

# New CTE Building For Bertie High School

## Bertie County Schools

716 US 13 North / NCDPS Unit 080 - School 312  
Windsor / Bertie County / North Carolina

**Hite associates**  
**ARCHITECTURE / PLANNING / TECHNOLOGY**  
2600 Meridian Drive / Greenville, N.C. 27834 / tel 252-757-0333

STRUCTURAL CONSULTANT:

**QUEEN ENGINEERING & DESIGN, P.A.**

5530 Munford Road Raleigh, North Carolina 27612 tel (919) 420-0480

CIVIL CONSULTANT:

**RIVERS AND ASSOCIATES, INC.**

107 East 2nd Street Greenville, North Carolina 27858 tel (252) 752-4135

MEPT ENGINEERING CONSULTANT:

**ENGINEERING SOURCE, P.A.**

102 Regency Boulevard Greenville, North Carolina 27834 tel (252) 439-0338

## ABBREVIATIONS

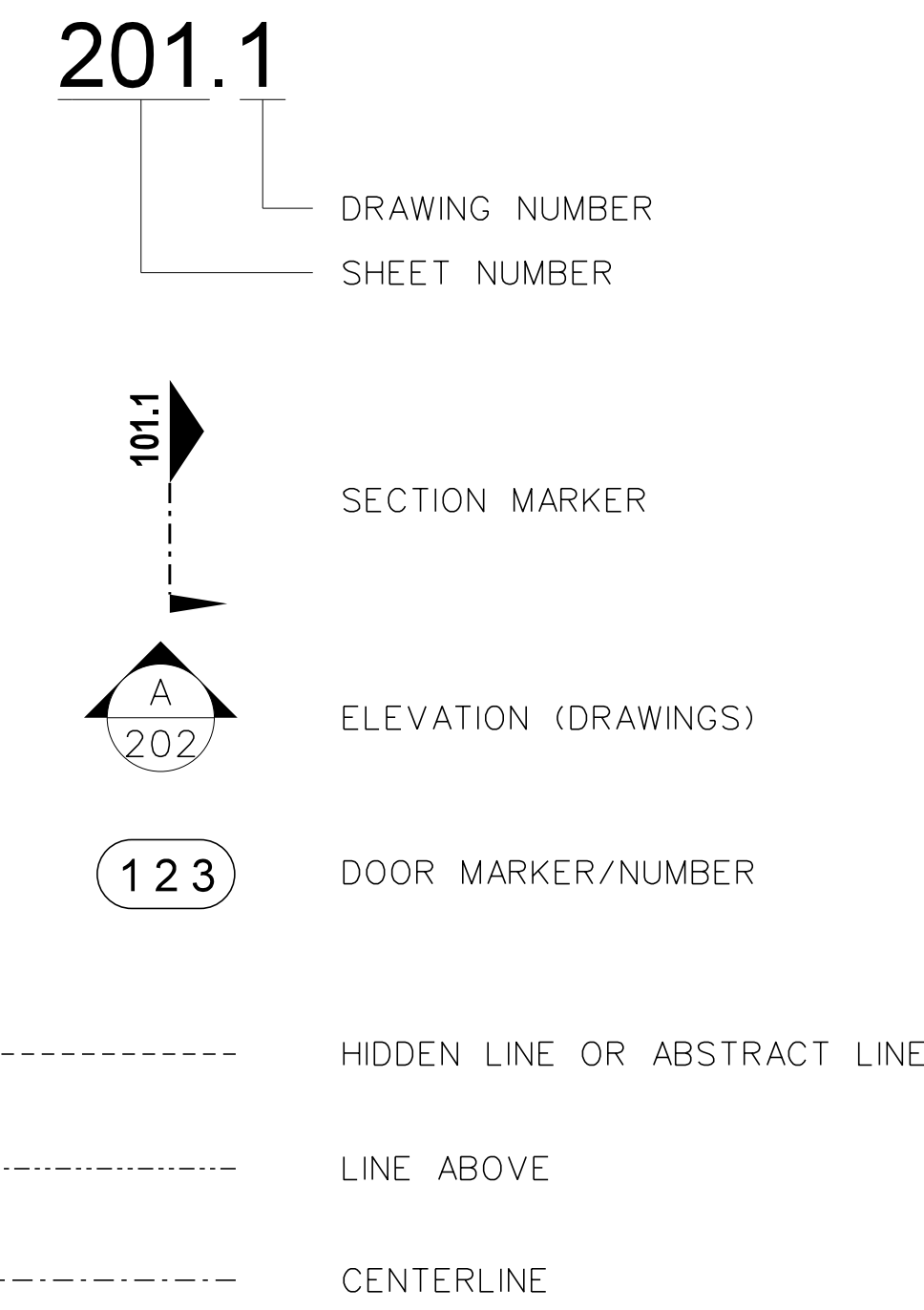
AFF	ABOVE FINISH FLOOR	INV	INVERT
L	ANGLE	JT	JOINT
AB	ANCHOR BOLT	LAV	LAVATORY
⊕	AT	MAS	MASONRY
B/B	BACK TO BACK (CURB)	MAX	MAXIMUM
BRG	BEARING	MB	MARKER BOARD
BD	BOARD	MET	METAL
RC	BRICK COURSE	MC	MECHANICAL CONTRACTOR
BLDG	BUILDING	MT	METAL THRESHOLD
CI	CAST IRON	MIN	MINIMUM
CPT	CARPET	MISC	MISCELLANEOUS
CB	CATCH BASIN	NOM	NOMINAL
CLG	CEILING	N	NORTH
CT	CEILING TILE	NIC	NOT IN CONTRACT
CB	CHALKBOARD	NTS	NOT TO SCALE
CJ	CONSTRUCTION JOINT	OC	ON CENTER
CONC	CONCRETE	OPG	OPENING
CMU	CONCRETE MASONRY UNIT	OPP	OPPOSITE
CG	CORNER GUARD	PC	PLUMBING CONTRACTOR
CMP	CORRUGATED METAL PIPE	PLAS	PLASTER
CONT.	CONTINUOUS	PL	PLATE
C & R	CURTAIN & ROD	PT	PRESSURE TREATED
C & T	CURTAIN & TRACK	R	RADIUS
DIA	DIAMETER	REF	REFERENCE
DM	DIMENSION	RENIF	REINFORCED
DS	DOWNSPOUT	RCP	REINFORCE CONCRETE PIPE
DWR	DRAWER	REQ'D	REQUIRED
EA	EACH	RFS	RUBBER FASTENING STRIP
EC	ELECTRICAL CONTRACTOR	RI	RIGID INSULATION
EFS	EXTERIOR INSULATION & FIN SYSTEM	R/W	RIGHT OF WAY
ELECT	ELECTRICAL	RD	ROOF DRAIN
EWC	ELECTRIC WATER COOLER	ROL	ROOF DRAIN LEADER
ELEV	ELEVATION	RGH	ROUGH
EO	EDAUL	SCHED	SCHEDULED
ETR	EXISTING TO REMAIN	SH	SHELF
EXIST	EXISTING	SHTG	SHEATHING
EXP	EXPOSED, EXPANSION	SIM	SIMILAR
EJ	EXPANSION JOINT	SPEC	SPECIFIED
F/F	FACE TO FACE (CURB)	SPECS	SPECIFICATIONS
FIN	FINISH	STD	STANDARD
FE	FIRE EXTINGUISHER	SUSP	SUSPENDED
FEC	FIRE EXTINGUISHER CABINET	TD	TACKBOARD
FHC	FIRE HOSE CABINET	TYP	TYPICAL
FTG	FOOTING	TJC	TYPICAL CONTROL JOINT
FD	FLOOR DRAIN	UON	UNLESS OTHERWISE NOTED
FL	FLOOR	UR	URINAL
FSR	FLEXIBLE SHEET ROOFING	VB	VAPOR BARRIER
GB	GYPNUM WALLBOARD	VERT	VERTICAL
GC	GENERAL CONTRACTOR	VCT	VINYL COMPOSITION TILE
HM	HOLLOW METAL	WC	WATER CLOSET
HOR	HORIZONTAL	WWF	WELDED WIRE FABRIC
INSUL	INSULATION	W/	WITH

## DRAWING INDEX

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IT-001	IT NOTES, DETAILS, LEGEND
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IT-102	IT PLAN
IT-103	IT PLATFORM PLAN

## DRAWING SYMBOLS

### DRAWING IDENTIFICATION MARKERS



## MATERIAL SYMBOLS

	EARTH
	SAND
	MORTAR OR GROUT
	CONCRETE
	BRICK
	CONCRETE MASONRY UNIT
	STEEL
	ROUGH WOOD (CONTINUOUS)
	ROUGH WOOD (INTERMITTENT)
	FINISH WOOD
	PLYWOOD
	BATT OR BLOWN INSULATION
	RIGID INSULATION
	METAL STUD / GYPBOARD WALL

No.	Date	Revision

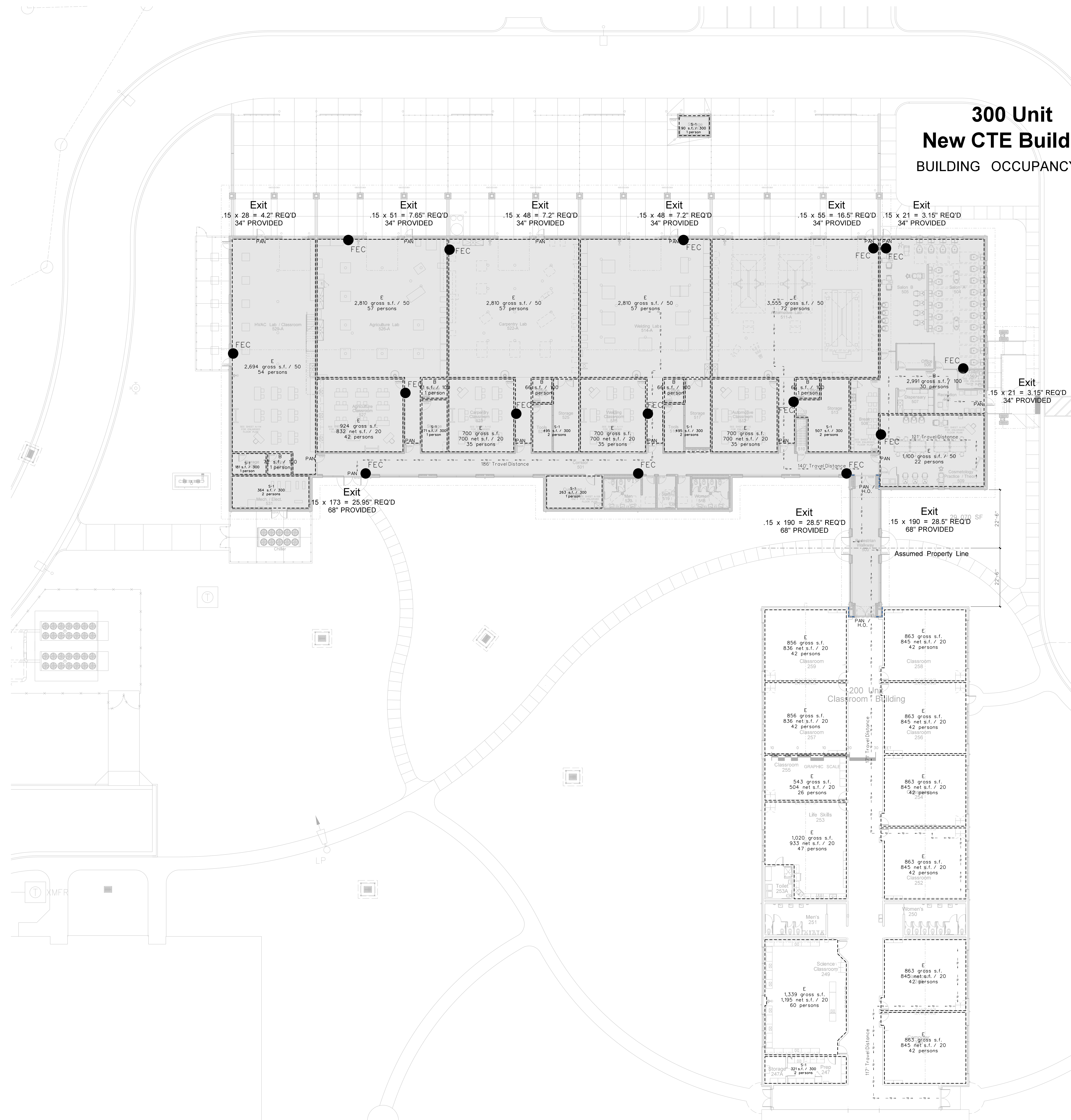
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NEW CTE BUILDING FOR  
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716 US 13 North / NCDPS Unit 080 - School 312  
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Project No.	22351
Date:	December 18, 2024
Drawing no.	T-1





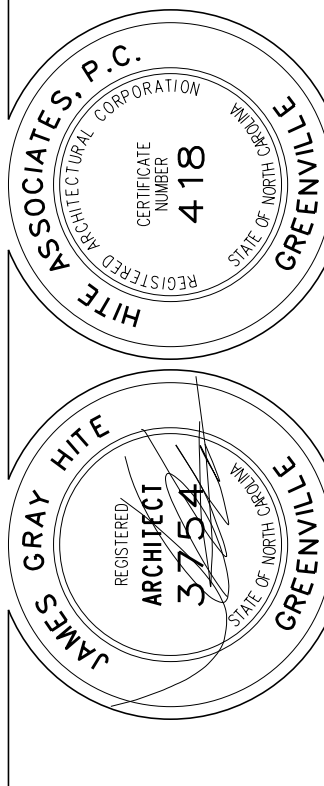
**300 Unit  
New CTE Building**  
BUILDING OCCUPANCY: 497

**Construction Type IIB, Sprinklered**

**001.1 LIFE SAFETY PLAN**  
SCALE: 1/16" = 1'-0"

No.	Date	Revision

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NEW CTE BUILDING FOR  
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Windsor / Bertie County / North Carolina

Project No. 22351

Date: December 18, 2024

Drawing No.

**LS  
001**



# U.L. Design No. U905

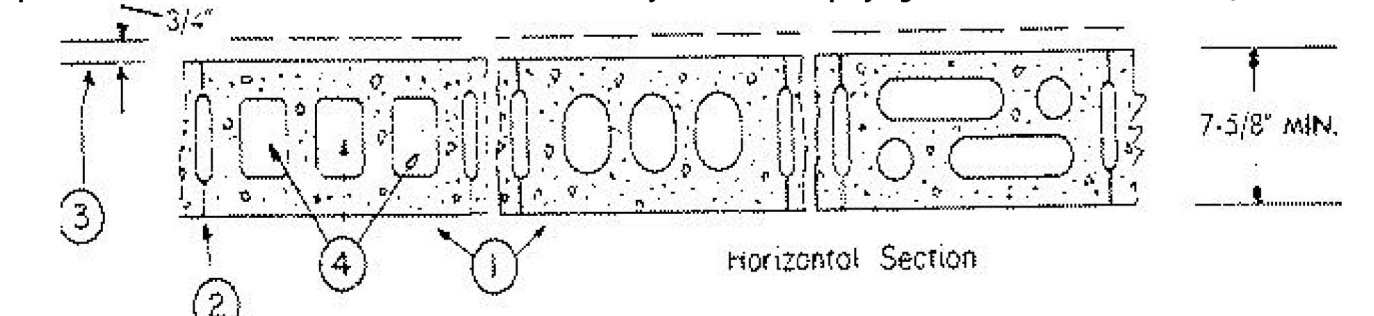
Reprinted from Product iQ with permission from UL Solutions

Design No. U905

April 14, 2023

Bearing Wall Rating — 2 HR.  
 Nonbearing Wall Rating — 2 HR.  
 This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide **BXUV** or **BXUV7**.

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



- 1. **Concrete Blocks\*** — Various designs. Classification D-2 (2 hr). See **Concrete Blocks** category for list of eligible manufacturers.
- 2. **Mortar** — Blocks laid in full bed of mortar, nom. 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.
- 3. **Portland Cement Stucco or Gypsum Plaster** — Add 1/2 hr to classification if used. Where combustible members are framed in wall, plaster or stucco must be applied on the face opposite framing to achieve a max. Classification of 1-1/2 hr. Attached to concrete blocks (Item 1).
- 4. **Loose Masonry Fill** — If all core spaces are filled with loose dry expanded slag, expanded clay or shale (Rotary Kiln Process), water repellent vermiculite masonry fill insulation, or silicone treated perlite loose fill insulation add 2 hr to classification.
- 5. **Foamed Plastic\*** — (Optional-Not Shown) — 1-1/2 in. thick max, 4 ft wide sheathing attached to concrete blocks (Item 1).  
**ATLAS ROOFING CORP** — EnergyShield Pro Wall Insulation, EnergyShield Pro 2 Wall Insulation, EnergyShield CGF Pro, EnergyShield Ply Pro, EnergyShield® CGF, EnergyShield® PanelCast, EnergyShield® and EnergyShield® XR.  
**DUPONT DE NEMOURS, INC.** — Types Thermax Sheathing, Thermax Light Duty Insulation, Thermax Heavy Duty Insulation, Thermax Metal Building Board, Thermax White Finish Insulation, Thermax ci Exterior Insulation, Thermax XARMOR ci Exterior Insulation, Thermax IH Insulation, Thermax Plus Liner Panel, Thermax Heavy Duty Plus (HDP), TUFF-R™ ci Insulation, Thermax Butler SkyWall Insulation Board and Thermax Morton Heavy Duty Insulation Board.  
**FIRESTONE BUILDING PRODUCTS CO L L C** — "Enverge™" CI Foil Exterior Wall Insulation and "Enverge™" CI Glass Exterior Wall Insulation.  
**HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC** — Types "Xci-Class A", "Xci Foli (Class A)", "Xci 286".  
**RMAX, A BUSINESS UNIT OF SIKA CORPORATION** — Types "TSX-8500", "ECOMAXci FR", "TSX-8510", "ECOMAX xi FR White", "ECOMAXci", "ECOMAXci FR Air Barrier", "Thermasheath-XP", "Thermasheath", "Durosheath".  
**JOHNS MANVILLE** — Type "AP Foil-Faced Foam Sheathing".  
**SA, Building Units\*** — As an alternate to Items 5, min. 1-in thick polysiocyanurate composite foamed plastic insulation boards, nom. 48 by 48 or 96 in.  
**ATLAS ROOFING CORP** — EnergyShield® Ply.  
**HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC** — "Xci NB", "Xci Ply".  
**RMAX, A BUSINESS UNIT OF SIKA CORPORATION** — "Thermasheath-SI", "ECOBASci", "ThermaBase-CI", "ECOMAXci FR Ply", "ECOMAXci Ply".

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 Last Updated on 2023-04-14

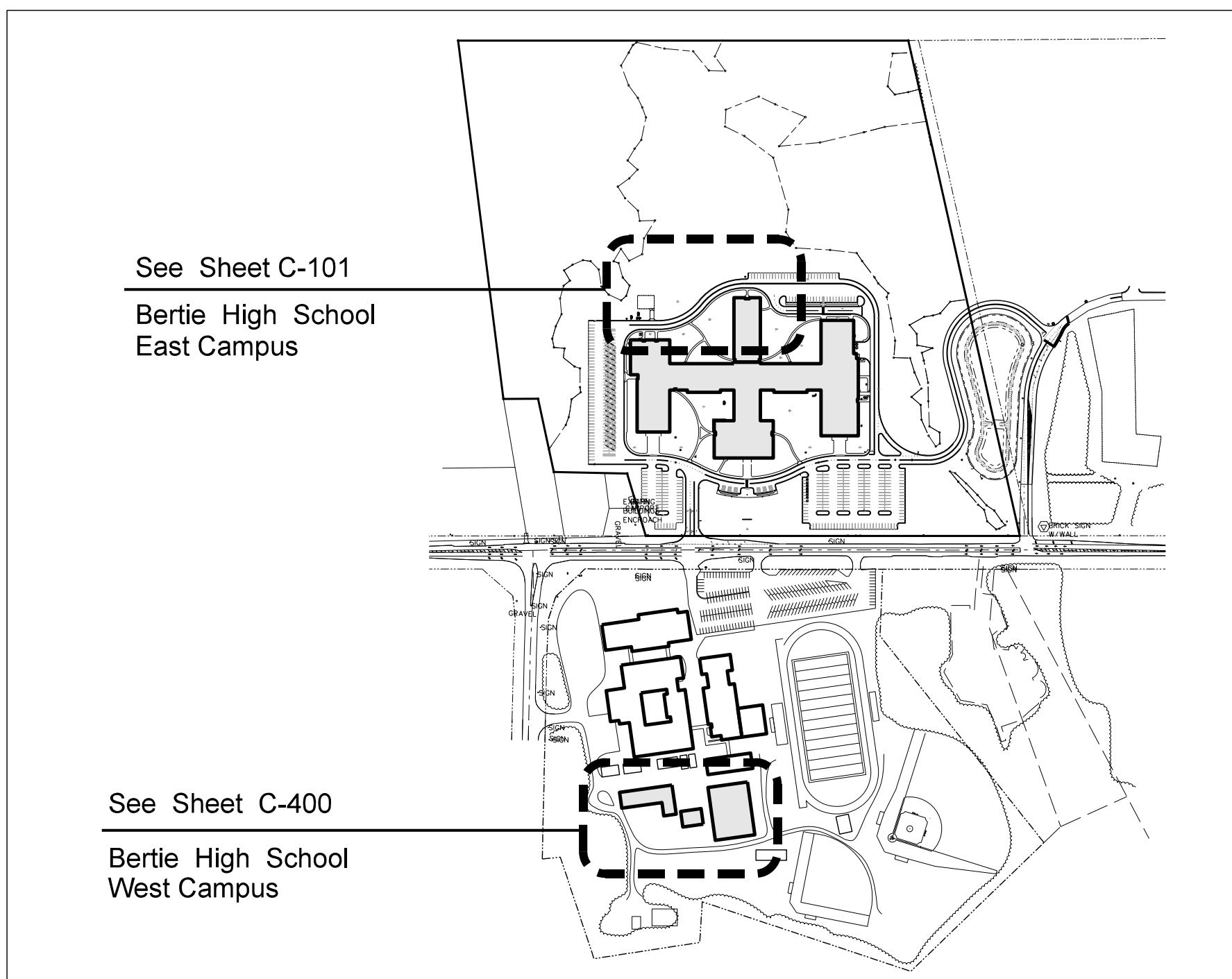
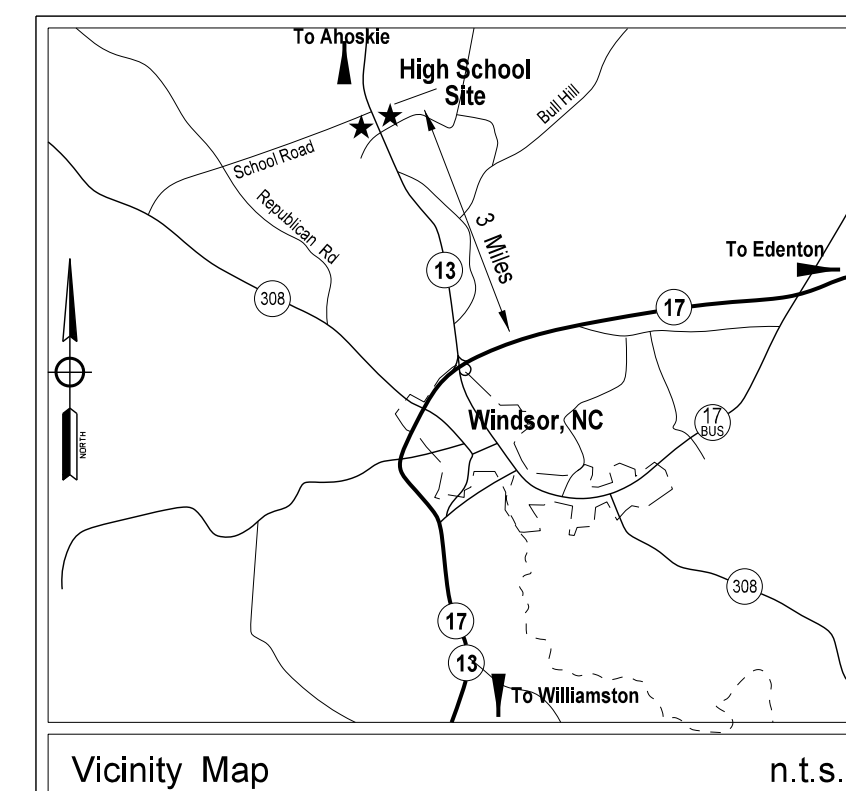
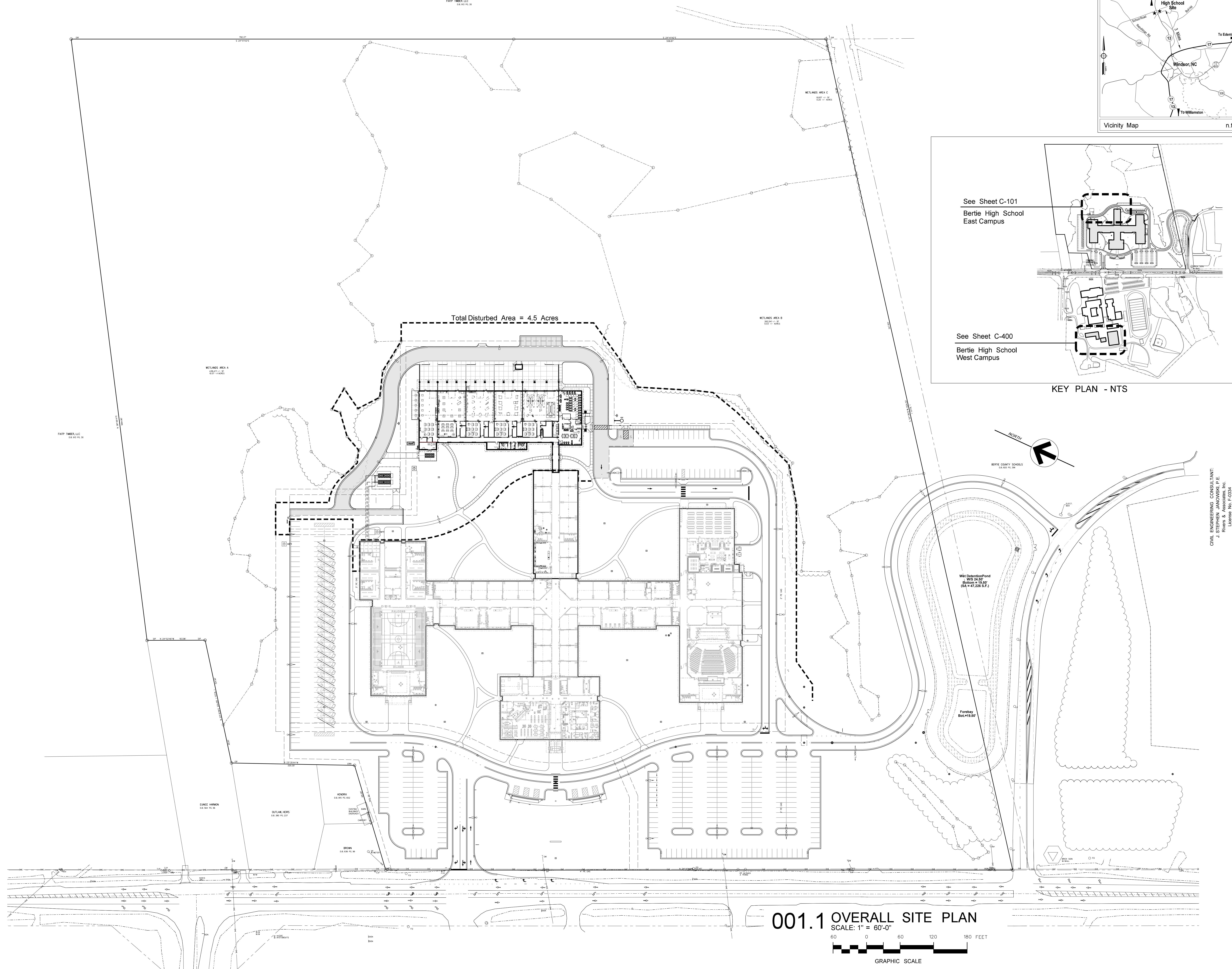
No.	Date	Revision

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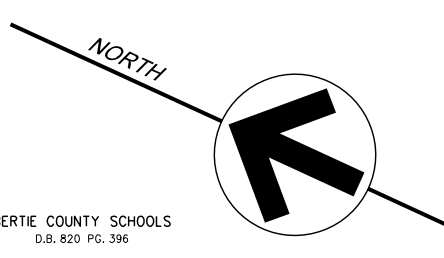
Professional seals for James Gray Hite, Registered Architect, No. 57258, State of North Carolina, and Hite Associates, P.C., Professional Corporation, No. 418, State of North Carolina.

NEW CTE BUILDING FOR  
**Bertie High School**  
 716 US 13 North / NCDPS Unit 080 - School 312  
 Windsor / Bertie County / North Carolina

Project No. 22351  
 Date: December 18, 2024  
 Drawing no. **FRA 001**

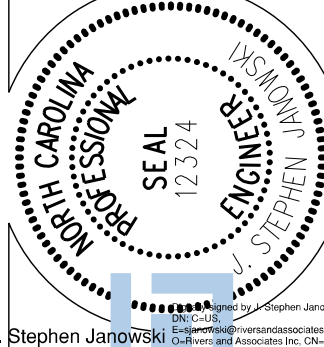
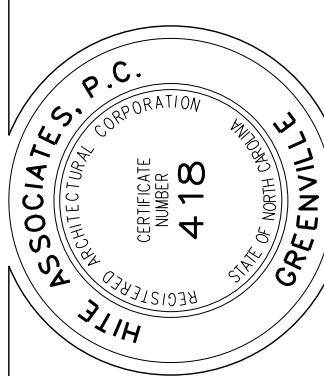


KEY PLAN - NTS



No.	Date	Revision

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 (252) 757-0300

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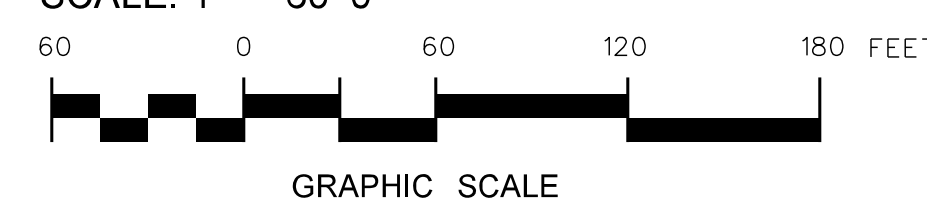
Project No. 22351

Date: September 29, 2023

Drawing no.

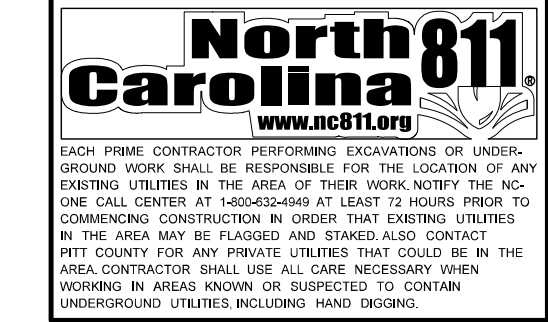
**C  
001**

**001.1 OVERALL SITE PLAN**  
 SCALE: 1" = 60'-0"

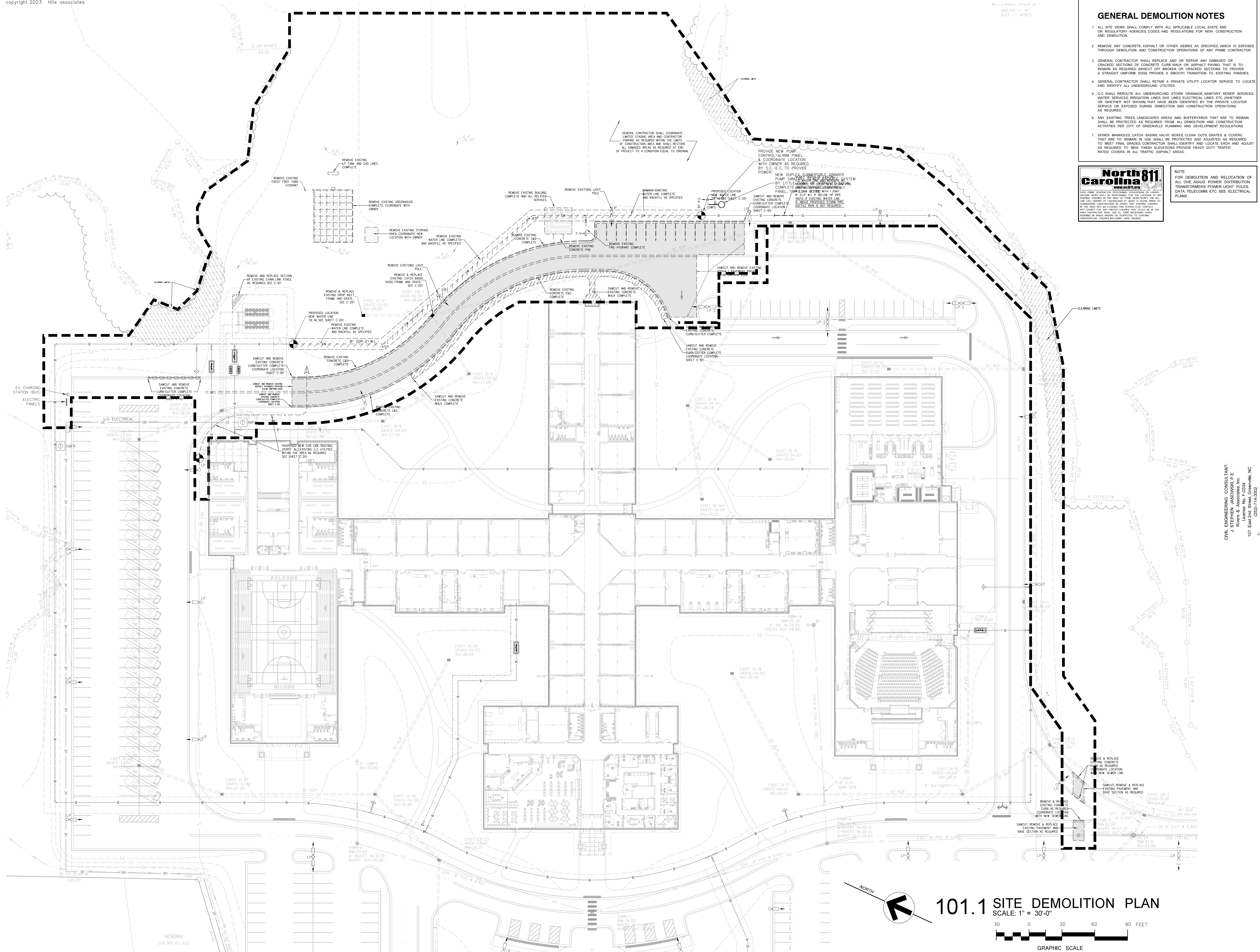


**GENERAL DEMOLITION NOTES**

1. ALL SITE WORK SHALL COMPLY WITH ALL APPLICABLE LOCAL STATE AND OR REGULATORY AGENCIES CODES AND REGULATIONS FOR NEW CONSTRUCTION AND DEMOLITION.
2. REMOVE ANY CONCRETE ASPHALT OR OTHER DEBRIS AS SPECIFIED WHICH IS EXPOSED THROUGH DEMOLITION AND CONSTRUCTION OPERATIONS OF ANY PRIME CONTRACTOR.
3. GENERAL CONTRACTOR SHALL REPLACE AND OR REPAIR ANY DAMAGED OR CRACKED SECTIONS OF CONCRETE CURB WALK OR ASPHALT PAVING THAT IS TO REMAIN AS REQUIRED SAWCUT OFF BROKEN OR CRACKED SECTIONS TO PROVIDE A STRAIGHT UNIFORM EDGE PROVIDE A SMOOTH TRANSITION TO EXISTING FINISHES.
4. GENERAL CONTRACTOR SHALL RETAIN A PRIVATE UTILITY LOCATOR SERVICE TO LOCATE AND IDENTIFY ALL UNDERGROUND UTILITIES.
5. G.C. SHALL REDROUTE ALL UNDERGROUND STORM DRAINAGE SANITARY SEWER SERVICES WATER SERVICES IRRIGATION LINES GAS LINES ELECTRICAL LINES ETC. (OTHER OR WHETHER NOT SHOWN THAT HAVE BEEN IDENTIFIED BY THE PRIVATE LOCATOR SERVICE OR EXPOSED DURING DEMOLITION AND CONSTRUCTION OPERATIONS AS REQUIRED).
6. ANY EXISTING TREES LANDSCAPED AREAS AND BUFFERZONES THAT ARE TO REMAIN SHALL BE PROTECTED AS REQUIRED FROM ALL DEMOLITION AND CONSTRUCTION ACTIVITIES PER CITY OF GREENVILLE PLANNING AND DEVELOPMENT REGULATIONS.
7. SEWER MANHOLES CATCH BASINS VALVE BOXES CLEAN OUTS GRATES & COVERS THAT ARE TO REMAIN IN USE SHALL BE PROTECTED AND ADJUSTED AS REQUIRED TO MEET FINAL GRADES CONTRACTOR SHALL IDENTIFY AND LOCATE EACH AND ADJUST AS REQUIRED TO NEW FINISH ELEVATIONS PROVIDE HEAVY DUTY TRAFFIC RATED COVERS IN ALL TRAFFIC ASPHALT AREAS.

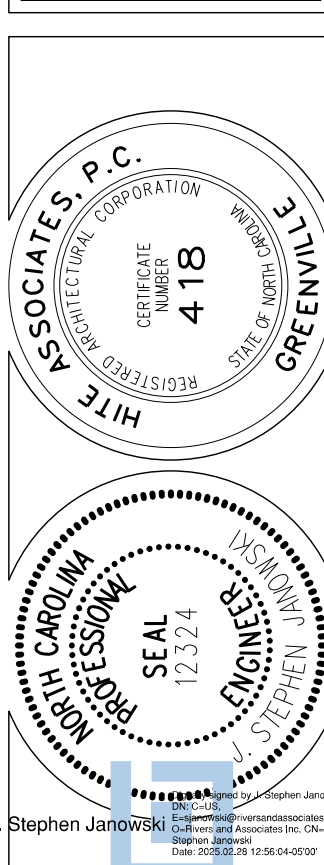


NOTE:  
FOR DEMOLITION AND RELOCATION OF ALL ONE (1) AGUS POWER DISTRIBUTION TRANSFORMERS POWER LIGHT POLES, DATA TELECOMM ETC. SEE ELECTRICAL PLANS



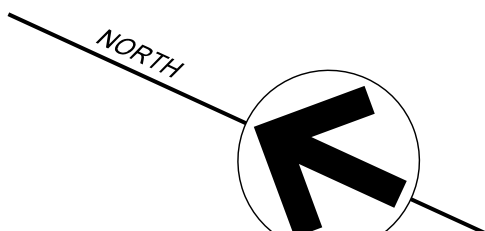
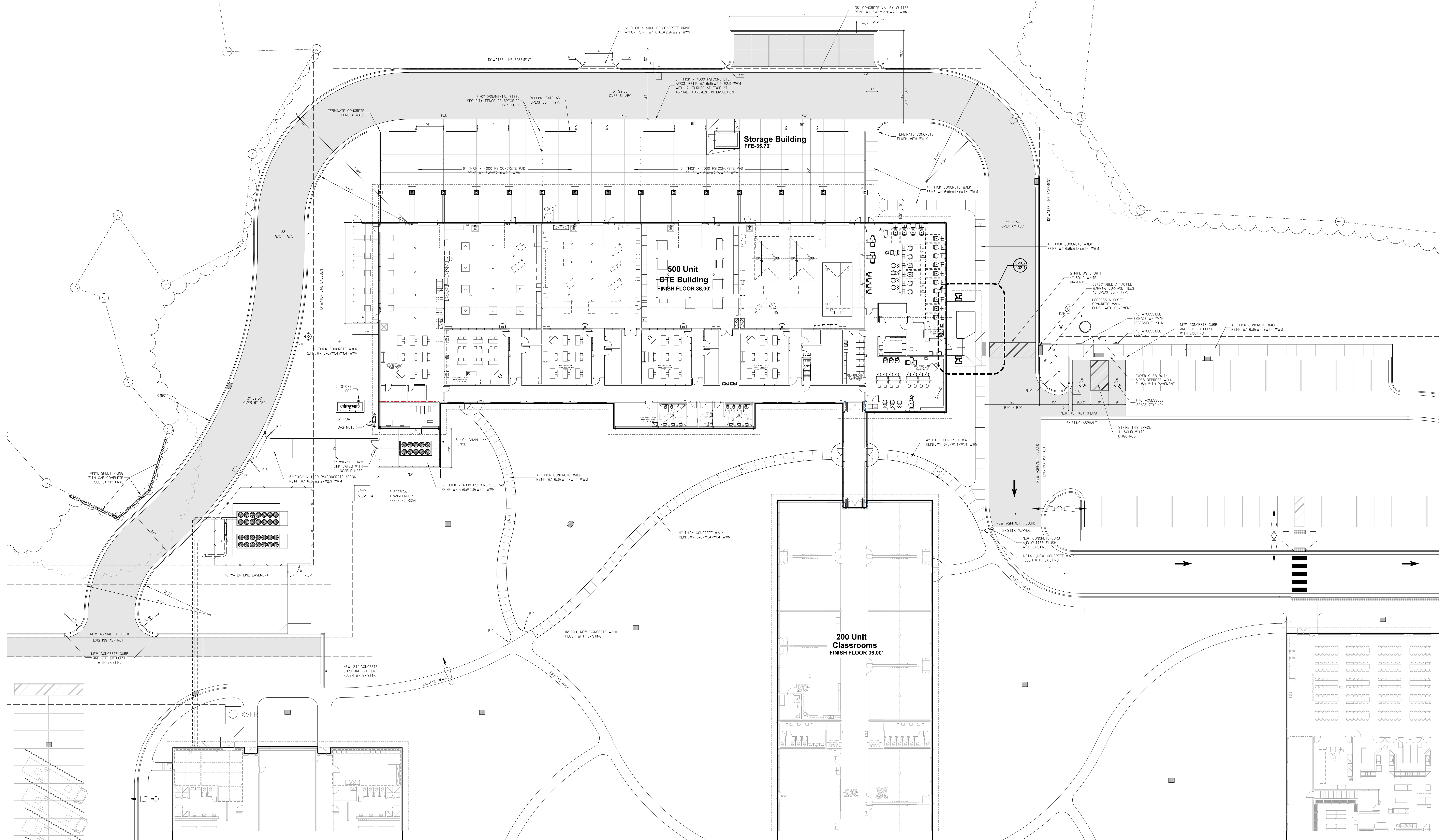
No.	Date	Revision

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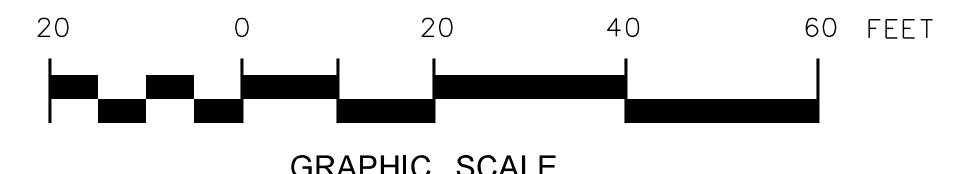


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Project No: 22351  
Date: September 29, 2023  
Drawing No: **C 100**



**101.1 SITE GEOMETRY PLAN**  
SCALE: 1" = 20'-0"



No.	Date	Revision

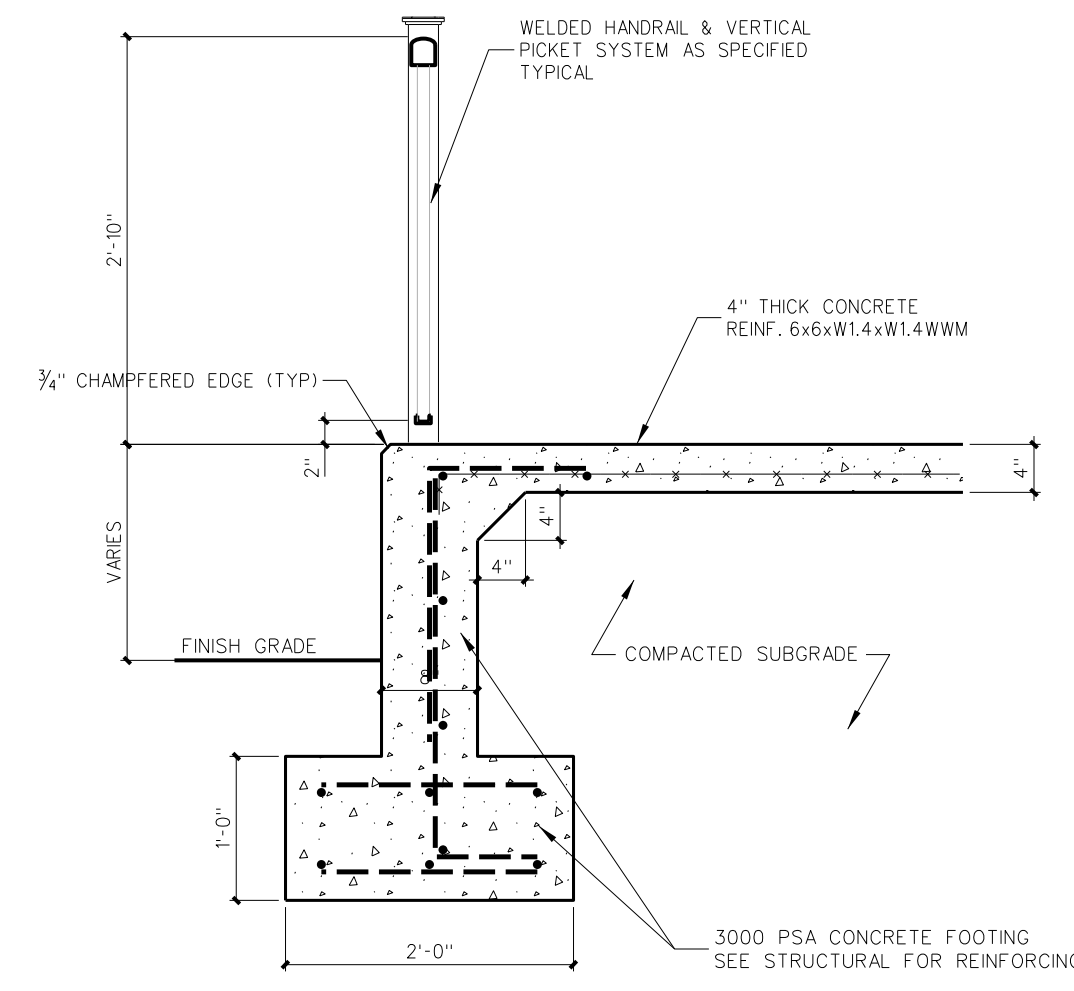
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Rivers & Associates, Inc.  
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107 East 2nd Street, Greenville, NC 27834-1430

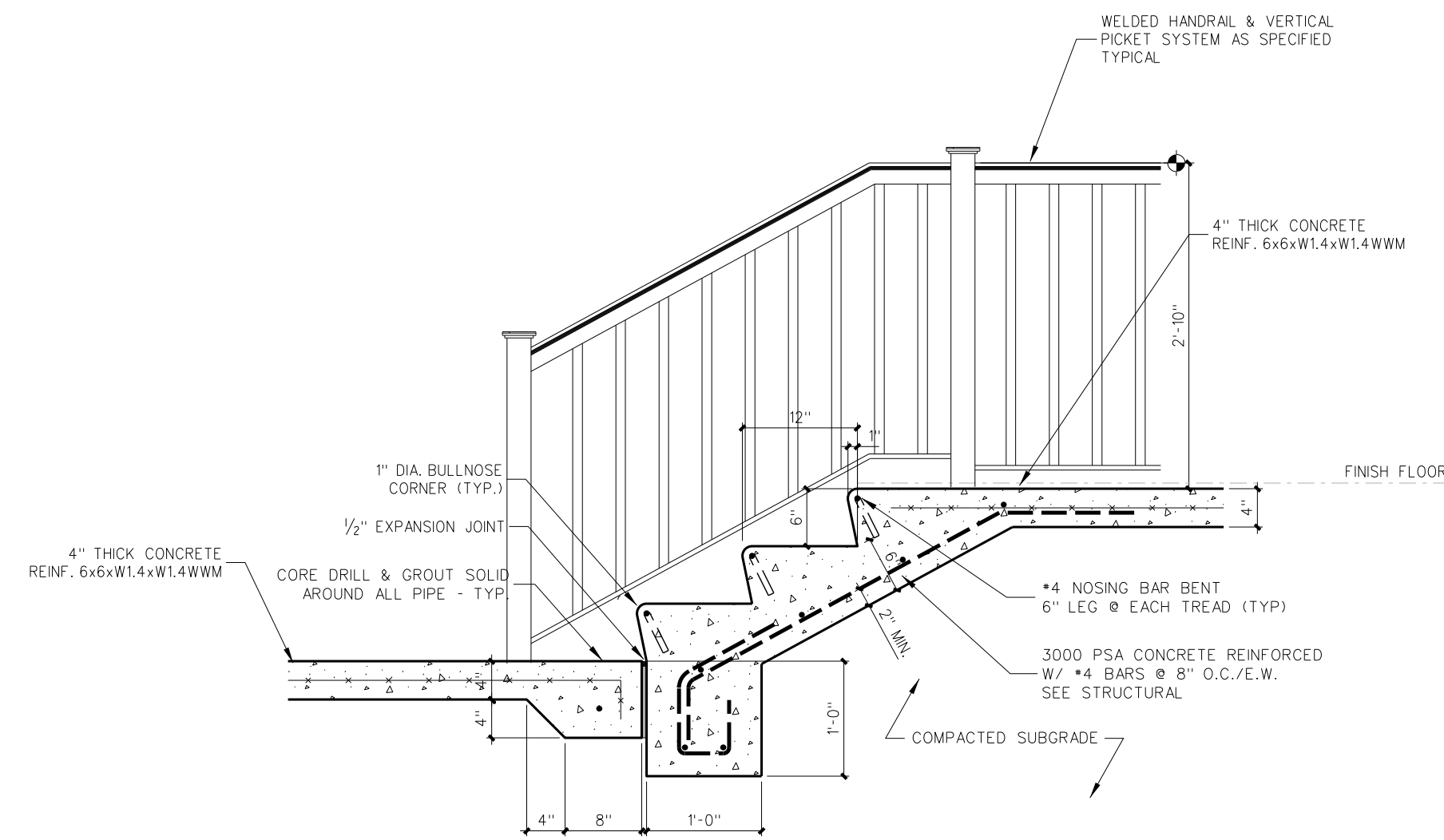
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Project No. 22351  
Date: September 29, 2023  
Drawing No. **C 101**

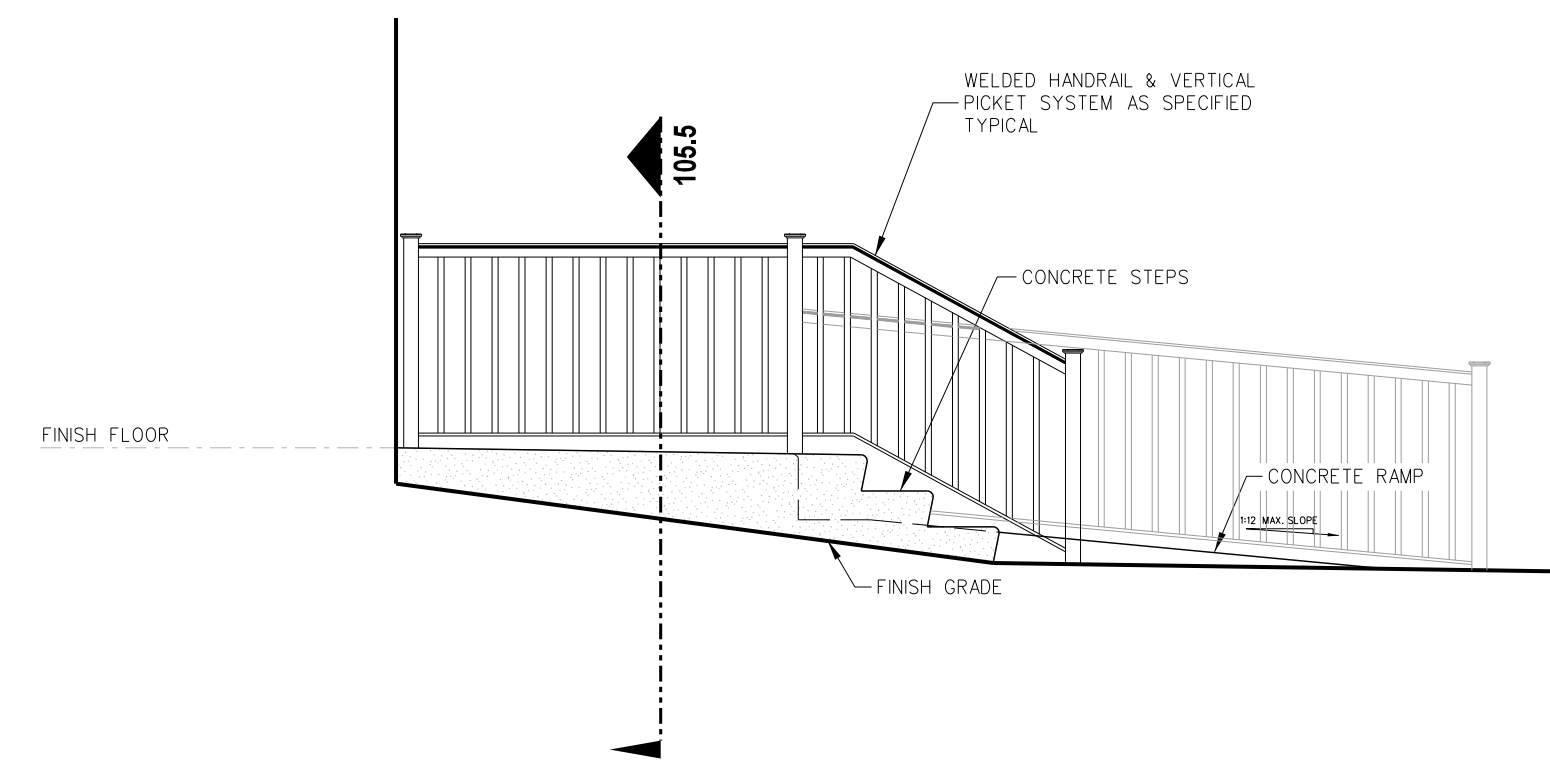




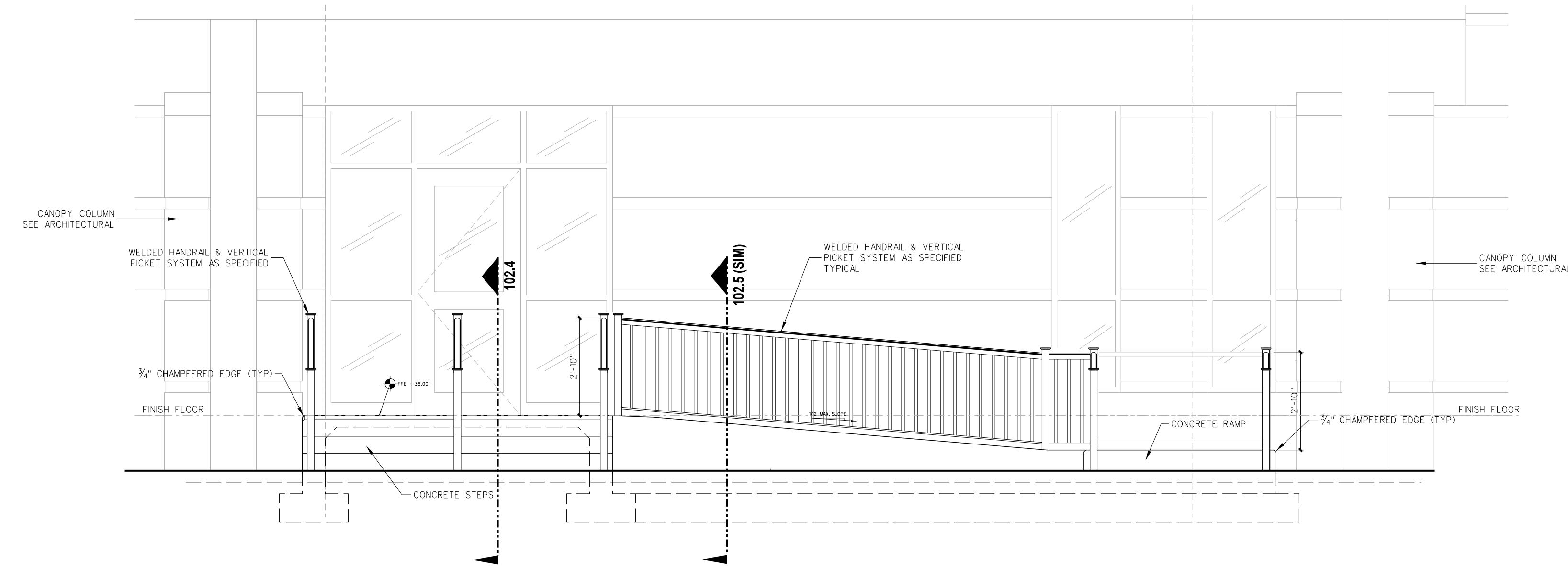
**102.5 SECTION @ CONCRETE LANDING/RAMP**  
SCALE: 3/4" = 1'-0"



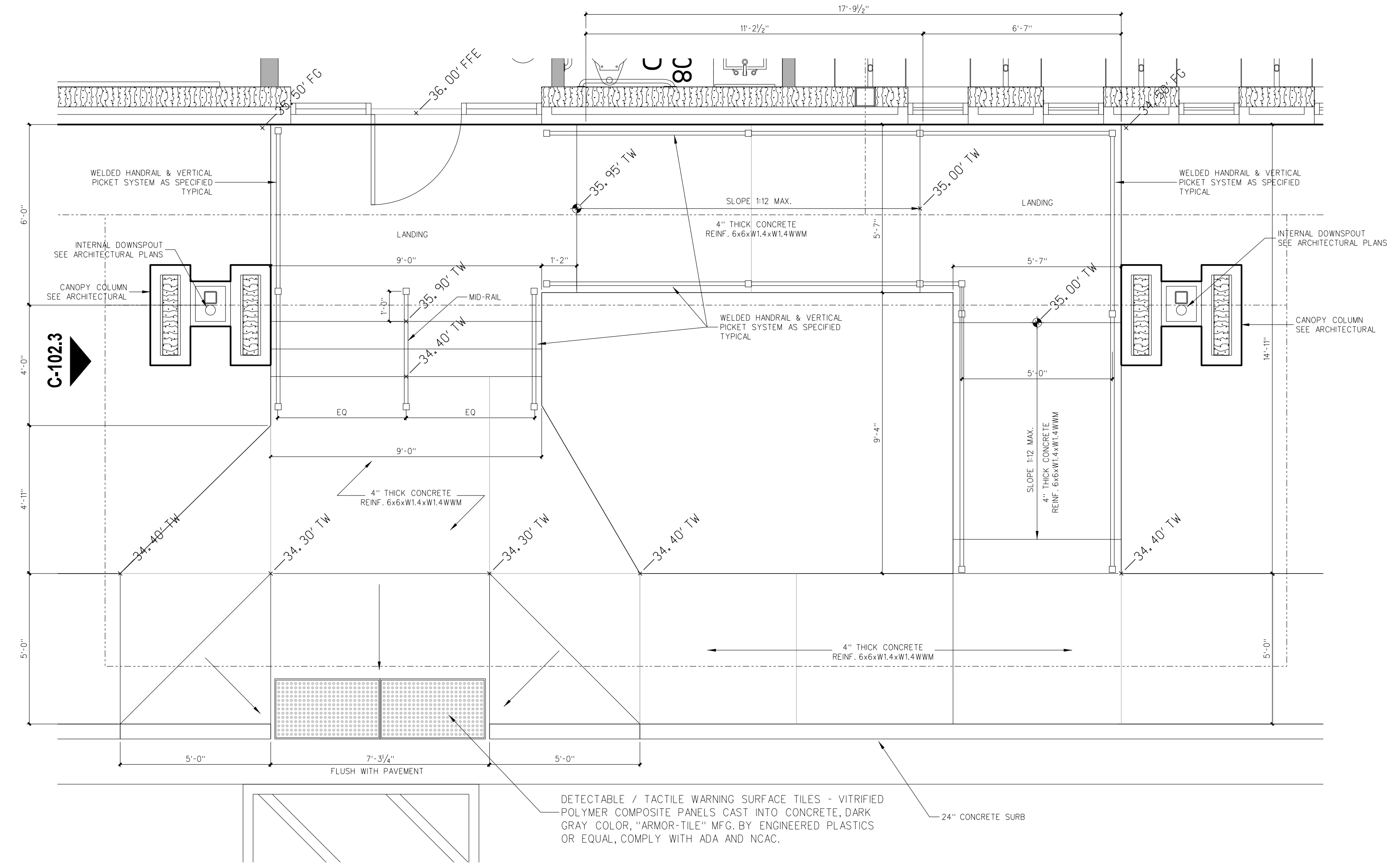
**102.4 SECTION @ CONCRETE STEPS**  
SCALE: 3/4" = 1'-0"



**102.3 ELEVATION CONCRETE STEPS & RAMP PLAN**  
SCALE: 3/8" = 1'-0"



**102.2 ELEVATION CONCRETE STEPS & RAMP PLAN**  
SCALE: 3/8" = 1'-0"

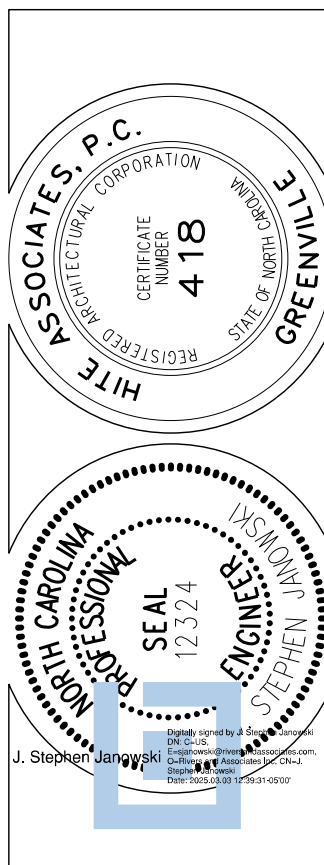


**C-102.2**

**102.1 ENLARGED CONCRETE STEPS & RAMP PLAN**  
SCALE: 3/8" = 1'-0"

No.	Date	Revision

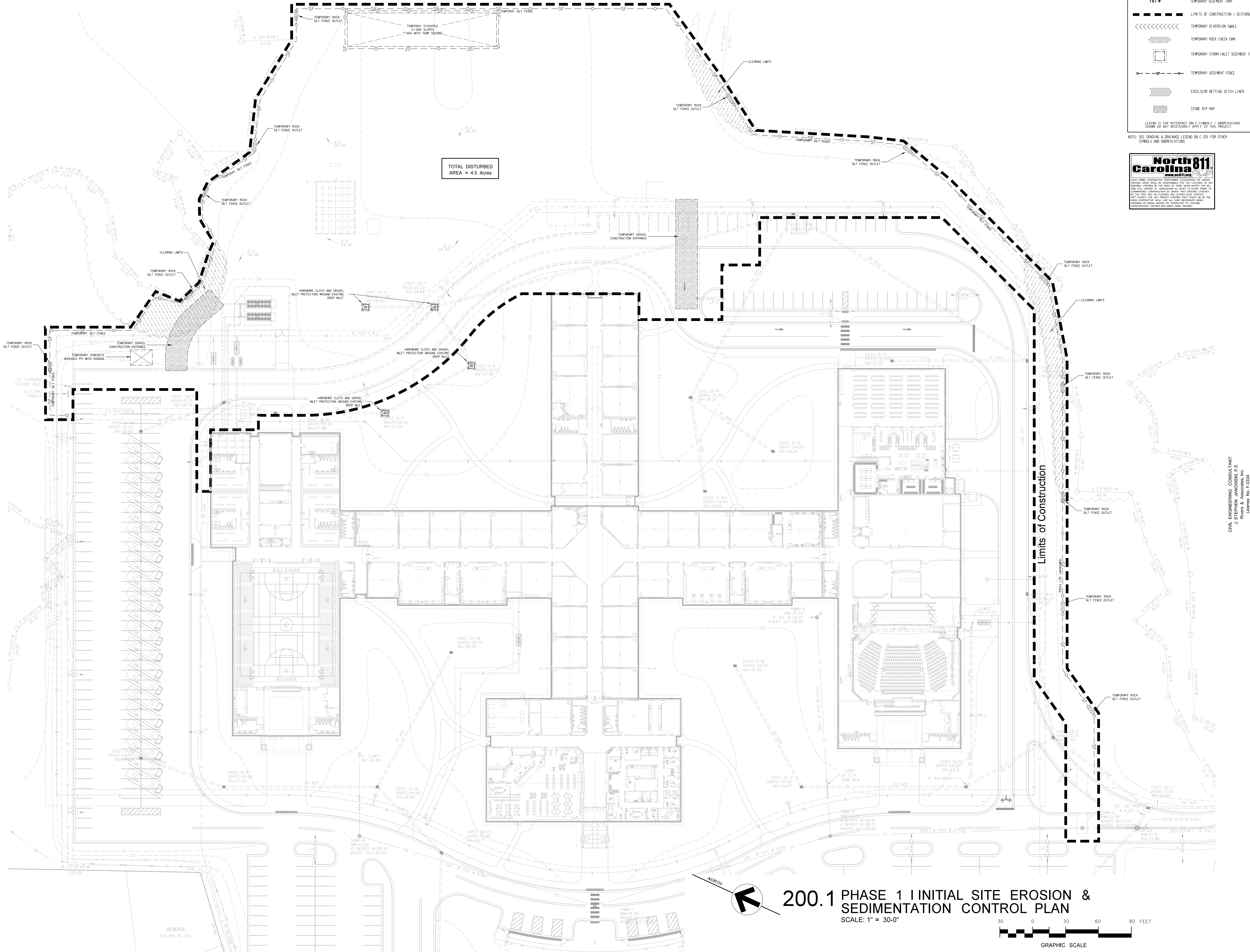
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NEW CTE BUILDING FOR  
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Project No.	22351
Date	September 29, 2023
Drawing no.	<b>C</b> <b>102</b>

### Limits of Construction



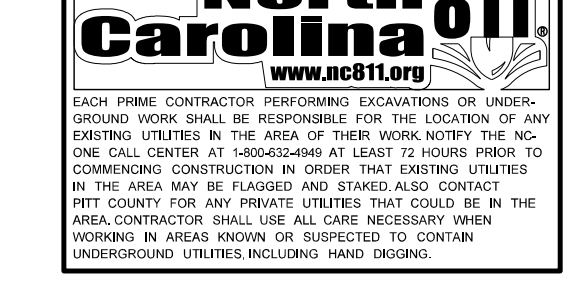
TOTAL DISTURBED AREA = 4.5 Acres

### EROSION CONTROL LEGEND

TST #	DESCRIPTION
---	TEMPORARY SEDIMENT TRAP
----	LIMITS OF CONSTRUCTION / DISTURBANCE
	TEMPORARY DIVERSION SWALE
▨	TEMPORARY ROCK CHECK DAM
□	TEMPORARY STORM INLET SEDIMENT TRAP
—○—	TEMPORARY SEDIMENT FENCE
▨	EXCLOSION NETTING DITCH LINER
▨	STONE RIP RAP

LEGEND IS FOR REFERENCE ONLY. SYMBOLS / ABBREVIATIONS SHOWN DO NOT NECESSARILY APPLY TO THIS PROJECT.

NOTE: SEE GRADING & DRAINAGE LEGEND ON C-201 FOR OTHER SYMBOLS AND ABBREVIATIONS.



No.	Date	Revision

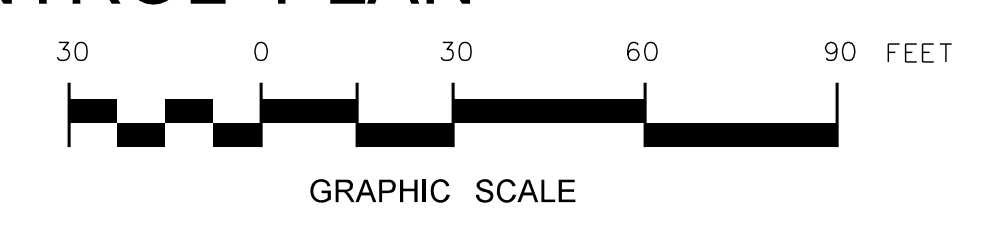
**Hite associates**  
 ARCHITECTURE / ENGINEERING / TECHNOLOGY  
 2600 Meridian Drive / Greenville, NC 27834 / tel (252) 757-0333

CIVIL ENGINEERING CONSULTANT:  
 STEPHEN JANOWSKI, P.E.  
 Rivers & Associates, Inc.  
 License No. F-0334  
 107 East 2nd Street, Greenville, NC 27834  
 (252) 757-0300

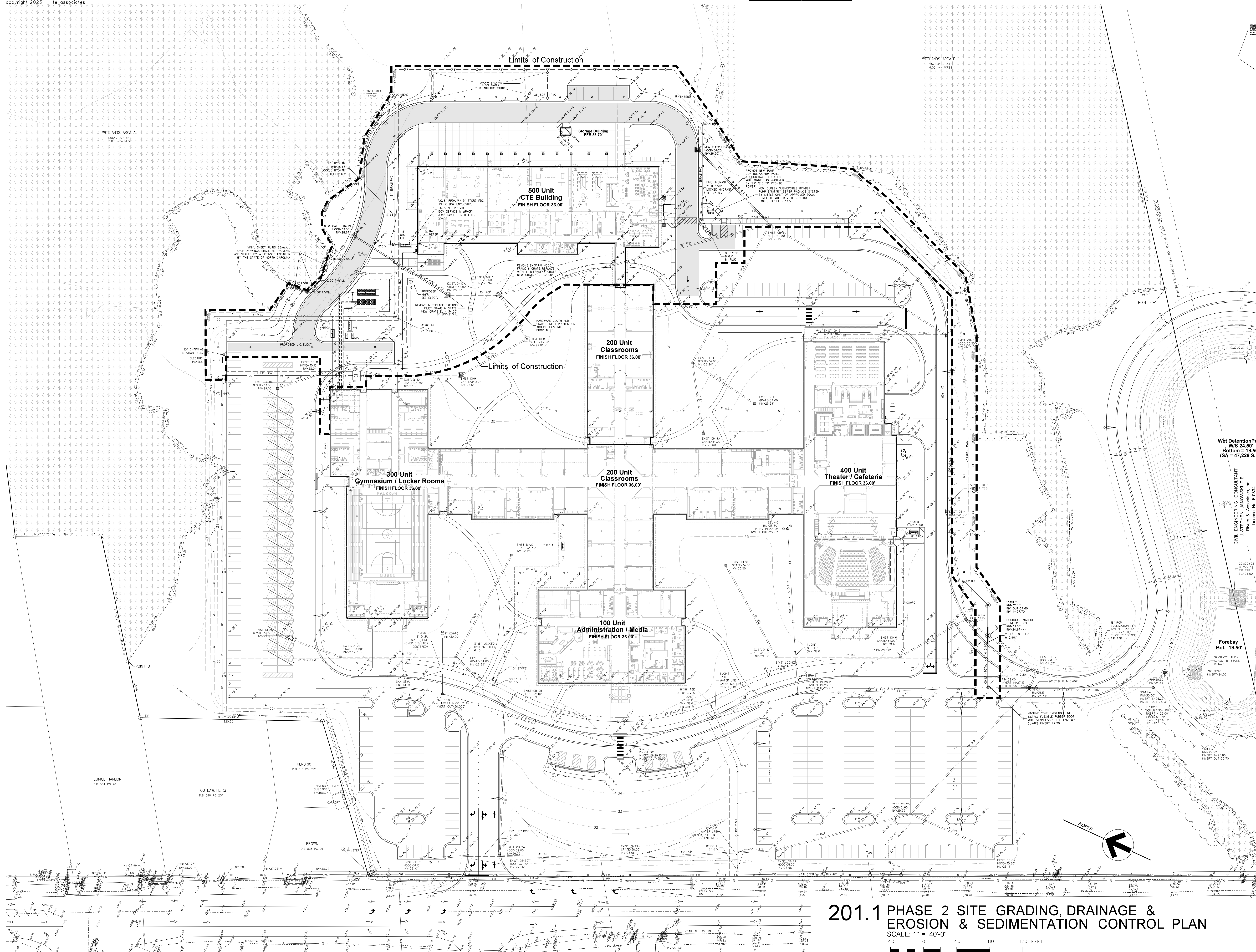
NEW CTE BUILDING FOR  
**Bertie High School**  
 716 US 13 North / NCDPS Unit 080 - School 312  
 Windsor / Bertie County / North Carolina

## 200.1 PHASE 1 INITIAL SITE EROSION & SEDIMENTATION CONTROL PLAN

SCALE: 1" = 30'-0"



Project No: 22351  
 Date: September 29, 2023  
 Drawing No: **C 200**



**201.1 PHASE 2 SITE GRADING, DRAINAGE & EROSION & SEDIMENTATION CONTROL PLAN**  
 SCALE: 1" = 40'-0"



GRAPHIC SCALE

No.	Date	Revision

**Hite Associates**  
 ARCHITECTURE / ENGINEERING / TECHNOLOGY  
 2600 Meridian Drive / Greenville, NC 27834 / tel (252) 757-0333

Wet Detention Pond  
 WIS 24.50'  
 Bottom = 19.50'  
 (SA = 47,226 S.F.)

Forebay  
 Bot = 19.50'

CONSULTANT:  
 STEPHEN JANKOWSKI, P.E.  
 Rivers & Associates, Inc.  
 License No. F-0324  
 107 East 2nd Street, Greenville, NC 27834-1430

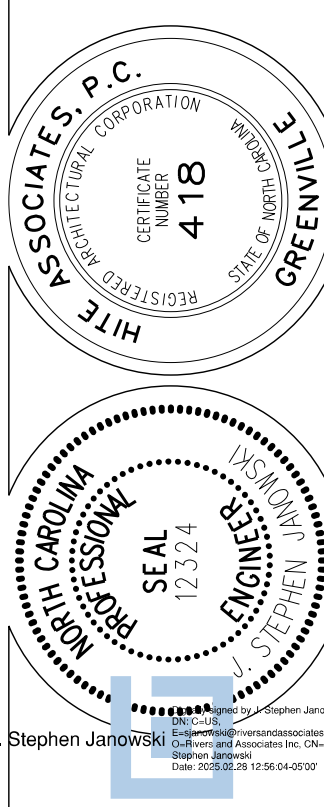
Professional Engineer Seal for Stephen Jankowski, P.E., License No. F-0324, State of North Carolina.

NEW CTE BUILDING FOR  
**Bertie High School**  
 716 US 13 North / NCDPS Unit 080 - School 312  
 Windsor / Bertie County / North Carolina

Project No: 22351  
 Date: September 29, 2023  
 Drawing No: **C 201**

No.	Date	Revision

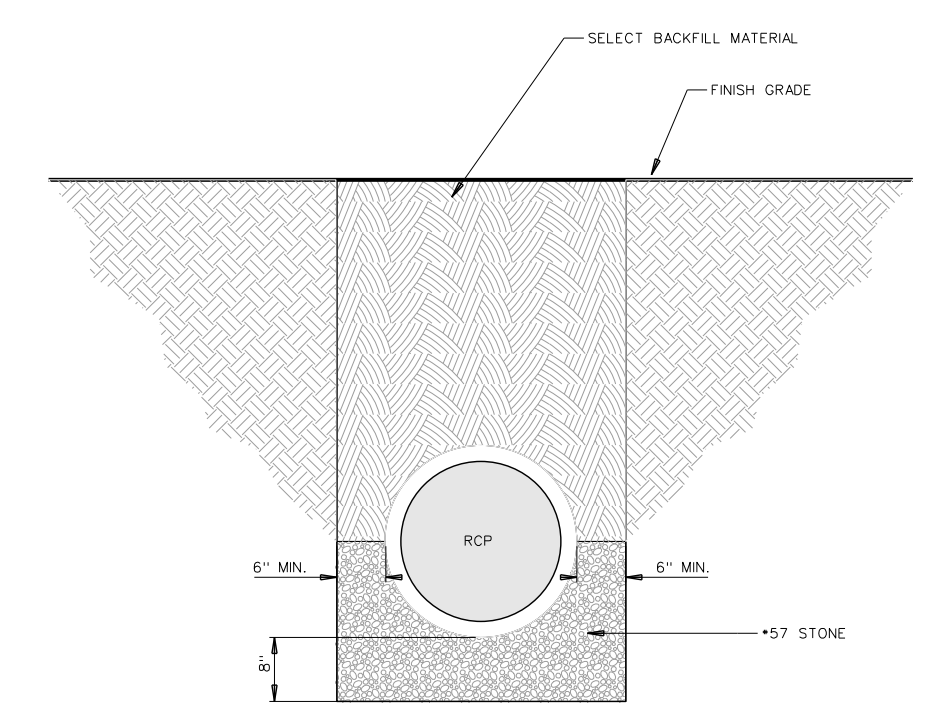
**Hite associates**  
 ARCHITECTURE / PLANNING / TECHNOLOGY  
 2600 Meridian Drive / Greenville, NC 27834 / tel (252) 757-0333



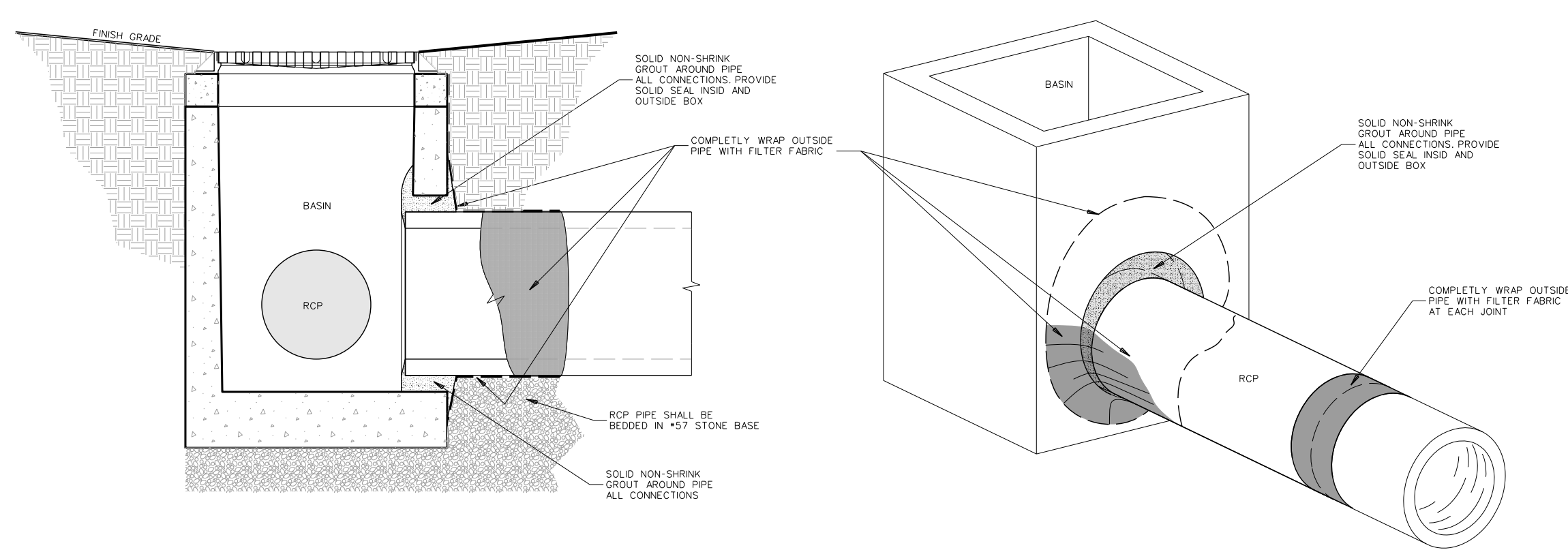
CIVIL ENGINEERING CONSULTANT:  
 STEPHEN JANKOWSKI, P.E.  
 Rivers & Associates, Inc.  
 License No. F-0334  
 107 East 2nd Street, Greenville, NC 27834  
 (252) 754-3000

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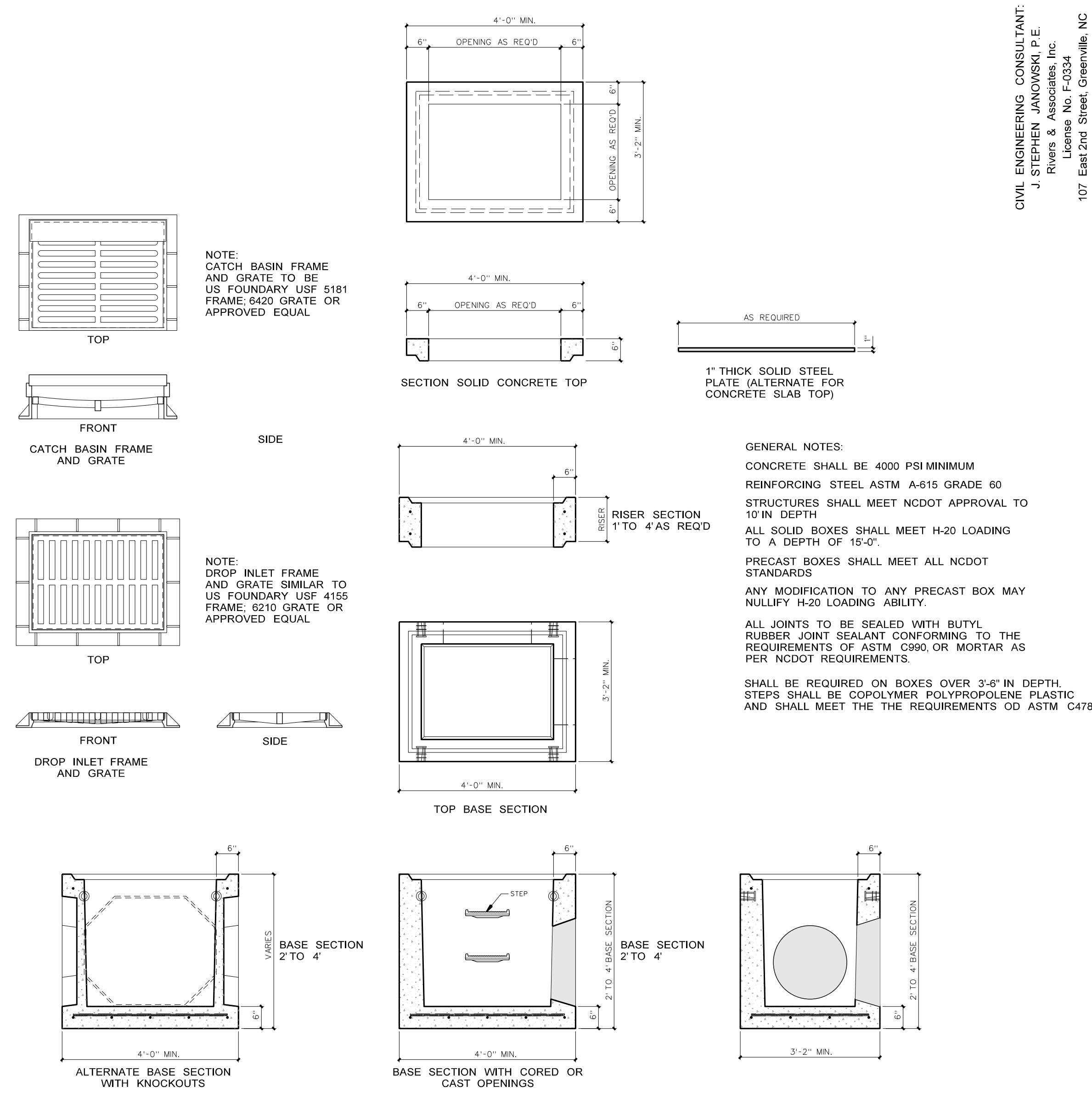
Project No. 22351  
 Date: December 18, 2024  
 Drawing No. **C 301**



**301.6 STORM PIPE LAYING CONDITIONS**  
 SCALE: NONE

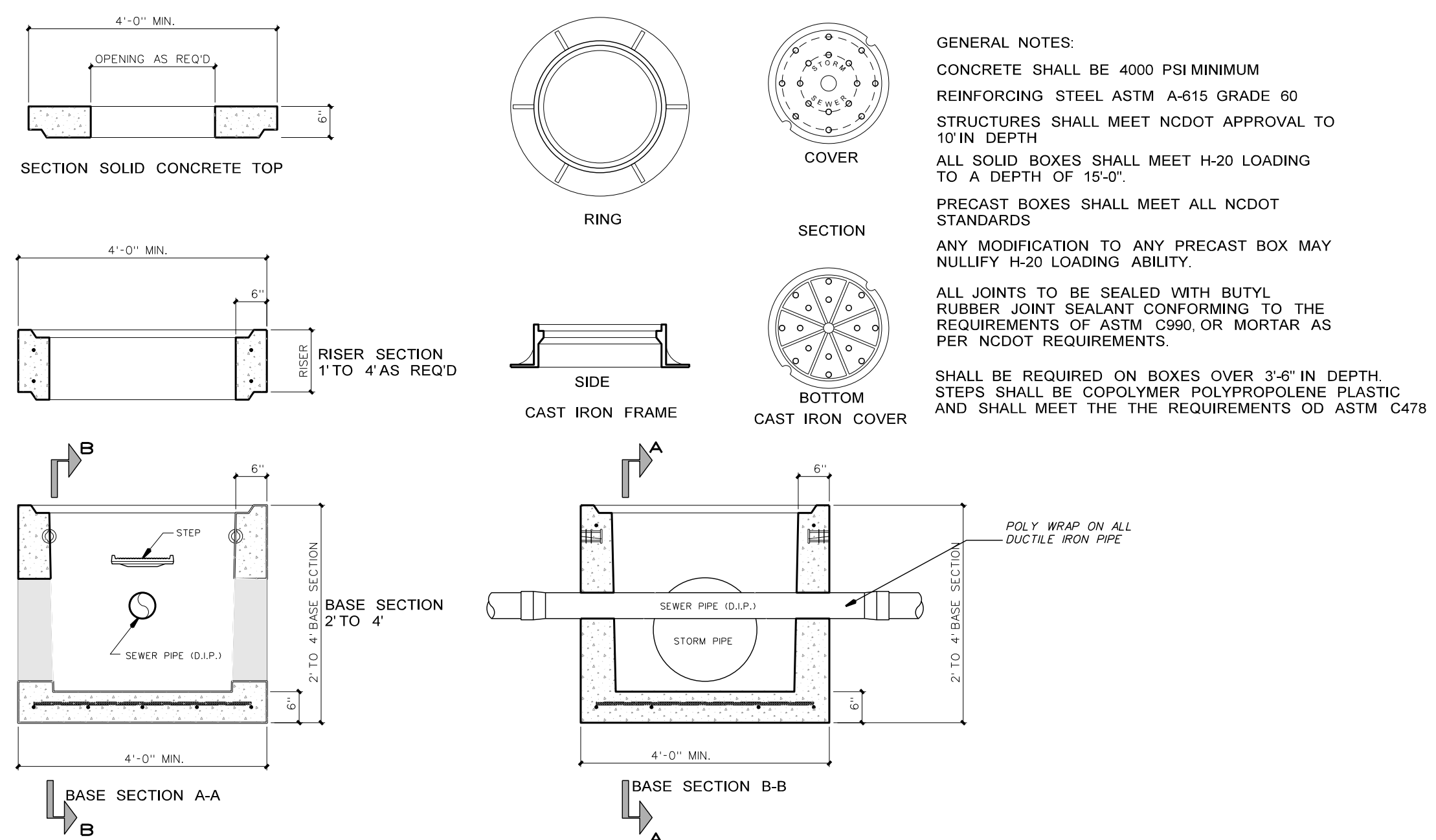


**301.4 RCP CONNECTION @ BASIN**  
 SCALE: NONE



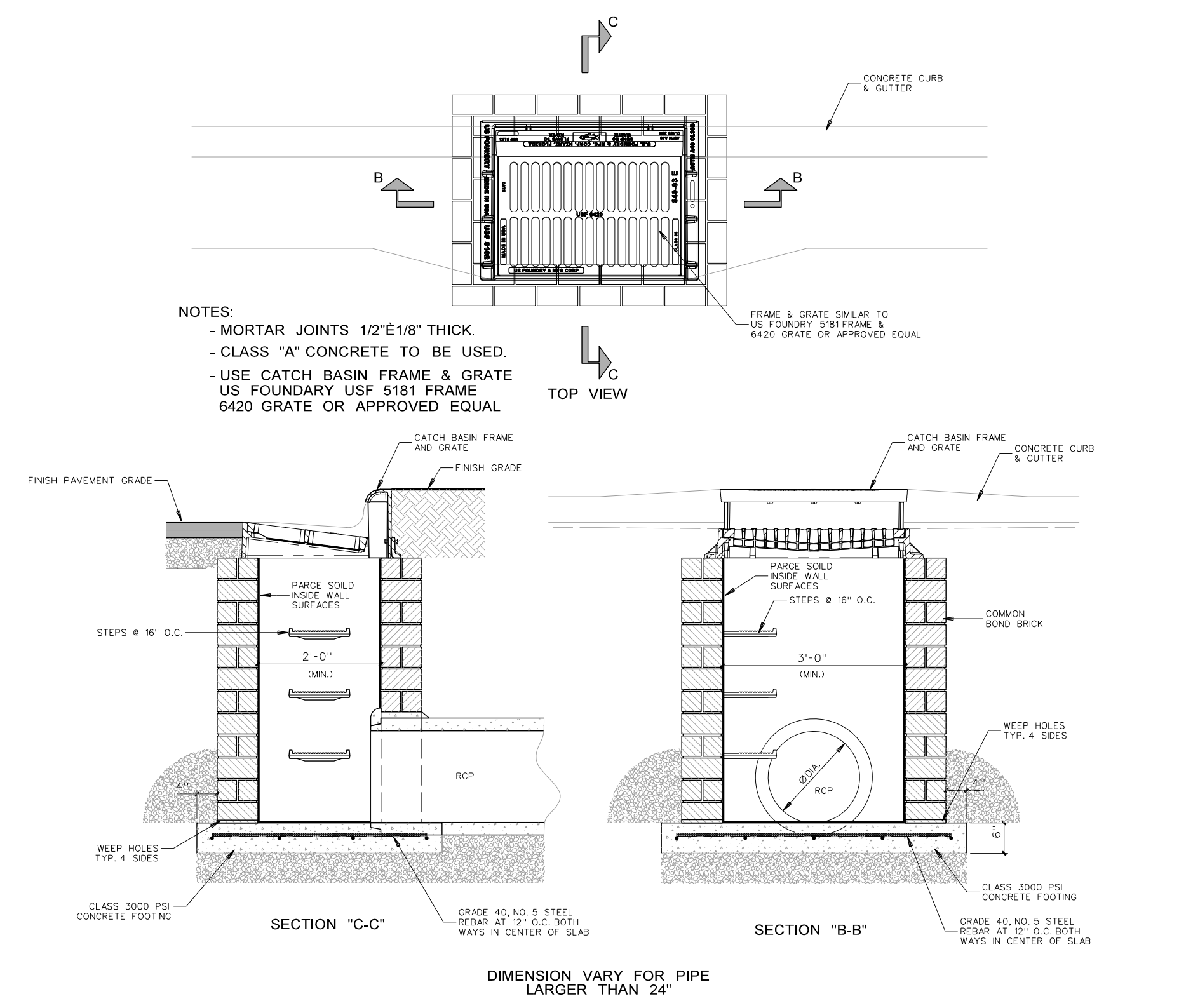
**301.1 PRECAST STORM DRAINAGE STRUCTURE DETAIL**  
 SCALE: 1/2" = 1'-0"

NOTE: DIMENSIONS VARY FOR PIPE LARGER THAN 24"



**301.2 CONFLICT/JUNCTION BOX DETAIL**  
 SCALE: 1/2" = 1'-0"

NOTE:  
 CONFLICT BOX SHALL ONLY BE UTILIZED WHERE SEWER DEPTHS ARE SHALLOW AND CONFLICT WITH STORM DRAINAGE CANNOT BE AVOIDED WITHOUT PUMPING. CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FROM THE LOCAL AUTHORITY HAVING JURISDICTION PRIOR TO CONSTRUCTION OF BOX.

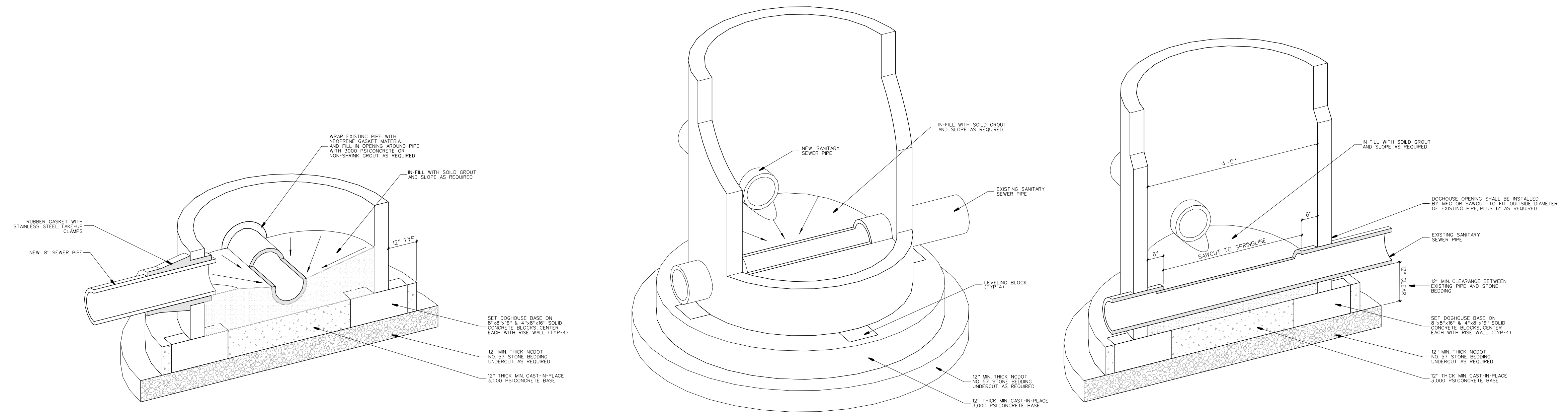


**301.5 MASONRY CATCH BASIN DETAIL**  
 SCALE: 1/2" = 1'-0"

**301.3 MASONRY DROP INLET DETAIL**  
 SCALE: 1/2" = 1'-0"

NOTE: DIMENSIONS VARY FOR PIPE LARGER THAN 24"

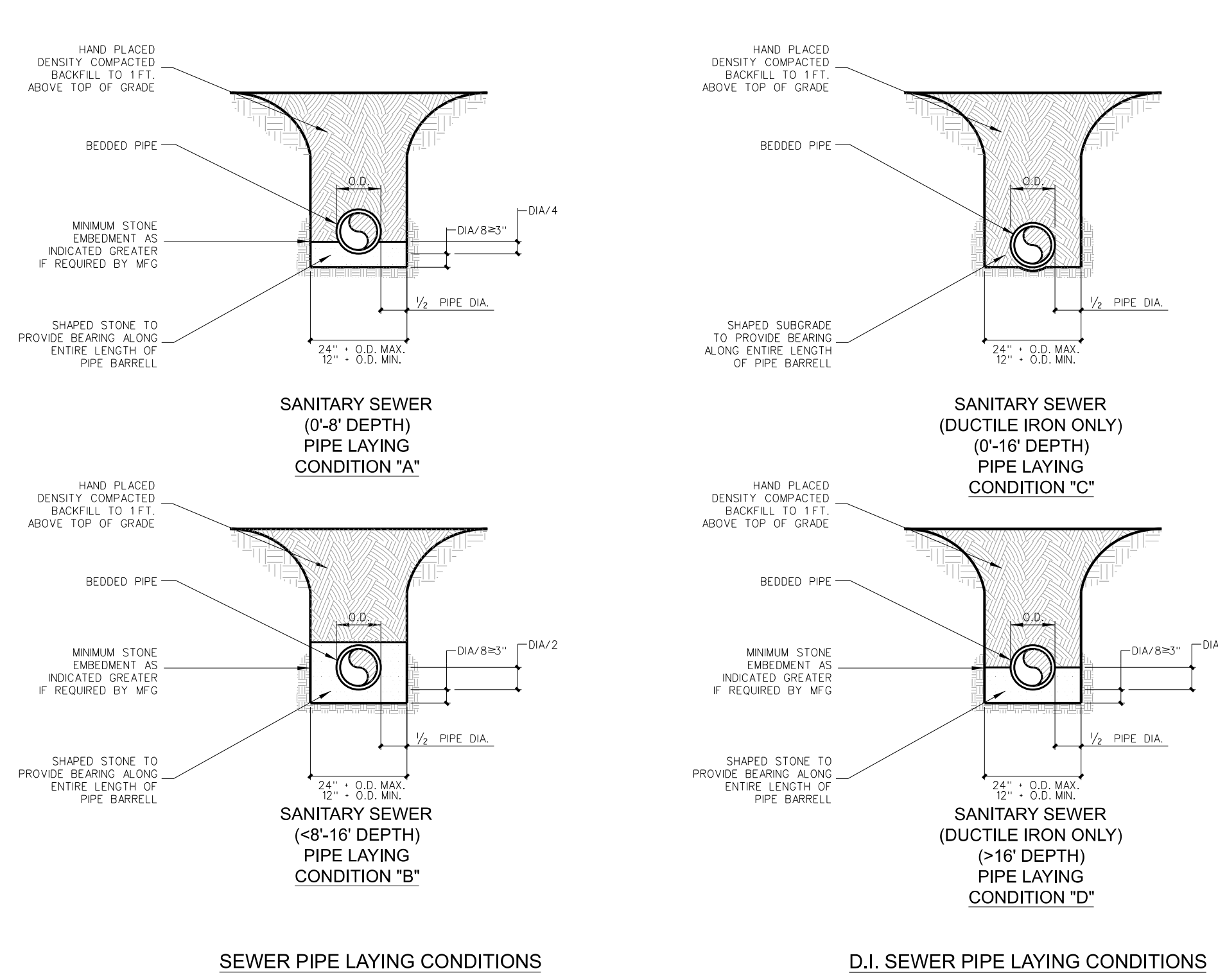
NOTE: DIMENSIONS VARY FOR PIPE LARGER THAN 24"



- NOTES:
1. FLOW SHALL BE MAINTAINED DURING CONSTRUCTION.
  2. MANHOLE PAD SHALL REST UPON 12" THICK MIN NO. 57 COMPACTED STONE BASE PAD. PROVIDE FOUR (4) LEVELING BLOCKS AS NOTED.
  3. CONSTRUCT A FORMED INVERT FROM NEW SEWER LINE TO ALLOW FLOW TO EXISTING PIPE.
  4. POUR A SHELF TO THE LOWER HALF OF THE EXISTING PIPE.
  5. PLUG NEW SEWER PIPE PRIOR TO CUTTING EXISTING LINE.
  6. CUT AND REMOVE THE TOP HALF OF THE EXISTING PIPE TO WITHIN 6" OF THE MANHOLE INSIDE WALL AFTER THE INVERT AND SHELF HAVE BEEN FORMED AND THE MANHOLE HAS BEEN FULLY TESTED IN ACCORDANCE WITH THESE SPECIFICATIONS.

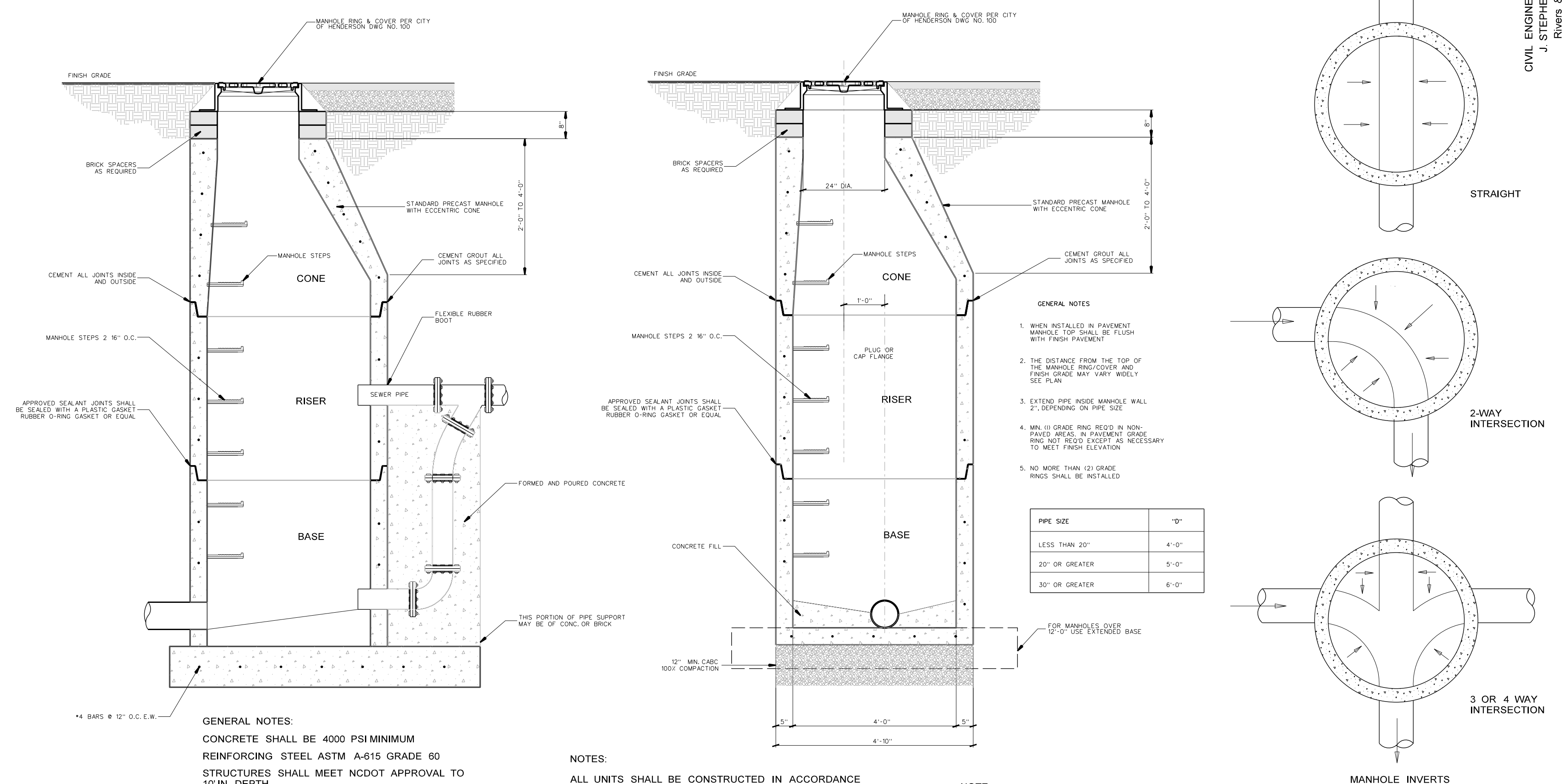
### 302.3 TYPICAL PRE-CAST DOGHOUSE MANHOLE

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



### 302.2 PIPE LAYING CONDITIONS

SCALE: NONE

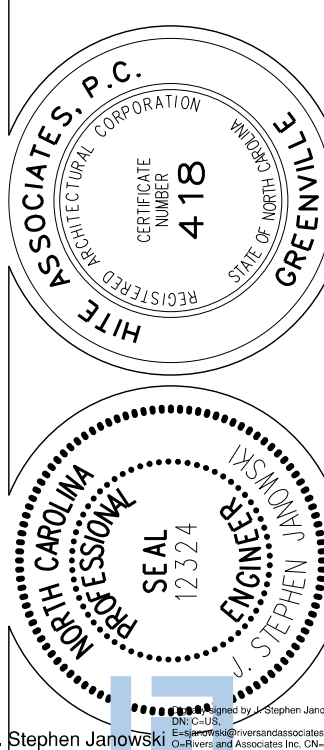


- GENERAL NOTES:
1. WHEN INSTALLED IN PAVEMENT MANHOLE TOP SHALL BE FLUSH WITH FINISH PAVEMENT.
  2. THE DISTANCE FROM THE TOP OF THE MANHOLE MANUFACTURER AND FINISH GRADE MAY VARY WIDELY. SEE PLAN.
  3. EXTEND PIPE MANHOLE WALL 2' DEPENDING ON PIPE SIZE.
  4. MIN. 12\"/>
- | PIPE SIZE      | 12"   |
|----------------|-------|
| LESS THAN 20"  | 4'-0" |
| 20" OR GREATER | 5'-0" |
| 30" OR GREATER | 6'-0" |
- NOTE: INVERTS TO BE SHAPED ACCURATELY TO A SMOOTH SEMI-CIRCLE FINISH CONFORMING TO THE INSIDE CONTOUR OF THE ADJACENT SEWER SECTIONS. ALL ENTERING BRANCHES AND CHANGES IN DIRECTIONS SHALL BE FORMED BY CIRCULAR CURVE IN THE INVERT OF AS LARGE A RADIUS AS THE SIZE OF MANHOLE WILL PERMIT. CHANGES OF SIZE AND GRADE OF CHANNELS SHALL BE FORMED DIRECTLY IN THE CONCRETE OF THE MANHOLE BASE OR SHALL BE BUILT UP WITH BRICK AND MORTAR. THE FLOOR OF THE MANHOLE OUTSIDE THE CHANNELS SHALL BE SMOOTH AND SHALL SLOPE TOWARD THE CHANNELS NOT LESS THAN 1" PER FOOT NOR MORE THAN 2" PER FOOT.
- CONCRETE SHALL BE 4000 PSI MIN.
- MANHOLE STEPS TO BE M.A. INDUSTRIES MODEL PS-1 STEEL REINFORCING STEEL ASTM A415 GRADE 60 STRUCTURES SHALL MEET NCDOT APPROVAL TO 10' IN DEPTH.
- PRECAST BOXES SHALL MEET ALL NCDOT STANDARDS.
- ANY MODIFICATION TO ANY PRECAST BOX MAY NULLIFY H-20 LOADING ABILITY.
- ALL JOINTS TO BE SEALED WITH BUTYL RUBBER JOINT SEALANT CONFORMING TO THE REQUIREMENTS OF ASTM C590 OR MORTAR AS PER NCDOT REQUIREMENTS.
- SHALL BE REQUIRED ON BOXES OVER 3'-6" IN DEPTH STEPS SHALL BE COPOLYMER POLYPROPYLENE PLASTIC AND SHALL MEET THE REQUIREMENTS OF ASTM C478.
- MANHOLE SHALL BE GROUTED TO BASE OF MH FOR A TIGHT WATERPROOF SEAL IN THE EVENT RAISING IS NEEDED. SOLID MASONRY BRICK SHALL BE USED.

