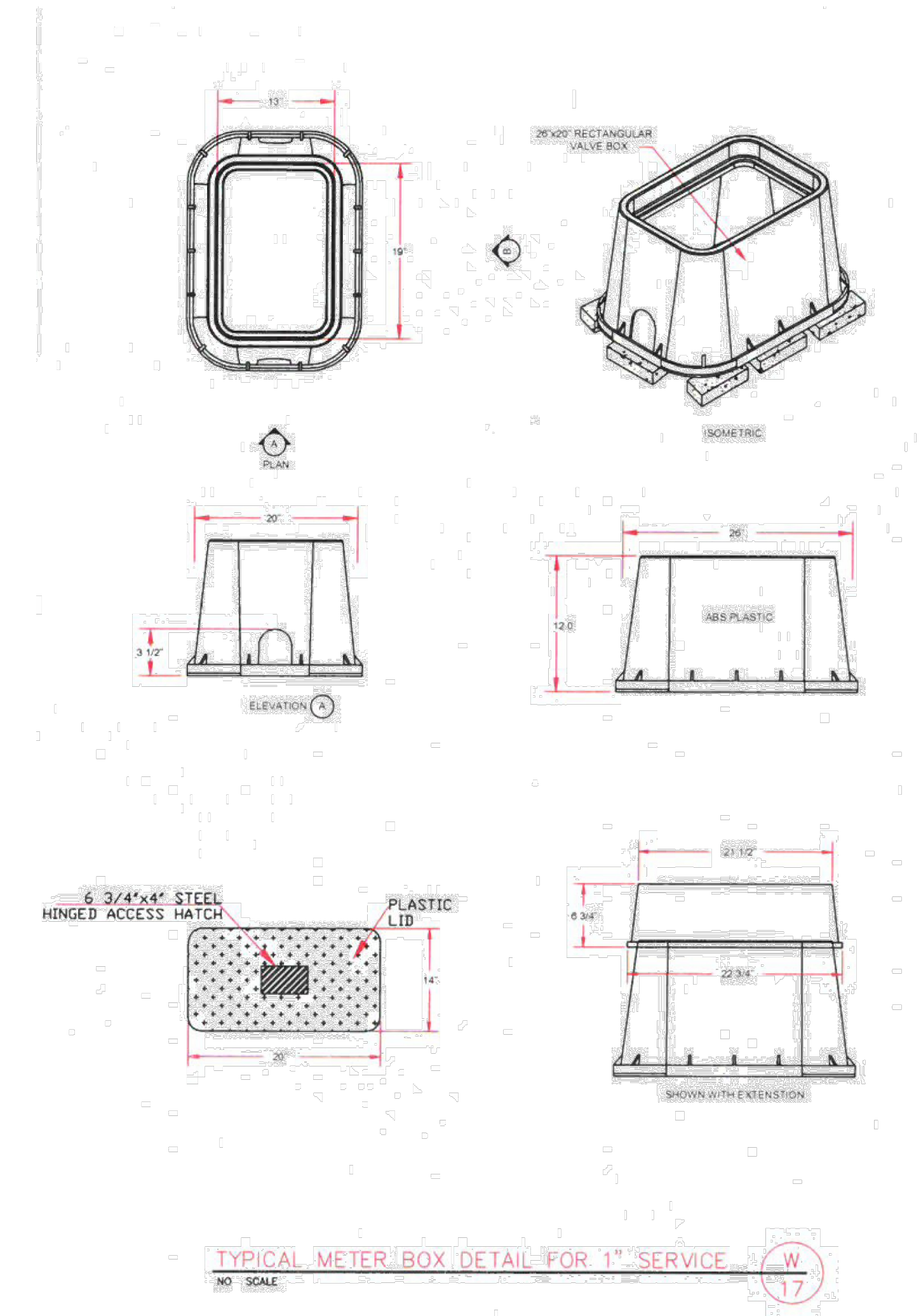
SCALE: AS NOTED  
 SHEET NO.:  
**C-6.00**  
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ENCLOSURE MODEL: 200S-AL		www.safe-cover.com	
JOB: ----		SAFE-COVER	
DRAWN BY: MLM	SCALE: NONE	DATE: 6/25/10	2710 LANDERS AVE WINSTON-SALEM, NC 27101 PH: (800) 242-6333
ELEVATION VIEW		24x14.00B-0T12.DWG SHEET 1 OF 1	
		6. MODEL 200S-AL ENCLOSURE 7. ENCLOSURE INSIDE DIMENSIONS: 14"W X 14 1/2"L X 29"H 8. CONCRETE PAD IS 28"W X 57"L 9. RFP 2" ANES 4000B - 0T	
PLAN VIEW		1. DRAWING NOT TO SCALE 2. RFP DIMENSIONS FURNISHED BY MANUFACTURER 3. ALL DIMENSIONS ARE IN INCHES. 4. WALL AND INSULATION THICKNESS IS 1-1/2". 5. ROOF AND INSULATION THICKNESS IS 1-1/2".	
		CONFIDENTIAL: THIS DRAWING IS INTENDED FOR USE ONLY BY THOSE AUTHORIZED TO RECEIVE IT. DISSEMINATION, DISTRIBUTION OR COPY OF THIS INFORMATION IS STRICTLY PROHIBITED. US PATENT 5,609,784	

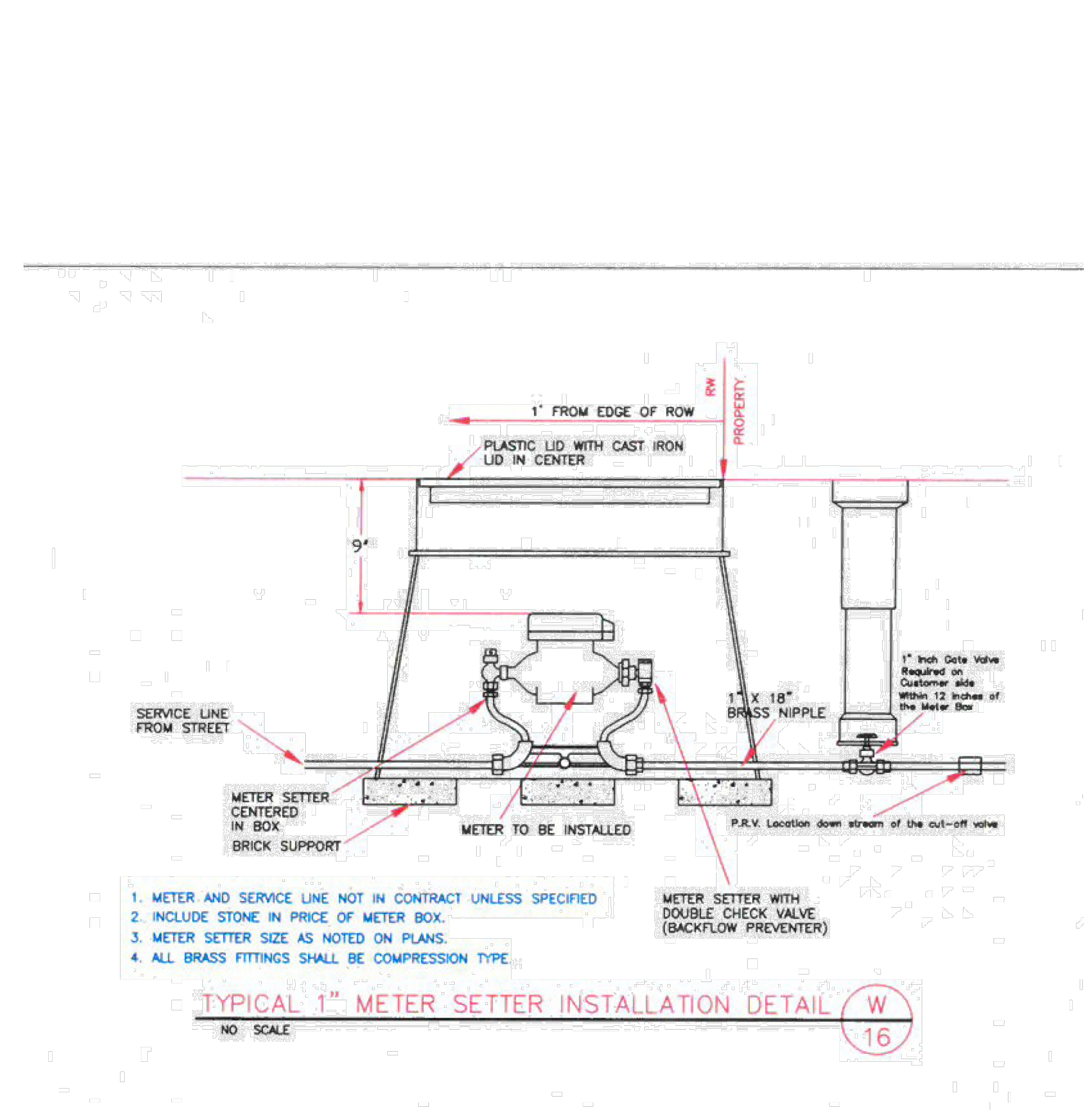
**3 2" RPA BACKFLOW PREVENTER**  
 SCALE: NTS

- NOTE:
- BACKFLOW PREVENTER SHALL BE A 1-INCH DEVICE IN ACCORDANCE WITH HARNETT REGIONAL WATER STANDARDS AND SPECIFICATIONS. THIS DETAIL IS PROVIDED TO REPRESENT THE GENERAL REQUIREMENTS FOR THE BACKFLOW PREVENTER, ENCLOSURE AND CONCRETE PAD. THE ENCLOSURE SIZE SHALL BE AS SHOWN IN THIS DETAIL.
  - BACKFLOW PREVENTER SHALL BE WRAPPED WITH HEAT TAPE TO PREVENT FREEZING.



**TYPICAL METER BOX DETAIL FOR 1" SERVICE**  
 NO SCALE

**2 1" WATER METER BOX**  
 SCALE: NTS



**TYPICAL 1" METER SETTER INSTALLATION DETAIL**  
 NO SCALE

**1 1" WATER METER**  
 SCALE: NTS



**2018 APPENDIX B  
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS  
(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)**  
(Provide the following data on the building plans sheet 1 or 2)

Name of Project: Patriots Park Restroom Facility  
Address: Ponderosa Road  
Owner/Authorized Agent: Carl Davis Phone # (910) 893-7618 E-Mail: cdavis@stitchdesign.com  
Owned By:  City/County  Private  State  
Code Enforcement Jurisdiction:  City  County  Harnett  State

**CONTACT:**

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	STITCH design shop	Benjamin Schwab	12655	(336) 724-0130	bschwab@stitchdesign.com
Civil	Stimma PA	Kimberly Barb	1161	(336) 723-1067	kbarb@stimmapa.com
Electrical	CES	Christopher R. Stevens	15886	(336) 724-0139	cstevens@ces.net
Fire Alarm					
Plumbing	CES	Christopher R. Stevens	15886	(336) 724-0139	cstevens@ces.net
Mechanical	CES	Christopher R. Stevens	15886	(336) 724-0139	cstevens@ces.net
Sprinkler-Standpipe	SELECT Engineering	Meade H. Willis	40747	(336) 501-6886	mwillis@select-eng.com
Structural					
Retaining Walls >5' High					
Other					

(\*Other\* should include firms and individuals such as truss, precast, pre-engineered, interior designers, etc.)

**2018 NC BUILDING CODE:**  New Building  Addition  Renovation  
 1<sup>st</sup> Time Interior Completion  
 Shell/Core - Contact the local inspection jurisdiction for possible additional procedures and requirements  
 Phased Construction - Shell/Core - Contact the local inspection jurisdiction for possible additional procedures and requirements

**2018 NC EXISTING BUILDING CODE - EXISTING:**  Prescriptive  Repair  Chapter 14  
Alteration:  Level I  Level II  Level III  Change of Use  
 Historic Property

**CONSTRUCTED:** (date) \_\_\_\_\_ **CURRENT OCCUPANCY(S)** (Ch. 3): \_\_\_\_\_  
**RENOVATED:** (date) \_\_\_\_\_ **PROPOSED OCCUPANCY(S)** (Ch. 3): \_\_\_\_\_  
**RISK CATEGORY** (Table 1604.5): **Current:**  I  II  III  IV **Proposed:**  I  II  III  IV

**BASIC BUILDING DATA:**  
**Construction Type:**  I-A  II-A  III-A  IV  V-A  
 I-B  II-B  III-B  V-B  
**Sprinklers:**  No  Partial  Yes  NFPA 13  NFPA 13R  NFPA 13D  
**Standpipes:**  No  Yes  Class  I  II  III  Wet  Dry  
**Fire District:**  No  Yes **Flood Hazard Area:**  No  Yes  
**Special Inspections Required:**  No  Yes (Contact the local inspection jurisdiction for additional procedures and requirements)

**Ground Building Area Table**

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
3 <sup>rd</sup> Floor			
2 <sup>nd</sup> Floor			
Mezzanine			
1 <sup>st</sup> Floor		282 SF	
Basement			
TOTAL			

**ALLOWABLE AREA**

**Primary Occupancy Classification(s):**  
Assembly  A-1  A-2  A-3  A-4  A-5  
Business   
Educational   
Factory  F-1 Moderate  F-2 Low  
Hazardous  H-1 Detonate  H-2 Deflagrate  H-3 Combust  H-4 Health  H-5 HPM  
Institutional  I-1 Condition  I-2  I-3  I-4  
 I-2 Condition  I-1  I-2  I-3  I-4  
 I-3 Condition  I-2  I-3  I-4  I-5  
Mercantile   
Residential  R-1  R-2  R-3  R-4  
Storage  S-1 Moderate  S-2 Low  High-piled  
 Parking Garage  Open  Enclosed  Repair Garage  
Utility and Miscellaneous

**Accessory Occupancy Classification(s):** \_\_\_\_\_  
**Incidental Uses (Table 509):** \_\_\_\_\_  
**Special Uses (Chapter 4 - List Code Sections):** \_\_\_\_\_  
**Special Provisions (Chapter 5 - List Code Sections):** \_\_\_\_\_

**Mixed Occupancy:**  No  Yes Separation: \_\_\_\_\_ Hr. Exception: \_\_\_\_\_  
 Non-Separated Use (508.3) - The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building.  
 Separated Use (508.4) - See below for area calculations for each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.

$$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1$$

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 <sup>1</sup> AREA	(C) AREA FOR FRONTAGE INCREASE <sup>2,3</sup>	(D) ALLOWABLE AREA PER STORY OR UNLIMITED <sup>3</sup>
1st Floor	Restroom & Storage	282	9,000	N/A	N/A

<sup>1</sup> Frontage area increases from Section 506.3 are computed thus:  
a. Perimeter which fronts a public way or open space having 20 feet minimum width = (F)  
b. Total Building Perimeter = (P)  
c. Ratio (F/P) = (F/P)  
d. W = Minimum width of public way = (W)  
e. Percent of frontage increase  $I_f = 100(F/P - 0.25) \times W/30 = (\%)$   
<sup>2</sup> Unlimited area applicable under conditions of Section 507.  
<sup>3</sup> Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (506.2).  
<sup>4</sup> The maximum area of open parking garages must comply with Table 406.5.4  
<sup>5</sup> Frontage increase is based on the unsprinklered area value in Table 506.2.

**ALLOWABLE HEIGHT**

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE <sup>1</sup>
Building Height in Feet (Table 504.3) <sup>2</sup>	40'	16'	
Building Height in Stories (Table 504.4) <sup>3</sup>	2	1	

Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4. The maximum height of air traffic control towers must comply with Table 412.3.1. height of open parking garages must comply with Table 406.5.4

**FIRE PROTECTION REQUIREMENTS**

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
Structural Frame, including columns, girders, trusses		0 HR	0 HR			
Bearing Walls		0 HR	0 HR			
Exterior		0 HR	0 HR			
North						
East						
West						
South						
Interior		0 HR	0 HR			
Nonbearing Walls and Partitions		0 HR	0 HR			
Exterior walls						
North						
East						
West						
South						
Interior walls and partitions		0 HR	0 HR			
Floor Construction		0 HR	0 HR			
Including supporting beams and joists						
Floor Ceiling Assembly		0 HR	0 HR			
Columns Supporting Floors		0 HR	0 HR			
Roof Construction, including supporting beams and joists		0 HR	0 HR			
Roof Ceiling Assembly		0 HR	0 HR			
Columns Supporting Roof		0 HR	0 HR			
Shaft Enclosures - Exit		N/A	N/A			
Shaft Enclosures - Other		N/A	N/A			
Corridor Separation		N/A	N/A			
Occupancy/Fire Barrier Separation		N/A	N/A			
Party Fire Wall Separation		N/A	N/A			
Smoke Barrier Separation		N/A	N/A			
Smoke Partition		N/A	N/A			
Tenant Dwelling Unit/Sleeping Unit Separation		N/A	N/A			
Incidental Use Separation		N/A	N/A			

**PERCENTAGE OF WALL OPENING CALCULATIONS**

FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
>30'	Unprotected, Sprinklered	No Limit	No Limit

Building is > 30' from all property lines

**LIFE SAFETY SYSTEM REQUIREMENTS**

Emergency Lighting:  No  Yes  
Exit Signs:  No  Yes  
Fire Alarm:  No  Yes  
Smoke Detection System:  No  Yes  Partial  
Carbon Monoxide Detection:  No  Yes

**LIFE SAFETY PLAN REQUIREMENTS**

Life Safety Plan Sheet #: A1.02

Fire and/or smoke rated wall locations (Chapter 7)  
 Assumed and real property line locations (if not on the site plan)  
 Exterior wall opening area with respect to distance to assumed property lines (705.8)  
 Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)  
 Occupant loads for each area  
 Exit sign locations (1013)  
 Exit access travel distances (1017)  
 Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))  
 Dead end lengths (1020.4)  
 Clear exit widths for each exit door  
 Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)  
 Actual occupant load for each exit door  
 A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation  
 Location of doors with panic hardware (1010.1.10)  
 Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)  
 Location of doors with electromagnetic egress locks (1010.1.9.9)  
 Location of doors equipped with hold-open devices  
 Location of emergency escape windows (1030)  
 The square footage of each fire area (202)  
 The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)  
 Note any code exceptions or table notes that may have been utilized regarding the items above

**ACCESSIBLE DWELLING UNITS (SECTION 1107)**

UNIT CLASSIFICATION	TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED

**ACCESSIBLE PARKING (SECTION 1106)**

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	# OF ACCESSIBLE SPACES PROVIDED	# OF 96" SPACES	# OF 132" SPACES	TOTAL # ACCESSIBLE SPACES PROVIDED
TOTAL					

See Civil Drawings

**PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)**

USE	WATER CLOSETS			URINALS			LAVATORIES			SHOWERS/TUBS	DRINKING FOUNTAINS	
	MALE	FEMALE	UNSEX	MALE	FEMALE	UNSEX	MALE	FEMALE	UNSEX		REGULAR	ACCESSIBLE
SPACE:												
NEW	0	0	2		0	0	2			1	1	
RETO'D	1	1	0		1	1	0			1	1	

**SPECIAL APPROVALS**

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPL, DHHS, etc., describe below)

**ENERGY SUMMARY**

**ENERGY REQUIREMENTS:**  
The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

**Existing building envelope complies with code:**  No  Yes (The remainder of this section is not applicable)  
**Exempt Building:**  No  Yes (Provide code or statutory reference): Less than 100 SF heated to minimum temperature in order to prevent pipes from freezing  
**Climate Zone:**  3A  4A  5A  
**Method of Compliance:** Energy Code  Performance  Prescriptive  
ASHRAE 90.1  Performance  Prescriptive  
(If "Other" specify source here)

**THERMAL ENVELOPE (Prescriptive method only)**

**Roof/Ceiling Assembly (each assembly)**  
Description of assembly: \_\_\_\_\_  
U-Value of total assembly: \_\_\_\_\_  
R-Value of insulation: \_\_\_\_\_  
Skylights in each assembly: \_\_\_\_\_  
U-Value of skylight: \_\_\_\_\_  
total square footage of skylights in each assembly: \_\_\_\_\_

**Exterior Walls (each assembly)**  
Description of assembly: \_\_\_\_\_  
U-Value of total assembly: \_\_\_\_\_  
R-Value of insulation: \_\_\_\_\_  
Openings (windows or doors with glazing)  
U-Value of assembly: \_\_\_\_\_  
Solar heat gain coefficient: \_\_\_\_\_  
projection factor: \_\_\_\_\_  
Door R-Values: \_\_\_\_\_

**Walls below grade (each assembly)**  
Description of assembly: \_\_\_\_\_  
U-Value of total assembly: \_\_\_\_\_  
R-Value of insulation: \_\_\_\_\_

**Floors over unconditioned space (each assembly)**  
Description of assembly: \_\_\_\_\_  
U-Value of total assembly: \_\_\_\_\_  
R-Value of insulation: \_\_\_\_\_

**Floors slab on grade**  
Description of assembly: \_\_\_\_\_  
U-Value of total assembly: \_\_\_\_\_  
R-Value of insulation: \_\_\_\_\_  
Horizontal/vertical requirement: \_\_\_\_\_  
slab heated: \_\_\_\_\_

**2018 APPENDIX B  
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS  
STRUCTURAL DESIGN (PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)**

**DESIGN LOADS:**

**Importance Factors:** Snow (I<sub>s</sub>) \_\_\_\_\_  
Seismic (I<sub>s</sub>) \_\_\_\_\_

**Live Loads:** Roof \_\_\_\_\_ psf  
Mezzanine \_\_\_\_\_ psf  
Floor \_\_\_\_\_ psf

**Ground Snow Load:** \_\_\_\_\_ psf

**Wind Load:** Ultimate Wind Speed \_\_\_\_\_ mph (ASCE-7)  
Exposure Category \_\_\_\_\_

**SEISMIC DESIGN CATEGORY:**  A  B  C  D  
Provide the following Seismic Design Parameters:  
**Risk Category (Table 1604.5):**  I  II  III  IV  
**Spectral Response Acceleration** S<sub>s</sub> \_\_\_\_\_ %g S<sub>1</sub> \_\_\_\_\_ %g  
**Site Classification (ASCE 7):**  A  B  C  D  E  F  
Data Source:  Field Test  Presumptive  Historical Data  
**Basic structural system**  Bearing Wall  Dual w/Special Moment Frame  
 Building Frame  Dual w/Intermediate R/C or Special Steel  
 Moment Frame  Inverted Pendulum  
**Analysis Procedure:**  Simplified  Equivalent Lateral Force  Dynamic  
**Architectural, Mechanical, Components anchored?**  Yes  No

**LATERAL DESIGN CONTROL:** Earthquake  Wind

**SOIL BEARING CAPACITIES:**  
Field Test (provide copy of test report) \_\_\_\_\_ psf  
Presumptive Bearing capacity \_\_\_\_\_ psf  
Pile size, type, and capacity \_\_\_\_\_ psf

See Structural Drawings

**2018 APPENDIX B  
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS  
MECHANICAL DESIGN (PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)**

**MECHANICAL SUMMARY  
MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT**

**Thermal Zone**  
winter dry bulb: \_\_\_\_\_  
summer dry bulb: \_\_\_\_\_

**Interior design conditions**  
winter dry bulb: \_\_\_\_\_  
summer dry bulb: \_\_\_\_\_  
relative humidity: \_\_\_\_\_

**Building heating load:** \_\_\_\_\_

**Building cooling load:** \_\_\_\_\_

**Mechanical Spacing Conditioning System**  
Unitary description of unit: \_\_\_\_\_  
heating efficiency: \_\_\_\_\_  
cooling efficiency: \_\_\_\_\_  
size category of unit: \_\_\_\_\_  
Boiler size category, if oversized, state reason: \_\_\_\_\_  
Chiller size category, if oversized, state reason: \_\_\_\_\_

**List equipment efficiencies:** \_\_\_\_\_

**2018 APPENDIX B  
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS  
ELECTRICAL DESIGN (PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)**

**ELECTRICAL SUMMARY  
ELECTRICAL SYSTEM AND EQUIPMENT**

**Method of Compliance:** Energy Code  Performance  Prescriptive  
ASHRAE 90.1  Performance  Prescriptive

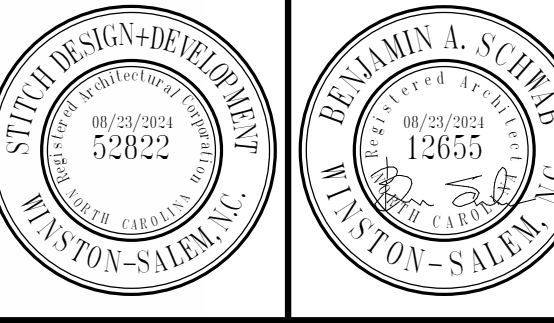
**Lighting schedule (each fixture type)**  
lamp type required in fixture \_\_\_\_\_  
number of lamps in fixture \_\_\_\_\_  
ballast type used in the fixture \_\_\_\_\_  
number of ballasts in fixture \_\_\_\_\_  
total wattage per fixture \_\_\_\_\_  
total interior wattage specified vs. allowed (whole building or space by space) \_\_\_\_\_  
total exterior wattage specified vs. allowed \_\_\_\_\_

**Additional Efficiency Package Options (When using the 2018 NCECC; not required for ASHRAE 90.1)**  
 C406.2 More Efficient HVAC Equipment Performance  
 C406.3 Reduced Lighting Power Density  
 C406.4 Enhanced Digital Lighting Controls  
 C406.5 On-Site Renewable Energy  
 C406.6 Dedicated Outdoor Air System  
 C406.7 Reduced Energy Use in Service Water Heating

See Electrical Drawings



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**PATRIOTS PARK  
RESTROOM FACILITY**

**PONDEROSA ROAD  
CAMERON, NC**

**CONSTRUCTION DOCUMENTS**

Revisions		
No.	Description	Date

date: 08/23/2024  
commission: 24-140

sheet title: APPENDIX B  
sheet no.: A1.01











DOOR & FRAME SCHEDULE												
NUMBER	DOOR			FRAME								REMARKS
	WIDTH	HEIGHT	THICKNESS	DOOR TYPE	DOOR MATERIAL	FRAME TYPE	FRAME MATERIAL	HEAD	JAMB	SILL	HARDWARE	
FLOOR PLAN												
01	3'-0"	7'-0"	0'-1 3/4"	F	HM	F-1	HM	7D/A3.01	7D/A3.01	7F/A3.01	PRIVACY LOCKSET	
02	3'-0"	7'-0"	0'-1 3/4"	F	HM	F-1	HM	7D/A3.01	7D/A3.01	7F/A3.01	PRIVACY LOCKSET	
03	3'-0"	7'-0"	0'-1 3/4"	F	HM	F-1	HM	7D/A3.01	7D/A3.01	7F/A3.01	STOREROOM LOCKSET	FLOOR MOUNTED DOOR STOP

**DOOR & TRIM NOTES**

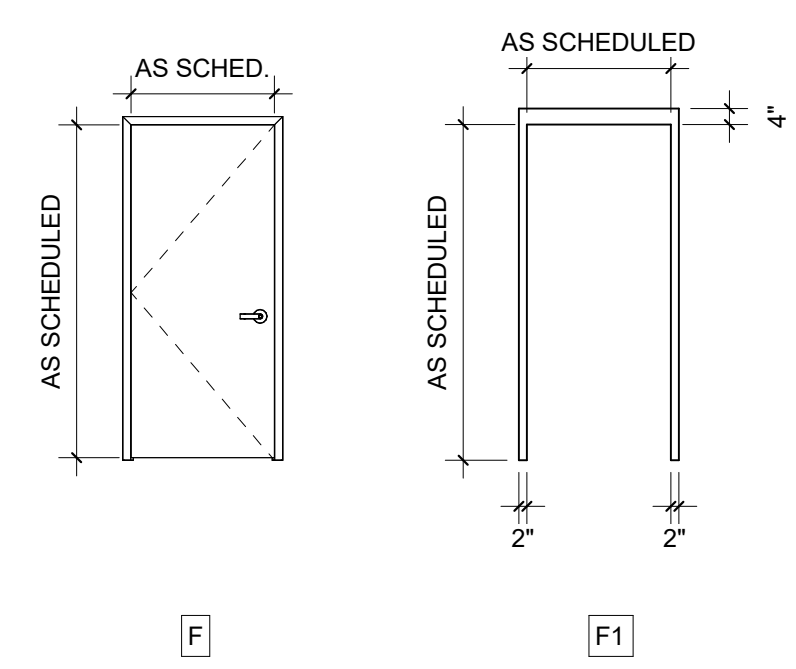
- TRIM GENERAL NOTES**
- DOOR FRAMES & TRIM THAT TOUCH WOOD BASE ARE TO MATCH PAINTED WOOD BASE FINISH
- DOOR GENERAL NOTES**
- ALL EXTERIOR HOLLOW METAL DOORS & FRAMES TO BE GALVANIZED
  - ALL EXTERIOR HOLLOW METAL DOORS TO BE INSULATED (R-3 MINIMUM)
  - INTERIOR DOOR FRAMES TO BE PAINTED TO MATCH TRIM COLOR OR EXPOSED STRUCTURE COLOR IF NO TRIM COLOR IS PROVIDED.
  - REFER TO SPECIFICATIONS FOR DOOR HARDWARE
  - COORDINATE FRAME SIZE WITH DETAILS, WALL TYPES & FINISHES

**DOOR ABBREVIATIONS**

HM HOLLOW METAL  
 WD WOOD  
 ACW ALUMINUM CLAD WOOD  
 AL ALUMINUM

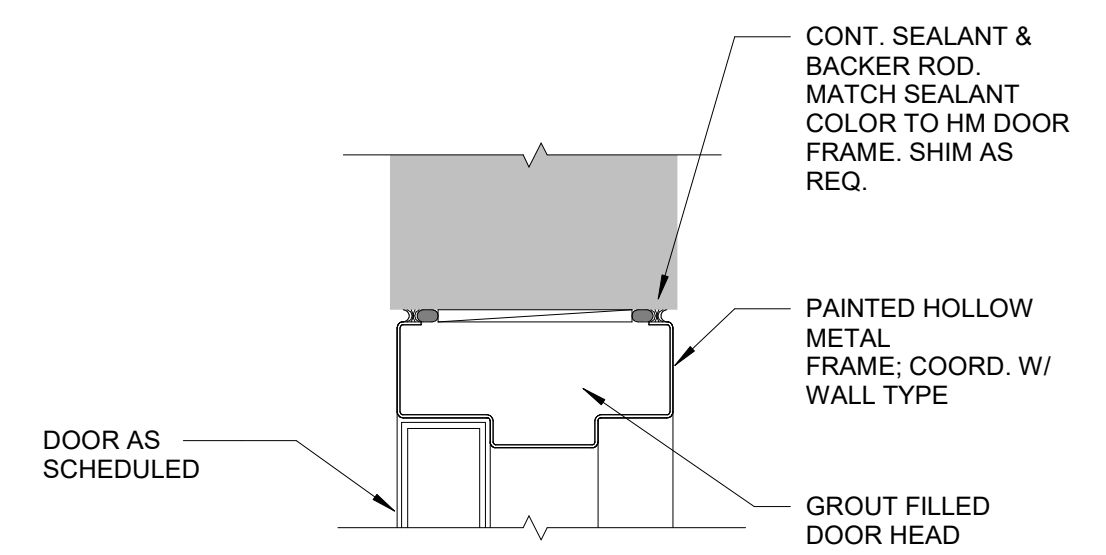


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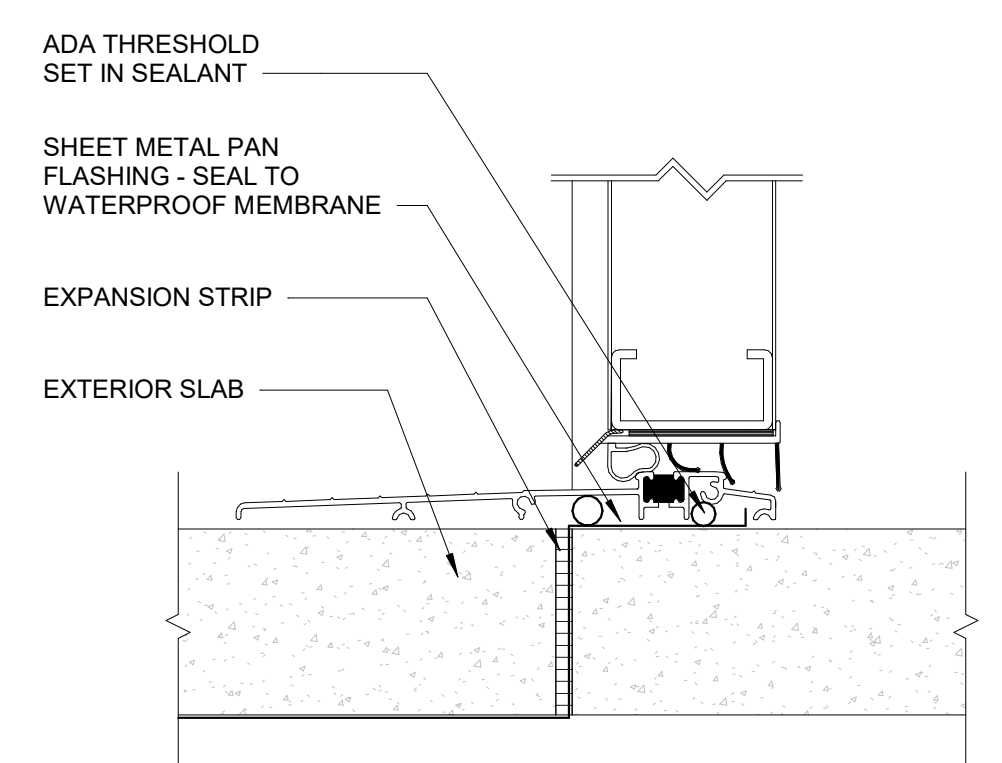
**7B DOOR & FRAME TYPES**

1/4" = 1'-0"



**7D TYP. 4" HM DOOR HEAD**

3" = 1'-0"



**7F ADA EXTERIOR SILL DETAIL**

3" = 1'-0"

**PATRIOTS PARK  
 RESTROOM FACILITY**

PONDEROSA ROAD  
 CAMERON, NC

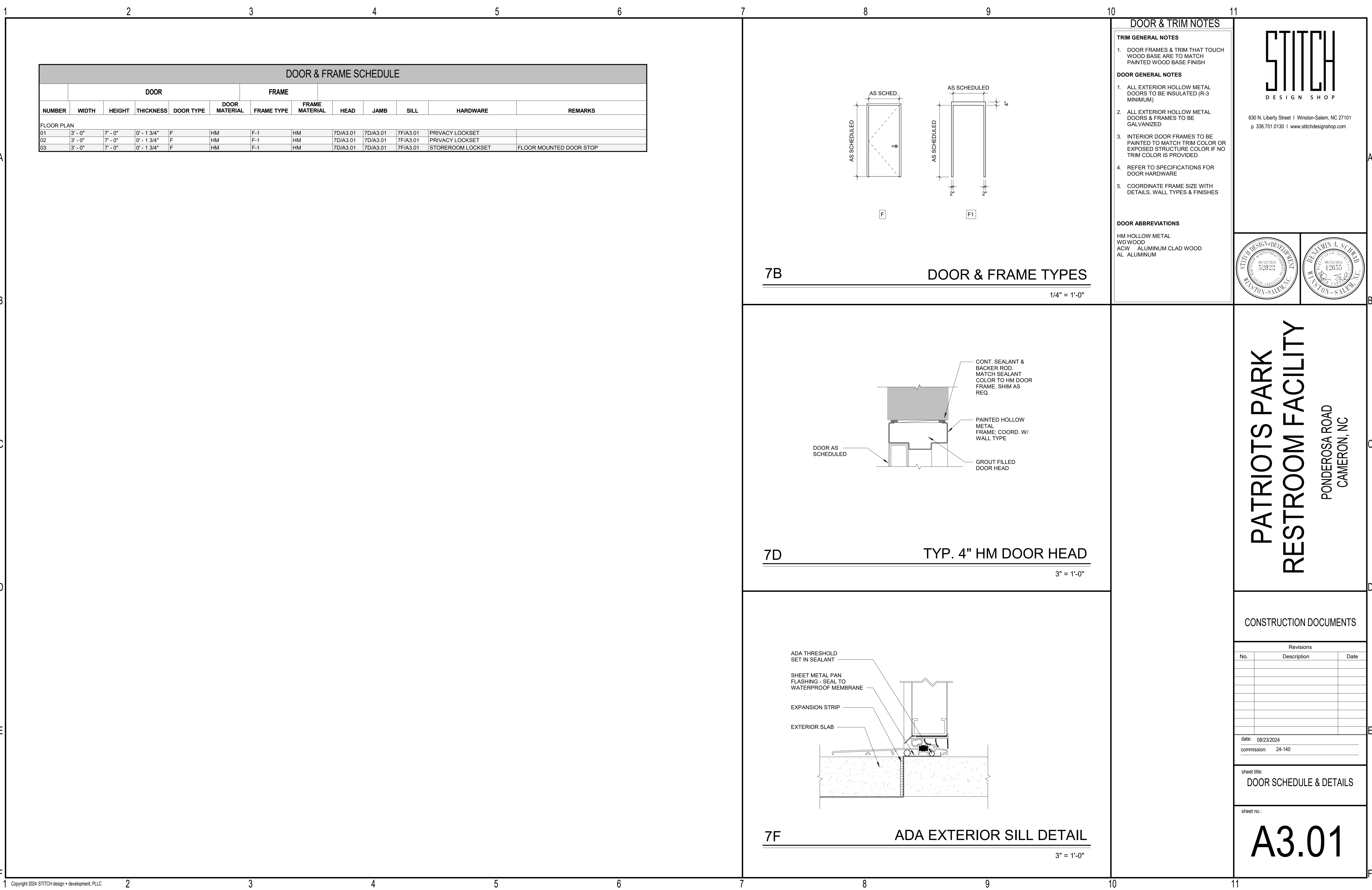
**CONSTRUCTION DOCUMENTS**

Revisions		
No.	Description	Date

date: 08/23/2024  
 commission: 24-140

sheet title:  
**DOOR SCHEDULE & DETAILS**

sheet no.:  
**A3.01**









1 2 3 4 5 6 7 8 9 10 11

A

B

C

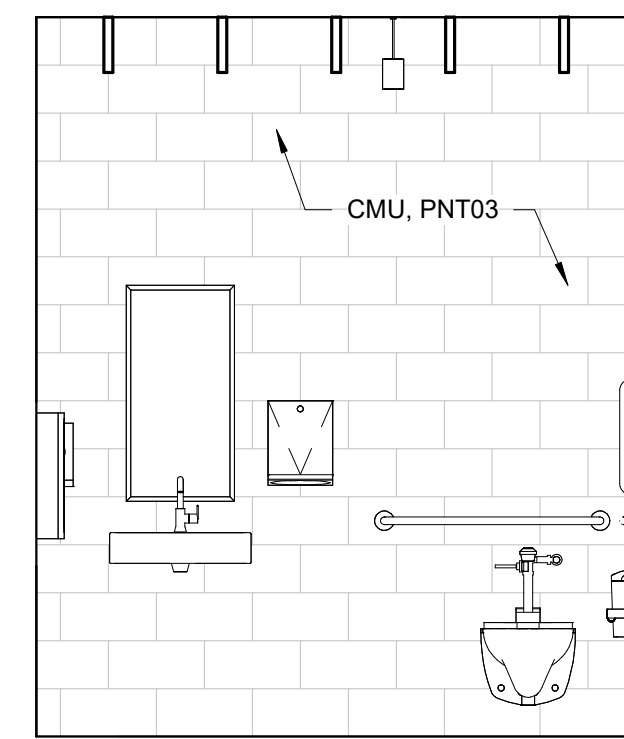
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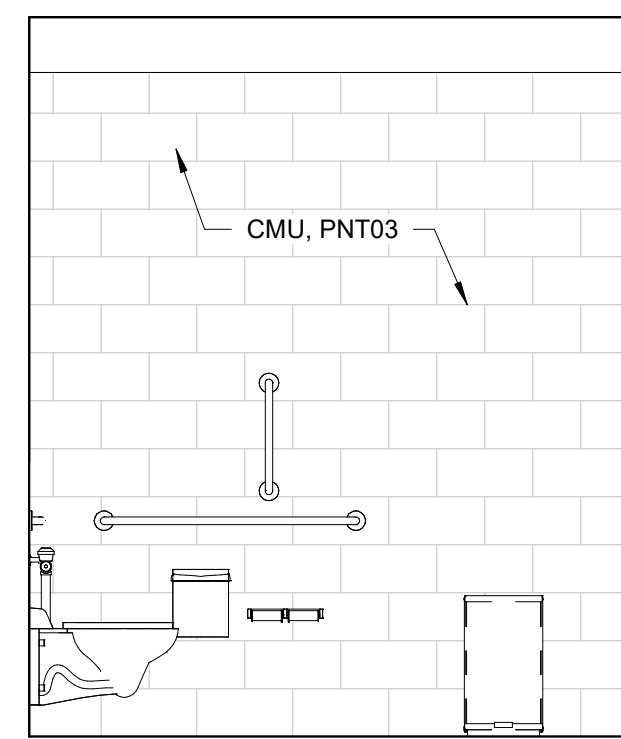
F

