

DRAWING INDEX

CIVIL	
ARCHITECTURE	
A1.01	APPENDIX B
A1.02	LIFE SAFETY PLAN
A2.01	FLOOR PLAN
A2.02	RCP AND ROOF PLAN
A3.01	DOOR SCHEDULE & DETAILS
A4.01	FINISHES AND ACCESSIBILITY DETAILS
A4.02	ENLARGED PLANS
A4.03	INTERIOR ELEVATIONS
A5.01	EXTERIOR ELEVATIONS
A6.01	BUILDING SECTIONS
A6.02	WALL SECTIONS
A6.03	WALL SECTIONS
A6.04	WALL SECTIONS
A6.05	SECTION DETAILS
A8.01	ENLARGED PLAN DETAILS
STRUCTURAL	
S0.01	GENERAL NOTES
S0.02	GENERAL NOTES, SYMBOL LEGEND & ABBREVIATION LIST
S1.01	FLOOR PLANS
S2.01	SECTIONS
S2.02	SECTIONS
S2.03	SECTIONS
S3.01	SLAB ON GRADE DETAILS
S3.03	FOUNDATION DETAILS
S4.01	CMU DETAILS
S4.02	CMU DETAILS
S5.21	STEEL ROOF DETAILS
S6.01	WOOD SCHEDULES AND TYPICAL DETAILS
S6.21	WOOD ROOF SECTIONS
PLUMBING	
P0.01	PLUMBING COVER SHEET
P0.02	PLUMBING DETAILS
P2.01	PLUMBING FLOOR PLANS
P3.01	WASTE & VENT RISER DIAGRAM
P3.02	DOMESTIC WATER RISER DIAGRAM
MECHANICAL	
M0.01	MECHANICAL COVER SHEET
M2.01	MECHANICAL FLOOR PLAN
ELECTRICAL	

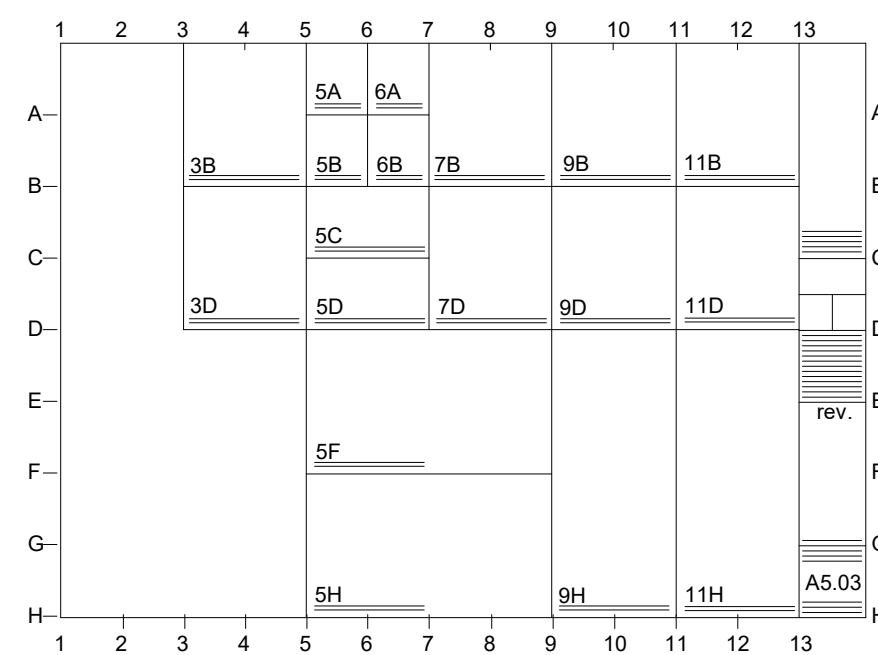


630 N. Liberty Street | Winston-Salem, NC 27101
p. 336.701.0130 | www.stitchdesignshop.com

DATE: 07/10/2023 PROJECT NUMBER: 22-610

Copyright 2023 STITCH design + development, PLLC

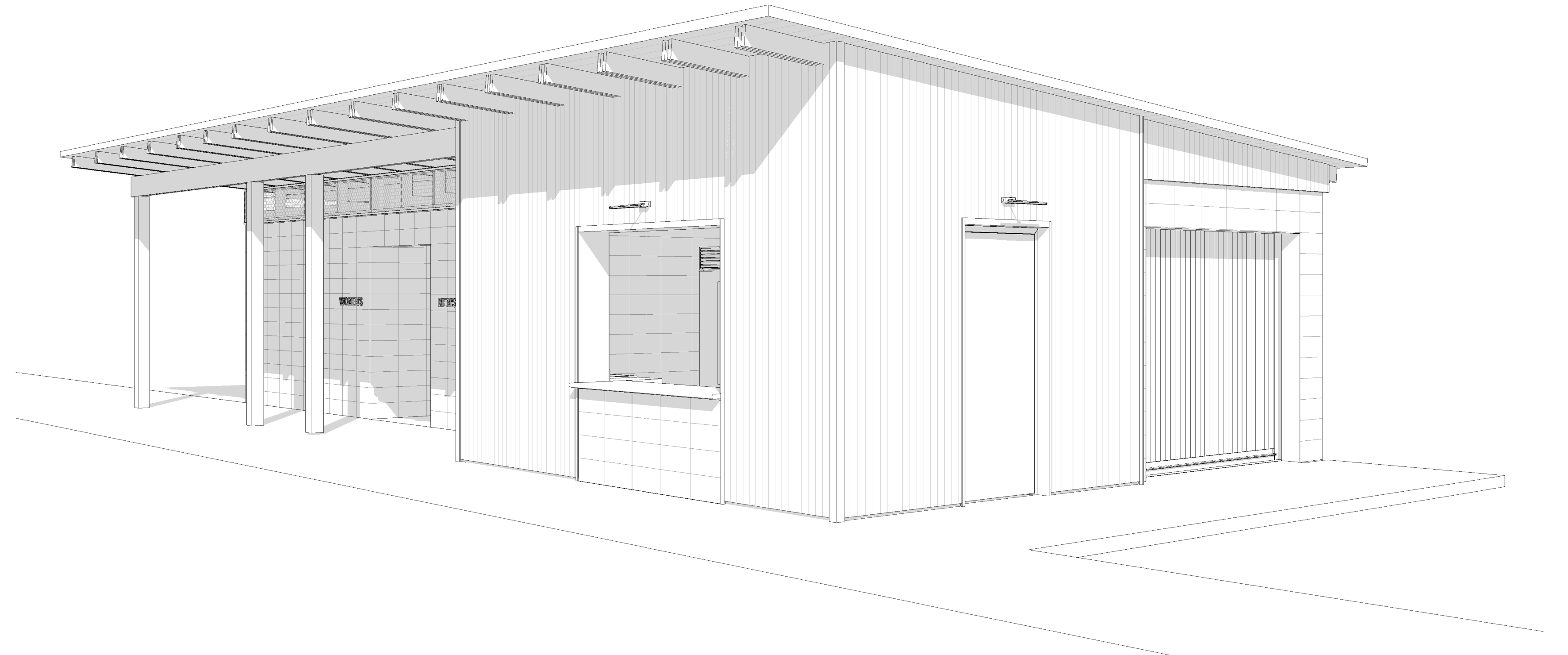
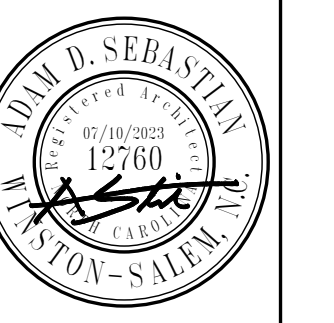
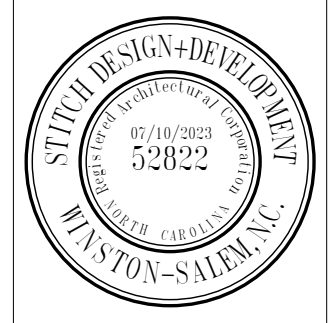
DETAIL REFERENCE



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

NEILL'S CREEK PARK COMFORT STATION

BLACK RIVER TOWNSHIP, TOWN OF ANGIER
HARNETT COUNTY, NC



NOTICE TO CONTRACTOR
All construction must comply with current NC Building Codes and be subject to inspection and verification.

Revised for Code Compliance

11/01/2023

See plumbing notes about pipe freeze protection and building drain down requirements

MATERIAL DESIGNATIONS

	EARTH		FINISHED WOOD
	GRAVEL		PLYWOOD
	CONCRETE		ROUGH WOOD FRAMING
	TERRAZZO		BLOCKING
	PLASTER, SAND, GROUT, GYPSUM		BATT INSULATION
	BRICK		RIGID INSULATION
	CMU		ACOUSTIC TILE
	ALUMINUM		CERAMIC TILE
	STEEL		CARPET

ARCHITECT

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

CIVIL / LANDSCAPE

STRUCTURAL

STEWART
223 S. West Street, Suite 1100,
Raleigh, NC 27603 919.380.8750

M.E.P.

Consultant Engineering Service
1111 S. Marshall Street, Suite 250,
Winston-Salem, NC 27101

SYMBOLS

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

REFERENCES:

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

TRUE NORTH PLAN NORTH

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	SW.	switch	SYM.	symmetry (ical)
@	at	C.J.	control joint or construction joint	E.W.C.	electric water cooler	H.M.	hollow metal	MECH.	mechanic (al)	R.	riser, radius	T&B.	top and bottom
⊕	centerline	C.M.T.	ceramic mosaic tile	E.A.	each	H.P.	horsepower	MED.	medium	R.A.	return air	T&G.	tongue and groove
⊖	channel	C.M.U.	concrete masonry unit	E.L.E.C.	elastomeric	H.D.W.	hardware	M.E.M.B.	membrane	R.C.P.	reinforced concrete pipe	T.	tread
∅	diameter or round	C.T.	ceramic tile	ELEC. CAB.	electric cabinet	H.W.D.	hardwood	M.T.L.	metal	R.D.	roof drain	T.C.	top of curb
⊥	perpendicular	C. to C.	center to center	ELEV.	elevator, elevation	HORIZ.	horizontal	MEZZ.	mezzanine	R.H.	right hand	T.P.	top of pavement
Ⓟ	plate	CAB.	cabinet	EMER.	emergency	H.T.	height	MFGR.	manufacture (er)	R.O.	rough opening	T.P.D.	toilet paper dispenser
#	pound or number	CARP.	carpet	ENCL.	enclose (ure)	HVAC.	heating/ventilating /air conditioning	MIN.	minimum	R.O.W.	right of way	T.W.	top of wall
		CEM.	cement	ENTR.	entrance	HWY.	highway	MISC.	miscellaneous	REBAR.	reinforcing bar	TYP.	typical
		CER.	ceramic	EQ.	equipment	I.P.S.	iron pipe size	MOD.	modified	REC.	recessed	TEMP.	tempered or temperature
		CLG.	ceiling	EQUIP.	establish	ID.	inside diameter	MTD.	mounted	REFRG.	refrigerator	TERZ.	terrazzo
		CLO.	closet	EXP.	expansion	IN.	inches	MUL.	mullion	REG.	register	THK.	thick (ness)
		CLR.	clear	EXTG.	existing	INCL.	include (ed) (sion)	N.	north	REINF.	reinforced	THRES.	threshold
		CHTR.	counter	EXT.	exterior	INSUL.	insulation (ed)	NO. or #	number	REQ.	required	TLT.	toilet
		COL.	column	F.B.O.	furnished by others	INTR.	interior	NOM.	nominal	RESIL.	resilient	TV.	television
		COMP.	composition	INV.	invert	INVT.	invert elevation	O. to O.	out to out	REV.	revisions(s), revised	TYP.	typical
		CONC.	concrete	INV. EL.	invert elevation	JAN.	janitor	O.C.	out on center (s)	RFG.	roofing	U.O.N.	unless otherwise noted
		CONF.	conference	F.E.	fire extinguisher	J.T.	joint	O.D.	outside diameter	RM.	room	UTIL.	utility
		CONN.	connection	FIRE EXTING.	fire extinguisher cab.	K.D.	kiln dried or knock down	OFF.	office	S.P.	single-ply	V.B.	vinyl base
		CONSTR.	construction	F.H.C.	fire hose cabinet	KIT.	kitchen	OPP.	opposite	S.C.	solid core	V.C.T.	vinyl composition tile
		CONT.	continuous	F.O.C.	face of concrete	K.O.	knockout	O.H.	opposite hand	S.C.J.	structural control joint	V.F.	verify in field
		CORR.	corridor	F.O.F.	face of finish	L.	left	OPNG.	opening	S.D.	soap dispenser or storm drain	V.I.F.	vinyl fabric
		CORR.	corridor	F.O.S.	face of studs	L.	left	OUT.	ouvert	S.S.	sanitary	V.I.T.	vinyl tile
		CASEM.	casement	F.S.	full size	L.	left	OZ.	ounce	SASH.	sanitary napkin dispenser	V.W.F.	vinyl wall fabric
		CTR.	center	F.T.F.	freeze proof wall hydrant	L.	left, length	P.C.F.	pounds per cubic foot	S.N.R.	sanitary napkin receptacle	VENT.	ventilating
		CSK.	countersink (sunk)	FT.	foot or feet	L.	left hand	P.L.F.	pounds per lineal foot	S.S.	stainless steel	VERT.	vertical
		D.	diameter	FTG.	footing	L.L.	live load	P.LAM.	plastic laminate	S.T.C.	sound transmission classification	VOL.	vestibule volume
		D.F.	drinking fountain	FTG.	footing	L.L.	live load	P.S.F.	pounds per square foot	SAS.	sanitary	W.	west, women
		D.H.	double hung	FURN.	furnish	L.P.	low point	P.S.I.	pounds per square inch	SAN.	sanitary	W.C.	water closet
		D.L.	double	FURN.	furnish	L.R.	living room	P.T.D.	paper towel dispenser	SCHED.	schedule	W.F.	wide flange
		DBL.	double	FURN.	furnish	L.R.	living room	P.T.R.	paper towel receptacle	SECT.	section	W.F.	wide flange
		DEM.	demolish, demolition	FURN.	furnish	L.S.	laboratory	P.T.	pressure treat (ed)	SFTWD.	softwood	W.I.	wrought iron
		DEPT.	department	FURN.	furnish	L.S.	laboratory	PLYWD.	plywood	SHT.	sheet	W.W.F.	welded wire fabric
		DIAG.	diagonal, diagram	FURN.	furnish	L.S.	laboratory	PNL.	panel	SIM.	similar	W.	with
		DIFF.	diffuser	FURN.	furnish	L.S.	laboratory	PNL.	panel	SPEC.	specification	W/O.	without
		DIM.	dimension	FURN.	furnish	L.S.	laboratory	PR.	pair	SQ.	square	W.D.	wood
		DMT.	dismountable	FURN.	furnish	L.S.	laboratory	PT.	point	SQ. FT.	square foot	WDW.	window
		DN.	down	F.V.	field verify	L.S.	laboratory	PTD/R.	combination paper towel dispenser & receptacle	STD.	standard	WP.	waterproofing
		DO.	door opening	G.B.	grab bar	L.S.	laboratory	PTN.	partition	STL.	steel	WSC.T.	wainscot
		DR.	door	G.C.	general contractor	L.S.	laboratory	PVC.	polyvinyl chloride	STRUC.	structure (al)	WT.	weight
		DR.	door	G.C.	general contractor	L.S.	laboratory	PVMT.	pavement	SURF.	surface	YD.	yard
		DS.	spanspout	GA.	gauge	L.S.	laboratory						
		DTL.	detail	GA.	gauge	L.S.	laboratory						
		DWG.	drawing	GL.	galvanized	L.S.	laboratory						
		DWR.	drawer	GL.	glass, glazing	L.S.	laboratory						
		E.	east	GYP.	gypsum	L.S.	laboratory						

CONSTRUCTION DOCUMENTS

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

Name of Project: Neill's Creek Park Comfort Station
Address: 3805 Neill Creek Rd, Angier, NC Zip Code: 27801
Owner/Authorized Agent: Samantha Dimes Phone # (919) 703-0283 E-Mail: sdimes@stitchdesign.com
Owned By: City/County Private State
Code Enforcement Jurisdiction: City County State

CONTACT:

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	STITCH Design Shop	Adam Sebastian	12760	(919) 701-0130	astitch@stitchdesign.com
Civil	Stewart	Thomas McLane	046260	(919) 380-8750	tom@stewartinc.com
Electrical	CES	Christopher R. S.	15686	(336) 724-0139	chris@cesnc.com
Fire Alarm	CES	Christopher R. S.	15686	(336) 724-0139	chris@cesnc.com
Plumbing	CES	Christopher R. S.	15686	(336) 724-0139	chris@cesnc.com
Mechanical	CES	Christopher R. S.	15686	(336) 724-0139	chris@cesnc.com
Sprinkler-Standpipe	Stewart	Thomas McLane	046260	(919) 380-8750	tom@stewartinc.com
Structural	Stewart	Thomas McLane	046260	(919) 380-8750	tom@stewartinc.com
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
 1st 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
 Historic Property Change of Use

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
Flood District: No Yes Flood Hazard Area: No Yes
Special Inspections Required: No Yes (Contact the local inspection jurisdiction for additional procedures and requirements.)

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
3 rd Floor			
2 nd Floor			
Mezzanine			
1 st Floor	889 SF		889 SF
Basement			
TOTAL			889 SF

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 I-2 Condition I I-2 Condition I I-2 Condition I I-3 Condition I I-3 Condition I I-4
Mercantile
Residential R-1 R-2 R-3 R-4
Storage S-1 Moderate S-2 Low High-piled
 Parking Garage Enclosed Repair Garage
Utility and Miscellaneous

Accessory Occupancy Classification(s): S-2
Incidental Uses (Table 509): None
Special Uses (Chapter 4 - List Code Sections): None
Special Provisions (Chapter 5 - List Code Sections): None
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.

$$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1.00$$

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) ALLOWABLE AREA PER STORY (TABLE 506.2)	(C) AREA FOR FRONTAGE INCREASE ^{1,2}	(D) ALLOWABLE AREA PER STORY OR UNLIMITED ³
1	Restrooms, Storage, etc	889	9,000		

¹ 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 = $100(F/P - 0.25) / W$ = _____ (%)
² Unlimited area applicable under conditions of Section 507.
³ Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (506.2).
⁴ The maximum area of open parking garages must comply with Table 406.5.4
⁵ Frontage increase is based on the unspinklered area value in Table 506.2.

BUILDING HEIGHT IN FEET (TABLE 504.3) ¹	ALLOWABLE		CODE REFERENCE ¹
	40'-0"	12'-0"	
Building Height in Stories (Table 504.4) ²	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

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	REQ'D	RATING		DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
			PROVIDED	RECURSIVE				
Structural Frame, including columns, girders, trusses		0						
Bearing Walls		0						
Exterior								
South								
East								
West								
North								
Nonbearing Walls and Partitions		0						
South								
East								
West								
North								
Interior walls and partitions								
South								
East								
West								
North								
Floor Construction		0						
Including supporting beams and joists								
Floor Ceiling Assembly								
Custom Separation - Fire								
Roof Construction, including supporting beams and joists		0						
Roof Ceiling Assembly								
Custom Separation - Roof								
Shall Enclosures - Exit								
Shall Enclosures - Other								
Custom Separation - Occupancy/Fire Barrier Separation								
Part-Fire Wall Separation								
Smoke Barrier Separation								
Smoke Partition								
Tenant Ducting/Liner								
Sleeping Unit Separation								
Incidental Use Separation								

FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREE OF OPENING PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
>30'-0"			

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 1-2 (407.5)
 Note any code exceptions or table notes that may have been utilized regarding the items above

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

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED		TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	96" SPACES	132" SPACES	
SEE CIVIL			2		
TOTAL					

USE	WATER CLOSETS		URINALS		LAVATORIES		SHOWERS	DRINKING FOUNTAINS	
	MALE	FEMALE	MALE	FEMALE	UNEX	UNEX		REGULAR	ACCESSIBLE
NEW	1	3	2	2	2	2		1	1
REQ'D	1	1	0	1	1			1	1

SPECIAL APPROVALS

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

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): _____

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: Wood framing insulation in attic partial
U-Value of total assembly: _____
R-Value of insulation: R-43
Skylights in each assembly:
U-Value of skylight: _____
total square footage of skylights in each assembly: _____

Exterior Walls (each assembly)
Description of assembly: Mass Wall- CMU Masonry w/ Wood Furring
U-Value of total assembly: _____
R-Value of insulation: R-9.5 partial
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: Unheated Concrete Slab on Grade
U-Value of total assembly: _____
R-Value of insulation: R-15 for 24"
Horizontal/vertical requirements: _____
slab heated: No

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

DESIGN LOADS:

Importance Factors: Snow (I_s) _____ Seismic (I_s) _____ **SEE STRUCTURAL COVER SHEET**

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_s _____ %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

**2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
(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: _____

ENERGY SUMMARY
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): _____

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: Wood framing insulation in attic partial
U-Value of total assembly: _____
R-Value of insulation: R-43
Skylights in each assembly:
U-Value of skylight: _____
total square footage of skylights in each assembly: _____

Exterior Walls (each assembly)
Description of assembly: Mass Wall- CMU Masonry w/ Wood Furring
U-Value of total assembly: _____
R-Value of insulation: R-9.5 partial
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: Unheated Concrete Slab on Grade
U-Value of total assembly: _____
R-Value of insulation: R-15 for 24"
Horizontal/vertical requirements: _____
slab heated: No

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

ELECTRICAL SUMMARY
ELECTRICAL SYSTEM AND EQUIPMENT **SEE ELECTRICAL COVER SHEET**

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

2018 NC Administrative Code and Policies Revised 6/15/2020



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



**NEILL'S CREEK PARK
COMFORT STATION**
BLACK RIVER TOWNSHIP, TOWN OF ANGIER
HARNETT COUNTY, NC

CONSTRUCTION DOCUMENTS

Revisions		
No.	Description	Date

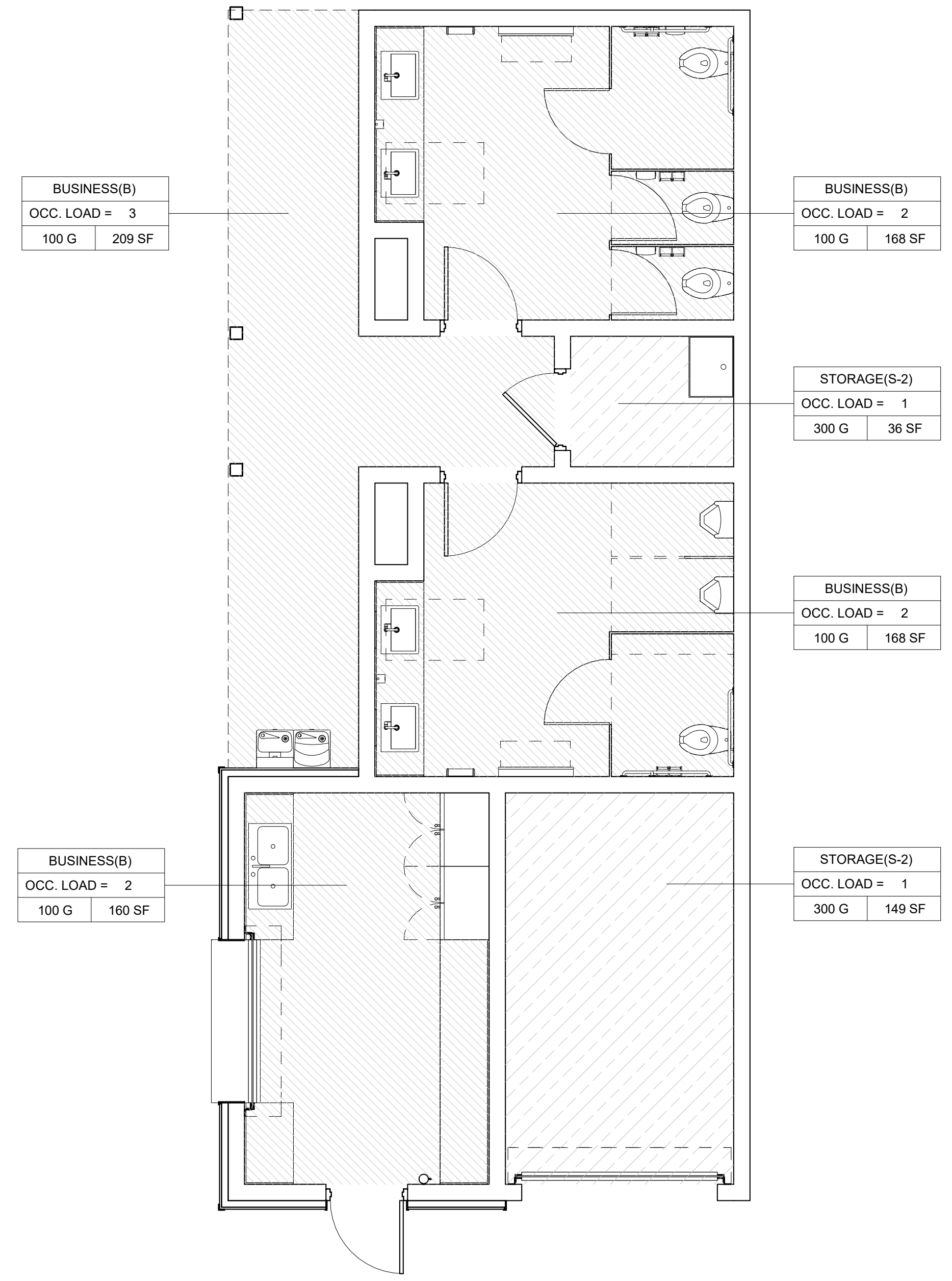
date: 07/10/2023
commission: 22-810

sheet title: APPENDIX B

sheet no: _____

A1.01

CODE - OCCUPANCY SCHEDULE				
OCC. TYPE	AREA CLASSIFICATION	Area	AREA (Gross or Net) PER OCCUPANCY	OCCUPANCY LOAD
STORAGE(S-2)	ACCESSORY STORAGE AREAS, MECHANICAL EQUIPMENT ROOM	149 SF	300 G	1
BUSINESS(B)	BUSINESS AREA	160 SF	100 G	2
BUSINESS(B)	BUSINESS AREA	168 SF	100 G	2
STORAGE(S-2)	ACCESSORY STORAGE AREAS, MECHANICAL EQUIPMENT ROOM	36 SF	300 G	1
BUSINESS(B)	BUSINESS AREA	168 SF	100 G	2
BUSINESS(B)	BUSINESS AREA	209 SF	100 G	3
FINISH FLOOR: 6		889 SF		11
Grand total: 6		889 SF		11



6F

LEVEL 1 LIFE SAFETY PLAN

1/4" = 1'-0"

GENERAL NOTES
LIFE SAFETY

- ALL SMOKE PARTITIONS, SMOKE BARRIERS AND RATED WALLS SHALL:
 - EXTEND AND SEAL TO UNDERSIDE OF FLOOR DECK ASSEMBLY
 - EXTEND AND SEAL TO UNDERSIDE OF FIRE-RATED SUB-CEILING ASSEMBLY WHERE APPLICABLE
 - EXTEND AND SEAL TO EXTERIOR WALL SHEATHING. SEAL ALL VOIDS AND PENETRATIONS WITH THE SPECIFIED RESPECTIVE FIRESTOP SYSTEM.
- HIGHER FIRE RATED WALLS/ PARTITIONS SHALL BE CONSTRUCTED FIRST WITH WALLS OF LOWER RATING ABUTTING AND SEALING TO THEM.
- SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION ON EXIT DISCHARGE TO PUBLIC WAY.
- WHERE LEGEND INDICATES RATED WALLS; EXIT ENCLOSURES, SHAFTS, ELEVATORS, AND INCIDENTAL USE AREAS ARE TO BE RATED WALLS ARE TO BE RATED WALLS TO BE CONSTRUCTED AS FIRE PARTITIONS U.N.O.

LIFE SAFETY LEGEND

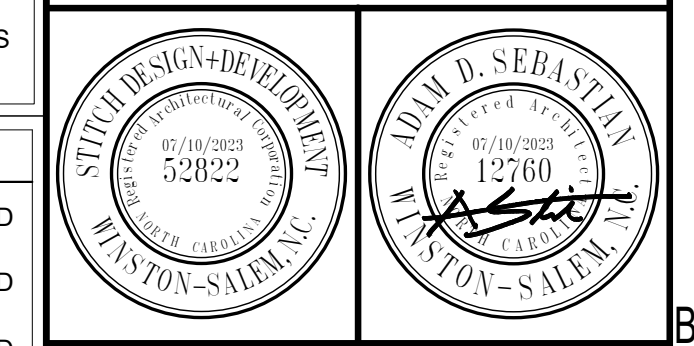
- 1 HOUR RATED WALL
- 2 HOUR RATED WALL
- 3 HOUR RATED WALL
- EXIT ROUTE
- COMMON PATH OF TRAVEL
- DIAGONAL DISTANCE
- EXIT SIGN
- PH PANIC HARDWARE
- FEC FIRE EXTINGUISHER CABINET
- KITCHEN
- OCCUPANCY (TABLE 1004.1.1)
- 2 OCC. OCCUPANT LOAD
- 200 G 400 SF SQUARE FOOTAGE
- ALLOWABLE SF PER OCC.

OCCUPANCY TYPE LEGEND

- BUSINESS
- STORAGE



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



**NEILL'S CREEK PARK
COMFORT STATION**
BLACK RIVER TOWNSHIP, TOWN OF ANGIER
HARNETT COUNTY, NC

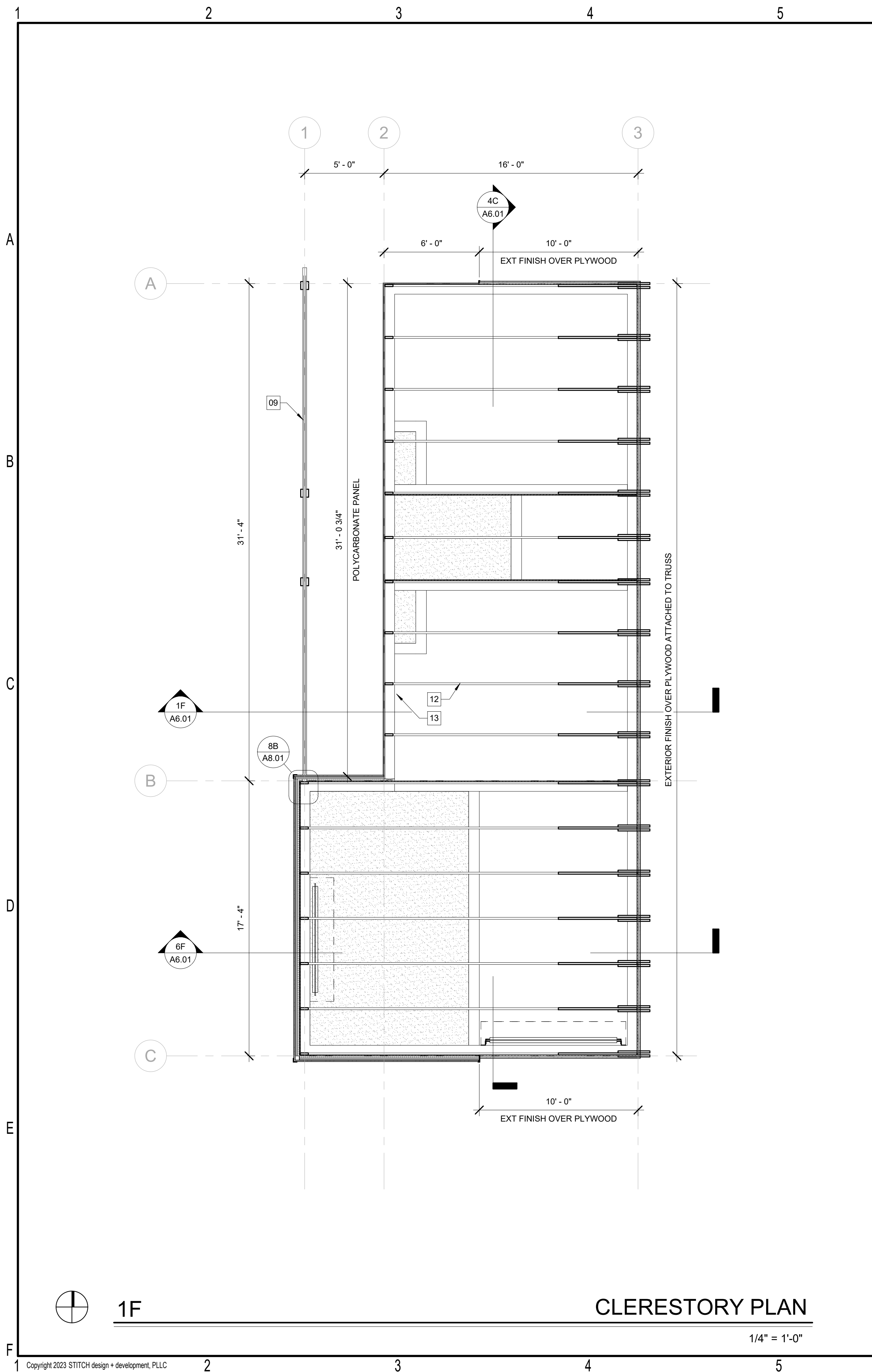
CONSTRUCTION DOCUMENTS

Revisions		
No.	Description	Date

date: 07/10/2023
commission: 22-810

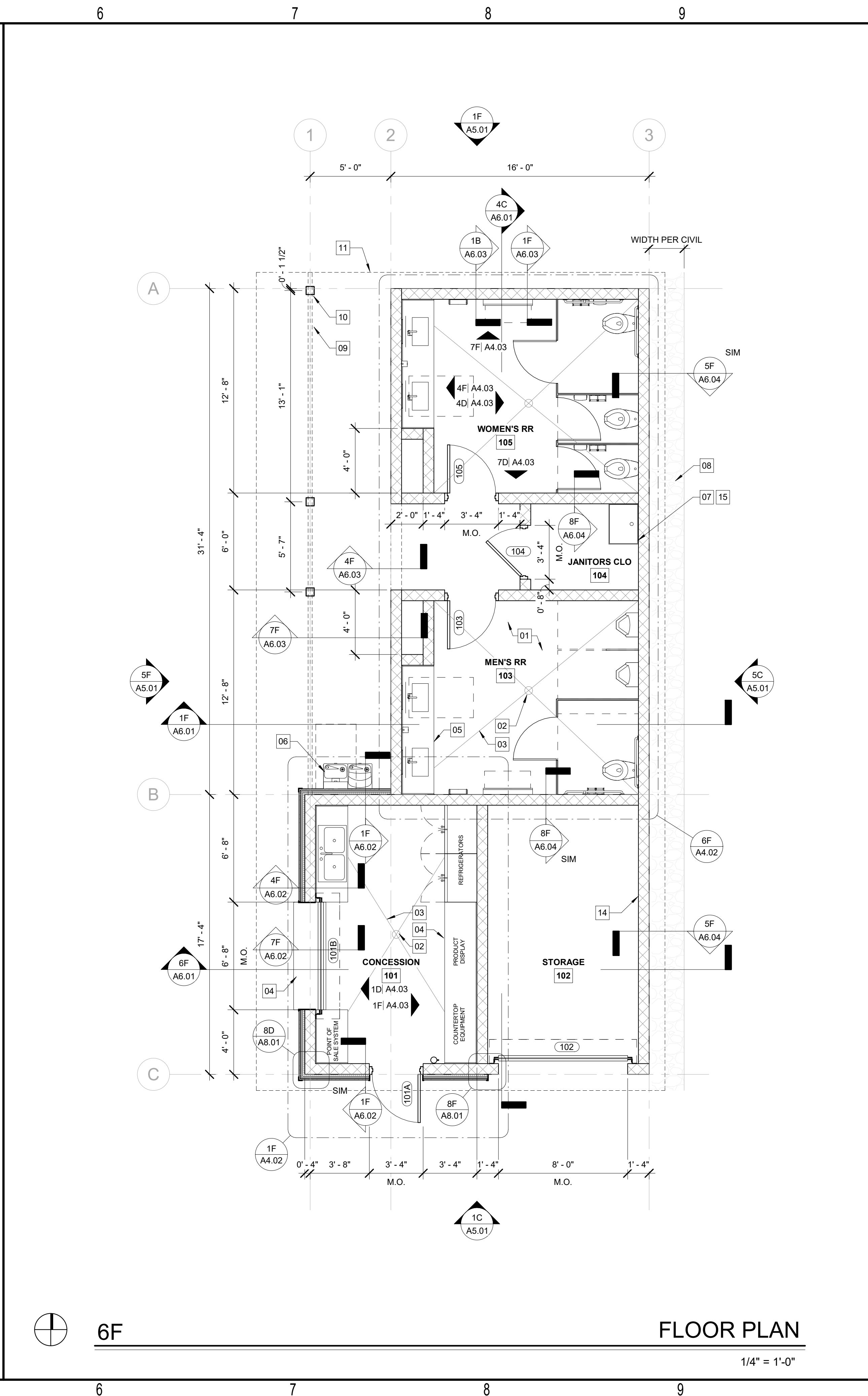
sheet title:
LIFE SAFETY PLAN

sheet no.:
A1.02



1F CLERESTORY PLAN

1/4" = 1'-0"



6F FLOOR PLAN

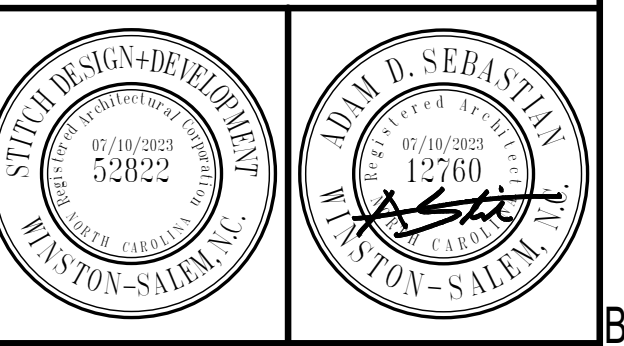
1/4" = 1'-0"

- GENERAL NOTES - PLAN**
- ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH 2018 NCSCC AND ANY LOCAL CODES. CLEARANCES AND ACCESSIBILITY SHALL COMPLY WITH ANSI A117.1.
 - ALL PLAN DIMENSIONS ARE TO FACE OF STUD/STRUCTURE & COLUMN CENTER LINE UNLESS NOTED OTHERWISE. EXTERIOR DIMENSIONS ARE TO OUTSIDE FACE OF STUD/STRUCTURE & COLUMN CENTERLINE UNLESS NOTED OTHERWISE.
 - SEE SHEET A1.02 FOR INTERIOR PARTITION TYPES AND RELATED DETAILS. SEE LIFE SAFETY DRAWINGS FOR FIRE RESISTANCE REQUIREMENTS FOR PARTITIONS.
 - PLANS MAY BE ROTATED FOR CLARITY. REFER TO NORTH ARROWS FOR ACTUAL ORIENTATION.
 - PROVIDE CONTROL JOINTS IN GYPSUM BOARD PARTITIONS AT 30'-0" MAX. LOCATION SHALL BE APPROVED BY ARCHITECT PRIOR TO INSTALLATION. GYPSUM CONTROL JOINTS TO BE LOCATED AT DOOR FRAME CORNERS WHERE APPLICABLE.
 - REFER TO CIVIL AND STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND UTILITY PADS FOR EQUIPMENT, WALKWAYS, ETC.
 - DISTANCE FROM BACK OF HINGE SIDE FRAME TO WALL SHALL BE 4" CLEAR, U.N.O. FOR INTERIOR HOLLOW METAL FRAMES. DIMENSION ON PULL SIDE OF DOOR TO WALL SHALL BE 18".
 - FIRMLY PACK VOIDS AT METAL DECK FLUTES WITH MINERAL WOOL BATT INSULATION OR CLOSED CELL SPRAY FOAM AT ALL EXTERIOR WALL APPLICATIONS.
 - PROVIDE FIRE RETARDANT TREATED PLYWOOD BACKING AT ELECTRICAL PANELS. PROVIDE WOOD BLOCKING AS REQUIRED AT MILLWORK AND OTHER WALL MOUNTED ACCESSORIES TYPICAL.
 - COORDINATE WITH STRUCTURAL AND CIVIL DOCUMENTS FOR SLOPING SLABS, PEAKS AND VALLEYS.
 - REFER TO PLUMBING DRAWINGS FOR FLOOR DRAIN LOCATIONS AND HOSE BIBBS.
 - RE: CIVIL / LANDSCAPE DRAWINGS FOR REQUIREMENTS. CONCRETE SLAB OUTSIDE OF BUILDING FOOTPRINT.

