Onslow County Government

Onslow County Senior Services Center Renovation

4024 Richlands Hwy, Jacksonville, NC 28540

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BID ALTERNATES

ALTERNATE 1: LIFT STATION REPLACEMENT

ALTERNATE 2: GENERATOR AND GENERATOR INFRASTRUCTURE

ALTERNATE 3: MAIN ENTRANCE CANOPY

ALTERNATE 4: ADULT DAY CARE CANOPY

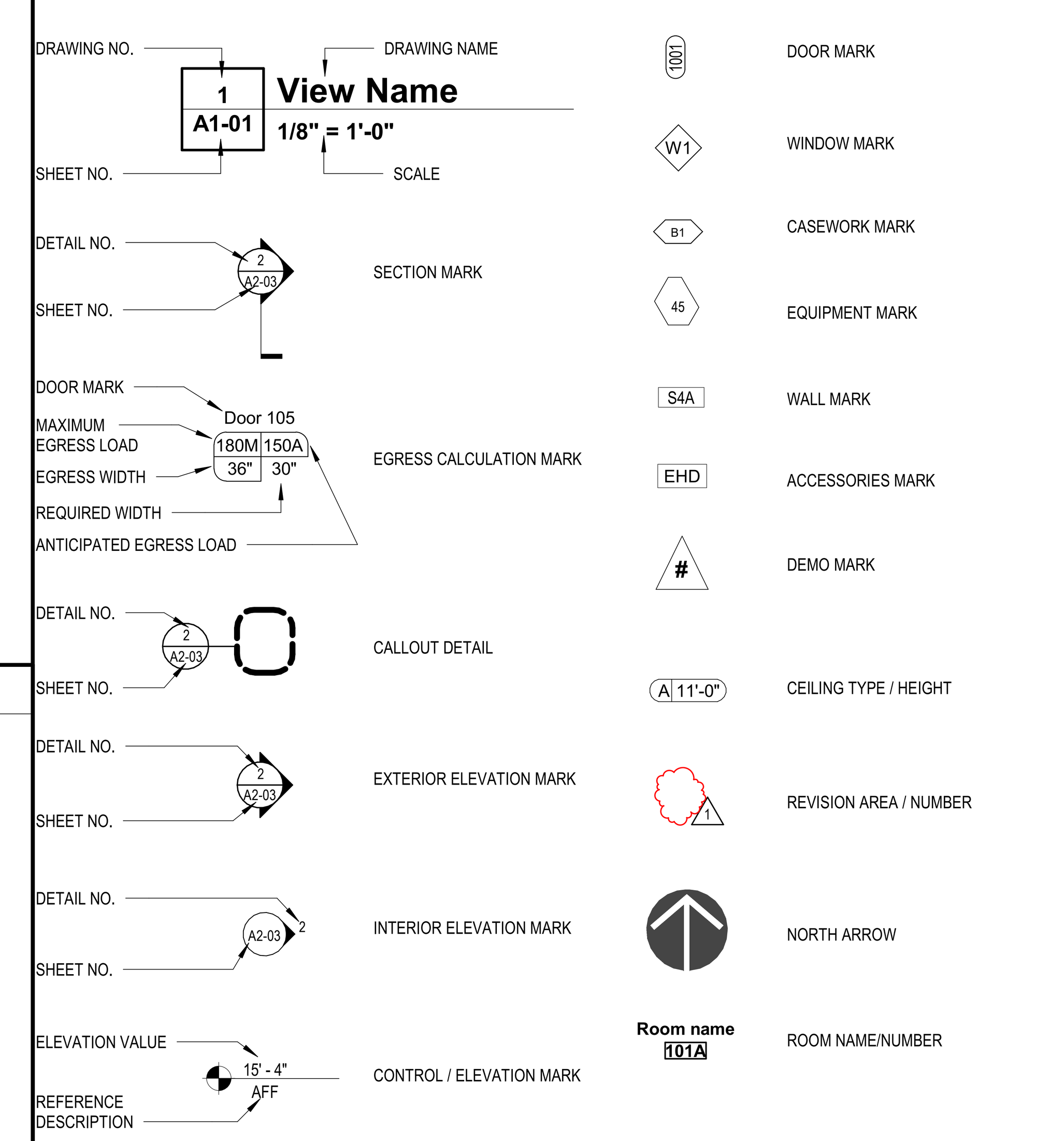
ALTERNATE 5: WEST ENTRANCE CANOPY

ALTERNATE 6a: UPGRADED FLOOR FINISH
ALTERNATE 6b: UPGRADED WALL FINISH
ALTERNATE 6c: UPGRADED CEILING FINISH

ALTERNATE 7a: OWNER PREFERRED MANUFACTURER
DOOR HARDWARE: CYLINDER, LOCKS, AND LATCHES: MANUFACTURER - BEST LOCKS
DOOR HARDWARE: EXIT DEVICES: MANUFACTURER - PRECISION
DOOR HARDWARE: CLOSERS: MANUFACTURER - STANLEY

ALTERNATE 7b: OWNER PREFERRED MANUFACTURER: FIRE ALARM - EDWARD IO SERIES

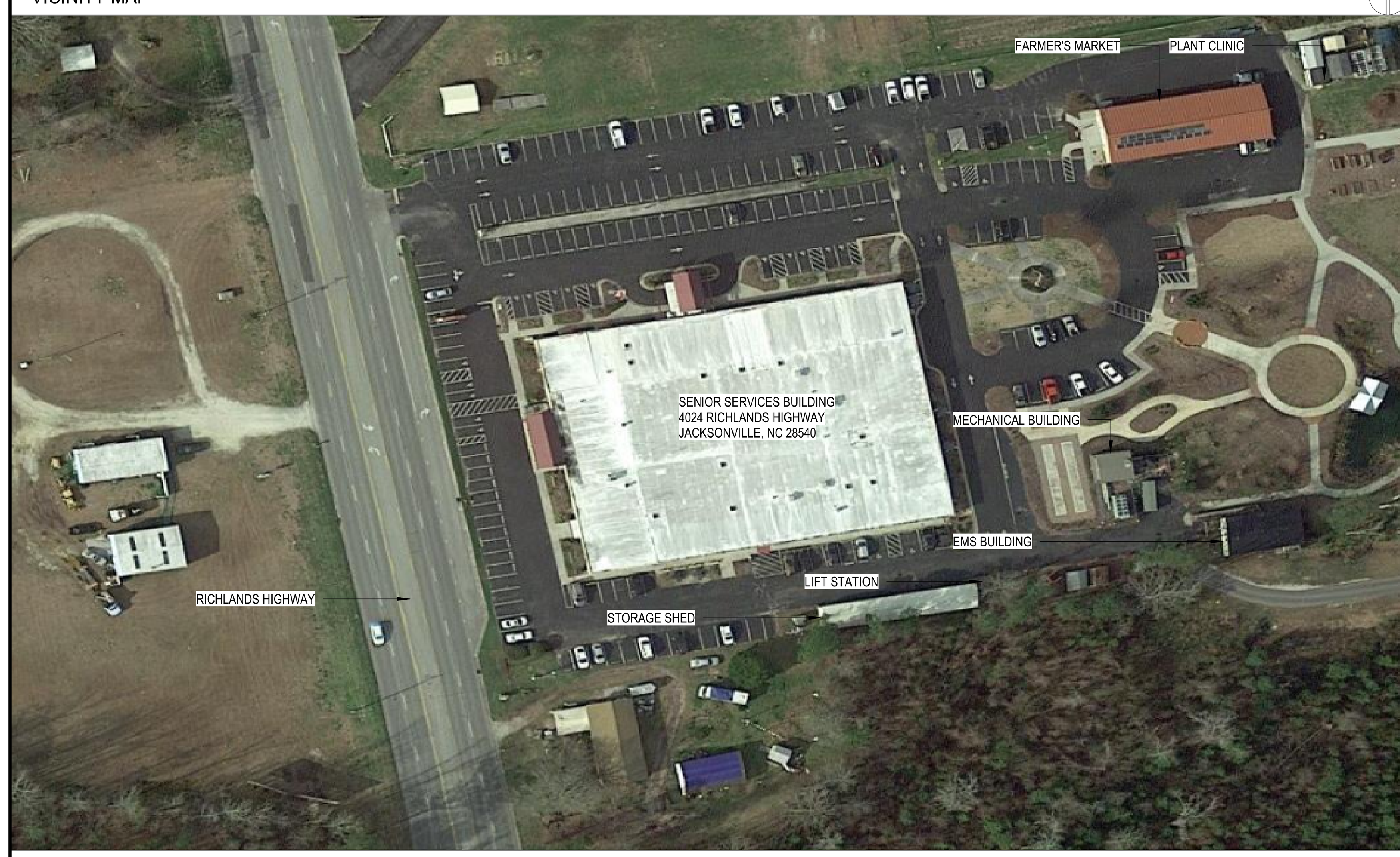
SYMBOL LEGEND



PROJECT DESCRIPTION

A.The project consists of the partial demolition and renovation of the existing Onslow County Senior Services building, approximately 38,325 square feet. The scope includes new building envelope (exterior wall and roof), partial new roof deck, load bearing walls, roof framing, structural modifications, interior walls, ceilings, finishes, new plumbing, mechanical, electrical, communications, fire alarm, fire protection systems. Site work includes new paving, landscape, stormwater, sanitary, fire protection, natural gas, communications services. The project includes all other work as shown, indicated or reasonably implied on the drawings and/or specifications for a complete, first-class job. Refer to Section 007300 Supplementary General Conditions for the number of completion days.

VICINITY MAP



RENDERING

INDEX OF DRAWINGS

ABBREVIATIONS

@	AT
AB	AREA DRAIN
ACC	ACCENT COLOR
ACT	ACOUSTICAL CEILING TILE
ACOUS	ACOUSTIC
ACW	ACOUSTICAL WALL PANELS
ADJ	ADJUSTABLE
AE	APPROVED EQUAL
AFF	ABOVE FINISH FLOOR
AFL	ATHLETIC FLOORING
AHU	AIR HANDLING UNIT
ALB	ALUMINUM BASE
ALT	ALUMINUM TILE
ALUM	ALUMINUM
ANOD	ANODIZED
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ATTEN	ATTENUATION
AWP	ACRYLIC WALL PANELS
BBT	BIOBASED TILE
BF	BLOCK FILL
BFC	BROOMED FINISHED CONCRETE
BL	BLINDS
BLDG	BUILDING
BLKG	BLOCKING
B.O.	BOTTOM OF
BFG	BULLET PROOF GLASS
BN	BULL NOSE
CEM	CEMENTIOUS SIDING
CF	CORK FLOORING
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
CFT	CERAMIC FLOOR TILE
CG	CURVED CEILING GRID
CI	CAST IRON
CI#	CURB INLET
CJ	CONTROL JOINT
CLG	CEILING
CL	CENTERLINE
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
COL	COLUMN
CONC	CONCRETE
CONSTR	CONSTRUCTION
CONTR	CONTRACTOR
CORR	CORRUGATED
CPT	CARPET
CPTT	CARPET TILE
CTB	CERAMIC TILE BASE
CRC	COLD ROLLED CHANNEL
CRF	CORK RUBBER FLOORING
CS	COUNTERSUNK
CWT	CERAMIC WALL TILE
DET	DETAIL
DEPT	DRY FOG PAINT
DIA	DIAMETER
DISP	DISPENSER
DN	DOWN
DP	DEEP
DR	DOOR
DS	DOWNSPOUT
E/W	EACH WAY
EDG	EDGE BANDING
EES	EMERGENCY EYE WASH AND SHOWER
EFC	EPOXY FLOOR COATING
EIFS	EXTERIOR INSULATION FINISH SYSTEM
EIP	EXISTING IRON PIPE
ELEV	ELEVATION
ELEC	ELECTRICAL
EJ	EXPANSION JOINT
EN	ENAMEL
EPT	HIGH PERFORMANCE EPOXY PAINT
EQ	EQUAL
EST	EXISTING
EXT	EXTERIOR
EXP	EXPOSED CEILING
EWC	ELECTRIC WATER COOLER
FC	FIRECODE
FD	FLOOR DRAIN
FEB	FIRE EXSTINGUISHER BRACKET
FEC	FIRE EXSTINGUISHER CABINET
FF	FINISH FLOOR
FH	FIRE HYDRANT
FLU	FLOURESCENT
FOF	FACE OF FRAME
FOM	FACE OF MASONRY
FTG	FOOTING
GC	GENERAL CONTRACTOR
GCT	GRANITE COUNTERTOP
GA	GAGE
GALV	GALVANIZED
GEN	GENERATOR
GFT	GRANITE FLOOR TILE
GL	GLASS
GMT	GLASS MOSAIC TILE
GT	GROUT
GYP	GYPSUM BOARD
HB	HOSE BIB
HC	HOLLOW CORE
H/C	HANDICAP ACCESSIBLE
HDWD	HARDWOOD
HM	HOLLOW METAL
HORZ	HORIZONTAL
HR	HOUR
ICF	INFECTION CONTROL FLOORING
ID	INSIDE DIAMETER
INSTAL	INSTALLATION
INSUL	INSULATION
INT	INTERIOR
INV	INVERT
JB	JOIST BEARING
JB#	JUNCTION BOX
JT	JOINT
L	LONG
LFT	LINOLEUM FLOOR TILE
LP	LIGHT POLE
LST	LINOLEUM SHEET FLOORING
LVT	LUXURY VINYL TILE
MATL	MATERIAL
MAX	MAXIMUM
MC	METAL CANOPY
MCT	METAL CEILING TILE
MB	MASONRY - BRICK
MECH	MECHANICAL
MFR	MANUFACTURER
MFT	MARBLE FLOOR TILE
MIN	MINIMUM
MO	MASONRY OPENING
MOV	MILITARY OWNER VEHICLE
MTB	MARBLE TILE BASE
MTD	MOUNTED
MTL	METAL
MWM	METAL WALK-OFF MAT
MWT	MARBLE WALL TILE
NIC	NOT IN CONTRACT
NOM	NORMAL
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFOI	OWNER FURNISHED, OWNER INSTALLED
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OPP	OPPOSITE
OZ	OUNCE
P-LAM	PLASTIC LAMINATE
P-LAM WD	PLASTIC LAMINATE WOOD DOORS
MTD	MOUNTED
MTL	METAL
MWM	METAL WALK-OFF MAT
MWT	MARBLE WALL TILE
NIC	NOT IN CONTRACT
NOM	NORMAL
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFOI	OWNER FURNISHED, OWNER INSTALLED
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OPP	OPPOSITE
OZ	OUNCE
P-LAM	PLASTIC LAMINATE
P-LAM WD	PLASTIC LAMINATE WOOD DOORS
PC	POLISHED CONCRETE
PERF	PERFORATED
PFT	PORCELAIN FLOOR TILE
PIV	POST INDICATOR VALVE
PL	PLATE
PLYWD	PLYWOOD
PNT	PAINT
POV	PRIVATELY OWNED VEHICLE
PP	POWER POLE
PR	PAIR
PTB	PORCELAIN TILE BASE
PTD	PAINTED
PTP	PLASTIC TOILET PARTITIONS
PWT	PORCELAIN WALL TILE
PVC	POLYVINYL CHLORIDE
QS	QUARTZ SURFACE
QT	QUARRY TILE
QZT	QUARTZ TILE
R	RADIUS
R&S	ROD AND SHELF
RB	RUBBER BASE
RBT	RUBBER TILE
RCP	REINFORCED CONCRETE
RC	READINESS CENTER
RD	ROOF DRAIN
RDL	ROOF DRAIN LEADER
RECEPT	RECEPTACLE
RECYF	RECYCLED FLOORING
REQD	REQUIRED
RES	RESILIENT
RM	RUBBER MAT
ROW	RIGHT OF WAY
RSF	RESINOUS FLOORING
RTF	RESILENT TILE FLOORING
SAT	SPRAYED ACOUSTICAL TREATMENT
SC	SEALED CONCRETE
SCH	SCHEDULE
SCW	SOLID CORE WOOD
SDT	STATIC DISSIPATIVE TILE
SF	SQUARE FEET
SIM	SIMILAR
SLS	SOLID SURFACE
SP	SPACES
SQ	SQUARE
SS	STAINLESS STEEL
SSC	STAINED SEALED CONCRETE
SRT	SLIP RESISTANT TILE
ST	STEEL
STO	STORAGE
ST&R	STAIR TREADS AND RISERS
STD	STANDARD
SUSP	SUSPENDED
TC	TERRA COTTA
T&G	TONGUE AND GROOVE
TCA	TILE COUNCIL OF AMERICA
TELE	TELEPHONE
TEMP	TEMPERED
TEXD	TEXTURED
TFT	TERRAZZO FLOOR TILE
TLT	TOILET
T.O.	TOP OF
TOC	TOP OF CURB
TOS	TOP OF STEEL
TP	TELEPHONE POLE
TVB	TELEVISION MOUNTING BRACKET
TYP	TYPICAL
UL	UNDERWRITERS LABORATORY
U/L	UTILITY/LIGHTS
UON	UNLESS OTHERWISE NOTED
USB	UNHEATED STORAGE BUILDING
UTB	UNIT TRAINING BAY
VACT	VINYL ACOUSTICAL TILE
VB	VAPOR BARRIER
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VIF	VERIFY IN FIELD
VWC	VINYL WALL COVERING
W/	WITH
WC	WATER CLOSET
WD	WOOD
WF	WOOD FLOORING
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH

SHEET NUMBERING LEGEND

SECTION		DISCIPLINE	
0	DEMOLITION / GENERAL	G	GENERAL
1	PLANS	C	CIVIL
2	EXTERIOR ELEVATIONS	L	LANDSCAPE
3	BUILDING / WALL SECTIONS	S	STRUCTURAL
4	ENLARGED PLANS, CASEWORK, INTERIOR ELEVATIONS & RELATED DETAILS	A	ARCHITECTURAL
5	DETAILS	Q	EQUIPMENT
6	WINDOW & DOOR SCHEDULES	P	PLUMBING
7	FINISH PLAN & SCHEDULES	M	MECHANICAL
8	VERTICAL CIRCULATION	E	ELECTRICAL
9	BID ALTERNATES	FP	FIRE PROTECTION
		X	MISCELLANEOUS

PAGE NUMBER

A1-01

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JAMEY EDWARD GLUECK · Registered Architect · 9585 · North Carolina · RALEIGH, NC · 10-16-2024

BID DOCUMENTS

THIS DRAWING IS FORMATTED TO BE PRINTED ON A 30" X 42" SHEET

Onslow County Senior Services Center Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: FA, NB
CHECKED BY: JG

COVER SHEET

2021029 · 16 OCT. 2024

G0-01

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: ONSLOW COUNTY SENIOR SERVICES
Address: 4024 RICHLANDS HIGHWAY, JACKSONVILLE, NC   Zip Code 28540
Owner/Authorized Agent: BENJAMIN WARREN   Phone # (919)-989-3025   E-Mail benjamin_warren@onslowcountync.gov
Owned By: ONSLOW COUNTY   [x] City/County ONSLOW   [ ] Private --   [ ] State --
Code Enforcement Jurisdiction: [ ] City JACKSONVILLE   [x] County ONSLOW   [ ] State --

CONTACT: SCOTT McCONNELL, SMITH SINNETT ARCHITECTURE

DESIGNER	FIRM	NAME	LICENSE#	TELEPHONE#	E-MAIL
Architectural	SMITH SINNETT AIA	JAMEY GLUECK	NC 9585	(919) 781.8582	jglueck@smithsinnett.com
Civil	TIMMONS GROUP	FRANK SLINSKY	NC033612	(919) 866.4505	frank.slinsky@timmons.com
Electrical	PROGRESSIVE DESIGN COLL.	JAMES BUTKOVICH	NC024651	(919) 790.9989	jbutkovich@pdcengineers.com
Fire Alarm	N/A				
Plumbing	PROGRESSIVE DESIGN COLL.	STEVE CAMPBELL	NC25020	(919) 790.9989	scampbell@pdcengineers.com
Mechanical	PROGRESSIVE DESIGN COLL.	STEVE CAMPBELL	NC25020	(919) 790.9989	scampbell@pdcengineers.com
Sprinkler-Standpipe	PROGRESSIVE DESIGN COLL.	STEVE CAMPBELL	NC25020	(919) 790.9989	scampbell@pdcengineers.com
Structural	ROSS LINDEN ENGINEERS PC	BRIAN ROSS	NC25539	(919) 832.5680	brian@rosslinden.com
Retaining Walls >5' High	N/A				
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 Completions [ ] Shell/Core* [ ] Phased Construction*
*Contact the local inspection jurisdiction for possiblitional procedures and requirements.

2018 NC EXISTING BUILDING CODE: (check all that apply)
[ ] Prescriptive [ ] Alteration Level I [ ] Historic Property
[ ] Repair [ ] Alteration Level II [x] Change of Use
[ ] Chapter 14 [x] Alteration Level III

CONSTRUCTED: (date) UNKNOWN   **CURRENT OCCUPANCY(S)** (Ch.3): A-3, I-4, B, S-1
RENOVATED: (date) 2015   **PROPOSED OCCUPANCY(S)** (Ch.3): A-3, I-4, B, S-1
RISK CATEGORY (Table 1604.5): **Current:** II **Proposed:** II

BASIC BUILDING DATA
Construction Type: [ ] I-A [ ] I-B [ ] II-A [x] II-B [ ] III-A [ ] III-B [ ] IV [ ] V-A [ ] V-B
Sprinklers: [ ] No [ ] Partial [x] NFPA 13 [ ] NFPA 13R [ ] NFPA 13D
Standpipes: [x] No Class [ ] I [ ] II [ ] III [ ] Wet [ ] Dry
Primary Fire District: [x] No [ ] Yes   **Flood Hazard Area:** [x] No [ ] Yes
Special Inspections Required: [ ] Yes [x] No   If special inspections are required, contact the local inspection jurisdiction for additional procedures and requirements.

*Business (**B**) Occupany reduced from 28,311 SF** (Existing) to 25,542 SF (New) resulting in a **7.06%** change in occupancy. **28,311 SF accounting for 257 SF of roof overhang on west building elevation. Existing 257 SF of roof overhang to be demolished in Alteration. Assembly (**A-3**) increased from 4,481 SF (Existing) to 8,283 SF (New) resulting in a **9.98%** change in occupancy. Storage (**S-1**) reduced from 2,990 SF (Existing) to 2,885 SF (New) resulting in a **0.23%** change in occupancy. Institutional (**I-4**) reduced from 2,754 SF (Existing) to 1,705 SF (New) resulting in a **2.70%** change in occupancy. Refer to G1-02 for Existing and New occupancy diagrams. NO CHANGE in building height or number of stories.

2018 NC Administrative Code and Policies

Gross Building Area Table

FLOOR	EXISTING (SQ FT)	RENOVATION	NEW(SQ FT)	SUB-TOTAL
1st Foor	38,536 SF	38,325 SF	0 SF	- 211 SF*
TOTAL	38,536 SF	38,325 SF	0 SF	- 211 SF*

*The overhang on west elevation to be demolished resulting in a loss of 211 SF

ALLOWABLE AREA

Primary Occupancy Classification(s):
Assembly [ ] A-1 [ ] A-2 [x] A-3 [ ] A-4 [ ] A-5
Business [x]
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 [ ] I-2 [ ] I-1 & I -2 Condition [ ] 1 [ ] 2
[ ] I-3 [x] I-4 [ ] I-3 Condition [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
Mercantile [ ]
Residential [ ] R-1 [ ] R-2 [ ] R-3 [ ] R-4
Storage [x] S-1 Moderate [ ] S-2 Low [ ] High-piled
[ ] Parking Garage [ ] Open [ ] Encolsed [ ] Repair Garage
Utility and Miscellaneous [ ]

Accessory Occupancy Classification(s): --
Incidental Uses (Table 509): --
Special Uses (Chapter 4 - List Code Sections): Licensed Adult Day Care, Section 429
Special Provisions: (Chapter 5 - List Code Sections): --
Mixed Occupancy: [ ] No [x] Yes   Separation: 0 Hr.   Exception: 508.3 Non-Seperated occupancies
[x] Non-Separated Use (508.3)
[ ] 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.

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

____ + ____ + ... = ____ ≤ 1.00

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 [4] AREA	(C) AREA FOR FRONTAGE INCREASE [1,5]	(D) ALLOWABLE AREA PER STORY OR UNLIMITED [2,3]
1	ASSEMBLY, BUSINESS	38,325 SF	38,000 SF	7,125 SF	45,125 SF

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 = 796' (F)
b. Total Building Perimeter = 796' (P)
c. Ratio (F/P) = 1 (F/P)
d. W = Minimum width of public way = 30' (W)
e. Percent of frontage increase $I_f = 100[F/P - 0.25] \times W/30$ = 75 (%)
2 Unlimited area applicable under conditions of Section 5.07.
3 Maximum Building Area = total number of stories in the building x E (maximum 3 stories (506.2).)
4 The maximum area of open parking garages must comply with Table 406.5.4 . The maximum area of air traffic control towers must comply with Table 412.3.1
5 Frontage increase is based on the unsprinklered area value in Table 506.2.

2018 NC Administrative Code and Policies

Aa = At + (NSXIf)
At = Tabular Allowable Area Factor = 38,000 SF
Table 506.2 NS (Non Sprikled Area) = 9500 SF
Table 506.2 **If** (Increase Frontage) = .75
Aa (Allowable Areas) = 45,125 SF

If = (F/P - .25)W/30
F (Frontage) with 30' = 796'
P (Perimeter) = 796'
W (Width) = 30'
If = .75 or 75% Increase of 506.2 Non Sprinkled Area = .75 x 9,500 SF = **7,125 SF**

ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3)	60	12'*	T504.3
Building Height in Stories (Table 504.4)	2	1*	T504.3

*Existing Building. No change in building height or stories.

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	RATING PROVIDED (W /____* REDUCTION)	DETAIL # AND SHEET #	DESIGN# FOR RATED ASSEMBLY	DESIGN # FOR RATED PENETRATION	DESIGN # FOR RATED JOINTS
Structural Frame, including columns, girders, trusses		0	0	0	N/A	N/A	N/A
Bearing Walls							
Exterior							
North	30+	0	0	0	N/A	N/A	N/A
East	30+	0	0	0	N/A	N/A	N/A
West	30+	0	0	0	N/A	N/A	N/A
South	30+	0	0	0	N/A	N/A	N/A
Interior		0	0	0	N/A	N/A	N/A
Nonbearing Walls and Partitions / Exterior walls							
North	N/A	0	0	0	N/A	N/A	N/A
East	N/A	0	0	0	N/A	N/A	N/A
West	N/A	0	0	0	N/A	N/A	N/A
South	N/A	0	0	0	N/A	N/A	N/A
Interior walls and partitions					N/A	N/A	N/A
Floor Construction Including supporting beams and joists		N/A	N/A	N/A	N/A	N/A	N/A
Floor Ceiling Assembly		N/A	N/A	N/A	N/A	N/A	N/A
Columns Supporting Floors		N/A	N/A	N/A	N/A	N/A	N/A
Roof Construction, including supporting beams and joists		0	0	0	N/A	N/A	N/A
Roof Ceiling Assembly		0	0	0	N/A	N/A	N/A
Columns Supporting Roof		0	0	0	N/A	N/A	N/A
Shaft Enclosures - Exit		N/A	N/A	N/A	N/A	N/A	N/A
Shaft Enclosures - Other		N/A	N/A	N/A	N/A	N/A	N/A
Corridor Separation		0	0	0	N/A	N/A	N/A
Occupancy/Fire Barrier Seperation		N/A	N/A	N/A	N/A	N/A	N/A
Party/Fire Wall Separation		N/A	N/A	N/A	N/A	N/A	N/A
Smoke Barrier Separation		N/A	N/A	N/A	N/A	N/A	N/A
Smoke Partition		N/A	N/A	N/A	N/A	N/A	N/A
Tenant/Dwelling Unit/ Sleeping Unit Seperation		N/A	N/A	N/A	N/A	N/A	N/A
Incidental Use Separation		N/A	N/A	N/A	N/A	N/A	N/A

* Indicate section number permitting reduction

2018 NC Administrative Code and Policies

PERCENTAGE OF WALL OPENING CALCULATIONS

FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
30'+	Unprotected (UP), Sprinklered (S)	NO LIMIT	-----

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: [ ] No [x] Yes (--)
Exit Signs: [ ] No [x] Yes
Fire Alarm: [ ] No [x] Yes
Smoke Detection Systems: [ ] No [x] Yes   Partial YES
Carbon Monoxide Detection: No Yes (I-4 OCCUPANCY)

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: G1-01

- [ ] Fire and/or smoke rated wall locations (Chapter 7) **N/A**
- [x] 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) **N/A, Distance 30'+**
- [x] Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)
- [x] Occupant loads for each area
- [x] Exit access travel distances (1017)
- [x] Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))
- [x] Dead end lengths (1020.4)
- [x] Clear exit widths for each exit door
- [x] Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)
- [x] 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 **N/A**
- [x] 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) **N/A**
- [ ] Location of doors with electromagnetic egress locks (1010.1.10) **N/A**
- [ ] Location of doors equipped with hold-open devices **N/A**
- [ ] Location of emergency escape windows (1030) **N/A**
- [x] The square footage of each fire area (202)
- [ ] The square footage of each smoke compartment for Occupancy Classification I-2 (407.5) **N/A**
- [ ] Note any code exceptions or table notes that may have been utilized regarding the items above **N/A**

Section/Table/Note	Title

2018 NC Administrative Code and Policies

ACCESSIBLE DWELLING UNITS (SECTION 1107)

TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS REQUIRED	TYPE B UNITS REQUIRED	TYPE B UNITS REQUIRED	TOTAL ACCESSIBLE UNITS PROVIDED
N/A							

ACCESSIBLE PARKING (SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PAKRING SPACES: REQUIRED	TOTAL # OF PAKRING SPACES: PROVIDED	# OF ACCESSIBLE SPACES PROVIDED: REGULAR WITH 5' ACCESS AISLE	VAN SPACES WITH 132" ACCESS AISLE	VAN SPACES WITH 8' ACCESS AISLE	TOTAL # ACCESSIBLE PROVIDED
EXISTING	201	201	5	0	19	24
NEW	201	208	5	0	19	24
NEW	201	208	5	0	19	24

PLUMBING FIXTURE REQUIREMENTS - SENIOR SERVICES AREA (TABLE 2902.1)

USE		WATERCLOSETS M	WATERCLOSETS F	WATERCLOSETS U	URINALS	LAVATORIES MALE	LAVATORIES FEMALE	LAVATORIES UNISEX	SHOWERS/ TUBS	DRINKING FOUNTAINS REGULAR	DRINKING FOUNTAINS ACCESSIBLE
SPACE	NEW	3	6	4	1	3	3	4	1	2	2
	REQ'D	3	4			2	2			1	1

PLUMBING FIXTURE REQUIREMENTS - COOP AND SOIL & WATER AREA (TABLE 2902.1)

USE		WATERCLOSETS M	WATERCLOSETS F	WATERCLOSETS U	URINALS	LAVATORIES MALE	LAVATORIES FEMALE	LAVATORIES UNISEX	SHOWERS/ TUBS	DRINKING FOUNTAINS REGULAR	DRINKING FOUNTAINS ACCESSIBLE
SPACE	NEW	3	5	2	1	3	3	2	2	1	1
	REQ'D	2	3			2	2			1	1

PLUMBING FIXTURE REQUIREMENTS - ADULT DAY CARE AREA** (TABLE 2902.1)

USE		WATERCLOSETS M	WATERCLOSETS F	WATERCLOSETS U	URINALS	LAVATORIES MALE	LAVATORIES FEMALE	LAVATORIES UNISEX	SHOWERS/ TUBS	DRINKING FOUNTAINS REGULAR	DRINKING FOUNTAINS ACCESSIBLE
SPACE	NEW	2	2	1		1	1	1	1	1	1
	REQ'D										

PER **TABLE 2902.1; MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES, I-4 FIXTURE REQUIREMENTS ARE REGULATED AND ENFORCED BY STATE LICENSING AND CERTIFICATION JURISDITCIONS ONLY. 10A NCAC 06R.0401 STATES *"A MINIMUM OF ONE MALE AND ONE FEMALE TOILET SHALL BE LOCATED IN EACH FACILITY AND ACCESSIBLE IN ACCORDANCE WITH THE NORTH CAROLINA BUILDING CODE, WHICH IS HEREBY INCORPORATED BY REFERENCE, INCLUDING ANY SUBSEQUENT AMENDMENTS OR EDITIONS, AND CAN BE ACCESSED AT NOT COST AT HYPERLINK "HTTP://WWW.NCOID.COM/OSFM/"WWW.NCOID.COM/OSFM/. ONE TOILET SHALL BE AVAILABLE FOR EACH 12 ADULTS, INCLUDING STAFF AND PARTICIPANTS WHO UTILIZE THE FACILITY. ONE HAND LAVATORY SHALL BE PROVIDED FOR EACH TWO TOILETS."*

SPECIAL APPROVALS

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below)
Onlsow County Planning and Development, Onslow County Environmental Health

2018 NC Administrative Code and Policies

ENERGY SUMMARY

ENERGY REQUIREMENTS:

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

Existing building envelope complies with code: [ ] (If checked the remainder of this section is not applicable.)
Exempt Building: [ ] Provide code or statutory reference:

Climate Zone: [x] 3A [ ] 4A [ ] 5A

Method of Compliance:
Energy Code [ ] Performance [x] Prescriptive
ASHRAE 90.1 [ ] Performance [ ] Prescriptive
Other [ ] Performance (specify source)

THERMAL ENVELOPE (Prescriptive method only)

Roof/ceiling Assembly (each assembly)
Description of assembly: Minimum 4" X R5.7 / 1" = 22.8R at high side deck step maximum 16.25 X R5.7 / 1" = 96.625R at low deck step. **R-average = R-53**
U-Value of total assembly: 0.039 (0.039 REQUIRED)
R-Value of insulation: Average = R-53 (R-25ci REQUIRED)
Skylights in each assembly: (8) Total throughout building
U-Value of skylight: 0.23 U
total square footage of skylights in each assembly: (3) 4'x8', total 96 SF; (3) 4'x4', total 48 SF; Total: 144 SF

Exterior Walls (each assembly)
Description of assembly: BRICK VENEER W/ AIR SPACE, CONTINUOUS INSULATION AIR BARRIER ON CMU WALL
U-Value of total assembly: 0.05 (0.123 REQUIRED, MASS)
R-Value of insulation: 2 1/2" Exterior Insulation : R-16.7ci (R-7.6ci REQUIRED, MASS)
Openings (windows or doors with glazing)
U-Value of assembly: 0.32
Solar heat gaincoefficient: 0.25
Projection factor: 0.0
Door R-Values: 1.3

Walls below grade (each assembly)
Description of assembly: N/A
U-Value of total assembly: N/A
R-Value of total assembly: N/A

Floors over unconditioned space (each assembly)
Description of assembly: N/A
U-Value of total assembly: N/A
R-Value of total assembly: N/A

Floors slab on grade
Description of assembly: 4" Concrete slab over vapor barrier
U-Value of total assembly: 0.481
R-Value of insulation: NR
Horizontal/vertical requirement: Vertical, top of footing to slab, R-15, 2.3" perimeter insulation
Slab heated: N/A

2018 NC Administrative Code and Policies

2018 APPENDIX B

BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

STRUCTURAL DESIGN (PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)

DESIGN LOADS:

Importance Factors: Wind (I_W) 1.0; Snow (I_S) 1.0; Seismic (I_E) 1.0

Live Loads: Roof 20 psf; Mezzanine N/A psf; Floor 100 psf

Ground Snow Load: 10 psf

Wind Load: Basic Wind Speed Ultimate: 137 mph (ASCE 7-10); Exposure Category B

SEISMIC DESIGN CATEGORY: [ ] A [x] B [ ] C [ ] D
Provide the following Seismic Design Parameters:
Risk Category (Table 1604.5) [ ] I [x] II [ ] III [ ] IV
Spectral Response Acceleration S_S 15.4 %g S_1 7.3 %g
Site Classification (ASCE 7) [ ] A B [ ] C [x] D [ ] E [ ] F
Data Source: [ ] Field Test [x] Presumptive [ ] Historical Data
Basic structural system (check one)
[x] Bearing Wall [ ] Dual w/Special Moment Frame
[ ] Building Frame [ ] Dual w/Intermediate R/C or Special Steel
[ ] Moment Frame [ ] Inverted Pendulum
Analysis Procedure: [ ] Simplified [x] Equivalent Lateral Force [ ] Dynamic
Architectural, Mechanical, Components anchored? [ ] Yes [x] No

LATERAL DESIGN CONTROL: Earthquake [ ] Wind [x]

SOIL BEARING CAPACITIES:
Field Test (provide copy of test report) N/A psf
Presumptive Bearing capacity 2,500 psf
Pile size, type, and capacity N/A

2018 APPENDIX B

BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

MECHANICAL DESIGN (PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone
Winter dry bulb: 20.0 DEGREES F
Summer dry bulb: 94.6 DEGREES F

Interior design conditions
Winter dry bulb: 70.0 DEGREES F
Summer dry bulb: 75.0 DEGREES F
Relative humidity: 55.0 DEGREES F

Building heating load: 679.5 MBH

Building cooling load: 91.2 TONS

Mechanical Spacing Conditioning System
Unitary
Description of unit: DX PACKAGE AC WITH GAS HEAT
Heating efficiency: REFER TO SCHEDULE ON MECHANICAL DRAWINGS
Cooling efficiency: REFER TO SCHEDULE ON MECHANICAL DRAWINGS
Size category of unit: REFER TO SCHEDULE ON MECHANICAL DRAWINGS
Boiler
Size category If oversized, state reason.: N/A
Chiller
Size category If oversized, state reason.: N/A

List equipment efficiencies: REFER TO MECHANICAL EQUIPMENT SCHEDULES

2018 APPENDIX B

BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

ELECTRICAL DESIGN (PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance:
Energy Code: [x] Prescriptive [ ] Performance
ASHRAE 90.1: [ ] Prescriptive [ ] Performance

Lighting schedule (each fixture type)
Lamp type required in fixture See Electrical Fixture Schedule.
Number of lamps in fixture See Electrical Fixture Schedule.
Ballast type used in the fixture See Specifications
Number of ballasts in fixture See Specifications
Total wattage per fixture See Electrical Fixture Schedule.
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
- [x] 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

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SMITH SINNETT ARCHITECTURE, PA — CORPORATION — CERT. NO. 50172 — RALEIGH, NORTH CAROLINA
JAMEY EDWARD GLUECK — Registered Architect — 9585 — North Carolina — RALEIGH, NC — 10-16-2024

BID DOCUMENTS

THIS DRAWING IS FORMATTED TO BE PRINTED ON A 30" X 42" SHEET

Onslow County Senior Services Center Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: FA
CHECKED BY: JEG

BUILDING CODE SUMMARY

2021029   16 OCT. 2024

G0-02

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LIFE SAFETY LEGEND

FEB	LOCATION OF FIRE EXTINGUISHER ON A BRACKET
FEC FEC	LOCATION OF FIRE EXTINGUISHER IN A CABINET
AED AED	LOCATION OF AUTOMATED DEFIBRILLATOR CABINET
PH	PANIC HARDWARE
EH	ELECTROMAGNETIC DOOR HOLD OPEN TIED TO FIRE ALARM
— — — —	MATCH LINE
— · · —	ASSUMED IMAGINARY LINE
OOOOOO	COMMON PATH OF EGRESS TRAVEL (PER NCBC 1006.2.1)
- - - - - -	EXIT ACCESS TRAVEL DISTANCE (200' MAX. PER NCBC 1017)
4500 SF @ 100 GROSS = 45 PERSONS	ACTUAL ROOM AREA OCCUPANCY FACTOR PER CODE TOTAL OCCUPANTS PER ROOM PER CODE
Door 105 180M | 150A 36" | 30"	DOOR MARK ANTICIPATED EGRESS LOAD CALCULATED EGRESS WIDTH (MINIMUM PER 1010.1.1 = 32") ACTUAL WIDTH MAXIMUM EGRESS LOAD

T1006.2.1 **SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY**

VESTIBULE 100
MAXIMUM OCCUPANT LOAD: **49 OCCUPANTS**
ACTUAL OCCUPANT LOAD: **6 OCCUPANTS**

MAXIMUM COMMON PATH OF EGRESS TRAVEL WITH SPRINKLER: **75'-0"**
ACTUAL COMMON PATH OF EGRESS TRAVEL: **44'-5"**

T1006.2.1 **SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY**

LOBBY 101
MAXIMUM OCCUPANT LOAD: **49 OCCUPANTS**
ACTUAL OCCUPANT LOAD: **6 OCCUPANTS**

MAXIMUM COMMON PATH OF EGRESS TRAVEL WITH SPRINKLER: **75'-0"**
ACTUAL COMMON PATH OF EGRESS TRAVEL: **44'-5"**

T1004.1.2 **MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT**

CONFERENCE ROOM 104E
ASSEMBLY OCCUPANT LOAD CALCULATED AT 15 NET
287SF / 15 NET = **17 PERSONS**
OVERALL OCCUPANT LOAD CALCULATED AT 100 GROSS
287 SF / 100 GROSS = **3 PERSONS**
REFER TO **NOTE** 1 ON PLUMBING FIXTURES -REQUIRED LEGEND

T1006.2.1 **SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY**

MAXIMUM OCCUPANT LOAD: **49 OCCUPANTS**
ACTUAL OCCUPANT LOAD: **10 OCCUPANTS**

MAXIMUM COMMON PATH OF EGRESS TRAVEL WITH SPRINKLER: **75'-0"**
ACTUAL COMMON PATH OF EGRESS TRAVEL: **44'-3"**

1029.9.1 **MINIMUM AISLE WIDTH**
4. FORTY-TWO INCHES FOR LEVEL OR RAMPED AISLES HAVING SEATING ON BOTH SIDES

REQUIRED AISLE WIDTH: **42"**
ACTUAL AISLE WIDTH: **44"**

1029.9.1 **MINIMUM AISLE WIDTH**
5. THIRTY-SIX INCHES FOR LEVEL OR RAMPED AISLES HAVING SEATING ON ONLY ONE SIDE

REQUIRED AISLE WIDTH: **36"**
ACTUAL AISLE WIDTH: **44"**

T1004.1.2 **MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT**

CONFERENCE 236
ASSEMBLY OCCUPANT LOAD CALCULATED AT 15 NET
216 SF / 15 NET = **15 PERSONS**
OVERALL OCCUPANT LOAD CALCULATED AT 100 GROSS
216 SF / 100 GROSS = **3 PERSONS**
CLASSROOM 1 116C
ASSEMBLY OCCUPANT LOAD CALCULATED AT 15 NET
430 SF / 15 NET = **29 PERSONS**
OVERALL OCCUPANT LOAD CALCULATED AT 100 GROSS
430 SF / 100 GROSS = **5 PERSONS**
CLASSROOM 2 122
ASSEMBLY OCCUPANT LOAD CALCULATED AT 15 NET
159 SF / 15 NET = **11 PERSONS**
OVERALL OCCUPANT LOAD CALCULATED AT 100 GROSS
159 SF / 100 GROSS = **2 PERSONS**
CLASSROOM 3 121
ASSEMBLY OCCUPANT LOAD CALCULATED AT 15 NET
158 SF / 15 NET = **11 PERSONS**
OVERALL OCCUPANT LOAD CALCULATED AT 100 GROSS
158 SF / 100 GROSS = **2 PERSONS**
REFER TO **NOTE** 1 ON PLUMBING FIXTURES -REQUIRED LEGEND

429.1.3 **WALLS AND CEILINGS**

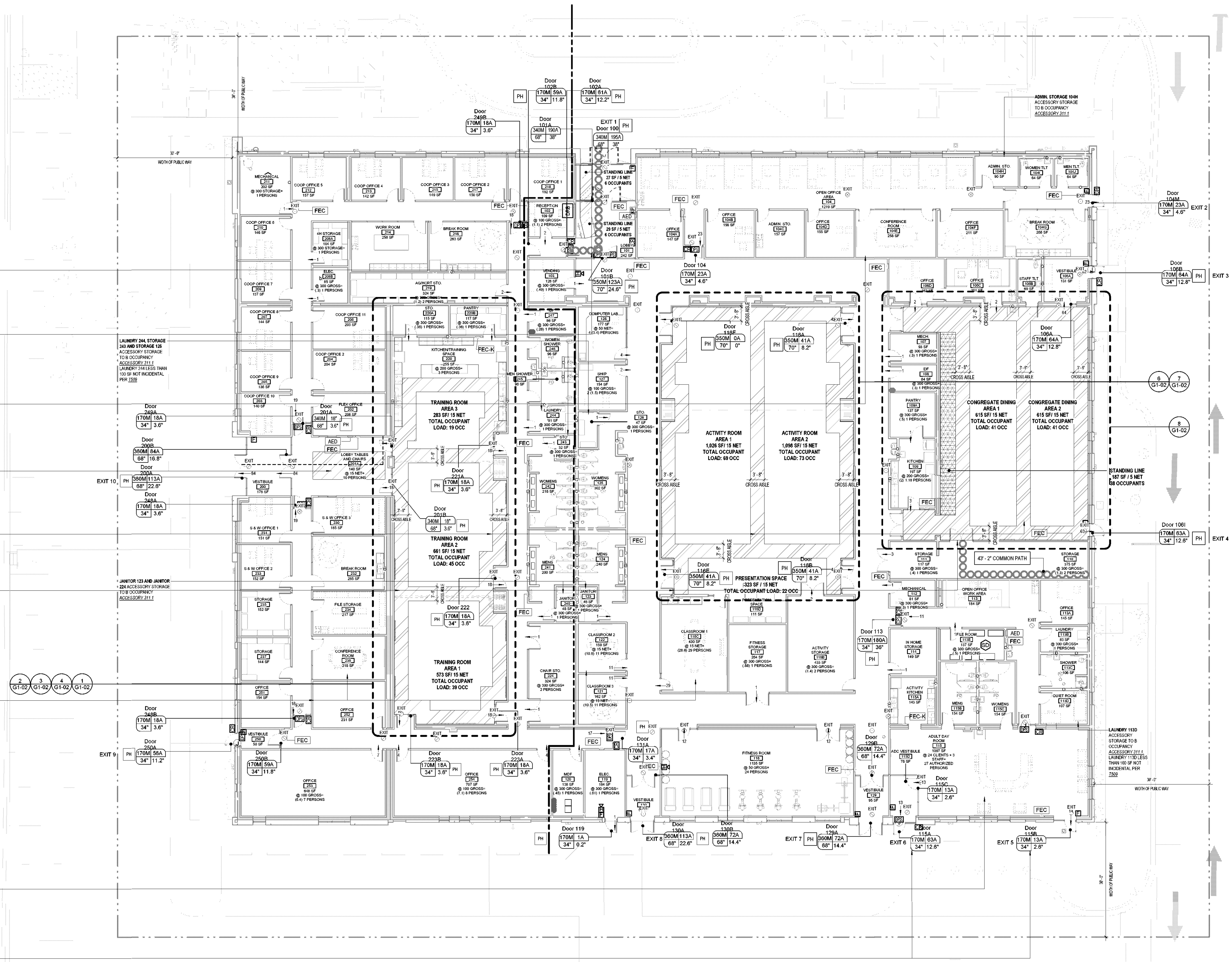
ALL WALLS AND CEILINGS IN ROOMS THAT ARE USED FOR DAY CARE PURPOSES AND ARE PART OF THE EXITING PATH SHALL HAVE INTERIOR MEMBRANES OF NONCOMBUSTIBLE CONSTRUCTION SUCH AS, BUT NOT LIMITED TO, PLASTER OR GYPSUM WALLBOARD OR SHALL COMPLY WITH SECTION 803

REQUIRED INTERIOR WALL FINISH: **CLASS B**
ACTUAL INTERIOR WALL FINISH: **CLASS A**

REQUIRED CEILING FINISH: **CLASS B**
ACTUAL CEILING FINISH: **CLASS A**

429.1.3 **LOCATION**

ROOMS WHERE OCCUPANTS RECEIVE CARE IN GROUP 1-4 AND R-3 ADULT AND CHILD DAY CARE FACILITIES SHALL BE ON THE LEVEL OF EXIT DISCHARGE



1
G1-01
LIFE SAFETY PLAN
3/32" = 1'-0"

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JAMEY EDWARD GLUECK · Registered Architect · 9585 · North Carolina · RALEIGH, NC

10-16-2024

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ID	DATE	DESCRIPTION

DRAWN BY: FA
CHECKED BY: JEG

LIFE SAFETY PLAN

2021029 16 OCT. 2024

G1-01

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SENIOR SERVICES PLUMBING FIXTURES - REQUIRED

FUNCTION *PER 1004.1.2	OCCUPANTS			CLASSIFICATION *PER 2902.1	TOILETS				LAVATORIES			SHOWERS	WATER FOUNTAINS	REMARKS
	TOTAL	MEN	WOMEN		MEN	WOMEN	UNISEX	URINAL	MEN	WOMEN	UNISEX			
BUSINESS	91	45.5	45.5	B	1.41	1.41	-	-	1.06	1.06	-	-	.91	
ASSEMBLY	294	147	147	A-3	1.17	2.25	-	-	.74	.74	-	-	.59	
STORAGE	9	4.5	4.5	S-2	.04	.04	-	-	.04	.04	-	-	.008	
TOTAL	**394**	**197**	**197**		**3 (2.62)**	**4 (3.7)**	-	-	**2 (1.8)**	**2 (1.8)**	-	-	**2 (1.51)**	
PROVIDED					**3**	**6**	**4**	**1**	**3**	**3**	**4**	**1**	**4**	

COOP AND SOIL AND WATER PLUMBING FIXTURES - REQUIRED

FUNCTION *PER 1004.1.2	OCCUPANTS			CLASSIFICATION *PER 2902.1	TOILETS				LAVATORIES			SHOWERS	WATER FOUNTAINS	REMARKS
	TOTAL	MEN	WOMEN		MEN	WOMEN	UNISEX	URINAL	MEN	WOMEN	UNISEX			
BUSINESS	77	38.5	38.5	B	1.3	1.3	-	-	.97	.97	-	-	.77	
ASSEMBLY	118	59	59	A-3	.47	.9	-	-	.3	.3	-	-	.236	
STORAGE	6	3	3	S-2	.03	.03	-	-	.03	.03	-	-	.006	
TOTAL	**201**	**100.5**	**100.5**		**2 (1.8)**	**3 (2.2)**	-	-	**2 (1.4)**	**2 (1.4)**	-	-	**2 (1.35)**	
PROVIDED					**3**	**5**	**2**	**1**	**3**	**3**	**2**	**2**	**2**	

ADULT DAY CARE SPACE PLUMBING FIXTURES - REQUIRED

ADULT DAY CARE

FUNCTION *PER 1004.1.2	OCCUPANTS			CLASSIFICATION *PER 2902.1	TOILETS				LAVATORIES			SHOWERS	WATER FOUNTAINS	REMARKS
	TOTAL	MEN	WOMEN		MEN	WOMEN	UNISEX	URINAL	MEN	WOMEN	UNISEX			PER **TABLE 2902.1**; MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES, I-4 FIXTURE REQUIREMENTS ARE REGULATED AND ENFORCED BY STATE LICENSING AND CERTIFICATION JURISDITCIONS ONLY. 10A NCAC 06R.0401 STATES *"A MINIMUM OF ONE MALE AND ONE FEMALE TOILET SHALL BE LOCATED IN EACH FACILITY AND ACCESSIBLE IN ACCORDANCE WITH THE NORTH CAROLINA BUILDING CODE, WHICH IS HEREBY INCORPORATED BY REFERENCE, INCLUDING ANY SUBSEQUENT AMENDMENTS OR EDITIONS, AND CAN BE ACCESSED AT NOT COST AT WWW.NCOID.COM/OSFM/. ONE TOILET SHALL BE AVAILABLE FOR EACH 12 ADULTS, INCLUDING STAFF AND PARTICIPANTS WHO UTILIZE THE FACILITY. ONE HAND LAVATORY SHALL BE PROVIDED FOR EACH TWO TOILETS."*
INSTITUTIONAL	**24 CLIENTS**	12	12	I-4									2.08	
INSTITUTIONAL	**3 STAFF**	1.5	1.5	I-4									.003	
TOTAL	**27**	**14**	**14**									**1**	**2 (2.08)**	
PROVIDED					**2**	**2**	**1**		**1**	**1**	**1**	**1**	**2**	

NOTES:

1. T1004.1.2 MAXIMUM FLOOR AREA ALLOWANCE PER OCCUPANT
FOOTNOTE B. AN ASSEMBLY OCCUPANCY CONFERENCE ROOM THAT IS ACCESSORY TO A GROUP B OFFICE OCCUPANCY AND MEETING THE REQUIREMENTS OF SECTION 303.1.2(2), SHALL BE CALCULATED AT 100 SQUARE FEET PER OCCUPANT FOR DETERMINING THE OVERALL OCCUPANT LOAD OF THE ASSOCIATED FLOOR. THE ASSEMBLY OCCUPANCY SHALL BE CALCULATED AT 15 SQUARE FEET PER OCCUPANT FOR THE PURPOSE OF DETERMINING EGRESS FROM THE ROOM CONTAINING THE ASSEMBLY OCCUPANCY.

- **CONFERENCE 104E**: OVERALL OCCUPANT LOAD CALCULATED AT 100 GROSS 258 SF / 100 GROSS = **3 PERSONS**
- **CONFERENCE 236**: OVERALL OCCUPANT LOAD CALCULATED AT 100 GROSS ; 216 SF / 100 GROSS = **3 PERSONS**
- **CLASSROOM 1 116C**: OVERALL OCCUPANT LOAD CALCULATED AT 100 GROSS ; 430 SF / 100 GROSS = **5 PERSONS**
- **CLASSROOM 2 122**: OVERALL OCCUPANT LOAD CALCULATED AT 100 GROSS ; 159 SF / 100 GROSS = **2 PERSONS**
- **CLASSROOM 3 121**: OVERALL OCCUPANT LOAD CALCULATED AT 100 GROSS ; 158 SF / 100 GROSS = **2 PERSONS**

OCCUPANCY CLASSIFICATION DESIGNATION

MARK	OCCUPANCY	EXISTING SF	NEW SF	DIFFERENCE	PERCENT CHANGE
	BUSINESS	**28,311 SF****	**25,452 SF**	**- 2,859 SF**	- 7.06 %
	A-3	**4,481 SF**	**8,283 SF**	**+ 3,802 SF**	+ 9.98 %
	S-1	**2,990 SF**	**2,885 SF**	**-105 SF**	- 0.23 %
	I-4	**2,754 SF**	**1,705 SF**	**-1,049 SF**	- 2.70 %
	TOTAL	**38,536 SF**	**38,325 SF**	**-211 SF**	**0.00 %**

NOTES:

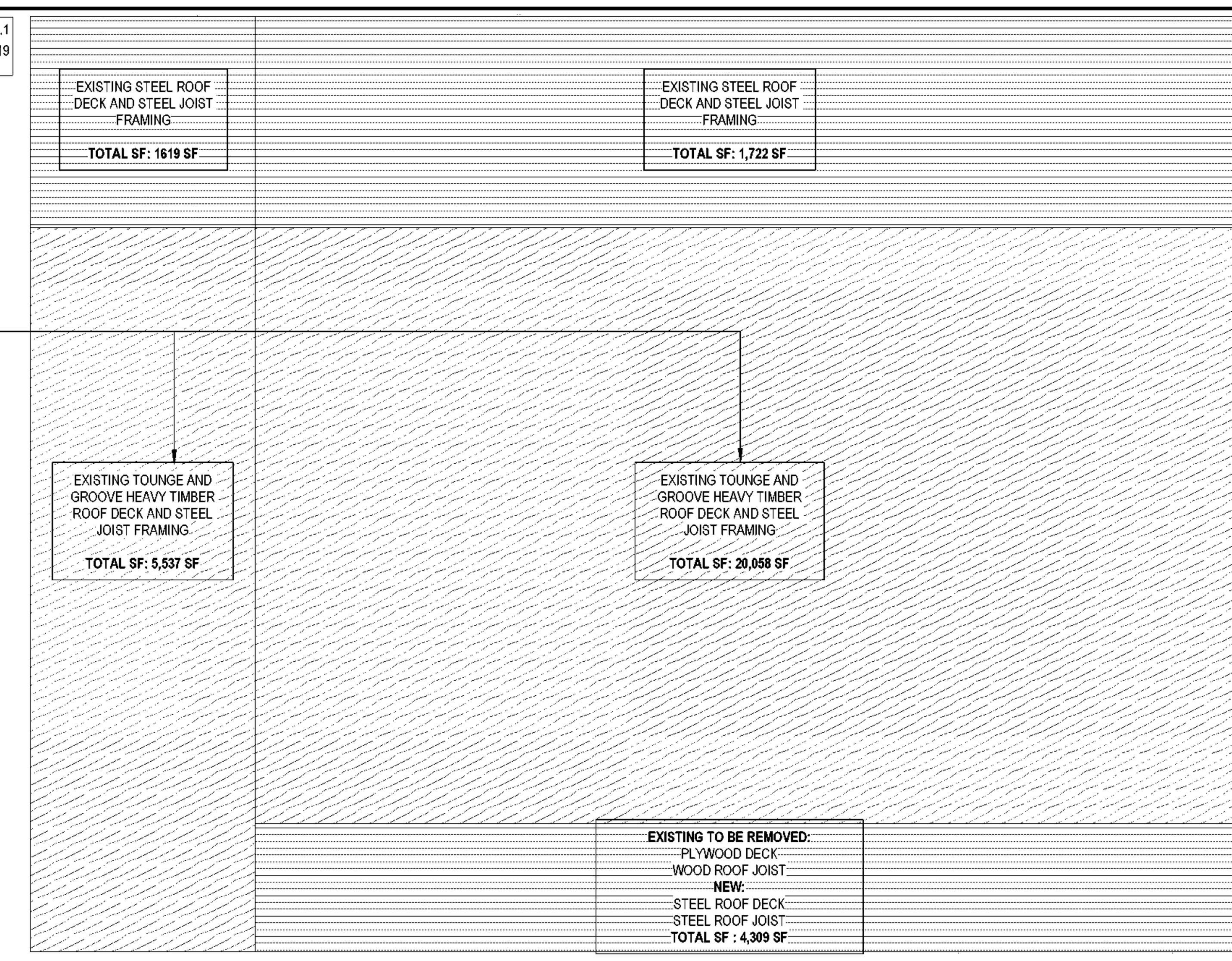
**28,311 SF ACCOUNTING FOR 257 SQUARE FEET OF ROOF OVERHANG ON WEST ELEVATION OF BUILDING. EXISTING 257 SQUARE FEET OF ROOF OVERHANG TO BE DEMOLISHED IN ALTERATION.

TYPE IIB CONSTRUCTION	603.1 ITEM 19

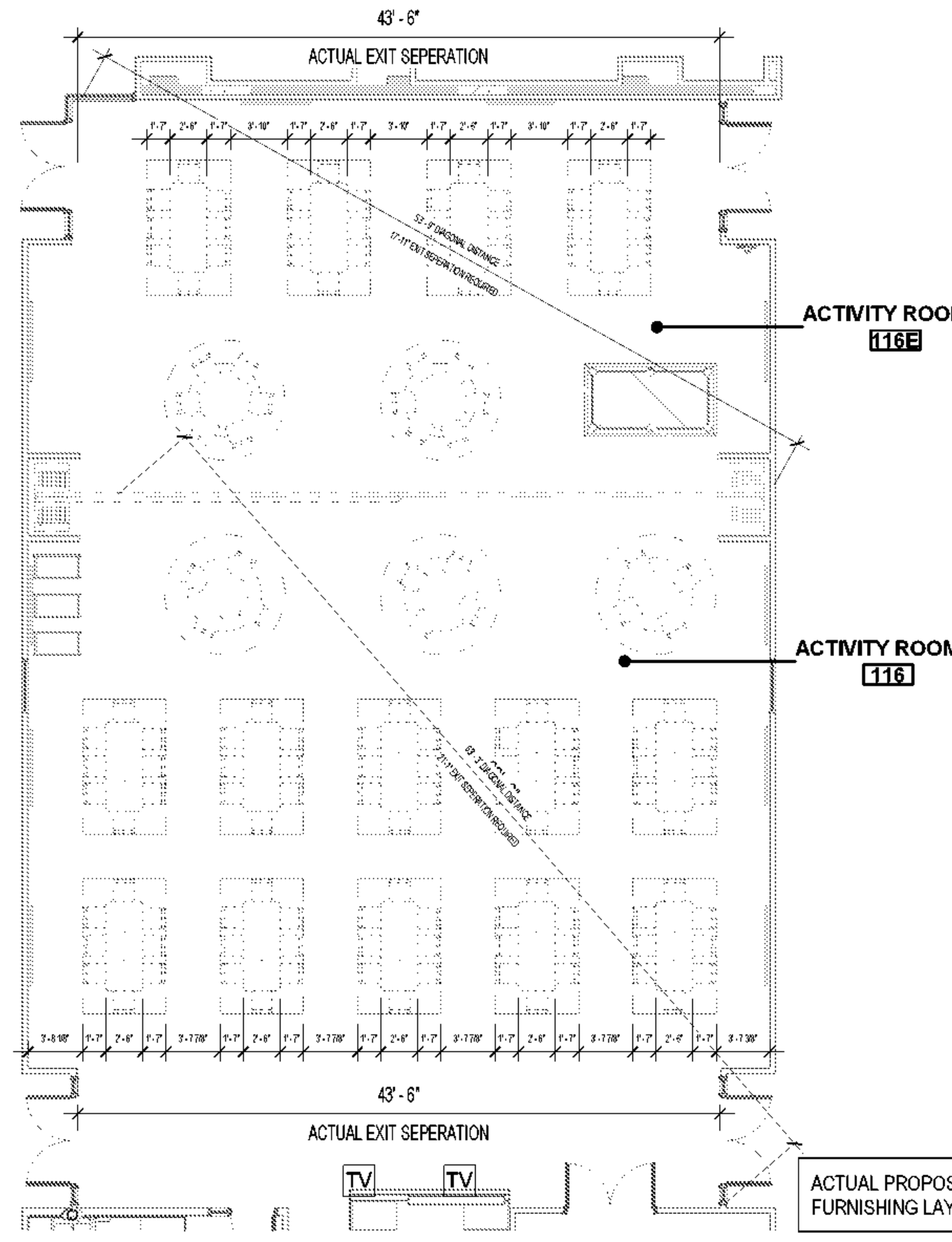
TYPE IIB CONSTRUCTION
603, COMBUSTIBLE MATERIAL IN TYPES I AND II CONSTRUCTION, ITEM 19. HEAVY TIMBER AS PERMITTED BY NOTE C TO TABLE 601 AND SECTIONS 602.4.7 AND 1406.3.

T601 FOOTNOTE C. IN ALL OCCUPANCIES, HEAVY TIMBER SHALL BE ALLOWED WHERE A 1-HOUR OR LESS FIRE RESISTANCE RATING IS REQUIRED
602.4.7 ROOFS. ROOFS SHALL BE WITHOUT CONCEALED SPACES AND WOOD ROOF DECKS SHALL BE SAWN OR GLUED LAMINATED, SPLINED OR TONGUE-AND-GROOVE PLANK, NOT LESS THAN 2 INCHES (51 MM) NOMINAL IN THICKNESS; 1 1/8-INCH-THICK (32 MM) WOOD STRUCTURAL PANEL (EXTERIOR GLUE); PLANKS NOT LESS THAN 3 INCHES (76 MM) NOMINAL IN WIDTH, SET ON EDGE CLOSE TOGETHER AND LAID AS REQUIRED FOR FLOORS; OR OF CROSS-LAMINATED TIMBER. OTHER TYPES OF DECKING SHALL BE PERMITTED TO BE USED IF PROVIDING EQUIVALENT FIRE RESISTANCE AND STRUCTURAL PROPERTIES.
CROSS-LAMINATED TIMBER ROOFS SHALL BE NOT LESS THAN 3 INCHES (76 MM) NOMINAL IN THICKNESS AND SHALL BE CONTINUOUS FROM SUPPORT TO SUPPORT AND MECHANICALLY FASTENED TO ONE ANOTHER.
1406.3 BALCONIES AND SIMILAR PROJECTIONS. BALCONIES AND SIMILAR PROJECTIONS OF COMBUSTIBLE CONSTRUCTION OTHER THAN, FIRE-RETARDANT-TREATED WOOD SHALL BE FIRE-RESISTANCE RATED WHERE REQUIRED BY TABLE 601 FOR FLOOR CONSTRUCTION OR SHALL BE OF TYPE IV CONSTRUCTION IN ACCORDANCE WITH SECTION 602.4. THE AGGREGATE LENGTH OF THE PROJECTIONS SHALL NOT EXCEED 50 PERCENT OF THE BUILDING'S PERIMETER ON EACH FLOOR.

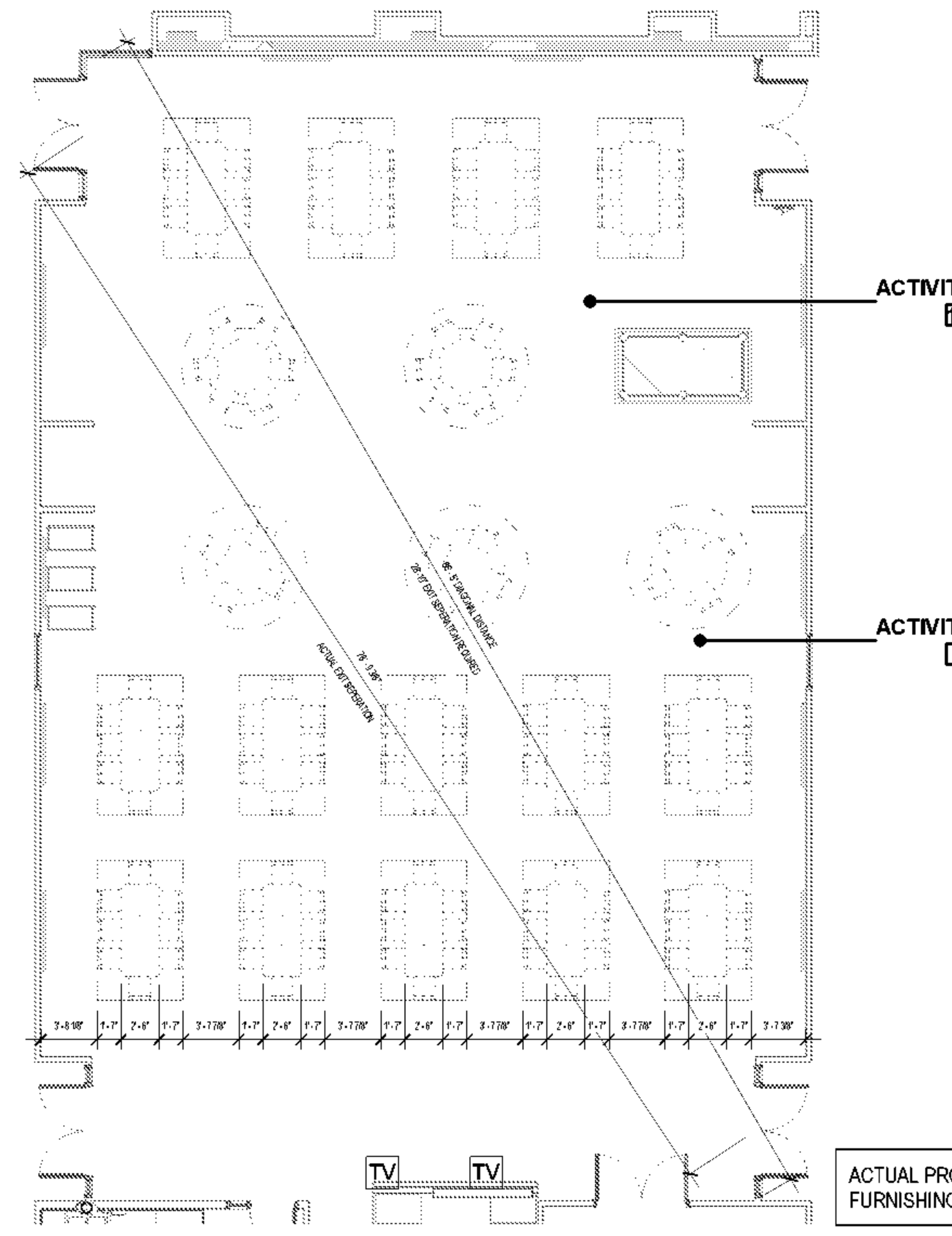
EXISTING T&G WOOD DECK OBSERVED IS NOMINAL 2X6, ACTUAL 1 1/2" X 5 1/8"



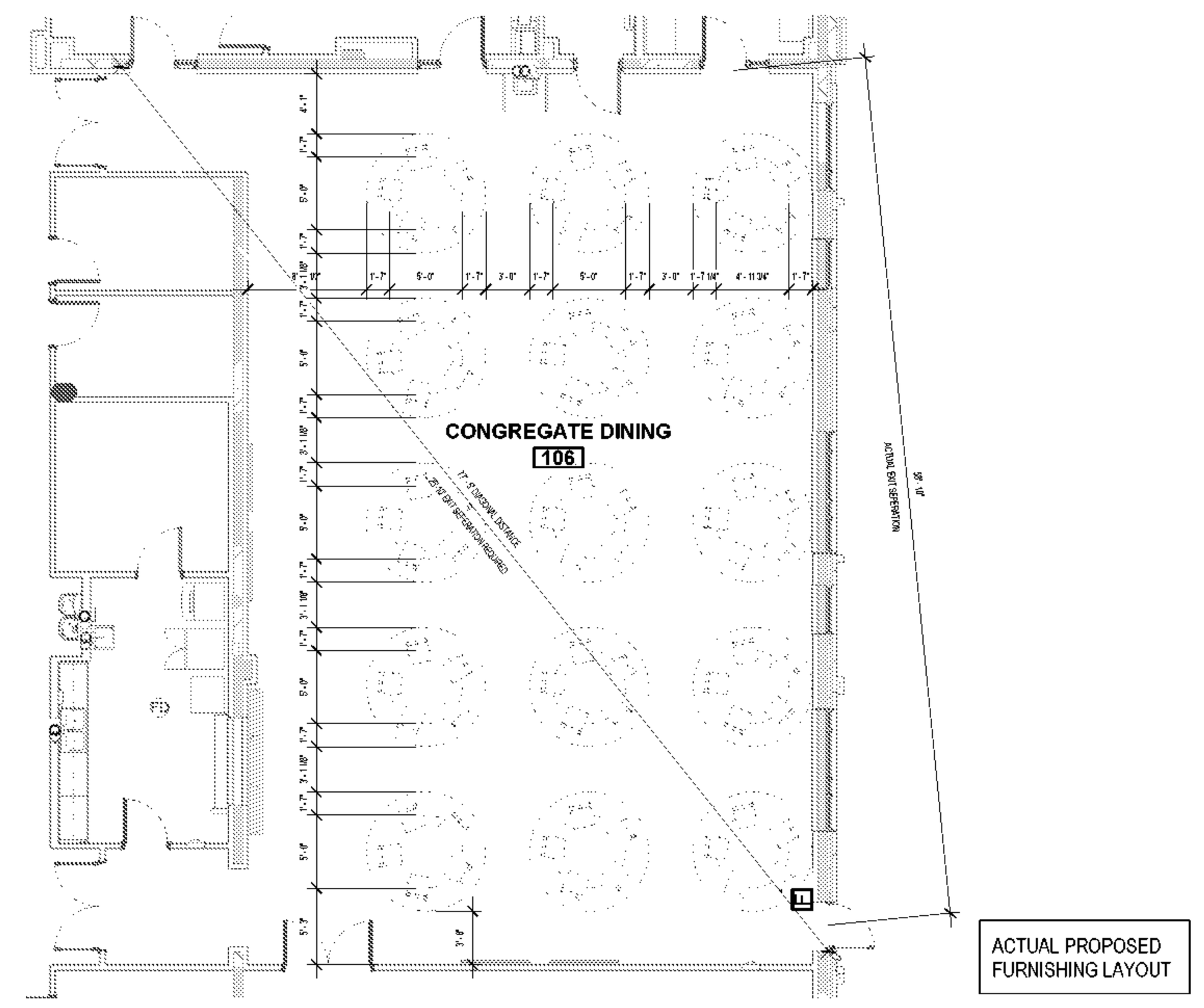
10 G1-02 **ROOF DECK, FRAMING MATERIAL KEY PLAN**
1" = 20'-0"



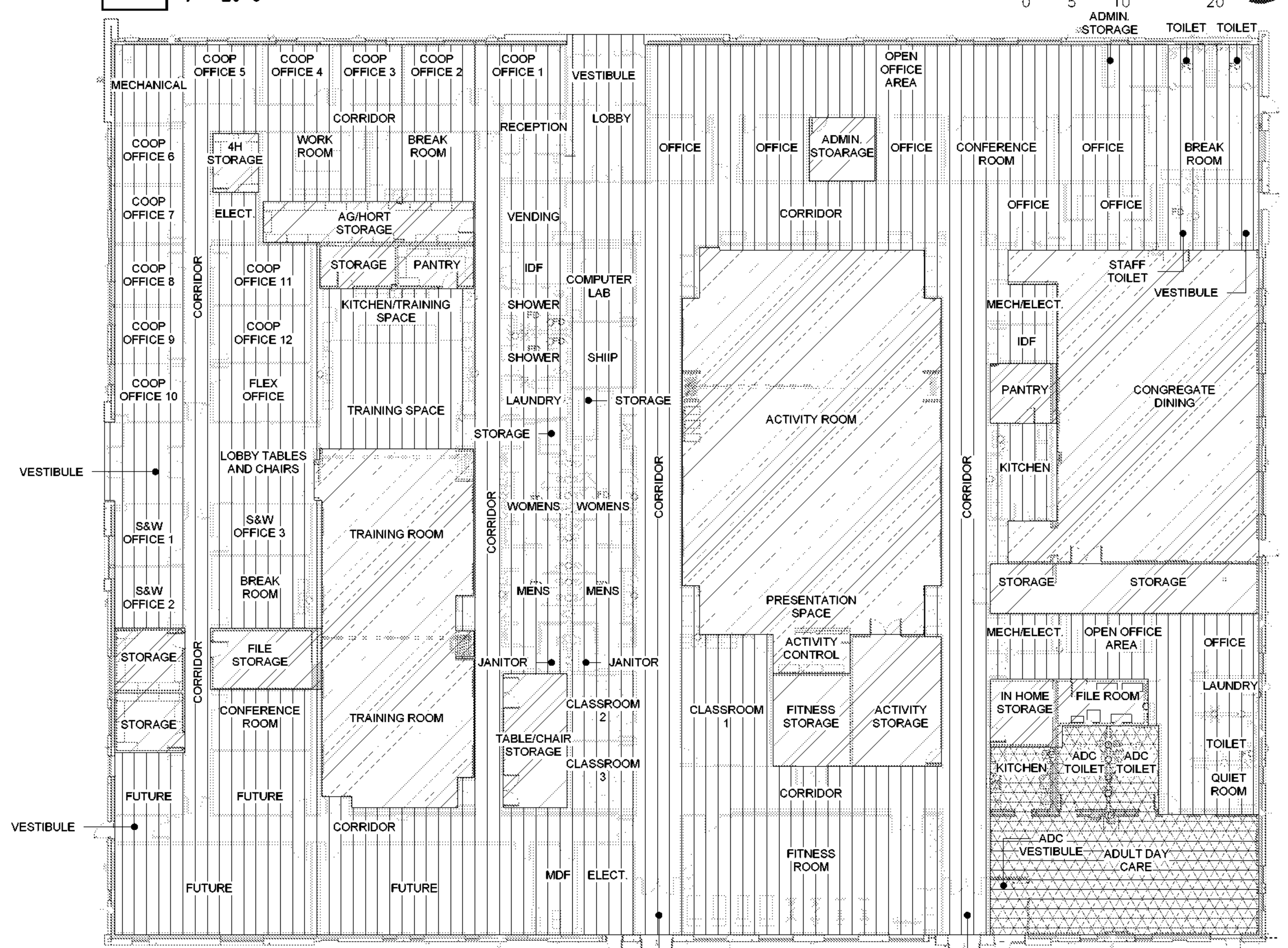
6 G1-02 **ACTIVITY ROOM SEPERATION DISTANCE - SCENARIO 1**
3/32" = 1'-0"



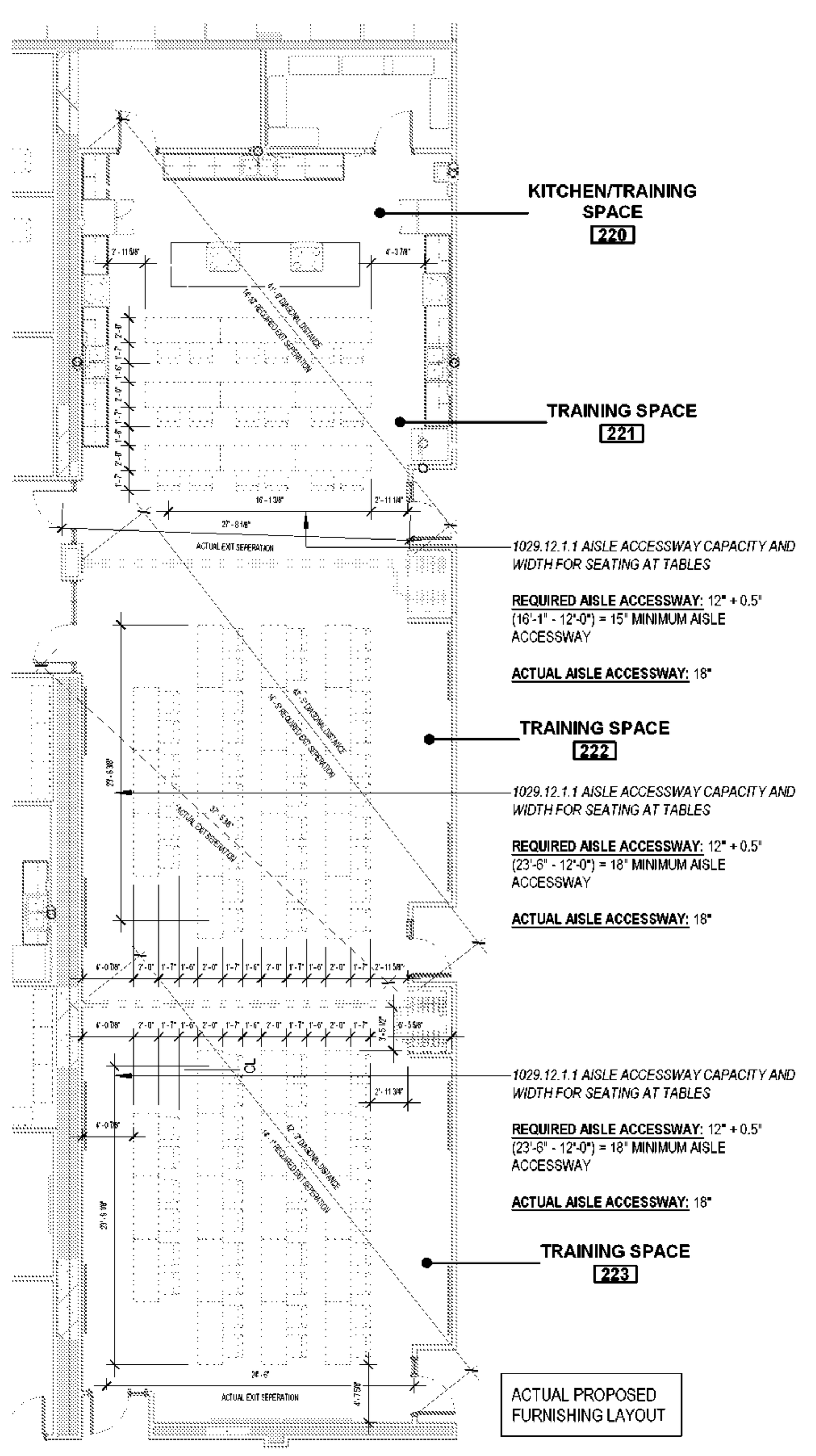
7 G1-02 **ACTIVITY ROOM SEPERATION DISTANCE - SCENARIO 2**
3/32" = 1'-0"



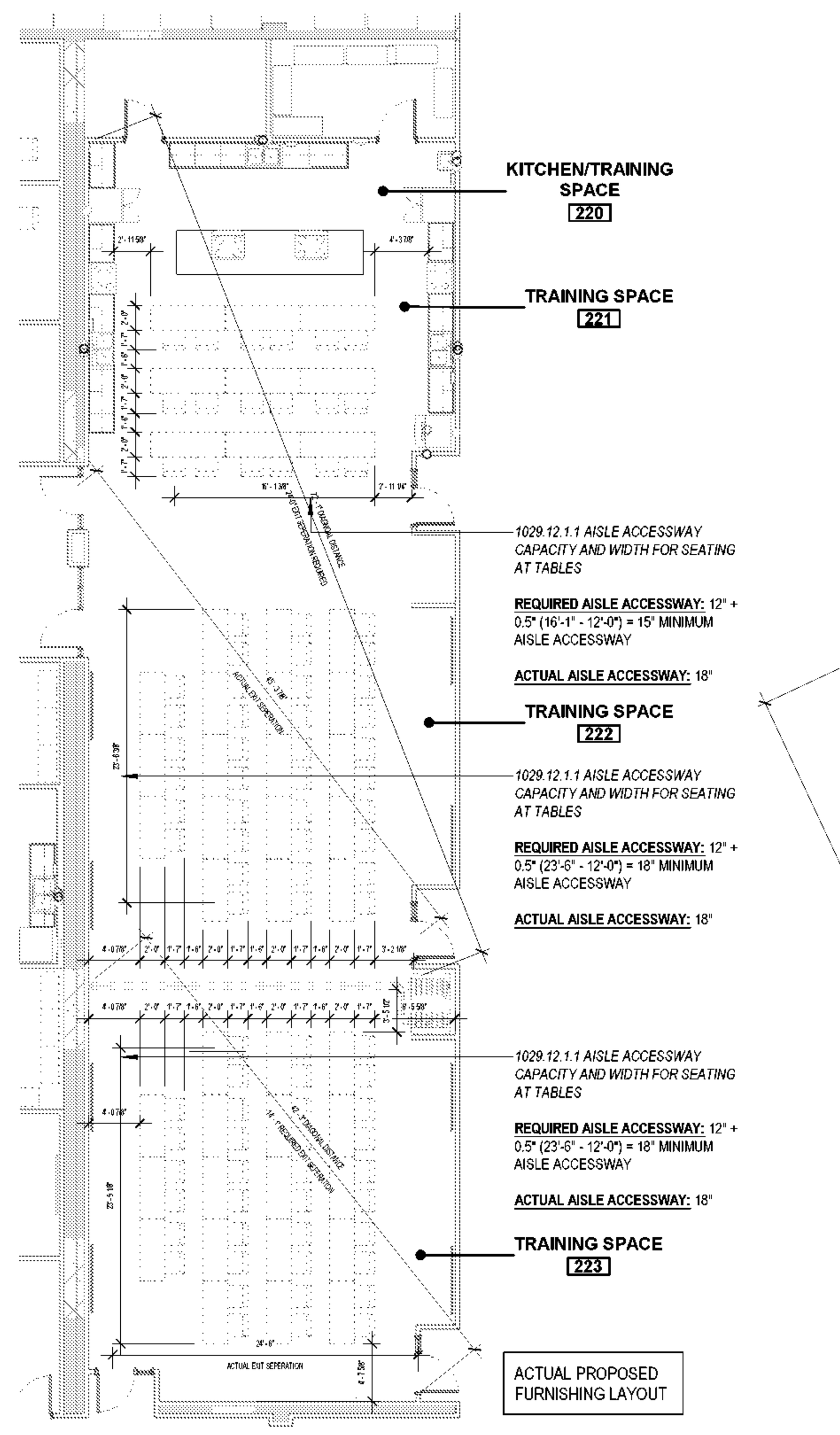
8 G1-02 **CONGREGATE DINING SEPERATION DISTANCE - SCENARIO 1**
3/32" = 1'-0"



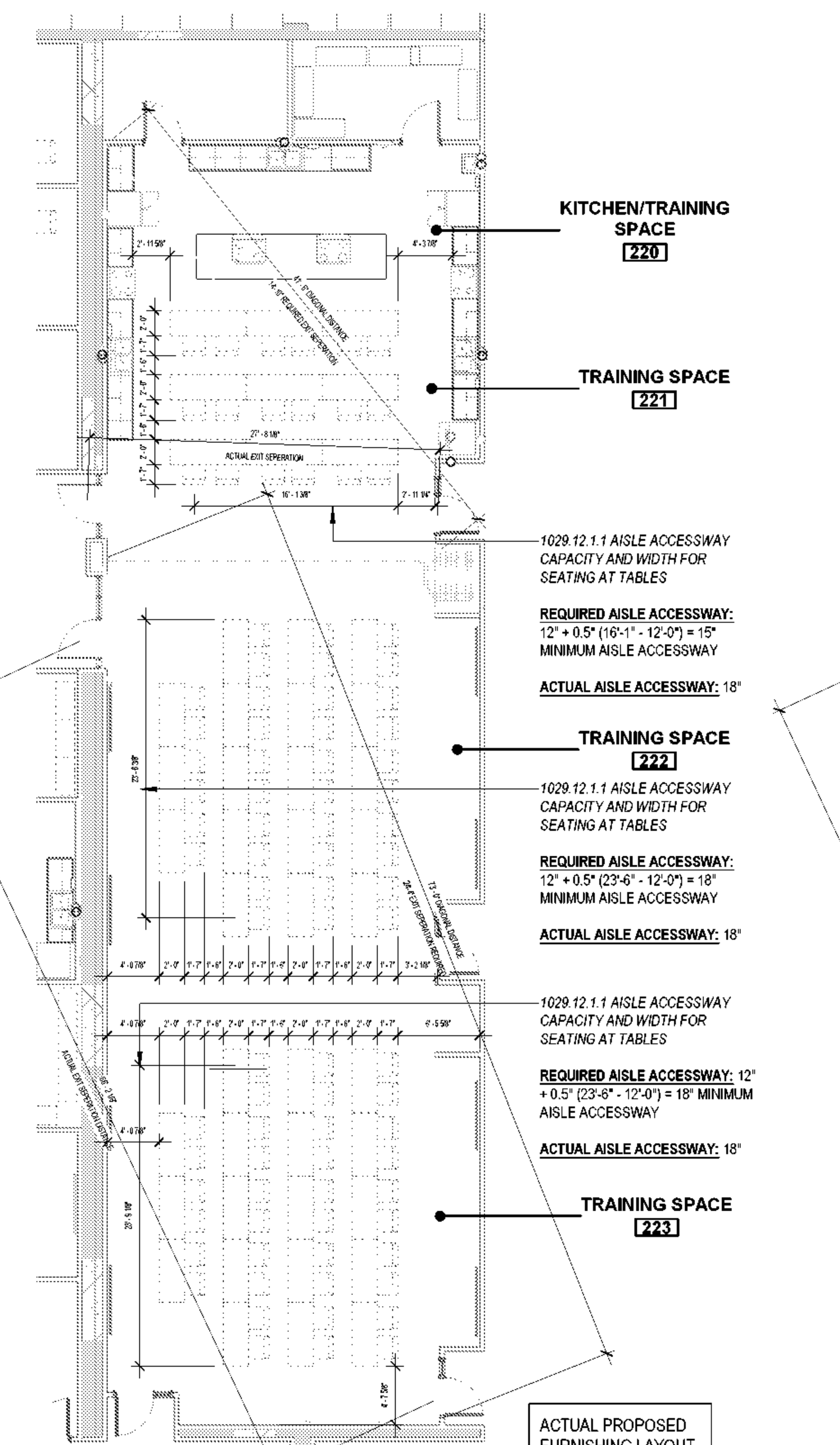
9 G1-02 **NEW OCCUPANCY AREA PLAN**
1" = 20'-0"



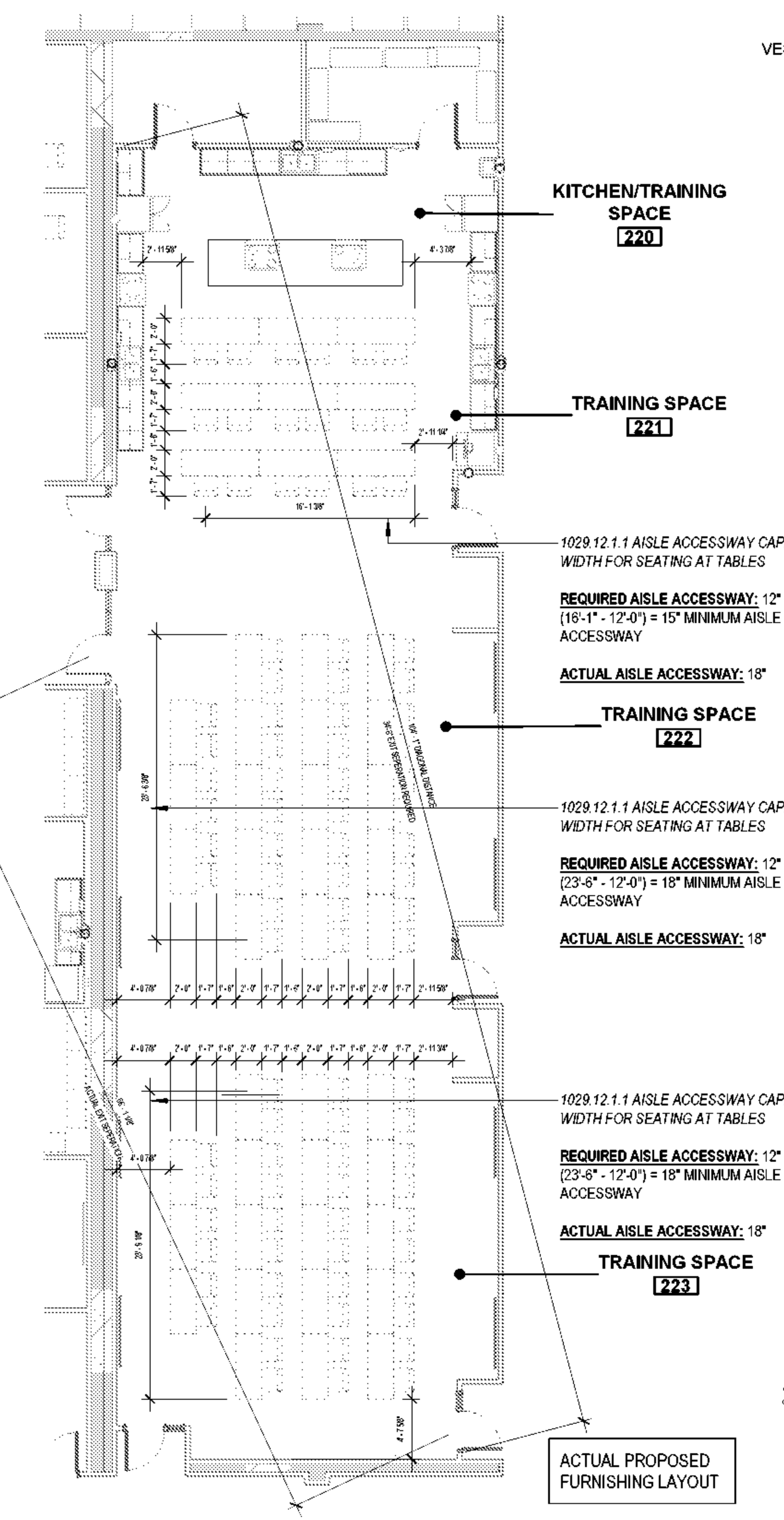
1 G1-02 **TRAINING ROOM SEPERATION DISTANCE - SCENARIO 1**
3/32" = 1'-0"



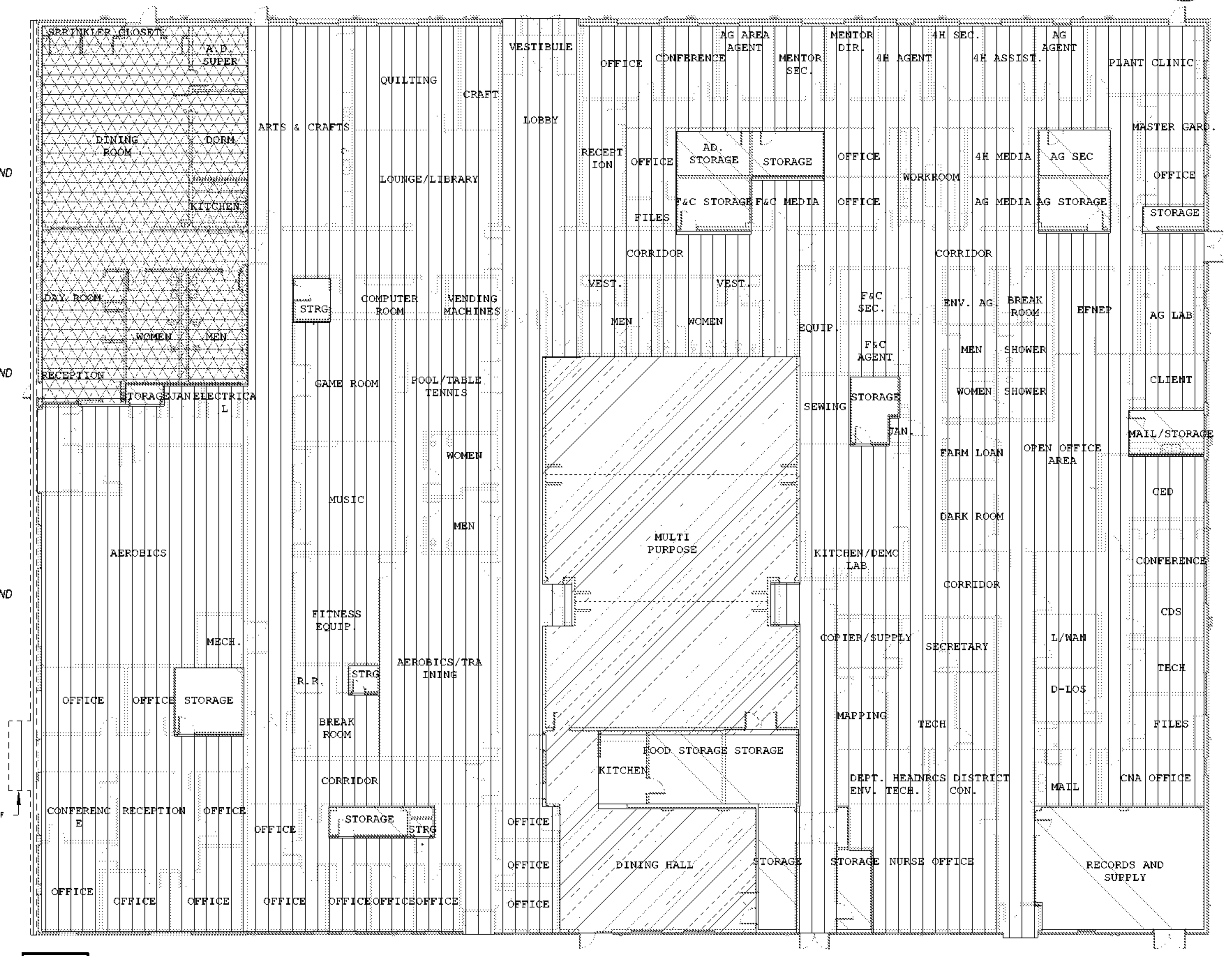
2 G1-02 **TRAINING ROOM SEPERATION DISTANCE - SCENARIO 2**
3/32" = 1'-0"



3 G1-02 **TRAINING ROOM SEPERATION DISTANCE - SCENARIO 3**
3/32" = 1'-0"



4 G1-02 **TRAINING ROOM SEPERATION DISTANCE - SCENARIO 4**
3/32" = 1'-0"



5 G1-02 **EXISTING OCCUPANCY AREA PLAN**
1" = 20'-0"

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SMITH SINNETT ARCHITECTURE, PA — REGISTERED ARCHITECTURAL CORPORATION — CERT. NO. 50172 — NORTH CAROLINA — RALEIGH

JAMEY EDWARD GLUECK — Registered Architect — 9585 — North Carolina — RALEIGH, NC
10-16-2024

BID DOCUMENTS

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Onslow County Senior Services Center Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: FA
CHECKED BY: JEG

OCCUPANCY AREA PLANS AND ROOF MATERIAL PLAN

2021029 16 OCT. 2024

G1-02

PHASING SCHEDULE

CONTRACTORS NOTE: THIS PROPERTY AND BUILDINGS (FARMERS MARKET, PLANT CLINIC, EMS STATION) ADJACENT TO THE SENIOR SERVICES BUILDING WILL REMAIN IN USE DURING CONSTRUCTION. THE WORK SHALL BE SEQUENCED TO MINIMIZE DOWNTIME THE UTILITIES OF THESE BUILDINGS. VEHICULAR ACCESS SHALL BE MAINTAINED TO THESE BUILDINGS. THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING A MINIMUM OF 72 HOURS BEFORE DISTURBING THE UTILITIES OF THESE BUILDINGS. THE CONTRACTORS CONSTRUCTION SCHEDULED SHALL BE DEVELOPED TO PRIORITIZE MAINTAINING AND REESTABLISHING UTILITIES TO THESE BUILDINGS. INTERUPTION TO UTILITIES SERVING FARMERS MARKET, PLANT CLINIC AND EMS STATION SHALL BE MINIMIZED.

REFER TO 007300 SUPPLEMENTARY GENERAL CONDITIONS.

CONTRACTOR'S PRIMARY WORK AREA. WHEN WORKING OUTSIDE OF PRIMARY WORK AREA, CONTRACTOR MUST RECEIVE APPROVAL FROM THE OWNER.

ALTERNATE 3:
MAIN ENTRANCE CANOPY
REFER TO A9-06

ALTERNATE 6a:
UPGRADED WALL FINISH
REFER TO A9-10

ALTERNATE 6b:
UPGRADED CEILING FINISH
REFER TO A9-10

ALTERNATE 6a:
UPGRADED FLOOR FINISH
REFER TO A9-09

ALTERNATE 2:
GENERATOR AND INFRASTRUCTURE
REFER TO E0-06, E2-01

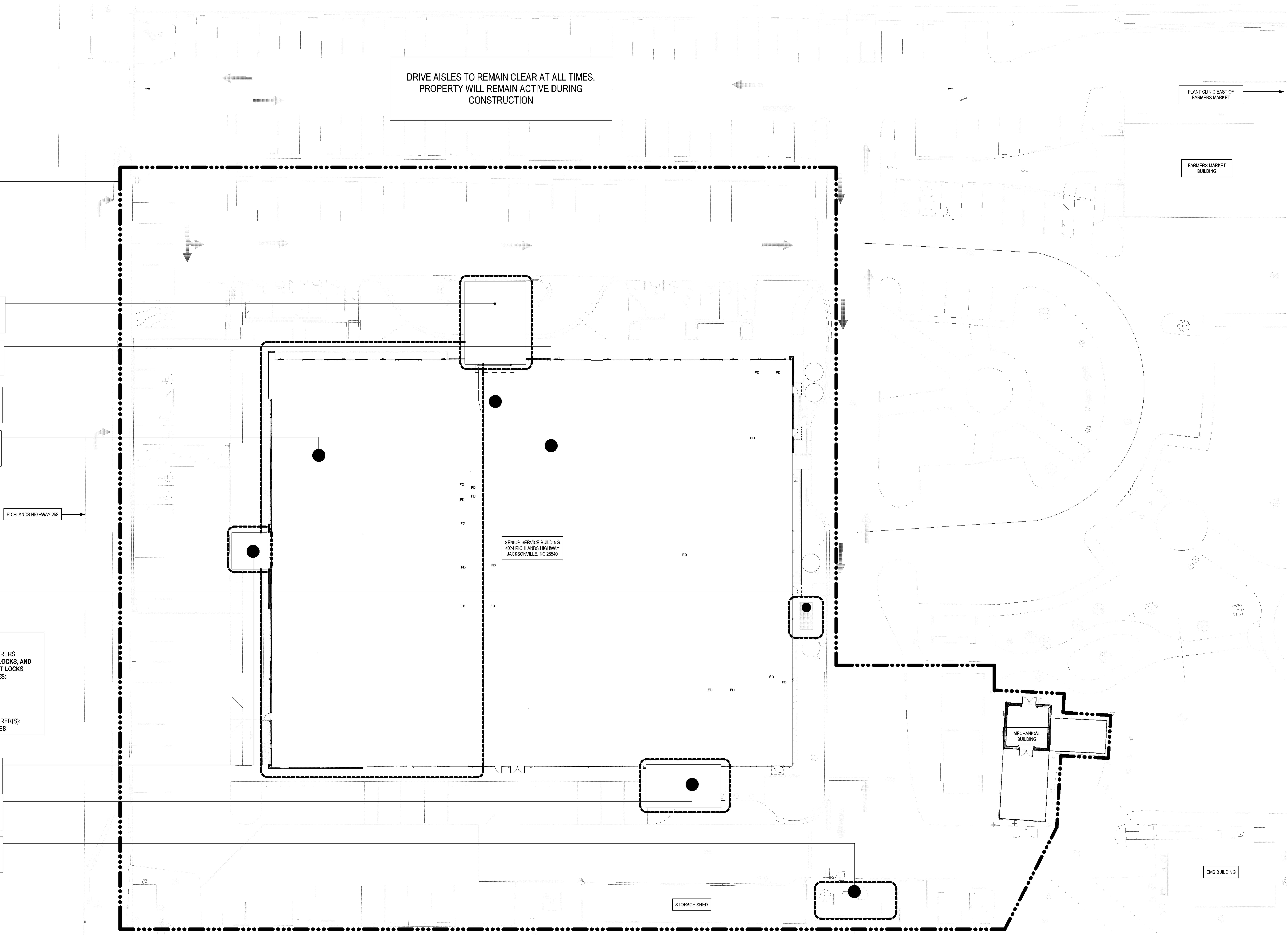
ALTERNATE 7a:
OWNER PREFERRED MANUFACTURERS
1. DOOR HARDWARE: **CYLINDER, LOCKS, AND LATCHES: MANUFACTURER - BEST LOCKS**
2. DOOR HARDWARE: **EXIT DEVICES: MANUFACTURER - PRECISION**
3. DOOR HARDWARE: **CLOSERS: MANUFACTURER - STANLEY**

ALTERNATE 7b:
OWNER PREFERRED MANUFACTURER(S):
1. **FIRE ALARM - EDWARD IO SERIES**

ALTERNATE 5:
WEST ENTRANCE CANOPY
REFER TO A9-08

ALTERNATE 4:
ADULT DAY CARE CANOPY
REFER TO A9-07

ALTERNATE 1:
LIFT STATION REPLACEMENT
REFER TO C3-01



1 G1-03 **OVERALL SITE PLAN - ALTERNATES**
1/16" = 1'-0"

C:\Users\fanoodal\Documents\2021029 OC Senior Services_fanoodalLSEKS.rvt
10/2/2024 7:34:08 PM

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JAMEY EDWARD GLUECK — Registered Architect — 9585 — North Carolina — RALEIGH, NC — 10-16-2024

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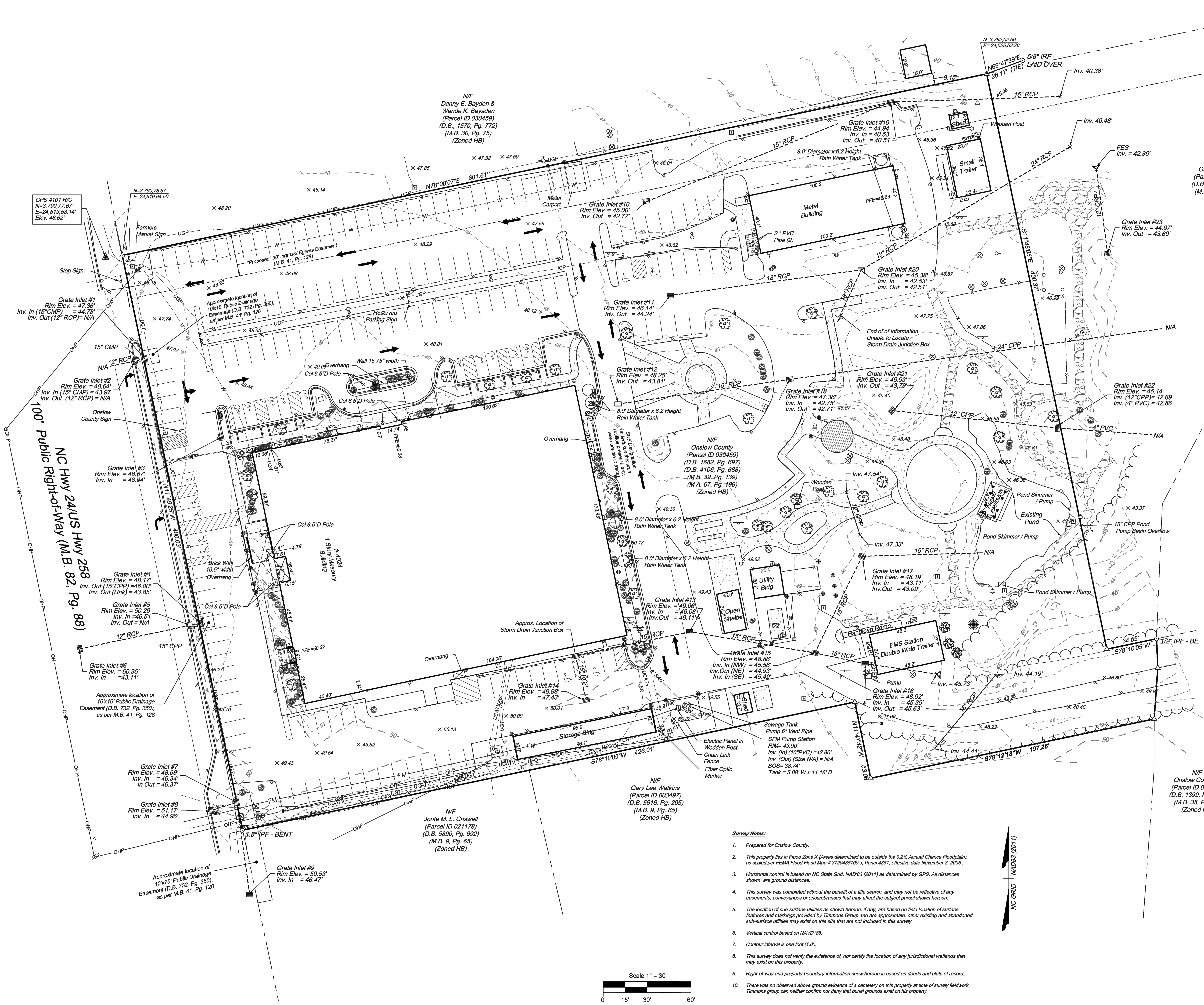
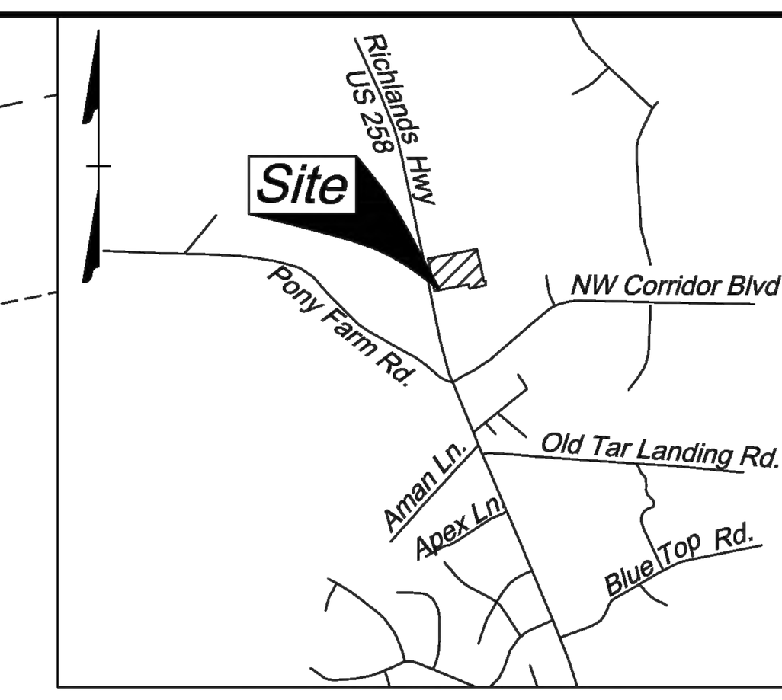
DRAWN BY: FA
CHECKED BY: JEG

OVERALL SITE PLAN - PHASING, ALTERNATES AND WORK AREA

2021029 16 OCT. 2024

G1-03




Vicinity Map - Map Not To Scale

Scale 1" = 30'

Survey Notes:

1. Prepared for Onslow County.
2. This property lies in Flood Zone X (Areas determined to be outside the 0.2% Annual Chance Floodplain), as scaled per FEMA Flood Flood Map # 3720435700 J, Panel 4357, effective date November 3, 2005 .
3. Horizontal control is based on NC State Grid, NAD'83 (2011) as determined by GPS. All distances shown are ground distances.
4. This survey was completed without the benefit of a title search, and may not be reflective of any easements, conveyances or encumbrances that may affect the subject parcel shown hereon.
5. The location of sub-surface utilities as shown hereon, if any, are based on field location of surface features and markings provided by Timmons Group and are approximate. other existing and abandoned sub-surface utilities may exist on this site that are not included in this survey.
6. Vertical control based on NAVD '88.
7. Contour interval is one foot (1.0').
8. This survey does not verify the existence of, nor certify the location of any jurisdictional wetlands that may exist on this property.
9. Right-of-way and property boundary information show hereon is based on deeds and plats of record.
10. There was no observed above ground evidence of a cemetery on this property at time of survey fieldwork. Timmons group can neither confirm nor deny that burial grounds exist on his property.

Surveyors Certificate

I, Edward A. Jordal, PLS hereby certify that this plat was drawn under my supervision from an actual survey made under my supervision from references as noted on said map; that the boundaries not surveyed are clearly indicated as dashed lines, and drawn from information as indicated under references; that the ratio of precision as calculated is greater than 1:10,000+; that this plat was prepared in accordance with G.S. 47-30, as amended.
The following information was used to perform GPS survey:
(1) Class of survey: "CLASS A"
(2) Positional accuracy: 0.07'
(3) Type of GPS field procedure: NCVRS
(4) Date of survey: 10-23-2023
(5) Datum/Epoch: NAD83 (2011) - EPOCH 2010.00
(6) Published/Fixed-control use: NCVRS
(7) GEOID Model: 18B
(8) Combined Grid Factor(S):
(9) Units: US Survey Feet

This survey is of an existing parcel or parcels of land or one or more existing easements and does not create a new street or change an existing street.

Professional Land Surveyor L-4722 Date 09-12-2024

NORTH CAROLINA PROFESSIONAL SEAL L-4722 LAND SURVEYOR EDWARD A. JORDAL

Boundary & Topographic Survey
of
Tax Parcels 030459 & 057352
(M.B. 39, PG. 139)
Property of
Onslow County, A Body Politic of the State of North Carolina
Prepared for
Onslow County
City of Jacksonville, Onslow County
North Carolina

Jacksonville Township	Onslow County
Date: 12/01/2023	Scale: 1"= 30'
Sheet 1 of 1	J.N.: 61248
Drawn by: F.T.S. / EAJ	Check by: EAJ
Revision: 12-15-23 Update Water Tanks Location	
Revision: 01-11-24 Update SFM Pump Station	
Revision: 03-05-24 Revise BOS elevation	
Revision: 09-12-24 Revise per client. No Field Update.	

THIS DRAWING PREPARED AT THE WILMINGTON OFFICE
430 EASTWOOD ROAD, SUITE 100 | WILMINGTON, NC 28403
TEL 910-746-1158 MO www.timmons.com
NORTH CAROLINA LICENSE NUMBER C-1652

YOUR VISION ACHIEVED THROUGH OURS.

TIMMONS GROUP

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NORTH CAROLINA PROFESSIONAL SEAL 033612 10/16/24 ENGINEER FRANCIS SLINSKY, III

BID DOCUMENTS

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Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

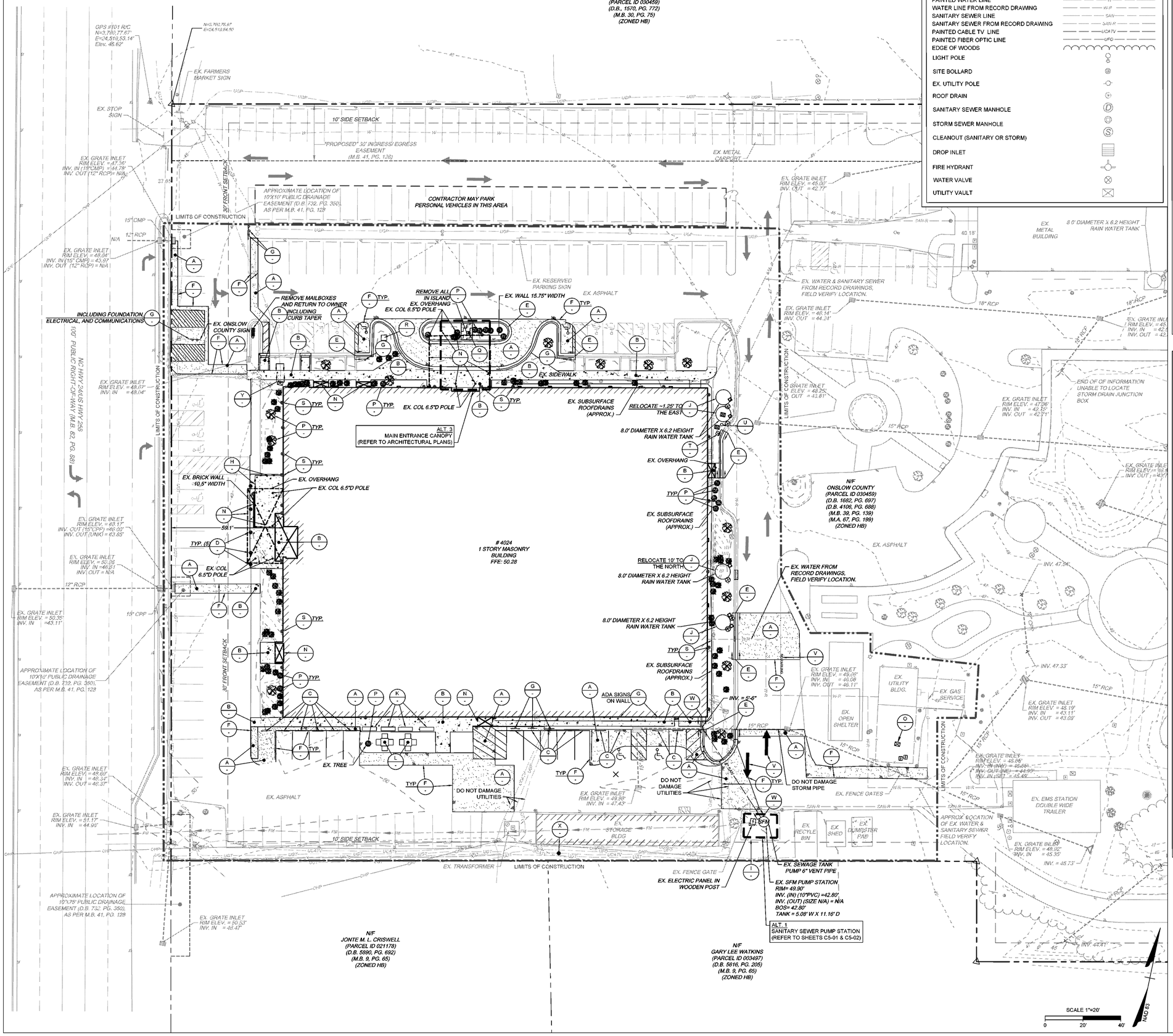
ID	DATE	DESCRIPTION

DRAWN BY: JL
CHECKED BY: FS

TOPOGRAPHIC SURVEY

2021029 OCT 16, 2024

C1-01



EX. CONDITIONS LEGEND

STORM PIPE	
FENCE	X
PAINTED GAS LINE	G
PAINTED POWER LINE	UGP
POWER LINE FROM RECORD DRAWING	UGP-R
PAINTED TELEPHONE LINE	UGT
TELEPHONE LINE FROM RECORD DRAWING	UGT-R
PAINTED WATER LINE	W
WATER LINE FROM RECORD DRAWING	W-R
SANITARY SEWER LINE	SAN
SANITARY SEWER FROM RECORD DRAWING	SAN-R
PAINTED CABLE TV LINE	UGTV
PAINTED FIBER OPTIC LINE	UFO
EDGE OF WOODS	
LIGHT POLE	
SITE BOLLARD	
EX. UTILITY POLE	
ROOF DRAIN	
SANITARY SEWER MANHOLE	
STORM SEWER MANHOLE	
CLEANOUT (SANITARY OR STORM)	
DROP INLET	
FIRE HYDRANT	
WATER VALVE	
UTILITY VAULT	

EXISTING CONDITIONS & DEMOLITION GENERAL NOTES

1. OBTAIN OWNERS WRITTEN APPROVAL FOR ANY REQUESTED SHORT-TERM, OFF-HOUR, OR TEMPORARY UTILITY SHUT-DOWNS OR DISRUPTIONS.
2. ALL UTILITIES OR STRUCTURES NOT INDICATED FOR REMOVAL OR MODIFICATION ARE TO REMAIN AND BE PROTECTED FROM DAMAGE.
3. ALL WASTE MATERIAL (OTHER THAN RECYCLABLE METAL AND SIGN PANELS) GENERATED FROM CLEARING AND DEMOLITION ACTIVITIES SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH WITH ALL APPLICABLE RULES AND REGULATIONS.
4. CLEAR AND GRUB AS NEEDED WITHIN CONSTRUCTION LIMITS PER SPECIFICATIONS AND DRAWINGS. EXISTING TREES, SHRUBS OR OTHER LANDSCAPE MATERIAL WHICH WILL CONFLICT WITH NEW CONSTRUCTION SHALL BE REMOVED (WHETHER OR NOT SHOWN ON THE DRAWINGS) FOLLOWING APPROVAL OF ARCHITECT. BY SUBMITTING A BID, CONTRACTOR ACKNOWLEDGES THAT THE SITE HAS BEEN INVESTIGATED TO DETERMINE TYPE, SIZE AND QUANTITY OF CLEARING REQUIRED FOR CONSTRUCTION.
5. ALL PAVEMENT OR CONCRETE TO BE REMOVED SHALL BE SAW CUT TO PROVIDE A STRAIGHT AND UNIFORM JOINT WITH NEW CONSTRUCTION. ANY EXISTING PAVEMENT, SIDEWALK, CURB & GUTTER, ETC. THAT MUST BE REMOVED TO ALLOW NEW CONSTRUCTION SHALL BE REMOVED AND REPAIRED PER THE SPECIFICATIONS AND DETAILS OR TO MATCH EXISTING CONDITIONS (WHETHER OR NOT SHOWN ON THE DRAWINGS TO BE REMOVED). UTILITY INSTALLATIONS MAY UTILIZE OPEN CUT OF PAVEMENTS UNLESS INDICATED OTHERWISE. TRENCH IN EXISTING ASPHALT SHALL BE PATCHED PER PAVEMENT REPAIR DETAIL.
6. PROTECT ALL ADJACENT PROPERTIES, THE GENERAL PUBLIC AND ALL OF THE OWNER'S FACILITIES. SHOULD DAMAGES OCCUR, NOTIFY ARCHITECT IMMEDIATELY.
7. THE CONTRACTOR SHALL EMPLOY A QUALIFIED UTILITIY LOCATOR SERVICE TO LOCATE ALL UNDERGROUND UTILITIES (INCLUDING BUT NOT LIMITED TO ELECTRICAL, TELEPHONE, GAS, CABLE, FIBER OPTIC) WITHIN THE LIMITS OF CONSTRUCTION.
8. VERIFY ALL ILLUSTRATED KNOWN UNDERGROUND ELEMENTS. EXERCISE REASONABLE EFFORTS TO PROTECT ANY UNKNOWN UNDERGROUND ELEMENTS. NOTIFY THE ARCHITECT IMMEDIATELY IF UNKNOWN ELEMENTS ARE DISCOVERED THAT WOULD NECESSITATE MODIFICATION TO THE PROPOSED DESIGN.
9. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND OSHA REGULATIONS.
10. EXISTING MANHOLES, VALVE BOXES, VAULTS, CLEANOUTS, UTILITY POLES ETC. TO REMAIN WITHIN THE GRADING LIMITS SHALL BE ADJUSTED AS NEEDED TO FUNCTION PROPERTY WITH THE PROPOSED FINISHED GRADES (WHETHER OR NOT INDICATED TO BE MODIFIED).
11. PROTECT AND DO NOT DAMAGE LANDSCAPING AND EXISTING TREES & SHRUBS SHOWN TO REMAIN. ANY LANDSCAPING OR TREES DAMAGED DURING DEMOLITION OR CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR UTILIZING A LICENSED LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
12. THE PROJECT LIMITS ARE NOT IN ANY SPECIAL FLOOD HAZARD AREAS OR FUTURE CONDITIONS FLOOD HAZARD AREAS, AS SHOWN ON FEMA PANEL 3720435700J.
13. THERE ARE NO WETLANDS WITHIN THE PROJECT LIMITS AS THE SITE IS ALREADY DEVELOPED. NO WORK SHALL BE DONE BEYOND THE PROJECT LIMITS WITHOUT VERIFYING PRESENCE OF WETLANDS. IF ANY TREE CLEARING IS REQUIRED THAT IS NOT SHOWN ON THE PLANS, A WETLAND SURVEY WILL BE REQUIRED. COORDINATE WITH CIVIL ENGINEER.

KEY NOTES

A	REMOVE ASPHALT PAVEMENT
B	REMOVE CONCRETE SIDEWALK
C	REMOVE AND STOCKPILE (15) CONCRETE WHEEL STOPS TO BE REUSED, REFER TO SHEET C2-01. DO NOT DAMAGE.
D	REMOVE BOLLARD
E	REMOVE CONCRETE CURB & GUTTER
F	SAW CUT PAVEMENT
G	REMOVE SIGN, POST, AND POST FOOTING
H	REMOVE RAILING
I	ALT. 1: REMOVE EX. SANITARY SEWER PUMP STATION & CONTROL PANEL. DO NOT DAMAGE EX. FORCEMAIN, GRAVITY LINE, AND PIPES INTO & OUT OF PUMP STATION TO REMAIN. PLUG EXISTING GRAVITY SEWER INLET TO THE WET WELL BEFORE DEMOLITION. IF POSSIBLE, CLOSE ISOLATION VALVE ON FORCE MAIN. DO NOT DAMAGE FENCING, REMOVE & REINSTALL FENCING IF NEEDED.
J	REMOVE AND STOCKPILE CISTERN, DO NOT DAMAGE, REINSTALL AND RECONNECT TO ROOF DRAINS AND IRRIGATION ONCE CONSTRUCTION IS COMPLETE. REMOVE ANY ASSOCIATED FOUNDATIONS OR PADS.
K	REMOVE BENCHES AND GIVE TO OWNER
L	REMOVE PICNIC TABLES & ASSOCIATED SEATS AND GIVE TO OWNER.
M	REMOVE WOODEN RAMP
N	REMOVE CANOPY, OVERHANG, BRICK WALL AND ASSOCIATED SUPPORT COLUMNS/BEAMS/FOOTINGS, REFER TO ARCHITECTURAL PLANS AND ALTERNATE SCHEDULE
O	REMOVE CHILLER, REFER TO MECHANICAL. DO NOT DAMAGE FENCING, REMOVE & REINSTALL FENCING IF NEEDED.
P	REMOVE TREES & SHRUBS
Q	REMOVE BRICK PAVERS
R	REMOVE FLAG POLE
S	REMOVE ALL DOWNSPOUTS AND UNDERGROUND ROOF DRAINS, REFER TO ARCHITECTURAL PLANS
T	REMOVE IRRIGATION PUMP STATION, STOCKPILE, AND REINSTALL ONCE CONSTRUCTION IS COMPLETE. REFER TO ELECTRICAL PLANS
U	REMOVE YARD HYDRANT
V	REMOVE DIRECTIONAL ARROW MARKING, GRIND OFF (DO NOT BLACK OUT)
W	REMOVE SANITARY SEWER PIPE
X	EXISTING UNDERGROUND POWER TO REMAIN. DO NOT DAMAGE. ALL OTHER BURIED UTILITIES IN THIS AREA TO BE ABANDONED IN PLACE.
Y	REMOVE WATERLINE
	CONSTRUCTION LIMITS

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Smith Sinnett Architecture, P.A. 2023

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BID DOCUMENTS

Onslow County Senior Service Center
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

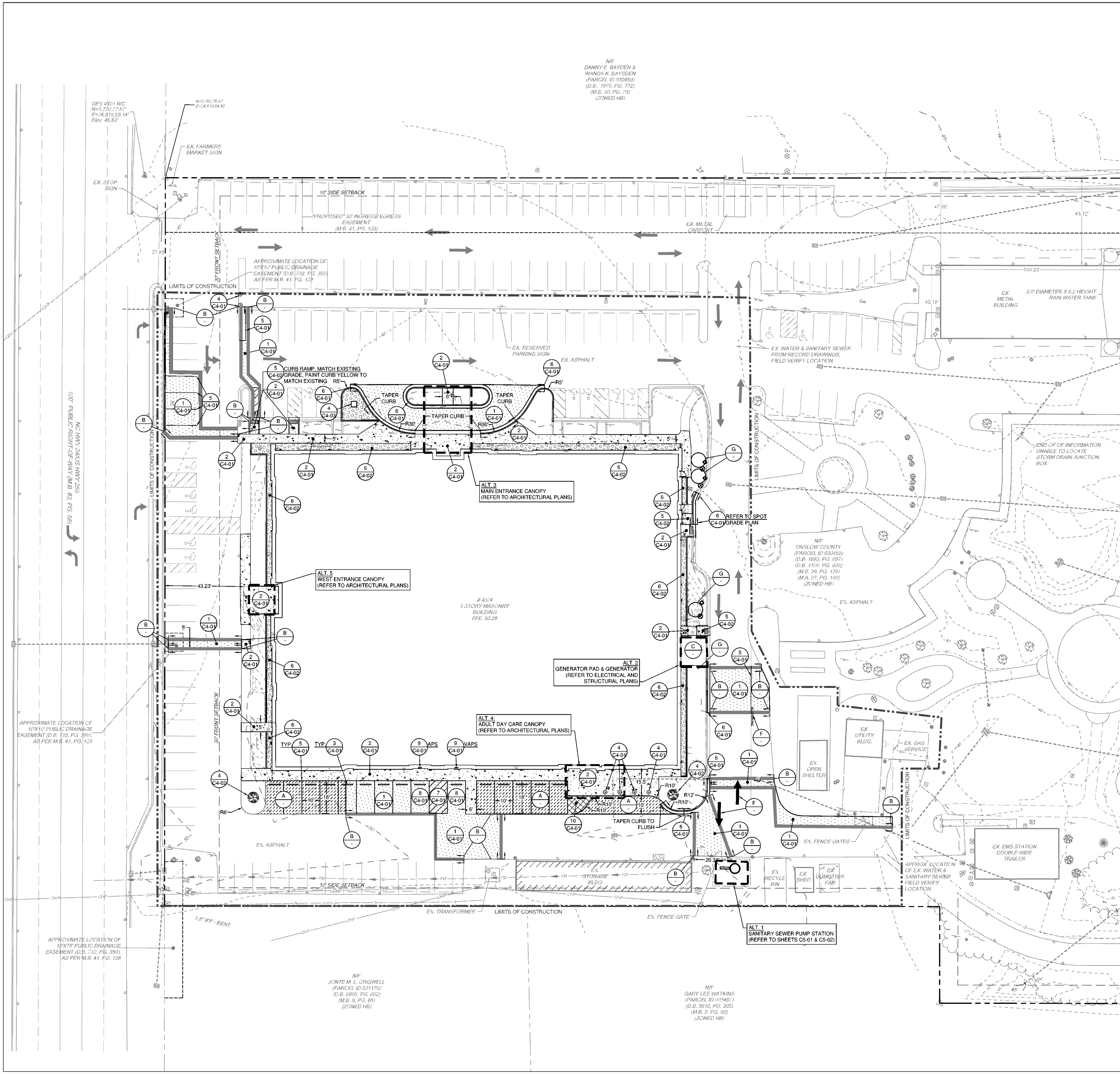
ID	DATE	DESCRIPTION

DRAWN BY: JL
CHECKED BY: FS

EXISTING CONDITIONS & DEMOLITION PLAN

2021029 OCT 16, 2024

C1-02



STAKING GENERAL NOTES

1. ALL CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE ONSLOW COUNTY AND OSHA STANDARDS.
2. EMPLOY A LICENSED SURVEYOR FOR FINAL STAKEOUT. GRADING EQUIPMENT USING GPS IS ACCEPTABLE FOR BULK GRADING.
3. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES DURING CONSTRUCTION AND SHALL MAKE REPAIRS AT NO EXPENSE TO THE OWNER.
4. RAISE ALL STRUCTURES WITHIN THE AREAS TO BE OVERLAID SUCH THAT THE TOP OF THE STRUCTURE EQUALS THE FINISH GRADE OF THE NEW ASPHALT.
5. COORDINATE THE PROJECT SCHEDULE WITH THE CIVIL ENGINEER AND OWNER IN ACCORDANCE WITH THE OWNER'S ONGOING ONSITE OPERATIONS.
6. ALL PAVING SHALL BE PERFORMED BY A NCDOT APPROVED CONTRACTOR. COORDINATE WITH NCDOT FOR WORK IN THE RIGHT OF WAY.
7. PROVIDE A SMOOTH TRANSITION BETWEEN NEW PAVEMENT AND EXISTING PAVEMENT / GRAVEL SURFACES.
8. PROVIDE A 1-FT OVERLAP OF THE FINAL SURFACE COURSE OVER THE FIRST LIFT OF ASPHALT AT COLD JOINTS.
9. THE OWNER WILL HIRE A THIRD-PARTY INSPECTOR FOR PAVING INSPECTIONS. CORE SAMPLES WILL BE TAKEN IN ASPHALT TO CHECK FOR DENSITY AND THICKNESS.
10. INSTALL FIBER JOINT FILLER AND CAULK AT EACH CONCRETE EXPANSION JOINT AND WHERE CONCRETE PAVEMENT ABUTS OTHER PAVEMENTS, SIDEWALKS, OR HARD SURFACES.
11. PRIOR TO FINAL PROJECT ACCEPTANCE, PROVIDE AN AS-BUILT SURVEY OF ALL UTILITY SYSTEMS AND STORM SEWERS.

KEY NOTES

1 / C4-01	HEAVY DUTY ASPHALT PAVEMENT
2 / C4-01	CONCRETE SIDEWALK
3 / C4-01	PRECAST CONCRETE WHEEL STOP: INSTALL 20 CONCRETE WHEEL STOPS (REUSE THE 15 EXISTING WHEELSTOPS, PURCHASE 5 WHEELSTOPS)
4 / C4-01	6" GALVANIZED STEEL BOLLARD WITH HDPE SLEEVE
6 / C4-01	6" CONCRETE CURB & 18" GUTTER
10 / C4-01	HEAVY DUTY CONCRETE PAVEMENT
4 / C4-02	4" CALIPER SINGLE STEM CREPE MYRTLE (ARCHITECT / OWNER TO SELECT FLOWER COLOR)
5 / C4-02	ACCESSIBLE CURB RAMP
7 / C4-02	RIVER ROCK WITH CONCRETE EDGING
4 / C4-03	FLAG POLE
A / -	TWO (2) COATS OF ASPHALT SAND SEALCOAT
B / -	1.5" MILL & LAP JOINTS WHERE PROPOSED ASPHALT MEETS EXISTING (MINIMUM 18" WIDTH; SEE PLAN FOR LENGTH OF JOINT)
C / -	ALT. 2: CONCRETE PAD FOR GENERATOR, REFER TO STRUCTURAL AND ELECTRICAL PLANS FOR SIZING
D / -	SEAT WALL, REFER TO ARCHITECTURAL PLANS
F / -	WHITE THERMOPLASTIC DIRECTIONAL ARROW, ALIGN WITH EXISTING
G / -	NEW LOCATION OF EXISTING CISTERN OVER 6" ABC STONE LEVELING PAD

TRAFFIC CONTROL NOTES

1. ALL SITE SIGNAGE SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND NCDOT STANDARDS.
2. ALL PAVEMENT MARKINGS SHALL BE 2 COATS ALKYD RESIN TYPE MARKING PAINT.
3. ALL SIGNAGE SHALL HAVE HIGH INTENSITY PRISMATIC SHEETING.
4. SIGNS SHALL BE FABRICATED FROM ALUMINUM ALLOY SHEETS.
5. ALL MOUNTING HARDWARE SHALL BE GALVANIZED.
6. "VAPS" ON PLANS DENOTES VAN ACCESSIBLE PARKING SIGN. INSTALL R7-8A, R7-8D, & R7-8P.
7. "APS" ON PLANS DENOTES ACCESSIBLE PARKING SIGN. INSTALL R7-8A & R7-8D ONLY.

STRIPING KEY NOTES

		NCDOT STD.	WIDTH	COLOR
5 / C4-01	PARKING STALL AND TRAFFIC STRIPE	1205.07 (STD)	4-IN	WHITE
7 / C4-01	DIAGONAL STRIPING	1205.01	4-IN	WHITE
8 / C4-01	ACCESSIBLE PARKING LAYOUT	1205.08	4-IN	WHITE

SIGNAGE KEY NOTES

		MUTCD
9 / C4-01	WALL-MOUNTED ACCESSIBLE PARKING SIGNAGE	R7-8P, R7-8A, R7-8D (PER PLAN & DETAIL)

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 033612 FRANCIS SLINSKY, III 10/16/24

BID DOCUMENTS

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Onslow County Government
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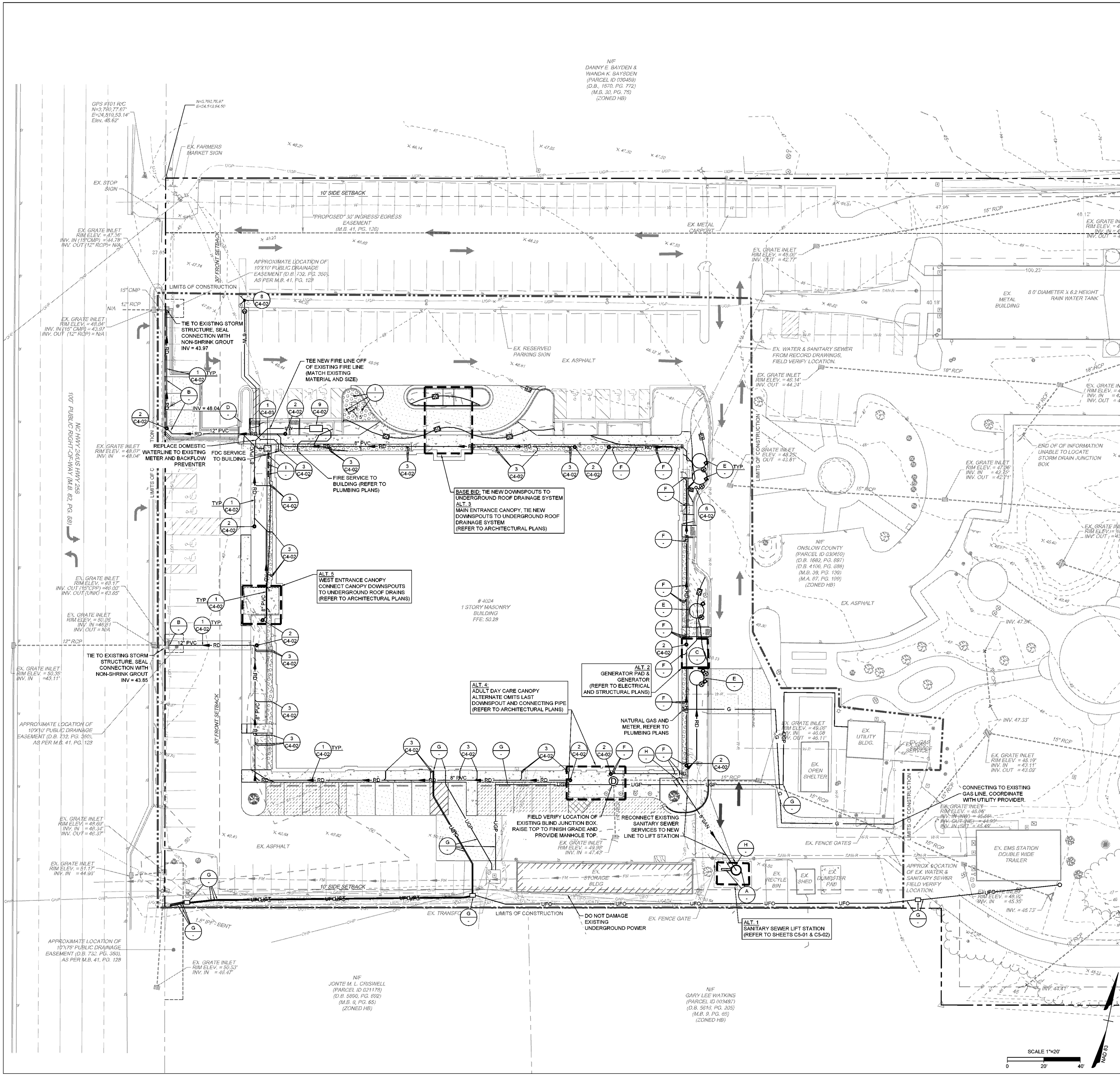
DRAWN BY: JL
CHECKED BY: FS

STAKING PLAN

2021029 OCT 16, 2024

C2-01



GRADING GENERAL NOTES

1. ALL CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE STATE & LOCAL CODES, AND OSHA STANDARDS.
2. OBTAIN OWNERS WRITTEN APPROVAL FOR ANY REQUESTED SHORT-TERM, OFF-HOUR, OR TEMPORARY UTILITY SHUT- DOWNS OR DISRUPTIONS.
3. DISPOSE OFF-SITE WASTE MATERIALS GENERATED DURING CONSTRUCTION AND FOR OBTAINING ALL APPLICABLE PERMITS FOR OFF-SITE STOCKPILES AND/OR WASTE AREAS. IF THE SAME PERSON CONDUCTS THE LAND-DISTURBING ACTIVITY AND ANY RELATED BORROW OR WASTE ACTIVITY, THE RELATED BORROW OR WASTE ACTIVITY IS PART OF THE LAND DISTURBING ACTIVITY. IF THE BORROW OR WASTE ACTIVITY ARE NOT CONDUCTED BY THE SAME PERSON, THEY SHALL BE CONSIDERED SEPARATE LAND DISTURBING ACTIVITY AND MUST BE PERMITTED THROUGH THE SEDIMENT POLLUTION CONTROL ACT.
4. REPAIR OR REPLACE ANY ITEMS DAMAGED DUE TO CONSTRUCTION (ONSITE AND/OR OFFSITE) AT NO EXPENSE TO THE OWNER.
5. MAINTAIN ALL EROSION CONTROL DEVICES AFTER EACH RAINFALL EVENT IN ACCORDANCE WITH NCDEQ LAND QUALITY REQUIREMENTS AND AS DIRECTED BY THE NCDEQ AND THE CIVIL ENGINEER.
6. FLUSH ALL SEDIMENT OUT OF STORM DRAINAGE PIPES AND STRUCTURES FOLLOWING SITE STABILIZATION AND AT THE END OF CONSTRUCTION. FLUSH OUT PIPES AS NEEDED THROUGHOUT CONSTRUCTION TO MAINTAIN PROPER FUNCTIONING OF THE DRAINAGE SYSTEM.
7. IN DISTURBED AREAS, AMEND THE TOP 6 INCHES OF LAWN AREAS WITH 3 INCHES OF IMPORTED AND TESTED TOPSOIL THAT MEET THE SPECIFICATIONS. SUBMIT DOCUMENTATION ON THE PROPERTIES OF IMPORTED TOPSOIL FOR REVIEW. EXISTING TOPSOIL MAY BE USED IF PROPERLY SCREENED AND AMENDED. REFER TO PLANTING SPECIFICATIONS.
8. REMOVE ALL STONES, VEGETATION, AND DEBRIS LARGER THAN 1.5" WITHIN TOP 5" OF FINISH GRADE SURFACE.
9. CONTACT OWNER AND CIVIL ENGINEER FOR AN INSPECTION OF FINISH GRADE AND SLOPES PRIOR TO PERMANENT SEEDING. OWNER / CIVIL ENGINEER MUST APPROVE FINISH GRADES PRIOR TO SEEDING.
10. ALL SIDEWALKS SHALL HAVE MAXIMUM CROSS SLOPE OF 2%.
11. ALL ADA RAMPS SHALL HAVE 12:1 MAXIMUM SLOPE FOR MAXIMUM 6-FT LENGTH.
12. ALL ADA PARKING SPACES ANS STRIPED AREAS SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION.
13. INSTALL ALL STORM SEWERS TO PROVIDE REQUIRED CLEARANCES TO CROSSING UTILITIES AS INDICATED IN THE DRAWINGS AND SPECIFICATIONS.
14. ALL PVC PIPING SHALL BE SCHEDULE 40 THICKNESS. USE DUCTILE IRON WHEN COVER IS LESS THAN 24-IN. ADD ADAPTERS AS NECESSARY TO CONNECT SMALLER TO LARGER PIPES.
15. USE DUCTILE IRON WHEN COVER IS LESS THAN 24-IN. ADD ADAPTERS AS NECESSARY TO CONNECT SMALLER TO LARGER PIPES.
16. INSTALL ADDITIONAL DRAINAGE SWALES IF DIRECTED BY THE CIVIL ENGINEER. LOCALIZED DEPRESSIONS AT DROP INLETS SHALL NOT EXCEED 10:1 SLOPE
17. EXISTING MANHOLES, VALVE BOXES, VAULTS, CLEANOUTS, UTILITY POLES ETC. TO REMAIN WITHIN THE GRADING LIMITS SHALL BE ADJUSTED AS NEEDED TO FUNCTION PROPERTY WITH THE PROPOSED FINISHED GRADES (WHETHER OR NOT INDICATED TO BE MODIFIED).
18. THERE IS NO SAFETY FENCING IN THE CONTRACT. THE CONTRACTOR MAY CHOOSE TO INSTALL SAFETY FENCING AS DICTATED BY MEANS AND METHODS AND TO PROTECT EQUIPMENT, HOWEVER THERE WILL BE NO ADDITIONAL PAYMENT FOR SAFETY FENCING.
19. REFER TO SHEET C4-02 FOR PERMANENT GRASS SEEDING SCHEDULE. ENSURE GRADES AND SITE ARE READY FOR PERMANENT SEEDING BY THE DATES SHOWN.

UTILITY GENERAL NOTES

1. COORDINATE AND SCHEDULE INSTALLATION OF ALL UTILITIES WITH UTILITY COMPANIES.
2. VERIFY EXISTING CONDITIONS AND CONNECTIONS TO EXISTING UTILITIES PRIOR TO CONSTRUCTION. NOTIFY DESIGN PROFESSIONAL IF ANY DISCREPANCIES ARE DISCOVERED.
3. METALLIC LINES SHALL BE IDENTIFIED WITH DURABLE PRINTED PLASTIC WARNING TAPES, MINIMUM 3 INCHES WIDE WITH LETTERING TO IDENTIFY BURIED LINE BELOW.
4. NON-METALLIC PIPES, OTHER THAN GAS LINES, SHALL BE IDENTIFIED BY DETECTABLE WARNING TAPE, MINIMUM 2 INCHES WIDE, WITH LETTERING TO IDENTIFY BURIED LINE BELOW.
5. FOR PLASTIC SEWER PIPING, AN INSULATED COPPER TRACER WIRE OR OTHER APPROVED CONDUCTOR SHALL BE INSTALLED ADJACENT TO AND OVER THE FULL LENGTH OF THE PIPING. ACCESS SHALL BE PROVIDED TO THE TRACER WIRE OR THE TRACER WIRE SHALL TERMINATE AT THE CLEANOUT BETWEEN THE BUILDING DRAIN AND BUILDING SEWER. THE TRACER WIRE SIZE SHALL BE NOT LESS THAN 14 AWG AND THE INSULATION TYPE SHALL BE LISTED FOR DIRECT BURIAL.
6. AN INSULATED COPPER TRACER WIRE OR OTHER APPROVED CONDUCTOR SHALL BE INSTALLED ADJACENT TO UNDERGROUND NONMETALLIC PIPING. ACCESS SHALL BE PROVIDED TO THE TRACER WIRE OR THE TRACER WIRE SHALL TERMINATE ABOVEGROUND AT THE END OF THE NONMETALLIC PIPING. THE TRACER WIRE SIZE SHALL NOT BE LESS THAN 18AWG AND THE INSULATION TYPE SUITABLE FOR DIRECT BURIAL.
7. ALL SANITARY SEWER SERVICES SHALL BE 6" PVC (SCH 40) @1.04% MIN. SLOPE UNLESS INDICATED OTHERWISE. USE DUCTILE IRON WHEN COVER IS LESS THAN 36-IN.
8. INSTALL SEWER MAINS WITH A COVER OF NO LESS THAN 36-IN TO FINISH GRADE IN NON-TRAFFIC AREAS, 48-IN TO FINISH GRADE IN TRAFFIC AREAS.
9. SEWER MAINS SHALL BE INSTALLED WITH A MINIMUM VERTICAL CLEARANCE OF 18-IN TO STORM DRAINAGE PIPES. INSTALL ALL UTILITIES TO PROVIDE REQUIRED CLEARANCES AS INDICATED IN THE SPECIFICATIONS.
10. PROVIDE VERTICAL BENDS ON WATERLINES THAT CROSS UTILITIES, STORM SEWER, AND SANITARY SEWER IF NECESSARY TO MAINTAIN 18" MIN. VERTICAL SEPARATION.

KEY NOTES

Key	Note
1 / C4-02	TRENCH BOTTOM AND BACKFILLING REQUIREMENTS
2 / C4-02	STANDARD CLEANOUT
3 / C4-02	DOWNSPOUT BOOT
6 / C4-02	3/4" FREEZE PROOF YARD HYDRANT
8 / C4-02	FIRE DEPARTMENT CONNECTION AND WATER MANHOLE
9 / C4-02	6" RPZ BACKFLOW PREVENTER & HOT BOX
1 / C4-03	HOT BOX FOR BACKFLOW PREVENTER
A / -	SANITARY SEWER PUMP STATION, REFER TO PLUMBING PLANS
B / -	HAND DIG AROUND UNDERGROUND UTILITIES AND DO NOT DAMAGE EXISTING UTILITIES
C / -	ALT. 2: INSTALL GENERATOR (REFER TO ELECTRICAL PLANS)
D / -	INSTALL 6" SCH 40 PVC VERTICALLY OUT OF THE BOTTOM OF EXISTING INLET. INSTALL 45° BENDS AS NECESSARY TO CONNECT TO ADJACENT STORM PIPE.
E / -	REINSTALL AND RECONNECT STOCKPILED CISTERNS, SPIGOTS, IRRIGATION PUMP STATIONS, ETC., AND RESTORE TO PREVIOUS FUNCTIONALITY
F / -	PROVIDE PVC DOWNSPOUT CONNECTION UP TO GUTTER. MATCH EXISTING CONDITION.
G / -	HANDHOLES AND 4" CONDUIT FOR COMMUNICATIONS AND POWER, REFER TO ELECTRICAL PLANS.
H / -	INSTALL NEW SANITARY SEWER PIPE, MATCH EXISTING
I / -	LIGHT FIXTURES, REFER TO ELECTRICAL DRAWINGS FOR LOCATION, TYPE & CONNECTION

ABBREVIATIONS

- TC = TOP OF CURB ELEVATION
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- RCP = REINFORCED CONCRETE PIPE
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- HP= HIGH POINT ELEVATION
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- FL = FLOW LINE
- TH = TOP OF HOOD
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- TL = TOP OF LID

LEGEND

	EXISTING		PROPOSED	
FENCE	X		X	
GAS LINE	G		G	
POWER LINE	UGP		UGP	
TELEPHONE LINE	UGT		UGT	
WATER LINE	W		W	
SANITARY SEWER LINE	SAN		SAN	
CABLE TV LINE	UCATV		UCATV	
FIBER OPTIC LINE	UFO		UFO	
STORM PIPE				
ROOF DRAIN PIPE	RD		RD	
CONSTRUCTION LIMTS				
LIGHT POLE				
SITE BOLLARD				
UTILITY POLE		LP		LP
SANITARY SEWER MANHOLE				
STORM SEWER MANHOLE		PP		PP
CLEANOUT (SANITARY OR STORM)		MH		MH
DROP INLET		MH		MH
FIRE HYDRANT		CO		CO
WATER VALVE		DI		DI
UTILITY VAULT		FH		FH
DRAINAGE STRUCTURE ID:		WV	A1	WV

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 033612 FRANCIS SLINSKY, III 10/16/24

BID DOCUMENTS

THIS DRAWING IS FORMATTED TO BE PRINTED ON A 30" X 40" SHEET

Onslow County Senior Service Center

Onslow County Government

4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

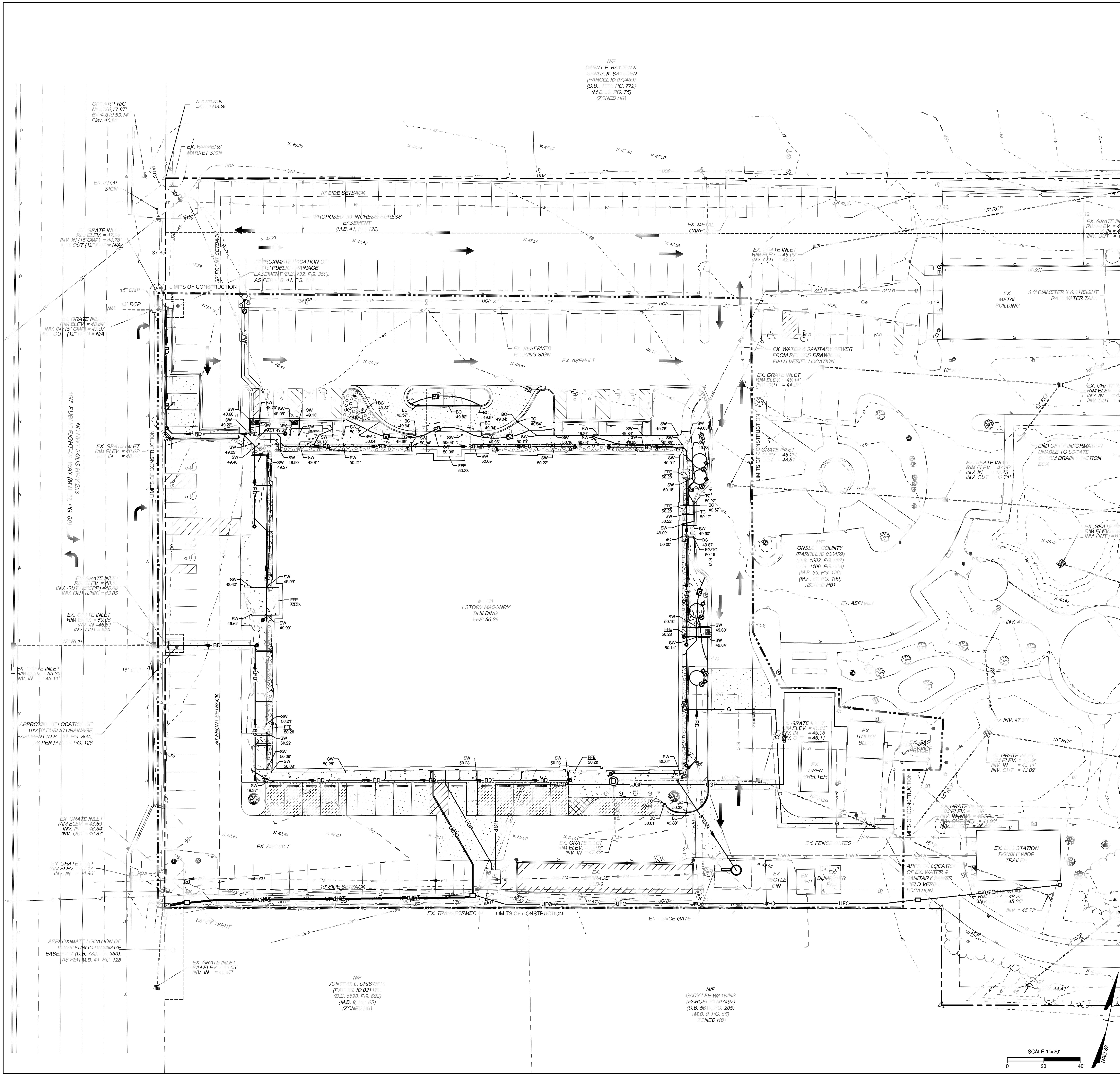
DRAWN BY: JL

CHECKED BY: FS

GRADING, DRAINAGE & UTILITY PLAN

2021029 OCT 16, 2024

C3-01



GRADING GENERAL NOTES

1. ALL CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE STATE & LOCAL CODES, AND OSHA STANDARDS.
2. OBTAIN OWNERS WRITTEN APPROVAL FOR ANY REQUESTED SHORT-TERM, OFF-HOUR, OR TEMPORARY UTILITY SHUT- DOWNS OR DISRUPTIONS.
3. DISPOSE OFF-SITE WASTE MATERIALS GENERATED DURING CONSTRUCTION AND FOR OBTAINING ALL APPLICABLE PERMITS FOR OFF-SITE STOCKPILES AND/OR WASTE AREAS. IF THE SAME PERSON CONDUCTS THE LAND-DISTURBING ACTIVITY AND ANY RELATED BORROW OR WASTE ACTIVITY, THE RELATED BORROW OR WASTE ACTIVITY IS PART OF THE LAND DISTURBING ACTIVITY. IF THE BORROW OR WASTE ACTIVITY ARE NOT CONDUCTED BY THE SAME PERSON, THEY SHALL BE CONSIDERED SEPARATE LAND DISTURBING ACTIVITY AND MUST BE PERMITTED THROUGH THE SEDIMENT POLLUTION CONTROL ACT.
4. REPAIR OR REPLACE ANY ITEMS DAMAGED DUE TO CONSTRUCTION (ONSITE AND/OR OFFSITE) AT NO EXPENSE TO THE OWNER.
5. MAINTAIN ALL EROSION CONTROL DEVICES AFTER EACH RAINFALL EVENT IN ACCORDANCE WITH NCDEQ LAND QUALITY REQUIREMENTS AND AS DIRECTED BY THE NCDEQ AND THE CIVIL ENGINEER.
6. FLUSH ALL SEDIMENT OUT OF STORM DRAINAGE PIPES AND STRUCTURES FOLLOWING SITE STABILIZATION AND AT THE END OF CONSTRUCTION. FLUSH OUT PIPES AS NEEDED THROUGHOUT CONSTRUCTION TO MAINTAIN PROPER FUNCTIONING OF THE DRAINAGE SYSTEM.
7. IN DISTURBED AREAS, AMEND THE TOP 6 INCHES OF LAWN AREAS WITH 3 INCHES OF IMPORTED AND TESTED TOPSOIL THAT MEET THE SPECIFICATIONS. SUBMIT DOCUMENTATION ON THE PROPERTIES OF IMPORTED TOPSOIL FOR REVIEW. EXISTING TOPSOIL MAY BE USED IF PROPERLY SCREENED AND AMENDED. REFER TO PLANTING SPECIFICATIONS.
8. REMOVE ALL STONES, VEGETATION, AND DEBRIS LARGER THAN 1.5" WITHIN TOP 5" OF FINISH GRADE SURFACE.
9. CONTACT OWNER AND CIVIL ENGINEER FOR AN INSPECTION OF FINISH GRADE AND SLOPES PRIOR TO PERMANENT SEEDING. OWNER / CIVIL ENGINEER MUST APPROVE FINISH GRADES PRIOR TO SEEDING.
10. ALL SIDEWALKS SHALL HAVE MAXIMUM CROSS SLOPE OF 2%.
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19. REFER TO SHEET C4-02 FOR PERMANENT GRASS SEEDING SCHEDULE. ENSURE GRADES AND SITE ARE READY FOR PERMANENT SEEDING BY THE DATES SHOWN.

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KEY NOTES

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C / -	ALT. 2: INSTALL GENERATOR (REFER TO ELECTRICAL PLANS)
D / -	INSTALL 6" SCH 40 PVC VERTICALLY OUT OF THE BOTTOM OF EXISTING INLET. INSTALL 45° BENDS AS NECESSARY TO CONNECT TO ADJACENT STORM PIPE.
E / -	REINSTALL AND RECONNECT STOCKPILED CISTERNS, SPIGOTS, IRRIGATION PUMP STATIONS, ETC., AND RESTORE TO PREVIOUS FUNCTIONALITY
F / -	PROVIDE PVC DOWNSPOUT CONNECTION UP TO GUTTER. MATCH EXISTING CONDITION.
G / -	HANDHOLES AND 4" CONDUIT FOR COMMUNICATIONS AND POWER, REFER TO ELECTRICAL PLANS.
H / -	INSTALL NEW SANITARY SEWER PIPE, MATCH EXISTING
I / -	LIGHT FIXTURES, REFER TO ELECTRICAL DRAWINGS FOR LOCATION, TYPE & CONNECTION

ABBREVIATIONS

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LEGEND

	EXISTING		PROPOSED	
FENCE	X		X	
GAS LINE	G		G	
POWER LINE	UGP		UGP	
TELEPHONE LINE	UGT		UGT	
WATER LINE	W		W	
SANITARY SEWER LINE	SAN		SAN	
CABLE TV LINE	UCATV		UCATV	
FIBER OPTIC LINE	UFO		UFO	
STORM PIPE				
ROOF DRAIN PIPE	RD		RD	
CONSTRUCTION LIMTS				
LIGHT POLE				
SITE BOLLARD				
UTILITY POLE		LP		LP
SANITARY SEWER MANHOLE				
STORM SEWER MANHOLE		PP		PP
CLEANOUT (SANITARY OR STORM)		MH		MH
DROP INLET		MH		MH
FIRE HYDRANT		CO		CO
WATER VALVE		DI		DI
UTILITY VAULT		FH		FH
DRAINAGE STRUCTURE ID:		WV	A1	WV

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 033612 FRANCIS SLINSKY, III 10/16/24

BID DOCUMENTS

THIS DRAWING IS FORMATTED TO BE PRINTED ON A 30" X 40" SHEET

Onslow County Senior Service Center
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

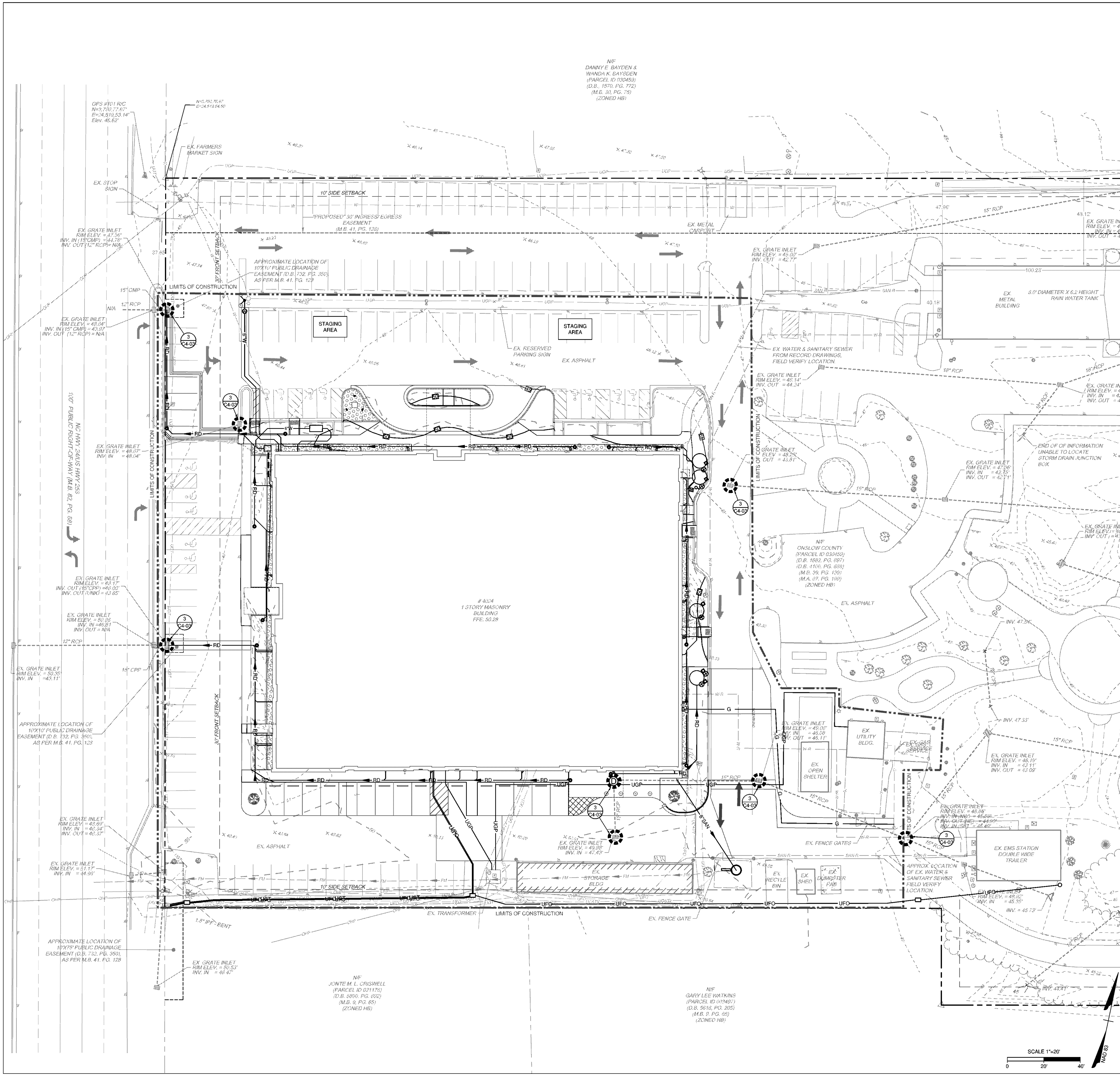
ID	DATE	DESCRIPTION

DRAWN BY: JL
CHECKED BY: FS

SPOT GRADE PLAN

2021029 OCT 16, 2024

C3-02



GENERAL NOTES

1. THE CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL CODES IN OBSERVING EROSION CONTROL MEASURES BOTH ON AND OFF SITE. IF NOTICE OF VIOLATIONS BE ISSUED, THE CONTRACTOR SHALL IMMEDIATELY CORRECT THE ITEMS ONSITE AND PROVIDE A LETTER TO THE OWNER ITEMIZING HOW THOSE ITEMS HAVE BEEN COMPLETED AND ADDRESSED. IF FINES ARE ISSUED, THE CONTRACTOR SHALL WILL BE RESPONSIBLE FOR THE PAYING THE FINES.
2. ALL OFF-SITE SOIL BORROW AND WASTE SITES SHALL BE PROPERLY PERMITTED FOR SUCH ACTIVITIES.
3. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES AFTER EACH RAINFALL EVENT OR AS DIRECTED BY LOCAL AUTHORITIES OR ENGINEER. ADD EROSION CONTROL MEASURES TO CONTROL SEDIMENT AND EROSION CONTROL DURING ALL PHASES OF THE PROJECT. THERE SHALL BE NO ADDITIONAL PAYMENT FOR ADDING OR MAINTAINING EROSION CONTROL MEASURES.
4. ALL OPEN STORM PIPES SHALL BE PROTECTED WITH STONE FILTER PROTECTION AFTER WORK STOPPAGE EACH DAY.
5. ALL STORM DRAINAGE PIPES SHALL BE THOROUGHLY FLUSHED OF ALL SEDIMENT FOLLOWING SITE STABILIZATION. INTERIOR FLUSHING OF SYSTEM SHALL BE PERFORMED AS NEEDED TO MAINTAIN PROPER FUNCTIONING OF THE DRAINAGE SYSTEM.
6. THE INDICATED STAGING AREA IS INTENDED FOR VEHICLES AND NON-ERODIBLE MATERIALS ONLY. NO SOIL, SAND OR OTHER ERODIBLE, FINE GRAINED MATERIAL SHALL BE STORED OUTSIDE OF THE LIMITS OF THE SITE PROTECTED BY SEDIMENT AND EROSION CONTROL DEVICES AND MEASURES.
7. SOIL AND OTHER MATERIALS SHALL ONLY BE TEMPORARILY STOCKPILED WITHIN THE CONSTRUCTION LIMITS PROTECTED BY SEDIMENT AND EROSION CONTROL DEVICES AND MEASURES.
8. ALL APPLICABLE E&S CONTROL MEASURES ARE TO BE PROPERLY MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED.
9. TOTAL DISTURBED AREA: 0.40 AC.

CONSTRUCTION SEQUENCE

1. INSTALL SILT BAG INLET PROTECTION AS SHOWN.
2. DEMOLISH EXISTING SITE FEATURES AND INSTALL NEW.
3. PROTECTION ROADWAYS FROM TRACKING SEDIMENT.
4. INSTALL ADDITIONAL MEASURES AS NEEDED TO PROTECT OFFSITE AREAS FROM SEDIMENT.
5. ONCE SITE IS STABILIZED WITH GRASS (REFER TO SEEDING SCHEDULE ON SHEET C4-03) AND PAVEMENTS, REMOVE SILT BAGS AND FLUSH STORM SEWER SYSTEM OF ALL SEDIMENT.

MAINTENANCE PLAN

1. DURING ALL PHASES OF CONSTRUCTION, GROUNDCOVER ON EXPOSED SLOPES SHALL BE PROVIDED ACCORDING TO GROUND STABILIZATION TABLE (THIS SHEET) FOLLOWING COMPLETION OF ANY PHASE OF GRADING.
2. FINAL PERMANENT GROUNDCOVER FOR ALL DISTURBED AREAS SHALL BE PROVIDED ON ALL DISTURBED AREAS ACCORDING TO GROUND STABILIZATION TABLE (BELOW) FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT.
3. THE ABOVE REQUIREMENTS ARE THE MINIMUM NECESSARY TO MEET EROSION AND SEDIMENT CONTROL REGULATIONS. THE CONTRACT DOCUMENTS INCLUDE ADDITIONAL SEEDING AND STABILIZATION REQUIREMENTS AND SCHEDULES WHICH MAY EXCEED THOSE ABOVE.
4. ALL OTHER SEEDED AREAS SHALL BE MULCHED WITH STRAW AND TACKED WITH ASPHALT.

LEGEND

3/C4-03 — SILT BAG INLET PROTECTION

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EROSION CONTROL PLAN

2021029 OCT 16, 2024

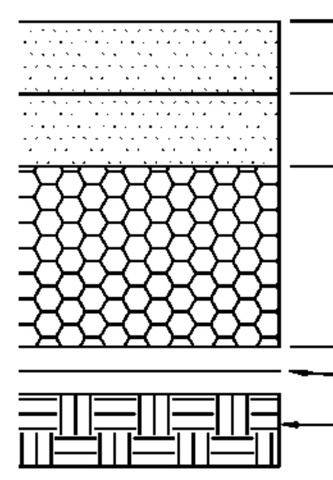
C3-03

COMPACTION NOTES:

SUBGRADE AND ABC STONE
1. COMPACT TO MAXIMUM DRY DENSITY PER ASTM D698 STANDARD PROCTOR AND WITHIN 3% MAXIMUM MOISTURE CONTENT.
2. COMPACT SUBGRADE SOIL TO 98%
3. COMPACT ABC STONE TO 100%.
4. REFER TO SPECIFICATION SECTION 31 10 00 FOR ADDITIONAL INFORMATION.

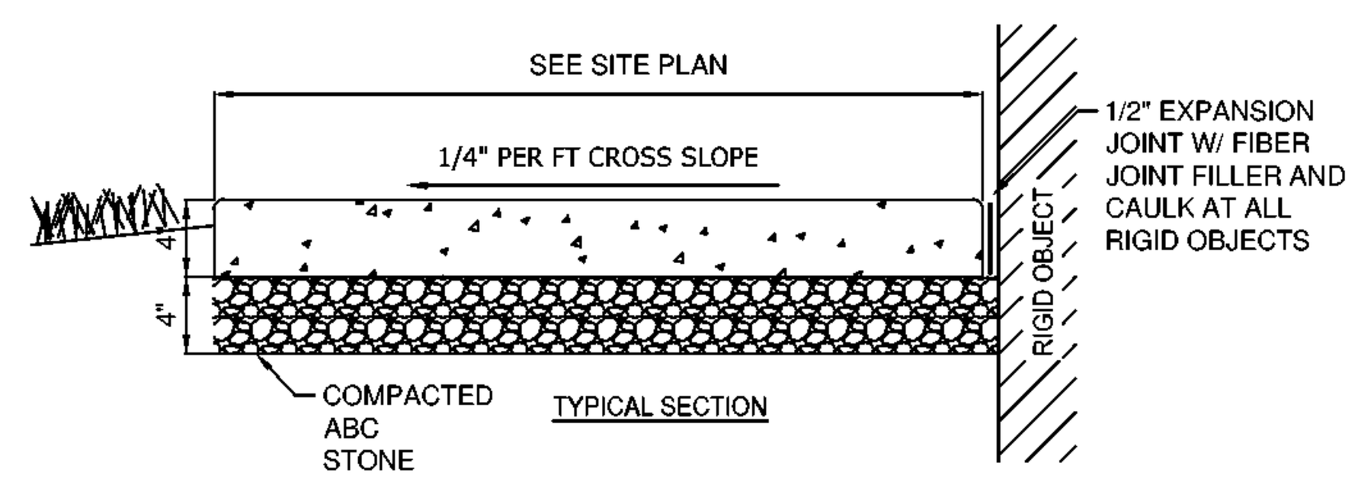
ASPHALT
1. COMPACT ASPHALT TO 92% MAXIMUM SPECIFIC GRAVITY.
2. REFER TO SPECIFICATION SECTION 32 12 16 FOR ADDITIONAL INFORMATION.

KEYNOTE	1 / C4-01
PATTERN	
CLASSIFICATION	HEAVY DUTY ASPHALT
TYPE S9.5C (2018) SURFACE COURSE	1.5"
TYPE I19.0C (2018) INTERMEDIATE COURSE	3.5"
NCDOT CABC STONE	8"

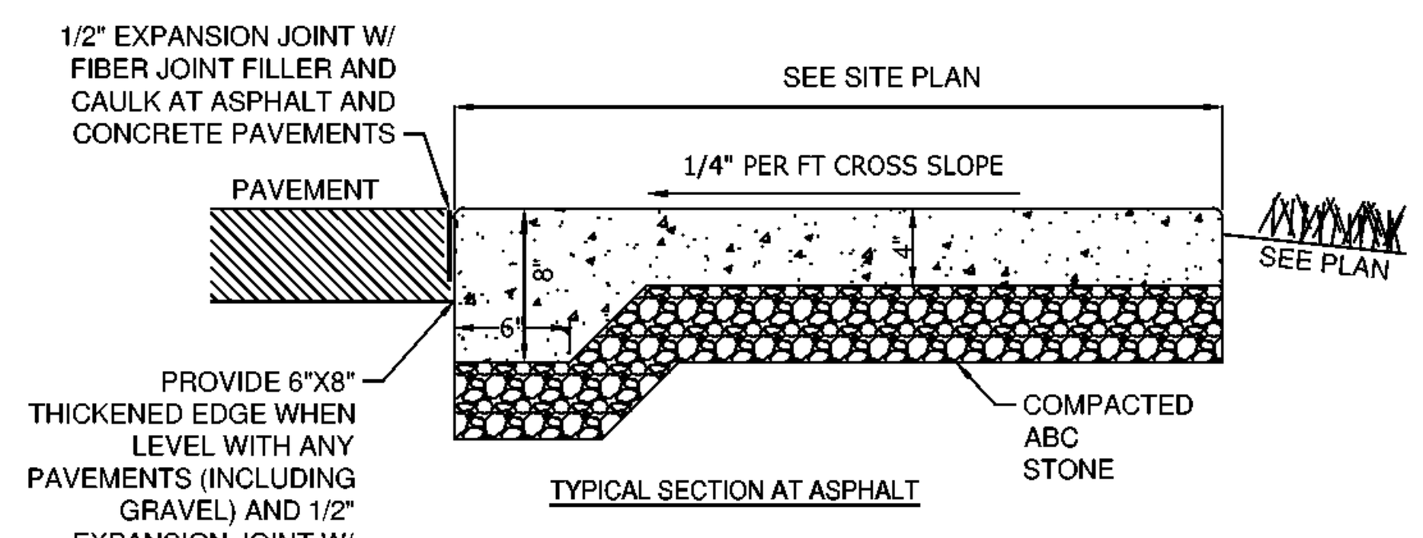


NOTES:
1. THE CONTRACTOR MAY CHOOSE TO INSTALL INTERMEDIATE COURSES OF PAVEMENT TO STABILIZE THE SITE DURING CONSTRUCTION AT NO ADDITIONAL COST. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE ADEQUATE THICKNESS REQUIRED FOR INTERMEDIATE PAVING. INCREASES IN THE DESIGN PAVEMENT SECTION TO FACILITATE INTERMEDIATE PAVING SHALL BE PROVIDED AT NO ADDITIONAL COST.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING PAVEMENT DURING ALL PHASES OF WORK. THE FINAL SURFACE OF PAVEMENT SHALL BE FREE OF ALL DEFECTS OR DAMAGE.
3. CONTRACTOR IS RESPONSIBLE FOR THEIR OWN QC TESTING, PROOF ROLL, AND REQUIREMENTS NOTED IN SPECIFICATIONS.
4. OWNER WILL ACQUIRE 3RD PARTY QC TESTING SERVICES FOR SOILS AND PAVEMENTS.
5. REFER TO SPECIFICATION SECTION 32 12 16 & 31 10 00 FOR ADDITIONAL INFORMATION.

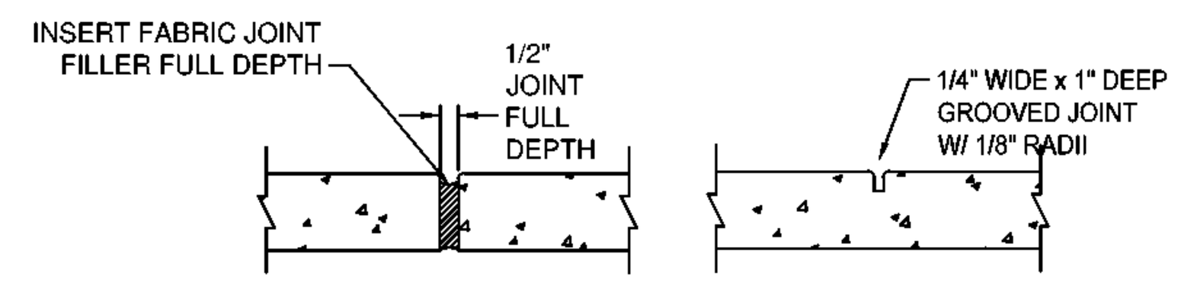
(1) HEAVY DUTY ASPHALT PAVEMENT N.T.S.



TYPICAL SECTION



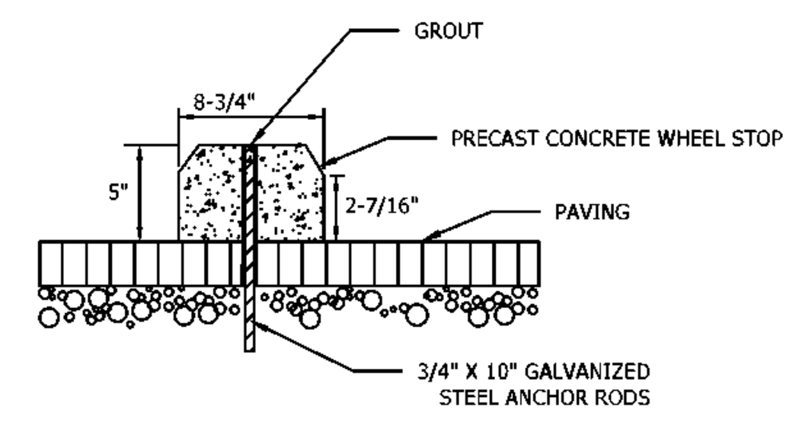
TYPICAL SECTION AT ASPHALT



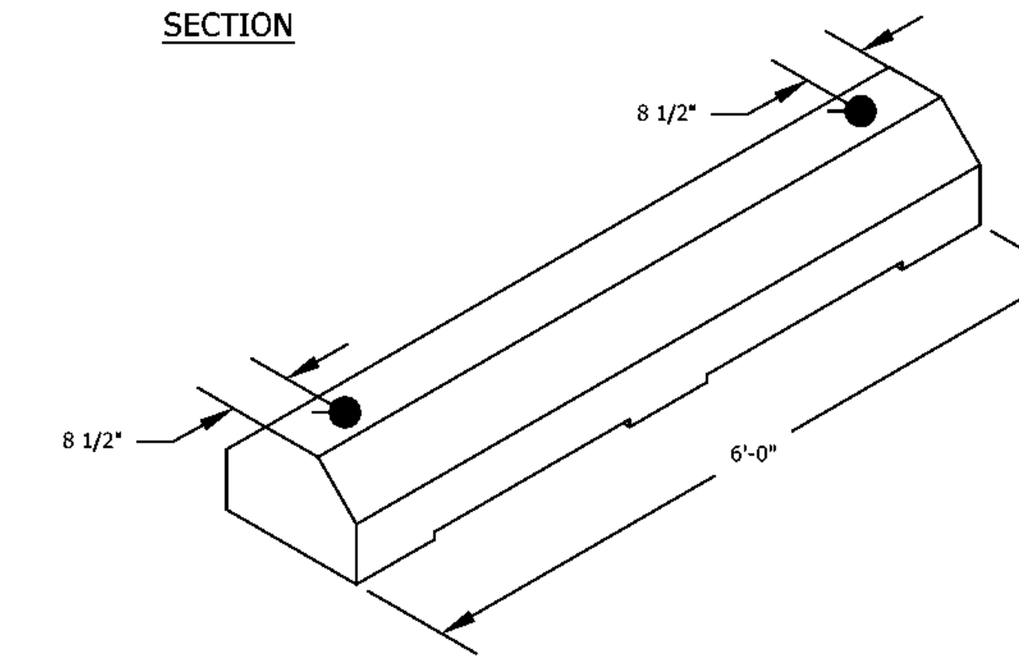
TYPICAL EXPANSION JOINT TYPICAL CONTROL JOINT

NOTES:
1. PROVIDE GROOVE CONTROL JOINT 1" DEEP WITH 1/8" RADII IN SIDEWALK AT 5' INTERVALS UNLESS INDICATED OTHERWISE.
2. PROVIDE 1/2" EXPANSION JOINT AT 30' INTERVALS.
3. PROVIDE 1/2" EXPANSION JOINT WHERE THE SIDEWALK ABUTS ANY RIGID STRUCTURE.
4. SEE SPECIFICATIONS FOR ADDITIONAL JOINT SPACING REQUIREMENTS.
5. ALL CONCRETE SIDEWALKS SHALL BE 3,000 P.S.I. MIN. WITH BROOM FINISH.
6. WHERE SIDEWALK ABUTS GRASS OR MULCH, THERE SHALL BE 1.5" OF RELIEF FROM THE TOP OF SIDEWALK TO THE GROUND.
7. FOR PATCHING OF EXISTING SIDEWALK, SAW CUT AT NEAREST JOINTS AND REPLACE ENTIRE PANEL. MATCH EXISTING SIDEWALK WIDTH.

(2) CONCRETE SIDEWALK N.T.S.



SECTION



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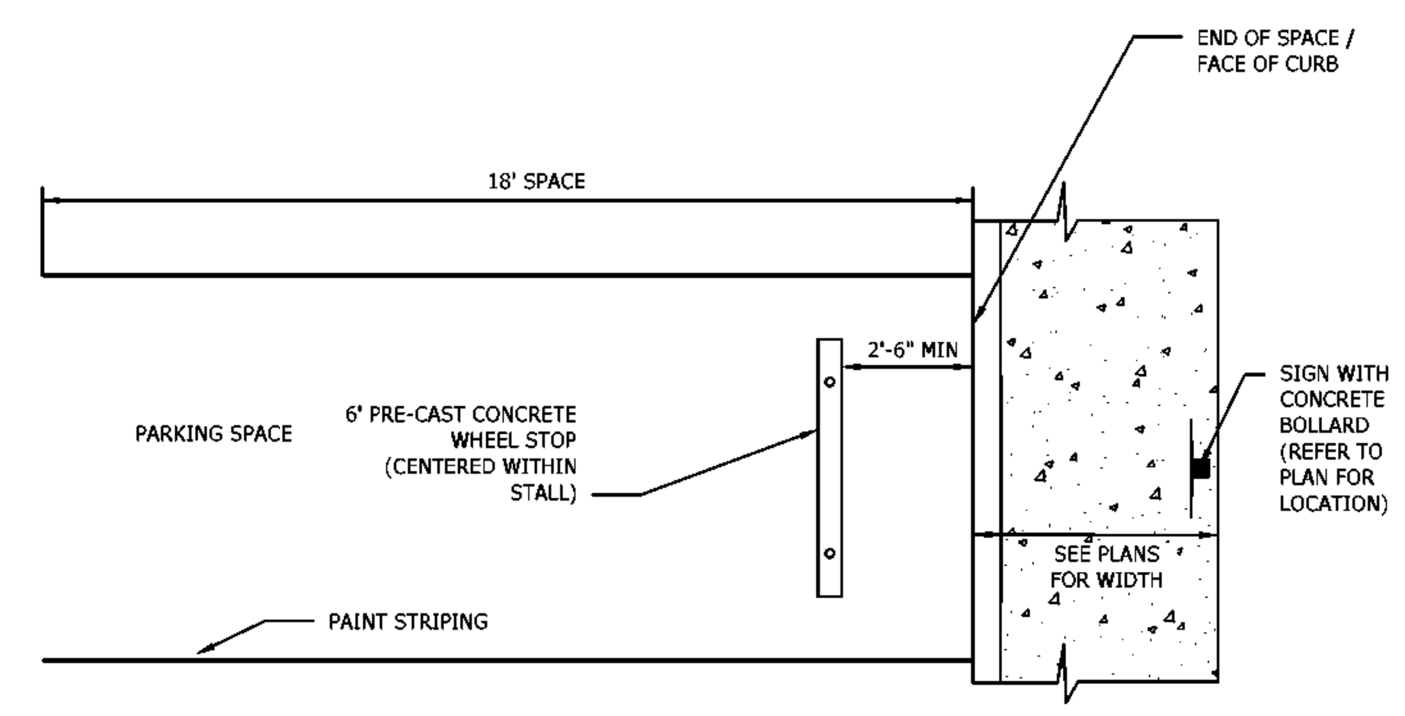
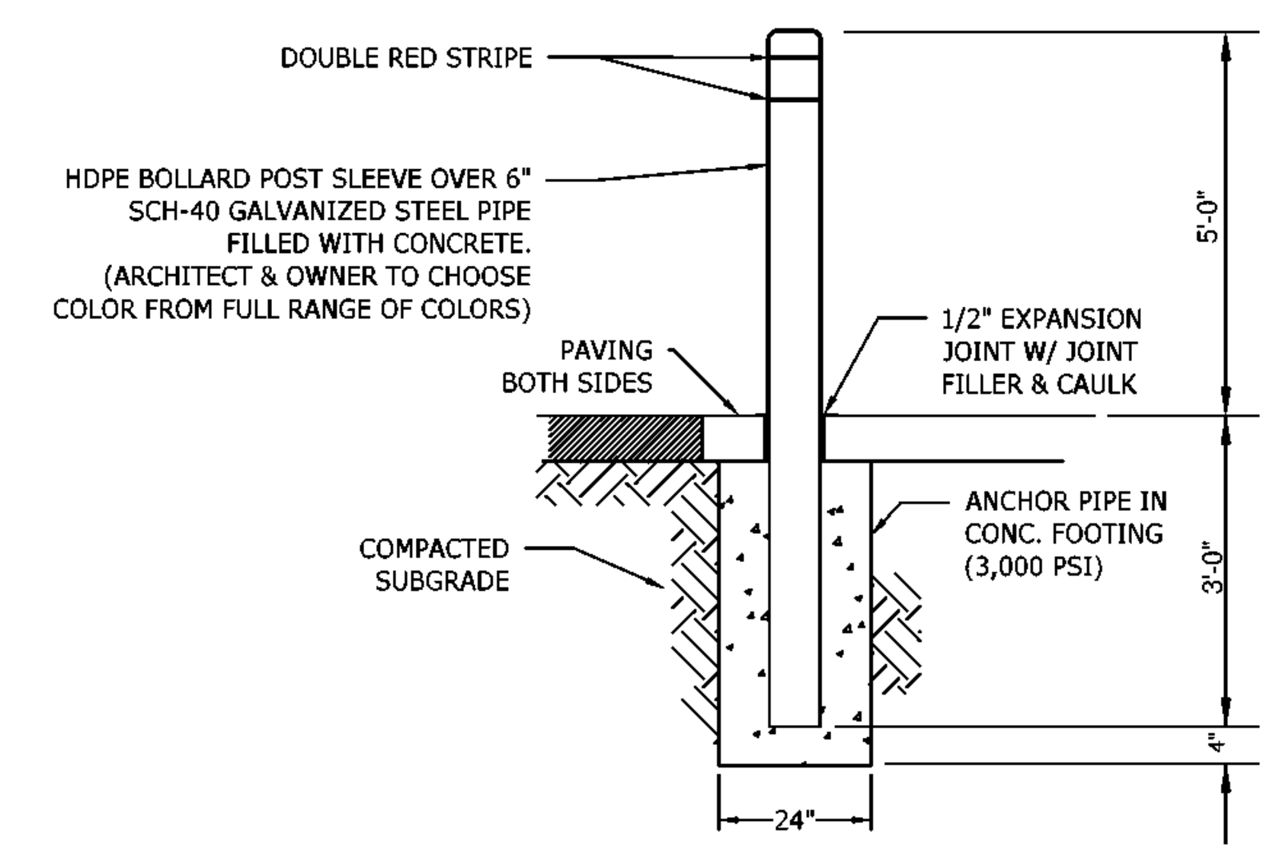
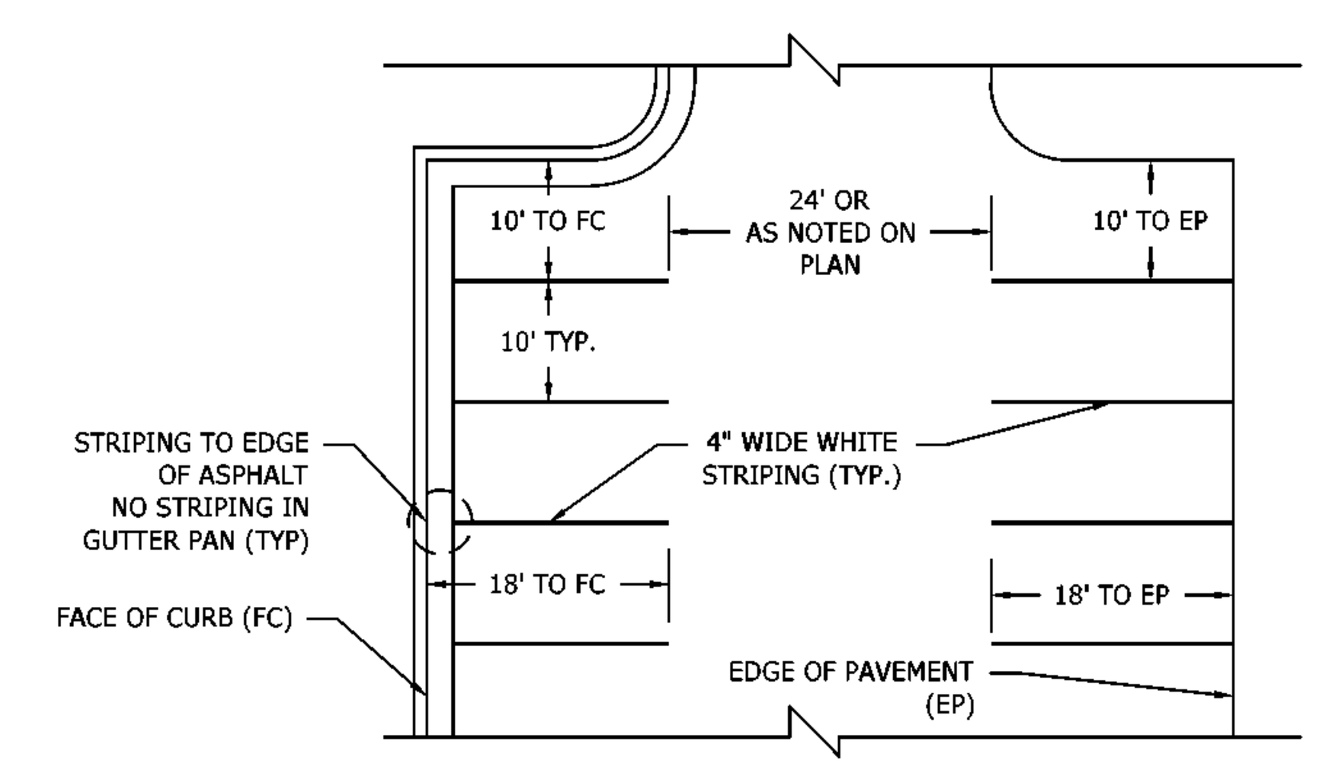


WHEEL STOP POSITION WITHIN PARKING STALL

(3) PRE-CAST CONCRETE WHEELSTOP N.T.S.

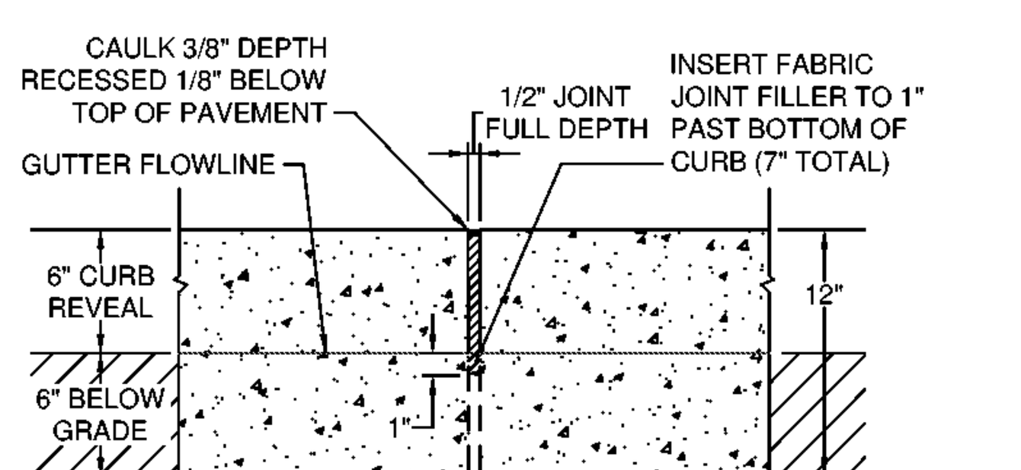


(4) 6" GALVANIZED STEEL BOLLARD WITH HDPE SLEEVE N.T.S.

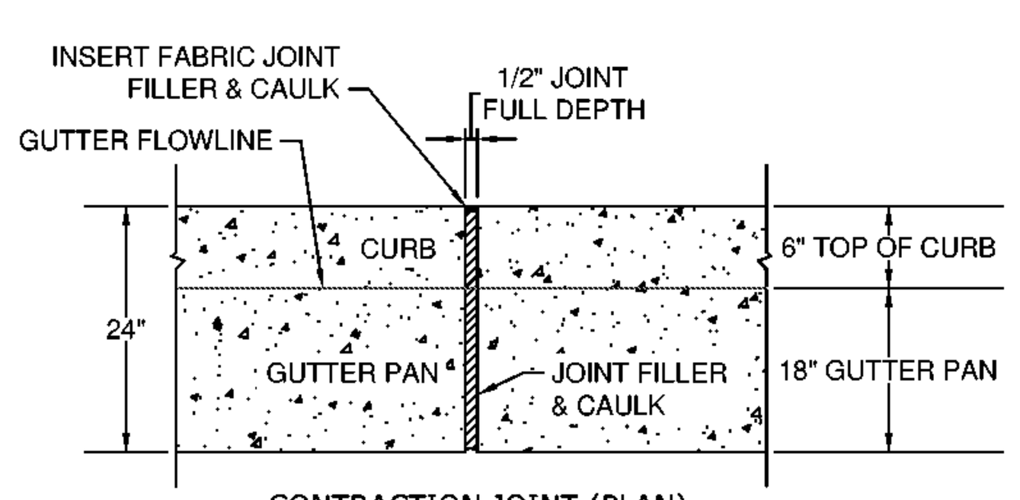


NOTES:
1. ALL PARKING STALL MARKINGS SHALL BE (2) COATS OF ALKYD RESIN TYPE PAINT, 15 MILLIMETER MIN THICKNESS.
2. FC = FACE OF CURB
3. EP = EDGE OF PAVEMENT

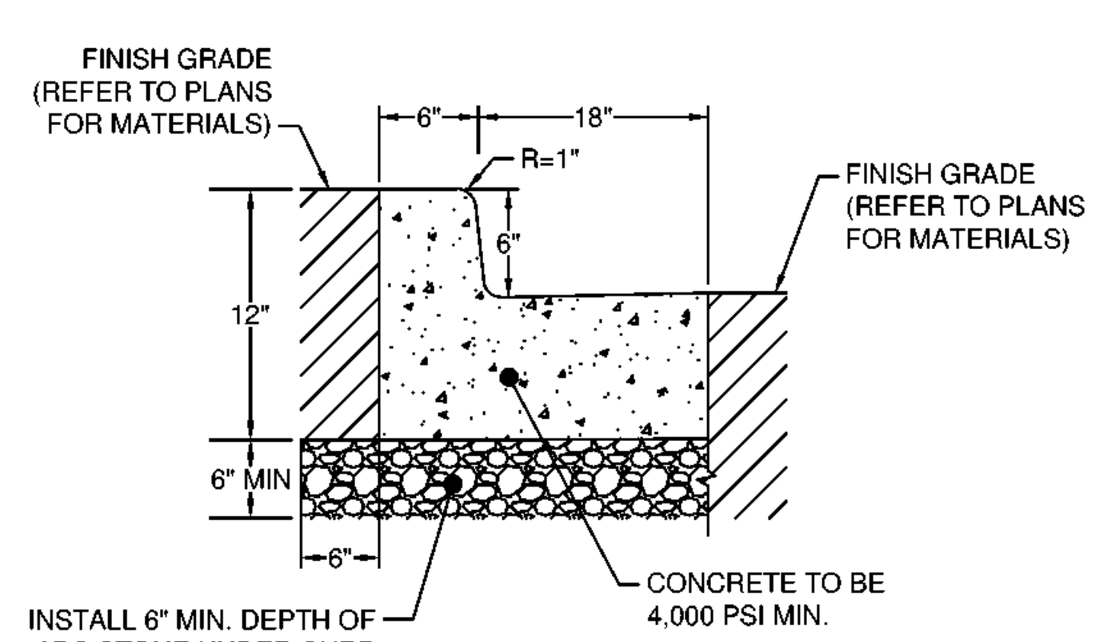
(5) PARKING STALL AND TRAFFIC STRIPE N.T.S.



CONTRACTION JOINT (PROFILE)



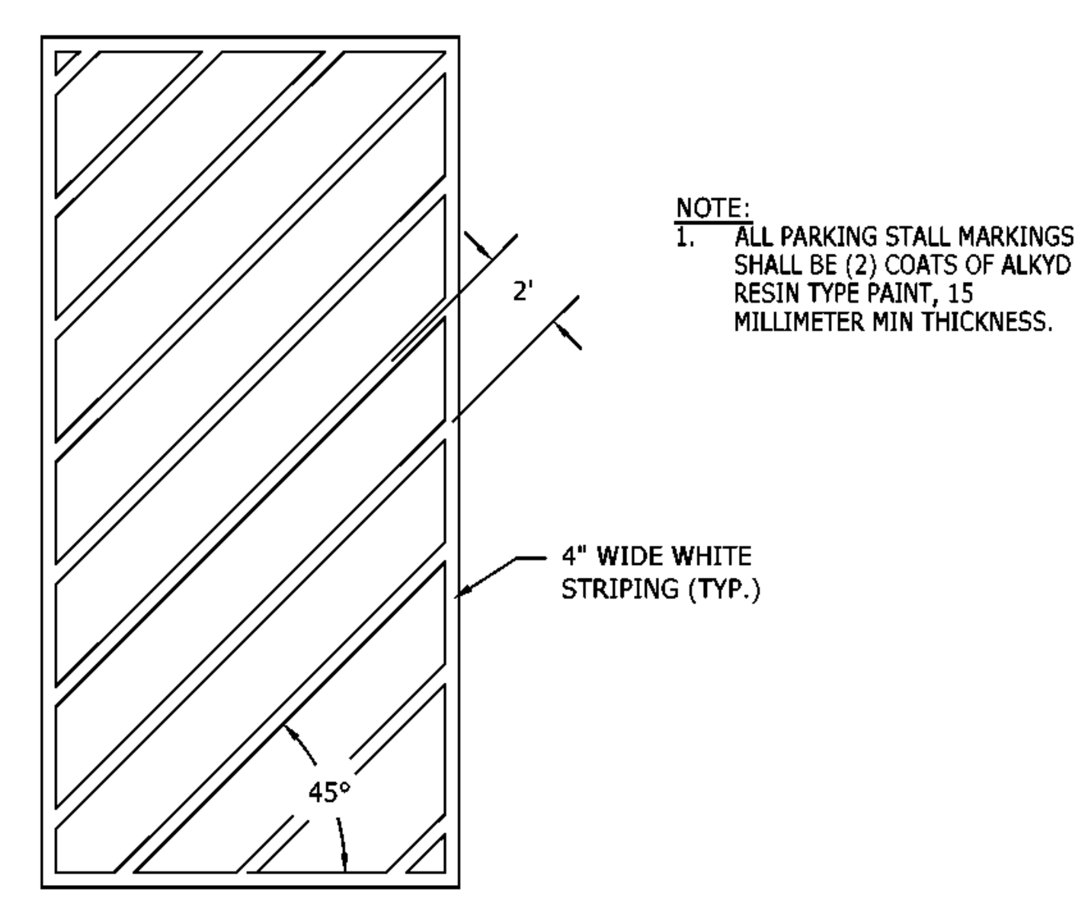
CONTRACTION JOINT (PLAN)



CURB & GUTTER (SECTION)

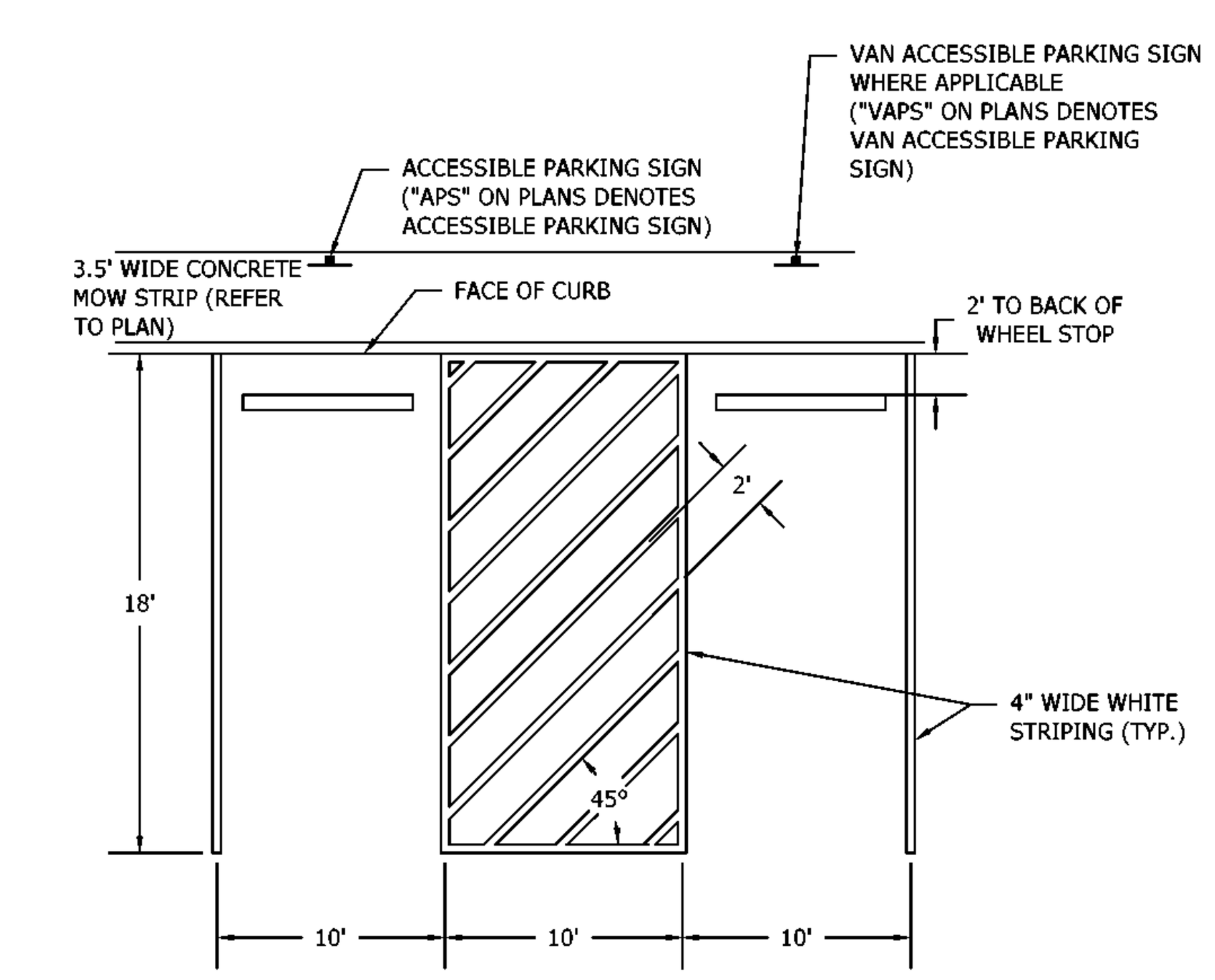
NOTES:
1. LOCATE CONTRACTION JOINTS 10' MAXIMUM APART IN CURB & GUTTER.
2. INSERT FIBERBOARD STRIPS INTO EACH CONTRACTION JOINT AND TOP WITH CAULK.
3. PROVIDE 1/8" RADIUS ON EACH SIDES OF JOINT.
4. REFER TO SPECIFICATION SECTION 32 13 13 FOR ADDITIONAL INFORMATION.

(6) 6" CONCRETE CURB & 18" GUTTER N.T.S.



NOTE:
1. ALL PARKING STALL MARKINGS SHALL BE (2) COATS OF ALKYD RESIN TYPE PAINT, 15 MILLIMETER MIN THICKNESS.

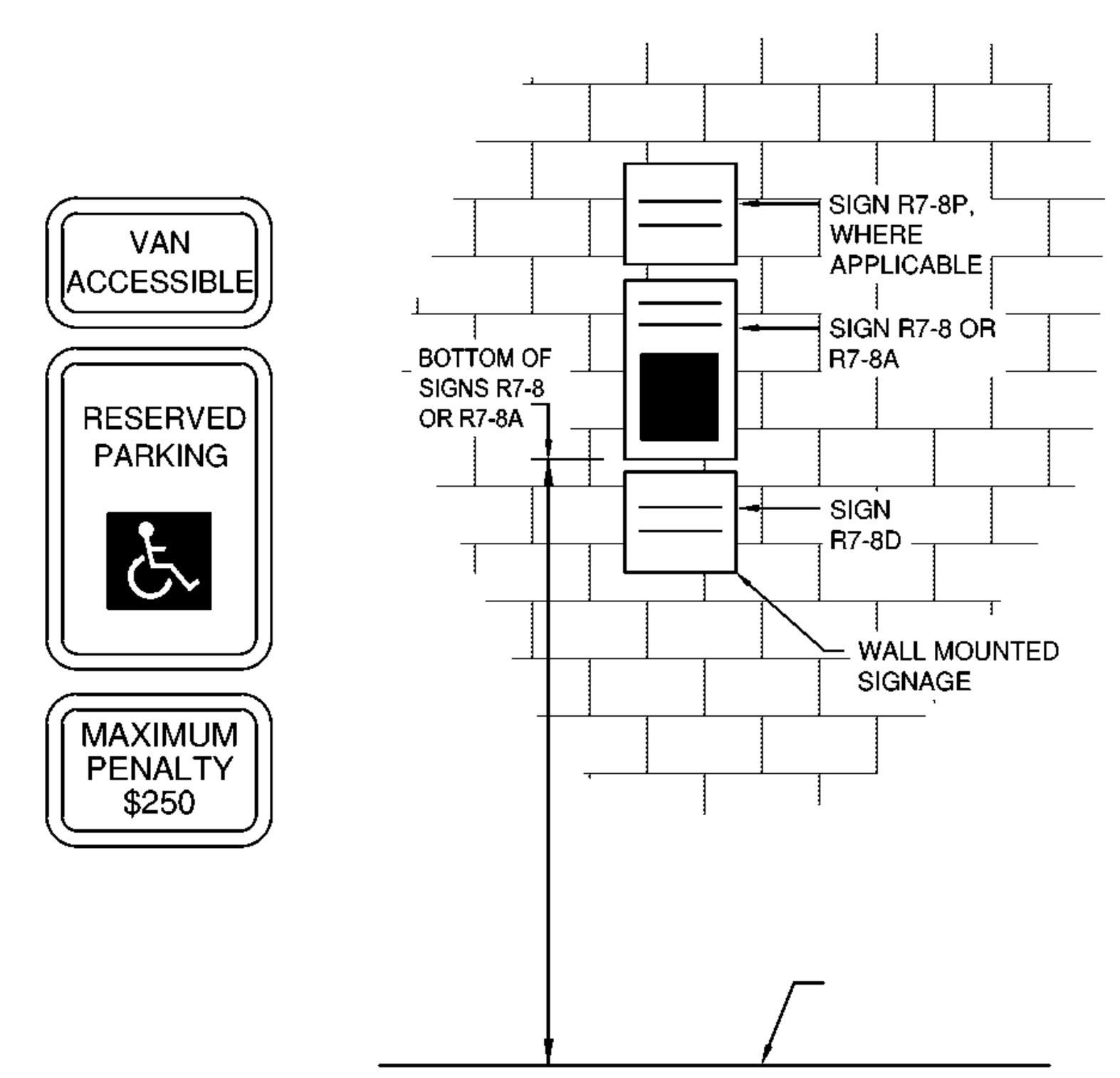
(7) DIAGONAL STRIPING N.T.S.