**STITCH**  
DESIGN SHOP

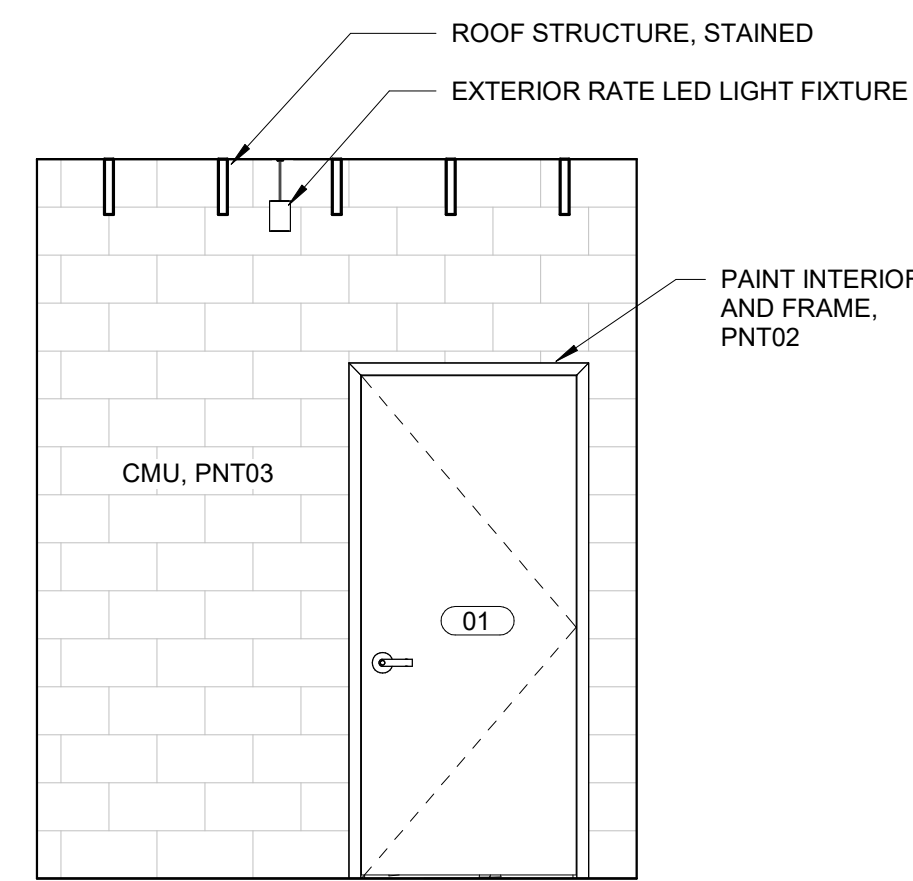
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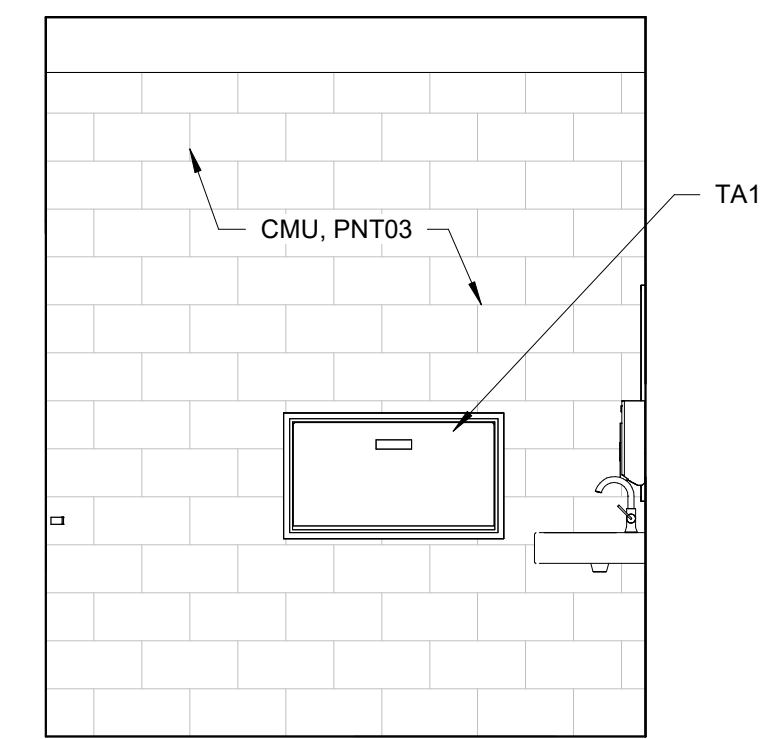
3D RESTROOM INT ELEVATION 04  
3/8" = 1'-0"



5D RESTROOM INT ELEVATION 03  
3/8" = 1'-0"



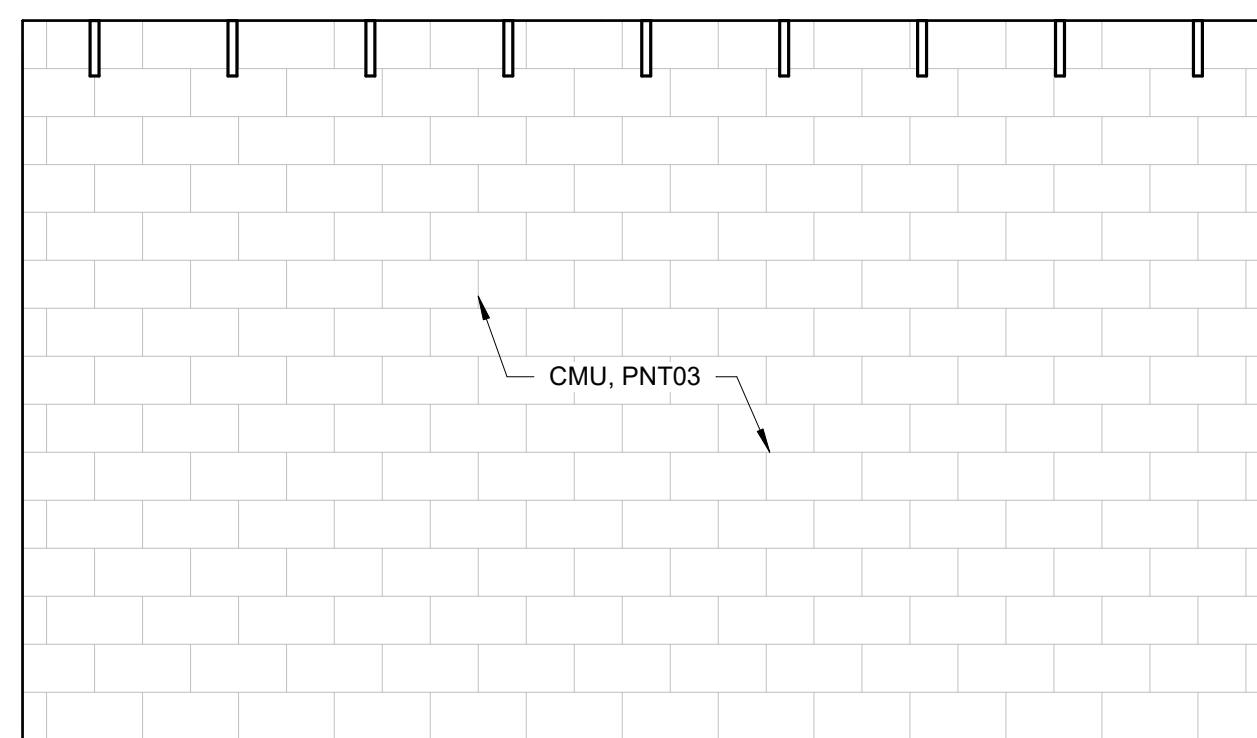
7D RESTROOM INT ELEVATION 02  
3/8" = 1'-0"



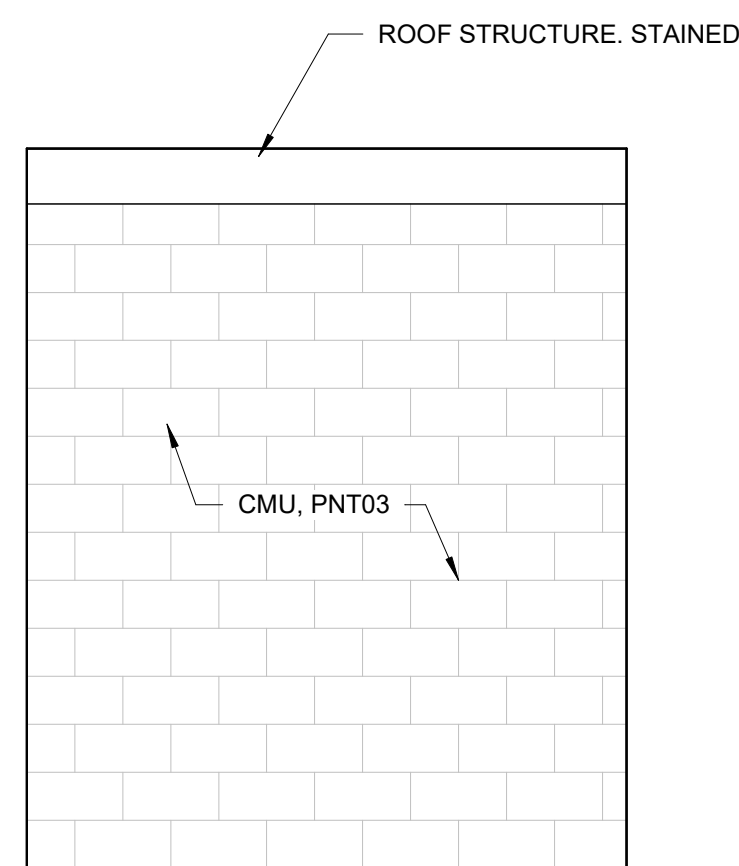
9D RESTROOM INT ELEVATION 01  
3/8" = 1'-0"

**PATRIOTS PARK  
RESTROOM FACILITY**

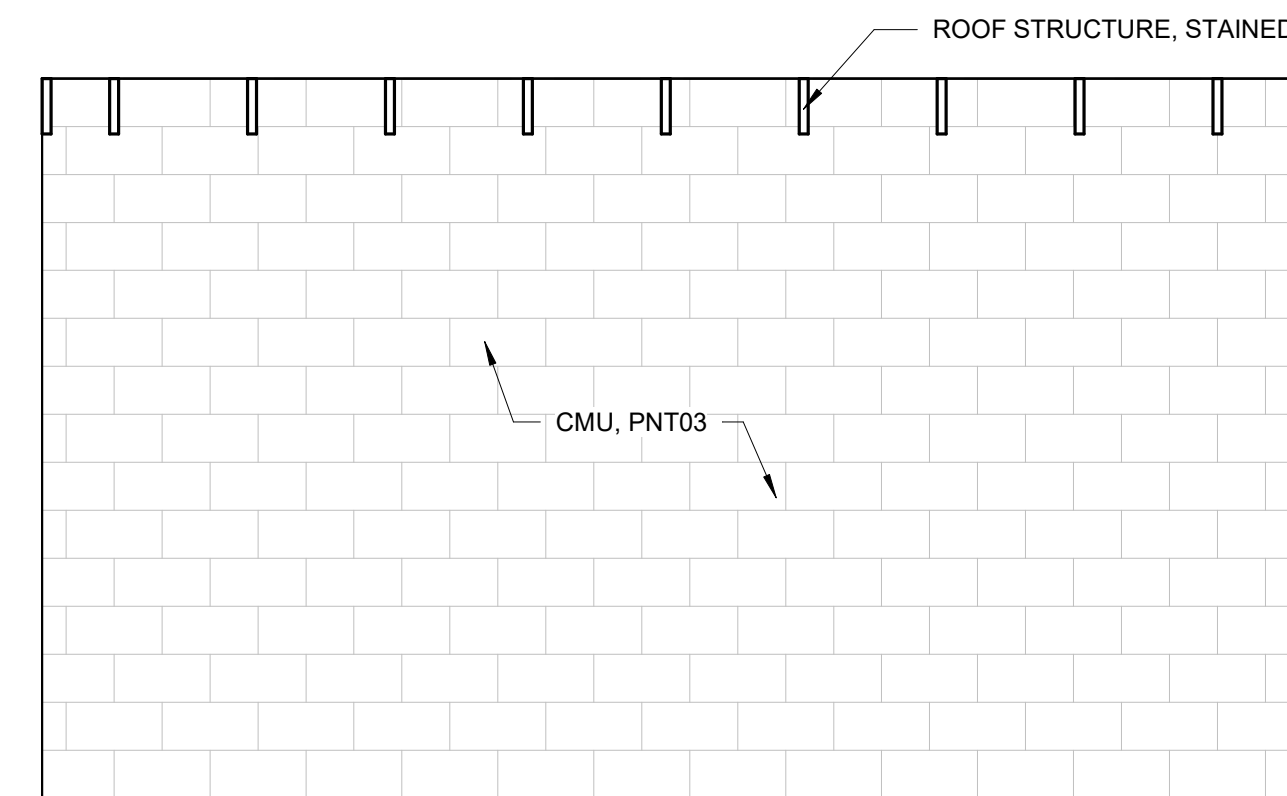
PONDEROSA ROAD  
CAMERON, NC



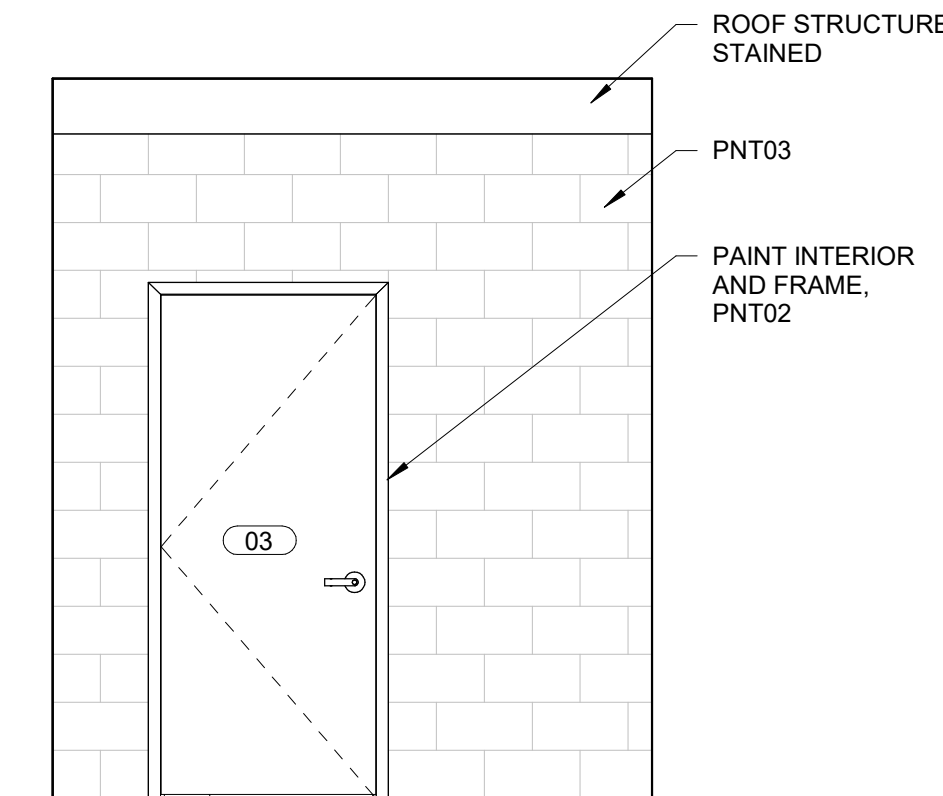
1F PLUMB CHASE INT ELEVATION 04  
3/8" = 1'-0"



4F PLUMB CHASE INT ELEVATION 03  
3/8" = 1'-0"



6F PLUMB CHASE INT ELEVATION 02  
3/8" = 1'-0"



9F PLUMB CHASE INT ELEVATION 01  
3/8" = 1'-0"

CONSTRUCTION DOCUMENTS

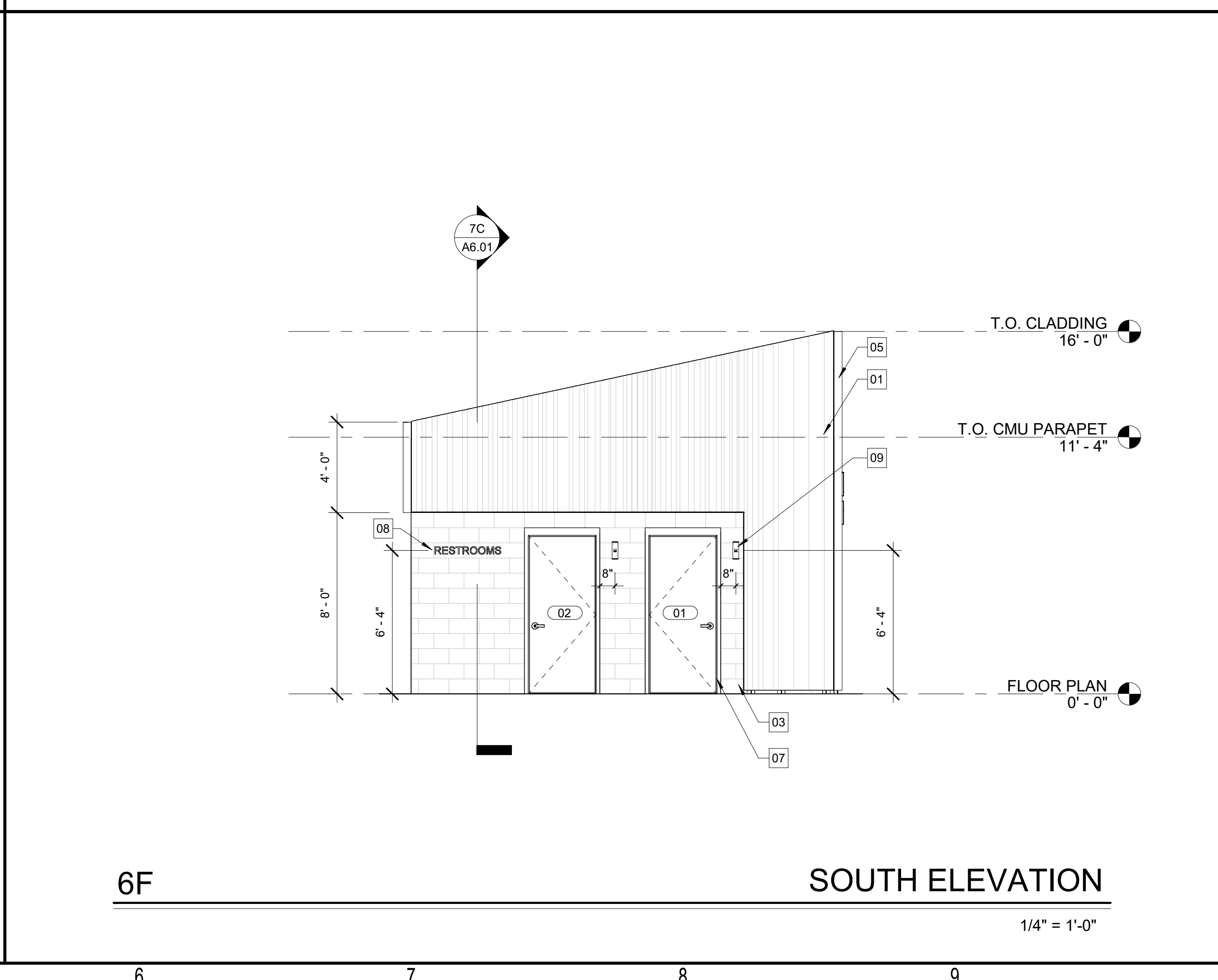
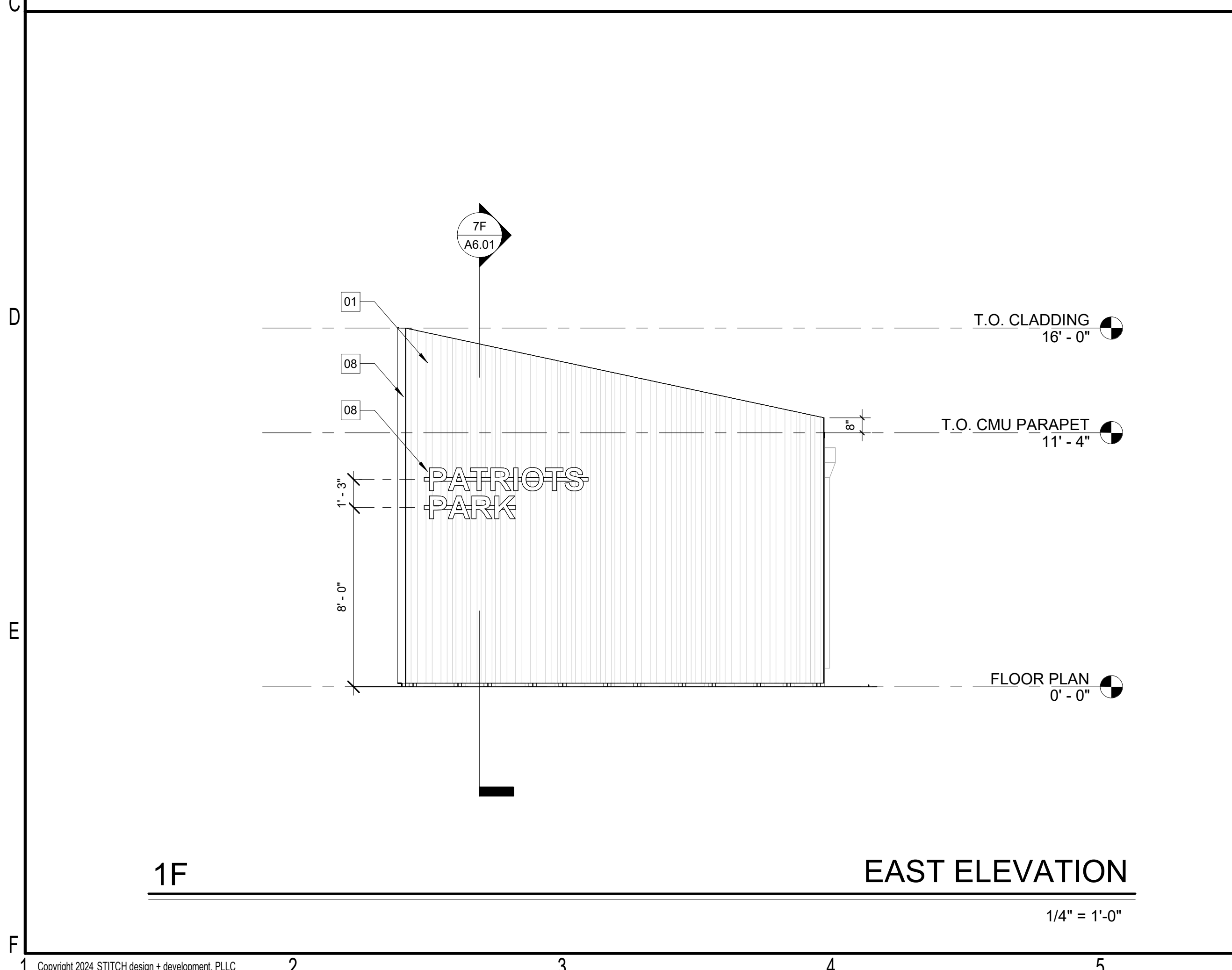
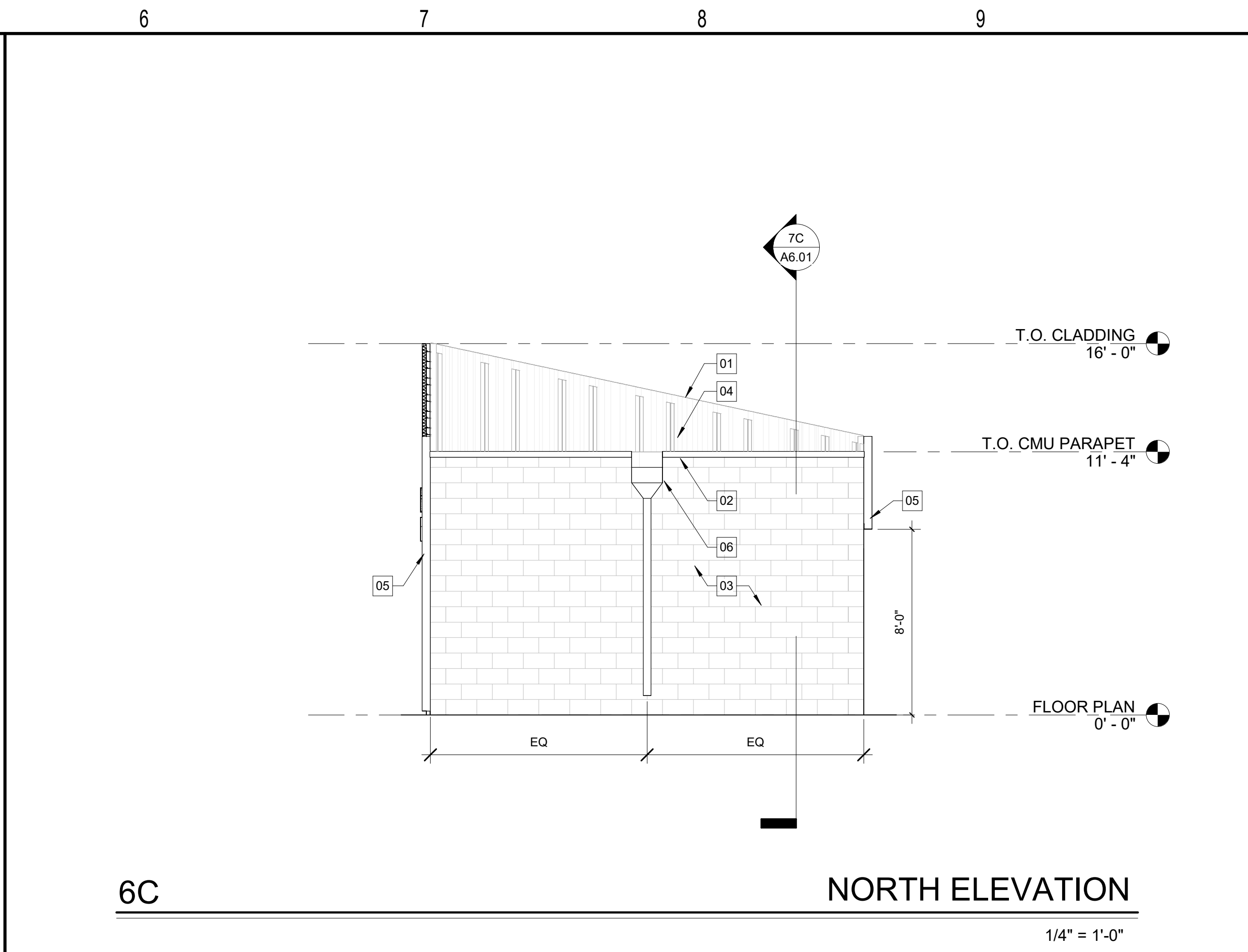
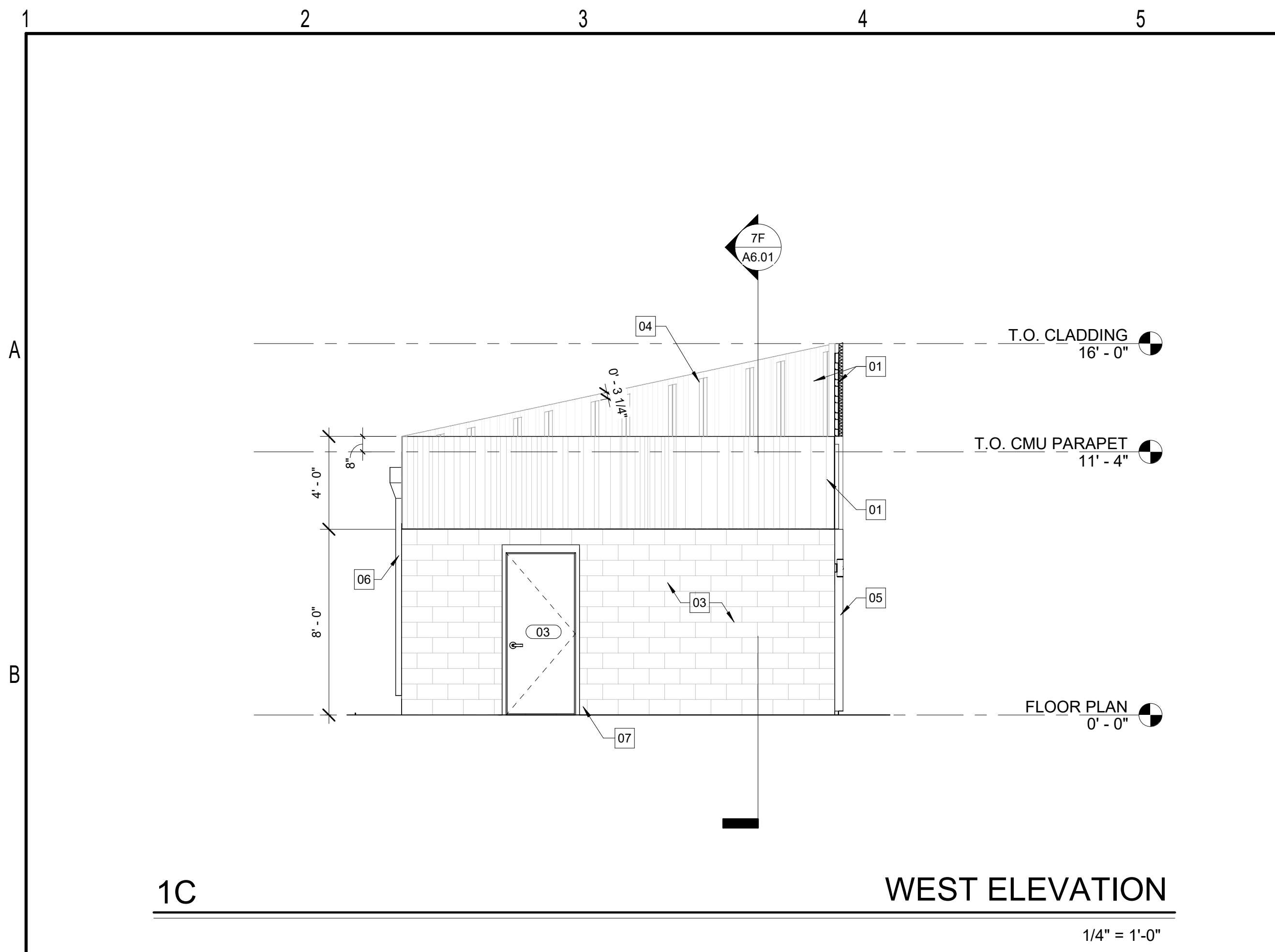
Revisions		
No.	Description	Date

date: 08/23/2024  
commission: 24-140

sheet title:  
**INTERIOR ELEVATIONS**

sheet no.:  
**A4.05**





- KEYED NOTES - ELEVATION**
- 01 CORRUGATED, PERFORATED METAL WALL PANEL. ATTACH WITH EXPOSED FASTENERS. PAINT SCREW HEADS AND WASHERS TO MATCH PANEL FINISH
  - BASIS OF DESIGN: ATAS INTERNATIONAL, INC. WAVE PANEL W/ PERFORATION PROVIDE MFG STANDARD COLOR: BRITE RED
  - 02 METAL COPING CAP.
  - BASIS OF DESIGN: ATAS INTERNATIONAL, INC. RAPID-LOK COPING PROVIDE MFG STANDARD COLOR TO MATCH METAL PANEL
  - 03 8X8X16 CONCRETE MASONRY BLOCK. PAINT: PNT01
  - 04 VERTICAL GALVANIZED ANGLE Z FURRING PER STRUCTURAL PAINTED: PNT02. SEE STRUCTURAL FOR SPACING AND ANGLE SIZES
  - 05 STEEL ANGLE TRIM. PAINTED: PNT02
  - 06 PREFABRICATED METAL ROOF LEADER. PAINTED: PNT02
  - 07 HOLLOW METAL DOOR AND FRAME PER DOOR SCHEDULE. PAINTED: PNT02
  - 08 EXTERIOR BUILDING SIGN
  - 09 EXTERIOR WALL MOUNTED LIGHT FIXTURE

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CONSTRUCTION DOCUMENTS

Revisions		
No.	Description	Date

date: 08/23/2024  
commission: 24-140

sheet title:  
**EXTERIOR ELEVATIONS**

sheet no.:  
**A5.01**







1 2 3 4 5 6 7 8 9 10 11

**A. FOUNDATIONS**

- ALL FOUNDATIONS SHALL BE FOUNDED ON RESIDUAL SOIL OR STRUCTURAL FILL WITH A MINIMUM ALLOWABLE BEARING CAPACITY OF 2,000 PSF. ALLOWABLE SOIL BEARING PRESSURES SHALL BE VERIFIED BY GEOTECHNICAL ENGINEER AT THE TIME THE FOOTING EXCAVATIONS ARE MADE. WRITTEN VERIFICATION OF ADEQUATE BEARING MATERIALS SHALL BE SUBMITTED TO THE ARCHITECT AND ENGINEER.
- CONCRETE REINFORCING BARS SHALL BE HELD 3" CLEAR OF THE BOTTOM AND SIDES OF ALL FOUNDATION ELEMENTS. REINFORCING BARS SHALL BE FREE OF MUD, GREASE, OR ANY OTHER MATERIAL THAT COULD ADVERSELY AFFECT THE BOND BETWEEN THE DEFORMED BAR AND CONCRETE.
- THE GENERAL CONTRACTOR SHALL COORDINATE TOP OF FOOTING ELEVATIONS WITH SITE GRADING PLANS AND UTILITIES PRIOR TO FABRICATION OF CONCRETE REINFORCING STEEL AND/OR STRUCTURAL STEEL FRAMING.

**B. CAST-IN-PLACE CONCRETE**

- CAST-IN-PLACE CONCRETE SHALL HAVE THE FOLLOWING MINIMUM 28-DAY COMPRESSIVE STRENGTHS.  
FOOTINGS.....3000 PSI  
SLABS-ON-GRADE.....4000 PSI
- PRIOR TO CASTING ANY CONCRETE, MIX DESIGNS, INCLUDING ALL ADMIXTURES, SHALL BE APPROVED BY THE ARCHITECT OR ENGINEER. NO CALCIUM CHLORIDE SHALL BE ADDED TO THE MIX AT ANY TIME.
- ALL CONCRETE SUBJECT TO FREEZING CONDITIONS AND/OR DE-ICING SALTS SHALL CONTAIN ENTRAINED AIR AND SHALL HAVE A MAXIMUM WATER-TO-CEMENT RATIO OF 0.45.
- THE ADDITION OF WATER TO CONCRETE OUTSIDE OF THE BATCHING PLANT IS PROHIBITED, INCLUDING FOR THE PURPOSE OF INCREASING SLUMP OR FOR RETEMPERING OF CONCRETE THAT HAS BEGUN TO SET.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL ISOLATION MATERIAL BETWEEN CONCRETE POURS AND BETWEEN CONCRETE AND OTHER MATERIALS, WHETHER SHOWN IN DETAILS OR NOT.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL ANCHOR BOLTS, EMBED PLATES, CONNECTORS, SLEEVES, ETC. IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND IN COORDINATION WITH OTHER TRADES PRIOR TO PLACING CONCRETE.
- PREPARATION, PLACEMENT, CURING, AND FINISHING OF ALL CONCRETE SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE AMERICAN CONCRETE INSTITUTE.