### 302.1 TYPICAL PRE-CAST MANHOLE

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

CIVIL ENGINEERING CONSULTANT:  
STEPHEN JANKOVSKI, P.E.  
Rivers & Associates, Inc.  
License No. F-0334  
107 East 2nd Street, Greenville, NC  
(252) 714-3000

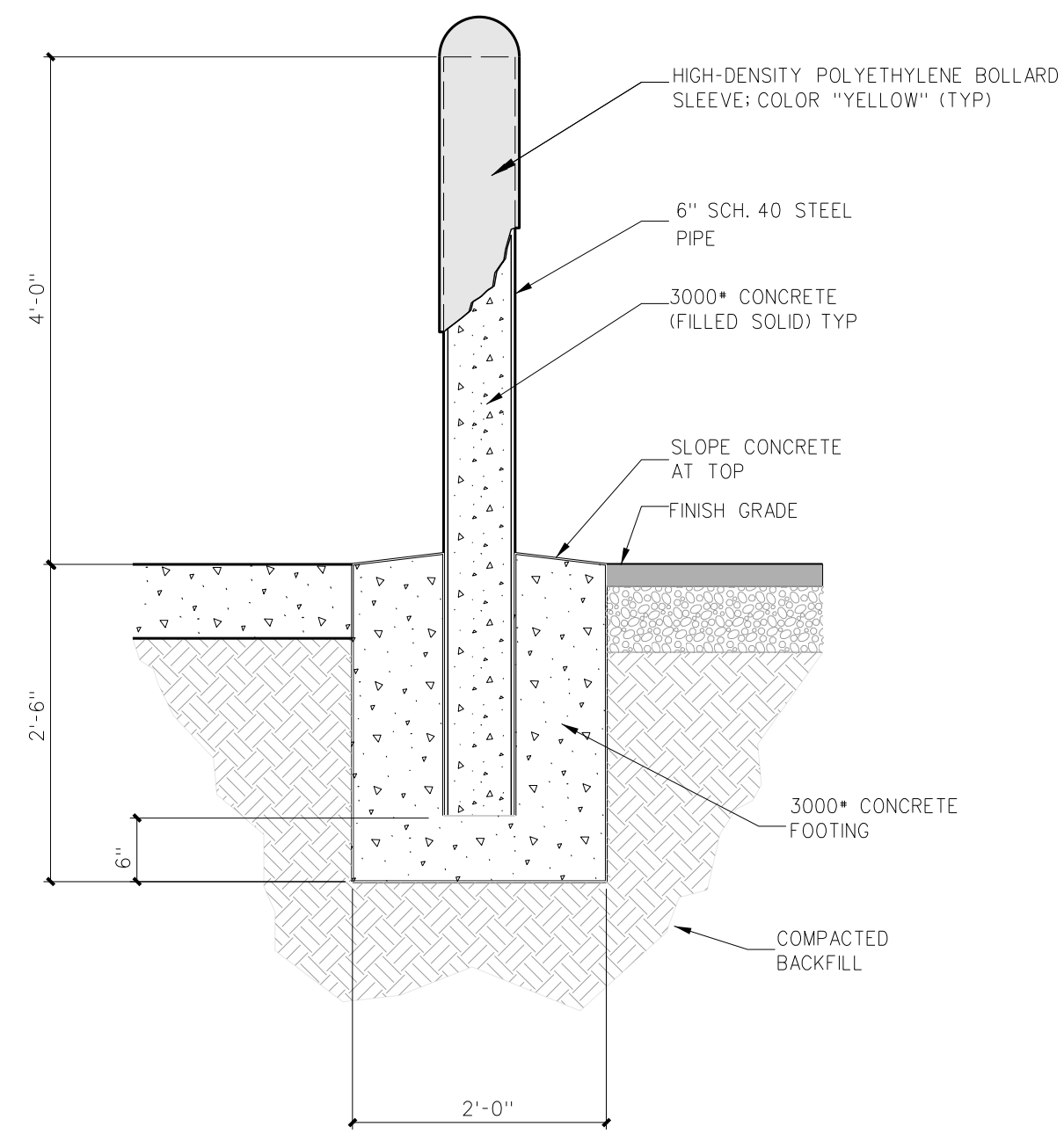


NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 3112  
Windsor / Bertie County / North Carolina

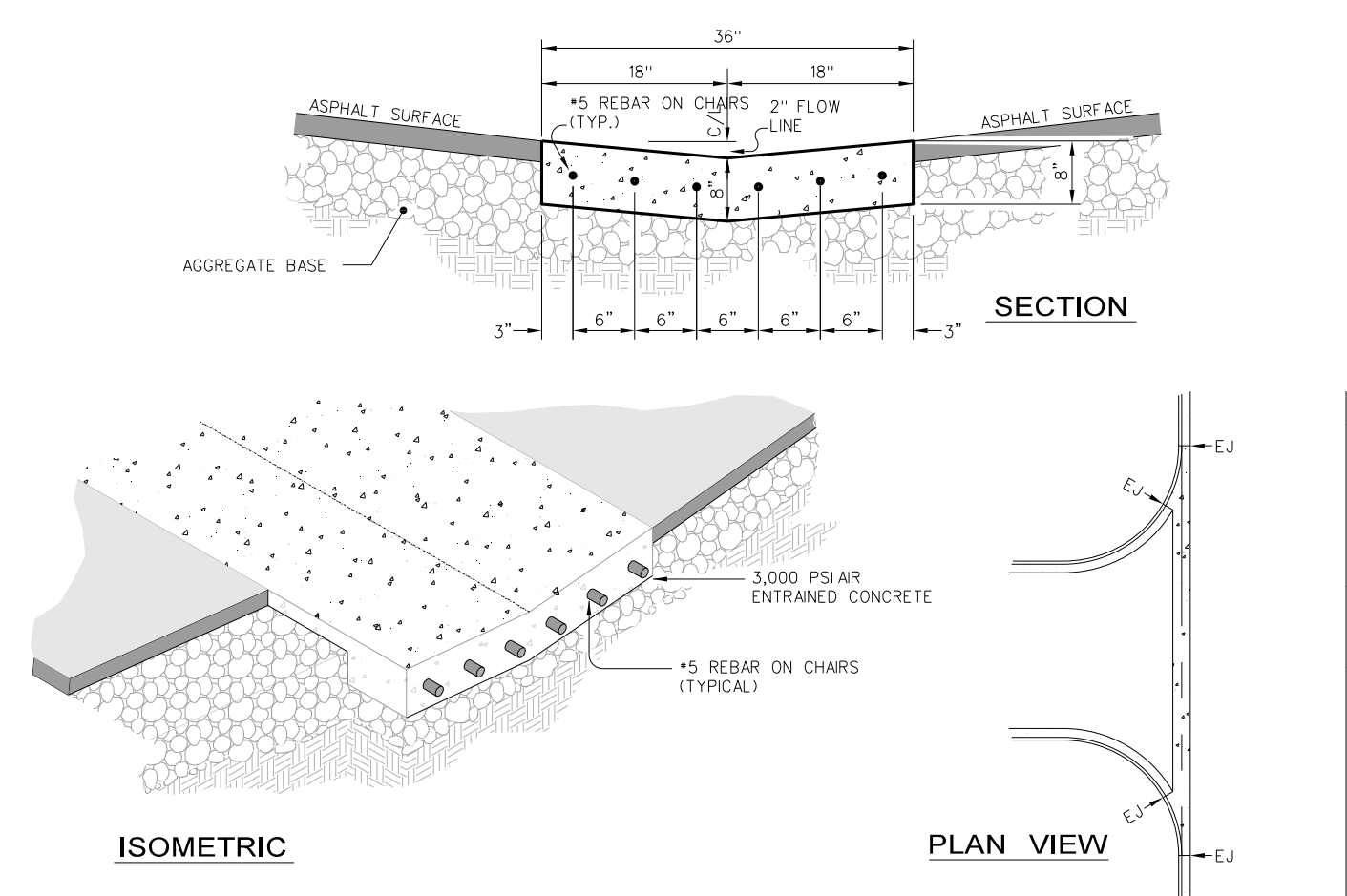
Project No. 22351  
Date: December 18, 2024  
Drawing No. **C 302**

No.	Date	Revision

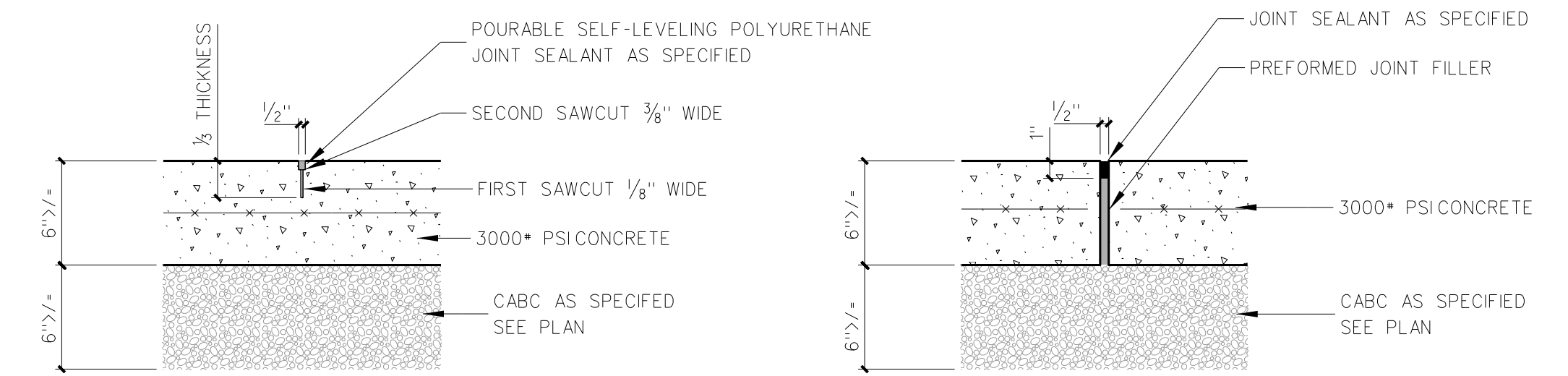
**Hite associates**  
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2600 Meridian Drive / Greenville, NC 27834 / tel (252) 757-0333



**303.12 STEEL BOLLARD DETAIL**  
SCALE: 3/4" = 1'-0"

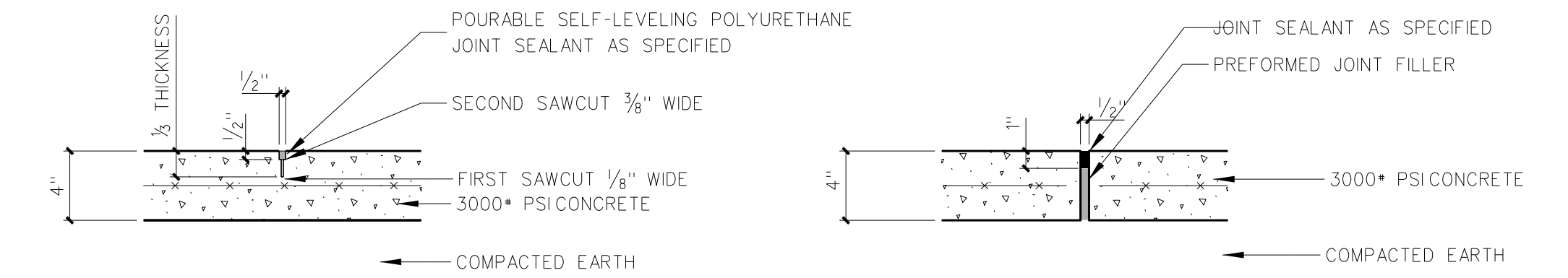


**303.11 CONCRETE VALLEY GUTTER**  
SCALE: 3/4" = 1'-0"



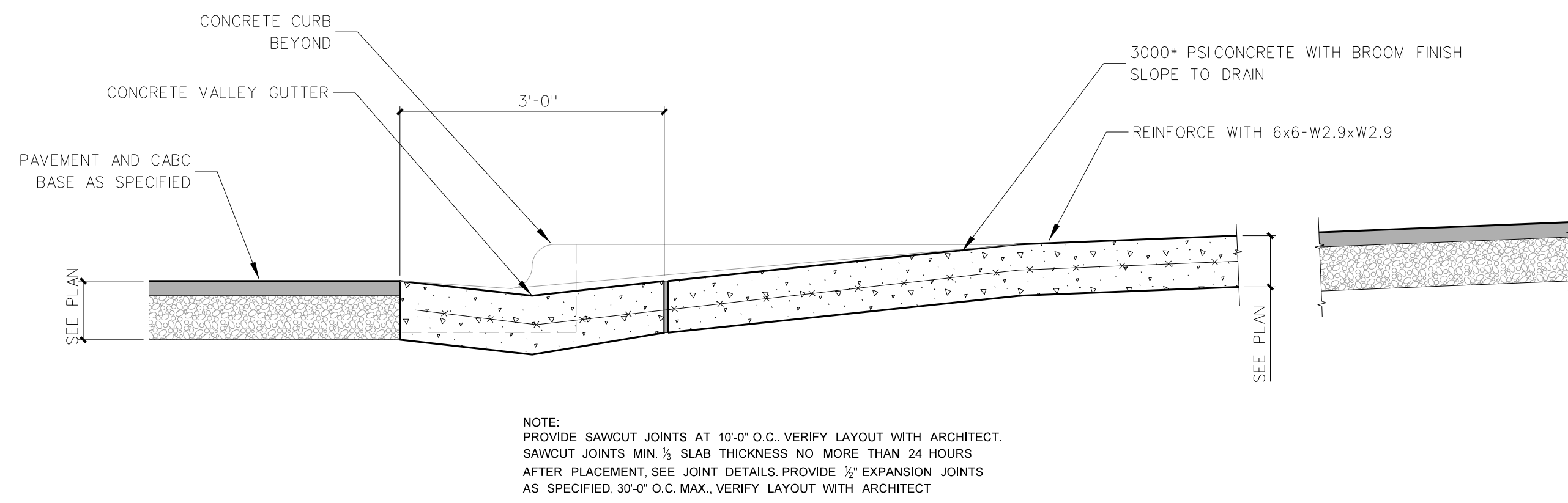
**SAW CUT CONTROL JOINT (C.J.)**

**EXPANSION JOINT (E.J.)**  
(Joints not to exceed 20' o.c., locate at all walk intersections and inside corners)

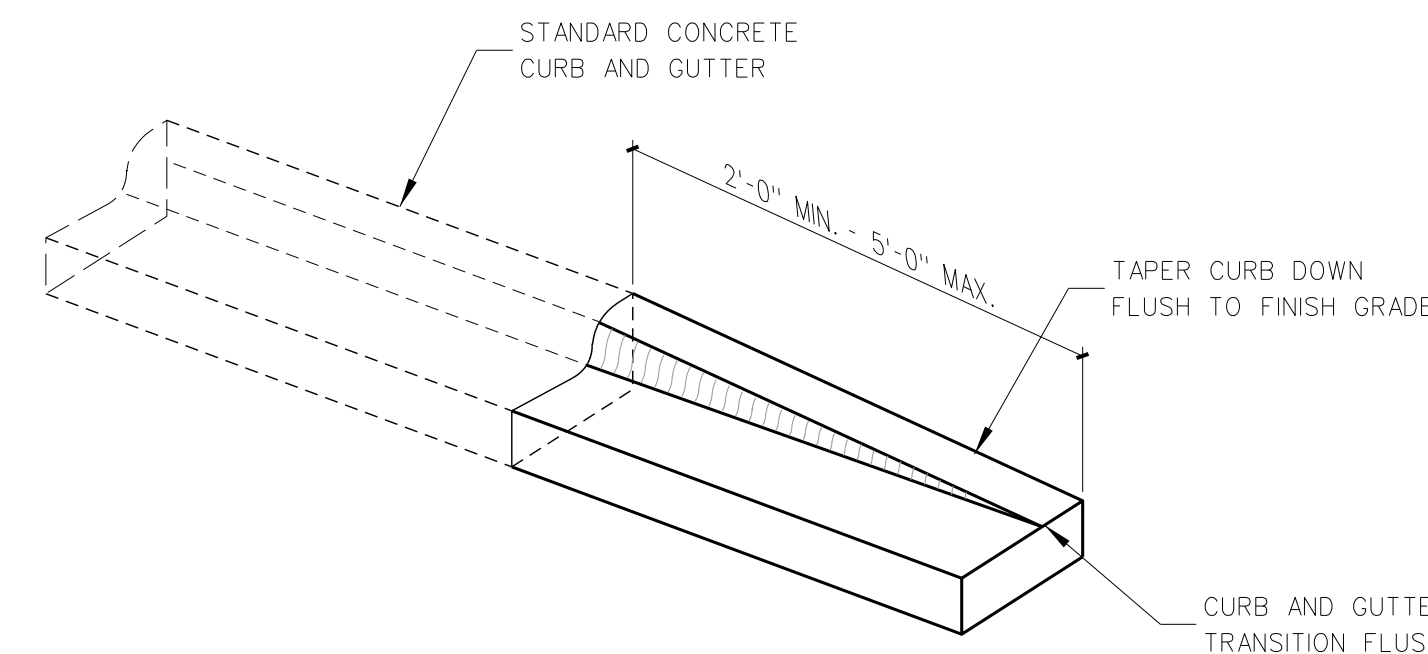


**SAW CUT CONTROL JOINT (C.J.)**  
(Joints not to exceed 5' o.c.)

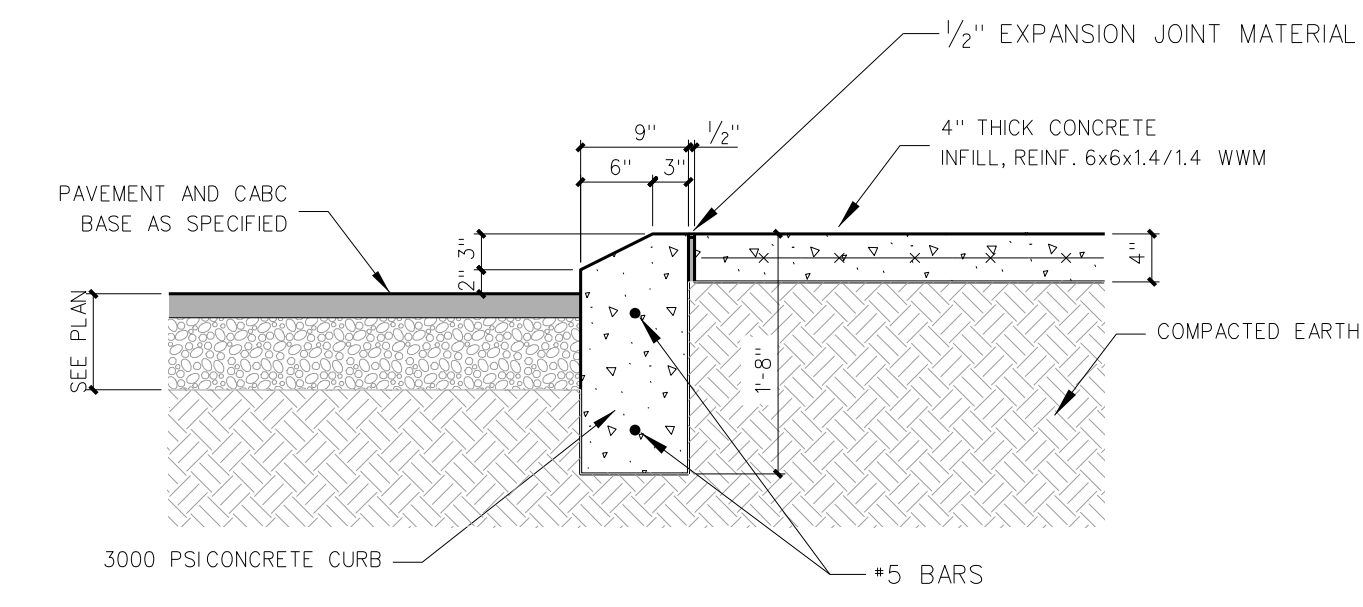
**EXPANSION JOINT (E.J.)**  
(Joints not to exceed 20' o.c., locate at all walk intersections and inside corners)



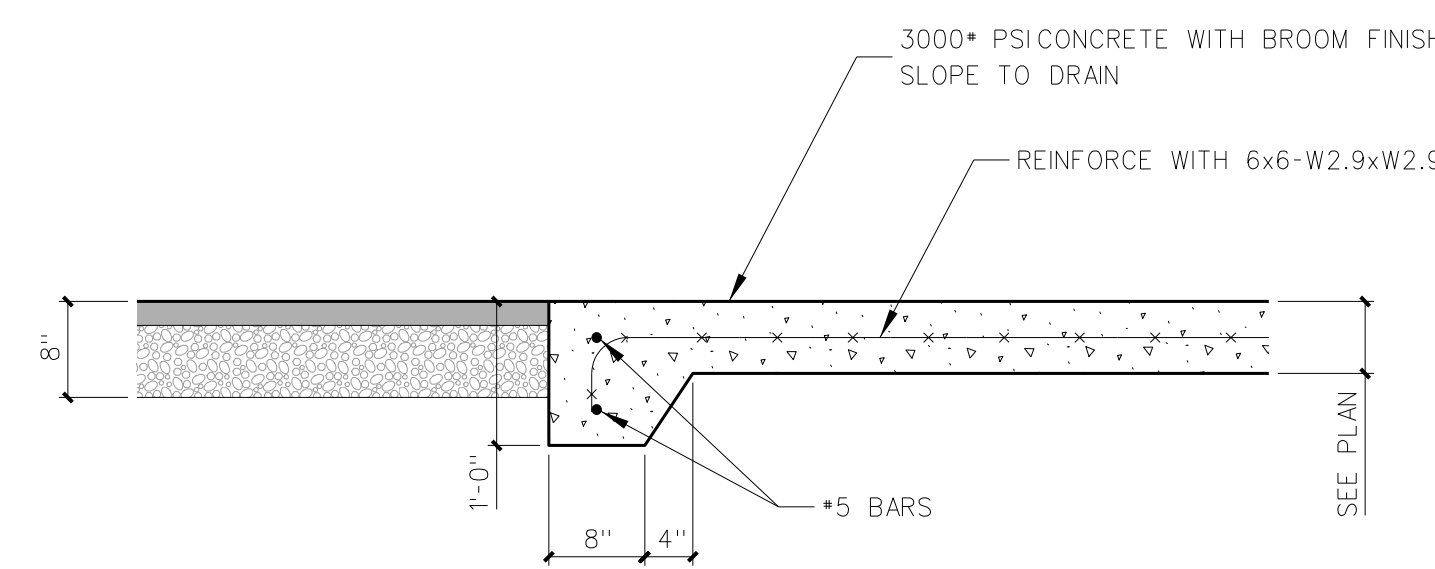
**303.9 CONCRETE CURB/GUTTER @ DRIVE APRON**  
SCALE: 3/4" = 1'-0"



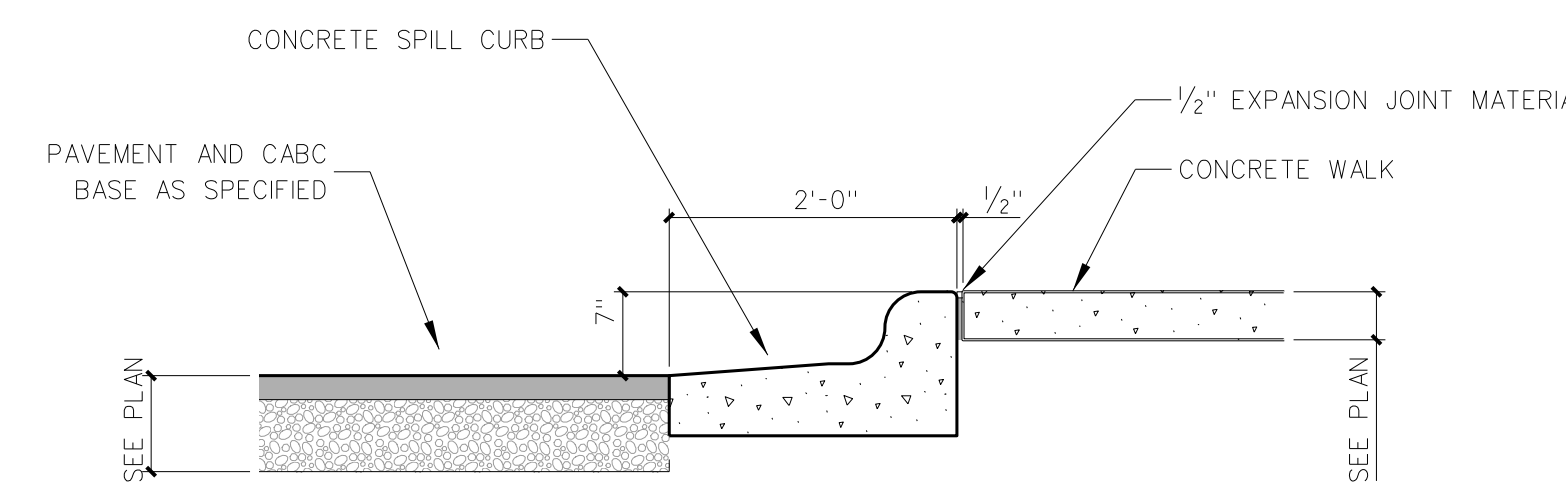
**303.8 CONCRETE CURB END TAPER**  
SCALE: 3/4" = 1'-0"



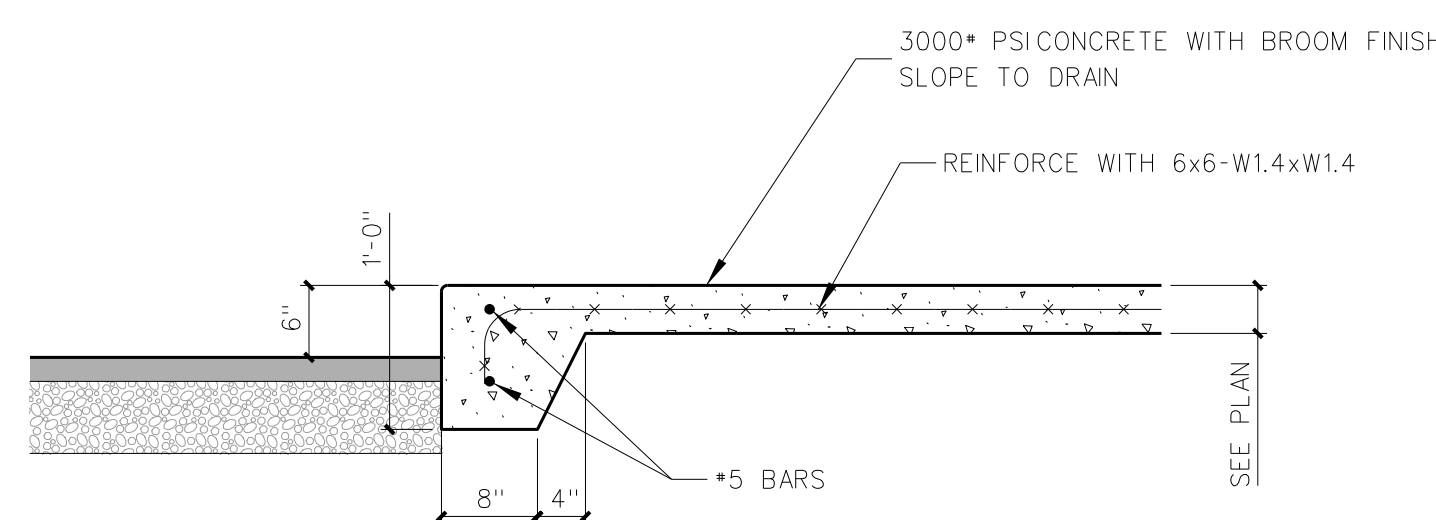
**303.7 RAISED CONCRETE MEDIAN ISLAND**  
SCALE: 3/4" = 1'-0"



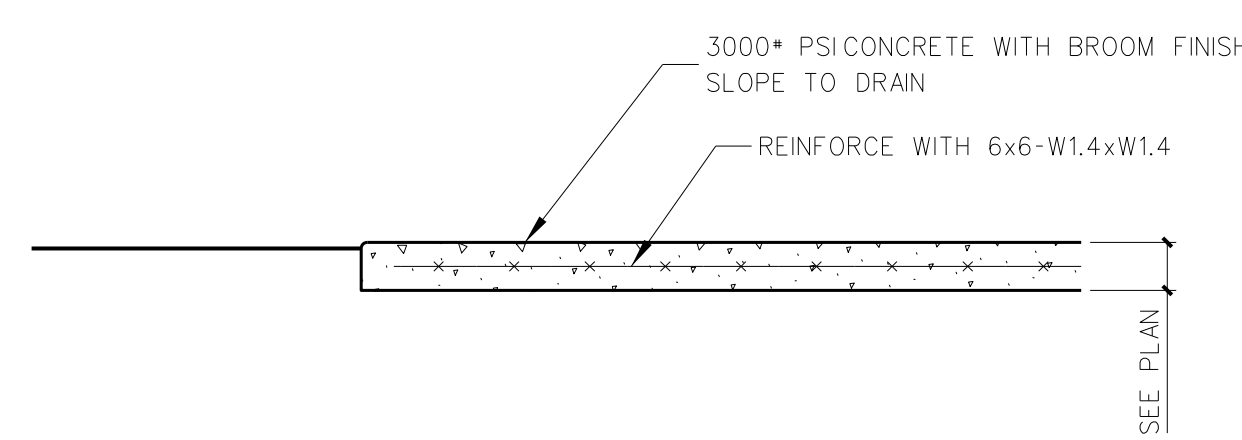
**303.6 HEAVY-DUTY CONCRETE SLAB**  
SCALE: 3/4" = 1'-0"



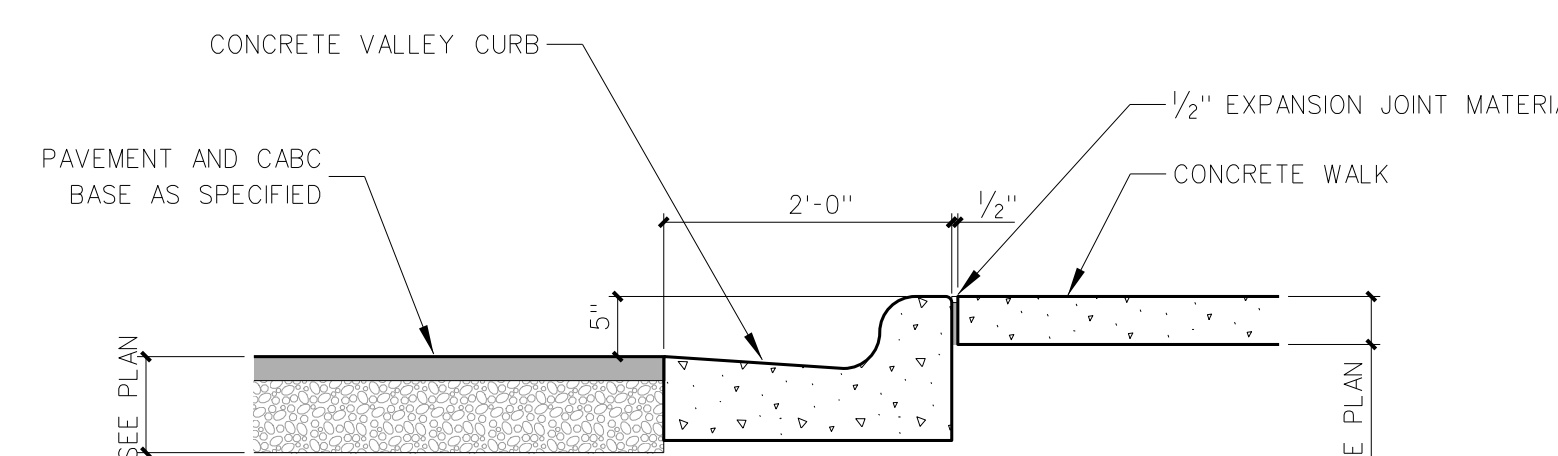
**303.5 CONCRETE SPILL CURB @ WALK**  
SCALE: 3/4" = 1'-0"



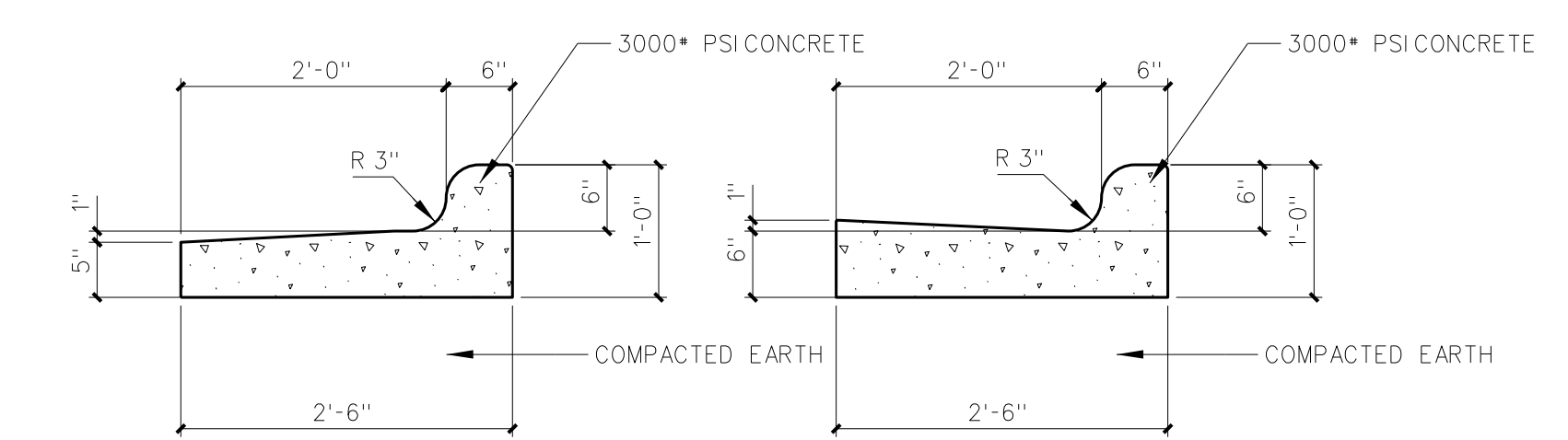
**303.4 LIGHT-DUTY MONOLITHIC CURB**  
SCALE: 3/4" = 1'-0"



**303.3 LIGHT-DUTY CONCRETE SLAB**  
SCALE: 3/4" = 1'-0"

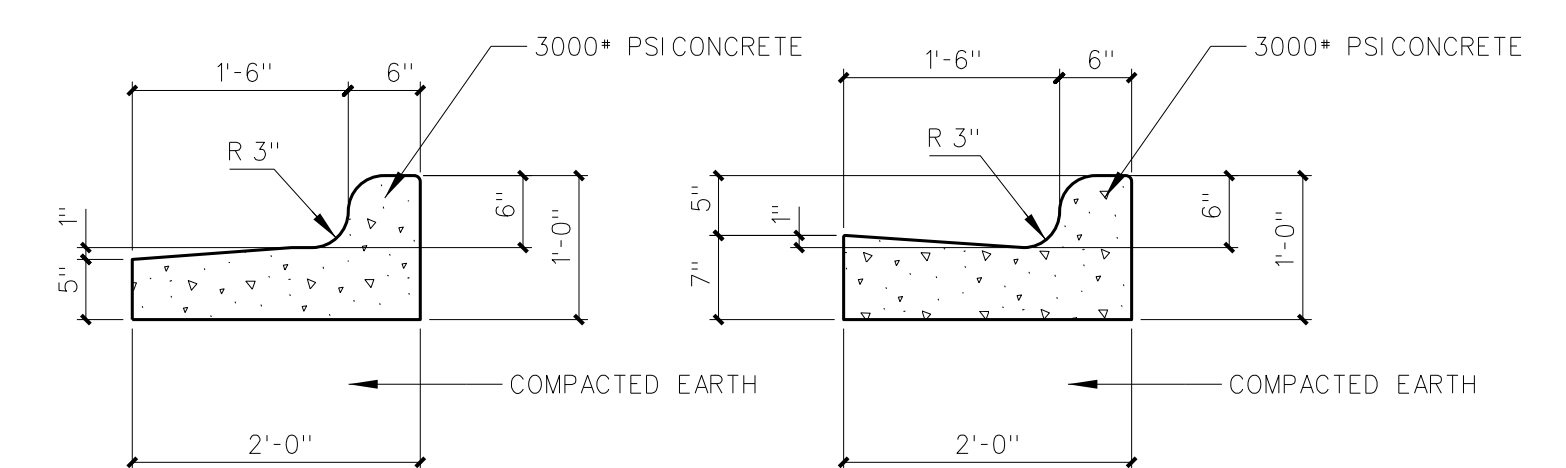


**303.2 CONCRETE CURB/GUTTER @ WALK**  
SCALE: 3/4" = 1'-0"



**30" SPILL**

**30" GUTTER**



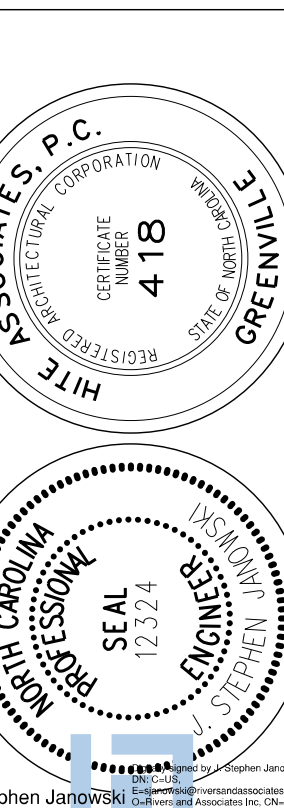
**24" SPILL**

**24" GUTTER**

**303.1 24/30" CONCRETE CURB DETAILS**  
SCALE: 3/4" = 1'-0"

No.	Date	Revision

**Hite associates**  
ARCHITECTURE / PLANNING / TECHNOLOGY  
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NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 3112  
Windsor / Bertie County / North Carolina

Project No. 22351  
Date: December 18, 2024  
Drawing No. **C 303**

- All herbaceous plants within the wetland proper (shallow water and shallow land zones) shall be installed between March 15 and July 31.
- Unless otherwise designated, plants should be installed as large drifts (i.e., masses of a single species) within their respective planting areas.
- Install a slow release fertilizer tablet next to each plant within the wetland proper. For herbaceous species use Ag Safe Aquatic-Tabs 20-10-5, 90 day continuous feeding, 5 grams, or equivalent. For trees and shrubs use Agriform 20-10-5 Plus Minors Planting Tablets, 2 year slow release or equivalent.
- All plants shall be directly descended from individuals growing wild within 200 miles of the project site. If suitable stock cannot be obtained, plants of other genetic provenances may be utilized with the approval of the Owner or Owner's Representative.
- Plant material should conform to American Standard Nursery Stock, published by the American Association of Nurserymen.
- All plant material to be container grown plants of at least 4.5 cubic inches capacity.
- Recommended plants for permanent shallow water (0" to 6" deep). 20% of total number of plants should be of each species and planted in a natural flowing arrangement.
  - Acorus calamus (Sweet Flag)
  - Cladium jamaicense (Sawgrass)
  - Peltandra virginica (Arrow Arum)
  - Sagittaria latifolia (Duck Potato)
  - Schoenoplectus tabernaemontani (Softstem Bulrush)

POND SURFACE AREA 47,226 S.F.  
 AQUATIC SHELF SURFACE AREA (S.F) 11,073 S.F.  
 TOTAL NUMBER OF PLANTS SPACED AT 24" O.C. = 2,768

ADD (1) ONE TREE FOR EVERY 30000 SQUARE FEET OF HIGH MARSH SURFACE AREA. FINAL TREE PLACEMENT SHOWN ON PLANS. CARPINUS CAROLINIANA (MUSCLEWOOD), BETULA NIGRA (RIVER BIRCH), NYSSQA BIFLORA (SWAMP BALCKGUM) ARE THE SUITABLE TREES TO USE.  
 Total trees =

**CONSTRUCTED WETLAND CONSTRUCTION SCHEDULE:**

- Clear and grub wetland area.
- Excavate constructed wetlands area to rough elevation stockpile soil in proposed berm area.
- Install erosion control measures to stabilize pond area.
- Install outlet structure.
- When site has been stabilized with temporary seeding, curb and gutter, clean sediment out of wetlands basin and prepare basin for planting, call pitt county public utility department stormwater department.
- Install wetlands vegetation per specifications wetlands.
- Permanent seed banks and slopes of berm and area.

**MAINTENANCE PLAN**

**FREQUENCY - INSPECTION ACTIVITIES**

**AFTER CONSTRUCTION**  
 - INSPECT AFTER SEVERAL STORM EVENTS FOR BANK STABILITY, VEGETATION GROWTH, DRAINAGE SYSTEM FUNCTIONING, AND STRUCTURAL DAMAGE.

**SEMI-ANNUAL INSPECTION**  
 - INSPECT FOR INVASIVE VEGETATION, DIFFERENTIAL SETTLEMENT, CRACKING; EROSION, LEAKAGE, OR TREE GROWTH ON THE EMBANKMENT; THE CONDITION OF THE RIPRAP IN THE INLET, OUTLET, AND PILOT CHANNELS; SEDIMENT ACCUMULATION IN THE BASIN; CLOGGING OF OUTLET; AND THE VIGOR AND DENSITY OF THE VEGETATION ON THE BASIN SIDE SLOPES AND FLOOR. CORRECT OBSERVED PROBLEMS AS NECESSARY.  
 - INSPECT FOR DAMAGE TO THE EMBANKMENT AND INLET/OUTLET STRUCTURES. REPAIR AS NECESSARY.  
 - NOTE SIGNS OF HYDROCARBON BUILDUP SUCH AS FLOATING OIL ON WATER SURFACE.  
 - MONITOR FOR SEDIMENT ACCUMULATION IN THE FACILITY AND FOREBAY.  
 - EXAMINE INLET AND OUTLET DEVICES TO ENSURE THEY ARE FREE OF DEBRIS AND ARE OPERATIONAL.

**FREQUENCY - MAINTENANCE ACTIVITIES**  
 ONE-TIME

-REPLACE WETLAND VEGETATION TO MAINTAIN AT LEAST 50% OF SURFACE AREA COVERAGE IN WETLAND PLANTS AFTER THE SECOND GROWING SEASON.

**AS NEEDED MAINTENANCE**

-REPAIR UNDERCUT AREAS, EROSION TO BANKS, AND BOTTOM AS REQUIRED. WHERE PERMITTED BY THE DEPARTMENT OF FISH AND GAME OR OTHER AGENCY REGULATIONS, STOCK CONSTRUCTED WETLANDS REGULARLY WITH MOSQUITO FISH (GAMBUSIA SPP.) TO ENHANCE NATURAL MOSQUITO AND MIDGE CONTROL.

**FREQUENT ( 3 TO 4 TIMES PER YEAR)**

-CLEAN AND REMOVE DEBRIS FROM INLET AND OUTLET STRUCTURES.  
 -MOW SIDE SLOPES AND REMOVE GRASS CLIPPINGS. REMOVE LITTER AND DEBRIS FROM BANKS, BASIN BOTTOM, TRASH RACKS, OUTLET STRUCTURES, AND VALVES AS REQUIRED.

**ANNUAL MAINTENANCE (IF NEEDED)**

-SUPPLEMENT WETLAND PLANTS IF A SIGNIFICANT PORTION HAVE NOT ESTABLISHED (AT LEAST 50 % OF THE SURFACE AREA).  
 -REMOVE NUISANCE PLANT SPECIES.  
 -CLEAN FOREBAY TO AVOID ACCUMULATION IN MAIN WETLAND AREA TO MINIMIZE WHEN THE MAIN WETLAND AREA NEEDS TO BE CLEANED.  
 -HARVEST PLANT SPECIES IF VEGETATION BECOMES TOO THICK CAUSING FLOW BACKUP AND FLOODING. MORE FREQUENT PLANT HARVESTING MAY BE REQUIRED BY LOCAL VECTOR CONTROL AGENCIES.  
 -MONITOR SEDIMENT ACCUMULATIONS, AND REMOVE SEDIMENT WHEN THE ACCUMULATED SEDIMENT VOLUME EXCEEDS 10-20 % OF THE BASIN VOLUME. PLANTS ARE "CHOKED" WITH SEDIMENT, OR THE WETLAND BECOMES EUTROPHIC. IT IS SUGGESTED THAT THE MAIN AREA BE CLEANED ONE HALF AT A TIME WITH AT LEAST ONE GROWING SEASON IN BETWEEN CLEANINGS. THIS WILL HELP TO PRESERVE THE VEGETATION AND ENABLE THE WETLAND TO RECOVER MORE QUICKLY FROM THE CLEANING.  
 -FERTILIZE NEW VEGETATION ONE TIME ONLY. THE OWNER SHALL NOT FERTILIZE VEGETATION AFTER THE INITIAL OCCURRENCE.

**SEEDING AND MULCHING SCHEDULE PER ACRE**  
 THE KINDS OF SEED AND FERTILIZER, AND THE RATES OF APPLICATION OF SEED, FERTILIZER, AND LIMESTONE, SHALL BE AS STATED BELOW. DURING PERIODS OF OVERLAPPING DATES, THE KIND OF SEED TO BE USED SHALL BE DETERMINED BY THE ENGINEER.

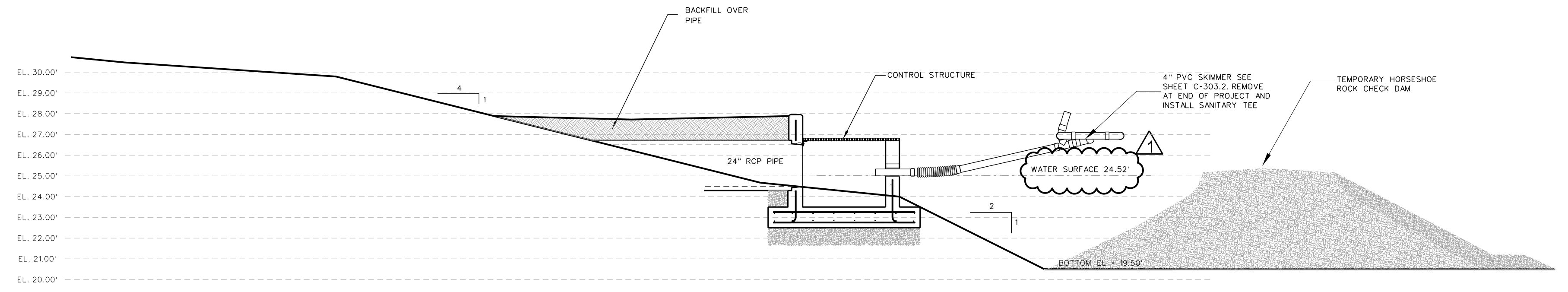
LIME 2 Tons per Acre  
 10-10-20 1,000 LB per Acre  
 0-20-0 500 Lb per Acre  
 STRAW MULCH 2 TONS/AC (AFTER SEEDING)  
 ASPHALT TACK 200 GAL/TON OF MULCH

**JANUARY 1-DECEMBER 31**  
 50# Tall Fescue  
 5# Centipede  
 50# Pensacola Bahiagrass  
 500# Fertilizer  
 4000#Limestone

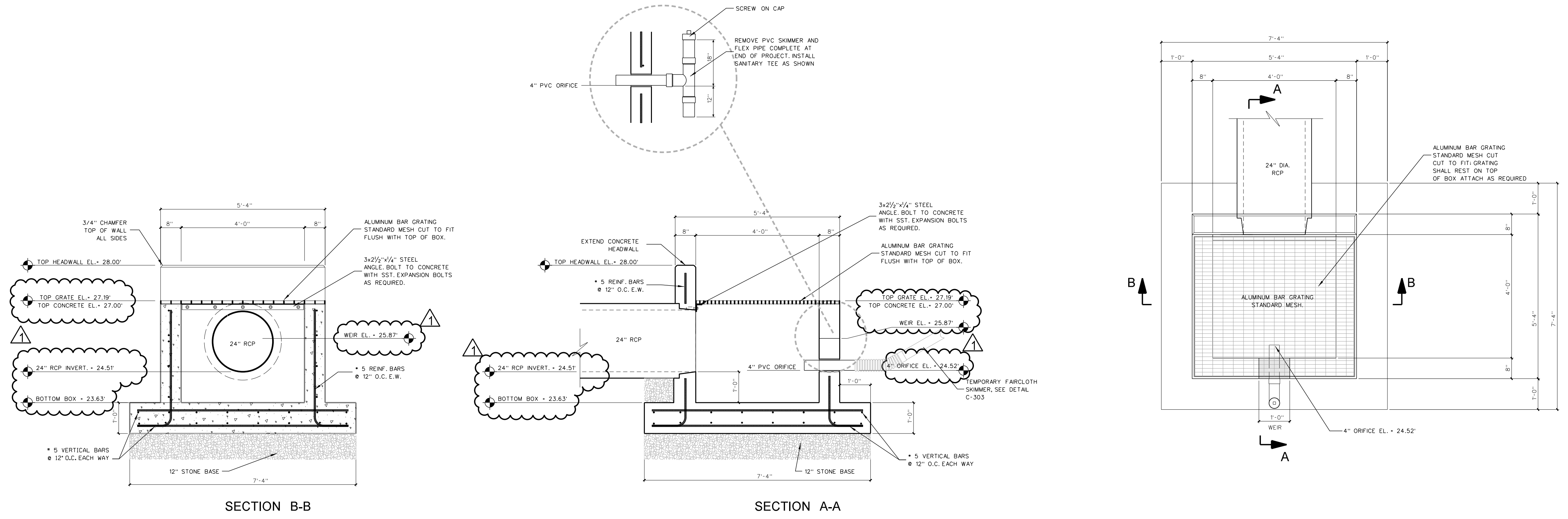
**SLOPES 2:1 AND STEEPER AND WASTE AND BORROW LOCATIONS:**  
**JANUARY 1-DECEMBER 31**  
 75# Tall Fescue  
 50# Centipede  
 500# Fertilizer  
 4000#Limestone

**TEMPORARY SEEDING**

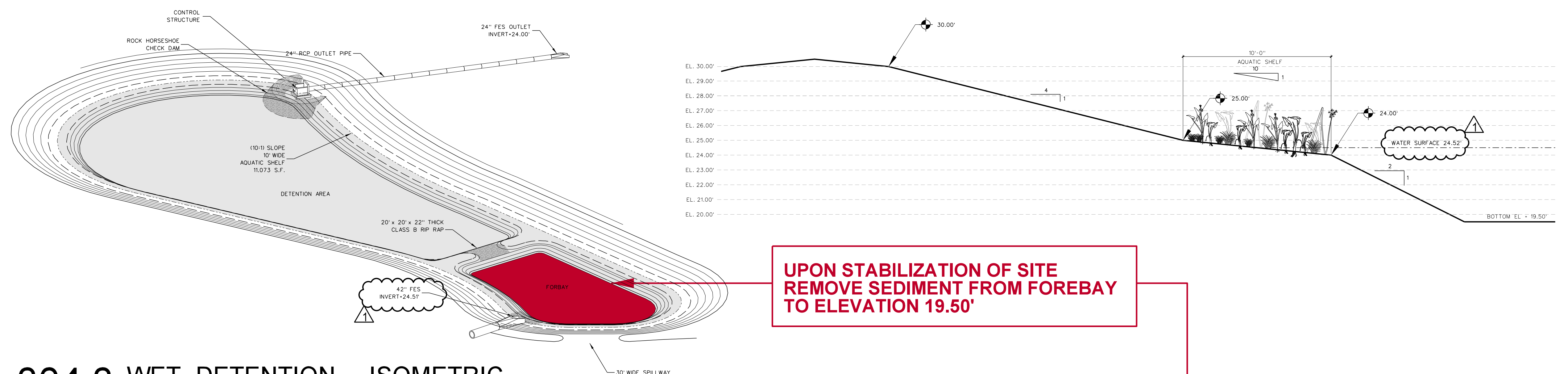
"COOL SEASON" PLANTED BETWEEN 15 AUGUST AND 15 APRIL  
 120# RYE GRAIN (NO RYE GRASS)  
 "WARM SEASON" PLANTED BETWEEN 15 APRIL AND 15 AUGUST  
 65# GERMAN BROWN TOP OR FOX TAIL MILLET



**304.5 HORSESHOE ROCK DAM**  
 SCALE: 1/2" = 1'-0"

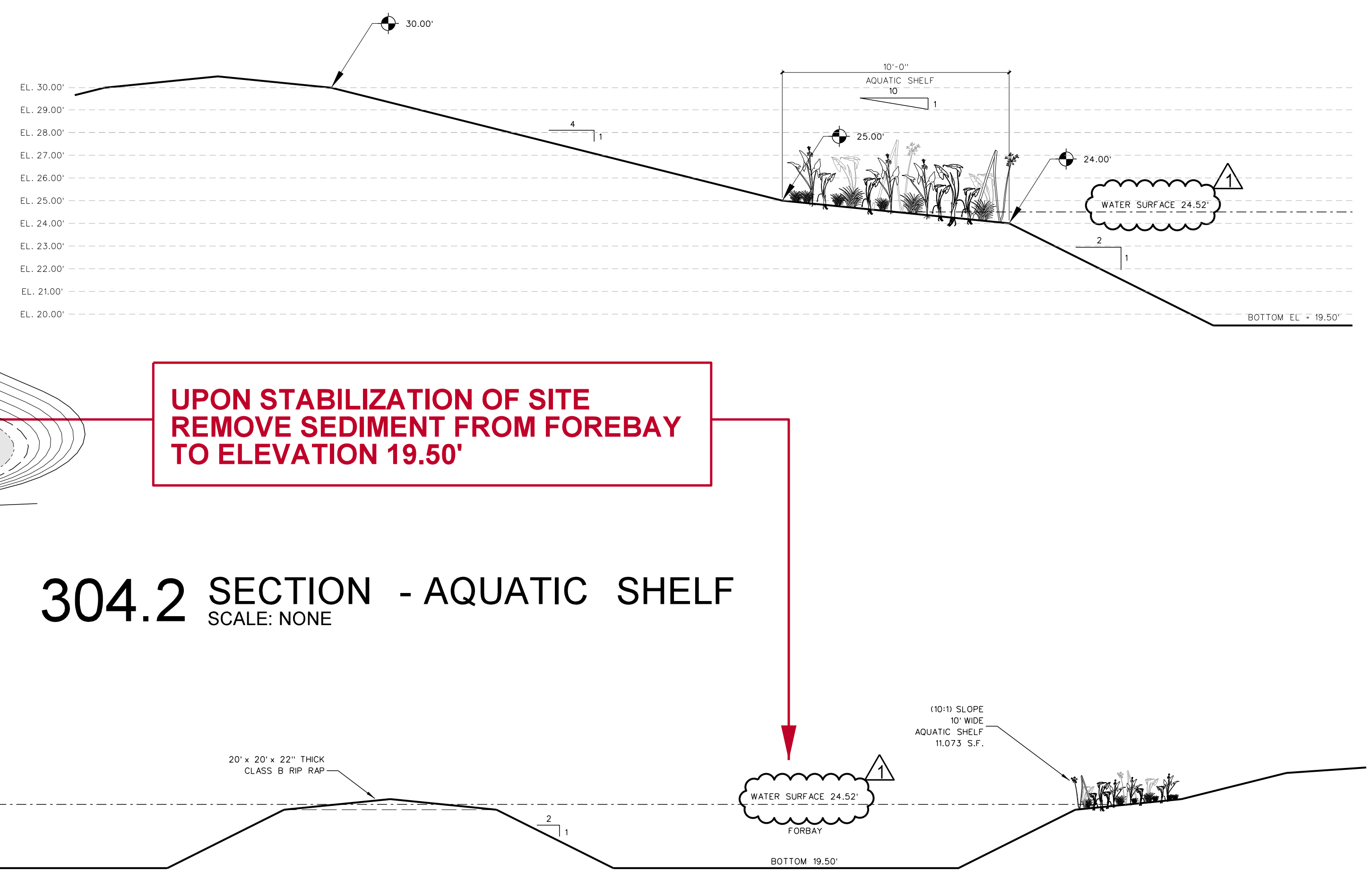


**304.4 WET DETENTION CONTROL STRUCTURE**  
 SCALE: 1/2" = 1'-0"

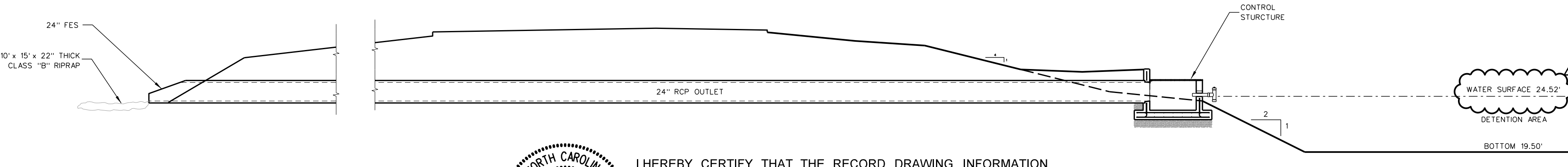


**304.3 WET DETENTION - ISOMETRIC**  
 SCALE: NONE

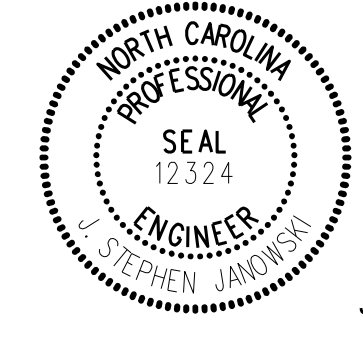
**304.2 SECTION - AQUATIC SHELF**  
 SCALE: NONE



**304.1 WET DETENTION POND SECTION**  
 SCALE: NONE



I HEREBY CERTIFY THAT THE RECORD DRAWING INFORMATION SHOWN HEREON FOR LAKE FOREST ELEMENTARY STORM WATER DETENTION FACILITY HAS BEEN FIELD VERIFIED AND IS ACCURATE TO THE BEST OF MY BELIEF AND KNOWLEDGE.  
 J. STEPHEN JANOWSKI, P.E.



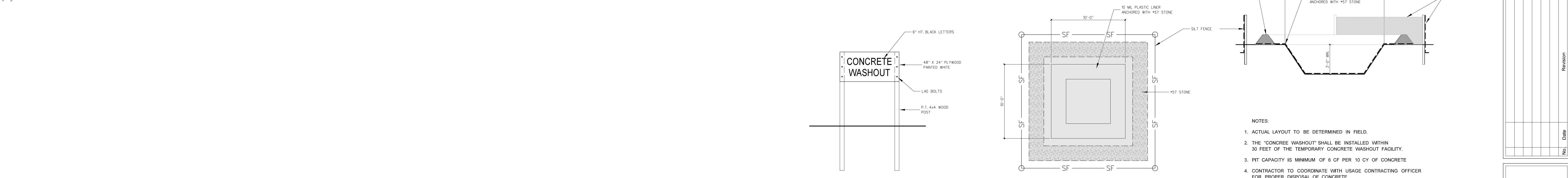
**Hite associates**  
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 2600 Meridian Drive / Greenville, NC 27834 / Tel: (252) 757-0333

Project No: 21131  
 Date: 28 March 2012  
 Drawing No: C 304

RECORD DRAWING  
 Bertie High School  
 Bertie County Schools  
 716 US 13 North / NCDPS Unit 080 - School 312  
 Windsor / Bertie County / North Carolina

REVISION RECORD  
 No. Date  
 2-2-13 REVISED PER RECORD DRAWING  
 Revision

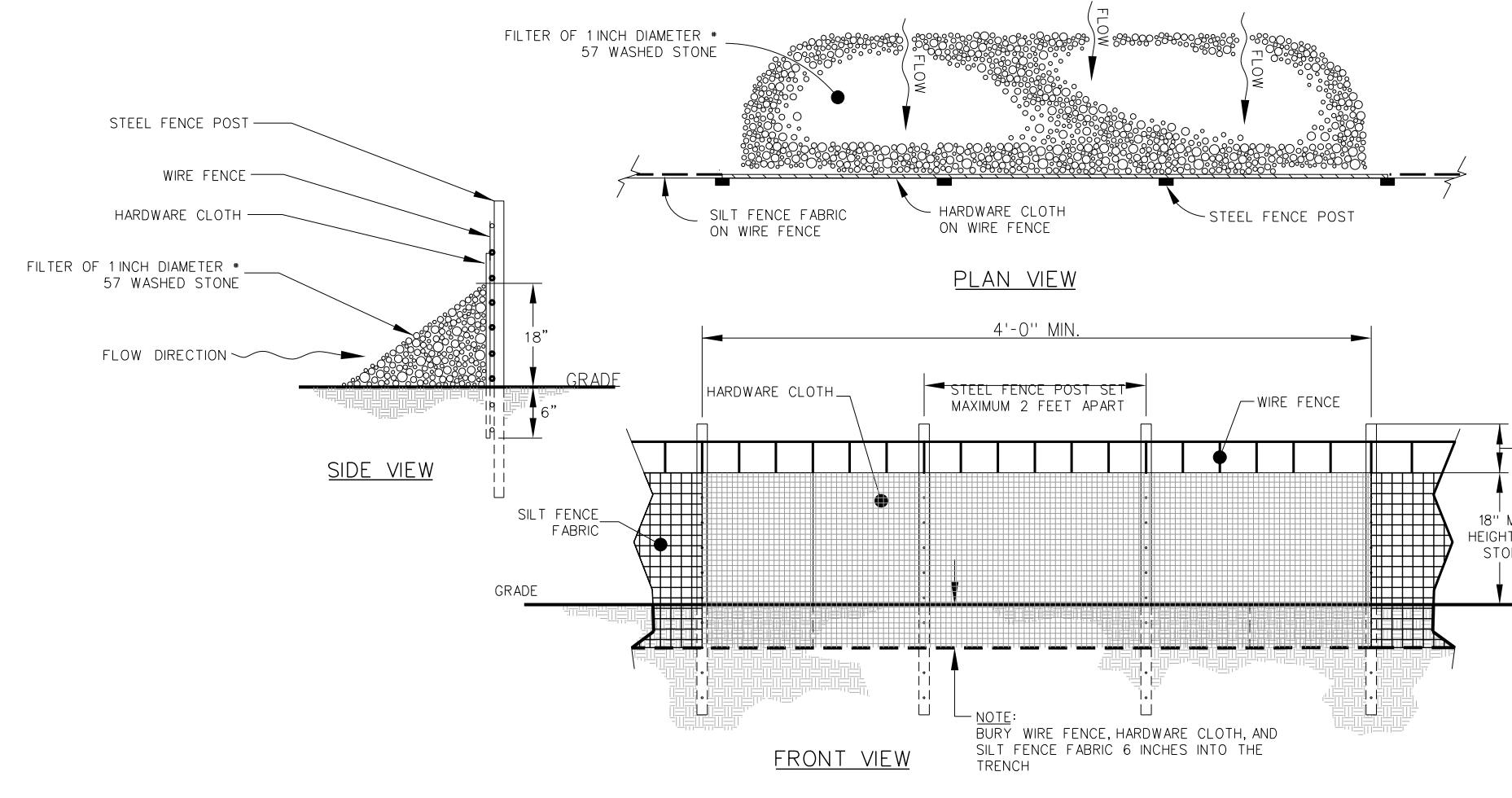
Professional Engineer Seal for J. Stephen Janowski, P.E., License No. 12324, State of North Carolina.



### 305.7 CONCRETE WASH OUT PIT

SCALE: None

- NOTES:
1. ACTUAL LAYOUT TO BE DETERMINED IN FIELD.
  2. THE "CONCRETE WASHOUT" SHALL BE INSTALLED WITHIN 30 FEET OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
  3. PIT CAPACITY IS MINIMUM OF 6 OF PER 10 CY OF CONCRETE.
  4. CONTRACTOR TO COORDINATE WITH USAGE CONTRACTING OFFICER FOR PROPER DISPOSAL OF CONCRETE.

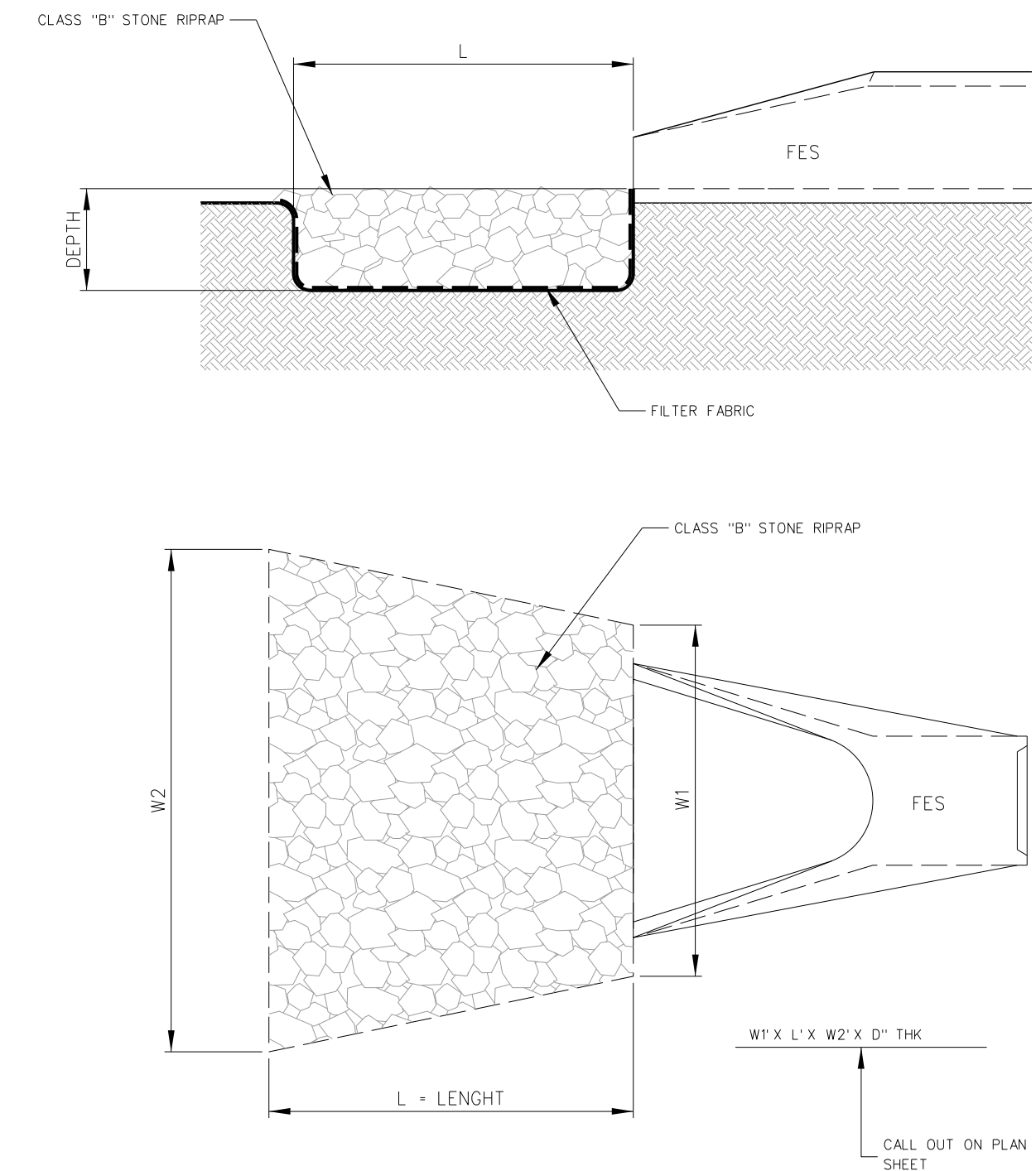


- CONSTRUCTION SPECIFICATIONS:
1. INSTALL SILT FENCE PER STD SILT FENCE DETAIL.
  2. LOCATE REINFORCED OUTLET AT LOW POINTS OF SILT FENCE BARRIER.
  3. PLACE RIP RAP WITH CARE DO NOT TEAR SILT FENCE FABRIC.
- MAINTENANCE:
1. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE/OUTLET TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT. REMOVE & REPLACE STONE AS NECESSARY AS IT BECOMES CLOGGED WITH SEDIMENT.
  2. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

### 305.6 TEMP. SILT FENCE OUTLET

SCALE: None

- RIPRAP OUTLET PROTECTION CONSTRUCTION SPECIFICATIONS
1. ENSURE THAT THE SUBGRADE FOR THE FILTER AND RIPRAP FOLLOWS THE REQUIRED LINES AND GRADES SHOWN IN THE PLAN. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO THE DENSITY OF THE SURROUNDING UNDISTURBED MATERIAL. LOW AREAS IN THE SUBGRADE ON UNDISTURBED SOIL MAY ALSO BE FILLED BY INCREASING THE RIPRAP THICKNESS.
  2. THE RIPRAP AND GRAVEL FILTER MUST CONFORM TO THE SPECIFIED GRADING LIMITS SHOWN ON THE PLANS.
  3. FILTER CLOTH, WHEN USED MUST MEET DESIGN REQUIREMENTS AND BE PROPERLY PROTECTED FROM PUNCHING OR TEARING DURING INSTALLATION. REPAIR ANY DAMAGE BY REMOVING THE RIPRAP AND PLACING ANOTHER PIECE OF FILTER CLOTH OVER THE DAMAGED AREA. ALL CONNECTING JOINTS SHOULD OVERLAP SO THE TOP LAYER IS ABOVE THE DOWNSTREAM LAYER A MINIMUM OF 1 FOOT. IF THE DAMAGE IS EXTENSIVE, REPLACE THE ENTIRE FILTER CLOTH.
  4. RIPRAP MAY BE PLACED BY EQUIPMENT, BUT TAKE CARE TO AVOID DAMAGING THE FILTER.
  5. THE MINIMUM THICKNESS OF THE RIPRAP SHOULD BE 1.5 TIMES THE MAXIMUM STONE DIAMETER.
  6. RIPRAP MAY BE FIELD STONE OR ROUGH QUARRY STONE. IT SHOULD BE HARD, ANGULAR, HIGHLY WEATHER-RESISTANT AND WELL GRADED.
  7. CONSTRUCT THE APRON ON ZERO GRADE WITH NO OVERFILL AT THE END. MAKE THE TOP OF THE RIPRAP AT THE DOWNSTREAM END LEVEL WITH THE RECEIVING AREA OR SLIGHTLY BELOW IT.
  8. ENSURE THAT THE APRON IS PROPERLY ALIGNED WITH THE RECEIVING STREAM AND PREFERABLY STRAIGHT THROUGHOUT ITS LENGTH. IF A CURVE IS NEEDED TO FIT SITE CONDITIONS, PLACE IT IN THE UPPER SECTION OF THE APRON.
  9. IMMEDIATELY AFTER CONSTRUCTION, STABILIZE ALL DISTURBED AREAS WITH VEGETATION.
- MAINTENANCE
- INSPECT RIPRAP OUTLET STRUCTURES WEEKLY AND AFTER SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENTS TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE, OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.



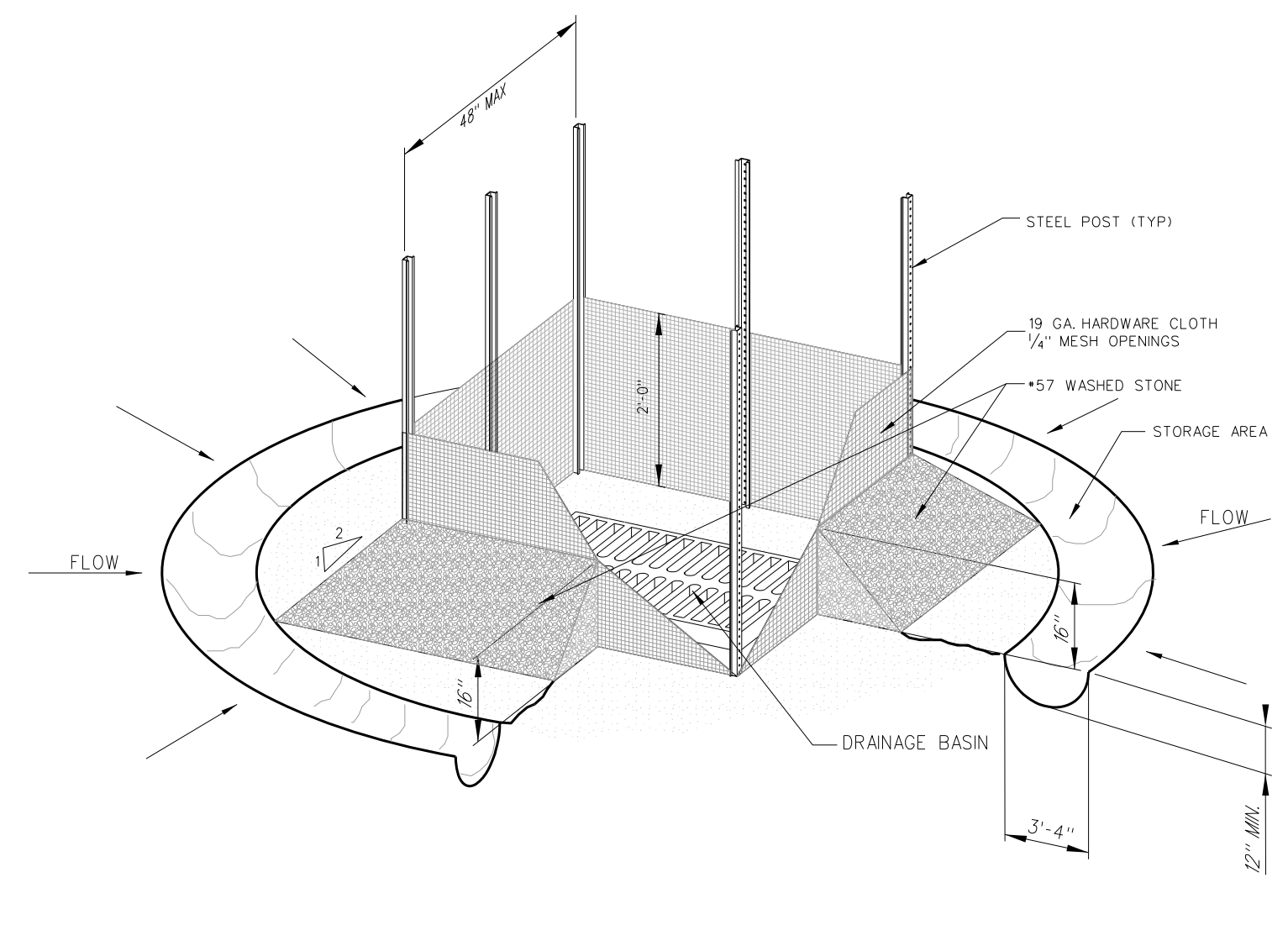
- NOTES:
- L = THE LENGTH OF THE RIPRAP APRON.
  - WT = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6"
- IN A WELL-DEFINED CHANNEL EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK, WHICHEVER IS LESS.
- A FILTER BLANKET OR FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION.

### 305.5 RIPRAP OUTLET PROTECTION

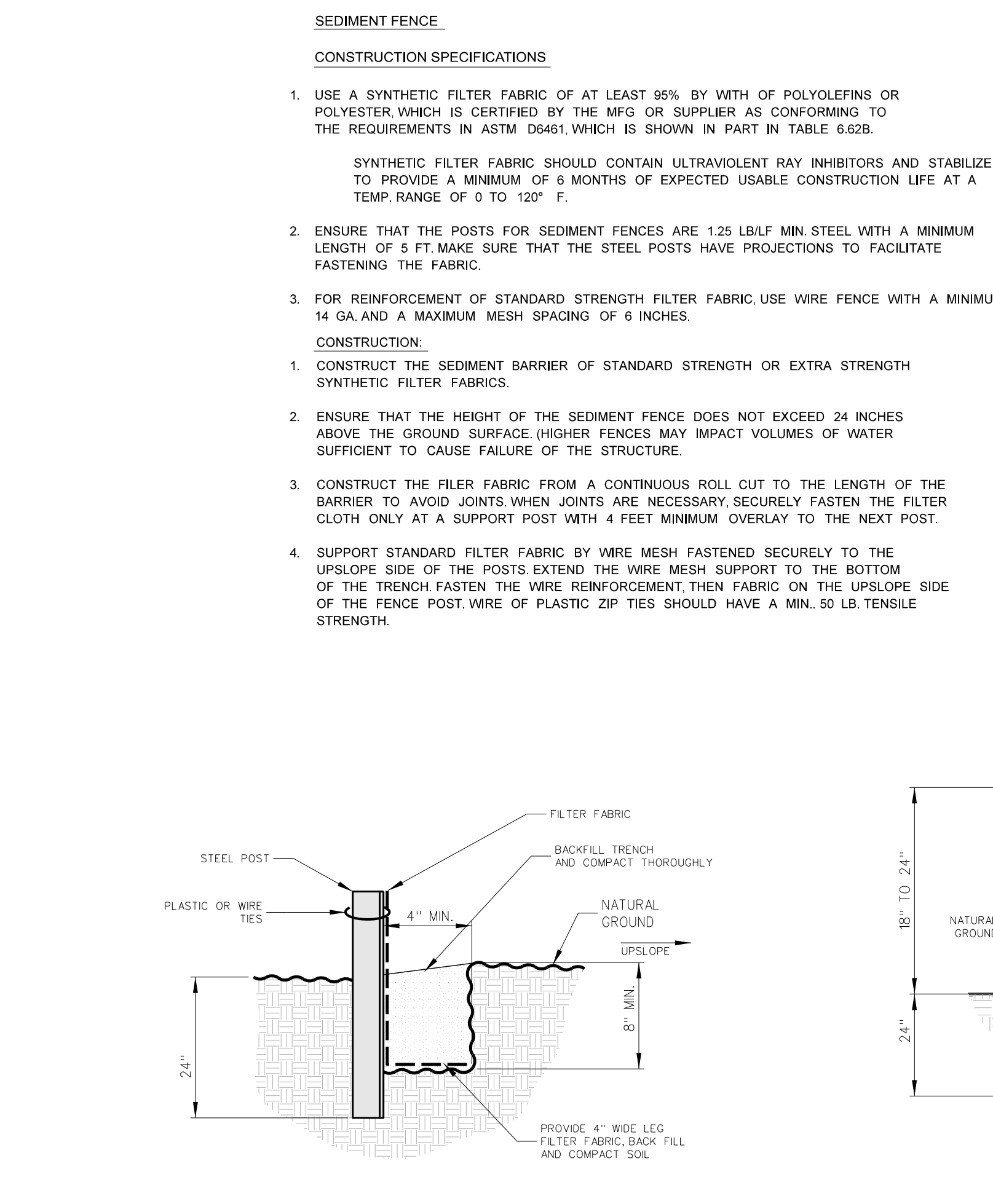
SCALE: None

### 305.4 TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

SCALE: None



- HARDWARE CLOTH AND GRAVEL INLET PROTECTION CONSTRUCTION SPECIFICATIONS
1. UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET.
  2. DRIVE 6-FOOT STEEL POSTS 2 FEET INTO THE GROUND SURROUNDING THE INLET. SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET, A MAXIMUM OF 4 FEET APART.
  3. SURROUND THE POSTS WITH WIRE MESH HARDWARE CLOTH SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP, MIDDLE AND BOTTOM PLACING A 2-FOOT FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING.
  4. PLACE CLEAN GRAVEL (NO. 20 OR #57 STONE) ON A 2:1 SLOPE WITH A HEIGHT OF 16 INCHES AROUND THE WIRE AND SMOOTH TO AN EVEN GRADE.
  5. ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE ACCUMULATED SEDIMENT AND ESTABLISH FINAL GRADING ELEVATIONS.
  6. COMPACT THE AREA PROPERLY AND STABILIZE IT WITH GROUND COVER.
- MAINTENANCE
1. INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW. FOR SUBSEQUENT RAINS TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED.



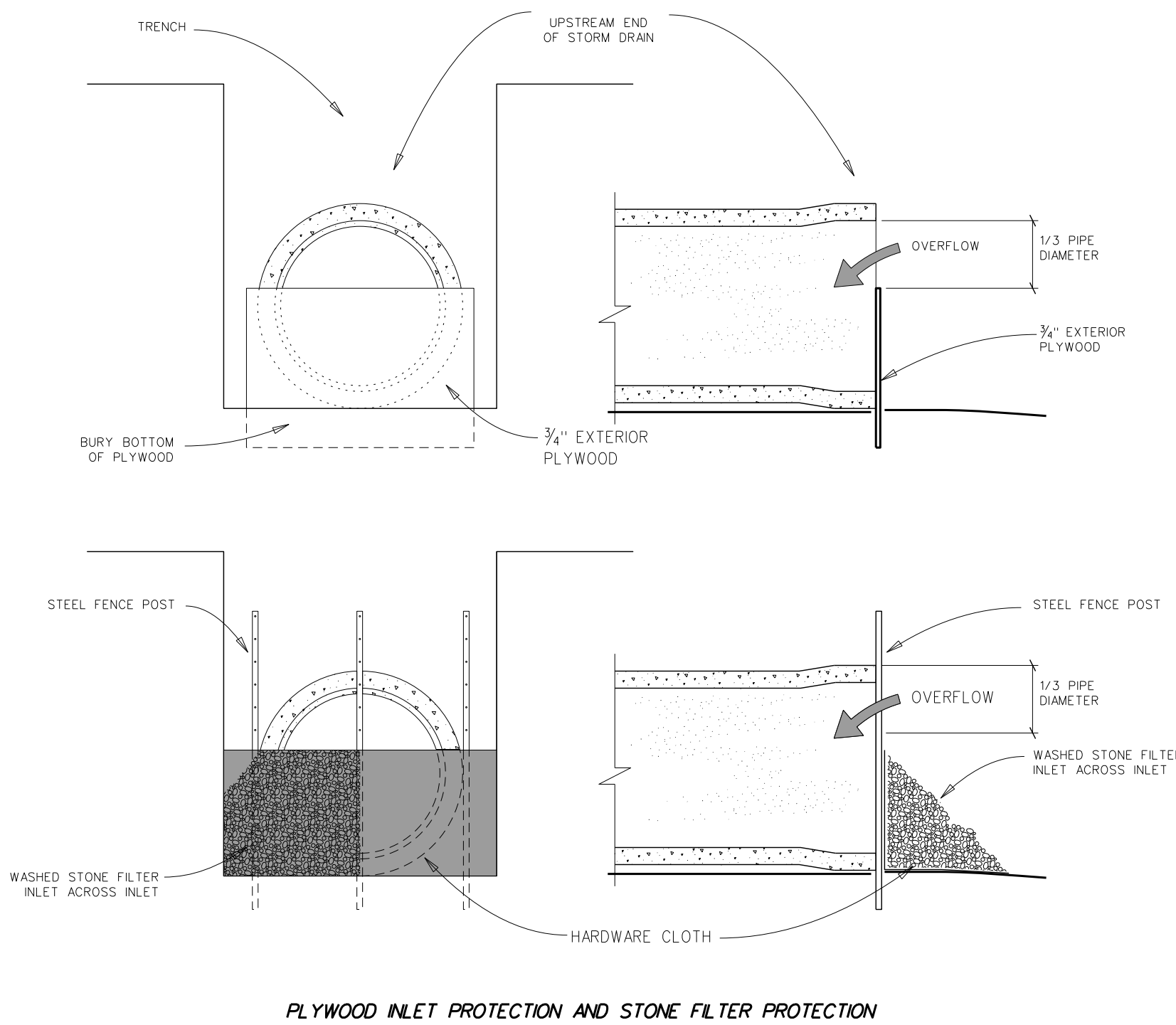
### 305.3 TEMPORARY SILT FENCE

SCALE: None

- CONSTRUCTION SPECIFICATIONS
1. USE A SYNTHETIC FILTER FABRIC OF AT LEAST 95% BY WEIGHT OF POLYOLEFINS OR POLYESTER WHICH IS CERTIFIED BY THE MFG OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS IN ASTM D6611, WHICH IS SHOWN IN PART IN TABLE 6.02B.
  2. ENSURE THAT THE POSTS FOR SEDIMENT FENCES ARE 1.25 LB/LF MIN STEEL WITH A MINIMUM LENGTH OF 5 FT. MAKE SURE THAT THE STEEL POSTS HAVE PROJECTIONS TO FACILITATE FASTENING THE FABRIC.
  3. FOR REINFORCEMENT OF STANDARD STRENGTH FILTER FABRIC USE WIRE FENCE WITH A MINIMUM 1/4 GA. AND A MAXIMUM MESH SPACING OF 6 INCHES.
  5. WHEN WIRE MESH SUPPORT FENCE IS USED SPACE POSTS A MAX. OF 8 FEET APART. SUPPORT POSTS SHOULD BE DRIVEN SECURELY INTO THE GROUND A MIN. OF 2 INCHES.
  6. EXTRA STRENGTH FILTER FABRIC WITH 6 FT. POST SPACING DOES NOT REQUIRE WIRE MESH SUPPORT FENCE. SECURELY FASTEN THE FILTER FABRIC DIRECTLY TO POSTS. WIRE OF PLASTIC ZIP TIES SHOULD HAVE A MIN. 50 LB. TENSILE STRENGTH.
  7. EXCAVATE A TRENCH APPROX 4" WIDE & 6" DEEP ALONG THE PROPOSED LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
  8. PLACE 12" OF FILTER FABRIC ALONG THE BOTTOM AND SIDE OF THE TRENCH.
  9. BACKFILL THE TRENCH WITH SOIL PLACED OVER THE FILTER FABRIC AND COMPACT THROUGH COMPACTION OF THE BACKFILL IS CRITICAL TO THE SILT FENCE PERFORMANCE.
  10. DO NOT ATTACH FILTER FABRIC TO EXISTING TREES.
- MAINTENANCE
- INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
- SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
- REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT.
- REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

### 305.2 END-OF-DAY INLET PROTECTION

SCALE: None



### 305.1 HARDWARE CLOTH & GRAVEL INLET PROTECTION

SCALE: None

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 2600 Meridian Drive / Greenville, NC 27834 / tel: (252) 757-0333

NEW CTE BUILDING FOR  
 Bertie High School  
 Windsor / Bertie County / North Carolina

PROJECT NO. 22351  
 DATE: December 18, 2024  
 DRAWING NO. C 305

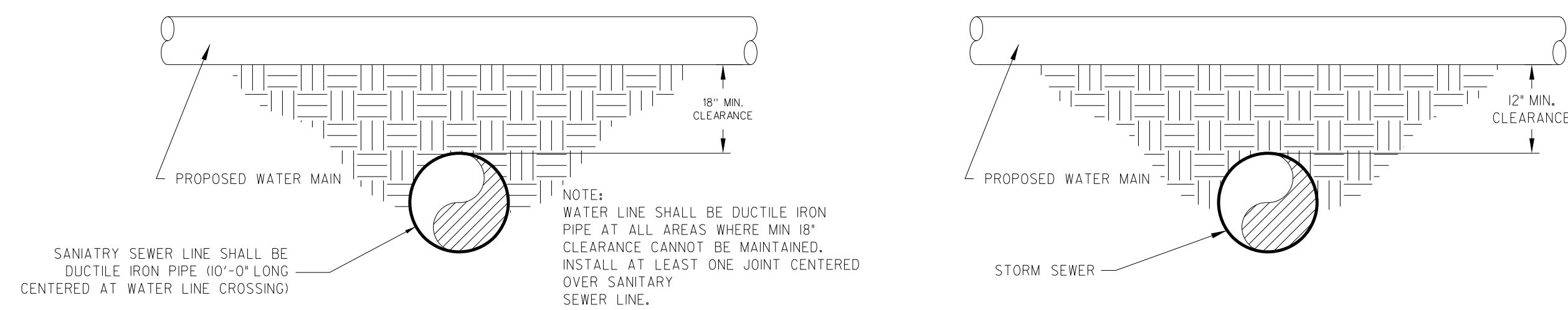
CIVIL ENGINEERING CONSULTANT:  
 STEPHEN JANOWSKI P.E.  
 Rivers & Associates, Inc.  
 License No. F-0324  
 107 East 2nd Street, Greenville, NC 27834-14300

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 STATE OF NORTH CAROLINA  
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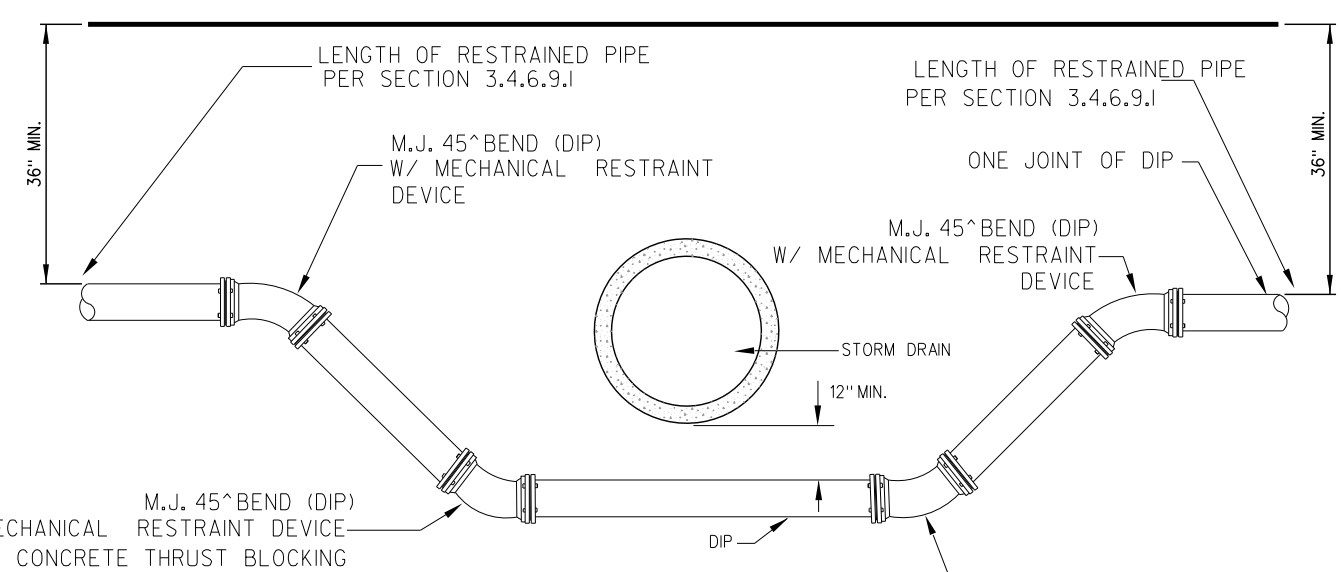
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PROFESSIONAL SEAL  
 CIVIL ENGINEER  
 STATE OF NORTH CAROLINA  
 LICENSE NO. 418  
 EXPIRES 12/31/2028

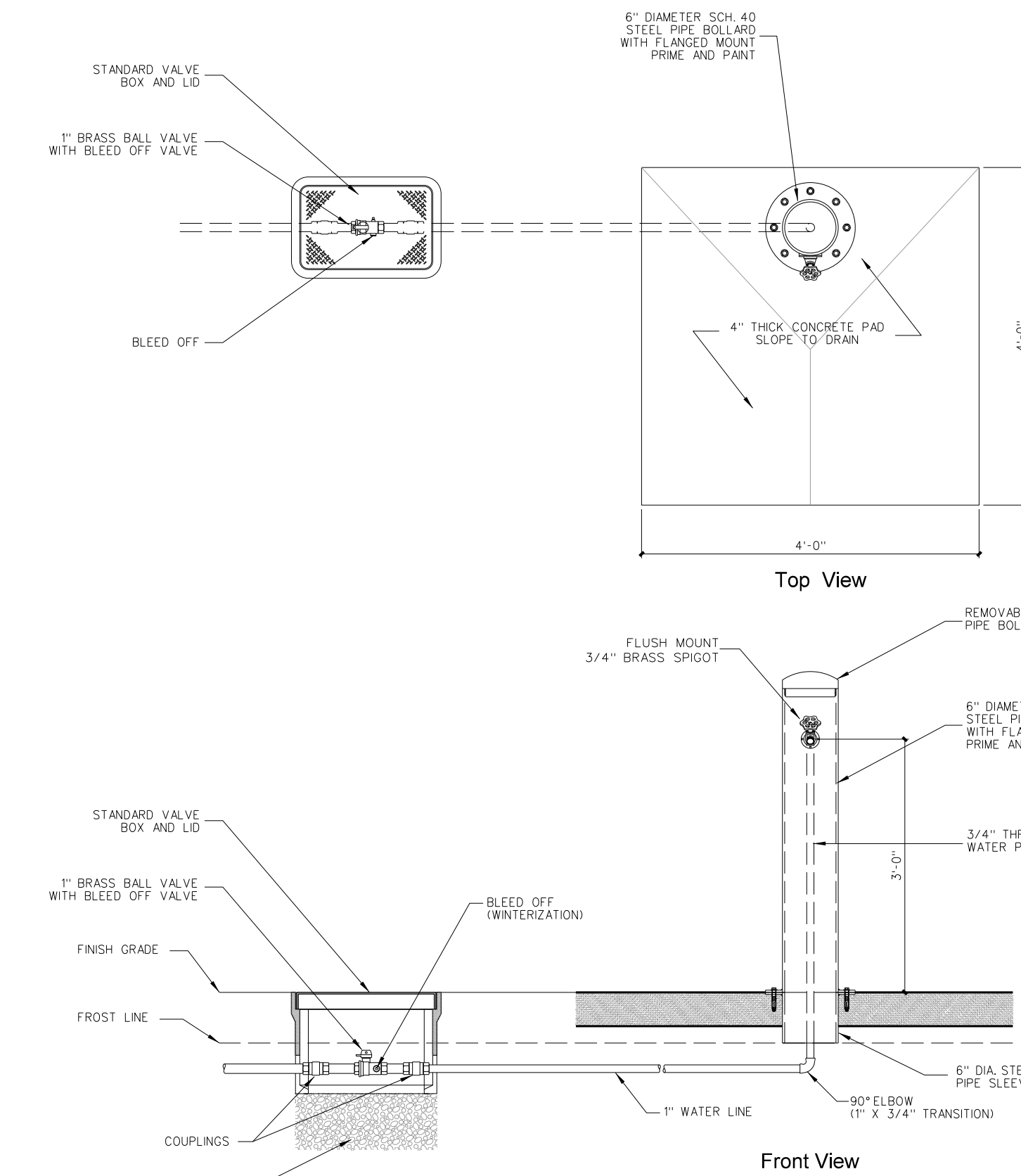




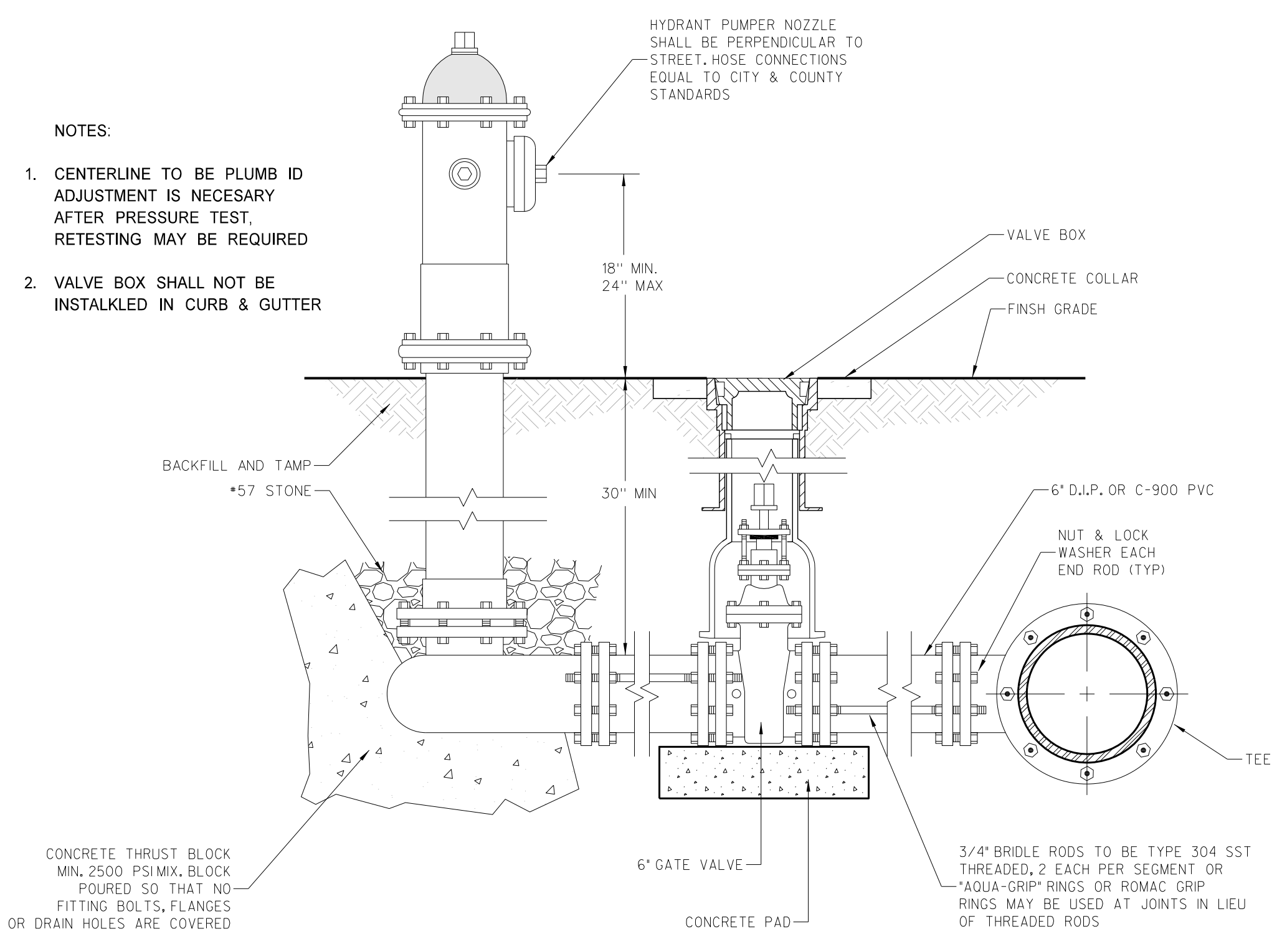
**306.5 WATER MAIN STORM DRAIN CROSSING**  
SCALE: NTS



**NOTES:**  
 1. PLACE CONC. BLOCKING SUCH THAT IT WILL NOT INTERFERE WITH REMOVAL OF BOLTS.  
 2. PIPE DIAMETER GREATER THAN 12" REFER TO PERQUIMANS COUNTY WATER DEPARTMENT TO CONSTRUCT CROSSING.  
 3. PIPE LENGTHS SHALL BE AS REQUIRED TO CONSTRUCT CROSSING.  
 4. ALL JOINTS TO BE RESTRAINED IN ACCORDANCE WITH MANUAL.  
 5. WATER MAIN AND STORM DRAIN CROSSING



**306.4 WATER HYDRANT DETAIL**  
SCALE: 3/4" = 1'-0"

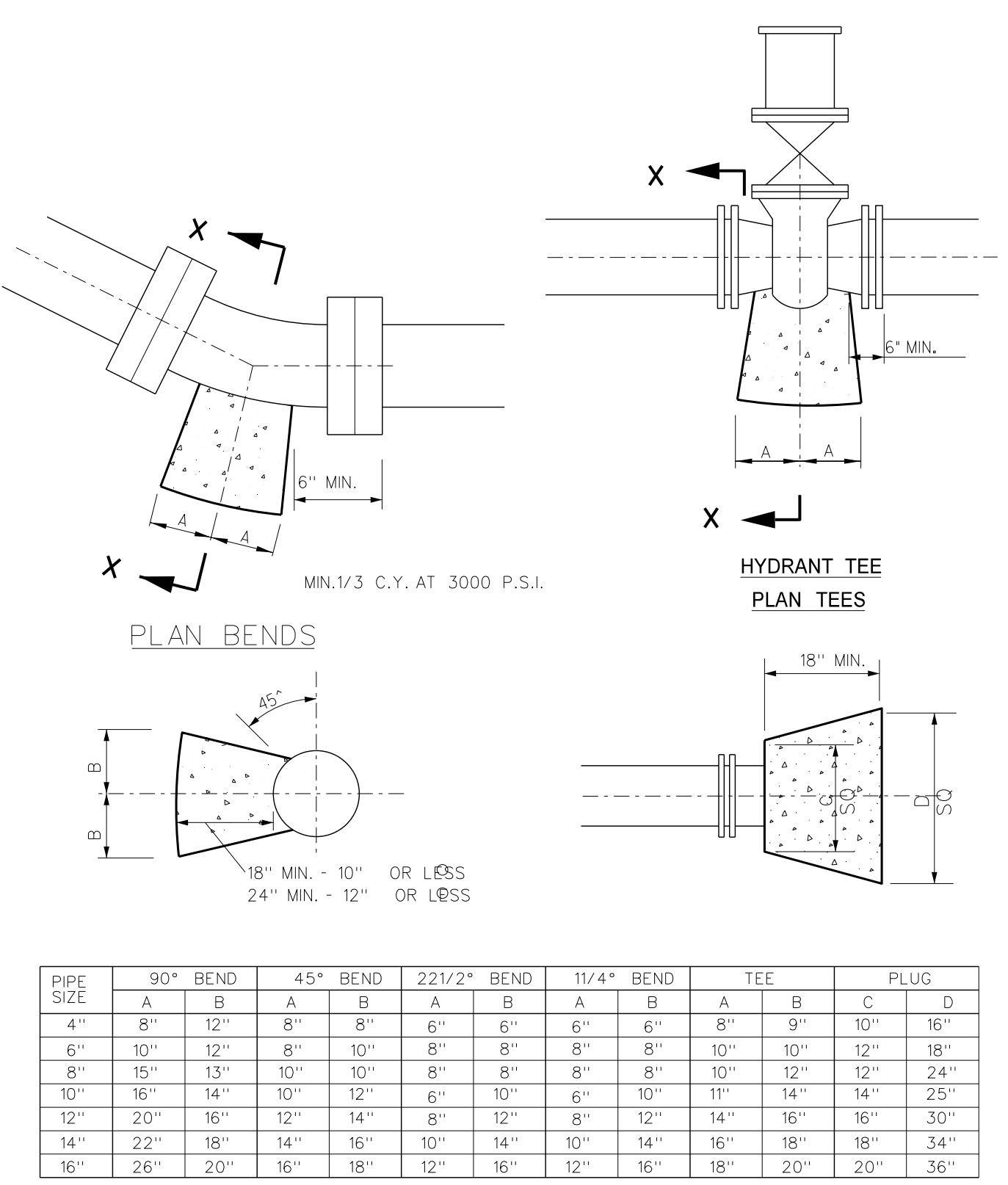


**306.3 FIRE HYDRANT DETAIL**  
SCALE: NONE

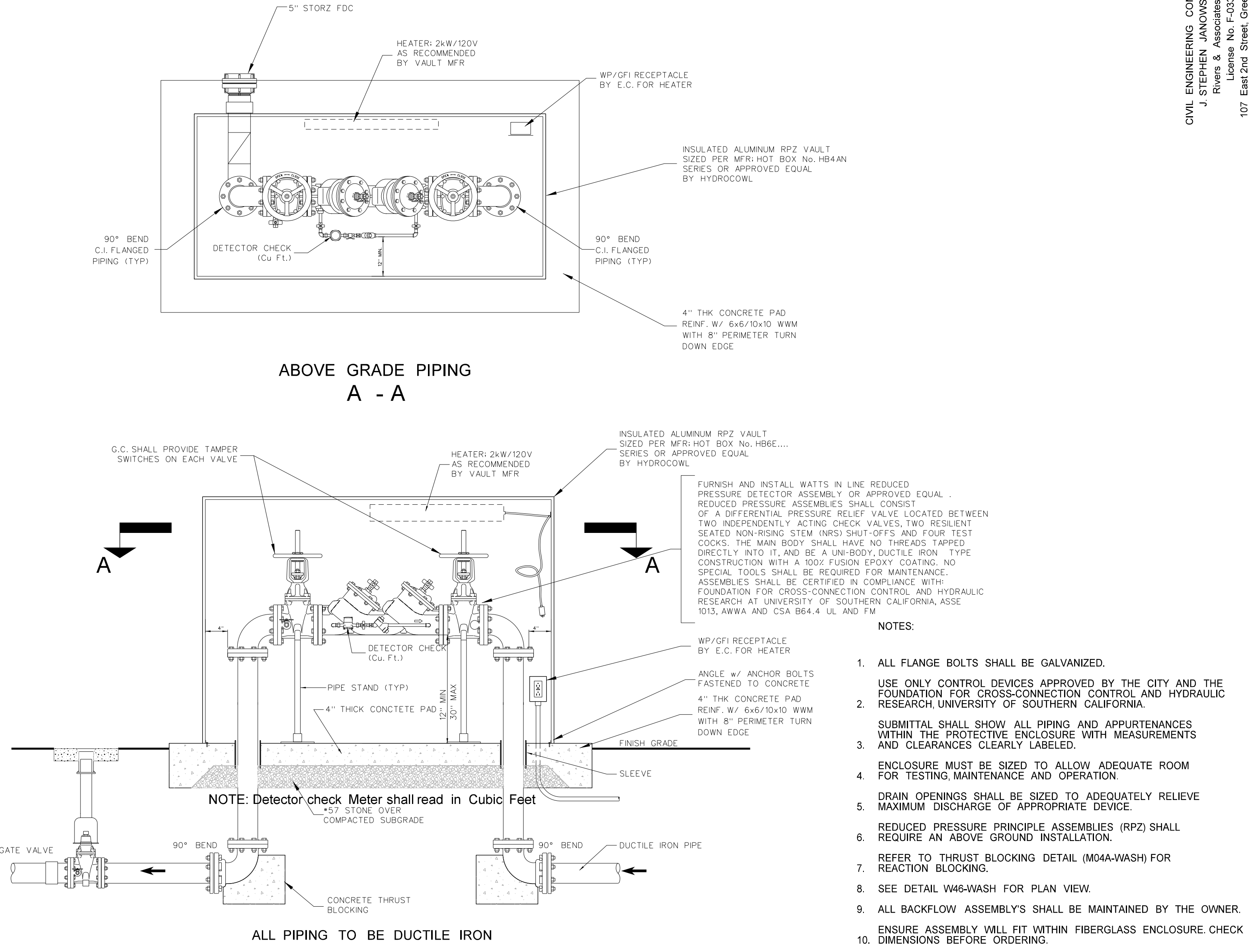
**NOTES:**  
 1. CONCRETE SHALL BE 3,000 PSIM.  
 2. CONCRETE FOR THRUST BLOCKING SHALL BE KEPT FAIRLY DRY; THIS MAKING THE CONCRETE WEDGE SHAPE MORE EASILY FORMED WITH THE WIDEST PART (BLOCKING AREA) AGAINST UNDISTURBED SOIL.  
 3. NO CONCRETE SHALL COVER ANY BOLTS OR GLANDS.  
 4. ALL PIPING AND ACCESSORIES TO BE WRAPPED WITH 10 MIL POLYETHYLENE PRIOR TO POURING BLOCKING.  
 5. VOLUME OF THRUST BLOCKING SHALL BE AS SHOWN ON THE THRUST BLOCKING SCHEDULE.

SOIL	BEARING LOAD (lb/sq.ft.)
MUCKY	0
SOFT CLAY	1,000
SILT	1,500
SANDY SILT	3,000
SAND	4,000
SANDY CLAY	6,000
HARD CLAY	9,000

MIN. BEARING AREAS ARE BASED UPON THE TABLE ABOVE. FOR SOILS HAVING BEARING CAPACITIES DIFFERENT THAN THAT SHOWN ADJUST AREA AS NECESSARY TO PROVIDE EQUIVALENT RESTRAINT. THRUST RESTRAINT WITH ANCHOR RING



PIPE SIZE	90° BEND		45° BEND		22 1/2° BEND		11/4° BEND		TEE		PLUG		
	A	B	A	B	A	B	A	B	A	B	C	D	
4"	8"	12"	8"	8"	6"	6"	8"	8"	8"	8"	10"	12"	24"
6"	10"	12"	8"	10"	8"	8"	8"	8"	10"	10"	12"	18"	
8"	15"	13"	10"	10"	8"	8"	8"	8"	10"	10"	12"	18"	
10"	18"	14"	12"	12"	8"	10"	8"	10"	11"	14"	14"	25"	
12"	20"	16"	12"	14"	8"	12"	8"	12"	14"	16"	16"	30"	
14"	22"	18"	14"	16"	10"	14"	10"	14"	16"	18"	18"	34"	
16"	26"	20"	16"	18"	12"	16"	12"	16"	18"	20"	20"	36"	



**306.1 FIRE LINE REDUCED PRESSURE DETECTOR ASSEMBLY**  
SCALE: NONE

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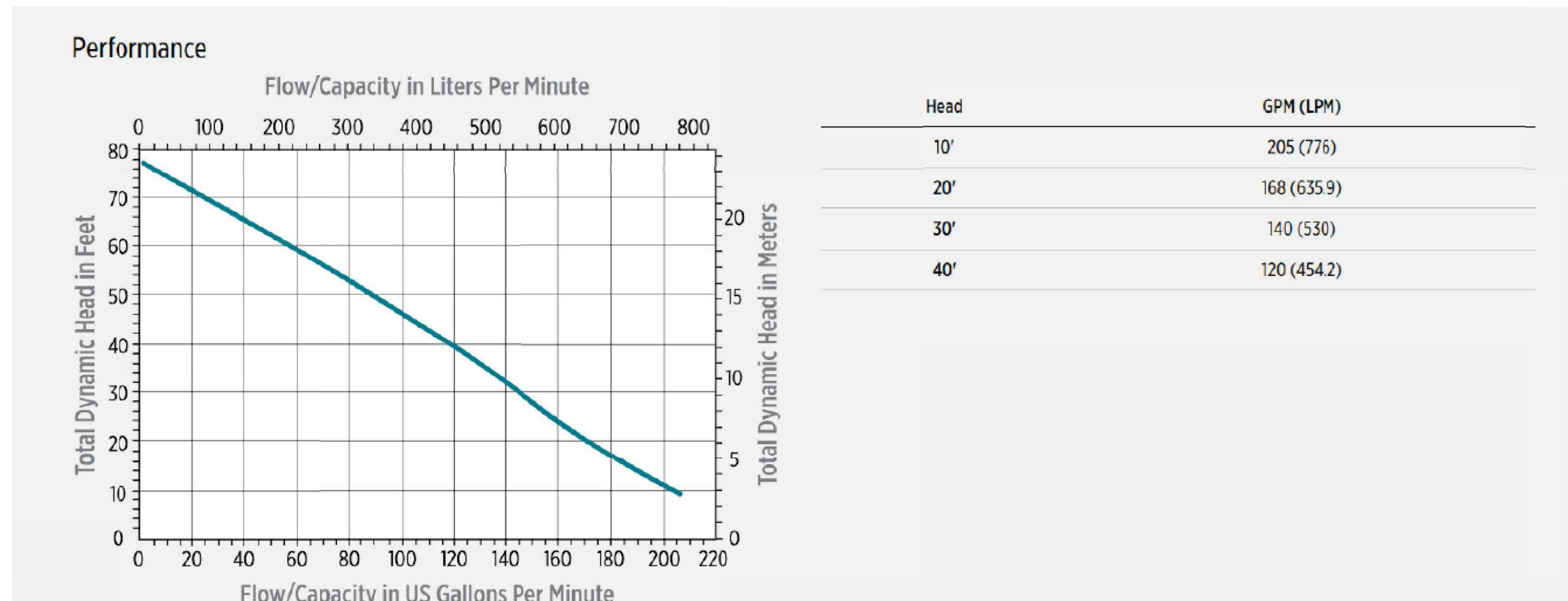
Project No. 22351  
Date: December 18, 2024  
Drawing No. C 306

NEW CTE BUILDING FOR Bertie High School  
716 US 13 North / NCDPS Unit 080 - School 312  
Windsor / Bertie County / North Carolina

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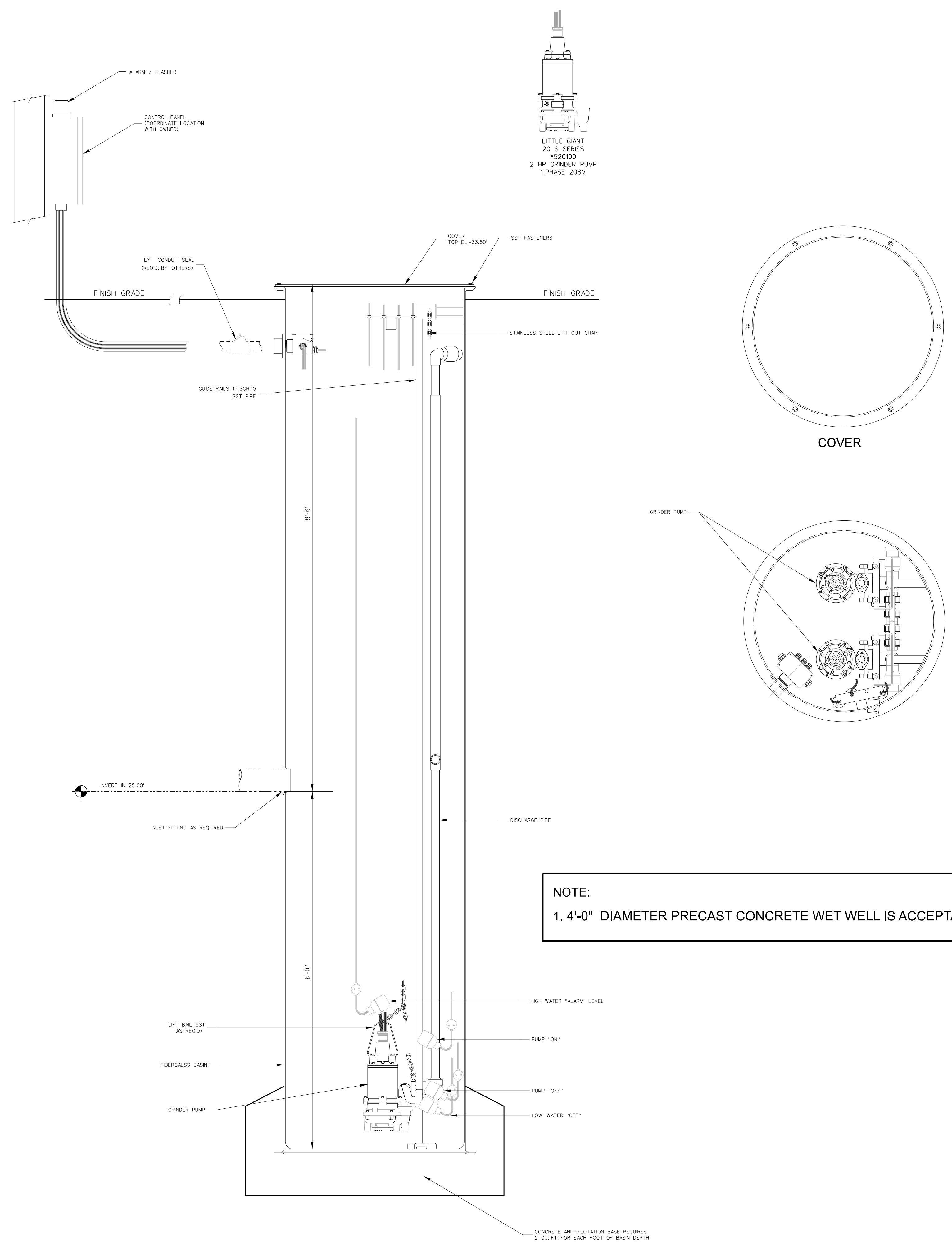
CIVIL ENGINEERING CONSULTANT:  
STEPHEN JANKOVSKI, P.E.  
Rivers & Associates, Inc.  
License No. F-0324  
107 East 2nd Street, Greenville, NC 27834-1430

Professional Engineer  
STEPHEN JANKOVSKI, P.E.  
License No. F-0324  
107 East 2nd Street, Greenville, NC 27834-1430

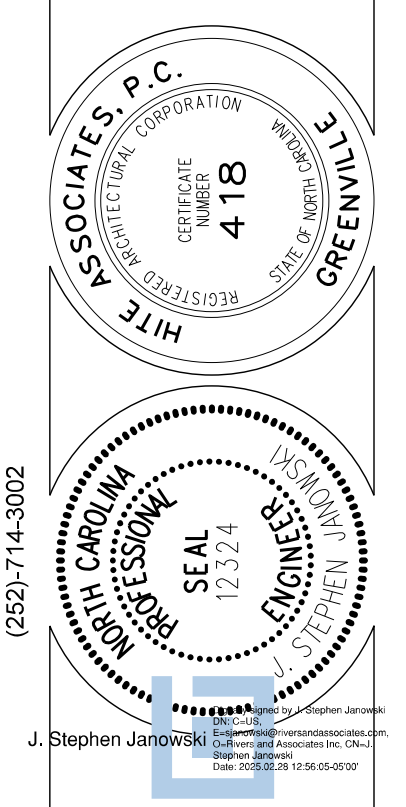


**Specifications**

Capacity	205 gpm @ 10'
Shut Off	77' (23.5 m)
Max. Liquid Temp.	140 °F (60 °C)
Discharge	3" FNPT (76.2mm)
Impeller	Epoxy-coated cast Iron
Electrical	200-208 V, 60 Hz, 14.5 A, Three-Phase
	208-230 V, 60 Hz, 18 A, Single-Phase
	230 V, 60 Hz, 12.5 A, Three-Phase
460 V, 60 Hz, 6.1 A, Three-Phase	
Operation	Manual



CIVIL ENGINEERING CONSULTANT:  
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2600 Meridian Drive / Greenville, NC 27834 / tel (252) 757-0333

No.	Date	Revision

NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 312  
Windsor / Bertie County / North Carolina

Project No. 22351  
Date: December 18, 2024  
Drawing No. **C 307**

**307.1 SUBMERSIBLE DUPLEX PACKAGE SYSTEM**  
SCALE: NOT TO SCALE

Phase 1 Initial Clearing and Grubbing Phase

- 1. EROSION AND SEDIMENT CONTROL (E&SC) PERMIT AND A CERTIFICATION OF COVERAGE (COC) MUST BE OBTAINED BEFORE THE LAND ACTIVITIES OCCURE.
2. WHEN THE PROJECT IS COMPLETED THE PERMITTEE SHALL CONTACT DEMLR TO CLOSE OUT THE E&SC PLAN...
3. PERIMETER MEASURES MUST BE LEFT IN PLACE UNTIL ALL UPLAND AREAS ARE PERMANENTLY STABILIZED...
4. OBTAIN PLAN APPROVALS AND ALL APPLICABLE PERMITS.
5. FLAG LIMITS OF ROUGH GRADING FOR BUILDING SITE, PARKING LOTS AND ESTABLISH GRADE LIMITS AS NEEDED.
6. CONTACT LAND QUALITY SECTION AT 252-946-6481 THEN HOLD PRECONSTRUCTION MEETING WITH GRADING CONTRACTOR...
7. INSTALL TEMPORARY GRAVEL CONSTRUCTION ENTRANCE.
8. INSTALL THE PERIMETER SEDIMENT FENCES AS THE FIRST CONSTRUCTION ACTIVITY PRIOR TO SITE CLEAR ONLY ENOUGH TO INSTALL SILT FENCE...

Phase 2 Site Grading and Stabilization

- 1. STRIP SITE OF TOPSOIL AND INSTALL IN THE DESIGNATED AREA
2. BEGIN IMPORTING FILL FOR THE CONSTRUCTION OF THE BUILDING PAD AND DRIVE AREAS.
3. INSTALL STORM DRAINAGE PIPING AND END OF DAY MEASURES.
4. INSTALL CONCRETE WASHOUT AREA PRIOR TO CONSTRUCTION OF STORM DRAINAGE STRUCTURES.
5. INSTALL INLET PROTECTION AROUND CATCH BASINS AND DROP INLETS AND INSTALL RIP RAP PROTECTION AND ENERGY DISIPATORS.
6. FINAL GRADE THE BUILDING PADS AND ATHLETIC FIELDS INSTALL GRAVEL AND CURB AND GUTTER IN PREPARATION FOR LAYDOWN AREA.
7. FINE GRADE AND PAVE SIDEWALK, DRIVEWAY AND PARKING LOTS AND LAY DOWN GRAVEL FOR GRAVEL FIRE LANE.
8. PROVIDE A GROUND COVER (TEMPORARY OR PERMANENT) ON EXPOSED SLOPES 14 CALENDAR DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING FOR SLOPES 3:1 OR FLATTER...
9. ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES MAY BE REQUIRED BY THE STATE OR OWNER IF DEEMED NECESSARY.
10. MAINTAIN PERMANENT VEGETATION BY TOP DRESSING WITH 700 LBS PER ACRE OF FERTILIZER EVERY 6 MONTHS UNTIL THE COMPLETION OF THE PROJECT.
11. WITHIN 6" OF FINAL GRADE, RE-DISTRIBUTE 6" OF TOPSOIL
12. FINE GRADE PERMANENTLY SEED AND MULCH ALL LANDSCAPED AREAS
13. REMOVE ALL REMAINING TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES UPON COMPLETION AND STABILIZATION OF PROJECT.

MAINTENANCE PLAN
ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUN-OFF PRODUCING RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.

SEDIMENT WILL BE REMOVED FROM BEHIND THE SILT FENCE WHEN IT BECOMES 0.5 FEET DEEP.

SEDIMENT WILL BE REMOVED FROM THE SEDIMENT TRAP WHEN THE STORAGE HAS BEEN APPROXIMATELY 50% FILLED. GRAVEL WILL BE CLEANED AND REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS PROPERLY.

ALL SEEDED AREAS WILL BE FERTILIZED, RE-SEEDDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.

PLANNED EROSION AND SEDIMENT CONTROL DEVICES

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

PRACTICE 6.06

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE IS TO BE USED AT STREET CONNECTION. DIMENSIONS ARE TO BE AS INDICATED ON PLANS. THE CONTRACTOR HAS THE PREROGATIVE TO IDENTIFY A SINGLE ENTRANCE AND TREAT SAID ENTRANCE WITH THIS PROTECTIVE MEASURE...

TEMPORARY STONE DROP INLET PROTECTION

PRACTICE 6.51

SEDIMENT FENCE IS TO BE USED AROUND ALL YARD INLETS AND CATCH BASINS UNTIL SUCH TIME SITE IS STABILIZED WITH VEGETATIVE COVER OR PARKING AREA SUBGRADE IS COVERED WITH C&B.C.

TEMPORARY SEDIMENT FENCE

PRACTICE 6.62

STONE INLET PROTECTION IS TO BE USED AS NEEDED TO PROTECT AREAS AS SHOWN. SILT FENCE IS TO BE PLACED AS SHOWN ON PLANS AND ANY OTHER AREAS SUBJECT TO DISCHARGING SEDIMENT DIRECTLY INTO CANALS AND DITCHES.

CITY ENGINEER RESERVES THE RIGHT TO REQUIRE ADDITIONAL EROSION CONTROL MEASURES SHOULD THE PLAN OR ITS IMPLEMENTATION PROVE TO BE INADEQUATE. SEED OR OTHERWISE PROVIDE GROUND COVER DEVICES.

VEGETATION PLAN

Table with columns for Item, Rate (LB/ACRE), and Description. Includes rows for Permanent Seeding, Seeding Mixture (Falcon Fescue, Rye, Annual Lespedeza), and Seeding Dates.

SEED BED PREPARATION AND MULCHING SCHEDULE

Table with columns for Item, Rate (LB/ACRE), and Description. Includes rows for Lime, Straw Mulch, and Asphalt Tack.

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

Table with columns: Site Area Description, Stabilize within this many calendar days after ceasing land disturbance, and Timeframe variations. Rows include perimeter dikes, high quality water zones, slopes, and areas with slopes flatter than 4:1.

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Table with columns: Temporary Stabilization and Permanent Stabilization. Lists methods like hydroseeding, mulch, plastic sheeting, and permanent grass seed.