- KEYNOTES - PLAN**
- SEALED CONCRETE SLAB ON GRADE
 - AREA DRAIN PER PLUMBING
 - SLOPE CONC SLAB TO DRAIN
 - STAINLESS STEEL SERVING COUNTER
 - STAINLESS STEEL RESTROOM COUNTERTOP
 - EXTERIOR ELECTRIC WATER COOLER. BOD: ELKAY VRC7LDDWSK VANDAL-RESISTANT BOTTLE FILLING STATION
 - FLOOR MOUNTED MOP SINK, PER PLUMBING
 - CONT. GRAVEL SPLASH PAD PER CIVIL
 - PRESSURE TREATED WOOD BEAM ABOVE PER STRUCTURAL
 - 6X6 KILN-DRIED PRESSURE TREATED WOOD COLUMN, PER STRUCTURAL
 - ROOF CANOPY ABOVE
 - PREFABRICATED WOOD TRUSS
 - DOUBLE 2X WOOD SILL PLATE
 - ELECTRICAL PANEL AND EXHAUST CONTROL PANEL PER ELECTRICAL
 - WATER HEATER PER PLUMBING



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



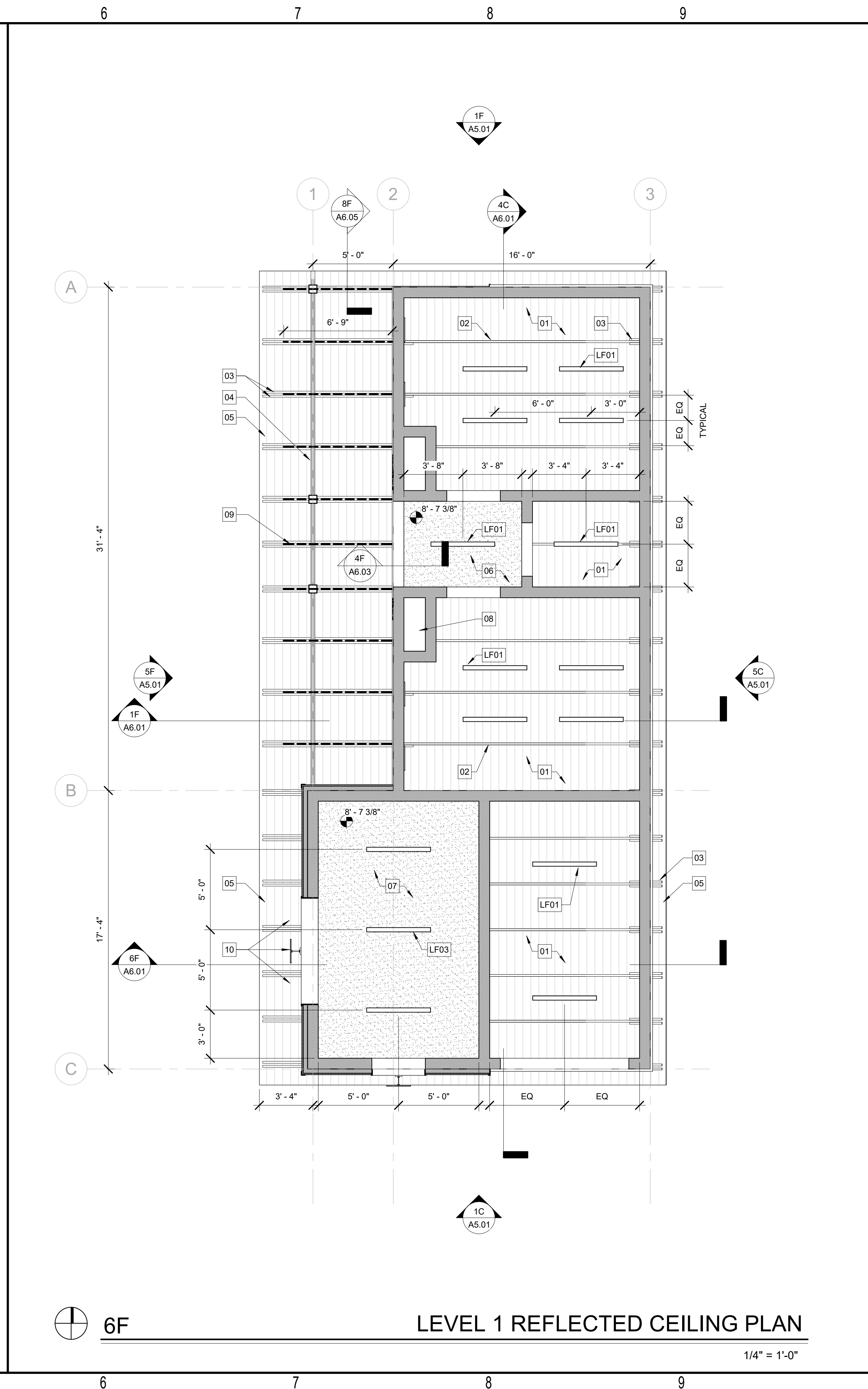
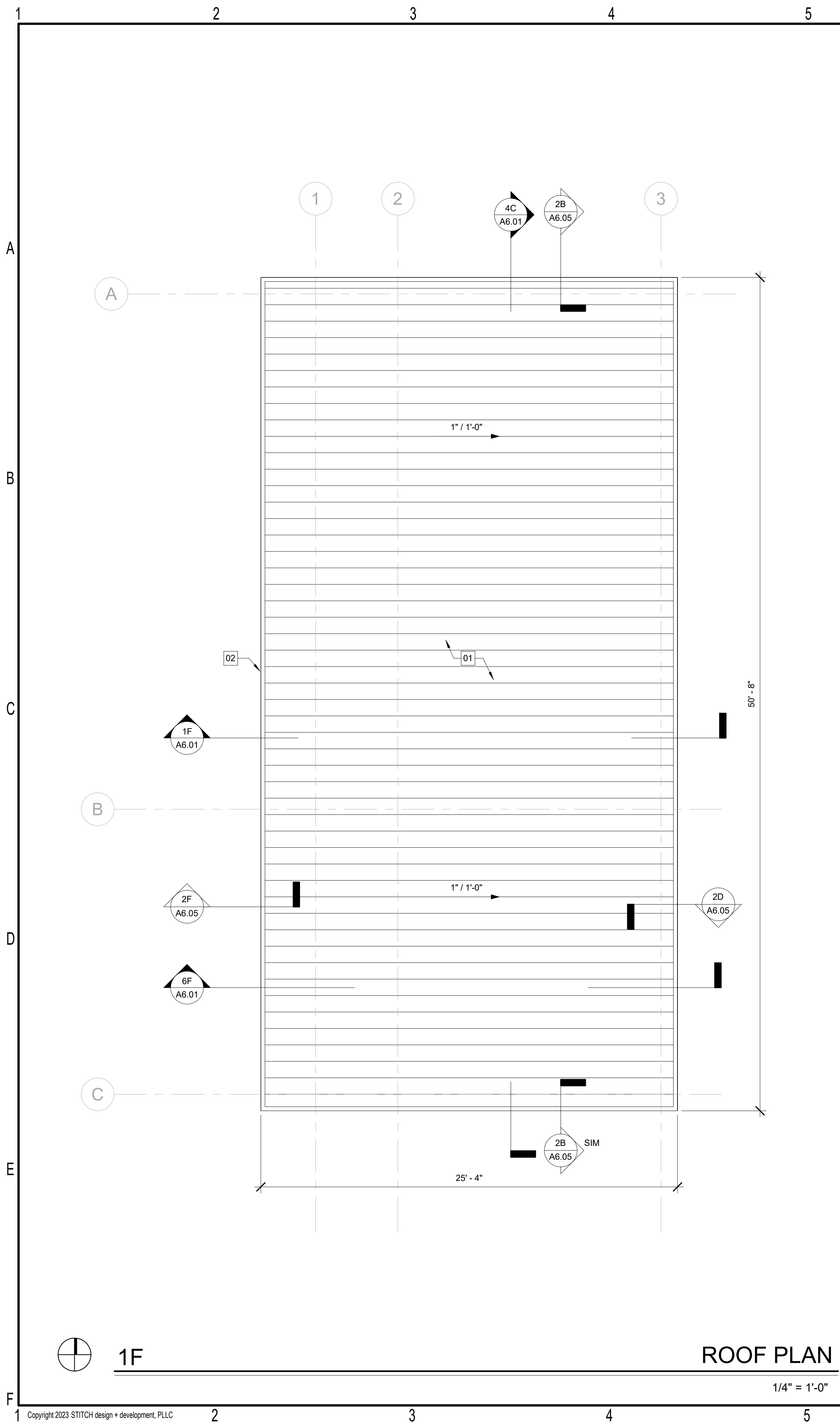
**NEILL'S CREEK PARK
COMFORT STATION**
BLACK RIVER TOWNSHIP, TOWN OF ANGER
HARNETT COUNTY, NC

CONSTRUCTION DOCUMENTS

Revisions		
No.	Description	Date

date: 07/10/2023
commission: 22-810

sheet title: **FLOOR PLAN**
sheet no.: **A2.01**



- RCP GENERAL NOTES**
- ALL WORK SHALL BE IN ACCORDANCE WITH 2018 NCSBC AND ANY LOCAL CODES.
 - REFER TO ELECTRICAL DRAWINGS FOR OTHER CEILING MOUNTED DEVICES, LIGHTS, AND EXIT SIGNS.
 - LIGHT FIXTURES AND OTHER DEVICES SHALL BE CENTERED IN THE ACOUSTICAL TILE UNLESS NOTED OTHERWISE.
 - ALL EXPOSED CEILING LOCATIONS TO BE PAINTED, TO INCLUDE BUT NOT LIMITED TO: STRUCTURAL BEAMS, METAL DECK, DUCTWORK, VAV BOXES, DIFFUSERS, SPRINKLER PIPES, CONDUIT AND ALL OTHER EXPOSED SYSTEMS. COLOR TO BE APPROVED BY ARCHITECT

- KEYNOTES - RCP**
- EXPOSED ROOF DECK; 2X6 TONGUE AND GROOVE WOOD. PAINTED, PNT00
 - EXPOSED PREFABRICATED WOOD ROOF TRUSS. PAINT, PNT00
 - KILN-DRIED PRESSURE TREATED WOOD OUTRIGGER FRAMING; STAIN TO MATCH T&G
 - PRESSURE TREATED WOOD ROOF BEAM PER STRUCTURAL. STAINED
 - EXPOSED ROOF DECK; 2X6 TONGUE AND GROOVE WOOD. STAINED AT EXTERIOR CONDITION
 - EXTERIOR GYPBOARD CEILING. PAINT PNT00
 - INTERIOR GYPBOARD CEILING. PAINT PNT00
 - PROVIDE GYP CLOSURE OVER WOOD FRAMING AT MASONRY BLOCK OPENING
 - LED TAPE LIGHTING IN EXTRUDED ALUMINUM CHANNEL WITH FROSTED DIFFUSER ATTACHED TO BLOCKING WITHIN CAVITY BETWEEN OUTRIGGER MEMBERS. BASIS OF DESIGN: RIBBON STAR MAX LED LIGHTING, ANODIZED ALUMINUM CHANNEL, FLAT FROSTED LENS
 - EXTERIOR LED LIGHTING

- GENERAL ROOF NOTES**
- PENETRATION DETAILS SHOWN ARE TO BE APPROVED BY ROOFING MANUFACTURER.
 - ROOFING DETAILS TO COMPLY WITH THE LATEST EDITION OF SMACNA & NRCA MANUAL.
 - ALL COPING TO BE FASTENED PER ANSI SPRI ES-1 STANDARDS.
 - WIND UPLIFT RATINGS TO BE VERIFIED WITH STRUCTURAL DESIGN CRITERIA, BUILDING HEIGHTS, PARAPET CONDITIONS, ETC. SEE STRUCTURAL DESIGN CRITERIA.
 - COORDINATE DOWNSPOUT SIZE AND LOCATION WITH CIVIL.
 - MAINTAIN POSITIVE DRAINAGE ON ALL ROOF SURFACES, MINIMUM SLOPE OF 1/4" PER 1'-0".

- KEY NOTES - ROOF PLAN**
- 1 1/2" STANDING SEAM METAL ROOF PANELS. BASIS OF DESIGN: ATAS INTERNATIONAL, INC DUTCH SEAM ROOF PANEL. 15 IN W/ STIFFENING RIBS. STANDARD COLOR, TBD
 - EAVE AND RAKE TRIM PER STANDING SEAM ROOF PANEL MFG
 -

STITCH
DESIGN SHOP

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



**NEILL'S CREEK PARK
COMFORT STATION**

BLACK RIVER TOWNSHIP, TOWN OF ANGLER
HARNETT COUNTY, NC

CONSTRUCTION DOCUMENTS

Revisions		
No.	Description	Date

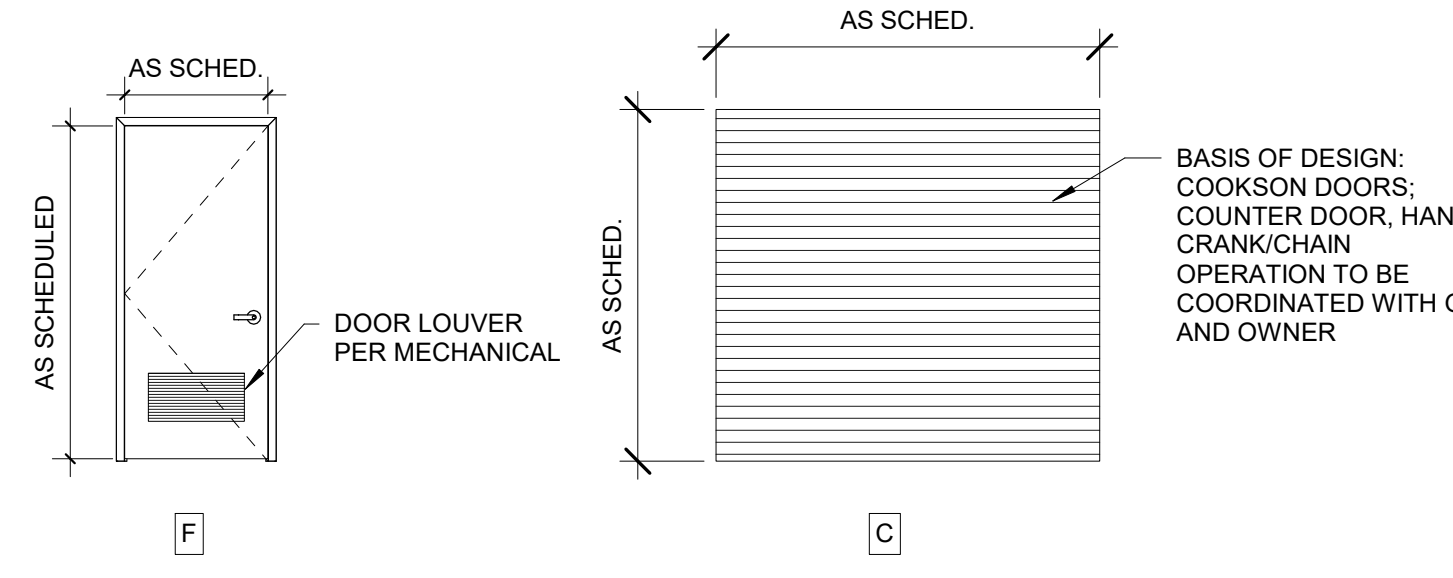
date: 07/10/2023
commission: 22-810

sheet title:
RCP AND ROOF PLAN

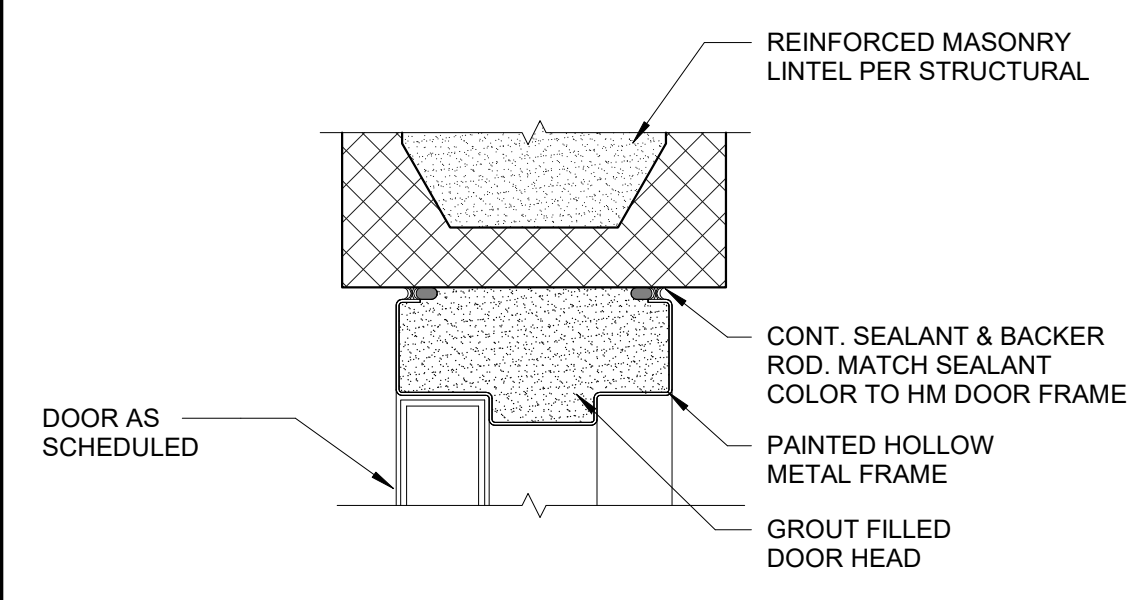
sheet no.:

A2.02

DOOR & FRAME SCHEDULE											
NUMBER	DOOR			FRAME			HEAD	JAMB	SILL	REMARKS	
	WIDTH	HEIGHT	THICKNESS	DOOR TYPE	DOOR MATERIAL	FRAME TYPE					FRAME MATERIAL
FINISH FLOOR											
101A	3'-0"	7'-0"	0'-1 3/4"	F	HM	F-2	HM	9F/A3.01	9D/A3.01	9F/A3.01	
101B	6'-8"	4'-8"		C				--	--	--	
102	8'-0"	9'-0"		C				--	--	--	
103	3'-0"	7'-0"	0'-1 3/4"	F	HM	F-2	HM	7F/A3.01	9D/A3.01	7F/A3.01	
104	3'-0"	7'-0"	0'-1 3/4"	F	HM	F-2	HM	7F/A3.01	9D/A3.01	7F/A3.01	
105	3'-0"	7'-0"	0'-1 3/4"	F	HM	F-2	HM	7F/A3.01	9D/A3.01	7F/A3.01	



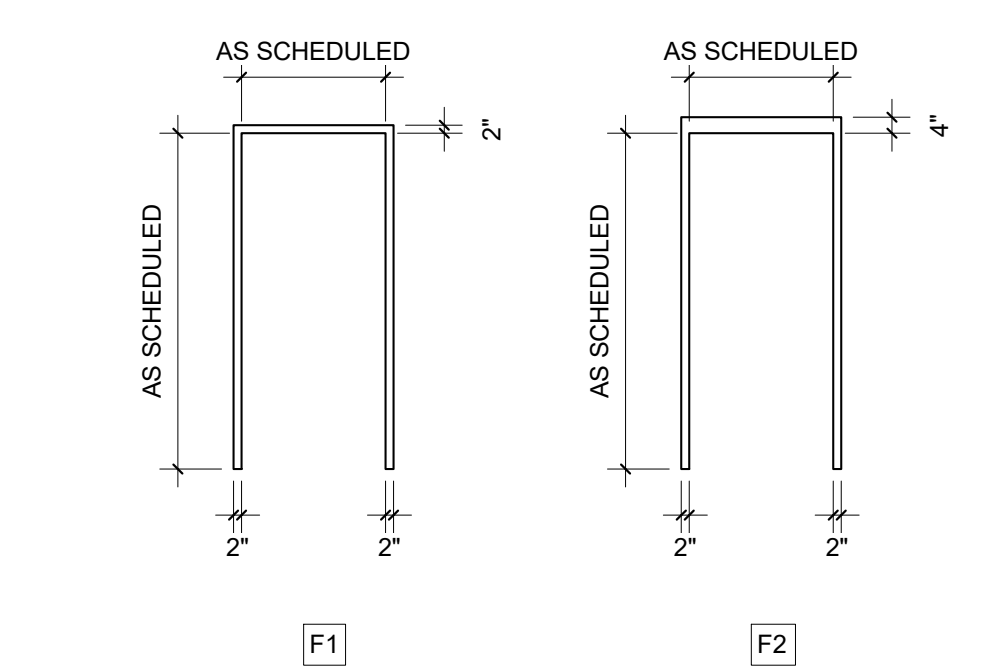
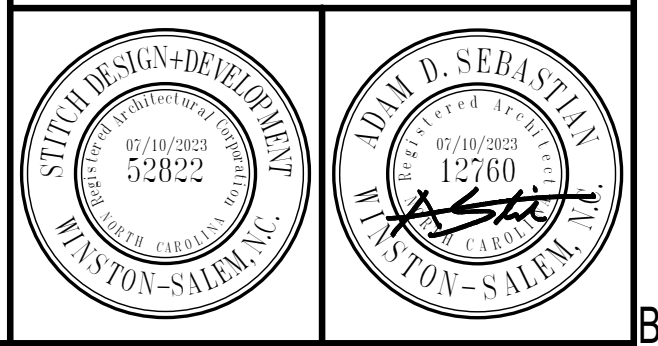
DOOR TYPES
NOT TO SCALE



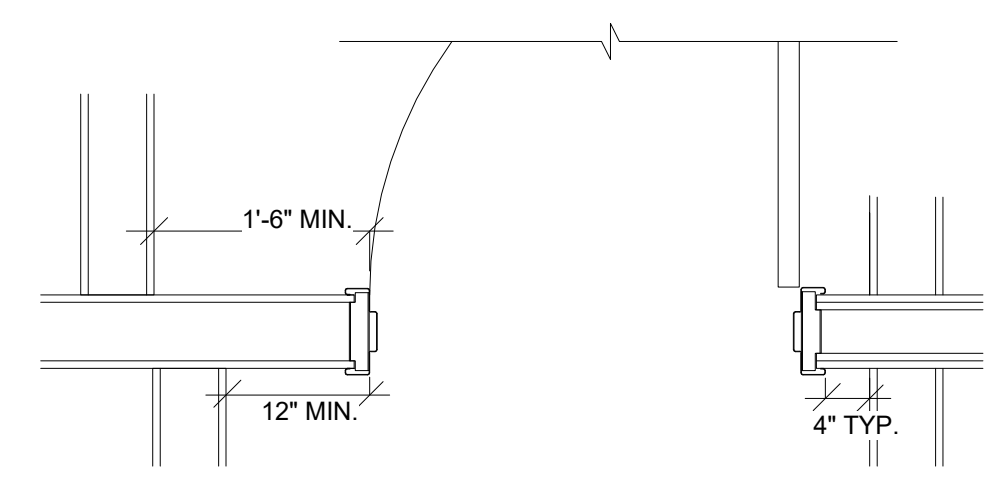
9B TYP HM DOOR HEAD DTL
3" = 1'-0"



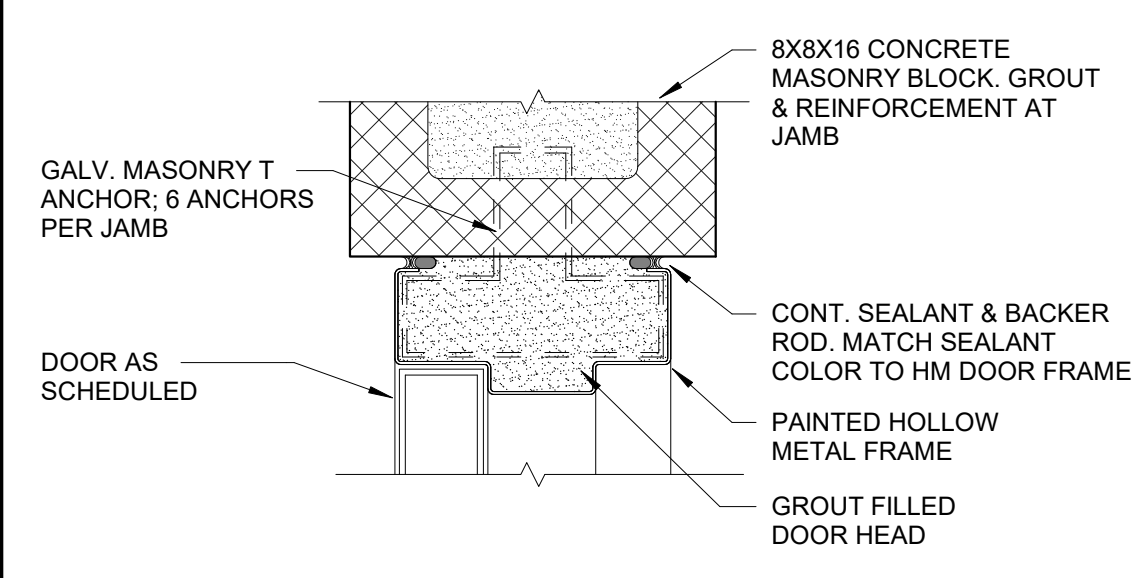
630 N. Liberty Street | Winston-Salem, NC 27101
p. 336.701.0130 | www.stitchdesignshop.com



FRAME TYPES
1/4" = 1'-0"



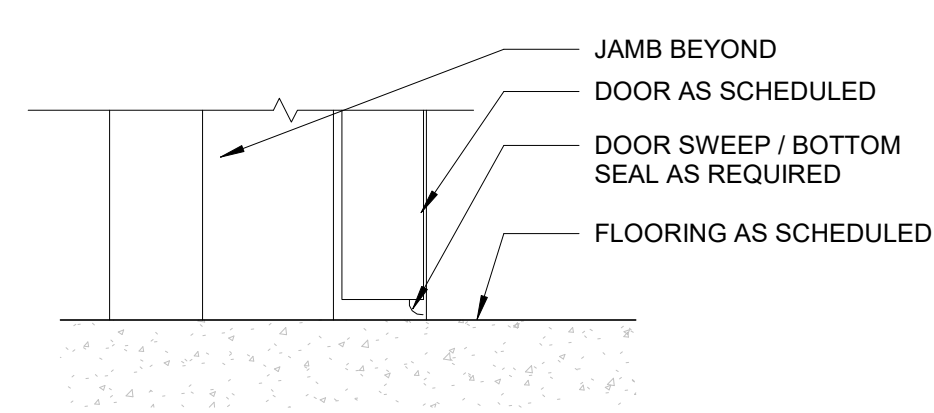
7D PUSH/PULL TYP. DETAIL
3" = 1'-0"



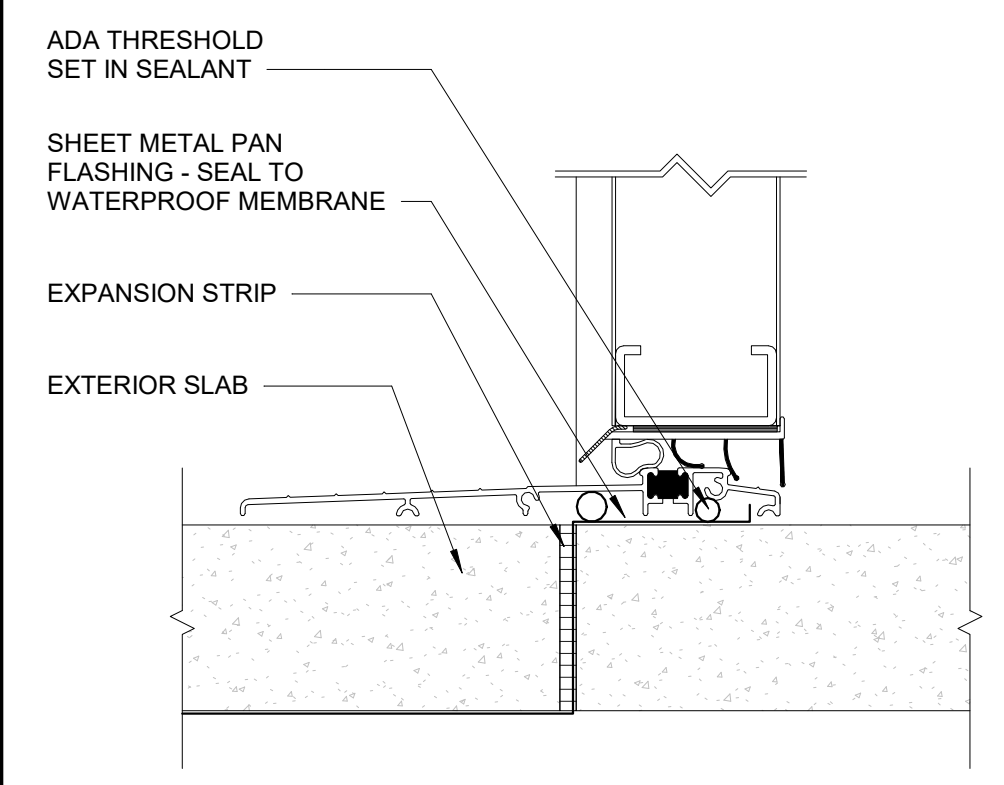
9D TYP HM DOOR JAMB DTL
3" = 1'-0"

**NEILL'S CREEK PARK
COMFORT STATION**
BLACK RIVER TOWNSHIP, TOWN OF ANGER
HARNETT COUNTY, NC

DOOR & TRIM NOTES	
DOOR GENERAL NOTES	
1.	ALL EXTERIOR HOLLOW METAL DOORS TO BE INSULATED (R-3 MINIMUM)
2.	ALL EXTERIOR HOLLOW METAL DOORS & FRAMES TO BE GALVANIZED
3.	INTERIOR DOOR FRAMES TO BE PAINTED TO MATCH TRIM COLOR OR EXPOSED STRUCTURE COLOR IF NO TRIM COLOR IS PROVIDED.
4.	REFER TO SPECIFICATIONS FOR DOOR HARDWARE
5.	COORDINATE FRAME SIZE WITH DETAILS, WALL TYPES & FINISHES
DOOR ABBREVIATIONS	
HM	HOLLOW METAL
WD	WOOD
ACW	ALUMINUM CLAD WOOD
AL	ALUMINUM



7F TYP HM DOOR SILL DTL
3" = 1'-0"



9F ADA EXTERIOR SILL DTL
3" = 1'-0"

CONSTRUCTION DOCUMENTS

Revisions		
No.	Description	Date

date: 07/10/2023
commission: 22-810

sheet title:
DOOR SCHEDULE & DETAILS

sheet no.:
A3.01

1 2 3 4 5 6 7 8 9 10 11

A

B

C

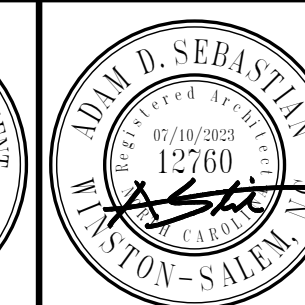
D

E

F

STITCH
DESIGN SHOP

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



**NEILL'S CREEK PARK
COMFORT STATION**
BLACK RIVER TOWNSHIP, TOWN OF ANGIER
HARNETT COUNTY, NC

CONSTRUCTION DOCUMENTS

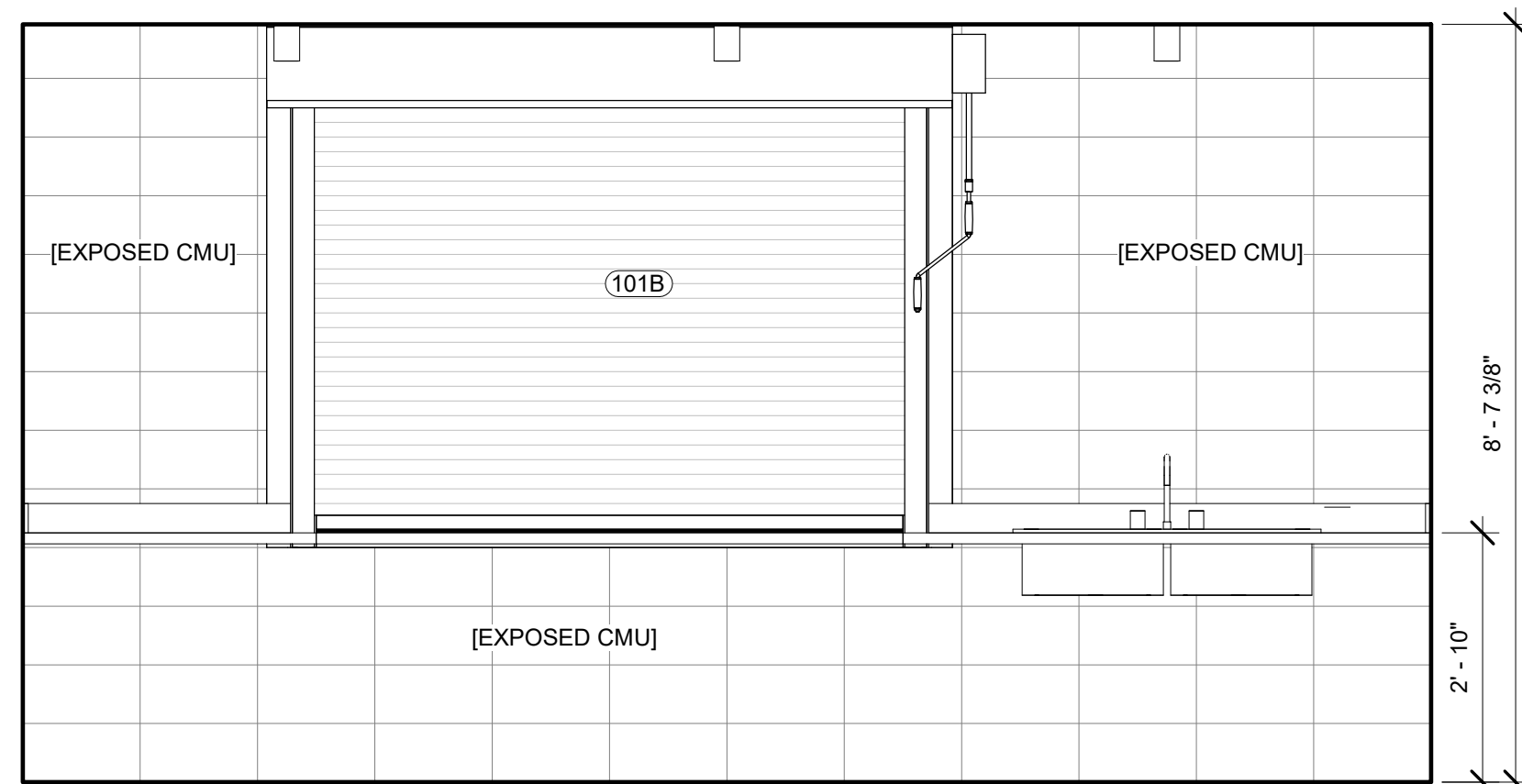
Revisions		
No.	Description	Date

date: 07/10/2023
commission: 22-810

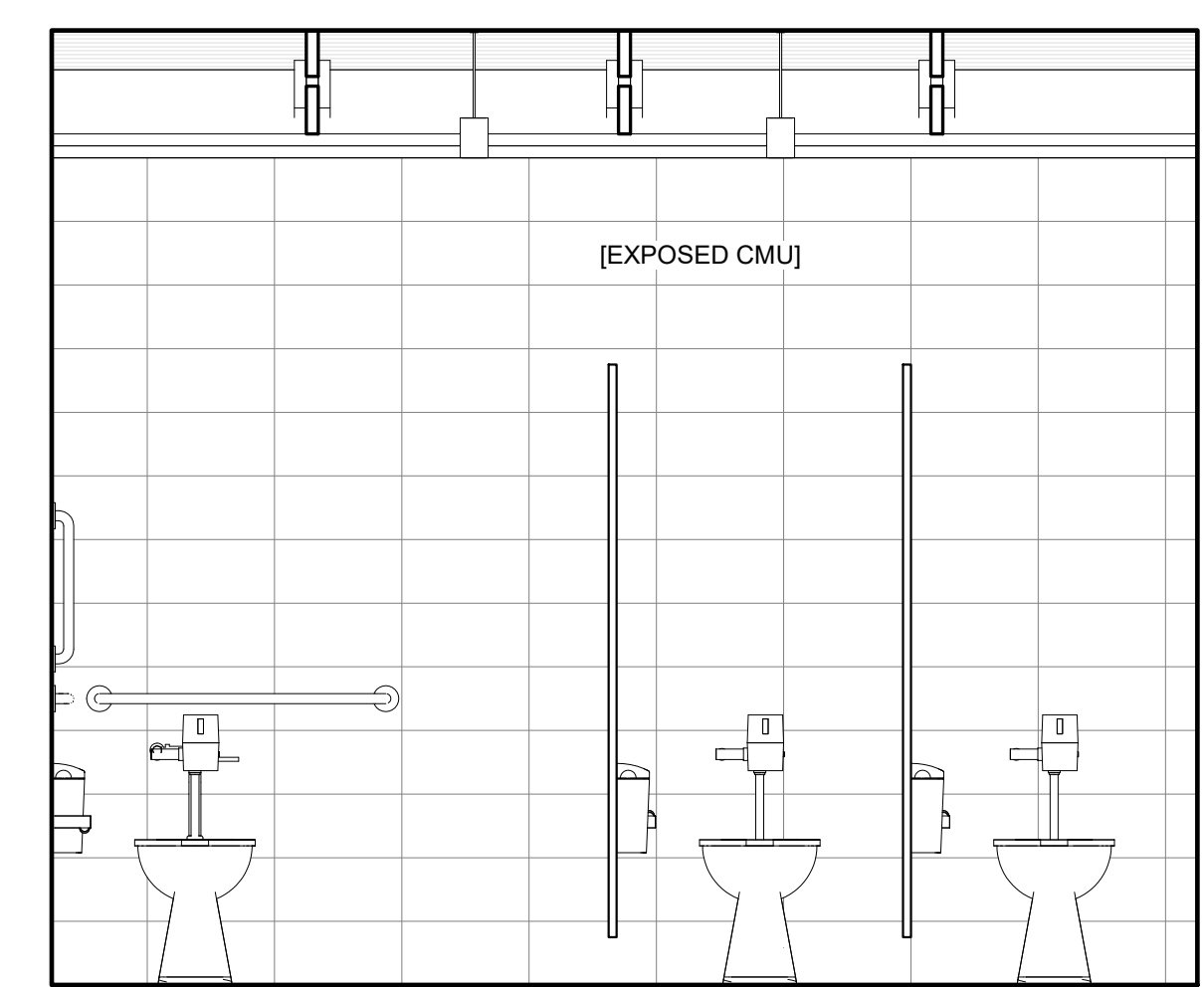
sheet title:
INTERIOR ELEVATIONS

sheet no.:

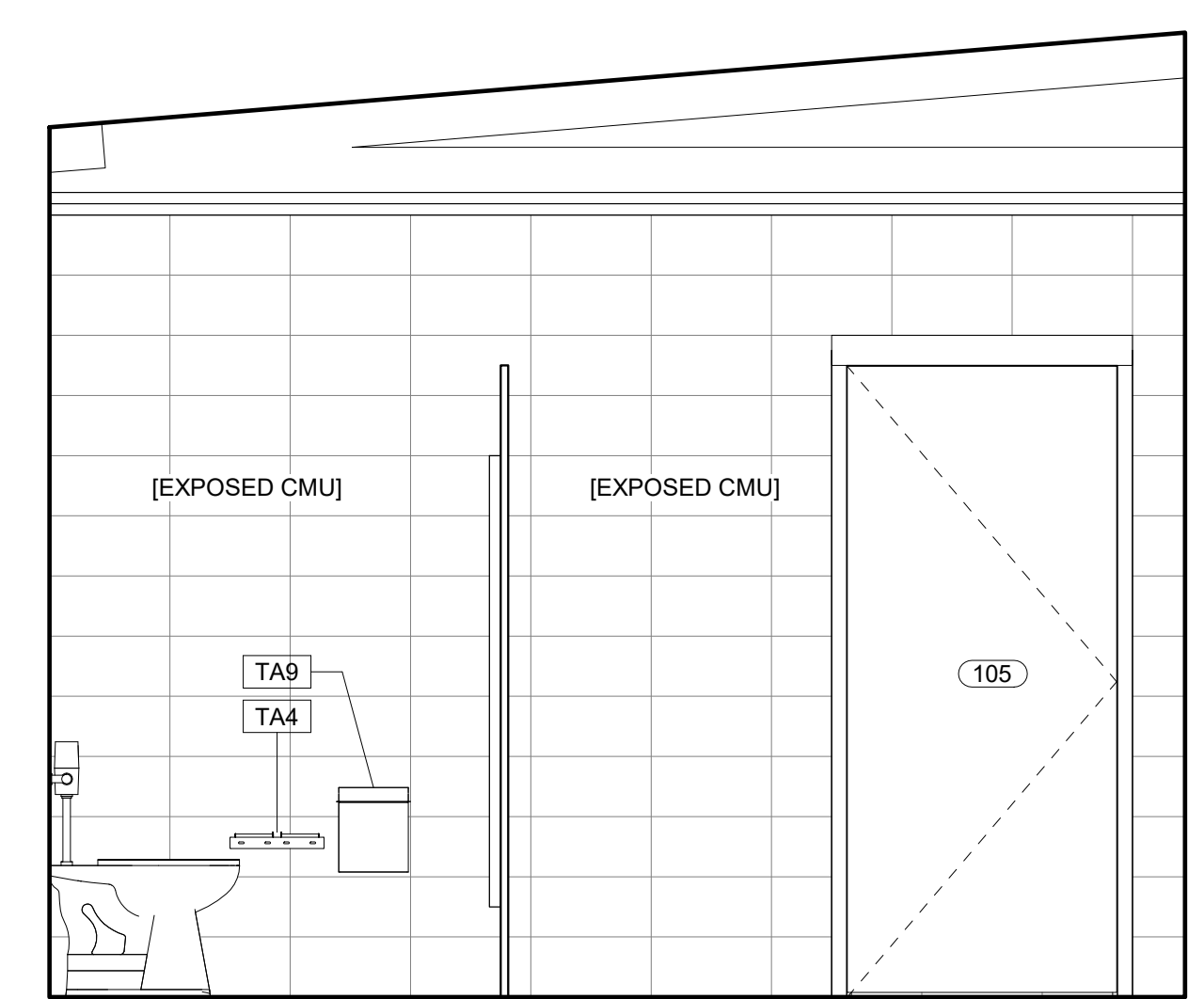
A4.03



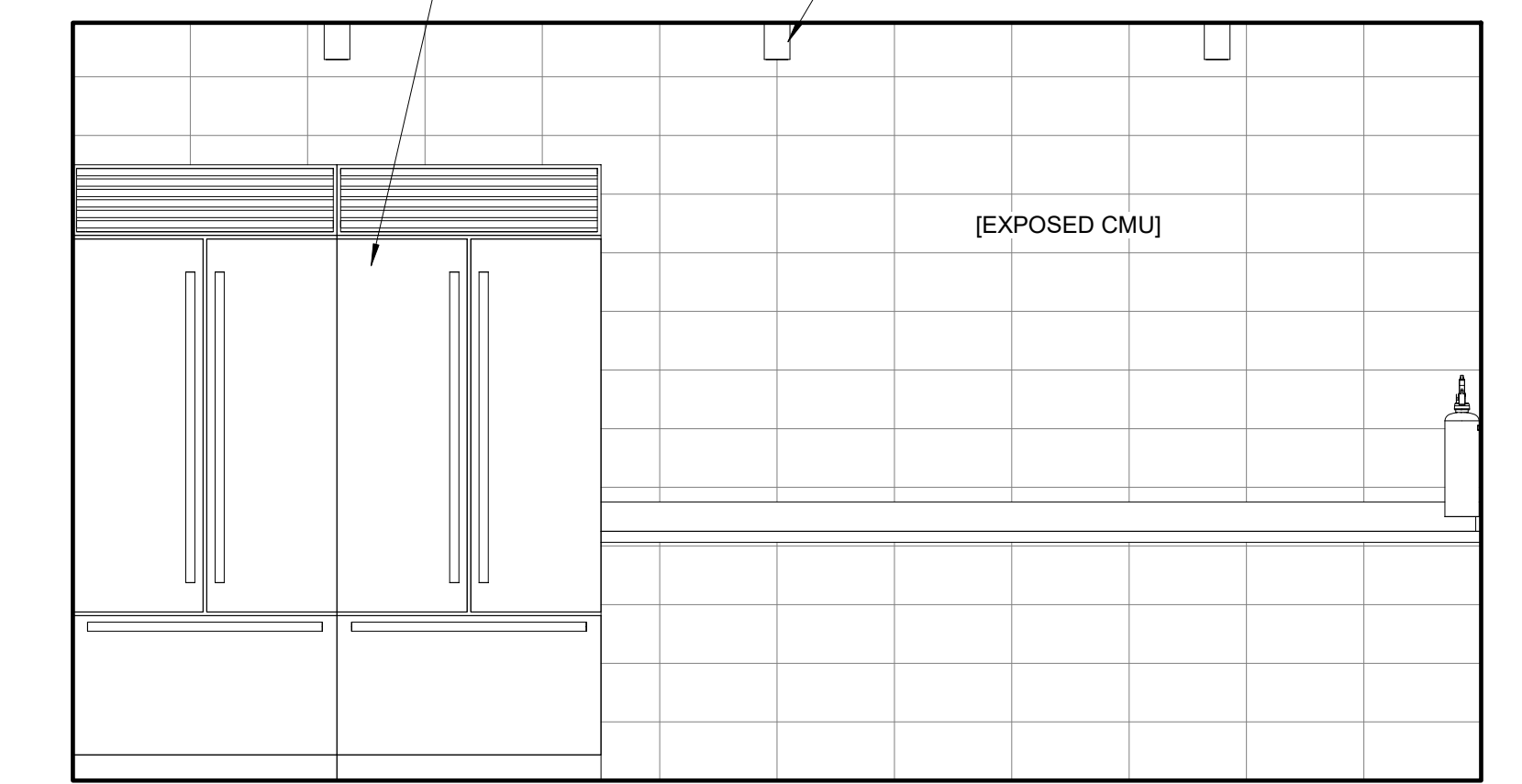
1D CONCESSION INT ELEVATION- WEST
1/2" = 1'-0"