**C. CONCRETE REINFORCING**

- REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615, GRADE 60.
- WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ASTM A185.
- REFER TO THE REINFORCING STEEL LAP SCHEDULE FOR LAP LENGTHS AND ADDITIONAL REQUIREMENTS OF LAP SPLICES.
- ALL REINFORCING STEEL, INCLUDING WELDED WIRE MESH, SHALL BE SUPPORTED AND SECURELY TIED IN PLACE TO MAINTAIN THE INTENDED REINFORCING LOCATION AND PROPER CLEAR COVER THROUGHOUT THE ENTIRE PROCESS OF PLACING CONCRETE. ALL CHAIRS, BOLSTERS, ETC. SHALL BE INSTALLED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI).
- ALL REINFORCING STEEL SHALL BE CLEAN OF MUD, DEBRIS, RUST, OR ANY OTHER MATERIAL THAT MAY INHIBIT THE BOND BETWEEN THE CONCRETE AND STEEL REINFORCING.

**D. STRUCTURAL STEEL**

- ALL STRUCTURAL STEEL ROLLED SHAPES SHALL CONFORM TO ASTM A992, GRADE 50. ALL HSS SQUARE AND RECTANGULAR MEMBERS SHALL CONFORM TO ASTM A500, GRADE B, 50 KSI. ALL HSS ROUND MEMBERS SHALL CONFORM TO ASTM A500, GRADE B, 42 KSI. ALL PLATES AND MISCELLANEOUS STEEL, INCLUDING THOSE FOR BUILT-UP MEMBERS, SHALL CONFORM TO ASTM A36.
- BOLTS FOR CONNECTING STRUCTURAL STEEL MEMBERS SHALL BE ASTM A325-N, 3/4" DIAMETER, UNLESS OTHERWISE NOTED.
- ANCHOR BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F1554 WITH A MINIMUM YIELD STRENGTH OF 36 KSI.
- STEEL STUD CONNECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A29, A108, AND AWS D1.1 WITH A MINIMUM TENSILE STRENGTH OF 65 KSI.
- ALL WELDING ELECTRODES SHALL BE E70 SERIES, LOW HYDROGEN, UNLESS OTHERWISE NOTED.
- ALL WELDS SHALL BE MADE ONLY BY WELDERS WHO HAVE BEEN PREQUALIFIED BY TESTS OF THE AMERICAN WELDING SOCIETY, PRESCRIBED IN THE LATEST EDITION OF AWS D1.1.
- ALL FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE LATEST SPECIFICATION, COMMENTARY, AND CODE OF STANDARD PRACTICE OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, EXCEPT REFERENCES TO THE "OWNER'S" RESPONSIBILITY SHALL BE CHANGED TO "CONTRACTOR'S" RESPONSIBILITY.
- ANY CONNECTION NOT SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS SHALL BE DESIGNED AND DETAILED BY THE STRUCTURAL STEEL FABRICATOR.

**E. CONCRETE MASONRY**

- MATERIALS**
  - REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR CONCRETE MASONRY.
  - CONCRETE MASONRY UNITS SHALL BE TWO CORE UNITS WITH A MINIMUM COMPRESSIVE STRENGTH OF 1,900 PSI OR GREATER AND MORTAR SHALL BE TYPE S. BASED ON THESE VALUES, THE MASONRY COMPRESSIVE STRENGTH  $F_m$  HAS BEEN ASSUMED TO BE 1,500 PSI.
  - GROUT FILL FOR ALL REINFORCED MASONRY SHALL CONFORM TO THE REQUIREMENTS OF ASTM C476 AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI. GROUT SLUMP SHALL BE 9"-11" UNLESS SELF-CONSOLIDATING GROUT IS USED. GROUT FILL SHALL BE MECHANICALLY VIBRATED IN ACCORDANCE WITH TMS-402.
- REINFORCING**
  - ALL REINFORCING BARS SHALL BE SECURED IN PLACE PRIOR TO GROUTING WITH APPROVED ACCESSORIES TO PREVENT MOVEMENT OR DISPLACEMENT DURING THE GROUTING PROCESS.
  - REINFORCEMENT SHALL HAVE A MINIMUM OF 1/2" OF GROUT BETWEEN THE BAR AND THE MASONRY UNIT.
  - MASONRY SHALL BE REINFORCED HORIZONTALLY WITH STANDARD GALVANIZED WIRES (9 GA / W1.7) AT 16" O/C VERTICALLY. PREFABRICATED CORNERS AND TEES SHALL BE USED AS REQUIRED.
- GROUTING**
  - MAXIMUM LIFT HEIGHTS FOR PLACEMENT OF GROUT SHALL CONFORM TO TMS-402.
  - STOP GROUTING FOR EACH LIFT 1" BELOW TOP OF LAST CMU COURSE, WITH THE EXCEPTION OF THE LIFT TERMINATING AT THE TOP OF WALL.
  - PROVIDE FULL HEAD AND BED JOINTS FOR EACH UNIT. THE MORTAR BED UNDER THE FIRST COURSE AT THE FOUNDATION SHALL NOT FILL THE CORE AREA.
  - AT A MINIMUM, ALL MASONRY CELLS WITH REINFORCING SHALL BE GROUTED SOLID. REFER TO DRAWING NOTES AND DETAILS FOR ADDITIONAL GROUTING REQUIREMENTS. ALL MASONRY CELLS BELOW GRADE SHALL BE GROUTED SOLID.

**F. DESIGN LOADS**

- BUILDING RISK CATEGORY II
- IMPORTANCE FACTORS  
SNOW IMPORTANCE FACTOR 1.00  
ICE IMPORTANCE FACTORS (THICKNESS / WIND) 1.00 / 1.00  
SEISMIC IMPORTANCE FACTOR 1.00
- SOIL BEARING CAPACITY 2000 PSF
- LIVE LOADS**  
ROOF LIVE LOAD 20 PSF  
FLOOR LIVE LOAD 100 PSF
- SNOW LOADS**  
GROUND SNOW LOAD 10 PSF  
SNOW LOAD EXPOSURE FACTOR 1.0  
THERMAL FACTOR 1.0
- WIND DESIGN CRITERIA**  
BASIC WIND SPEED 117 MPH  
WIND EXPOSURE FACTOR B  
INTERNAL PRESSURE COEFFICIENT +/- 0.18  
COMPONENTS AND CLADDING DESIGN PER ASCE 7-10 CHAPTER 30
- SEISMIC DESIGN CRITERIA**  
SITE CLASSIFICATION D (ASSUMED)  
S<sub>0</sub> = 0.205 g  
S<sub>1</sub> = 0.093 g  
S<sub>2</sub> = 0.218 g  
S<sub>21</sub> = 0.149 g  
SEISMIC DESIGN CATEGORY B  
SEISMIC RESPONSE MODIFICATION COEFFICIENT 2  
ANALYSIS PROCEDURE E.L.F.

**G. SHOP DRAWING SUBMITTALS**

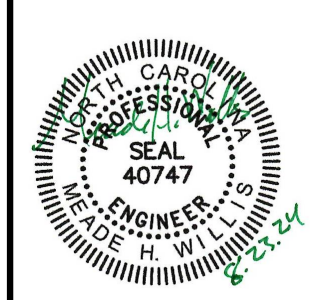
- SHOP DRAWINGS SHALL BE PREPARED FOR THE FOLLOWING STRUCTURAL ITEMS. REFER TO DRAWINGS OF OTHER TRADES FOR ADDITIONAL SHOP DRAWING REQUIREMENTS.
  - CONCRETE MIX DESIGNS
  - CONCRETE REINFORCING
  - CONCRETE MASONRY REINFORCING

**H. MISCELLANEOUS**

- STRUCTURAL AND ARCHITECTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH DRAWINGS OF OTHER TRADES AND DRAWINGS FURNISHED BY MATERIAL AND EQUIPMENT SUPPLIERS. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING WORK OF ALL TRADES IS FULLY COORDINATED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, ERECTING, AND REMOVING ALL TEMPORARY SHORING AND BRACING. SHOULD DESIGN OF TEMPORARY SHORING BE REQUIRED, THE CONTRACTOR IS RESPONSIBLE FOR PROCURING SUCH DESIGN AND INSTALLING IT IN ACCORDANCE WITH THE PROVIDED SHOP DRAWINGS AND CONSTRUCTION DOCUMENTS.
- ALL SPECIALTY BOLTS, ANCHORS, PRODUCTS, ETC. SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS.
- "PROVIDE" SHALL BE INTERPRETED TO MEAN "FURNISH AND INSTALL".
- THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE SAFETY REGULATIONS. THE ENGINEER SHALL NOT HAVE CONTROL OF, CHARGE OF, OR BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES IN CONNECTION WITH THE WORK OF THE CONTRACTOR, SUBCONTRACTORS, OR ANY OTHER PERSONS PERFORMING WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.



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**PATRIOTS PARK  
COMFORT STATION**  
Cameron, NC

CONSTRUCTION DOCUMENTS

Revisions		
No.	Description	Date

DATE 8.23.2024  
PROJECT CODE 2406

sheet title:  
GENERAL NOTES AND SCHEDULES

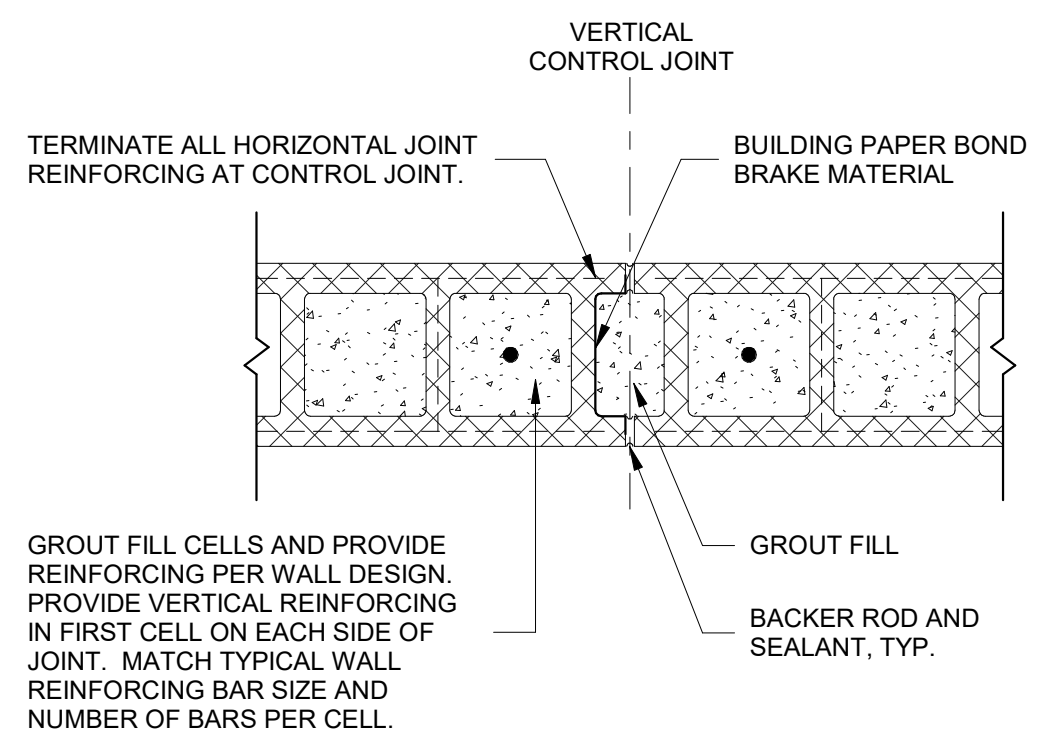
sheet no.:  
**S-1.0**

BAR SIZE	MASONRY LAP	3000 PSI CONCRETE LAP	4000 PSI CONCRETE LAP
#3	18"	22"	19"
#4	24"	29"	25"
#5	30"	36"	31"
#6	54"	43"	37"
#7	N/A	63"	54"
#8	N/A	72"	62"
#9	N/A	81"	70"
W.W.F.	N/A	12"	12"

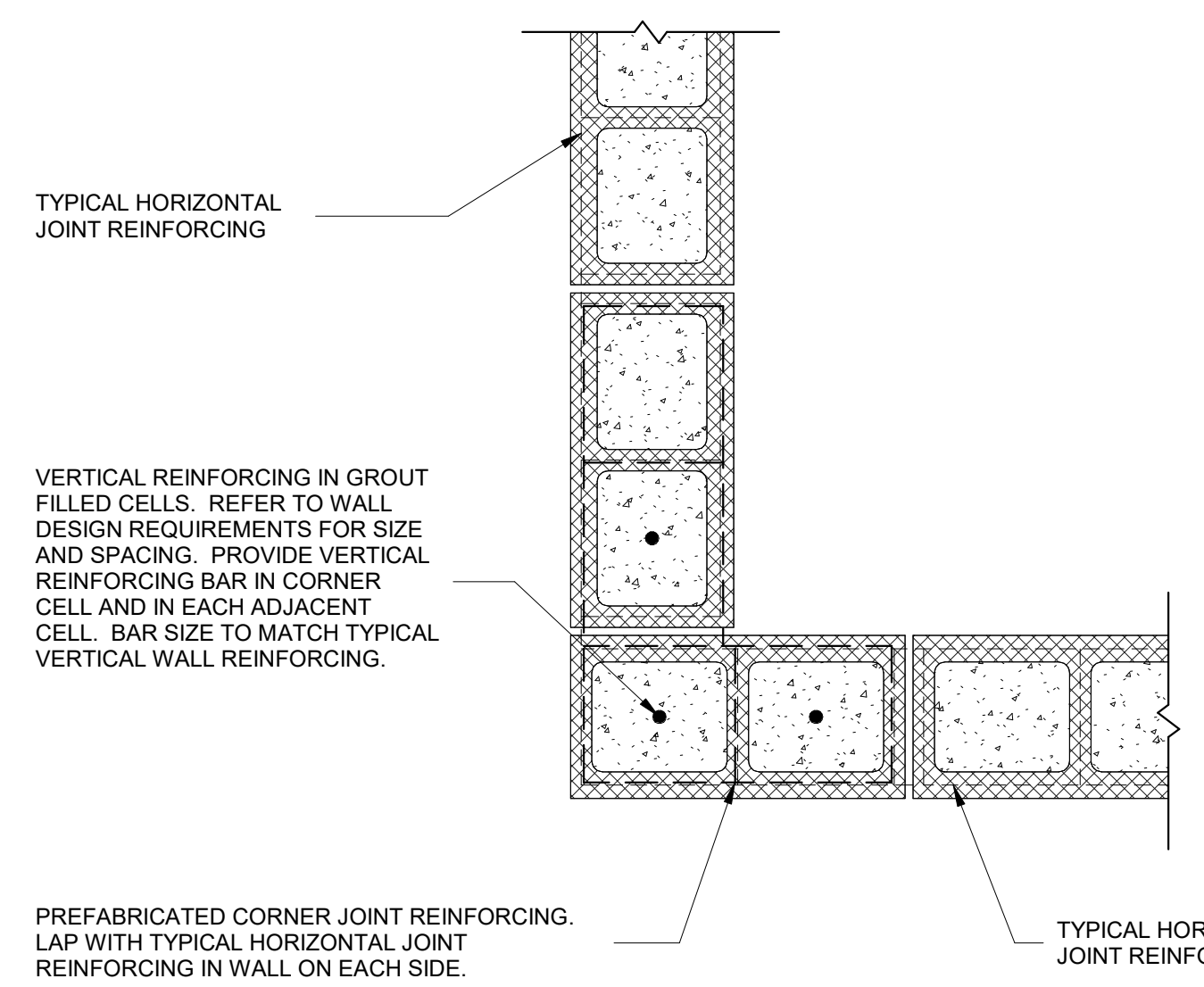
**REBAR LAP SCHEDULE NOTES**

- LAP LENGTHS ABOVE ASSUME MINIMUM ALLOWABLE CLEAR COVER DIMENSIONS.
- FOR HORIZONTAL REINFORCEMENT PLACED IN WALLS, FOOTINGS, OR SLABS WITH 12" OF FRESH CONCRETE BELOW THE BARS, MULTIPLY THE LAP LENGTHS ABOVE BY A FACTOR OF 1.3.
- FOR CONDITIONS NOT LISTED, CONTACT THE ENGINEER OF RECORD.

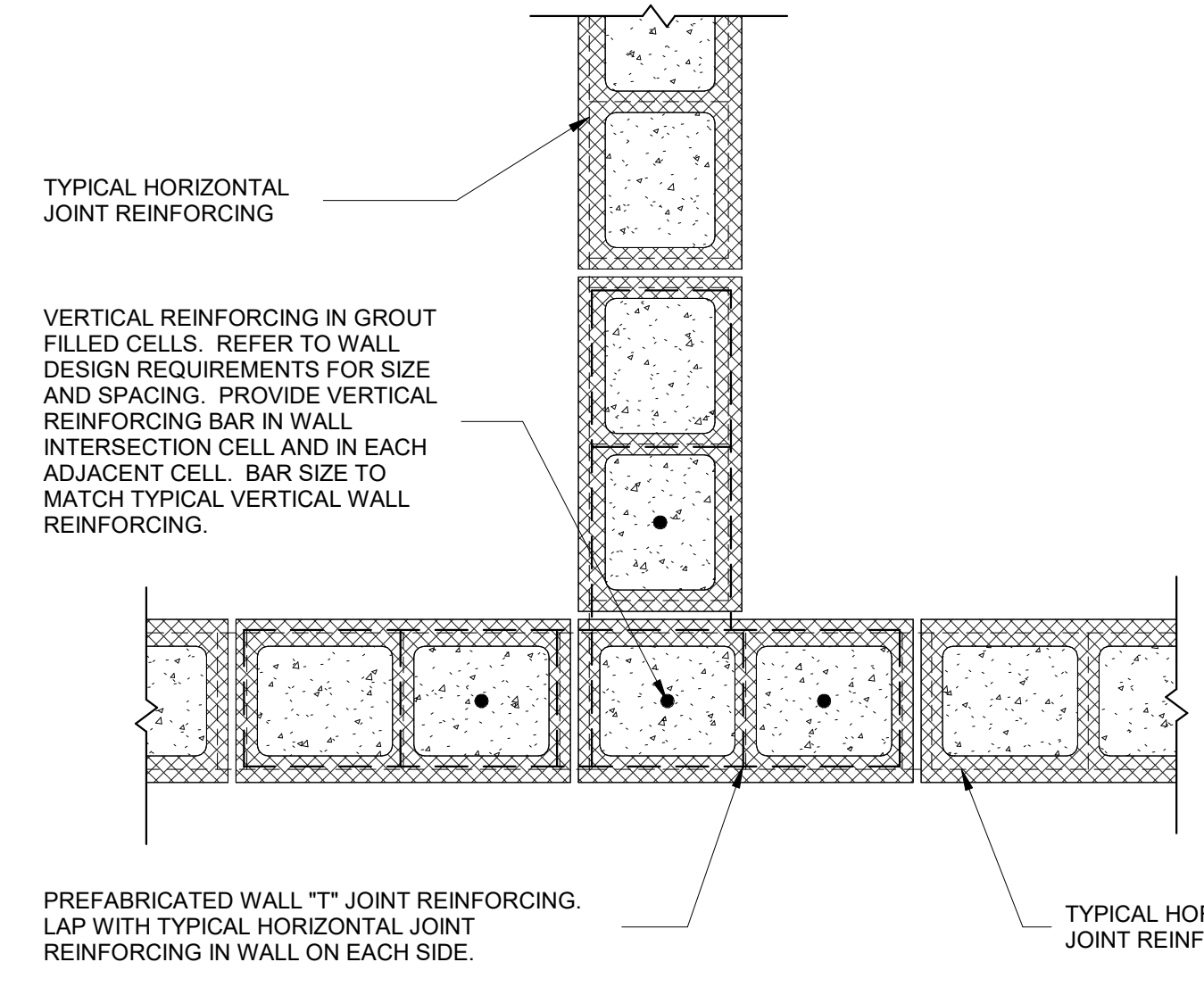




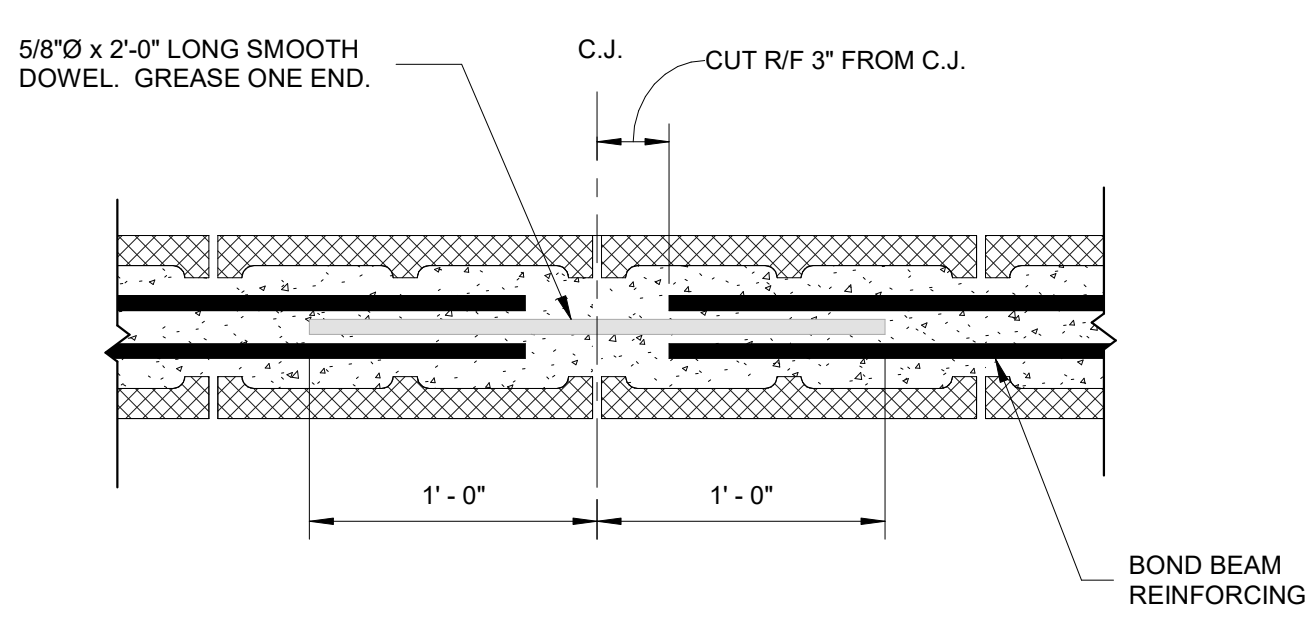
**1** **CMU CONTROL JOINT**  
NOT TO SCALE



**2** **CMU CORNER REINFORCING**  
NOT TO SCALE



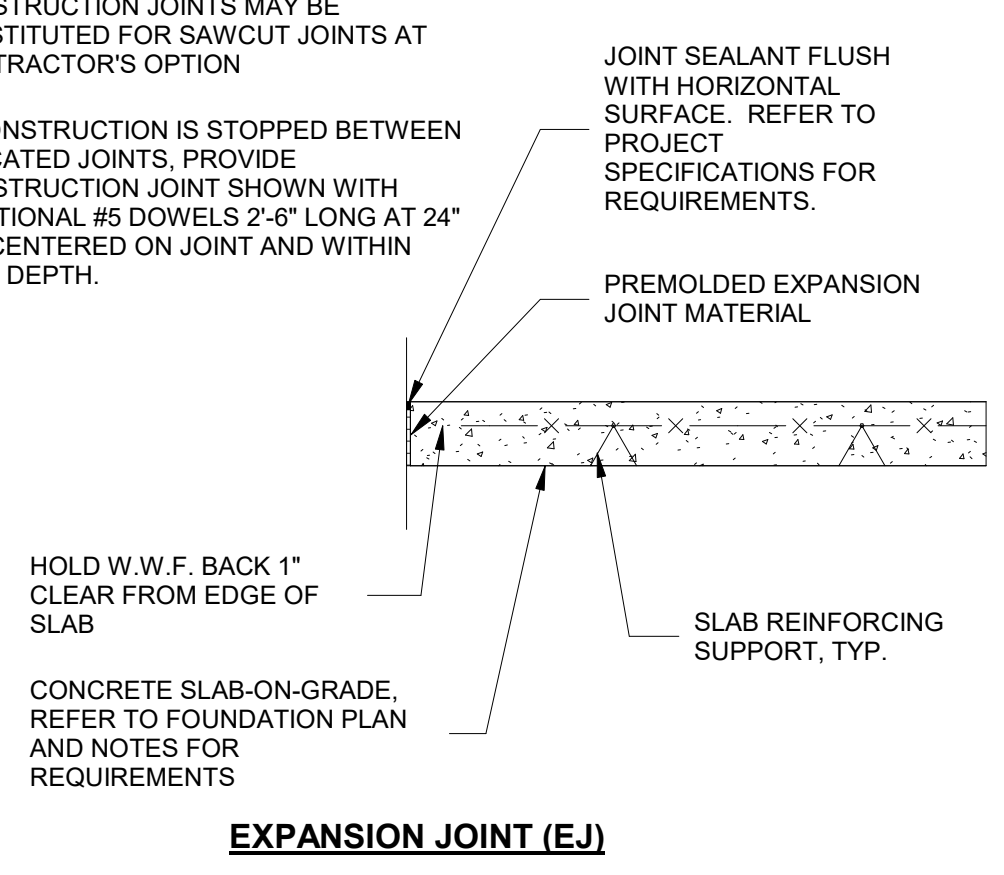
**3** **CMU WALL "T" REINFORCING**  
NOT TO SCALE



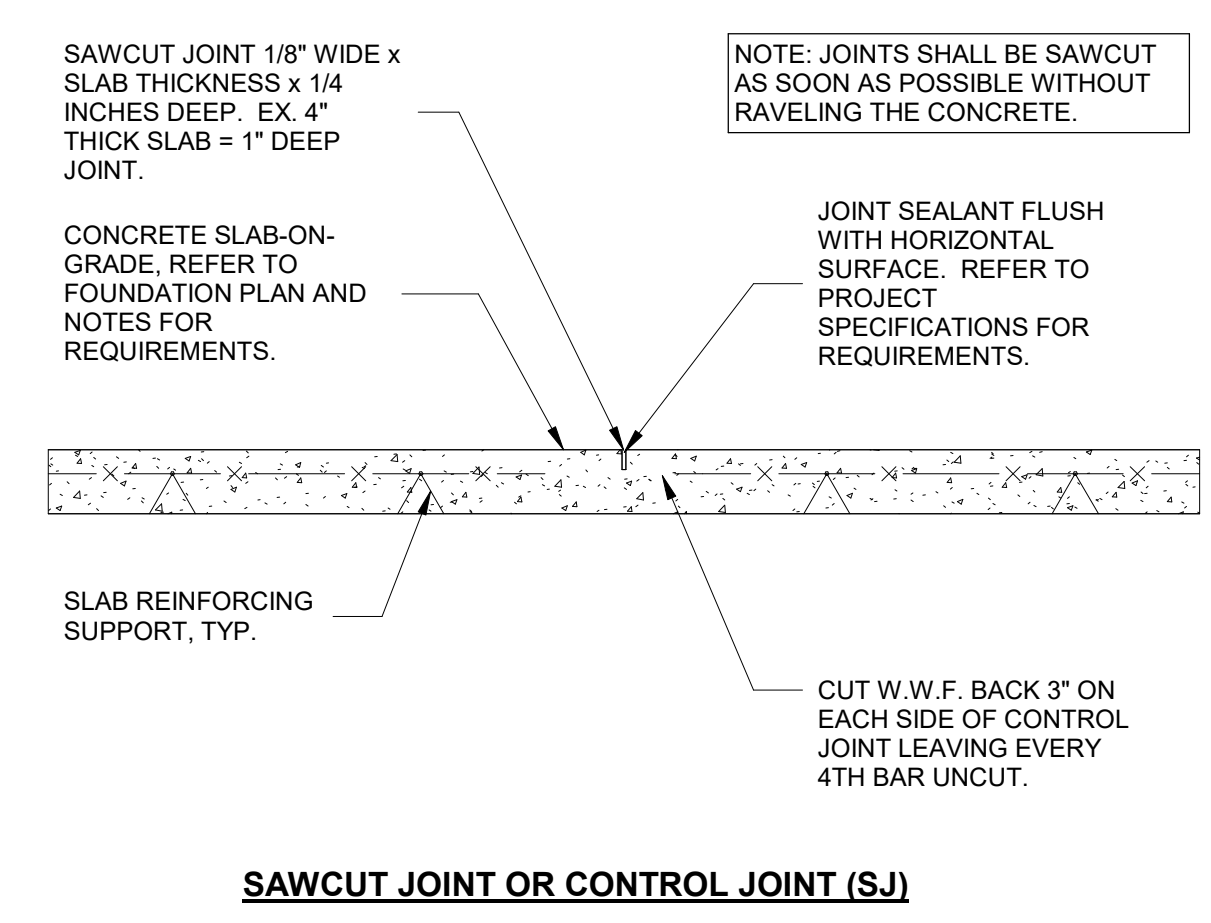
**4** **BOND BEAM C.J.**  
NOT TO SCALE

**NOTES:**

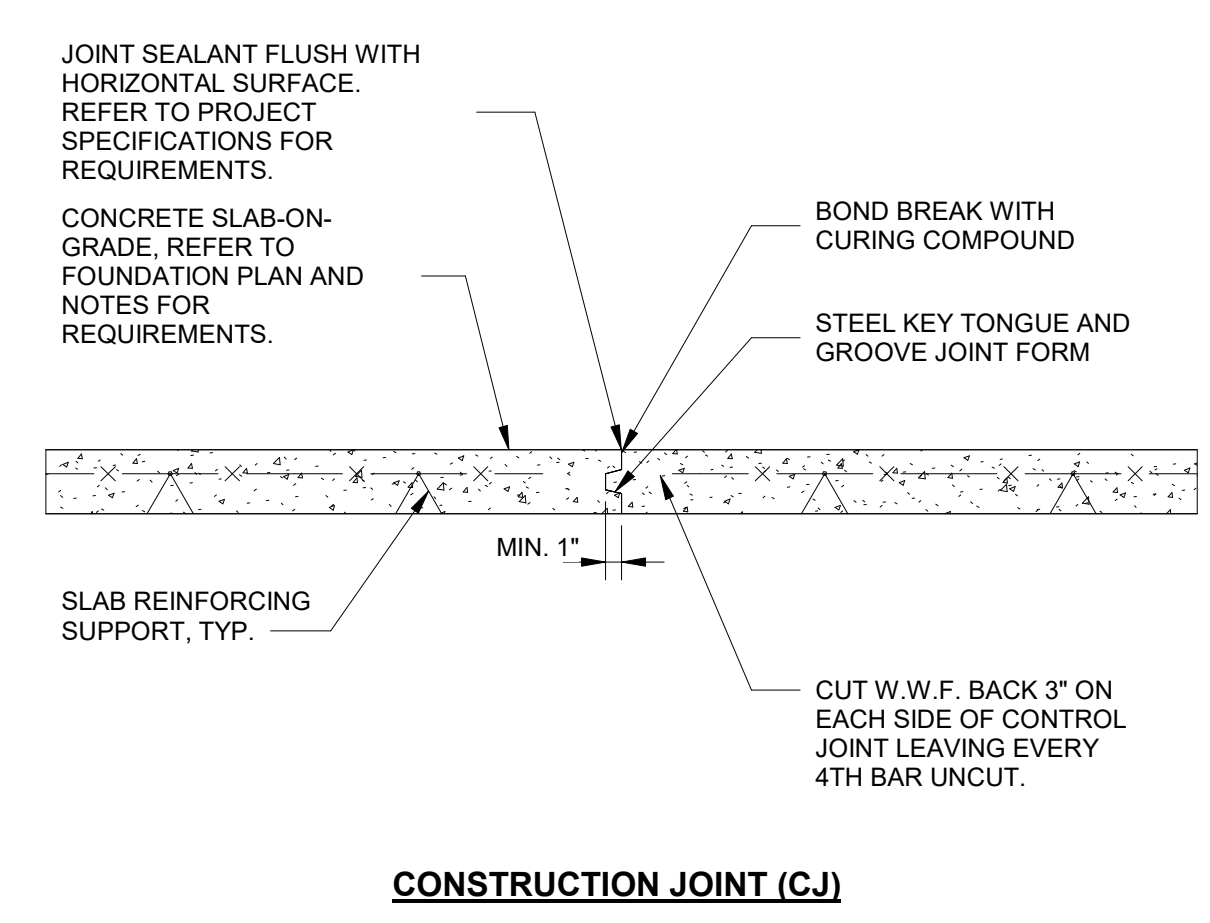
- CONSTRUCTION JOINTS MAY BE SUBSTITUTED FOR SAWCUT JOINTS AT CONTRACTOR'S OPTION
- IF CONSTRUCTION IS STOPPED BETWEEN INDICATED JOINTS, PROVIDE CONSTRUCTION JOINT SHOWN WITH ADDITIONAL #5 DOWELS 2'-6" LONG AT 24" O/C CENTERED ON JOINT AND WITHIN SLAB DEPTH.