PLAN

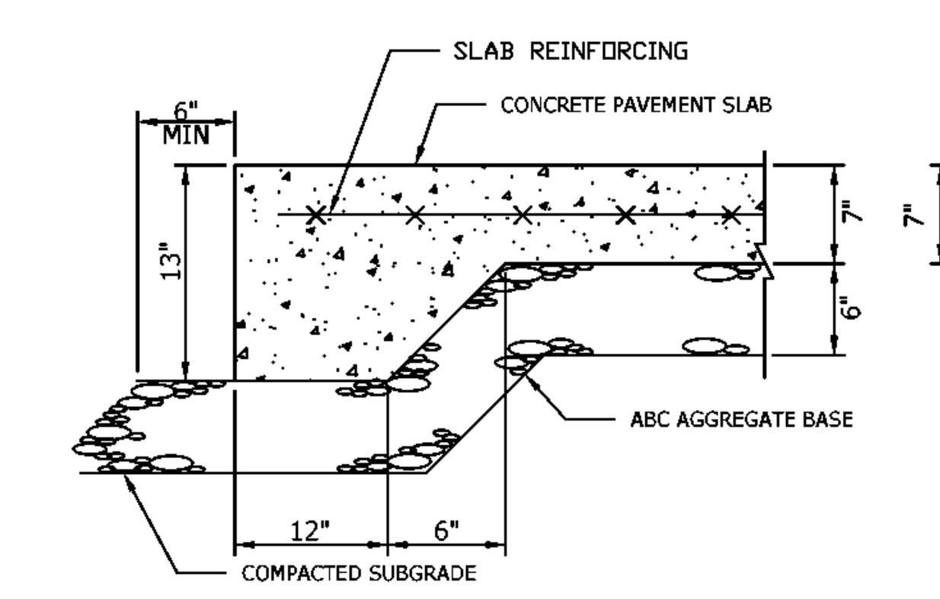
NOTE:
1. ALL PARKING STALL MARKINGS SHALL BE (2) COATS OF ALKYD RESIN TYPE PAINT, 15 MILLIMETER MIN THICKNESS.

(8) ACCESSIBLE PARKING LAYOUT N.T.S.

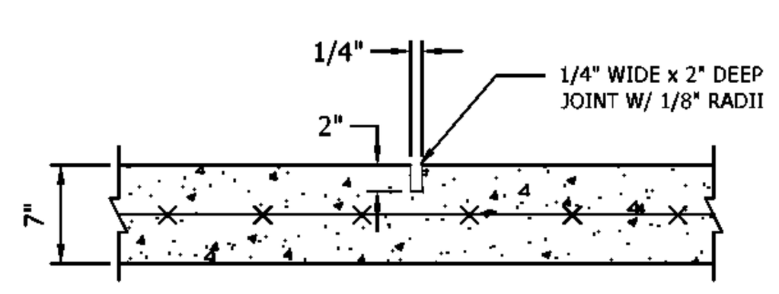


NOTES:
1. ALL SIGNS SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH LATEST MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, NCSBC AND ADA SPECIFICATIONS AND REQUIREMENTS.
2. ONLY INSTALL VAN-ACCESSIBLE SIGN R7-8P WHERE "VAPS" IS SHOWN IN PLAN

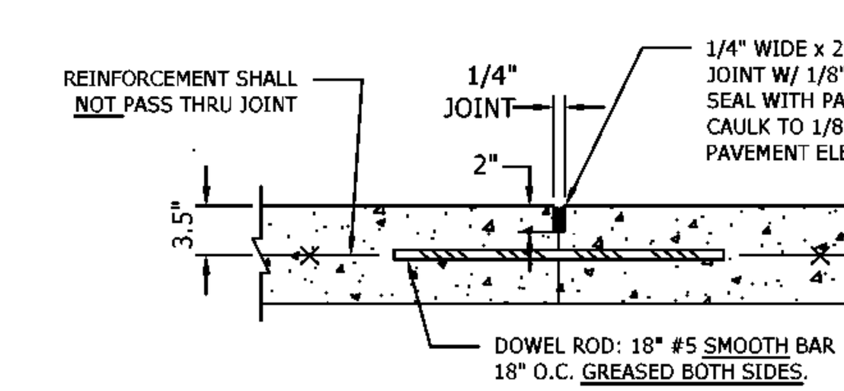
(9) WALL-MOUNTED ACCESSIBLE PARKING SIGNAGE N.T.S.



TYPICAL THICKENED EDGE



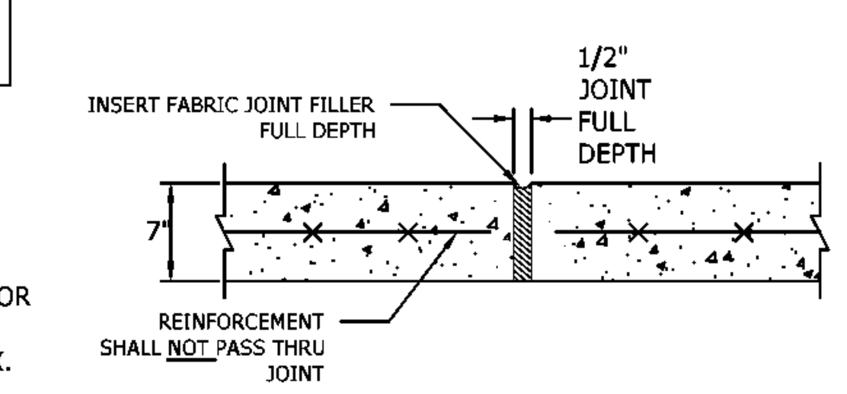
TYPICAL CONTROL JOINT



TYPICAL CONSTRUCTION JOINT

CONCRETE PAVEMENT DIMENSIONS

CONC SLAB THICKNESS = 7"
CABC THICKNESS = 6"
REINFORCEMENT = 6x6 - W2.9xW2.9
DOWEL RODS = 18" #5 SMOOTH BARS GREASED BOTH SIDES



TYPICAL EXPANSION JOINT

NOTES:
1. ALL CONCRETE PAVEMENT SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI MIN. (ASTM C39).
2. CONTROL JOINTS SHALL BE SPACED AT 10' O.C.E.W. MAX. OR AS INDICATED ON THE PLAN.
3. EXPANSION JOINTS SHALL BE SPACED AT 30' O.C.E.W. MAX. OR AS INDICATED ON THE PLAN AND WHERE CONCRETE PAVEMENT ABUTS ANY RIGID OBJECT.
4. INSTALL THICKENED EDGES ALONG ALL EDGES / SIDES OF CONCRETE PAVEMENT.
5. O.C.E.W. REFERS TO "ON CENTER EACH WAY".

(10) HEAVY DUTY CONCRETE PAVEMENT N.T.S.

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 033612 FRANCIS SLINSKY, III 10/16/24

BID DOCUMENTS

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Onslow County Senior Service Center
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

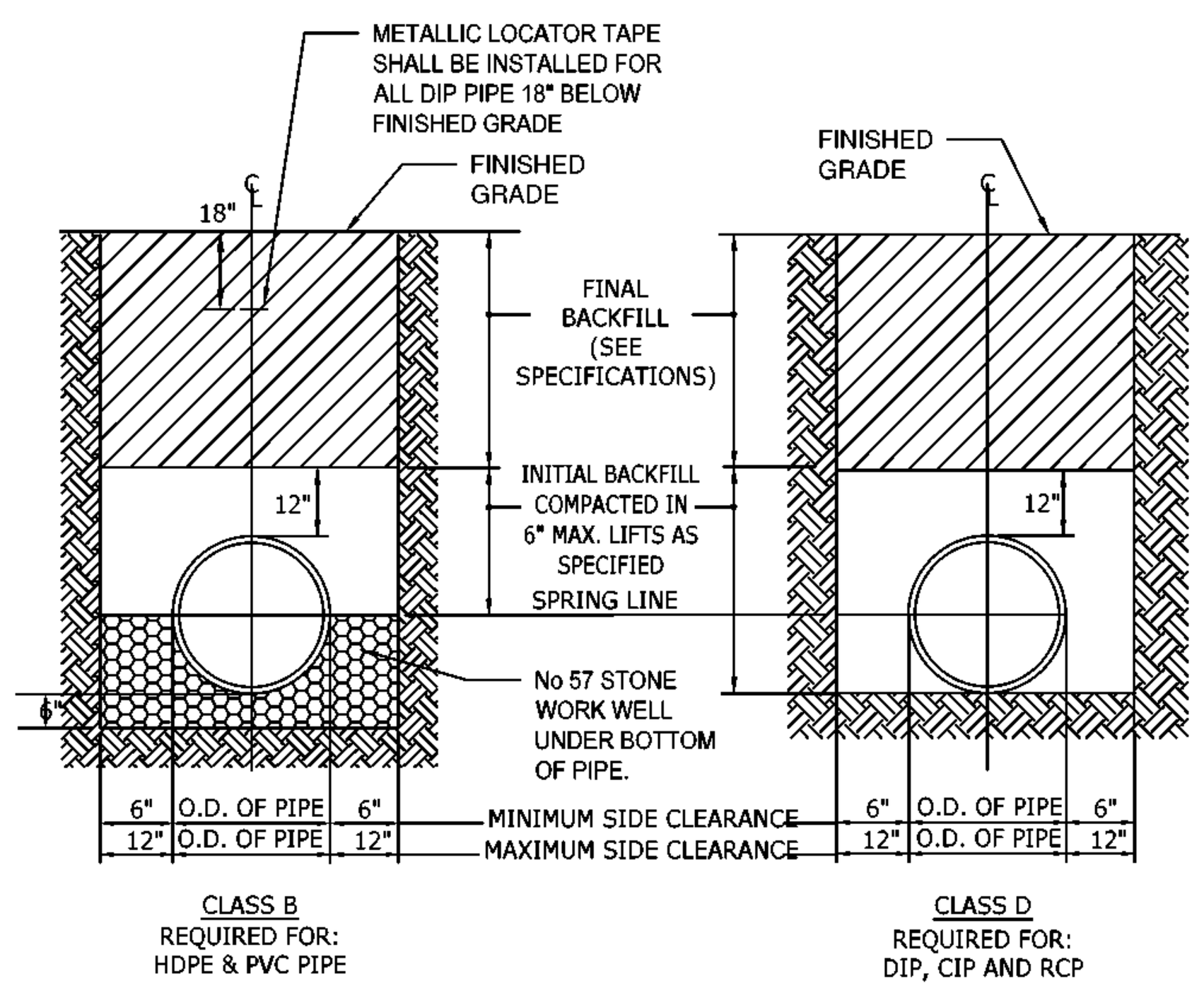
ID	DATE	DESCRIPTION

DRAWN BY: JL
CHECKED BY: FS

SITE DETAILS

2021029 OCT 16, 2024

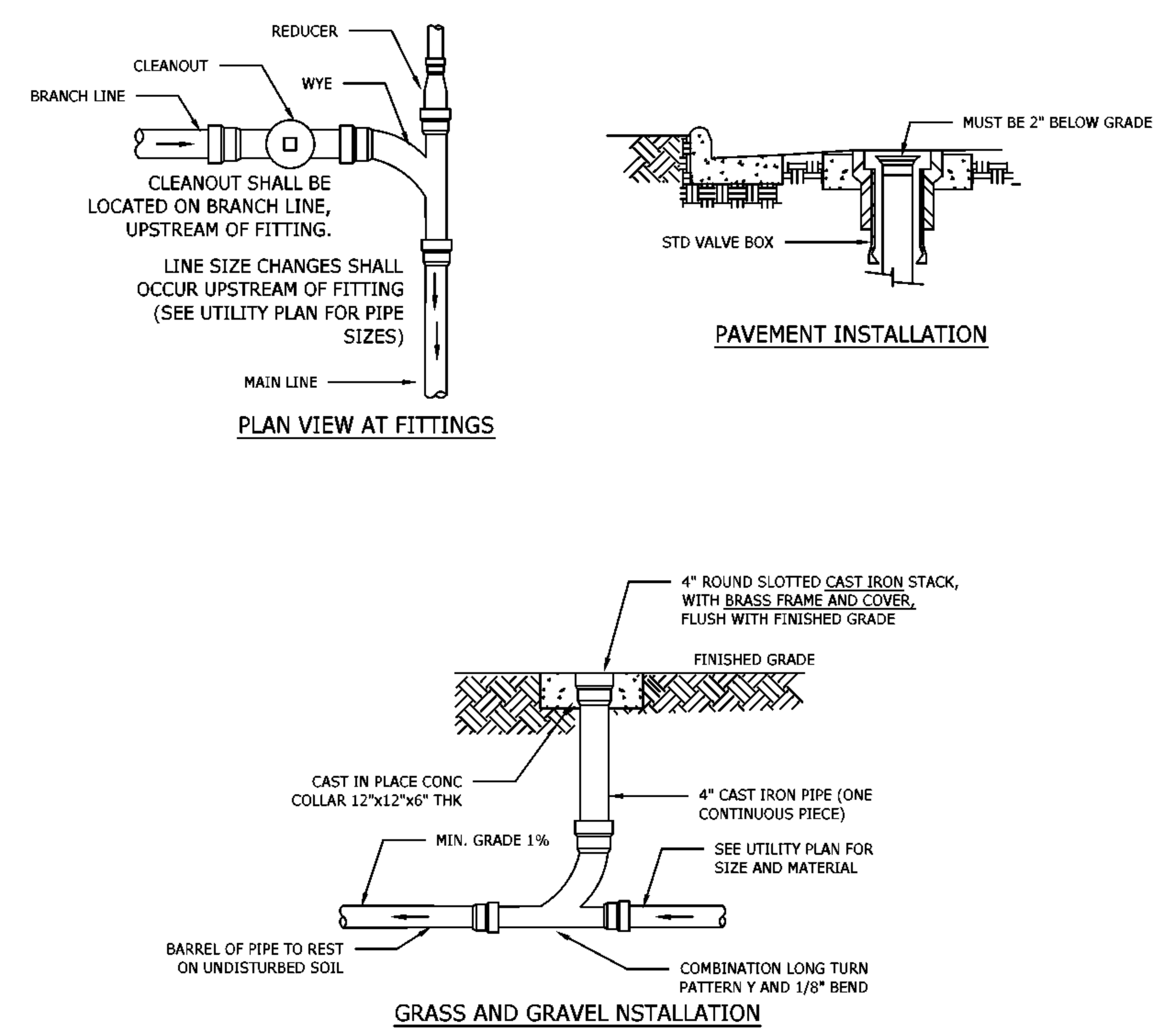
C4-01



NOTES

1. FOR TRENCHES REQUIRING SHORING AND BRACING, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SHORING AND BRACING.
2. NO ROCKS OR BOULDERS 4" OR LARGER TO BE USED IN INITIAL BACKFILL.
3. ALL BACKFILL MATERIAL SHALL BE SUITABLE NATIVE MATERIAL.
4. BACKFILL SHALL BE TAMPED IN 6" LAYERS.
5. IF ROCK IS ENCOUNTERED AT BOTTOM OF TRENCH, OVER EXCAVATE ROCK A MIN. OF 6"CHS AND BACK FILL WITH NO. 67 STONE TO THE BOTTOM OF PIPE.

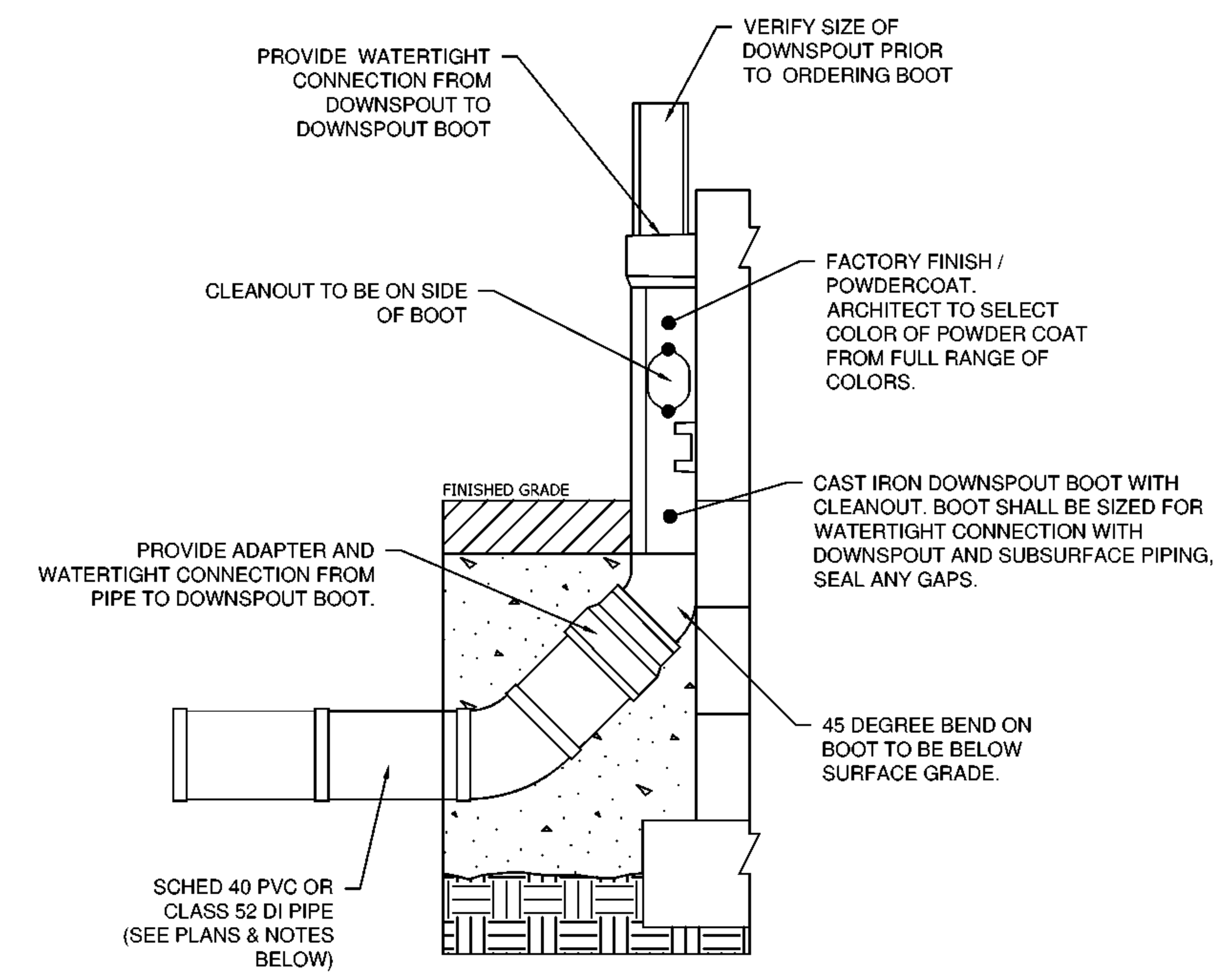
① TRENCH BOTTOM AND BACKFILLING REQUIREMENTS N.T.S.



NOTES

1. CLEANOUTS IN PAVEMENT SHALL BE INSTALLED INSIDE A VALVE BOX. WITH TOP OF CLEANOUT INSIDE 2" BELOW FINISH GRADE.
2. ALL CLEANOUTS SHALL HAVE SEWER OR STORM NOTED ON COVER AS APPLICABLE.
3. CLEANOUT COVERS SHALL BE BRASS.
4. CLEANOUTS IN GRASS, GRAVEL OR MULCH SHALL HAVE 12"X12"X6" CAST IN PLACE CONCRETE COLLAR FLUSH WITH FINISH GRADE.
5. ALL BACKFILL MATERIAL SHALL BE SUITABLE NATIVE MATERIAL. THE FULL LENGTH OF THE SERVICE DITCH SHALL BE COMPACTED IN 6" LAYERS WITH MECHANICAL TAMP.
6. RISER STACK IN GRASS SHALL BE 4" CAST IRON. PROVIDE REDUCING WYE AS NEEDED TO TRANSITION TO DIFFERING LATERAL PIPE SIZE.

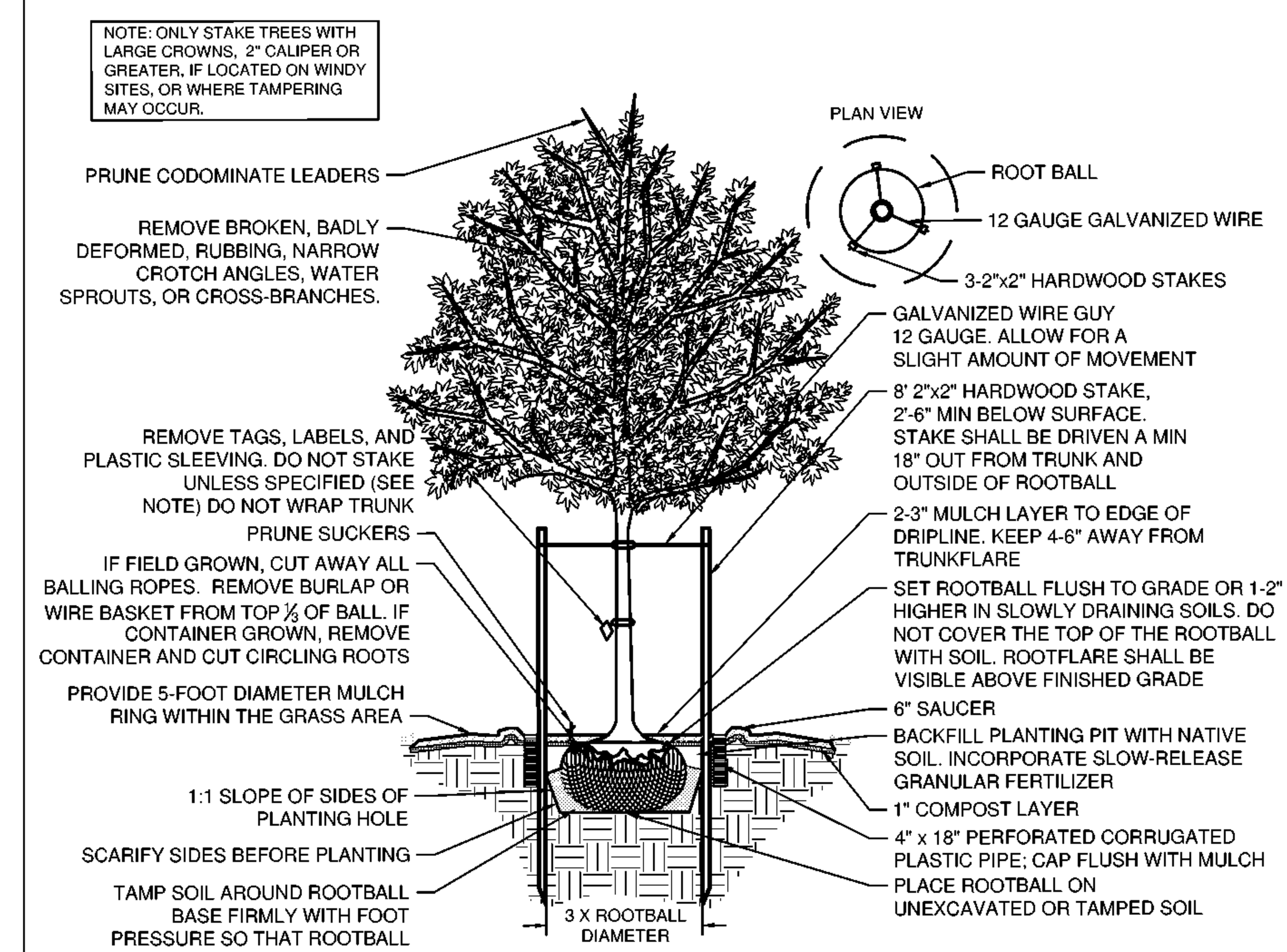
② STANDARD CLEANOUT N.T.S.



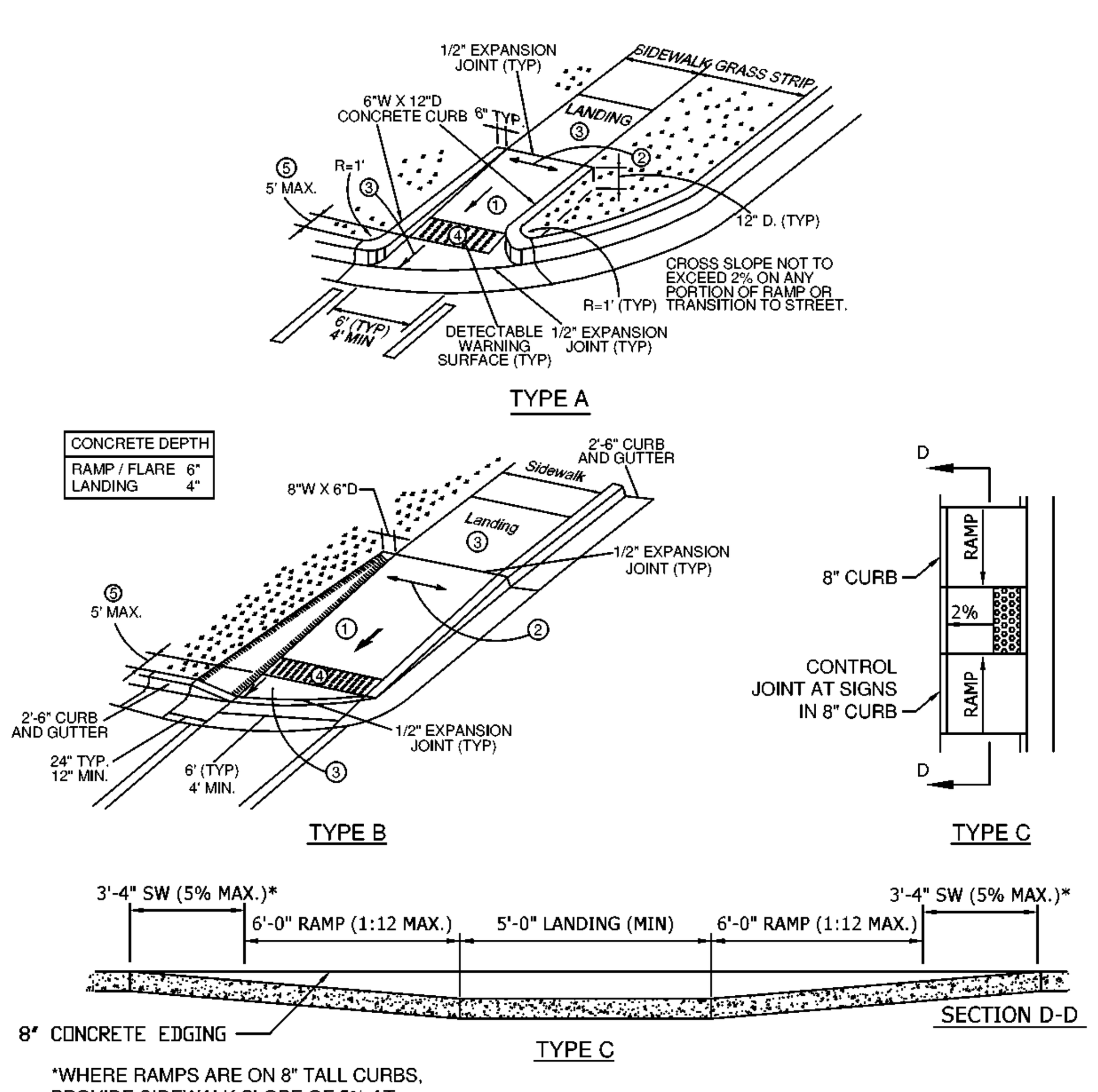
NOTES:

1. INSTALL CAST IRON DOWNSPOUT BOOT ON EXISTING DOWNSPOUT AND MOUNT SECURELY TO WALL.
2. FACTORY FINISH / POWDERCOAT BOOT TO MATCH COLOR OF DOWNSPOUT.
3. ALL BELOW GRADE ROOF DRAINAGE PIPING SHALL BE 6" PVC @ 1.0% MIN. SLOPE UNLESS NOTED OTHERWISE.
4. PIPE SHALL BE DIP WHEN LESS THAN 24" OF COVER IS PROVIDED.
5. VERIFY DOWNSPOUT DIMENSIONS MATCH BOOT DIMENSIONS PRIOR TO ORDERING BOOT OR ADAPTOR.
6. DESIGN BASED ON J.R. HOE SERIES. MODEL A-6632D WITH CLEANOUT (OR APPROVED EQUIVALENT) 6"X6" DOWNSPOUT WITH 6 7/8" OUTLET SHALL BE USED FOR BUILDING DOWNSPOUTS. MODEL A-3432B WITH A 4 7/8" OUTLET SHALL BE USED FOR PREFABRICATED WALKWAY COVERING DOWNSPOUTS.

③ DOWNSPOUT BOOT N.T.S.



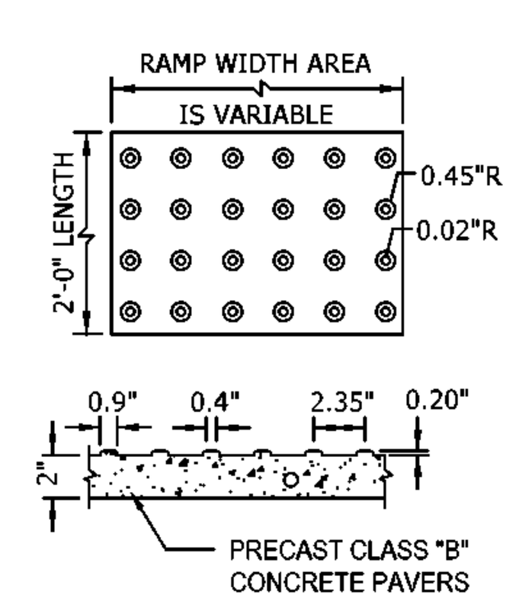
④ TREE PLANTING DETAIL N.T.S.



*WHERE RAMPS ARE ON 8" TALL CURBS, PROVIDE SIDEWALK SLOPE OF 5% AT END OF RAMP

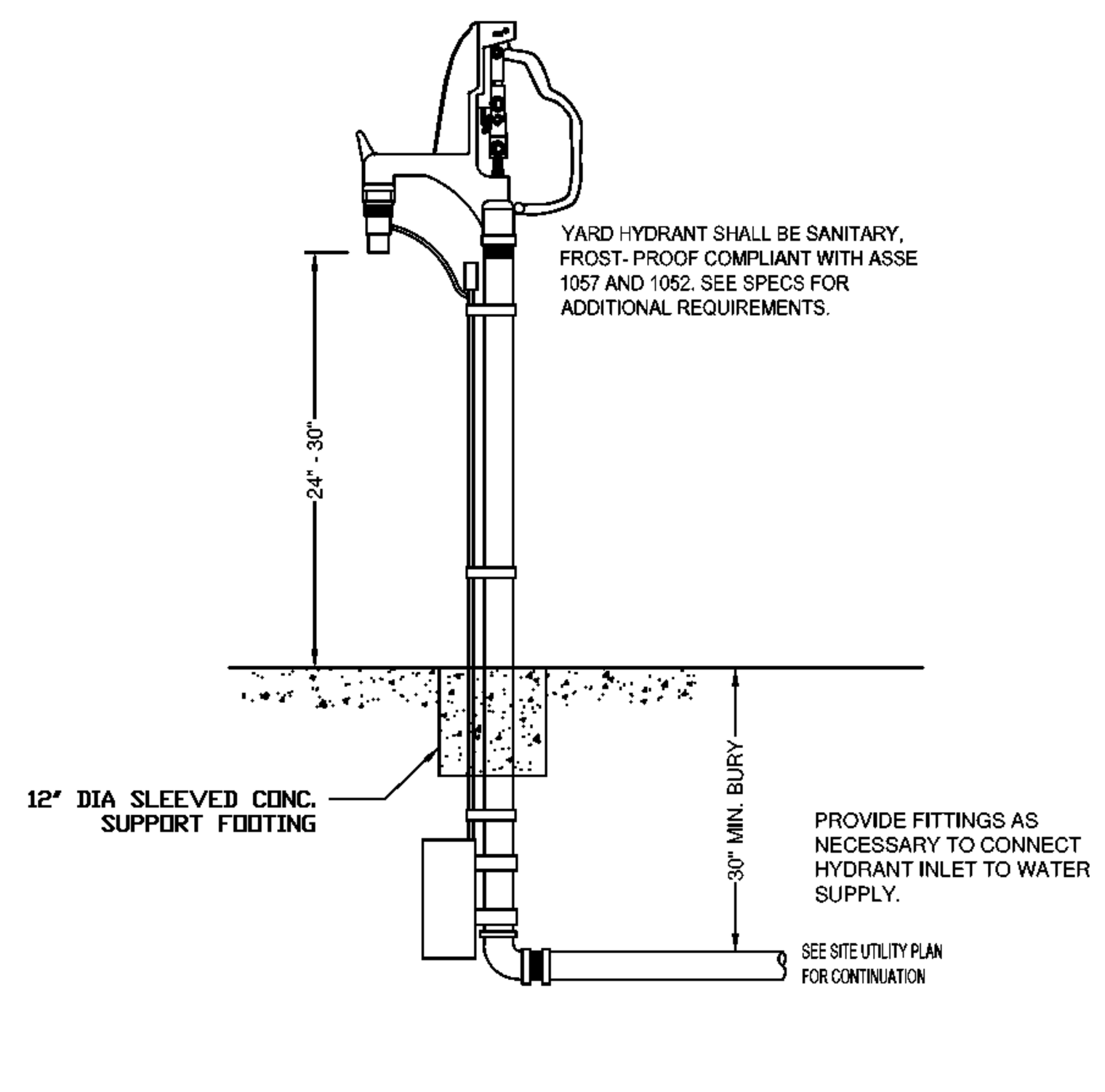
NOTES:

① 8.33% (12:1) MAX RAMP SLOPE
② CROSS SLOPE: 2.00%
③ CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.
④ RAMPS AND DOMES SHALL BE INSTALLED THE SAME WIDTH AS THE SIDEWALK. DETECTABLE WARNING DOMES SHALL COVER 2'-0" LENGTH OF THE RAMP.
⑤ IF LENGTH EXCEEDS 5', TRUNCATED DOMES SHALL BE INSTALLED ALONG THE BACK OF THE CURB COVERING THE FULL WIDTH OF THE RAMP.

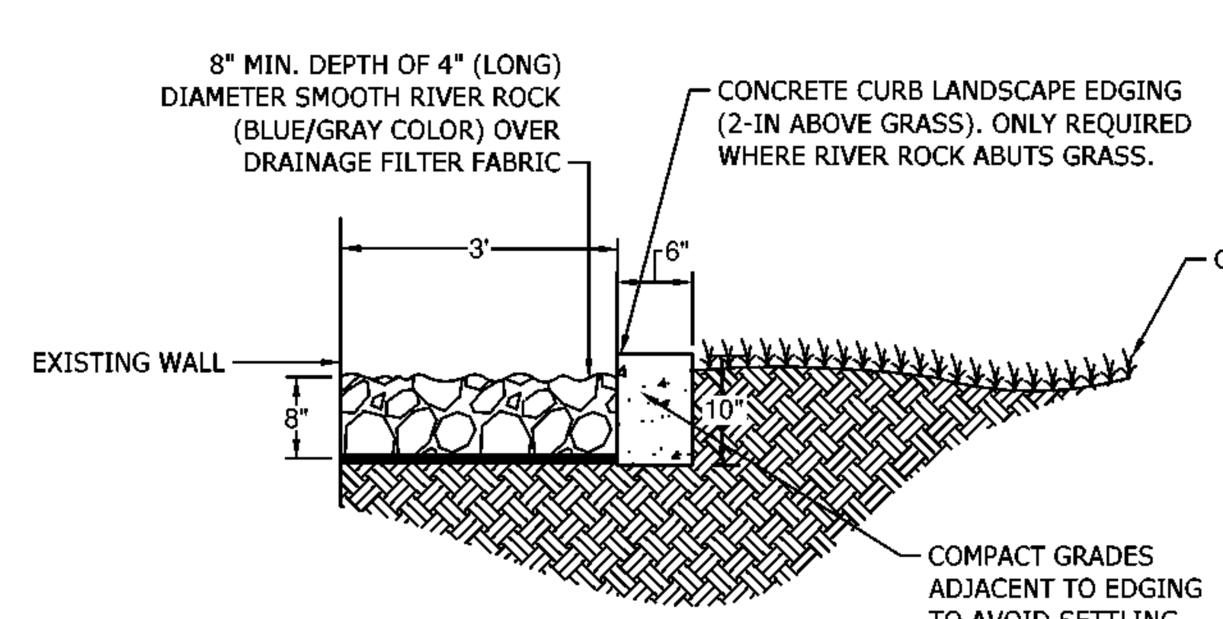


DETECTABLE WARNING DOMES

⑤ ACCESSIBLE CURB RAMP N.T.S.



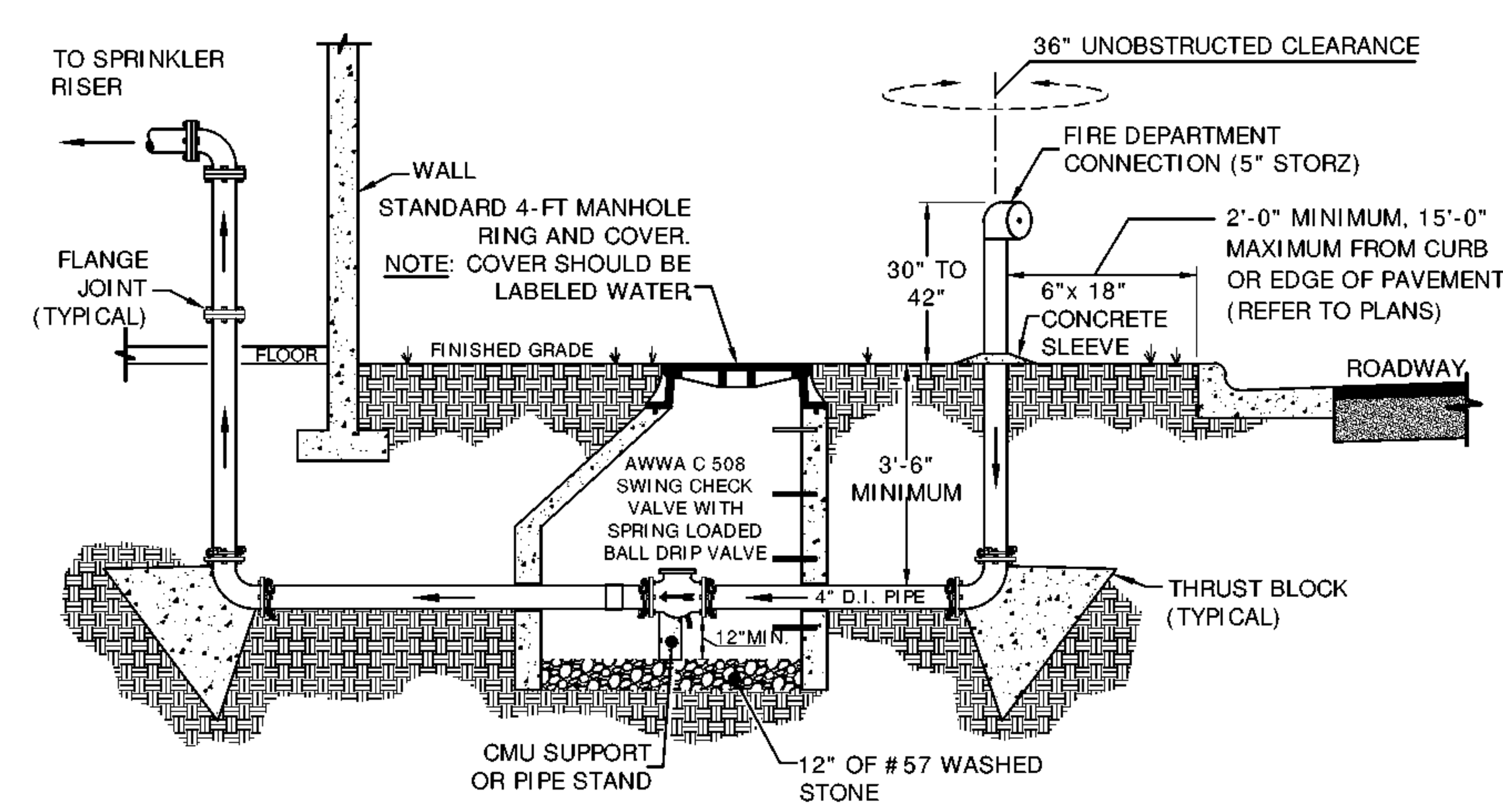
⑥ 3/4" FREEZE PROOF YARD HYDRANT N.T.S.



NOTES:

1. INSTALL CONCRETE EDGING IN A CONTINUOUS LINE EXCEPT WHERE DRAINAGE BREAKS ARE SHOWN ON PLANS.
2. PROVIDE 2" CONTROL JOINTS EVERY 8 LF.

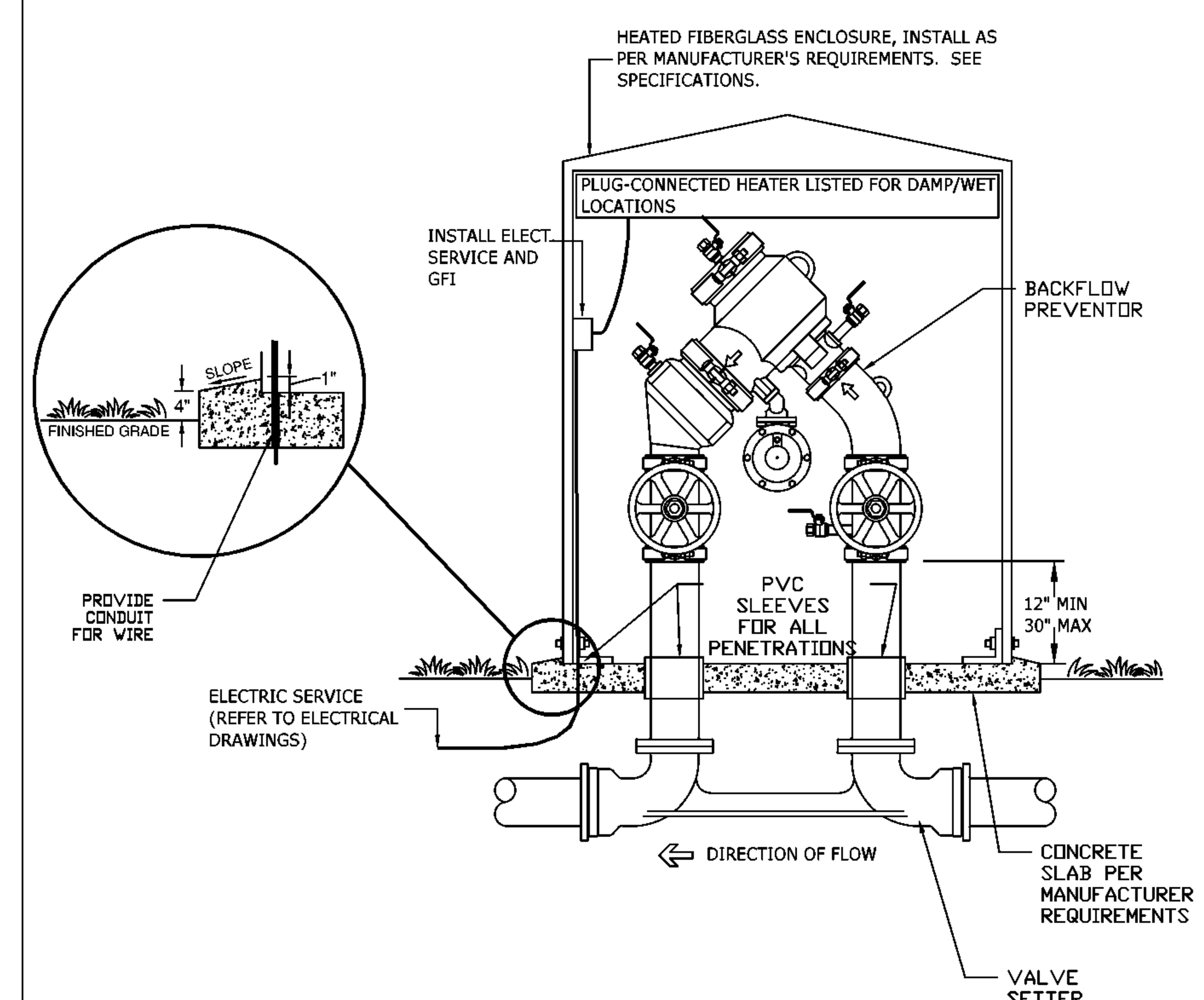
⑦ RIVER ROCK WITH CONCRETE EDGING N.T.S.



NOTES:

1. STORZ FIRE DEPARTMENT CONNECTION MUST BE WITHIN 50 FEET OF A FIRE HYDRANT.
2. TWO 3/4 INCH STAINLESS STEEL RODS ON EACH PIPE SEGMENT MAY BE SUBSTITUTED FOR WEDGE ACTION RESTRAINTS.
3. SPRING LOADED BALL DRIP VALVE SHALL BE INSTALLED VERTICALLY IN FRONT OF CHECK VALVE DISC. AN ADDITIONAL FITTING MAY BE REQUIRED SO THAT DRIP VALVE IS VERTICAL.

⑧ FIRE DEPARTMENT CONNECTION AND WATER MANHOLE N.T.S.



NOTES:

1. SIZE ENCLOSURE AND HEATERS BASED ON SIZE OF THE BACKFLOW PREVENTER PER MANUFACTURER RECOMMENDATIONS.
2. PROVIDE COMPLETE ASSEMBLY IN ACCORDANCE WITH ONSLOW COUNTY WATER AUTHORITY STANDARDS OR INSPECTION POLICY. COORDINATE WITH WATER AUTHORITY IN ADVANCE OF CONSTRUCTION.
3. REDUCED PRESSURE PRINCIPAL ASSEMBLY (RP) SHALL BE WILKINS MODEL 475 OR APPROVED EQUAL.
4. ALL BACKFLOW PREVENTERS SHALL BE AS LISTED AS APPROVED BY THE ONSLOW COUNTY ENGINEERING DEPARTMENT.
5. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS OF BACKFLOW PREVENTER, VALVES, ENCLOSURE, ETC.
6. HEATING DEVICE AND POWER LINES BY G.C., SHALL BE LISTED FOR DAMP/WET LOCATIONS.
7. PROVIDE PVC SLEEVES AT ALL PIPE AND WIRE PENETRATIONS OF CONCRETE BASE SLAB.
8. REFER TO ELECTRICAL PLANS FOR TAMPER SWITCHES AND LOW TEMPERATURE DEVICE INFORMATION.

⑨ 6" RPZ BACKFLOW PREVENTER & HOT BOX (FIRE PROTECTION) N.T.S.

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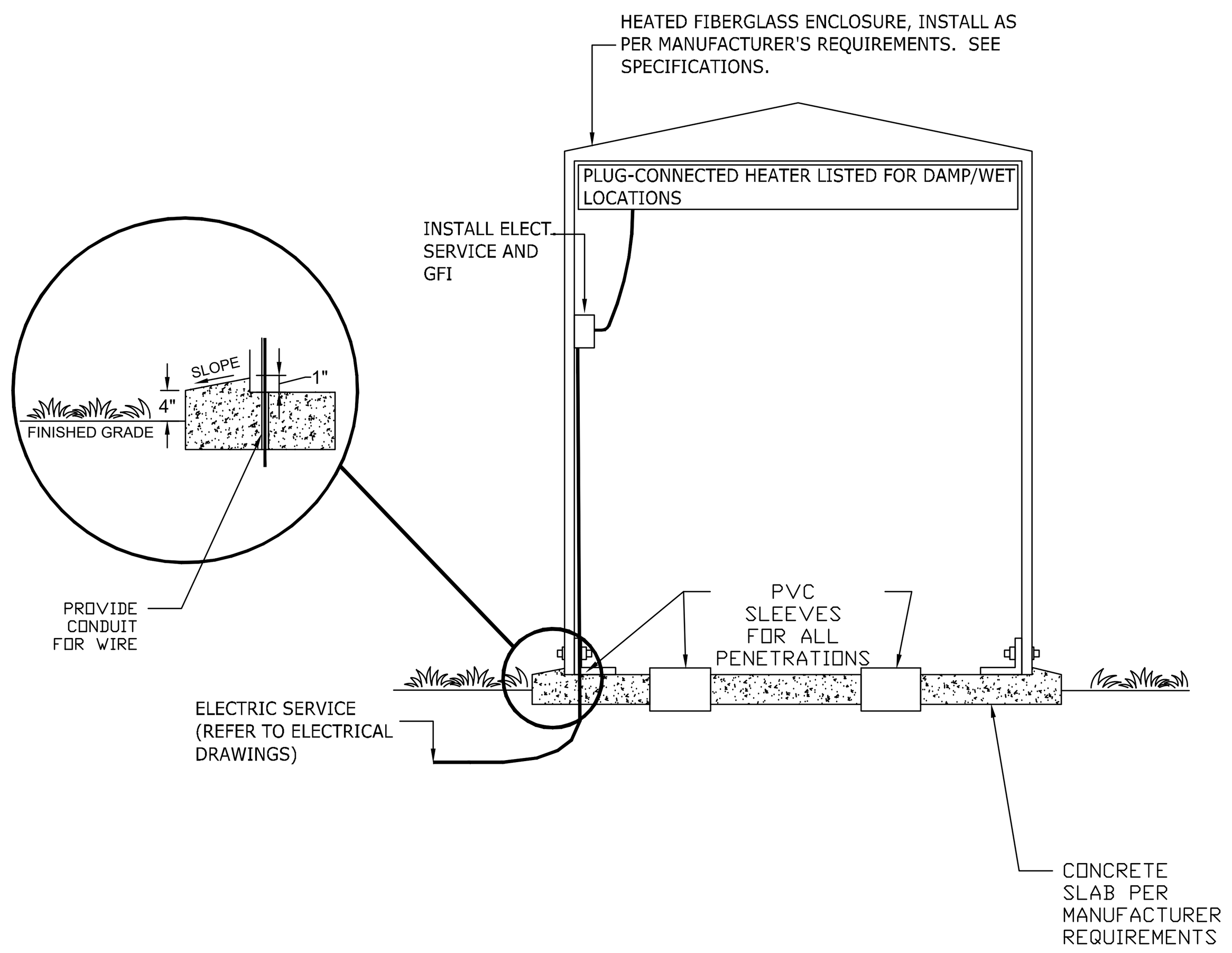

NOTES:

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2. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS OF BACKFLOW PREVENTER, VALVES, ENCLOSURE, ETC.
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5. REFER TO ELECTRICAL PLANS FOR TAMPER SWITCHES AND LOW TEMPERATURE DEVICE INFORMATION.

1 HOT BOX FOR BACKFLOW PREVENTER N.T.S.

TEMPORARY SEED SCHEDULE (Aug 15 - May 1)

GRASS SPECIES BLEND	PLANTING RATE	MIN. % PURE SEED	MAX. % WEED SEED
RYE GRAIN	120-LBS PER 1-ACRE	85%	1%
ANNUAL LESPEDEZA (KOBE)	50-LBS PER 1-ACRE		

TEMPORARY SEED SCHEDULE (May 1 - Aug 15)

GRASS SPECIES BLEND	PLANTING RATE	MIN. % PURE SEED	MAX. % WEED SEED
GERMAN MILLET	60-LBS PER 1-ACRE	85%	1%

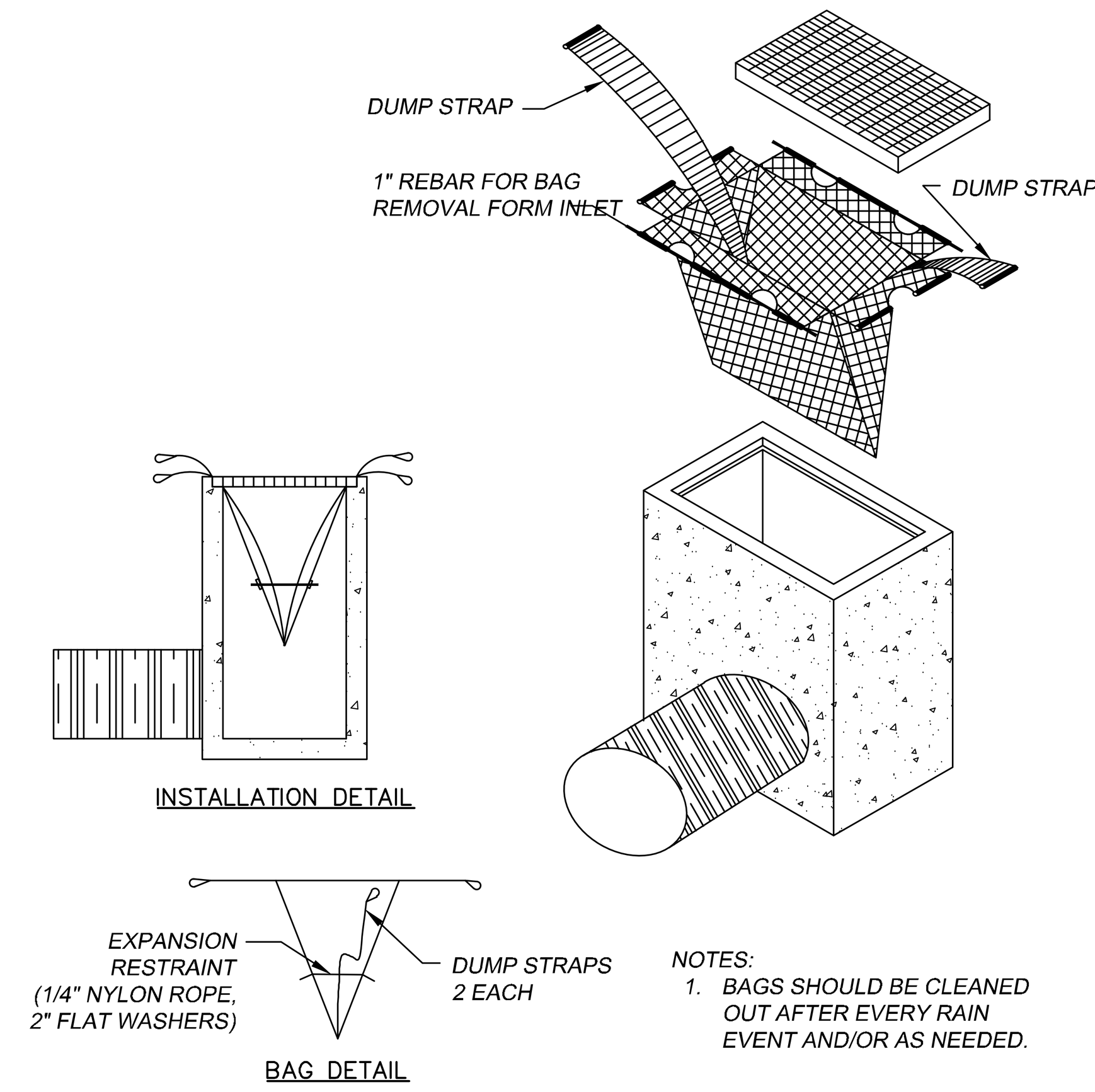
PERMANENT SEED SCHEDULE (MARCH 1 - JULY 31)

GRASS SPECIES BLEND	PLANTING RATE	MIN. % PURE SEED	MAX. % WEED SEED
100% CENTIPEDE GRASS (EREMOCHLOA OPHIUROIDES)	40-LBS PER 1-ACRE	95%	LESS THAN 1%

NOTES:

1. ENSURE SOIL COMPACTION REQUIREMENTS ARE MET PRIOR TO SEEDING. MINIMUM COMPACTION REQUIRED IS 95% OF THE STANDARD PROCTOR DENSITY FOR SLOPES UP TO 5%. MINIMUM COMPACTION REQUIRED IS 90% MAXIMUM DRY DENSITY ELSEWHERE INCLUDING ON SLOPES 4:1 OR STEEPER. REFER TO SPECIFICATION SECTION 31 20 00.
2. SOIL AMENDMENTS: DO NOT ADD LIME FOR CENTIPEDE GRASS. 750-LBS/ACRE 10-10-10 FERTILIZER TO THE SOIL BEFORE SEEDING.
3. MULCH: APPLY 4,000-LBS/ACRE STRAW OVER SEED. ANCHOR STRAW MULCH BY CRIMPING INTO TOPSOIL BY SUITABLE MECHANICAL EQUIPMENT.
4. HYDROSEED ALL SLOPES 3:1 OR STEEPER.
5. PROTECT SEEDED AREAS 3:1 SLOPE/GRADE OR STEEPER AGAINST EROSION BY PROVIDING EROSION-CONTROL BLANKETS INSTALLED AND STAPLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
6. PROTECT SEEDED AREAS LESS THAN 3:1 SLOPE/GRADE AGAINST EROSION BY SPREADING STRAW MULCH AFTER COMPLETION OF SEEDING OPERATIONS. SPREAD UNIFORMLY AT A MINIMUM RATE OF 2 TONS PER ACRE TO FORM A CONTINUOUS BLANKET 1-1/2 INCHES LOOSE DEPTH OVER SEEDED AREAS. SPREAD BY HAND, BLOWER, OR OTHER SUITABLE EQUIPMENT.
7. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS AS NEEDED.
8. SATISFACTORY LAWN: SEEDED LAWNS SHALL BE CONSIDERED SATISFACTORY/ACCEPTABLE PROVIDED REQUIREMENTS, INCLUDING MAINTENANCE, HAVE BEEN MET AND A HEALTHY, UNIFORM, CLOSE STAND OF GRASS IS ESTABLISHED, FREE OF WEEDS, BARE SPOTS EXCEEDING 5 BY 5 INCHES AND SURFACE IRREGULARITIES.

2 GRASS SEEDING SCHEDULE AND NOTES N.T.S.

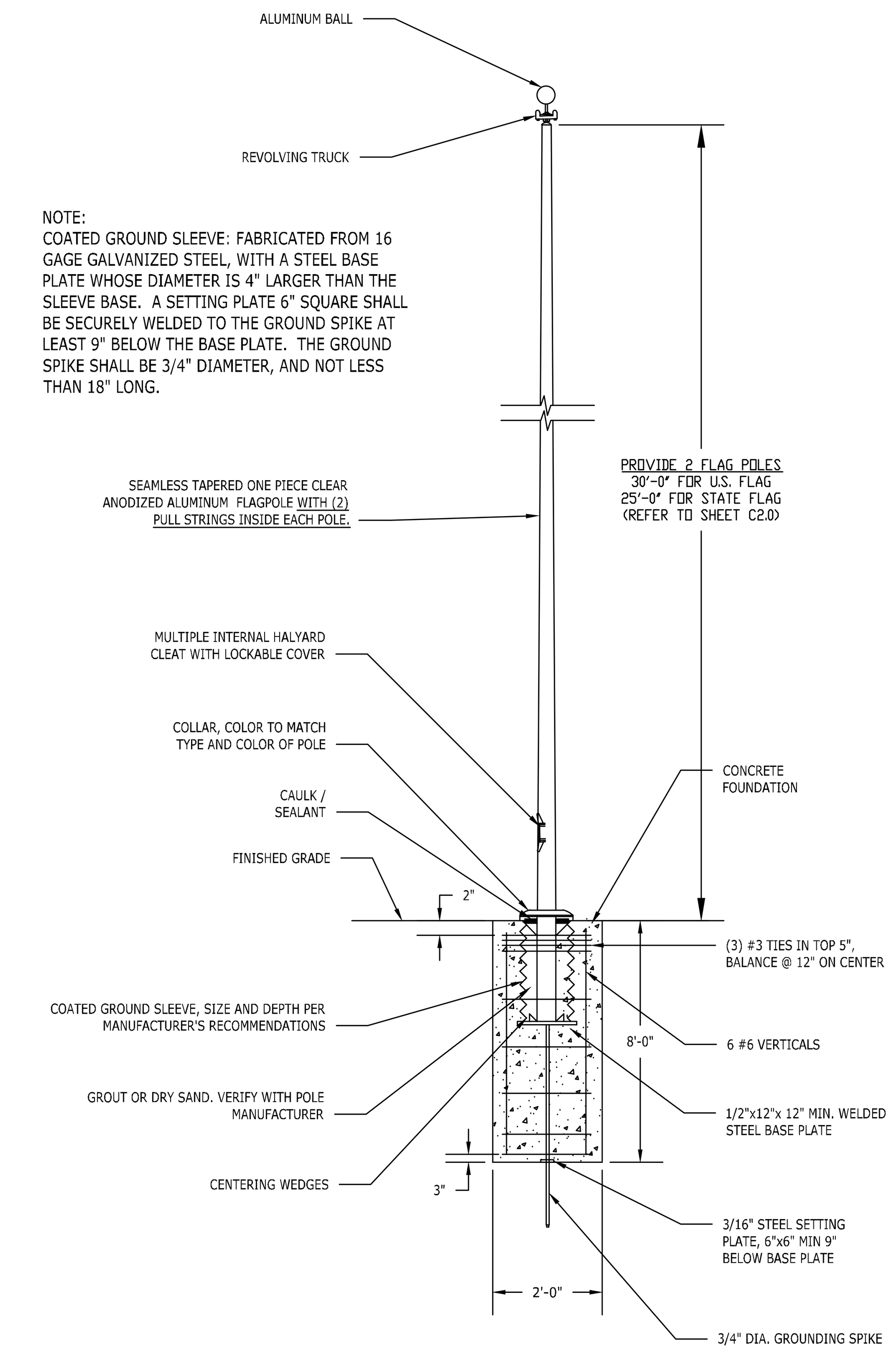


NOTES:

1. *BAGS SHOULD BE CLEANED OUT AFTER EVERY RAIN EVENT AND/OR AS NEEDED.*

3 SILT BAG INLET PROTECTION N.T.S.

NOTE:
COATED GROUND SLEEVE: FABRICATED FROM 16 GAGE GALVANIZED STEEL, WITH A STEEL BASE PLATE WHOSE DIAMETER IS 4" LARGER THAN THE SLEEVE BASE. A SETTING PLATE 6" SQUARE SHALL BE SECURELY WELDED TO THE GROUND SPIKE AT LEAST 9" BELOW THE BASE PLATE. THE GROUND SPIKE SHALL BE 3/4" DIAMETER, AND NOT LESS THAN 18" LONG.



4 FLAG POLE N.T.S.

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NORTH CAROLINA PROFESSIONAL SEAL 033612 ENGINEER FRANCIS SLINSKY, III 10/16/24

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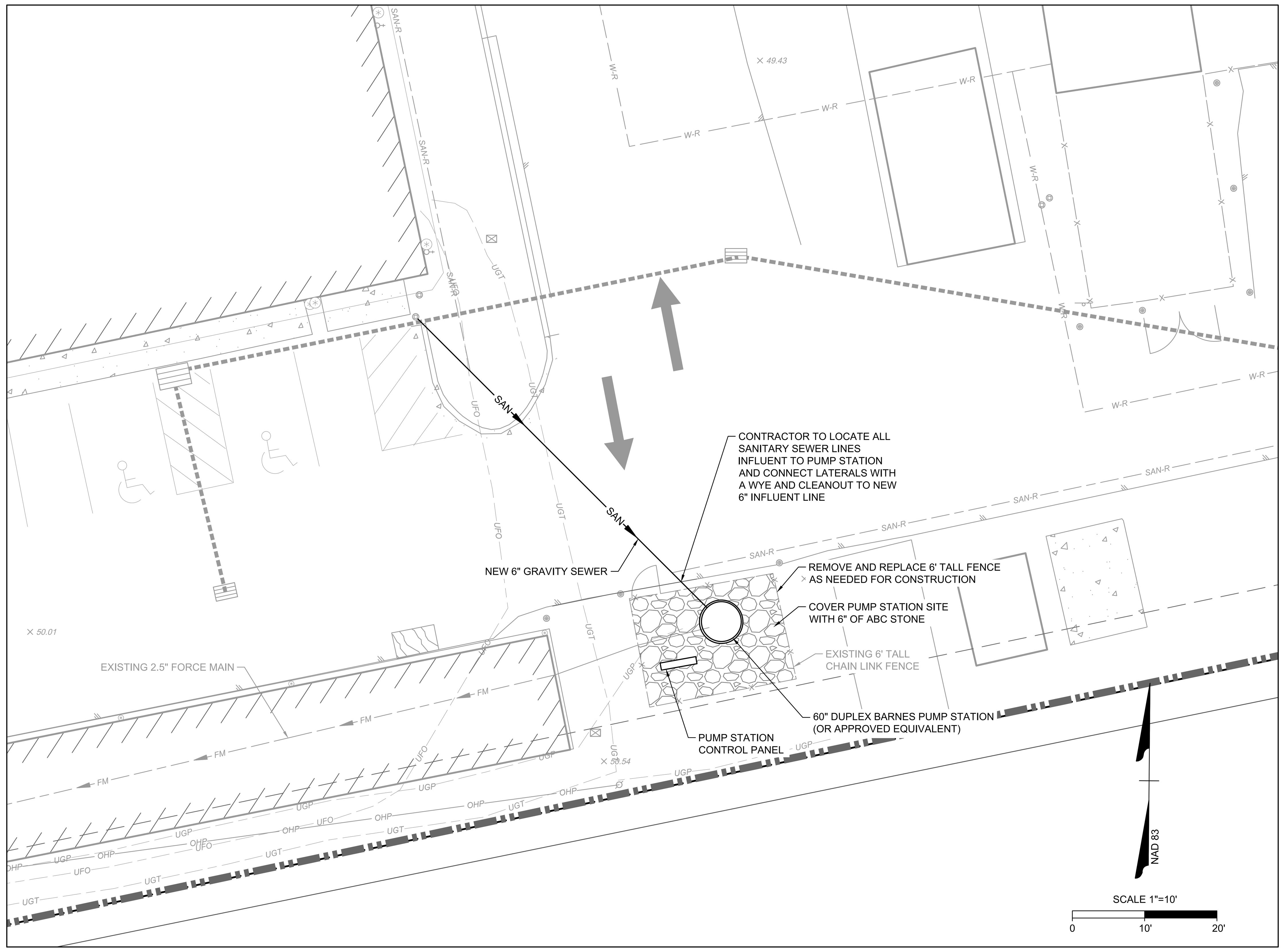


CONTRACTOR TO LOCATE ALL SANITARY SEWER LINES INFLUENT TO PUMP STATION AND CONNECT LATERALS WITH A WYE AND CLEANOUT TO NEW 6" INFLUENT LINE
NEW 6" GRAVITY SEWER
REMOVE AND REPLACE 6' TALL FENCE AS NEEDED FOR CONSTRUCTION
COVER PUMP STATION SITE WITH 6" OF ABC STONE
EXISTING 6' TALL CHAIN LINK FENCE
EXISTING 2.5" FORCE MAIN
60" DUPLEX BARNES PUMP STATION (OR APPROVED EQUIVALENT)
PUMP STATION CONTROL PANEL
NAD 83
SCALE 1"=10'
0
10'
20'

PUMP STATION SITE
SCALE: 1" = 10'

DESIGN CRITERIA:

1. THE PUMP STATION IS NOT LOCATED WITHIN THE 100-YR FLOODPLAIN ACCORDING TO FEMA FIRM MAP 3720435700J EFF. 11/03/2005.
2. THE ONSLOW SENIOR CENTER PUMP STATION SERVES THE ONSLOW SENIOR SERVICE CENTER, AN EMS STATION DOUBLE WIDE TRAILER, A FARMER'S MARKET, AND A PLANT CLINIC. ONWASA HAS WATER METER DATA RECORDS FOR THE THESE THREE BUILDINGS SHOWING AVERAGE FLOWS OF 2,448 GPD. WITH A 4.0 PEAKING FACTOR, THE PEAK INFLUENT RATE TO THE PUMP STATION IS ESTIMATED TO BE 6.8 GPM. THE STATION WILL BE A DUPLEX BARNES GRINDER PUMP STATION (OR APPROVED EQUAL), AND WILL CONNECT TO AN EXISTING 2-1/2 INCH FORCE MAIN, WHICH DISCHARGES TO AN EXISTING MANHOLE ON NW CORRIDOR BLVD THAT IS 425 LF SOUTH WEST OF THE INTERSECTION OF NW CORRIDOR BLVD AND ORMOND BARBEE CT.
3. PUMP STATION FLOW IS HANDLED BY A SINGLE, 3 HP BARNES SUBMERSIBLE GRINDER PUMP OR APPROVED EQUIVALENT OPERATING AT THE RATE SHOWN BELOW. A SECOND BARNES PUMP IS PROVIDED FOR REDUNDANCY.
4. THE DESIGN PUMPING RATE IS 32 GPM AT 52' TDH.

PUMP STATION NOTES:

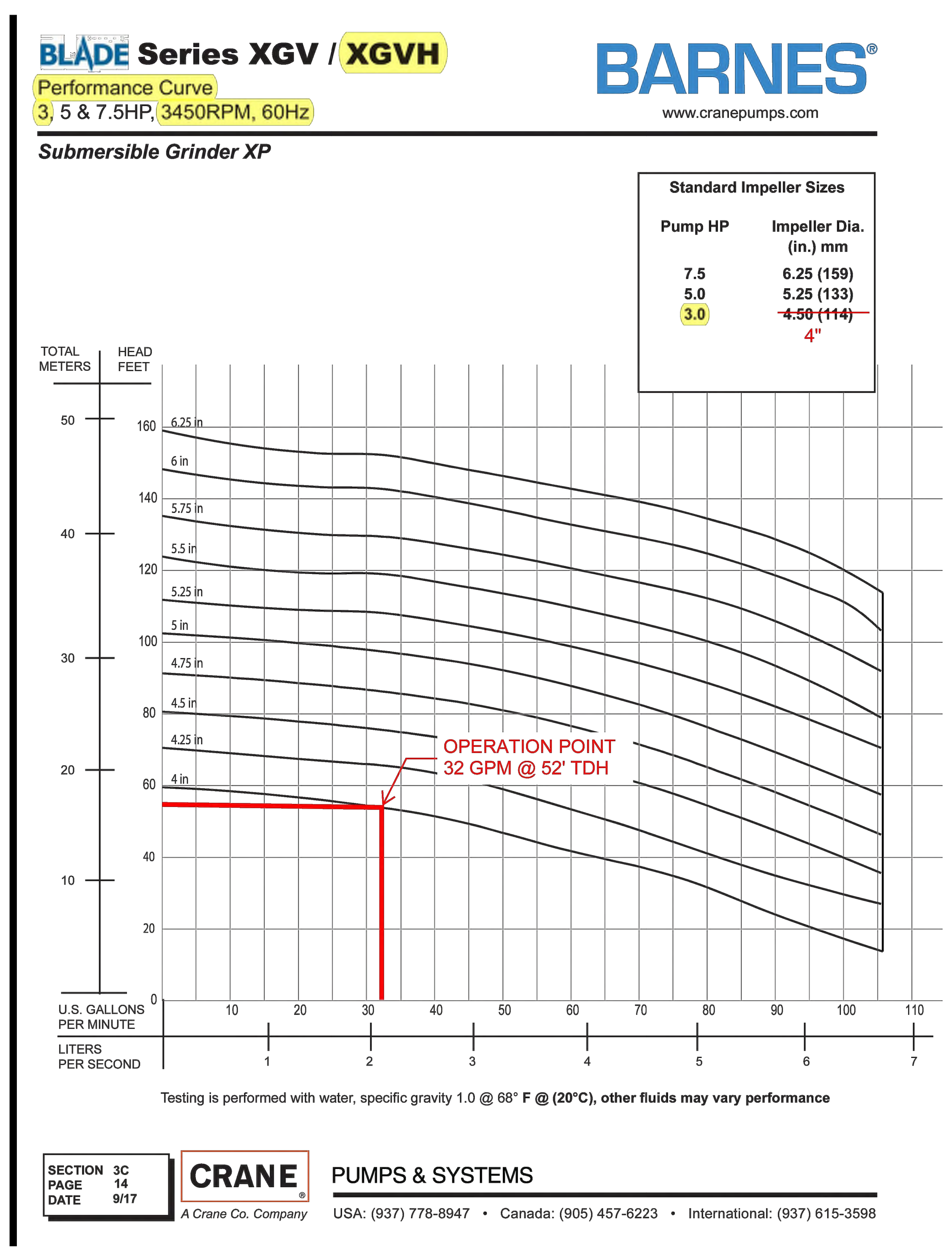
1. ALL PUMP STATION COMPONENTS SHALL BE SUPPLIED BY ONE MANUFACTURER: BARNES OR APPROVED EQUIVALENT. CONTRACTOR TO CONTACT MANUFACTURER FOR ANY SELECTIONS NOT SHOWN IN PLANS.
2. CONTRACTOR TO MAINTAIN A DRY EXCAVATION UNTIL ALL BACKFILLING IS COMPLETED.
3. CONTRACTOR TO ENSURE POSITIVE DRAINAGE AWAY FROM PUMP STATION.
4. CONTRACTOR TO FOLLOW PUMP MANUFACTURERS REQUIREMENTS FOR BALLAST OF BASIN. BALLAST REQUIRES 167.51 FT^3 OF CONCRETE TO ENSURE THE STRUCTURE IS NOT BUOYANT.
5. THE BACK UP GENERATOR PROVIDED FOR THE BUILDING SHALL BE SIZED TO HANDLE THE PUMP STATION LOAD. AN AUTOMATIC TRANSFER SWITCH (ATS) SHALL BE PROVIDED.

ELECTRICAL NOTES:

1. ALL ABOVE-GRADE ENCLOSURES INSTALLED UNDER THIS CONTRACT SHALL BE PAD LOCKABLE AND NEMA 4X.
2. ALL WIRE INSTALLED UNDER THIS CONTRACT SHALL BE COPPER.
3. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES AND REGULATIONS; AND THE RECOMMENDATIONS AND REQUIREMENTS OF THE EQUIPMENT MANUFACTURERS.
4. NO ELECTRICAL SPLICES ALLOWED IN THE WET WELL.
5. ALL EXTERIOR CONDUITS SHALL BE UNDERGROUND AND SHALL BE INSTALLED PER 1996 NEC TABLE 300-5 & TABLE 300-50 AND ARTICLE 300-6 (PROTECTION AGAINST CORROSION).
6. THREE-PHASE, 208 VOLT SERVICE SHALL BE SUPPLIED TO THE PUMP STATION CONTROL PANEL.

GENERAL NOTES:

1. CONTRACTOR TO CHECK WITHIN WORK AREA FOR EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
2. CONDITION OF EXISTING 2.5" FORCE MAIN IS UNKNOWN. CONTRACTOR TO PRESSURE TEST EXISTING FORCE MAIN.



BLADE Series XGV / XGVH
Performance Curve
3, 5 & 7.5HP, 3450RPM, 60Hz
BARNES
www.cranepumps.com
Submersible Grinder XP
Standard Impeller Sizes
Pump HP | Impeller Dia. (in.) mm
7.5 | 6.25 (159)
5.0 | 5.25 (133)
3.0 | 4.50 (114) 4"
OPERATION POINT
32 GPM @ 52' TDH
TOTAL METERS
HEAD FEET
U.S. GALLONS PER MINUTE
LITERS PER SECOND
Testing is performed with water, specific gravity 1.0 @ 68° F @ (20°C), other fluids may vary performance
SECTION 3C
PAGE 14
DATE 9/17
CRANE
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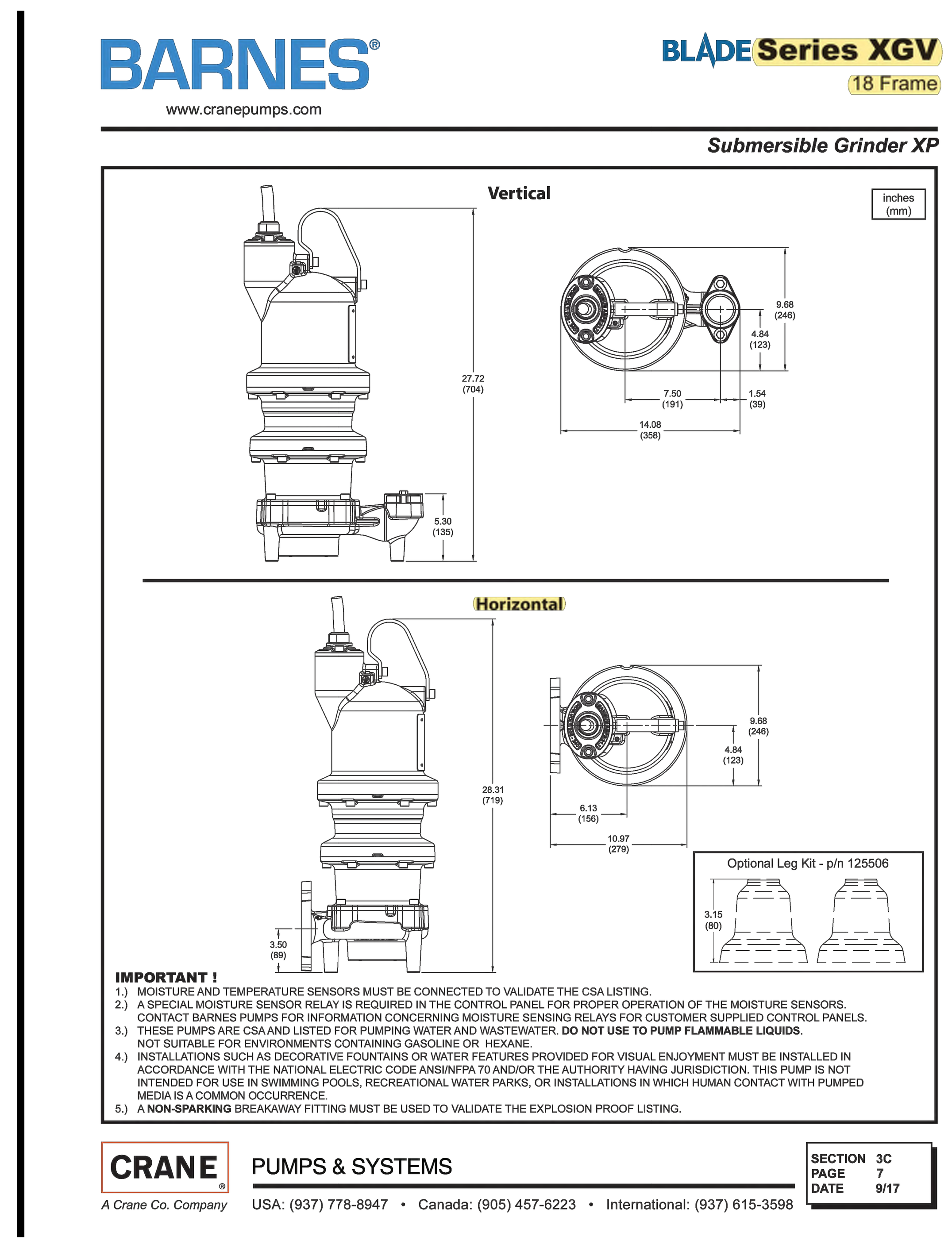
USA: (937) 778-8947 • Canada: (905) 457-6223 • International: (937) 615-3598

PUMP PERFORMANCE CURVE



BARNES
www.cranepumps.com
BLADE Series XGV
18 Frame
Submersible Grinder XP
Vertical
Horizontal
Optional Leg Kit - p/n 125506
IMPORTANT !
SECTION 3C
PAGE 7
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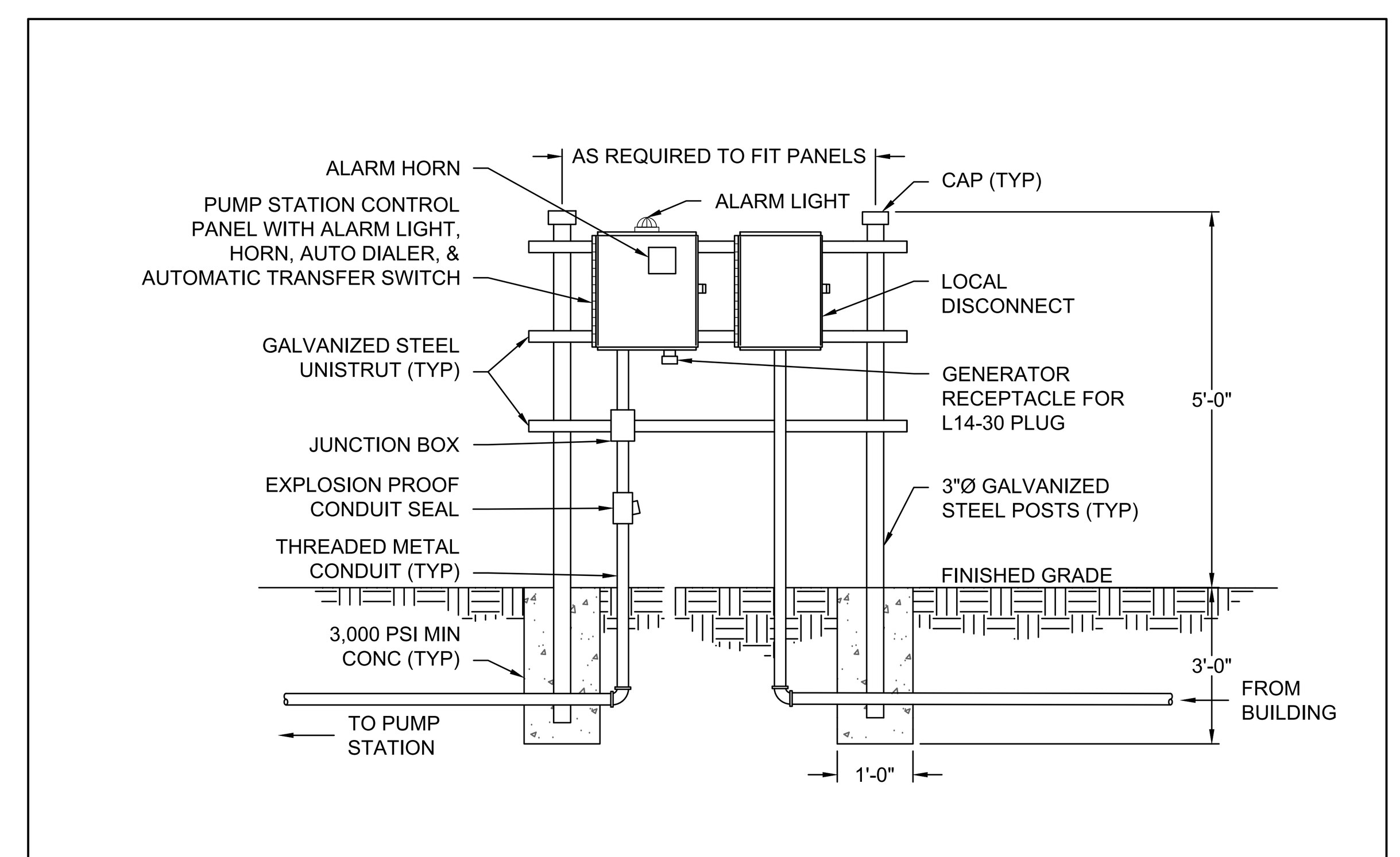
DUPLEX GRINDER PUMP STATION SECTION
SCALE: NOT TO SCALE



ALARM HORN
AS REQUIRED TO FIT PANELS
ALARM LIGHT
CAP (TYP)
PUMP STATION CONTROL PANEL WITH ALARM LIGHT, HORN, AUTO DIALER, & AUTOMATIC TRANSFER SWITCH
LOCAL DISCONNECT
GALVANIZED STEEL UNISTRUT (TYP)
GENERATOR RECEPTACLE FOR L14-30 PLUG
5'-0"
JUNCTION BOX
EXPLOSION PROOF CONDUIT SEAL
3"Ø GALVANIZED STEEL POSTS (TYP)
THREADED METAL CONDUIT (TYP)
FINISHED GRADE
3,000 PSI MIN CONC (TYP)
3'-0"
FROM BUILDING
TO PUMP STATION
1'-0"

CONTROL PANEL MOUNTING DETAIL
SCALE: NOT TO SCALE

smith sinnett ARCHITECTURE

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info@smithsinnett.com

TIMMONS GROUP ENGINEERING | DESIGN | TECHNOLOGY
NC LICENSE NUMBER C-1652
Timmons Group
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Raleigh, NC 27607
Phone: 919.866.4505
Fax: 919.859.5663

NORTH CAROLINA PROFESSIONAL SEAL 052736 ENGINEER ASHLEY KABAT CUTRIGHT 10/15/2024

ONSLOW COUNTY SENIOR SERVICE CENTER
ONSLOW COUNTY GOVERNMENT
4024 RICHLANDS HWY, JACKSONVILLE, NC 28540

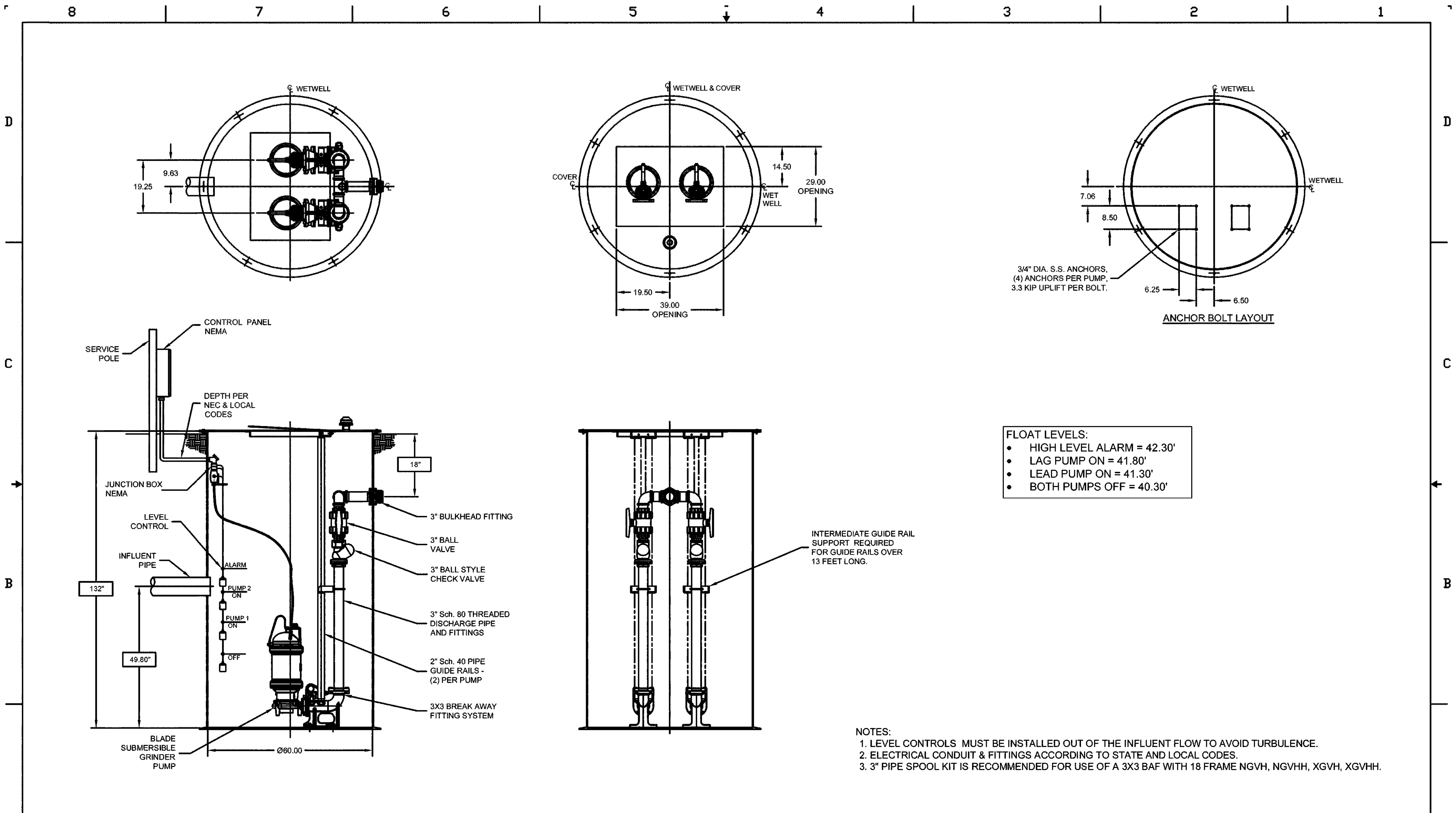
ID	DATE	DESCRIPTION

DRAWN BY: JMH
CHECKED BY: AKC

PUMP STATION PLAN AND DESIGN

2021029 14 OCT. 2024

C5-01



THIS DRAWING IS APPROVED FOR UNCONTROLLED DISTRIBUTION

AS A RESULT OF BARNES CONSTANT PRODUCT IMPROVEMENT PROGRAM, PRODUCT CHANGES MAY OCCUR. AS SUCH, BARNES RESERVES THE RIGHT TO CHANGE PRODUCT WITHOUT PRIOR WRITTEN NOTIFICATION

WWW.BARNESPUMPS.COM | SHEET 1 OF 1

TITLE: 3X3 BAF - BLADE XGVH / XGVHH / NGVH / NGVHH DUPLEX NON- EXPLOSION PROOF FIBERGLASS INSTALL

CAGE NO: 96046

DWG NO: CD143390 | REV: B

CRANE PUMPS & SYSTEMS BARNES®

DESCRIPTION: THE MANUFACTURER SHALL FURNISH COMPLETE GRINDER PUMP STATION(S), EACH CONSISTING OF A BASIN PACKAGE, CONTROL PANEL, ALARM DEVICE, UNITIZED LEVEL CONTROL SYSTEM, GRINDER PUMP AND ALL NECESSARY APPURTENANCES TO FORM A COMPLETE PACKAGE SYSTEM. GRINDER PUMP SHALL BE LISTED TO U.L. 778 AND CSA 108. ALL EQUIPMENT IN THE WET WELL SHALL BE CAPABLE OF CONSTANT SUBMERGENCE IN SEWAGE TO A MINIMUM DEPTH OF TEN FEET WITHOUT ELECTRICAL POWER BEING ENERGIZED.

SHOP DRAWINGS AND MANUALS: AFTER RECEIPT OF NOTICE TO PROCEED, THE MANUFACTURER SHALL FURNISH THE ENGINEER A MINIMUM OF EIGHT (8) SETS OF SHOP DRAWINGS DETAILING THE EQUIPMENT TO BE FURNISHED INCLUDING DIMENSIONAL DATA AND MATERIALS OF CONSTRUCTION. THE ENGINEER SHALL PROMPTLY REVIEW THIS DATA, AND RETURN TWO (2) COPIES TO THE MANUFACTURER AS APPROVED, OR APPROVED AS NOTED. UPON RECEIPT OF ACCEPTED SHOP DRAWINGS, THE MANUFACTURER SHALL PROCEED WITH ORDER ENTRY AND FABRICATION OF THE EQUIPMENT. PRIOR TO COMPLETION OF EQUIPMENT DELIVERY, THE MANUFACTURER SHALL SUPPLY FOUR (4) COPIES OF OPERATION AND MAINTENANCE MANUALS TO THE OWNER, AND ONE (1) COPY OF THE SAME TO THE ENGINEER.

PRE-APPROVAL OF MANUFACTURER: THE SYSTEM DESIGN IS DETAILED IN THE DRAWINGS. ANY PUMP MANUFACTURER NOT SPECIFIED, BUT WISHING TO BE PRE-APPROVED AS AN ACCEPTABLE SUPPLIER SHALL SUBMIT A COMPLETE HYDRAULIC ANALYSIS BASED ON THE DESIGN DETAILED IN THE DRAWINGS AT LEAST FIFTEEN DAYS PRIOR TO BID DATE. MANUFACTURER REPRESENTATIVES, DISTRIBUTORS, OR PACKAGERS WILL NOT BE CONSIDERED TO BE MANUFACTURERS. MANUFACTURER MUST DEMONSTRATE TO THE SATISFACTION OF ENGINEER THAT THE PROPOSED PUMP EQUIPMENT WILL MEET SYSTEM FLOWS AND HEADS REQUIRED. IN ADDITION, PRE-SUBMITTAL MUST ALSO DEMONSTRATE TO THE SATISFACTION OF THE ENGINEER THAT THE EQUIPMENT BEING PROPOSED MEETS OR EXCEEDS ALL PERFORMANCE AND SAFETY REQUIREMENTS, MATERIALS OF CONSTRUCTION, AND USER BENEFITS OF THE SPECIFIED EQUIPMENT. ONLY PRE-APPROVED GRINDER PUMP STATION MANUFACTURERS WILL BE CONSIDERED. ALL BIDS UTILIZING MANUFACTURERS NOT PRE-APPROVED WILL BE CONSIDERED NON-RESPONSIVE.

WARRANTY: THE MANUFACTURER SHALL PROVIDE A WARRANTY ON ANY DEFECTIVE PART(S) AND LABOR TO REPLACE DEFECTIVE PARTS FOR A PERIOD OF TWELVE (12) MONTHS AFTER NOTICE OF OWNER'S ACCEPTANCE, BUT NO GREATER THAN TWENTY-FOUR (24) MONTHS AFTER RECEIPT OF SHIPMENT. THE OWNER WILL RETURN ANY EQUIPMENT FOUND TO BE DEFECTIVE TO THE MANUFACTURER FOR INSPECTION AND VALIDATION OF THE DEFECT. DEFECTIVE EQUIPMENT WILL BE REPAIRED OR REPLACED AND SHIPPED BACK TO CUSTOMER AT NO CHARGE. CONSULT FACTORY FOR EXTENDED WARRANTY INFORMATION.

ACCEPTABLE MANUFACTURER(S): ACCEPTABLE GRINDER PUMP STATION MANUFACTURER(S) ARE CRANE PUMPS & SYSTEMS INC., OR PRE-APPROVED EQUAL.

CORROSION PROTECTION: ALL MATERIALS EXPOSED TO WASTEWATER SHALL HAVE INHERENT CORROSION PROTECTION: I.E., PAINTED CAST IRON, FIBERGLASS, STAINLESS STEEL, PVC.

SAFETY: THE GRINDER PUMP STATION SHALL BE FREE FROM ELECTRICAL AND FIRE HAZARDS AS REQUIRED IN A RESIDENTIAL ENVIRONMENT.

REDUNDANT CHECK VALVE: EACH BASIN PACKAGE SHALL INCLUDE ONE (1) PVC FLAPPER TYPE CHECK VALVE (SUPPLIED AND INSTALLED BY OTHERS) IN THE SERVICE LATERAL BETWEEN THE GRINDER PUMP STATION AND THE LOW PRESSURE SEWER MAIN. VALVES SHALL BE 1.25 INCH NPT FOR SIMPLEX AND 1.5 INCH NPT FOR DUPLEX STATIONS.

STATION CONFIGURATION: BASINS SHALL BE SUPPLIED IN A WET WELL CONFIGURATION. WET WELL MUST HAVE MINIMUM STORAGE VOLUMES ABOVE ALARM LEVEL ACCORDING TO THE FOLLOWING TABLE:

OVERALL STATION HEIGHT	MINIMUM RESERVE STORAGE ABOVE ALARM LEVEL
48" (1.2 METERS)	35.7 GALLONS (135 LITERS)
60" (1.5 METERS)	59.2 GALLONS (224 LITERS)
72" (1.8 METERS)	82.7 GALLONS (313 LITERS)
84" (2.1 METERS)	106.2 GALLONS (402 LITERS)
96" (2.4 METERS)	129.7 GALLONS (491 LITERS)
108" (2.7 METERS)	153.2 GALLONS (580 LITERS)
120" (3.0 METERS)	176.7 GALLONS (669 LITERS)

FACTORY WIRING: ALL WIRING IN THE GRINDER PUMPS SHALL BE INSTALLED AND FUNCTIONALLY TESTED PRIOR TO SHIPMENT FROM THE FACTORY. ALL ELECTRICAL WIRES PENETRATING OR PASSING THROUGH THE SILHOUETTE OF THE PUMP STATION MUST BE GUARANTEED TO BE WATER TIGHT BY THE MANUFACTURER AND MUST BE INSTALLED AT THE FACTORY PRIOR TO SHIPMENT. NO JUNCTIONS, PLUGS, ELECTRICAL QUICK DISCONNECTS (EQD'S) ETC. WILL BE ALLOWED BETWEEN THE PUMP MOTOR HOUSING AND THE CONTROL PANEL. FACTORY WIRING AND TESTING SHALL BE A SPECIFIC PART OF THE UL LISTING.

LEVEL DETECTION: LEVEL DETECTION FOR CONTROLLING PUMP AND ALARM OPERATION SHALL BE ACCOMPLISHED BY USE OF A DETECTION MECHANISM SPECIFICALLY DESIGNED FOR USE IN A SEWAGE GRINDER PUMP BASIN AND SHALL BE REMOVABLE WITHOUT THE NEED TO REMOVE THE PUMP. SWITCHES UTILIZED IN THE SYSTEM SHALL BE HERMETICALLY SEALED IN A SUBMERSIBLE, WATERTIGHT PROTECTIVE CASING. LEVEL DETECTION MECHANISM SHALL BE MECHANICAL TYPE SNAP-ACTION LEVEL CONTROL FLOATS. LEVEL DETECTION MECHANISM SHALL NOT REQUIRE ANY REGULAR, PREVENTIVE MAINTENANCE. THE LEVEL DETECTION MECHANISM SHALL CONSIST OF FOUR SWITCHES, ONE FOR EACH FUNCTION (HIGH WATER ALARM, LEAD ON, LAG ON, AND OFF FUNCTIONS). THE LEVEL CONTROLS SHALL BE SERVICEABLE WITHOUT THE NEED FOR A CONFINED SPACE ENTRY AS DEFINED BY OSHA. LEVEL CONTROL FLOATS SHALL BE MOUNTED ON A STAINLESS STEEL CABLE RACK, SHIPPED LOOSE FOR FIELD LOCATION AND INSTALLATION ONTO THE BASIN. LEVEL CONTROL CORDS SHALL BE OF SUFFICIENT LENGTH TO TRAVEL THROUGH CONDUIT ALL THE WAY TO THE CONTROL PANEL.

SHUT-OFF VALVE: THE PUMP DISCHARGE SHALL BE EQUIPPED WITH A FACTORY INSTALLED, TRUE UNION, MANUAL BALL VALVE. BALL VALVES SHALL BE FULL PORTED, CONSTRUCTED OF PVC, WITH A MINIMUM RATED PRESSURE OF 150 PSI (10.6 KGS/SQ. METER). ALL VALVES SHALL BE OPERABLE FROM GROUND LEVEL. SHUT OFF VALVE MUST BE REPLACEABLE WITHOUT EXCAVATING BASIN EXTERIOR. DUPLEX STATION SHALL UTILIZE TWO SHUT OFF VALVES, EACH EQUAL TO THE SIZE OF THE PUMP DISCHARGE.

ANTI-SIPHON FUNCTION: THE PUMP SHALL BE CONSTRUCTED WITH A POSITIVELY PRIMED FLOODED SUCTION CONFIGURATION. AS ADDED ASSURANCE THAT THE PUMP CANNOT LOSE PRIME EVEN UNDER NEGATIVE PRESSURE CONDITIONS IN THE DISCHARGE PIPING SYSTEM, THE DISCHARGE PIPING SYSTEM MUST INCLUDE AN ANTI-SIPHON CAPABILITY.

BASIN CONSTRUCTION AND ASSEMBLY: THE BASIN SHALL BE FIBERGLASS REINFORCED POLYESTER RESIN WITH A 3" (76.2MM) BALLAST SUPPORT FLANGE. THE BASIN SHALL BE FURNISHED WITH ONE FLEXIBLE INLET FLANGE (SHIPPED LOOSE TO FACILITATE FIELD LOCATION) TO ACCEPT A 4.50" (114MM) OD DWV PIPE. INLET LOCATION CAN VARY TO ACCOMMODATE EASE OF INSTALLATION. (SEE INSTALLATION INSTRUCTIONS OR CONSULT FACTORY FOR DETAILS.) BASIN CAPACITIES AND DIMENSIONS SHALL BE AS SHOWN ON THE CONTRACT DRAWINGS OR AS SPECIFIED HEREIN. THE BASIN FRP WALL LAMINATE THICKNESS SHALL VARY WITH THE WETWELL DEPTH TO PROVIDE THE AGGREGATE STRENGTH TO MEET THE TENSILE AND FLEXURAL PHYSICAL PROPERTY REQUIREMENTS. THE BASIN FRP WALL LAMINATE MUST BE DESIGNED TO WITHSTAND WALL COLLAPSE OR BUCKLING BASED ON A HYDROSTATIC PRESSURE OF POUNDS PER SQUARE FOOT, A SATURATED SOIL WEIGHT OF 120 POUNDS PER CUBIC FOOT, A SOIL MODULUS OF 700 POUNDS PER SQUARE FOOT. BASIN MUST COMPLY WITH THE PIPE STIFFNESS VALUES AS SPECIFIED IN ASTM D 3753. THE BASIN LAMINATE MUST BE CONSTRUCTED TO WITHSTAND OR EXCEED 150% OF THE ASSUMED LOADING ON ANY DEPTH. THE FINISHED FRP LAMINATE WILL HAVE A BARCOL HARDNESS OF AT LEAST 90% OF THE RESIN MANUFACTURES SPECIFIED HARDNESS FOR THE FULLY CURED RESIN. THE BARCOL HARDNESS SHALL BE THE SAME FOR BOTH INTERIOR AND EXTERIOR SURFACES. MANUFACTURE MUST SUBMIT DOCUMENTATION INCLUDING CALCULATION AND PRODUCTION CERTIFICATION THAT BASIN (S) ON THE PROJECT ARE IN COMPLIANCE WITH THE ABOVE REQUIREMENTS.

COVER SHALL BE ALUMINUM WITH A HATCH OPENING FOR EASY ACCESS TO THE WET WELL. THE COVER ASSEMBLY SHALL BE CAPABLE OF PROVIDING ADEQUATE MEANS OF VENTING THE BASIN.

THE DISCHARGE SYSTEM SHALL CONSIST OF A 1.25" PVC BALL TYPE CHECK VALVE AND FLEXIBLE HOSE DESIGN. HOSE SHALL BE RATED AT A CAPACITY GREATER THAN THE PUMP IS CAPABLE OF PRODUCING. NON-FLEXIBLE PORTIONS OF THE DISCHARGE ASSEMBLY SHALL BE SCHEDULE 80 PVC. THE MANUFACTURER SHALL GUARANTEE ALL BULKHEAD PENETRATIONS WATERTIGHT. THE GRINDER PUMP SHALL BE MOUNTED ON A SS BASE. THE DISCHARGE SHALL BE 1.5" NPT SS DISCHARGE COUPLING.

PUMP REMOVAL SYSTEM: EACH PUMP SHALL BE REMOVABLE FROM GROUND LEVEL WITHOUT THE REQUIREMENT OF ENTERING THE BASIN. A POLYPROPYLENE LIFTING ROPE WITH 756LB (343KG) WORKING LOAD AND 3,780LB (1,715KG) BREAKING STRENGTH SHALL BE SUPPLIED FOR PUMP REMOVAL.

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T 919 781 8582
F 919 781 3979
4600 Lake Boone Trail
Suite 205
Raleigh, NC 27607
info@smithsinnett.com

TIMMONS GROUP
NC LICENSE NUMBER C-1652
Timmons Group
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Phone: 919.866.4505
Fax: 919.859.5663

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 052736 ASHLEY KABAT CUTRIGHT 10/15/2024

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ONSLOW COUNTY SENIOR SERVICE CENTER
ONSLOW COUNTY GOVERNMENT
4024 RICHLANDS HWY, JACKSONVILLE, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: JMH
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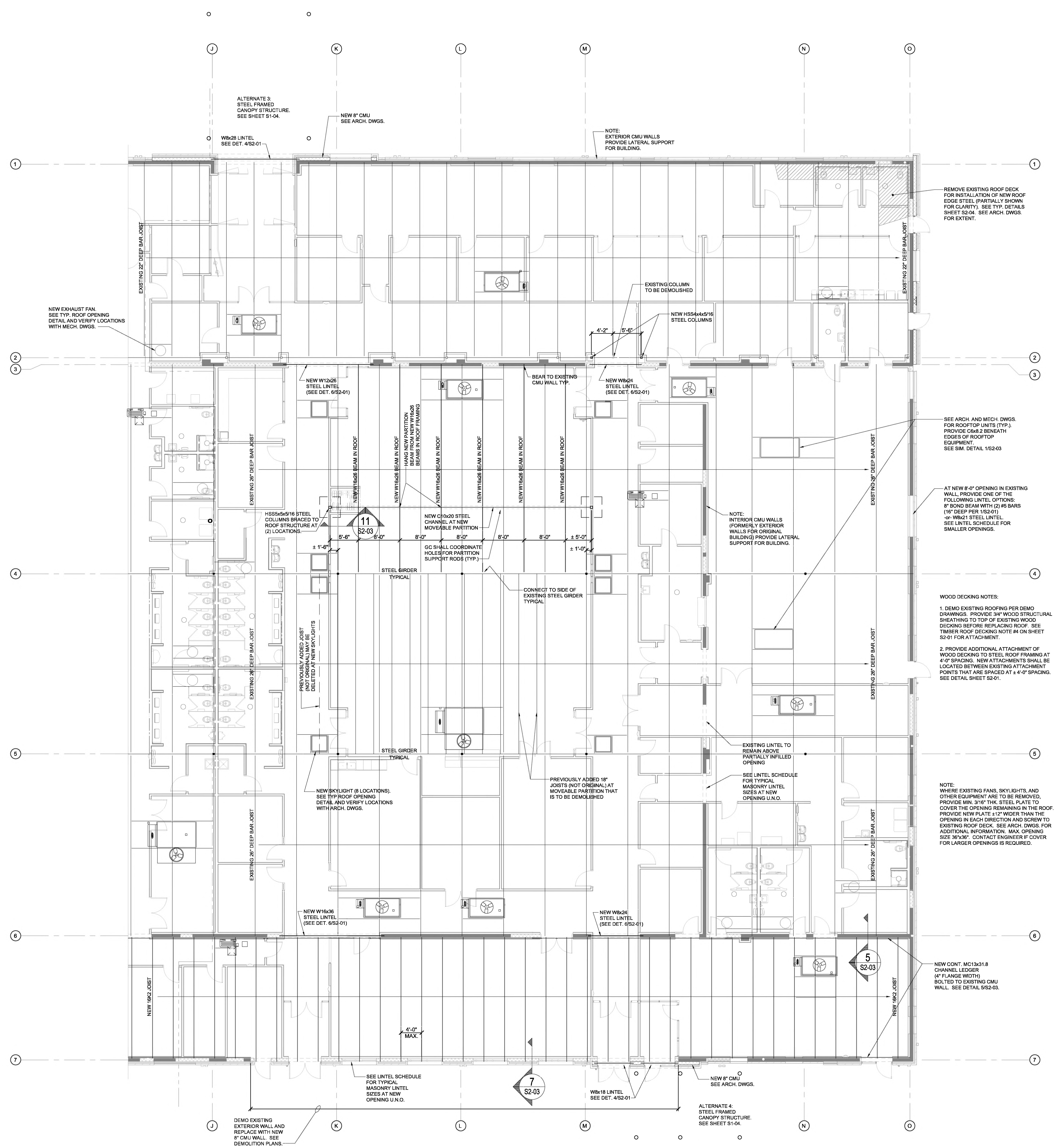
PUMP STATION DETAILS

2021029 14 OCT. 2024

C5-02



1 S1-01 STRUCTURAL RENOVATION PLAN - AREA A
1/8" = 1'-0"

0 4' 8' 16'

smith sinnett ARCHITECTURE

4600 Lake Boone Trail
Suite 205
Raleigh, NC 27607

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 25539 BRIAN M. ROSS 10-18-2024
SEAL NOT VALID UNLESS SIGNED AND DATED

ROSS LINDEN ENGINEERS PC
709 W. JONES STREET RALEIGH, NC 27603
TEL 919.832.5680 FAX 919.832.5675
WWW.ROSSLINDEN.COM NC LICENSE NO. C-2364

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Onslow County Senior Services Center Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

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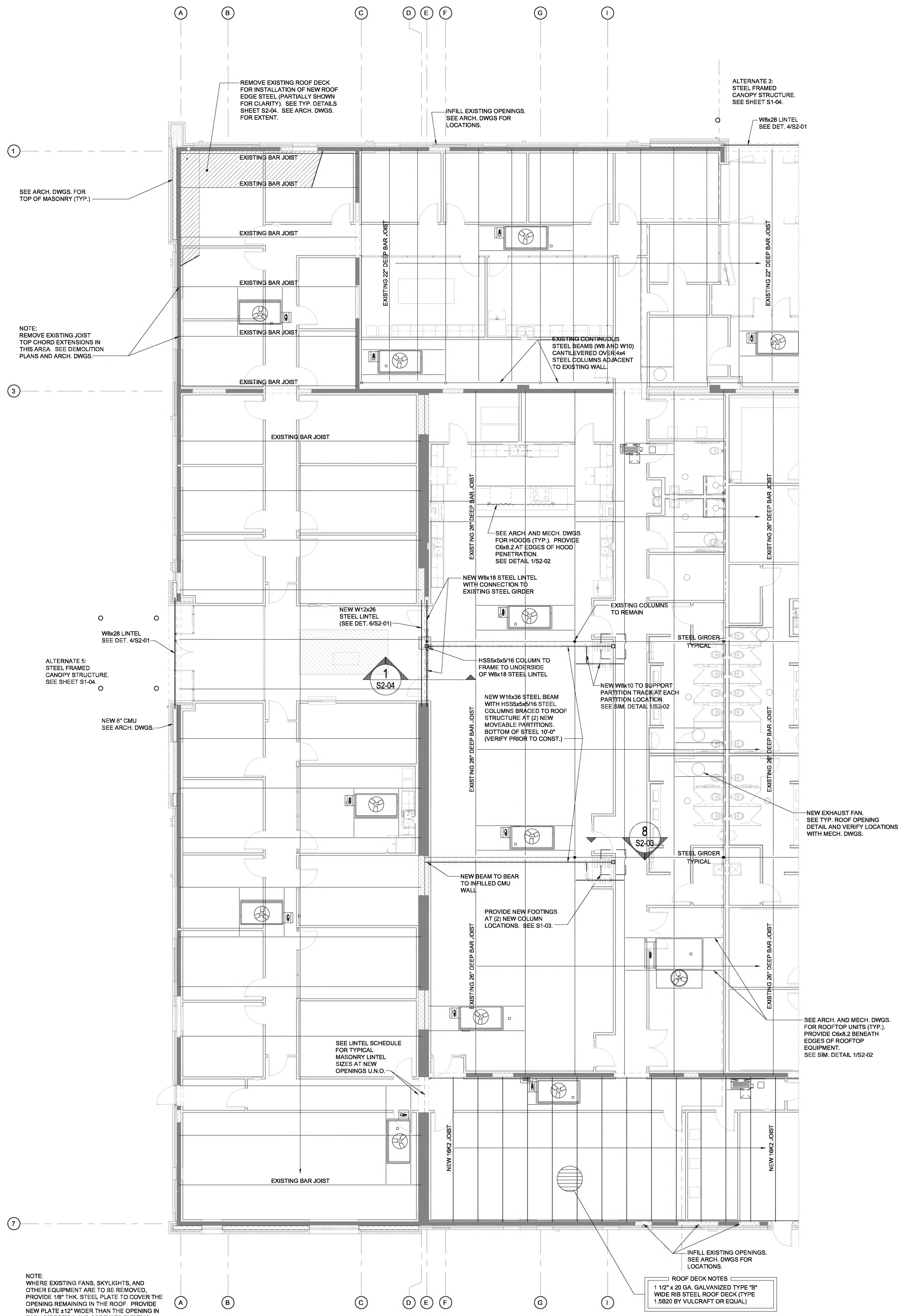
RENOVATION FRAMING PLAN AREA A

C230906 16 OCT. 2024

S1-01



NOTE:
WHERE EXISTING FANS, SKYLIGHTS, AND OTHER EQUIPMENT ARE TO BE REMOVED, PROVIDE 1/8" THK. STEEL PLATE TO COVER THE OPENING REMAINING IN THE ROOF. PROVIDE NEW PLATE ±12" WIDER THAN THE OPENING IN EACH DIRECTION AND SCREW TO EXISTING ROOF DECK. SEE ARCH. DWGS. FOR ADDITIONAL INFORMATION. MAX. OPENING SIZE 30"x30". CONTACT ENGINEER IF COVER FOR LARGER OPENINGS IS REQUIRED.

1
S1-02
STRUCTURAL RENOVATION PLAN - AREA B
1/8" = 1'-0"

0 4' 8' 16'

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Suite 205
Raleigh, NC 27607

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Onslow County Senior Services Center
Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: BR
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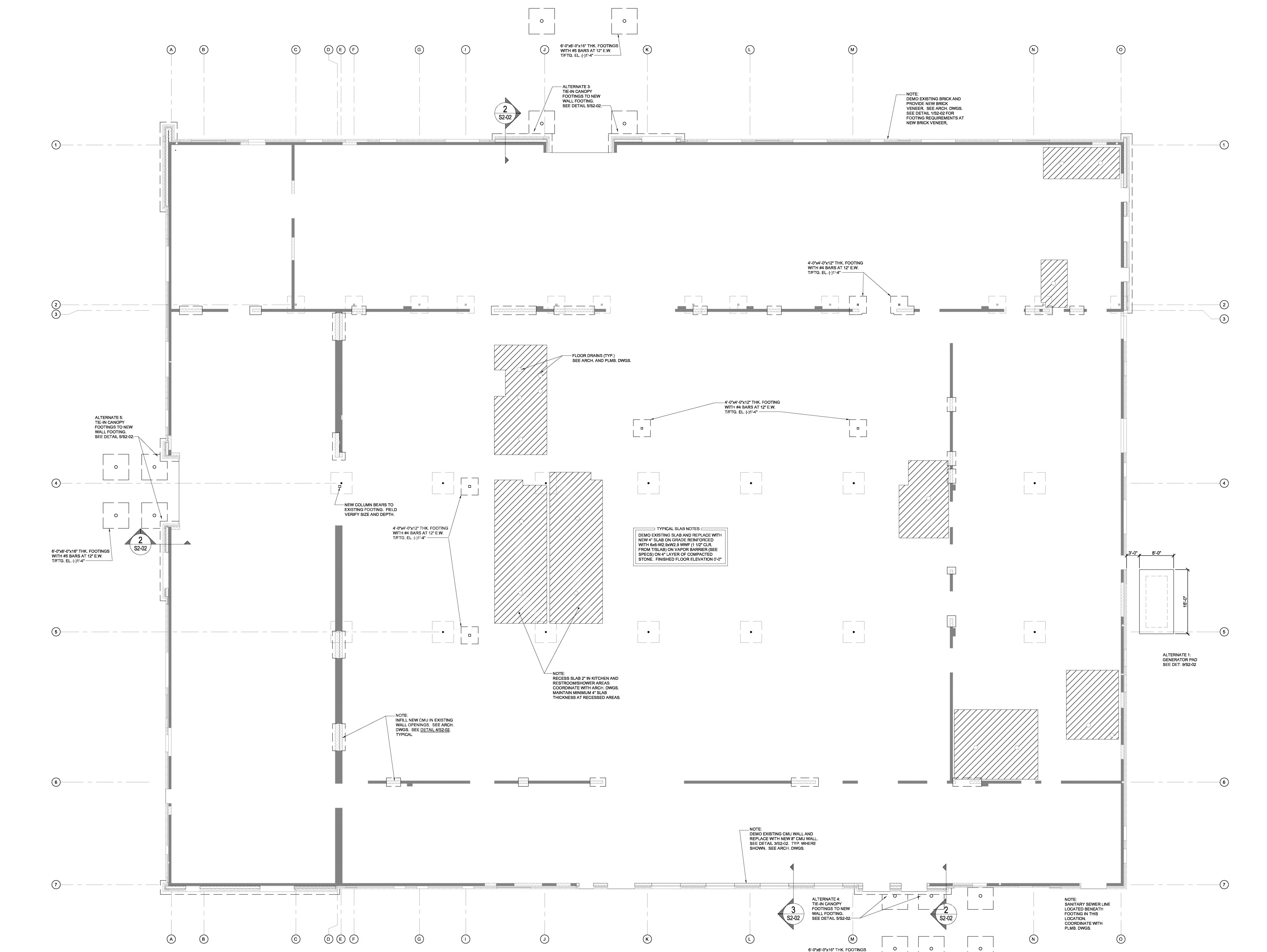
RENOVATION FRAMING PLAN AREA B

C230906 16 OCT. 2024

S1-02



1 S1-03 OVERALL SLAB AND FOUNDATION PLAN
1/8" = 1'-0"

0 4' 8' 16'

smith sinnett ARCHITECTURE

4600 Lake Boone Trail
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Raleigh, NC 27607

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 25539 BRIAN M. ROSS 10-18-2024
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Onslow County Senior Services Center Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

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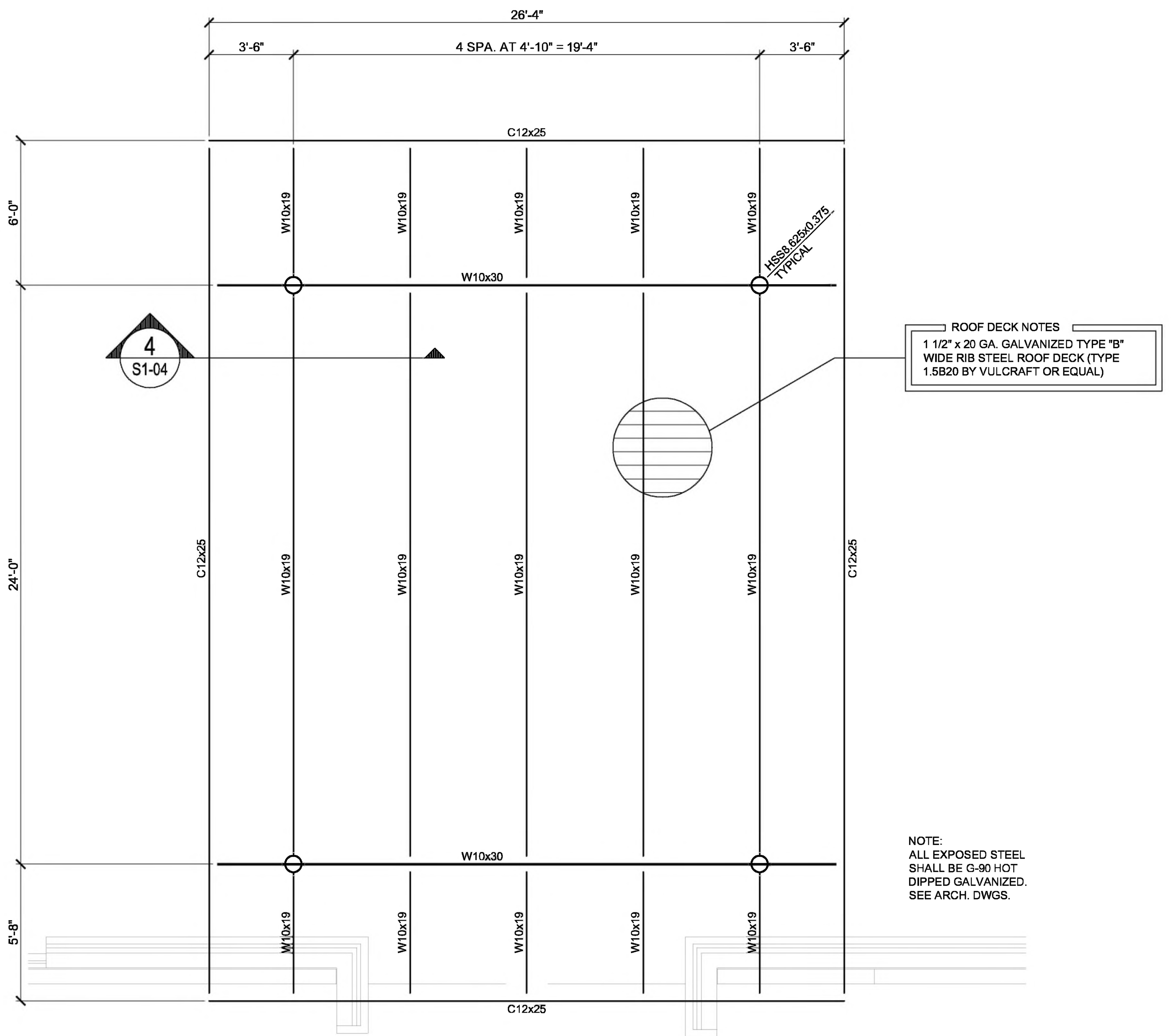
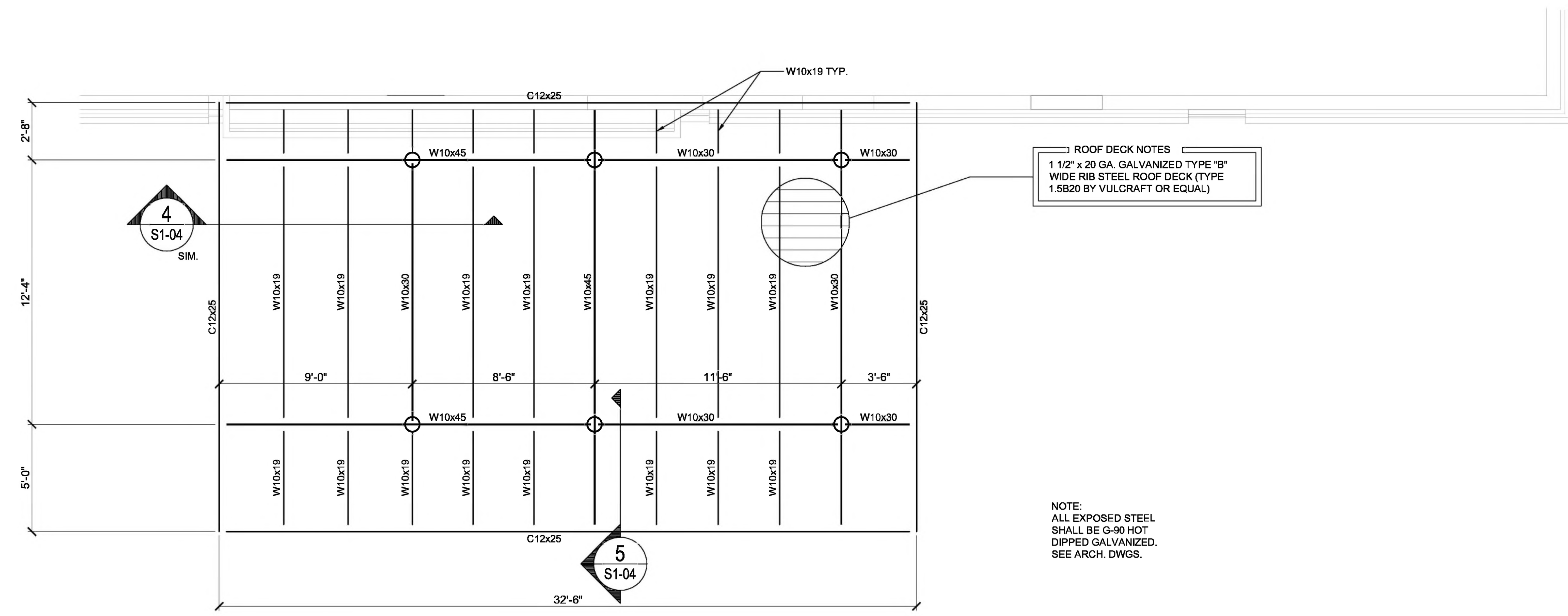
OVERALL SLAB AND FOUNDATION PLAN

C230906 16 OCT. 2024

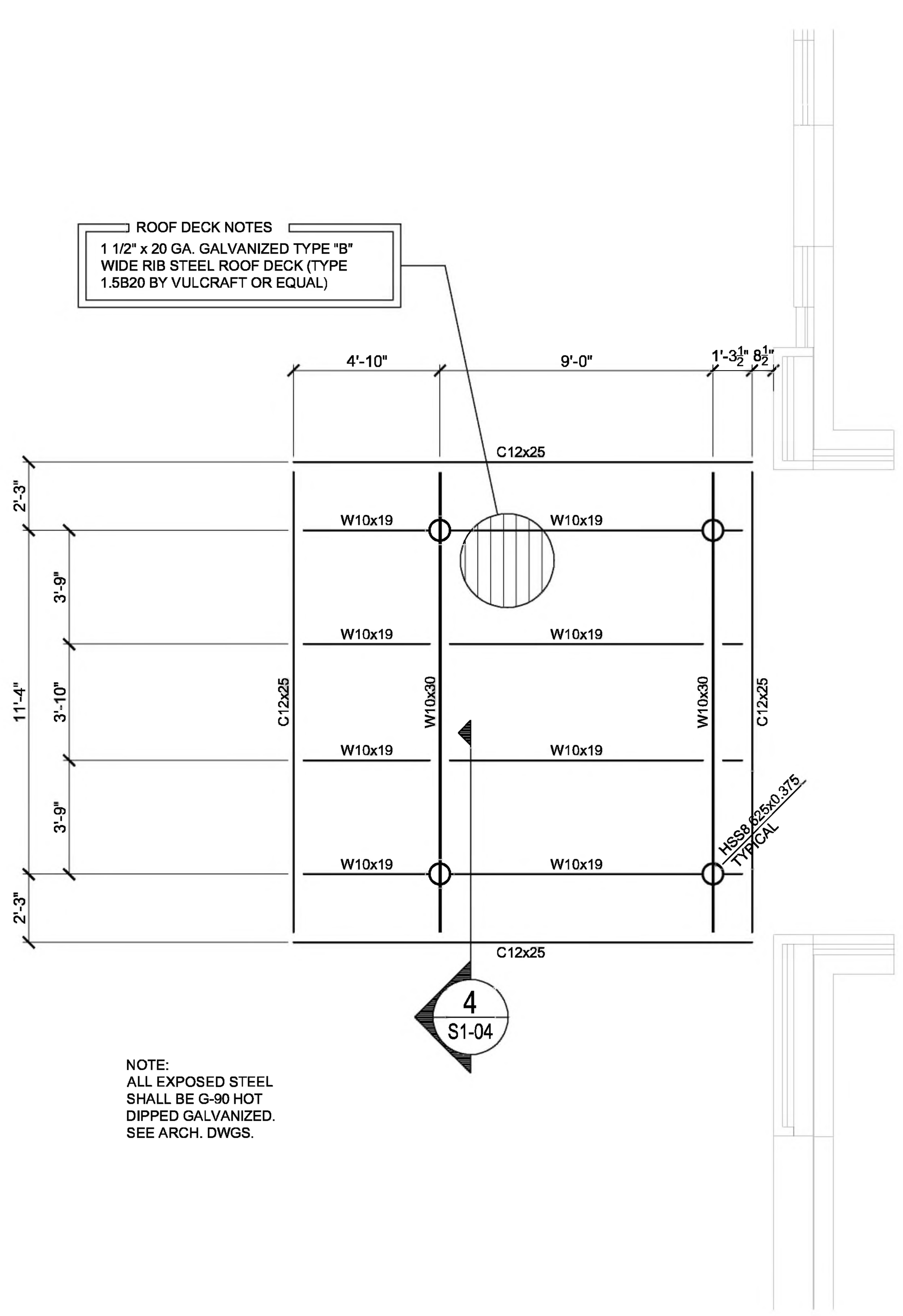
S1-03



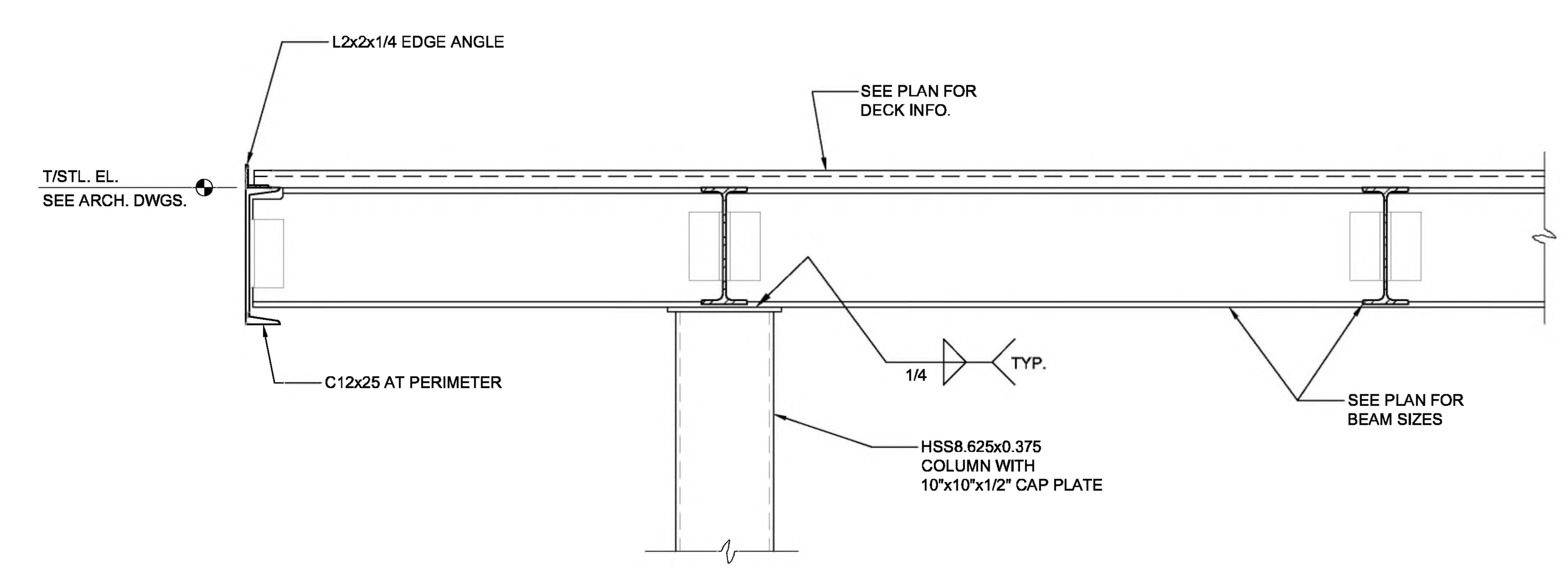
1 S1-04 CANOPY FRAMING PLAN - ALTERNATE 3
1/4" = 1'-0"



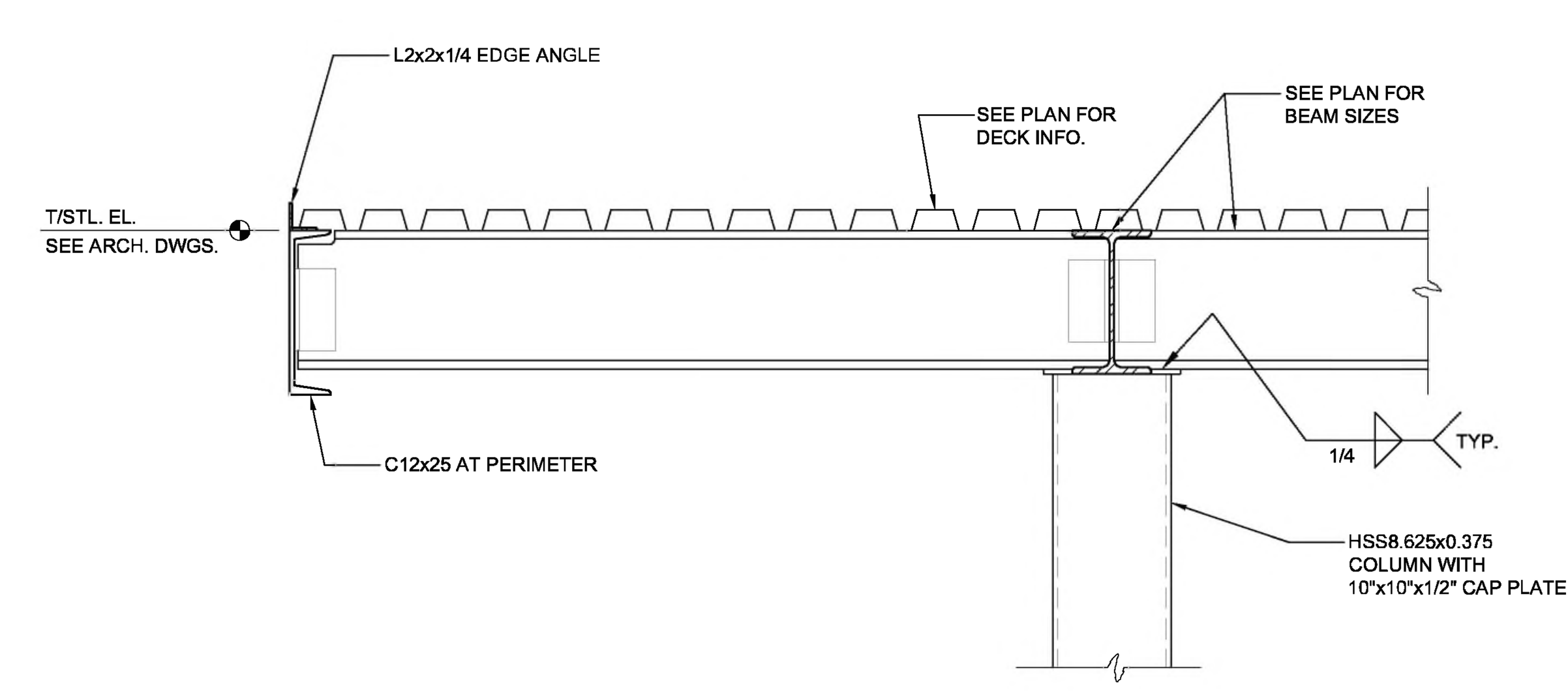
2 S1-04 CANOPY FRAMING PLAN - ALTERNATE 4
1/4" = 1'-0"



3 S1-04 CANOPY FRAMING PLAN - ALTERNATE 5
1/4" = 1'-0"



4 S1-04 TYPICAL FRAMING SECTION AT CANOPY
1" = 1'-0"



5 S1-04 FRAMING SECTION AT CANOPY
1" = 1'-0"

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TEL 919.832.3600 FAX 919.832.5675
WWW.ROSSLINDEN.COM NC LICENSE NO. C-2364

Onslow County Senior Services Center Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: BR
CHECKED BY: BR/JG

ALTERNATES 3, 4, AND 5 STRUCT. PLANS

C230906 16 OCT. 2024

S1-04

STRUCTURAL NOTES

I. GENERAL

1. DESIGN CODES

NORTH CAROLINA BUILDING CODE, 2018 EDITION
(AMENDED 2015 INTERNATIONAL BUILDING CODE)

ACI BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
(ACI 318-14)

ACI BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530)

AISC MANUAL OF STEEL CONSTRUCTION - ALLOWABLE STRESS DESIGN
NINTH EDITION

ASCE 7-10 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER
STRUCTURES

2. DESIGN LOADS

RISK CATEGORY II

LIVE LOADS: FLOOR: 100 PSF
ROOF: 20 PSF

ULTIMATE DESIGN WIND SPEED: 137 MPH

GROUND SNOW LOAD 10 PSF

Ss = 0.154
S1 = 0.073
SITE CLASS D
SEISMIC DESIGN CATEGORY B

3. ALL ELEVATIONS ARE REFERENCED FROM FINISHED FLOOR ELEVATION OF 0'-0". SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

4. DETAILED SHOP DRAWINGS SHALL BE PROVIDED FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

5. ENGINEER'S SEAL APPLIES TO STRUCTURAL COMPONENTS ONLY AND DOES NOT CERTIFY ARCHITECTURAL LAYOUT OR DIMENSIONAL ACCURACY.

6. ROSS LINDEN ENGINEERS PC ASSUMES NO LIABILITY FOR CHANGES OR MODIFICATIONS MADE TO THESE DRAWINGS BY OTHERS, OR FOR CONSTRUCTION METHODS, OR FOR ANY DEVIATION FROM THESE DRAWINGS.

II. CONCRETE

1. UNLESS OTHERWISE NOTED, ALL CONCRETE SHALL HAVE THE FOLLOWING STRENGTH AND SLUMP REQUIREMENTS:
3,500 PSI 28-DAY COMPRESSIVE STRENGTH, MAX. 5" SLUMP.

2. ALL CONCRETE SHALL BE MOIST CURED PER ACI 301 OR CURED WITH AN APPROVED CURING COMPOUND. CONTRACTOR SHALL VERIFY THAT THE CURING COMPOUND IS COMPATIBLE WITH FLOOR COVERING ADHESIVES, COATINGS, OR TOPPINGS TO BE USED. CONCRETE SHALL BE CURED FOR A MINIMUM OF 7 DAYS.

3. UNLESS OTHERWISE NOTED, ALL REINFORCING STEEL SHALL BE NEW BILLET STEEL, CONFORMING TO ASTM A-615, GRADE 60, DEFORMED.

4. UNLESS OTHERWISE NOTED, ALL DETAILING, FABRICATION, AND PLACING OF REINFORCING STEEL SHALL CONFORM TO THE MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES. (ACI 315)

5. ALL BAR SPLICES SHALL BE CLASS "B" TENSION SPLICES PER ACI 318-08, UNLESS OTHERWISE SHOWN.

6. ANCHOR BOLTS TO BE ASTM A36 OR A307.

7. CONTRACTOR SHALL REFER TO DRAWINGS OF OTHER TRADES AND VENDOR DRAWINGS FOR EMBEDDED ITEMS AND RECESSES NOT SHOWN ON THE STRUCTURAL DRAWINGS.

8. ALL SPREAD FOOTINGS BEARING ON NATIVE SOIL OR STRUCTURAL FILL ARE DESIGNED FOR AN ALLOWABLE BEARING PRESSURE OF 2,500 PSF. A GEOTECHNICAL REPORT BY __________ DATED xx ______ 2024 HAS BEEN USED AS THE BASIS OF THIS DESIGN. A GEOTECHNICAL REPRESENTATIVE SHALL INSPECT ALL FOOTING EXCAVATIONS TO CONFIRM ALLOWABLE BEARING PRESSURES.

9. PROVIDE TWO (2) #5 x 4'-0" LONG DIAGONAL BARS IN TOP FACE OF ALL SLABS (1" CLEAR) AT ALL RE-ENTRANT CORNERS. SEE PLAN FOR LOCATIONS.

10. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, PROTECTING, AND RELOCATING AS REQUIRED ALL SERVICE AND UTILITY LINES IN VICINITY OF THE WORK SITE.

11. CONTRACTOR SHALL VERIFY ALL SIZES AND LOCATIONS OF ALL MECHANICAL AND ELECTRICAL OPENINGS AND EQUIPMENT PADS WITH THE MECHANICAL AND ELECTRICAL DETAILS AND SHOP DRAWINGS BY OTHERS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL OPENINGS AND SLEEVES FOR PROPER DISTRIBUTION FOR ALL UTILITIES THROUGHOUT THE BUILDING.

12. ALL DOWELS WHICH ARE TO BE DRILLED AND GROUTED INTO EXISTING CONCRETE SHALL BE DONE WITH AN EPOXY GROUT. DRILL HOLE WITH DIAMETER 1/8" LARGER THAN DOWEL OR AS RECOMMENDED BY GROUT SUPPLIER. USE HIT-RE 500 V3 BY HILTI OR APPROVED EQUAL.

III. MASONRY

1. MASONRY CONSTRUCTION SHALL COMPLY WITH ACI 530.1-02/ASCE 6-02: "SPECIFICATION FOR MASONRY STRUCTURES."

2. ASSUMED MASONRY PROPERTIES: UNIT COMPRESSIVE STRENGTH 1900 PSI, TYPE S MORTAR, PARTIAL GROUT, RUNNING BOND.

3. SEE THE DRAWINGS FOR LINTEL INFORMATION.

4. PROVIDE LADDER-TYPE JOINT REINFORCEMENT AT 16" O.C.

5. PROVIDE A CONTINUOUS BOND BEAM (WITH TWO #5 BARS MINIMUM) AT THE TOP OF ALL WALLS AND AT LOCATIONS WHERE A ROOF OR ELEVATED FLOOR IS STRUCTURALLY CONNECTED TO THE WALL.

6. PROVIDE CONTINUOUS BOND BEAMS (WITH TWO #5 BARS MINIMUM) AT A MAXIMUM SPACING OF 6 FEET UNLESS NOTED OTHERWISE ON DRAWINGS.

7. WHERE THE WALL IS SUPPORTED ON A SLAB, PROVIDE A CONTINUOUS BOND BEAM (WITH TWO #5 BARS MINIMUM) AT THE BOTTOM COURSE.

8. BOND BEAM BLOCK UNITS SHALL HAVE OPENINGS IN THE BOTTOM TO ALLOW VERTICAL REINFORCEMENT TO PASS. U-BLOCKS SHALL BE USED AT LINTELS ONLY.

9. SEE DRAWINGS FOR VERTICAL REINFORCING. THE FOLLOWING MINIMUM VERTICAL REINFORCING SHALL BE IN ADDITION TO REINFORCING SHOWN ON DRAWINGS: ONE #5 BAR AT EACH CORNER, ONE #5 BAR EACH SIDE OF OPENINGS, ONE #5 BAR AT ENDS OF WALLS.

10. ALL VERTICAL REINFORCING SHALL BE CONTINUOUS FROM TOP TO BOTTOM OF WALL EXCEPT WHERE INTERRUPTED BY AN OPENING.

11. PROVIDE DOWELS INTO FOOTING OR SLAB TO MATCH VERTICAL REINFORCING.

12. FILL ALL REINFORCED CELLS AND BOND BEAMS WITH 3000 PSI GROUT. PLACE GROUT IN VERTICAL LIFTS NOT EXCEEDING 6 FEET.

13. EXPANSION ANCHORS IN MASONRY SHALL BE HILTI KWIK BOLT 3 EXPANSION ANCHORS WITH 3 1/2" EMBEDMENT INTO GROUT-FILLED CMU. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

IV. STRUCTURAL STEEL

1. SEE FRAMING PLANS FOR BOTTOM OF BASE PLATE ELEVATIONS.

2. ALL STRUCTURAL STEEL WIDE FLANGE BEAMS AND COLUMNS, UNLESS NOTED, SHALL CONFORM TO THE REQUIREMENTS OF ASTM A992 OR ASTM A572, GRADE 50. ANGLES AND CHANNELS SHALL CONFORM TO ASTM A36. TUBES SHALL CONFORM TO ASTM A500, GRADE B.

3. ALL DETAILING, FABRICATION, AND ERECTION OF STRUCTURAL STEEL, UNLESS OTHERWISE NOTED, SHALL CONFORM TO THE REQUIREMENTS OF THE AISC SPECIFICATIONS FOR BUILDINGS, LATEST EDITION.

4. UNLESS OTHERWISE NOTED, ALL SHOP CONNECTIONS SHALL BE MADE BY WELDING OR HIGH STRENGTH BOLTING. (3/4" DIAMETER BOLTS, MINIMUM)

5. WELDS SHALL BE MADE WITH E-70XX ELECTRODES BY CERTIFIED WELDERS.

6. UNLESS OTHERWISE NOTED, ALL FIELD CONNECTIONS SHALL BE MADE WITH 3/4" DIAMETER HIGH STRENGTH BOLTS (ASTM A-325). CONNECTIONS SHALL BE DESIGNED AS BEARING TYPE WITH THREADS IN SHEAR PLANE. BOLTS SHALL BE TIGHTENED TO THE SNUG TIGHT CONDITION PER "AISC" UNLESS NOTED OTHERWISE ON THE DRAWINGS.

7. UNLESS OTHERWISE SHOWN, ALL BEAM CONNECTIONS SHALL BE STANDARD FRAMED OR SEATED CONNECTIONS AS SHOWN IN PART 10 OF THE AISC MANUAL OF STEEL CONSTRUCTION. CONNECTIONS SHALL BE ABLE TO SUPPORT A MINIMUM BEAM REACTION OF 5.0 kips UNLESS NOTED OTHERWISE ON THE DRAWINGS.

8. GUSSET PLATES SHALL BE 3/8" THICK MINIMUM.

9. ALL COLUMN ANCHOR BOLT HOLES TO BE OVERSIZED IN ACCORDANCE WITH RECOMMENDATIONS OF "AISC" MANUAL FOR "DETAILING FOR STEEL CONSTRUCTION."

10. CONTRACTOR TO PROVIDE ADEQUATE BRACING FOR STRUCTURE SO THAT IT WILL BE STABLE DURING ALL STAGES OF CONSTRUCTION. THE STRUCTURE AND FOUNDATIONS ARE DESIGNED FOR A COMPLETED CONDITION ONLY AND THEREFORE REQUIRES ADDITIONAL SUPPORT TO MAINTAIN STABILITY BEFORE COMPLETION.

V. STEEL JOISTS

1. UNLESS NOTED OTHERWISE ON THE DRAWINGS, THE DESIGN, FABRICATION, AND ERECTION OF STEEL JOISTS SHALL CONFORM TO THE SPECIFICATIONS AND CODE OF STANDARD PRACTICE OF THE STEEL JOIST INSTITUTE.

2. JOIST BRIDGING SHALL BE INSTALLED IN ACCORDANCE WITH SJI SPECIFICATIONS AND SHALL HAVE ENDS OF RUNS CROSSED AND FIRMLY ATTACHED TO STEEL BEAMS OR MASONRY.

3. DESIGN JOISTS FOR 15 PSF NET UPLIFT

VI. METAL ROOF DECK

1. METAL ROOF DECK SHALL BE 1 1/2" DEEP x 20 GAGE (EQUAL TO 1.5B20 BY VULCRAFT). PROVIDE 5/8" PUDDLE WELDS IN A 36/4 PATTERN WITH MIN. (2) SIDELAP FASTENERS PER SPAN (#10 TEK SCREWS).

VII. WOOD

1. FRAMING LUMBER SHALL BE #2 SOUTHERN YELLOW PINE (SYP) WITH THE FOLLOWING DESIGN PROPERTIES:
Fb = 800 PSI Fv = 175 PSI E = 1.4E6 PSI

2. FRAMING LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND, CONCRETE OR MASONRY SHALL BE #2 SOUTHERN YELLOW PINE (SYP) TREATED IN ACCORDANCE WITH AWPA C22 WITH THE FOLLOWING DESIGN PROPERTIES:
Fb = 800 PSI Fv = 175 PSI E = 1.4E6 PSI

3. ENGINEERED WOOD BEAMS SHALL BE LAMINATED VENEER LUMBER (LVL) OR PARALLEL STRAND LUMBER (PSL) WITH THE FOLLOWING MINIMUM DESIGN PROPERTIES:
Fb = 2600 PSI Fv = 285 PSI E = 1.9E6 PSI

4. ENGINEERED WOOD BEAMS SHALL BE INSTALLED WITH ALL CONNECTIONS PER MANUFACTURER'S INSTRUCTIONS.

VIII. TIMBER ROOF DECKING

1. REFERENCE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION "STANDARD FOR TONGUE AND GROOVE HEAVY TIMBER ROOF DECKING" (AITC 112)

2. HEAVY TIMBER TONGUE AND GROOVE DECKING SHALL CONFORM WITH THE FOLLOWING MINIMUM DESIGN PROPERTIES:
EASTERN WHITE PINE
Fb = 1100 PSI E = 1.1E6 PSI
*NOTE: SOUTHERN PINE IS ACCEPTABLE FOR USE, SINCE THE DESIGN PROPERTIES (Fb = 1650 PSI , E = 1.6E6 PSI) EXCEED THE MINIMUM VALUES LISTED ABOVE.

3. HEAVY TIMBER TONGUE AND GROOVE DECKING SHALL BE NOMINAL 2"x6" (TRUE DIMENSIONS 1 1/2" X 5 3/8") INSTALLED IN A CONTROLLED RANDOM LAYUP PATTERN.

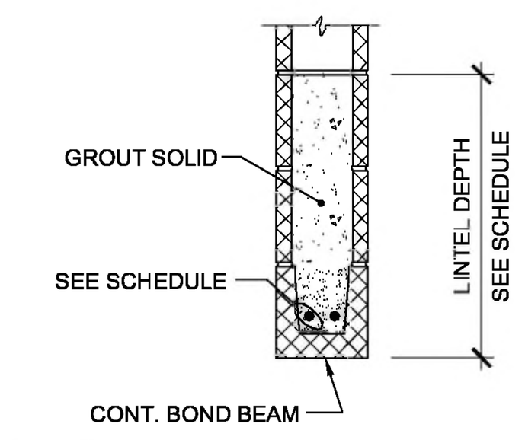
4. INSTALL NEW 3/4" WOOD STRUCTURAL SHEATHING TO TOP OF EXISTING WOOD TONGUE AND GROOVE DECKING. ATTACH SHEATHING WITH 10d NAILS (1" PENETRATION INTO TIMBER DECKING) AT 4" SPACING AT ALL EDGES, AND AT 12" SPACING IN EACH DIRECTION AT THE INTERIOR OF EACH PANEL.

5. ATTACH HEAVY TIMBER TONGUE AND GROOVE DECKING TO SUPPORT STRUCTURE WITH 1/4" SCREWS (EACH PLANK). PROVIDE SCREW ATTACHMENT AT MAXIMUM 6" SPACING AT EDGE CONDITION.

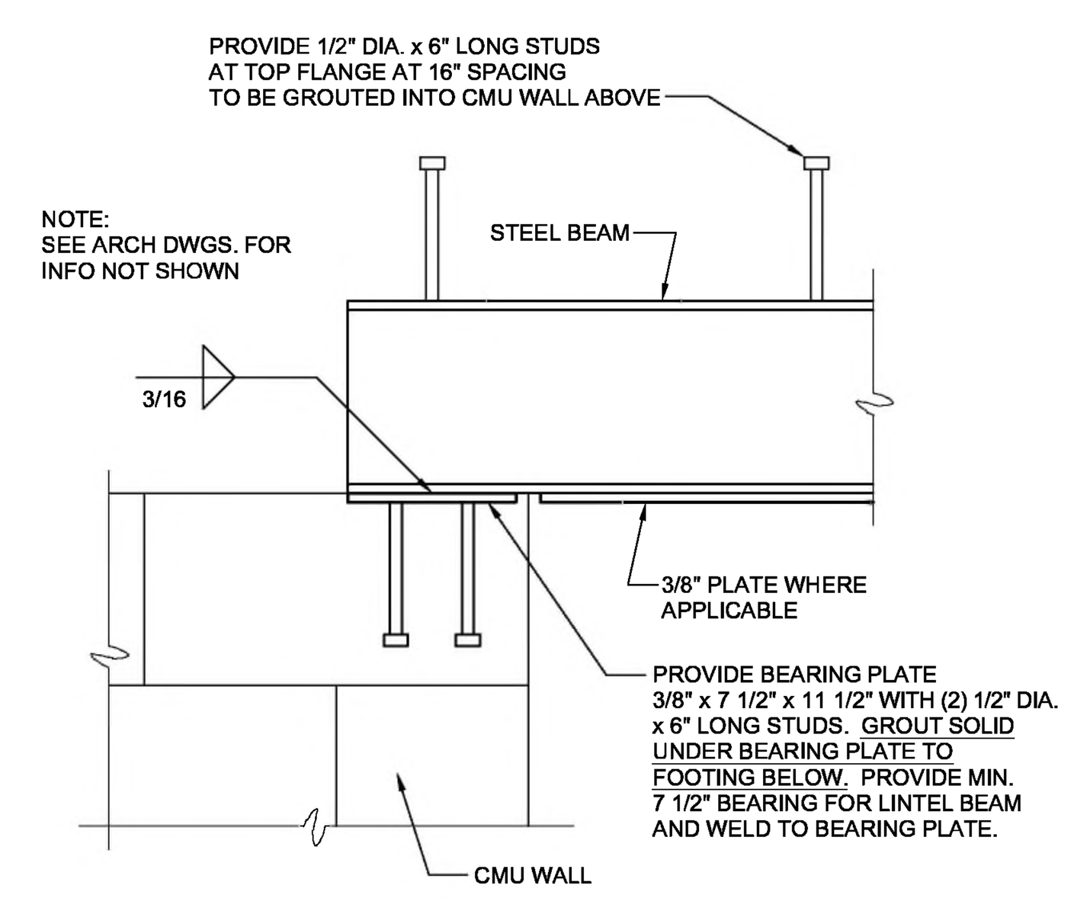
LINTEL SCHEDULE

LINTEL MARK	WALL TYPE	CLEAR OPENING WIDTH	DESCRIPTION	LINTEL DEPTH
TYPICAL	4" BRICK (EXIST. WALL)	UP TO 4'-0"	L 3 1/2 x 3 1/2 x 1/4 (SEE NOTE 8)	
TYPICAL	4" BRICK (EXIST. WALL)	4'-0" TO 8'-0"	L 6 x 4 x 5/16 (LLV) (SEE NOTE 8)	
TYPICAL	4" BRICK (NEW WALL)	UP TO 8'-0"	L 5 x 5 x 3/8	
TYP. U.N.O.	8" CMU (NON-BEARING)	3'-4"	8" BOND BEAM WITH (1) #5 BAR	8" (1 COURSE)
TYP. U.N.O.	8" CMU (LOAD BEARING)	3'-4"	8" BOND BEAM WITH (2) #5 BARS	16" (2 COURSES)
TYP. U.N.O.	8" CMU	3'-4" TO 6'-8"	8" BOND BEAM WITH (2) #5 BARS	16" (2 COURSES)
TYP. U.N.O.	8" CMU	UP TO 6'-8" (ALTERNATE)	2L 6 x 3 1/2 x 5/16 (LLV) PER DET. 5/S2-01	
TYP. U.N.O.	12" CMU	UP TO 6'-8"	12" BOND BEAM WITH (2) #5 BARS -or- PRECAST LINTEL BY OTHERS	16" (2 COURSES)
SEE PLAN	8" -or- 12" CMU	SEE PLAN	STEEL LINTEL - SEE PLAN AND DET. 3/S2-01	
TYP. U.N.O.	8" CMU (NEW EXT. WALL)	UP TO 8'-0"	12" BOND BEAM WITH (2) #5 BARS (SEE ARCH.)	16" (2 COURSES)

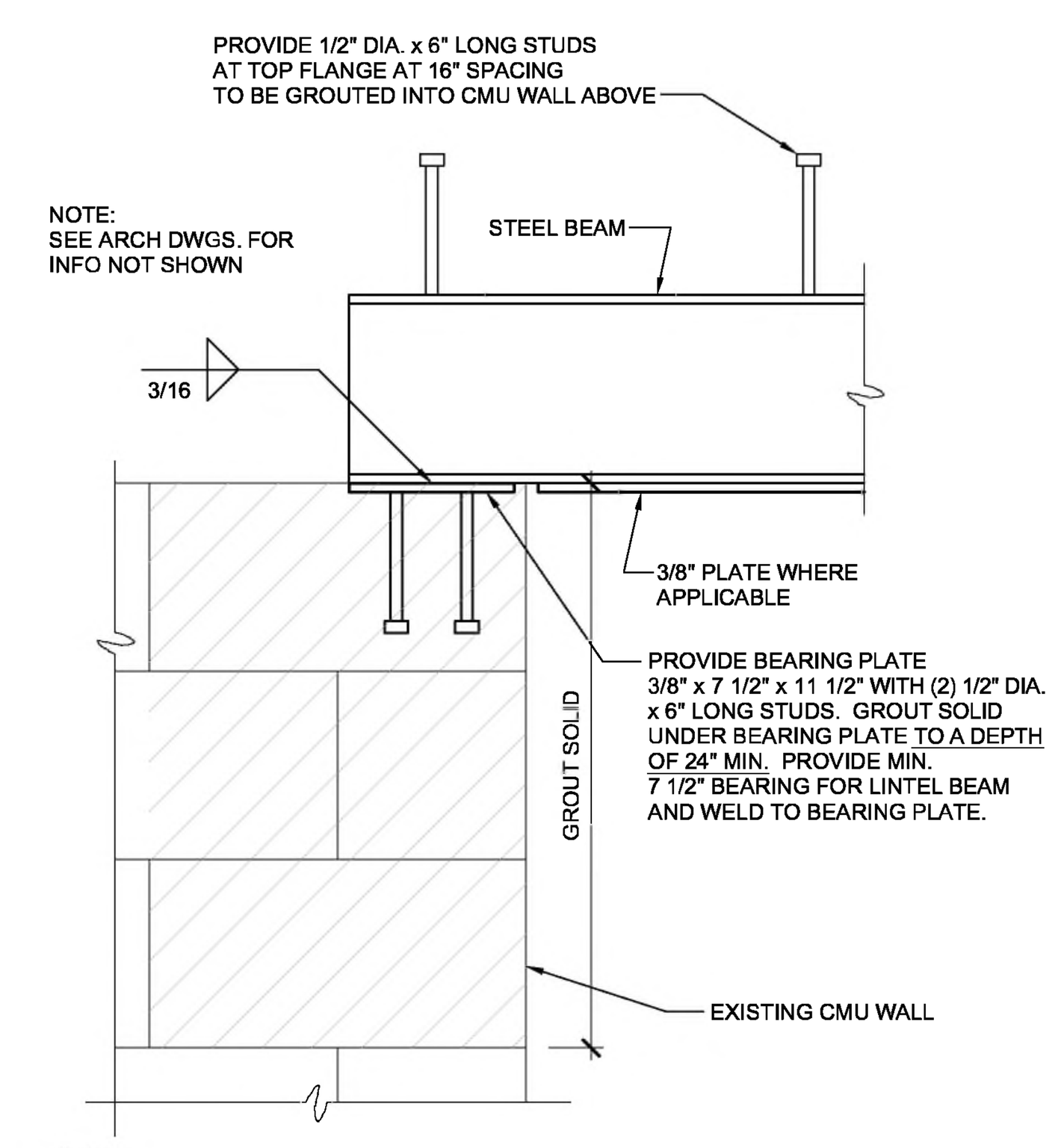
LINTEL NOTES:
1. LINTEL SCHEDULE SHALL APPLY UNLESS NOTED OTHERWISE
2. PROVIDE MIN. 8" BEARING FOR ALL LINTEL ANGLES U.N.O.
3. PROVIDE MIN. 8" BEARING FOR CMU LINTELS U.N.O.
4. PLACE BARS IN BOTTOM OF BOND BEAM.
5. FOR LINTELS CONSISTING OF MULTIPLE COURSES OF CMU, PLACE BARS IN BOTTOM OF BOND BEAM AND GROUT THE ENTIRE LINTEL SOLID IN ONE LIFT.
6. SEE DETAIL 1/S2-03 FOR DEFINITION OF LINTEL DEPTH.
7. SEE DETAIL 2/S2-01 FOR TYPICAL BEAM BEARING DETAIL.
8. PROVIDE L4x3x1/4 (LLH) OR 1/4" BENT PLATE WELDED TO BACK SIDE OF LINTEL ANGLE TO CLOSE CAVITY IN EXTERIOR WALLS. ALTERNATE: USE L8x8x1/2 ANGLE IN LIEU OF WELDING ADDITIONAL ANGLE TO BACK SIDE OF LINTEL ANGLE.



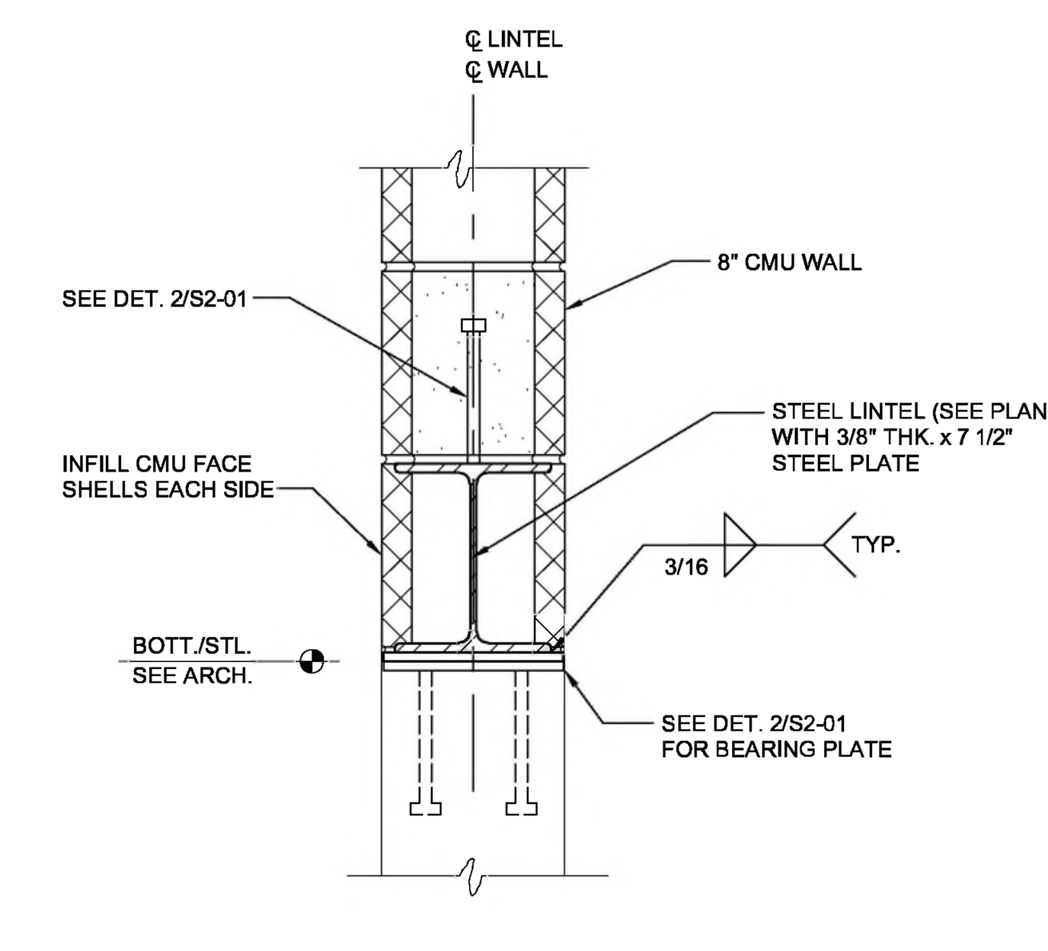
1 LINTEL DETAIL
S2-01 3/4" = 1'-0"



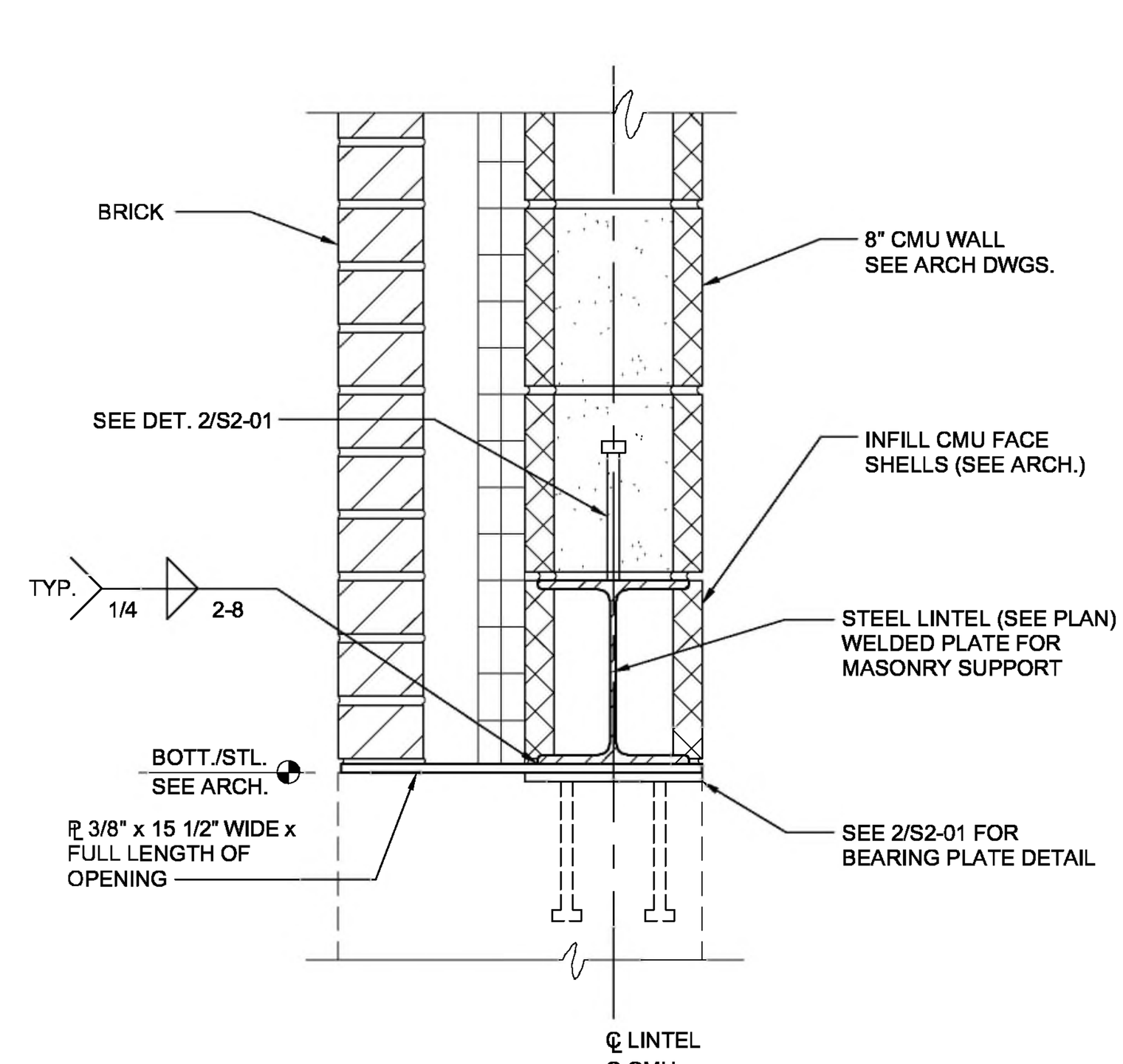
2A TYP. STEEL BEAM BEARING
S2-01 1 1/2" = 1'-0" NEW CMU WALL



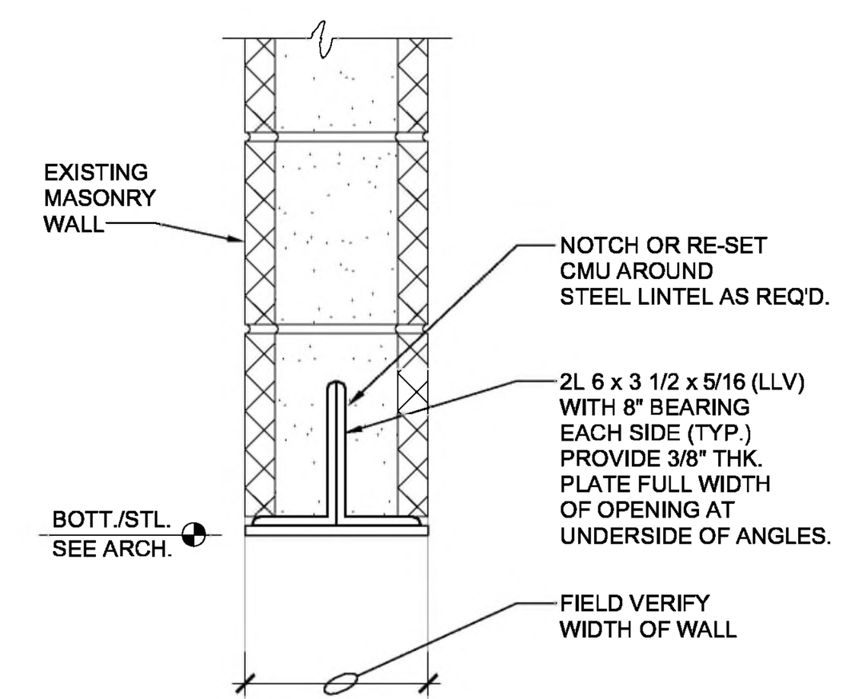
2B TYP. STEEL BEAM BEARING
S2-01 1 1/2" = 1'-0" EXISTING CMU WALL



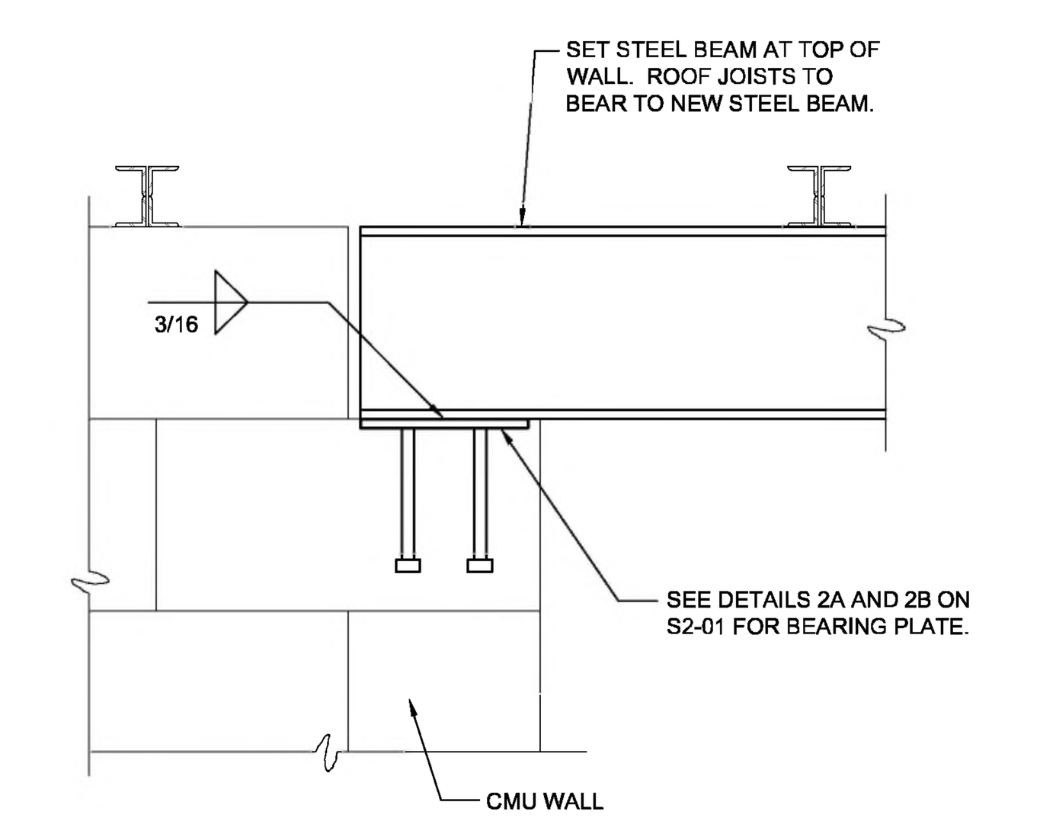
3 STEEL LINTEL DETAIL
S2-01 1 1/2" = 1'-0"



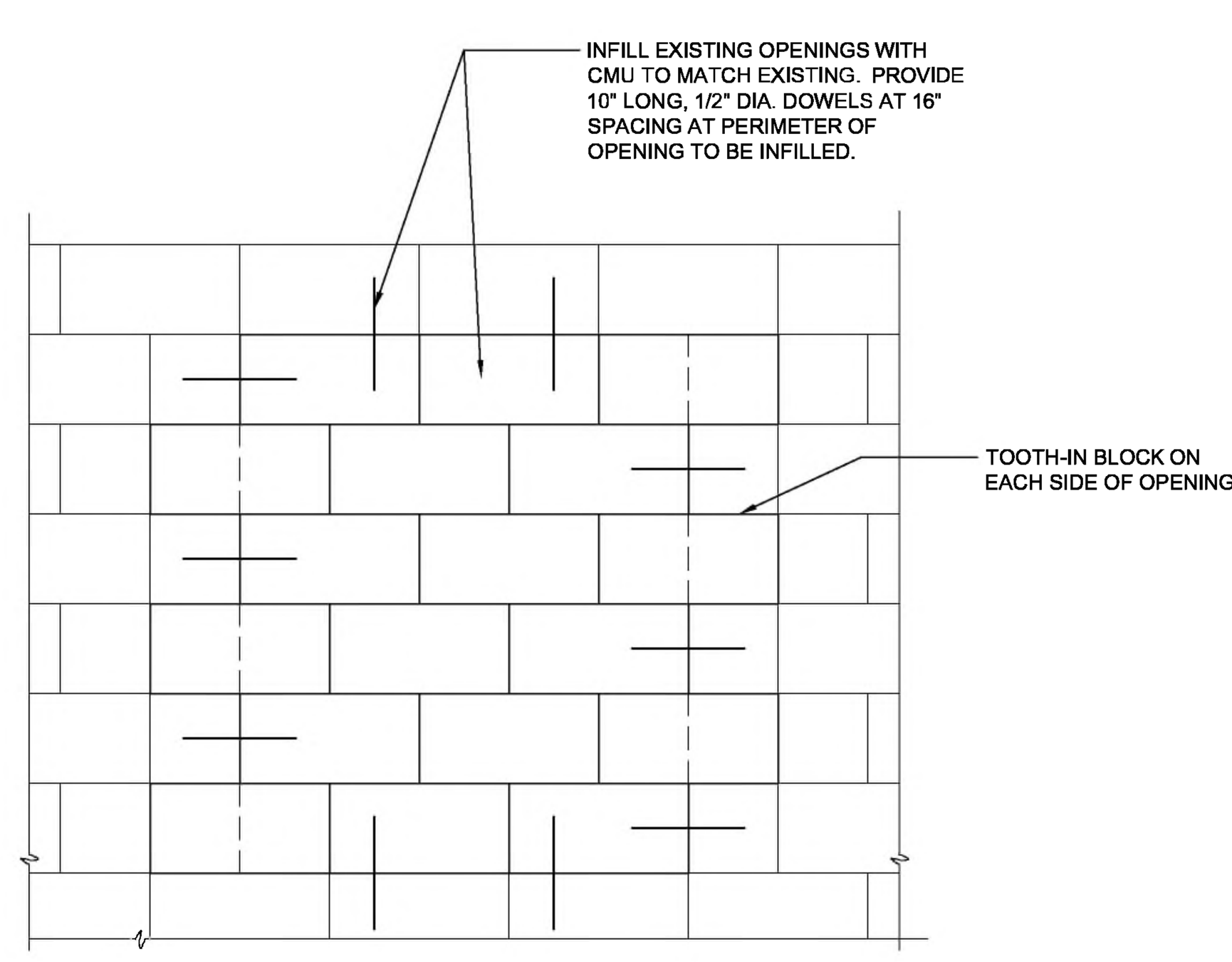
4 LINTEL DETAIL
S2-01 1 1/2" = 1'-0" WITH NEW BRICK VENEER



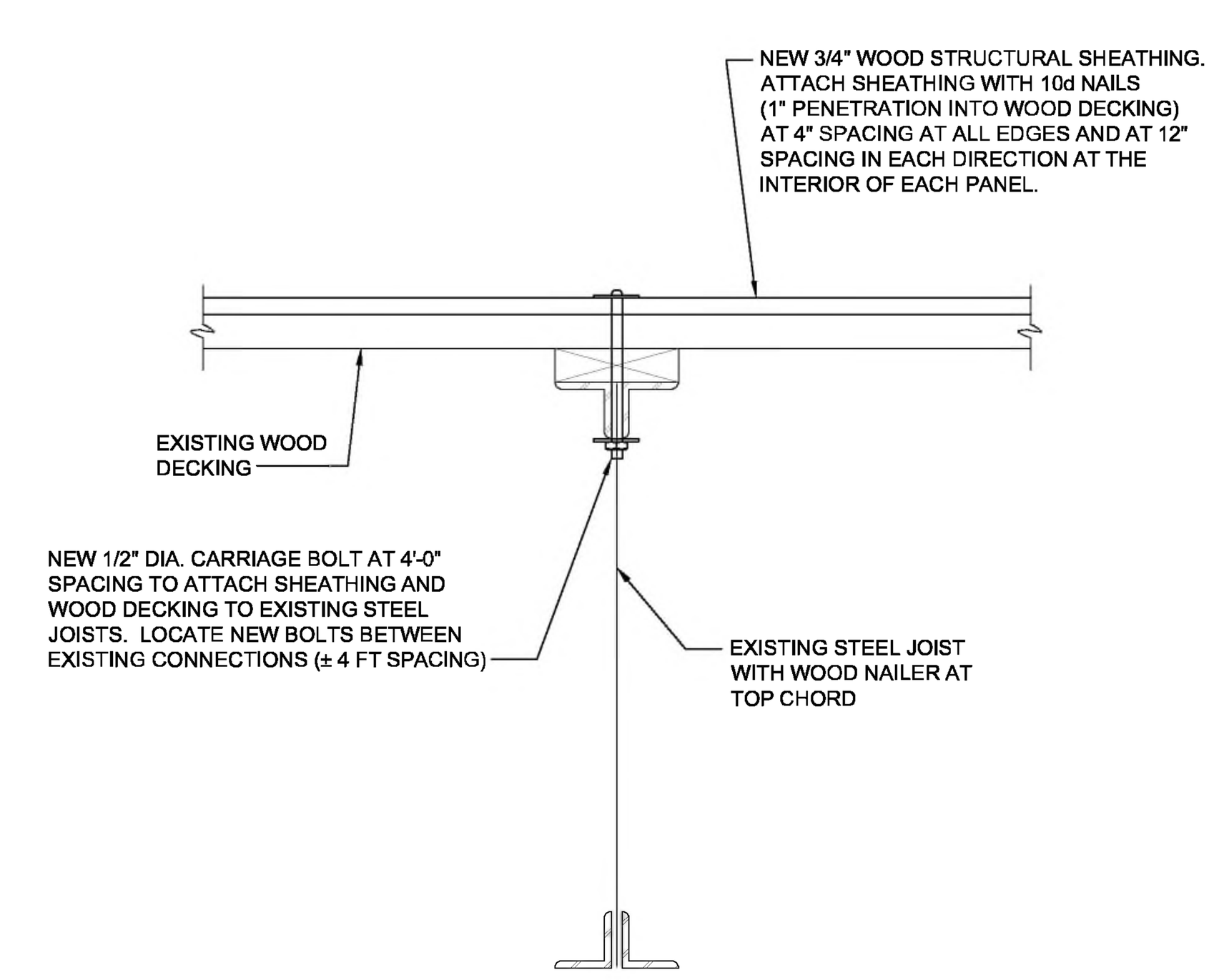
5 LINTEL DETAIL
S2-01 1 1/2" = 1'-0" NEW OPENING IN EXISTING WALL



6 NEW STEEL BEAM AT EXISTING WALL
S2-01 1 1/2" = 1'-0" SEE PLAN FOR LOCATIONS



7 TYP. WALL INFILL DETAIL
S2-01 3/4" = 1'-0"



8 TYP. WOOD DECKING SUPPORT
S2-01 1 1/2" = 1'-0" TYP. AT ALL LOCATIONS OF EXISTING WOOD DECKING

smith sinnett ARCHITECTURE
4600 Lake Boone Trail
Suite 205
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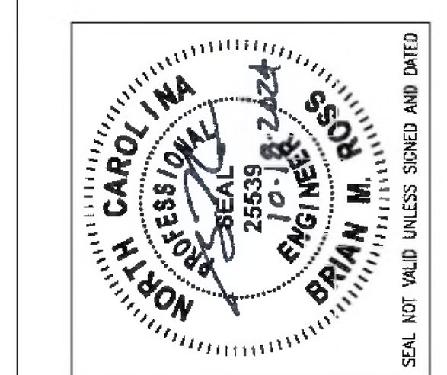


Onslow County Senior Services Center Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

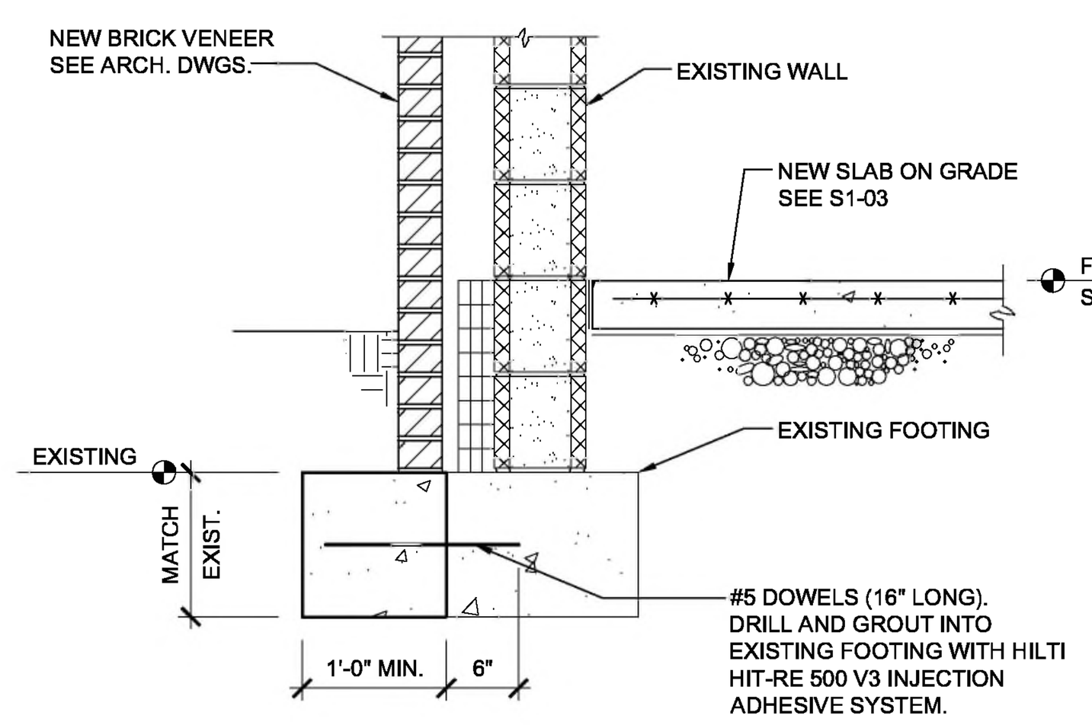
ID	DATE	DESCRIPTION

DRAWN BY: BR
CHECKED BY: BR/JG

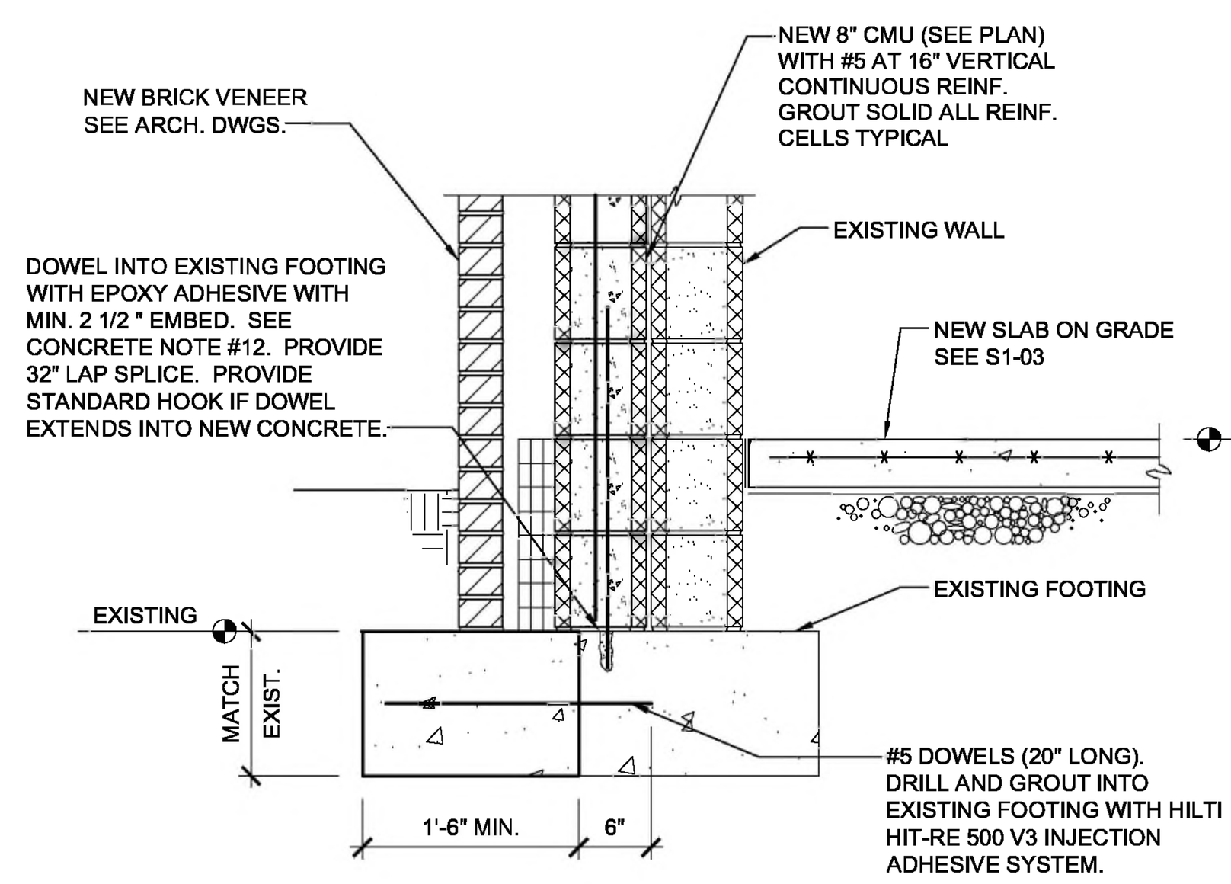
STRUCTURAL NOTES & DETAILS

C230906 16 OCT. 2024

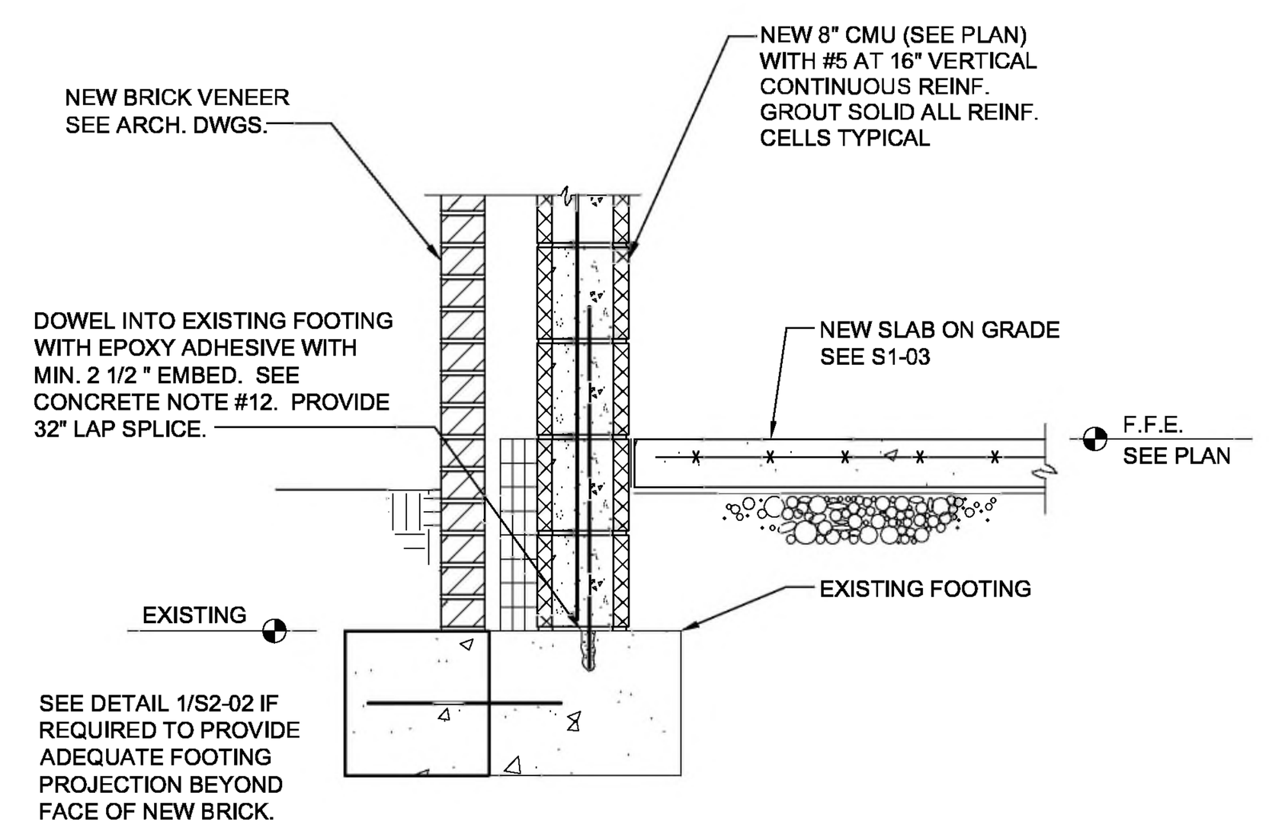
S2-01



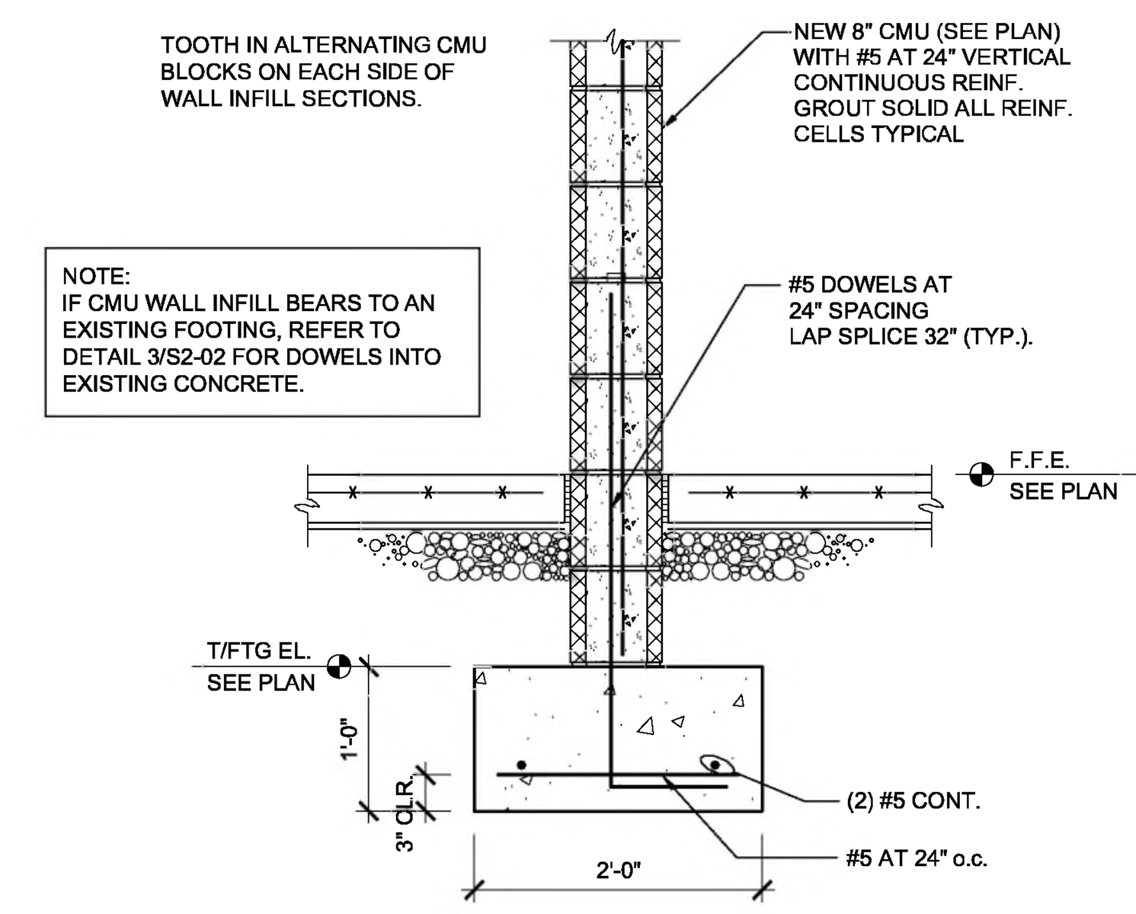
1 TYPICAL FOOTING EXTENSION
S2-02 3/4" = 1'-0" NEW BRICK VENEER



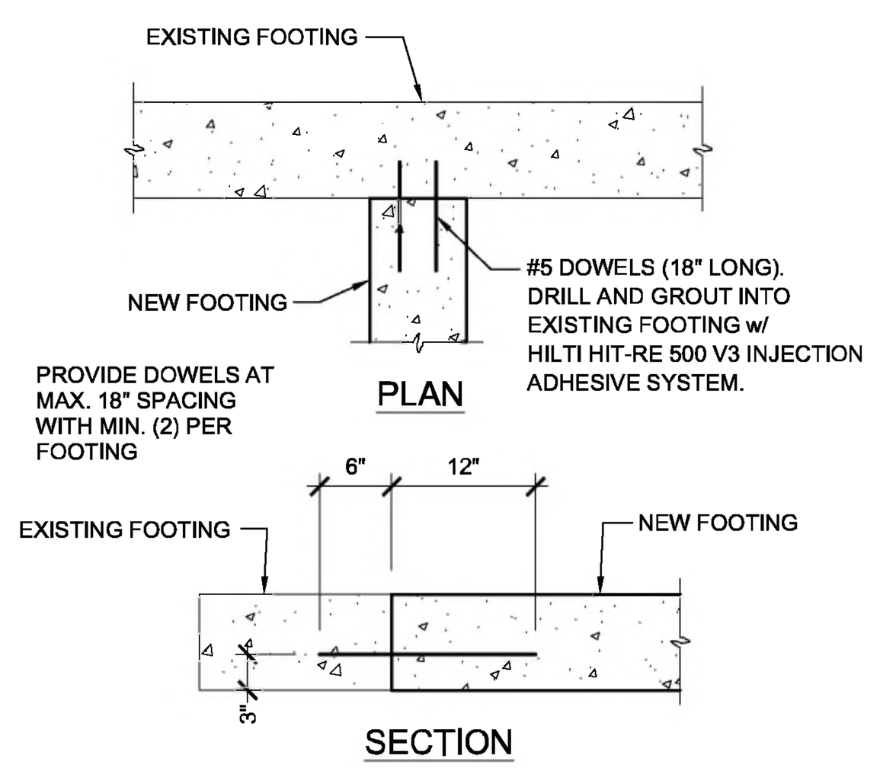
2 DETAIL - NEW CMU AT EXISTING WALL
S2-02 3/4" = 1'-0"



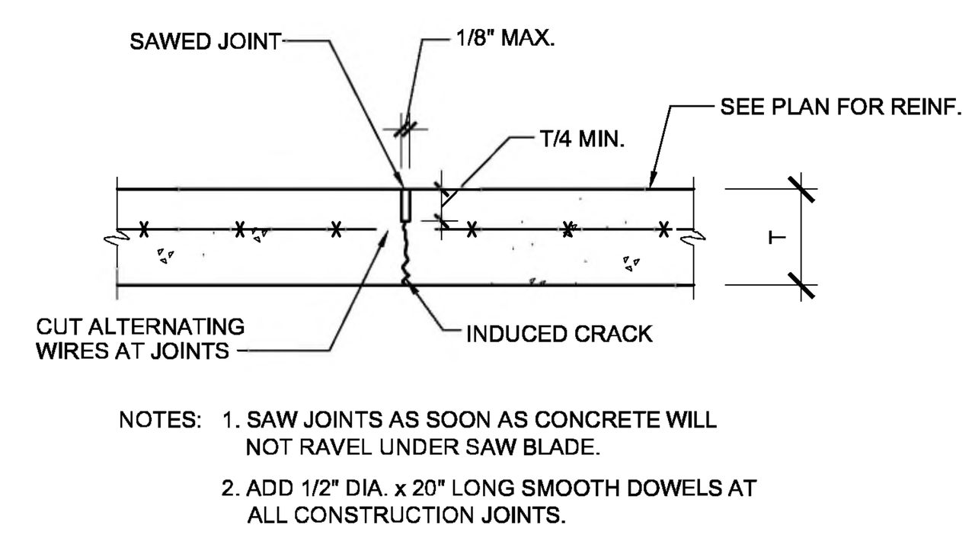
3 DETAIL - NEW EXTERIOR CMU WALL
S2-02 3/4" = 1'-0"



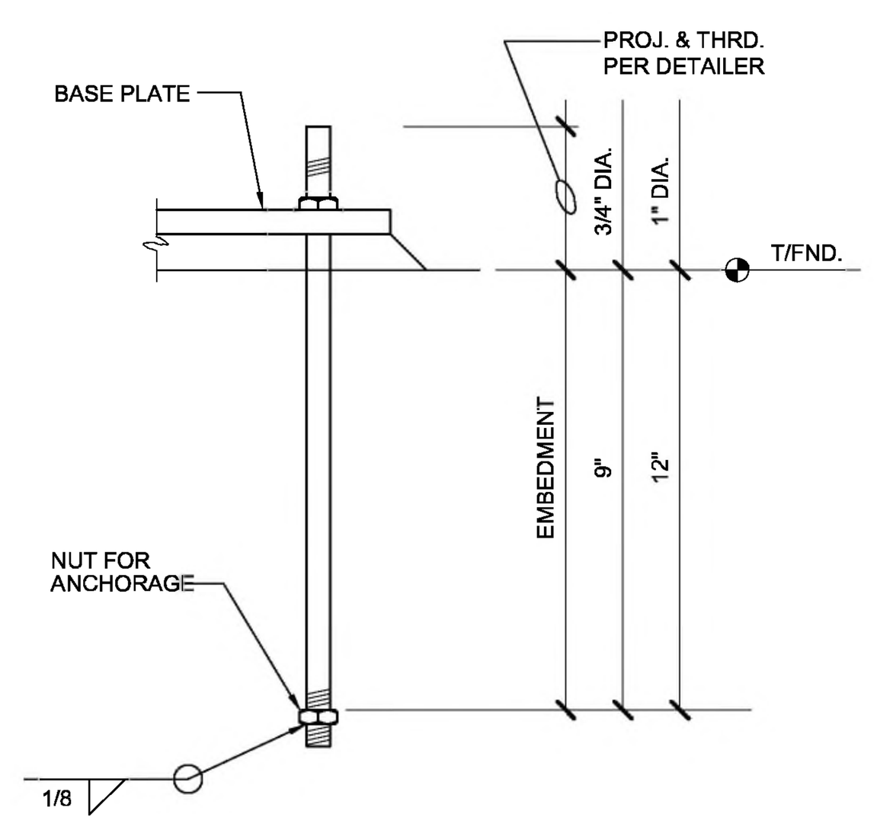
4 INTERIOR CMU WALL INFILL
S2-02 3/4" = 1'-0"



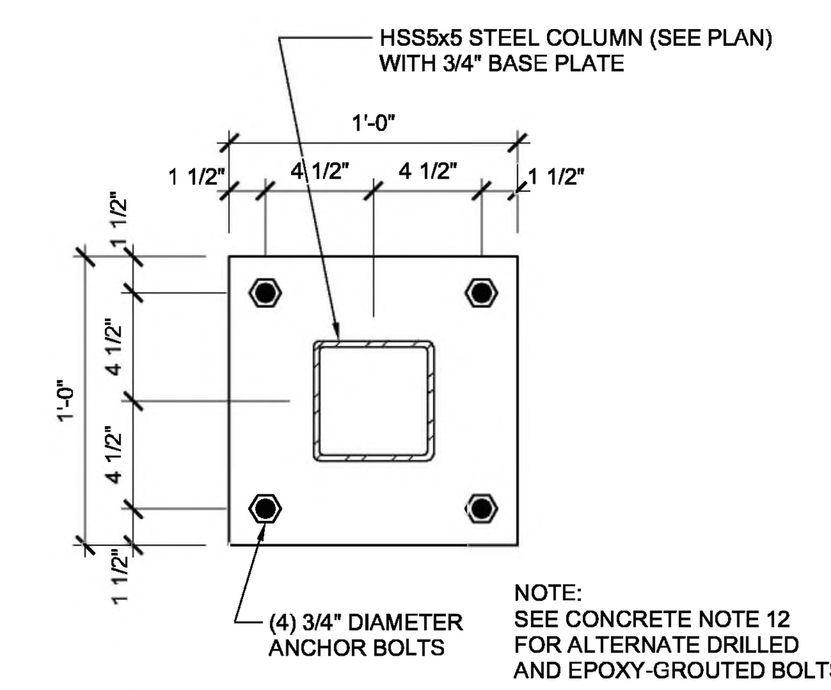
5 TYP. FOOTING TIE-IN DETAIL
S2-02 3/4" = 1'-0"



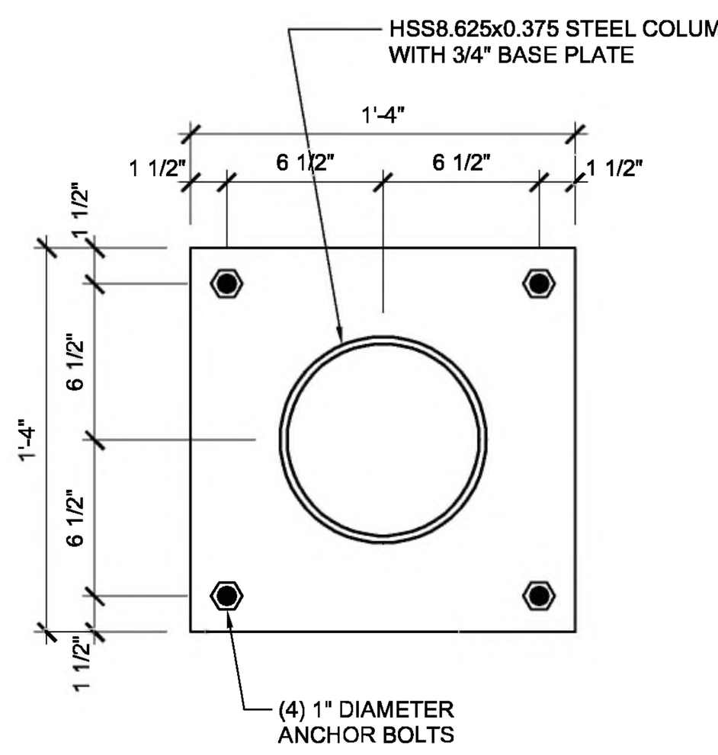
6 DETAIL - TYP. SLAB CONTROL JOINT
S2-02 1" = 1'-0"



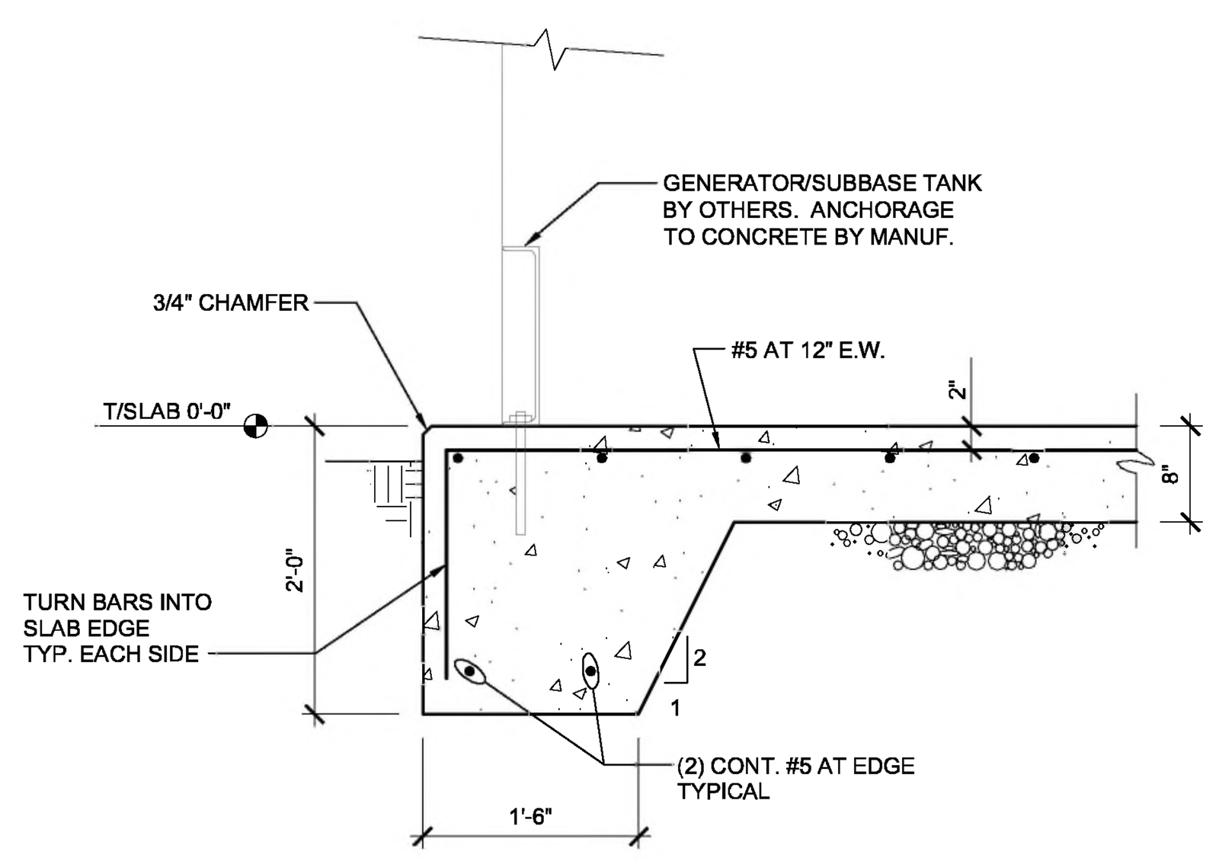
7 TYP. ANCHOR BOLT DETAIL
S2-02 NO SCALE