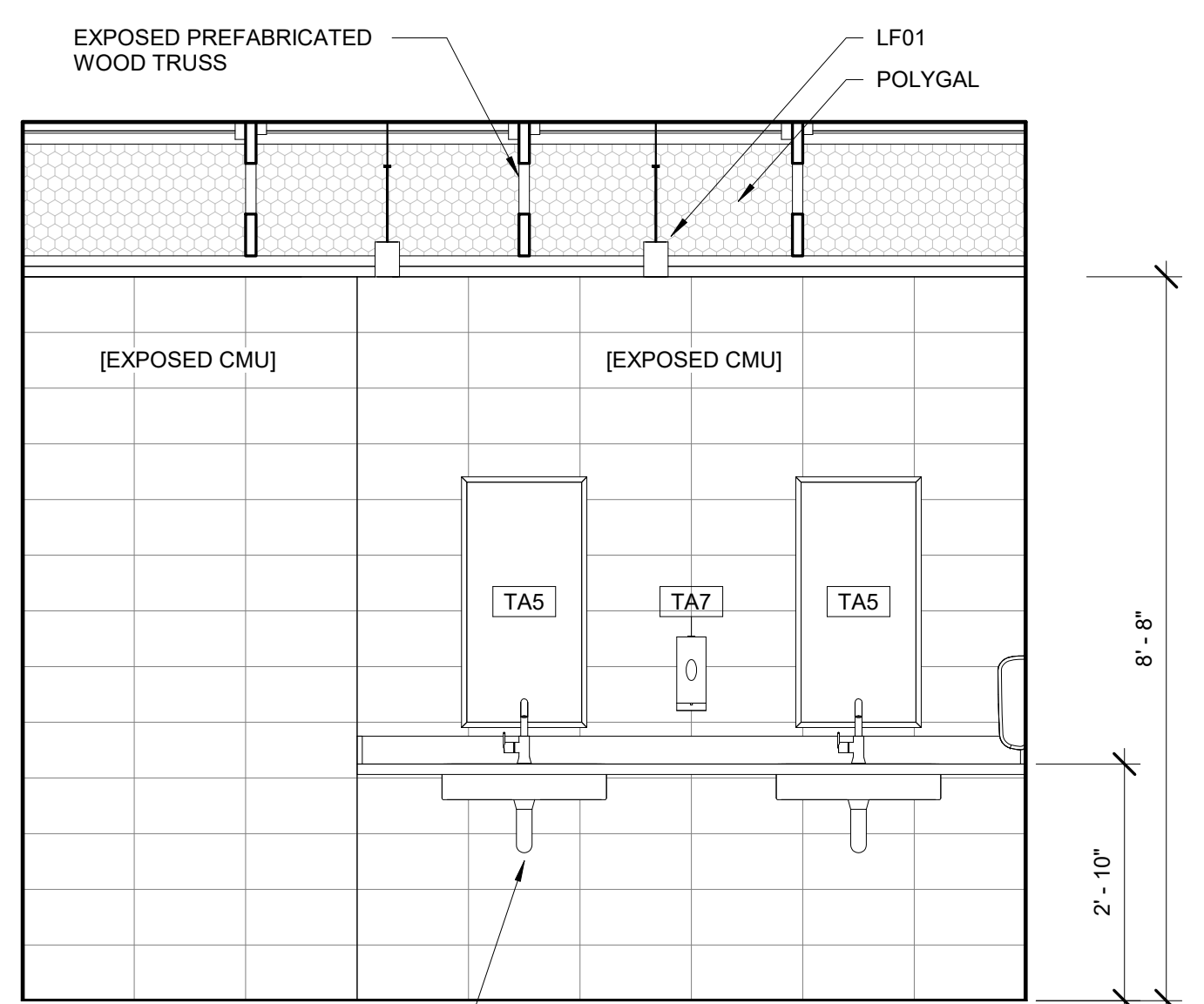
4D TYP RESTROOM INT ELEVATION- EAST
1/2" = 1'-0"



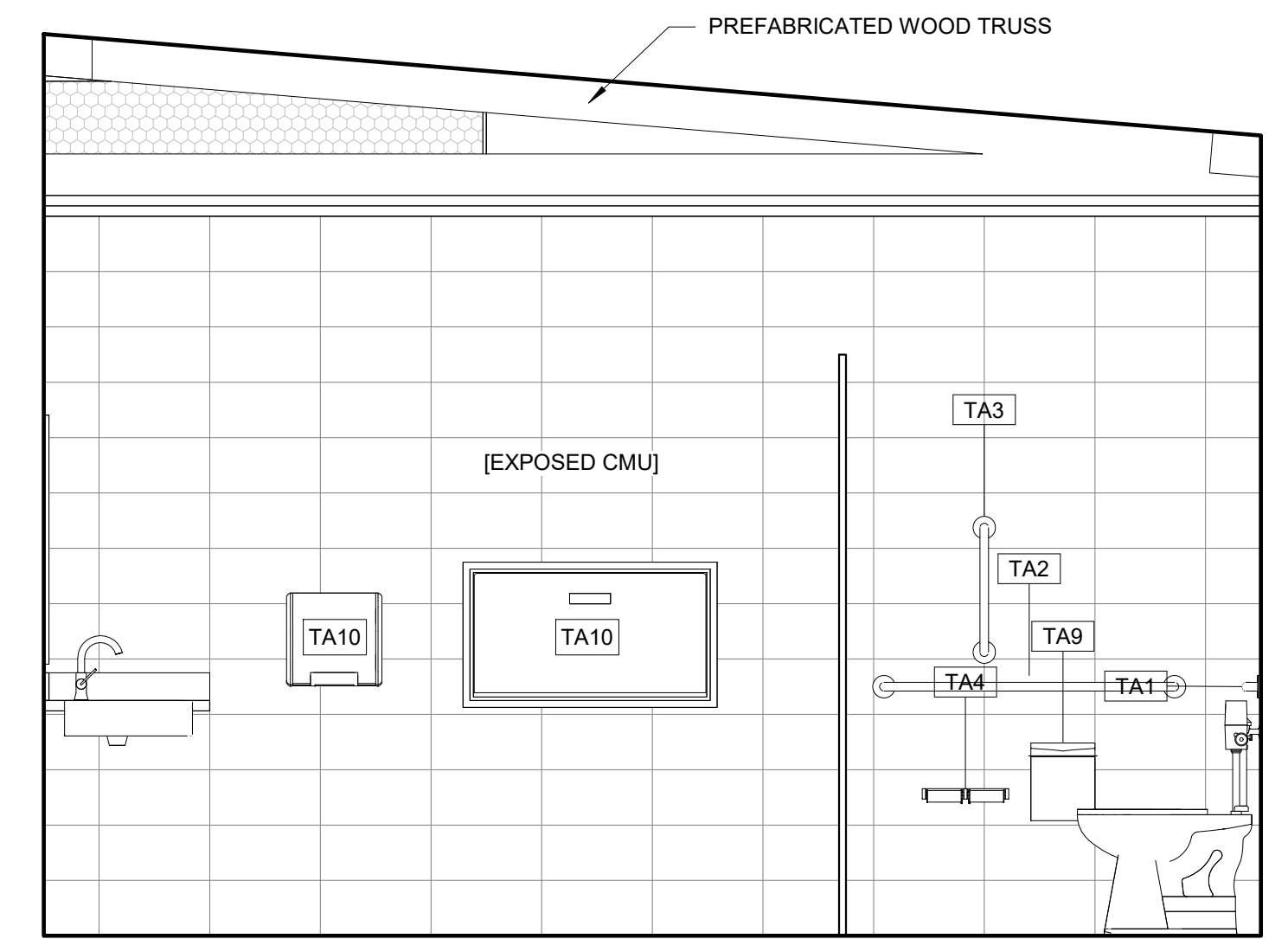
7D TYP RESTROOM INT ELEVATION- SOUTH
1/2" = 1'-0"



1F CONCESSION INT ELEVATION- EAST
1/2" = 1'-0"



4F TYP RESTROOM INT ELEVATION- WEST
1/2" = 1'-0"



7F TYP RESTROOM INT ELEVATION- NORTH
1/2" = 1'-0"

2

3

4

5

6

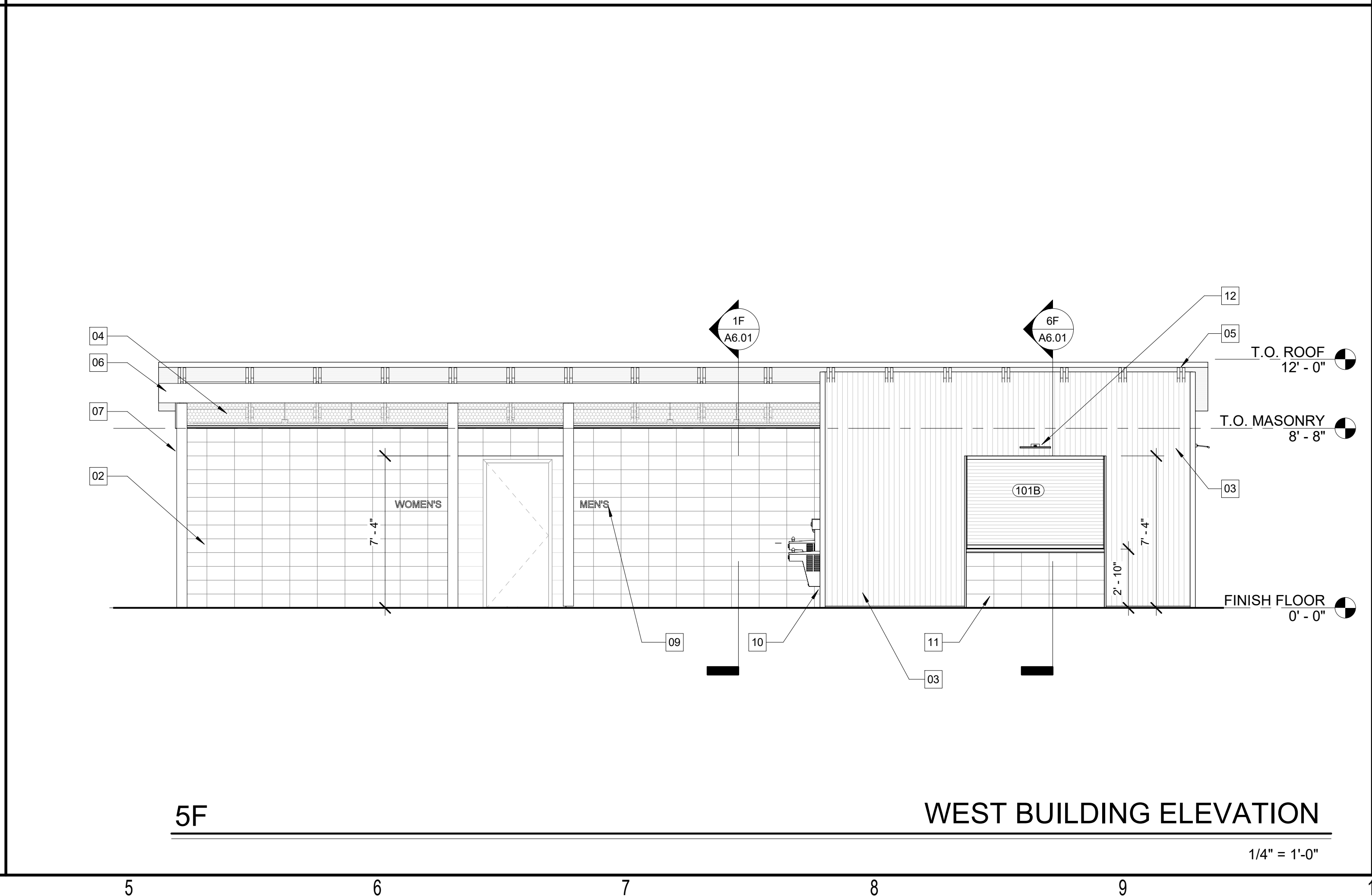
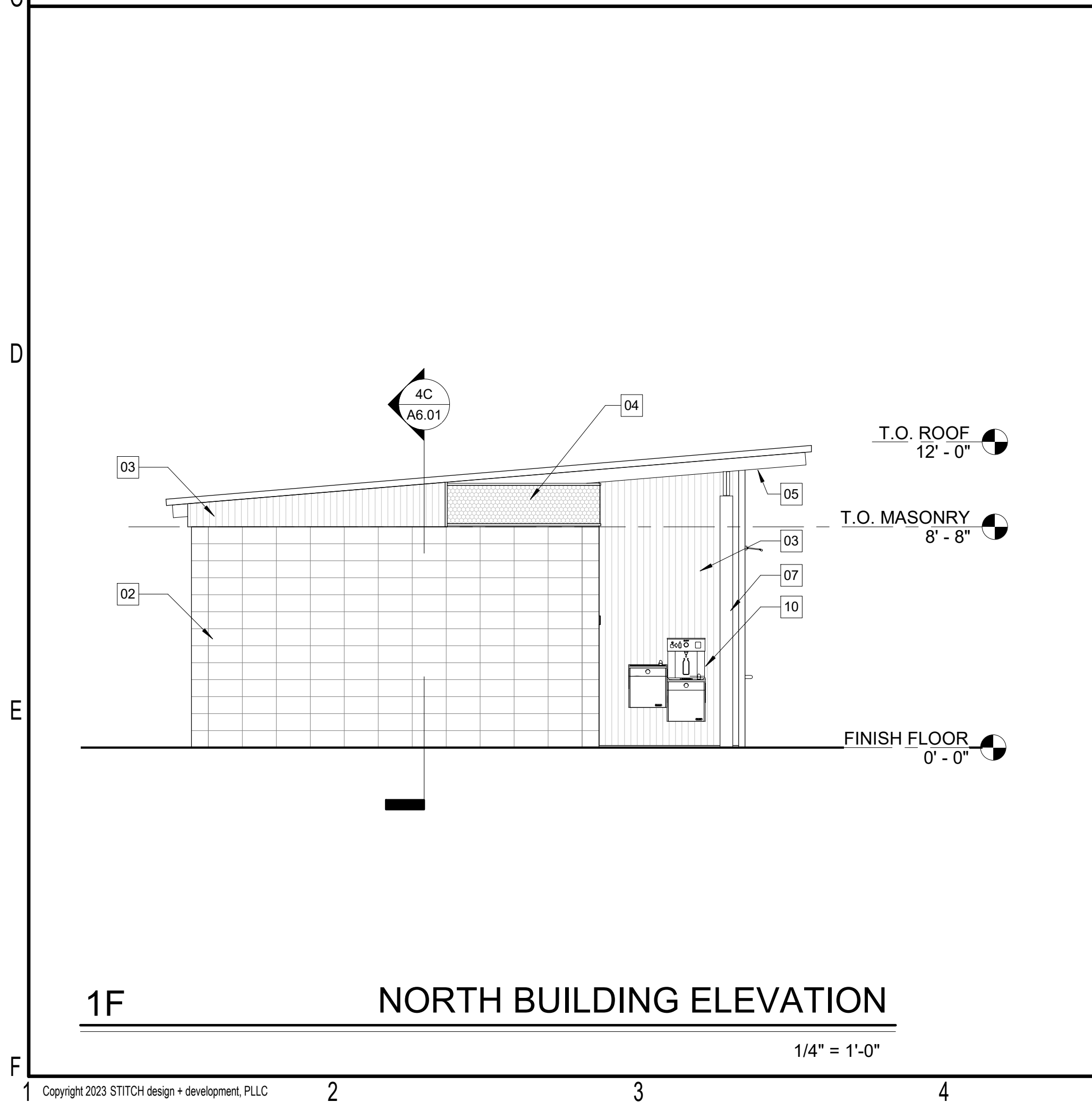
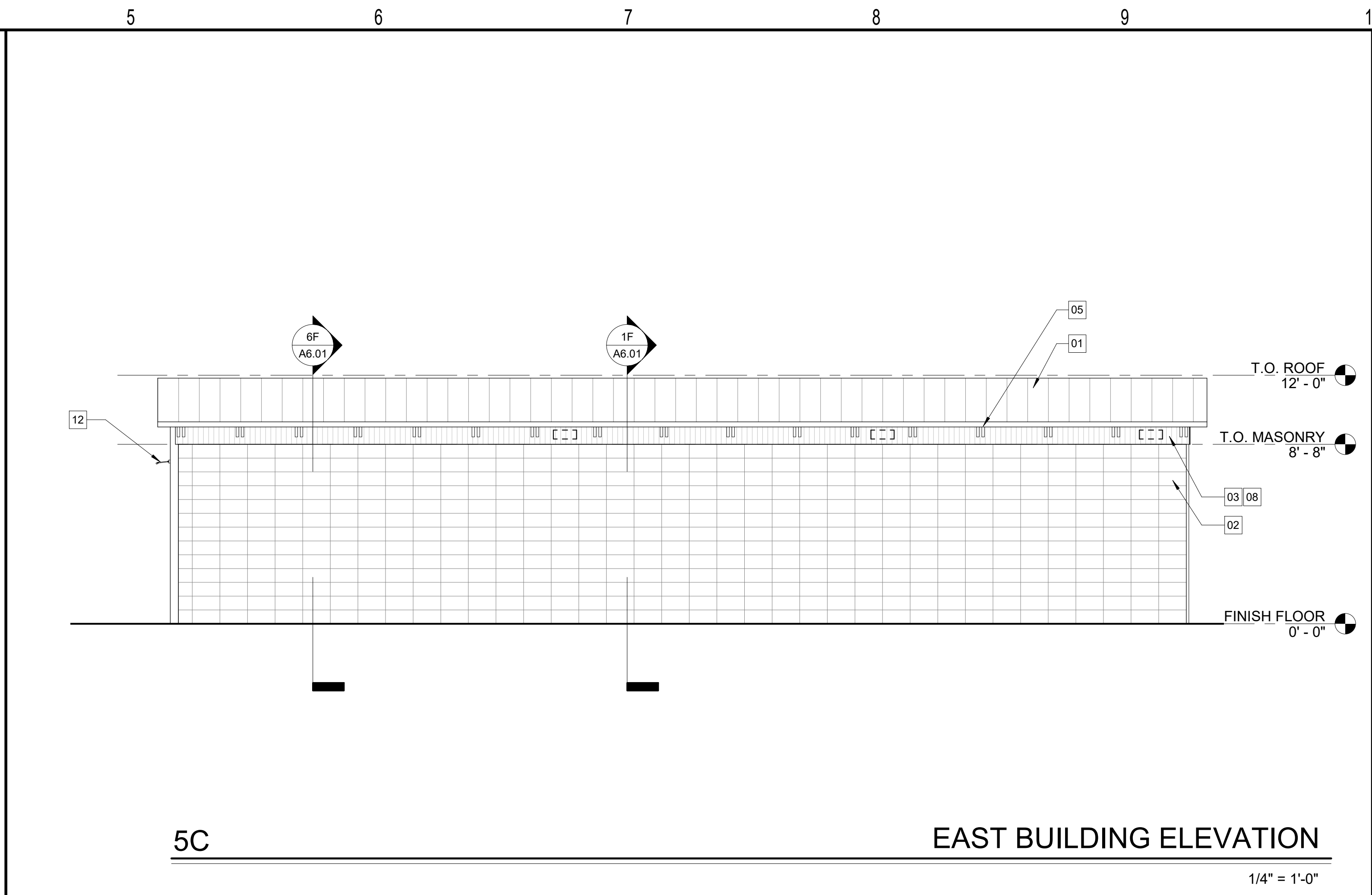
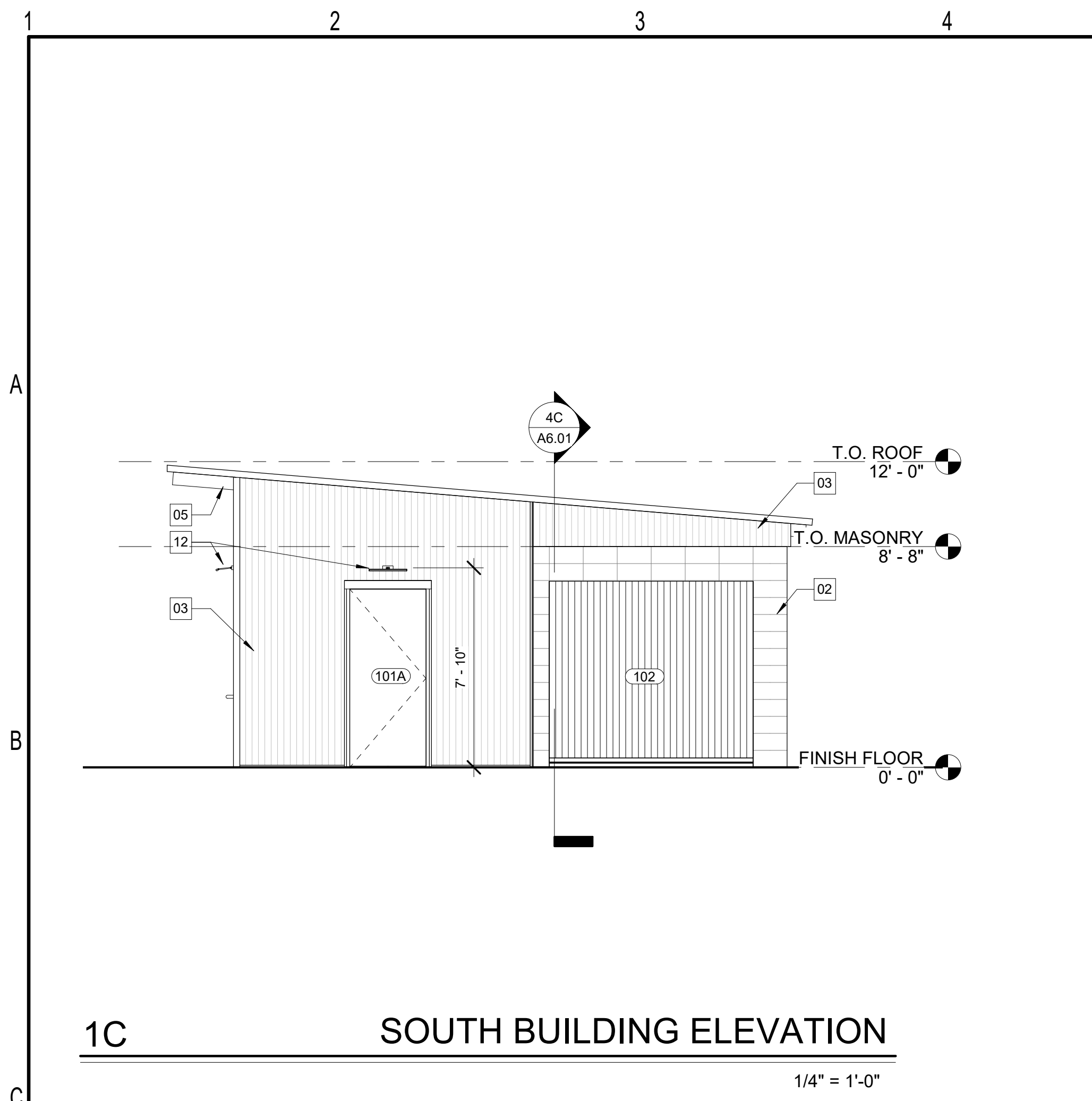
7

8

9

10

11



- KEYED NOTES - ELEVATION**
- 01 1 1/2" STANDING SEAM METAL ROOF PANELS. BASIS OF DESIGN: ATAS INTERNATIONAL, INC DUTCH SEAM ROOF PANEL. 15 IN W/ STIFFENING RIBS. STANDARD COLOR, TBD
 - 02 8X8X16 CMU BLOCK, STACKED BOND. PROVIDE PRICING OPTION FOR PENETRATING BLOCK SEALER AT EXTERIOR FACE
 - 03 CORRUGATED MTL PANEL W/ EXPOSED FASTENER. BASIS OF DESIGN: ATAS INTERNATIONAL, INC. CORRUGATED PANEL ALUMINUM, SMOOTH TEXTURE. PROVIDE PRICING OPTION FOR CUSTOM COLOR TO MATCH OWNER LOGO COLOR
 - 04 POLYCARBONATE PANEL. BASIS OF DESIGN: ATAS INTERNATIONAL, INC. CO-EX CORP MODULIT 500 LP
 - 05 PRESSURE-TREATED WOOD OUTRIGGER, STAINED
 - 06 PRESSURE TREATED WOOD BEAM, STAINED
 - 07 6X6 PRESSURE-TREATED WOOD COLUMN, PER STRUCTURAL. STAIN TO MATCH ADJACENT WOOD
 - 08 PROVIDE VENTING PER MECHANICAL. INSTALL BUG SCREEN AT HOLE LOCATION
 - 09 SUGGESTED BUILDING SIGNAGE. COORDINATE SIGNS WITH OWNER. PROVIDE CODE REQUIRED SIGNAGE PER AHJ
 - 10 EXTERIOR ELECTRIC WATER COOLER. BOD: ELKAY VRCTLDDWSK VANDAL-RESISTANT BOTTLE FILLING STATION
 - 11 4X8X16 CMU BLOCK
 - 12 LED EXTERIOR LIGHTING PER ELECTRICAL

STITCH
DESIGN SHOP

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



**NEILL'S CREEK PARK
COMFORT STATION**

BLACK RIVER TOWNSHIP, TOWN OF ANGIER
HARNETT COUNTY, NC

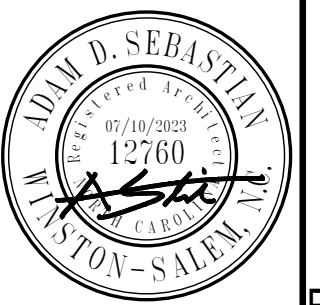
CONSTRUCTION DOCUMENTS

Revisions		
No.	Description	Date

date: 07/10/2023
commission: 22-810

sheet title:
EXTERIOR ELEVATIONS

sheet no.:
A5.01



**NEILL'S CREEK PARK
COMFORT STATION**
BLACK RIVER TOWNSHIP, TOWN OF ANGIER
HARNETT COUNTY, NC

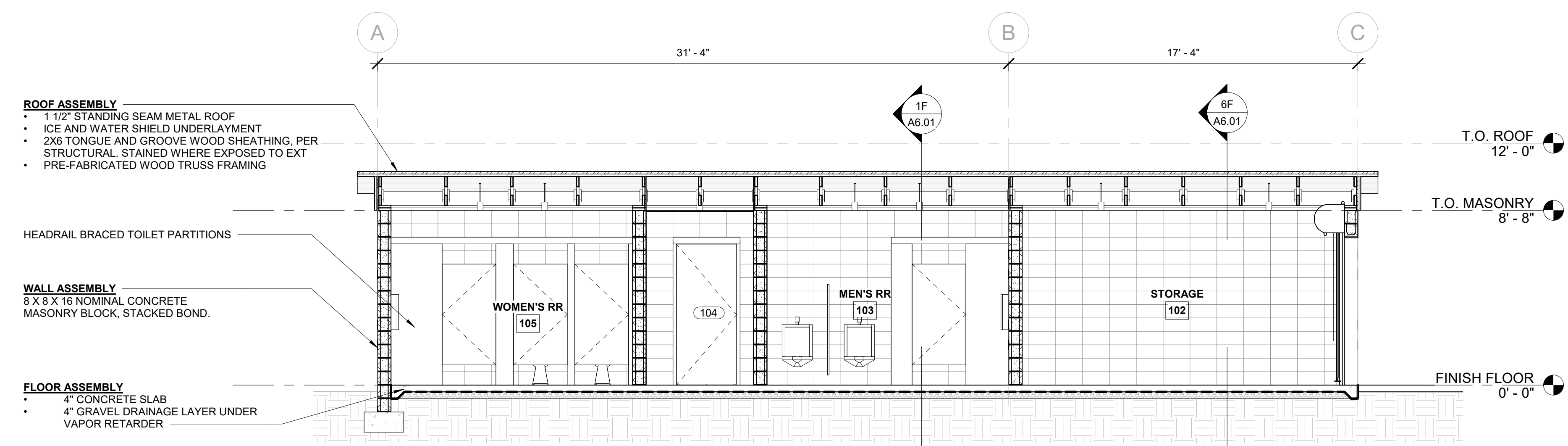
CONSTRUCTION DOCUMENTS

Revisions		
No.	Description	Date

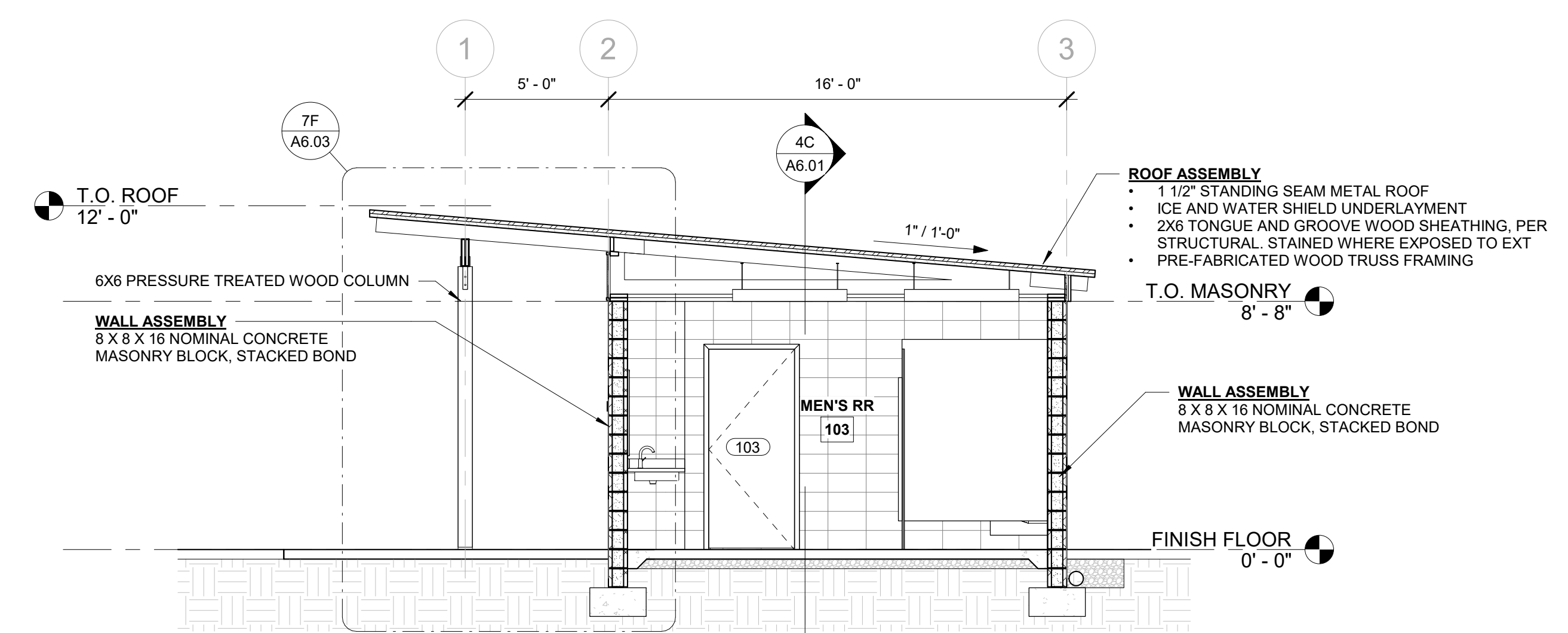
date: 07/10/2023
commission: 22-810

sheet title:
BUILDING SECTIONS

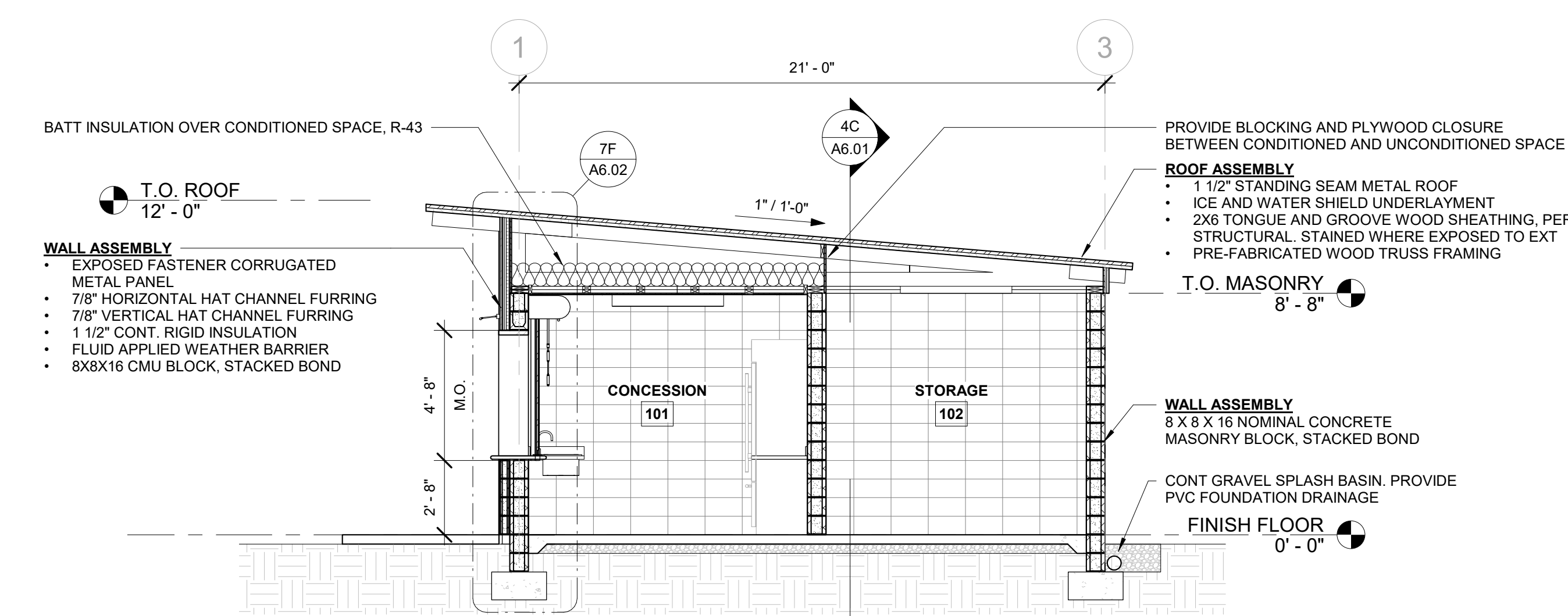
sheet no.:
A6.01



4C LONGITUDINAL BUILDING SECTION 3
1/4" = 1'-0"



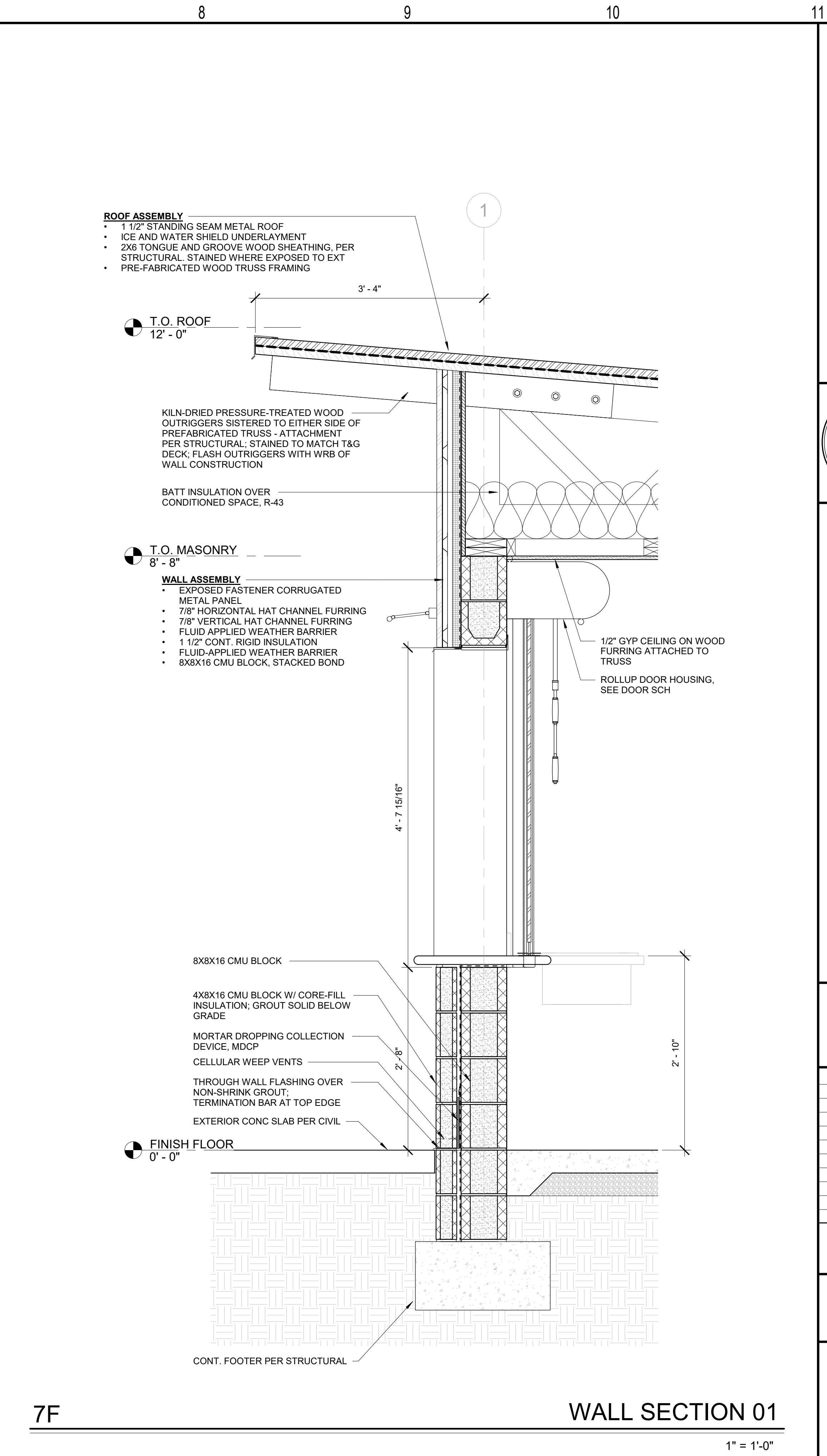
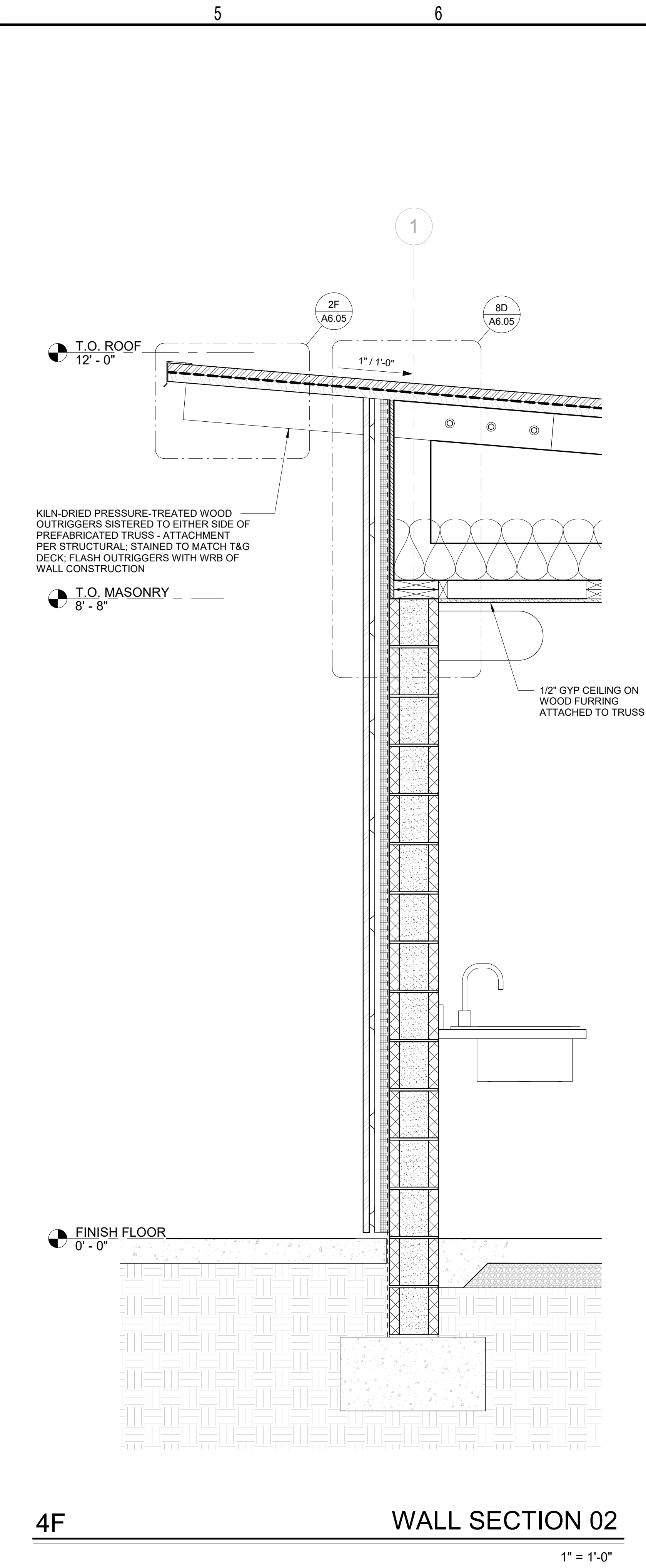
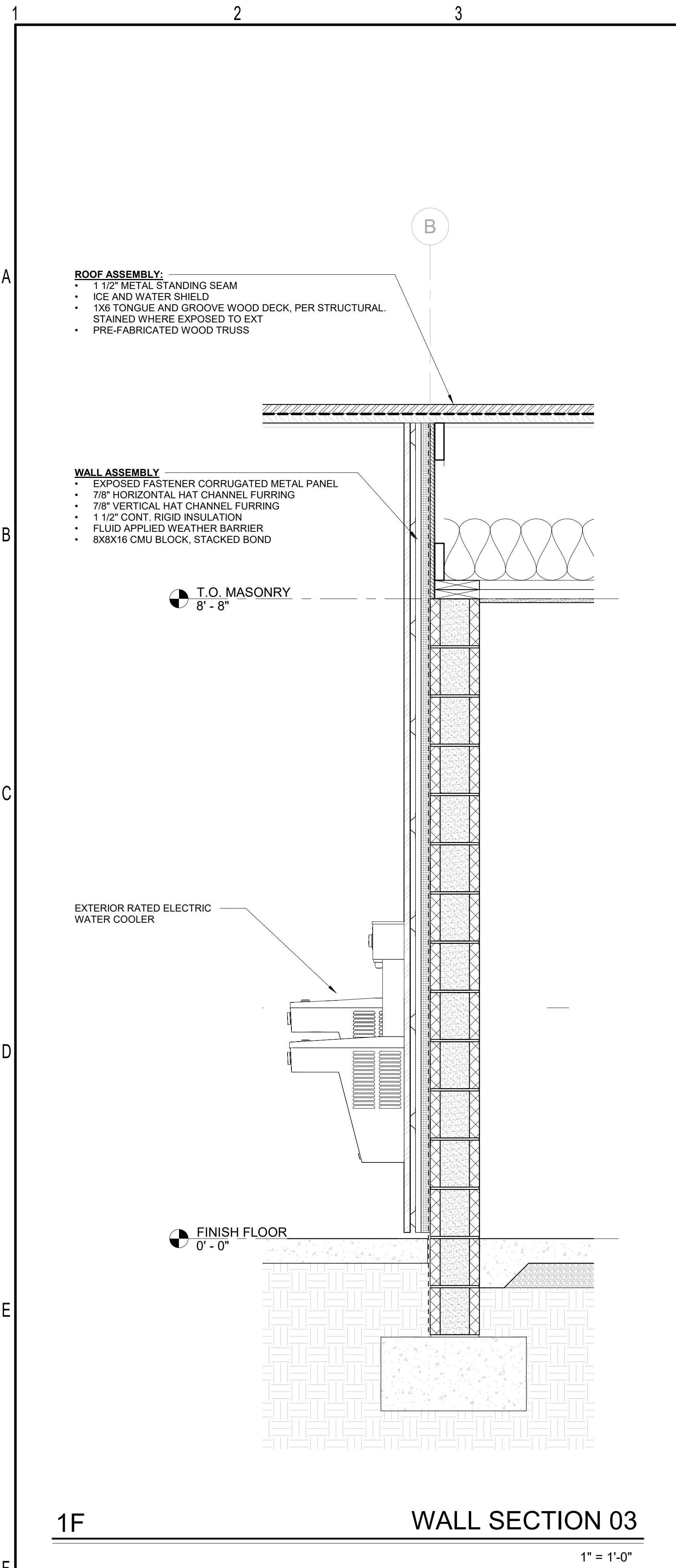
1F TRANSVERSE BUILDING SECTION 2
1/4" = 1'-0"