**5** **EXPANSION JOINT (EJ)**



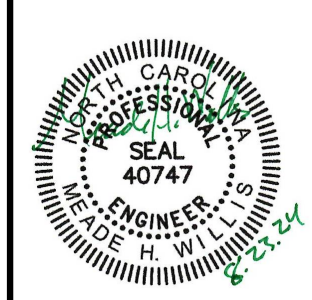
**TYPICAL SLAB ON GRADE JOINTS**  
NOT TO SCALE



**CONSTRUCTION JOINT (CJ)**



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CONSTRUCTION DOCUMENTS

Revisions		
No.	Description	Date

DATE: 8.23.2024  
PROJECT CODE: 2406

sheet title:  
TYPICAL DETAILS AND SCHEDULES

sheet no.:  
**S-1.1**

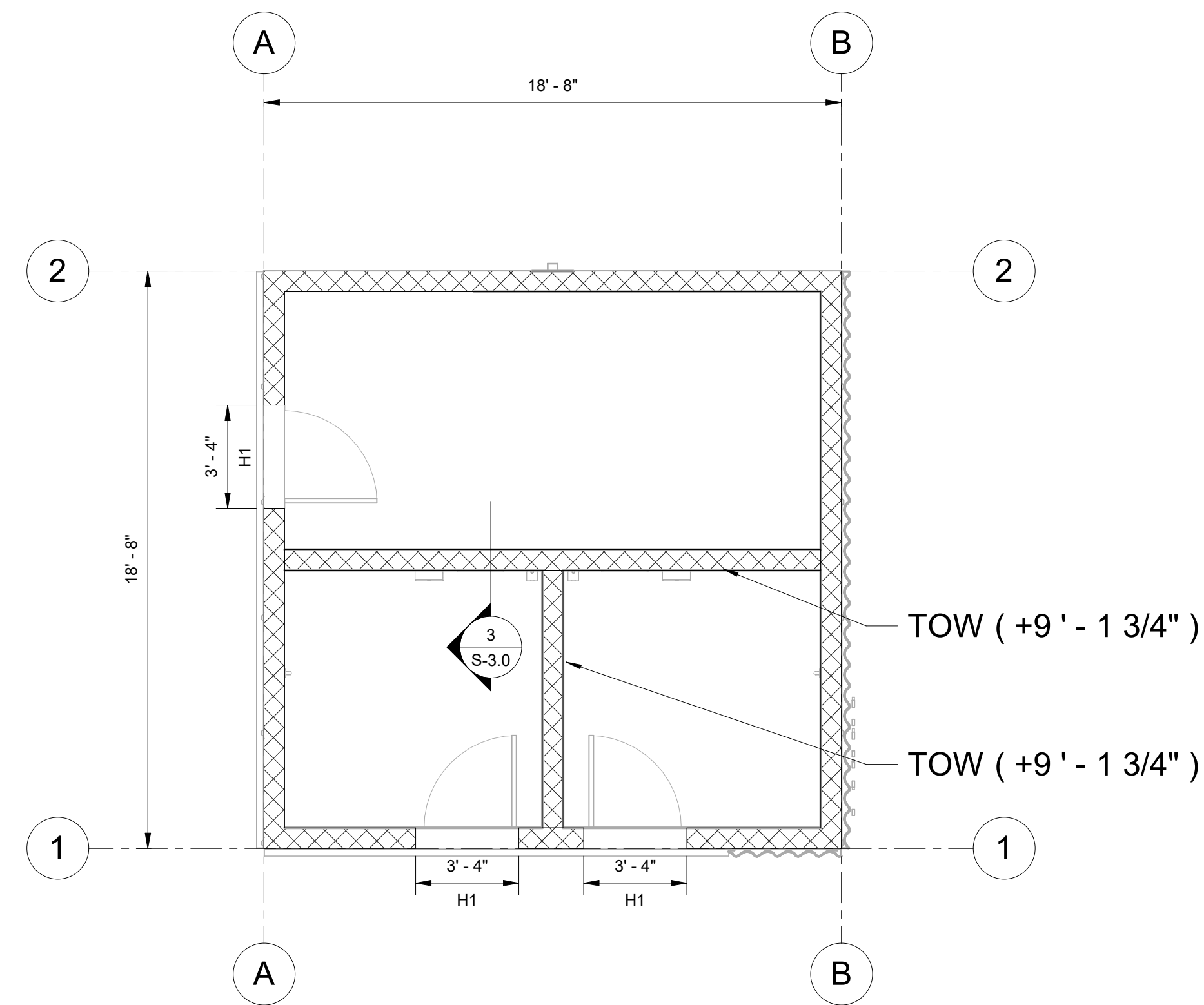
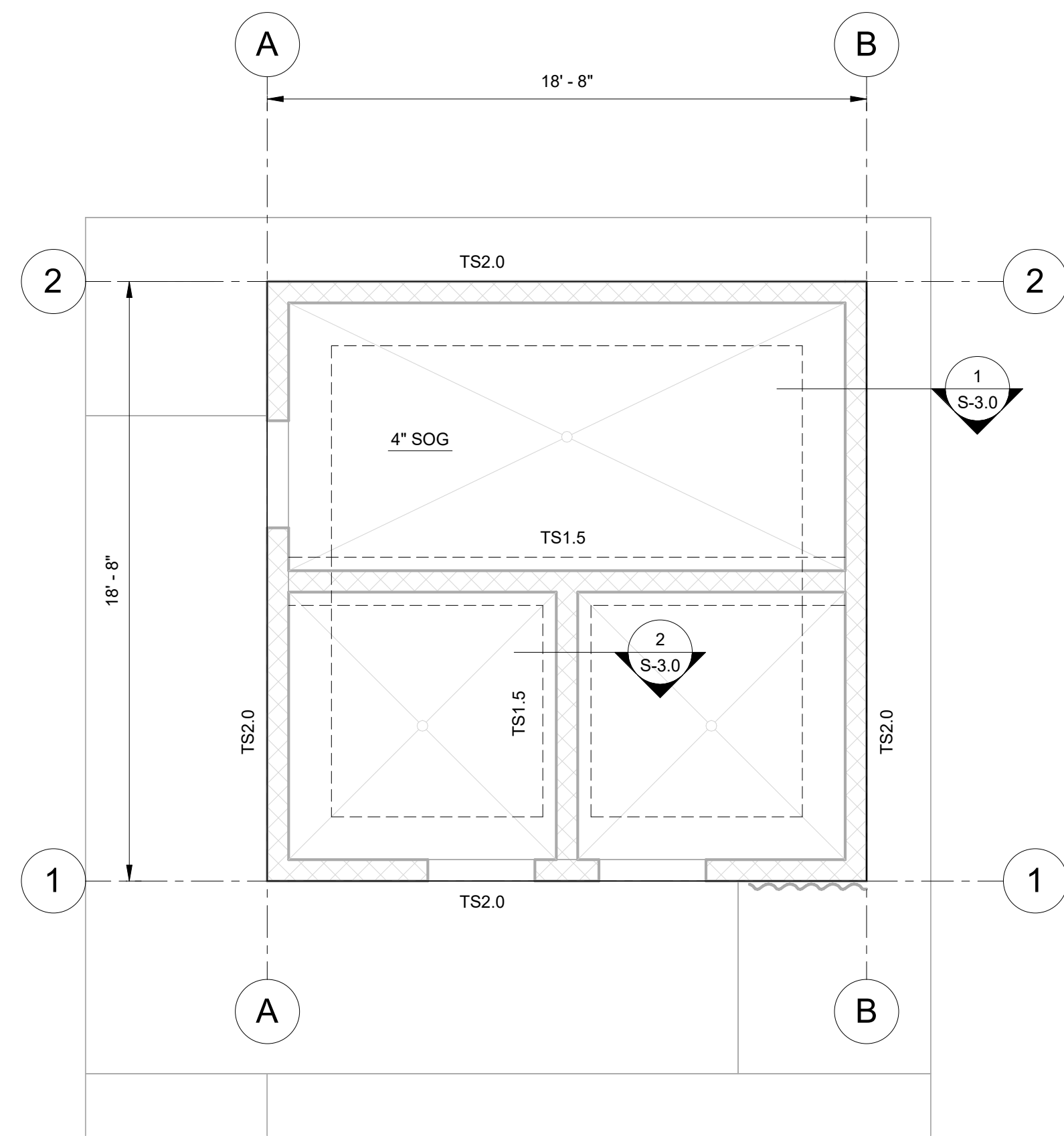


**FOUNDATION PLAN NOTES**

- (+/- ' - " ) ON PLAN DENOTES ELEVATION OF FOUNDATION ELEMENT RELATIVE TO REFERENCE TOP OF CONCRETE SLAB ELEVATION OF (+ 0' - 0")
- TS ON PLAN DENOTES CONTINUOUS THICKENED SLAB WALL FOOTING. REFER TO FOUNDATION DETAILS FOR REQUIREMENTS.
- CONTRACTOR SHALL PROVIDE SAWCUT CONTROL JOINTS IN THE CONCRETE SLAB ON GRADE AT A MAXIMUM SPACING OF 10'-0" ON CENTER. REFER TO TYPICAL SLAB JOINT DETAILS FOR REQUIREMENTS.
- ALL FOUNDATION COMPONENTS SHALL BE CONSTRUCTED ON SOUND SUBGRADE MATERIAL WITH A MINIMUM BEARING CAPACITY OF 2,000 PSF. REFER TO GEOTECHNICAL REPORT BY FOR REQUIREMENTS OF SUBGRADE TESTING, PREPARATION, AND ADDITIONAL INFORMATION.
- INTERIOR CONCRETE SLAB-ON-GRADE SHALL BE A MINIMUM 4" THICK 4,000 PSI MIX. PROVIDE 6 x 6 x W1.4 x W1.4 WELDED WIRE MESH REINFORCING HELD 1" CLEAR FROM TOP OF SLAB. PLACE SLAB OVER MINIMUM 8 MIL POLY VAPOR BARRIER OVER MINIMUM 4" COMPACTED STONE FILL MATERIALS.
- REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS FOR INSULATION, WATERPROOFING, FLASHING, FINISH MATERIALS, ETC.
- REFER TO GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.

**HEADER FRAMING PLAN NOTES**

- UNLESS OTHERWISE NOTED ON PLAN, TOP OF WALL ELEVATION SHALL BE (+11' - 4") ABOVE REFERENCE FLOOR ELEVATION OF (+0' - 0"). TOW (+ - ' - " ) ON PLAN DENOTES ALTERNATE TOP OF WALL ELEVATION.
- DIMENSIONS FOR OPENINGS SHOWN ON PLAN ARE FOR GENERAL REFERENCE ONLY. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION, SIZE AND ORIENTATION OF WALL OPENINGS.
- WALL CONSTRUCTION SHALL BE 8"x8"x16" CONCRETE MASONRY UNITS. PROVIDE #4 VERTICAL BARS @ 48" O/C. PROVIDE LADDER STYLE HORIZONTAL JOINT REINFORCING @ 16" O/C. TYPICAL CMU WALLS SHALL BE FULLY GROUTED FROM TOP OF WALL TO FOUNDATION LEVEL AT EACH REINFORCED CELL. REFER TO MASONRY WALL REINFORCING NOTES AND DETAILS FOR ADDITIONAL REINFORCING REQUIREMENTS.
- H ON PLAN INDICATES LOCATION OF STRUCTURAL LINTEL HEADER. H1 DENOTES 8" DEEP REINFORCED CMU HEADER. REFER TO CMU HEADER DETAIL FOR ADDITIONAL DETAILS AND REQUIREMENTS.
- REFER TO ARCHITECTURAL DETAILS FOR ROUGH OPENING DIMENSIONS.
- REFER TO GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.



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CONSTRUCTION DOCUMENTS

Revisions		
No.	Description	Date

DATE: 8.23.2024  
PROJECT CODE: 2406

sheet title:  
COMFORT STATION FOUNDATION  
AND HEADER FRAMING PLANS

sheet no.:  
**S-2.0**

**1 COMFORT STATION - FOUNDATION PLAN**

1/4" = 1'-0"

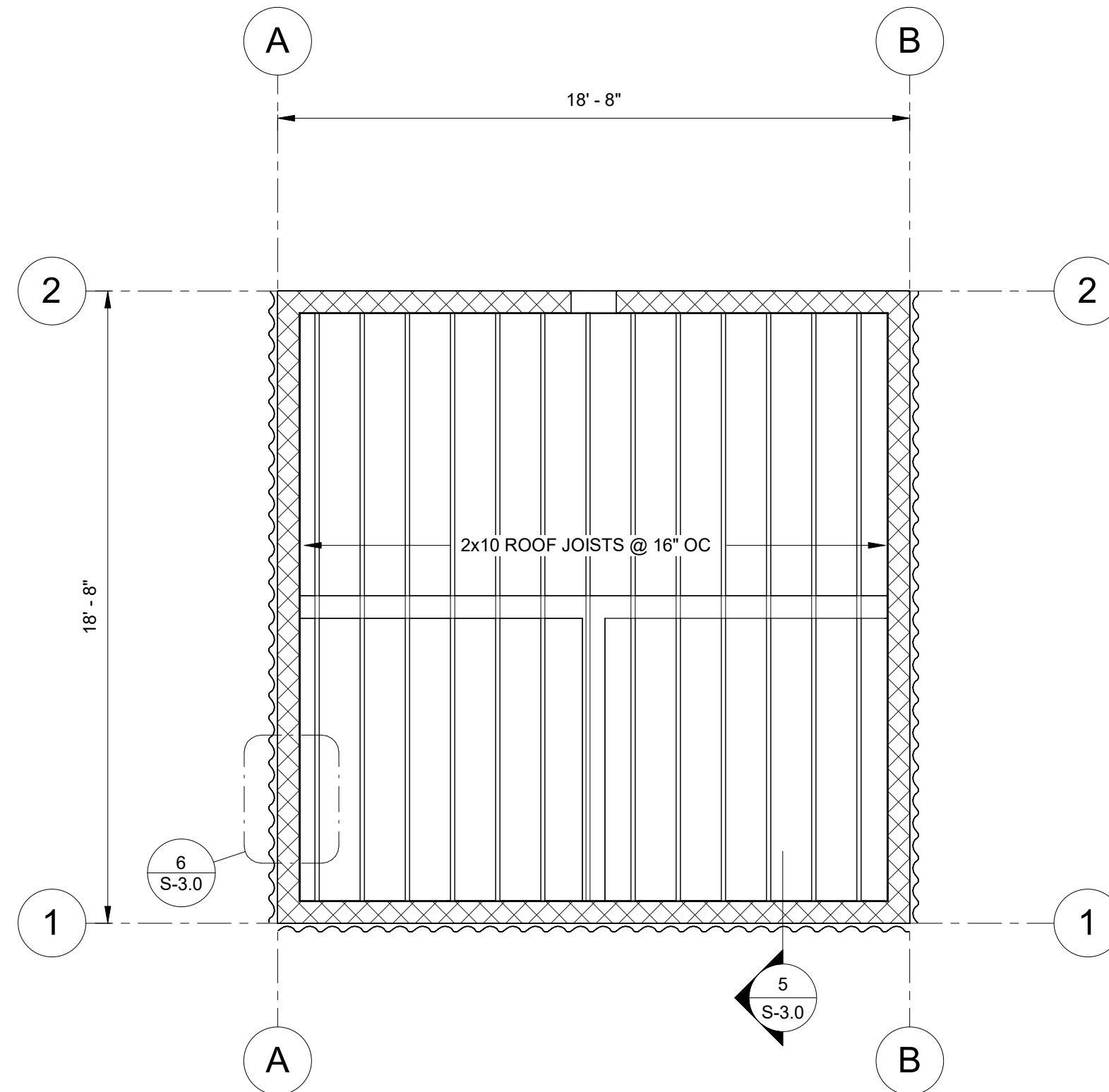
**2 COMFORT STATION - HEADER FRAMING PLAN**

1/4" = 1'-0"



**ROOF FRAMING PLAN NOTES**

1. UNLESS OTHERWISE NOTED ON PLAN, TOP OF WALL ELEVATION SHALL BE (+11' - 4") ABOVE REFERENCE FLOOR ELEVATION OF (+0' - 0"). TOW (+, -, -) ON PLAN DENOTES ALTERNATE TOP OF WALL ELEVATION.
2. ROOF FRAMING SHALL BE 2x10 SOUTHERN PINE OR SPRUCE-PINE-FIR NO. 2 GRADE OR BETTER.
3. TYPICAL ROOF SHEATHING SHALL BE 15/32" APA RATED SHEATHING EXPOSURE 1 WOOD STRUCTURAL PANELS. STAGGER END JOINTS AND PROVIDE 1/8" GAP AT PANEL EDGES. FASTEN PANELS WITH 8d NAILS @ 12" WITHIN THE PANEL FIELD AND WITH 8d NAILS @ 6" O/C AT ALL PANEL EDGES. INSTALL 2x4 BLOCKING IN PLAN ORIENTATION UNDER ALL UNSUPPORTED EDGES.
4. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS, ROOF SLOPES AND EXTENTS, ETC.
5. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR BLOCKOUTS, DRAIN LINES, SLEEVES, OUTLET BOXES, CONDUIT, ETC. AND OTHER ITEMS TO BE COORDINATED WITH ROOF FRAMING.
6. REFER TO GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.

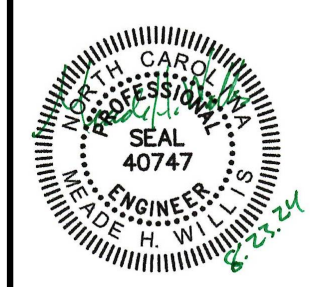


**1 COMFORT STATION - ROOF FRAMING PLAN**

1/4" = 1'-0"



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CONSTRUCTION DOCUMENTS

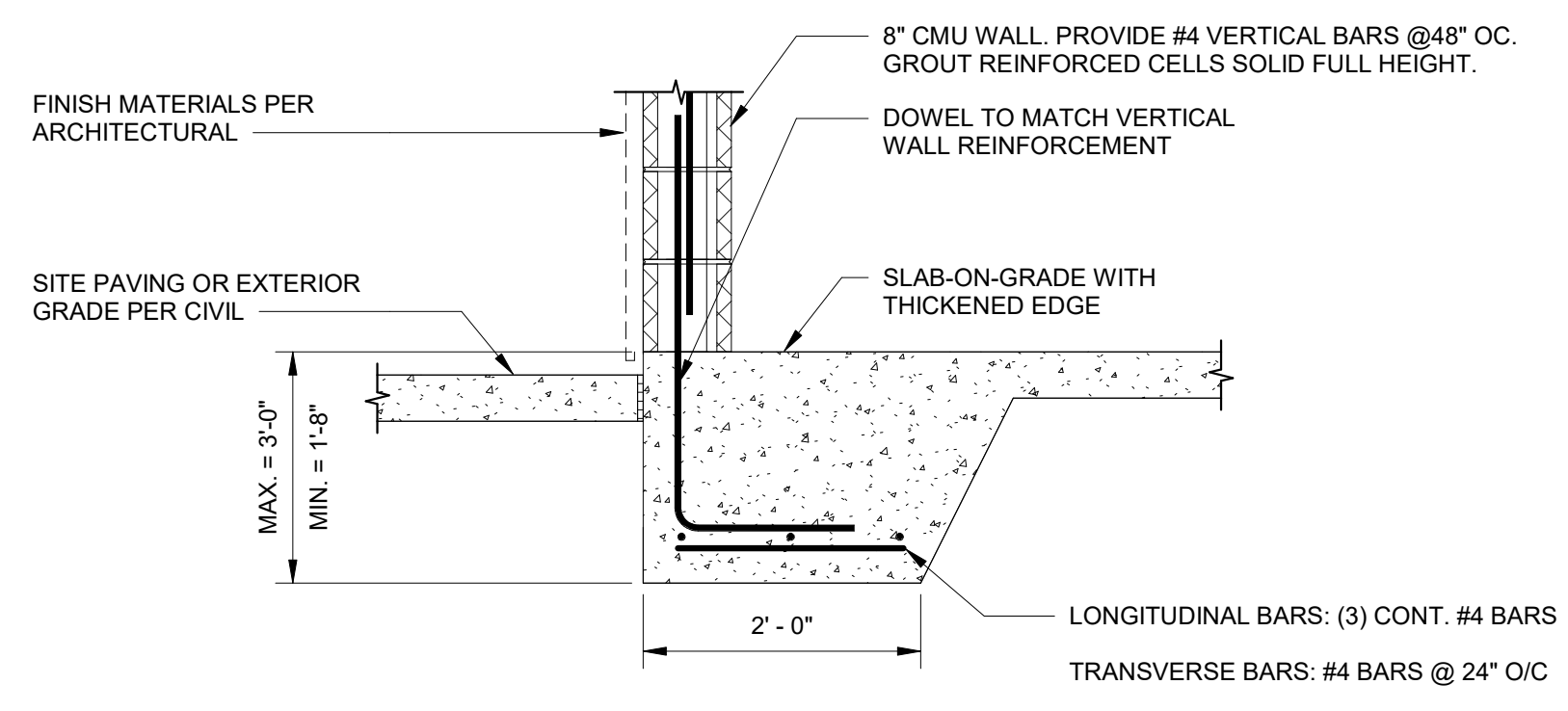
Revisions		
No.	Description	Date

DATE: 8.23.2024  
PROJECT CODE: 2406

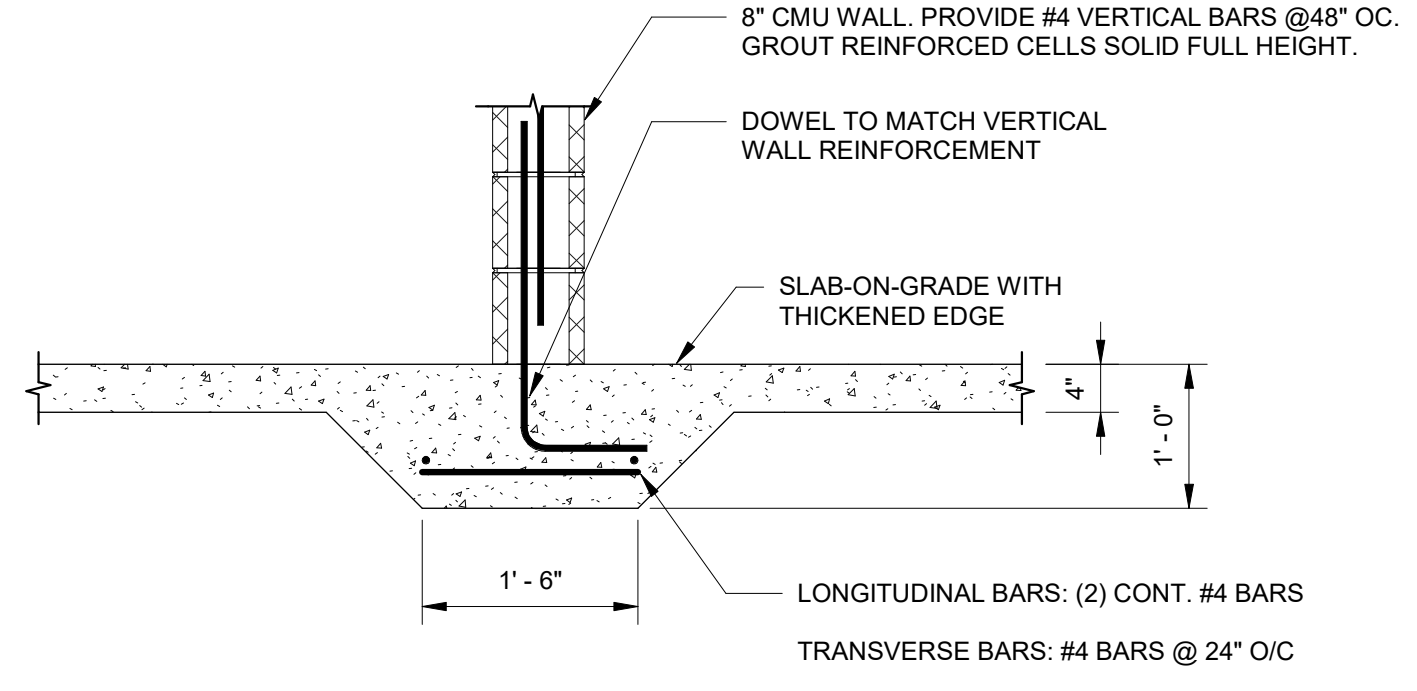
sheet title:  
**COMFORT STATION ROOF  
FRAMING PLAN AND SECTIONS**

sheet no.:  
**S-2.1**

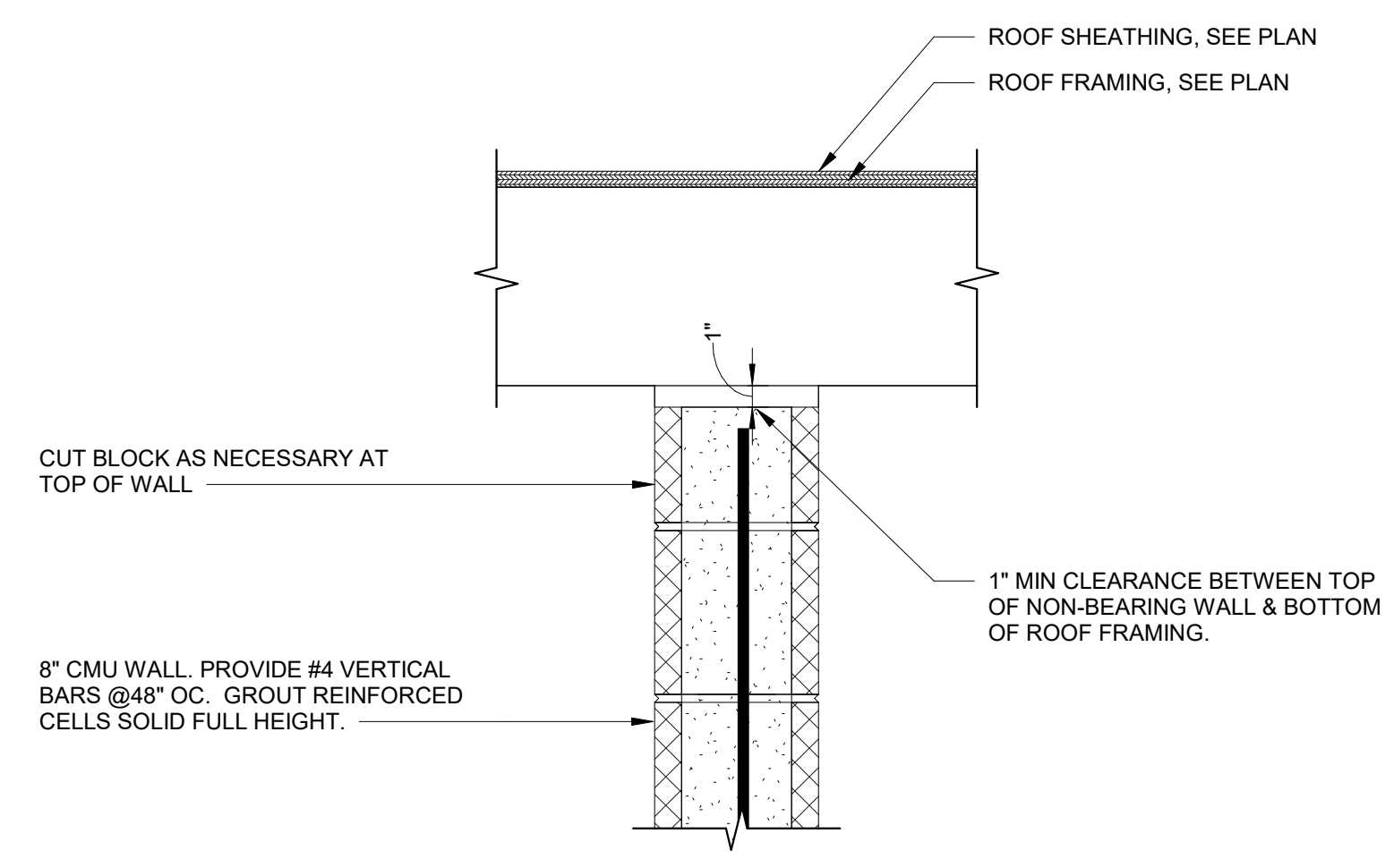




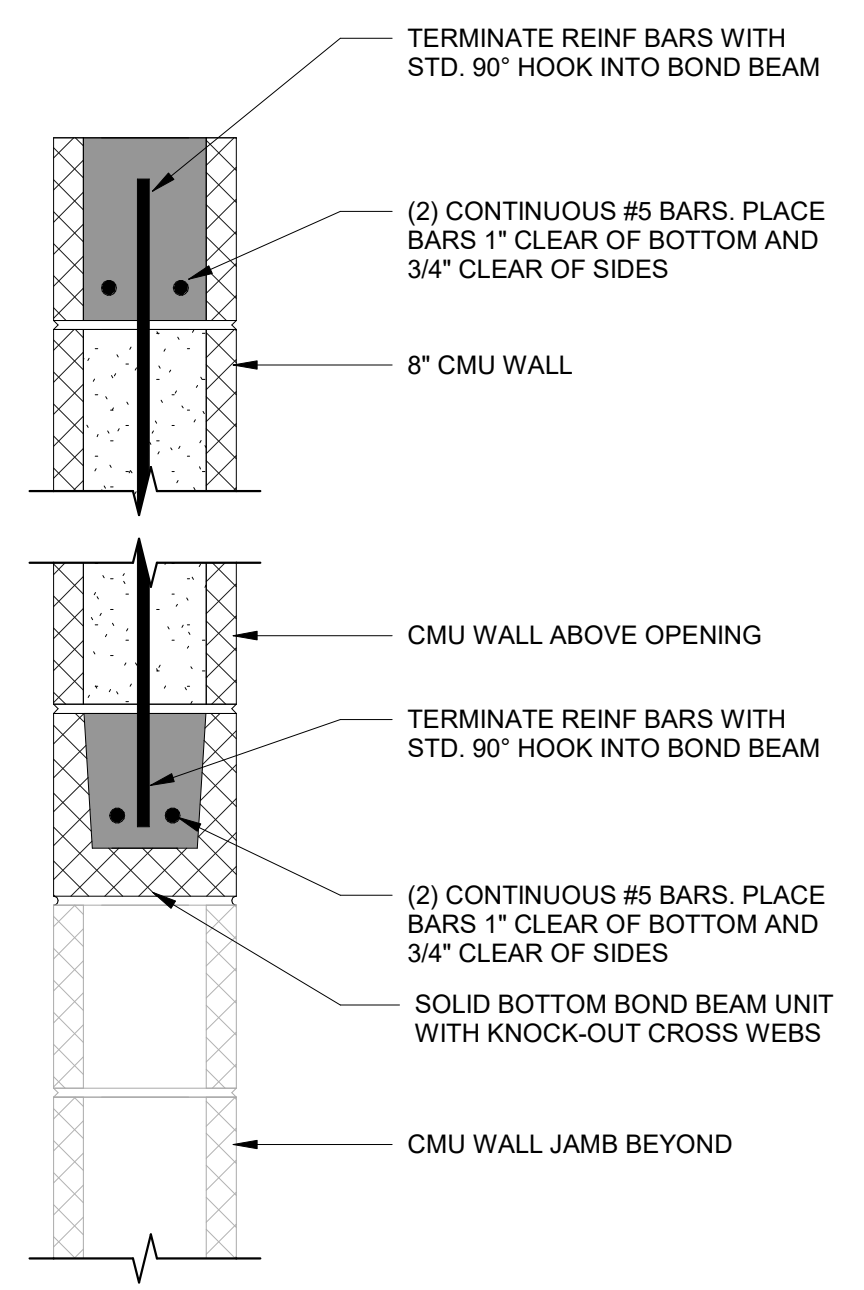
**1 TS2.0 FOUNDATION DETAIL**  
3/4" = 1'-0"



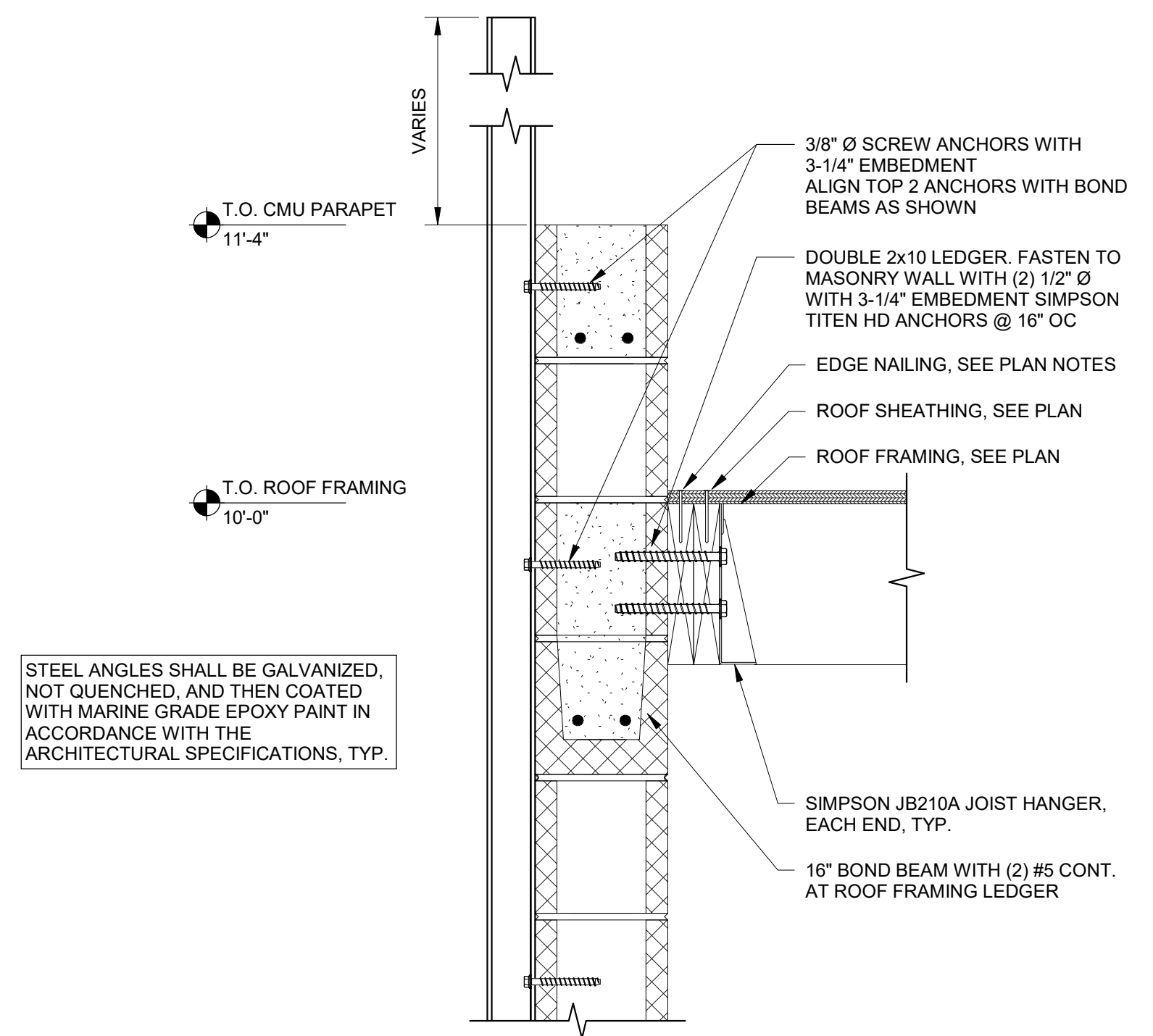
**2 TS1.5 FOUNDATION DETAIL**  
3/4" = 1'-0"



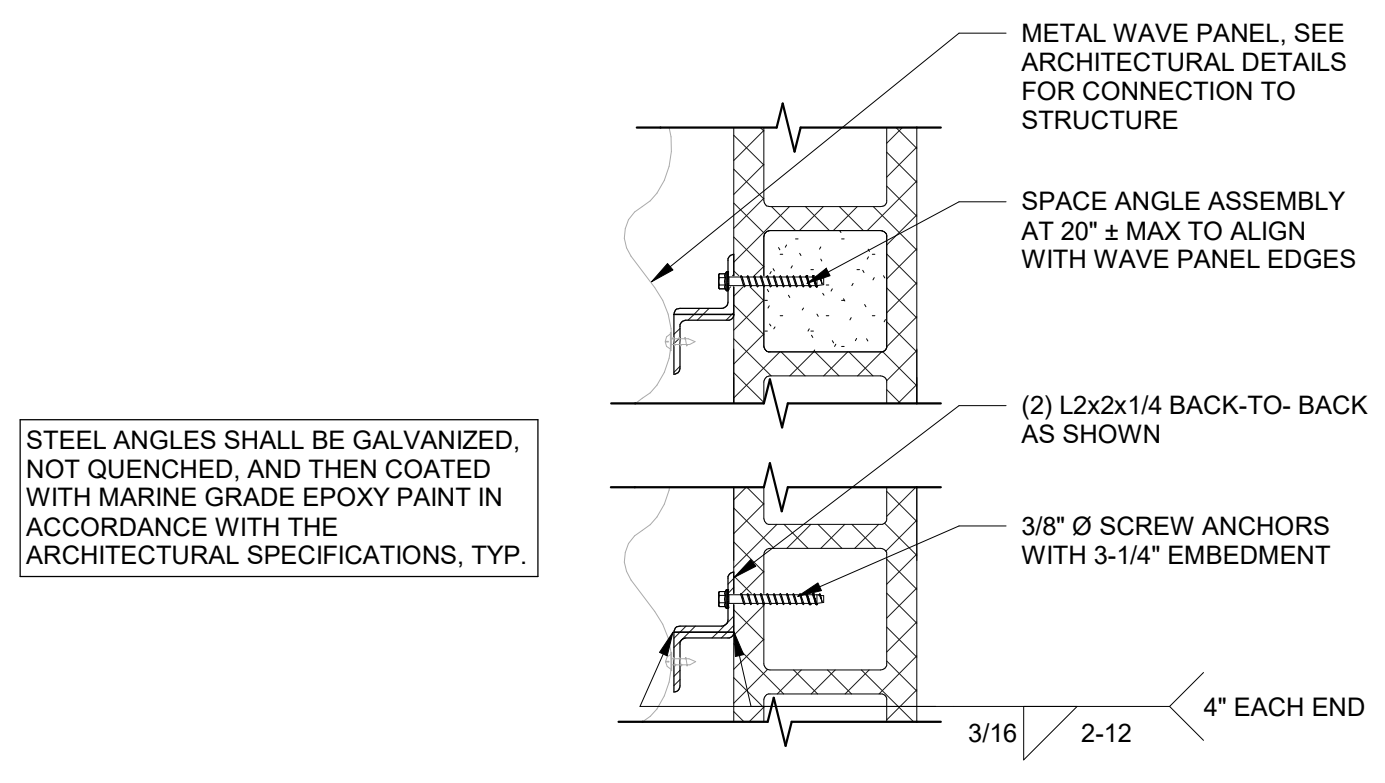
**3 TOP OF CMU PARTITION WALL**  
1 1/2" = 1'-0"



**4 CMU HEADER DETAIL**  
1 1/2" = 1'-0"



**5 SECTION - TOP OF WALL**  
1 1/2" = 1'-0"



**6 PLAN - METAL SCREEN SUPPORT ANGLE**  
1 1/2" = 1'-0"



**PATRIOTS PARK  
COMFORT STATION**  
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CONSTRUCTION DOCUMENTS

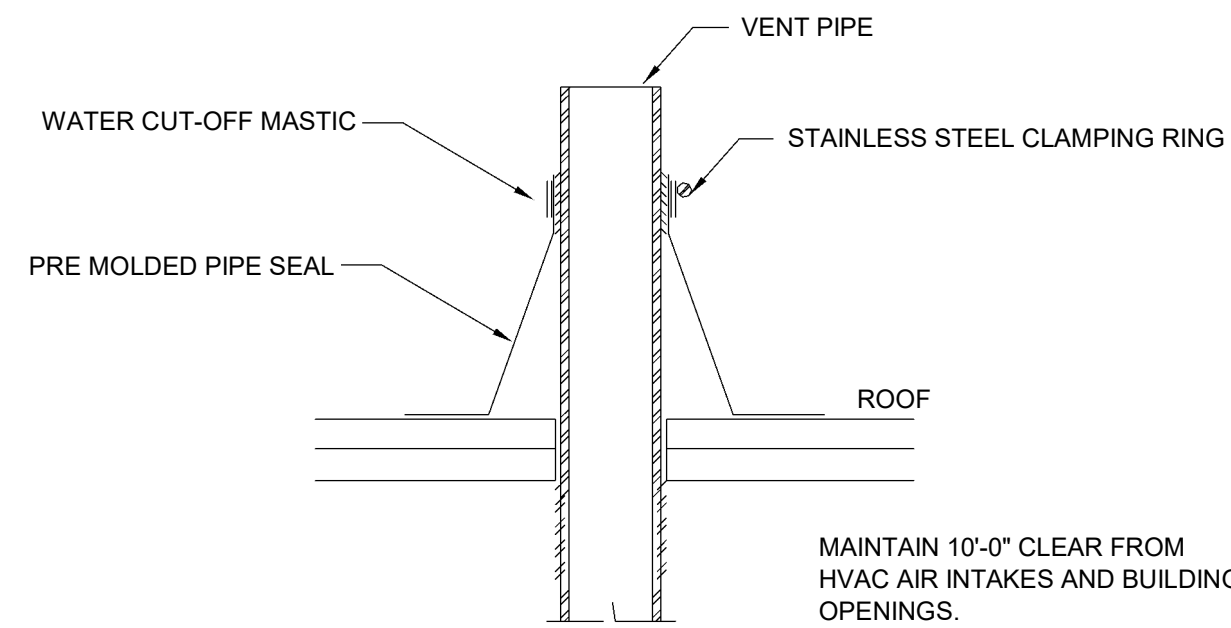
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DATE: 8.23.2024  
PROJECT CODE: 2406

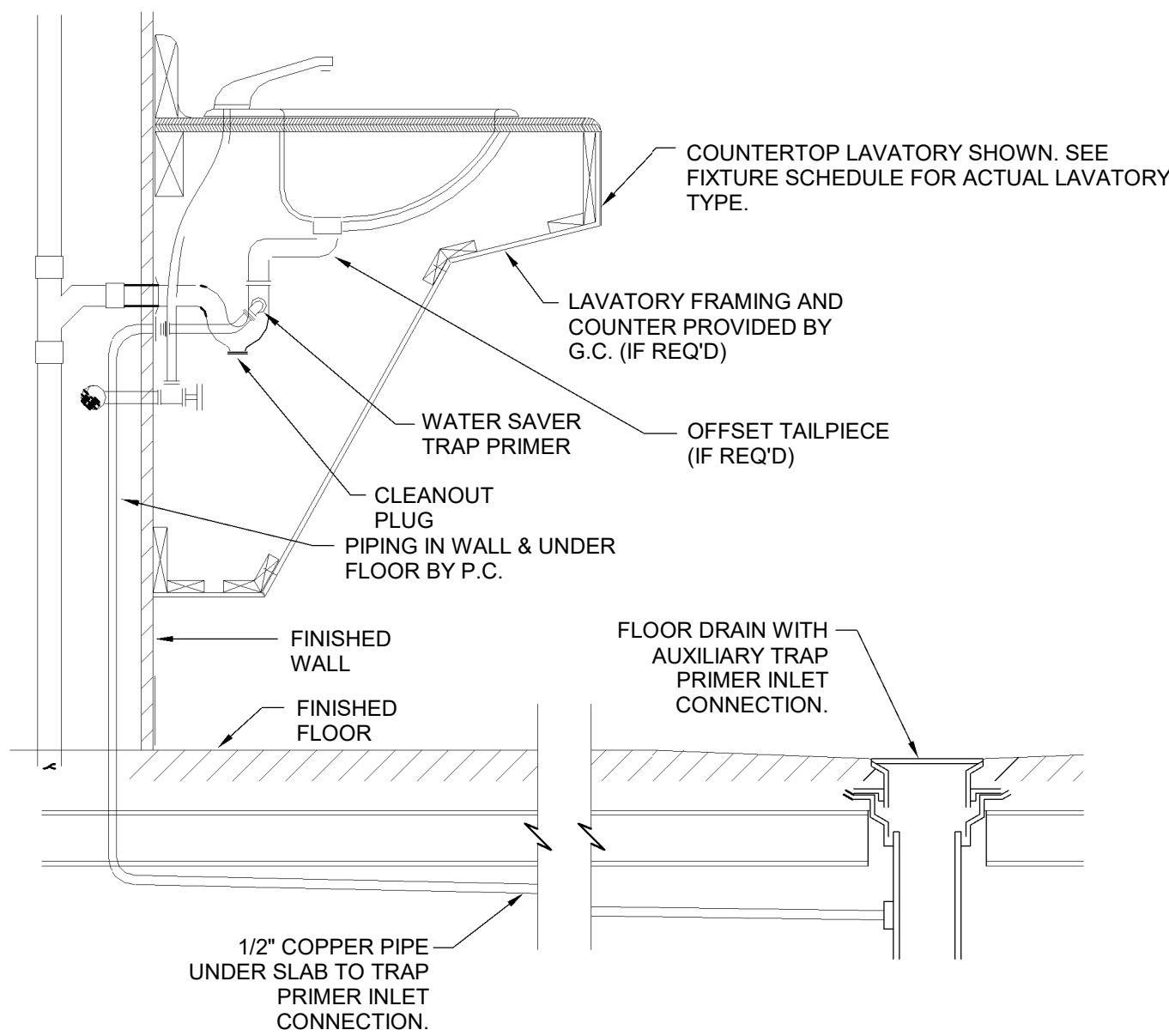
sheet title:  
FOUNDATION AND FRAMING  
DETAILS

sheet no.:  
**S-3.0**





1  
P001  
VENT THROUGH ROOF FLAT  
NOT TO SCALE



2  
P001  
DETAIL - WATER SAVER P-TRAP  
NOT TO SCALE

**PLUMBING LEGEND**

CW	-	COLD WATER
HW	-	HOT WATER
SS	-	SANITARY SEWER
V	-	VENT
WC	-	WATER CLOSET
L	-	LAVATORY
DF	-	DRINKING FOUNTAIN
WHA	-	WATER HAMMER ARRESTOR
FPHB	-	FREEZE PROOF HOSE BIBB
WH	-	ELECTRIC WATER HEATER
FD	-	FLOOR DRAIN
CO	-	CLEANOUT PLUG
GCO	-	EXTERIOR GRADE CLEANOUT
PRV	-	PRESSURE REDUCING VALVE
MXV	-	POINT OF USE MIXING VALVE
PC	-	PLUMBING CONTRACTOR
GC	-	GENERAL CONTRACTOR
MC	-	MECHANICAL CONTRACTOR
EC	-	ELECTRICAL CONTRACTOR
INV	-	PIPE INVERT
BFF	-	BELOW FINISHED FLOOR
BFG	-	BELOW FINISHED GRADE
AFF	-	ABOVE FINISHED FLOOR
AFG	-	ABOVE FINISHED GRADE
UG	-	UNDERGROUND
AG	-	ABOVE GROUND
BV	-	BALL VALVE
CV	-	CHECK VALVE

**BACKFLOW PREVENTER & PRV NOTES**

A NEW RP2 TYPE BACKFLOW PREVENTER SHALL BE PROVIDED AND INSTALLED BY THE G.C. UNDER THE CIVIL SCOPE OF WORK. REFER TO CIVIL SITE PLANS.