8A BASE PLATE DETAIL
S2-02 1 1/2" = 1'-0"



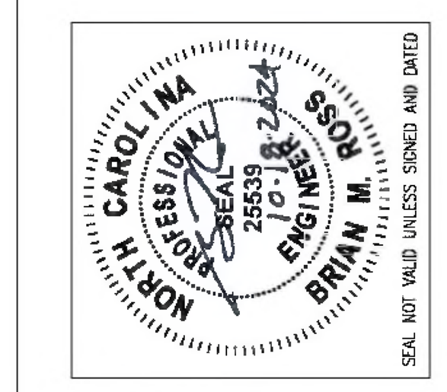
8B BASE PLATE DETAIL
S2-02 1 1/2" = 1'-0"



9 SECTION - GENERATOR FOUNDATION
S2-02 3/4" = 1'-0" ALTERNATE 1

smith sinnett ARCHITECTURE

4600 Lake Boone Trail
Suite 205
Raleigh, NC 27607



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THIS DRAWING IS FORMATTED TO BE PRINTED ON A 30" x 42" SHEET

Onslow County Senior Services Center Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

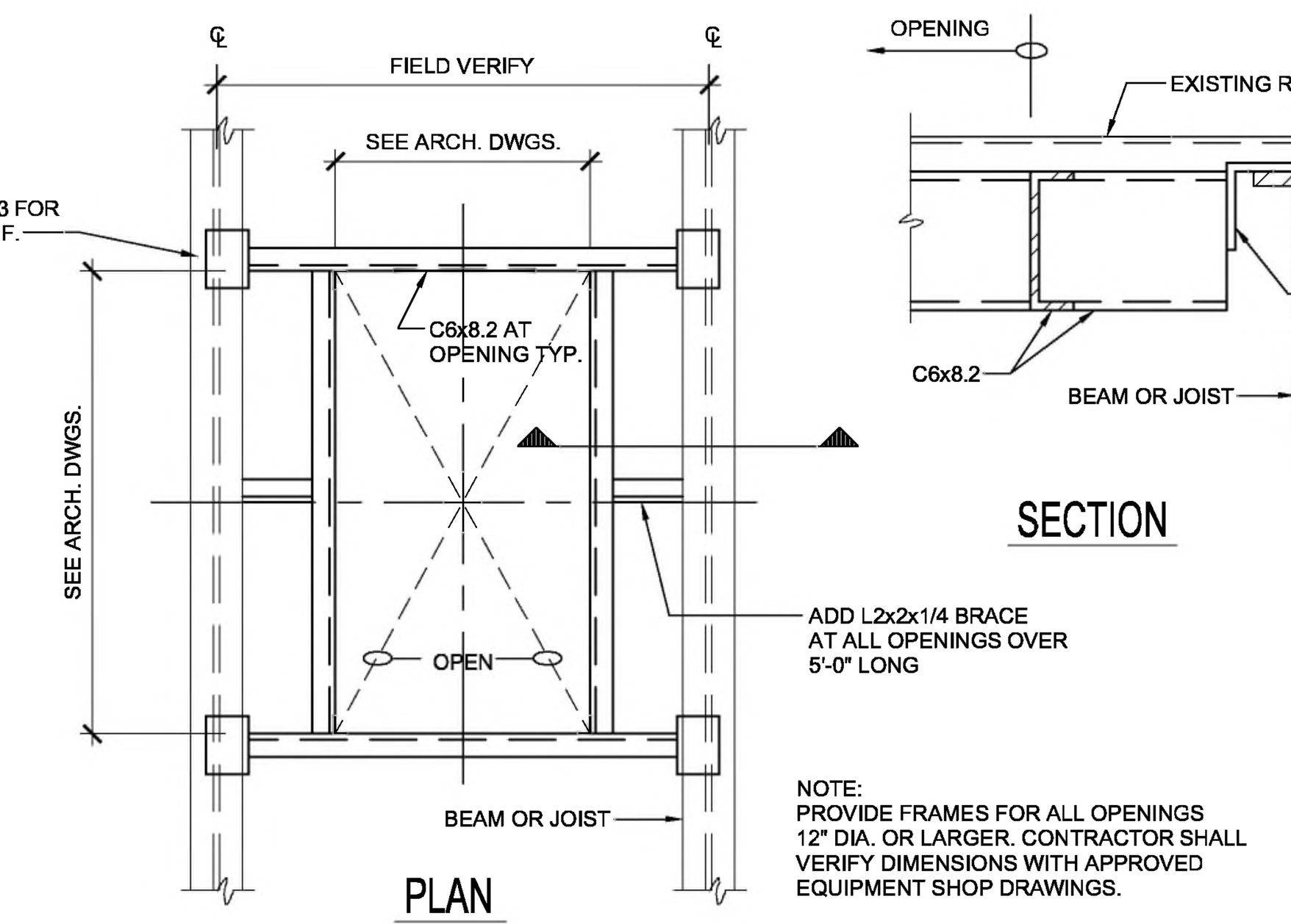
ID	DATE	DESCRIPTION

DRAWN BY: BR
CHECKED BY: BR/JG

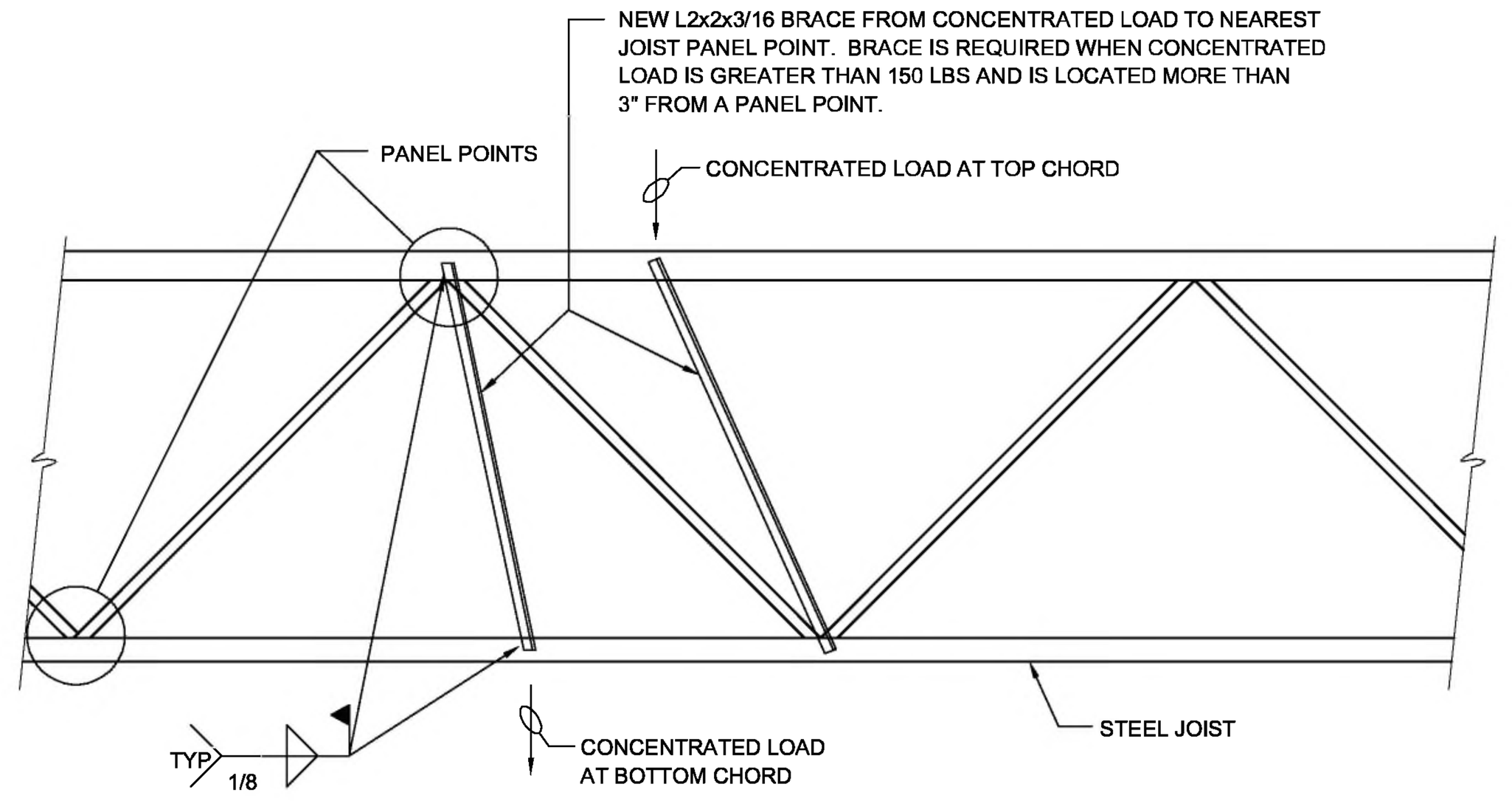
SECTIONS & DETAILS

C230906 16 OCT. 2024

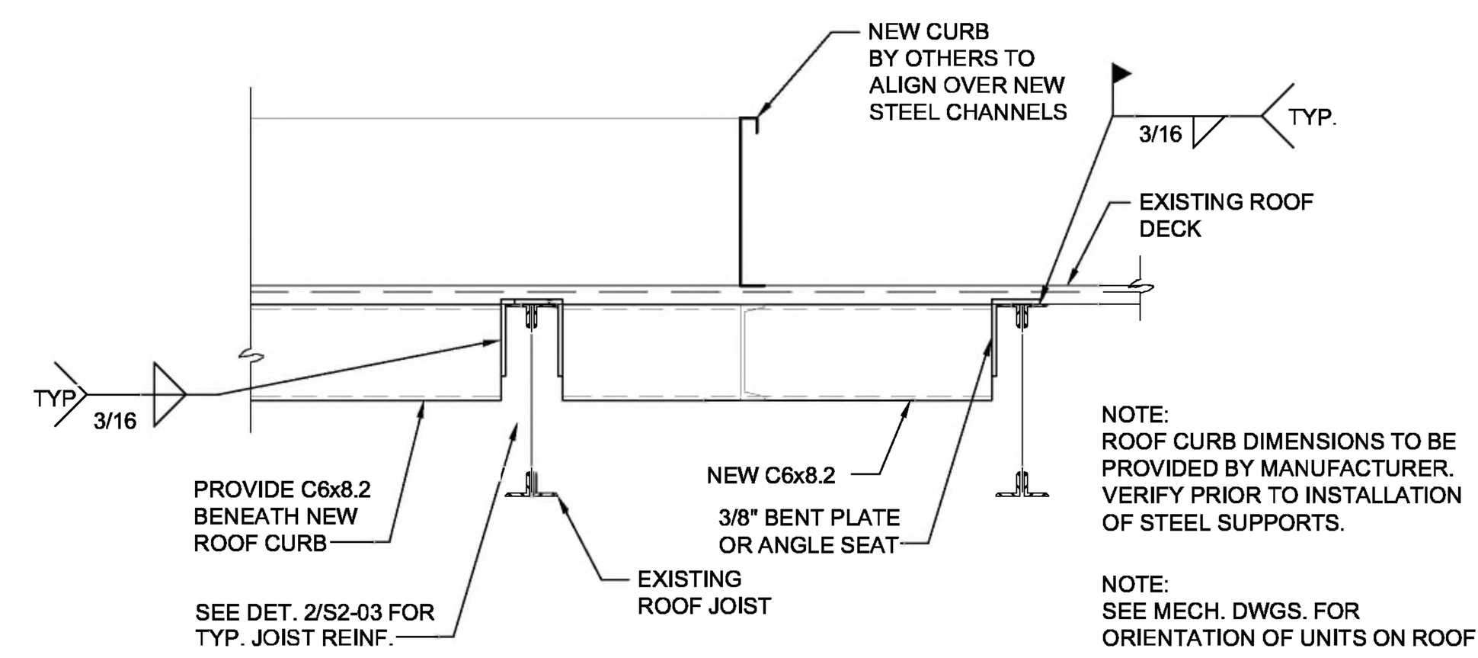
S2-02



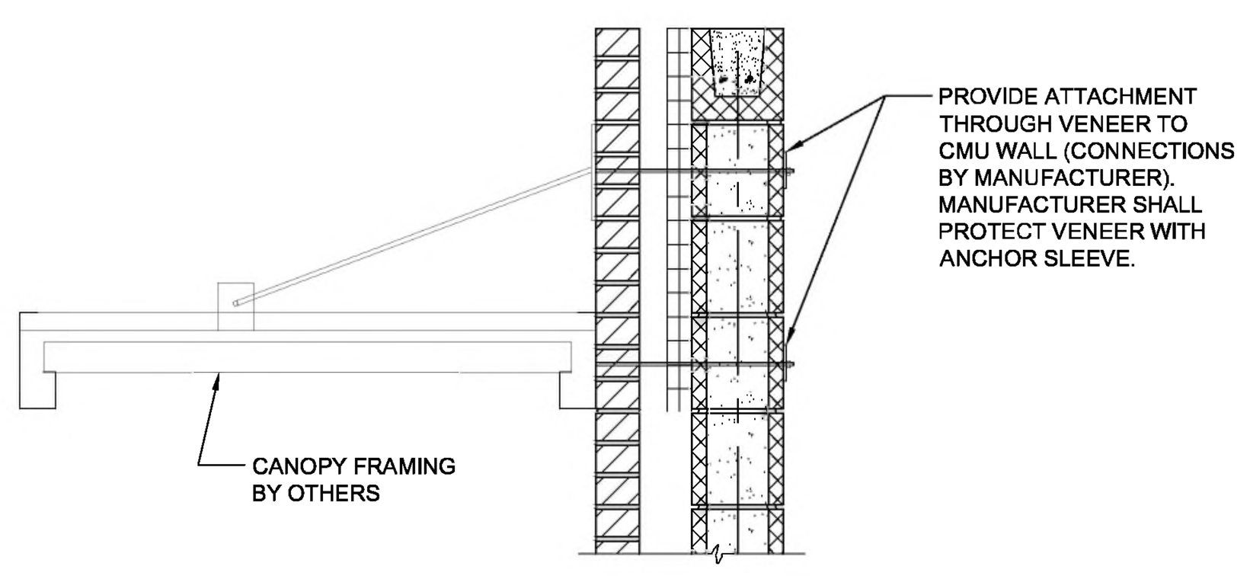
1 TYP. ROOF OPENING DETAIL
S2-03 3/4" = 1'-0"



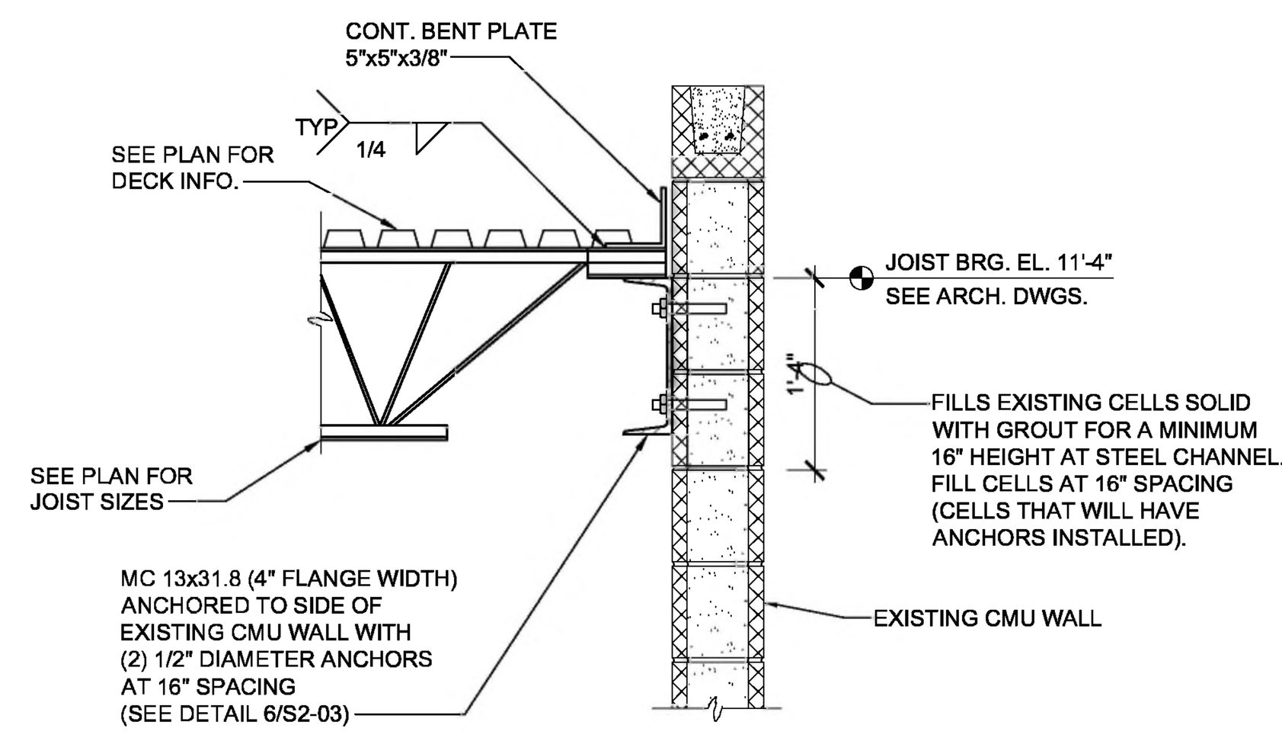
2 DETAIL - BRACING AT JOIST FOR CONCENTRATED LOADS
S2-03 NO SCALE



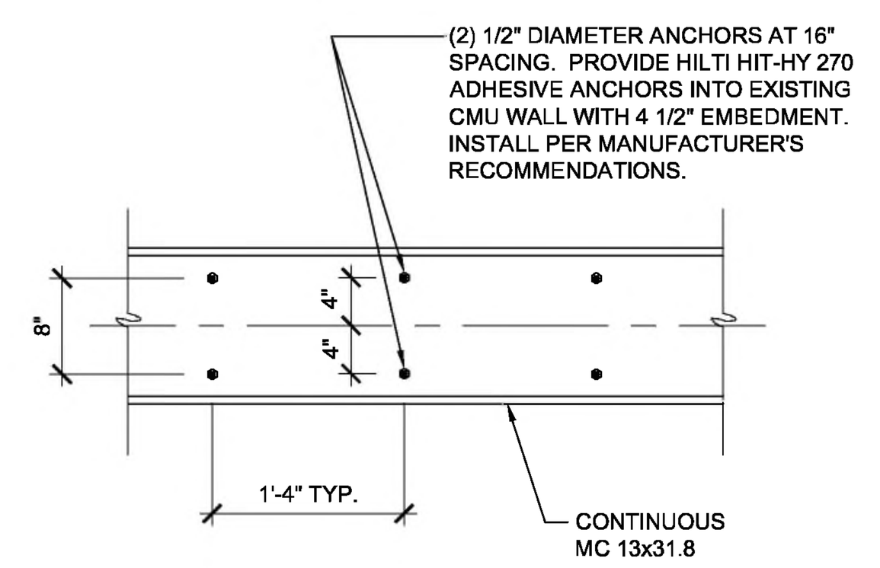
3 TYP. ROOF CURB SUPPORT DETAIL
S2-03 3/4" = 1'-0"



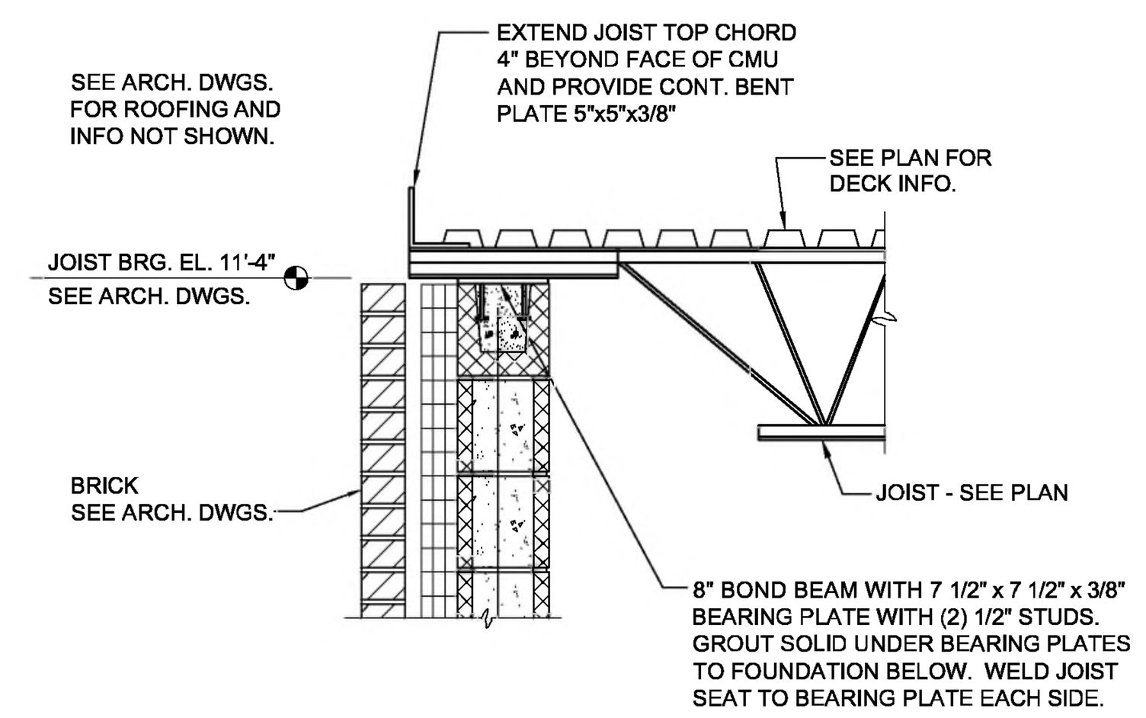
4 TYP. SECTION AT CANOPY
S2-03 3/4" = 1'-0" BASE BID



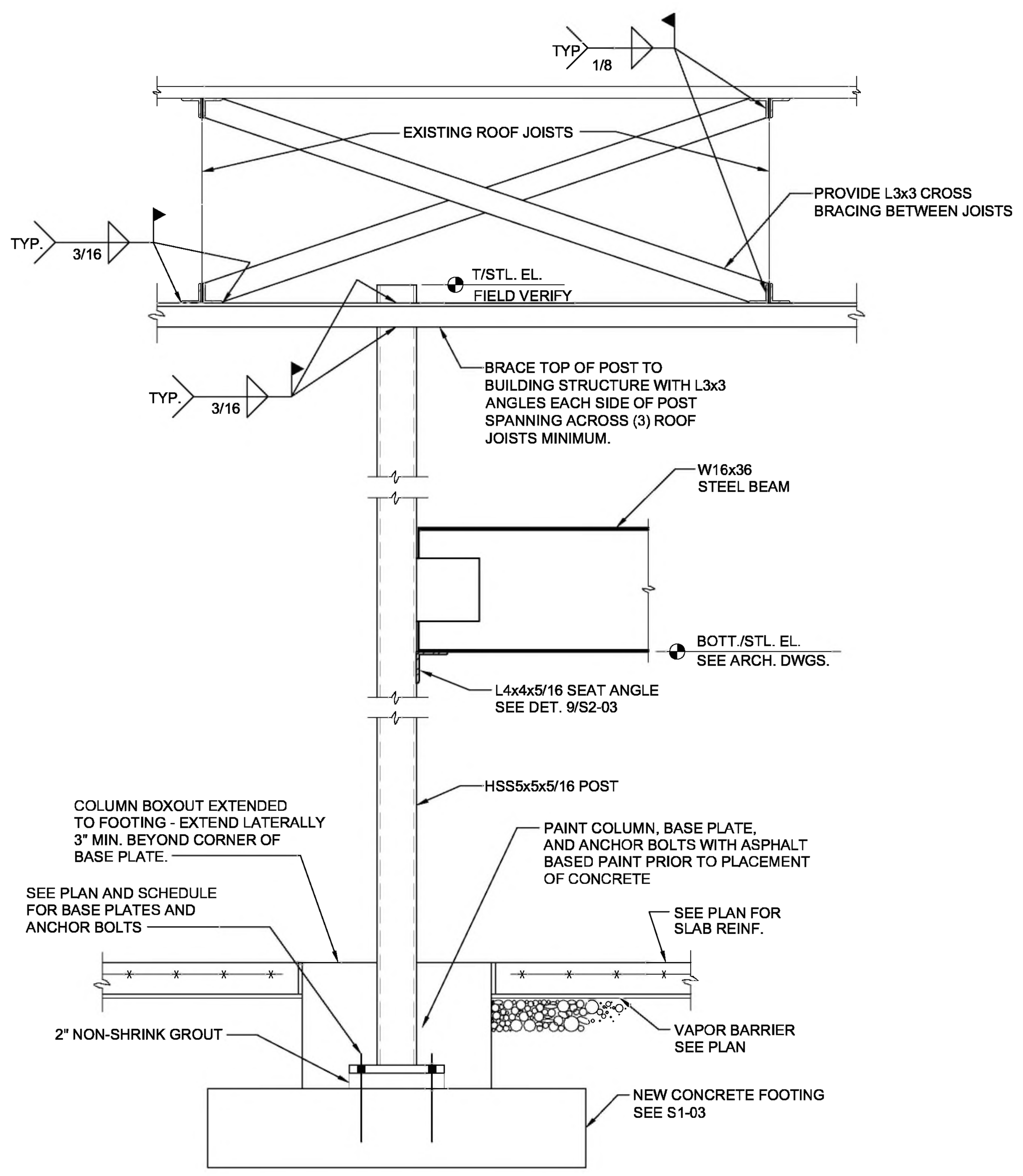
5 DETAIL - NEW STEEL LEDGER
S2-03 3/4" = 1'-0"



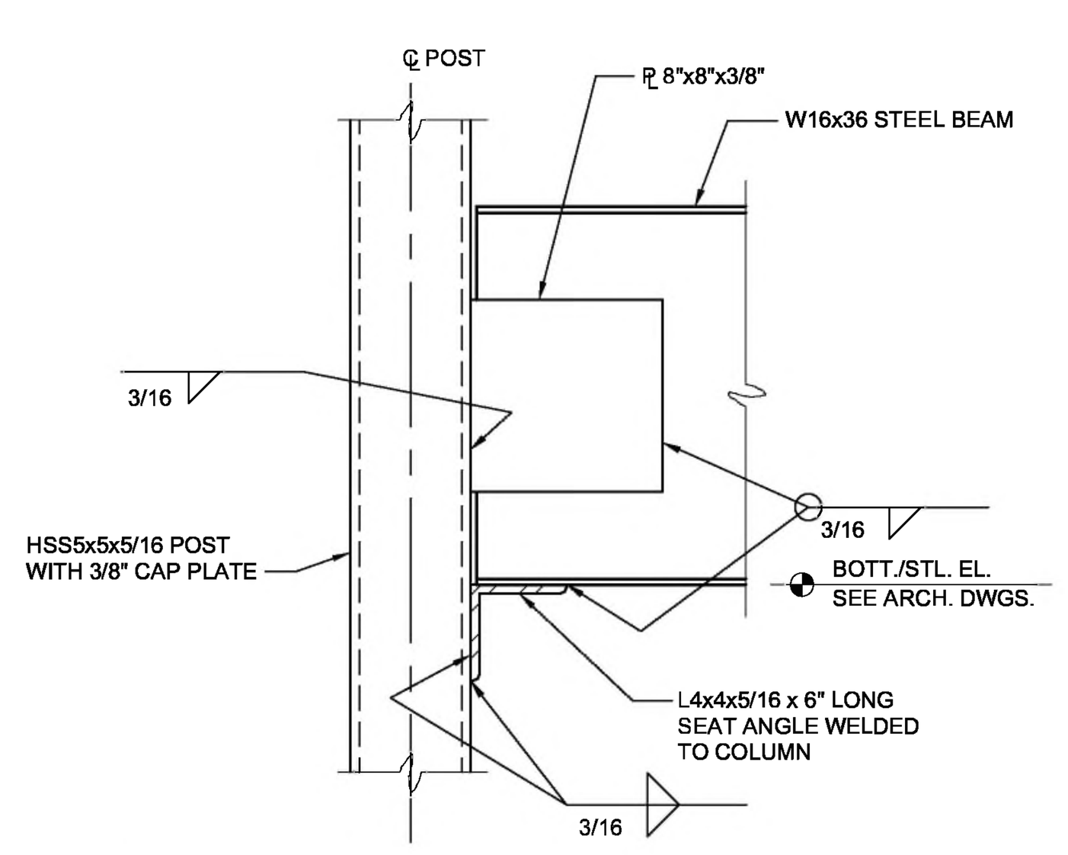
6 CONNECTION DETAIL
S2 3/4" = 1'-0" STEEL CHANNEL TO EXISTING WALL



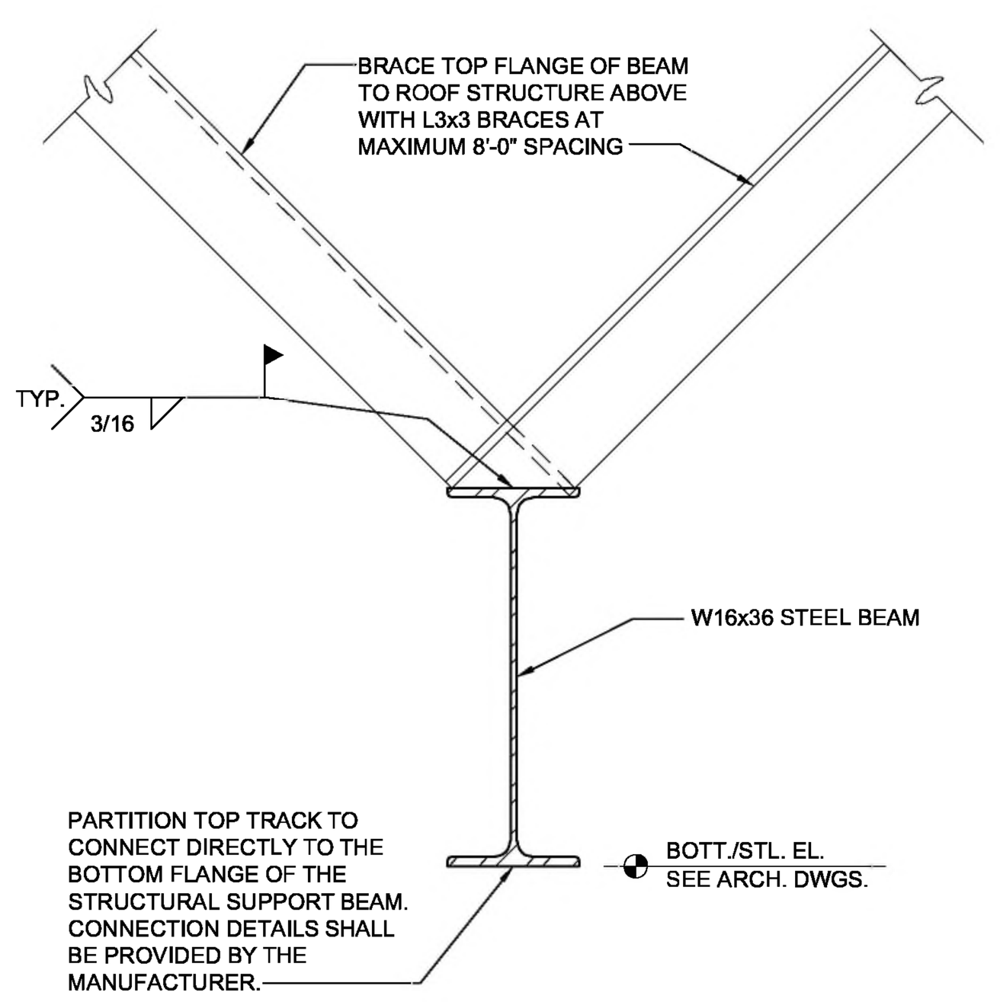
7 DETAIL - JOIST BEARING AT NEW CMU WALL
S2-03 3/4" = 1'-0"



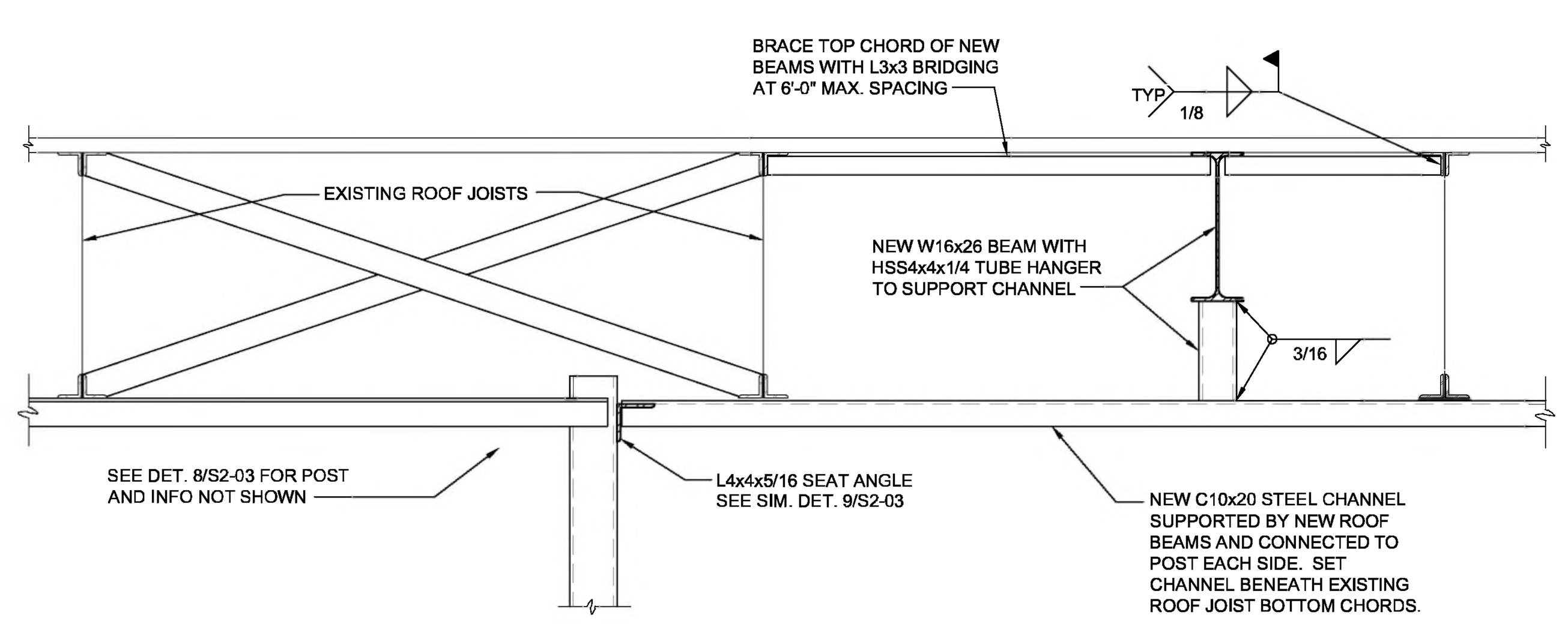
8 SECTION AT PARTITION BEAM
S2-03 3/4" = 1'-0"



9 CONNECTION DETAIL
S2-03 1 1/2" = 1'-0"



10 SECTION AT PARTITION BEAM
S2-03 1 1/2" = 1'-0"



11 SECTION AT PARTITION CHANNEL AT ROOM 116
S2-03 3/4" = 1'-0"

smith sinnett ARCHITECTURE

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WWW.ROSSLINDEN.COM NC LICENSE NO. C-2364

Onslow County Senior Services Center Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

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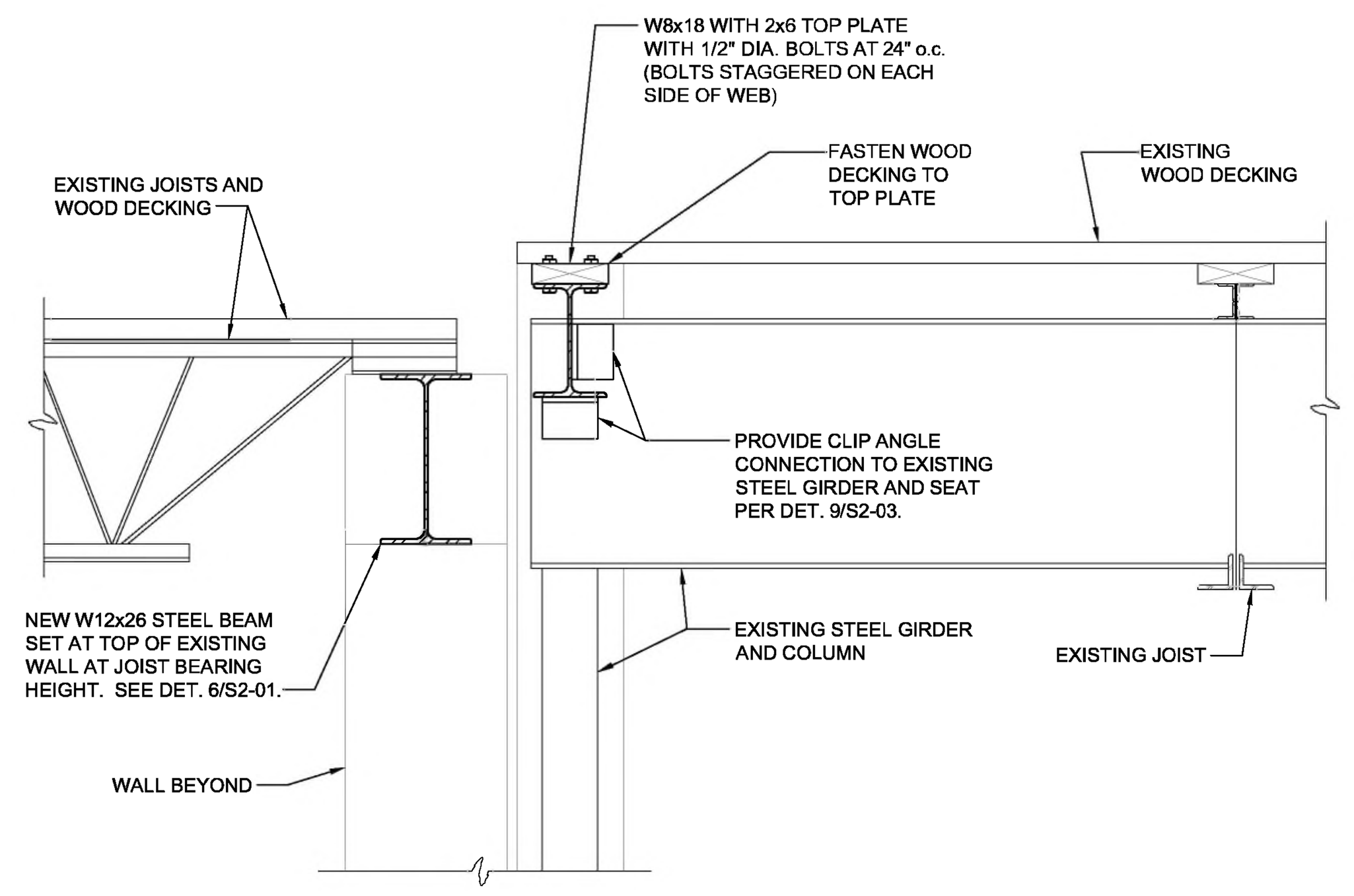
SECTIONS & DETAILS

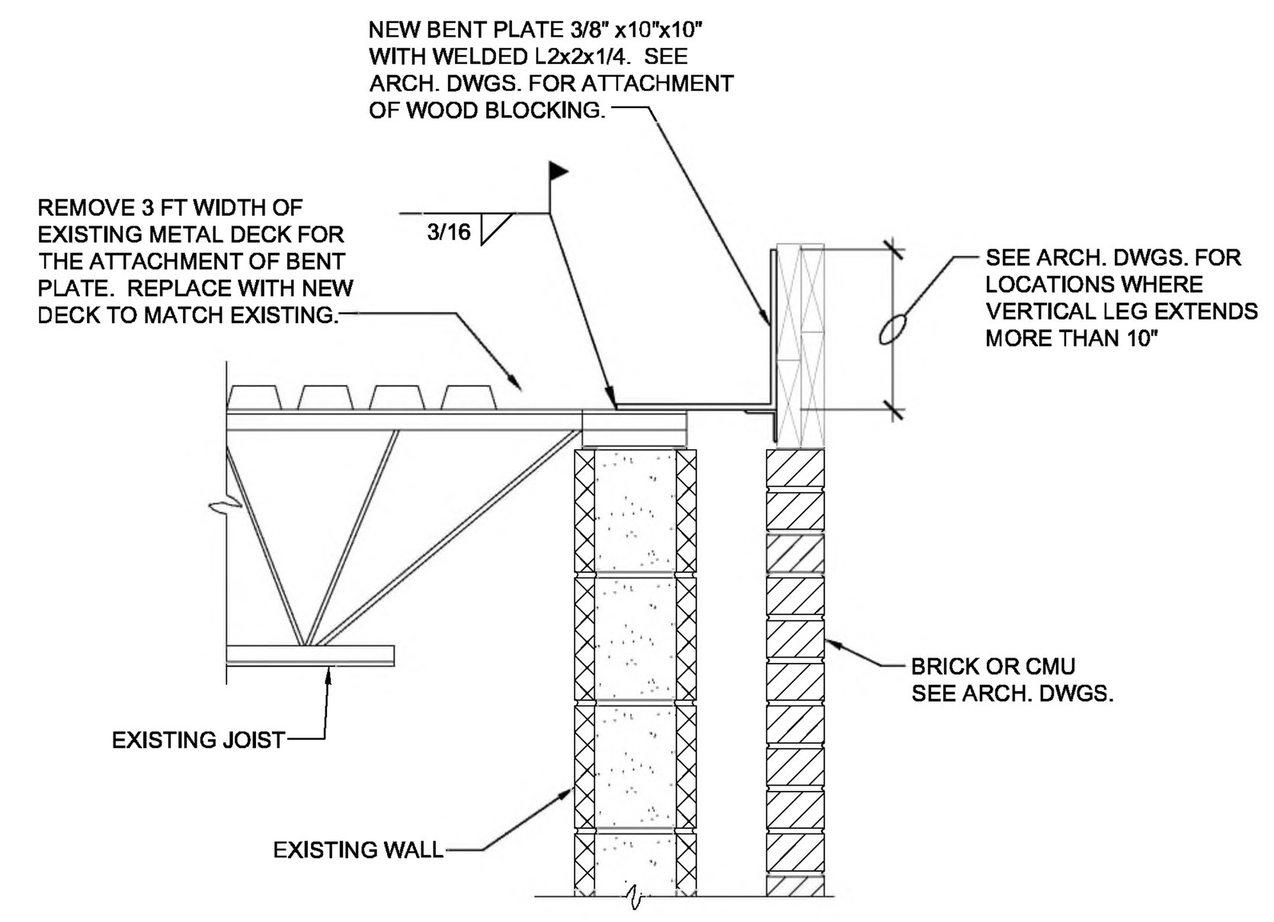
C230906 16 OCT. 2024

S2-03



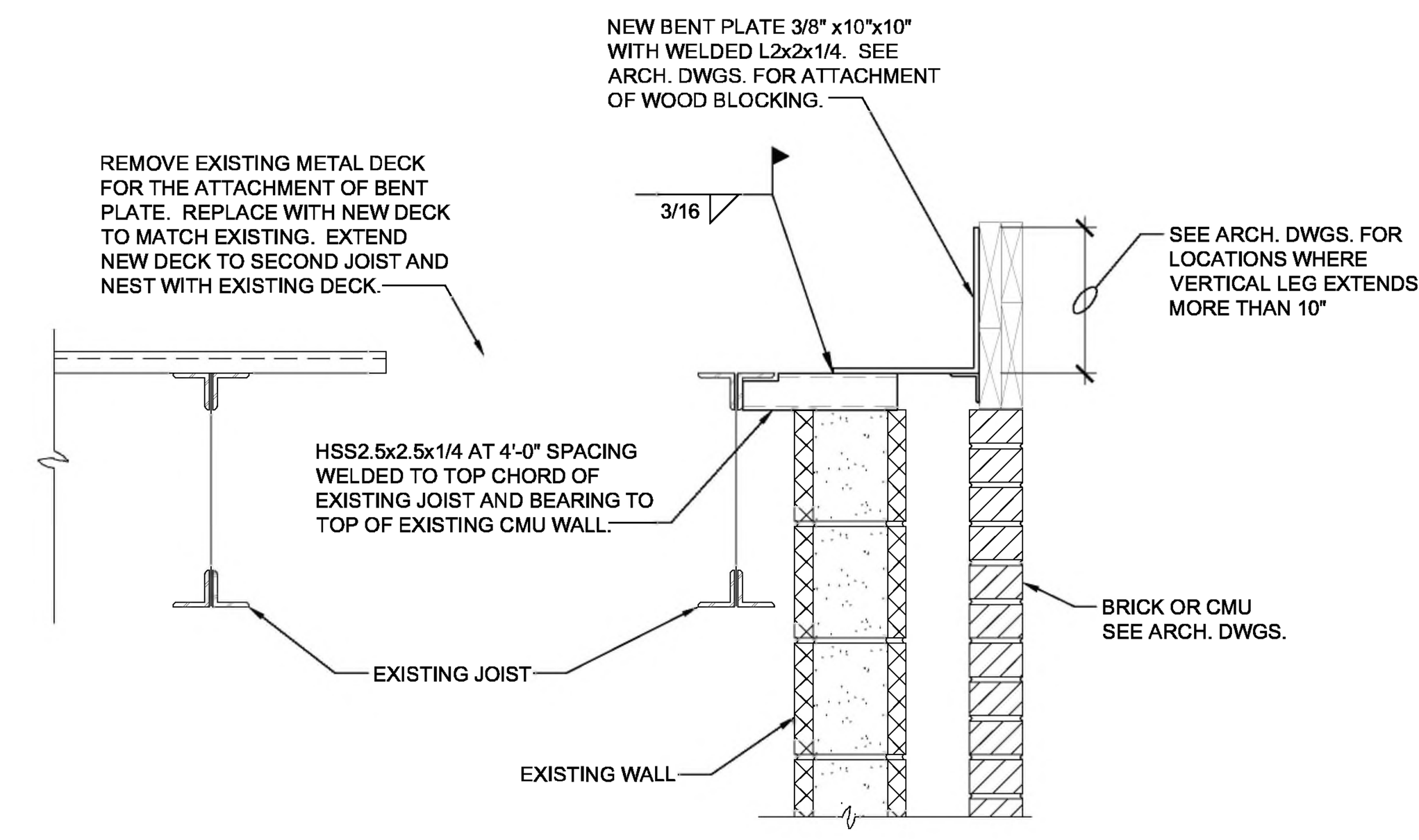
1 FRAMING SECTION

S2-04 1" = 1'-0"



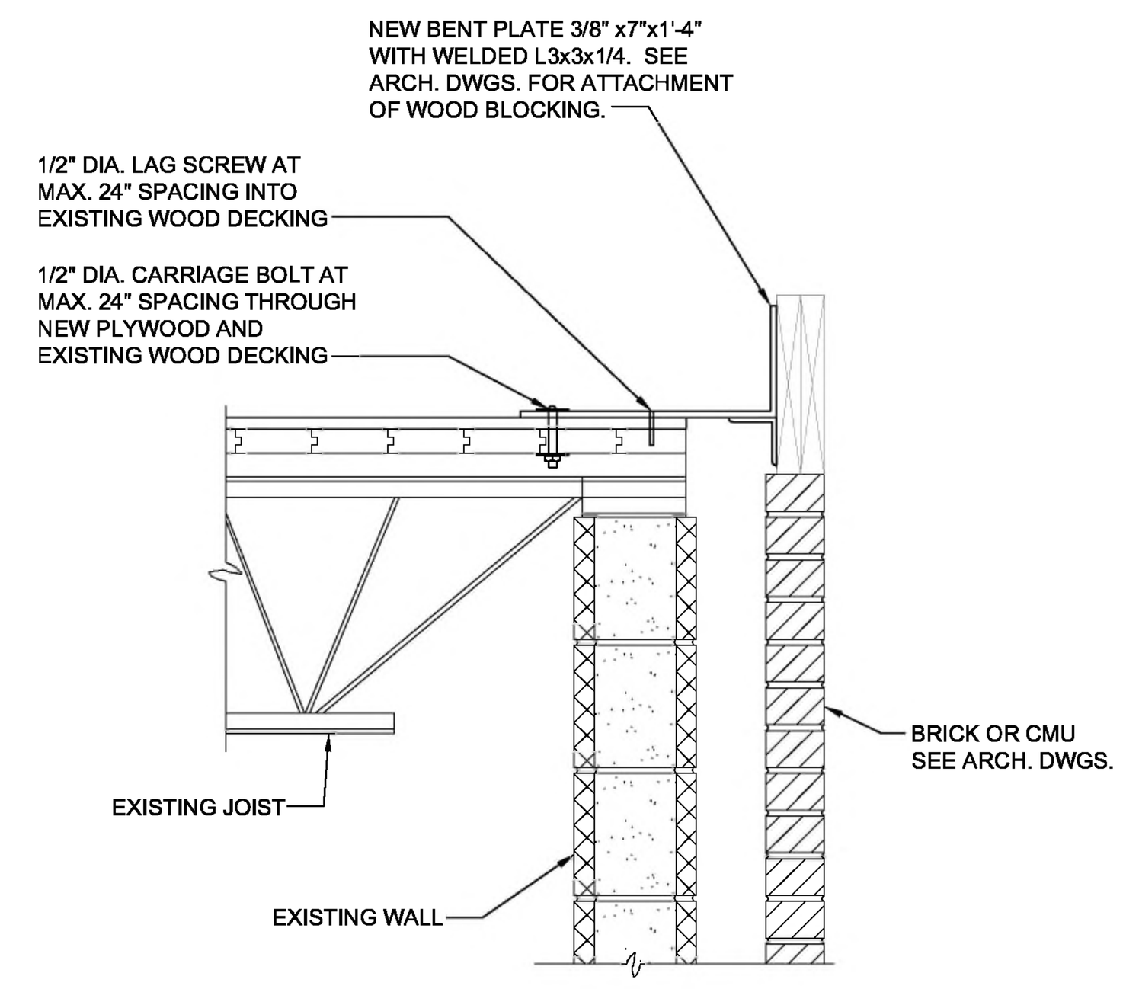
2 ROOF EDGE STEEL DETAIL

S2-04 1" = 1'-0" JOISTS BEARING TO WALL



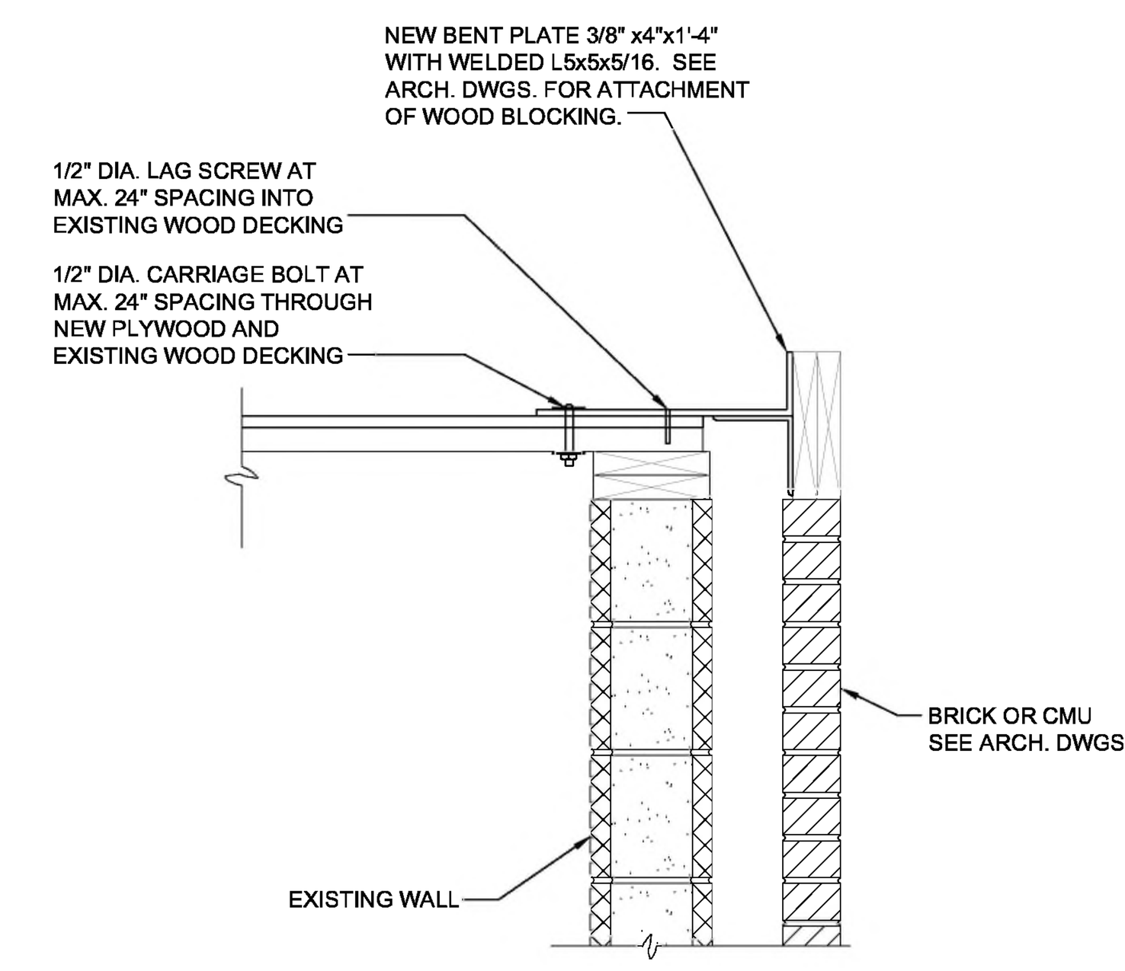
3 ROOF EDGE STEEL DETAIL

S2-04 1" = 1'-0" JOISTS PARALLEL TO WALL



4 ROOF EDGE STEEL DETAIL

S2-04 1" = 1'-0" JOISTS BEARING TO WALL - WOOD DECKING



5 ROOF EDGE STEEL DETAIL

S2-04 1" = 1'-0" JOISTS PARALLEL TO WALL - WOOD DECKING

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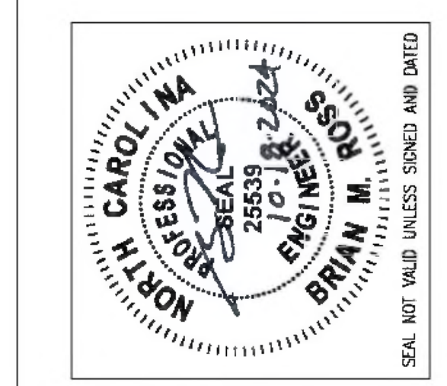
Raleigh, NC 27607



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Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

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SECTIONS & DETAILS

C230906 16 OCT. 2024

S2-04

GENERAL DEMOLITION NOTES:

1. DEMOLISH AND REMOVE EXISTING CONSTRUCTION, INCLUDING ALL WALLS, DOORS, WINDOWS, FINISHES, PLUMBING, MECHANICAL, ELECTRICAL, FIRE SUPPRESSION, FIRE ALARM, COMMUNICATIONS TO THE STRUCTURAL ELEMENTS (COLUMNS, CMU WALLS, ROOF FRAMING, ROOF DECK) AND CONCRETE SLAB TO REMAIN UNLESS OTHERWISE NOTED.
2. ALL CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR WHERE DEMOLITION IS TO OCCUR. THE CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY INCONSISTENCIES IN WRITING PRIOR TO STARTING ANY WORK.
3. ANY FLOOR, CEILING, WALL OR OTHER MATERIALS INCLUDING FINISHES IN AREAS TO REMAIN ARE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT. ANY MATERIALS DAMAGED DURING CONSTRUCTION OR DEMOLITION, SHALL BE RETURNED TO THEIR ORIGINAL STATE, OR IMPROVED AS INDICATED BY THE OWNER OR ARCHITECT, OR REPLACED WITH A NEW MATERIAL TO MATCH ADJACENT MATERIALS, TYPICAL.
4. CONTRACTOR SHALL PATCH AND REPAIR ALL EXISTING SURFACES TO REMAIN.
5. REFER TO PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL AND COMPLETE SCOPE OF DEMOLITION THAT MAY OR MAY NOT BE NOTED ON THE ARCHITECTURAL DEMOLITION PLAN AND NOTES.
6. CONTRACTOR SHALL REMOVE ALL WALL MOUNTED FIXTURES OR ITEMS UNLESS OTHERWISE NOTED. ALL WALLS TO REMAIN SHALL BE REPAIRED, AND VOIDS FILLED AFTER FIXTURE REMOVAL.
7. ALL FIXTURES, WALLS AND PORTIONS OF WALLS SHOWN AS DASHED LINES OR LABELED SHALL BE DEMOLISHED UNLESS ELEMENTS REMOVED OR REPLACED. CONTRACTOR SHALL PROVIDE ADEQUATE SHORING AND BRACING AND IS RESPONSIBLE FOR ANY FAILURE DUE TO LACK OF PROPER BRACING.
8. CONTRACTOR SHALL PATCH AND FILL IN ANY VOIDS LEFT FROM THE DEMOLITION OF ANY PLUMBING, MECHANICAL, OR ELECTRICAL ITEMS. REFER TO PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR COMPLETE SCOPE OF DEMOLITION.
9. CONCRETE CUT IS DIAGRAMMATIC. ALL EXISTING DOMESTIC WATER PIPING AND EXISTING SANITARY PIPING ABOVE SLAB AND BELOW SLAB SHALL BE REMOVED IN AREA OF DEMOLITION. REFER TO PLUMBING DRAWINGS FOR EXTENTS OF DEMOLITION WORK.
10. REMOVE EXISTING ROOF ASSEMBLY (INCLUDING GUTTERS AND DOWNSPOUTS) TO ROOF DECK UNLESS OTHERWISE INDICATED.

DEMOLITION SPECIFIC AREA NOTES:

1	REMOVE EXISTING CMU WALL TO THE EXTENTS SHOWN. SHORE EXISTING STRUCTURAL AS NECESSARY TO MAINTAIN THE EXISTING TO REMAIN ASSEMBLIES INTACT. DEMOLITION SHALL BE SUFFICIENT ENOUGH TO INSTALL A NEW LINTEL OVER THE OPENINGS. PATCH AND REPAIR SURROUNDING MASONRY AS NECESSARY. REFER TO STRUCTURAL FOR LINTEL DETAIL.
2	REMOVE EXISTING CONCRETE FLOOR SLAB IN ITS ENTIRETY. PREP AREA TO RECEIVE NEW CONCRETE SLAB, VAPOR BARRIER AND DRAINAGE FILL. COORDINATE FINAL LOCATION OF CUT WITH STRUCTURAL, PLUMBING, AND ELECTRICAL AND OTHER TRADES AS REQUIRED. CONCRETE CUT IS DIAGRAMMATIC. CONTRACTOR SHALL CUT AS REQUIRED FOR NEW WORK SHOWN. COORDINATE WITH ALL TRADES FOR COMPLETE SIZE, LOCATION, AND EXTENTS OF SLAB CUTS. REFER TO STRUCTURAL FOR NEW SLAB DETAILS.
3	CUT EXISTING ROOF, ROOF DECK, AS NECESSARY FOR NEW OPENING. FRAME OPENING AS INDICATED BY STRUCTURAL. REFER TO DRAWINGS FOR EXACT LOCATION AND SIZE OF OPENING.
4	REMOVE EXISTING ROOF ASSEMBLY (WOOD ROOF FRAMING, DECK, NAILERS, ROOF MEMBRANE, INSULATION) TO THE EXTENTS SHOWN. CUTS SHOWN ARE DIAGRAMMATIC. SHORE EXISTING STRUCTURE AS NECESSARY TO MAINTAIN THE EXISTING TO REMAIN ASSEMBLIES INTACT. REFER TO STRUCTURAL FOR NEW FRAMING
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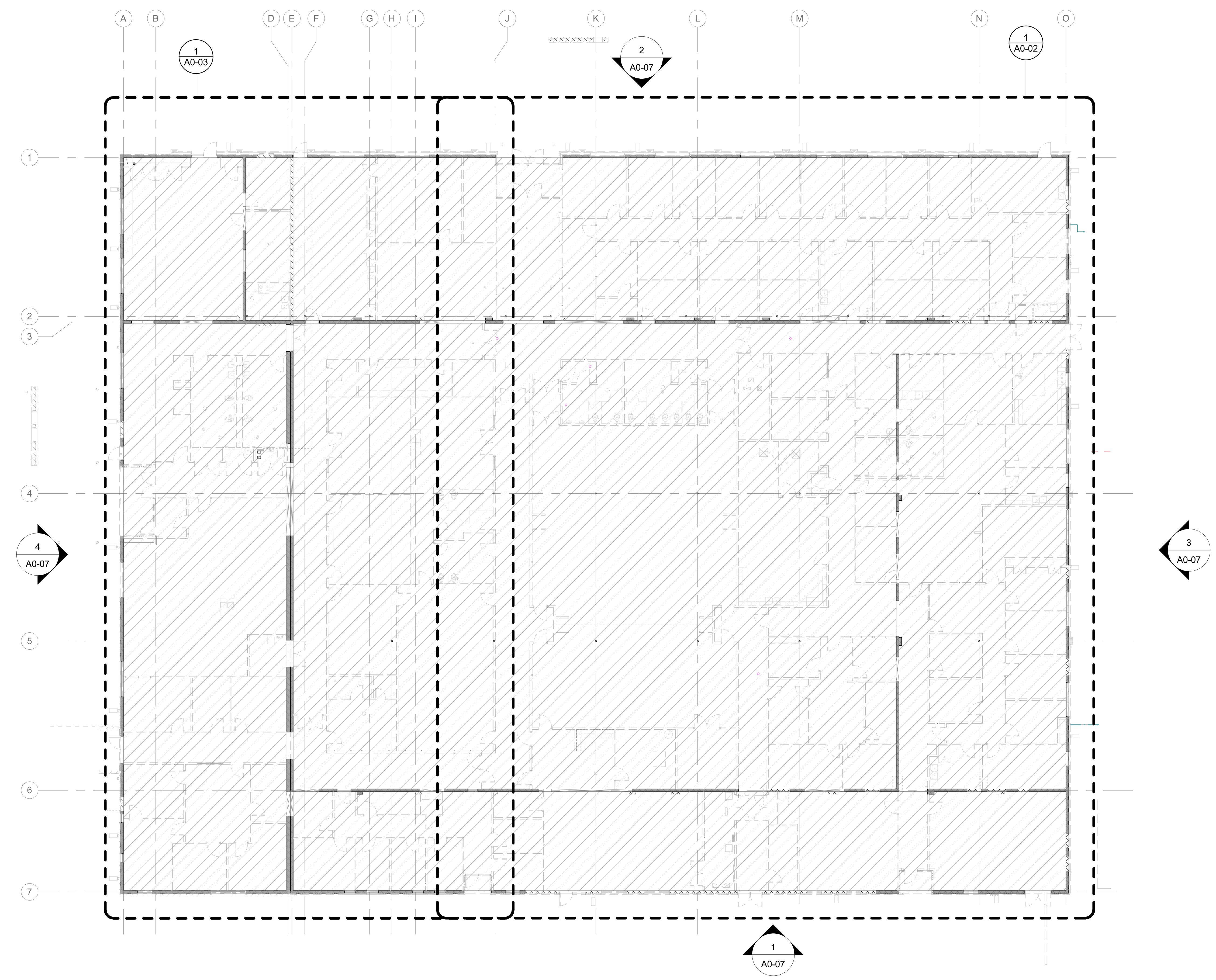
DEMOLITION LEGEND:

SYMBOL	DESCRIPTION
	EXISTING CMU WALL TO REMAIN
	EXISTING STRUCTURAL ELEMENT TO REMAIN
	EXISTING CMU WALL TO BE REMOVED
	EXISTING SLAB TO BE REMOVED
	EXISTING ROOF DECK TO BE REMOVED
	EXISTING TO BE REMOVED DURING DEMOLITION



1 A0-01 **OVERALL DEMOLITION FLOOR PLAN**

1/16" = 1'-0"

0 8' 16' 32'

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smith sinnett ARCHITECTURE

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SMITH SINNETT ARCHITECTURE, PA — REGISTERED ARCHITECTURAL CORPORATION — NORTH CAROLINA — CERT. NO. 50172 — RALEIGH

JAMEY EDWARD GLUECK — Registered Architect — 9585 — North Carolina — RALEIGH, NC

10-16-2024

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Onslow County Senior Services Center Renovation

Onslow County Government

4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

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CHECKED BY: JEG

OVERALL DEMOLITION FLOOR PLAN

2021029 16 OCT. 2024

A0-01

GENERAL DEMOLITION NOTES:

1. DEMOLISH AND REMOVE EXISTING CONSTRUCTION, INCLUDING ALL WALLS, DOORS, WINDOWS, FINISHES, PLUMBING, MECHANICAL, ELECTRICAL, FIRE SUPPRESSION, FIRE ALARM, COMMUNICATIONS TO THE STRUCTURAL ELEMENTS (COLUMNS, CMU WALLS, ROOF FRAMING, ROOF DECK) AND CONCRETE SLAB TO REMAIN UNLESS OTHERWISE NOTED.
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9. CONCRETE CUT IS DIAGRAMMATIC. ALL EXISTING DOMESTIC WATER PIPING AND EXISTING SANITARY PIPING ABOVE SLAB AND BELOW SLAB SHALL BE REMOVED IN AREA OF DEMOLITION. REFER TO PLUMBING DRAWINGS FOR EXTENTS OF DEMOLITION WORK.
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DEMOLITION SPECIFIC AREA NOTES:

1	REMOVE EXISTING CMU WALL TO THE EXTENTS SHOWN. SHORE EXISTING STRUCTURAL AS NECESSARY TO MAINTAIN THE EXISTING TO REMAIN ASSEMBLIES INTACT. DEMOLITION SHALL BE SUFFICIENT ENOUGH TO INSTALL A NEW LINTEL OVER THE OPENINGS. PATCH AND REPAIR SURROUNDING MASONRY AS NECESSARY. REFER TO STRUCTURAL FOR LINTEL DETAIL.
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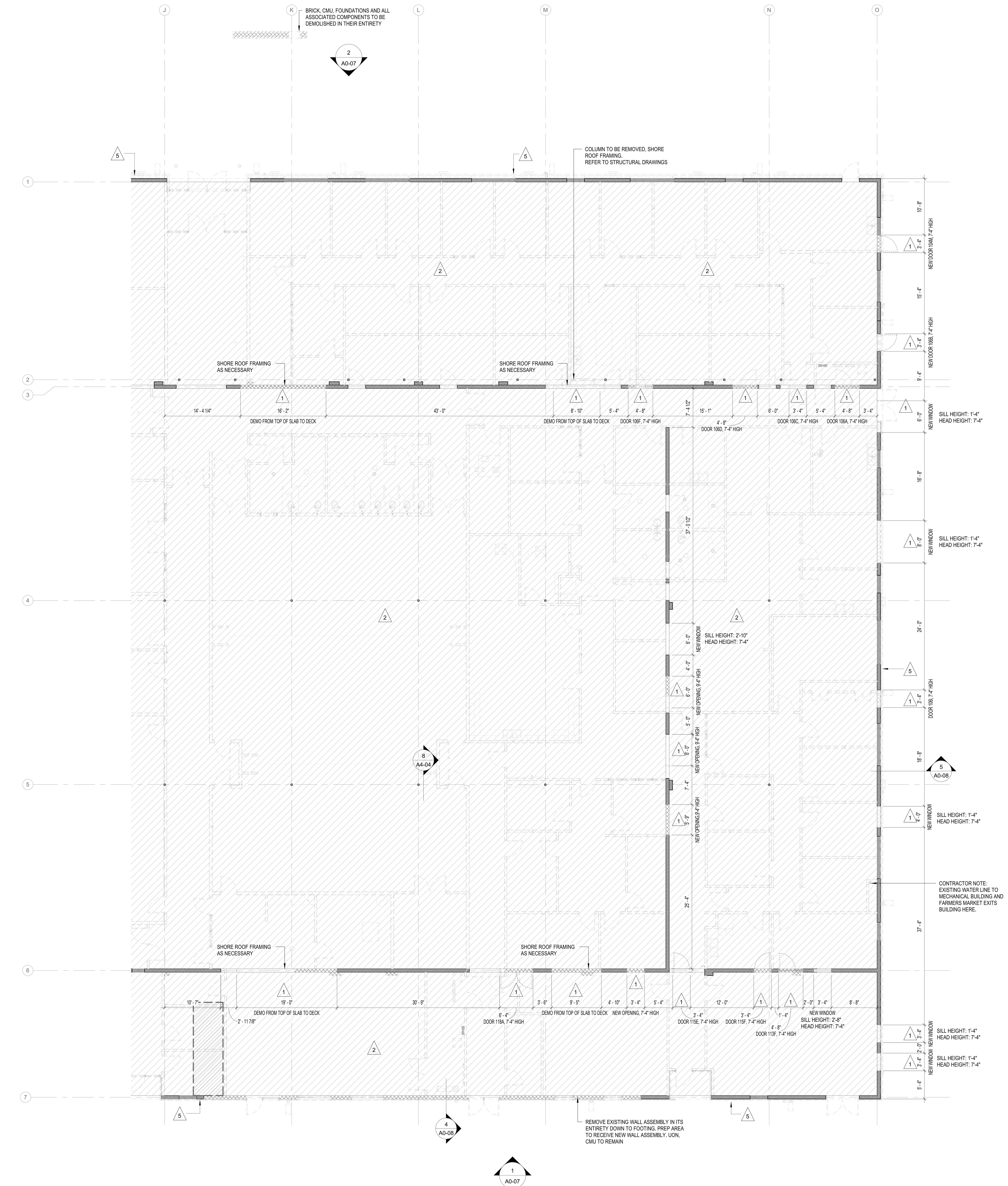
DEMOLITION LEGEND:

SYMBOL	DESCRIPTION
	EXISTING CMU WALL TO REMAIN
	EXISTING STRUCTURAL ELEMENT TO REMAIN
	EXISTING CMU WALL TO BE REMOVED
	EXISTING SLAB TO BE REMOVED
	EXISTING ROOF DECK TO BE REMOVED
	EXISTING TO BE REMOVED DURING DEMOLITION



1 / A0-02 **DEMOLITION FLOOR PLAN - AREA A**
1/8" = 1'-0"

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BID DOCUMENTS

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Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

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CHECKED BY: JEG

DEMO FLOOR PLAN - AREA A

2021029 16 OCT. 2024

A0-02

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GENERAL DEMOLITION NOTES:

1. DEMOLISH AND REMOVE EXISTING CONSTRUCTION, INCLUDING ALL WALLS, DOORS, WINDOWS, FINISHES, PLUMBING, MECHANICAL, ELECTRICAL, FIRE SUPPRESSION, FIRE ALARM, COMMUNICATIONS TO THE STRUCTURAL ELEMENTS (COLUMNS, CMU WALLS, ROOF FRAMING, ROOF DECK) AND CONCRETE SLAB TO REMAIN UNLESS OTHERWISE NOTED.
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DEMOLITION LEGEND:

SYMBOL	DESCRIPTION
	EXISTING CMU WALL TO REMAIN
	EXISTING STRUCTURAL ELEMENT TO REMAIN
	EXISTING CMU WALL TO BE REMOVED
	EXISTING SLAB TO BE REMOVED
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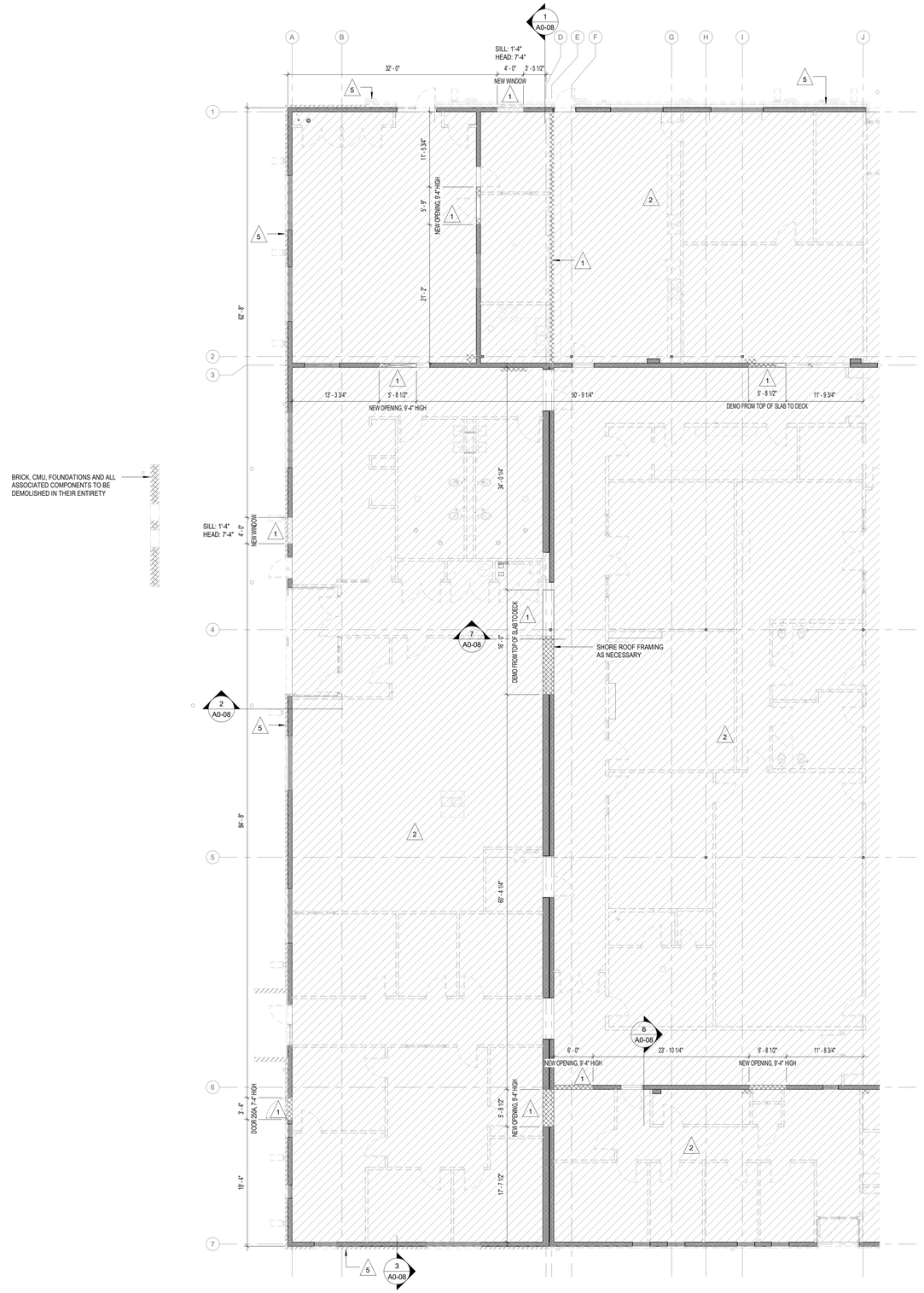

1 A0-03 DEMOLITION FLOOR PLAN - AREA B

1/8" = 1'-0"

0 4' 8' 16'

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smith sinnett ARCHITECTURE

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Raleigh, NC 27607

info@smithsinnett.com

JAMEY EDWARD GUTHRIE — 9585 — REGISTERED ARCHITECT — 10-17-2024

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Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: FA
CHECKED BY: JEG

DEMO FLOOR PLAN - AREA B

2021029 16 OCT. 2024

A0-03

GENERAL DEMOLITION NOTES:

1. DEMOLISH AND REMOVE EXISTING CONSTRUCTION, INCLUDING ALL WALLS, DOORS, WINDOWS, FINISHES, PLUMBING, MECHANICAL, ELECTRICAL, FIRE SUPPRESSION, FIRE ALARM, COMMUNICATIONS TO THE STRUCTURAL ELEMENTS (COLUMNS, CMU WALLS, ROOF FRAMING, ROOF DECK) AND CONCRETE SLAB TO REMAIN UNLESS OTHERWISE NOTED.
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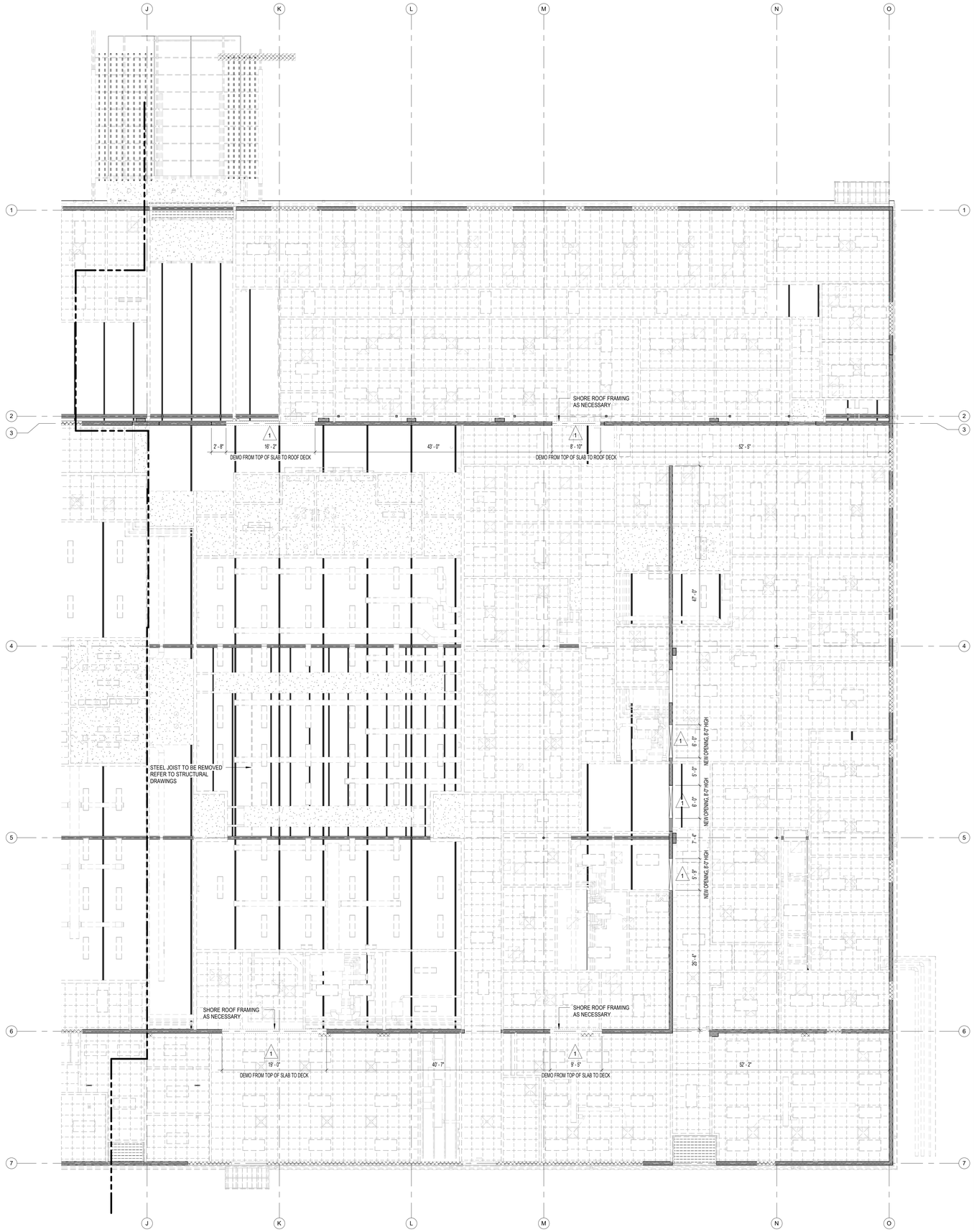
3	CUT EXISTING ROOF, ROOF DECK, AS NECESSARY FOR NEW OPENING. FRAME OPENING AS INDICATED BY STRUCTURAL. REFER TO DRAWINGS FOR EXACT LOCATION AND SIZE OF OPENING.
4	REMOVE EXISTING ROOF ASSEMBLY (WOOD ROOF FRAMING, DECK, NAILERS, ROOF MEMBRANE, INSULATION) TO THE EXTENTS SHOWN. CUTS SHOWN ARE DIAGRAMMATIC. SHORE EXISTING STRUCTURE AS NECESSARY TO MAINTAIN THE EXISTING TO REMAIN ASSEMBLIES INTACT. REFER TO STRUCTURAL FOR NEW FRAMING
5	REMOVE EXISTING WALL ASSEMBLY TO THE FACE OF CMU. WALL ASSEMBLY SHALL BE REMOVED FROM TOP OF FOOTING TO TOP OF CMU WALL. UON, CMU TO REMAIN

DEMOLITION LEGEND:

SYMBOL	DESCRIPTION
	EXISTING CMU WALL TO REMAIN
	EXISTING STRUCTURAL ELEMENT TO REMAIN
	EXISTING CMU WALL TO BE REMOVED
	EXISTING SLAB TO BE REMOVED
	EXISTING ROOF DECK TO BE REMOVED
	EXISTING TO BE REMOVED DURING DEMOLITION



1 A0-04 **DEMOLITION REFLECTED CEILING PLAN - AREA A**

1/8" = 1'-0"

0 4' 8' 16'

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SMITH SINNETT ARCHITECTS, P.A. CORP. NO. 39172 RALEIGH NORTH CAROLINA

JAMES EDWARD GIBSON SEAL 9585 REGISTERED PROFESSIONAL ENGINEER 10-11-2024

BID DOCUMENTS

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Onslow County Senior Services Center
Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: RM,FA
CHECKED BY: JEG

DEMOLITION REFLECTED CEILING PLAN - AREA A

2021029 16 OCT. 2024

A0-04

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GENERAL DEMOLITION NOTES:

1. DEMOLISH AND REMOVE EXISTING CONSTRUCTION, INCLUDING ALL WALLS, DOORS, WINDOWS, FINISHES, PLUMBING, MECHANICAL, ELECTRICAL, FIRE SUPPRESSION, FIRE ALARM, COMMUNICATIONS TO THE STRUCTURAL ELEMENTS (COLUMNS, CMU WALLS, ROOF FRAMING, ROOF DECK) AND CONCRETE SLAB TO REMAIN UNLESS OTHERWISE NOTED.
2. ALL CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR WHERE DEMOLITION IS TO OCCUR. THE CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY INCONSISTENCIES IN WRITING PRIOR TO STARTING ANY WORK.
3. ANY FLOOR, CEILING, WALL OR OTHER MATERIALS INCLUDING FINISHES IN AREAS TO REMAIN ARE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT. ANY MATERIALS DAMAGED DURING CONSTRUCTION OR DEMOLITION, SHALL BE RETURNED TO THEIR ORIGINAL STATE, OR IMPROVED AS INDICATED BY THE OWNER OR ARCHITECT, OR REPLACED WITH A NEW MATERIAL TO MATCH ADJACENT MATERIALS, TYPICAL.
4. CONTRACTOR SHALL PATCH AND REPAIR ALL EXISTING SURFACES TO REMAIN.
5. REFER TO PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL AND COMPLETE SCOPE OF DEMOLITION THAT MAY OR MAY NOT BE NOTED ON THE ARCHITECTURAL DEMOLITION PLAN AND NOTES.
6. CONTRACTOR SHALL REMOVE ALL WALL MOUNTED FIXTURES OR ITEMS UNLESS OTHERWISE NOTED. ALL WALLS TO REMAIN SHALL BE REPAIRED, AND VOIDS FILLED AFTER FIXTURE REMOVAL.
7. ALL FIXTURES, WALLS AND PORTIONS OF WALLS SHOWN AS DASHED LINES OR LABELED SHALL BE DEMOLISHED UNLESS ELEMENTS REMOVED OR REPLACED. CONTRACTOR SHALL PROVIDE ADEQUATE SHORING AND BRACING AND IS RESPONSIBLE FOR ANY FAILURE DUE TO LACK OF PROPER BRACING.
8. CONTRACTOR SHALL PATCH AND FILL IN ANY VOIDS LEFT FROM THE DEMOLITION OF ANY PLUMBING, MECHANICAL, OR ELECTRICAL ITEMS. REFER TO PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR COMPLETE SCOPE OF DEMOLITION.
9. CONCRETE CUT IS DIAGRAMMATIC. ALL EXISTING DOMESTIC WATER PIPING AND EXISTING SANITARY PIPING ABOVE SLAB AND BELOW SLAB SHALL BE REMOVED IN AREA OF DEMOLITION. REFER TO PLUMBING DRAWINGS FOR EXTENTS OF DEMOLITION WORK.
10. REMOVE EXISTING ROOF ASSEMBLY (INCLUDING GUTTERS AND DOWNSPOUTS) TO ROOF DECK UNLESS OTHERWISE INDICATED.

DEMOLITION SPECIFIC AREA NOTES:

1	REMOVE EXISTING CMU WALL TO THE EXTENTS SHOWN. SHORE EXISTING STRUCTURAL AS NECESSARY TO MAINTAIN THE EXISTING TO REMAIN ASSEMBLIES INTACT. DEMOLITION SHALL BE SUFFICIENT ENOUGH TO INSTALL A NEW LINTEL OVER THE OPENINGS. PATCH AND REPAIR SURROUNDING MASONRY AS NECESSARY. REFER TO STRUCTURAL FOR LINTEL DETAIL.
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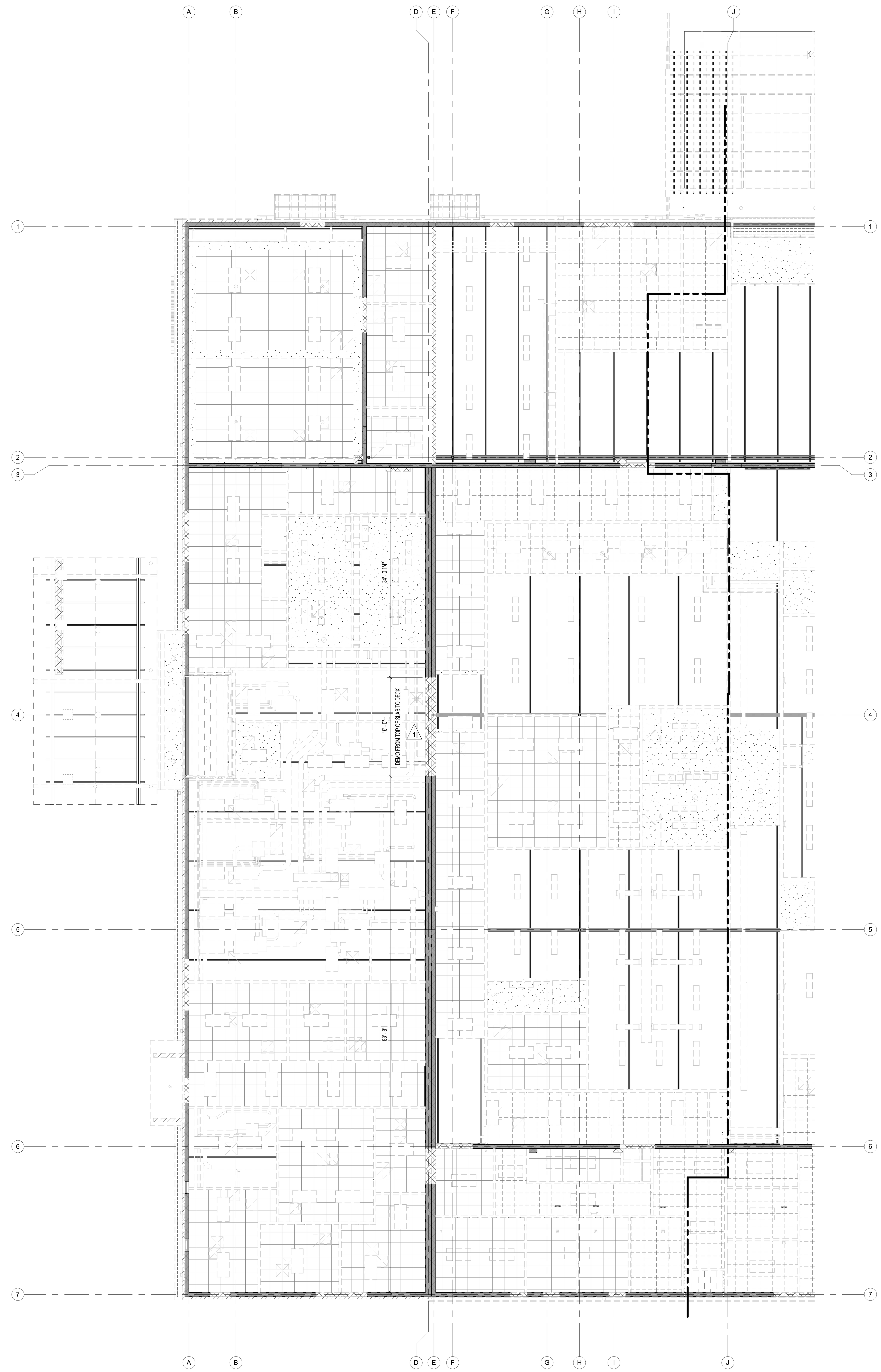
DEMOLITION LEGEND:

SYMBOL	DESCRIPTION
	EXISTING CMU WALL TO REMAIN
	EXISTING STRUCTURAL ELEMENT TO REMAIN
	EXISTING CMU WALL TO BE REMOVED
	EXISTING SLAB TO BE REMOVED
	EXISTING ROOF DECK TO BE REMOVED
	EXISTING TO BE REMOVED DURING DEMOLITION



1 A0-05 **DEMOLITION REFLECTED CEILING PLAN - AREA B**
1/8" = 1'-0"

0 4' 8' 16'

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JAMEY EDWARD GLUECK Registered Architect 9585 North Carolina RALEIGH, NC 10-16-2024

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Onslow County Senior Services Center Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: RM, FA, NB
CHECKED BY: JEG

DEMOLITION REFLECTED CEILING PLAN - AREA B

2021029 16 OCT. 2024

A0-05

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GENERAL DEMOLITION NOTES:

1. DEMOLISH AND REMOVE EXISTING CONSTRUCTION, INCLUDING ALL WALLS, DOORS, WINDOWS, FINISHES, PLUMBING, MECHANICAL, ELECTRICAL, FIRE SUPPRESSION, FIRE ALARM, COMMUNICATIONS TO THE STRUCTURAL ELEMENTS (COLUMNS, CMU WALLS, ROOF FRAMING, ROOF DECK) AND CONCRETE SLAB TO REMAIN UNLESS OTHERWISE NOTED.
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	EXISTING STRUCTURAL ELEMENT TO REMAIN
	EXISTING CMU WALL TO BE REMOVED
	EXISTING SLAB TO BE REMOVED
	EXISTING ROOF DECK TO BE REMOVED
	EXISTING TO BE REMOVED DURING DEMOLITION

1 A0-06 OVERALL ROOF DEMOLITION PLAN
1/8" = 1'-0"

0 8' 16' 32'

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JAMEY EDWARD GLUECK — Registered Architect — 9585 — North Carolina — RALEIGH, NC — 10-16-2024

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Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

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CHECKED BY: JEG

DEMO ROOF PLAN

2021029 16 OCT. 2024

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DEMOLITION LEGEND:

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	EXISTING STRUCTURAL ELEMENT TO REMAIN
	EXISTING CMU WALL TO BE REMOVED
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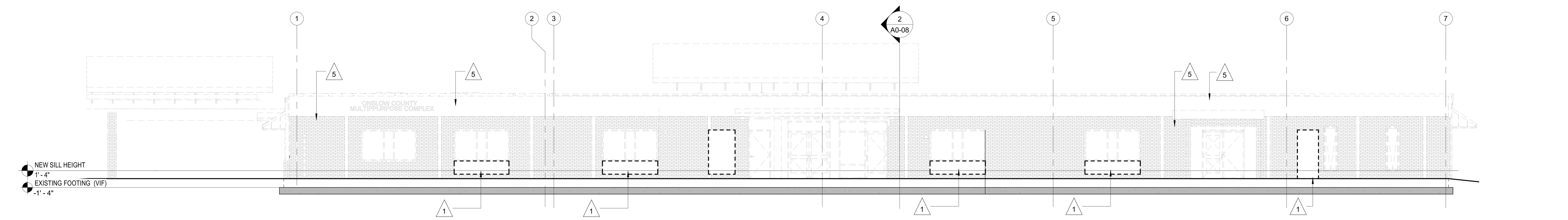
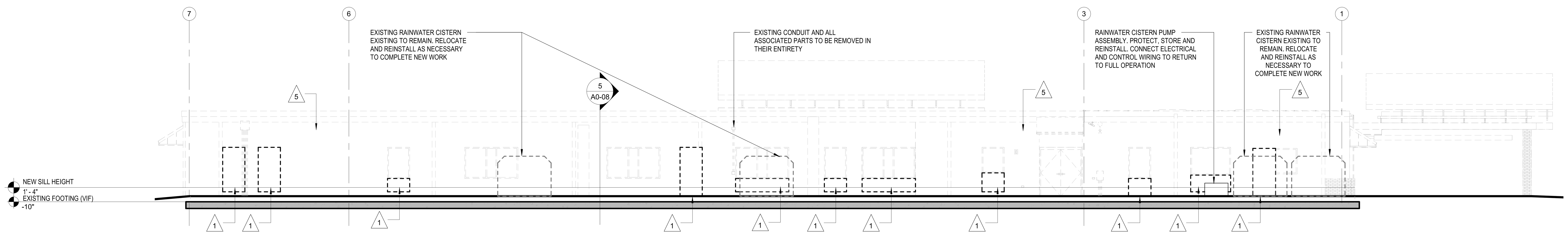
	EXISTING ROOF DECK TO BE REMOVED
	EXISTING TO BE REMOVED DURING DEMOLITION



4 A0-07 **DEMO ELEVATION - WEST**
1/8" = 1'-0"

0 4' 8' 16'



3 A0-07 **DEMO ELEVATION - EAST**
1/8" = 1'-0"

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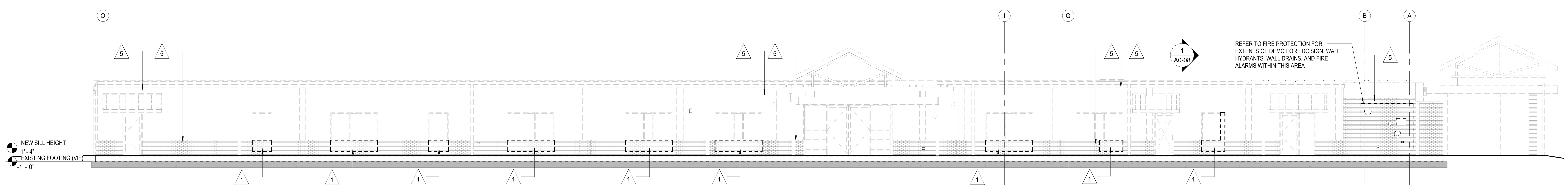

2 A0-07 **DEMO ELEVATION - NORTH**
1/8" = 1'-0"

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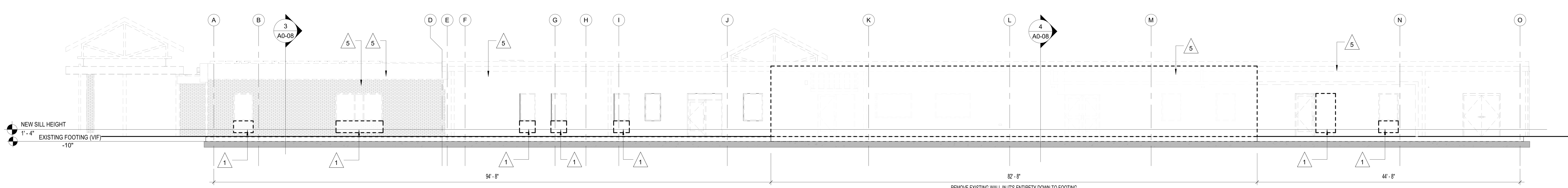

1 A0-07 **DEMO ELEVATION - SOUTH**
1/8" = 1'-0"

0 4' 8' 16'

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Onslow County Senior Services Center Renovation

Onslow County Government

4024 Richlands Hwy, Jacksonville, NC 28540

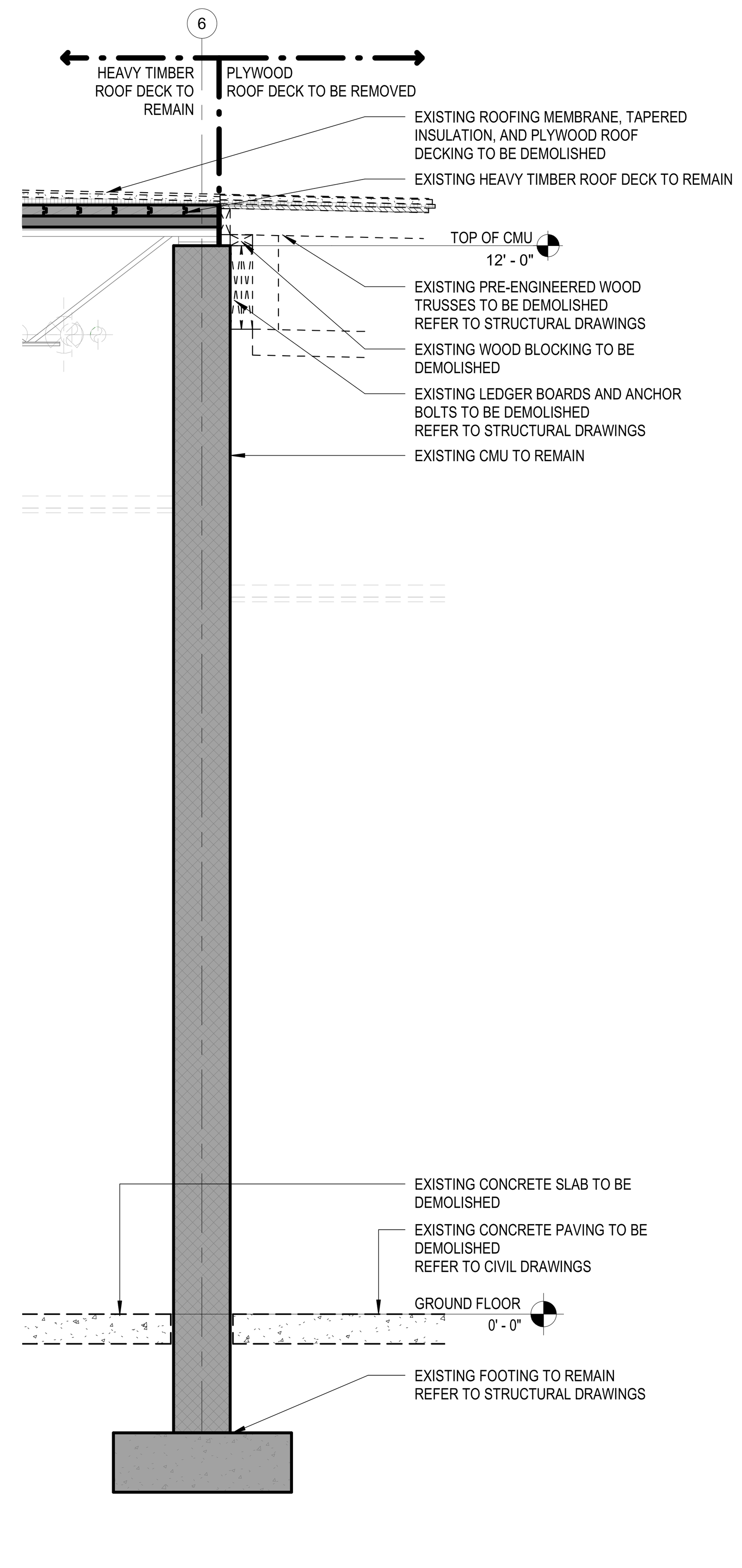
ID	DATE	DESCRIPTION

DRAWN BY: RM,FA
CHECKED BY: JEG

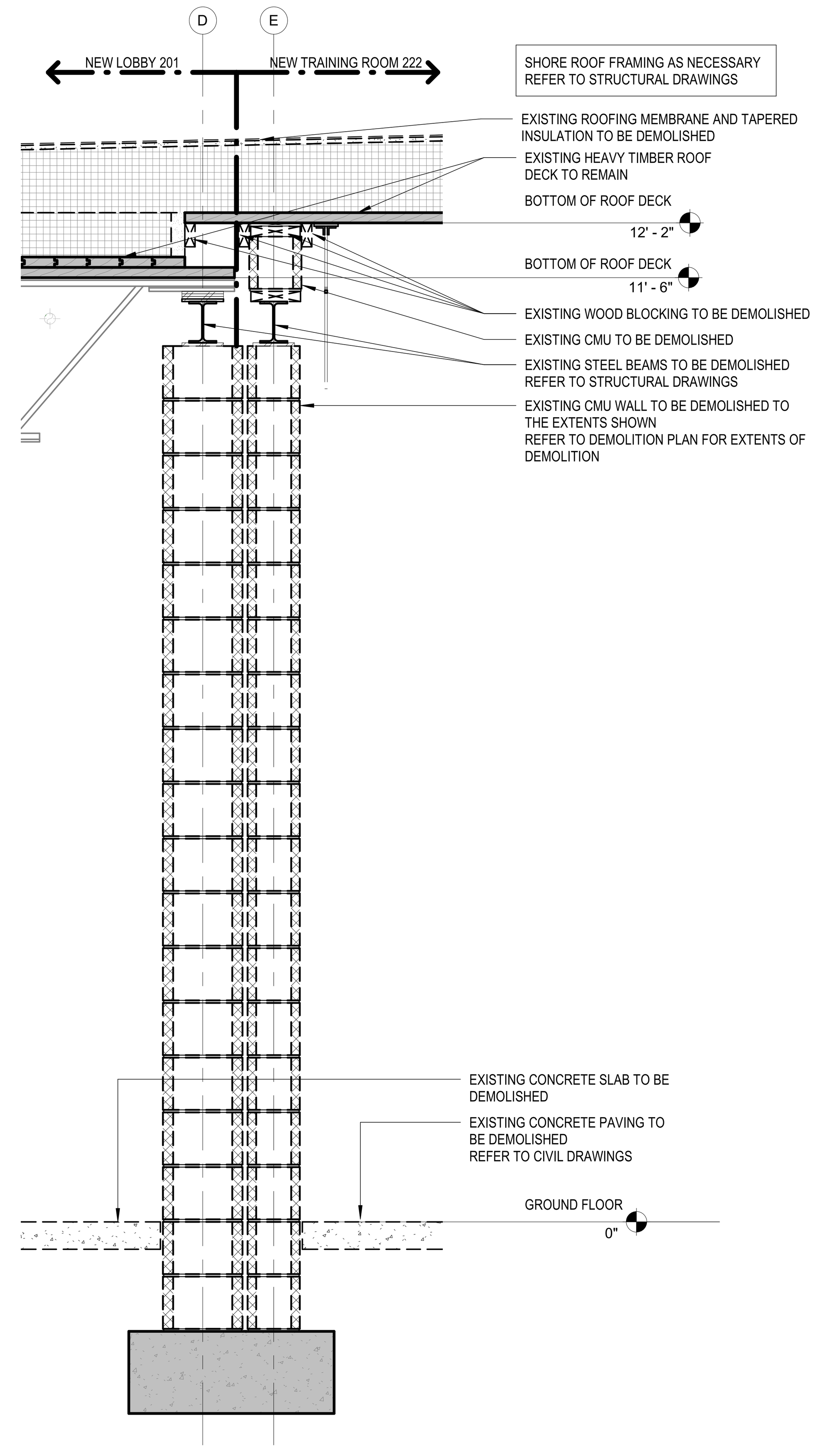
DEMO ELEVATIONS

2021029 16 OCT. 2024

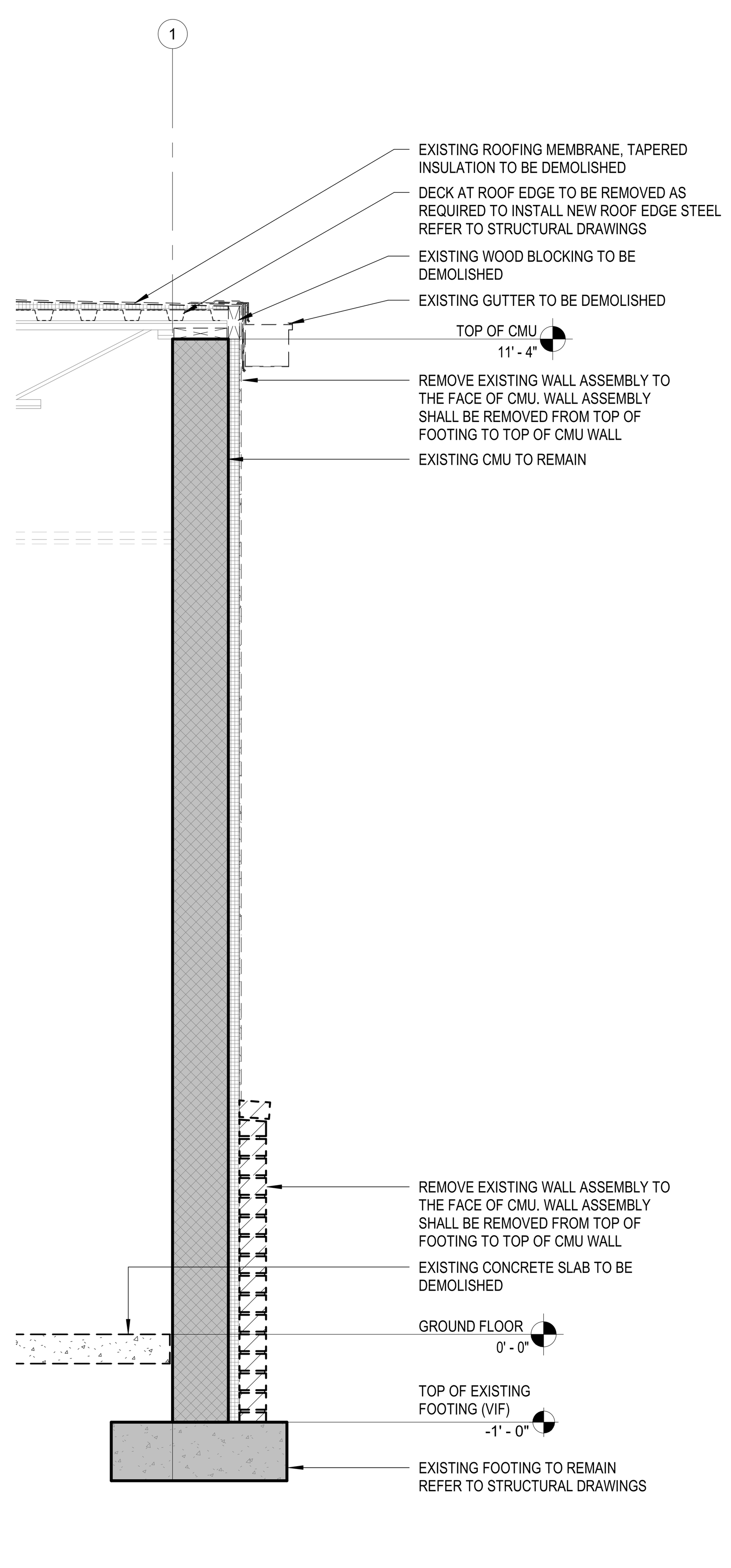
A0-07



6 A0-08 **DEMO WALL SECTION**
3/4" = 1'-0"



7 A0-08 **DEMO WALL SECTION**
3/4" = 1'-0"



1 A0-08 **DEMO WALL SECTION**
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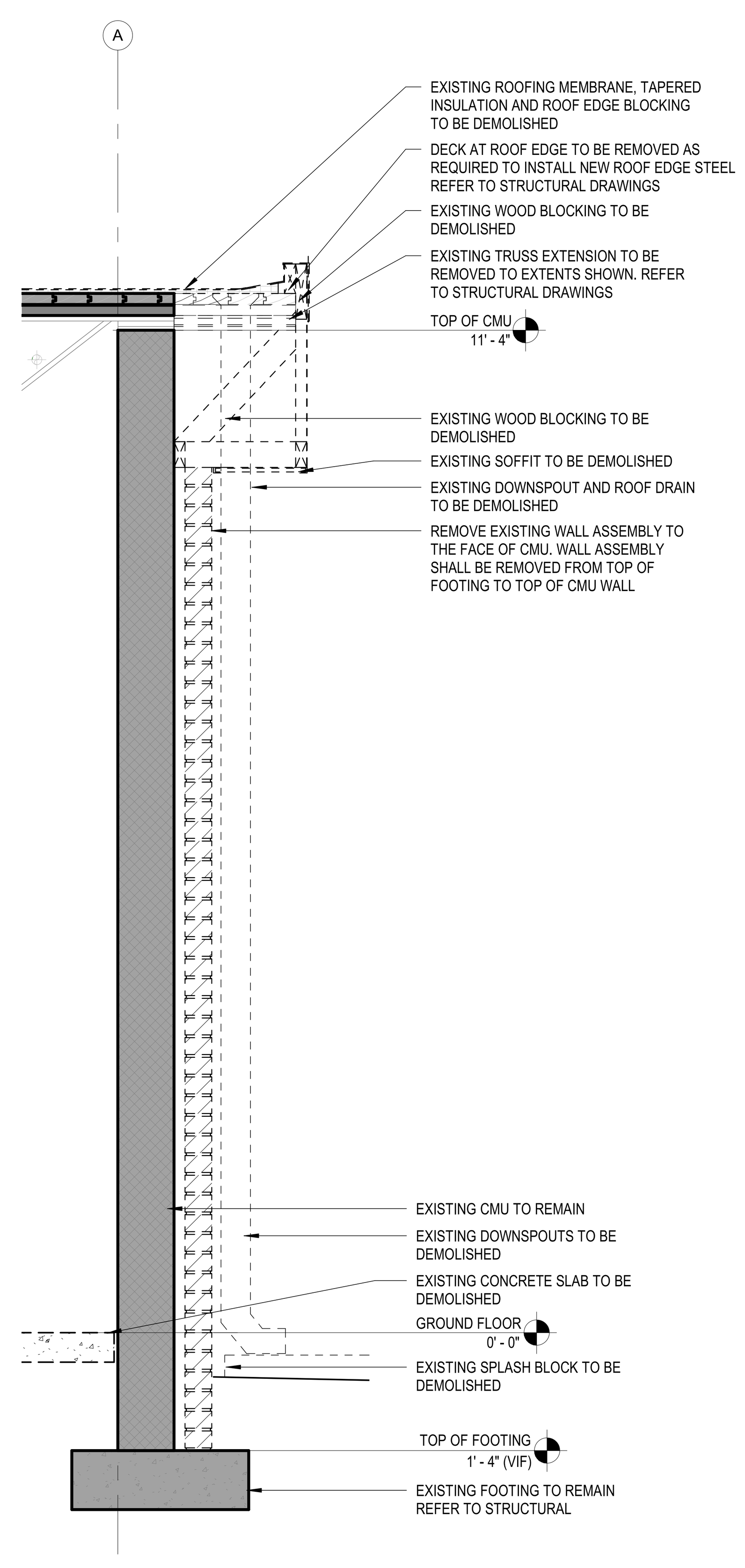
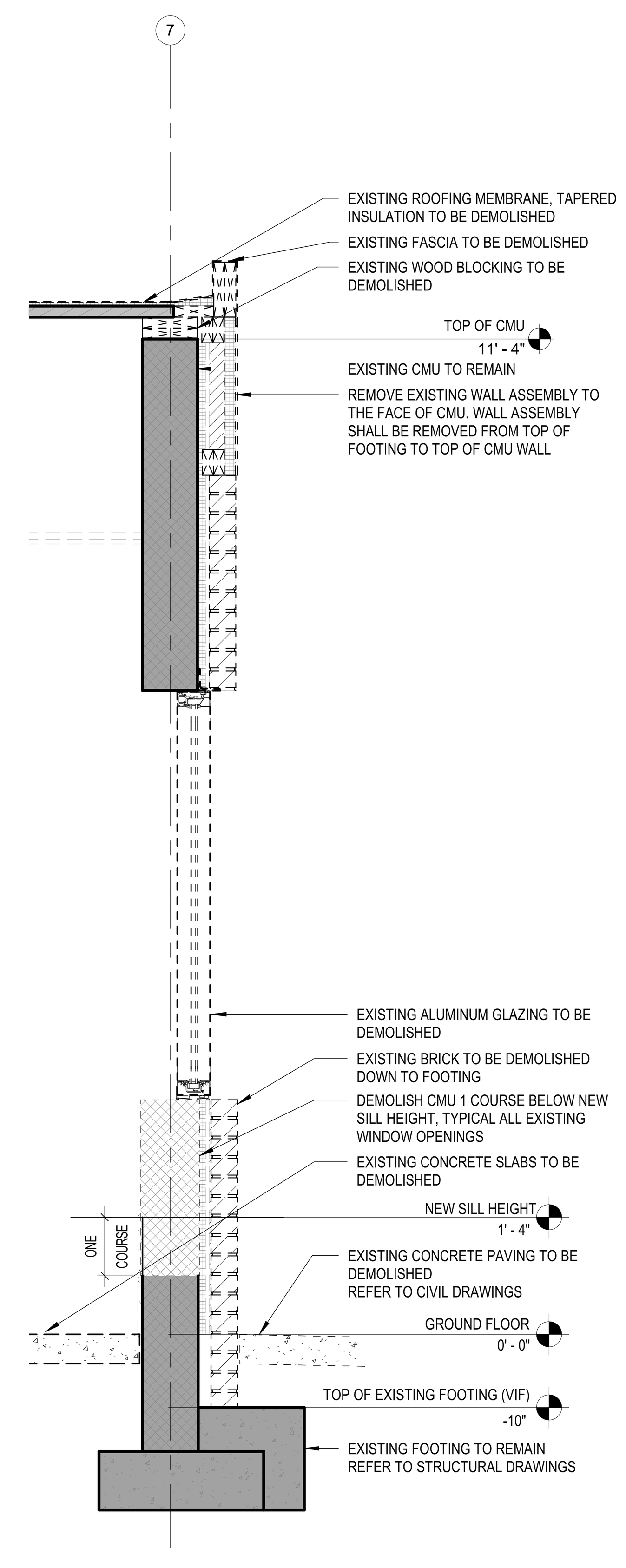
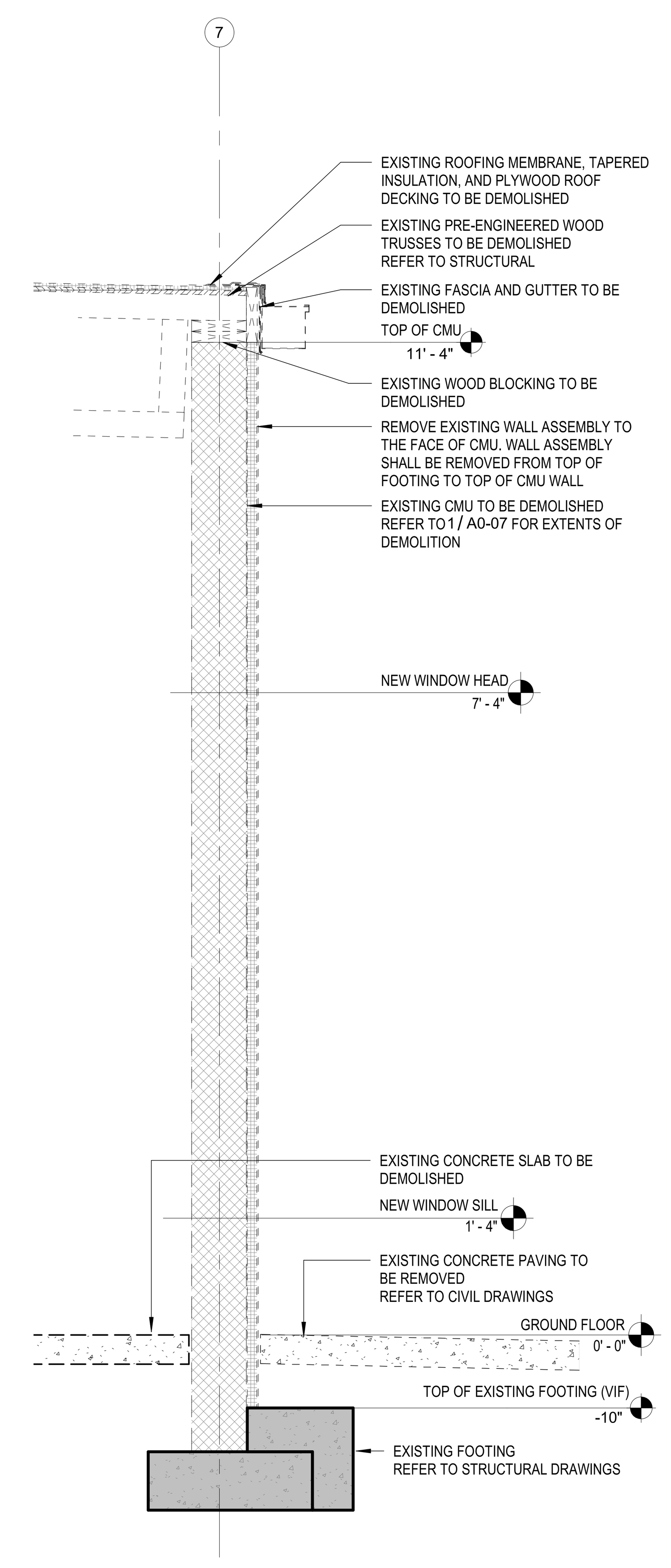


2 A0-08 **DEMO WALL SECTION**
3/4" = 1'-0"



3 A0-08 **DEMO WALL SECTION**
3/4" = 1'-0"



4 A0-08 **DEMO WALL SECTION**
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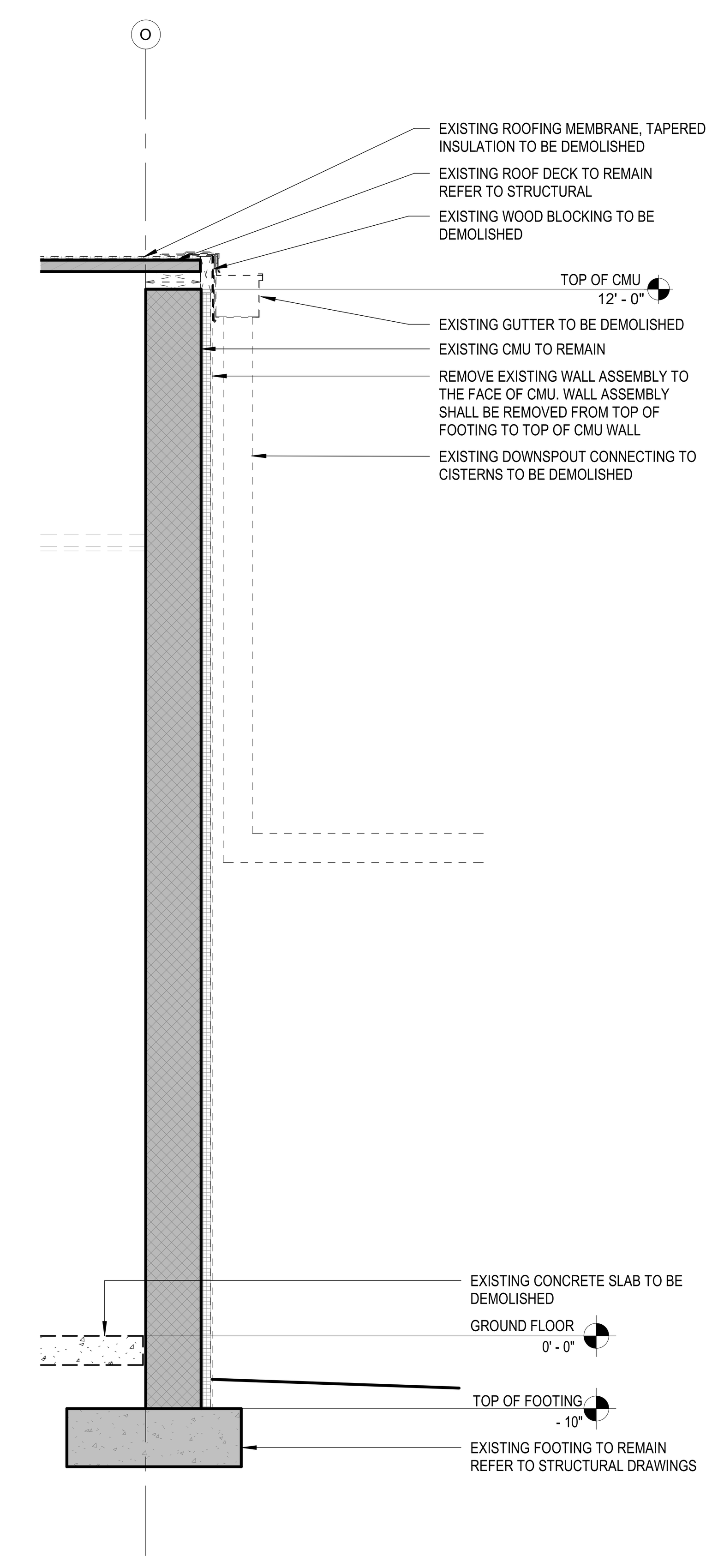

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DRAWN BY: FA, NB
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DEMO WALL SECTIONS

2021029 16 OCT. 2024

A0-08

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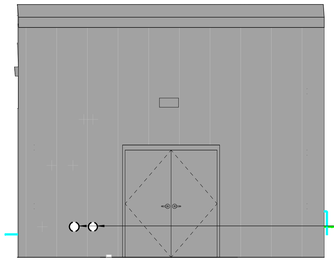
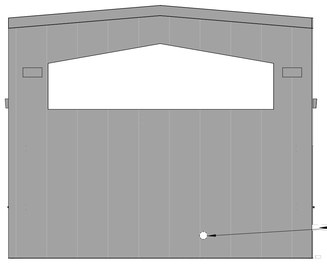
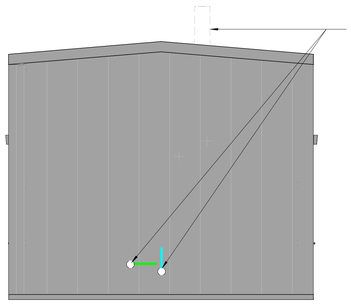


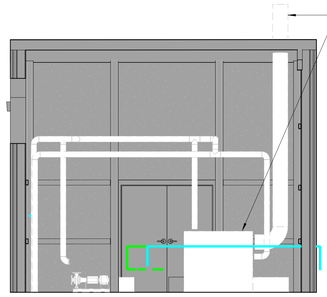
8 A0-09 **MECHANICAL BUILDING - DEMO SOUTH ELEVATION**
1/4" = 1'-0"
0 2' 4' 8'



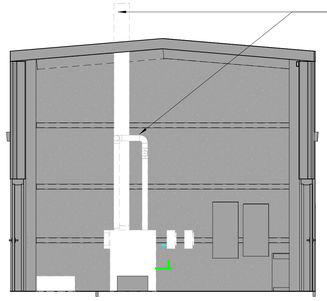
6 A0-09 **MECHANICAL BUILDING - DEMO EAST ELEVATION**
1/4" = 1'-0"
0 2' 4' 8'



1 A0-09 **MECHANICAL BUILDING - DEMO WEST ELEVATION**
1/4" = 1'-0"
0 2' 4' 8'

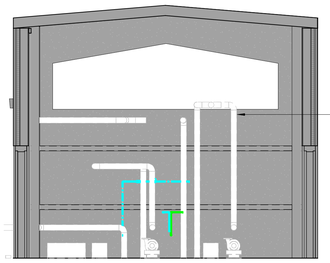


9 A0-09 **DEMO INTERIOR ELEVATION - NORTH**
1/4" = 1'-0"
0 2' 4' 8'

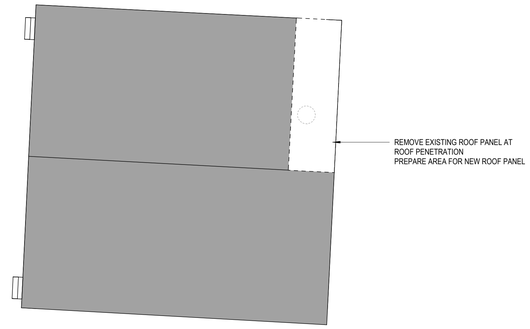


7 A0-09 **DEMO INTERIOR ELEVATION - EAST**
1/4" = 1'-0"
0 2' 4' 8'

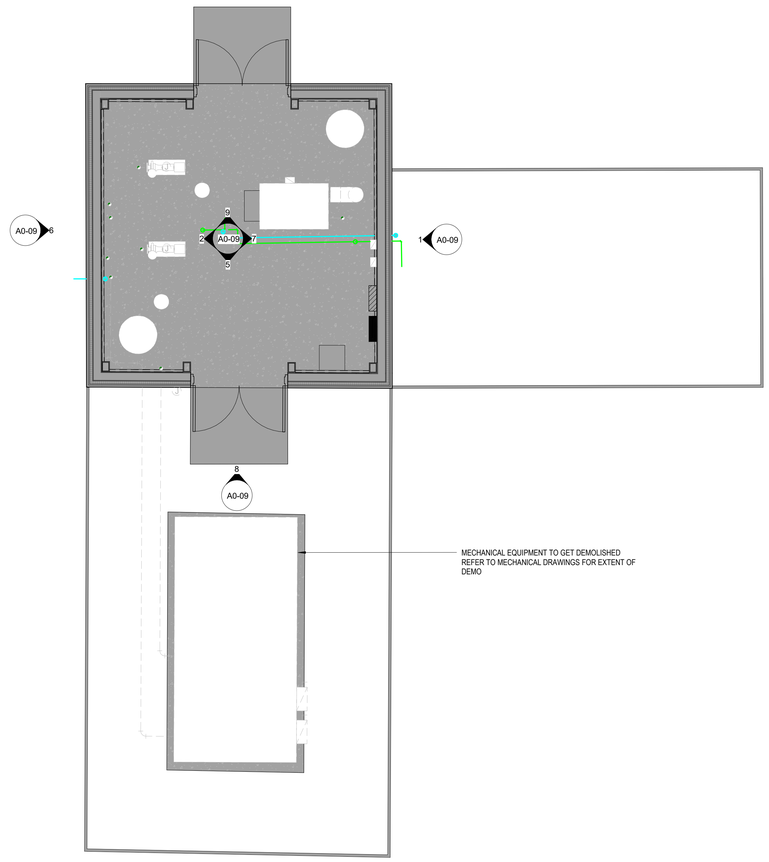
5 A0-09 **DEMO INTERIOR ELEVATION - SOUTH**
1/4" = 1'-0"
0 2' 4' 8'



2 A0-09 **DEMO INTERIOR ELEVATION - WEST**
1/4" = 1'-0"
0 2' 4' 8'



4 A0-09 **MECHANICAL BUILDING - DEMO ROOF PLAN**
1/4" = 1'-0"
0 2' 4' 8'



3 A0-09 **MECHANICAL BUILDING - DEMO FLOOR PLAN**
1/4" = 1'-0"
0 2' 4' 8'

smith sinnett ARCHITECTURE

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10-11-2024

BID DOCUMENTS

Smith Sinnett Architecture, P.A. 2024

THIS DRAWING IS FORMATTED TO BE PRINTED ON A 24" X 36" SHEET

Onslow County Senior Services Center Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: RM, FA, NB
CHECKED BY: JEG

MECHANICAL BUILDING DEMO PLANS

2021029 16 OCT. 2024

A0-09

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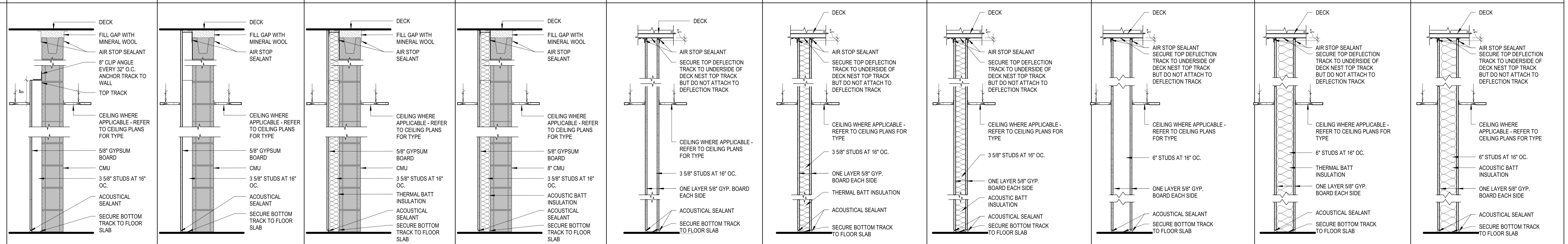
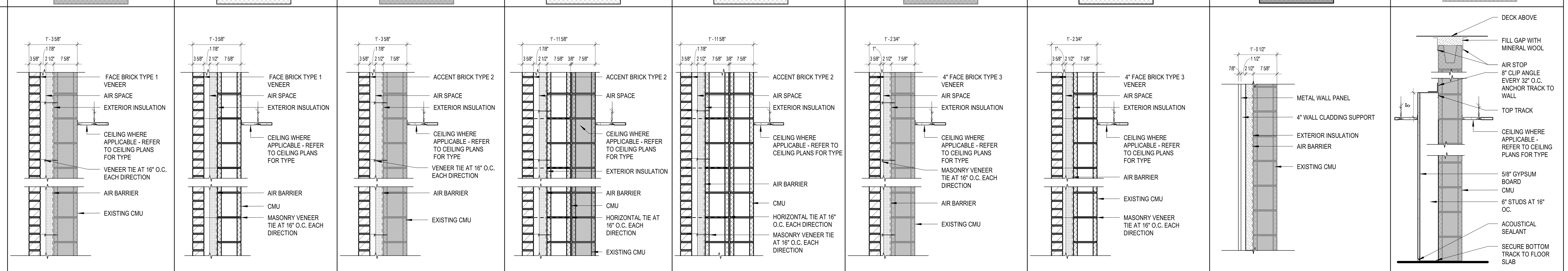
WALL TYPE LEGEND

WALL TYPE	INTERIOR - 4" METAL STUD				
MARKER	F4PB	F4UB	F4UC1	F4UC2	S4UA
DESCRIPTION	3 5/8" METAL STUD UP TO 8" ABOVE CEILING WITH ONE LAYER OF GYPSUM WALL BOARD. WHERE WALL TILE FINISH, SUBSTITUTE GYPSUM BOARD FOR BACKERBOARD. GYPSUM BOARD TO STOP 5/8" ABOVE FFE	3 5/8" METAL STUD UP TO BOTTOM OF ROOF DECK WITH ONE LAYER OF GYPSUM WALL BOARD. WHERE WALL TILE FINISH, SUBSTITUTE GYPSUM BOARD FOR BACKERBOARD. GYPSUM BOARD TO STOP 5/8" ABOVE FFE	3 5/8" METAL STUD WITH THERMAL BATT INSULATION UP TO BOTTOM OF ROOF DECK WITH ONE LAYER OF GYPSUM WALL BOARD. GYPSUM BOARD TO STOP 5/8" ABOVE FFE	3 5/8" METAL STUD WITH ACOUSTIC BATT INSULATION UP TO BOTTOM OF ROOF DECK WITH ONE LAYER OF GYPSUM WALL BOARD. GYPSUM BOARD TO STOP 5/8" ABOVE FFE	3 5/8" METAL STUD UP TO BOTTOM OF ROOF DECK WITH ONE LAYER OF GYPSUM WALL BOARD EACH SIDE. WHERE WALL TILE FINISH, SUBSTITUTE GYPSUM BOARD FOR BACKERBOARD. GYPSUM BOARD TO STOP 5/8" ABOVE FFE
UL DESIGN # HEAD	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED
WALL	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED
BASE	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED
PENETRATIONS	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED

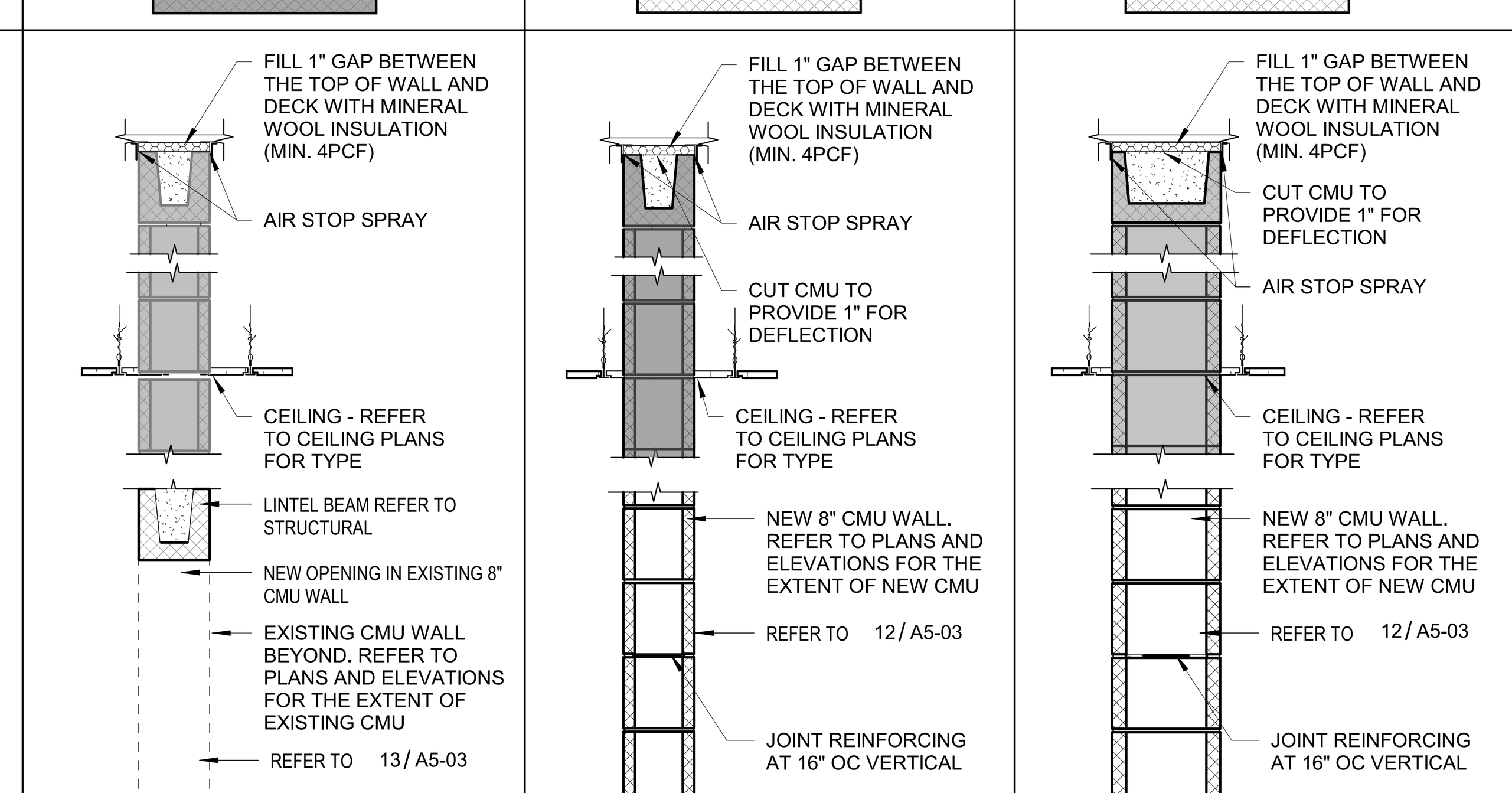
WALL TYPE	INTERIOR - 6" METAL STUD				
MARKER	S4UD1	S4UD2	S6UA	S6UD1	S6UD2
DESCRIPTION	3 5/8" METAL STUD WITH THERMAL BATT INSULATION UP TO BOTTOM OF ROOF DECK WITH ONE LAYER OF GYPSUM WALL BOARD EACH SIDE. GYPSUM BOARD TO STOP 5/8" ABOVE FFE	3 5/8" METAL STUD WITH ACOUSTIC BATT INSULATION UP TO BOTTOM OF ROOF DECK WITH ONE LAYER OF GYPSUM WALL BOARD EACH SIDE. GYPSUM BOARD TO STOP 5/8" ABOVE FFE	6" METAL STUD UP TO BOTTOM OF ROOF DECK WITH ONE LAYER OF GYPSUM WALL BOARD EACH SIDE. WHERE WALL TILE FINISH, SUBSTITUTE GYPSUM BOARD FOR BACKERBOARD. GYPSUM BOARD TO STOP 5/8" ABOVE FFE	6" METAL STUD WITH THERMAL BATT INSULATION UP TO BOTTOM OF ROOF DECK WITH ONE LAYER OF GYPSUM WALL BOARD. GYPSUM BOARD TO STOP 5/8" ABOVE FFE	6" METAL STUD WITH ACOUSTIC BATT INSULATION UP TO BOTTOM OF ROOF DECK WITH ONE LAYER OF GYPSUM WALL BOARD. GYPSUM BOARD TO STOP 5/8" ABOVE FFE
UL DESIGN # HEAD	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED
WALL	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED
BASE	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED
PENETRATIONS	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED



	EXTERIOR - FACE BRICK TYPE 1		EXTERIOR - FACE BRICK TYPE 2			EXTERIOR - FACE BRICK TYPE 3		METAL WALL PANEL	INTERIOR - 6" METAL STUD
MARKER	E8DE	M8DE	E8DF	M8DF	M8DF2	E8DG	M8DG	M8DH	F6PA
DESCRIPTION	EXTERIOR WALL NEW FACE BRICK TYPE 1, 1 7/8" AIR SPACE, 2 1/2" EXTERIOR INSULATION, AIR BARRIER OVER EXISTING WALL ASSEMBLY	EXTERIOR WALL NEW FACE BRICK TYPE 1, 1 7/8" AIR SPACE, 2 1/2" EXTERIOR INSULATION AIR BARRIER OVER NEW 8" CMU	EXTERIOR WALL NEW ACCENT BRICK TYPE 2, 1 7/8" AIR SPACE, 2 1/2" EXTERIOR INSULATION, AIR BARRIER OVER EXISTING WALL ASSEMBLY	EXTERIOR WALL NEW ACCENT BRICK TYPE 2, 1 7/8" AIR SPACE, 2 1/2" EXTERIOR INSULATION, AIR BARRIER OVER 8" CMU	EXTERIOR WALL NEW ACCENT BRICK TYPE 2, 1 7/8" AIR SPACE, 2 1/2" EXTERIOR INSULATION, AIR BARRIER, OVER NEW 8" CMU OVER NEW 8" CMU	EXTERIOR WALL NEW 4" FACE BRICK TYPE 3, 1" AIR SPACE, 2 1/2" EXTERIOR INSULATION, AIR BARRIER OVER EXISTING WALL ASSEMBLY	EXTERIOR WALL NEW 4" FACE BRICK TYPE 3, 1" AIR SPACE, 2 1/2" EXTERIOR INSULATION, AIR BARRIER OVER NEW 8" CMU	EXTERIOR WALL NEW METAL WALL PANEL OVER 4" WALL CLADDING SUPPORT BETWEEN 2 1/2" EXTERIOR INSULATION, AIR BARRIER OVER EXISTING WALL ASSEMBLY	6" METAL STUD UP TO 8" ABOVE CEILING WITH ONE LAYER OF GYPSUM WALL BOARD. WHERE WALL TILE FINISH, SUBSTITUTE GYPSUM BOARD FOR BACKERBOARD.
UL DESIGN # HEAD	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED
WALL	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED
BASE	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED
PENETRATIONS	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED	NON-RATED



	INTERIOR WALL		
MARKER	E8U	M8D	M12D
DESCRIPTION	NEW OPENING IN EXISTING 8" CMU WALL. REFER TO STRUCTURAL FOR LINTEL SCHEDULE.	NEW 8" CMU INFILL OF EXISTING OPENING. REFER TO STRUCTURAL.	NEW 12" CMU INFILL OF EXISTING OPENING. REFER TO STRUCTURAL.
UL DESIGN # HEAD	NON-RATED	NON-RATED	NON-RATED
WALL	NON-RATED	NON-RATED	NON-RATED
BASE	NON-RATED	NON-RATED	NON-RATED
PENETRATIONS	NON-RATED	NON-RATED	NON-RATED



NOTES:

1. ALL CMU WALLS TO BOTTOM OF DECK ARE TO PROVIDE A 1" GAP FOR DEFLECTION.
2. AT ALL METAL STUD WALL PARTITIONS TERMINATING AT BOTTOM OF DECK PROVIDE A DEFLECTION TRACK SECURED TO THE UNDERSIDE OF THE DECKING, NEST TOP TRACK BUT DO NOT ATTACH TO DEFLECTION TRACK
3. FILL ALL VOIDS AND GAPS AT HEAD OF WALL WITH MINERAL WOOL INSULATION ALONG THE ENTIRE LENGTH OF WALL, TYPICAL ALL WALL TYPES.
4. SEE FINISH SCHEDULE FOR WALL, FLOOR BASE AND CEILING TYPES AND FINISHES
5. REFER TO STRUCTURAL DRAWINGS FOR LOCATION OF REINFORCING, BOND BEAMS, BRACING, ETC.
6. ALL EXTERIOR WALL ASSEMBLIES SHALL BE TESTED AND COMPLIANT WITH NFPA 285

WALL TYPE NAMING CONVENTION

M8UA

TYPE OF CORE
- C CONCRETE
- F FURRING
- M NEW MASONRY
- S METAL STUD
- W WOOD
- E EXISTING MASONRY

WIDTH OF CORE
- 4 4" MASONRY, 3 5/8" METAL STUD
- 5 4" METAL STUD
- 6 6" MASONRY, 6" METAL STUD
- 8 8" MASONRY, 8" METAL STUD
- 10 10" MASONRY
- 12 12" MASONRY, 12" METAL STUD

ITERATION - SEE WALL TYPES LEGEND
- NONE IF NO LAYERS OR FINISHES
- A (EX: 1 LAYER GWB ON EACH SIDE)
- B (EX: 1 LAYER GWB ON ONE SIDE)
- C1 (EX: 1 LAYER GWB ON ONE SIDE WITH THERMAL BATT INSULATION)
- C2 (EX: 1 LAYER GWB ON ONE SIDE WITH ACOUSTICAL SOUND BATT INSULATION)
- D1 (EX: 1 LAYER GWB ON EACH SIDE WITH THERMAL BATT INSULATION)
- D2 (EX: 1 LAYER GWB ON EACH SIDE WITH ACOUSTICAL SOUND BATT INSULATION)
- E (EX: FACE BRICK TYPE 1)
- F (EX: FACE BRICK TYPE 2)
- F2 (EX: FACE BRICK TYPE 2 ON TWO LAYERS OF 8" CMU)
- G (EX: FACE BRICK TYPE 3)
- H (EX: METAL WALL PANEL)

HEIGHT OF WALL
- C UP TO CEILING
- D DETACHED - SEE DRAWINGS FOR HEIGHT
- J UP TO JOIST BEARING
- P 8" ABOVE CEILING
- U UP TO DECK ABOVE

NOTE:
1. SEE WALL SECTIONS FOR EXTERIOR WALL CONSTRUCTION.
2. SEE WALL TYPE LEGEND FOR CONSTRUCTION OF ASSEMBLIES AND FIRE RATINGS UL LISTING.

GENERAL PROJECT NOTES:

1. WALL DIMENSIONS ARE TO FACE OF METAL STUD, FACE OF CONCRETE MASONRY UNIT (CMU), OR CENTERLINE OF COLUMN UNLESS OTHERWISE NOTED.
2. ALL CMU WALLS GOING TO BOTTOM OF DECK ARE TO PROVIDE A 1" GAP FOR DEFLECTION, FILL GAP WITH MINERAL WOOL INSULATION ALONG THE ENTIRE LENGTH OF WALL. AT FIRE RATED WALLS, ENSURE SPRAY APPLIED FIRE SEALANT BOTH SIDES.
3. ALL METAL STUD WALLS TERMINATING AT BOTTOM OF DECK ARE TO PROVIDE A DEFLECTION TRACK SECURED TO THE UNDERSIDE OF THE DECKING, NEST TOP TRACK BUT DO NOT ATTACH TO DEFLECTION TRACK. FILL FLUTE IN METAL DECK WHERE REQUIRED.
4. CONTROL JOINTS SHALL BE AS SHOWN ON PLANS AND ELEVATIONS OR SPACED AT A MINIMUM OF 20'-0" OC AND A MAXIMUM OF 32'-0" OC WITH ONE CONTROL JOINT LOCATED WITHIN 3'-4" OF ANY CORNER. FOR INTERIOR GYPSUM WALL CONTROL JOINTS SEE DETAIL
5. SEE FINISH SCHEDULE FOR WALL, FLOOR, BASE, AND CEILING TYPES AND FINISHES.
6. REFER TO STRUCTURAL DRAWINGS FOR LOCATION OF REINFORCING, BOND BEAMS, BRACING, ETC.
7. ALL EXTERIOR CONCRETE PAVING SHALL SLOPE AWAY FROM THE BUILDING AT 1/4" PER FOOT, MINIMUM.
8. FURNITURE AND EQUIPMENT SHOWN DASHED ON PLANS IS NOT IN CONTRACT (NIC). REFER TO A1-06 AND A1-07 FOR FURNISHING AND EQUIPMENT PLANS. GC TO PROVIDE WOOD BLOCKING FOR ALL WALL/CEILING MOUNTED ACCESSORIES.
9. FIELD VERIFY FINAL ROOM DIMENSIONS PRIOR TO CASEWORK FABRICATION.
10. SLOPE CONCRETE SLAB TO FLOOR DRAIN AS INDICATED ON DRAWINGS.
11. THERE SHALL BE NO PENETRATIONS IN THROUGH WALL FLASHING.
12. DOOR JAMB FROM INTERSECTING WALLS: CMU - 8" UNLESS OTHERWISE NOTED; STUD- 4" UNLESS OTHERWISE NOTED
13. REFER TO OVERALL FLOOR PLAN FOR DEPRESSED SLAB LOCATIONS. -2" BELOW FINISHED FLOOR, TYPICAL ALL DEPRESSED SLAB AREAS

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SMITH SINNETT ARCHITECTURE, PA — REGISTERED ARCHITECTURAL CORPORATION — CERT. NO. 50172 — NORTH CAROLINA — RALEIGH

JAMEY EDWARD GLUECK — Registered Architect — 9585 — North Carolina — RALEIGH, NC — 10-16-2024

BID DOCUMENTS

Onslow County Senior Services Center Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: RM, FA, NB
CHECKED BY: JEG

WALL TYPES

2021029 16 OCT. 2024

A1-00

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GENERAL PROJECT NOTES:

1. WALL DIMENSIONS ARE TO FACE OF METAL STUD, FACE OF CONCRETE MASONRY UNIT (CMU), OR CENTERLINE OF COLUMN UNLESS OTHERWISE NOTED.
2. ALL CMU WALLS GOING TO BOTTOM OF DECK ARE TO PROVIDE A 1" GAP FOR DEFLECTION, FILL GAP WITH MINERAL WOOL INSULATION ALONG THE ENTIRE LENGTH OF WALL. AT FIRE RATED WALLS, ENSURE SPRAY APPLIED FIRE SEALANT BOTH SIDES.
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4. CONTROL JOINTS SHALL BE AS SHOWN ON PLANS AND ELEVATIONS OR SPACED AT A MINIMUM OF 20'-0" OC AND A MAXIMUM OF 32'-0" OC WITH ONE CONTROL JOINT LOCATED WITHIN 3'-4" OF ANY CORNER. FOR INTERIOR GYPSUM WALL CONTROL JOINTS SEE DETAIL
5. SEE FINISH SCHEDULE FOR WALL, FLOOR, BASE, AND CEILING TYPES AND FINISHES.
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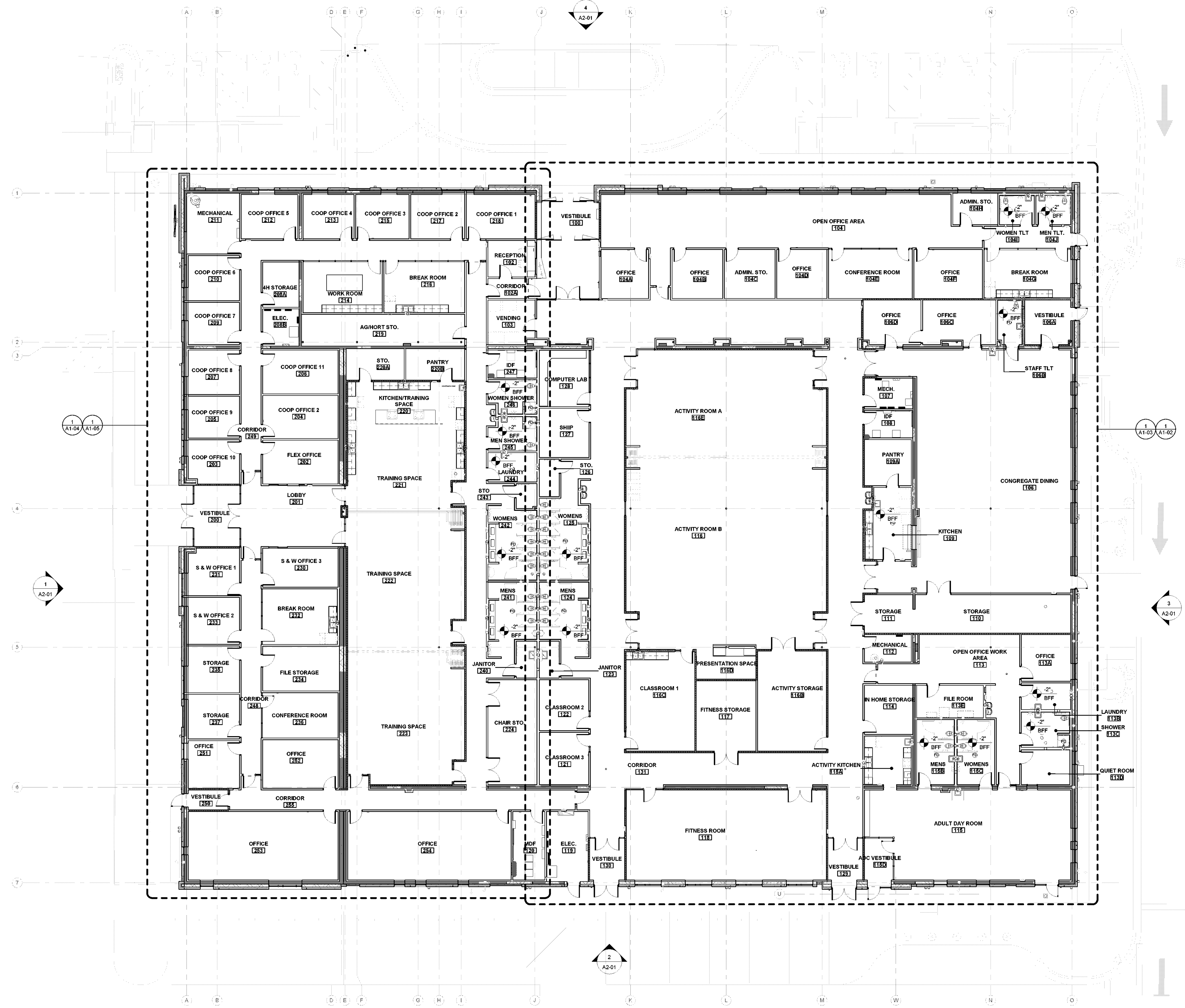
9. FIELD VERIFY FINAL ROOM DIMENSIONS PRIOR TO CASEWORK FABRICATION.
10. SLOPE CONCRETE SLAB TO FLOOR DRAIN AS INDICATED ON DRAWINGS.
11. THERE SHALL BE NO PENETRATIONS IN THROUGH WALL FLASHING.
12. DOOR JAMB FROM INTERSECTING WALLS: CMU - 8" UNLESS OTHERWISE NOTED
    STUD- 4" UNLESS OTHERWISE NOTED
13. REFER TO OVERALL FLOOR PLAN FOR DEPRESSED SLAB LOCATIONS. -2" BELOW FINISHED FLOOR, TYPICAL ALL DEPRESSED SLAB AREAS



1 A1-01 OVERALL FLOOR PLAN
1" = 10'-0"

0 4' 8' 16'

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JAMEY EDWARD GLUECK — Registered Architect — 9585 — North Carolina — RALEIGH, NC
10-16-2024

BID DOCUMENTS

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Onslow County Senior Services Center Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: FA
CHECKED BY: JEG

OVERALL FLOOR PLAN

2021029 16 OCT. 2024

A1-01

GENERAL PROJECT NOTES:

1. WALL DIMENSIONS ARE TO FACE OF METAL STUD, FACE OF CONCRETE MASONRY UNIT (CMU), OR CENTERLINE OF COLUMN UNLESS OTHERWISE NOTED.
2. ALL CMU WALLS GOING TO BOTTOM OF DECK ARE TO PROVIDE A 1" GAP FOR DEFLECTION, FILL GAP WITH MINERAL WOOL INSULATION ALONG THE ENTIRE LENGTH OF WALL. AT FIRE RATED WALLS, ENSURE SPRAY APPLIED FIRE SEALANT BOTH SIDES.
3. ALL METAL STUD WALLS TERMINATING AT BOTTOM OF DECK ARE TO PROVIDE A DEFLECTION TRACK SECURED TO THE UNDERSIDE OF THE DECKING, NEST TOP TRACK BUT DO NOT ATTACH TO DEFLECTION TRACK. FILL FLUTE IN METAL DECK WHERE REQUIRED.
4. CONTROL JOINTS SHALL BE AS SHOWN ON PLANS AND ELEVATIONS OR SPACED AT A MINIMUM OF 20'-0" OC AND A MAXIMUM OF 32'-0" OC WITH ONE CONTROL JOINT LOCATED WITHIN 3'-4" OF ANY CORNER. FOR INTERIOR GYPSUM WALL CONTROL JOINTS SEE DETAIL
5. SEE FINISH SCHEDULE FOR WALL, FLOOR, BASE, AND CEILING TYPES AND FINISHES.
6. REFER TO STRUCTURAL DRAWINGS FOR LOCATION OF REINFORCING, BOND BEAMS, BRACING, ETC.
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8. FURNITURE AND EQUIPMENT SHOWN DASHED ON PLANS IS NOT IN CONTRACT (NIC). REFER TO A1-06 AND A1-07 FOR FURNISHING AND EQUIPMENT PLANS.
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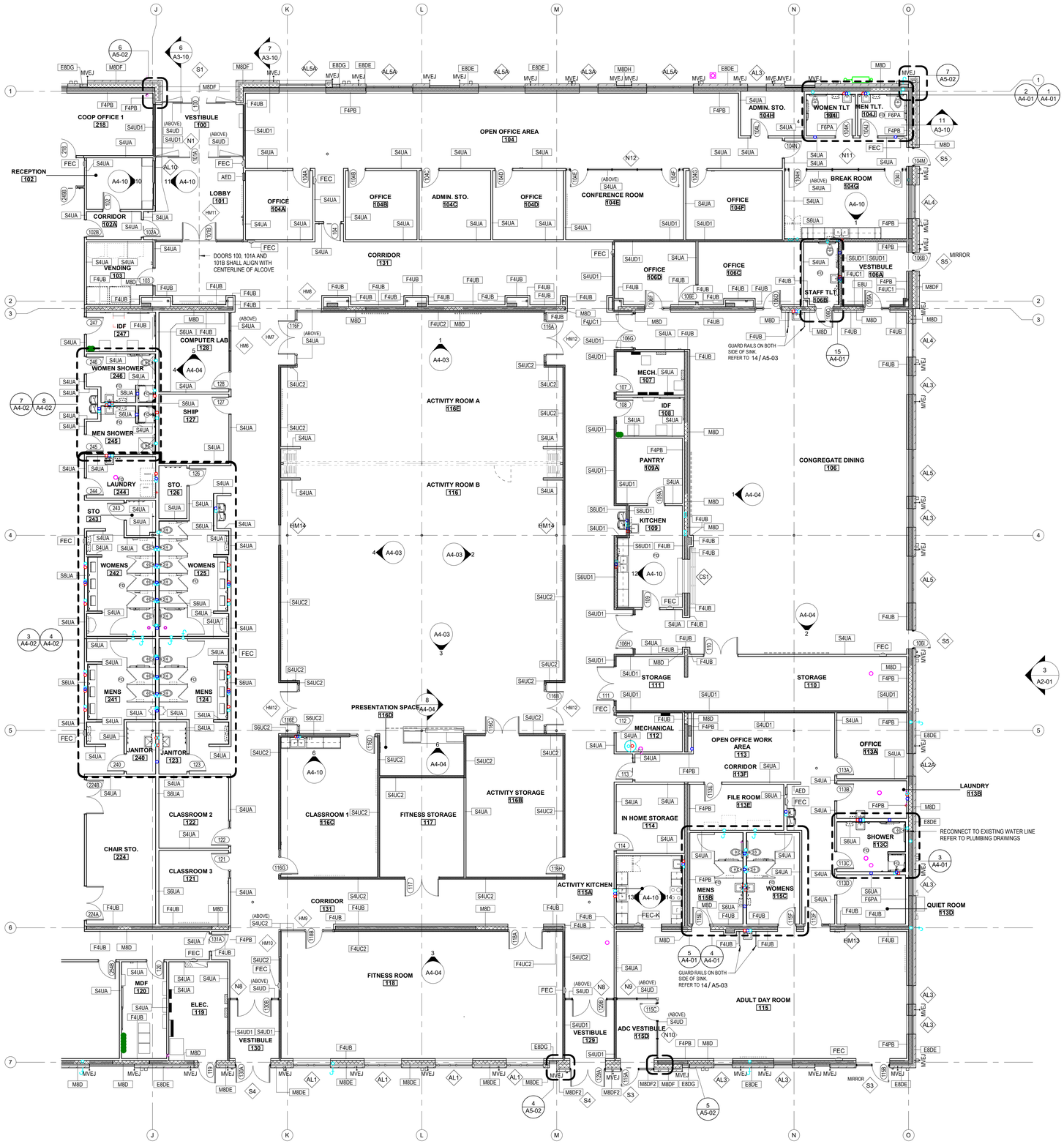
9. FIELD VERIFY FINAL ROOM DIMENSIONS PRIOR TO CASEWORK FABRICATION.
10. SLOPE CONCRETE SLAB TO FLOOR DRAIN AS INDICATED ON DRAWINGS.
11. THERE SHALL BE NO PENETRATIONS IN THROUGH WALL FLASHING.
12. DOOR JAMB FROM INTERSECTING WALLS: CMU - 8" UNLESS OTHERWISE NOTED
    STUD - 4" UNLESS OTHERWISE NOTED
13. REFER TO OVERALL FLOOR PLAN FOR DEPRESSED SLAB LOCATIONS. -2" BELOW FINISHED FLOOR, TYPICAL ALL DEPRESSED SLAB AREAS



1 A1-02 **ANNOTATION PLAN - AREA A**
1/8" = 1'-0"

0 4" 8" 16"

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smith sinnett ARCHITECTURE

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BID DOCUMENTS

Onslow County Senior Services Center Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: RM, FA, NB
CHECKED BY: JEG

FIRST FLOOR ANNOTATION PLAN - AREA A

2021029 16 OCT. 2024

A1-02

GENERAL PROJECT NOTES:

1. WALL DIMENSIONS ARE TO FACE OF METAL STUD, FACE OF CONCRETE MASONRY UNIT (CMU), OR CENTERLINE OF COLUMN UNLESS OTHERWISE NOTED.
2. ALL CMU WALLS GOING TO BOTTOM OF DECK ARE TO PROVIDE A 1" GAP FOR DEFLECTION, FILL GAP WITH MINERAL WOOL INSULATION ALONG THE ENTIRE LENGTH OF WALL. AT FIRE RATED WALLS, ENSURE SPRAY APPLIED FIRE SEALANT BOTH SIDES.
3. ALL METAL STUD WALLS TERMINATING AT BOTTOM OF DECK ARE TO PROVIDE A DEFLECTION TRACK SECURED TO THE UNDERSIDE OF THE DECKING, NEST TOP TRACK BUT DO NOT ATTACH TO DEFLECTION TRACK. FILL FLUTE IN METAL DECK WHERE REQUIRED.
4. CONTROL JOINTS SHALL BE AS SHOWN ON PLANS AND ELEVATIONS OR SPACED AT A MINIMUM OF 20'-0" OC AND A MAXIMUM OF 32'-0" OC WITH ONE CONTROL JOINT LOCATED WITHIN 3'-4" OF ANY CORNER. FOR INTERIOR GYPSUM WALL CONTROL JOINTS SEE DETAIL
5. SEE FINISH SCHEDULE FOR WALL, FLOOR, BASE, AND CEILING TYPES AND FINISHES.
6. REFER TO STRUCTURAL DRAWINGS FOR LOCATION OF REINFORCING, BOND BEAMS, BRACING, ETC.
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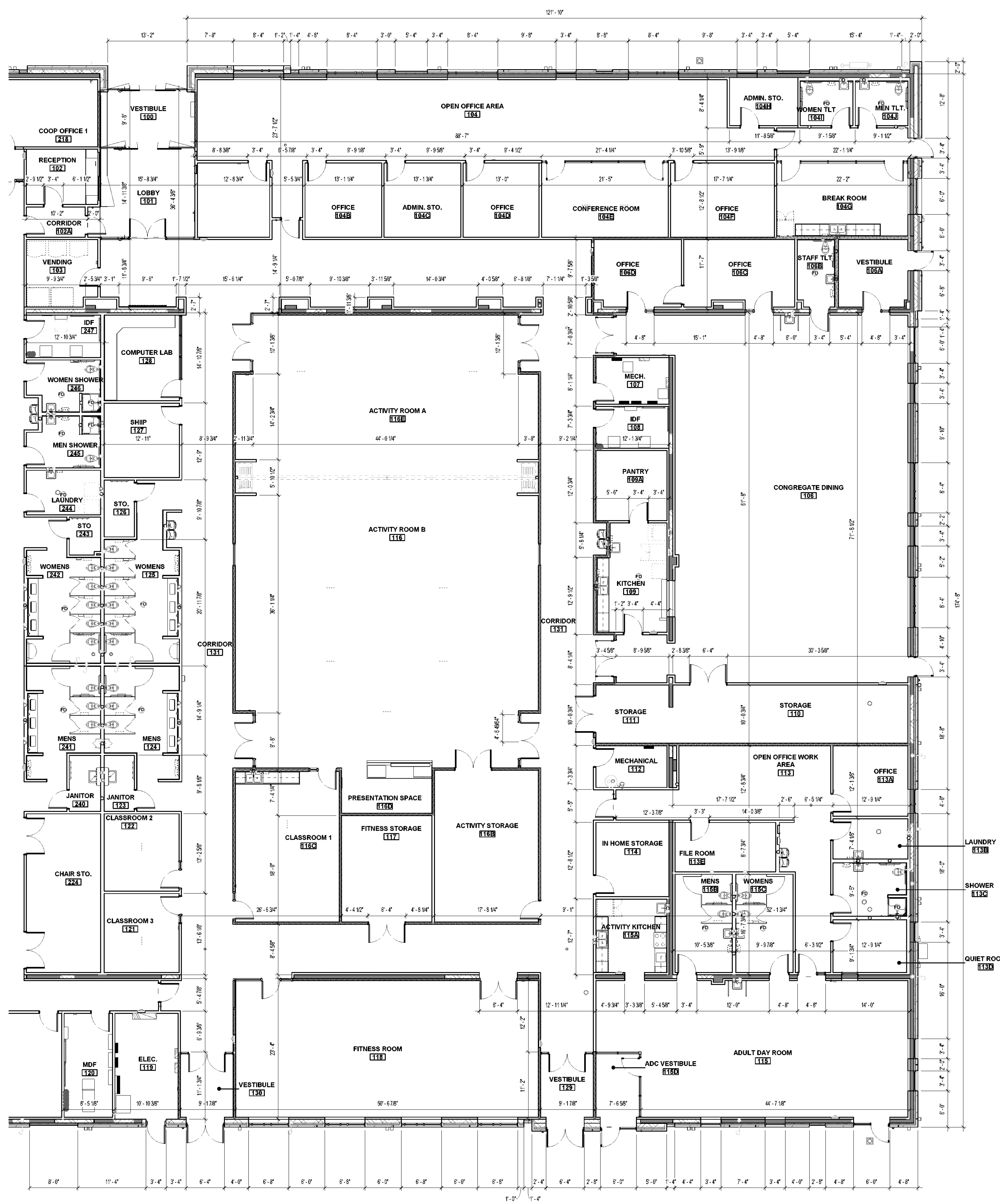
   GC TO PROVIDE WOOD BLOCKING FOR ALL WALL/CEILING MOUNTED ACCESSORIES.
9. FIELD VERIFY FINAL ROOM DIMENSIONS PRIOR TO CASEWORK FABRICATION.
10. SLOPE CONCRETE SLAB TO FLOOR DRAIN AS INDICATED ON DRAWINGS.
11. THERE SHALL BE NO PENETRATIONS IN THROUGH WALL FLASHING.
12. DOOR JAMB FROM INTERSECTING WALLS: CMU - 8" UNLESS OTHERWISE NOTED
    STUD- 4" UNLESS OTHERWISE NOTED
13. REFER TO OVERALL FLOOR PLAN FOR DEPRESSED SLAB LOCATIONS. -2" BELOW FINISHED FLOOR, TYPICAL ALL DEPRESSED SLAB AREAS



1 A1-03 **DIMENSION PLAN - AREA A**
1/8" = 1'-0"

0 4' 8' 16'

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SMITH SINNETT ARCHITECTURE, PA — REGISTERED ARCHITECTURAL CORPORATION — CERT. NO. 50172 — NORTH CAROLINA — RALEIGH

JAMEY EDWARD GLUECK — Registered Architect — 9585 — North Carolina — RALEIGH, NC — 10-16-2024

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Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

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DRAWN BY: RM, FA, NB
CHECKED BY: JEG

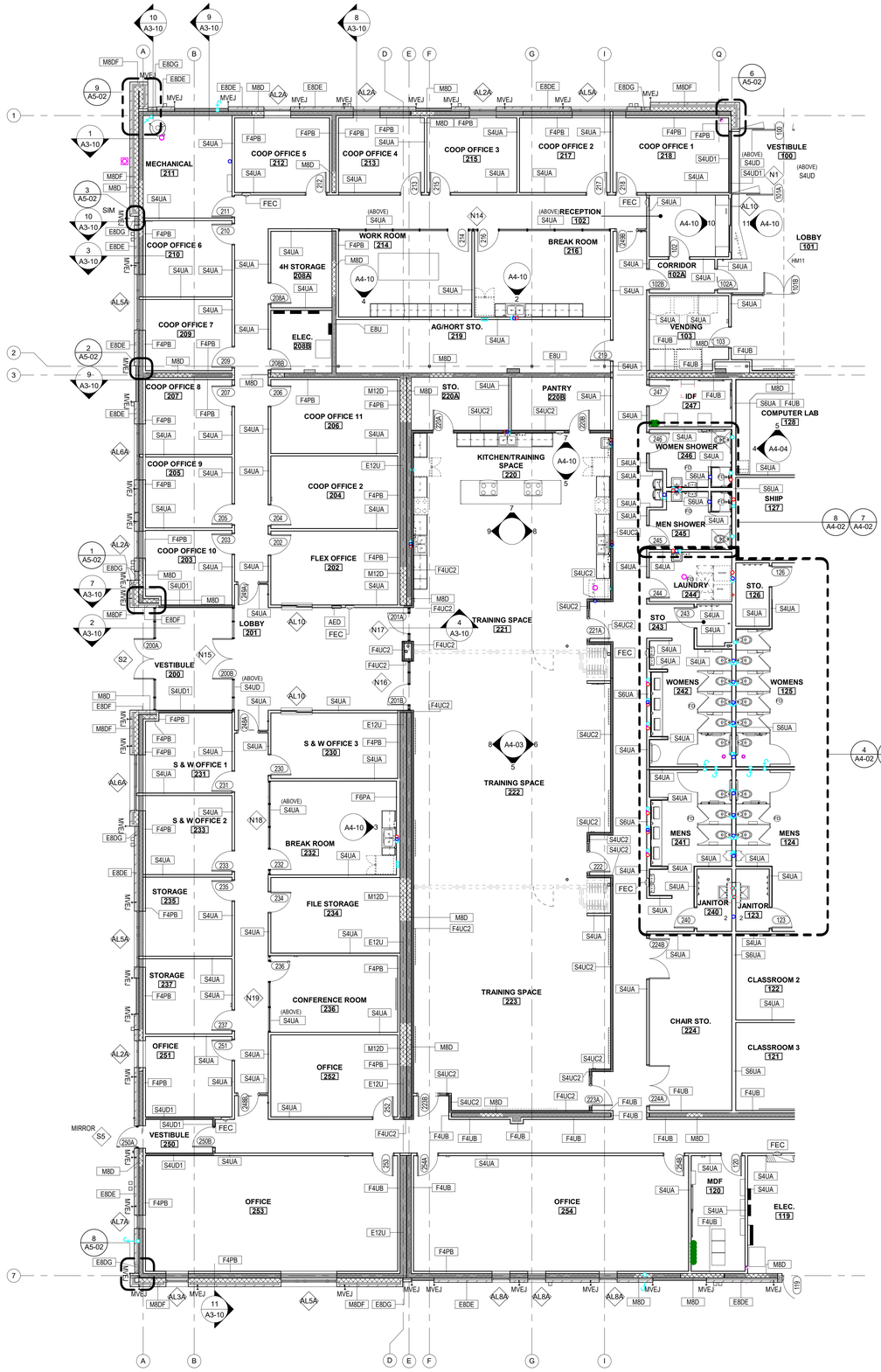
FIRST FLOOR DIMENSION PLAN - AREA A

2021029 16 OCT. 2024

A1-03

GENERAL PROJECT NOTES:

1. WALL DIMENSIONS ARE TO FACE OF METAL STUD, FACE OF CONCRETE MASONRY UNIT (CMU), OR CENTERLINE OF COLUMN UNLESS OTHERWISE NOTED.
2. ALL CMU WALLS GOING TO BOTTOM OF DECK ARE TO PROVIDE A 1" GAP FOR DEFLECTION, FILL GAP WITH MINERAL WOOL INSULATION ALONG THE ENTIRE LENGTH OF WALL. AT FIRE RATED WALLS, ENSURE SPRAY APPLIED FIRE SEALANT BOTH SIDES.
3. ALL METAL STUD WALLS TERMINATING AT BOTTOM OF DECK ARE TO PROVIDE A DEFLECTION TRACK SECURED TO THE UNDERSIDE OF THE DECKING, NEST TOP TRACK BUT DO NOT ATTACH TO DEFLECTION TRACK. FILL FLUTE IN METAL DECK WHERE REQUIRED.
4. CONTROL JOINTS SHALL BE AS SHOWN ON PLANS AND ELEVATIONS OR SPACED AT A MINIMUM OF 20'-0" OC AND A MAXIMUM OF 32'-0" OC WITH ONE CONTROL JOINT LOCATED WITHIN 3'-4" OF ANY CORNER. FOR INTERIOR GYPSUM WALL CONTROL JOINTS SEE DETAIL
5. SEE FINISH SCHEDULE FOR WALL, FLOOR, BASE, AND CEILING TYPES AND FINISHES.
6. REFER TO STRUCTURAL DRAWINGS FOR LOCATION OF REINFORCING, BOND BEAMS, BRACING, ETC.
7. ALL EXTERIOR CONCRETE PAVING SHALL SLOPE AWAY FROM THE BUILDING AT 1/4" PER FOOT, MINIMUM.
8. FURNITURE AND EQUIPMENT SHOWN DASHED ON PLANS IS NOT IN CONTRACT (NIC). REFER TO A1-06 AND A1-07 FOR FURNISHING AND EQUIPMENT PLANS.
   GC TO PROVIDE WOOD BLOCKING FOR ALL WALL/CEILING MOUNTED ACCESSORIES.
9. FIELD VERIFY FINAL ROOM DIMENSIONS PRIOR TO CASEWORK FABRICATION.
10. SLOPE CONCRETE SLAB TO FLOOR DRAIN AS INDICATED ON DRAWINGS.
11. THERE SHALL BE NO PENETRATIONS IN THROUGH WALL FLASHING.
12. DOOR JAMB FROM INTERSECTING WALLS: CMU - 8" UNLESS OTHERWISE NOTED
    STUD - 4" UNLESS OTHERWISE NOTED
13. REFER TO OVERALL FLOOR PLAN FOR DEPRESSED SLAB LOCATIONS. -2" BELOW FINISHED FLOOR, TYPICAL ALL DEPRESSED SLAB AREAS



1 / A1-04 ANNOTATION PLAN - AREA B
1/8" = 1'-0"

0 4' 8' 16'

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FIRST FLOOR ANNOTATION PLAN - AREA B

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A1-04

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GENERAL PROJECT NOTES:

1. WALL DIMENSIONS ARE TO FACE OF METAL STUD, FACE OF CONCRETE MASONRY UNIT (CMU), OR CENTERLINE OF COLUMN UNLESS OTHERWISE NOTED.
2. ALL CMU WALLS GOING TO BOTTOM OF DECK ARE TO PROVIDE A 1" GAP FOR DEFLECTION, FILL GAP WITH MINERAL WOOL INSULATION ALONG THE ENTIRE LENGTH OF WALL. AT FIRE RATED WALLS, ENSURE SPRAY APPLIED FIRE SEALANT BOTH SIDES.
3. ALL METAL STUD WALLS TERMINATING AT BOTTOM OF DECK ARE TO PROVIDE A DEFLECTION TRACK SECURED TO THE UNDERSIDE OF THE DECKING, NEST TOP TRACK BUT DO NOT ATTACH TO DEFLECTION TRACK. FILL FLUTE IN METAL DECK WHERE REQUIRED.
4. CONTROL JOINTS SHALL BE AS SHOWN ON PLANS AND ELEVATIONS OR SPACED AT A MINIMUM OF 20'-0" OC AND A MAXIMUM OF 32'-0" OC WITH ONE CONTROL JOINT LOCATED WITHIN 3'-4" OF ANY CORNER. FOR INTERIOR GYPSUM WALL CONTROL JOINTS SEE DETAIL
5. SEE FINISH SCHEDULE FOR WALL, FLOOR, BASE, AND CEILING TYPES AND FINISHES.
6. REFER TO STRUCTURAL DRAWINGS FOR LOCATION OF REINFORCING, BOND BEAMS, BRACING, ETC.
7. ALL EXTERIOR CONCRETE PAVING SHALL SLOPE AWAY FROM THE BUILDING AT 1/4" PER FOOT, MINIMUM.
8. FURNITURE AND EQUIPMENT SHOWN DASHED ON PLANS IS NOT IN CONTRACT (NIC). REFER TO A1-06 AND A1-07 FOR FURNISHING AND EQUIPMENT PLANS.
   GC TO PROVIDE WOOD BLOCKING FOR ALL WALL/CEILING MOUNTED ACCESSORIES.
9. FIELD VERIFY FINAL ROOM DIMENSIONS PRIOR TO CASEWORK FABRICATION.
10. SLOPE CONCRETE SLAB TO FLOOR DRAIN AS INDICATED ON DRAWINGS.
11. THERE SHALL BE NO PENETRATIONS IN THROUGH WALL FLASHING.
12. DOOR JAMB FROM INTERSECTING WALLS: CMU - 8" UNLESS OTHERWISE NOTED
    STUD- 4" UNLESS OTHERWISE NOTED
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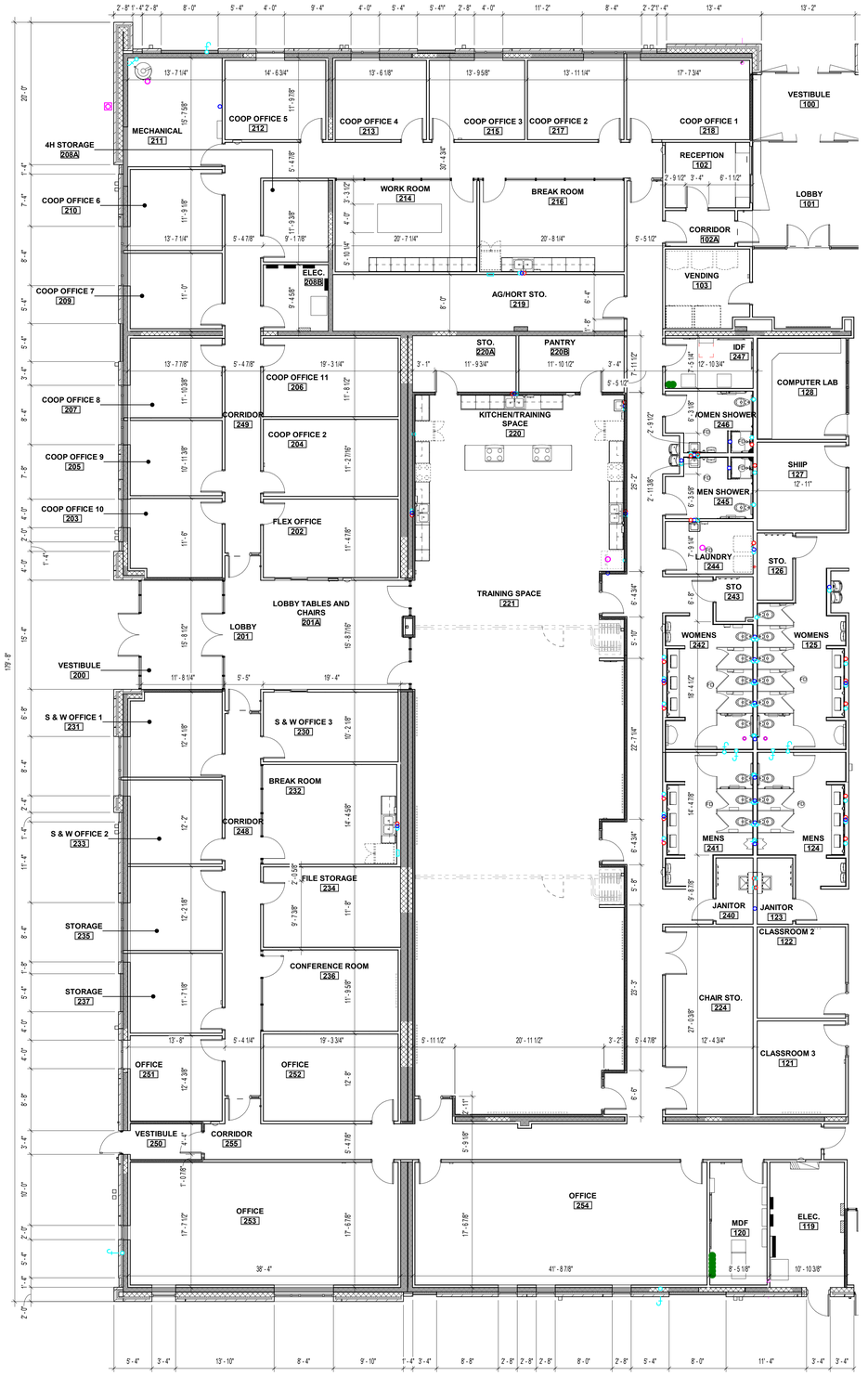

1 A1-05 **DIMENSION PLAN - AREA B**

1/8" = 1'-0"

0 4" 8" 16"

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FIRST FLOOR DIMENSION PLAN - AREA B

2021029 16 OCT. 2024

A1-05

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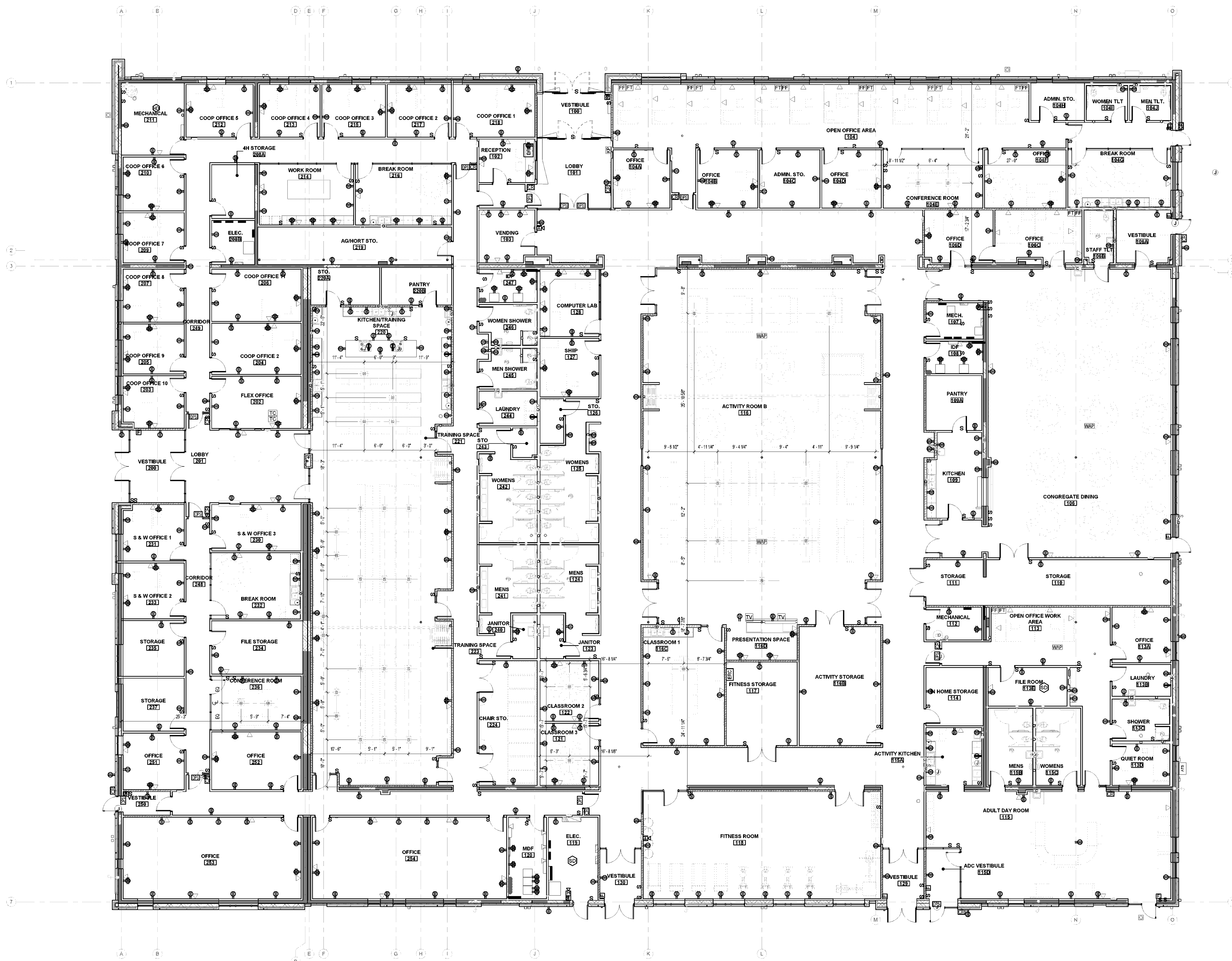

1
A1-06
OVERALL FURNISHING PLAN
1/8" = 1'-0"

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JAMEY EDWARD GLUECK — Registered Architect — 9585 — North Carolina — RALEIGH, N.C. — 10-16-2024

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FURNISHING PLAN

2021029 16 OCT. 2024

A1-06

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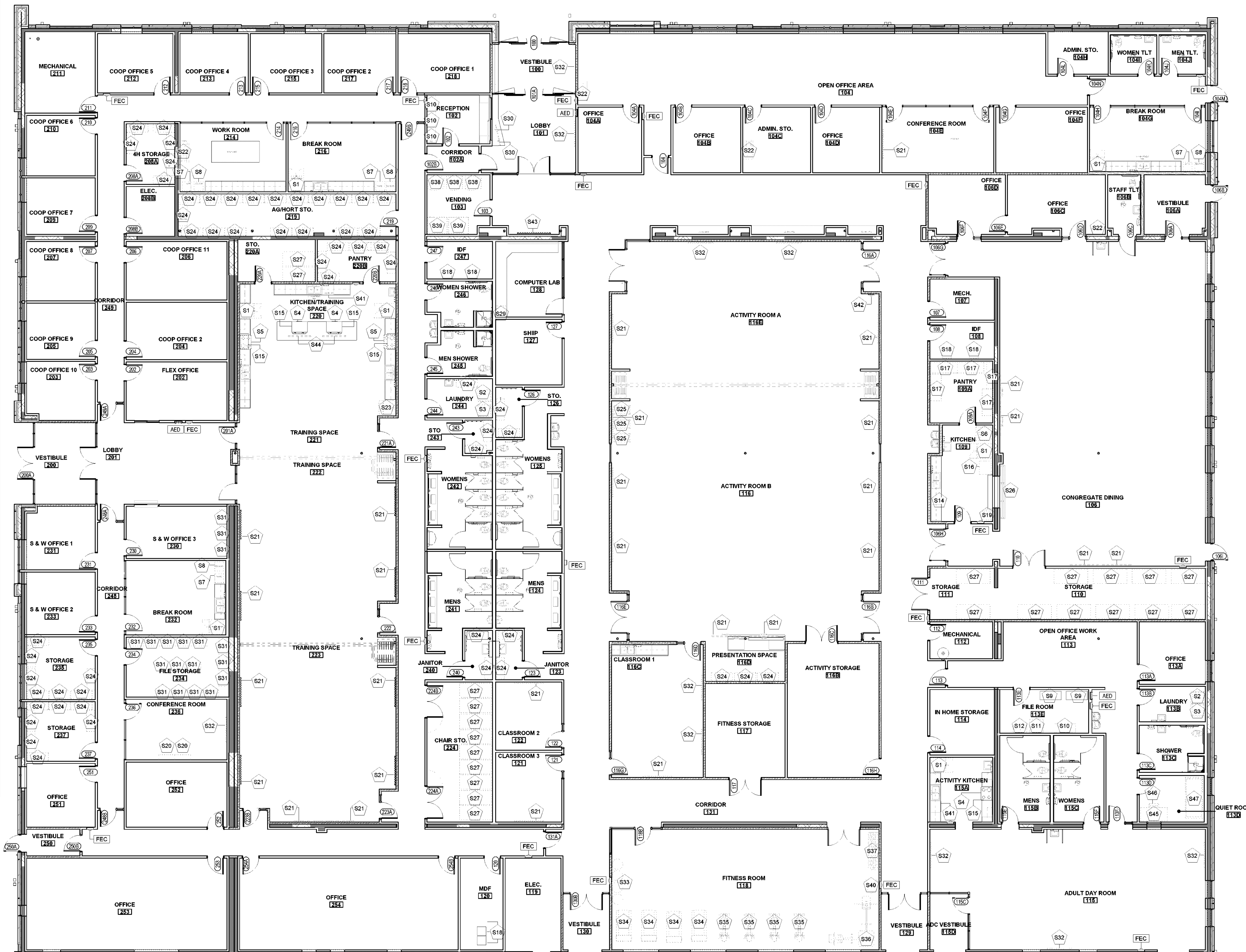
EQUIPMENT LEGEND

MARK	ITEM DESCRIPTION	INSTALL	REMARKS
S1	REFRIGERATOR	OFCI	
S2	WASHER	OFCI	
S3	DRYER	OFCI	
S4	RANGE	CFCI	**BASIS OF DESIGN:** GE PROFILE 30" SMART SLIDE-IN ELECTRIC DOUBLE OVEN CONVECTION FINGERPRINT RESISTANT RANGE. EQUAL LG, WHIRPOOL, MUST HAVE FORWARD/FRONT CONTROLS
S5	RANGE	OFCI	
S6	ICE MAKER	OFOI	
S7	WASTE BUCKET	OFOI	
S8	RECYCLE	OFCI	
S9	LATERAL FILES	OFOI	
S10	LATERAL FILES	OFOI	
S11	TRASH CAN - SHREDDER	CFOI	
S12	STANDARD FILE	OFOI	
S13	SHELVING - 2' 8" X 6' 4"	OFOI	
S14	SS TABLE	OFOI	
S15	KITCHEN HOOD	CFCI	**NOTE:** REFER TO MECHANICAL DRAWINGS
S16	WARMING CABINET	OFOI	
S17	SHELVING - 2' X 5'	OFOI	
S18	DATA RACK	CFCI	**NOTE:** REFER TO ELECTRICAL DRAWINGS
S19	WASTE BUCKET	OFOI	
S20	BOOK SHELF		
S21	FLAT SCREEN TV - 75"	SEE NOTES	**NOTE:** TV: OFOI; TV BRACKETS: OFCI; TV BLOCKING: CFCI
S22	COPIER	OFOI	
S23	ICE MAKER	OFCI	
S24	WIRE RACK SHELVING	OFOI	
S25	CART	OFOI	
S26	STAINLESS STEEL 4 BAR TUBULAR TRAY SLIDE	CFCI	**NOTE:** TYPE 304, 16 GAGE NO.4 FINISH MOUNTED 34" AFF. 02'LX10"WX1'H. PROVIDE BLOCKING FOR WALL MOUNTING. VOLLRATH 9882004-2-C 60" TRAY SLIDE TUBULAR STAINLESS 60" X 12"
S27	TABLES AND CHAIR DOLLIES	OFOI	
S28	NOT USED		
S29	PRINTER	OFOI	
S30	FLATSCREEN MONITOR - 24"	OFOI	**NOTE:** LED
S31	SHELVING - 36" X 18"	OFOI	
S32	FLAT SCREEN TV - 65"	SEE NOTES	**NOTE:** TV: OFOI; TV BRACKETS: OFCI; TV BLOCKING: CFCI
S33	EXERCISE BALL RACK	OFOI	
S34	TREADMILL	OFCI	
S35	EXERCISE BIKE	OFCI	
S36	MULTI-STATION APPARATUS	OFCI	
S37	WEIGHT RACK	OFOI	
S38	VENDING MACHINE - SODA	OFCI	
S39	VENDING MACHINE - SNACKS	OFCI	
S40	EXERCISE BALL STAND	OFOI	
S41	DISHWASHER	CFCI	**BASIS OF DESIGN:** SAMSUNG 24" FRONT CONTROL DISHWASHER IN STAINLESS STEEL, ADA COMPLIANT. EQUAL GE, MIELE, 32" HEIGHT TO FIT UNDER 34" COUNTERTOP
S42	POOL CUE RACK	OFOI	
S43	FLATSCREEN TV	SEE NOTES	TV: OFOI TV BRACKETS: OFCI TV BLOCKING: CFCI
S44	MONITORS	OFCI	
S45	DESK	OFOI	
S46	CHAIR	OFOI	
S47	PATIENT BED	OFOI	



1
A1-07
OVERALL EQUIPMENT PLAN
1/8" = 1'-0"

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JAMEY EDWARD GLUECK — Registered Architect — 9585 — North Carolina — RALEIGH, NC — 10-16-2024

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EQUIPMENT PLAN

2021029 16 OCT. 2024

A1-07

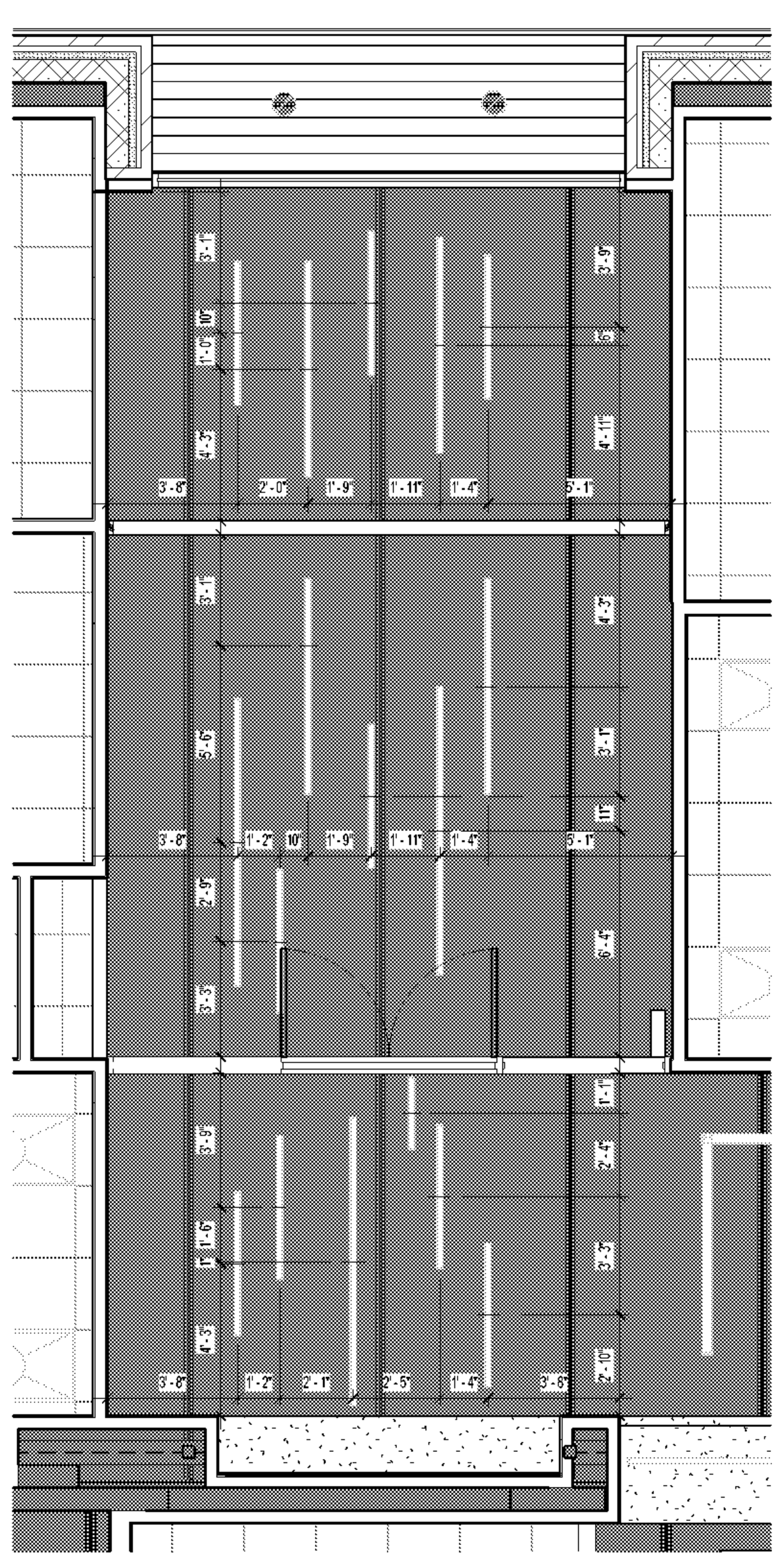
REFLECTED CEILING LEGEND AND NOTES

(A | 10'-0") — CEILING TYPE / CEILING HEIGHT

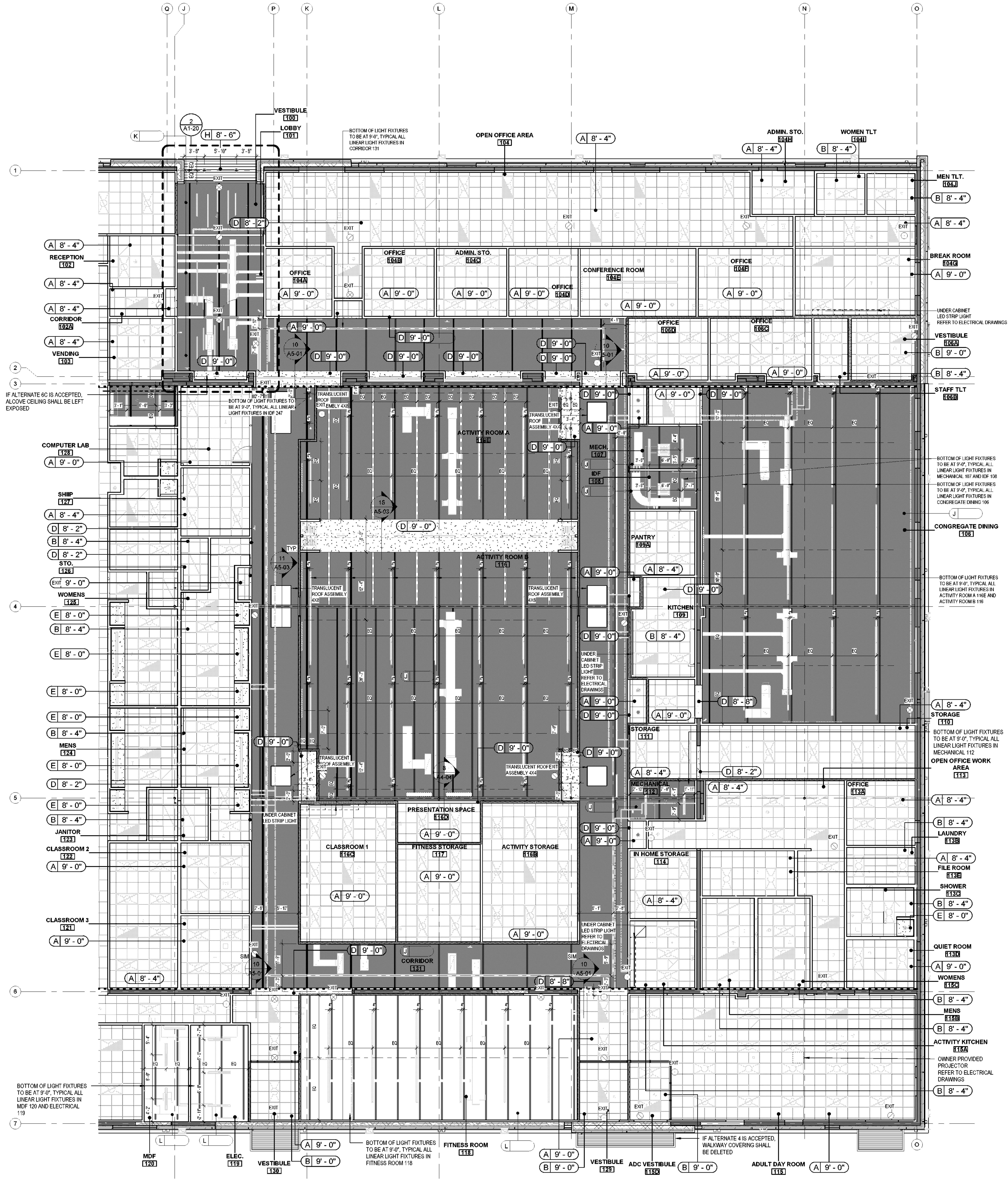
SYMBOL	TYPE	DESCRIPTION
	A	ACT-1, 2x2 CEILING TILE, WHITE FINISH
	B	ACT-2, 2x2 VINYL COVERED TILE AND GRID, WHITE FINISH, HOLD DOWN CLIPS
	D	GYPSUM WALLBOARD CEILING SYSTEM
	E	GYPSUM BOARD CEILING - MOISTURE RESISTANT
	G	METAL SOFFIT PANEL - PERFORATED
	H	METAL SOFFIT PANEL - NON PERFORATED
	J	EXPOSED EXISTING STRUCTURE - PAINT EXPOSED EXISTING STRUCTURE, HEAVY TIMBER TONGUE AND GROOVE ROOF DECK, CONDUIT, JUNCTION BOXES, PIPING, DUCTWORK, AND ALL ASSOCIATED COMPONENTS.
	K	EXPOSED EXISTING STRUCTURE - PAINT EXPOSED STRUCTURE, METAL ROOF DECK, CONDUIT, JUNCTION BOXES, PIPING, DUCTWORK, AND ALL ASSOCIATED COMPONENTS.
	L	EXPOSED NEW STRUCTURE - PAINT EXPOSED STRUCTURE, METAL ROOF DECK, CONDUIT, JUNCTION BOXES, PIPING, DUCTWORK, AND ALL ASSOCIATED COMPONENTS.
	S	METAL LINEAR CEILING REFER TO ALTERNATE 6C

SYMBOL	DESCRIPTION
	LINEAR PENDANT
	2 X 4 LED FIXTURE
	RETURN AIR GRILLE
	SUPPLY AIR DIFFUSER
⊘	CAN STYLE FIXTURE
	HANGING LED FIXTURE
	WALL MOUNTED LED UPLIGHT
	48" X 48" TRANSLUCENT ROOF ASSEMBLY
	48" X 96" TRANSLUCENT ROOF ASSEMBLY
- - - - - -	WALLS TO BE SEALED TO ROOF DECK TO SEPARATE PLENUM AREAS (NON-COMBUSTIBLE METAL ROOF DECK) FROM NON PLENUM AREAS (COMBUSTIBLE HEAVY TIMBER ROOF DECK)
	EXIT SIGN

GENERAL NOTES:
1. REFER TO PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR COMPLETE SCOPE OF CEILING PENETRATIONS AND FIXTURES.
2. REFER TO PROJECT SPECIFICATIONS FOR COMPLETE DESCRIPTION OF CEILING MATERIAL



2 | A1-20 — **VESTIBULE AND LOBBY - LIGHT LAYOUT**
1/4" = 1'-0"



1 | A1-20 — **REFLECTED CEILING PLAN - AREA A**
1/8" = 1'-0"

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REFLECTED CEILING PLAN - AREA A

2021029 — 16 OCT. 2024

A1-20

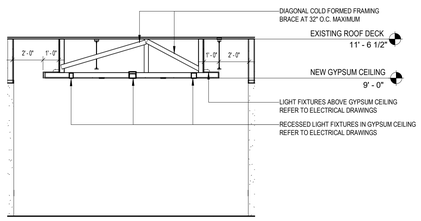
REFLECTED CEILING LEGEND AND NOTES

CEILING TYPE
A 10'-0" — CEILING HEIGHT

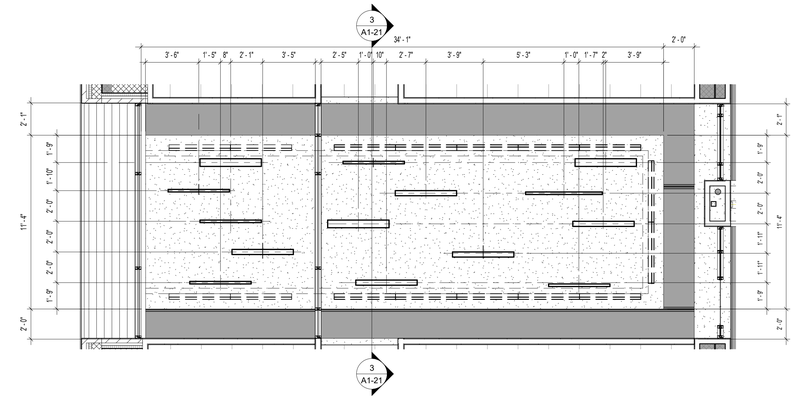
SYMBOL	TYPE	DESCRIPTION
	A	ACT-1, 2x2 CEILING TILE, WHITE FINISH
	B	ACT-2, 2x2 VINYL COVERED TILE AND GRID, WHITE FINISH, HOLD DOWN CLIPS
	D	GYPSUM WALLBOARD CEILING SYSTEM
	E	GYPSUM BOARD CEILING - MOISTURE RESISTANT
	G	METAL SOFFIT PANEL - PERFORATED
	H	METAL SOFFIT PANEL - NON PERFORATED
	J	EXPOSED EXISTING STRUCTURE - PAINT EXPOSED EXISTING STRUCTURE, HEAVY TIMBER TONGUE AND GROOVE ROOF DECK, CONDUIT, JUNCTION BOXES, PIPING, DUCTWORK, AND ALL ASSOCIATED COMPONENTS.
	K	EXPOSED EXISTING STRUCTURE - PAINT EXPOSED STRUCTURE, METAL ROOF DECK, CONDUIT, JUNCTION BOXES, PIPING, DUCTWORK, AND ALL ASSOCIATED COMPONENTS.
	L	EXPOSED NEW STRUCTURE - PAINT EXPOSED STRUCTURE, METAL ROOF DECK, CONDUIT, JUNCTION BOXES, PIPING, DUCTWORK, AND ALL ASSOCIATED COMPONENTS.
	S	METAL LINEAR CEILING REFER TO ALTERNATE 6C

SYMBOL	DESCRIPTION
	LINEAR PENDANT
	2 X 4 LED FIXTURE
	RETURN AIR GRILLE
	SUPPLY AIR DIFFUSER
⊘	CAN STYLE FIXTURE
	HANGING LED FIXTURE
	WALL MOUNTED LED UPLIGHT
	48" X 48" TRANSLUCENT ROOF ASSEMBLY
	48" X 96" TRANSLUCENT ROOF ASSEMBLY
	WALLS TO BE SEALED TO ROOF DECK TO SEPARATE PLENUM AREAS (NON-COMBUSTIBLE METAL ROOF DECK) FROM NON PLENUM AREAS (COMBUSTIBLE HEAVY TIMBER ROOF DECK)
	EXIT SIGN