6F TRANSVERSE BUILDING SECTION 1
1/4" = 1'-0"

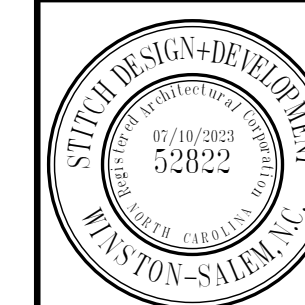
1
A
B
C
D
E
F

11
A
B
C
D
E
F



STITCH
DESIGN SHOP

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



**NEILL'S CREEK PARK
COMFORT STATION**
BLACK RIVER TOWNSHIP, TOWN OF ANGIER
HARNETT COUNTY, NC

CONSTRUCTION DOCUMENTS

Revisions		
No.	Description	Date

date: 07/10/2023
commission: 22-810

sheet title: **WALL SECTIONS**

sheet no.:

A6.02

1 2 3 4

A

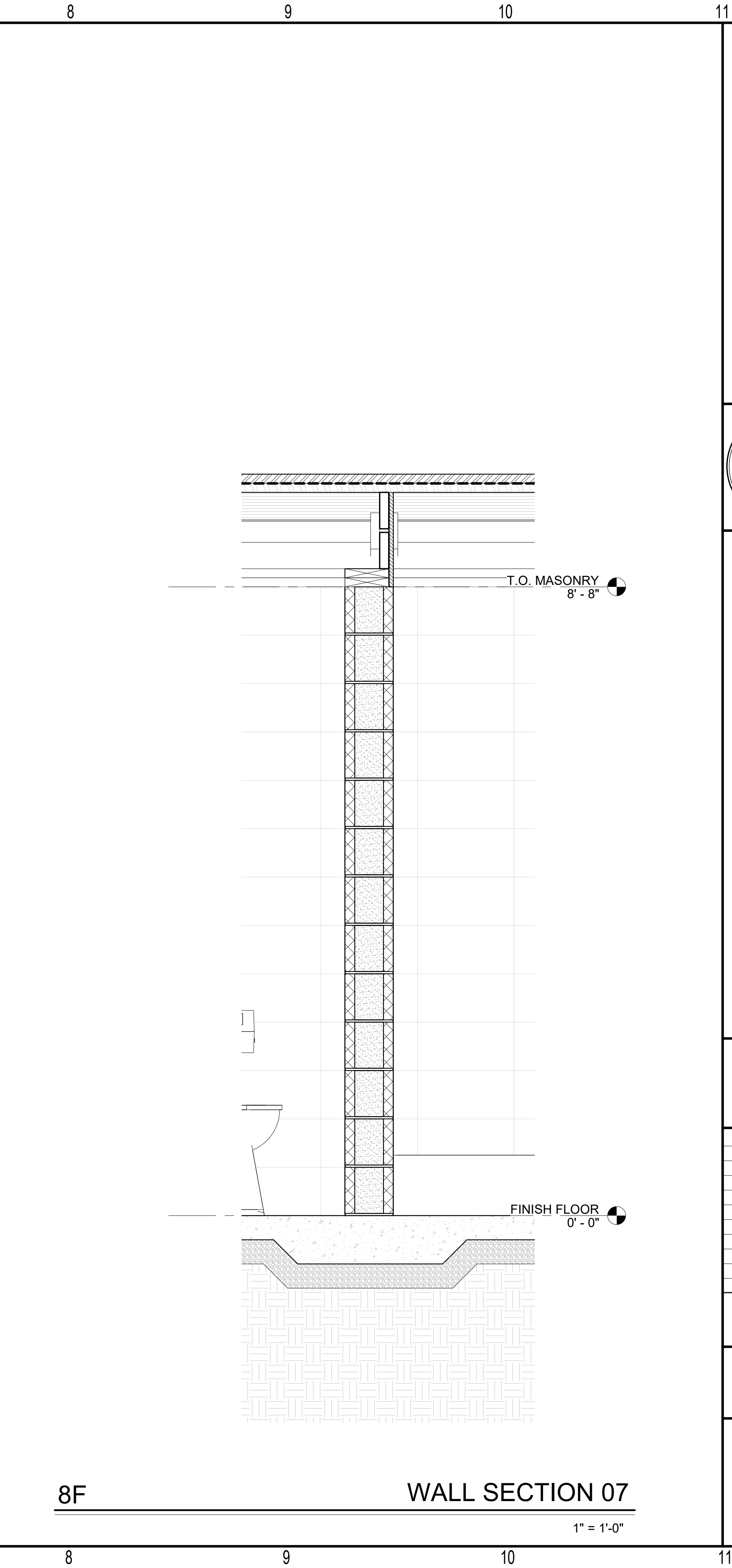
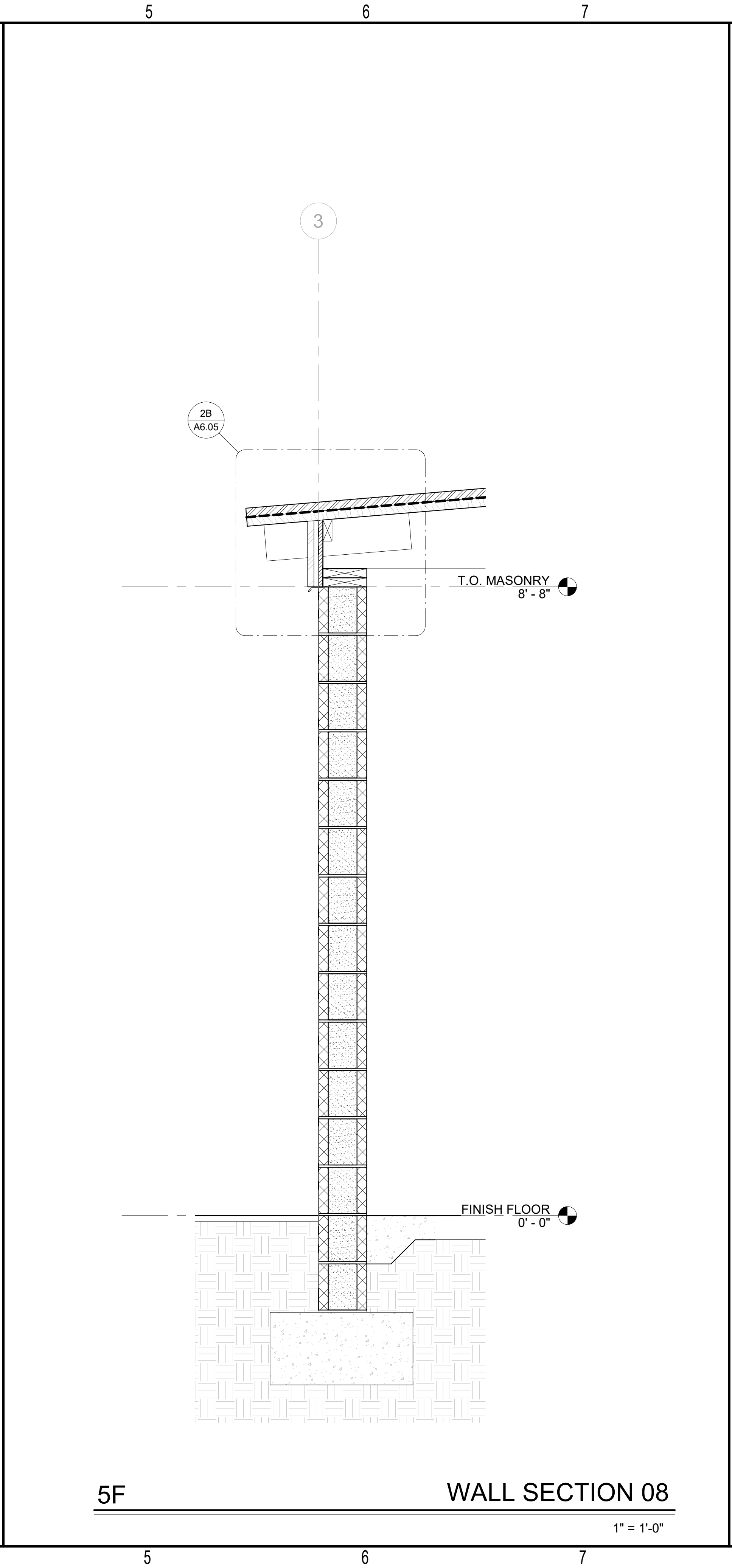
B

C

D

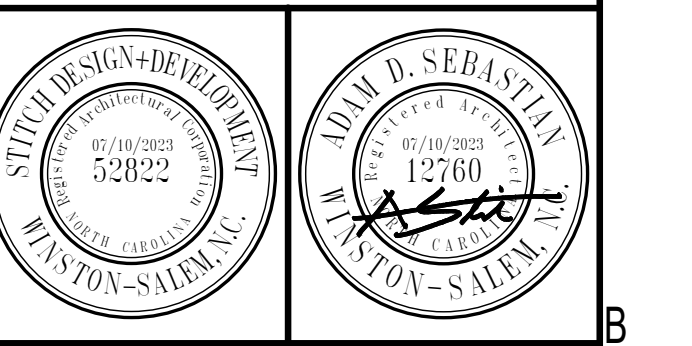
E

F



STITCH
DESIGN SHOP

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



**NEILL'S CREEK PARK
COMFORT STATION**

BLACK RIVER TOWNSHIP, TOWN OF ANGIER
HARNETT COUNTY, NC

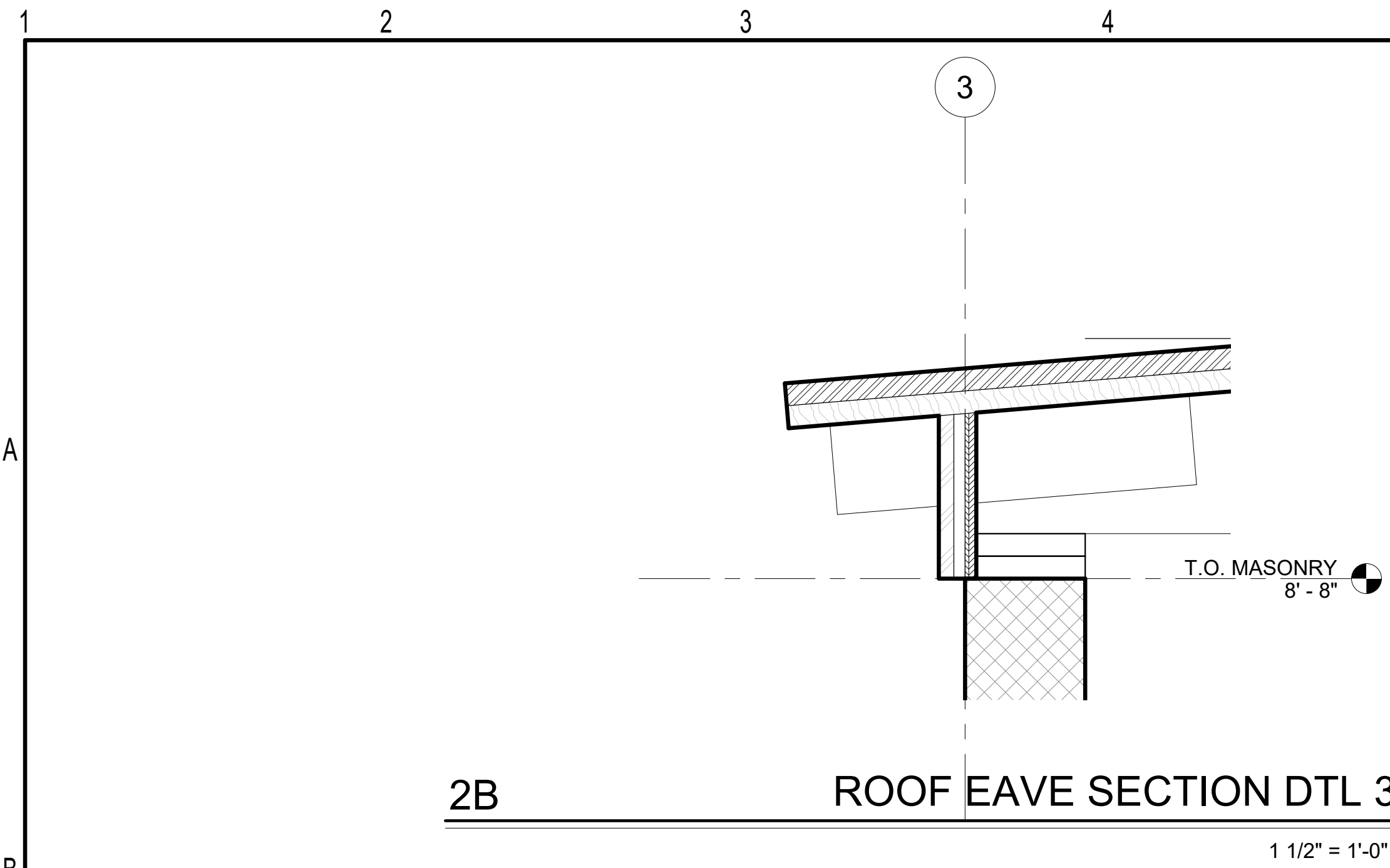
CONSTRUCTION DOCUMENTS

Revisions		
No.	Description	Date

date: 07/10/2023
commission: 22-810

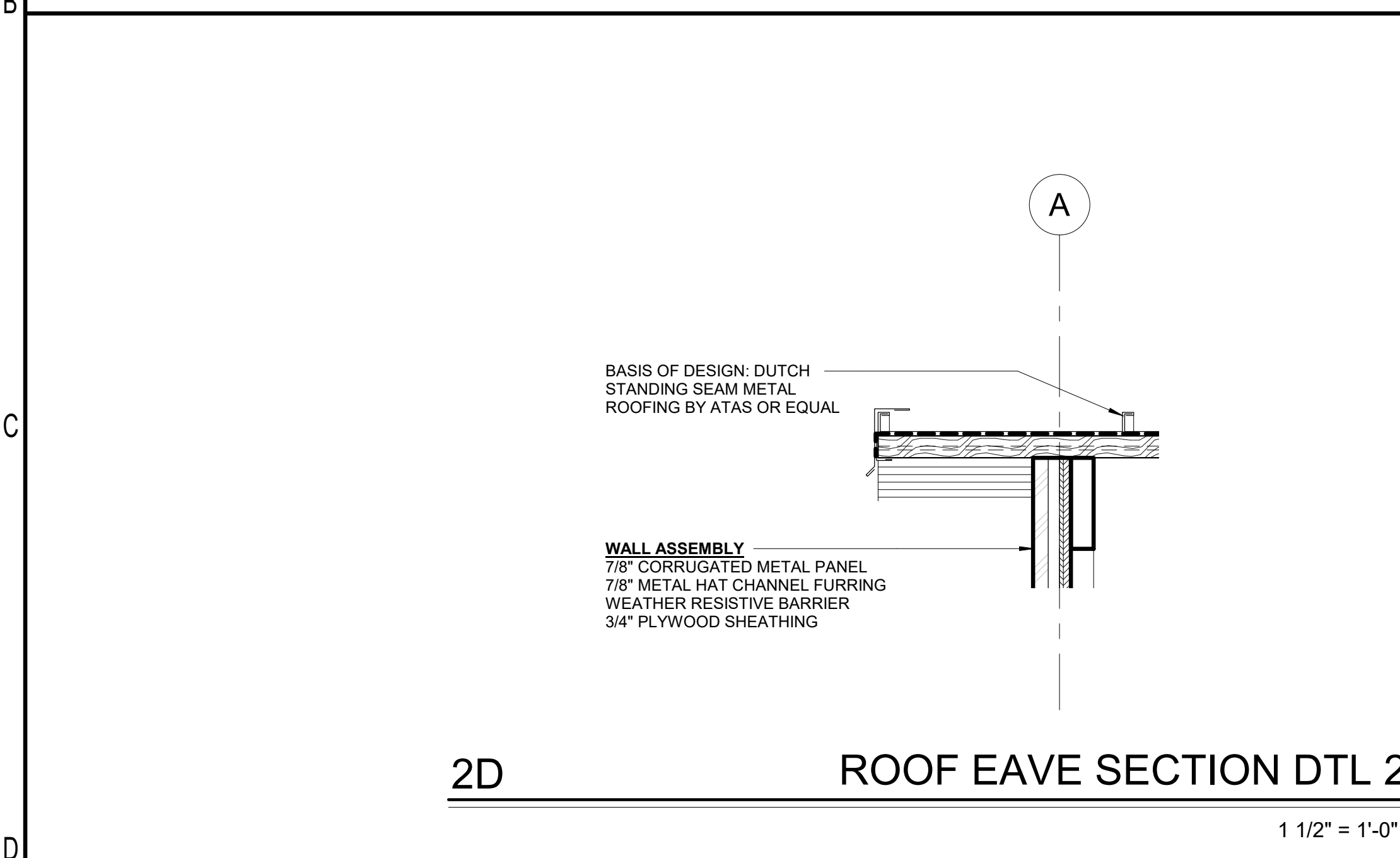
sheet title:
WALL SECTIONS

sheet no.:
A6.04



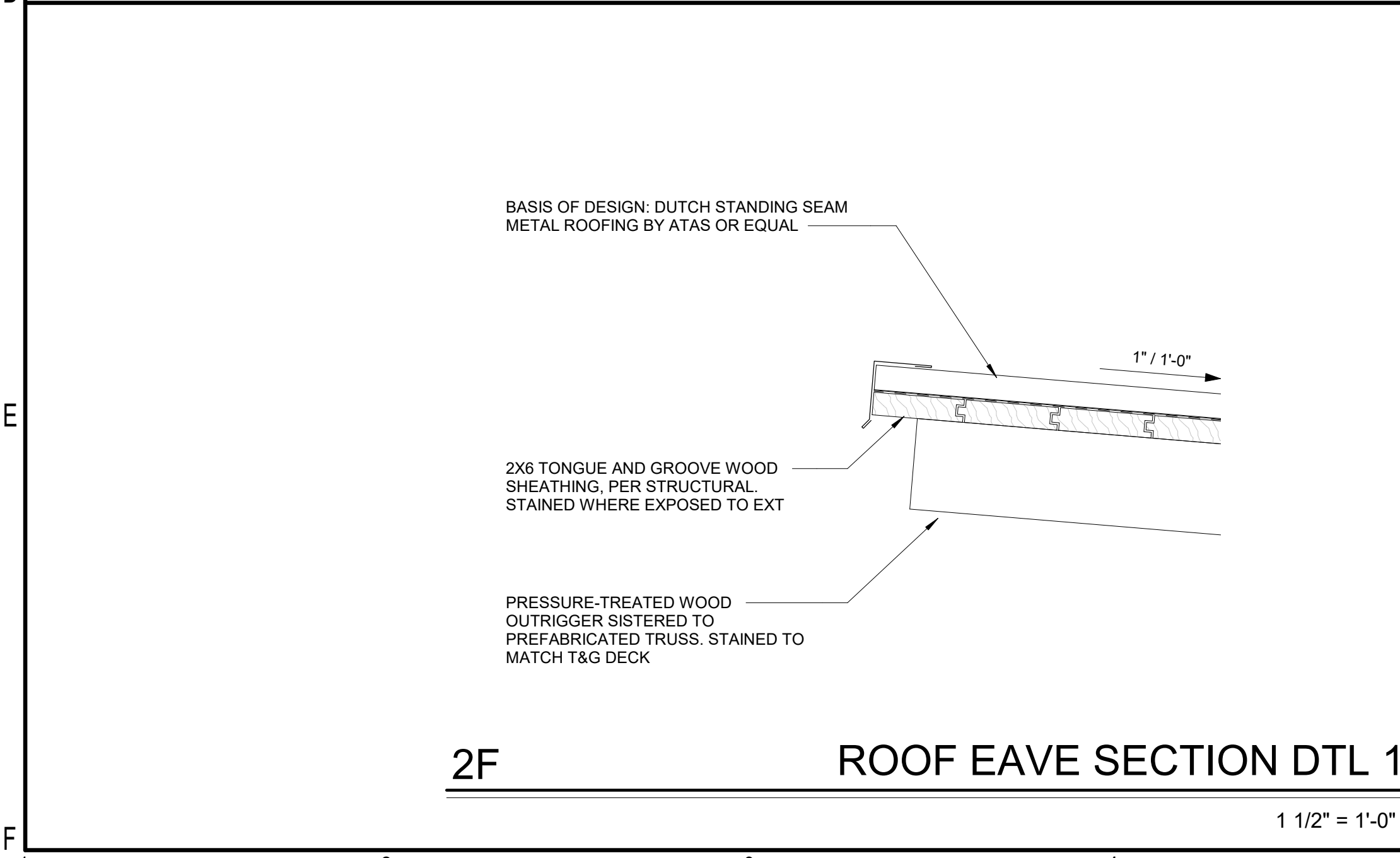
2B ROOF EAVE SECTION DTL 3

1 1/2" = 1'-0"



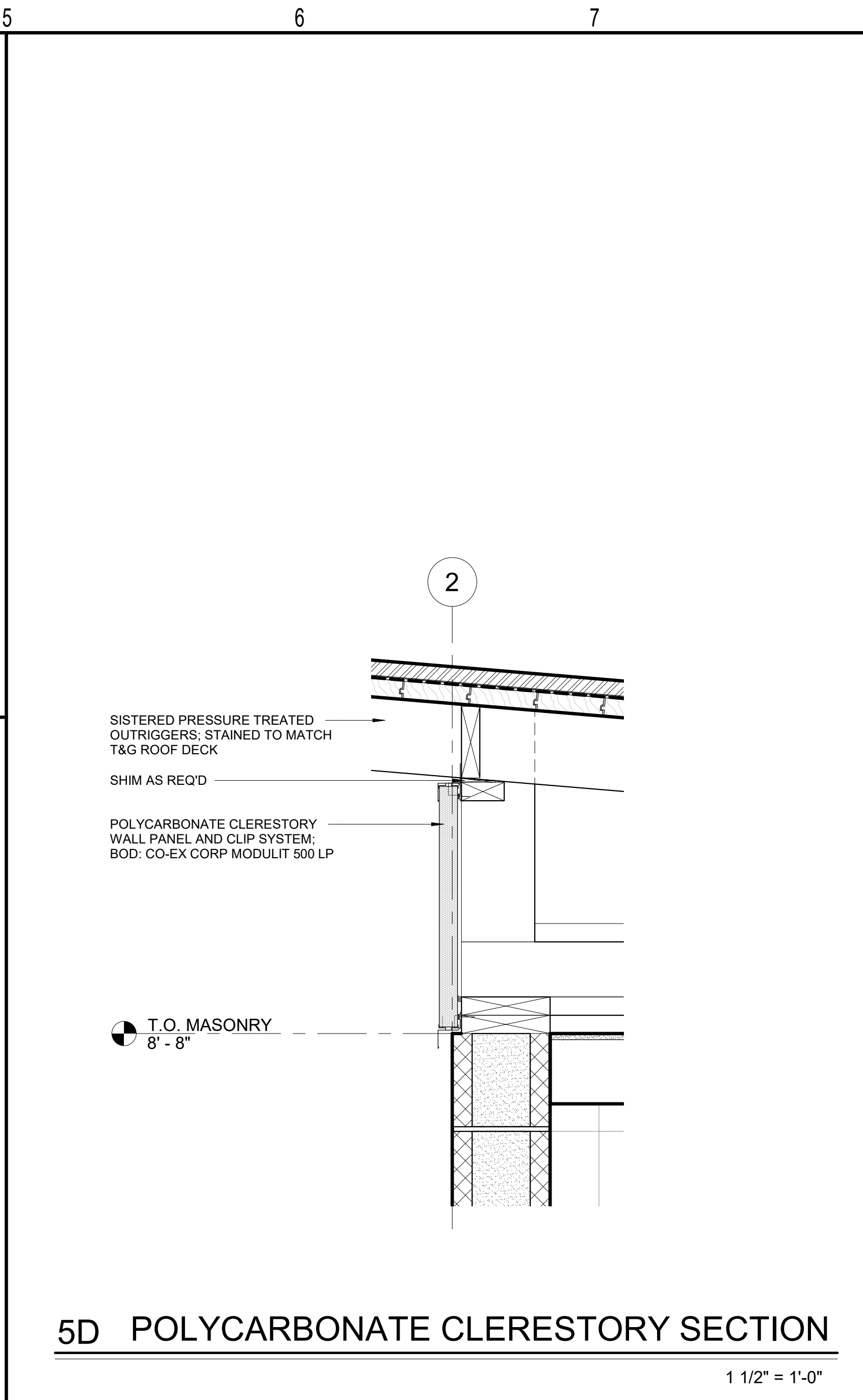
2D ROOF EAVE SECTION DTL 2

1 1/2" = 1'-0"



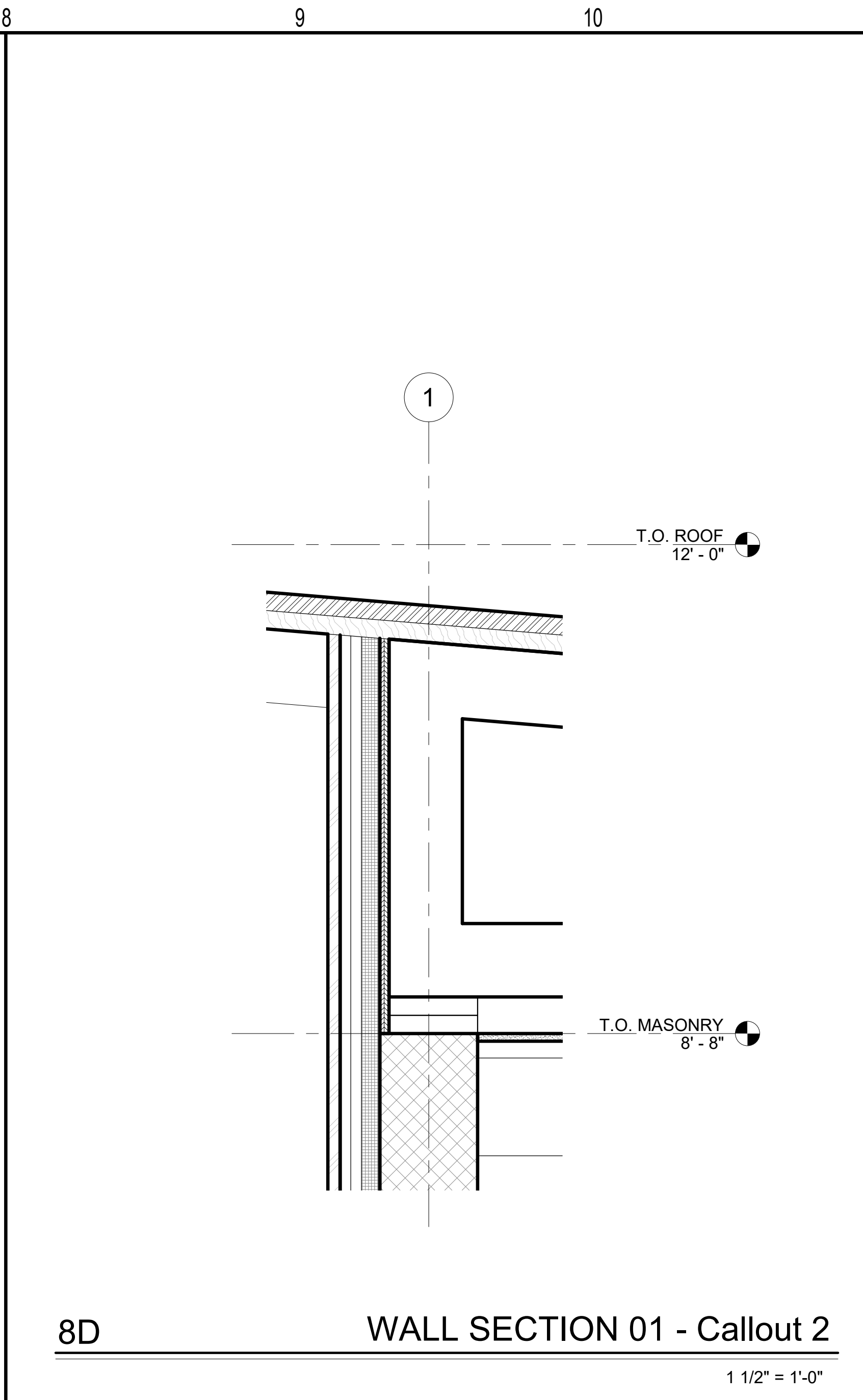
2F ROOF EAVE SECTION DTL 1

1 1/2" = 1'-0"



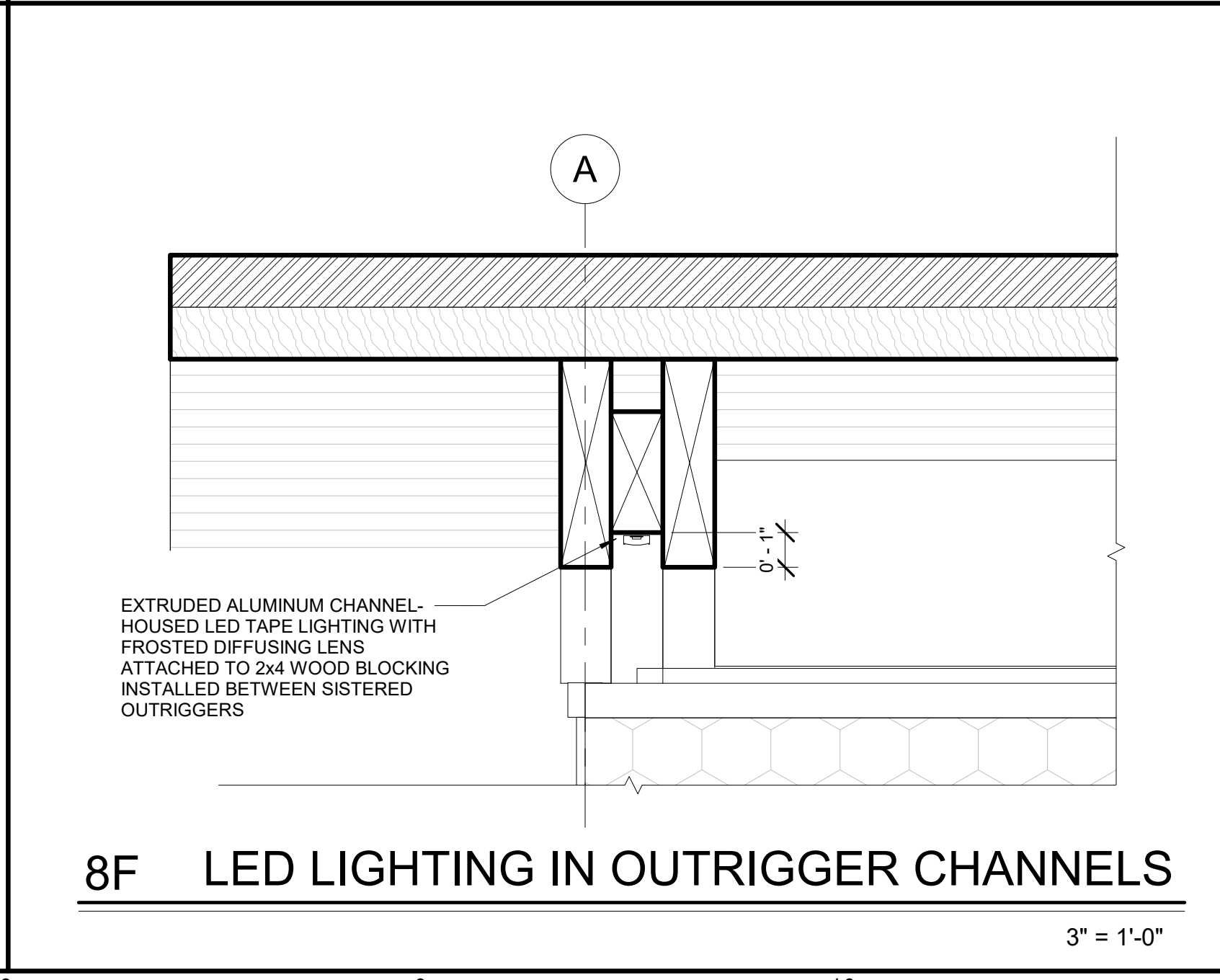
5D POLYCARBONATE CLERESTORY SECTION

1 1/2" = 1'-0"



8D WALL SECTION 01 - Callout 2

1 1/2" = 1'-0"

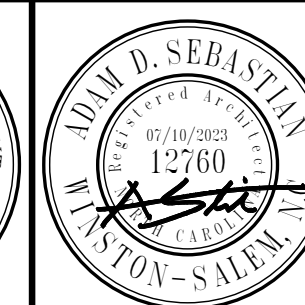


8F LED LIGHTING IN OUTRIGGER CHANNELS

3" = 1'-0"

STITCH
DESIGN SHOP

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



**NEILL'S CREEK PARK
COMFORT STATION**
BLACK RIVER TOWNSHIP, TOWN OF ANGIER
HARNETT COUNTY, NC

CONSTRUCTION DOCUMENTS

Revisions		
No.	Description	Date

date: 07/10/2023
commission: 22-810

sheet title:
SECTION DETAILS

sheet no.:
A6.05

1 2 3 4 5 6 7 8 9 10 11

A

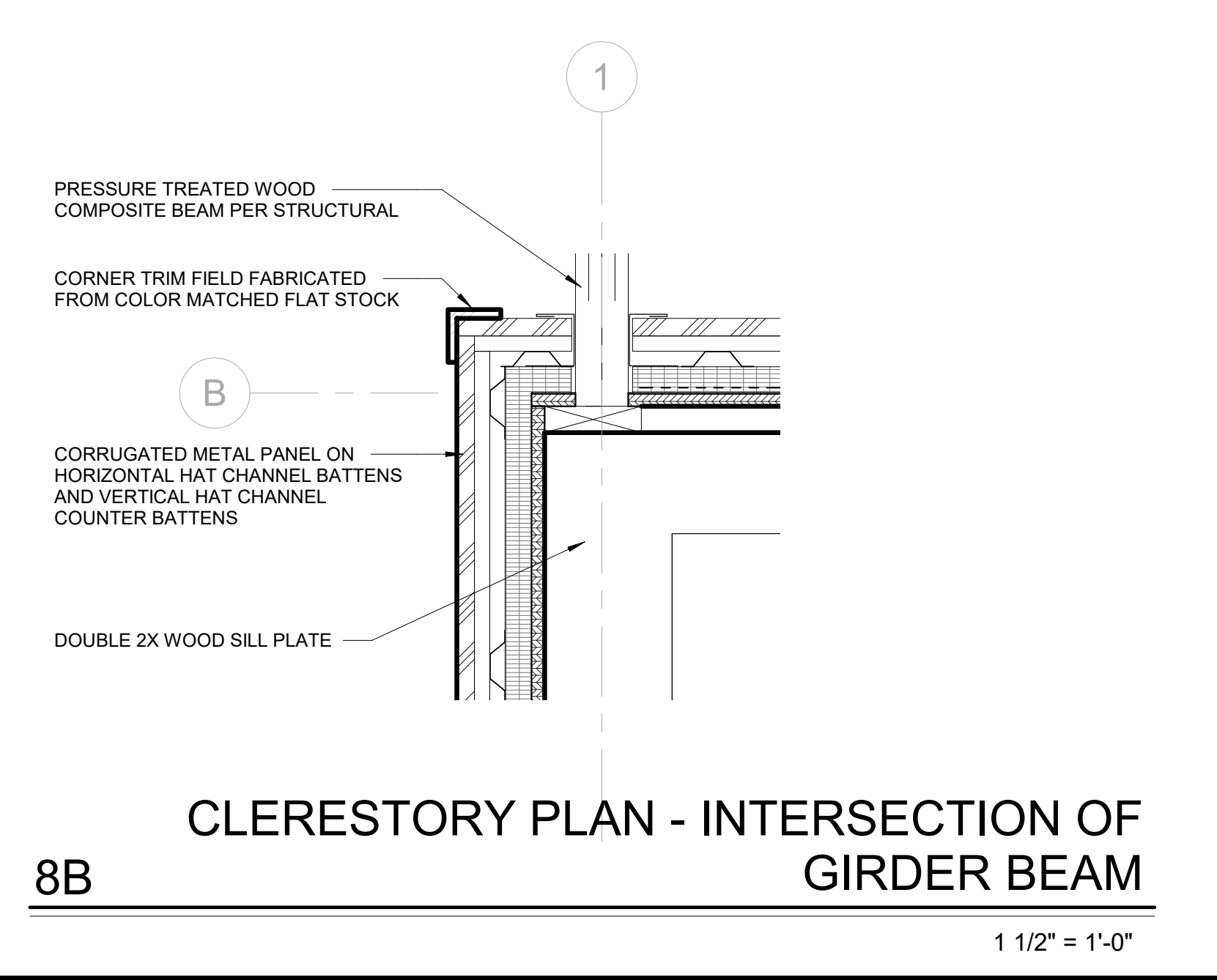
B

C

D

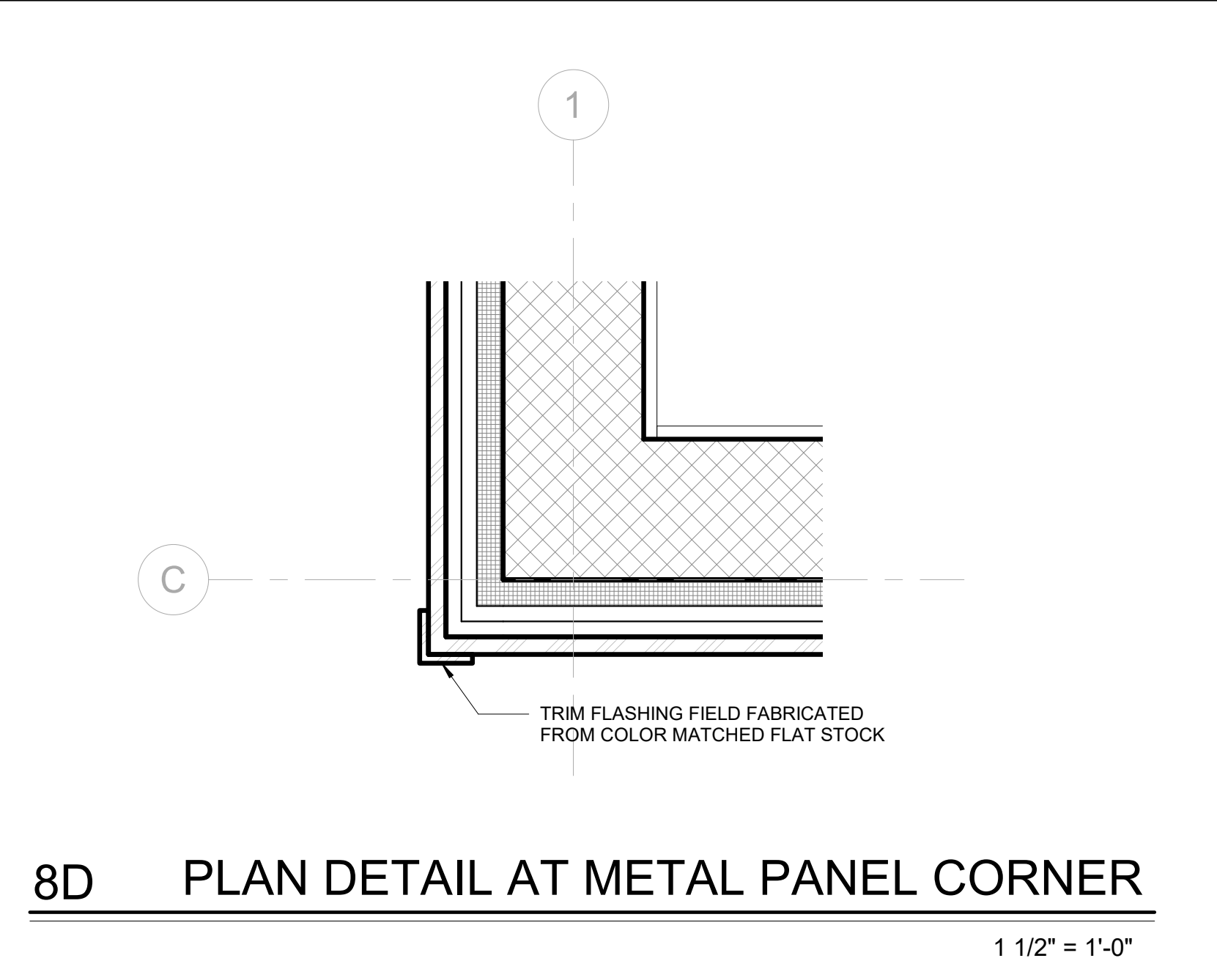
E

F

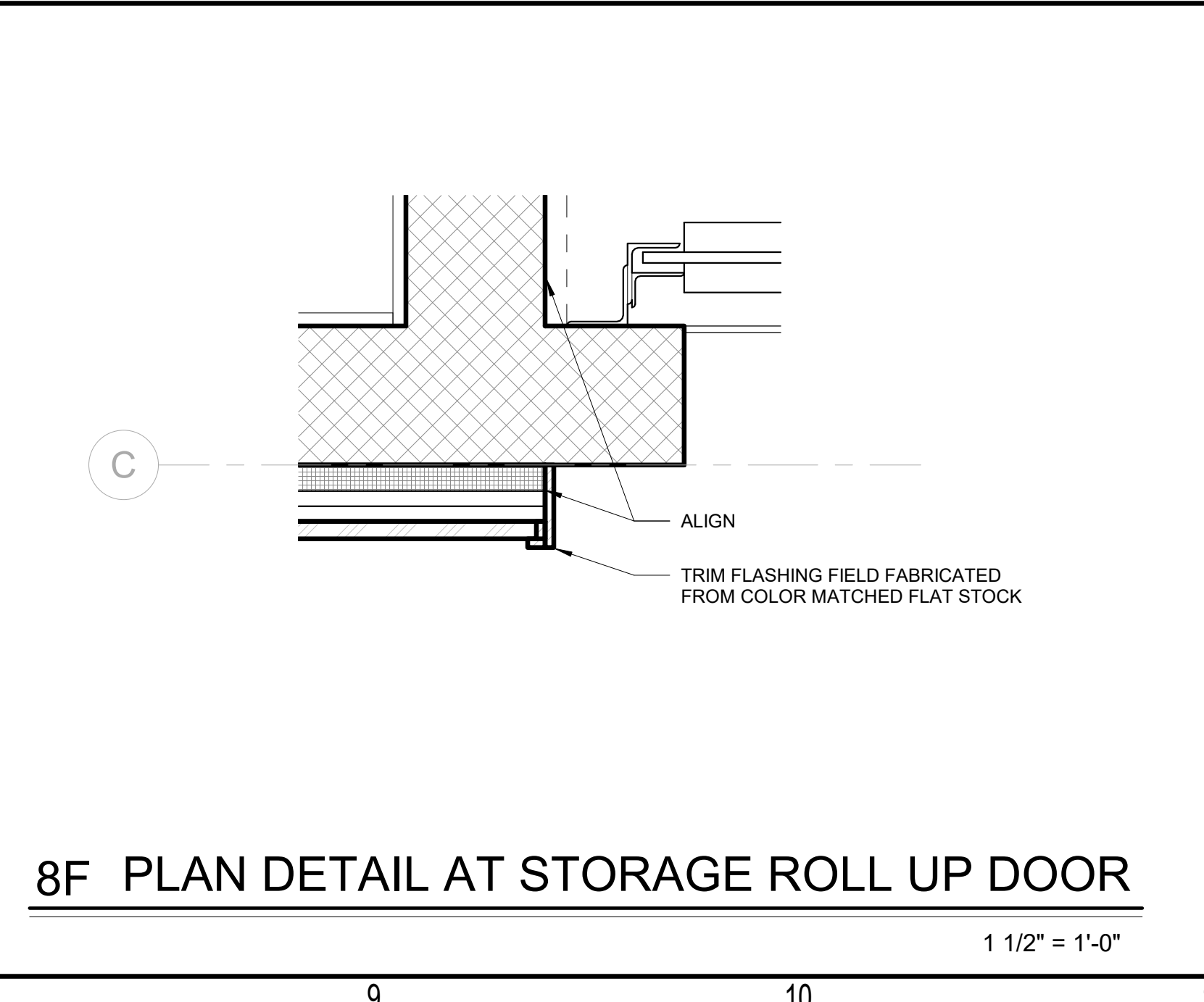


STITCH
DESIGN SHOP

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



**NEILL'S CREEK PARK
COMFORT STATION**
BLACK RIVER TOWNSHIP, TOWN OF ANGIER
HARNETT COUNTY, NC



CONSTRUCTION DOCUMENTS

Revisions		
No.	Description	Date

date: 07/10/2023
commission: 22-810



sheet title:
ENLARGED PLAN DETAILS

sheet no.:

A8.01

1 Copyright 2023 STITCH design + development, PLLC 2 3 4 5 6 7 8 9 10 11

PLUMBING FIXTURE SCHEDULE	
WC1	<p>FLOOR 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. FIXTURE: ZURN #Z5665-BWL FLUSH VALVE: ZURN "AQUAFLUSH" #Z6000-WS1-YK</p> 
WC2	<p>FLOOR 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. STANDARD HEIGHT OF 15" AFF TO RIM. FIXTURE: ZURN #Z5655-BWL FLUSH VALVE: ZURN "AQUAFLUSH" #Z6000-WS1-YK</p> 
UR1	<p>VITREOUS CHINA WATERLESS URINAL WITH INTEGRAL TRAP SEAL. PROVIDE COMPLETE WITH ADDITIONAL "GREEN SEALANT", INSTALL AT ADA HEIGHT OF 17" AFF TO RIM. FIXTURE: ZURN #Z5795 TRAP SEALANT: ZURN "ZGS-1200Z (1 GALLON BOTTLE)</p> 
UR2	<p>SAME AS UR1 EXCEPT MOUNTED AT 24" AFF TO RIM.</p> 
L1	<p>RECTANGULAR DROP IN COUNTER MOUNTED LAVATORY WITH FAUCET HOLES ON 4" CENTERS. FAUCET TO BE TWO HANDLE, MANUAL METERING TYPE WITH ADA COMPLIANT ROCKER HANDLES AND 0.5 GPM AERATOR. PROVIDE WITH OPEN GRID STRAINER. ALL PIPING AND TRAPS TO BE INSULATED PER SPECS AND FREEZE PROTECTION NOTES. SOME FIXTURES REQUIRE A WATER SAVER P-TRAP. REFER TO PLANS FOR SPECIFIC FIXTURES. COORDINATE COUNTERTOP OPENING WITH G.C. FIXTURE: ALLEN + ROTH #ML-20522 FAUCET: ZURN #Z86500-XL-RKR-3M NOTE THAT HW NOT SUPPLIED TO THIS FIXTURE.</p> 
MS1	<p>24x24x10 MOP SERVICE BASIN WITH WALL GUARDS, MOP BRACKET AND BUCKET HOOK FAUCET. PROVIDE COMPLETE WITH STAINLESS STEEL BUMPERS AND STAINLESS STEEL WALL GUARDS ON BOTH WALLS. FIXTURE: ZURN #Z1996-24 FAUCET: ZURN #Z841M2-RC NOTE THAT HW NOT SUPPLIED TO THIS FIXTURE</p> 
SK1	<p>DOUBLE BOWL RESIDENTIAL STYLE STAINLESS STEEL SINK WITH ADA COMPLIANT 5" DEEP BOWLS. TWO FAUCET HOLES ON 8" CENTERS AND BASKET STRAINER. PROVIDE COMPLETE WITH SCALD GUARDS ON TRAP AND SUPPLIES. TWO HANDLE GOOSENECK FAUCET WITH 1.0 GPM LAMINAR FLOW AERATOR AND HOT AND COLD INDEXES. FIXTURE: ELKAY #LRAD03321 (33" x 21-1/4" x 5") FAUCET: ZURN Z-871A4-XL-21F-HCT</p> 
EWC	<p>ADA COMPLIANT, VANDAL RESISTANT DOUBLE BUBBLER WATER COOLER WITH FRONT PUSH BUTTON ACTIVATION AND INTEGRAL BOTTLE FILLER. UNIT SHALL BE MANUFACTURER RATED FOR OUTDOOR APPLICATIONS. 8 GPH CHILLING OF 50 DEG F WATER. COORDINATE WITH E.C. TO PROVIDE 20 GFI PROTECTED CIRCUIT. LOW BOWL ON THE RIGHT WITH BOTTLE FILLER. FIXTURE: ELKAY #VRCTL8WSK BOTTLE FILLER ACCESSORY: ELKAY #VRCWS</p> 

PLUMBING FIXTURE SCHEDULE	
FPHB	<p>FREEZE PROOF HOSE BIBB WITH TEE KEY HANDLE OPERATION. ASSE 1052 COMPLIANT. FIXTURE: WOODFORD #67</p> 
EWH1	<p>POINT OF USE TANKLESS WATER HEATER. SET OUTLET TEMP TO 110 DEG F MAXIMUM. PERFORMANCE SHALL BE 51 DEG RISE @ 1.0 GPM (240V). FIXTURE: EEMAX #SPEX75T</p> 

THE FOLLOWING FIXTURES ARE MORE GENERIC FIXTURES. THE P.C. MAY SUBMIT ANY BRAND THAT MEETS THE LISTED CRITERIA. ALL EQUIPMENT SHALL STILL BE SUBJECT TO APPROVAL OR REJECTION BY THE ENGINEER DURING SUBMITTAL REVIEW.

WHA	- PISTON TYPE WATER HAMMER ARRESTOR SIZED FOR FIXTURES BEING SERVED.
FD1	- 3" OUTLET, ROUND FLOOR DRAIN WITH NICKEL BRONZE GRATE, AUXILIARY TRAP PRIMER CONNECTION AND VANDAL PROOF SCREWS.
FCO	- ADJUSTABLE PVC FLOOR CLEANOUT WITH BRONZE COVER AND VANDAL PROOF SCREWS.
GCO	- IN LANDSCAPE, GCO SHALL BE A GLUE ON THREADED PLUG.
MXV1	- ASSE 1070 COMPLIANT POINT OF USE MIXING VALVE. SET OUTLET TEMP TO 110 DEG F.

BACKFLOW PREVENTER & PRV NOTES	
A NEW RPZ 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 JANITORS CLOSET.	

FREEZE PROTECTION NOTES	
THE RESTROOMS AND JANITORS CLOSET ARE NOT BEING PROVIDED WITH ANY HEATERS AT OWNERS REQUEST. PER NPC 305.4, ALL WATER PIPING SHALL BE PROVIDED WITH A MINIMUM OF R6.5 INSULATION ON ALL PIPE AND FITTINGS. PROVIDED INSULATION SHALL ALSO COMPLY WITH ASTM C177. INSULATION THICKNESS MAY VARY BETWEEN PIPE SIZES TO ACCOMPLISH THIS R-VALUE RATING.	
ALL EXPOSED INSULATION IN THE RESTROOMS SHALL BE WRAPPED IN A PVC JACKET. COLOR TO BE SPECIFIED BY THE ARCHITECT.	
ALL PIPING SHALL SLOPE DOWN TO THE INCOMING SHUT OFF VALVE TO ALLOW FOR DRAINING OF THE SYSTEM. A DRAIN VALVE WITH HOSE THREAD END SHALL BE LOCATED JUST DOWNSTREAM OF THE BUILDING MAIN SHUT OFF VALVE. ALL PIPING FROM THIS POINT SHALL SLOPE UP AT LEAST 1/16" PER FOOT TO ALLOW WINTER DRAINING.	

HOT WATER SERVICE NOTES	
PER NC PLUMBING CODE SECTION 807.1, THIS NON RESIDENTIAL OCCUPANCY IS NOT REQUIRED TO HAVE HOT WATER AT THE LAVATORIES OR MOP SINK.	
A POINT OF USE WATER HEATER IS PROVIDED AT THE CONCESSION STAND SINK FOR OCCUPANT CONVENIENCE ONLY.	

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 AS WELL AS THE EXISTING PIPING BELOW THE EXISTING PARKING LOT.	
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 BUILDING OWNER/LANDLORD.	
A SMOKE VENT TEST SHOULD ALSO BE PERFORMED TO MAKE SURE NO OPEN SEWER PIPES REMAIN IN THE SPACE OR ABOVE THE CEILING.	

PLUMBING LEGEND	
CW	- COLD WATER
HW	- HOT WATER
SS	- SANITARY SEWER
V	- VENT
WC	- WATER CLOSET
L	- LAVATORY
UR	- URINAL
MS	- JANITORS MOP SINK
SK	- STAINLESS STEEL SINK
EWC	- ELECTRIC WATER COOLER
WHA	- WATER HAMMER ARRESTOR
FPHB	- FREEZE PROOF HOSE BIBB
EWH	- ELECTRIC WATER HEATER
FD	- FLOOR DRAIN
FCO	- EXTERIOR GRADE CLEANOUT
PRV	- PRESSURE REDUCING VALVE
MXV	- POINT OF USE MIXING VALVE
BFP	- BACKFLOW PREVENTER
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	- UNGERGROUND
AG	- ABOVE GROUND

FIXTURE RUN OUT SIZES	
CW	= COLD WATER
HW	= HOT WATER 110 DEG F
THE FOLLOWING FIXTURES SHALL BE PROVIDED AND INSTALLED BY THE PLUMBING CONTRACTOR.	
WC1 & WC2	- 1" CW
UR1 & UR-2	- 3/4" CW
L1	- 1/2" CW
SK1	- 1/2" CW & 1/2" HW
MS1	- 1/2" CW
EWC	- 1/2" CW
EWH1	- 1/2" CW & 1/2" HW
FPHB	- 1/2" CW
MXV1	- 1/2" CW & 1/2" HW

PLUMBING SPECIFICATIONS	
1.	PLUMBING CONTRACT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FEES, AND PERMITS REQUIRED FOR AND REASONABLY INCIDENTAL TO THE EXECUTION OF THE PLUMBING WORK.
2.	ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH NORTH CAROLINA STATE BUILDING CODE, PLUMBING, ENERGY, AND LOCAL BUILDING CODES.
3.	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.
4.	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.
5.	THE PLUMBING CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF THE OTHER TRADES PRIOR TO THE INSTALLATION OF ANY OF HIS PIPING OR EQUIPMENT.
6.	MEASUREMENTS: BEFORE ORDERING ANY MATERIAL OR DOING ANY WORK, THE PLUMBING CONTRACTOR SHALL VERIFY ALL MEASUREMENTS AND LINE SIZES AND SHALL BE RESPONSIBLE FOR VERIFYING THE INVERT ELEVATION OF THE EXISTING SANITARY PIPING PRIOR TO CONSTRUCTION.
7.	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, THE AMERICAN CONCRETE INSTITUTE, AND OTHER GUIDE SPECIFICATIONS.
8.	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.
9.	INSPECTIONS: THE CONTRACTOR MUST AT ALL TIMES LEND ANY ASSISTANCE NECESSARY FOR ENGINEERS OR THEIR AUTHORIZED REPRESENTATIVE TO MAKE TESTS, INSPECTIONS, ETC.
10.	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.
11.	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.
12.	PIPING AND FITTINGS: SANITARY WASTE & VENT PIPING: PVC PIPE AND FITTINGS CONFORMING TO ASTM D-2665. NO FOAM CORE PVC PIPE WILL BE ACCEPTABLE. ALL TRAPS EXPOSED IN UN-HEATED SPACES SHALL BE WRAPPED WITH INSULATION THAT IS SIMILAR TO THAT OF THE WATER PIPING LISTED IN SECTION 15 OF THESE SPECS.
13.	ABOVE GROUND WATER PIPING: TYPE L HARD COPPER WATER PIPING CONFORMING TO ASTM-B-88. WROUGHT-COPPER FITTINGS CONFORMING TO ASTM-B-16.23. ALL WATER PIPING SHALL BE SLOPED AT MINIMUM 1/16" DOWN TOWARDS BUILDING MAIN VALVE IN JANITORS CLOSET. THIS IS REQUIRED TO ALLOW FOR DRAINING OF THE WATER FROM THE BUILDING DURING THE OFF SEASON.
14.	UNDERGROUND WATER PIPING: TYPE K COPPER.
15.	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 COVERING. PIPE INSULATION (HEATED AREAS) SHALL BE EITHER 1" FIBERGLASS WITH PAPER COVERING. 1/2" ARMAFLEX MAY BE USED IN WALLS. PIPE INSULATION (UN-HEATED AREAS) SHALL COMPLY WITH NPCC 305.4 AND SHALL BE WRAPPED WITH MINIMUM R6.5 INSULATION. THICKNESS AS REQUIRED FOR EACH INDIVIDUAL PIPE SIZE. ALL INSULATION IN UN-HEATED AREAS SHALL HAVE THE ASTM C177 CERTIFICATION AND APPROVAL.
16.	PROVIDE BALL VALVES TO ISOLATE ALL GROUPS OF FIXTURES AND AS SHOWN ON THE PLANS TO FACILITATE FUTURE SERVICING.
17.	PROVIDE DIELECTRIC UNIONS OR FLANGES TO ISOLATE DISSIMILAR METALS.
18.	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.
19.	CLEANOUTS SHALL BE PROVIDED IN ALL SANITARY PIPING AS SHOWN OR INDICATED BY THE A.H.J.
20.	WCO SHALL HAVE STAINLESS STEEL COVERS.
21.	ALL VENT PIPING SHALL SLOPE UP TO THE DISCHARGE POINT.
22.	MAINTAIN ALL FIRE RATINGS. SUBMIT UL ASSEMBLY TO LOCAL FIRE MARSHAL FOR APPROVAL.
23.	G.C. SHALL BE RESPONSIBLE FOR ALL FLOOR SLAB POURING. TRENCHING AND BACKFILL SHALL BE BY P.C.

PLUMBING SHEET INDEX	
P001	PLUMBING COVER SHEET
P002	PLUMBING DETAILS
P201	PLUMBING FLOOR PLANS
P301	WASTE & VENT RISER DIAGRAM
P302	DOMESTIC WATER RISER DIAGRAM

CONSULTANT ENGINEERING SERVICE, INC.
PLUMBING • MECHANICAL • ELECTRICAL

Phone: 336-724-0139 • 1111 S Marshall Street, Suite 250, Winston Salem, NC 27101

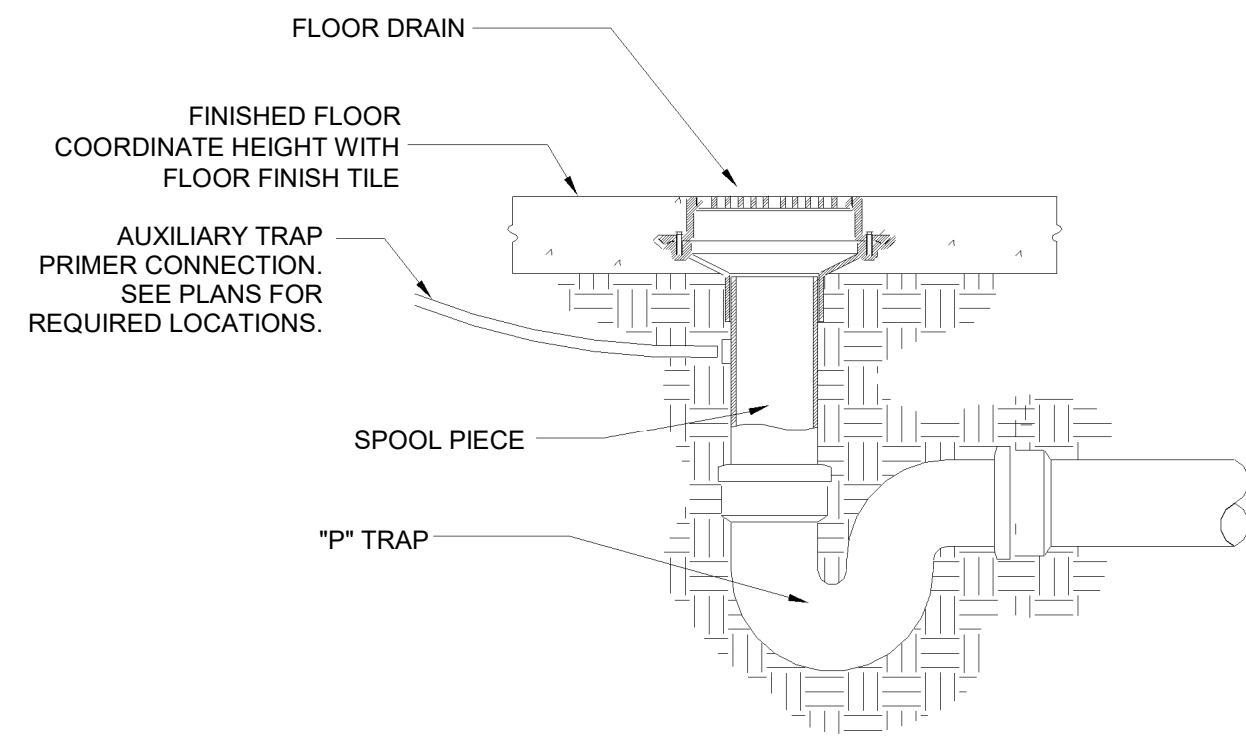
CS
A Woman Owned Business
est. 1964

THESE DRAWINGS ARE PROVIDED BY CONSULTANT ENGINEERING SERVICE, INC. FOR YOUR INFORMATION AND TO PROVIDE DRAWING CLARITY. THESE DRAWINGS ARE NOT TO BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN CONSENT OF CONSULTANT ENGINEERING SERVICE, INC. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT INTENDED WITHOUT THE WRITTEN CONSENT FROM THE ENGINEER IS PROHIBITED. UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.



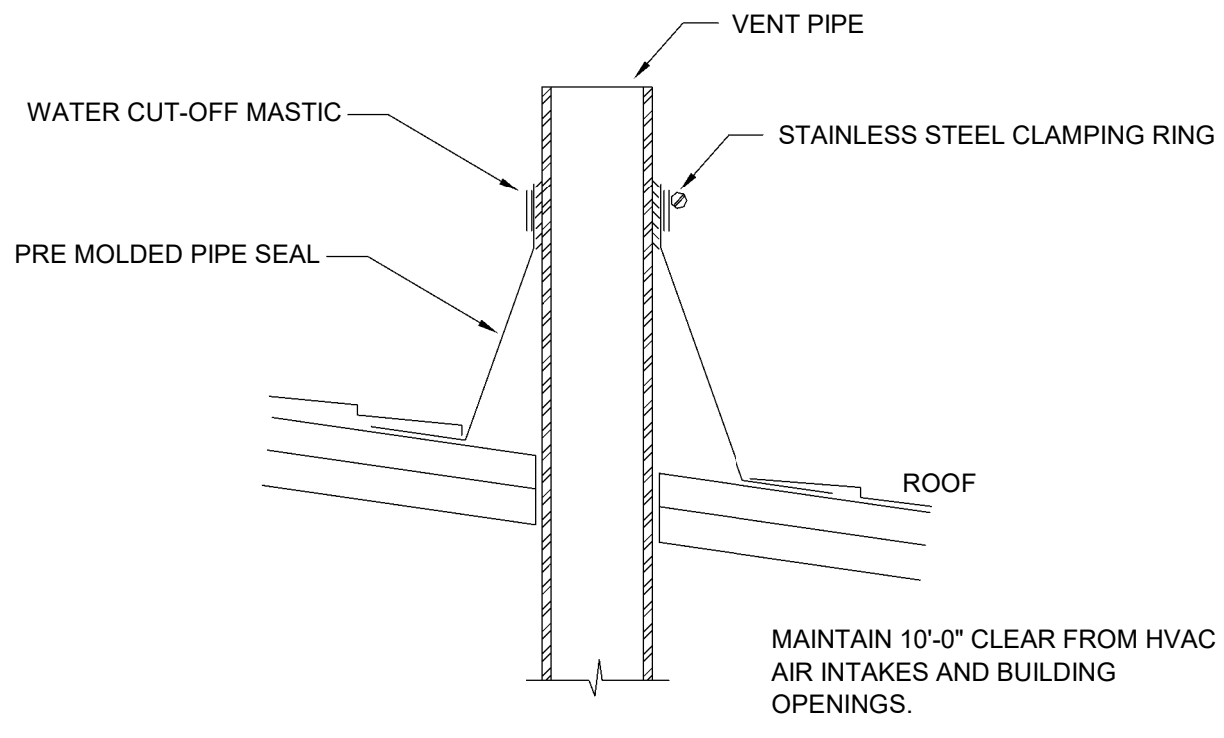
NEILL'S CREEK PARK COMFORT STATION
BLACK RIVER TOWNSHIP, TOWN OF ANGLIER
HARNETT COUNTY, NC

SHEET TITLE	
PLUMBING COVER SHEET	
DESIGNED BY	DWG
APPROVED BY	CRS
PROJECT NO.	4343
REVISION	
REVISION	
REVISION	
DATE	07/10/2023
CES LICENSE NO.	F-028
SHEET NUMBER	P001

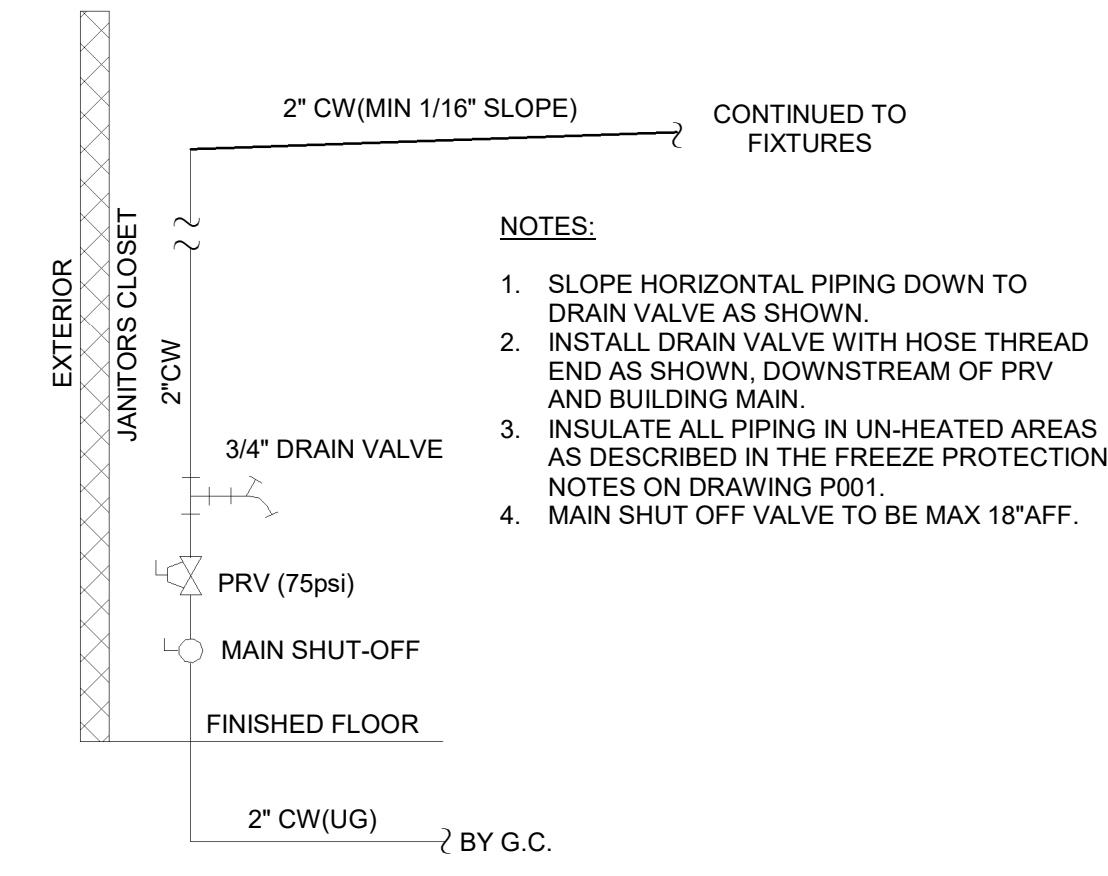


- NOTES:
- FLOOR SHALL BE SLOPED TO DRAIN BY G.C. FOR AN AREA APPROX 12" DIAMETER AROUND DRAIN IN EXISTING SAW CUT FLOORS. FOR NEW SLAB, FLOOR SHOULD SLOPE CONTINUOUSLY TO DRAIN. COORDINATE EXACT LOCATIONS WITH G.C.
 - REFER TO SPECIFICATIONS FOR PIPING MATERIAL DETAILS.

1 FLOOR DRAIN DETAIL
P002 NOT TO SCALE

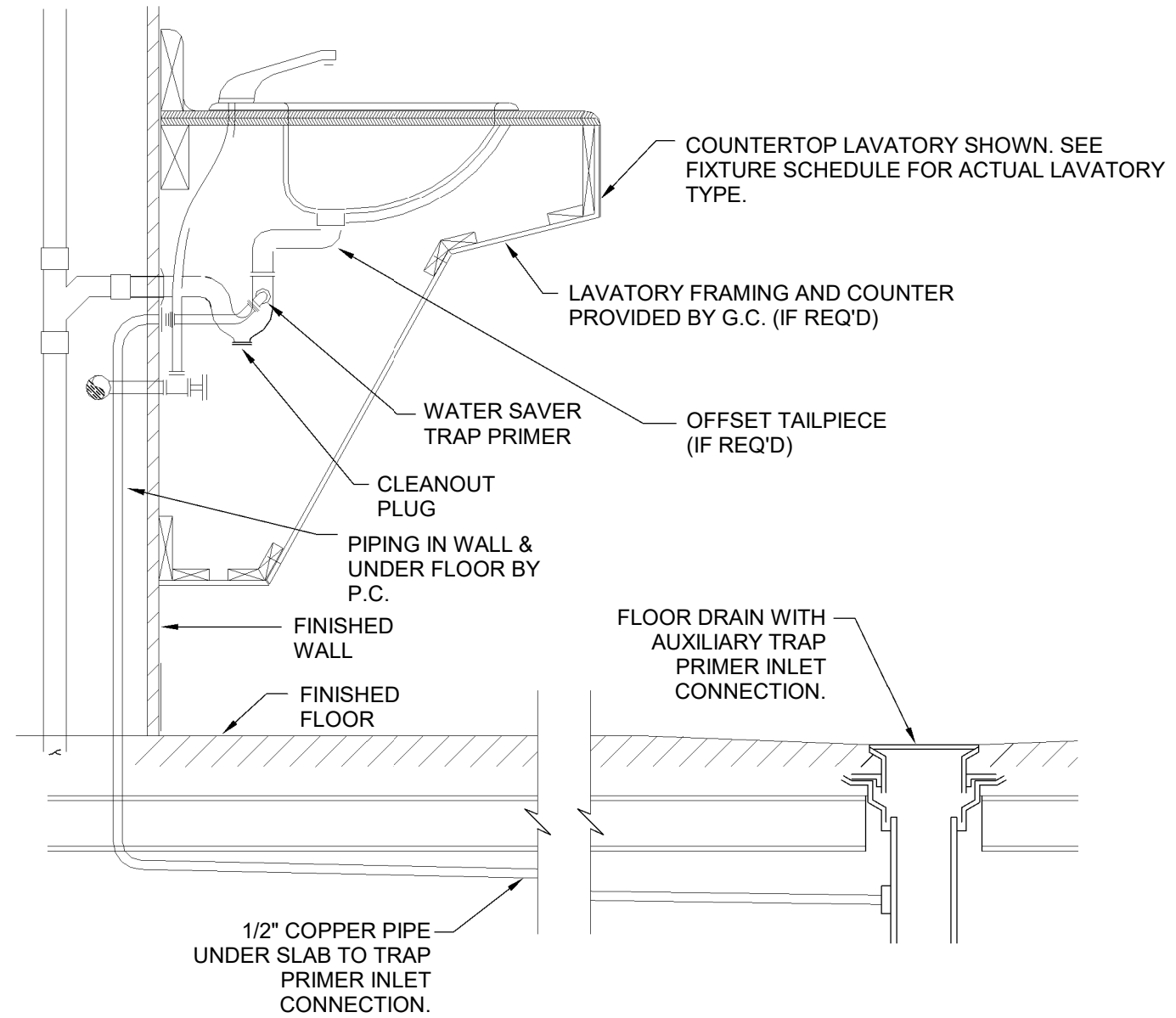


2 VENT THROUGH ROOF SLOPED
P002 NOT TO SCALE

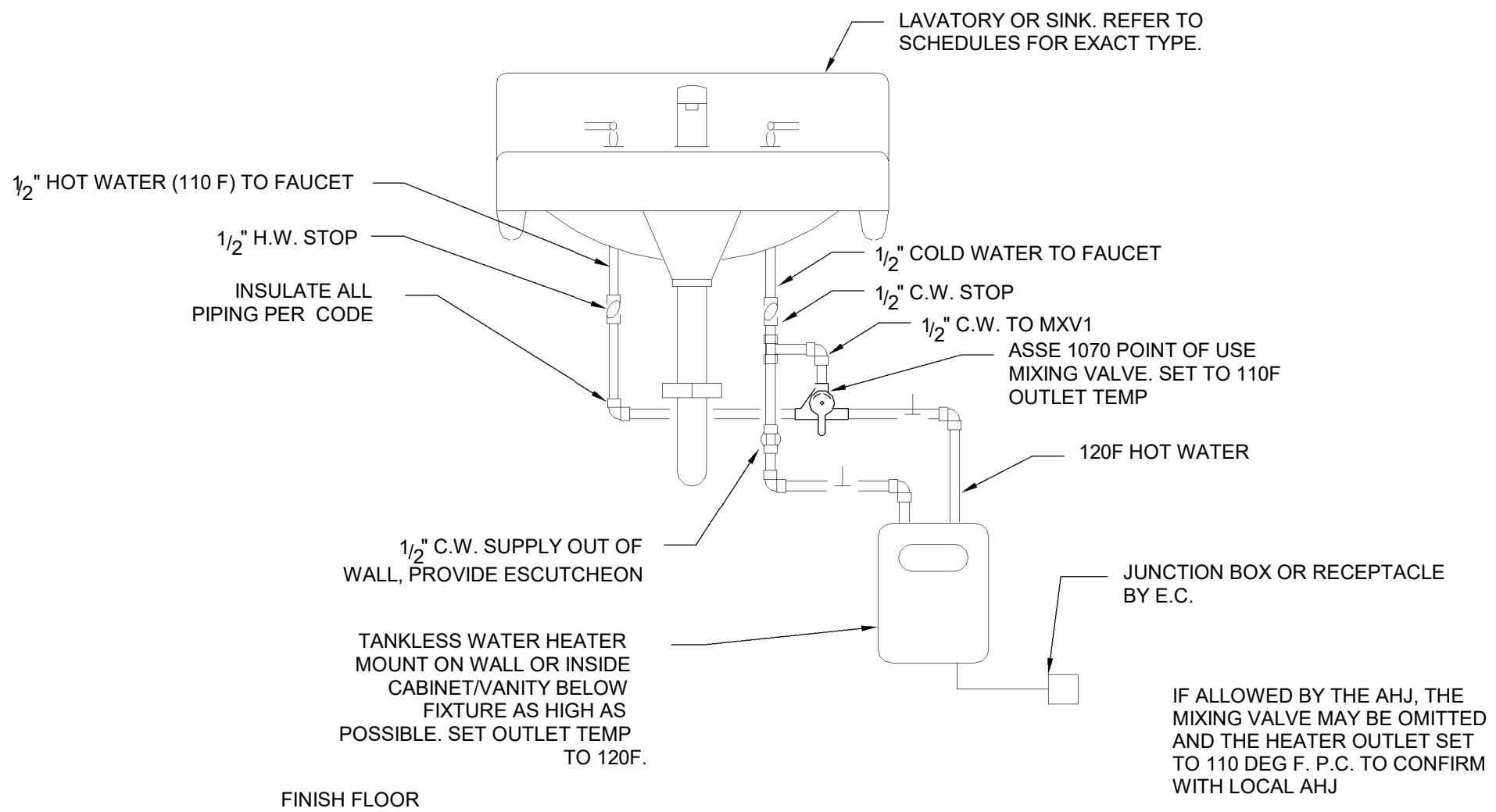


- NOTES:
- SLOPE HORIZONTAL PIPING DOWN TO DRAIN VALVE AS SHOWN.
 - INSTALL DRAIN VALVE WITH HOSE THREAD END AS SHOWN, DOWNSTREAM OF PRV AND BUILDING MAIN.
 - INSULATE ALL PIPING IN UN-HEATED AREAS AS DESCRIBED IN THE FREEZE PROTECTION NOTES ON DRAWING P001.
 - MAIN SHUT OFF VALVE TO BE MAX 18" AFF.

3 INCOMING WATER & BUILDING DRAIN
P002 NOT TO SCALE



4 WATER SAVER P-TRAP
P002 NOT TO SCALE

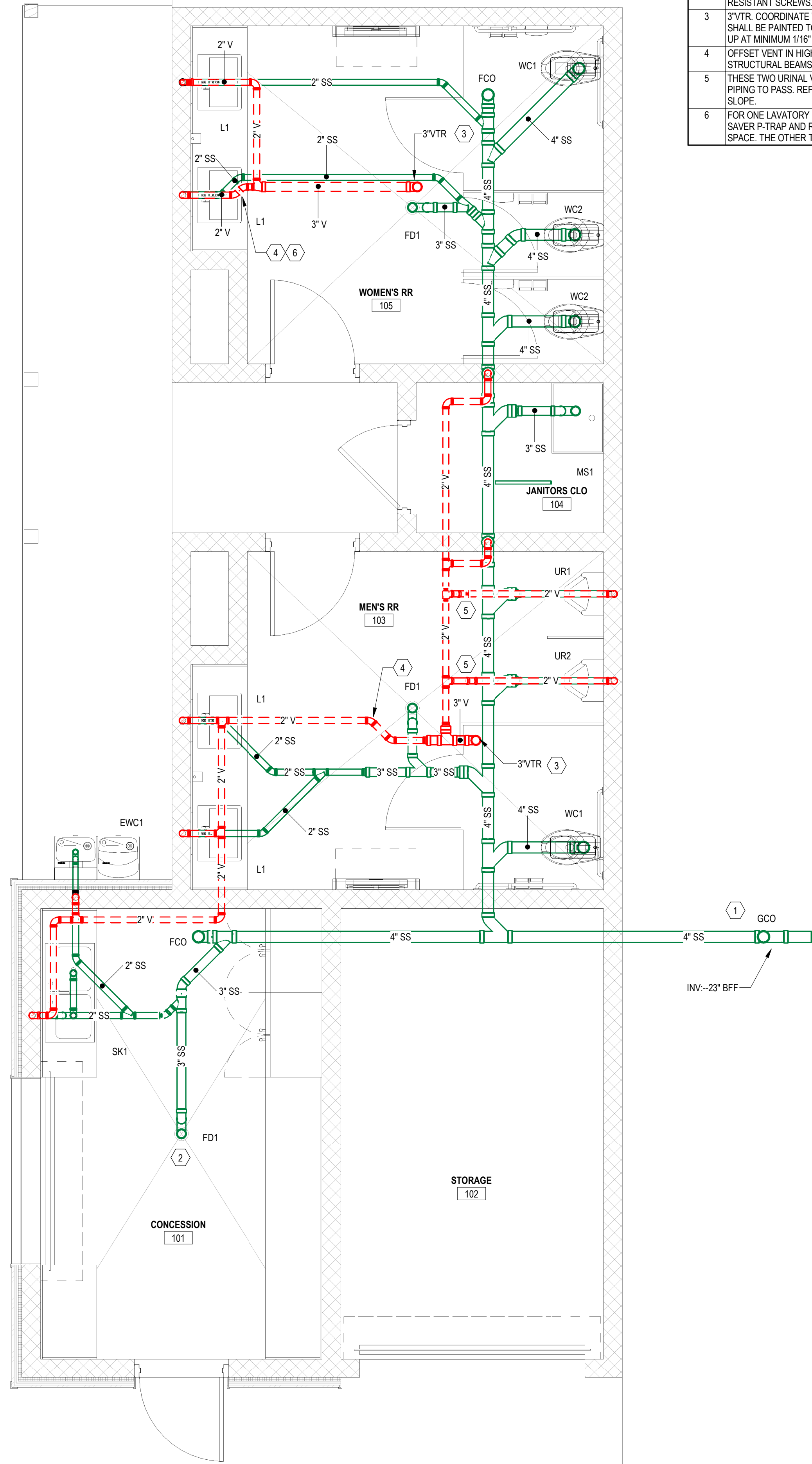


5 TANKLESS WATER HEATER
P002 NOT TO SCALE



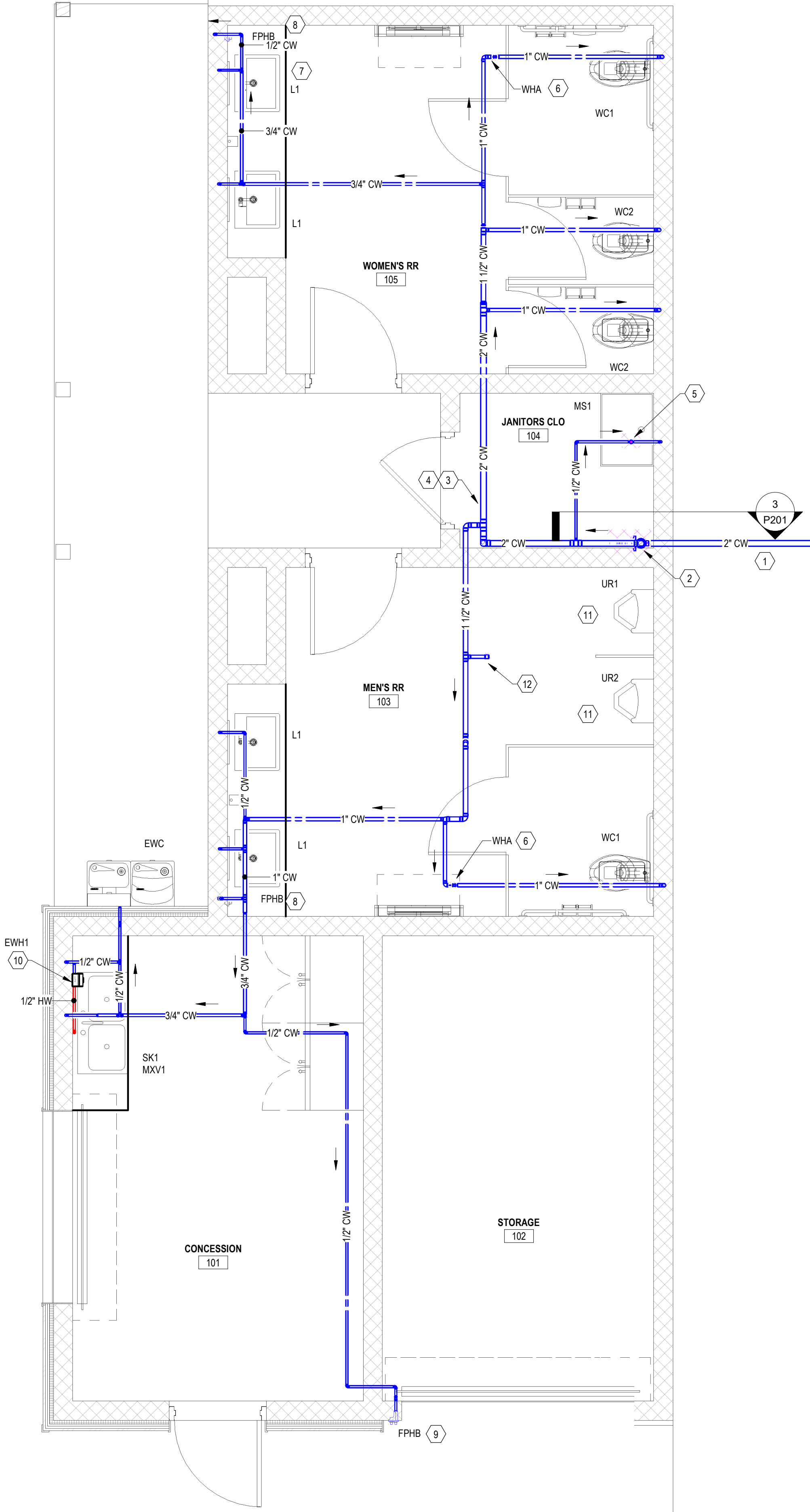
NEILL'S CREEK PARK COMFORT STATION
BLACK RIVER TOWNSHIP, TOWN OF ANGLIER
HARNETT COUNTY, NC

DATE		07/10/2023	
SHEET TITLE		PLUMBING DETAILS	
DESIGNED BY	PROJECT NO.	APPROVED BY	REVISION
DWG	4343	CRS	
SHEET NUMBER		P002	



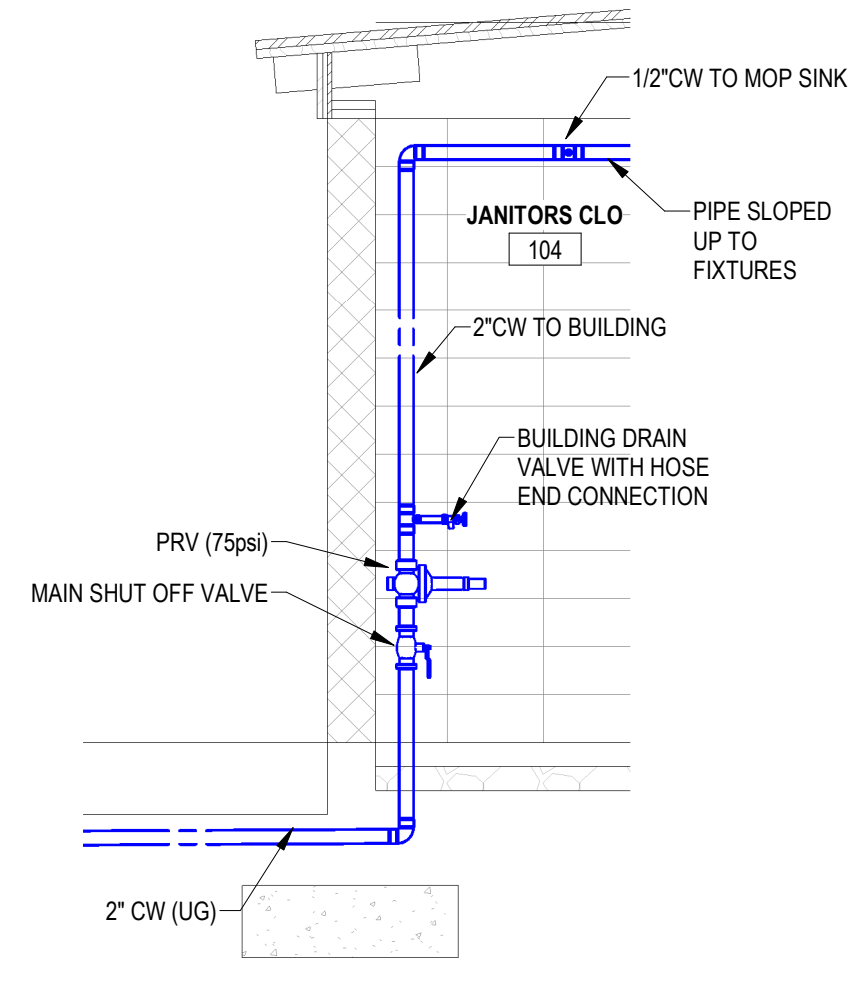
1 WASTE & VENT PLAN
3/8" = 1'-0"

KEYNOTES 1/P201	
1	4"SS OUT TO CONNECT TO MAIN SEWER LINE. P.C. TO EXTEND TO 5'-0" BEYOND WALL AND PROVIDE GRADE CLEANOUT WITH THREADED PVC PLUG. APPROX INVERT IS -23" BFF AND ABOVE THE FOOTING. P.C. TO VERIFY AND SLEEVE FOOTING IF REQUIRED.
2	TYPICAL FLOOR DRAIN WITH TRAP PRIMER INLET. ALL DRAINS TO HAVE VANDAL RESISTANT SCREWS.
3	3"VTR. COORDINATE WITH G.C. AND ROOFING SUBCONTRACTOR. PVC PIPE ON ROOF SHALL BE PAINTED TO CLOSELY MATCH ROOF COLOR. ALL VENT PIPING SHALL SLOPE UP AT MINIMUM 1/16" PER FOOT TO THIS POINT.
4	OFFSET VENT IN HIGH PART OF CEILING SO THAT IT DOES NOT CONFLICT WITH THE STRUCTURAL BEAMS. NO PIPING SHALL BE RUN BELOW BOTTOM OF STRUCTURE.
5	THESE TWO URINAL VENTS MAY NEED TO BE OFFSET DOWN TO ALLOW THE WATER PIPING TO PASS. REFER TO WATER PLANS. NOTE THAT ALL WATER PIPING MUST ALSO SLOPE.
6	FOR ONE LAVATORY IN EACH RESTROOM AND CONCESSION SINK, PROVIDE A WATER SAVER P-TRAP AND ROUTE LINE IN WALL AND BELOW SLAB TO FLOOR DRAIN IN SPACE. THE OTHER TWO RESTROOM LAVATORIES SHALL HAVE STANDARD P-TRAPS.