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

- 1. Select flocculants that are appropriate for the soils being exposed during construction...
2. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
3. Apply flocculants at the concentrations specified in the NC DWR List of Approved PAMS/Flocculants...
4. Provide ponding area for containment of treated stormwater before discharging offsite.
5. Store flocculants in leak-proof containers...

EQUIPMENT AND VEHICLE MAINTENANCE

- 1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide drip pans under any stored equipment.
3. Identify leaks and repair as soon as feasible...
4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste...
5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center...

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

- 1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers...
3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters...
4. Locate waste containers on areas that do not receive substantial amounts of runoff...
5. Cover waste containers at the end of each workday...
6. Anchor all lightweight items in waste containers during times of high winds.
7. Empty waste containers as needed to prevent overflow.
8. Dispose waste off-site at an approved disposal facility.
9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

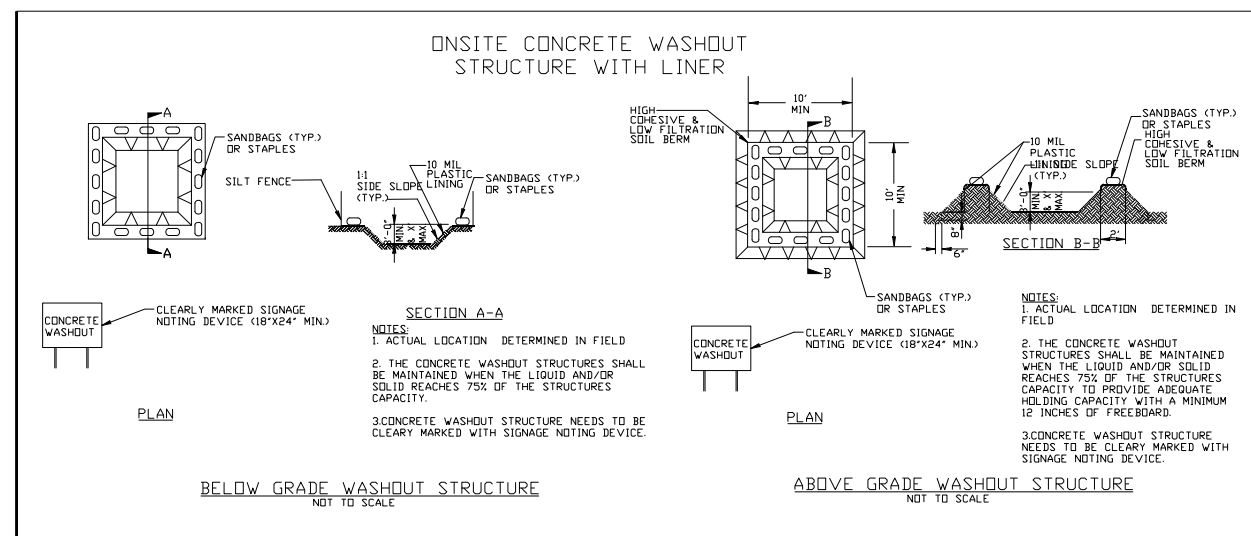
- 1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters...
3. Contain liquid wastes in a controlled area.
4. Containment must be labeled, sized and placed appropriately for the needs of site.
5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

PORTABLE TOILETS

- 1. Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands...
2. Provide staking or anchoring of portable toilets during periods of high winds...
3. Monitor portable toilets for leaking and properly dispose of any leaked material.

EARTHEN STOCKPILE MANAGEMENT

- 1. Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls...
2. Protect stockpile with silt fence installed along toe of slope...
3. Provide stable stone access point when feasible.
4. Stabilize stockpile within the timeframes provided on this sheet...



CONCRETE WASHOUTS

- 1. Do not discharge concrete or cement slurry from the site.
2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations...
3. Manage washout from mortar mixers in accordance with the above item...
4. Install temporary concrete washouts per local requirements...
5. Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections...
6. Locate washouts at least 50 feet from storm drain inlets...
7. Locate washouts in an easily accessible area...
8. Install at least one sign directing concrete trucks to the washout...
9. Remove leavings from the washout when at approximately 75% capacity...
10. Do not stockpile these materials onsite.

HERBICIDES, PESTICIDES AND RODENTICIDES

- 1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. Store herbicides, pesticides and rodenticides in their original containers...
3. Do not store herbicides, pesticides and rodenticides in areas where flooding is possible...
4. Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

- 1. Create designated hazardous waste collection areas on-site.
2. Place hazardous waste containers under cover or in secondary containment.
3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy...

Table with columns: Inspect, Frequency (during normal business hours), and Inspection records must include: (1) Rain gauge, (2) E&SC Measures, (3) Stormwater outfalls, (4) Perimeter of site, (5) Streams or wetlands, (6) Ground stabilization measures.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit.

Table with columns: Item to Document, Frequency, and Documentation Requirements. Rows include E&SC plan, grading phase, ground cover, maintenance, and corrective actions.

2. Additional Documentation to be Kept on Site

In addition to the E&SC plan documents above, the following items shall be kept on the site and available for inspectors at all times during normal business hours...

- (a) This General Permit as well as the Certificate of Coverage, after it is received.
(b) Records of inspections made during the previous twelve months...
3. Documentation to be Retained for Three Years

PART II, SECTION G, ITEM (4)

DRAIN DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down...

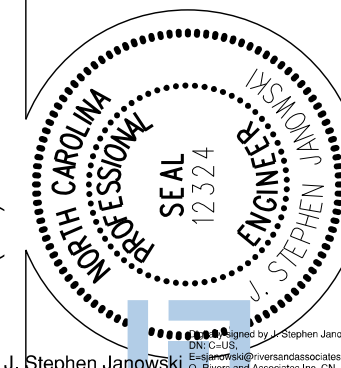
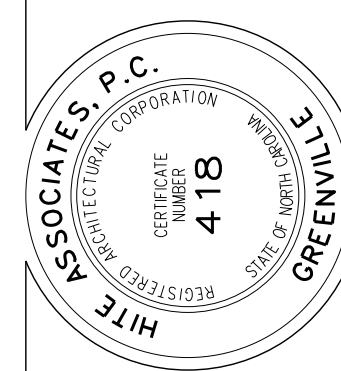
- (a) The E&SC plan authority has been provided with documentation of the non-surface withdrawal...
(b) The non-surface withdrawal has been reported as an anticipated bypass...
(c) Dewatering discharges are treated with controls to minimize discharges of pollutants...
(d) Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible...
(e) Velocity dissipation devices such as check dams, sediment traps, and riprap...
(f) Sediment removed from the dewatering treatment devices described in Item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19

Revision table with columns for No., Date, and Description.

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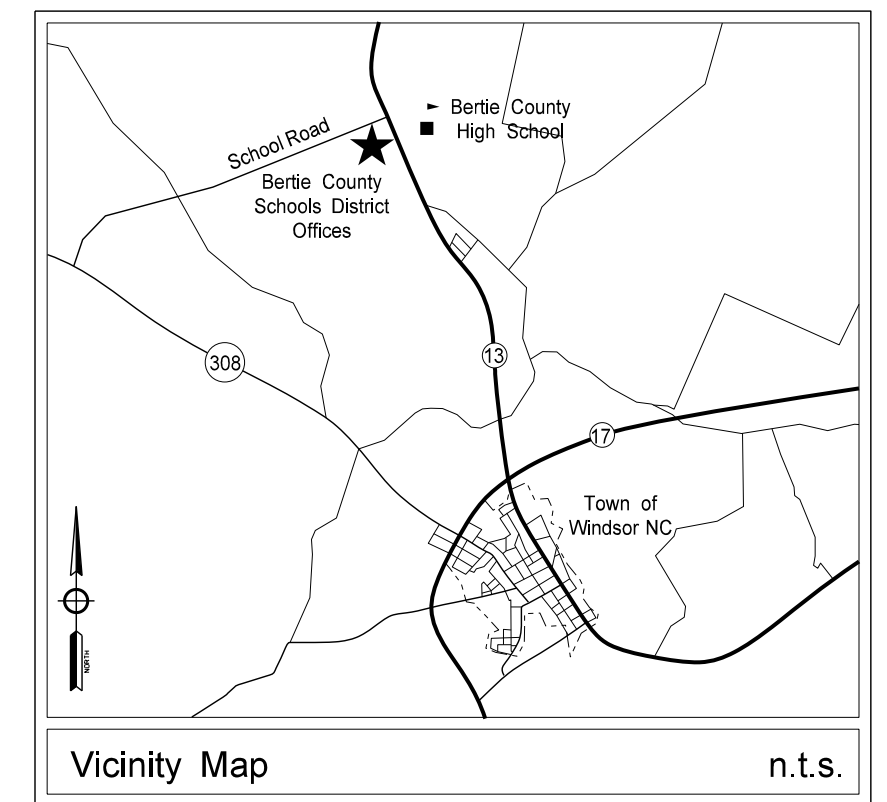
NEW CTE BUILDING FOR Bertie High School

Project No: 22351

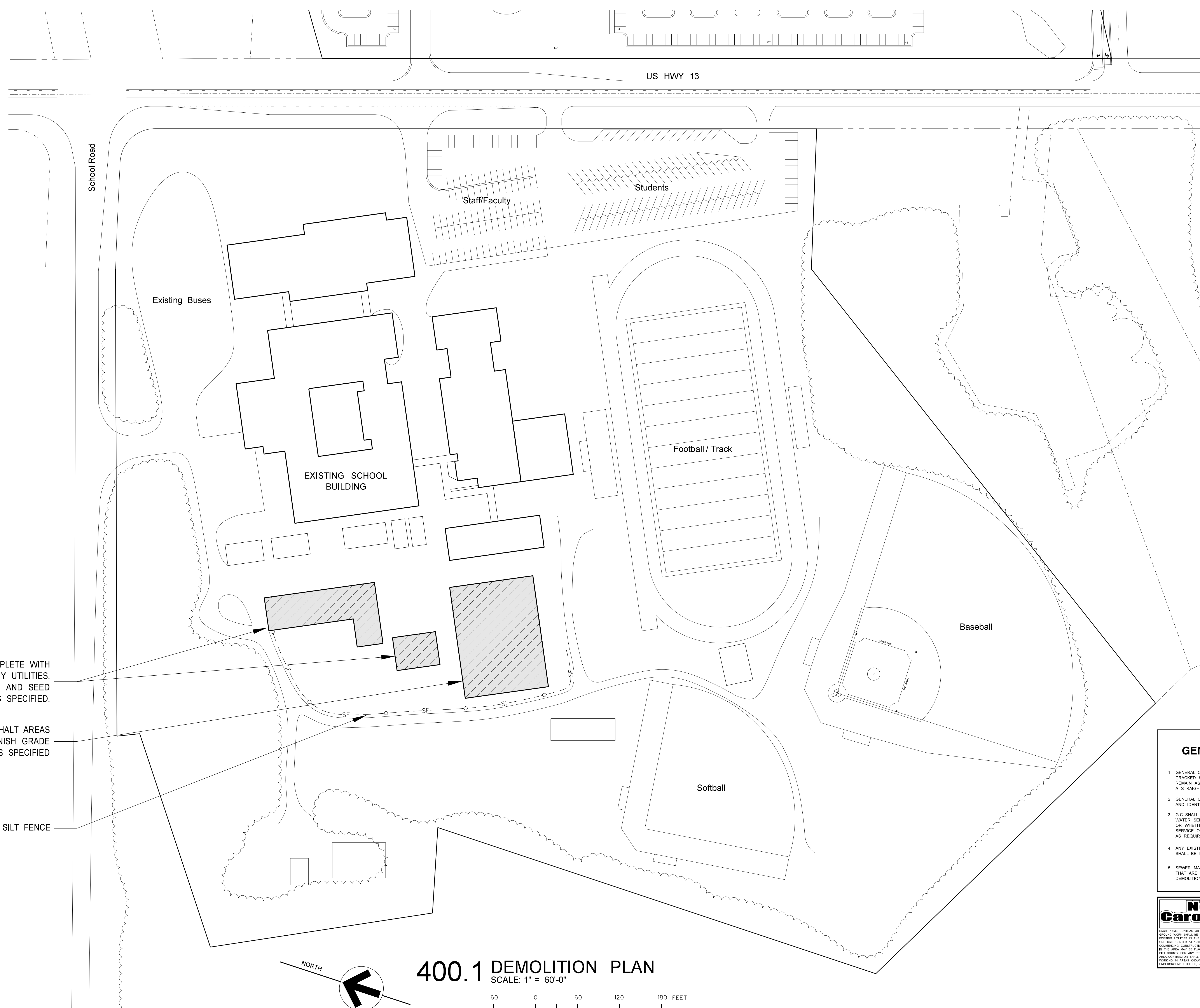
Date: December 18, 2024

Drawing No.

C 308



No.	Date	Revision

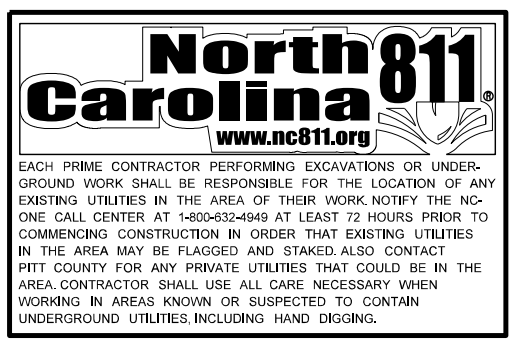


DEMOLISH EXISTING BUILDINGS COMPLETE WITH FOUNDATIONS, TERMINATE / CAP ANY UTILITIES. FINISH GRADE TO DRAIN, MULCH AND SEED AS SPECIFIED.

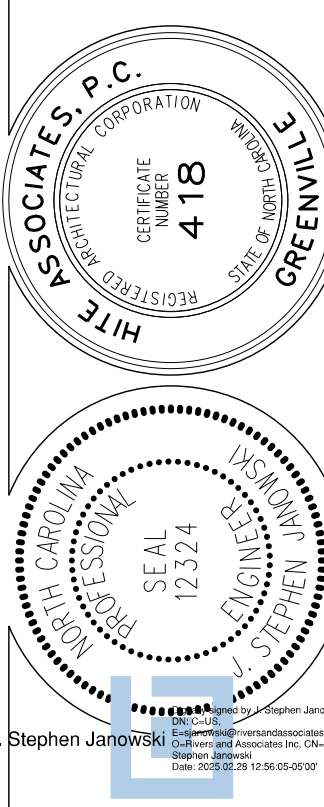
DEMOLISH CONCRETE AND ASPHALT AREAS AND FENCING COMPLETE. FINISH GRADE TO DRAIN, MULCH AND SEED AS SPECIFIED

TEMPORARY SILT FENCE

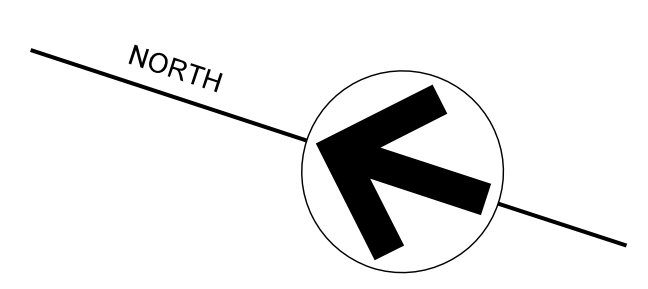
- GENERAL DEMOLITION NOTES**
- GENERAL CONTRACTOR SHALL REPLACE AND OR REPAIR ANY DAMAGED OR CRACKED SECTIONS OF CONCRETE CURB WALK OR ASPHALT PAVING THAT IS TO REMAIN AS REQUIRED. SAWCUT OFF BROKEN OR CRACKED SECTIONS TO PROVIDE A STRAIGHT UNIFORM EDGE PROVIDE A SMOOTH TRANSITION TO EXISTING FINISHES.
  - GENERAL CONTRACTOR SHALL RETAIN A PRIVATE UTILITY LOCATOR SERVICE TO LOCATE AND IDENTIFY ALL UNDERGROUND UTILITIES.
  - G.C. SHALL REROUTE ALL UNDERGROUND STORM DRAINAGE, SANITARY SEWER, SERVICES, WATER, SERVICES, IRRIGATION LINES, GAS LINES, ELECTRICAL LINES, ETC. WHETHER OR WHETHER NOT SHOWN THAT HAVE BEEN IDENTIFIED BY THE PRIVATE LOCATOR SERVICE OR EXPOSED DURING DEMOLITION AND CONSTRUCTION OPERATIONS AS REQUIRED THAT IS TO REMAIN.
  - ANY EXISTING TREES, LANDSCAPED AREAS AND BUFFERZONES THAT ARE TO REMAIN SHALL BE PROTECTED AS REQUIRED FROM ALL DEMOLITION ACTIVITIES.
  - SEWER MANHOLES, CATCH BASINS, VALVE BOXES, CLEAN OUTS, GRATES & COVERS THAT ARE TO REMAIN IN USE SHALL BE PROTECTED AS REQUIRED DURING DEMOLITION ACTIVITIES.



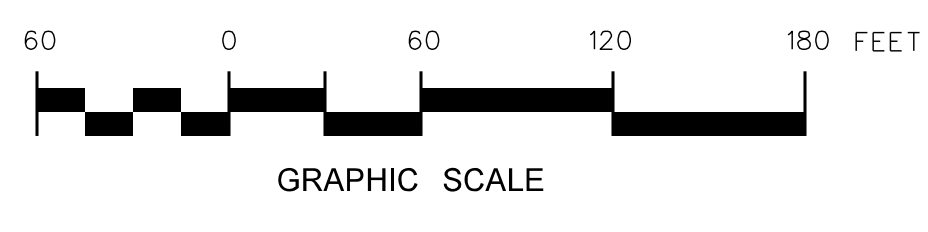
CIVIL ENGINEERING CONSULTANT:  
**J. STEPHEN JANOWSKI, P.E.**  
 Rivers & Associates, Inc.  
 License No. F-0334  
 107 East 2nd Street, Greenville, NC  
 (252) 714-3002



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**400.1 DEMOLITION PLAN**  
 SCALE: 1" = 60'-0"



**DEMOLITION PLAN FOR**  
**Bertie County Schools District Office Campus**  
 BERTIE COUNTY SCHOOLS  
 715 US-13 / Windsor / North Carolina 27983

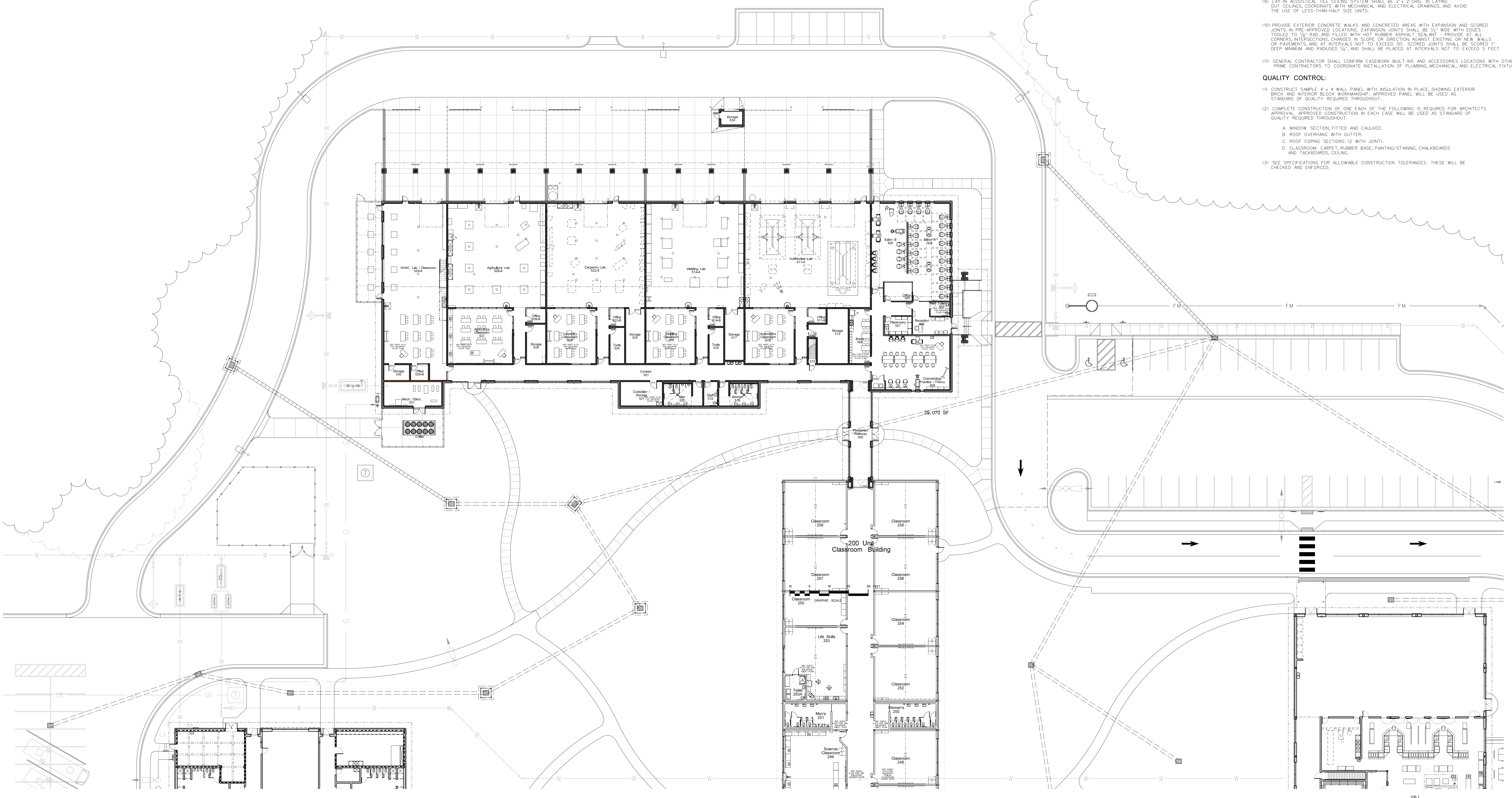
Project No: 22351  
 Date: OCTOBER 2024  
 Drawing No: **A 400**

**GENERAL NOTES:**

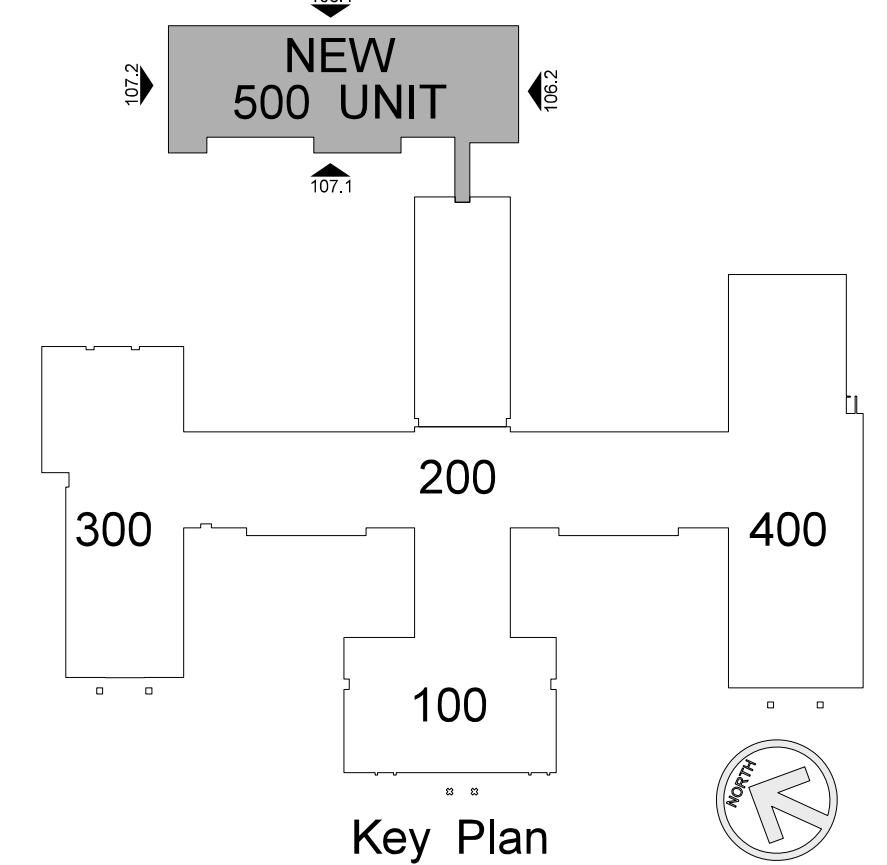
- (1) CMU WALLS WHERE INDICATED SHALL BE RUN SOLID TO BOTTOM OF DECK GRADED SOLID TO DECK. ALL OTHER CMU WALLS, UNLESS OTHERWISE NOTED, SHALL BE RUN TO FULL BLOCK COURSE ABOVE CEILING. UNBRACED SECTIONS OF LESS-THAN-FULL-HEIGHT WALLS SHALL BE BRACED TO ROOF. SEE STRUCTURAL DRAWINGS.
- (2) CMU WALL INTERSECTIONS SHALL BE BONDED WITH HOT DIPPED GALVANIZED HARDWARE CLOTH EACH COURSE AND PREFORMED "T" HORIZONTAL REINFORCING AS SPECIFIED AT 16" ON CENTER.
- (3) PROVIDE WALL CONTROL AND EXPANSION JOINTS WHERE SHOWN AND DETAILED OR IN PRE-APPROVED, ALTERNATING LOCATIONS 32" ON CENTER MAXIMUM. PROVIDE IN ONE SIDE OF EACH OPENING IN MASONRY WALLS; BOTH SIDES IN OPENINGS WITH WIDTH EXCEEDING 3'-0". SEE DETAIL.
- (4) PROVIDE WALL EXPANSION JOINTS AT POINTS AND INTERSECTIONS WHERE INDICATED. 1/2" WIDE, FILLED WITH EXPANSION JOINT MATERIAL AND CAULK WITH BACKER ROD EACH EXPOSED SIDE.
- (5) ALL 90° OUTSIDE CMU CORNERS SHALL HAVE BALLNOSE EDGE LION.
- (6) ALL 45° CMU WALL BENDS SHALL BE CONSTRUCTED WITH SPECIAL PRECAST UNITS.
- (7) INTERIOR CMU JOINTS SHALL BE TOOLED CONCAVE.
- (8) ALL CMU SURFACES TO RECEIVE PAINT OR PLASTER SHALL BE POINTED UP AND PATCHED WITH MORTAR TO ELIMINATE DEPRESSIONS, VOIDS OR OTHER IRREGULARITIES LARGER THAN 1/4" DIAMETER. PAINTER SHALL CAULK SIMILAR DEFECTS LARGER THAN 1/4" DIAMETER AFTER APPLICATION OF BLOCK FILLER. BLOCK FILLER SHALL BE APPLIED IN THICKNESS AND COATS REQUIRED TO ELIMINATE ALL VOIDS AND PRINKLES IN MASONRY SURFACES. FRESH PAINT SHALL BE SPRAY APPLIED & ROLLED IN.
- (9) LAY-IN ACOUSTICAL TILE CEILING SYSTEM SHALL BE 2' x 2' GRID. IN LAYING OUT CEILING, COORDINATE WITH MECHANICAL AND ELECTRICAL DRAWINGS, AND AVOID THE USE OF LESS-THAN-HALF SIZE UNITS.
- (10) PROVIDE EXTERIOR CONCRETE WALKS AND CONCRETE AREAS WITH EXPANSION AND SCORED JOINTS IN PRE-APPROVED LOCATIONS. EXPANSION JOINTS SHALL BE 1/2" WIDE WITH EDGES TOOLED TO 1/4" RAD AND FILLED WITH HOT RUBBER ASPHALT SEALANT - PROVIDE AT ALL CORNERS, INTERSECTIONS, CHANGES IN SLOPE OR DIRECTION, AGAINST EXISTING OR NEW WALLS OR PAVEMENTS, AND AT INTERVALS NOT TO EXCEED 30'. SCORED JOINTS SHALL BE SCORED 1/8" DEEP MINIMUM AND RADUSED 1/4", AND SHALL BE PLACED AT INTERVALS NOT TO EXCEED 5' FEET.
- (11) GENERAL CONTRACTOR SHALL CONFIRM CASEWORK, BUILT-INS AND ACCESSORIES LOCATIONS WITH OTHER PRIME CONTRACTORS TO COORDINATE INSTALLATION OF PLUMBING, MECHANICAL, AND ELECTRICAL FIXTURES.

**QUALITY CONTROL:**

- (1) CONSTRUCT SAMPLE 4' x 4' WALL PANEL WITH INSULATION IN PLACE, SHOWING EXTERIOR BRICK AND INTERIOR BLOCK WORKMANSHIP. APPROVED PANEL WILL BE USED AS STANDARD OF QUALITY REQUIRED THROUGHOUT.
- (2) COMPLETE CONSTRUCTION OF ONE EACH OF THE FOLLOWING IS REQUIRED FOR ARCHITECTS APPROVAL. APPROVED CONSTRUCTION IN EACH CASE WILL BE USED AS STANDARD OF QUALITY REQUIRED THROUGHOUT.
  - A. WINDOW SECTION, FITTED AND CALKED.
  - B. ROOF OVERHANG WITH GUTTER.
  - C. ROOF COPING SECTIONS (2 WITH JOINT).
  - D. CLASSROOM: CARPET, RUBBER BASE, PAINTING/STAINING, CHALKBOARDS AND TACKBOARDS, CEILING.
- (3) SEE SPECIFICATIONS FOR ALLOWABLE CONSTRUCTION TOLERANCES. THESE WILL BE CHECKED AND ENFORCED.

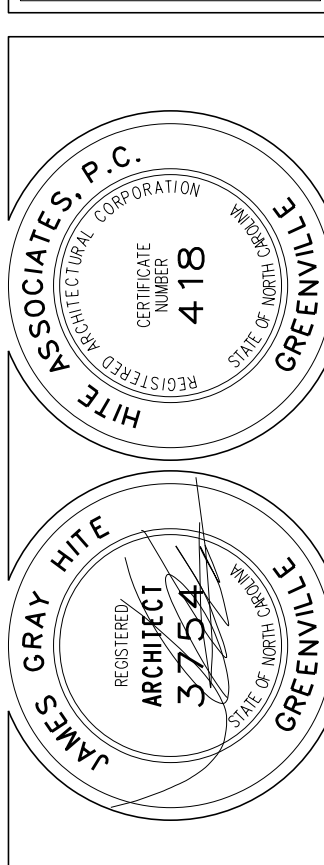


**001.1 OVERALL FLOOR PLAN**  
SCALE: 1" = 20'-0"



No.	Date	Revision

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**NEW CTE BUILDING FOR Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 312  
Windsor / Bertie County / North Carolina

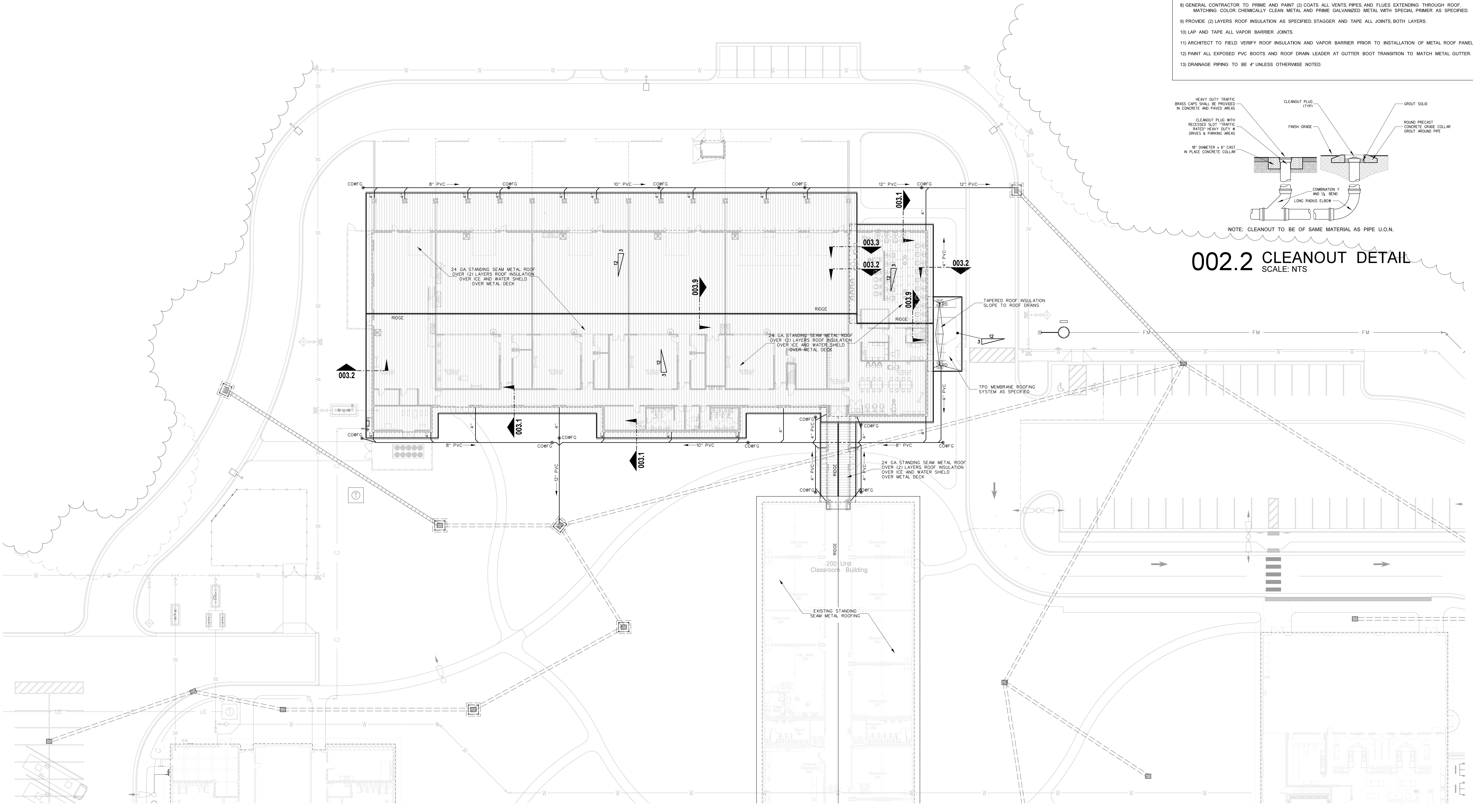
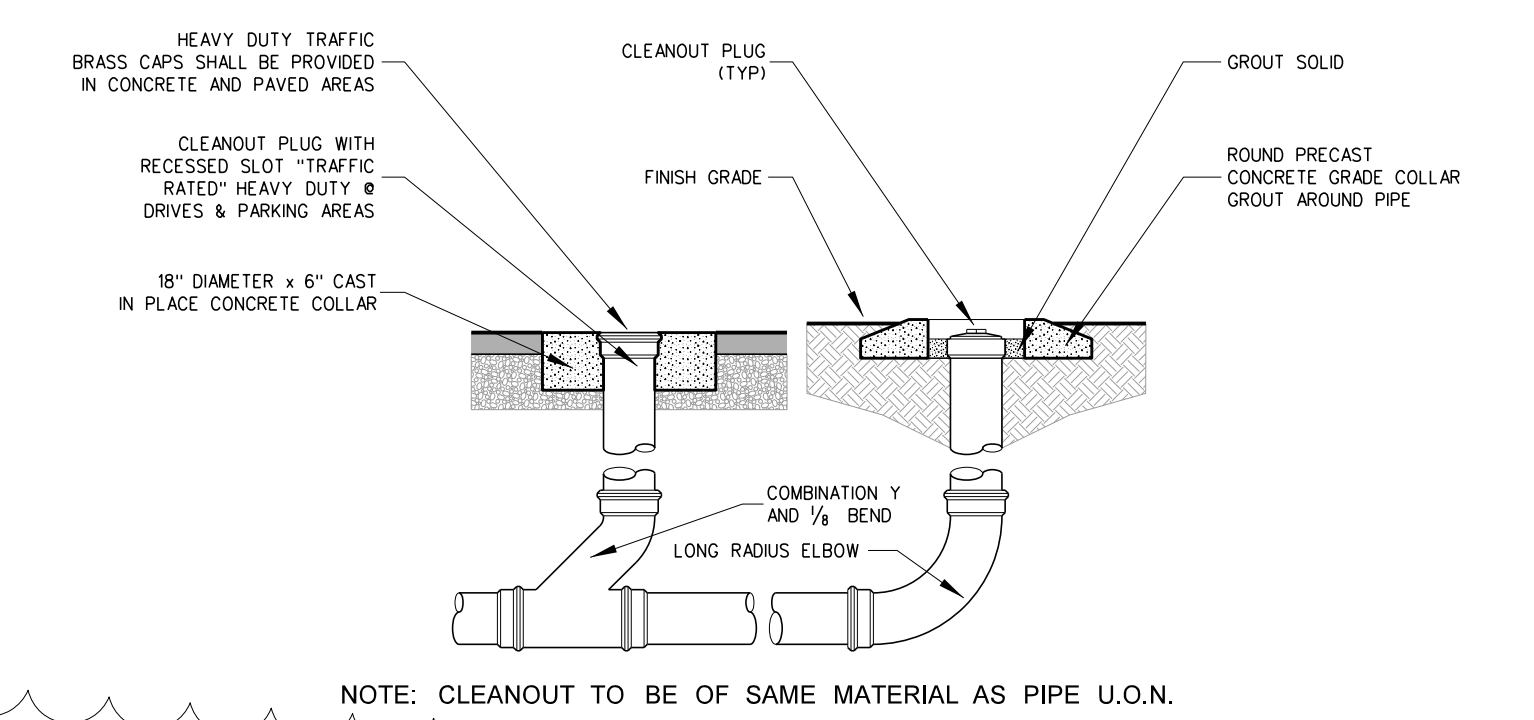
Project No. 22351  
Date: December 18, 2024  
Drawing No. **A 001**

**811**  
 Know what's below.  
 Call before you dig.

Each prime contractor performing excavations or underground work shall be responsible for the location of any existing utilities in the area of their work. Notify the one-call center at 1-800-4-A-DIG at least 48 hours prior to commencing construction in order that existing utilities in the area may be flagged and staked. Also contact the school advance department to locate any private utilities in the area. Contractor shall use all care necessary when working in areas known or suspected to contain underground utilities including hand digging.

**NORTH CAROLINA 811**  
 One-Call Center

- ### Roof Plan Notes
- 1) THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL VERTICAL ROOF DRAIN LEADERS AND HORIZONTAL DRAINAGE PIPING SYSTEMS TO STORM SEWER CATCH BASINS PIPE AROUND STRUCTURE AS REQUIRED.
  - 2) HORIZONTAL DRAINAGE PIPING BELOW GRADE SHALL BE SDR 35 PIPE. VERIFY ALL INVERT ELEVATIONS AND PIPE SLOPES PRIOR TO INSTALLATION.
  - 3) PROVIDE CLEANOUTS AT ALL PIPING ELBOWS, AT 80' INTERVALS FOR HORIZONTAL DRAINAGE PIPES 4" TO 6" NOMINAL DIAMETER, AT 100' INTERVALS FOR HORIZONTAL DRAINAGE PIPES 8" AND ABOVE.
  - 4) PROVIDE ICE AND WATER SHIELD OVER ENTIRE ROOF.
  - 5) REFER TO PLUMBING AND MECHANICAL PLANS FOR ROOF PENETRATION LOCATIONS. GENERAL CONTRACTOR IS RESPONSIBLE FOR FLASHING ALL ROOF PENETRATIONS BY OTHER PRIME CONTRACTORS.
  - 6) SANITARY SEWER HAS RIGHT-OF-WAY OVER STORM DRAINAGE PIPING. REFER TO PLUMBING DRAWINGS. CONSTRUCT CONCRETE/MASONRY CONFLICT / JUNCTION BOX AS REQUIRED. SEE PLUMBING AND CIVIL DRAWINGS.
  - 7) COORDINATE CONDENSATE PIPING CONNECTIONS TO STORM DRAINAGE. REFER TO HVAC DRAWINGS.
  - 8) GENERAL CONTRACTOR TO PRIME AND PAINT (2) COATS ALL VENTS, PIPES, AND FLUES EXTENDING THROUGH ROOF. MATCHING COLOR CHEMICALLY CLEAN METAL AND PRIME GALVANIZED METAL WITH SPECIAL PRIMER AS SPECIFIED.
  - 9) PROVIDE (2) LAYERS ROOF INSULATION AS SPECIFIED. STAGGER AND TAPE ALL JOINTS, BOTH LAYERS.
  - 10) LAP AND TAPE ALL VAPOR BARRIER JOINTS.
  - 11) ARCHITECT TO FIELD VERIFY ROOF INSULATION AND VAPOR BARRIER PRIOR TO INSTALLATION OF METAL ROOF PANELS.
  - 12) PAINT ALL EXPOSED PVC BOOTS AND ROOF DRAIN LEADER AT GUTTER BOOT TRANSITION TO MATCH METAL GUTTER.
  - 13) DRAINAGE PIPING TO BE 4" UNLESS OTHERWISE NOTED.



**002.1 ROOF AND ROOF DRAINAGE PLAN**  
 SCALE: 1" = 20'-0"

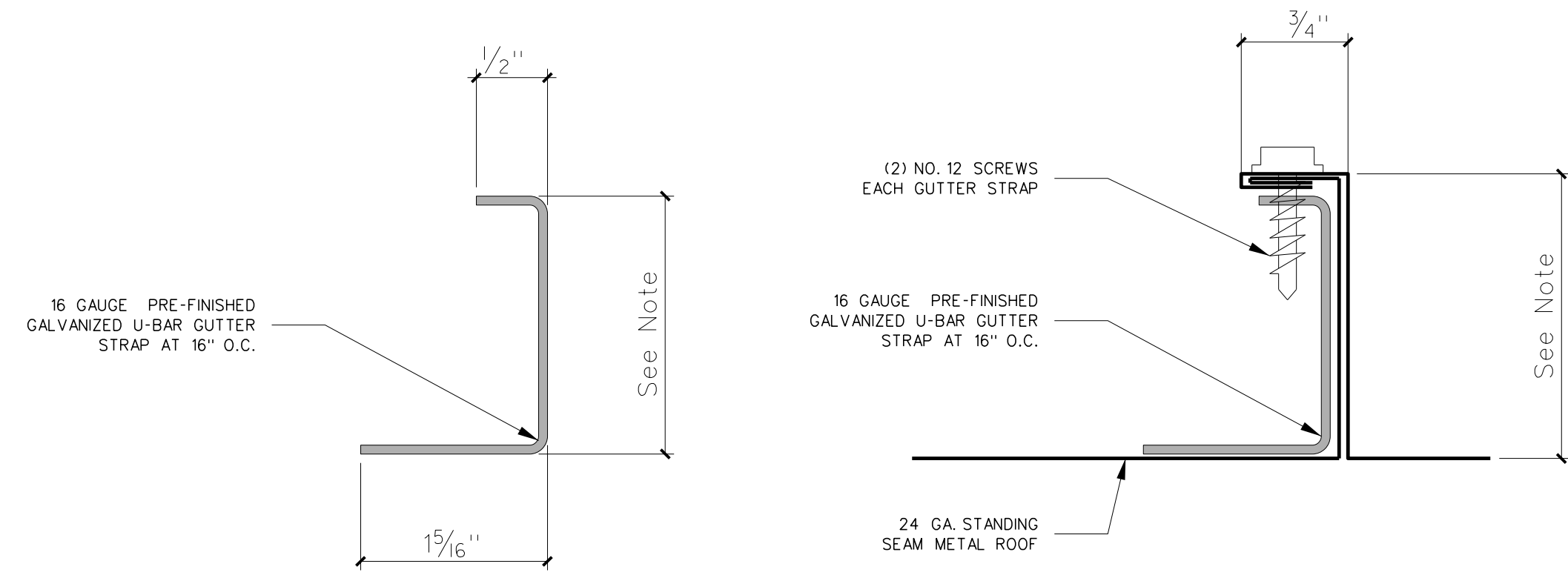
No.	Date	Revision

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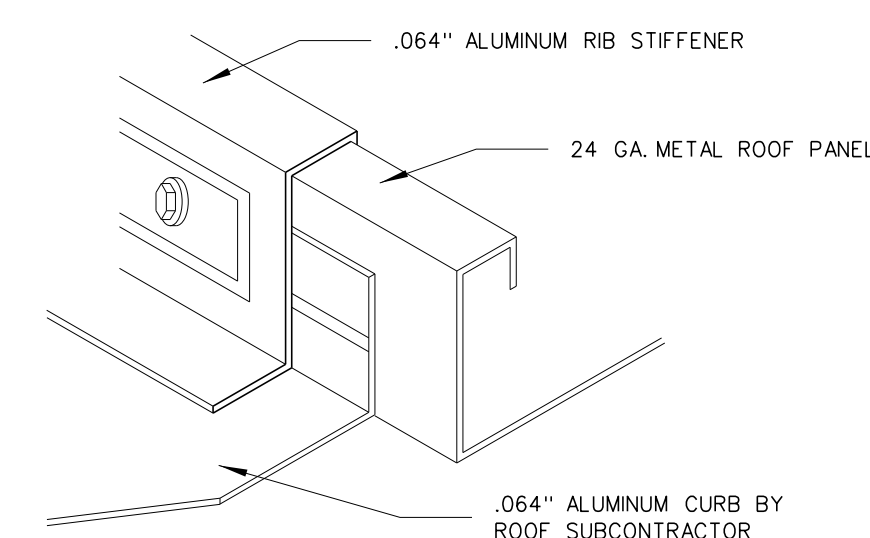


NEW CTE BUILDING FOR  
**Bertie High School**  
 716 US 13 North / NCDPS Unit 080 - School 312  
 Windsor / Bertie County / North Carolina

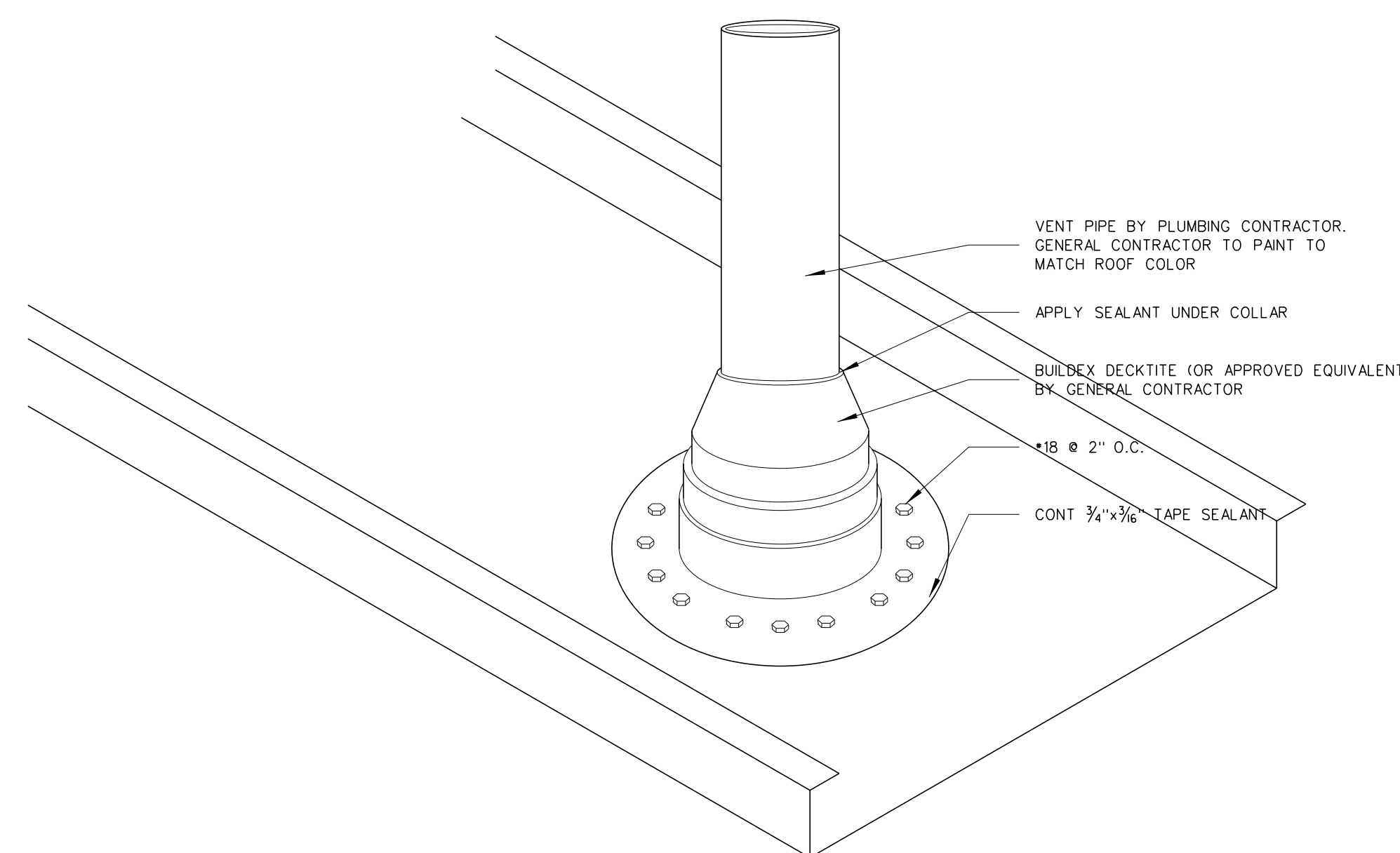
Project No. 22351  
 Date: December 18, 2024  
 Drawing No. **A 002**



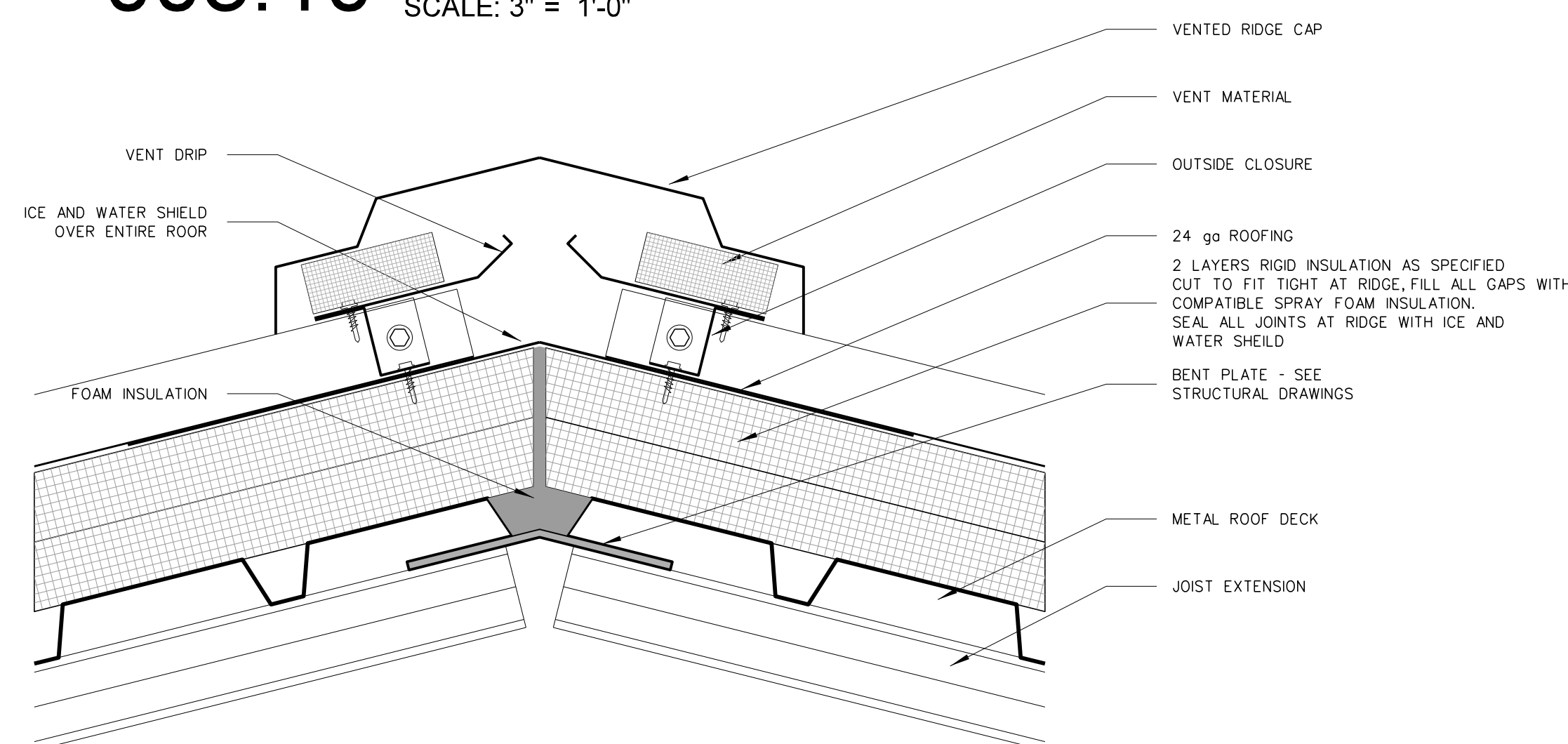
**003.12 ROOF GUTTER STRAP DETAIL**  
SCALE: FULL



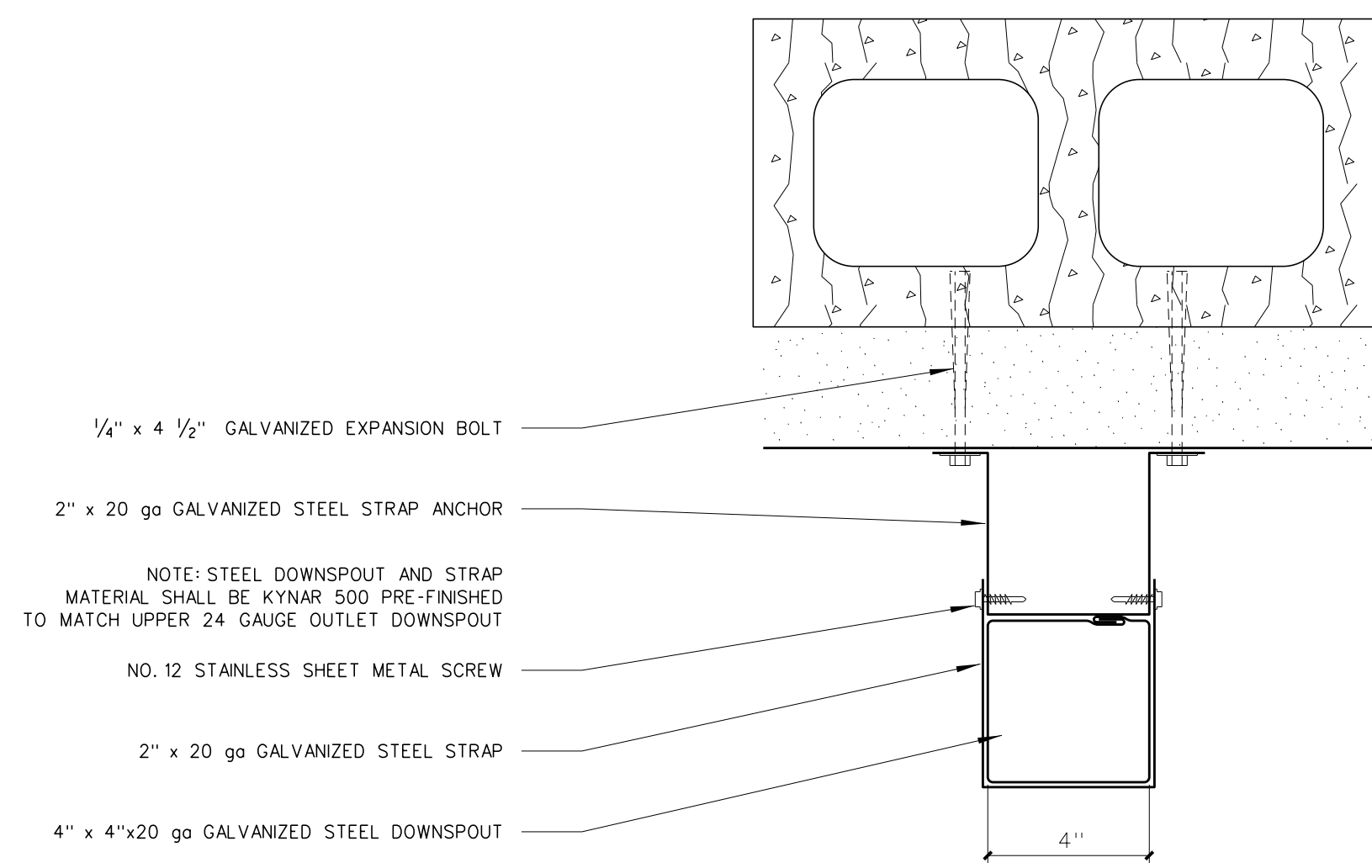
**003.11 CURB FLASHING DETAIL**  
SCALE: 3\"/>



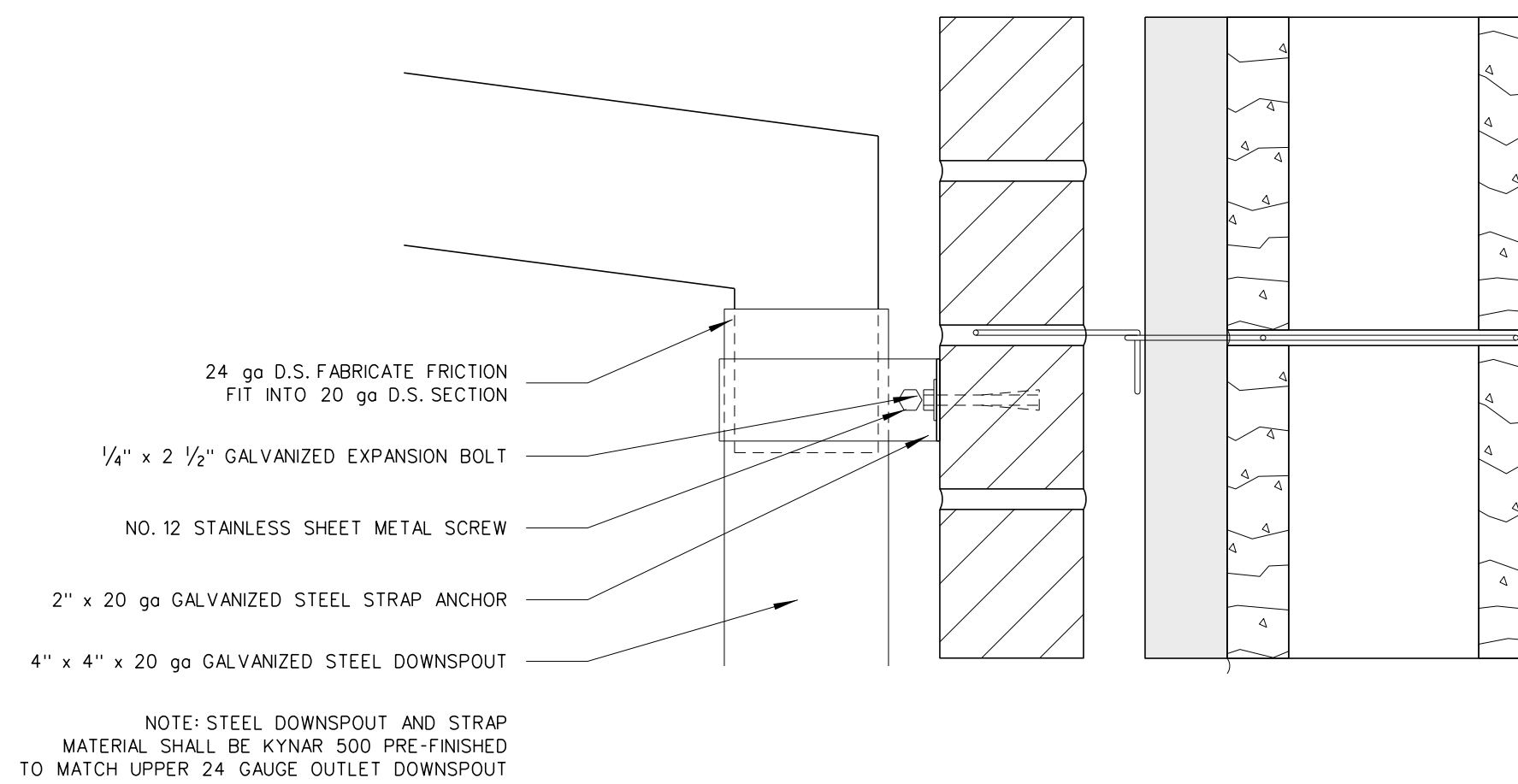
**003.10 PIPE FLASHING DETAIL**  
SCALE: 3\"/>



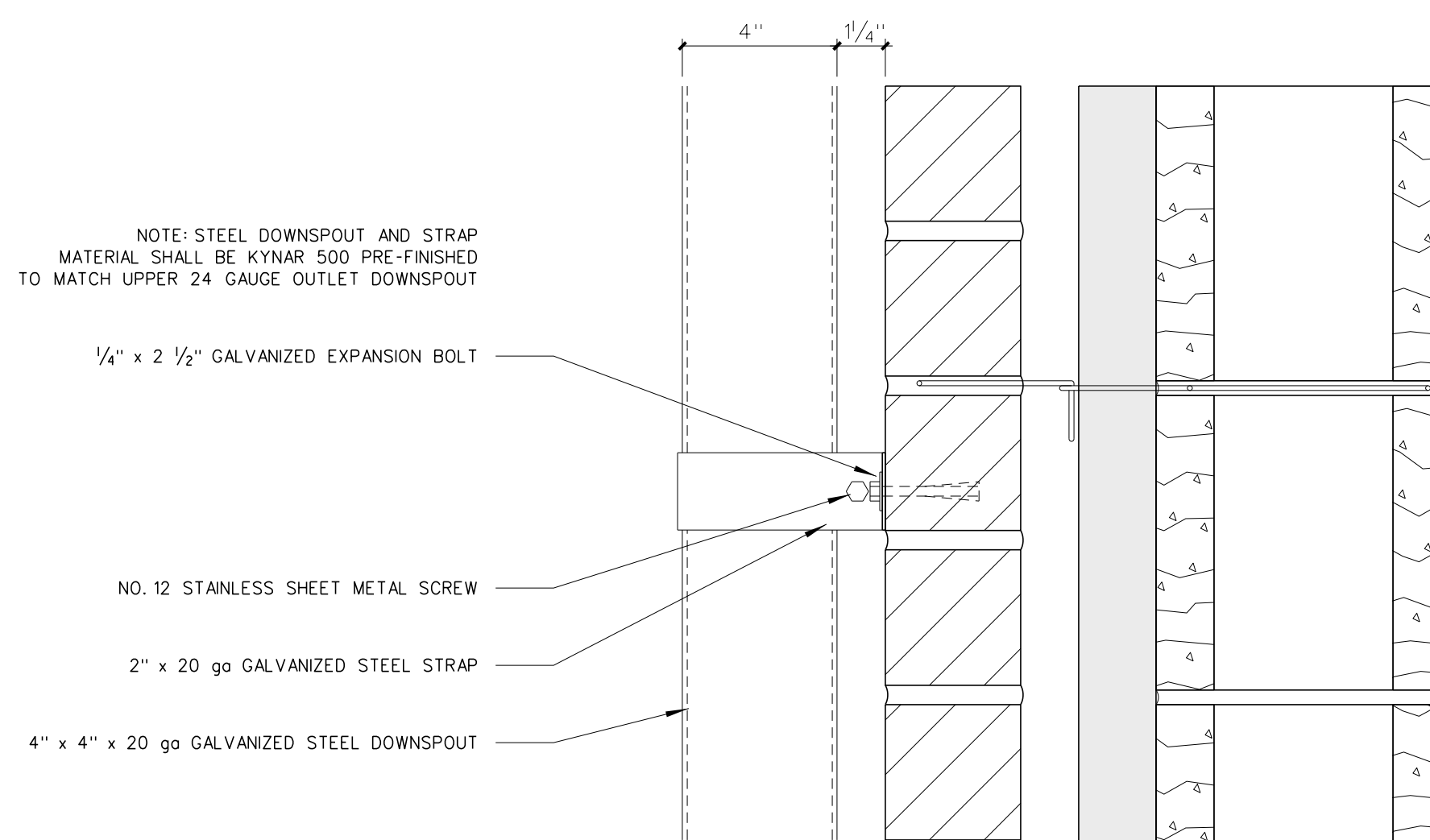
**003.9 RIDGE DETAIL**  
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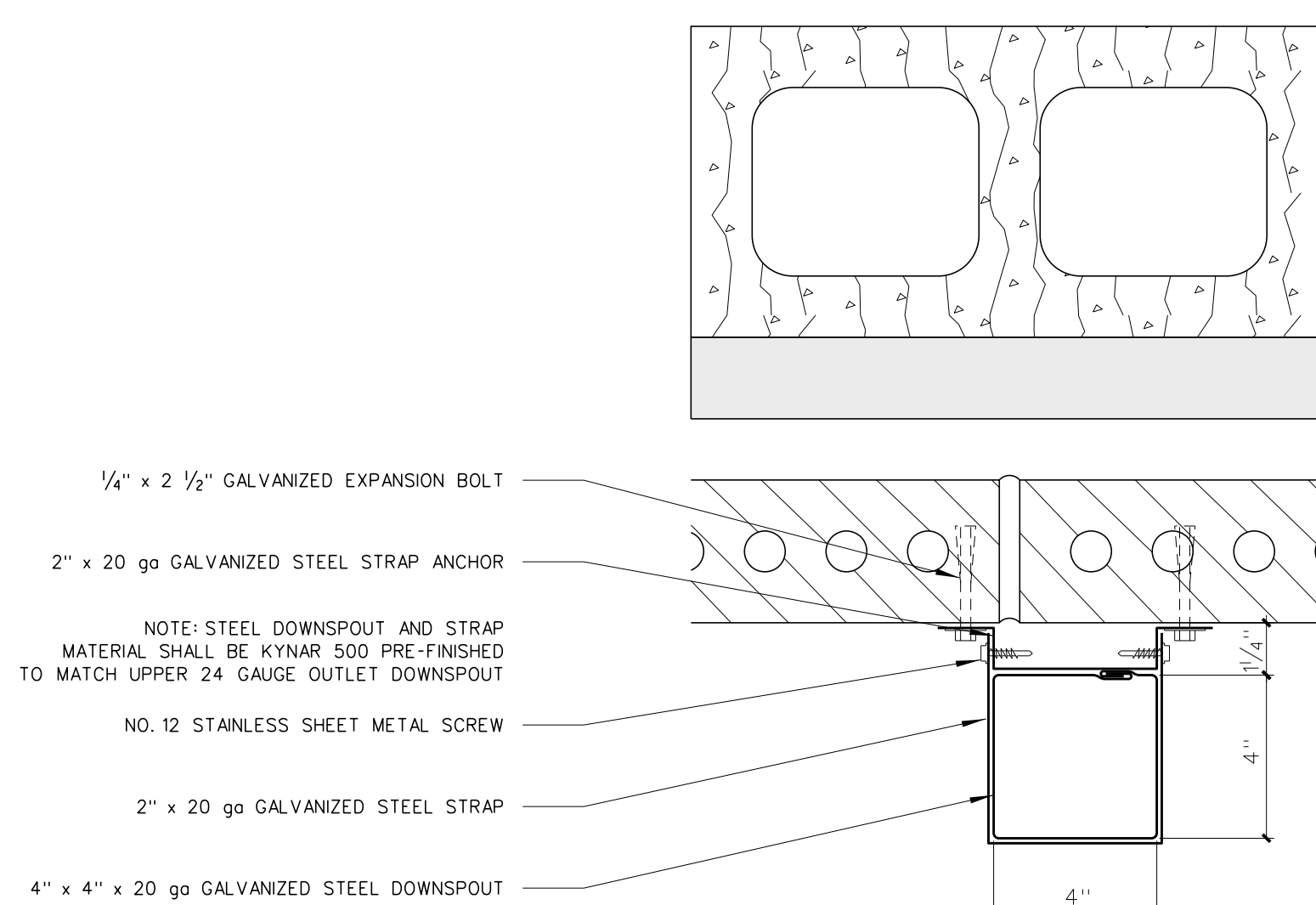
**003.8 PLAN DETAIL - DOWNSPOUT @ EIFS**  
SCALE: 3\"/>



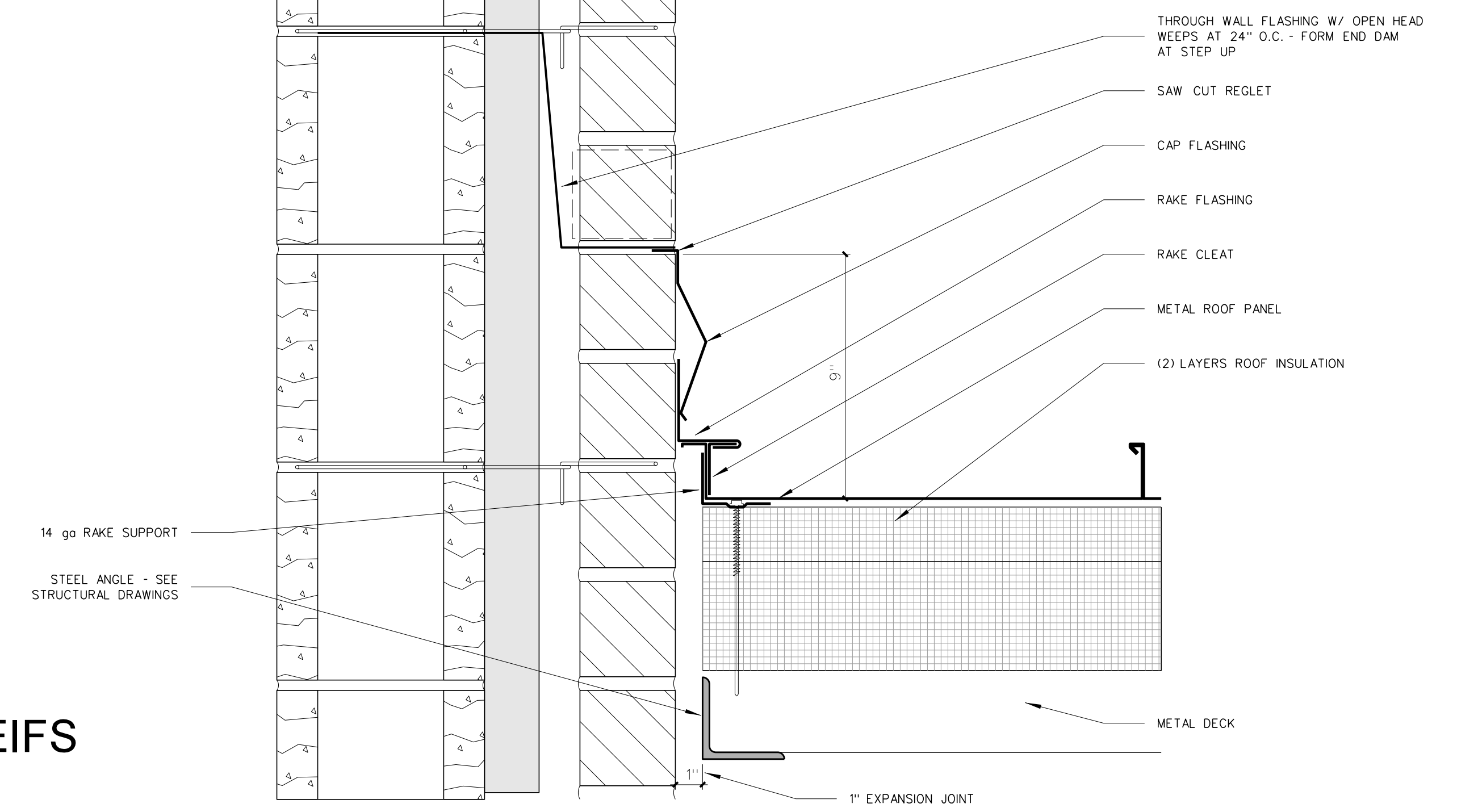
**003.7 DETAIL - DOWNSPOUT @ TRANSITION**  
SCALE: 3\"/>



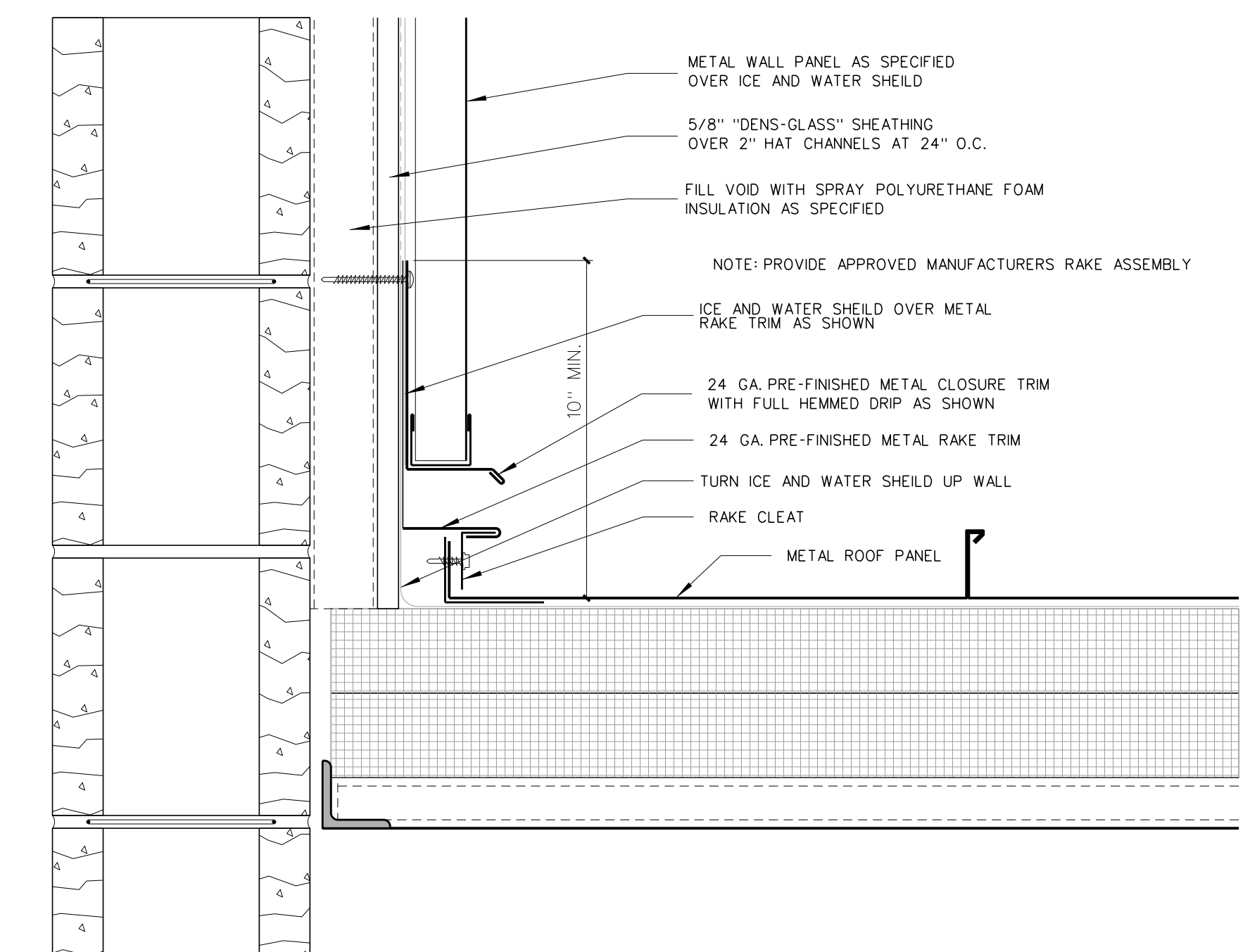
**003.6 DETAIL - DOWNSPOUT @ BRICK**  
SCALE: 3\"/>



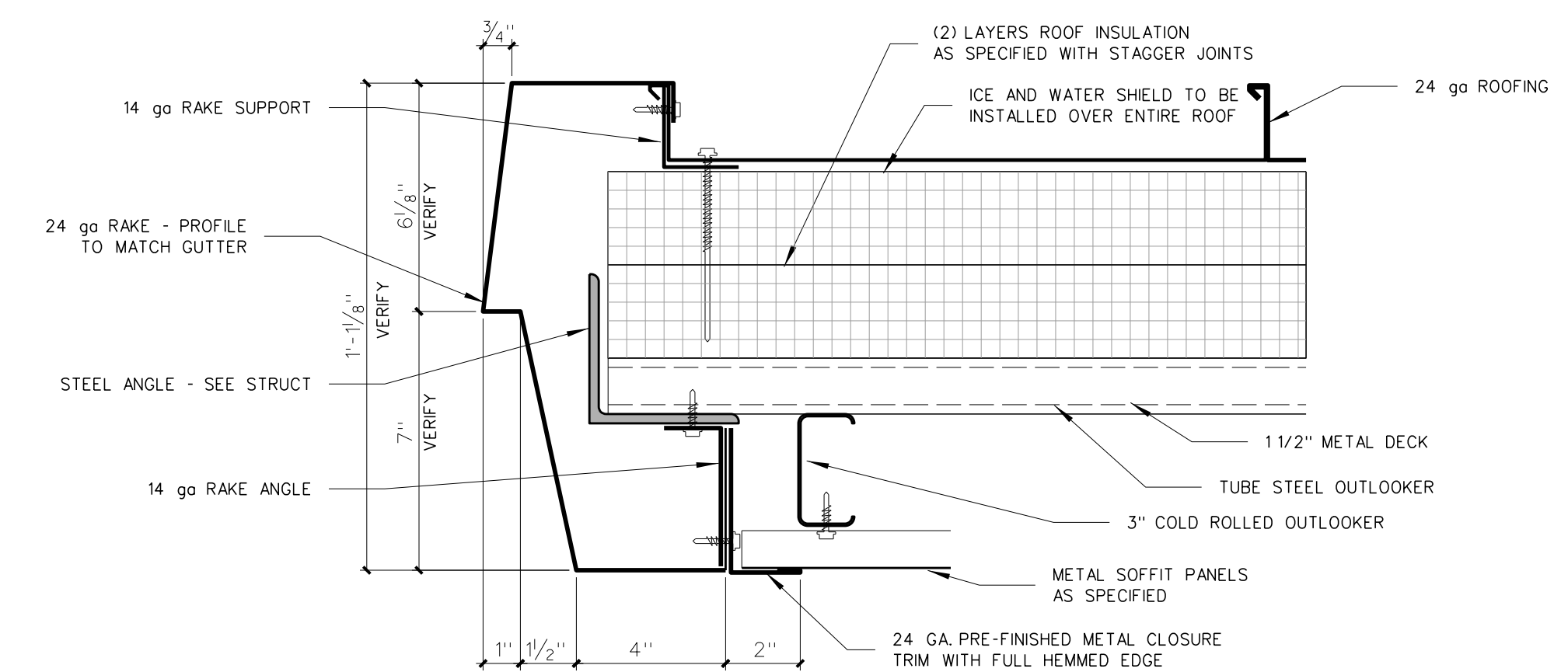
**003.5 PLAN DETAIL - DOWNSPOUT @ BRICK**  
SCALE: 3\"/>



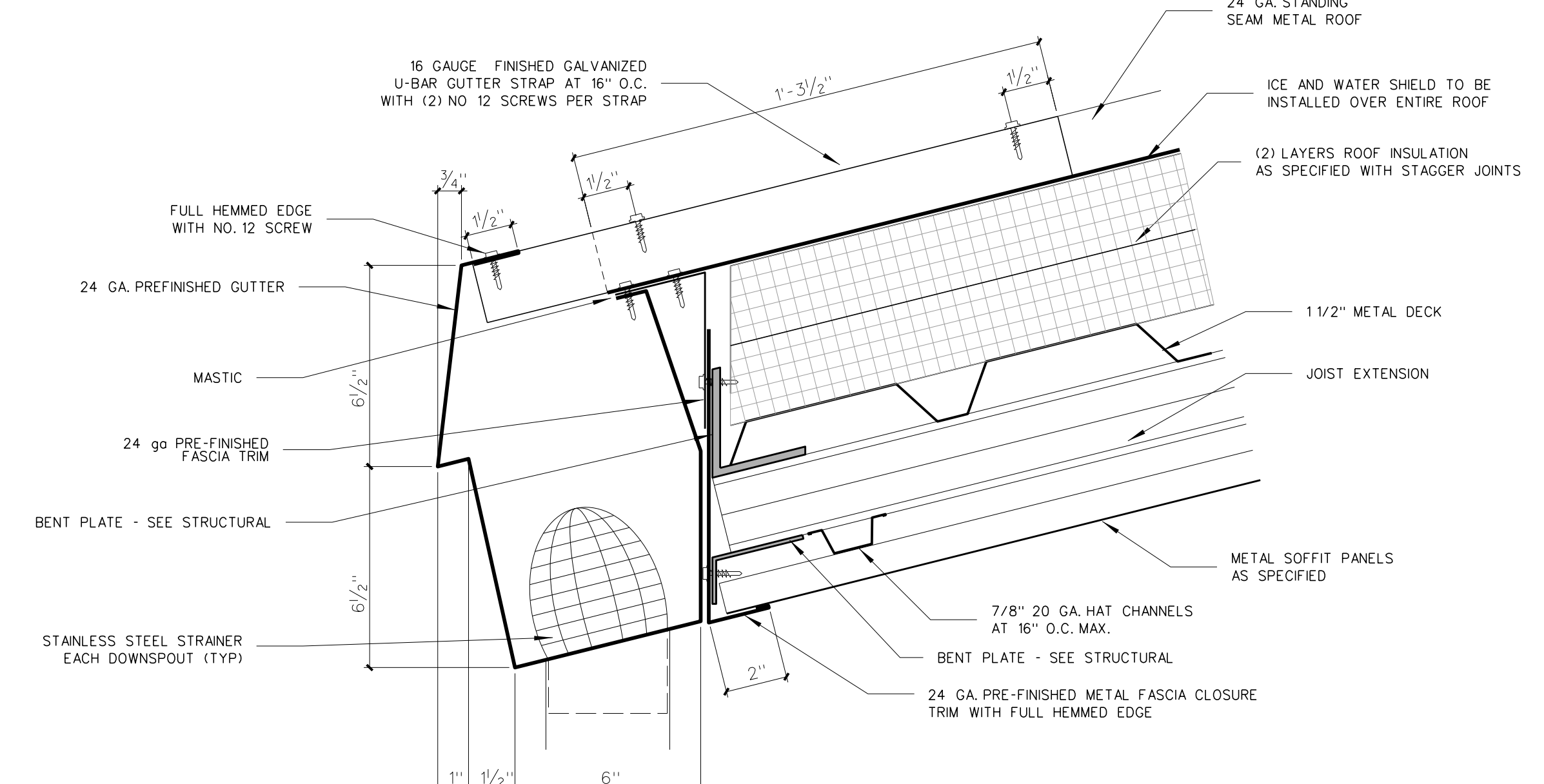
**003.4 RAKE FLASHING @ BRICK**  
SCALE: 3\"/>



**003.3 RAKE FLASHING DETAIL**  
SCALE: 3\"/>



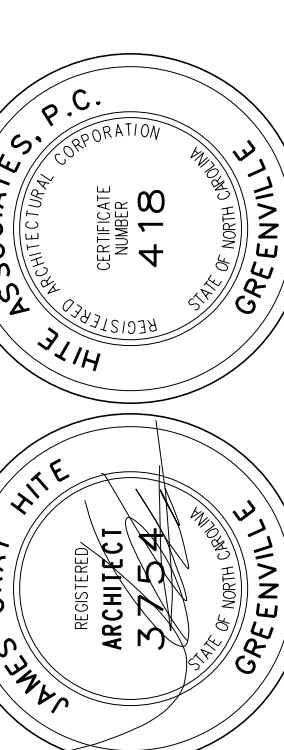
**003.2 RAKE DETAIL**  
SCALE: 3\"/>



**003.1 GUTTER DETAIL**  
SCALE: 3\"/>

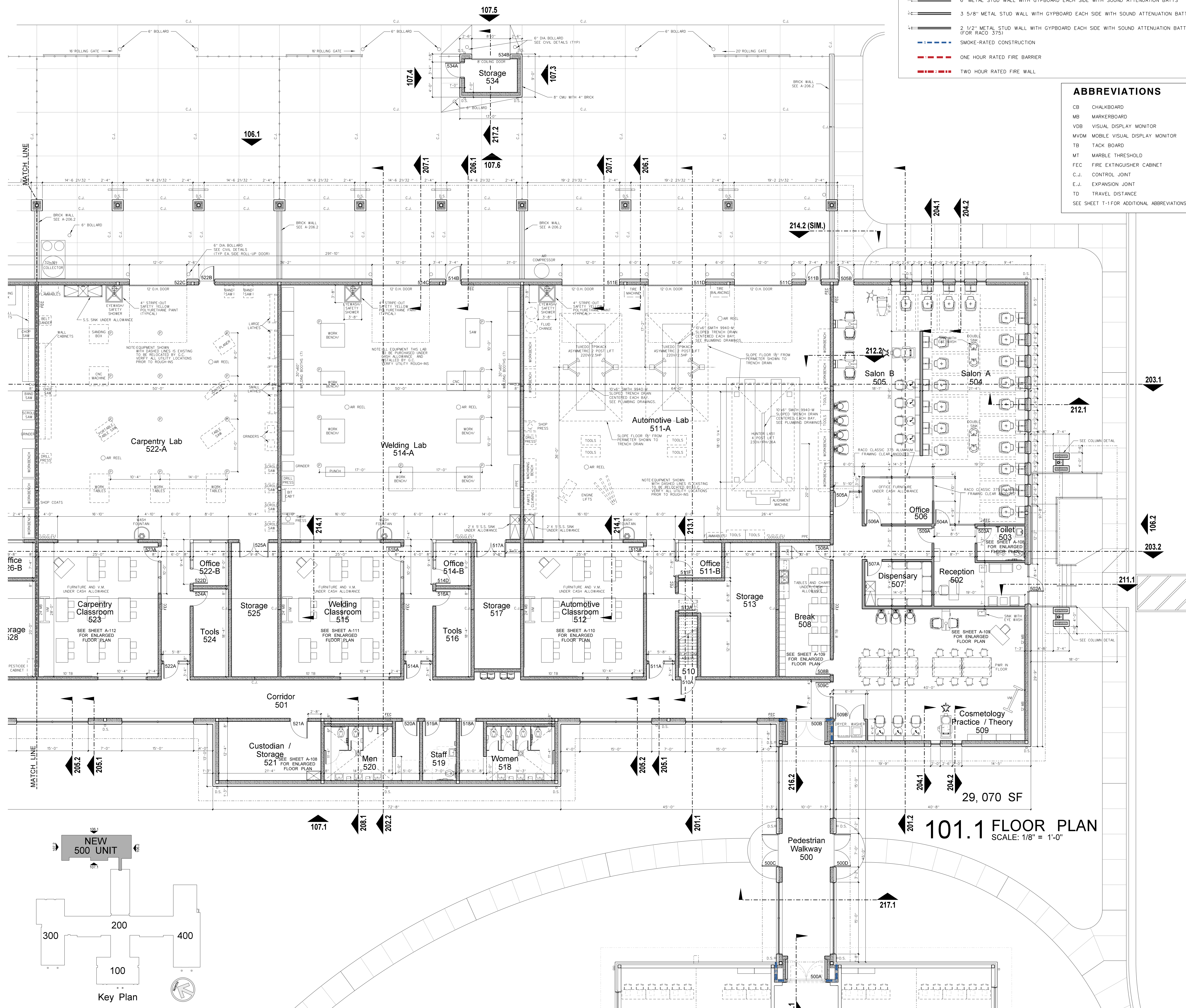
No.	Date	Revision

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NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 3112  
Windsor / Bertie County / North Carolina

Project No.	22351
Date:	December 18, 2024
Drawing no.	<b>A</b> <b>003</b>



### WALL LEGEND

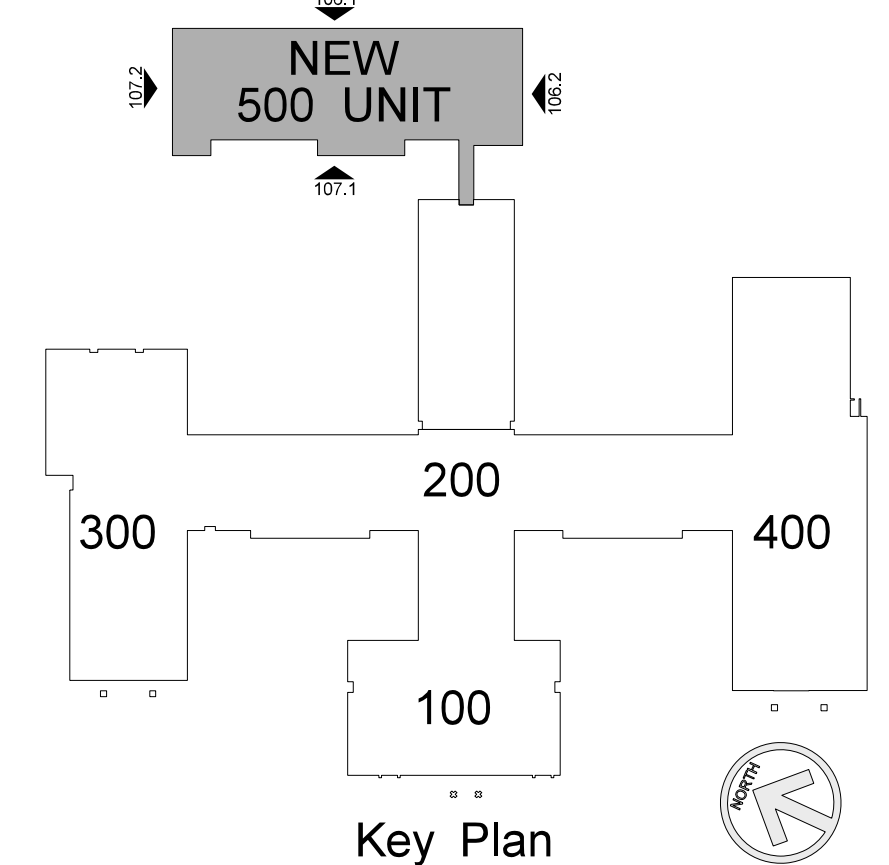
- 8" CMU WALL WITH 2" INSULATION, AIR SPACE AND 4" BRICK
- 8" CMU WALL WITH 4" BRICK
- 8" CMU WALL
- 6 CMU WALL
- 8" METAL STUD WALL WITH GYPBOARD EACH SIDE WITH SOUND ATTENUATION BATTS
- 6" METAL STUD WALL WITH GYPBOARD EACH SIDE WITH SOUND ATTENUATION BATTS
- 3 5/8" METAL STUD WALL WITH GYPBOARD EACH SIDE WITH SOUND ATTENUATION BATTS
- 2 1/2" METAL STUD WALL WITH GYPBOARD EACH SIDE WITH SOUND ATTENUATION BATTS (FOR RACO 375)
- SMOKE-RATED CONSTRUCTION
- ONE HOUR RATED FIRE BARRIER
- TWO HOUR RATED FIRE WALL

### ABBREVIATIONS

- CB CHALKBOARD
- MB MARKERBOARD
- VDB VISUAL DISPLAY MONITOR
- MVDM MOBILE VISUAL DISPLAY MONITOR
- TB TACK BOARD
- MT MARBLE THRESHOLD
- FEC FIRE EXTINGUISHER CABINET
- C.J. CONTROL JOINT
- E.J. EXPANSION JOINT
- TD TRAVEL DISTANCE
- SEE SHEET T-1 FOR ADDITIONAL ABBREVIATIONS

**101.1 FLOOR PLAN**  
SCALE: 1/8" = 1'-0"

29,070 SF



Revision

No.	Date

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REGISTERED PROFESSIONAL ARCHITECT  
NUMBER 418  
STATE OF NORTH CAROLINA

REGISTERED PROFESSIONAL ARCHITECT  
NUMBER 37258  
STATE OF NORTH CAROLINA

NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 312  
Windsor / Bertie County / North Carolina

Project No. 22351

Date: December 18, 2024

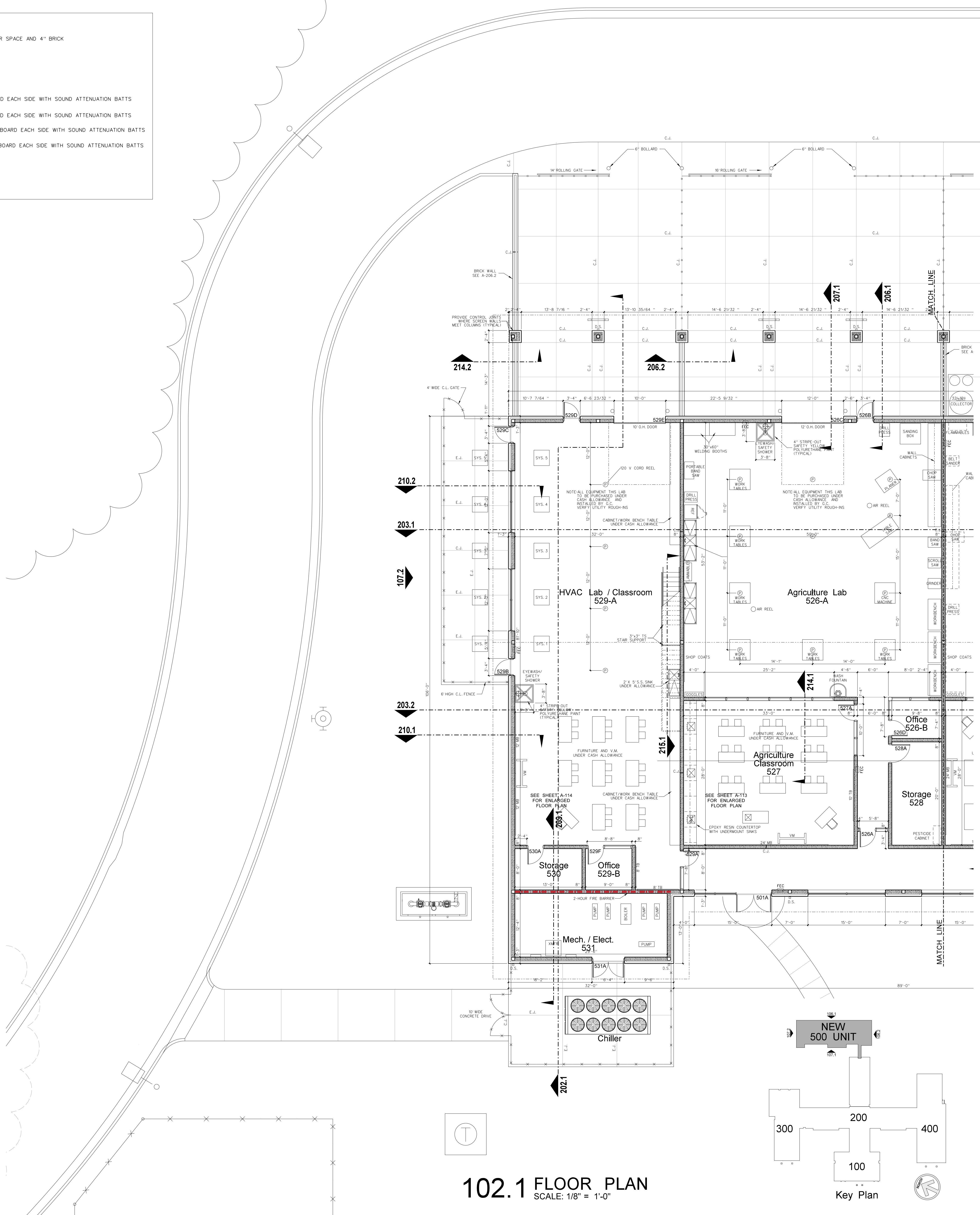
Drawing no.

**A 101**

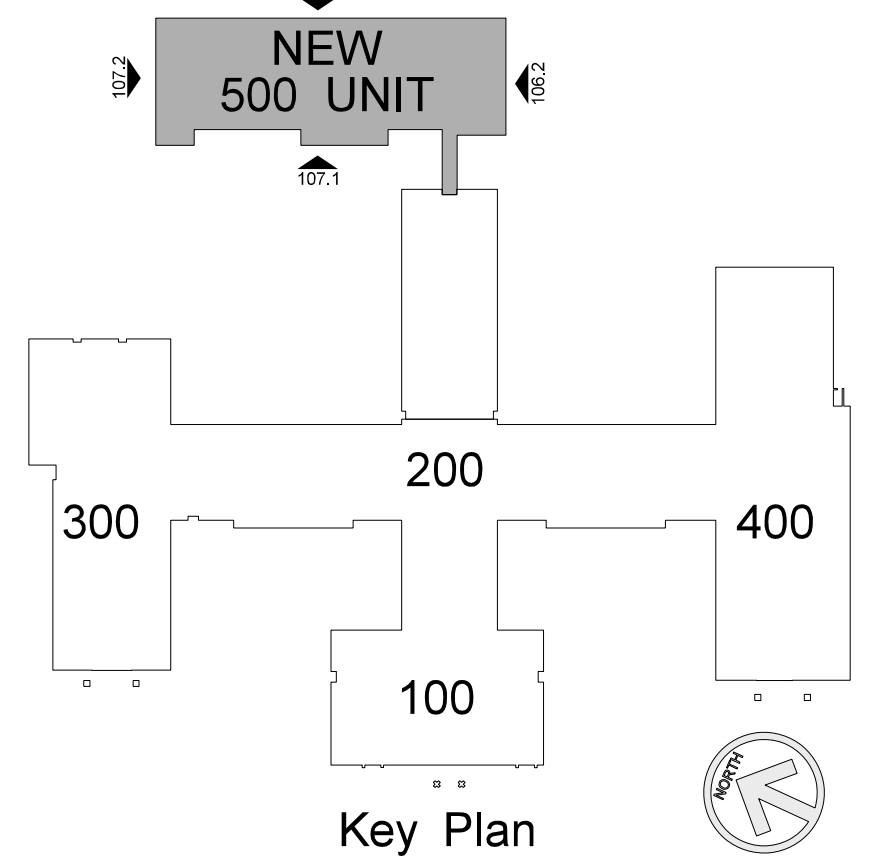


WALL LEGEND	
	8" CMU WALL WITH 2" INSULATION, AIR SPACE AND 4" BRICK
	8" CMU WALL WITH 4" BRICK
	8" CMU WALL
	6" CMU WALL
	8" METAL STUD WALL WITH GYPBOARD EACH SIDE WITH SOUND ATTENUATION BATTS
	6" METAL STUD WALL WITH GYPBOARD EACH SIDE WITH SOUND ATTENUATION BATTS
	3 5/8" METAL STUD WALL WITH GYPBOARD EACH SIDE WITH SOUND ATTENUATION BATTS
	2 1/2" METAL STUD WALL WITH GYPBOARD EACH SIDE WITH SOUND ATTENUATION BATTS (FOR RACO 375)
	SMOKE-RATED CONSTRUCTION
	ONE HOUR RATED FIRE BARRIER
	TWO HOUR RATED FIRE WALL

ABBREVIATIONS	
CB	CHALKBOARD
MB	MARKERBOARD
VDB	VISUAL DISPLAY MONITOR
MVDM	MOBILE VISUAL DISPLAY MONITOR
TB	TACK BOARD
MT	MARBLE THRESHOLD
FEC	FIRE EXTINGUISHER CABINET
C.J.	CONTROL JOINT
E.J.	EXPANSION JOINT
TD	TRAVEL DISTANCE
SEE SHEET T-1 FOR ADDITIONAL ABBREVIATIONS	

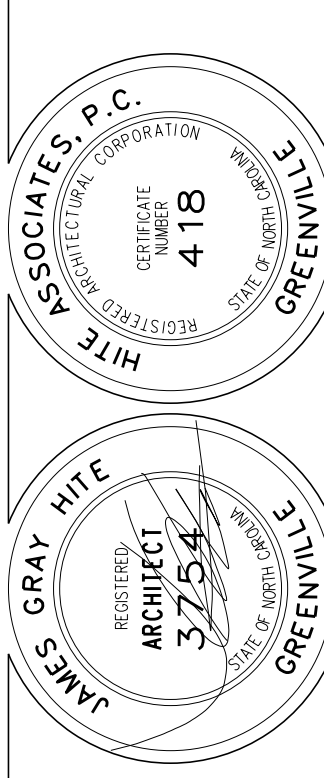


**102.1 FLOOR PLAN**  
SCALE: 1/8" = 1'-0"



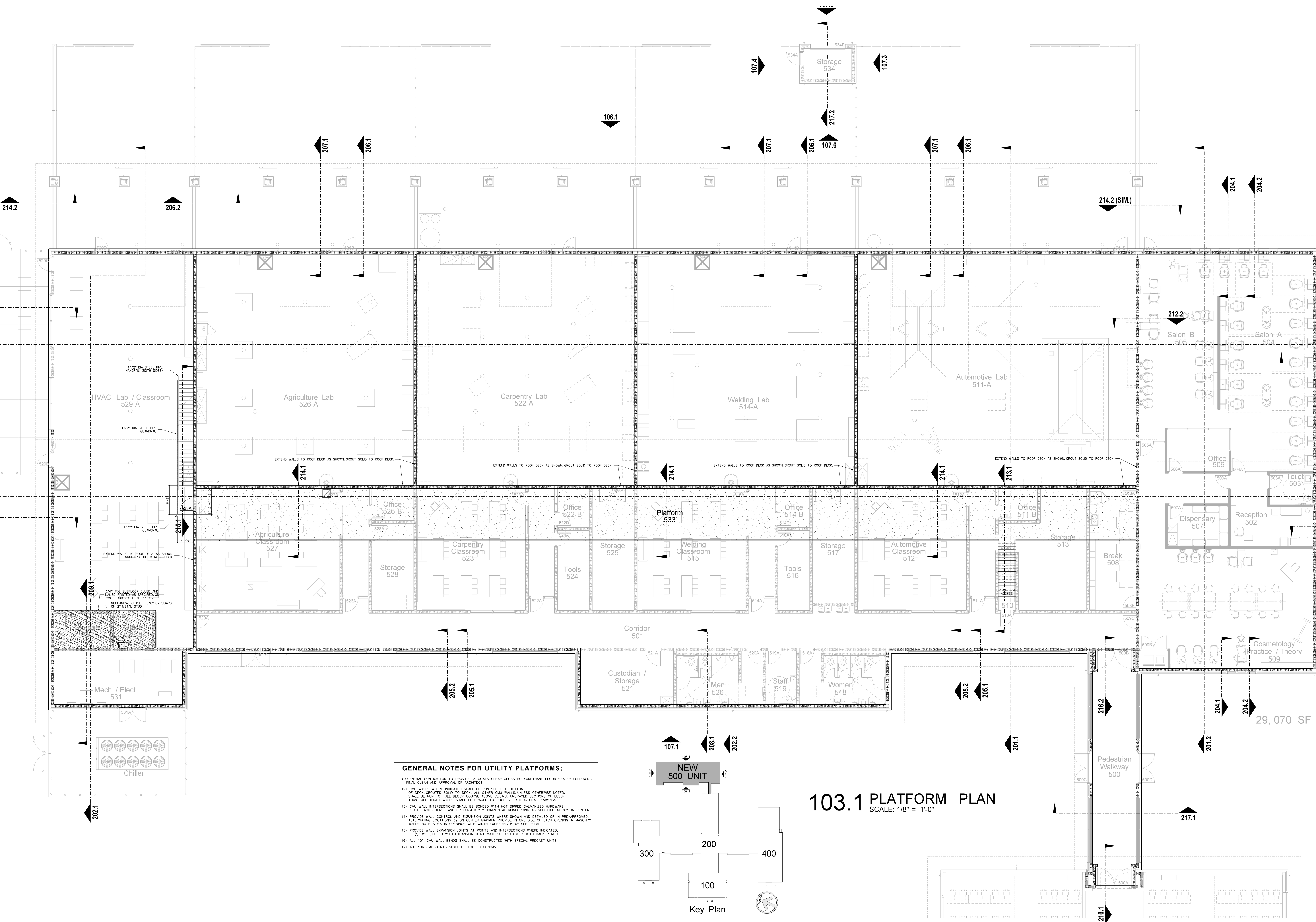
No.	Date	Revision

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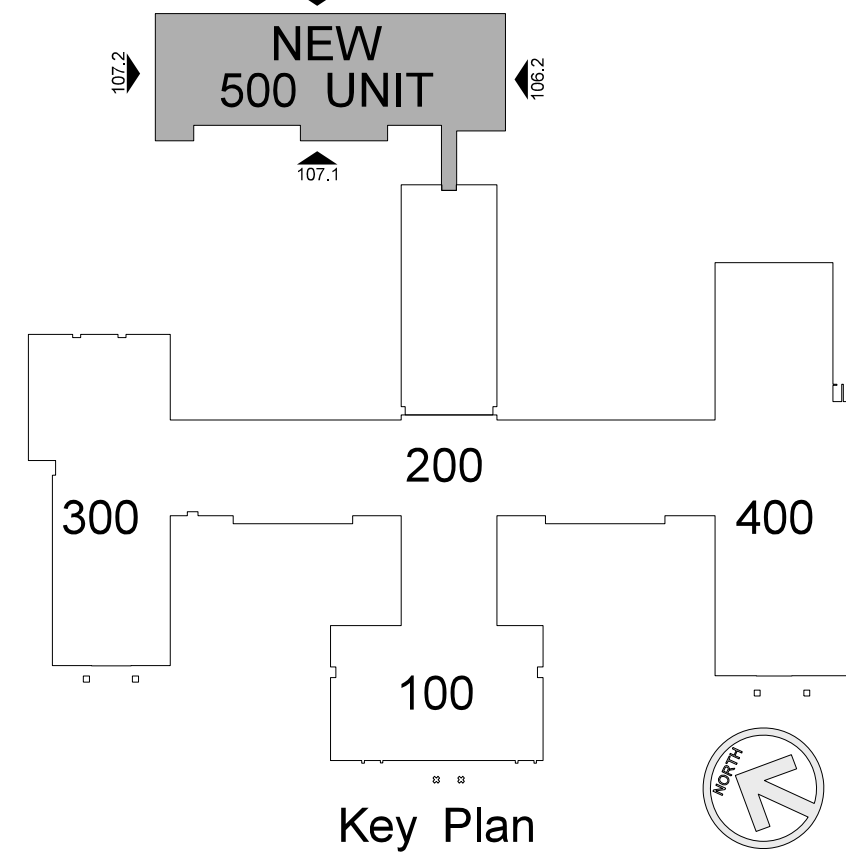
NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 312  
Windsor / Bertie County / North Carolina

Project No.	22351
Date:	December 18, 2024
Drawing no.	<b>A</b> <b>102</b>



**GENERAL NOTES FOR UTILITY PLATFORMS:**

- (1) GENERAL CONTRACTOR TO PROVIDE (2) COATS CLEAR GLOSS POLYURETHANE FLOOR SEALER FOLLOWING FINAL CLEAN AND APPROVAL OF ARCHITECT.
- (2) CMU WALLS WHERE INDICATED SHALL BE RUN SOLID TO BOTTOM OF DECK GROUTED SOLID TO DECK. ALL OTHER CMU WALLS, UNLESS OTHERWISE NOTED, SHALL BE RUN TO FULL BLOCK COURSE ABOVE CEILING. UNBRACED SECTIONS OF LESS THAN FULL-HEIGHT WALLS SHALL BE BRACED TO ROOF. SEE STRUCTURAL DRAWINGS.
- (3) CMU WALL INTERSECTIONS SHALL BE BONDED WITH HOT DIPPED GALVANIZED HARDWARE. ALTERNATING LOCATIONS 2'-0" ON CENTER MAXIMUM PROVIDED IN ONE SIDE OF EACH OPENING IN MASONRY WALLS BOTH SIDES IN OPENINGS WITH WIDTH EXCEEDING 3'-0". SEE DETAIL.
- (4) PROVIDE WALL CONTROL AND EXPANSION JOINTS WHERE SHOWN AND DETAILED OR IN PRE-APPROVED, ALTERNATING LOCATIONS 2'-0" ON CENTER MAXIMUM PROVIDED IN ONE SIDE OF EACH OPENING IN MASONRY WALLS BOTH SIDES IN OPENINGS WITH WIDTH EXCEEDING 3'-0". SEE DETAIL.
- (5) PROVIDE WALL EXPANSION JOINTS AT POINTS AND INTERSECTIONS WHERE INDICATED. 2" WIDE, FILLED WITH EXPANSION JOINT MATERIAL AND CALK, WITH BACKER ROD.
- (6) ALL 45° CMU WALL BENDS SHALL BE CONSTRUCTED WITH SPECIAL PRECAST UNITS.
- (7) INTERIOR CMU JOINTS SHALL BE TOOLED CONCAVE.

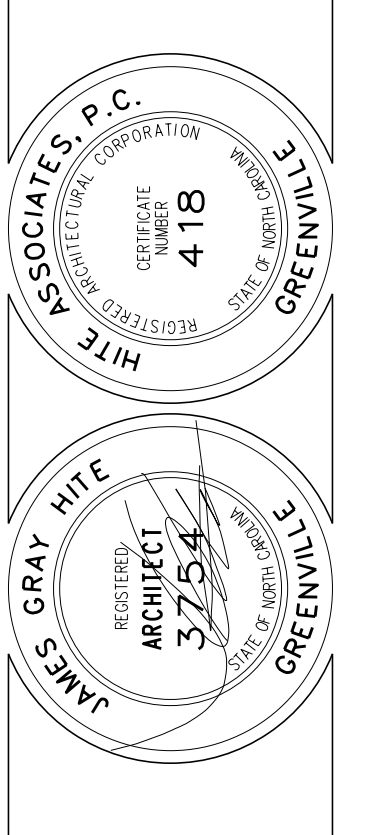


**103.1 PLATFORM PLAN**  
SCALE: 1/8" = 1'-0"

29,070 SF

No.	Date	Revision








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**NEW CTE BUILDING FOR Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 312  
Windsor / Bertie County / North Carolina

Project No. 22351  
Date: December 18, 2024  
Drawing no. **A 103**

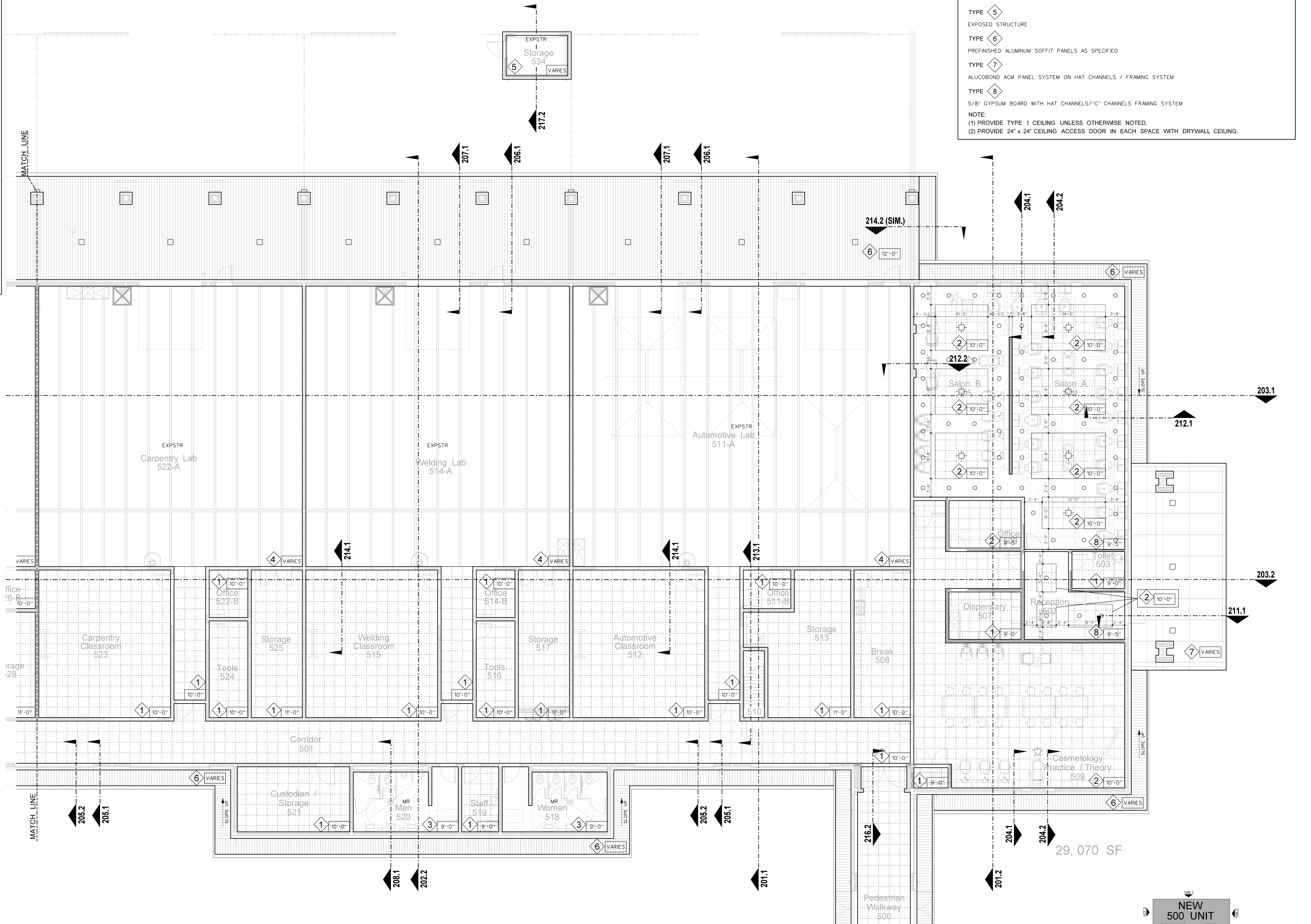
### LEGEND - REFLECTED CEILING PLAN

-  CEILING TYPE - SEE CEILING FINISH SCHEDULE
-  CEILING HEIGHT ABOVE FINISH FLOOR
-  SLOPED CEILING
-  CEILING HEIGHT ABOVE FINISH FLOOR - LOW SIDE
-  CEILING HEIGHT ABOVE FINISH FLOOR - HIGH SIDE
-  2 x 2 ACOUSTICAL TILE AND GRID
-  GYPBOARD CEILING
-  MOISTURE RESISTANT GYPBOARD CEILING
-  EXPOSED STRUCTURE
-  METAL SOFFIT
-  EFS SOFFIT
-  DROP-IN TRAY FOR VIDEO MONITOR CEILING BRACKET
-  DROP-IN TRAY FOR LCD PROJECTOR CEILING BRACKET
-  FLUORESCENT LIGHT FIXTURE
-  RECESSED LIGHT FIXTURE
-  SURFACE MOUNTED LIGHT FIXTURE
-  WALL MOUNTED LIGHT FIXTURE
-  CEILING MOUNTED TRACK LIGHTING
-  SPEAKER
-  SUPPLY AIR GRILLE
-  RETURN AIR GRILLE
-  EXHAUST FAN
-  SMOKE SENSOR
-  SECURITY CAMERA

#### CEILING FINISH SCHEDULE

TYPE 1	24"x24" x 5/8" ARMSTRONG FINE FISSURED HUMGUARD PLUS RH90 NO. 1728 / PRELUDE XL GRID.
TYPE 2	24"x24" x 5/8" ARMSTRONG FINE FISSURED TEGULAR EDGE HUMGUARD PLUS RH90 NO. 1732 / PRELUDE XL GRID.
TYPE 3	5/8" MOISTURE RESISTANT GYPSUM BOARD WITH HAT CHANNELS/"C" CHANNELS FRAMING SYSTEM
TYPE 4	WHITE COLOR SPRAY APPLIED THERMAL AND ACOUSTICAL TREATMENT AS SPECIFIED. SPRAY ROOF DECK ONLY. MASK BAR JOISTS, JOIST GIRDER EXPOSED STRUCTURAL MEMBERS, CONDUITS ETC. AND PAINT WHITE
TYPE 5	EXPOSED STRUCTURE
TYPE 6	REFINISHED ALUMINUM SOFFIT PANELS AS SPECIFIED
TYPE 7	ALUCOBOND ACM PANEL SYSTEM ON HAT CHANNELS / FRAMING SYSTEM
TYPE 8	5/8" GYPSUM BOARD WITH HAT CHANNELS/"C" CHANNELS FRAMING SYSTEM

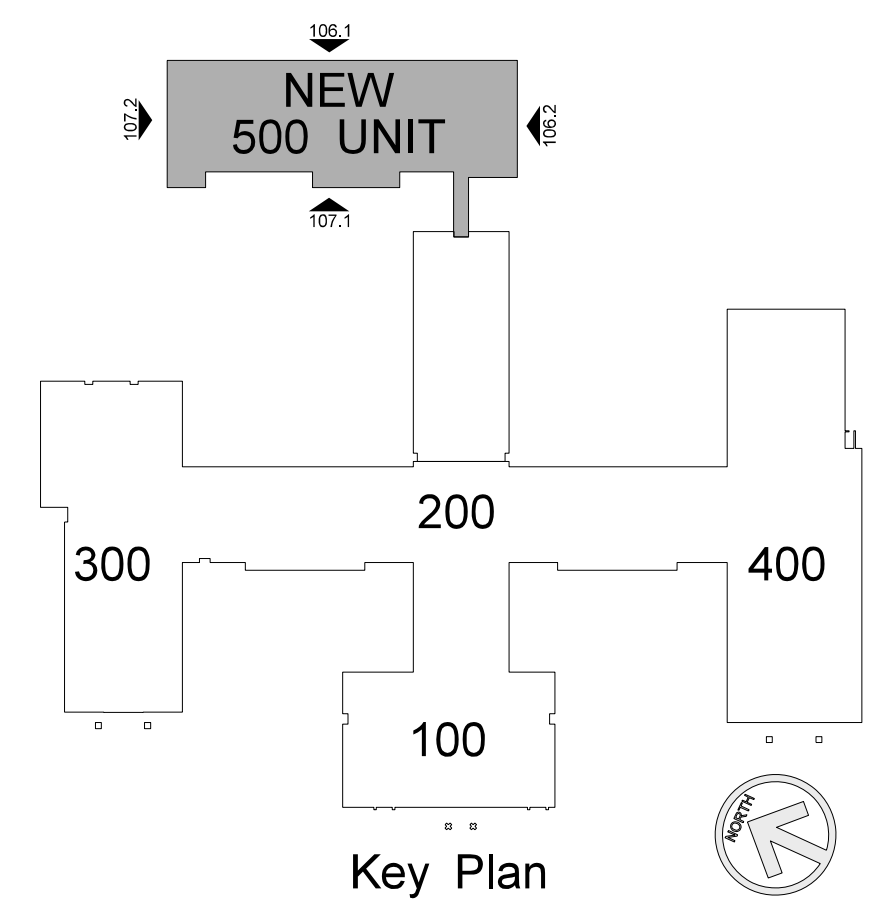
NOTE:  
 (1) PROVIDE TYPE 1 CEILING UNLESS OTHERWISE NOTED.  
 (2) PROVIDE 24" x 24" CEILING ACCESS DOOR IN EACH SPACE WITH DRYWALL CEILING.