P.C. TO INSTALL LINE SIZED PRV RATED FOR 75psi WHERE PIPE ENTERS THE BUILDING INSIDE THE PLUMBING CHASE. THIS WILL BE EXPOSED IN THE SPACE.

**FREEZE PROTECTION NOTES**

THE PLUMBING CHASE IS HEATED WITH AN ELECTRIC UNIT HEATER TO MAINTAIN TEMPERATURES ABOVE FREEZING. THE RESTROOMS DO NOT HAVE ANY DIRECT HEAT.

ALL PIPING BELOW THE LAVATORIES SHALL BE WRAPPED WITH MINIMUM 1-1/2" INSULATION RATED FOR R-10 @ 75 DEG F. P.C. TO MINIMIZE PIPING STUB OUTS IN RESTROOMS AND ALL MIXING VALVES SHALL BE LOCATED IN THE PLUMBING CHASE.

**HOT WATER RE-CIRCULATION NOTES**

A HOT WATER RE-CIRCULATION LOOP AND PUMP IS NOT REQUIRED IN THIS PROJECT AS THE DEVELOPED LENGTH OF HOT WATER PIPING FROM THE WATER HEATER TO THE FURTHEST FIXTURE (LAVATORY IN WOMENS 002) DOES NOT EXCEED 50 FT. PER NPCC 607.2

**FIXTURE RUN OUT SIZES**

CW = COLD WATER  
HW = HOT WATER (TEMP)

THE FOLLOWING FIXTURES SHALL BE PROVIDED AND INSTALLED BY THE PLUMBING CONTRACTOR.

WC1	-	1" CW
L1	-	1/2" CW & 1/2"HW(80)
DF1	-	1/2" CW
WH1	-	1/2" CW & 1/2" HW(90)
FPHB	-	1/2" CW
MXV1	-	1/2" CW & 1/2" HW(90) & 1/2"HW(80)

**PLUMBING FIXTURE SCHEDULE**

WC1	-	WALL MOUNTED MANUAL FLUSH VALVE WATER CLOSET WITH 1.6 GPF. ELONGATED BOWL WITH OPEN SEAT AND SELF SUSTAINING CHECK HINGES. VALVE TO HAVE SOLID RING PIPE SUPPORT. ADA HEIGHT OF 17" AFF TO RIM. CLOSET CARRIER RATED FOR 500 LBS LOADING. FIXTURE: ZURN #Z5615-BWL FLUSH VALVE: ZURN "ADJAFULUSH" #Z6000-WS1-YK CARRIER: ZURN #Z1201-NL4 (LEFT HANDED) & #Z1201-NR4 (RIGHT HANDED)
L1	-	WALL HUNG, VITREOUS CHINA LAVATORY WITH 4" CENTER SET, MANUAL METERING FAUCET WITH ADA COMPLIANT ROCKER HANDLES, FRONT OVERFLOW AND OPEN GRID STRAINER, EXPOSED ARM WALL SUPPORT WITH VANDAL RESISTANT TRIM. PROVIDE COMPLETE WITH TRAP AND SUPPLY SCALD GUARDS. FOR THE LAVATORY IN "UNISEX 01" PROVIDE WITH A WATER SAVER P-TRAP AND ROUTE DISCHARGE DOWN TO FLOOR DRAIN IN PLUMBING CHASE. PROVIDE A STANDARD TRAP ON THE LAVATORY IN "UNISEX 02". FIXTURE: ZURN #Z5344 FAUCET: ZURN #Z86500-XL-RKR-3M WALL SUPPORT: ZURN #Z1257-VP
DF1	-	BARRIER FREE, BI-LEVEL, PEDESTAL MOUNTED EXTERIOR DRINKING FOUNTAIN WITH 18ga, 304 STAINLESS STEEL BOWLS, 12ga HEAVY DUTY SCRATCH RESISTANT STAINLESS STEEL FINISH WITH RED POWDERCOAT. ADA COMPLIANT WITH CHILD HEIGHT SECONDARY BUBBLER WITH PUSH BUTTON ACTUATOR. PROVIDE COMPLETE WITH IN GROUND MOUNTING PLATE TO MOUNT TO CONCRETE SLAB. FIXTURE: MURDOCK #GRM46-CH30-IAP
WHA	-	PISTON TYPE WATER HAMMER ARRESTOR SIZED FOR FIXTURES BEING SERVED. FIXTURE: SIOUX CHIEF #650
FD1	-	3" OUTLET, ROUND FLOOR DRAIN WITH NICKEL BRONZE GRATE AND AND TRAP PRIMER INLET. FIXTURE: SIOUX CHIEF #822-3PNR
GCO	-	ADJUSTABLE CLEANOUT WITH BRONZE PLUG AND TOP, AND VANDAL PROOFSCREWS. FIXTURE: SIOUX CHIEF #834-4DNRV
MXV1	-	ASSE 1070 COMPLIANT POINT OF USE MIXING VALVE. SET OUTLET TEMP TO MAXIMUM 80 DEG F. FIXTURE: ZURN #ZW3870XLT
FPHB	-	ASSE 1052 COMPLIANT FREEZE PROOF HOSE BIBB WITH TEE KEY OPERATION. NOTE THIS FIXTURE MUST HAVE THE ASSE 1052 RATING TO ALLOW FULL DRAINING EVEN WITH A HOSE ATTACHED. FIXTURE: WOODFORD 67
WH1	-	TANKLESS ELECTRIC WATER HEATER WITH 56 DEG TEMP RISE AT 0.5 GPM FLOW. SET OUTLET TEMPERATURE TO MAXIMUM 90 DEG F. 3.5kW @ 240V/1PH. PROVIDE COMPLETE WITH WALL MOUNTING KIT. 48 DEGREE RISE AT 0.5GPM. FIXTURE: EEMAX #SPX35T

**PLUMBING SPECIFICATIONS**

- PLUMBING CONTRACT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FEES, AND PERMITS REQUIRED FOR AND REASONABLY INCIDENTAL TO THE EXECUTION OF THE PLUMBING WORK.
- ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH NORTH CAROLINA STATE BUILDING CODE, PLUMBING, ENERGY, AND LOCAL BUILDING CODES.
- THE PLUMBING CONTRACTOR SHALL MAKE A COMPLETE REVIEW OF THE PLUMBING PLANS, SCHEDULES AND DETAILS PRIOR TO INSTALLATION OF THE PLUMBING SYSTEM AND REVIEW ANY CONFLICTS THAT ARE NOTED WITH THE OWNER, ARCHITECT AND/OR ENGINEER FOR RESOLUTION. FIELD VERIFY ALL EXISTING LINE SIZES AND LOCATION PRIOR TO BIDDING.
- IT WILL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO INSURE THAT ITEMS TO BE FURNISHED UNDER THIS CONTRACT WILL FIT THE SPACE AVAILABLE. HE SHALL MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS, INCLUDING THOSE FOR CONNECTIONS, AND SHALL FURNISH AND INSTALL SUCH SIZES AND SHAPES OF EQUIPMENT THAT ARE THE TRUE INTENT AND MEANING OF THE DRAWINGS AND SPECIFICATIONS.
- THE PLUMBING CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF THE OTHER TRADES PRIOR TO THE INSTALLATION OF ANY OF HIS PIPING OR EQUIPMENT.
- MEASUREMENTS: BEFORE ORDERING ANY MATERIAL OR DOING ANY WORK, THE PLUMBING CONTRACTOR SHALL VERIFY ALL MEASUREMENTS AND LINE SIZES AND SHALL BE RESPONSIBLE FOR THE CORRECTNESS OF SAME. HE SHALL ALSO BE RESPONSIBLE FOR VERIFYING THE INVERT ELEVATION OF THE EXISTING SANITARY PIPING PRIOR TO CONSTRUCTION.
- ALL MATERIALS USED SHALL BE NEW UNLESS OTHERWISE SHOWN OR CALLED FOR, AND SHALL BE FURNISHED IN ACCORDANCE WITH STANDARD SPECIFICATION OF THE AMERICAN SOCIETY FOR TESTING MATERIALS, THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS, THE AMERICAN CONCRETE INSTITUTE, AND OTHER GUIDE SPECIFICATIONS.
- DIAGRAMS AND COORDINATION: THE DRAWINGS ARE DIAGRAMMATIC AND SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE. THE DRAWINGS INDICATE OFFSETS REQUIRED, BUT BY NO MEANS INDICATE ALL SUCH SITUATIONS.
- INSPECTIONS: THE CONTRACTOR MUST AT ALL TIMES LEND ANY ASSISTANCE NECESSARY FOR ENGINEERS OR THEIR AUTHORIZED REPRESENTATIVE TO MAKE TESTS, INSPECTIONS, ETC.
- BLOWING OUT, CLEANING AND TESTING SYSTEMS: ALL PIPING AND EQUIPMENT SHALL BE BLOWN OUT UNDER PRESSURE AND CLEANED OF FOREIGN MATTER BEFORE THE SYSTEM IS PUT INTO OPERATION. EQUIPMENT SHALL NOT BE CONNECTED TO PIPING UNTIL IT HAS BEEN BLOWN OUT AND CLEANED. PRESSURE TEST ALL NEW WATER PIPING SYSTEM. ANY DEFECTS MADE EVIDENT BY THE TEST SHALL BE CORRECTED BY THIS CONTRACTOR WITHOUT EXTRA COST TO THE OWNER. DISINFECT WATER PIPING IN ACCORDANCE WITH N.C. PLUMBING CODE, SECTION 610.1.
- GUARANTEE: CONTRACTOR SHALL GUARANTEE HIS MATERIAL, EQUIPMENT AND WORKMANSHIP FOR A PERIOD OF 12 MONTHS AFTER DATE OF FINAL ACCEPTANCE BY ENGINEERS AND OWNERS (PARTS AND LABOR). ALL GUARANTEE FAILURE SHALL BE CORRECTED OR REPLACED BY CONTRACTOR AS SOON AS POSSIBLE AFTER NOTIFICATION OF SUCH FAILURE.
- SANITARY WASTE & VENT PIPING: PVC PIPE AND FITTINGS CONFORMING TO ASTM D-2665. NO FOAM CORE PVC PIPE WILL BE ACCEPTABLE.
- ABOVE GROUND WATER PIPING: TYPE L HARD COPPER WATER PIPING CONFORMING TO ASTM-B-88. WROUGHT-COPPER FITTINGS CONFORMING TO ASTM-B-16.23.
- UNDERGROUND WATER PIPING: TYPE K COPPER, ROLLED COPPER WITH NO JOINTS, WRAPPED IN 1/2" PROTECTIVE ARMAFLEX.
- INSULATION: PROVIDE INSULATION OF ALL NEW PIPING AS SHOWN. ALL INSULATION SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS WRITTEN INSTRUCTIONS BY AN APPROVED INSULATION SUBCONTRACTOR. TEST ALL PIPING PRIOR TO COVERINGS. PIPE INSULATION WITHIN THE PLUMBING CHASE SHALL BE 1" ARMAFLEX. PIPING TO LAVATORIES WITHIN THE RESTROOM SHALL BE 1-1/2" ARMAFLEX MEETING AN R-10 RATING AT 75 DEG F.
- PROVIDE BALL VALVES TO ISOLATE ALL GROUPS OF FIXTURES AND AS SHOWN ON THE PLANS TO FACILITATE FUTURE SERVICING.
- PROVIDE DIELECTRIC UNIONS OR FLANGES TO ISOLATE DISSIMILAR METALS.
- HORIZONTAL DRAINAGE PIPING 3" AND LARGER SHALL HAVE A MINIMUM FALL OF 1/8" PER FOOT AND PIPING 2" AND SMALLER SHALL HAVE A MINIMUM FALL OF 1/4" PER FOOT. FIELD VERIFY INVERTS PRIOR TO CONSTRUCTION.
- CLEANOUTS SHALL BE PROVIDED IN ALL SANITARY PIPING AS SHOWN OR INDICATED BY THE AHI.
- WCO SHALL HAVE STAINLESS STEEL COVERS.
- ALL VENT PIPING SHALL SLOPE UP TO THE DISCHARGE POINT.
- MAINTAIN ALL FIRE RATINGS. SUBMIT UL ASSEMBLY TO LOCAL FIRE MARSHAL FOR APPROVAL.
- G.C. SHALL BE RESPONSIBLE FOR ALL FLOOR SLAB POURING, TRENCHING AND BACKFILL BY P.C.

**SEWER CAMERA AND SMOKE TEST**

AFTER ALL NEW UNDERGROUND PIPING AND FIXTURES ARE INSTALLED, THE PLUMBING CONTRACTOR SHALL PERFORM A FULL UNDERGROUND CAMERA OF THE NEW PIPING.

THE PLUMBING CONTRACTOR SHALL FLUSH THE SYSTEM WITH WATER AND THEN CAMERA THE LINE TO IDENTIFY ANY CONSTRUCTION DEBRIS STUCK IN THE PIPES OR LOW SPOTS IN THE PIPING. ALL DEFICIENCIES SHOULD BE ADDRESSED TO ENSURE A FULLY FUNCTIONING SYSTEM.

THE SEWER CAMERA SHALL HAVE RECORDED VIDEO CAPABILITY. THIS VIDEO FILES SHOULD BE SHARED WITH THE ENGINEER AND THE COUNTY REPRESENTATIVE.

A SMOKE VENT TEST SHOULD ALSO BE PERFORMED TO MAKE SURE NO OPEN SEWER PIPES REMAIN INSIDE THE BUILDING.

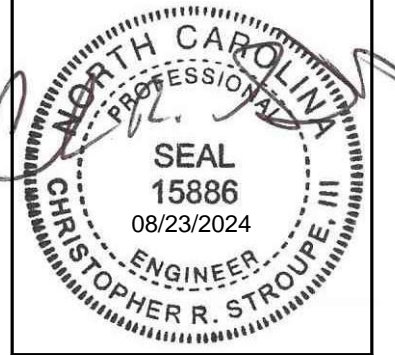


630 N. Liberty Street | Winston-Salem, NC 27101  
p. 336.701.0130 | www.stitchdesignshop.com



CONSULTANT ENGINEERING SERVICE, INC.  
PLUMBING • MECHANICAL • ELECTRICAL  
Phone: 336.701.0139  
1111 S. Marshall Street, Suite 250  
Winston Salem, NC 27101

CES LICENSE NUMBER (NC)	F-0238
CES LICENSE NUMBER (VA)	11059277
PROJECT NO.	4447
DRAWN	DMG
APPROVED	CRS



THESE DRAWINGS, PROVIDED BY CONSULTANT ENGINEERING SERVICE, ARE INTENDED TO BE VIEWED AND PRINTED IN COLOR. COLOR IS USED TO DISTINGUISH BETWEEN DIFFERENT SYSTEMS AND TO PROVIDE DRAWING CLARITY.

**PATRIOTS PARK RESTROOM FACILITY**  
PONDEROSA ROAD  
CAMERON, NC

**CONSTRUCTION DOCUMENTS**

Revisions		
No.	Description	Date

date: 08/23/2024  
commission: 24-140

sheet title:  
**PLUMBING COVER SHEET**

sheet no.:

**P001**

PLUMBING SHEET INDEX	
P001	PLUMBING COVER SHEET
P101	PLUMBING PLAN





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## PATRIOTS PARK RESTROOM FACILITY

PONDEROSA ROAD  
CAMERON, NC

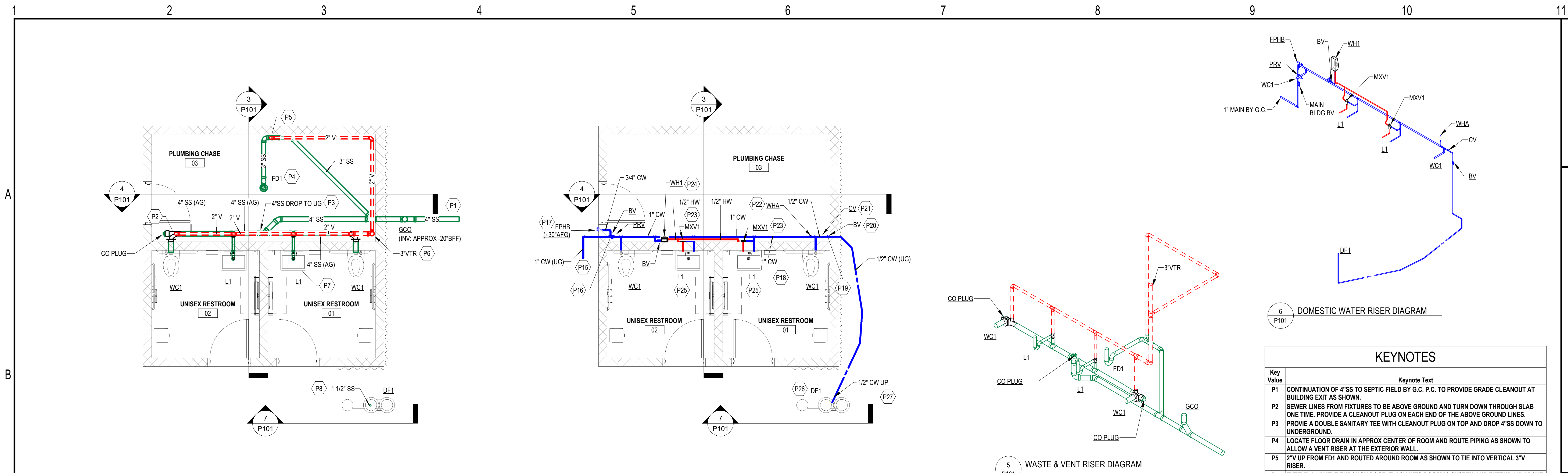
### CONSTRUCTION DOCUMENTS

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date: 08/23/2024  
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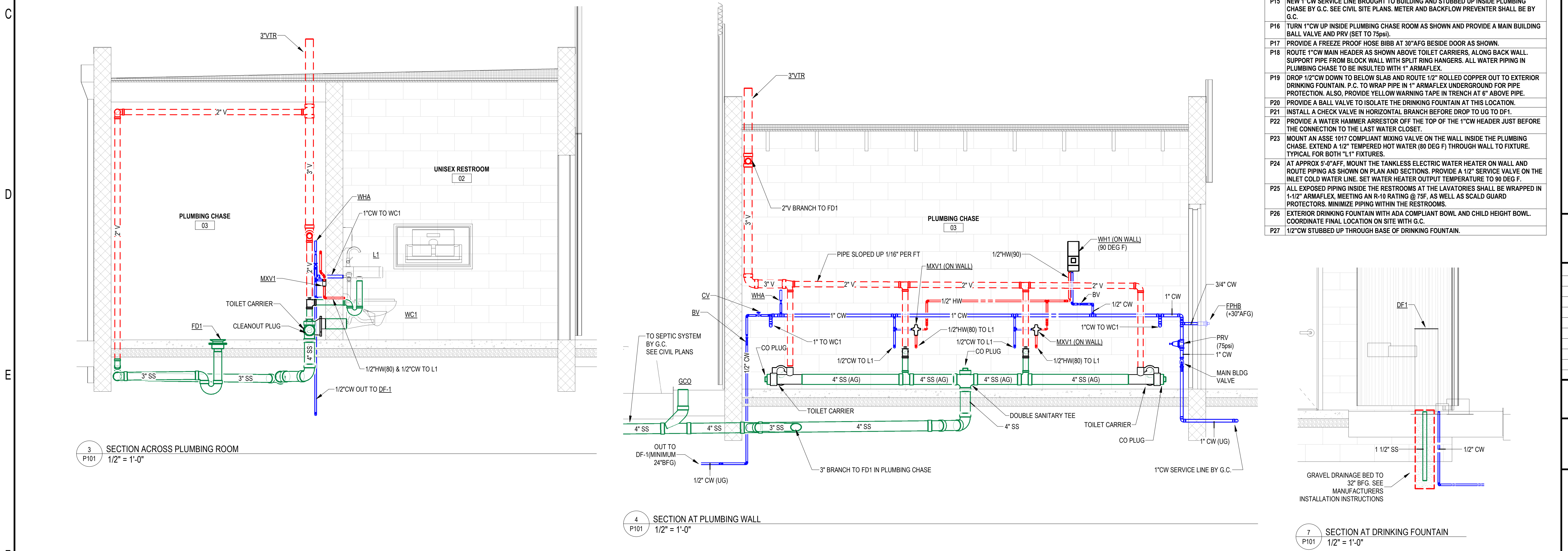
sheet title: **PLUMBING PLAN**

sheet no.: **P101**



### KEYNOTES

Key Value	Keynote Text
P1	CONTINUATION OF 4"SS TO SEPTIC FIELD BY G.C. P.C. TO PROVIDE GRADE CLEANOUT AT BUILDING EXIT AS SHOWN.
P2	SEWER LINES FROM FIXTURES TO BE ABOVE GROUND AND TURN DOWN THROUGH SLAB ONE TIME. PROVIDE A CLEANOUT PLUG ON EACH END OF THE ABOVE GROUND LINES.
P3	PROVIE A DOUBLE SANITARY TEE WITH CLEANOUT PLUG ON TOP AND DROP 4"SS DOWN TO UNDERGROUND.
P4	LOCATE FLOOR DRAIN IN APPROX CENTER OF ROOM AND ROUTE PIPING AS SHOWN TO ALLOW A VENT RISER AT THE EXTERIOR WALL.
P5	2"V UP FROM FD1 AND ROUTED AROUND ROOM AS SHOWN TO TIE INTO VERTICAL 3"V RISER.
P6	EXTEND A 3" VENT THROUGH ROOF. FLASH INTO ROOFING SYSTEM AND EXTEND 12" ABOVE ROOF LEVEL.
P7	FOR THIS LAVATORY, PROVIDE A "WATER SAVER" P-TRAP AND ROUTE DISCHARGE LINE DOWN TO CONNECT TO TRAP PRIMER INLET ON FD1 IN PLUMBING CHASE 03.
P8	DROP 1-1/2"SS DOWN FROM CONNECTION ON DRINKING FOUNTAIN (DF1) TO BELOW GROUND DIRECTLY BELOW FIXTURE. EXTEND PIPING DOWN TO APPROX 32"BFG AND TERMINATE INSIDE A GRAVEL BED AS SHOWN IN SECTION 7/P101. P.C. TO CONFIRM WITH MANUFACTURERS INSTRUCTIONS.
P15	NEW 1" CW SERVICE LINE BROUGHT TO BUILDING AND STUBBED UP INSIDE PLUMBING CHASE BY G.C. SEE CIVIL SITE PLANS. METER AND BACKFLOW PREVENTER SHALL BE BY G.C.
P16	TURN 1" CW UP INSIDE PLUMBING CHASE ROOM AS SHOWN AND PROVIDE A MAIN BUILDING BALL VALVE AND PRV (SET TO 75psi).
P17	PROVIDE A FREEZE PROOF HOSE BIBB AT 30" AFG BESIDE DOOR AS SHOWN.
P18	ROUTE 1" CW MAIN HEADER AS SHOWN ABOVE TOILET CARRIERS, ALONG BACK WALL. SUPPORT PIPE FROM BLOCK WALL WITH SPLIT RING HANGERS. ALL WATER PIPING IN PLUMBING CHASE TO BE INSULATED WITH 1" ARMAFLEX.
P19	DROP 1/2" CW DOWN TO BELOW SLAB AND ROUTE 1/2" ROLLED COPPER OUT TO EXTERIOR DRINKING FOUNTAIN. P.C. TO WRAP PIPE IN 1" ARMAFLEX UNDERGROUND FOR PIPE PROTECTION. ALSO, PROVIDE YELLOW WARNING TAPE IN TRENCH AT 6" ABOVE PIPE.
P20	PROVIDE A BALL VALVE TO ISOLATE THE DRINKING FOUNTAIN AT THIS LOCATION.
P21	INSTALL A CHECK VALVE IN HORIZONTAL BRANCH BEFORE DROP TO UG TO DF1.
P22	PROVIDE A WATER HAMMER ARRESTOR OFF THE TOP OF THE 1" CW HEADER JUST BEFORE THE CONNECTION TO THE LAST WATER CLOSET.
P23	MOUNT AN ASSE 1017 COMPLIANT MIXING VALVE ON THE WALL INSIDE THE PLUMBING CHASE. EXTEND A 1/2" TEMPERED HOT WATER (80 DEG F) THROUGH WALL TO FIXTURE. TYPICAL FOR BOTH "L" FIXTURES.
P24	AT APPROX 5'-0" AFF. MOUNT THE TANKLESS ELECTRIC WATER HEATER ON WALL AND ROUTE PIPING AS SHOWN ON PLAN AND SECTIONS. PROVIDE A 1/2" SERVICE VALVE ON THE INLET COLD WATER LINE. SET WATER HEATER OUTPUT TEMPERATURE TO 90 DEG F.
P25	ALL EXPOSED PIPING INSIDE THE RESTROOMS AT THE LAVATORIES SHALL BE WRAPPED IN 1-1/2" ARMAFLEX, MEETING AN R-10 RATING @ 75F. AS WELL AS SCALD GUARD PROTECTORS. MINIMIZE PIPING WITHIN THE RESTROOMS.
P26	EXTERIOR DRINKING FOUNTAIN WITH ADA COMPLIANT BOWL AND CHILD HEIGHT BOWL. COORDINATE FINAL LOCATION ON SITE WITH G.C.
P27	1/2" CW STUBBED UP THROUGH BASE OF DRINKING FOUNTAIN.





**MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT**

**METHOD OF COMPLIANCE:**  
 Prescriptive  Energy Cost Budget

- Climate Zone** 3A (MOORE COUNTY)
- Exterior design conditions** (FAYETTEVILLE RGNL G NC, USA)  
 winter dry bulb 22.2°F  
 summer dry bulb 96.5°F  
 summer wet bulb 76.3°F
- Interior design conditions**  
 winter dry bulb 40°F  
 summer dry bulb N/A  
 relative humidity N/A
- Building heating load** 5.7 MBH (PLUMBING CHASE ONLY)
- Building cooling load** N/A (NO COOLING OF THE SPACE)
- Mechanical Spacing Conditioning System**
- Unitary**  
 description of unit  
 heating efficiency  
 cooling efficiency  
 heat output of unit  
 cooling output of unit  
 SEE EQUIPMENT SCHEDULES
- Boiler**  
 total boiler output, if oversized, state reason. N/A
- Chiller**  
 total chiller capacity, if oversized, state reason. N/A

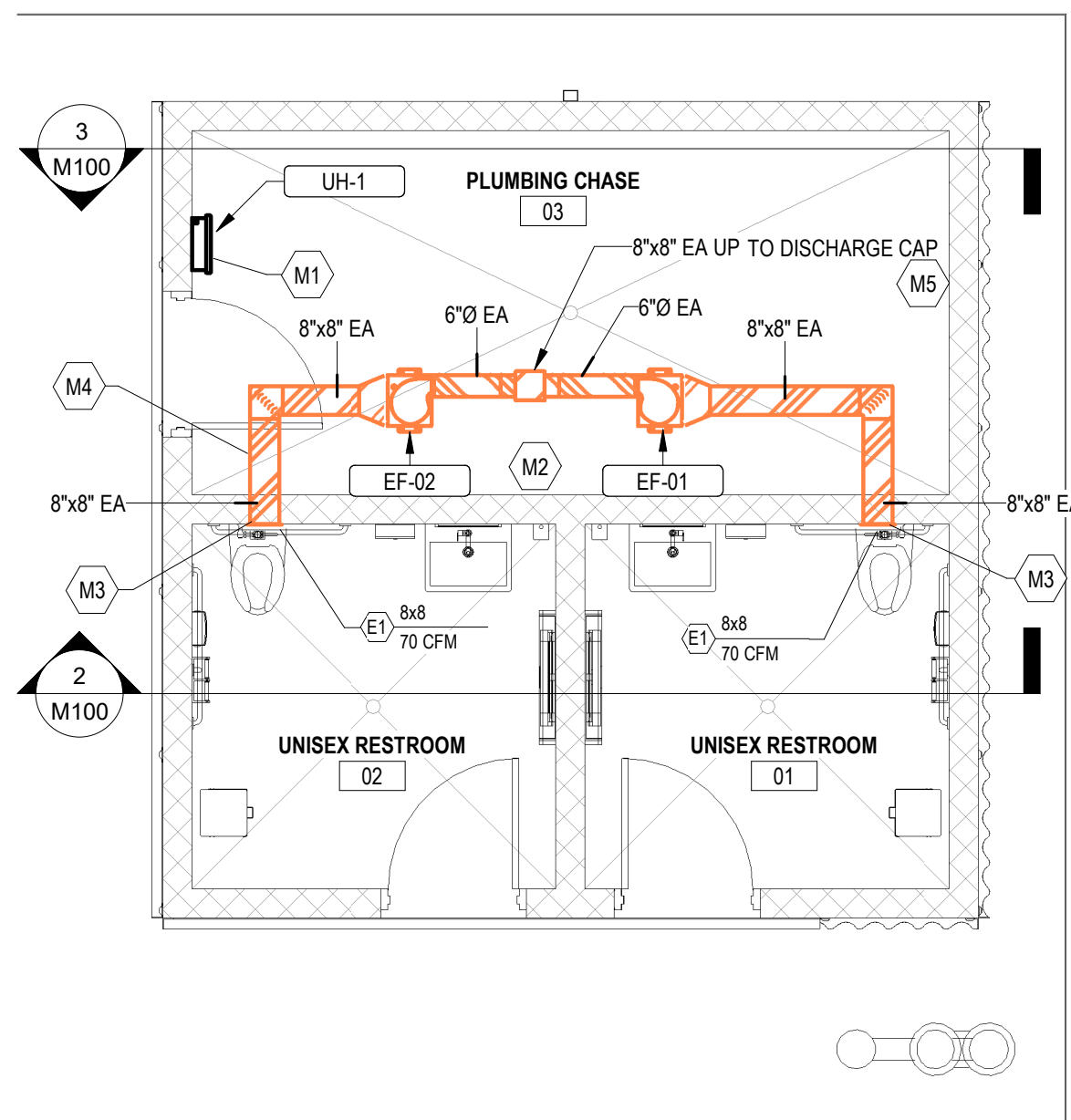
**List equipment efficiencies** Refer to drawings and specifications.

**Equipment schedules with motors (mechanical systems)**  
 description of unit  
 motor power  
 number of phases  
 SEE EQUIPMENT SCHEDULES

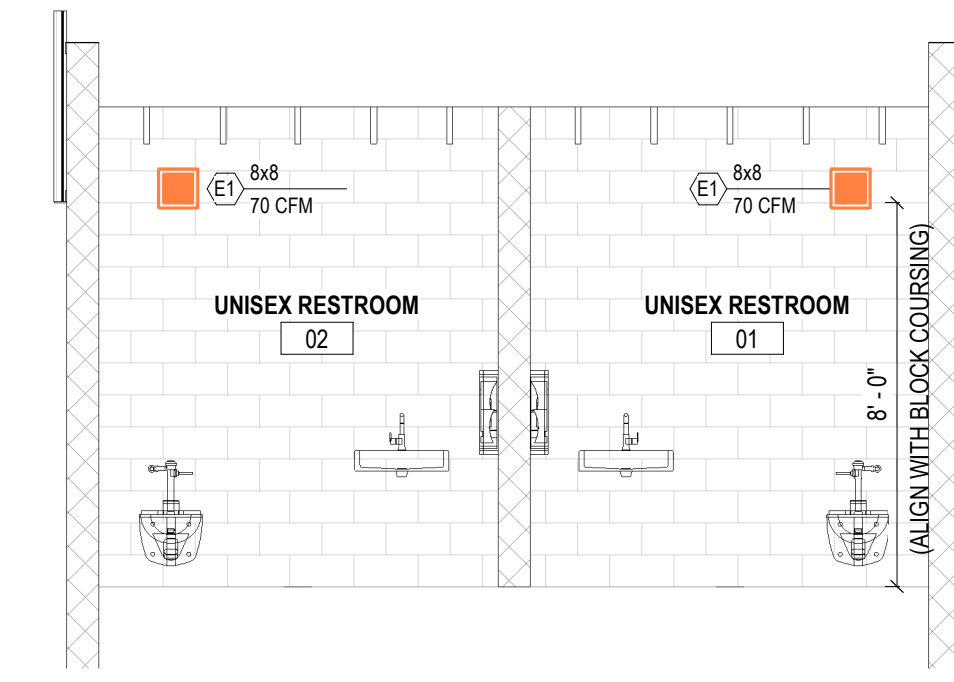
**DESIGNER STATEMENT:**

To the best of my knowledge and belief, the design of this building complies with the mechanical systems, service systems and equipment requirements of the International Building code, Volume X-Energy.