2 WATER PLAN
3/8" = 1'-0"

KEYNOTES 2/P201	
1	2"CW SERVICE PIPE BROUGHT TO BUILDING BY G.C. REFER TO CIVIL SITE PLANS FOR BACKFLOW PREVENTER AND METER.
2	SEE SECTION 3/P201 FOR INCOMING WATER RISER. PROVIDE A PRESSURE REDUCING VALVE, MAIN BUILDING SHUT OFF AND BUILDING SYSTEM DRAIN VALVE AS SHOWN.
3	IN ORDER TO ALLOW FOR DRAINING OF THE BUILDING PIPING, ALL COLD WATER PIPING SHALL SLOPE UP FROM THE MAIN VALVE. DO NOT OFFSET THE PIPES UP AND BACK DOWN TO CREATE A TRAP. ARROWS BESIDE PIPE SHOW THE DIRECTION OF THE SLOPE "UPWARDS".
4	SINCE THIS BUILDING IS NOT BEING HEATED, THE PIPE INSULATION MUST COMPLY WITH SECTION 305.4 OF THE NC PLUMBING CODE. REFER TO PIPE FREEZE PROTECTION NOTES ON P001. NOTE THAT NOT ALL INSULATION THICKNESSES WILL BE THE SAME. ADDITIONALLY, ALL PIPING EXPOSED IN THE RESTROOMS SHALL BE PROVIDED WITH A PVC JACKET. COLOR TO BE DETERMINED BY THE ARCHITECT PRIOR TO ORDERING.
5	PROVIDE ASSE 1024 COMPLIANT CHECK VALVE ON SUPPLY LINE TO MOP SINK. NO HOT WATER IS BEING SUPPLIED TO THE MOP SINK. P.C. TO CAP OR PLUG HOT WATER INLET ON FAUCET.
6	INSTALL WATER HAMMER ARRESTOR ON LAST TOILET BRANCH AS SHOWN. ORIENT IN THE VERTICAL POSITION.
7	NO HOT WATER IS BEING PROVIDED AT THESE LAVATORIES. P.C. TO PLUG OR CAP HOT WATER INLET ON FAUCET. TYPICAL FOR ALL "L1" FIXTURES.
8	IN EACH RESTROOM, PROVIDE AN ASSE 1052 COMPLIANT "FREEZE PROOF" HOSE BIBB ON THE WALL AT 18" AFF. PROVIDE TEE KEY OPERATION AND HANG KEY ON WALL IN JANITORS CLOSET.
9	PROVIDE AN ASSE 1052 COMPLIANT "FREEZE PROOF" HOSE BIBB ON THE EXTERIOR WALL AT 30" AFG. PROVIDE TEE KEY OPERATION AND HANG KEY ON WALL IN JANITORS CLOSET.
10	TANKLESS WATER HEATER BELOW SINK IN CONCESSION AREA. UNIT SHALL BE SET TO OUTLET TEMPERATURE OF 120 DEG F. PROVIDE WITH POINT OF USE MIXING VALVE (MV1) TO ENSURE DELIVERY TO SINK DOES NOT EXCEED 110 DEG F. P.C. TO ENSURE THAT THE SK1 FAUCET HAS NO MORE THAN A 1.0 GPM AERATOR TO ALLOW FOR DELIVERED WATER TO BE IN THE 85-90 DEGREE RANGE. COORDINATE WITH E.C. TO PROVIDE POWER.
11	WATERLESS URINALS. NO WATER CONNECTIONS REQUIRED.
12	1"CW BRANCH, CAPPED, PROVIDED IN CASE THE OWNER WANTS TO SWITCH TO TRADITIONAL URINALS IN THE FUTURE.



3 INCOMING WATER SECTION
3/8" = 1'-0"

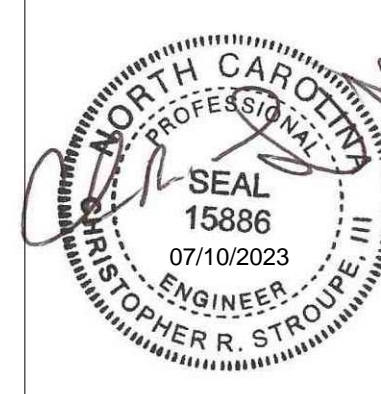
NEILL'S CREEK PARK COMFORT STATION
BLACK RIVER TOWNSHIP, TOWN OF ANGLIER
HARNETT COUNTY, NC

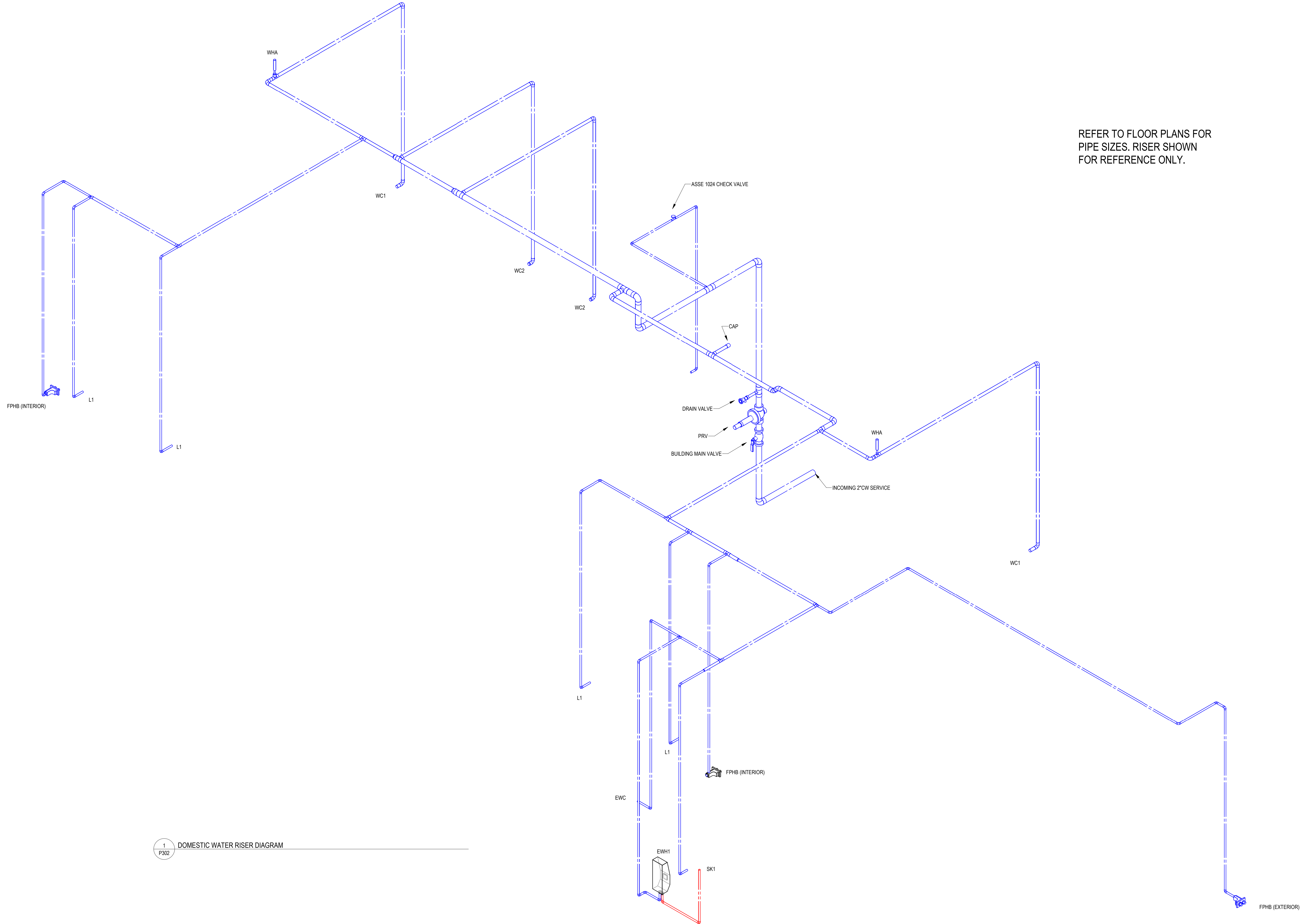
DATE: 07/10/2023
SHEET NUMBER: P201

SHEET TITLE	PLUMBING FLOOR PLANS
DESIGNED BY	DWG
APPROVED BY	CRS
PROJECT NO.	4343
REVISION	
REVISION	
REVISION	

CONSULTANT ENGINEERING SERVICE, INC.
 PLUMBING • MECHANICAL • ELECTRICAL
 Phone: 336.724.0139 • 1111 S Marshall Street, Suite 250, Winston Salem, NC 27101
 A Woman Owned Business
 est. 1964
 THESE DRAWINGS ARE THE PROPERTY OF CONSULTANT ENGINEERING SERVICE, INC. REPRODUCTION OR USE OF THESE DRAWINGS WITHOUT THE WRITTEN CONSENT FROM THE ENGINEER IS PROHIBITED. UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.

CONSTRUCTION DOCUMENTS





REFER TO FLOOR PLANS FOR
PIPE SIZES. RISER SHOWN
FOR REFERENCE ONLY.

1 P302 DOMESTIC WATER RISER DIAGRAM

CONSULTANT ENGINEERING SERVICE, INC.
PLUMBING • MECHANICAL • ELECTRICAL
Phone: 336.724.0139 • 1111 S Marshall Street, Suite 250, Winston Salem, NC 27101

CES
A Woman Owned Business
est. 1994

THESE DRAWINGS ARE 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. UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.

NORTH CAROLINA
PROFESSIONAL ENGINEER
SEAL
15886
07/10/2023
ENGINEER
ROPER R. STROUPE

NEILL'S CREEK PARK COMFORT STATION
BLACK RIVER TOWNSHIP, TOWN OF ANGIER
HARNETT COUNTY, NC

DATE
07/10/2023

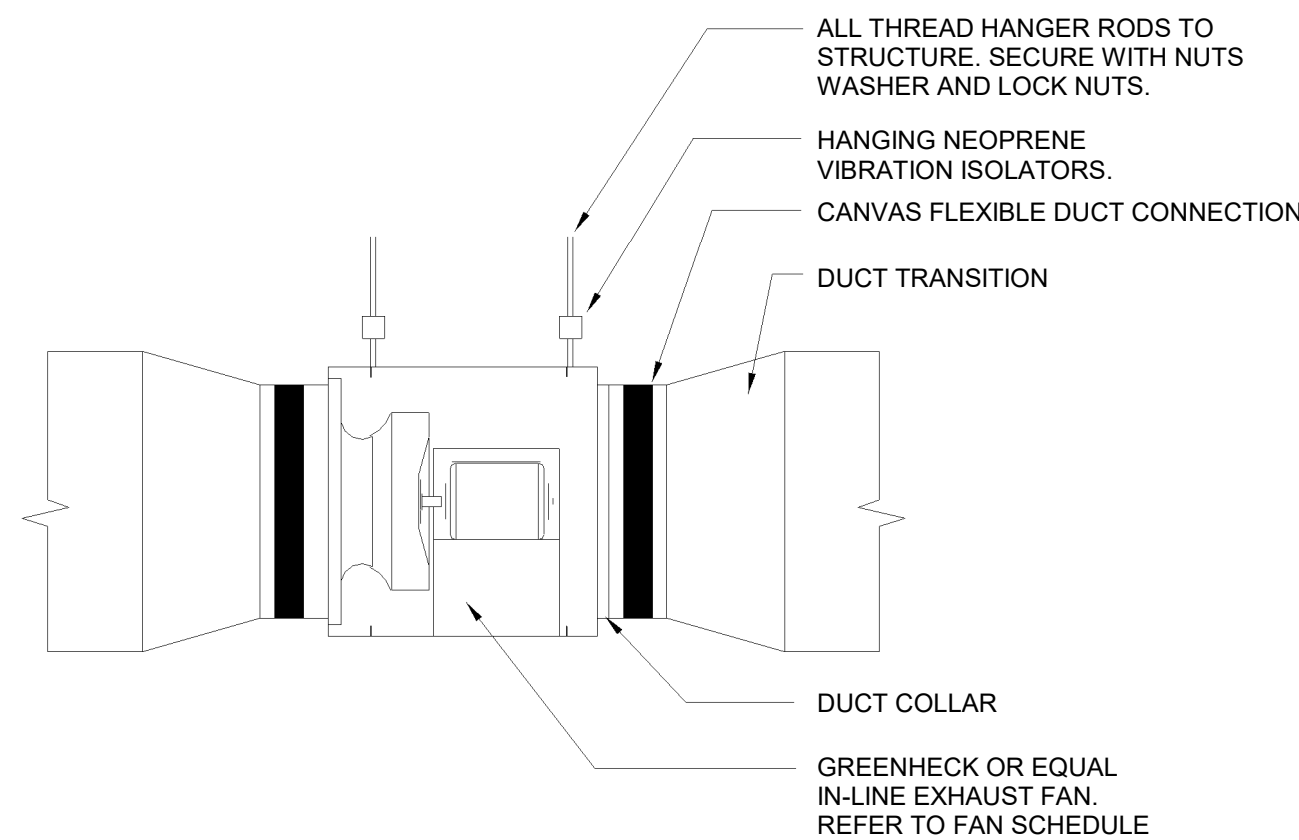
CES LICENSE NO. F-028

SHEET TITLE		DATE	
DOMESTIC WATER RISER DIAGRAM		07/10/2023	
DESIGNED BY	PROJECT NO.	APPROVED BY	REVISION
DWG	4343	CRS	

SHEET NUMBER
P302

CONSTRUCTION DOCUMENTS

As instruments of service these drawings and the design represented are the property of Consultant Engineering Service, Inc. Reproduction or use of these drawings other than for the project intended without the written consent from the Engineer is prohibited. Unauthorized use will be subject to legal action.



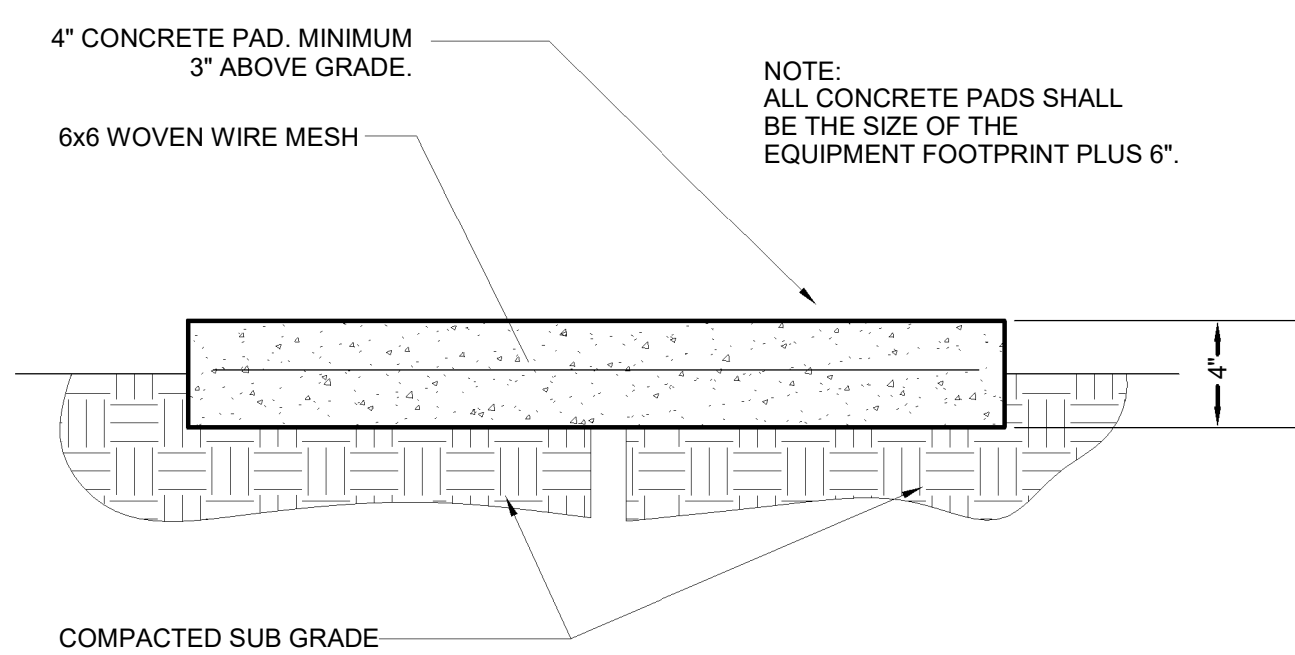
NOTES:

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

1
M001 IN-LINE EXHAUST FAN
NOT TO SCALE

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 MANUFACTURES INSTRUCTIONS AND SHALL NOT BE USED AS A TRANSITION, OFFSET, OR OTHER SIMILAR FITTING.



2
M001 EXTERIOR EQUIPMENT PAD
NOT TO SCALE

MECHANICAL LEGEND

- DS - DUCTLESS SPLIT SYSTEM (INDOOR UNIT)
- DHP - DUCTLESS SPLIT SYSTEM (OUTDOOR UNIT)
- EF - EXHAUST FAN
- EA - EXHAUST AIR
- CFM - CUBIC FEET PER MINUTE
- BTU - BRITISH THERMAL UNIT
- MBH - BTU x 1000
- 12x12 - RECTANGULAR DUCT NOTATION
- 12Ø - ROUND DUCT NOTATION
- T THERMOSTAT
- S MOTION SENSOR
- (E1,12x12,210) DIFFUSER TAG (ID,SIZE,CFM)

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT
METHOD OF COMPLIANCE:

Prescriptive Energy Cost Budget

Climate Zone	4A
Exterior design conditions	(HARNETT COUNTY NC, USA)
winter dry bulb	26.5°F
summer dry bulb	98.5°F
summer wet bulb	75.9°F
Interior design conditions	
winter dry bulb	72°F
summer dry bulb	75°F
relative humidity	50%
Building heating load	9.2 MBH (CONCESSION AREA ONLY)
Building cooling load	11.6 MBH

Mechanical Spacing Conditioning System

Unitary	
description of unit	
heating efficiency	SEE EQUIPMENT SCHEDULES
cooling efficiency	
heat output of unit	
cooling output of unit	
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	SEE EQUIPMENT SCHEDULES
number of phases	

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

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.
- PIPE INSULATION: 1/2" ARMAFLEX INTERIOR TO THE BUILDING & 1-1/2" ARMAFLEX WITH ALUMINUM JACKET EXTERIOR TO THE BUILDING.
- 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.
- MECHANICAL CONTRACTOR SHALL TEST AND BALANCE ALL SYSTEMS TO COMPLY WITH PLANS.
- OUTSIDE AIR IS BEING PROVIDED TO THE CONCESSION BUILDING VIA NATURAL VENTILATION. SEE NOTE THIS SHEET.

EXHAUST FAN SCHEDULE										
PLAN TAG	MANUFACTURER	MODEL	TYPE	SERVING	CFM	ESP	RPM	HP OR WATTS	VOLTAGE	REMARKS
EF-1	GREENHECK	SQ-80	INLINE	WOMEN 105	210	0.25	1,300	1/20 HP	115/1	1,2,3,4,5,6,7,8,9,10
EF-2	GREENHECK	SQ-80	INLINE	MEN 103	210	0.25	1,300	1/20 HP	115/1	1,2,3,4,5,6,7,8,9,10
EF-3	GREENHECK	SQ-60	INLINE	JANITOR 104	40	0.25	1,300	1/80 HP	115/1	1,2,3,4,5,6,7,8,10

- WALL DISCHARGE CAP WITH BACKDRAFT DAMPER
- STANDARD 1 YEAR WARRANTY
- FAN BACKDRAFT DAMPER
- DUCTED INLET AND OUTLET
- CORROSION RESISTANT FASTNERS
- NEMA 1 TOGGLE SWITCH
- INSULATED HOUSING
- SWITCHED WITH LIGHT
- ADDITIONAL CONTROL OF SPACE THERMOSTAT
- POWER ROUTED THROUGH TIME CLOCK (BY E.C.)

DUCTLESS SPLIT INDOOR UNIT SCHEDULE													
PLAN TAG	MANUF.	MODEL	TYPE	MATCHED OUTDOOR UNIT	FAN DATA		FAN ELECTRICAL		SINGLE POINT CONNECTION			WEIGHT LBS	REMARKS
					CFM (HIGH/LOW)	VOLTS	MCA	VOLTS	MCA	MOC			
DS-1	TRANE	NTXCKS12A112AA	CEILING CASSETTE	DHP-1	230/260/335	208/1	0.30	POWER SUPPLIED FROM DHP-1			37	1,2,3,4,5	

- INTEGRAL CONDENSATE PUMP
- SIMPLE WALL MOUNTED THERMOSTAT WITH PLASTIC COVER
- CEILING MOUNTING KIT
- LONG LIFE AIR FILTER
- STANDARD WARRANTY

DUCTLESS SPLIT SYSTEM OUTDOOR UNIT SCHEDULE														
PLAN TAG	MANUF.	MODEL	NOMINAL TONS	TYPE	MATCHED INDOOR UNIT	RATED COOLING MBH @ 95F	SEER	RATED HEATING MBH @ 17 F	HSPF	ELECTRICAL			UNIT WEIGHT	REMARKS
										MCA	MOC	VOLTAGE		
DHP-1	TRANE	NTXSKS12A112AA	1.0	SINGLE ZONE	DS-1	12.0	22.0	8.9	11.4	9	16	208/1	81	1,2,3,4

- REFRIGERANT LINESETS (FIELD SIZED)
- DISCONNECT
- STANDARD PARTS AND COMPRESSOR WARRANTY
- HOUSEKEEPING PAD

OUTSIDE AIR (VENTILATION NOTES)

VENTILATION AND EXHAUST MAKE UP AIR IS BEING PROVIDED TO THE RESTROOMS VIA A DOOR GRILLE, PROVIDED BY THE GENERAL CONTRACTOR.

VENTILATION FOR THE OCCUPIED SPACE OF CONCESSION 101 IS PROVIDED VIA NATURAL VENTILATION AS ALLOWED BY NCMC 402.1 AND IN COMPLIANCE WITH NCMC 402.2 WHICH REQUIRES WINDOW OR DOOR OPENINGS TO BE AT LEAST 4% OF THE ROOM AREA.

CONCESSION 101 = 160 SF
REQUIRED OPENING AREA = 6.4 SF (4%)
THE COMBINED CONCESSION WINDOW AND OPERABLE DOOR AREA = 51SF (32%)

ELECTRICAL DISCONNECT NOTE

ALL HVAC DISCONNECTS PROVIDED BY M.C AND INSTALLED BY E.C. SHALL CONNECT BOTH LINE AND LOAD SIDE WIRING.

SEQUENCE OF OPERATION

1. EXHAUST FANS (EF-1 & EF-2):

THESE FANS SHALL BE ON A TIMECLOCK TO ONLY OPERATE DURING HOURS SPECIFIED BY THE OWNER. WHEN IN OCCUPIED MODE, THE FANS SHALL TYPICALLY TURN ON AND OFF WITH THE RESTROOM LIGHT AND SHALL BE TIED TO THE LIGHT MOTION SENSOR. ADDITIONALLY, THESE FANS SHALL BE LINKED TO A SPACE THERMOSTAT SUCH THAT THEY WILL TURN ON IF THE SPACE TEMPERATURE EXCEEDS THE THERMOSTAT SETPOINT. SETPOINT SHALL BE 85 DEG F (ADJ).

2. EXHAUST FAN (EF-3):

THIS FAN SHALL BE ON A TIMECLOCK TO ONLY OPERATE DURING HOURS SPECIFIED BY THE OWNER. WHEN IN OCCUPIED MODE, THE FAN SHALL TURN ON AND OFF WITH THE JANITOR CLOSET LIGHT AND SHALL BE TIED TO THE LIGHT MOTION SENSOR.

3. DUCTLESS SPLIT SYSTEM HEAT PUMP (DS-1 & DHP-1):

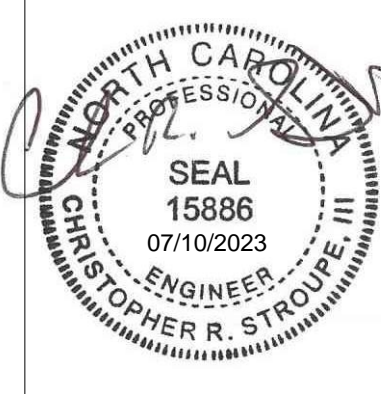
THIS UNIT SHALL BE CONTROLLED VIA A STAND ALONE WALL THERMOSTAT WITH AUTO-CHANGOVER CAPABILITIES AND A MINIMUM 2 DEGREE DEADBAND BETWEEN HEATING AND COOLING.

ON A CALL FOR COOLING THE COMPRESSORS SHALL INITIATE ON TO COOL THE SPACE TO BELOW SETPOINT. ON A CALL FOR HEATING, THE REVERSING VALVE SHALL SWITCH TO HEATING MODE TO MAINTAIN TEMPERATURE. ALL SETPOINTS ARE ADJUSTABLE, BUT FOR AN INITIAL SETPOINT USE 72 DEG F FOR COOLING AND 68 DEGREE F FOR HEATING (ADJ).

HVAC SHEET INDEX

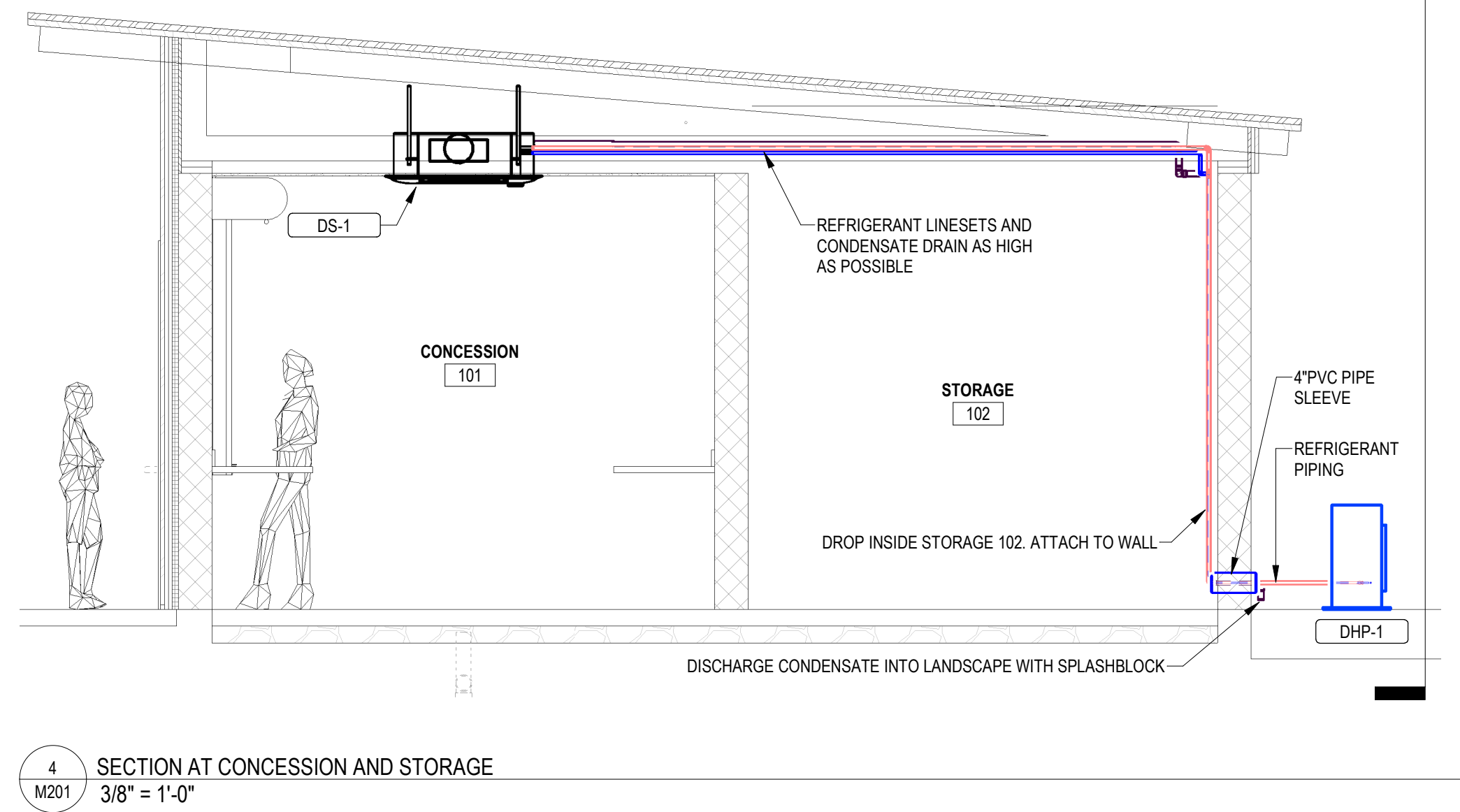
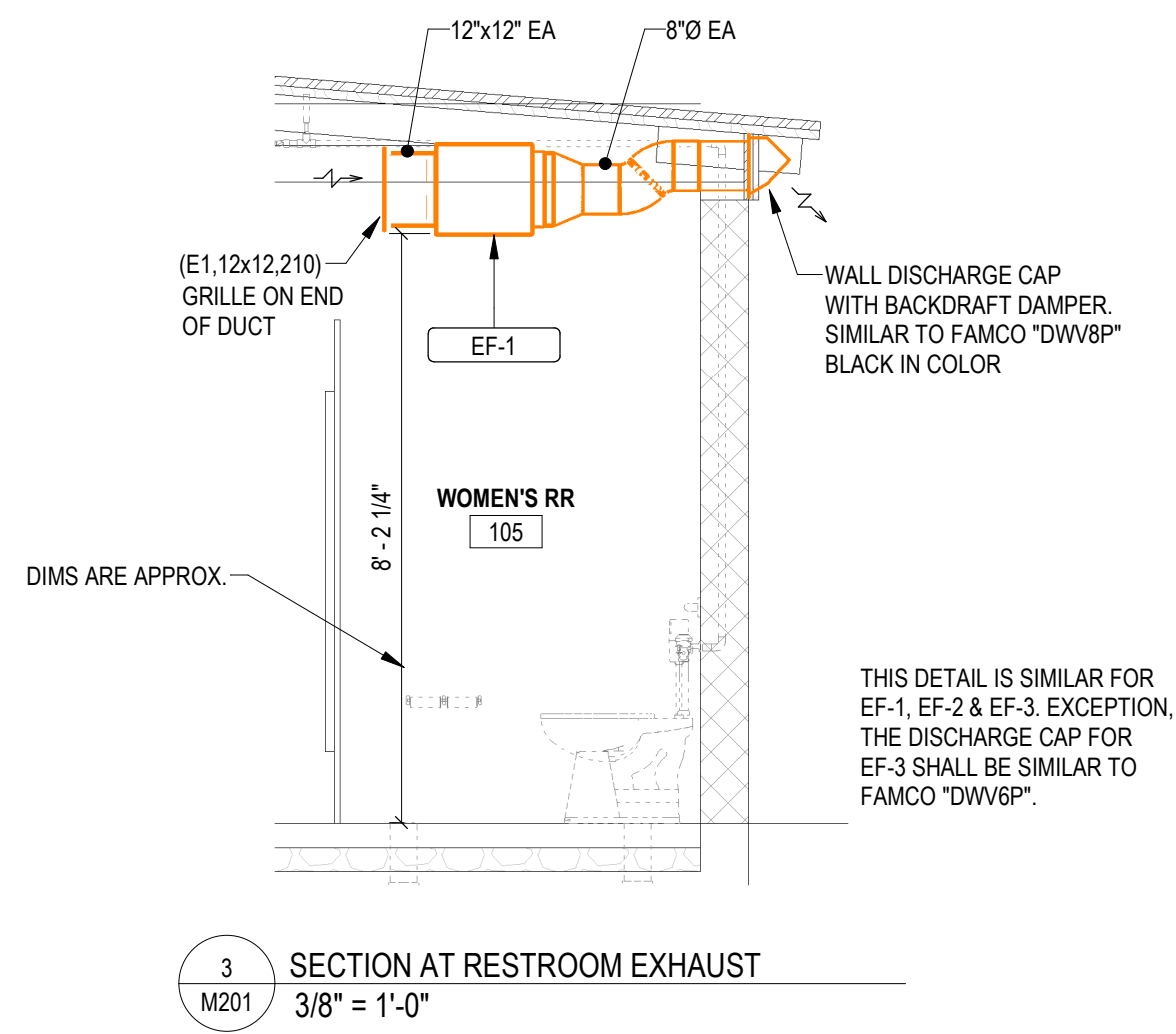
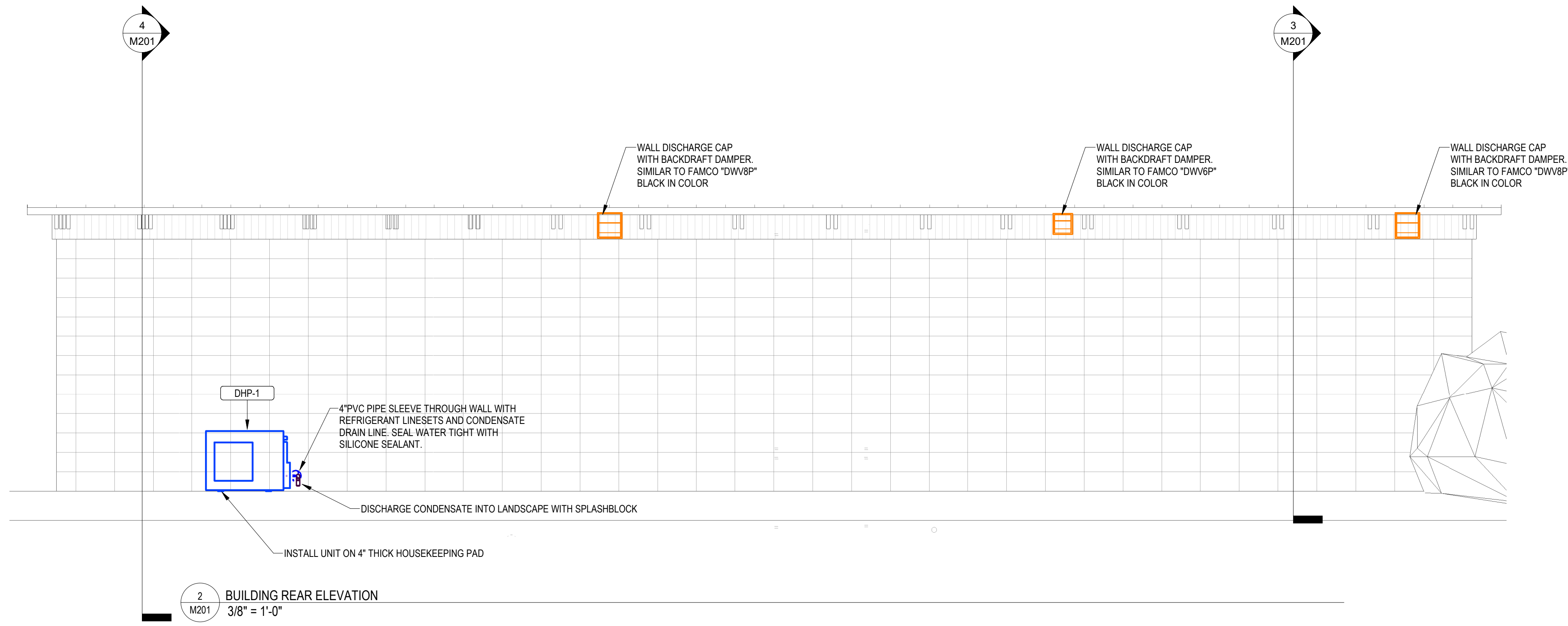
M001	MECHANICAL COVER SHEET
M201	MECHANICAL FLOOR PLAN

CONSULTANT ENGINEERING SERVICE, INC.
PLUMBING • MECHANICAL • ELECTRICAL
Phone: 336.724.0139 • 1111 S Marshall Street, Suite 250, Winston Salem, NC 27101
A Woman Owned Business
est. 1984
PROVIDED BY CONSULTANT ENGINEERING SERVICE, INC. THESE DRAWINGS ARE THE PROPERTY OF CONSULTANT ENGINEERING SERVICE, INC. AND ARE NOT TO BE REPRODUCED OR USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.