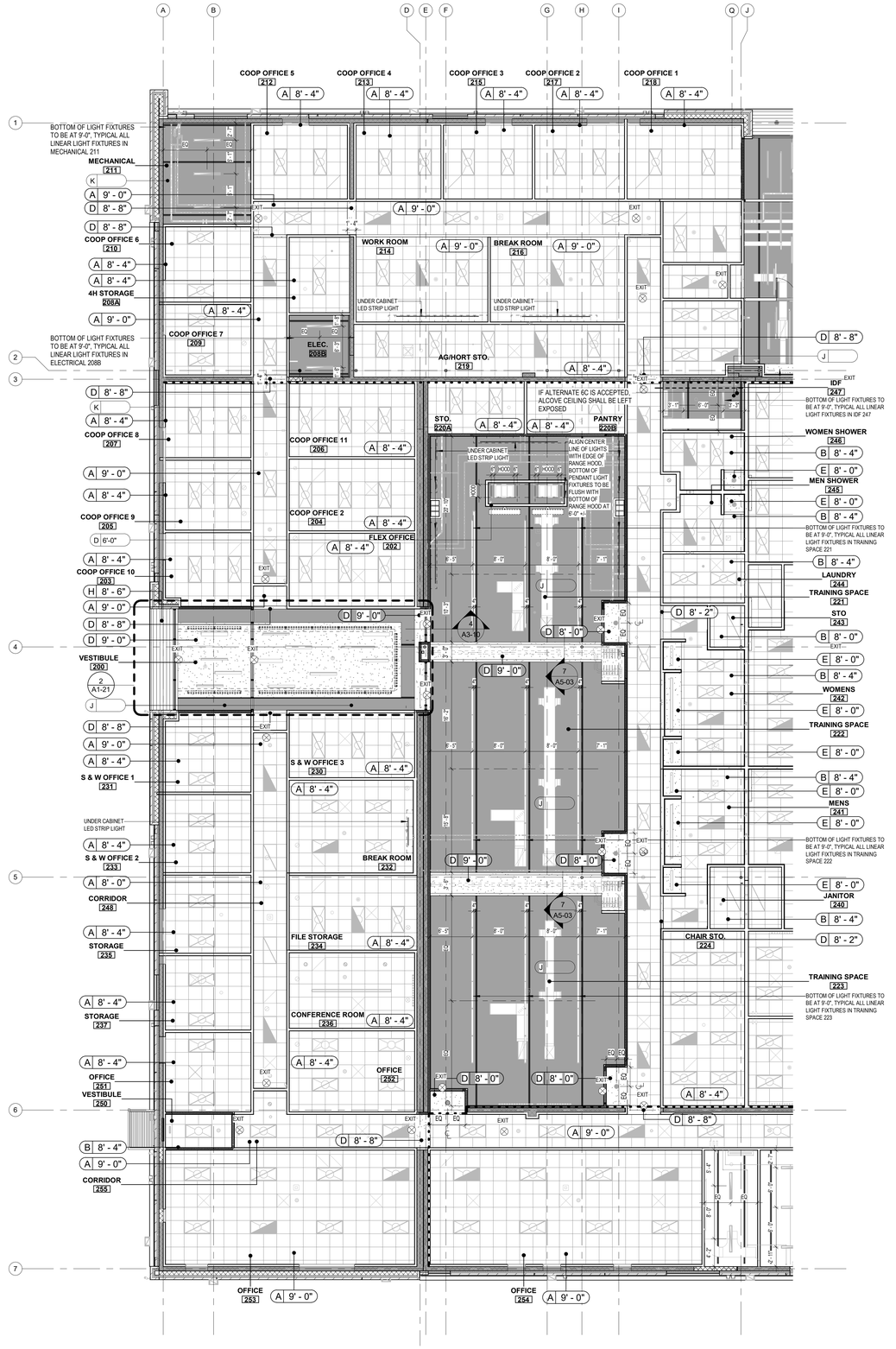
GENERAL NOTES:
1. REFER TO PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR COMPLETE SCOPE OF CEILING PENETRATIONS AND FIXTURES.
2. REFER TO PROJECT SPECIFICATIONS FOR COMPLETE DESCRIPTION OF CEILING MATERIAL



3 / A1-21 SECTION THROUGH LOBBY 201 GYPSUM CEILING
1/4" = 1'-0"
0 2' 4' 8'



2 / A1-21 ENLARGED REFLECED CEILING PLAN - VESTIBULE 200 AND LOBBY 201
1/4" = 1'-0"
0 2' 4' 8'



1 / A1-21 REFLECTED CEILING PLAN - AREA B
1/8" = 1'-0"
0 4' 8' 16'

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SMITH, SINNETT ARCHITECTURE, P.A. CERT. NO. 31172 RALEIGH NORTH CAROLINA

JAMES EDWARD GUTHRIE 9585 REGISTERED PROFESSIONAL ENGINEER NORTH CAROLINA 10-11-2021

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Smith Sinnett Architecture, P.A. 2024

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REFLECTED CEILING PLAN - AREA B

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A1-21

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ROOF LEGEND:

⇒	INDICATES DIRECTION OF ROOF SLOPE ACHIEVED THROUGH TAPERED INSULATION
DS	PREFINISHED ALUMINUM DOWNSPOUT, TYPICAL
WC-DS	PREFINISHED ALUMINUM DOWNSPOUT UNDER PROTECTIVE WALKWAY COVERING

RIDGE — LOCATION OF SPOT ELEVATION
6 1/4" — BASE INSULATION + THICKNESS OF TAPERED INSULATION + 5/8" COVERBOARD + 1/8" SINGLY PLY ROOF MEMBRANE

ROOF TYPES LEGEND:

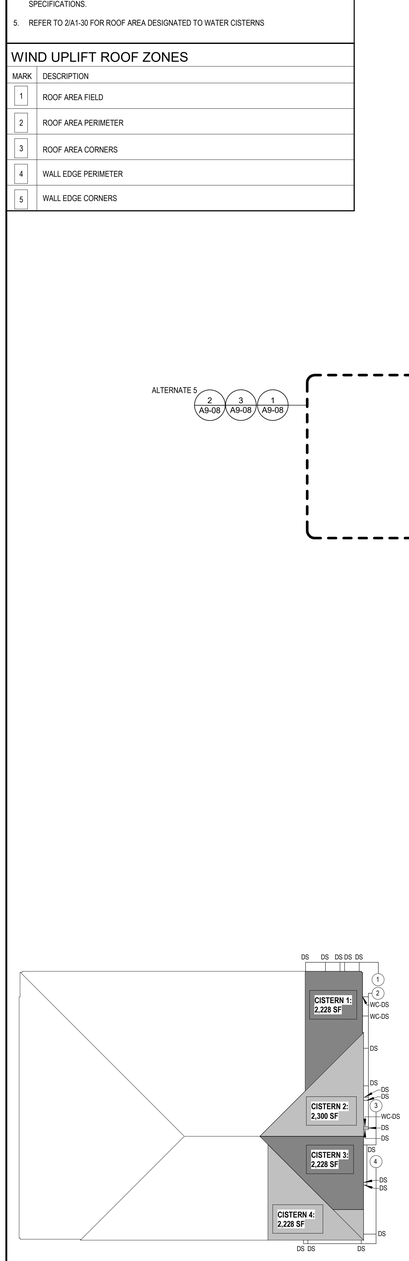
- **A1** ROOF TYPE: ROOF MEMBRANE SYSTEM OVER COVER BOARD OVER TAPERED RIGID INSULATION OVER BASE LAYER OF INSULATION OVER NEW PLYWOOD OVER EXISTING HEAVY TIMBER ROOF DECK
- **A2** ROOF TYPE: ROOF MEMBRANE SYSTEM OVER COVER BOARD OVER TAPERED RIGID INSULATION OVER BASE LAYER OF INSULATION OVER EXISTING METAL ROOF DECK.
- **A3** ROOF TYPE: ROOF MEMBRANE SYSTEM OVER COVER BOARD OVER SLOPED RIGID INSULATION OVER BASE LAYER OF INSULATION OVER NEW METAL ROOF DECK.
- **B** ROOF TYPE: ALUMINUM WALKWAY COVERING
- **C** ROOF TYPE: ROOF MEMBRANE SYSTEM OVER COVER BOARD OVER NEW METAL ROOF DECK

ROOF PLAN NOTES:

1. CRICKETS TO SLOPE 1/4" PER FOOT . DRAWINGS ARE INTENDED TO SHOW DESIGN INTENTION SHALL PROVIDE SUBMITTAL DRAWINGS OF TAPERED INSULATION PRIOR TO INSTALL TO ENSURE POSITIVE SLOPE TO DRAINS.
2. REFER TO CIVIL DRAWINGS FOR DRAINAGE AWAY FROM BUILDING.
3. PROVIDE CRICKET AT ALL ROOF CURBS. SLOPE 1/2" PER FOOT TYP.
4. REFER TO MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR ROOF EQUIPMENT SPECIFICATIONS.
5. REFER TO 2/A1-30 FOR ROOF AREA DESIGNATED TO WATER CISTERNS

WIND UPLIFT ROOF ZONES

MARK	DESCRIPTION
1	ROOF AREA FIELD
2	ROOF AREA PERIMETER
3	ROOF AREA CORNERS
4	WALL EDGE PERIMETER
5	WALL EDGE CORNERS



2 / A1-30 CISTERN ROOF AREA ZONES
1" = 40'-0"

1 / A1-30 ROOF PLAN
1/8" = 1'-0"

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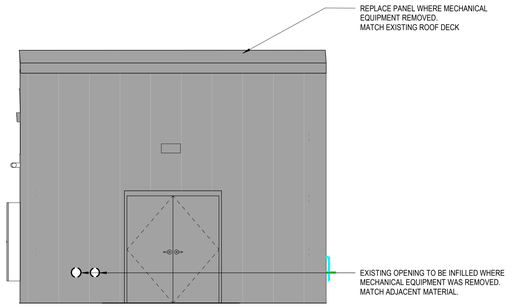
DRAWN BY: FA,NB
CHECKED BY: JEG

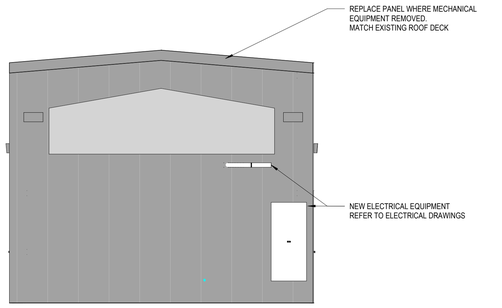
ROOF PLAN - OVERALL

2021029 16 OCT. 2024

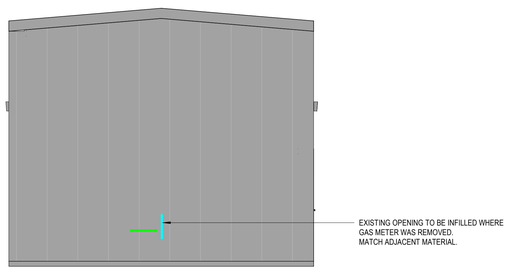
A1-30



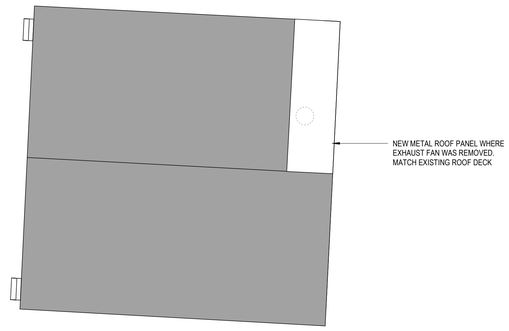
8 A1-31 **MECHANICAL BUILDING - SOUTH ELEVATION**
1/4" = 1'-0"
0 2' 4' 8'



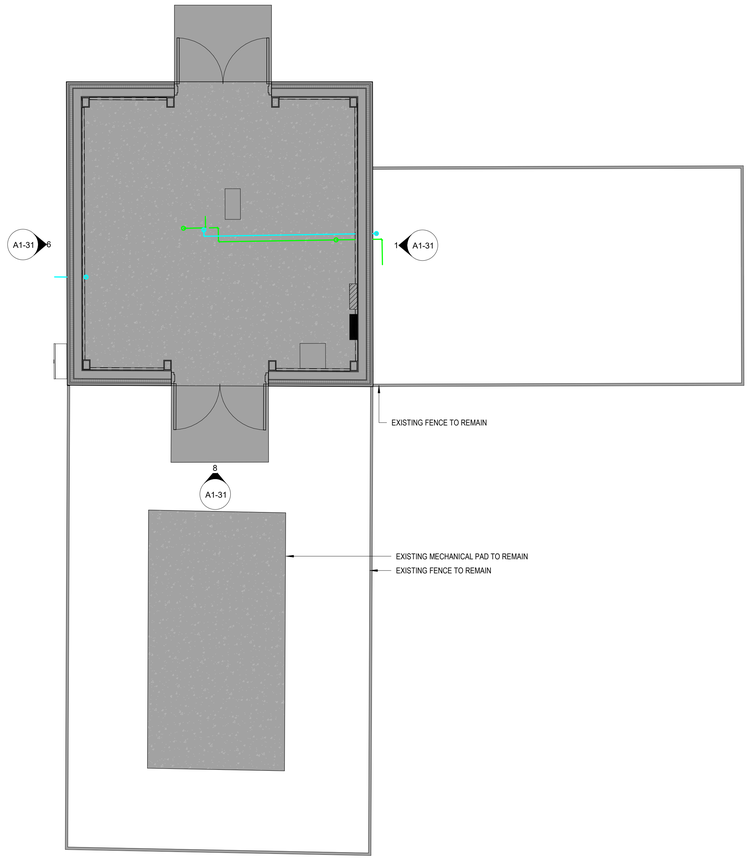
6 A1-31 **MECHANICAL BUILDING - EAST ELEVATION**
1/4" = 1'-0"
0 2' 4' 8'



1 A1-31 **MECHANICAL BUILDING - WEST ELEVATION**
1/4" = 1'-0"
0 2' 4' 8'



10 A1-31 **MECHANICAL BUILDING - ROOF PLAN**
1/4" = 1'-0"
0 2' 4' 8'



3 A1-31 **MECHANICAL BUILDING - FLOOR PLAN**
1/4" = 1'-0"
0 2' 4' 8'

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SMITH SINNETT ARCHITECTURE, P.A. CORPORATE SEAL CERT. NO 9172 RALEIGH NORTH CAROLINA

JAMES EDWARD GUTHRIE REGISTERED ARCHITECT 9585 NORTH CAROLINA 10-11-2024

BID DOCUMENTS

Onslow County Senior Services Center Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: FA,NB
CHECKED BY: JEG

MECHANICAL BUILDING PLANS

2021029 16 OCT. 2024

A1-31

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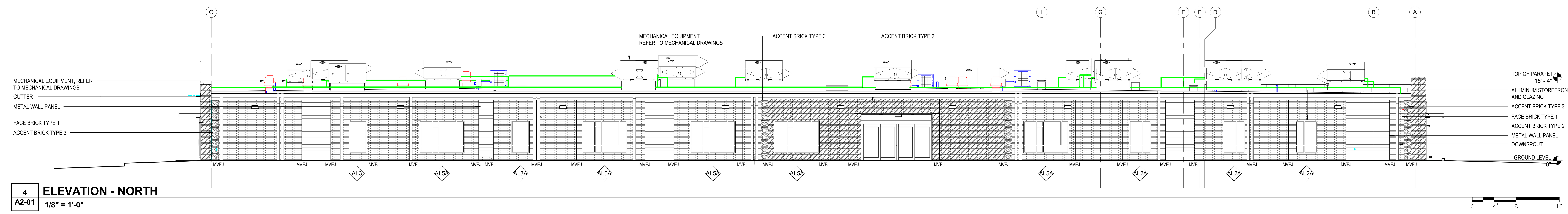
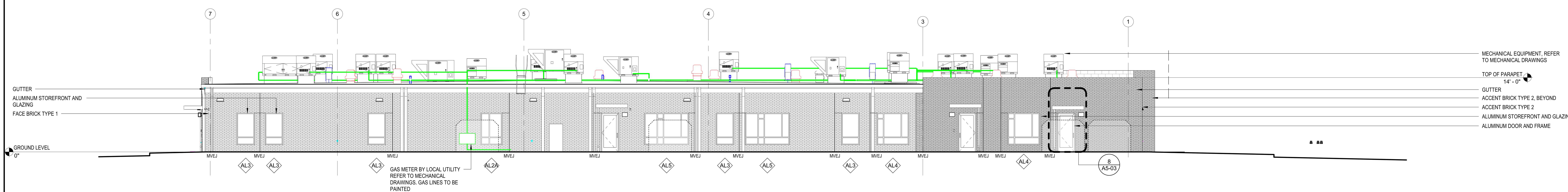
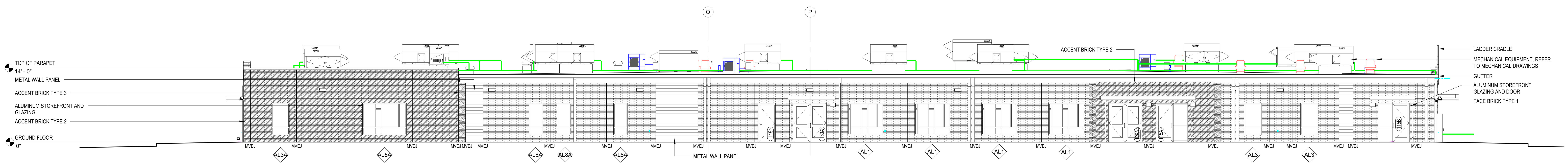


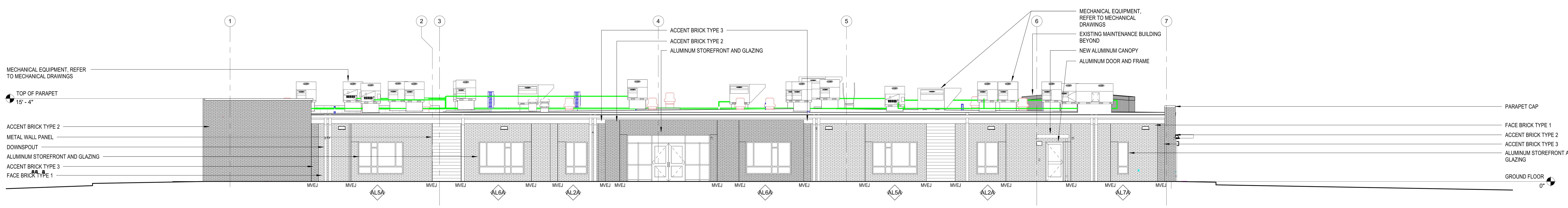
4 A2-01 **ELEVATION - NORTH**
1/8" = 1'-0"



3 A2-01 **ELEVATION - EAST**
1/8" = 1'-0"



2 A2-01 **ELEVATION - SOUTH**
1/8" = 1'-0"



1 A2-01 **ELEVATION - WEST**
1/8" = 1'-0"

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BID DOCUMENTS

Onslow County Senior Services Center Renovation

Onslow County Government

4024 Richlands Hwy, Jacksonville, NC 28540

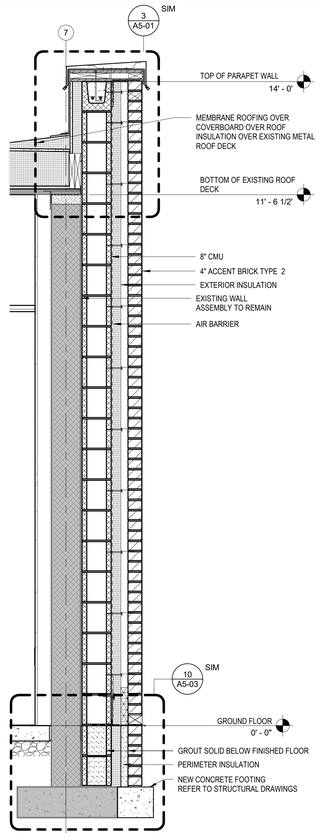
ID	DATE	DESCRIPTION

DRAWN BY: FA
CHECKED BY: JEG

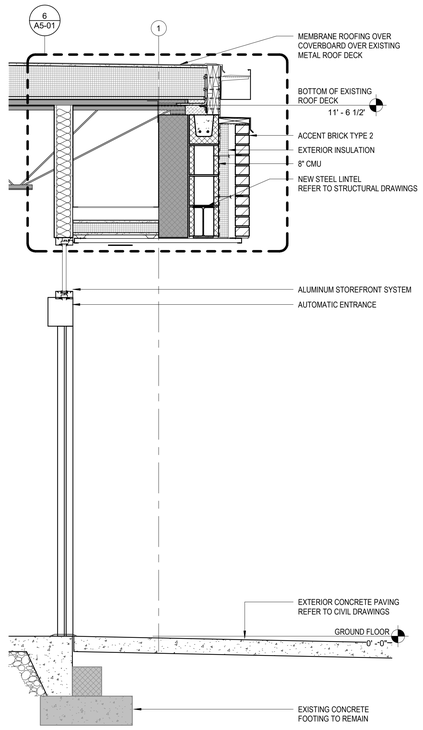
OVERALL BUILDING ELEVATIONS

2021029 16 OCT. 2024

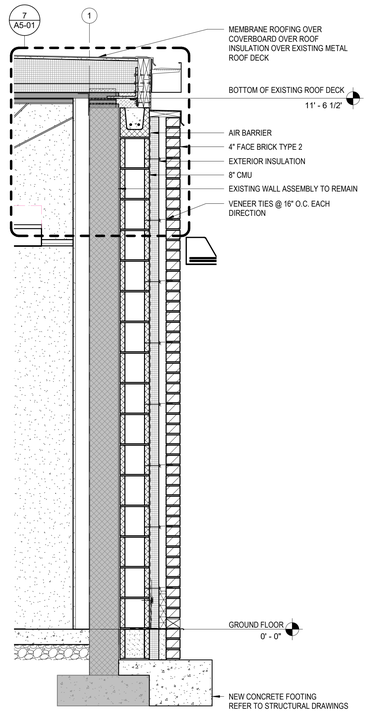
A2-01



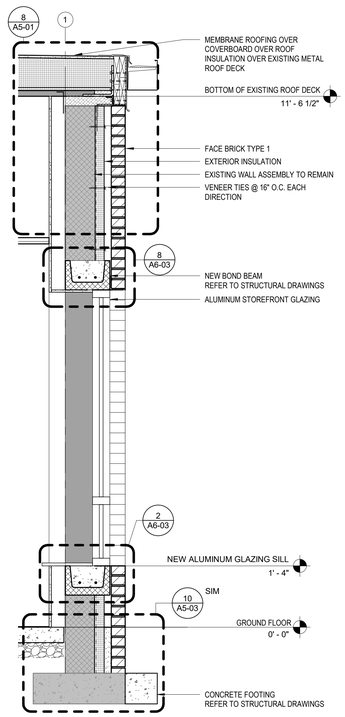
11 A3-10 WALL SECTION
3/4" = 1'-0"



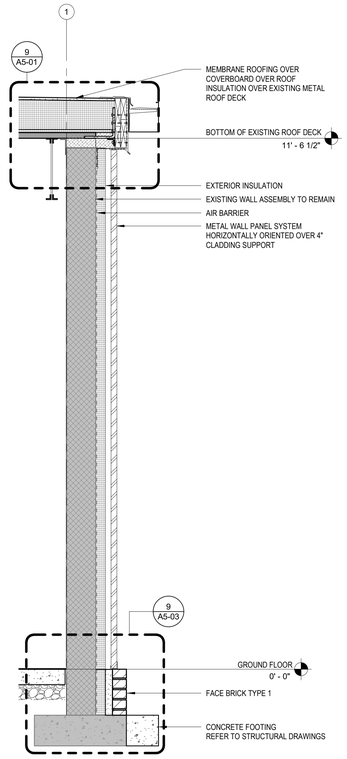
6 A3-10 WALL SECTION
3/4" = 1'-0"



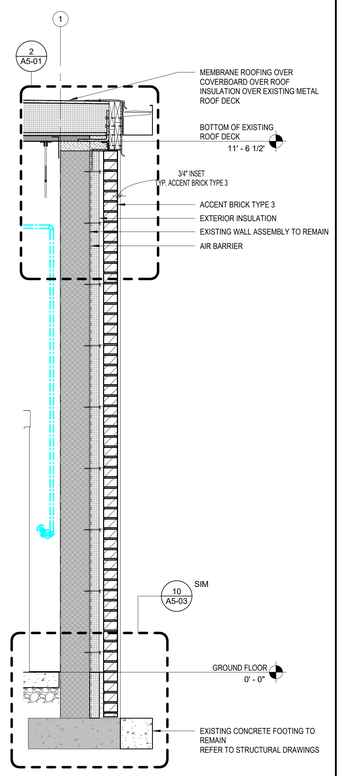
7 A3-10 WALL SECTION
3/4" = 1'-0"



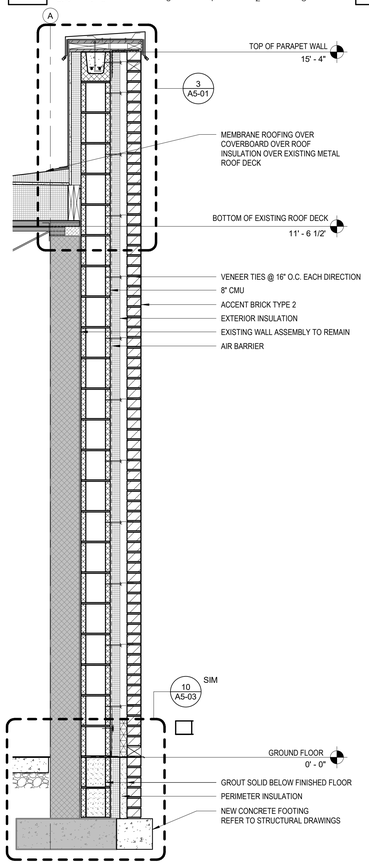
8 A3-10 WALL SECTION
3/4" = 1'-0"



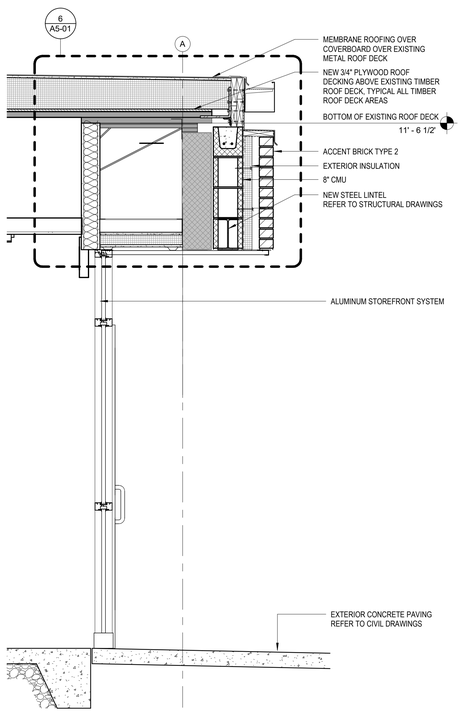
9 A3-10 WALL SECTION
3/4" = 1'-0"



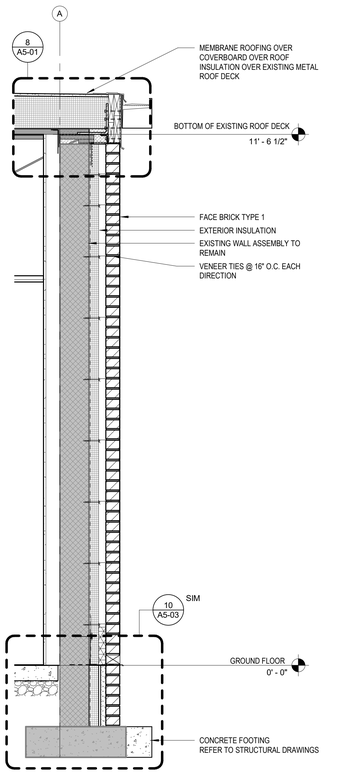
10 A3-10 WALL SECTION
3/4" = 1'-0"



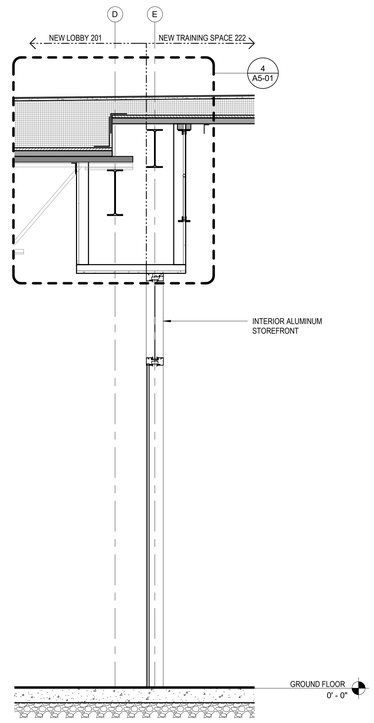
1 A3-10 WALL SECTION
3/4" = 1'-0"



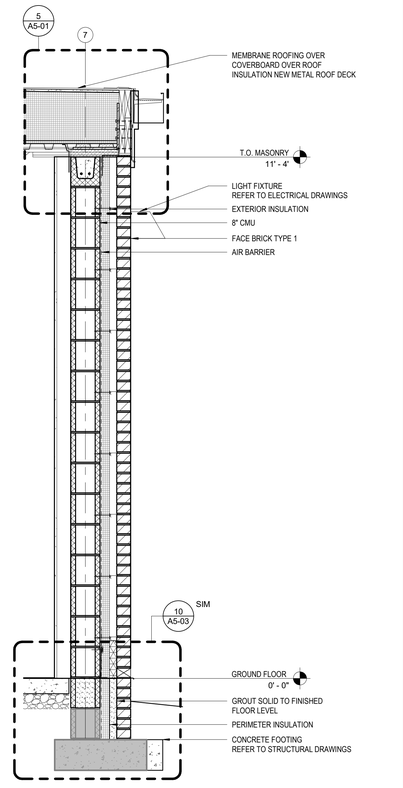
2 A3-10 WALL SECTION
3/4" = 1'-0"



3 A3-10 WALL SECTION
3/4" = 1'-0"



4 A3-10 WALL SECTION
3/4" = 1'-0"



5 A3-10 WALL SECTION
3/4" = 1'-0"

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info@smithsinnett.com

BID DOCUMENTS

Onslow County Senior Services Center
Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: RM, FA
CHECKED BY: JEG

WALL SECTIONS

2021029 16 OCT. 2024

A3-10

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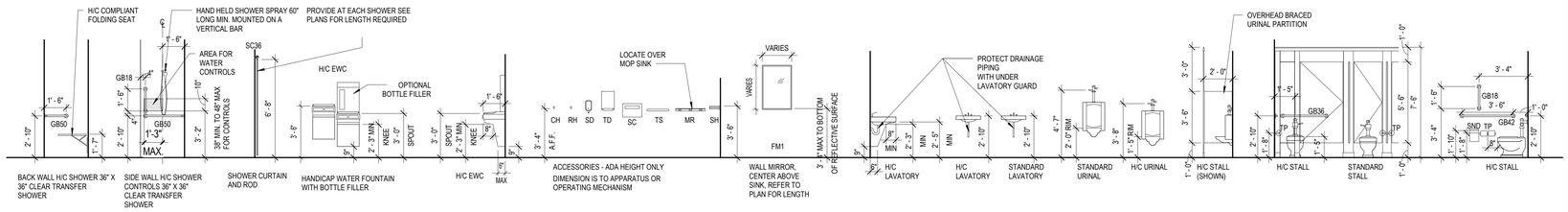
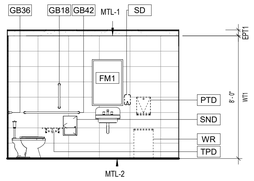
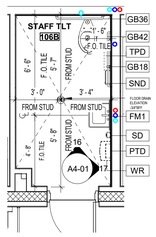
MTL -1 METAL TRIM- SCHLUTER - JOLLY (DETAIL 10/ A6-02)
MTL- 2 METAL TRIM- SCHLUTER - DILEX-EHK (DETAIL 12/ A6-02)
MTL- 3 METAL TRIM- SCHLUTER - QUADEC (DETAIL 11/ A6-02)

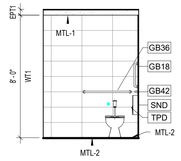




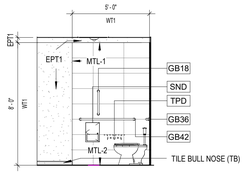
17 A4-01 **TOILET 106B - EAST ELEVATION**
1/4" = 1'-0"



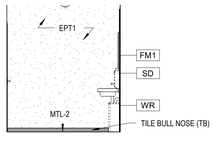
15 A4-01 **ENLARGED ANNOTATION PLAN - TOILET 106B**
1/4" = 1'-0"



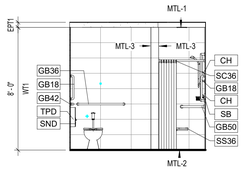
16 A4-01 **TOILET 106B - NORTH ELEVATION**
1/4" = 1'-0"



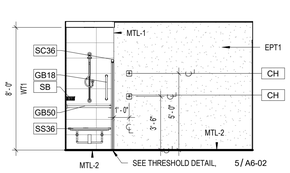
11 A4-01 **TOILET 104I - WEST ELEVATION**
1/4" = 1'-0"



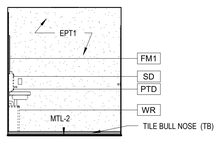
12 A4-01 **TOILET 104J - WEST ELEVATION**
1/4" = 1'-0"



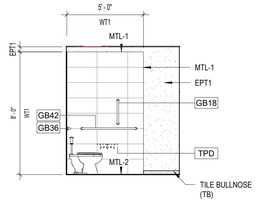
13 A4-01 **TOILET 113C - EAST ELEVATION**
1/4" = 1'-0"



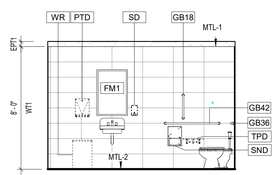
14 A4-01 **113C TOILET - SHOWER**
1/4" = 1'-0"



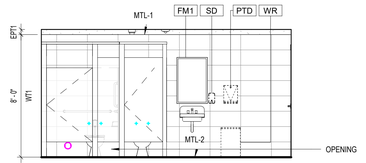
6 A4-01 **TOILET 104I - EAST ELEVATION**
1/4" = 1'-0"



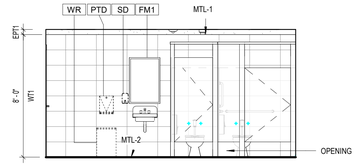
7 A4-01 **TOILET 104J - EAST ELEVATION**
1/4" = 1'-0"



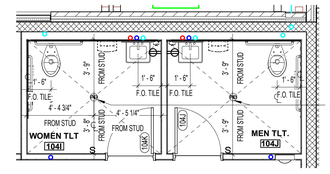
8 A4-01 **TOILET 113C - NORTH ELEVATION**
1/4" = 1'-0"



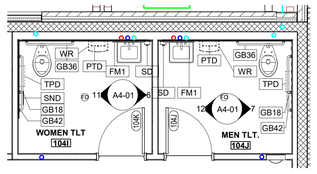
9 A4-01 **TOILET 115B - EAST ELEVATION**
1/4" = 1'-0"



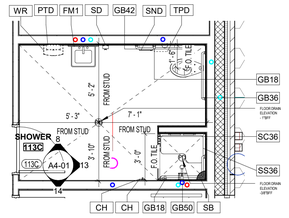
10 A4-01 **TOILET 115C - WEST ELEVATION**
1/4" = 1'-0"



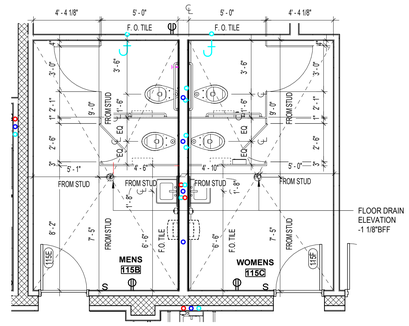
1 A4-01 **ENLARGED DIMENSION PLAN - TOILETS 104I AND 104J**
1/4" = 1'-0"



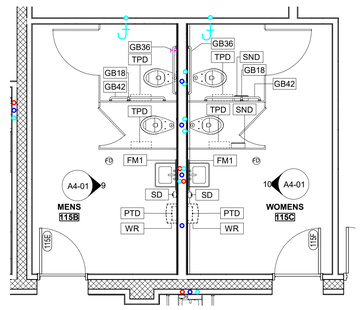
2 A4-01 **ENLARGED ANNOTATION PLAN - TOILETS 104I AND 104J**
1/4" = 1'-0"



3 A4-01 **ENLARGED ANNOTATION AND DIMENSION PLAN - TOILET 113C**
1/4" = 1'-0"



4 A4-01 **ENLARGED DIMENSION PLAN - TOILETS 115B AND 115C**
1/4" = 1'-0"



5 A4-01 **ENLARGED ANNOTATION PLAN - TOILETS 115B AND 115C**
1/4" = 1'-0"

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info@smithsinnett.com

BID DOCUMENTS

Smith Sinnett Architecture, P.A. 2024

THIS DRAWING IS FORMATTED TO BE PRINTED ON A 30" X 42" SHEET

Onslow County Senior Services Center
Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

ACCESSORY SCHEDULE

MARK	MODEL	DESCRIPTION	FURNISHED BY/INSTALLED BY	MOUNTING HEIGHT	MANUFACTURER	REMARKS
CH	123	CLOTHES HOOK - SURFACE MOUNTED	CFCI	60" A.F.F. TO CENTER HIGH HOOK, 42" A.F.F. TO CENTER LOW HOOK	ASI	
CS	KB310-SSWM	BABY CHANGING STATION	CFCI	34" A.F.F. TO CENTER OF FIXTURE	BRADLEY	STAINLESS STEEL EXTERIOR
FM1	B-165	40" A.F.F. TO BOTTOM OF REFLECTIVE SURFACE	CFCI	40" A.F.F. TO BOTTOM OF REFLECTIVE SURFACE	BOBRICK	TEMPERED GLASS CHANNEL FRAME MIRRIOR
FM2	8287	Mirror - Frameless - Polished Plate Glass - 1/4" Thick (8287)	CFCI	4" A.F.F.TO BOTTOM OF REFELCTIVE SURFACE	BOBRICK	TEMPERED GLASS CHANNEL FRAMELESS MIRRIOR
GB18	B-6806	1 1/2" DIA. X 18" S.S. VERTICAL GRAB BAR - PEENED	CFCI	34" A.F.F. TO CENTER OF FIXTURE	BOBRICK	
GB36	B-6806	1 1/2" DIA. X 36" S.S. GRAB BAR - PEENED	CFCI	34" A.F.F. TO CENTER OF FIXTURE	BOBRICK	
GB42	B-6806	1 1/2" DIA. X 42" S.S. GRAB BAR - PEENED	CFCI	34" A.F.F. TO CENTER OF FIXTURE	BOBRICK	
GB50	B-6861	1 1/2" DIA. X 16" X30" S.S. GRAB BAR - PEENED	CFCI	34" A.F.F. TO TOP OF BAR	BOBRICK	
MR	8215-4	MOP RACK - 4 HOLDERS	CFCI		ASI	ASI 1315
PTD	--	SURFACE MOUNTED PAPER TOWEL DISPENSER	OFCI	40" A.F.F. TO POINT OF DISPENSION		
SB	K-1896-S	MEDIUM SHOWER BASKET	CFCI	40" A.F.F. TO TOP	ASI	ASI 7322
SC36	1204	36" HEAVY DUTY S.S. SHOWER CURTAIN ROD ASI 1214, VINYL CURTAIN ASI-1200V, AND S.S. HOOKS ASI 1200-SHU	CFCI	80" A.F.F. TO BOTTOM OF BAR	ASI	
SD		S.S. SURFACE MOUNTED VERTICAL LIQUID SOAP DISPENSER	OFCI	40" A.F.F. TO POINT OF DISPENSION	<varies>	
SND	B-254	SURFACE MOUNTED SANITARY NAPKIN DISPOSAL	CFCI	24" MAX TO POINT OF DISPENSION	BOBRICK	
SS36	8206	36" FOLDING SHOWER SEAT	CFCI	17"-19" A.F.F. TO TOP OF SEAT	ASI	
TPD		SURFACE MOUNTED TOILET TISSUE DISPENSER WITH UTILITY SHELF	OFCI	20" TO POINT OF DISPENSION	BOBRICK	
US	1315-4	SHELF/ UTILITY HOOK & MOP STRIP	CFCI	56" ABAOVE STAINLESS STEEL PANEL	ASI	
WR		WASTE RECEPTACLE	OFOI	FLOOR MOUNTED		

DRAWN BY: RM, FA, NB
CHECKED BY: JEG

ENLARGED TOILET PLANS AND ELEVATIONS

2021029 16 OCT. 2024

A4-01

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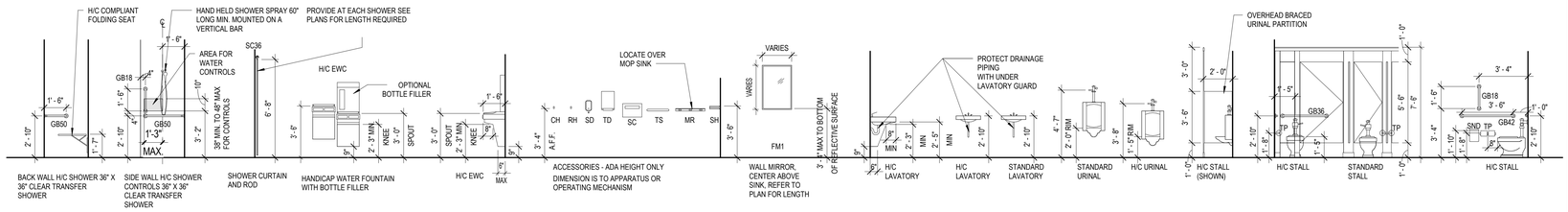
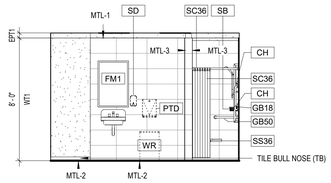
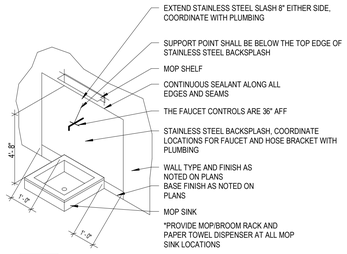
MTL -1 METAL TRIM- SCHLUTER - JOLLY (DETAIL 10/ A6-02)
MTL- 2 METAL TRIM- SCHLUTER - DILEX-EHK (DETAIL 12/ A6-02)
MTL- 3 METAL TRIM- SCHLUTER - QUADEC (DETAIL 11/ A6-02)





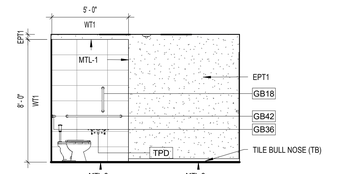
11 A4-02 **SHOWER 245 & 246 - NORTH ELEVATION**
1/4" = 1'-0"



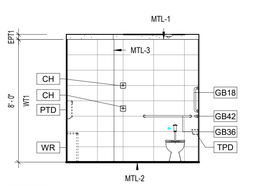
12 A4-02 **MOP SINK DETAIL**
3/8" = 1'-0"

ACCESSORY SCHEDULE

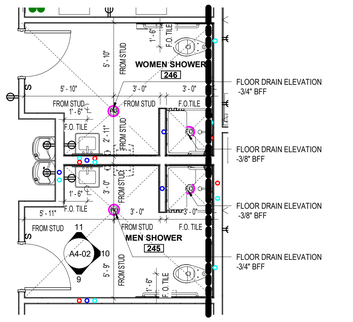
MARK	MODEL	DESCRIPTION	FURNISHED BY/INSTALLED BY	MOUNTING HEIGHT	MANUFACTURER	REMARKS
CH	123	CLOTHES HOOK - SURFACE MOUNTED	CFCI	60" A.F.F. TO CENTER HIGH HOOK, 42" A.F.F. TO CENTER LOW HOOK	ASI	
CS	KB310-SSWM	BABY CHANGING STATION	CFCI	34" A.F.F. TO CENTER OF FIXTURE	BRADLEY	STAINLESS STEEL EXTERIOR
FM1	B-165	40" A.F.F. TO BOTTOM OF REFLECTIVE SURFACE	CFCI	40" A.F.F. TO BOTTOM OF REFLECTIVE SURFACE	BOBRICK	TEMPERED GLASS CHANNEL FRAME MIRRIOR
FM2	8287	Mirror - Frameless - Polished Plate Glass - 1/4" Thick (8287)	CFCI	4" A.F.F.TO BOTTOM OF REFELCTIVE SURFACE	BOBRICK	TEMPERED GLASS CHANNEL FRAMELESS MIRRIOR
GB18	B-6806	1 1/2" DIA. X 18" S.S. VERTICAL GRAB BAR - PEENED	CFCI	34" A.F.F. TO CENTER OF FIXTURE	BOBRICK	
GB36	B-6806	1 1/2" DIA. X 36" S.S. GRAB BAR - PEENED	CFCI	34" A.F.F. TO CENTER OF FIXTURE	BOBRICK	
GB42	B-6806	1 1/2" DIA. X 42" S.S. GRAB BAR - PEENED	CFCI	34" A.F.F. TO CENTER OF FIXTURE	BOBRICK	
GB50	B-6861	1 1/2" DIA. X 16" X30" S.S. GRAB BAR - PEENED	CFCI	34" A.F.F. TO TOP OF BAR	BOBRICK	
MR	8215-4	MOP RACK - 4 HOLDERS	CFCI		ASI	ASI 1315
PTD	--	SURFACE MOUNTED PAPER TOWEL DISPENSER	OFCI	40" A.F.F. TO POINT OF DISPENSION		
SB	K-1896-S	MEDIUM SHOWER BASKET	CFCI	40" A.F.F. TO TOP	ASI	ASI 7322
SC36	1204	36" HEAVY DUTY S.S. SHOWER CURTAIN ROD ASI 1214, VINYL CURTAIN ASI-1200V, AND S.S. HOOKS ASI 1200-SHU	CFCI	80" A.F.F. TO BOTTOM OF BAR	ASI	
SD		S.S. SURFACE MOUNTED VERTICAL LIQUID SOAP DISPENSER	OFCI	40" A.F.F. TO POINT OF DISPENSION	<varies>	
SND	B-254	SURFACE MOUNTED SANITARY NAPKIN DISPOSAL	CFCI	24" MAX TO POINT OF DISPENSION	BOBRICK	
SS36	8206	36" FOLDING SHOWER SEAT	CFCI	17"-19" A.F.F. TO TOP OF SEAT	ASI	
TPD		SURFACE MOUNTED TOILET TISSUE DISPENSER WITH UTILITY SHELF	OFCI	20" TO POINT OF DISPENSION	BOBRICK	
US	1315-4	SHELF/ UTILITY HOOK & MOP STRIP	CFCI	56" ABAOVE STAINLESS STEEL PANEL	ASI	
WR		WASTE RECEPTACLE	OFOI	FLOOR MOUNTED		



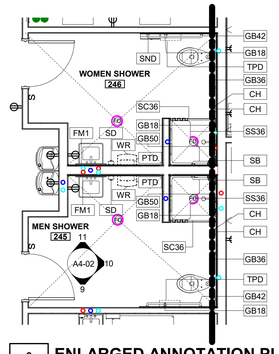
9 A4-02 **SHOWER 245 & 246 - SOUTH ELEV**
1/4" = 1'-0"



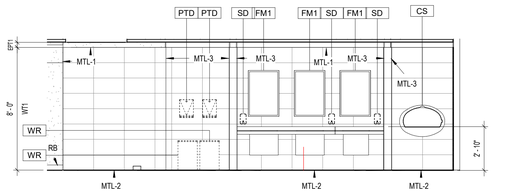
10 A4-02 **SHOWER 245 AND SHOWER 246 - EAST ELEVATION**
1/4" = 1'-0"



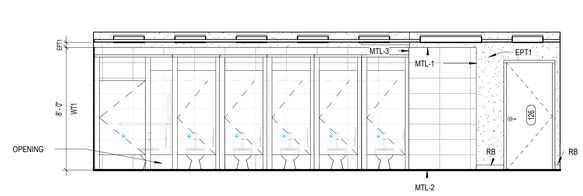
7 A4-02 **ENLARGED DIMENSION PLAN - SHOWER 245 AND SHOWER 246**
1/4" = 1'-0"



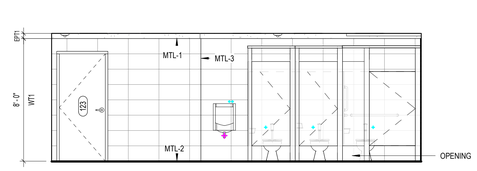
8 A4-02 **ENLARGED ANNOTATION PLAN - SHOWER 245 AND SHOWER 246**
1/4" = 1'-0"



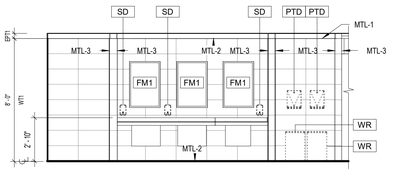
5 A4-02 **WOMENS 125 - EAST ELEVATION**
1/4" = 1'-0"



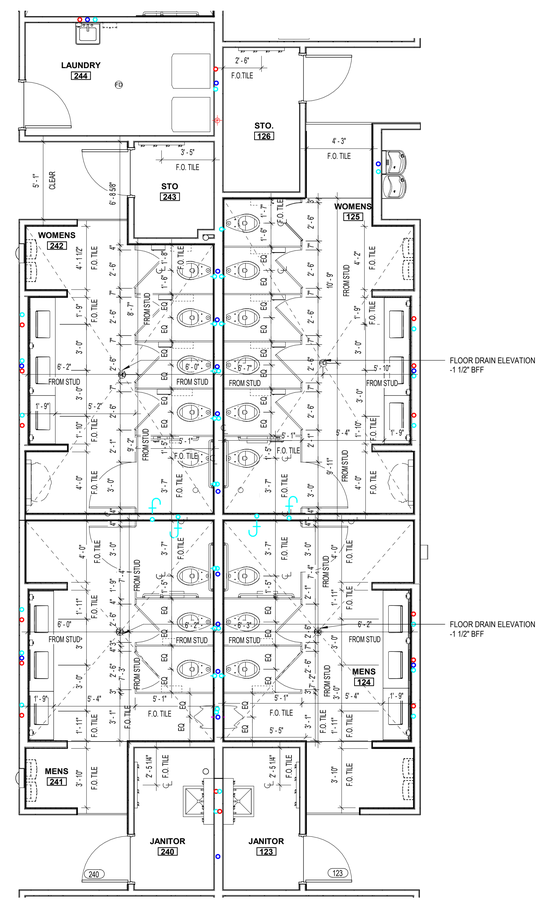
6 A4-02 **WOMENS 125 - WEST ELEVATION**
1/4" = 1'-0"



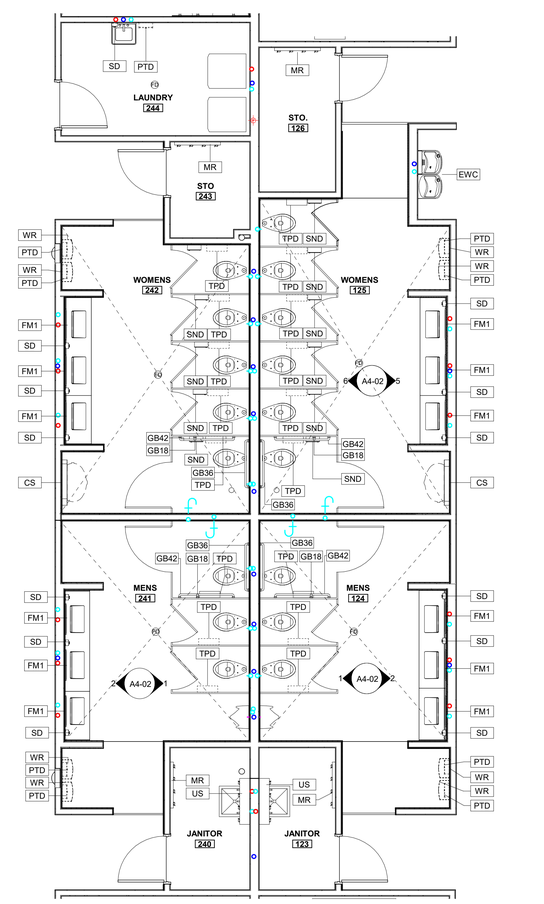
1 A4-02 **MENS 124 - WEST ELEVATION**
1/4" = 1'-0"



2 A4-02 **MENS 124 - EAST ELEVATION**
1/4" = 1'-0"



3 A4-02 **ENLARGED DIMENSION PLAN - MENS 124 AND WOMENS 125**
1/4" = 1'-0"



4 A4-02 **ENLARGED ANNOTATION PLAN - MENS 124 AND WOMENS 125**
1/4" = 1'-0"

C:\Users\facosta\Documents\2021029 OC Senior Services_facostaLSERKS.rvt
10/23/2024 7:31:53 PM

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Smith Sinnett Architecture, P.A. 2024

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Onslow County Senior Services Center
Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

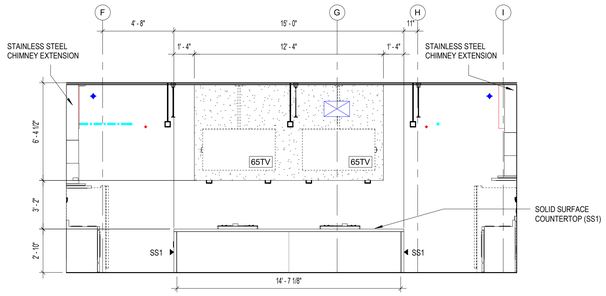
ID	DATE	DESCRIPTION

DRAWN BY: RM, FA, NB
CHECKED BY: JEG

ENLARGED TOILET PLANS AND ELEVATIONS

2021029 16 OCT. 2024

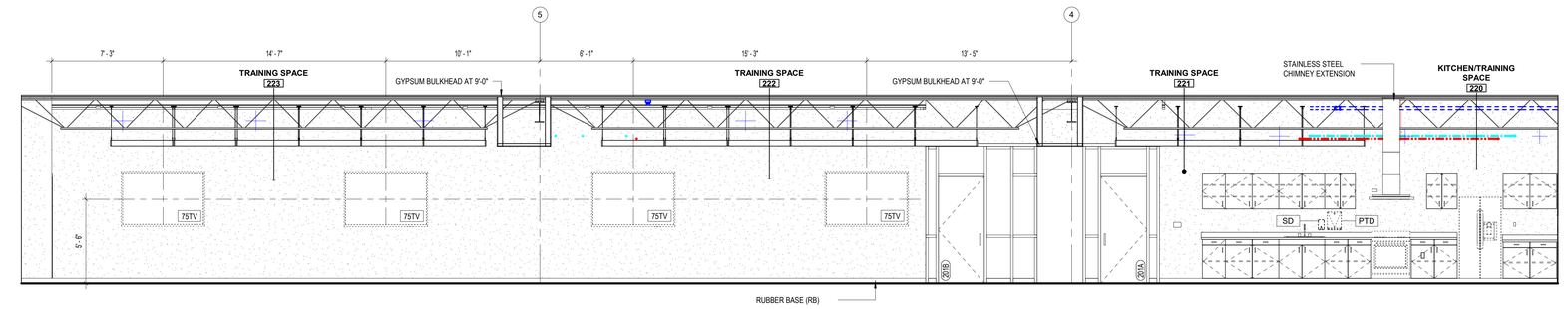
A4-02



7 A4-03 TRAINING SPACE - NORTH ELEVATION

1/4" = 1'-0"

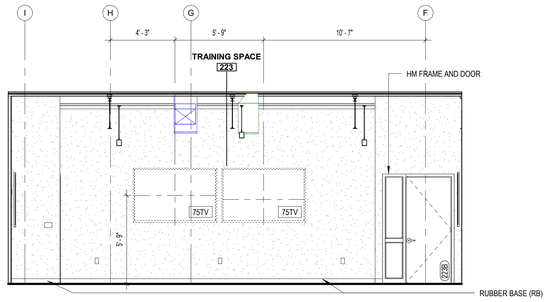
0 2' 4' 8'



8 A4-03 TRAINING SPACE - WEST ELEVATION

1/4" = 1'-0"

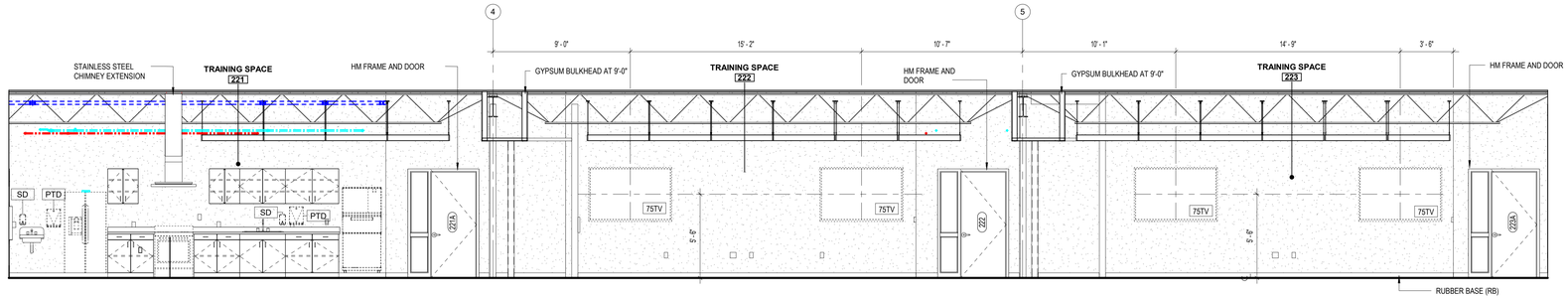
0 2' 4' 8'



5 A4-03 TRAINING SPACE - SOUTH ELEVATION

1/4" = 1'-0"

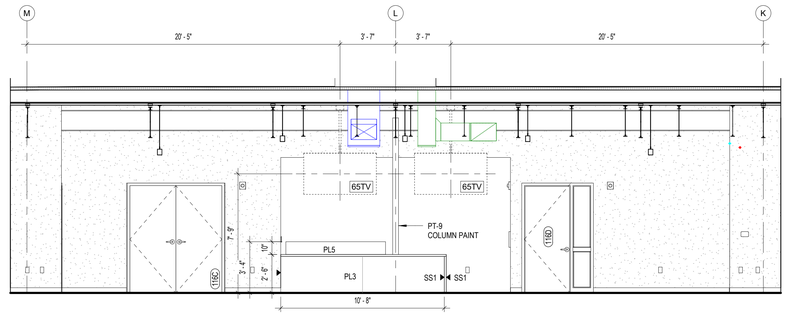
0 2' 4' 8'



6 A4-03 TRAINING SPACE - EAST ELEVATION

1/4" = 1'-0"

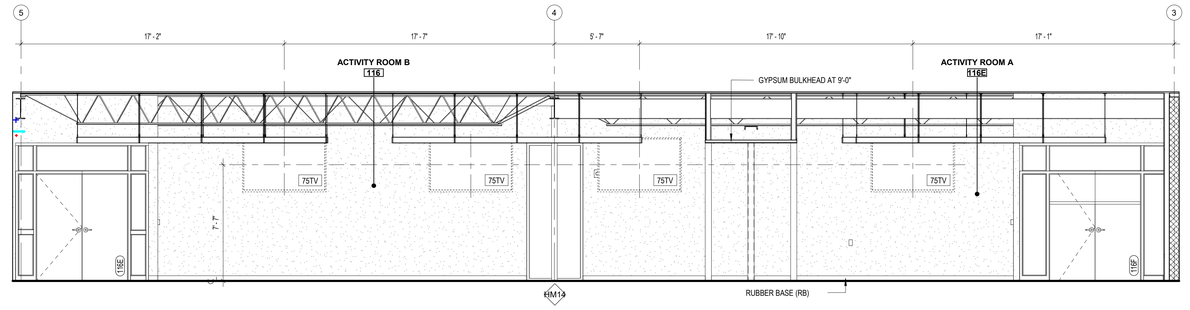
0 2' 4' 8'



3 A4-03 ACTIVITY ROOM - SOUTH ELEVATION

1/4" = 1'-0"

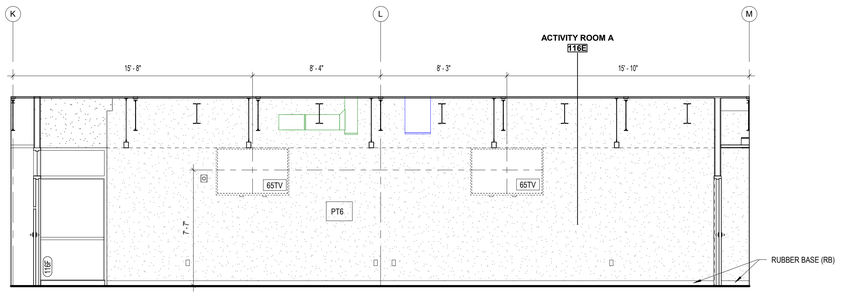
0 2' 4' 8'



4 A4-03 ACTIVITY ROOM - WEST ELEVATION

1/4" = 1'-0"

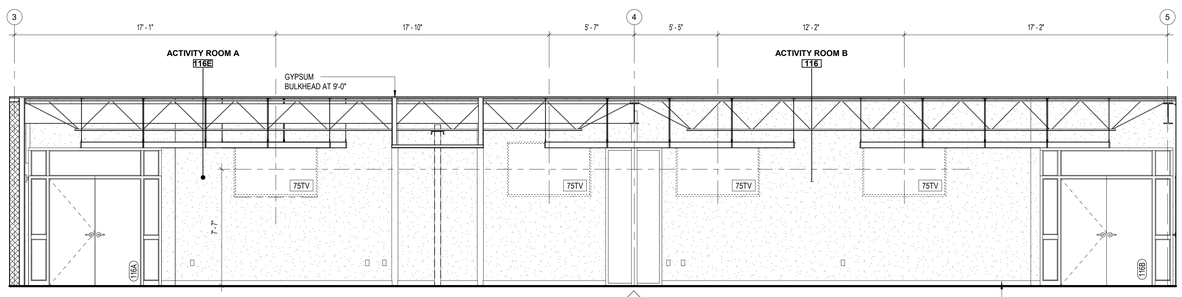
0 2' 4' 8'



1 A4-03 ACTIVITY ROOM - NORTH ELEVATION

1/4" = 1'-0"

0 2' 4' 8'



2 A4-03 ACTIVITY ROOM - EAST ELEVATION

1/4" = 1'-0"

0 2' 4' 8'

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Onslow County Senior Services Center Renovation

Onslow County Government

4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

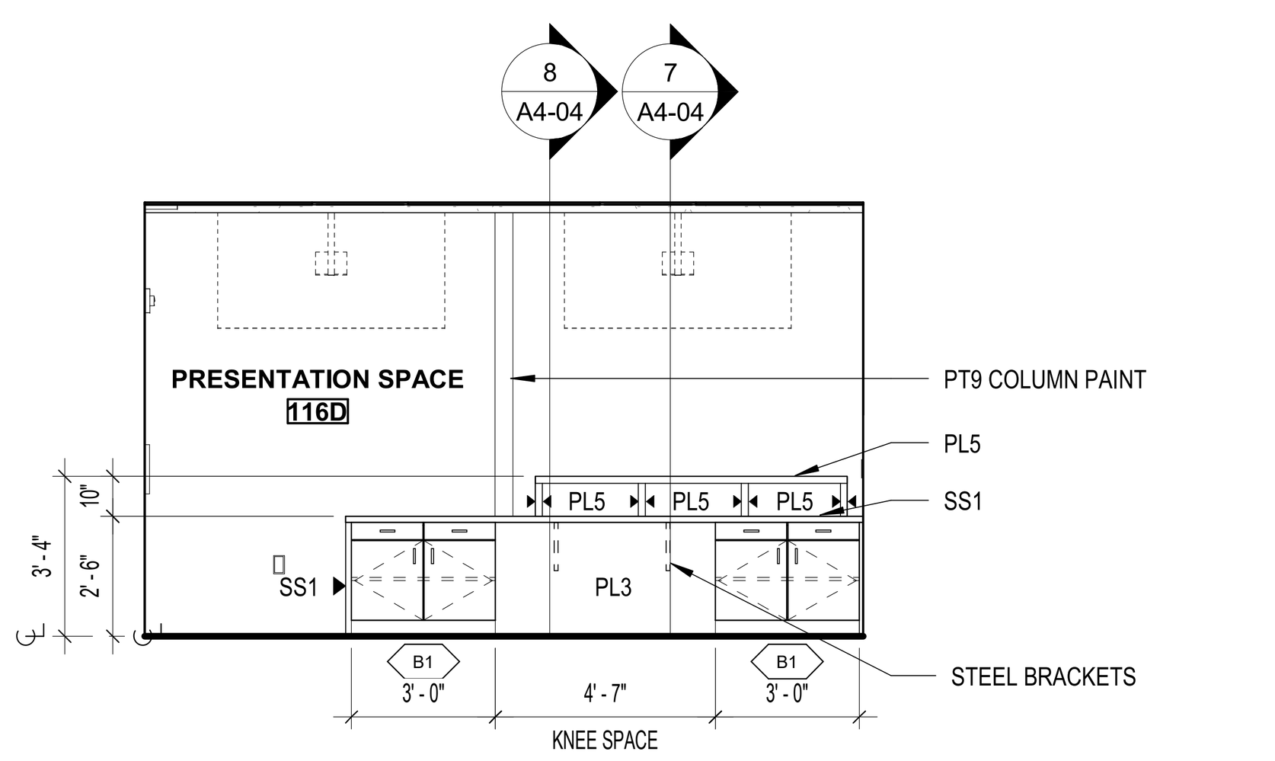
DRAWN BY: RM, FA, NB

CHECKED BY: JEG

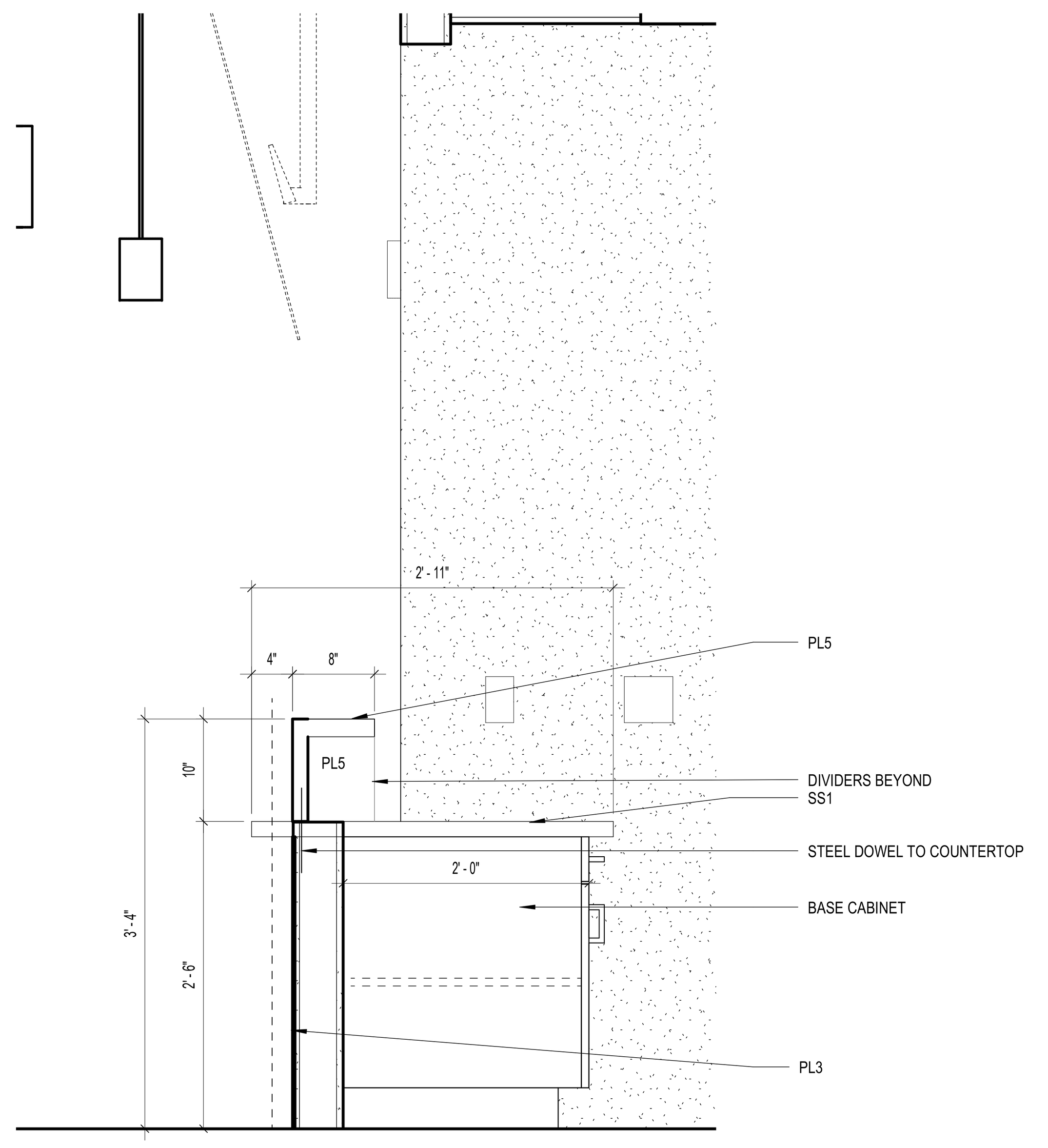
INTERIOR ELEVATIONS

2021029 16 OCT. 2024

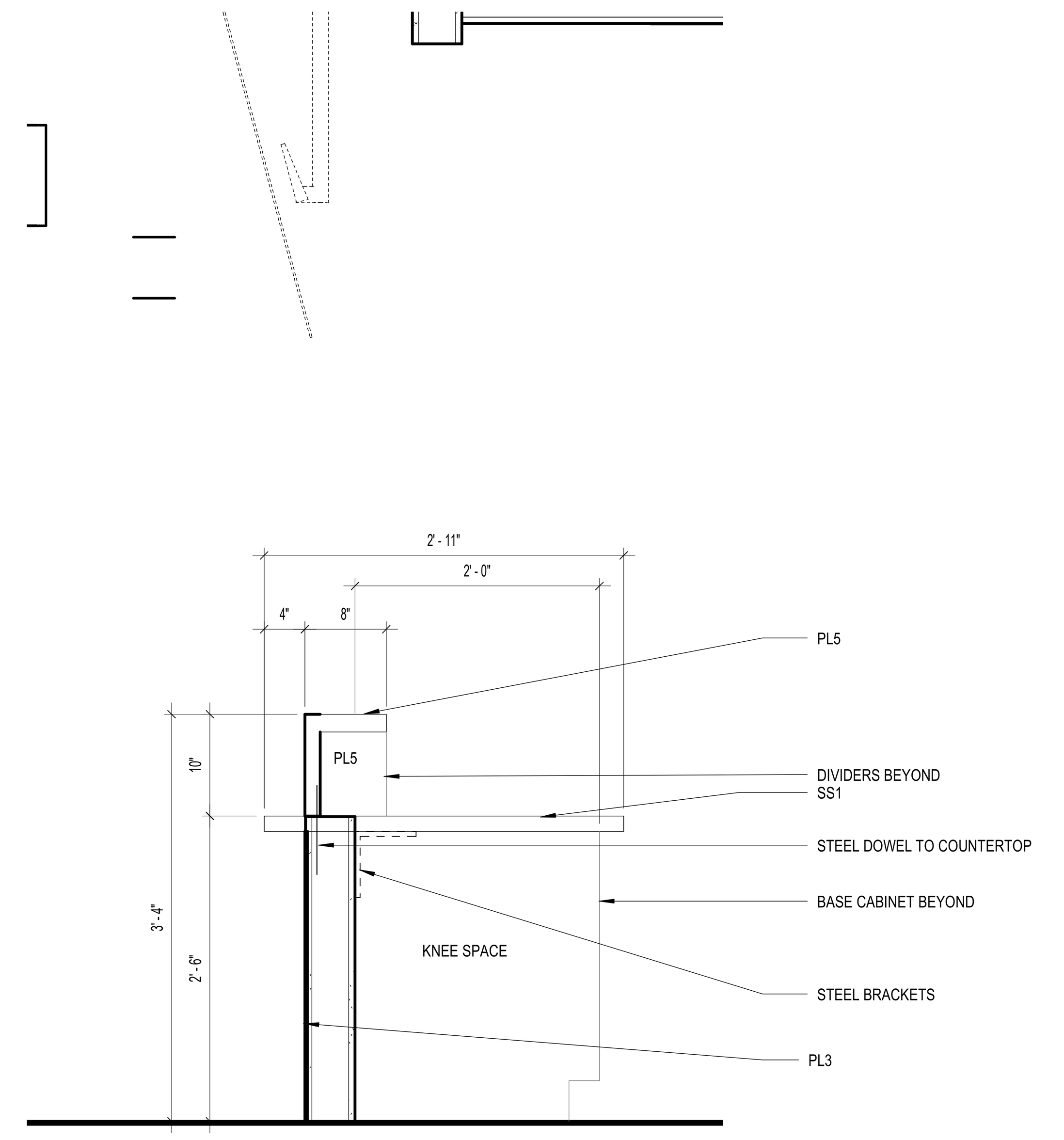
A4-03



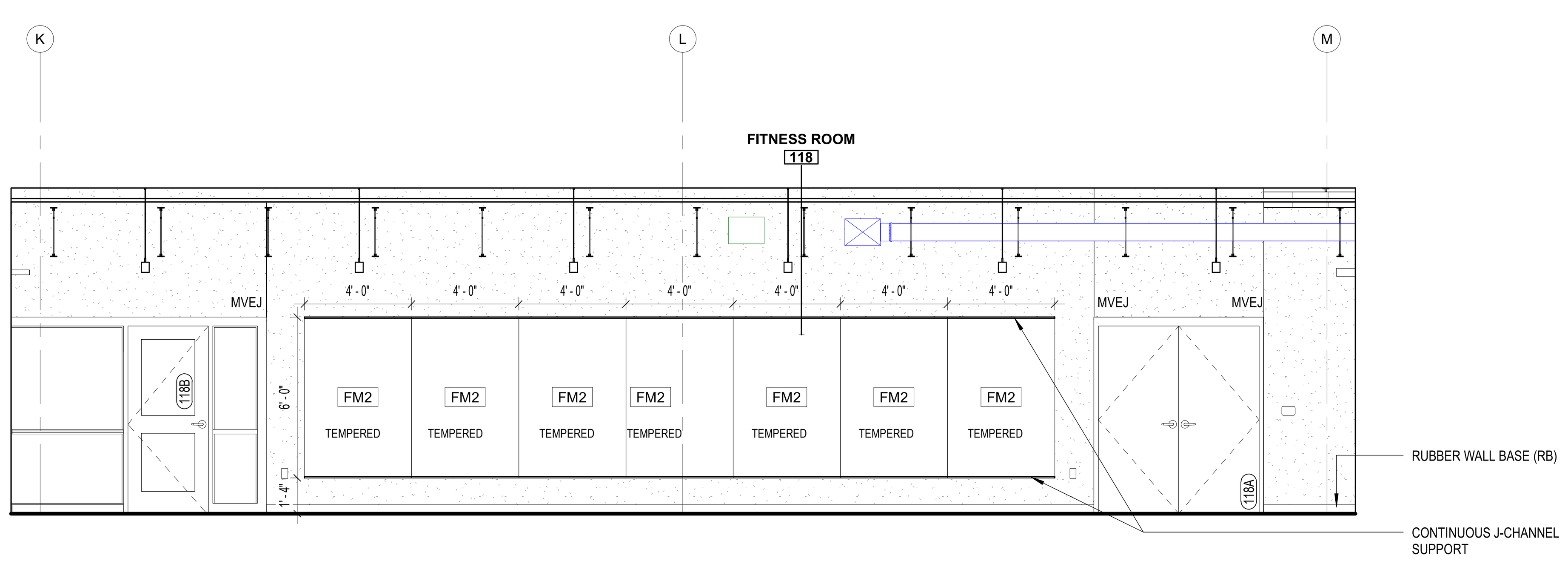
6 A4-04 **ACTIVITY ROOM A 116A CABINET ELEVATION**
1/4" = 1'-0"



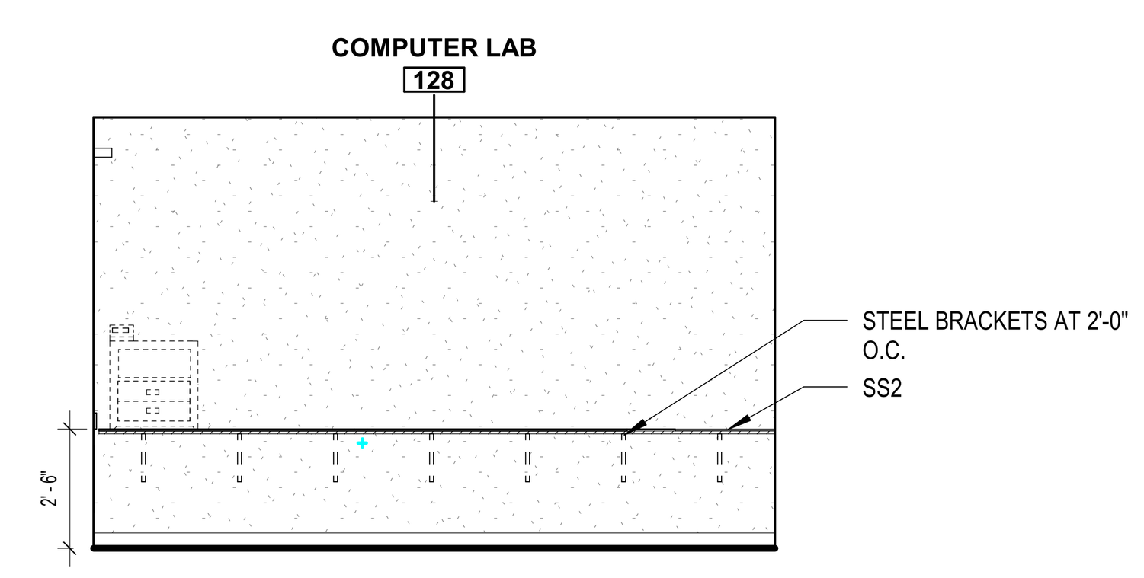
7 A4-04 **ACTIVITY ROOM 116A CABINET SECTION 01**
1" = 1'-0"



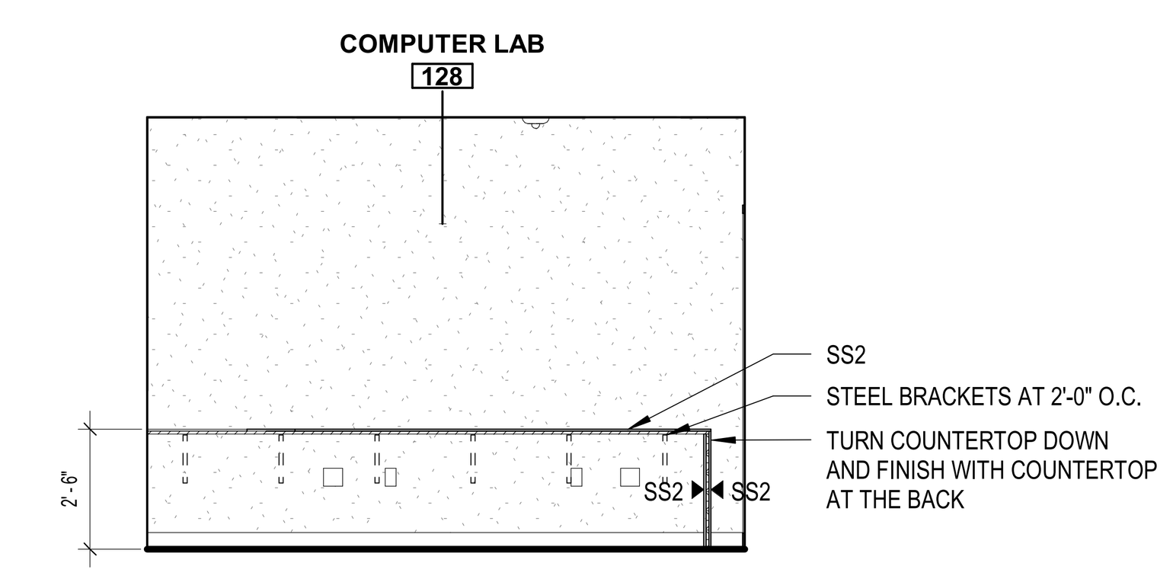
8 A4-04 **ACTIVITY ROOM CABINET 116A SECTION 02**
1" = 1'-0"



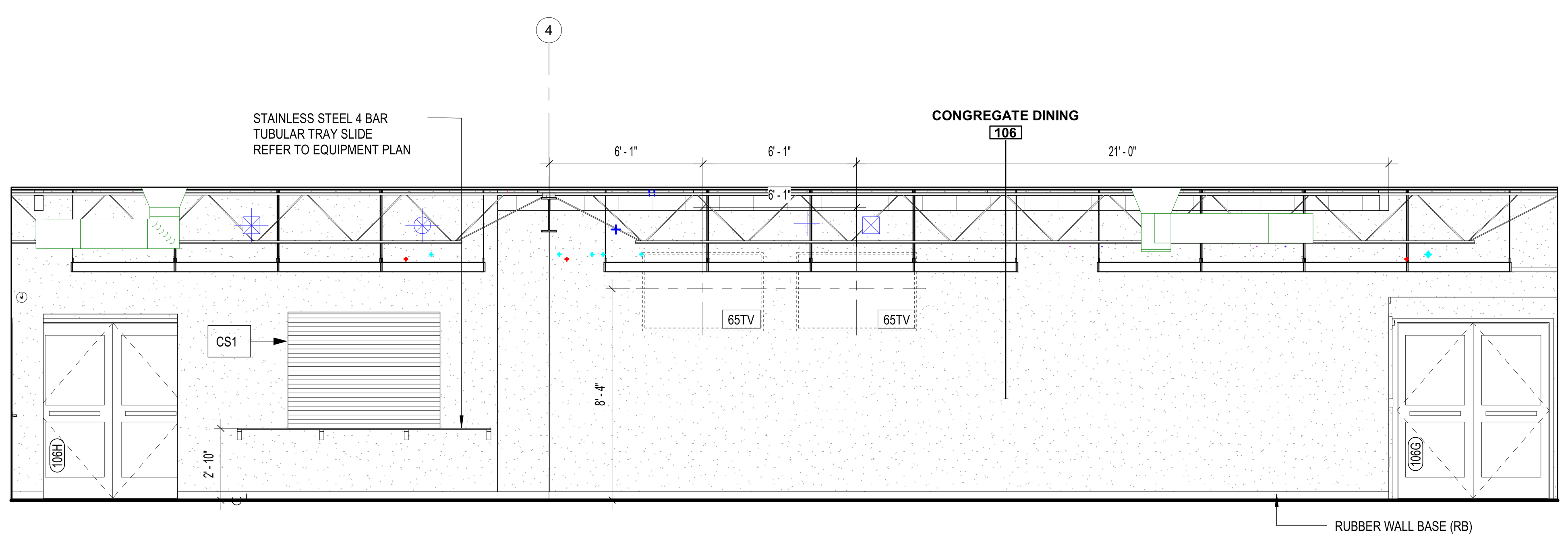
3 A4-04 **FITNESS ROOM - NORTH ELEVATION**
1/4" = 1'-0"



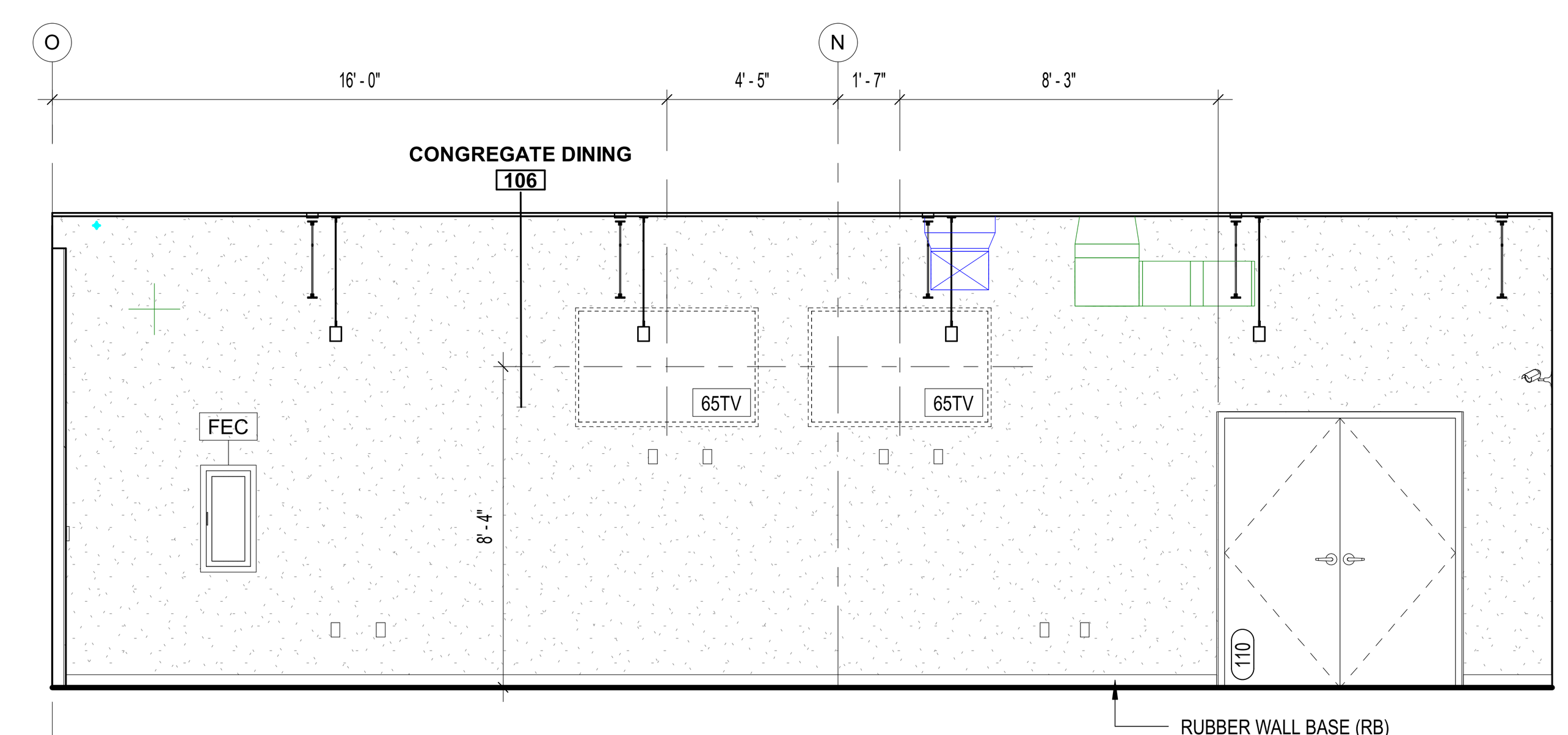
4 A4-04 **128 COMPUTER LAB - WEST ELEVATION**
1/4" = 1'-0"



5 A4-04 **128 COMPUTER LAB - NORTH ELEVATION**
1/4" = 1'-0"



1 A4-04 **106 CONGREGATE DINING - WEST ELEVATION**
1/4" = 1'-0"



2 A4-04 **106 CONGREGATE DINING - SOUTH ELEVATION**
1/4" = 1'-0"

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ID	DATE	DESCRIPTION

DRAWN BY: FA,NB
CHECKED BY: JEG

INTERIOR ELEVATIONS

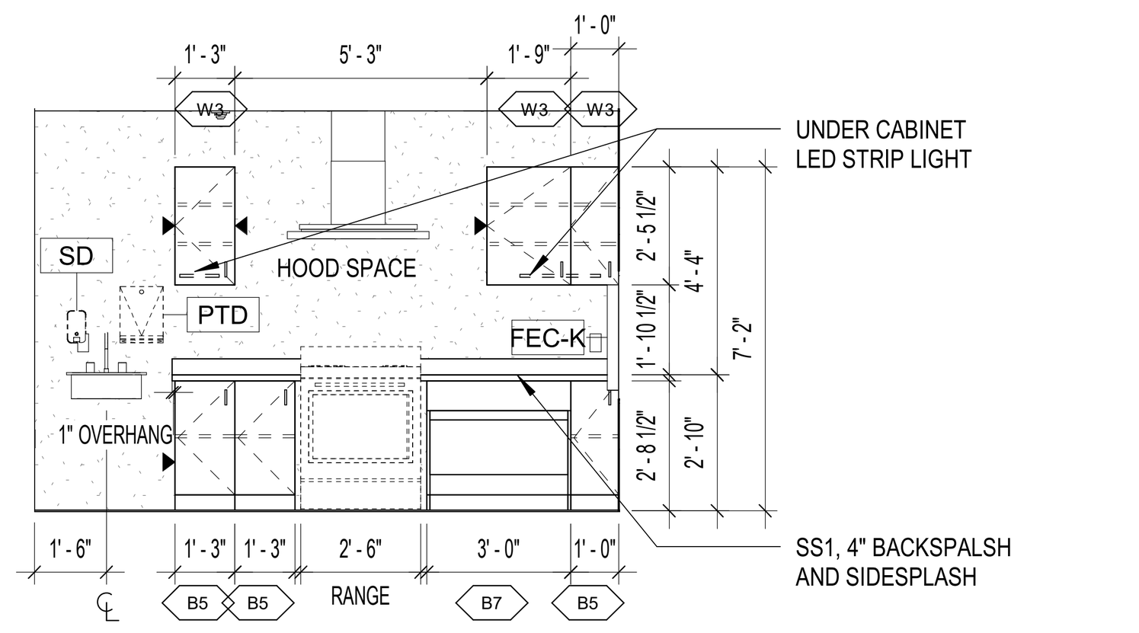
2021029 16 OCT. 2024

A4-04

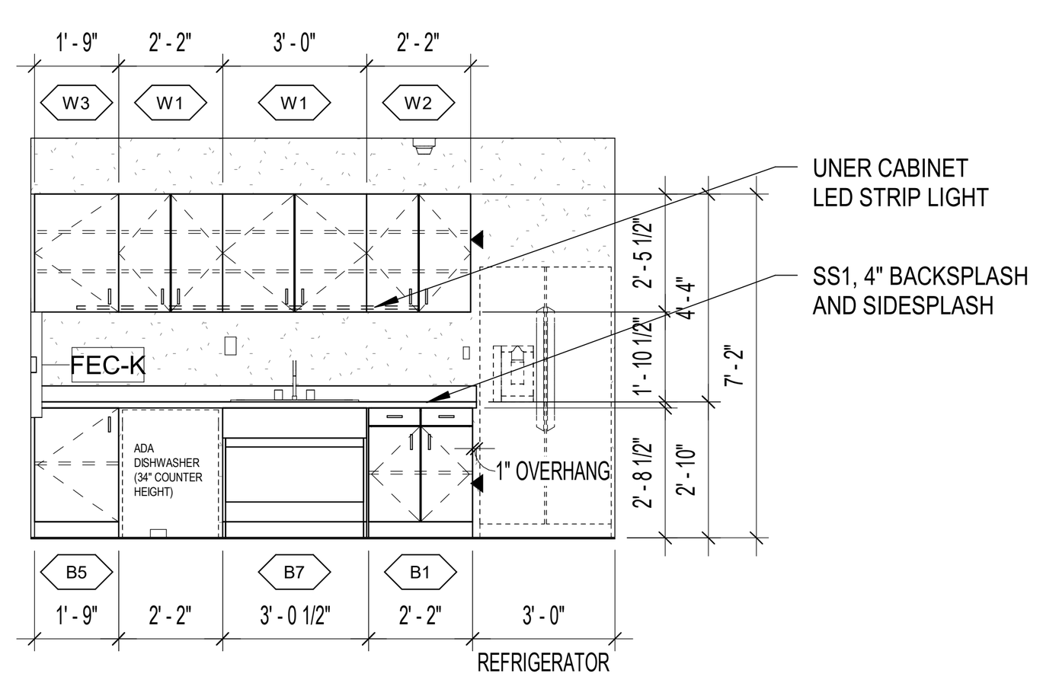
CASEWORK NOTES AND LEGEND:

MARK	DESCRIPTION
B1	2'-0" DEEP BASE CABINET; TWO HINGED DOORS AND TWO 6" HIGH DRAWERS AND ONE ADJUSTABLE SHELF. PROVIDE FIXED VERTICAL DIVIDER IN UNITS MORE THAN 3'-0" WIDE. HEIGHT/WIDTH VARIES.
B2	2'-0" DEEP BASE CABINET; TWO HINGED DOORS AND ONE ADJUSTABLE SHELF. PROVIDE FIXED VERTICAL DIVIDER IN UNITS MORE THAN 3'-0" WIDE. HEIGHT/WIDTH VARIES.
B3	2'-0" DEEP SINK BASE CABINET; TWO HINGED DOORS AND BLIND PANEL AND ONE ADJUSTABLE SHELF. PROVIDE FIXED VERTICAL DIVIDER IN UNITS MORE THAN 3'0" WIDE. HEIGHT/WIDTH VARIES.
B4	2'-0" DEEP BASE CABINET; ONE HINGED DOOR WITH ONE ADJUSTABLE SHELF, ONE 6" HIGH DRAWER. HEIGHT/WIDTH VARIES.
B5	2'-0" DEEP BASE CABINET; ONE HINGED DOOR AND ONE ADJUSTABLE SHELF. HEIGHT/WIDTH VARIES.
B6	LAMINATED PARTICLE BOARD PANELS TO MATCH ADJACENT CASEWORK. ATTACH WITH FINISH SCREWS TO 2X2 BLOCKING. ATTACHED TO SIDE OF CASEWORK OR PROVIDE FINISHED END PANEL. CLEAR WIDTH NO LESS THAN 30 INCHES FOR ADA SINK ACCESS. SEE SECTION THROUGH ADA LAVATORY.
B7	LAMINATED PARTICLE BOARD PANELS TO MATCH ADJACENT CASEWORK. ATTACH WITH FINISH SCREWS TO 2X2 BLOCKING. ATTACHED TO SIDE OF CASEWORK OR PROVIDE FINISHED END PANEL TO FLOOR. CLEAR WIDTH NO LESS THAN 30 INCHES FOR ADA SINK ACCESS. SEE SECTION THROUGH ADA LAVATORY.
B8	2'-0" DEEP BASE CABINET; FOUR DRAWERS. HEIGHT/WIDTH VARIES.
B9	2'-0" DEEP BASE CABINET; TWO DRAWERS AND ONE LEGAL SIZE FILE DRAWER. HEIGHT/WIDTH VARIES.
B10	2'-0" DEEP BASE FILLER PANEL. HEIGHT/WIDTH VARIES.
B11	2'-0" DEEP BASE CABINET; TWO LEGAL SIZE FILE DRAWERS. HEIGHT/WIDTH VARIES.
B12	2'-0" DEEP BASE CABINET; SIX FLAT FILE DRAWERS. HEIGHT/WIDTH VARIES.
B13	2'-0" DEEP BASE CABINET; OPEN SHELVING; TWO ADJUSTABLE SHELVES. HEIGHT/WIDTH VARIES. FOR HEIGHTS OVER 4'-0" INCREASE TO THREE ADJUSTABLE SHELVES.
B14	2'-0" DEEP BASE CABINET; ONE HINGED DOOR AND ONE 6" HIGH PUSH PANEL WITH TRASH SYMBOL. PROVIDE HORIZONTAL DIVIDER WITH HOLE FOR DISPOSAL. HEIGHT/WIDTH VARIES.
B15	2'-0" DEEP BASE CABINET; ONE HINGED DOOR AND ONE 6" HIGH PUSH PANEL WITH RECYCLING SYMBOL. PROVIDE HORIZONTAL DIVIDER WITH HOLE FOR DISPOSAL. HEIGHT/WIDTH VARIES.
W1	1'-0" DEEP WALL CABINET; TWO HINGED DOORS AND TWO ADJUSTABLE SHELVES. PROVIDE FIXED VERTICAL DIVIDER IN UNITS MORE THAN 3'-0" WIDE. HEIGHT/WIDTH VARIES. FOR HEIGHTS OVER 4'-0" INCREASE TO THREE ADJUSTABLE SHELVES.
W2	1'-0" DEEP WALL CABINET; TWO HINGED DOORS AND ONE ADJUSTABLE SHELF. PROVIDE FIXED VERTICAL DIVIDER IN UNITS MORE THAN 3'-0" WIDE. HEIGHT/WIDTH VARIES.
W3	1'-0" DEEP WALL CABINET; ONE HINGED DOOR AND TWO ADJUSTABLE SHELVES. HEIGHT/WIDTH VARIES. FOR HEIGHTS OVER 4'-0" INCREASE TO THREE ADJUSTABLE SHELVES.
W4	1'-0" DEEP WALL CABINET; ONE HINGED DOOR AND ONE ADJUSTABLE SHELF. HEIGHT/WIDTH VARIES.
W5	1'-0" DEEP, OPEN SHELVING; TWO ADJUSTABLE SHELVES. HEIGHT/WIDTH VARIES. FOR HEIGHTS OVER 4'-0" INCREASE TO THREE ADJUSTABLE SHELVES.
W6	1'-0" DEEP CORNER WALL CABINET; ONE HINGED DOOR & TWO ADJUSTABLE SHELVES. HEIGHT VARIES. FOR HEIGHTS OVER 4'-0" INCREASE TO THREE ADJUSTABLE SHELVES. FOR HEIGHTS LESS THAN 2'-0" REDUCE TO ONE ADJUSTABLE SHELF.
T1	2'-0" DEEP, 7'-0" TALL STORAGE CABINET; TWO HINGED DOORS WITH FIVE ADJUSTABLE SHELVES. PROVIDE FIXED VERTICAL DIVIDER IN UNITS MORE THAN 3-'0" WIDE. WIDTH VARIES.
T2	1'-0" DEEP, 7'-0" TALL STORAGE CABINET; TWO HINGED DOORS WITH ELEVEN ADJUSTABLE SHELVES. PROVIDE FIXED VERTICAL DIVIDER IN UNITS MORE THAN 3-'0" WIDE. WIDTH VARIES.
T3	2'-0" DEEP, 7'-0" TALL STORAGE CABINET; ONE HINGED DOOR WITH FIVE ADJUSTABLE SHELVES. WIDTH VARIES.
T4	1'-0" DEEP, 7'-0" TALL STORAGE CABINET; OPEN WITH FIVE ADJUSTABLE SHELVES. PROVIDE FIXED VERTICAL DIVIDER IN UNITS MORE THAN 3-'0" WIDE. WIDTH VARIES.
T5	2'-0" DEEP, 7'-0" TALL STORAGE CABINET; OPEN WITH ELEVEN ADJUSTABLE SHELVES. PROVIDE FIXED VERTICAL DIVIDER IN UNITS MORE THAN 3-'0" WIDE. WIDTH VARIES.
T6	2'-6" DEEP, 7'-0" TALL LAPTOP STORAGE CABINET; TWO HINGED DOORS WITH ONE FIXED SHELF AT 4'-6" AFF AND ONE ADJUSTABLE SHELF. NO BASE TRIM AT FRONT FOR STORAGE OF MOBILE LAPTOP CHARGING CART, VERIFY SIZE OF SELECTED CHARGING CART PRIOR TO FABRICATION TO ENSURE FIT.
T7	2'-0" DEEP TEACHER WARDROBE; TWO HINGED DOORS AND FULL HEIGHT VERTICAL DIVIDER 14" OC LEFT, ONE FIXED SHELF EACH SIDE, CLOSET ROD IN LEFT SIDE, FIVE 12 3/4" WIDE ADJUSTABLE SHELVES IN THE RIGHT SIDE, TWO LEGAL SIZE 13" FILE DRAWERS WITH FULL EXTENSION SLIDE AND FILE FOLLOWERS, 10"X10" MIRROR AND PIN TRAY INSIDE DOOR. INCLUDE DOOR LOCK. WIDTH VARIES.
▶	INDICATES FINISHED END

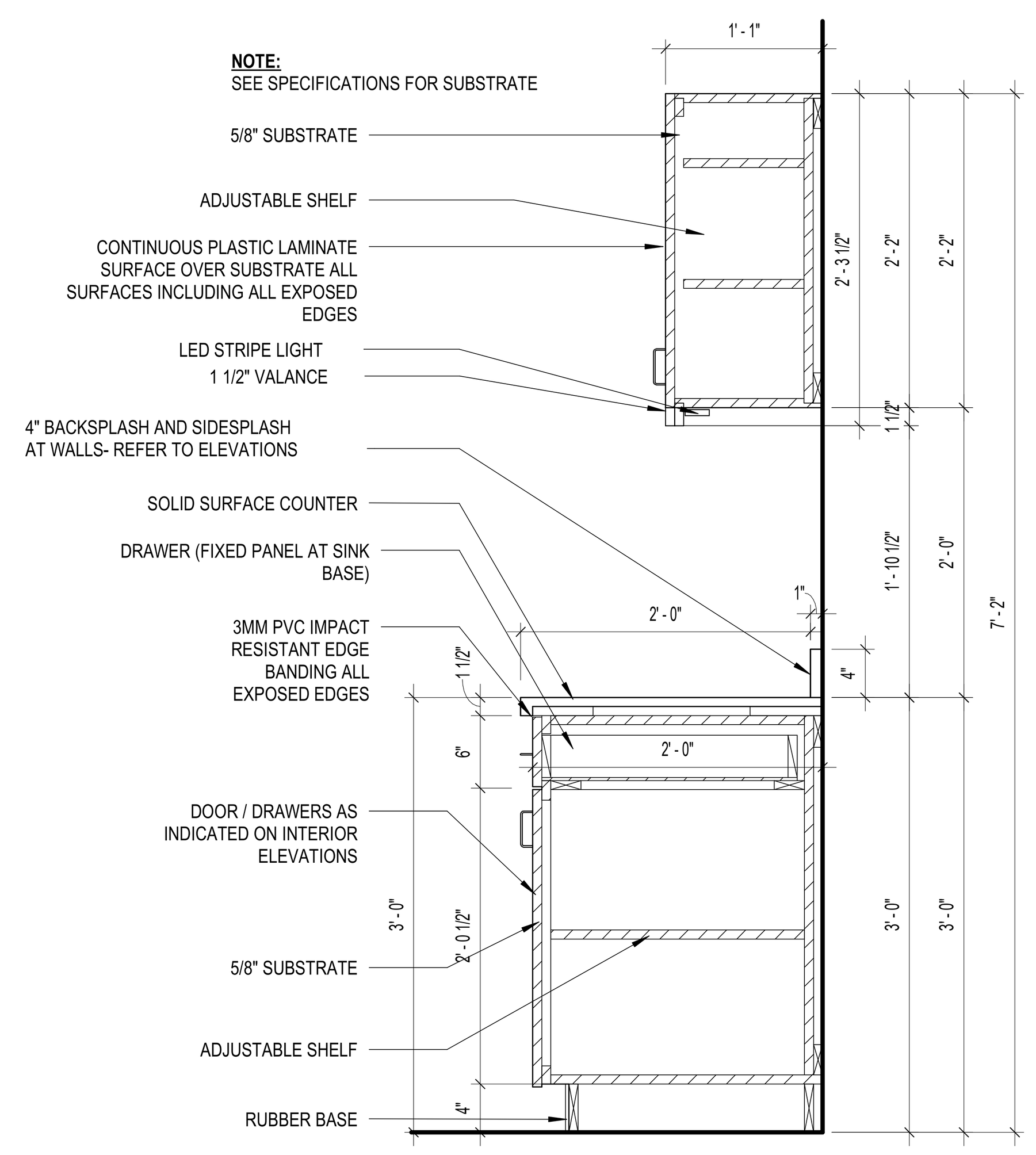
1. ALL CASEWORK SHOWN IS MANUFACTURED PLASTIC LAMINATE CASEWORK, TYPICAL UNLESS NOTED OTHERWISE.



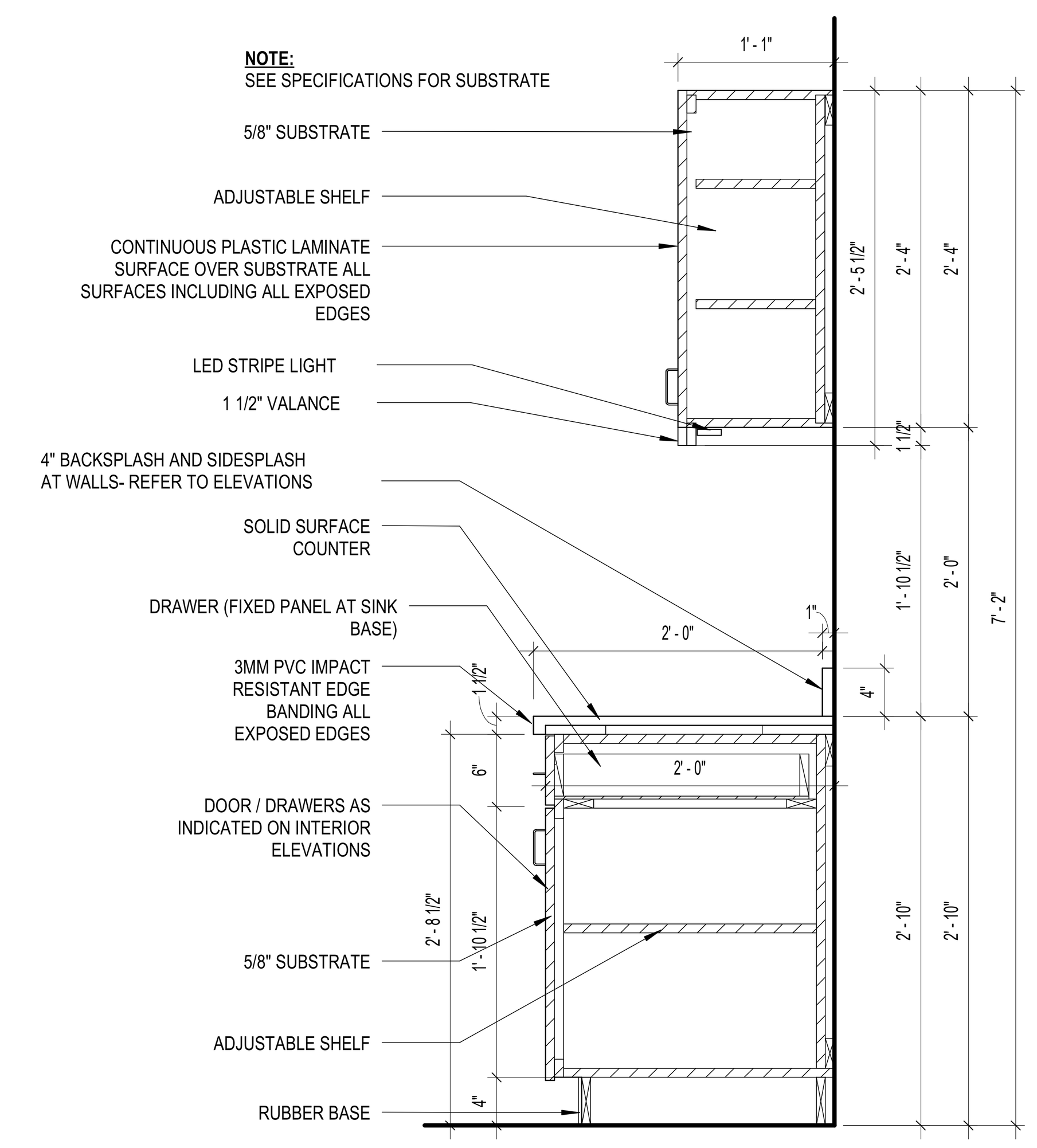
14 A4-10 **ACTIVITY KITCHEN 115A - EAST ELEVATION**
1/4" = 1'-0"



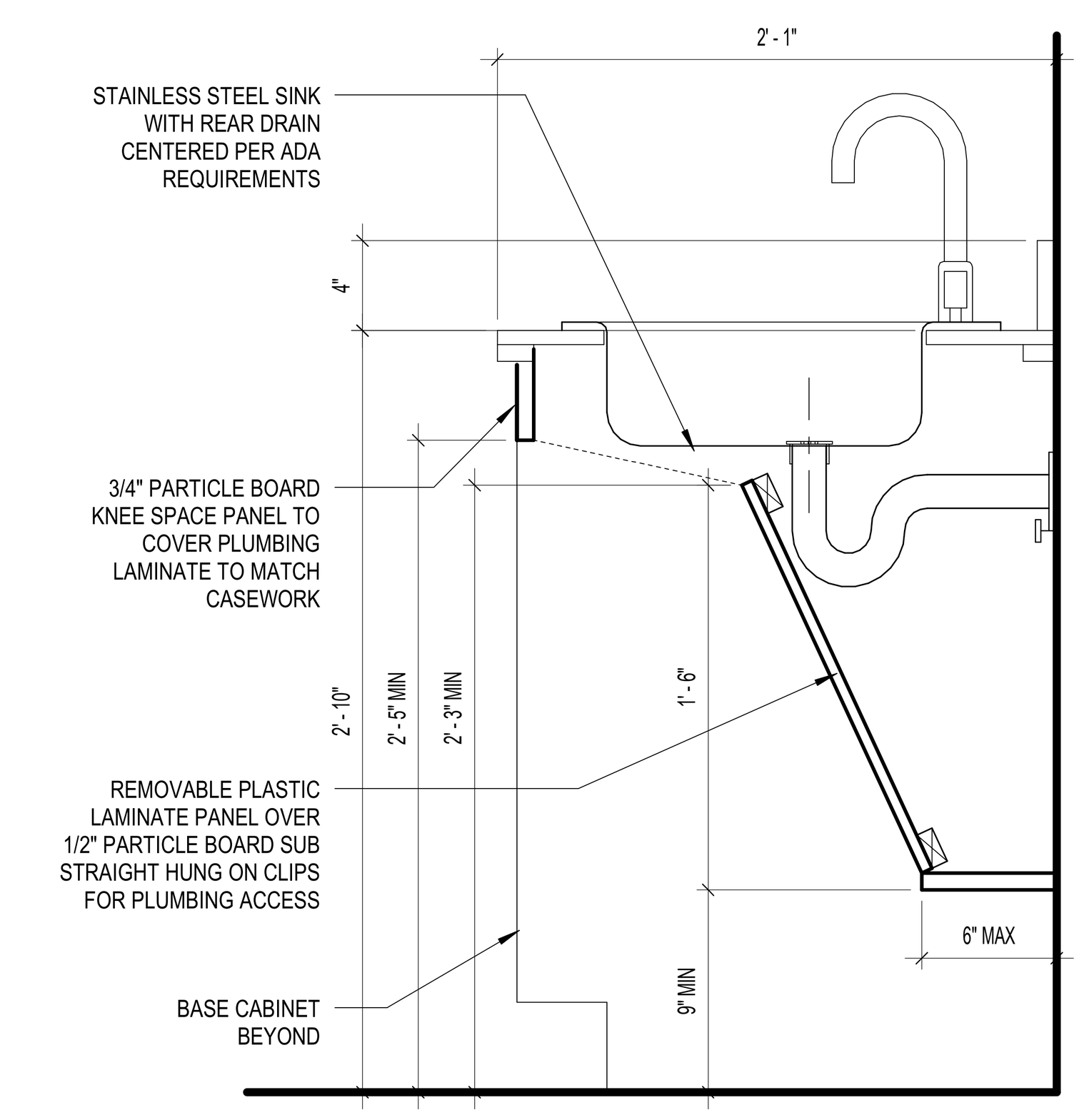
13 A4-10 **ACTIVITY KITCHEN 115A - WEST ELEVATION**
1/4" = 1'-0"



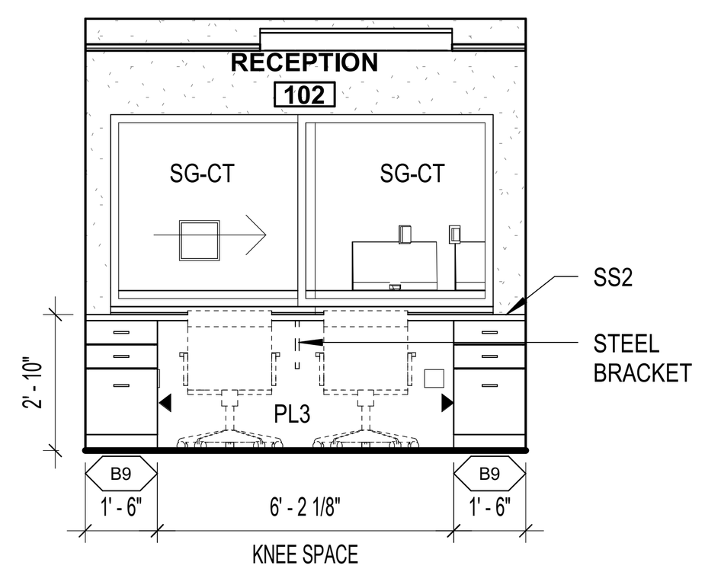
17 A4-10 **TYPICAL CASEWORK DETAIL**
1" = 1'-0"



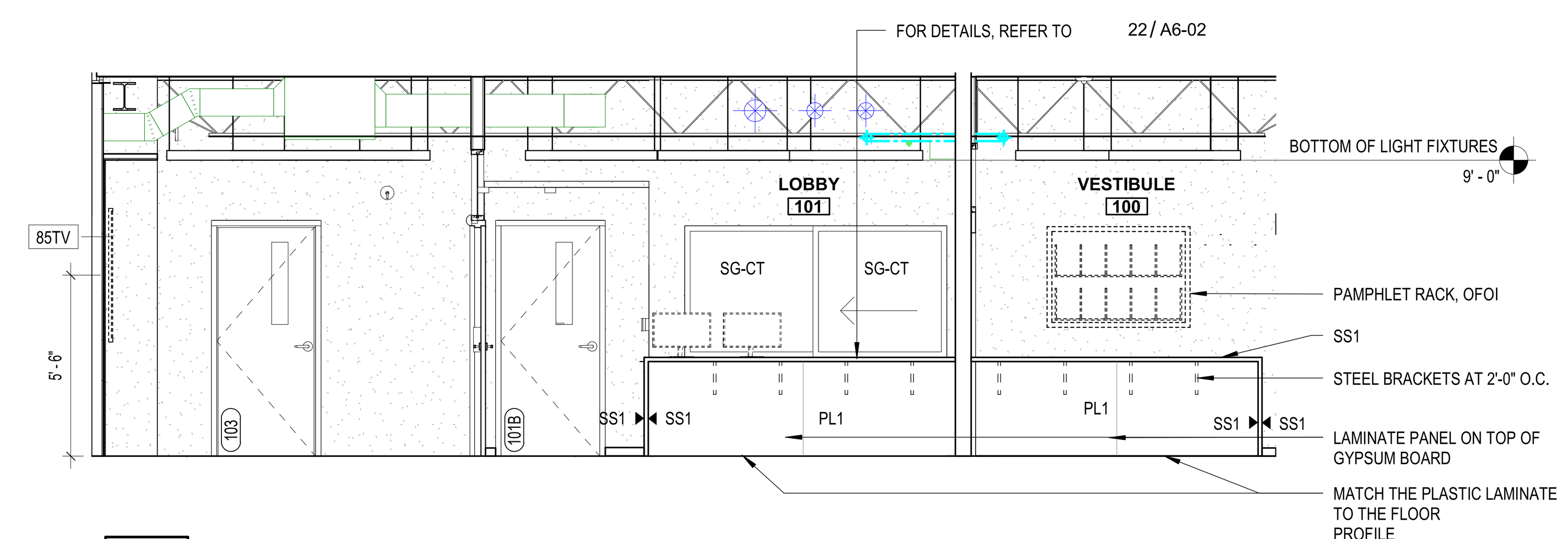
18 A4-10 **TYPICAL ADA CASEWORK DETAIL**
1" = 1'-0"



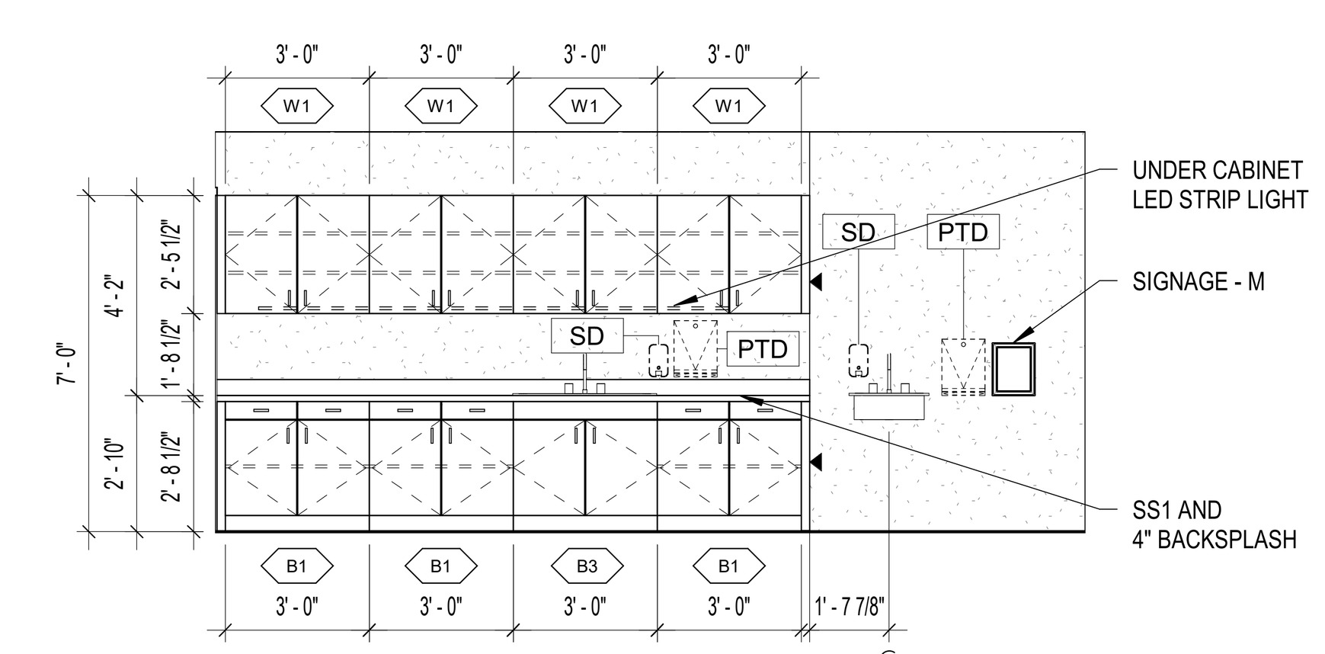
19 A4-10 **SECTION THROUGH ADA LAVATORY**
1 1/2" = 1'-0"



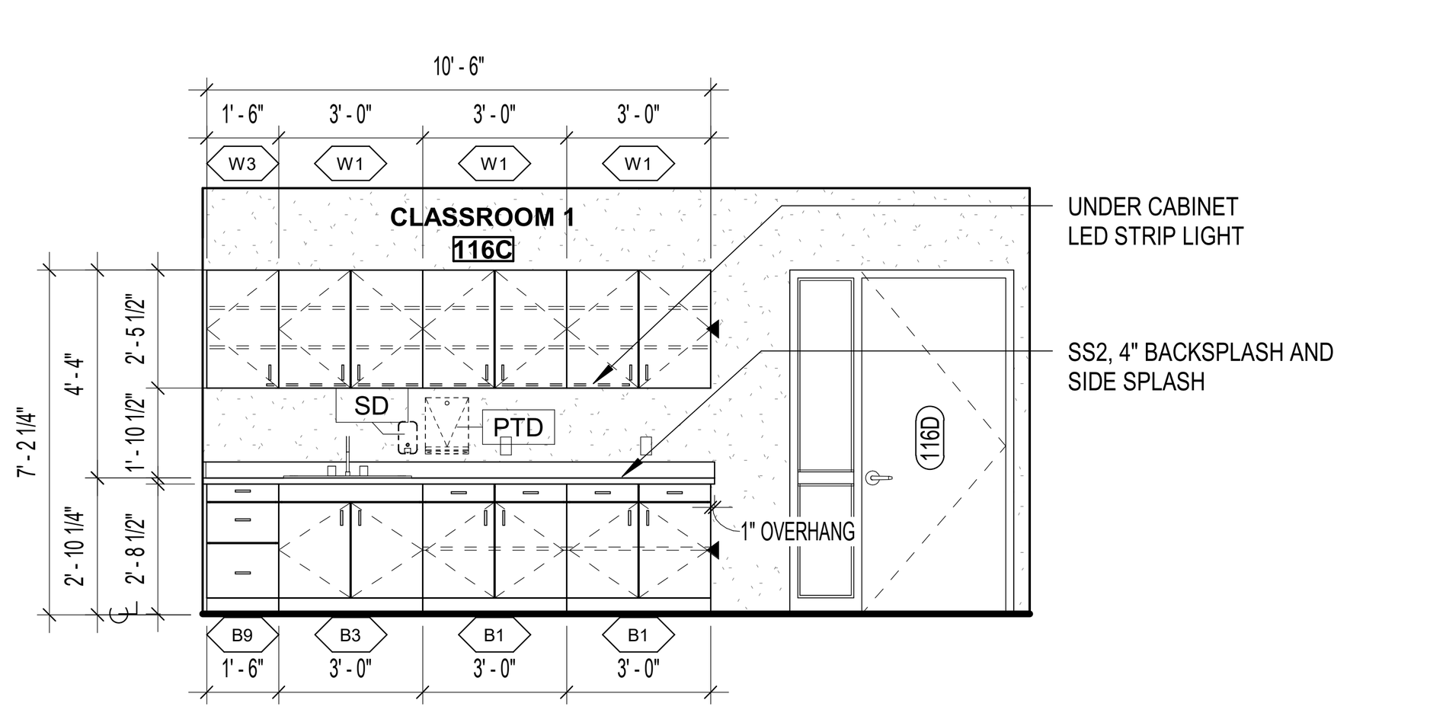
10 A4-10 **102 RECEPTION - EAST ELEVATION**
1/4" = 1'-0"



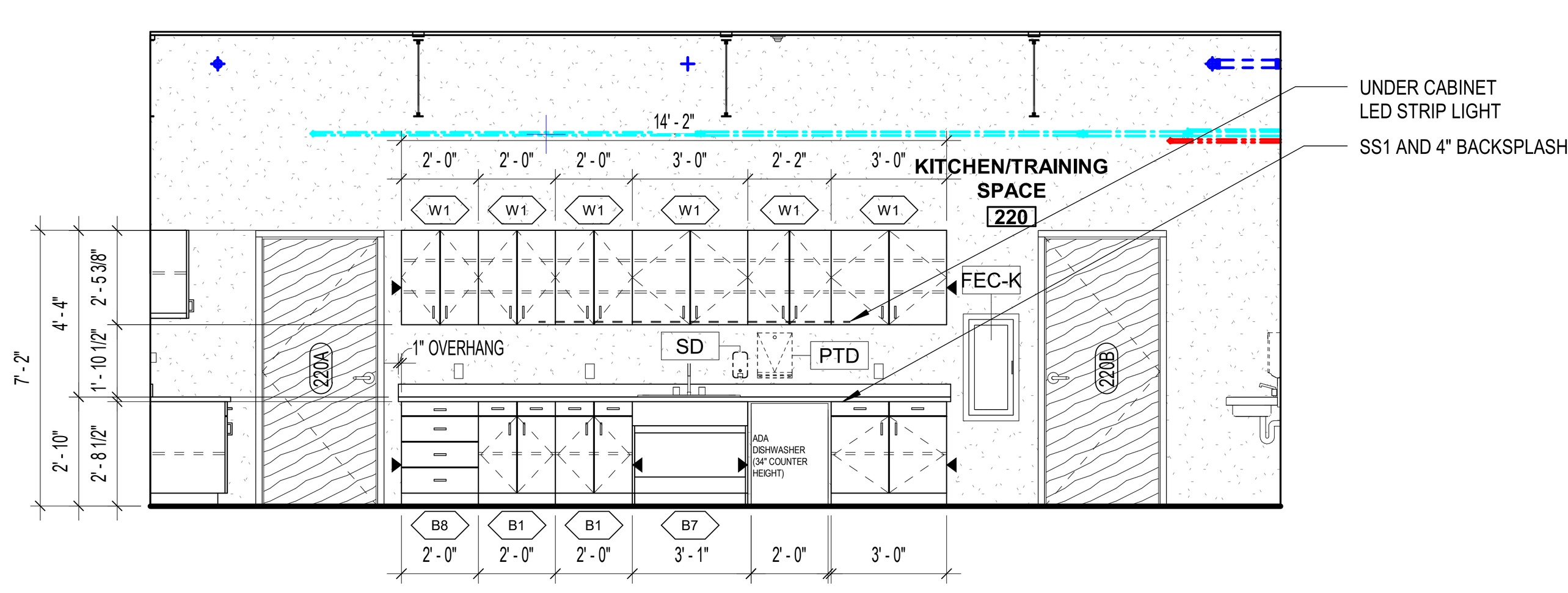
11 A4-10 **LOBBY 101 AND VESTIBULE 100 - WEST ELEVATION**
1/4" = 1'-0"



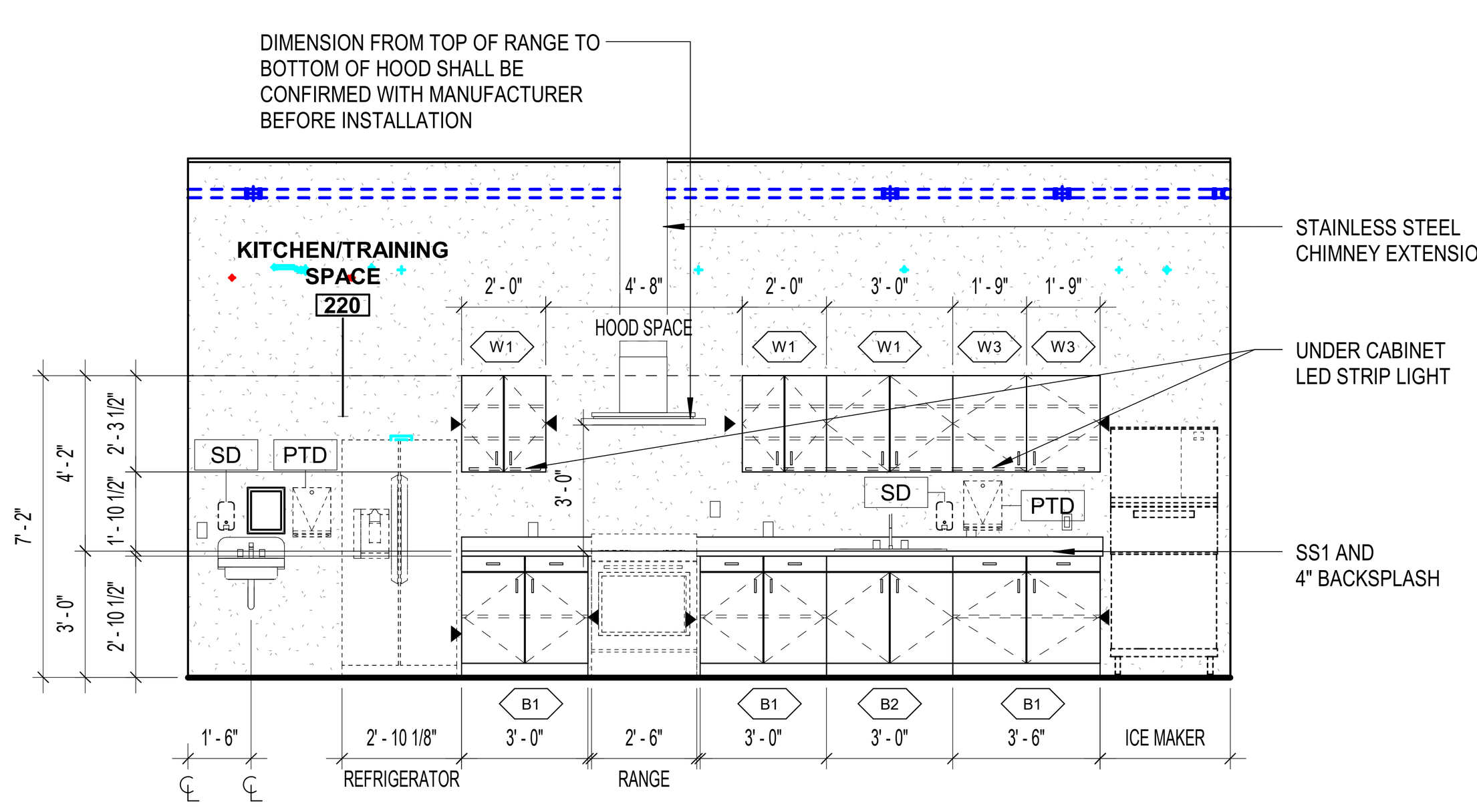
12 A4-10 **KITCHEN 109 - WEST ELEVATION**
1/4" = 1'-0"



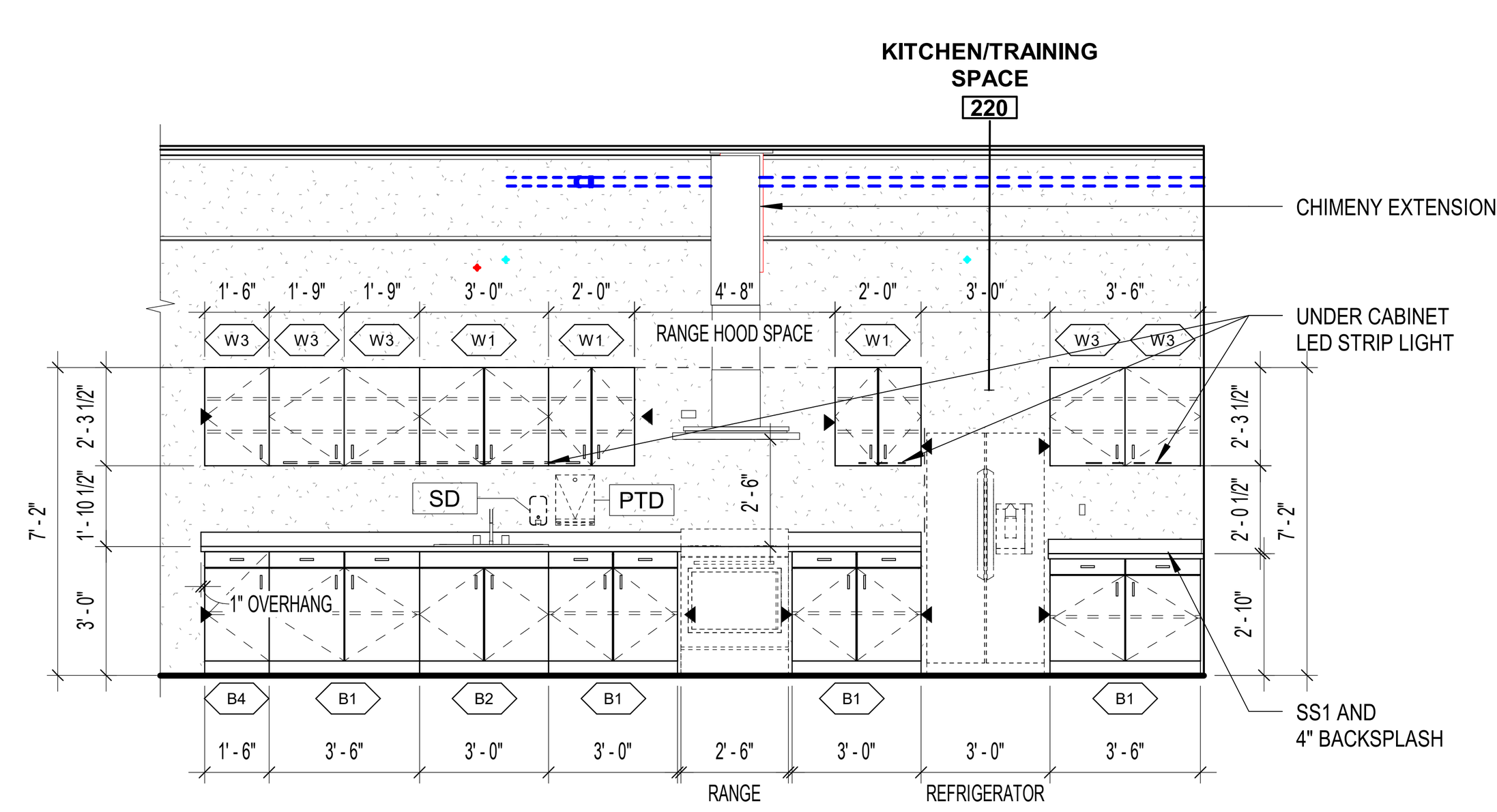
6 A4-10 **116 C_CLASSROOM 1 - N**
1/4" = 1'-0"



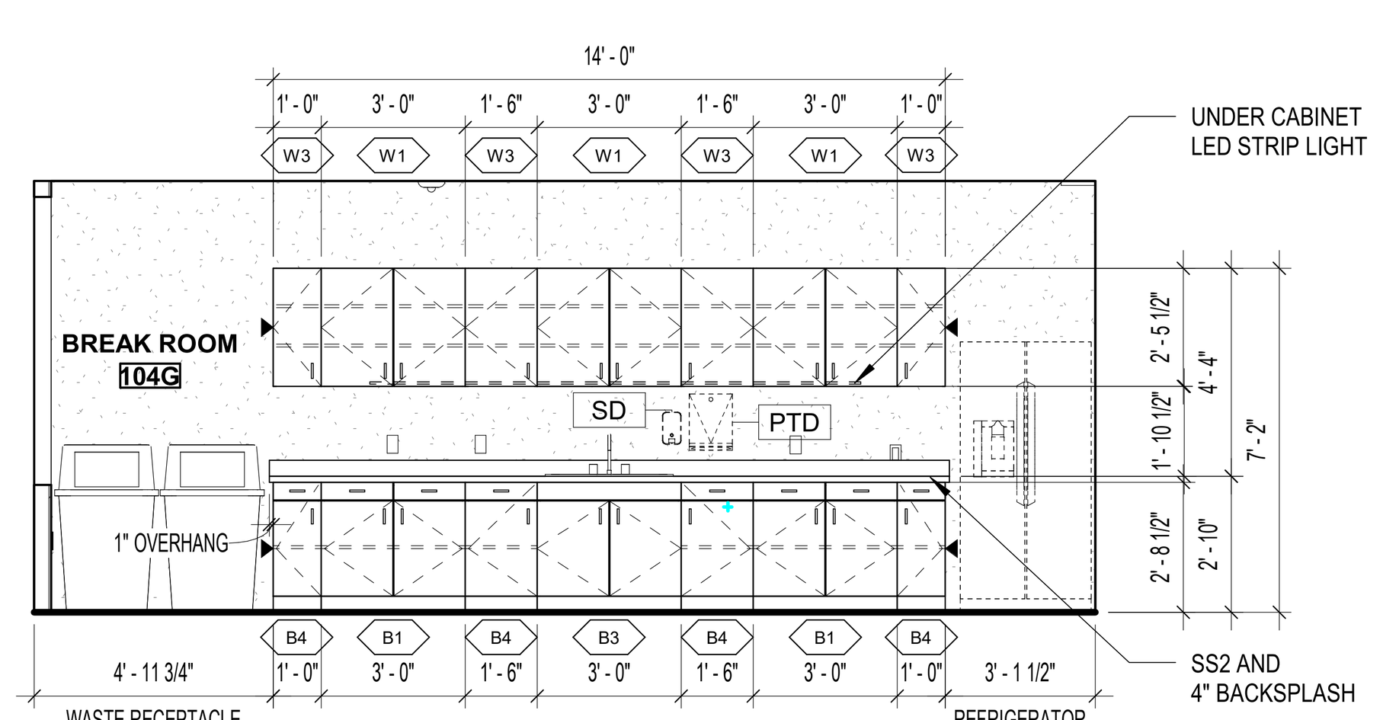
7 A4-10 **KITCHEN TRAINING SPACE 220 - NORTH ELEVATION**
1/4" = 1'-0"



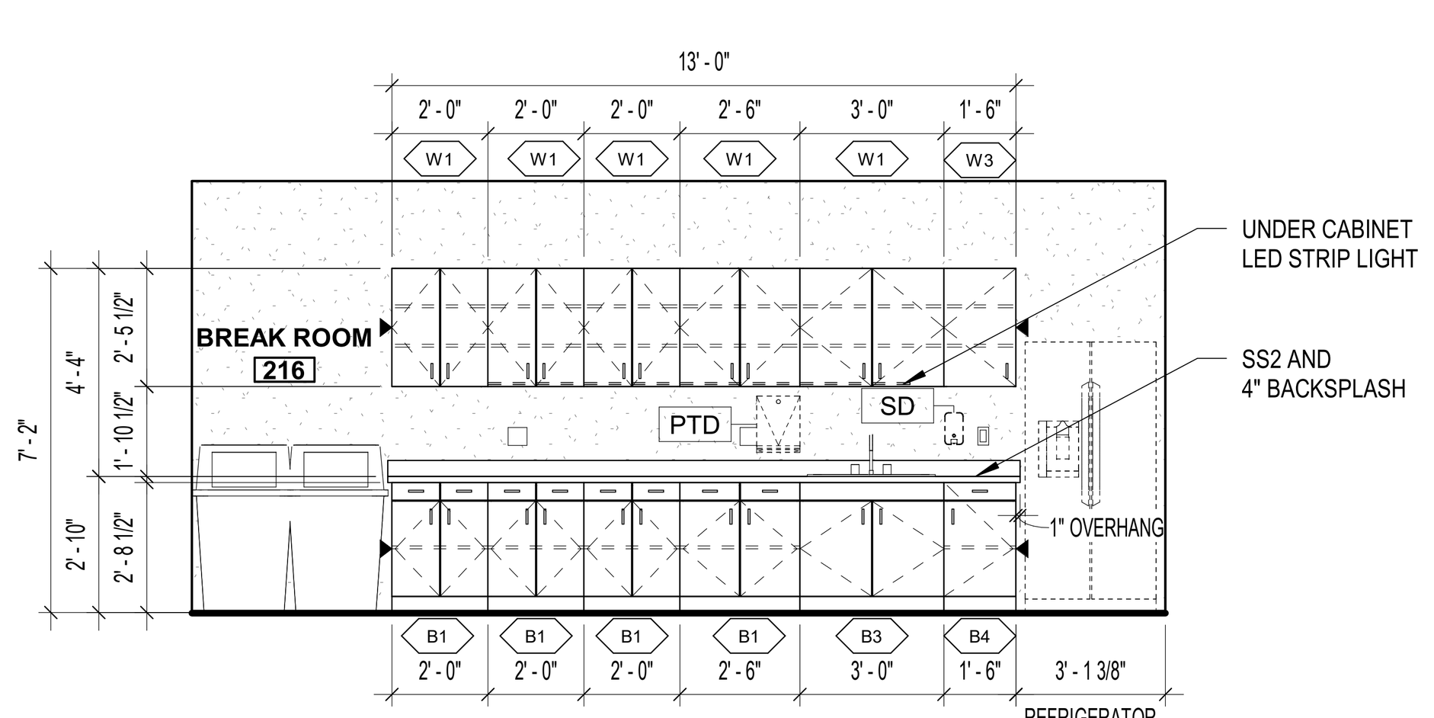
8 A4-10 **KITCHEN TRANING SPACE 220 - EAST ELEVATION**
1/4" = 1'-0"



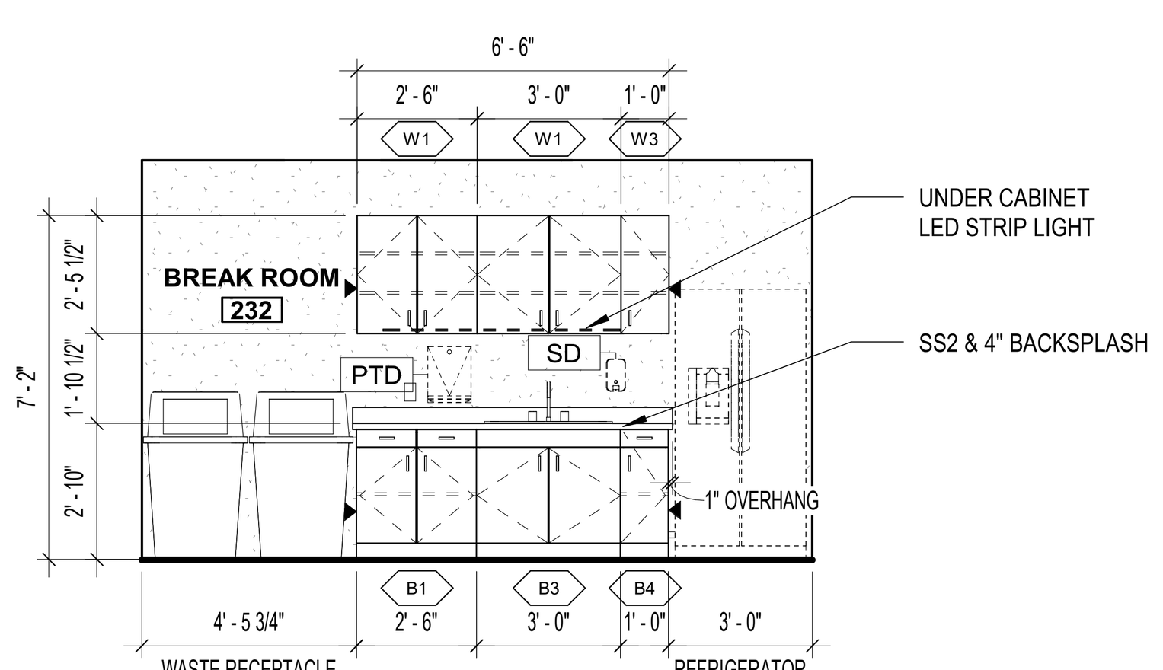
9 A4-10 **KITCHEN TRAINING SPACE 220 - WEST ELEVATION**
1/4" = 1'-0"



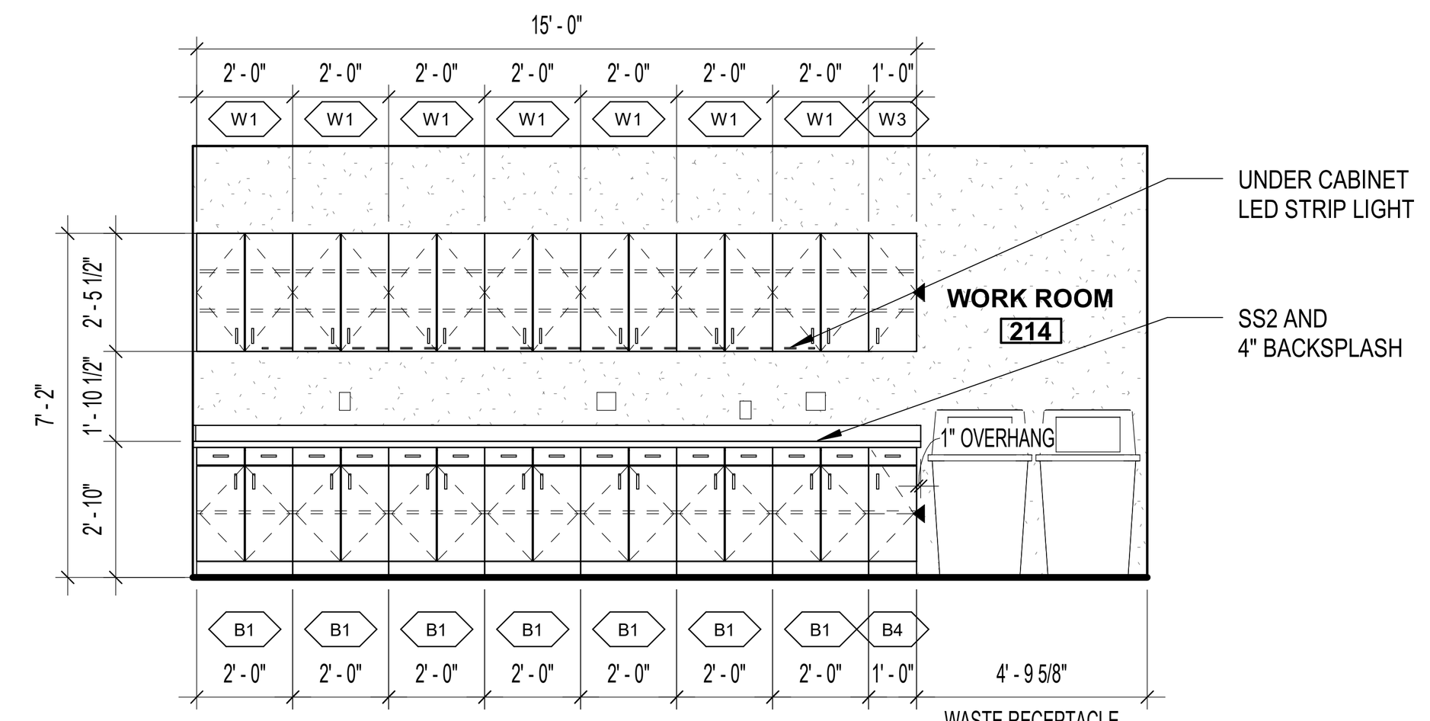
1 A4-10 **BREAK ROOM 104G - SOUTH ELEVATION**
1/4" = 1'-0"



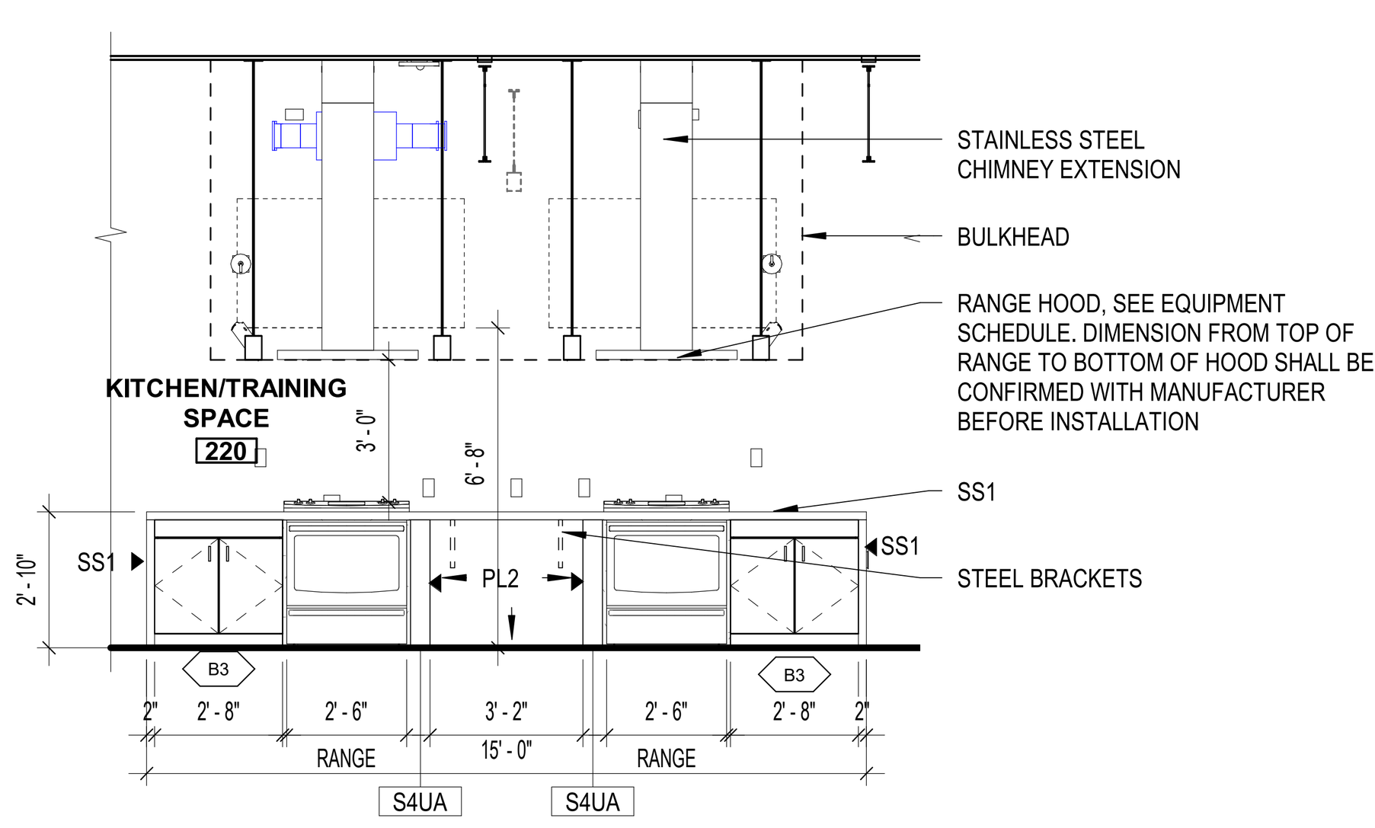
2 A4-10 **BREAK ROOM 216 - SOUTH ELEVATION**
1/4" = 1'-0"



3 A4-10 **BREAK ROOM 232 - EAST ELEVATION**
1/4" = 1'-0"



4 A4-10 **WORK ROOM 214 - SOUTH ELEVATION**
1/4" = 1'-0"



5 A4-10 **KITCHEN TRAINING SPACE 220 - SOUTH ELEV.**
1/4" = 1'-0"

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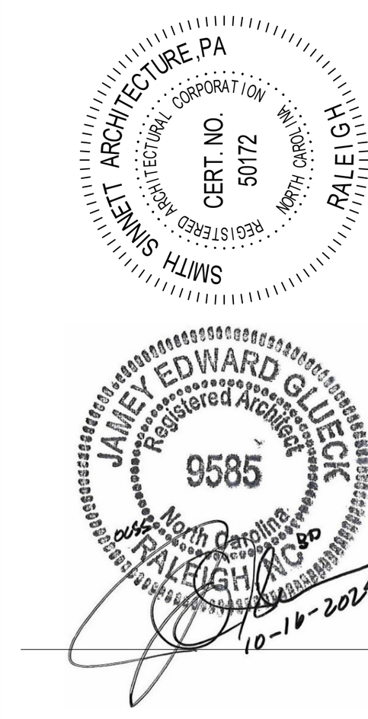

BID DOCUMENTS

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Onslow County Senior Services Center Renovation
Onslow County Government
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ID	DATE	DESCRIPTION

DRAWN BY:	RM, FA, NB
CHECKED BY:	JEG

CASEWORK ELEVATIONS AND DETAILS

2021029 16 OCT. 2024

A4-10

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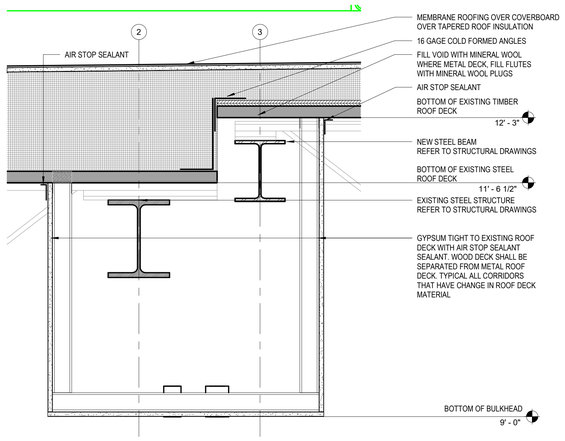
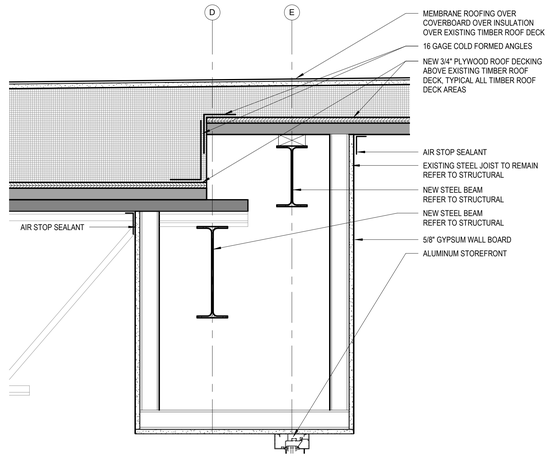
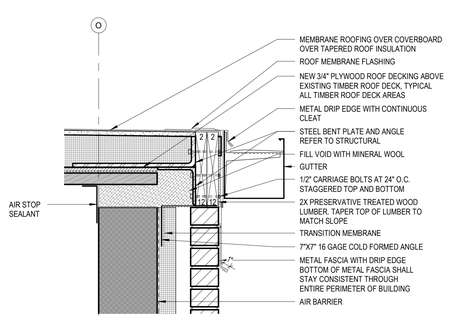


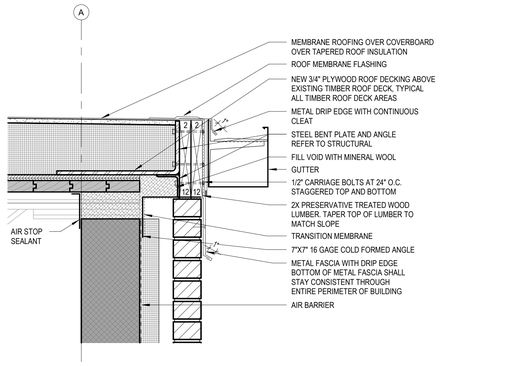
10 A5-01 **ROOF DETAIL**
1 1/2" = 1'-0"



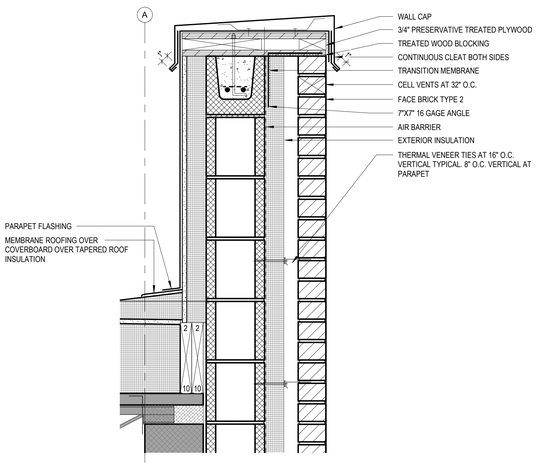
4 A5-01 **HEAVY TIMBER ROOF DECK STEP UP DETAIL**
1 1/2" = 1'-0"



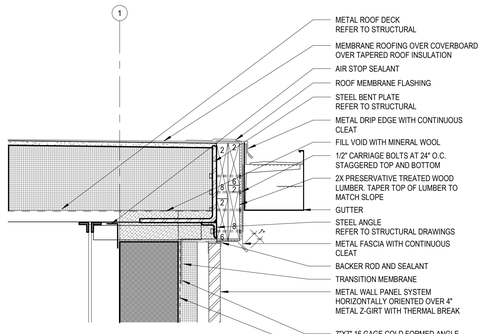
13 A5-01 **HEAVY TIMBER PERPENDICULAR TO JOIST**
1 1/2" = 1'-0"



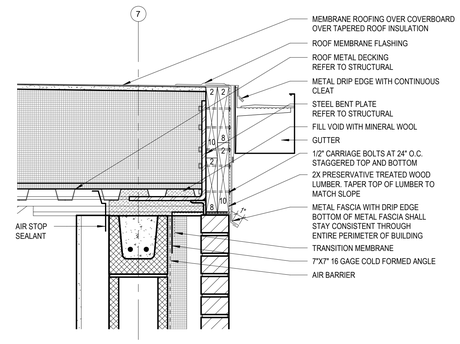
1 A5-01 **HEAVY TIMBER PARALLEL TO JOIST ROOF EDGE DETAIL**
1 1/2" = 1'-0"



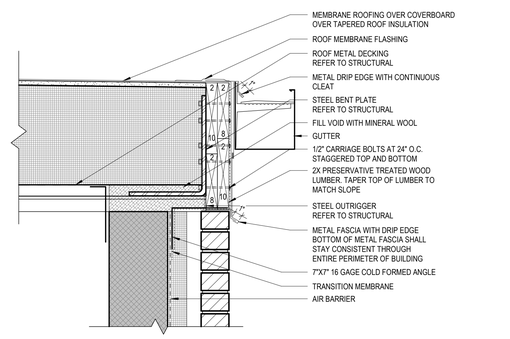
3 A5-01 **TYPICAL PARAPET DETAIL**
1 1/2" = 1'-0"



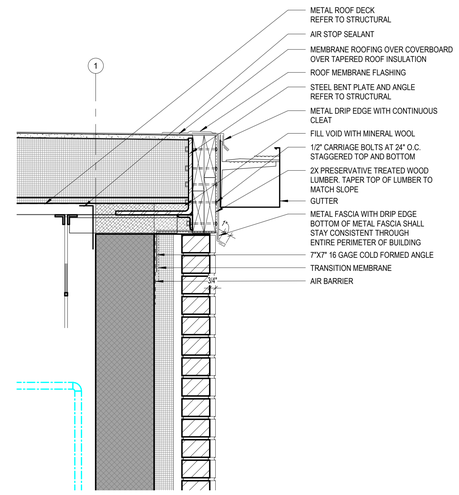
9 A5-01 **METAL DECK ROOF EDGE PERPENDICULAR TO JOIST DETAIL AT METAL WALL PANEL**
1 1/2" = 1'-0"



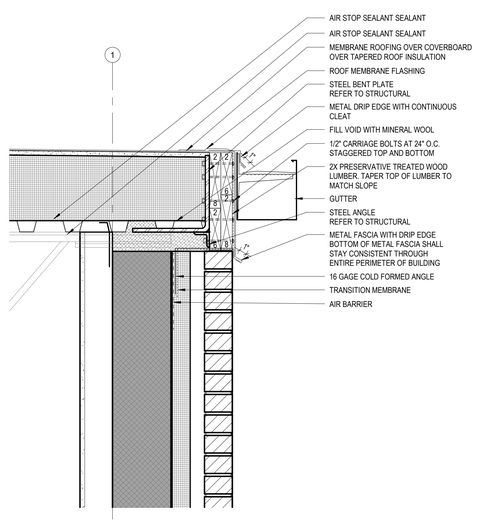
5 A5-01 **NEW METAL DECK ROOF EDGE PARALLEL TO JOIST DETAIL**
1 1/2" = 1'-0"



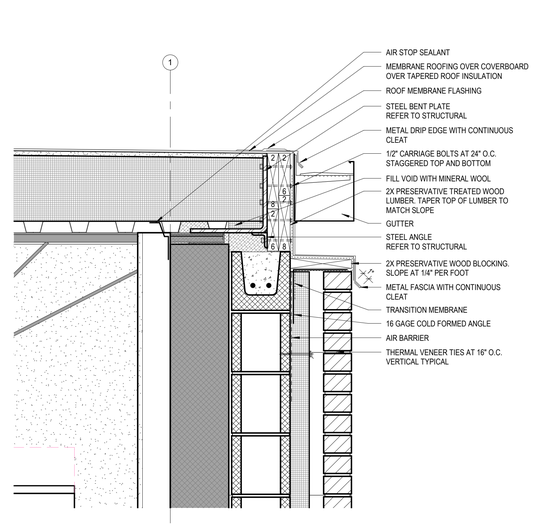
12 A5-01 **METAL DECK ROOF EDGE PERPENDICULAR TO JOIST DETAIL**
1 1/2" = 1'-0"



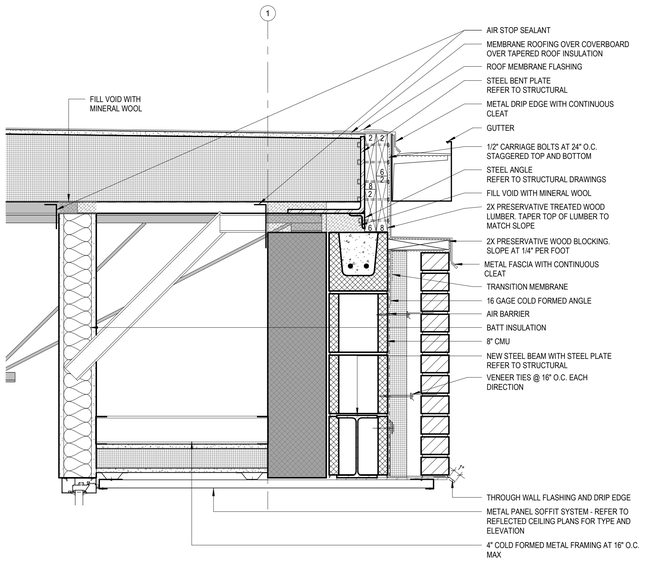
2 A5-01 **METAL DECK ROOF EDGE PERPENDICULAR TO JOIST DETAIL AT ACCENT BRICK TYPE 3**
1 1/2" = 1'-0"



8 A5-01 **METAL DECK ROOF EDGE PARALLEL TO JOIST DETAIL**
1 1/2" = 1'-0"



7 A5-01 **METAL DECK ROOF EDGE PARALLEL TO JOIST DETAIL**
1 1/2" = 1'-0"



6 A5-01 **ROOF EDGE DETAIL PARALLEL TO JOIST**
1 1/2" = 1'-0"

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CHECKED BY: JEG

ROOF DETAILS

2021029 16 OCT. 2024

A5-01

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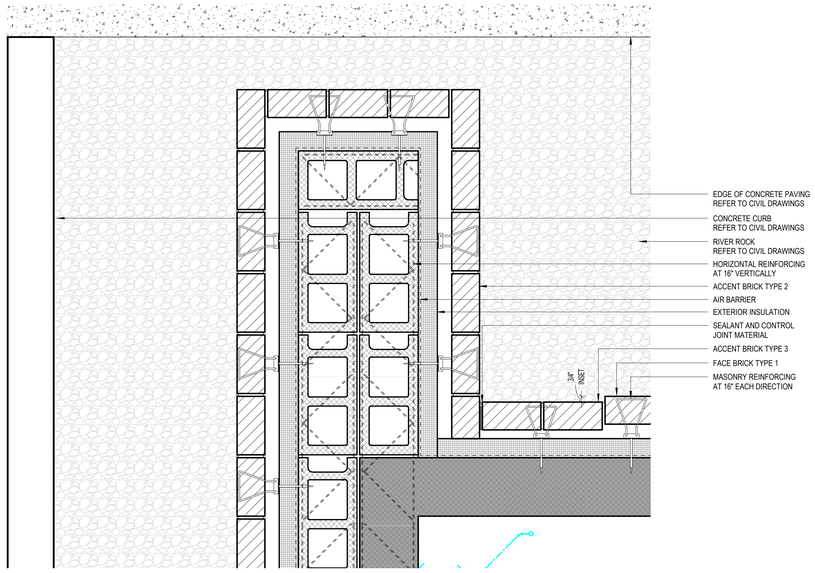
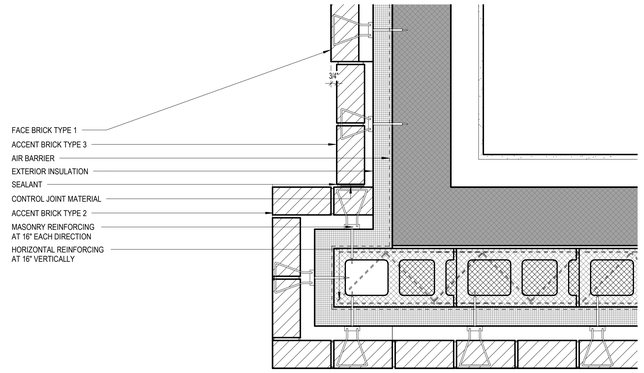
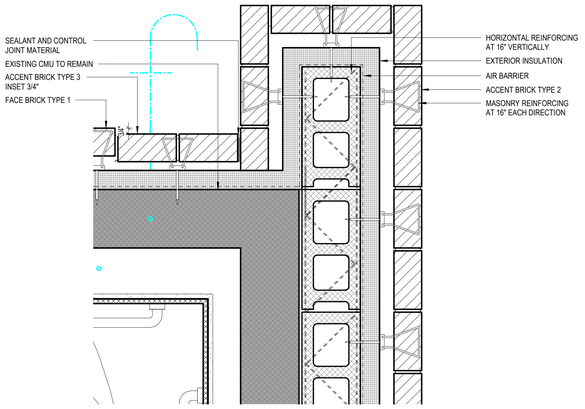


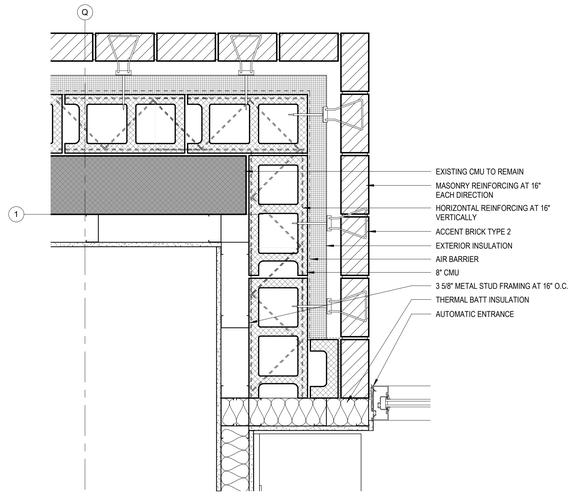
9 A5-02 PLAN DETAIL
1 1/2" = 1'-0"



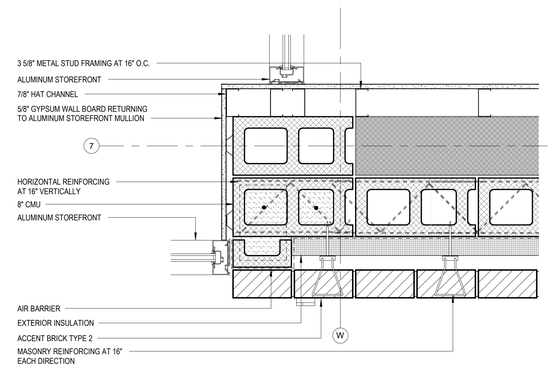
8 A5-02 PLAN DETAIL
1 1/2" = 1'-0"



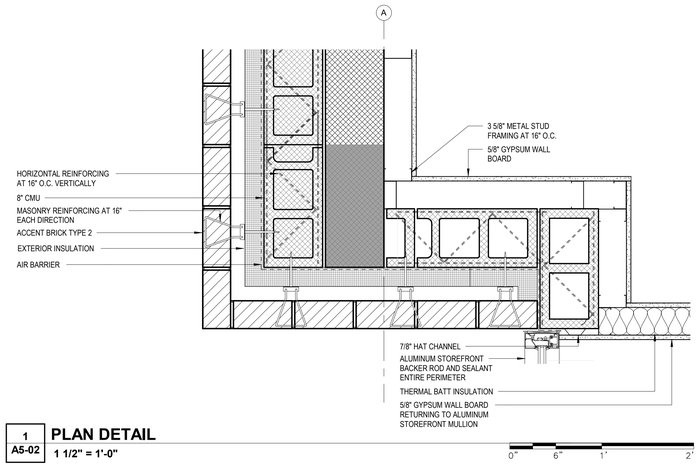
7 A5-02 PLAN DETAIL
1 1/2" = 1'-0"



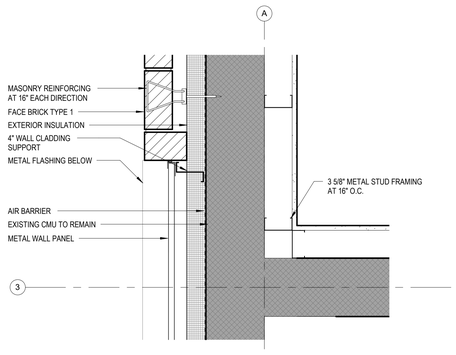
6 A5-02 PLAN DETAIL
1 1/2" = 1'-0"



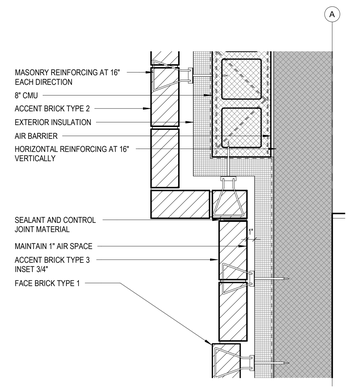
5 A5-02 PLAN DETAIL
1 1/2" = 1'-0"



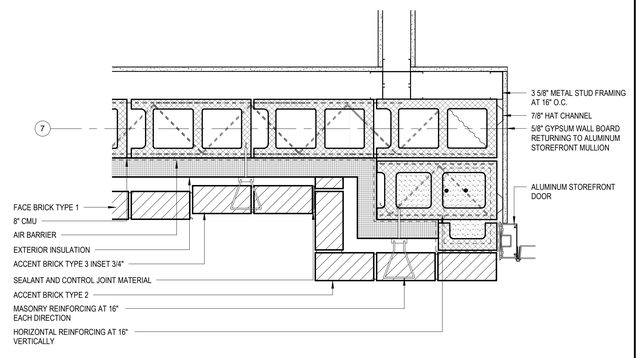
1 A5-02 PLAN DETAIL
1 1/2" = 1'-0"



2 A5-02 PLAN DETAIL
1 1/2" = 1'-0"



3 A5-02 PLAN DETAIL
1 1/2" = 1'-0"



4 A5-02 PLAN DETAIL
1 1/2" = 1'-0"

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CHECKED BY: JEG

PLAN DETAILS

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A5-02

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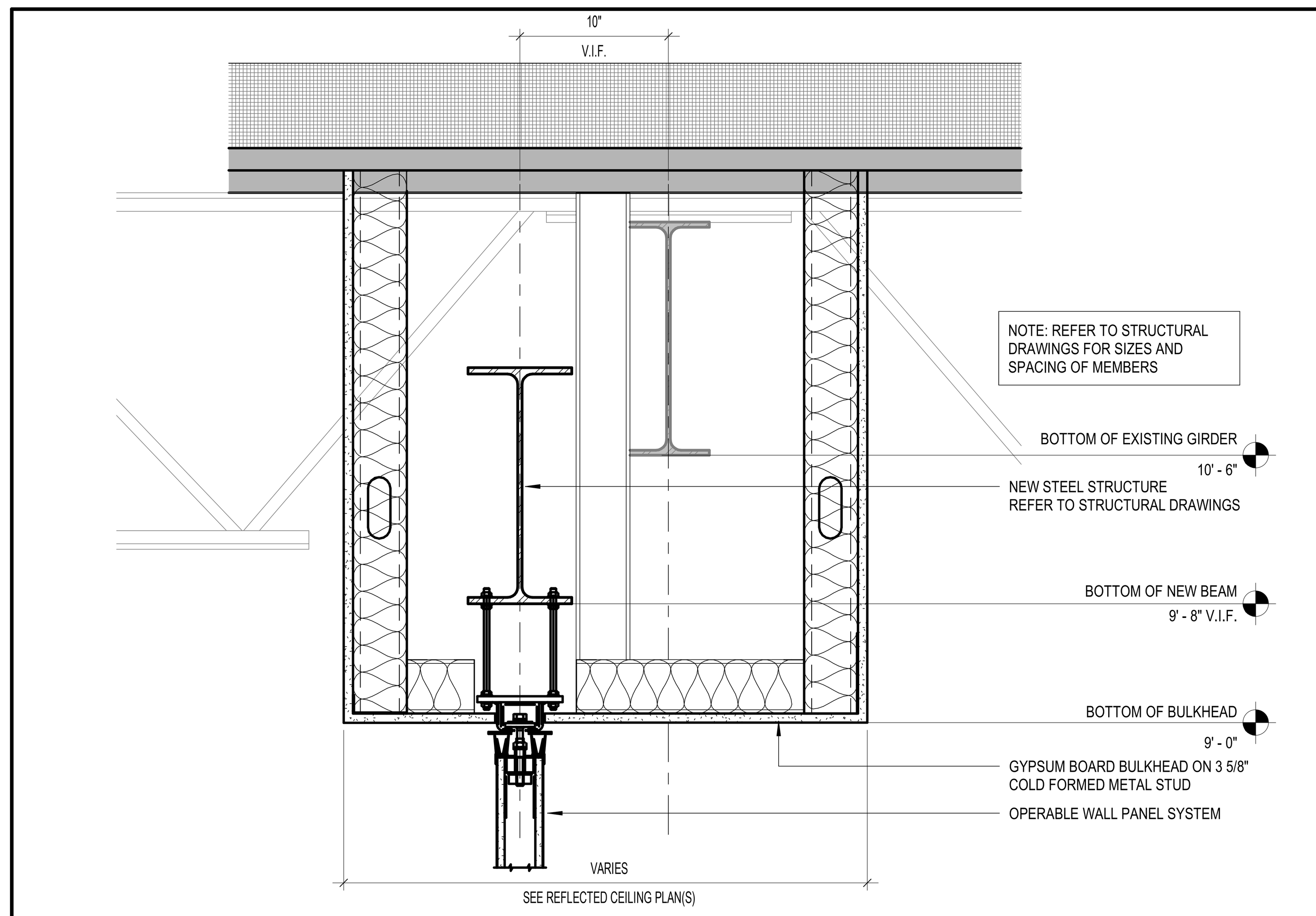
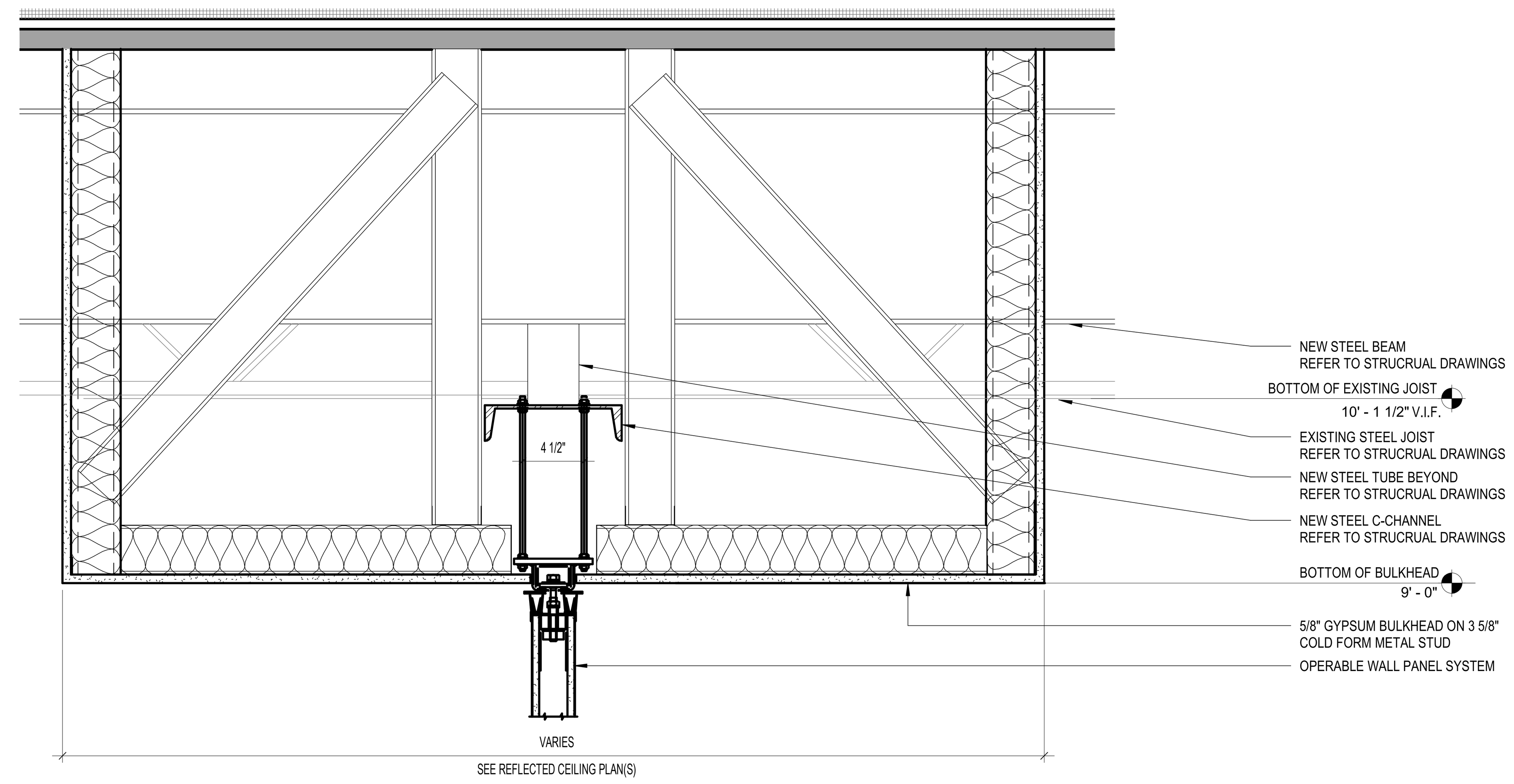
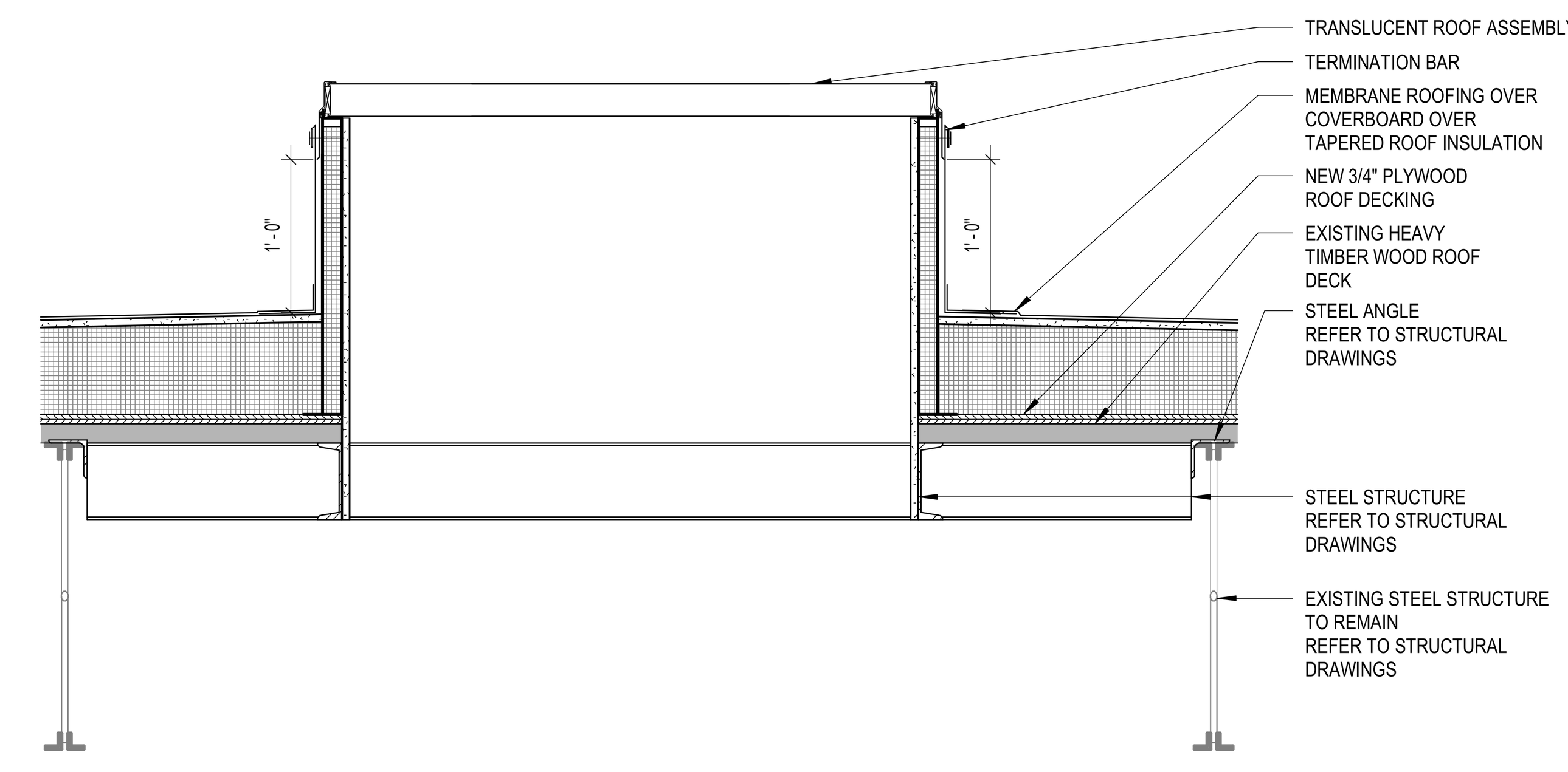


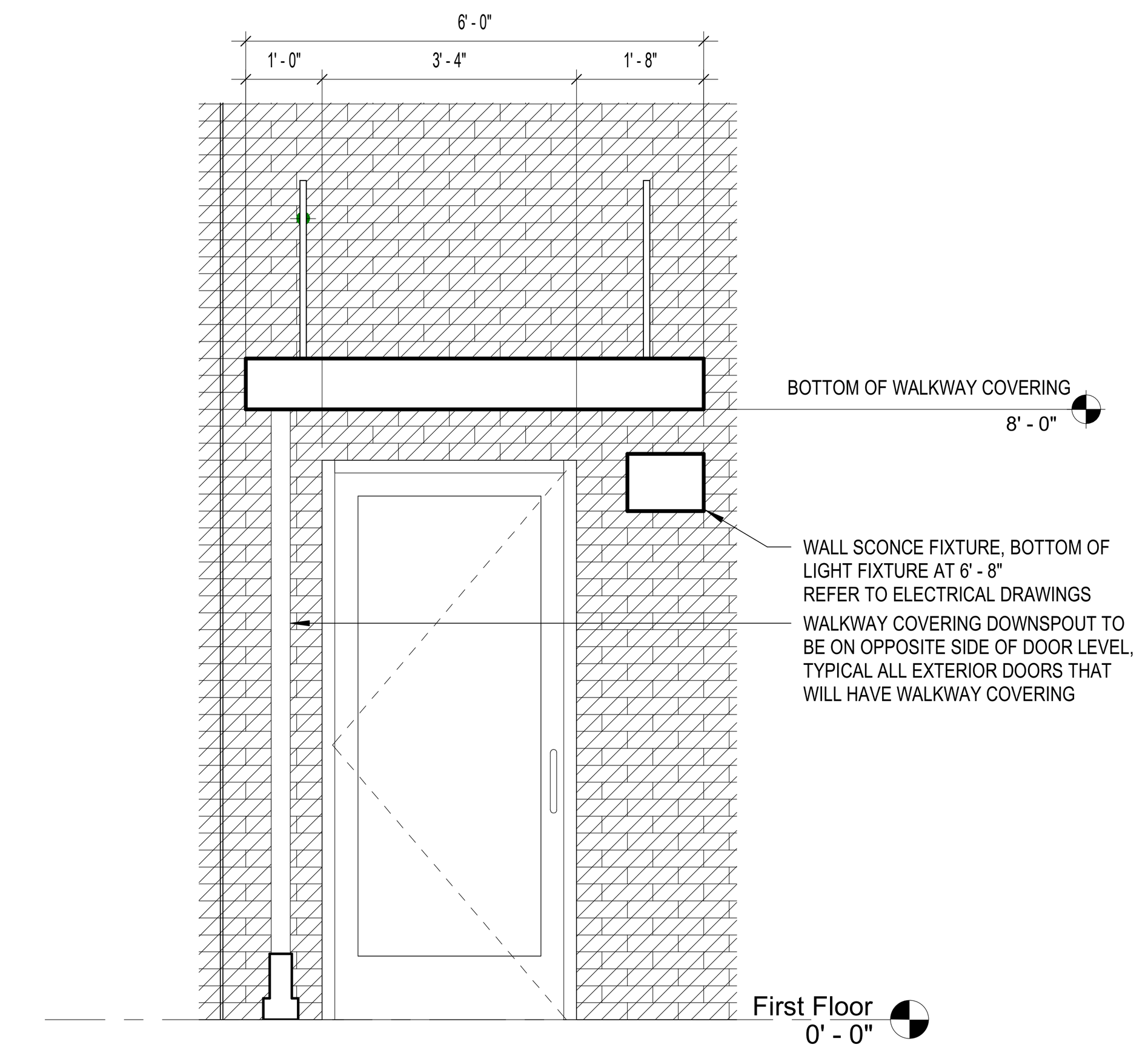
7 A5-03 **TRAINING ACTIVITY - OPERABLE PARTITION DETAIL**
1 1/2" = 1'-0"



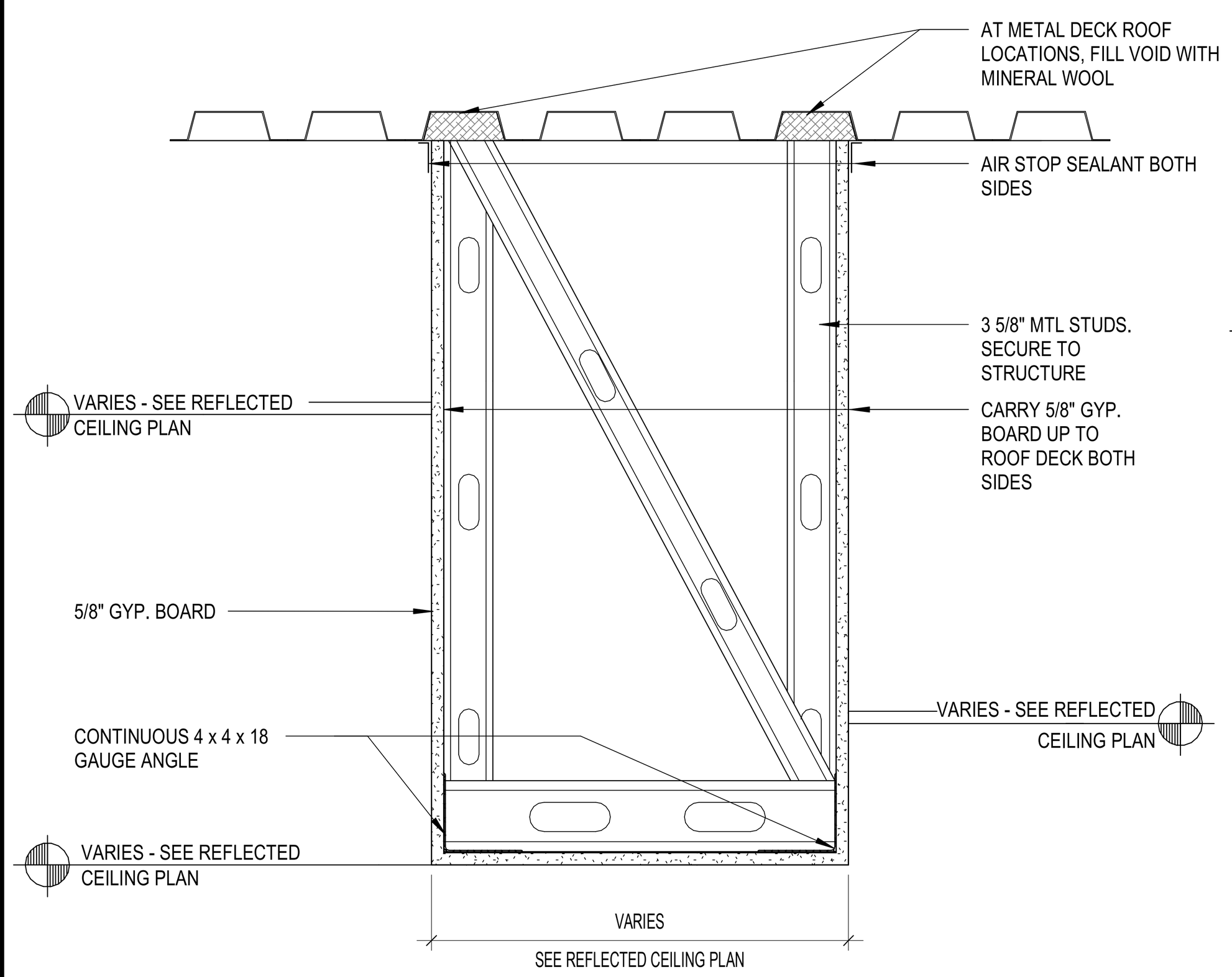
15 A5-03 **ACTIVITY ROOM - OPERABLE PARTITION DETAIL**
1 1/2" = 1'-0"



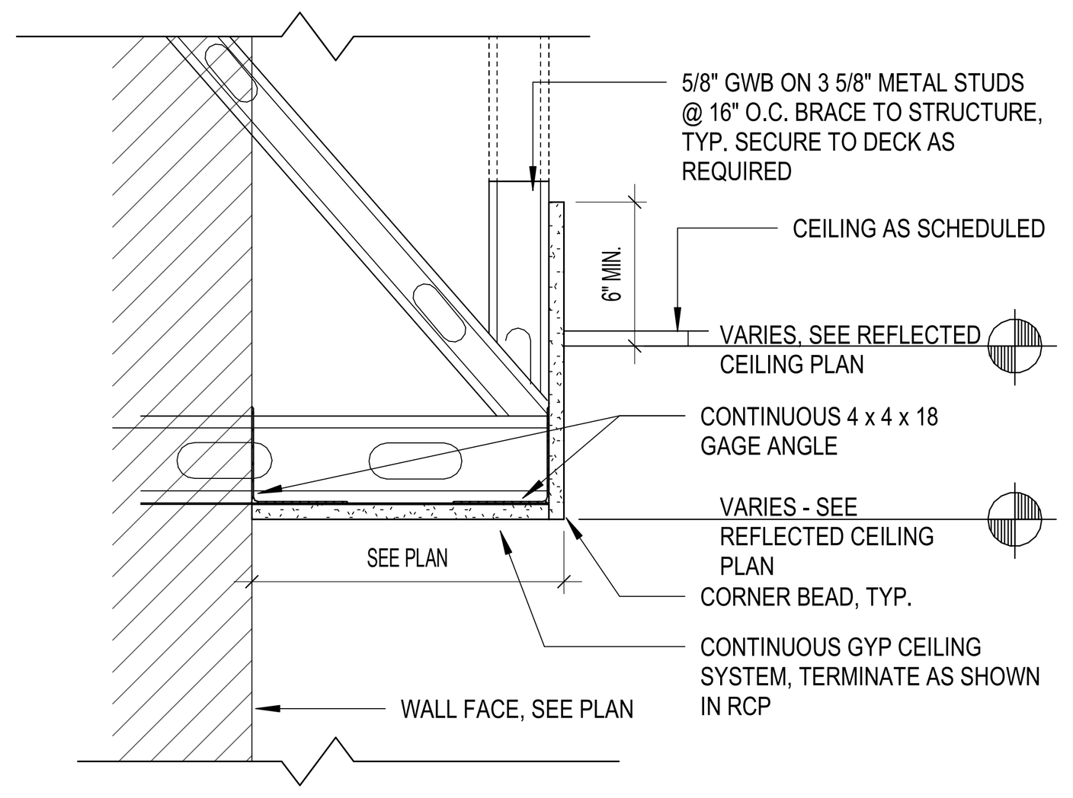
11 A5-03 **TRANSLUCENT ROOF ASSEMBLY SECTION DETAIL**
1" = 1'-0"



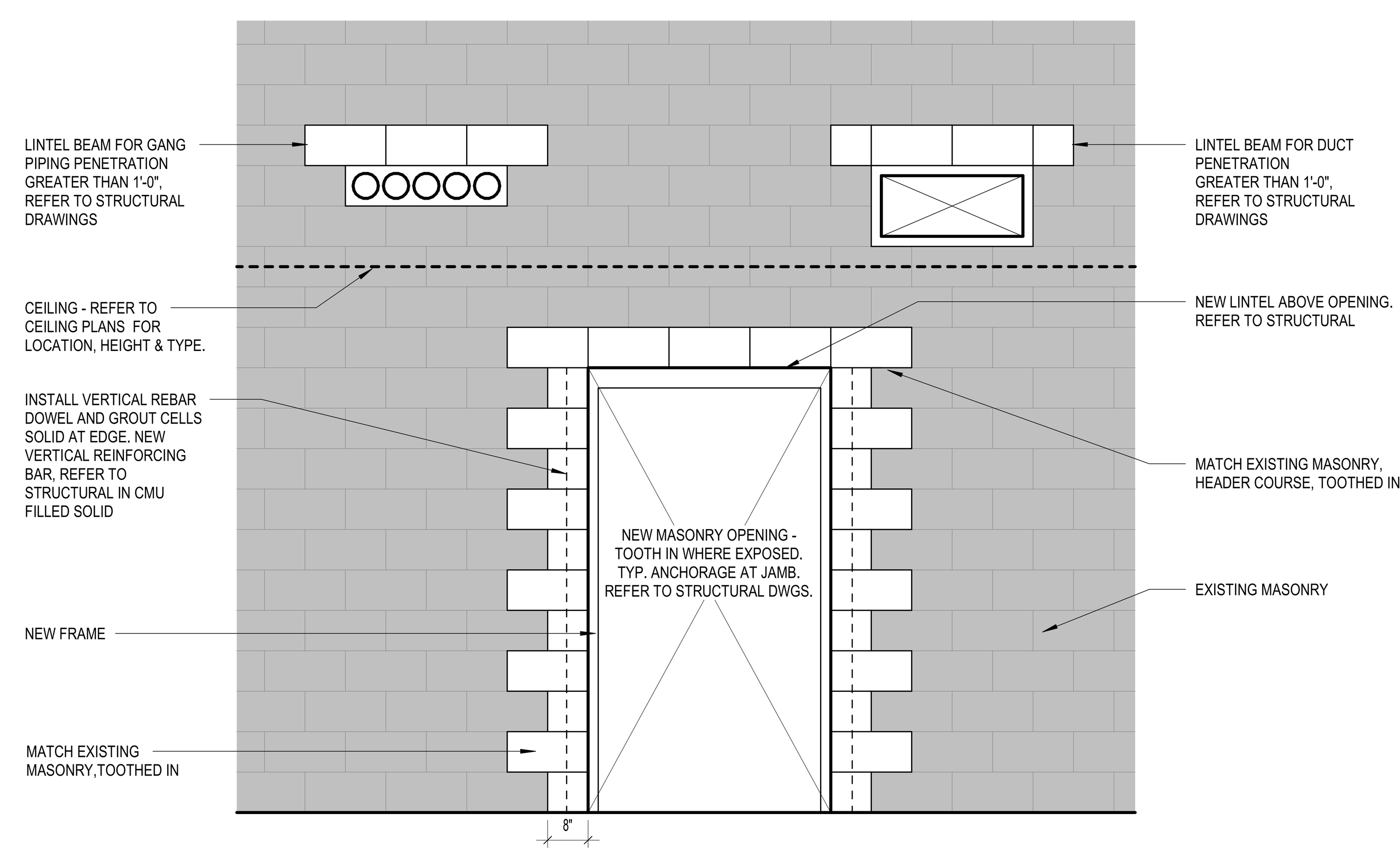
8 A5-03 **TYPICAL WALKWAY COVERING ELEVATION**
1/2" = 1'-0"



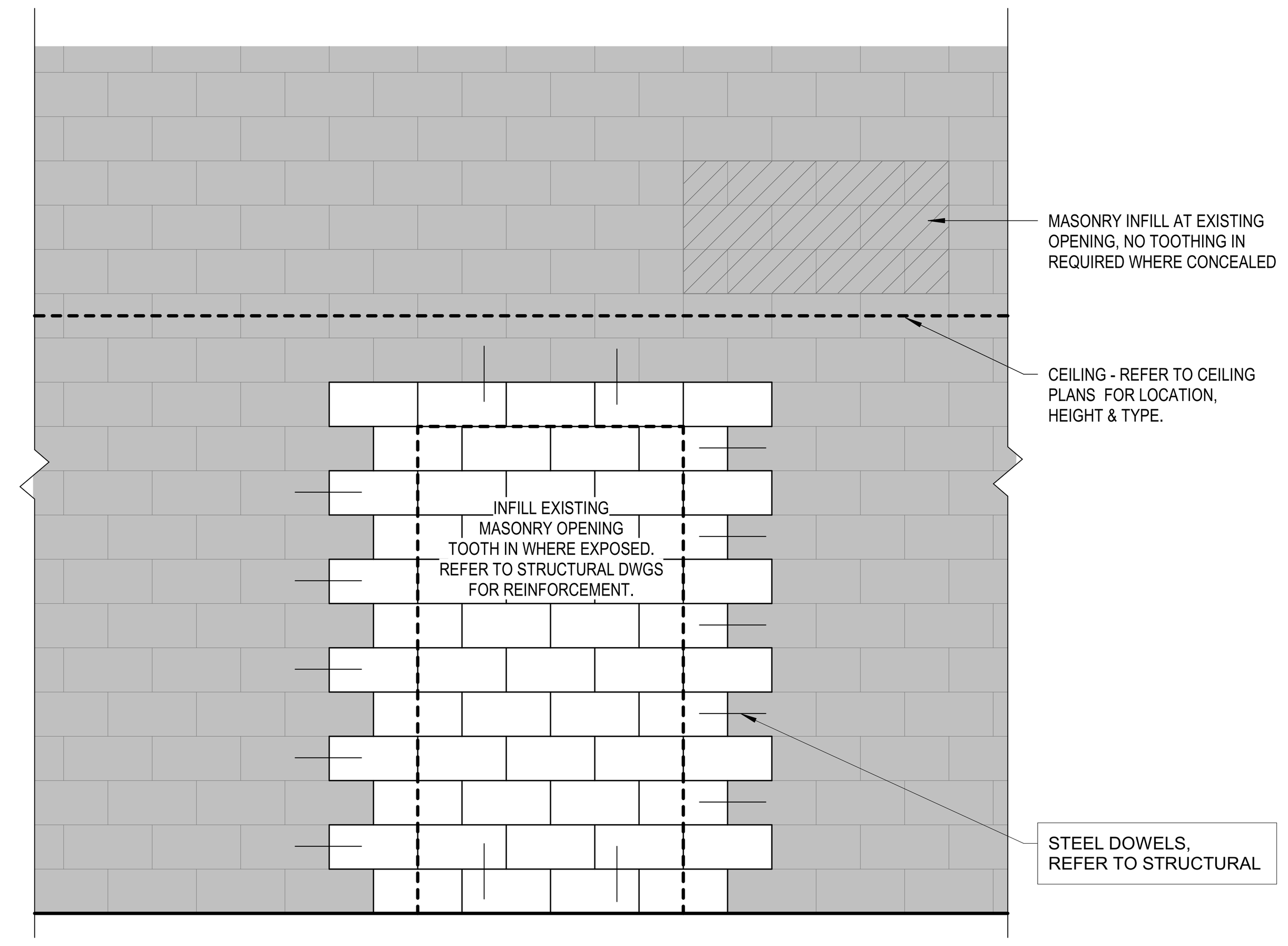
2 A5-03 **TYP BULKHEAD DETAIL**
1 1/2" = 1'-0"



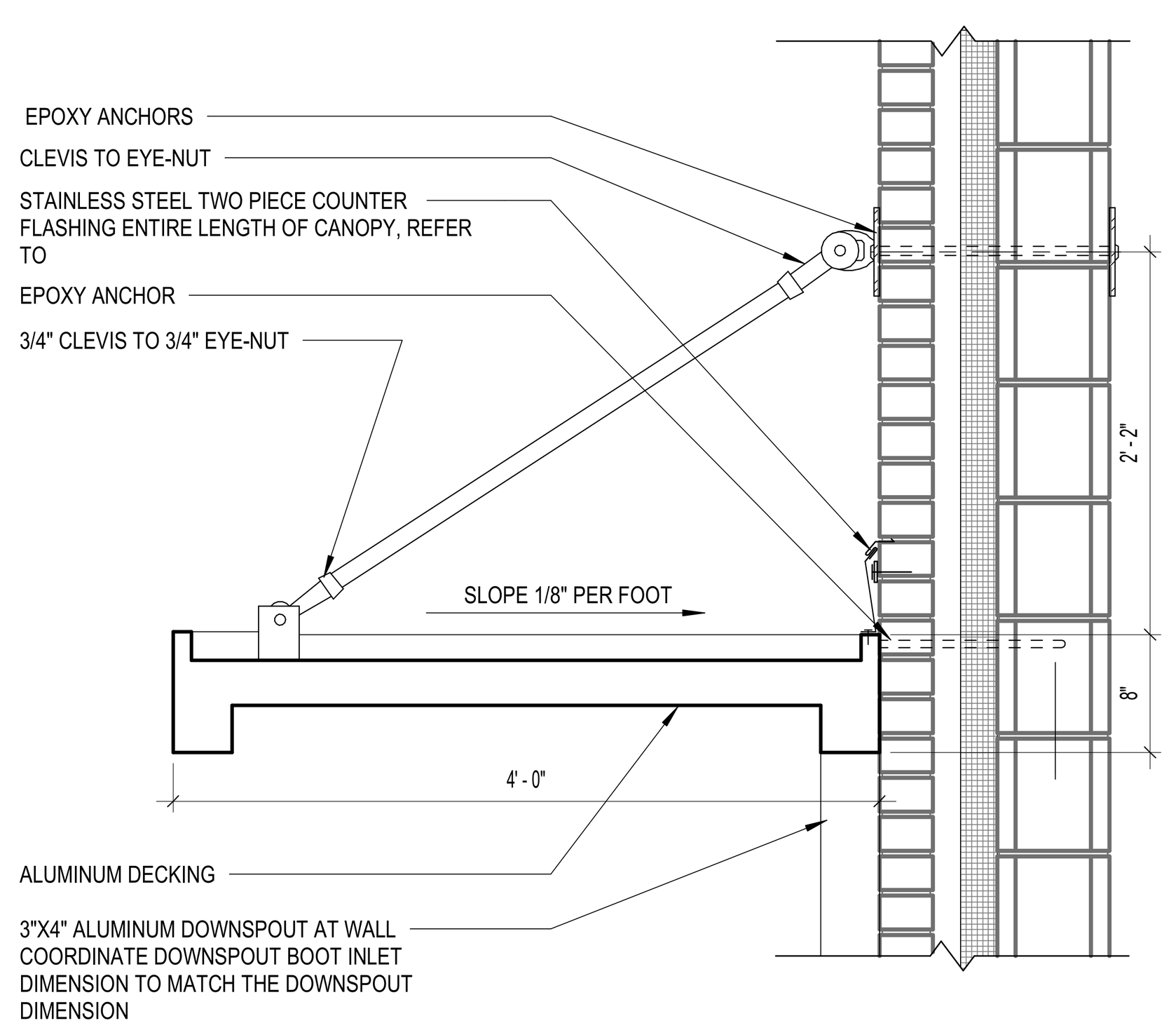
3 A5-03 **TYP GYP CONTINUOUS BULKHEAD**
1 1/2" = 1'-0"



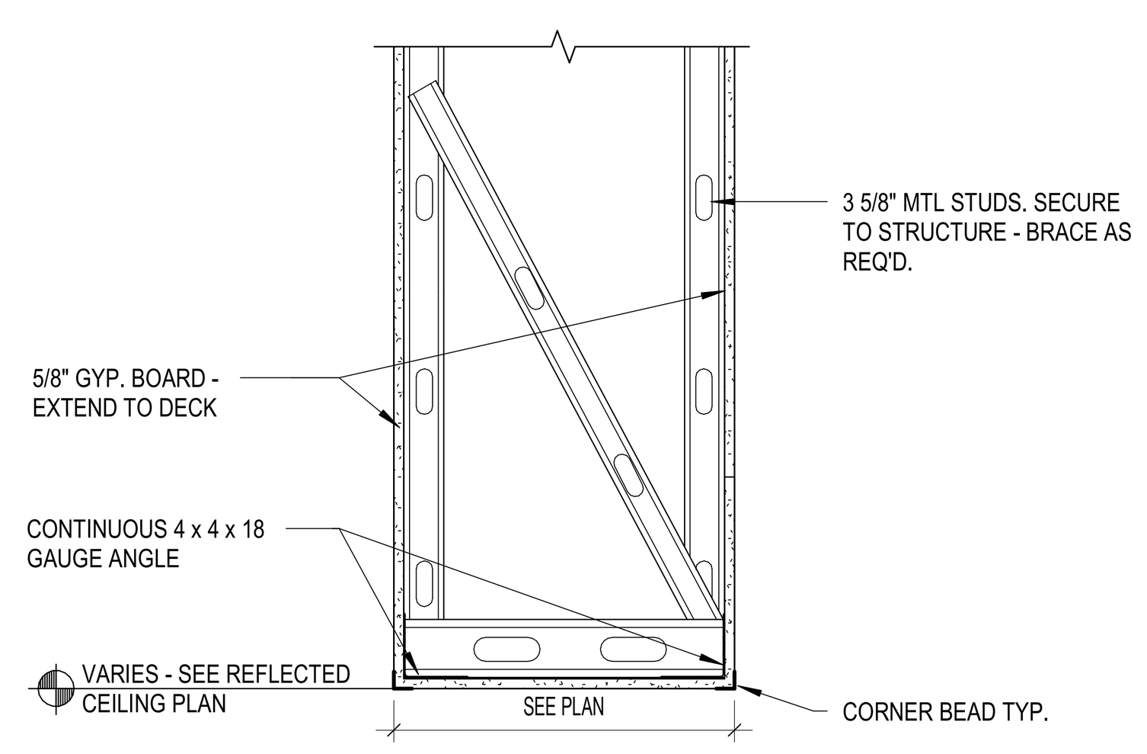
13 A5-03 **ELEVATION - TYPICAL NEW OPENING IN EXISTING CMU**
1/2" = 1'-0"