## 104.1 REFLECTED CEILING PLAN

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

29,070 SF



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 2600 Meridian Drive / Greenville, NC 27834 / tel/(252) 757-0333

REGISTERED PROFESSIONAL ARCHITECT  
 NUMBER 418  
 STATE OF NORTH CAROLINA  
 JAMES GRAY HITE  
 ARCHITECT  
 NUMBER 37558  
 STATE OF NORTH CAROLINA

NEW CTE BUILDING FOR  
**Bertie High School**  
 716 US 13 North / NCDPS Unit 080 - School 312  
 Windsor / Bertie County / North Carolina

Project No. 22351  
 Date: December 18, 2024  
 Drawing no. **A 104**

**LEGEND - REFLECTED CEILING PLAN**

	CEILING TYPE - SEE CEILING FINISH SCHEDULE
	CEILING HEIGHT ABOVE FINISH FLOOR
	SLOPED CEILING
	CEILING HEIGHT ABOVE FINISH FLOOR - LOW SIDE
	CEILING HEIGHT ABOVE FINISH FLOOR - HIGH SIDE
	2 x 2 ACOUSTICAL TILE AND GRID
	GYPBOARD CEILING
	MOISTURE RESISTANT GYPBOARD CEILING
	EXPOSED STRUCTURE
	METAL SOFFIT
	EIFS SOFFIT
	DROP-IN TRAY FOR VIDEO MONITOR CEILING BRACKET
	DROP-IN TRAY FOR LCD PROJECTOR CEILING BRACKET
	FLUORESCENT LIGHT FIXTURE
	RECESSED LIGHT FIXTURE
	SURFACE MOUNTED LIGHT FIXTURE
	WALL MOUNTED LIGHT FIXTURE
	CEILING MOUNTED TRACK LIGHTING
	SPEAKER
	SUPPLY AIR GRILLE
	RETURN AIR GRILLE
	EXHAUST FAN
	SMOKE SENSOR
	SECURITY CAMERA

**CEILING FINISH SCHEDULE**

**TYPE 1**  
24"x24"x 5/8" ARMSTRONG FINE FISSURED HUMIGUARD PLUS RH90 NO.1728 / PRELUDE XL GRID.

**TYPE 2**  
24"x24"x 5/8" ARMSTRONG FINE FISSURED TEGULAR EDGE HUMIGUARD PLUS RH90 NO.1732 / PRELUDE XL GRID.

**TYPE 3**  
5/8" MOISTURE RESISTANT GYPSUM BOARD WITH HAT CHANNELS/"C" CHANNELS FRAMING SYSTEM

**TYPE 4**  
WHITE COLOR SPRAY APPLIED THERMAL AND ACOUSTICAL TREATMENT AS SPECIFIED.  
SPRAY ROOF DECK ONLY. MASK BAR JOISTS, JOIST GIRDER EXPOSED STRUCTURAL MEMBERS, CONDUITS ETC. AND PAINT WHITE.

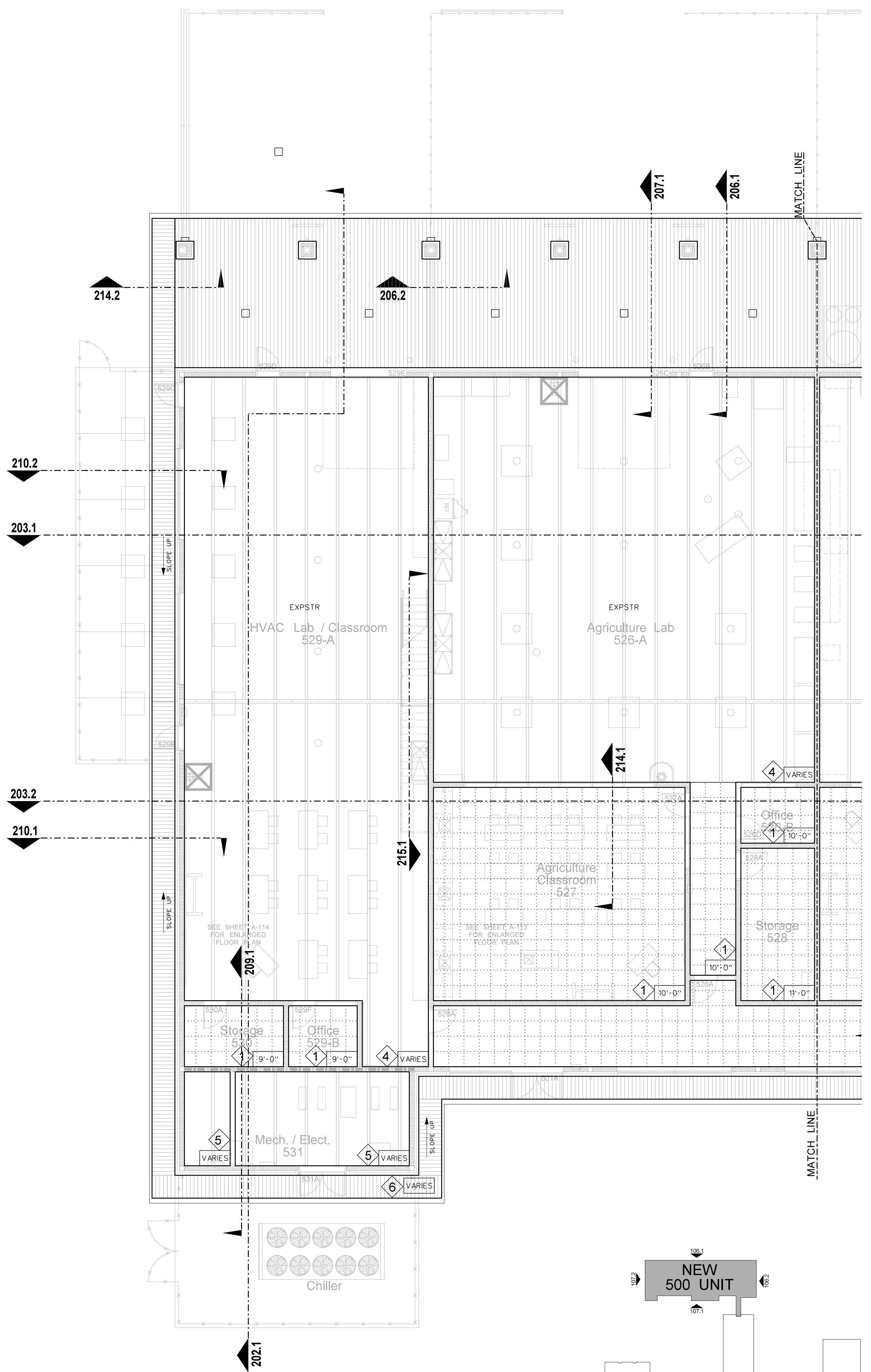
**TYPE 5**  
EXPOSED STRUCTURE

**TYPE 6**  
PREFINISHED ALUMINUM SOFFIT PANELS AS SPECIFIED

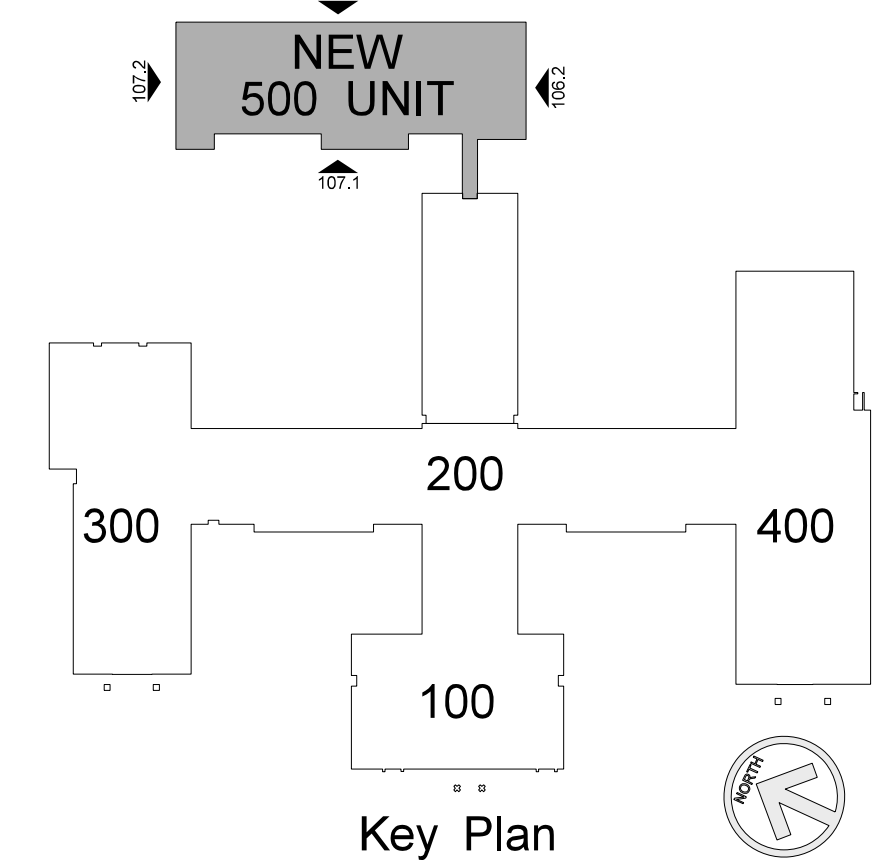
**TYPE 7**  
ALUCOBOND ACM PANEL SYSTEM ON HAT CHANNELS / FRAMING SYSTEM

**TYPE 8**  
5/8" GYPSUM BOARD WITH HAT CHANNELS/"C" CHANNELS FRAMING SYSTEM

NOTE:  
(1) PROVIDE TYPE 1 CEILING UNLESS OTHERWISE NOTED.  
(2) PROVIDE 24" x 24" CEILING ACCESS DOOR IN EACH SPACE WITH DRYWALL CEILING.

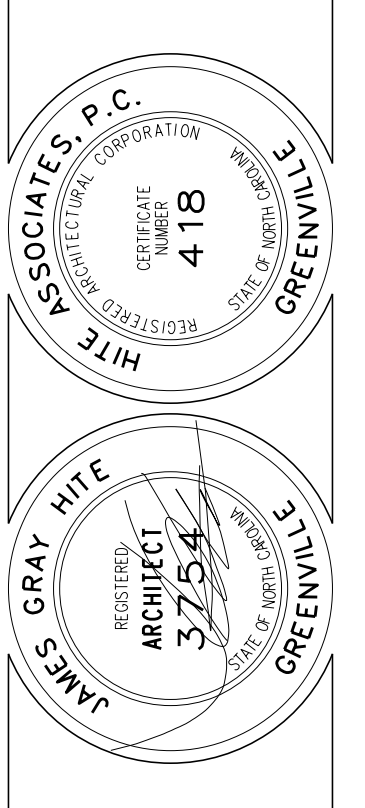


**105.1 REFLECTED CEILING PLAN**  
SCALE: 1/8" = 1'-0"



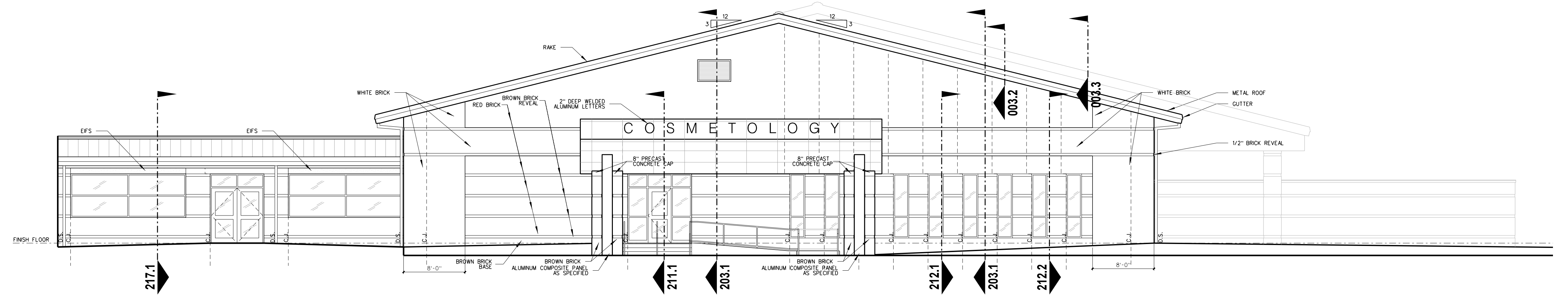
No.	Date	Revision

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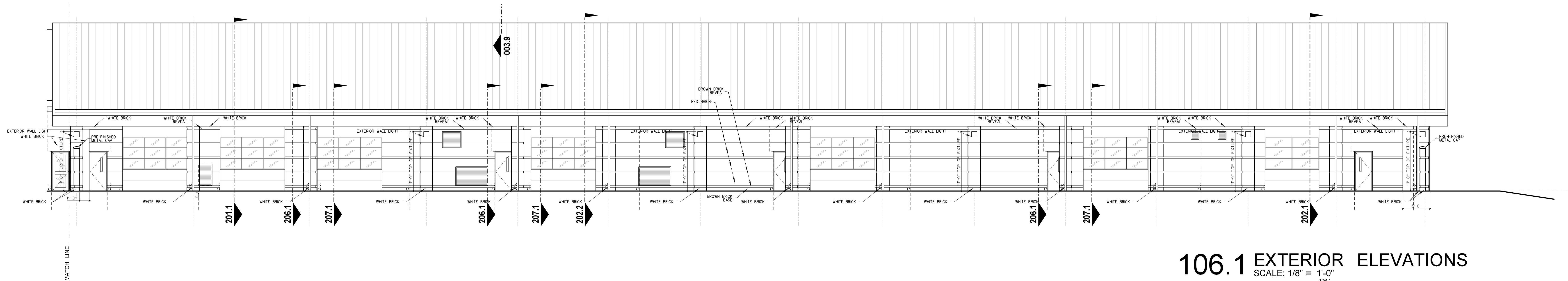
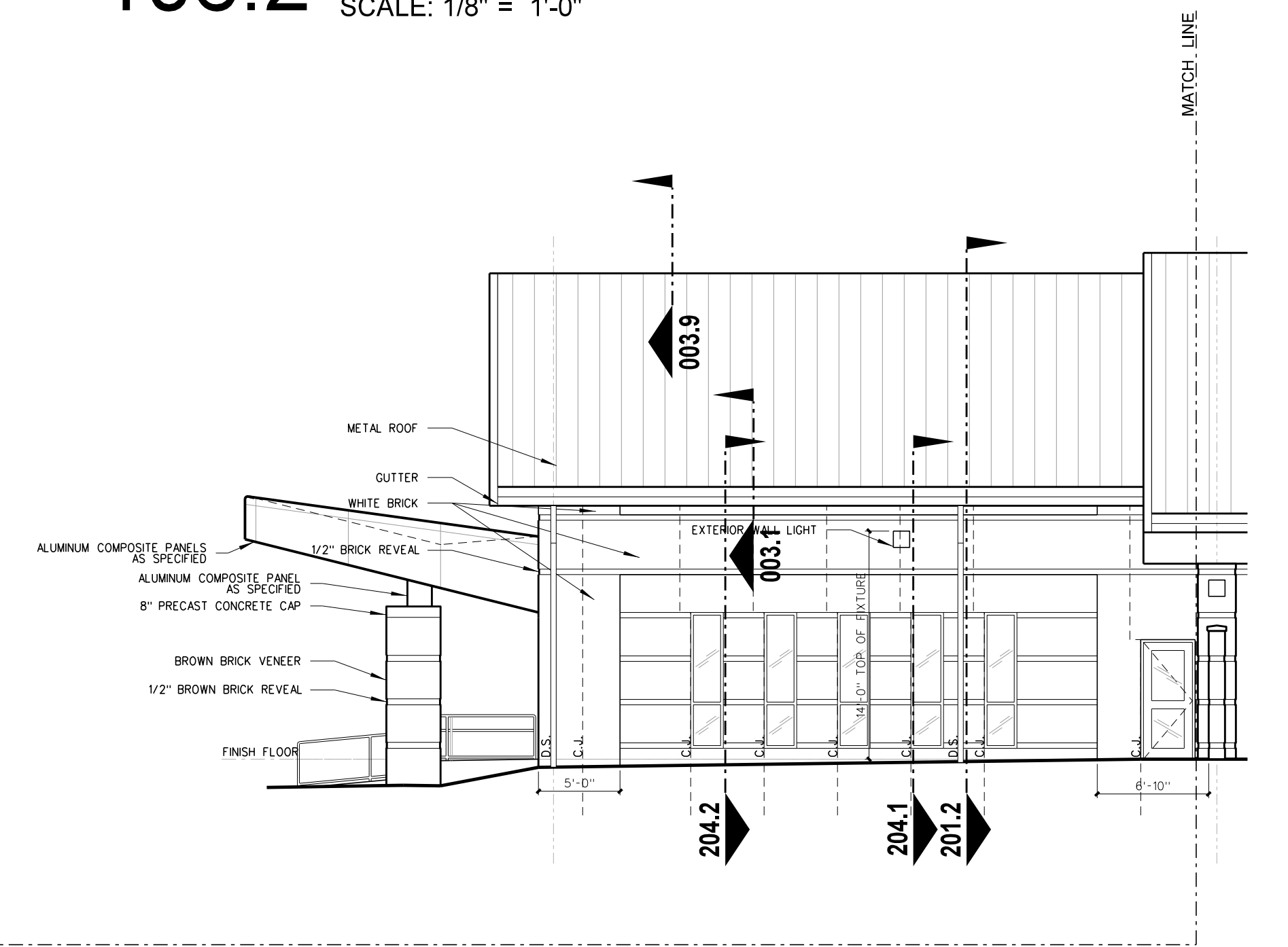


NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 312  
Windsor / Bertie County / North Carolina

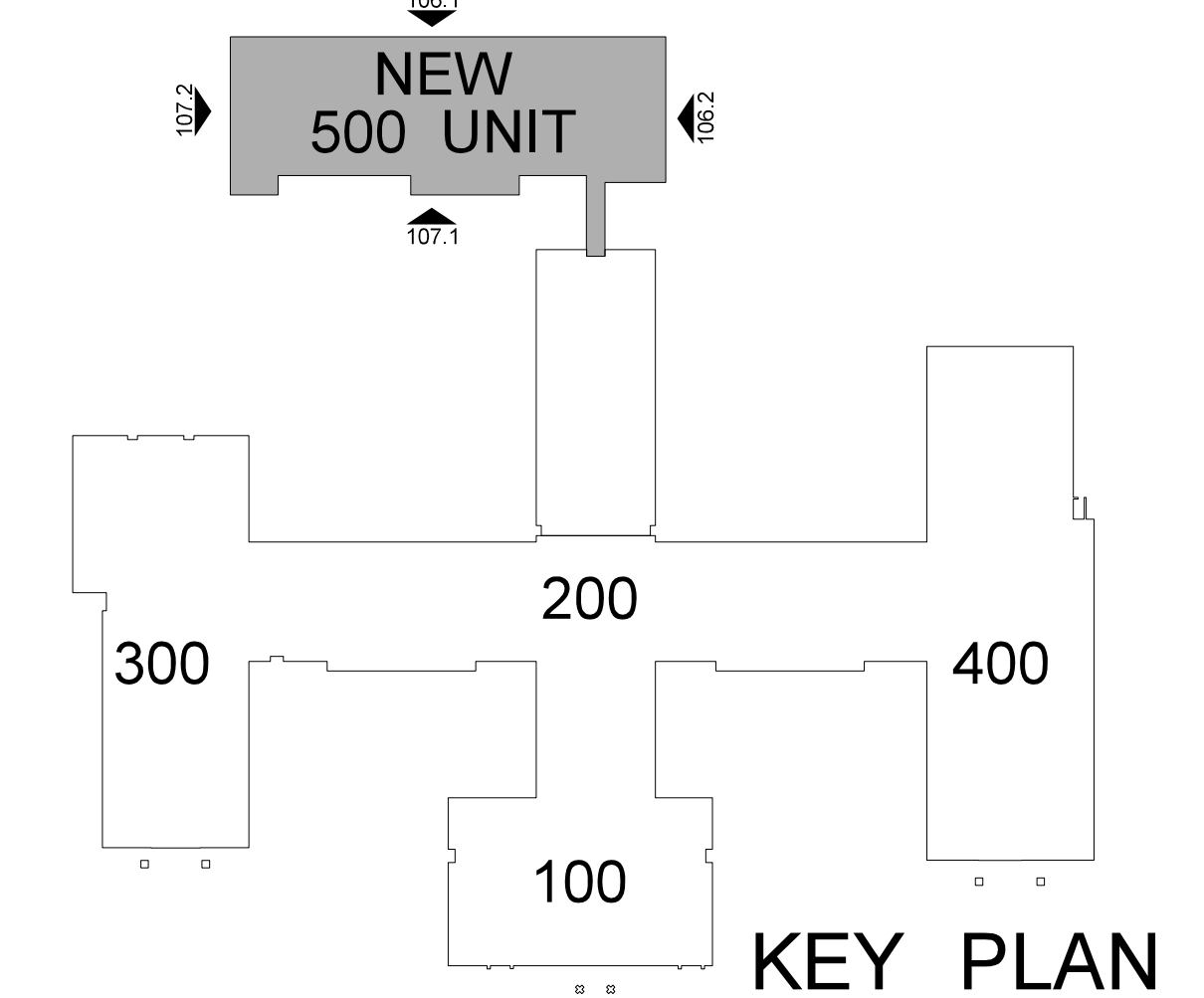
Project No.	22351
Date:	December 18, 2024
Drawing no.	<b>A</b> <b>105</b>



106.2 EXTERIOR ELEVATIONS  
SCALE: 1/8" = 1'-0"

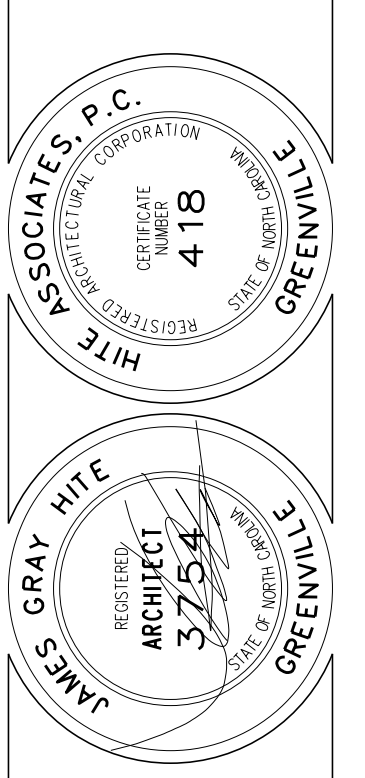


106.1 EXTERIOR ELEVATIONS  
SCALE: 1/8" = 1'-0"



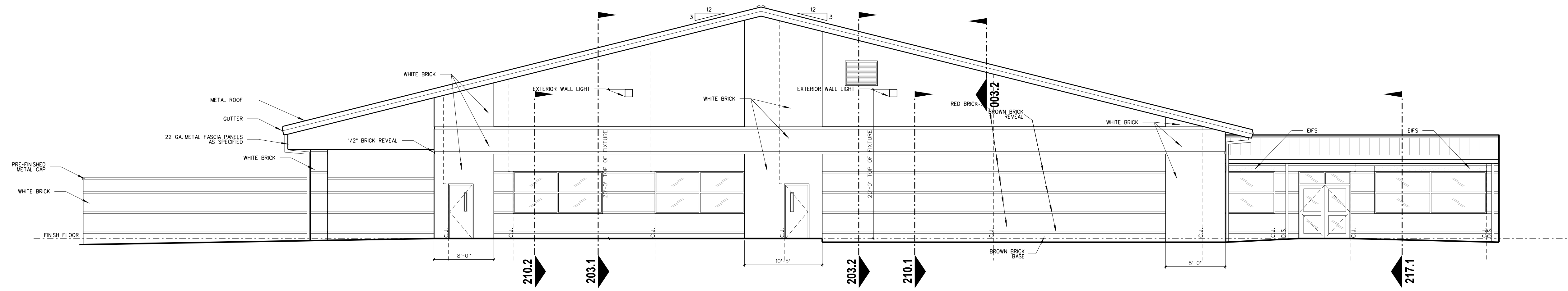
No.	Date	Revision

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NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 3112  
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Project No. 22351  
Date: December 18, 2024  
Drawing no. **A 106**



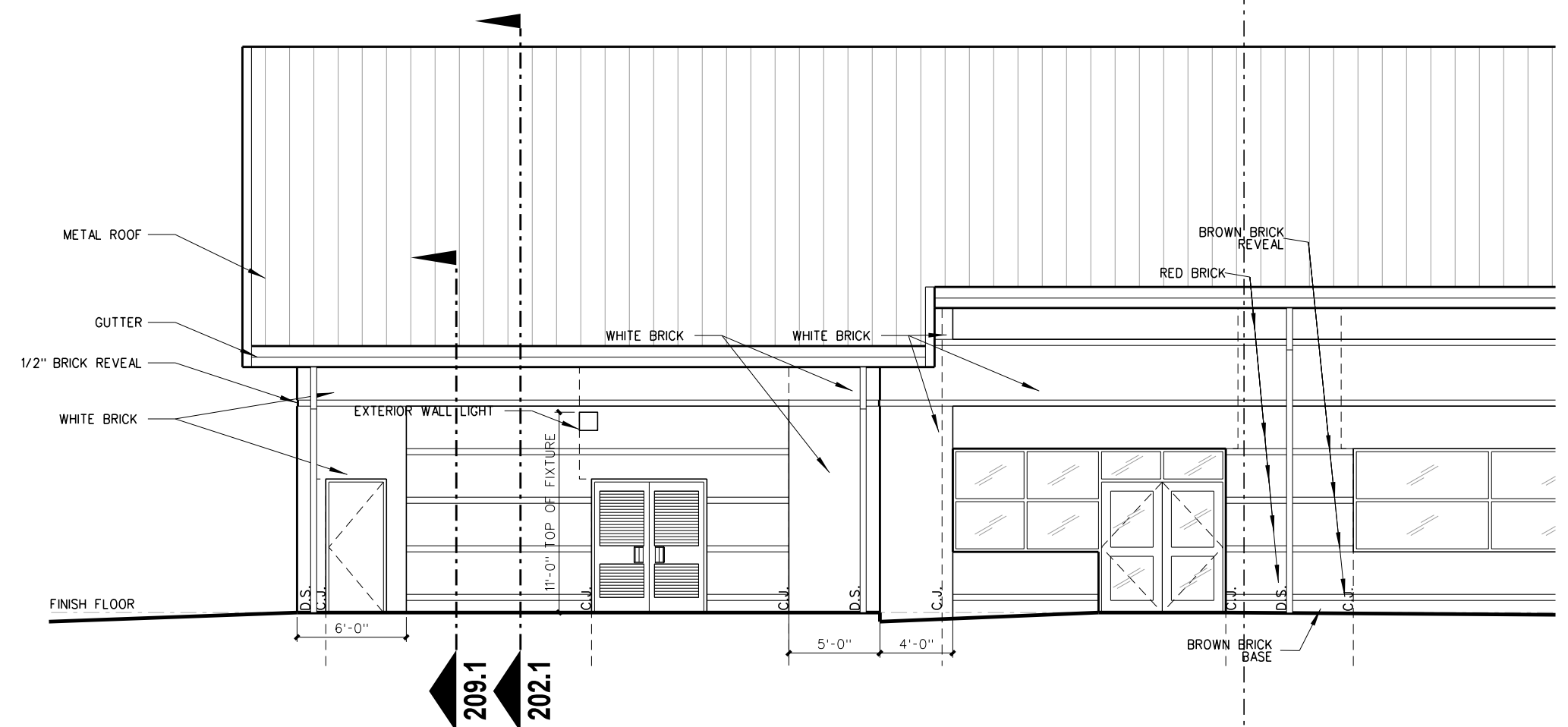
107.2 EXTERIOR ELEVATIONS  
SCALE: 1/8" = 1'-0"



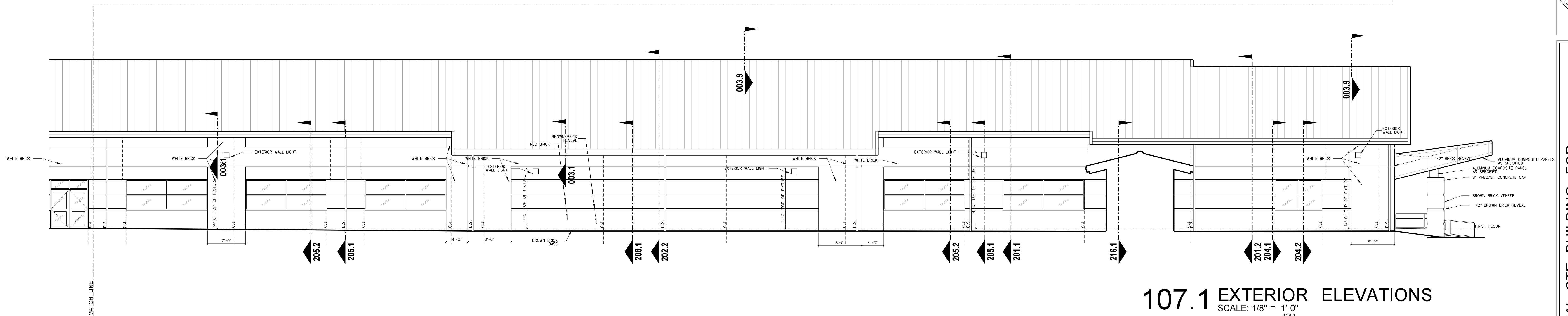
107.6 EXTERIOR ELEVATIONS SCALE: 1/8" = 1'-0"      107.5 EXTERIOR ELEVATIONS SCALE: 1/8" = 1'-0"



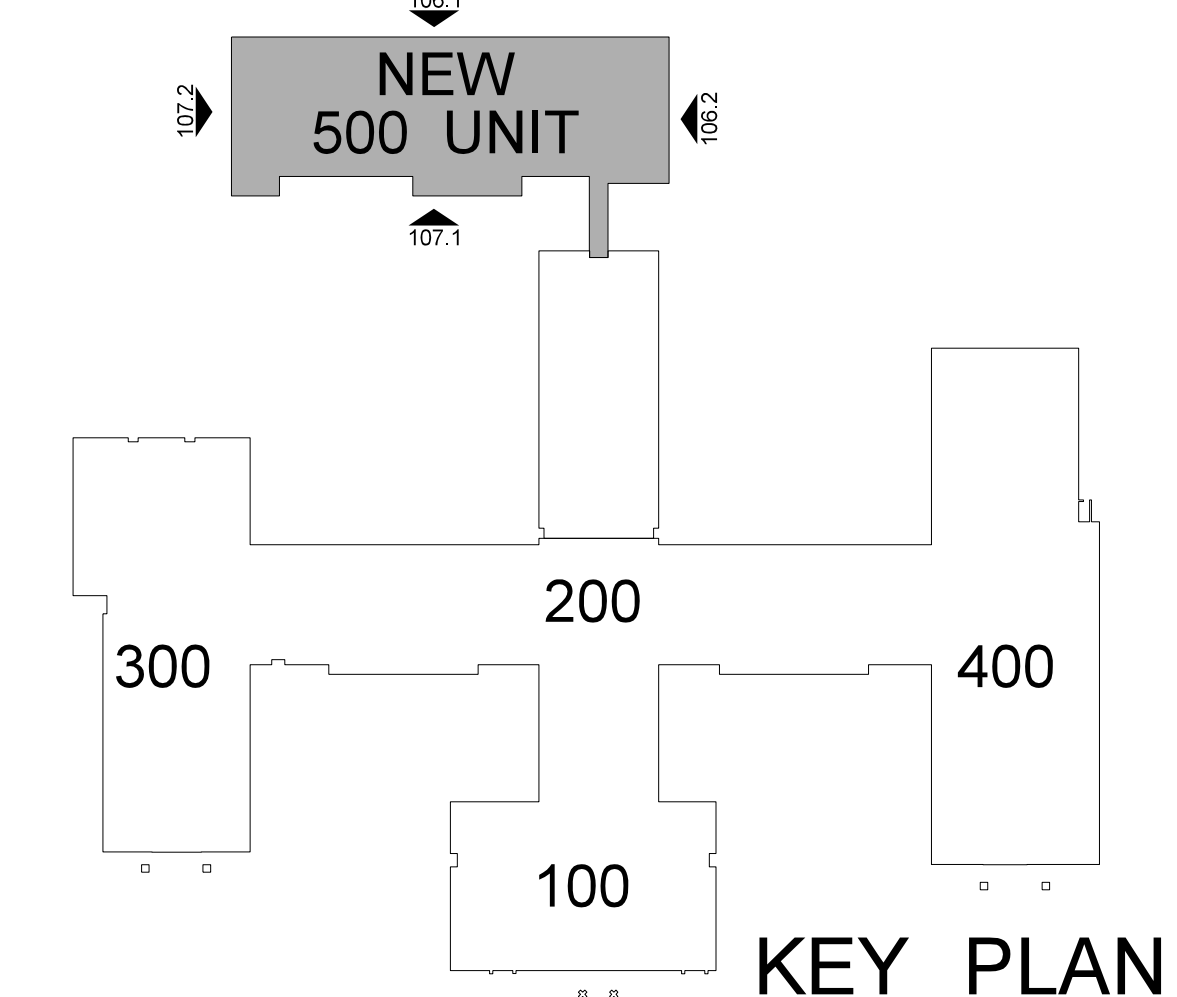
107.4 EXTERIOR ELEVATIONS SCALE: 1/8" = 1'-0"      107.3 EXTERIOR ELEVATIONS SCALE: 1/8" = 1'-0"



107.1 EXTERIOR ELEVATIONS  
SCALE: 1/8" = 1'-0"



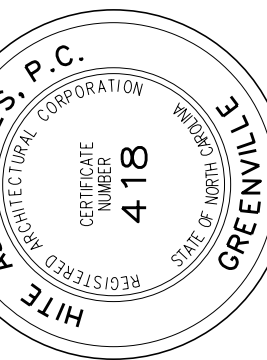
107.1 EXTERIOR ELEVATIONS  
SCALE: 1/8" = 1'-0"



KEY PLAN

No.	Date	Revision

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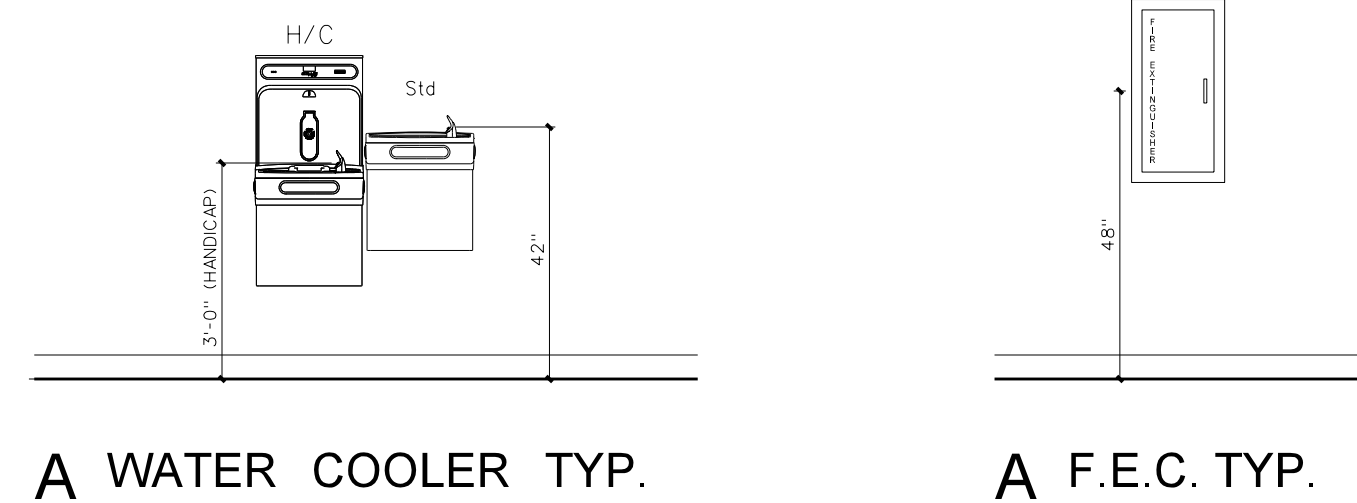
NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 312  
Windsor / Bertie County / North Carolina

Project No. 22351

Date: December 18, 2024

Drawing no.

**A**  
**107**



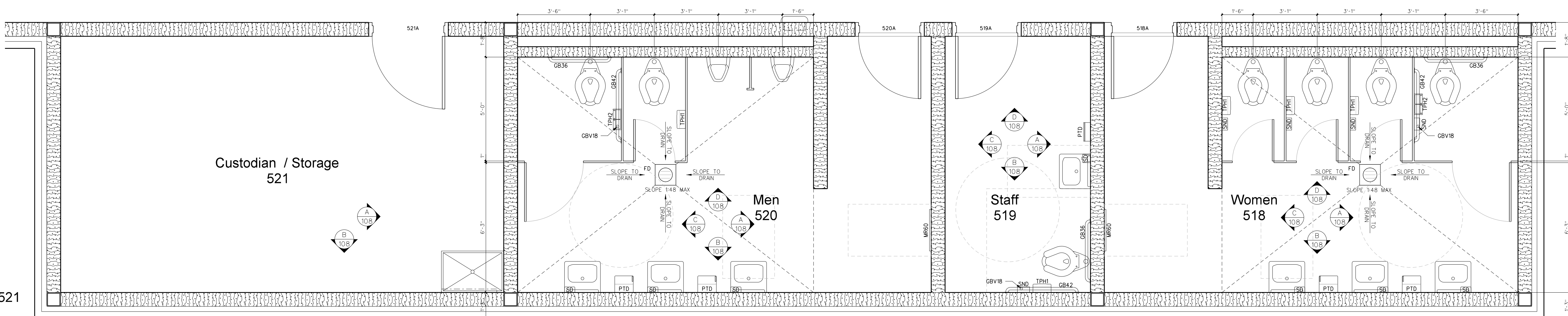
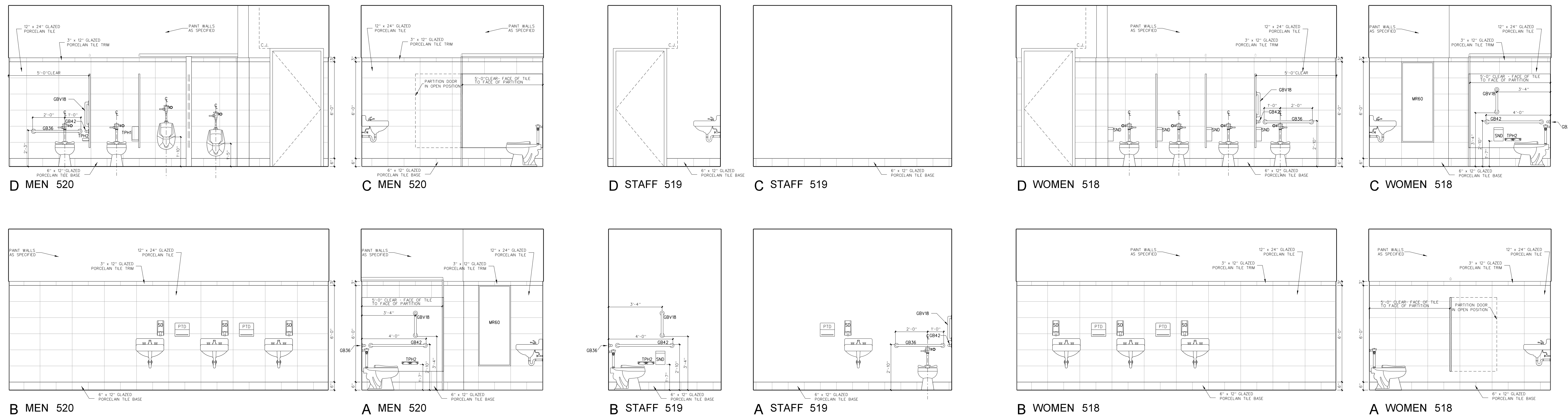
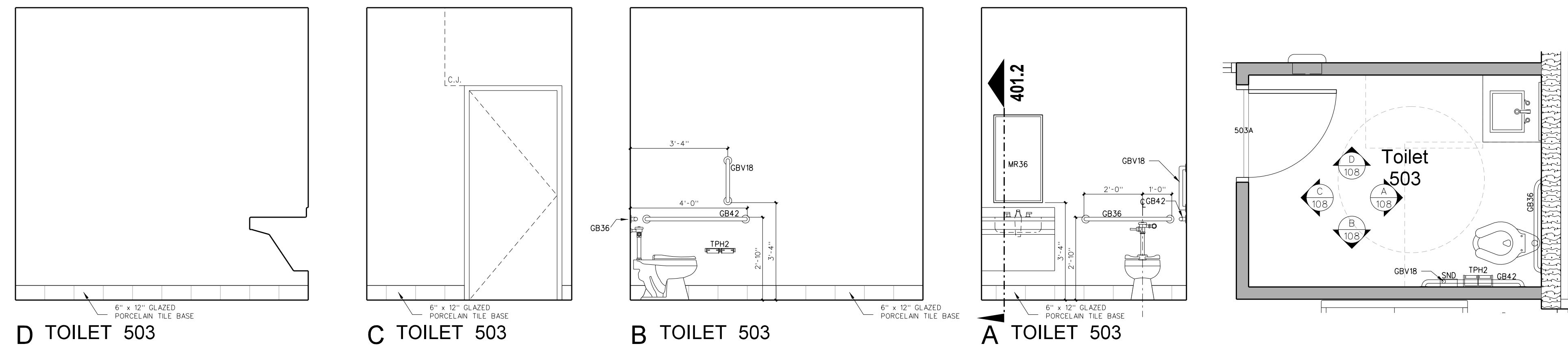
### TOILET ACCESSORY SCHEDULE

MARK	MODEL	DESCRIPTION	HEIGHT A.F.F.	NUMBER REQUIRED	REMARKS
SD	BY OWNER	SOAP DISPENSER	40"	AS PER PLAN	BY OWNER - G.C. TO PROVIDE BLOCKING AND INSTALL
PTD	BY OWNER	PAPER TOWEL DISPENSER	40"	AS PER PLAN	BY OWNER - G.C. TO PROVIDE BLOCKING AND INSTALL
TPH1	BY OWNER	TOILET PAPER HOLDER	19"	AS PER PLAN	BY OWNER - G.C. TO PROVIDE BLOCKING AND INSTALL
TPH2	BOBRICK B-2740	2-ROLL TOILET TISSUE DISPENSER	19" BOTTOM	AS PER PLAN	BLACK TRANSLUCENT
SND	BOBRICK B-254	SANITARY NAPKIN DISPOSAL	19" BOTTOM	AS PER PLAN	BY OWNER - GC TO INSTALL
MR36	BOBRICK 165-1836	LAMINATED GLASS MIRROR W/ S.S. CHANNEL MOLD	SEE ELEV.	AS PER PLAN	
MR60	BOBRICK 165-2460	LAMINATED GLASS MIRROR W/ S.S. CHANNEL MOLD	SEE ELEV.	AS PER PLAN	
GB18	BOBRICK 6806-18	18" GRAB BAR	34"	AS PER PLAN	
GBV18	BOBRICK 6806-18	18" VERTICAL GRAB BAR	40" BOTTOM	AS PER PLAN	
GB30	BOBRICK 6806-30	30" GRAB BAR	34"	AS PER PLAN	
GB36	BOBRICK 6806-36	36" GRAB BAR	34"	AS PER PLAN	
GB42	BOBRICK 6806-42	42" GRAB BAR	34"	AS PER PLAN	
MPR	BOBRICK 239x34	MOP RACK	72"	ONE EACH CUSTODIAN ROOM	PLACE OVER MOP SINK
SSWS		STAINLESS STEEL WALL SHIELD	AS PER PLAN	16 GA. TYPE 304 STAINLESS STEEL	

### FIXTURE MOUNTING HEIGHT

DESCRIPTION	HEIGHT A.F.F.	NUMBER REQUIRED	REMARKS
LAVATORY	34"	AS PER PLAN	MOUNTING HT. TO RIM
URNAL	22"/17"HC	AS PER PLAN	MOUNTING HT. TO RIM
WATER CLOSET		AS PER PLAN	SEE PLUMBING DRAWINGS
ELECTRIC WATER COOLER	42"/36"HC	AS PER PLAN	MOUNTING HT. TO SPOUT

NOTE: SEE CLASSROOM INTERIOR ELEVATIONS FOR CLASSROOM FIXTURE MOUNTING HEIGHTS

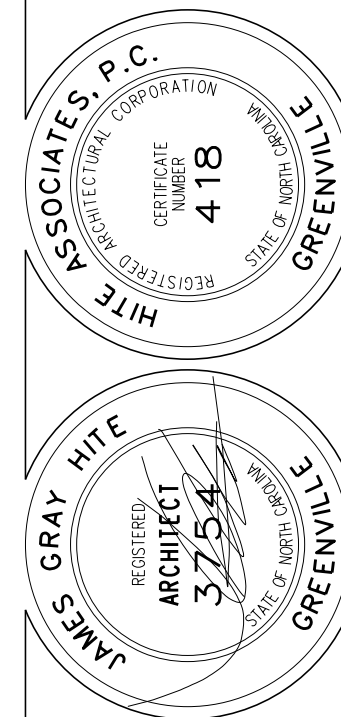


### 108.2 INTERIOR ELEVATIONS SCALE: 3/8" = 1'-0"

### 108.1 ENLARGED TOILET PLAN SCALE: 3/8" = 1'-0"

Revision	No.	Date

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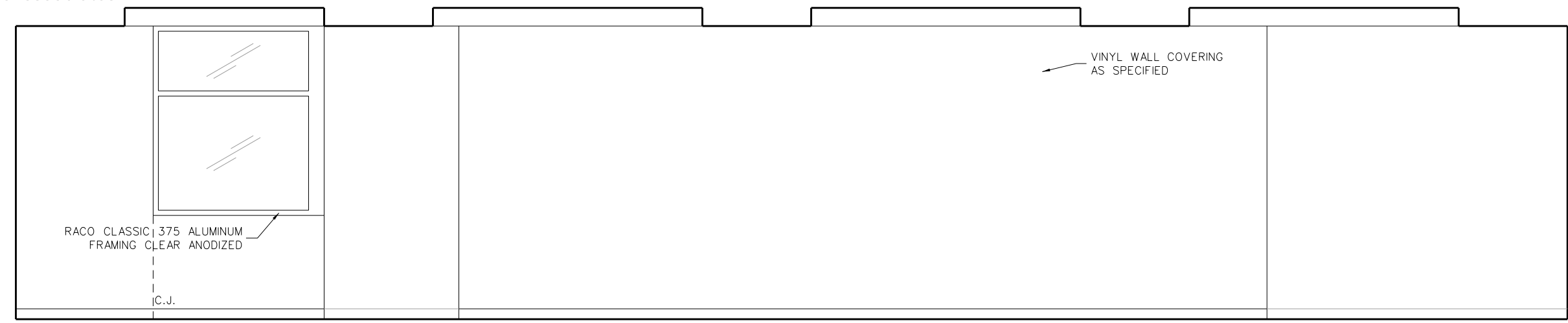
NEW CTE BUILDING FOR  
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 716 US 13 North / NCDPS Unit 080 - School 312  
 Windsor / Bertie County / North Carolina

Project No. 22351

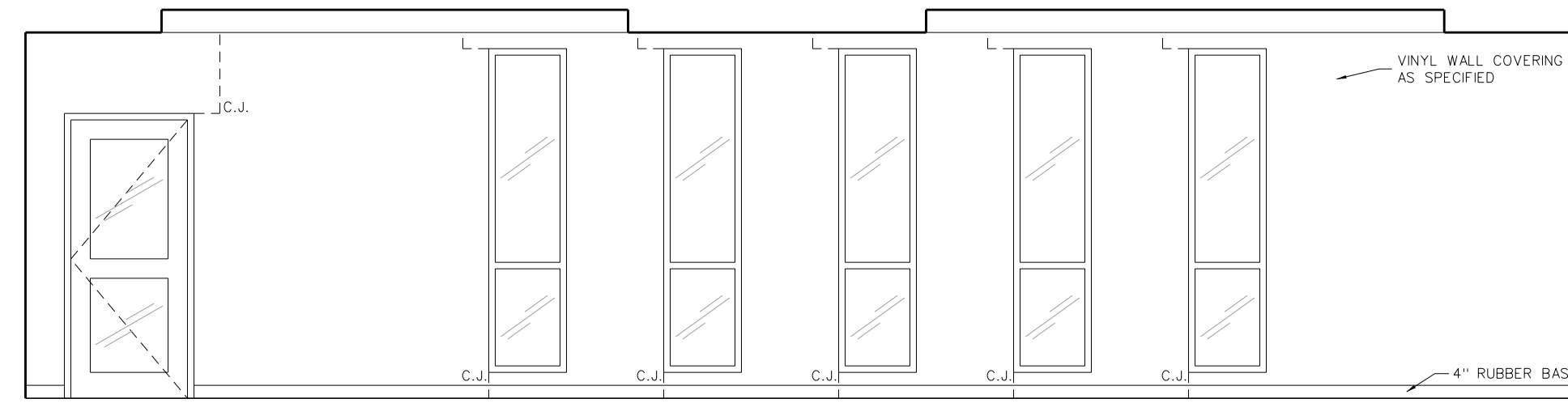
Date: December 18, 2024

Drawing no.

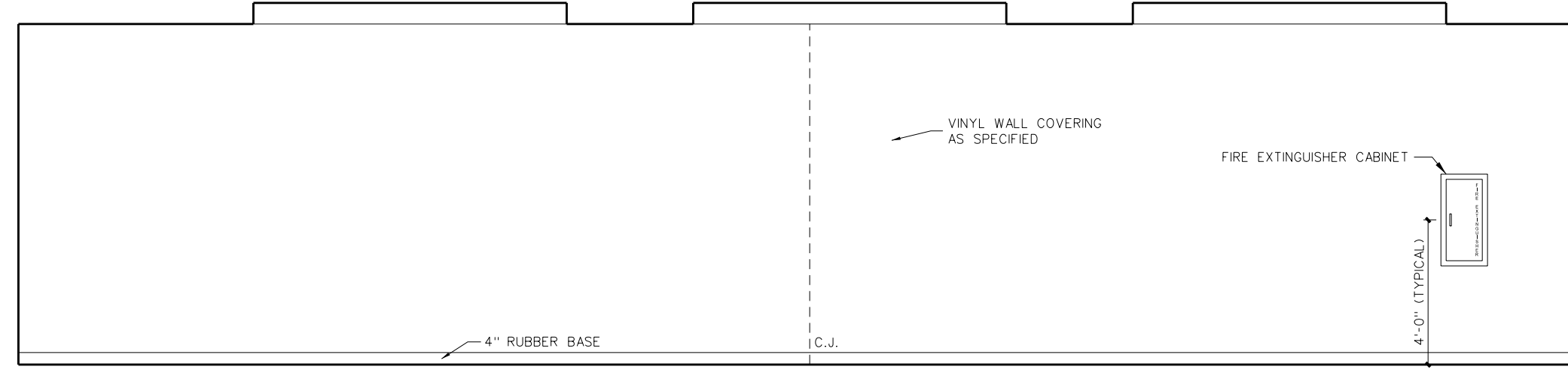
**A**  
**108**



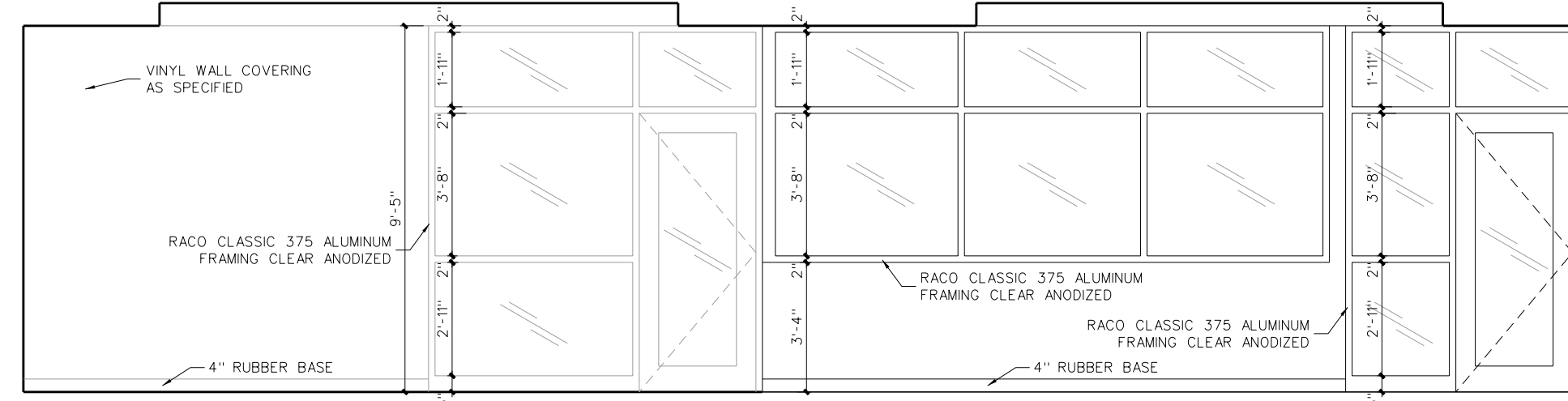
C SALON A 504



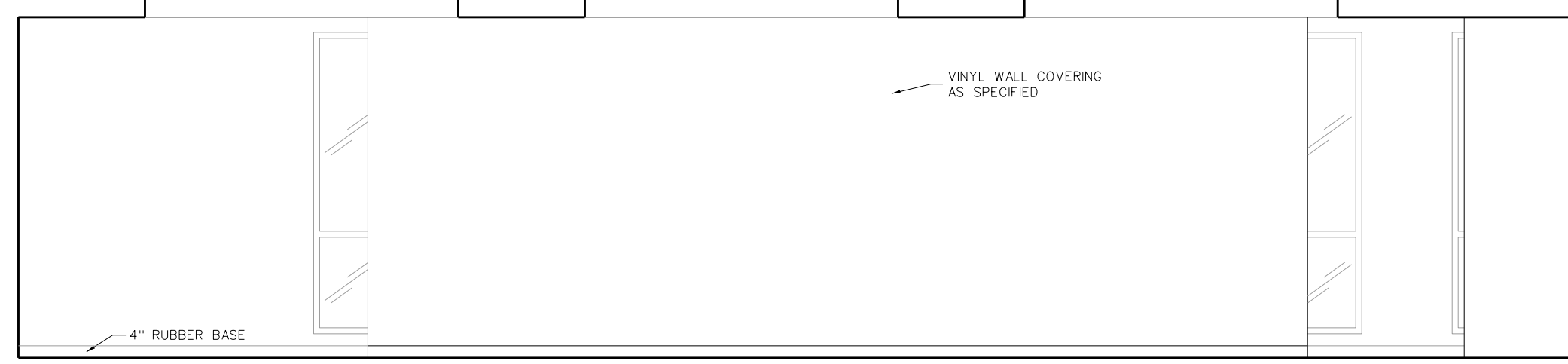
D SALONS A 504 & B 505



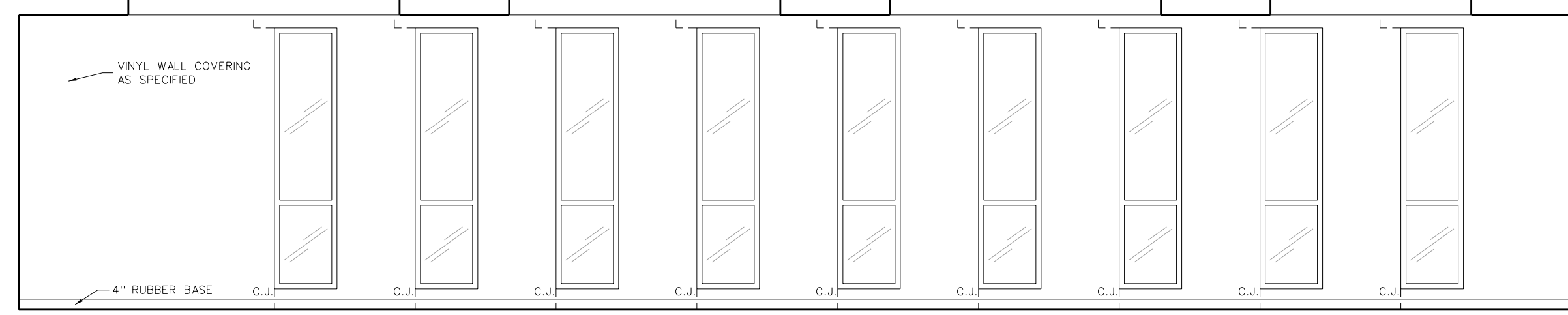
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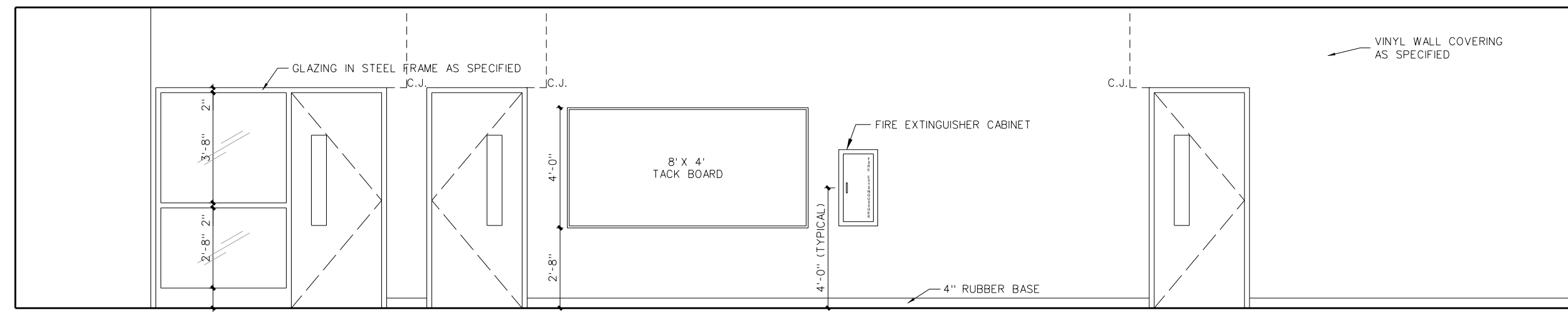
B SALONS A 504 & B 505



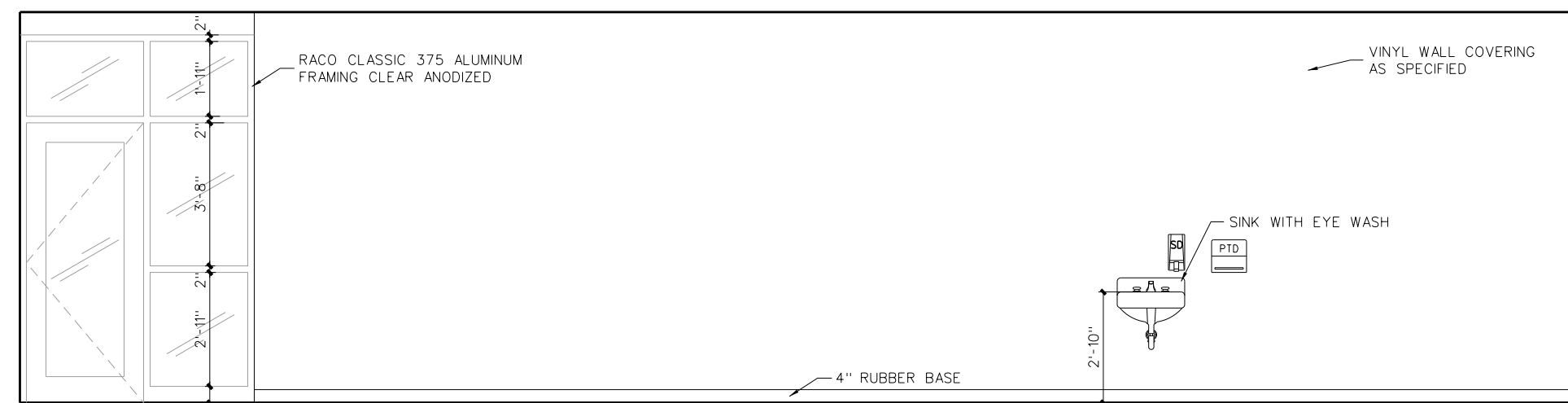
A SALON B 505



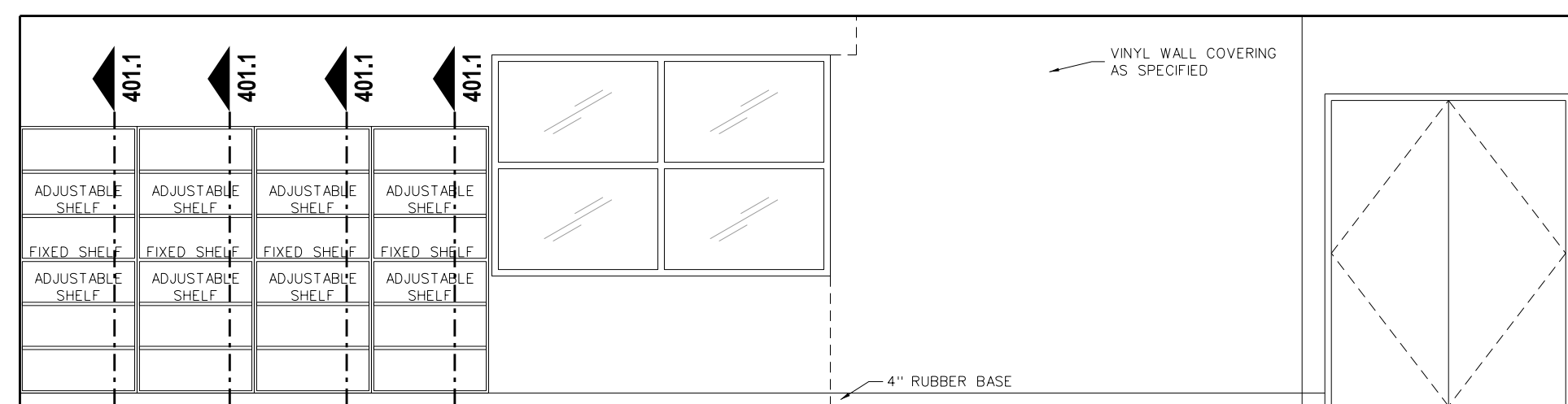
A SALON A 504



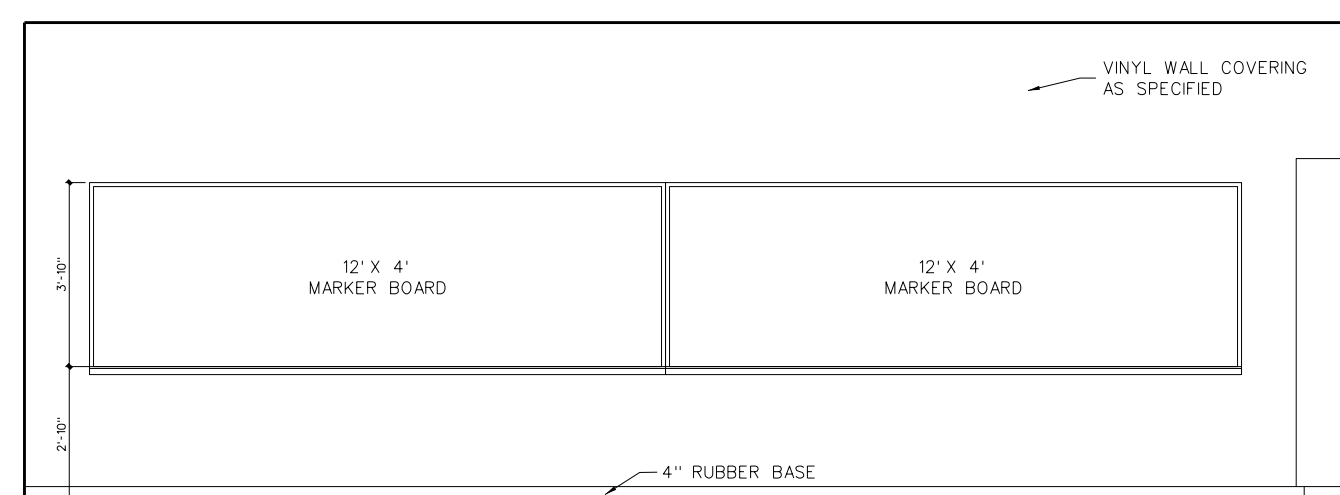
D COSMETOLOGY 509



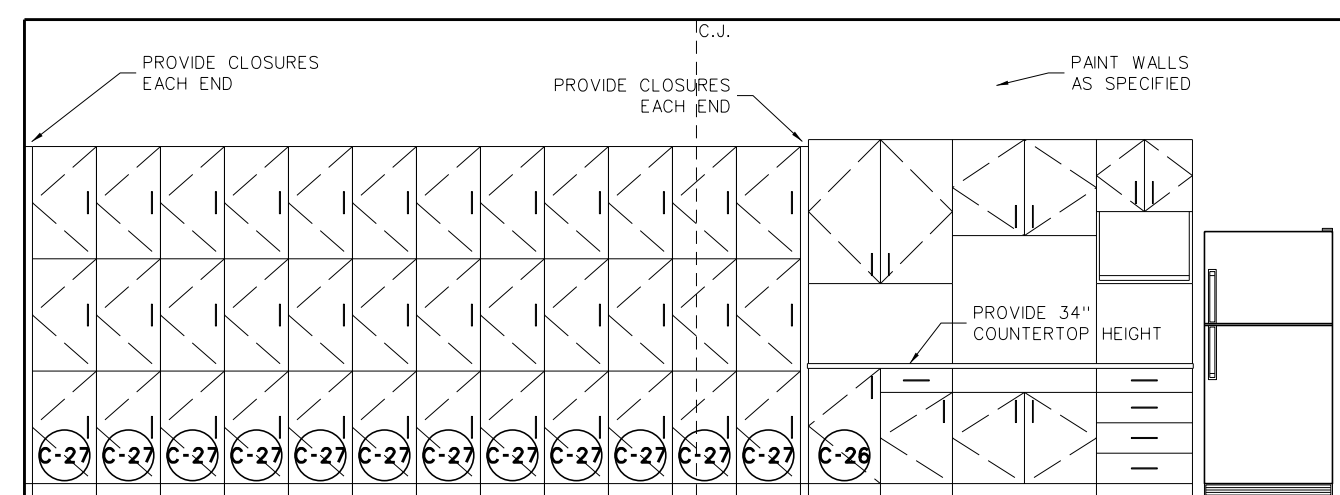
C COSMETOLOGY CLASSROOM 509



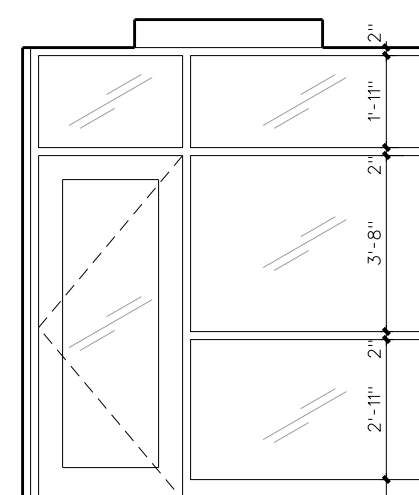
B COSMETOLOGY CLASSROOM 509



A COSMETOLOGY 509



A BREAK 508



A RECEPTION 502

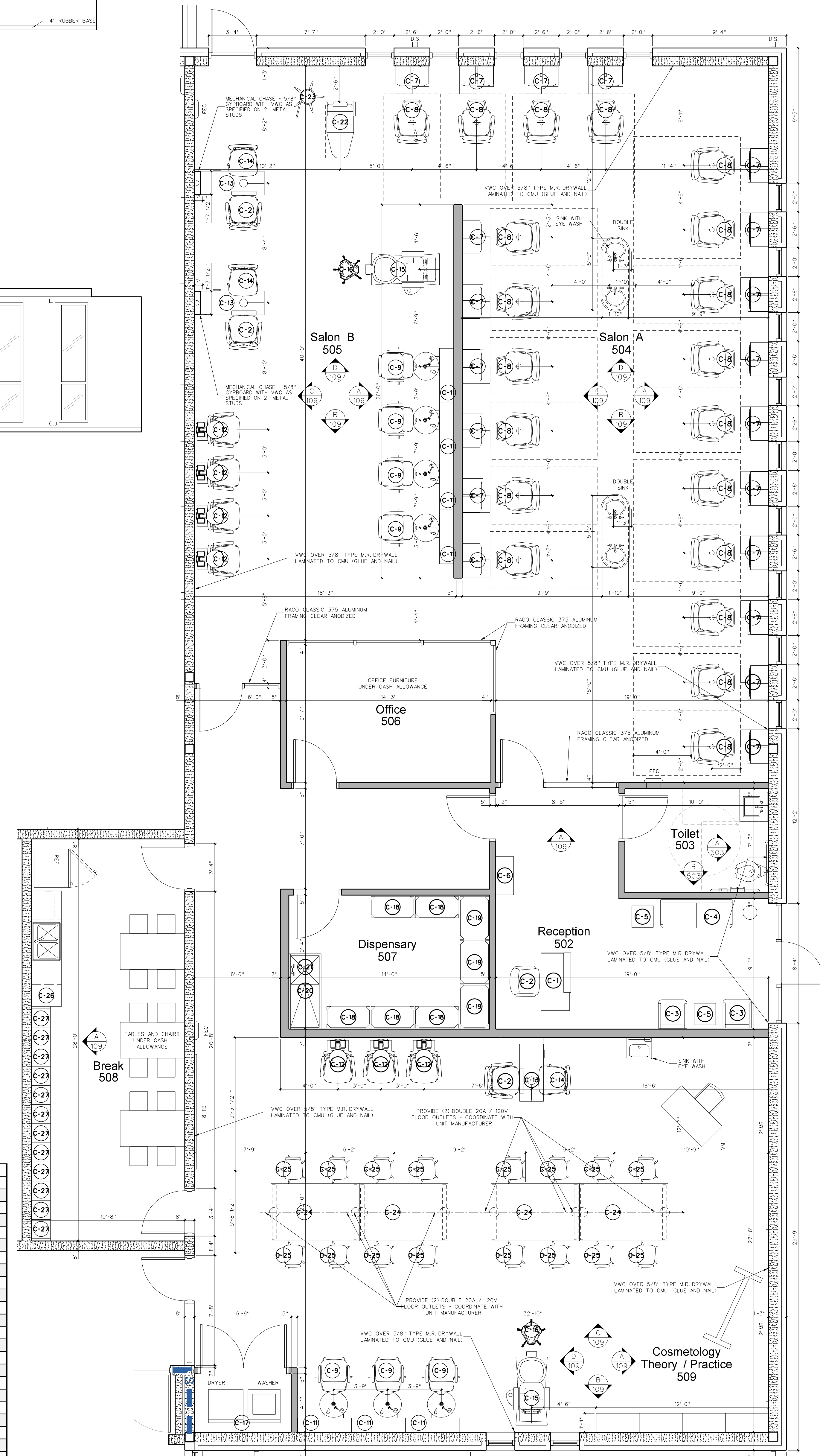
WALL LEGEND	
[Symbol]	8" CMU WALL WITH 2" INSULATION, AIR SPACE AND 4" BRICK
[Symbol]	8" CMU WALL WITH 4" BRICK
[Symbol]	8" CMU WALL
[Symbol]	6" CMU WALL
[Symbol]	8" METAL STUD WALL WITH GYPBOARD EACH SIDE WITH SOUND ATTENUATION BATTS
[Symbol]	6" METAL STUD WALL WITH GYPBOARD EACH SIDE WITH SOUND ATTENUATION BATTS
[Symbol]	3 5/8" METAL STUD WALL WITH GYPBOARD EACH SIDE WITH SOUND ATTENUATION BATTS
[Symbol]	2 1/2" METAL STUD WALL WITH GYPBOARD EACH SIDE WITH SOUND ATTENUATION BATTS (FOR RACO 375)
[Symbol]	SMOKE-RATED CONSTRUCTION
[Symbol]	ONE HOUR RATED FIRE BARRIER
[Symbol]	TWO HOUR RATED FIRE WALL

COSMETOLOGY EQUIPMENT SCHEDULE

MARK	ITEM	MFR	MODEL	UTILITIES
C-1	RECEPTION DESK	COLLINS	IMALE ASYMMETRICAL 2034-48	
C-2	TASK CHAIR	COLLINS	MERANO E140	
C-3	RECEPTION CHAIR	COLLINS	CIGNO 6925	
C-4	RECEPTION LOVE SEAT	COLLINS	E280-48	
C-5	RECEPTION TABLE	COLLINS	ENOVA 955-18	
C-6	RETAIL DISPLAY	COLLINS	ZADA 6649-32	
C-7	STYLING STATION	COLLINS	SOCC-6106	(2) 15 A / 120V
C-8	STYLING CHAIR	COLLINS	MERANO E100	
C-9	SHAMPOO SHUTTLE	COLLINS	BIVA-EDU ADD-ON 16A0SEDU	HW, CW, DRAIN / PROVIDE 1 ADA OPTION
C-10	NOT USED			
C-11	SHAMPOO STATION BULKHEAD	COLLINS	PREMIUM ESSENTIALS W/ STOR E1102-45	
C-12	DRYER CHAIR	COLLINS	VALENTI-EDU 1320DEDU	15 A / 120V
C-13	MANICURE STATION	COLLINS	DUCTED MANICURE 2265-48	15A SWITCHED CIRC IN FLOOR, 4" EXHAUST
C-14	MANICURE STOOL	COLLINS	MERANO STOOL E160	
C-15	PEDICURE STATION	CONTINUUM	BRAVO WITH DUAL VENT	120V / HW, CW, DRAIN, EXHAUST
C-16	PEDICURE STOOL	COLLINS	LEVITATE PEDISTOOL 1958-401P	
C-17	LAUNDRY SHELVING	CLOSETMAID	SUPERSLIDE WIRE SHELF 12" X 72" (2)	
C-18	DISPENSARY SHELVING	NEXEL	BLACK EPOXY 4 TIER 36 X 18 X 74	
C-19	DISPENSARY SHELVING	NEXEL	BLACK EPOXY 4 TIER 36 X 24 X 74	
C-20	DISPENSARY SINK FAUCET	ADVANCE TABCO	16 GA S.S., 24 X 24 SINK W/ 36" DRAINBOARD	
C-21	RECLINING FACIAL CHAIR	COLLINS	LUXE HYDRAULIC FACIAL LOUNGE 3306	
C-22	FACIAL STEAMER	COLLINS	ST-4002D	120V
C-24	PRACTICE TABLE	COLLINS	PORTABLE COMBO DESK 2463 (CUSTOM 48"x72")	20A / (2) 120V EACH END
C-25	PRACTICE STOOL	COLLINS	EDU ERGO TALL STOOL 2023.1EDU	
C-26	BREAKROOM CABINET	COLLINS	2684-96	HW, CW, DRAIN
C-27	LOCKERS	COLLINS	TRIPLE TALL LOCKER 2683-16	

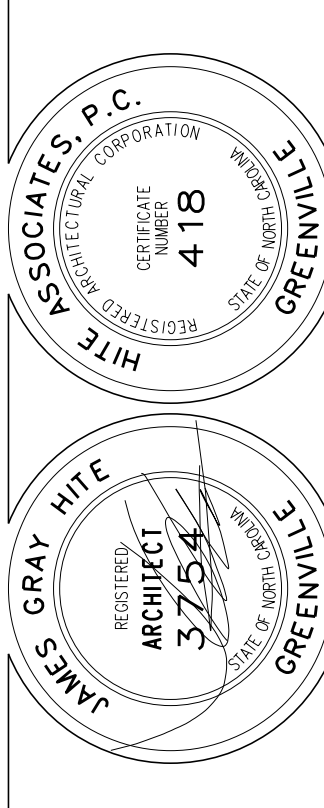
109.2 INTERIOR ELEVATIONS  
SCALE: 1/4" = 1'-0"

109.1 ENLARGED FLOOR PLAN  
SCALE: 1/4" = 1'-0"



No.	Date	Revision

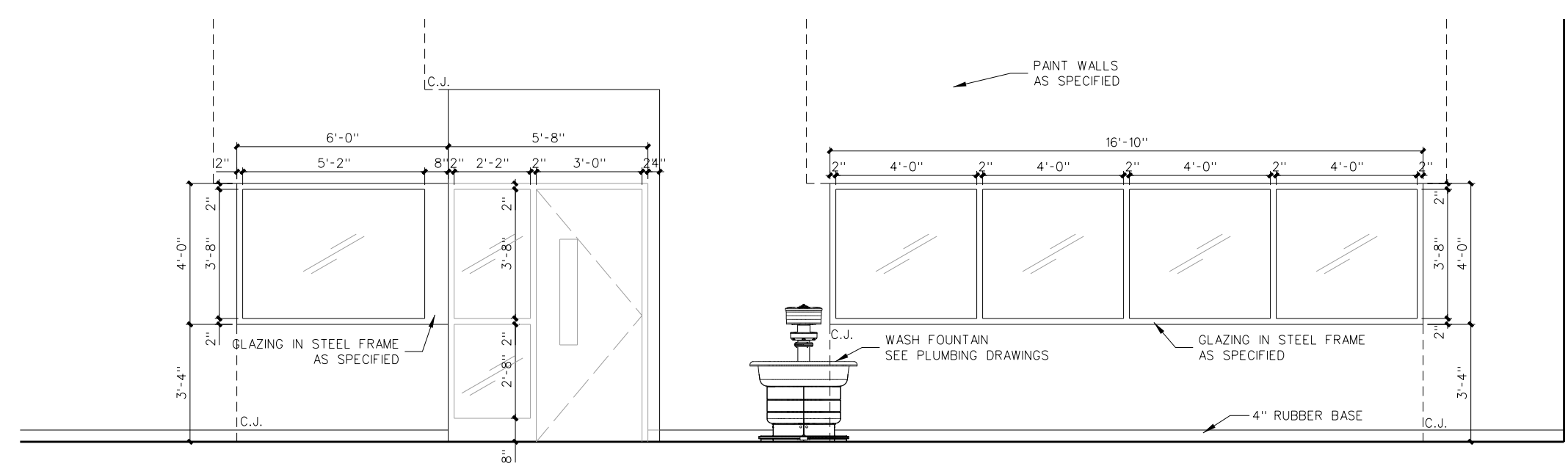
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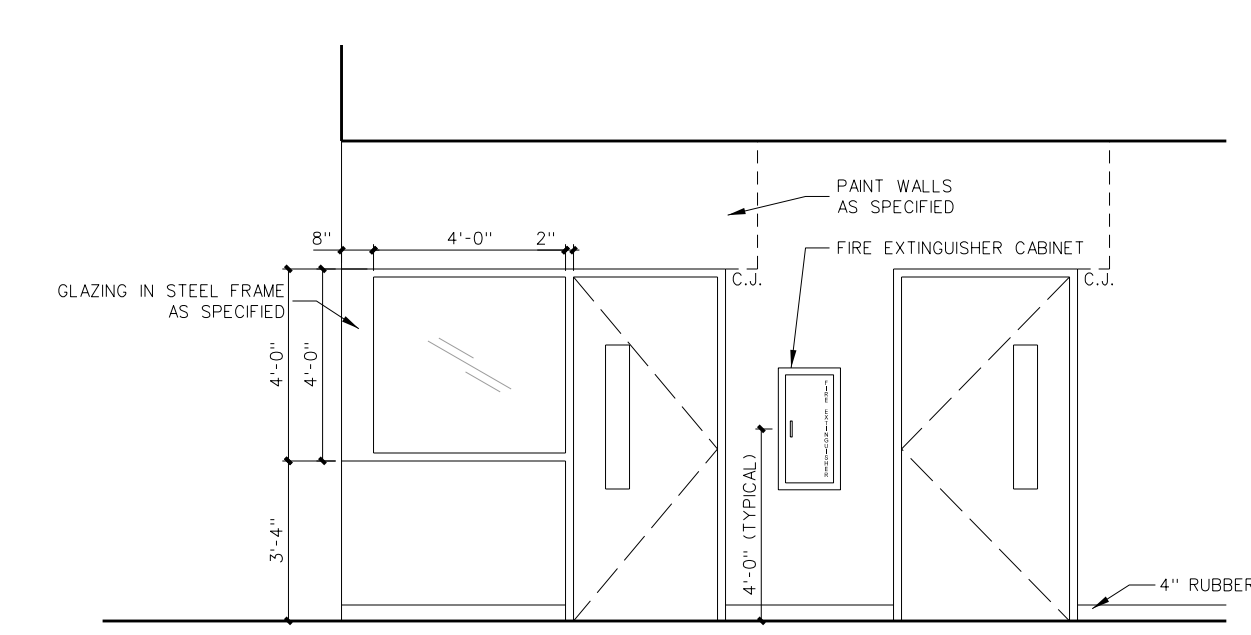
NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 312  
Windsor / Bertie County / North Carolina

Project No. 22351  
Date: December 18, 2024  
Drawing No. **A 109**

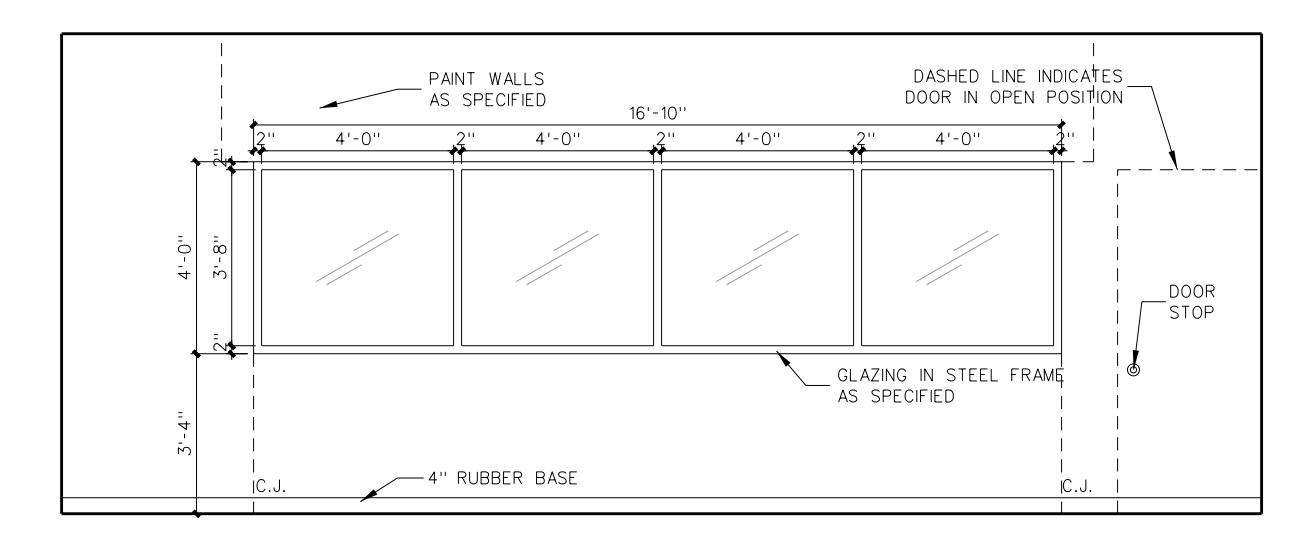




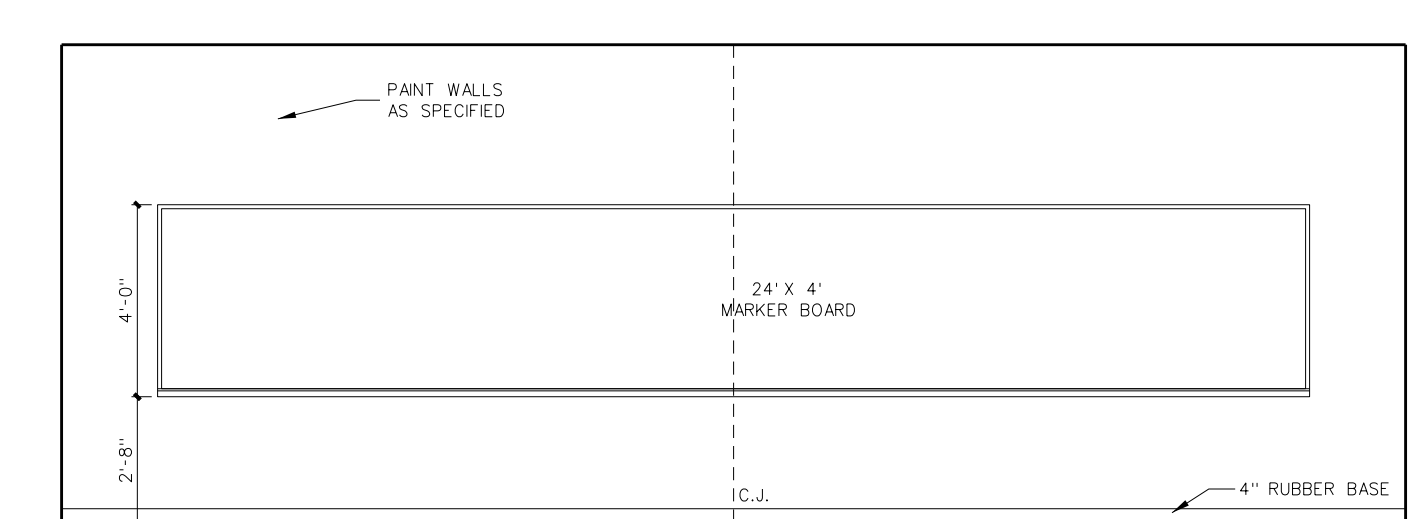
B AUTOMOTIVE LAB 511-A



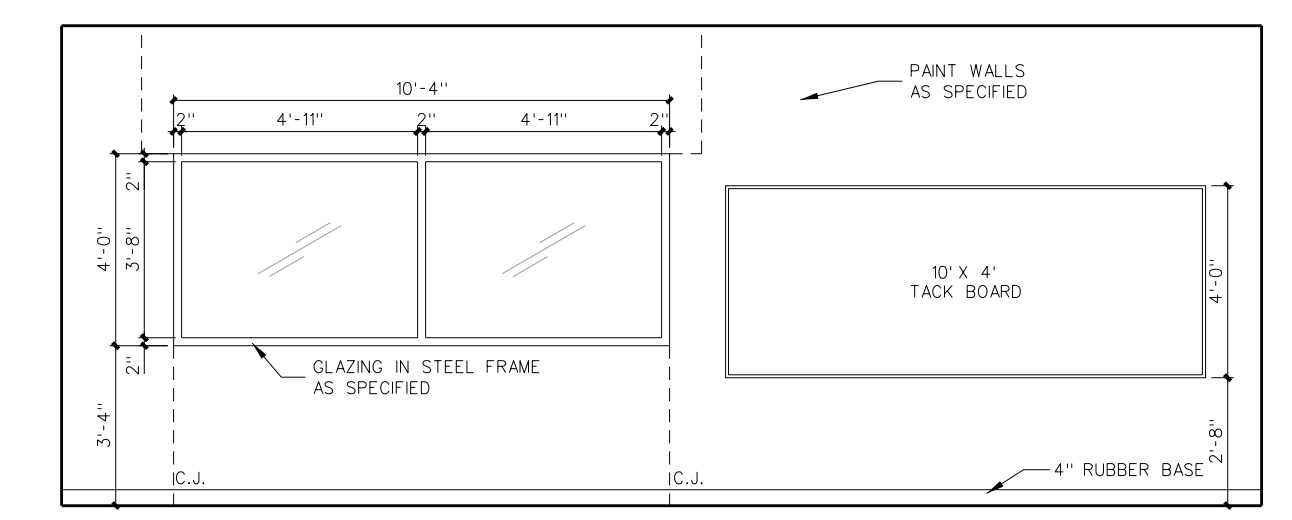
A AUTOMOTIVE LAB 511-A



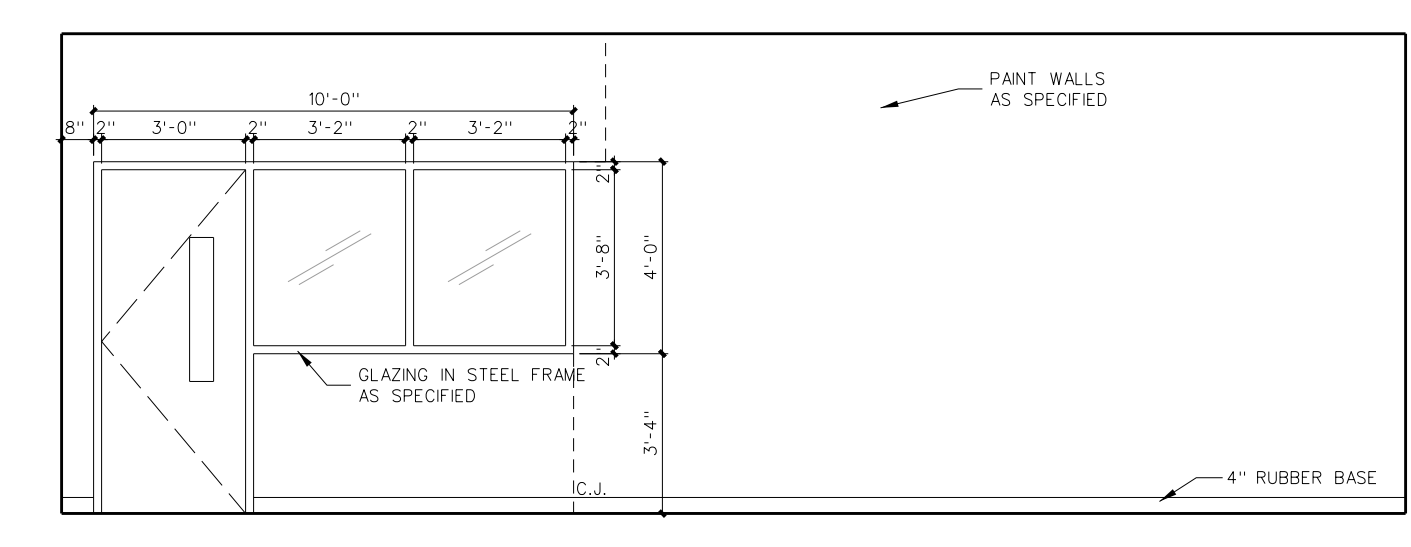
D AUTOMOTIVE CLASSROOM 512



C AUTOMOTIVE CLASSROOM 512

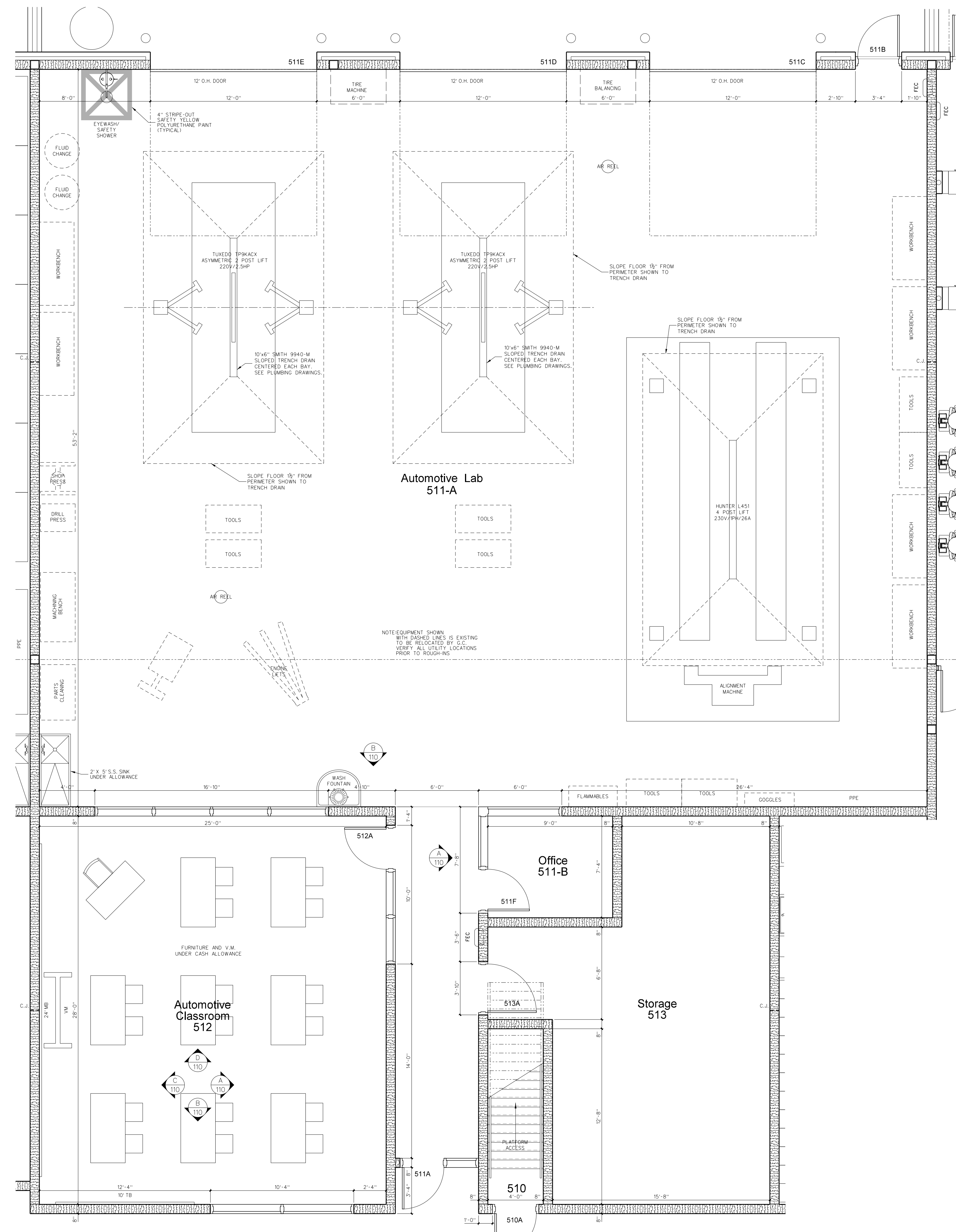


B AUTOMOTIVE CLASSROOM 512



A AUTOMOTIVE CLASSROOM 512

**110.2 INTERIOR ELEVATIONS**  
SCALE: 1/4" = 1'-0"



**110.1 ENLARGED FLOOR PLAN**  
SCALE: 1/4" = 1'-0"

No.	Date	Revision

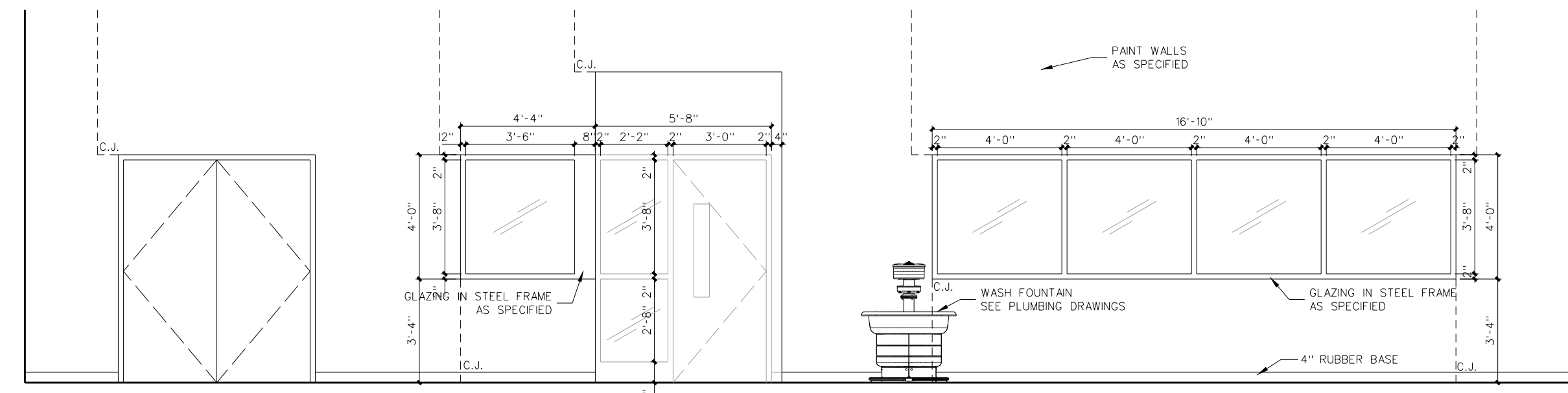
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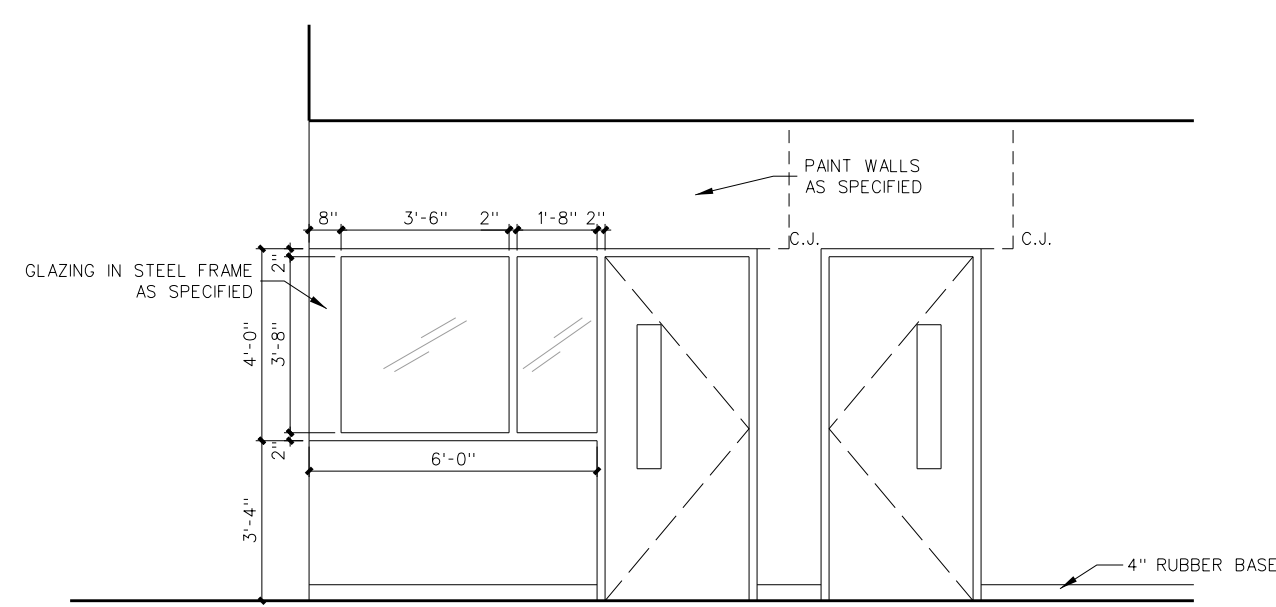
**NEW CTE BUILDING FOR**  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 3112  
Windsor / Bertie County / North Carolina

Project No. 22351  
Date: December 18, 2024

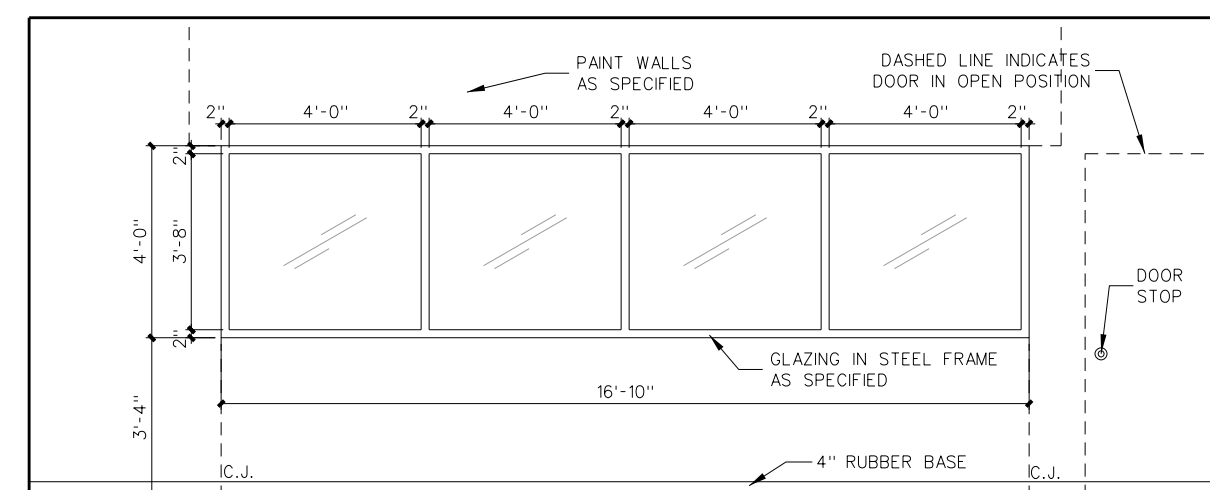
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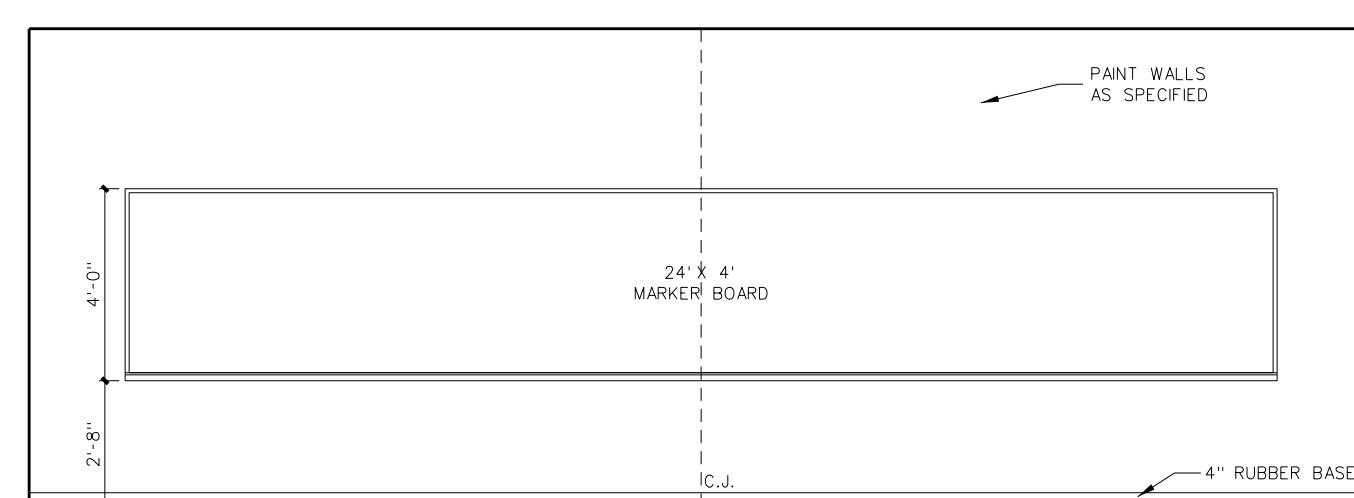
B WELDING LAB 514-A



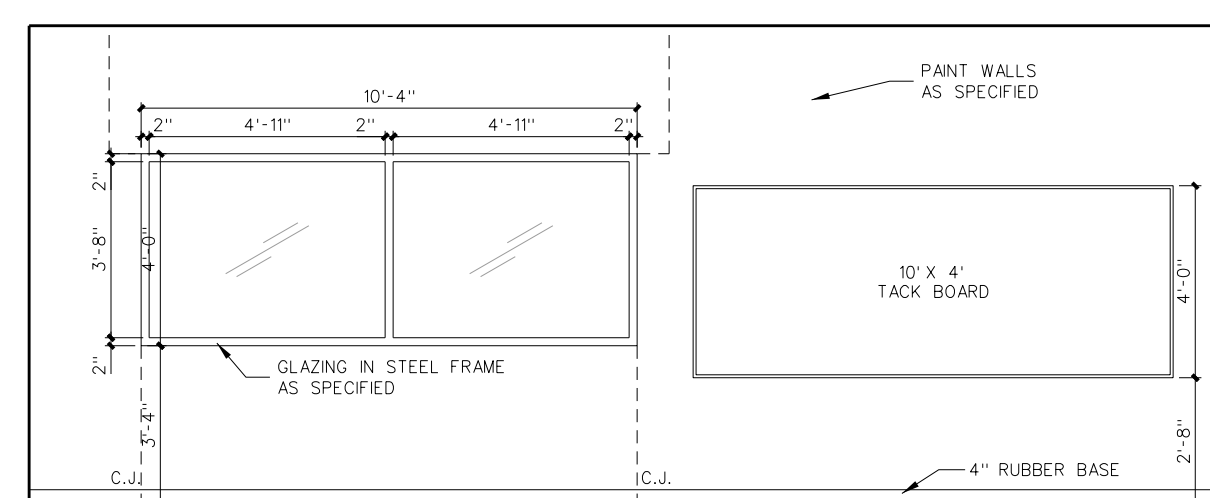
A WELDING LAB 514-A



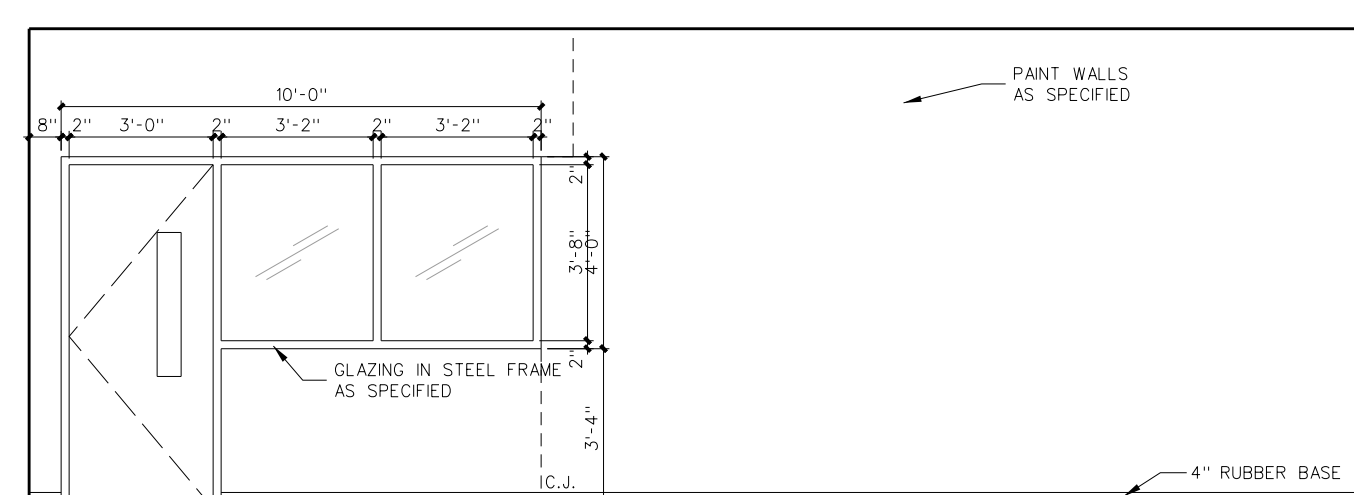
D WELDING CLASSROOM 515



C WELDING CLASSROOM 515



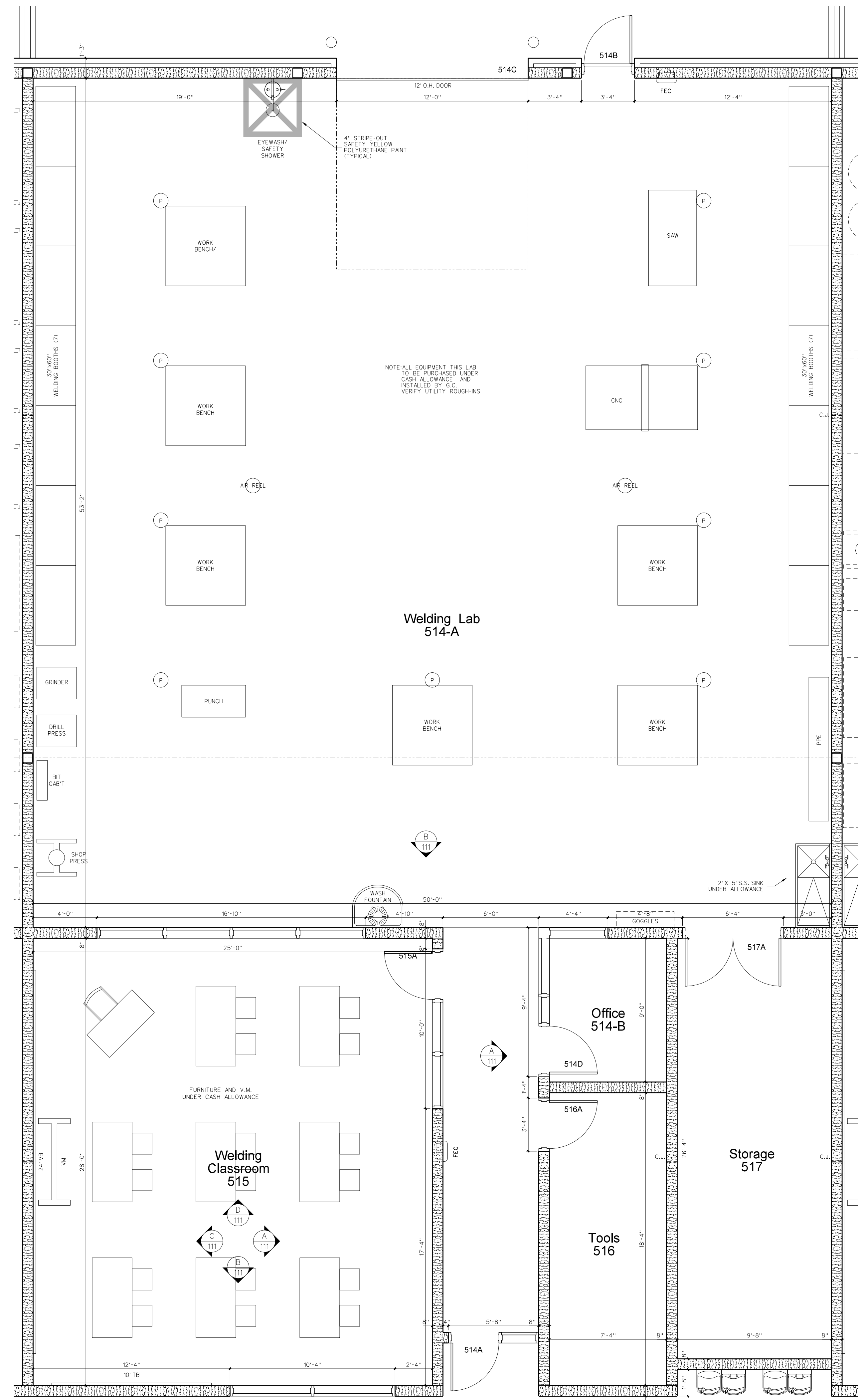
B WELDING CLASSROOM 515



A WELDING CLASSROOM 515

### 111.2 INTERIOR ELEVATIONS

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

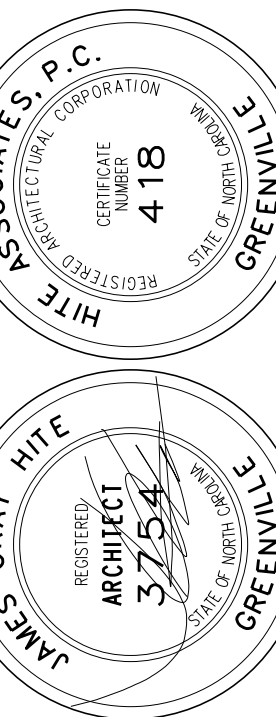


### 111.1 ENLARGED FLOOR PLAN

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

No.	Date	Revision

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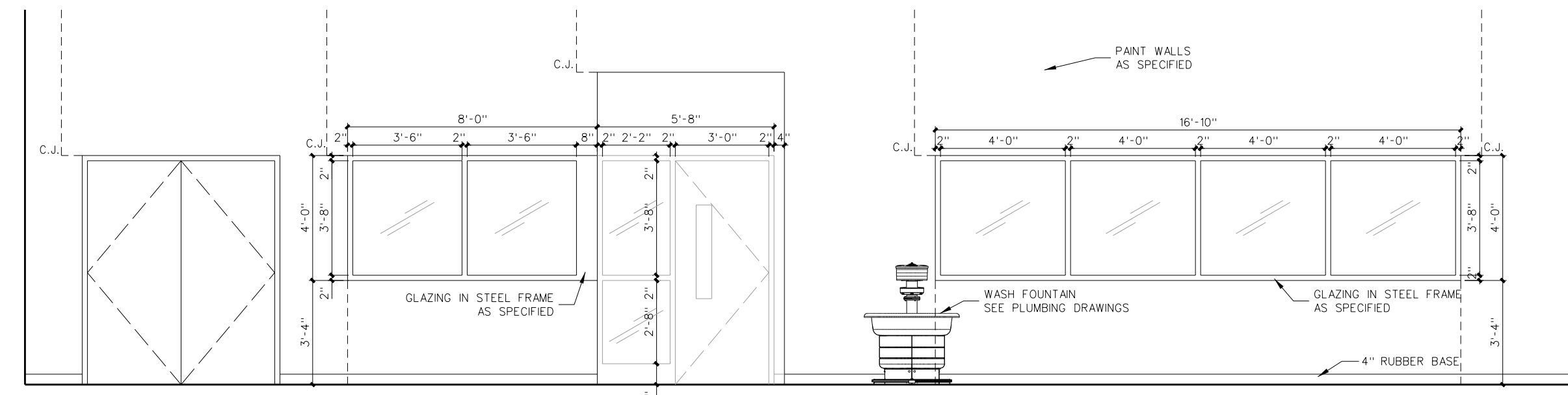
NEW CTE BUILDING FOR  
**Bertie High School**  
 716 US 13 North / NCDPS Unit 080 - School 3112  
 Windsor / Bertie County / North Carolina

Project No. 22351

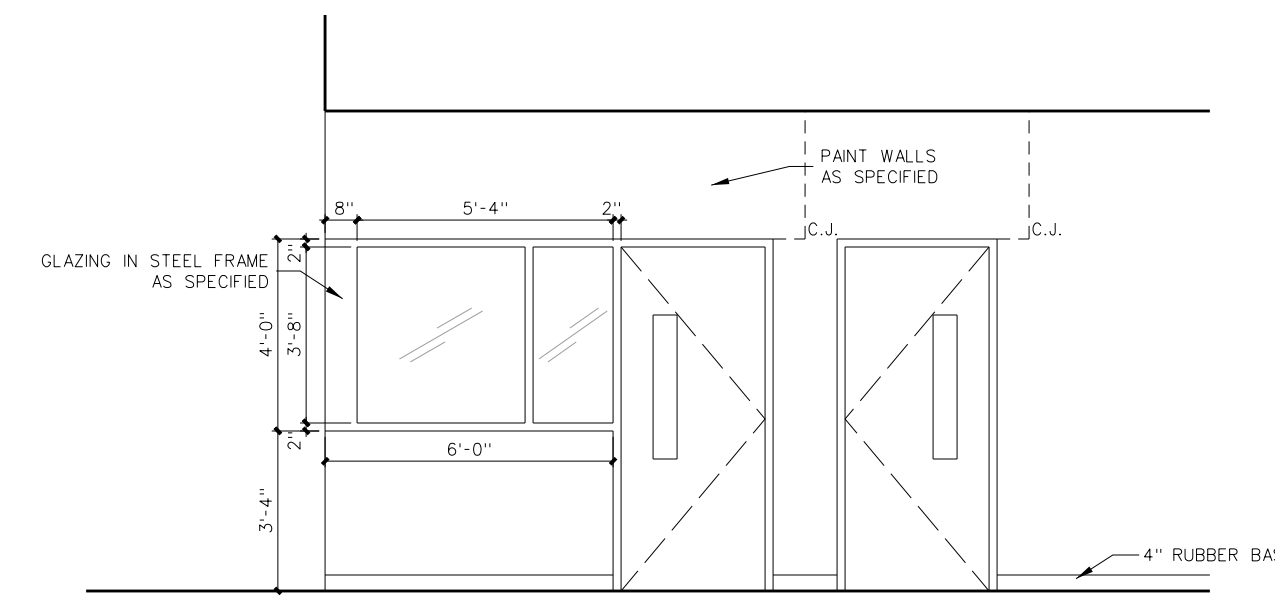
Date: December 18, 2024

Drawing no.