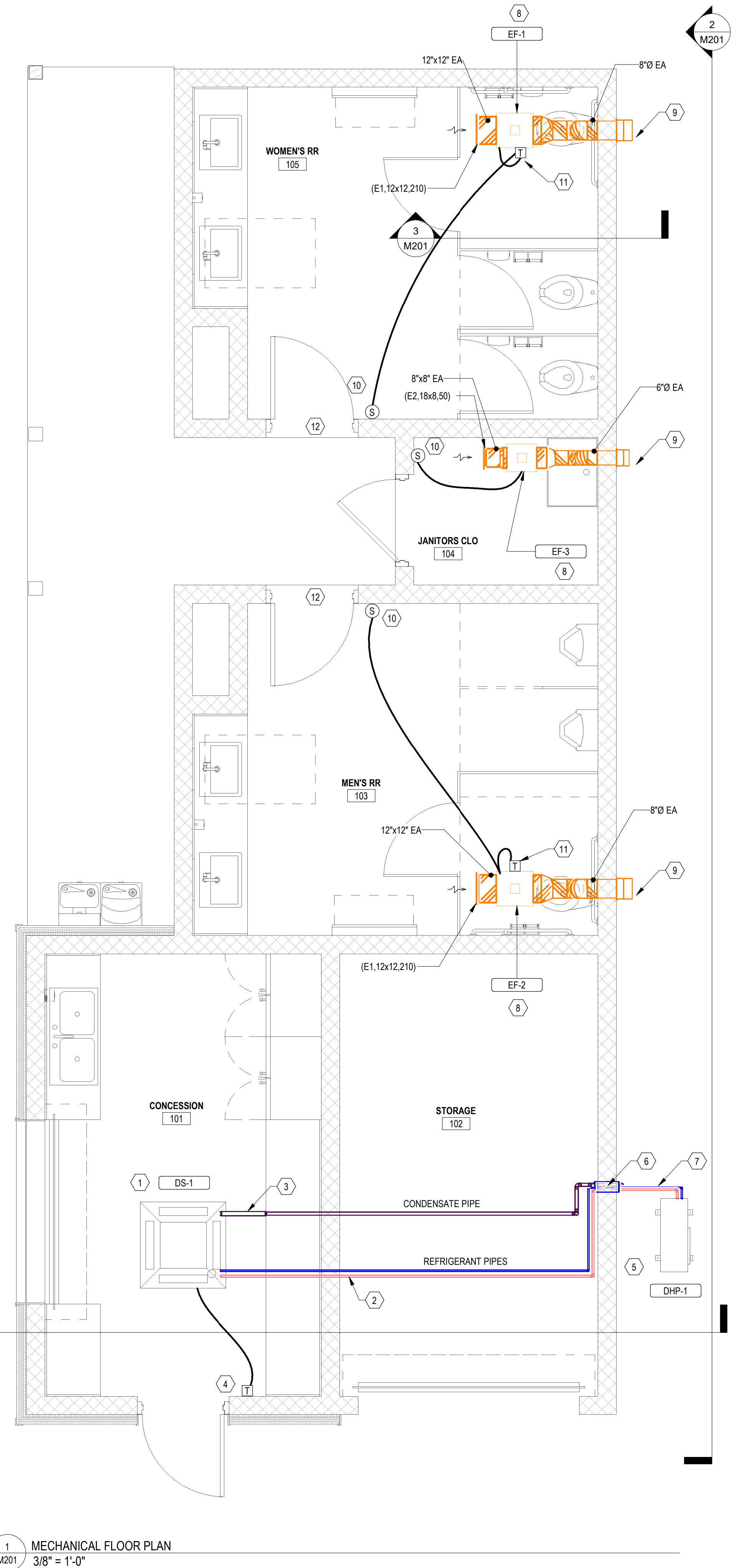


NEILL'S CREEK PARK COMFORT STATION
BLACK RIVER TOWNSHIP, TOWN OF ANGLIER
HARNETT COUNTY, NC

DATE: 07/10/2023
SHEET LICENSE NO. F-028
SHEET TITLE: MECHANICAL COVER SHEET
PROJECT NO. 4343
DRAWN BY: DMG
APPROVED BY: CRS
REVISION: [None]
SHEET NUMBER: M001



KEYNOTES 1/M201	
1	1-TON DUCTLESS SPLIT CEILING CASSETTE TO PROVIDE BOTH HEATING AND COOLING TO CONCESSION STAND. COORDINATE WITH E.C. TO INSTALL UNIT CENTERED BETWEEN LIGHTS.
2	ROUTE REFRIGERANT LINES OVERHEAD AS HIGH AS POSSIBLE BETWEEN INDOOR AND OUTDOOR UNIT. PROVIDE 1/2" ARMAFLEX ON INTERIOR PIPING.
3	ROUTE FULL SIZE CONDENSATE DRAIN FROM UNIT TO DISCHARGE TO LANDSCAPE AT REAR OF BUILDING. GRAVITY DRAINAGE IS PREFERRED, BUT IF CONDITIONS REQUIRE A PUMP, PROVIDE SMALL PUMP AT UNIT.
4	WALL MOUNTED, AUTO-CHANGEOVER THERMOSTAT FOR DS-1. DO NOT PROVIDE UNIT WITH THE REMOTE CONTROL TYPE THERMOSTAT.
5	DUCTLESS SPLIT SYSTEM HEAT PUMP IN LANDSCAPED AREA ON 4" THICK HOUSEKEEPING PAD. ORIENT SUCH THAT THE CONDENSER FAN IS BLOWING AWAY FROM THE BUILDING.
6	PROVIDE A 4" PVC PIPE SLEEVE THROUGH BLOCK WALL TO ROUTE REFRIGERANT LINESETS AND CONDENSATE DRAIN. SEAL AROUND SLEEVE AND AROUND PIPING AIR AND WATER TIGHT. PIPE TO EXTEND AT LEAST 1" BEYOND WALL ON BOTH SIDES.
7	EXTERIOR REFRIGERANT PIPING TO HAVE 1-1/2" ARMAFLEX INSULATION AND ALUMINUM JACKET.
8	TYPICAL INLINE EXHAUST FAN WITH EXHAUST GRILLE ON THE END OF THE INLET DUCT. THE FANS SHALL BE INSTALLED AS HIGH AS POSSIBLE IN THE SPACE. TYPICAL FOR EF-1 THRU EF-3.
9	HOODED WALL CAP WITH BACKDRAFT DAMPER INSTALLED JUST ABOVE THE TOP BLOCK COURSE AT EACH LOCATION. CAP SHALL BE BLACK WITH 8" INLET DUCT FOR EF-1 & EF-2 AND 6" INLET DUCT FOR EF-3.
10	EACH FAN (EF-1 THRU EF-3) SHALL BE LINKED TO THE LIGHT SWITCH CONTROL MOTION SENSOR SO THAT THE FAN OPERATES WHENEVER SOMEONE ENTERS THE RESTROOM. THIS SENSOR SHALL BE PROVIDED BY THE E.C. IT IS SHOWN ON THIS PLAN FOR CLARITY AS TO THE FAN OPERATION. ADDITIONALLY, THE CIRCUITS FOR EF-1 THRU EF-3 SHALL BE ON A TIME CLOCK SUCH THAT THEY ONLY OPERATE DURING HOURS SPECIFIED BY THE OWNER. E.C. TO PROVIDE THE 7 DAY, 24 HOUR TIME CLOCK AND TIME SETTINGS SHOULD BE COORDINATED WITH THE OWNER.
11	EF-1 & EF-3 SHALL ALSO BE TIED INTO A SPACE THERMOSTAT WHICH SHALL BE MOUNTED TO THE SIDE OF THE EXHAUST FAN OR FAN SUPPORT. THIS SHALL BE SET AT 85 DEG F (ADJ) AND SHALL OVER-RIDE THE MOTION SENSOR AND TURN THE FAN ON WHEN THE SPACE TEMPERATURE EXCEEDS SETPOINT. THE FAN SHALL TURN OFF WHEN THE SET POINT IS SATISFIED.
12	EACH RESTROOM DOOR SHALL BE PROVIDED WITH A DOOR LOUVER TO ALLOW AIRFLOW MAKE-UP INTO THE RESTROOM WHEN THE FAN IS ON. THESE LOUVERS WILL BE PROVIDED BY G.C. WITH THE DOORS.



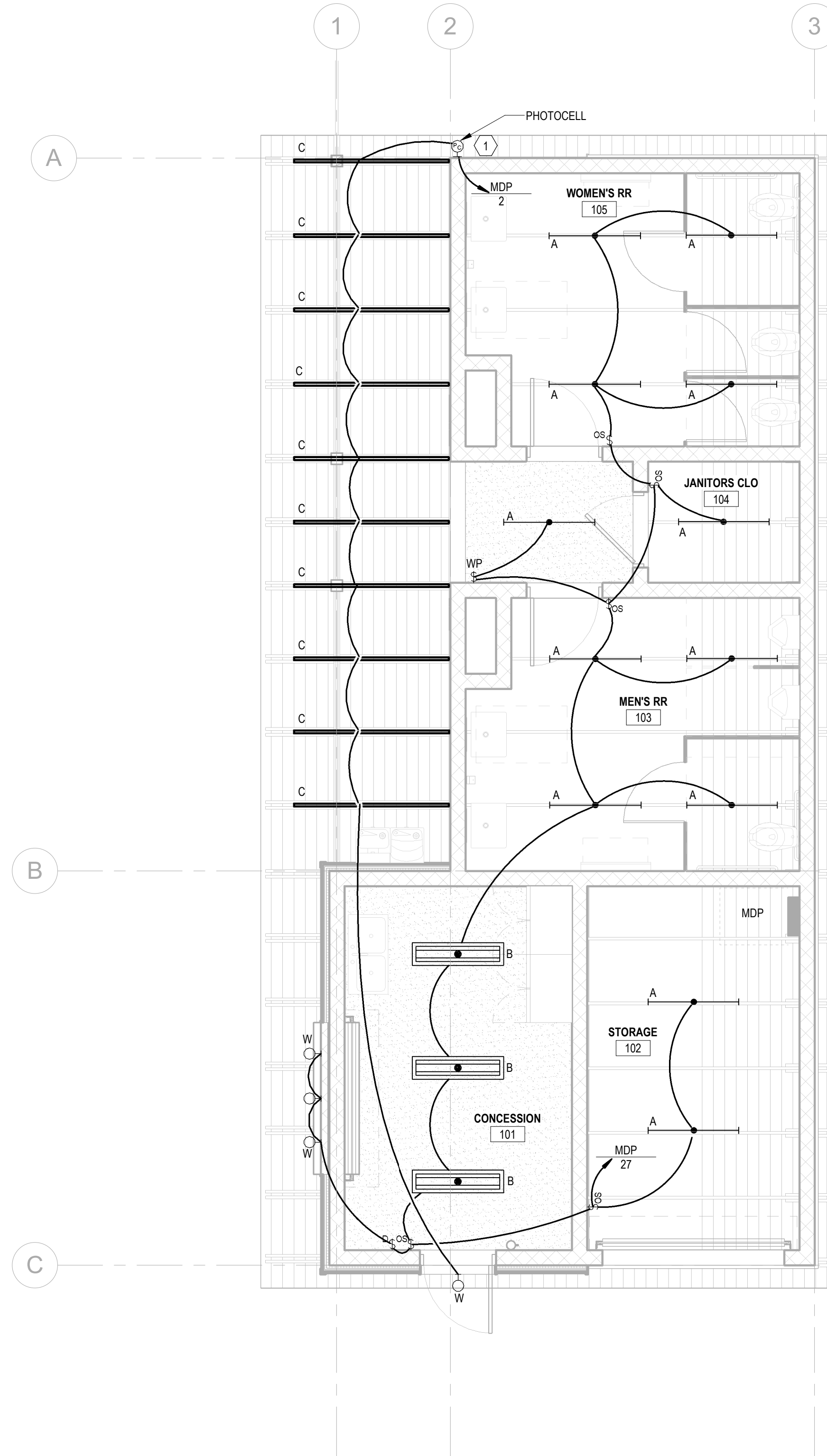
ELECTRICAL ABBREVIATIONS LIST		
1P	1 POLE (2P, 3P, 4P, ETC.)	
A	AMPERE	
AC	ABOVE COUNTER	
ACLG	ABOVE CEILING	
AD	AUTOMATIC DOOR OPENER	
ADF	AMP FRAME	
AF	ABOVE FINISHED FLOOR	
AFG	ABOVE FINISHED GRADE	
AFI	ARC FAULT CIRCUIT INTERRUPTER	
AHU	AIR HANDLING UNIT	
AL	ALUMINUM	
ALT	ALTERNATE	
AMP	AMPERE	
AMPL	AMPLIFIER	
ANUN	ANNUNCIATOR	
APPROX	APPROXIMATELY	
AQ-STAT	AQUASTAT	
ARCH	ARCHITECT, ARCHITECTURAL	
AS	AMP SWITCH	
AT	AMP TRIP	
ATS	AUTOMATIC TRANSFER SWITCH	
AUTO	AUTOMATIC	
AUX	AUXILIARY	
AV	AUDIO VISUAL	
AWG	AMERICAN WIRE GAUGE	
BATT	BATTERY	
BD	BOARD	
BLDG	BUILDING	
BMS	BUILDING MANAGEMENT SYSTEM	
C	CONDUIT	
CAB	CABINET	
CAT	CATALOG	
CATV	CABLE TELEVISION	
CB	CIRCUIT BREAKER	
CCTV	CLOSED CIRCUIT TELEVISION	
CKT	CIRCUIT	
CLG	CEILING	
COMB	COMBINATION	
CMPR	COMPRESSOR	
CONN	CONNECTION	
CONST	CONSTRUCTION	
CONT	CONTINUATION OR CONTINUOUS	
CONTR	CONTRACTOR	
CONV	CONVECTOR	
CP	CIRCULATING PUMP	
CR	CATHODE-RAY TUBE	
CT	CURRENT TRANSFORMER	
CTR	CENTER	
CU	COPPER	
DCP	DOMESTIC WATER CIRCULATING PUMP	
DEPT	DEPARTMENT	
DET	DETAIL	
DIA	DIAMETER	
DISC	DISCONNECT	
DIST	DISTRIBUTION	
DN	DOWN	
DPR	DAMPER	
DS	SAFETY DISCONNECT SWITCH	
DT	DOUBLE THROW	
DWG	DRAWING	
EC	ELECTRICAL CONTRACTOR	
ELEC	ELECTRIC	
ELEV	ELEVATOR	
ELU	EMERGENCY LIGHTING UNIT	
EM	EMERGENCY	
EMS	EMERGENCY MANAGEMENT SYSTEM	
EMT	ELECTRICAL METALLIC TUBING	
EQIP	ELECTRIC PNEUMATIC EQUIPMENT	
EW	ELECTRIC WATER COOLER	
EXIST	EXISTING	
EXH	EXHAUST	
EXP	EXPLOSION PROOF	
FA	FIRE ALARM	
FABP	FIRE ALARM BOOSTER POWER SUPPLY PANEL	
FACP	FIRE ALARM CONTROL PANEL	
FCU	FAN COIL UNIT	
FIXT	FIXTURE	
FLR	FLOOR	
FLUOR	FLUORESCENT	
FU	FUSE	
FUSD	FUSED SAFETY DISCONNECT SWITCH	
GA	GAUGE	
GAL	GALLON	
GALV	GALVANIZED	
GC	GENERAL CONTRACTOR	
GEN	GENERATOR	
GFI	GROUND FAULT CIRCUIT INTERRUPTER	
GFP	GROUND FAULT PROTECTOR	
GND	GROUND	
GRS	GALVANIZED RIGID STEEL (CONDUIT)	
GYP BD	GYPSPUM BOARD	
HOA	HANDS-OFF-AUTOMATIC SWITCH	
HORIZ	HORIZONTAL	
HP	HORSEPOWER	
HPF	HIGH POWER FACTOR	
HT	HEIGHT	
HTG	HEATING	
HTR	HEATER	
HV	HIGH VOLTAGE	
HVAC	HEATING, VENTILATING AND AIR CONDITIONING	
IC	INTERRUPTING CAPACITY	
IG	ISOLATED GROUND	
IMC	INTERMEDIATE METAL CONDUIT	
INCAND	INCANDESCENT	
IN	INCH	
IW	INTERLOCK WITH	
J-BOX	JUNCTION BOX	
KV	KILOVOLT	
KVA	KILOVOLT-AMPERE	
KVAR	KILOVOLT-AMPERE REACTIVE	
KW	KILOWATT	
KWH	KILOWATT HOUR	
LOC	LOCATE OR LOCATION	
LT	LIGHT	
LTG	LIGHTING	
LTNG	LIGHTNING	
LV	LOW VOLTAGE	
MAX	MAXIMUM	
MAG.S	MAGNETIC STARTER	
MC	MOMENTARY CONTACT MECHANICAL CONTRACTOR	
MCB	MAIN CIRCUIT BREAKER	
MCC	MOTOR CONTROL CENTER	
MDC	MAIN DISTRIBUTION CENTER	
MDP	MAIN DISTRIBUTION PANEL	
MFR	MANUFACTURER	
MFS	MAIN FUSED DISCONNECT SW	
MH	MANHOLE	
MIC	MICROPHONE	
MIN	MINIMUM	
MISC	MISCELLANEOUS	
MLO	MAIN LUGS ONLY	
MMS	MANUAL MOTOR STARTER	
MOA	MULTIOUTLET ASSEMBLY	
MSP	MOTOR STARTER PANELBOARD	
MSBD	MAIN SWITCHBOARD	
MT	MOUNT	
MT.C	EMPTY CONDUIT	
MTS	MANUAL TRANSFER SWITCH	
MTR	MOTOR, MOTORIZED	
N.C.	NORMALLY CLOSED	
NEC	NATIONAL ELECTRICAL CODE	
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION	
NFDS	NON-FUSED SAFETY DISCONNECT SWITCH	
NIC	NOT IN CONTRACT	
NL	NIGHT LIGHT	
N.O.	NORMALLY OPEN	
NPF	NORMAL POWER FACTOR	
NPS	NOT TO SCALE	
OH	OVERHEAD	
OH	OVERLOADS	
PA	PUBLIC ADDRESS	
PB	PULL BOX OR PUSHBUTTON	
PE	PNEUMATIC ELECTRIC	
PEB	PEDESTAL	
PF	POWER FACTOR	
PH	PHASE	
PIV	POST INDICATING VALVE	
PNL	PANEL	
PP	POWER POLE	
PR	PAIR	
PRI	PRIMARY	
PROJ	PROJECTION	
PRV	POWER ROOF VENTILATOR	
PT	POTENTIAL TRANSFORMER	
PVC	POLYVINYL CHLORIDE (CONDUIT)	
PWR	POWER	
QUAN	QUANTITY	
RCP	RECEPTACLE REQUIRED	
REQD	REQUIRED	
RM	ROOM	
RSC	RIGID STEEL CONDUIT	
RTU	ROOF TOP UNIT	
SC	SURFACE CONDUIT	
SEC	SECONDARY	
SHT	SHEET	
SM	SIMILAR	
SS	SOLID NEUTRAL	
SPK	SPEAKER	
SP	SPARE	
SR	SURFACE RACEWAY	
SS	STAINLESS STEEL	
SSW	SELECTOR SWITCH	
SIS	STOP/START PUSHBUTTONS	
STA	STATION	
STD	STANDARD	
SURF	SURFACE MOUNTED	
SW	SWITCH	
SWBD	SWITCHBOARD	
SYM	SYMMETRICAL	
SYS	SYSTEM	
TEL	TELEPHONE	
TEL.DATA	TELEPHONE/DATA	
TERM	TERMINAL	
TL	TWIST LOCK	
TR	TAMPER RESISTANT	
T-STAT	THERMOSTAT	
TTC	TELEPHONE TERMINAL CABINET	
TV	TELEVISION	
TYTC	TELEVISION TERMINAL CABINET	
TYP	TYPICAL	
UC	UNDER COUNTER	
UE	UNDERGROUND ELECTRICAL	
UG	UNDERGROUND	
UH	UNIT HEATER	
UT	UNDERGROUND TELEPHONE	
UTIL	UTILITY	
UV	ULTRAVIOLET	
V	VOLT	
VA	VOLT-AMPERES	
VDT	VIDEO DISPLAY TERMINAL	
VERT	VERTICAL	
VFD	VARIABLE FREQUENCY DRIVE	
VOL	VOLUME	
W	WATT	
W	WITH	
WG	WIRE GUARD	
WH	WATER HEATER	
W/O	WITHOUT	
WP	WEATHERPROOF	
XMR	TRANSFORMER	
XFR	TRANSFER	
ANGLE	ANGLE	
AT	AT	
Δ	DELTA	
FEET	FEET	
"	INCHES	
#	NUMBER	
Ø	PHASE	
C	CENTRAL LINE	
P	PLATE	

ELECTRICAL SYMBOL LEGEND	
	LIGHTING FIXTURES, TYPICAL, RECTANGULAR FILLED CIRCLES INDICATE RECESSED, OPEN CIRCLES INDICATE SURFACE DIAGONAL LINE INDICATES LENSED OUTER DOTS INDICATE SUSPENDED
	LIGHTING FIXTURES, TYPICAL, ROUND CENTER DOT INDICATES PENDANT DIAGONAL LINE INDICATES LENSED CHEVRON INDICATES WALL WASH
	WALL-MOUNTED FIXTURES, TYPICAL
	STRIP FIXTURE
	DIRECTIONAL LIGHT, TRACK, FLOOD
	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 DIRECTION
	EXIT LIGHT, WALL-MOUNTED, SHADING AND ARROWS INDICATE FACES AND DIRECTION
	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
	3-WAY SWITCH
	4-WAY SWITCH
	KEYED SWITCH
	STATION
	DIMMER SWITCH
	OCCUPANCY SENSOR W/ MANUAL SWITCH
	TIMER SWITCH
	TIME DELAY SWITCH
	TIME CONTROL SWITCH
	FIRE ALARM PULL STATION
	FIRE ALARM BELL
	FIRE ALARM HORN W/STROBE
	FIRE ALARM SPEAKER W/STROBE
	FIRE ALARM BELL W/STROBE
	FIRE ALARM CHIME W/STROBE
	FIRE ALARM DOOR HOLDER
	FIRE ALARM DOOR CLOSER
	FIRE ALARM SHUT DOWN RELAY
	SPRINKLER FLOW SWITCH
	SPRINKLER VALVE TAMPER SWITCH
	THERMAL DETECTOR
	DUCT SMOKE DETECTOR
	CEILING SMOKE DETECTOR
	ANGLE
	DELTA
	FEET
	INCHES
	NUMBER
	PHASE
	CENTRAL LINE
	PLATE

ELECTRICAL SYMBOL NOTES	
	LIGHTING FIXTURE TAG DESCRIPTORS: TOP VALUE: FIXTURE TYPE ID. BOTTOM VALUE, NUMBER, CIRCUIT NUMBER, REFER TO DRAWINGS FOR PANEL BOTTOM VALUE, LOWERCASE LETTER: SWITCH DESIGNATION. ABSENCE OF A SWITCH ID INDICATES FIXTURE IS CONTROLLED BY THE ONLY SWITCH IN THE SPACE. "X" IN PLACE OF THE SWITCH ID INDICATES NIGHT LIGHT, UNSWITCHED.
	EXIT LIGHTS. STEM INDICATES WALL MOUNTING. NO STEM INDICATES CEILING MOUNTING. SHADED AREA INDICATES ILLUMINATED FACE(S). ARROW INDICATES DIRECTIONAL ARROW ON ILLUMINATED FACE(S). THE CIRCUIT DESIGNATION IS INDICATED BY A NUMBER. EXAMPLE: THE WALL MOUNTED EXIT LIGHT TYPE "E1" WITH SINGLE FACE AND DIRECTIONAL ARROW IS CONNECTED TO CIRCUIT 1.
	DEVICES. THE CIRCUIT DESIGNATION IS INDICATED BY A NUMBER. THE SWITCH DESIGNATION IS INDICATED BY A LOWER CASE LETTER. EXAMPLE: SPLIT DUPLEX RECEPTACLE IS CONNECTED TO CIRCUIT 1 AND ONE RECEPTACLE OUTLET IS CONTROLLED BY SWITCH "D".
	THE CONTROL DEVICE DESIGNATION IS INDICATED BY A LOWER CASE LETTER. EXAMPLE: SINGLE POLE SWITCH "G" TO CONTROL LIGHTING FIXTURES INDICATED BY "G".
	WALL BOX DIMMER WITH SIZE AS INDICATED AT DEVICE. EXAMPLE: 600 WATT WALL BOX DIMMER TO CONTROL LIGHTING FIXTURES INDICATED BY "6". SEE SPECIFICATIONS FOR WALLTAG IF NOT INDICATED.
	SPECIAL CONNECTIONS. THE EQUIPMENT IS INDICATED BY A NUMBER IN A CIRCLE. SEE THE MOTOR AND EQUIPMENT SCHEDULE FOR THE LOAD DESCRIPTION AND TYPE OF CONNECTION. THE CIRCUIT DESIGNATION IS INDICATED BY NUMBER(S) ADJACENT TO THE SYMBOL. EXAMPLE: EQUIPMENT NO. ELEC-1; 1 PHASE CONNECTION TO CIRCUITS 2, 4.
	PANELBOARDS. PANELBOARD DOORS MAY BE SHOWN TO INDICATE OPENING SIDE OF RECESSED PANELBOARDS. SEE PANELBOARD IDENTIFICATION FOR DESIGNATION CODES.
	FLOOR CLEARANCE AREA
	MOTOR CONNECTIONS. THE MOTOR IS INDICATED BY A NUMBER WITHIN OR ADJACENT TO THE MOTOR SYMBOL. SEE THE MOTOR AND EQUIPMENT SCHEDULE FOR THE MOTOR DESCRIPTION AND ELECTRICAL REQUIREMENTS.
	TRANSFORMERS. THE TRANSFORMER TYPE IS INDICATED BY A NUMBER FOLLOWING THE UPPER CASE LETTER "T". SEE THE TRANSFORMER SCHEDULE OR THE SINGLE LINE DIAGRAM FOR THE TRANSFORMER DESCRIPTION AND REQUIREMENTS. EXAMPLE: TRANSFORMER TYPE "T1".
	CONDUIT IN CEILING, FLOOR OR WALL AS REQUIRED BY FIELD CONDITIONS
	CONDUIT IN FLOOR
	CONDUIT SHOWN WITHOUT SLASH MARKS SHALL CONTAIN 1 # 12 CONDUCTOR PER PHASE, NEUTRAL, AND GROUND IN 1/2" CONDUIT UNLESS SPECIFIC EQUIPMENT REQUIRES A DIFFERENT SIZE.
	CONDUIT SHOWN WITH SLASH MARKS SHALL CONTAIN 1 # 10 CONDUCTOR PER PHASE IN ELECTRICAL CODE SIZED MINIMUM CONDUIT UNLESS A CONDUCTOR AND CONDUIT SIZE IS SHOWN ADJACENT.
	HOME RUN TO BRANCH CIRCUIT PANELBOARD. THE PANELBOARD DESIGNATION IS SHOWN ADJACENT TO THE HOME RUN ARROW AS A NUMERATOR AND THE CIRCUIT DESIGNATION IS SHOWN AS THE DENOMINATOR. CIRCUIT BREAKER SIZES (AMPS/NUMBER OF POLES) ARE SHOWN IN THE PANELBOARD SCHEDULE WITH THE CORRESPONDING PANELBOARD AND CIRCUIT DESIGNATION. EXAMPLE: HOME RUN TO PANELBOARD P4N-102, CIRCUITS 1, 3, 5.
	GRAPHICAL REPRESENTATION OF PHASING, TYPICAL FOR ALL SYMBOLS.
	EXISTING TO REMAIN
	EXISTING TO BE REMOVED
	NEW
	AREA NOT IN CONTRACT
	REVISION NUMBER - SHOWN ON PLANS
	KEYED NOTE (SEE SCHEDULE)
	ROOM NAME AND NUMBER

ELECTRICAL SUMMARY	
ELECTRICAL SYSTEM AND EQUIPMENT	
METHOD OF COMPLIANCE:	
ENERGY CODE: <input checked="" type="checkbox"/> PRESCRIPTIVE <input type="checkbox"/> PERFORMANCE	
ENERGY CODE: <input type="checkbox"/> PRESCRIPTIVE <input type="checkbox"/> 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:	411W SPECIFIED VS 902W ALLOWED
TOTAL EXTERIOR WATTAGE SPECIFIED VERSUS ALLOWED:	--- SPECIFIED VS ---W ALLOWED
ADDITIONAL PRESCRIPTIVE COMPLIANCE	
<input type="checkbox"/> C406.2 MORE EFFICIENT HVAC PERFORMANCE	
<input checked="" type="checkbox"/> C406.3 REDUCED LIGHTING POWER DENSITY SYSTEM	
<input type="checkbox"/> C406.4 ENHANCED LIGHTING CONTROLS	
<input type="checkbox"/> C406.5 ON-SITE SUPPLY OF RENEWABLE ENERGY	
<input type="checkbox"/> C406.6 DEDICATED OUTDOOR AIR SYSTEM FOR CERTAIN HVAC EQUIPMENT	
<input type="checkbox"/> 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 2018 ENERGY CODE	
SIGNED:	
NAME: CHRIS STROUPE, P.E.	
TITLE: ENGINEER	

GENERAL ELECTRICAL NOTES AND SPECIFICATIONS	
1.	ALL WORK TO BE IN ACCORDANCE WITH FEDERAL, STATE, LOCAL AND THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC).
2.	MINIMUM CONDUIT SIZE SHALL BE 3/4" U.N.O.
3.	ALL FEEDERS AND BRANCH CIRCUITS (POWER, LIGHTING, SIGNAL, ETC.) SHALL HAVE GREEN INSULATED GROUND WIRE INSTALLED WITH CIRCUIT CONDUCTORS. DO NOT RELY SOLELY ON METAL RACEWAYS FOR EQUIPMENT GROUNDING.
4.	SPlicing: 1) SOLID CONDUCTORS, #10 AWG & SMALLER, SHALL BE SPLICED BY TWISTING SECURELY AND USING IDEAL "WIRENUTS", 3M CO. "SCOTCHLOCK", OR THOMAS & BETTS CONNECTORS FOR BRANCH CIRCUIT SPLICES (#10 & #12) IN JUNCTION BOXES, OUTLET BOXES AND LIGHTING FIXTURES. "STA-KON" OR OTHER PERMANENT TYPE CRIMP CONNECTORS SHALL NOT BE USED FOR BRANCH CIRCUIT CONNECTIONS. 2) STRANDED CONDUCTORS, #8 AWG & LARGER, SHALL BE SPLICED BY APPROVED MECHANICAL CONNECTORS GUM RUBBER TAPE OR FRICTION TAPE. SOLDERLESS MECHANICAL CONNECTORS FOR SPLICES AND TAPS, PROVIDED WITH UL APPROVED INSULATING COVERS, MAY BE USED INSTEAD OF MECHANICAL CONNECTORS PLUS TAPE. CONDUCTORS, IN ALL CASES, SHALL BE CONTINUOUS FROM OUTLET TO OUTLET AND NO SPLICING SHALL BE MADE EXCEPT WITHIN OUTLET OR JUNCTION BOXES, TROUGHS AND GUTTERS.
5.	FOR MECHANICAL PROJECTS, DISCONNECTS, MOTOR CONTROLLERS, MOTOR RATED AND MOTOR SENTINEL SWITCHES, ETC. FOR HVAC EQUIPMENT SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL PROVIDE POWER WIRING TO THE LINE SIDE ONLY. THE MECHANICAL CONTRACTOR SHALL PROVIDE WIRING FROM THE LOAD SIDE OF THE DISCONNECTS, CONTROLLERS, ETC. INTO THE EQUIPMENT. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONTROL WIRING TO THEIR EQUIPMENT. DISCONNECTS FOR OTHER EQUIPMENT SHALL BE FURNISHED, INSTALLED AND WIRED BY THE ELECTRICAL CONTRACTOR UNLESS OTHERWISE NOTED. ALL DISCONNECTS SHALL BE RATED AS "HEAVY DUTY" AND FUSED OR NON-FUSED AS REQUIRED.
6.	THE USE OF "LBS" SHALL BE LIMITED WHERE POSSIBLE. WHERE NECESSARY TO USE "LBS" IN SIZES ABOVE 2", MOGUL UNITS SHALL BE INSTALLED.
7.	E.C. SHALL NOTIFY THE OFFICE OF THE LOCAL ELECTRICAL INSPECTOR TO SCHEDULE REQUIRED INSPECTIONS.
8.	EMT MAY BE UTILIZED AS PERMITTED BY THE NEC, WITH THE FOLLOWING RESTRICTIONS. EMT SHALL NOT BE INSTALLED: (A) WHERE TUBING, COUPLINGS, ELBOWS AND FITTINGS WOULD BE IN DIRECT CONTACT WITH THE EARTH OR UNDERGROUND (IN BELOW SLAB-ON-GRADE OR IN EARTH). (B) ANY LOCATION OUTDOORS. (C) WHERE EXPOSED TO SEVERE CORROSIVE INFLUENCE AND/OR SEVERE PHYSICAL DAMAGE. EMT FITTINGS SHALL BE ALL PLATED STEEL HEXAGONAL THREADED COMPRESSION TYPE. NO POT METAL, SET SCREW, OR INDETER FITTINGS SHALL BE USED. MC CABLE MAY BE USED FOR FIXTURE WHIPS (6" OR LESS) WHEN PERMITTED BY THE NEC.
9.	ALL CONDUCTORS SHALL BE COPPER. #10 AWG AND SMALLER SHALL BE SOLID. #8 AWG AND LARGER SHALL BE CLASS B STRANDED. MINIMUM WIRE SIZE SHALL BE #12. MAXIMUM WIRE SIZE SHALL BE 500CMIL.
10.	ALL INSULATION SHALL BE DUAL-RATED TYPE THHN/THWN OR TYPE XHHW.
11.	OUTLET BOXES FOR LIGHTING AND APPLIANCE CIRCUITS, WHERE CONCEALED, SHALL BE STAMPED STEEL, GALVANIZED OR CADMIUM PLATED. FOR EXPOSED WORK, TYPE "FS" OR "FO" CAST BOXES SHALL BE USED. STAINLESS STEEL, BEVELED TYPE 302 COVER PLATES SHALL BE USED FOR ALL INTERIOR FLUSH MOUNTED DEVICES. FOR EXPOSED WORK, DEVICE PLATES SHALL BE MATCHING, OF THE SAME MANUFACTURER AS THE BOX, AND MATCHING THE OUTLINE OF THE BOX.
12.	COLOR CODING OF CONDUCTORS SHALL BE BLACK-RED-BLUE FOR PHASES A-B-C RESPECTIVELY ON SYSTEMS OF LESS THAN 150 VOLTS TO GROUND. NEUTRAL SHALL BE WHITE. USE BROWN-ORANGE-YELLOW FOR PHASES A-B-C RESPECTIVELY ON SYSTEMS OF MORE THAN 150 VOLTS, BUT LESS THAN 300 VOLTS TO GROUND. NEUTRAL SHALL BE NATURAL GRAY. GREEN SHALL BE USED FOR THE EQUIPMENT GROUNDING CONDUCTOR ON BOTH SYSTEMS.
13.	RECEPTACLE DEVICES SHALL BE 20 AMP FEDERAL SPECIFICATION GRADE, NEMA GROUNDING TYPE. SWITCHES SHALL BE 20 AMP, 120/277 VOLT. ALL DEVICES, SWITCHES AND RECEPTACLES SHALL BE EQUIPPED WITH GREEN HEX HEAD GROUNDING SCREW. SWITCHES SHALL HAVE QUIET OPERATING MECHANISMS WITHOUT THE USE OF MERCURY. ALL RECEPTACLES SHALL BE PIG-TAILED WIRED SO THAT THE REMOVAL OF A DEVICE WILL NOT DISRUPT THE REMAINING CIRCUIT. SEE DETAIL ON DRAWINGS. TAMPER RESISTANT RECEPTACLES ARE REQUIRED AS PER NEC 408.12(1) THROUGH (7) IN ALL AREAS SPECIFIED IN NEC 210.52.
14.	EXPOSED AND CONCEALED CONDUIT (EXCEPT IN SLAB) SHALL BE NEATLY INSTALLED PARALLEL TO, OR AT RIGHT ANGLES TO BEAMS, WALLS AND FLOORS OF THE BUILDING. ALL BENDS SHALL BE MADE WITH STANDARD CONDUIT ELBOWS OR CONDUIT BENT TO NOT LESS THAN THE SAME RADIUS THAN A STANDARD CONDUIT ELBOW. CONDUITS SHALL BE SUPPORTED PER NEC AND AT INTERVALS NOT GREATER THAN 10 FEET AND WITHIN 3 FEET OF ANY BEND, CABINET, OUTLET OR JUNCTION BOX. CONDUITS SHALL BE SUPPORTED BY APPROVED PIPE STRAPS OR CLAMPS, SECURED BY MEANS OF TOGGLE BOLTS ON HOLLOW MASONRY. EXPANSION SHIELDS AND MACHINE SCREWS OR STANDARD PRE-SET INSERTS ON CONCRETE OR SOLID MASONRY, MACHINE SCREWS OR BOLTS ON METAL SURFACES, AND WOOD SCREWS ON WOOD CONSTRUCTION.
15.	SEAL AROUND ALL CONDUIT PENETRATIONS THROUGH WALLS, FLOORS AND CEILINGS. USE U.L. LISTED AND APPROVED FIRE RATED MATERIAL FOR SEALING AROUND PENETRATIONS THROUGH RATED WALLS, FLOORS AND CEILINGS. REFER TO PENETRATION DETAILS AND SPECIFICATIONS FOR MORE INFORMATION.
16.	AT COMPLETION OF PROJECT, PROVIDE THE FOLLOWING: 1. INSTRUCT OWNER IN OPERATION OF ALL ELECTRICAL SYSTEMS. 2. ONE SET OF "AS-BUILT" DRAWINGS. 3. TURN OVER ALL OPERATION AND MAINTENANCE MANUALS FOR ELECTRICAL SYSTEMS AND EQUIPMENT TO THE ARCHITECT/ENGINEER FOR APPROVAL, PRIOR TO SUBMISSION TO THE OWNER.
17.	SCHEDULE 40 PVC SHALL NOT BE USED EXPOSED OR CONCEALED IN GYPSUM WALLS, BUT MAY BE USED IN CMU WALLS. SCHEDULE 40 PVC MAY BE USED IN ELEVATED FLOOR SLABS AND FOUNDATION SLABS. MINIMUM CONCRETE COVER SHALL BE 3/4-INCH AT FINISHED OR FORMED SURFACE AND SHALL BE 3-INCHES AT CONCRETE SURFACE CAST AGAINST EARTH OR FOR SLABS PLACED ON-GRADE. GREATER AMOUNTS OF CONCRETE COVER SHALL BE USED IN AREAS SUBJECT TO DAMAGE. THE PLACEMENT OF CONDUIT IN THE FLOOR SLABS MUST BE THOROUGHLY COORDINATED WITH THE GENERAL CONTRACTOR SO AS NOT TO AFFECT THE STRUCTURAL INTEGRITY OF THE BUILDING.
18.	UNDERGROUND RACEWAYS:
18.1	RACEWAYS RUN EXTERNAL TO BUILDING FOUNDATION WALLS, WITH THE EXCEPTION OF BRANCH CIRCUIT RACEWAYS, SHALL BE ENCASED WITH A MINIMUM OF THREE (3) INCHES OF CONCRETE ON ALL SIDES.
18.2	ENCASED RACEWAYS MUST HAVE A MINIMUM COVER OF TWENTY-FOUR (24) INCHES.
18.3	ENCASED RACEWAYS SHALL BE OF A TYPE APPROVED BY THE NEC AS "SUITABLE FOR CONCRETE ENCASEMENT."
18.4	BRANCH CIRCUIT RACEWAYS RUN UNDERGROUND EXTERNAL



- LIGHTING 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, RACEWAYS, 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 ROUGHING-IN 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.
 - I. COORDINATE WITH LIGHTING VENDORS FOR NECESSARY MOUNTING HARDWARE AND ACCESSORIES PRIOR TO ROUGH-IN.
 - J. NOTIFY ENGINEER OF ANY DISCREPANCY PRIOR TO ROUGH-IN.
 - K. ALL CONDUIT IN EXPOSED CEILING AREAS SHALL BE RUN PARALLEL OR PERPENDICULAR WITH STRUCTURAL STEEL, TIGHT TO THE ROOF DECK OR TOP OF STEEL MEMBERS HIDDEN FROM VIEW (TYP.)
- KEYNOTES**
1. PROVIDE PHOTOCELL FOR EXTERIOR LIGHTS.

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

TYPE	CONSTRUCTION			LIGHT SOURCE			ELECTRICAL			PRODUCT			NOTE	
	DESCRIPTION	LENS/LOUVER	MOUNTING	LAMP	LUMENS DOWN	CCT	CRI	BALLAST/DRIVER	VOLT	WATTS	MFR	Model		EQUIVALENT MFR
A	4" VAPOR TIGHT STRIP LIGHT	FROSTED POLYCARBONATE	SURFACE	LED	3000 lm	4000 K	80	LED DRIVER	120 V	25 W	LITHONIA	CSVT L48 3000LM MVOLT 40K 80CRI	HUBBELL; H.E.WILLIAMS; COOPER	MOUNTING AS REQUIRED
B	1x4 RECESSED FLAT PANEL	CURVED RIBBED	GRID	LED	4000 lm	4000 K	80	LED DRIVER	120 V	37 W	LITHONIA	EPANL 4000LM LP840 MVOLT SMKSH	HUBBELL; H.E.WILLIAMS; COOPER	MOUNTING AS REQUIRED
C	FLEXIBLE LED STRIP	SLIM CHANNEL	SURFACE	LED	100 lm	4000 K	80	LED DRIVER	120 V	31 W	JUNO	JFX 24V 100LM 6FT 9INCH 40 80CRI WL SLCH 24IN LEAD	--	LUMENS PER FOOT. IP65 PROTECTION. PROVIDE COMPATIBLE BALLAST AND ACCESSORIES AS NEEDED.
W	DECORATIVE SCONCE	DECORATIVE	SURFACE WALL	LED	1935 lm	4000 K	80	LED DRIVER, 0-10V DIMMABLE, 10%	277 V	22 W	USLED	LINEAR STAR SKT1-37-1FT 5INCH-4000K-80CRI; SMT1-V; PSH1-1-A-O-W-4; OUTDOOR PROTECTION	--	VERIFY COLOR AND FINISH WITH ARCHITECT.

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 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. ALL LAMPS OF EACH CATEGORY SHALL BE OF THE SAME MANUFACTURER.
5. VERIFY FINISH OF LIGHT FIXTURE PRIOR TO ROUGH-IN.

CONSULTANT ENGINEERING SERVICE, INC.
PLUMBING • MECHANICAL • ELECTRICAL

Phone: 336.724.0139 • 1111 S Marshall Street, Suite 250, Winston Salem, NC 27101

CES
A Woman Owned Business
Est. 1964

THESE DRAWINGS ARE THE PROPERTY OF CONSULTANT ENGINEERING SERVICE, INC. AND ARE TO BE USED ONLY FOR THE PROJECT AND SITE IDENTIFIED HEREON. ANY REUSE OR REPRODUCTION OF THESE DRAWINGS WITHOUT THE WRITTEN CONSENT OF CONSULTANT ENGINEERING SERVICE, INC. IS PROHIBITED. UNAUTHORIZED USE WILL BE SUBJECT TO LEGAL ACTION.