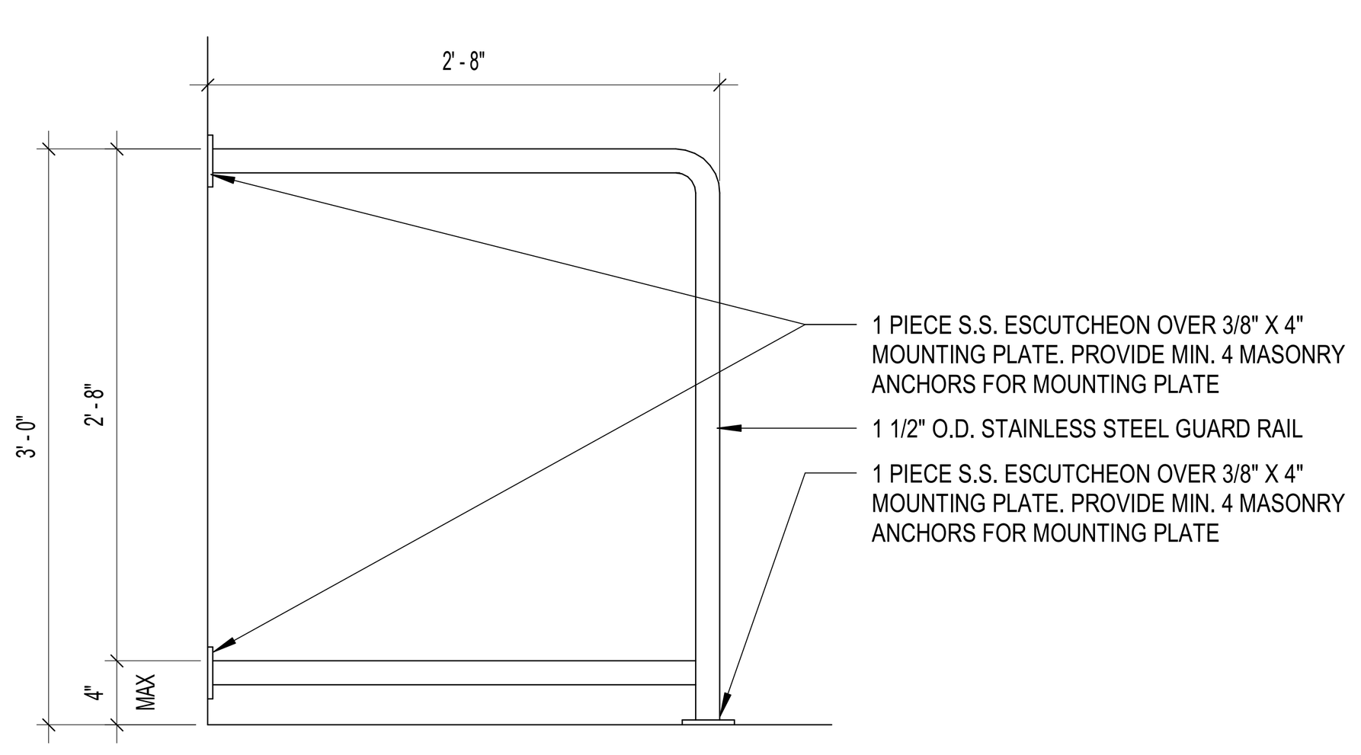
12 A5-03 **ELEVATION - OPENING INFILL**
1/2" = 1'-0"



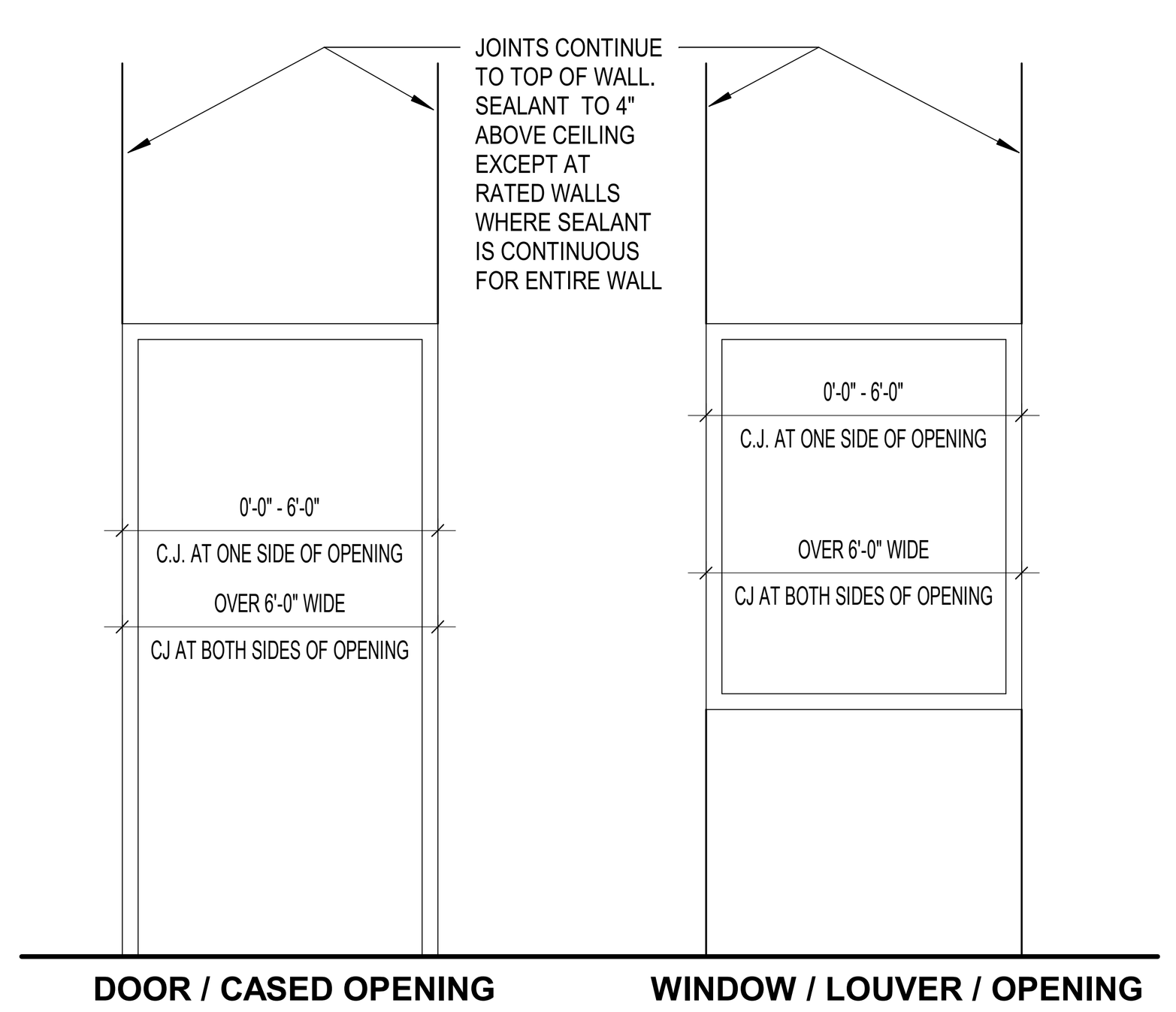
5 A5-03 **SECTION - PREFABRICATED WALKWAY COVERING**
1" = 1'-0"



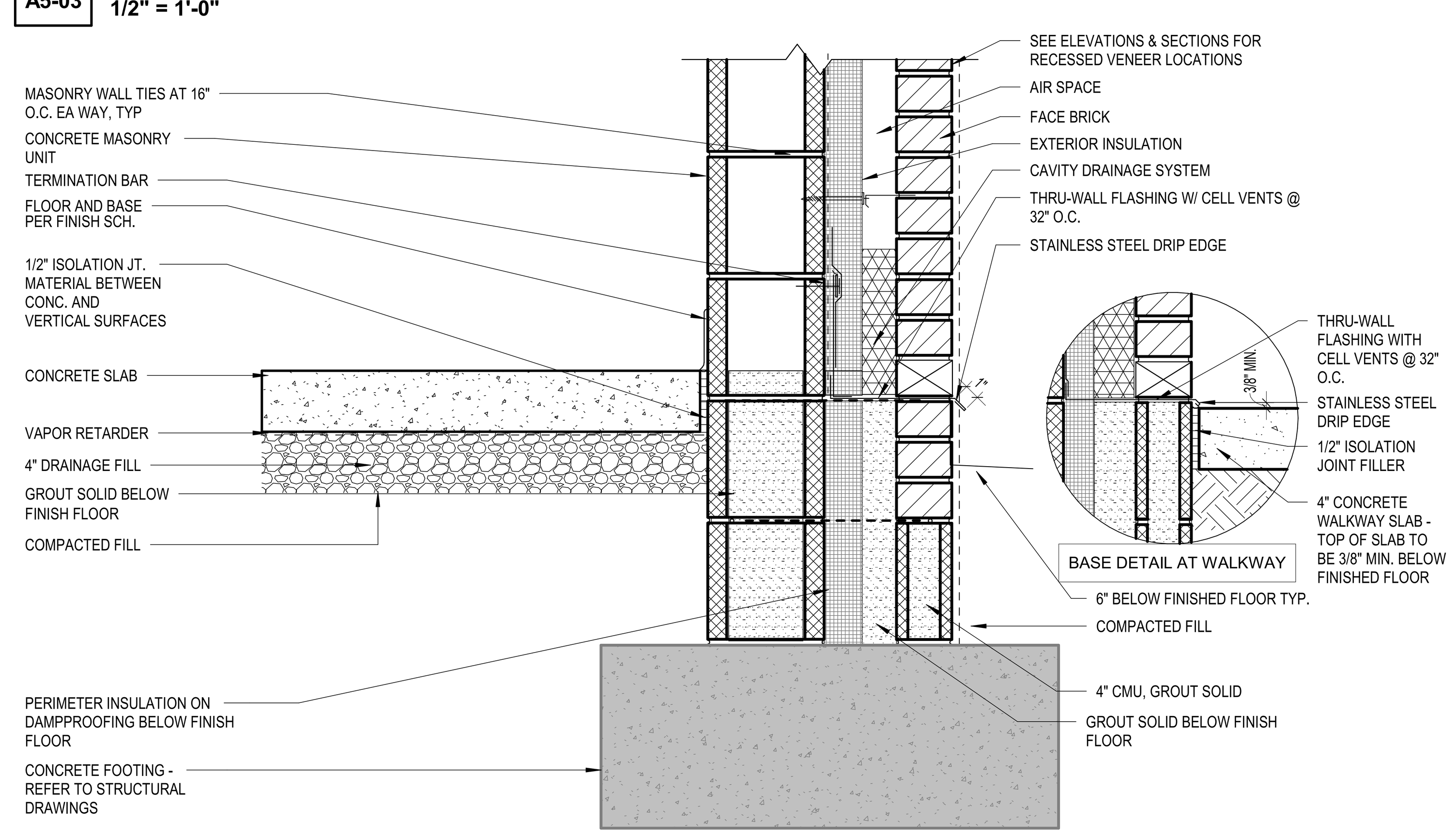
4 A5-03 **TYP BULKHEAD DETAIL - EXP. CLNG. AREA**
1" = 1'-0"



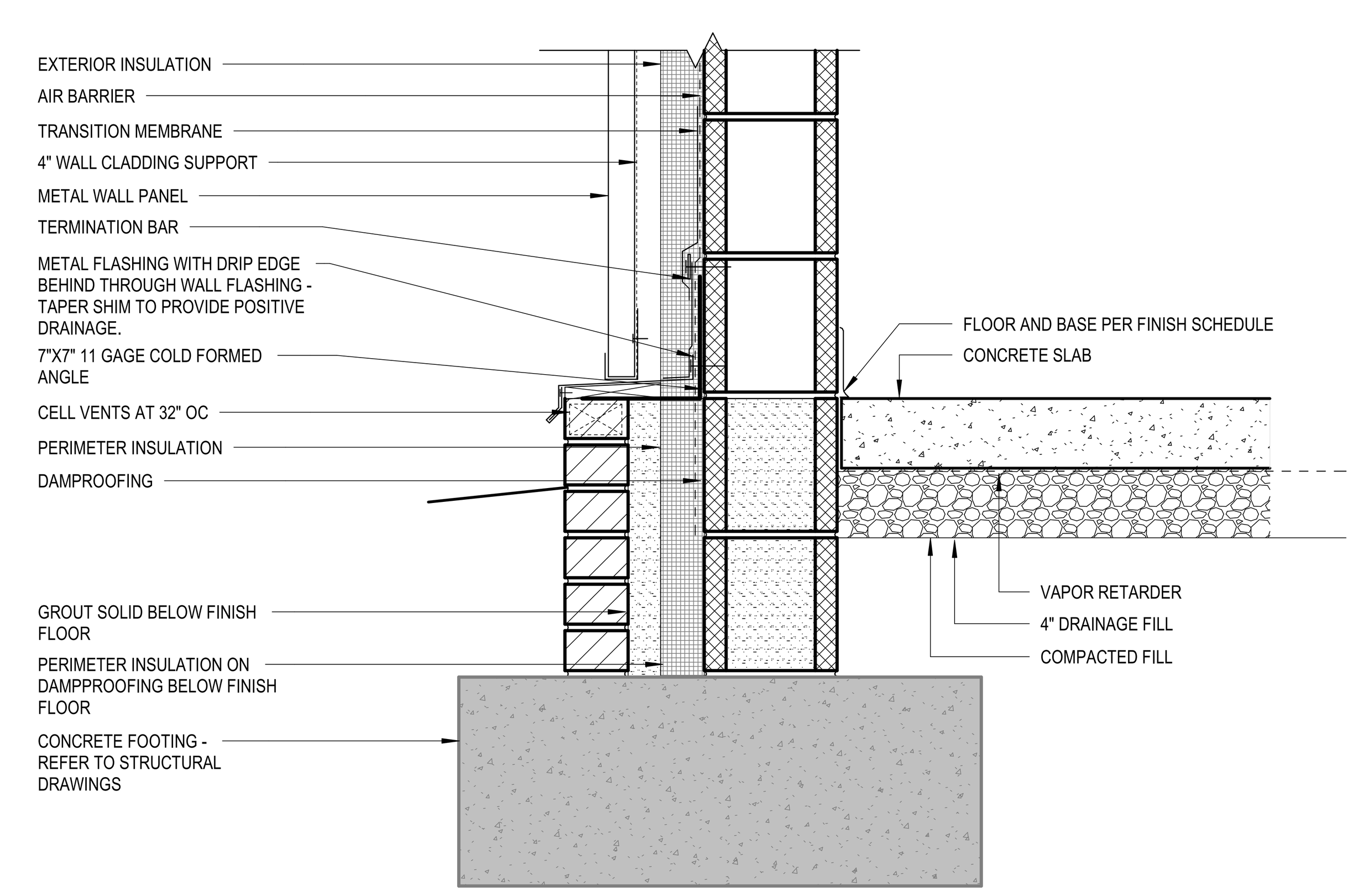
14 A5-03 **GUARD RAIL ELEVATION**
1" = 1'-0"



1 A5-03 **GYPSUM WALL CONTROL JOINTS**
1/2" = 1'-0"



10 A5-03 **TYPICAL BASE DETAIL**
1 1/2" = 1'-0"



9 A5-03 **MTL PANEL TO BRICK TRANSITION**
1 1/2" = 1'-0"

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Onslow County Government
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CHECKED BY: JEG

TYPICAL DETAILS

2021029 16 OCT. 2024

A5-03

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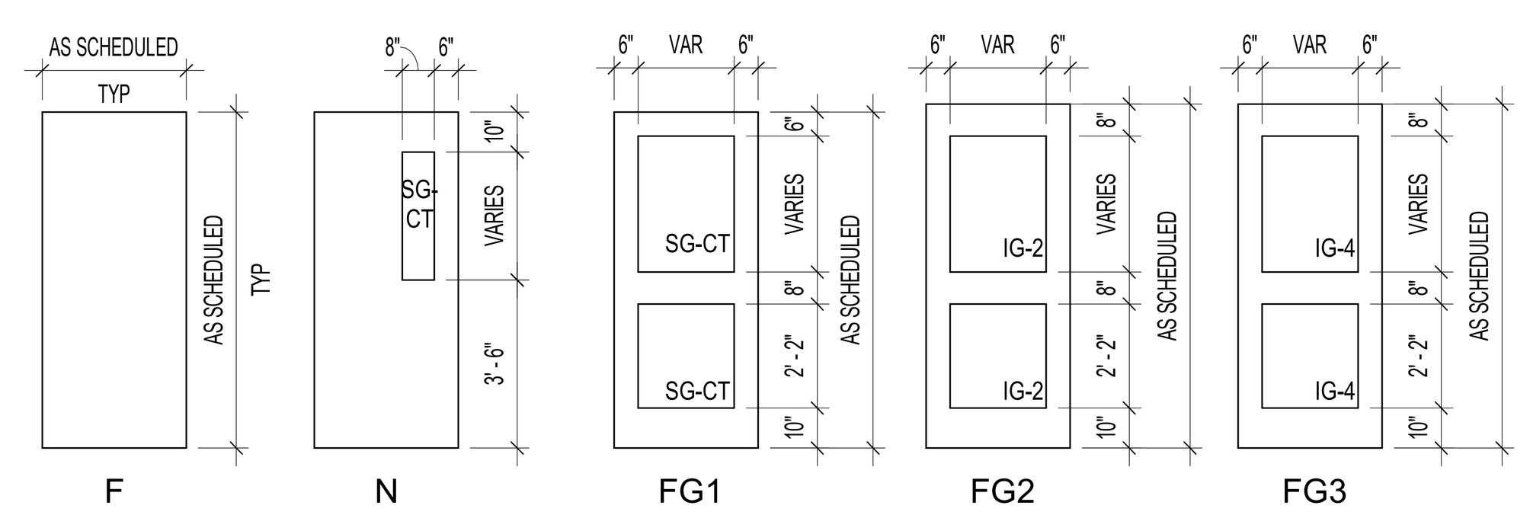
LEGEND:

HM - HM FRAME DESIGNATION
AL - ALUMINUM WINDOW FRAME
N - INTERIOR ALUM. STOREFRONT
S - EXTERIOR ALUM. STOREFRONT

GLAZING:

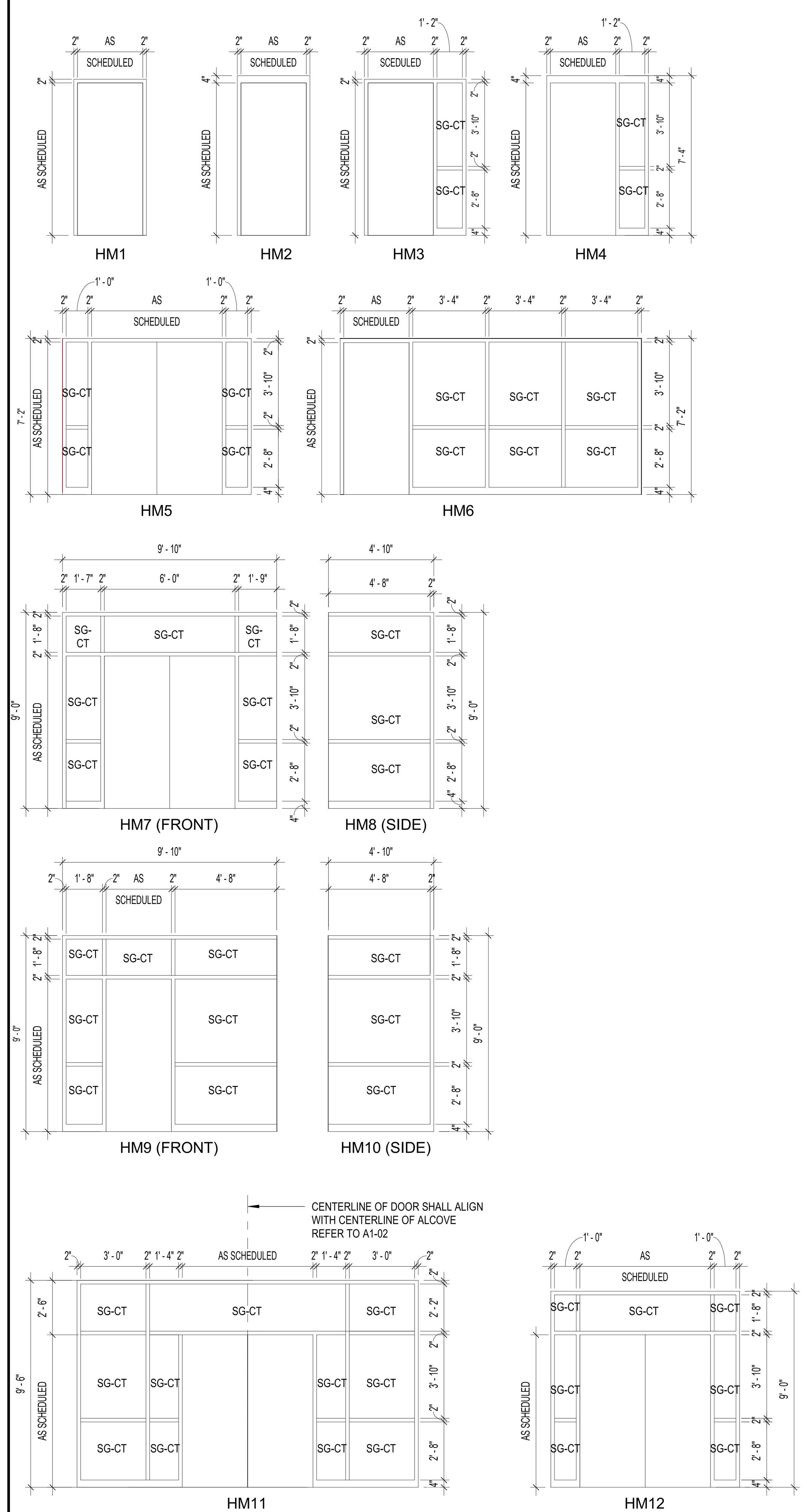
IG: INSULATED GLASS
IG - 1: LOW-E TINTED
IG - 2: LOW-E TINTED TEMPERED
IG - 3: LOW-E TINTED SPANDREL
IG - 4: CLEAR TEMPERED

SG - CT: SAFETY GLASS - CLEAR TEMPERED



DOOR TYPES

1/4" = 1'-0"



FRAME TYPES

1/4" = 1'-0"

DOOR SCHEDULE

	DOOR							FRAME						
		DOOR SIZE								DETAILS				
DOOR TYPE	MARK	WIDTH	HEIGHT	THK	MAT	TYPE	LVS	MAT	TYPE	HEAD	JAMB	THRESH	HARDWARE	REMARKS
EXTERIOR	100	6' - 0"	7' - 0"	1 3/4"	ALUM	FG2	2	S1	ALUM	6/A5-01	6/A5-02	T13	02	PANIC HARDWARE, AUTOMATIC ENTRANCE
INTERIOR	101A	6' - 0"	7' - 0"	1 3/4"	ALUM	FG3	2	N1	ALUM	H2	J2	T6	02	PANIC HARDWARE, AUTOMATIC ENTRANCE
INTERIOR	101B	6' - 0"	7' - 0"	1 3/4"	HM	FG1	2	HM	HM11	H1	J1		41	REMOVABLE CENTER MULLION,DOOR RELEASE SWITCH AT RECEPTION 102, ELECTRIFIED PANIC HARDWARE, CLOSER, OVERHEAD STOP, HOLD OPEN, INTERIOR CARD READER
INTERIOR	102	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1		07	OVERHEAD STOP
INTERIOR	102A	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1	T7	37	PANIC HARDWARE, CLOSER, INTERIOR CARD READER
INTERIOR	102B	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1	T7	30	PANIC HARDWARE, CLOSER
INTERIOR	103	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1	T7	07	OVERHEAD STOP
INTERIOR	104	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1	T6	32	INTERIOR CARD READER (OFOI) , CLOSER
INTERIOR	104A	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1		04	
INTERIOR	104B	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1		04	
INTERIOR	104C	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1		10	
INTERIOR	104D	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1		04	
INTERIOR	104E	3' - 0"	7' - 0"	1 3/4"	WD	F	1	WD	N12	H2	J2		03	CONTINUOUS HINGE, OVERHEAD STOP
INTERIOR	104F	3' - 0"	7' - 0"	1 3/4"	WD	F	1	WD	N12	H2	J2		03	CONTINUOUS HINGE, OVERHEAD STOP
INTERIOR	104G	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1		04	
INTERIOR	104H	3' - 0"	7' - 0"	1 3/4"	ALUM	FG1	1	ALUM	N11	H2	J2	T1	03	CONTINUOUS HINGE, HOLD OPEN, CLOSER
INTERIOR	104I	3' - 0"	7' - 0"	1 3/4"	ALUM	FG1	1	ALUM	N11	H2	J2	T1	03	CONTINUOUS HINGE, HOLD OPEN, CLOSER
INTERIOR	104J	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1	T8	18	OCCUPANY LATCH
INTERIOR	104K	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1	T8	18	OCCUPANY LATCH
INTERIOR	104L	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1		11	OVERHEAD STOP
EXTERIOR	104M	3' - 0"	7' - 2"	1 3/4"	ALUM	FG2	1	ALUM	S5	H8	J8	T13	38	ADMINISTRATION EXTERIOR DOOR, EXTERIOR CARD READER (OFOI) , CONTINUOUS HINGE, FROSTED GLAZING
INTERIOR	104N	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1		30	CLOSER, HOLD OPEN
INTERIOR	106A	3' - 0"	7' - 0"	1 3/4"	HM	FG1	1	HM	HM4	H3	J3	T6	33	CLOSER
EXTERIOR	106B	3' - 0"	7' - 2"	1 3/4"	ALUM	FG2	1	ALUM	S5	H8	J8	T13	38	CONGREGATE DINING EXTERIOR DOOR, PANIC HARDWARE, EXTERIOR CARD READER (OFOI) , CONTINUOUS HINGE, CLOSER
INTERIOR	106C	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM2	H3	J3	T9	21	
INTERIOR	106D	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM4	H3	J3	T6	05	OVERHEAD STOP
INTERIOR	106E	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1		04	
INTERIOR	106F	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM4	H3	J3	T6	05	
INTERIOR	106G	6' - 0"	7' - 0"	1 3/4"	HM	FG1	2	HM	HM1	H1	J1		28	PANIC HARDWARE, CLOSER, HOLD OPEN
INTERIOR	106H	6' - 0"	7' - 0"	1 3/4"	HM	FG1	2	HM	HM1	H1	J1		28	PANIC HARDWARE, CLOSER, HOLD OPEN
EXTERIOR	106I	3' - 0"	7' - 2"	1 3/4"	ALUM	FG2	1	ALUM	S5	H7	J7	T13	23	CONGREGATE DINING EXTERIOR DOOR, CONTINUOUS HINGE, CLOSER, NO PULL
INTERIOR	107	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1	T7	14	MECHANICAL ROOM
INTERIOR	108	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1	T7	10	COMMUNICATIONS
INTERIOR	109	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1	T9	09	CLOSER, HOLD OPEN
INTERIOR	109A	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1	T3	12	OVERHEAD STOP
INTERIOR	110	6' - 0"	7' - 0"	1 3/4"	WD	F	2	HM	HM1	H1	J1	T7	16	OVERHEAD STOP
INTERIOR	111	6' - 0"	7' - 0"	1 3/4"	WD	F	2	HM	HM1	H1	J1	T7	16	OVERHEAD STOP
INTERIOR	112	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1	T7	14	MECHANICAL
INTERIOR	113	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1	T7	32	INTERIOR CARD READER (OFOI) , CLOSER, IF ALTERNATE 6A IS ACCEPTED, THIS DOOR TO HAVE NO THRESHOLD
INTERIOR	113A	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1	T1	04	IF ALTERNATE 6A IS ACCEPTED, THIS DOOR TO HAVE T6 THRESHOLD
INTERIOR	113B	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1	T3	10	IF ALTERNATE 6A IS ACCEPTED, THIS DOOR TO HAVE T9 THRESHOLD
INTERIOR	113C	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1	T3	18	OCCUPANY LATCH, IF ALTERNATE 6A IS ACCEPTED, THIS DOOR TO HAVE T9 THRESHOLD
INTERIOR	113D	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1		08	CLOSER, IF ALTERNATE 6A IS ACCEPTED, THIS DOOR TO HAVE T7 THRESHOLD
INTERIOR	113E	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1		11	OVERHEAD STOP, IF ALTERNATE 6A IS ACCEPTED, THIS DOOR TO HAVE T7 THRESHOLD
INTERIOR	113F	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM4	H3	J3		31	INTERIOR CARD READER (OFOI), SIZE OF OPENING SHALL BE VERIFIED IN FIELD, IF ALTERNATE 6A IS ACCEPTED, THIS DOOR TO HAVE NO THRESHOLD
INTERIOR	114	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1	T7	10	
EXTERIOR	115A	3' - 0"	7' - 2"	1 3/4"	ALUM	FG2	1	ALUM	S3	H8	J8	T13	39	EXTERIOR CARD READER (OFOI) CONTINUOUS HINGE, AUTO OPERATOR, SIZE OF OPENING SHALL BE VERIFIED IN FIELD
EXTERIOR	115B	3' - 0"	7' - 2"	1 3/4"	ALUM	FG2	1	ALUM	S3	H6	J6	T13	23	CONTINUOUS HINGE, NO EXTERIOR PULL, SIZE OF OPENING SHALL BE VERIFIED IN FIELD
INTERIOR	115C	3' - 0"	7' - 2"	1 3/4"	ALUM	FG3	1	ALUM	N10	H2	J2	T1	34	CONTINUOUS HINGE, AUTO OPERATOR, INSULATED CLEAR TEMPERED GLASS, IF ALTERNATE 6A IS ACCEPTED, THIS DOOR TO HAVE T6 THRESHOLD
INTERIOR	115E	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM2	H3	J3	T3	30	PUSH PLATES, PULL, NO LATCH
INTERIOR	115F	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM2	H3	J3	T3	30	
INTERIOR	116A	6' - 0"	7' - 0"	1 3/4"	HM	FG1	2	HM	HM12	H1	J1		29	PANIC HARDWARE, HOLD OPEN, CLOSER
INTERIOR	116B	6' - 0"	7' - 0"	1 3/4"	HM	FG1	2	HM	HM12	H1	J1		29	PANIC HARDWARE, HOLD OPEN, CLOSER
INTERIOR	116C	6' - 0"	7' - 0"	1 3/4"	WD	F	2	HM	HM1	H1	J1	T7	16	OVERHEAD STOP
INTERIOR	116D	3' - 0"	7' - 0"	1 3/4"	HM	F	1	HM	HM3	H1	J1	T7	08	
INTERIOR	116E	6' - 0"	7' - 0"	1 3/4"	HM	FG1	2	HM	HM12	H1	J1		29	PANIC HARDWARE, HOLD OPEN, CLOSER
INTERIOR	116F	6' - 0"	7' - 0"	1 3/4"	HM	FG1	2	HM	HM7	H1	J1		29	PANIC HARDWARE, HOLD OPEN, CLOSER
INTERIOR	116G	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM3	H1	J1	T7	08	
INTERIOR	116H	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1	T7	10	
INTERIOR	117	6' - 0"	7' - 0"	1 3/4"	WD	F	2	HM	HM1	H1	J1	T7	15	SIZE OF OPENING SHALL BE VERIFIED IN FIELD
INTERIOR	118A	6' - 0"	7' - 0"	1 3/4"	WD	FG10	2	HM	HM2	H3	J3	T4	22	OVERHEAD STOP
INTERIOR	118B	3' - 0"	7' - 0"	1 3/4"	HM	FG1	1	HM	HM9	H3	J3	T4	19	OVERHEAD STOP
EXTERIOR	119	3' - 0"	7' - 0"	1 3/4"	HM	F	1	HM	HM2	H4	J4	T13	26	ELECTRICAL ROOM, PANIC HARDWARE, CLOSER
INTERIOR	120	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1		20	COMMUNICATIONS
INTERIOR	121	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM3	H1	J1	T7	08	
INTERIOR	122	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM3	H1	J1	T7	08	
INTERIOR	123	3' - 0"	7' - 0"	1 3/4"	HM	F	1	HM	HM1	H1	J1	T9	13	
INTERIOR	126	3' - 0"	7' - 0"	1 3/4"	HM	F	1	HM	HM1	H1	J1	T9	13	
INTERIOR	127	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1	T6	05	
INTERIOR	128	3' - 0"	7' - 0"	1 3/4"	HM	FG1	1	HM	HM6	H1	J1	T7	06	IF ALTERNATE 6A IS ACCEPTED, THIS DOOR DOES NOT HAVE THRESHOLD
EXTERIOR	129A	6' - 0"	7' - 2"	1 3/4"	ALUM	FG2	2	ALUM	S4	H8	J8	T13	27	PANIC HARDWARE, CONTINUOUS HINGE,CLOSER, KEYED REMOVABLE MULLION, WEATHER STRIP, RAIN DRIP
INTERIOR	129B	6' - 0"	7' - 0"	1 3/4"	ALUM	FG3	2	ALUM	N8	H2	J2	T6	35	ONTINUOUS HINGE,CLOSER, WEATHER STRIP
EXTERIOR	130A	6' - 0"	7' - 2"	1 3/4"	ALUM	FG2	2	ALUM	S4	H7	J7	T13	27	PANIC HARDWARE, CONTINUOUS HINGE,CLOSER, KEYED REMOVABLE MULLION, WEATHER STRIP, RAIN DRIP
INTERIOR	130B	6' - 0"	7' - 0"	1 3/4"	ALUM	FG3	2	ALUM	N8	H2	J2	T6	35	CONTINUOUS HINGE,CLOSER, WEATHER STRIP
INTERIOR	131A	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1	T7	37	PANIC HARDWARE, INTERIOR CARD READER (OFOI) ,CLOSER, IF ALTERNATE 6A IS ACCEPTED, THIS DOOR DOES NOT HAVE THRESHOLD
EXTERIOR	200A	6' - 0"	7' - 0"	1 3/4"	ALUM	FG2	2	ALUM	S2	6/A5-01	1/A5-02	T13	40	PANIC HARDWARE, CONTINUOUS HINGE, CLOSER, AUTO OPERATOR (1 LEAF), KEYED REMOVABLE MULLION, RAIN DRIP, WEATHER STRIP
INTERIOR	200B	6' - 0"	7' - 0"	1 3/4"	ALUM	FG3	2	ALUM	N15	H2	J2	T6	36	CONTINUOS HINGE, AUTO OPERATOR
INTERIOR	201A	3' - 0"	7' - 0"	1 3/4"	ALUM	FG1	1	ALUM	N16	H2	J2		25	PANIC HARDWARE, COTINUOUS HINGE, CLOSER, HOLD OPEN
INTERIOR	201B	3' - 0"	7' - 0"	1 3/4"	ALUM	FG1	1	ALUM	N17	H2	J2		25	PANIC HARDWARE, CONTINUOUS HINGE, CLOSER, HOLD OPEN
INTERIOR	202	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1		04	
INTERIOR	203	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1		04	
INTERIOR	204	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1		04	
INTERIOR	205	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1		04	
INTERIOR	206	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1		04	
INTERIOR	207	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1		04	
INTERIOR	208A	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1		10	
INTERIOR	208B	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1	T1	10	ELECTRICAL ROOM
INTERIOR	209	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1		04	
INTERIOR	210	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1		04	
INTERIOR	211	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1	T2	14	MECHANICAL ROOM
INTERIOR	212	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1		04	
INTERIOR	213	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1		04	
INTERIOR	214	3' - 0"	7' - 0"	1 3/4"	ALUM	FG1	1	ALUM	N14	H2	J2	T1	06	CONTINUOUS HINGE, HOLD OPEN, IF ALTERNATE 6A IS ACCEPTED, THIS DOOR TO HAVE T6 THRESHOLD
INTERIOR	215	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1		04	
INTERIOR	216	3' - 0"	7' - 0"	1 3/4"	ALUM	FG1	1	ALUM	N14	H2	J2	T1	03	CONTINUOUS HINGE, HOLD OPEN, IF ALTERNATE 6A IS ACCEPTED, THIS DOOR TO HAVE T6 THRESHOLD
INTERIOR	217	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1		04	
INTERIOR	218	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1		04	
INTERIOR	219	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1		11	OVERHEAD STOP, IF ALTERNATE 6A IS ACCEPTED, THIS DOOR TO HAVE T7 THRESHOLD
INTERIOR	220A	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1	T7	12	
INTERIOR	220B	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1	T7	12	
INTERIOR	221A	3' - 0"	7' - 0"	1 3/4"	HM	F	1	HM	HM3	H1	J1	T7	24	PANIC HARDWARE,CLOSER, IF ALTERNATE 6A IS ACCEPTED, THIS DOOR DOES NOT HAVE THRESHOLD
INTERIOR	222	3' - 0"	7' - 0"	1 3/4"	HM	F	1	HM	HM3	H1	J1	T7	24	PANIC HARDWARE, CLOSER
INTERIOR	223A	3' - 0"	7' - 0"	1 3/4"	HM	F	1	HM	HM3	H1	J1	T7	24	PANIC HARDWARE, CLOSER
INTERIOR	223B	3' - 0"	7' - 0"	1 3/4"	HM	F	1	HM	HM3	H1	J1	T7	24	PANIC HARDWARE, CLOSER
INTERIOR	224A	6' - 0"	7' - 0"	1 3/4"	WD	F	2	HM	HM1	H1	J1		17	IF ALTERNATE 6A IS ACCEPTED, THIS DOOR TO HAVE T6 THRESHOLD
INTERIOR	224B	6' - 0"	7' - 0"	1 3/4"	WD	F	2	HM	HM1	H1	J1		17	IF ALTERNATE 6A IS ACCEPTED, THIS DOOR TO HAVE T6 THRESHOLD
INTERIOR	230	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1		04	
INTERIOR	231	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1		04	
INTERIOR	232	3' - 0"	7' - 0"	1 3/4"	ALUM	FG1	1	ALUM	N18	H2	J2	T1	04	CONTINUOUS HINGE, HOLD OPEN,IF ALTERNATE 6A IS ACCEPTED, THIS DOOR TO HAVE T6 THRESHOLD
INTERIOR	233	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1		04	
INTERIOR	234	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1		11	OVERHEAD STOP
INTERIOR	235	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1		10	
INTERIOR	236	3' - 0"	7' - 0"	1 3/4"	WD	F	1	ALUM	N19	H2	J2		03	CONTINUOUS HINGE
INTERIOR	237	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1		10	
INTERIOR	240	3' - 0"	7' - 0"	1 3/4"	HM	F	1	HM	HM1	H1	J1	T3	13	
INTERIOR	243	3' - 0"	7' - 0"	1 3/4"	HM	F	1	HM	HM1	H1	J1	T3	13	
INTERIOR	244	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1	T3	10	
INTERIOR	245	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1	T3	18	OCCUPANCY LATCH
INTERIOR	246	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1	T3	18	OCCUPANCY LATCH
INTERIOR	247	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM1	H1	J1		10	COMMUNICATIONS, IF ALTERNATE 6A IS ACCEPTED, THIS DOOR TO HAVE T6 THRESHOLD
INTERIOR	248A	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM3	H1	J1	T6	32	INTERIOR CARD READER (OFOI)
INTERIOR	248B	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM3	H1	J1	T1	32	INTERIOR CARD READER (OFOI)
INTERIOR	249A	3' - 0"	7' - 0"	1 3/4"	WD	F	1	HM	HM3	H1	J1	T6	32	INTERIOR CARD READER (OFOI)
INTERIOR	249B	3' - 0"	7' - 0"	1 3/4"	HM	F	1	HM	HM3	H1	J1	T1	31	INTERIOR CARD READER (OFOI), IF ALTERNATE 6A IS ACCEPTED, THIS DOOR TO HAVE T6 THRESHOLD
EXTERIOR	250A	3' - 0"	7' - 2"	1 3/4"	ALUM	FG2	1	ALUM	S5	H7	J7	T13	38	EXTERIOR CARD READER (OFOI) ,PANIC HARDWARE, CONTINUOUS HINGE, CLOSER
INTERIOR	250B	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1	T15	33	CLOSER, IF ALTERNATE 6A IS ACCEPTED, THIS DOOR TO HAVE T1 THRESHOLD
INTERIOR	251	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1		04	
INTERIOR	252	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1	T1	04	
INTERIOR	253	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1	T1	04	
INTERIOR	254A	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1	T1	04	
INTERIOR	254B	3' - 0"	7' - 0"	1 3/4"	WD	N	1	HM	HM1	H1	J1	T1	04	

NOTES:

1. ALL ALUMINUM DOORS TO HAVE CONTINUOUS HINGES. REFER TO SPECIFICATIONS
2. ALL INTERIOR AND EXTERIOR CARD READERS TO BE OFOI. REFER TO ELECTRICAL DRAWINGS
3. ALL OPENINGS IN CMU SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF FRAMES

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Onslow County Senior Services Center Renovation

Onslow County Government

4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: FA,NB
CHECKED BY: JEG

DOOR SCHEDULE

2021029 16 OCT. 2024

A6-01

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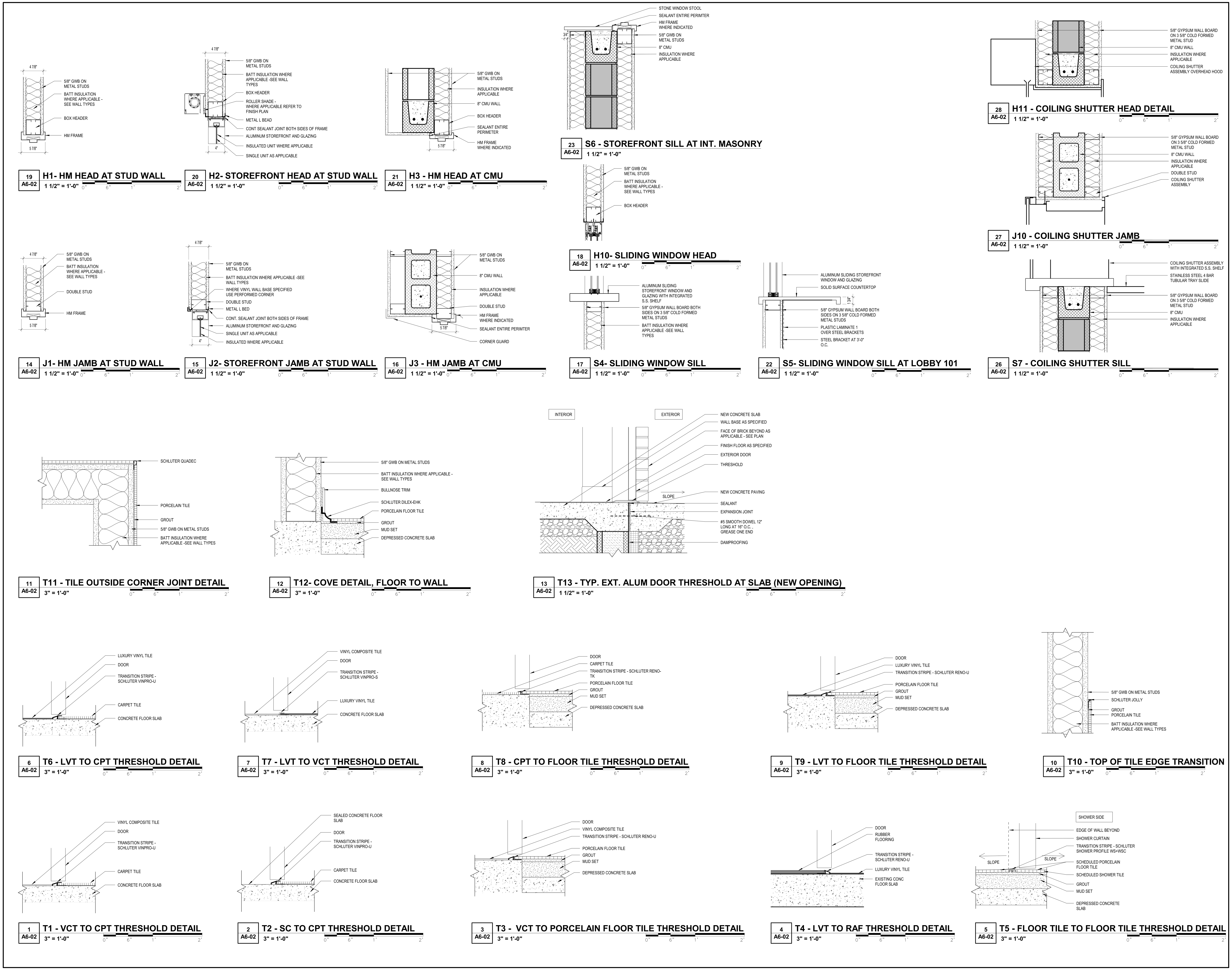

H1- HM HEAD AT STUD WALL
5/8" GWB ON METAL STUDS
BATT INSULATION WHERE APPLICABLE - SEE WALL TYPES
BOX HEADER
HM FRAME
19 A6-02 1 1/2" = 1'-0"
H2- STOREFRONT HEAD AT STUD WALL
5/8" GWB ON METAL STUDS
BATT INSULATION WHERE APPLICABLE -SEE WALL TYPES
BOX HEADER
ROLLER SHADE - WHERE APPLICABLE REFER TO FINISH PLAN
METAL L BEAD
CONT SEALANT JOINT BOTH SIDES OF FRAME
ALUMINUM STOREFRONT AND GLAZING
INSULATED UNIT WHERE APPLICABLE
SINGLE UNIT AS APPLICABLE
20 A6-02 1 1/2" = 1'-0"
H3 - HM HEAD AT CMU
5/8" GWB ON METAL STUDS
INSULATION WHERE APPLICABLE
8" CMU WALL
BOX HEADER
SEALANT ENTIRE PERIMETER
HM FRAME WHERE INDICATED
21 A6-02 1 1/2" = 1'-0"
S6 - STOREFRONT SILL AT INT. MASONRY
STONE WINDOW STOOL
SEALANT ENTIRE PERIMTER
HM FRAME WHERE INDICATED
5/8" GWB ON METAL STUDS
8" CMU
INSULATION WHERE APPLICABLE
23 A6-02 1 1/2" = 1'-0"
H10- SLIDING WINDOW HEAD
5/8" GWB ON METAL STUDS
BATT INSULATION WHERE APPLICABLE - SEE WALL TYPES
BOX HEADER
18 A6-02 1 1/2" = 1'-0"
H11 - COILING SHUTTER HEAD DETAIL
5/8" GYPSUM WALL BOARD ON 3 5/8" COLD FORMED METAL STUD
8" CMU WALL
INSULATION WHERE APPLICABLE
COILING SHUTTER ASSEMBLY OVERHEAD HOOD
28 A6-02 1 1/2" = 1'-0"
J10 - COILING SHUTTER JAMB
5/8" GYPSUM WALL BOARD ON 3 5/8" COLD FORMED METAL STUD
8" CMU WALL
INSULATION WHERE APPLICABLE
DOUBLE STUD
COILING SHUTTER ASSEMBLY
27 A6-02 1 1/2" = 1'-0"
J1- HM JAMB AT STUD WALL
5/8" GWB ON METAL STUDS
BATT INSULATION WHERE APPLICABLE - SEE WALL TYPES
DOUBLE STUD
HM FRAME
14 A6-02 1 1/2" = 1'-0"
J2- STOREFRONT JAMB AT STUD WALL
5/8" GWB ON METAL STUDS
BATT INSULATION WHERE APPLICABLE -SEE WALL TYPES
WHERE VINYL WALL BASE SPECIFIED USE PERFORMED CORNER
DOUBLE STUD
METAL L BED
CONT. SEALANT JOINT BOTH SIDES OF FRAME
ALUMINUM STOREFRONT AND GLAZING
SINGLE UNIT AS APPLICABLE
INSULATED WHERE APPLICABLE
15 A6-02 1 1/2" = 1'-0"
J3 - HM JAMB AT CMU
5/8" GWB ON METAL STUDS
8" CMU WALL
INSULATION WHERE APPLICABLE
DOUBLE STUD
HM FRAME WHERE INDICATED
SEALANT ENTIRE PERIMTER
CORNER GUARD
16 A6-02 1 1/2" = 1'-0"
S4- SLIDING WINDOW SILL
ALUMINUM SLIDING STOREFRONT WINDOW AND GLAZING WITH INTEGRATED S.S. SHELF
5/8" GYPSUM WALL BOARD BOTH SIDES ON 3 5/8" COLD FORMED METAL STUDS
BATT INSULATION WHERE APPLICABLE -SEE WALL TYPES
17 A6-02 1 1/2" = 1'-0"
S5- SLIDING WINDOW SILL AT LOBBY 101
ALUMINUM SLIDING STOREFRONT WINDOW AND GLAZING
SOLID SURFACE COUNTERTOP
5/8" GYPSUM WALL BOARD BOTH SIDES ON 3 5/8" COLD FORMED METAL STUDS
PLASTIC LAMINATE 1 OVER STEEL BRACKETS
STEEL BRACKET AT 3'-0" O.C.
22 A6-02 1 1/2" = 1'-0"
S7 - COILING SHUTTER SILL
COILING SHUTTER ASSEMBLY WITH INTEGRATED S.S. SHELF
STAINLESS STEEL 4 BAR TUBULAR TRAY SLIDE
5/8" GYPSUM WALL BOARD ON 3 5/8" COLD FORMED METAL STUD
8" CMU
INSULATION WHERE APPLICABLE
26 A6-02 1 1/2" = 1'-0"
T11 - TILE OUTSIDE CORNER JOINT DETAIL
SCHLUTER QUADEC
PORCELAIN TILE
GROUT
5/8" GWB ON METAL STUDS
BATT INSULATION WHERE APPLICABLE -SEE WALL TYPES
11 A6-02 3" = 1'-0"
T12- COVE DETAIL, FLOOR TO WALL
5/8" GWB ON METAL STUDS
BATT INSULATION WHERE APPLICABLE - SEE WALL TYPES
BULLNOSE TRIM
SCHLUTER DILEX-EHK
PORCELAIN FLOOR TILE
GROUT
MUD SET
DEPRESSED CONCRETE SLAB
12 A6-02 3" = 1'-0"
T13 - TYP. EXT. ALUM DOOR THRESHOLD AT SLAB (NEW OPENING)
INTERIOR
EXTERIOR
SLOPE
NEW CONCRETE SLAB
WALL BASE AS SPECIFIED
FACE OF BRICK BEYOND AS APPLICABLE - SEE PLAN
FINISH FLOOR AS SPECIFIED
EXTERIOR DOOR
THRESHOLD
NEW CONCRETE PAVING
SEALANT
EXPANSION JOINT
#5 SMOOTH DOWEL 12" LONG AT 16" O.C., GREASE ONE END
DAMPROOFING
13 A6-02 1 1/2" = 1'-0"
T6 - LVT TO CPT THRESHOLD DETAIL
LUXURY VINYL TILE
DOOR
TRANSITION STRIPE - SCHLUTER VINPRO-U
CARPET TILE
CONCRETE FLOOR SLAB
6 A6-02 3" = 1'-0"
T7 - LVT TO VCT THRESHOLD DETAIL
VINYL COMPOSITE TILE
DOOR
TRANSITION STRIPE - SCHLUTER VINPRO-S
LUXURY VINYL TILE
CONCRETE FLOOR SLAB
7 A6-02 3" = 1'-0"
T8 - CPT TO FLOOR TILE THRESHOLD DETAIL
DOOR
CARPET TILE
TRANSITION STRIPE - SCHLUTER RENO-TK
PORCELAIN FLOOR TILE
GROUT
MUD SET
DEPRESSED CONCRETE SLAB
8 A6-02 3" = 1'-0"
T9 - LVT TO FLOOR TILE THRESHOLD DETAIL
DOOR
LUXURY VINYL TILE
TRANSITION STRIPE - SCHLUTER RENO-U
PORCELAIN FLOOR TILE
GROUT
MUD SET
DEPRESSED CONCRETE SLAB
9 A6-02 3" = 1'-0"
T10 - TOP OF TILE EDGE TRANSITION
5/8" GWB ON METAL STUDS
SCHLUTER JOLLY
GROUT
PORCELAIN TILE
BATT INSULATION WHERE APPLICABLE -SEE WALL TYPES
10 A6-02 3" = 1'-0"
T1 - VCT TO CPT THRESHOLD DETAIL
VINYL COMPOSITE TILE
DOOR
TRANSITION STRIPE - SCHLUTER VINPRO-U
CARPET TILE
CONCRETE FLOOR SLAB
1 A6-02 3" = 1'-0"
T2 - SC TO CPT THRESHOLD DETAIL
SEALED CONCRETE FLOOR SLAB
DOOR
TRANSITION STRIPE - SCHLUTER VINPRO-U
CARPET TILE
CONCRETE FLOOR SLAB
2 A6-02 3" = 1'-0"
T3 - VCT TO PORCELAIN FLOOR TILE THRESHOLD DETAIL
DOOR
VINYL COMPOSITE TILE
TRANSITION STRIPE - SCHLUTER RENO-U
PORCELAIN FLOOR TILE
GROUT
MUD SET
DEPRESSED CONCRETE SLAB
3 A6-02 3" = 1'-0"
T4 - LVT TO RAF THRESHOLD DETAIL
DOOR
RUBBER FLOORING
TRANSITION STRIPE - SCHLUTER RENO-U
LUXURY VINYL TILE
EXISTING CONC FLOOR SLAB
4 A6-02 3" = 1'-0"
T5 - FLOOR TILE TO FLOOR TILE THRESHOLD DETAIL
SHOWER SIDE
SLOPE
EDGE OF WALL BEYOND
SHOWER CURTAIN
TRANSITION STRIPE - SCHLUTER SHOWER PROFILE WS+WSC
SCHEDULED PORCELAIN FLOOR TILE
SCHEDULED SHOWER TILE
GROUT
MUD SET
DEPRESSED CONCRETE SLAB
5 A6-02 3" = 1'-0"

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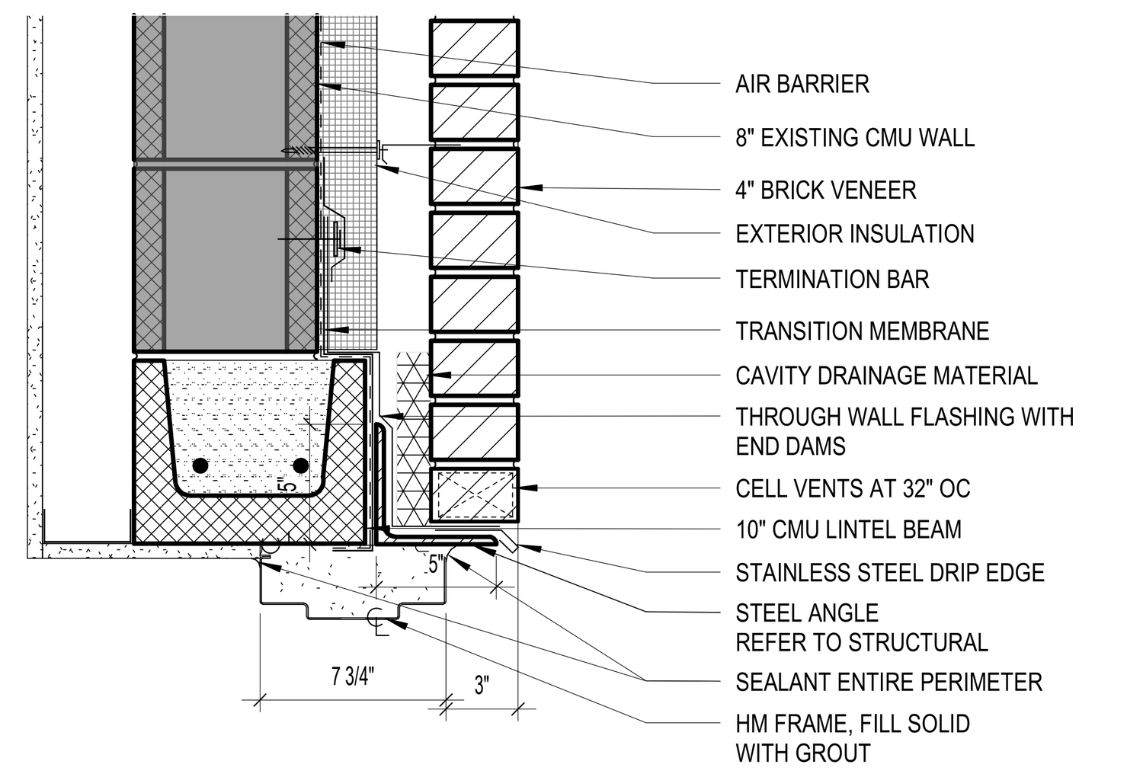
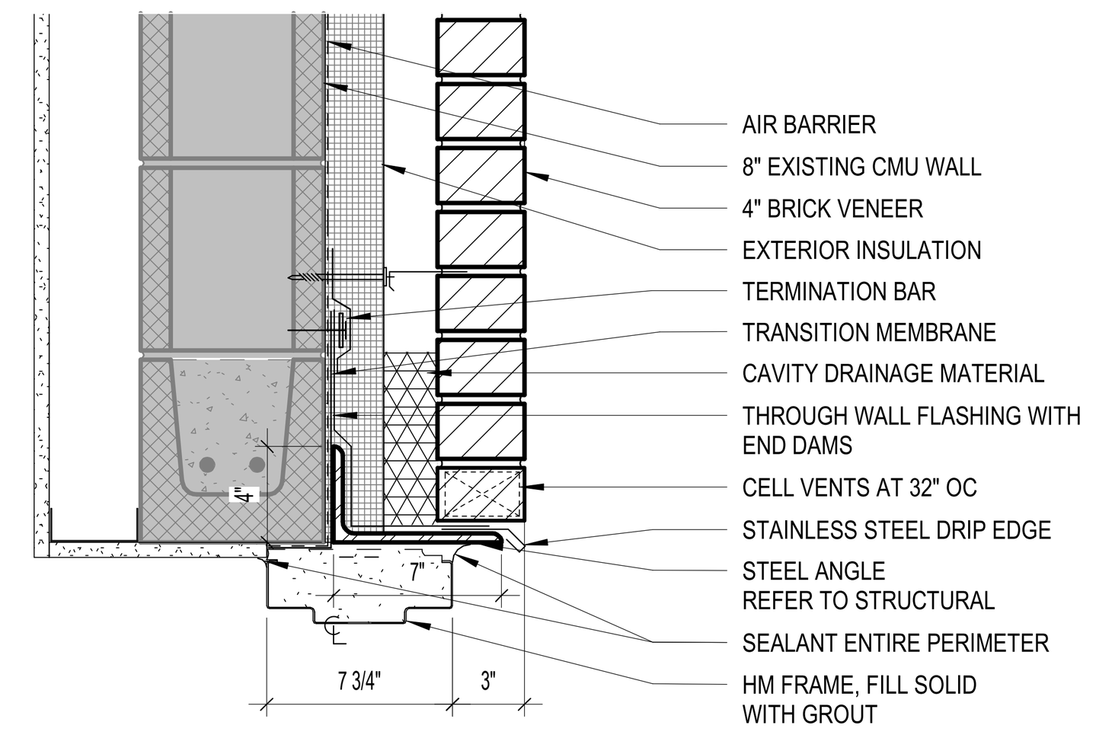
JAMB, HEAD, SILL ,THRESHOLD AND BASE DETAILS

2021029 16 OCT. 2024

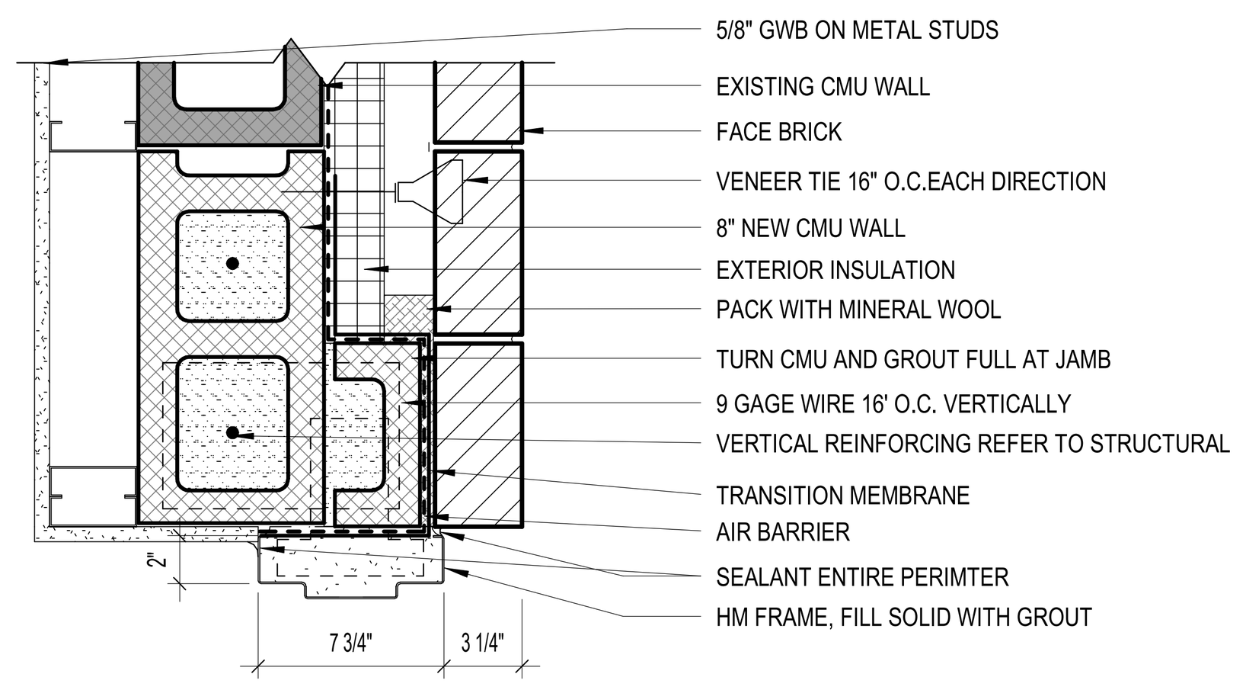
A6-02



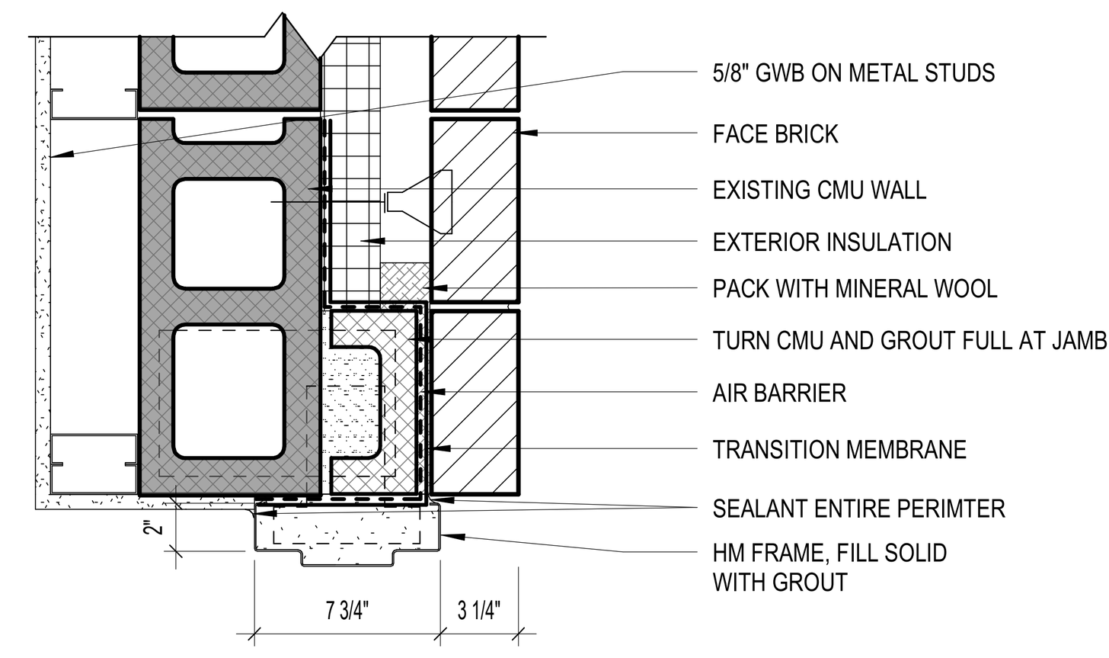
10 / A6-03 — H4 - HM HEAD AT EXTERIOR MASONRY (NEW OPENING)
1 1/2" = 1'-0"



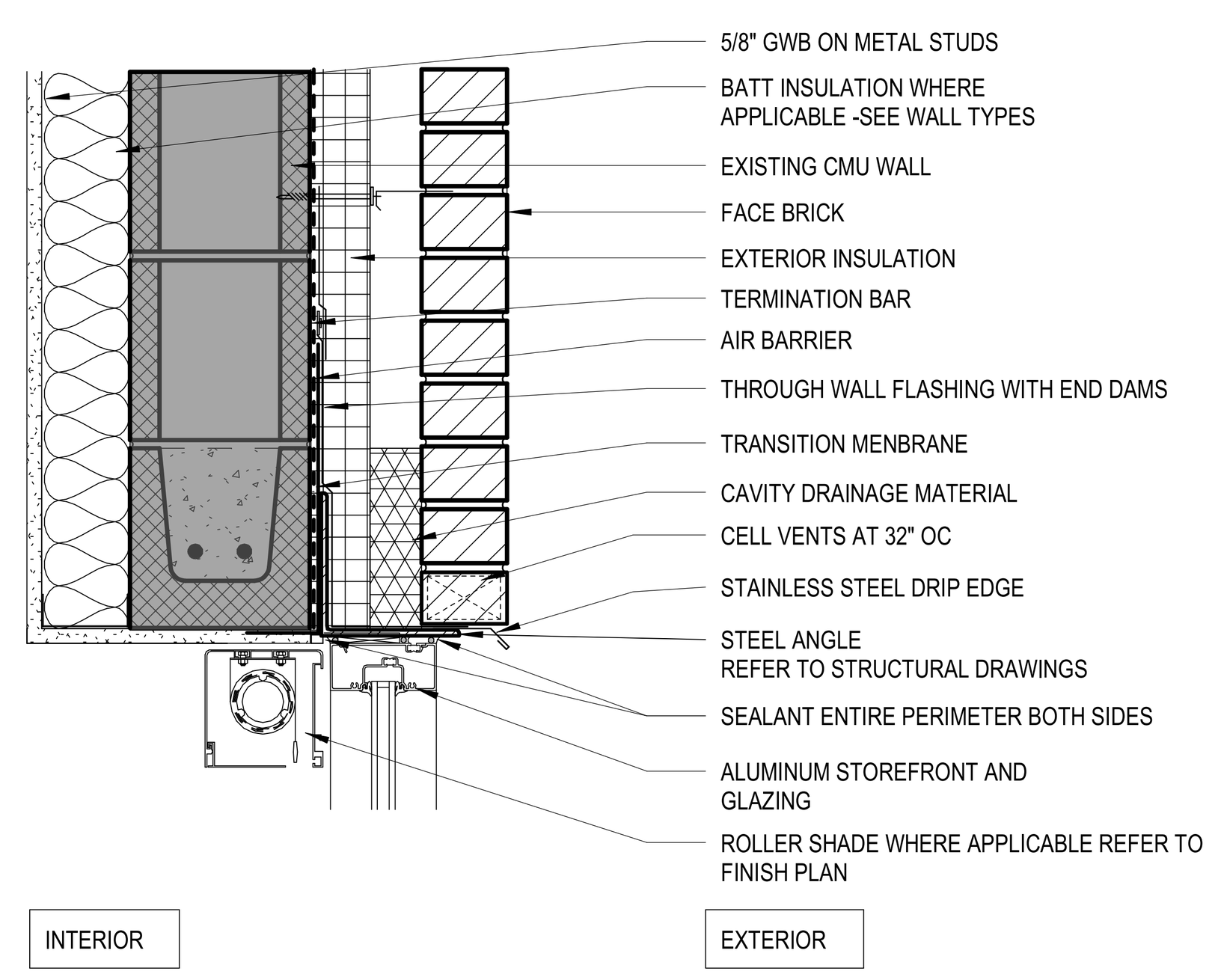
13 / A6-03 — H5 - HM HEAD AT EXTERIOR MASONRY (EXISTING OPENING)
1 1/2" = 1'-0"



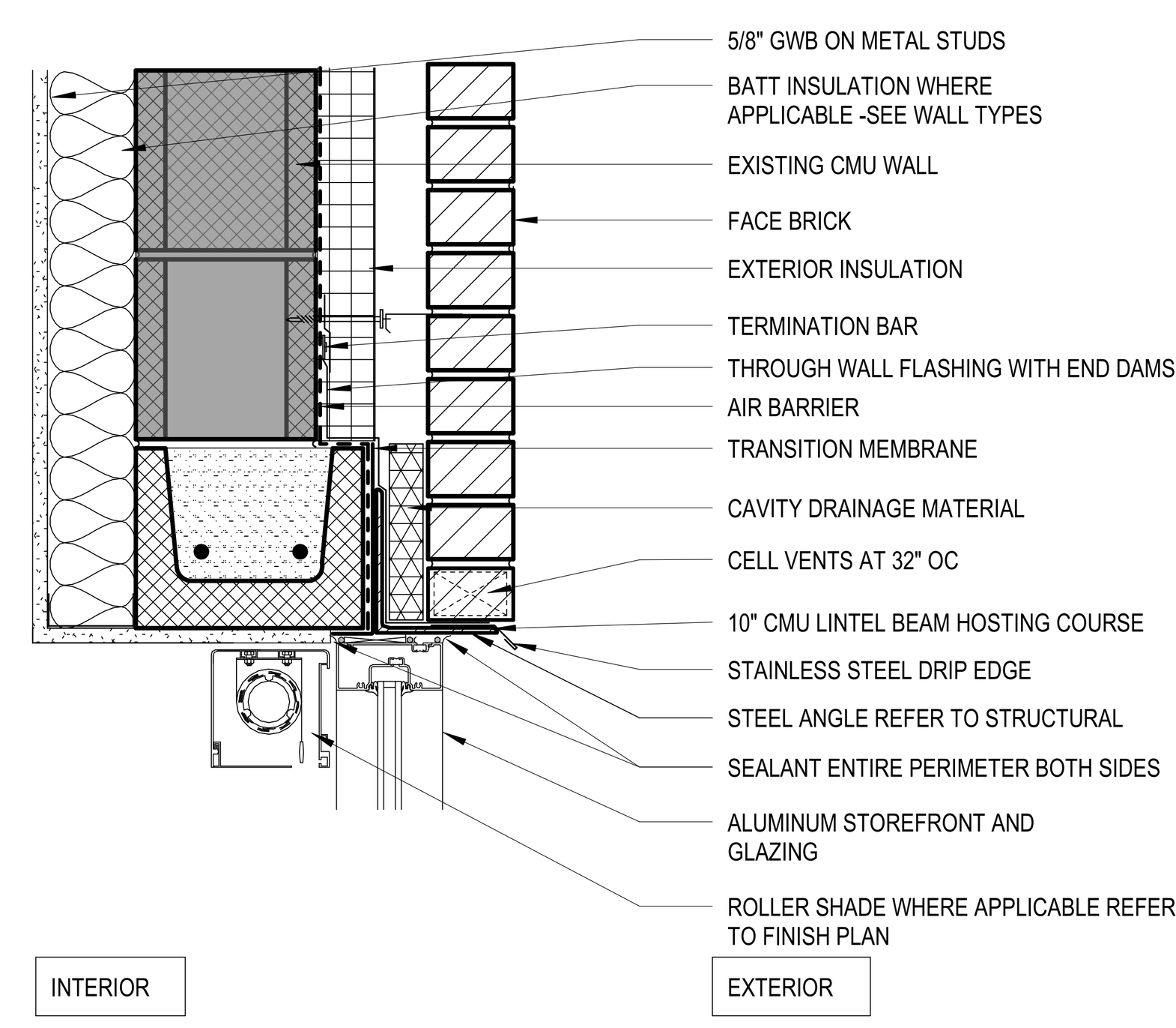
12 / A6-03 — J4 - HM JAMB AT EXTERIOR MASONRY (NEW OPENING)
1 1/2" = 1'-0"



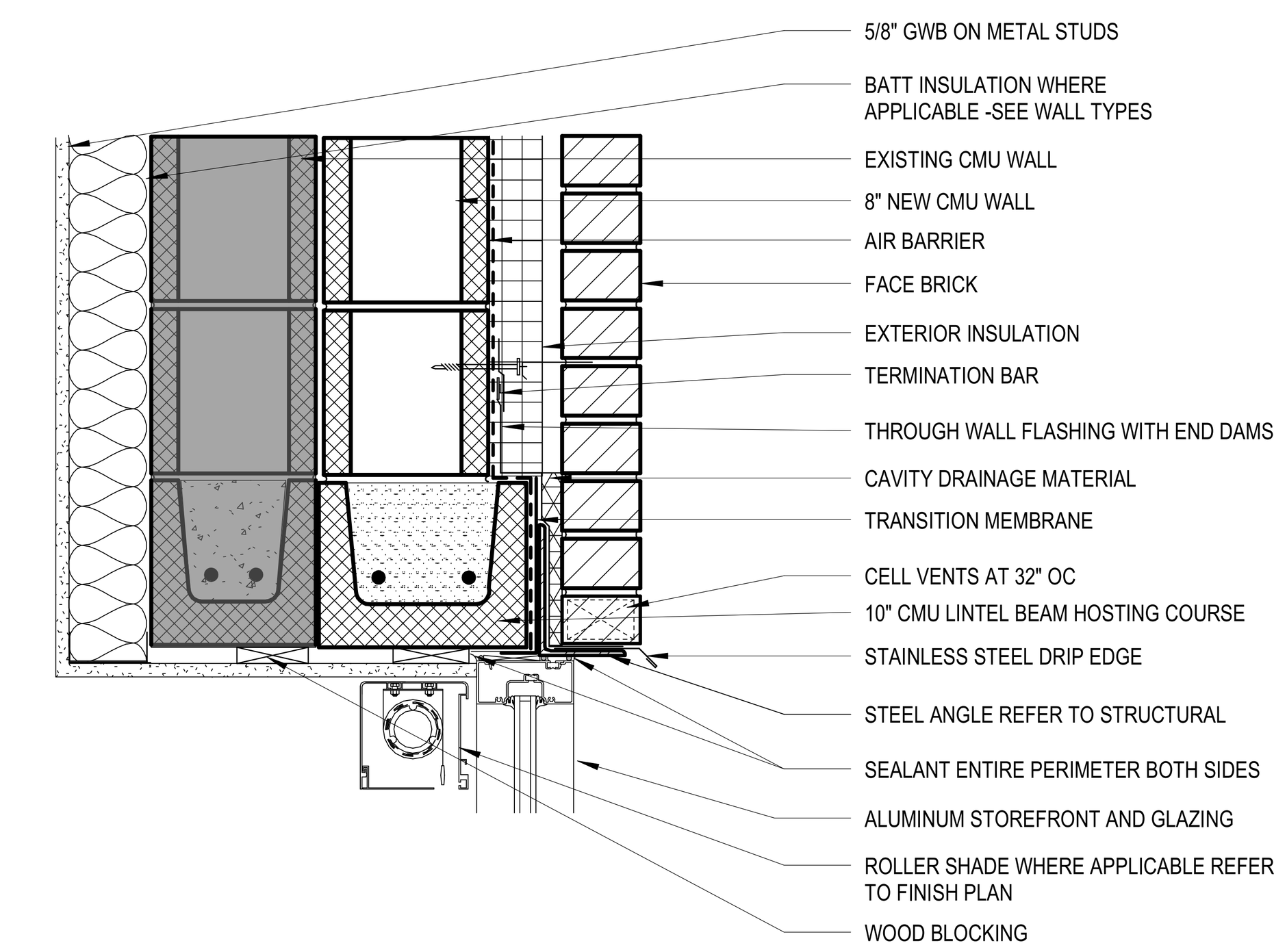
11 / A6-03 — J5 - HM JAMB AT EXTERIOR MASONRY (EXISTING OPENING)
1 1/2" = 1'-0"



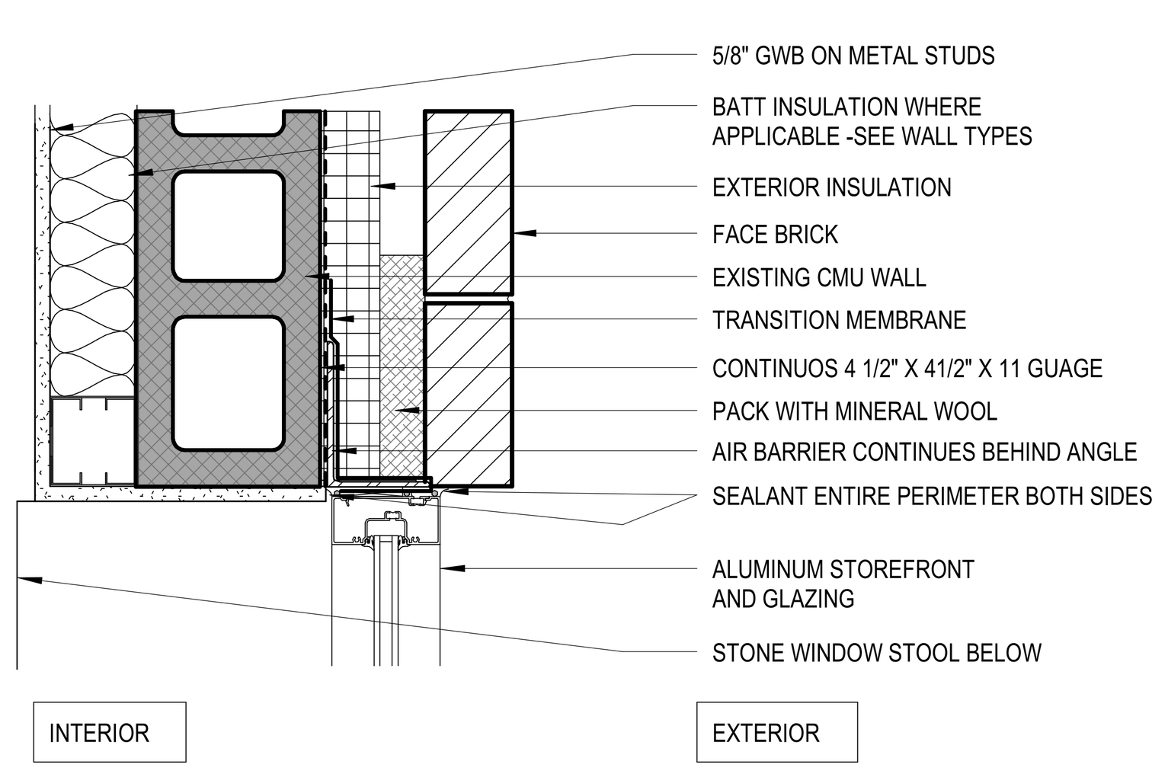
7 / A6-03 — H6 - STOREFRONT HEAD AT EXTERIOR MASONRY (EXISTING OPENING)
1 1/2" = 1'-0"



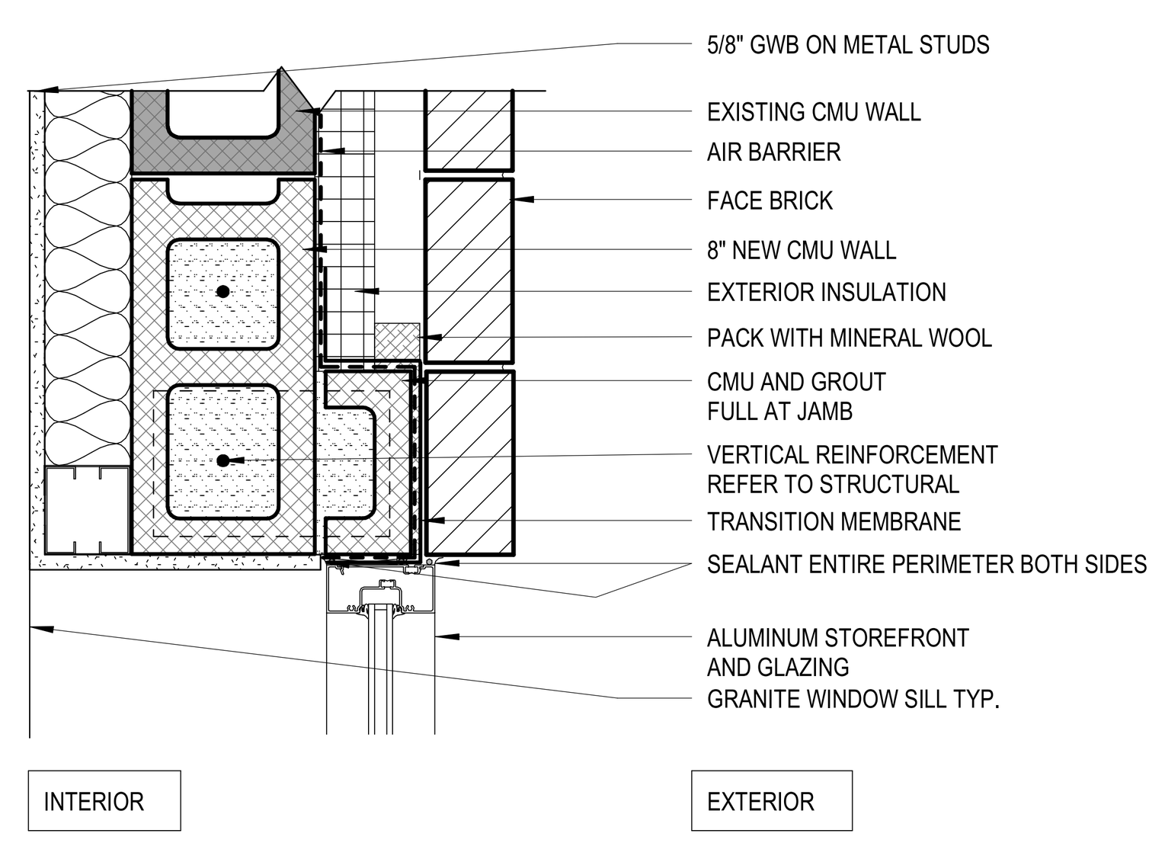
8 / A6-03 — H7 - STOREFRONT HEAD AT EXTERIOR MASONRY (NEW OPENING)
1 1/2" = 1'-0"



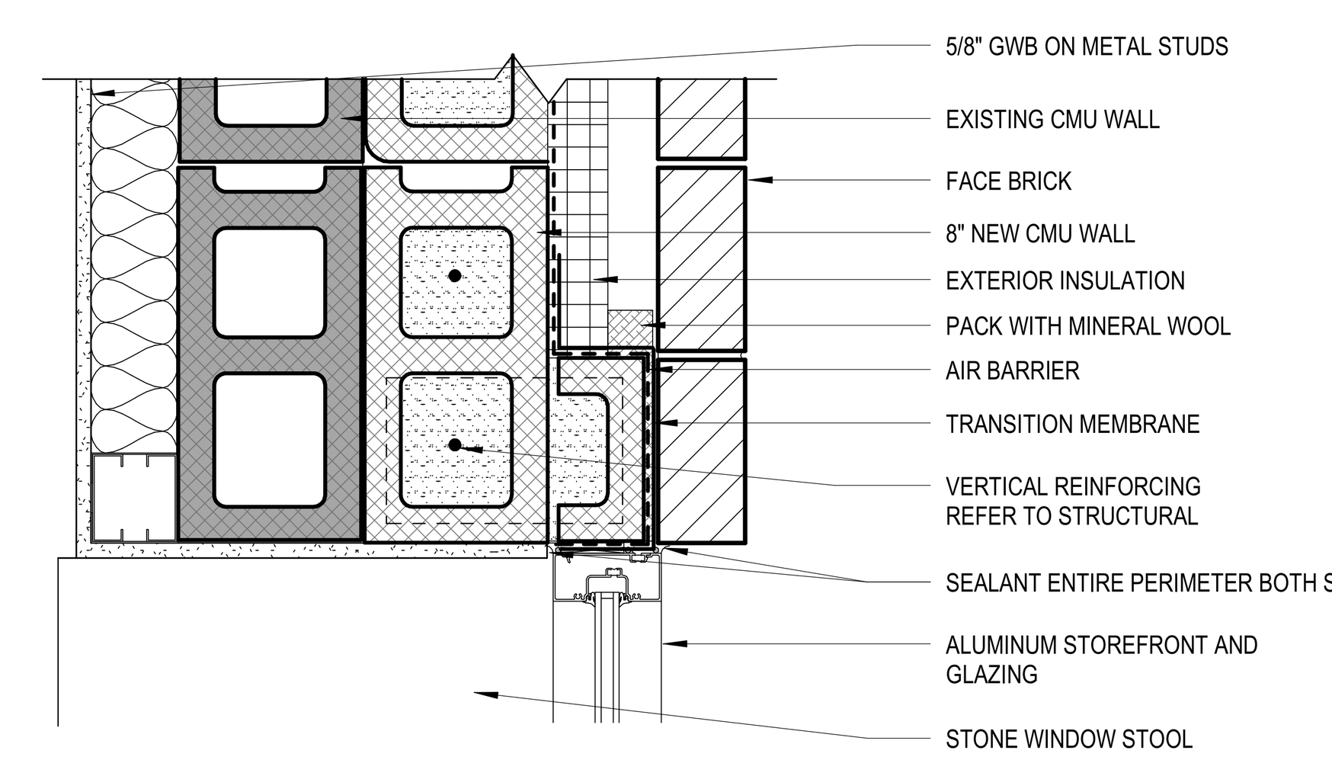
9 / A6-03 — H8 - STOREFRONT HEAD AT EXTERIOR MASONRY (NEW OPENING)
1 1/2" = 1'-0"



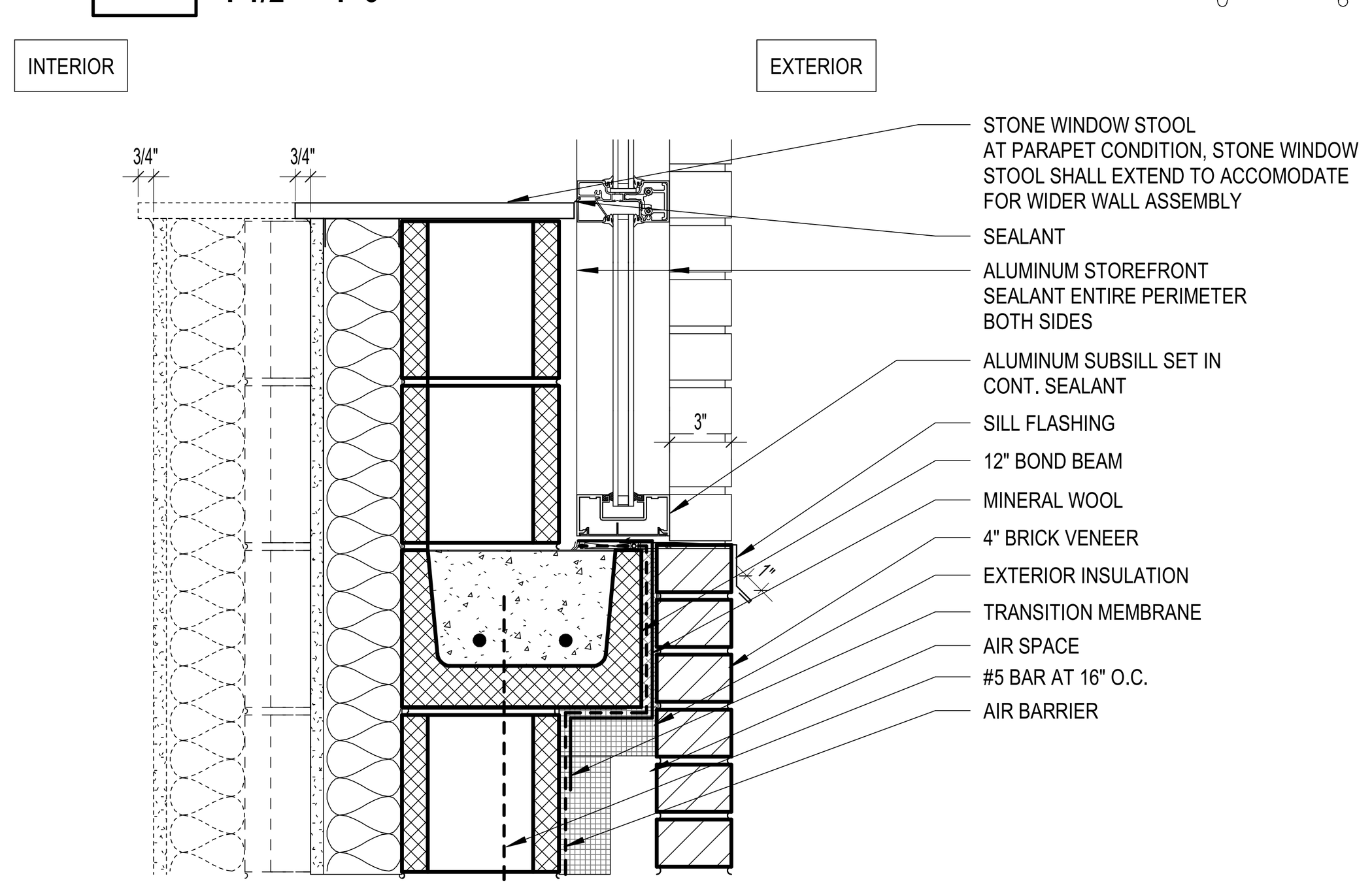
4 / A6-03 — J6 - STOREFRONT JAMB AT EXTERIOR MASONRY (EXISTING OPENING)
1 1/2" = 1'-0"



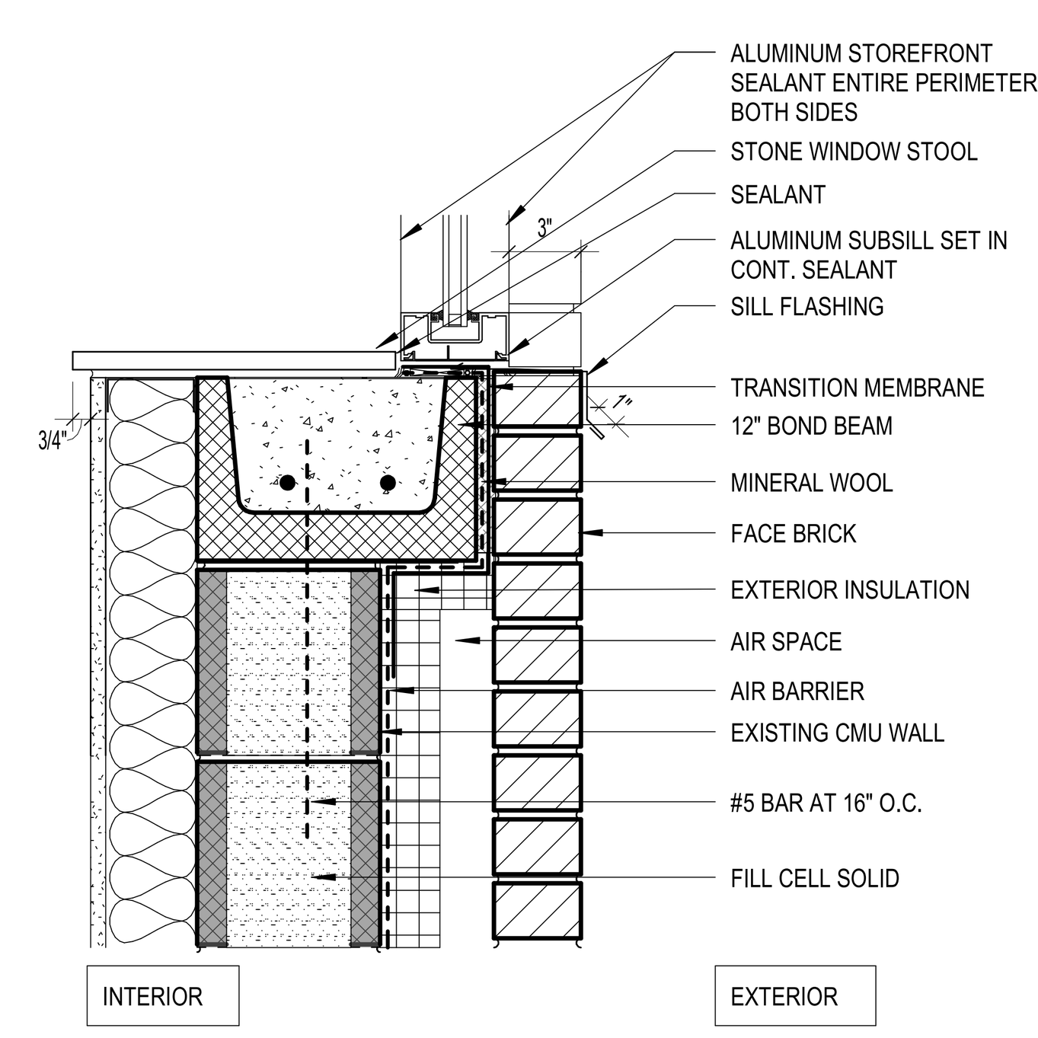
5 / A6-03 — J7 - STOREFRONT JAMB AT EXTERIOR MASONRY (NEW OPENING)
1 1/2" = 1'-0"



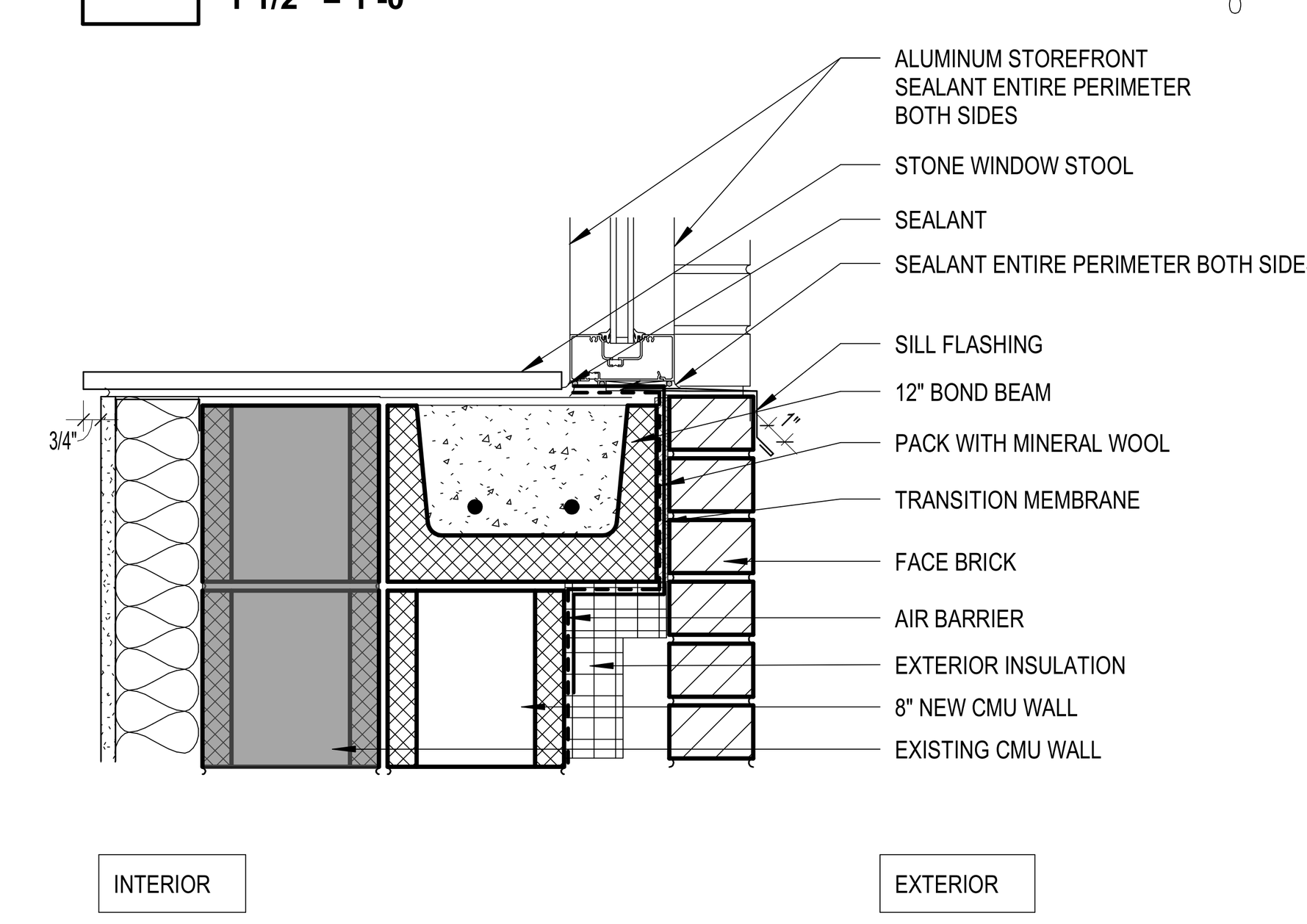
6 / A6-03 — J8 - STOREFRONT JAMB AT EXTERIOR MASONRY (NEW OPENING)
1 1/2" = 1'-0"



1 / A6-03 — S1 - SPANDREL STOREFRONT SILL AT EXTERIOR MASONRY (NEW OPENING)
1 1/2" = 1'-0"



2 / A6-03 — S2 - STOREFRONT SILL AT EXTERIOR MASONRY (NEW OPENING)
1 1/2" = 1'-0"



3 / A6-03 — S3 - STOREFRONT SILL DETAIL (NEW OPENING)
1 1/2" = 1'-0"

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JAMEY EDWARD GLUECK — Registered Architect — 9585 — North Carolina — RALEIGH, NC — 10-16-2024

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Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: FA,NB
CHECKED BY: JEG

JAMB, HEAD AND SILL DETAILS

2021029 — 16 OCT. 2024

A6-03

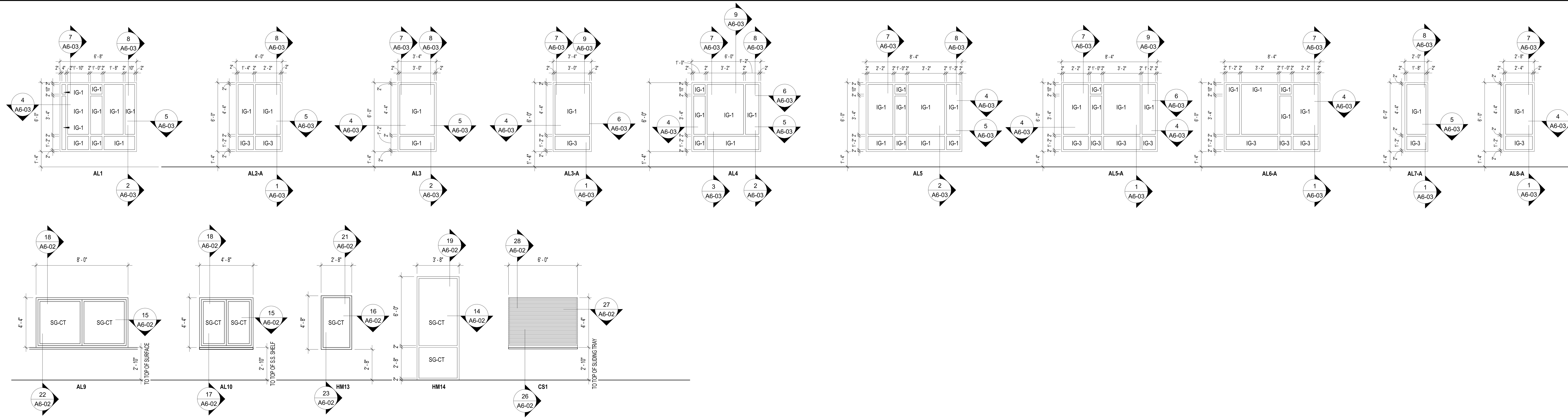
LEGEND:

HM - HM FRAME DESIGNATION
AL - ALUMINUM WINDOW FRAME
N - INTERIOR ALUM. STOREFRONT
S - EXTERIOR ALUM. STOREFRONT

GLAZING:

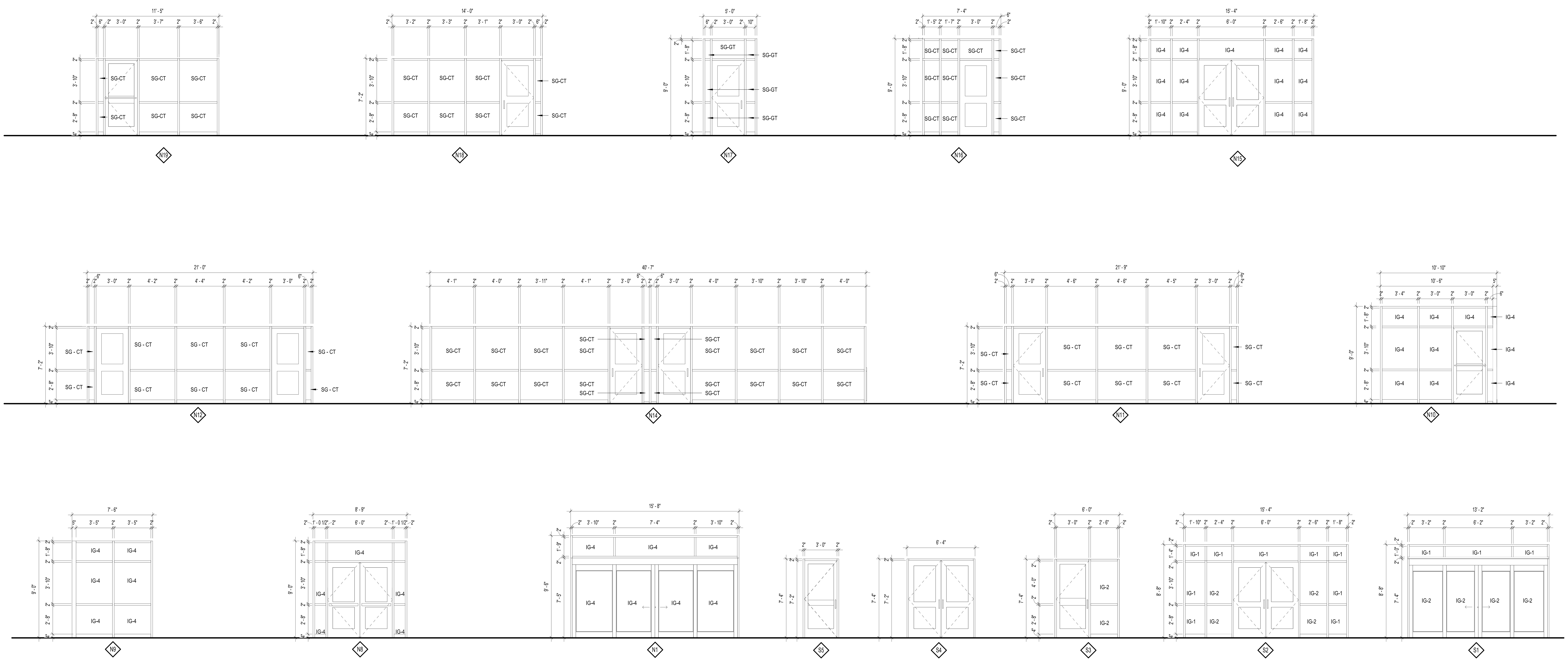
IG: INSULATED GLASS
IG - 1: LOW-E TINTED
IG - 2: LOW-E TINTED TEMPERED
IG - 3: LOW-E TINTED SPANDREL
IG - 4: CLEAR TEMPERED

SG - CT: SAFETTY GLASS - CLEAR TEMPERED



WINDOW LEGEND

1/4" = 1'-0"



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STOREFRONT, WINDOW AND FRAME ELEVATIONS

2021029 16 OCT. 2024

A6-10

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FINISH LEGEND

WALL FINISHES BASED ON PLAN LOCATION → ROOM NAME / ROOM NUMBER / NORTH | EAST | SOUTH | WEST / FLOOR | BASE | CEILING

INDICATES ACCENT PAINT OR WALL TILE

INDICATES WALL TO RECEIVE LEVEL 5 GWB FINISH

CEILING TYPE - REFER TO REFLECTIVE CEILING PLANS (A1-20 , A1-21)

A	ACT-1, 2X2 CEILING TILE, WHITE (DO NOT PAINT)
B	ACT-2, 2X2 VINYL COVERED TILE (DO NOT PAINT)
D	GYPSUM WALLBOARD CEILING
E	GYPSUM BOARD CEILING - MOISTURE RESISTANT
J	EXPOSED EXISTING STRUCTURE - REFER TO RCP (A1-20 , A1-21) FOR SPECIFICS
K	EXPOSED EXISTING STRUCTURE - REFER TO RCP (A1-20 , A1-21) FOR SPECIFICS
L	EXPOSED EXISTING STRUCTURE - REFER TO RCP (A1-20 , A1-21) FOR SPECIFICS

WALL FINISH

PT-1	INTERIOR FIELD PAINT
EPT-1	EPOXY FIELD/ CEILING PAINT
PT-2	CEILING PAINT
EPT-2	EPOXY CEILING PAINT
PT- 3	ACCENT PAINT
PT- 4	ACCENT PAINT
PT- 5	ACCENT PAINT
PT- 6	ACCENT PAINT
PT- 7	ACCENT PAINT
PT- 8	ACCENT BULKHEADS
PT- 9	ACCENT COLUMN PAINT
PT- 10	ACCENT PAINT
PT- 11	HM FRAME AND DOOR PAINT
PT- 12	EXTERIOR PAINT
WT -1	WALL TILE

FLOOR FINISH

SC	SEALED CONCRETE
CPT-1	CARPET TILE
CPT- 2	CARPET TILE
WCT-1	WALK OFF CARPET TILE
FT1	FLOOR TILE 1 (6X6)
RAF	RESILIENT ATHLETIC FLOORING
VCT-1	VINYL COMPOSITION TILE
VCT-2	VINYL COMPOSITION TILE
LVT	LUXURY VINYL TILE

WALL BASE

RB	RUBBER BASE
TB	TILE BULLNOSE
MT	METAL TRIM - SCHLUTER DILEX-EHK

NOTE: ALL TILE WALL COVE TO MATCH FLOOR FINISH

SURFACE FINISH

PL- 1	PLASTIC LAMINATE CASEWORK
PL- 2	PLASTIC LAMINATE CASEWORK
PL- 3	PLASTIC LAMINATE CASEWORK
PL- 4	PLASTIC LAMINATE CASEWORK
PL- 5	PLASTIC LAMINATE CASEWORK
SS1	SOLID SURFACE CASEWORK COUNTER
SS2	SOLID SURFACE CASEWORK COUNTER
SS3	REFER TO PLUMBING FOR CASEWORK

THRESHOLD - REFER TO A6-02

T1	VCT TO CPT TRANSITION STRIP
T2	SC TO CPT TRANSITION STRIP
T3	VCT TO FT TRANSITION STRIP
T4	LVT TO RAF TRANSITION STRIP
T5	FT TO FT TRANSITION STRIP
T6	LVT TO CPT TRANSITION STRIP
T7	LVT TO VCT TRANSITION STRIP
T8	CPT TO FT TRANSITION STRIP
T9	LVT TO FT TRANSITION STRIP

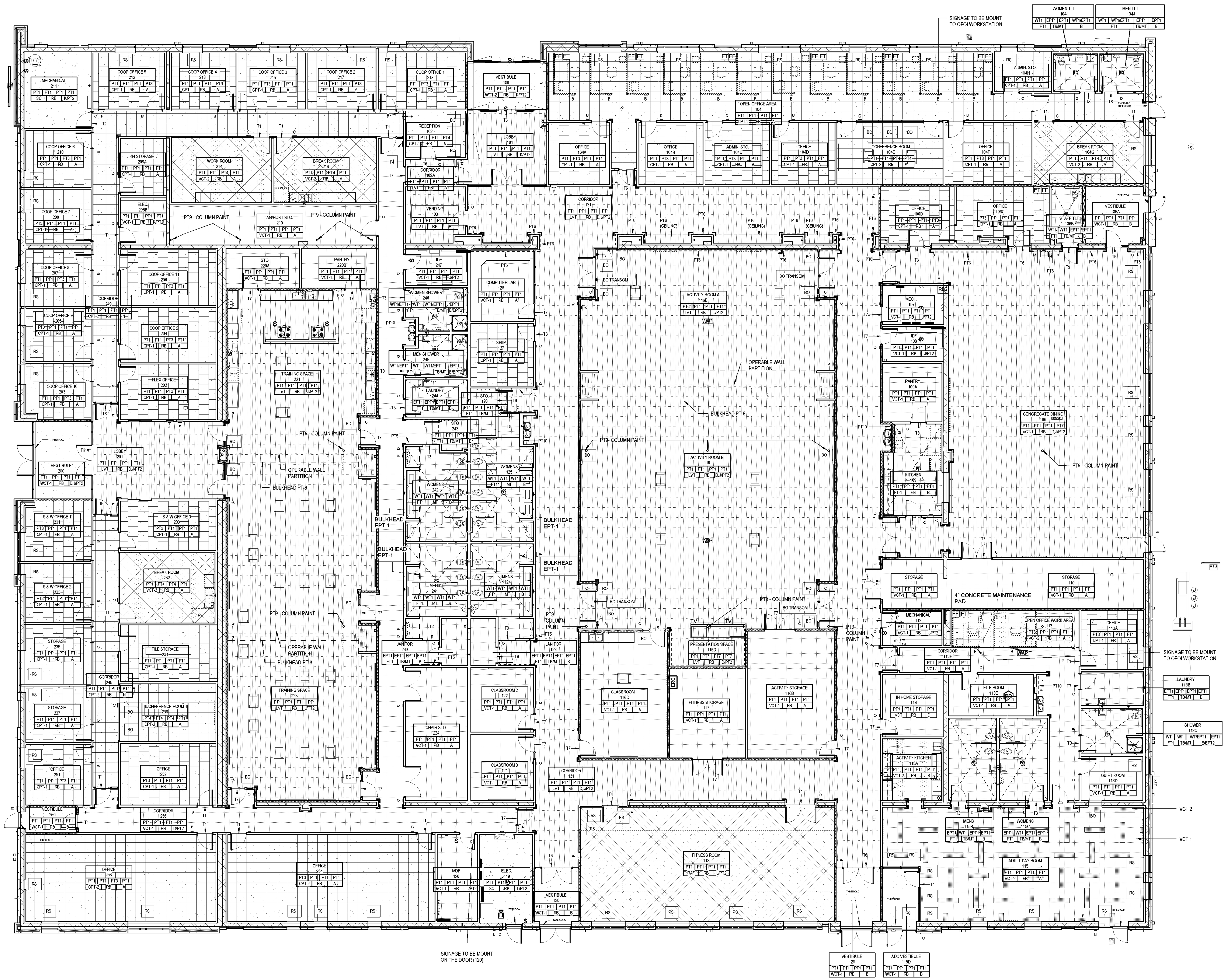
WINDOW FINISHES

SS4	WINDOW STOOL
RS	ROLLER SHADES
BO	BLACK OUT SHADE

CORNER GUARDS

GENERAL FINISH NOTES:

1. ALL GYPSUM BOARD CEILINGS AND BULKHEADS UNLESS OTHERWISE NOTED SHALL BE PT-2.
2. ALL INTERIOR EXPOSED CEILINGS UNLESS OTHERWISE NOTED SHALL BE PT-2.
3. ALL BULKHEADS IN WET LOCATIONS SHALL BE EPT-1.
4. EPT-1 TO BE USED ON ALL RESTROOM WALLS ABOVE AND ADJACENT TO WALL TILE.
5. ALL SHOWER CEILINGS AND BULKHEADS SHALL BE EPT -2.
6. FINISH MATERIALS SUBMITTED AS EQUALS TO THE BASIS OF DESIGN WILL BE APPROVED OR REJECTED BASED ON COLOR INTEGRITY AND TACTILE CHARACTERISTICS IN ADDITION TO TECHNICAL SPECIFICATIONS.
7. FINISHES ARE CONTINGENT ON FINAL OWNER AND ARCHITECT APPROVAL.
8. METAL FINISHING STRIPS TO BE USED ON ALL VERTICAL AND HORIZONTAL EDGES, AND CORNERS OF WALL TILE.
9. FINISHED-EDGE TILE TO BE USED AT TOP COURSE OF WALL TILE.
10. GC TO ENSURE LEVEL FLOOR FINISH AT ALL TILE TRANSITIONS.
11. ALL EXTERIOR WINDOWS TO HAVE ROLLER SHADE BLINDS UNLESS OTHERWISE NOTED, REFER TO SPECIFICATIONS.
12. ALL CERAMIC TILE TO HAVE CONTROL JOINTS THAT ALIGN WITH CONTROL JOINTS IN CONCRETE SLAB



1 FINISH PLAN
A7-01
1/8" = 1'-0"

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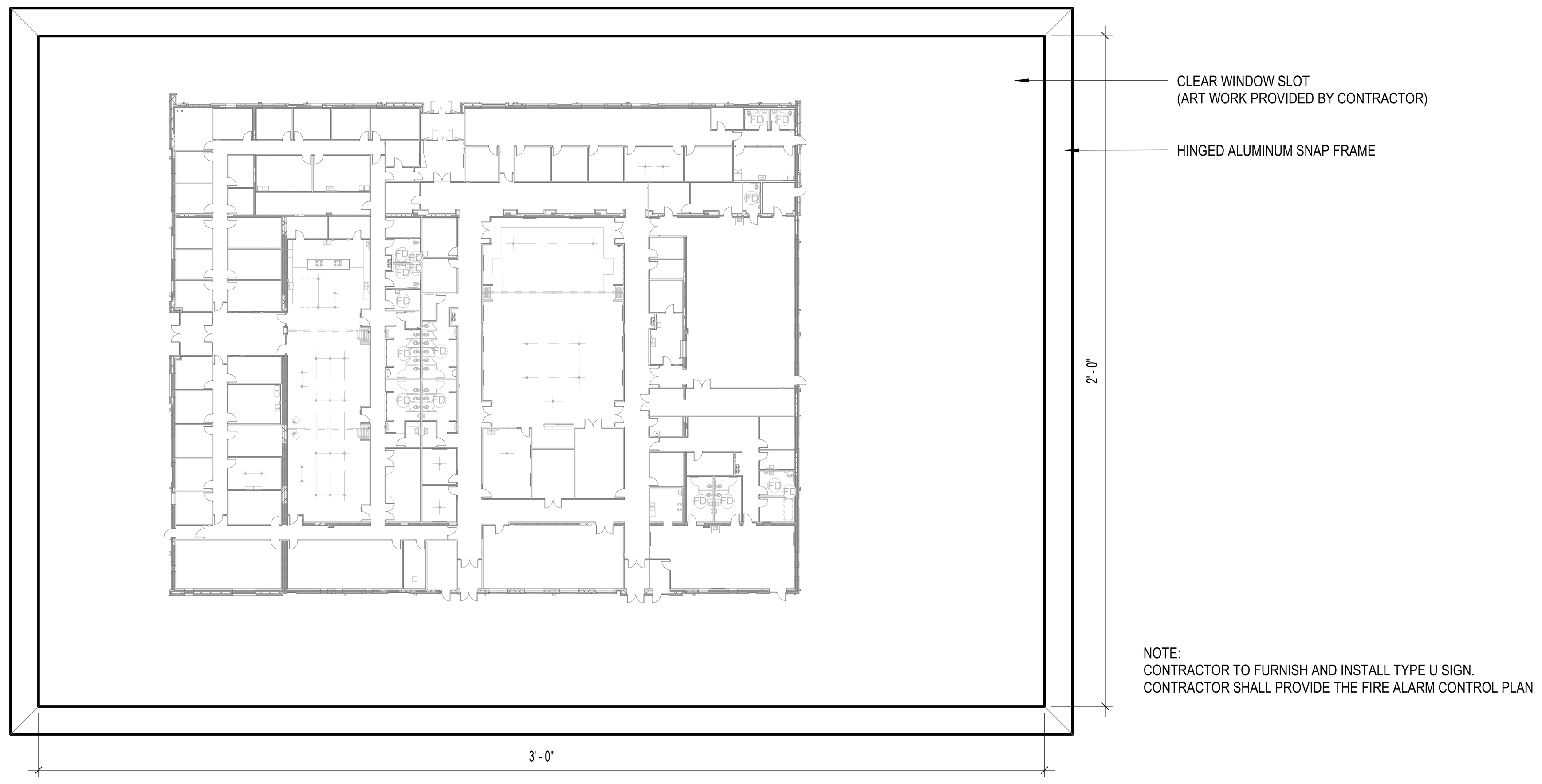
FINISH PLAN

2021029 16 OCT. 2024

A7-01

SIGN TYPE U



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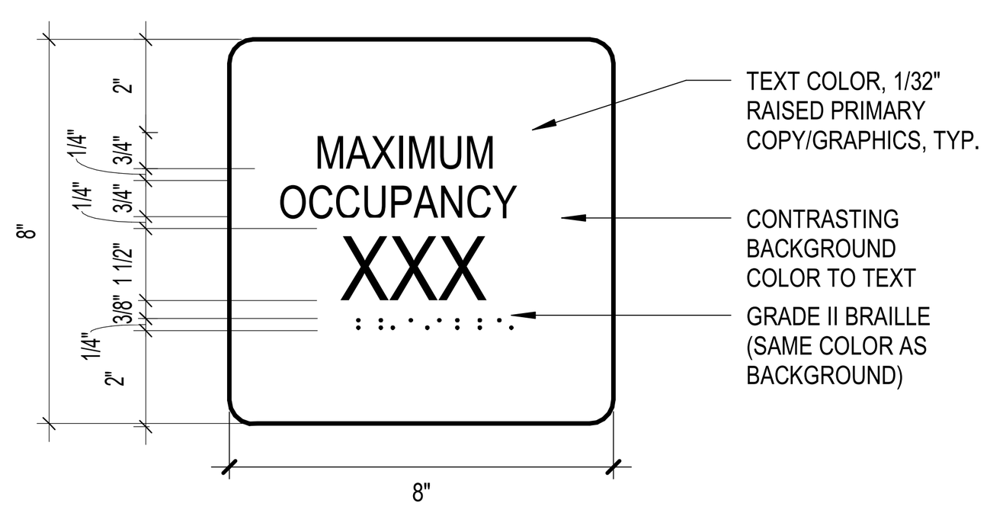
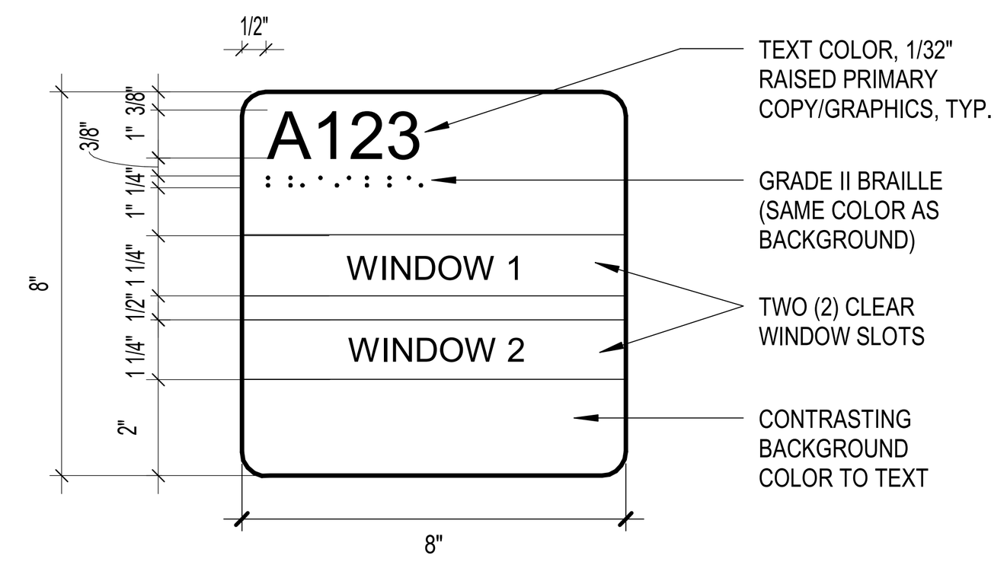
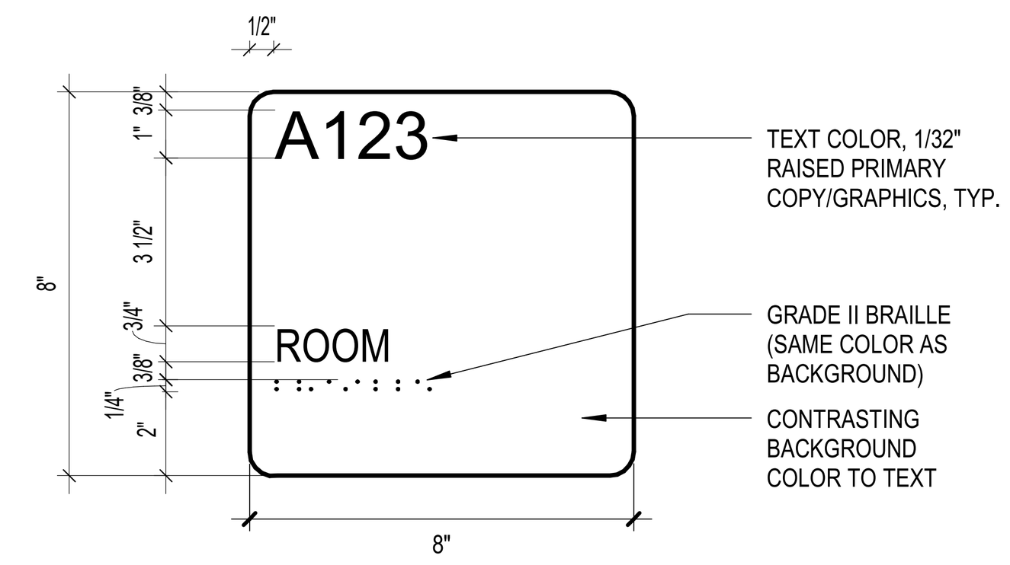


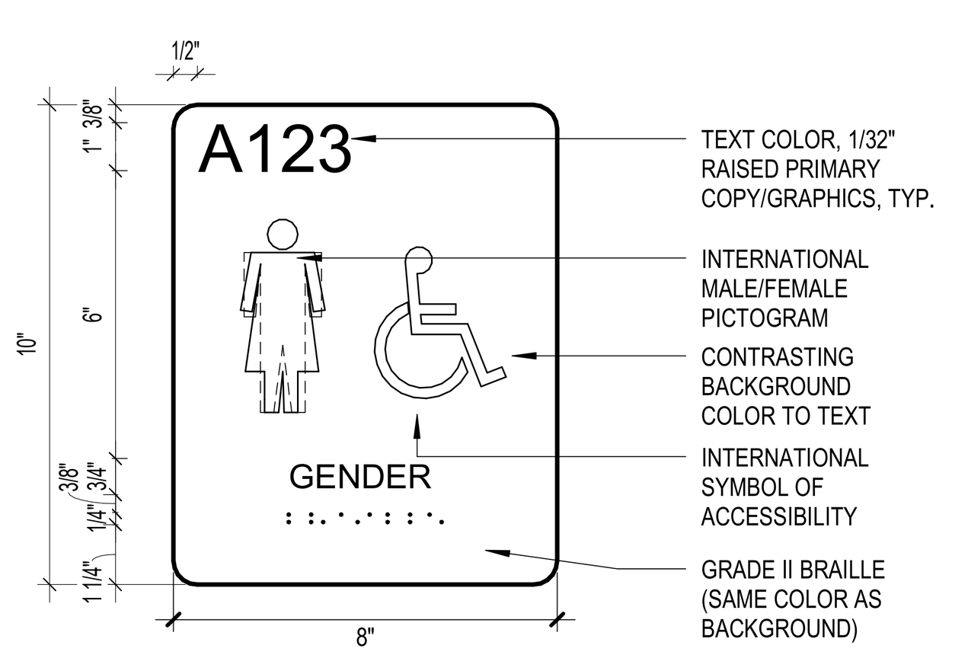
SIGN TYPE B



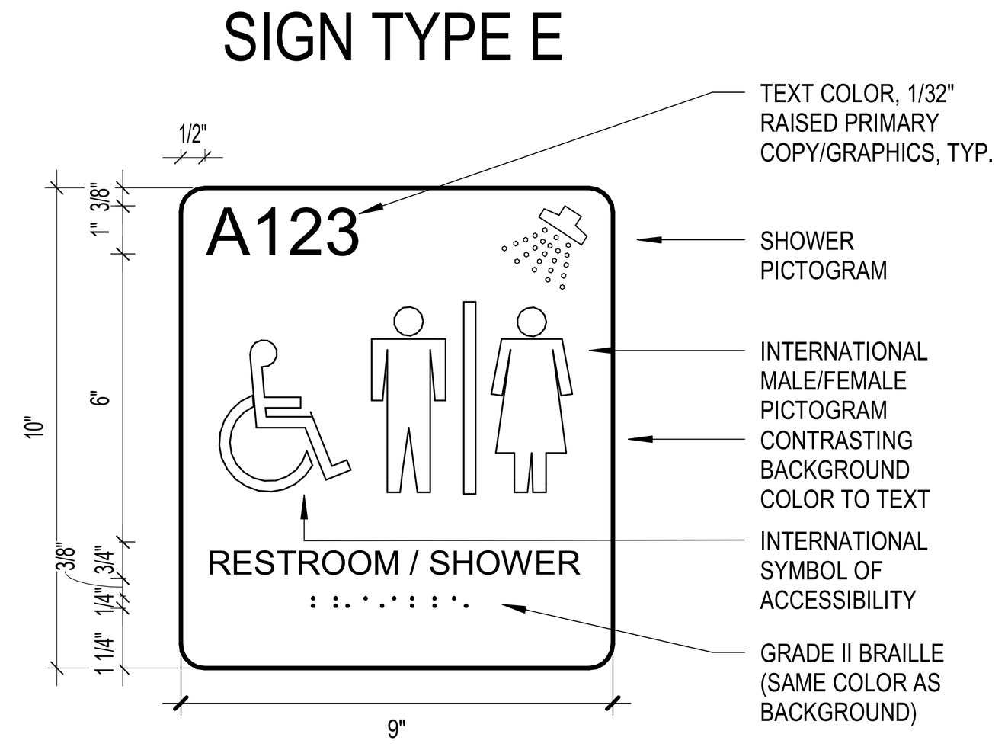
SIGN TYPE C



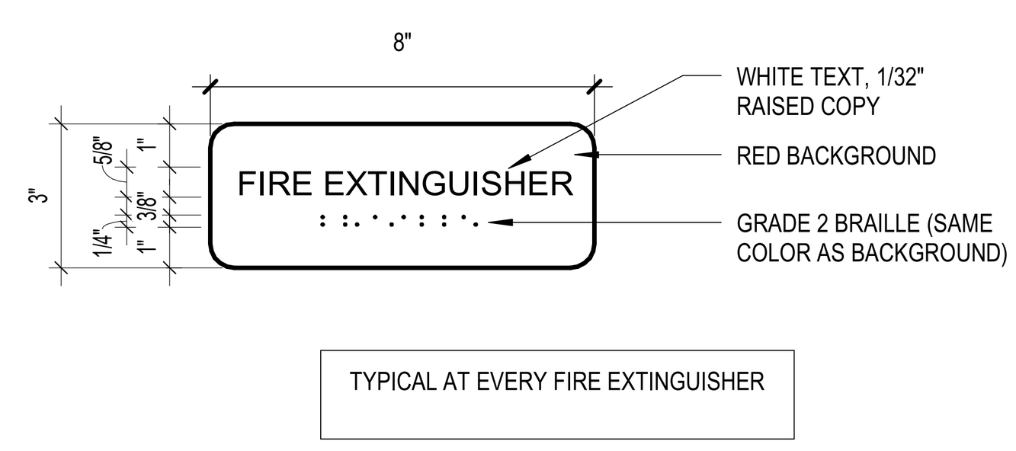
SIGN TYPE D



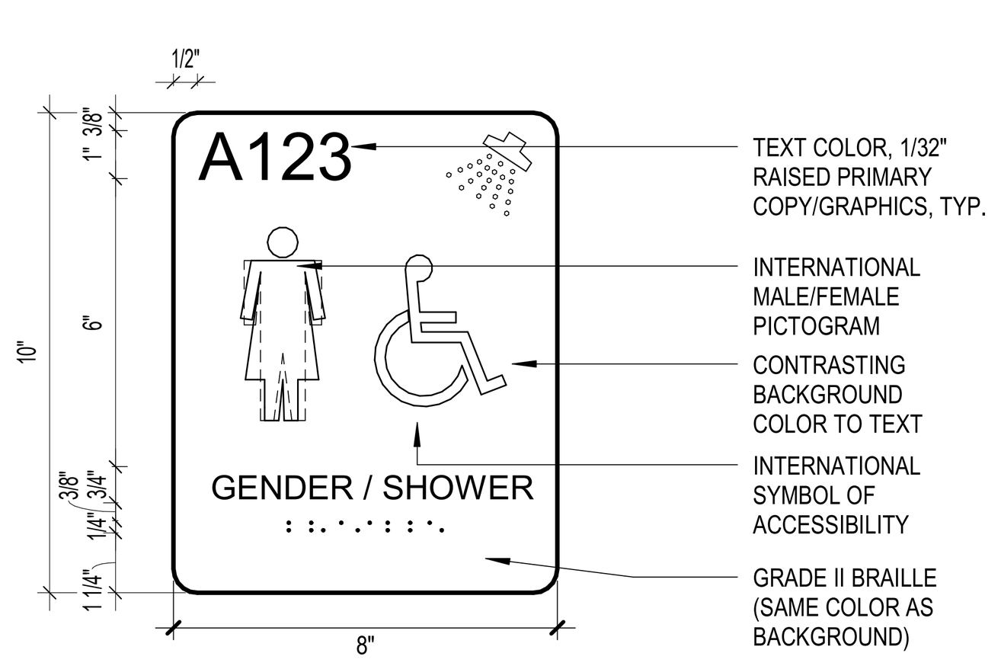
SIGN TYPE E



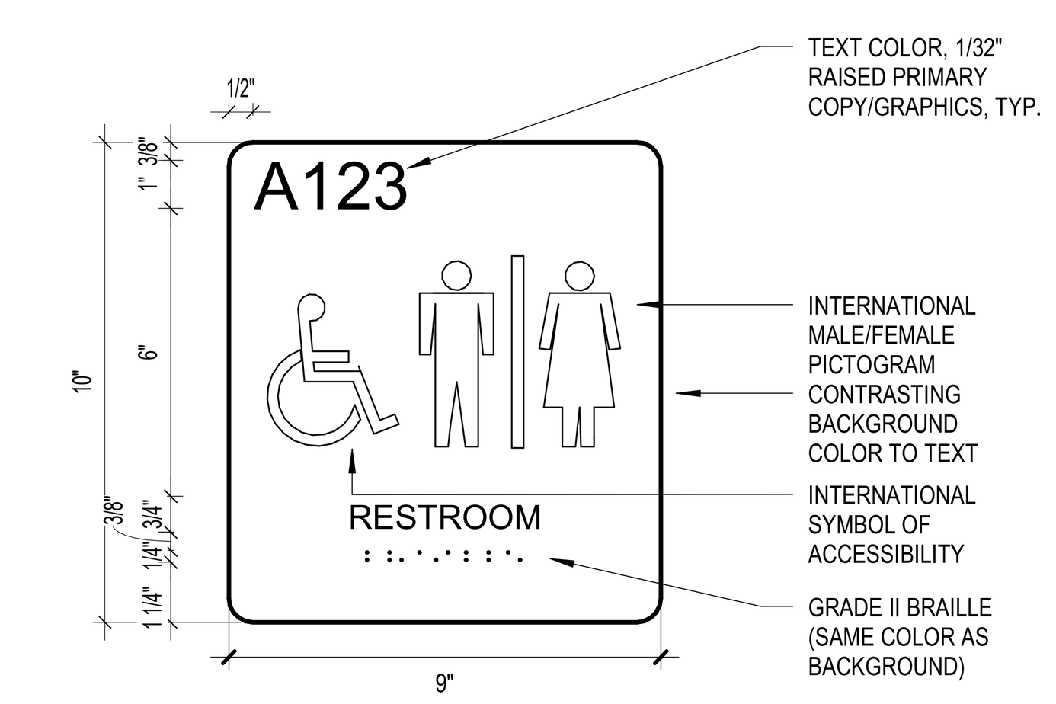
SIGN TYPE F



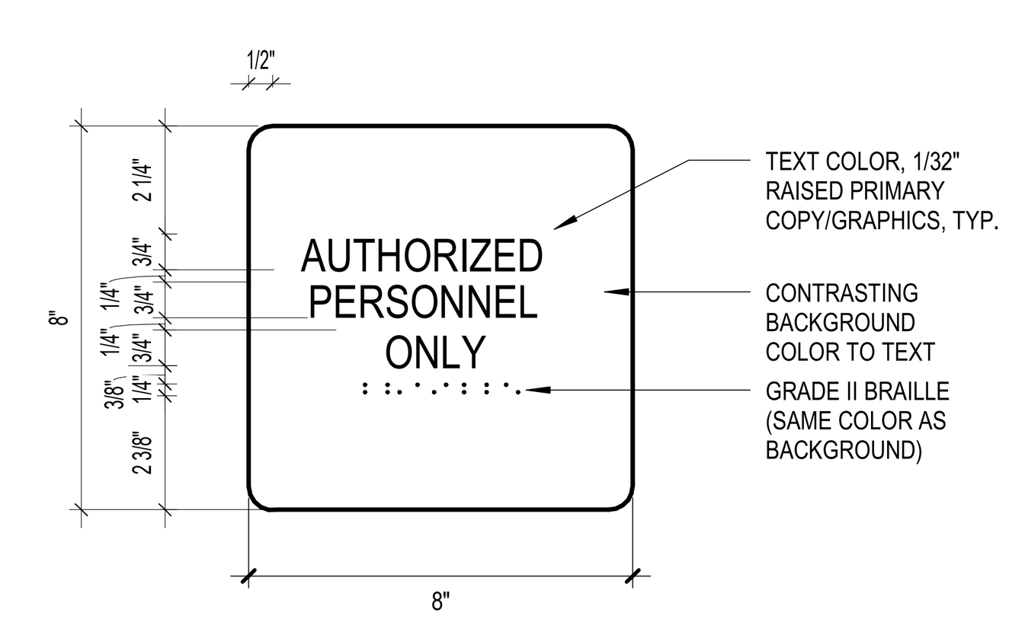
SIGN TYPE G



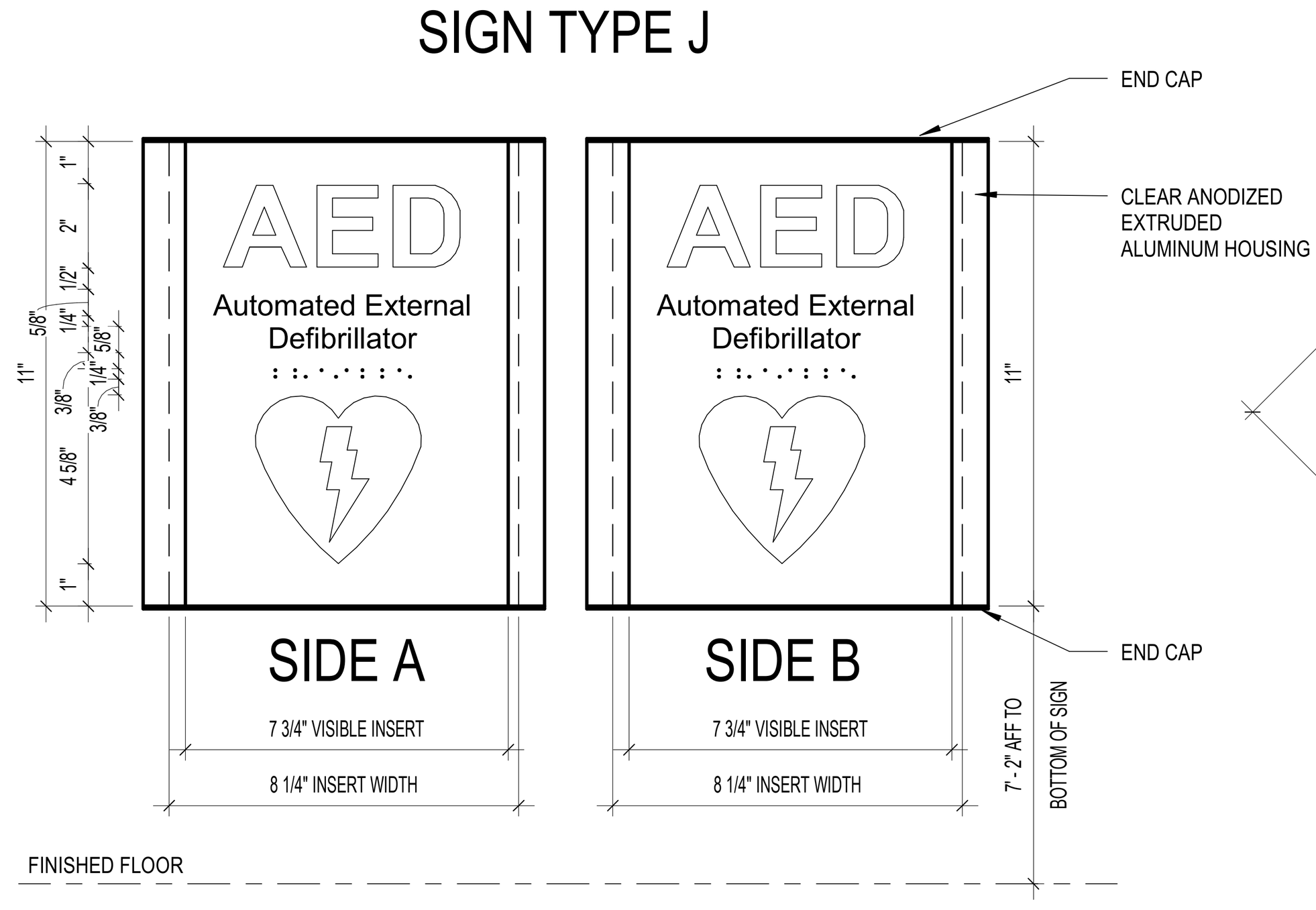
SIGN TYPE H



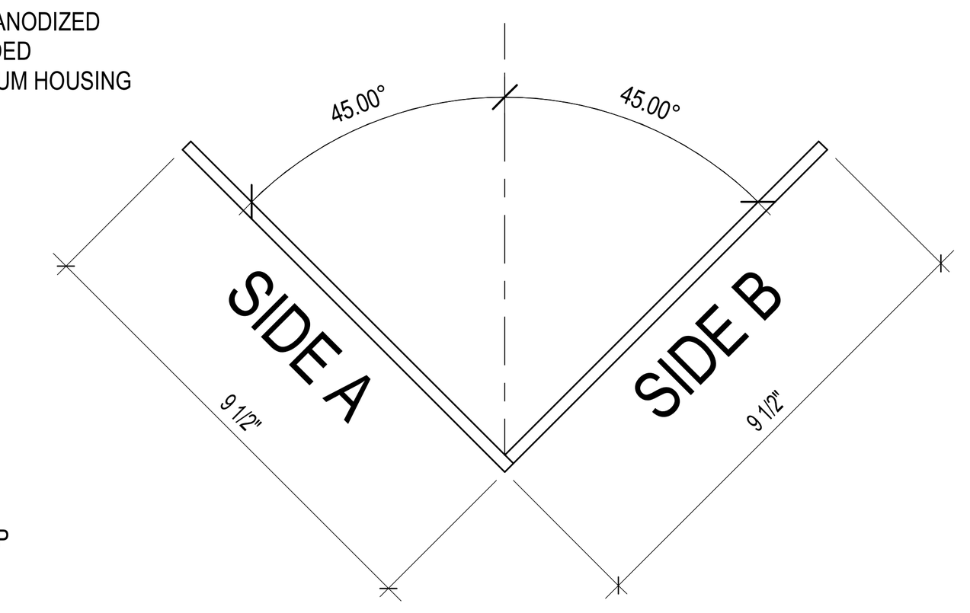
SIGN TYPE N



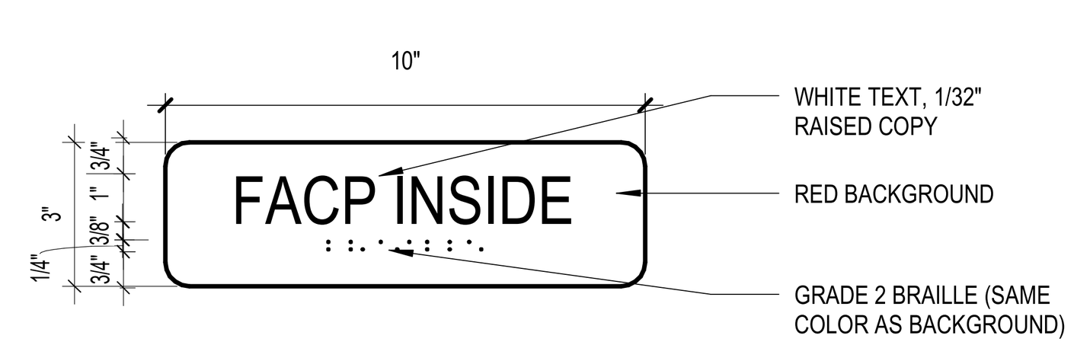
SIGN TYPE J



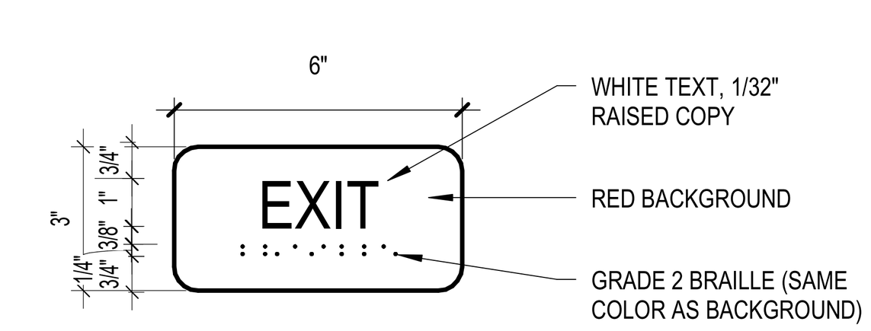
SIGN TYPE J (PLAN VIEW)



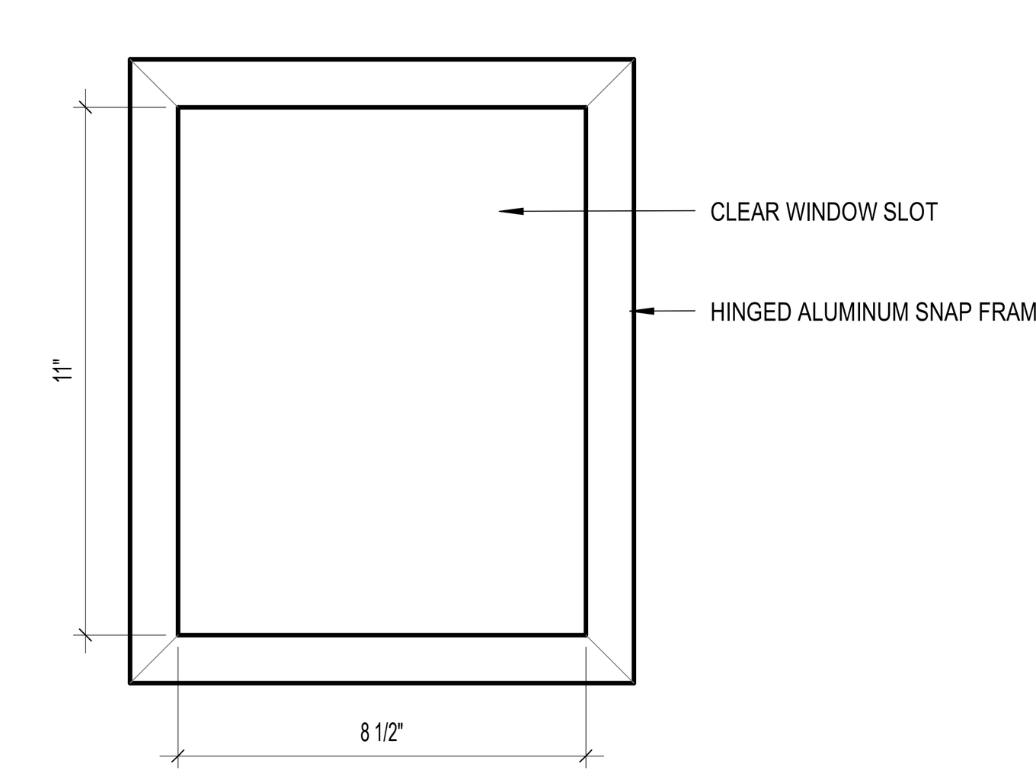
SIGN TYPE K



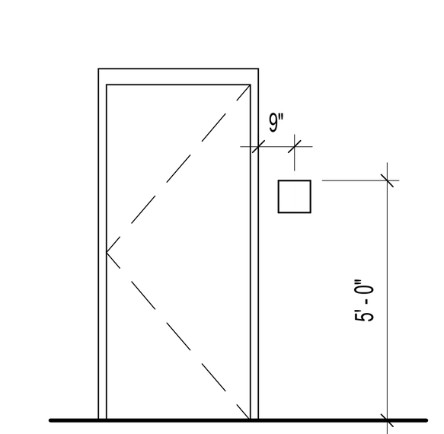
SIGN TYPE L



SIGN TYPE M



SIGNAGE ELEVATION & NOTES



1 A7-02 **SIGNAGE TYPES** 3" = 1'-0"

2 A7-02 **SIGNAGE ELEVATION** 1/4" = 1'-0"

ROOM FINISH SCHEDULE

ROOM NO	ROOM NAME	FLOOR	BASE	WALL FINISH NORTH	WALL FINISH EAST	WALL FINISH SOUTH	WALL FINISH WEST	Ceiling Finish	NOTES
100	VESTIBULE	WCT-2	RB	PT1	PT1	PT1	PT1	K/PT2	
101	LOBBY	LVT	RB	PT1	PT1	PT1	PT1	K/PT2	
102	RECEPTION	CPT-1	RB	PT1	PT1	PT1	PT4	A	
102A	CORRIDOR	LVT	RB	PT1	PT1	PT1	PT1	A	
103	VENDING	LVT	RB	PT1	PT1	PT1	PT1	A	
104	OPEN OFFICE AREA	CPT-2	RB	PT1	PT1	PT1	PT1	A	
104A	OFFICE	CPT-1	RB	PT1	PT3	PT1	PT1	A	
104B	OFFICE	CPT-1	RB	PT1	PT3	PT1	PT1	A	
104C	ADMIN. STO.	CPT-1	RB	PT1	PT3	PT1	PT1	A	
104D	OFFICE	CPT-1	RB	PT1	PT3	PT1	PT1	A	
104E	CONFERENCE ROOM	CPT-2	RB	PT1	PT4	PT4	PT4	A	
104F	OFFICE	CPT-1	RB	PT1	PT3	PT1	PT1	A	
104G	BREAK ROOM	VCT-2	RB	PT1	PT1	PT4	PT1	A	
104H	ADMIN. STO.	CPT-1	RB	PT1	PT1	PT1	PT1	A	
104I	WOMEN TLT	FT1	TB/MT	WT1	EPT1	EPT1	WT1/EPT1	B	
104J	MEN TLT.	FT1	TB/MT	WT1	WT1/EPT1	EPT1	EPT1	B	
106	CONGREGATE DINING	VCT-1	RB	PT1	PT1	PT1	PT7	D,J/PT2	
106A	VESTIBULE	WCT-1	RB	PT1	PT1	PT1	PT1	B	
106B	STAFF TLT	FT1	TB/MT	WT1	WT1	EPT1	EPT1	B	
106C	OFFICE	CPT-1	RB	PT3	PT1	PT1	PT1	A	
106D	OFFICE	CPT-1	RB	PT1	PT1	PT1	PT3	A	
107	MECH.	VCT-1	RB	PT1	PT1	PT1	PT1	J/PT2	
108	IDF	VCT-1	RB	PT1	PT1	PT1	PT1	J/PT2	
109	KITCHEN	FT-1	RB	PT1	PT1	PT1	PT4	B	
109A	PANTRY	VCT-1	RB	PT1	PT1	PT1	PT1	A	
110	STORAGE	VCT-1	RB	PT1	PT1	PT1	PT1	A	
111	STORAGE	VCT-1	RB	PT1	PT1	PT1	PT1	A	
112	MECHANICAL	VCT-1	RB	PT1	PT1	PT1	PT1	J/PT2	
113	OPEN OFFICE WORK AREA	<varies>	RB	PT3	PT1	PT1	PT1	A	
113A	OFFICE	CPT-1	RB	PT3	PT1	PT1	PT1	A	
113B	LAUNDRY	FT1	TB/MT	EPT1	EPT1	EPT1	EPT1	B	
113C	SHOWER	FT1	TB/MT	WT	WT	WT/EPT1	EPT1	E/EPT2	
113D	QUIET ROOM	VCT-1	RB	PT1	PT1	PT1	PT1	A	
113E	FILE ROOM	VCT-1	RB	PT1	PT1	PT1	PT1	A	
113F	CORRIDOR	VCT-1	RB	PT1	PT1	PT1	PT1	A	
115A	ACTIVITY KITCHEN	VCT-2	RB	PT1	PT1	PT1	PT1	B	
115B	MENS	FT1	TB/MT	EPT1	WT1	EPT1	EPT1	B	
115C	WOMENS	FT1	TB/MT	EPT1	WT1	EPT1	EPT1	B	
115D	ADC VESTIBULE	WCT-1	RB	PT1	PT1	PT1	PT1	B	
116	ACTIVITY ROOM B	LVT	RB	PT1	PT1	PT1	PT1	D,J/PT2	
116B	ACTIVITY STORAGE	VCT-1	RB	PT1	PT1	PT1	PT1	A	
116C	CLASSROOM 1	VCT-1	RB	PT1	PT1	PT1	PT1	A	
116D	PRESENTATION SPACE	LVT	RB	PT1	PT7	PT7	PT7	D/PT2	
116E	ACTIVITY ROOM A	LVT	RB	PT6	PT1	PT1	PT1	J/PT2	
117	FITNESS STORAGE	VCT-1	RB	PT1	PT1	PT1	PT1	A	
118	FITNESS ROOM	RAF	RB	PT1	PT1	PT1	PT1	L/PT2	
119	ELEC.	SC	RB	PT1	PT1	PT1	PT1	L/PT2	
120	MDF	VCT-1	RB	PT1	PT1	PT1	PT1	L/PT2	
121	CLASSROOM 3	VCT-1	RB	PT1	PT1	PT1	PT1	A	
122	CLASSROOM 2	VCT-1	RB	PT1	PT1	PT1	PT1	A	
123	JANITOR	FT1	TB/MT	EPT1	EPT1	EPT1	EPT1	B	
124	MENS	FT1	MT	WT1	WT1	WT1	WT1	B	
125	WOMENS	FT1	MT	WT1	WT1	WT1	WT1	B	
126	STO.	FT1	TB/MT	PT1	PT1	PT1	PT1	B	
127	SHIIP	CPT-1	RB	PT1	PT1	PT1	PT1	A	
128	COMPUTER LAB	VCT-1	RB	PT1	PT1	PT1	PT4	A	
129	VESTIBULE	WCT-1	RB	PT1	PT1	PT1	PT1	B	
130	VESTIBULE	WCT-1	RB	PT1	PT1	PT1	PT1	B	
131	CORRIDOR	LVT	RB	PT1	PT1	PT1	PT1	D,J/PT2	
200	VESTIBULE	WCT-1	RB	PT1	PT1	PT1	PT1	D,J/PT2	
201	LOBBY	LVT	RB	PT1	PT1	PT1	PT1	D,J/PT2	
202	FLEX OFFICE	CPT-1	RB	PT1	PT1	PT3	PT1	A	
203	COOP OFFICE 10	CPT-1	RB	PT1	PT1	PT3	PT1	A	
204	COOP OFFICE 2	CPT-1	RB	PT1	PT1	PT3	PT1	A	
205	COOP OFFICE 9	CPT-1	RB	PT3	PT1	PT1	PT1	A	
206	COOP OFFICE 11	CPT-1	RB	PT1	PT1	PT3	PT1	A	
207	COOP OFFICE 8	CPT-1	RB	PT1	PT1	PT3	PT1	A	
208A	4H STORAGE	CPT-1	RB	PT1	PT1	PT1	PT1	A	
208B	ELEC.	VCT-1	RB	PT1	PT1	PT1	PT1	K/PT2	
209	COOP OFFICE 7	CPT-1	RB	PT3	PT1	PT1	PT1	A	
210	COOP OFFICE 6	CPT-1	RB	PT1	PT1	PT3	PT1	A	
211	MECHANICAL	SC	RB	PT1	PT1	PT1	PT1	K/PT2	
212	COOP OFFICE 5	CPT-1	RB	PT1	PT1	PT1	PT3	A	
213	COOP OFFICE 4	CPT-1	RB	PT1	PT1	PT1	PT3	A	
214	WORK ROOM	VCT-2	RB	PT1	PT1	PT4	PT1	A	
215	COOP OFFICE 3	CPT-1	RB	PT1	PT3	PT1	PT1	A	
216	BREAK ROOM	VCT-2	RB	PT1	PT1	PT4	PT1	A	
217	COOP OFFICE 2	CPT-1	RB	PT1	PT1	PT1	PT3	A	
218	COOP OFFICE 1	CPT-1	RB	PT1	PT3	PT1	PT1	A	
219	AG/HORT STO.	VCT-1	RB	PT1	PT1	PT1	PT1	A	
220A	STO.	VCT-1	RB	PT1	PT1	PT1	PT1	A	
220B	PANTRY	VCT-1	RB	PT1	PT1	PT1	PT1	A	
221	TRAINING SPACE	LVT	RB	PT1	PT1	PT1	PT1	J/PT2	
223	TRAINING SPACE	LVT	RB	PT1	PT1	PT1	PT1	J/PT2	
224	CHAIR STO.	VCT-1	RB	PT1	PT1	PT1	PT1	A	
230	S & W OFFICE 3	CPT-1	RB	PT3	PT1	PT1	PT1	A	
231	S & W OFFICE 1	CPT-1	RB	PT3	PT1	PT1	PT1	A	
232	BREAK ROOM	VCT-2	RB	PT1	PT4	PT4	PT1	A	
233	S & W OFFICE 2	CPT-1	RB	PT3	PT1	PT1	PT1	A	
234	FILE STORAGE	CPT-1	RB	PT1	PT1	PT1	PT1	A	
235	STORAGE	CPT-1	RB	PT1	PT1	PT1	PT1	A	
236	CONFERENCE ROOM	CPT-2	RB	PT4	PT4	PT4	PT1	A	
237	STORAGE	CPT-1	RB	PT1	PT1	PT1	PT1	A	
240	JANITOR	FT1	TB/MT	EPT1	EPT1	EPT1	EPT1	B	
241	MENS	FT1	MT	WT1	WT1	WT1	WT1	B	
242	WOMENS	FT1	MT	WT1	WT1	WT1	WT1	B	
243	STO	FT1	TB/MT	PT1	PT1	PT1	PT1	B	
244	LAUNDRY	FT1	TB/MT	EPT1	EPT1	EPT1	EPT1	B	
245	MEN SHOWER	FT1	TB/MT	WT1/EPT1	WT1	WT1/EPT1	EPT1	E/EPT2	
246	WOMEN SHOWER	FT1	TB/MT	WT1/EPT1	WT1	WT1/EPT1	EPT1	E/EPT2	
247	IDF	VCT-1	RB	PT1	PT1	PT1	PT1	J/PT2	
248	CORRIDOR	CPT-2	RB	PT1	PT1	PT1	PT1	PT2	
249	CORRIDOR	CPT-2	RB	PT1	PT1	PT1	PT1	PT2	
250	VESTIBULE	WCT-1	RB	PT1	PT1	PT1	PT1	B	
251	OFFICE	CPT-1	RB	PT1	PT1	PT3	PT1	A	
252	OFFICE	CPT-1	RB	PT3	PT1	PT1	PT1	A	
253	OFFICE	CPT-2	RB	PT1	PT1	PT3	PT1	A	
254	OFFICE	CPT-2	RB	PT3	PT1	PT1	PT1	A	
255	CORRIDOR	VCT-1	RB	PT1	PT1	PT1	PT1	D/PT2	

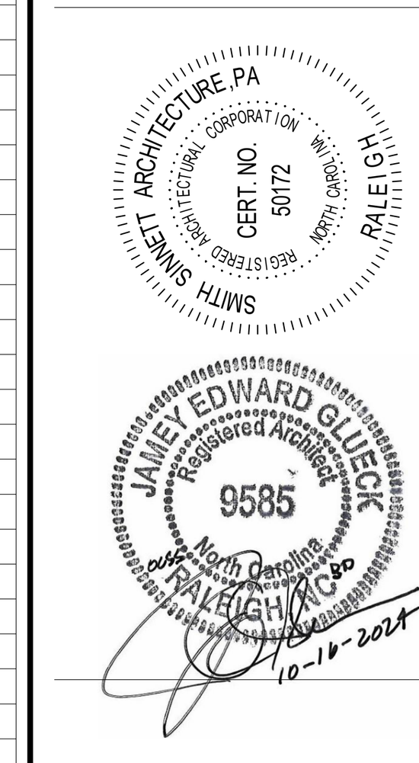
SIGNAGE SCHEDULE

ROOM NAME	ROOM NUMBER	TYPE	COPY	NOTES
VESTIBULE	100			
LOBBY	101			
RECEPTION	102	C	RECEPTION	
CORRIDOR	102A	N	AUTHORIZED PERSONNEL ONLY	
VENDING	103	C	VENDING	
OPEN OFFICE AREA	104	N	AUTHORIZED PERSONNEL ONLY	EXETRIOR AND INTERIOR SIGN
OFFICE	104A	B		
OFFICE	104B	B		
ADMIN. STO.	104C	C	ADMINISTRATION STORAGE	
OFFICE	104D	B		
CONFERENCE ROOM	104E	C	CONFERENCE ROOM	PROVIDE BACK PLATE
OFFICE	104F	B		
BREAK ROOM	104G	C	BREAK ROOM	PROVIDE BACK PLATE
ADMIN. STO.	104H	C	ADMINISTRATION STORAGE	
WOMEN TLT	104I	D	WOMEN'S RESTOOM	
MEN TLT.	104J	D	MEN'S RESTOOM	
CONGREGATE DINING	106	C,A,N	CONGREGATE DINING	EXTERIOR SIGN
VESTIBULE	106A	N	AUTHORIZED PERSONNEL ONLY	EXETRIOR SIGN
STAFF TLT	106B	H	UNISEX STAFF RESTROOM	
OFFICE	106C	B		
OFFICE	106D	B		
MECH.	107	C	MECHANICAL/ELECTRICAL	
IDF	108	C	IDF	
KITCHEN	109	C	KITCHEN	
PANTRY	109A	C	PANTRY	
STORAGE	110	C	STORAGE	
STORAGE	111	C	STORAGE	
MECHANICAL	112	C	MECHANICAL/ELECTRICAL	
OPEN OFFICE WORK AREA	113	B		
OFFICE	113A	B		
LAUNDRY	113B	C	BREAK ROOM	
SHOWER	113C	E	UNISEX RESTOOM / SHOWER	
QUIET ROOM	113D	C	LAUNDRY	
FILE ROOM	113E	C	FILE ROOM	
CORRIDOR	113F	N	AUTHORIZED PERSONNEL ONLY	
IN HOME STORAGE	114	C	IN HOME STORAGE	
ADULT DAY ROOM	115	N	AUTHORIZED PERSONNEL ONLY	
ACTIVITY KITCHEN	115A	C	QUIET ROOM	
MENS	115B	D	MEN'S RESTROOM	
WOMENS	115C	D	WOMEN'S RESTROOM	
ADC VESTIBULE	115D	C	ADULT DAY ROOM	
ACTIVITY ROOM B	116	C,A	ACTIVITY ROOM	
ACTIVITY STORAGE	116B	C	ACTIVITY STORAGE	
CLASSROOM 1	116C	C	CLASSROOM 1	
PRESENTATION SPACE	116D			
ACTIVITY ROOM A	116E	C,A	ACTIVITY ROOM	
FITNESS STORAGE	117	C	FITNESS STORAGE	
FITNESS ROOM	118	C	FITNESS ROOM	
ELEC.	119	C,N	ELECTRICAL	EXETRIOR SIGN
MDF	120	C,K	MDF, FACP INSIDE	SIGN K TO HOST ON DOOR
CLASSROOM 3	121	C	CLASSROOM 3	
CLASSROOM 2	122	C	CLASSROOM 2	
JANITOR	123	C	JANITOR	
MENS	124	D	MEN'S RESTROOM	
WOMENS	125	D	WOMEN'S RESTROOM	
STO.	126	C	STORAGE	
SHIIP	127	C	SHIIP	
COMPUTER LAB	128	C	COMPUTER LAB	
CORRIDOR	131			
FLEX OFFICE	202	B		
COOP OFFICE 10	203	B		
COOP OFFICE 2	204	B		
COOP OFFICE 9	205	B		
COOP OFFICE 11	206	B		
COOP OFFICE 8	207	B		
4H STORAGE	208A	C	4H STORAGE	
ELEC.	208B	C	ELECTRICAL	
COOP OFFICE 7	209	B		
COOP OFFICE 6	210	B		
MECHANICAL	211	C	MECHANICAL	
COOP OFFICE 5	212	B		
COOP OFFICE 4	213	B		
WORK ROOM	214	C	WORK ROOM	PROVIDE BACK PLATE
COOP OFFICE 3	215	B		
BREAK ROOM	216	C	BREAK ROOM	PROVIDE BACK PLATE
COOP OFFICE 2	217	B		
COOP OFFICE 1	218	B		
AG/HORT STO.	219	C	AG/HORT STORAGE	
STO.	220A	C	STORAGE	
PANTRY	220B	C	PANTRY	
TRAINING SPACE	221	C,A	TRAINING SPACE	
TRAINING SPACE	223	C,A	TRAINING ROOM	
CHAIR STO.	224	C	STORAGE	
S & W OFFICE 3	230	B		
S & W OFFICE 1	231	B		
BREAK ROOM	232	C	BREAK ROOM	PROVIDE BACK PLATE
S & W OFFICE 2	233	B		
FILE STORAGE	234	C	FILE STORAGE	
STORAGE	235	C	STORAGE	
CONFERENCE ROOM	236	C	CONFERENCE ROOM	PROVIDE BACK PLATE
STORAGE	237	C	STORAGE	
JANITOR	240	C	JANITOR	
MENS	241	D	MEN'S RESTROOM	
WOMENS	242	D	WOMEN'S RESTROOM	
STO	243	C	STORAGE	
LAUNDRY	244	C	LAUNDRY	
MEN SHOWER	245	G	MEN'S RESTROOM / SHOWER	
WOMEN SHOWER	246	G	WOMEN'S RESTROOM / SHOWER	
IDF	247	C	IDF	
CORRIDOR	248	N	AUTHORIZED PERSONNEL ONLY	
CORRIDOR	249	N	AUTHORIZED PERSONNEL ONLY	
VESTIBULE	250	N	AUTHORIZED PERSONNEL ONLY	EXTERIOR SIGN
OFFICE	251	B		
OFFICE	252	B		
OFFICE	253	B		
OFFICE	254	B		

GENERAL NOTES:

1. WHERE SIGNAGE IS MOUNTED ON GLAZING, PROVIDE A BACK PLATE OF SAME MATERIAL AND SIZE OF SIGN.
2. FOR ROOM SIGNAGE ROOM NUMBER IS TO BE INCLUDED WITH SIGN COPY. ARCHITECT IS TO GET OWNER APPROVAL FOR ASSIGNED ROOM NUMBERS.
3. BRAILLE IS TO INCLUDE SIGN COPY AND ROOM NUMBER.
4. REFER TO SIGN TYPE F, J, K AND L FOR EMERGENCY SIGNAGE TO BE PROVIDED AS PART OF SCHEDULE.
5. REFER TO FINISH FLOOR PLAN (A7-01) FOR SIGNAGE QUANTITY.

smith sinnett ARCHITECTURE
T 919 781 8582
F 919 781 3979
4600 Lake Boone Trail
Suite 205
Raleigh, NC 27607
info@smithsinnett.com



BID DOCUMENTS

Onslow County Senior Services Center Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

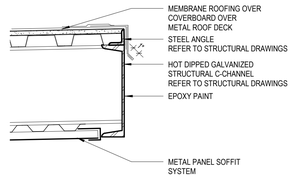
DRAWN BY: FA,NB
CHECKED BY: JEG

SIGNAGE TYPES

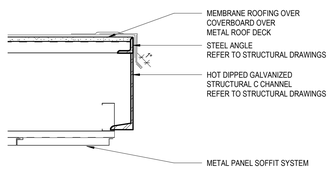
2021029 16 OCT. 2024

A7-02

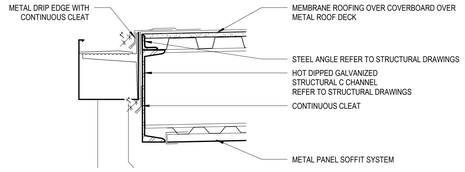
ALTERNATE ROOF LEGEND:	
⇒	INDICATES DIRECTION OF ROOF SLOPE ACHIEVED THROUGH SLOPE OF STRUCTURE
DS	PREFINISHED ALUMINUM DOWNSPOUT, TYPICAL
ALTERNATE ROOF TYPES LEGEND:	
C	ROOF TYPE: ROOF MEMBRANE SYSTEM OVER COVER BOARD OVER NEW METAL ROOF DECK



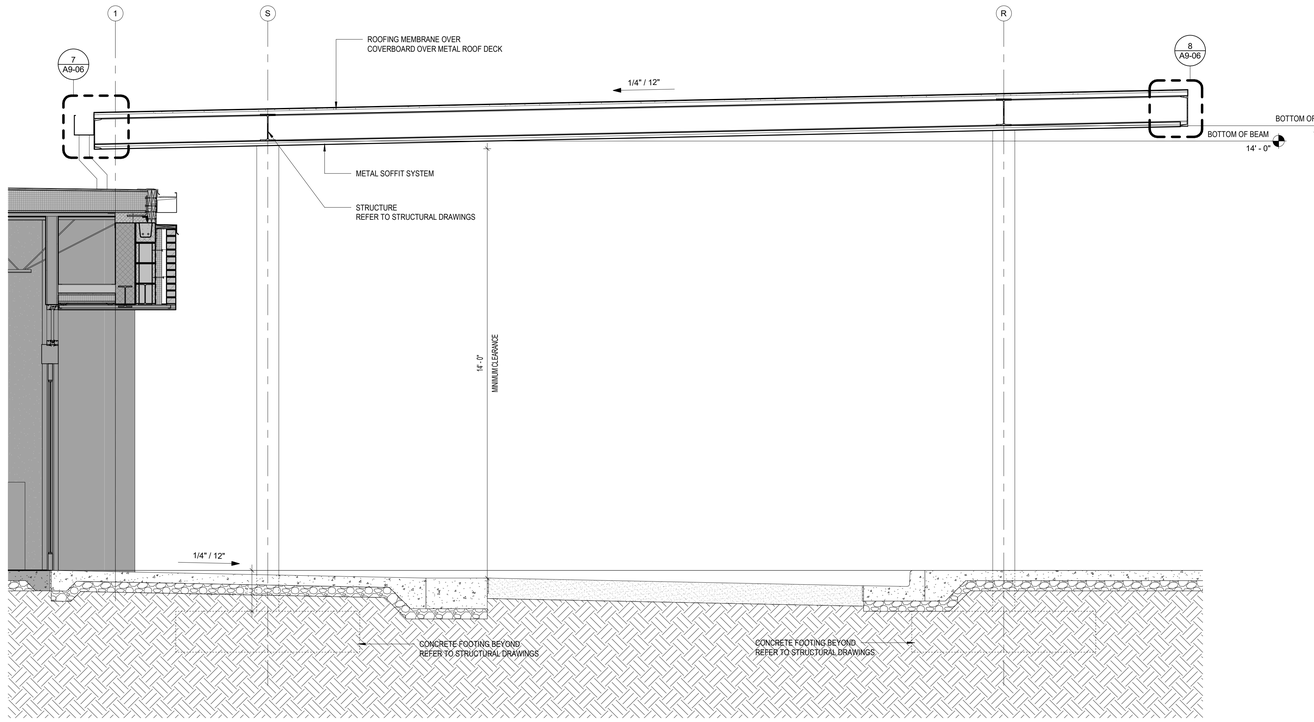
8 A9-06 COVERING EDGE DETAIL
1 1/2" = 1'-0"



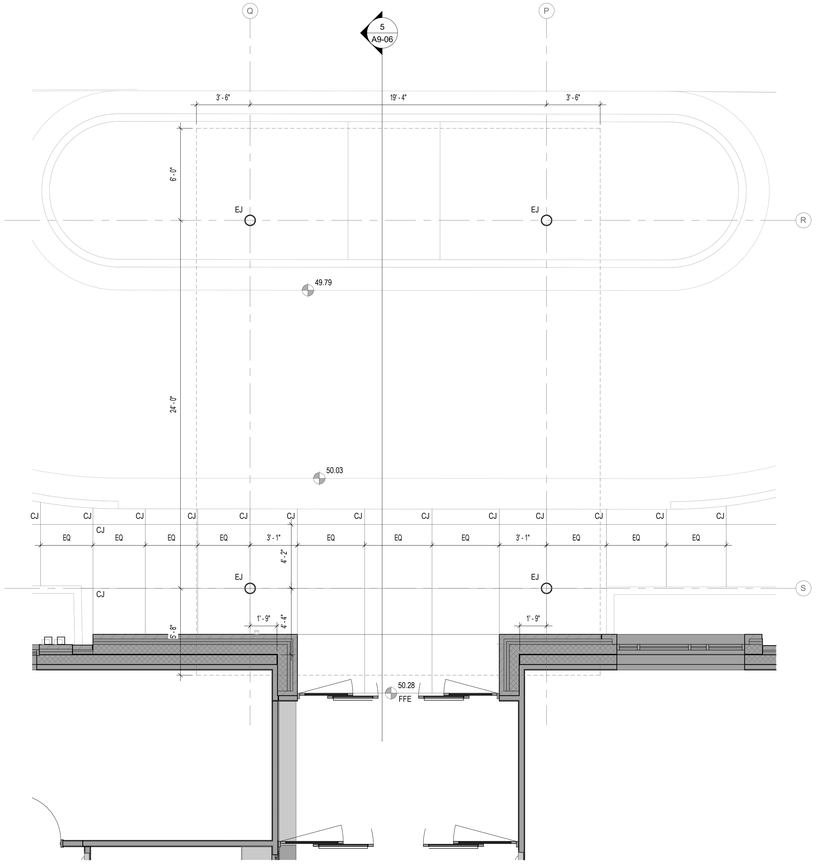
6 A9-06 COVERING EDGE DETAIL
1 1/2" = 1'-0"



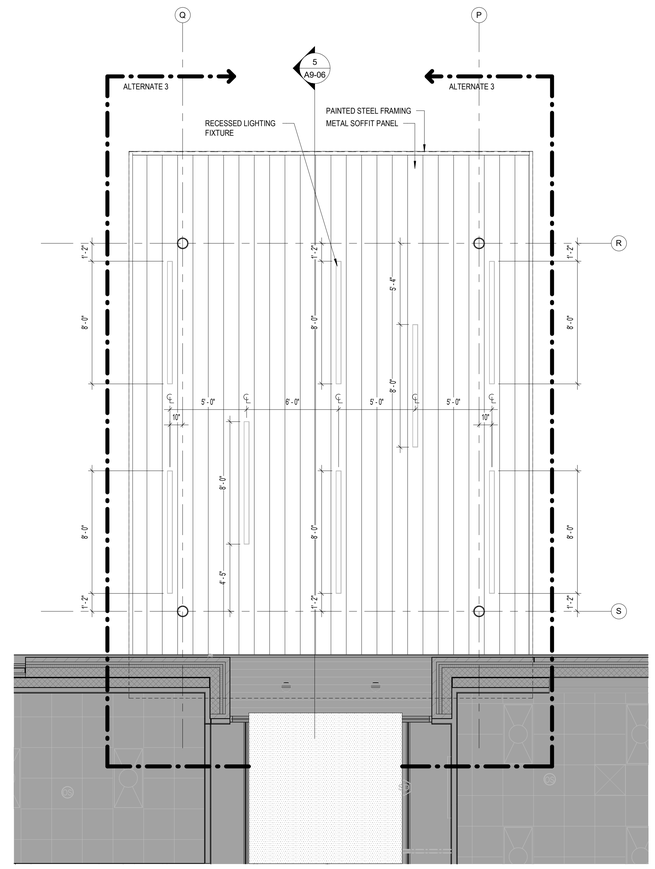
7 A9-06 COVERING EDGE DETAIL
1 1/2" = 1'-0"



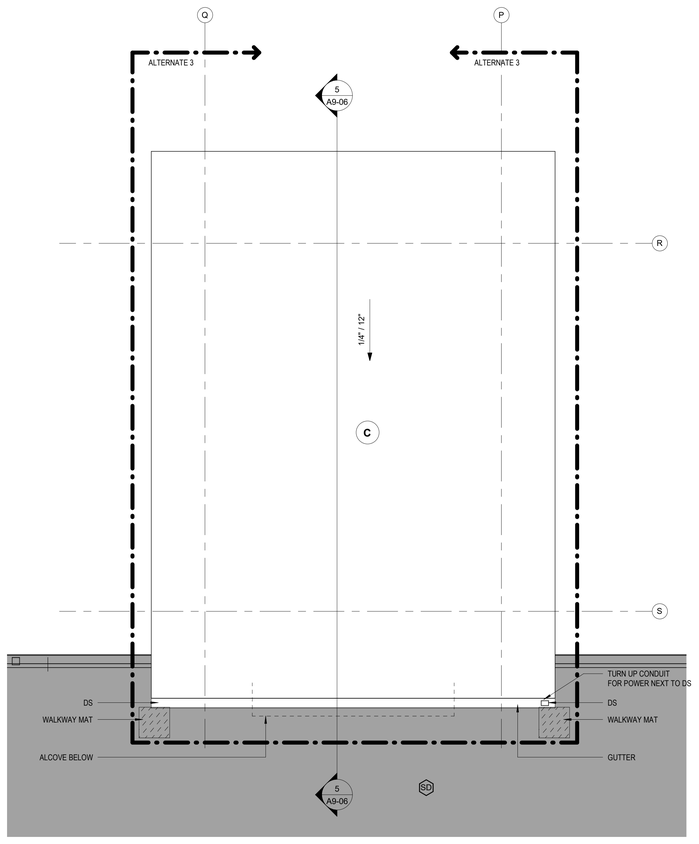
5 A9-06 ALTERNATE 3 - WALKWAY COVERING SECTION
1/2" = 1'-0"
0 1' 2' 4'



1 A9-06 ALTERNATE 3 - FLOOR PLAN
1/4" = 1'-0"
0 2' 4' 8'



2 A9-06 ALTERNATE 3 - REFLECTED CEILING PLAN
1/4" = 1'-0"
0 2' 4' 8'



3 A9-06 ALTERNATE 3 - ROOF PLAN
1/4" = 1'-0"
0 2' 4' 8'

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SMITH SINNETT ARCHITECTURE, P.A. CORPORATE SEAL CERT. NO. 9172 RALEIGH NORTH CAROLINA

JAMES EDWARD GUTHRIE 9585 REGISTERED ARCHITECT NORTH CAROLINA 10-11-2024

BID DOCUMENTS

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Onslow County Senior Services Center Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: FA,NB, JP
CHECKED BY: JEG

ALTERNATE 3 - MAIN ENTRANCE CANOPY - PLANS AND DETAILS

2021029 16 OCT. 2024

A9-06

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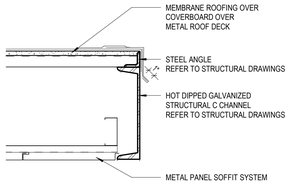
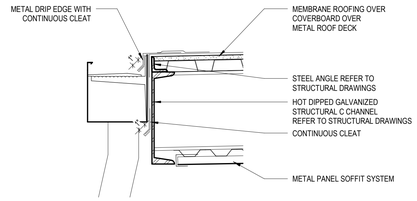
ALTERNATE ROOF LEGEND:	
⇒	INDICATES DIRECTION OF ROOF SLOPE ACHIEVED THROUGH SLOPE OF STRUCTURE
DS	PREFINISHED ALUMINUM DOWNSPOUT, TYPICAL
ALTERNATE ROOF TYPES LEGEND:	
C	ROOF TYPE: ROOF MEMBRANE SYSTEM OVER COVER BOARD OVER NEW METAL ROOF DECK

GENERAL NOTES:

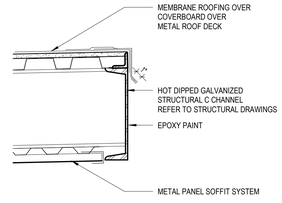
1. IF ALTERNATE 4 CANOPY IS ACCEPTED, BASE BID WALKWAY COVERING SHALL BE DELETED



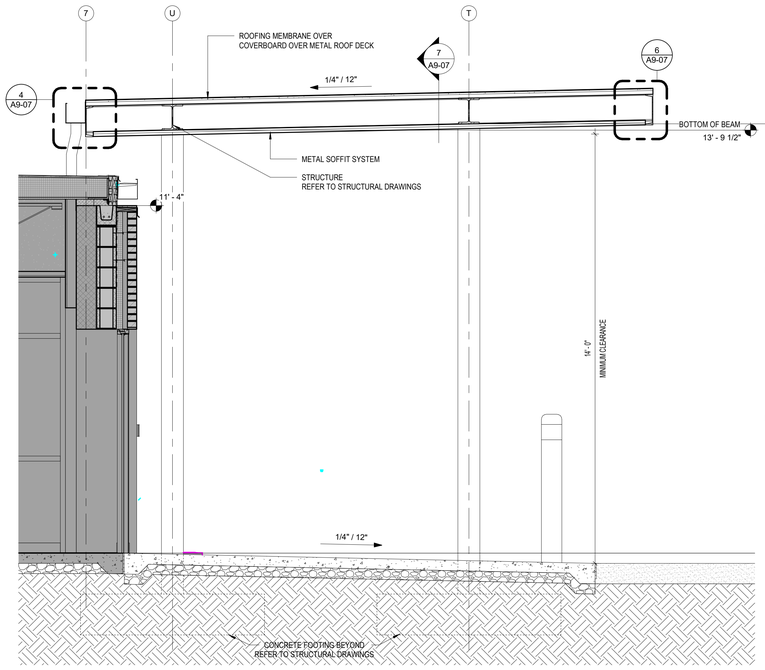
7 A9-07 COVERING EDGE DETAIL
1 1/2" = 1'-0"



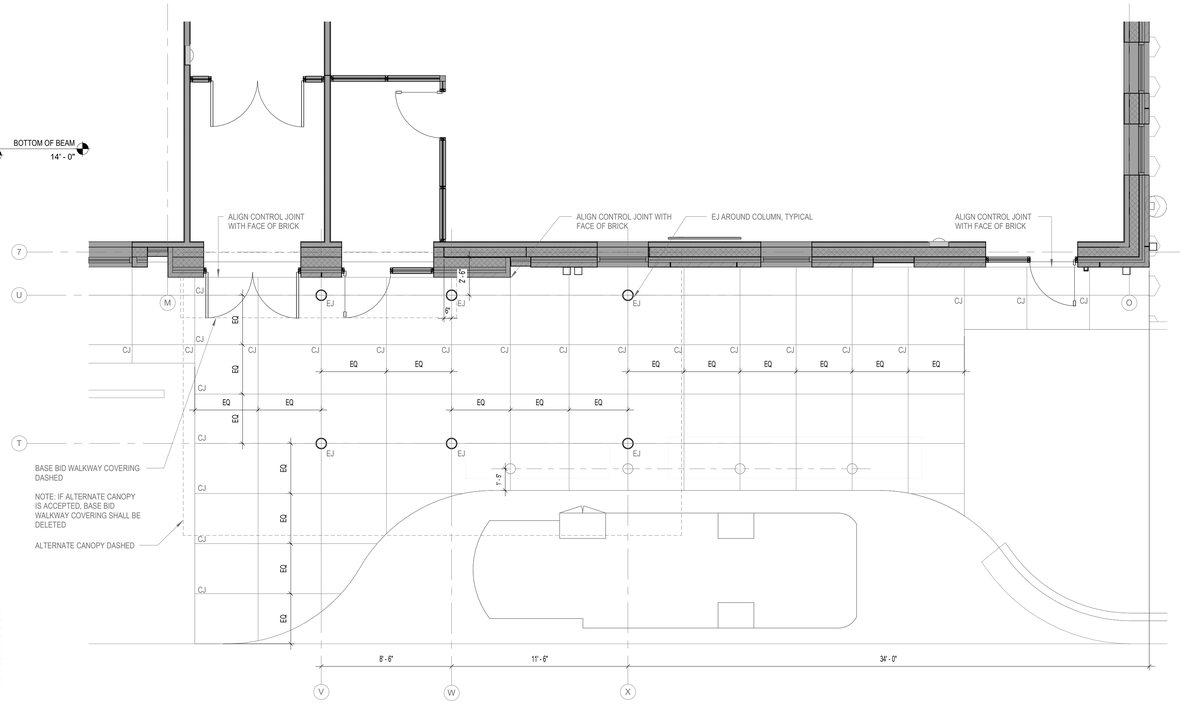
4 A9-07 COVERING EDGE DETAIL
1 1/2" = 1'-0"



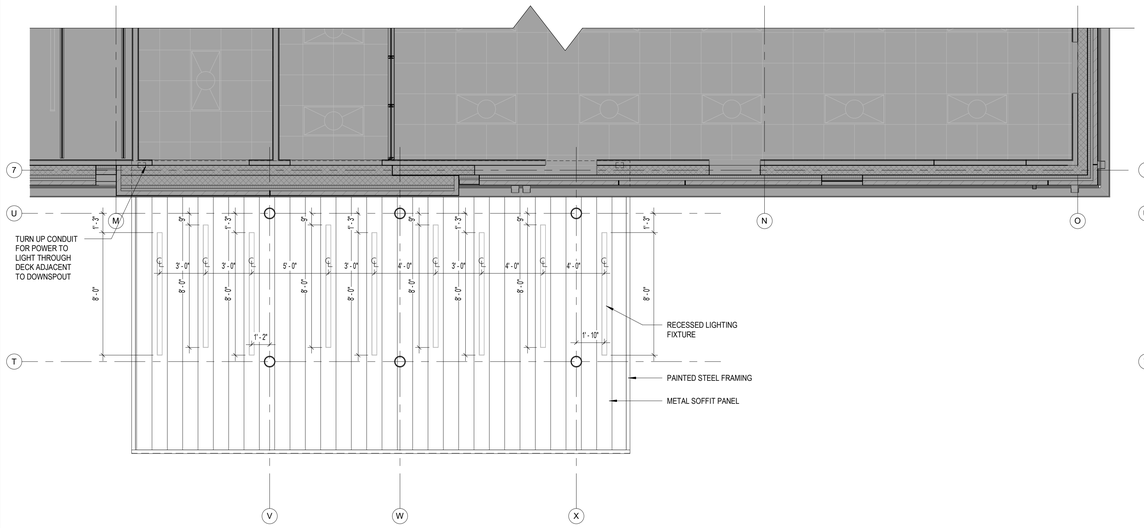
6 A9-07 COVERING EDGE DETAIL
1 1/2" = 1'-0"



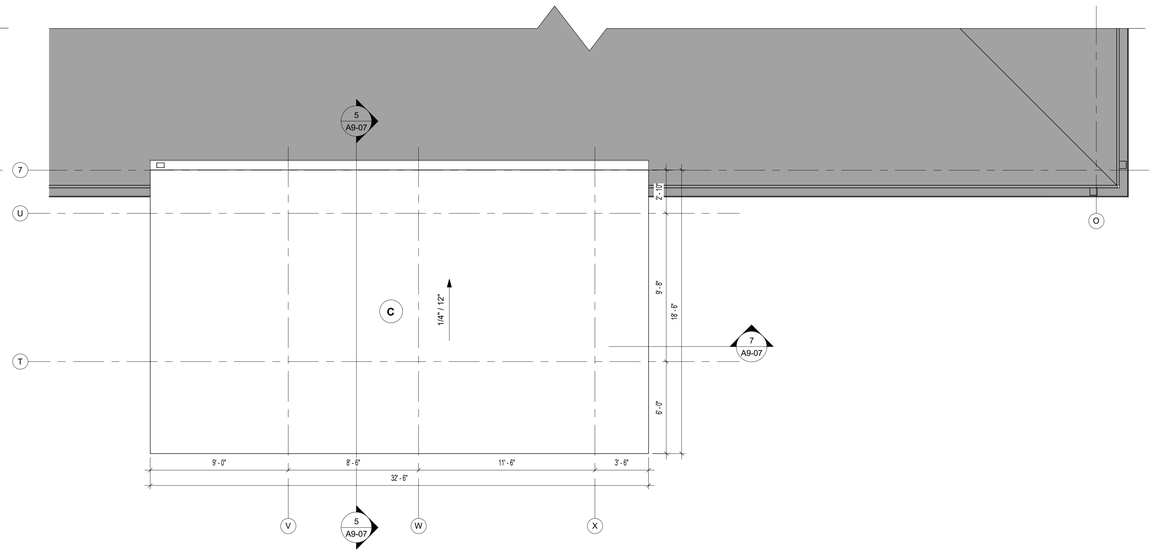
5 A9-07 ALTERNATE 4 - WALKWAY COVERING SECTION
1/2" = 1'-0"



1 A9-07 ALTERNATE 4 - FLOOR PLAN
1/4" = 1'-0"



2 A9-07 ALTERNATE 4 - REFLECTED CEILING PLAN
1/4" = 1'-0"



3 A9-07 ALTERNATE 4 - ROOF PLAN
1/4" = 1'-0"

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JAMES EDWARD GUTHRIE — 9585 — REGISTERED ARCHITECT — 10-11-2024

BID DOCUMENTS

Smith Sinnett Architecture, P.A. 2024

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DRAWN BY: FA,NB, JP
CHECKED BY: JEG

ALTERNATE 4 - ADULT DAY CARE CANOPY - PLANS AND DETAILS

2021029 16 OCT. 2024

A9-07

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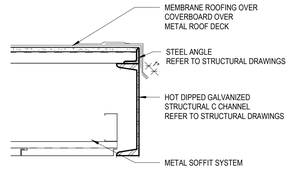
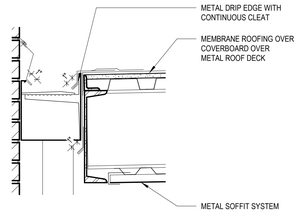
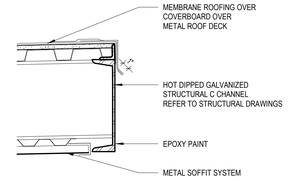
ALTERNATE ROOF LEGEND:	
⇒	INDICATES DIRECTION OF ROOF SLOPE ACHIEVED THROUGH SLOPE OF STRUCTURE
DS	PREFINISHED ALUMINUM DOWNSPOUT, TYPICAL
ALTERNATE ROOF TYPES LEGEND:	
C	ROOF TYPE: ROOF MEMBRANE SYSTEM OVER COVER BOARD OVER NEW METAL ROOF DECK



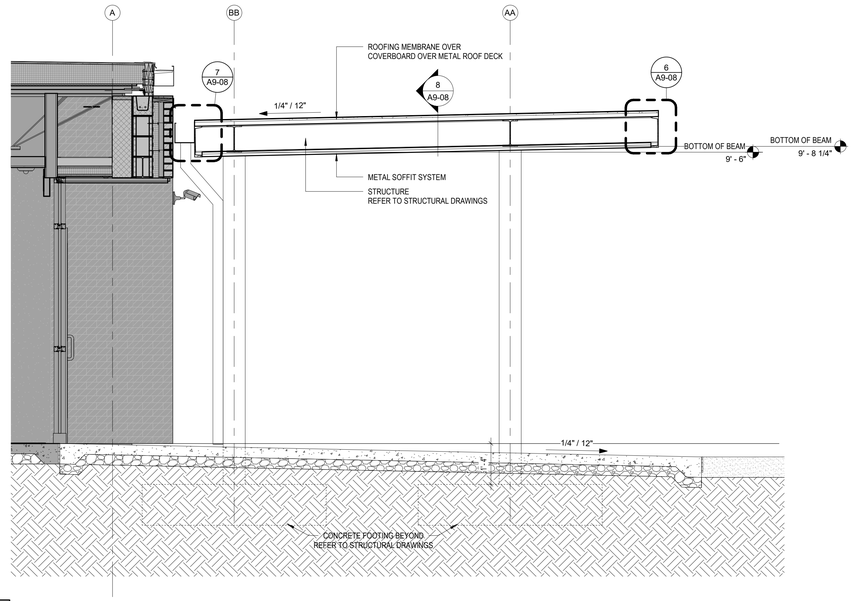
8 / A9-08 COVERING EDGE DETAIL
1 1/2" = 1'-0"



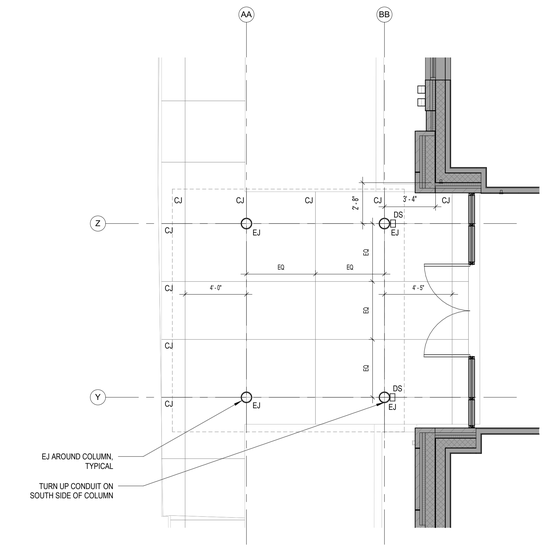
7 / A9-08 COVERING EDGE DETAIL
1 1/2" = 1'-0"



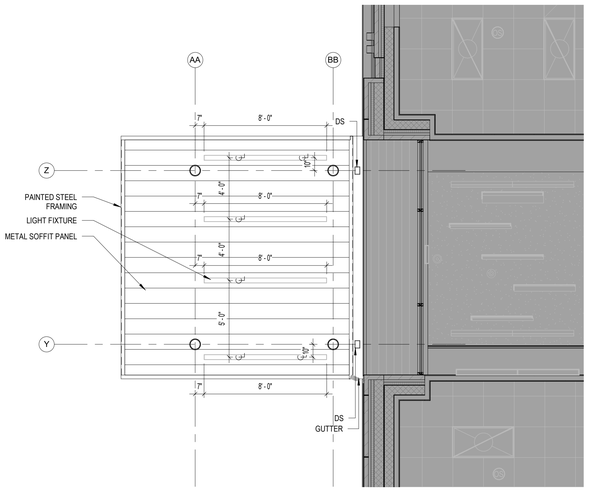
6 / A9-08 COVERING EDGE DETAIL
1 1/2" = 1'-0"



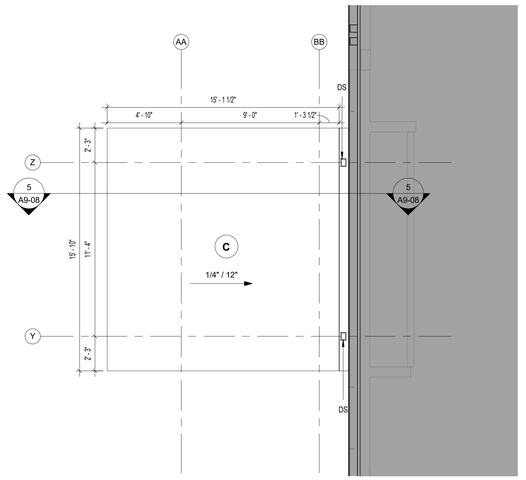
5 / A9-08 ALTERNATE 5 - WALKWAY COVERING SECTION
1/2" = 1'-0"
0 1' 2' 4'



1 / A9-08 ALTERNATE 5 - FLOOR PLAN
1/4" = 1'-0"
0 2' 4' 8'



2 / A9-08 ALTERNATE 5 - REFLECTED CEILING PLAN
1/4" = 1'-0"
0 2' 4' 8'



3 / A9-08 ALTERNATE 5 - ROOF PLAN
1/4" = 1'-0"
0 2' 4' 8'

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JAMES EDWARD GUTHRIE 9585 REGISTERED PROFESSIONAL ENGINEER 10-11-2024

BID DOCUMENTS

Smith Sinnett Architecture, P.A. 2024

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Onslow County Government
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ALTERNATE 5 - WEST ENTRANCE CANOPY - PLANS AND DETAILS

2021029 16 OCT. 2024

A9-08

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FINISH LEGEND

WALL FINISHES BASED ON PLAN LOCATION

ROOM NAME ROOM NUMBER			
NORTH	EAST	SOUTH	WEST
FLOOR	BASE	CEILING	

INDICATES ACCENT PAINT OR WALL TILE

INDICATES WALL TO RECEIVE LEVEL 5 GWB FINISH

CEILING TYPE - REFER TO REFLECTIVE CEILING PLANS (A1-20 , A1-21)

A	ACT-1, 2X2 CEILING TILE, WHITE (DO NOT PAINT)
B	ACT-2, 2X2 VINYL COVERED TILE (DO NOT PAINT)
D	GYPSUM WALLBOARD CEILING
E	GYPSUM BOARD CEILING - MOISTURE RESISTANT
J	EXPOSED EXISTING STRUCTURE - REFER TO RCP (A1-20 , A1-21) FOR SPECIFICS
K	EXPOSED EXISTING STRUCTURE - REFER TO RCP (A1-20 , A1-21) FOR SPECIFICS
L	EXPOSED EXISTING STRUCTURE - REFER TO RCP (A1-20 , A1-21) FOR SPECIFICS

WALL FINISH

PT-1	INTERIOR FIELD PAINT
EPT-1	EPOXY FIELD/ CEILING PAINT
PT-2	CEILING PAINT
EPT-2	EPOXY CEILING PAINT
PT- 3	ACCENT PAINT
PT- 4	ACCENT PAINT
PT- 5	ACCENT PAINT
PT- 6	ACCENT PAINT
PT- 7	ACCENT PAINT
PT- 8	ACCENT BULKHEADS
PT- 9	ACCENT COLUMN PAINT
PT- 10	ACCENT PAINT
PT- 11	HM FRAME AND DOOR PAINT
PT- 12	EXTERIOR PAINT
WT -1	WALL TILE

FLOOR FINISH

SC	SEALED CONCRETE
CPT-1	CARPET TILE
CPT- 2	CARPET TILE
WCT-1	WALK OFF CARPET TILE
FT1	FLOOR TILE 1 (6X6)
RAF	RESILIENT ATHLETIC FLOORING
VCT-1	VINYL COMPOSITION TILE
VCT-2	VINYL COMPOSITION TILE
LVT	LUXURY VINYL TILE

WALL BASE

RB	RUBBER BASE
TB	TILE BULLNOSE
MT	METAL TRIM - SCHLUTER DILEX-EHK

NOTE: ALL TILE WALL COVE TO MATCH FLOOR FINISH

SURFACE FINISH

PL- 1	PLASTIC LAMINATE CASEWORK
PL- 2	PLASTIC LAMINATE CASEWORK
PL- 3	PLASTIC LAMINATE CASEWORK
PL- 4	PLASTIC LAMINATE CASEWORK
PL- 5	PLASTIC LAMINATE CASEWORK
SS1	SOLID SURFACE CASEWORK COUNTER
SS2	SOLID SURFACE CASEWORK COUNTER
SS3	REFER TO PLUMBING FOR CASEWORK

THRESHOLD - REFER TO A6-02

T1	VCT TO CPT TRANSITION STRIP
T2	SC TO CPT TRANSITION STRIP
T3	VCT TO FT TRANSITION STRIP
T4	LVT TO RAF TRANSITION STRIP
T5	FT TO FT TRANSITION STRIP
T6	LVT TO CPT TRANSITION STRIP
T7	LVT TO VCT TRANSITION STRIP
T8	CPT TO FT TRANSITION STRIP
T9	LVT TO FT TRANSITION STRIP

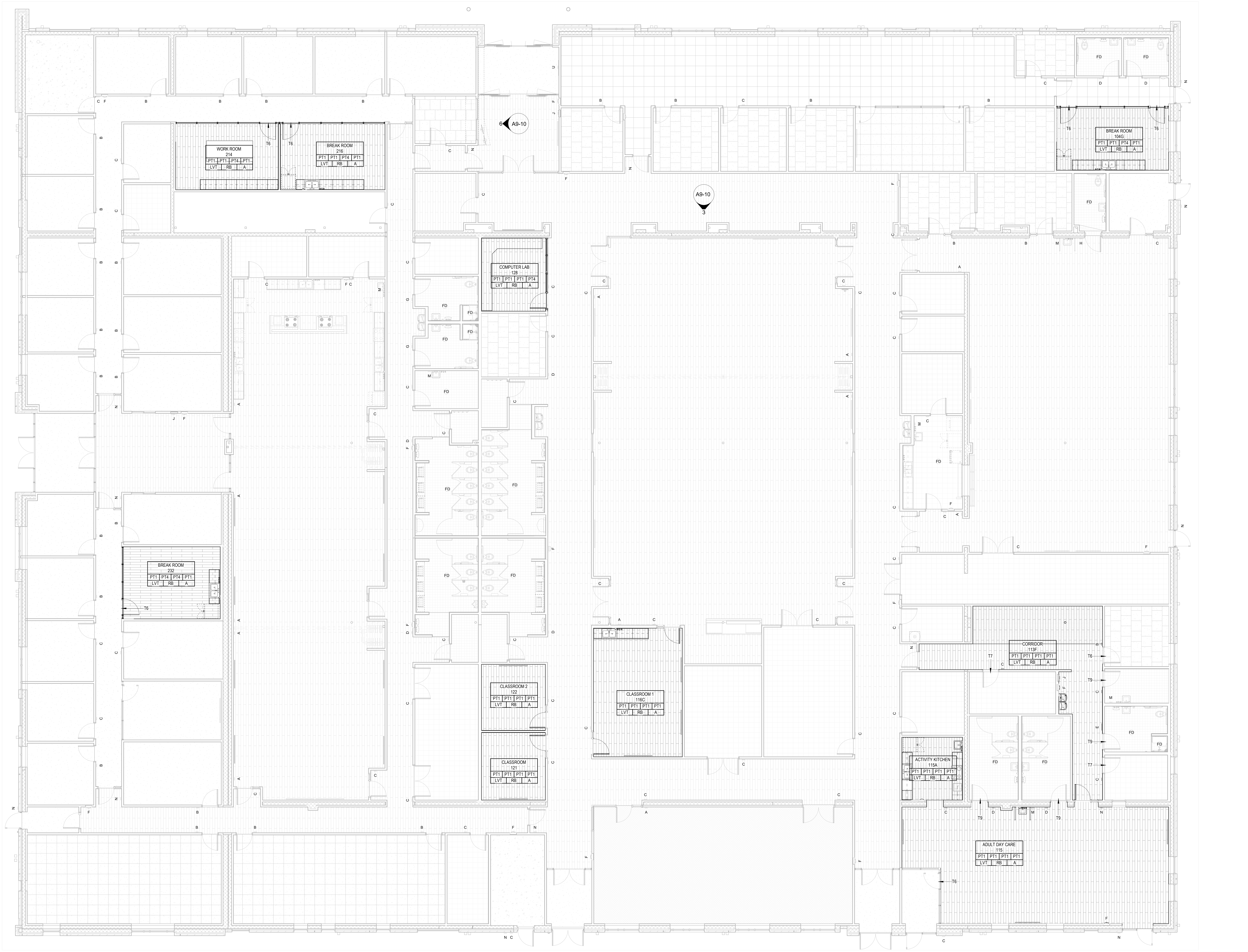
WINDOW FINISHES

SS4	WINDOW STOOL
RS	ROLLER SHADES
BO	BLACK OUT SHADE

CORNER GUARDS

GENERAL FINISH NOTES:

1. ALL GYPSUM BOARD CEILINGS AND BULKHEADS UNLESS OTHERWISE NOTED SHALL BE PT-2.
2. ALL INTERIOR EXPOSED CEILINGS UNLESS OTHERWISE NOTED SHALL BE PT-2.
3. ALL BULKHEADS IN WET LOCATIONS SHALL BE EPT-1.
4. EPT-1 TO BE USED ON ALL RESTROOM WALLS ABOVE AND ADJACENT TO WALL TILE.
5. ALL SHOWER CEILINGS AND BULKHEADS SHALL BE EPT -2.
6. FINISH MATERIALS SUBMITTED AS EQUALS TO THE BASIS OF DESIGN WILL BE APPROVED OR REJECTED BASED ON COLOR INTEGRITY AND TACTILE CHARACTERISTICS IN ADDITION TO TECHNICAL SPECIFICATIONS.
7. FINISHES ARE CONTINGENT ON FINAL OWNER AND ARCHITECT APPROVAL.
8. METAL FINISHING STRIPS TO BE USED ON ALL VERTICAL AND HORIZONTAL EDGES, AND CORNERS OF WALL TILE.
9. FINISHED-EDGE TILE TO BE USED AT TOP COURSE OF WALL TILE.
10. GC TO ENSURE LEVEL FLOOR FINISH AT ALL TILE TRANSITIONS.
11. ALL EXTERIOR WINDOWS TO HAVE ROLLER SHADE BLINDS UNLESS OTHERWISE NOTED, REFER TO SPECIFICATIONS.
12. ALL CERAMIC TILE TO HAVE CONTROL JOINTS THAT ALIGN WITH CONTROL JOINTS IN CONCRETE SLAB



1 A9-09 **ALTERNATE 6A - FINISH PLAN**
1/8" = 1'-0"

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SMITH SINNETT ARCHITECTURE, PA — ARCHITECTURAL CORPORATION — CERT. NO. 50172 — REGISTERED NORTH CAROLINA — RALEIGH

JAMEY EDWARD GLUECK Registered Architect 9585 North Carolina RALEIGH, NC 10-16-2024

BID DOCUMENTS

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Onslow County Government
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CHECKED BY: JEG

ALTERNATE 6A - UPGRADED FLOOR FINISH - FINISH FLOOR PLAN

2021029 16 OCT. 2024

A9-09

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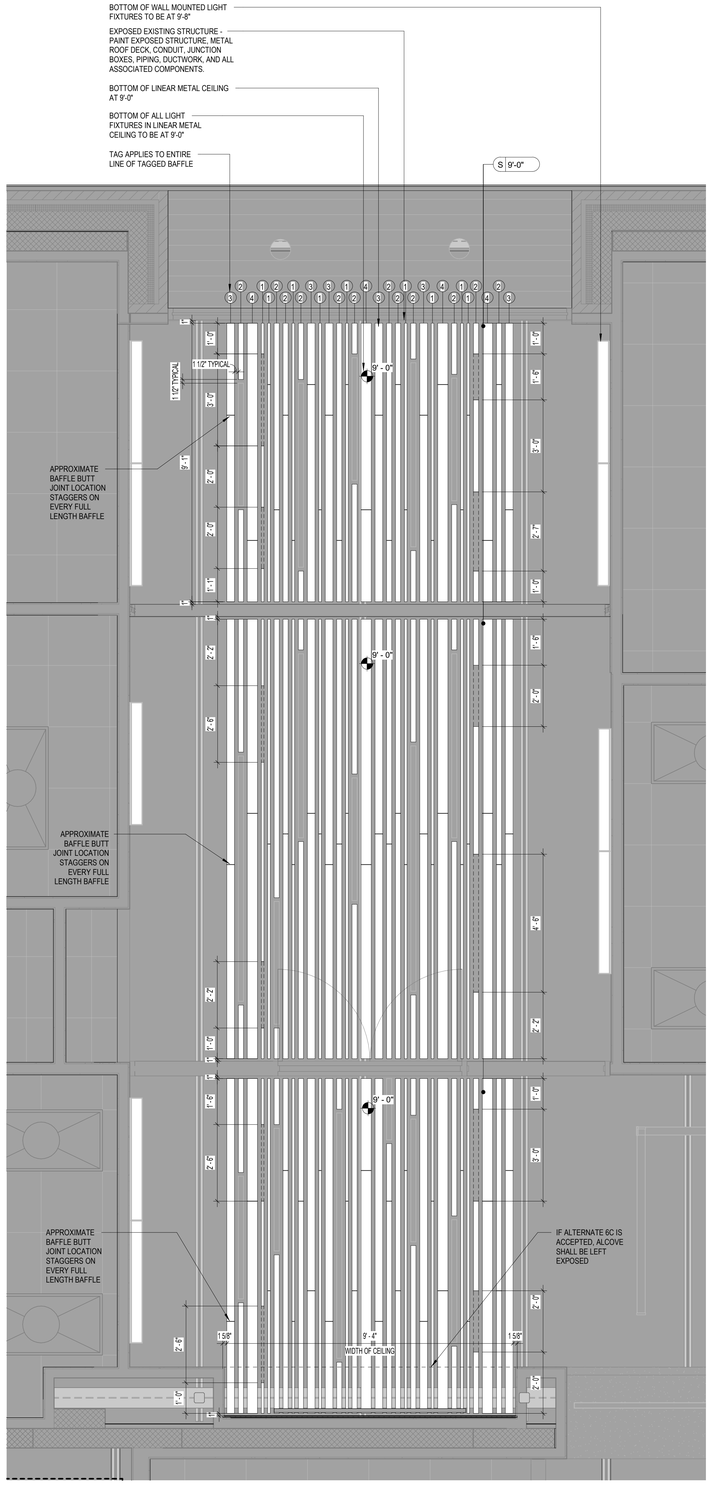
ALTERNATE 6C LEGEND

1	1 INCH WIDE CEILING BAFFLE
2	2 INCH WIDE CEILING BAFFLE
3	3 INCH WIDE CEILING BAFFLE
4	4 INCH WIDE CEILING BAFFLE
	APPROXIMATE LOCATION OF SPRINKLER HEAD
	APPROXIMATE LOCATION OF BUTT JOINT ON FULL LENGTH BAFFLE

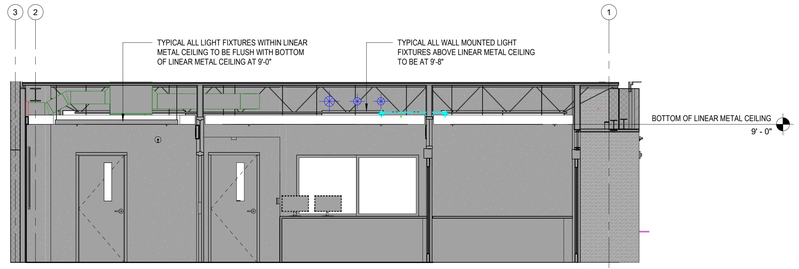
GENERAL NOTES

1. DEPTH OF BAFFLES ALL 5"
2. IF ALTERNATE 6C IS ACCEPTED, ALCOVE SHALL BE LEFT EXPOSED, SEE 4/A9-10



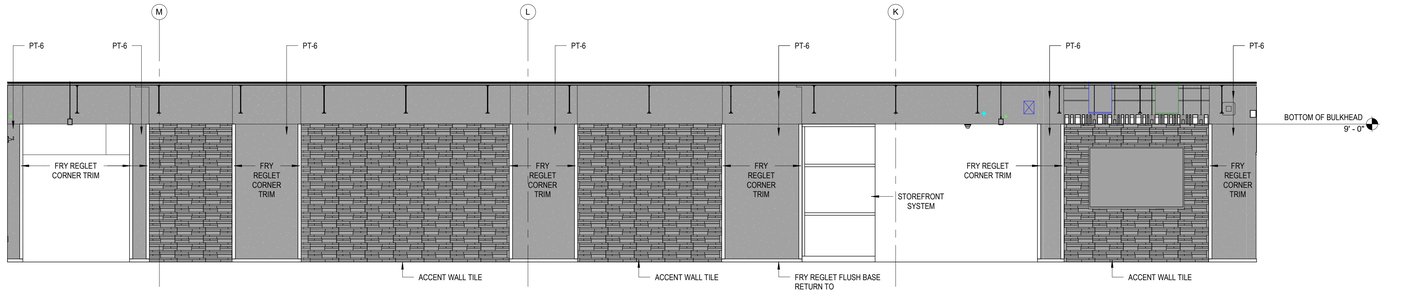
4 A9-10 ALTERNATE 6C - REFLECTED CEILING PLAN
1/2" = 1'-0"

0 1' 2' 4'



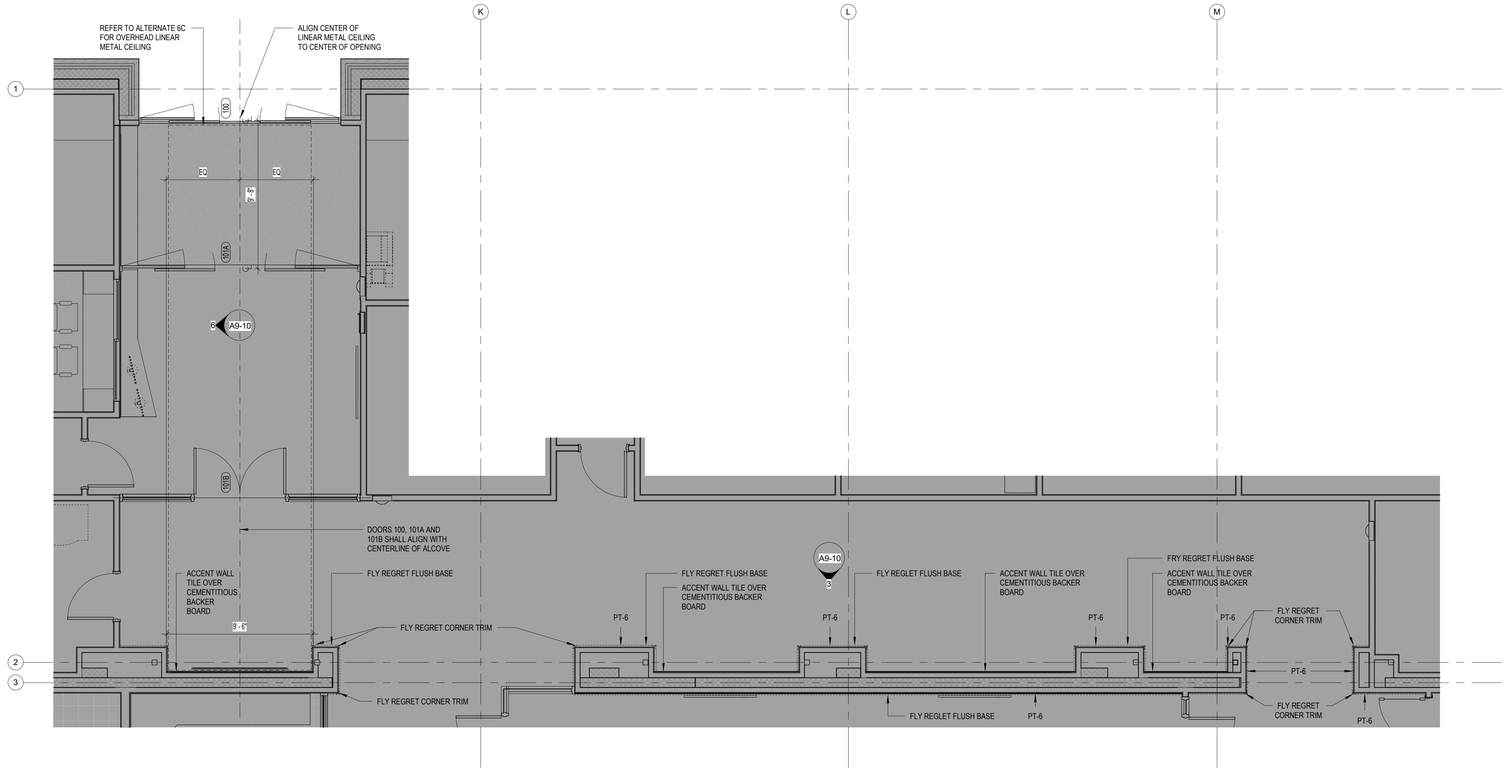
6 A9-10 ALTERNATE 6C - WEST ELEVATION
1/4" = 1'-0"

0 2' 4' 8'



3 A9-10 ALTERNATE 6B - INTERIOR ELEVATION LOOKING SOUTH
1/4" = 1'-0"

0 2' 4' 8'



2 A9-10 ALTERNATE 6B - FLOORPLAN
1/4" = 1'-0"

0 2' 4' 8'

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CHECKED BY: JEG

ALTERNATE 6B and 6C - UPGRADED WALL AND CEILING FINISH - PLANS

2021029 16 OCT. 2024

A9-10

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PLUMBING GENERAL NOTES

1. THE CONTRACT DOCUMENTS ARE COMPLIMENTARY AND WHAT IS REQUIRED BY ONE SHALL BE BINDING AS IF REQUIRED BY ALL - IN THE CASE OF CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE BETTER QUALITY AND/OR GREATER QUANTITY OF WORK
2. BE RESPONSIBLE FOR ALL PERMITS, FEES, AND COSTS ASSOCIATED WITH THE INSTALLATION OF PLUMBING WORK
3. 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 ENGINEER
4. VISIT THE PROJECT SITE PRIOR TO BIDDING AND BE FAMILIAR WITH THE EXISTING CONDITIONS
5. REFER TO THE ARCHITECTURAL PLANS FOR ALL FLOOR PLAN DIMENSIONS - DO NOT SCALE THESE PLANS
6. ENSURE THAT ITEMS TO BE FURNISHED UNDER THIS CONTRACT WILL FIT THE SPACE AVAILABLE - MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS, INCLUDING THOSE FOR CONNECTIONS AND SERVICE CLEARANCE REQUIREMENTS, AND FURNISH AND INSTALL SUCH SIZES AND SHAPES OF EQUIPMENT THAT ARE THE TRUE INTENT AND MEANING OF THE DRAWINGS AND SPECIFICATIONS
7. COORDINATE WITH ALL PRIME AND/OR SUBCONTRACTORS THE INSTALLATION OF FIXTURES AND EQUIPMENT UNDER THIS CONTRACT, PRIOR TO THE INSTALLATION, IN ORDER TO AVOID CONFLICT WITH OTHER TRADES - IF AN ALTERNATE METHOD OF INSTALLATION IS REQUIRED, IT SHALL BE COORDINATED WITH THE ENGINEER OR ARCHITECT PRIOR TO START OF WORK
8. PROVIDE AND INSTALL ALL PLUMBING SUPPORT DEVICES - ALL LOCATIONS SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR AND OTHER PRIME CONTRACTORS AND/OR SUBCONTRACTORS PRIOR TO INSTALLATION
9. PROVIDE ALL OPENINGS IN WALLS AND FLOORS UNLESS NOTED OTHERWISE - VERIFY LOCATION AND SIZE OF ALL OPENINGS REQUIRED UNDER THIS CONTRACT WITH THE GENERAL CONTRACTOR
10. PROVIDE ALL ACCESS DOORS AS REQUIRED FOR CODE COMPLIANCE AND TO ACCESS ANY INSTALLATION THAT WILL REQUIRE FUTURE MAINTENANCE - THESE DOORS SHALL BE 20" x 20" UNLESS NOTED OTHERWISE - EACH ROOM WITH A DRYWALL CEILING SHALL HAVE A MINIMUM OF ONE ACCESS DOOR PROVIDED BY THE PLUMBING CONTRACTOR - THE DRYWALL SUBCONTRACTOR SHALL PROVIDE THE REQUIRED FRAMED OPENING AND INSTALL THE ACCESS DOORS
11. SEAL ALL PENETRATIONS OF FIRE RATED WALLS USING THE UL METHODS DETAILED IN THESE DRAWINGS
12. INSTALL INSULATED WATER PIPING IN EXTERIOR WALLS ON THE INTERIOR SIDE OF THE WALL INSULATION - SEE SPECIFICATIONS FOR SIZE AND TYPE INSULATION TO BE USED
13. THE USE OF FLEXIBLE RUBBER COUPLINGS IS PROHIBITED - REFER TO PROJECT SPECIFICATIONS FOR ACCEPTABLE TYPE 304 STAINLESS STEEL JACKETED CLAMPS
14. INSTALL FLOOR DRAIN STRAINERS AND CLEANOUT TOPS FLUSH WITH THE FINISHED FLOOR ELEVATION - A RAISED OR LOWERED STRAINER OR CLEANOUT TOP WILL NOT BE ACCEPTABLE
15. INSTALL ALL THREADED CLEANOUT PLUGS WITH PIPE DOPE TO ALLOW FOR EASY REMOVAL IN THE FUTURE
16. PLUMBING FIXTURES SHALL BE NEATLY CAULKED WITH SILICONE CAULKING COMPOUND WHERE THE FIXTURE MEETS THE WALL, COUNTERTOP, OR FLOOR UNLESS OTHERWISE NOTED
17. PROVIDE CHROME ESCUTCHEON RINGS AT CEILING AND WALL PIPE PENETRATIONS AT ALL EXPOSED TO VIEW PIPING
18. WHERE VALVES ON WATER LINES ARE LOCATED ABOVE CEILING, LOCATE THEM 8" ABOVE CEILING
19. IN ADDITION TO THE LOCATIONS REQUIRED IN THESE DRAWINGS, LEAD-FREE, TWO-PIECE, FULL-PORT BRONZE BALL VALVES/SHUTOFFS SHALL BE PROVIDED AS REQUIRED BY THE LATEST CURRENT VERSION OF THE NC PLUMBING CODE SECTION 606
20. PROVIDE SHUTOFF VALVE IN ALL BRANCH PIPING THAT SERVES MORE THAN ONE FIXTURE.
21. COORDINATE EXACT FLOOR DRAIN LOCATIONS IN THE MECHANICAL ROOMS WITH THE MECHANICAL CONTRACTOR FOR THE TYPE OF MECHANICAL EQUIPMENT TO BE INSTALLED
22. INSTALL HANGER RODS BEFORE GYPSUM BOARD CEILINGS ARE INSTALLED AND COMPLETE PIPING INSTALLATION AFTER THE CEILING HAS BEEN FINISHED
23. THE FLASHING AND COUNTER-FLASHING FOR ALL VENTS THROUGH THE ROOF SHALL BE PROVIDED AND INSTALLED BY THE GENERAL CONTRACTOR - THE PLUMBING CONTRACTOR SHALL COORDINATE ALL LOCATIONS OF THE VENTS THROUGH THE ROOF WITH THE ROOFING SUB-CONTRACTOR - ALL VENTS THROUGH THE ROOF SHALL BE A MINIMUM OF 10'-0" FROM ALL MECHANICAL FRESH AIR INTAKE GRILL OR DUCT OPENING OR A MINIMUM OF 2'-0" ABOVE THE TOP OF SUCH OPENINGS -
24. EACH ABOVE GROUND SECTION OF GAS PIPING SHALL BE ELECTRICALLY BONDED PER NC FUEL GAS CODE SECTION 310
25. PROVIDE FINAL CONNECTIONS AND ALL NECESSARY PIPE AND FITTINGS TO ALL KITCHEN EQUIPMENT THAT REQUIRES WASTE AND WATER UNLESS OTHERWISE NOTED
26. PROVIDE FINAL CONNECTIONS AND ALL NECESSARY PIPE AND FITTINGS TO ALL GAS FIRED EQUIPMENT UNLESS NOTED OTHERWISE
27. PROVIDE ALL ELECTRICAL AND CONTROL CONNECTIONS TO THE EQUIPMENT PROVIDED UNDER THIS CONTRACT - REFER TO THE ELECTRICAL PLANS FOR LOCATIONS OF JUNCTION BOXES, DISCONNECTS, PANELS, AND CIRCUIT BREAKERS - TYPE, SIZE, AND NUMBER OF CONDUCTORS AND CONDUITS TO EQUIPMENT SHALL BE EQUAL TO THE CONDUCTORS AND CONDUITS PROVIDED BY THE ELECTRICAL CONTRACTOR TO THE JUNCTION BOXES AND DISCONNECT SWITCHES - CONNECTIONS SHALL CONFORM TO THE LATEST CURRENT VERSION OF THE NATIONAL ELECTRICAL CODE REGULATIONS
28. ALL MOTOR STARTERS, SWITCHES, CONTROL DEVICES, ETC. SHALL BE RECESSED IN THE WALLS, EXCEPT WHERE THESE ITEMS ARE LOCATED IN THE MECHANICAL ROOMS
29. PROVIDE NAMEPLATES FOR ALL EQUIPMENT, SWITCHES, CONTROL DEVICES, ETC.
30. WATER HEATER INSTALLATIONS SHALL COMPLY WITH THE LATEST CURRENT VERSION OF THE NATIONAL ELECTRICAL CODE
31. FIELD LOCATE ALL UNDERGROUND UTILITIES WHICH MAY OR MAY NOT BE SHOWN ON THESE PLANS PRIOR TO THE START OF WORK - AVOID CONFLICTING WITH THESE UTILITIES DURING THE INSTALLATION OF THE WORK AND REPAIR ANY DAMAGE TO THESE UTILITIES AT NO ADDITIONAL COSTS TO THE PROJECT
32. EXISTING PIPING LOCATIONS AND CONNECTIONS HAVE BEEN PRODUCED FROM BEST AVAILABLE INFORMATION - VERIFY THESE LOCATIONS IN THE FIELD - SHOULD A DIFFERENT METHOD OF PIPING BE REQUIRED THAN THAT SHOWN ON THESE PLANS, NOTIFY ENGINEER AND COORDINATE WITH ENGINEER THE PROPOSED CONFIGURATION
33. COORDINATE ALL SHUT-DOWN TIMES OF THE EXISTING WATER AND WASTE PIPING WITH THE OWNER PRIOR TO THE INSTALLATION OF ANY NEW PIPING
34. PROVIDE THE CUTTING AND PATCHING OF EXISTING FLOORS, WALLS, CEILINGS, AND ROOFING WHERE NEW FIXTURES ARE ADDED OR EXISTING FIXTURES ARE REMOVED - GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PAINTING AND FLOOR FINISHES
35. ALL EXISTING SOIL, WASTE, STORM, WATER, AND GAS PIPING THAT IS TO BE REMOVED SHALL BE REMOVED AS FAR AS POSSIBLE WITHIN THE SCOPE OF THE PROJECT - WHERE REQUIRED, REMAINING EXISTING PIPING SHALL BE CAPPED WATER AND GAS TIGHT AT ACTIVE MAINS BELOW THE SLAB, FLOOR, OR GRADE, OR WITHIN THE WALLS OR CEILING UNLESS NOTED OTHERWISE
36. COORDINATE CAPPING OF EXISTING PIPING WITH OTHER TRADES SO THAT CAPPING DOES NOT CONFLICT WITH PROPER INSTALLATION AND FUNCTION OF THE COMPLETED SCOPE OF THE NEW WORK
37. EXISTING SOIL, WASTE, STORM OR VENT PIPING THAT IS TO BE REMOVED SHALL BE REMOVED SUCH THAT DEAD ENDS ARE NOT CREATED - ANY PORTION OF CAPPED SOIL, WASTE, STORM OR VENT PIPING AT A DEVELOPED LENGTH OF 2' OR MORE FROM A MAIN OR CONNECTED FUNCTIONING BRANCH SHALL BE CONSIDERED A DEAD END
38. WHERE PIPING IS TO BE INSTALLED BENEATH EXISTING CONCRETE SLAB ON GRADE FLOORS, SAW CUT THE FLOOR TO 1/2" DEEP BEFORE BREAKAGE TO AVOID IRREGULAR CUT LINES, EXCAVATE EARTH MATERIALS, INSTALL PIPING, BACKFILL, AND COMPACT BACKFILL MATERIAL IN PREPARATION FOR GENERAL CONTRACTOR TO PLACE CONCRETE PATCHING
39. WHERE PIPING CONTAINING GAS IS TO BE REMOVED, OBSERVE PROCEDURE OF NCFGC 406.7.1, NFPA 54 7.2.7 AND 8.3.1 AND NFPA 56(PS) - DISCONNECT THE GAS PIPING FROM THE GAS SOURCE, VENT TO THE OUTDOORS, AND THOROUGHLY PURGE WITH AIR, WATER, OR INERT GAS BEFORE CUTTING OR WELDING
40. ANY ITEM REMOVED FROM THE BUILDING DURING DEMOLITION SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE TURNED OVER TO THE OWNER FOR DISPOSAL - CARE SHALL BE TAKEN IN THE REMOVAL OF ITEMS TO MINIMIZE DAMAGE - ANY ITEM NOT WANTED BY THE OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PREMISES
41. ALL MATERIALS IN PLENUM SPACES MUST BE NON-COMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E84E
42. ALL PLUMBING SYSTEMS SHALL BE INSTALLED IN SUCH A MANNER AS TO COMPLETELY PREVENT THE POSSIBILITY OF CROSS CONNECTIONS BETWEEN SAFE AND UNSAFE SUPPLIES OR BACK SIPHONAGE.
43. PROVIDE TRAP PRIMER VALVES AS NOTED IN FIXTURE SCHEDULE AND AS NOTED ON PLANS - TRAP PRIMERS SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS - TRAP PRIMER VALVE SHALL BE INSTALLED ON A MINIMUM OF 1/2" SIZE COLD WATER PIPE AND SHALL BE LOCATED AT NEAREST FIXTURE TO DEVICE TO BE PRIMED AND IN A SERVICEABLE LOCATION - TRAP PRIMERS SHALL BE ELIMINATED WHERE BOTH HOSE BIBBS/HYDRANTS ARE PROVIDED AND FLOORS ARE NON-ABSORBENT.
44. WATER HAMMER ARRESTORS SHALL BE OF ALL STAINLESS STEEL CONSTRUCTION AND IN CONFORMANCE WITH P. D. I. STANDARD WH201 BY ZURN, J. R. SMITH, OR WADE. PROVIDE NEW WATER HAMMER ARRESTORS ON COLD WATER PIPING JUST UPSTREAM OF THE LAST FLUSH VALVE FIXTURE FOR EACH COLD WATER BRANCH SERVING FLUSH VALVE FIXTURES - SIZED AS NEEDED ACCORDING TO SCHEDULE ON SHEET P-1 AND ACCESSIBLE FOR FUTURE REPLACEMENT - COORDINATE NECESSARY ACCESS PANELS WITH ARCHITECT'S REFLECTED CEILING PLAN AND/OR ELEVATIONS.