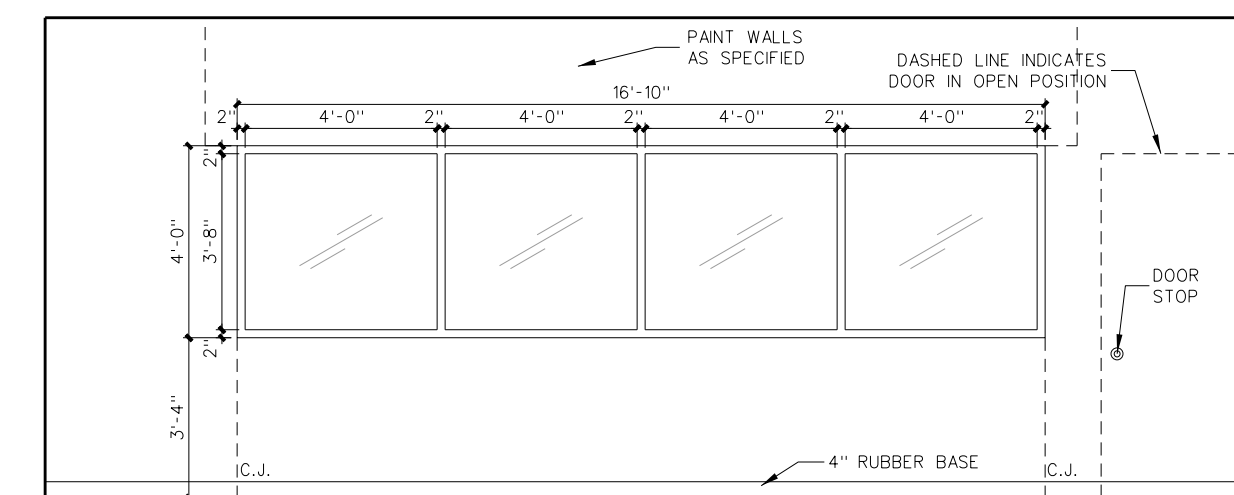
# A 111



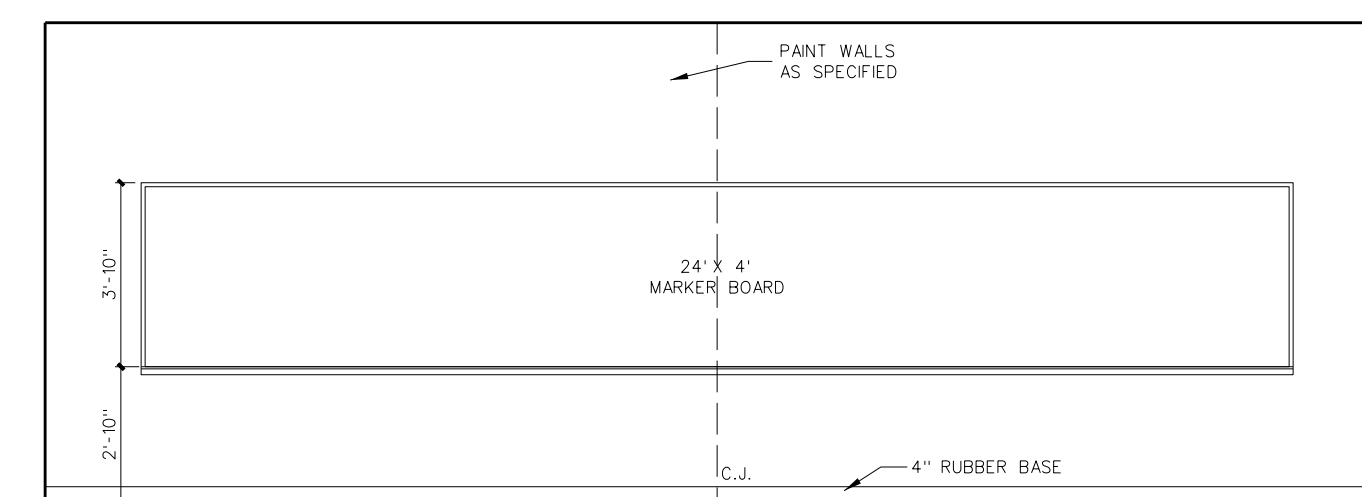
B CARPENTRY LAB 522-A



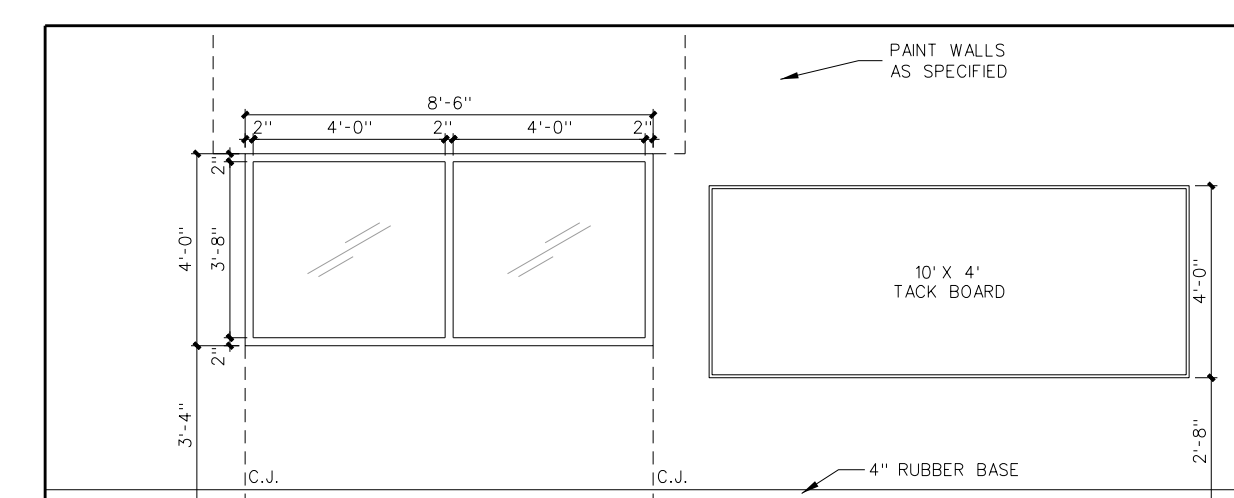
A CARPENTRY LAB 522-A



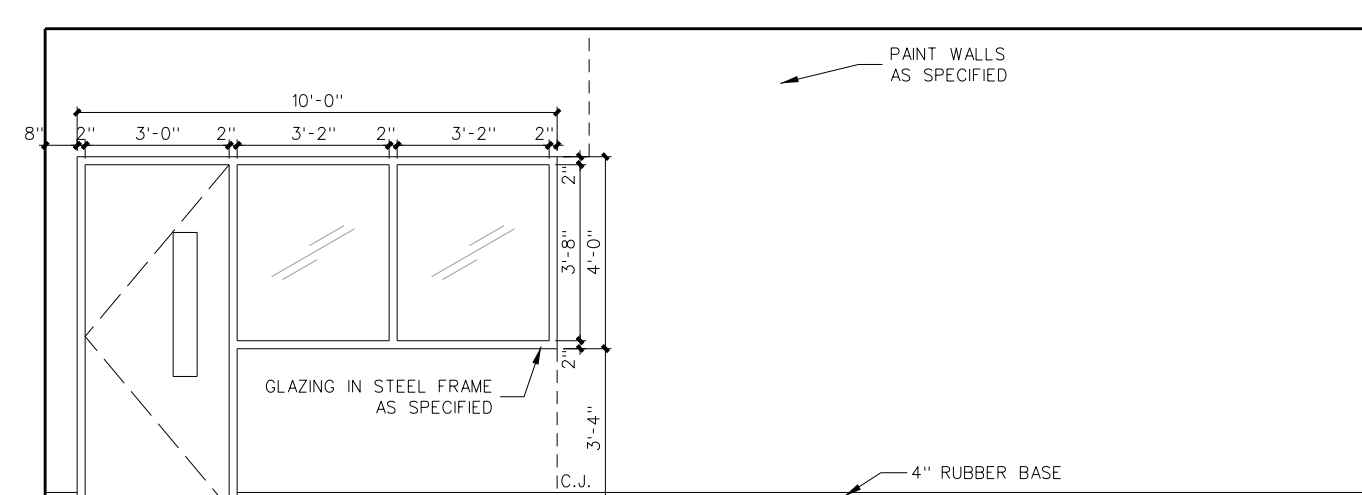
D CARPENTRY CLASSROOM 523



C CARPENTRY CLASSROOM 523



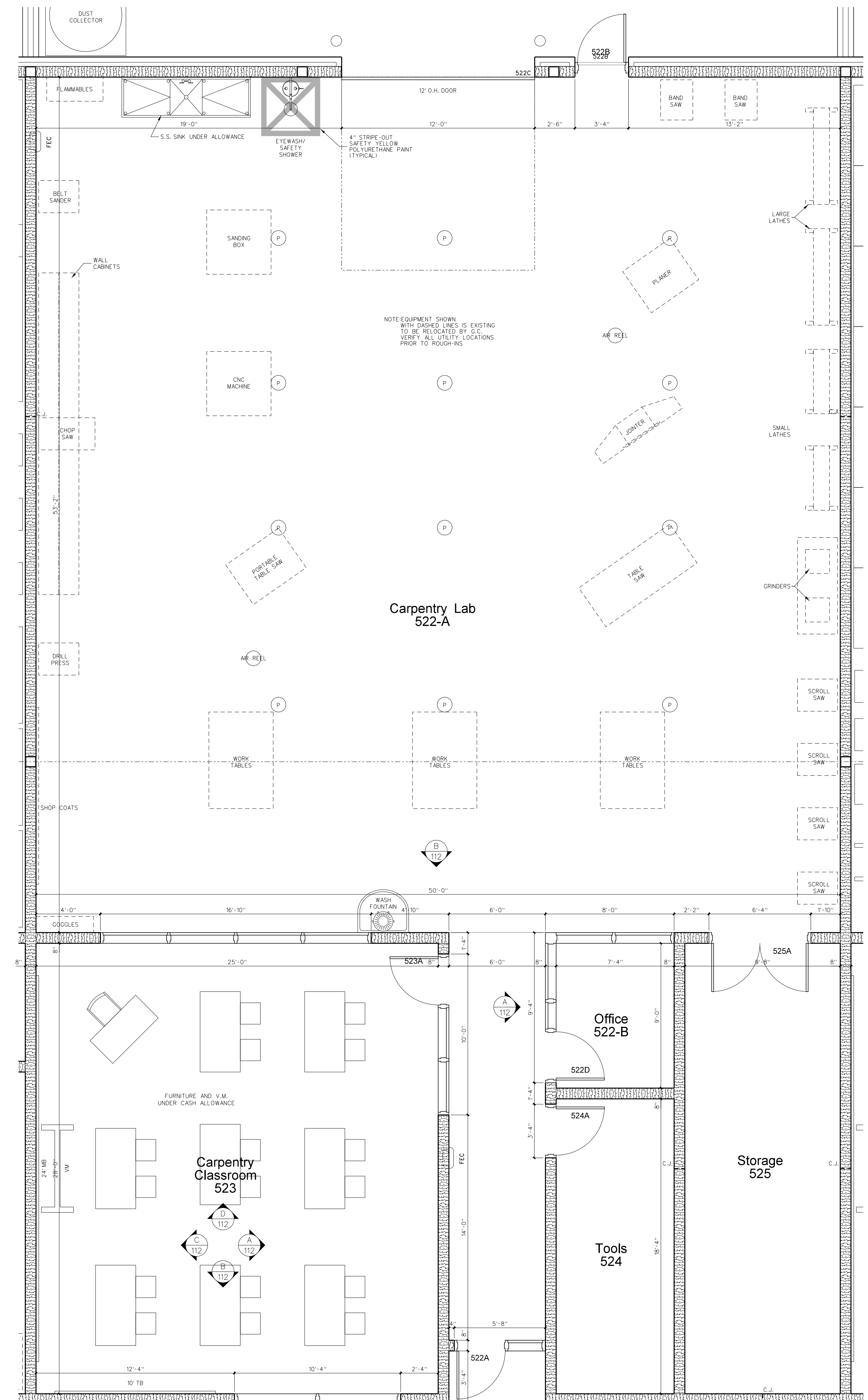
B CARPENTRY CLASSROOM 523



A CARPENTRY CLASSROOM 523

# 112.2 INTERIOR ELEVATIONS

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

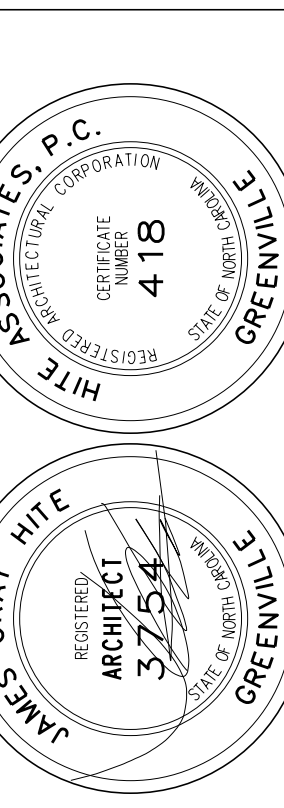


# 112.1 ENLARGED FLOOR PLAN

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

No.	Date	Revision

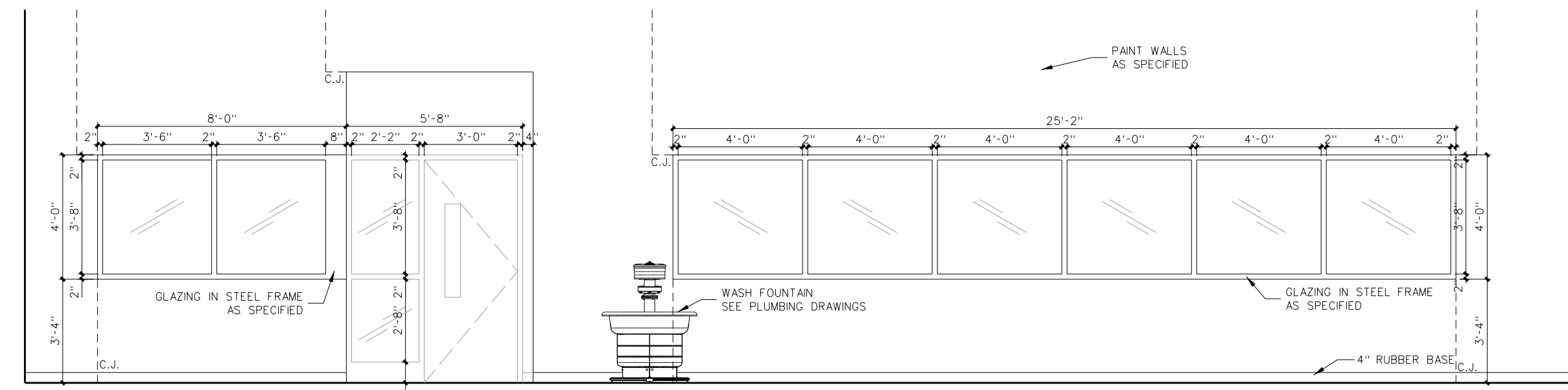
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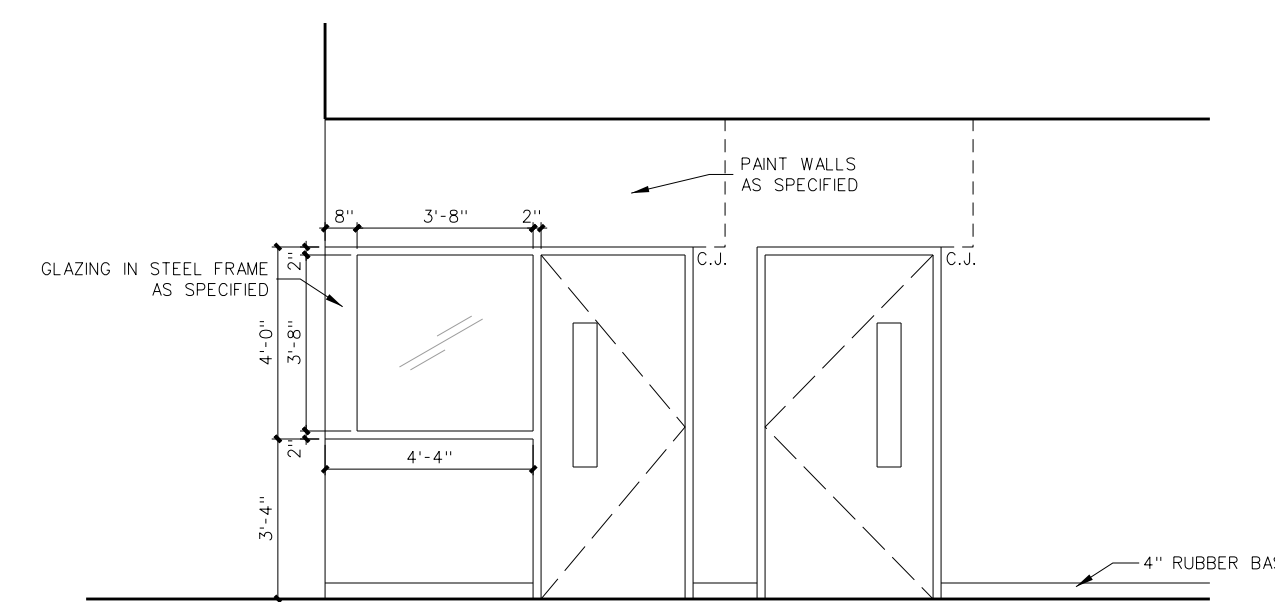
NEW CTE BUILDING FOR  
**Bertie High School**  
 716 US 13 North / NCDPS Unit 080 - School 3112  
 Windsor / Bertie County / North Carolina

Project No. 22351  
 Date: December 18, 2024

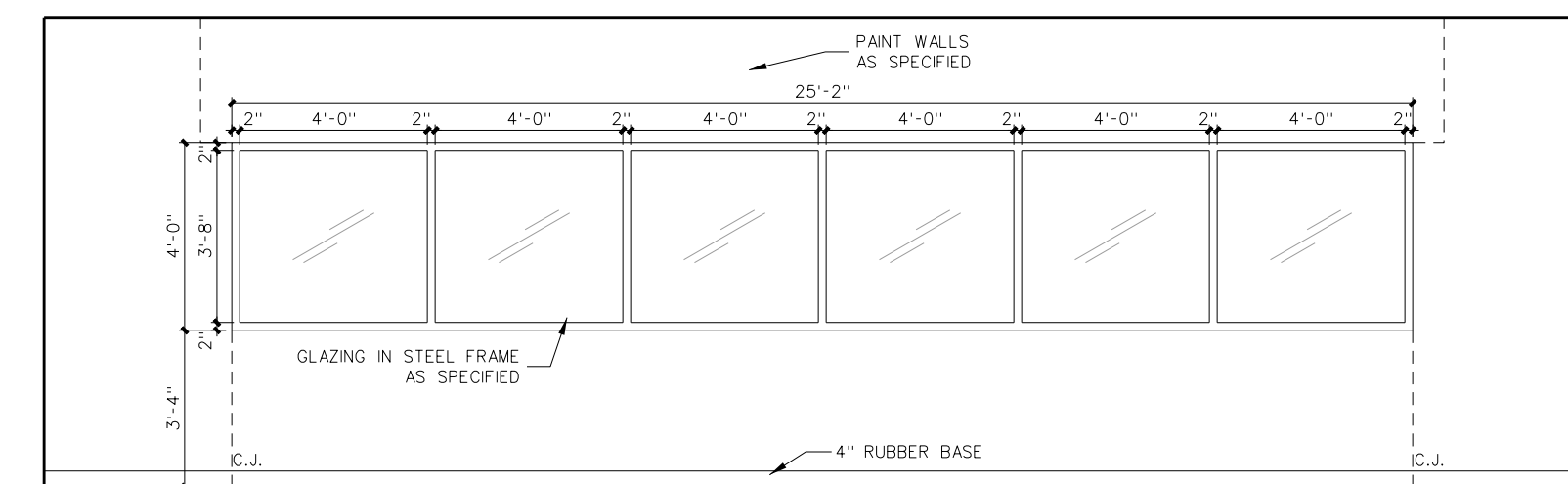
Drawing No. **A 112**



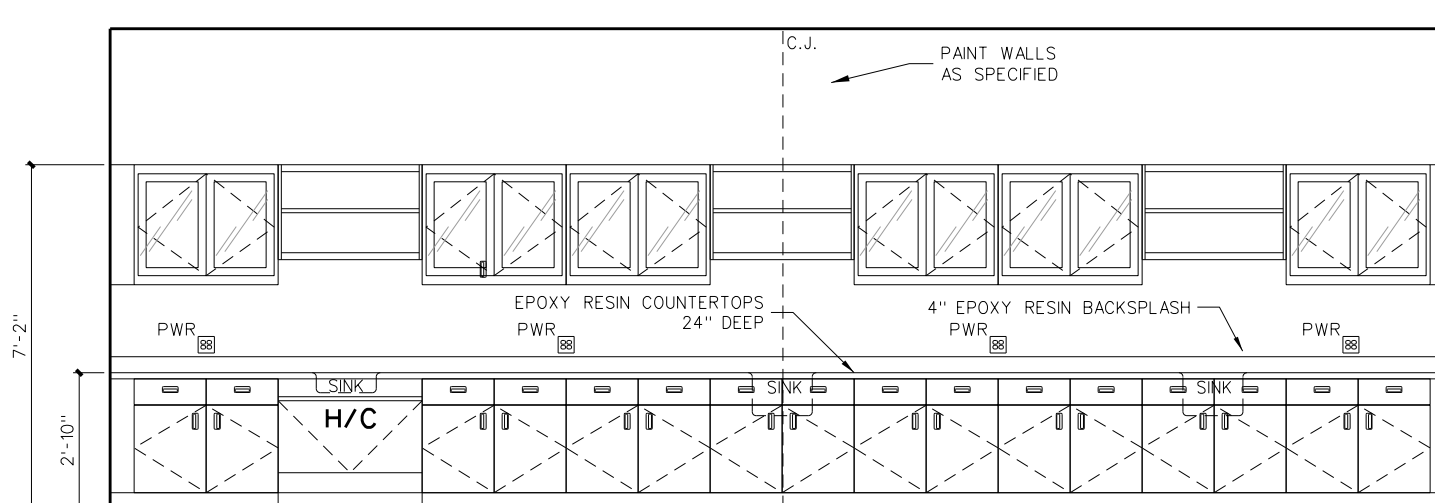
B AGRICULTURE LAB 526-A



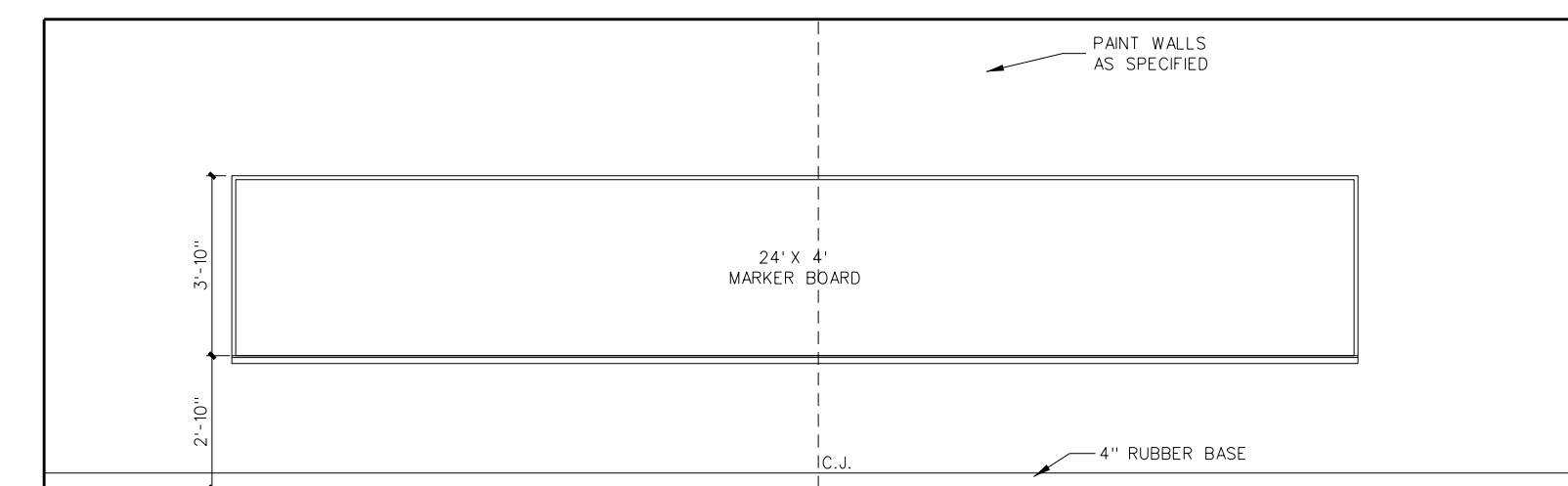
A AGRICULTURE LAB 526-A



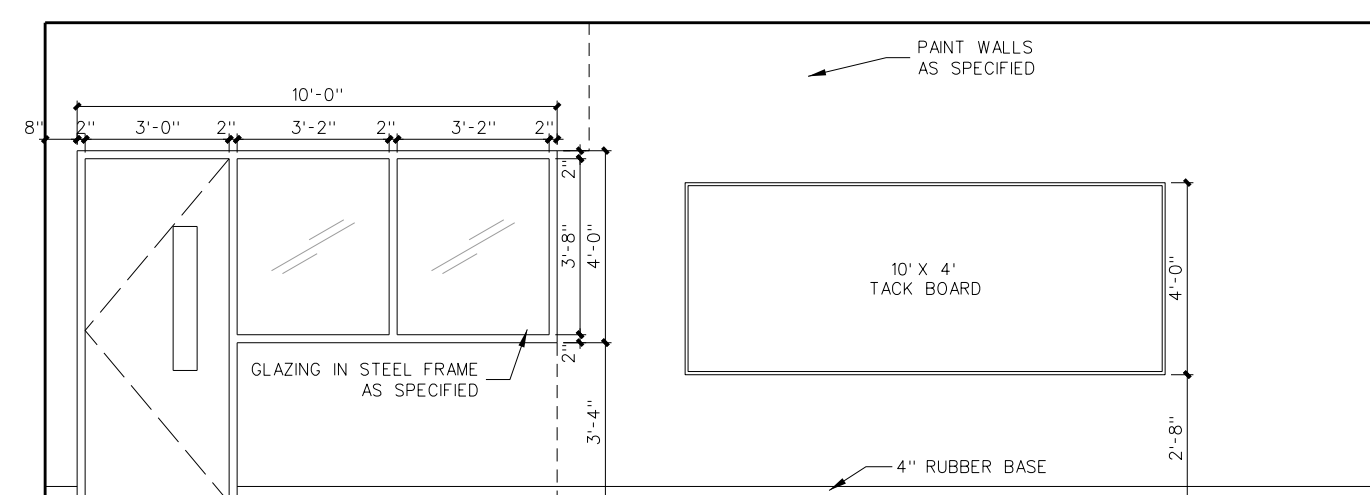
D AGRICULTURE CLASSROOM 527



C AGRICULTURE CLASSROOM 527



B AGRICULTURE CLASSROOM 527

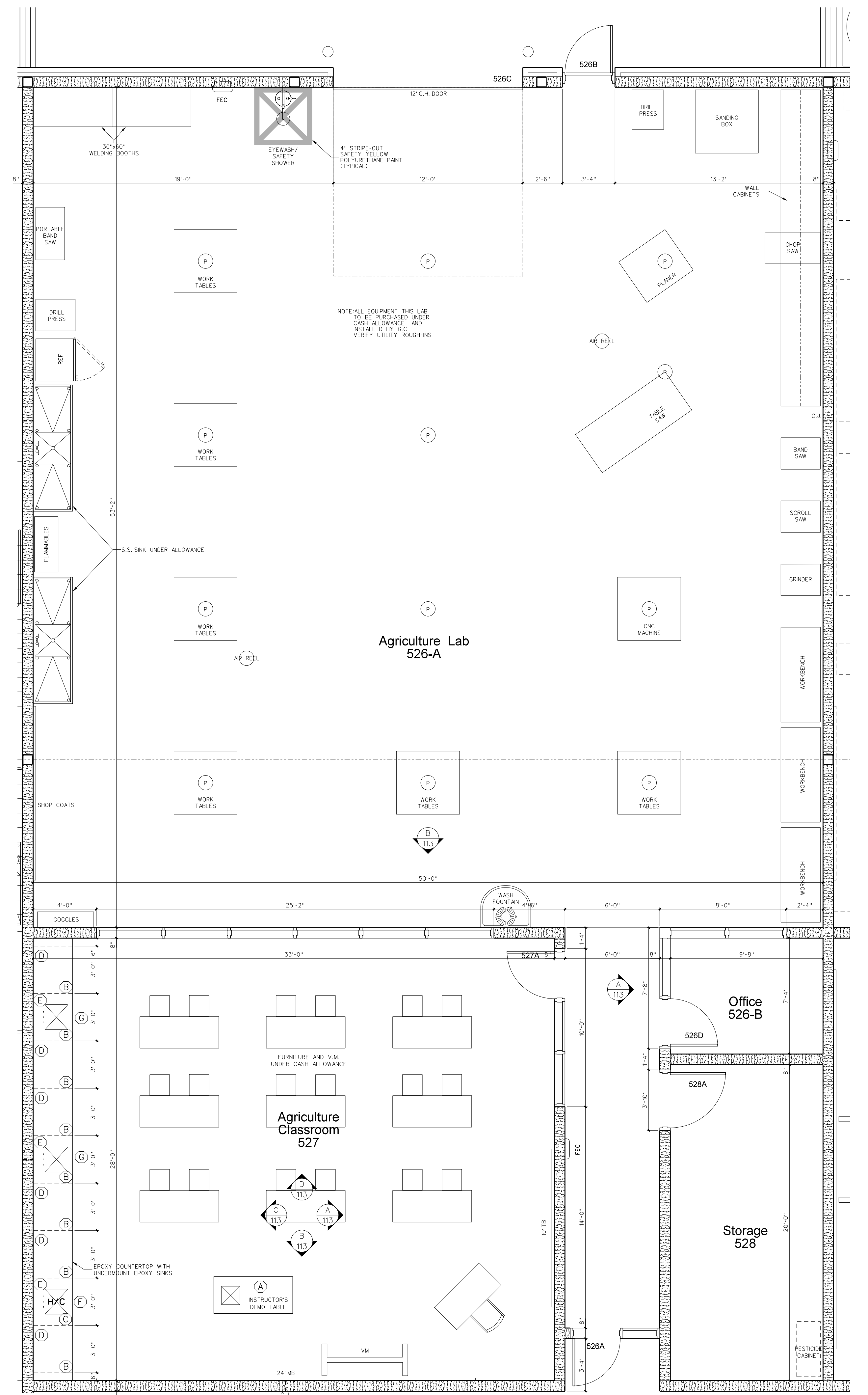


A AGRICULTURE CLASSROOM 527

SCIENCE EQUIPMENT/FURNITURE SCHEDULE			
MARK	MODEL	DESCRIPTION	REMARKS
A	CAMPBELLRHEA 6008A	INSTRUCTOR'S DESK	60" W x 30" D x 34" H NOTE (2, 3, 4)
B	CAMPBELLRHEA 3867D	BASE CABINET	36.25" W x 22.5" D x 32.5" H NOTE (2, 3, 4)
C	CAMPBELLRHEA 8760	42A CLOSURE PANEL ASSEMBLY	36" W x 22.5" D x 32.5" H NOTE (2, 3, 4)
D	CAMPBELLRHEA 4790	WALL CASE GLASS DOORS	35.25" W x 12" D x 31.25" H WITH GLASS DOORS
E	CAMPBELLRHEA 4294	WALL CASE OPEN FRONT	35.25" W x 12" D x 31.25" H WITH OPEN SHELVES
F	DURICON 405		18" x 15" x 15" WITH WATER FACET, OUTLET, AND TALPIECE
G	DURICON 025		18" x 15" x 10.75" D WITH WATER FACET, OUTLET, AND TALPIECE

NOTES:  
 (1) ALL TOPS TO BE 1" BLACK EPOXY RESIN TOP UNLESS OTHERWISE NOTED.  
 (2) SINK, SINK OUTLETS AND TALPIECES SUPPLIED AND INSTALLED BY SCIENCE EQUIPMENT SUBCONTRACTOR / CASEWORK SUPPLIER.  
 (3) ALL TRAPS SUPPLIED, INSTALLED AND HOOKED UP BY PLUMBING CONTRACTOR.  
 (4) TALPIECES TO BE ACID RESISTANT POLYPROPYLENE.

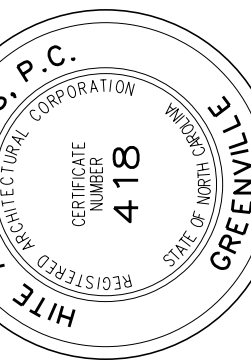
113.1 INTERIOR ELEVATIONS  
SCALE: 1/4" = 1'-0"



113.1 ENLARGED FLOOR PLAN  
SCALE: 1/4" = 1'-0"

No.	Date	Revision

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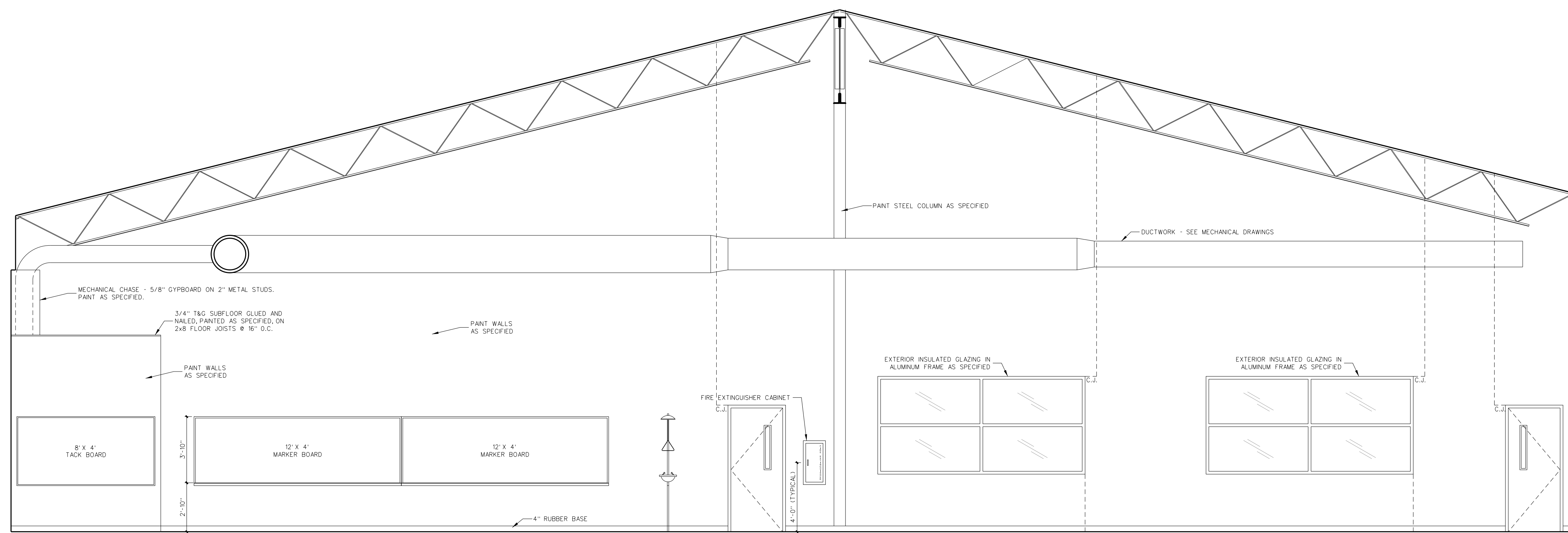
NEW CTE BUILDING FOR  
**Bertie High School**  
 716 US 13 North / NCDPS Unit 080 - School 3112  
 Windsor / Bertie County / North Carolina

Project No. 22351

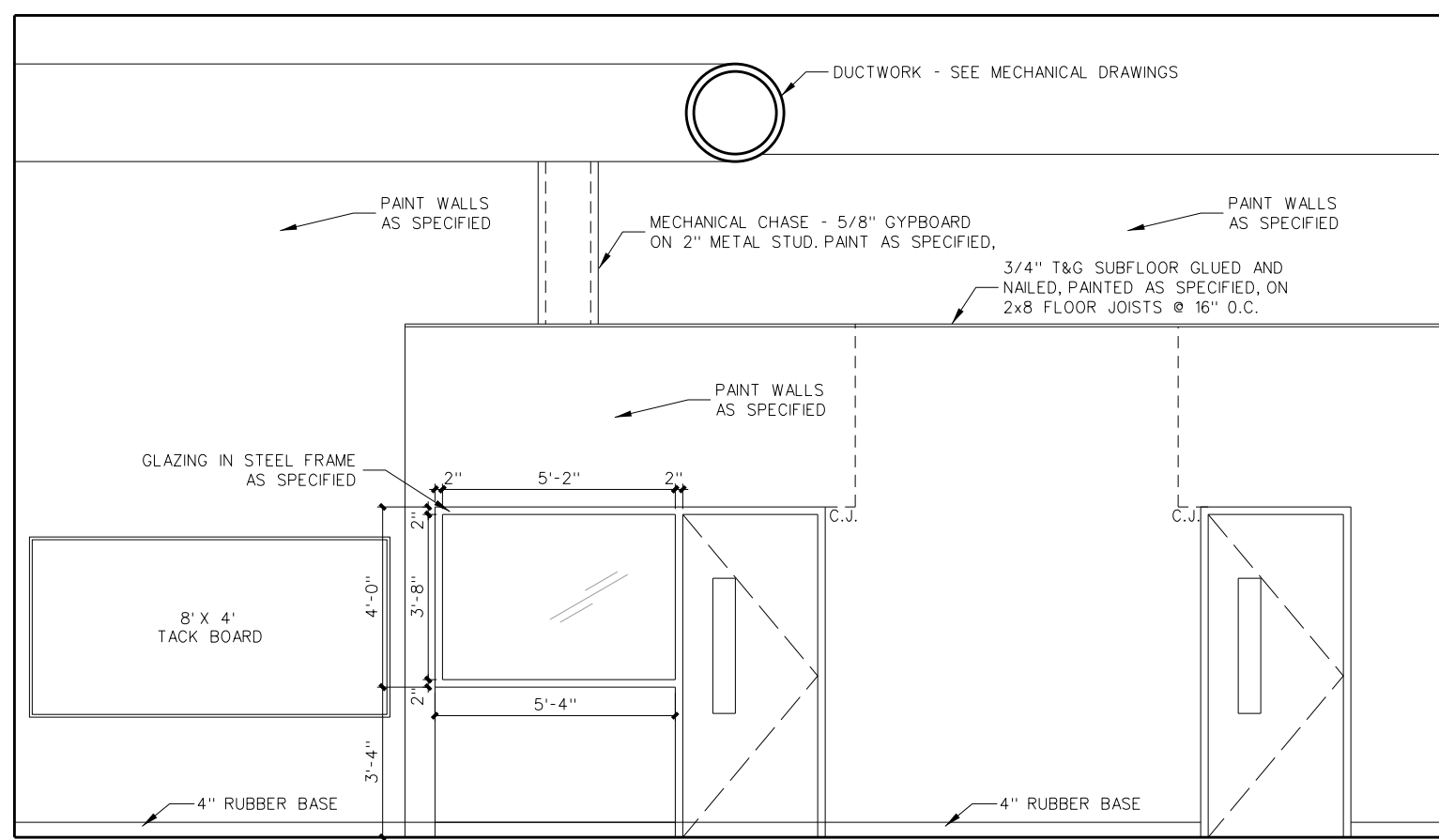
Date: December 18, 2024

Drawing No.

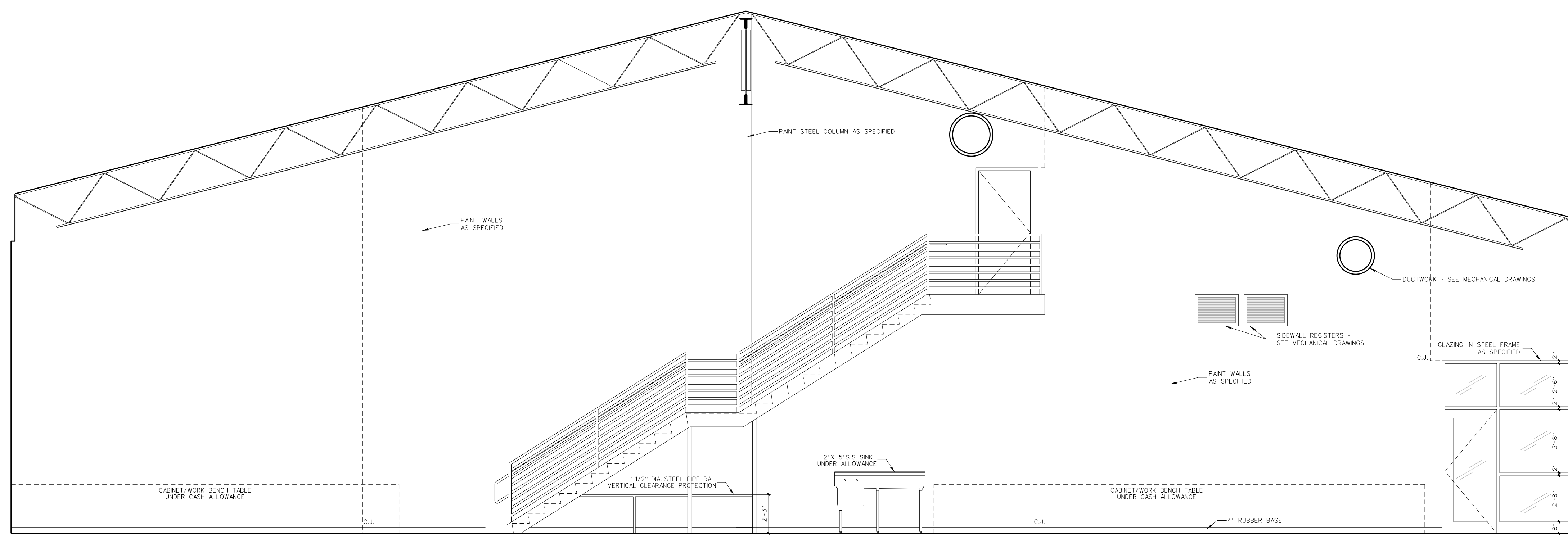
**A 113**



C HVAC LAB / CLASSROOM 529

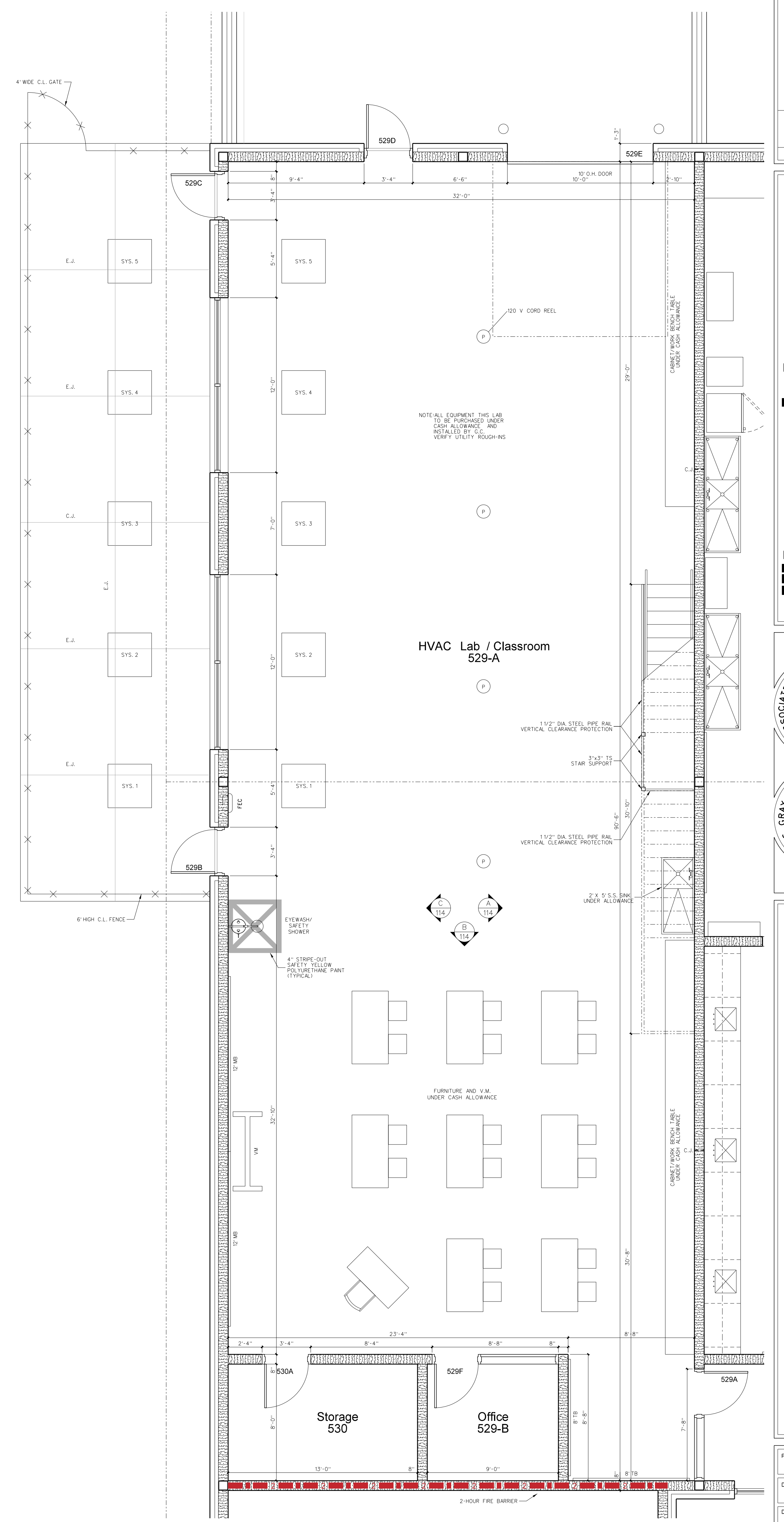


B HVAC LAB / CLASSROOM 529



A HVAC LAB / CLASSROOM 529

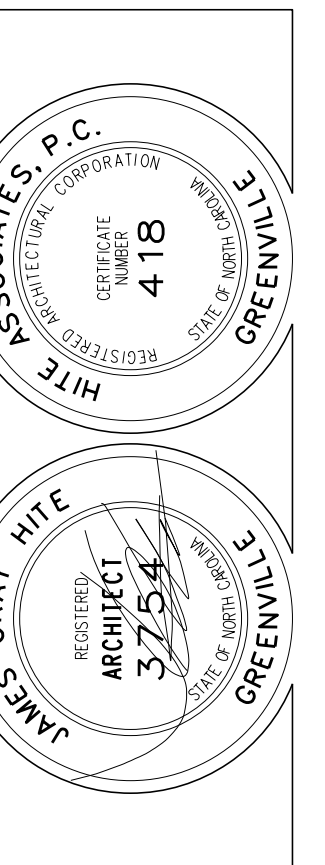
114.2 INTERIOR ELEVATIONS  
SCALE: 1/4" = 1'-0"



114.1 ENLARGED FLOOR PLAN  
SCALE: 1/4" = 1'-0"

No.	Date	Revision

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NEW CTE BUILDING FOR  
**Bertie High School**  
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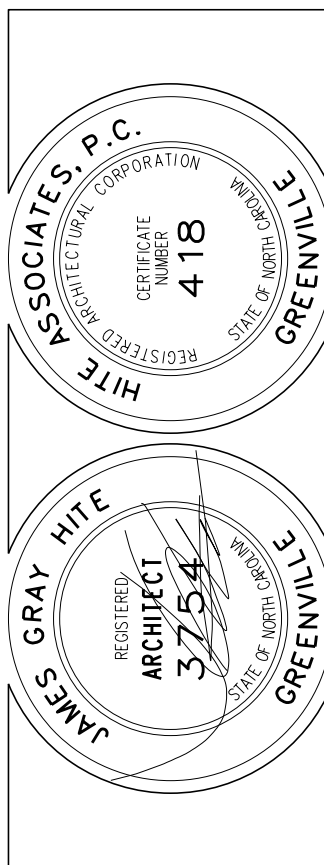
Project No. 22351  
Date: December 18, 2024  
Drawing no. **A 114**

### General Notes for Wall Sections

- (1) SEE EXTERIOR ELEVATIONS FOR BRICK COLOR.
- (2) GENERAL CONTRACTOR SHALL VERIFY TOP OF FINISH GRADES, TOP OF CONCRETE WALKS AND TOP OF CONCRETE SLABS ADJACENT TO BUILDING AND ADJUST LOCATION OF THROUGH WALL FLASHING ACCORDINGLY.
- (3) PROVIDE PLASTIC INSERT WEEPS AT ALL AT DOOR, WINDOW AND FLOOR FLASHING.
- (4) GENERAL CONTRACTOR SHALL SLOPE CONCRETE FLOOR TO FLOOR DRAINS AS SHOWN ON PLUMBING DRAWINGS.
- (5) ALL CMU CELLS BELOW FINISH FLOOR SHALL BE FILLED WITH CONCRETE.
- (6) ALL VAPOR BARRIERS UNDER FLOOR SLABS SHALL BE LAPPED 12" MINIMUM AND TAPERED CONTINUOUS AT JOINTS. GENERAL CONTRACTOR SHALL REPAIR ANY DAMAGED VAPOR BARRIER PRIOR TO PLACING CONCRETE.
- (7) PROVIDE 4" MINIMUM SPRAY POLYURETHANE INSULATION IN ALL METAL STUDS EXTERIOR WALLS. SEE WALL SECTIONS AND SPECIFICATIONS.
- (8) PROVIDE SPRAY POLYURETHANE INSULATION IN ALL NESTED METAL STUD WINDOW AND DOOR JAMBS, SILLS AND HEADS.
- (9) ALL INTERIOR METAL STUD/GYPSUM WALLBOARD PARTITIONS REQUIRE SOUND ATTENUATION BATTS.
- (10) PROVIDE METAL CHAIRS UNDER ALL STEEL WIRE MATS REINFORCING STEEL FOR CONCRETE SLABS AND FOUNDATIONS.
- (11) PROVIDE GYPSUM CONTROL JOINTS AT ALL GYPSUM / METAL STUD WINDOW JAMBS. SEE INTERIOR ELEVATIONS.
- (12) ALL SEALANT COLORS TO BE SELECTED BY ARCHITECT.
- (13) ROOF INSULATION TAPE ALL ROOF INSULATION JOINTS, BOTH LAYERS, LAP AND TAPE VAPOR BARRIER. ARCHITECT TO FIELD VERIFY PRIOR TO METAL ROOF PANEL INSTALLATION.
- (14) PROVIDE PRE-FORMED THRU-WALL FLASHING CORNER MEMBERS FOR EXTERIOR WALL CORNERS AS SPECIFIED.

No.	Date	Revision

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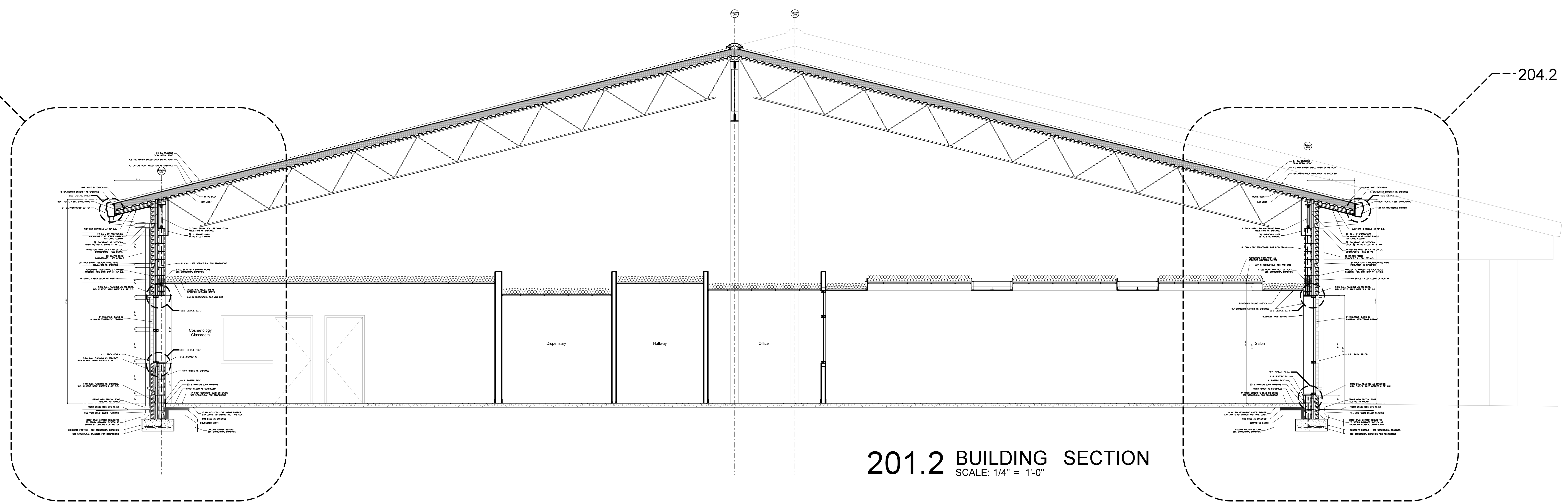


NEW CTE BUILDING FOR  
**Bertie High School**  
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Project No. 22351  
 Date: December 18, 2024  
 Drawing No. **A 201**

205.3

204.2

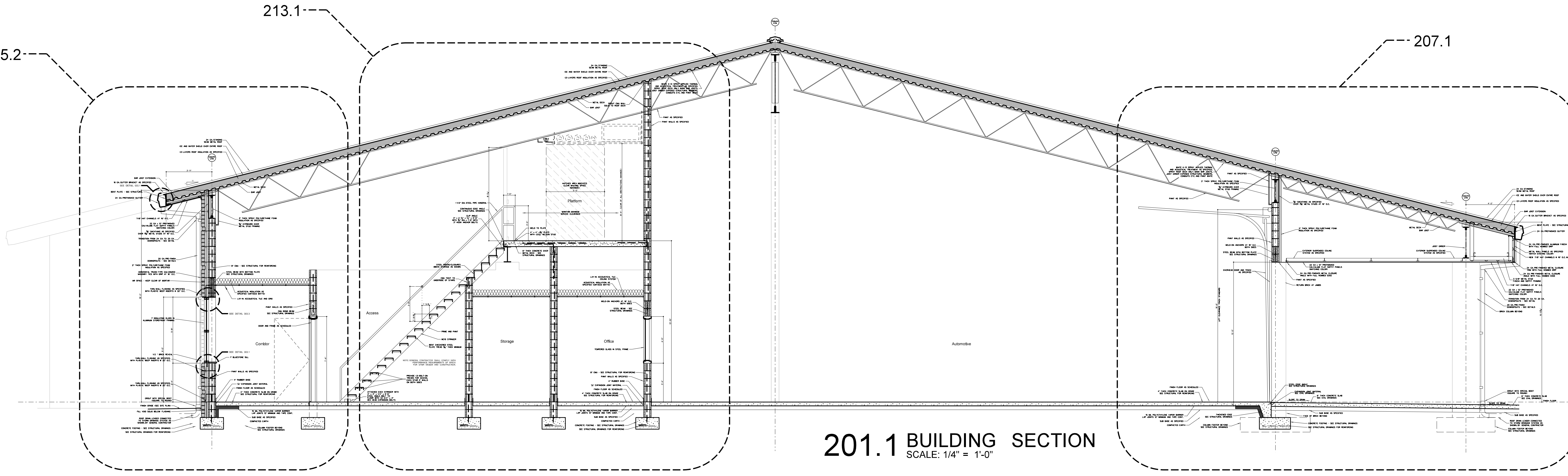


**201.2 BUILDING SECTION**  
SCALE: 1/4" = 1'-0"

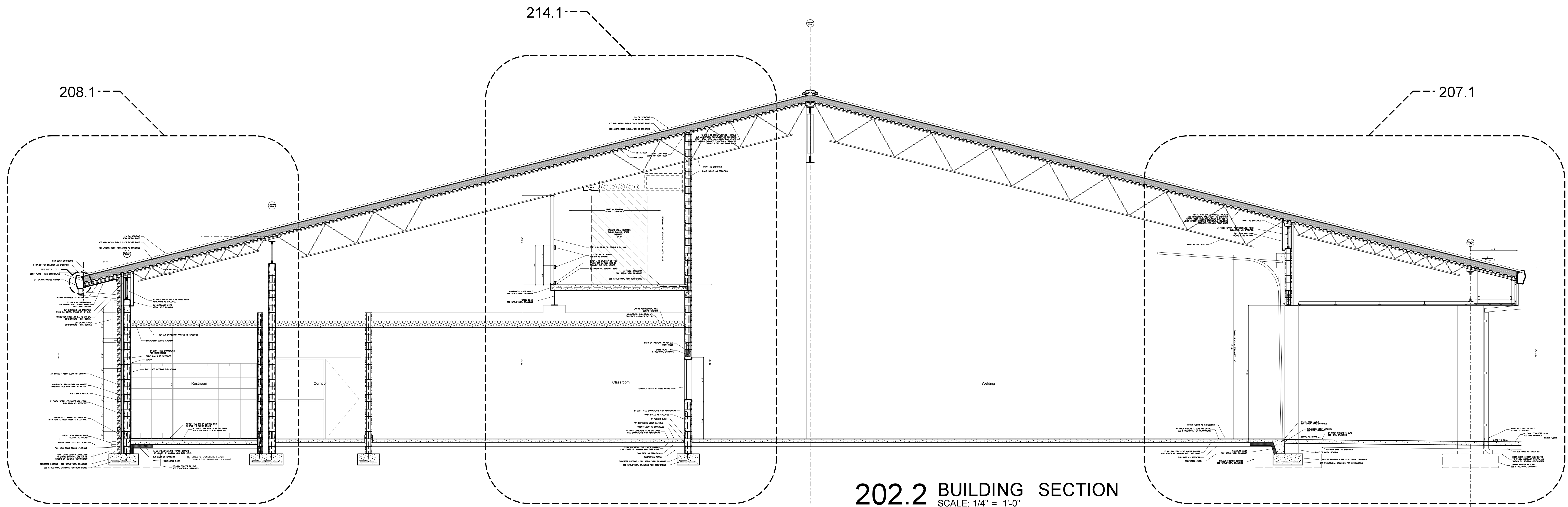
213.1

205.2

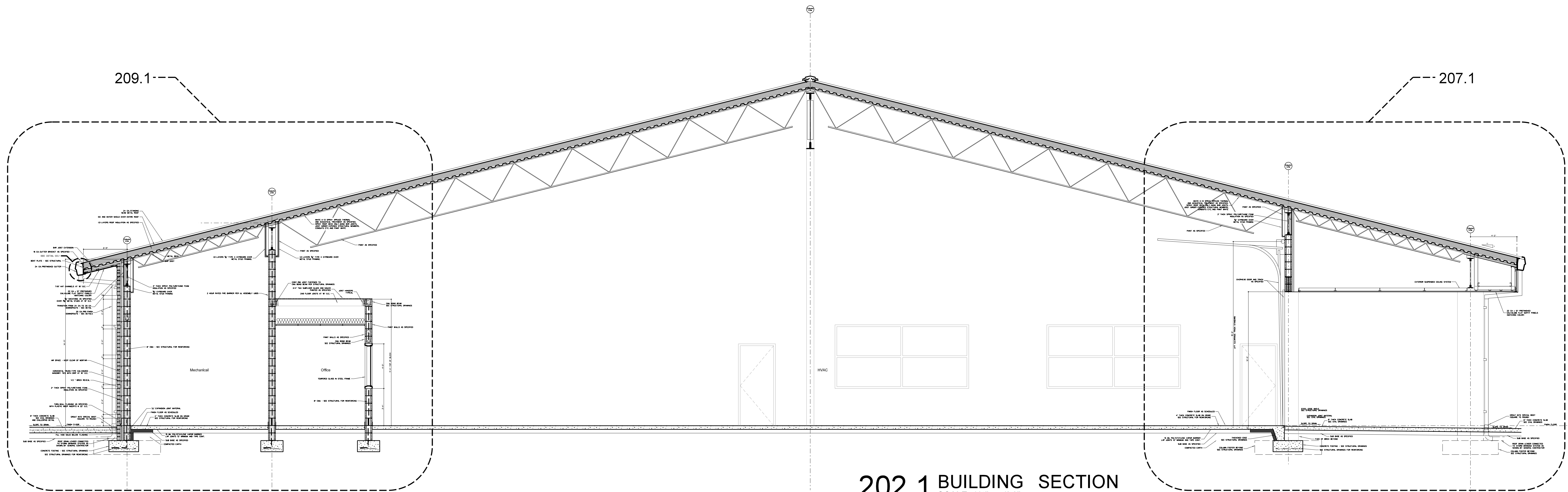
207.1



**201.1 BUILDING SECTION**  
SCALE: 1/4" = 1'-0"



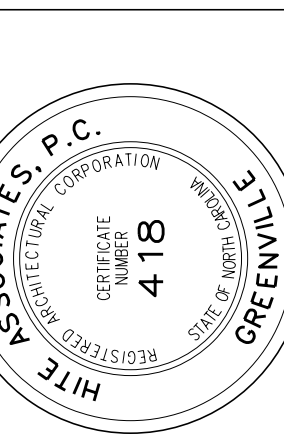
202.2 BUILDING SECTION  
SCALE: 1/4" = 1'-0"



202.1 BUILDING SECTION  
SCALE: 1/4" = 1'-0"

No.	Date	Revision

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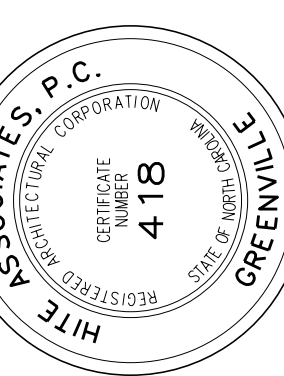


NEW CTE BUILDING FOR  
**Bertie High School**  
 716 US 13 North / NCDPS Unit 080 - School 312  
 Windsor / Bertie County / North Carolina

Project No. 22351  
 Date: December 18, 2024  
 Drawing no. **A 202**

No.	Date	Revision

**Hite associates**  
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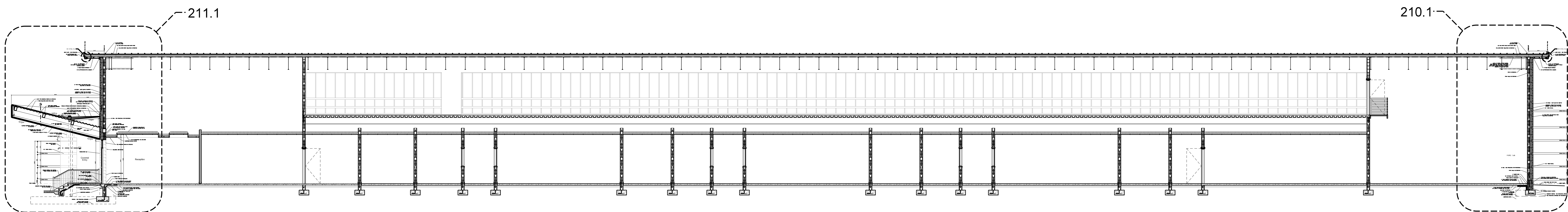
NEW CTE BUILDING FOR  
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 Windsor / Bertie County / North Carolina

Project No. 22351

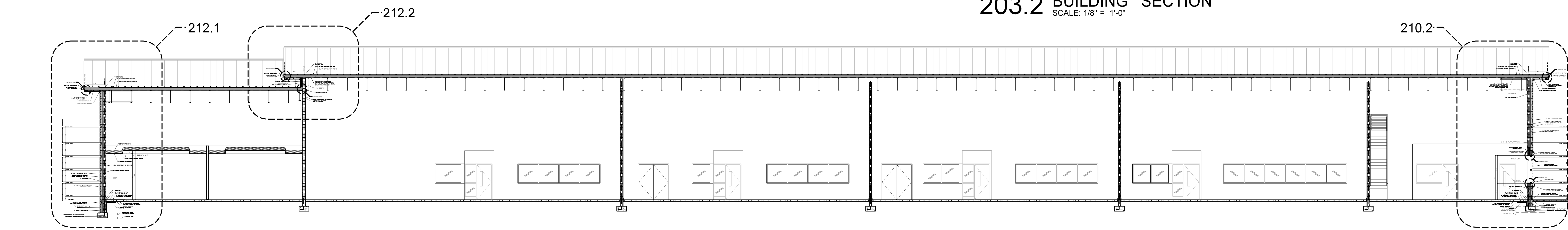
Date: December 18, 2024

Drawing no.

**A**  
**203**

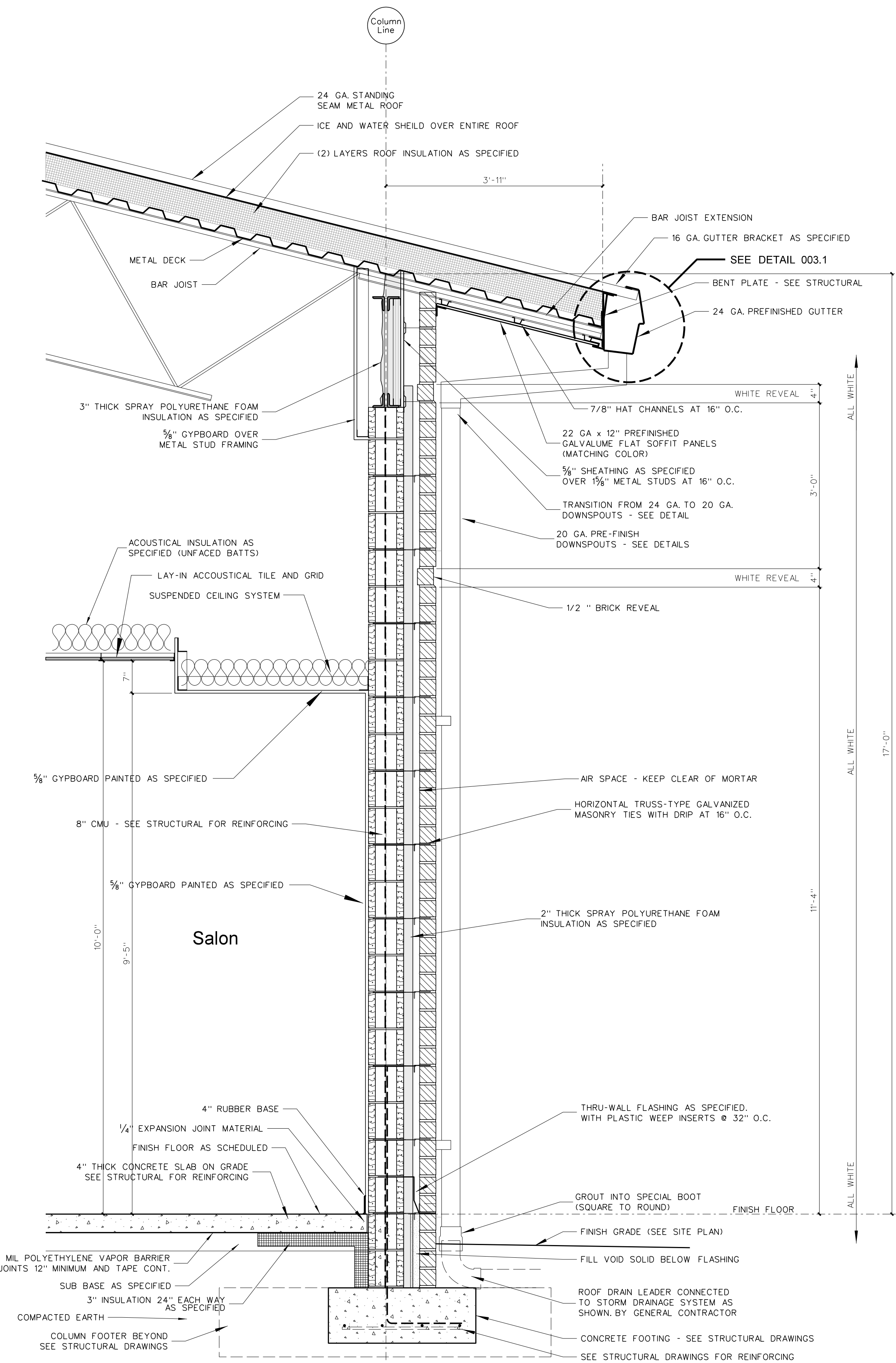


**203.2 BUILDING SECTION**  
 SCALE: 1/8" = 1'-0"

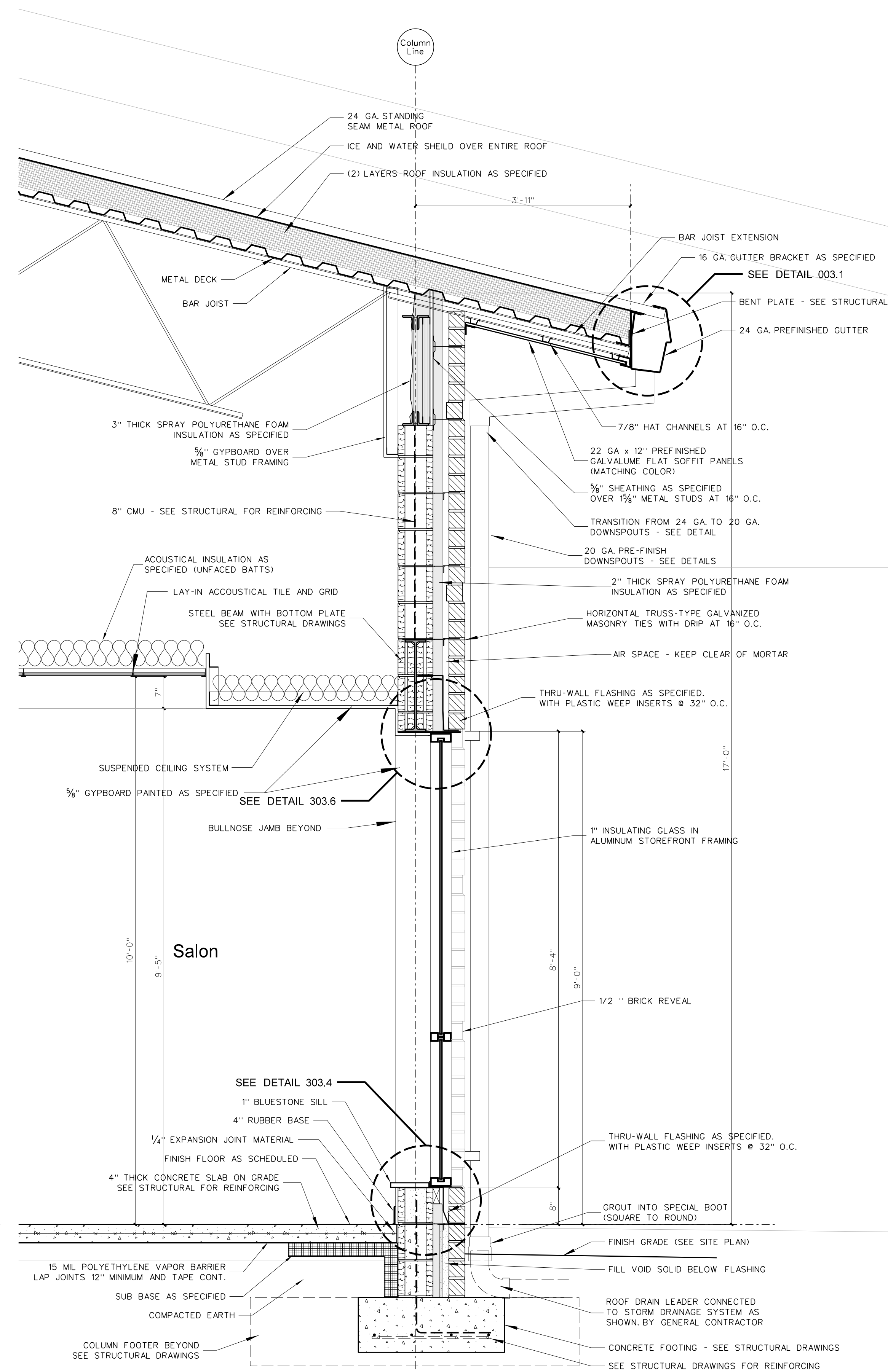


**203.1 BUILDING SECTION**  
 SCALE: 1/8" = 1'-0"

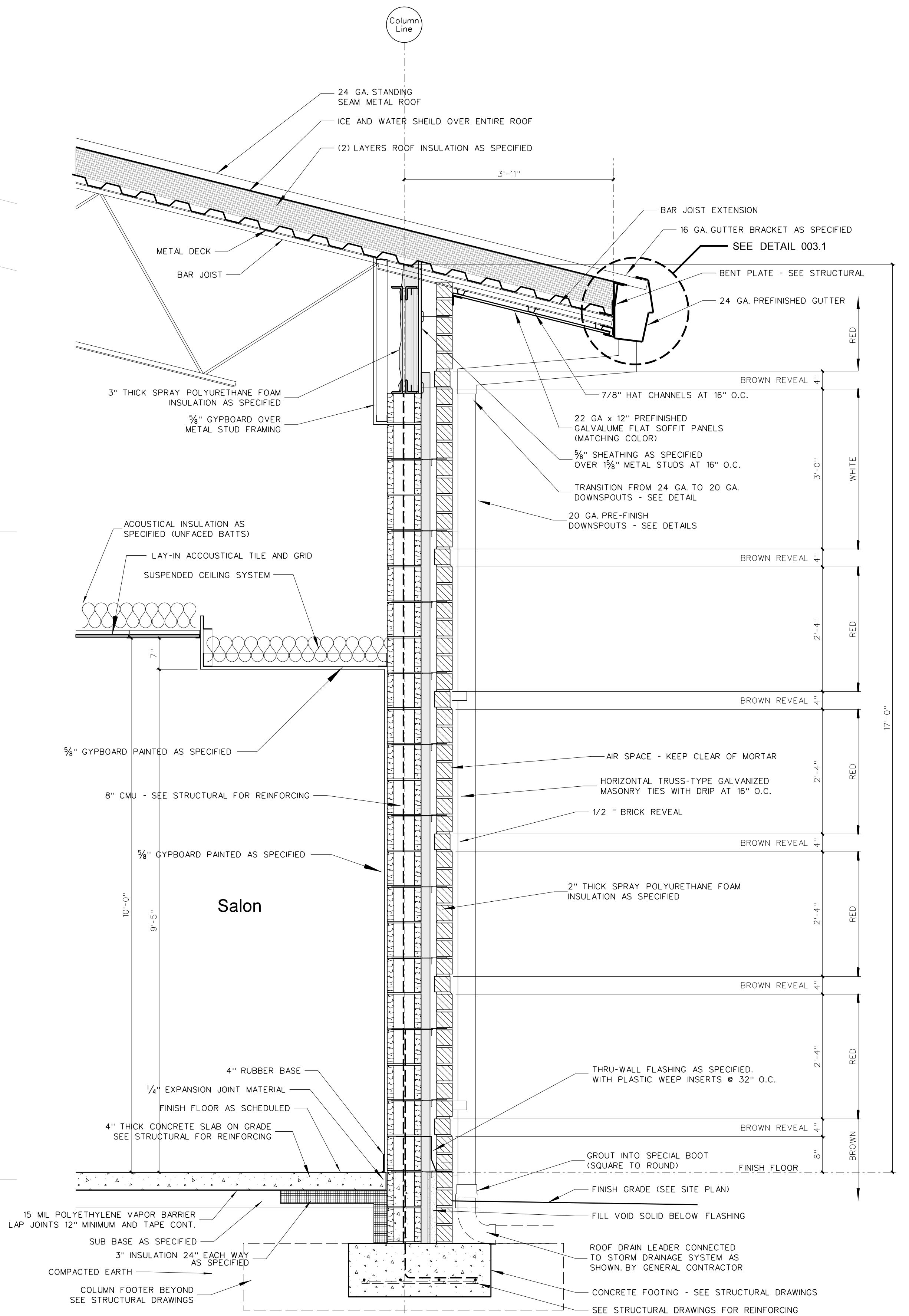




204.3 TYPICAL WALL SECTION AT SOLID WHITE BAND  
SCALE: 3/4" = 1'-0"



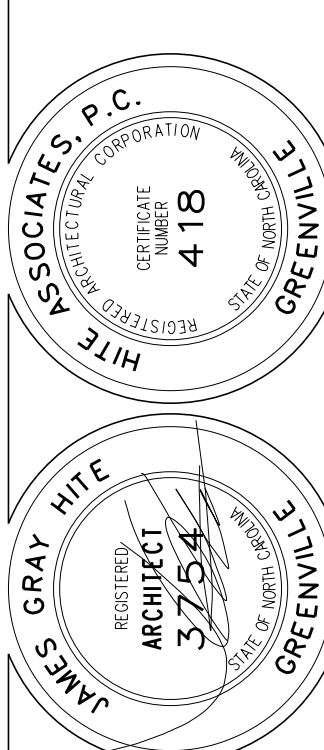
204.2 WALL SECTION AT WINDOW  
SCALE: 3/4" = 1'-0"



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

No.	Date	Revision

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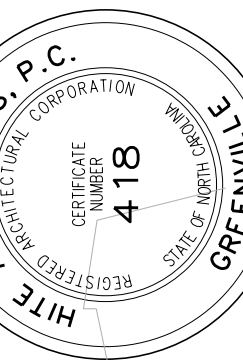


NEW CTE BUILDING FOR  
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Project No. 22351  
Date: December 18, 2024  
Drawing no. **A 204**

No.	Date	Revision

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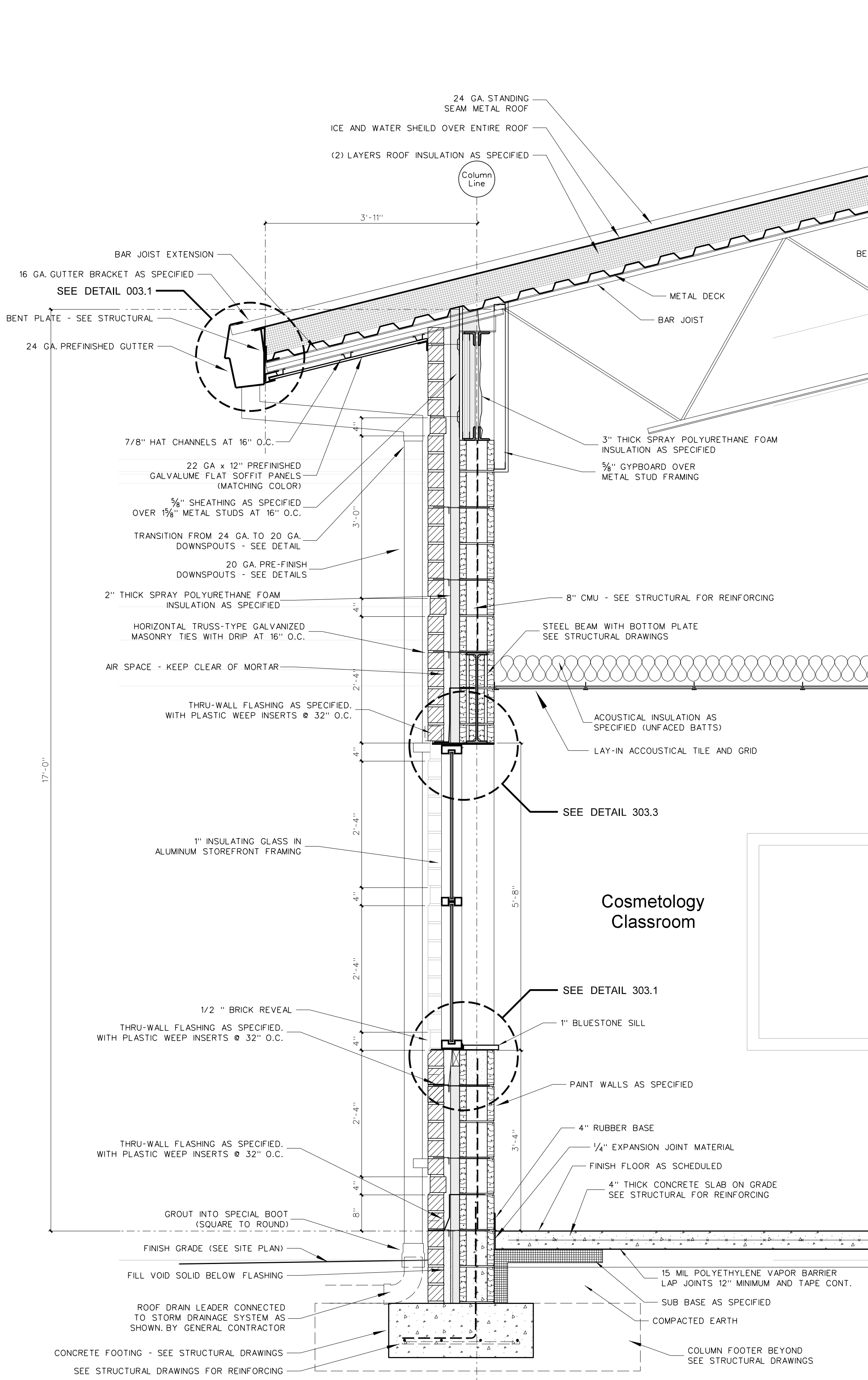
**NEW CTE BUILDING FOR  
Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 3112  
Windsor / Bertie County / North Carolina

Project No. 22351

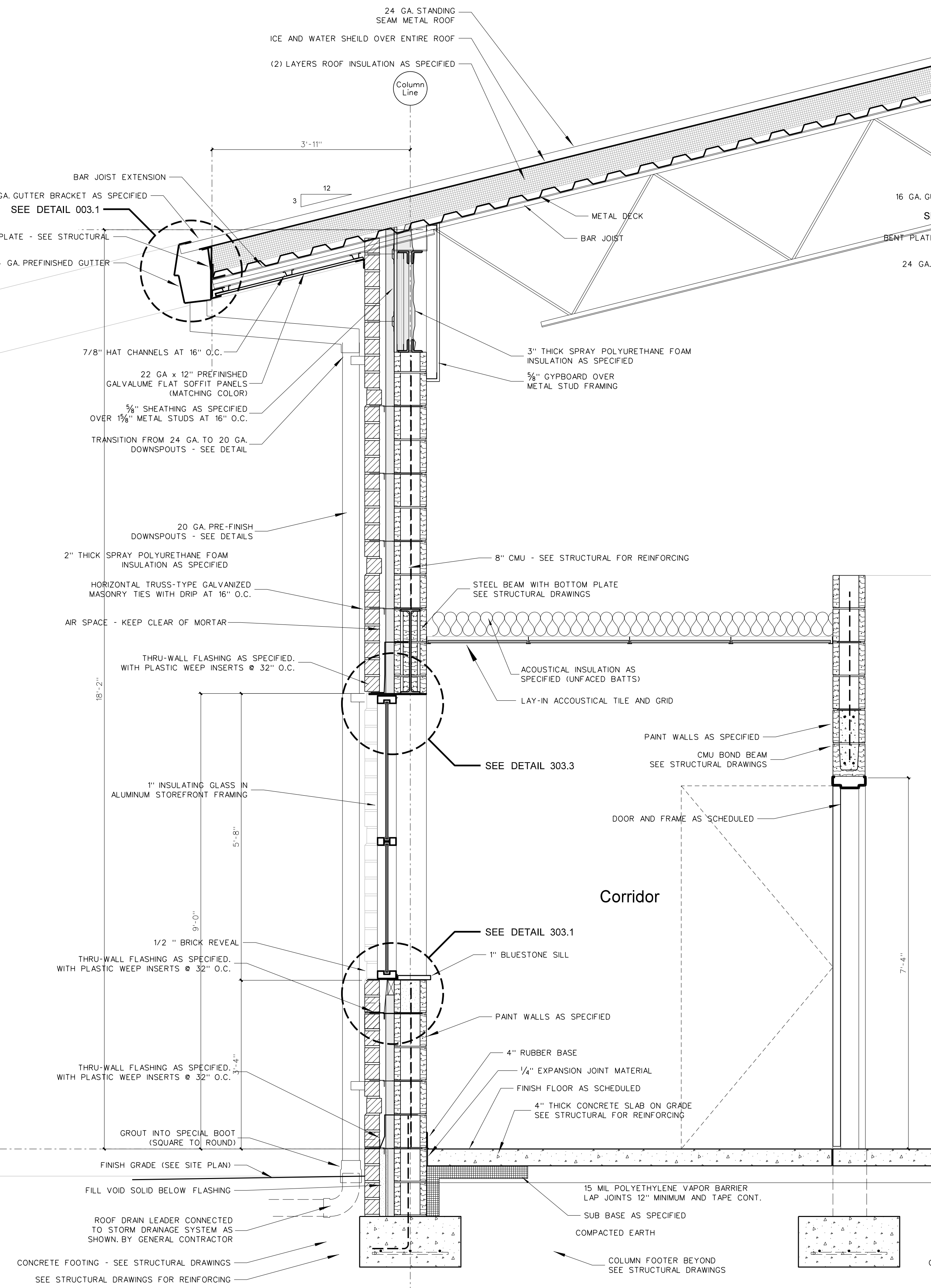
Date: December 18, 2024

Drawing No.

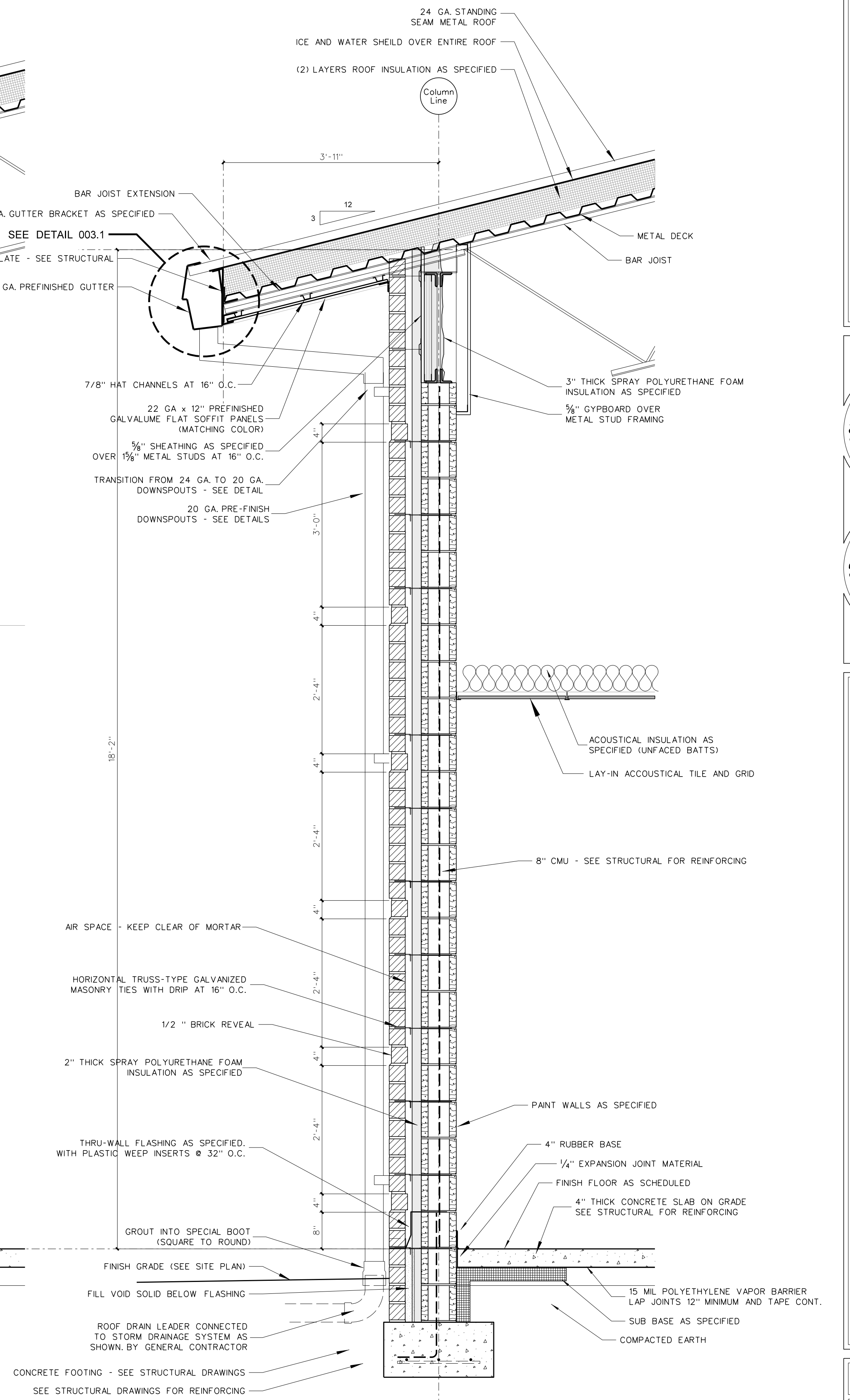
**A  
205**



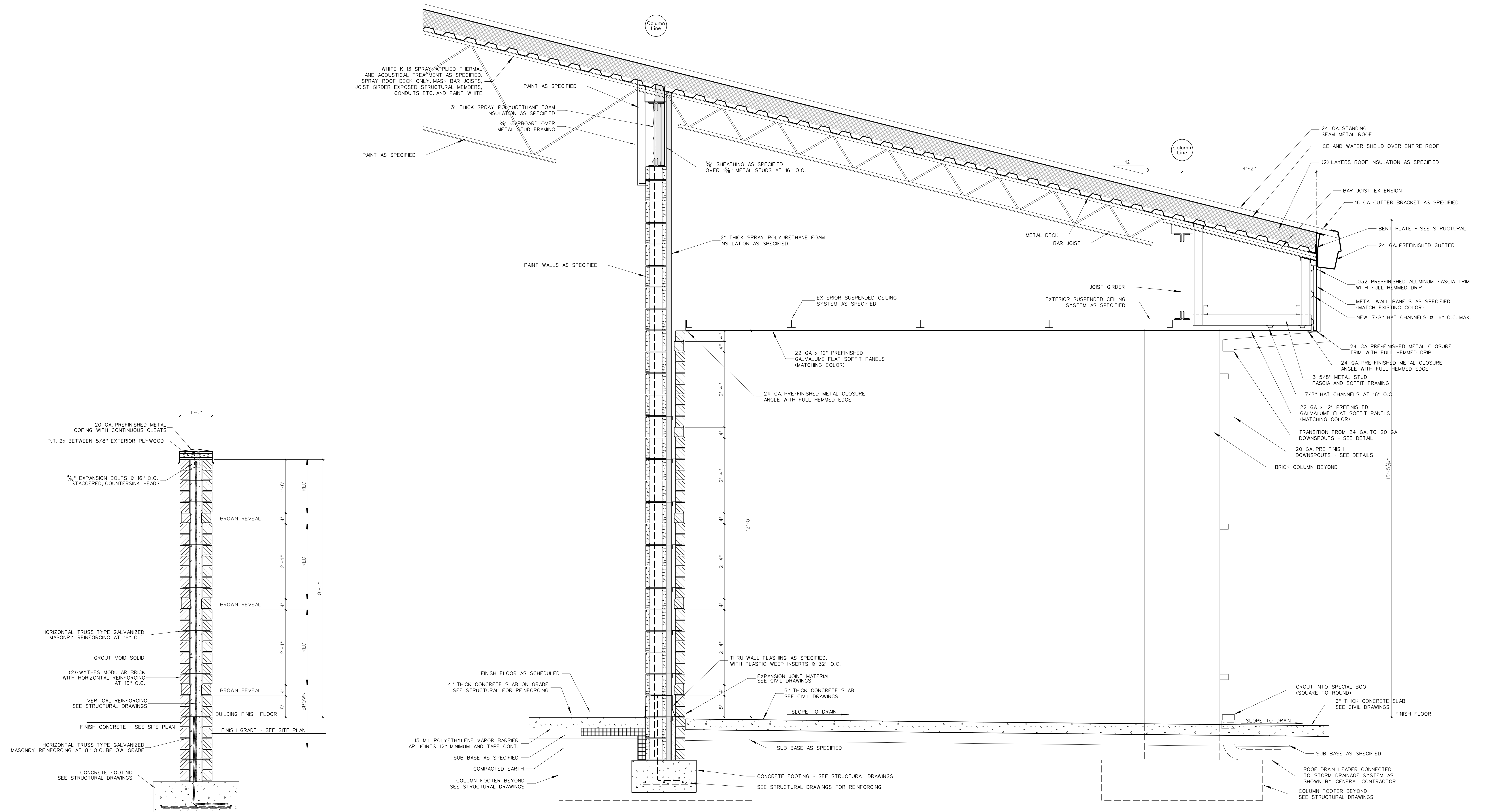
**205.3 WALL SECTION AT WINDOW**  
SCALE: 3/4" = 1'-0"



**205.2 WALL SECTION AT WINDOW**  
SCALE: 3/4" = 1'-0"



**205.1 TYPICAL WALL SECTION**  
SCALE: 3/4" = 1'-0"

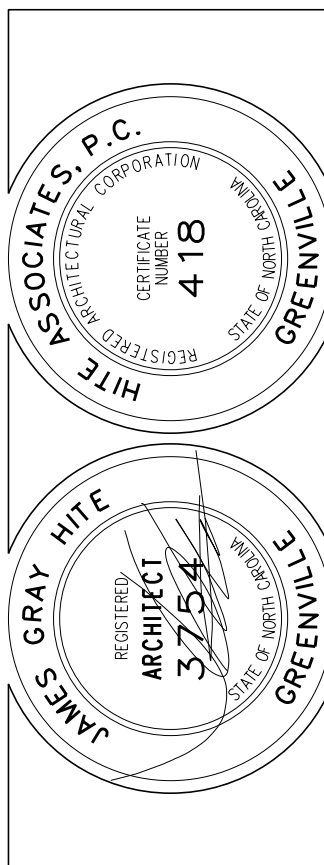


206.2 WALL SECTION AT SCREEN WALL

206.1 WALL SECTION AT COVERED AREA

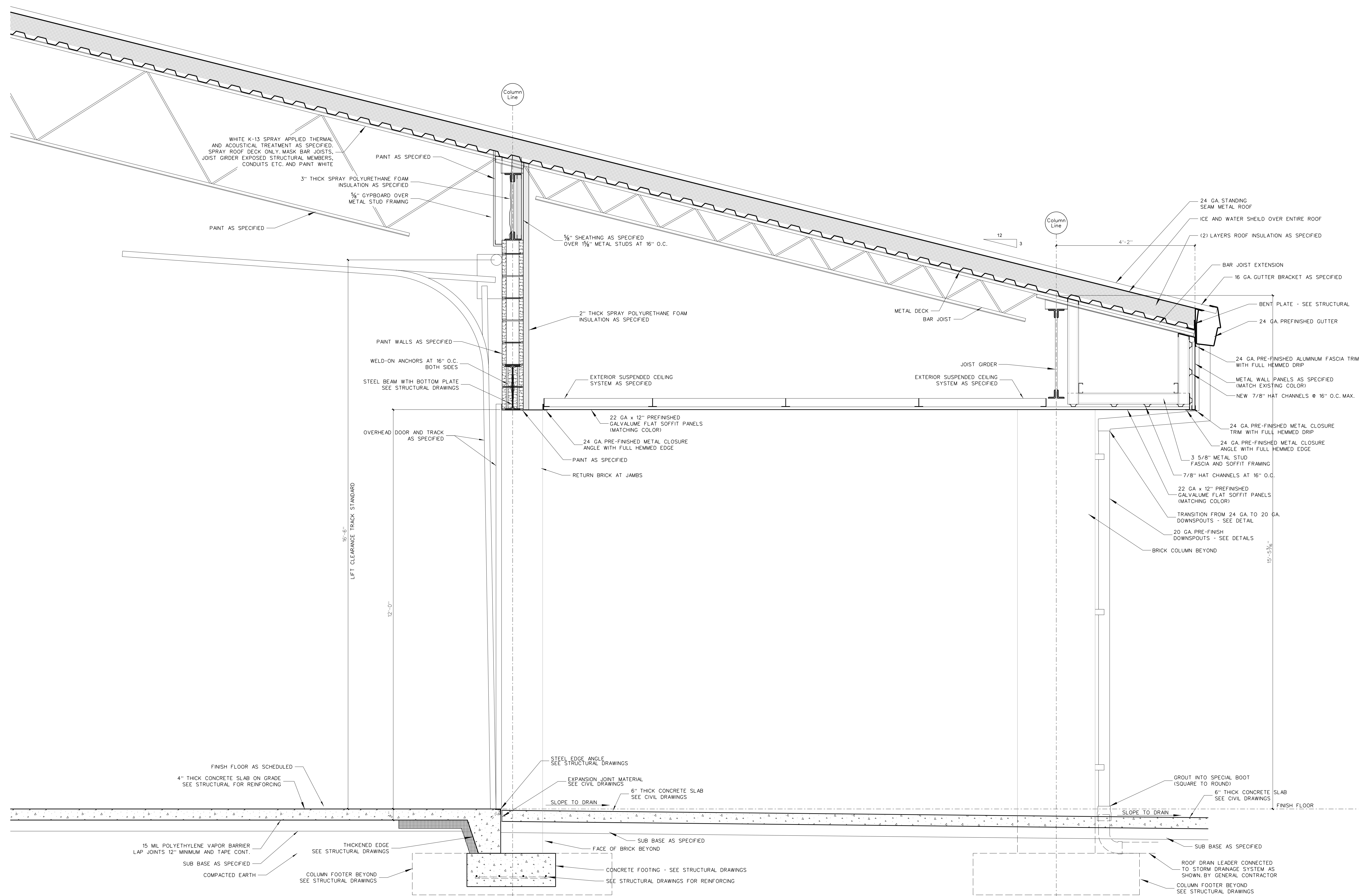
No.	Date	Revision

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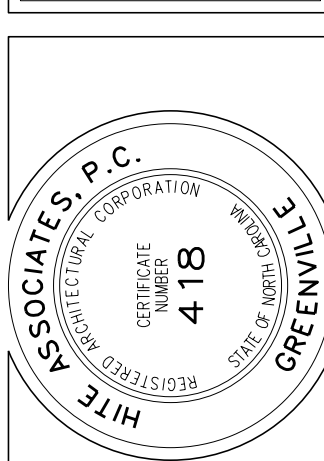
Project No.	22351
Date:	December 18, 2024
Drawing no.	<b>A</b> <b>206</b>



**207.1 WALL SECTION AT OVERHEAD DOORS**  
 SCALE: 3/4" = 1'-0"

No.	Date	Revision

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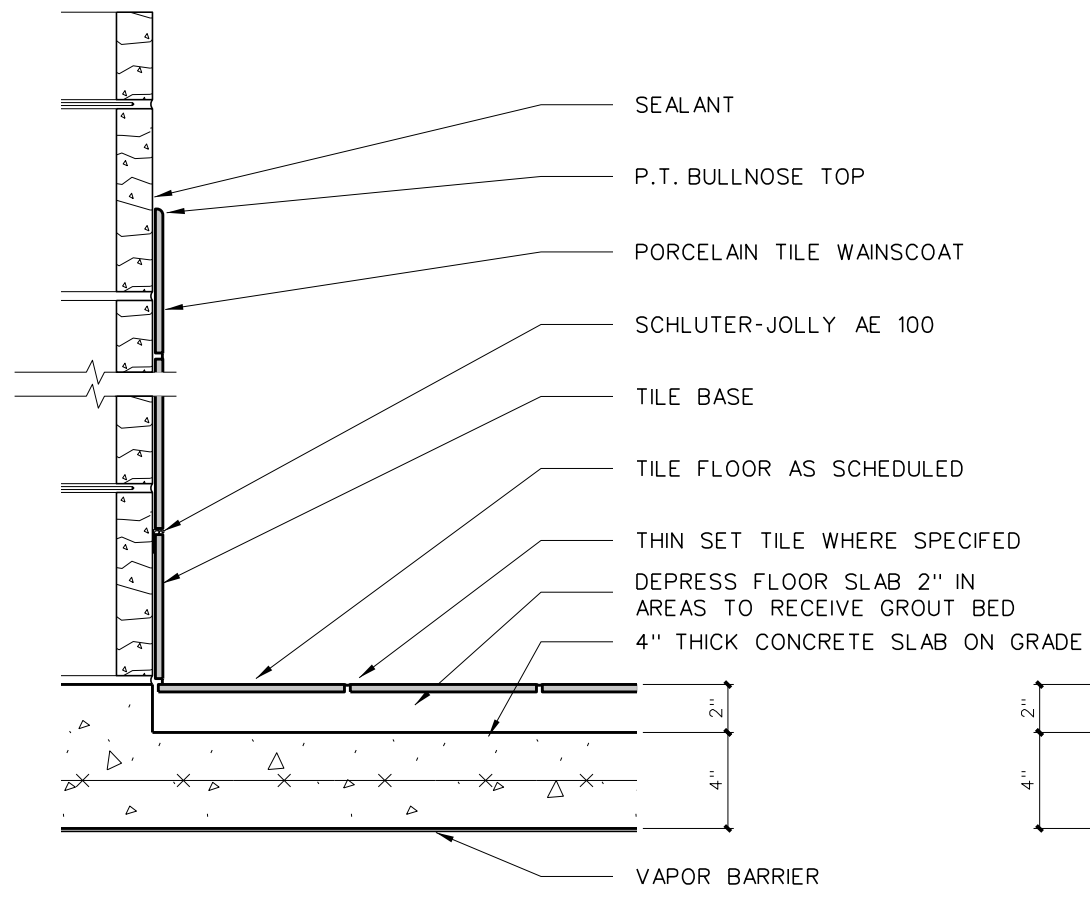
NEW CTE BUILDING FOR  
**Bertie High School**  
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Project No. 22351

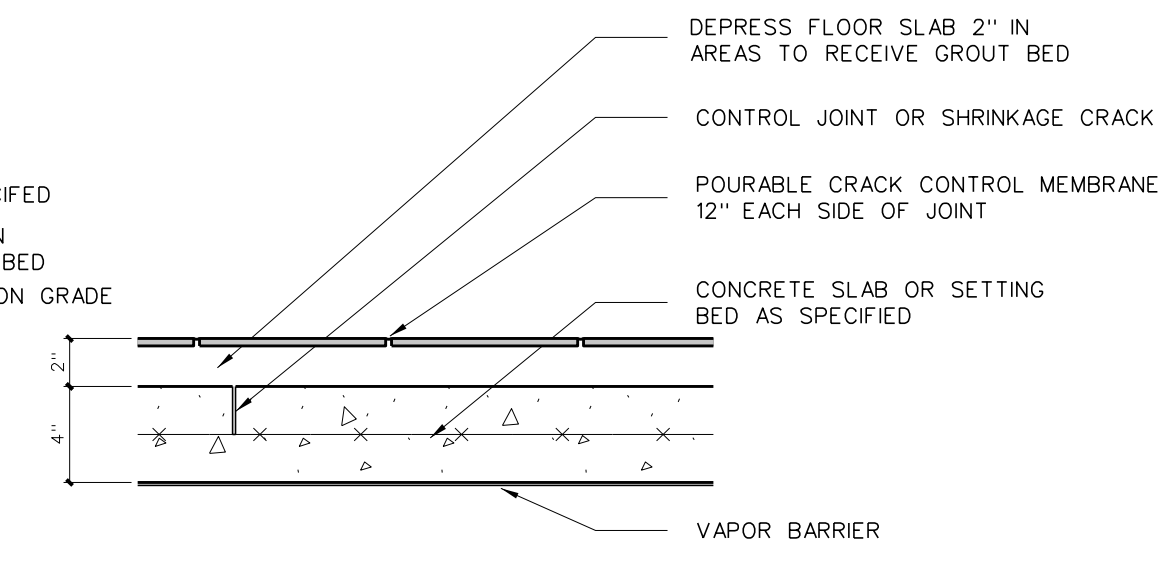
Date: December 18, 2024

Drawing no.