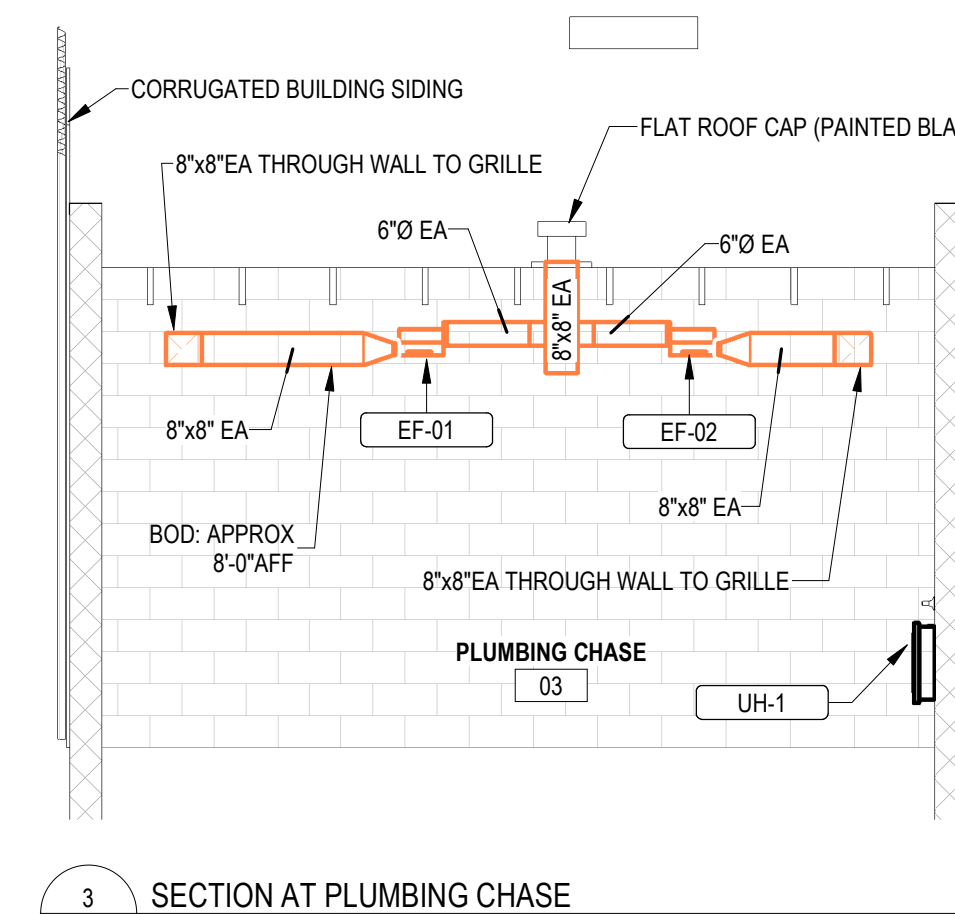
SIGNED: Christopher R. Stroupe  
 NAME: Christopher R. Stroupe, PE  
 TITLE: Engineer



1 M100 MECHANICAL PLAN  
 1/4" = 1'-0"



2 M100 SECTION IN RESTROOMS  
 1/4" = 1'-0"



3 M100 SECTION AT PLUMBING CHASE  
 1/4" = 1'-0"

**KEYNOTES**

Key Value	Keynote Text
M1	ELECTRIC UNIT HEATER MOUNTED IN SURFACE WALL BOX AS SHOWN BESIDE THE DOOR. THIS UNIT SHALL HAVE AN INTEGRAL THERMOSTAT SET FOR 40 DEG F (ADJ). MOUNT WITH BOTTOM AT 18" AFF.
M2	INLINE RESTROOM EXHAUST FAN INSTALLED AS HIGH AS POSSIBLE (APPROX 7'-10" AFF) IN SPACE. SECURE FAN FROM HANGERS FROM STRUCTURE. COORDINATE WITH E.C. TO WIRE FAN TO CORRESPONDING RESTROOM LIGHT CONTROL. PROVIDE COMPLETE WITH BACKDRAFT DAMPER.
M3	8x8 EXHAUST GRILLE IN WALL, M.C. TO INSTALL AS HIGH AS POSSIBLE WITH THE BOTTOM OF THE DUCT THROUGH WALL AT A BLOCK COURSING TO MINIMIZE CUTTING. GRILLE TO BE INSTALLED WITH PRIMER FINISH FOR FIELD PAINTING.
M4	EXTEND 8x8 EXHAUST DUCT THROUGH BLOCK WALL FROM GRILLE AND INTO EXHAUST FAN. TYPICAL FOR BOTH RESTROOMS.
M5	10x10 EA UP TO ROOF CAP ON ROOF ABOVE. CAP TO BE BLACK IN COLOR AND SIMILAR TO "GREENHECK RCC-7". FLASH INTO ROOFING SYSTEM.

**MECHANICAL SPECIFICATIONS**

- ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE LOCAL STATE BUILDING CODE MECHANICAL, ENERGY, AND LOCAL CODES.
- THE WORD "PROVIDE" AS USED ON THESE DRAWINGS AND IN THESE SPECIFICATIONS SHALL MEAN TO FURNISH AND INSTALL.
- THE MECHANICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF THE OTHER TRADES PRIOR TO THE INSTALLATION OF ANY OF HIS EQUIPMENT, PIPING OR CONTROL WIRING.
- MEASUREMENTS: BEFORE ORDERING ANY MATERIAL OR DOING ANY WORK, THE MECHANICAL CONTRACTOR SHALL VERIFY ALL MEASUREMENTS AND SHALL BE RESPONSIBLE FOR THE CORRECTNESS OF THE SAME.
- STANDARDS OF MATERIALS: ALL MATERIALS USED SHALL BE NEW UNLESS OTHERWISE SHOWN OR CALLED FOR, AND SHALL BE FURNISHED IN ACCORDANCE WITH STANDARD SPECIFICATION OF THE AMERICAN SOCIETY FOR TESTING MATERIALS, THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS, ASHRAE, AND OTHER GUIDE SPECIFICATIONS.
- DIAGRAMS AND COORDINATION: THE DRAWINGS ARE DIAGRAMMATIC AND SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE. THE DRAWINGS INDICATE OFFSETS REQUIRED, BUT BY NO MEANS INDICATE ALL SUCH SITUATIONS.
- DUCT INSULATION: NOT REQUIRED ON EXHAUST DUCT.
- MAINTAIN ALL FIRE RATINGS WHERE APPLICABLE. SUBMIT UL ASSEMBLY TO LOCAL FIRE MARSHAL FOR APPROVAL.
- DO NOT SCALE THESE DRAWINGS.
- ALL EQUIPMENT SHALL BE LOCATED AND INSTALLED TO PROVIDE MAXIMUM SPACE FOR MAINTENANCE AND SERVICE. ALL SERVICE CLEARANCES AS SHOWN IN THE MANUFACTURER'S INSTRUCTIONS MUST BE MAINTAINED.
- THE MECHANICAL CONTRACTOR SHALL COORDINATE SIZE AND LOCATION OF ALL BUILDING PENETRATIONS.
- A TEST AND BALANCE SHALL BE PERFORMED TO VERIFY THAT THE EXHAUST FAN IS OPERATING AT THE REQUIRED 70 CFM FLOW RATE.
- MAKE UP AIR FOR THE EXHAUST FAN IS PROVIDED VIA DOOR LOUVERS, PROVIDED BY G.C.

**EXHAUST FAN SCHEDULE**

PLAN TAG	MANUFACTURER	MODEL	TYPE	SERVING	CFM	ESP	RPM	HP OR WATTS	VOLTAGE	REMARKS
EF-01	LOREN COOK CO.	GN-128	INLINE	UNISEX 01	70	0.15	750	27 W	115/1	1,2,3,4,5,6
EF-02	LOREN COOK CO.	GN-128	INLINE	UNISEX 02	70	0.15	750	27 W	115/1	1,2,3,4,5,6

- STANDARD 1 YEAR WARRANTY
- FAN BACKDRAFT DAMPER
- DUCTED INLET AND OUTLET
- NEMA 1 TOGGLE SWITCH
- SWITCHED WITH LIGHT
- HANGING KIT WITH VIBRATION ISOLATION

**ELECTRIC UNIT HEATER SCHEDULE**

PLAN ID	MANUFACTURER	MODEL	KW	VOLTAGE	AMPS	SERVING	CONTROL	SETPOINT	REMARKS
UH-1	MARKEL	H3327TD-RP	4.8	240/1	20	PLUMBING CHASE 03	BUILT IN	40 F	1,2,3

- HEATER SHALL BE CONTROLLED BY A BUILT IN THERMOSTAT
- SURFACE MOUNTED BOX
- WHITE FINISH

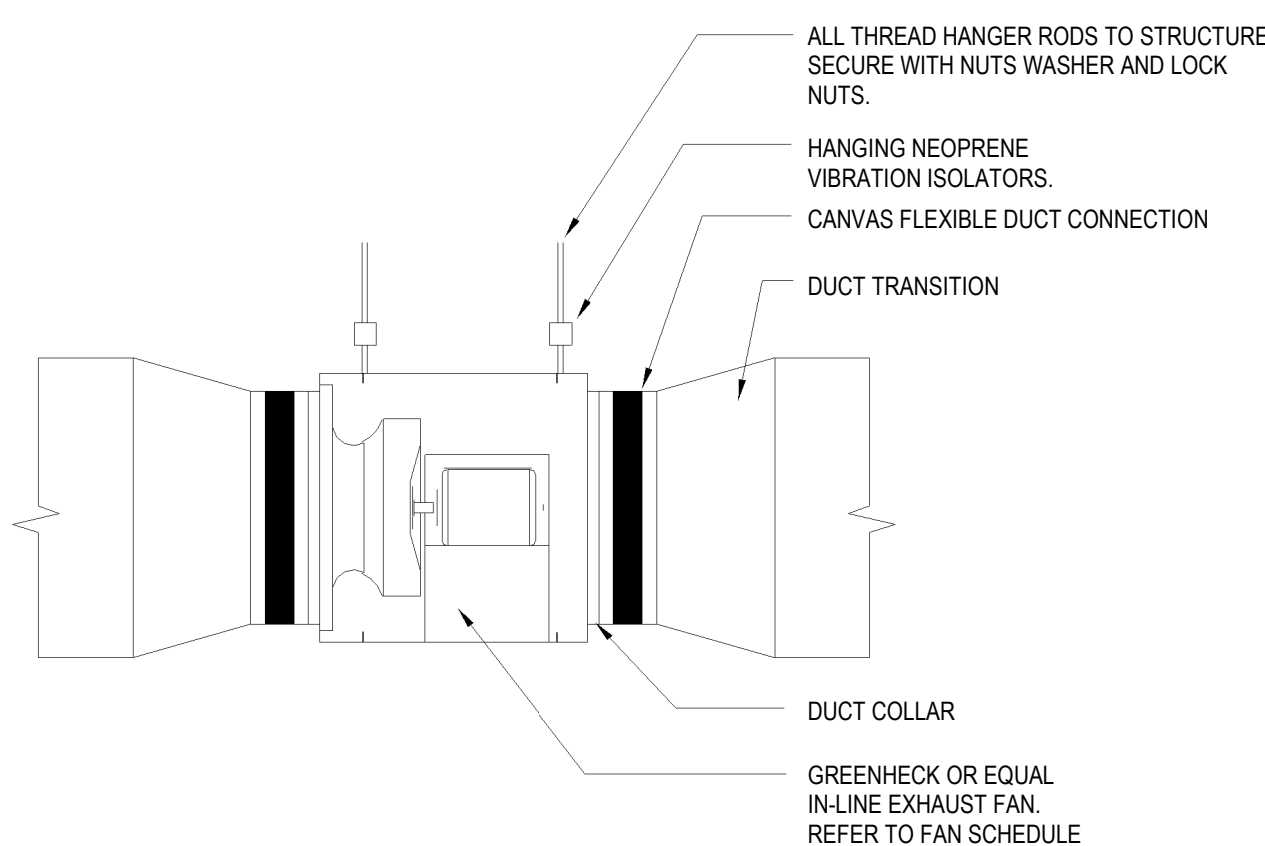
**GRILLE, REGISTER & DIFFUSER SCHEDULE**

PLAN ID	MANUF	MODEL	SERVICE	FACE	NECK	REMARKS
E1	PRICE	98	EXHAUST	10x10	8x8	1,2,3,4

- PRIMER FINISH
- WALL MOUNTED
- 45 DEGREE DEFLECTION BLADES
- 1/2" BLADE SPACING

**GRILLE & DIFFUSER IMAGES**

MODEL	IMAGE
98	



NOTES:

- ALL DUCT CONNECTIONS SHALL BE MADE AND SEALED IN ACCORDANCE WITH MECHANICAL CODE AND MANUFACTURER'S INSTRUCTIONS.
- FAN SHALL BEAR UL LABEL.
- FACTORY MOUNTED AND WIRED DISCONNECT SWITCH.

NOTES CONTINUED:

- FACTORY MOTOR GUARD AS REQUIRED FOR BELT DRIVE UNITS.
- TWO ACCESS DOORS FOR SERVICEABILITY OF FAN AND MOTOR.
- FLEXIBLE CONNECTION SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND SHALL NOT BE USED AS A TRANSITION, OFFSET, OR OTHER SIMILAR FITTING.

4 M100 IN-LINE EXHAUST FAN  
 NOT TO SCALE

**SEQUENCE OF OPERATION**

- EXHAUST FANS (EF-01 & EF-02):  
 THESE FANS SHALL BE TIED TO THE LIGHT MOTION SENSOR IN EACH CORRESPONDING RESTROOM AND SHALL TURN ON AND OFF WITH THE LIGHT MOTION SENSOR. COORDINATE WITH E.C. TO THE FANS TO THE LIGHT CIRCUIT.
- UNIT HEATER (UH-1):  
 THIS UNIT HEATER SHALL HAVE AN INTEGRAL THERMOSTAT. THE THERMOSTAT SHALL BE SET AT 40 DEG F (ADJ). THE UNIT SHALL TURN ON AND OFF AS NECESSARY BASED ON SPACE TEMPERATURE TO MAINTAIN SETPOINT.

**MECHANICAL LEGEND**

- EF - EXHAUST FAN
- EA - EXHAUST AIR
- UH - ELECTRIC UNIT HEATER
- CFM - CUBIC FEET PER MINUTE
- KW - KILOWATTS
- 12x12 - RECTANGULAR DUCT NOTATION

**MECHANICAL SHEET INDEX**  
 M100 MECHANICAL PLAN



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CES LICENSE NUMBER (NC)	F-0238
CES LICENSE NUMBER (VA)	11059277
PROJECT NO.	4447
DRAWN	DMG
APPROVED	CRS

SEAL  
 15886  
 08/23/2024  
 ENGINEER  
 CHRISTOPHER R. STROUPE, III

THESE DRAWINGS, PROVIDED BY CONSULTANT ENGINEERING SERVICE, ARE INTENDED TO BE VIEWED AND PRINTED IN COLOR. COLOR IS USED TO DISTINGUISH BETWEEN DIFFERENT SYSTEMS AND TO PROVIDE DRAWING CLARITY.

**PATRIOTS PARK RESTROOM FACILITY**  
 PONDEROSA ROAD  
 CAMERON, NC

**CONSTRUCTION DOCUMENTS**

Revisions		
No.	Description	Date

date: 08/23/2024  
 commission: 24-140

sheet title:  
**MECHANICAL PLAN**

sheet no.:  
**M100**



ELECTRICAL SPECIFICATIONS AND NOTES

CODES AND STANDARDS

ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST FEDERAL, STATE, AND LOCAL CODES, AS AMENDED BY THE STATE IN WHICH THE WORK IS BEING PERFORMED. THIS INCLUDES, BUT IS NOT LIMITED TO:

- ASHRAE/IES 90.1 ENERGY CONSERVATION CODE
NCSBC NORTH CAROLINA STATE BUILDING CODE
NEC NATIONAL ELECTRICAL CODE
NESC NATIONAL ELECTRICAL SAFETY CODE

ALL WORK SHALL BE FIRST CLASS IN NATURE AND SHALL BE IN ACCORDANCE WITH RECOGNIZED STANDARDS, PROCEDURES, AND MATERIALS. RECOGNIZED STANDARDS INCLUDE, BUT ARE NOT LIMITED TO:

- AEIC AMERICAN ASSOCIATION OF EDISON ILLUMINATING COMPANIES
ASTM AMERICAN SOCIETY FOR TESTING AND MATERIALS
EPA ENVIRONMENTAL PROTECTION AGENCY
ICC INTERNATIONAL CODE COUNCIL
ICEA INSULATED CABLE ENGINEERS ASSOCIATION
IEEE INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS
IES ILLUMINATING ENGINEERING SOCIETY
NECA NATIONAL ELECTRICAL CONTRACTOR ASSOCIATION
NEIS NATIONAL ELECTRICAL INSTALLATION STANDARDS
NEMA NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NETA INTERNATIONAL ELECTRICAL TESTING ASSOCIATION
NFPA NATIONAL FIRE PROTECTION ASSOCIATION
OSHA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
TCLP TOXICITY CHARACTERISTIC LEACHING PROCEDURE
UL UNDERWRITERS LABORATORIES (OR APPROVED 3RD PARTY TESTING AGENCY)

THE INSTALLATION SHALL ALSO COMPLY WITH ALL PERTINENT ORDINANCES, REGULATIONS, AND THE MANUFACTURER'S INSTRUCTIONS.

MATERIAL INSTALLED SHALL BE NEW AND CONFORM TO INDUSTRY STANDARDS.

GENERAL REQUIREMENTS

EQUALS: SPECIAL ATTENTION IS DIRECTED TO N.C. GENERAL STATUTE 133-3 ON APPLICABLE PROJECTS. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS TO ENCOURAGE FREE AND OPEN COMPETITION ON PUBLIC CONTRACTS. REFER TO THE GENERAL CONDITIONS AND SPECIFICATIONS FOR SUBMITTING APPROVED EQUALS PRIOR TO BID.

DOCUMENTS: REFER TO THE GENERAL CONDITIONS, SUPPLEMENTAL GENERAL CONDITIONS, AND INSTRUCTIONS TO BIDDERS FOR ADDITIONAL INFORMATION. THESE DOCUMENTS ARE A PART OF THE CONTRACT DOCUMENTS.

OBTAIN ALL CONTRACT DOCUMENTS THAT PERTAIN TO THIS PROJECT. THIS INCLUDES DRAWINGS, SPECIFICATIONS, AND SUBMITTALS FOR OTHER TRADES. CONNECT AND PROVIDE SERVICES FOR EQUIPMENT AS SHOWN OR INDICATED WHEN APPLICABLE.

ADDENDA: OBTAIN EACH ADDENDA AND INCORPORATE THEM INTO THE BID.

INSURANCE: PROVIDE INSURANCE AS INDICATED IN THE GENERAL CONDITIONS, SPECIFICATIONS, OR AS DIRECTED BY THE OWNER PRIOR TO BID.

FEES: PAY ALL REQUIRED INSPECTION FEES PERTAINING TO THIS CONTRACTOR'S SCOPE OF WORK AND INCLUDE THE COST IN THE BID.

ALTERNATES & UNIT PRICES: EACH BIDDER IS RESPONSIBLE FOR BIDDING ALTERNATES AND UNIT PRICES AS INDICATED.

COMPLETE INSTALLATION: FURNISH ALL MATERIAL, LABOR, AND EQUIPMENT FOR A COMPLETE INSTALLATION FOR EACH ITEM OR SYSTEM.

THE TERM "PROVIDE" MEANS TO FURNISH, INSTALL, AND CONNECT WITH ALL RELATED HARDWARE, SOFTWARE, AND ACCESSORIES FOR A COMPLETE INSTALLATION READY FOR USE.

NOTIFY INSPECTORS: NOTIFY THE APPROPRIATE INSPECTORS TO SCHEDULE REQUIRED INSPECTIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ELECTRICAL INSPECTOR, FIRE MARSHAL, AUTHORITY HAVING JURISDICTION, AND THE ENGINEER OF RECORD.

CONTRACT SUPERVISOR: ASSIGN AND MAINTAIN A SINGLE QUALIFIED PERSON AS THE JOB SUPERINTENDENT THAT IS DEDICATED TO THIS PROJECT.

QUALIFIED PERSONNEL: PROVIDE ADEQUATE MANPOWER TO MEET THE SCHEDULE. THIS INCLUDES QUALIFIED ELECTRICIANS AND MECHANICS THAT ARE PROPERLY LICENSED AND SKILLED IN THE INSTALLATION OF THIS TYPE OF WORK.

MODIFICATIONS: MINOR CHANGES IN LOCATIONS OF EQUIPMENT SUCH AS RECEPTACLES, LIGHT FIXTURES, AND OTHER EQUIPMENT MAY BE MADE AT ANY TIME PRIOR TO ELECTRICAL ROUGH-IN WITHOUT CAUSING ADDITIONAL COST TO THE OWNER.

SITE CONDITIONS: VISIT THE PROJECT SITE PRIOR TO THE BID TO BECOME FAMILIAR WITH THE PROJECT CONDITIONS. DIRECT ANY QUESTIONS TO THE ENGINEER A MINIMUM OF 10 DAYS PRIOR TO BID.

COORDINATION: COORDINATE INSTALLATION WITH THE OWNER'S REPRESENTATIVE, GENERAL CONTRACTOR, AND OTHER TRADES AS APPLICABLE. AVOID CUTTING OR DAMAGING THE WORK OF OTHER TRADES. WHERE CUTTING IS UNAVOIDABLE, COORDINATE WITH OTHER CONTRACTORS FIRST. REPAIR WORK TO MATCH.

STRUCTURE: DO NOT CUT THE STRUCTURE WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.

SLEEVES: PROVIDE, PLACE, AND NEATLY GROUT SLEEVES FOR ELECTRICAL WORK IN WALLS AND PARTITIONS.

FIRE CAULK: SEAL AIRTIGHT AROUND ALL CONDUITS, CABLES, BOXES, ETC... THAT ARE RUN THROUGH WALLS, FLOORS, PARTITIONS, AND CEILINGS. USE FIRE BARRIER CAULK AND PUTTY EQUAL TO 3M TYPE 303 PUTTY OR TYPE CP-25 CAULK AS APPLICABLE.

PENETRATIONS: PENETRATIONS THROUGH SMOKE RATED PARTITIONS AND FIRE WALLS SHALL BE PROTECTED PER CODE. APPROVED ASSEMBLIES AND MATERIALS SHALL BE USED AS REQUIRED. COORDINATE WITH THE GENERAL CONTRACTOR AND/OR ENGINEER.

DEFECTIVE EQUIPMENT: REMOVE AND REPLACE EQUIPMENT THAT IS DEFECTIVE OR THAT IS DAMAGED DURING CONSTRUCTION.

CHANGES: DEVIATIONS FROM THE DRAWINGS AND SPECIFICATIONS SHALL BE REQUESTED IN WRITING PRIOR TO CHANGES BEING MADE. DEVIATIONS SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL FROM THE ENGINEER.

SUBMITTALS: SUBMIT 6 COPIES OF SUBMITTAL DATA FOR ALL MATERIALS AND EQUIPMENT TO BE INSTALLED ON THIS PROJECT. ELECTRONIC SUBMITTALS ARE ALSO ACCEPTABLE.

SUBMITTALS SHALL COMPLY WITH THE DRAWINGS, SPECIFICATIONS, AND CODE. INCLUDE MANUFACTURER CURRENT SPECIFICATION AND LITERATURE HIGHLIGHTED AND CLEARLY MARKED INDICATING MATERIALS AND EQUIPMENT TO BE PROVIDED.

SUBMITTAL DATA SHALL INCLUDE EQUIPMENT SIZES, CAPACITIES, VOLTAGE, AMPERAGE, ACCESSORIES, REQUIREMENTS FOR ACCESS AND MAINTENANCE, CLEARANCES, AND OTHER PERTINENT INFORMATION.

ONCE SUBMITTALS COMPLY AND ARE CLEARLY MARKED, STAMP AND SUBMIT TO THE THE ENGINEER FOR APPROVAL. SUBMITTALS WILL NOT BE REVIEWED IF THEY ARE NOT STAMPED OR CLEARLY MARKED.

RECORD DRAWINGS: MAINTAIN A SET OF RECORD DRAWINGS ON SITE THROUGHOUT CONSTRUCTION AND UPDATE DAILY.

MARK RECORD DRAWINGS WITH ALL REVISIONS, CHANGES, AND DEVIATIONS SHOWING ACCURATE AS-BUILT CONDITIONS. INCLUDE REVISIONS TO ALL SCHEDULES AS WELL AS REVISED LOCATIONS FOR DEVICES, CONDUITS, PANELBOARDS, EQUIPMENT, BOXES, WALLS, ETC...

SUBMIT 2 COPIES OF THE MARKED UP RECORD DRAWINGS TO THE ENGINEER AT THE COMPLETION OF THE PROJECT.

UTILITIES: ON APPLICABLE PROJECTS, COORDINATE POWER, TELEPHONE, TELEVISION, AND DATA SERVICE REQUIREMENTS WITH LOCAL UTILITIES PRIOR TO SUBMITTING A BID PROPOSAL.

PROVIDE TEMPORARY UTILITIES AS INDICATED IN THE GENERAL CONDITIONS OR AS DIRECTED BY THE OWNER.

TEMPERATURE RATINGS: ALL ELECTRICAL CONNECTORS, LUGS, BREAKERS, EQUIPMENT, ETC... SHALL BE RATED A MINIMUM OF 75 DEGREES CELSIUS.

BUILDING WIRE AND CABLE

- A. GENERAL
1. ALL WIRE AND CABLE SHALL BE LISTED BY AN "APPROVED" THIRD-PARTY AGENCY ACCREDITED BY THE NCSBC.
2. PRIOR TO ENERGIZING FEEDERS, SUB-FEEDERS AND SERVICE CONDUCTORS, TEST CONDUCTORS FOR ELECTRICAL CONTINUITY AND SHORT CIRCUITS. A COPY OF THESE TESTS SHALL BE SENT TO THE ENGINEER OF RECORD, THE OWNER, AND MADE AVAILABLE TO THE AUTHORITY HAVING JURISDICTION.
3. ALL WIRE AND CABLE SHALL BE RUN IN RACEWAY.
4. MINIMUM FULL SIZE NEUTRAL WIRE SHALL BE PROVIDED FOR EACH SINGLE PHASE BRANCH CIRCUIT REQUIRING A NEUTRAL. SHARING OF NEUTRALS BETWEEN BRANCH CIRCUITS IS NOT ALLOWED.

- B. CONDUCTORS
1. CONDUCTORS AND CABLES SHALL BE 600 VOLTS, THHN/THWN, COPPER. ALUMINUM CONDUCTORS ARE NOT ALLOWED.
2. POWER AND LIGHTING CIRCUITS #10AWG AND SMALLER SHALL HAVE SOLID COPPER CONDUCTORS. CONDUCTOR SIZES #8AWG AND LARGER SHALL HAVE CLASS B STRANDED COPPER CONDUCTORS. ALUMINUM CONDUCTORS ARE NOT ALLOWED.
3. POWER AND LIGHTING CIRCUITS' MINIMUM CONDUCTOR SIZE SHALL BE #12AWG, AND MAXIMUM SIZE ALLOWED SHALL BE 500 KMIUM LON.
4. FIRE ALARM AND CONTROL WIRING SHALL HAVE STRANDED COPPER CONDUCTORS.
5. FULL SIZE NEUTRAL CONDUCTOR SHALL BE PROVIDED FOR EACH SERVICE PANEL AND SUB-PANEL.

- C. INSULATION
1. THE INSULATION TYPE FOR INTERIOR WIRING SHALL BE DUAL-RATED THHN/THWN OR XHHW.

- D. VOLTAGE DROP
1. WHERE THE CONDUCTOR LENGTH FROM THE PANEL TO THE FIRST OUTLET ON A 120-VOLT CIRCUIT EXCEEDS 50 FEET, THE BRANCH CIRCUIT CONDUCTORS FROM THE PANEL TO THE FIRST OUTLET SHALL NOT BE SMALLER THAN #10 AWG.

- E. COLOR CODING
1. THE SECONDARY SERVICE, FEEDERS, AND BRANCH CIRCUITS SHALL BE COLOR CODED AS FOLLOWS:
PHASE 208/120V
A BLACK
B RED
C BLUE
NEUTRAL WHITE
GROUND GREEN

- F. SPLICING
A. JOINTS IN SOLID CONDUCTORS SHALL BE SPLICED USING IDEAL "WIRE NUTS," 3M COMPANY "SCOTCHLOCK" OR T&B CONNECTORS IN JUNCTION BOXES, OUTLET BOXES, AND LIGHTING FIXTURES.
B. "STA-KON," "PIGGY," OR OTHER PERMANENT TYPE CRIMP CONNECTORS SHALL NOT BE USED FOR #10 AWG AND SMALLER CONDUCTORS.
C. JOINTS IN STRANDED CONDUCTORS SHALL BE SPLICED BY APPROVED MECHANICAL CONNECTORS AND GUM RUBBER TAPE OR FRICTION TAPE. PERMANENT COMPRESSION CONNECTORS FOR SPLICES AND TAPS... PROVIDED UL-APPROVED INSULATING COVERS, MAY BE USED INSTEAD OF MECHANICAL CONNECTORS PLUS TAPE.
D. CONDUCTORS, IN ALL CASES, SHALL BE CONTINUOUS FROM OUTLET TO OUTLET AND NO SPICING SHALL BE MADE EXCEPT WITHIN OUTLET OR JUNCTION BOXES, TROUGHS AND GUTTERS.

- G. GROUNDING AND BONDING
A. GROUNDING CONDUCTORS SHALL BE COLORED SOLID GREEN. CONDUCTORS INTENDED AS NEUTRAL SHALL BE COLORED SOLID WHITE ON 120/208 VOLT CIRCUITS AND NATURAL GRAY ON 277/480 VOLT CIRCUITS.
B. THE RACEWAY SYSTEM SHALL NOT BE RELIED ON FOR EQUIPMENT GROUND CONTINUITY. A GREEN EQUIPMENT GROUNDING CONDUCTOR, PROPERLY SIZED PER NEC TABLE 250-122, SHALL BE RUN IN ALL RACEWAYS EXCEPT FOR TELECOMMUNICATIONS, DATA, AUDIO, AND LOW VOLTAGE RACEWAYS FOR FIRE ALARM SYSTEMS.
C. BOND CABLE TRAYS TO MAKE THEM ELECTRICALLY CONTINUOUS. GROUND PER CODE.
D. THE ELECTRICAL SERVICE SHALL BE GROUND BY THREE MEANS, WHEN AVAILABLE, PER THE NEC.
1. TO THE METALLIC COLD-WATER PIPE, PER NEC 250-52.
2. TO THE STEEL FRAME OF THE BUILDING, PROVIDED THE BUILDING FRAME IS EFFECTIVELY GROUND. IN NEW CONSTRUCTION, EFFECTIVELY GROUND AND BOND STEEL BUILDING FRAME.
3. TO GROUND ROD(S). GROUND RODS SHALL BE 10 FEET LONG AND 3/4 INCH IN DIAMETER, AND SHALL BE OF COPPER-CLAD STEEL CONSTRUCTION. ALL GROUND CONNECTIONS SHALL BE ACCESSIBLE. PROVIDE A TEST WELL FOR EACH GROUND ROD DRIVEN.
E. BOXES WITH CONCENTRIC, ECCENTRIC, OR OVER-SIZED KNOCKOUTS SHALL BE PROVIDED WITH BONDING BUSHINGS AND JUMPERS. THE JUMPER SHALL BE SIZED PER NEC TABLE 250-122 AND LUGGED TO THE BOX.
F. WHERE ONE BUILDING IS FEEDING ANOTHER BUILDING, THE INSTALLATION SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF NEC ARTICLES 225 AND 250.
G. THE GAS PIPING SYSTEM SHALL BE BONDED TO THE EQUIPMENT GROUND AS REQUIRED PER THE NEC AND NC FUEL GAS CODE.
H. IDENTIFY EACH GROUNDING ELECTRODE CONNECTED TO A COMMON GROUND BUS. THE COMMON GROUND BUS SHALL NOT BE LESS THAN 4" HIGH BY 1/4" THICK, WITH LENGTH AS REQUIRED. LENGTH SHALL BE PROVIDED WITH 25% CAPACITY.

- I. SUPPORTING DEVICES
A. RACEWAY AND BOXES SHALL BE SUPPORTED IN A METHOD AND AT A SPACING AS APPROVED BY THE NEC, EXCEPT AS NOTED HEREIN.
B. CONDUIT SHALL BE SUPPORTED BY APPROVED PIPE STRAPS OR CLAMPS.
C. CONDUITS INSTALLED ON THE INTERIOR OF EXTERIOR BUILDING WALLS SHALL BE SPACED OFF THE WALL SURFACE A MINIMUM OF 1/4 INCH USING CLAMP-BACKS OR STRUT.
D. PIPE STRAPS OR CLAMPS SHALL BE SECURED BY MEANS OF:
1. TOGGLE BOLTS ON HOLLOW MASONRY
2. METAL EXPANSION SHELDOS AND MACHINE SCREWS, OR STANDARD PRE-SET INSERTS, ON CONCRETE OR SOLID MASONRY.
3. MACHINE SCREWS OR BOLTS ON METAL SURFACES.
4. WOOD SCREWS ON WOOD CONSTRUCTION.
5. POWER ACTUATED FASTENERS ARE NOT ALLOWED.

- J. CONDUIT CONDUIT SCHEDULE
A. BELOW SLAB ON GRADE AND UNDERGROUND: PVC SCHEDULE 40 WITH BITMASTIC COATED RIGID ELBOWS AND GROUND WIRE. ALL THREADED AND CONNECTIONS AND JOINTS SHALL BE WATERTIGHT.
B. ABOVE SLAB ON GRADE AND OVERHEAD: EMT CONDUIT WITH STEEL, COMPRESSION TYPE FITTINGS UNLESS OTHERWISE NOTED OR REQUIRED BY CODE.
C. HAZARDOUS AREAS, SPECIAL OCCUPANCIES, OR CONDUITS SUBJECT TO DAMAGE: INSTALL CONDUIT PER THE NEC. THIS INCLUDES, BUT IS NOT LIMITED TO: GALVANIZED RIGID STEEL CONDUIT, EXPLOSION PROOF AND SEAL OFFS WHERE REQUIRED, ETC... REFER TO THE NEC FOR ADDITIONAL REQUIREMENTS.
D. MOTOR CONNECTIONS: LIQUID TIGHT FLEXIBLE METAL CONDUIT PER THE NEC.
E. WHIPS (6 FEET OR LESS TO LIGHTING FIXTURES): MC CABLE WHERE ALLOWED PER THE NEC.
F. DEVIATIONS: ANY DEVIATION SHALL BE APPROVED IN WRITING BY THE OWNER AND ENGINEER PRIOR TO BID AND THE AHJ PRIOR TO ROUGH-IN.
G. MINIMUM CONDUIT SIZES: 3/4" ABOVE GROUND AND 1" UNDERGROUND.

- K. UNDERGROUND RACEWAYS
A. RACEWAYS RUN EXTERNAL TO BUILDING FOUNDATION, EXCEPT BRANCH CIRCUIT RACEWAYS, SHALL BE ENCASED WITH A MINIMUM OF THREE INCHES OF CONCRETE ON ALL SIDES.
B. ENCASED RACEWAYS MUST HAVE A MINIMUM COVER OF EIGHTEEN INCHES, EXCEPT RACEWAYS CONTAINING CIRCUITS WITH VOLTAGES ABOVE 1000 VOLTS, WHICH MUST HAVE A MINIMUM COVER OF THIRTY INCHES.
C. ENCASED RACEWAYS SHALL BE OF A TYPE APPROVED BY THE NEC AND SUITABLE FOR CONCRETE ENCASEMENT.
D. STEEL REINFORCING SHALL BE REQUIRED UNDER ROADWAYS AND WITHIN 10 FEET OF ALL MANHOLES AND BUILDING ENTRANCES. THE STEEL REINFORCING SHALL BE TIED TO THE WALL REINFORCING AT MANHOLES AND BUILDING ENTRANCES.
E. BRANCH CIRCUITS RUN UNDERGROUND EXTERNAL TO BUILDING FOUNDATION WALLS SHALL BE RUN IN ACCORDANCE WITH THE NEC, AND SHALL BE APPROVED AS SUITABLE FOR DIRECT BURIAL. MINIMUM SIZE SHALL BE 1 INCH.
F. ALL UNDERGROUND RACEWAYS, EXCEPT BRANCH CIRCUITS, SHALL BE IDENTIFIED BY UNDERGROUND LINE MARKING TAPE LOCATED DIRECTLY ABOVE THE RACEWAY 6 TO 8 INCHES BELOW FINISHED GRADE. TAPE SHALL BE PERMANENT, BRIGHT COLORED, CONTINUOUS PRINTED, PLASTIC TAPE COMPOUNDED FOR DIRECT BURIAL NOT LESS THAN 6 INCHES WIDE AND 4 MILS THICK.
G. WHERE UNDERGROUND RACEWAYS ARE REQUIRED TO TURN UP TO CABINETS, EQUIPMENT, ETC., AND ON TO POLES. THE ELBOW REQUIRED AND THE STUB-UP OUT OF THE SLAB OR EARTH SHALL BE OF GALVANIZED RIGID STEEL FOR THE LAST TWO FEET MINIMUM.
H. WHERE PASSING THROUGH A BELOW GRADE WALL FROM A CONDITIONED INTERIOR BUILDING SPACE, RACEWAYS SHALL BE SEALED UTILIZING FITTINGS SIMILAR AND EQUAL TO OZGEMENY TYPE FSK THRU-WALL FITTING WITH FSKA MEMBRANE CLAMP ADAPTER IF REQUIRED.

- L. ABOVE GROUND RACEWAYS
A. SUPPORT AND ATTACH ALL CONDUITS AND RACEWAYS PER THE NEC WITH APPROVED HANGERS AND CLAMPS. DO NOT SUPPORT CONDUITS, RACEWAYS, OR CABLES, FROM DUCTWORK, PIPING, CEILING GRID SUPPORT WIRES, OR CEILING SUPPORT SYSTEM. PROVIDE SUPPLEMENTAL STEEL SUPPORTS BETWEEN JOISTS, BEAMS, PURLINS, TRUSSES, ETC... AS REQUIRED.
B. CONDUITS AND RACEWAYS SHALL BE SEISMICALLY SUPPORTED WHERE REQUIRED BY THE BUILDING CODE.

- M. TERMINATIONS
A. IMC AND GRC SHALL TERMINATE WITH EITHER A DOUBLE LOCKNUT/BUSHING SET, OR IN A THREADED HUB.
B. WHERE CONCENTRIC, ECCENTRIC, OR OVER-SIZED KNOCKOUTS ARE ENCOUNTERED, A GROUNDING-TYPE INSULATED BUSHING SHALL BE PROVIDED.
C. ALL CONDUIT TERMINATIONS SHALL BE PROVIDED WITH INSULATED THROAT.
D. EMT TERMINATIONS SHALL BE MADE UTILIZING PLATED STEEL HEXAGONAL COMPRESSION CONNECTORS. NO POT METAL, SET SCREW, OR INDENTED TYPE FITTINGS SHALL BE UTILIZED.