SYMBOL LEGEND

SYMBOL	DESCRIPTION
	WASTE PIPING
	VENT PIPING
OS	WASTE PIPING TO OIL SEPARATOR
C	CONDENSATE DRAIN PIPING
	COLD WATER PIPING
	110°F HOT WATER PIPING
	110°F HOT WATER RETURN PIPING
G	NATURAL GAS PIPING AT 2 PSI (MEDIUM) PRESSURE
RDL	ROOF DRAIN PIPING OVERHEAD
RD	ROOF DRAIN PIPING UNDER FLOOR OR BELOW GRADE
OFDL	OVERFLOW ROOF DRAIN PIPING OVERHEAD
	BALL VALVE
	GLOBE VALVE
	CHECK VALVE
	GAS COCK
	ELECTRIC SOLENOID VALVE
	UNION
	BUTTERFLY VALVE
	THERMOSTATIC BALANCING VALVE
	HYDRANT
	PIPE TURNS UP
	PIPE TURNS DOWN
	CLEANOUT AT WALL OR IN CEILING
	CLEANOUT AT FINISHED FLOOR/FINISHED GRADE
A	WATER HAMMER ARRESTOR WITH PDI SIZE (REFER TO WATER HAMMER SCHEDULE)
	POINT OF CONNECTION
	ENDPOINT OF DEMOLITION
VTR	VENT THROUGH ROOF
FFE	FINISH FLOOR ELEVATION
BFF	BELOW FINISH FLOOR
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
INV	INVERT OF PIPING
VIF	VERIFY IN FIELD
℄	CENTERLINE
ROW	RIGHT OF WAY
(E)	EXISTING
(N)	NEW
ST STL	STAINLESS STEEL
UON / UNO	UNLESS OTHERWISE NOTED / UNLESS NOTED OTHERWISE

LOAD SUMMARY

WASTE DEMAND IN FU'S	COLD WATER DEMAND IN FU'S	COLD WATER DEMAND IN GPM	HOT WATER DEMAND IN FU'S	HOT WATER DEMAND IN GPM	TOTAL NAT GAS DEMAND IN MBH
174	362	120	54	50	2,133.7

NATURAL GAS CONNECTION

UINT NAME	NAT GAS DEMAND IN MBH
RTU'S	1,893
GENERATOR	41.7
GAS WATER HEATER	199

WATER HAMMER ARRESTORS

NOTE: INSTALL AT ALL FLUSH VALVE FIXTURES

PDI DESIGNATION	JAY R SMITH	ZURN	WADE	MAX FU'S
A	5005	100	W-5	11
B	5010	200	W-10	32
C	5020	300	W-20	60
D	5030	400	W-50	113
E	5040	500	W-75	154
F	5050	600	W-100	330

PLUMBING CONNECTION SCHEDULE

	WASTE	COLD WATER	HOT WATER
SHOWERS (SH-1)	2"	1/2"	1/2"
WATER CLOSET (FLUSH VALVE)	4"	1"	-
URINAL (FLUSH VALVE)	2"	3/4"	-
LAVATORY	2"	1/2"	1/2"
SINK	2"	1/2"	1/2"
MOP RECEPTOR	3"	3/4"	3/4"
ELECTRIC WATER COOLER	2"	1/2"	-
HYDRANT / HOSE BIB	-	3/4"	-

SHEET INDEX - PLUMBING

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PDC #22074

10/11/2024

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Onslow County Senior Service Center Renovation

Onslow County Government

4024 Richlands Hwy, Jacksonville, NC 28540

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LEAD SHEET

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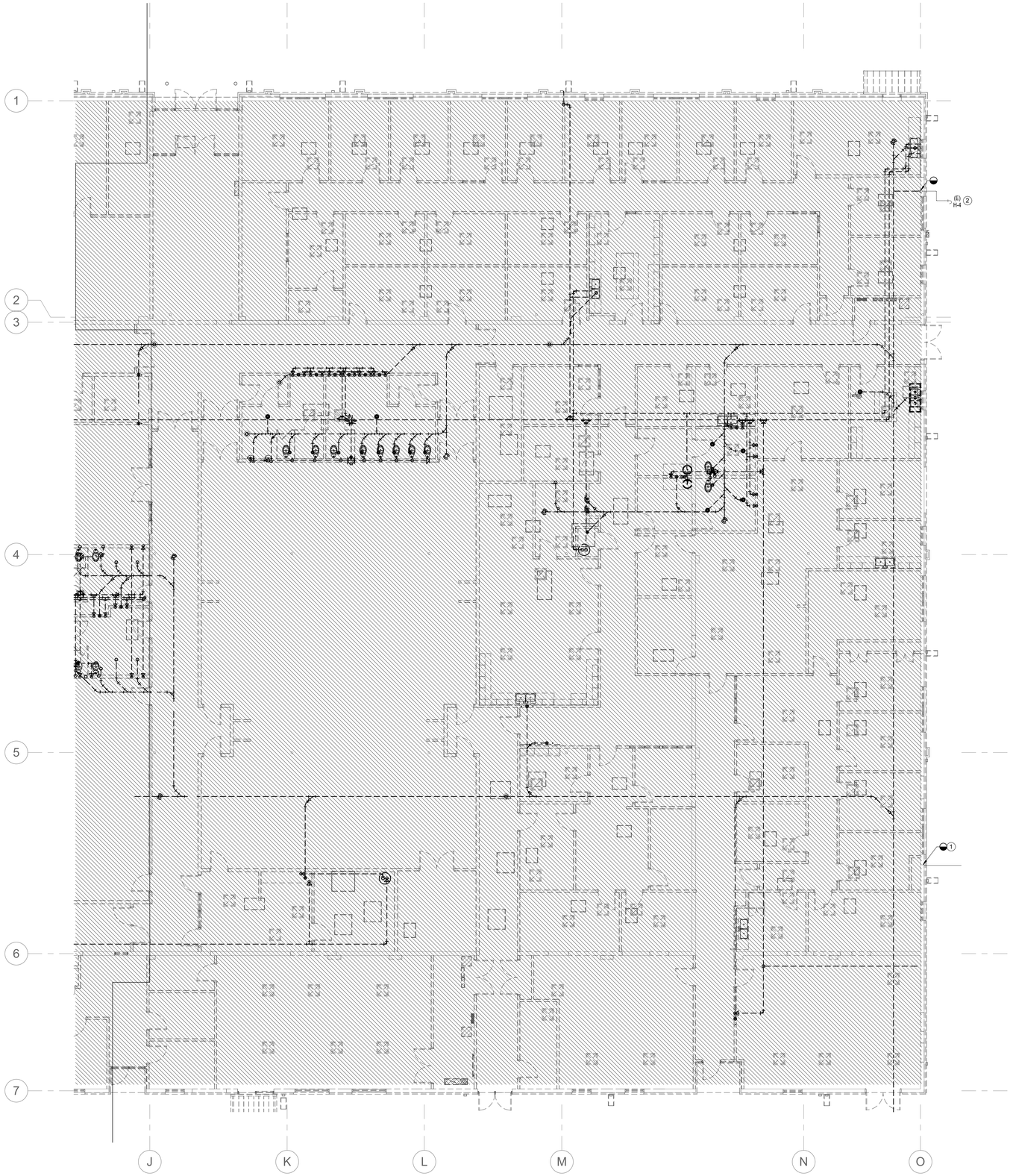
P0-01



1 PLUMBING DEMOLITION PLAN - AREA A

1/8" = 1'-0"

AREA OF DEMOLITION

DEMOLITION NOTES:

A. EXISTING CONDITIONS CREATED FROM BEST AVAILABLE INFORMATION NOTIFY ENGINEER OF DISCREPANCIES IMMEDIATELY

B. COORDINATE DEMOLITION EFFORTS WITH OTHER TRADES AND REVIEW ARCHITECTURE DRAWINGS PRIOR TO START OF WORK.

C. ALL EXISTING WATER HEATERS, ASSOCIATED PUMPS WHERE APPLICABLE AND ANY OTHER PLUMBING EQUIPMENT SHALL BE REMOVED AND TURNED OVER TO OWNER

D. ALL EXISTING DOMESTIC WATER PIPING AND EXISTING SANITARY PIPING ABOVE SLAB AND BELOW SLAB SHALL BE REMOVED IN AREA OF DEMOLITION.

KEYNOTES:

1. EXISTING DOMESTIC WATER DROP TO BELOW SLAB TO REMAIN. LINE FEEDS EXISTING OUT BUILDINGS. LINE TO BE RECONNECTED UNDER NEW WORK. COORDINATE WITH OWNER AND CM FOR WATER SHUTDOWN TO MINIMIZE DOWN TIME.

2. EXISTING YARD HYDRANT TO REMAIN. DISCONNECT PIPING AT BUILDING ENTRANCE. PREPARE PIPING TO BE RECONNECTED IN NEW WORK.

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10/11/2024

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THIS DRAWING IS FORMATTED TO BE PRINTED ON A 30" X 42" SHEET

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DEMOLITION PLAN
A

2021029 16 OCT. 2024

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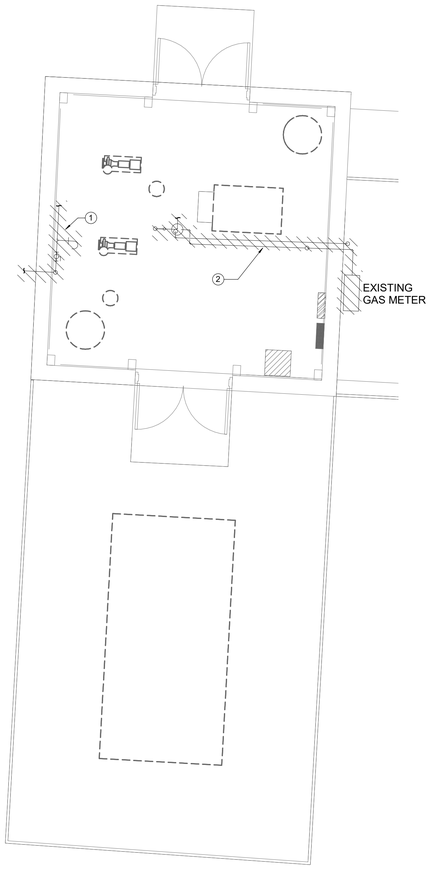
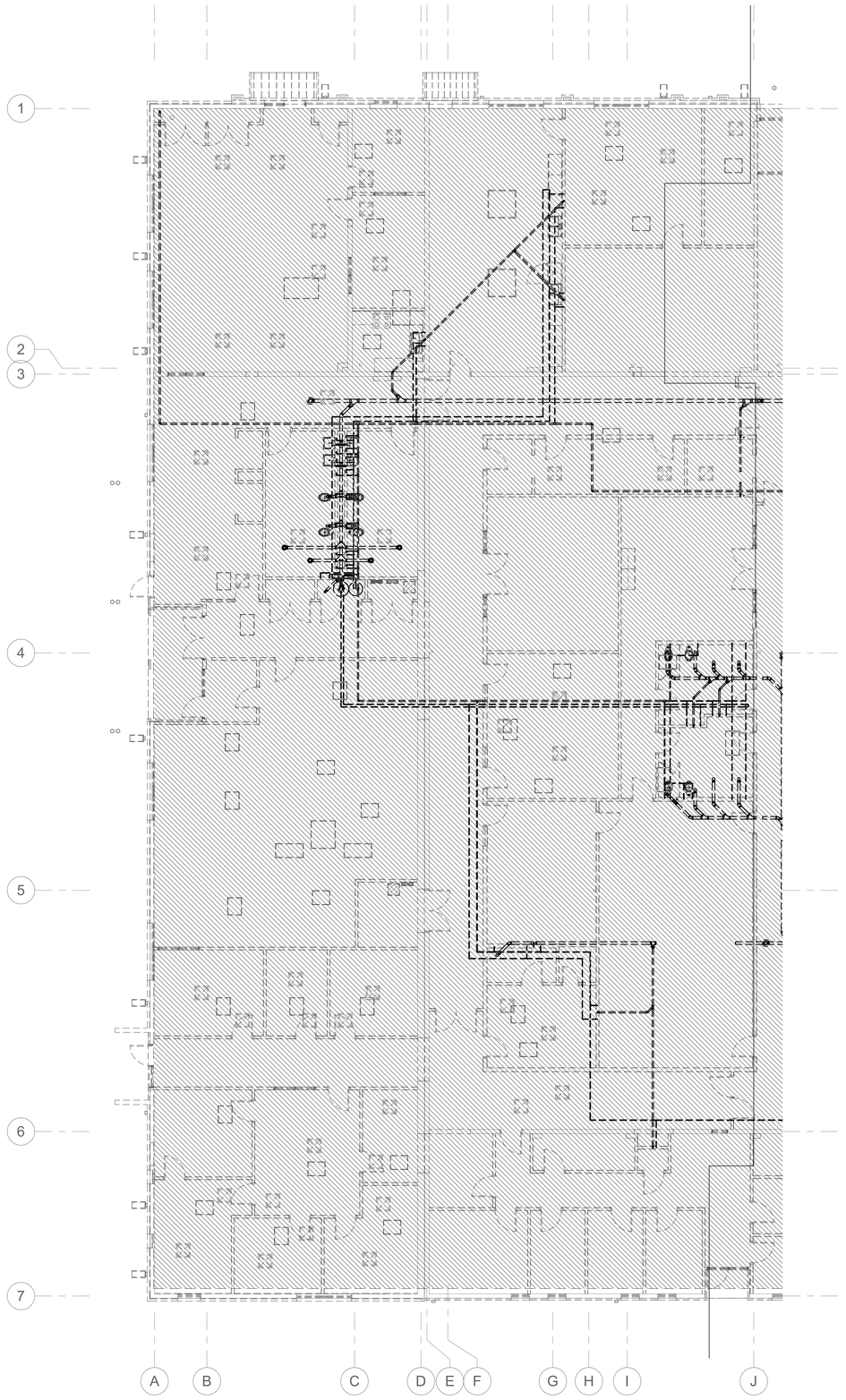


2 DEMOLITION PLAN - MECHANICAL BUILDING

1/4" = 1'-0"



1 PLUMBING DEMOLITION PLAN - AREA B

1/8" = 1'-0"

AREA OF DEMOLITION

DEMOLITION NOTES:

A. EXISTING CONDITIONS CREATED FROM BEST AVAILABLE INFORMATION NOTIFY ENGINEER OF DISCREPANCIES IMMEDIATELY

B. COORDINATE DEMOLITION EFFORTS WITH OTHER TRADES AND REVIEW ARCHITECTURE DRAWINGS PRIOR TO START OF WORK

C. ALL EXISTING WATER HEATERS, ASSOCIATED PUMPS WHERE APPLICABLE AND ANY OTHER PLUMBING EQUIPMENT SHALL BE REMOVED AND TURNED OVER TO OWNER

D. ALL EXISTING DOMESTIC WATER PIPING AND EXISTING SANITARY PIPING ABOVE SLAB AND BELOW SLAB SHALL BE REMOVED IN AREA OF DEMOLITION.

KEYNOTES:

1. DEMO DOMESTIC MAKE-UP WATER BACK TO HOSE BIBB AND CAP. HOSE BIBB TO REMAIN.

2. REMOVE GAS PIPING & APPURTENANCES BACK TO METER. SITE PIPING AND METER TO BE RELOCATED BY UTILITY COMPANY.

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DEMOLITION PLAN B

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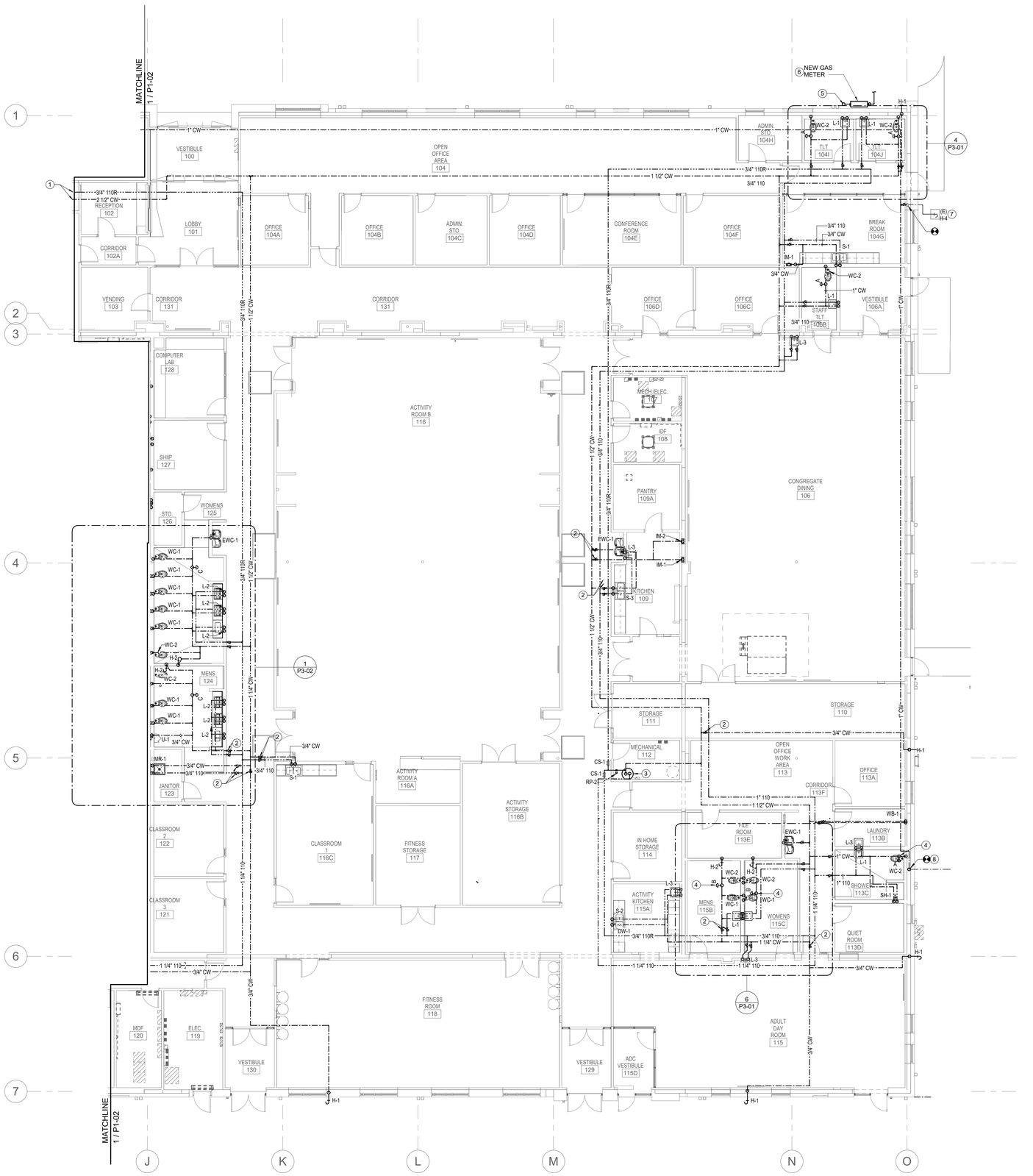

1 DOMESTIC WATER PLAN - AREA A

1/8" = 1'-0"

GENERAL NOTES:

A. ALL VENT PIPING SHALL BE 2" UNLESS NOTED OTHERWISE.

B. ALL PIPING ROUTING AND HANGER AND SUPPORT INSTALLATION SHALL BE COORDINATED WITH OTHER TRADES PRIOR TO START OF WORK.

C. ALL BELOW SLAB WASTE PIPING AND INVERTS SHALL BE COORDINATED WITH CIVIL DRAWINGS AND STRUCTURAL CONCRETE FOUNDATIONS AND FOOTINGS PRIOR TO THE START OF WORK.

D. COORDINATE INSTALLATION OF ROUGH-INS AND FIXTURES WITH CASEWORK/MILLWORK SHOWN IN THE ARCHITECTURE DRAWINGS AND FIELD VERIFY LAYOUT WITH ACCESSIBILITY REQUIREMENTS PRIOR TO START OF WORK AND AFTER ROUGH-IN

E. PIPE HANGERS AND SUPPORTS SHALL BE INSTALLED SO THAT NO PIPING IS SUBJECT TO BENDING AND/OR DEFLECTION

F. PROVIDE NEW WATER HAMMER ARRESTORS ON COLD WATER PIPING JUST UPSTREAM OF THE LAST FLUSH VALVE FIXTURE FOR EACH COLD WATER BRANCH SERVING FLUSH VALVE FIXTURES - SIZED AS NEEDED ACCORDING TO SCHEDULE ON SHEET P0-01 AND ACCESSIBLE FOR FUTURE REPLACEMENT -COORDINATE NECESSARY ACCESS PANELS WITH ARCHITECT'S REFLECTED CEILING PLAN AND/OR ELEVATIONS

G. PROVIDE FULL-PORT TWO-PIECE ALL BRONZE BALL VALVES ON DOMESTIC HOT AND COLD WATER PIPING ABOVE CEILING WHERE NECESSARY TO ISOLATE EACH TOILET ROOM INDEPENDENTLY FOR FUTURE REPAIRS OR MAINTENANCE -COORDINATE NECESSARYACCESS PANELS WITH ARCHITECT'S REFLECTED CEILING PLAN

H. PLUMBING PIPING SHALL BE ACCESSIBLE WHERE POSSIBLE AND INSTALLED SO THAT NORMAL THERMAL EXPANSION OR CONTRACTION DOES NOT AFFECT THE PERFORMANCE OF THE SYSTEM - PLUMBING CONTRACTOR TO INFORM PLUMBING DESIGNER IF CONDITIONS REQUIRE EXPANSION OR CONTRACTION MEASURES BEYOND THAT SHOWN IN THESE DRAWINGS

I. DOMESTIC HOT AND COLD WATER SUPPLY AND/OR RETURN/RECIRC. PIPING SHALL BE INSULATED AS REQUIRED AND AS SPECIFIED AND SHALL INCLUDE BRANCH SHUT-OFF VALVES AS SHOWN - PLUMBING CONTRACTOR TO INFORM PLUMBING DESIGNER IF CONDITIONS CREATE THE NEED FOR ADDITIONAL VALVES BEYOND THAT SHOWN IN THESE DRAWINGS

J. PROVIDE AS-BUILT DRAWINGS THAT INCLUDE FINAL LAYOUTS, DETAILS OF ALL CONNECTION POINTS, AND OTHER PERTINENT DATA. FIELD APPLIED IDENTIFICATION TAGS AND NAMEPLATES MUST MATCH AS-BUILT DRAWINGS

K. REFER TO CORRESPONDING RISER DIAGRAM DRAWINGS FOR ADDITIONAL PIPE SIZE INFORMATION AND ISOMETRIC VIEWS OF GENERAL PIPING ARRANGEMENTS

KEYNOTES:

1. SEE SHEET P1-02 FOR CONTINUATION.
2. PROVIDE SHUT-OFF VALVE TO WATER BRANCH PIPES IN ACCESSIBLE LOCATION. VALVE TO MATCH PIPE SIZE. COORDINATE VALVE LOCATION WITH ALL OTHER TRADES FOR ACCESSIBILITY.
3. REFER TO SHEET P6-01, SEE ELECTRIC WATER HEATER DETAIL # 7
4. PROVIDE WATER HAMMER ARRESTOR ON WATER PIPE BRANCHES AS INDICATED. REFER TO SHEET P0-01, SEE WATER HAMMER ARRESTOR SCHEDULE FOR SIZES. PROVIDE ACCESS DOOR AS REQUIRED FOR DEVICES COORDINATE NECESSARY ACCESS PANELS WITH ARCHITECT'S REFLECTED CEILING PLAN AND/OR ELEVATIONS.
5. 2" GAS PIPING UP TO ROOF TO SERVE MECHANICAL EQUIPMENT. SEE SHEET P2-03 FOR CONTINUATION.
6. NEW GAS METER LOCATION BY GAS UTILITY COMPANY. COORDINATE WITH UTILITIES CONTRACTOR.
7. RECONNECT EXISTING YARD HYDRANT TO NEW WATER SUPPLY.
8. RECONNECT TO EXISTING DOMESTIC WATER DROP. LINE FEEDS EXISTING OUT BUILDINGS. MAKE ADJUSTMENTS AS REQUIRED TO LAY WITHIN NEW 3 5/8" STUD WALL TIGHT TO EXISTING CMU. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.

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10/11/2024

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Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

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DOMESTIC WATER PLAN - AREA A

2021029 16 OCT. 2024

P1-01

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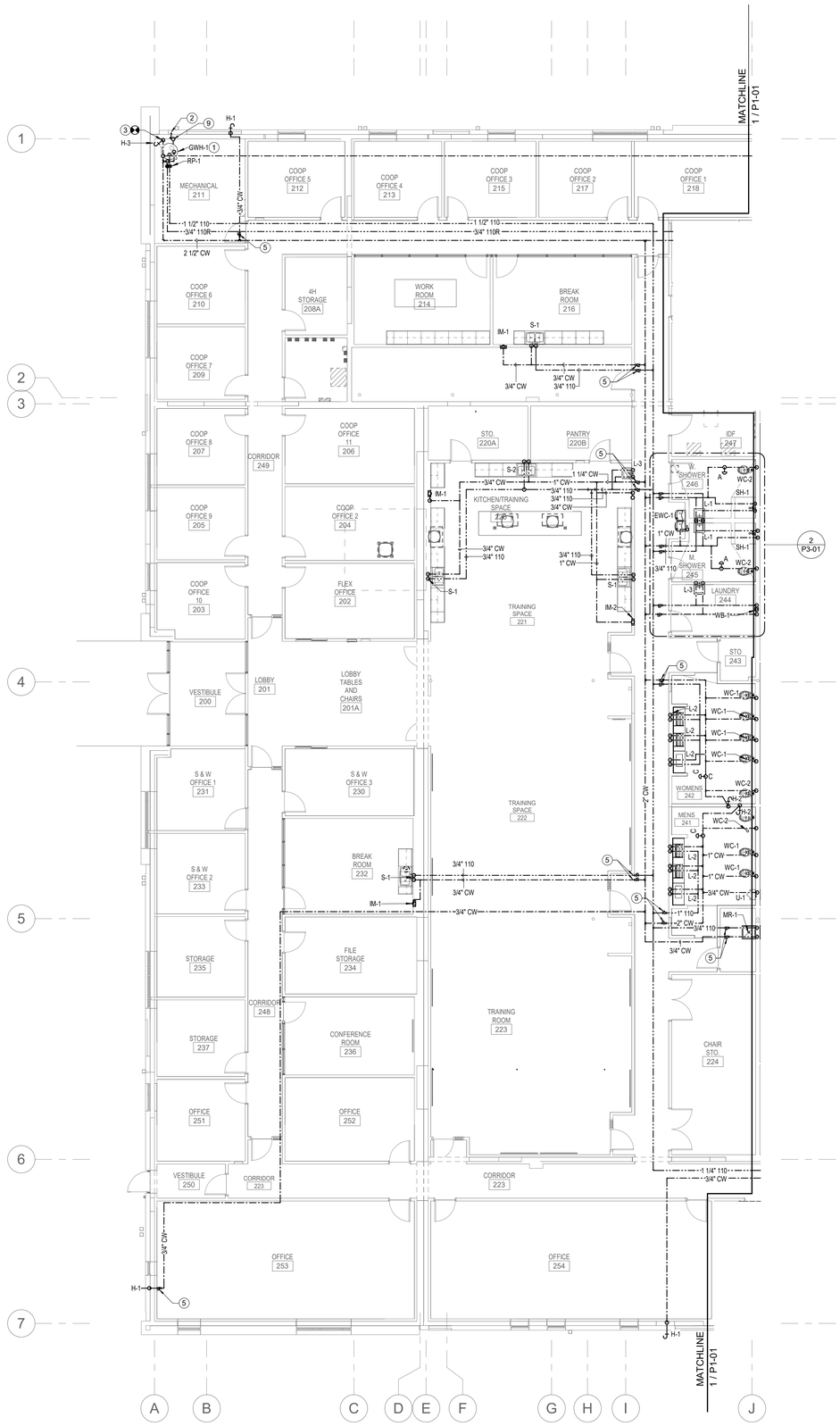

1 DOMESTIC WATER PLAN - AREA B

1/8" = 1'-0"

GENERAL NOTES:

A. ALL VENT PIPING SHALL BE 2" UNLESS NOTED OTHERWISE.

B. ALL PIPING ROUTING AND HANGER AND SUPPORT INSTALLATION SHALL BE COORDINATED WITH OTHER TRADES PRIOR TO START OF WORK.

C. ALL BELOW SLAB WASTE PIPING AND INVERTS SHALL BE COORDINATED WITH CIVIL DRAWINGS AND STRUCTURAL CONCRETE FOUNDATIONS AND FOOTINGS PRIOR TO THE START OF WORK.

D. COORDINATE INSTALLATION OF ROUGH-INS AND FIXTURES WITH CASEWORK/MILLWORK SHOWN IN THE ARCHITECTURE DRAWINGS AND FIELD VERIFY LAYOUT WITH ACCESSIBILITY REQUIREMENTS PRIOR TO START OF WORK AND AFTER ROUGH-IN

E. PIPE HANGERS AND SUPPORTS SHALL BE INSTALLED SO THAT NO PIPING IS SUBJECT TO BENDING AND/OR DEFLECTION

F. PROVIDE NEW WATER HAMMER ARRESTORS ON COLD WATER PIPING JUST UPSTREAM OF THE LAST FLUSH VALVE FIXTURE FOR EACH COLD WATER BRANCH SERVING FLUSH VALVE FIXTURES - SIZED AS NEEDED ACCORDING TO SCHEDULE ON SHEET P0-01 AND ACCESSIBLE FOR FUTURE REPLACEMENT -COORDINATE NECESSARY ACCESS PANELS WITH ARCHITECT'S REFLECTED CEILING PLAN AND/OR ELEVATIONS

G. PROVIDE FULL-PORT TWO-PIECE ALL BRONZE BALL VALVES ON DOMESTIC HOT AND COLD WATER PIPING ABOVE CEILING WHERE NECESSARY TO ISOLATE EACH TOILET ROOM INDEPENDENTLY FOR FUTURE REPAIRS OR MAINTENANCE -COORDINATE NECESSARYACCESS PANELS WITH ARCHITECT'S REFLECTED CEILING PLAN

H. PLUMBING PIPING SHALL BE ACCESSIBLE WHERE POSSIBLE AND INSTALLED SO THAT NORMAL THERMAL EXPANSION OR CONTRACTION DOES NOT AFFECT THE PERFORMANCE OF THE SYSTEM - PLUMBING CONTRACTOR TO INFORM PLUMBING DESIGNER IF CONDITIONS REQUIRE EXPANSION OR CONTRACTION MEASURES BEYOND THAT SHOWN IN THESE DRAWINGS

I. DOMESTIC HOT AND COLD WATER SUPPLY AND/OR RETURN/RECIRC. PIPING SHALL BE INSULATED AS REQUIRED AND AS SPECIFIED AND SHALL INCLUDE BRANCH SHUT-OFF VALVES AS SHOWN - PLUMBING CONTRACTOR TO INFORM PLUMBING DESIGNER IF CONDITIONS CREATE THE NEED FOR ADDITIONAL VALVES BEYOND THAT SHOWN IN THESE DRAWINGS

J. PROVIDE AS-BUILT DRAWINGS THAT INCLUDE FINAL LAYOUTS, DETAILS OF ALL CONNECTION POINTS, AND OTHER PERTINENT DATA. FIELD APPLIED IDENTIFICATION TAGS AND NAMEPLATES MUST MATCH AS-BUILT DRAWINGS

K. REFER TO CORRESPONDING RISER DIAGRAM DRAWINGS FOR ADDITIONAL PIPE SIZE INFORMATION AND ISOMETRIC VIEWS OF GENERAL PIPING ARRANGEMENTS

KEYNOTES:

1. PROVIDE MATERIALS AND MAKE FINAL CONNECTION TO WATER HEATER. PROVIDE UL AND FM LISTED FLEXIBLE CONNECTION WITH GAS TRAIN TO INCLUDE 6" DIRT LEG AND GAS SHUTOFF VALVE.
2. VENT THROUGH SIDEWALL WITH CONCENTRIC VENT, REFER TO DETAIL 6 ON SHEET P5-01, INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
3. EXISTING DOMESTIC COLD WATER MAIN SERVICE ENTRANCE RISER. CONNECT TO EXISTING COLD WATER MAIN LOCATED IN MECHANICAL ROOM. FIELD VERIFY EXISTING CONDITIONS TO VERIFY PIPE SIZE OF EQUAL OR GREATER SIZE.
4. SEE SHEET P1-01 FOR CONTINUATION.
5. PROVIDE SHUT-OFF VALVE TO WATER BRANCH PIPES IN ACCESSIBLE LOCATION. VALVE TO MATCH PIPE SIZE. COORDINATE VALVE LOCATION WITH ALL OTHER TRADES FOR ACCESSIBILITY.
6. REFER TO CIVIL PLANS FOR CONTINUTATION.
7. PROVIDE HAMMER ARRESTOR ON WATER PIPE BRANCHES AS INDICATED.
8. REFER TO SHEET P0.01, SEE HAMMER ARRESTOR SCHEDULE FOR SIZES. PROVIDE ACCESS DOOR AS REQUIRED FOR MAINTENANCE.
9. PROVIDE 3/4" GAS PIPING DOWN FROM ROOF DECK TO SERVE (199 BTUH) GAS WATER HEATER. SEE PLUMBING FIXTURE SCHEDULE FOR SPECIFICATIONS.

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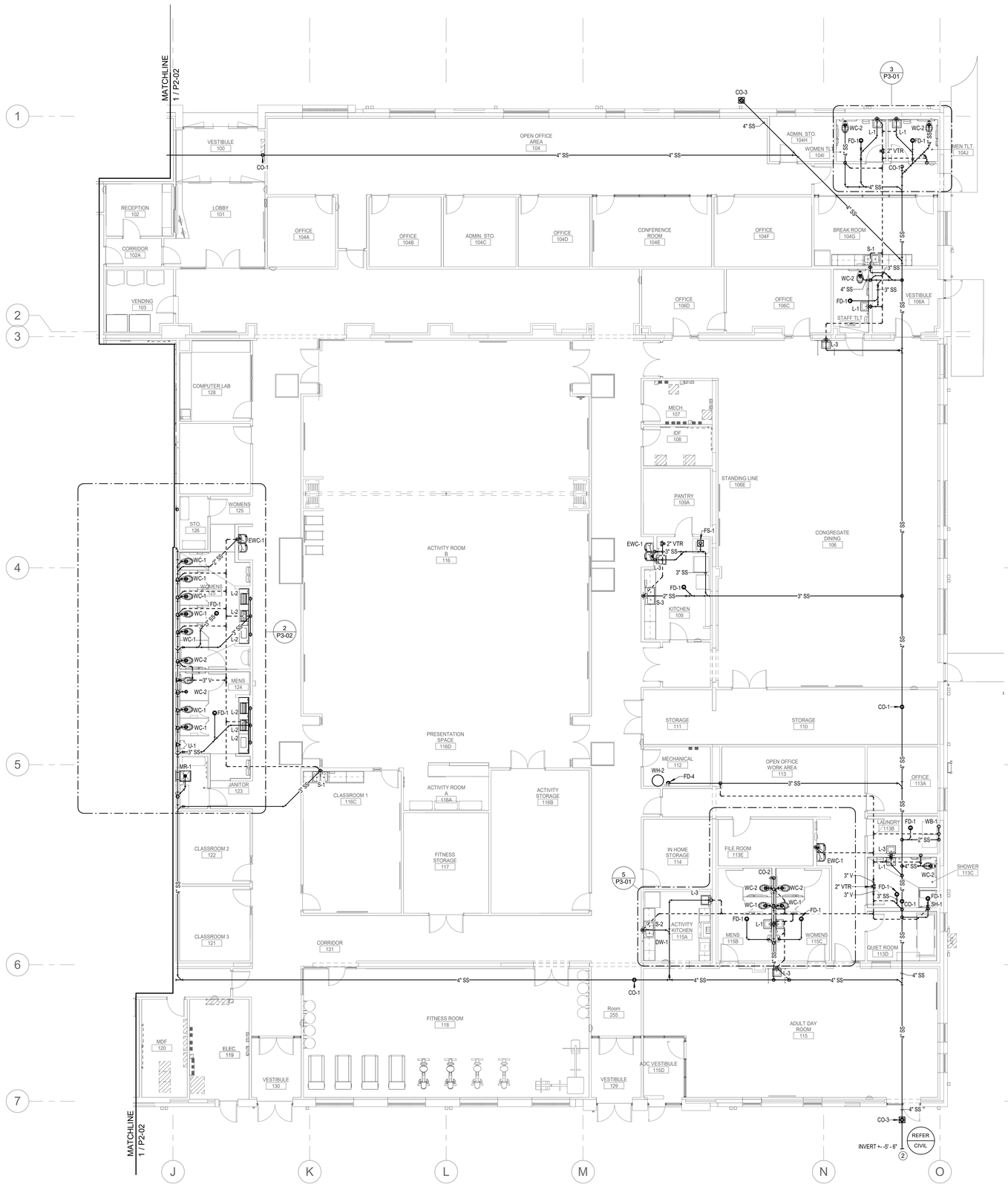
DOMESTIC WATER PLAN - AREA B

2021029 16 OCT. 2024

P1-02



1 WASTE AND VENT PLAN - AREA A

1/8" = 1'-0"

GENERAL NOTES:

A. ALL VENT PIPING SHALL BE 2" UNLESS NOTED OTHERWISE.

B. ALL PIPING ROUTING AND HANGER AND SUPPORT INSTALLATION SHALL BE COORDINATED WITH OTHER TRADES PRIOR TO START OF WORK.

C. ALL BELOW SLAB WASTE PIPING AND INVERTS SHALL BE COORDINATED WITH CIVIL DRAWINGS AND STRUCTURAL CONCRETE FOUNDATIONS AND FOOTINGS PRIOR TO THE START OF WORK.

D. COORDINATE INSTALLATION OF ROUGH-INS AND FIXTURES WITH CASEWORK/MILLWORK SHOWN IN THE ARCHITECTURE DRAWINGS AND FIELD VERIFY LAYOUT WITH ACCESSIBILITY REQUIREMENTS PRIOR TO START OF WORK AND AFTER ROUGH-IN

E. PIPE HANGERS AND SUPPORTS SHALL BE INSTALLED SO THAT NO PIPING IS SUBJECT TO BENDING AND/OR DEFLECTION

F. PROVIDE NEW WATER HAMMER ARRESTORS ON COLD WATER PIPING JUST UPSTREAM OF THE LAST FLUSH VALVE FIXTURE FOR EACH COLD WATER BRANCH SERVING FLUSH VALVE FIXTURES - SIZED AS NEEDED ACCORDING TO SCHEDULE ON SHEET P0-01 AND ACCESSIBLE FOR FUTURE REPLACEMENT -COORDINATE NECESSARY ACCESS PANELS WITH ARCHITECT'S REFLECTED CEILING PLAN AND/OR ELEVATIONS

G. PROVIDE FULL-PORT TWO-PIECE ALL BRONZE BALL VALVES ON DOMESTIC HOT AND COLD WATER PIPING ABOVE CEILING WHERE NECESSARY TO ISOLATE EACH TOILET ROOM INDEPENDENTLY FOR FUTURE REPAIRS OR MAINTENANCE -COORDINATE NECESSARYACCESS PANELS WITH ARCHITECT'S REFLECTED CEILING PLAN

H. PLUMBING PIPING SHALL BE ACCESSIBLE WHERE POSSIBLE AND INSTALLED SO THAT NORMAL THERMAL EXPANSION OR CONTRACTION DOES NOT AFFECT THE PERFORMANCE OF THE SYSTEM - PLUMBING CONTRACTOR TO INFORM PLUMBING DESIGNER IF CONDITIONS REQUIRE EXPANSION OR CONTRACTION MEASURES BEYOND THAT SHOWN IN THESE DRAWINGS

I. DOMESTIC HOT AND COLD WATER SUPPLY AND/OR RETURN/RECIRC. PIPING SHALL BE INSULATED AS REQUIRED AND AS SPECIFIED AND SHALL INCLUDE BRANCH SHUT-OFF VALVES AS SHOWN - PLUMBING CONTRACTOR TO INFORM PLUMBING DESIGNER IF CONDITIONS CREATE THE NEED FOR ADDITIONAL VALVES BEYOND THAT SHOWN IN THESE DRAWINGS

J. PROVIDE AS-BUILT DRAWINGS THAT INCLUDE FINAL LAYOUTS, DETAILS OF ALL CONNECTION POINTS, AND OTHER PERTINENT DATA. FIELD APPLIED IDENTIFICATION TAGS AND NAMEPLATES MUST MATCH AS-BUILT DRAWINGS

K. REFER TO CORRESPONDING RISER DIAGRAM DRAWINGS FOR ADDITIONAL PIPE SIZE INFORMATION AND ISOMETRIC VIEWS OF GENERAL PIPING ARRANGEMENTS

KEYNOTES:

1. SEE SHEET P2-02 FOR CONTINUATION.
2. PROVIDE MATERIALS AND MAKE CONNECTION TO SANITARY SEWER PIPING PROVIDED BY SITE UTILITY CONTRACTOR

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PDC #22074

NORTH CAROLINA PROFESSIONAL SEAL 025020 ENGINEER STEVEN W. CAMPBELL

10/11/2024

BID DOCUMENTS

THIS DRAWING IS FORMATTED TO BE PRINTED ON A 30" X 42" SHEET

Onslow County Senior Service Center Renovation

Onslow County Government

4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: JJG
CHECKED BY: SWC

WASTE AND VENT PLAN - AREA A

2021029 16 OCT. 2024

P2-01

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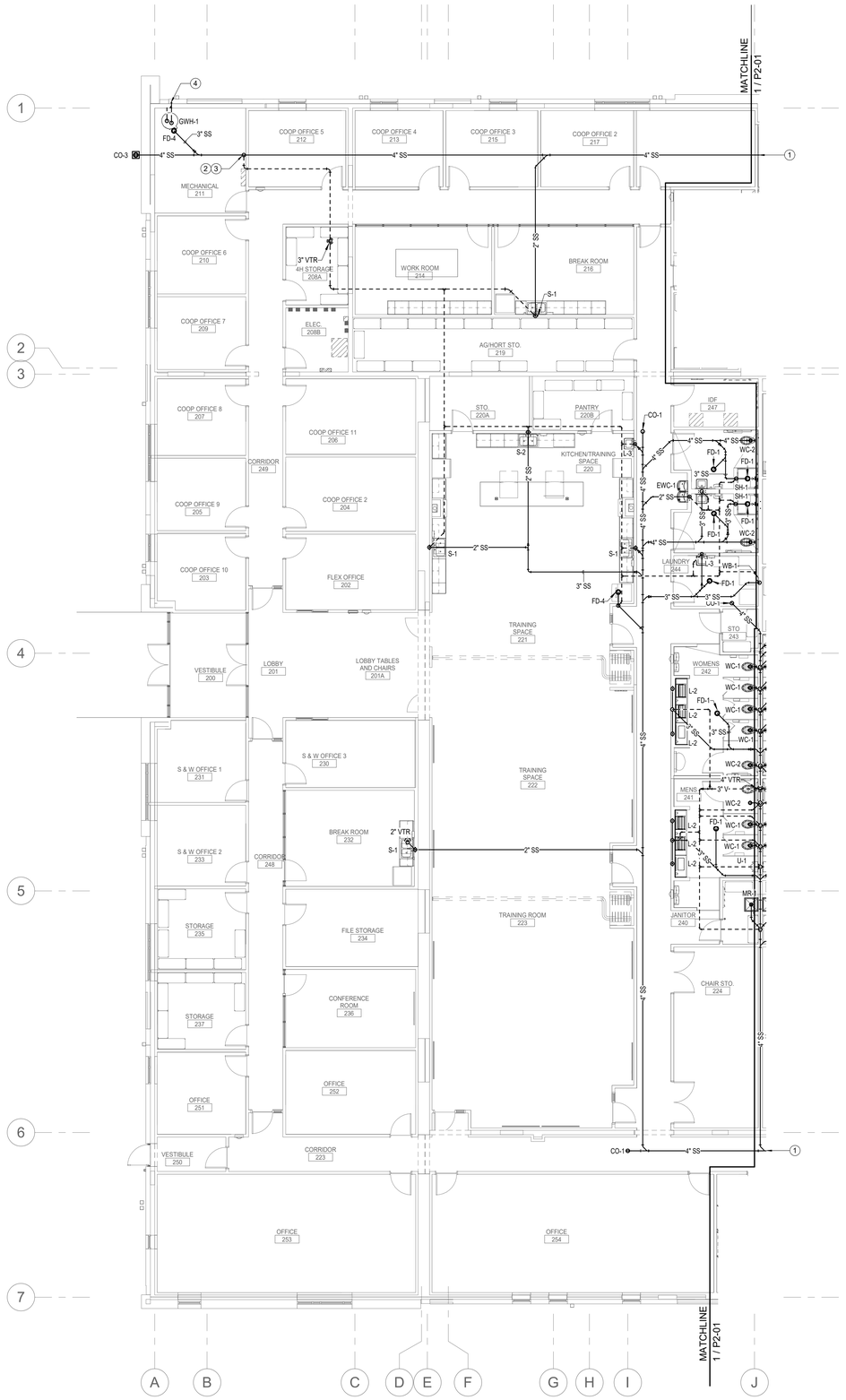

1 WASTE AND VENT NEW WORK PLAN - AREA B

0 4" 8" 16"

1/8" = 1'-0"

GENERAL NOTES:

A. ALL VENT PIPING SHALL BE 2" UNLESS NOTED OTHERWISE.

B. ALL PIPING ROUTING AND HANGER AND SUPPORT INSTALLATION SHALL BE COORDINATED WITH OTHER TRADES PRIOR TO START OF WORK.

C. ALL BELOW SLAB WASTE PIPING AND INVERTS SHALL BE COORDINATED WITH CIVIL DRAWINGS AND STRUCTURAL CONCRETE FOUNDATIONS AND FOOTINGS PRIOR TO THE START OF WORK.

D. COORDINATE INSTALLATION OF ROUGH-INS AND FIXTURES WITH CASEWORK/MILLWORK SHOWN IN THE ARCHITECTURE DRAWINGS AND FIELD VERIFY LAYOUT WITH ACCESSIBILITY REQUIREMENTS PRIOR TO START OF WORK AND AFTER ROUGH-IN

E. PIPE HANGERS AND SUPPORTS SHALL BE INSTALLED SO THAT NO PIPING IS SUBJECT TO BENDING AND/OR DEFLECTION

F. PROVIDE NEW WATER HAMMER ARRESTORS ON COLD WATER PIPING JUST UPSTREAM OF THE LAST FLUSH VALVE FIXTURE FOR EACH COLD WATER BRANCH SERVING FLUSH VALVE FIXTURES - SIZED AS NEEDED ACCORDING TO SCHEDULE ON SHEET P0-01 AND ACCESSIBLE FOR FUTURE REPLACEMENT -COORDINATE NECESSARY ACCESS PANELS WITH ARCHITECT'S REFLECTED CEILING PLAN AND/OR ELEVATIONS

G. PROVIDE FULL-PORT TWO-PIECE ALL BRONZE BALL VALVES ON DOMESTIC HOT AND COLD WATER PIPING ABOVE CEILING WHERE NECESSARY TO ISOLATE EACH TOILET ROOM INDEPENDENTLY FOR FUTURE REPAIRS OR MAINTENANCE -COORDINATE NECESSARYACCESS PANELS WITH ARCHITECT'S REFLECTED CEILING PLAN

H. PLUMBING PIPING SHALL BE ACCESSIBLE WHERE POSSIBLE AND INSTALLED SO THAT NORMAL THERMAL EXPANSION OR CONTRACTION DOES NOT AFFECT THE PERFORMANCE OF THE SYSTEM - PLUMBING CONTRACTOR TO INFORM PLUMBING DESIGNER IF CONDITIONS REQUIRE EXPANSION OR CONTRACTION MEASURES BEYOND THAT SHOWN IN THESE DRAWINGS

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J. PROVIDE AS-BUILT DRAWINGS THAT INCLUDE FINAL LAYOUTS, DETAILS OF ALL CONNECTION POINTS, AND OTHER PERTINENT DATA. FIELD APPLIED IDENTIFICATION TAGS AND NAMEPLATES MUST MATCH AS-BUILT DRAWINGS

K. REFER TO CORRESPONDING RISER DIAGRAM DRAWINGS FOR ADDITIONAL PIPE SIZE INFORMATION AND ISOMETRIC VIEWS OF GENERAL PIPING ARRANGEMENTS

KEYNOTES:

1. SEE SHEET P2-01 FOR CONTINUATION.
2. 2" VENT PIPING UP.
3. COORDINATE PIPE ROUTING IN THIS AREA PRIOR TO START OF WORK - PIPING RISE AND DROP LOCATIONS SHALL BE COORDINATED WITH MECHANICAL SUBCONTRACTOR WORKING IN SAME AREA.
4. REFER TO DETAIL 6 ON SHEET P601 FOR INSTRUCTIONS CORRESPONDING TO THE INSTALLATION OF THE CONCENTRIC VENT FOR THE GAS WATER HEATER.

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 025020 STEVEN W. CAMPBELL

10/11/2024

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Onslow County Government

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WASTE AND VENT PLAN - AREA B

2021029 16 OCT. 2024

P2-02

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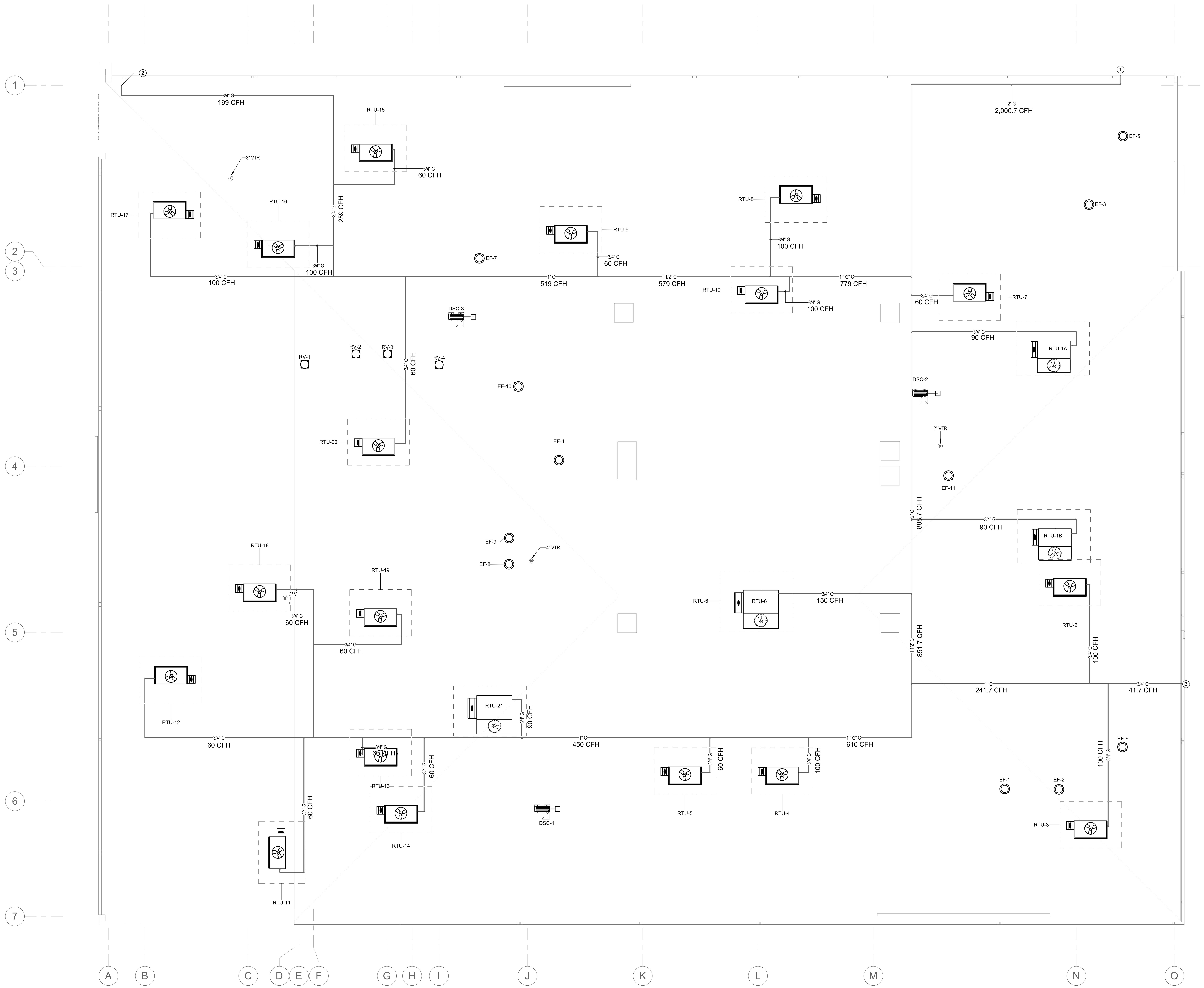

1 PLUMBING ROOF PLAN

1/8" = 1'-0"

KEYNOTES:

1. 2" GAS PIPING FROM BELOW TO SERVE MECHANICAL EQUIPMENT.
2. 3/4" GAS DOWN THROUGH ROOF TO SERVE GWH-1 (199 BTUH).
3. 3/4" GAS PIPING DOWN TO SERVE ELECTRICAL GENERATOR. SEE GAS RISER FOR CONTINUATION.

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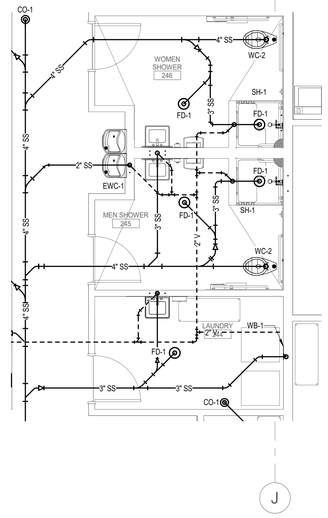
GAS ROOF PIPING PLAN

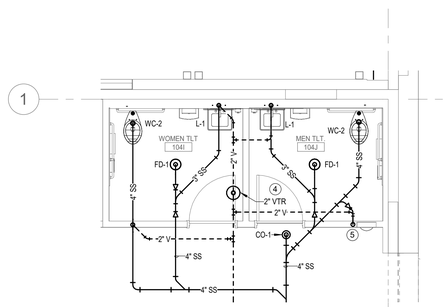
2021029 16 OCT. 2024

P2-03



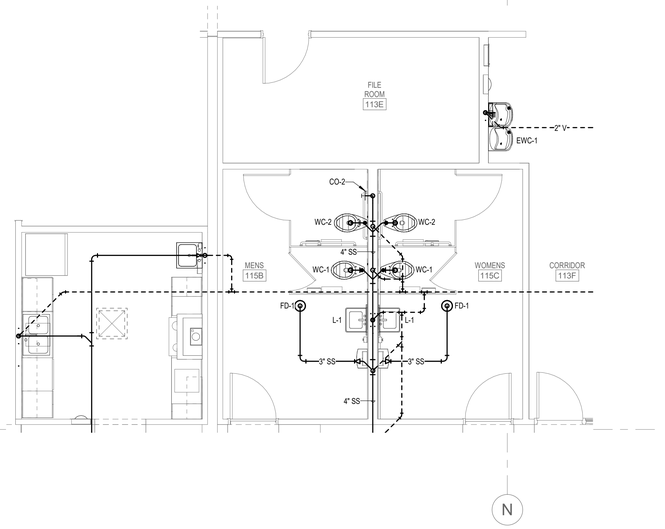
1 ENLARGED WASTE AND VENT PLAN - AREA A - LAUNDRY AND SHOWER 245,246

1/4" = 1'-0"



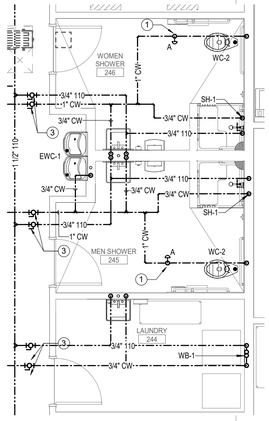
3 ENLARGED WASTE AND VENT PLAN - AREA A - OPEN OFFICE & STAFF TOILETS 104

1/4" = 1'-0"



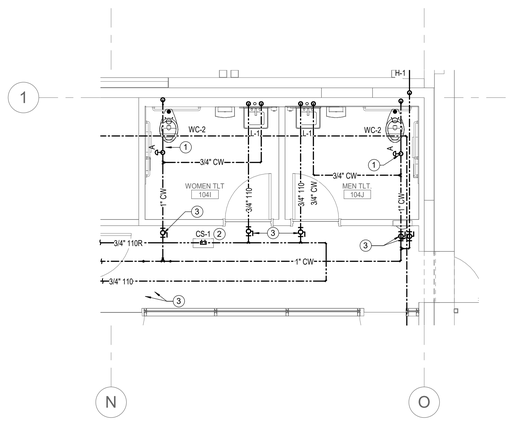
5 ENLARGED WASTE AND VENT PLAN - AREA A - ADC TOILETS 115

1/4" = 1'-0"



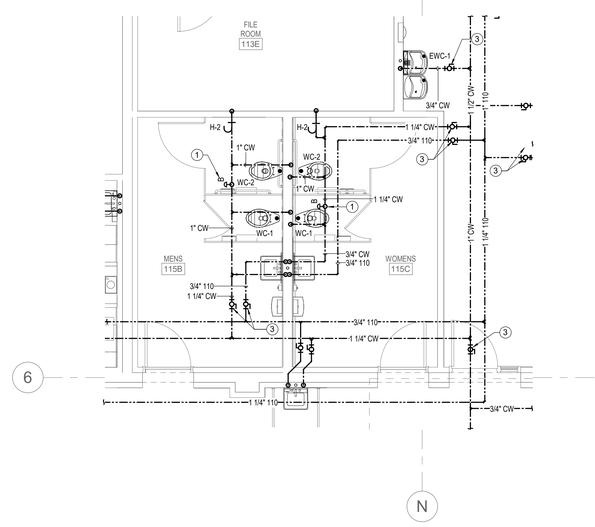
2 ENLARGED DOMESTIC WATER PLAN - AREA A - LAUNDRY AND SHOWER 245,246

1/4" = 1'-0"



4 ENLARGED DOMESTIC WATER PLAN - AREA A - OPEN OFFICE & STAFF TOILET 104

1/4" = 1'-0"



6 ENLARGED DOMESTIC WATER PLAN - AREA A - ADC TOILETS 115

1/4" = 1'-0"

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C. ALL BELOW SLAB WASTE PIPING AND INVERTS SHALL BE COORDINATED WITH CIVIL DRAWINGS AND STRUCTURAL CONCRETE FOUNDATIONS AND FOOTINGS PRIOR TO THE START OF WORK.

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E. PIPE HANGERS AND SUPPORTS SHALL BE INSTALLED SO THAT NO PIPING IS SUBJECT TO BENDING AND/OR DEFLECTION

F. PROVIDE NEW WATER HAMMER ARRESTORS ON COLD WATER PIPING JUST UPSTREAM OF THE LAST FLUSH VALVE FIXTURE FOR EACH COLD WATER BRANCH SERVING FLUSH VALVE FIXTURES - SIZED AS NEEDED ACCORDING TO SCHEDULE ON SHEET P0-01 AND ACCESSIBLE FOR FUTURE REPLACEMENT -COORDINATE NECESSARY ACCESS PANELS WITH ARCHITECT'S REFLECTED CEILING PLAN AND/OR ELEVATIONS

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K. REFER TO CORRESPONDING RISER DIAGRAM DRAWINGS FOR ADDITIONAL PIPE SIZE INFORMATION AND ISOMETRIC VIEWS OF GENERAL PIPING ARRANGEMENTS

KEYNOTES:

1. PROVIDE HAMMER ARRESTOR ON WATER PIPE BRANCHES AS INDICATED. REFER TO SHEET P0.01, SEE HAMMER ARRESTOR SCHEDULE FOR SIZES. PROVIDE ACCESS DOOR AS REQUIRED FOR DEVICES LOCATED ON HARD CEILINGS FOR MAITENANCE. COORDINATE NECESSARY ACCESS PANELS WITH ARCHITECT'S REFLECTED CEILING PLAN AND/OR ELEVATIONS.

2. PROVIDE BALANCING VALVE, (CIRCUIT SETTER) WITH INTEGRATED CHECK AND SHUT-OFF VALVES ON ALL HOT WATER RECIRCULATING BRANCHES CONNECTING BACK TO RECIRCULATING MAIN. INSTALL THE VALVE IN ACCESIBLE LOCATION AS CLOSE TO THE RETURN MAIN AS POSSIBLE FOR EASY ADJUSTING. COORDINATE NECESSARY ACCESS PANELS WITH ARCHITECT'S REFLECTED CEILING PLAN AND/OR ELEVATIONS.

3. PROVIDE SHUT-OFF VALVE TO WATER BRANCH PIPES IN ACCESSIBLE LOCATION. VALVE TO MATCH PIPE SIZE. COORDINATE VALVE LOCATION WITH ALL OTHER TRADES FOR ACCESSIBILITY. PROVIDE ACCESS DOOR AS REQUIRED FOR VALVES LOCATED ON HARD CEILINGS. COORDINATE NECESSARY ACCESS PANELS WITH ARCHITECT'S REFLECTED CEILING PLAN AND/OR ELEVATIONS.

4. VENT PIPING UP TO VTR - REFER TO ROOF PLAN

5. RUN 2" VENT HORIZONTAL BELOW SLAB OVER TO WALL AND RISE UP TO CEILING. CONTINUE AS SHOWN ON PLAN.

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PDC #22074

NORTH CAROLINA PROFESSIONAL SEAL 025020 ENGINEER STEVEN W. CAMPBELL

10/11/2024

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Onslow County Senior Service Center Renovation

Onslow County Government

4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

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CHECKED BY: SWC

ENLARGED DRAWING

2021029 16 OCT. 2024

P3-01

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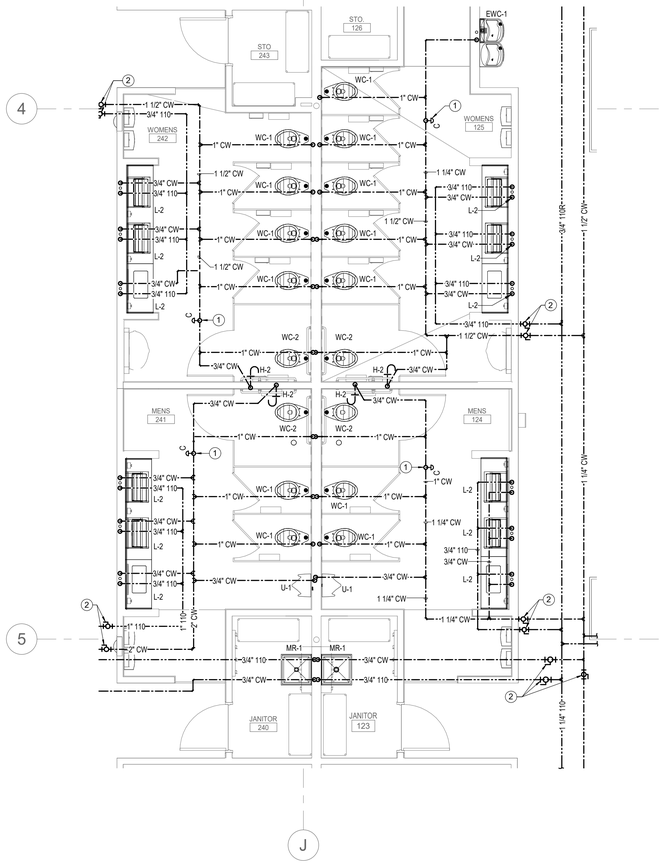
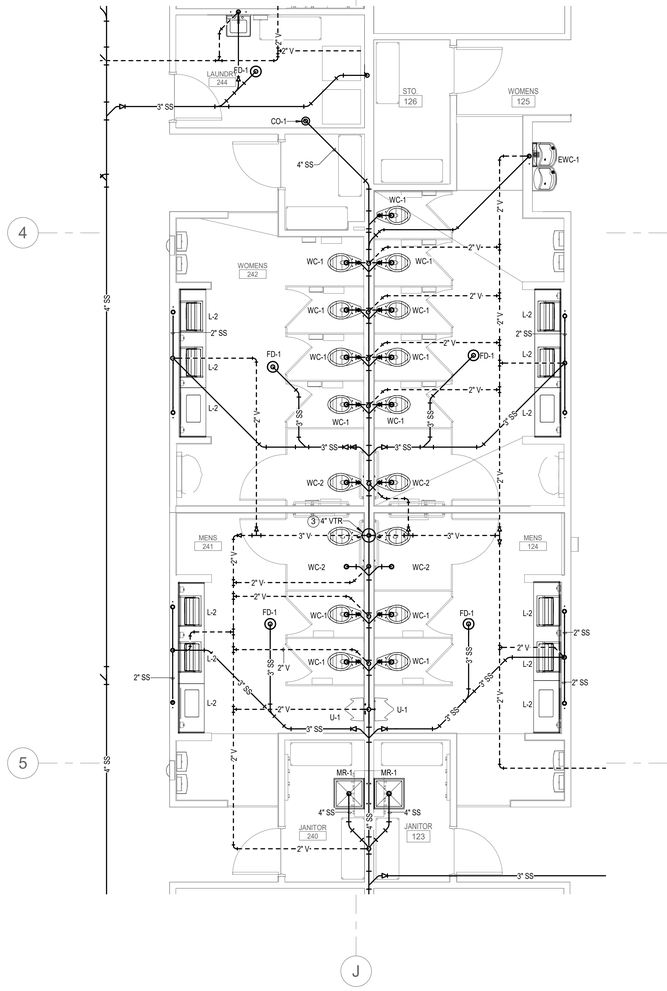


1 DOMESTIC WATER - AREA A - MENS & WOMENS TOILET 124,125, 241, 242

1/4" = 1'-0"



2 WASTE & VENT- AREA A - MENS & WOMENS TOILET 125, 125, 241, 242

1/4" = 1'-0"

GENERAL NOTES:

A. ALL VENT PIPING SHALL BE 2" UNLESS NOTED OTHERWISE.

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KEYNOTES:

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3. VENT PIPING UP TO VTR - REFER TO ROOF PLAN

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10/11/2024

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Onslow County Senior Service Center Renovation

Onslow County Government

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P3-02

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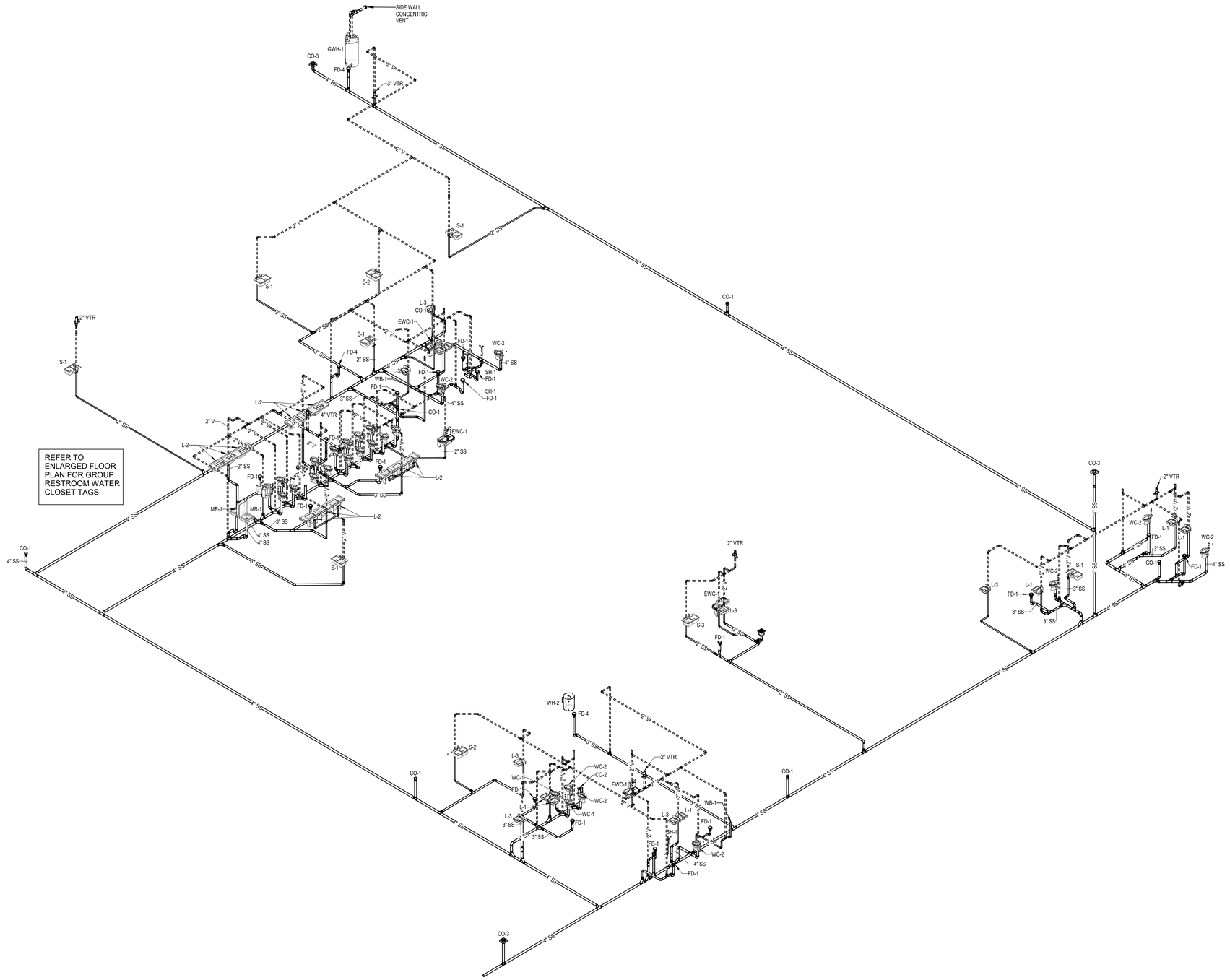

1 WASTE AND VENT RISER DIAGRAM
NOT TO SCALE

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WASTE & VENT RISER

2021029 16 OCT. 2024

P4-01

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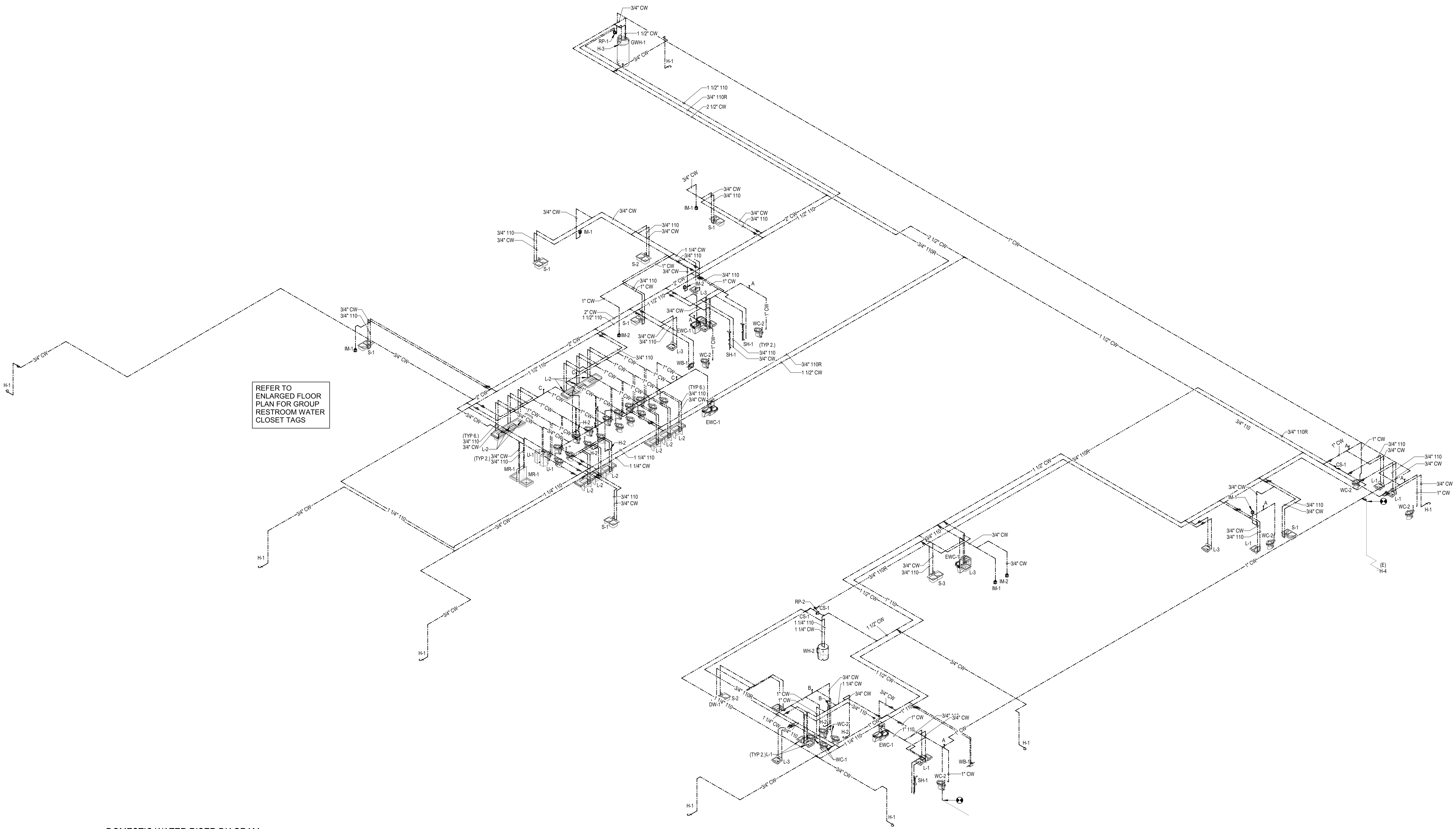

1 DOMESTIC WATER RISER DIAGRAM

NOT TO SCALE

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DRAWN BY: JJG

CHECKED BY: SWC

DOMESTIC WATER RISER

2021029 16 OCT. 2024

P4-02

C:\Users\dlowry\Documents\22074 Onslow County Senior Center_MEP_R22_dlowry\PDCBIM.rvt
10/11/2024 10:35:06 AM

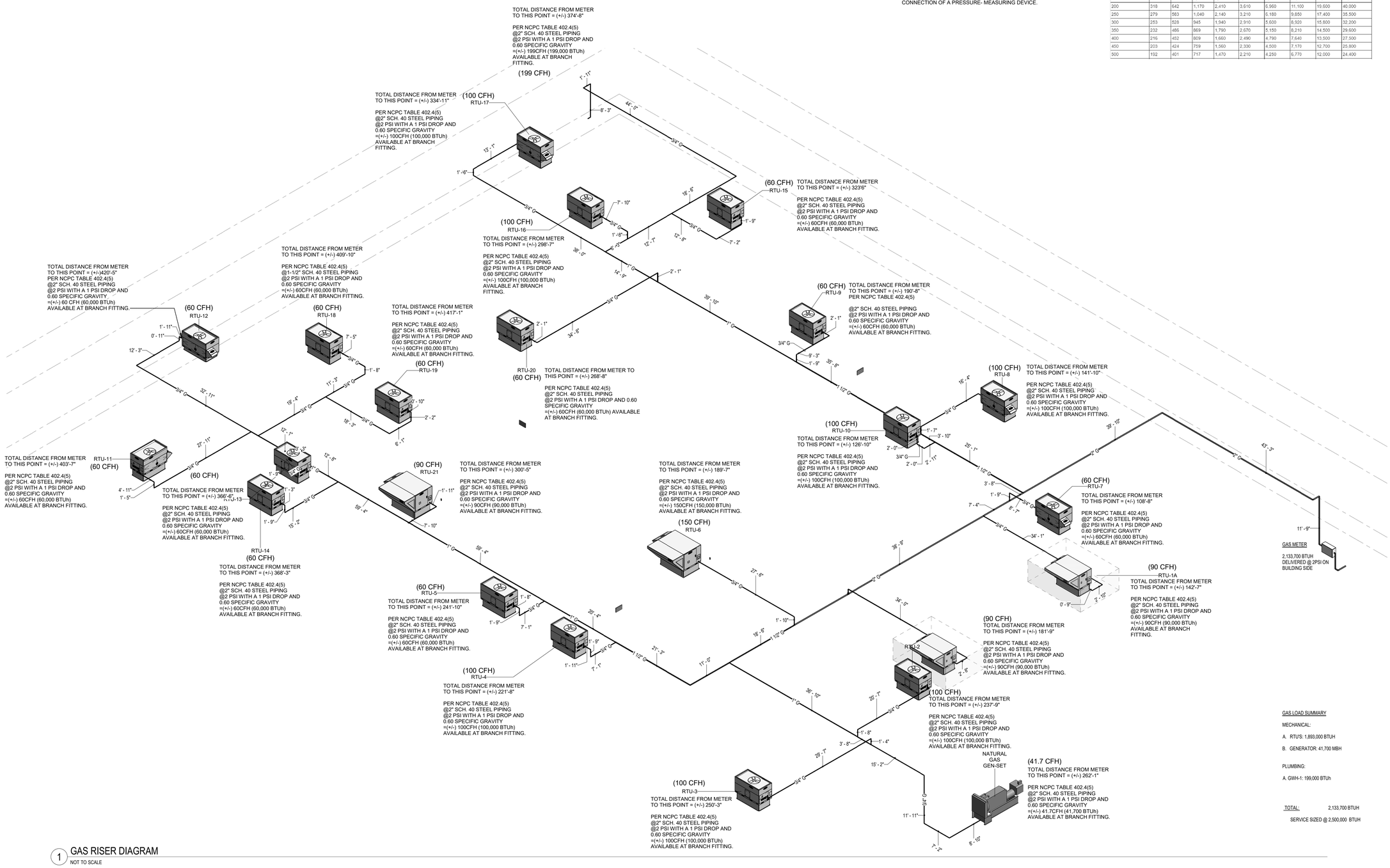
GENERAL NOTES:

A. CONTRACTOR TO INSTALL MEDIUM PRESSURE REGULATOR AND INSTALLATION SHALL COMPLY WITH NC FUEL GAS CODE 410.2 -PLUMBING CONTRACTOR SHALL PROVIDE REGULATORS AT MECHANICAL & PLUMBING EQUIPMENT TO BE CONNECTED THAT ARE:

1. APPROVED (VIA SUBMITTAL) BY SPECIFYING ENGINEER FOR THE APPLICATION AND REQUIRED PRESSURES.
2. CAPABLE OF MAINTAINING A REDUCED OUTLET PRESSURE UNDER LOCK-UP (NO-FLOW) CONDITIONS.
3. PUBLISHED BY THE MANUFACTURER TO BE ADEQUATE FOR THE EQUIPMENT OR APPLIANCE DEMAND INDICATED
4. INSTALLED IN A MANNER TO ALLOW ACCESS FOR MAINTENANCE AND SHALL BE VENTED TO THE EXTERIOR OR SHALL BE EQUIPPED WITH A LEAK-LIMITING DEVICE AND COMPLYING WITH SECTION 410.3.
5. INSTALLED WITH A T-FITTING WITH ONE OPENING PLUGGED BETWEEN THE REGULATOR AND ITS UPSTREAM SHUTOFF VALVE TO ALLOW FOR CONNECTION OF A PRESSURE-MEASURING DEVICE AND TO SERVE AS A SEDIMENT TRAP (DIRT LEG).
6. A MEANS TO TEST PRESSURE MUST BE INSTALLED NOT LESS THAN 10 PIPE DIAMETERS DOWNSTREAM OF THE MP REGULATOR OUTLET - POSITION FITTING TO ALLOW CONNECTION OF A PRESSURE- MEASURING DEVICE.

TABLE 402.4(5)
SCHEDULE 40 METALLIC PIPE

Gas						Natural		
Inlet Pressure						2.0 psi		
Pressure Drop						1.0 psi		
Specific Gravity						0.60		
PIPE SIZE (inch)								
Nominal	**1/2**	**3/4**	**1**	**1 1/4**	**1 1/2**	**2**	**2 1/2**	**3**	**4**
Actual ID	**0.622**	**0.824**	**1.049**	**1.380**	**1.610**	**2.067**	**2.469**	**3.068**	**4.026**
Length (ft)	**Capacity in Cubic Feet of Gas Per Hour**								
10	1,510	3,040	5,560	11,400	17,100	32,900	52,500	92,800	189,000
20	1,070	2,150	3,930	8,070	12,100	23,300	37,100	65,600	134,000
30	869	1,760	3,210	6,590	9,880	19,000	30,300	53,600	109,000
40	753	1,520	2,780	5,710	8,550	16,500	26,300	46,400	94,700
50	673	1,360	2,490	5,110	7,650	14,700	23,500	41,500	84,700
60	615	1,240	2,270	4,660	6,980	13,500	21,400	37,900	77,300
70	569	1,150	2,100	4,320	6,470	12,500	19,900	35,100	71,600
80	532	1,080	1,970	4,040	6,050	11,700	18,600	32,800	67,000
90	502	1,010	1,850	3,810	5,700	11,000	17,500	30,900	63,100
100	462	934	1,710	3,510	5,260	10,100	16,100	28,500	58,200
125	414	836	1,530	3,140	4,700	9,060	14,400	25,500	52,100
150	372	751	1,370	2,820	4,220	8,130	13,000	22,900	46,700
175	344	695	1,270	2,601	3,910	7,530	12,000	21,200	43,300
200	318	642	1,170	2,410	3,610	6,960	11,100	19,600	40,000
250	279	563	1,040	2,140	3,210	6,180	9,850	17,400	35,500
300	253	528	945	1,940	2,910	5,600	8,920	15,800	32,200
350	232	486	869	1,790	2,670	5,150	8,210	14,500	29,600
400	216	452	809	1,660	2,490	4,790	7,640	13,500	27,500
450	203	424	759	1,560	2,330	4,500	7,170	12,700	25,800
500	192	401	717	1,470	2,210	4,250	6,770	12,000	24,400



GAS LOAD SUMMARY

MECHANICAL:

A. RTU'S: 1,893,000 BTUH

B. GENERATOR: 41,700 MBH

PLUMBING:

A. GWH-1: 199,000 BTUh

TOTAL: 2,133,700 BTUH

SERVICE SIZED @ 2,500,000 BTUH

1 GAS RISER DIAGRAM
NOT TO SCALE

smith sinnett ARCHITECTURE

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pdcengineers.com

PDC #22074

NORTH CAROLINA PROFESSIONAL SEAL 025020 ENGINEER STEVEN W. CAMPBELL

10/11/2024

BID DOCUMENTS

Onslow County Senior Service Center
Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: JJG
CHECKED BY: SWC

GAS RISER DIAGRAM

2021029 16 OCT. 2024

P4-03

System No. W-L-5001

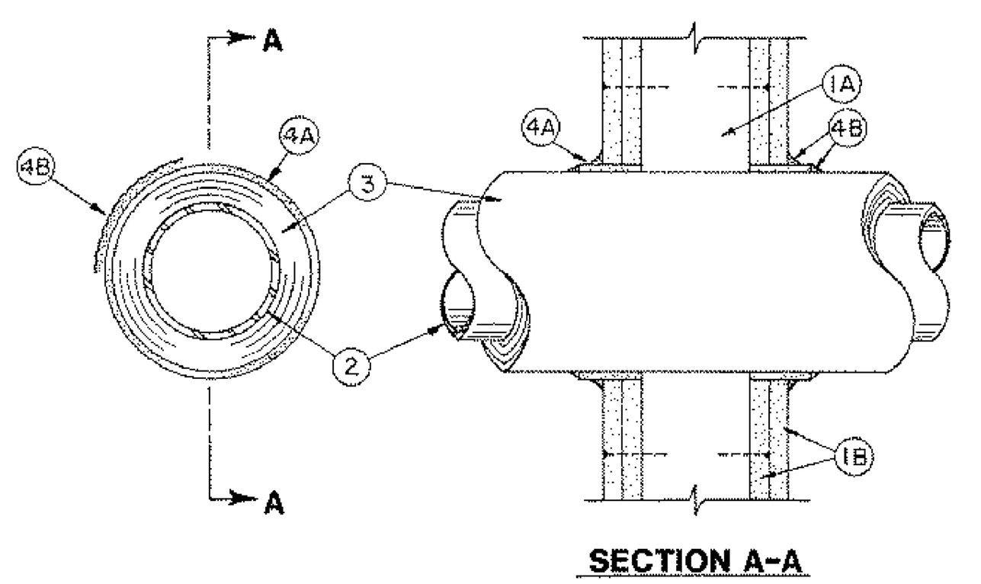
May 19, 2005

F Ratings — 1 and 2 Hr (See Item 1)

T Ratings — 3/4, 1 and 1-1/2 Hr (See Item 3)

L Rating At Ambient — 2 CFM/sq ft

L Rating At 400 F — less than 1 CFM/sq ft



1. **Wall Assembly —** The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300, U400 or V400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

    A. **Studs —** Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC with nom 2 by 4 in. (51 by 102 mm) lumber end plates and cross braces. Steel studs to be min 3-5/8 in. (92 mm) wide by 1-3/8 in. (35 mm) deep channels spaced max 24 in. (610 mm) OC.

    B. **Gypsum Board* —** Nom 5/8 in. (16 mm) thick, 4 ft (122 cm) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual Design in the UL Fire Resistance Directory. Max diam of opening is 14-1/2 (368mm) in for wood stud walls and 18 in. (457 mm) for steel stud walls.

    The hourly F Rating of the firestop system is 1 hr when installed in a 1 hr fire rated wall and 2 hr when installed in a 2 hr fire rated wall.

2. **Through Penetrants —** One metallic pipe or tubing to be centered within the firestop system. Pipe or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or tubing may be used:

    A. **Steel Pipe —** Nom 12 in. (305 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

    B. **Copper Tubing —** Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.

    C. **Copper Pipe —** Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.

3. **Pipe Covering* —** Nom 1 or 2 in. (25 or 51 mm) thick hollow cylindrical heavy density (min 3.5 pcf or 56 kg/m^3) glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints sealed with metal fasteners or with butt strip tape supplied with the product. When nom 1 in. (25 mm) thick pipe covering is used, the annular space between the pipe covering and the circular cutout in the gypsum wallboard layers on each side of the wall shall be min 1/4 in. (6 mm) to max 3/8 in. (10 mm) When nom 2 in. (51 mm) thick pipe covering is used, the annular space between the pipe covering and the circular cutout in the gypsum board layers on each side of the wall shall be min 1/2 in. (13 mm) to max 3/4 in. (19 mm)

See **Pipe and Equipment Covering Materials** (BRGU) category in Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

The hourly T Rating of the firestop system is 3/4 hr when nom 1 in. (25 mm) thick pipe covering is used. The hourly T Rating of the firestop system is 1 hr and 1-1/2 hr when nom 2 in. (52 mm) thick pipe covering is used with 1 hr and 2 hr fire rated walls, respectively.

4. **Firestop System —** Installed symmetrically on both sides of wall assembly. The details of the firestop system shall be as follows:

    A. **Fill, Void or Cavity Materials* — Wrap Strip —** Nom 1/4 in. (6 mm) thick intumescent elastomeric material faced on one side with aluminum foil, supplied in 2 in. (51 mm) wide strips. Nom 2 in. (51 mm) wide strip tightly wrapped around pipe covering (foil side out) with seam butted. Wrap strip layer securely bound with steel wire or aluminum foil tape and slid into annular space approx 1-1/4 in. (32 mm) such that approx 3/4 in. (19 mm) of the wrap strip width protrudes from the wall surface. One layer of wrap strip is required when nom 1 in. (25 mm) thick pipe covering is used. Two layers of wrap strip are required when nom 2 in. (51 mm) thick pipe covering is used.

    3M COMPANY — FS-195+

    B. **Fill, Void or Cavity Materials* — Caulk or Sealant —** Min 1/4 in. (6 mm) diam continuous bead applied to the wrap strip/wall interface and to the exposed edge of the wrap strip layer approx 3/4 in. (19 mm) from the wall surface.

    3M COMPANY — CP 25WB+, IC 15WB+, FireDam 150+ caulk or FB-3000 WT sealant

*Bearing the UL Classification Mark

Last Updated on 2005-05-19

14 DETAIL - FIRE STOPPING DETAIL W-L2

NOT TO SCALE

System No. W-L-1001

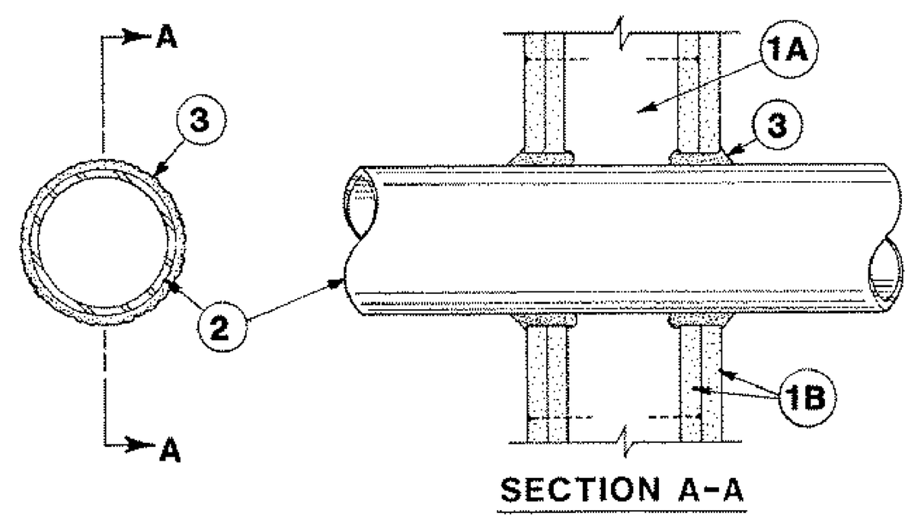
June 15, 2005

F Ratings — 1, 2, 3 and 4 Hr (See Items 2 and 3)

T Ratings — 0, 1, 2, 3, and 4 Hr (See Item 3)

L Rating At Ambient — less than 1 CFM/sq ft

L Rating At 400 F — less than 1 CFM/sq ft



1. **Wall Assembly —** The 1, 2, 3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

    A. **Studs —** Wall framing may consist of either wood studs (max 2 h fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC with nom 2 by 4 in. (51 by 102 mm) lumber end plates and cross braces. Steel studs to be min 3-5/8 in. (92 mm) wide by 1-3/8 in. (35 mm) deep channels spaced max 24 in. (610 mm) OC.

    B. **Gypsum Board* —** Nom 1/2 or 5/8 in. (13 or 16 mm) thick, 4 ft. (122 cm) wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 26 in. (660 mm).

2. **Through-Penetrant —** One metallic pipe, conduit or tubing installed either concentrically or eccentrically within the firestop system. The annular space between pipe, conduit or tubing and periphery of opening shall be min of 0 in / (0 mm). (point contact) to max 2 in. (51 mm) Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

    A. **Steel Pipe —** Nom 24 in. (610 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

    B. **Iron Pipe —** Nom 24 in. (610 mm) diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in (305 mm) diam (or smaller) or Class 50 (or heavier) ductile iron pressure pipe.

    C. **Conduit —** Nom 6 in. (152 mm) diam (or smaller) steel conduit or nom 4 in (102 mm) diam (or smaller) steel electrical metallic tubing

    D. **Copper Tubing —** Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing

    E. **Copper Pipe —** Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.

    F. **Through Penetrating Product* —** Flexible Metal Piping The following types of steel flexible metal gas piping may be used:

    1. Nom 2 in. (51 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

    OMEGA FLEX INC

    2. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

    GASTITE, DIV OF TITEFLEX

    3. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

    WARD MFG L L C

3. **Fill, Void or Cavity Material* — Caulk or Sealant —** Min 5/8. , 1-1/4,1-7/8 and 2-1/2 in. (16, 32, 48 and 64 mm) thickness of caulk for 1, 2, 3 and 4 hr rated assemblies, respectively, applied within annulus, flush with both surfaces of wall. Min 1/4 in. (6 mm) diam bead of caulk applied to gypsum board/penetrant interface at point contact location on both sides of wall. The hourly F Rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly T Rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

Max Pipe or Conduit Diam In (mm)	F Rating Hr	T Rating Hr
1 (25)	1 or 2	0+, 1 or 2
1 (25)	3 or 4	3 or 4
4 (102)	1 or 2	0
6 (152)	3 or 4	0
12 (305)	1 or 2	0

+When copper pipe is used, T Rating is 0 h.

3M COMPANY — CP 25WB+ or FB-3000 WT.

*Bearing the UL Classification Mark

Last Updated on 2005-06-15

13 DETAIL - FIRE STOPPING DETAIL W-L1

NOT TO SCALE

System No. C-AJ-5001

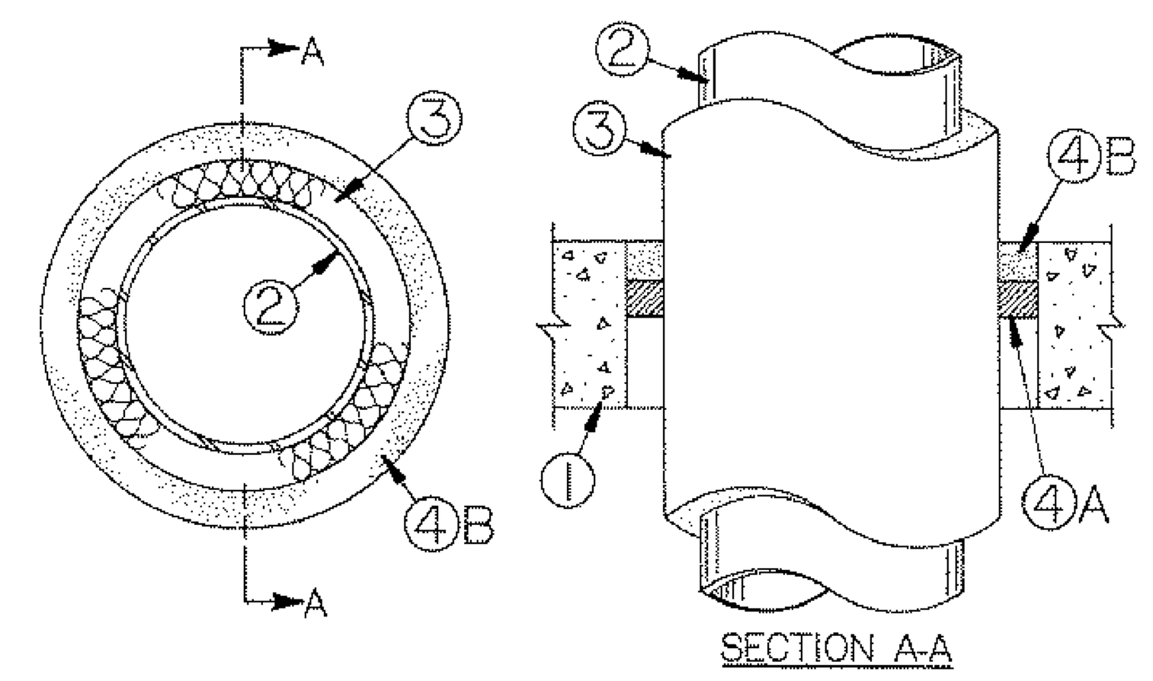
March 05, 2007

F Ratings — 1-1/2, 2 and 3 Hr (See Item 4)

T Ratings — 0, 1/2, 3/4 and 1 Hr (See Items 1A and 4)

L Rating At Ambient — 2 CFM per sq ft

L Rating At 400 F — less than 1 CFM per sq ft



1. **Floor or Wall Assembly —** Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/.m^3) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening is 18 in. (457 mm)

See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

1A. **Steel Sleeve —** (Optional, not shown) — Nom 10 in. (254 mm) (or smaller) Schedule 10 (or heavier) steel sleeve cast or grouted into floor or wall assembly. Sleeve may extend a max of 2 in. (51 mm) above top of floor or beyond either surface of wall. As an alternate, nom 10 in. (254 mm) diam (or smaller) sleeve fabricated from nom 0.019 in. (0.48 mm) thick galv steel cast or grouted into floor or wall assembly flush with floor or wall surfaces. **T Rating is 0 Hr when sleeve is used.**

2. **Through Penetrant —** Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) copper pipe, nom 12 in. (305 mm) diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in. (305 mm) diam (or smaller) Class 50 (or heavier) ductile iron pressure pipe or nom 12 in. (305 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe centered in the opening and rigidly supported on both sides of the floor or wall assembly.

3. **Pipe Covering* —** Nom 1/2 to 2 in. (13 to 51 mm) thick hollow cylindrical heavy density (min. 3.5 pcf or 56 kg/m^3) glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt strip tape supplied with the product.

See **Pipe and Equipment Covering — Materials*** (BRGU) category in Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

4. **Firestop System —** The details of the firestop system shall be as follows:

    A. **Packing Material —** Min 1 in. (25 mm) thickness of firmly packed mineral wool batt insulation used as a permanent form. Packing material to be recessed from top surface of floor or sleeve or from both surfaces of wall as required to accommodate the required thickness of caulk fill material (Item B).

    B. **Fill, Void or Cavity Material* — Caulk or Sealant —** Applied to fill the annular space flush with the top surface of the floor or sleeve or flush with both surfaces of wall. When nom pipe covering thickness is 2 in. (51 mm), min thickness of caulk fill material is 2 in. (51 mm). When nom pipe covering thickness is 1-1/2 in. (38 mm) or less, min thickness of caulk fill material is 1 in. (25 mm). The hourly F and T Ratings of the firestop system are dependent upon the thickness of the floor or wall, the size of pipe, the thickness of pipe covering material and the size of the annular space (between the pipe covering material and the edge of the circular through opening), as shown in the following table:

Min Floor or Wall Thkns, In. (mm)	Max Pipe Diam, In. (mm)	Nom Pipe Covering Thkns, In. (mm)	Annular Space, In. (mm)	F Rating Hr	T Rating Hr
2-1/2 (64)	4 (102)	1 or 1-1/2 (25 or 38)	1/2 to 2-3/8 (13 to 60)	2	1
4-1/2 (114)	4 (102)	2 (51)	1/4 to 3-5/8 (6 to 92)	2	1-1/2
2-1/2 (64)	12 (305)	1 (25)	1/2 to 1-1/2 (13 to 38)	2	1/2
4-1/2 (114)	12 (305)	1 (25)	1/2 to 2-3/8 (13 to 60)	3	1
2-1/2 (64)	12 (305)	1/2 (13)	1/2 to 2-3/8 (13 to 60)	2	0

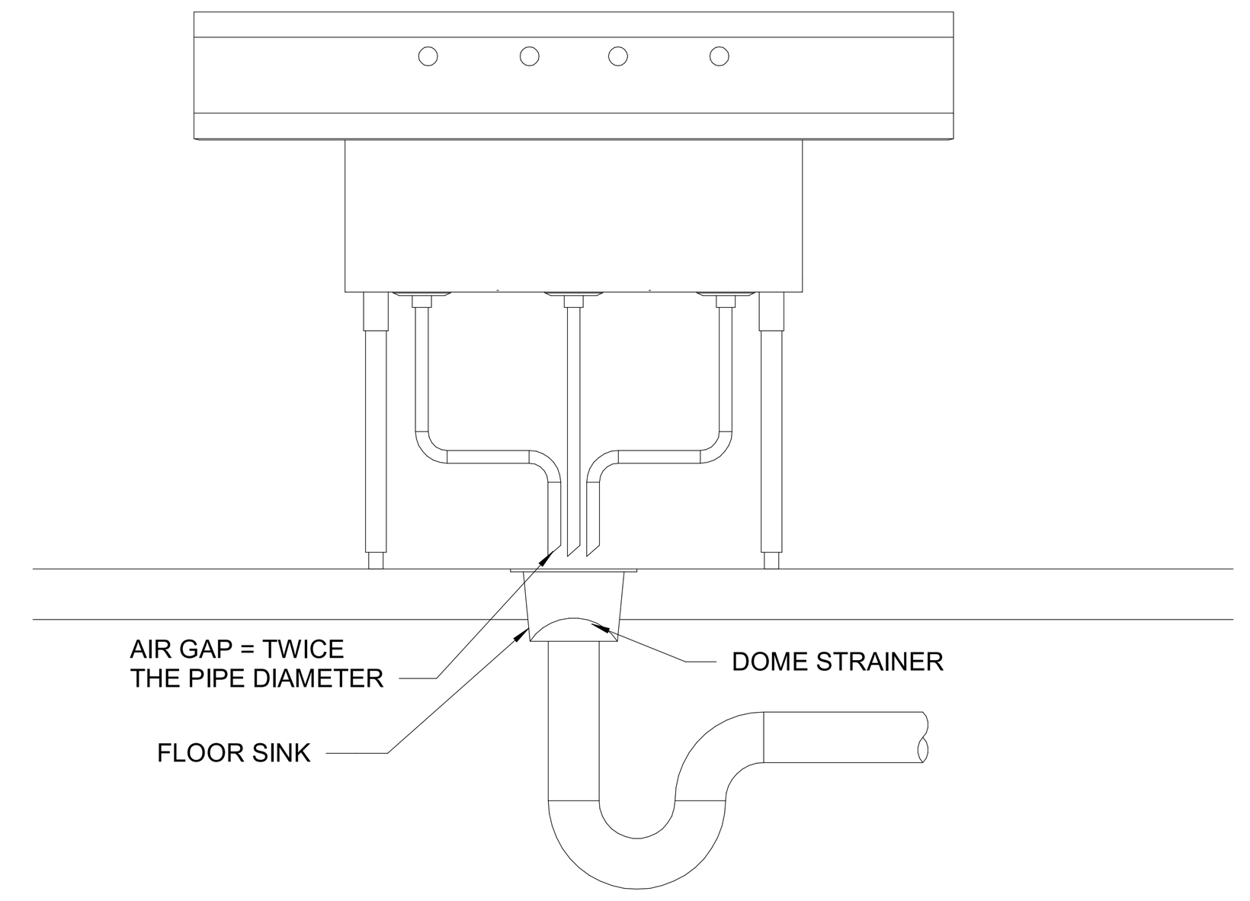
3M COMPANY — CP 25WB+ or FB-3000 WT

*Bearing the UL Classification Mark

Last Updated on 2007-03-05

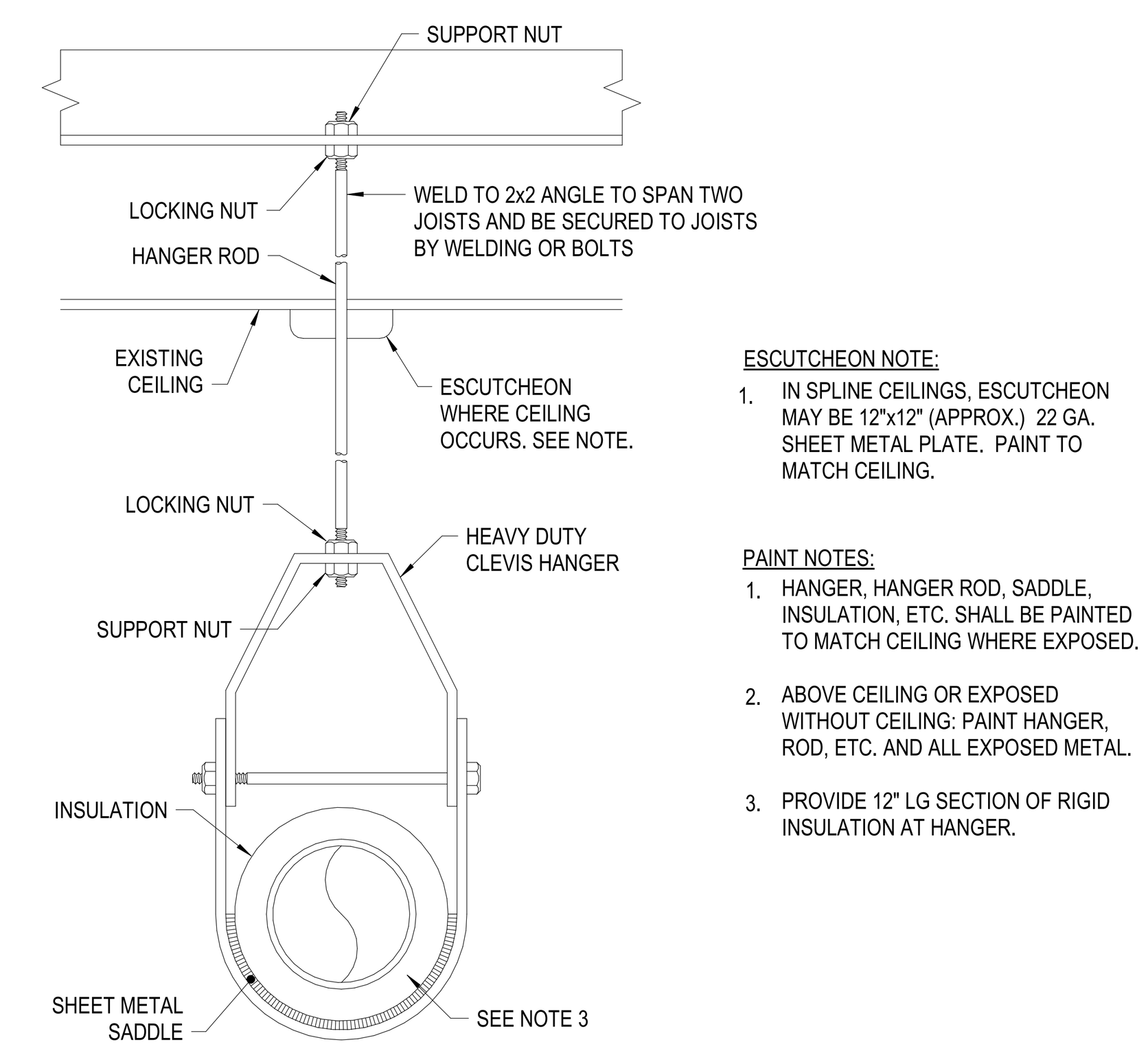
12 DETAIL - FIRE STOPPING DETAIL C-AJ1

NOT TO SCALE



11 DETAIL - 3 COMPARTMENT SINK INDIRECT WASTE DRAIN

NOT TO SCALE



ESCUTCHEON NOTE:

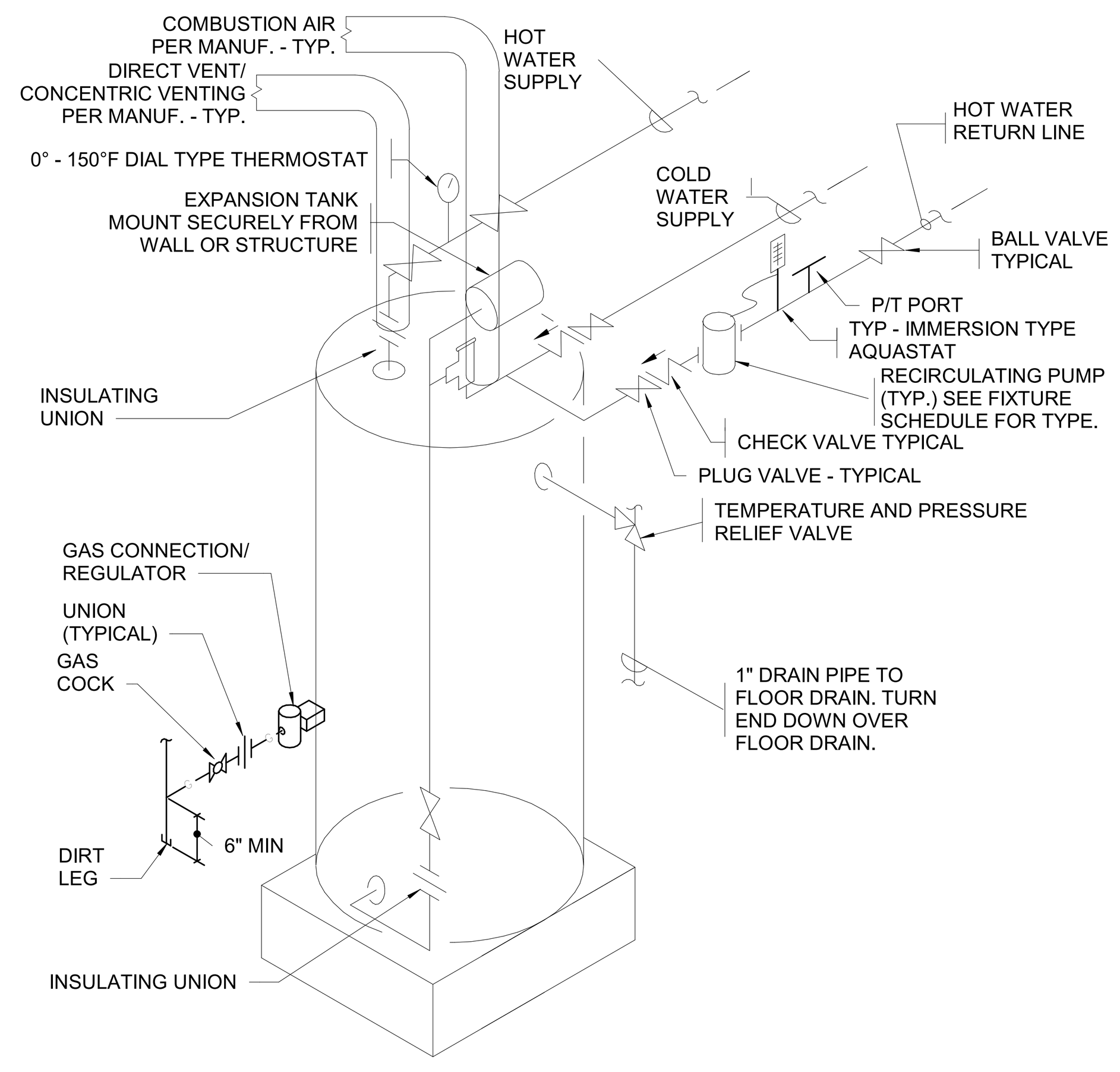
1. IN SPLINE CEILINGS, ESCUTCHEON MAY BE 12"x12" (APPROX.) 22 GA. SHEET METAL PLATE. PAINT TO MATCH CEILING.

PAINT NOTES:

1. HANGER, HANGER ROD, SADDLE, INSULATION, ETC. SHALL BE PAINTED TO MATCH CEILING WHERE EXPOSED.
2. ABOVE CEILING OR EXPOSED WITHOUT CEILING: PAINT HANGER, ROD, ETC. AND ALL EXPOSED METAL.
3. PROVIDE 12" LG SECTION OF RIGID INSULATION AT HANGER.

10 HANGERS

NOT TO SCALE

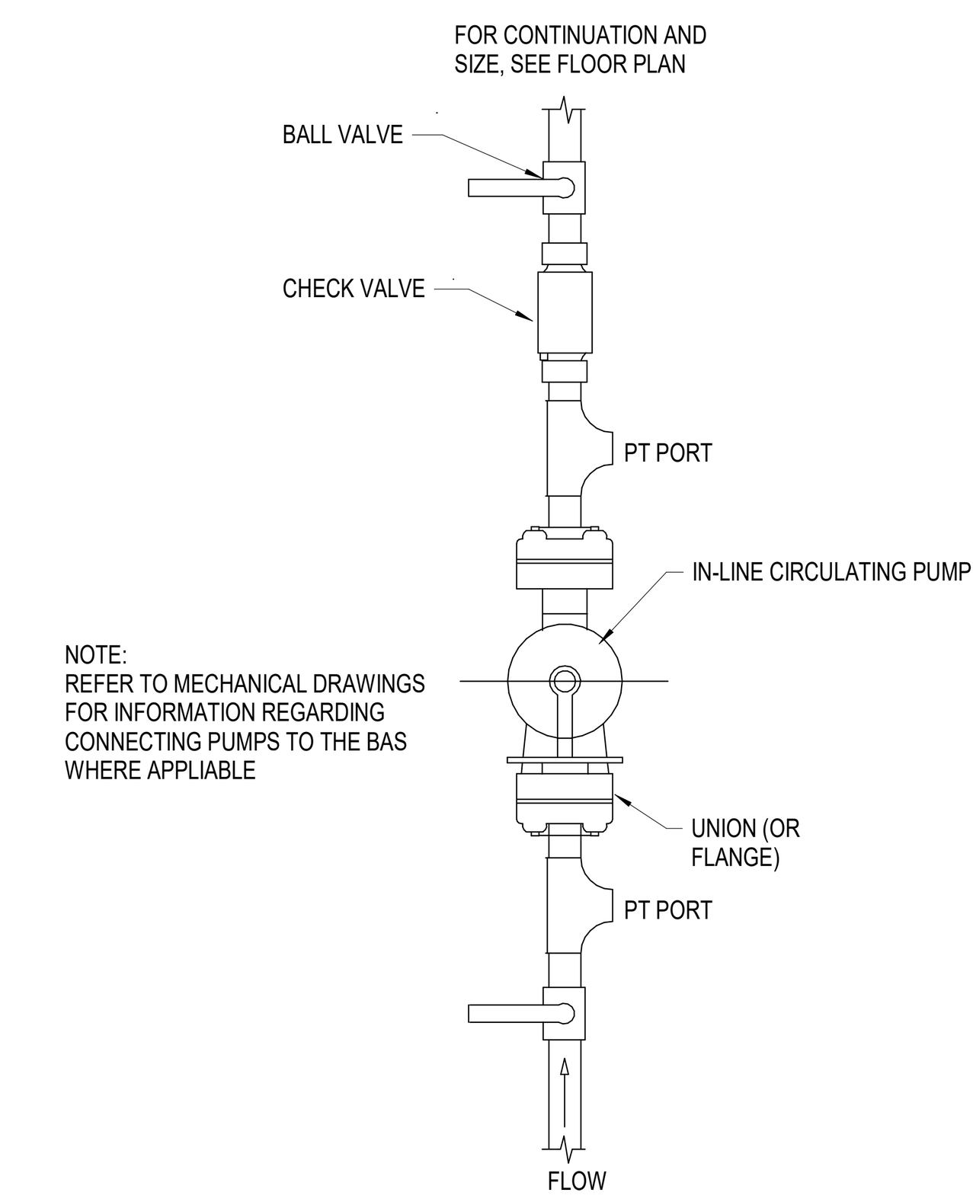


NOTES:

1. REQUIREMENTS FOR THERMAL EXPANSION MUST BE MET
2. FLOOR DRAIN FOR RELIEF VALVE PIPING LOCATION MUST BE COORDINATED
3. PROVIDE A CHECK VALVE IN VERTICAL SUPPLY PIPING TO FIXTURES
4. PROVIDE 4" CONCRETE MAINTENANCE PAD FOR HEATER(S) AND TANK(S)
5. PROVIDE 3' MIN. CLEARANCE IN FRONT OF HEATER(S) AND TANK(S)

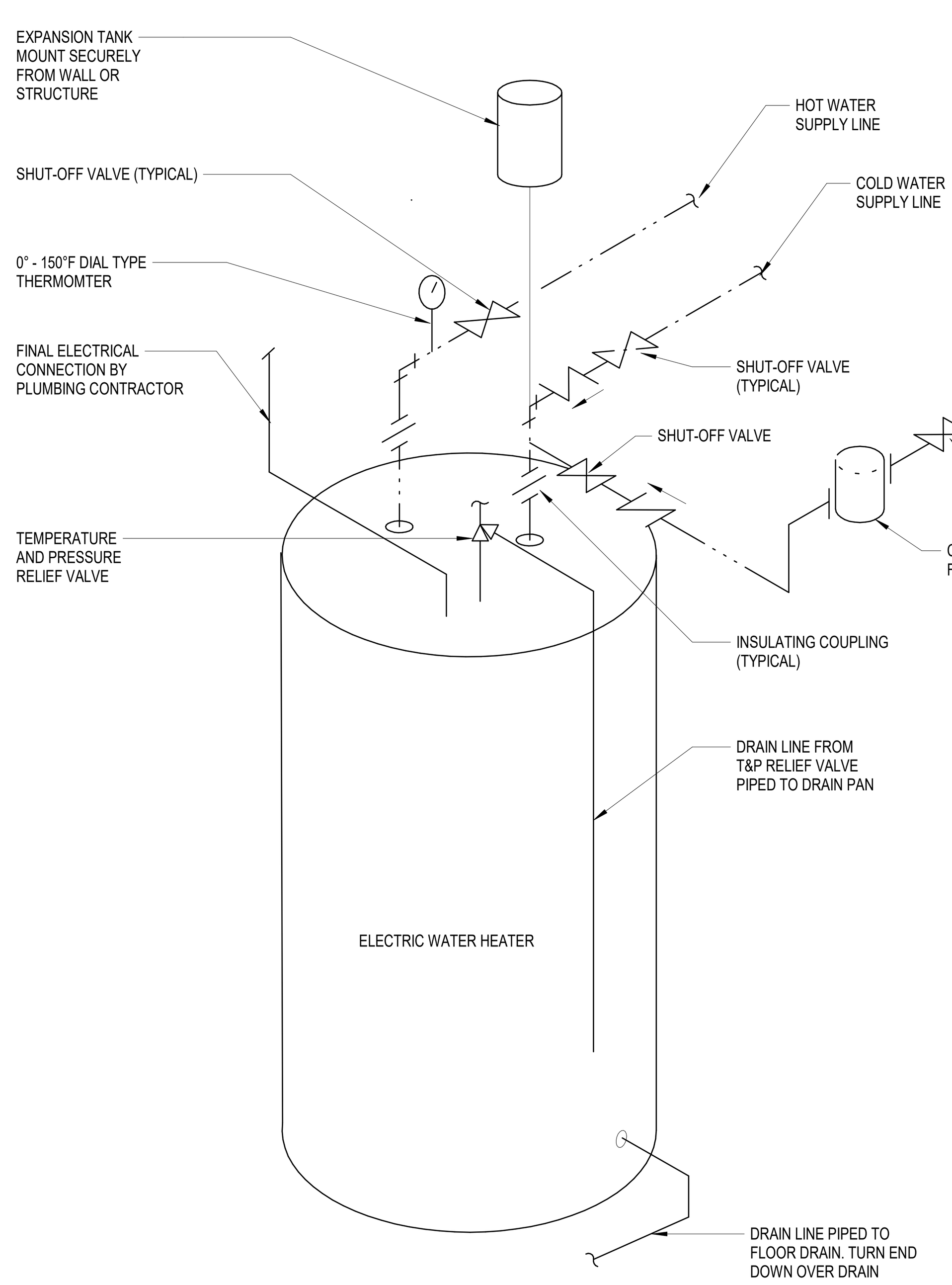
9 DETAIL - GAS FIRED WATER HEATER

NOT TO SCALE



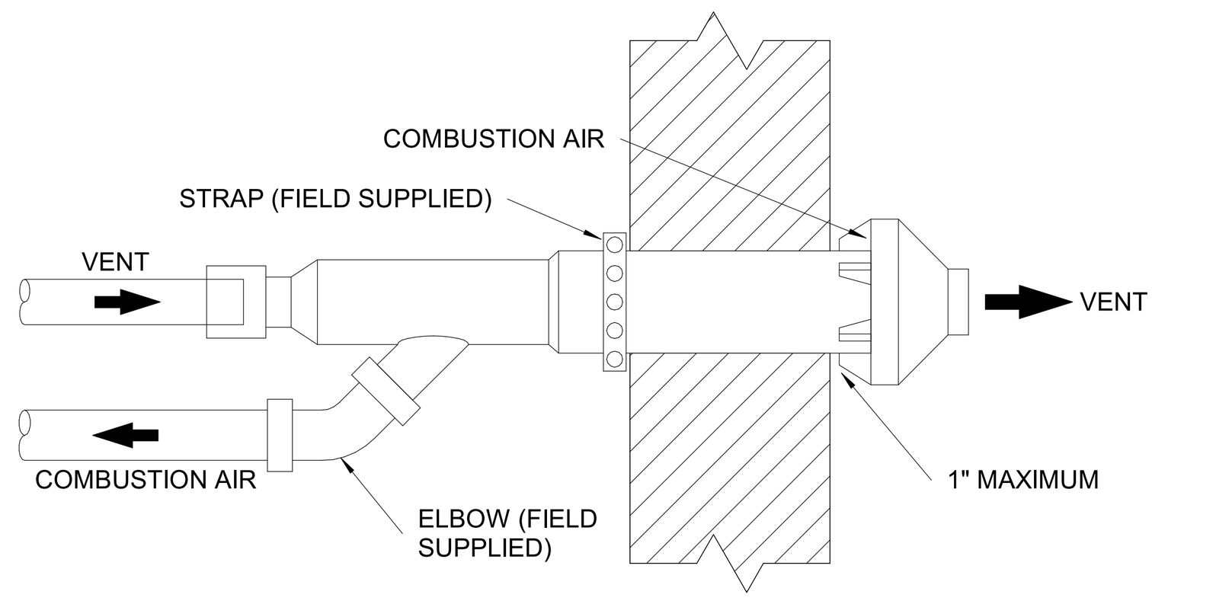
8 DETAIL - CIRCULATING PUMP-BAS

NOT TO SCALE



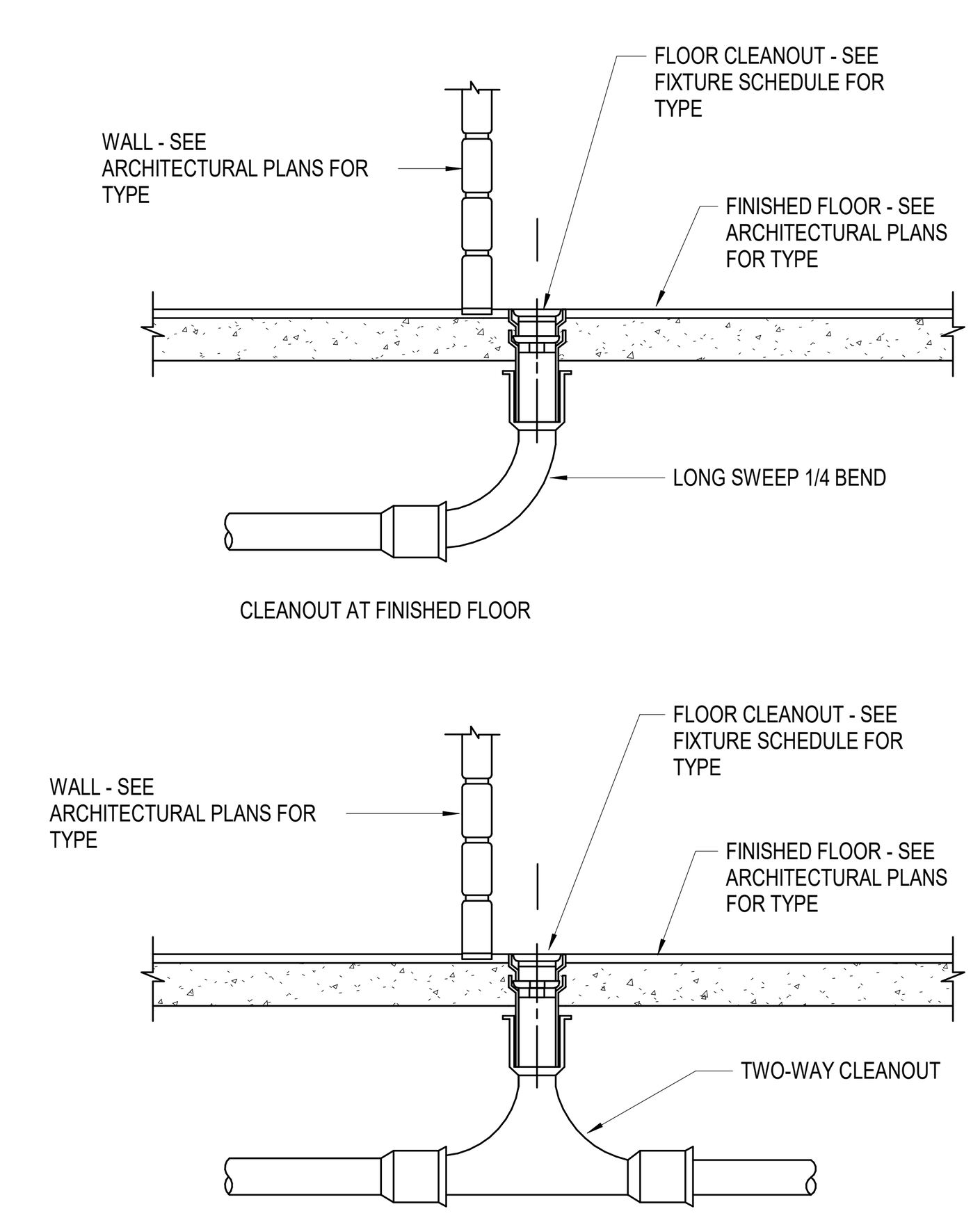
7 DETAIL - ELECTRIC WATER HEATER

NOT TO SCALE



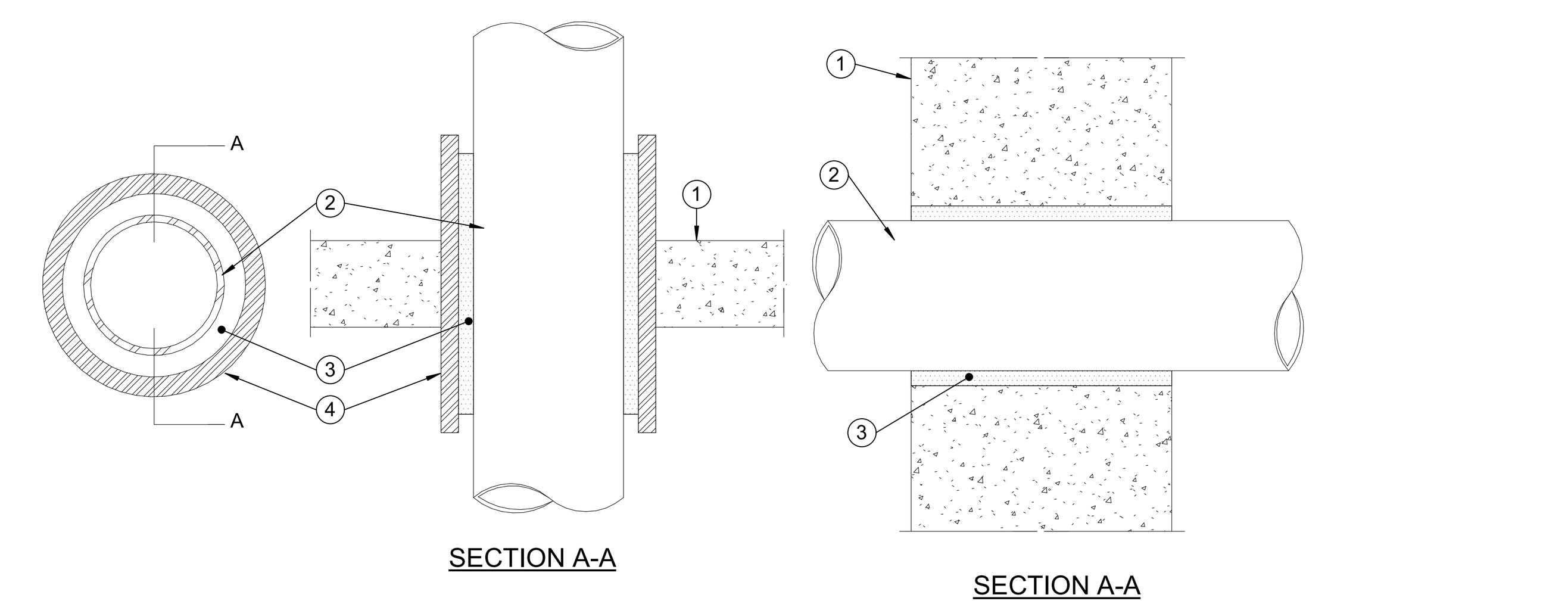
6 DETAIL - CONCENTRIC VENT - HORIZONTAL INSTALLATION

NOT TO SCALE



5 DETAIL - CLEANOUT AT FINISHED FLOOR

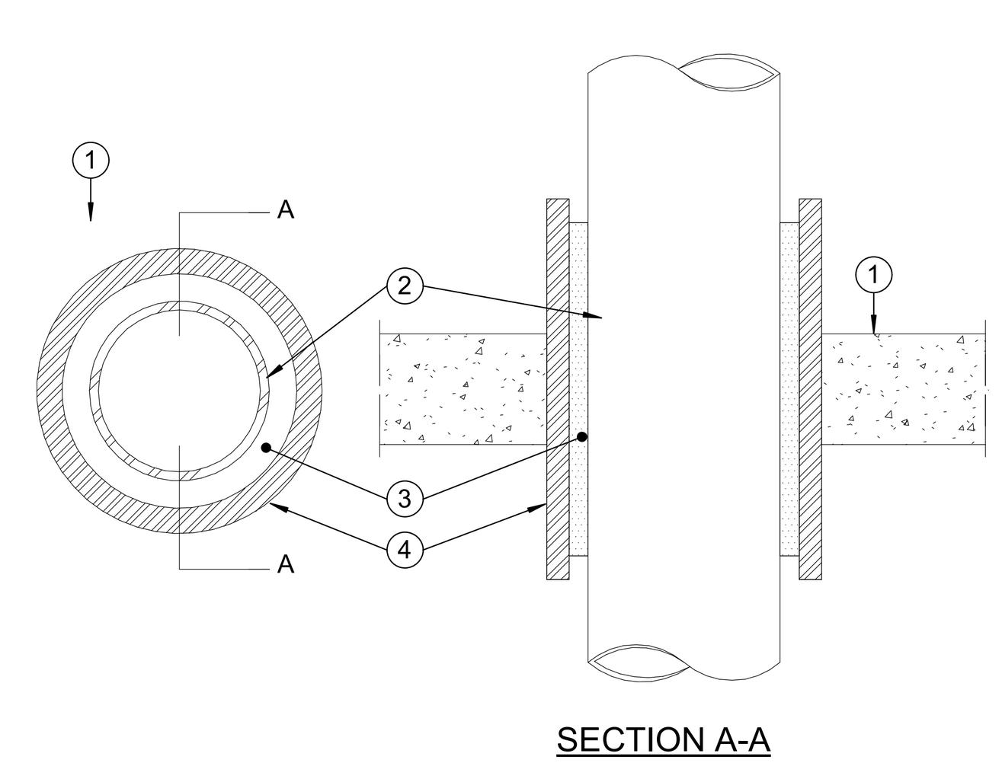
NOT TO SCALE



1. NON-RATED FLOOR/WALL
2. THROUGH PENETRANT: INSULATED PIPE
3. FILL, VOID, OR CAVITY MATERIAL: SILICONE CAULK
4. STEEL PIPE SLEEVE - MIN. 1" LIP AFF

4 DETAIL - NON-RATED FLOOR/WALL PIPE PENETRATION

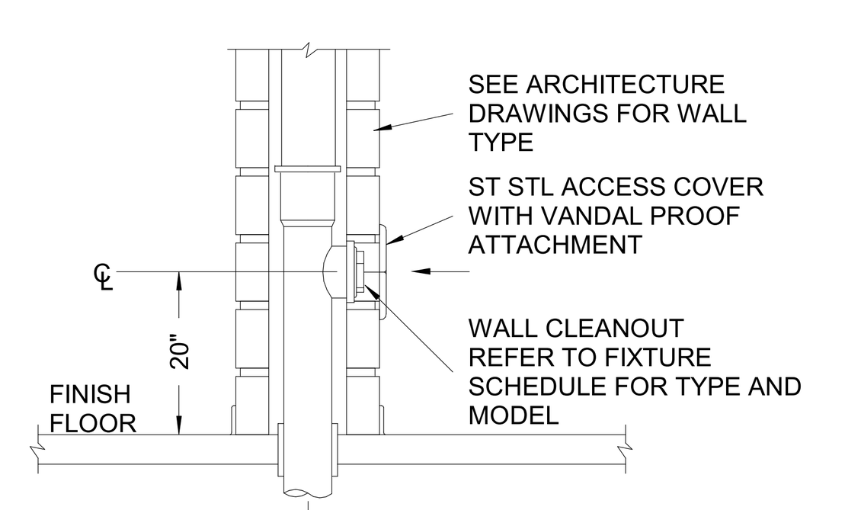
NOT TO SCALE



1. NON-RATED FLOOR
2. THROUGH PENETRANT: INSULATED PIPE
3. FILL, VOID, OR CAVITY MATERIAL: SILICONE CAULK
4. STEEL PIPE SLEEVE - MIN. 1" LIP AFF

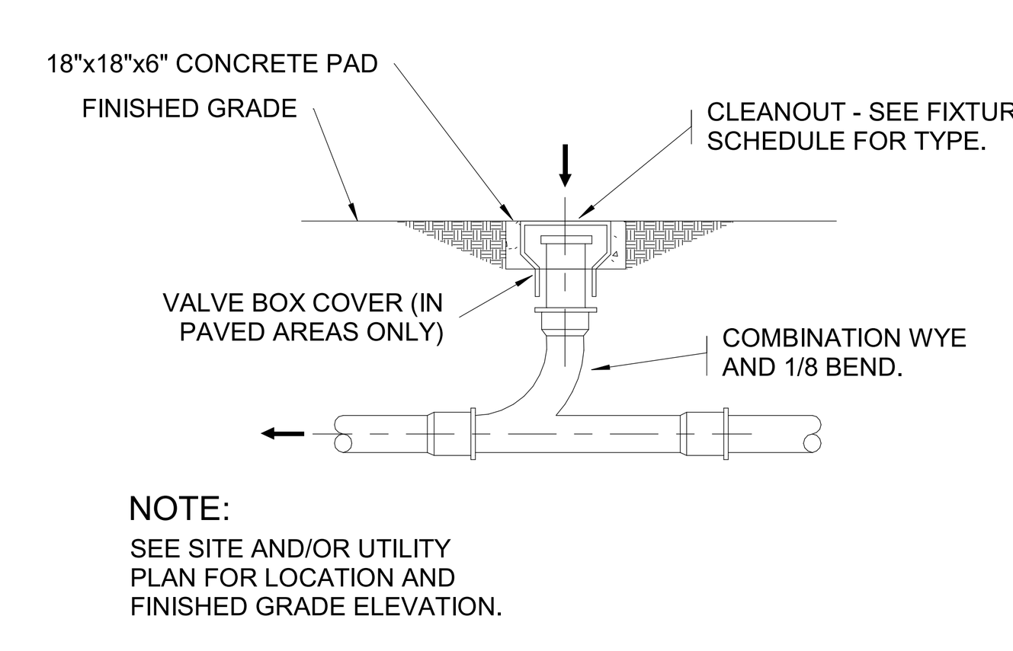
3 DETAIL - NON-RATED FLOOR PIPE PENETRATION

NOT TO SCALE



2 CLEANOUT AT WALL

NOT TO SCALE



NOTE:
SEE SITE AND/OR UTILITY PLAN FOR LOCATION AND FINISHED GRADE ELEVATION.

CLEANOUT AT FINISHED GRADE

1 CLEANOUT AT FINISHED GRADE

NOT TO SCALE

smith sinnett ARCHITECTURE

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Raleigh, North Carolina 27604
919-790-9989
License# C-0183
pdcengineers.com
PDC #22074

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 025020 STEVE W. CAMPBELL
10/11/2024

BID DOCUMENTS

THIS DRAWING IS FORMATTED TO BE PRINTED ON A 30" X 42" SHEET

Onslow County Senior Service Center Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: JJG
CHECKED BY: SWC

DETAILS

2021029 16 OCT. 2024

P5-01

PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	REMARKS
CO-1	CLEANOUT - FLOOR ZURN MODEL NO. ZN1400-BP WITH NICKEL BRONZE TOP AND BRONZE PLUG, PROVIDE -CM CARPET CLEANOUT MARKER WHERE IN CARPET	
CO-2	CLEANOUT - WALL ZURN MODEL NO. Z1441-BP-VP WALL CLEANOUT OR Z1446-BP-VP WALL CLEANOUT TEE TO SUIT APPLICATION, VANDAL PROOF SECURED TOP, SMOOTH ST STL ROUND ACCESS COVER	
CO-3	CLEANOUT - GRADE ZURN MODEL NO. Z1449-BP CLEANOUT FERRULE WITH BRONZE PLUG AT GRADE. WHERE IN PAVING PROVIDE WITH ZURN MODEL NO. ZN1474-G-VP HEAVY DUTY CLEANOUT HOUSING WITH INTEGRAL ANCHOR FLANGE, SECURED SCORIATED NICKEL BRONZE COVER WITH LIFTING DEVICE AND VANDAL-PROOF SCREW	
CS-1	THERMOSTATIC BALANCING VALVE CIRCUIT SOLVER UNION STRAINER ASSEMBLY WITH INTEGRAL BALL VALVES, CHECK VALVE, STRAINER, AND CIRCUIT SOLVER THERMOMETER ASSEMBLY AT EACH UNIT - SEE PLANS FOR QUANTITY	
DW-1	DISHWASHER CONNECTION DISHWASHER SUPPLIED AND INSTALLED BY PLUMBING CONTRACTOR. VERIFY COUNTER HEIGHT IN ARCHITECTURAL DRAWINGS PRIOR TO SPECIFYING DISHWASHER. SHALL BE SIMILAR TO SAMSUNG MODEL NO. DW80CG5450SRAA, WITH STAINLESS STEEL FINISH, PROVIDE 1/2" HW WITH QUARTER-TURN BALL VALVE UNDER SINK, PROVIDE CHROME PLATED BRASS DISHWASHER TAILPIECE AT SINK, MAKE FINAL CONNECTIONS	
EWC-1	ELECTRIC WATER COOLER W/BOTTLE FILLER (ACCESSIBLE) ELKAY MODEL NO. LZSTLRWSLK, LIGHT GRAY, FILTERED, REFRIGERATED, ANTI-MICROBIAL, LAMINAR FLOW, HANDSFREE, ELECTRONIC BOTTLE FILLER SENSOR W/ BUBBLER PUSHBAR ACTIVATION, FLEXI-GUARD SAFTEY BUBBLER, WALL MOUNTED, 115V/60HZ PROVIDE JAY R. SMITH CARRIER NO. 0834 TO SUIT INSTALLATION. WHERE CARRIER CANNOT BE USED, SECURE FIXTURE RIGIDLY TO THE WALL WITH TOGGLE BOLTS OR RAM-SET ON BLOCK WALLS, OR PROVIDE WOOD OR STEEL BLOCKING IN GYPSUM BOARD WALLS. PROVIDE McGUIRE NO. 8902 P-TRAP AND BALL VALVE IN COLD WATER LINE WITHIN CABINET.	30" AFF TO UPPER SPOUT 26" AFF TO LOWER SPOUT
FD-1	FLOOR DRAIN- FLUSH STRAINER ZURN MODEL NO. ZN415S-P DURA-COATED CAST IRON DRAIN WITH BOTTOM OUTLET, COMBINATION INVERTABLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS, "TYPE S" POLISHED NICKEL BRONZE LIGHT-DUTY STRAINER, TRAP PRIMER.	
FD-4	HUB DRAIN - MECH. UNIT CONDENSATE 4 X 2, 4 X 3, OR 6 X 4 SCHED. 40 SOLID WALL PVC REDUCING COUPLING SET AS HUB DRAIN ABOVE FINISH FLOOR - COORDINATE HEIGHT WITH AHU CONDENSATE PIPING IN FIELD - CONFIRM CONDENSATE DRAIN PIPE SIZES AT PLAN TO DETERMINE COUPLING SIZES NEEDED, ADD TRAP PRIMER.	
FS-1	FLOOR SINK WITH 4" SUMP DEPTH ZURN MODEL NO. Z1749-KC-19 12"X12"X4" DEEP 16 GAUGE, ALL TYPE 304 ST STL LIGHT-DUTY SANI-FLOR RECEPTOR WITH NON-TILT, FULL-HINGED FULL GRATE WITH 1/2" SQUARE OPENINGS, ANTI-SPLASH ST STL INTERIOR DOME STRAINER, AND ANCHOR FLANGE W/ SEEPAGE HOLES AND CLAMP COLLAR	REFER TO DWGS FOR LOCATION
GWH-1	A. O. SMITH WATER HEATER - AO SMITH, CYCLONE MXI-BTH199, 100 GALLON STORAGE CAPACITY NAT GAS WATER HEATER, POWER DIRECT VENT WITH SEALED COMBUSTION, RATED AT 199,000 BTU NATURAL GAS WITH A RECOVERY RATE OF 233 GALLONS PER HOUR AT 100°F RISE. HEATER STANDARD WITH ASME RATED TANK AND TEMPERATURE AND PRESSURE RELIEF VALVE, RATED FOR 150 PSI WORKING PRESSURE, 97% THERMAL EFFICIENCY FROM 40°F TO 140°F, CONDENSING DESIGN. PROVIDE CONCENTRIC VENTING KIT BY SAME MANUFACTURER WITH SEPARATE INTAKE AND FLUE. HEATER TO BE SET AT 110°F. PROVIDE STATE #ETC-10X EXPANSION TANK, BUTYL LINED. PROVIDE A. O. SMITH FLEXIBLE FOAM INSULATING JACKET, R-12.5 INSULATION VALUE, MEETING REQUIREMENTS OFUL-94 HBF, CALIFORNIA TECHNICAL BULLETIN 117 AND MVSS-302, WITH FLAME RETARDANT PVC VINYL COVERING RATED AT 225°F, FASTENED ON TANK WITH VELCRO FASTENER. SYSTEM MEETS OR EXCEEDS EFFICIENCY REQUIRE- MENTS OF ASHRAE/IES 90.1b - 1992. PROVIDE AMTROL MODEL NO. THERM-X-TROL ST-5 EXPANSION TANK WITH 150 PSI MAXIMUM WORKING PRESSURE AND FACTORY PRE-CHARGED TO 40 PSIG. RECIRCULATING PUMP (RP-1) - SEE DETAIL FOR QUANTITY. B&G SERIES 100, 7 GPM, 8 FEET HEAD, 120/1/60, 1/12 HP, ALL BRONZE CONSTRUCTION AND FLANGE CONNECTION. MAKE CONNECTION TO BUILDING AUTOMATION SYSTEM CONNECTION POINT PROVIDED BY MECHANICAL CONTRACTOR (IF APPLICABLE).	
H-1	FREEZELESS WALL HYDRANT EXTERIOR/ENCASED ZURN Z1300 ENCASED ECOLOTROL ANTI-SIPHON AUTOMATIC DRAINING WALL HYDRANT FOR FLUSH INSTALLATION, NON-FREEZE INTEGRAL BACKFLOW PREVENTER, BRONZE CASING, ALL BRONZE INTERNAL PARTS, NON-TURNING OPERATING RODS WITH FREE-FLOATING COMPRESSION CLOSURE VALVES, REPLACEABLE BRONZE SEAT AND SEAT WASHER, AND COMBINATION 3/4" FEMALE OR 1" MALE STRAIGHT IP INLET, NICKEL BRONZE BOX AND HINGED COVER WITH OPERATING KEY LOCK AND "WATER" CAST ONTO COVER.	MOUNT 24" AFG
H-2	WALL HYDRANTS - INTERIOR/ENCASED JAY R. SMITH NO. 5518 WITH INTEGRAL VACUUM BREAKER, 3/4" MALE HOSE CONNECTION AND ALL BRONZE INTERIOR PARTS, NON-TURNING OPERATING COUPLING, 90° INLET, STAINLESS STEEL BOX AND HINGED COVER WITH T-HANDLE KEY LOCK AND "WATER" CAST ON COVER	MOUNT 12" AFF
H-3	HOSE BIBB - INTERIOR/FACILITIES WOODFORD MODEL NO. 24 HYDRANT/HOSE BIBB, CHROME PLATED BRASS, VACUUM BREAKER, 3/4" HOSE THREAD OUTLET, WALL FLANGE, AND OPTIONAL METAL WHEEL HANDLE	MOUNT 12" AFF
IM-1	REFRIGERATOR ICE MAKER GUY GRAY MODEL NO. BIM875 WITH 20 GAUGE GALVANIZED STEEL BOX AND 20 GAUGE FACEPLATE, WITH 1/2" FIP INLET (1/2" MPT OR 1/4" 5/8" OD SWEAT CONNECTION) AND 1/4" OD OUTLET COMPRESSION ANGLE VALVE. PROVIDE WATTS 9BD BACKFLOW PREVENTER. COORDINATE MOUNTING HEIGHT WITH OWNER/ARCHITECT FOR MODEL REFRIGERATOR PROVIDED UNDER GENERAL CONTRACT.	
IM-2	ICE MACHINE CONNECTION ICE MAKER BOX OATEY MODEL NO. 39152, WITH QUARTER-TURN BALL VALVE AND WATER HAMMER, PROVIDE WATTS 9BD DUAL-CHECK VACUUM BREAKER, COORDINATE MOUNTING HEIGHT WITH ICE MAKER/EQUIPEMENT PROVIDED BY OWNER, MAKE FINAL CONNECTIONS	COORDINATE MOUNTING HEIGHT WITH EQUIPMENT MANUFACTURERS RECOMMENDATIONS
L-1	LAVATORY (HANDICAP ACCESSIBLE) - WALL HUNG LAVATORY - AMERICAN STANDARD MURRO UNIVERSAL MODEL NO. 0954.004EC 21 1/4" X 22" VITREOUS CHINA, WALL HUNG WITH ONE FAUCET HOLE, FAUCET CHICAGO FAUCETS MODEL 2200-E2805ABCP CHROME PLATED CAST BRASS SINGLE LEVER, SINGLE HOLE MOUNTED FAUCET WITH CERAMIC CARTRIDGE, TEMPERATURE LIMIT STOP, AND VANDAL RESISTANT .5 GPM AERATOR. McGUIRE NO. 170 SUPPLIES WITH ESCUTCHEONS. DRAIN AND TAILPIECE - McGUIRE NO. 155A WITH PERFORATED STRAINER. P-TRAP - McGUIRE NO. 8902 17 GAUGE SEMI-CAST BRASS. CARRIER - ZURN. WRAP - PLUMBEREX HANDY-SHIELD ON SUPPLIES AND TRAP.	27" AFF TO RIM
L-2	LAVATORY - THREE SINK - ONE PIECE - WALL HUNG (ACCESSIBLE) BRADLEY (OR APPROVED EQUAL) LD3010-STD-SL-TR1 OMNIDECK W/ CENTERSHANK FAUCET DRILLINGS 3 STATIONS WITH BACKSPLASH. (3) CHICAGO FAUCETS MODEL 350I-4E2805ABCP METERING FAUCET, CHROME PLATED CAST BRASS CONSTRUCTION, SINGLE HOLE MOUNTED FAUCET WITH CERAMIC CARTRIDGE, TEMPERATURE LIMIT STOP, AND VANDAL RESISTANT .5 GPM AERATOR. PROVIDE McGUIRE NO. LF170LKC LOOSE-KEY SUPPLIES WITH ESCUTCHEONS, McGUIRE NO. 155A DRAIN AND TAILPIECE WITH PERFORATED STRAINER, AND McGUIRE NO. 8902C P-TRAP. PROVIDE ZURN CARRIER MODEL NO. Z1224 TO FIT INSTALLATION REQUIREMENTS. PROVIDE McGUIRE PROWRAP ON SUPPLIES AND TRAP. TAILPIECE ON SUPPLIES SHALL BE COMPATIBLE WITH TAILPIECE ON FAUCET.	30" AFF TO RIM

PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	REMARKS
L-3	HAND SINK (ACCESSIBLE) JUST MANUFACTURING - MODEL NUMBER A3338-J, 22" x 19" x 5-1/2" STAINLESS STEEL WALL HUNG LAVATORY SINK WITH OVERFLOW AND BACKSPLASH, 3-HOLE PUNCH, 18 GUAGE 304 STAINLESS STEEL WITH A SATIN FINISH, REAR CENTER DRAIN AND SOUND DEADENING PADS. PROVIDE WITH ELKAY MODEL LK40274 4" CENTERSET DECK MOUNTED FAUCET, SHALL HAVE 4" WRISTBLADE HANDELS, 0.5 GPM FLOW, CHROME PLATED BRASS, QUARTER TURN CERAMIC DISC VALVE. PROVIDE McQUIRE NO. 170 SUPPLIES WITH ESCUTCHEONS, McGUIRE NO 155A DRAIN AND TAILPIECE WITH PERFORATED STAINLESS STEEL STRAINER, McGUIRE NO 8902 P-TRAP, AND McGUIRE PROWRAP COVERS ON TRAP AND SUPPLIES.	34" AFF TO RIM
MR-1	MOP RECEPTOR FLORESTONE MODEL 80 24" x 24" x 12" ONE-PIECE PRECAST TERRAZZO WITH CAST INTEGRAL ST STL PROTECTIVE CAPS ON ALL SIDES, DRAIN BODY SHALL BE BRASS, CAST INTEGRAL WITH A NON-CAULKED CONNECTION NOT LESS THAN 1" DEEP TO A 3" PIPE AND 18 GAUGE ST STL STRAINER, FLORESTONE NO. MR-371 SERVICE SINK FAUCET WITH INTEGRAL STOPS, VACUUM BREAKER, SPOUT, AND PAIL HOOK WALL BRACE, AND FLORESTONE NO. MR-370 5'-LONG HOSE AND HOSE BRACKET.	36" AFF TO FAUCET CONTROLS 18" AFF TO HOSE BRACKET
RP-1	RECIRCULATING PUMP B&G SERIES 100, 15 GPM, 7 FEET HEAD, 120/1/60, 1/12 HP, ALL BRONZE CONSTRUCTION AND FLANGE CONNECTION. TIMECLOCK SHALL BE A TORK 7200L, 120 V., DOUBLE POLE, SINGLE THROW, WITH A 10 HOUR SPRING CARROYOER	
RP-2	RECIRCULATING PUMP B&G SERIES 100, 15 GPM, 7 FEET HEAD, 120/1/60, 1/12 HP, ALL BRONZE CONSTRUCTION AND FLANGE CONNECTION. TIMECLOCK SHALL BE A TORK 7200L, 120 V., DOUBLE POLE, SINGLE THROW, WITH A 10 HOUR SPRING CARROYOER	
S-1	DOUBLE BOWL SINK - COUNTER MOUNTED ELKAY, MODEL NO. LRAD3322, TYPE 304, 18 GAUGE STAINLESS STEEL SINK, 33" x 22" WITH TWO 13 1/2" x 16" x 5 1/2" DEEP BOWLS WITH CENTER BACK OUTLETS. SINK SHALL BE SELF RIMMING, SOUND DEADENED, SATIN FINISHED. PROVIDE WITH T & S BRASS FAUCET MODEL B-0320 WITH B-0412 RIGID-TO-SWIVEL ADAPTER FOR GOOSENECK SPOUT, B-0199-07 VANDAL- RESISTANT AERATOR AND B-WH4 4" WRIST-ACTION HANDLES INDEXED FOR HOT AND COLD. PROVIDE McGUIRE NO. 170 SUPPLIES WITH ESCUTCHEONS, McGUIRE NO. 152N GRID STRAINERS WITH 6", 17- GAUGE TAILPIECES, McGUIRE NO. 1000WC OFFSETS, McGUIRE NO. 111C16G17 CONTINUOUS WASTE, AND McGUIRE 8912 CAST BRASS P-TRAP. SUPPLIES SHALL BE COMPATIBLE WITH TAILPIECE ON FAUCET.	SEE ARCHITECTURE DRAWINGS FOR COUNTER HEIGHT PROVIDE FAUCET FITTING TO RESTRICT SWING TO 180°
S-2	DOUBLE SINK (ACCESSIBLE) JUST, DOUBLE BOWL, MODEL NO. DL-ADA-1933-A55-J, 18 GAUGE, TYPE 304 STAINLESS STEEL, SATIN FINISH, SELF-RIMMING, SOUND DEADENED, 19 1/2" x 33" x 5 1/2" DEEP WITH 14" x 14" BOWLS, 3-HOLE PUNCHED, CENTER BACK OUTLETS, WITH CHICAGO FAUCETS MODEL NO. 1100-GN8A-E35VPJKCP-317CP CAST BRASS RIGID/SWIVEL GOOSENECK FAUCET, CHROME PLATED, WITH WRIST BLADE HANDLES AND 1.5 GPM VANDAL RESISTANT AERATOR. McGUIRE NO. 170 SUPPLIES WITH ESCUTCHEONS, McGUIRE NO. 151 CRUMB CUP STRAINERS, McGUIRE 1000WC OFFSETS, McGUIRE 8912 P-TRAP, AND McGUIRE 111C16G17 CONTINUOUS WASTE. SUPPLIES SHALL BE COMPATIBLE WITH TAILPIECE ON FAUCET. PROVIDE WITH (DW-1) SUPPLY AND WASTE CONNECTIONS AS SCHEDULED.	SEE ARCHITECTURE DRAWINGS FOR COUNTER HEIGHT PROVIDE FAUCET FITTING TO RESTRICT SWING TO 180°
S-3	SINK DOUBLE BOWL - DROP-IN - KITCHEN ELKAY, DOUBLE BOWL, MODEL NO. STCR3322L, 20 GAUGE, TYPE 304 STAINLESS STEEL SELF-RIMMING, SATIN FINISH, BOTTOM ONLY PAD SOUND DEADENED, 33" x 22" x 10-1/4" WITH (1)14" x 15-3/4"x 10" BOWL AND (1) 14" x 15-3/74" x 7" BOWL, 3-HOLE PUNCHED, 4" CENTERS, CENTER OUTLET, ELKAY 8" CENTERSET FAUCET MODEL NO. LK943AFGBLC CHROME PLATED BRASS FAUCET, DECK MOUNTED, 8" ARC TUB SPOUT, 2" LEVER HANDLES, QUARTER TURN CERAMIC DISC VALVE, 1.5 GPM VANDAL PROOF AERATOR, AND 44" FLEXIBLE HOSE WITH 1.2 GPM SPRAY HEAD. PROVIDE McGUIRE NO. 170 SUPPLIES WITH ESCUTCHEONS, McGUIRE NO. 151 CRUMB CUP STRAINER, McGUIRE 8902C P-TRAP, SUPPLIES SHALL BE COMPATIBLE WITH TAILPIECE ON FAUCET, PROVIDE McGUIRE PLUMBEREX HANDY-SHILED COVERS ON TRAP AND SUPPLIES	SEE ARCHITECTURE DRAWINGS FOR COUNTER HEIGHT PROVIDE FAUCET FITTING TO RESTRICT SWING TO 180°
SH-1	SHOWER (ACCESSIBLE) SYMMONS MODEL S-9605-PLR, POLISHED CHROME FINISH, TEMPTROL PRESSURE BALANCING VALVE, INTEGRAL DIVERTER CONTROL, METAL LEVER HANDLE, ADA 36" GRAB BAR, DUAL CHECK VALVE FOR BACKFLOW PREVENTION, 60" FLEXIBLE METAL HOSE, 2.0 GPM FLOW RESTRICTORS. REFER TO FLOOR DRAIN(FD-1)	MOUNT SHOWER VALVE AT 48" A.F.F. AND SHOWER HEAD AT 78" A.F.F.
U-1	URINAL - ADA AMERICAN STANDARD WASHBROOK MODEL 6515001.020 WALL HUNG, 3/4" TOP SPUD, VITREOUS CHINA, ELONGATED RIM, 0.5 GAL FLUSH, SIPHON JET OPERATION ZURN NO. Z6003-EWS MANUAL FLUSH VALVE. CARRIER SHALL BE JAY R. SMITH #0636 OR 0637 TO FIT INSTALLATION REQUIREMENTS	17" AFF TO RIM
WB-1	WASHING MACHINE BOX 20 GAUGE GALV. STEEL BOX AND FACEPLATE WITH 2" DRAIN PIPE AND (2) 3/4" QUARTER-TURN BRASS HAMMER BALL VALVES WITH 3/4" HOSE THREAD CONNECTIONS AND 2" RUBBER TAILPIECE - PROVIDE OATEY MODEL NO. 38987 PVC TAILPIECE WHERE APPLICABLE, COORDINATE MOUNTING HEIGHT WITH WASHING MACHINE PROVIDED IN GENERAL CONTRACT, MAKE FINAL CONNECTIONS	PROVIDE FILTROL MODEL 160 OR APPROVED EQUAL WALL MOUNTED WASTE FILTER INCLUDING POLYCARBONATE HOUSING AND WALL MOUNTING BRACKET AND ALL ASSOCIATED FITTINGS AND HARDWARE - MOUNT BETWEEN WASHER OUTLET AND WASHER BOX DRAIN INLET
WC-1	WATER CLOSET(STANDARD) - FLOOR MOUNTED AMERICAN STANDARD MADERA MODEL 2234.001, FLOOR MOUNTED, VITREOUS CHINA ELONGATED WATER CLOSET WITH SIPHON JET ACTION AND 1-1/2" TOP SPUD - 1.6 GAL. FLUSH, 15" RIM HEIGHT TOILET SET BEMIS COMMERCIAL MODEL 1655SSCT EXTRA HEAVY DUTY SOLID PLASTIC OPEN FRONT ELONGATED SEAT WITH ST STL POSTS, ST STL SELF-SUSTAINING CHECK HINGES, STA-TITE FASTENING NUTS FLUSH VALVE - (MANUAL) SLOAN MODEL WES 111, CHROME PLATED FINISH, 1-1/2" TOP SPUD, DUAL FLUSH, EXPOSED MANUAL WATER CLOSET, DIAPHRAGM VALVE, PERMEX SYNTHETIC RUBBER DIAPHRAGM, 1.6 GPF	15" AFF TO RIM COORD. VALVE HANDLE HEIGHT WITH GRAB BARS WHERE APPLIES
WC-2	WATER CLOSET(ACCESSIBLE) - FLOOR MOUNTED AMERICAN STANDARD MADERA MODEL 3043.001, FLOOR MOUNTED, VITREOUS CHINA ELONGATED WATER CLOSET WITH SIPHON JET ACTION AND 1-1/2" TOP SPUD - 1.6 GAL. FLUSH, 16-1/2" RIM HEIGHT TOILET SET BEMIS COMMERCIAL MODEL 1655SSCT EXTRA HEAVY DUTY SOLID PLASTIC OPEN FRONT ELONGATED SEAT WITH ST STL POSTS, ST STL SELF-SUSTAINING CHECK HINGES, STA-TITE FASTENING NUTS FLUSH VALVE - (MANUAL) SLOAN MODEL WES 111, CHROME PLATED FINISH, 1-1/2" TOP SPUD, DUAL FLUSH, EXPOSED MANUAL WATER CLOSET, DIAPHRAGM VALVE, PERMEX SYNTHETIC RUBBER DIAPHRAGM, 1.6 GPF	16" AFF TO RIM COORD. VALVE HANDLE HEIGHT WITH GRAB BARS WHERE APPLIES
WH-1	ELECTRIC WATER HEATER A.O. SMITH MODEL NO. DEN-66, 66 GALLON TALL ELECTRIC WATER HEATER. CONTAINS TWO ELEMENTS, SHALL BE RATED AT 6100 WATTS, 480/3/60, WITH A SIMULTANEOUS OPERATION. ELEMENTS SHALL BE CONTROLLED BY A MOUNTED THERMOSTAT AND HIGH TEMPERATURE CUTOFF SWITCH. HEATER SHALL BE SET AT 110°F WATER TEMPERATURE. TANK SHALL BE GLASS LINED, RATED FOR 150 PSI WORKING PRESSURE, AND SHALL HAVE A SIX-YEAR WARRANTY. WATER HEATER SHALL MEET ALL THE REQUIREMENTS OF CURRENT VERSION OF ASHRAE 90. EFFICIENCY STANDARDS. PROVIDE AMTROL MODEL NO. THERM-X-TROL ST-5 EXPANSION TANK WITH 150 PSI MAXIMUM WORKING PRESSURE AND FACTORY PRE-CHARGED TO 40 PSIG.	
WH-2	ELECTRIC WATER HEATER A.O. SMITH MODEL NO. DEN-66, 66 GALLON TALL ELECTRIC WATER HEATER. CONTAINS TWO ELEMENTS, SHALL BE RATED AT 6100 WATTS, 480/3/60, WITH A SIMULTANEOUS OPERATION. ELEMENTS SHALL BE CONTROLLED BY A MOUNTED THERMOSTAT AND HIGH TEMPERATURE CUTOFF SWITCH. HEATER SHALL BE SET AT 110°F WATER TEMPERATURE. TANK SHALL BE GLASS LINED, RATED FOR 150 PSI WORKING PRESSURE, AND SHALL HAVE A SIX-YEAR WARRANTY. WATER HEATER SHALL MEET ALL THE REQUIREMENTS OF CURRENT VERSION OF ASHRAE 90. EFFICIENCY STANDARDS. PROVIDE AMTROL MODEL NO. THERM-X-TROL ST-5 EXPANSION TANK WITH 150 PSI MAXIMUM WORKING PRESSURE AND FACTORY PRE-CHARGED TO 40 PSIG.	

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10/11/2024

BID DOCUMENTS

Smith Sinnett Architecture, P.A. 2024

THIS DRAWING IS FORMATTED TO BE PRINTED ON A 30" X 42" SHEET

Onslow County Senior Service Center
Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: JJG
CHECKED BY: SWC

SCHEDULES

2021029 16 OCT. 2024

P6-01

GENERAL NOTES

1. THE CONTRACT DOCUMENTS ARE COMPLIMENTARY AND WHAT IS REQUIRED BY ONE SHALL BE AS BINDING AS IF REQUIRED BY ALL. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE BETTER QUALITY. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE GREATER QUANTITY OF WORK.
2. COORDINATE ALL WORK WITH THAT OF THE OTHER DISCIPLINES PRIOR TO THE INSTALLATION OF ANY PIPING, DUCTWORK, OR EQUIPMENT.
3. PERFORM A COMPLETE REVIEW OF THE CONTRACT DOCUMENTS PRIOR TO INSTALLATION OF THE MECHANICAL SYSTEMS AND REVIEW ANY CONFLICTS WITH THE ENGINEER.
4. DURING THE CONSTRUCTION PROCESS PROTECT ALL MECHANICAL EQUIPMENT, DEVICES, DUCTWORK, PIPING AND APPURTENANCES FROM DIRT AND DEBRIS. STORE IN A COVERED LOCATION OFF OF THE FLOOR AND OUT OF STANDING WATER.
5. ENSURE THAT ITEMS TO BE FURNISHED OR PROVIDED WILL FIT IN THE SPACE AVAILABLE. MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS, INCLUDING THOSE FOR CONNECTIONS, AND PROVIDE SUCH SIZES AND SHAPES OF EQUIPMENT THAT ARE THE TRUE INTENT AND MEANING OF THE CONTRACT DOCUMENTS. PROVIDE THE ENGINEER WITH SCALED COORDINATION DRAWINGS OF ALL MECHANICAL SPACES AND ABOVE CEILING INSTALLATIONS.
6. LOCATE ALL EQUIPMENT TO PROVIDE MAXIMUM SPACE FOR MAINTENANCE AND SERVICE. INSTALLATION OF PIPING AND DUCTWORK SHALL NOT INTERFERE WITH WALKWAYS, PATHS, OR SERVICE ACCESS.
7. PROVIDE ALL ELECTRICAL AND CONTROL CONNECTIONS TO THE EQUIPMENT PROVIDED. REFER TO THE ELECTRICAL DRAWINGS FOR LOCATIONS OF JUNCTION BOXES, DISCONNECTS, CIRCUIT BREAKERS (PANELBOARDS). TYPE, SIZE, AND NUMBER OF CONDUCTORS AND CONDUITS TO EQUIPMENT SHALL BE EQUIVALENT TO THE CONDUCTORS AND CONDUITS PROVIDED BY DIVISION 26. IN CASE OF MECHANICAL EQUIPMENT CONNECTION TO A CIRCUIT BREAKER, THE NUMBER AND SIZE OF THE CONDUCTORS AND CONDUITS SHALL CONFORM TO THE LATEST NATIONAL ELECTRICAL CODE REGULATIONS. ALL MOTOR STARTERS, SWITCHES, CONTROL DEVICES, ETC., PROVIDED BY DIVISION 23 SHALL BE RECESSED IN THE WALLS, EXCEPT WHEN THESE ITEMS ARE LOCATED IN MECHANICAL SPACES. PROVIDE A NAMEPLATE FOR ALL EQUIPMENT, SWITCHES, CONTROL DEVICES, ETC. REFER TO THE GENERAL PROVISIONS SECTION OF THE DIVISION 23 SPECIFICATIONS.
8. PROVIDE ALL SUPPORT DEVICES NECESSARY FOR THE WORK. COORDINATE ALL LOCATIONS WITH OTHER DISCIPLINES PRIOR TO INSTALLATION.
9. REFER TO THE ARCHITECTURAL DRAWINGS FOR FLOOR PLAN DIMENSIONS AND ELEVATIONS. DO NOT SCALE THESE DRAWINGS.
10. PROVIDE ALL PENETRATIONS PERTAINING TO THE WORK THROUGH THE ROOF, WALLS, AND FLOORS. PROVIDE THE WATERPROOFING AROUND THE OPENINGS.
11. COORDINATE THE SIZE AND LOCATION OF ALL PENETRATIONS THROUGH THE ROOF WITH OTHER DISCIPLINES.
12. ALL WALL AND FLOOR PENETRATIONS SHALL BE SEALED. SEAL ALL RATED FLOOR AND WALL PENETRATIONS WITH A UL APPROVED METHOD. FOR NON-RATED WALLS AND FLOORS, THE ANNULAR SPACE SHALL BE PACKED WITH MINERAL WOOL, OR ANOTHER SUITABLE NON-COMBUSTIBLE MATERIAL, AND CAULKED AIR TIGHT.
13. PROVIDE ALL CUTTING AND PATCHING OF FLOORS AND WALLS FOR THE WORK UNLESS OTHERWISE INDICATED.
14. CONDENSATE DRAINS SHALL BE A MINIMUM OF 1"∅ COPPER, INSULATED WITH A 25/50 RATED CLOSED CELL RUBBER TUBING HAVING A NOMINAL WALL THICKNESS OF 1". PROVIDE A P-TRAP WITH VENT AND CLEANOUT PLUG AT THE UNIT. ALL CONDENSATE LINES SHALL BE ROUTED TO A FLOOR DRAIN OR AS INDICATED ON THE DRAWINGS. PIPE ROUTING SHALL NOT CREATE A TRIP HAZARD.
15. DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR UNLESS OTHERWISE INDICATED.
16. EXHAUST DUCTWORK SHALL BE UNINSULATED UNLESS OTHERWISE INDICATED. EXHAUST DUCTWORK WITHIN 10'-0" OF EXTERIOR OPENING SHALL BE INSULATED.
17. PROVIDE FLEXIBLE DUCT CONNECTORS AT SUPPLY, RETURN, AND EXHAUST DUCTWORK CONNECTIONS TO ALL AIR HANDLING UNITS AND FANS.
18. PROVIDE SHEET METAL COLLAR AT ALL LOCATIONS WHERE DUCTS PENETRATE WALLS. COLLARS SHALL BE OF A GAUGE EQUIVALENT TO THE DUCTWORK.
19. WHERE EXISTING DUCTWORK, PIPING, OR EQUIPMENT HAS BEEN REMOVED, COMPLETELY REMOVE ALL EXISTING ABANDONED HANGERS AND APPURTENANCES.
20. ALL ACCESS DOORS IN THE DUCTWORK SHALL BE LOCATED FOR EASY ACCESS. COORDINATE CEILING ACCESS PANEL LOCATIONS WITH ALL OTHER DISCIPLINES. ALL ACCESS DOORS IN DUCTWORK FOR DUCT-MOUNTED COILS, CONTROL DAMPERS, DUCT SMOKE DETECTORS, AND OTHER DEVICES SHALL CONFORM TO THE FOLLOWING SCHEDULE:

DUCT WIDTH	ACCESS DOOR SIZE
UP TO 17" WIDE	16"x12" (OR AS LARGE AS POSSIBLE)
18" TO 22"	16"x16"
2" AND LARGER	18"x18"

21. PROVIDE BALANCING DAMPERS IN ALL LOW PRESSURE DUCTS FOR SYSTEM BALANCING. PROVIDE ADJUSTABLE CONTROL DEFLECTION DEVICES AT ALL BRANCH DUCT TAKE-OFFS.
22. ALL ELBOWS IN DUCTWORK SHALL BE 1-1/2W RADIUS ELBOWS, UNLESS INDICATED OTHERWISE. WHERE RECTANGULAR ELBOWS ARE INDICATED, INSTALL DOUBLE WIDTH TURNING VANES.
23. INSTALL SMOKE DETECTORS (FURNISHED AND WIRED BY DIVISION 26) IN THE RETURN AIR DUCT AIR HANDLING UNITS AS INDICATED.
24. INSTALL THERMOSTATS, SENSORS, AND OTHER CONTROLS 48" ABOVE FINISHED FLOOR OR AS INDICATED ON THE DRAWINGS. COORDINATE WITH OTHER DISCIPLINES TO ALIGN EXACTLY WITH ADJACENT DEVICES SUCH AS LIGHT SWITCHES AND CONTROLS.
25. PROVIDE ALL THERMOSTATS, SENSORS, CONTROLS, WIRING, AND CONDUIT.
26. WHERE DUCTWORK CONNECTS TO EXTERIOR LOUVERS, PRIME AND PAINT DUCTWORK BLACK TO PREVENT DUCTWORK FROM BEING VISIBLE THROUGH THE LOUVER.
27. FRESH AIR INTAKES SHALL BE A MINIMUM OF 10 FEET FROM ALL EXHAUST AIR TERMINATIONS AND PLUMBING VENT THRU ROOF TERMINATIONS. COORDINATE WITH OTHER TRADES.
28. ALL DUCT LAYOUT AND LOCATIONS INDICATED ARE DIAGRAMMATIC. VISIT THE SITE, BECOME FAMILIAR WITH THE EXISTING CONDITIONS, AND COORDINATE THE DUCT LAYOUT WITH ALL DISCIPLINES PRIOR TO INSTALLATION.
29. SUPPORT ALL DUCTWORK, PIPING, EQUIPMENT, AND APPURTENANCES FROM THE BUILDING STRUCTURE AND NOT THE ROOF DECK.
30. ALL HANGER RODS SHALL BE CUT TO WITHIN 1" OF THE BOTTOM NUT. IN MECHANICAL ROOMS, ALL HANGERS BELOW 7'-0" SHALL BE WRAPPED WITH FOAM INSULATION FOR PERSONNEL PROTECTION.
31. INSULATE ALL SUPPLY DIFFUSERS AND DUCTED RETURN DIFFUSERS WITH 2" - 1# R.6 DUCT WRAP. CUT DIFFUSERS SO THERE IS A FOLDED 2" LAP ON ALL FOUR SIDES. TAPE WITH FSK TAPE WHERE INSULATED FLEX MEETS DUCT INSULATION, AND SO THERE ARE NO RAW EDGES OF FIBERGLASS.
32. EQUIPMENT SHALL MEET OR EXCEED ALL REQUIREMENTS IN THE 2013 VERSION OF ASHRAE STANDARD 90.1 AND THE INTERNATIONAL ENERGY CONSERVATION CODE WITH NORTH CAROLINA AMENDMENTS.
33. COORDINATE THE ROUGH-IN OF PIPING WITH THE GENERAL CONTRACTOR AND OTHER TRADES.
34. ALL PIPING SHALL BE PERMANENTLY IDENTIFIED BY CONTENT, FUNCTION, AND DIRECTION OF FLOW (I.E., HOT WATER SUPPLY →). ALL IDENTIFICATION MARKERS SHALL BE PERMANENTLY STENCILED ON THE PIPING IN A LEGIBLE MANNER AT NO GREATER DISTANCE THAN 10'-0" ON CENTER. WHERE COLOR CODED PVC INSULATION JACKETING IS NOT SPECIFIED, ALL PIPING IN MECHANICAL ROOMS AND FINISHED AREAS ARE TO BE PAINTED AS FOLLOWS:

   REFRIGERANT — GREEN WITH BLACK BACKGROUND AND YELLOW LETTERS

35. ALL EQUIPMENT REMOVED FROM THE BUILDING DURING DEMOLITION SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE TURNED OVER TO THE OWNER FOR DISPOSAL. CARE SHOULD BE TAKEN IN REMOVAL OF ITEMS TO MINIMIZE DAMAGE. ANY ITEM NOT WANTED BY THE OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PREMISES.
36. DO NOT INSTALL PIPING OR DUCTWORK OVER ANY ELECTRICAL PANEL OR SWITCHGEAR.
37. PROVIDE EQUIPMENT SUPPORT PAD FOR ALL BASE MOUNTED EQUIPMENT. PAD SHALL BE 4" HIGH FOR ALL MECHANICAL EQUIPMENT. PROVIDE 8" MINIMUM FROM EQUIPMENT TO END OF PAD ON ALL SIDES.
38. ZIP TIES WILL NOT BE PERMITTED FOR USE AS CABLE SUPPORTS. WHERE NOT REQUIRED TO BE IN CONDUIT BY THE SPECIFICATIONS, PROVIDE J-HOOK SUPPORTS AND BRIDLE RINGS. CABLE SHALL BE INDEPENDENTLY SUPPORTED AND SHALL NOT BE SUPPORTED OFF THE WORK OF OTHER TRADES.

SYMBOL LEGEND

SYMBOL	DESCRIPTION
	FLEXIBLE DUCT
_x_	SUPPLY DUCT
_x_	RETURN DUCT
_x_	EXHAUST DUCT
_x_	OUTSIDE AIR INTAKE
	BALANCING DAMPER
	SUPPLY GRILLE
	RETURN GRILLE
	EXHAUST GRILLE
# T	TEMPERATURE SENSOR. LABEL INDICATES UNIT CONTROLLED.
R R	REFRIGERANT PIPING
C C	CONDENSATE PIPING
S D	DUCT SMOKE DETECTOR
MD	MOTORIZED DAMPER, PARALLEL BLADE FOR SHUT-OFF, OPPOSED BLADE FOR MODULATING, 24V ACTUATOR.
CO	WALL MOUNTED CO2 SENSOR
VD	MANUAL BALANCING DAMPER, OPPOSED BLADE, DOUBLE FLANGED. PROVIDE FACTORY SLEEVE, AND MANUAL HAND QUADRANT WITH INSULATION EXTENSION. AIR PERFORMANCE TESTED IN ACCORDANCE WITH AMCA. LEAKAGE CLASS 1, 8 CFM/SF AT 4 in w.g.
H	WALL MOUNTED HUMIDITY SENSOR.
DDC	DDC CONTROLS PANEL

MECHANICAL SUMMARY
MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

CODE
2018 NC ENERGY CODE: PRESCRIPTIVE ___X___ PERFORMANCE _______
ASHRAE 90.1-2013: PRESCRIPTIVE _______ PERFORMANCE _______

ADDITIONAL PRESCRIPTIVE COMPLIANCE: N/A

_____ 506.2.1 MORE EFFICIENT MECHANICAL EQUIPMENT
_____ 506.2.2 REDUCED LIGHTING POWER DENSITY
_____ 506.2.3 ENERGY RECOVERY VENTILATION SYSTEMS
_____ 506.2.4 HIGHER EFFICIENCY SERVICE WATER HEATING
_____ 506.2.5 ON-SITE SUPPLY OF RENEWABLE ENERGY
_____ 506.2.6 AUTOMATIC DAYLIGHTING CONTROLS

THERMAL ZONE: 3A
WINTER DRY BULB: 20.0 DEGREES F
SUMMER DRY BULB: 94.6 DEGREES F
SUMMER WET BULB: 74.3 DEGREES F
SUMMER HR/MCDB: 129.5 / 81.2 DEGREES F

INTERIOR DESIGN CONDITIONS
WINTER DRY BULB: 70 DEGREES F
SUMMER DRY BULB: 75 DEGREES F
RELATIVE HUMIDITY: 55 %

BUILDING HEATING LOAD: 679.5 MBH

BUILDING COOLING LOAD: 91.2 TONS

MECHANICAL SPACING CONDITIONING SYSTEM

UNITARY
DESCRIPTION OF UNIT: DX PACKAGE AC WITH GAS HEAT
HEATING EFFICIENCY: REFER TO SCHEDULE ON DRAWINGS
COOLING EFFICIENCY: REFER TO SCHEDULE ON DRAWINGS
SIZE CATEGORY OF UNIT: REFER TO SCHEDULE ON DRAWINGS

BOILER: TOTAL BOILER OUTPUT. IF OVERSIZED, STATE REASON. N/A

CHILLER: TOTAL CHILLER CAPACITY. IF OVERSIZED, STATE REASON. N/A

REFER TO EQUIPMENT SCHEDULES FOR UNIT EFFICIENCIES.

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 NORTH CAROLINA STATE ENERGY CODE

ABBREVIATIONS

ACCU	AIR COOLED CONDENSING UNIT	HZ	HERTZ
ACU	AIR CONDITIONING UNIT		
AD	ACCESS DOOR	IF	INJECTION FAN
AF	AIR FILTER	IN	INCHES
AFF	ABOVE FINISHED FLOOR	INSUL	INSULATION
AHU	AIR HANDLING UNIT	ISDL	ISOLATION
ALUM	ALUMINUM		
AMP	AMPERE	KE	KITCHEN EXHAUST
AP	ACCESS PANEL	KW	KILOWATT
ARCH	ARCHITECTURAL		
AVG	AVERAGE	LAT	LEAVING AIR TEMPERATURE
CC	AIR COLLED CONDENSER	LBS	POUNDS
		LF	LINEAR FEET
B	BOILER	LLC	LIQUID LEVEL CONTROLLER
B.I.	BLACK IRON	LWT	LEAVING WATER TEMPERATURE
BB	BASEBOARD RADIATION		
BDD	BACKDRAFT DAMPER	MAT	MIXED AIR TEMPERATURE
BHP	BRAKE HORSEPOWER	MAX	MAXIMUM
BO	BLANK OFF	MIN	MINIMUM
BTU	BRITISH THERMAL UNIT		
BTUH	BRITISH THERMAL UNITS PER HOUR	N.C.	NORMALLY CLOSED
		N.O.	NORMALLY OPEN
CA	COMPRESSED AIR	NC	NOISE CRITERIA
CAP	CAPACITY	NIC	NOT IN CONTRACT
CAU	COMPRESSED AIR	NK	NECK
CC	COOLING COIL	NPSH	NET POSITIVE SUCTION HEAT
CFM	CUBIC FEET PER MINUTE	NTS	NOT TO SCALE
CH	CHILLER		
CI	CAST IRON	OA	OUTSIDE AIR
CL	CENTER LINE	OAI	OUTSIDE AIR INTAKE
CO	CARBON MONOXIDE	OBD	OPPOSED BLADE DAMPER
CO	CLEAN OUT	OD	OUTSIDE DAMPER
CONC	CONCRETE	OV	OUTLET VELOCITY
CT	COOLI NG TOWER		
CU	CONDENSING UNIT	P	PUMP
CUH	CABINET UNIT HEATER	PD	PRESSURE DROP
CV	CONSTANT VOLUME	PH	PHASE
CY	CYCLE	PRESS	PRESSURE
		PRV	PRESSURE REDUCING VALVE
DB	DRY BULB TEMPERATURE	PSIG	POUNDS PER SQUARE INCH
DELF	DEFLECTION	ΔP	PRESSURE DIFFERENTIAL
DIFF	DIFFUSER		
DN	DOWN	RA	RETURN AIR
DWG	DRAWING	REFRIG	REFRIGERANT
DX	DIRECT EXPANSION	REG	REGISTER
		RET	RETURN
EA	EACH	RF	RELIEF / RETURN FAN
EAT	ENTERING AIR TEMPERATURE	RH	RELATIVE HUMIDITY
EF	EXHAUST FAN	RM	ROOM
EFF	EFFICIENCY	RO	REVERSE OSMOSIS
EHC	ELECTRIC HEAT COIL	RPM	REVOLUTIONS PER MINUTE
ESP	EXTERNAL STATIC PRESSURE	RTU	ROOFTOP UNIT
ET	EXPANSION TANK		
EUH	ELECTRIC UNIT HEATER	SA	SUPPLY AIR
EWT	ENTERING WATER TEMPERATURE	SD	SMOKE DAMPER
EXH	EXHAUST	SF	SUPPLY FAN
		SM	SHEET METAL
F.D.	FLOOR DRAIN	SP	STATIC PRESSURE
FA	FREE AREA	SQ. FT.	SQUARE FEET
FCU	FAN COIL UNIT	SS	STAINLESS STEEL
FD	FIRE DAMPER	ST	SOUND TRAP
FLEX	FLEXIBLE		
FM	FLOW METER	T	TANK
FP	FAN POWERED BOX	TC	TEMPERATURE CONTROL
FPM	FEET PER MINUTE	TE	TOILET EXHAUST
FT	FEET	TG	TRANSFER GRILLE
FT2	SQUARE FEET	TSP	TOTAL STATIC PRESSURE
FT3	CUBIC FEET	TYP	TYPICAL
°F	DEGREES FARENHEIT	ΔT	TEMPERATURE DIFFERENTIAL
GA	GAUGE	UH	UNIT HEATER
GC	GENERAL CONTRACTOR		
GE	GENERAL EXHAUST	V	VOLTAGE
GPM	GALLONS PER MINUTE	VAV	VARIABLE AIR VOLUME
GR	GRILLE	VD	VOLUME DAMPER
		VEL	VELOCITY
*H	ENTHAPLY DIFFERENCE	VFD	VARIABLE FREQUENCY DRIVE
HC	HEATING COIL	VIB	VIBRATION
HORIZ	HORIZONTAL		
HP	HORSEPOWER	W	WATT
HR	HOUR	WB	WET BULB TEMPERATURE
HU	HUMIDIFIER	WC	WATER COLUMN
HVAC	HEATING VENTILATION & AIR CONDITIONING	WMS	WIRE MESH SCREEN
		WP	WORKING PRESSURE
HX	HEAT EXCHANGER		

SHEET INDEX - MECHANICAL

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NORTH CAROLINA PROFESSIONAL SEAL 025020 ENGINEER STEVE W. CAMPBELL
10/11/2024

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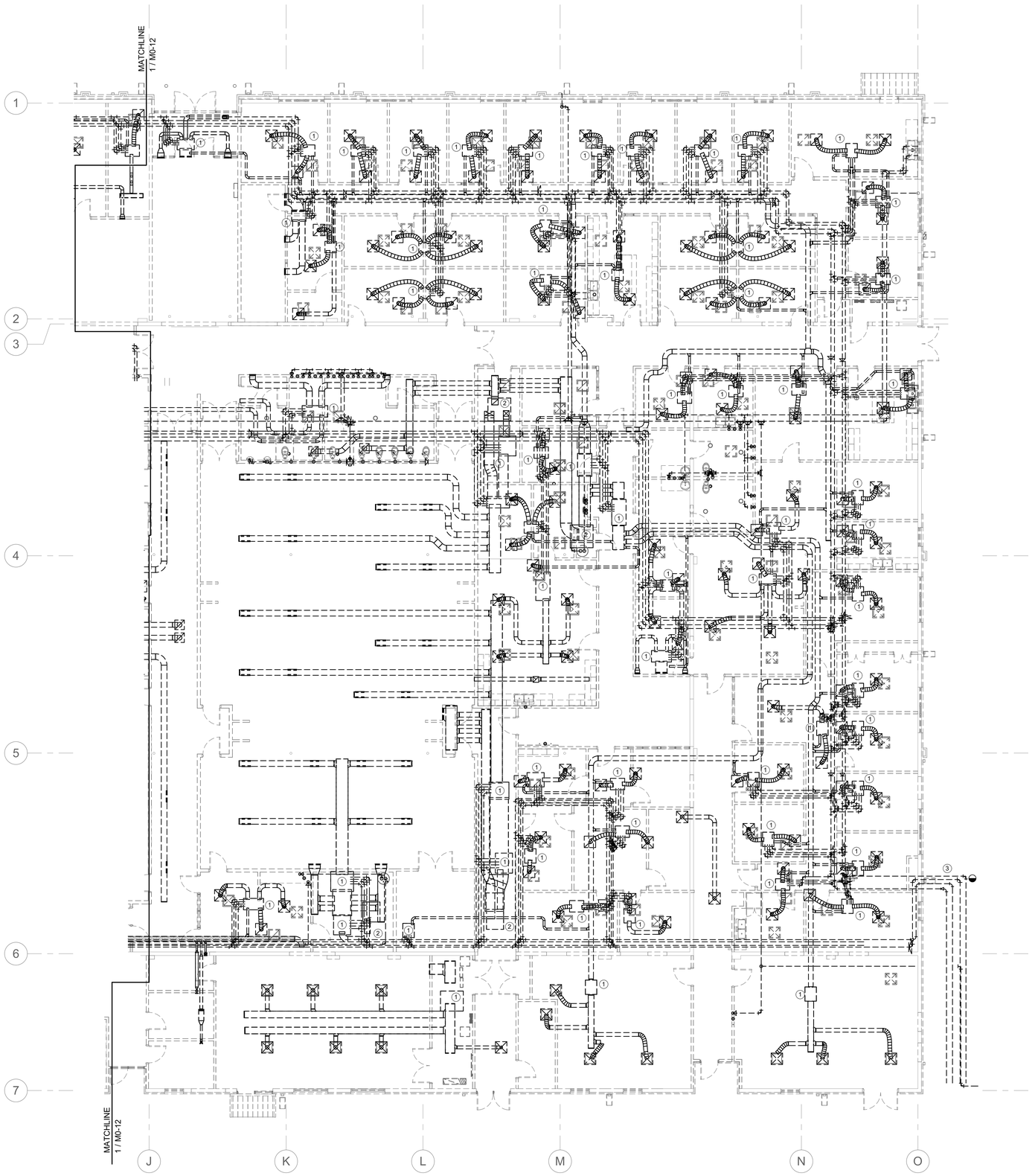

1 MECHANICAL DEMOLITION PLAN - AREA A

1/8" = 1'-0"

GENERAL NOTES:

A. DISCONNECT AND REMOVE ALL EXISTING DUCTWORK, PIPING, DIFFUSERS, EQUIPMENT, CONTROLS, AND APPURTENANCES. DEMOLITION DRAWINGS INDICATE THE MAJOR PIECES OF EXISTING EQUIPMENT AND SYSTEMS, BUT DO NOT DEPICT EVERY COMPONENT OF THE EXISTING SYSTEMS. THE CONTRACTOR IS TO DISCONNECT AND REMOVE ALL HVAC SYSTEM COMPONENTS IN THEIR ENTIRETY.