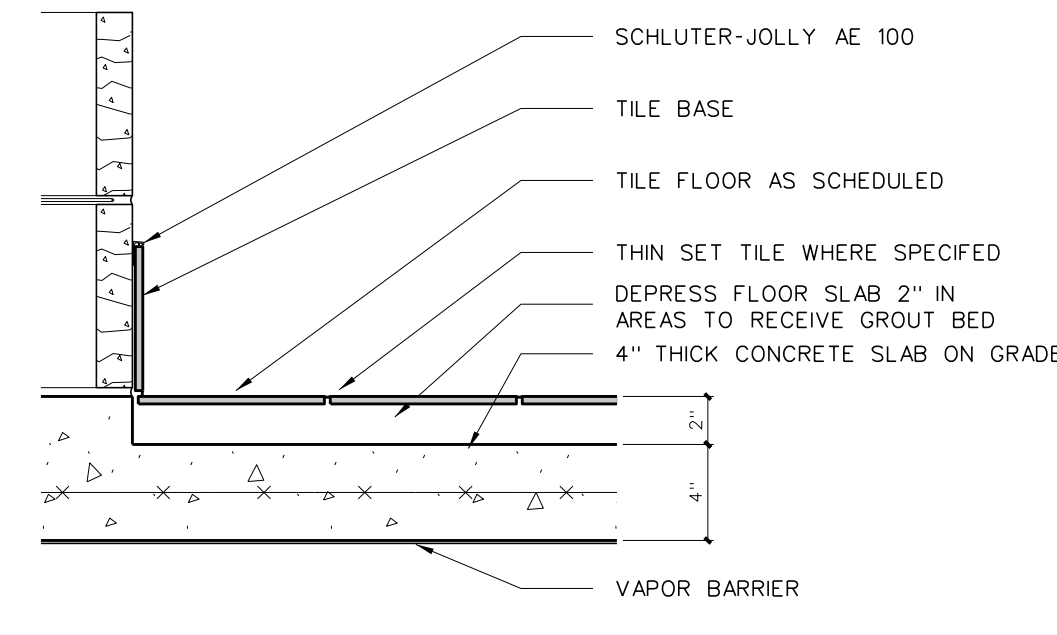
**A**  
**207**



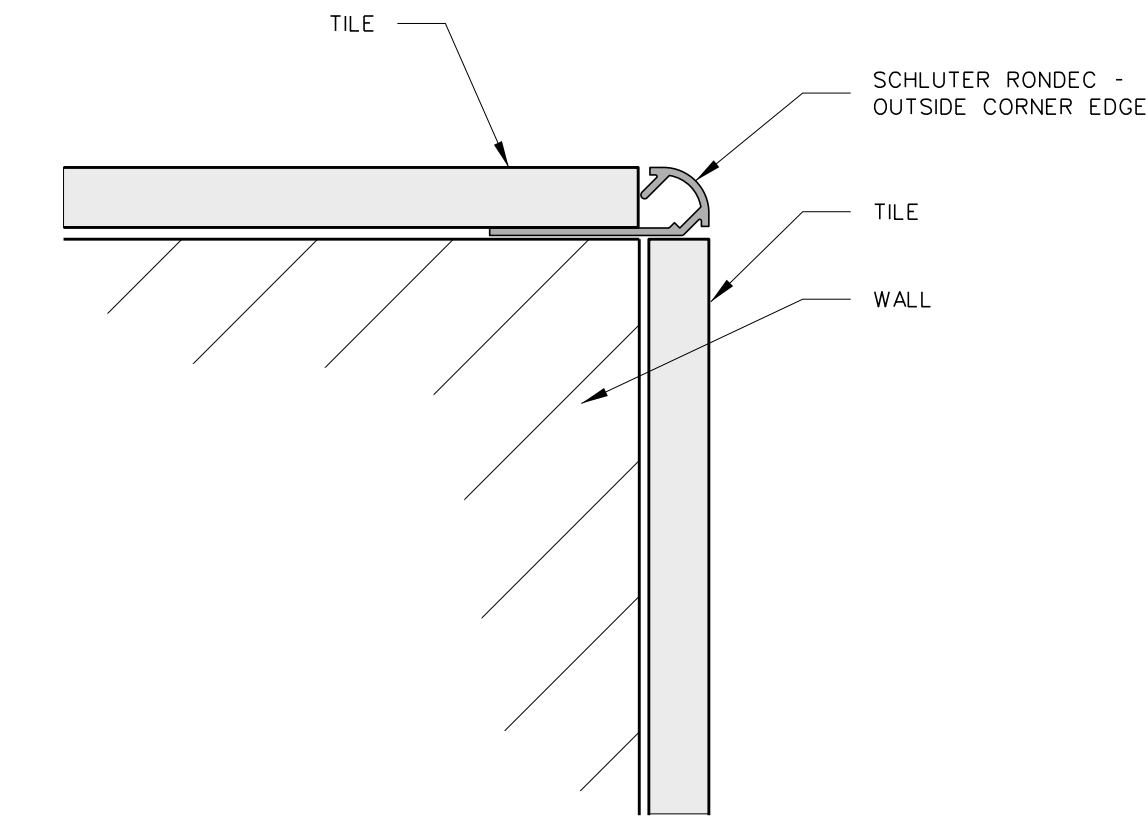
BASE / WAINSCOT DETAIL @ GROUT BED



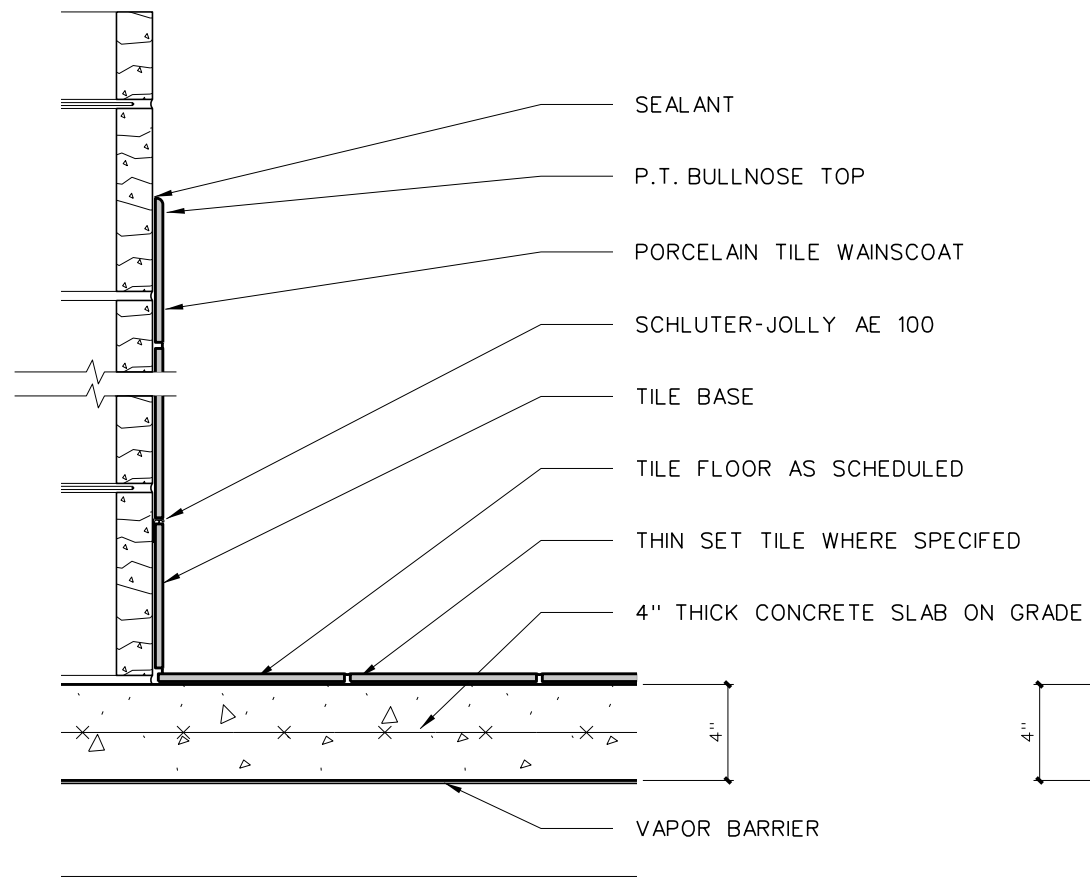
DETAIL @ CONTROL JOINT



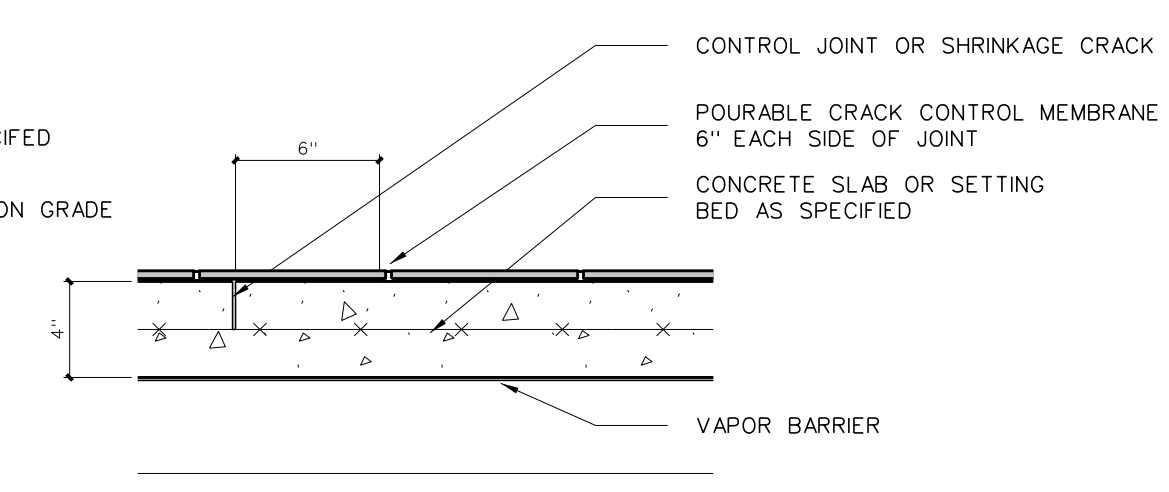
BASE DETAIL @ GROUT BED



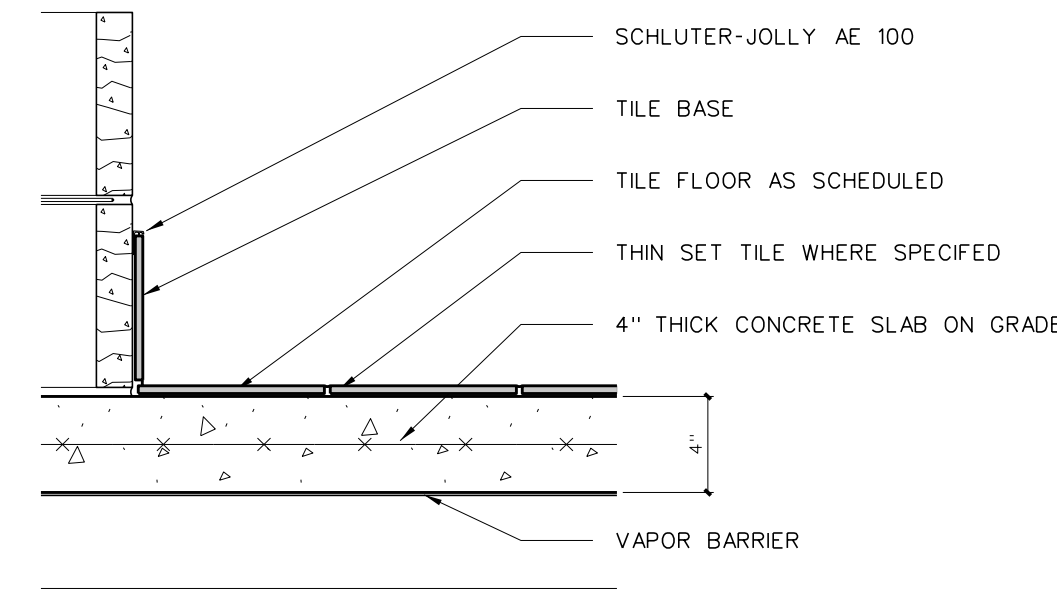
208.4 OUTSIDE CORNER DETAIL  
SCALE: 1 1/2" = 1'-0"



BASE / WAINSCOT DETAIL FOR THIN SET TILE

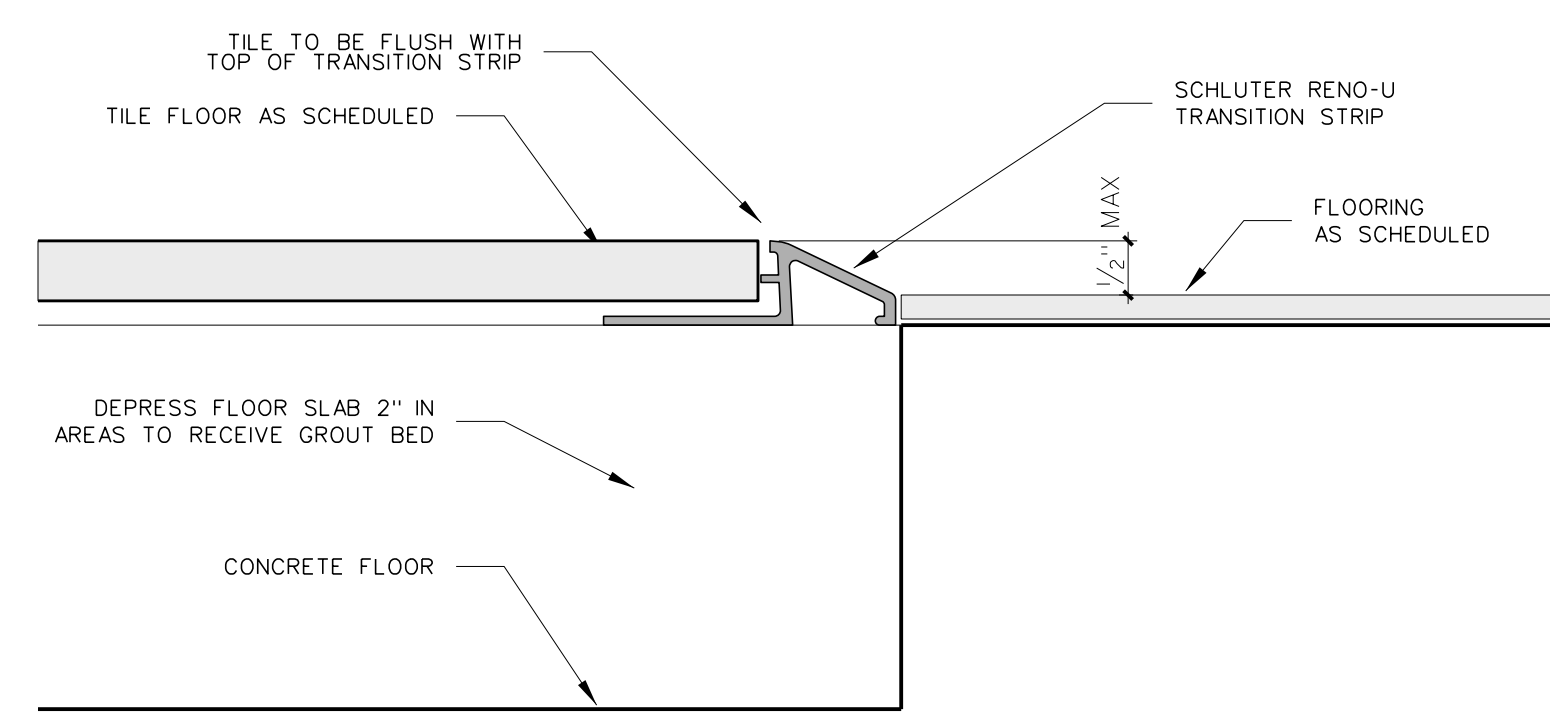
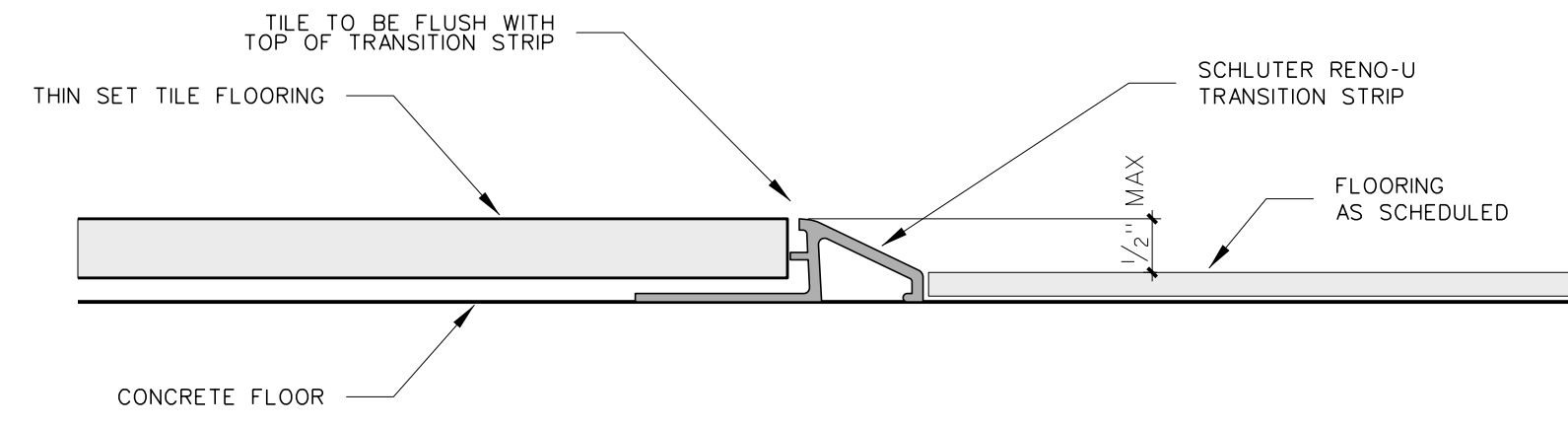


THIN SET TILE DETAIL @ CONTROL JOINT

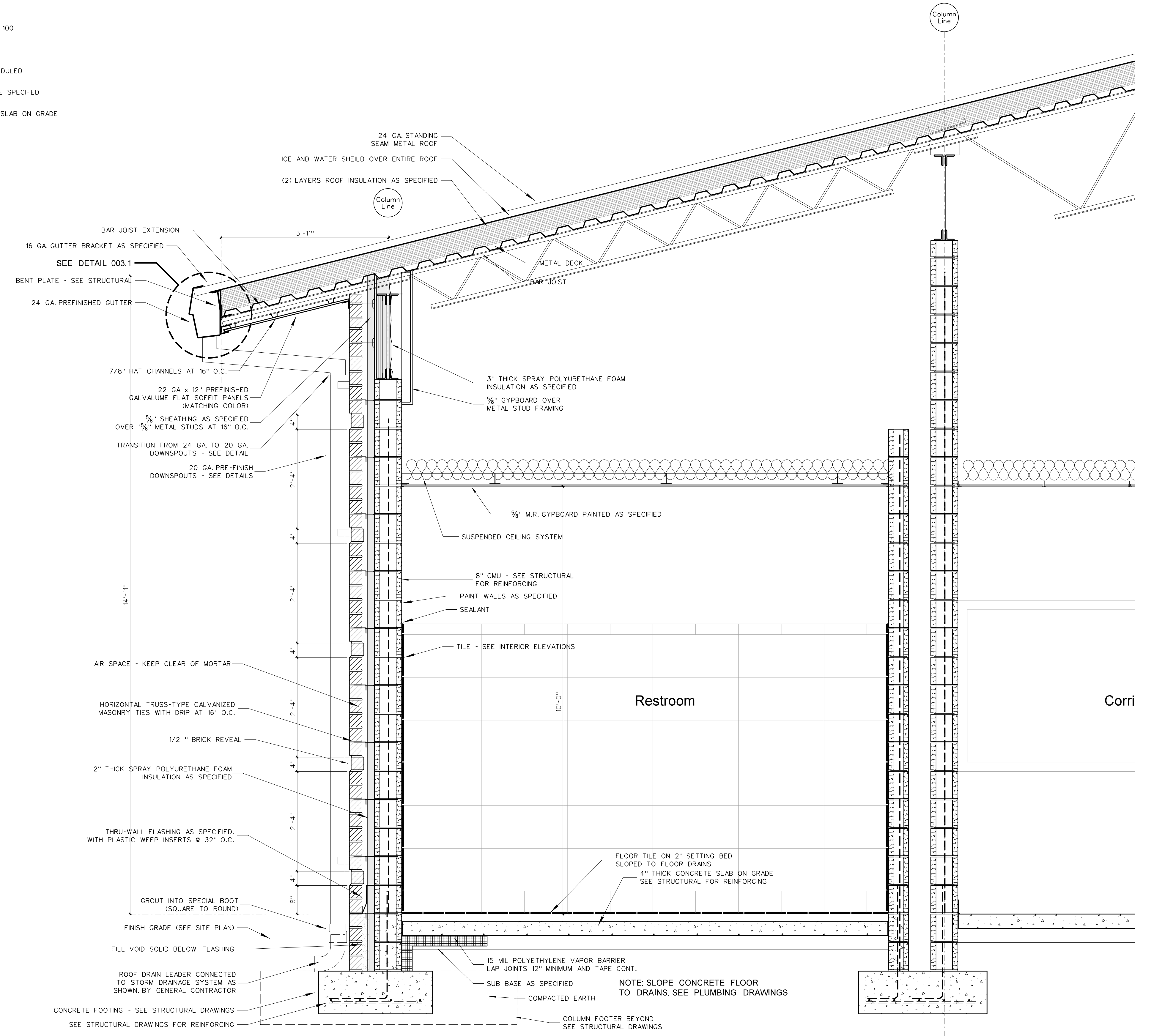


BASE DETAIL FOR THIN SET TILE

208.3 TILE DETAILS  
SCALE: 1 1/2" = 1'-0"



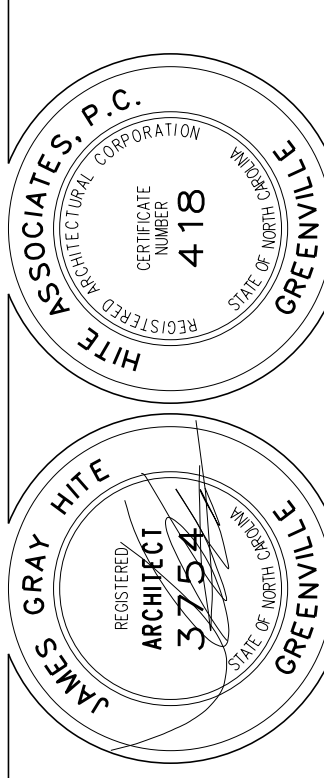
208.2 TILE THRESHOLD DETAILS  
SCALE: 1 1/2" = 1'-0"



208.1 WALL SECTION GROUP TOILETS  
SCALE: 3/4" = 1'-0"

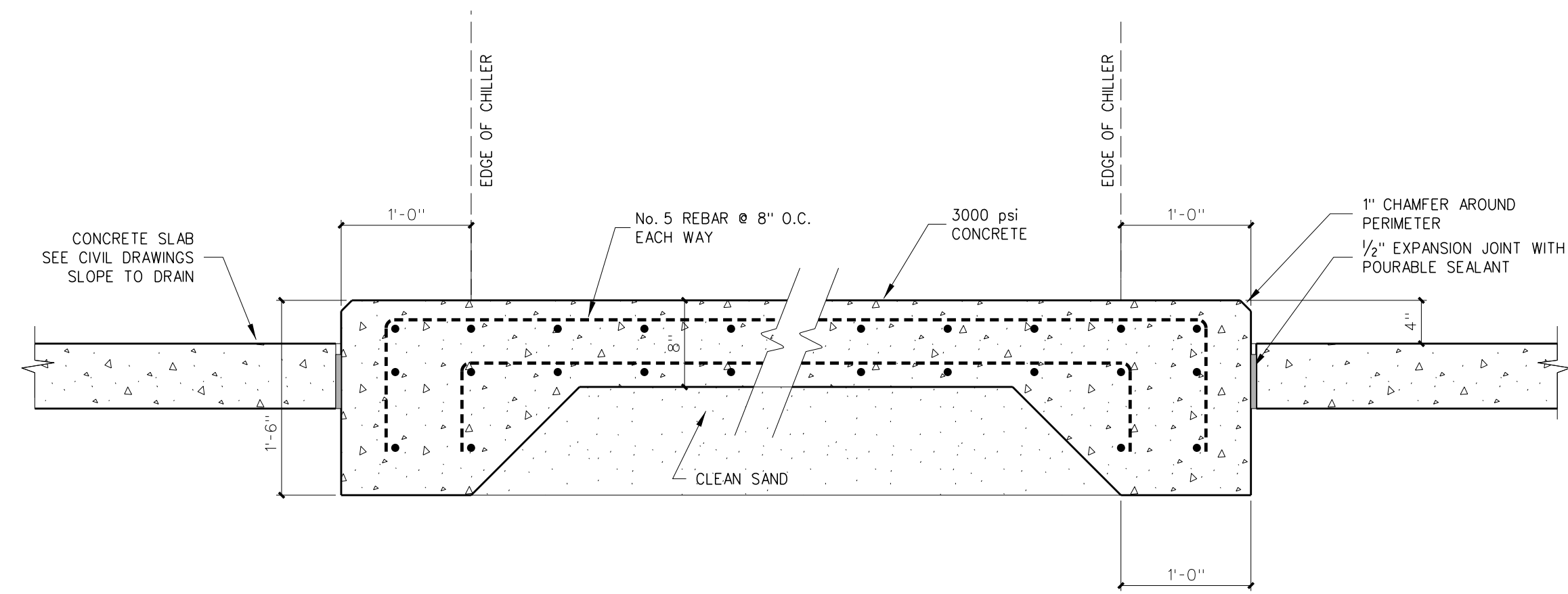
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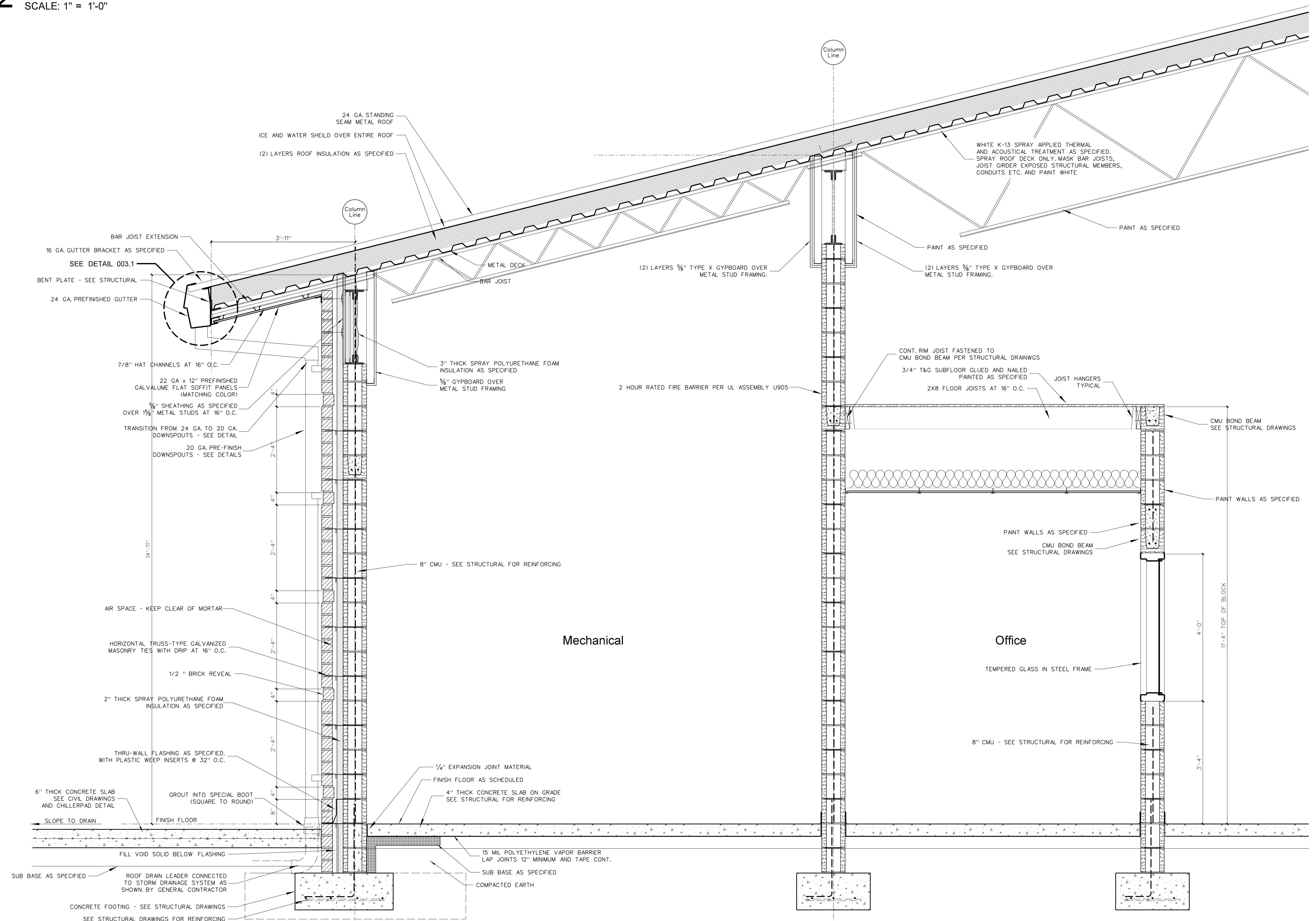


NEW CTE BUILDING FOR  
**Bertie High School**  
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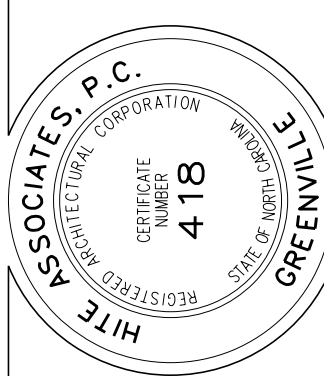
**209.2 CHILLER PAD DETAIL**  
SCALE: 1" = 1'-0"



**209.1 WALL SECTION AT MECHANICAL ROOM**  
SCALE: 3/4" = 1'-0"

No.	Date	Revision

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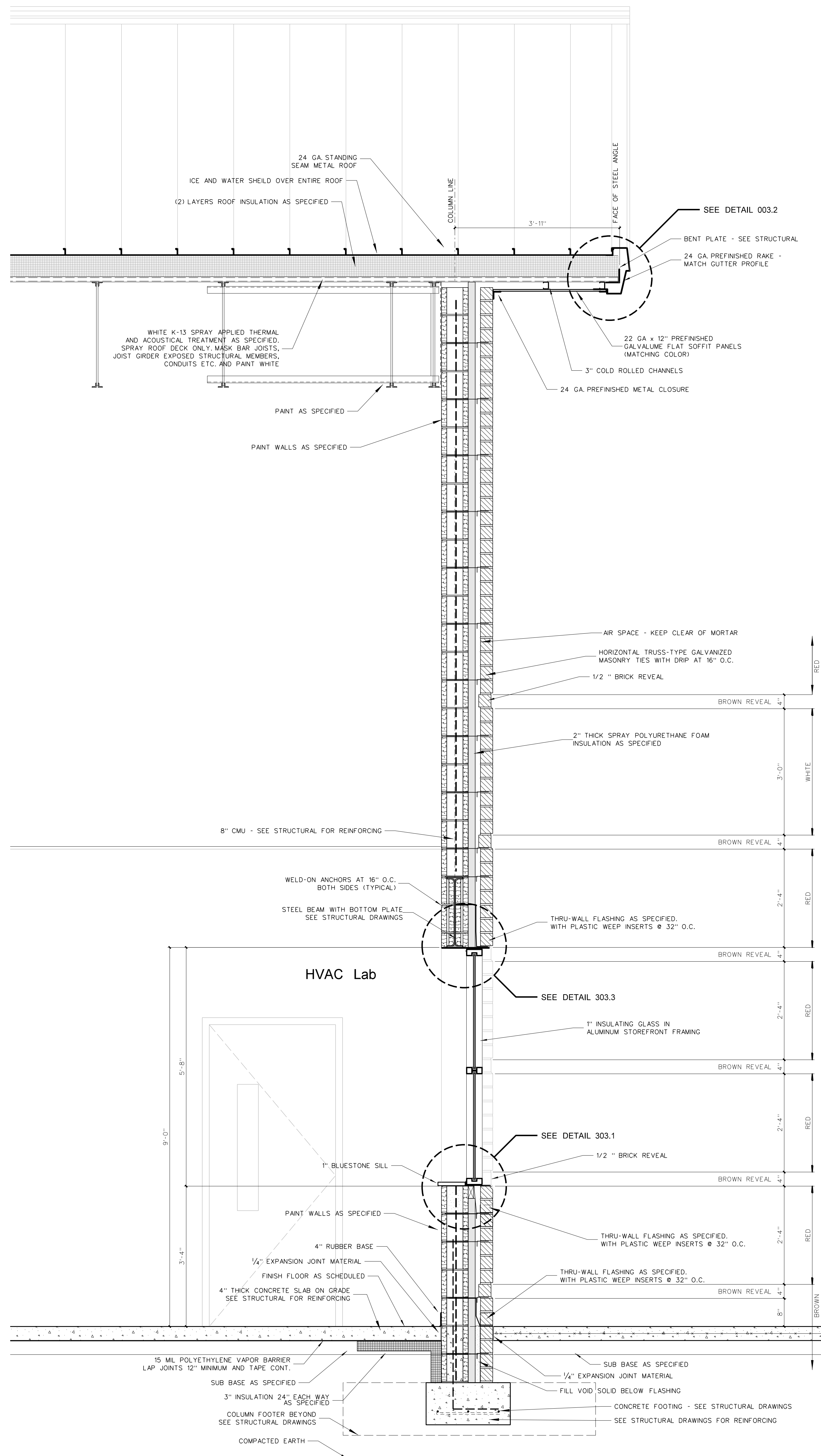
NEW CTE BUILDING FOR  
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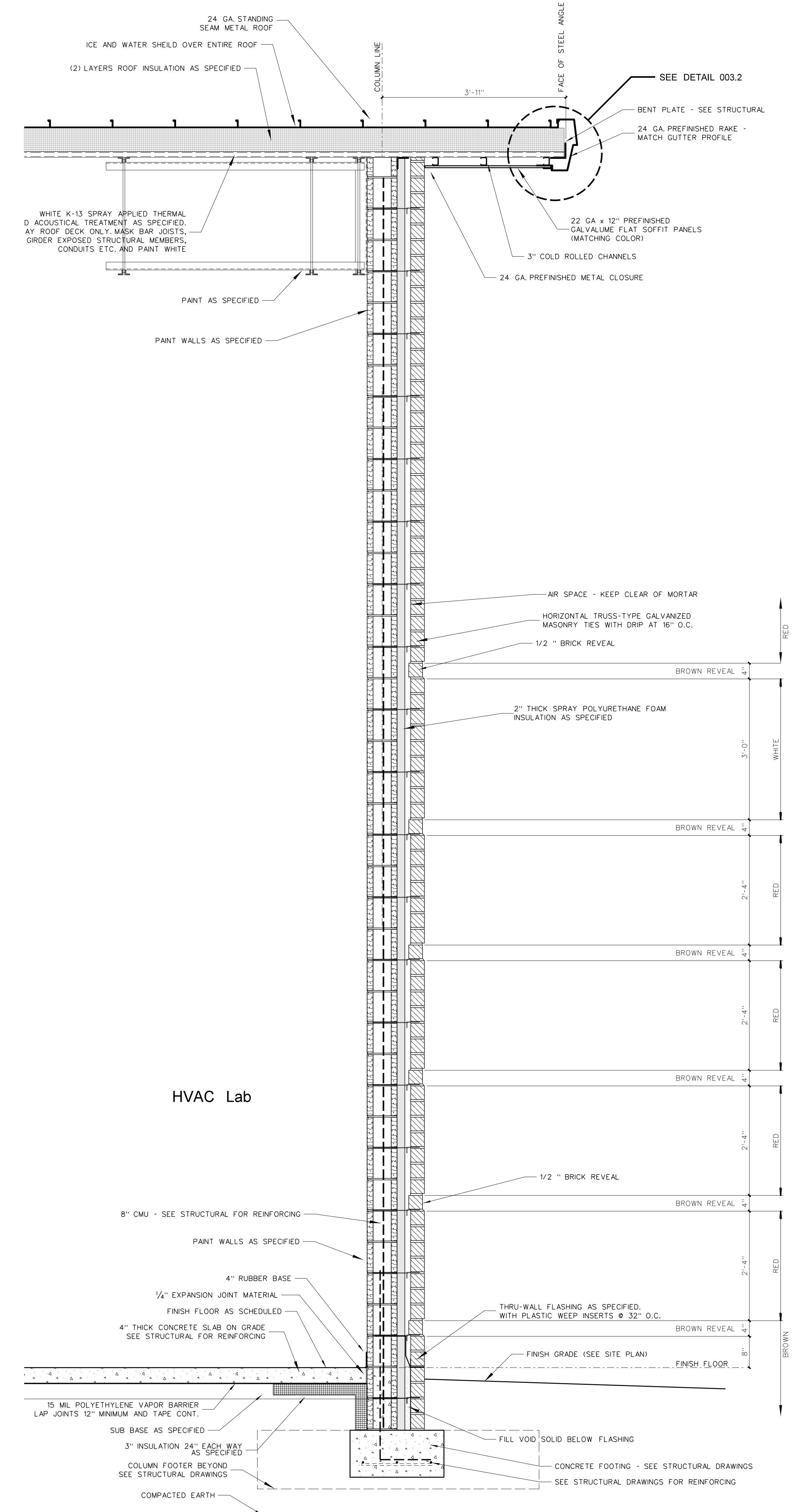
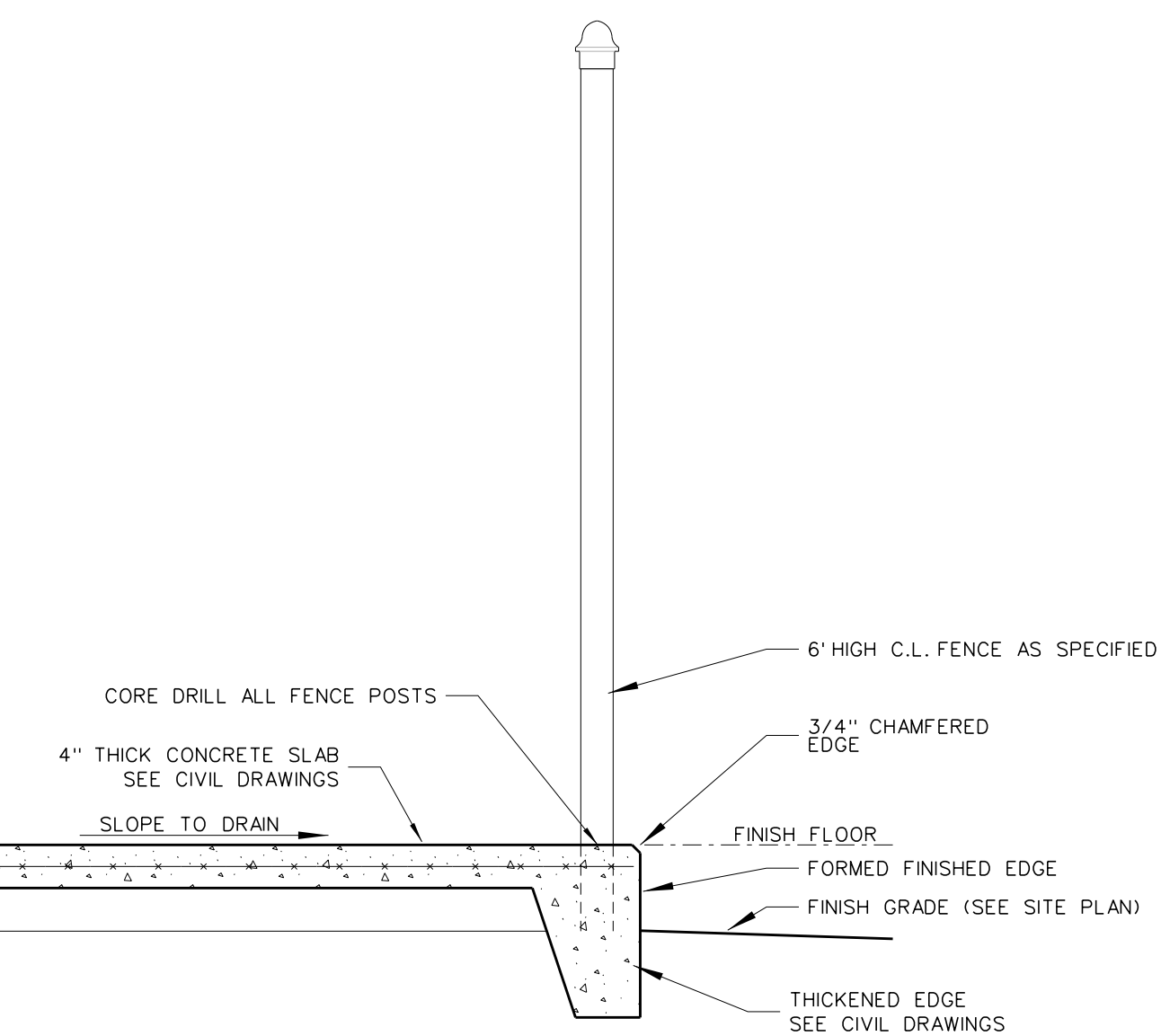
Date: December 18, 2024

Drawing no.

**A**  
**209**



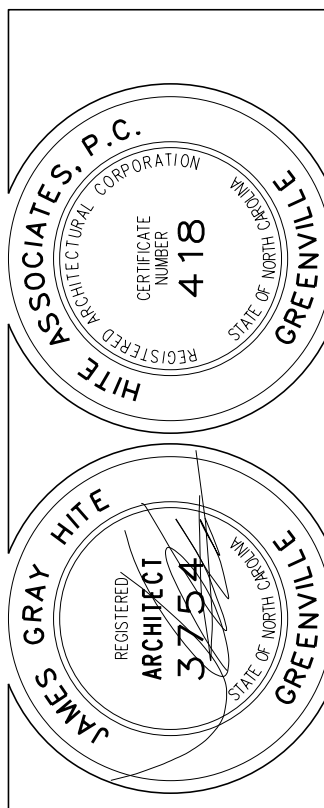
210.2 RAKE WALL SECTION  
SCALE: 3/4" = 1'-0"



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

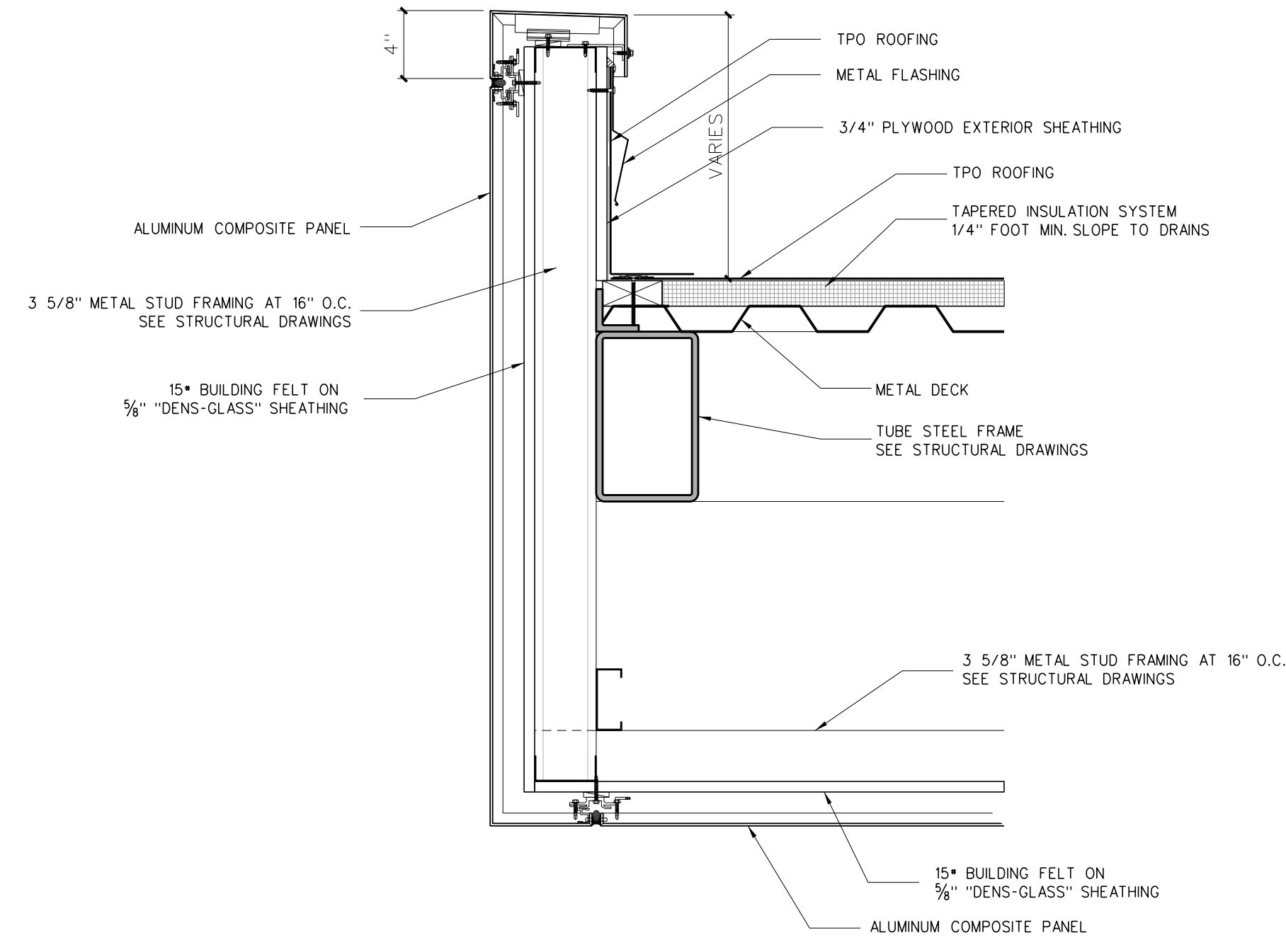
No.	Date	Revision

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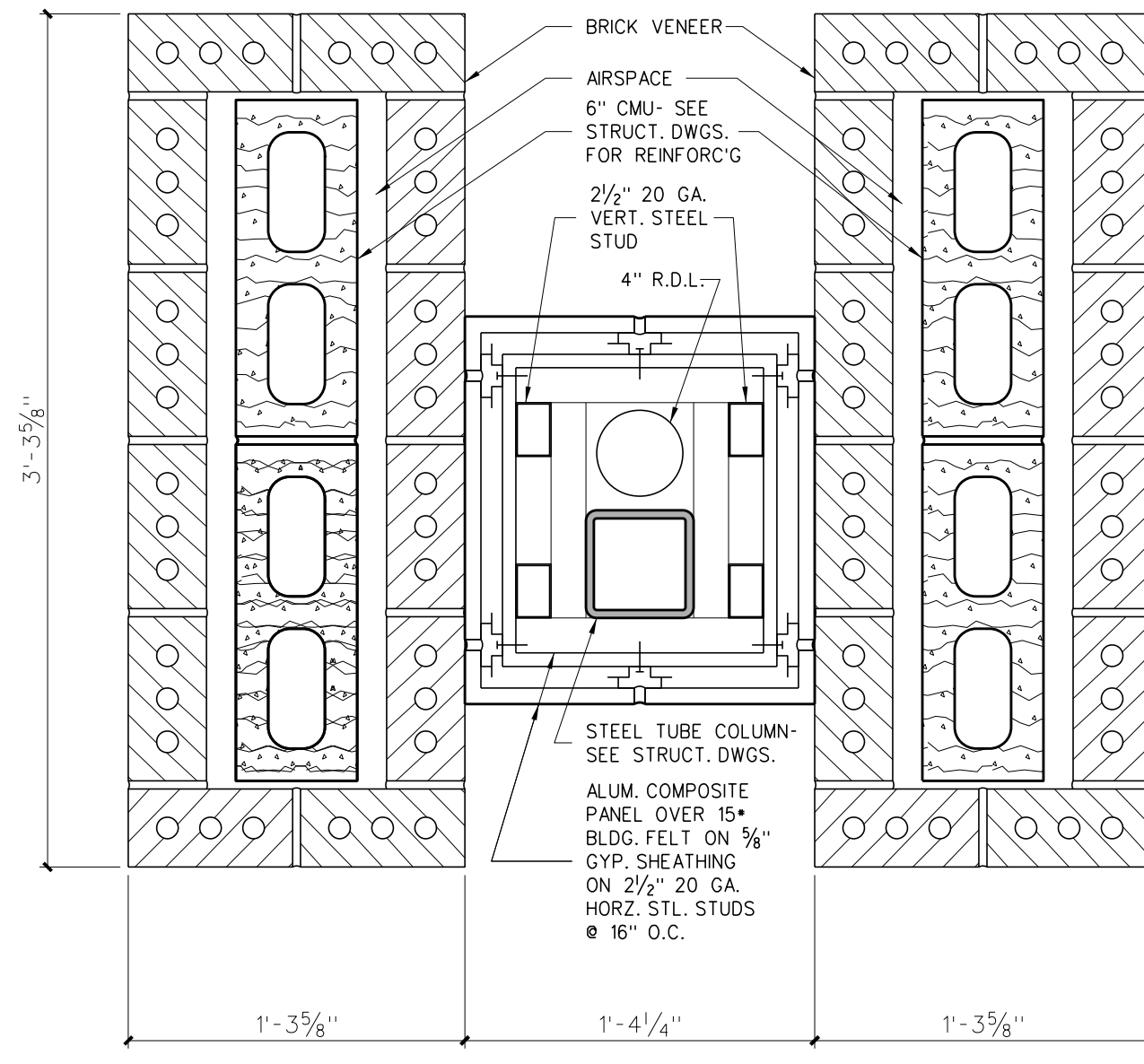


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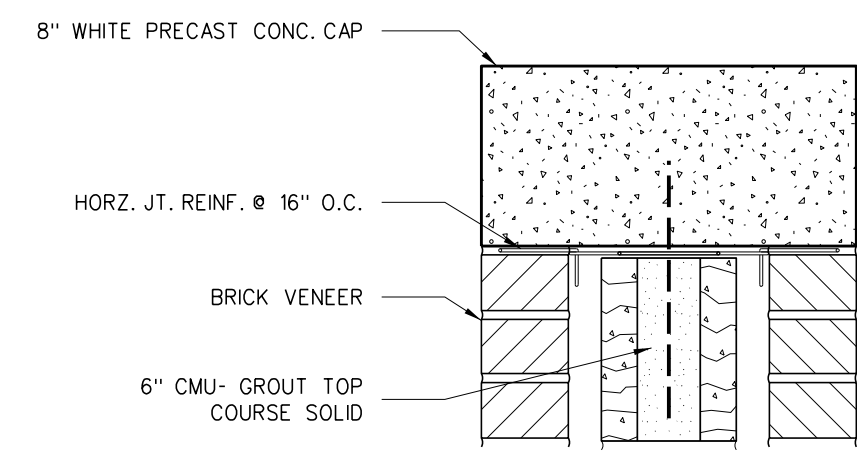
Project No. 22351  
Date: December 18, 2024  
Drawing no. **A 210**



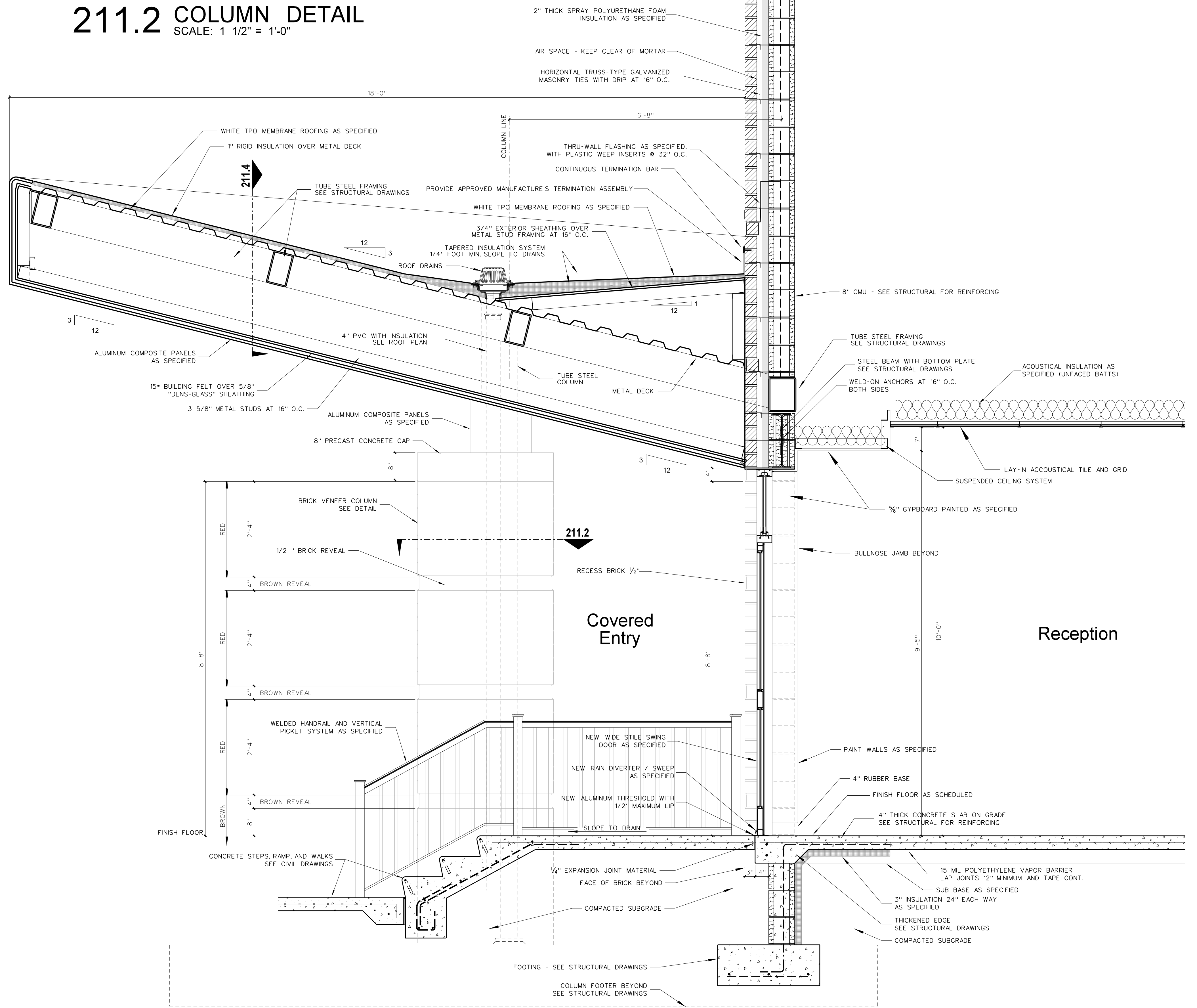
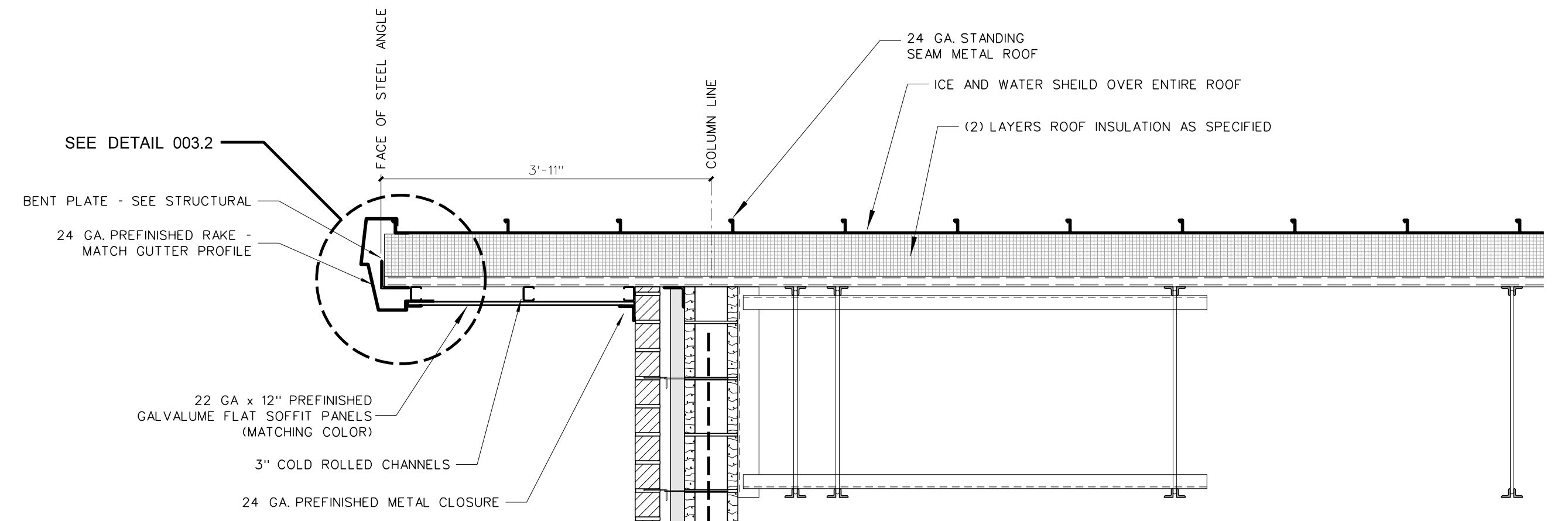
211.4 PARAPET DETAIL  
SCALE: 1 1/2" = 1'-0"



211.2 COLUMN DETAIL  
SCALE: 1 1/2" = 1'-0"



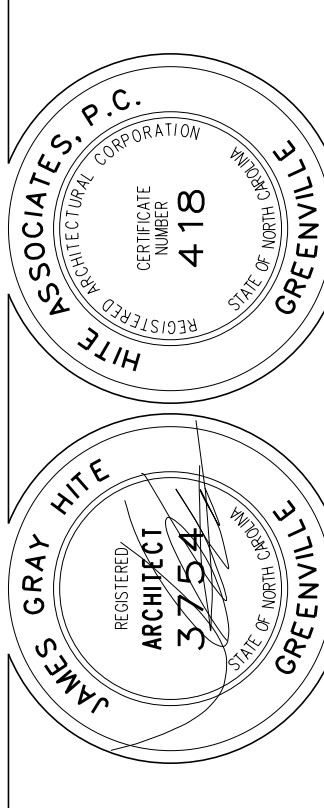
211.3 CONCRETE CAP DETAIL  
SCALE: 1 1/2" = 1'-0"



211.1 WALL SECTION AT COSMETOLOGY ENTRY  
SCALE: 3/4" = 1'-0"

No.	Date	Revision

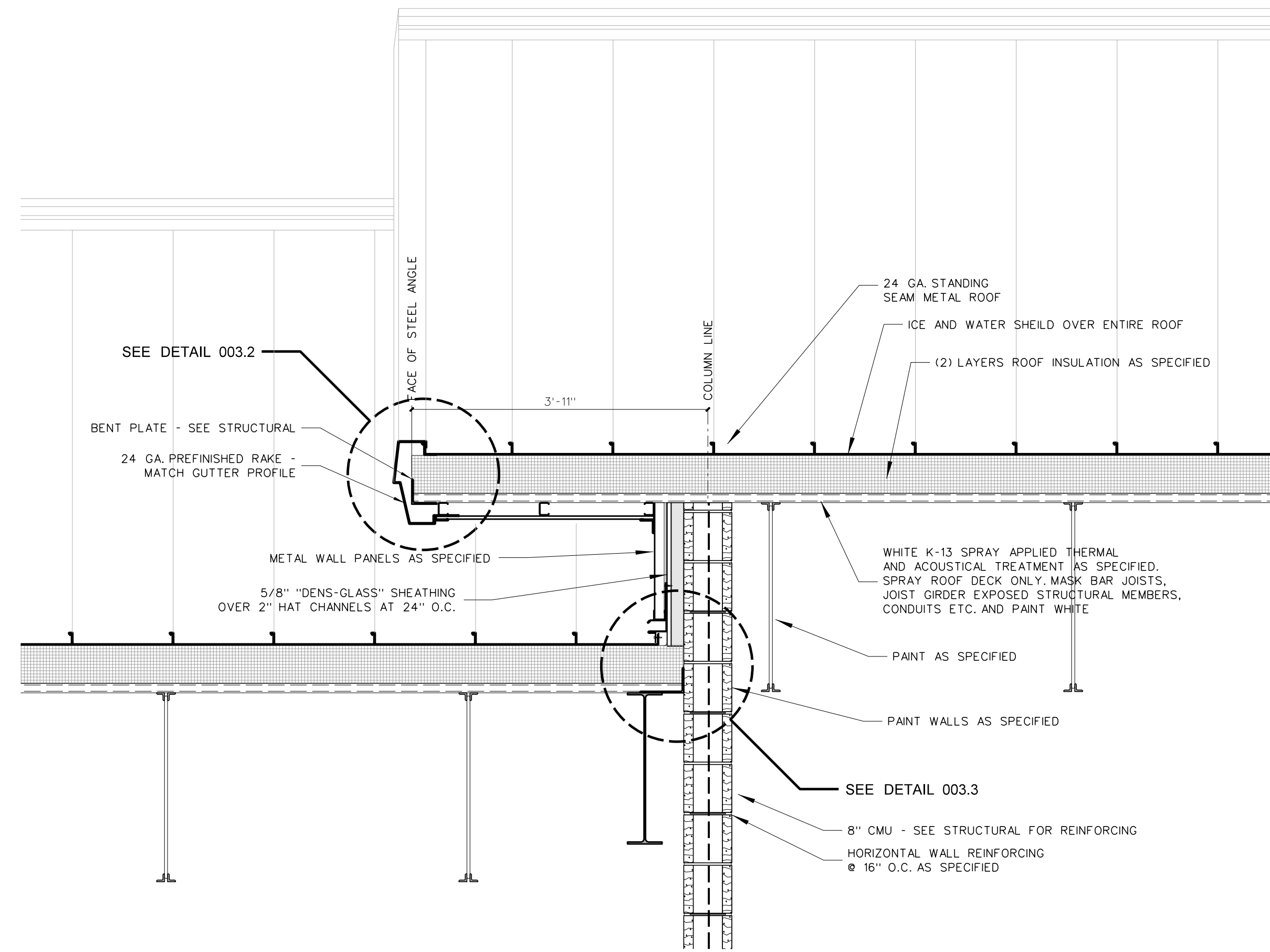
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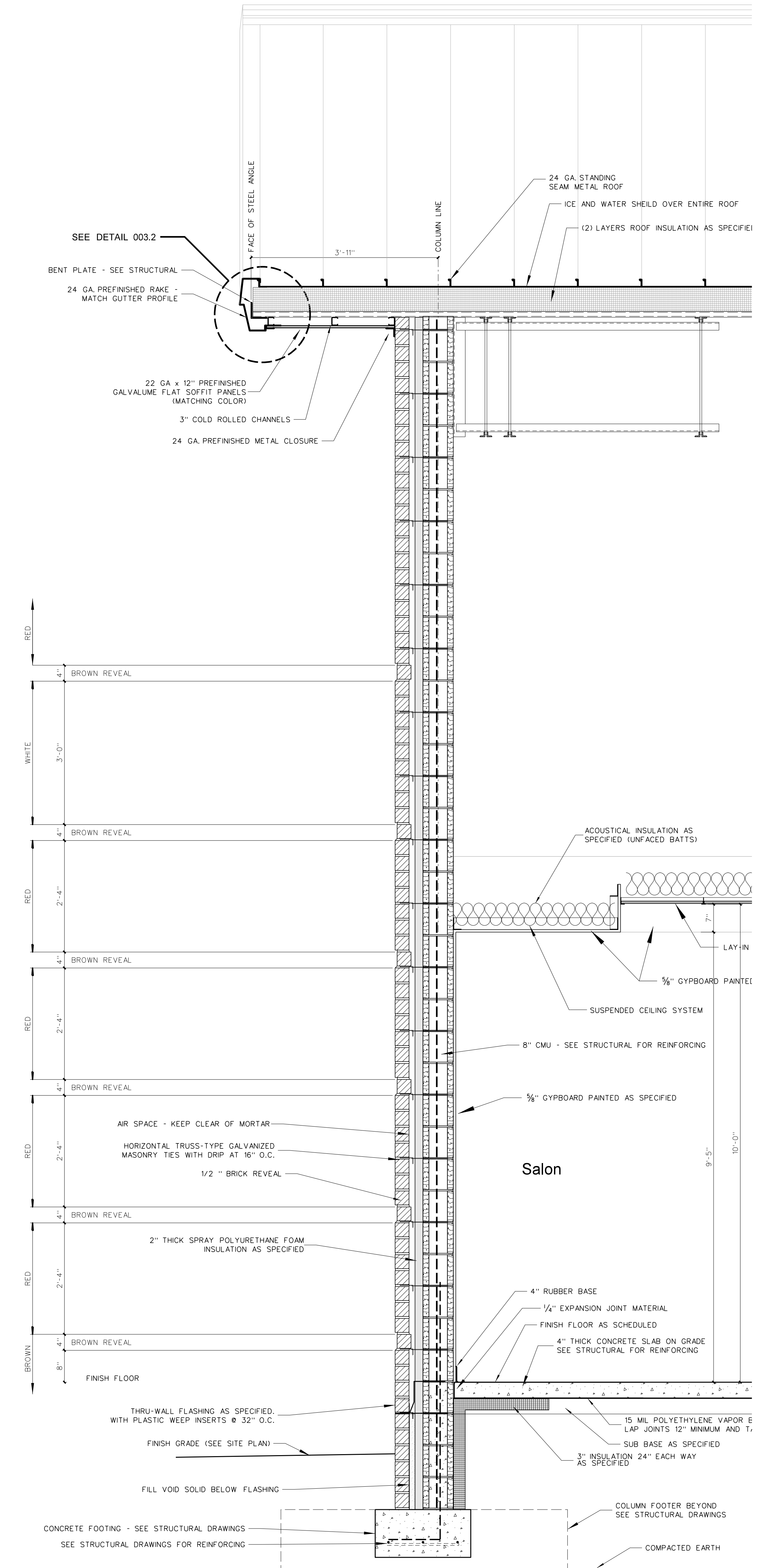
NEW CTE BUILDING FOR  
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Drawing no. **A 211**





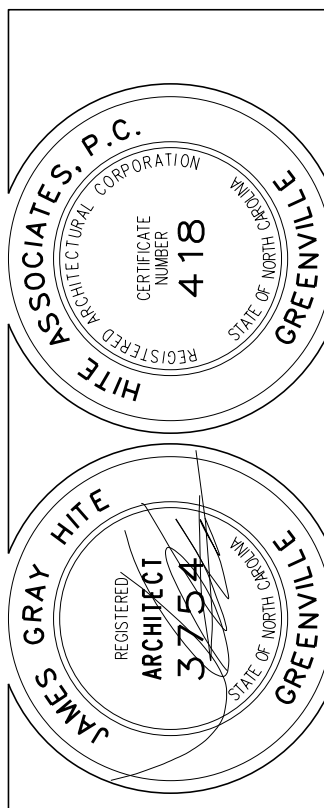
**212.2 RAKE WALL SECTION**  
SCALE: 3/4" = 1'-0"



**212.1 RAKE WALL SECTION**  
SCALE: 3/4" = 1'-0"

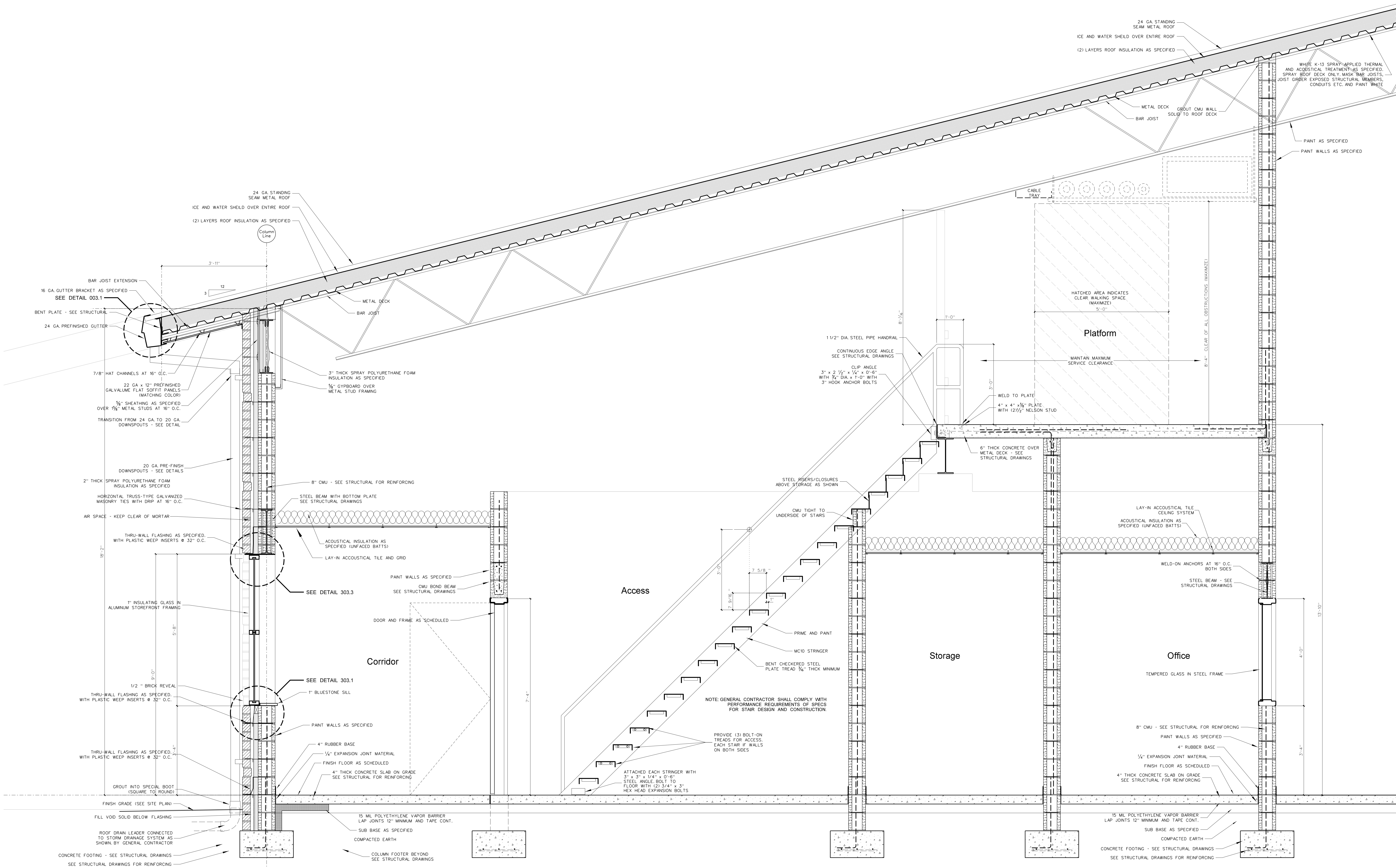
No.	Date	Revision

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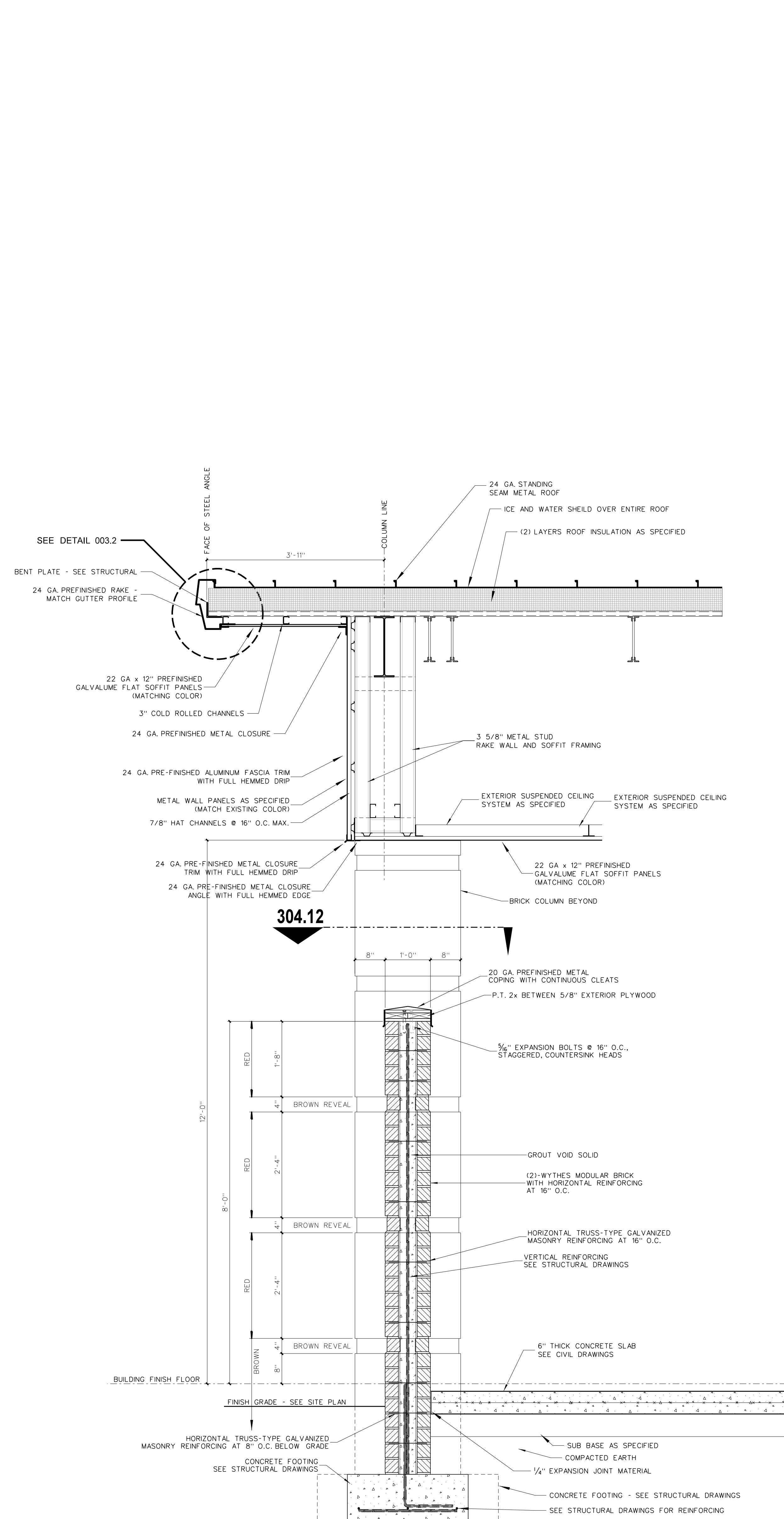


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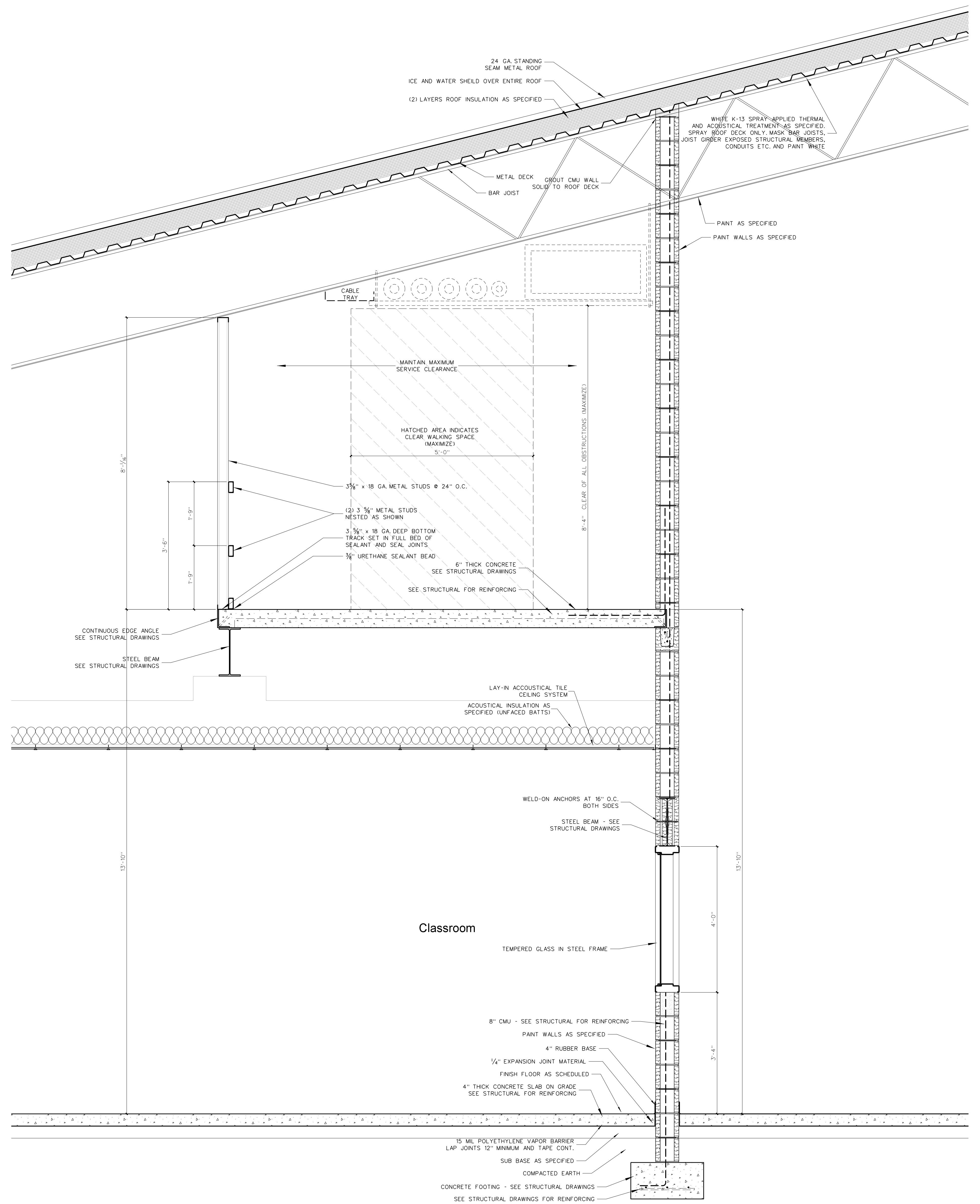
Project No.	22351
Date:	December 18, 2024
Drawing no.	<b>A 212</b>



**213.1 WALL SECTION AT PLATFORM ACCESS**  
SCALE: 3/4" = 1'-0"



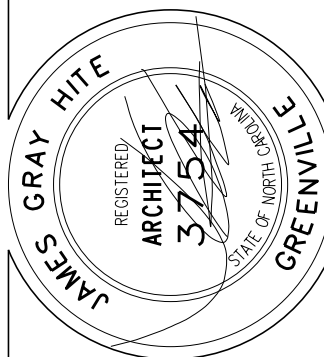
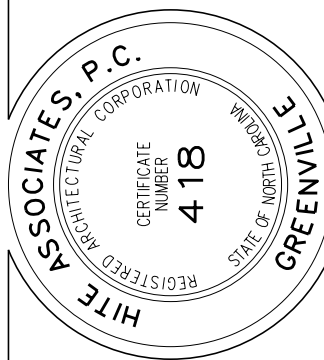
**214.2 RAKE WALL SECTION**  
SCALE: 3/4" = 1'-0"



**214.1 WALL SECTION AT PLATFORM**  
SCALE: 3/4" = 1'-0"

No.	Date	Revision

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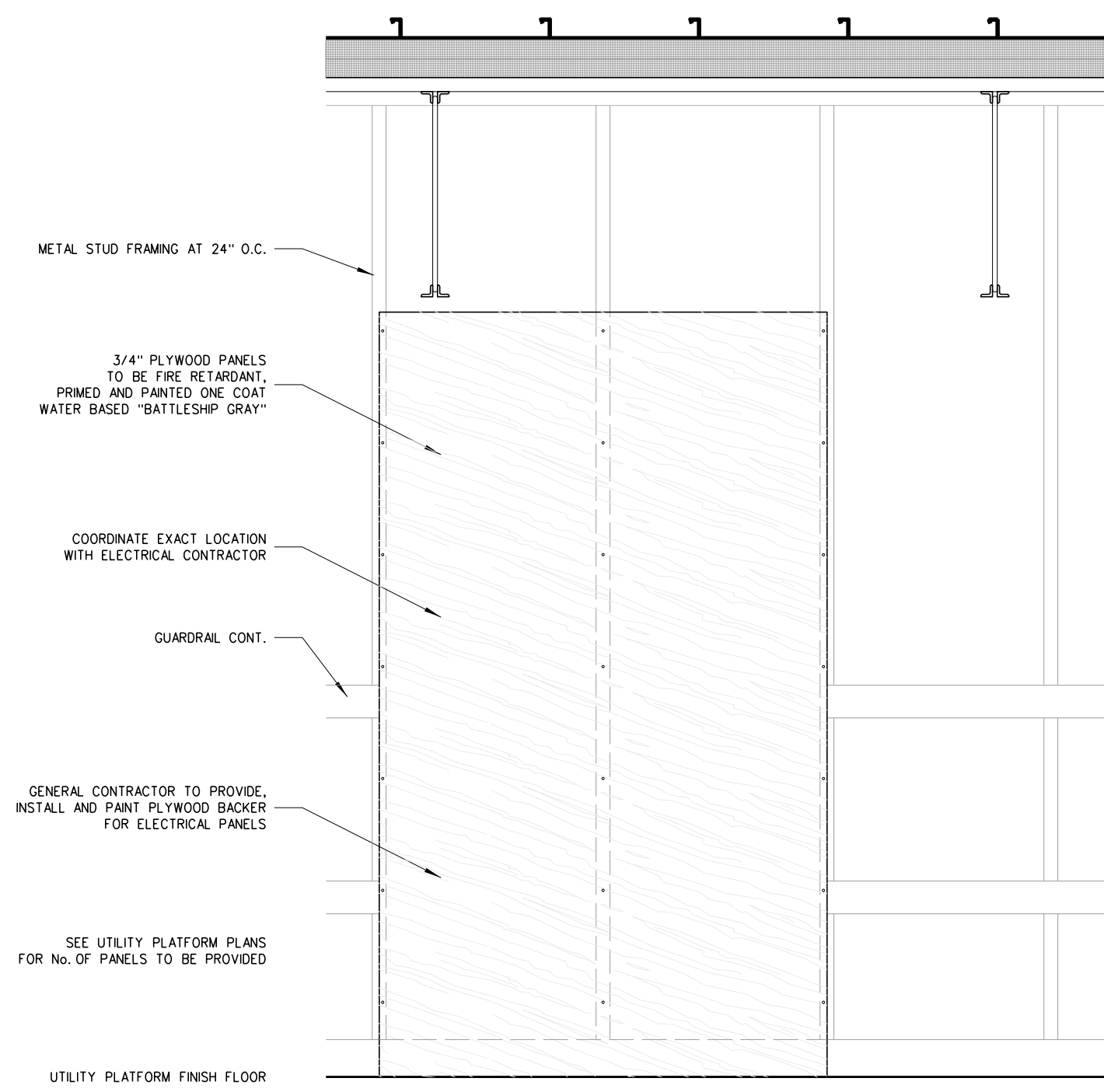
NEW CTE BUILDING FOR  
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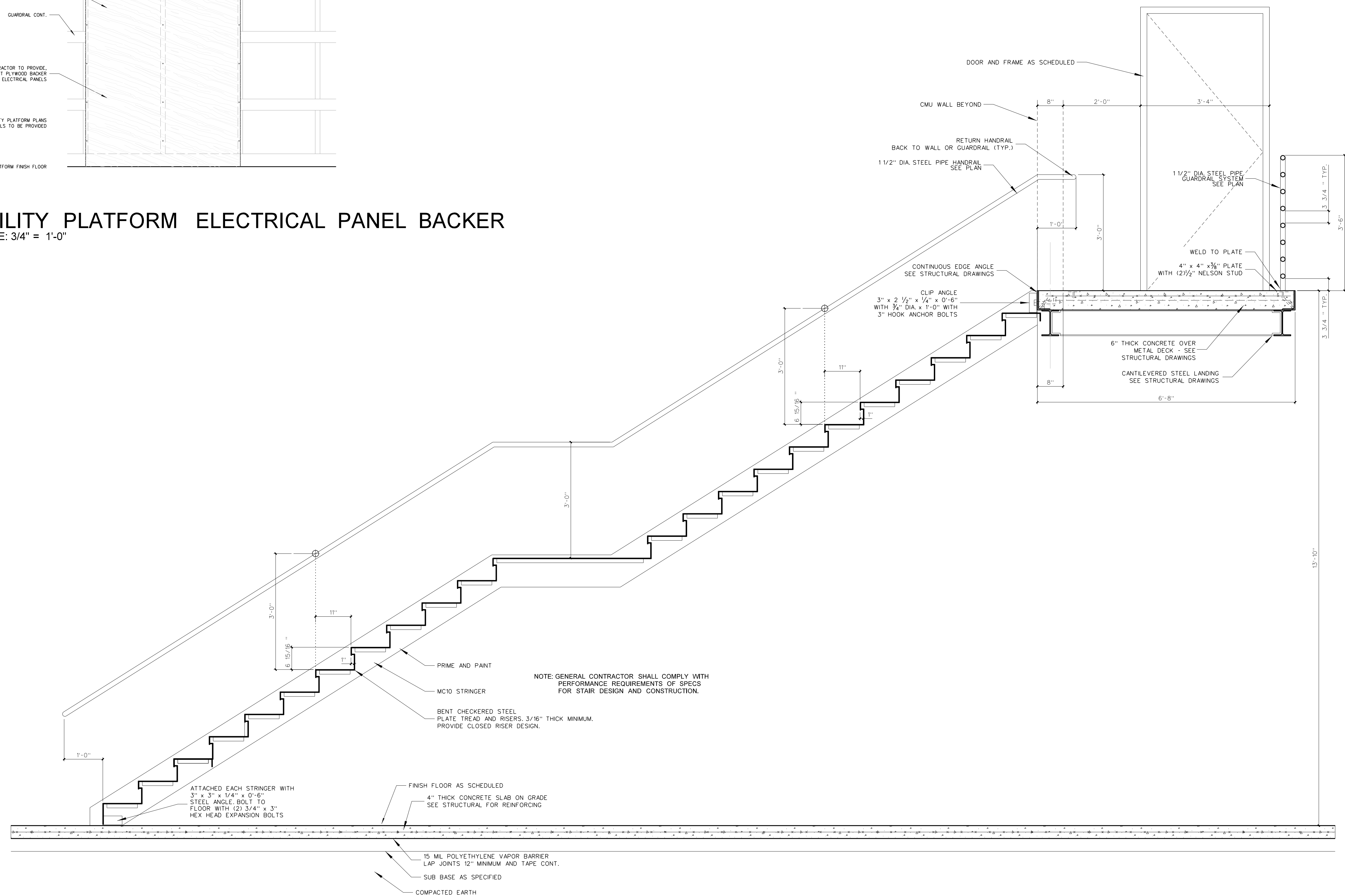
Date: December 18, 2024

Drawing no.

**A**  
**214**



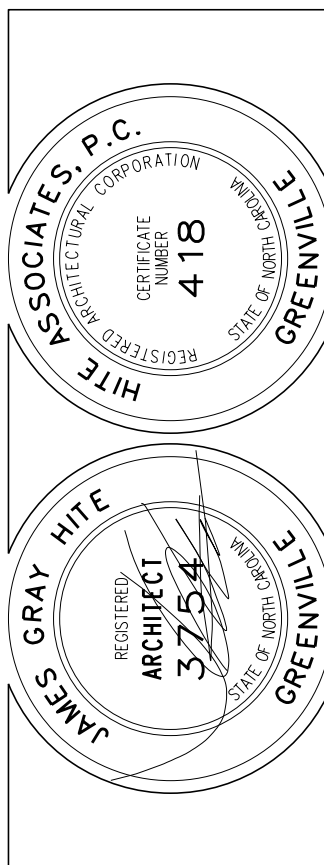
**215.2 UTILITY PLATFORM ELECTRICAL PANEL BACKER**  
SCALE: 3/4" = 1'-0"



**215.1 SECTION AT HVAC STAIRS**  
SCALE: 3/4" = 1'-0"

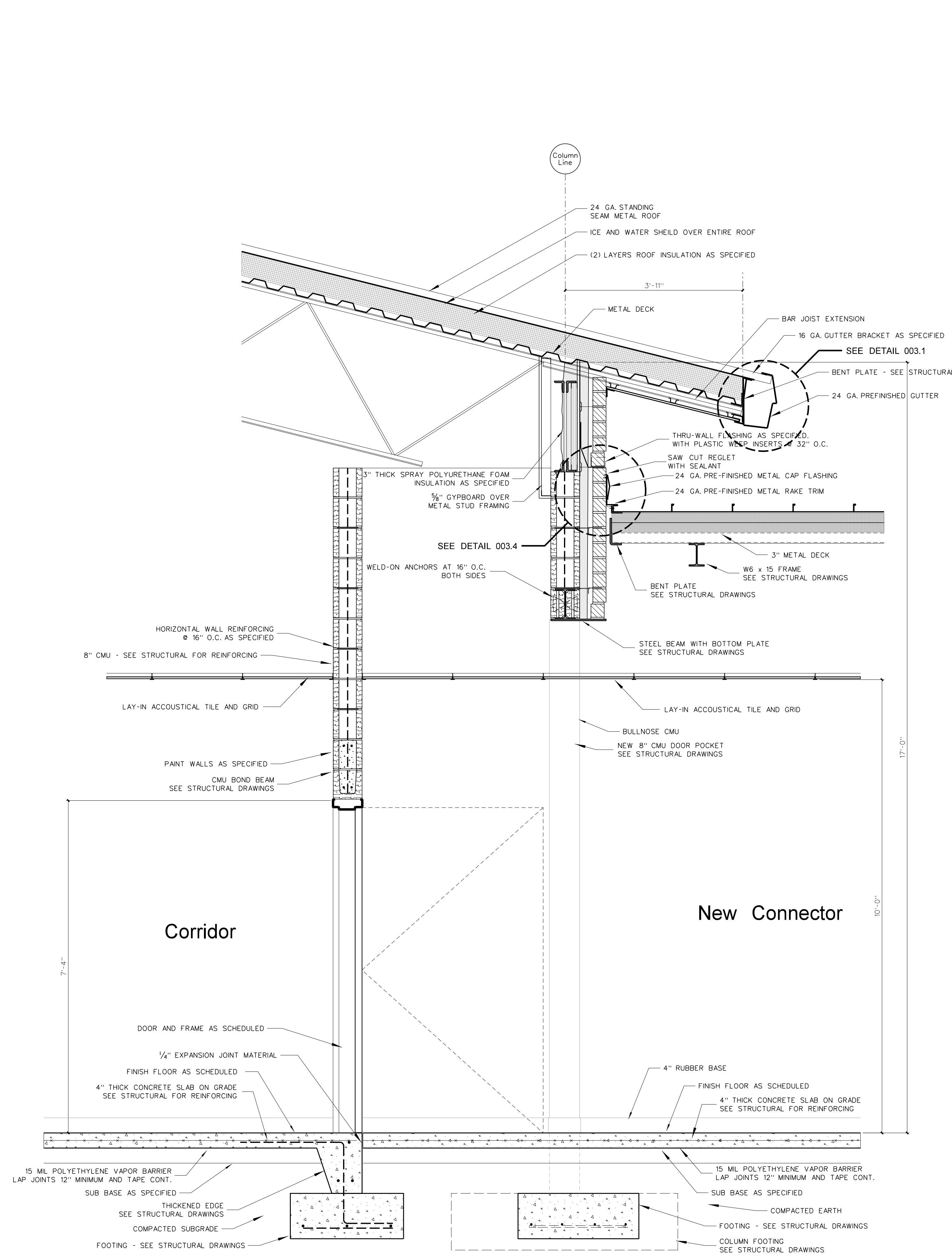
No.	Date	Revision

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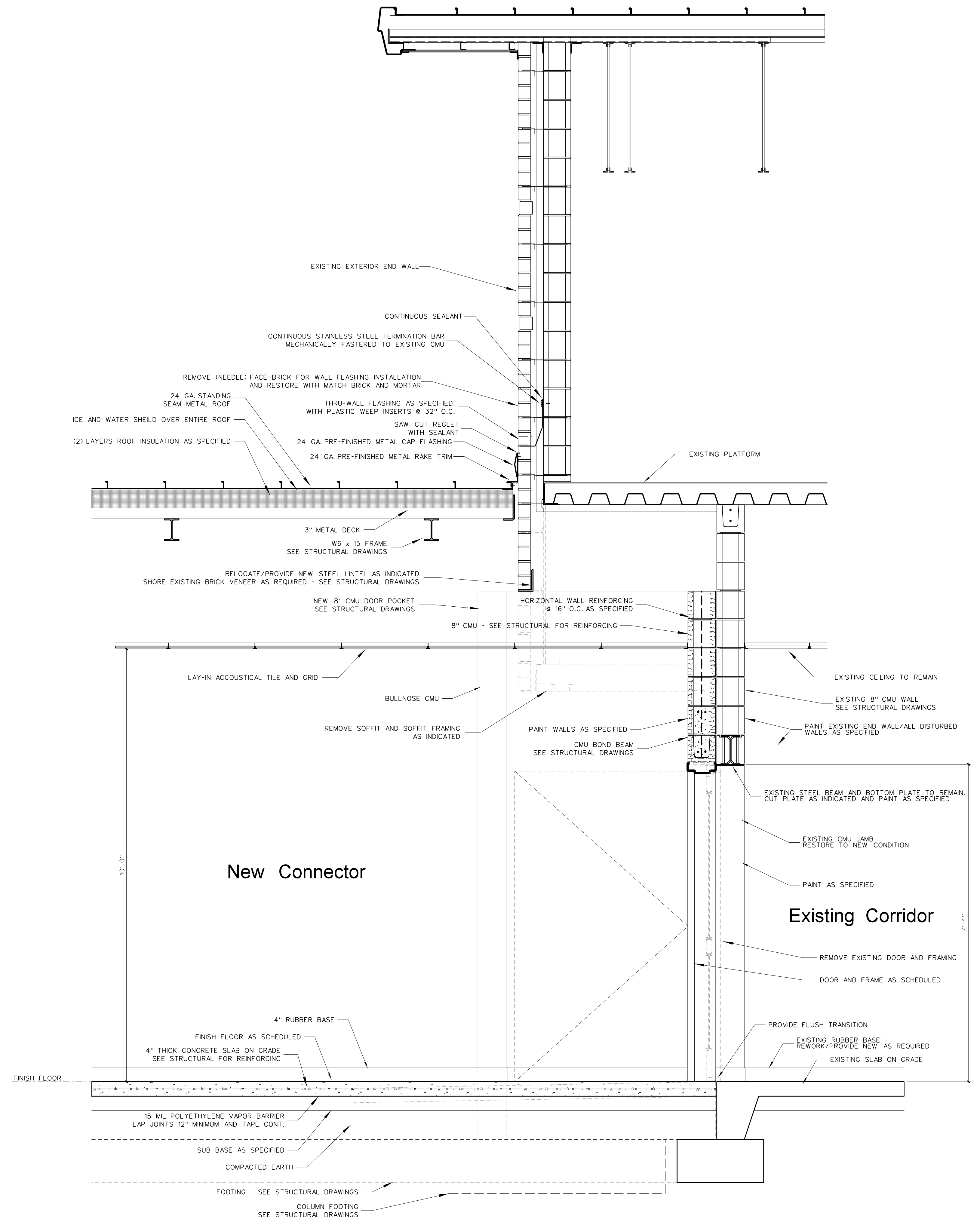


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Drawing no.	<b>A 215</b>



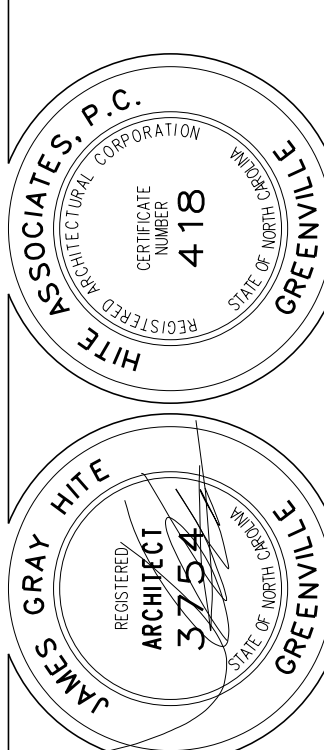
216.2 SECTION AT CONNECTOR  
SCALE: 3/4" = 1'-0"



216.1 SECTION AT CONNECTOR  
SCALE: 3/4" = 1'-0"

No.	Date	Revision

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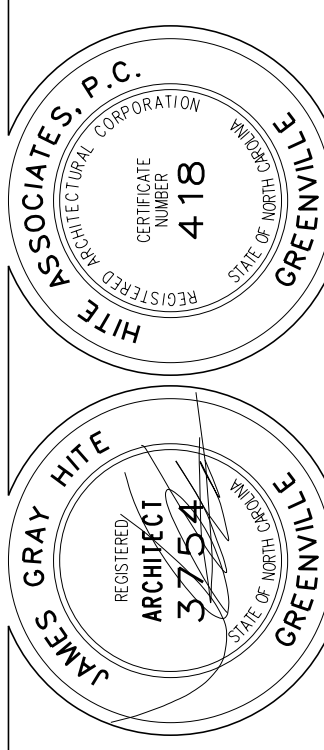


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Drawing no. **A 216**

No.	Date	Revision

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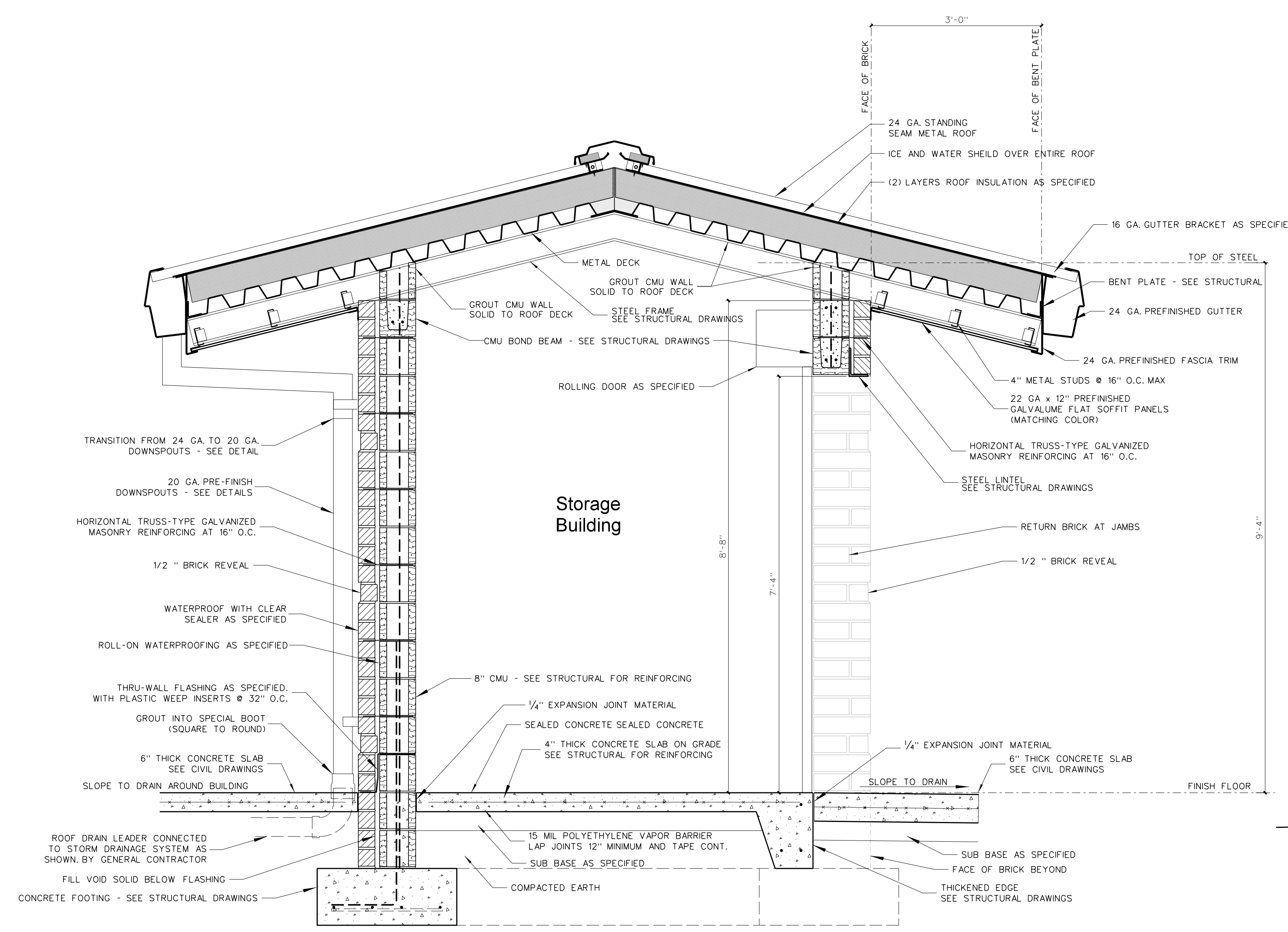
NEW CTE BUILDING FOR  
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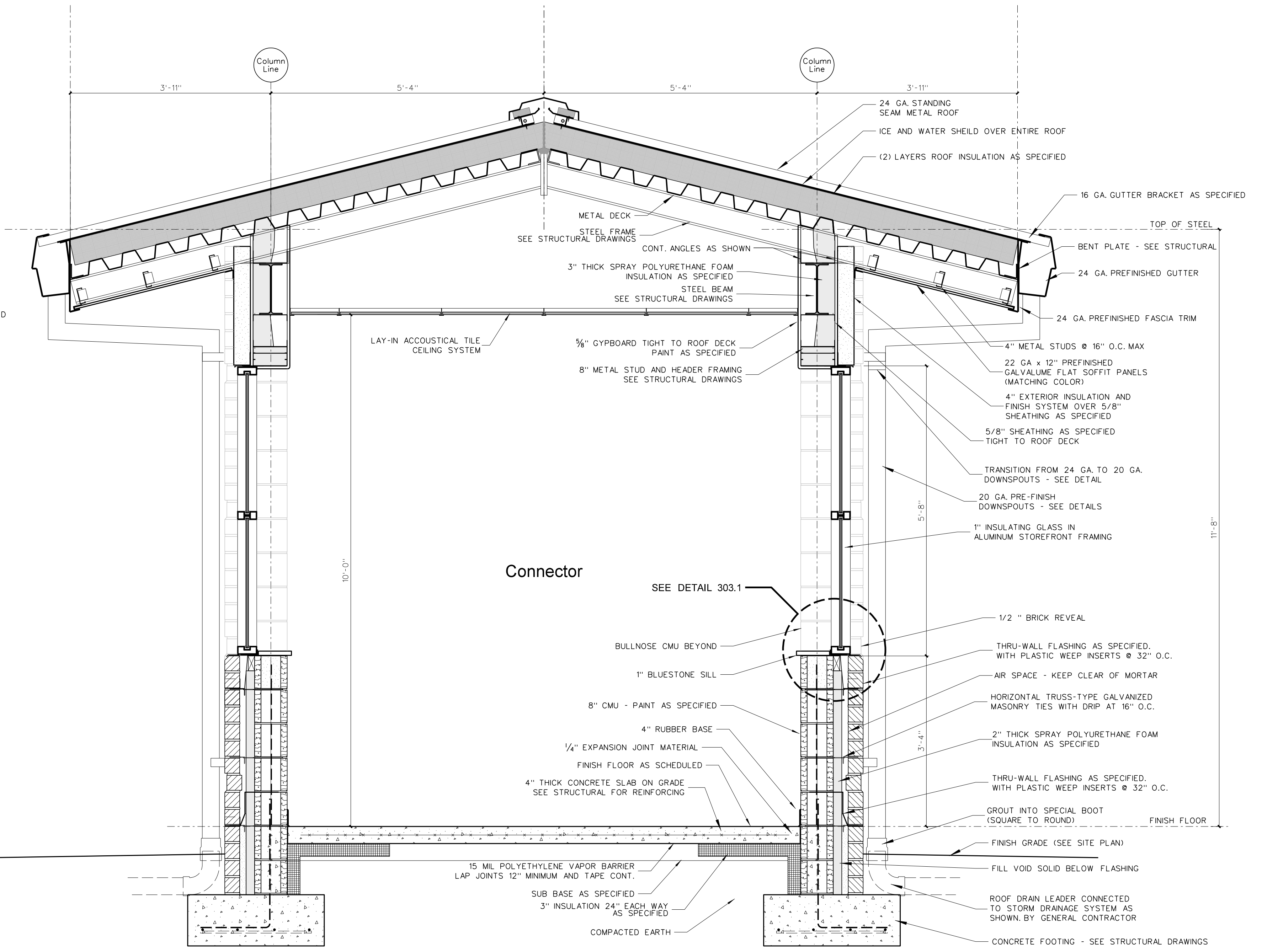
Date: December 18, 2024

Drawing No.

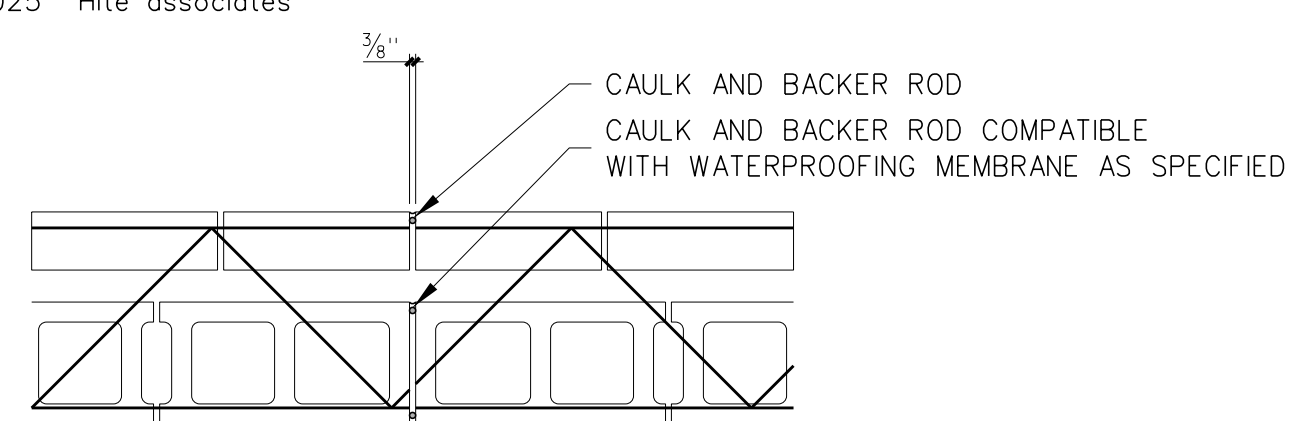
**A**  
**217**



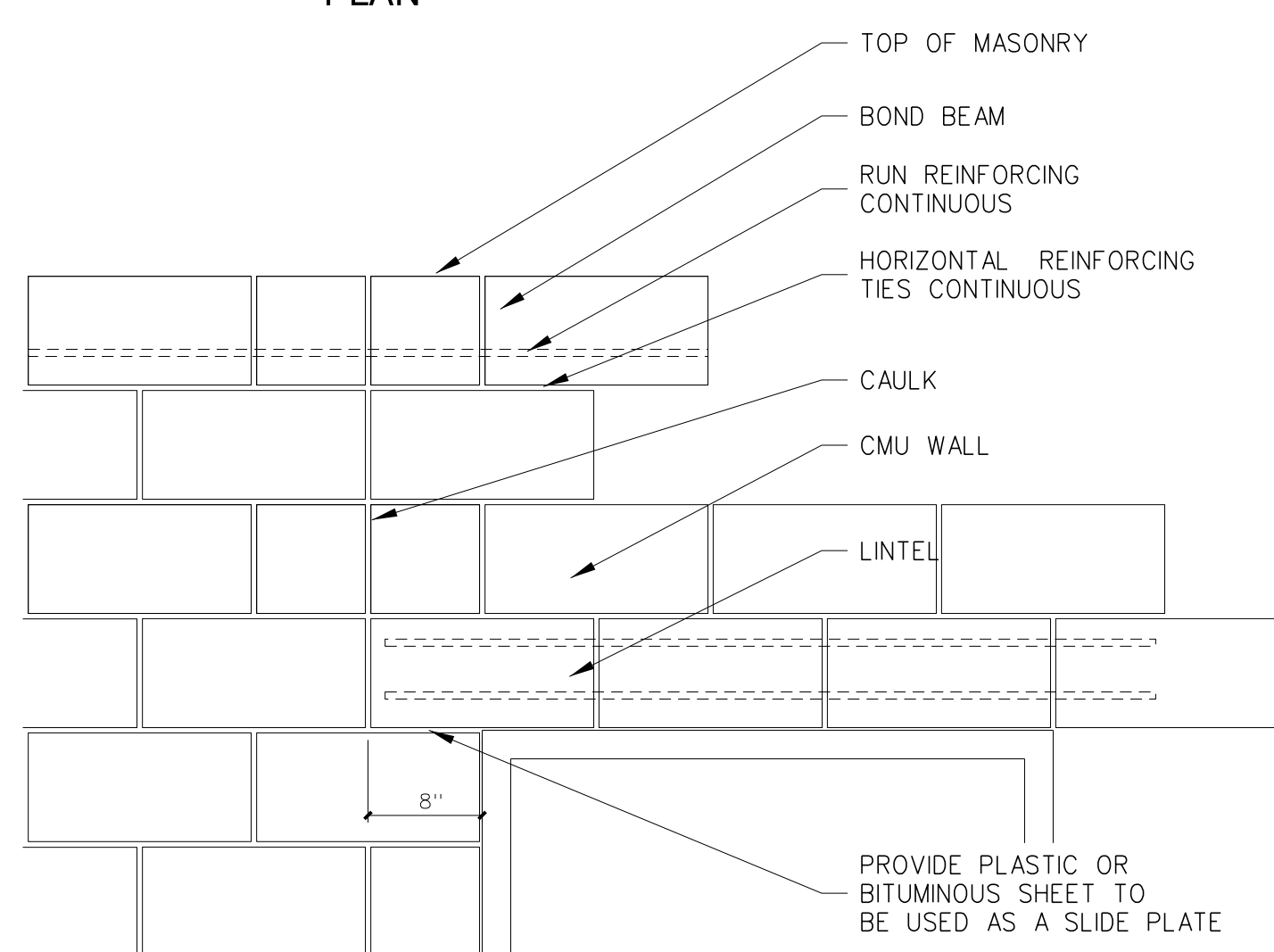
**217.2 SECTION AT STORAGE BUILDING**  
 SCALE: 3/4" = 1'-0"



**217.1 SECTION AT CONNECTOR**  
 SCALE: 3/4" = 1'-0"



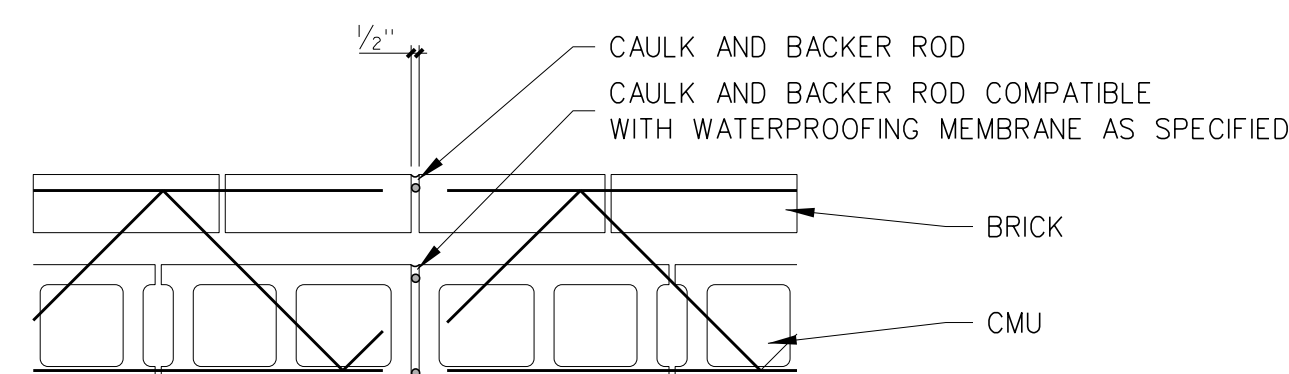
PLAN



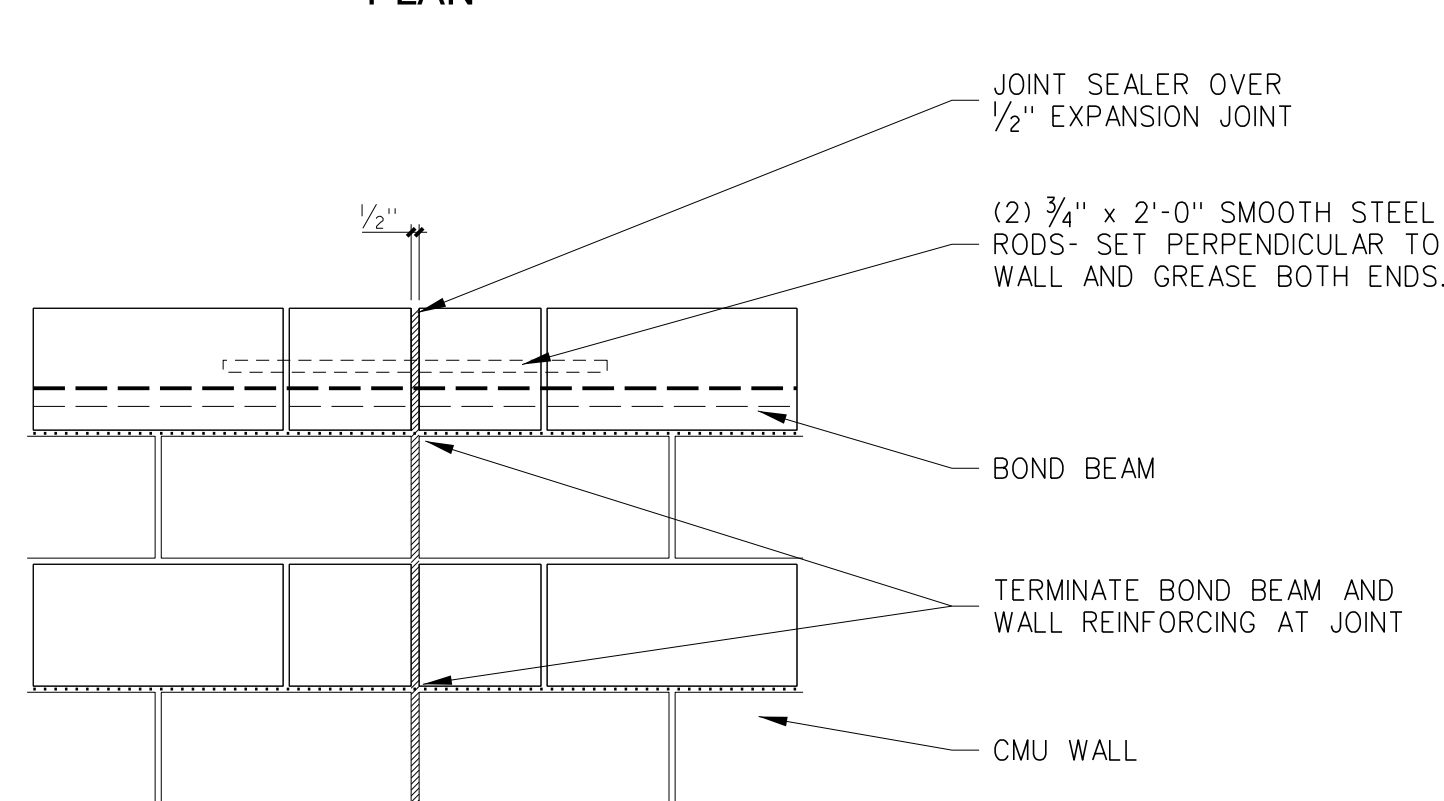
ELEVATION

NOTE: CONTROL JOINT ONE SIDE ALL MASONRY OPENINGS, BOTH SIDES IF OPENING EXCEEDS 5'-0" AND 30'-0" O.C. UNLESS OTHERWISE NOTED.

TYPICAL MASONRY OPENING CONTROL JOINT

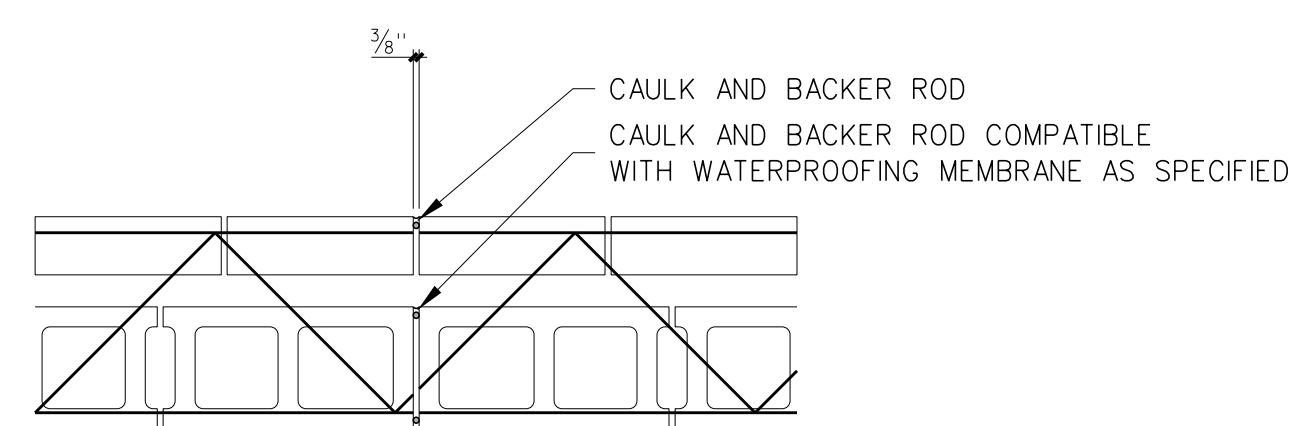


PLAN

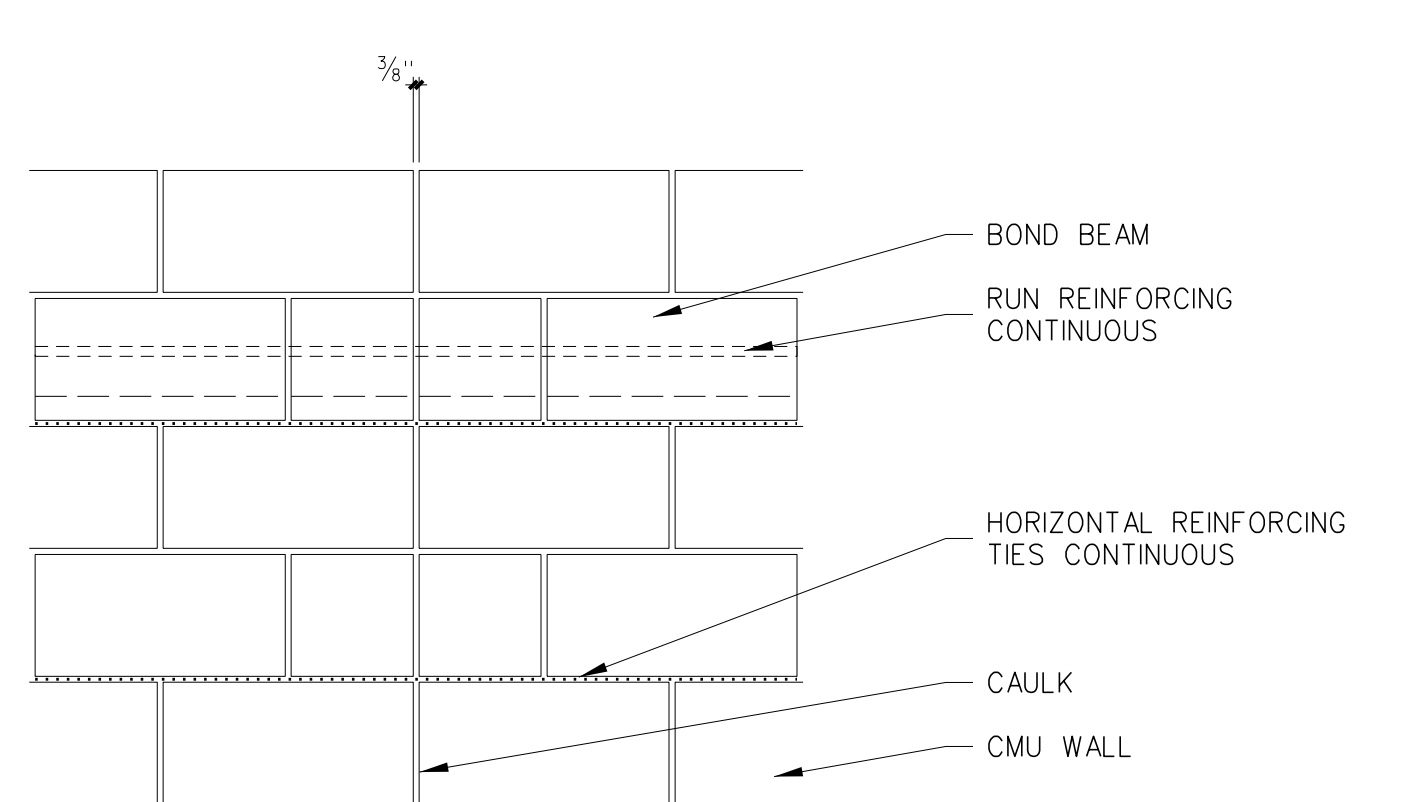


ELEVATION

TYPICAL EXPANSION JOINT



PLAN



ELEVATION

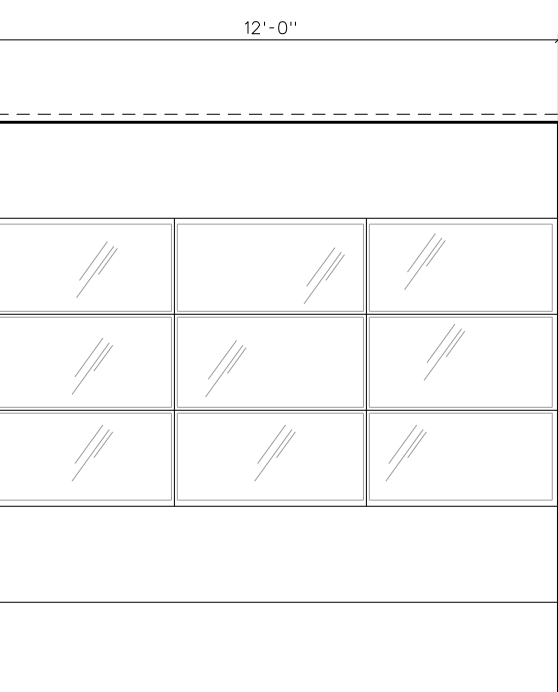
TYPICAL CONSTRUCTION JOINT

DOOR SCHEDULE

Table with 15 columns for hardware and hardware type, and rows for door items 500A through 534B. Includes columns for MARK, SIZE, LOCATION, TYPE, DESCRIPTION, FRAME MATL, FRAME WIDTH, FIRE RATING, and various hardware options like AUTO DOOR OPENER, ELECTRONIC ACCESS CONTROL, etc.