- N. CONDUIT FITTINGS
A. WHERE CONDUITS OF ANY TYPE PASS OVER A BUILDING EXPANSION JOINT, A STANDARD EXPANSION JOINT FITTING, COMPATIBLE WITH THE TYPE RACEWAY BEING USED, SHALL BE PROVIDED.
B. CONDUIT COUPLINGS FOR IMC, GRC, AND PVC SHALL BE IN ACCORDANCE WITH THE NEC.
C. EMT COUPLINGS SHALL BE OF THE PLATED STEEL HEXAGONAL COMPRESSION TYPE. NO POT METAL, SET SCREW, OR INDENTED TYPE COUPLINGS SHALL BE UTILIZED.
D. IN OUTDOOR LOCATIONS OR INTERIOR DAMP LOCATIONS, GASKETED FITTINGS INCLUSIVE OF COUPLINGS SHALL BE USED IN ALL METALLIC RACEWAYS.

- O. ELECTRICAL IDENTIFICATION
REFER TO DETAIL ON THE DRAWINGS.

- P. INTERIOR LUMINAIRES
REFER TO THE LIGHTING FIXTURE SCHEDULE AND THE LIGHTING FIXTURE SUPPORT DETAIL ON THE DRAWINGS.

- Q. CLEANING AND PAINTING
A. VACUUM AND CLEAN ALL BOXES AFTER ROUGH-IN AND PROTECT FROM CONSTRUCTION DEBRIS/PAINTING.
B. CLEAN ALL CONDUITS, HANGERS, SUPPORTS, PANELS, LIGHTS, DEVICES, ETC... AND LEAVE READY FOR USE OR PAINTING.
C. COORDINATE ALL PAINTING REQUIREMENTS WITH THE ARCHITECT, GENERAL CONTRACTOR, AND/OR OWNER PRIOR TO BID.
D. TOUCH UP ALL SCRATCHED SURFACES ON FACTORY FINISHED EQUIPMENT AND MATERIALS WITH PAINT OF SAME TYPE AND COLOR.

- R. TESTING
A. PERFORM ALL TESTS REQUIRED BY CODE. MEG-TEST ALL PANELS TO ELIMINATE GROUNDS AND SHORT CIRCUITS. TEST ALL LIGHTS, RECEPTACLES, EQUIPMENT, ETC... FOR PROPER CONNECTION AND GROUNDING.
B. TEST THE GROUND SYSTEM WITH "EARTH MEGGER." FURNISH TEST RESULTS TO THE OWNER AND ENGINEER. ADD ADDITIONAL GROUND RODS UNTIL TEST RESULTS ARE BELOW 25 OHMS.
C. ENSURE THAT ALL LUGS ON ALL FEEDERS ARE TIGHT THROUGHOUT CONSTRUCTION. TORQUE AS REQUIRED.

- S. TRAINING
A. INSTRUCT OWNER'S REPRESENTATIVES IN PROPER OPERATION AND MAINTENANCE OF ALL SYSTEMS AND EQUIPMENT.
B. FURNISH TO OWNER COPIES OF OPERATING AND MAINTENANCE MANUALS, INCLUDING GUARANTEES AND SPARE PARTS LIST.

- T. GUARANTEE:
A. GUARANTEE ALL MATERIALS, EQUIPMENT, AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE TIME OF FINAL ACCEPTANCE BY THE OWNER UNLESS OTHERWISE INDICATED. REPAIR AND/OR REPLACE, WITHOUT ANY COST TO THE OWNER, ANY DEFECTIVE PART OR WORKMANSHIP WITHIN THE GUARANTEE PERIOD.

UNIT PRICING:
1. ADD (1) 20 AMP DUPLEX RECEPTACLE AND FACEPLATE ON A DEDICATED CIRCUIT, INCLUDE (1) 20AMP SINGLE POLE BREAKER, BOX, PLATE, 3/4" CONDUIT AND (3) #12 WIRE APPROXIMATELY 100FT IN LENGTH, INCLUDE ALL LABOR AND MATERIAL.
2. ADD (1) EXIT LIGHT FIXTURE IN CEILING, CONNECT TO CIRCUIT, INCLUDE BOX, MOUNTING DEVICE, 3/4" CONDUIT AND (3) #12 WIRE APPROXIMATELY 50FT IN LENGTH, INCLUDE ALL LABOR AND MATERIAL.
3. ADD (1) EMERGENCY BATTERY LIGHT FIXTURE IN CEILING, CONNECT TO EXISTING CIRCUIT, INCLUDE BOX, MOUNTING DEVICE, 3/4" CONDUIT AND (3) #12 WIRE APPROXIMATELY 50FT IN LENGTH, INCLUDE ALL LABOR AND MATERIAL.

- 1. LINK TRADE PERMITS WITH THE BUILDING PERMIT.
2. ALL PRE-WIRED EQUIPMENT SHALL BE LISTED BY STATE OF NC APPROVED 3RD PARTY AGENCY, (NEC 90.7.110.3(B)).
3. CLEARANCE REQUIRED AT ELECTRICAL EQUIPMENT, (NEC 110.26).
4. ALL GROUNDING AND BONDING REQUIRED TO COMPLY WITH NEC ARTICLE 250, (NEC 250.1).
5. FLEXIBLE CORDS SHALL NOT PASS THROUGH CEILINGS, WALLS OR FLOORS, (NEC 400.8).
6. ALL WIRING, INCLUDING LOW VOLTAGE, DATA, PHONE, FIRE ALARM, SECURITY, HVAC CONTROLS, AND POWER SHALL BE PERMITTED AND INSPECTED PER NC GENERAL STATUTES PER COUNTY, AND CITY ORDINANCE.
7. ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES, AND EQUIPMENT SHALL BE LABEL LISTED BY A NORTH CAROLINA APPROVED THIRD PARTY TESTING AGENCY.

ELECTRICAL SUMMARY
ELECTRICAL SYSTEM AND EQUIPMENT
METHOD OF COMPLIANCE:
ENERGY CODE: [X] PRESCRIPTIVE [ ] PERFORMANCE
ASHRAE90.1: [ ] PRESCRIPTIVE [ ] PERFORMANCE
LIGHTING SCHEDULE (EACH FIXTURE TYPE)
LAMP TYPE REQUIRED IN FIXTURE REFER TO FIXTURE SCHEDULE
NUMBER OF LAMPS IN EACH FIXTURE REFER TO FIXTURE SCHEDULE
BALLAST TYPE IN FIXTURE REFER TO FIXTURE SCHEDULE
NUMBER OF BALLAST IN FIXTURE REFER TO FIXTURE SCHEDULE
TOTAL WATTAGE PER FIXTURE REFER TO FIXTURE SCHEDULE
TOTAL INTERIOR WATTAGE SPECIFIED VERSUS ALLOWED: 267 W SPECIFIED VS 290 W ALLOWED
TOTAL EXTERIOR WATTAGE SPECIFIED VERSUS ALLOWED: 30 W SPECIFIED VS 660 W ALLOWED

- ADDITIONAL PRESCRIPTIVE COMPLIANCE
[ ] C406.2 MORE EFFICIENT HVAC PERFORMANCE
[X] C406.3 REDUCED LIGHTING POWER DENSITY SYSTEM
[ ] C406.4 ENHANCED LIGHTING CONTROLS
[ ] C406.5 ON-SITE SUPPLY OF RENEWABLE ENERGY
[ ] C406.6 DEDICATED OUTDOOR AIR SYSTEM FOR CERTAIN HVAC EQUIPMENT
[ ] C406.7 HIGH-EFFICIENCY SERVICE WATER HEATING

DESIGNER STATEMENT
TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE THERMAL ENVELOPE REQUIREMENTS OF THE STATE OF NORTH CAROLINA 2016 ENERGY CODE
SIGNED: [Signature]
NAME: CHRISTOPHER R STROUPE
TITLE: ENGINEER

ELECTRICAL SHEET SCHEDULE
E0.0 ELECTRICAL COVER SHEET
E0.1 SYMBOL LEGENDS AND ABBREVIATIONS
E1.0 ELECTRICAL PLANS
E2.0 ELECTRICAL RISER DIAGRAM & SCHEDULES
E2.1 ELECTRICAL DETAILS
E2.2 ELECTRICAL DETAILS



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1111 S. Marshall Street, Suite 250
Winston Salem, NC 27107
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Seal: NORTH CAROLINA PROFESSIONAL ENGINEER 15886 08/23/2024 CHRISTOPHER R. STROUPE

PATRIOTS PARK RESTROOM FACILITY
PONDEROSA ROAD CAMERON, NC

CONSTRUCTION DOCUMENTS

Revisions table with columns: No., Description, Date

date: 08/23/2024
commission: 24-140

sheet title: ELECTRICAL COVER SHEET

sheet no.: E0.0



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E

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1111 S. Marshall Street, Suite 250  
Winston Salem, NC 27107

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SEAL 15886  
08/23/24  
PHILIP R. STROUSE, III  
REGISTERED PROFESSIONAL ENGINEER  
PLUMBING, MECHANICAL, ELECTRICAL

**PATRIOTS PARK  
RESTROOM  
FACILITY**  
PONDEROSA ROAD  
CAMERON, NC

CONSTRUCTION DOCUMENTS

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No.	Description	Date

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SYMBOL LEGENDS AND ABBREVIATIONS

sheet no.:  
**E0.1**

Electrical Abbreviations			
1P	1 Pole (2P, 3P, 4P, ETC.)	MCB	Main Circuit Breaker
A	Ampere	MCC	Motor Control Center
AC	Above Counter	MDC	Main Distribution Center
ACLG	Above Ceiling	MDP	Main Distribution Panel
ADO	Automatic Door Opener	MFR	Manufacturer
AF	Amp Frame	MFS	Main Fused Disconnect Switch
AFF	Above Finished Floor	MH	Manhole
AFG	Above Finished Grade	MIC	Microphone
AFI	Arc Fault Circuit Interrupter	MIN	Minimum
AHU	Air Handling Unit	MISC	Miscellaneous
AL	Aluminum	MLO	Main Lugs Only
ALT	Alternate	MMS	Manual Motor Starter
AMP	Ampere	MOA	Multioilet Assembly
AMPL	Amplifier	MSP	Motor Starter Panelboard
ANNUN	Annunciator	MSBD	Main Switchboard
APPROX	Approximately	MSS	Motor Starter Switch
AQ-STAT	Aquastat	MT	Mount
ARCH	Architect, Architectural	MT.C	Empty Conduit
AS	Amp Switch	MTS	Manual Transfer Switch
AT	Amp Trip	MTR	Motor, Motorized
ATS	Automatic Transfer Switch	N.C.	Normally Closed
AUTO	Automatic	NEC	National Electrical Code
AUX	Auxiliary	NEMA	National Electrical Manufacturer's Association
AV	Audio Visual	NFDS	Non-Fused Safety Disconnect Switch
AWG	American Wire Gauge	NFS	Not To Scale
BATT	Battery	OC	On Center
BD	Board	OH	Overhead
BLDG	Building	OL	Overloads
BMS	Building Management System	PA	Public Address
C	Conduit	PB	Pull Box Or Pushbutton
CAB	Cabinet	PE	Pneumatic Electric
CAT	Catalog	PED	Pedestal
CATV	Cable Television	PF	Power Factor
CB	Circuit Breaker	PH	Phase
CCTV	Closed Circuit Television	PIV	Post Indicating Valve
CKT	Circuit	PNL	Panel
CLG	Ceiling	PP	Power Pole
COMB	Combination	PR	Pair
CMPR	Compressor	PRI	Primary
CONN	Connection	PROJ	Projection
CONST	Construction	PRV	Power Roof Ventilator
CONT	Continuation Or Continuous	PT	Potential Transformer
CONTR	Contractor	PVC	Polyvinyl Chloride (Conduit)
CONV	Converter	PWR	Power
CP	Circulating Pump	QUAN	Quantity
ORT	Cathode-Ray Tube	RCPT	Receptacle
CT	Current Transformer	REQD	Required
CTR	Center	RIM	Room
CU	Copper	RSC	Rigid Steel Conduit
DCP	Domestic Water Circulating Pump	RTU	Roof Top Unit
DEPT	Department	SC	Surface Conduit
DET	Detail	SEC	Secondary
DIA	Diameter	SHT	Sheet
DISC	Disconnect	SIM	Similar
DIST	Distribution	SLD	Single-Line Diagram
DN	Down	SN	Solid Neutral
DPR	Damper	SPEC	Specification
DS	Safety Disconnect Switch	SPKR	Speaker
DT	Double Throw	SR	Spare
DWG	Drawing	SPP	Single-Point Power
EC	Electrical Contractor	SR	Surface Raceway
ELEC	Electric, Electrical	SS	Stainless Steel
ELEV	Elevator	SSW	Selector Switch
ELU	Emergency Lighting Unit	S/S	Stop/Start Pushbuttons
EM	Emergency	STA	Station
EMS	Energy Management System	STD	Standard
EMT	Electrical Metallic Tubing	SURF	Surface Mounted
EP	Electric Pneumatic	SW	Switch
EQUIP	Equipment	SWBD	Switchboard
EWIC	Electric Water Cooler	SYMB	Symmetrical
EXIST	Existing	SYS	System
EXH	Exhaust	TEL	Telephone
EXP	Explosion Proof	TERM	Terminal
FA	Fire Alarm	TL	Twist Lock
FABP	Fire Alarm Booster Power Supply Panel	TR	Tamper Resistant
FACP	Fire Alarm Control Panel	T-STAT	Thermostat
FCU	Fan Coil Unit	TTC	Telephone Terminal Cabinet
FIXT	Fixture	TV	Television
FLR	Floor	TVTC	Television Terminal Cabinet
FLUOR	Fluorescent	TYP	Typical
FUJ	Fuse	UC	Under Counter
FUDS	Fused Safety Disconnect Switch	UE	Underground Electrical
GALV	Galvanized	UG	Underground
GC	General Contractor	UH	Unit Heater
GEN	Generator	UHT	Underground Telephone
GFI	Ground Fault Circuit Interrupter	UTIL	Utility
GFP	Ground Fault Protector	UV	Ultraviolet
GND	Ground	V	Volt
GRS	Galvanized Rigid Steel (Conduit)	VA	Volt-Amperes
GYP BD	Gypsum Board	VDT	Video Display Terminal
HOA	Hands-Off-Automatic Switch	VERT	Vertical
HORIZ	Horizontal	VFD	Variable Frequency Drive
HP	Horsepower	VOL	Volume
HPF	High Power Factor	W	Watt
HT	Height	W	With
HTG	Heating	WG	Wire Guard
HTR	Heater	WH	Water Heater
HV	High Voltage	W/O	Without
HVAC	Heating, Ventilating And Air Conditioning	WP	Weatherproof
IC	Interrupting Capacity	XFMR	Transformer
IG	Isolated Ground	XFR	Transfer
IMC	Intermediate Metal Conduit		
INCAND	Incandescent		
IR	Infrared		
I/W	Interlock With		
J-BOX	Junction Box		
KV	Kilovolt	<	Angle
KVA	Kilovolt-Ampere	@	At
KVAR	Kilovolt-Ampere Reactive	▲	Delta
KW	Kilowatt	'	Feet
KWH	Kilowatt Hour	+	Inches
LOC	Locate Or Location	#	Number
LT	Light	Ø	Phase
LTG	Lighting	C	Center Line
LTNG	Lightning	P	Plate
LV	Low Voltage		
LV	Low Voltage		
MAX	Maximum		
MAG.S	Magnetic Starter		
M/C	Momentary Contact		
MC	Mechanical Contractor		

### Electrical Symbol Legend

#### Lighting Symbols

- Lighting Fixtures, Typical, Rectangular (Various Symbols)
- Filed circles indicate recessed.
- Open circles indicate surface-mounted.
- Diagonal line indicates lensed.
- Outer dots indicate suspended.
- Lighting Fixtures, Typical, Round (Various Symbols)
- Center dot indicates pendant.
- Diagonal line indicates lensed.
- Chevron indicates wall wash.
- Wall-mounted fixtures, Typical (Various Symbols)
- Strip Fixture
- Directional Light, Track Light, Flood Light
- Linear Light, Tape Light
- Emergency Lighting Unit, Ceiling-Mounted, Integral Battery
- Emergency Lighting Unit, Ceiling-Mounted, Remote Battery
- Emergency Lighting Unit, Wall-Mounted, Integral Battery
- Emergency Lighting Unit, Wall-Mounted, Remote Battery
- Exit Light, Ceiling-Mounted. Shading and arrows indicate faces and directional chevrons.
- Exit Light, Wall-Mounted. Shading and arrows indicate faces and directional chevrons.
- Exit/ELU Combo
- Pole/Area Lights
- Post-Top Area Light
- Bollard Light
- Diagonal hatch indicates light on a critical circuit.
- Solid hatch indicates light on an emergency or life safety circuit.
- Single-Pole Switch
- Two-Pole Switch
- Three-Pole Switch
- Switch Modifiers:
  - 3: 3-Way
  - 4: 4-Way
  - K: Keyed
  - D: Dimming
  - T: Timer
  - OS: Occupancy Sensor
  - VS: Vacancy Sensor
  - AC: Above-Counter
  - LV: Low-Voltage
  - M: Motor-Related

#### Power Symbols

- Simplex Receptacle
- Duplex Receptacle
- Quadplex Receptacle
- Special Receptacle, Type as Indicated
- Receptacle Modifiers:
  - #: Height AFF OC
  - AC: Above Counter
  - GFI: Ground-Fault Circuit Interrupter
  - WP: Weatherproof In-Use Cover
- Half shading indicates split (typically switched)
- Outside shading indicates emergency circuit
- Center shading indicates isolated ground
- Single-Pole Switch
- Two-Pole Switch
- Three-Pole Switch
- Switch Modifiers:
  - K: Keyed
  - T: Timer
  - AC: Above-Counter
  - M: Motor-Related
- Multioilet Assembly
- Filed squares indicate 120V outlet
- Open squares indicate with USB
- Cord Reel, Device Varies
- Drop Cord, Device Varies
- Junction Box
- Floor Box, see schedule for type
- Emergency Power Off
- Door Opener Push Plate
- Power Meter
- Safety Switch, Fused
- Safety Switch, Unfused
- Motor Starter
- Combination Starter/Disconnect
- Contactor

#### Telecom Symbols

- Data Outlet
- Telephone Outlet
- Data/Telephone Outlet
- Outlet Modifiers:
  - #: Height AFF OC
  - AC: Above Counter
- Wireless Access Point
- TV Outlet
- Nurse Call Symbols
  - Nurse Call Corridor Light
  - Number of lights as indicated
  - Nurse Call Device
    - B: Code Blue
    - D: Duty Station
    - E: Emergency
    - P: Patient Call
    - S: Staff
  - Nurse Call Control Unit
    - NCAP: Nurse Call Annunciator Panel
    - NCHS: Nurse Call Host Controller
    - NCPA: Nurse Call Power Supply
    - NCTC: Nurse Call Terminal Cabinet
    - NCUPS: Uninterruptable Power Supply

#### Fire Alarm Symbols

- Manual Pull Station
- Horn, Wall
- Horn, Ceiling
- Strobe, Wall, Candela as indicated
- Strobe, Ceiling, Candela as indicated
- Horn/Strobe, Wall, Candela as indicated
- Horn/Strobe, Ceiling, Candela as indicated
- Remote Indicator w/ Test Switch, Wall
- Remote Indicator w/ Test Switch, Ceiling
- Smoke Detector
- Heat Detector
- Carbon Monoxide Detector
- Beam Detector T: Transmitter R: Receiver
- Combination Detector (Up to Three)
- Duct Smoke Detector
- Smoke Damper
- Door Holder
- Door Closer
- Fire Service Phone
- Addressable Module
  - PTZ: Pan/Tilt/Zoom
- Card Reader
- Card Reader with Keypad
- Closed Circuit TV Outlet
- Door Contact
- Electric Strike
- Intercom
- Magnetic Lock
- Request to Exit Button
- Request to Exit Sensor
- Motion Detector
- Security Control Unit
  - SCP: Security Control Panel
  - SPS: Security Power Supply Unit

#### Security Symbols

- Security Camera
- Card Reader
- Card Reader with Keypad
- Closed Circuit TV Outlet
- Power Meter
- Electric Strike
- Intercom
- Magnetic Lock
- Request to Exit Button
- Request to Exit Sensor
- Motion Detector
- Security Control Unit
  - SCP: Security Control Panel
  - SPS: Security Power Supply Unit

#### Construction Phasing

(Typical All Symbols and Equipment)

- Existing to Remain
- Existing to Be Demolished
- New
- Existing to Be Demolished

#### Miscellaneous

- Area Not in Contract
- Keynote
- Callout:
  - Top Value: Detail Number on Sheet
  - Bottom Value: Sheet Number of Detail
- Room Name and Number

#### Power Distribution Equipment

- Hatched fill indicates distribution panel or switchboard.
- Solid fill indicates branch panel or load center.
- Dashed box indicates code-required clearance (width and depth).
- Door indicates front of recessed panel.
- Panelboards are assigned an abbreviated indicator (or Panel ID) for use with circuit numbers. Panel ID is listed within the panel schedule and in the panel abbreviation schedule.
- Equipment is tagged with Panel Name and with Panel ID in parentheses. Panel ID is intended as a design documentation aid only. Do not include Panel ID in field-applied circuit directories or labels.
- Devices and fixtures are tagged with Panel ID and circuit number. For example, a device tagged with "A1" indicates the device is circuited to panel designated "A," circuit number 1. The panel schedule circuit number contains both the panel abbreviation and the circuit number.
- Transformer: Typically transformer names begin with or contain the letter "T". See Single-Line Diagram for description and requirements.

#### Lighting Tags

- Top Value: Fixture Type ID (Underlined)
- Bottom Value, Lowercase Letter: Switch ID
- Bottom Value, Number(s): Circuit Number
- Bottom Value, Uppercase Letter(s): Panel ID
- Absence of a switch designation on a lighting fixture indicates fixture is controlled by the only switch in the space. An "x" in place of the switch designation indicates unswitched.
- Switch ID indicated by a lowercase letter. Switch IDs are unique per space. A switch with an ID "a" controls all devices within the space in which it is located tagged with "a". A switch without a tagged ID controls all lighting fixtures within a space. ID tags may be used on control devices other than switches, such as occupancy sensors or contactors.

#### Grounding and Lightning Protection Symbols

- Ground Rod
- Ground Rod with Test Well
- Static Ground Receptacle
- Lightning Protection Air Terminal
- Lightning Protection Conductor Splice



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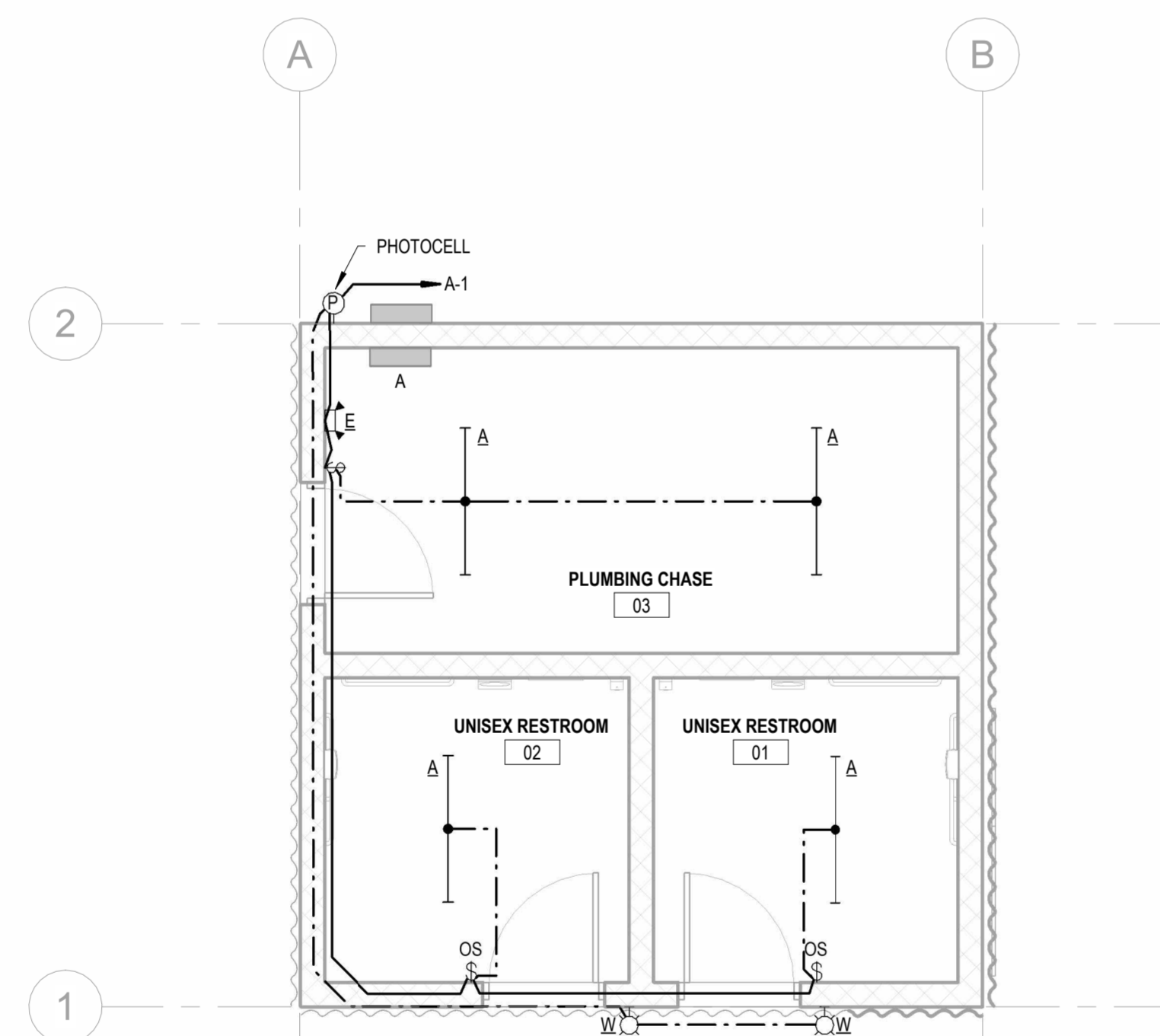
CONSTRUCTION DOCUMENTS

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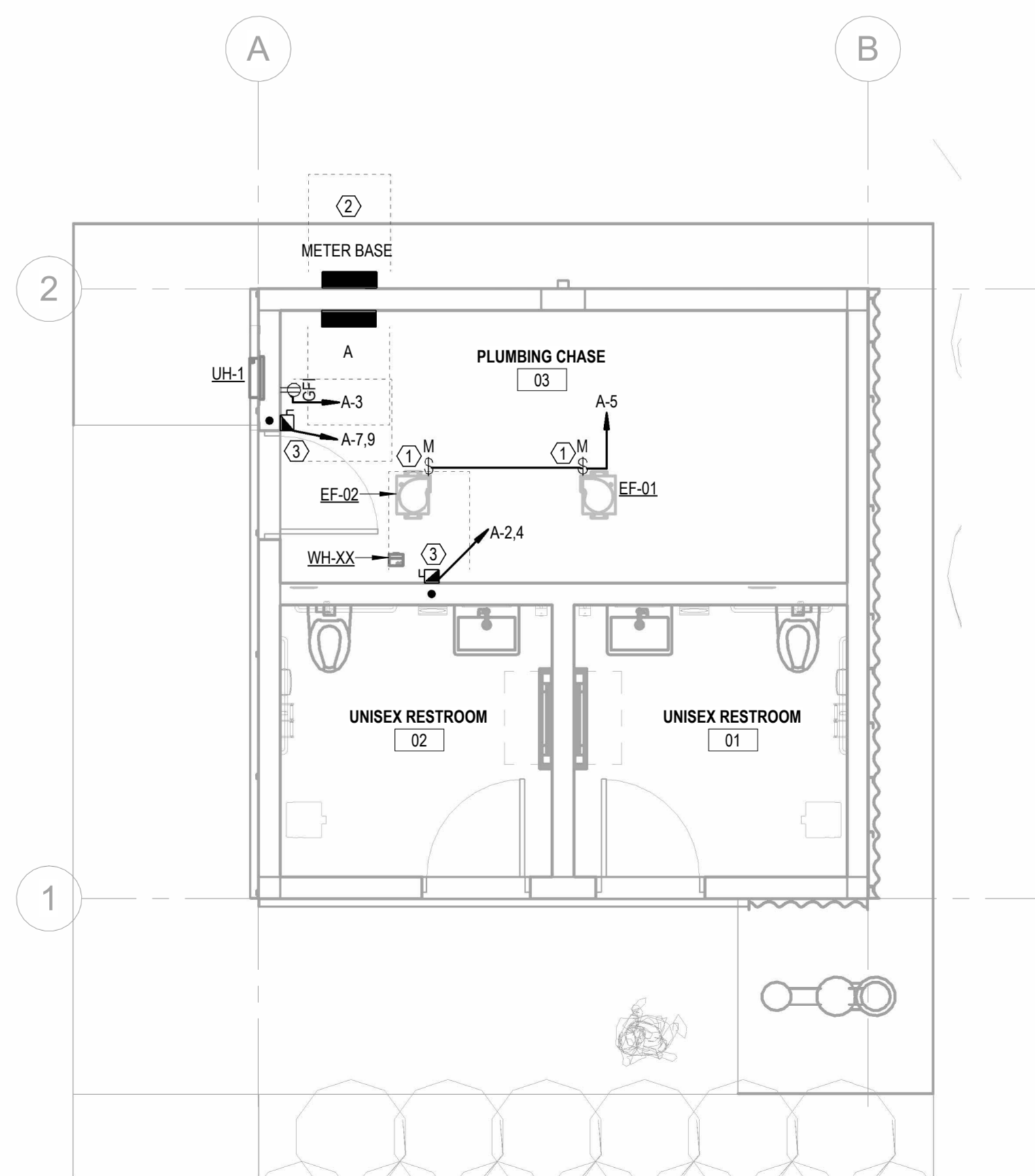
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sheet title:  
**ELECTRICAL PLANS**

sheet no.:  
**E1.0**



**1**  
LEVEL 1 LIGHTING PLAN  
E1.0  
1/4" = 1'-0"



**2**  
LEVEL 1 POWER PLAN  
E1.0  
1/4" = 1'-0"

- LIGHTING SHEET NOTES**
- A ACCESS AND WORKING SPACE SHALL BE PROVIDED AND MAINTAINED FOR ALL ELECTRICAL EQUIPMENT TO PERMIT READY AND SAFE OPERATION AND MAINTENANCE (NEC 110.26).
  - B ALL CONDUIT AND WIRES AT OPEN CEILING ARE TO BE CONCEALED AND INSTALLED ALONG THE STRUCTURAL BEAMS IN A CLEAN WAY AND HIDDEN AS MUCH AS POSSIBLE. DO NOT INSTALL CABLES, FACEWAYS, AND BOXES IN THE SPACE BETWEEN THE METAL DECK AND THE ROOFING MATERIAL PER NEC 300.4(E). ROUTE CONDUITS PARALLEL OR PERPENDICULAR TO STRUCTURAL STEEL.
  - C ALL PENETRATIONS THROUGH FIRE WALL MUST BE PROPERLY SEALED TO ENSURE EFFECTIVE FIRE RESISTANCE BY AN APPROVED CONTRACTOR. COORDINATE WITH G.C.
  - D LIGHTING FIXTURE LOCATIONS SHOWN ARE SCHEMATIC. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS PRIOR TO ROUGH-IN.
  - E ALL BRANCH CIRCUIT CONDUIT TO BE INSTALLED OVERHEAD.
  - F EMERGENCY CIRCUIT WIRING TO HAVE CONTACTOR SWITCHED CONDUCTOR AND ALSO UNSWITCHED CONDUCTOR TO ALL EXIT AND EXTERIOR LIGHTS WHERE SHOWN.
  - G CONFIRM LOCATION OF ALL DOOR SWINGS WITH ARCHITECTURAL PLANS PRIOR TO ROUGH-IN ON SWITCHES.
  - H REFER TO ARCHITECT'S REFLECTED CEILING PLANS FOR CEILING HEIGHTS, TYPES, FINISHES, ETC. IN EACH AREA. VERIFY FLANGE TYPES, TRIM KITS, STEM LENGTH, ETC. FOR ALL LIGHT FIXTURES PRIOR TO SUBMITTALS.
  - J COORDINATE WITH LIGHTING VENDORS FOR NECESSARY MOUNTING HARDWARE AND ACCESSORIES PRIOR TO ROUGH-IN.
  - K NOTIFY ENGINEER OF ANY DISCREPANCY PRIOR TO ROUGH-IN.

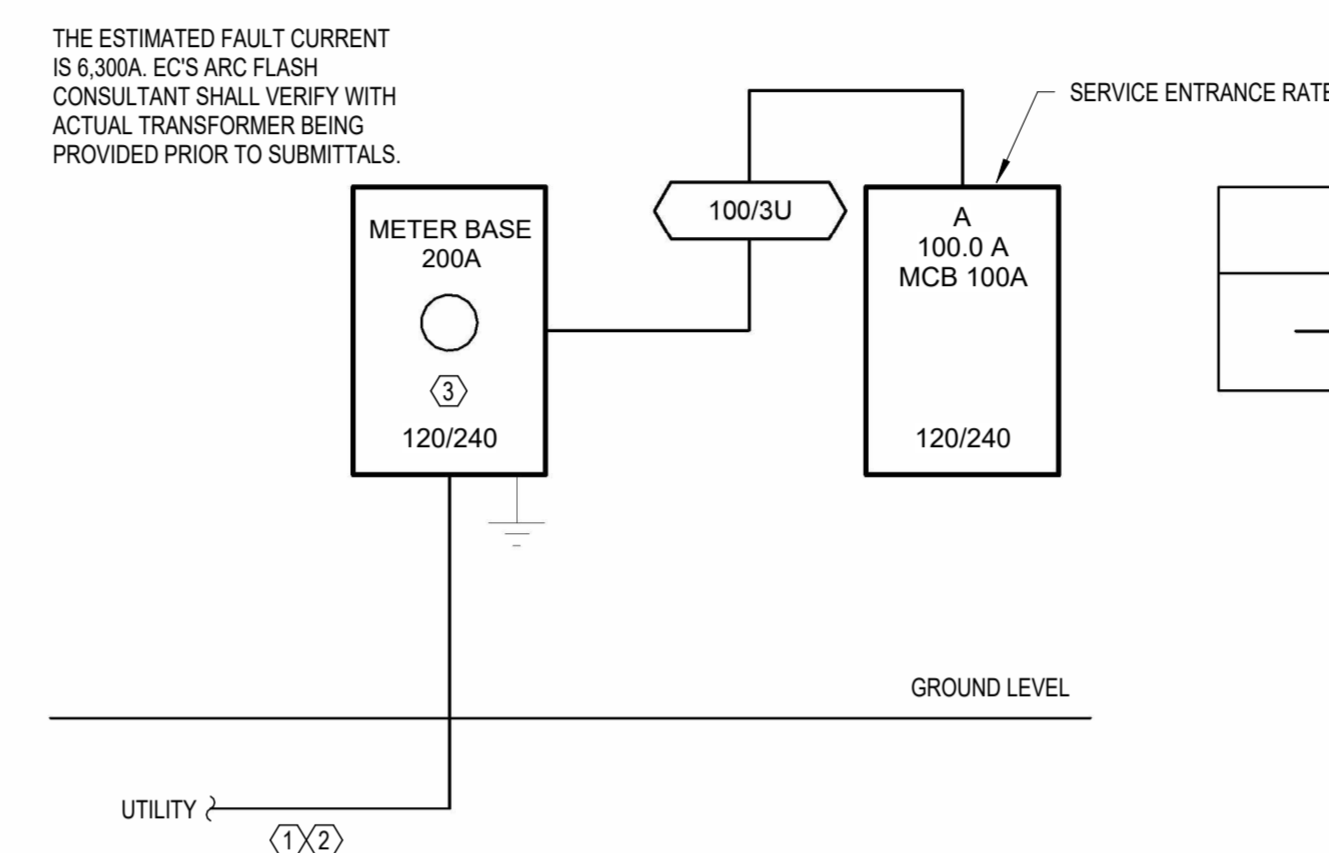
- KEYNOTES**
- 1 PROVIDE AND INSTALL 20 AMP SINGLE POLE MOTOR RATED SWITCH WITH ENCLOSURE.
  - 2 E.C. TO PROVIDE AND INSTALL 200AMP METER BASE WITH 2 POLE, 3 WIRE, 250V, NGR ENCLOSURE.
  - 3 PROVIDE AND INSTALL 30 AMP, 1P, 2W, 250VOLT, N1, HEAVY DUTY, FUSED DISCONNECT. FUSE PER EQUIPMENT NAMEPLATE.





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**GENERAL NOTES**

A THE ELECTRICAL CONTRACTOR SHALL PROVIDE AN ARC FLASH LABEL ON PANELBOARDS, SWITCHGEAR, ETC., IN ACCORDANCE WITH NFPA 70E.

B SHARED NEUTRALS ARE NOT ALLOWED FOR NEW WORK. PROVIDE SEPARATE NEUTRALS. PROVIDE THE BREAKERS AS NEEDED ON EXISTING CIRCUITS.

C PROVIDE AND INSTALL PHENOLIC NAMEPLATES WITH STAINLESS STEEL SCREWS.

D ALL CONDUCTORS SHALL BE COPPER UNLESS NOTED OTHERWISE.

E ALL SPLICES 1/0 AND LARGER SHALL BE HYPRRESS CRIMP.

F LABEL ALL RECEPTACLES AND DISCONNECTS.