NORTH CAROLINA
SEAL
15886
07/10/23
ENGINEER
CHRISTOPHER R. STROUB

NEIL'S CREEK PARK COMFORT STATION
BLACK RIVER TOWNSHIP, TOWN OF ANGLIER
HARNETT COUNTY, NC

DATE
07/10/2023

SHEET TITLE
ELECTRICAL LIGHTING PLAN

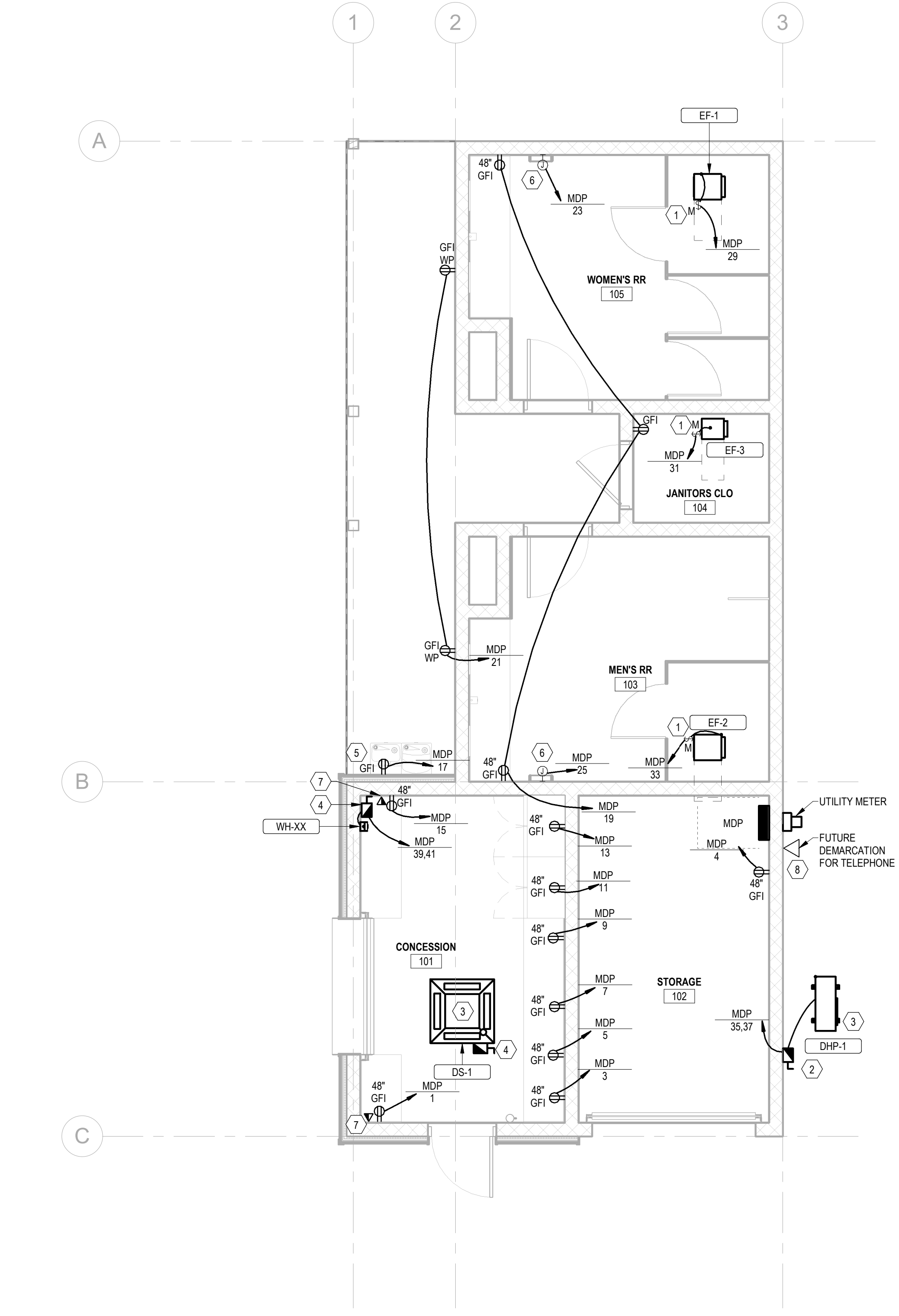
DESIGNED BY
RE/HGE

PROJECT NO.
4343

APPROVED BY
CRS

SHEET NUMBER
E1.0

As instruments of service these drawings and the design represented are the property of Consultant Engineering Service, Inc. Reproduction or use of these drawings other than for the project intended without the written consent from the Engineer is prohibited. Unauthorized use will be subject to legal action.



- KEYNOTES**
- 1 INSTALL 20 AMP SINGLE POLE MOTOR RATED SWITCH WITH ENCLOSURE.
 - 2 INSTALL 30 AMP, 2P, 2W, 250VOLT, NGR, HEAVY DUTY, FUSE DISCONNECT. FUSES PER EQUIPMENT NAMEPLATE.
 - 3 THE OUTDOOR UNIT FEEDS THE INDOOR UNIT. MC TO PROVIDE FUSED DISCONNECT FOR OUTDOOR UNIT AND DISCONNECT FOR INDOOR UNIT. EC SHALL PROVIDE CONDUCTORS IN CONDUIT AND MAKE CONNECTIONS FOR BOTH INDOOR AND OUTDOOR UNITS. FOR CLARITY, CIRCUIT NUMBERS ARE SHOWN WITH THE OUTDOOR UNIT.
 - 4 INSTALL 30 AMP, 2P, 2W, 250VOLT, N1, HEAVY DUTY, FUSE DISCONNECT. FUSES PER EQUIPMENT NAMEPLATE.
 - 5 PROVIDE GFCI RECEPTACLE FOR EWC. COORDINATE LOCATION WITH P.C. GFCI RECEPTACLE SHOULD NOT BE INSIDE OF EWC. WILL NEED TO HAVE ACCESS. GFCI BREAKER IS ACCEPTABLE IF A DUPLEX RECEPTACLE IS LOCATED INSIDE OF EWC.
 - 6 HAND DRYER. PROVIDE JUNCTION BOX, COVER, AND 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING FOR FUTURE HAND DRYER. COORDINATE FINAL LOCATION WITH OWNER AND GC PRIOR TO ROUGH-IN. VERIFY HEIGHT.
 - 7 PROVIDE (1) 3/4" CONDUIT FOR FUTURE POS USE. STUB UP AND CAP. COORDINATE EXACT ROUTING AND STUB-UP LOCATIONS ON EACH END WITH OWNER PRIOR TO ROUGH-IN.
 - 8 PROVIDE (1) 2" SPARE TELECOMMUNICATION ENTRANCE CONDUIT. PROVIDE WATERPROOF CAP AT BOTH ENDS FOR FUTURE USE.

1 ELECTRICAL POWER PLAN
 E1.1 1/4" = 1'-0"

NEIL'S CREEK PARK COMFORT STATION
BLACK RIVER TOWNSHIP, TOWN OF ANGLIER
HARNETT COUNTY, NC

DATE
 07/10/2023

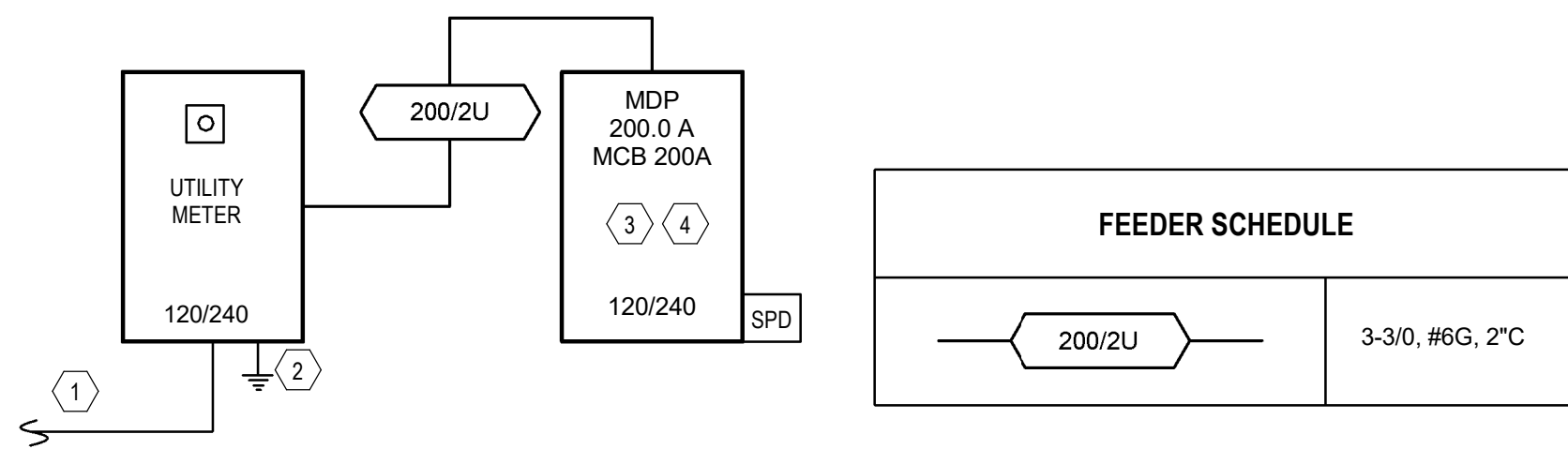
CES LICENSE NO. F-028

SHEET TITLE		PROJECT NO.	
ELECTRICAL POWER PLAN		4343	
DESIGNED BY	APPROVED BY	REVISION	REVISION
REH/GE	CRS		

SHEET NUMBER
E1.1

As instruments of service these drawings and the design represented are the property of Consultant Engineering Service, Inc. Reproduction or use of these drawings other than for the project intended without the written consent from the Engineer is prohibited. Unauthorised use will be subject to legal action.

CONSULTANT ENGINEERING SERVICE, INC.
 PLUMBING • MECHANICAL • ELECTRICAL
 Phone: 336.724.0139 • 1111 S Marshall Street, Suite 250, Winston Salem, NC 27101
 A Woman Owned Business
 ces, Inc. 1004
 THESE DRAWINGS ARE 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.



1 ELECTRICAL RISER DIAGRAM
E2.0 NOT TO SCALE

- GENERAL NOTES**
- ALL CIRCUIT BREAKERS 100 AMP AND ABOVE SHALL BE 100% RATED, MICROLOGIC 5.2 OR ABOVE WITH LSI ADJUSTABLE ELECTRONIC TRIP. COORDINATE TRIP SETTINGS WITH SELECTIVE COORDINATION STUDY.
 - ALL APPLICABLE ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH SEISMIC REQUIREMENTS OF THE NORTH CAROLINA STATE BUILDING CODE.
 - SERIES RATING IS NOT ALLOWED. SHARED NEUTRALS ARE NOT ALLOWED.
 - THE ELECTRICAL CONTRACTOR SHALL PROVIDE AN ARC FLASH ANALYSIS AND SELECTIVE COORDINATION STUDY AND SHALL LABEL ALL APPLICABLE ELECTRICAL EQUIPMENT IN ACCORDANCE WITH NFPA 70E. STUDIES SHALL BE INCLUDED IN SUBMITTALS.
 - EC SHALL MEET WITH THE GENERAL CONTRACTOR, OWNER, AND OWNER'S LOW VOLTAGE CONTRACTOR(S) PRIOR TO ROUGH-IN.
 - ALL SPLICES 1/0 AND LARGER SHALL BE HYPRESS CRIMP.

- KEYNOTES**
- INCOMING SERVICE CONDUCTORS BY UTILITY COMPANY.
 - PROVIDE TWO 3/4 COPPER GROUND ROD.
 - SERVICE ENTRANCE RATED.
 - SURGE PROTECTIVE DEVICE: PROVIDE INNOVATIVE TECHNOLOGY PTE1603Y101. EQUALS BY CURRENT TECHNOLOGY OR LIEBERT. DEVICE SHALL BE 160KA PER PHASE WITH 10 MODE PROTECTION. SINE WAVE TRACKING IS REQUIRED FOR THIS UNIT. PROVIDE #10 CONDUCTORS AND CONNECT TO A 30A3P CIRCUIT BREAKER. CONDUCTOR LENGTHS SHALL BE AS SHORT AS POSSIBLE AND PER THE MANUFACTURER'S RECOMMENDATIONS. PROVIDE A WARRANTY WITH A MINIMUM OF 20 YEARS THAT INCLUDES LIGHTNING STRIKES.

Branch Panel: MDP

Location: STORAGE 102 Volts: 120/240 A.I.C. Rating: 22,000 AMPS SYMMETRICAL
Supply From: UTILITY Phases: 1 Mains Type: MCB
Mounting: Surface Wires: 3 Mains Rating: 200.0 A
Enclosure: NEMA 1

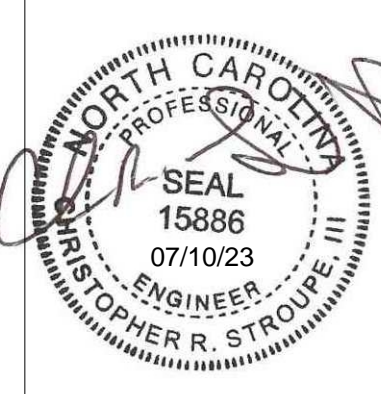
Notes:
SERVICE ENTRANCE RATED.

CKT	Circuit Description	Trip	Poles	Wires & Conduits	A	B	Wires & Conduits	Poles	Trip	Circuit Description	CKT	
1	RCPT - RM101	20.0 A	1	2#12, #12G, 3/4"	180 VA	372 VA	2#12, #12G, 3/4"	1	20.0 A	OUTDOOR LIGHTS	2	
3	RCPT - RM101	20.0 A	1	2#12, #12G, 3/4"			180 VA	180 VA	20.0 A	RCPT - STORAGE 102	4	
5	RCPT - RM101	20.0 A	1	2#12, #12G, 3/4"	180 VA	0 VA			1	20.0 A	SPARE	6
7	RCPT - RM101	20.0 A	1	2#12, #12G, 3/4"					1	20.0 A	SPARE	8
9	RCPT - RM101	20.0 A	1	2#12, #12G, 3/4"	180 VA	0 VA			1	20.0 A	SPARE	10
11	RCPT - RM101	20.0 A	1	2#12, #12G, 3/4"			720 VA	0 VA	1	20.0 A	SPARE	12
13	RCPT - RM101	20.0 A	1	2#12, #12G, 3/4"	720 VA	0 VA			1	20.0 A	SPARE	14
15	RCPT - RM101	20.0 A	1	2#12, #12G, 3/4"					1	20.0 A	SPARE	16
17	RCPT - EWS	20.0 A	1	2#12, #12G, 3/4"	750 VA	0 VA			1	20.0 A	SPARE	18
19	RCPT - RM102, 103, 104, 105	20.0 A	1	2#12, #12G, 3/4"			540 VA	0 VA	1	20.0 A	SPARE	20
21	RCPT - OUTDOOR	20.0 A	1	2#12, #12G, 3/4"	360 VA	0 VA			1	20.0 A	SPARE	22
23	HAND DRYER - RM105	20.0 A	1	2#12, #12G, 3/4"			1200 VA	--				24
25	HAND DRYER - RM105	20.0 A	1	2#12, #12G, 3/4"	1200 VA	--						26
27	LIGHTS - ALL ROOMS	20.0 A	1	2#12, #12G, 3/4"			457 VA	--	3	--	SPACE	28
29	EF-1	20.0 A	1	2#12, #12G, 3/4"	192 VA	--			1	--	SPACE	30
31	EF-3	20.0 A	1	2#12, #12G, 3/4"			120 VA	--	1	--	SPACE	32
33	EF-2	20.0 A	1	2#12, #12G, 3/4"	192 VA	--			1	--	SPACE	34
35							864 VA	--	1	--	SPACE	36
37	DHP-1	20.0 A	2	2#12, #12G, 3/4"	864 VA	0 VA						38
39	WH-XX	30.0 A	2	2#10, #10G, 3/4"		0 VA	2400 VA		3	30.0 A	SPD	40
41					2400 VA	0 VA						42
Total Load:					7590 VA		7021 VA					
Total Amps:					63.3 A		58.5 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
HVAC	2232 VA	100.00%	2232 VA	
Other	0 VA	0.00%	0 VA	
LITES	829 VA	125.00%	1036 VA	Total Conn. Load: 14611 VA
Kitchen Equipment - Non-Dwelling Unit	4800 VA	100.00%	4800 VA	Total Est. Demand: 14819 VA
L	0 VA	0.00%	0 VA	Total Conn.: 60.9 A
RCPT	4350 VA	100.00%	4350 VA	Total Est. Demand: 61.7 A
Power - General	2400 VA	100.00%	2400 VA	

Notes:



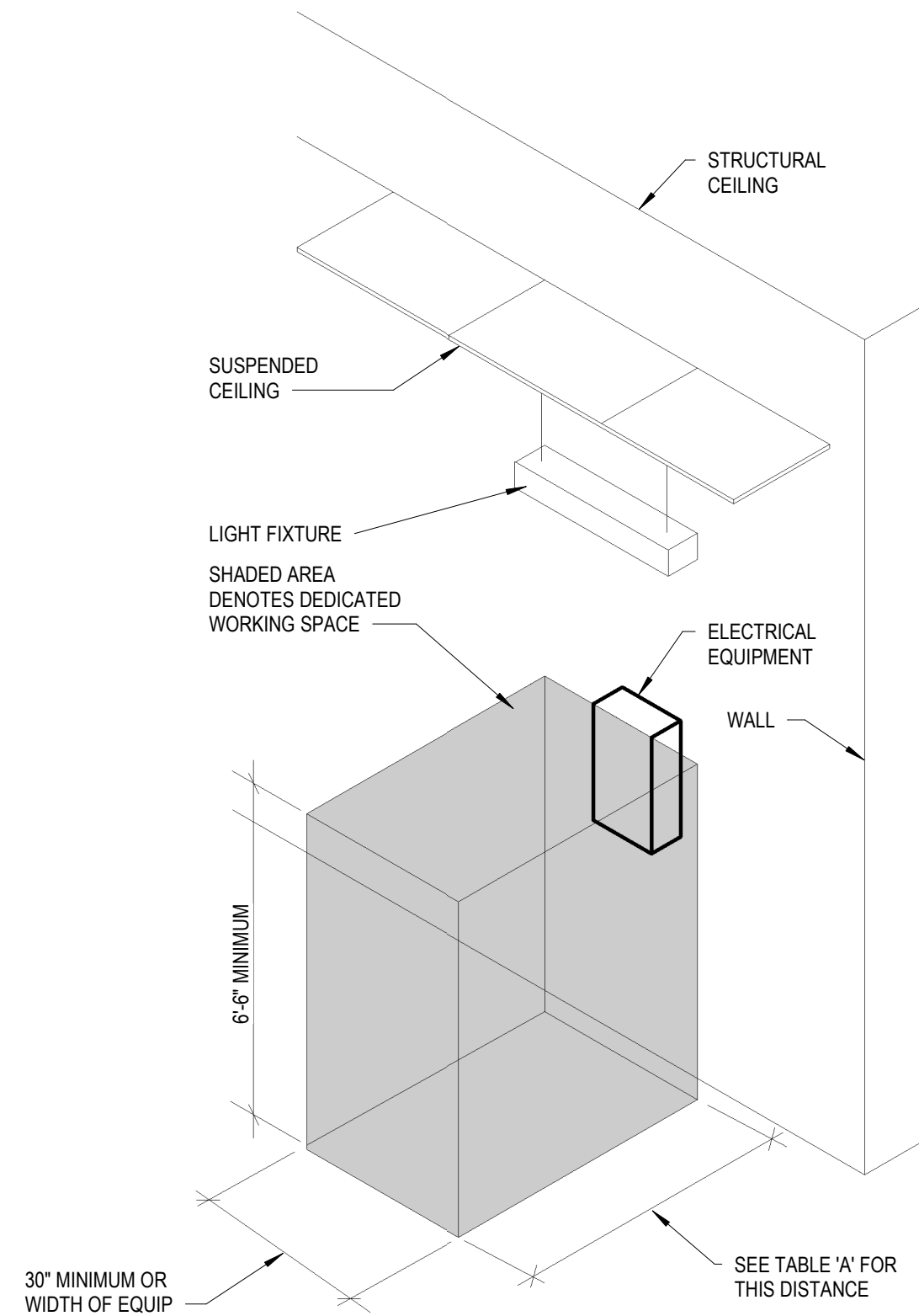
As instruments of service these drawings and the design represented are the property of Consultant Engineering Service, Inc. Reproduction or use of these drawings other than for the project intended without the written consent from the Engineer is prohibited. Unauthorized use will be subject to legal action.

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

WHERE "CONDITIONS" ARE AS FOLLOWS:

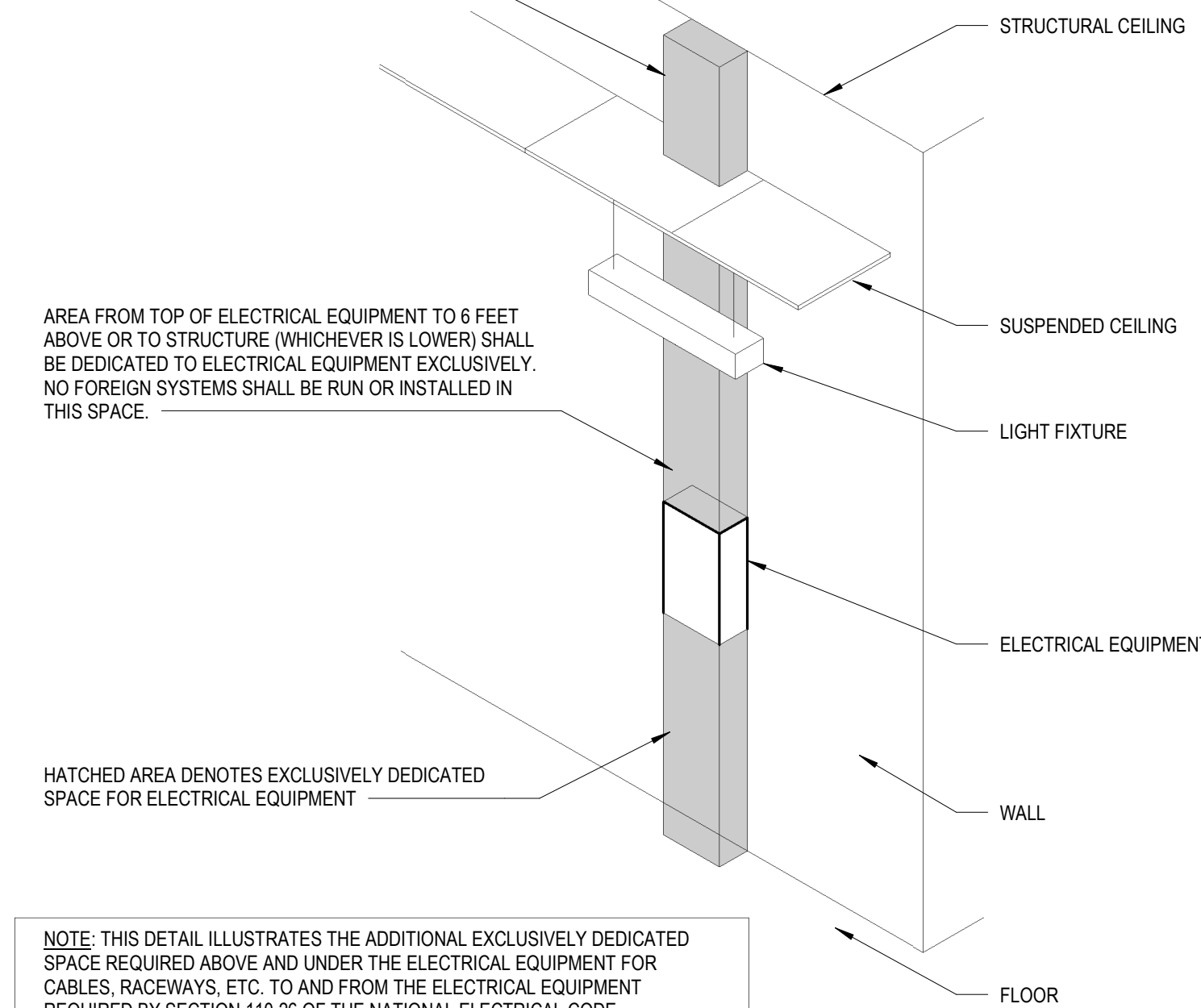
1. EXPOSED LIVE PARTS ON ONE SIDE AND NO LIVE OR GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES EFFECTIVELY GUARDED BY SUITABLE WOOD OR OTHER INSULATING MATERIALS. INSULATED WIRE OR INSULATED BUS BARS OPERATING AT NOT OVER 300 VOLTS SHALL NOT BE CONSIDERED LIVE PARTS.
2. EXPOSED LIVE PARTS ON ONE SIDE AND GROUNDED PARTS ON THE OTHER SIDE.
3. 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.

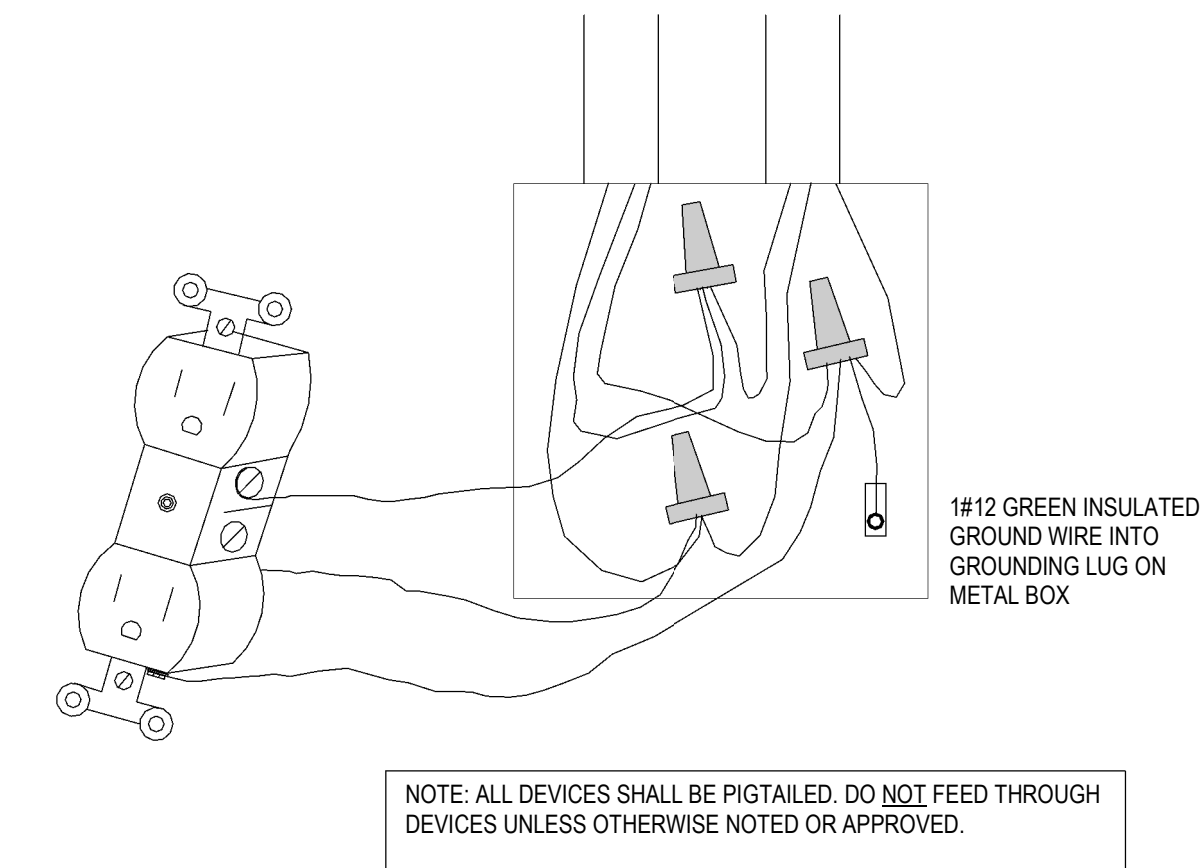


1 WORKING CLEARANCE FOR ELECTRICAL EQUIPMENT (NEC 110-26)
E2.1 NOT TO SCALE

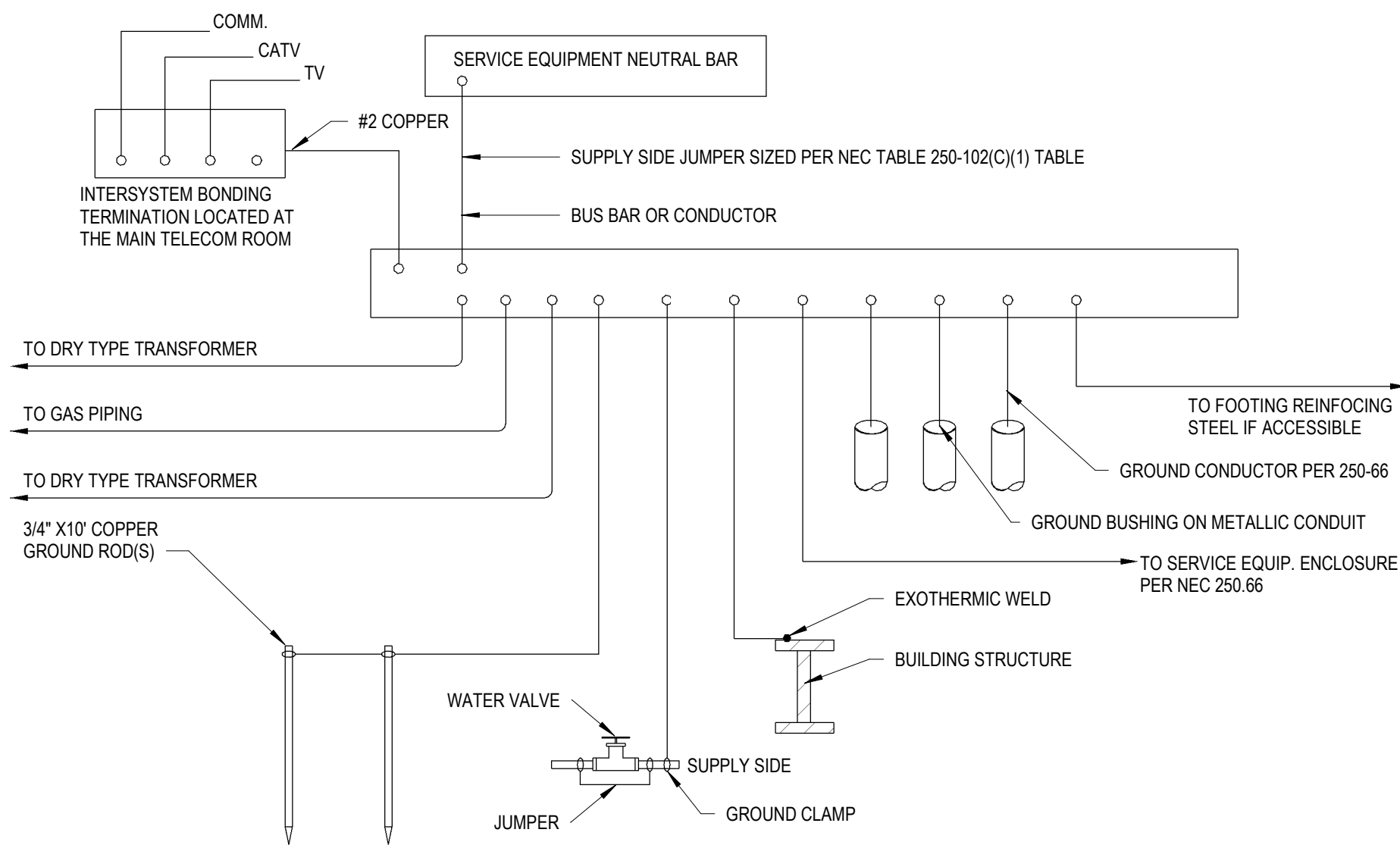
DEDICATED SPACE CONTINUES THROUGH SUSPENDED CEILING PER N.E.C. ARTICLE 110-26



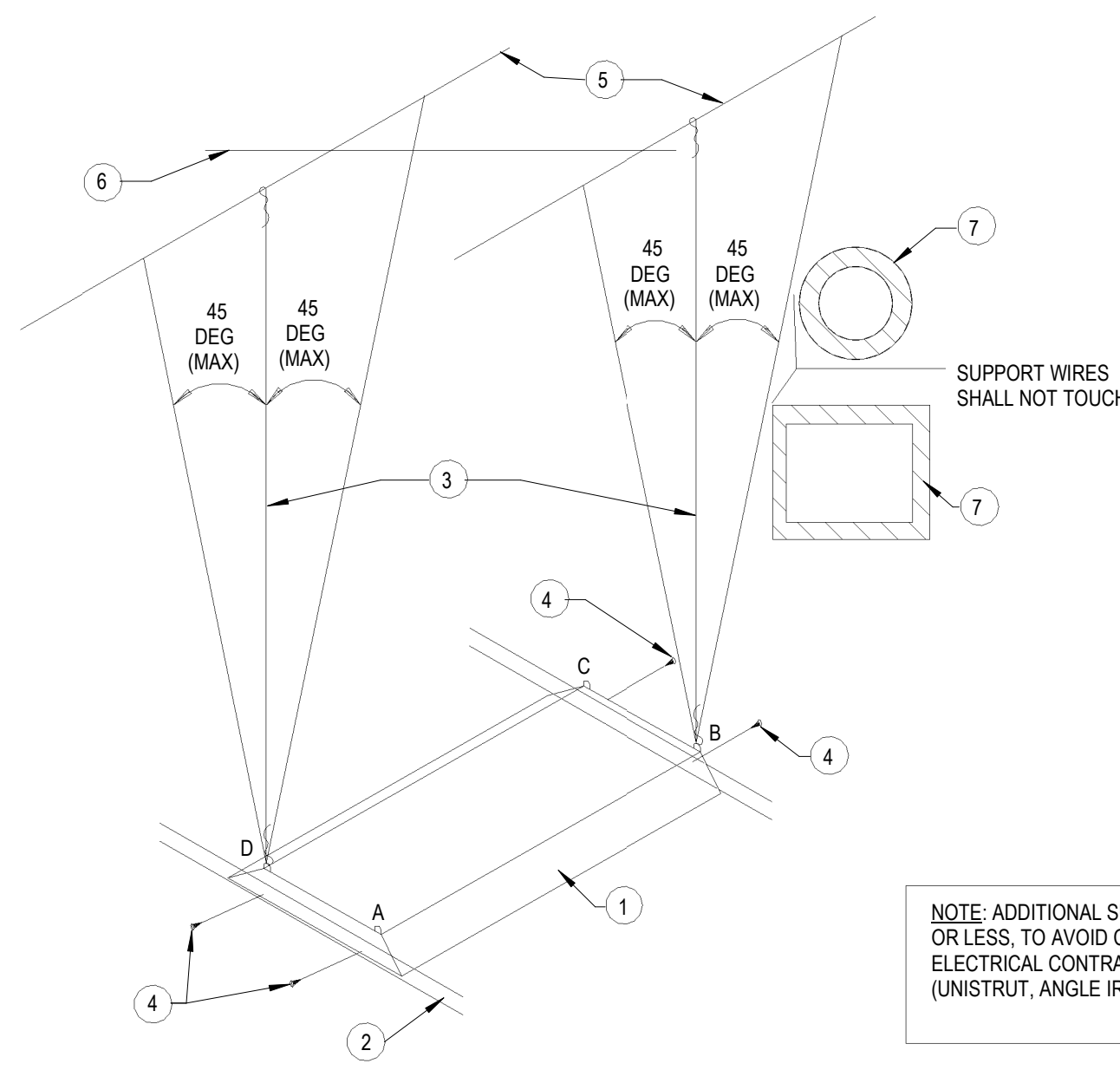
2 DEDICATED SPACE FOR ELECTRICAL EQUIPMENT (NEC 110-26)
E2.1 NOT TO SCALE



3 TYPICAL BOX RECEPTACLE CONNECTION
E2.1 NOT TO SCALE



4 SERVICE GROUNDING DETAIL
E2.1 NOT TO SCALE

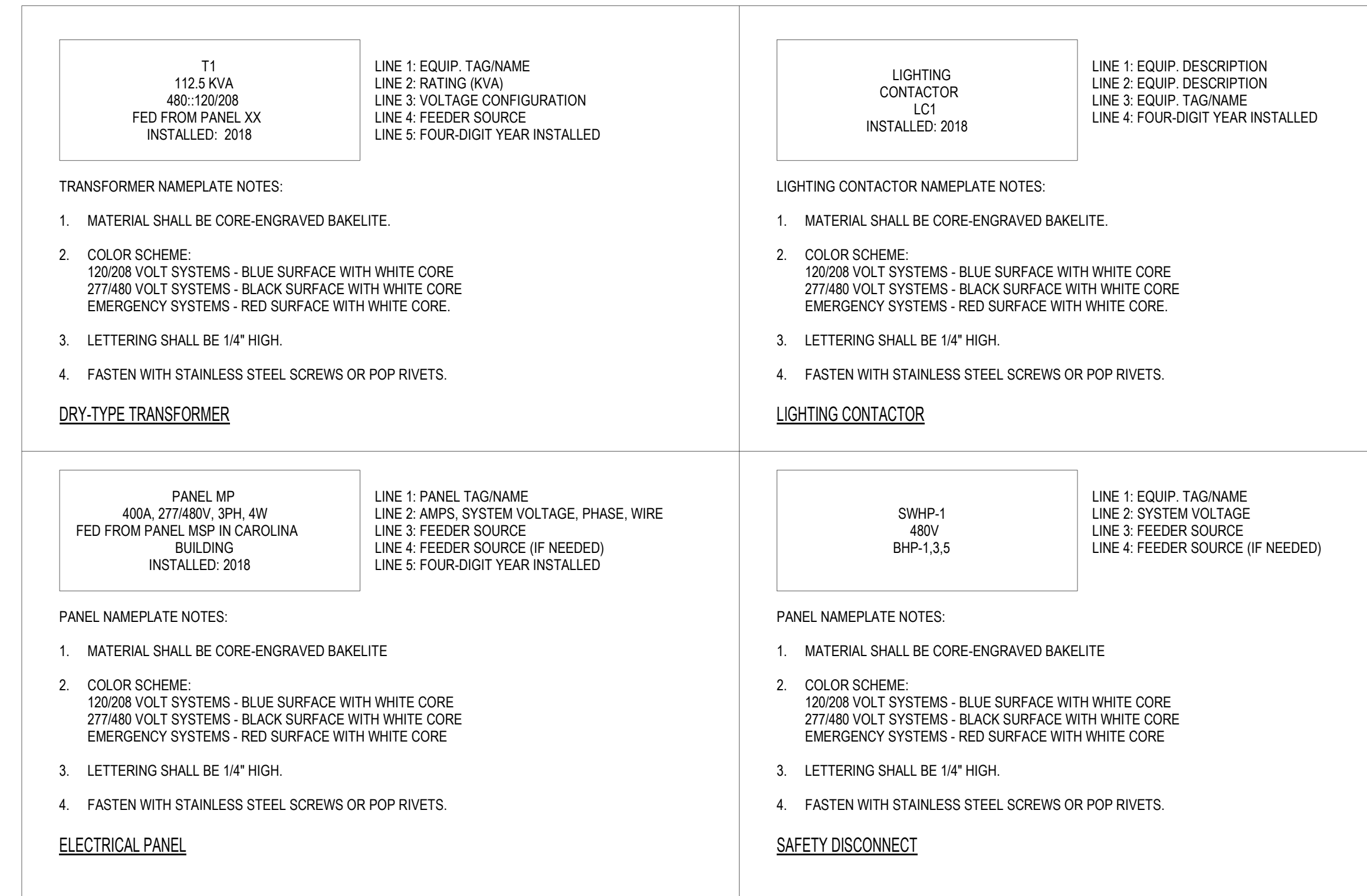


5 LAY-IN LIGHT FIXTURE SUPPORT
E2.1 NOT TO SCALE

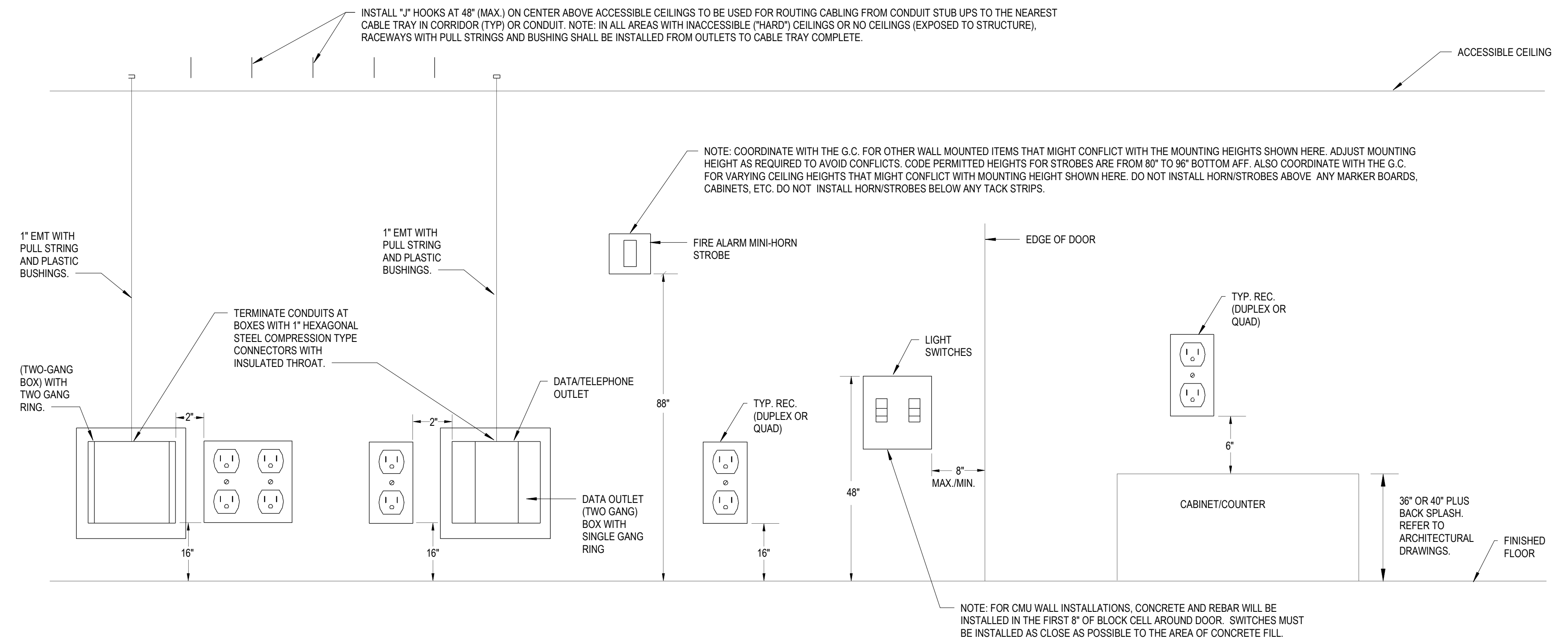
KEYNOTES: #

1. LAY-IN LIGHT FIXTURE.
2. CEILING GRID.
3. 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. TIGHT (NO SLACK), PAINTED A DIFFERENT COLOR (RED) THAN THE OTHER CEILING SUPPORT WIRES.
4. 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.
5. STRUCTURE (METAL OR WOOD TRUSS, METAL OR WOOD BAR JOIST, CONCRETE, ETC.).
6. BRIDGING BETWEEN STRUCTURAL MEMBERS (WHERE APPLICABLE). NOTE: SUPPORT WIRES ARE NOT PERMITTED TO ATTACH TO THE BRIDGING AT ANY LOCATION.
7. 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.

NOTE: ADDITIONAL SUPPORT MATERIALS MAY BE REQUIRED IN ORDER TO ACHIEVE AN ANGLE OF 45 DEGREES OR LESS, TO AVOID CONTACTING PIPING OR DUCTS, TO PREVENT FROM ATTACHING TO BRIDGING, ETC. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ADDITIONAL SUPPORT MATERIALS APPROVED FOR THE PURPOSE (UNISTRUT, ANGLE IRON, ETC.) AS REQUIRED TO INSTALL THE SUPPORT WIRES PER THIS DETAIL.



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

CONSULTANT ENGINEERING SERVICE, INC.
PLUMBING • MECHANICAL • ELECTRICAL

A Woman Owned Business
est. 1964

Phone: 336.724.0139 • 1111 S Marshall Street, Suite 250, Winston Salem, NC 27101

THESE DRAWINGS ARE 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.
Unauthorized use will be subject to legal action.

NORTH CAROLINA
PROFESSIONAL SEAL
15886
07/10/23
ENGINEER
TOPHER R. STROUPE II

NEIL'S CREEK PARK COMFORT STATION
BLACK RIVER TOWNSHIP, TOWN OF ANGLIER
HARNETT COUNTY, NC

DATE		07/10/2023	
SHEET TITLE		ELECTRICAL DETAILS	
DESIGNED BY	APPROVED BY	PROJECT NO.	REVISION
REH/GE	CRS	4343	
REVISION	REVISION	REVISION	REVISION
SHEET NUMBER		E2.2	

As instruments of service these drawings and the design represented are the property of Consultant Engineering Service, Inc. Reproduction or use of these drawings other than for the project intended without the written consent from the Engineer is prohibited. Unauthorized use will be subject to legal action.