B. REMOVE ALL EXISTING HANGERS AND SUPPORT HARDWARE.

KEYNOTES:

1. DISCONNECT AND REMOVE EXISTING FAN COIL AND ALL ASSOCIATED DUCTWORK, PIPING, CONTROLS, AND APPURTENANCES.
2. DISCONNECT AND REMOVE EXISTING AIR-TO-AIR HEAT EXCHANGER AND ASSOCIATED DUCTWORK AND APPURTENANCES.
3. DISCONNECT EXISTING HOT AND CHILLED WATER PIPING AT POINT OUTSIDE THE BUILDING, CAP, AND ABANDON UNDERGROUND PIPING IN PLACE.

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DEMOLITION PLAN - AREA A

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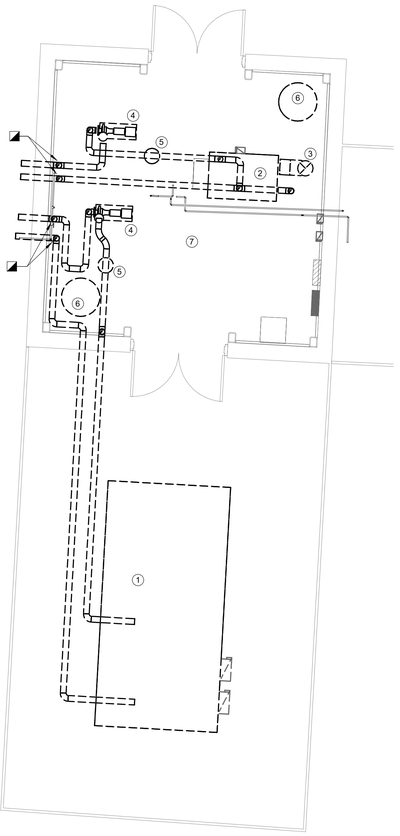


2 DEMOLITION PLAN - MECHANICAL BUILDING

0 2' 4' 8'

1/4" = 1'-0"

KEYNOTES:

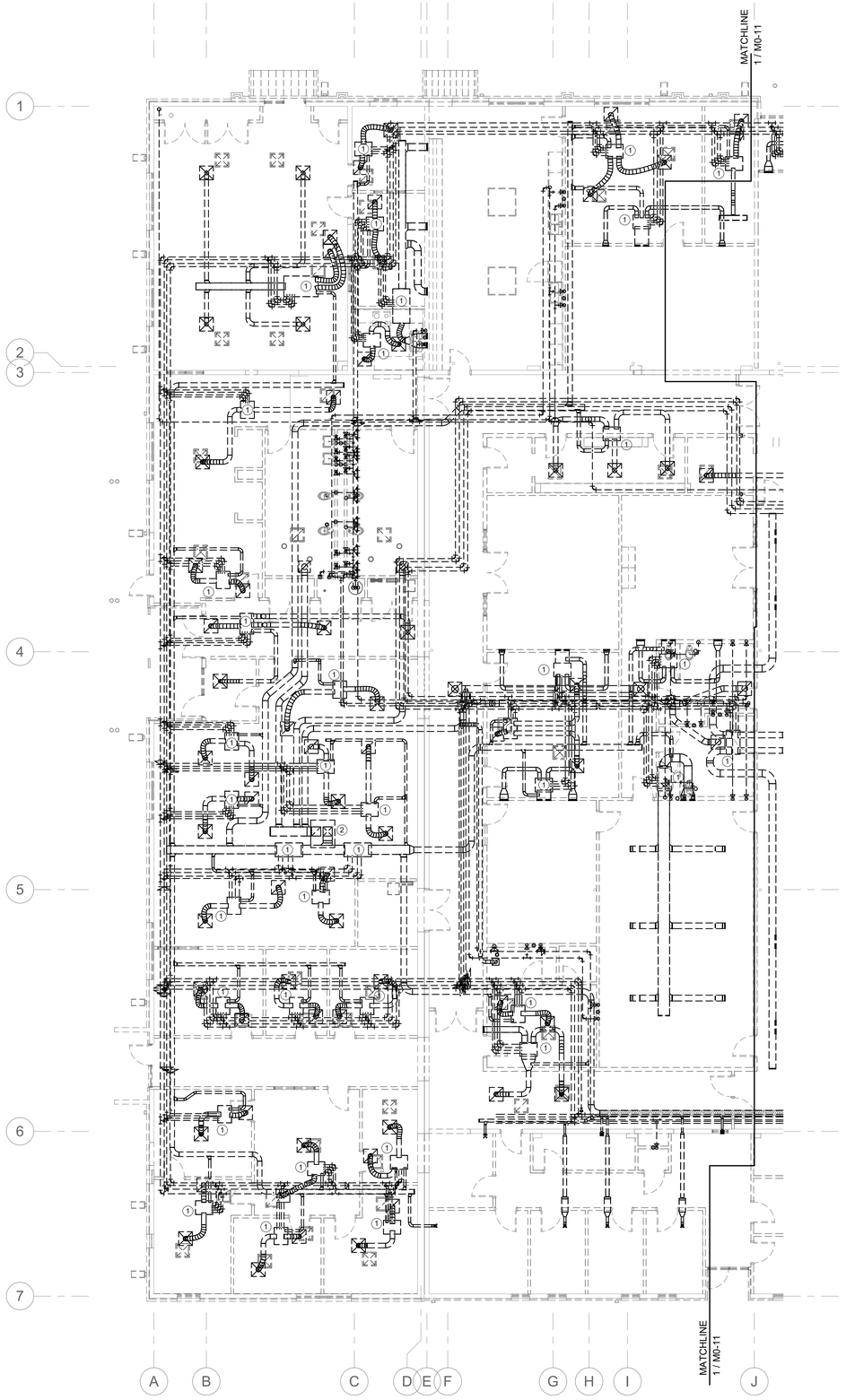
1. DISCONNECT CHILLER FROM EXISTING PIPING AND ELECTRICAL CONNECTIONS. REMOVE CHILLER AND ALL APPURTENANCES.
2. DISCONNECT EXISTING BOILER FROM EXISTING PIPING, FLUE, AND FUEL SOURCE AND COMPLETE REMOVE.
3. REMOVE BOILER FLUE.
4. DISCONNECT AND REMOVE EXISTING PUMP.
5. DISCONNECT AND REMOVE EXISTING AIR SEPARATOR.
6. DISCONNECT AND REMOVE EXISTING EXPANSION TANK.
7. DISCONNECT AND REMOVE ALL EXISTING CHILLED WATER AND HOT WATER PIPING. REMOVE EXISTING MAKEUP WATER ASSEMBLIES. CAP ABANDONED UNDERGROUND PIPING FLUSH WITH FLOOR.

GENERAL NOTES:

A. DISCONNECT AND REMOVE ALL EXISTING DUCTWORK, PIPING, EQUIPMENT, CONTROLS, AND APPURTENANCES. DEMOLITION DRAWINGS INDICATE THE MAJOR PIECES OF EXISTING EQUIPMENT AND SYSTEMS, BUT DO NOT DEPICT EVERY COMPONENT OF THE EXISTING SYSTEMS. THE CONTRACTOR IS TO DISCONNECT AND REMOVE ALL HVAC SYSTEM COMPONENTS IN THEIR ENTIRETY..

B. REMOVE ALL EXISTING HANGERS AND SUPPORT HARDWARE.

C. ABANDON EXISTING UNDERGROUND HYDRONIC PIPING.



1 MECHANICAL DEMOLITION PLAN - AREA A

1/8" = 1'-0"

GENERAL NOTES:

A. DISCONNECT AND REMOVE ALL EXISTING DUCTWORK, PIPING, DIFFUSERS, EQUIPMENT, CONTROLS, AND APPURTENANCES. DEMOLITION DRAWINGS INDICATE THE MAJOR PIECES OF EXISTING EQUIPMENT AND SYSTEMS, BUT DO NOT DEPICT EVERY COMPONENT OF THE EXISTING SYSTEMS. THE CONTRACTOR IS TO DISCONNECT AND REMOVE ALL HVAC SYSTEM COMPONENTS IN THEIR ENTIRETY..

B. REMOVE ALL EXISTING HANGERS AND SUPPORT HARDWARE.

KEYNOTES:

1. DISCONNECT AND REMOVE EXISTING FAN COIL AND ALL ASSOCIATED DUCTWORK, PIPING, CONTROLS, AND APPURTENANCES.
2. DISCONNECT AND REMOVE EXISTING AIR-TO-AIR HEAT EXCHANGER AND ASSOCIATED DUCTWORK AND APPURTENANCES.

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DEMOLITION PLAN - AREA B

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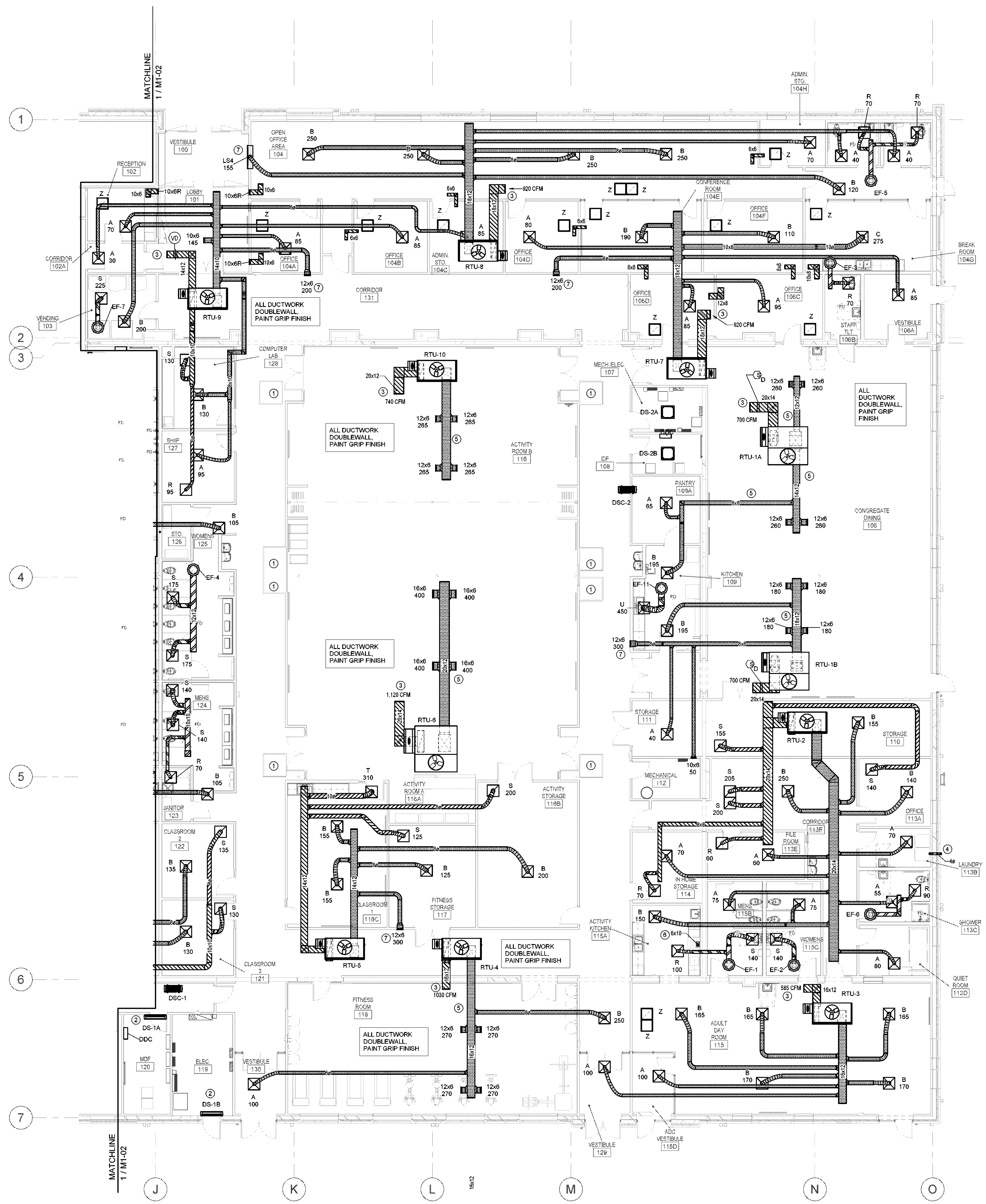

NOTE: UNLESS INDICATED OTHERWISE, IT IS INTENDED TO RUN ALL DUCTWORK ABOVE THE BOTTOM CHORD TO THE JOISTS. ALL RUNOUTS TO DIFFUSERS ARE TO BE RUN THROUGH THE JOIST WEBBING.

1 DUCTWORK PLAN - AREA A

1/8" = 1'-0"

GENERAL NOTES:

A. PROVIDE BALANCING DAMPERS ON ALL LOW PRESSURE SUPPLY, RETURN, AND EXHAUST BRANCH DUCTS AND RUNOUTS. ALL BALANCING DAMPERS SHALL BE IDENTIFIED AND EASILY ACCESSIBLE.

B. ALL DUCT DIMENSIONS ARE INSIDE CLEAR.

C. ABOVE HARD CEILINGS, PROVIDE BALANCING DAMPER IN GALVANIZED STEEL DUCT WITHIN 30" OF DIFFUSER/GRILLE. PROVIDE ACCESSORY ALUMINUM MOUNT FRAME/PLASTER FRAME FOR HARD CEILING THAT ALLOWS DIFFUSER WITH FLEX CONNECTION TO BE LIFTED OUT OF FRAME TO ACCESS CEILING SPACE.

D. BRANCH RUNOUTS TO DIFFUSERS SHALL BE THE SIZE LISTED ON THE AIR TERMINAL SCHEDULE, UNLESS NOTED OTHERWISE.

E. ALL DUCTWORK INSTALLED EXPOSED TO VIEW SHALL HAVE PAINT GRIP FINISH. COORDINATE PAINTING OF ALL EXPOSED DUCTWORK WITH ARCHITECTURE FINISH DRAWINGS AND SCHEDULES.

KEYNOTES:

1. EXISTING SKYLIGHT.
2. UNIT TO BE LOCATED ABOVE DOOR.
3. COVER DUCT WITH MESH HARDWARE CLOTH.
4. PROVIDE DRYER VENT BOX AND EXTEND 4" DRYER VENT THROUGH WALL. TERMINATE WITH CAP.
5. ALL DUCTWORK THIS ROOM SHALL BE DOUBLE-WALL CONSTRUCTION WITH PAINT GRIP FINISH.
6. PROVIDE VENT FOR HOOD. TERMINATE THROUGH ROOF WITH VAULT PENTHOUSE OR EQUIVALENT AND BACKDRAFT DAMPER.
7. HEIGHT OF WALL DIFFUSER TO BE COORDINATED WITH ARCHITECT.

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DUCTWORK PLAN - AREA A

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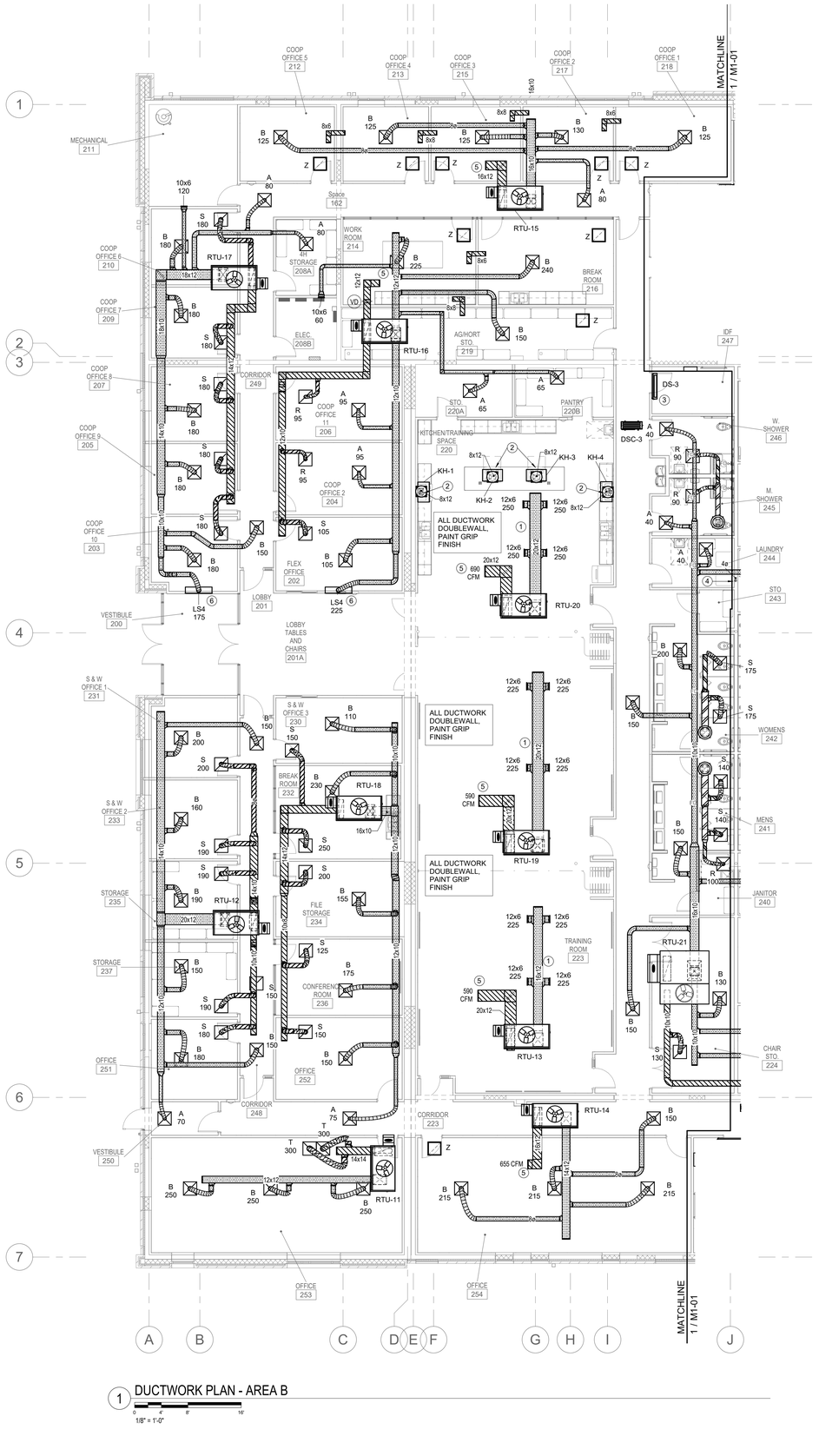

1 DUCTWORK PLAN - AREA B

1/8" = 1'-0"

GENERAL NOTES:

A. PROVIDE BALANCING DAMPERS ON ALL LOW PRESSURE SUPPLY, RETURN, AND EXHAUST BRANCH DUCTS AND RUNOUTS. ALL BALANCING DAMPERS SHALL BE IDENTIFIED AND EASILY ACCESSIBLE.

B. ALL DUCT DIMENSIONS ARE INSIDE CLEAR.

C. ABOVE HARD CEILINGS, PROVIDE BALANCING DAMPER IN GALVANIZED STEEL DUCT WITHIN 30" OF DIFFUSER/GRILLE. PROVIDE ACCESSORY ALUMINUM MOUNT FRAME/PLASTER FRAME FOR HARD CEILING THAT ALLOWS DIFFUSER WITH FLEX CONNECTION TO BE LIFTED OUT OF FRAME TO ACCESS CEILING SPACE.

D. BRANCH RUNOUTS TO DIFFUSERS SHALL BE THE SIZE LISTED ON THE AIR TERMINAL SCHEDULE, UNLESS NOTED OTHERWISE.

E. ALL DUCTWORK INSTALLED EXPOSED TO VIEW SHALL HAVE PAINT GRIP FINISH. COORDINATE PAINTING OF ALL EXPOSED DUCTWORK WITH ARCHITECTURE FINISH DRAWINGS AND SCHEDULES.

KEYNOTES:

1. ALL DUCT IN THIS ROOM SHALL BE DOUBLE WALL CONSTRUCTION WITH PAINT GRIP FINISH.
2. PROVIDE HOOD FOR RESIDENTIAL RANGE. REFER TO SCHEDULE. FOR MOUNTING HEIGHT, REFER TO ARCHITECTURAL DRAWINGS. PROVIDE EXHAUST DUCT FROM HOOD. ROUTE TO ROOF HOOD.
3. MOUNT UNIT ABOVE DOOR.
4. PROVIDE DRYER VENT BOX AND EXTEND 4" DRYER VENT THROUGH ROOF. TERMINATE WITH BACKDRAFT DAMPER AND CAP.
5. COVER END OF DUCT WITH MESH HARDWARE CLOTH.
6. HEIGHT OF WALL DIFFUSER TO BE COORDINATED WITH ARCHITECT.

NOTE: UNLESS INDICATED OTHERWISE, IT IS INTENDED TO RUN ALL DUCTWORK ABOVE THE BOTTOM CHORD TO THE JOISTS. ALL RUNOUTS TO DIFFUSERS ARE TO BE RUN THROUGH THE JOIST WEBBING.

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DUCTWORK PLAN - AREA B

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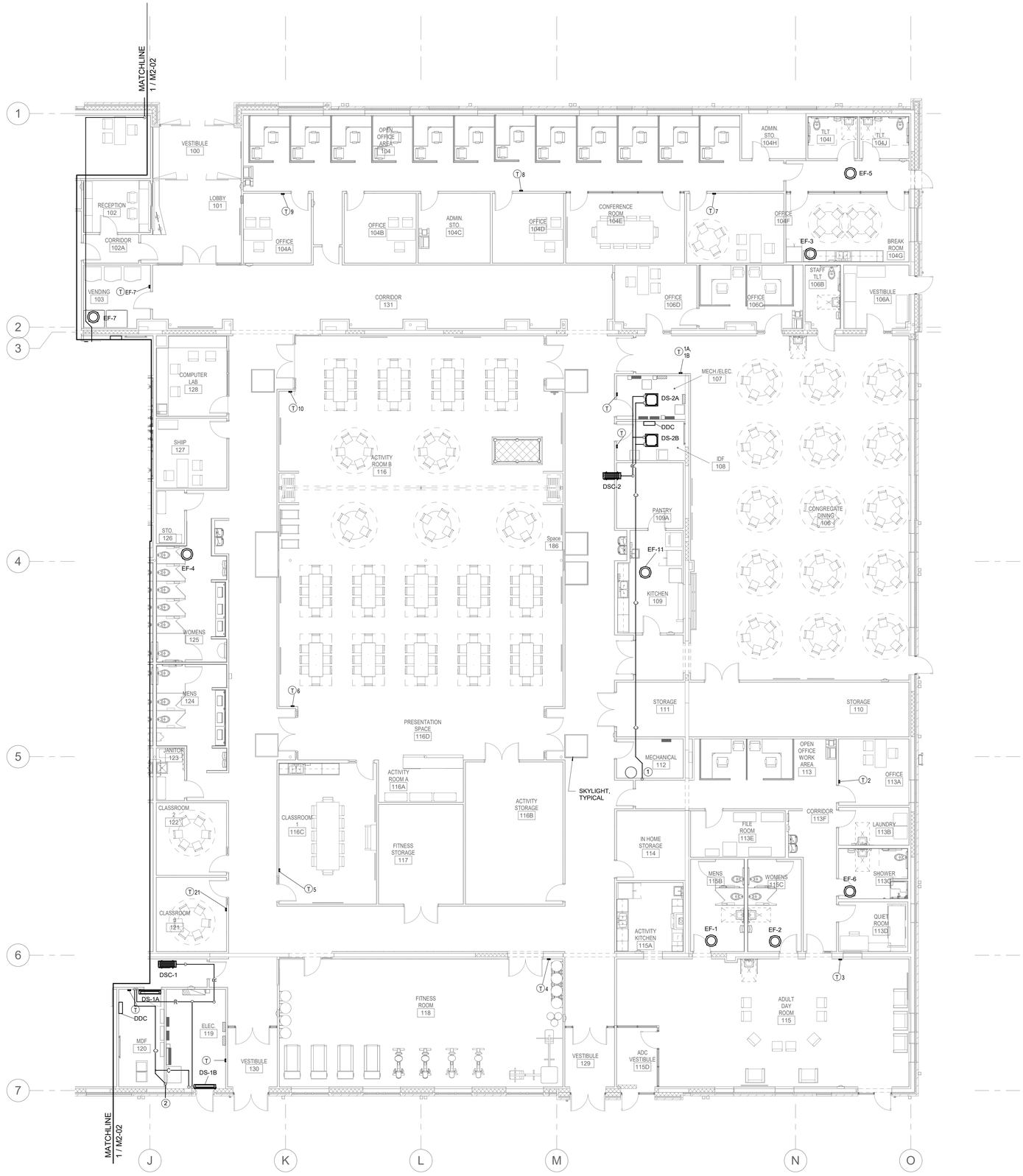

1 PIPING PLAN - AREA A

1/8" = 1'-0"

GENERAL NOTES:

A. MECHANICAL AND BAS CONTRACTORS SHALL REVIEW THE FINAL CASEWORK AND FFE DRAWINGS AND IDENTIFY POTENTIAL CONFLICTS WITH THERMOSTAT AND SENSORS PRIOR TO ROUGH-IN. NOTIFY ARCHITECT AND ENGINEER OF CONFLICTS AND DISCREPANCIES.

B. ALL THERMOSTATS, SENSORS, AND USER CONTROLS SHALL BE MOUNTED AT 48". DEVICES SHALL BE ALIGNED EXACTLY WITH ADJACENT DEVICES OF OTHER TRADES (LIGHT SWITCHES, OCC SENSORS, ETC.)

KEYNOTES:

1. TERMINATE CONDENSATE AT FLOOR DRAIN. REFER TO PLUMBING DRAWINGS FOR LOCATION.

2. EXTEND CONDENSATE THROUGH WALL LOW AND TERMINATE AT RIVER ROCK.

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PIPING PLAN - AREA A

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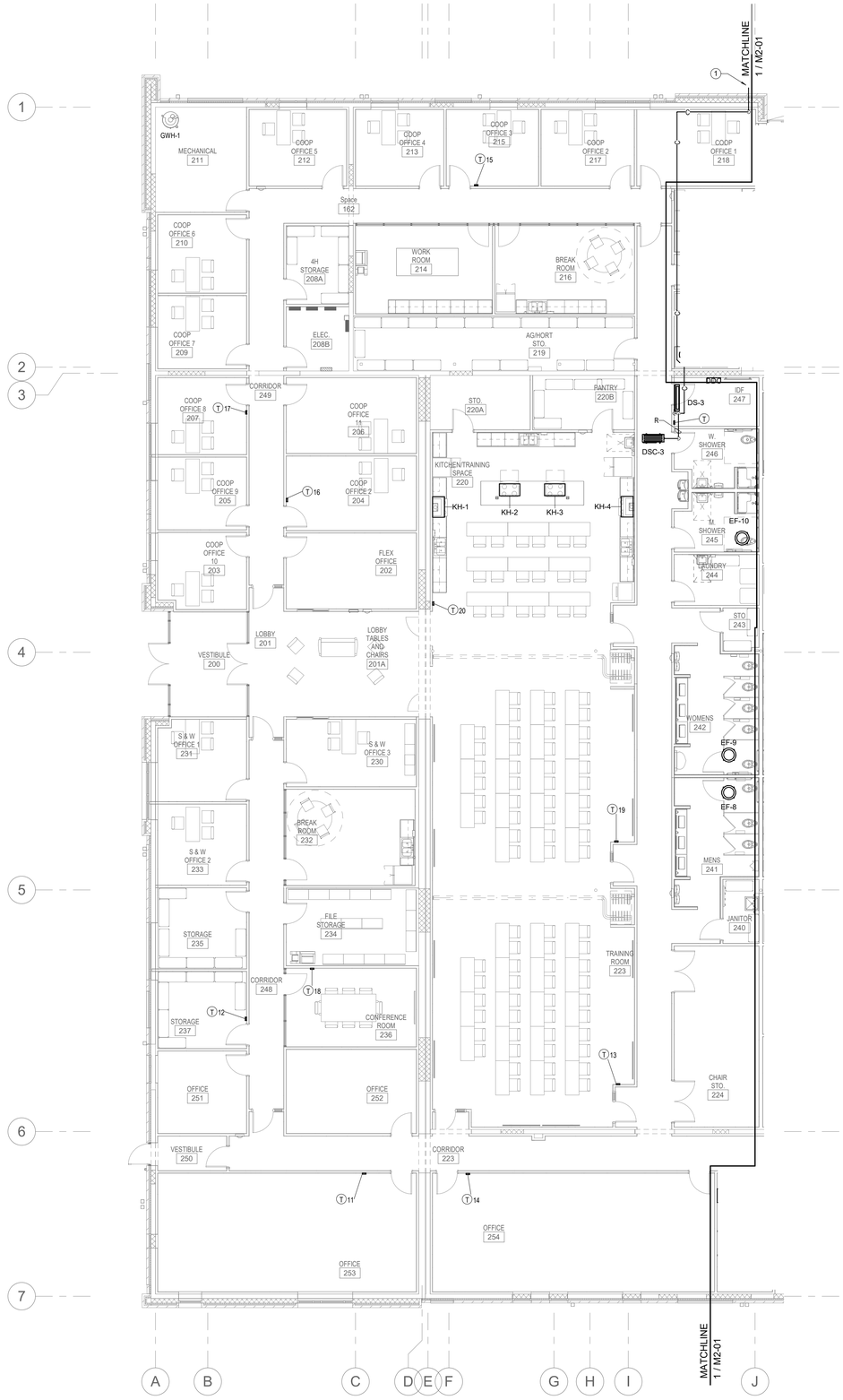

1 PIPING PLAN - AREA B

1/8" = 1'-0"

GENERAL NOTES:

A. MECHANICAL AND BAS CONTRACTORS SHALL REVIEW THE FINAL CASEWORK AND FFE DRAWINGS AND IDENTIFY POTENTIAL CONFLICTS WITH THERMOSTAT AND SENSORS PRIOR TO ROUGH-IN. NOTIFY ARCHITECT AND ENGINEER OF CONFLICTS AND DISCREPANCIES.

B. ALL THERMOSTATS, SENSORS, AND USER CONTROLS SHALL BE MOUNTED AT 48". DEVICES SHALL BE ALIGNED EXACTLY WITH ADJACENT DEVICES OF OTHER TRADES (LIGHT SWITCHES, OCC SENSORS, ETC.)

KEYNOTES:

1. EXTEND CONDENSATE THROUGH WALL LOW AND TERMINATE AT DRY WELL.

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NORTH CAROLINA PROFESSIONAL SEAL 025020 ENGINEER STEVEN W. CONNELLY

10/11/2024

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Onslow County Government
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PIPING PLAN - AREA B

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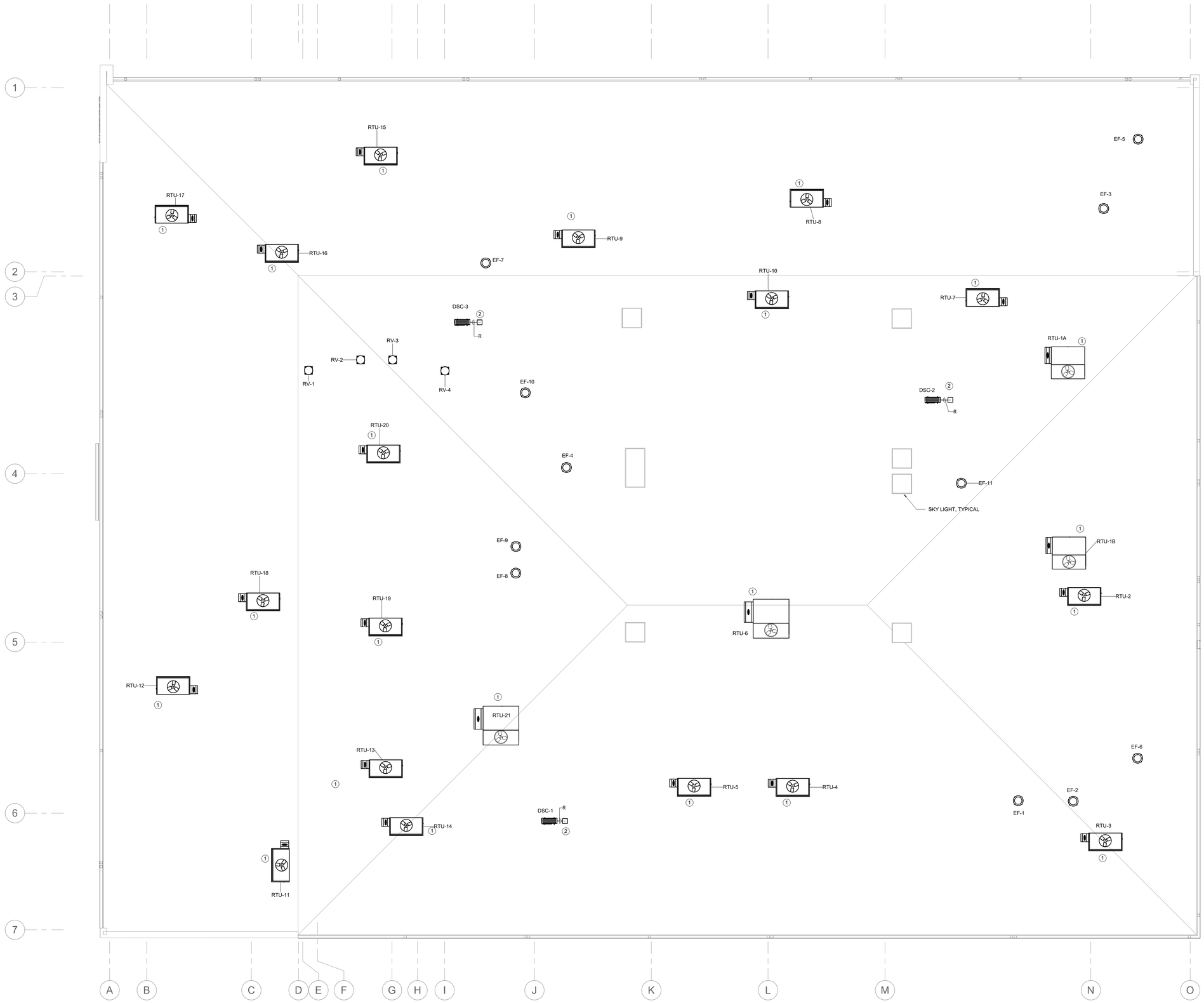

1 ROOF PLAN

1/8" = 1'-0"

GENERAL NOTES:

A. ALL EQUIPMENT SHALL BE LOCATED A MINIMUM OF 10 FT FROM ROOF EDGE.

B. MAINTAIN 10 FT BETWEEN OUTSIDE AIR INTAKES AND ALL EXHAUST TERMINATIONS AND PLUMBING VTRs.

KEYNOTES:

1. EXTEND CONDENSATE TO NEAREST ROOF DRAIN.
2. REFRIGERANT PIPING DOWN TO INDOOR UNIT. PROVIDE LINE SET ROOF PENETRATION HOUSING RATED FOR HIGH WIND CONDITION. CYCLONE MODEL BY RPH OR EQUIVALENT
3. UNIT AND 10' OF SUPPLY AND RETURN DUCTWORK IS IN BASE BID.

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ROOF PLAN

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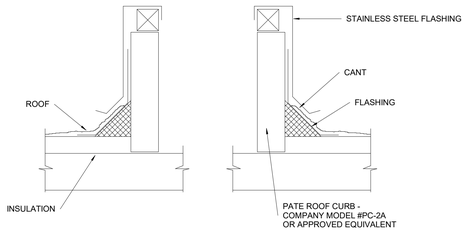
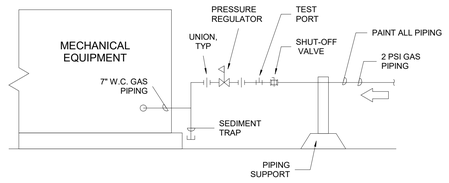


NOTES:

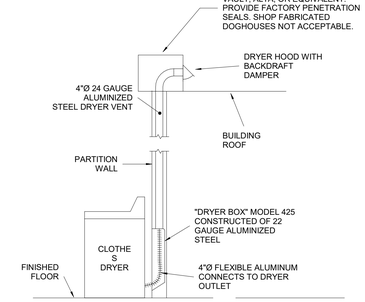
1. REFER TO ROOFING DRAWINGS FOR COORDINATION WITH INSTALLING ROOF CURBS.
2. CURB AND ATTACHMENTS TO STRUCTURE SHALL BE RATED FOR PROJECT WIND ZONE. PROVIDE SHOP DRAWINGS SEALED BY NC LICENSED ENGINEER.

10 DETAIL - ROOF CURB
NOT TO SCALE



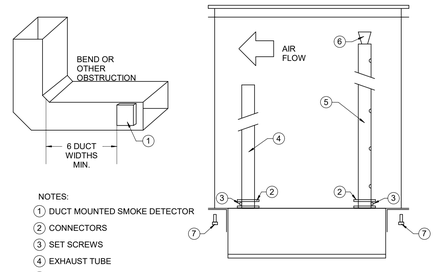
TWO UNIONS FOR REGULATOR SHALL BE WITHIN 12 INCHES OF DEVICE

11 M - DETAIL - TYPICAL GAS CONNECTION
NOT TO SCALE



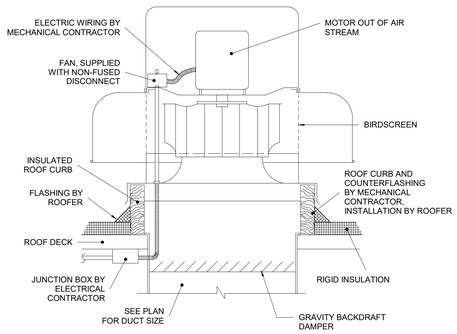
NOTE:
NO SCREWS SHALL BE USED FOR DRYER VENT DUCT CONNECTION.

12 DETAIL - DRYER VENT INSTALLATION
NOT TO SCALE



NOTES:
1. DUCT MOUNTED SMOKE DETECTOR
2. CONNECTORS
3. SET SCREWS
4. EXHAUST TUBE
5. INTAKE SAMPLING TUBE
6. STOPPER
7. DUCT MOUNTING SCREWS

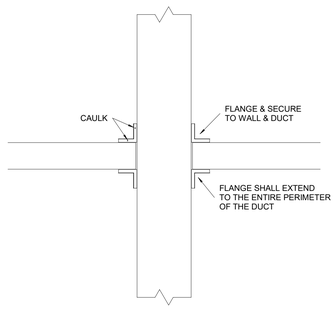
7 DUCT SMOKE DETECTOR DETAIL
NOT TO SCALE



NOTES:

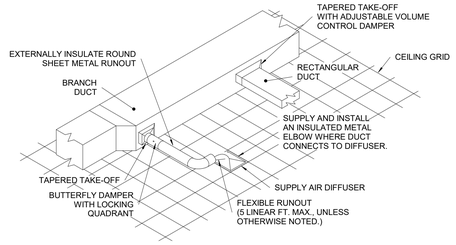
1. CURB SHALL BE INSULATED AND 20 HIGH OR THE HEIGHT INDICATED ON THE SCHEDULE.
2. FASTENING OF CURB TO STRUCTURE AND FAN TO CURB SHALL BE RATED FOR PROJECT WIND ZONE. REFER TO CODE SUMMARY SHEET.
3. REFER TO ROOFING DRAWINGS FOR COORDINATION WITH INSTALLING ROOF CURBS.
4. FAN AND CURB SHALL BE MIAMI-DADE RATED.

8 DETAIL - EXHAUST FAN
NOT TO SCALE



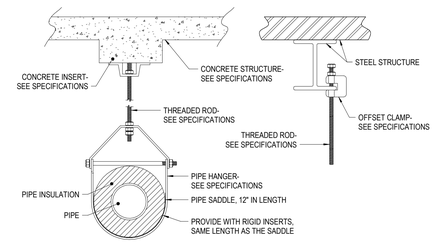
(PLAN VIEW)

9 DETAIL - NON-RATED DUCT PENETRATION
NOT TO SCALE



NOTE:
PROVIDE TAPERED TAKE-OFF WITH ADJUSTABLE VOLUME DAMPER, AIR DISTRIBUTING GRID, OR RADIUS TAKE-OFF WITH STRAIGHTENING VANES AT TAKE-OFF.

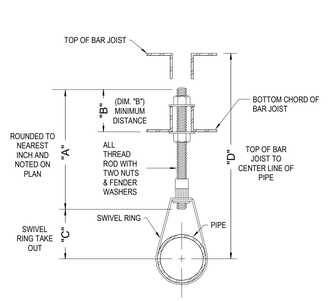
4 DETAIL - SUPPLY, RETURN & EXHAUST AIR TAKE-OFF
NOT TO SCALE



NOTE:

PIPE HANGERS, HARDWARE, ETC. SHALL BE COMPLETELY GALVANIZED.

5 PIPE HANGERS
NOT TO SCALE

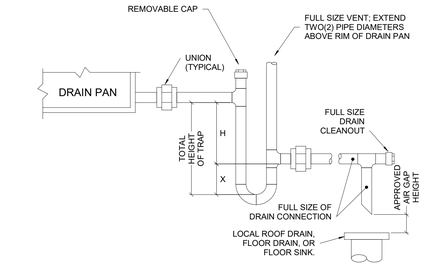


NOTE ON PLAN: HANGER NUMBER AND "A" DIMENSION

PIPE SIZE	ROD SIZE	'B' DIM.	MIN 'C' DIM.	MAX 'C' DIM.
3/4"	3/8"	SIZE OF ANGLE IRON ON BOTTOM CHORD OF BAR JOIST PLUS 1-1/2"	1/2"	1-5/8"
1"			5/8	1-3/4"
1-1/4"			13/16"	1-7/8"
1-1/2"			15/16"	2"
2"			1-3/16	2-3/8
2-1/2"			1-7/16"	2-3/4"
3"			1-3/4"	3-1/4"
3-1/2"			2"	3-5/8"
4"			2-1/4"	3-7/8"
5"	1/2"		2-3/4"	4-3/4"
6"			3-5/16"	5-1/2"
8"			4-5/16"	6-3/4"

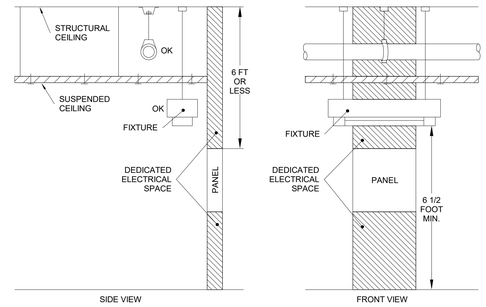
BAR JOIST HANGER
WITH NUTS AND WASHERS

6 DETAIL - PIPE HANGER - BAR JOIST
NOT TO SCALE



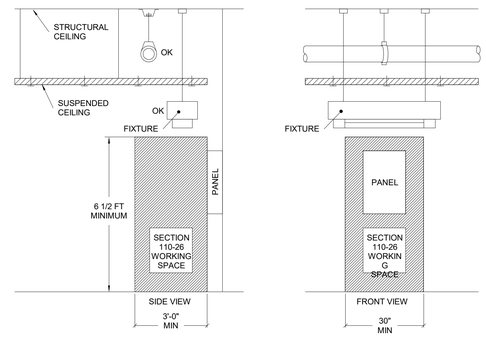
BLOW THROUGH	DRAW THROUGH
X = MINIMUM 1" PLUS CASING STATIC PRESSURE	X = 1/2 "H"
H = MINIMUM 1"	H = MINIMUM 1" PLUS CASING STATIC PRESSURE

1 DETAIL - CONDENSATE DRAIN DETAIL
NOT TO SCALE



N.E.C ARTICLE 110-26(F)(1)

2 DETAIL - DEDICATED SPACE FOR ELECTRICAL EQUIPMENT
NOT TO SCALE



N.E.C ARTICLE 110-26

3 DETAIL - WORKING CLEARANCE FOR ELECTRICAL EQUIPMENT
NOT TO SCALE

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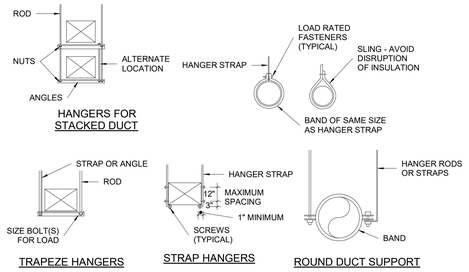


NOTES:

1. REINFORCEMENT MAY BE USED FOR ATTACHMENT IF IT QUALIFIES FOR BOTH DUTIES.
2. DO NOT EXCEED LOAD RATINGS FOR METHOD USED. FROM SMACNA DUCT STANDARDS

5 DETAIL - TYPICAL DUCT HANGERS

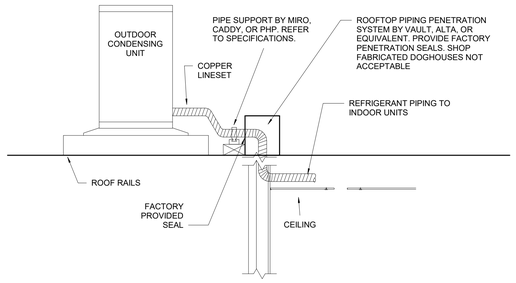
NOT TO SCALE

NOTE:

DRY WELL TO BE A MINIMUM OF 24" BELOW FINISHED GRADE. SLOPE OF CONDENSATE DRAIN LINE TO DETERMINE DEPTH OF DRY WELL.

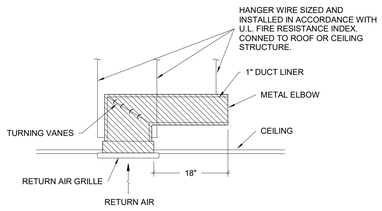
6 DETAIL - DRY WELL

NOT TO SCALE



7 DETAIL - OUTDOOR CONDENSING UNIT ROOF PIPING

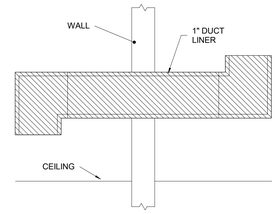
NOT TO SCALE



TYPICAL FOR CEILING PLENUM RETURN GRILLES

3 DETAIL - RETURN AIR GRILLE

NOT TO SCALE

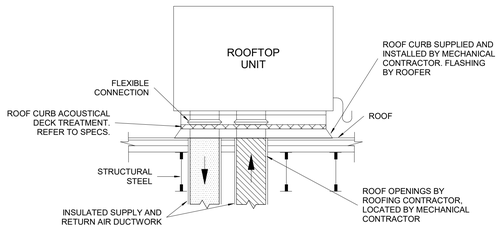


NOTES:

A. ELBOWS MAY BE INSTALLED HORIZONTALLY, AS SPACE REQUIRES.
B. DIMENSIONS ON PLAN ARE INSIDE CLEAR.

4 DETAIL - RETURN AIR TRANSFER DUCT

NOT TO SCALE

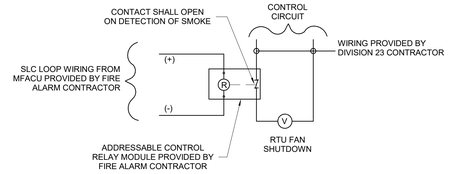


NOTES:

1. CURB ATTACHMENTS TO STRUCTURE AND UNIT ATTACHMENTS TO CURB SHALL BE RATED FOR THE PROJECT WIND ZONE. REFER TO CODE SUMMARY SHEET.
2. ALL ROOFTOP UNITS SHALL BE LOCATED 10'-0" FROM EDGE OF ROOF.

1 DETAIL - ROOF TOP HEAT PUMP UNIT

NOT TO SCALE



RTU SHUTDOWN DIAGRAM

FIRE ALARM INTERLOCK

The Fire Alarm Contractor shall provide a fire alarm relay for the supply fan(s) at each RTU. The relay shall be a be wired directly to the RTU shutdown by the BAS Contractor.

The relay shall also have an auxiliary contact. The BAS Contractor shall wire from the auxiliary contact to the BAS controller to monitor FA shutdown for that fan on the BAS front end.

2 AHU SHUTDOWN DIAGRAM

NOT TO SCALE

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CONSTANT VOLUME DEDICATED OUTSIDE AIR UNIT SEQUENCE OF OPERATIONS

THE ROOFTOP UNIT MANUFACTURER'S FACTORY SUPPLIED CONTROLLER SHALL CONTROL THE GENERAL OPERATION OF THE UNIT, INCLUDING SAFETIES. THE UNIT SHALL BE STARTED UP AND COMMISSIONED BY THE MECHANICAL AND CONTROLS CONTRACTORS IN COORDINATION WITH THE COMMISSIONING AGENT AND THE AUTHORIZED FACTORY TECHNICIAN.

THE BAS SHALL SEND OCCUPIED AND UNOCCUPIED SIGNALS TO THE UNIT BASED ON THE USER DEFINED SCHEDULE. THE BAS SHALL MONITOR THE ASSOCIATED POINTS AND BE ABLE TO WRITE TO SET POINTS. THE CONTROLS CONTRACTOR SHALL COORDINATE BACNET INTEROPERABILITY BUILDING BLOCKS (BIBBs) WITH THE EQUIPMENT MANUFACTURER DURING THE SUBMITTAL PROCESS.

GENERAL ZONING/SCHEDULING

EACH RTU IS A ZONE THAT CAN BE INDIVIDUALLY ASSIGNED AN OPERATION SCHEDULE OR OPERATE IN CONJUNCTION WITH OTHER ZONES AS DEFINED BY THE OWNER. THE UNIT SHALL RUN WHENEVER THE ZONE IS IN OCCUPIED MODE AND SHALL CONTROL TO THE OCCUPIED SET POINTS.

IF THE UNIT IS IN UNOCCUPIED MODE AND THE TEMPERATURE RISES ABOVE OR DROPS BELOW THE UNOCCUPIED SET POINT, THE UNIT SHALL BE PROVIDE HEATING OR COOLING TO MAINTAIN THE UNOCCUPIED SET POINT.

IF THE RETURN AIR RELATIVE HUMIDITY RISES ABOVE 60% (ADJ) IN EITHER OCCUPIED OR UNOCCUPIED MODE, THE UNIT SHALL BE ENABLED AND ENTER DEHUMIDIFICATION MODE. COOLING SHALL BE ENABLED AND HOT GAS REHEAT SHALL OPERATE TO MAINTAIN THE RELATIVE HUMIDITY BELOW 55% (ADJ).

IF ECONOMIZER CONDITIONS ARE PRESENT (OUTSIDE AIR TEMP < RETURN AIR TEMP and OUTSIDE AIR ENTHALPY < 28 BTU/LB), THE UNIT SHALL RUN IN ECONOMIZER MODE. UNIT SHALL HAVE BAROMETRIC RELIEF AIR DAMPER FOR ECONOMIZER MODE.

SCHEDULING
REGULAR SCHEDULING: EACH ZONE SHALL HAVE REGULAR, DAY-TO-DAY SCHEDULE OF OCCUPIED HOURS. THE OWNER SHALL BE CONSULTED DURING THE SUBMITTAL PHASE TO ESTABLISH ALL SCHEDULES.

HOLIDAYS: HOLIDAYS CAN BE SCHEDULED UP TO A YEAR IN ADVANCE. DURING SCHEDULED HOLIDAYS, THE ZONES REMAIN IN UNOCCUPIED MODE. CONSULT THE OWNER ON HOLIDAY SCHEDULING.

SPECIAL EVENT SCHEDULING: SPECIAL EVENTS CAN BE SCHEDULED UP TO A YEAR IN ADVANCE DURING WHICH A ZONE WILL OPERATE IN OCCUPIED MODE REGARDLESS OF THE ZONE'S REGULAR SCHEDULE OR SCHEDULED HOLIDAYS.

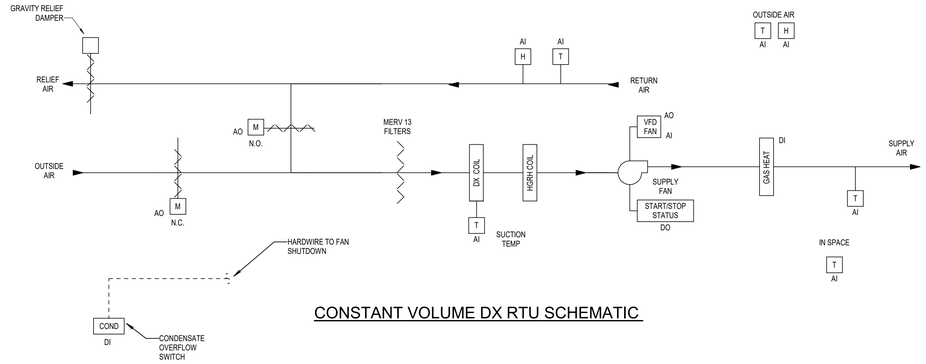
BAS OPERATOR OVERRIDES: THE BAS OPERATOR SHALL BE ABLE TO OVERRIDE INDIVIDUAL SYSTEMS OR THE ENTIRE BUILDING EITHER ON OR OFF AT SINGLE POINTS IN THE OPERATOR FRONT END.

ALARMS
MAINTENANCE INTERVAL ALARM WHEN FAN HAS OPERATED FOR MORE THAN 1,500 HOURS. RESET INTERVAL COUNTER WHEN ALARM IS ACKNOWLEDGED.
FAN ALARM IS INDICATED BY THE STATUS BEING DIFFERENT FROM THE COMMAND FOR A PERIOD OF 15 SECONDS.

HIGH BUILDING PRESSURE (MORE THAN 0.10").
LOW BUILDING PRESSURE (LESS THAN 0.0").

SAFETIES:

IF THE UNIT IS EQUIPPED WITH A DUCT DETECTOR, UPON A SIGNAL FROM THE DUCT SMOKE DETECTOR, THE RTU SHALL SHUT DOWN.



CONSTANT VOLUME DX RTU SCHEMATIC

RTU INTEGRATION POINTS LIST

BAS CONTRACTOR TO INTEGRATE THE POINTS BELOW - IN ADDITION TO THOSE ON THE DIAGRAM - SUBJECT TO AVAILABILITY OF MANUFACTURER'S CONTROLLER

PROVIDE FULL LIST OF AVAILABLE BACNET POINTS WHEN SUBMITTING ROOFTOP UNITS.

SUPPLY AIR TEMPERATURE	AI	CURRENT VALUE OF SUPPLY AIR TEMPERATURE
SUPPLY AIR SETPOINT	AI	CURRENT SAT COOLING OR HEATING SETPOINT, CALCULATED WITH RESET SOURCE
CONTROLLING COIL TEMP SETPOINT	AI	CURRENT CALCULATED COIL SECTION TEMPERATURE TARGET DURING DEHUM MODE
SPACE TEMPERATURE	AI	CURRENT VALUE OF SPACE TEMPERATURE SENSOR
SPACE HUMIDITY	AI	CURRENT VALUE OF SPACE HUMIDITY
OUTDOOR AIR TEMPERATURE	AI	CURRENT VALUE OF OUTDOOR AIR TEMPERATURE SENSOR
OUTDOOR AIR HUMIDITY	AI	CURRENT VALUE OF OUTDOOR AIR HUMIDITY SENSOR
OUTDOOR AIRFLOW	AI	
ECONOMIZER SIGNAL	AI	
MODULATING HOT GAS REHEAT VALVE POSITION	AI	
MODULATING GAS HEAT VALVE POSITION	AI	
COMPRESSOR SIGNAL	AI	TYPICAL FOR EACH COMPRESSOR
COMPRESSOR SUCTION PRESSURE	AI	"
COMPRESSOR HEAD PRESSURE	AI	"
COMPRESSOR COIL SATURATION TEMPERATURE	AI	"
CONDENSER SIGNAL	AI	TYPICAL FOR EACH CONDENSER
SUPPLY AIR COOLING SETPOINT	AO	
SUPPLY AIR HEATING SETPOINT	AO	
MAX SAT COOLING SETPOINT RESET LIMIT	AO	
MAX SAT HEATING SETPOINT RESET LIMIT	AO	
WARM-UP TARGET TEMPERATURE	AO	
WARM-UP MODE SAT SETPOINT	AO	
COOL-DOWN MODE SAT SETPOINT	AO	
OCCUPIED COOLING SETPOINT	AO	
OCCUPIED HEATING SETPOINT	AO	
UNOCCUPIED COOLING SETPOINT	AO	
UNOCCUPIED HEATING SETPOINT	AO	
CONTROL TEMPERATURE LOW ALARM OFFSET	AO	
CONTROL TEMPERATURE HIGH ALARM OFFSET	AO	
INDOOR HUMIDITY SETPOINT LOW RESET LIMIT	AO	
INDOOR HUMIDITY SETPOINT HIGH RESET LIMIT	AO	
MECHANICAL COOLING OAT LOCKOUT	AO	
MECHANICAL HEATING OAT LOCKOUT	AO	
ECONOMIZER MODE ENABLE	AO	
MINIMUM ECONOMIZER POSITION	AO	
MAXIMUM ECONOMIZER CO2 RESET LIMIT	AO	
SAT SETPOINT OVERRIDE	AO	
REMOTE FORCED OCCUPIED STATUS	AO	
REMOTE FORCED COOLING STATUS	AO	
REMOTE FORCED HEATING STATUS	AO	
HIGH SUPPLY TEMP CUTOFF	AO	
LOW SUPPLY TEMP CUTOFF	AO	
MECHANICAL COOLING ALARM	DI	
EMERGENCY SHUTDOWN ALARM	DI	
ALARM STATUS	AI	

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RTU SCHEMATIC AND CONTROLS

2021029 16 OCT. 2024

M6-01

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MISCELLANEOUS POINTS AND SEQUENCES

EXHAUST FAN CONTROL

EXHAUST FANS SHALL BE CONTROLLED BY THE BAS, EXCEPT WHERE NOTED IN SCHEDULE.

OCCUPIED PERIOD:
FANS SHALL OPERATE VIA METHOD AS LISTED IN SCHEDULE VIA BAS, T-STAT, ETC. FANS CONTROLLED BY INDIVIDUAL THERMOSTAT DO NOT REQUIRE BAS CONNECTION

UN-OCCUPIED PERIOD:
FANS ARE OFF, EXCEPT WHERE INDICATED ON THE SCHEDULE

PREPARATORY PERIOD:
FANS ARE OFF, EXCEPT WHERE INDICATED ON THE SCHEDULE

EXHAUST FANS SHALL BE INTERLOCKED TO OPERATE WITH THEIR RESPECTIVE AIR HANDLING UNIT.

THE BAS SHALL GENERATE AN ALARM ANYTIME THE STATUS OF A FAN DOES NOT MATCH THE COMMAND.

LIGHTING CONTROL

THE BAS CONTRACTOR SHALL PROVIDE WIRING TO LIGHTING CONTACTORS SPECIFIED AND LOCATED ON THE ELECTRICAL DRAWINGS.

BAS CONTRACTOR SHALL PROVIDE OUTPUTS AS REQUIRED TO CONTROL LIGHTING RELAYS AND CONTACTORS. LIGHTING CIRCUITS SHALL BE CONTROLLED VIA USER ADJUSTABLE SCHEDULES WITHIN THE BAS BASED ON TIME OF DAY AND 365-DAY CALENDAR SCHEDULE. PROVIDE ABILITY TO OVERRIDE EACH LIGHTING CONTACTOR VIA THE FRONT END GRAPHICS.

REFER TO ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR LIGHTING CONTROL REQUIREMENTS.

REFER TO SPECIFICATIONS SECTION 26 09 23 FOR PROGRAMMING REQUIREMENTS.

REFER TO LIGHTING DRAWINGS FOR OVERRIDE SWITCHES.

OVERRIDE SWITCHES:

REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS. CONTROLS CONTRACTOR RESPONSIBLE FOR PROVIDING THE OVERRIDE SWITCHES, FACE PLATES, LOW VOLTAGE CABLING, AND PROGRAMMING. FACE PLATES SHALL MATCH DIVISION 26 SPECIFICATIONS, MATERIAL, AND COLOR. RACEWAY AND BOXES ASSOCIATED WITH OVERRIDE SWITCHES BY DIVISION 26.

DUCTLESS SPLIT SYSTEMS

DUCTLESS SPLIT SYSTEMS SHALL HAVE WALL MOUNTED CONTROLS IN THEIR RESPECTIVE ROOMS. UNITS ARE COOLING ONLY AND SHALL OPERATE AS REQUIRED TO KEEP ROOMS AT SETPOINT. NO BAS INTERFACE IS REQUIRED FOR DUCTLESS SPLIT SYSTEMS.

TREND LOGS

PROVIDE TREND LOGS FOR ALL RESET REQUESTS.

TREND ALL TEMPERATURE, PRESSURE AND EQUIPMENT CHANGES OF STATE.

MAINTENANCE MANAGEMENT

THE DDC SYSTEM SHALL MEASURE AND RECORD RUN TIME FOR ALL START/STOP POINTS IN THE SYSTEM. BASED UPON THE ACCUMULATED RUN TIME, PROVIDE MAINTENANCE MESSAGES ON THE INTERVAL RECOMMENDED BY THE EQUIPMENT MANUFACTURERS. ANY DIGITAL INPUT POINT THAT IS USED FOR MAINTENANCE PURPOSES (I.E. DIRTY FILTER) SHALL ALSO GENERATE A MAINTENANCE MESSAGE. ALL MAINTENANCE MESSAGES ARE TO BE SENT VIA EMAIL TO COUNTY'S FACILITY MAINTENANCE DIRECTOR OR SOMEONE ELSE OF HIS CHOOSING.

TROUBLE ALARMS.

THE CONTROL SUBCONTRACTOR SHALL ESTABLISH A TROUBLE HIGH AND TROUBLE LOW ALARM LIMIT FOR EACH ANALOG INPUT, EQUIPMENT STATUS AND ANNUNCIATE A CORRESPONDING ALARM MESSAGE AT THE CONTROLS FRONT END.

MODIFICATION

ALL SOFTWARE SETPOINTS, LIMITS, ALARMS, MESSAGES, SCHEDULES, SEQUENCES, ETC., AS SPECIFIED HEREIN ARE TO PROVIDE AN INITIAL SETUP OF THE CONTROLS SYSTEM. THE CONTROLS SUBCONTRACTOR SHALL PROVIDE SOFTWARE CUSTOMIZATIONS, SCHEDULING ALTERATIONS, AND SET POINT ADJUSTMENTS THAT MAY BE REQUIRED TO "TUNE" THE DDC SYSTEM TO ACCURATELY RESPOND TO ACTUAL BUILDING PARAMETERS. FURTHER, THESE SOFTWARE FUNCTIONS SHALL BE READILY MODIFIABLE BY THE OWNER'S PERSONNEL AS CHANGES IN BUILDING OPERATION DICTATE.

UNIT HEATERS

UNIT HEATER: BUILT-IN THERMOSTAT SHALL MAINTAIN ITS SETPOINT OF 55 DEG F (ADJ) BY STARTING THE UNIT HEATER. ONCE THE UNIT HEATER IS ENERGIZED, IT WILL RUN FOR AT LEAST FIVE (5) MINUTES TO AVOID SHORT CYCLING. NO BAS MONITORING OR CONTROL IS REQUIRED FOR UNIT HEATERS.

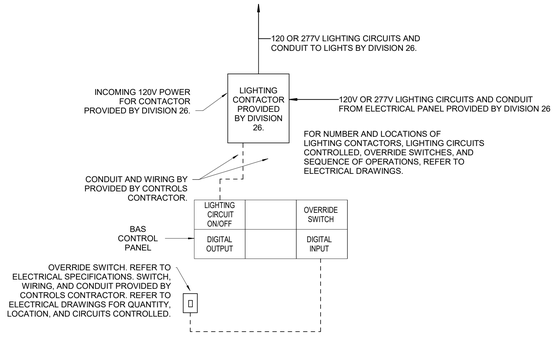
MISCELLANEOUS POINTS

BAS SHALL MONITOR THE BACKUP GENERATOR STATUS AND ALARMS.

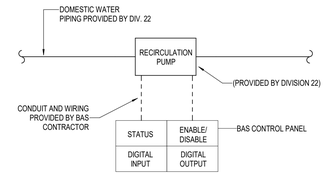
WATER HEATER AND RECIRCULATION PUMP CONTROL

BAS SHALL ENABLE AND DISABLE RECIRCULATION PUMPS FOR OCCUPIED AND UNOCCUPIED TIMES. REFER TO PLUMBING DRAWINGS FOR NUMBER AND LOCATION OF PUMPS. CONSULT OWNER ON HOURS OF OPERATION. PROVIDE A SCHEDULE FOR PUMPS INDEPENDENT OF OTHER HVAC RELATED SCHEDULES.

THE BAS WILL GENERATE AN ALARM IF THE COMMAND AND STATUS FAIL TO MATCH.

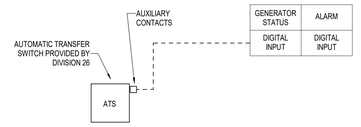


LIGHTING CONTROL SCHEMATIC



TYPICAL OF EACH DOMESTIC HOT WATER RECIRCULATION PUMP. REFER TO PLUMBING DRAWINGS FOR QUANTITY AND LOCATIONS.

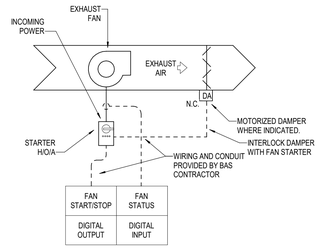
DOMESTIC HW RECIRCULATION PUMP MONITORING-TYPICAL



BAS SHALL MONITOR AUXILIARY CONTACTS ON TRANSFER SWITCH AS A PROXY FOR GENERATOR OPERATION.

NOTE: THIS IS A BID ALTERNATE CONTIGENT ON INSTALLATION OF THE ATS.

ATS/GENERATOR MONITORING



EXHAUST FAN-TYPICAL

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PDC #22074

NORTH CAROLINA PROFESSIONAL SEAL 025020 ENGINEER STEVEN W. CONNELLY

10/11/2024

BID DOCUMENTS

Smith Sinnett Architecture, P.A. 2024

THIS DRAWING IS FORMATTED TO BE PRINTED ON A 30" X 42" SHEET

Onslow County Senior Service Center Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: JAV
CHECKED BY: SWC

MISCELLANOUS CONTROLS

2021029 16 OCT. 2024

M6-02

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ROOFTOP UNIT SCHEDULE

MARK	MANUFACTURER	MODEL	OA (CFM)	SUPPLY FAN					COOLING COIL					GAS HEAT					REHEAT COIL			RERIGERATION CIRCUIT				ELECTRICAL					WEIGHT (LBS)	REMARKS
				QTY	CFM	ESP IN. WG	HP	BHP	EDB (°F)	EWB (°F)	TOTAL COOLING (MBH)	SENSIBLE COOLING (MBH)	LDB (°F)	LWB (°F)	INPUT (MBH)	OUTPUT (MBH)	AFUE	TURND OWN	EDB (°F)	LDB (°F)	CAPACITY (MBH)	EDB (°F)	LDB (°F)	COMP QTY	COMP RLA (EA.)	COND FAN QTY/HP	IEER	V	PH	MCA	MFS		
RTU-1A	AAON	RN-007-3	650	1	1300	1.2	-	-	78.8	71.8	74.2	35.9	52.6	52.4	90.0	72.9	81	10:1	42.5	92.4	32.1	53.2	75.0	1	12.4	1/1.0	21.5	480	3	19	30	1,500	
RTU-1B	AAON	RN-007-3	650	1	1300	1.2	-	-	78.8	71.8	74.2	35.9	52.6	52.4	90.0	72.9	81	10:1	42.5	92.4	32.1	53.2	75.0	1	12.4	1/1.0	21.5	480	3	19	30	1,500	
RTU-2	AAON	RQ-005-3	275	1	1180	1.2	2.0	1.00	76.9	67.9	55.5	29.6	51.0	50.9	100.0	81.0	81	2.8:1	54.6	118	30.2	51.0	75.0	1	6.5	1/0.33	18.7	480	3	13	15	1,200	
RTU-3	AAON	RQ-005-3	450	1	1035	1.2	2.0	0.86	78.5	71.0	57.0	26.4	52.2	52.2	100.0	81.0	81	2.8:1	43.6	116	25.1	52.2	75.0	1	6.5	1/0.33	18.7	480	3	13	15	1,200	
RTU-4	AAON	RQ-006-3	400	1	1430	1.2	2.0	1.28	77.2	68.6	62.7	32.7	53.2	53.1	100.0	81.0	81	2.8:1	52.0	104	33.2	53.2	75.0	1	7.2	1/0.33	19.2	480	3	14	20	1,200	
RTU-5	AAON	RQ-004-3	280	1	935	1.2	2.0	0.80	77.4	68.9	45.0	23.0	51.9	51.9	60.0	48.6	81	3.3:1	50.9	99	22.9	51.9	75.0	1	6.0	1/0.33	18.3	480	3	13	15	1,200	
RTU-6	AAON	RN-007-3	480	1	1600	1.2	2.0	1.14	77.4	69.0	69.6	36.5	54.1	54.1	150.0	120.0	81	3:1	50.9	120	35.6	54.1	75.0	1	9.7	1/0.33	14.8	480	3	17	25	1,500	
RTU-7	AAON	RQ-005-3	200	1	1120	1.2	2.0	0.96	76.4	67.0	53.8	29.5	49.3	49.3	60.0	48.6	81	3.3:1	57.7	98	30.7	49.3	75.0	1	6.5	1/0.33	18.7	480	3	13	15	1,200	
RTU-8	AAON	RQ-006-3	225	1	1425	1.2	2.0	1.23	76.3	66.7	58.5	33.3	52.0	51.7	100.0	81.0	81	2.8:1	58.9	111	35.0	52.0	75.0	1	7.2	1/0.33	19.4	480	3	14	20	1,200	
RTU-9	AAON	RQ-004-3	200	1	900	1.2	2.0	0.73	76.8	67.7	42.7	22.9	50.7	50.5	60.0	48.6	81	3.3:1	55.2	105	23.3	50.7	75.0	1	6.0	1/0.33	19.2	480	3	13	15	1,200	
RTU-10	AAON	RQ-005-3	320	1	1060	1.2	2.0	0.86	77.4	69.0	54.1	27.2	51.0	50.9	100.0	81.0	81	2.8:1	50.8	121	27.0	51.0	75.0	1	6.5	1/0.33	19.0	480	3	13	15	1,200	
RTU-11	AAON	RQ-003-3	150	1	750	1.2	1.0	0.62	76.6	67.4	36.7	19.6	49.6	49.4	60.0	48.6	81	3.3:1	56.5	116	20.2	49.6	75.0	1	4.5	1/0.33	18.6	480	3	9	15	1,000	
RTU-12	AAON	RQ-005-3	150	1	1250	1.2	2.0	1.01	76.0	66.0	52.6	30.4	49.8	49.6	60.0	48.6	81	3.3:1	61.0	98	32.2	49.8	75.0	1	6.5	1/0.33	19.0	480	3	13	15	1,200	
RTU-13	AAON	RQ-004-3	310	1	900	1.2	2.0	0.73	77.7	69.7	44.4	21.8	52.7	52.6	60.0	48.6	81	3.3:1	48.5	98	21.3	52.7	75.0	1	6.0	1/0.33	19.2	480	3	13	15	1,200	
RTU-14	AAON	RQ-003-3	140	1	800	1.2	1.0	0.66	76.4	66.9	36.9	20.3	50.2	49.9	60.0	48.6	81	3.3:1	57.9	114	21.2	50.2	75.0	1	4.5	1/0.33	18.7	480	3	9	15	1,000	
RTU-15	AAON	RQ-003-3	100	1	710	1.2	1.0	0.59	76.1	66.4	35.6	19.6	47.7	47.5	60.0	48.6	81	3.3:1	59.9	120	20.6	47.7	75.0	1	4.5	1/0.33	18.7	480	3	9	15	1,000	
RTU-16	AAON	RQ-005-3	225	1	1325	1.2	2.0	1.11	76.4	66.9	54.3	30.7	52.3	52.0	100.0	81.0	81	2.8:1	58.2	115	32.1	52.3	75.0	1	6.5	1/0.33	19.0	480	3	13	15	1,200	
RTU-17	AAON	RQ-006-3	175	1	1505	1.2	2.0	1.33	75.9	66.0	58.1	34.3	52.0	51.7	100.0	81.0	81	2.8:1	61.2	111	36.9	52.0	75.0	1	7.2	1/0.33	19.4	480	3	14	20	1,200	
RTU-18	AAON	RQ-004-3	225	1	900	1.2	2.0	0.73	77.0	68.2	43.1	22.6	51.2	51.1	60.0	48.6	81	3.3:1	53.6	103	22.8	51.2	75.0	1	6.0	1/0.33	19.2	480	3	13	15	1,200	
RTU-19	AAON	RQ-004-3	310	1	900	1.2	2.0	0.73	77.7	69.7	44.4	21.8	52.7	52.6	60.0	48.6	81	3.3:1	48.6	98	21.3	52.7	75.0	1	6.0	1/0.33	19.2	480	3	13	15	1,200	
RTU-20	AAON	RQ-004-3	310	1	1000	1.2	2.0	0.84	77.5	69.1	45.9	23.4	53.1	53.1	60.0	48.6	81	3.3:1	50.4	96	23.3	53.1	75.0	1	6.0	1/0.33	18.3	480	3	13	15	1,200	
RTU-21	AAON	RN-007-3	500	1	1375	1.2	2.0	0.94	77.9	70.0	68.8	33.9	53.1	52.9	90.0	72.9	81	3:1	47.4	96	31.9	53.1	75.0	1	9.7	1/0.33	14.8	480	3	17	25	1,500	

GENERAL NOTES:

A. ALL UNITS ARE DOWNFLOW ORIENTATION
B. BASIS OF DESIGN IS R-454B
C. BASIS OF DESIGN HAVE VARIABLE SPEED SCROLL COMPRESSORS
D. PROVIDE ALL DUCT TRANSITIONS FROM UNIT
E. PROVIDE METAL MESH OUTDOOR AIR PREFILTER AND 2" MERV 13 FILTERS
F. PROVIDE 0-100% ECONOMIZER WITH LOW LEAKAGE DAMPERS. PROVIDE DRY BULB SENSOR FOR ECONOMIZER OPERATION
G. PROVIDE FACTORY CIRCUIT BREAKER IN NEMA 3R ENCLOSURE, SINGLE POINT POWER CONNECTION, AND 24 VOLT CONTROLS TRANSFORMER. 35 kA SCCR MINIMUM
H. PROVIDE WALL MOUNTED TEMPERATURE SENSOR AND RETURN DUCT MOUNTED HUMIDITY SENSOR.
I. PROVIDE WITH STAINLESS STEEL DRAIN PAN
J. PROVIDE 30 inch TALL VIBRATION ISOLATION CURB WITH 2" SPRING ISOLATION. CURB SHALL BE RATED FOR PROJECT WIND ZONE. REFER TO THE CODE SUMMARY SHEET FOR INFORMATION. PROVIDE ENGINEERING CALCULATIONS WITH SUBMITTAL. CURB SHALL HAVE MINIMUM R-8.0 INSULATION
K. PROVIDE FIELD WIRED 115 VOLT GFI RECEPTACLE
L. PROVIDE DOUBLE-WALL CONSTRUCTION WITH R-13 FOAM INSULATION
M. PROVIDE MODULATING GAS HEAT WITH STAINLESS STEEL HX
N. PROVIDE MODULATING HOT HAS REHEAT
O. PROVIDE CONDENSATE OVERFLOW SWITCH
P. PROVIDE BACNET INTERFACE
Q. PROVIDE REMOTE DISPLAY OPTION
R. PROVIDE PHASE LOSS AND PROTECTION, HAIL GUARDS, AND ACCESS DOORS
S. PROVIDE MOTOR SHAFT GROUNDING FOR VFD MOTORS
T. MECHANICAL CONTRACTOR SHALL PROVIDE FINAL GAS REGULATOR FOR ALL UNITS OPERATING WITH NATURAL GAS
U. EQUIVALENTS BY GREENHECK, TRANE, OR AS LISTED IN THE SPECIFICATION.

DUCTLESS SPLIT UNIT (OUTDOOR) SCHEDULE

MARK	MODEL	TOTAL COOLING (MBH)	HEATING (MBH)	SEER 2	COMP. QTY/RLA	ELECTRICAL				HSPF	WEIGHT (LBS)	REMARKS
						V	PH	MCA	MFS			
DSC-1	AM036TXMDCH/AA	36.0	42.0	20.5	1/17.3	208	1	23	40	10.0	220	
DSC-2	AM036TXMDCH/AA	36.0	42.0	20.5	1/17.3	208	1	23	40	10.0	220	
DSC-3	AC018BXSCCC/AA	18.0	-	20.5	1/8.2	208	1	13.5	15	-	90	

GENERAL NOTES:

A. MODEL NUMBERS ARE BASED ON SAMSUNG EQUIPMENT. EQUIVALENTS BY MITSUBISHI, DAIKIN, LG, OR AS LISTED IN THE SPECIFICATIONS
B. UNITS SHALL BE TESTED PER AHRI 1230
C. PROVIDE OPTIONAL WIND BAFFLE FOR ALL UNITS FOR LOW AMBIENT COOLING DOWN TO 0 DEG. F
D. ALL ROOF CURBS/RAILS AND ATTACHMENTS THERETO SHALL BE THIRD PARTY LISTED FOR THE PROJECT WIND ZONE. ANCHORING DETAILS FOR THE UNIT TO THE RAILS, AND RAILS TO THE STRUCTURE, SHALL BE INCLUDED WITH THE SUBMITTAL
E. PROVIDE EPOXY COATING ON CONDENSER COIL FOR 3000 HR SEA COAST APPLICATION.

DUCTLESS SPLIT UNIT (INDOOR) SCHEDULE

MARK	MODEL	SUPPLY CFM	ESP	TOTAL COOLING (MBH)	SENSIBLE COOLING (MBH)	HEATING (MBH)	ELECTRICAL				WEIGHT (LBS)	REMARKS
							V	PH	FLA	MFS		
DS-1A	AM018TNVDCH/AA	555	-	18.0	12.9	20.0	208	1	1	15	25	
DS-1B	AM018TNVDCH/AA	555	-	18.0	12.9	20.0	208	1	1	15	25	
DS-2A	AM018NNNDCH/AA	460	-	18.0	12.9	20.0	208	1	1	15	30	
DS-2B	AM018NNNDCH/AA	460	-	18.0	12.9	20.0	208	1	1	15	30	
DS-3	AC018BNADCH/AA	540	-	18.0	12.9	N/A	208	1	1	15	25	

GENERAL NOTES:

A. MODEL NUMBERS ARE BASED ON SAMSUNG EQUIPMENT. EQUIVALENTS BY DAIKIN, MITSUBISHI, LG, OR AS LISTED IN THE SPECIFICATIONS
B. PROVIDE CONDENSATE PUMP. POWERED DIRECTLY FROM INDOOR UNIT TERMINALS, WITH EACH UNIT. 1 GPH AT 33 FT OF HEAD
C. PROVIDE WIRED CONTROLLER FOR ALL UNITS UNLESS OTHERWISE SPECIFIED
D. UNITS SHALL BE TESTED PER AHRI 1230

AIR DISTRIBUTION SCHEDULE

MARK	MANUFACTURER	MODEL	PURPOSE	MIN CFM	MAX CFM	FACE SIZE	INLET SIZE	REMARKS
10x6	PRICE	620	SUPPLY	30	175	-	10x6	<varies>
10x6R	PRICE	630	RETURN	-	-	-	10x6	
12x6	PRICE	620	SUPPLY	180	310	-	12x6	1,5
16x6	PRICE	620	SUPPLY	315	425	-	14x6	1,5
A	PRICE	ASPD	SUPPLY	30	100	24x24	6	1,2,3
B	PRICE	ASPD	SUPPLY	105	250	24x24	8	1,2,3
C	PRICE	ASPD	SUPPLY	255	375	24x24	10	1,2,3
LS4	PRICE	SDS100	SUPPLY	150	220	4" SLOT	8	6
R	PRICE	APDDR	RETURN/EXHAUST	30	100	24x24	6	1,2,3,4
S	PRICE	APDDR	RETURN/EXHAUST	105	220	24x24	8	1,2,3,4
T	PRICE	APDDR	RETURN/EXHAUST	225	375	24x24	10	1,2,3,4
Z	PRICE	APDDR	RETURN	0	1400	24x24	22x22	1,2,4

GENERAL NOTES:

A. BASIS OF DESIGN IS PRICE. EQUIVALENTS BY TITUS, KRUEGER, TUTTLE AND BAILEY, NAILOR, OR AS LISTED IN SPECIFICATIONS
B. PROVIDE VOLUME DAMPERS AT TAKE-OFF FOR EACH GRILLE
C. ALL AIR DISTRIBUTION DEVICES SHALL BE ALUMINUM
D. THE PRICE MODELS SCHEDULED HERE ARE BASIS OF DESIGN, INCLUDING GENERATED NOISE. PROPOSED SUBSTITUTIONS WILL BE JUDGED BY THOSE CRITERIA ALSO
E. WHERE LOCATED IN HARD CEILINGS, PROVIDE ALUMINUM MOUNT FRAME/PLASTER FRAME FOR HARD CEILING THAT ALLOWS DIFFUSER/GRILLE WITH FLEX CONNECTION TO BE LIFTED OUT OF FRAME TO ACCESS CEILING SPACE. TYPICAL OF ALL HARD CEILING LOCATIONS. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN
F. FOR SIDE WALL GRILLES, PROVIDE REMOTE CABLE OPERATED, GEAR DRIVEN BALANCING DAMPER OPERABLE FROM FACE OF DIFFUSER
G. FOR DIFFUSERS AND GRILLES IN 1-HR RATED CEILINGS, PROVIDE CEILING RADIATION DAMPER WITH ROUND SIDE COLLAR CONNECTION. THE RADIATION DAMPER SHALL INCLUDE A FACTORY R6 DUCTBOARD PLENUM BOX AND SHALL ACCEPT A GRILLE OR DIFFUSER UP TO 2-1/2" THICK. PROVIDE PLASTER FLANGE AS DICTATED BY THE ARCHITECTURAL CEILING. COORDINATE SIZES WITH GRILLE/DIFFUSER DIMENSIONS. RUSKIN CFDTT-R6-DB OR APPROVED EQUIVALENT.

REMARKS:

1. PROVIDE WITH OFF-WHITE ENAMEL FINISH
2. PROVIDE WITH TRIM TO MATCH CEILING TYPE. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR CEILINGS
3. PROVIDE DIFFUSER/GRILLE WITH ROUND NECK OR PROVIDE SQUARE TO ROUND TRANSITION
4. ALL CEILING MOUNTED RETURN GRILLES SHALL BE FULL FACED. NO LAY-IN PANELS ALLOWED
5. PROVIDE MANUAL OPPOSED BLADE DAMPER
6. PROVIDE LINEAR SLOT PLENUM AND INTERNAL INSULATION. CONTRACTOR TO ALSO FIELD INSULATED EXTERIOR OF PLENUM. 2 SLOTS.

FAN SCHEDULE

MARK	MANUFACTURER	MODEL	CFM	ESP	HP	WATTS/ BHP	RPM	MAX RPM	SONES	ELECTRICAL		WEIGHT	REMARKS
										V	PH		
EF-1	GREENHECK	G-095-VG	240	0.49	0.17	0.05	1299	1400	6.7	115	1	50	1,2,3
EF-2	GREENHECK	G-097-VG	140	0.41	0.25	0.04	1133	1200	4.8	115	1	50	1,2,3
EF-3	GREENHECK	G-097-VG	70	0.30	0.25	0.01	858	900	2.5	115	1	50	1,2,3
EF-4	GREENHECK	G-098-VG	350	0.55	0.25	0.07	1243	1300	6.3	115	1	50	1,2,3
EF-5	GREENHECK	G-097-VG	140	0.41	0.25	0.04	1133	1200	4.8	115	1	50	1,2,3
EF-6	GREENHECK	G-097-VG	90	0.35	0.25	0.03	960	1100	3.0	115	1	50	1,2,3
EF-7	GREENHECK	G-095-VG	225	0.48	0.17	0.05	1282	1400	6.6	115	1	50	2,3,4
EF-8	GREENHECK	G-098-VG	380	0.46	0.25	0.06	1187	1250	5.9	115	1	50	1,2,3
EF-9	GREENHECK	G-098-VG	350	0.43	0.25	0.06	1155	1200	5.7	115	1	50	1,2,3
EF-10	GREENHECK	G-097-VG	180	0.42	0.25	0.05	1264	1325	6.0	115	1	50	1,2,3
EF-11	GREENHECK	CUE-095-VG	450	0.46	0.17	0.08	1379	1400	6.8	115	1	50	2,3,5

GENERAL NOTES:

A. PROVIDE DUCT TRANSITIONS FOR ALL FANS
B. EXTERIOR FAN HOUSINGS SHALL BE CONSTRUCTED OF ALUMINUM. INTERIOR FAN HOUSINGS SHALL BE GALVANIZED STEEL
C. ALL FANS SHALL BE U.L. LISTED
D. PROVIDE WITH UNIT MOUNTED NEMA 3R DISCONNECT SWITCH
E. EXTERNALLY MOUNTED STARTER FURNISHED BY DIVISION 23 INSTALLED BY THE DIVISION 26
F. ALL FANS SHALL BE CERTIFIED IN ACCORDANCE WITH AMCA
G. PROVIDE ALL FANS WITH SPEED CONTROLLERS.
H. EQUIVALENTS BY TWIN CITY, PENN, OR AS LISTED IN THE SPECIFICATIONS

REMARKS:

1. FAN SHALL BE CONTROLLED BY DDC SYSTEM. PROVIDE MEANS ON FRONT END GRAPHICS TO OVERRIDE FAN ON/OFF.
2. PROVIDE 24" ROOF CURB WITH 2" INSULATION
3. PROVIDE DISCONNECT SWITCH, NEMA 1, TOGGLE, MOUNTED AND WIRED
4. FAN TO BE CONTROLLED BY THERMOSTAT
5. PROVIDE MANUAL SWITCH FOR CONTROL

KITCHEN HOOD SCHEDULE

KH-1, KH-2, KH-3 & KH-4

DOMESTIC RANGE HOOD. ZLINE OR EQUIVALENT BY BROAN, GE, OR AKDY.

36" WIDE, 400 CFM, CONVERTIBLE VENT ISLAND MOUNT RANGE HOOD. 430 STAINLESS STEEL FINISH. BUILT IN LIGHTING WITH 4 LED LIGHTS. 4-SPEED MOTOR. 115V/1PH/60 Hz. STAINLESS STEEL BAFFLE FILTERS. PROVIDE CHIMNEY EXTENSION KIT FOR 12' CEILING. UL OR ETL LISTED. PROVIDE REMOTE CONTROL FOR ADA COMPLIANCE.

ROOF VENT SCHEDULE

MARK	MANUFACTURER	MODEL	SYSTEM	CFM	LENGTH	WIDTH	FREE AREA	MAX APD	REMARKS
RV-1	GREENHECK	FGR	EXHAUST	400	10	10	0.69	0.08	
RV-2	GREENHECK	FGR	EXHAUST	400	10	10	0.69	0.08	
RV-3	GREENHECK	FGR	EXHAUST	400	10	10	0.69	0.08	
RV-4	GREENHECK	FGR	EXHAUST	400	10	10	0.69	0.08	

REMARKS:

A. LENGTH AND WIDTH ARE THE DUCT CONNECTION DIMENSIONS
B. EQUIVALENTS BY TWIN CITY, COOKE, OR AS LISTED IN THE SPECIFICATIONS
C. ALL ROOF VENTS SHALL BE HIGH WIND RATED FOR LOADS UP TO 70 PSF WITHOUT TIE DOWNS. PROVIDE MIAMI-DADE NOA WITH SUBMITTAL
D. PROVIDE ALUMINUM BIRDSCREEN
E. PROVIDE 24 INCH TALL ROOF CURB
F. PROVIDE PERMATECTOR OR EQUIVALENT FINISH. ARCHITECT TO SELECT COLOR.

smith sinnett ARCHITECTURE

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PDC #22074

10/11/2024

BID DOCUMENTS

Smith Sinnett Architecture, P.A. 2024

THIS DRAWING IS FORMATTED TO BE PRINTED ON A 24" X 42" SHEET

Onslow County Senior Service Center Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: JAV
CHECKED BY: SWC

MECHANICAL SCHEDULES

2021029 16 OCT. 2024

M7-01

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DEMOLITION GENERAL NOTES:

A. NOTIFY THE OWNER, IN WRITING, AT LEAST 7 DAYS IN ADVANCE OF ALL REQUIRED SHUTDOWNS ELECTRICAL UTILITIES. UPON WRITTEN RECEIPT OF APPROVAL FROM OWNER, SHUTDOWNS SHALL BE PERFORMED AS DIRECTED BY THE OWNER AND SHALL BE CONDUCTED AT NO ADDITIONAL CONTRACT COST. AT THE COMPLETION OF EACH SHUT DOWN, ALL SERVICES SHALL BE RESTORED SO THAT NORMAL OPERATION OF ALL UTILITIES CAN RESUME.

B. WHEN WORKING IN AND AROUND THE EXISTING BUILDING, EXTREME CARE SHALL BE EXERCISED IN REGARDS TO PROTECTION OF THE EXISTING STRUCTURE, MECHANICAL AND ELECTRICAL SERVICES WHICH WILL REMAIN. REPAIR, REPLACE OR RESTORE TO THE SATISFACTION OF THE OWNER/ARCHITECT/ENGINEER ALL EXISTING WORK DAMAGED IN THE PERFORMANCE OF DEMOLITION AND/OR NEW WORK.

C. ALL EXISTING WIRING, EQUIPMENT, CONDUITS AND MATERIALS NOT REQUIRED FOR RE-USE OR RE-INSTALLATION (SHOWN OR OTHERWISE) SHALL BE REMOVED. ALL EXISTING MATERIALS AND EQUIPMENT WHICH ARE REMOVED AND DESIRED BY THE OWNER, OR ARE INDICATED TO REMAIN AS THE PROPERTY OF THE OWNER, SHALL BE DELIVERED TO THE OWNER ON THE PREMISES BY THE CONTRACTOR WHERE DIRECTED BY THE ARCHITECT. ALL OTHER MATERIALS AND EQUIPMENT WHICH ARE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED BY THE CONTRACTOR FROM THE PREMISES.

D. EXISTING CONDITIONS (PRESENCE AND LOCATION OF PANELBOARDS, LIGHTING FIXTURES, RECEPTACLES, EQUIPMENT, MATERIALS AND CIRCUITING) INDICATED ARE BASED ON INFORMATION OBTAINED FROM AVAILABLE RECORD DRAWINGS AND FIELD SURVEYS AND ARE NOT WARRANTED TO BE COMPLETE OR CORRECT. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF ALL CONDUITS, EQUIPMENT AND MATERIALS IN THE FIELD PRIOR TO STARTING ALL WORK.

E. EXISTING EQUIPMENT SIZES NOTED ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY AND ARE NOT WARRANTED TO BE CORRECT. CONTRACTOR SHALL VERIFY ALL SIZES IN THE FIELD IF EQUIPMENT IS IN PROJECT SCOPE.

F. WHEN EXISTING MECHANICAL AND ELECTRICAL WORK IS REMOVED, ALL CONDUITS, WIRING AND MATERIALS SHALL BE REMOVED TO A POINT BELOW FINISHED FLOORS OR BEHIND FINISHED WALLS AND CAPPED. SUCH POINTS SHALL BE FAR ENOUGH BEHIND FINISHED SURFACES TO ALLOW FOR THE INSTALLATION OF THE NORMAL THICKNESS OF FINISHED MATERIAL.

G. EXISTING MECHANICAL AND ELECTRICAL EQUIPMENT, CONDUIT, WIRING, DEVICES, AND MATERIALS AFFECTED BY DEMOLITION OR NEW WORK INSTALLATION AND REQUIRED TO REMAIN IN SERVICE SHALL BE REINSTALLED OR SUPPORTED AS REQUIRED IN ACCORDANCE WITH NEW WORK SPECIFICATIONS. ALL WORK SHALL BE COMPLETED TO THE SATISFACTION OF THE OWNER.

H. IN GENERAL, ON DEMOLITION DRAWINGS, ALL EQUIPMENT AND MATERIALS SHOWN "LIGHT" ARE EXISTING TO REMAIN AND ALL EQUIPMENT AND MATERIALS SHOWN AS "HEAVY AND DASHED" ARE EXISTING TO BE DEMOLISHED.

I. ENSURE THAT ALL ELECTRICAL WORK IS DONE DE-ENERGIZED. SPECIFICALLY WHERE ELECTRICAL EQUIPMENT IS OPENED EXPOSING LIVE PARTS, BREAKERS ARE REMOVED OR INSTALLED OR WHERE ELECTRICAL CONNECTIONS ARE MODIFIED. ALL POWER AT THE PANEL OR ENCLOSURE SHALL BE DE-ENERGIZED AT ITS SOURCE, PRIOR TO WORK BEING DONE.

J. ALL TESTING, TROUBLESHOOTING AND VERIFICATION OF DEENERGIZATION IS TO BE DONE IN ACCORDANCE WITH NFPA 70E INCLUDING ESTABLISHING, ISOLATING IF REQUIRED, SHOCK PROTECTIVE AND ARC FLASH PROTECTIVE APPROACH BOUNDARIES AND WEARING PERSONAL PROTECTIVE EQUIPMENT APPROPRIATE FOR THE HAZARD.

K. PRIOR TO THE REMOVAL OF A CIRCUIT FROM A PANELBOARD, THE CONTRACTOR SHALL VERIFY THAT NO EXISTING LOADS REMAIN ON THAT CIRCUIT. IF UNEXPECTED LOADS REMAIN ON THE CIRCUIT, NOTIFY EOR FOR DIRECTIONS TO PROCEED. ONCE CIRCUITS HAVE BEEN VERIFIED TO BE UNDER NO LOAD, BREAKERS IN THE CORRESPONDING PANELBOARD SHALL BE FLIPPED TO THE 'OFF' POSITION AND MARKED AS SPARE AND READY FOR FUTURE WORK. ALL CONDUIT AND WIRING SHALL BE REMOVED BACK TO SOURCE.

L. UPDATE PANEL SCHEDULES TO REFLECT NEW AND CHANGED LOAD. ALL PANEL SCHEDULES SHALL BE COMPUTER GENERATED.

ELECTRICAL SYSTEM AND EQUIPMENT

METHOD OF COMPLIANCE:

ENERGY CODE: PRESCRIPTIVE__X__ PERFORMANCE_____
ASHRAE 90.1: PRESCRIPTIVE_____ PERFORMANCE_____

LIGHTING SCHEDULE

Lamp type required in fixture - See Fixture Schedule.
Number of lamps in fixture - See Fixture Schedule.
Ballast type used in the fixture - See Specifications.
Number of ballasts in fixture - See Specifications.
Total wattage per fixture - Varies - See Fixture Schedule
Total interior wattage specified versus allowed: 27077 watts versus 30275 watts (whole building)
Total exterior wattage specified versus allowed: 1593 watts versus 1792 watts

ADDITIONAL PRESCRIPTIVE COMPLIANCE

___ 406.2 More Efficient HVAC Performance
_X_ 406.3 Reduced Lighting Power Density
___ 406.4 Enhanced Lighting Controls
___ 406.5 On-Site Supply of Renewable Energy
___ 406.6 Provision of Dedicated Outdoor HVAC Air System
___ 406.7 High Efficiency Service Water Heating

DESIGNER STATEMENT:
To the best of my knowledge and belief, the design of this building complies with the electrical system and equipment requirements of the 2018 North Carolina State Building Code, Energy Conservation Code.

2 ELECTRICAL CODE SUMMARY

NOT TO SCALE

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GENERAL NOTES

1. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR FLOOR PLAN DIMENSIONS. DO NOT SCALE FROM THESE DRAWINGS.
2. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ANY AND ALL WORK WITH ALL OTHER TRADES INVOLVED IN THE PROJECT PRIOR TO THE INSTALLATION OF HIS EQUIPMENT TO AVOID CONFLICTS DURING CONSTRUCTION AND ALLOW FOR OPTIMUM MAINTENANCE AND WORKING SPACE.
3. ALL LIGHT FIXTURES SHALL BE SUPPORTED FROM BUILDING STRUCTURE AND IS NOT ALLOWED TO BE ANCHORED OR SUPPORTED BY ANY PART OF THE SUSPENDED CEILING SYSTEM. REFER TO SPECIFICATIONS FOR MORE DETAILED INFORMATION.
4. THE USE OF THE CONDUIT SYSTEM FOR EQUIPMENT GROUNDING SHALL NOT BE ACCEPTABLE. A SEPARATE INSULATED, GREEN COLORED COPPER WIRE SHALL RUN WITH THE CIRCUIT CONDUCTORS IN EACH CIRCUIT CONDUIT.
5. IN ALL AREAS WHERE FIRE RATED WALLS, FLOORS AND CEILINGS ARE INSTALLED, ALL PENETRATIONS OF ELECTRICAL CONDUITS OR OTHER RELATED ELECTRICAL MATERIAL SHALL BE PROPERLY SEALED WITH APPROVED FIRE RATED MATERIALS TO MAINTAIN THE RATINGS OF THE BUILDING CONSTRUCTION.
6. ALL FUSES, DISCONNECT SWITCHES AND BREAKER SIZES SHOWN FOR MECHANICAL/PLUMBING/FIRE PROTECTION EQUIPMENT SHALL BE VERIFIED PRIOR TO THE PURCHASE OR INSTALLATION OF SAID EQUIPMENT, WITH THE EQUIPMENT SUPPLIER AND MECHANICAL/PLUMBING CONTRACTOR. REFER TO MECHANICAL AND PLUMBING SPECIFICATIONS FOR ELECTRICAL DIVISION OR WORK.
7. ALL WORK AND MATERIAL SHALL BE PROVIDED IN ACCORDANCE WITH STATE, LOCAL AND NATIONAL CODES AND ORDINANCES.
8. EACH CONTRACTOR SHALL PROVIDE THEIR OWN SUPPORTS FOR ALL DEVICES AND EQUIPMENT PROVIDED BY THE CONTRACTOR AND SHALL SUPPORT SUCH EQUIPMENT PER APPROVED GOVERNING CODES OR PER APPROVAL OF THE ENGINEER. UNACCEPTABLE WORKMANSHIP OF MATERIALS SHALL BE REPLACED AT THE REQUEST OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
9. ALL JUNCTION BOXES AND CONDUIT RUNS (WITH OR WITHOUT WIRES) SHALL BE COLOR CODED WITH PAINT IN ACCORDANCE WITH ELECTRICAL GENERAL PROVISIONS.
10. THE MOUNTING HEIGHTS AND LOCATIONS OF ALL WALL MOUNTED OUTLETS AND JUNCTION BOXES SHALL BE REVIEWED AND COORDINATED WITH THE ARCHITECT AND OWNER PRIOR TO INSTALLATION.
11. ALL WIRE AND CONDUIT SIZES ARE BASED ON 75 DEGREE CELSIUS THHN OR THWN WIRE UNLESS OTHERWISE NOTED.
12. THE NEW FIRE ALARM EQUIPMENT SHOWN SHALL BE PROVIDED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. PROVIDE ALL WIRING AS REQUIRED FOR A COMPLETE SYSTEM.
13. THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL CEILING TYPES AND FINISHES BEFORE PURCHASING ANY LIGHT FIXTURES SO THAT THE PROPER TRIM WILL BE PROVIDED FOR THE CEILING TO BE INSTALLED. ANY CHANGES REQUIRED DUE TO INCORRECT LIGHTING FIXTURE MOUNTING HARDWARE SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
14. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE UTILITY POWER COMPANY FOR THE WORK REQUIRED FOR THE CONNECTION OF THE UTILITY'S NEW TRANSFORMER METERING, ETC. THE ELECTRICAL CONTRACTOR SHALL PAY ALL NECESSARY CHARGES FOR THE INSTALLATION OF THE UNDERGROUND ELECTRICAL SERVICE AS SHOWN ON THE PLANS.
15. WHERE MULTIPLE SWITCHES ARE SHOWN IN THE SAME LOCATION, THEY SHALL BE GANGED TOGETHER IN ONE MULTIPLE GANG BOX WITH MATCHING COVER AND PARTITION (IF REQUIRED). THE ELECTRICAL CONTRACTOR SHALL LOOK AT BOTH POWER AND LIGHTING PLAN TO DETERMINE WHICH SWITCH IS APPLICABLE.
16. WHERE ELECTRICAL EQUIPMENT PENETRATES EXTERIOR WALLS OR THE ROOF, THEY SHALL BE PROPERLY SEALED WITH METHODS APPROVED BY THE ENGINEER. SUBMIT DETAIL OF PROPOSED SEALING METHODS.
17. ALL EXTERIOR BUILDING LIGHTS AND EMERGENCY LIGHTING SHALL BE WIRED WITH A MINIMUM #10 AWG OR AS NOTED OTHERWISE.
18. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL CHAIN HUNG FIXTURES LOCATED IN MECHANICAL OR OTHER SPACES WITH OTHER TRADES, SO AS NOT TO CONFLICT WITH OTHER EQUIPMENT.
19. ALL EMERGENCY LIGHTING, EXIT SIGNS AND NIGHT LIGHTS SHALL BE WIRED AHEAD OF ANY SWITCH AND/OR BUILDING AUTOMATION SYSTEM.
20. WHERE CONDUIT OR OUTLET BOXES CANNOT BE INSTALLED IN EXISTING WALLS FOR NEW DEVICES, NOTIFY EOR/ARCHITECT FOR AN ACCEPTABLE INSTALLATION SOLUTION PRIOR TO PROCEEDING.
21. OUTLET BOXES ON OPPOSITE SIDES OF A FIRE RESISTANT WALL OR SHAFT ENCLOSURE RATED TWO (2) HOURS OR LESS SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF NOT LESS THAN 24" AS REQUIRED BY NCSBC VOL 1 PARAGRAPH 705.4.3.
22. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL ACCESS PANELS AS REQUIRED FOR ELECTRICAL CODE COMPLIANCE AND TO ACCESS ANY INSTALLATION THAT WILL REQUIRE FUTURE MAINTENANCE. THESE DOORS SHALL BE 20"X20". EACH ROOM WITH A DRYWALL CEILING SHALL HAVE A MINIMUM OF ONE ACCESS DOOR PROVIDED BY THE ELECTRICAL CONTRACTOR. THE DRYWALL SUBCONTRACTOR WILL PROVIDE THE REQUIRED FRAMED OPENING AND INSTALL THE ACCESS DOORS.
23. ALL UNDERGROUND CONDUITS SHALL BE IDENTIFIED ON ASBUILT PLANS WITH DIMENSIONS LOCATING THE CONDUITS AND THEIR RESPECTIVE BURIAL DEPTHS.
24. REFER TO SERIES E4 FIRE ALARM PLANS FOR FIRE ALARM WORK.
25. CONDUCTORS FOR BRANCH CIRCUITS SHALL BE SIZED TO PREVENT VOLTAGE DROP EXCEEDING 3% AT THE FARTHEST OUTLET OF POWER, HEATING AND LIGHTING LOADS OR ANY COMBINATION OF SUCH LOADS. THE MAXIMUM TOTAL VOLTAGE DROP ON BOTH FEEDER AND BRANCH CIRCUITS TO THE FARTHEST CONNECTION SHALL NOT EXCEED 5%.
    A. WHERE THE CONDUCTOR LENGTH FROM THE PANEL TO THE FIRST OUTLET ON A 120V CIRCUIT EXCEEDS 50'-0", THE BRANCH CIRCUIT CONDUCTORS FROM THE PANEL TO THE FIRST OUTLET SHALL NOT BE SMALL THAN #10 AWG. INCREASE THE BRANCH CIRCUIT CONDUCTOR SIZE AN ADDITIONAL WIRE SIZE FOR EACH ADDITIONAL 125' FOR THE ENTIRE CIRCUIT. THE GROUND CONDUCTOR SIZE SHALL BE INCREASED PROPORTIONALLY TO THE INCREASED PHASE CONDUCTORS AS PER NEC 2020 250.122(B).
    B. WHERE THE BRANCH CIRCUIT CONDUCTOR LENGTH FROM THE PANEL TO THE FIRST OUTLET ON A 277V CIRCUIT EXCEEDS 125'-0" THE BRANCH CIRCUIT CONDUCTORS FROM THE PANEL TO THE FIRST OUTLET SHALL NOT BE SMALLER THAN #10AWG. INCREASE THE BRANCH CIRCUIT CONDUCTOR SIZE AN ADDITIONAL WIRE SIZE FOR EACH ADDITIONAL 125' FOR THE ENTIRE CIRCUIT. THE GROUND CONDUCTOR SIZE SHALL BE INCREASED PROPORTIONALLY TO THE INCREASED PHASE CONDUCTORS AS PER NEC 2020 250.122 (B).

ABBREVIATIONS

ABBREV.	DEFINITION
A	AMPS, AMPERE, AMPERAGE
AC	ABOVE COUNTER
A/C	ALTERNATING CURRENT
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AIC	AMPERE INTERRUPTING CURRENT
AL	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARD INSTITUTE
ATSC	AUTOMATIC TRANSFER SWITCH CONTROL
ATS	AUTOMATIC TRANSFER SWITCH
A/V	AUDIO/VISUAL
AWG	AMERICAN WIRE GAUGE
BAS	BUILDING AUOTMATION SYSTEM
BFC	BELOW FINISHED CEILING
C	CONDUIT
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CT	CURRENT TRANSFORMER
CU	COPPER
D	DIMMING OR DIMMER
DB	DISTRIBUTION BOARD
DC	DIRECT CURRENT
DL	DAY-LIGHTING
DISC	DISCONNECT SWITCH
E	EMERGENCY
ECB	ENCLOSED CIRCUIT BREAKER
EOR	ENGINEER OF RECORD
EWC	ELECTRIC WATER COOLER
EX.	EXISTING
FUT	FUTURE
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FATC	FIRE ALARM TERMINAL CABINET
FDR	FEEDER
FPMR	FUSE PER MANUFACTURER RECOMMENDATIONS
GAA	GENERATOR ALARM ANNUNCIATOR
GAP	GENERATOR ALARM PANEL
GEN	GENERATOR
GEC	GROUNDING ELECTRODE CONDUCTOR
GFI	GROUND FAULT INTERRUPTER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFEP	GROUND FAULT EQUIPMENT PROTECTION
GFP	GROUND FAULT PROTECTION
GND	GROUND
GRS	GALVANIZED RIGID STEEL
HH	HAND HOLE
HOA	HAND-OFF AUTOMATIC
HP	HORSEPOWER
IEEE	INSTITUE OF ELECTRICAL AND ELECTRONICS ENGINEERS
IG	ISOLATED GROUND
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT AMPS
KW	KILOWATT
KWH	KILOWATT HOURS
LC	LIGHTING CONTACTOR
LS	LOUD SPEAKER
LSIG	LONG TIME, SHORT TIME, INSTANTANEOUS AND GROUND FAULT PROTECTION
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MIN	MINIMUM
MH	MAN HOLE
MLO	MAIN LUGS ONLY
MTS	MANUAL TRANSFER SWITCH
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
N or NEUT	NEUTRAL
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
O/H	OVER HEAD
P	POLE
PA	PUBLIC ADDRESS
PB	PULL BOX
PC	PHOTOCELL
PH	PHASE POTENTIAL TRANSFORMER
PT	POTENTIAL TRANSFORMER
RC	RECEPTACLE CONTACTOR
RSC	RIGID STEEL CONDUIT
SEC	SECURITY
SPD	SURGE PROTECTIVE DEVICE
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TC	TIME CLOCK
TEMP	TEMPORARY
TGB	TECHNOLOGY GROUND BAR
TGMB	TECHNOLOGY MAIN GROUND BAR
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION
TYP.	TYPICAL
U/C	UNDER COUNTER
U/G	UNDERGROUND
UGE	UNDERGROUND ELECTRIC
UL	UNDERWRITERS' LABORATORIES
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTABLE POWER SUPPLY
V	VOLTS, VOLTAGE
VFD	VARIABLE FREQUENCY DRIVE
WG	WIRE GUARD
WP	WEATHERPROOF
XFER	TRANSFER
XFMR	TRANSFORMER

SYMBOL LEGEND (CONT.)

SYMBOL	DESCRIPTION	REMARKS
S #CD	CEILING MOUNTED FIRE ALARM STROBE - # CD INDICATES CANDELA RATING OF STROBE	EDWARDS EST-IO COMPATIBLE
F	MANUAL FIRE ALARM PULL STATION - INSTALL AT +48" ABOVE FINISHED FLOOR TO TOP OF BOX (DOUBLE ACTION). (PROVIDE STOPPER LEXAN COVER)	EDWARDS EST-IO COMPATIBLE
SD	PHOTOELECTRIC TYPE SMOKE DETECTOR - CEILING MOUNTED	EDWARDS EST-IO COMPATIBLE
SD D	DUCT TYPE PHOTOELECTRIC SMOKE DETECTOR WITH SAMPLING TUBE INSTALLED IN MECHANICAL DUCTWORK. FURNISHED BY ELECTRICAL CONTRACTOR, INSTALLED BYMECHANICAL CONTRACTOR WITH FINAL CONNECTION BY ELECTRICAL CONTRACTOR	EDWARDS EST-IO COMPATIBLE
HD	HEAT DETECTOR - FIXED TEMPERATURE (135°F @ MECHANICAL ROOMS)	EDWARDS EST-IO COMPATIBLE
TP AND FS	TAMPER SWITCH/FLOW SWITCH - BY SPRINKLER SYSTEM CONTRACTOR ELECTRICAL CONTRACTOR SHALL CONNECT TO FIRE ALARM SYSTEM.	SEE SPECIFICATIONS
TS	TEMPERATURE SENSOR AT FIRELINE BACK FLOW PREVENTER	POTTER OR EQUAL
	SPRINKLER BELL - COORDINATE WITH FIRE PROTECTION CONTRACTOR	
	8'x4'x3/4" FIRE RETARDANT PLYWOOD BACK BOARD FOR MDF AND IDF CLOSETS	
RTU-N	REMOTE ALARM ANNUNCIATORS FOR DUCT DETECTORS. MOUNT AT +88" AFF UNLESS OTHERWISE NOTED. MUST BE KEY-OPERATED. "N" DENOTES ROOF TOP UNIT NUMBER TO BE IDENTIFIED ON FACEPLATE.	SEE SPECIFICATIONS
FACP	ADDRESSABLE FIRE ALARM CONTROL PANEL	EDWARDS EST IO-500
RACP	REMOTE ADDRESSABLE ANNUNCIATOR CONTROL PANEL	EDWARDS EST-IO COMPATIBLE
S #CD	WALL MOUNTED FIRE ALARM STROBE - #CD INDICATES CADELA RATING OF STROBE	EDWARDS EST-IO COMPATIBLE
NAC	FIRE ALARM SYSTEM NOTIFICATION APPLIANCE BOOSTER CABINET	EDWARDS EST-IO COMPATIBLE
CO	CARBON MONOXIDE DETECTOR WITH TEMPORAL 4 SOUNDER BASE	EDWARDS EST-IO COMPATIBLE
R	FIRE ALARM SHUTDOWN RELAY	EDWARDS EST-IO COMPATIBLE
	120 VOLT, 20 AMP FACELESS GFI DEVICE	LEVITON, HUBBELL OR EQUAL
1D WAP	WIRELESS ACCESS POINT, WITH (1) PLENUM RATED CAT-6 DATA DROP. REFER TO PLANS FOR LOCATIONS. COORDINATE WITH OWNER AND DIVISION 27 CONTRACTOR PRIOR TO INSTALLATION.	SINGLE GANG BOX WITH 3/4" CONDUIT
D	2 POST DATA RACK PROVIDED AND INSTALLED BY DIVISION 27 CONTRACTOR	REFER TO SPECIFICATION 271000
TGB	IDF ROOM GROUND BAR - REFER TO DETAILS E0-03/1 AND E0-03/5	
TMGB	MDF ROOM MAIN TELECOM GROUND BAR - REFER TO DETAILS E0-03/1 AND E0-03/5	
	18"x4" LADDER RUNWAY CABLE TRAY IN NETWORK CLOSETS AND 18"x4" LADDER TRAY OUTSIDE OF NETWORK ROOMS	B-LINE, PANDUIT OR LEVITON
	CONDUIT SLEEVE, REFER TO PLANS FOR SIZE	
HH	HANDHOLE, REFER TO SITE PLAN - DRAWING E7-01.	
DDC	HVAC CONTROL PANEL, PROVIDED AND INSTALLED BY HVAC CONTROLS CONTRACTOR - 120VAC POWER BY ELECTRICAL CONTRACTOR.	
TV #D/#HDMI	FLAT PANEL COMM AND POWER OUTLETS - #D INDICATES QUANTITY OF CAT-6 DROPS AND #HDMI INDICATES QUANTITY OF HDMI DROPS	REFER TO DETAIL E0-02/5
S_T	LOW VOLTAGE TIMER SWITCH - INSTALL AT +48" AFF TO TOP OF OUTLET, UNLESS OTHERWISE NOTED	WATTSTOPPER TS400 OR EQUAL BY LEVITON OR P&S
#D OR 360° #D	VIDEO SURVEILLANCE CAMERA - "CAM #" INDICATES CAMERA NUMBER. PROVIDE PLENUM RATED CAT-6 WIRING TO CAMERA LOCATION. CAMERAS, MOUNTS AND FINAL CONNECTIONS BY OWNER'S SECURITY CONTRACTOR.	REFER TO DETAILS E0-03/4 AND E0-03/8
	SERVICE ENTRANCE RATED, 480 VOLT, 3ϕ, 4 WIRE, NEMA-3R, ENCLOSED CIRCUIT BREAKER	SQUARE-D, GE OR EATON
MTS	MANUAL TRANSFER SWITCH - NEMA-3R WITH GENERATOR CAM LOCK CONNECTIONS	SEE SPECIFICATIONS
ATS	AUTOMATIC TRANSFER SWITCH - NEMA-3R, 4 POLE	SEE SPECIFICATIONS
AVFB	SIX GANG RECESS ACTIVATED FLOOR BOX WITH THREE DUPLEX OUTLETS AND DATA/AV OUTLETS AS PER PLANS. PROVIDE CARPET FLANGES AND ROUND COVERS. ARCHITECT TO SELECT COLOR AND STYLE OF COVERS.	
FF	POWER FURNITURE FEED WITH 3/4" CONDUIT WHIP TO PRE-WIRED FURNITURE - COORDINATE LOCATION WITH GENERAL CONTRACTOR	
FT	TELECOMMUNICATION FURNITURE FEED WITH (2)-1 1/4" CONDUIT WHIPS TO PRE-WIRED FURNITURE - COORDINATE LOCATION WITH GENERAL CONTRACTOR	
DRB	DOOR RELEASE BUTTON	STI #UB-1
CR	CARD READER - SINGLE GANG OUTLET BOX WITH 3/4" CONDUIT STUBBED ABOVE ACCESSIBLE LAY-IN CEILING	REFER TO DRAWING E0-06
REX	REQUEST TO EXIT MOTION SENSOR	REFER TO DRAWING E0-06
DPS	DOOR POSITION SWITCH	REFER TO DRAWING E0-06
ACP	S2 ACCESS CONTROL PANEL	REFER TO DRAWING E0-06
EXN	S2 NODE FOR DOOR CONTROLLER	REFER TO DRAWING E0-06
AV	AUDIO/VISUAL EQUIPMENT RACK BY OWNER/OTHERS	
S_{EPO}	EMERGENCY POWER OFF PUSH BUTTON STATION, UNDER LEXAN COVER, FOR GENERATOR SHUT OFF	
GAP	GENERATOR REMOTE ANNUNCIATOR PANEL	

SHEET INDEX - ELECTRICAL

Sheet Number	Sheet Name	Current Revision	Current Revision Date
E0-01	ELECTRICAL LEAD SHEET		
E0-02	DETAILS		
E0-03	DETAILS		
E0-04	DETAILS		
E0-05	POWER RISER		
E0-06	SECURITY DETAILS		
E0-11	ELECTRICAL DEMOLITION PLAN		
E0-12	MECHANCIAL BUILDING DEMOLITION PLAN		
E1-01	LIGHTING PLAN - AREA A		
E1-02	LIGHTING PLAN - AREA B		
E2-01	POWER PLAN - AREA A		
E2-02	POWER PLAN - AREA B		
E2-03	POWER PLAN - ROOF		
E3-01	TECHNOLOGY PLAN - AREA A		
E3-02	TECHNOLOGY PLAN - AREA B		
E4-01	FIRE ALARM & SECURITY PLAN - AREA A		
E4-02	FIRE ALARM & SECURITY PLAN - AREA B		
E4-03	ROOF FIRE ALARM PLAN		
E6-01	PANEL SCHEDULES		
E6-02	PANEL SCHEDULES		
E6-03	PANELS AND LIGHTING FIXTURE SCHEDULE		
E7-01	ELECTRICAL SITE PLAN		

SYMBOL LEGEND

SYMBOL	DESCRIPTION	REMARKS
	EXISTING EXIT SIGN TO BE REMOVED	
OR OR	EXISTING LIGHT FIXTURE TO BE REMOVED	
	EXISTING DOWN LIGHT TO BE REMOVED	
	EXISTING WALL LIGHT TO BE REMOVED	
	EXISTING FLOOD LIGHT TO BE REMOVED	
	EXISTING LIGHT SWITCH TO BE REMOVED	
	EXISTING RECEPTACLE TO BE REMOVED	
	EXISTING COMMUNICATION OUTLET TO BE REMOVED	
	EXISTING DISCONNECT SWITCH TO BE REMOVED	
J	EXISTING JUNCTION BOX TO BE REMOVED	
H	EXISTING FIRE ALARM A/V DEVICE TO BE REMOVED	
F	EXISTING FIRE ALARM PULL STATION TO BE REMOVED	
LS	EXISTING LOUD SPEAKER TO BE REMOVED	
LCS	EXISTING LIGHTING CONTROL SWITCHES TO BE REMOVED	
SD	EXISTING SMOKE DETECTOR TO BE REMOVED	
	EXISTING QUAD RECEPTACLE TO BE REMOVED	
TC	EXISTING TIME CLOCK TO BE REMOVED	
EMH	EXISTING FIRE ALARM ELECTRO-MAGNETIC HOLDER TO BE REMOVED	
3	EXISTING 3-WAY LIGHTING SWITCH TO BE REMOVED	
4	EXISTING 4-WAY LIGHTING SWITCH TO BE REMOVED	
S	EXISTING FIRE ALARM VISUAL DEVICE TO BE REMOVED	
S D	EXISTING DUCT SMOKE DETECTOR TO BE REMOVED	
FACP	EXISTING FIRE ALARM CONTROL PANEL TO BE REMOVED	
	EXISTING 120/208 VOLT PANEL TO BE REMOVED	
	EXISTING 277/480 VOLT PANEL TO BE REMOVED	
OR	LUMINAIRE - LETTER DESIGNATES TYPE	SEE FIXTURE SCHEDULE
	NIGHT LIGHT/EMERGENCY LED FIXTURE - LETTER DESIGNATES TYPE	SEE FIXTURE SCHEDULE
	LIGHT FIXTURE - LETTER DESIGNATES TYPE	SEE FIXTURE SCHEDULE
	LED EMERGENCY LIGHT FIXTURE - LETTER DESIGNATES TYPE	SEE FIXTURE SCHEDULE
	EXTERIOR EMERGENCY LED LIGHT FIXTURE - LETTER DESIGNATES TYPE	SEE FIXTURE SCHEDULE
	LINEAR LED LUMINAIRE - LETTER DESIGNATES TYPE - LENGTH PER PLANS	SEE FIXTURE SCHEDULE
	LINEAR LED LUMINAIRE WITH 90 MINUTE BATTERY BACKUP - LETTER DESIGNATES TYPE - LENGTH PER PLANS	SEE FIXTURE SCHEDULE
	EXIT LIGHT - ARROW INDICATES DIRECTION & SHADING INDICATES ILLUMINATED FACE(S).	SEE FIXTURE SCHEDULE
LC#	ELECTRICALLY HELD LIGHTING CONTACTOR. # INDICATES CONTACTOR NUMBER. PROVIDE NUMBER OF CONTACTS AS REQUIRED. PROVIDE HAND OFF AUTO SWITCH FOR EACH LIGHTING CONTACTOR.	SQUARE D CLXGXXXX PROVIDE # CONTACTS AS NEEDED
OS	CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR WITH 1000 SQ. FT 360° COVERAGE. TIME DELAY OF NO LESS THAN 15 MINUTES. INSTALL PER MANUFACTURER'S INSTRUCTIONS.	WATTSTOPPER DT-305 OR EQUAL BY HUBBELL OR LEVITION
OS	CORNER MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR WITH 2000 SQ. FT 360° COVERAGE AND WIDE ANGLE LENS. TIME DELAYS OF NO LESS THAN 15 MINUTES. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.	WATTSTOPPER DT-205 OR EQUAL BY HUBBELL OR LEVITON
OS ECHO	CEILING MOUNTED DIGITAL, LOW VOLTAGE, DUAL TECHNOLOGY OCCUPANCY SENSOR WITH 2000 SQ. FT 360° COVERAGE.	ETC ECHO
S	SINGLE POLE TOGGLE SWITCH - 48" ABOVE FINISHED FLOOR TO TOP OF OUTLET, UNLESS OTHERWISE NOTED.	HUBBELL, LEVITON OR P&S
S_{OS}	DUAL TECHNOLOGY SINGLE BUTTON WALL SWITCH SENSOR - TIME DELAYS OF NO LESS THAN 15 MINUTES. MOUNT AT +48" TO TOP OF OUTLET BOX. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS. REFER TO DETAIL E0-03/2	WATTSTOPPER DW-100 OR EQUAL BY HUBBELL OR LEVITON
S_{OR}	LOW VOLTAGE OVERRIDE SWITCH. PROVIDED AND INSTALLED BY HVAC CONTROLS CONTRACTOR.	SEE SPECIFICATION 260923 AND HVAC SEQUENCE OF OPERATION
S_3	3-WAY SWITCH - INSTALL AT 48" ABOVE FINISHED FLOOR TO TOP OF OUTLET. SWITCH COLOR SELECTED BY ARCHITECT.	HUBBELL, LEVITON OR P&S
S_A	2 BUTTON DIGITAL SWITCH WITH DIMMING	WATTSTOPPER DLM OR EQUAL
S_4	4-WAY SWITCH - INSTALL AT 48" ABOVE FINISHED FLOOR TO TOP OF OUTLET. SWITCH COLOR SELECTED BY ARCHITECT.	HUBBELL, LEVITON OR P&S
S_{WP}	SINGLE POLE TOGGLE SWITCH WITH WEATHERPROOF COVER AT +48" ABOVE FINISHED FLOOR TO TOP OF OUTLET, UNLESS OTHERWISE NOTED.	HUBBELL, LEVITON OR P&S
ERC	DIGITAL 8-ZONE CONTROLLER	ETC ECHO OR EQUAL
S_M	120 VOLT, 20 AMP, HEAVY DUTY MOTOR RATED TOGGLE DISCONNECT SWITCH WITH JUNCTION BOX.	HUBBELL, LEVITION OR P&S
S_{M2}	208 VOLT, 20 AMP, 2 POLE, HEAVY DUTY MOTOR RATED TOGGLE DISCONNECT SWITCH WITH JUNCTION BOX.	HUBBELL, LEVITION OR P&S
	DUPLEX, GROUNDING TYPE, TAMPER RESISTANT RECEPTACLE - AT 16" ABOVE FINISHED FLOOR TO BOTTOM OF OUTLET, UNLESS OTHERWISE NOTED	HUBBELL 5362-XTR WITH 97101 COVER OR EQUAL BY P&S OR LEVITON
GFI	DUPLEX RECEPTACLE - GROUND FAULT INTERRUPTION, TAMPER RESISTANT TYPE - INSTALL AT 16" ABOVE FINISHED FLOOR TO BOTTOM OF OUTLET, UNLESS OTHERWISE NOTED.	HUBBELL GF-5362-XTR WITH STAINLESS STEEL S26 WALLPLATE OR EQUAL BY P&S OR LEVITON
GFI WP	WEATHERPROOF DUPLEX, GROUND FAULT INTERRUPTING, TAMPER RESISTANT TYPE RECEPTACLE - +16" ABOVE GRADE TO BOTTOM OF OUTLET BOX, UNLESS OTHERWISE NOTED.	HUBBELL GF-5362-XTR WITH HEAVY DUTY, GREY, METALLIC IN-USE COVER EQUALS BY P&S OR LEVTION
	QUADRUPLEX GROUNDING, TAMPER RESISTANT TYPE RECEPTACLES IN A DOUBLE GANG BOX. MOUNT AT 16" AFF TO BOTTOM OF OUTLET UNLESS OTHERWISE NOTED.	HUBBELL 5362-XTR WITH 97101 COVER OR EQUAL BY P&S OR LEVTION
GFI	250 VOLT RATED, SINGLE OR THREE PHASE GROUND FAULT RECEPTACLE - SIZE TO MATCH EQUIPMENT FURNISHED - MOUNT AT +16" ABOVE FINISHED FLOOR TO BOTTOM OF OUTLET, UNLESS OTHERWISE NOTED.	PROVIDE NEMA RECEPTACLE TO MATCH EQUIPMENT
#D	DATA OUTLET - REFER TO PLANS FOR LOCATIONS. #D INDICATES NUMBER OF NETWORK DROPS AT THAT LOCATION OR PROVIDE (2) CAT-6 DROPS AT EACH OUTLET. SEE DETAIL E0-02/4.	
TX	DISTRIBUTION COPPER WOUND STEP-DOWN TRANSFORMER - 480-120/208V	SEE SPECIFICATIONS
	120/208 VOLT PANELBOARD WITH NEUTRAL AND GROUND BUS ACCESSORIES	REFER TO SPECIFICATION
	277/480 VOLT PANELBOARD WITH NEUTRAL AND GROUND BUS ACCESSORIES	REFER TO SPECIFICATION
	277/480 VOLT SERVICE ENTRANCE PANELBOARD WITH NEUTRAL AND GROUND BUS ACCESSORIES	REFER TO SPECIFICATION
SPD	SURGE PROTECTIVE DEVICE	
	DISCONNECT SWITCH, HEAVY DUTY	
	WIRING AND CONDUIT INSTALLED CONCEALED IN WALL SPACE OR ABOVE FINISHED CEILING	
	UNSWITCHED WIRING AND CONDUIT LEG ON LIGHTING PLANS. UNDER FLOOR WIRING AND CONDUIT ON POWER PLANS. UNDER GROUND WIRING AND CONDUIT ON SITE PLANS.	
	HOME RUN CIRCUIT TO PANELBOARD - NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS	
J OR JB	JUNCTION BOX WITH REMOVABLE COVER - SIZE PER NATIONAL ELECTRICAL CODE	
RB2	WALL MOUNTED 750 WATT LED EMERGENCY LIGHTING INVERTER - FULL OUTPUT RATED - 1 CIRCUIT/CANOPY ZONE	IOTA #IIS-750-120/277-90M-HE-SD-3 ZONE-AI-SC OR EQUAL
SEC	NAPCO X255 SECURITY PANEL - REFER TO SPECIFICATIONS	
KP	NUMERICAL REMOTE SECURITY KEYPAD. LOCATE AT 60" AFF.	NAPCO COMPATIBLE
WA LR	MOTION SENSOR - WALL MOUNTED WA = WIDE ANGLE, LR = LONG RANGE	REFER TO SPECIFICATIONS
S_D	SLIDE TYPE DIMMER SWITCH WITH ON/OFF FOR 0-10V LED AS NEEDED, VERIFY WITH FIXTURE PROVIDER FOR COMPATIBLE SWITCH TYPES.	LEVITON, LUTRON, P&S
S_{D3}	3-WAY SLIDE DIMMER SWITCH WITH ON/OFF FOR 0-10V AS NEEDED, VERIFY WITH FIXTURE PROVIDER FOR COMPATIBLE SWITCH TYPES.	LEVITON, LUTRON, P&S
H #CD	CEILING MOUNTED FIRE ALARM A/V DEVICE - #CD INDICATES CADELA RATING OF STROBE	EDWARDS EST-IO COMPATIBLE
H #CD	WALL MOUNTED FIRE ALARM A/V DEVICE - #CD INDICATES CADELA RATING OF STROBE	EDWARDS EST-IO COMPATIBLE

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 024651 JAMES T. BUTKOVICH

10/11/2024

BID DOCUMENTS

THIS DRAWING IS FORMATTED TO BE PRINTED ON A 30" X 42" SHEET

Onslow County Senior Service Center Renovation

Onslow County Government

4024 Richlands Hwy, Jacksonville, NC 28540

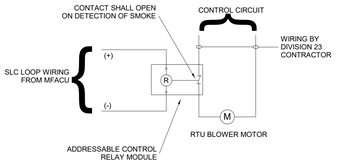
ID	DATE	DESCRIPTION

DRAWN BY: JPT
CHECKED BY: JTB

ELECTRICAL LEAD SHEET

2021029 16 OCT. 2024

E0-01



FIRE ALARM INTERLOCK

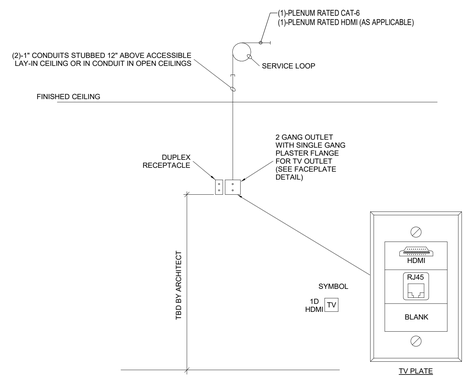
THE FIRE ALARM CONTRACTOR SHALL PROVIDE A FIRE ALARM RELAY FOR THE SUPPLY FAN(S) AT EACH RTU. THE RELAY SHALL BE WIRED DIRECTLY TO THE FAN VARIABLE FREQUENCY DRIVE FOR RTU SHUTDOWN BY THE BAS CONTRACTOR.

THE RELAY SHALL ALSO HAVE AN AUXILIARY CONTACT. THE BAS CONTRACTOR SHALL WIRE FROM THE AUXILIARY CONTACT TO THE BAS CONTROLLER TO MONITOR FA SHUTDOWN FOR THAT FAN ON THE BAS FRONT END.

FOR AHU RELIEF FANS, THE SCOPE SHALL BE THE SAME AS FOR THE SUPPLY FANS. RELIEF FANS DO NOT REQUIRE AN AUXILIARY CONTACT OR BAS MONITORING OF FA SHUTDOWN STATUS.

8 DETAIL - RTU SHUTDOWN

NOT TO SCALE



GENERAL NOTES:

A. CONTRACTOR SHALL PROVIDE AND INSTALL ALL CONDUIT, BOXES AND RECEPTACLES.

B. CONTRACTOR SHALL PROVIDE AND INSTALL ALL PLENUM RATED CAT-6, HDMI, FACEPLATES AND ASSOCIATED RJ45 & HDMI CONNECTORS.

C. CONTRACTOR SHALL UTILIZE CONDUIT, TRAY SYSTEM OR J-HOOKS FOR EASE OF ROUTING.

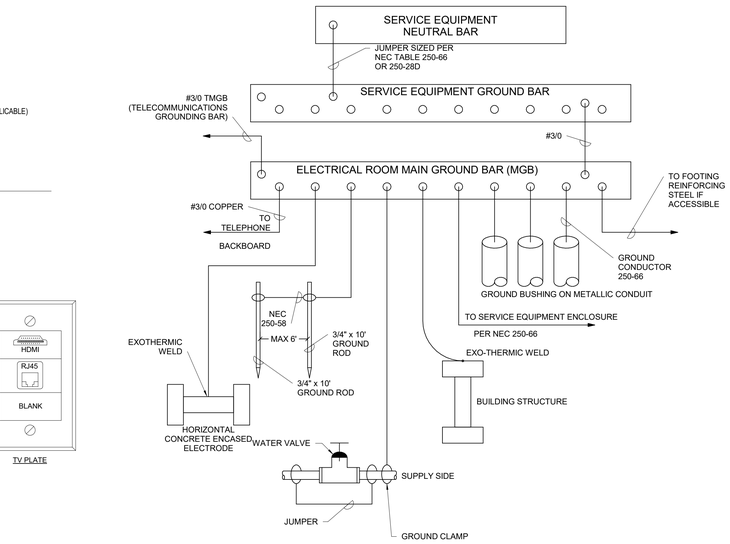
D. CONTRACTOR SHALL VERIFY LOCATIONS OF TVs WITH ARCHITECTURAL PLANS PRIOR TO LOCATING OUTLETS.

E. PROVIDE PLENUM RATED HDMI CABLING AND APPLICABLE JACK CONNECTION AT ROOMS AS INDICATED ON PLAN. THE HDMI SHALL INTERCONNECT THE TELEVISION WITH THE WALL AV INPUT PLATE OF THE APPLICABLE FLOOR BOX IN THAT SPACE.

F. ALL LOW VOLTAGE WIRING THAT WILL BE ROUTED ACROSS OPEN CEILINGS SHALL BE IN CONDUIT.

5 DETAIL - TV OUTLET LOCATION

NOT TO SCALE



GENERAL NOTES:

A. THIS SCHEMATIC IS NOT INTENDED TO SHOW ALL NEC AND OTHER CODE REQUIRED BONDING AND GROUNDING. RATHER, IT IS INTENDED TO ALERT THE CONTRACTOR TO TYPICAL MISAPPLICATIONS AND/OR OVERSIGHTS THAT OCCUR IN THE FIELD. THE CONTRACTOR IS A LICENSED PROFESSIONAL AND REMAINS RESPONSIBLE FOR ADHERENCE TO ALL INSTALLATION CODES WHETHER SHOWN OR NOT.

B. ALL CONDUCTORS SHOWN ON THIS SCHEMATIC SHALL BE SIZED PER NEC 250-66 UNLESS NOTED OTHERWISE.

C. ALL GROUNDING AND BONDING SHOWN IS REQUIRED TO BE INSTALLED IF PRESENT ON THE PROJECT.

D. SEE OTHER DETAILS FOR ADDITIONAL GROUNDING AND BONDING OF OTHER EQUIPMENT AND/OR SYSTEMS.

E. COORDINATE CONCRETE ENCASED ELECTRODES WITH STRUCTURAL ENGINEER.

2 DETAIL - BONDING AND GROUNDING SCHEMATIC

NOT TO SCALE

LOCATION OF CONTACTOR	COIL OF LIGHTING CONTACTORS BY ELECTRICAL CONTRACTOR	WIRING BY DDC/BAS SUBCONTRACTOR	BAS
ELEC 119	LC1	DO	LIGHTS ON/OFF - BUILDING PERIMETER
ELEC 119	LC2	DO	LIGHTS ON/OFF - CORRIDOR 131, VESTIBULE 129, LOBBY 101
ELEC 119	LC3	DO	LIGHTS ON/OFF - ALTERNATE #3 - EXTERIOR CANOPY/SOFFIT
ELEC 119	LC4	DO	LIGHTS ON/OFF - CORRIDORS 223, 248, 249
ELEC 119	LC5	DO	LIGHTS ON/OFF - ALTERNATE #5 - WEST SIDE CANOPY/SOFFIT

GENERAL NOTES:

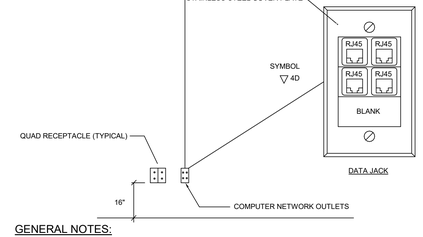
A. INTERIOR LIGHTING CONTROL @ CORRIDORS: TO TURN INTERIOR LIGHTS "OFF", DDC CONTROL WILL PROVIDE POWER TO CONTACTOR RELAY(N/C). THE CONTACTS WILL OPEN AND CONTACTOR COIL WILL DROP OUT. INTERIOR LIGHTS WILL TURN OFF. IMPORTANT: CORRIDOR BATTERY BACKUP EMERGENCY LIGHTS SHALL TURN ON/OFF WITH OTHER LIGHTS IN CORRIDOR, BUT UPON LOSS OF NORMAL POWER, THOSE EMERGENCY BATTERY BACKUP LIGHTS SHALL ILLUMINATE.

B. INTERIOR LIGHTING CONTROL @ CORRIDORS: TO TURN INTERIOR LIGHTS "ON", DDC CONTROL WILL REMOVE POWER TO CONTACTOR RELAY(N/C). THE CONTACTS WILL CLOSE AND CONTACTOR COIL WILL PULL IN. INTERIOR LIGHTS WILL TURN ON. IMPORTANT: CORRIDOR BATTERY BACKUP EMERGENCY LIGHTS SHALL TURN ON/OFF WITH OTHER LIGHTS IN CORRIDOR, BUT UPON LOSS OF NORMAL POWER, THOSE EMERGENCY BATTERY BACKUP LIGHTS SHALL ILLUMINATE.

C. REFER TO SPECIFICATION 260923 FOR "SOR" OVERRIDE SWITCHES. SWITCHES PROVIDED BY HVAC CONTRACTOR. ALSO REFER TO MECHANICAL CONTROLS LIGHTING SEQUENCE OF OPERATION.

7 BAS/DDC MONITORING

NOT TO SCALE



GENERAL NOTES:

A. CONTRACTOR SHALL PROVIDE ALL CONDUIT, BOXES AND RECEPTACLES.

B. CONTRACTOR SHALL PROVIDE ALL PLENUM RATED CAT-6 WIRING, FACEPLATES AND RJ45 CONNECTORS.

C. CONTRACTOR SHALL UTILIZE CONDUIT, TRAY SYSTEM OR J-HOOKS FOR EASE OF ROUTING.

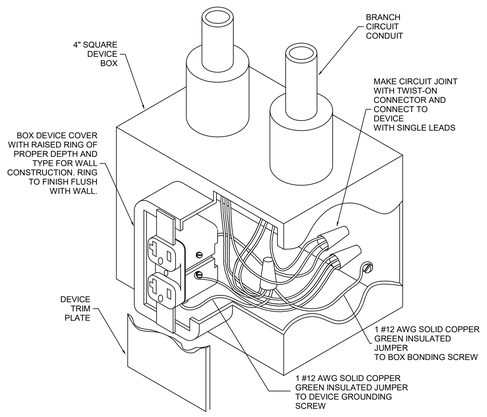
D. CONTRACTOR SHALL VERIFY LOCATIONS OF CASEWORK, CHALK BOARDS AND TACK BOARDS PRIOR TO INSTALLATION.

E. ALL COMPUTER NETWORK OUTLETS SHALL HAVE (2) CAT-6 DROPS AT EACH LOCATION UNLESS OTHERWISE NOTED. (I.E. 4D) WHERE #D INDICATES NUMBER OF CAT-6 DROPS AT THAT LOCATION.

F. ALL LOW VOLTAGE WIRING THAT WILL BE ROUTED ACROSS OPEN CEILINGS SHALL BE IN CONDUIT.

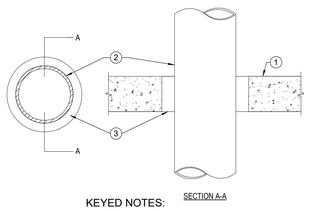
4 DETAIL - TYPICAL NETWORK OUTLET

NOT TO SCALE



3 RECEPTACLE GROUNDING

NOT TO SCALE

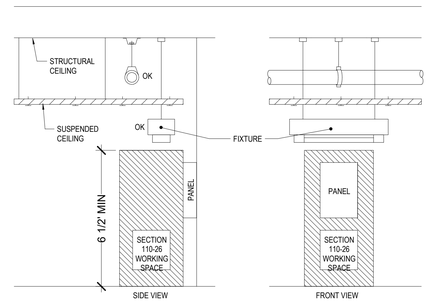


KEYED NOTES:

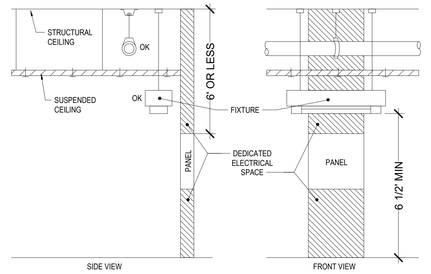
1. NON-RATED FLOOR OR WALL.
2. THROUGH PENETRANTS - ONE PIPE, OR CONDUIT.
3. FILL, VOID, OR CAVITY MATERIAL: SILICON CAULK.

6 NON-RATED WALL PIPE PENETRATION

NOT TO SCALE



WORKING CLEARANCE FOR ELECTRICAL EQUIPMENT
N.E.C ARTICLE 110-26



DEDICATED SPACE FOR ELECTRICAL EQUIPMENT
N.E.C ARTICLE 110-26

1 ELECTRICAL EQUIPMENT CLEARANCE

NOT TO SCALE

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10/11/2024 BID DOCUMENTS

Smith Sinnett Architecture, P.A. 2024

THIS DRAWING IS FORMATTED TO BE PRINTED ON A 30" X 42" SHEET

Onslow County Senior Service Center Renovation

Onslow County Government

4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: JPT
CHECKED BY: JTB

DETAILS

2021029 16 OCT. 2024

E0-02

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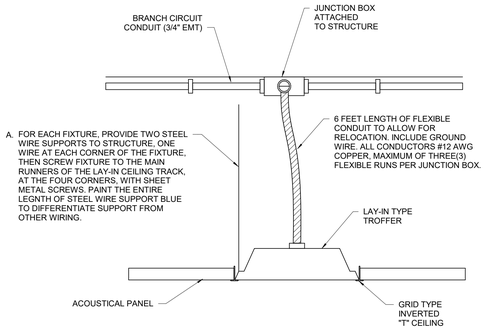
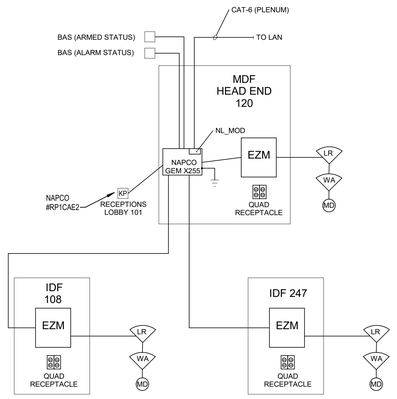


6 LAY-IN FIXTURE MOUNTING
NOT TO SCALE



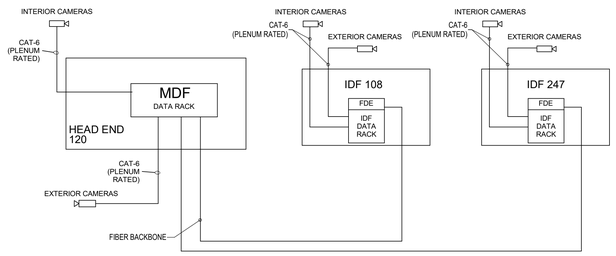
DETECTORS
LONG RANGE - BOSCH DS77B
360 CEILING - BOSCH DS936
360 CEILING - BOSCH DS938Z
WIDE ANGLE - BOSCH DS939
OR APPROVED EQUALS

NOTE: SEE PLANS FOR LOCATIONS AND QUANTITIES.

GENERAL NOTES:

A. COMPLY WITH SPECIFICATION 283112.
B. ALL WORK SHALL BE PERFORMED BY A LICENSED SECURITY SYSTEM CONTRACTOR.
C. WHEN COMPLETE, SYSTEM SHALL BE 100% OPERATIONAL AND APPROVED BY ONSLOW COUNTY.
D. ALL WIRING AND DEVICE HEIGHT/MOUNTING SHALL BE PER MANUFACTURER'S SPECIFICATIONS.
E. PROVIDE A MINIMUM OF FOUR HOURS OF OWNER TRAINING FOR OPERATION AND MAINTENANCE PROCEDURES.
F. FINAL ZONING OF SYSTEM SHALL BE COORDINATED WITH ONLSOW COUNTY.
G. WALL MOUNT DETECTORS AT CEILING HEIGHT OR 12'-0" MAX.
H. ONLSOW COUNTY PREFERRED MANUFACTURER IS NAPCO.
I. ALL RECEPTACLE POWER FOR SECURITY COMPONENTS SHALL BE COORDINATED CLOSELY BETWEEN ELECTRICAL AND SECURITY CONTRACTORS PRIOR TO ROUGH-IN.
J. GROUND IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
K. ALL WIRING SHALL BE PLENUM RATED.
L. SYSTEM SHALL BE INTERCONNECTED TO THE (LAN) VIA CAT-6 (PLENUM) CABLE TO ALLOW FOR INTERNET/INTRANET ACCESS TO SYSTEM. THE SYSTEM SHALL BE PROVIDED WITH THE NETLINK NL_MOD OPTION FOR THIS FUNCTIONALITY.

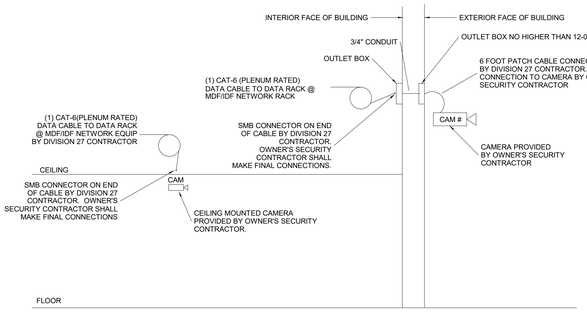
7 INTRUSION DETECTION RISER
NOT TO SCALE



GENERAL NOTES:

A. QUANTITY AND LOCATIONS AS SHOWN ON PLANS.
B. ALL CAMERA EQUIPMENT INCLUDING: CAMERAS, MOUNTS, FINAL CONNECTIONS, PROGRAMMING, LABELING OF ALL CAMERAS ON SERVER AND SYSTEM TESTING SHALL BE PROVIDED BY THE OWNER'S SECURITY CONTRACTOR. THE VIDEO SERVER SHALL BE PROVIDED AND INSTALLED BY THE OWNER'S SECURITY CONTRACTOR.
C. ALL CAMERA LOCATIONS SHALL BE COORDINATED WITH ONLSOW COUNTY IT/SECURITY PRIOR TO ROUGH-IN.
D. ALL PLENUM RATED CAT-6 CABLES FOR THE CAMERA SYSTEM SHALL HAVE GREEN JACKET. THESE CABLES SHALL BE TERMINATED ON THEIR OWN DESIGNATED PATCH PANELS. COORDINATE CLOSELY FOR ARRANGEMENTS AND LABELING. ALL POE SWITCHES SHALL BE OWNER PROVIDED. ALL CABLING SHALL BE TESTED AND DOCUMENTED UNDER THE REQUIREMENTS OF THE DIVISION 27 SPECIFICATIONS.
E. RJ45 CONNECTOR & SMB SHALL BE PLACED AT CAMERA END BY STRUCTURED WIRING CONTRACTOR FOR SECURITY CONTRACTOR TO MAKE FINAL CONNECTIONS.
F. CAMERA DATA CABLES SHALL MEET DATA CABLE LENGTH REQUIREMENTS IN SPECIFICATIONS 271000. IF LENGTH IS EXCEEDED, CABLE SHALL BE REPULLED WITH SHORTER LENGTH AT NO ADDITIONAL COST TO OWNER.
G. REFER TO DETAIL E0-03/4 ON THIS DRAWING.
H. ASBUILT DRAWINGS SHALL IDENTIFY ALL CAMERA LOCATIONS WITH THE MAKE & MODEL NUMBER USED.

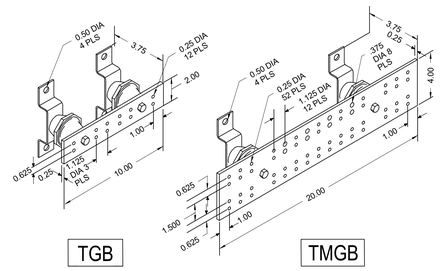
8 CAMERA SYSTEM RISER
NOT TO SCALE



GENERAL NOTES:

A. ALL CONDUIT AND OUTLET BOXES BY ELECTRICAL CONTRACTOR.
B. ALL PLENUM RATED CAT-6 CAMERA CABLING SHALL BE GREEN AND PROVIDED BY DIVISION 27 CONTRACTOR.
C. PROVIDE 15'-0" SERVICE LOOP AT CAMERA LOCATION.
D. PLEASE NOTE: DIVISION 27 CONTRACTOR, OWNER'S SECURITY CONTRACTOR AND ONSLOW COUNTY IT/SECURITY DEPARTMENT SHALL COORDINATE CLOSELY. THE CAMERAS ARE PROVIDED BY SECURITY CONTRACTOR. WIRING SHALL BE PROVIDED BY THE DIVISION 27 CONTRACTOR. THE CABLE NUMBER SHALL ALSO BE IDENTIFIED ON THE CABLE JACKET ABOVE THE CEILING AND AT THE CAMERA END. COORDINATE ALL WORK WITH THE ONLSOW COUNTY IT/SECURITY DEPARTMENT PRIOR TO INSTALLATION/ROUGH-IN.
E. CAMERA CABLES SHALL BE TERMINATED ON SEPARATE PATCH PANELS @ DATA RACKS IN MDF OR IDFs. ALL NETWORK POE SWITCHES SHALL BE PROVIDED AND INSTALLED BY THE ONSLOW COUNTY IT DEPARTMENT. VIDEO SERVER SHALL BE PROVIDED BY THE OWNER'S SECURITY CONTRACTOR.
F. CAT-6 CAMERA DATA CABLE LENGTHS SHALL NOT EXCEED 90 METERS. CONTRACTOR SHALL TAKE CARE IN MAINTAINING THESE LENGTHS.
G. ALL CAMERA CABLES SHALL BE TESTED IN COMPLIANCE WITH THE DATA CABLE REQUIREMENTS.

4 SECURITY CAMERA INSTALLATION
NOT TO SCALE

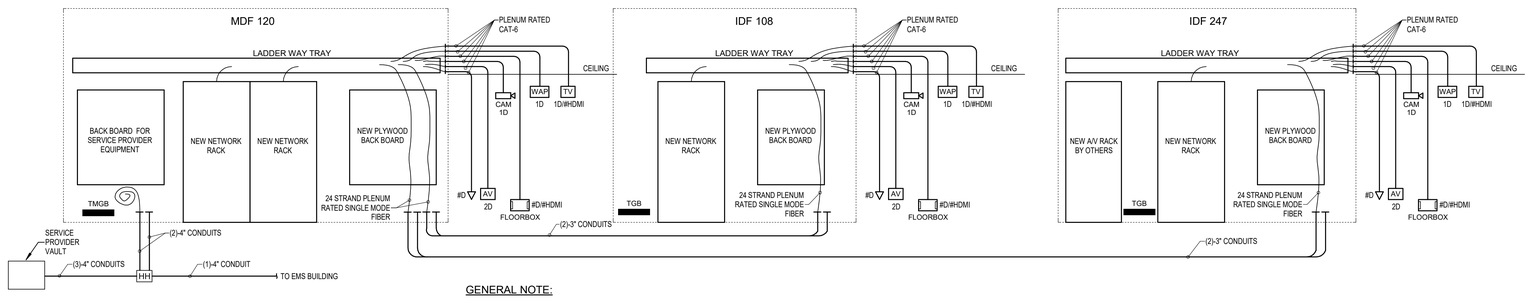


GENERAL NOTES:

A. TYPICAL BUSBARS, INSULATORS AND BACKBOARD MOUNTING BRACKETS SHOWN HERE REFLECT BICSI STANDARD-COMPLIANT DIMENSIONS.
B. MOUNT BACKBOARD MOUNTED BUSBARS @ 8'-6" AFF. UNLESS DIRECTED OTHERWISE BY OWNER.
3. THIS GROUNDING DETAIL IS APPLICABLE TO MDF(MAIN TELECOM) & IDF(TELECOM) CLOSETS.

TELECOMMUNICATIONS GROUNDING

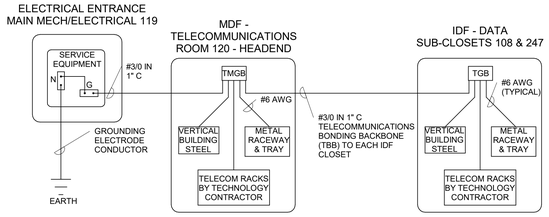
5 DETAIL - TELECOMMUNICATIONS GROUNDING
NOT TO SCALE



GENERAL NOTE:

A. ALL CAT-6 CABLING SHALL BE PLENUM RATED.
B. ALL NETWORK RACKS SHALL BE TWO POST. AV RACK BY OWNER/OTHERS.
C. FIBER CABLING SHALL BE IN MINIMUM 1 1/4" PLENUM RATED INNER DUCT ABOVE ACCESSIBLE CEILINGS. OTHERWISE, WHEN ROUTED IN OPEN CEILINGS OR ABOVE HARD CEILINGS, PROVIDE 2" CONDUIT.
D. CAT-6 PLENUM RATED CABLING CAN BE ROUTED ON J-HOOKS ABOVE LAY-IN CELINGS. HOWEVER, IF ROUTED ABOVE OPEN OR HARD CEILINGS, THE CABLING SHALL BE IN CONDUIT.
E. REFER TO SPECIFICATION 271000.
F. ALL WIRING SHALL BE TESTED PER BICSI STANDARDS.
G. DIVISION 27 CONTRACTOR SHALL PROVIDE ALL FIBER/CAT-6 CABLING, HDMI CABLING, RACKS, PATCH PANELS, PATCH CORDS, SMB BOXES FOR CAMS/WAPS, FIBER/COPPER CONNECTORS, JACKS, STAINLESS STEEL COVERS WITH ID WINDOWS, ETC. FOR A COMPLETE NETWORK INFRASTRUCTURE.
H. ALL NETWORK ELECTRONICS BY OWNER.
I. ALL SECURITY CAMERAS SHALL BE BY OWNER'S SECURITY CONTRACTOR. WIRING SHALL BE BY DIVISION 27 CONTRACTOR.

3 TELECOMMUNICATIONS RISER
NOT TO SCALE



NOTES:

A. IT IS THE INTENT FOR THE TELECOMMUNICATION GROUNDING SYSTEM TO UTILIZE THE "GROUND ELECTRODE CONDUCTOR (GEC)" ASSOCIATED WITH THE ELECTRICAL SERVICE ENTRANCE TO THE PROJECT SITE.
B. FROM THE GEC, THE ELECTRICAL CONTRACTOR SHALL INSTALL A BONDING CONDUCTOR WHICH WILL CONNECT THE GEC TO A TELECOMMUNICATIONS MAIN GROUNDING BUS BAR (TMGB) LOCATED IN MDF ROOM 120. THE BONDING CONDUCTOR SHALL BE BONDED TO THE GEC AND THE TMGB. ADDITIONALLY, THE TMGB SHALL BE BONDED TO THE CLOSEST VERTICAL BUILDING STEEL AND STEEL CONDUIT RACEWAY OR CABLE TRAY DESIGNATED FOR TELECOMMUNICATIONS USE.
C. A BONDING CONDUCTOR (THE TELECOMMUNICATIONS BONDING BACKBONE) SHALL CONNECT THE TMGB TO ALL TELECOMMUNICATION CLOSETS (IDFs) WITHIN THE FACILITY, SPECIFICALLY TO A TELECOMMUNICATIONS GROUNDING BUSBAR (TGB) LOCATED IN EACH IDF. ADDITIONALLY, THE TGB WILL BE BONDED TO THE CLOSEST AVAILABLE VERTICAL BUILDING STEEL AND STEEL CONDUIT RACEWAY OR CABLE TRAY DESIGNATED FOR TELECOMMUNICATIONS USE.
D. COMPONENTS CRITERIA:
1. BUSBARS
A. PREDRILLED ELECTROTIN PLATED COPPER BUSBAR PROVIDED WITH STANDARD NEMA BOLT HOLE SIZING AND SPACING FOR TWO HOLE COMPRESSION CONNECTORS OR EXOTHERMIC TYPE WELDED CONNECTORS.
B. REFER TO DETAIL E0-03/5 ON THIS DRAWING FOR TELECOM BUSBAR REQUIREMENTS.
C. THE BUSBAR SHALL BE INSULATED FROM ITS SUPPORT. MINIMUM 50mm SEPARATION IS RECOMMENDED.
2. BONDING CONDUCTOR
A. TELECOMMUNICATIONS BONDING BACKBONE SHALL BE A MINIMUM OF #3/0AWG STRANDED AND INSULATED CONDUCTOR IN 1" EMT.
B. THE CONDUCTOR SHALL BE CONTINUOUS AND ROUTED IN THE SHORTEST POSSIBLE STRAIGHT LINE PATH FROM THE MDF TO IDFs.

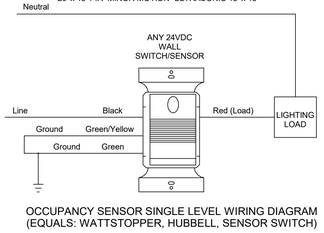
TELECOMMUNICATIONS GROUNDING SYSTEM TO BE PROVIDED BY THE ELECTRICAL CONTRACTOR

1 TELECOMMUNICATIONS SYSTEM GROUNDING
NOT TO SCALE

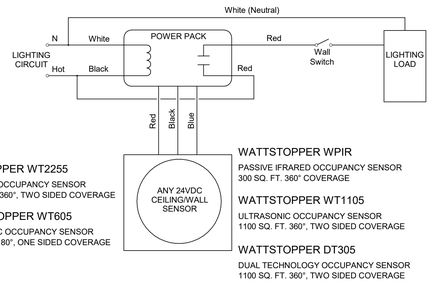
GENERAL NOTES:

A. ALL SENSOR LOCATIONS ARE APPROXIMATE. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS PRIOR TO INSTALLATION.
B. ULTRASONIC CEILING MOUNTED SENSORS SHALL NOT BE LOCATED WITHIN 6'-0" OF SUPPLY/RETURN GRILLES.
C. CONTRACTOR IS RESPONSIBLE FOR PROPER SENSITIVITY AND TIME DELAY SETTINGS, VERIFICATION OF MANUFACTURER'S RECOMMENDED PLACEMENT AND FIELD VERIFICATION OF CIRCUITS WITH RESPECT TO POWER PACK PLACEMENT.
D. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF REQUIRED NUMBER OF POWER PACKS. POWER PACKS SHALL BE INSTALLED IN A 4" SQUARE JUNCTION BOX.
E. ONE POWER PACK IS REQUIRED FOR EACH CIRCUIT THAT IS TO BE CONTROLLED.
F. MAXIMUM NUMBER OF SENSORS THAT CAN BE WIRED IN PARALLEL TO A SINGLE POWER PACK IS DEPENDENT ON SENSOR MODEL. (SEE INDIVIDUAL DATA SHEETS FOR mA CONSUMPTION.)
G. SENSOR LAYOUT DRAWINGS AND PRODUCT DATA SHEETS ARE REQUIRED AS PART OF SHOP DRAWING SUBMITTALS.
H. ALL OCCUPANCY SENSOR WIRING SHALL BE WIRED IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS.
I. REFER TO SPECIFICATION 260923.
J. ALL EXPOSED WIRING SHALL BE PLENUM RATED ABOVE ACCESSIBLE LAY-IN CEILINGS. OTHERWISE, WIRING IN OPEN OR HARD CEILINGS SHALL BE IN CONDUIT.
K. ALL WALL MOUNT STYLE SENSORS SHALL BE THE SWIVEL TYPE SO THAT IT ALLOWS FOR ADJUSTMENT. NON-SWIVEL SENSORS SHALL NOT BE ACCEPTABLE.

DW-100 (SOS)
DUAL TECHNOLOGY WALL SWITCH SENSOR
35' x 30' PIR MAJOR MOTION ULTRASONIC 20' x 20'
20' x 15' PIR MINOR MOTION ULTRASONIC 15' x 15'



OCCUPANCY SENSOR SINGLE LEVEL WIRING DIAGRAM
(EQUALS: WATTSTOPPER, HUBBELL, SENSOR SWITCH)



WATTSTOPPER WT2255
ULTRASONIC OCCUPANCY SENSOR
90 LINEAR FT. 360°, TWO SIDED COVERAGE

WATTSTOPPER WT605
ULTRASONIC OCCUPANCY SENSOR
600 SQ. FT. 180°, ONE SIDED COVERAGE

WATTSTOPPER WPIR
PASSIVE IFRARED OCCUPANCY SENSOR
300 SQ. FT. 360° COVERAGE

WATTSTOPPER WT1105
ULTRASONIC OCCUPANCY SENSOR
1100 SQ. FT. 360°, TWO SIDED COVERAGE

WATTSTOPPER DT305
DUAL TECHNOLOGY OCCUPANCY SENSOR
1100 SQ. FT. 360°, TWO SIDED COVERAGE

OCCUPANCY SENSORS WITHOUT ISOLATED RELAY WIRING DIAGRAM
(EQUALS: HUBBELL, SENSOR SWITCH)

2 DETAIL - OCCUPANCY SENSOR WIRING DIAGRAMS
NOT TO SCALE

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NORTH CAROLINA PROFESSIONAL SEAL 024651 ENGINEER JAMES T. BUTKUS
10/11/2024
BID DOCUMENTS

Smith Sinnett Architecture, P.A. 2024

THIS DRAWING IS FORMATTED TO BE PRINTED ON A 30" X 42" SHEET

Onslow County Senior Service Center Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: JPT
CHECKED BY: JTB

DETAILS

2021029 16 OCT. 2024

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GENERAL NOTES:

A. VERIFY OPERATION WITH LOCAL AHJ PRIOR TO PROGRAMMING.

Column key:
A. ACTUATE GENERAL ALARM SPEAKERS/STROBES
B. ACTUATE AUDIBLE ALARM SIGNAL
C. ACTUATE SUPERVISORY SIGNAL INDICATOR
D. ACTUATE AUDIBLE SUPERVISORY SIGNAL
E. ACTUATE COMMON TROUBLE SIGNAL INDICATOR
F. ACTUATE AUDIBLE COMMON TROUBLE SIGNAL
G. ACTUATE ALL EVACUATION SIGNALS
H. TRANSMIT FIRE ALARM SIGNAL TO SUPERVISING STATION
I. TRANSMIT TROUBLE SIGNAL TO SUPERVISING STATION
J. TRANSMIT SUPERVISORY SIGNAL TO SUPERVISING STATION
K. DISPLAY CHANGE OF STATUS AT FACP
L. SHUTDOWN ALL ROOF TOP HVAC UNITS
M. TRANSMIT CO TROUBLE SIGNAL TO SUPERVISING STATION
O. ACTUATE CARBON MONOXIDE TROUBLE SIGNAL
P. UNLOCK ACCESS CONTROLLED EGRESS DOORS

SYSTEM INPUTS

	SYSTEM INPUTS	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P	Q	R	S	T	U	V	W	X	
1	MANUAL PULL STATIONS	o	o					o	o			o	o			o									1
2	SMOKE DETECTORS	o	o					o	o			o	o			o									2
3	HEAT DETECTORS	o	o					o	o			o	o			o									3
4	DUCT DETECTORS	o	o					o	o			o	o			o									4
5	AHU OVERRIDE SWITCH			o	o						o	o													5
6	FIRE ALARM SYSTEM AC POWER FAILURE					o	o			o		o													6
7	FIRE ALARM SYSTEM LOW BATTERY					o	o			o		o													7
8	NAC PANELS LOW BATTERY					o	o			o		o													8
9	OPEN CIRCUIT					o	o			o		o													9
10	GROUND FAULT					o	o			o		o													10
11	NOTIFICATION APPLIANCE SHORT CIRCUIT					o	o			o		o													11
12	CARBON MONOXIDE DETECTOR													o	o										12
13																									13
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2 FIRE ALARM MATRIX
NOT TO SCALE

GENERAL FIRE ALARM RISER NOTES:

A. NEW FIRE ALARM SYSTEM SHALL BE BY EDWARDS SYSTEMS TECHNOLOGY (EST) OR EQUAL - REFER TO ARCHITECT'S ALTERNATE SECTION. PROVIDE ALL PARTS AND PIECES REQUIRED FOR INTERCONNECTION AND ALARM, TROUBLE AND SUPERVISORY SIGNALS.

B. SEE PLANS FOR LOCATIONS AND QUANTITIES OF ALL DEVICES.

C. ALL WIRING SHALL BE IN MINIMUM 3/4" CONDUIT.

D. BATTERY CALCULATIONS ARE REQUIRED WITH ALL SUBMITTALS.

E. TEST RESULTS ARE REQUIRED FOR ALL DEVICES.

F. PROVIDE SHUT-DOWN DEVICES FOR NEW ROOF TOP HVAC UNITS.

G. VERIFY ROOM NUMBERS WITH ARCHITECT PRIOR TO PROGRAMMING SYSTEM.

H. ALL NAC PANELS SHALL HAVE A SMOKE DETECTOR MOUNTED WITHIN 15'-0" OF PANEL.

I. A SMOKE DETECTOR SHALL BE MOUNTED WITHIN 15'-0" OF FACP.

J. IF ANY ARCHITECTURAL CHANGES ARE MADE THAT SHALL AFFECT ANY DEVICE PLACEMENT, THIS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO INSTALLATION.

K. THE MANUFACTURER'S AUTHORIZED REPRESENTATIVE SHALL BE NICET LEVEL 3 CERTIFIED AND HAVE AT LEAST 2 YEARS OF EXPERIENCE INSTALLING FIRE ALARM SYSTEMS.

L. THE PROJECT MANAGER SHALL BE NICET LEVEL 4 CERTIFIED AND HAVE AT LEAST 5 YEARS OF EXPERIENCE INSTALLING FIRE ALARM SYSTEMS.

M. THE SHOP DRAWINGS SUBMITTALS FOR DEVICE LOCATIONS SHALL BE SUBMITTED TO ENGINEER AND LOCAL (AHJ) FIRE MARSHALL PRIOR TO ANY INSTALLATION/ROUGH-IN FOR FIRE ALARM DEVICES.

N. WIRING DIAGRAMS. LOCATION DRAWINGS, DEVICE CUT SHEETS AND VOLTAGE DROP CALCULATIONS ARE REQUIRED WITH ALL SUBMITTALS.

O. THE FIRE ALARM SYSTEM PROVIDER SHALL PROVIDE ALL DOCUMENTATION AS SPECIFIED IN THE INTERNATIONAL FIRE CODE SECTION 907 REQUIREMENTS AS PART OF HIS SHOP DRAWING SUBMITTALS.

THIS INCLUDES:

1. LOCATION DRAWINGS OF ALARM INITIATING AND NOTIFICATION DEVICES.
2. WIRING DIAGRAMS WITH CONDUCTOR TYPE AND SIZES.
3. LOCATIONS OF ALARM CONTROL AND TROUBLE SIGNALING EQUIPMENT.
4. POWER CONNECTION DETAILS AND WIRING SCHEMATICS.
5. BATTERY CALCULATIONS.
6. VOLTAGE DROP CALCULATIONS.
7. MANUFACTURER'S MODEL NUMBERS, LISTING INFORMATION FOR EQUIPMENT, DEVICES AND MATERIALS.
8. THE INTERFACE OF FIRE SAFETY CONTROL FUNCTIONS.

P. REFER TO DIVISION 28 SPECIFICATIONS.

Q. FIRE ALARM SIGNAL LINE CIRCUITS SHALL BE WIRED CLASS "A" AND NOTIFICATION CIRCUITS SHALL BE WIRED CLASS "B" WITH THE END OF LINE RESISTOR CLEARLY AND PERMANENTLY MARKED ON THE LAST DEVICE.

R. PROVIDE SPARE PARTS AS DEFINED IN SPECIFICATIONS.

S. ALL FIRE ALARM SYSTEM WORK SHALL BE APPROVED BY THE LOCAL FIRE MARSHAL PRIOR TO COMMENCING ANY FIRE ALARM WORK.

T. ALL RACPs AND RAAPs SHALL BE SEMI RECESSED WITH CONTROL FUNCTIONALITY.

U. FIRE ALARM SYSTEM SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH NFPA 72, 2013.

V. COORDINATE WITH THE FIRE PROTECTION CONTRACTOR FOR VOLTAGE, RELAY, ETC. FOR CONNECTIONS OF SPRINKLER BELL. ALL WIRING, CONDUIT, RELAY, AND INTERCONNECTIONS SHALL BE BY THE ELECTRICAL & FIRE ALARM CONTRACTORS.

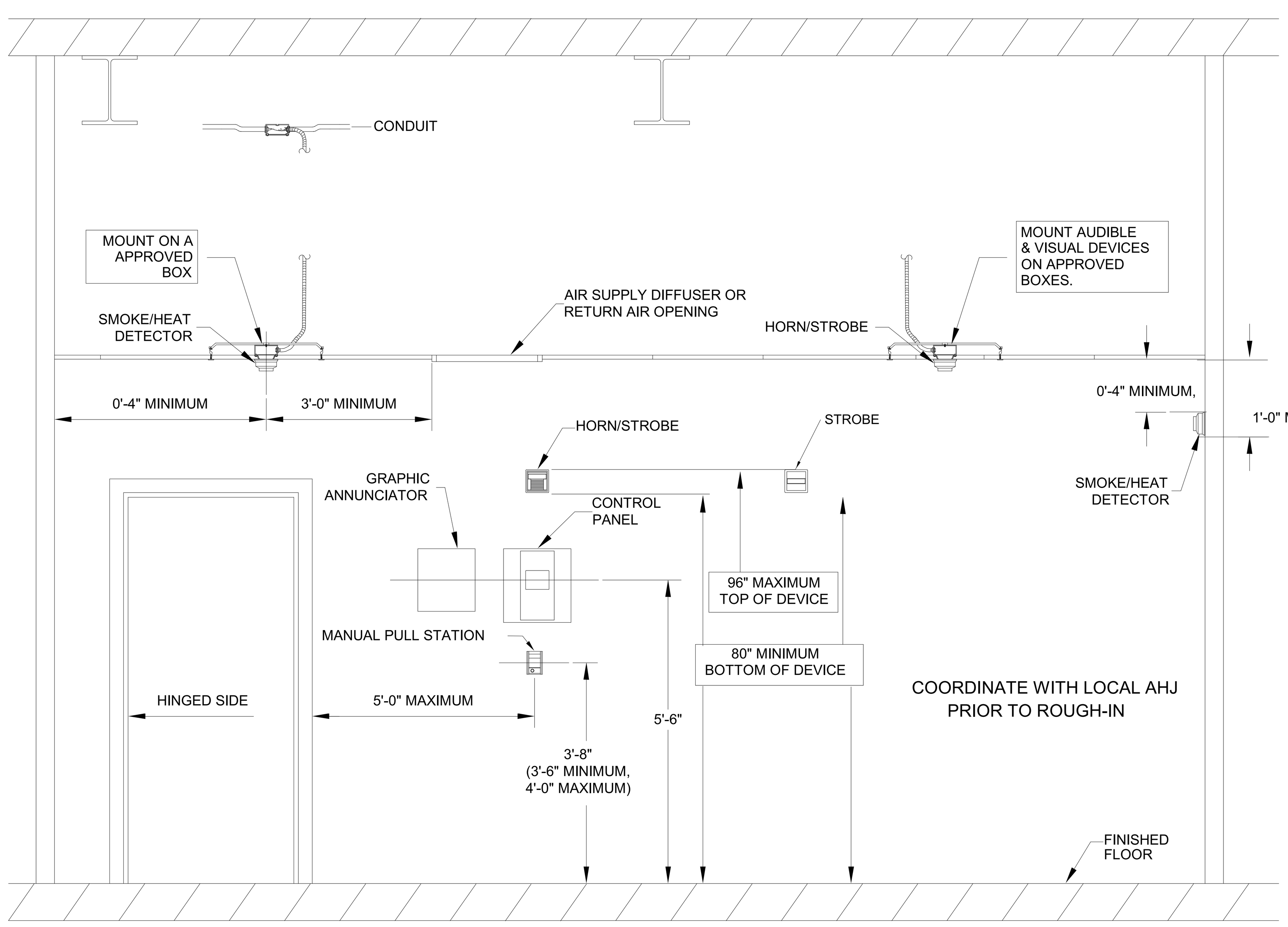
W. ELECTRICAL CONTRACTOR SHALL COORDINATE CLOSELY WITH FIRE ALARM SUB-CONTRACTOR FOR ALL 120V AC POWER REQUIRED FOR THIS SYSTEM. IF ANY ADDITIONAL CIRCUITS ARE REQUIRED THAT ARE NOT IDENTIFIED ON PLANS THE ELECTRICAL CONTRACTOR SHALL PROVIDE THAT CIRCUIT FROM THE NEAREST 120V PANEL, AS-BUILTS SHALL BE UPDATED TO REFLECT THE INSTALLED CONDITION. THIS SHALL BE DONE AT NO ADDITIONAL COST TO THE PROJECT.

X. "CO" DETECTOR SHALL BE PROVIDED SOUNDER BASES "TEMPORAL 4" FOR DISTINCT SOUND IN AREA OF ALARM. COORDINATE WITH OWNER TO ESTABLISH WRITTEN EMERGENCY RESPONSE PLAN IN THE EVENT OF CARBON MONOXIDE ALARM.

Y. LOCAL CARBON MONOXIDE ALARM CANNOT BE SILENCED, RE-VERIFY WITH FIRE MARSHALS.

Z. ELECTRICAL CONTRACTOR'S FIRE ALARM SUB-CONTRACTOR SHALL COORDINATE CLOSELY WITH THE HVAC CONTROLS CONTRACTOR.

NFPA 72 AND ADA DEVICE INSTALLATION REQUIREMENTS



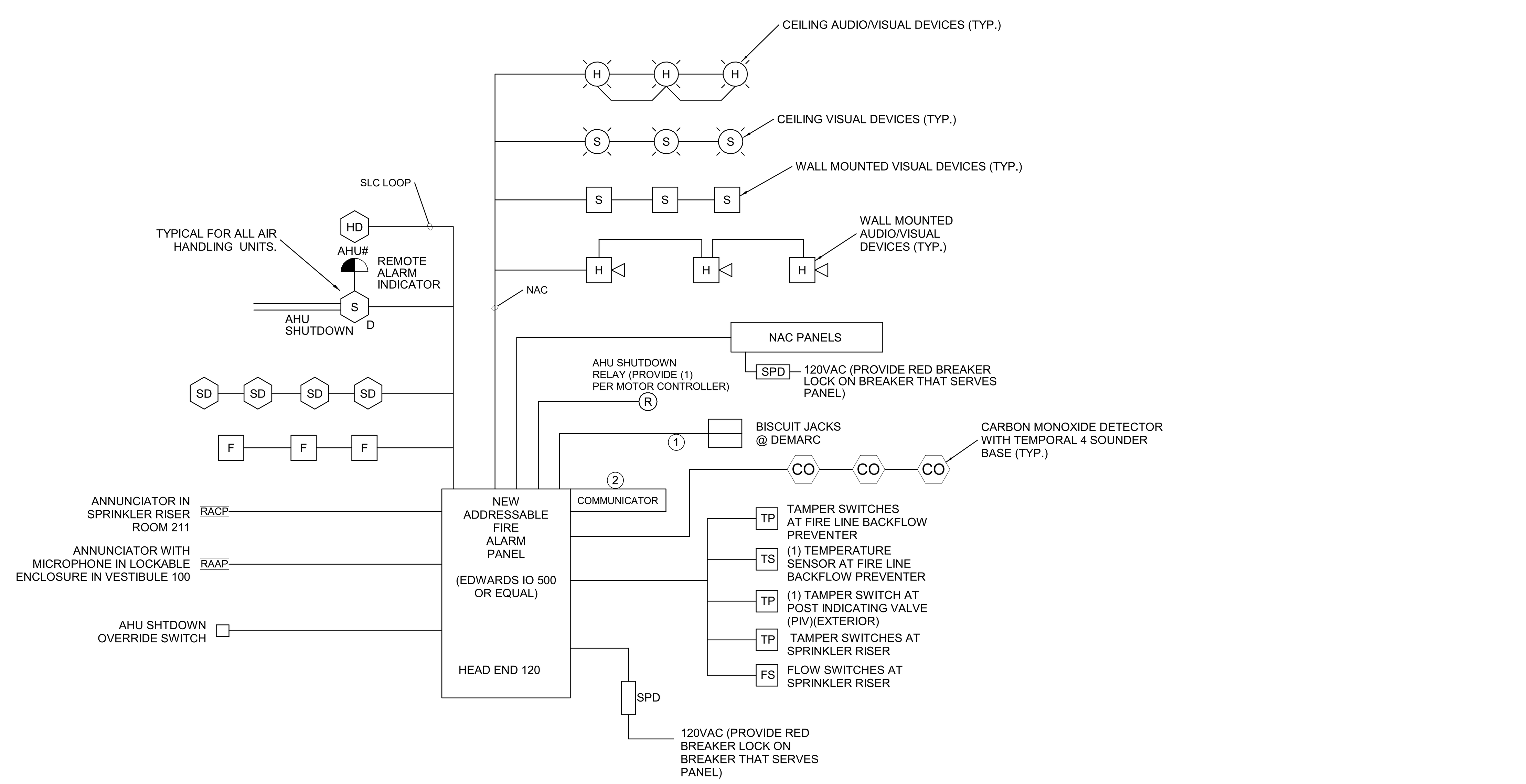
FIRE ALARM DEVICE MOUNTING

3 FIRE ALARM DEVICE MOUNTING
NOT TO SCALE

FIRE ALARM SIGNAL LINE CIRCUITS SHALL BE WIRED CLASS "A" AND NOTIFICATION CIRCUITS SHALL BE WIRED CLASS "B" WITH THE END OF LINE RESISTOR CLEARLY AND PERMANENTLY MARKED ON THE LAST DEVICE.

FIRE ALARM RISER KEYNOTES:

1. (2) DEDICATED PLENUM RATED CAT-6 PHONE LINES AND/OR AS PER NFPA 72 2013 COMMUNICATION REQUIREMENTS. COORDINATE WITH LOCAL AHJ AND OWNER.
2. PROVIDE COMMUNICATOR AND ASSOCIATED CAT-6 DATA CABLES. THE COMMUNICATOR SHALL BE CAPABLE OF POTS CONNECTIONS AND WIRELESS/VOIP CONNECTIONS. OWNER'S PREFERENCE IS WIRELESS, BUT CONTRACTOR SHALL COORDINATE WITH OWNER AND AHJ PRIOR TO MAKING FINAL CONNECTIVITY SELECTION.



1 FIRE ALARM RISER
NOT TO SCALE

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NORTH CAROLINA PROFESSIONAL SEAL 024651 ENGINEER JAMES T. BUTKOVICH
10/11/2024

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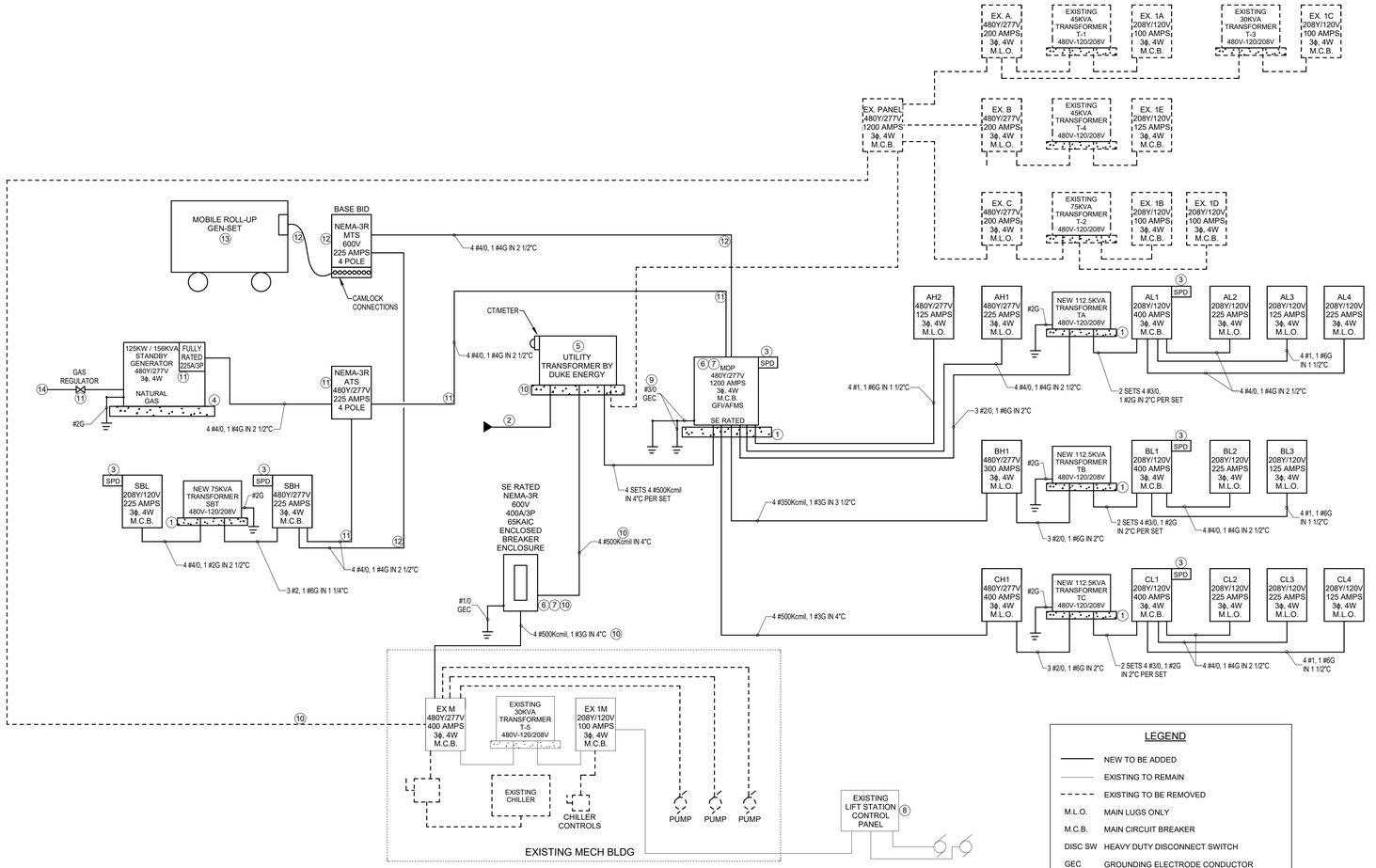

1 POWER RISER DIAGRAM

NOT TO SCALE

LEGEND	
———	NEW TO BE ADDED
———	EXISTING TO REMAIN
- - - -	EXISTING TO BE REMOVED
M.L.O.	MAIN LUGS ONLY
M.C.B.	MAIN CIRCUIT BREAKER
DISC SW	HEAVY DUTY DISCONNECT SWITCH
GEC	GROUNDING ELECTRODE CONDUCTOR
LSIG	LONG TIME, SHORT TIME, INSTANTANEOUS AND GROUND FAULT PROTECTION
ATS	AUTOMATIC TRANSFER SWITCH
GFI	GROUND FAULT
AFMS	ARC FAULT MITIGATION SWITCH PER NEC 240.27

KEYNOTES:

1. PROVIDE A 4" HIGH REINFORCED CONCRETE HOUSEKEEPING PAD.
2. DUKE ENERGY PROGRESS MV PRIMARY.
3. SURGE PROTECTIVE DEVICE (SPD). REFER TO SPECIFICATIONS.
4. PROVIDE A 6" HIGH REINFORCED CONCRETE PAD FOR GENERATOR. COORDINATE OPENINGS AND REQUIREMENTS WITH GENERATOR PROVIDER.
5. COORDINATE ALL WORK AT TRANSFORMER WITH DUKE ENERGY PROGRESS.
6. PROVIDE MAXIMUM FAULT CURRENT PLACARD AS PER NEC 110.24.
7. LABEL SERVICES AS PER NEC 230.2(E).
8. EXISTING 40 AMP/3 POLE FEEDER THAT SERVES LIFT PUMP STATION - AS PART OF ALTERNATE #1, LIFT PUMPS SHALL BE UPGRADED. THEREFORE, ELECTRICAL CONTRACTOR SHALL PERFORM ALL ELECTRICAL WORK ASSOCIATED WITH REPLACING PUMPS AND CONTROL PANEL. COORDINATE WITH UTILITY CONTRACTOR PRIOR TO PERFORMING ANY WORK.
9. GROUND AS PER NEC AND REFER TO DETAIL E0-02/2.
10. COORDINATE WITH DUKE ENERGY FOR REPLACING CONCRETE PAD. DUKE ENERGY HAS YET TO EVALUATE LOAD TO SEE IF TRANSFORMER REQUIRES REPLACEMENT. IN ADDITION, AN ADDITIONAL LATERAL SERVICE FEED TO THE MECHANICAL BUILDING SHALL BE REQUIRED. THE WORK ASSOCIATED WITH THIS LATERAL SERVICE FEED SHALL BE PERFORMED AS PART OF THE INITIAL PHASES OF CONSTRUCTION. COORDINATE WITH ARCHITECT/GENERAL CONTRACTOR.
11. IF ALTERNATE #2 IS ACCEPTED, PROVIDE NATURAL GAS GENERATOR, AUTOMATIC TRANSFER SWITCH, DISCONNECT AND ALL ASSOCIATED CONDUIT AND WIRING. NOTE: GAS PIPING SHALL BE INCLUDED AS PART OF ALTERNATE. IF ALTERNATE IS NOT ACCEPTED, PROVIDE GAS PIPING UP TO WITHIN 5'-0" OF GEN SET AND CAP FOR FUTURE USE.
12. AS PART OF BASE BID, PROVIDE A MANUAL TRANSFER SWITCH WITH CAM LOCK CONNECTIONS AND ALL ASSOCIATED CONDUIT AND WIRING FOR ROLL-UP GENERATOR. CONTRACTOR SHALL INCLUDE 25'-0" OF GENERATOR CABLES WITH CONNECTORS AT BOTH ENDS.
13. TEMPORARY ROLL-UP GENERATOR BY OWNER/OTHERS.
14. REFER TO PLUMBING DRAWINGS FOR GAS PIPING.

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POWER RISER

2021029 16 OCT. 2024

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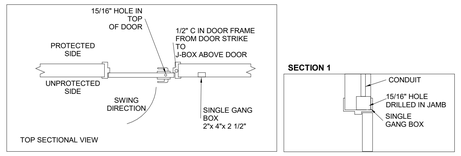
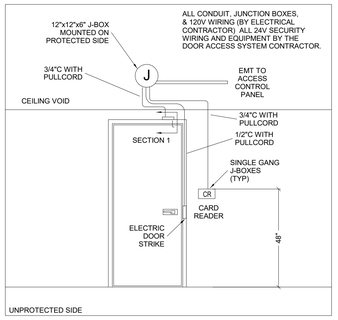
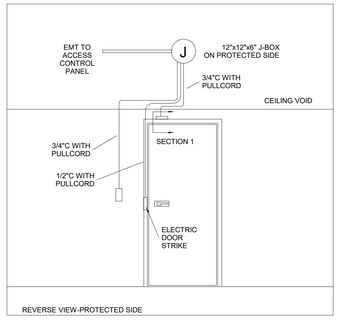






GENERAL NOTES:

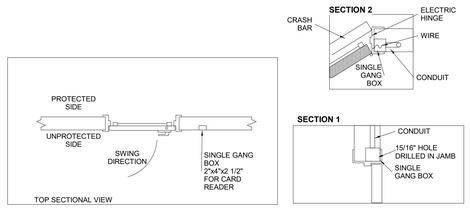
A. REFER TO DOOR HARDWARE SPECIFICATION FOR DOOR HARDWARE.

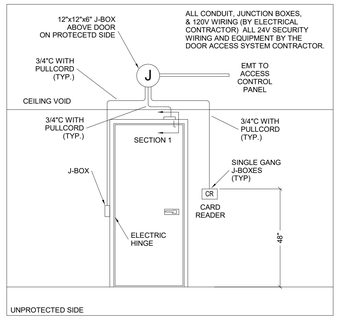
B. THE INSTALLATION OF ALL CONDUIT, WIRING, JUNCTION BOXES, TERMINATIONS, CARD READERS AND S2 EQUIPMENT SHALL BE COORDINATED BETWEEN THE ELECTRICAL, SECURITY AND DOOR HARDWARE CONTRACTORS PRIOR TO INSTALLATION.

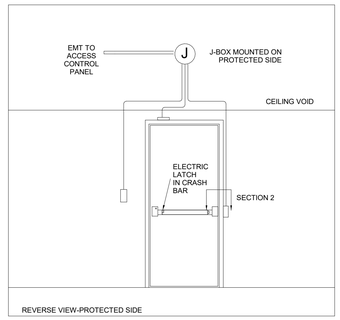
C. POWER SUPPLIES SHALL BE LOCATED IN READILY ACCESSIBLE LOCATION AT NEAREST NETWORK CLOSET, NOT ABOVE CEILINGS.

D. THIS DOOR DETAIL IS A GENERAL DETAIL AND DOES NOT REFLECT THE ACTUAL DOOR PROVIDED. THE CONTRACTORS SHALL COORDINATE WITH ALL APPLICABLE TRADES AND INCORPORATE ALL REQUIRED ACCESS CONTROLS FOR A COMPLETE AND 100% OPERATIONAL DOOR.

3 EXTERIOR/INTERIOR SINGLE DOOR-ELECTRIC STRIKE
NOT TO SCALE







GENERAL NOTES:

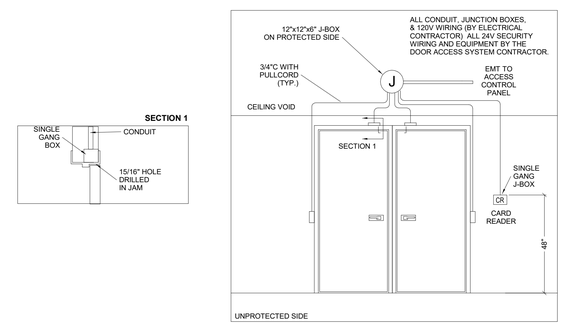
A. REFER TO DOOR HARDWARE SPECIFICATION FOR DOOR HARDWARE.

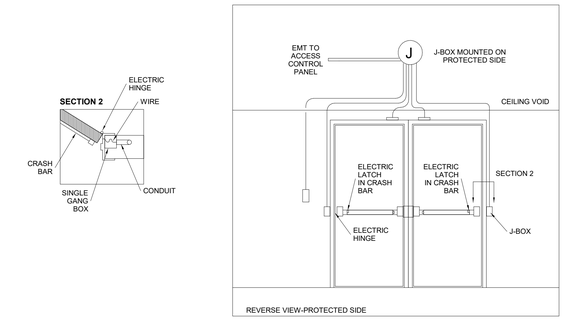
B. THE INSTALLATION OF ALL CONDUIT, WIRING, JUNCTION BOXES, TERMINATIONS, CARD READERS AND S2 EQUIPMENT SHALL BE COORDINATED BETWEEN THE ELECTRICAL, SECURITY AND DOOR HARDWARE CONTRACTORS PRIOR TO INSTALLATION.

C. POWER SUPPLIES SHALL BE LOCATED IN READILY ACCESSIBLE LOCATION AT NEAREST NETWORK CLOSET, NOT ABOVE CEILINGS.

D. THIS DOOR DETAIL IS A GENERAL DETAIL AND DOES NOT REFLECT THE ACTUAL DOOR PROVIDED. THE CONTRACTORS SHALL COORDINATE WITH ALL APPLICABLE TRADES AND INCORPORATE ALL REQUIRED ACCESS CONTROLS FOR A COMPLETE AND 100% OPERATIONAL DOOR.

2 EXTERIOR SINGLE DOOR-CRASH BAR
NOT TO SCALE





GENERAL NOTES:

A. REFER TO DOOR HARDWARE SPECIFICATION FOR DOOR HARDWARE.

B. THE INSTALLATION OF ALL CONDUIT, WIRING, JUNCTION BOXES, TERMINATIONS, CARD READERS AND S2 EQUIPMENT SHALL BE COORDINATED BETWEEN THE ELECTRICAL, SECURITY AND DOOR HARDWARE CONTRACTORS PRIOR TO INSTALLATION.

C. POWER SUPPLIES SHALL BE LOCATED IN READILY ACCESSIBLE LOCATION AT NEAREST NETWORK CLOSET, NOT ABOVE CEILINGS.

D. THIS DOOR DETAIL IS A GENERAL DETAIL AND DOES NOT REFLECT THE ACTUAL DOOR PROVIDED. THE CONTRACTORS SHALL COORDINATE WITH ALL APPLICABLE TRADES AND INCORPORATE ALL REQUIRED ACCESS CONTROLS FOR A COMPLETE AND 100% OPERATIONAL DOOR.

1 EXTERIOR DOUBLE DOORS-CRASH BAR
NOT TO SCALE

GENERAL NOTES:

A. THE CAMERA SYSTEM COMPONENTS AND INSTALLATION BY THE OWNER'S SECURITY CONTRACTOR THIS INCLUDES CAMERAS, MOUNTS, AIMING, TERMINATIONS AND PROGRAMMING.

B. A PRE-INSTALLATION MEETING SHALL OCCUR PRIOR TO ANY ROUGH-IN WITH ARCHITECT, OWNER AND ALL APPLICABLE CONTRACTORS.

C. PLENUM RATED CAT-6 CABLING FOR CAMERAS SHALL BE PROVIDED AND TESTED BY THE DIVISION 27 CONTRACTOR AS PART OF THE BASE BID.

D. ALL SMB BOXES AND PATCH CORDS FOR CAMERAS SHALL BE PROVIDED BY DIVISION 27 CONTRACTOR.

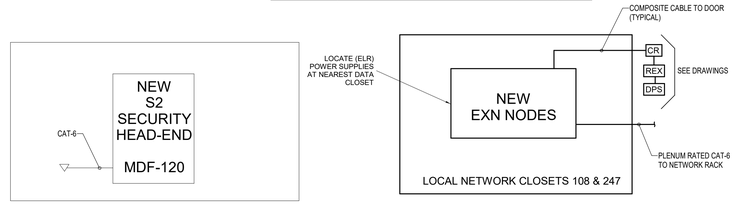
CAMERA SCHEDULE

NO#	AREA	INTERIOR/EXTERIOR	LOCATION	PANASONIC MODEL#
1	A	EXTERIOR	OUTSIDE VESTIBULE 100	--
2	A	EXTERIOR	OUTSIDE OPEN OFFICE AREA 104	--
3	A	EXTERIOR	OUTSIDE TOILET 104J	--
4	A	EXTERIOR	OUTSIDE CONGREGATE DINING 106	--
5	A	EXTERIOR	OUTSIDE ADC VESTIBULE 115	--
6	A	EXTERIOR	OUTSIDE VESTIBULE 129	--
7	A	EXTERIOR	OUTSIDE VESTIBULE 130	--
8	A	INTERIOR - 360°	OPEN OFFICE WORK AREA 113	--
9	A	INTERIOR	CONGREGATE DINING 106	--
10	A	INTERIOR	CONGREGATE DINING 106	--
11	A	INTERIOR - 360°	CORRIDOR 131	--
12	A	INTERIOR - 360°	OPEN OFFICE AREA 104	--
13	A	INTERIOR - 360°	CORRIDOR 131	--
14	A	INTERIOR	CORRIDOR 131	--
15	A	INTERIOR	CORRIDOR 131	--
16	A	INTERIOR - 360°	CORRIDOR 131	--
17	A	INTERIOR - 360°	CORRIDOR 131	--
18	A	INTERIOR	LOBBY 101	--
19	B	EXTERIOR	OUTSIDE FUTURE 253	--
20	B	EXTERIOR	OUTSIDE VESTIBULE 250	--
21	B	EXTERIOR	OUTSIDE VESTIBULE 200	--
22	B	EXTERIOR	OUTSIDE OFFICE 210	--
23	B	EXTERIOR	OUTSIDE OFFICE 212	--
24	B	INTERIOR	CORRIDOR 248	--
25	B	INTERIOR	LOBBY/CHAIRS 201A	--
26	B	INTERIOR	CORRIDOR 249	--
27	B	INTERIOR	CORRIDOR 249	--
28	B	INTERIOR	CORRIDOR 223	--
29	B	INTERIOR - 360°	CORRIDOR 223	--
30	B	INTERIOR - 360°	CORRIDOR 223	--
31	B	INTERIOR - 360°	CORRIDOR 223	--
32	B	INTERIOR - 360°	CORRIDOR 223	--

5 CAMERA SCHEDULE
NOT TO SCALE

CARD READER SCHEDULE

CARD READER#	DOOR LOCATION	DOOR #
CR-1	ENTRANCE INTO ADC VESTIBULE 115D	115A
CR-2	ENTRANCE INTO OPEN OFFICE 113	113F
CR-3	ENTRANCE INTO OPEN OFFICE 113	113
CR-4	ENTRANCE INTO VESTIBULE 106A	106B
CR-5	ENTRANCE INTO OPEN OFFICE AREA 104	104M
CR-6	ENTRANCE INTO OPEN OFFICE AREA 104	104
CR-7	ENTRANCE INTO CORRIDOR 131	101B
CR-8	ENTRANCE INTO CORRIDOR 102A	102A
CR-9	ENTRANCE INTO CORRIDOR 223	131A
CR-10	ENTRANCE INTO CORRIDOR 223	249B
CR-11	ENTRANCE INTO CORRIDOR 249	249A
CR-12	ENTRANCE INTO CORRIDOR 248	248A
CR-13	ENTRANCE INTO CORRIDOR 248	248B
CR-14	ENTRANCE INTO VESTIBULE 250	250A



GENERAL NOTES:

A. ALL 120 VOLT AC POWER AND ASSOCIATED CONDUIT AND WIRING BY ELECTRICAL CONTRACTOR. COORDINATE CLOSELY WITH OWNER'S ACCESS CONTROL CONTRACTOR.

B. ALL OUTLET BOXES AND CONDUIT FOR LOW VOLTAGE CABLING AT DOORS BY ELECTRICAL CONTRACTOR.

C. ALL DOOR HARDWARE, INCLUDING POWER SUPPLIES, BY DOOR HARDWARE CONTRACTOR.

D. ALL ACCESS CONTROL COMPONENTS (i.e. CARD READERS, DOOR CONTROLLERS, REQUEST-TO-EXITS, DOOR POSITION SWITCHES, LOW VOLTAGE CABLING, ETC.) AND PROGRAMMING BY OWNER'S ACCESS CONTROL CONTRACTOR.

E. THE ACCESS CONTROL CONTRACTOR SHALL BE UNDER SEPARATE CONTRACT WITH OWNER.

4 DOOR ACCESS RISER
NOT TO SCALE

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NORTH CAROLINA PROFESSIONAL SEAL 024651 ENGINEER JAMES T. BUTKIN

10/11/2024 BID DOCUMENTS

Smith Sinnett Architecture, P.A. 2024

THIS DRAWING IS FORMATTED TO BE PRINTED ON A 30" X 42" SHEET

Onslow County Senior Service Center
Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: JPT
CHECKED BY: JTB

SECURITY DETAILS

2021029 16 OCT. 2024

E0-06

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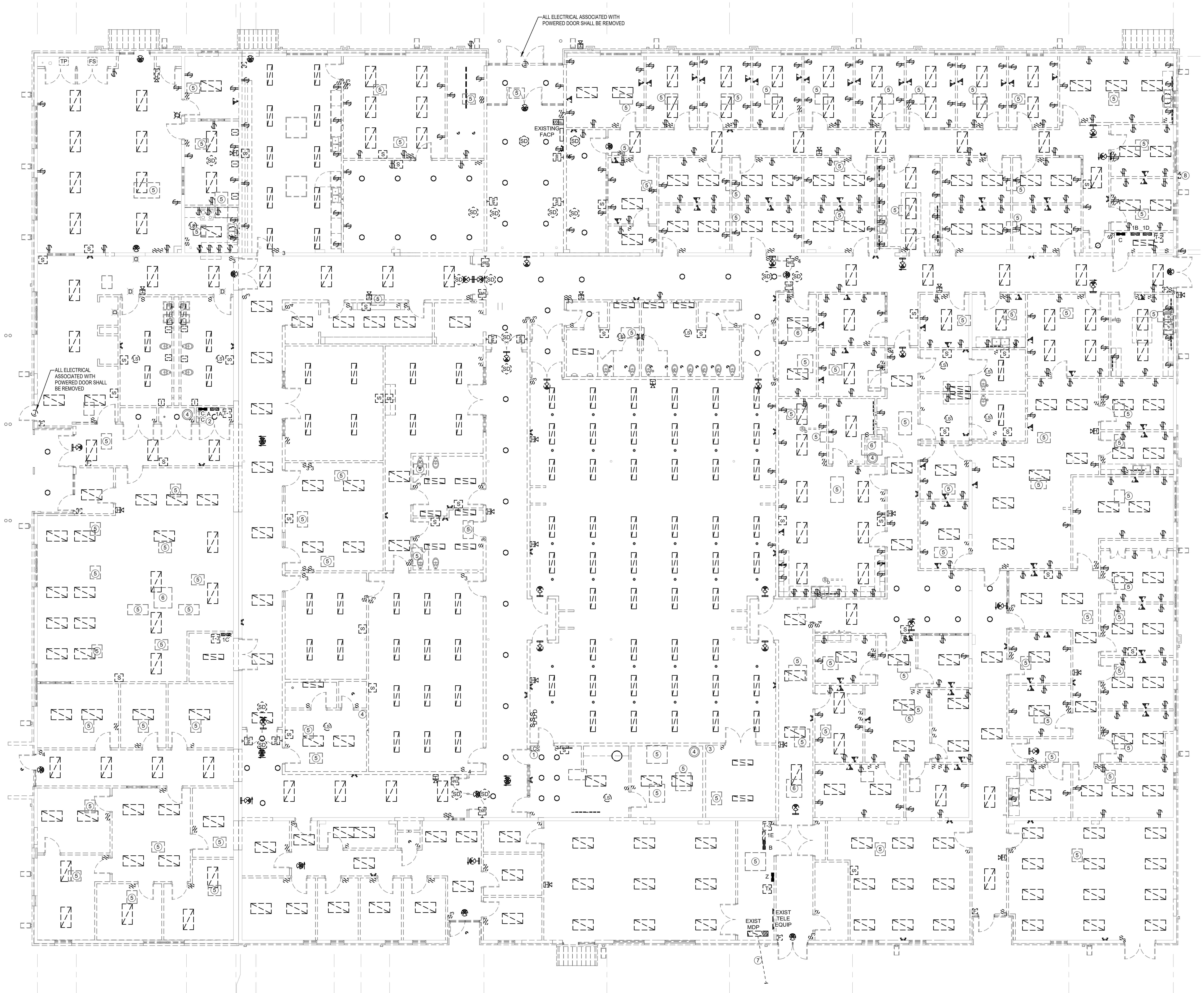

1 ELECTRICAL DEMOLITION PLAN
1/8" = 1'-0"

GENERAL NOTES:

A. REFER TO SHEET E0-01 FOR NOTES, LEGEND AND ABBREVIATIONS.

B. ALL EXISTING ELECTRICAL PANELS, TRANSFORMERS AND DISCONNECTS SHALL BE REMOVED IN THEIR ENTIRETY.

C. ALL FIRE ALARM WORK SHALL BE COORDINATED CLOSELY WITH OWNER AND LOCAL FIRE MARSHALL. IF SYSTEM IS TAKEN OUT OF SERVICE WHILE BUILDING IS OCCUPIED, CONTACT FIRE MARSHALL AND PROVIDE FIRE WATCH UNTIL SYSTEM IS BACK IN OPERATION.

D. REFER TO ELECTRICAL DEMOLITION SPECIFICATIONS.

E. ALL DEVICES (i.e. POWER, COMMUNICATIONS, SECURITY, PA, CAMERAS, ACCESS CONTROL, ETC.) SHALL BE REMOVED IN THEIR ENTIRETY. NOTE: THIS INCLUDES ALL WIRING AND RACEWAYS.

F. ALL EXISTING TELECOMMUNICATION RACEWAYS, BACK BOARDS, WIRING, ETC. SHALL BE REMOVED IN THEIR ENTIRETY.

G. EXISTING SLAB SHALL BE REMOVED WITHIN INTERIOR OF BUILDING. REFER TO ARCHITECTURAL DEMOLITION DRAWINGS. PLEASE NOTE: ANY EXISTING UNDERGROUND CONDUIT SHALL BE REMOVED AS NECESSARY TO ALLOW FOR NEW UNDERGROUND CONDUIT TO BE ADDED. ANY EXISTING CONDUITS THAT ARE TURNING UP THROUGH THE SLAB SHALL BE REMOVED. COORDINATE ALL WORK CLOSELY.

H. ALL DEVICES, PANELS, ETC. THAT ARE REMOVED SHALL BE OFFERED TO THE OWNER. IF THE OWNER DOES NOT WANT TO RETAIN, THEN CONTRACTOR SHALL REMOVE FROM SITE.

KEYNOTES:

1. LIGHTING CONTROL STATIONS AND ITS ASSOCIATED CONDUIT/WIRING SHALL BE REMOVED IN THEIR ENTIRETY.
2. EXISTING TIME CLOCKS AND THEIR ASSOCIATED CONDUIT/WIRING SHALL BE REMOVED IN THEIR ENTIRETY.
3. EXISTING LIGHTING CONTACTORS SHALL BE REMOVED IN THEIR ENTIRETY.
4. EXISTING WATER HEATER AND RECIRCULATION PUMP AND THEIR ASSOCIATED CONDUIT/WIRING SHALL BE REMOVED IN THEIR ENTIRETY.
5. REMOVE DISCONNECTS AND ITS ASSOCIATED CONDUIT/WIRING IN THEIR ENTIRETY ASSOCIATED WITH EXISTING FAN COIL UNIT.
6. EXISTING AIR-TO-HEAT EXCHANGER AND ITS ASSOCIATED CONDUIT/WIRING SHALL BE REMOVED IN ITS ENTIRETY.
7. ALL EXISTING WIRING FROM UTILITY TRANSFORMER TO THE EXISTING MDP SHALL BE REMOVED IN ITS ENTIRETY.
8. REMOVE EXISTING DISCONNECT AND ASSOCIATED CONDUIT/WIRING THAT SERVES RAIN BIRD EQUIPMENT. REFER TO DRAWING E7-01 FOR RECONNECTION.