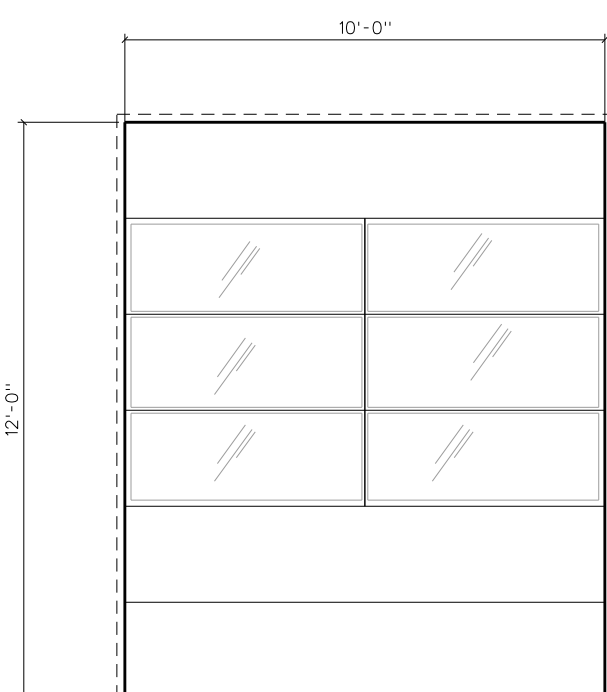
NOTES AND GENERAL AND SPECIAL HARDWARE REQUIRED

- 1 ALL DOORS TO RECEIVE HINGES AS SPECIFIED
2 ALL DOORS TO RECEIVE WALL OR OVERHEAD STOPS TO SUIT CONDITION OF USE. DOORS WITH MAGNETIC HOLD OPENS TO RECEIVE FLOOR STOPS.
3 PROVIDE CLOSERS WITH BACKSTOPS EXTERIOR DOORS AND TO SUIT CONDITION OF USE, ALL CLOSERS TO BE THROUGH-BOLTED
4 ALL STEEL FRAMES TO BE PROVIDED WITH SILENCERS
5 EXTERIOR AND IDF ROOM DOORS TO BE PROVIDED WITH WEATHERSTRIPPING AND THRESHOLDS
6 EXIT DEVICES TO BE PROVIDED WITH CYLINDERS, LOCKS, AND CD CYLINDER DOGGING
7 AT PAIRS OF DOORS, PULL SIDE, PROVIDE PULL OR LEVER BOTH SIDES ONLY UNLESS OTHERWISE NOTED
8 ALUMINUM DOORS - SEE SPECIFICATIONS FOR HARDWARE NOT INDICATED ABOVE
9 PROVIDE CYLINDERS FOR KEYED MULLIONS SUPPLIED BY ALUMINUM DOOR SUPPLIER
10 PROVIDE SOLID WOOD BLOCKING FOR DOOR STOPS AND HOLD OPEN DEVICES
11 EXIT DEVICES AT EXTERIOR DOORS TO BE NL WITH PULL, UNLESS OTHERWISE INDICATED
12 EXIT DEVICES AT INTERIOR DOORS TO BE CLASSROOM FUNCTION WITH LEVER
13 PROVIDE 4" WIDE STEEL JAMBS FOR DOORS ABUTTING STEEL COLUMNS AND SPECIAL CONDITIONS AS NOTED



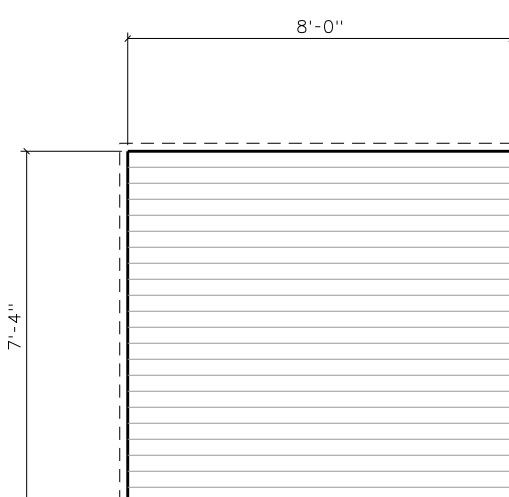
OH-1

INSULATED STEEL PANEL SECTIONAL WITH GLASS PANELS (9) OVERHEAD DOOR AS SPECIFIED



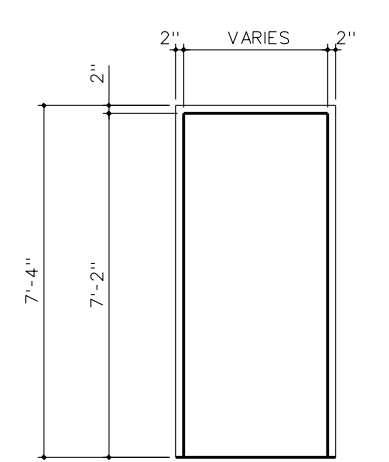
OH-2

INSULATED STEEL PANEL SECTIONAL WITH GLASS PANELS (6) OVERHEAD DOOR AS SPECIFIED



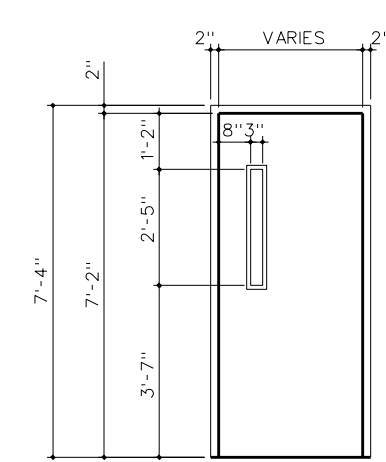
OH-3

INSULATED STEEL ROLLING OVERHEAD DOOR AS SPECIFIED



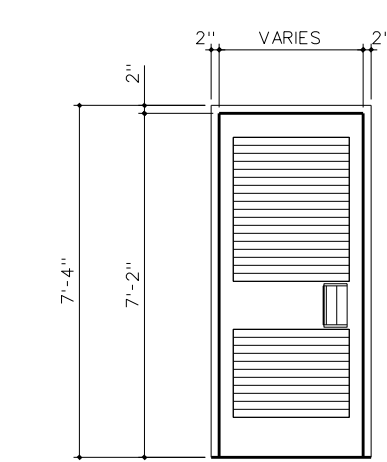
FRP-1

FLUSH FRP / ALUMINUM IN ALUMINUM FRAME



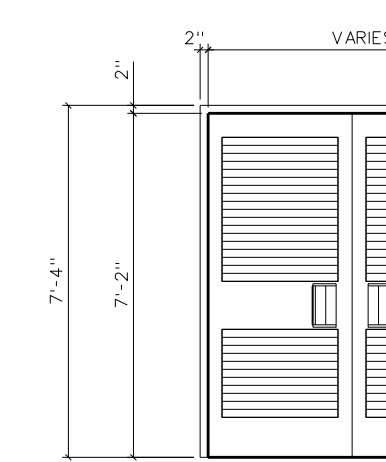
FRP-2

FLUSH FRP / ALUMINUM WITH VIEW GLASS IN ALUMINUM FRAME



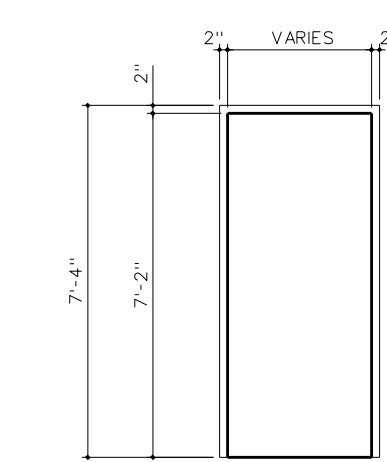
FRP-3

FLUSH FRP / ALUMINUM WITH FULL LOUVER IN ALUMINUM FRAME



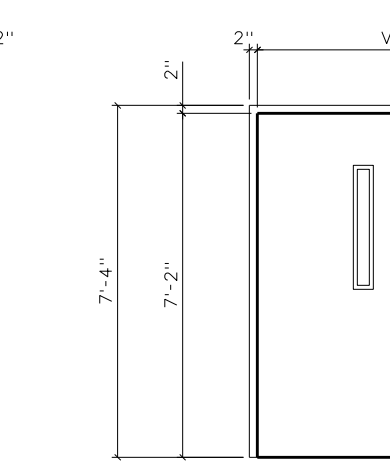
FRP-4

FLUSH FRP / ALUMINUM WITH FULL LOUVER IN ALUMINUM FRAME



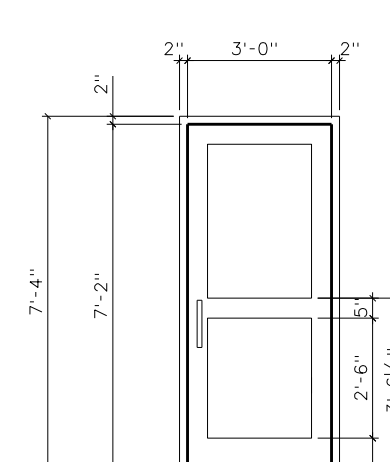
HM-1

FLUSH STEEL IN STEEL FRAME



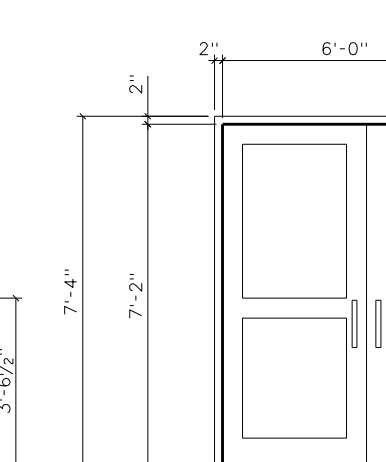
HM-4

FLUSH STEEL WITH 1/4" IMPACT RESISTANT SAFETY GLASS IN STEEL FRAME



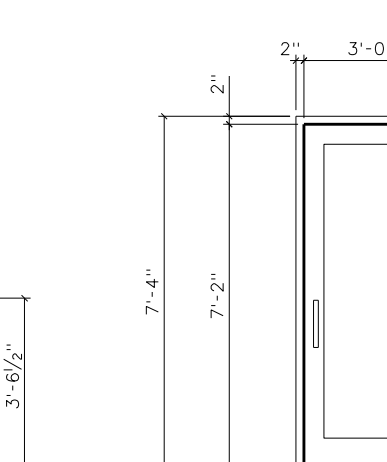
AL-1

WIDE STILE ALUMINUM AND 1/4" TEMPERED GLASS IN ALUMINUM STOREFRONT FRAME



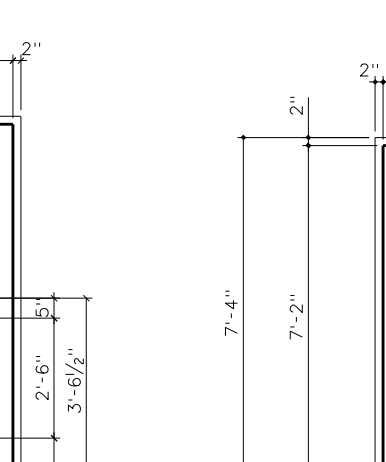
AL-2

WIDE STILE ALUMINUM AND 1/4" TEMPERED GLASS IN ALUMINUM STOREFRONT FRAME



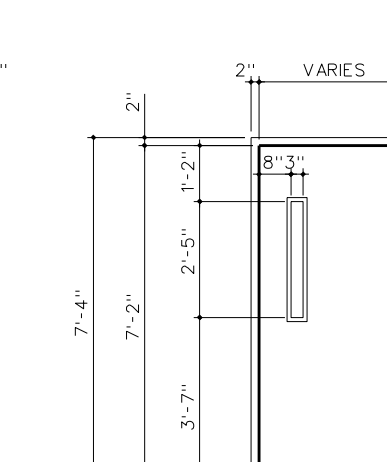
AL-3

MEDIUM STILE ALUMINUM AND 1/4" TEMPERED GLASS RACO CLASSIC SERIES



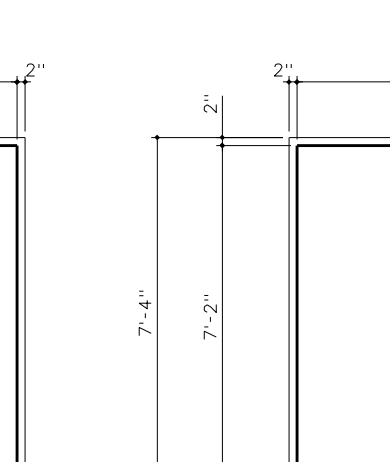
WD-1

SOLID CORE FLUSH WOOD IN STEEL FRAME



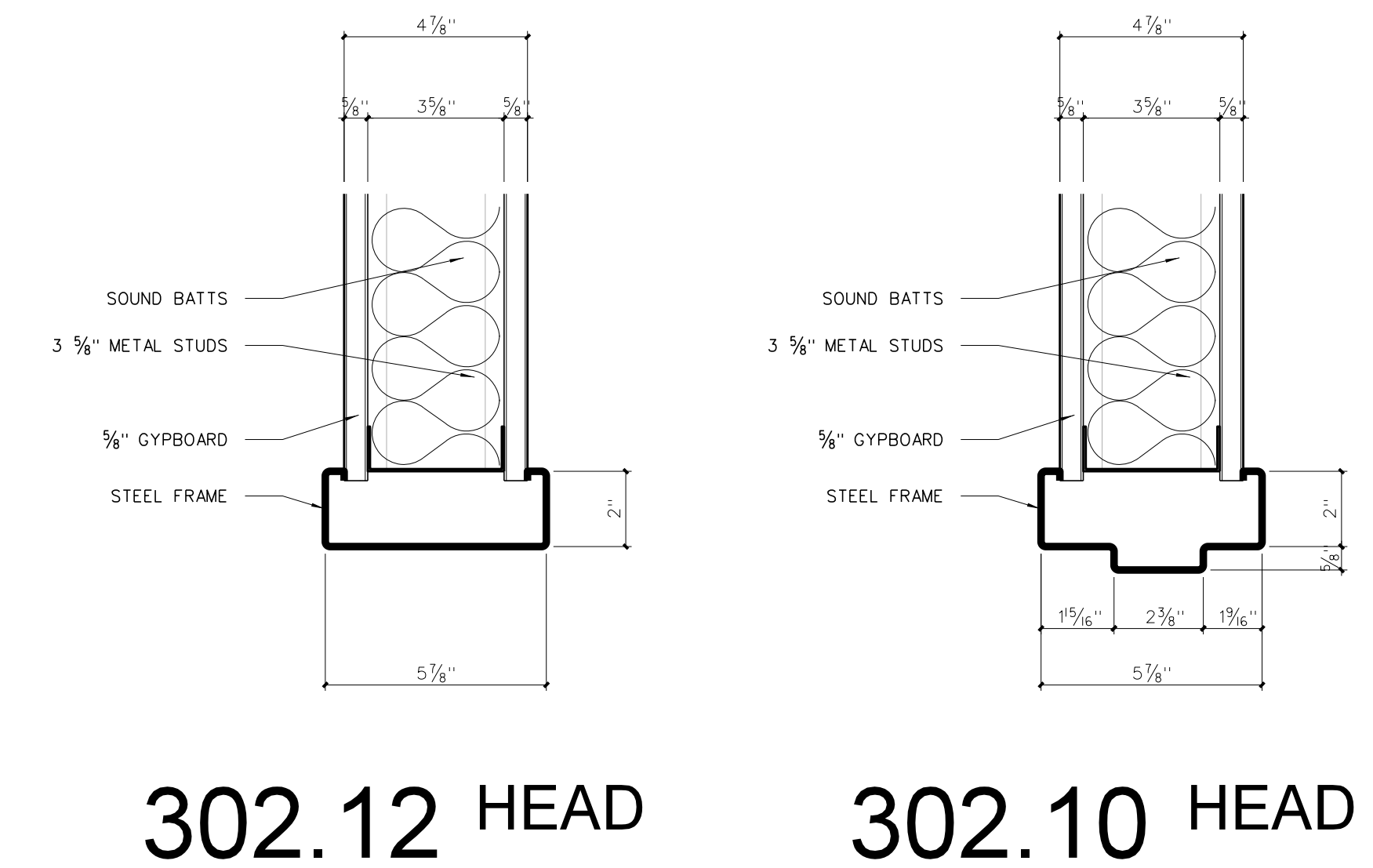
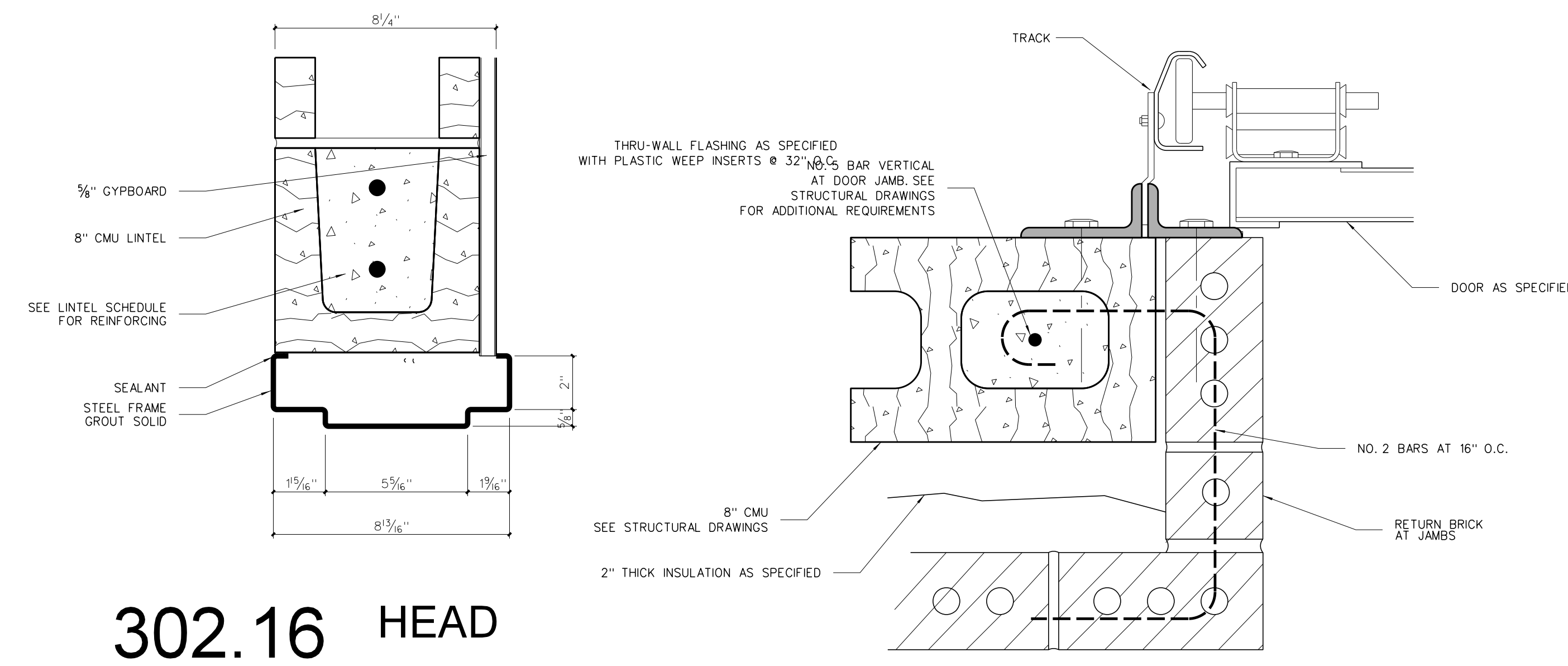
WD-2

SOLID CORE FLUSH WOOD WITH IMPACT SAFETY GLASS IN STEEL FRAME

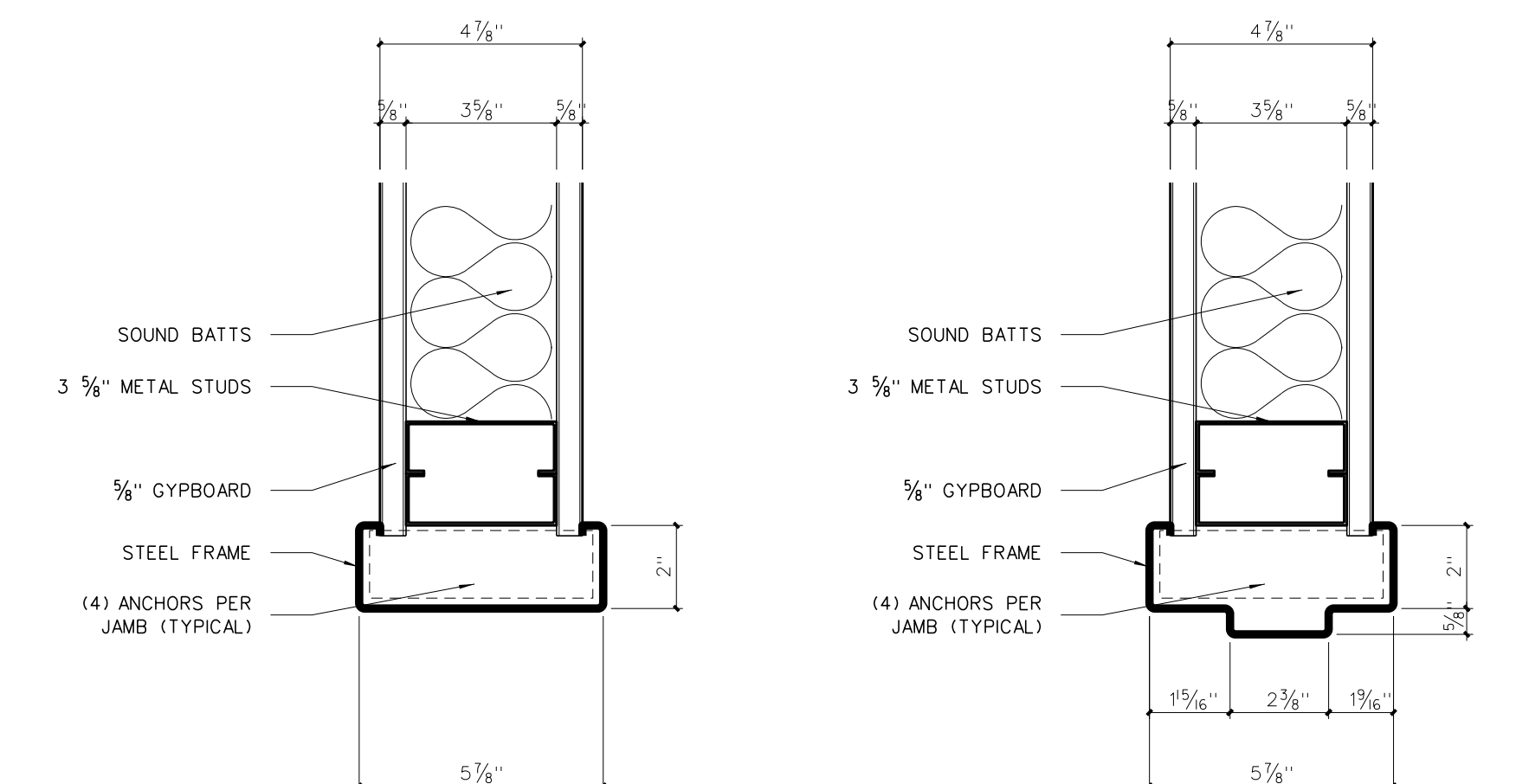
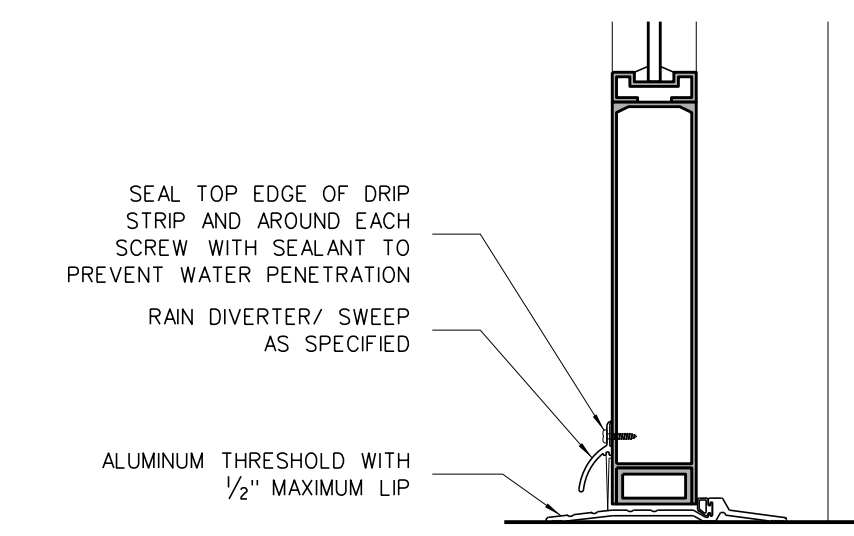
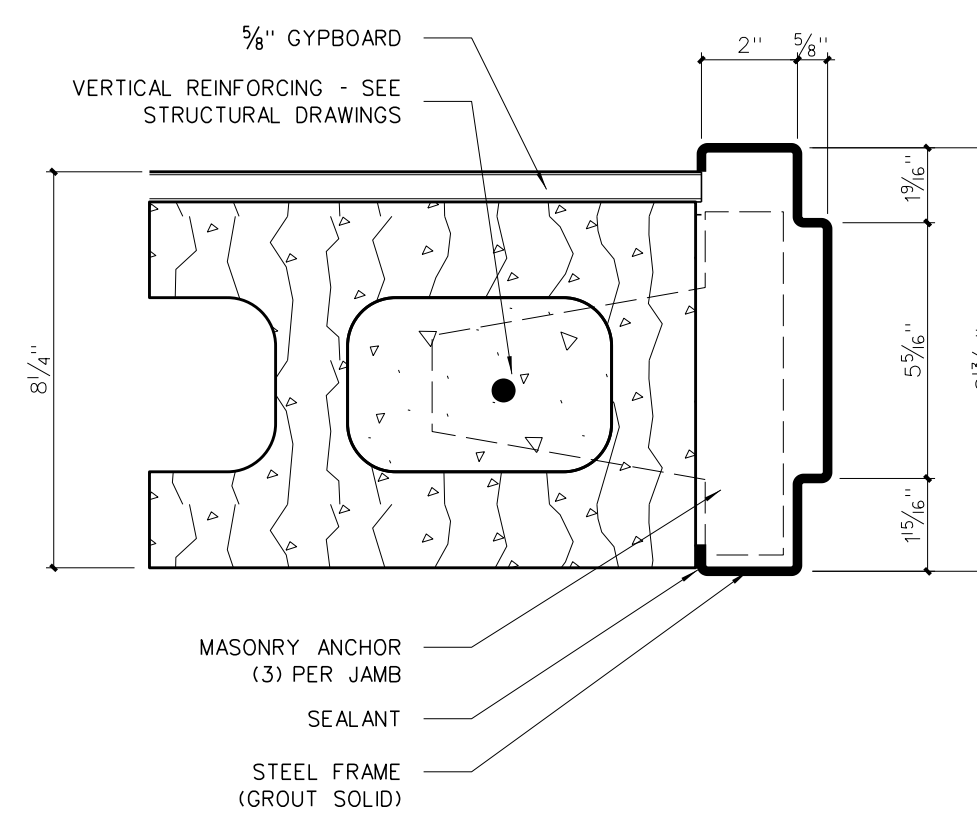


WD-3

SOLID CORE FLUSH WOOD IN STEEL FRAME



**302.14 JAMB**

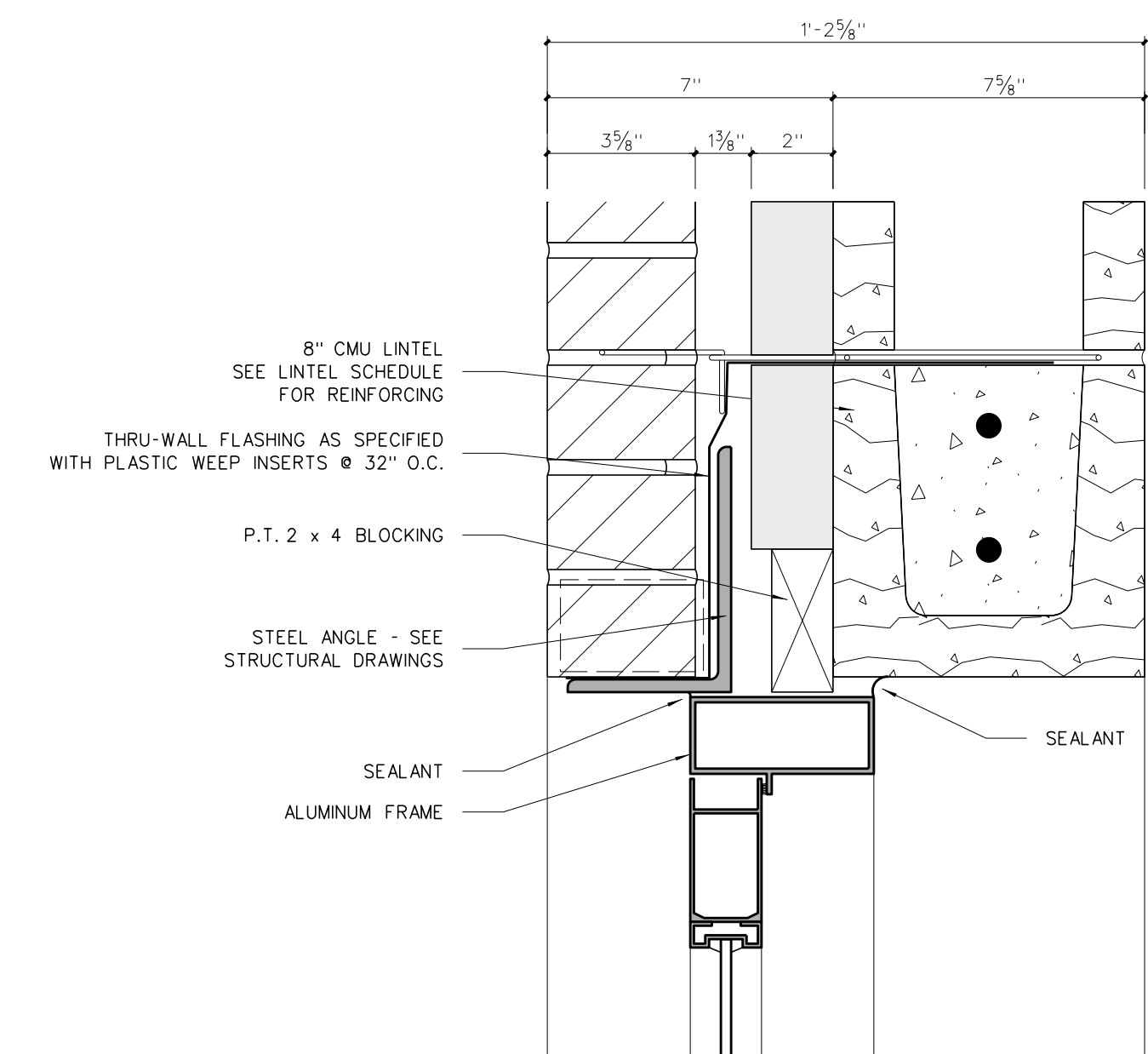
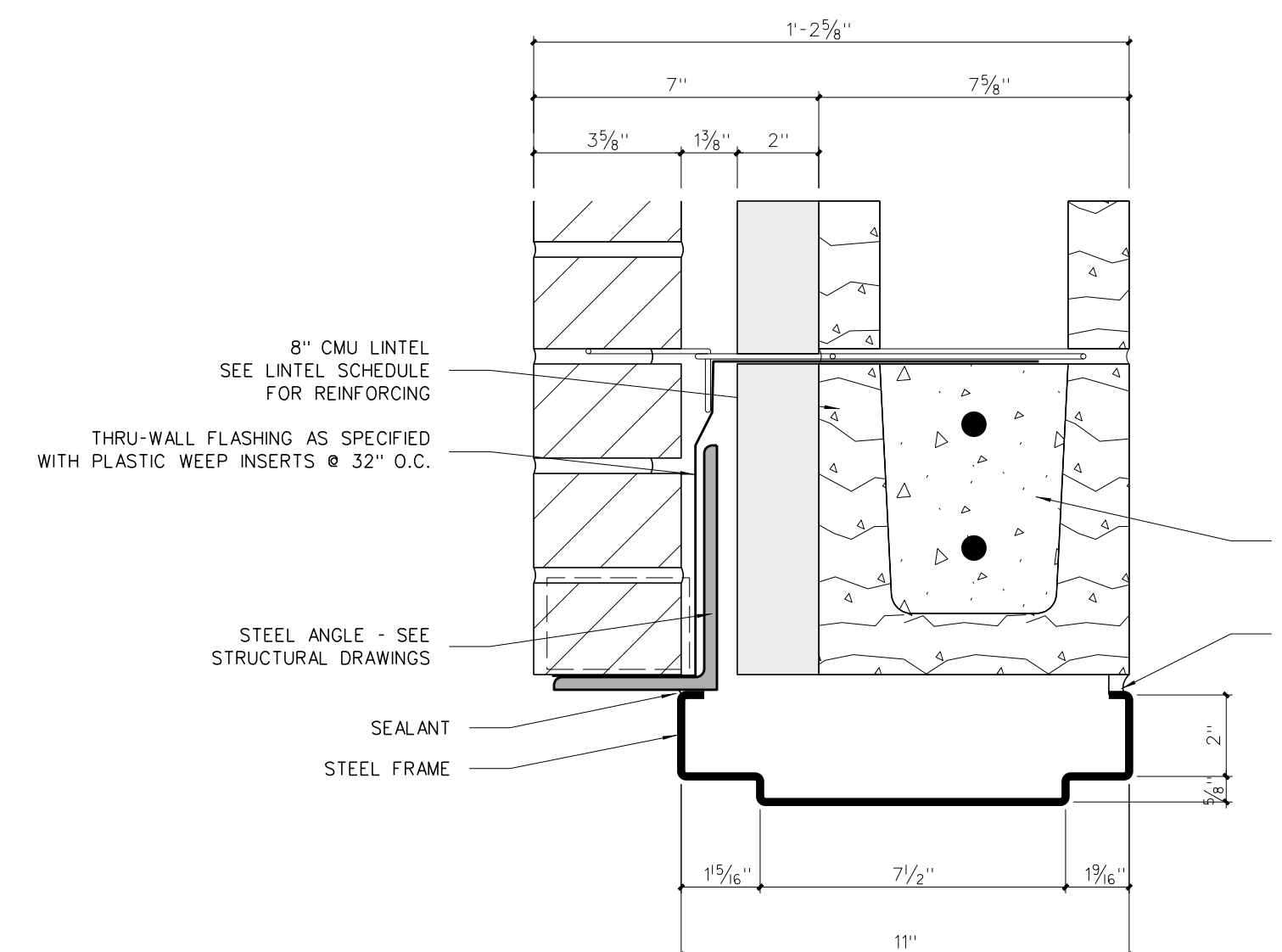
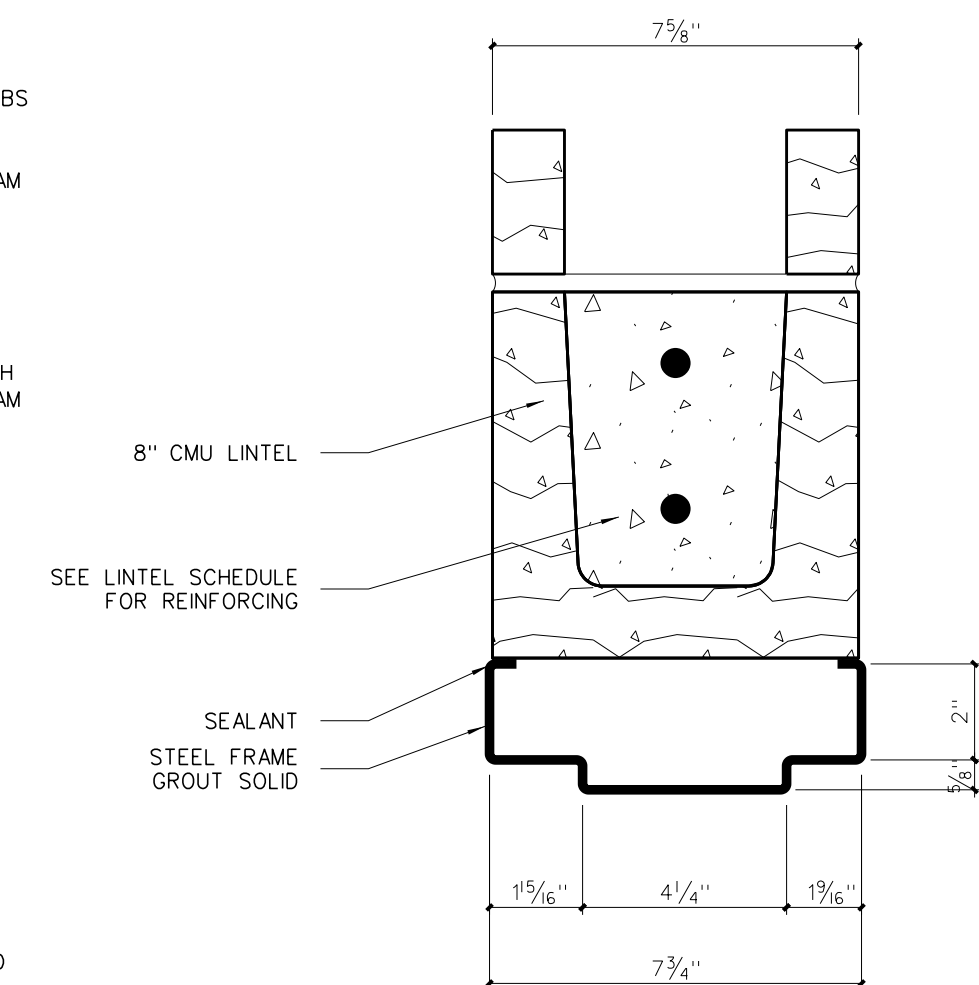
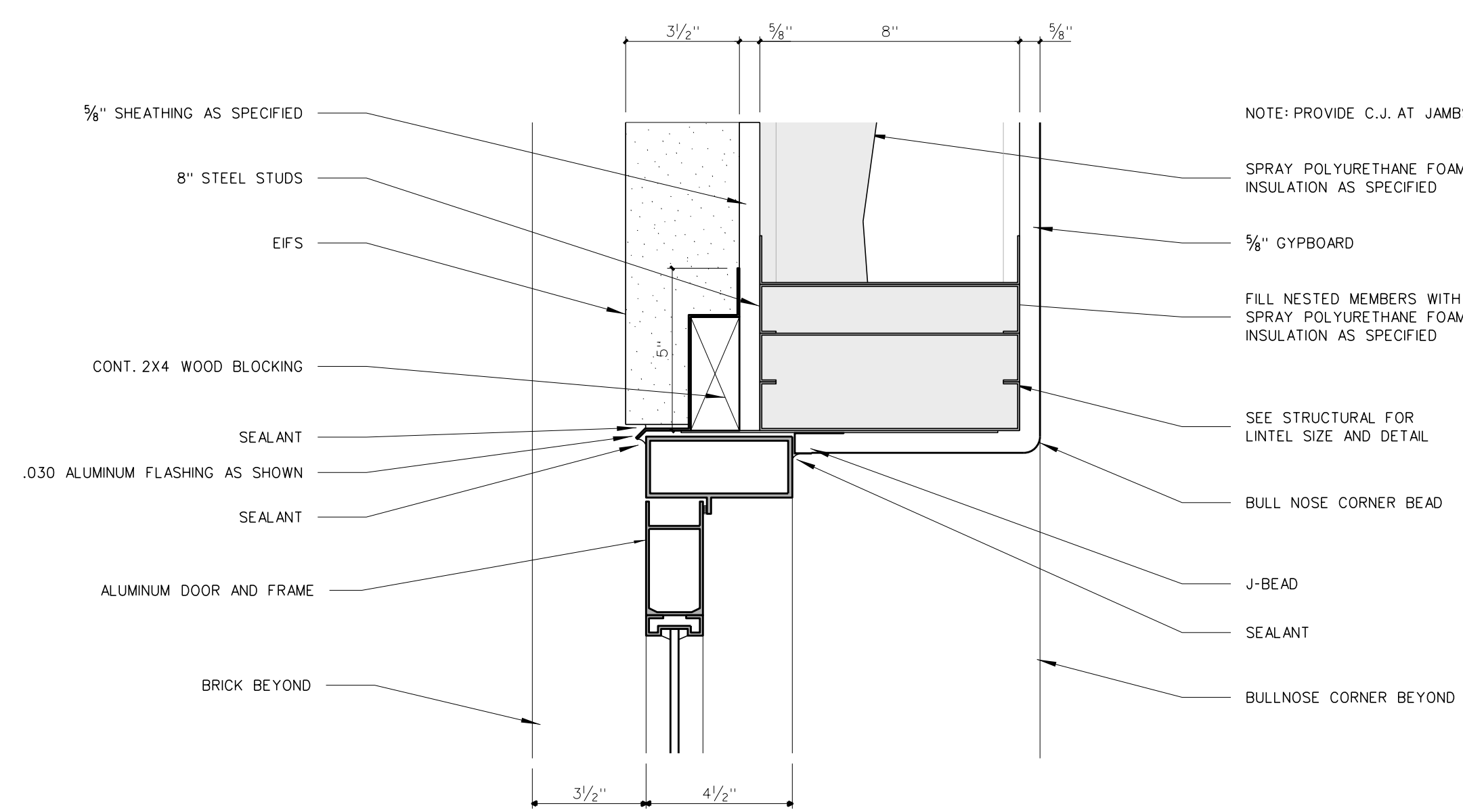


**302.15 JAMB**

**302.13 DOOR THRESHOLD DETAIL**

**302.11 JAMB**

**302.9 JAMB**

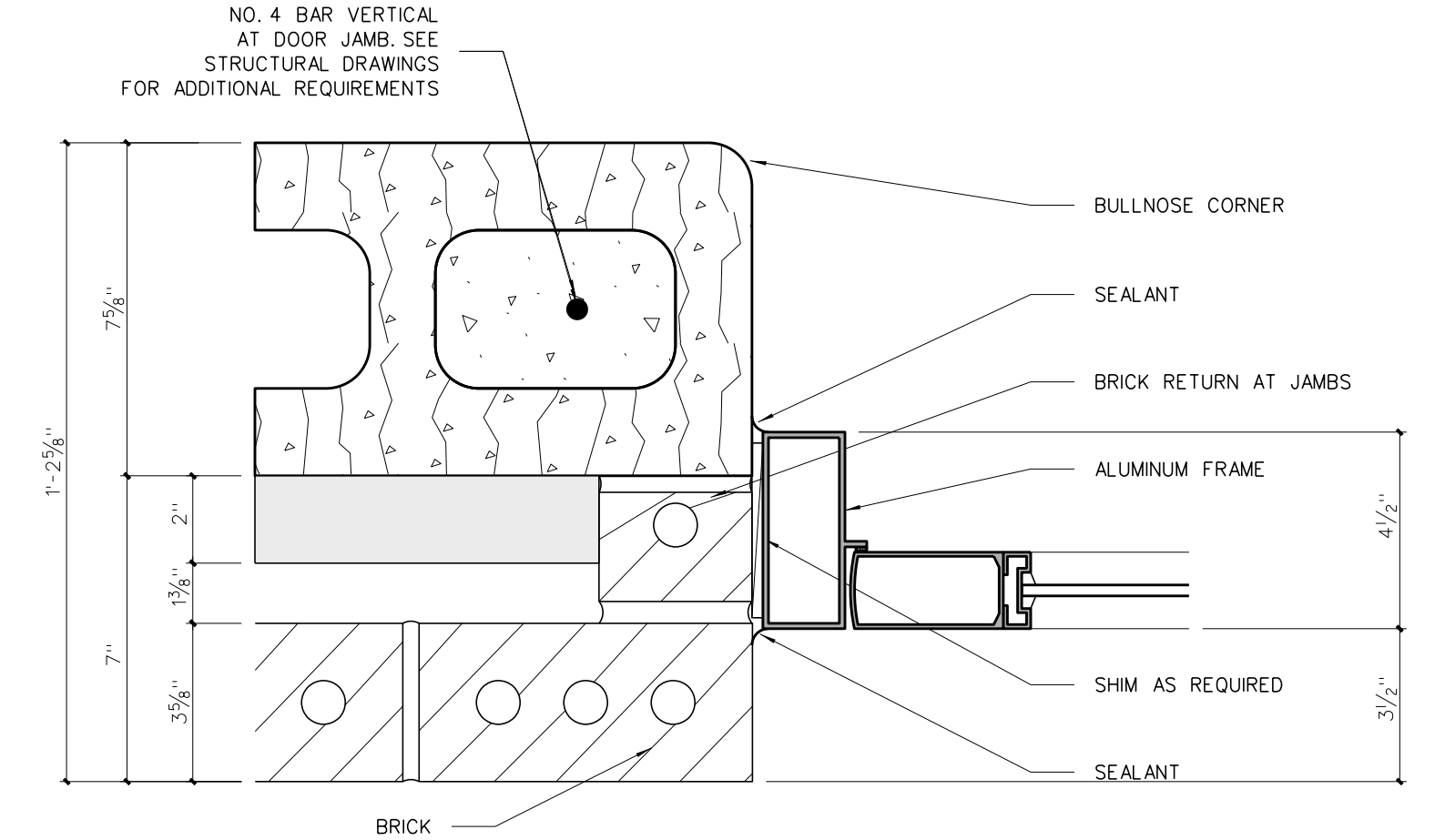
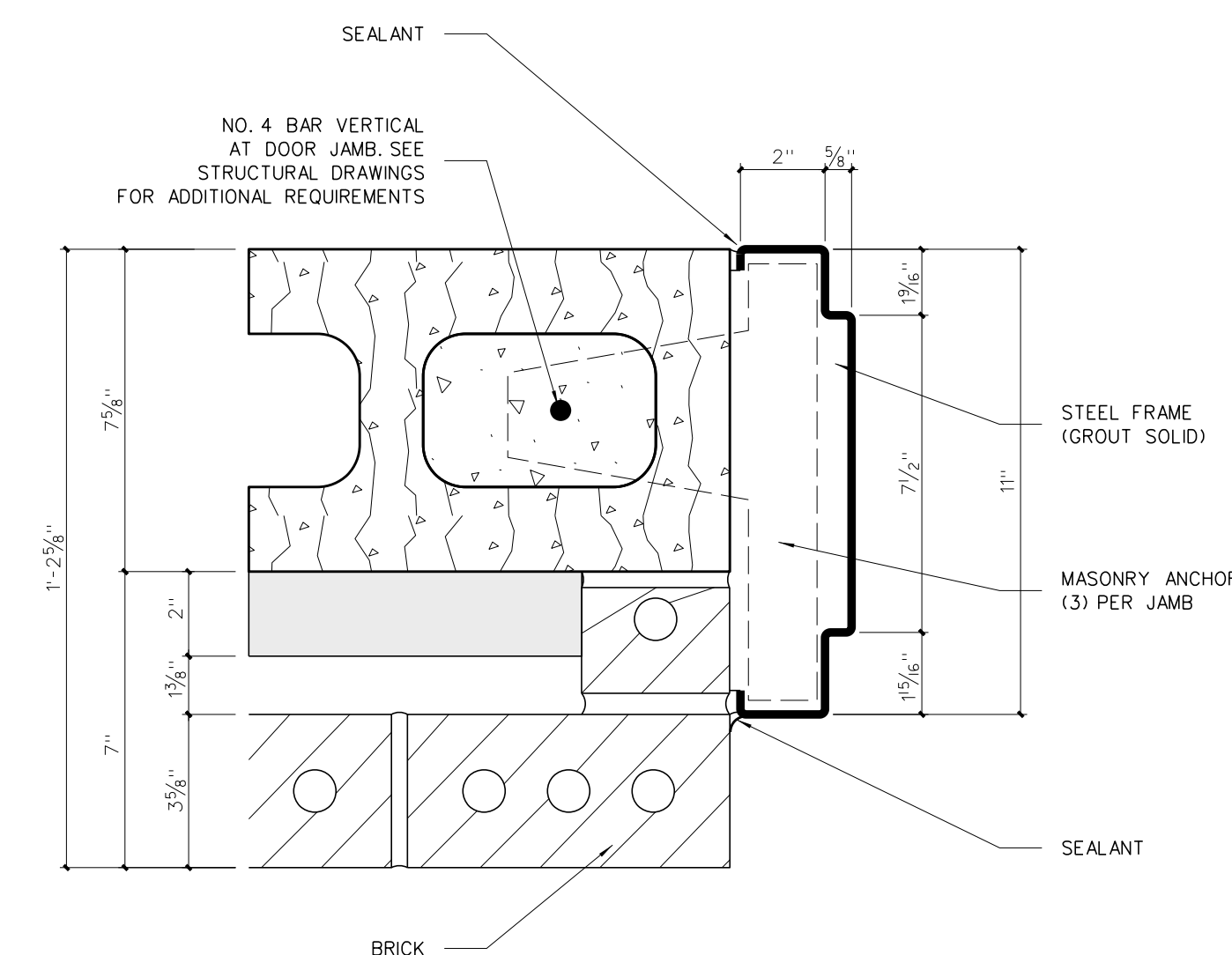
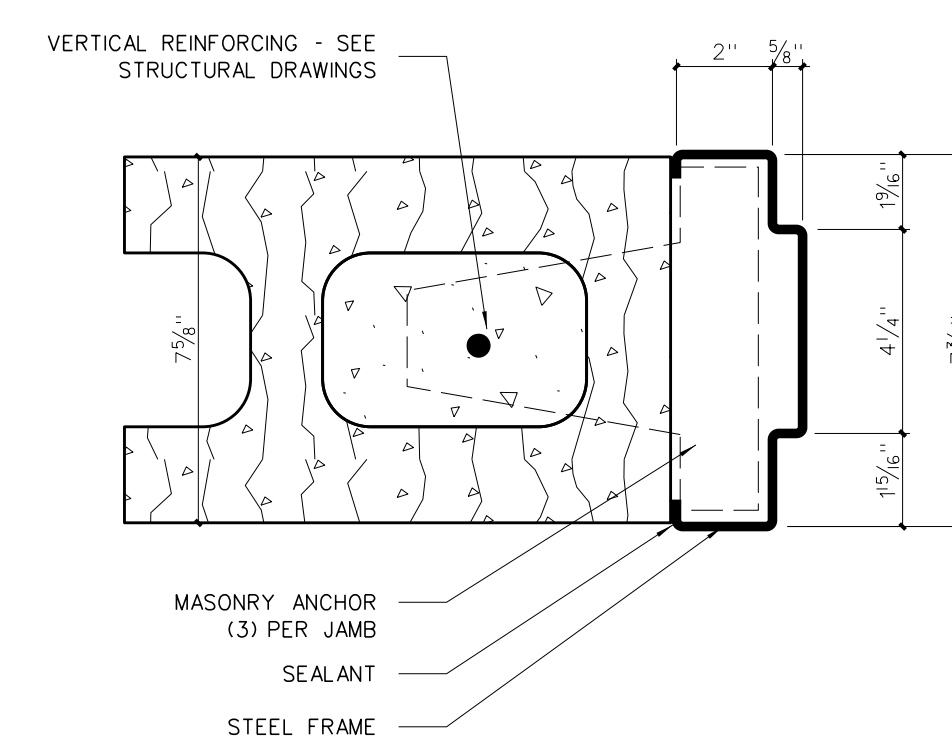
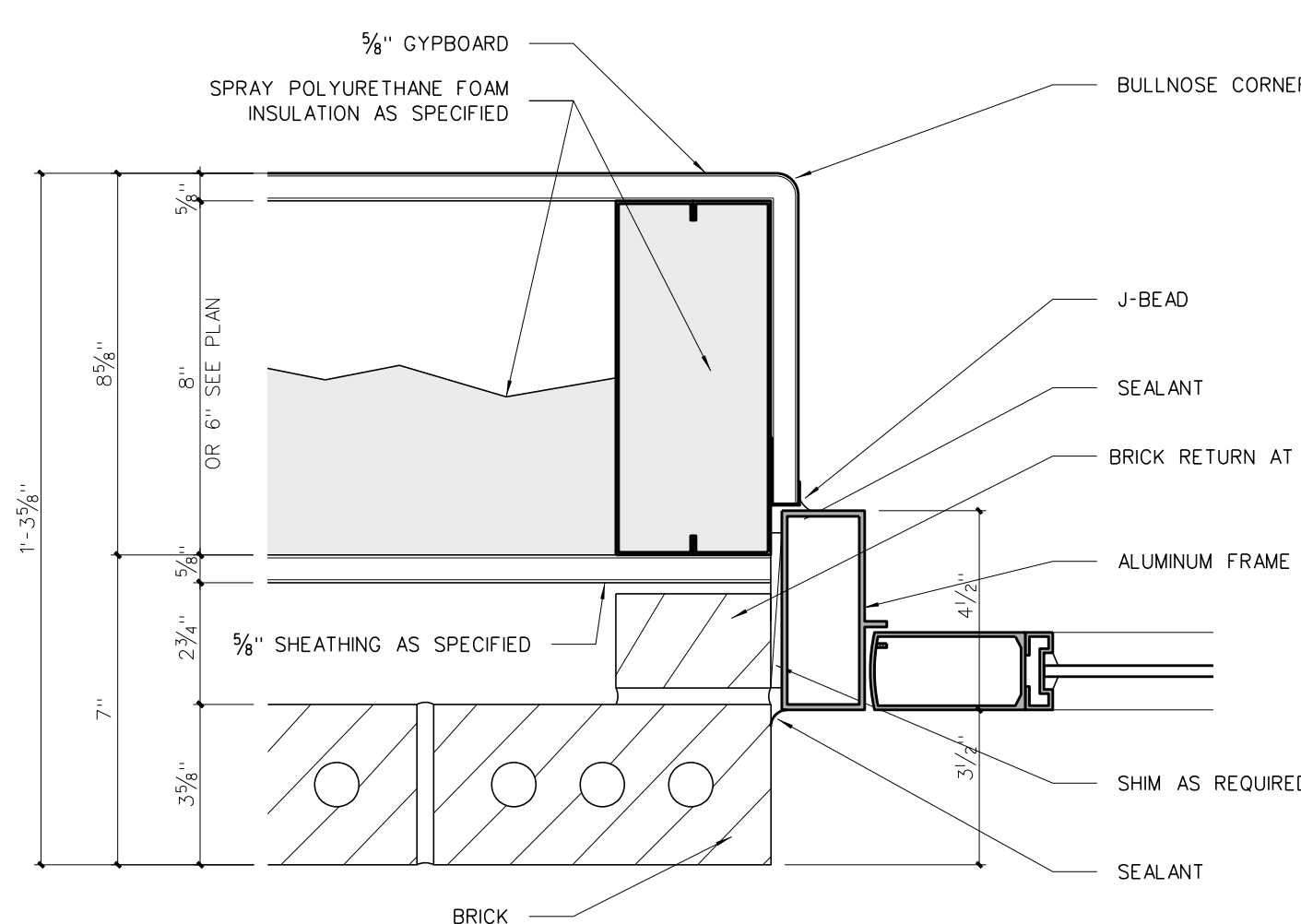


**302.8 HEAD**

**302.6 HEAD**

**302.4 HEAD**

**302.2 HEAD**



**302.7 JAMB**

**302.5 JAMB**

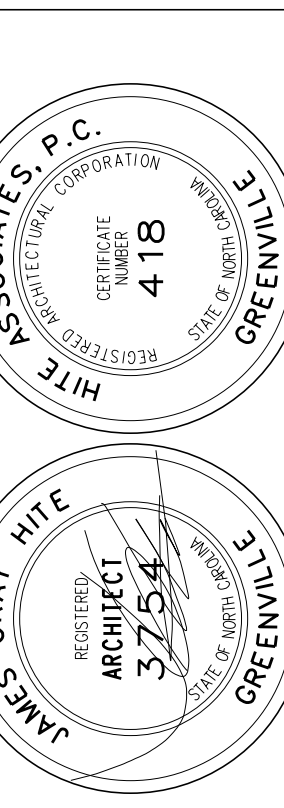
**302.3 JAMB**

**302.1 JAMB**

**302 DOOR FRAME DETAILS**  
SCALE: 3" = 1'-0"

No.	Date	Revision

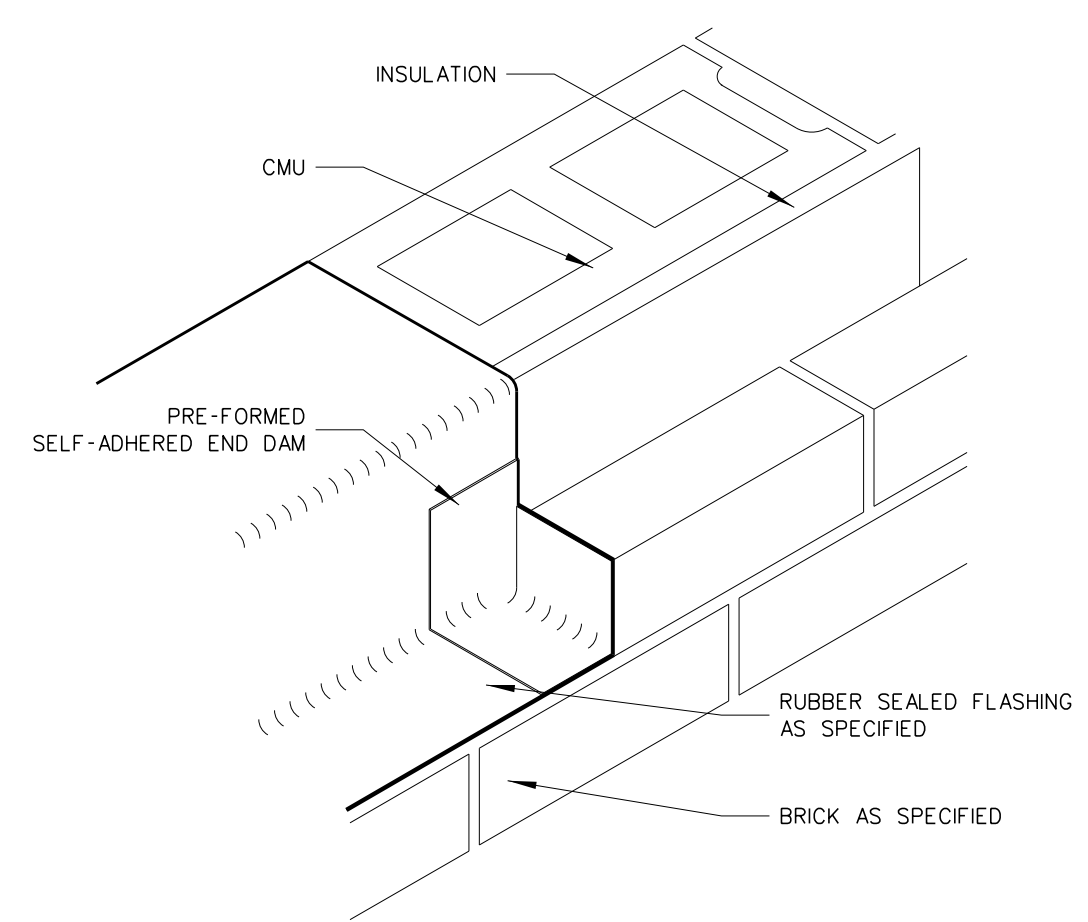
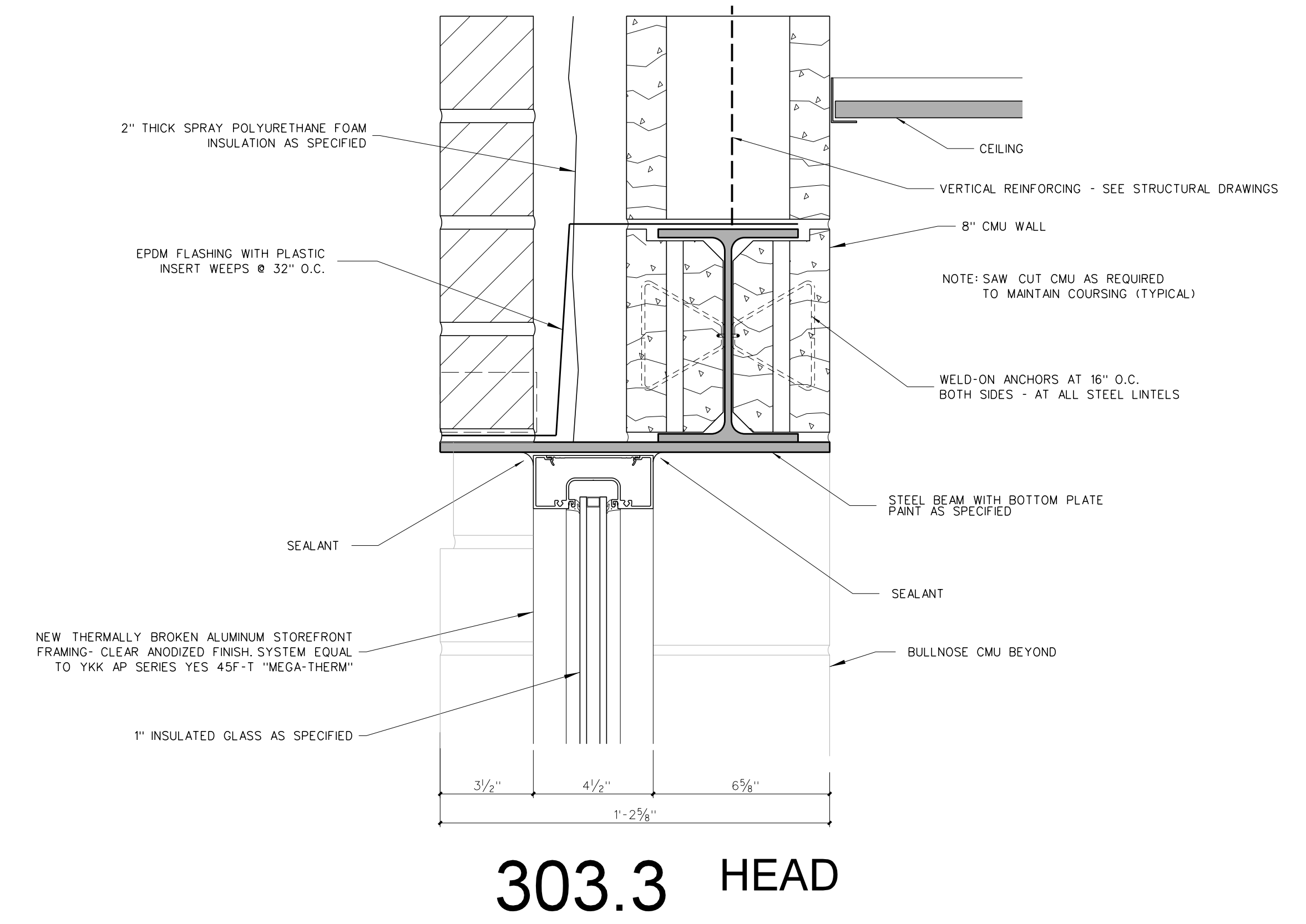
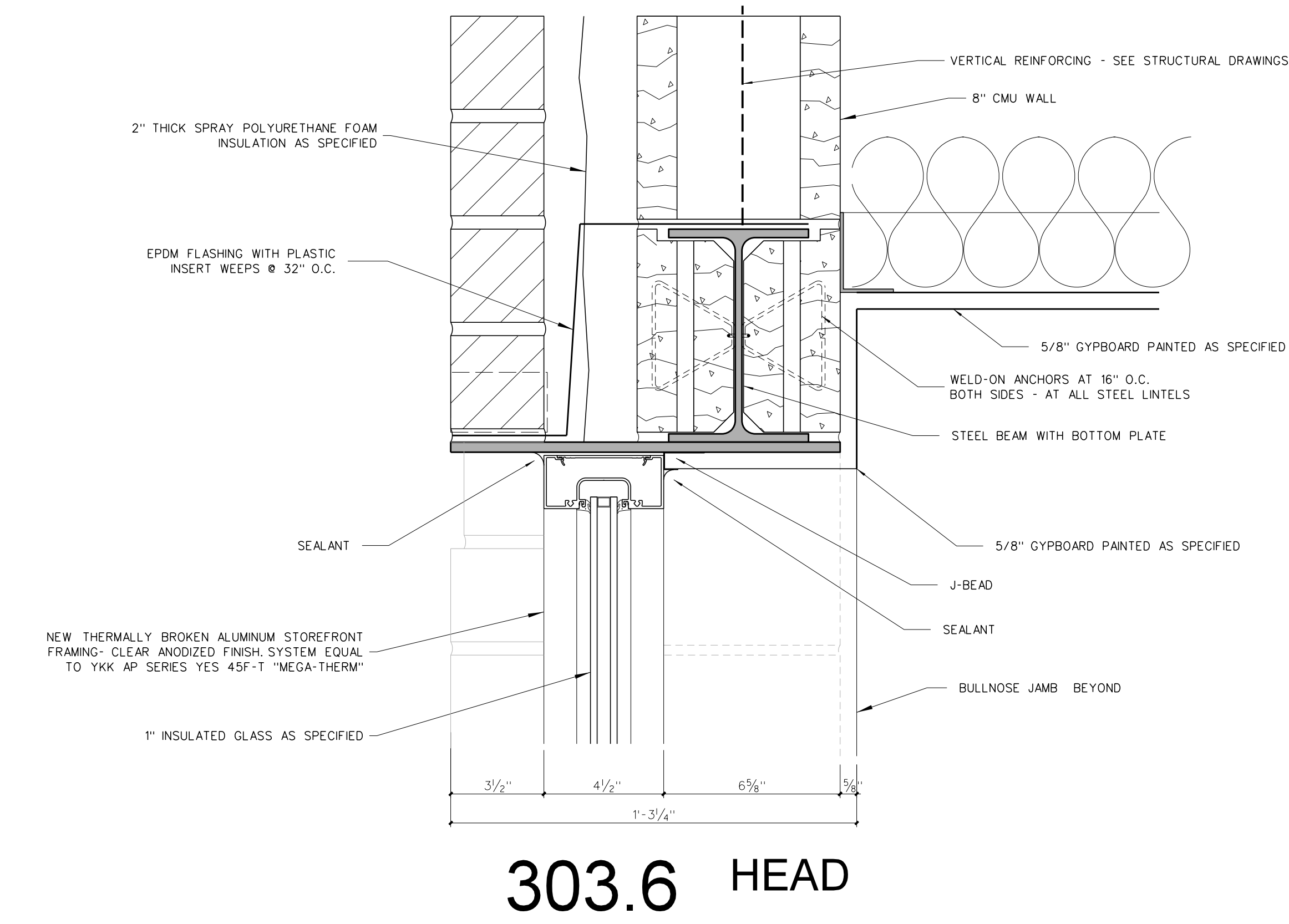
**Hite associates**  
ARCHITECTURE / PLANNING / TECHNOLOGY  
2600 Meridian Drive / Greenville, NC 27834 / tel (252) 757-0333



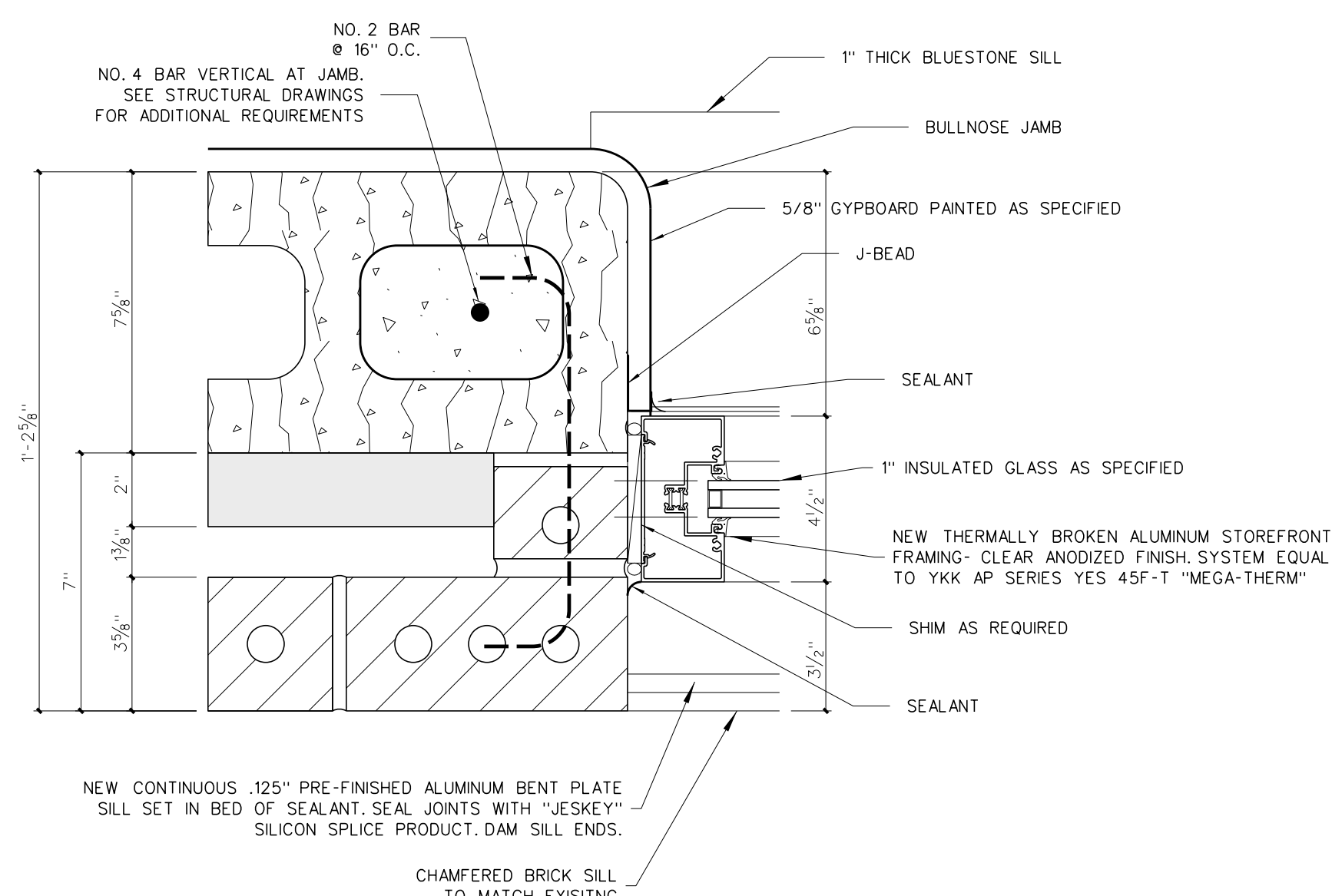
NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 3112  
Windsor / Bertie County / North Carolina

Project No. 22351  
Date: December 18, 2024  
Drawing no. **A 302**

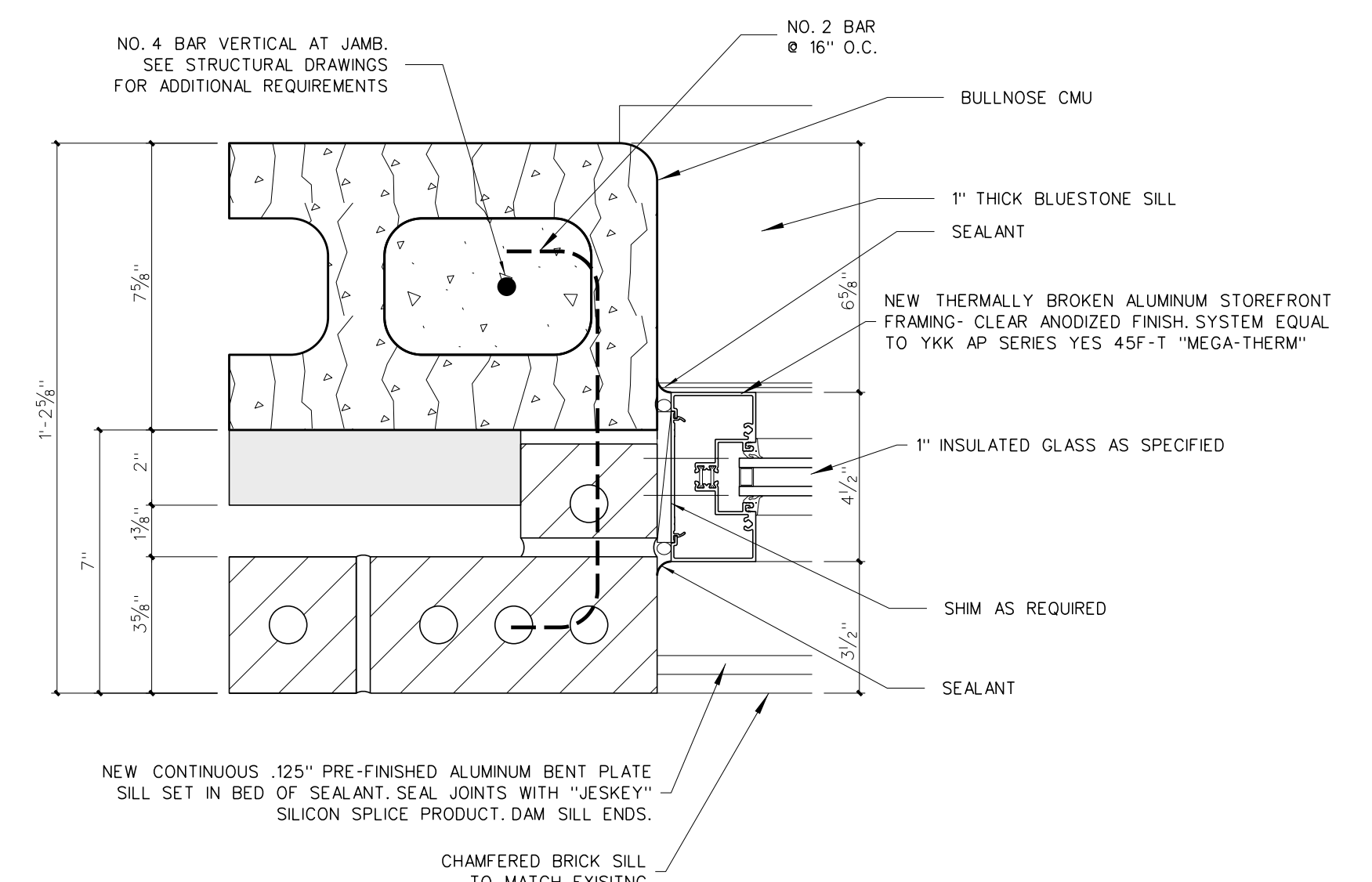




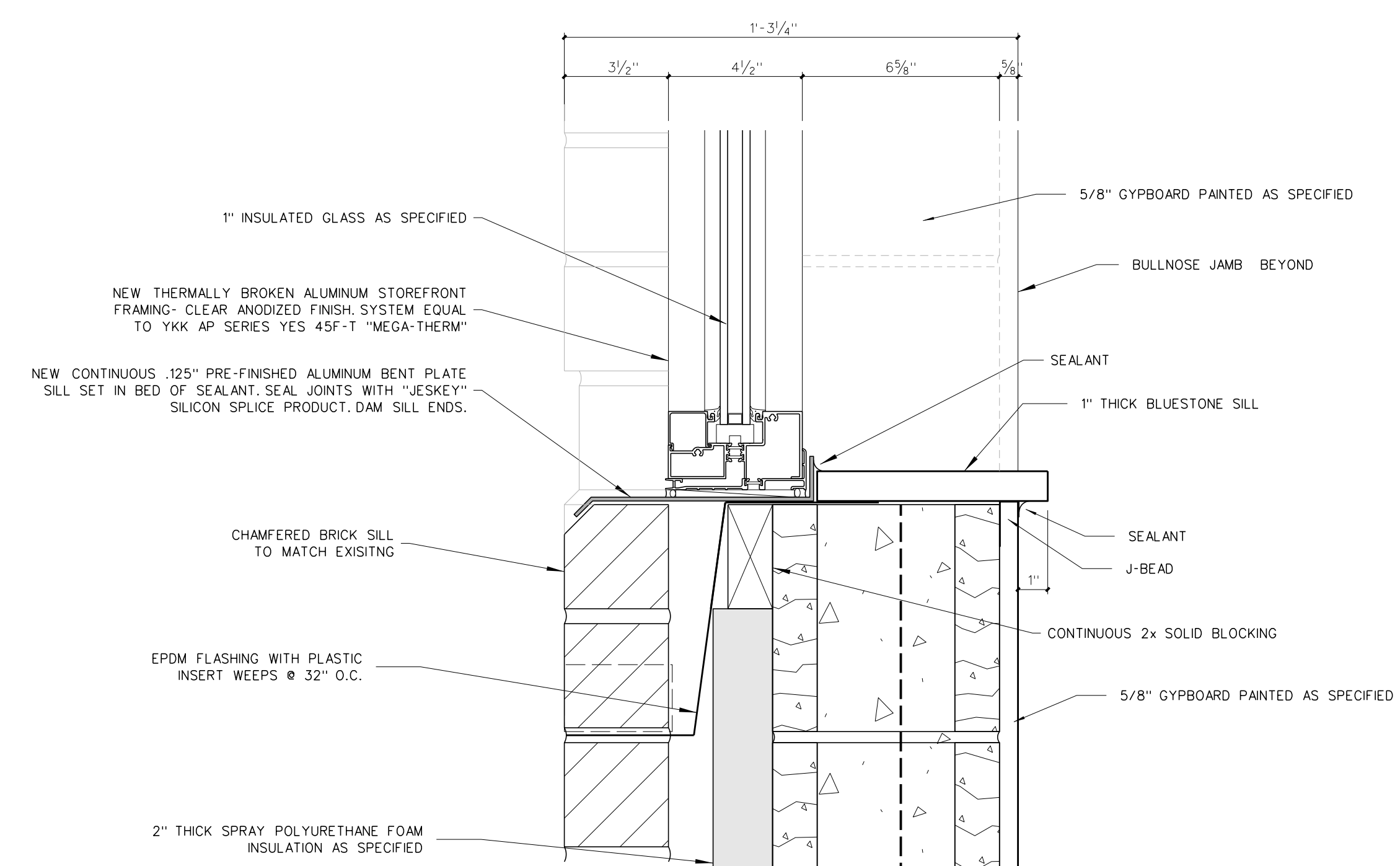
**303.7 WINDOW FLASHING DETAIL**  
SCALE: NONE



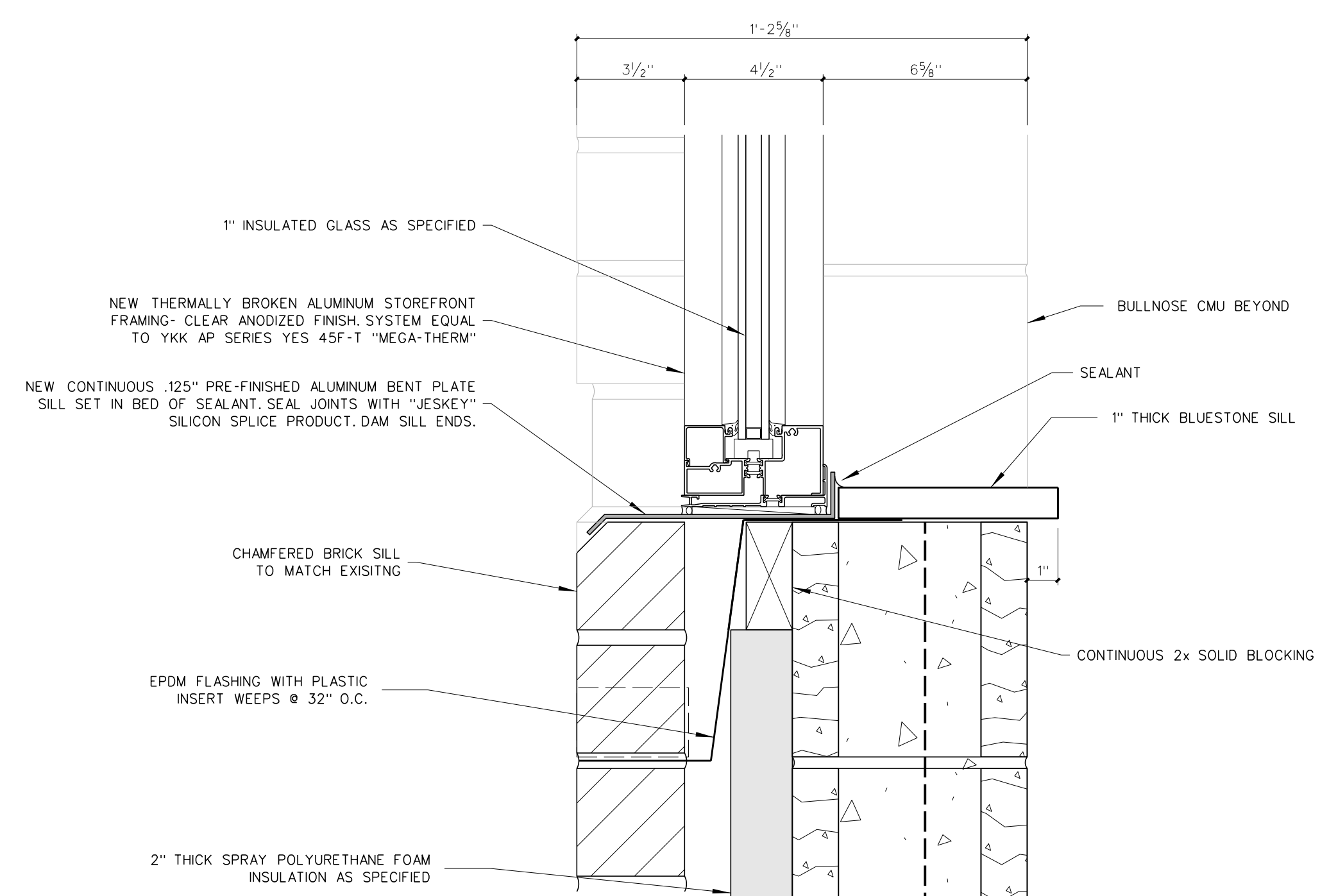
**303.5 JAMB**



**303.2 JAMB**



**303.4 SILL**

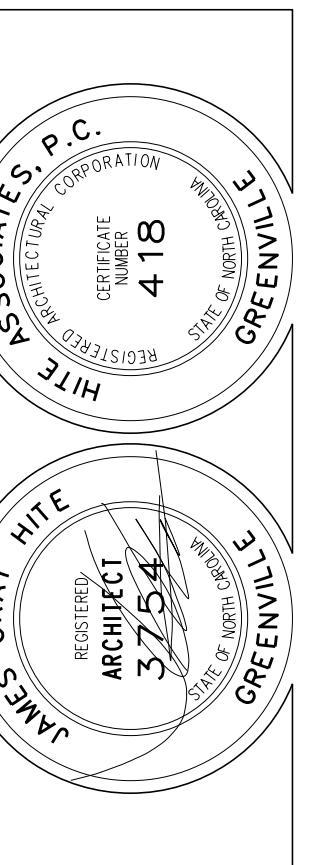


**303.1 SILL**

**303 WINDOW DETAILS**  
SCALE: 3" = 1'-0"

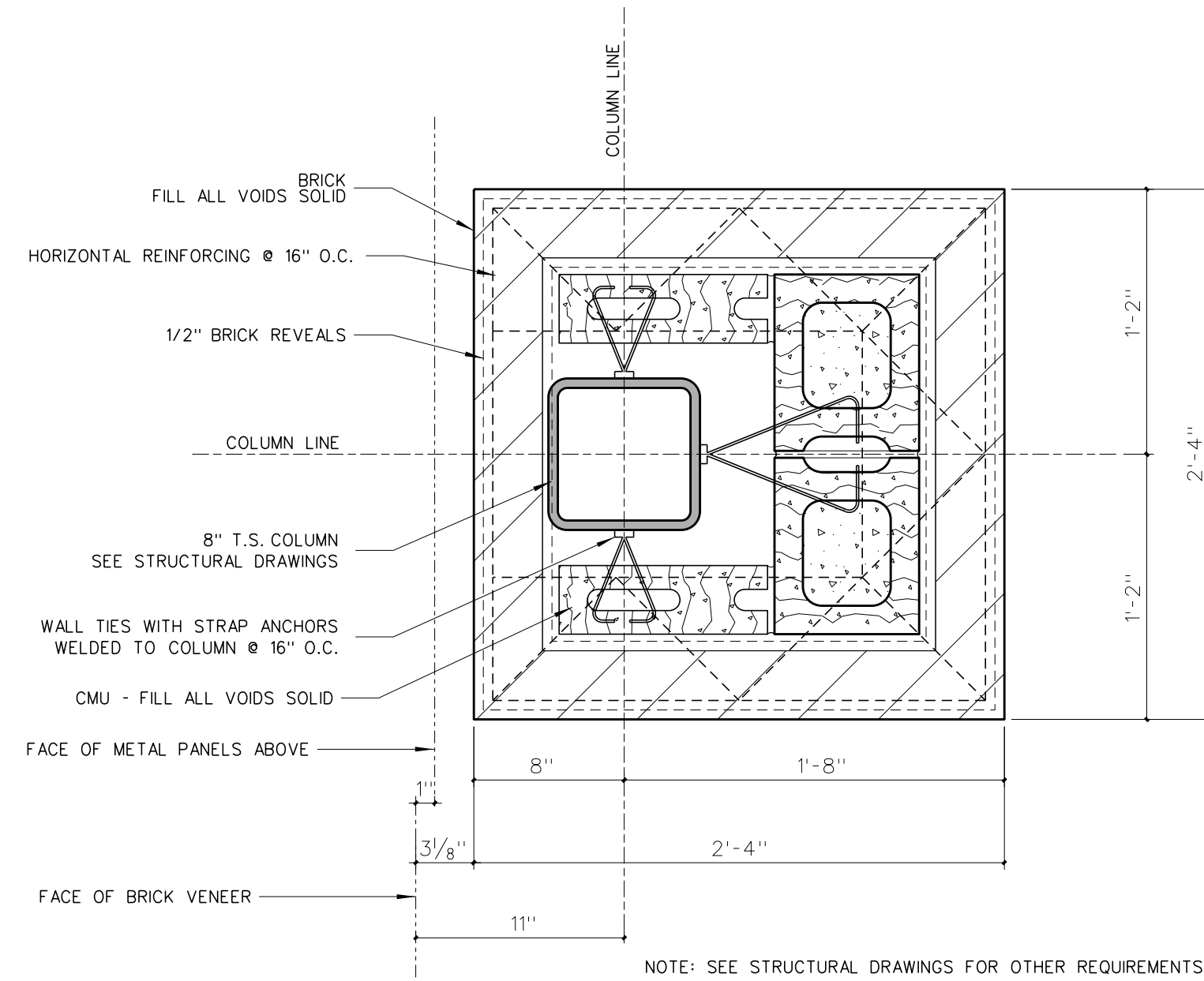
No.	Date	Revision

**Hite associates**  
ARCHITECTURE / PLANNING / TECHNOLOGY  
2600 Meridian Drive / Greenville, NC 27834 / tel (252) 757-0333

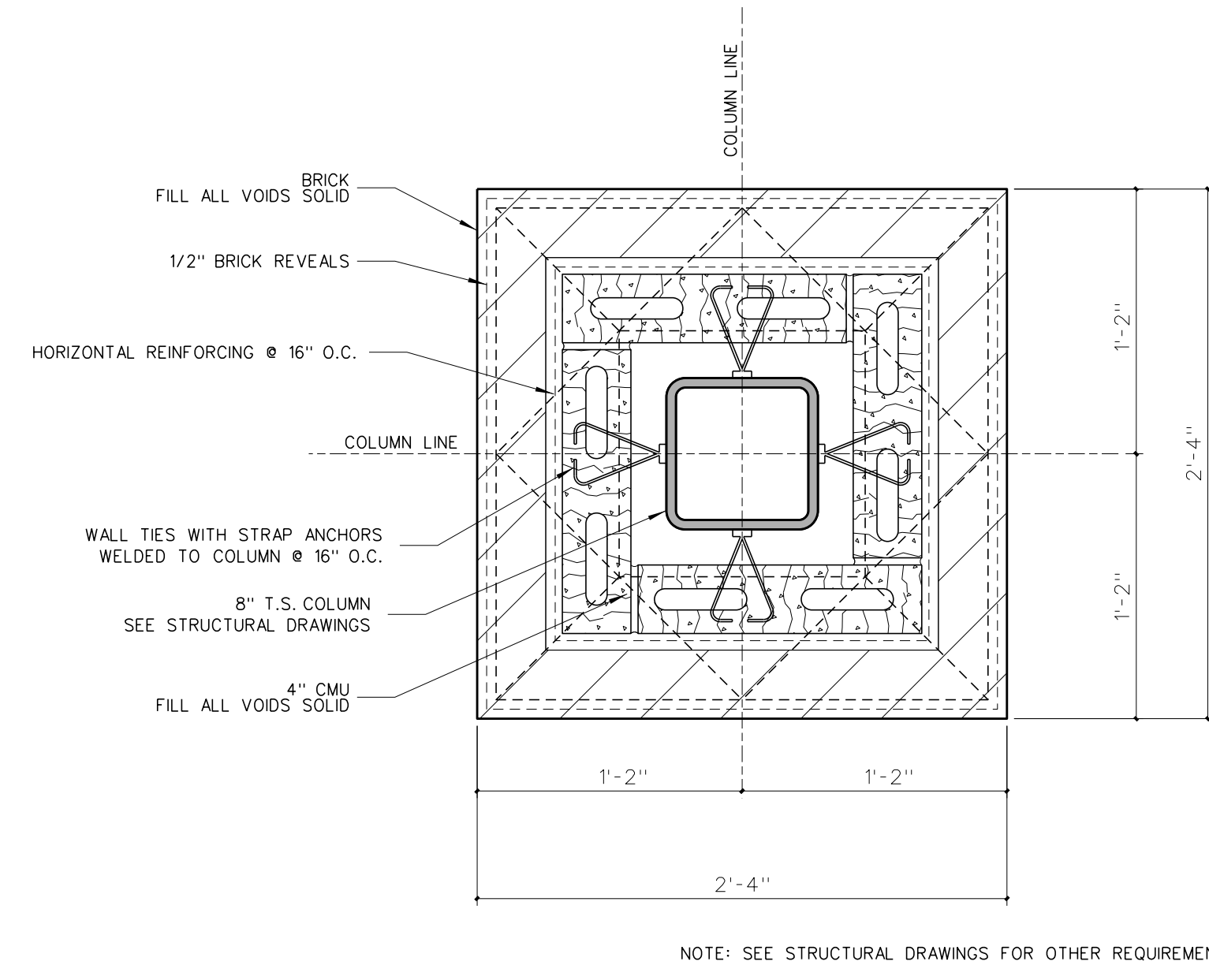


NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 3112  
Windsor / Bertie County / North Carolina

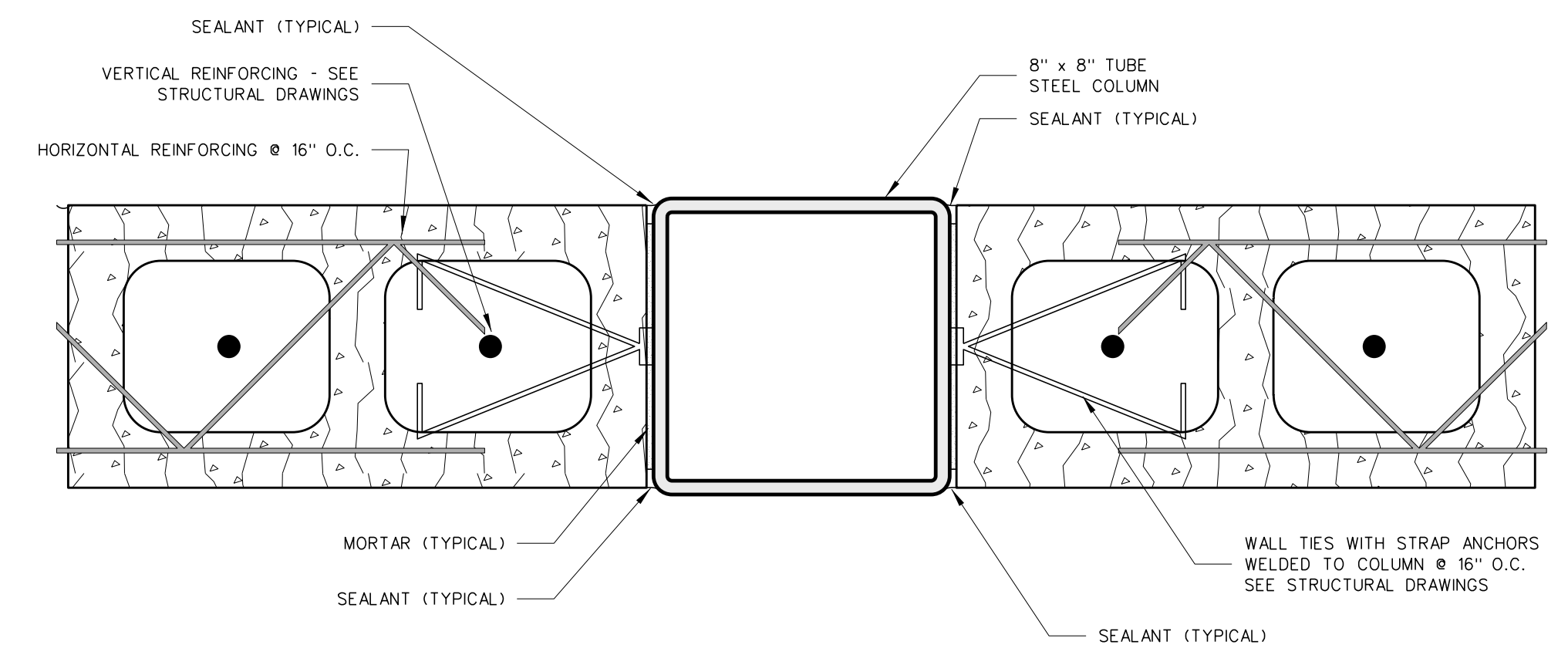
Project No.	22351
Date	December 18, 2024
Drawing no.	<b>A</b> <b>303</b>



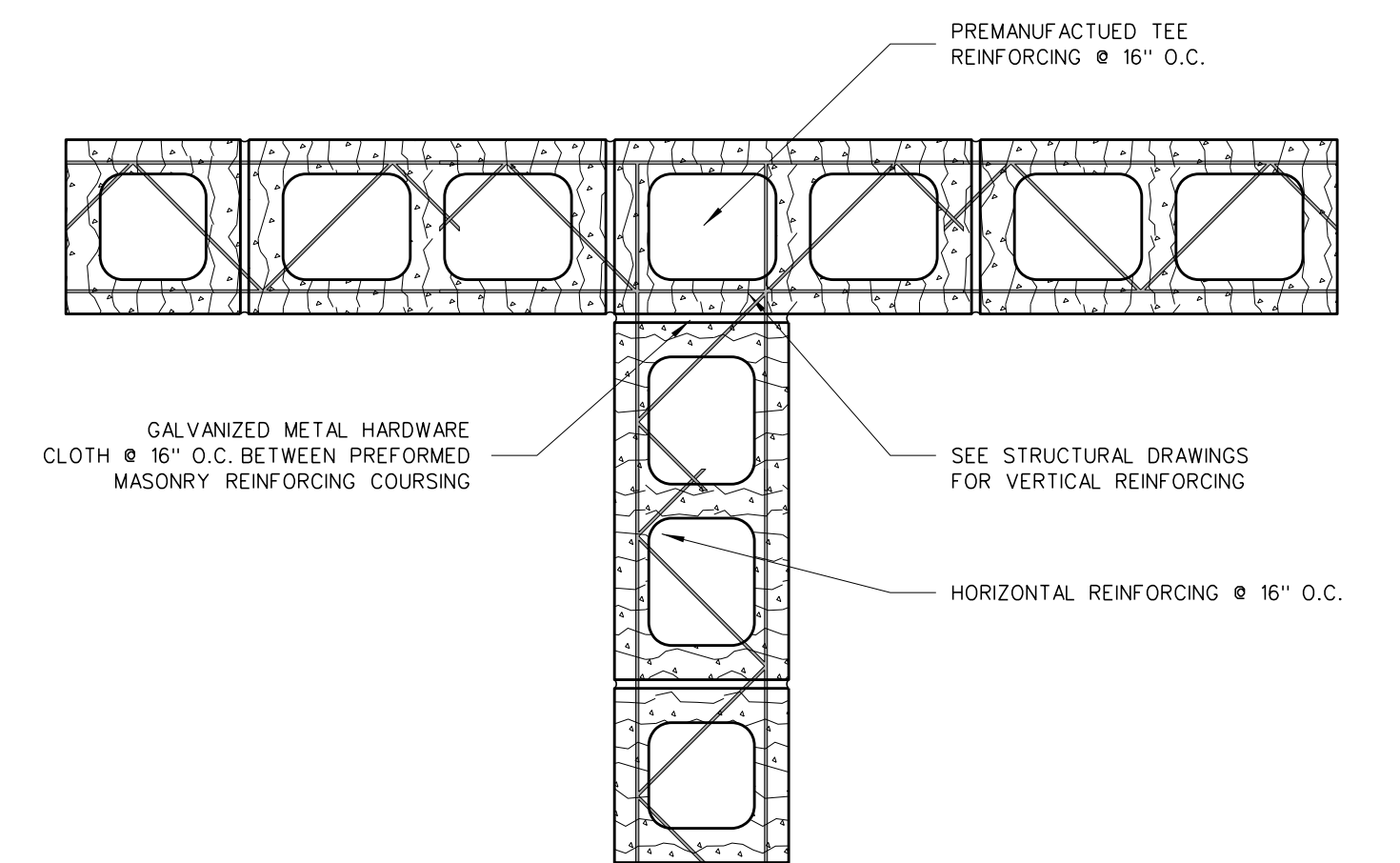
304.12 BRICK COLUMN DETAIL



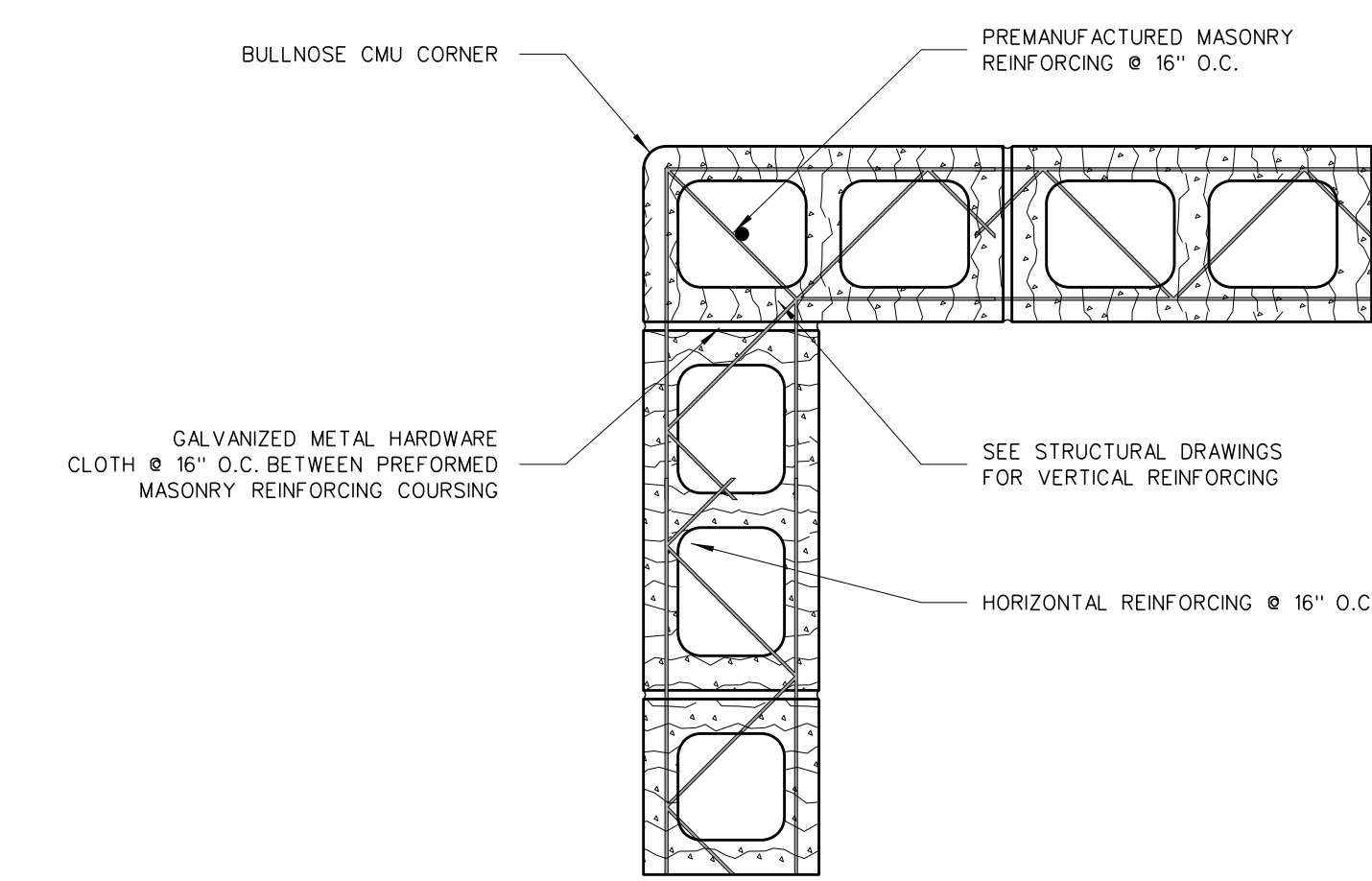
304.11 BRICK COLUMN DETAIL



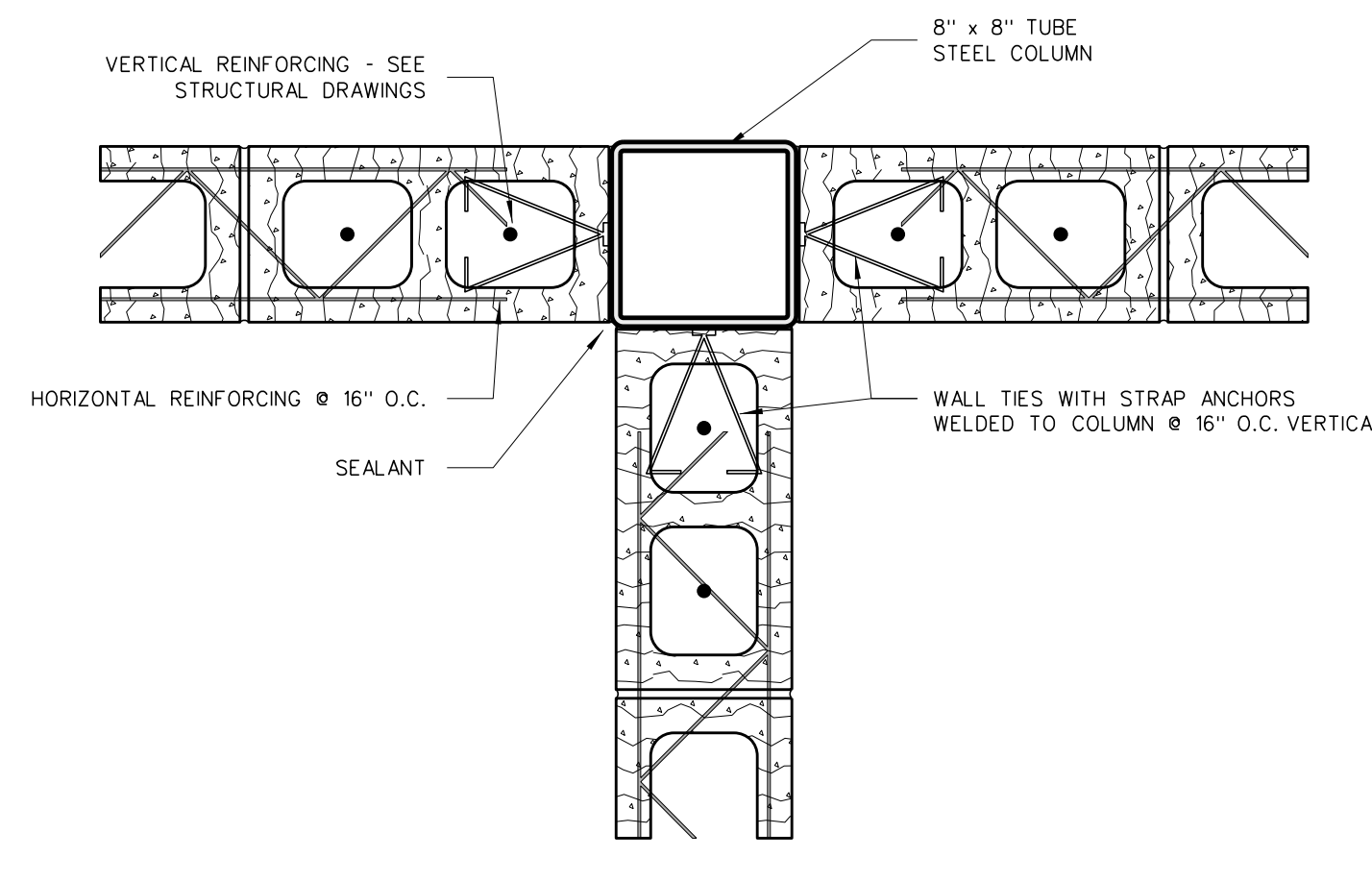
304.10 TYPICAL CMU / COLUMN DETAIL  
SCALE: 3" = 1'-0"



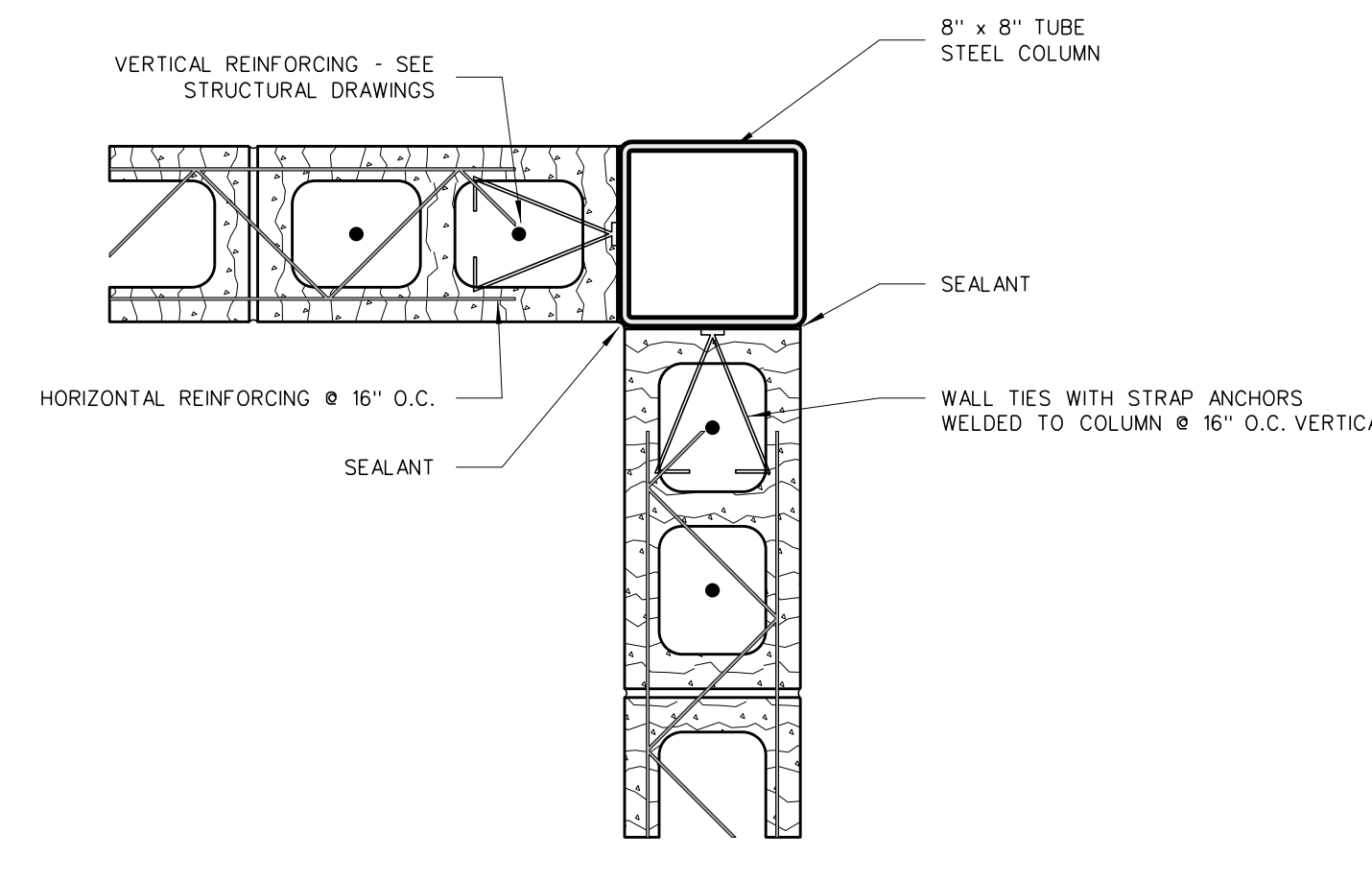
304.9 COLUMN DETAIL



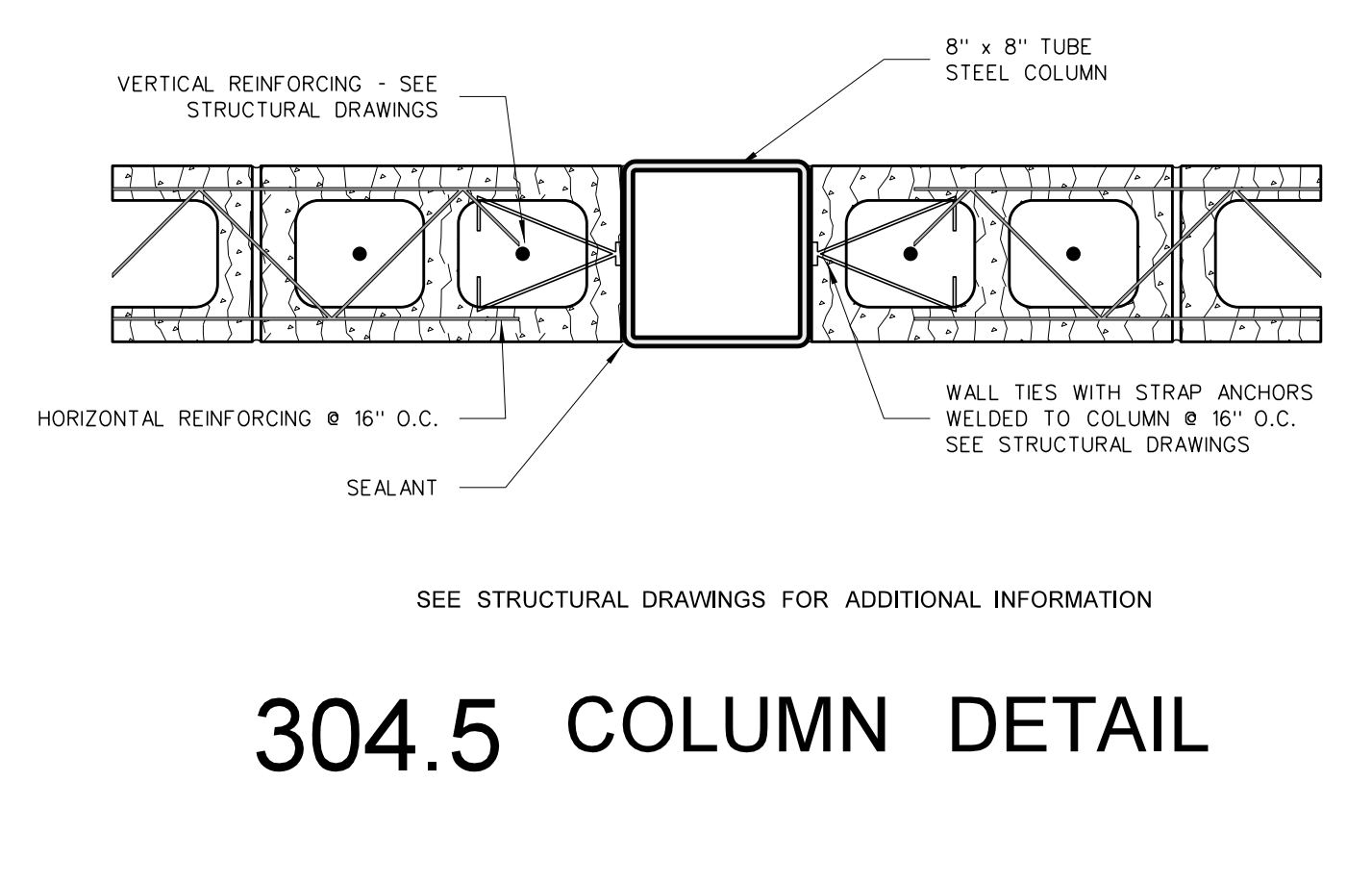
304.8 CMU WALL INTERSECTION



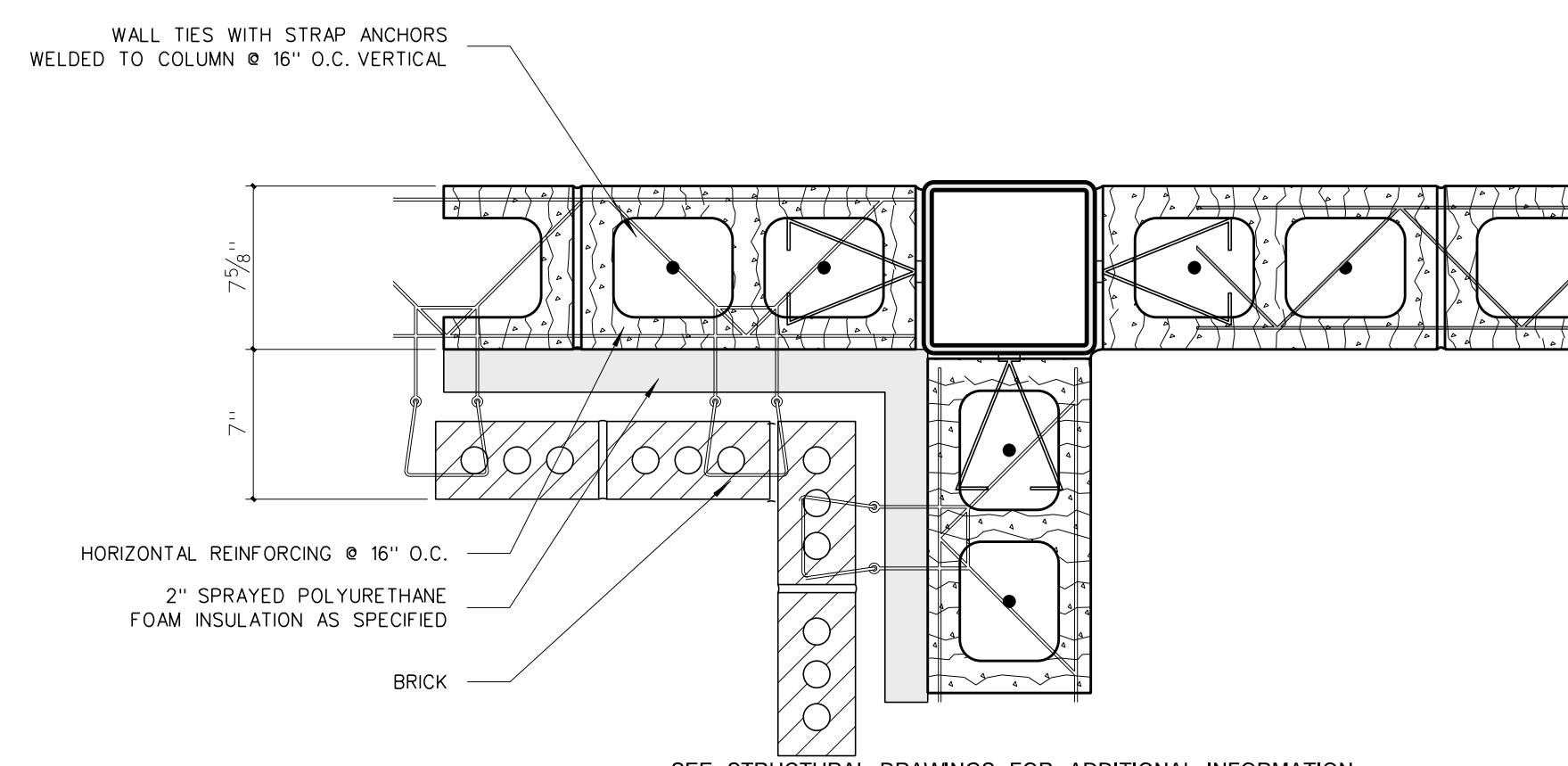
304.7 COLUMN DETAIL



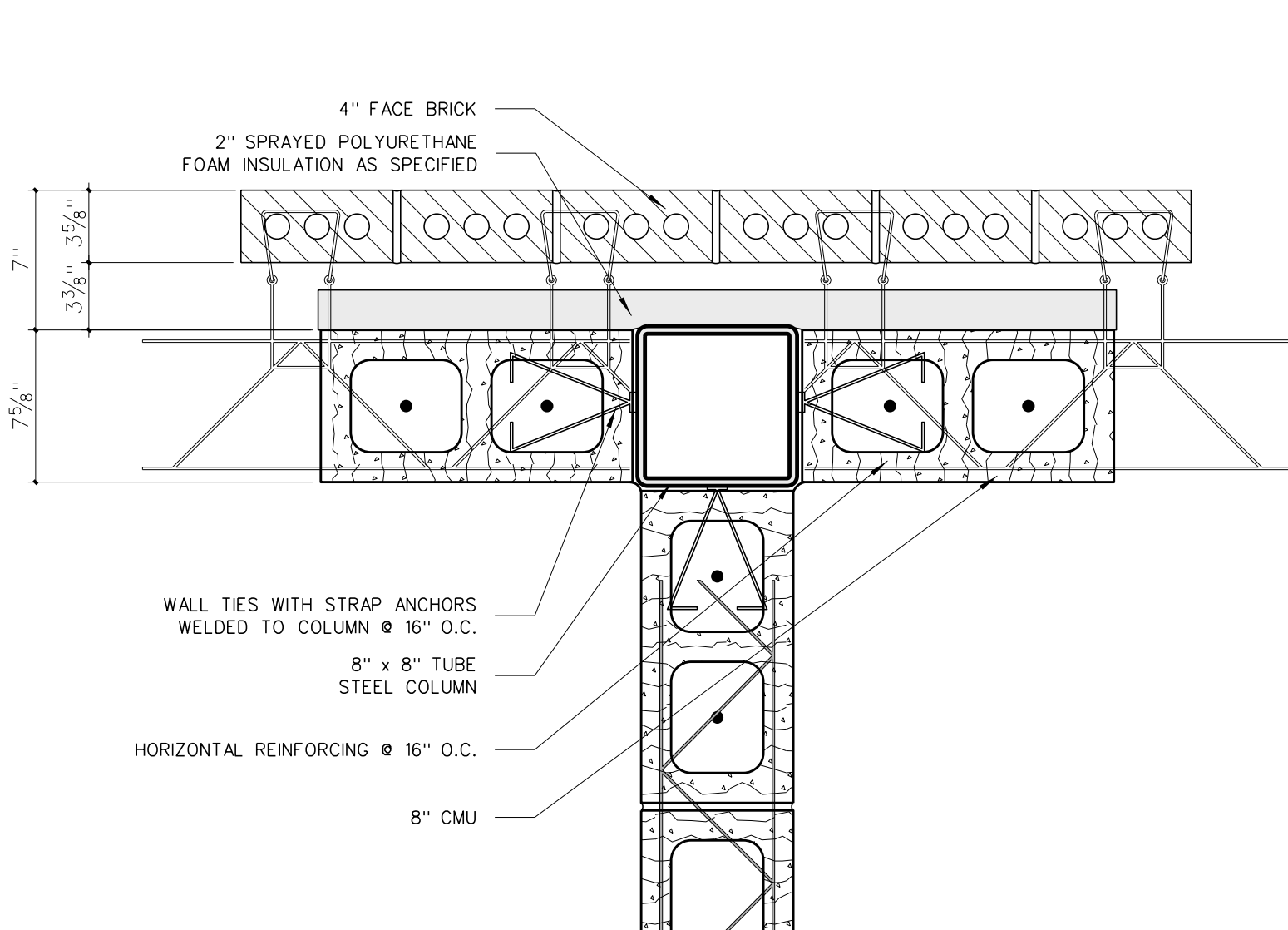
304.6 COLUMN DETAIL



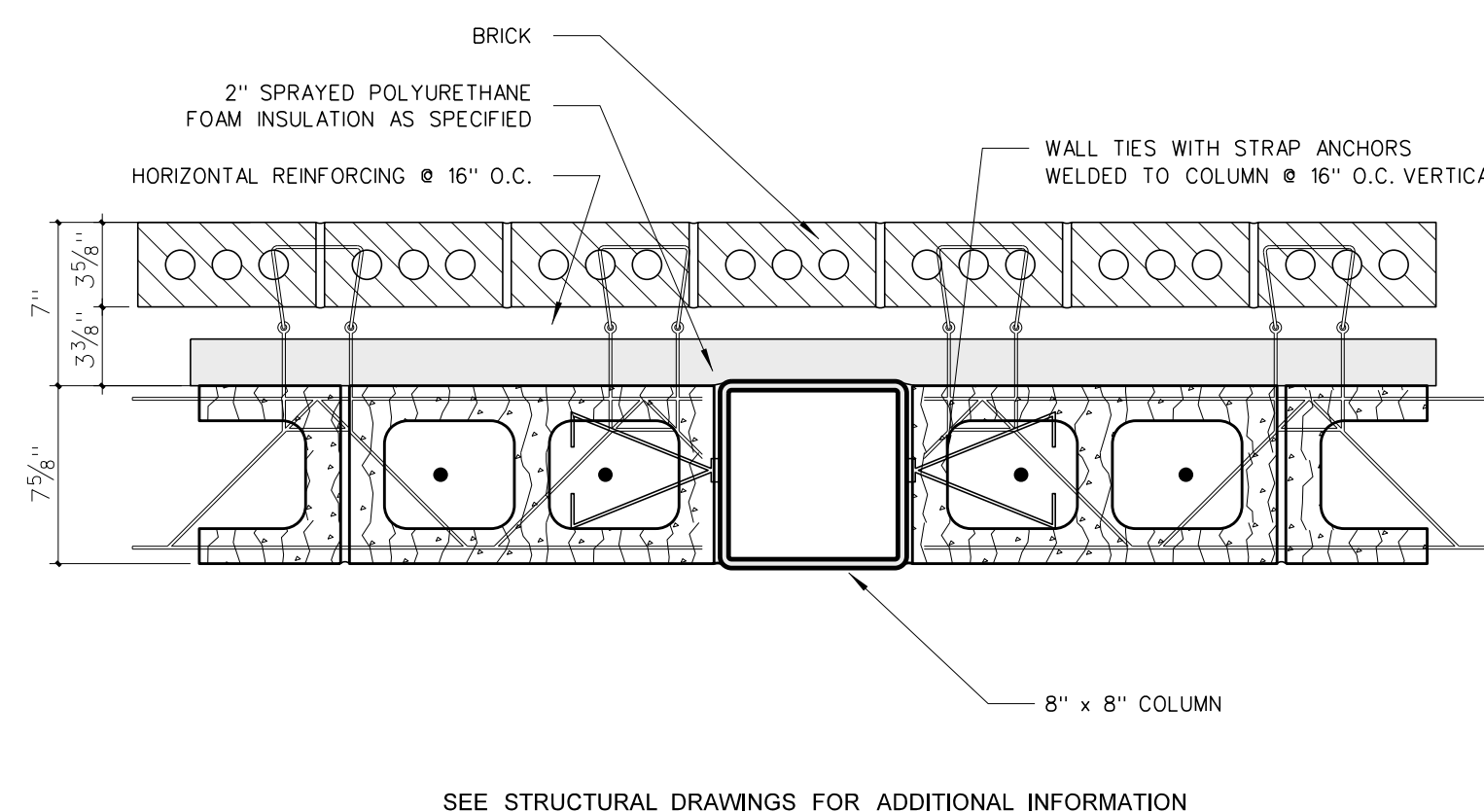
304.5 COLUMN DETAIL



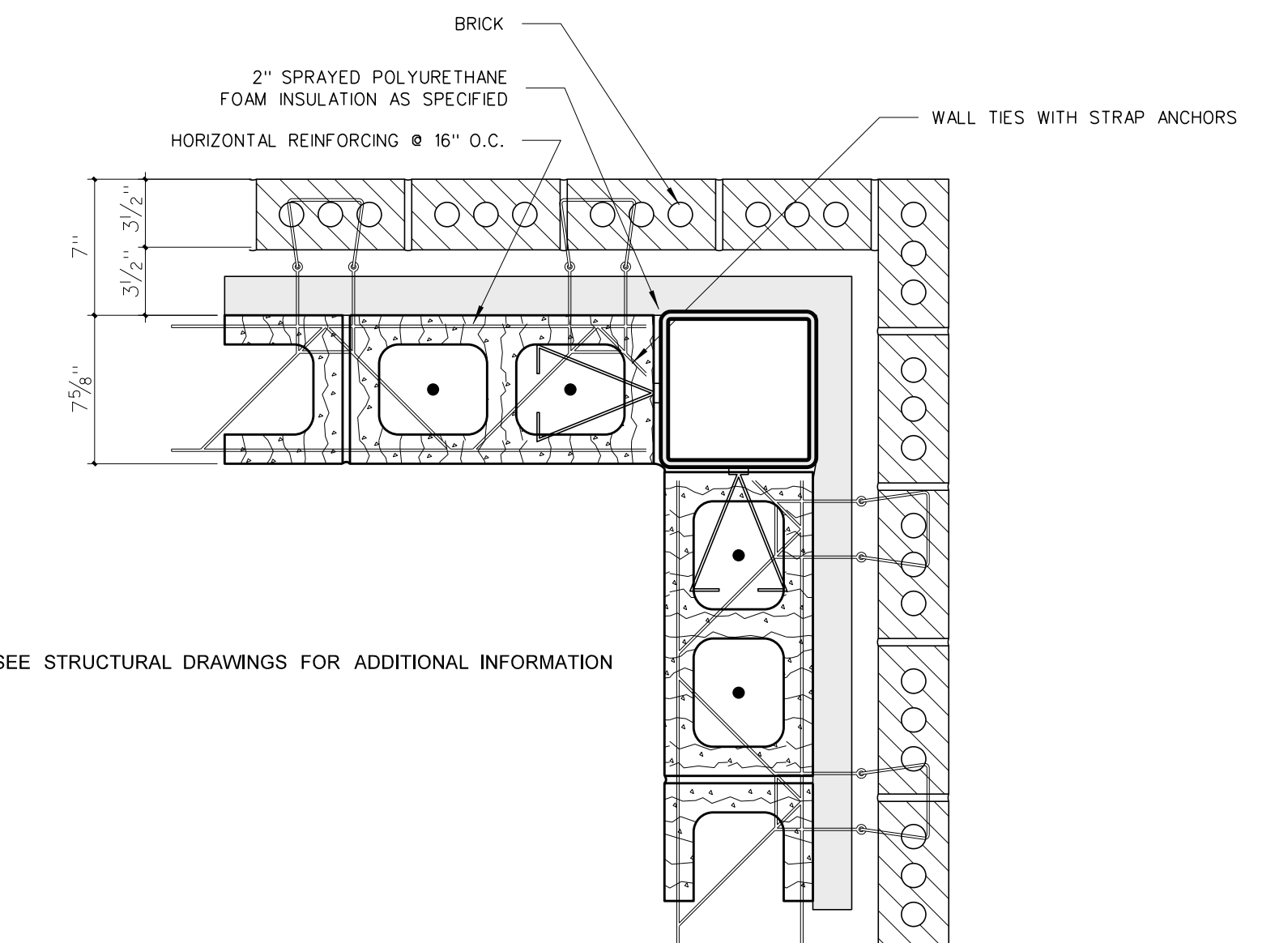
304.4 COLUMN DETAIL



304.3 COLUMN DETAIL



304.2 COLUMN DETAIL



304.1 COLUMN DETAIL

304 COLUMN DETAILS  
SCALE: 1 1/2" = 1'-0"

No.	Date	Revision

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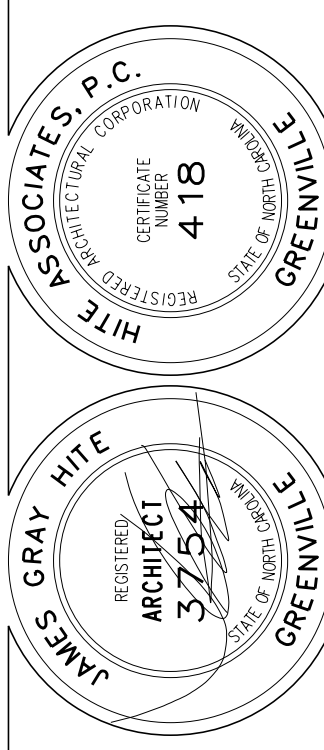
NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 3112  
Windsor / Bertie County / North Carolina

Project No. 22351  
Date: December 18, 2024  
Drawing no.