**KEYNOTES**

1 INCOMING SERVICE CONDUCTORS BY POWER COMPANY.

2 PROVIDE (1/2" SCHEDULE 80 PVC CONDUITS BY E.C. FOR POWER COMPANY (+/- 250'). CONDUCTORS BY POWER COMPANY.

3 E.C. TO PROVIDE AND INSTALL 200AMP METER BASE WITH 2 POLE, 3 WIRE, 250V, N3R ENCLOSURE.

1 ELECTRICAL RISER DIAGRAM  
E2.0 NOT TO SCALE

Load Center: A										VOLTAGE: 120/240, 1Ø, 3W		MAINS TYPE: MCB	
LOCATION: PLUMBING CHASE 03										BUS RATING: 100 A		MAINS RATING: 100 A	
SUPPLY: METER BASE										NEUTRAL: 100%		A.I.C.: 10 KA	
MOUNTING: SURFACE										FEED-THRU LUGS: No			
ENCLOSURE: NEMA 1										FEATURES & MODIFICATIONS: -			
SERVICE ENTRANCE RATED:													
CKT	DESCRIPTION	TRIP (A)	POLES	WIRES & CONDUITS	PHASE A LOAD (VA)	PHASE B LOAD (VA)	WIRES & CONDUITS	POLES	TRIP (A)	DESCRIPTION	CKT		
1	LIGHTING - RM 01,02,03 & WALL PACK	20	1	2#12 #12G,3/4"	187	2556	3#10 #10G,3/4"	2	30	WH-XX	2		
3	ROPT - RM 03	20	1	2#12 #12G,3/4"	54	0	--	1	20	SPARE	4		
5	EXHAUST FANS - RM 03	20	1	2#12 #12G,3/4"	2760	0	--	2	30	SPARE	6		
7	UH-1	30	2	3#10 #10G,3/4"	2760	0	--	1	20	SPARE	8		
9	UH-1	30	2	3#10 #10G,3/4"	2760	0	--	2	30	SPARE	10		
11	SPARE	20	1	--	0	0	--	1	--	SPACE	12		
13	SPARE	20	1	--	0	0	--	1	--	SPACE	14		
15	SPARE	20	1	--	0	0	--	1	--	SPACE	16		
17	SPARE	--	1	--	--	--	--	1	--	SPACE	18		
19	SPARE	--	1	--	--	--	--	1	--	SPACE	20		
21	SPARE	--	1	--	--	--	--	1	--	SPACE	22		
23	SPARE	--	1	--	--	--	--	1	--	SPACE	24		
CONNECTED LOAD:					5556 VA	5496 VA							
CONNECTED CURRENT:					46 A	46 A							
LOAD CLASSIFICATION				CONNECTED	FACTOR	DEMAND	PANEL TOTALS						
LIGHTING - INTERIOR				153 VA	125.00%	192 VA	CONNECTED LOAD: 11 kVA						
RECEPTACLE - GENERAL				180 VA	100.00%	180 VA	CONNECTED CURRENT: 46 A						
LIGHTING - EXTERIOR				33 VA	125.00%	42 VA	DEMAND LOAD: 12 kVA						
ELECTRIC WATER HEATING				5111 VA	125.00%	6389 VA	DEMAND CURRENT: 52 A						
HVAC				5574 VA	100.00%	5574 VA							
CIRCUIT NOTES:													

ID	DESCRIPTION	MANUFACTURER	MODEL NUMBER	EQUIV. MANUFACTURER	MOUNTING	LUMENS	LAMP	CCT	CRI	DRIVER	VOLTAGE	WATTS	EMERGENCY COMPONENT	NOTES
A	4' STRIP VANDAL RESISTANT	LITHONIA	VAP 4000LM PCL MVOLT 40K 80CRI	LITESOURCE; H.E.WILLIAMS; HUBBELL	SUSPENDED	4000 lm	INTEGRAL LED	4000 K	80	LED DRIVER	120 V	33 W	--	MOUNTING AS REQUIRED, SUSPEND TO 10" AFF
E	ELU INDOOR, TWO HEAD	LITHONIA	ELM6L UVOLT LTP	LITESOURCE; H.E.WILLIAMS; HUBBELL	SURFACE WALL	1100 lm	INTEGRAL LED	6500 K	80	LED DRIVER	120 V	6 W	BATTERY	
W	DECORATIVE SCONCE	SESCO TGS	CUDWR-0411-15W-4000K	LITESOURCE; H.E.WILLIAMS; HUBBELL	SURFACE WALL	1500 lm	INTEGRAL LED	4000 K	80	LED DRIVER	120 V	15 W	--	OUTDOOR SAFE. VERIFY COLOR AND FINISH WITH ARCHITECT.

REMARKS:

1. ALL LIGHT FIXTURES SHALL BE ENERGY EFFICIENCY DLC (DESIGN LIGHTS CONSORTIUM) CERTIFIED.

2. LIGHT FIXTURES SHALL BE EQUIPPED WITH UL LISTED AND APPROVED INTEGRALLY MOUNTED DISCONNECTS FOR BALLAST IN ACCORDANCE WITH ARTICLE 410.30 OF THE NATIONAL ELECTRICAL CODE (NEC). THE CONTRACTOR SHALL COORDINATE WITH THE DISTRIBUTOR AND MANUFACTURER TO VERIFY THAT NEW LIGHTS MEET ALL REQUIREMENTS OF THE LATEST EDITION OF THE NEC.

3. ALL LAY-IN TYPE LED LIGHT FIXTURES SHALL BE SUPPORTED FROM THE STRUCTURE WITH TWO CEILING SYSTEM SUPPORT WIRES. WIRES SHALL BE ATTACHED AT DIAGONALLY OPPOSITE CORNERS OF THE LIGHT. IN ADDITION, EACH LIGHT SHALL BE ATTACHED TO THE CEILING GRID SYSTEM USING FOUR SCREWS (TWO AT EACH END). SCREWS SHALL NOT INTERFERE WITH THE DOOR OPERATION.

4. PROVIDE THREADED ROD OR WIRE SUPPORT FROM THE STRUCTURE TO ALL CEILING MOUNTED RECESS CAN LIGHTS SO THAT TRIM WILL FIT FLUSH AGAINST THE CEILING AND THE CEILING TILES WILL NOT SAG.

5. EXIT LIGHTS SHALL HAVE EVEN GRAPHICS ILLUMINATION (INDIVIDUAL LED SHALL NOT BE VISIBLE), UNIVERSAL MOUNTING, FACES, ARROWS, AND ETC.

6. CONNECT ALL FIXTURES WITH THE "EMERGENCY" (MATCHED) AND EXTERIOR EMERGENCY EGRESS LIGHTS TO THE NEAREST EXISTING LIFE SAFETY PANEL. SEE PANEL SCHEDULES AND SITE WORK PLAN NEW WORK.

7. PROVIDE ALL FIXTURE MOUNTING HARDWARE WHERE REQUIRED.

8. OUTDOOR AND CANOPY LIGHTS ARE WET LOCATION LISTED.

9. VERIFY LIGHT FIXTURE FINISH PRIOR TO ORDERING.

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**ELECTRICAL RISER DIAGRAM & SCHEDULES**

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**ELECTRICAL DETAILS**

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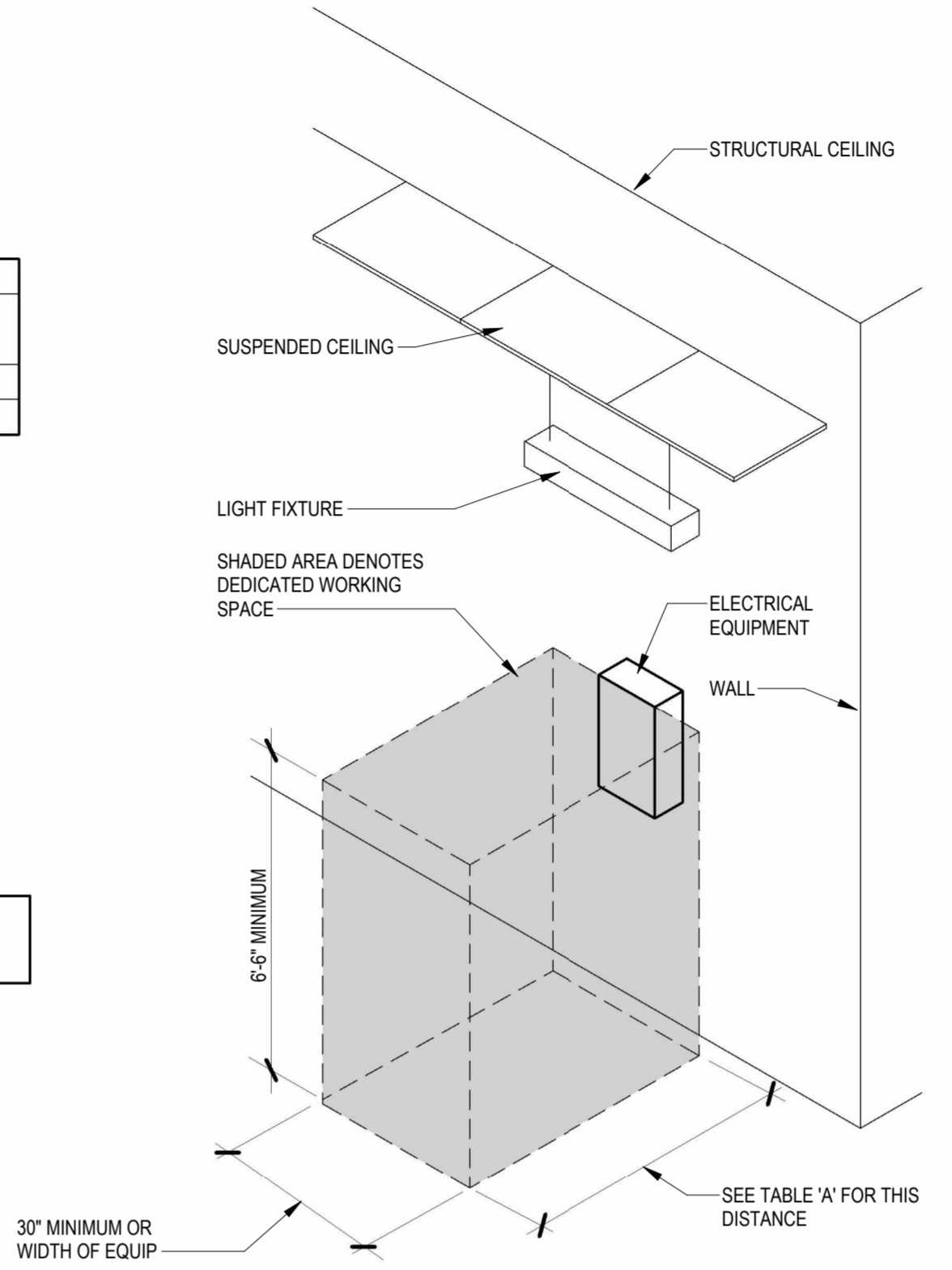
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**TABLE A - WORKING SPACE REQUIREMENTS**

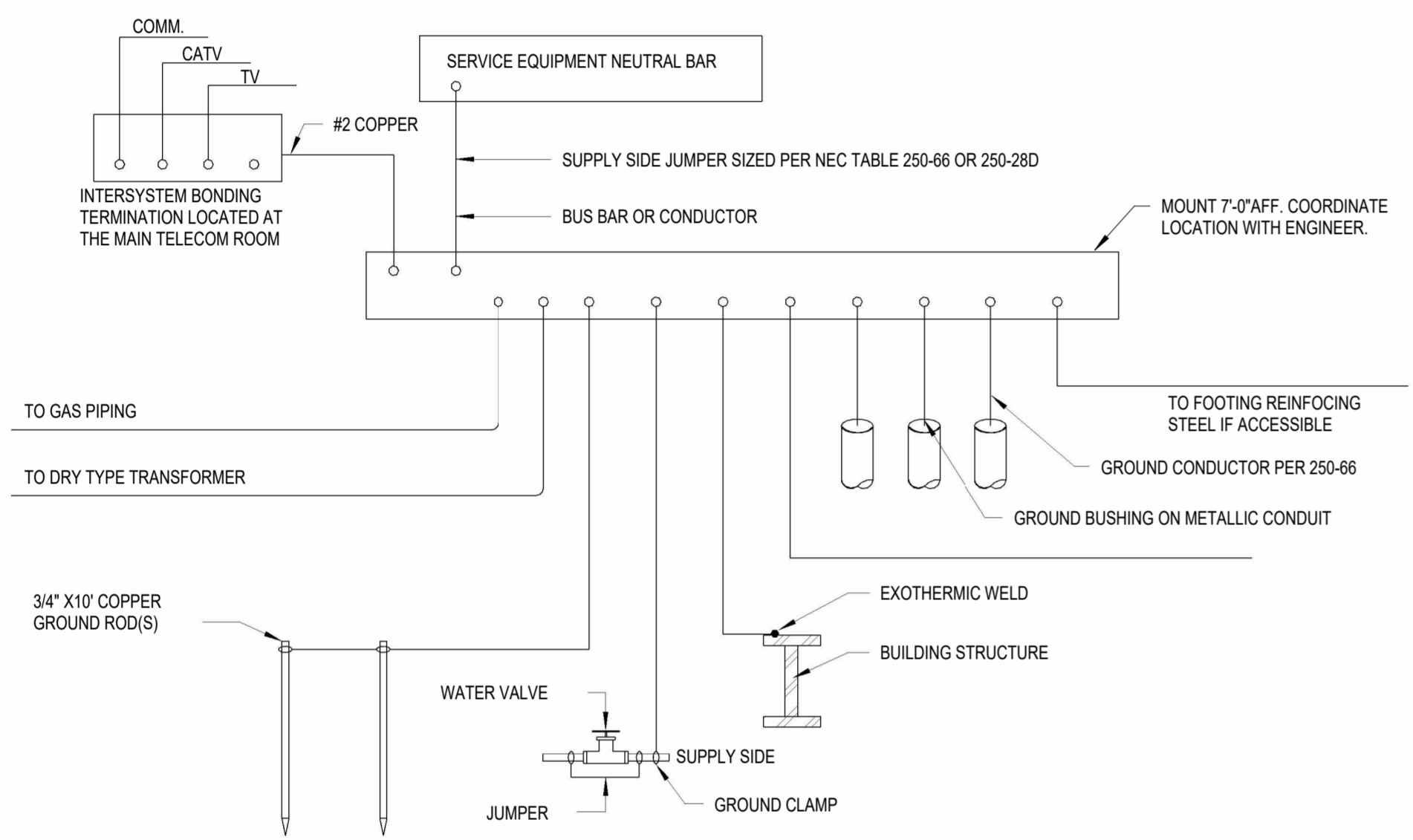
VOLTAGE TO GROUND (NOMINAL)	MIN. CLEAR DISTANCE (INCHES)		
	CONDITION 1	2	3
0-150 VOLTS	36	36	36
151-600 VOLTS	36	42	48

- WHERE 'CONDITIONS' ARE AS FOLLOWS:
- EXPOSED LIVE PARTS ON ONE SIDE AND NO LIVE OR GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES EFFECTIVELY GUARDED BY SUITABLE WOOD OR OTHER INSULATING MATERIALS. INSULATED WIRE OR INSULATED BUS BARS OPERATING AT NOT OVER 300 VOLTS, SHALL NOT BE CONSIDERED LIVE PARTS.
  - EXPOSED LIVE PARTS ON ONE SIDE AND GROUNDED PARTS ON THE OTHER SIDE.
  - EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORK SPACE (NOT GUARDED AS PROVIDED IN CONDITION 1) WITH THE OPERATOR BETWEEN.

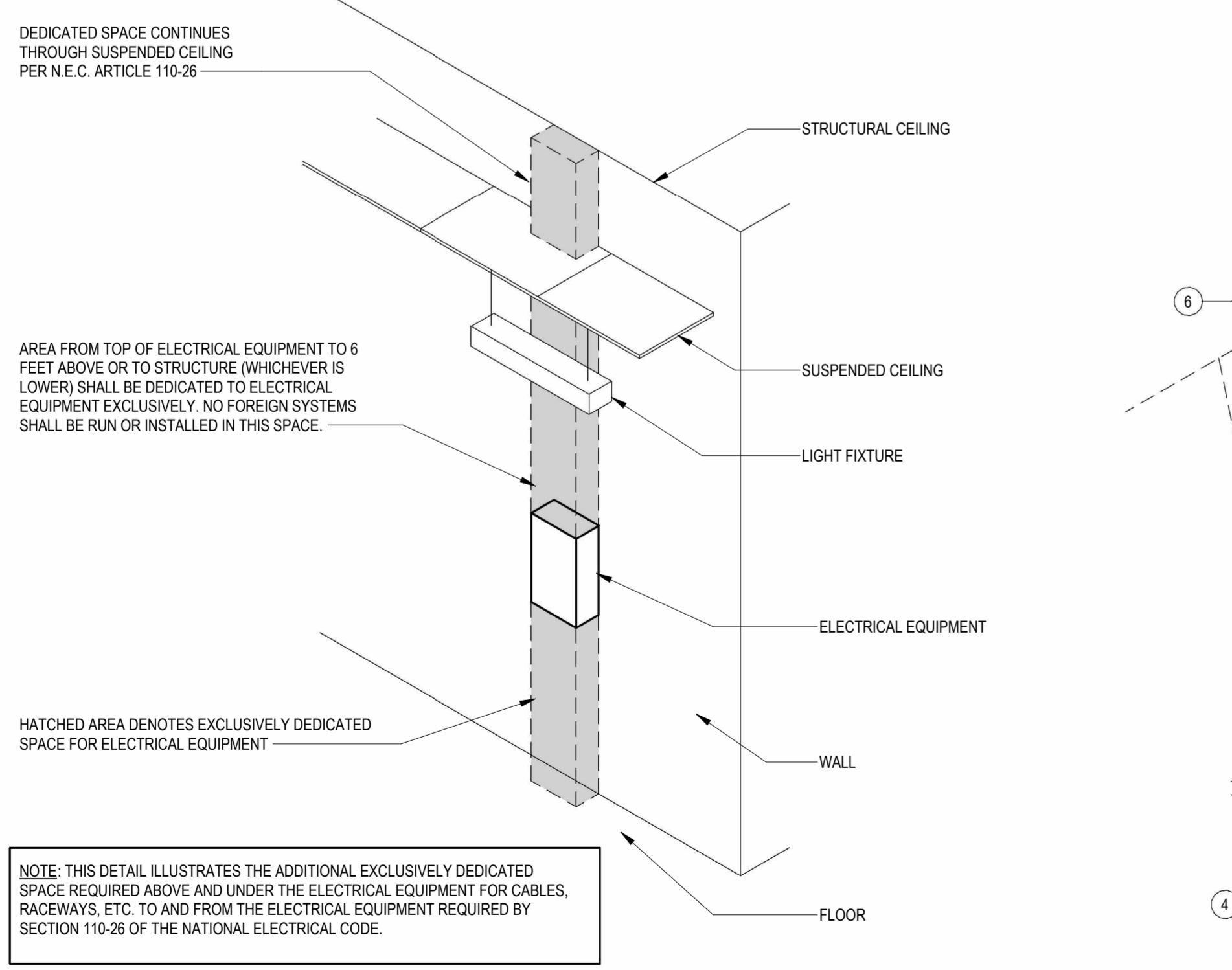
NOTE: THIS FIGURE ILLUSTRATES THE WORKING SPACE IN FRONT OF THE ELECTRICAL EQUIPMENT REQUIRED BY SECTION 110-26 OF THE NATIONAL ELECTRICAL CODE.



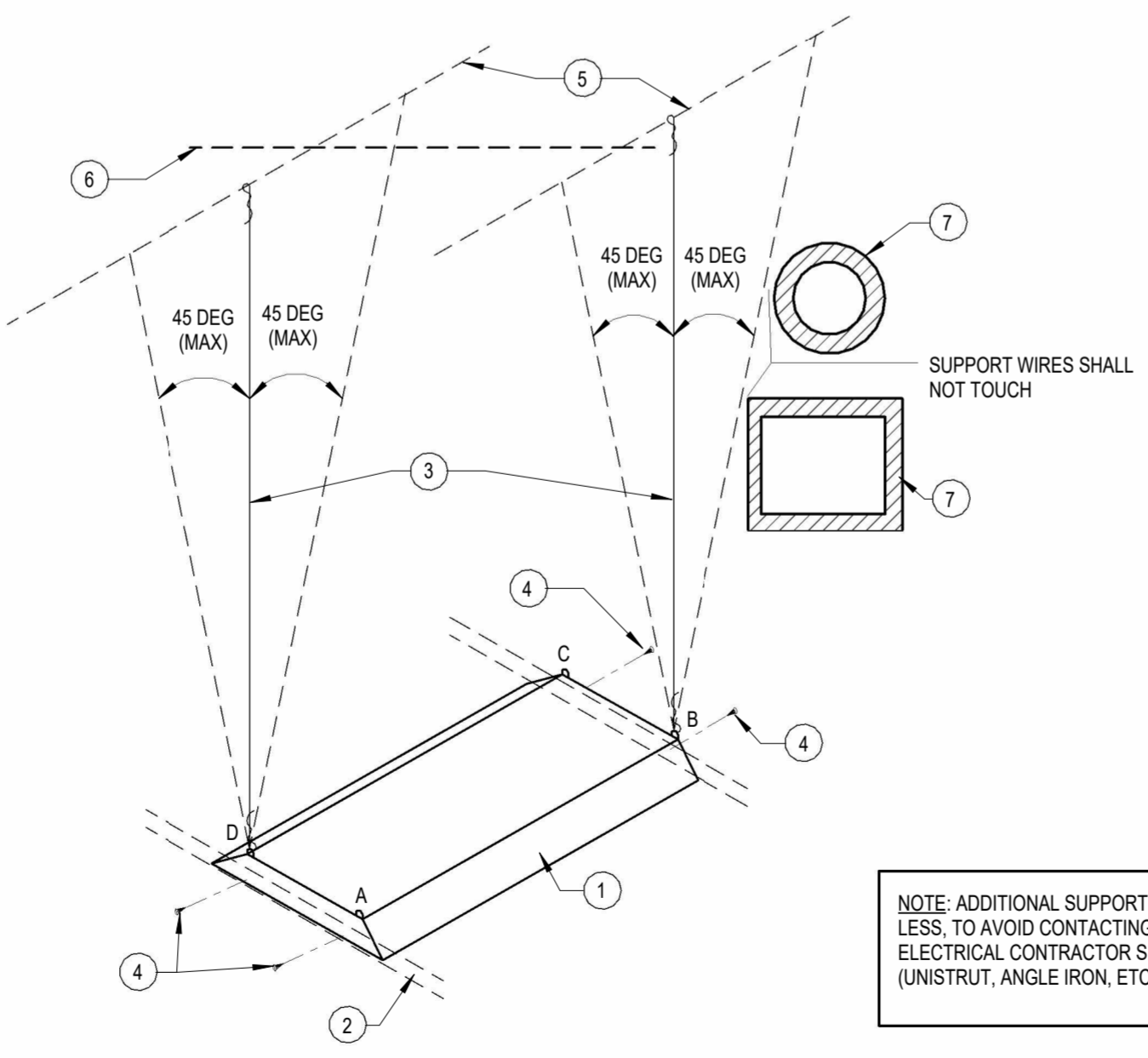
2 ELECTRICAL EQUIPMENT MINIMUM WORKING SPACE  
E2.1 NOT TO SCALE



1 SERVICE GROUNDING DETAIL  
E2.1 NOT TO SCALE

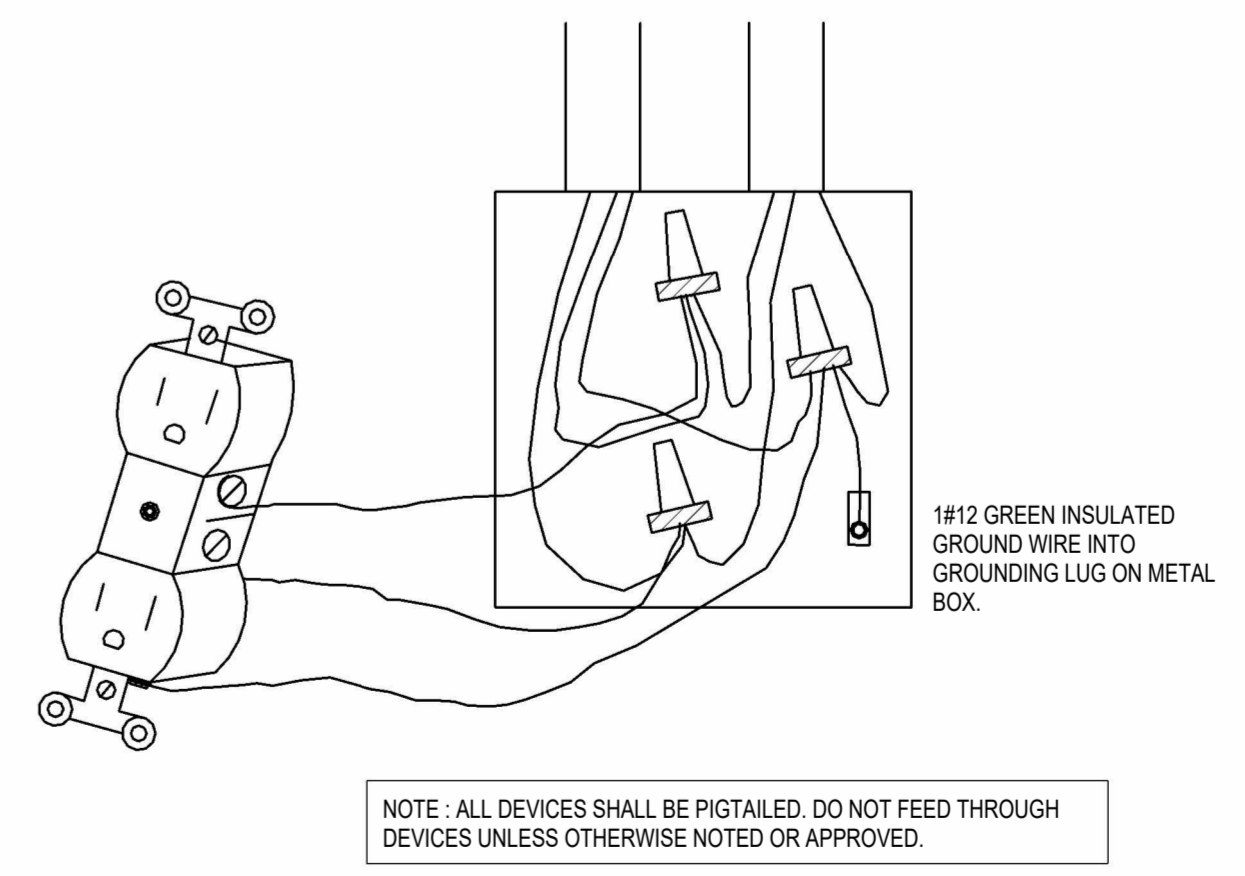


3 ELECTRICAL RACEWAY MINIMUM WORKING SPACE  
E2.1 NOT TO SCALE



4 LAY-IN LIGHT FIXTURE SUPPORT  
E2.1 NOT TO SCALE

- KEYNOTES:** #
- LAY-IN LIGHT FIXTURE.
  - CEILING GRID.
  - SUPPORT WIRE. USE CEILING TYPE SUPPORT WIRE. ONE AT EACH OF TWO DIAGONALLY OPPOSITE CORNERS (EITHER 'A' & 'C' OR 'B' & 'D'). TWO REQUIRED PER LIGHT). WIRES SHALL BE SINGLE LENGTH (DO NOT SPLICE), INSTALLED AT NO MORE THAN 45 DEGREES FROM VERTICAL IN ANY DIRECTION. TAUT (NO SLACK), PAINTED A DIFFERENT COLOR (RED) THAN THE OTHER CEILING SUPPORT WIRES.
  - SHEET METAL SCREW (FOUR REQUIRED PER LIGHT). THE SCREWS SHALL BE INSTALLED CONCEALED FROM SIGHT IN SUCH A MANNER THAT THE LIGHT IS ADEQUATELY SECURED TO THE GRID AND THE SCREWS DO NOT INTERFERE WITH ANY DOOR TRIMS, FLANGES, LOUVERS, ETC. INSTALL SCREWS TIGHTLY SO NO GAPS APPEAR IN THE LIGHT FIXTURE FRAMING OR TRIM.
  - STRUCTURE (METAL OR WOOD TRUSS, METAL OR WOOD BAR JOIST, CONCRETE, ETC.).
  - BRIDGING BETWEEN STRUCTURAL MEMBERS (WHERE APPLICABLE). NOTE: SUPPORT WIRES ARE NOT PERMITTED TO ATTACH TO THE BRIDGING AT ANY LOCATION.
  - PIPING, HVAC DUCT, ETC. WITH OR WITHOUT INSULATION. NOTE: SUPPORT WIRES ARE NOT PERMITTED TO CONTACT ANY PIPING, HVAC DUCTS, INCLUDING INSULATION AT ANY POINT.



5 TYPICAL BOX RECEPTACLE CONNECTION  
E2.1 NOT TO SCALE



**CES**  
A Woman Owned Business  
CONSULTANT ENGINEERING SERVICE, INC.  
PLUMBING - MECHANICAL - ELECTRICAL  
Phone: 336.724.0339  
1111 S. Marshall Street, Suite 250  
Winston Salem, NC 27107

CES LICENSE NUMBER (NC)	F-0238
CES LICENSE NUMBER (VA)	11052277
PROJECT NO.	4447
DRAWN	REHGE
APPROVED	CRS

**SEAL**  
15886  
08/23/24  
ENGINEER  
OPHER R. STROUPE III

**PATRIOTS PARK  
RESTROOM  
FACILITY**  
PONDEROSA ROAD  
CAMERON, NC

CONSTRUCTION DOCUMENTS

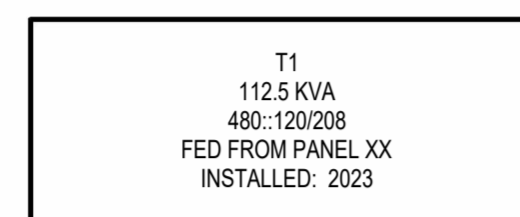
Revisions		
No.	Description	Date

date: 08/23/2024  
commission: 24-140

sheet title:  
**ELECTRICAL DETAILS**

sheet no.:

**E2.2**

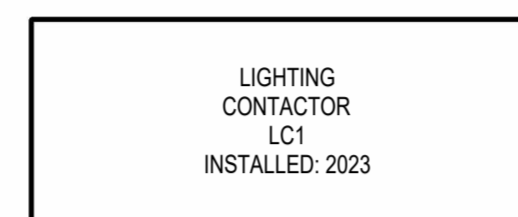


LINE 1: EQUIP. TAGNAME  
LINE 2: RATING (KVA)  
LINE 3: VOLTAGE CONFIGURATION  
LINE 4: FEEDER SOURCE  
LINE 5: FOUR-DIGIT YEAR INSTALLED

**TRANSFORMER NAMEPLATE NOTES:**

- MATERIAL SHALL BE CORE-ENGRAVED BAKELITE.
- COLOR SCHEME:  
120/208 VOLT SYSTEMS - BLUE SURFACE WITH WHITE CORE  
277/480 VOLT SYSTEMS - BLACK SURFACE WITH WHITE CORE  
EMERGENCY SYSTEMS - RED SURFACE WITH WHITE CORE.
- LETTERING SHALL BE 1/4" HIGH.
- FASTEN WITH STAINLESS STEEL SCREWS OR POP RIVETS.

**DRY-TYPE TRANSFORMER**

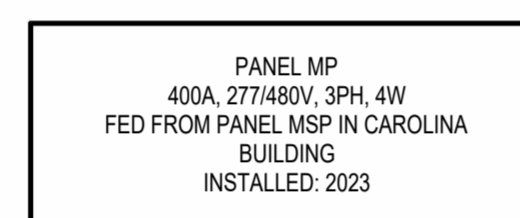


LINE 1: EQUIP. DESCRIPTION  
LINE 2: EQUIP. DESCRIPTION  
LINE 3: EQUIP. TAGNAME  
LINE 4: FOUR-DIGIT YEAR INSTALLED

**LIGHTING CONTACTOR NAMEPLATE NOTES:**

- MATERIAL SHALL BE CORE-ENGRAVED BAKELITE.
- COLOR SCHEME:  
120/208 VOLT SYSTEMS - BLUE SURFACE WITH WHITE CORE  
277/480 VOLT SYSTEMS - BLACK SURFACE WITH WHITE CORE  
EMERGENCY SYSTEMS - RED SURFACE WITH WHITE CORE.
- LETTERING SHALL BE 1/4" HIGH.
- FASTEN WITH STAINLESS STEEL SCREWS OR POP RIVETS.

**LIGHTING CONTACTOR**

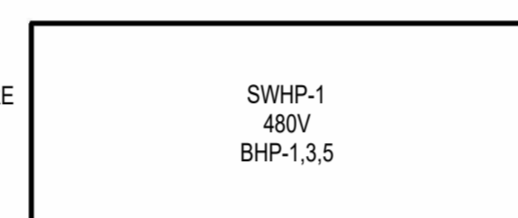


LINE 1: PANEL TAGNAME  
LINE 2: AMPS, SYSTEM VOLTAGE, PHASE, WIRE  
LINE 3: FEEDER SOURCE  
LINE 4: FEEDER SOURCE (IF NEEDED)  
LINE 5: FOUR-DIGIT YEAR INSTALLED

**PANEL NAMEPLATE NOTES:**

- MATERIAL SHALL BE CORE-ENGRAVED BAKELITE.
- COLOR SCHEME:  
120/208 VOLT SYSTEMS - BLUE SURFACE WITH WHITE CORE  
277/480 VOLT SYSTEMS - BLACK SURFACE WITH WHITE CORE  
EMERGENCY SYSTEMS - RED SURFACE WITH WHITE CORE.
- LETTERING SHALL BE 1/4" HIGH.
- FASTEN WITH STAINLESS STEEL SCREWS OR POP RIVETS.

**ELECTRICAL PANEL**



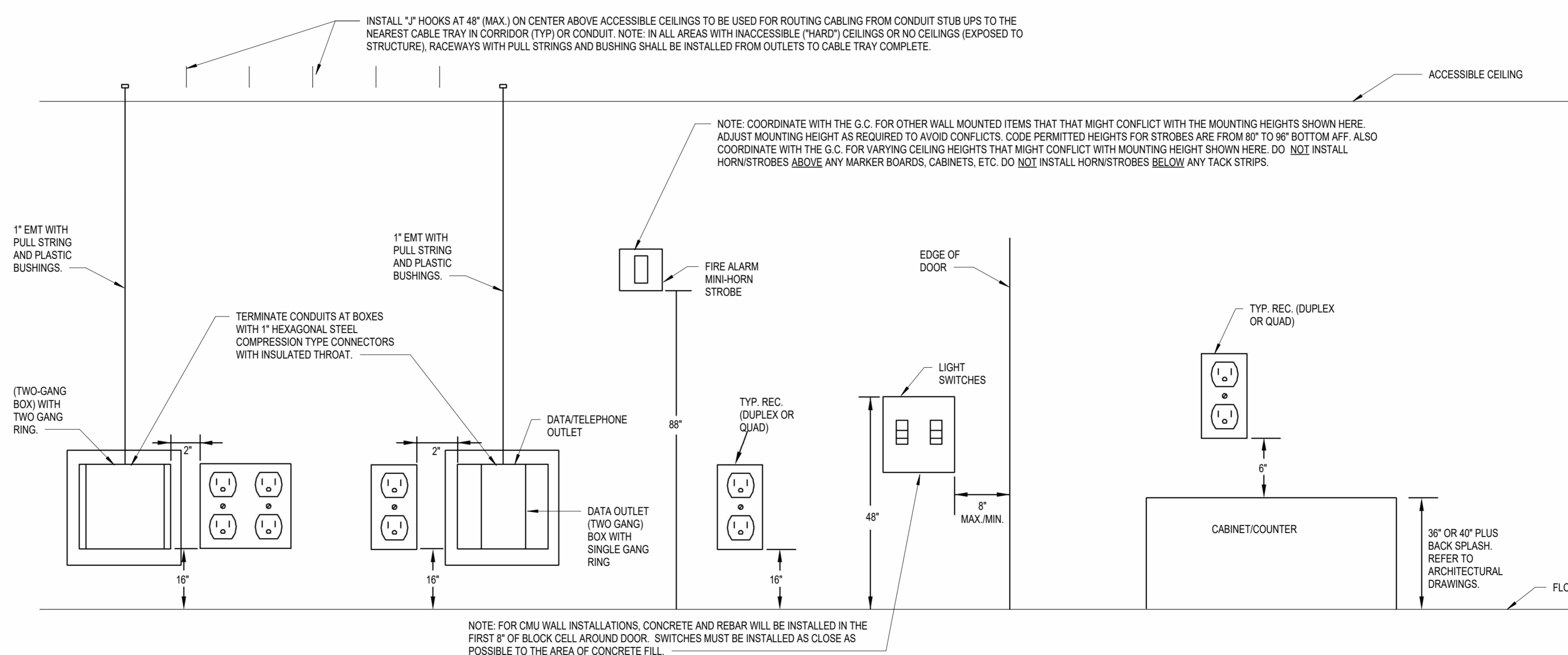
LINE 1: EQUIP. TAGNAME  
LINE 2: SYSTEM VOLTAGE  
LINE 3: FEEDER SOURCE  
LINE 4: FEEDER SOURCE (IF NEEDED)

**PANEL NAMEPLATE NOTES:**

- MATERIAL SHALL BE CORE-ENGRAVED BAKELITE.
- COLOR SCHEME:  
120/208 VOLT SYSTEMS - BLUE SURFACE WITH WHITE CORE  
277/480 VOLT SYSTEMS - BLACK SURFACE WITH WHITE CORE  
EMERGENCY SYSTEMS - RED SURFACE WITH WHITE CORE.
- LETTERING SHALL BE 1/4" HIGH.
- FASTEN WITH STAINLESS STEEL SCREWS OR POP RIVETS.

**SAFETY DISCONNECT**

1 TYPICAL ELECTRICAL EQUIPMENT LABELS  
E2.2 NOT TO SCALE



2 TYPICAL ELECTRICAL DEVICE INSTALLATION MOUNTING HEIGHT, LAYOUT AND CLEARANCE  
E2.2 NOT TO SCALE

1  
A  
B  
C  
D  
E  
F

2

3

4

5

6

7

8

9

10

11