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NORTH CAROLINA PROFESSIONAL SEAL 024651 ENGINEER JAMES T. BUTKOVICH
10/11/2024

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Onslow County Government
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ELECTRICAL DEMOLITION PLAN

2021029 16 OCT. 2024

E0-11

GENERAL NOTES:

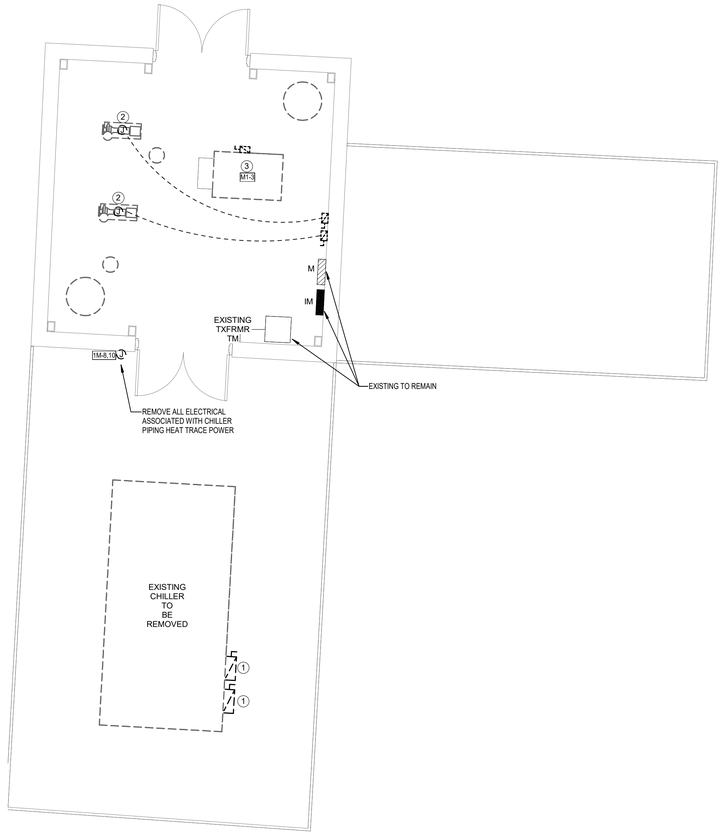
A. REFER TO SHEET E0-01 FOR NOTES, LEGEND AND ABBREVIATIONS.

B. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY EXISTING CIRCUITS PRIOR TO ANY DEMOLITION. PROVIDE LOCKOUT/TAGOUT FOR SAFETY.

C. PROVIDE UPDATED, TYPED, PANEL DIRECTORIES TO REFLECT AS-BUILT CONDITIONS.

KEYNOTES:

1. ALL EXISTING WIRING, EXPOSED CONDUIT AND DISCONNECTS TO CHILLER SHALL BE REMOVED IN THEIR ENTIRETY. SPARE BREAKER AT RESPECTIVE PANEL.
2. REMOVE ALL CONDUIT, WIRING, STARTERS AND DISCONNECTS ASSOCIATED WITH REMOVED PUMPS.
3. REMOVE ALL CONDUIT, WIRING, STARTERS AND DISCONNECTS ASSOCIATED WITH REMOVED BOILER.



1 ELECTRICAL DEMOLITION PLAN - MECHANICAL BUILDING

0 2' 4' 8'

1/4" = 1'-0"

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Renovation
Onslow County Government
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MECHANICAL
BUILDING
DEMOLITION PLAN

2021029 16 OCT. 2024

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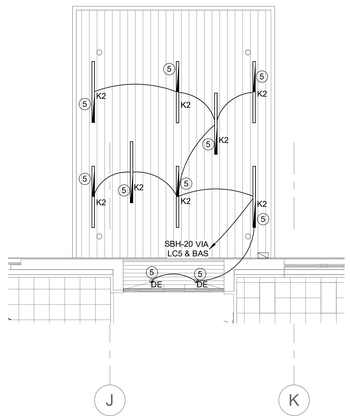
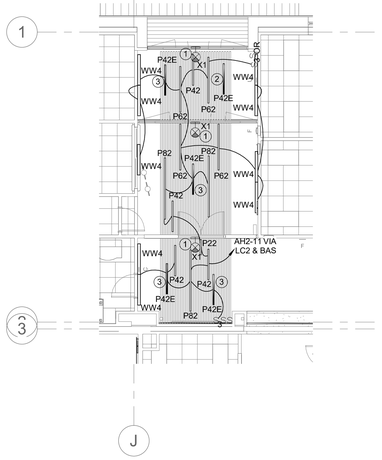


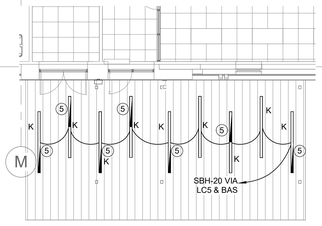
3 ALTERNATE 3 - MAIN ENTRANCE CANOPY LIGHTING

1/8" = 1'-0"



4 ALTERNATE 6c - LOBBY 101 LIGHTING

1/8" = 1'-0"

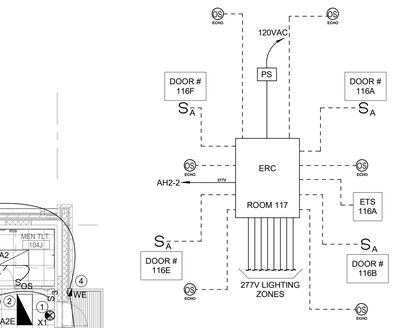


5 ALTERNATE 4 - ADC CANOPY LIGHTING

1/8" = 1'-0"

1 FIRST FLOOR LIGHTING PLANS - AREA A

1/8" = 1'-0"



ACTIVITY ROOM 116 LIGHTING CONTROL - ELECTRONIC THEATER CONTROLS (ETC) ECHO OR EQUAL

2 ACTIVITY ROOM 116 LIGHTING CONTROL

NOT TO SCALE

NETWORK PLENUM CABLE IN CONDUIT

ERC ECHO ROOM CONTROLLER 8 ZONE ECHO #ERM8CB (PLENUM RATED)

S_A 4 BUTTON ENTRY STATION WITH FADER (ECHO E1104)

PS POWER SUPPLY

ETS ECHO TOUCH CONTROLLER

CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR

GENERAL NOTES:

A. REFER TO DRAWINGS FOR LOCATIONS.

B. ALL LOW VOLTAGE WIRING IN OPEN CEILINGS SHALL BE IN CONDUIT.

C. DESIGN BASIS: ETC ECHO OR EQUAL.

D. PROGRAM PARTITION AS PART OF ECHO TOUCH CONTROLLER.

E. MOUNT ROOM CONTROLLER "ERC" ABOVE ACCESSIBLE CEILING.

F. PROVIDE/INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

G. PROVIDE MINIMUM 4 HOURS OF OWNER TRAINING.

GENERAL NOTES:

A. REFER TO SHEET E0-01 FOR NOTES, SYMBOL LEGEND AND ABBREVIATIONS.

KEYNOTES:

1. EMERGENCY LIGHTS - WIRE AHEAD OF SWITCHES AND/OR BAS.
2. NIGHT LIGHT/EMERGENCY LIGHT - WIRE AHEAD OF SWITCHES AND/OR BAS.
3. EMERGENCY FIXTURE - WIRE SO FIXTURE TURNS ON/OFF WITH OTHER FIXTURES IN ROOM, BUT MAINTAINS BATTERY CHARGE. FIXTURE SHALL ILLUMINATE UPON LOSS OF NORMAL POWER.
4. EXTERIOR EMERGENCY FIXTURE - WIRE SO FIXTURE TURNS ON/OFF WITH OTHER EXTERIOR FIXTURES, BUT MAINTAINS BATTERY CHARGE. FIXTURE SHALL ILLUMINATE UPON LOSS OF NORMAL POWER.
5. AS PART OF ALTERNATES #3, #4 AND #5, PROVIDE REMOTE EMERGENCY LIGHTING INVERTER RB2, FOR EXTERIOR EMERGENCY CANOPY FIXTURES, IN MECHANICAL/ELECTRICAL 107. FIXTURES SHALL BE WIRED SO THEY TURN ON/OFF VIA BAS, BUT UPON LOSS OF NORMAL POWER, FIXTURES SHALL ILLUMINATE VIA INVERTER.
6. REFER TO LIGHTING CONTROL RISER DETAIL 2 ON THIS DRAWING.
7. CONTINUED ON DRAWING E1-02.
8. IF ALTERNATE #4 IS ACCEPTED, DO NOT INSTALL FIXTURES INDICATED AND REFER TO DETAIL 5 ON THIS DRAWING FOR LIGHTING LAYOUT.
9. IF ALTERNATE #3 IS ACCEPTED, REFER TO DETAIL 3 ON THIS DRAWING FOR CIRCUITING THE (2) TYPE D FIXTURES. THESE FIXTURES ARE TYPE DE IN BASE BID.
10. IF ALTERNATE #6C IS ACCEPTED, REFER TO DETAIL 4 ON THIS DRAWING FOR LIGHTING IN LOBBY 101.

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10/11/2024

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ID	DATE	DESCRIPTION

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LIGHTING PLAN - AREA A

2021029 16 OCT. 2024

E1-01

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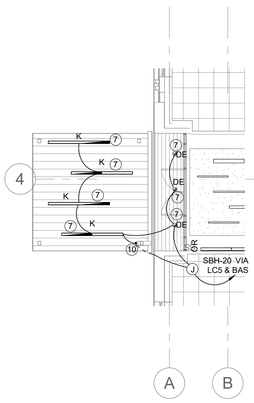
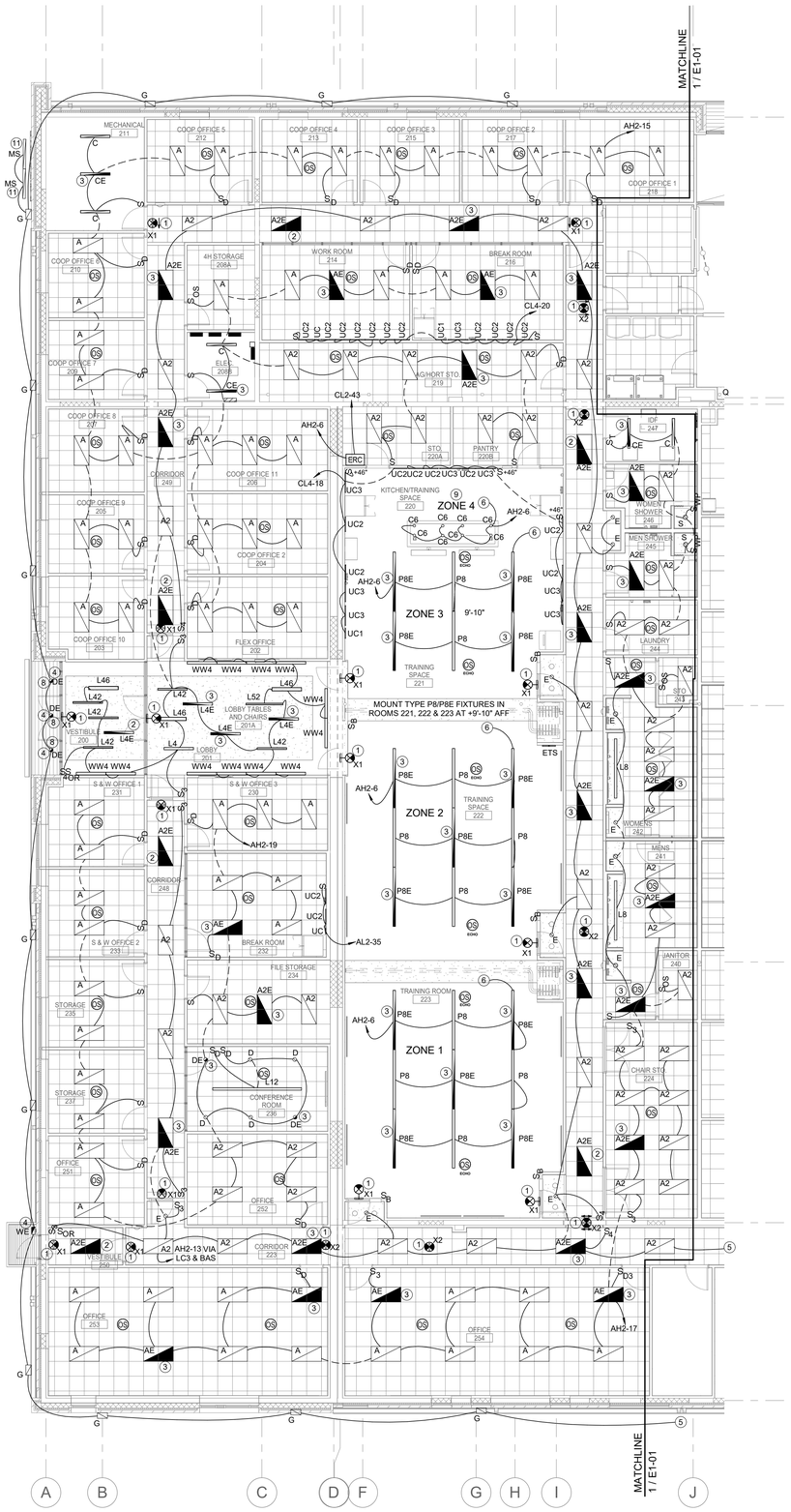


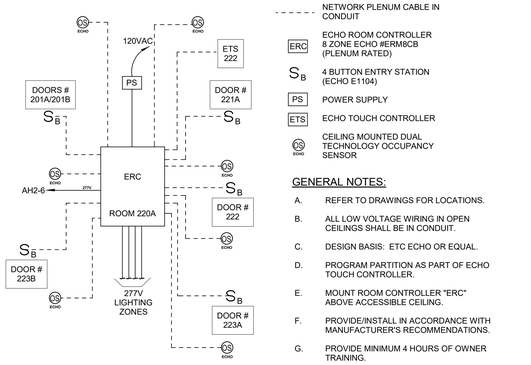
3 ALTERNATE 5 - WEST SIDE CANOPY

1/8" = 1'-0"



1 FIRST FLOOR LIGHTING PLANS - AREA B

1/8" = 1'-0"



NETWORK PLENUM CABLE IN CONDUIT

ERC — ECHO ROOM CONTROLLER 8 ZONE ECHO #ERM8CB (PLENUM RATED)

S_B — 4 BUTTON ENTRY STATION (ECHO E1104)

PS — POWER SUPPLY

ETS — ECHO TOUCH CONTROLLER

CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR

GENERAL NOTES:

A. REFER TO DRAWINGS FOR LOCATIONS.

B. ALL LOW VOLTAGE WIRING IN OPEN CEILINGS SHALL BE IN CONDUIT.

C. DESIGN BASIS: ETC ECHO OR EQUAL.

D. PROGRAM PARTITION AS PART OF ECHO TOUCH CONTROLLER.

E. MOUNT ROOM CONTROLLER "ERC" ABOVE ACCESSIBLE CEILING.

F. PROVIDE/INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

G. PROVIDE MINIMUM 4 HOURS OF OWNER TRAINING.

TRAINING ROOMS 220-223 LIGHTING CONTROL - ELECTRONIC THEATER CONTROLS (ETC) ECHO OR EQUAL

2 TRAINING ROOMS 220-223 LIGHTING CONTROL

NOT TO SCALE

GENERAL NOTES:

A. REFER TO SHEET E0-01 FOR NOTES, LEGEND AND ABBREVIATIONS.

KEYNOTES:

1. EMERGENCY LIGHTS - WIRE AHEAD OF SWITCHES AND/OR BAS.
2. NIGHT LIGHT/EMERGENCY LIGHT - WIRE AHEAD OF SWITCHES AND/OR BAS.
3. EMERGENCY FIXTURE - WIRE SO FIXTURE TURNS ON/OFF WITH OTHER FIXTURES IN ROOM, BUT MAINTAINS BATTERY CHARGE. FIXTURE SHALL ILLUMINATE UPON LOSS OF NORMAL POWER.
4. EXTERIOR EMERGENCY FIXTURE - WIRE SO FIXTURE TURNS ON/OFF WITH OTHER EXTERIOR FIXTURES, BUT MAINTAINS BATTERY CHARGE. FIXTURE SHALL ILLUMINATE UPON LOSS OF NORMAL POWER.
5. CONTINUED ON DRAWING E1-01.
6. REFER TO LIGHTING CONTROL RISER DETAIL 2 ON THIS DRAWING.
7. AS PART OF ALTERNATES #3, #4 AND #5 FOR EXTERIOR CANOPY LIGHTING, PROVIDE EMERGENCY LIGHTING INVERTER RB2 LOCATED IN MECHANICAL/ELECTRICAL 107. WIRE FIXTURES SO THEY TURN ON/OFF WITH OTHER EXTERIOR FIXTURES THROUGH BAS, BUT MAINTAIN BATTERY CHARGE. UPON LOSS OF NORMAL POWER, FIXTURES SHALL ILLUMINATE.
8. IF ALTERNATE #5 IS ACCEPTED, REFER TO DETAIL 3 ON THIS DRAWING FOR CIRCUITING (3) TYPE D FIXTURES.
9. MOUNT TYPE C6 FIXTURES IN ZONE 4 SO THAT BOTTOM OF PENDANT LINES UP WITH BOTTOM OF RANGE HOOD. COORDINATE WITH ARCHITECT PRIOR TO INSTALLATION.
10. CONDUIT TO SERVE CANOPY FIXTURES SHALL BE ROUTED UNDERSLAB AND TURNED UP ON SIDE OF COLUMN. CONDUIT SHALL BE ROUTED UP COLUMN TO OVERHEAD FIXTURES. COORDINATE CLOSELY WITH ARCHITECT PRIOR TO ROUGH-IN.
11. GROUND FLOOD LIGHTS FOR BUILDING SIGNAGE SHALL BE COORDINATED WITH SIGN PLACEMENT PRIOR TO ROUGH-IN. SET BACK SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

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NORTH CAROLINA PROFESSIONAL SEAL 024651 ENGINEER JAMES T. BUTKIN

10/11/2024 BID DOCUMENTS

THIS DRAWING IS FORMATTED TO BE PRINTED ON A 24" X 42" SHEET

Onslow County Senior Service Center Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: JPT
CHECKED BY: JTB

LIGHTING PLAN - AREA B

2021029 16 OCT. 2024

E1-02

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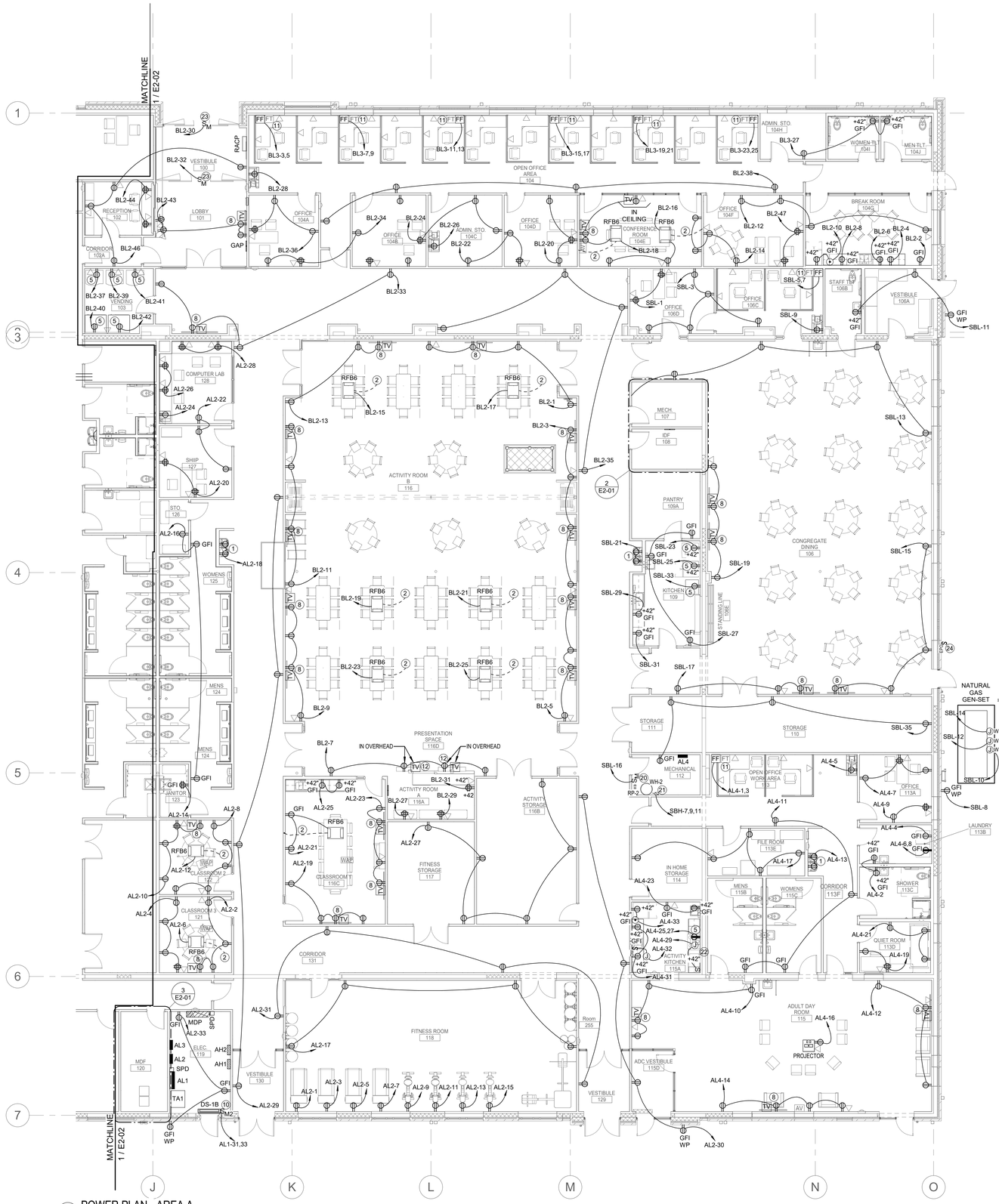
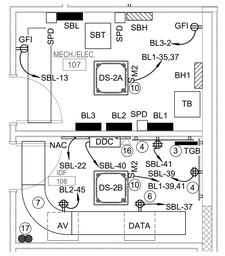


1 POWER PLAN - AREA A

1/8" = 1'-0"

3 ENLARGED POWER PLAN - MDF 120

1/4" = 1'-0"



2 ENLARGED POWER PLAN - MECH/ELEC 107, IDF 108

1/4" = 1'-0"

GENERAL NOTES:

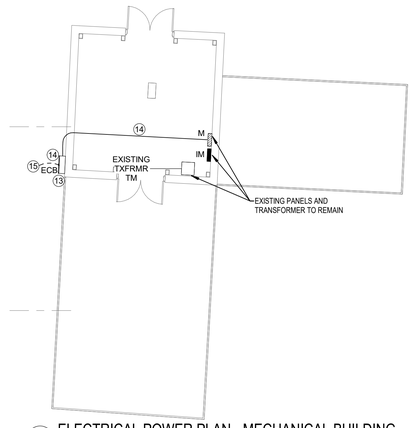
A. REFER TO SHEET E0-01 FOR NOTES, LEGEND AND ABBREVIATIONS.

B. ALL 125V RECEPTACLES SHALL BE TAMPER RESISTANT.

C. ALL COMMUNICATONS/LOW VOLTAGE CABLING IN AREAS WHERE CEILINGS ARE EXPOSED SHALL BE IN MINIMUM 3/4" CONDUIT. OTHERWISE, IF ROUTED ABOVE LAY-IN CEILINGS, WIRING CAN UTILIZE J-HOOK SUPPORTS LOCATED ON 3'-0" CENTERS. SIZE TO ACCOMMODATE QUANTITY OF CABLING.

KEYNOTES:

1. COORDINATE LOCATION OF OUTLETS FOR WATER COOLER WITH PLUMBING CONTRACTOR, SO CORD DOES NOT SHOW. CIRCUIT IS GFCI PROTECTED AT PANEL.
2. 1 1/4" COMMUNICATIONS CONDUIT FROM FLOORBOX TO ABOVE NEAREST ACCESSIBLE CEILING. PROVIDE 3/4" CONDUIT FOR POWER FROM FLOORBOX TO RESPECTIVE PANEL. CIRCUIT AS INDICATED.
3. TELECOMMUNICATIONS GROUND, REFER TO DETAIL E0-04/5.
4. 4'x8'x3/4" FIRE RETARDANT PLYWOOD BACKBOARD. COORDINATE FINAL PLACEMENT WITH OWNER'S IT DEPARTMENT.
5. CIRCUIT BREAKER AT PANEL IS GFCI PROTECTED.
6. COORDINATE RECEPTACLE PLACEMENT WITH NETWORK RACKS WITH DIVISION 27 CONTRACTOR AND OWNER PRIOR TO ROUGH-IN.
7. 18"x4" LADDER RUNWAY CABLE TRAY FOR NETWORK ROOM. COORDINATE FINAL ARRANGEMENT WITH RACK CONFIGURATION PRIOR TO ROUGH-IN/INSTALL.
8. COORDINATE PLACEMENT OF OUTLET AND ASSOCIATED RECEPTACLE FOR FLAT PANEL MONITOR WITH ARCHITECT PRIOR TO ROUGH-IN.
9. AS PART OF BASE BID, PROVIDE NEMA-3R MANUAL TRANSFER SWITCH WITH CAM LOCK CONNECTIONS. AS PART OF ALTERNATE #2, PROVIDE NEMA-3R AUTOMATIC TRANSFER SWITCH. REFER TO POWER RISER.
10. 208 VOLT, 20 AMP, 2 POLE, MOTOR RATED TOGGLE DISCONNECT SWITCH FOR HVAC UNIT. COORDINATE LOCATION WITH MECHANICAL CONTRACTOR.
11. PROVIDE TWO GANG WALL BOX WITH (2)-1 1/4" CONDUITS TO ABOVE NEAREST LAY-IN CEILING FOR NETWORK WIRING. COORDINATE EXACT LOCATION WITH FURNITURE CONNECTIONS PRIOR TO ROUGH-IN. PROVIDE COVERPLATE AND FLEXIBLE CONDUIT CONNECTIONS TO FURNITURE, SIZED TO ACCOMMODATE QUANTITY OF CABLES PROVIDED. COORDINATE CLOSELY WITH DIVISION 27 CONTRACTOR.
12. COORDINATE MOUNTING AND LOCATION OF OUTLET AND ASSOCIATED RECEPTACLE FOR FLAT PANEL DISPLAY WITH ARCHITECT PRIOR TO ANY ROUGH-IN.
13. PROVIDE NEW 600 VOLT, 400 AMP, 3 POLE, NEMA-3R, SE RATED BREAKER ENCLOSURE, 65KAIC.
14. REFER TO POWER RISER.
15. FOR CONTINUATION, SEE ELECTRICAL SITE PLAN ON DRAWING E7-01.
16. COORDINATE PLACEMENT OF NETWORK OUTLET WITH HVAC CONTROLS CONTRACTOR PRIOR TO ROUGH-IN.
17. (2)-4" COMMUNICATION CONDUITS - REFER TO SITE DRAWING E7-01.
18. (2)-3" COMMUNICATION CONDUITS TO IDF 247.
19. (2)-3" COMMUNICATION CONDUITS TO IDF 108.
20. 120 VOLT, 20 AMP, MOTOR RATED TOGGLE DISCONNECT SWITCH FOR RECIRCULATION PUMP. COORDINATE EXACT LOCATION WITH PLUMBING CONTRACTOR.
21. 600 VOLT, 30 AMP, 3 POLE, NEMA-1, NON-FUSIBLE DISCONNECT SWITCH FOR WATER HEATER. COORDINATE FINAL LOCATION WITH PLUMBING CONTRACTOR.
22. RANGE HOOD POWER SWITCH TO ACCOMMODATE ADA REQUIREMENTS. COORDINATE FINAL LOCATION WITH ARCHITECT.
23. 120 VOLT, 20 AMP, MOTOR RATED TOGGLE DISCONNECT SWITCH FOR MOTOR OPERATED DOOR. COORDINATED FINAL LOCATION WITH DOOR HARDWARE CONTRACTOR.
24. PROVIDE EMERGENCY POWER OFF PUSH BUTTON STATION, NEMA-3R, UNDER LEXAN COVER. LABEL AS "GENERATOR EMERGENY SHUT OFF".



4 ELECTRICAL POWER PLAN - MECHANICAL BUILDING

1/8" = 1'-0"

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ID	DATE	DESCRIPTION

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POWER PLAN - AREA A

2021029 16 OCT. 2024

E2-01

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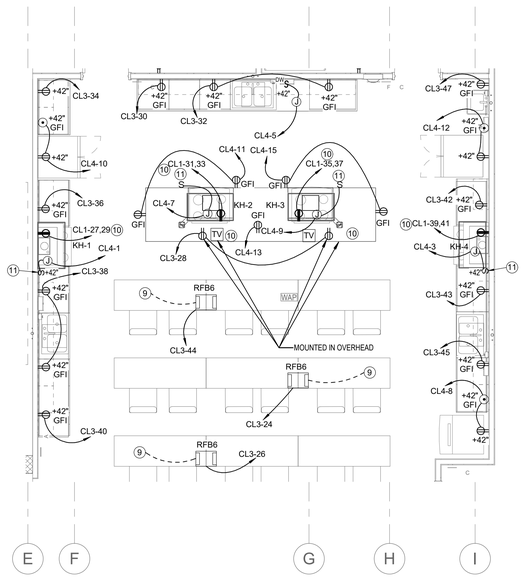
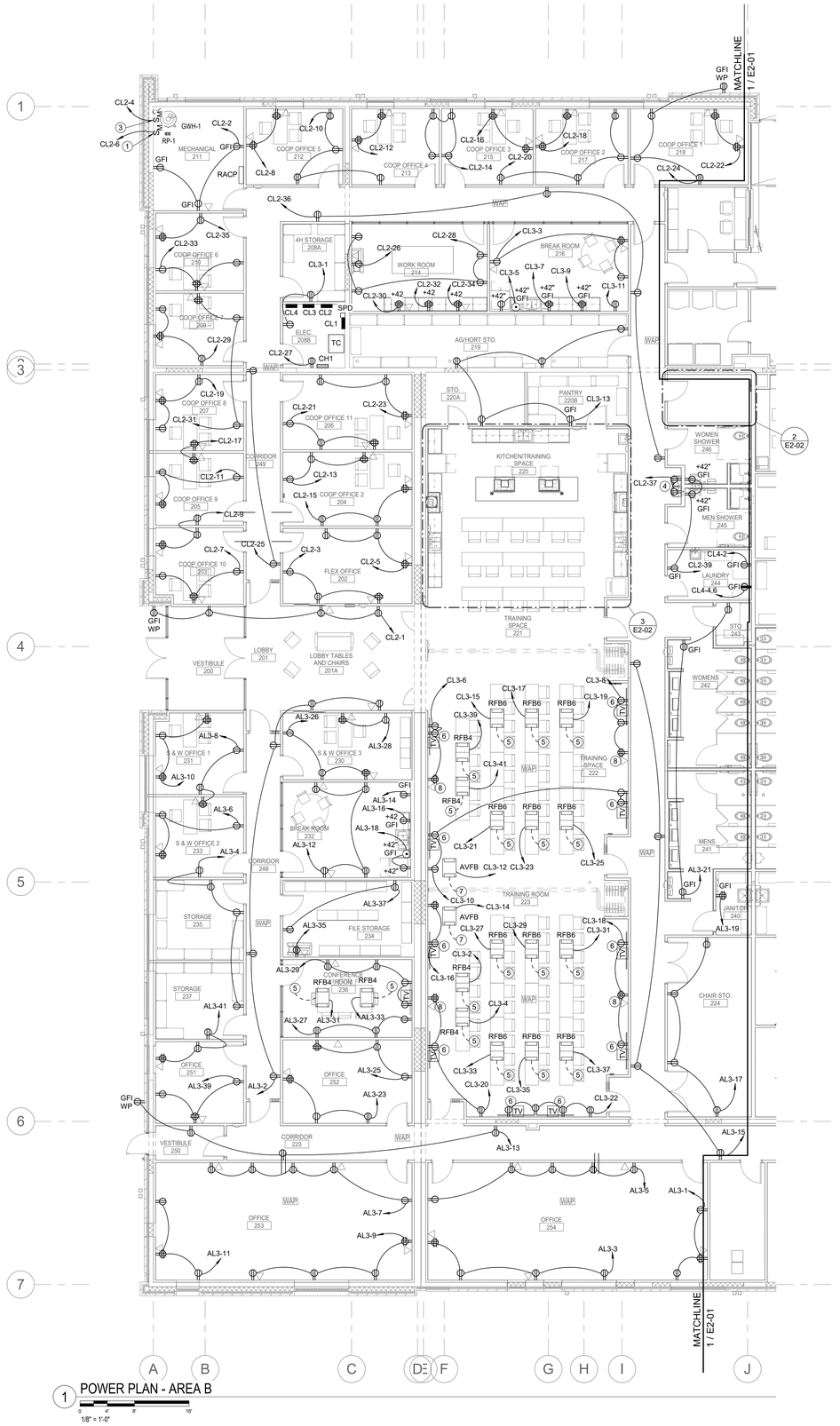


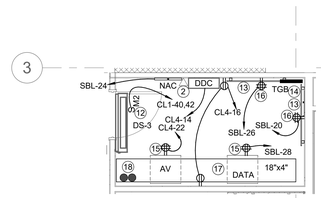
3 ENLARGED POWER PLAN - KITCHEN/TRAINING 220

1/4" = 1'-0"



1 POWER PLAN - AREA B

1/8" = 1'-0"



2 ENLARGED POWER PLAN - IDF 247

1/4" = 1'-0"

GENERAL NOTES:

A. REFER TO SHEET E0-01 FOR NOTES, LEGEND AND ABBREVIATIONS.

B. ELECTRICAL CONTRACTOR SHALL PROVIDE CORDS AND PLUGS FOR APPLIANCES. COORDINATE WITH ARCHITECT FOR EQUIPMENT CUT SHEETS.

C. THERE SHALL BE NO EXPOSED LOW VOLTAGE WIRING IN ANY AREAS WITH OPEN STRUCTURE OR FLOATING CEILINGS. WIRING SHALL BE IN MINIMUM 3/4" CONDUIT.

KEYNOTES:

1. 120 VOLT, 20 AMP MOTOR RATED TOGGLE DISCONNECT SWITCH FOR RECIRCULATION PUMP. COORDINATE EXACT LOCATION WITH PLUMBING CONTRACTOR.
2. COORDINATE PLACEMENT OF NETWORK OUTLET WITH HVAC CONTROLS CONTRACTOR PRIOR TO ROUGH-IN.
3. 120 VOLT, 20 AMP MOTOR RATED TOGGLE DISCONNECT SWITCH FOR GAS WATER HEATER IGNITOR. COORDINATE EXACT LOCATION WITH PLUMBING CONTRACTOR.
4. COORDINATE LOCATION OF OUTLETS FOR WATER COOLER WITH PLUMBING CONTRACTOR, SO CORD DOES NOT SHOW. CIRCUIT IS GFCI PROTECTED AT PANEL.
5. PROVIDE 1 1/4" COMMUNICATIONS CONDUIT, CONCEALED, FROM FLOOR BOX TO ABOVE NEAREST ACCESSIBLE CEILING. ALSO PROVIDE 3/4" POWER CONDUIT, CONCEALED, FROM FLOOR BOX TO RESPECTIVE PANEL. CIRCUIT AS INDICATED.
6. COORDINATE PLACEMENT OF POWER/COMMUNICATION OUTLETS FOR FLAT PANEL WITH ARCHITECT PRIOR TO ROUGH-IN.
7. PROVIDE (2)-1 1/4" AND (1)-1" COMMUNICATIONS CONDUITS, CONCEALED, FROM FLOOR BOX TO ABOVE NEAREST ACCESSIBLE CEILING. ALSO PROVIDE 3/4" POWER CONDUIT, CONCEALED, FROM FLOOR BOX TO RESPECTIVE PANEL. CIRCUIT AS INDICATED.
8. PROVIDE A 1" COMMUNICATIONS CONDUIT FROM OUTLET BOX TO ABOVE NEAREST ACCESSIBLE CEILING.
9. PROVIDE (2)-1 1/4" COMMUNICATIONS CONDUITS, CONCEALED, FROM FLOOR BOX TO ABOVE NEAREST ACCESSIBLE CEILING. ALSO PROVIDE 3/4" POWER CONDUIT, CONCEALED, FROM FLOOR BOX TO RESPECTIVE PANEL. CIRCUIT AS INDICATED.
10. CIRCUIT BREAKER AT PANEL BOARD IS GFCI PROTECTED.
11. RANGE HOOD POWER SWITCH TO ACCOMMODATE ADA REQUIREMENTS. COORDINATE FINAL LOCATION WITH ARCHITECT.
12. 240 VOLT, 20 AMP, 2 POLE, MOTOR RATED TOGGLE DISCONNECT SWITCH FOR HVAC EQUIPMENT. OUTDOOR UNIT ON ROOF POWERS ASSOCIATED INDOOR UNIT. REFER TO MECHANICAL EQUIPMENT SCHEDULES ON DRAWING M7-01.
13. 4'x8'x3/4" FIRE RETARDANT PLYWOOD BACK BOARD. COORDINATE FINAL LOCATION WITH OWNER AND DIVISION 27 CONTRACTOR.
14. TELECOMMUNICATIONS GROUND BAR - REFER TO DETAILS E0-03/1 AND E0-03/5.
15. COORDINATE PLACEMENT OF QUADRAPLEX RECEPTACLE FOR NETWORK RACK WITH DIVISION 27 CONTRACTOR AND OWNER'S AV CONTRACTOR.
16. COORDINATE PLACEMENT OF SECURITY ACCESS CONTROL OUTLETS WITH APPLICABLE LOW VOLTAGE CONTRACTORS PRIOR TO ROUGH-IN.
17. 18"x4" LADDER RUNWAY TRAY. COORDINATE PLACEMENT WITH DIVISION 27 CONTRACTOR.
18. (2)-3" COMMUNICATION CONDUITS TO MDF-120.

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Renovation
Onslow County Government
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POWER PLAN - AREA B

2021029 16 OCT. 2024

E2-02

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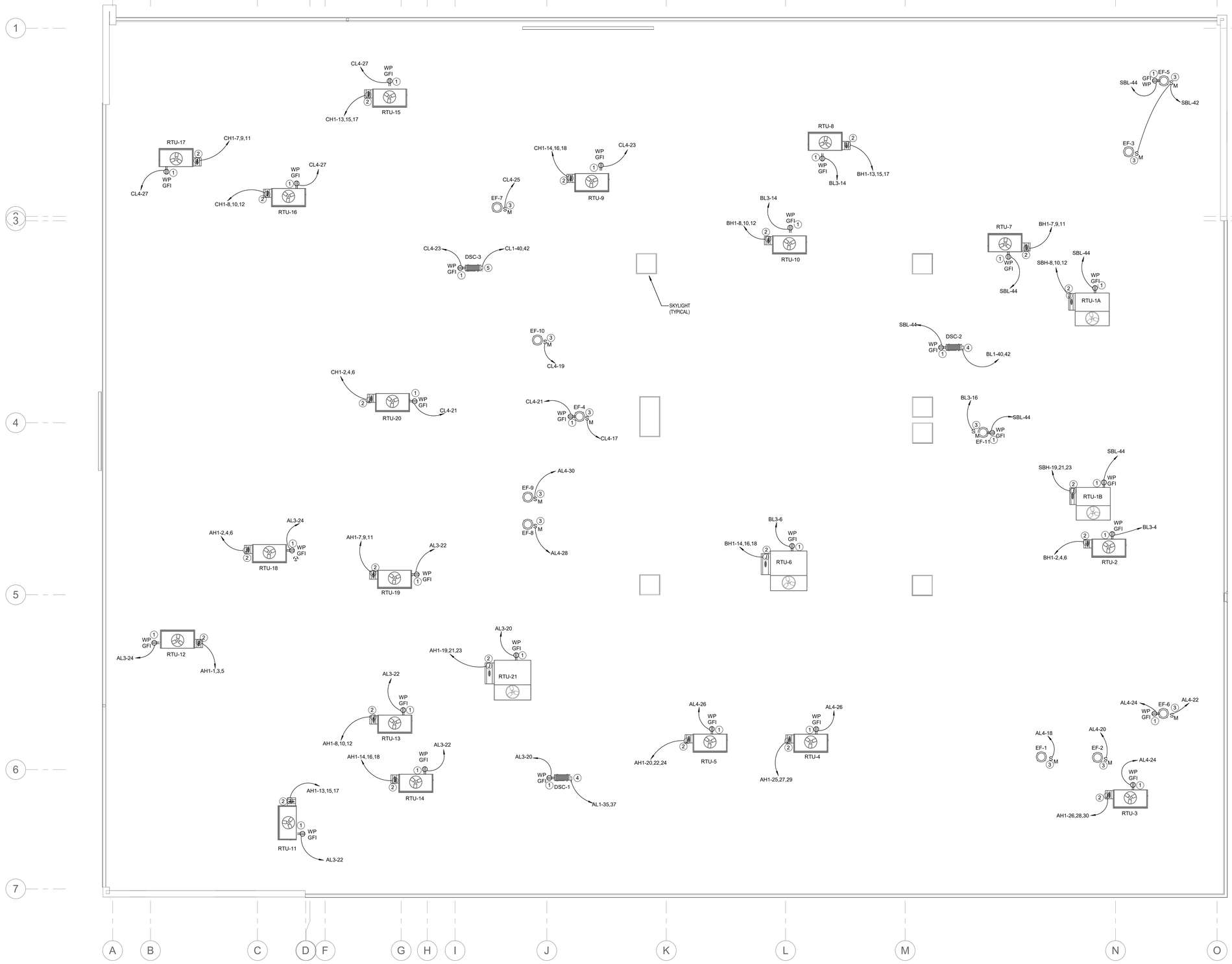

1 ROOF POWER PLAN - AREA B

0 4' 8' 16'

1/8" = 1'-0"

GENERAL NOTES:

A. REFER TO SHEET E0-01 FOR NOTES, LEGEND AND ABBREVIATIONS.

KEYNOTES:

1. SERVICE RECEPTACLE PROVIDED WITH EQUIPMENT. WIRE TO CIRCUIT AS SHOWN.
2. CIRCUIT BREAKER PROVIDED WITH EQUIPMENT. WIRE TO CIRCUIT AS SHOWN.
3. 120 VOLT, 20 AMP, NEMA-3R, MOTOR RATED TOGGLE DISCONNECT SWITCH FOR EXHAUST FAN. COORDINATE LOCATION WITH MECHANICAL CONTRACTOR.
4. 240 VOLT, 60 AMP, 2 POLE, NEMA-3R, FUSIBLE DISCONNECT SWITCH FOR HVAC EQUIPMENT. FUSE PER MANUFACTURER'S RECOMMENDATIONS. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR. OUTDOOR UNIT POWERS ASSOCIATED INDOOR UNIT. REFER TO MECHANICAL SCHEDULES.
5. 240 VOLT, 30 AMP, 2 POLE, NEMA-3R, FUSIBLE DISCONNECT SWITCH FOR HVAC EQUIPMENT. FUSE PER MANUFACTURER'S RECOMMENDATIONS. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR. OUTDOOR UNIT POWERS ASSOCIATED INDOOR UNIT. REFER TO MECHANICAL SCHEDULES.

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Onslow County Senior Service Center Renovation

Onslow County Government

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ID	DATE	DESCRIPTION

DRAWN BY: JPT
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POWER PLAN - ROOF

2021029 16 OCT. 2024

E2-03

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CAT. 6/HDMI PLENUM DATA DROPS

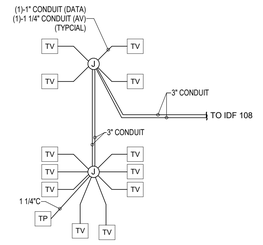
OUTLET & CABLE SCHEDULE

FLOOR/AREA	ROOM #	CAT-6 DROPS	HDMI DROPS	COMMENTS	TERMINATION
1ST FLOOR	101	6	-	1 CAM	IDF-RM108
1ST FLOOR	102	10	-	-	IDF-RM108
1ST FLOOR	103	5	-	-	IDF-RM108
1ST FLOOR	104	54	-	2 CAM, 3 WAP	IDF-RM108
1ST FLOOR	104A	4	-	-	IDF-RM108
1ST FLOOR	104B	4	-	-	IDF-RM108
1ST FLOOR	104C	1	-	-	IDF-RM108
1ST FLOOR	104D	4	-	-	IDF-RM108
1ST FLOOR	104E	18	2	-	IDF-RM108
1ST FLOOR	104F	6	-	-	IDF-RM108
1ST FLOOR	104G	2	-	-	IDF-RM108
1ST FLOOR	106	17	-	2 CAM, 1 WAP	IDF-RM108
1ST FLOOR	106C	9	-	-	IDF-RM108
1ST FLOOR	106D	4	-	-	IDF-RM108
1ST FLOOR	108	2	-	DDC PANEL	IDF-RM108
1ST FLOOR	116	64	-	2 WAP	IDF-RM108
1ST FLOOR	131	7	-	4 CAM, 3 WAP	IDF-RM108
1ST FLOOR	EXTERIOR	5	-	5 CAM	IDF-RM108
1ST FLOOR	113	11	-	1 CAM, 1 WAP	MDF-RM120
1ST FLOOR	113A	4	-	-	MDF-RM120
1ST FLOOR	113B	2	-	-	MDF-RM120
1ST FLOOR	113E	2	-	-	MDF-RM120
1ST FLOOR	115	15	1	1 WAP	MDF-RM120
1ST FLOOR	115A	4	-	-	MDF-RM120
1ST FLOOR	116A	6	-	-	MDF-RM120
1ST FLOOR	116C	14	3	1 WAP	MDF-RM120
1ST FLOOR	121	12	1	1 WAP	MDF-RM120
1ST FLOOR	122	12	1	1 WAP	MDF-RM120
1ST FLOOR	127	4	-	-	MDF-RM120
1ST FLOOR	128	9	-	-	MDF-RM120
1ST FLOOR	131	3	-	1 WAP, 2 CAM	MDF-RM120
1ST FLOOR	EXTERIOR	3	-	3 CAM	MDF-RM120
TOTALS:		323	8		

FIBER BACK BONE CABLES (OM3-PLENUM)

AREA/FLOOR	ROOM #	# OF FIBER CONDUCTORS	TERMINATION
A/1ST FLOOR	108	24 STRAND/50 MICRON/MULTIMODE	MDF-120
B/1ST FLOOR	247	24 STRAND/50 MICRON/MULTIMODE	MDF-120
TOTAL FIBERS:		48	

ROOM 116



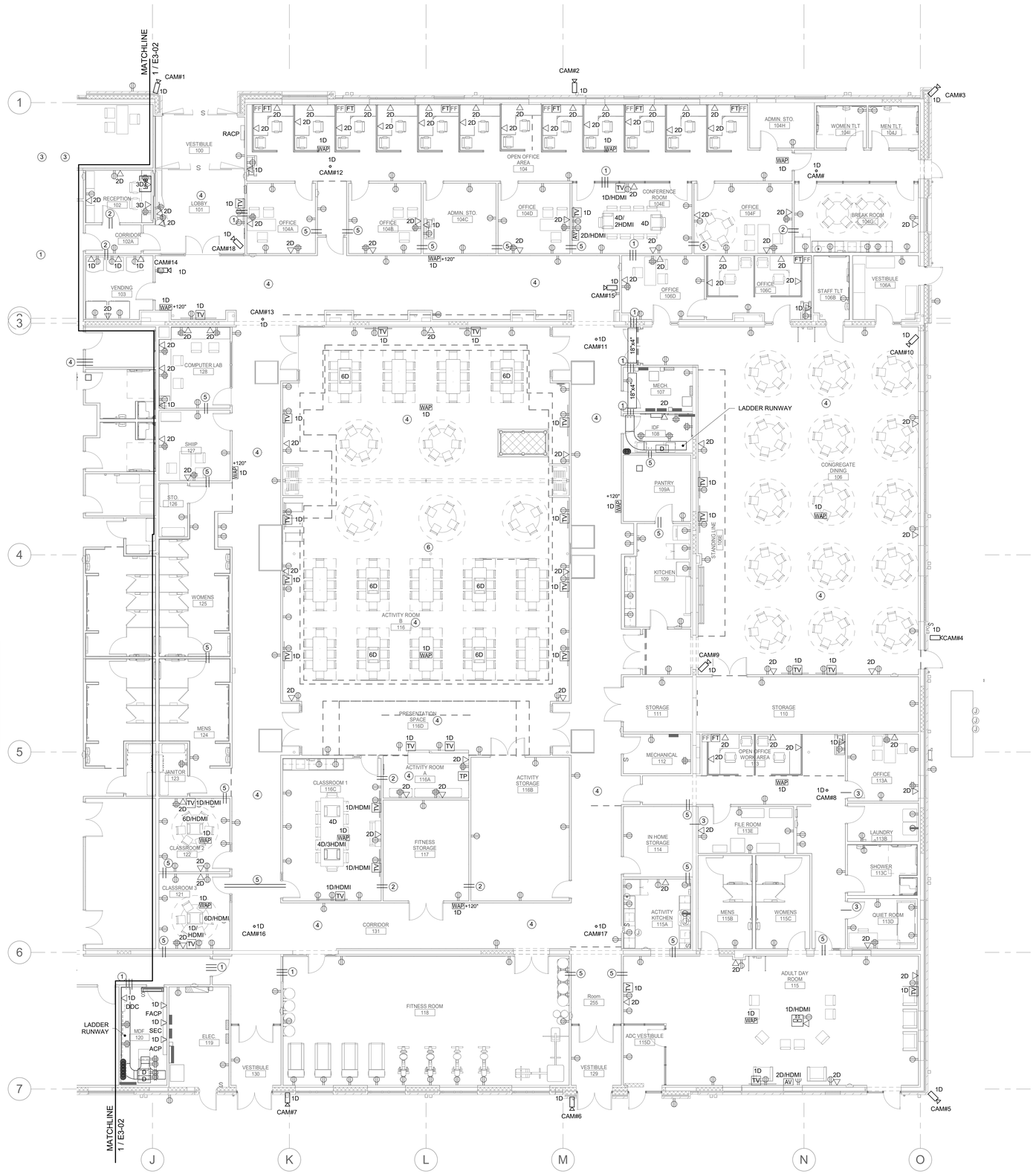
LEGEND:

- (J) JUNCTION BOX - MINIMUM 18"x18"x6"
- TV TWO-GANG, DEEP FLAT PANEL OUTLET BOX
- TP THREE GANG TOUCH PANEL BACK BOX BY AV CONTRACTOR

GENERAL NOTES:

A. ALL WIRING IN THIS ROOM WITH OPEN STRUCTURE SHALL BE IN CONDUIT.

2 AV CONDUIT RISER - ROOM 116
NOT TO SCALE



1 TECHNOLOGY PLAN - AREA A
1/8" = 1'-0"

GENERAL NOTES:

A. REFER TO SHEET E0-01 FOR NOTES, LEGEND AND ABBREVIATIONS.

B. IN AREAS WHERE THERE IS ACCESSIBLE LAY-IN CEILINGS, J-HOOKS SHALL BE SPACED NO MORE THAN 36" APART. IN OTHER AREAS WITH OPEN OR HARD CEILINGS SHALL USE MINIMUM 3/4" CONDUIT FOR LOW VOLTAGE WIRING.

C. ALL LOW VOLTAGE CABLING SHALL BE PLENUM RATED.

D. ALL FIBER BACKBONE CABLES SHALL BE IN PLENUM RATED INNER DUCT ABOVE ACCESSIBLE LAY-IN CEILINGS. OTHERWISE, CABLES SHALL BE IN MINIMUM 2" CONDUIT ABOVE OPEN OR HARD CEILINGS.

E. ALL NETWORK RACKS PROVIDED AND INSTALLED BY DIVISION 27 CONTRACTOR.

F. ALL LADDER RUNWAY TRAY IN NETWORK CLOSETS BY DIVISION 27 CONTRACTOR. OTHERWISE 18"x4" LADDER TRAY IS BY ELECTRICAL CONTRACTOR.

G. ALL CAMERA LOCATIONS SHALL BE COORDINATED BETWEEN ELECTRICAL DIVISION 27 AND OWNER'S SECURITY CONTRACTORS PRIOR TO ROUGH-IN.

H. DIVISION 27 CONTRACTOR SHALL COORDINATE WITH FURNITURE PROVIDER. COMMUNICATION FURNITURE FEEDS VIA FLEX CONDUIT BY ELECTRICAL CONTRACTOR FROM WALL SHALL BE USED TO FEED CAT-6 WIRING TO MODULAR FURNITURE. DIVISION 27 CONTRACTOR SHALL PROVIDE CORRECT MODULAR FURNITURE CONNECTOR/INSERTS. ALL WORK SHALL BE COORDINATED BETWEEN ELECTRICAL DIVISION 27 AND FURNITURE CONTRACTORS PRIOR TO ROUGH-INS.

KEYNOTES:

1. (3) 3" CONDUIT SLEEVES WITH BUSHINGS ON BOTH ENDS ABOVE ACCESSIBLE LAY-IN CEILING.
2. (2) 2" CONDUIT SLEEVES WITH BUSHINGS ON BOTH ENDS ABOVE ACCESSIBLE LAY-IN CEILING.
3. (1) 2" CONDUIT SLEEVE WITH BUSHINGS ON BOTH ENDS ABOVE ACCESSIBLE LAY-IN CEILING.
4. ALL LOW VOLTAGE DATA CONDUITS IN THIS ROOM/AREA SHALL BE ROUTED CONCEALED TO RESPECTIVE IDF CLOSETS.
5. (2)-3" CONDUIT SLEEVES WITH BUSHINGS ON BOTH ENDS ABOVE ACCESSIBLE LAY-IN CEILING.
6. REFER TO AV CONDUIT RISER DETAIL 2 ON THIS DRAWING.

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10/11/2024 BID DOCUMENTS

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TECHNOLOGY PLAN - AREA A

2021029 16 OCT. 2024

E3-01

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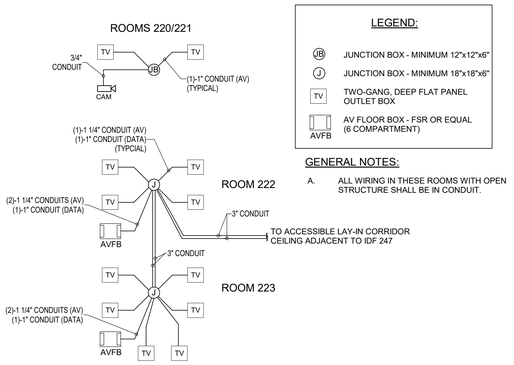


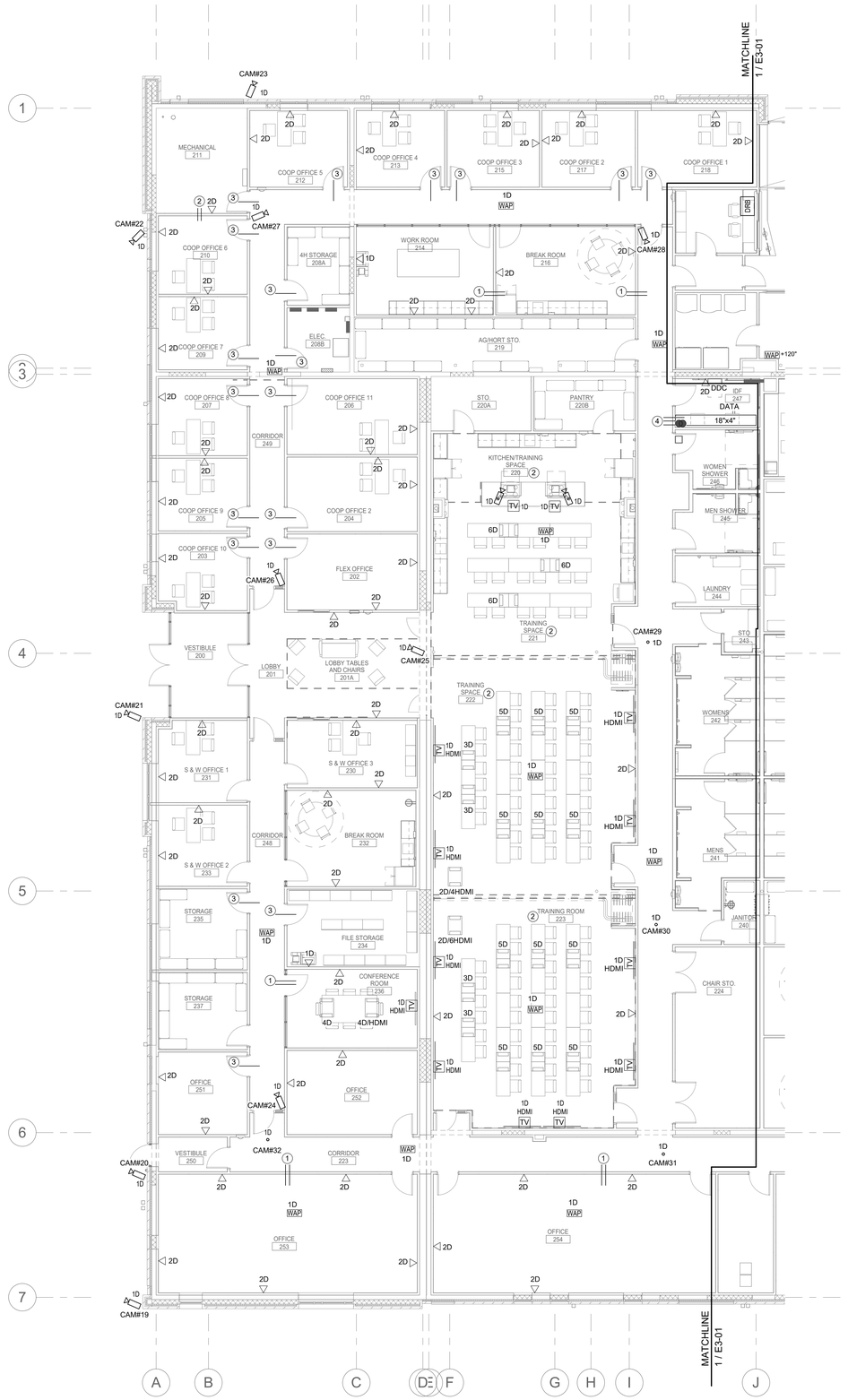
2 AV CONDUIT RISER - ROOMS 220-223
NOT TO SCALE

LEGEND:

- JB — JUNCTION BOX - MINIMUM 12"x12"x6"
- J — JUNCTION BOX - MINIMUM 18"x18"x6"
- TV — TWO-GANG, DEEP FLAT PANEL OUTLET BOX
- AVFB — AV FLOOR BOX - FSR OR EQUAL (6 COMPARTMENT)

GENERAL NOTES:

A. ALL WIRING IN THESE ROOMS WITH OPEN STRUCTURE SHALL BE IN CONDUIT.



1 TECHNOLOGY PLAN - AREA B
1/8" = 1'-0"

CAT. 6 DATA/HDMI PLENUM DROPS

OUTLET & CABLE SCHEDULE

FLOOR/AREA	ROOM #	CAT-6 DROPS	HDMI DROPS	COMMENTS	TERMINATION
1ST FLOOR	201A	3	-	1 CAM	IDF-RM247
1ST FLOOR	202	4	-	-	IDF-RM247
1ST FLOOR	203	4	-	-	IDF-RM247
1ST FLOOR	204	4	-	-	IDF-RM247
1ST FLOOR	205	4	-	-	IDF-RM247
1ST FLOOR	206	4	-	-	IDF-RM247
1ST FLOOR	207	4	-	-	IDF-RM247
1ST FLOOR	209	4	-	-	IDF-RM247
1ST FLOOR	210	4	-	-	IDF-RM247
1ST FLOOR	211	2	-	-	IDF-RM247
1ST FLOOR	212	4	-	-	IDF-RM247
1ST FLOOR	213	4	-	-	IDF-RM247
1ST FLOOR	214	5	-	-	IDF-RM247
1ST FLOOR	215	4	-	-	IDF-RM247
1ST FLOOR	216	4	-	-	IDF-RM247
1ST FLOOR	217	4	-	-	IDF-RM247
1ST FLOOR	218	4	-	-	IDF-RM247
1ST FLOOR	220	23	-	2 CAM, 1 WAP	IDF-RM247
1ST FLOOR	222	47	4	1 WAP	IDF-RM247
1ST FLOOR	223 (TRAIN)	49	6	1 WAP	IDF-RM247
1ST FLOOR	223 (CORR)	5	-	3 CAM, 2 WAP	IDF-RM247
1ST FLOOR	247	2	-	DDC PANEL	IDF-RM247
1ST FLOOR	249	6	-	3 CAM, 3 WAP	IDF-RM247
1ST FLOOR	EXTERIOR	2	-	2 CAM	IDF-RM247
1ST FLOOR	201A	2	-	-	MDF-RM120
1ST FLOOR	230	4	-	-	MDF-RM120
1ST FLOOR	231	4	-	-	MDF-RM120
1ST FLOOR	232	4	-	-	MDF-RM120
1ST FLOOR	233	4	-	-	MDF-RM120
1ST FLOOR	234	1	-	-	MDF-RM120
1ST FLOOR	236	11	1	-	MDF-RM120
1ST FLOOR	248	2	-	1 CAM, 1 WAP	MDF-RM120
1ST FLOOR	251	4	-	-	MDF-RM120
1ST FLOOR	252	2	-	-	MDF-RM120
1ST FLOOR	253	11	-	1 WAP	MDF-RM120
1ST FLOOR	254	9	-	1 WAP	MDF-RM120
1ST FLOOR	EXTERIOR	3	-	3 CAM	MDF-RM120
1ST FLOOR	-	-	-	-	-
1ST FLOOR	-	-	-	-	-
1ST FLOOR	-	-	-	-	-
1ST FLOOR	-	-	-	-	-
1ST FLOOR	-	-	-	-	-
1ST FLOOR	-	-	-	-	-
1ST FLOOR	-	-	-	-	-
1ST FLOOR	-	-	-	-	-
1ST FLOOR	-	-	-	-	-
TOTALS:	261	11			

GENERAL NOTES:

A. REFER TO SHEET E0-01 FOR NOTES, LEGEND AND ABBREVIATIONS.

B. IN AREAS WHERE THERE IS ACCESSIBLE LAY-IN CEILINGS, J-HOOKS SHALL BE SPACED NO MORE THAN 36" APART. IN OTHER AREAS WITH OPEN OR HARD CEILINGS SHALL USE MINIMUM 3/4" CONDUIT FOR LOW VOLTAGE WIRING.

C. ALL LOW VOLTAGE CABLING SHALL BE PLENUM RATED.

D. ALL FIBER BACKBONE CABLES SHALL BE IN PLENUM RATED INNER DUCT ABOVE ACCESSIBLE LAY-IN CEILINGS. OTHERWISE, CABLES SHALL BE IN MINIMUM 2" CONDUIT ABOVE OPEN OR HARD CEILINGS.

E. ALL NETWORK RACKS PROVIDED AND INSTALLED BY DIVISION 27 CONTRACTOR.

F. ALL LADDER RUNWAY TRAY IN NETWORK CLOSETS BY DIVISION 27 CONTRACTOR. OTHERWISE 18"x4" LADDER TRAY IS BY ELECTRICAL CONTRACTOR.

G. ALL CAMERA LOCATIONS SHALL BE COORDINATED BETWEEN ELECTRICAL, DIVISION 27 AND OWNER'S SECURITY CONTRACTORS PRIOR TO ROUGH-IN.

H. DIVISION 27 CONTRACTOR SHALL COORDINATE WITH FURNITURE PROVIDER. COMMUNICATION FURNITURE FEEDS FROM WALL SHALL BE USED TO FEED CAT-6 WIRING TO MODULAR FURNITURE. DIVISION 27 CONTRACTOR SHALL PROVIDE CORRECT MODULAR FURNITURE CONNECTOR PLATES. ALL WORK SHALL BE COORDINATED BETWEEN ELECTRICAL, DIVISION 27 AND FURNITURE CONTRACTORS PRIOR TO ROUGH-INS.

KEYNOTES:

1. PROVIDE (2)-2" CONDUT SLEEVES WITH INSULATED BUSHINGS ON BOTH ENDS AND MOUNTED ABOVE ACCESSIBLE LAY-IN CEILING.
2. ALL LOW VOLTAGE CONDUITS IN THIS ROOM/AREA SHALL BE ROUTED CONCEALED TO IDF-247.
3. PROVIDE A 2" CONDUIT SLEEVE WITH INSULATED BUSHINGS ON BOTH ENDS MOUNTED ABOVE ACCESSIBLE LAY-IN CEILING.
4. (3)-3" CONDUIT SLEEVES WITH INSULATED BUSHINGS ON BOTH ENDS AND MOUNTED ABOVE ACCESSIBLE LAY-IN CEILING.

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NORTH CAROLINA PROFESSIONAL SEAL 024651 ENGINEER JAMES T. BUTKUS

10/11/2024 BID DOCUMENTS

Onslow County Senior Service Center
Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

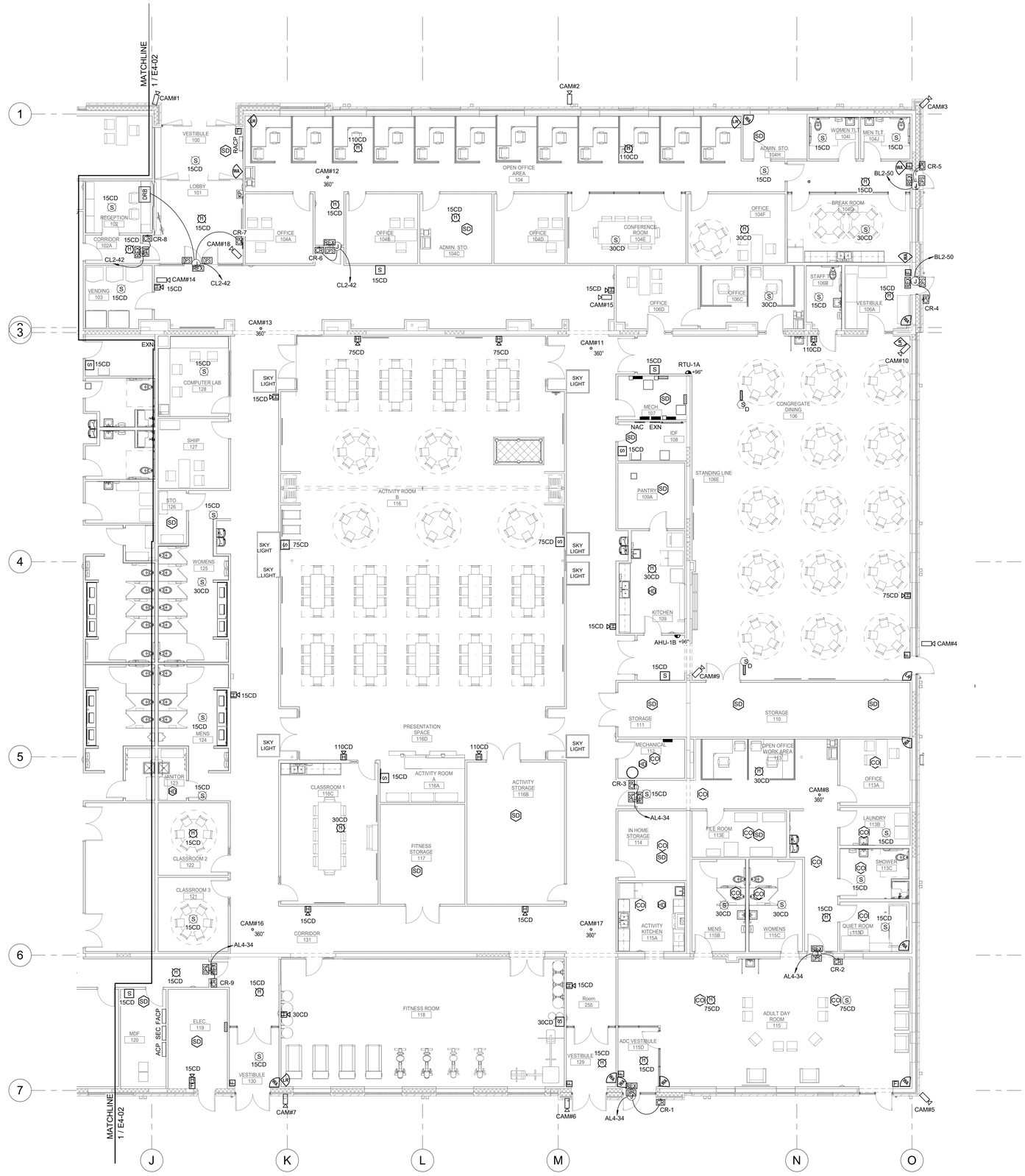
ID	DATE	DESCRIPTION

DRAWN BY: JPT
CHECKED BY: JTB

TECHNOLOGY PLAN - AREA B

2021029 16 OCT. 2024

E3-02



1 FIRST FLOOR FIRE ALARM PLAN - AREA A

1/8" = 1'-0"

GENERAL NOTES:

A. REFER TO SHEET E0-01 FOR NOTES, LEGEND AND ABBREVIATIONS.

B. ALL FIRE ALARM WIRING SHALL BE IN MINIMUM 3/4" CONDUIT.

C. MOUNT EXTERIOR CAMERAS AS DIRECTED BY OWNER/OWNER'S SECURITY CONTRACTOR.

D. ACCESS CONTROLLED DOORS SHALL BE COORDINATED FOR ROUGH-INS AND 120VAC POWER. A PRE-INSTALLATION MEETING SHALL OCCUR PRIOR TO ROUGH-IN.

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Smith Sinnett Architecture, P.A. 2024

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Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: JPT
CHECKED BY: JTB

FIRE ALARM & SECURITY PLAN - AREA A

2021029 16 OCT. 2024

E4-01

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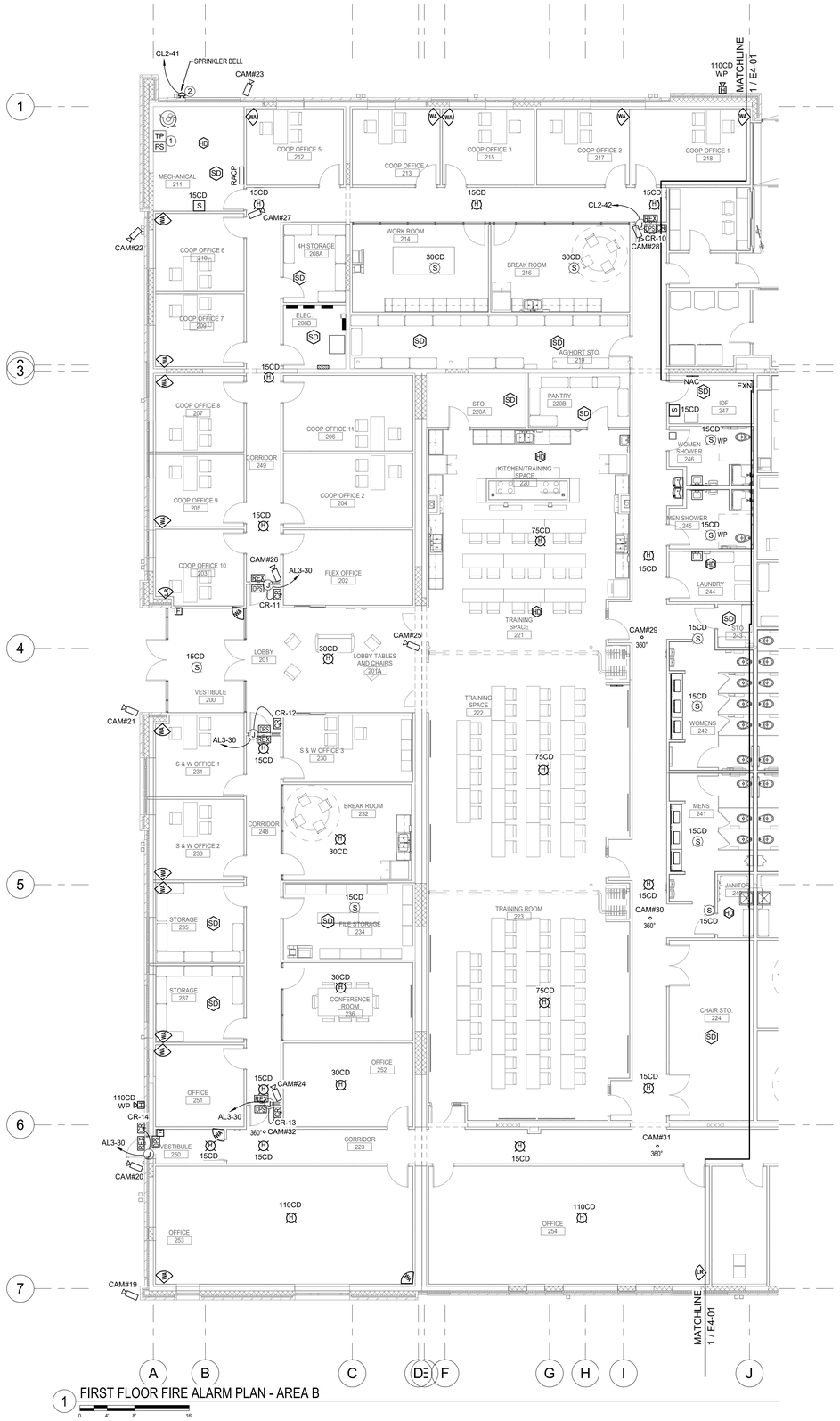

1 FIRST FLOOR FIRE ALARM PLAN - AREA B

1/8" = 1'-0"

GENERAL NOTES:

A. REFER TO SHEET E0-01 FOR NOTES, LEGEND AND ABBREVIATIONS.

B. ALL FIRE ALARM WIRING SHALL BE IN MINIMUM 3/4" CONDUIT.

C. MOUNT EXTERIOR CAMERAS AS DIRECTED BY OWNER/OWNER'S SECURITY CONTRACTOR.

D. ACCESS CONTROLLED DOORS SHALL BE COORDINATED FOR ROUGH-INS AND 120VAC POWER. A PRE-INSTALLATION MEETING SHALL OCCUR PRIOR TO ROUGH-IN.

KEYNOTES:

1. COORDINATE WITH FIRE PROTECTION CONTRACTOR FOR TAMPER SWITCH AND FLOW SWITCH LOCATIONS AT SPRINKLER RISER PRIOR TO ROUGH-IN. DEVICES SHALL BE WIRED INTO FIRE ALARM SYSTEM.

2. ELECTRICAL CONTRACTOR SHALL COORDINATE SPRINKLER BELL POWER REQUIREMENTS AND WIRE AS REQUIRED.

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FIRE ALARM & SECURITY PLAN - AREA B

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E4-02

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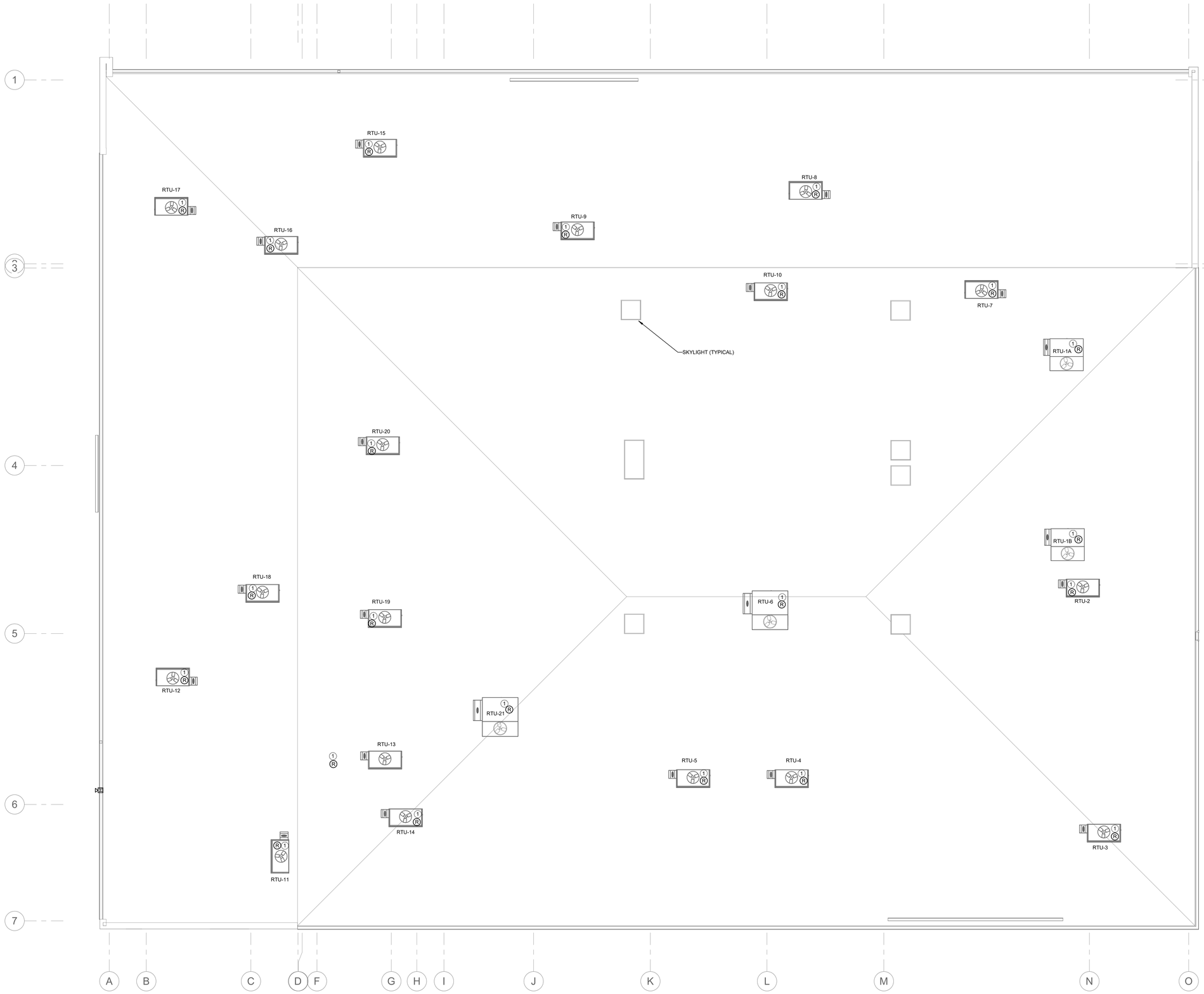

1 BASE BID ROOF POWER PLAN - AREA B

1/8" = 1'-0"

GENERAL NOTES:

A. ALL FIRE ALARM WIRING SHALL BE IN MINIMUM 3/4" CONDUIT.

KEYNOTES:

1. HVAC ROOF TOP UNIT (RTU) FIRE ALARM SHUT DOWN RELAY. UNIT SHALL SHUT DOWN UPON FIRE ALARM ACTIVATION.

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ROOF FIRE ALARM PLAN

2021029 16 OCT. 2024

E4-03

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PANEL AL4

CKT	LOAD TYPE	LOAD KVA	DESCRIPTION	C	PH	N	G	CB	PHASE A	PHASE B	PHASE C	CB	PH	N	G	C	DESCRIPTION	LOAD KVA	LOAD TYPE	CKT
1	R	0.900	FURNITURE FEED - 113	3/4"	12	12	12	20	1.440			20	12	12	12	3/4"	RECEPT - 113B, 113C	0.540	R	2
3	R	0.900	FURNITURE FEED - 113	3/4"	12	12	12	20		1.500		15	12	12	12	3/4"	WASHER - 113B	0.600	O	4
5	O	1.200	COPIER - 113	3/4"	12	12	12	20			3.696	30	10	10	10	3/4"	DRYER - 113B	2.496	O	6
7	R	0.720	RECEPT - 113A	3/4"	12	12	12	20	3.216									2.496	O	8
9	R	0.540	RECEPT - 113A	3/4"	12	12	12	20		1.260		20	10	10	10	3/4"	RECEPT - 115	0.720	R	10
11	R	0.720	RECEPT - 113, 115B, 115C	3/4"	12	12	12	20			1.440	20	10	10	10	3/4"	RECEPT - 115	0.720	R	12
13	O	0.400	EWC - 113 (NOTE 1)	3/4"	12	12	12	20	1.120			20	10	10	10	3/4"	RECEPT - 115	0.720	R	14
15	O		SPARE					20		0.720		20	10	10	10	3/4"	PROJECTOR - 115	0.720	O	16
17	R	0.900	RECEPT - 113E, 114	3/4"	12	12	12	20			1.620	20	10	10	10	3/4"	EXHAUST FAN EF-1	0.720	H	18
19	R	0.540	RECEPT - 113D	3/4"	12	12	12	20	1.260			20	10	10	10	3/4"	EXHAUST FAN EF-2	0.720	H	20
21	R	0.540	RECEPT - 113D	3/4"	12	12	12	20		1.260		20	10	10	10	3/4"	EXHAUST FAN EF-6	0.720	H	22
23	R	0.600	RECEPT - 115A	3/4"	12	12	12	20			1.320	20	10	10	10	3/4"	RECEPT - ROOF	0.720	R	24
25	O	4.160	RANGE - 115A (NOTE 1)	1"	8	8	10	50	5.360			20	10	10	10	3/4"	RECEPT - ROOF	1.200	R	26
27	O	4.160								4.880		20	10	10	10	3/4"	EXHAUST FAN EF-8	0.720	H	28
29	O	0.600	RANGE HOOD - 115A	3/4"	12	12	12	20			1.200	20	10	10	10	3/4"	EXHAUST FAN EF-9	0.600	H	30
31	R	0.600	RECEPT - 115A	3/4"	12	12	12	20	1.600			20	10	10	10	3/4"	DISHWASHER - 115A	1.000	O	32
33	O	1.920	REFRIGERATOR - 115A	3/4"	12	12	12	20		2.720		20	12	12	12	3/4"	CARD READERS CR-1, CR-2, CR-3, CR-9	0.800	O	34
35	O		SPARE					20			0.000	20					SPARE		O	36
37	O		SPARE					20	0.000			20					SPARE		O	38
39	O		SPARE					20		0.000		20					SPARE		O	40
41	O		SPARE					20			0.000	20					SPARE		O	42
43	O		SPARE					20	0.000			20					SPARE		O	44
45	O		SPARE					20		0.000		20					SPARE		O	46
47	O		SPARE					20			0.000	20					SPARE		O	48
49	O		SPARE					20	0.000			20					SPARE		O	50
51	O		SPARE					20		0.000		20					SPARE		O	52
53	O		SPARE					20			0.000	20					SPARE		O	54
55	O		SPACE						0.000								SPACE		O	56
57	O		SPACE							0.000							SPACE		O	58
59	O		SPACE								0.000						SPACE		O	60

LOAD TOTAL: 14.00 12.34 9.28

208Y/120 V 3 PHASE 4 WIRE
MAINS: MLO 225 A BUS
22000 AIC SE LABEL

LOAD TYPE	CONNECTED		DEMAND
(R) RECEPTACLES	11.58	93%	10.79
(M) MOTOR	0.00	100%	0.00
(H) HVAC	3.48	100%	3.48
(L) LIGHTING	0.00	125%	0.00
(O) OTHER	20.55	100%	20.55
(K) KITCHEN EQUIP	0.00	100%	0.00
TOTAL	35.61	98%	34.82

MECH/ELEC 112

FED FROM: PANEL AL1
MOUNT: SURFACE
NEMA: 1

PROVIDE DOOR WITH LOCK AND HINGED TRIM. PROVIDE COPPER BUSS BARS AND BOLT ON BREAKERS.

NOTES:
1. PROVIDE GFCI CIRCUIT BREAKER.
2.
3.
4.

PANEL TOTALS				
PHASE A	13.686	KVA	114.0	AMP
PHASE B	12.066	KVA	100.6	AMP
PHASE C	9.070	KVA	75.6	AMP

PANEL AL1

CKT	LOAD TYPE	LOAD KVA	DESCRIPTION	C	PH	N	G	CB	PHASE A	PHASE B	PHASE C	CB	PH	N	G	C	DESCRIPTION	LOAD KVA	LOAD TYPE	CKT
1	S	10.600	PANEL AL2	SEE POWER RISER				225	18.400			125	SEE POWER RISER				PANEL AL3	7.800	S	2
3	S	10.900								19.240								8.340	S	4
5	S	8.007									17.687							9.680	S	6
7	S	13.996	PANEL AL4	SEE POWER RISER				225	13.996			30	10	10	10	3/4"	SPD		O	8
9	S	12.340								12.340									O	10
11	S	9.276									9.276								O	12
13	O		SPARE					100	0.000			100					SPARE		O	14
15	O									0.000									O	16
17	O										0.000								O	18
19	O		SPACE						0.000								SPACE		O	20
21	O									0.000									O	22
23	O										0.000								O	24
25	O		SPARE					20	0.000								SPACE		O	26
27	O		SPARE					20		0.000									O	28
29	O		SPARE					20			0.000								O	30
31	H	0.104	DS-1B	1"	8	8	10	15	0.104								SPACE		O	32
33	H	0.104								0.104							SPACE		O	34
35	H	2.392	DSC-1	1"	8	8	10	40			2.392						SPACE		O	36
37	H	2.392							2.392								SPACE		O	38
39	H	0.104	DS-1A	1"	8	8	10	15		0.104							SPACE		O	40
41	H	0.104									0.104						SPACE		O	42

LOAD TOTAL: 34.89 31.79 29.46

208Y/120 V 3 PHASE 4 WIRE
MAINS: MCB 400 A MCB
22000 AIC SE LABEL

LOAD TYPE	CONNECTED		DEMAND
(R) RECEPTACLES	51.78	60%	30.89
(M) MOTOR	0.00	100%	0.00
(H) HVAC	8.68	100%	8.68
(L) LIGHTING	0.00	125%	0.00
(O) OTHER	35.68	100%	35.68
(K) KITCHEN EQUIP	0.00	100%	0.00
TOTAL	96.14	78%	75.25

ELEC 119

FED FROM: TRANSFORMER TA
MOUNT: SURFACE
NEMA: 1

PROVIDE DOOR WITH LOCK AND HINGED TRIM. PROVIDE COPPER BUSS BARS AND BOLT ON BREAKERS.

NOTES:
1.
2.
3.
4.

PANEL TOTALS				
PHASE A	27.310	KVA	227.6	AMP
PHASE B	24.881	KVA	207.3	AMP
PHASE C	23.058	KVA	192.1	AMP

PANEL MDP

CKT	LOAD TYPE	LOAD KVA	DESCRIPTION	C	PH	N	G	CB	PHASE A	PHASE B	PHASE C	CB	PH	N	G	C	DESCRIPTION	LOAD KVA	LOAD TYPE	CKT
1	S	35.179	PANEL AH1	SEE POWER RISER				225	35.179			60	6	6	10	1"	SPD		O	2
3	S	35.179								35.179									O	4
5	S	35.179									35.179								O	6
7	S	41.474	PANEL BH1	SEE POWER RISER				300	76.366			175	SEE POWER RISER				TRANSFORMER TA [112.5KVA]	34.892	S	8
9	S	39.748								71.536								31.788	S	10
11	S	42.290									71.749							29.459	S	12
13	S	55.058	PANEL CH1	SEE POWER RISER				400	55.058			125					SPARE		O	14
15	S	59.954								59.954									O	16
17	S	57.969									57.969								O	18
19	S	8.491	PANEL AH2	SEE POWER RISER				125	41.696			225	SEE POWER RISER				MTS OR ATS (SBH)	33.205	S	20
21	S	7.544								39.383								31.839	S	22
23	S	5.354									35.462							30.108	S	24
25	O		SPARE					225	0.000								SPACE		O	26
27	O									0.000									O	28
29	O										0.000								O	30
31	O		SPACE						0.000								SPACE		O	32
33	O									0.000									O	34
35	O										0.000								O	36
37	O		SPACE						0.000								SPACE		O	38
39	O									0.000									O	40
41	O										0.000								O	42

LOAD TOTAL: 208.30 206.05 200.36

480Y/277 V 3 PHASE 4 WIRE
MAINS: MCB 1200 A MCB (NOTES 1 & 2)
65000 AIC X SE LABEL

LOAD TYPE	CONNECTED		DEMAND
(R) RECEPTACLES	159.18	53%	84.59
(M) MOTOR	0.00	100%	0.00
(H) HVAC	267.60	100%	267.60
(L) LIGHTING	28.67	125%	35.84
(O) OTHER	159.26	100%	159.26
(K) KITCHEN EQUIP	0.00	100%	0.00
TOTAL	614.71	89%	547.29

ELEC 119

FED FROM: UTILITY TRANSFORMER
MOUNT: SURFACE
NEMA: 1

PROVIDE DOOR WITH LOCK AND HINGED TRIM. PROVIDE COPPER BUSS BARS AND BOLT ON BREAKERS.

NOTES:
1. PROVIDE 100% RATED GROUND FAULT MAIN BREAKER - LSIG.
2. PROVIDE ARC FAULT MITIGATION SWITCH PER NEC 240.87.
3.
4.

PANEL TOTALS				
PHASE A	185.452	KVA	669.5	AMP
PHASE B	183.452	KVA	662.3	AMP
PHASE C	178.383	KVA	644.0	AMP

PANEL BH1

CKT	LOAD TYPE	LOAD KVA	DESCRIPTION	C	PH	N	G	CB	PHASE A	PHASE B	PHASE C	CB	PH	N	G	C	DESCRIPTION	LOAD KVA	LOAD TYPE	CKT
1	S	22.084	TRANSFORMER TB [112.5KVA]	SEE POWER RISER				175	25.685			15	10		10	3/4"	RTU-2	3.601	H	2
3	S	20.358								23.959								3.601	H	4
5	S	22.900									26.501							3.601	H	6
7	H	3.601	RTU-7	3/4"	10		10	15	7.202			15	10		10	3/4"	RTU-10	3.601	H	8
9	H	3.601								7.202								3.601	H	10
11	H	3.601									7.202							3.601	H	12
13	H	3.878	RTU-8	3/4"	10		10	20	8.587			25	10		10	3/4"	RTU-6	4.709	H	14
15	H	3.878								8.587								4.709	H	16
17	H	3.878									8.587							4.709	H	18
19	O		SPARE					15	0.000			20					SPARE		O	20
21	O									0.000									O	22
23	O										0.000								O	24
25	O							20	0.000			20							O	26
27	O							20		0.000		20							O	28
29	O							20			0.000	20							O	30
31	O							20	0.000			20							O	32
33	O							20		0.000		20							O	34
35	O							20			0.000	20							O	36
37	O							20	0.000			20							O	38
39	O							20		0.000		20							O	40
41	O							20			0.000	20							O	42

LOAD TOTAL: 41.47 39.75 42.29

480Y/277 V 3 PHASE 4 WIRE
MAINS: MLO 300 A BUS
22000 AIC SE LABEL

LOAD TYPE	CONNECTED		DEMAND
(R) RECEPTACLES	38.76	63%	24.38
(M) MOTOR	0.00	100%	0.00
(H) HVAC	63.37	100%	63.37
(L) LIGHTING	0.00	125%	0.00
(O) OTHER	21.38	100%	21.38
(K) KITCHEN EQUIP	0.00	100%	0.00
TOTAL	123.51	88%	109.13

MECH/ELEC 107

FED FROM: MDP
MOUNT: SURFACE
NEMA: 1

PROVIDE DOOR WITH LOCK AND HINGED TRIM. PROVIDE COPPER BUSS BARS AND BOLT ON BREAKERS.

NOTES:
1.
2.
3.
4.

PANEL TOTALS				
PHASE A	36.645	KVA	132.3	AMP
PHASE B	35.120	KVA	126.8	AMP
PHASE C	37.366	KVA	134.9	AMP

PANEL AL2

CKT	LOAD TYPE	LOAD KVA	DESCRIPTION	C	PH	N	G	CB	PHASE A	PHASE B	PHASE C	CB	PH	N	G	C	DESCRIPTION	LOAD KVA	LOAD TYPE	CKT
1	O	1.200	FITNESS EQUIP - 119	3/4"	12	12	12	20	1.920			20	12	12	12	3/4"	RECEPT - 121, 122	0.720	R	2
3	O	1.200	FITNESS EQUIP - 119	3/4"	12	12	12	20		1.920		20	12	12	12	3/4"	RECEPT - 121, 122	0.720	R	4
5	O	1.200	FITNESS EQUIP - 119	3/4"	12	12	12	20			1.740	20	12	12	12	3/4"	FLOORBOX RECEPT - 121	0.540	R	6
7	O	1.200	FITNESS EQUIP - 119	3/4"	12	12	12	20	2.100			20	12	12	12	3/4"	RECEPT - 122	0.900	R	8
9	O	0.900	FITNESS EQUIP - 119	3/4"	12	12	12	20		1.800		20	12	12	12	3/4"	RECEPT - 122	0.900	R	10
11	O	0.900	FITNESS EQUIP - 119	3/4"	12	12	12	20			1.440	20	12	12	12	3/4"	FLOORBOX RECEPT - 122	0.540	R	12
13	O	0.900	FITNESS EQUIP - 119	3/4"	12	12	12	20	1.500			20	12	12	12	3/4"	RECEPT - 123	0.600	R	14
15	O	0.900	FITNESS EQUIP - 119	3/4"	12	12	12	20		1.440		20	10	10	10	3/4"	RECEPT - 123	0.540	R	16
17	R	0.900	RECEPT - 119	3/4"	12	12	12	20			1.800	20	10	10	10	3/4"	EWC - 131 (NOTE 1)	0.900	O	18
19	R	0.720	RECEPT - 116C	3/4"	12	12	12	20	1.440			20	10	10	10	3/4"	RECEPT - 127	0.720	R	20
21	R	0.900	FLOORBOX RECEPT - 116C	3/4"	12	12	12	20		1.440		20	10	10	10	3/4"	RECEPT - 127, 128	0.540	R	22
23	R	0.720	RECEPT - 116C	3/4"	12	12	12	20			0.960	20	10	10	10	3/4"	RECEPT - 128	0.240	R	24
25	R	0.600	RECEPT - 116C	3/4"	12	12	12	20	1.320			20	10	10	10	3/4"	RECEPT - 128	0.720	R	26
27	R	1.080	RECEPT - 116B, 117	3/4"	12	12	12	20		1.800		20	10	10	10	3/4"	RECEPT - 128	0.720	R	28
29	R	0.720	RECEPT - 131	3/4"	12	12	12	20			1.440	20	12	12	12	3/4"	RECEPT - 115D, 131, EXTERIOR	0.720	R	30
31	R	0.720	RECEPT - 129, 131	3/4"	12	12	12	20	1.320			20	12	12	12	3/4"	DDC PANEL - 120	0.600	O	32
33	R	0.900	RECEPT - 119, EXTERIOR	3/4"	12	12	12	20		1.500		20	12	12	12	3/4"	RECEPT - 120	0.600	R	34
35	O	0.027	UNDERCOUNTER LTS - 232	3/4"	12	12	12	20			0.627	20	12	12	12	3/4"	RECEPT - 120	0.600	R	36
37	O		SPARE					20	1.000			20	12	12	12	3/4"	NETWORK RACK - 120	1.000	O	38
39	O		SPARE					20		1.000		20	12	12	12	3/4"	NETWORK RACK - 120	1.000	O	40
41	O		SPARE					20			0.000	20					SPARE		O	42
43	O		SPARE					20	0.000			20					SPARE		O	44
45	O		SPARE					20		0.000		20					SPARE		O	46
47	O		SPARE					20			0.000	20					SPARE		O	48
49	O		SPARE					20	0.000			20					SPARE		O	50
51	O		SPARE					20		0.000		20					SPARE		O	52
53	O		SPARE					20			0.000	20					SPARE		O	54
55	O		SPACE						0.000								SPACE		O	56
57	O		SPACE							0.000							SPACE		O	58
59	O		SPACE								0.000						SPACE		O	60

LOAD TOTAL: 10.60 10.90 8.01

208Y/120 V 3 PHASE 4 WIRE
MAINS: MLO 225 A BUS
22000 AIC SE LABEL

LOAD TYPE	CONNECTED		DEMAND
(R) RECEPTACLES	17.58	78%	13.79
(M) MOTOR	0.00	100%	0.00
(H) HVAC	0.00	100%	0.00
(L) LIGHTING	0.00	125%	0.00
(O) OTHER	11.93	100%	11.93
(K) KITCHEN EQUIP	0.00	100%	0.00
TOTAL	29.51	87%	25.72

ELEC 119

FED FROM: PANEL AL1
MOUNT: SURFACE
NEMA: 1

PROVIDE DOOR WITH LOCK AND HINGED TRIM. PROVIDE COPPER BUSS BARS AND BOLT ON BREAKERS.

NOTES:
1. PROVIDE GFCI CIRCUIT BREAKER.
2.
3.
4.

PANEL TOTALS				
PHASE A	9.238	KVA	77.0	AMP
PHASE B	9.500	KVA	79.2	AMP
PHASE C	6.979	KVA	58.2	AMP

PANEL AH1

CKT	LOAD TYPE	LOAD KVA	DESCRIPTION	C	PH	N	G	CB	PHASE A	PHASE B	PHASE C	CB	PH	N	G	C	DESCRIPTION	LOAD KVA	LOAD TYPE	CKT
1	H	3.601	RTU-12	3/4"	10		10	15	7.202			15	10		10	3/4"	RTU-18	3.601	H	2
3	H	3.601								7.202								3.601	H	4
5	H	3.601									7.202							3.601	H	6
7	H	3.601	RTU-19	3/4"	10		10	15	7.202			15	10		10	3/4"	RTU-13	3.601	H	8
9	H	3.601								7.202								3.601	H	10
11	H	3.601									7.202							3.601	H	12
13	H	2.493	RTU-11	3/4"	10		10	15	4.986			15	10		10	3/4"	RTU-14	2.493	H	14
15	H	2.493								4.986								2.493	H	16
17	H	2.493									4.986							2.493	H	18
19	H	4.709	RTU-21	3/4"	10		10	25	8.310			15	10		10	3/4"	RTU-5	3.601	H	20
21	H	4.709								8.310								3.601	H	22
23	H	4.709									8.310							3.601	H	24
25	H	3.878	RTU-4	3/4"	10		10	20	7.479			15	10		10	3/4"	RTU-3	3.601	H	26
27	H	3.878								7.479								3.601	H	28
29	H	3.878									7.479							3.601	H	30
31	O		SPARE					15	0.000			20					SPARE		O	32
33	O									0.000									O	34
35	O										0.000								O	36
37	O		SPACE						0.000								SPACE		O	38
39	O									0.000									O	40
41	O										0.000								O	42

LOAD TOTAL: 35.18 35.18 35.18

480Y/277 V 3 PHASE 4 WIRE
MAINS: MLO 225 A BUS
65000 AIC SE LABEL

LOAD TYPE	CONNECTED		DEMAND
(R) RECEPTACLES	0.00	100%	0.00
(M) MOTOR	0.00	100%	0.00
(H) HVAC	105.54	100%	105.54
(L) LIGHTING	0.00	125%	0.00
(O) OTHER	0.00	100%	0.00
(K) KITCHEN EQUIP	0.00	100%	0.00
TOTAL	105.54	100%	105.54

ELEC 119

FED FROM: MDP
MOUNT: SURFACE
NEMA: 1

PROVIDE DOOR WITH LOCK AND HINGED TRIM. PROVIDE COPPER BUSS BARS AND BOLT ON BREAKERS.

NOTES:
1.
2.
3.
4.

PANEL TOTALS				
PHASE A	35.179	KVA	127.0	AMP
PHASE B	35.179	KVA	127.0	AMP
PHASE C	35.179	KVA	127.0	AMP

PANEL BL1

CKT	LOAD TYPE	LOAD KVA	DESCRIPTION	C	PH	N	G	CB	PHASE A	PHASE B	PHASE C	CB	PH	N	G	C	DESCRIPTION	LOAD KVA	LOAD TYPE	CKT
1	S	5.400	PANEL BL3	SEE POWER RISER				125	5.400			30	10	10	10	3/4"	SPD		O	2
3	S	4.382								4.382									O	4
5	S	3.780									3.780								O	6
7	O		SPARE					100	12.420			225	SEE POWER RISER				PANEL BL2	12.420	S	8
9	O									13.480								13.480	S	10
11	O										12.360							12.360	S	12
13	O		SPACE						0.000			100					SPARE		O	14
15	O		SPACE							0.000									O	16
17	O		SPACE								0.000								O	18
19	O		SPACE						0.000			20					SPARE		O	20
21	O		SPACE							0.000		20					SPARE		O	22
23	O		SPACE								0.000	20					SPARE		O	24
25	O		SPACE						0.000			20					SPARE		O	26
27	O		SPACE							0.000		20					SPARE		O	28
29	O		SPACE								0.000	20					SPARE		O	30
31	O		SPACE						0.000			20					SPARE		O	32
33	O		SPACE							0.000		20					SPARE		O	34
35	H	0.104	DS-2A	3/4"	12	12	12	15			4.264	50	8	8	10	1"	EXISTING RAIN BIRD IRRIGATION PANEL	4.160	O	36
37	H	0.104							4.264									4.160	O	38
39	H	0.104	DS-2B	3/4"	12	12	12	15		2.496		40	8	8	10	1"	DSC-2	2.392	H	40
41	H	0.104									2.496							2.392	H	42

LOAD TOTAL: 22.08 20.36 22.90

208Y/120 V 3 PHASE 4 WIRE
MAINS: MCB 400 A MCB
22000 AIC SE LABEL

LOAD TYPE	CONNECTED		DEMAND
(R) RECEPTACLES	38.76	63%	24.38
(M) MOTOR	0.00	100%	0.00
(H) HVAC	5.20	100%	5.20
(L) LIGHTING	0.00	125%	0.00
(O) OTHER	21.38	100%	21.38
(K) KITCHEN EQUIP	0.00	100%	0.00
TOTAL	65.34	78%	50.96

MECH/ELEC 107

FED FROM: TRANSFORMER TB
MOUNT: SURFACE
NEMA: 1

PROVIDE DOOR WITH LOCK AND HINGED TRIM. PROVIDE COPPER BUSS BARS AND BOLT ON BREAKERS.

NOTES:
1.
2.
3.
4.

PANEL TOTALS				
PHASE A	17.224	KVA	143.5	AMP
PHASE B	15.878	KVA	132.3	AMP
PHASE C	17.860	KVA	148.8	AMP

PANEL AL3

CKT	LOAD TYPE	LOAD KVA	DESCRIPTION	C	PH	N	G	CB	PHASE A	PHASE B	PHASE C	CB	PH	N	G	C	DESCRIPTION	LOAD KVA	LOAD TYPE	CKT
1	R	0.720	RECEPT - 254	3/4"	12	12	12	20	1.620			20	10	10	10	3/4"	RECEPT - 201A, 248	0.900	R	2
3	R	0.900	RECEPT - 254	3/4"	12	12	12	20		1.620		20	10	10	10	3/4"	RECEPT - 233, 235, 237	0.720	R	4
5	R	0.900	RECEPT - 254	3/4"	12	12	12	20			1.620	20	10	10	10	3/4"	RECEPT - 233	0.720	R	6
7	R	0.900	RECEPT - 253	3/4"	12	12	12	20	1.620			20	10	10	10	3/4"	RECEPT - 231, 233	0.720	R	8
9	R	0.900	RECEPT - 253	3/4"	12	12	12	20		1.800		20	10	10	10	3/4"	RECEPT - 231	0.900	R	10
11	R	0.720	RECEPT - 253	3/4"	12	12	12	20			1.440	20	10	10	10	3/4"	RECEPT - 232	0.720	R	12
13	R	0.720	RECEPT - 223, 250, EXTERIOR	3/4"	10	10	10	20	0.900			20	10	10	10	3/4"	RECEPT - 232	0.180	R	14
15	R	0.720	RECEPT - 223, 250, EXTERIOR	3/4"	10	10	10	20		1.320		20	10	10	10	3/4"	RECEPT - 232	0.600	R	16
17	R	0.720	RECEPT - 224	3/4"	10	10	10	20			1.920	20	10	10	10	3/4"	REFRIGERATOR - 232	1.200	O	18
19	R	0.600	RECEPT - 240	3/4"	10	10	10	20	1.140			20	10	10	10	3/4"	RECEPT - ROOF	0.540	R	20
21	R	0.540	RECEPT - 241-243	3/4"	10	10	10	20		1.080		20	10	10	10	3/4"	RECEPT - ROOF	0.540	R	22
23	R	0.720	RECEPT - 252	3/4"	10	10	10	20			1.260	20	10	10	10	3/4"	RECEPT - ROOF	0.540	R	24
25	R	0.720	RECEPT - 252	3/4"	10	10	10	20	1.440			20	10	10	10	3/4"	RECEPT - 230	0.720	R	26
27	R	0.540	RECEPT - 236	3/4"	10	10	10	20		1.080		20	10	10	10	3/4"	RECEPT - 230	0.540	R	28
29	R	0.720	RECEPT - 236	3/4"	10	10	10	20			1.520	20	12	12	12	3/4"	CARD READERS CR-11 THRU CR-14	0.800	O	30
31	R	0.720	FLOORBOX RECEPT - 236	3/4"	10	10	10	20	0.720			20					SPARE		O	32
33	R	0.720	FLOORBOX RECEPT - 236	3/4"	10	10	10	20		0.720		20					SPARE		O	34
35	O	1.200	COPIER - 234	3/4"	10	10	10	20			1.200	20					SPARE		O	36
37	R	0.360	RECEPT - 234	3/4"	10	10	10	20	0.360			20					SPARE		O	38
39	R	0.720	RECEPT - 251	3/4"	10	10	10	20		0.720		20					SPARE		O	40
41	R	0.720	RECEPT - 237, 251	3/4"	10	10	10	20			0.720	20					SPARE		O	42

LOAD TOTAL: 7.80 8.34 9.68

208Y/120 V 3 PHASE 4 WIRE
MAINS: MLO 125 A BUS
22000 AIC SE LABEL

LOAD TYPE	CONNECTED		DEMAND
(R) RECEPTACLES	22.62	72%	16.31
(M) MOTOR	0.00	100%	0.00
(H) HVAC	0.00	100%	0.00
(L) LIGHTING	0.00	125%	0.00
(O) OTHER	3.20	100%	3.20
(K) KITCHEN EQUIP	0.00	100%	0.00
TOTAL	25.82	76%	19.51

ELEC 119

FED FROM: PANEL AL1
MOUNT: SURFACE
NEMA: 1

PROVIDE DOOR WITH LOCK AND HINGED TRIM. PROVIDE COPPER BUSS BARS AND BOLT ON BREAKERS.

NOTES:
1.
2.
3.
4.

PANEL TOTALS				
PHASE A	5.894	KVA	49.1	AMP
PHASE B	6.302	KVA	52.5	AMP
PHASE C	7.314	KVA	61.0	AMP

PANEL AH2

CKT	LOAD TYPE	LOAD KVA	DESCRIPTION	C	PH	N	G	CB	PHASE A	PHASE B	PHASE C	CB	PH	N	G	C	DESCRIPTION	LOAD KVA	LOAD TYPE	CKT
1	L	2.249	LTS - 104 (A,B,C,D,E,F,G,H,I,J)	3/4"	12	12	12	20	4.169			20	12	12	12	3/4"	LTS - 116, 116D	1.920	L	2
3	L	1.314	LTS - 113(A,B,C,D), 114, 115(A,B,C)	3/4"	12	12	12	20		2.958		20	12	12	12	3/4"	LTS - 102, 103, 119-128	1.644	L	4
5	L	1.044	LTS - 115, 115D	3/4"	12	12	12	20			2.180	20	12	12	12	3/4"	LTS - 221, 222, 223	1.136	L	6
7	L	1.404	LTS - 116(A,B,C), 117, 118	3/4"	12	12	12	20	1.404			20					SPARE		O	8
9	L	1.994	LTS - 131	3/4"	12	12	12	20		1.994		20					SPARE		O	10
11	L	1.444	LTS - 101, 131	3/4"	12	12	12	20			1.444	20					SPARE		O	12
13	L	1.879	LTS - 201, 223, 248, 249	3/4"	12	12	12	20	1.879			20					SPARE		O	14
15	L	1.992	LTS - 202-207, 208(A,B), 209-218	3/4"	10	10	10	20		1.992		20					SPARE		O	16
17	L	1.730	LTS - 224, 24-247, 253, 254	3/4"	12	12	12	20			1.730	20					SPARE		O	18
19	L	1.039	LTS - 230-237, 251, 252	3/4"	12	12	12	20	1.039			20					SPARE		O	20
21	O	0.600	LTS - UNDERCOUNTER 221	3/4"	12	12	12	20		0.600		20					SPARE		O	22
23	O		SPARE					20			0.000	20					SPARE		O	24

LOAD TOTAL: 8.49 7.54 5.35

480Y/277 V 3 PHASE 4 WIRE
MAINS: MLO 125 A BUS
42000 AIC SE LABEL

LOAD TYPE	CONNECTED		DEMAND
(R) RECEPTACLES	0.00	100%	0.00
(M) MOTOR	0.00	100%	0.00
(H) HVAC	0.00	100%	0.00
(L) LIGHTING	20.79	125%	25.99
(O) OTHER	0.60	100%	0.60
(K) KITCHEN EQUIP	0.00	100%	0.00
TOTAL	21.39	124%	26.59

ELECTRIC 119

FED FROM: MDP
MOUNT: SURFACE
NEMA: 1

PROVIDE DOOR WITH LOCK AND HINGED TRIM. PROVIDE COPPER BUSS BARS AND BOLT ON BREAKERS.

NOTES:
1.
2.
3.
4.

PANEL TOTALS				
PHASE A	10.554	KVA	38.1	AMP
PHASE B	9.377	KVA	33.9	AMP
PHASE C	6.655	KVA	24.0	AMP

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BID DOCUMENTS

10/11/2024

THIS DRAWING IS FORMATTED TO BE PRINTED ON A 30" X 42" SHEET

Onslow County Senior Service Center Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: JPT
CHECKED BY: JTB

PANEL SCHEDULES

2021029 16 OCT. 2024

E6-01

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PANEL CL4

CKT	LOAD TYPE	LOAD KVA	DESCRIPTION	C	PH	N	G	CB	PHASE A	PHASE B	PHASE C	CB	PH	N	G	C	DESCRIPTION	LOAD KVA	LOAD TYPE	CKT
1	O	0.800	RANGE HOOD KH-1 - 220	3/4"	12	12	12	20	2.000			20	12	12	12	3/4"	WASHER - 244	1.200	O	2
3	O	0.800	RANGE HOOD KH-4 - 220	3/4"	12	12	12	20		3.296		30	10	10	10	3/4"	DRYER - 244	2.496	O	4
5	O	0.900	DISHWASHER - 220	3/4"	12	12	12	20			3.396							2.496	O	6
7	O	0.800	RANGE HOOD KH-2 - 220	3/4"	12	12	12	20	2.720			20	12	12	12	3/4"	ICE MACHINE - 220	1.920	O	8
9	O	0.800	RANGE HOOD KH-3 - 220	3/4"	12	12	12	20		1.880		20	12	12	12	3/4"	REFRIGERATOR - 220	1.080	O	10
11	R	0.600	RECEPT - 220	3/4"	12	12	12	20			1.680	20	12	12	12	3/4"	REFRIGERATOR - 220	1.080	O	12
13	R	0.600	RECEPT - 220	3/4"	12	12	12	20	1.200			20	12	12	12	3/4"	DDC PANEL	0.600	O	14
15	R	0.600	RECEPT - 220	3/4"	12	12	12	20		0.960		20	12	12	12	3/4"	RECEPT - 247	0.360	R	16
17	H	0.667	EXHAUST FAN EF-4	3/4"	10	10	10	20			0.875	20	12	12	12	3/4"	UNDERCOUNTER LIGHTING - 220	0.208	O	18
19	H	0.667	EXHAUST FAN EF-10	3/4"	10	10	10	20	0.817			20	12	12	12	3/4"	UNDERCOUNTER LIGHTING - 214, 216	0.150	O	20
21	R	0.360	RECEPT - ROOF	3/4"	10	10	10	20		1.360		20	12	12	12	3/4"	AV RACK - 247	1.000	O	22
23	R	0.540	RECEPT - ROOF	3/4"	10	10	10	20			0.540	20					SPARE		O	24
25	H	0.667	EXHAUST FAN EF-7	3/4"	10	10	10	20	0.667			20					SPARE		O	26
27	R	0.540	RECEPT - ROOF	3/4"	10	10	10	20		0.540		20					SPARE		O	28
29	O		SPARE					20			0.000	20					SPARE		O	30
31	O		SPARE					20	0.000			20					SPARE		O	32
33	O		SPARE					20		0.000		20					SPARE		O	34
35	O		SPARE					20			0.000	20					SPARE		O	36
37	O		SPACE						0.000								SPACE		O	38
39	O		SPACE							0.000							SPACE		O	40
41	O		SPACE								0.000						SPACE		O	42

LOAD TOTAL: 7.40 8.04 6.49

LOAD TYPE	CONNECTED		DEMAND
(R) RECEPTACLES	3.60	100%	3.60
(M) MOTOR	0.00	100%	0.00
(H) HVAC	2.00	100%	2.00
(L) LIGHTING	0.00	125%	0.00
(O) OTHER	16.33	100%	16.33
(K) KITCHEN EQUIP	0.00	100%	0.00
TOTAL	21.93	100%	21.93

208Y/120 V 3 PHASE 4 WIRE
MAINS: MLO 125 A BUS
22000 AIC SE LABEL
ELEC 208B

FED FROM: PANEL CL1
MOUNT: SURFACE
NEMA: 1

PROVIDE DOOR WITH LOCK AND HINGED TRIM. PROVIDE COPPER BUSS BARS AND BOLT ON BREAKERS.

NOTES:
1.
2.
3.
4.

PANEL TOTALS				
PHASE A	7.404	KVA	61.7	AMP
PHASE B	8.036	KVA	67.0	AMP
PHASE C	6.491	KVA	54.1	AMP

PANEL CL1

CKT	LOAD TYPE	LOAD KVA	DESCRIPTION	C	PH	N	G	CB	PHASE A	PHASE B	PHASE C	CB	PH	N	G	C	DESCRIPTION	LOAD KVA	LOAD TYPE	CKT
1	S	10.760							10.760										O	2
3	S	9.400	PANEL CL2	SEE POWER RISER				225		9.400		30	10	10	10	3/4"	SPD		O	4
5	S	9.020									9.020								O	6
7	S	11.400							11.400										O	8
9	S	11.460	PANEL CL3	SEE POWER RISER				225		11.460		100					SPARE		O	10
11	S	11.400									11.400								O	12
13	S	7.404							7.404										O	14
15	S	8.036	PANEL CL4	SEE POWER RISER				125		8.036							SPACE		O	16
17	S	6.491									6.491								O	18
19	O		SPARE					20	0.000										O	20
21	O		SPARE					20		0.000							SPACE		O	22
23	O		SPARE					20			0.000								O	24
25	O		SPARE					20	0.000			20					SPARE		O	26
27	O	4.160	RANGE - 220 (NOTE 1)	1"	8	8	10	50		4.160		20					SPARE		O	28
29	O	4.160									4.160	20					SPARE		O	30
31	O	4.160	RANGE - 220 (NOTE 1)	1"	8	8	10	50	4.160			20					SPARE		O	32
33	O	4.160								4.160		20					SPARE		O	34
35	O	4.160	RANGE - 220 (NOTE 1)	1"	8	8	10	50			4.160	20					SPARE		O	36
37	O	4.160							4.160			20					SPARE		O	38
39	O	4.160	RANGE - 220 (NOTE 1)	1"	8	8	10	50		5.564		15	10	10	10	3/4"	DS-3/DSC-3	1.404	H	40
41	O	4.160									5.564							1.404	H	42

LOAD TOTAL: 37.88 42.78 40.80

LOAD TYPE	CONNECTED		DEMAND
(R) RECEPTACLES	58.26	59%	34.13
(M) MOTOR	0.00	100%	0.00
(H) HVAC	4.81	100%	4.81
(L) LIGHTING	0.00	125%	0.00
(O) OTHER	58.39	100%	58.39
(K) KITCHEN EQUIP	0.00	100%	0.00
TOTAL	121.46	80%	97.33

208Y/120 V 3 PHASE 4 WIRE
MAINS: MCB 400 A MCB
22000 AIC SE LABEL
ELEC 208B

FED FROM: TRANSFORMER TC
MOUNT: SURFACE
NEMA: 1

PROVIDE DOOR WITH LOCK AND HINGED TRIM. PROVIDE COPPER BUSS BARS AND BOLT ON BREAKERS.

NOTES:
1. PROVIDE GROUND FAULT CIRCUIT BREAKER.
2.
3.
4.

PANEL TOTALS				
PHASE A	30.358	KVA	253.0	AMP
PHASE B	34.281	KVA	285.7	AMP
PHASE C	32.690	KVA	272.4	AMP

PANEL BL2

CKT	LOAD TYPE	LOAD KVA	DESCRIPTION	C	PH	N	G	CB	PHASE A	PHASE B	PHASE C	CB	PH	N	G	C	DESCRIPTION	LOAD KVA	LOAD TYPE	CKT
1	R	0.720	RECEPT - 116	3/4"	12	12	12	20	1.320			20	12	12	12	3/4"	RECEPT - 104G	0.600	R	2
3	R	0.720	RECEPT - 116	3/4"	12	12	12	20		1.320		20	12	12	12	3/4"	RECEPT - 104G	0.600	R	4
5	R	0.720	RECEPT - 116	3/4"	12	12	12	20			1.320	20	12	12	12	3/4"	RECEPT - 104G	0.600	R	6
7	R	0.720	RECEPT - 116	3/4"	12	12	12	20	1.320			20	12	12	12	3/4"	RECEPT - 104G	0.600	R	8
9	R	0.720	RECEPT - 116	3/4"	12	12	12	20		1.920		20	12	12	12	3/4"	REFRIGERATOR - 104G	1.200	O	10
11	R	0.720	RECEPT - 116	3/4"	12	12	12	20			1.620	20	12	12	12	3/4"	RECEPT - 104F, 104G, EXTERIOR	0.900	R	12
13	R	0.540	RECEPT - 116	3/4"	12	12	12	20	1.260			20	12	12	12	3/4"	RECEPT - 104FE, 104F	0.720	R	14
15	R	0.720	FLOORBOX RECEPT - 116	3/4"	12	12	12	20		1.440		20	12	12	12	3/4"	RECEPT - 104E	0.720	R	16
17	R	0.720	FLOORBOX RECEPT - 116	3/4"	12	12	12	20			1.620	20	12	12	12	3/4"	RECEPT - 104E	0.900	R	18
19	R	0.720	FLOORBOX RECEPT - 116	3/4"	12	12	12	20	1.440			20	12	12	12	3/4"	RECEPT - 104D	0.720	R	20
21	R	0.720	FLOORBOX RECEPT - 116	3/4"	12	12	12	20		1.440		20	12	12	12	3/4"	RECEPT - 104C, 104D	0.720	R	22
23	R	0.720	FLOORBOX RECEPT - 116	3/4"	12	12	12	20			1.440	20	12	12	12	3/4"	RECEPT - 104C, 104D	0.720	R	24
25	R	0.720	FLOORBOX RECEPT - 116	3/4"	12	12	12	20	1.920			20	12	12	12	3/4"	COPIER - 104C	1.200	O	26
27	R	0.600	RECEPT - 116A	3/4"	12	12	12	20		1.800		20	12	12	12	3/4"	COPIER - 104	1.200	O	28
29	R	0.600	RECEPT - 116A	3/4"	12	12	12	20			1.400	20	12	12	12	3/4"	MOTORIZED DOOR - 100	0.800	O	30
31	R	0.600	RECEPT - 116A	3/4"	12	12	12	20	1.400			20	12	12	12	3/4"	MOTORIZED DOOR - 100	0.800	O	32
33	R	0.720	RECEPT - 131	3/4"	12	12	12	20		1.440		20	12	12	12	3/4"	RECEPT - 104A, 104B	0.720	R	34
35	R	0.720	RECEPT - 131	3/4"	12	12	12	20			1.440	20	12	12	12	3/4"	RECEPT - 102	0.720	R	36
37	O	1.200	VENDING - 102 (NOTE 1)	3/4"	12	12	12	20	1.920			20	12	12	12	3/4"	RECEPT - 100, 102, 102A	0.720	R	38
39	O	1.200	VENDING - 102 (NOTE 1)	3/4"	12	12	12	20		2.400		20	12	12	12	3/4"	VENDING - 102 (NOTE 1)	1.200	O	40
41	O	1.200	VENDING - 102 (NOTE 1)	3/4"	12	12	12	20			2.400	20	12	12	12	3/4"	VENDING - 102 (NOTE 1)	1.200	O	42
43	R	0.720	RECEPT - 101	3/4"	12	12	12	20	1.440			20	12	12	12	3/4"	RECEPT - 102	0.720	R	44
45	O	1.000	AV RACK - 108	3/4"	12	12	12	20		1.720		20	12	12	12	3/4"	RECEPT - 100, 102, 102A	0.720	R	46
47	R	0.720	RECEPT - 104F	3/4"	12	12	12	20			1.120	20	12	12	12	3/4"	LIGHTING CONTROLLER POWER - 117	0.400	O	48
49	O		SPARE					20	0.400			20	12	12	12	3/4"	CARD READERS CR-4, CR-5	0.400	O	50
51	O		SPARE					20		0.000		20					SPARE		O	52
53	O		SPARE					20			0.000	20					SPARE		O	54
55	O		SPARE					20	0.000								SPACE		O	56
57	O		SPARE					20		0.000							SPACE		O	58
59	O		SPARE					20			0.000						SPACE		O	60

LOAD TOTAL: 12.42 13.48 12.36

LOAD TYPE	CONNECTED		DEMAND
(R) RECEPTACLES	25.26	70%	17.63
(M) MOTOR	0.00	100%	0.00
(H) HVAC	0.00	100%	0.00
(L) LIGHTING	0.00	125%	0.00
(O) OTHER	13.00	100%	13.00
(K) KITCHEN EQUIP	0.00	100%	0.00
TOTAL	38.26	80%	30.63

208Y/120 V 3 PHASE 4 WIRE
MAINS: MLO 225 A BUS
22000 AIC SE LABEL
MECH/ELEC 107

FED FROM: PANEL BL1
MOUNT: SURFACE
NEMA: 1

PROVIDE DOOR WITH LOCK AND HINGED TRIM. PROVIDE COPPER BUSS BARS AND BOLT ON BREAKERS.

NOTES:
1. PROVIDE GFCI CIRCUIT BREAKER.
2.
3.
4.

PANEL TOTALS				
PHASE A	9.943	KVA	82.9	AMP
PHASE B	10.792	KVA	89.9	AMP
PHASE C	9.895	KVA	82.5	AMP

PANEL SBH

CKT	LOAD TYPE	LOAD KVA	DESCRIPTION	C	PH	N	G	CB	PHASE A	PHASE B	PHASE C	CB	PH	N	G	C	DESCRIPTION	LOAD KVA	LOAD TYPE	CKT
1	S	13.550							13.550										O	2
3	S	15.350	TRANSFORMER SBT [75KVA]	SEE POWER RISER				110		15.350		60	6	6	10	1"	SPD		O	4
5	S	14.591									14.591								O	6
7	O	4.067							9.330									5.263	H	8
9	O	4.067	WATER HEATER WH-2 [12.2KW]	3/4"	10	10	10	20		9.330		30	10	10	10	3/4"	RTU-1A	5.263	H	10
11	O	4.067									9.330							5.263	H	12
13	L	3.165	LTS - 129, 131	3/4"	10	10	10	20	4.393			20	10	10	10	3/4"	LTS - 106	1.228	L	14
15	L	0.462	LTS - 100	3/4"	10	10	10	20		1.896		20	10	10	10	3/4"	LTS - 106(A,B,C,D), 107-111, 109A	1.434	L	16
17	O		SPARE					20			0.924	20	10	10	10	3/4"	LTS - EXTERIOR PERIMETER	0.924	L	18
19	H	5.263							5.932			20	10	10	10	3/4"	LTS - EXTERIOR CANOPIES	0.669	L	20
21	H	5.263	RTU-1B	3/4"	10	10	10	30		5.263		20					SPARE		O	22
23	H	5.263									5.263	20					SPARE		O	24
25	O		SPARE					20	0.000								SPACE		O	26
27	O		SPARE					20		0.000							SPACE		O	28
29	O		SPARE					20			0.000						SPACE		O	30
31	O		SPACE						0.000								SPACE		O	32
33	O		SPACE							0.000							SPACE		O	34
35	O		SPACE								0.000						SPACE		O	36
37	O		SPACE						0.000								SPACE		O	38
39	O		SPACE							0.000							SPACE		O	40
41	O		SPACE								0.000						SPACE		O	42

LOAD TOTAL: 33.21 31.84 30.11

LOAD TYPE	CONNECTED		DEMAND
(R) RECEPTACLES	10.38	98%	10.19
(M) MOTOR	0.00	100%	0.00
(H) HVAC	33.68	100%	33.68
(L) LIGHTING	7.88	125%	9.85
(O) OTHER	43.21	100%	43.21
(K) KITCHEN EQUIP	0.00	100%	0.00
TOTAL	95.15	102%	96.93

480Y/277 V 3 PHASE 4 WIRE
MAINS: MCB 225 A MCB
42000 AIC SE LABEL
MECH/ELEC 107

FED FROM: ATS OR MTS
MOUNT: SURFACE
NEMA: 1
OPTIONAL STANDBY

PROVIDE DOOR WITH LOCK AND HINGED TRIM. PROVIDE COPPER BUSS BARS AND BOLT ON BREAKERS.

NOTES:
1.
2.
3.
4.

PANEL TOTALS				
PHASE A	33.826	KVA	122.1	AMP
PHASE B	32.435	KVA	117.1	AMP
PHASE C	30.671	KVA	110.7	AMP

PANEL CL2

CKT	LOAD TYPE	LOAD KVA	DESCRIPTION	C	PH	N	G	CB	PHASE A	PHASE B	PHASE C	CB	PH	N	G	C	DESCRIPTION	LOAD KVA	LOAD TYPE	CKT
1	R	0.720	RECEPT - 200, 201A, EXTERIOR	3/4"	12	12	12	20	1.260			20	12	12	12	3/4"	RECEPT - 211	0.540	R	2
3	R	0.720	RECEPT - 202	3/4"	12	12	12	20		1.320		15	12	12	12	3/4"	WATER HEATER GWH-1 IGNITOR	0.600	O	4
5	R	0.720	RECEPT - 202	3/4"	12	12	12	20			1.120	20	12	12	12	3/4"	RP-1	0.400	O	6
7	R	0.720	RECEPT - 203	3/4"	12	12	12	20	1.440			20	12	12	12	3/4"	RECEPT - 212	0.720	R	8
9	R	0.720	RECEPT - 203, 205	3/4"	12	12	12	20		1.440		20	12	12	12	3/4"	RECEPT - 212, 213	0.720	R	10
11	R	0.720	RECEPT - 205	3/4"	12	12	12	20			1.440	20	12	12	12	3/4"	RECEPT - 213	0.720	R	12
13	R	0.720	RECEPT - 204	3/4"	12	12	12	20	1.440			20	12	12	12	3/4"	RECEPT - 213, 215	0.720	R	14
15	R	0.720	RECEPT - 204	3/4"	12	12	12	20		1.440		20	12	12	12	3/4"	RECEPT - 215	0.720	R	16
17	R	0.720	RECEPT - 207	3/4"	12	12	12	20			1.440	20	12	12	12	3/4"	RECEPT - 217	0.720	R	18
19	R	0.720	RECEPT - 205, 207	3/4"	12	12	12	20	1.440			20	12	12	12	3/4"	RECEPT - 215, 217	0.720	R	20
21	R	0.720	RECEPT - 206	3/4"	12	12	12	20		1.440		20	12	12	12	3/4"	RECEPT - 218	0.720	R	22
23	R	0.720	RECEPT - 206	3/4"	12	12	12	20			1.440	20	12	12	12	3/4"	RECEPT - 218	0.720	R	24
25	R	0.360	RECEPT - 249	3/4"	12	12	12	20	1.560			20	12	12	12	3/4"	COPIER - 214	1.200	O	26
27	R	0.180	RECEPT - 208B	3/4"	12	12	12	20		0.900		20	12	12	12	3/4"	RECEPT - 214	0.720	R	28
29	R	0.720	RECEPT - 209	3/4"	12	12	12	20			1.320	20	12	12	12	3/4"	RECEPT - 214	0.600	R	30
31	R	0.720	RECEPT - 207, 209	3/4"	12	12	12	20	1.320			20	12	12	12	3/4"	RECEPT - 214	0.600	R	32
33	R	0.720	RECEPT - 210	3/4"	12	12	12	20		1.320		20	12	12	12	3/4"	RECEPT - 214	0.600	R	34
35	R	0.540	RECEPT - 210	3/4"	12	12	12	20			1.260	20	12	12	12	3/4"	RECEPT - 249	0.720	R	36
37	O	0.900	EWC - 249 (NOTE 1)	3/4"	12	12	12	20	1.900			20	10	10	10	3/4"	FIRELINE BFP HOT BOX	1.000	O	38
39	R	0.540	RECEPT - 200, 201A, EXTERIOR	3/4"	12	12	12	20		1.540		20	10	10	10	3/4"	DOMESTIC BFP HOT BOX	1.000	O	40
41	O	0.200	SPRINKLER BELL	3/4"	12	12	12	20			1.000	20	12	12	12	3/4"	CARD READERS CR-6, CR-7, CR-8, CR-10	0.800	O	42
43	O	0.400	LIGHTING CONTROLLER POWER - 220A	3/4"	12	12	12	20	0.400			20					SPARE		O	44
45	O		SPARE					20		0.000		20					SPARE		O	46
47	O		SPARE					20			0.000	20					SPARE		O	48
49	O		SPARE					20	0.000			20					SPARE		O	50
51	O		SPARE					20		0.000		20					SPARE		O	52
53	O		SPARE					20			0.000	20					SPARE		O	54
55	O		SPACE						0.000								SPACE		O	56
57	O		SPACE							0.000							SPACE		O	58
59	O		SPACE								0.000						SPACE		O	60

LOAD TOTAL: 10.76 9.40 9.02

LOAD TYPE	CONNECTED		DEMAND
(R) RECEPTACLES	22.68	72%	16.34
(M) MOTOR	0.00	100%	0.00
(H) HVAC	0.00	100%	0.00
(L) LIGHTING	0.00	125%	0.00
(O) OTHER	6.50	100%	6.50
(K) KITCHEN EQUIP	0.00	100%	0.00
TOTAL	29.18	78%	22.84

208Y/120 V 3 PHASE 4 WIRE
MAINS: MLO 225 A BUS
22000 AIC SE LABEL
ELEC 208B

FED FROM: PANEL CL1
MOUNT: SURFACE
NEMA: 1

PROVIDE DOOR WITH LOCK AND HINGED TRIM. PROVIDE COPPER BUSS BARS AND BOLT ON BREAKERS.

NOTES:
1. PROVIDE GFCI CIRCUIT BREAKER.
2.
3.
4.

PANEL TOTALS				
PHASE A	8.422	KVA	70.2	AMP
PHASE B	7.358	KVA	61.3	AMP
PHASE C	7.060	KVA	58.8	AMP

PANEL BL3

CKT	LOAD TYPE	LOAD KVA	DESCRIPTION	C	PH	N	G	CB	PHASE A	PHASE B	PHASE C	CB	PH	N	G	C	DESCRIPTION	LOAD KVA	LOAD TYPE	CKT
1	O		SPARE					20	0.720			20	12	12	12	3/4"	RECEPT - 107	0.720	R	2
3	R	0.900	FURNITURE FEED - 104	3/4"	12	12	12	20		1.080		20	10	10	10	3/4"	RECEPT - ROOF	0.180	R	4
5	R	0.900	FURNITURE FEED - 104	3/4"	12	12	12	20			1.080	20	10	10	10	3/4"	RECEPT - ROOF	0.180	R	6
7	R	0.900	FURNITURE FEED - 104	3/4"	12	12	12	20	1.620			20	10	10	10	3/4"	RECEPT - ROOF	0.720	R	8
9	R	0.900	FURNITURE FEED - 104	3/4"	12	12	12	20		0.962		20	12	12	12	3/4"	UNDERCOUNTER LIGHTS - 109	0.062	O	10
11	R	0.900	FURNITURE FEED - 104	3/4"	12	12	12	20			0.900	20					SPARE		O	12
13	R	0.900	FURNITURE FEED - 104	3/4"	12	12	12	20	1.260			20	10	10	10	3/4"	RECEPT - ROOF	0.360	R	14
15	R	0.900	FURNITURE FEED - 104	3/4"	12	12	12	20		0.900		20	10	10	10	3/4"	EXHAUST FAN EF-11		H	16
17	R	0.900	FURNITURE FEED - 104	3/4"	12	12	12	20			0.900	20					SPARE		O	18
19	R	0.900	FURNITURE FEED - 104	3/4"	12	12	12	20	0.900			20					SPARE		O	20
21	R	0.900	FURNITURE FEED - 104	3/4"	12	12	12	20		0.900		20					SPARE		O	22
23	R	0.900	FURNITURE FEED - 104	3/4"	12	12	12	20			0.900	20					SPARE		O	24
25	R	0.900	FURNITURE FEED - 104	3/4"	12	12	12	20	0.900			20					SPARE		O	26
27	R	0.540	RECEPT - 104H, 104I, 104J	3/4"	12	12	12	20		0.540		20					SPARE		O	28
29	O		SPARE					20			0.000	20					SPARE		O	30
31	O		SPARE					20	0.000			20					SPARE		O	32
33	O		SPARE					20		0.000		20					SPARE		O	34
35	O		SPARE					20			0.000	20					SPARE		O	36
37	O		SPARE					20	0.000			20					SPACE		O	38
39	O		SPARE					20		0.000		20					SPACE		O	40
41	O		SPARE					20			0.000	20					SPACE		O	42

LOAD TOTAL: 5.40 4.38 3.78

LOAD TYPE	CONNECTED		DEMAND
(R) RECEPTACLES	13.50	87%	11.75
(M) MOTOR	0.00	100%	0.00
(H) HVAC	0.00	100%	0.00
(L) LIGHTING	0.00	125%	0.00
(O) OTHER	0.06	100%	0.06
(K) KITCHEN EQUIP	0.00	100%	0.00
TOTAL	13.56	87%	11.81

208Y/120 V 3 PHASE 4 WIRE
MAINS: MLO 125 A BUS
22000 AIC SE LABEL
MECH/ELEC 107

FED FROM: PANEL BL1
MOUNT: SURFACE
NEMA: 1

PROVIDE DOOR WITH LOCK AND HINGED TRIM. PROVIDE COPPER BUSS BARS AND BOLT ON BREAKERS.

NOTES:
1.
2.
3.
4.

PANEL TOTALS				
PHASE A	4.703	KVA	39.2	AMP
PHASE B	3.817	KVA	31.8	AMP
PHASE C	3.292	KVA	27.4	AMP

PANEL SBL

CKT	LOAD TYPE	LOAD KVA	DESCRIPTION	C	PH	N	G	CB	PHASE A	PHASE B	PHASE C	CB	PH	N	G	C	DESCRIPTION	LOAD KVA	LOAD TYPE	CKT
1	R	0.720	RECEPT - 106D	3/4"	12	12	12	20	0.720										O	2
3	R	0.900	RECEPT - 106B, 106D	3/4"	12	12	12	20		0.900		30	10	10	10	3/4"	SPD		O	4
5	R	0.900	FURNITURE FEED - 106C	3/4"	12	12	12	20			0.900								O	6
7	R	0.900	FURNITURE FEED - 106C	3/4"	12	12	12	20	1.080			20	10	10	10	3/4"	GEN-SET RECEPTACLE	0.180	R	8
9	O	1.200	COPIER - 106C	3/4"	12	12	12	20		2.700		20	10	10	10	3/4"	GEN-SET BATERY CHARGER	1.500	O	10
11	R	0.540	RECEPT - 106D	3/4"	12	12	12	20			1.740	20	10	10	10	3/4"	GEN-SET HEATER	1.200	O	12
13	R	0.900	RECEPT - 106D	3/4"	12	12	12	20	1.800			20	10	10	10	3/4"	GEN-SET CONTROLS	0.900	O	14
15	R	0.720	RECEPT - 106D	3/4"	12	12	12	20		1.420		20	10	10	10	3/4"	RP-2	0.700	O	16
17	R	0.540	RECEPT - 106D	3/4"	12	12	12	20			0.720	20	10	10	10	3/4"	RECEPT - ROOF	0.180	R	18
19	R	0.720	RECEPT - 106D	3/4"	12	12	12	20	1.080			20	10	10	10	3/4"	SECURITY - 247	0.360	O	20
21	O	0.900	EWC - 131 (NOTE 1)	3/4"	12	12	12	20		1.700		20	10	10	10	3/4"	F/A NAC PANEL - 108 (NOTE 2)	0.800	O	22
23	O	1.920	ICE MAKER - 109 (NOTE 1)	3/4"	12	12	12	20			2.720	20	10	10	10	3/4"	F/A NAC PANEL - 247 (NOTE 2)	0.800	O	24
25	O	1.000	REFRIGERATOR - 109 (NOTE 1)	3/4"	12	12	12	20	1.600			20	10	10	10	3/4"	ACCESS CONTROL EQUIPMENT - 247	0.600	O	26
27	R	0.540	RECEPT - 106D	3/4"	12	12	12	20		1.440		20	10	10	10	3/4"	NETWORK RACK - 247	0.900	O	28
29	R	0.600	RECEPT - 106D	3/4"	12	12	12	20			1.600	20	10	10	10	3/4"	FACP - 120 (NOTE 2)	1.000	O	30
31	R	0.600	RECEPT - 106D	3/4"	12	12	12	20	1.400			20	10	10	10	3/4"	SECURITY PANEL - 120	0.800	O	32
33	O	1.920	WARMING CABINET - 109 (NOTE 1)	3/4"	12	12	12	20		2.720		20	10	10	10	3/4"	ACCESS CONTROL PANEL - 120	0.800	O	34
35	R	0.540	RECEPT - 106D	3/4"	12	12	12	20			1.540	20	10	10	10	3/4"	NETWORK RACK - 120	1.000	O	36
37	O	1.000	NETWORK RACK - 108	3/4"	12	12	12	20	2.000			20	10	10	10	3/4"	NETWORK RACK - 120	1.000	O	38
39	O	0.900	SECURITY SYSTEM - 108	3/4"	12	12	12	20		1.500		20	10	10	10	3/4"	DDC PANEL - 108	0.600	H	40
41	O	0.900	SECURITY SYSTEM - 108	3/4"	12	12	12	20			2.401	20	10	10	10	3/4"	EXHAUST FANS EF-3 AND EF-5	1.501	H	42
43	O		SPARE					20	0.900			20	10	10	10	3/4"	RECEPT - ROOF	0.900	R	44
45	O		SPARE					20		0.000		20					SPARE		O	46
47	O		SPARE					20			0.000	20					SPARE		O	48
49	O		SPARE					20	0.000			20					SPARE		O	50
51	O		SPARE					20		0.000		20					SPARE		O	52
53	O		SPARE					20			0.000	20					SPARE		O	54
55	O		SPARE					20	2.970									2.970	O	56
57	O		SPARE					20		2.970		50	6	6	8	1 1/4"	GRINDER PUMP STATION	2.970	O	58
59	O		SPARE					20			2.970							2.970	O	60

LOAD TOTAL: 13.55 15.35 14.59

LOAD TYPE	CONNECTED		DEMAND
(R) RECEPTACLES	10.38	98%	10.19
(M) MOTOR	0.00	100%	0.00
(H) HVAC	2.10	100%	2.10
(L) LIGHTING	0.00	125%	0.00
(O) OTHER	31.01	100%	31.01
(K) KITCHEN EQUIP	0.00	100%	0.00
TOTAL	43.49	100%	43.30

208Y/120 V 3 PHASE 4 WIRE
MAINS: MCB 225 A MCB
42000 AIC SE LABEL
MECH/ELEC 107

FED FROM: TRANSFORMER SBT
MOUNT: SURFACE
NEMA: 1
OPTIONAL STANDBY

PROVIDE DOOR WITH LOCK AND HINGED TRIM. PROVIDE COPPER BUSS BARS AND BOLT ON BREAKERS.

NOTES:
1. PROVIDE GFCI CIRCUIT BREAKER.
2. PROVIDE RED BREAKER LOCK FOR FIRE ALARM CIRCUITS.
3.
4.

PANEL TOTALS				
PHASE A	13.491	KVA	112.4	AMP
PHASE B	15.283	KVA	127.4	AMP
PHASE C	14.527	KVA	121.1	AMP

PANEL CL3

CKT	LOAD TYPE	LOAD KVA	DESCRIPTION	C	PH	N	G	CB	PHASE A	PHASE B	PHASE C	CB	PH	N	G	C	DESCRIPTION	LOAD KVA	LOAD TYPE	CKT
1	R	0.180	RECEPT - 208A, 208B	3/4"	12	12	12	20	0.900			20	10	10	10	3/4"	FLOORBOX RECEPT - 223	0.720	R	2
3	R	0.720	RECEPT - 216	3/4"	12	12	12	20		1.440		20	10	10	10	3/4"	FLOORBOX RECEPT - 223	0.720	R	4
5	O	1.200	REFRIGERATOR - 216	3/4"	12	12	12	20			1.920	20	10	10	10	3/4"	RECEPT - 222	0.720	R	6
7	R	0.600	RECEPT - 216	3/4"	12	12	12	20	1.320			20	10	10	10	3/4"	RECEPT - 222	0.720	R	8
9	R	0.600	RECEPT - 216	3/4"	12	12	12	20		1.320		20	10	10	10	3/4"	RECEPT - 222	0.720	R	10
11	R	0.600	RECEPT - 216	3/4"	12	12	12	20			1.080	20	10	10	10	3/4"	FLOORBOX RECEPT - 223	0.480	R	12
13	R	0.900	RECEPT - 219, 220A, 220B	3/4"	12	12	12	20	1.380			20	10	10	10	3/4"	FLOORBOX RECEPT - 223	0.480	R	14
15	R	0.960	FLOORBOX RECEPT - 222	3/4"	10	10	10	20		1.500		20	10	10	10	3/4"	RECEPT - 222	0.540	R	16
17	R	0.960	FLOORBOX RECEPT - 222	3/4"	10	10	10	20			1.680	20	10	10	10	3/4"	RECEPT - 222	0.720	R	18
19	R	0.960	FLOORBOX RECEPT - 222	3/4"	10	10	10	20	1.680			20	10	10	10	3/4"	RECEPT - 222	0.720	R	20
21	R	0.960	FLOORBOX RECEPT - 222	3/4"	10	10	10	20		1.680		20	10	10	10	3/4"	RECEPT - 222	0.720	R	22
23	R	0.960	FLOORBOX RECEPT - 222	3/4"	10	10	10	20			1.680	20	10	10	10	3/4"	FLOORBOX RECEPT - 223	0.720	R	24
25	R	0.960	FLOORBOX RECEPT - 222	3/4"	10	10	10	20	1.680			20	10	10	10	3/4"	FLOORBOX RECEPT - 223	0.720	R	26
27	R	0.960	FLOORBOX RECEPT - 223	3/4"	10	10	10	20		2.040		20	12	12	12	3/4"	FLAT PANELS - 220	1.080	O	28
29	R	0.960	FLOORBOX RECEPT - 223	3/4"	10	10	10	20			1.560	20	12	12	12	3/4"	RECEPT - 222	0.600	R	30
31	R	0.960	FLOORBOX RECEPT - 223	3/4"	10	10	10	20	1.560			20	12	12	12	3/4"	RECEPT - 222	0.600	R	32
33	R	0.960	FLOORBOX RECEPT - 223	3/4"	10	10	10	20		1.560		20	12	12	12	3/4"	RECEPT - 222	0.600	R	34
35	R	0.960	FLOORBOX RECEPT - 223	3/4"	10	10	10	20			1.560	20	12	12	12	3/4"	RECEPT - 222	0.600	R	36
37	R	0.960	FLOORBOX RECEPT - 223	3/4"	10	10	10	20	1.560			20	10	10	10	3/4"	RECEPT - 222	0.600	R	38
39	R	0.720	FLOORBOX RECEPT - 222	3/4"	10	10	10	20		1.320		20	10	10	10	3/4"	RECEPT - 222	0.600	R	40
41	R	0.720	FLOORBOX RECEPT - 222	3/4"	10	10	10	20			1.320	20	10	10	10	3/4"	RECEPT - 222	0.600	R	42
43	R	0.600	RECEPT - 220	3/4"	10	10	10	20	1.320			20	10	10	10	3/4"	FLOORBOX RECEPT - 220	0.720	R	44
45	R	0.600	RECEPT - 220	3/4"	10	10	10	20		0.600		20					SPARE		O	46
47	R	0.600	RECEPT - 220	3/4"	10	10	10	20			0.600	20					SPARE		O	48
49	O		SPARE					20	0.000			20					SPARE		O	50
51	O		SPARE					20		0.000		20					SPARE		O	52
53	O		SPARE					20			0.000	20					SPARE		O	54
55	O		SPARE					20	0.000			20					SPARE		O	56
57	O		SPARE					20		0.000		20					SPARE		O	58
59	O		SPARE					20			0.000	20					SPARE		O	60

LOAD TOTAL: 11.40 11.46 11.40

LOAD TYPE	CONNECTED		DEMAND
(R) RECEPTACLES	31.98	66%	20.99
(M) MOTOR	0.00	100%	0.00
(H) HVAC	0.00	100%	0.00
(L) LIGHTING	0.00	125%	0.00
(O) OTHER	2.28	100%	2.28
(K) KITCHEN EQUIP	0.00	100%	0.00
TOTAL	34.26	68%	23.27

208Y/120 V 3 PHASE 4 WIRE
MAINS: MLO 225 A BUS
22000 AIC SE LABEL
ELECT 208B

FED FROM: PANEL CL1
MOUNT: SURFACE
NEMA: 1

PROVIDE DOOR WITH LOCK AND HINGED TRIM. PROVIDE COPPER BUSS BARS AND BOLT ON BREAKERS.

NOTES:
1.
2.
3.
4.

PANEL TOTALS				
PHASE A	7.743	KVA	64.5	AMP
PHASE B	7.784	KVA	64.9	AMP
PHASE C	7.743	KVA	64.5	AMP

PANEL CH1

CKT	LOAD TYPE	LOAD KVA	DESCRIPTION	C	PH	N	G	CB	PHASE A	PHASE B	PHASE C	CB	PH	N	G	C	DESCRIPTION	LOAD KVA	LOAD TYPE	CKT
1	S	37.884							41.485									3.601	H	2
3	S	42.780	TRANSFORMER TC [112.5KVA]	SEE POWER RISER				175		46.381		15	10		10	3/4"	RTU-20	3.601	H	4
5	S	40.795									44.396							3.601	H	6
7	H	3.878							7.479									3.601	H	8
9	H	3.878	RTU-17	3/4"	10		10	20		7.479		15	10		10	3/4"	RTU-16	3.601	H	10
11	H	3.878									7.479							3.601	H	12
13	H	2.493							6.094									3.601	H	14
15	H	2.493	RTU-15	3/4"	10		10	15		6.094		15	10		10	3/4"	RTU-9	3.601	H	16
17	H	2.493									6.094							3.601	H	18
19	O								0.000			20							O	20
21	O		SPARE					100		0.000		20							O	22
23	O										0.000	20							O	24
25	O							20	0.000			20							O	26
27	O							20		0.000		20							O	28
29	O							20			0.000	20							O	30
31	O							20	0.000			20							O	32
33	O							20		0.000		20							O	34
35	O							20			0.000	20							O	36
37	O							20	0.000			20							O	38
39	O							20		0.000		20							O	40
41	O							20			0.000	20							O	42

LOAD TOTAL: 55.06 59.95 57.97

LOAD TYPE	CONNECTED		DEMAND
(R) RECEPTACLES	58.26	59%	34.13
(M) MOTOR	0.00	100%	0.00
(H) HVAC	56.33	100%	56.33
(L) LIGHTING	0.00	125%	0.00
(O) OTHER	58.39	100%	58.39
(K) KITCHEN EQUIP	0.00	100%	0.00
TOTAL	172.98	86%	148.85

480Y/277 V 3 PHASE 4 WIRE
MAINS: MLO 400 A BUS
22000 AIC SE LABEL
ELEC 208B

FED FROM: MDP
MOUNT: SURFACE
NEMA: 1

PROVIDE DOOR WITH LOCK AND HINGED TRIM. PROVIDE COPPER BUSS BARS AND BOLT ON BREAKERS.

NOTES:
1.
2.
3.
4.

PANEL TOTALS				
PHASE A	47.378	KVA	171.0	AMP
PHASE B	51.591	KVA	186.2	AMP
PHASE C	49.883	KVA	180.1	AMP

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10/11/2024

BID DOCUMENTS

Onslow County Senior Service Center Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: JPT
CHECKED BY: JTB

PANEL SCHEDULES

2021029 16 OCT. 2024

E6-02

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ONSLOW COUNTY SENIOR CENTER LIGHT FIXTURE SCHEDULE

SYMBOL	SIZE / MOUNTING	VOLT	MANUFACTURER AND MODEL NO.	DESCRIPTION	LAMP	WATTS	MOUNTING HEIGHT
A	RECESSED CEILING	MVOLT	COLUMBIA LJT24-40-HL-G-ED1-U OR APPROVED EQUAL BY LITHONIA OR WILLIAMS	2' X 4' LAY-IN PRISMATIC LED TROFFER, DLC CERTIFIED, 0-10V DIMMING (DIM TO 1%)	LED 4000K 5526 LUMENS 80 CRI	45	
AE	RECESSED CEILING	MVOLT	COLUMBIA LJT24-40-HL-G-ED1-U-ELL14 OR APPROVED EQUAL BY LITHONIA OR WILLIAMS	SAME AS TYPE A EXCEPT WITH 1400 LUMEN 90 MINUTE BATTERY BACKUP	LED 4000K 5526 LUMENS 80 CRI	45	
A2	RECESSED CEILING	MVOLT	COLUMBIA LJT24-40-ML-G-ED1-U OR APPROVED EQUAL BY LITHONIA OR WILLIAMS	2' X 4' LAY-IN PRISMATIC LED TROFFER, DLC CERTIFIED, 0-10V DIMMING (DIM TO 1%)	LED 4000K 4792 LUMENS 80 CRI	38	
A2E	RECESSED CEILING	MVOLT	COLUMBIA LJT24-40-HL-G-ED1-U-ELL14 OR APPROVED EQUAL BY LITHONIA OR WILLIAMS	SAME AS TYPE A2 EXCEPT WITH 1400 LUMEN 90 MINUTE BATTERY BACKUP	LED 4000K 4792 LUMENS 80 CRI	38	
AV	RECESSED CEILING	MVOLT	COLUMBIA #LCAT24-40-HL-G-ED1-U OR APPROVED EQUAL BY LITHONA OR WILLIAMS	2' X 4' LAY-IN PRISMATIC LED TROFFER, DLC CERTIFIED, 0-10V DIMMING (DIM TO 1%)	LED 4000K 4903 LUMENS 80 CRI	44	
AVE	RECESSED CEILING	MVOLT	COLUMBIA #LCAT24-40-ML-G-ED1-U-ELL14 OR APPROVED EQUAL BY LITHONA OR WILLIAMS	SAME AS TYPE AV EXCEPT WITH 1400 LUMEN 90 MINUTE BATTERY BACKUP	LED 4000K 4903 LUMENS 80 CRI	44	
C	CHAIN HUNG	MVOLT	WILLIAMS #82-4-L64/840-VBY-CHAINS-DRV-UNV-WG-8214 APPROVED EQUAL BY LITHONIA OR COLUMBIA	4' INDUSTRIAL LED CHAIN HUNG, WITH WIRE GUARD, 82CRI	LED 4000K 4,600 LUMEN 80 CRI	38	10'-0" AFF.
CE	CHAIN HUNG	MVOLT	WILLIAMS #82-4-L64/840-VBY-CHAINS-DRV-UNV-WG-8214-ELL14 APPROVED EQUAL BY LITHONIA OR COLUMBIA	SAME AS TYPE C EXCEPT WITH 1400 LUMEN 90 MINUTE BATTERY BACKUP	LED 4000K 4,600 LUMEN 80 CRI	38	10'-0" AFF.
C6	PENDANT	120/277V	GOHAM #EVO6PC-40K-20-AR-LSS-MD-MVOLT-GZ1-JBXCC-PCAN-S10-90CRI-COLOR (BY ARCH)	6" ALUMINUM LED CYLINDER PENDANT FIXTURE,0-10V DIMMABLE TO 1%, (FOOD SAFE)	LED 3500K 83 CRI	18	
D	RECESSED CEILING	MVOLT	GOTHAM #IVO6S-D-20LM-40K-80CRI-MD-MIN1-277-ZT-CP-SF-P-AR-LS-F OR APPROVED EQUALS: PRESCOLITE OR WILLIAMS	6" OPEN LED SHALLOW DOWNLIGHT, PLENUM RATED WITH 0-10V DIMMING DOWN TO 1%.	LED 4000K 2180 LUMENS 80 CRI	18	
DE	RECESSED CEILING	MVOLT	GOTHAM #IVO6S-D-20LM-40K-80CRI-MD-MIN1-277-ZT-E6WR-CP-SF-P-AR-LS-F EQUALS: PRESCOLITE OR WILLIAMS	SAME AS TYPE D EXCEPT WITH 6 WATT, 90 MINUTE EMERGENCY BATTERY PACK AND REMOTE TEST SWITCH	LED 4000K 2180 LUMENS 80 CRI	18	
E	RECESSED CEILING	MVOLT	GOTHAM #IVO6S-D-10LM-40K-80CRI-MD-MIN1-277-ZT-CP-SF-P-AR-LS-F OR APPROVED EQUALS: PRESCOLITE OR WILLIAMS	6" OPEN LED SHALLOW DOWNLIGHT, PLENUM RATED WITH 0-10V DIMMING DOWN TO 1%.	LED 4000K 1104 LUMENS 80 CRI	10	
FP	ABOVE GROUND	MVOLT	KIM #KFL2-24L-45-4K8-N-UNV-Y-CC-CD-F-HS-JB1 OR EQUAL BY GARDCO OR SIGNIFY	LED FLAG POLE LIGHT, SET BACK DISTANCE FOR FIXTURE PLACEMENT IS 1/3-1/2 THE SIZE OF THE FLAG, GLARE SHIELD, COLOR SELECTED BY ARCHITECT, MOUNT ON ROUND 12" SONOTUBE BASE, 18" DEEP, PROTRUDE 4" ABOVE GRADE, NOTE: FLAG POLE HEIGHT - 30FT, WET LOCATION LISTED	LED 4000K 5000 LUMENS	45	
G	WALL MOUNTED	MVOLT	LITHONIA #WSTLED-P2-40K-VF-MVOLT OR APPROVED EQUAL BY HUBBELL OR PHILLIPS	EXTERIOR LED ARCHITECTURAL WALL SCONCE (TRAPEZOIDAL SHAPE)	LED 4000K 3400 LUMEN 80 CRI	25	
K	RECESS IN CANOPY	277V	FINELITE #HP-4WL-R-D-8'-S-840-F-96-277-SC-FC-10%-XX-FE-SW-VF EQUALS BY CORELITE OR LEDALITE	EXTERIOR RECESS MOUNTED, 8FT LINEAR LED, WET LABEL LISTED / IP65,RATED FIXTURE	LED 4000K 2828 LUMENS 80 CRI	29	
K2	RECESS IN CANOPY	277V	FINELITE #HP-4WL-R-D-8'-B-840-F-96-277-SC-FC-10%-XX-FE-SW-VF EQUALS BY CORELITE OR LEDALITE	EXTERIOR RECESS MOUNTED, 8FT LINEAR LED, WET LABEL LISTED / IP65,RATED FIXTURE	LED 4000K 3558 LUMENS 80 CRI	37	
L4	RECESSED CEILING	277V	FINELITE #HP4-R-D-4'-B-840-F-96LG-277-SC-FC-1%-C2-FE-SW-SF EQUALS BY PINNACLE OR LEDALITE	4FT, LED, DIRECT, HIGH PERFORMANCE 4" APERTURE RECESSED LINEAR, DLC CERTIFIED, 0-10V DIMMING TO 1%, SPACLED FLANGE	LED 4000K 1916 LUMENS 80 CRI	20	
L4E	RECESSED CEILING	MVOLT	FINELITE #HP4-R-D-4'-B-840-F-96LG-277-SC-FC-1%-C2-FE-LGD18-SW-SF EQUALS BY PINNACLE OR LEDALITE	SAME AS TYPE L4 EXCEPT WITH 18 WATT (1854 LUMEN) / 90 MINUTE EMERGENCY BATTERY PACK AND REMOTE TEST SWITCH, SPACKLED FLANGE	LED 4000K 1916 LUMENS 80 CRI	20	
L42	RECESSED CEILING	MVOLT	FINELITE #HP2-R-D-4'-B-840-F-96LG-277-SC-FC-1%-C2-FE-SW-SF EQUALS BY PINNACLE OR LEDALITE	4FT, LED, DIRECT, HIGH PERFORMANCE 2" APERTURE RECESSED LINEAR, DLC CERTIFIED, 0-10V DIMMING TO 1%, SPACKLED FLANGE	LED 4000K 1684 LUMENS 80 CRI	20	
L46	RECESSED CEILING	MVOLT	FINELITE #HP6-R-D-4'-B-840-F-96LG-277-SC-FC-1%-C2-FE-SW-SF EQUALS BY PINNACLE OR LEDALITE	4FT, LED, DIRECT, HIGH PERFORMANCE 6" APERTURE RECESSED LINEAR, DLC CERTIFIED, 0-10V DIMMING TO 1%, SPACKLED FLANGE	LED 4000K 1916 LUMENS 80 CRI	20	
L52	RECESSED CEILING	MVOLT	FINELITE #HP2-R-D-5'-B-840-F-96LG-277-SC-FC-1%-C2-FE-SW-SF EQUALS BY PINNACLE OR LEDALITE	5FT, LED, DIRECT, HIGH PERFORMANCE 2" APERTURE RECESSED LINEAR, DLC CERTIFIED, 0-10V DIMMING TO 1%, SPACKLED FLANGE	LED 4000K 2105 LUMENS 80 CRI	25	
L12	RECESSED CEILING	277V	FINELITE #HP4-R-D-12'-B-840-F-96LG-277-SC-FC-1%-C2-FE-SW-SF EQUALS BY PINNACLE OR LEDALITE	12FT, LED, DIRECT, HIGH PERFORMANCE 4" APERTURE RECESSED LINEAR. DLC CERTIFIED, 0-10V DIMMING TO 1%, SPACKLED FLANGE	LED 4000K 5748 LUMENS 80 CRI	60	
MS	ABOVE GROUND	MVOLT	KIM #4336P70-24L-4KUV-BL OR EQUALS BY GARDCO OR SIGNIFY	LINEAR LIGHT FOR WALL SIGN LIGHTING, ONE PIECE ALUMINUM WITH DIE CAST ALUMINUM ENDS, SEMI DIFFUSED FLAT ACRYLIC, FULLY ACRYLIC LENS, WET LOCATION, -40°C DRIVER-FIXTURE IS SPECIFIED BLACK-CONFIRM WITH ARCHITECT, MOUNT ON ROUND 12" SONOTUBE BASE, 18" DEEP, PROTRUDE 4" ABOVE GRADE.	LED 4000K 3,450 LUMEN	56	
P4	SUSPENDED	277V	FINELITE #HP4-P- ID-4'-B-S-840-F-F-96LG-277-SC-FC-1%-FA100-FE-SW EQUALS BY PINNACLE OR LEDALITE	4FT, LED HIGH PERFORMANCE DIRECT/INDIRECT 4" APERTURE PENDANT LINEAR, DLC CERTIFIED, 0-10V DIMMING TO 1%	LED 4000K 3404 LUMENS 80 CRI	28	
P4E	SUSPENDED	277V	FINELITE #HP4-P- ID-4'-B- S-840-F-F-96LG-277-SC-FC-1%-FA100-FE-LGD18W-SW EQUALS BY PINNACLE OR LEDALITE	SAME AS TYPE P4 EXCEPT WITH 18 WATT (1854 LUMEN) / 90 MINUTE BATTERY BACKUP	LED 4000K 3404 LUMENS 80 CRI	28	
P8	SUSPENDED	277V	FINELITE #HP4-P-ID-8'-B-S-840-F-F-96LG-277-SC-FC-1%-FA100-FE-SW EQUALS BY PINNACLE OR LEDALITE	8FT, LED HIGH PERFORMANCE DIRECT/INDIRECT 4" APERTURE PENDANT LINEAR, DLC CERTIFIED, 0-10V DIMMING TO 1%	LED 4000K 3938 LUMENS 80 CRI	48	
P8E	SUSPENDED	277V	FINELITE #HP4-P-ID-8'-B-S-840-F-F-96LG-277-SC-FC-1%-FA100-FE-LGD18W-SW EQUALS BY PINNACLE OR LEDALITE	SAME AS TYPE P8 EXCEPT WITH (2) 18 WATT (1854 LUMEN /' 2' SECTION) / 90 MINUTE BATTERY BACKUP	LED 4000K 3938 LUMENS 80 CRI	48	
P12	SUSPENDED	277V	FINELITE #HP4-P-ID-12'-B-S-840-F-F-96LG-277-SC-FC-1%-FA100-FE-SW EQUALS BY PINNACLE OR LEDALITE	12FT, LED HIGH PERFORMANCE DIRECT/INDIRECT 4" APERTURE PENDANT LINEAR, DLC CERTIFIED, 0-10V DIMMING TO 1%	LED 4000K 5907 LUMENS 80 CRI	84	
P22	SUSPENDED	277V	FINELITE #HP2-P-ID-2'-B-S-840-F-F-96LG-277-SC-FC-1%-FA100-FE-SW EQUALS BY PINNACLE OR LEDALITE	2FT, LED HIGH PERFORMANCE DIRECT/INDIRECT 2" APERTURE PENDANT LINEAR, DLC CERTIFIED, 0-10V DIMMING TO 1%	LED 4000K 1702 LUMENS 80 CRI	14	
P42	SUSPENDED	277V	FINELITE #HP2-P- ID-4'-B-S-840-F-F-96LG-277-SC-FC-1%-FA100-FE-SW EQUALS BY PINNACLE OR LEDALITE	4FT, LED HIGH PERFORMANCE DIRECT/INDIRECT 2" APERTURE PENDANT LINEAR, DLC CERTIFIED, 0-10V DIMMING TO 1%	LED 4000K 3404 LUMENS 80 CRI	28	
P42E	SUSPENDED	277V	FINELITE #HP2-P- ID-4'-B-S-840-F-F-96LG-277-SC-FC-1%-FA100-FE-SW EQUALS BY PINNACLE OR LEDALITE	SAME AS TYPE P42 EXCEPT WITH 18 WATT (1854 LUMEN) / 90 MINUTE BATTERY BACKUP	LED 4000K 3404 LUMENS 80 CRI	28	
P62	SUSPENDED	277V	FINELITE #HP2-P- ID-4'-B-S-840-F-F-96LG-277-SC-FC-1%-FA100-FE-SW EQUALS BY PINNACLE OR LEDALITE	6FT, LED HIGH PERFORMANCE DIRECT/INDIRECT 2" APERTURE PENDANT LINEAR, DLC CERTIFIED, 0-10V DIMMING TO 1%	LED 4000K 2954 LUMENS 80 CRI	42	
P82	SUSPENDED	277V	FINELITE #HP2-P- ID-4'-B-S-840-F-F-96LG-277-SC-FC-1%-FA100-FE-SW EQUALS BY PINNACLE OR LEDALITE	8FT, LED HIGH PERFORMANCE DIRECT/INDIRECT 2" APERTURE PENDANT LINEAR, DLC CERTIFIED, 0-10V DIMMING TO 1%	LED 4000K 3938 LUMENS 80 CRI	56	
Q	RECESSED	277V	FINELITE#HP2-R-D-XX-B-840-F-96LG-277-SC-FC-10%-SF-FE-SW OR EQUAL BY MARK OR FOCAL POINT	2" WIDE APERTURERECESSED SOFFIT LIGHT, SPACKLE FLANGE, LENGTH PER PLANS	LED 4000K 481 LUMENS/FT 80 CRI	4.4W / FT	
S	RECESSED	277V	PRESCOLITE #LTR-6RD-H-SL10L-DM1-LTR-6RD-T-SHSL40K8-WT-AML-AM OR EQUAL BY GOTHAM OR HE WILLIAMS	6" ROUND LED NON-CONDUCTIVE SHOWER DOWNLIGHT	LED 4000K 668 LUMENS 80 CRI	12	
UC	UNDERCOUNTER SURFACE MTD	120V	HALO #HU11-09-S-P EQUALS: ALKCO OR LITHONIA	9" LENGTH, LED LOW PROFILE UNDERCOUNTER FIXTURE, HARDWIRED, DIMMABLE, COLOR SELECTABLE, WITH ROCKER SWITCH, PROVIDE COMPATIBLE DIMMER SWITCH. EC SHALL REVERIFY CABINET WIDTH PRIOR TO PURCHASE.	LED 3000K 300 LUMENS 90 CRI	4.5	
UC1	UNDERCOUNTER SURFACE MTD	120V	HALO #HU11-18-S-P EQUALS: ALKCO OR LITHONIA	18" LENGTH, LED LOW PROFILE UNDERCOUNTER FIXTURE, HARDWIRED, DIMMABLE, COLOR SELECTABLE, WITH ROCKER SWITCH, PROVIDE COMPATIBLE DIMMER SWITCH. EC SHALL REVERIFY CABINET WIDTH PRIOR TO PUCHASE.	LED 3000K 560 LUMENS 90 CRI	8	
UC2	UNDERCOUNTER SURFACE MTD	120V	HALO #HU11-24-S-P EQUALS: ALKCO OR LITHONIA	24" LENGTH, LED LOW PROFILE UNDERCOUNTER FIXTURE, HARDWIRED, DIMMABLE, COLOR SELECTABLE, WITH ROCKER SWITCH, PROVIDE COMPATIBLE DIMMER SWITCH. EC SHALL REVERIFY CABINET WIDTH PRIOR TO PURCHASE.	LED 3000K 785 LUMENS 90 CRI	11	
UC3	UNDERCOUNTER SURFACE MTD	120V	HALO #HU11-36-S-P	LED LOW PROFILE UNDERCOUNTER FIXTURE, HARDWIRED, DIMMABLE, COLOR SELECTABLE, WITH ROCKER SWITCH, PROVIDE COMPATIBLE DIMMER SWITCH, EC SHALL REVERIFY CABINET WIDTH PRIOR TO PURCHASE	LED 3000K 1125 LUMENS 90 CRI	15.5	
WE	WALL MOUNTED	MVOLT	GARDCO #GBM-A07-840-T4M-UNV-FAWS-EM ARCH TO SELECT EQUALS BY LITHONIA OR HUBBELL	MEDIUM BLOCK LED GEOFORM DECORATIVE WALL SCONCE WITH 90 MINUTE BATTERY BACKUP	LED 4000K 3614 LUMENS 80 CRI	23	
WW4	WALL MOUNTED	MVOLT	FINELITE #HP4-WM-ID-4'-S-S-840-F-F-96LG-277-SC-FC-1%-MB-FE-SW EQUALS BY PINNACLE OR LEDALITE	4FT, LED HIGH PERFORMANCE DIRECT/INDIRECT 4" APERTUREWALL MOUNT LINEAR, DLC CERTIFIED, 0-10V DIMMING TO 1%	LED 4000K 3404 LUMENS 80 CRI	28	
X1	UNIVERSAL MOUNT	MVOLT	EMERGILITE #DXN-1-R-N APPROVED EQUALS BY DUALITE, LITHONIA	SINGLE FACE LED EXT SIGNAGE 120/277V, WITH 90 MINUTE BATTERY BACKUP	LED	5	6" ABOVE DOOR FRAME
X2	UNIVERSAL MOUNT	MVOLT	EMERGILITE #DXN-2-R-N APPROVED EQUALS BY DUALITE, LITHONIA	DOUBLE FACE LED EXT SIGNAGE 120/277V, WITH 90 MINUTE BATTERY BACKUP	LED	10	6" ABOVE DOOR FRAME

NOTES:
1. ALL FIXTURE COLORS AND FINISHES SHALL BE SELECTED BY ARCHITECT.
2. ALL LED FIXTURES SHALL HAVE MINIMUM 10KA SURGE PROTECTION.
3. ALL MOUNTING HARDWARE, AIRCRAFT CABLE, ETC. SHALL BE PROVDED/INSTALLED FOR A COMPLETE INSTALLATION.

EXISTING PANEL 1M

CKT	LOAD TYPE	LOAD KVA	DESCRIPTION	C	PH	N	G	CB	A	B	C	CB	PH	N	G	C	DESCRIPTION	LOAD KVA	LOAD TYPE	CKT
1	O		CHILLER CONTROLS (NOTE 2)		EXISTING			20	0.000										O	2
3	O		SPACE							0.000		40	EXISTING (NOTE 1)				LIFT PUMP STATION (NOTE 1)		O	4
5	O		BOILER (NOTE 2)		EXISTING			20			0.000								O	6
7	R		RECEPTACLES		EXISTING			20	0.000			20	EXISTING				CHILLER HEAT TRACE (NOTE 2)		O	8
9	R		RECEPTACLES		EXISTING			20		0.000		20	EXISTING				CHILLER HEAT TRACE (NOTE 2)		O	10
11	O		SPARE					20			0.000	20					SPARE		O	12
13	O		WELL CONTROL		EXISTING			20	0.000										O	14
15								20		0.000		20	EXISTING				EXISTING LOAD		O	16
17	O		SUV SHORELINE		EXISTING			20			0.000								O	18
19	O		PANEL M2		EXISTING			60	0.000								SPACE		O	20
21	O									0.000							SPACE		O	22
23	O		SPACE								0.000						SPACE		O	24
25	O		SPACE						0.000								SPACE		O	26
27	O		SPACE							0.000							SPACE		O	28
29	O		SPACE								0.000						SPACE		O	30
31	O		MAIN BREAKER		EXISTING			100	0.000								UNUSABLE BLANK		O	32
33	O									0.000							UNUSABLE BLANK		O	34
35	O										0.000						UNUSABLE BLANK		O	36

LOAD TOTAL: 0.00 0.00 0.00

208Y/120 V 3 PHASE 4 WIRE
MAINS: MCB 100 A MCB
10000 AIC SE LABEL

MECHANICAL BUILDING

LOAD TYPE	CONNECTED	DEMAND
(R) RECEPTACLES	0.00	100% 0.00
(M) MOTOR	0.00	100% 0.00
(H) HVAC	0.00	100% 0.00
(L) LIGHTING	0.00	125% 0.00
(O) OTHER	0.00	100% 0.00
(K) KITCHEN EQUIP	0.00	100% 0.00
TOTAL	0.00	0% 0.00

FED FROM: TRANSORMER TM
MOUNT: SURFACE
NEMA: 1
MFG/MODEL#: SQUARE-D/NQOD

NOTES:
1. DISCONNECT AND SPARE EXISTING 40A/3P BREAKER. REMOVE ALL EXISTING CONDUIT AND WIRING AS APPLICABLE.
2. REMOVE EXISTING LOAD, CONDUIT AND WIRING AND SPARE BREAKER.
3.
4.

PANEL TOTALS			
PHASE A	0.000	KVA	0.0 AMP
PHASE B	0.000	KVA	0.0 AMP
PHASE C	0.000	KVA	0.0 AMP

EXISTING PANEL M

CKT	LOAD TYPE	LOAD KVA	DESCRIPTION	C	PH	N	G	CB	A	B	C	CB	PH	N	G	C	DESCRIPTION	LOAD KVA	LOAD TYPE	CKT
1	M		CHILLER [100 TON] (NOTE 1)		EXISTING			250	0.000										O	2
3	M									0.000							SPACE		O	4
5	M										0.000								O	6
7	O		SPARE					20	0.000										O	8
9	O		SPARE					20		0.000		15	EXISTING				BOILER (NOTE 1)		O	10
11	O		SPARE					20			0.000								O	12
13	M		PUMP P-1 (NOTE 1)		EXISTING			20	0.000										M	14
15	M									0.000		20	EXISTING				PUMP P-2 (NOTE 1)		M	16
17	M										0.000								M	18
19	L		LIGHTS - INTERIOR		EXISTING			20	0.000										O	20
21	L		LIGHTS - EXTERIOR		EXISTING			20		0.000		70	EXISTING				TRANSFORMER 1M [30KVA]		O	22
23	O		SPARE					20			0.000								O	24
25	O		SPARE					20	0.000			20					SPARE		O	26
27	O		SPARE					20		0.000		20					SPARE		O	28
29	O		SPACE								0.000						SPACE		O	30
31	O		SPACE						0.000								SPACE		O	32
33	O		SPACE							0.000							SPACE		O	34
35	O		SPACE								0.000						SPACE		O	36

LOAD TOTAL: 0.00 0.00 0.00

480Y/277 V 3 PHASE 4 WIRE
MAINS: MCB 400 A MCB
35000 AIC SE LABEL

LOAD TYPE	CONNECTED	DEMAND
(R) RECEPTACLES	0.00	100% 0.00
(M) MOTOR	0.00	100% 0.00
(H) HVAC	0.00	100% 0.00
(L) LIGHTING	0.00	125% 0.00
(O) OTHER	0.00	100% 0.00
(K) KITCHEN EQUIP	0.00	100% 0.00
TOTAL	0.00	0% 0.00

FED FROM: EXISTING MDP
MOUNT: SURFACE
NEMA: 1
MFG/MODEL#: SQUARE-D/NF

NOTES:
1. **SPARE EXISTING BREAKER AND REMOVE ALL ASSOCIATED DISCONNECTS, WIRING AND CONDUIT.**
2.
3.
4.

PANEL TOTALS			
PHASE A	0.000	KVA	0.0 AMP
PHASE B	0.000	KVA	0.0 AMP
PHASE C	0.000	KVA	0.0 AMP

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10/11/2024 BID DOCUMENTS

Smith Sinnett Architecture, P.A. 2024

THIS DRAWING IS FORMATTED TO BE PRINTED ON A 30" X 42" SHEET

Onslow County Senior Service Center
Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

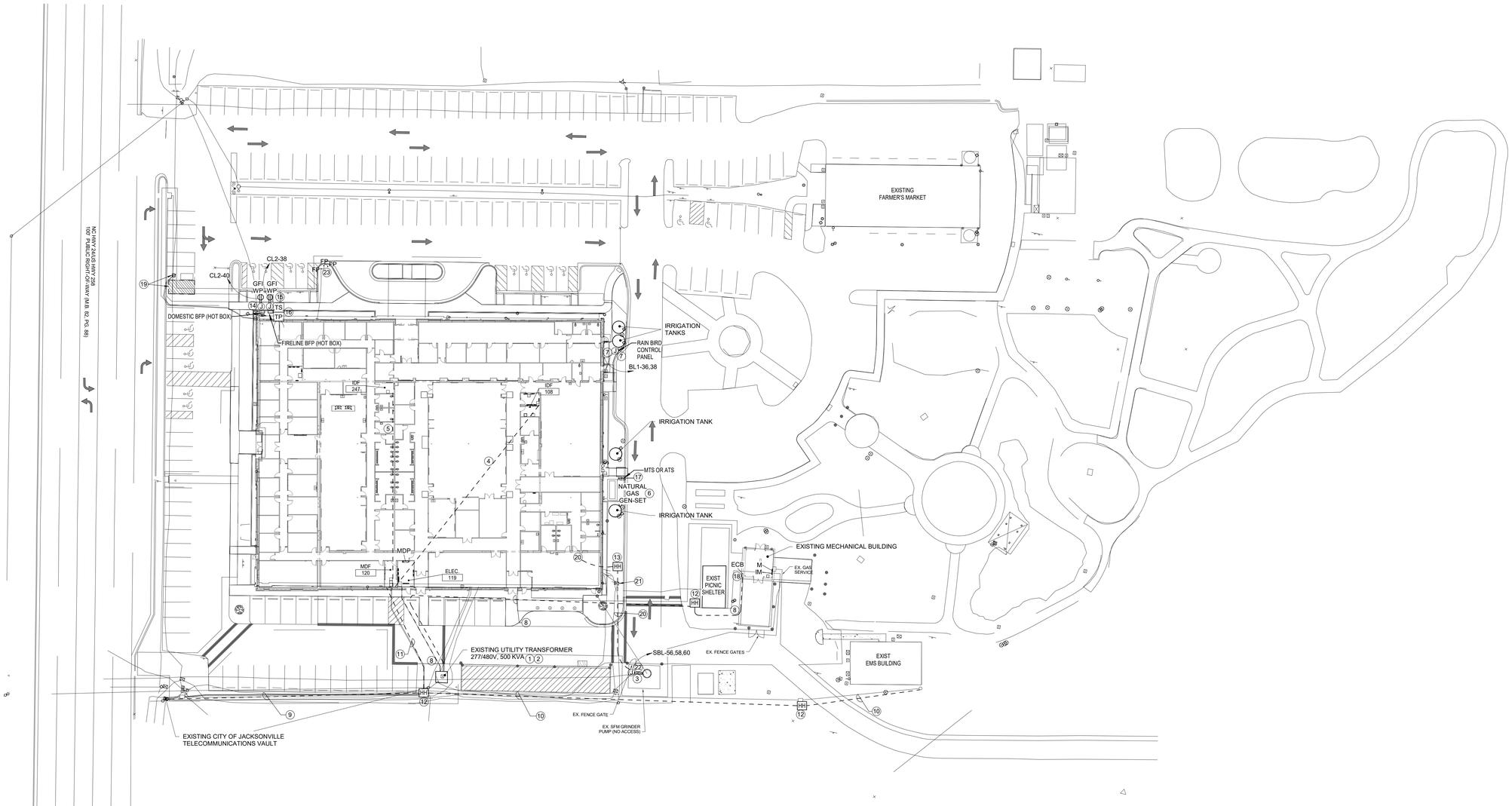
ID	DATE	DESCRIPTION

DRAWN BY: JPT
CHECKED BY: JTB

PANELS AND LIGHTING FIXTURE SCHEDULE

2021029 16 OCT. 2024

E6-03



1 POWER SITE PLAN

0 15' 30' 60'

1" = 30'-0"

KEYNOTES:

1. EXISITNG UTILITY TRANSFORMER SHALL REMAIN AND/OR BE REPLACED AS PER DUKE ENERGY DIRECTIVE.
2. ELECTRICAL CONTRACTOR SHALL PROVIDE NEW TRANSFORMER PAD PER DUKE ENERGY REQUIREMENTS TO ACCOMMODATE NEW SECONDARIES.
3. AS PART OF ALTERNATE #1, GRINDER PUMP STATION SHALL BE REPLACED. ALL ELECTRICAL WORK ASSOCIATED WITH THIS REPLACEMENT SHALL BE BY THE ELECTRICAL CONTRACTOR COORDINATING CLOSELY WITH THE UTILITY CONTRACTOR. REFER TO CIVIL DRAWINGS C5-01 AND C5-02.
4. (2)-3" COMMUNICATION CONDUITS FROM MDF-120 TO IDF-108.
5. (2)-3" COMMUNICATION CONDUITS FROM MDF-120 TO IDF-247.
6. AS PART OF ALTERNATE #2, A NATURAL GAS STANDBY GENERATOR SHALL BE PROVIDED. REFER TO POWER RISER.
7. THE EXISTING RAINBIRD IRRIGATION SYSTEM SHALL BE RECONNECTED TO A NEW 240 VOLT, 60 AMP/2 POLE, NEMA-3R, NON-FUSED DISCONNECT SWITCH. CIRCUIT AS SHOWN.
8. REFER TO POWER RISER FOR CONDUIT AND WIRE SIZES.
9. (3)-4" COMMUNICATION CONDUITS FROM VAULT TO HANDHOLE. NOTE: THERE ARE EXISTING UNDERGROUND FIBER/TELEPHONE RACEWAYS IN THIS LOCATION. TO ACCOMMODATE THE ROUTING OF THE NEW SERVICE PROVIDER CONDUITS, THE CONTRACTOR SHALL DEMOLISH ANY EXISTING RACEWAYS THAT MAY INTEFERE WITH NEW RACEWAYS.
10. (1)-4" COMMUNICATION CONDUIT FROM HANDHOLE TO HANDHOLE AND THEN CONTINUED TO EMS MODULAR BUILDING. COORDINATE THE FINAL LOCATION OF THE TERMINATION OF THE 4" CONDUIT IN THE BUILDING. NOTE: THERE ARE EXISTING UNDERGROUND FIBER/TELEPHONE RACEWAYS IN THIS LOCATION. TO ACCOMMODATE THE ROUTING OF THE NEW SERVICE PROVIDER CONDUITS, THE CONTRACTOR SHALL DEMOLISH ANY EXISTING RACEWAYS THAT MAY INTEFERE WITH NEW RACEWAYS.
11. (2)-4" COMMUNICATION CONDUITS FROM HANDHOLE TO MDF-120.
12. HANDHOLE - TIER 22 BOX/COVER (QUAZITE #PG 24 36 DA 30/PG2436HHOO) GASKETED WITH TWO BOLTS. IDENTIFY AS COMMUNICATIONS OR POWER AS APPLICABLE.
13. HANDHOLE - TIER 22 BOX/COVER (QUAZITE #PG 18 24 DA 30/PG1824HHOO) GASKETED WITH TWO BOLTS. IDENTIFY AS POWER AS APPLICABLE.
14. EXISTING HOT BOX FOR DOMESTIC WATER. DISCONNECT EXISTING WIRING AND REPLACE WITH NEW FOR HOT BOX HEATER. CIRCUIT AS SHOWN.
15. NEW HOT BOX FOR FIRELINE. PROVIDE 120VAC POWER AND RECEPTACLE. CIRCUIT AS SHOWN.
16. PROVIDE TAMPER SWITCH AND TEMPERATURE SENSOR AT FIRELINE BFP HOT BOX WITH 3/4" CONDUIT AND ASSOCIATED FIRE ALARM WIRING BACK TO FACP.
17. AS PART OF BASE BID PROVIDE 600 VOLT, 225 AMP, 4 POLE, NEMA-3R, MANUAL TRANSFER SWITCH WITH GENERATOR CAM LOCK CONNECTIONS. IF ALTERNATE #2 IS ACCEPTED, PROVIDE 480 VOLT, 225 AMP, 4 POLE, NEMA-3R AUTOMATIC TRANSFER SWITCH. REFER TO POWER RISER. MOUNT THE APPLICABLE SWITCH ON GALVANIZED ANGLE/UNISTRUT FRAME EMBEDDED IN CONCRETE. COORDINATE CLOSELY TO MAINTAIN CLEARANCES.
18. 480 VOLT, 400 AMP, 3 POLE, NEMA-3R, SERVICE ENTRANCE RATED, BREAKER ENCLOSURE. REFER TO POWER RISER.
19. EXISTING BUILDING SIGN TO BE DEMOLISHED IN ITS ENTIRETY. DISCONNECT AND REMOVE ALL POWER AND COMMUNICATIONS ASSOCIATED WITH SIGN.
20. AS PART OF BASE BID, REFER TO PANEL SBL SCHEDULE FOR CONDUIT AND WIRE SIZES FOR NEW BRANCH CIRCUIT FEED TO GRINDER PUMP STATION. COORDINATE ALL CONNECTIONS CLOSELY WITH UTILITY CONTRACTOR. NOTE: IF ALTERNATE #1 IS ACCEPTED, A NEW GRINDER PUMP STATION SHALL BE PROVIDED TO REPLACE EXISTING.
21. REMOVE EXISTING HAND HOLE AND ASSOCIATED CONDUIT/WIRING IN ITS ENTIRETY.
22. THE EXISTING GRINDER PUMP STATION IS CURRENTLY FED FROM EXISTING PANEL 1M. THIS SHALL REMAIN UNTIL THE NEW PANEL SBL IS INSTALLED. AT THAT TIME, THE POWER FOR THE GRINDER PUMP STATION SHALL BE FED FROM THE NEW PANEL SBL. SPARE THE EXISTING BREAKER AT EXISTING PANEL 1M AND AND REMOVE ALL EXISTING CONDUIT/WIRING.
23. CONNECT FLAG POLE LIGHTS INTO BUILDING PERIMETER LIGHTING CIRCUIT. MOUNT FIXTURE AS PER MANUFACTURER'S INSTRUCTIONS.

GENERAL NOTES:

A. REFER TO SHEET E0-01 FOR NOTES, LEGEND AND ABBREVIATIONS.
B. EXISTING SITE LIGHTING BY DUKE ENERGY.
C. REFER TO CIVIL DRAWING C1-02 FOR SITE DEMOLITION AND EXISTING SITE CONDITIONS.
D. ALL EXISTING UNDERGROUND UTILITIES SHALL BE LOCATED IN THE AREAS THAT WILL REQUIRE NEW WORK PRIOR TO PERFORMING ANY WORK.
E. COORDINATE CONSTRUCTION PHASING WITH ARCHITECT.
F. ALL NEW UNDERGROUND CONDUITS SHALL BE BURIED A MINIMUM OF 24" BELOW GRADE.

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10/11/2024 BID DOCUMENTS

THIS DRAWING IS FORMATTED TO BE PRINTED ON A 30" X 42" SHEET

Onslow County Senior Service Center Renovation

Onslow County Government

4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: JPT
CHECKED BY: JTB

ELECTRICAL SITE PLAN

2021029 16 OCT. 2024

E7-01

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FIRE PROTECTION SYMBOLS AND ABBREVIATIONS

	PIPE TURNING UP
	PIPE TURNING DOWN
	TEE DOWN
	TEE UP
	45%%127 OFFSET
	DIRECTION OF FLOW IN PIPE
	PIPE SLOPED IN DIRECTION OF ARROW
	PIPE CAP
	CONCENTRIC REDUCER
	ECCENTRIC REDUCER
	PIPE UNION
	GATE VALVE
	GLOBE VALVE
	CHECK VALVE
	BUTTERFLY VALVE
	BALL VALVE
	PRESSURE REDUCING VALVE
	SAFETY RELIEF VALVE
	BACKFLOW PREVENTER ASSEMBLY (TYPE INDICATED)
	EXPANSION JOINT
	ALIGNMENT GUIDE
	PIPE ANCHOR
	ALARM CHECK VALVE
	DRY PIPE VALVE WITH EXHAUSTER OR ACCELERATOR
	DELUGE VALVE
	PREACTION VALVE
	HOSE END VALVE
TS	TAMPER SWITCH (SHOWN ON VALVE)
FS	FLOW SWITCH
	DOUBLE DETECTOR CHECK VALVE
	ANGLE VALVE (ELEVATION VIEW)
	ANGLE VALVE (PLAN VIEW)
	FIRE HYDRANT WITH OS&Y VALVE IN ROADWAY BOX
	SIAMESE CONN., FIRE DEPT. CONN., FIRE PUMP TEST HEADER
	HOSE TEST HEADER
	ELECTRIC GONG ASSEMBLY
	FIRE HOSE CABINET

	PLUGGED TEE
	HYDRAULIC CALCULATION NODE (STANDPIPE SYSTEM)
	HYDRAULIC CALCULATION NODE (SPRINKLER SYSTEM)
	HYDRAULIC CALCULATION NODE (SPRINKLER SYSTEM; PHASE FOUR)
	EXISTING PIPE TO REMAIN
	EXISTING PIPE TO BE REMOVED
	NEW PIPE
	ONE HOUR RATED SMOKE PARTITION
	TWO HOUR RATED PARTITION
	TWO HOUR RATED PARTITION
	PHASE LINE
%%166	CENTER LINE
%%167	PLATE
%%168	ANGLE
%%129	ROUND, DIAMETER OR PHASE
#	POUNDS OR NUMBER
A	COMPRESSED AIR
ABV.CLG.	ABOVE CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ANSI	AMERICAN NATIONAL STANDARD ASSOCIATION
AP	ACCESS PANEL
APPROX.	APPROXIMATE
ARCH.	ARCHITECTURAL
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASV	AUTOMATIC SPRINKLER VALVE
AUTO	AUTOMATIC
AWWA	AMERICAN WATER WORKS ASSOCIATION
BFP	BACKFLOW PREVENTER
BHP	BRAKE HORSEPOWER
BOP	BOTTOM OF PIPE
C	CELSIUS
C/C	CENTER TO CENTER
CI	CAST IRON
CLG.	CEILING
CONC.	CONCRETE
CONFIG.	CONFIGURATION
CONN.	CONNECTION
CON'T.	CONTINUATION
CONST.	CONTSRUCTION
CONTR.	CONTRACTOR
COORD.	COORDINATE
CTR	CENTER
CU	COPPER
CW	COLD WATER OR CITY WATER
D.I.	DUCTILE IRON
DIA.	DIAMETER
DN.	DOWN
DWG.	DRAWING

E.C.	ELECTRICAL CONTRACTOR
ECC	ECCENTRIC
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC.	ELECTRICAL
EQUIP.	EQUIPMENT
EQ.	EQUAL
EQUIV.	EQUIVALENT
EXIST.	EXISTING
F	FAHRENHEIT
FACP	FIRE ALARM CONTROL PANEL
F.D.	FLOOR DRAIN
FHC	FIRE HOSE CABINET
FHV	FIRE HOSE VALVE
FL	FLOOR
FLEX	FLEXIBLE
FLG	FLANGE
FP	FIRE PROTECTION
F.P.C.	FIRE PROTECTION CONTRACTOR
FS	FLOW SWITCH
F.S.	FLOOR SINK
FT	FOOT
FTG.	FOOTING
GA.	GAGE
GAL.	GALLONS
GALV.	GALVANIZED
G.C.	GENERAL CONTRACTOR
GPM	GALLONS PER MINUTE
H.C.	HEATING, VENTILATING, AND AIR CONDITIONING CONTRACTOR
HGR.	HANGER
H.CAB.	HOSE CABINET
HOA	HAND-OFF-AUTOMATIC
HORZ	HORIZONTAL
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
HWR	HEATING WATER RETURN
HWS	HEATING WATER SUPPLY
HYD.	HYDRANT
I.D.	INSIDE DIAMETER
ID	INDIRECT DRAIN
IN.	INCH
IW	INDIRECT WASTE
JST.	JOIST
KW	KILOWATT
MAX.	MAXIMUM
MECH.	MECHANICAL
MEZZ	MEZZANINE
MFG.	MANUFACTURING
MFR.	MANUFACTURER
MIN.	MINIMUM
MJ	MECHANICAL JOINT
MTD	MOUNTED
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
N.I.C.	NOT IN CONTRACT
NO	NORMALLY OPEN
NO.	NUMBER
NPSH	NET POSITIVE SUCTION HEAD
N.R.S.	NON RISING STEM
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
OPNG	OPENING
OSD	OPEN SIGHT DRAIN
O.S.&Y.	OUTSIDE SCREW AND YOKE
P	PUMP
P.C.	PLUMBING CONTRACTOR
P.D.I.	PLUMBING AND DRAINING INSTITUTE
P.I.V.	POST INDICATOR VALVE
PLBG.	PLUMBING
PS	PRESSURE SWITCH
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
QTY.	QUANTITY
REINF.	REINFORCING
REQ'D.	REQUIRED
REV.	REVISION
RM.	ROOM
RPM	REVOLUTIONS PER MINUTE
RPZ	REDUCED PRESSURE ZONE BACKFLOW PREVENTER
R.S.	RISING STEM
SCH.	SCHEDULE
SECT.	SECTION
SPEC.	SPECIFICATION
SPR	SPRINKLER
STA.	STATION
SYM	SYMBOL OR SYMMETRICAL
SYS.	SYSTEM
T & B	TOP AND BOTTOM
TAB	TEST AND BALANCE
T.O.P.	TOP OF PIPE
T.O.S.	TOP OF STEEL
TS	TAMPER SWITCH
TYP.	TYPICAL
UL	UNDERWRITERS LABORATORIES
UNO	UNLESS NOTED OTHERWISE
VERT.	VERTICAL
VLV.	VALVE
W/	WITH
W/O	WITHOUT

SCOPE OF WORK

A. A COMPLETE RENOVATION OF THE EXISTING BUILDING FOR THE NEW SENIOR SERVICES CENTER IN ONSLOW COUNTY. REMOVE EXISTING SPRINKLER SYSTEM IN ITS ENTIRETY BACK TO EXISTING SERVICE ENTRANCE FLANGE. ALL NEW SPRINKLER PIPING, SPRINKLER HEADS AND SPRINKLER RISER INCLUDING NEW FLOW SWITCH AND TAMPER SWITCH. SCOPE TO INCLUDE RELOCATION OF FIRE DEPARTMENT CONNECTION TO NEW LOCATION ON SITE PER CIVIL DRAWINGS. NO FIRE PUMP IS REQUIRED BASED ON EXISTING FIRE PROTECTION SYSTEM. NO CHANGE IN CURRENT SQUARE FOOTAGE OF COVERAGE.

B. THIS BUILDING'S SINGLE TAP OFF OF THE SITE WATER LOOP IS PROTECTED BY AN EXISTING BACKFLOW PREVENTION DEVICE. THE EXISTING RISER IS TO REMAIN. VERIFY 100% OPERATIONAL AND FLOW MEETS NEW BUILDING LAYOUT.

C. PROVIDE FULL SYSTEM SPRINKLER DRAWINGS, PRODUCT DATA, AND FULL HYDRAULIC ANALYSIS (CALCULATIONS) STAMPED AND SIGNED BY NICET LEVEL III INDIVIDUAL

D. PROVIDE FULL SPRINKLER SYSTEM FOR NEW STRUCTURE PER THE STATE'S LATEST ACCEPTED VERSION OF NFPA 13

E. COORDINATE AND VERIFY ALL PROPOSED WORK WITH THE GENERAL CONTRACTOR, SITE UTILITIES CONTRACTOR, AND LOCAL AHJ AND/OR FIRE MARSHALL PRIOR TO START OF WORK.

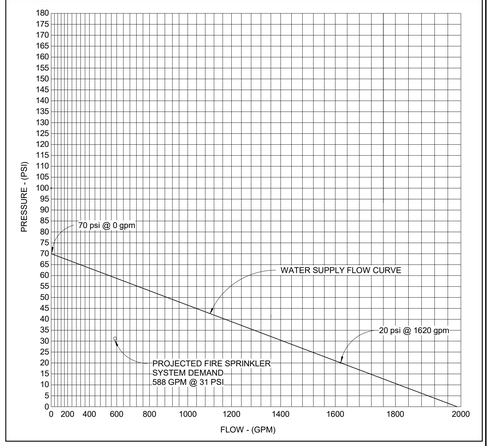
WATER SUPPLY INFORMATION

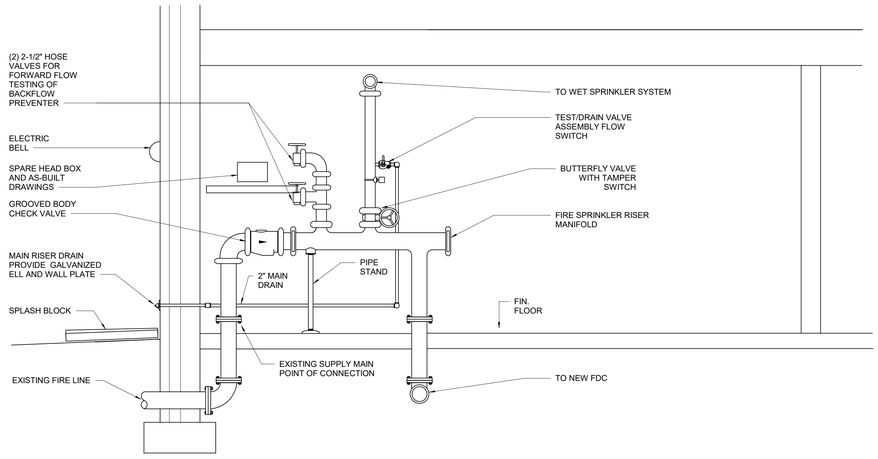
FLOW TEST BY	BFPE INTERNATIONAL	PRESSURE HYD:	N/A	FLOW HYDRANT:	N/A
HYDRANT ELEV.	FLAT	STATIC	70 PSI	PITOT PRESSURE	2 1/2"
DATE/TIME	07/11/2024 - 9:00AM	RESIDUAL	46 PSI	FLOW	1,025 GPM
WATER MAIN SIZE	6"				

PRELIMINARY HYDRAULIC ANALYSIS

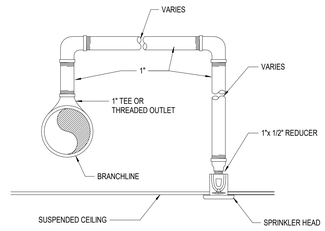
1. WATER FLOW QUANTITY:		
(A) DENSITY * DESIGN AREA * 150% (.15*1500*150%)	338	GPM
(B) OUTSIDE HOSE STREAM DEMAND	250	GPM
(C) OTHER	0	GPM
TOTAL WATER DEMAND:	588	GPM
2. WATER PRESSURE:		
(A) END HEAD PRESSURE	12	PSI
[DENSITY * (AREA/HEAD / K-FACTOR)]² [.15*130=5.6]² MINIMUM 7 PSI. K-FACTOR IS 5.6 FOR 0.5" ORIFICE 8.1 FOR 0.53" ORIFICE AND 11 FOR 0.64" ORIFICE		
(B) ELEVATION LOSS = HEIGHT * .433 (30' HEIGHT)	9	PSI
(C) OUTSIDE FRICTION LOSS	0	PSI
(NEW SITE LOOP INFRASTRUCTURE - BASED ON 100 PSI AVAIL. AT BLDG.)		
(D) INSIDE FRICTION LOSS	10	PSI
TOTAL PRESSURE REQUIRED:	31	PSI
PROJECTED FIRE PROTECTION SPRINKLER SYSTEM DEMAND:	588 GPM @ 31 PSI	

WATER SUPPLY CURVE





2 RISER DIAGRAM
NOT TO SCALE



NOTE: FLEXIBLE SPRINKLER HEAD FITTINGS ALLOWED. REFER TO PROJECT SPECIFICATIONS FOR MORE INFORMATION.

1 CONCEALED SPRINKLER RETURN BEND DETAIL
NOT TO SCALE

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PDC #22074

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 025020 STEVEN W. CAMPBELL

10/11/2024

BID DOCUMENTS

Onslow County Senior Service Center
Renovation
Onslow County Government
4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: DJL
CHECKED BY: SWC

LEAD SHEET

2021029 16 OCT. 2024

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KEYNOTES:

1. REMOVE ALL SPRINKLER HEADS, PIPING, AND APPURTANCES IN THEIR ENTIRETY BACK TO RISER.

2. REMOVE FLOW SWITCH AND TAMPER SWITCH AND TEST AND DRAIN BACK TO FLANGE ABOVE FINISHED FLOOR. EXISTING BACKFLOW DEVICE TO BE RELOCATED TO EXTERIOR HOT BOX BY OTHERS.

1 FIRE PROTECTION DEMOLITION PLAN

1/8" = 1'-0"

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NORTH CAROLINA PROFESSIONAL SEAL 025020 ENGINEER STEVE W. CAMPBELL
10/11/2024

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Onslow County Senior Service Center Renovation

Onslow County Government

4024 Richlands Hwy, Jacksonville, NC 28540

ID	DATE	DESCRIPTION

DRAWN BY: DJL
CHECKED BY: SWC

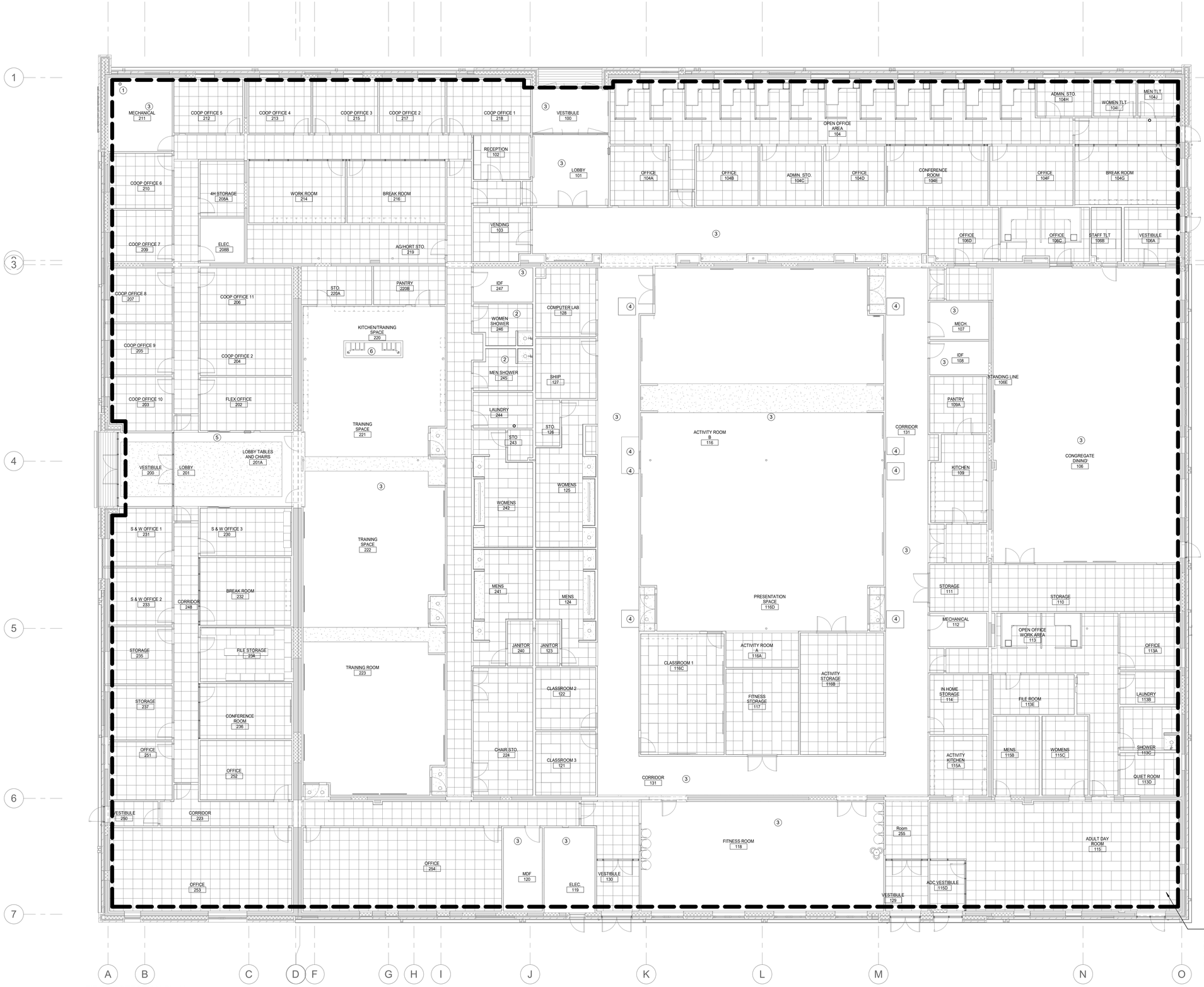
DEMOLITION PLAN

2021029 16 OCT. 2024

F0-12

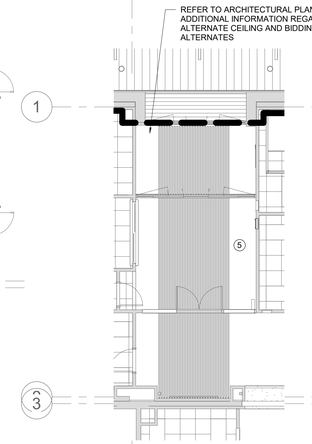
KEYNOTES:

1. EXISTING 6" INCOMING FIRE SPRINKLER RISER ENTRANCE FLANGE. RECONNECT NEW FIRE RISER WITH NEW TAMPER SWITCH AND NEW FLOW SWITCH. PROVIDE BRANCH TO NEW FDC THROUGH SLAB OUT TO SITE. REFER TO CIVIL DRAWINGS FOR FDC LOCATION. EXTEND SPRINKLER PIPING ABOVE CEILING AS REQUIRED FOR NEW BUILDING LAYOUT FOR COMPLETE SYSTEM PER NFPA 13 REQUIREMENTS.
2. PROVIDE CORROSION RESISTANT HEADS IN SHOWERS.
3. OPEN CEILING SHALL HAVE UPRIGHT HEADS WITH CAGE GUARDS.
4. SKYLIGHT ABOVE - AVOID PIPING AND HEADS BELOW.
5. CLOUD CEILING TYPE. PROVIDE CONCEALED TYPE HEAD IN CLOUD CEILING AND PROVIDE UPRIGHT HEADS ABOVE.
6. BULKHEAD ABOVE ISLAND. PROVIDE SPRINKLER COVERAGE PER NFPA 13. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL DETAILS



SINGLE ZONE COVERAGE 37,925 SF
PROVIDE WET SPRINKLER PROTECTION IN THIS ZONE PER NFPA 13 LIGHT HAZARD OCCUPANCY REQUIREMENTS. PROVIDE ORDINARY HAZARD GROUP 1 OCCUPANCY FOR AREAS SUCH AS KITCHEN, STORAGE ROOMS, AND MECHANICAL/ELECTRICAL ROOMS

1 FIRE PROTECTION PLAN
1/8" = 1'-0"



2 FIRE PROTECTION PLAN - ALTERNATE 6C
1/8" = 1'-0"

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10/11/2024

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FLOOR PLAN

2021029 16 OCT. 2024

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