**A**  
**304**

No.	Date	Revision

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**FINISH SCHEDULE**

MARK	AREA	FLOOR	BASE	WALLS	CEILING	CLG HEIGHT	REMARKS
500	PEDESTRIAN WALKWAY	LVP	4" RUBBER	PAINTED CMU	ACOUSTICAL TILE	10'-0"	
501	CORRIDOR	LVP	4" RUBBER	PAINTED CMU	ACOUSTICAL TILE	10'-0"	
502	RECEPTION	LVP	4" RUBBER	VWC OVER DRYWALL	ACOUSTICAL TILE	9'-0"	
503	TOILET	CERAMIC TILE	CERAMIC TILE	CERAMIC TILE / VWC ON DRYWALL	ACOUSTICAL TILE	8'-6"	THINSET - DO NOT DEPRESS
504	SALON A	LVP	4" RUBBER	VWC OVER DRYWALL	PAINTED DRYWALL / ACOUST TILE	10'-0"	
505	SALON B	LVP	4" RUBBER	VWC OVER DRYWALL	PAINTED DRYWALL / ACOUST TILE	10'-0"	
506	OFFICE	LVP	4" RUBBER	VWC OVER DRYWALL	ACOUSTICAL TILE	9'-0"	
507	DISPENSARY	LVP	4" RUBBER	PAINTED DRYWALL	ACOUSTICAL TILE	9'-0"	
508	BREAK	LVP	4" RUBBER	PAINTED CMU	ACOUSTICAL TILE	10'-0"	
509	COSMETOLOGY CLASSROOM	LVP	4" RUBBER	PAINTED DRYWALL	ACOUSTICAL TILE	10'-0"	
510	ACCESS	SEALED CONC.	4" RUBBER	PAINTED CMU	EXPOSED STRUCTURE	VARIES	
511 A	AUTOMOTIVE SHOP AREA	SEALED CONC.	4" RUBBER	PAINTED CMU	WHITE ACOUST SPRAY ON DECK / PNT ALL OTHER EXPOSED	VARIES	POLISHED CONCRETE AS SPECIFIED
511 B	OFFICE	SEALED CONC.	4" RUBBER	PAINTED CMU	ACOUSTICAL TILE	10'-0"	POLISHED CONCRETE AS SPECIFIED
512	AUTOMOTIVE CLASSROOM	SEALED CONC.	4" RUBBER	PAINTED CMU	ACOUSTICAL TILE	10'-0"	POLISHED CONCRETE AS SPECIFIED
513	STORAGE	SEALED CONC.	4" RUBBER	PAINTED CMU	ACOUSTICAL TILE	11'-0"	POLISHED CONCRETE AS SPECIFIED
514 A	WELDING SHOP AREA	SEALED CONC.	4" RUBBER	PAINTED CMU	WHITE ACOUST SPRAY ON DECK / PNT ALL OTHER EXPOSED	VARIES	POLISHED CONCRETE AS SPECIFIED
514 B	OFFICE	SEALED CONC.	4" RUBBER	PAINTED CMU	ACOUSTICAL TILE	10'-0"	POLISHED CONCRETE AS SPECIFIED
515	WELDING CLASSROOM	SEALED CONC.	4" RUBBER	PAINTED CMU	ACOUSTICAL TILE	10'-0"	POLISHED CONCRETE AS SPECIFIED
516	TOOLS	SEALED CONC.	4" RUBBER	PAINTED CMU	ACOUSTICAL TILE	10'-0"	POLISHED CONCRETE AS SPECIFIED
517	STORAGE	SEALED CONC.	4" RUBBER	PAINTED CMU	ACOUSTICAL TILE	11'-0"	POLISHED CONCRETE AS SPECIFIED
518	WOMEN	CERAMIC TILE	CERAMIC TILE	CER TILE/PNT CMU	ACOUSTICAL TILE	10'-0"	DEPRESS SLAB 2"
519	STAFF	CERAMIC TILE	CERAMIC TILE	CER TILE/PNT CMU	ACOUSTICAL TILE	10'-0"	THINSET - DO NOT DEPRESS
520	MEN	CERAMIC TILE	CERAMIC TILE	CER TILE/PNT CMU	ACOUSTICAL TILE	10'-0"	DEPRESS SLAB 2"
521	CUSTODIAN / STORAGE	LVP	4" RUBBER	PAINTED CMU	ACOUSTICAL TILE	10'-0"	
522 A	CARPENTRY SHOP AREA	SEALED CONC.	4" RUBBER	PAINTED CMU	WHITE ACOUST SPRAY ON DECK / PNT ALL OTHER EXPOSED	VARIES	POLISHED CONCRETE AS SPECIFIED
522 B	OFFICE	SEALED CONC.	4" RUBBER	PAINTED CMU	ACOUSTICAL TILE	10'-0"	POLISHED CONCRETE AS SPECIFIED
523	CARPENTRY CLASSROOM	SEALED CONC.	4" RUBBER	PAINTED CMU	ACOUSTICAL TILE	10'-0"	POLISHED CONCRETE AS SPECIFIED
524	TOOLS	SEALED CONC.	4" RUBBER	PAINTED CMU	ACOUSTICAL TILE	10'-0"	POLISHED CONCRETE AS SPECIFIED
525	STORAGE	SEALED CONC.	4" RUBBER	PAINTED CMU	ACOUSTICAL TILE	11'-0"	POLISHED CONCRETE AS SPECIFIED
526 A	AGRICULTURE SHOP AREA	SEALED CONC.	4" RUBBER	PAINTED CMU	WHITE ACOUST SPRAY ON DECK / PNT ALL OTHER EXPOSED	VARIES	POLISHED CONCRETE AS SPECIFIED
526 B	OFFICE	SEALED CONC.	4" RUBBER	PAINTED CMU	ACOUSTICAL TILE	10'-0"	POLISHED CONCRETE AS SPECIFIED
527	AG CLASSROOM	SEALED CONC.	4" RUBBER	PAINTED CMU	ACOUSTICAL TILE	10'-0"	POLISHED CONCRETE AS SPECIFIED
528	STORAGE	SEALED CONC.	4" RUBBER	PAINTED CMU	ACOUSTICAL TILE	11'-0"	POLISHED CONCRETE AS SPECIFIED
529 A	HVAC	SEALED CONC.	4" RUBBER	PAINTED CMU	WHITE ACOUST SPRAY ON DECK / PNT ALL OTHER EXPOSED	VARIES	POLISHED CONCRETE AS SPECIFIED
529 B	OFFICE	SEALED CONC.	4" RUBBER	PAINTED CMU	ACOUSTICAL TILE	10'-0"	POLISHED CONCRETE AS SPECIFIED
530	STORAGE	SEALED CONC.	4" RUBBER	PAINTED CMU	ACOUSTICAL TILE	10'-0"	POLISHED CONCRETE AS SPECIFIED
531	MECH./ELECT.	SEALED CONC.	NONE	EXPOSED CONCRETE	EXPOSED STRUCTURE	VARIES	
532	NOT USED						
533	PLATFORM	SEALED CONC.	4" RUBBER	EXPOSED STRUCTURE	EXPOSED STRUCTURE	VARIES	
534	GAS TANK DELIVERY/STORAGE	SEALED CONC.	NONE	PAINTED CMU	EXPOSED STRUCTURE	VARIES	

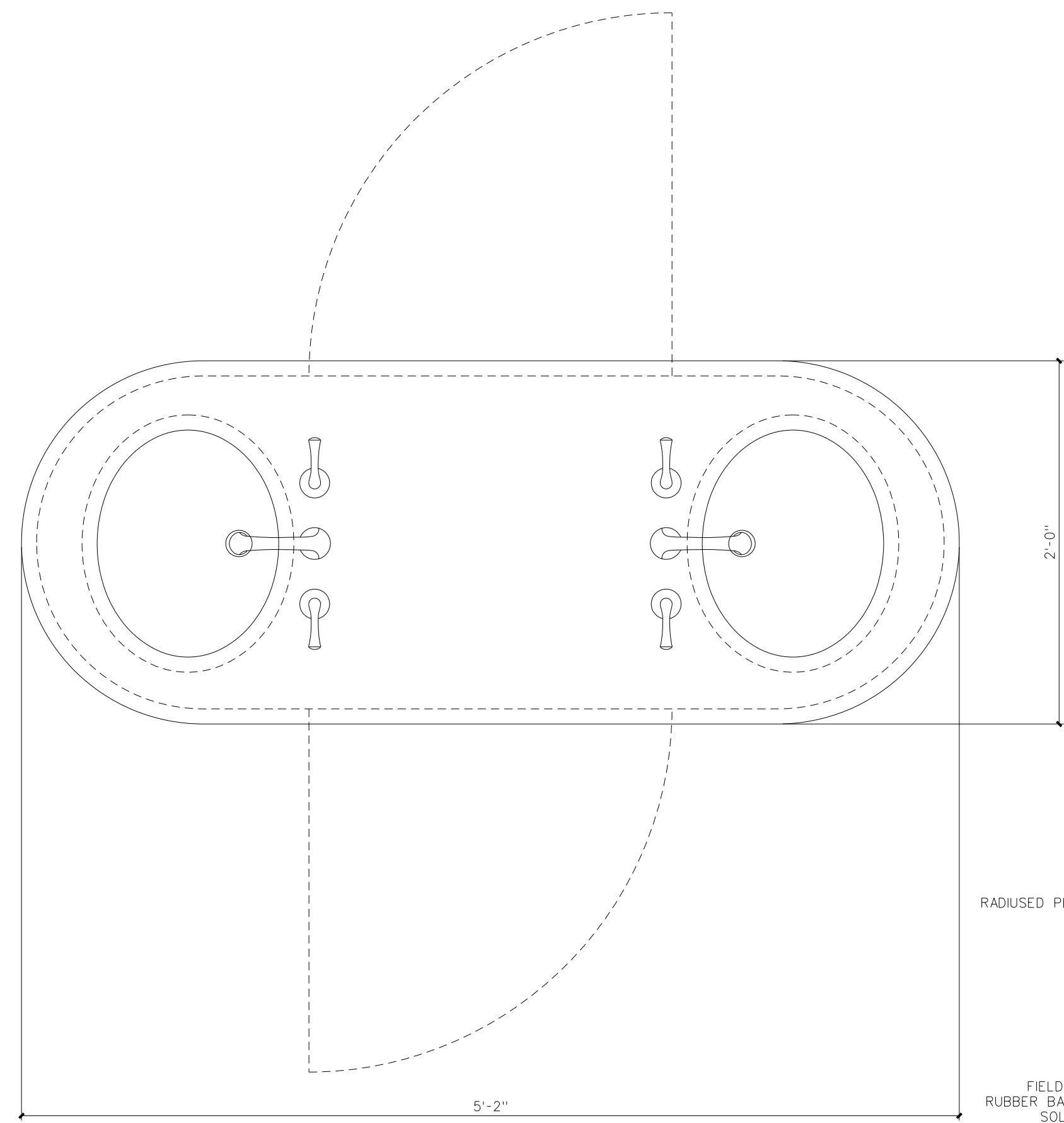
NEW CTE BUILDING FOR  
**Bertie High School**  
 716 US 13 North / NCDPS Unit 080 - School 312  
 Windsor / Bertie County / North Carolina

Project No. 22351

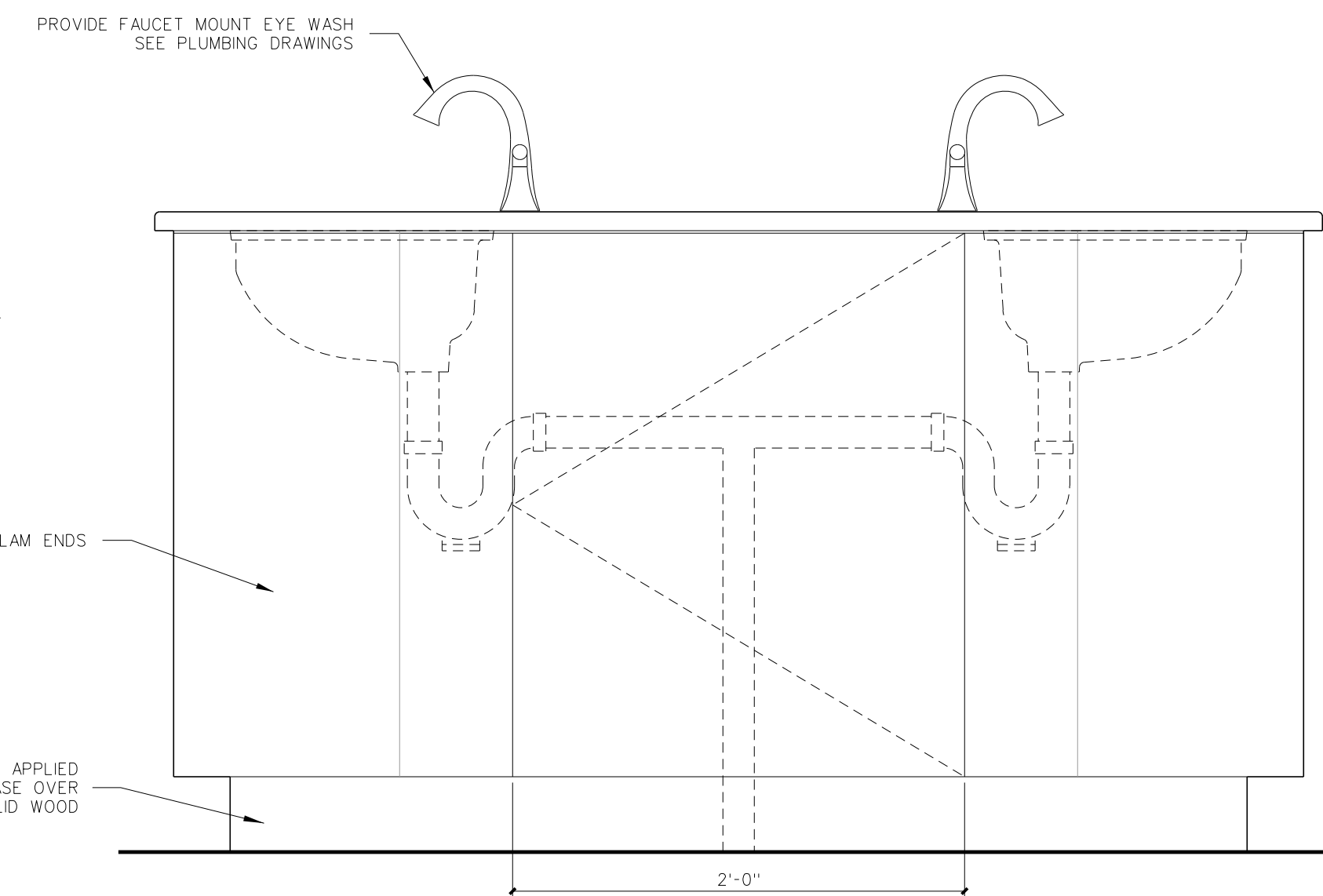
Date: December 18, 2024

Drawing no.

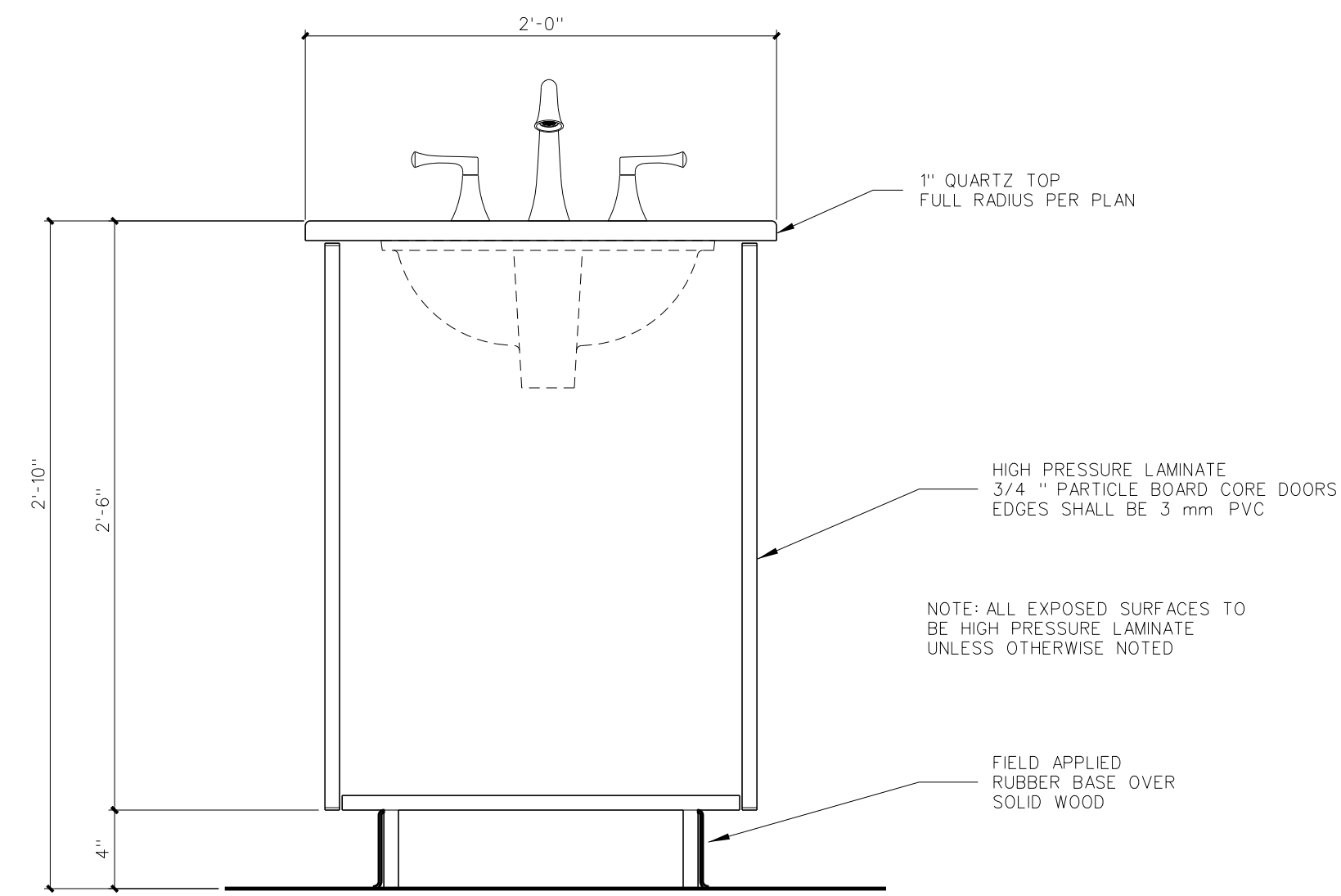
**A**  
**305**



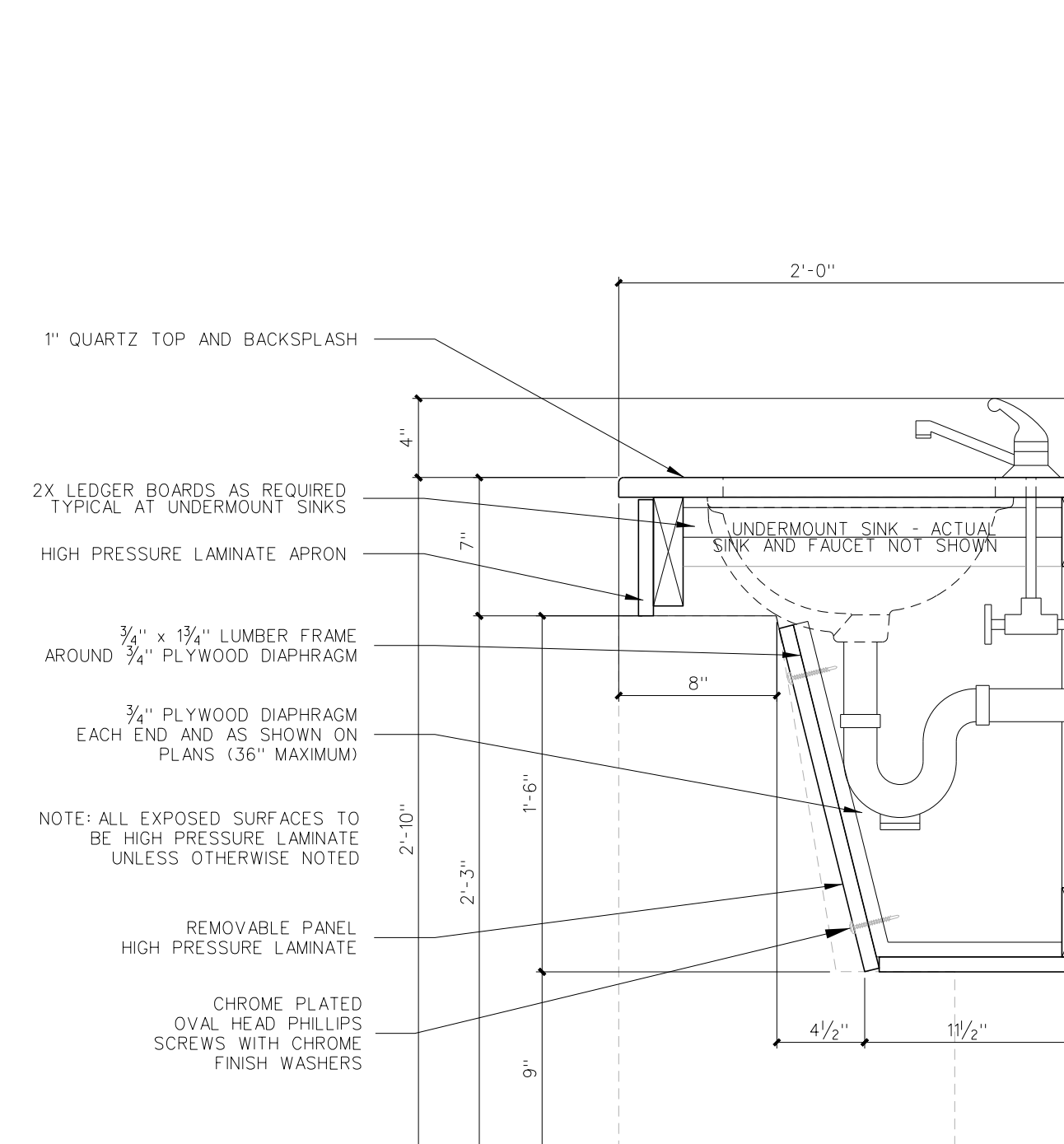
**401.5 SALON ISLAND PLAN**  
SCALE: 1 1/2" = 1'-0"



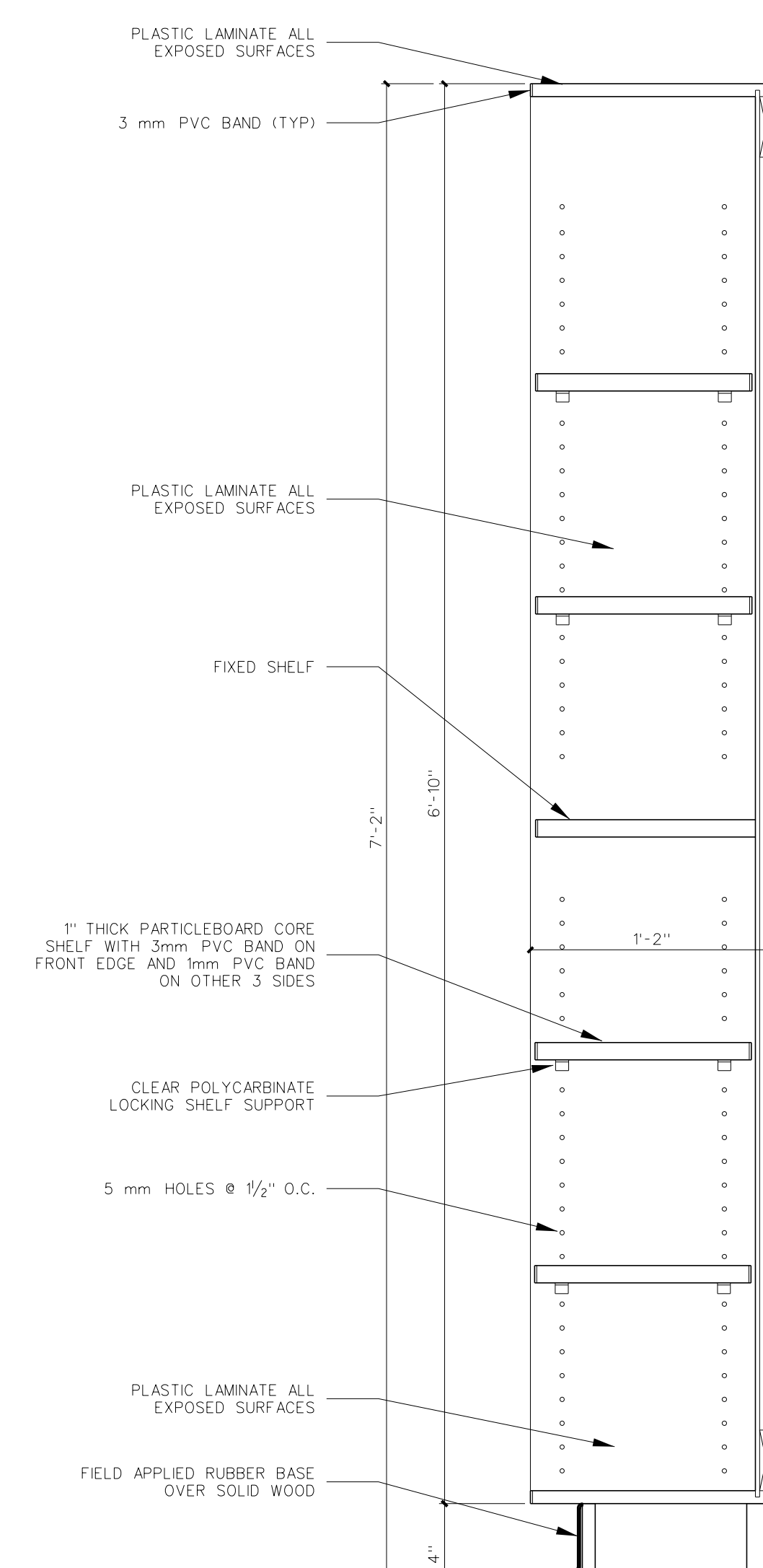
**401.4 SALON ISLAND ELEVATION**  
SCALE: 1 1/2" = 1'-0"



**401.3 SALON ISLAND SECTION**  
SCALE: 1 1/2" = 1'-0"



**401.2 HANDICAP VANITY**  
SCALE: 1 1/2" = 1'-0"



**401.1 SECTION @ BOOKCASE**  
SCALE: 1 1/2" = 1'-0"

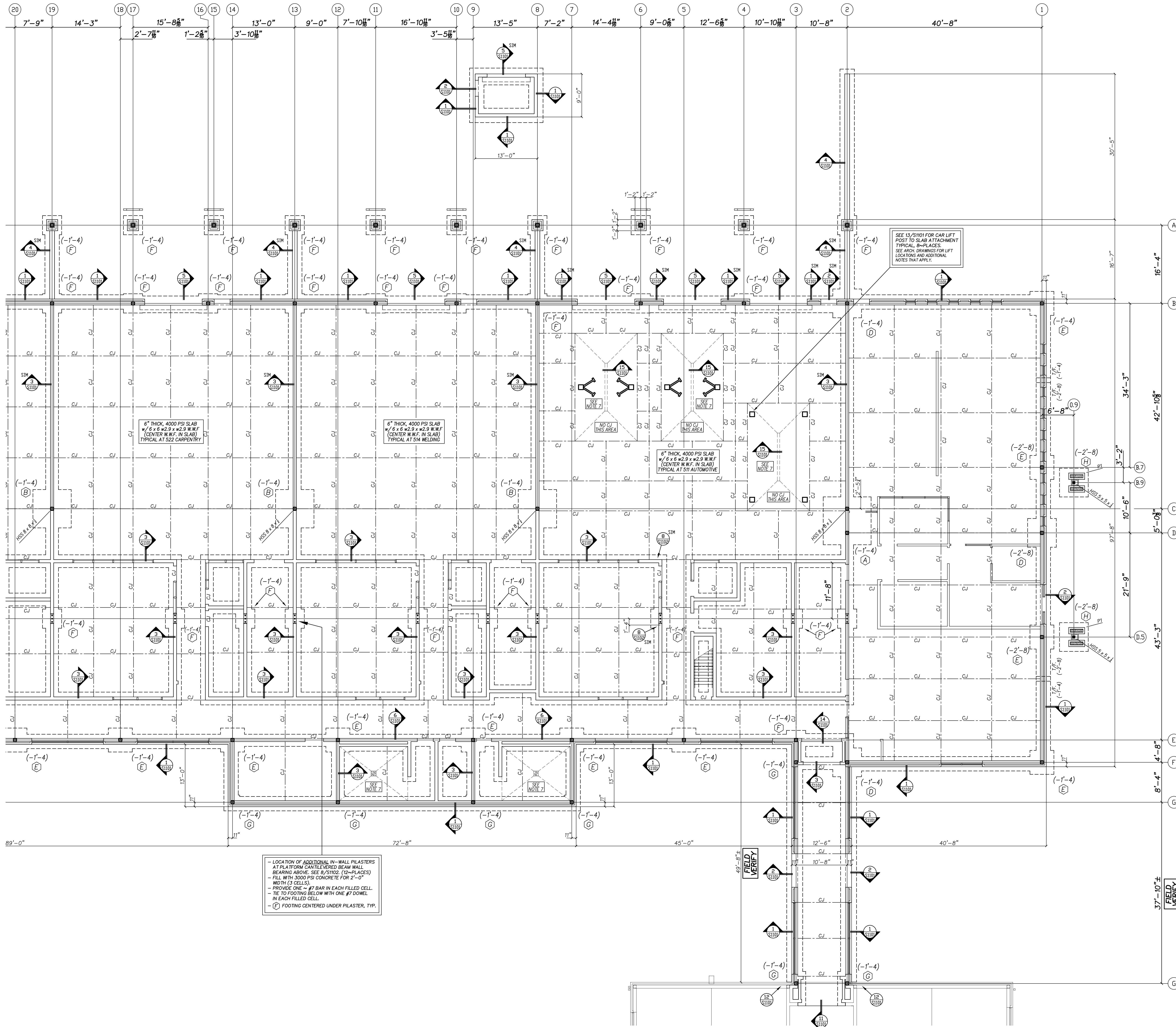
No.	Date	Revision

**Hite associates**  
ARCHITECTURE / PLANNING / TECHNOLOGY  
2600 Meridian Drive / Greenville, NC 27834 / tel (252) 757-0333

REGISTERED PROFESSIONAL ARCHITECT  
STATE OF NORTH CAROLINA  
NUMBER 418  
JAMES GRAY HITE ARCHITECT P.C.  
GREENVILLE, NC

NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 3112  
Windsor / Bertie County / North Carolina

Project No. 22351  
Date: December 18, 2024  
Drawing no. **A 401**



**FOUNDATION PART PLAN**

1" = 1'-0"

- 1.) FOOTING DESIGN BASED ON AN SOIL BRG. CAPACITY OF 2000 PSF. (GEOTECHNICAL REPORT BY TERRACON (PROJECT NO. 72245090, DATED 20 DEC 2024) IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER OF RECORD IF UNSTABLE, ORGANIC, WEAK OR OTHERWISE UNACCEPTABLE SOIL CONDITIONS ARE ENCOUNTERED DURING EXCAVATIONS OR SUBSEQUENT GEOTECHNICAL INVESTIGATIONS.
- 2.) ELEV. NOTED (- ) ARE BELOW REFERENCE FINISHED FLOOR TO TOP/FOOTING. FINISHED FLOOR ELEVATION = (+36.00'), TYP., U.O.N. SEE CIVIL DRAWINGS.
- 3.) SLAB ON GRADE IS NORMAL WEIGHT CONCRETE WITH REINFORCED WITH 6x6 W1.4 x W1.4 WMM ON A 4" NO. 57/67 WASHED STONE AND 15 MIL POLY VAPOR BARRIER, TYP., U.O.N.
- 4.) ALL CONCRETE SHALL BE A MINIMUM STRENGTH OF 3000 PSI MEETING ACI 301 AND ACI 318. ALL CONCRETE SHALL BE MIXED, HANDLED, SAMPLED, TESTED, AND PLACED IN ACCORDANCE WITH ACI STANDARDS. ALL SAMPLES SUBJECT TO PUMPING SHALL BE TAKEN AT THE EXIT END OF THE PUMP AT THE ELEVATION OF PLACEMENT. (REFERENCE ACI MANUAL OF CONCRETE PRACTICE).
- 5.) ALL REINFORCING BARS SHALL BE GRADE 60 CONFORMING TO ASTM 615. LAP BARS WHERE REQUIRED USING CLASS B TENSION LAP SPLICES, OR 40 BAR DIAMETERS. DEVELOPMENT LENGTHS SHALL BE CRSI MINIMUM UON.
- 6.) SEE S101 FOR COLUMN FOOTING SCHEDULE AND ADDITIONAL NOTES THAT APPLY.
- 7.) REFERENCE ARCHITECTURAL AND PLUMBING DRAWINGS FOR COORDINATION OF SLOPED FLOORS AT FLOOR DRAINS, AND DEPRESSED FLOOR SLAB LOCATIONS.
- 8.) LOCATE ALL WALLS AND MASONRY OPENINGS PER ARCHITECTURAL DRAWINGS.
- 9.) ARCHITECTURAL BACKGROUND IS SHOWN FOR REFERENCE ONLY. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF WALLS.
- 10.) THE CONTRACTOR SHALL COORDINATE AND VERIFY ALL DIMENSIONS & ELEVATIONS PRIOR TO STARTING CONSTRUCTION AND ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD.
- 11.) SEE ARCHITECTURAL DRAWINGS FOR ALL POURED RAMP LOCATIONS AND DIMENSIONS, TYPICAL. SEE ARCHITECTURAL DRAWINGS FOR ALL POURED STAIR LOCATIONS AND DIMENSIONS, TYPICAL. CONSTRUCT ALL POURED RAMPS AND STAIRS IN ACCORDANCE WITH STRUCTURAL SECTIONS 7 & 16/S101 AND ARCHITECTURAL DRAWINGS. SEE 10/S101 FOR BOLLARD DETAIL. LOCATE ALL BOLLARDS PER ARCHITECTURAL DRAWINGS.
- 12.) ALL COLUMNS = HSS 8 x 8 x 1, TYP. U.O.N.

- LOCATION OF ADDITIONAL IN-WALL PILASTERS AT PLATFORM CANTILEVERED BEAM WALL BEARING ABOVE. SEE 6/S102. (2-PLACES)  
 - FILL WITH 3000 PSI CONCRETE FOR 2'-0" WIDTH (3 CELLS)  
 - PROVIDE ONE #7 BAR IN EACH FILLED CELL. TIE TO FOOTING BELOW WITH ONE #7 DOWEL IN EACH FILLED CELL.  
 - (E) FOOTING CENTERED UNDER PILASTER, TYP.

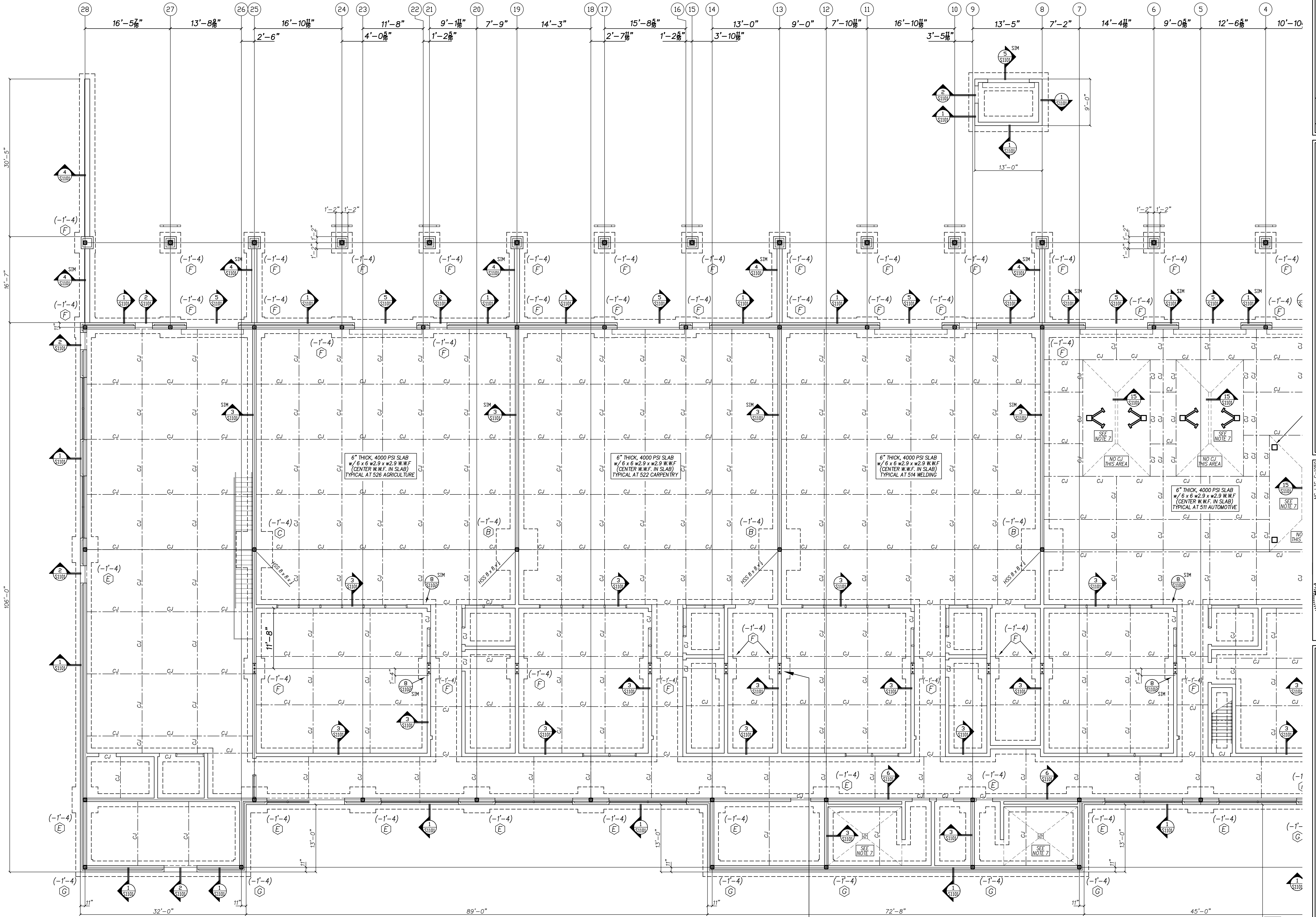
Revision	
No.	Date

**Hite associates**  
 ARCHITECTURE / ENGINEERING / TECHNOLOGY  
 2600 Meridian Drive / Greenville, NC 27838 / tel (252) 757-0333

QED  
 QUEEN ENGINEERING & DESIGN  
 1000 W. WOOD ST. SUITE 200  
 GREENVILLE, NC 27834  
 ENGINEER  
 BRUCE QUEEN  
 26 FEB 2025

NEW CTE BUILDING FOR  
**NEW BERTIE HIGH SCHOOL**  
 716 US 13 NORTH / NCDPS UNIT 080 - SCHOOL 312  
 WINDSOR / BERTIE COUNTY / NORTH CAROLINA

Project No. 22351  
 Date: 26 FEB 2025  
 Drawing no. S 101



**FOUNDATION PART PLAN**

1" = 1'-0"

- 1.) FOOTING DESIGN BASED ON AN SOIL BRG. CAPACITY OF 2000 PSF. (GEO TECHNICAL REPORT BY TERRACON (PROJECT NO. 72245090, DATED 20 DEC 2024) IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER OF RECORD IF UNSTABLE, ORGANIC, WEAK OR OTHERWISE UNACCEPTABLE SOIL CONDITIONS ARE ENCOUNTERED DURING EXCAVATIONS OR SUBSEQUENT GEOTECHNICAL INVESTIGATIONS.
- 2.) ELEV. NOTED (- ) ARE BELOW REFERENCE FINISHED FLOOR TO TOP/FOOTING. FINISHED FLOOR ELEVATION = (+36.00), TYP., U.O.N. SEE CIVIL DRAWINGS.
- 3.) SLAB ON GRADE IS NORMAL WEIGHT CONCRETE WITH REINFORCED WITH 6x6 W1.4 x W1.4 WMM ON A 4" NO. 57/67 WASHED STONE AND 15 MIL POLY VAPOR BARRIER, TYP. U.O.N.
- 4.) ALL CONCRETE SHALL BE A MINIMUM STRENGTH OF 3000 PSI MEETING ACI 301 AND ACI 318. ALL CONCRETE SHALL BE MIXED, HANDLED, SAMPLED, TESTED, AND PLACED IN ACCORDANCE WITH ACI STANDARDS. ALL SAMPLES SUBJECT TO PUMPING SHALL BE TAKEN AT THE EXIT END OF THE PUMP AT THE ELEVATION OF PLACEMENT. (REFERENCE ACI MANUAL OF CONCRETE PRACTICE).
- 5.) ALL REINFORCING BARS SHALL BE GRADE 60 CONFORMING TO ASTM 615. LAP BARS WHERE REQUIRED USING CLASS B TENSION LAP SPLICES, OR 40 BAR DIAMETERS. DEVELOPMENT LENGTHS SHALL BE CRS MINIMUM UO.N.
- 6.) SEE S101 FOR COLUMN FOOTING SCHEDULE AND ADDITIONAL NOTES THAT APPLY.
- 7.) REFERENCE ARCHITECTURAL AND PLUMBING DRAWINGS FOR COORDINATION OF SLOPED FLOORS AT FLOOR DRAINS, AND DEPRESSED FLOOR SLAB LOCATIONS.
- 8.) LOCATE ALL WALLS AND MASONRY OPENINGS PER ARCHITECTURAL DRAWINGS.
- 9.) ARCHITECTURAL BACKGROUND IS SHOWN FOR REFERENCE ONLY. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF WALLS.
- 10.) THE CONTRACTOR SHALL COORDINATE AND VERIFY ALL DIMENSIONS & ELEVATIONS PRIOR TO STARTING CONSTRUCTION AND ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD.
- 11.) SEE ARCHITECTURAL DRAWINGS FOR ALL POURED RAMP LOCATIONS AND DIMENSIONS, TYPICAL. SEE ARCHITECTURAL DRAWINGS FOR ALL POURED STAIR LOCATIONS AND DIMENSIONS, TYPICAL. CONSTRUCT ALL POURED RAMPS AND STAIRS IN ACCORDANCE WITH STRUCTURAL SECTIONS 7 & 16/S101 AND ARCHITECTURAL DRAWINGS. SEE 10/S101 FOR BOLLARD DETAIL. LOCATE ALL BOLLARDS PER ARCHITECTURAL DRAWINGS.
- 12.) ALL COLUMNS = HSS 8 x 8 x 4, TYP. U.O.N.

- LOCATION OF ADDITIONAL IN-WALL PILASTERS AT PLATFORM CANTILEVERED BEAM WALL BEARING ABOVE. SEE 6/S102 (12-PLACES) - FILL WITH 3000 PSI CONCRETE FOR 2'-0" WIDTH (3 CELLS). - PROVIDE ONE #7 BAR IN EACH FILLED CELL. - TIE TO FOOTING BELOW WITH ONE #7 DOWEL IN EACH FILLED CELL. - (C) FOOTING CENTERED UNDER PILASTER, TYP.

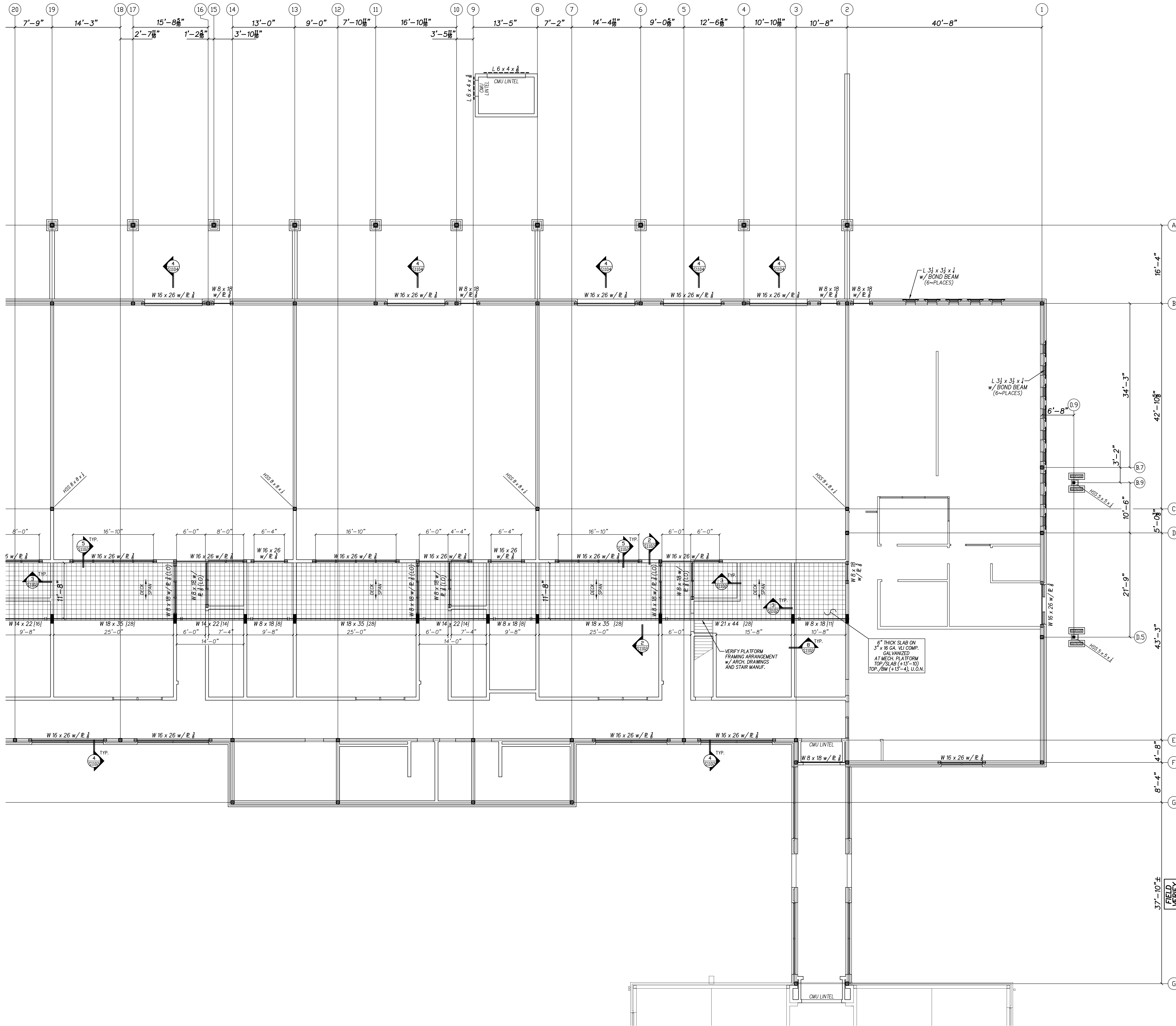
No.	Date	Revision

**Hite associates**  
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 2600 Meridian Drive / Greenville, NC 27838 / tel (252) 757-0333

**QED**  
 QUEEN ENGINEERING & DESIGN  
 100 W. WILSON DRIVE, SUITE 412  
 WILSON, NC 27597  
 ENGINEER  
 BRUCE QUEEN  
 26 FEB 2025

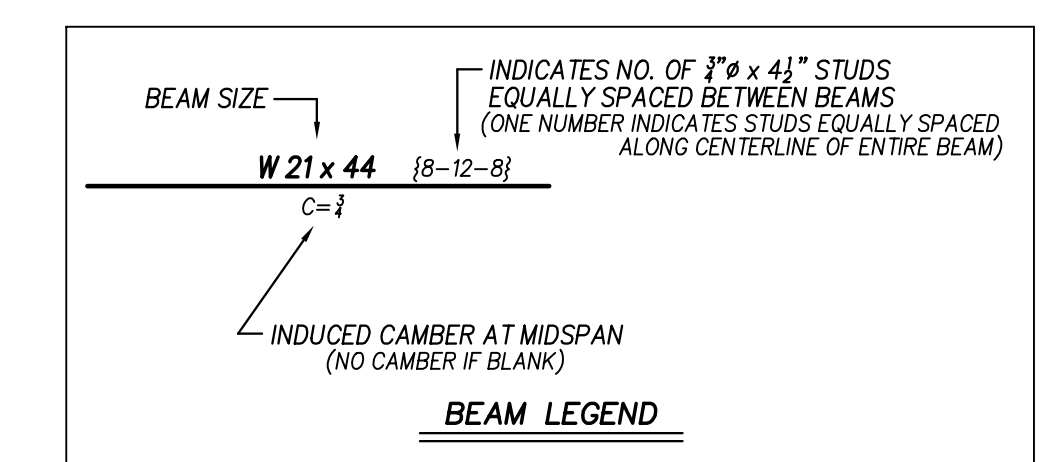
NEW CTE BUILDING FOR  
**NEW BERTIE HIGH SCHOOL**  
 716 US 13 NORTH / NCDPS UNIT 080 - SCHOOL 312  
 WINDSOR / BERTIE COUNTY / NORTH CAROLINA

Project No. 22351  
 Date: 26 FEB 2025  
 Drawing No. S 102



INTERMEDIATE PART PLAN 1" = 1'-0"

- 1) SEE PLAN FOR TOP/UTILITY PLATFORM SLAB ELEVATION
- 2) SEE S102 FOR METAL FLOOR DECK FASTENING PATTERN, WHERE REQUIRED.
- 3) SEE PLAN FOR SLAB THICKNESS AND FLOOR DECK SIZE. REINFORCE ALL NEW PLATFORM SLABS WITH 6x6 w2.9 x w2.9 WWM.
- 4) ARCHITECTURAL BACKGROUND IS SHOWN FOR REFERENCE ONLY. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF WALLS.
- 5) REFER TO ARCHITECTURAL DRAWINGS FOR ELEVATION OF ALL LINTELS.
- 6) CONTRACTOR SHALL PROVIDE TEMPORARY SHORING AS REQUIRED FOR NEW COMPOSITE DECK SPANS (GREATER THAN 10'-4").
- 7) LOCATE ALL WALLS AND MASONRY OPENINGS PER ARCHITECTURAL DRAWINGS. WHERE REQUIRED, SEE S102 FOR ALL NEW CMU LINTELS.
- 8) NO FABRICATION OR ERECTION SHALL COMMENCE PRIOR TO THE APPROVAL OF ALL STRUCTURAL STEEL SHOP DRAWINGS BY THE ENGINEER OF RECORD.
- 9) COORDINATE AND VERIFY ALL DECK EDGE LOCATIONS AND DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
- 10) REFERENCE ARCHITECTURAL AND PLUMBING DRAWINGS FOR COORDINATION OF SLOPED FLOORS AT FLOOR DRAINS, AND DEPRESSED FLOOR SLAB LOCATIONS.



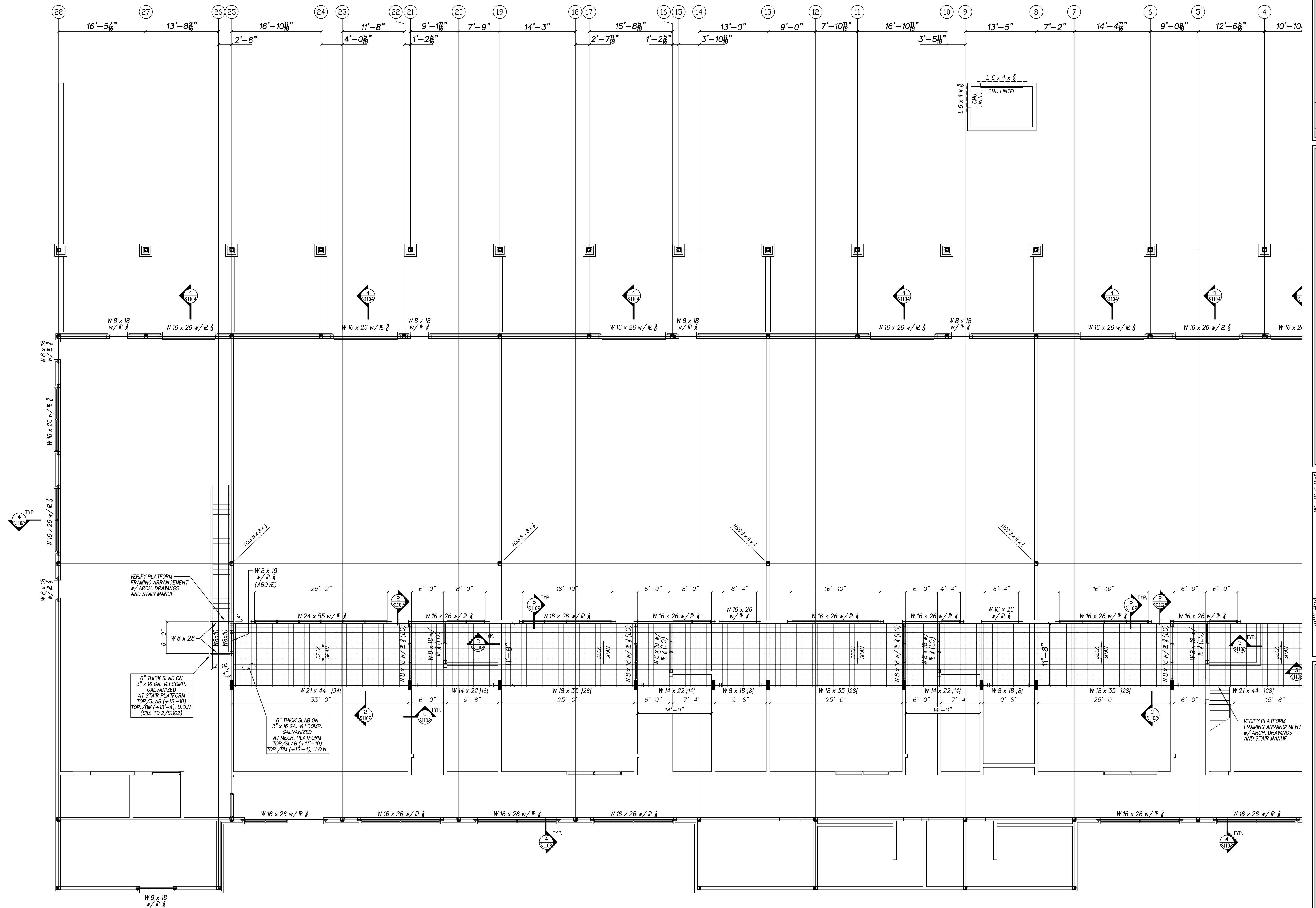
Revision	
No.	Date

**Hite associates**  
 ARCHITECTURE / ENGINEERING / TECHNOLOGY  
 2600 Meridian Drive / Greenville, NC 27868 / tel (252) 757-0333

NC LIC. C-1020  
**QED**  
 QUINN ENGINEERING & DESIGN  
 1000 W. WILSON ROAD, SUITE 400  
 WILSON, NC 27894  
 ENGINEER  
 BRUCE QUINN  
 26 FEB 2025

NEW CTE BUILDING FOR  
**NEW BERTIE HIGH SCHOOL**  
 716 US 13 NORTH / NCDPS UNIT 080 - SCHOOL 312  
 WINDSOR / BERTIE COUNTY / NORTH CAROLINA

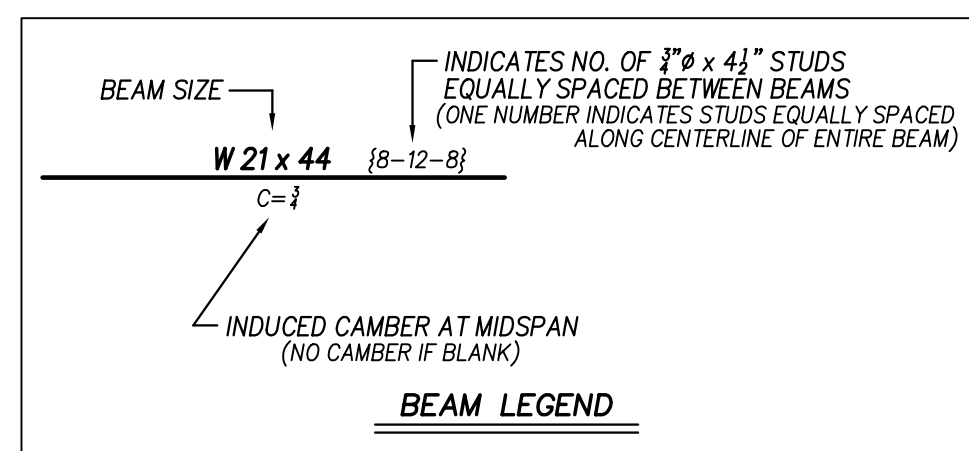
Project No. 22351  
 Date: 26 FEB 2025  
 Drawing No. S 103



**INTERMEDIATE PART PLAN**

1/8" = 1'-0"

- 1.) SEE PLAN FOR TOP/UTILITY PLATFORM SLAB ELEVATION
- 2.) SEE S1102 FOR METAL FLOOR DECK FASTENING PATTERN, WHERE REQUIRED.
- 3.) SEE PLAN FOR SLAB THICKNESS AND FLOOR DECK SIZE. REINFORCE ALL NEW PLATFORM SLABS WITH 6x6 w2.9 WMM.
- 4.) ARCHITECTURAL BACKGROUND IS SHOWN FOR REFERENCE ONLY. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF WALLS.
- 5.) REFER TO ARCHITECTURAL DRAWINGS FOR ELEVATION OF ALL LINTELS.
- 6.) CONTRACTOR SHALL PROVIDE TEMPORARY SHORING AS REQUIRED FOR NEW COMPOSITE DECK SPANS GREATER THAN 10'-6"
- 7.) LOCATE ALL WALLS AND MASONRY OPENINGS PER ARCHITECTURAL DRAWINGS, WHERE REQUIRED, SEE S1102 FOR ALL NEW CMU LINTELS.
- 8.) NO FABRICATION OR ERECTION SHALL COMMENCE PRIOR TO THE APPROVAL OF ALL STRUCTURAL STEEL SHOP DRAWINGS BY THE ENGINEER OF RECORD.
- 9.) COORDINATE AND VERIFY ALL DECK EDGE LOCATIONS AND DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
- 10.) REFERENCE ARCHITECTURAL AND PLUMBING DRAWINGS FOR COORDINATION OF SLOPED FLOORS AT FLOOR DRAINS, AND DEPRESSED FLOOR SLAB LOCATIONS.



No.	Date	Revision

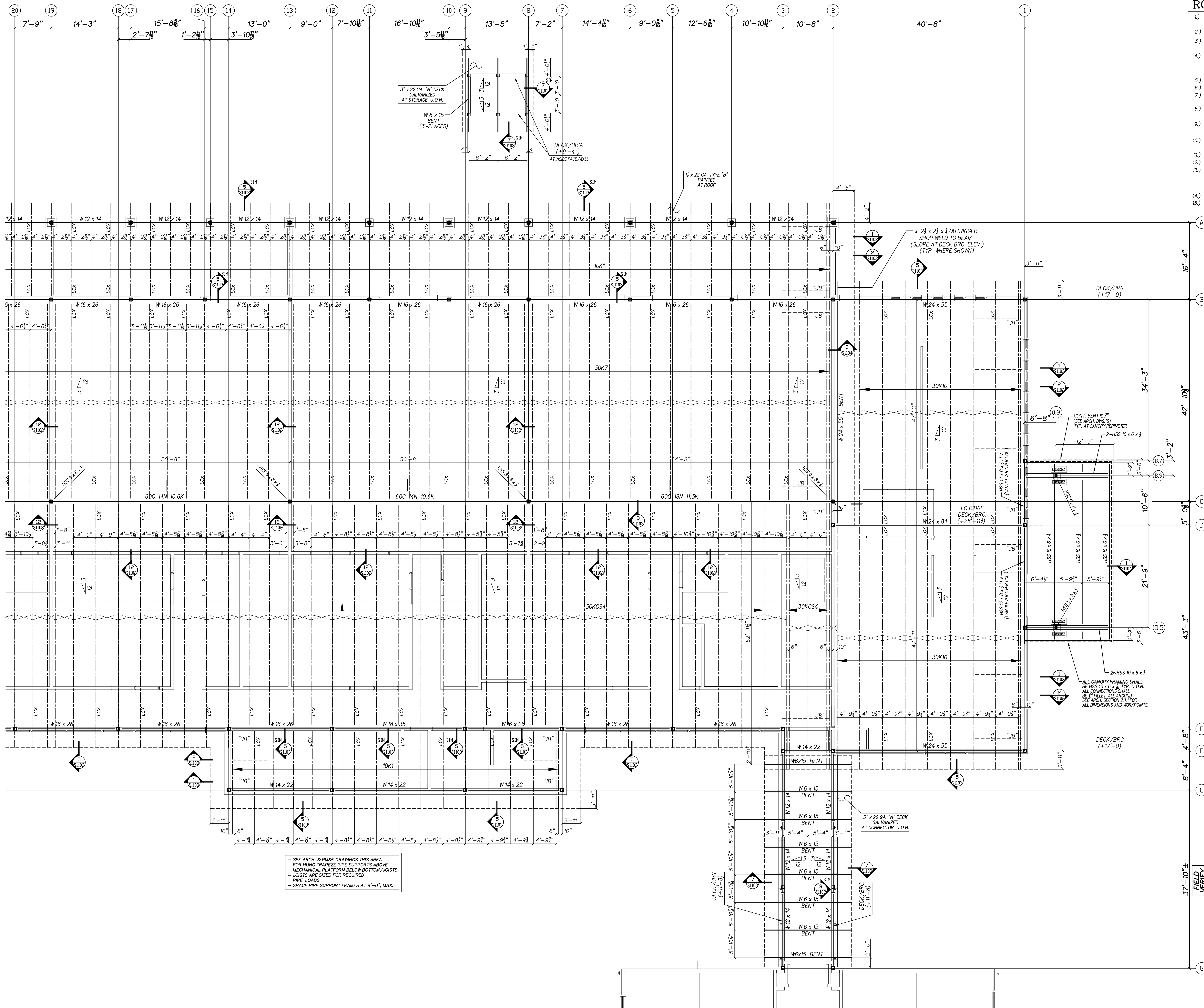
**Hite associates**  
 ARCHITECTURE / ENGINEERING / TECHNOLOGY  
 2600 Meridian Drive / Greenville, NC 27838 / tel (252) 757-0333

QED  
 QUINN ENGINEERING & DESIGN  
 1000 W. WILSON PLAZA, SUITE 400  
 GREENVILLE, NC 27601  
 ENGINEER  
 BRUCE QUINN  
 26 FEB 2025

NEW CTE BUILDING FOR  
**NEW BERTIE HIGH SCHOOL**  
 716 US 13 NORTH / NCDPS UNIT 080 - SCHOOL 312  
 WINDSOR / BERTIE COUNTY / NORTH CAROLINA

Project No. 22351  
 Date: 26 FEB 2025  
 Drawing no. S 104





ROOF PART PLAN

- 1) METAL ROOF DECK IS 1 1/2" x 22 GA TYPE "B" PAINTED M.R.D., TYP. U.O.N. FOR ATTACHMENT, SEE TYPICAL M.R.D. FASTENING DETAIL ON S102.
- 2) ELEV NOTED(+ ) ARE ABOVE REFERENCED FINISHED FLOOR.
- 3) METAL ROOF DECK IS TO BE USED TO TRANSMIT LATERAL LOADS TO WALLS. SEE TYP. DECK FASTENING PATTERN ON S102.
- 4) JOIST SUPPLIER SHALL DESIGN JOISTS FOR ADDITIONAL POINT LOADS FROM ROOF TOP MECHANICAL UNITS (IF REQUIRED). CONTRACTOR SHALL VERIFY SIZE AND WEIGHT OF UNITS AND REPORT THIS INFORMATION TO THE STRUCTURAL ENGINEER OF RECORD, IF REQUIRED.
- 5) ALL WIDE FLANGE BEAMS TO BE "A50" STEEL.
- 6) SEE S1201 FOR NET UPLIFT DESIGN LOADING FOR ALL JOISTS AND GIRDERS.
- 7) "UB" INDICATES UPLIFT BRIDGING TO BE LOCATED AT THE FIRST BOTTOM CHORD PANEL POINT OF JOIST.
- 8) NO FABRICATION OR ERECTION SHALL COMMENCE PRIOR TO THE APPROVAL OF ALL STRUCTURAL STEEL SHOP DRAWINGS BY THE ENGINEER OF RECORD.
- 9) JOIST MANUFACTURER SHALL ADJUST JOIST SEATS AS REQUIRED TO MAINTAIN DECK BEARING ELEVATIONS SHOWN ON THE CONTRACT DRAWINGS.
- 10) COORDINATE AND VERIFY ALL DECK EDGE LOCATIONS AND DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
- 11) SEE 3/S103 AND 5/S1103 FOR LCX CONFIGURATION.
- 12) SEE 4/S103 FOR BCX CONFIGURATION.
- 13) PROVIDE CONTINUOUS HORIZONTAL AND/OR DIAGONAL CROSS BRIDGING AT LOCATIONS SHOWN ON THE DRAWINGS. WHERE SJ STANDARDS REQUIRE ADDITIONAL LINES OR BRIDGINGS IN ADDITION TO THOSE SHOWN ON THE DRAWINGS THE ADDITIONAL LINES SHALL BE PROVIDED.
- 14) LOCATE ALL WALLS AND MASONRY OPENINGS PER ARCHITECTURAL DRAWINGS.
- 15) SEE 15/S103 FOR BENT BEAM WELDMENTS.

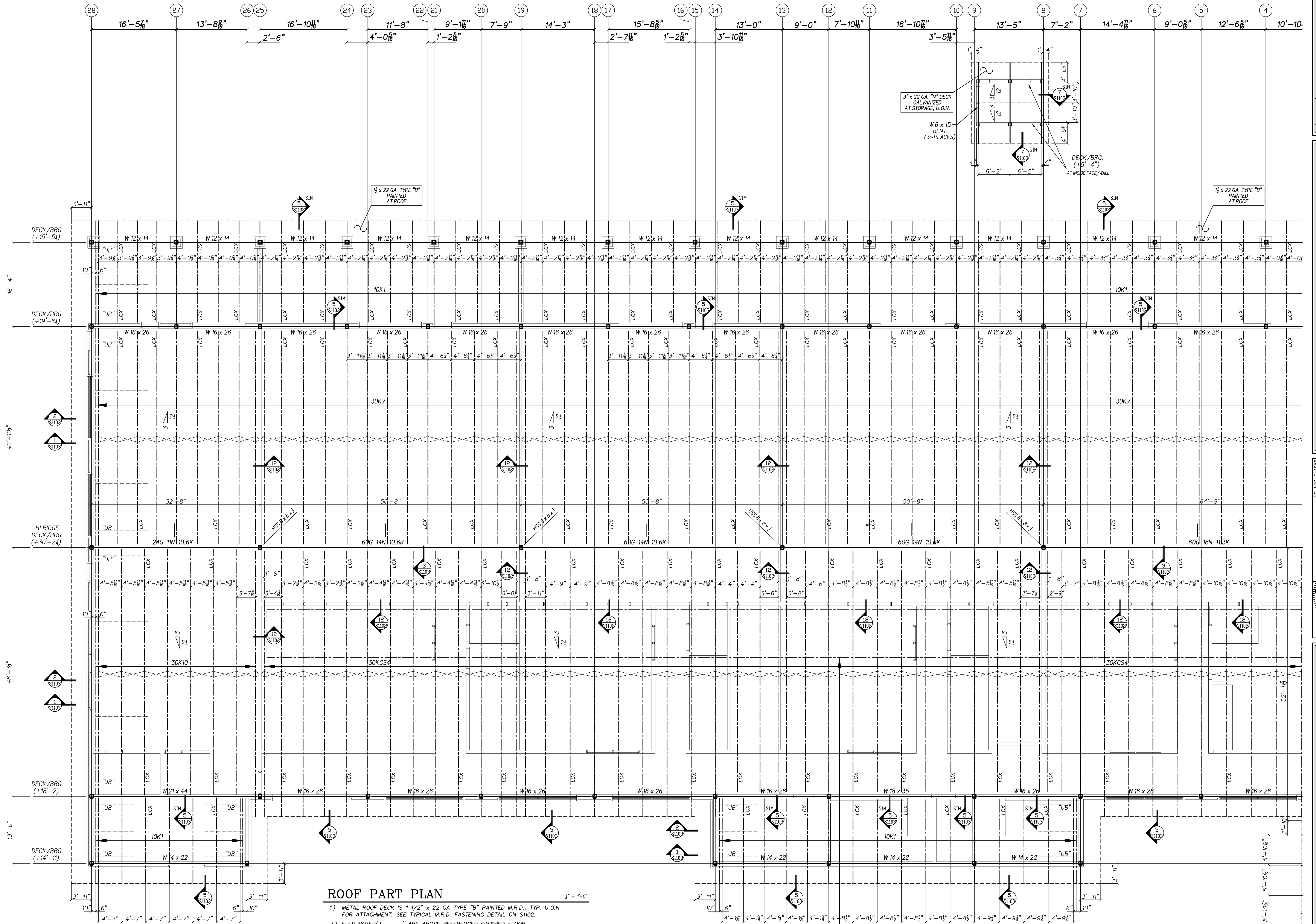
Revision	
No.	Date

**Hite associates**  
 ARCHITECTURE / ENGINEERING / TECHNOLOGY  
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NE. LIC. C-1000  
**QED**  
 QUEEN ENGINEERING & DESIGN  
 1000 W. WILSON ROAD, SUITE 400  
 WILSON, NC 27894  
 ENGINEER  
 BRUCE OWEN  
 26 FEB 2025

NEW CTE BUILDING FOR  
**NEW BERTIE HIGH SCHOOL**  
 716 US 13 NORTH / NCDPS UNIT 080 - SCHOOL 312  
 WINDSOR / BERTIE COUNTY / NORTH CAROLINA

Project No. **22351**  
 Date: 26 FEB 2025  
 Drawing no. **S 105**



**ROOF PART PLAN**

- 1.) METAL ROOF DECK IS 1 1/2" x 22 GA TYPE "B" PAINTED M.R.D., TYP. U.O.N. FOR ATTACHMENT, SEE TYPICAL M.R.D. FASTENING DETAIL ON S102.
- 2.) ELEV NOTED(+ ) ARE ABOVE REFERENCED FINISHED FLOOR.
- 3.) METAL ROOF DECK IS TO BE USED TO TRANSMIT LATERAL LOADS TO WALLS. SEE TYP. DECK FASTENING DETAIL ON S102.
- 4.) JOIST SUPPLIER SHALL DESIGN JOISTS FOR ADDITIONAL POINT LOADS FROM ROOF TOP MECHANICAL UNITS (IF REQUIRED). CONTRACTOR SHALL VERIFY SIZE AND WEIGHT OF UNITS AND REPORT THIS INFORMATION TO THE STRUCTURAL ENGINEER OF RECORD, IF REQUIRED.
- 5.) ALL WIDE FLANGE BEAMS TO BE "A50" STEEL.
- 6.) SEE S1201 FOR NET UPLIFT DESIGN LOADING FOR ALL JOISTS AND GIRDERS.
- 7.) "UB" INDICATES UPLIFT BRIDGING TO BE LOCATED AT THE FIRST BOTTOM CHORD PANEL POINT OF JOIST.
- 8.) NO FABRICATION OR ERECTION SHALL COMMENCE PRIOR TO THE APPROVAL OF ALL STRUCTURAL STEEL SHOP DRAWINGS BY THE ENGINEER OF RECORD.
- 9.) JOIST MANUFACTURER SHALL ADJUST JOIST SEATS AS REQUIRED TO MAINTAIN DECK BEARING ELEVATIONS SHOWN ON THE CONTRACT DRAWINGS.
- 10.) COORDINATE AND VERIFY ALL DECK EDGE LOCATIONS AND DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
- 11.) SEE 3/S1103 AND 5/S1103 FOR LCX CONFIGURATION.
- 12.) SEE 4/S1103 FOR BCX CONFIGURATION.
- 13.) PROVIDE CONTINUOUS HORIZONTAL AND/OR DIAGONAL CROSS BRIDGING AT LOCATIONS SHOWN ON THE DRAWINGS. WHERE SAJ STANDARDS REQUIRE ADDITIONAL LINES OF BRIDGING IN ADDITION TO THOSE SHOWN ON THE DRAWINGS THE ADDITIONAL LINES SHALL BE PROVIDED.
- 14.) LOCATE ALL WALLS AND MASONRY OPENINGS PER ARCHITECTURAL DRAWINGS.
- 15.) SEE 15/S1103 FOR BENT BEAM WELDMENTS.

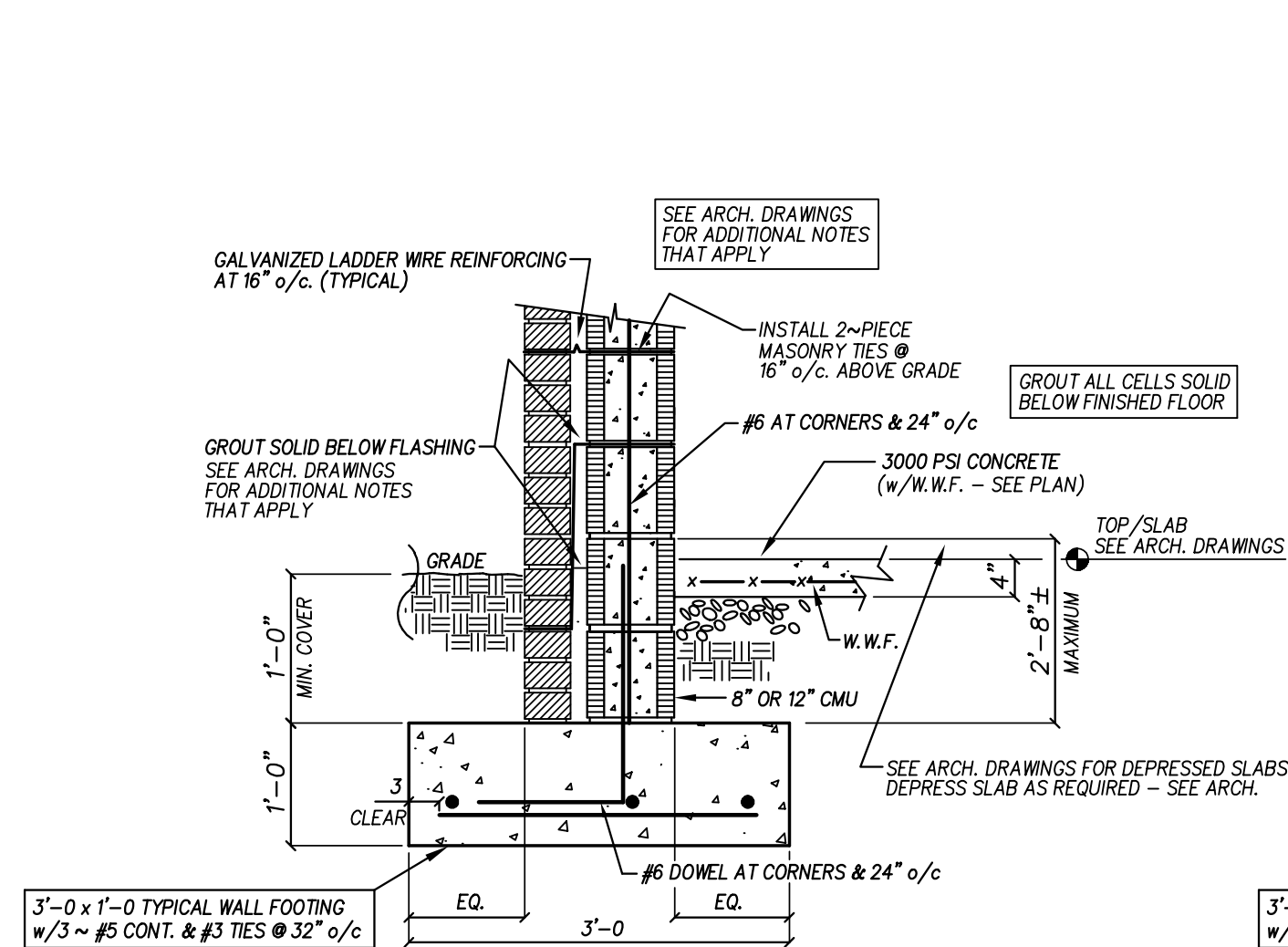
No.	Date	Revision

**Hite associates**  
 ARCHITECTURE / ENGINEERING / TECHNOLOGY  
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NE LIC C-1020  
**QED**  
 QUEEN ENGINEERING & DESIGN  
 2600 MERIDIAN DRIVE / GREENVILLE, NC 27838  
 ENGINEER  
 BRUCE QUEEN  
 26 FEB 2025

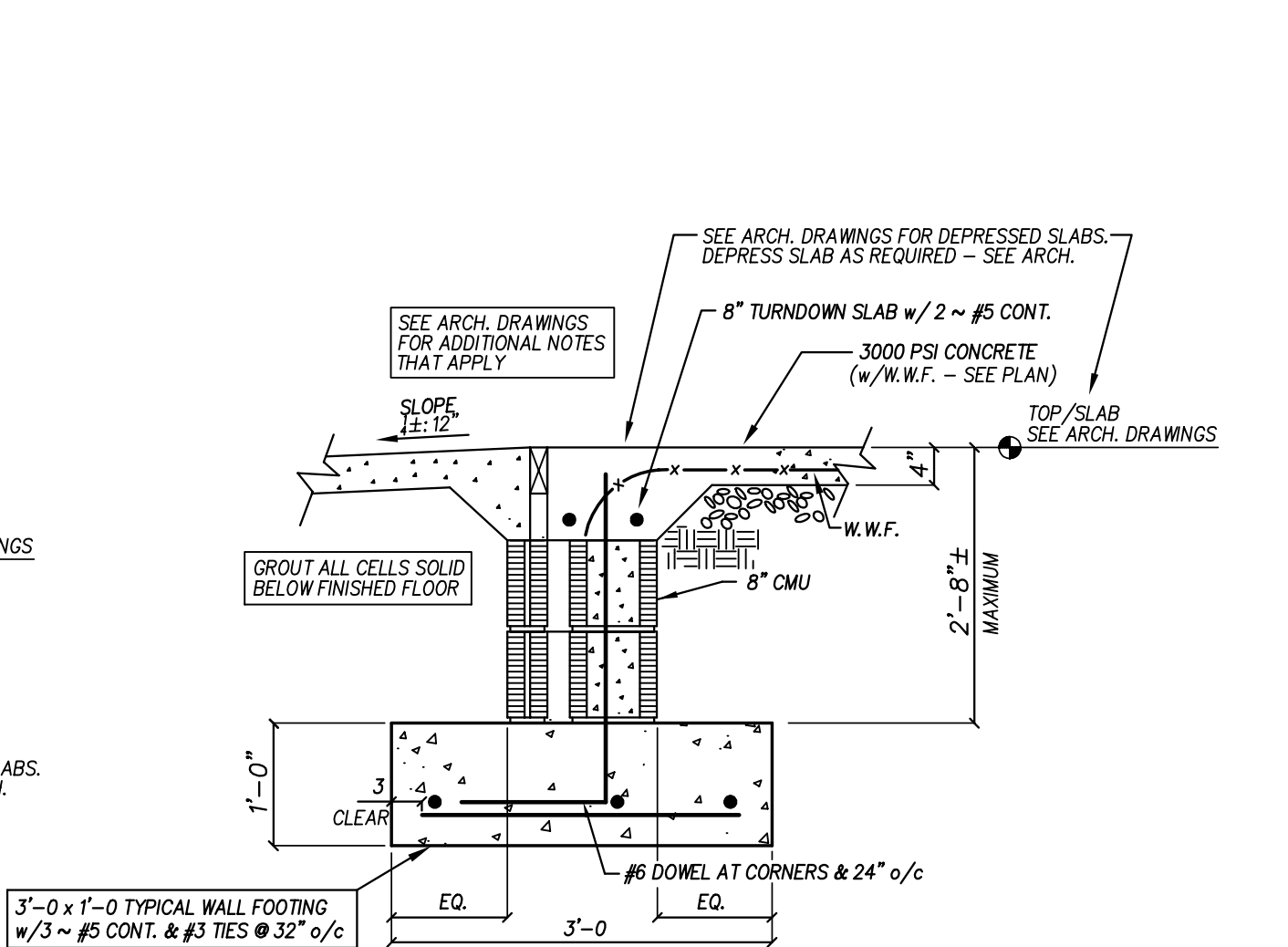
NEW CTE BUILDING FOR  
**NEW BERTIE HIGH SCHOOL**  
 716 US 13 NORTH / NCDPS UNIT 080 - SCHOOL 312  
 WINDSOR / BERTIE COUNTY / NORTH CAROLINA

Project No. **22351**  
 Date: 26 FEB 2025  
 Drawing No. **S 106**



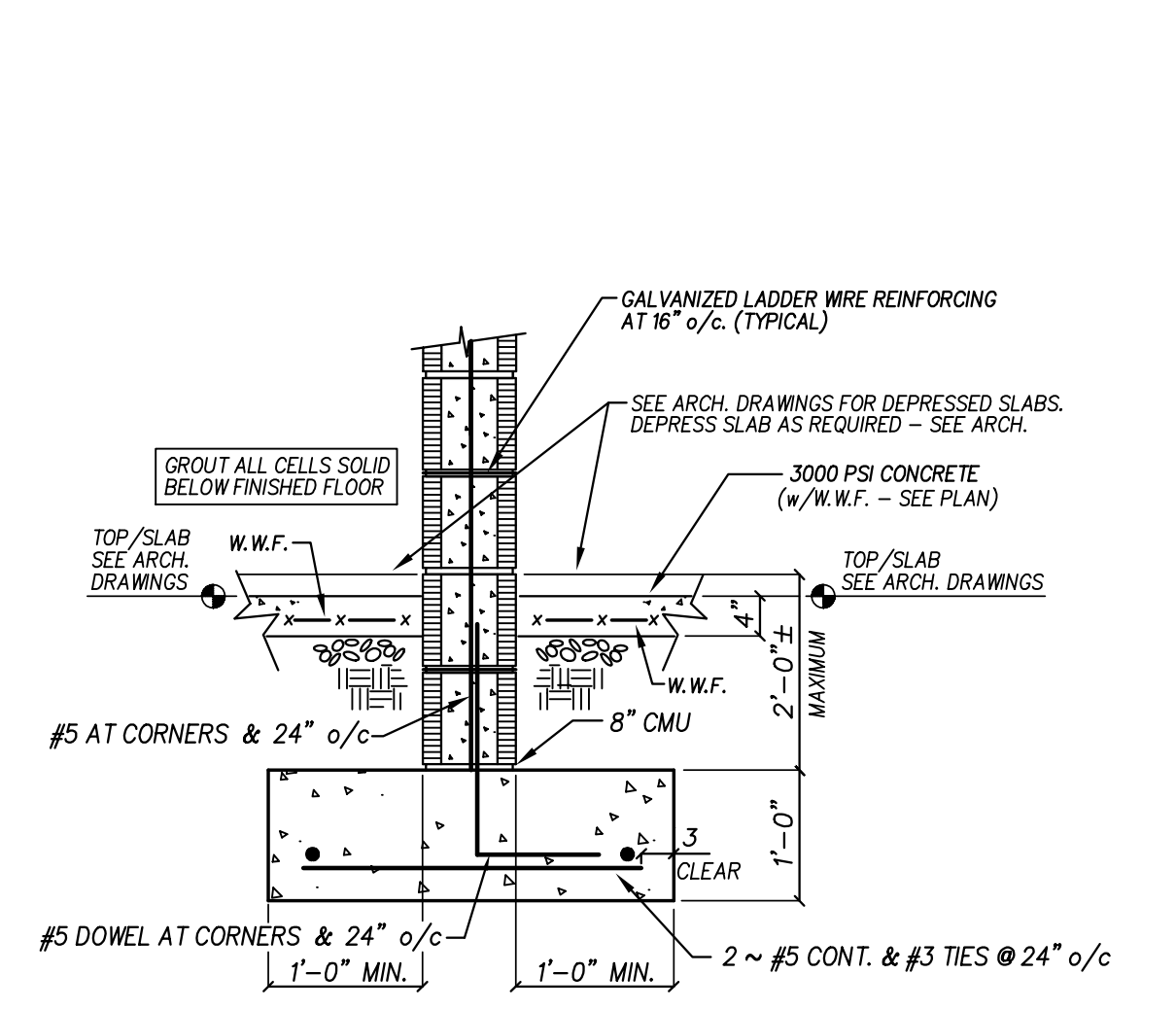
**1 TYPICAL EXTERIOR WALL FOUNDATION SECTION**  
NO SCALE

- 1) DOMELS OCCUR AT 24" o/c. AT ALL CORNERS AND AT OPENINGS. GROUT ALL FILLED CELLS SOLID.
- 2) ALL CMU CELLS BELOW FINISHED FLOOR SHALL BE FILLED WITH CONCRETE.



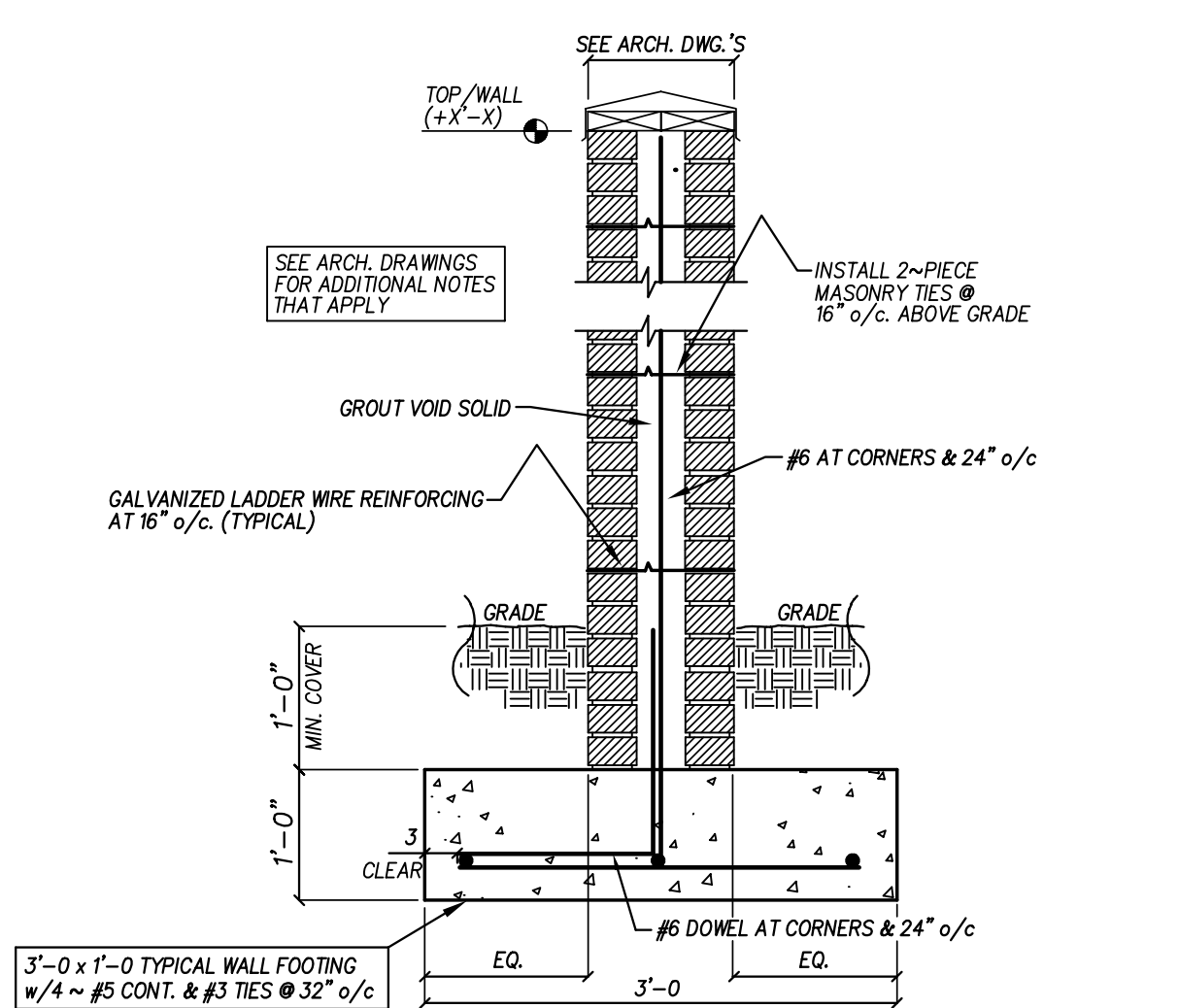
**2 EXTERIOR WALL ENTRANCE SECTION**  
NO SCALE

- 1) DOMELS OCCUR AT 24" o/c. AT ALL CORNERS AND AT OPENINGS. GROUT ALL FILLED CELLS SOLID.
- 2) ALL CMU CELLS BELOW FINISHED FLOOR SHALL BE FILLED WITH CONCRETE.



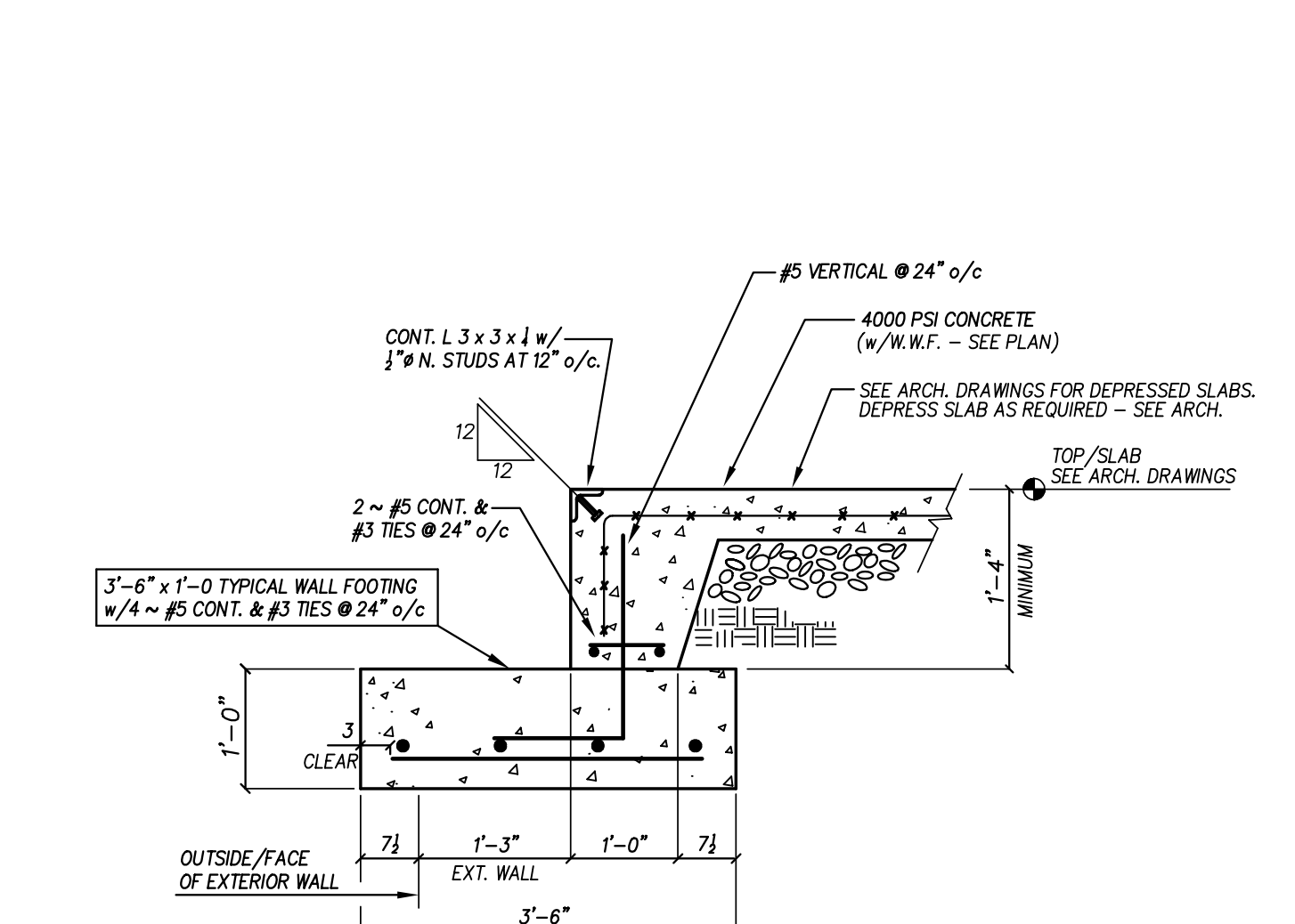
**3 TYPICAL INTERIOR CMU WALL FOOTING**  
NO SCALE

- 1) DOMELS OCCUR AT 24" o/c. AT ALL CORNERS AND AT OPENINGS. GROUT ALL FILLED CELLS SOLID.
- 2) ALL CMU CELLS BELOW FINISHED FLOOR SHALL BE FILLED WITH CONCRETE.



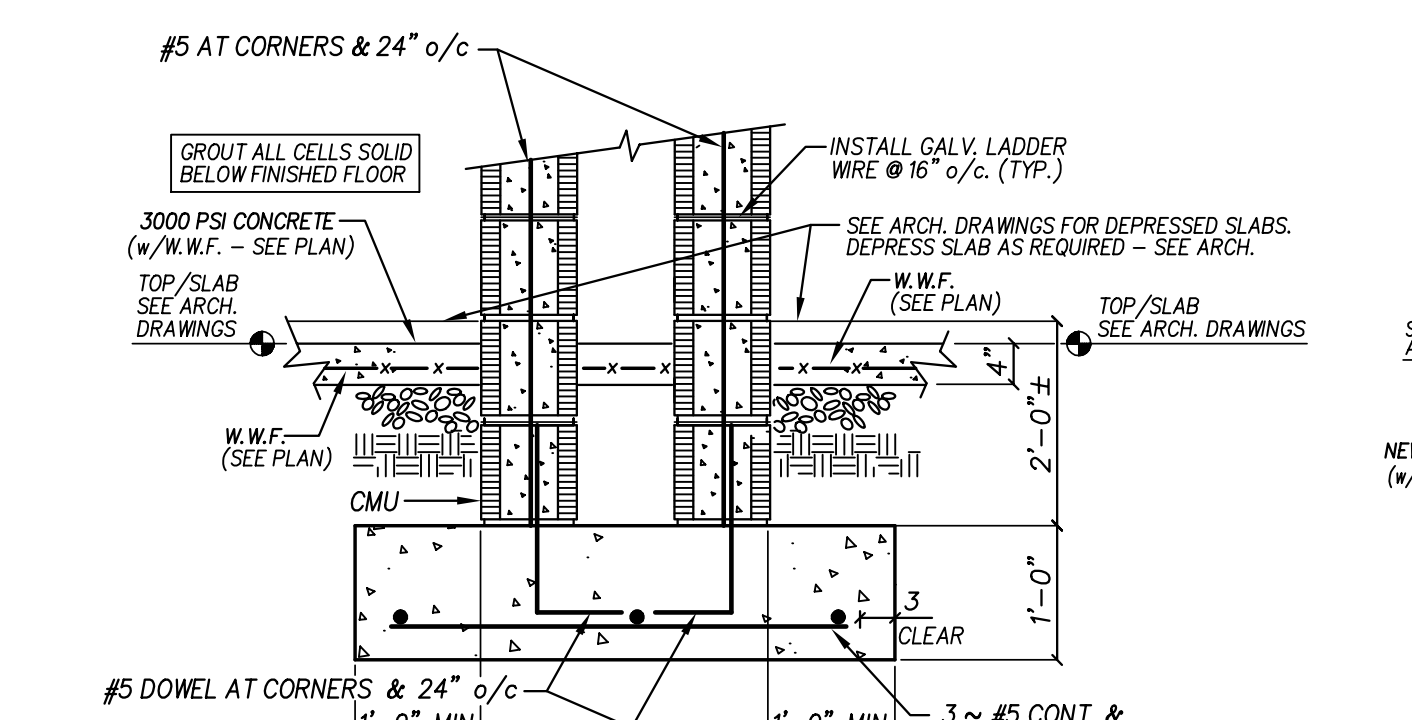
**4 SECTION THROUGH SCREEN WALL**  
NO SCALE

- 1) DOMELS OCCUR AT 24" o/c. AT ALL CORNERS AND AT OPENINGS. GROUT ALL FILLED CELLS SOLID.
- 2) ALL CMU CELLS BELOW FINISHED FLOOR SHALL BE FILLED WITH CONCRETE.



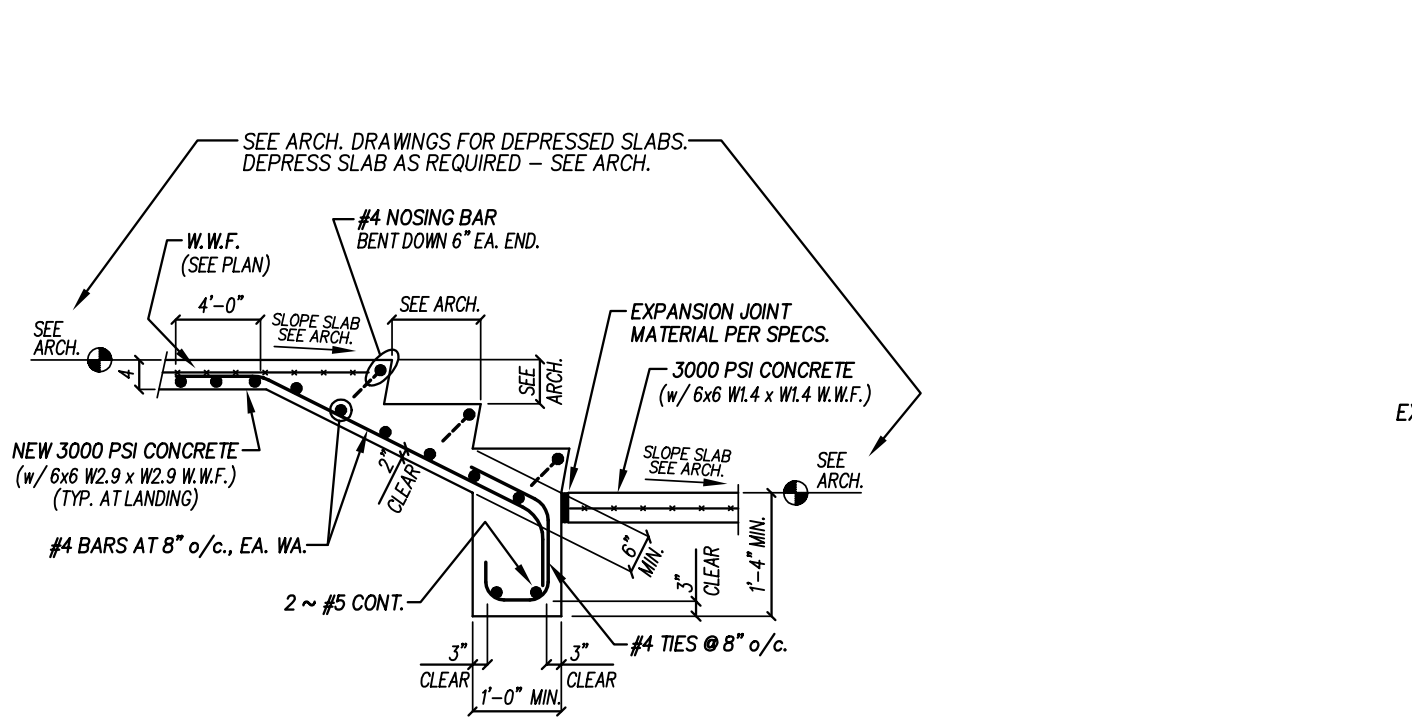
**5 FOUNDATION SECTION AT OVERHEAD DOORS**  
NO SCALE

- 1) DOMELS OCCUR AT 24" o/c. AT ALL CORNERS AND AT OPENINGS. GROUT ALL FILLED CELLS SOLID.
- 2) ALL CMU CELLS BELOW FINISHED FLOOR SHALL BE FILLED WITH CONCRETE.



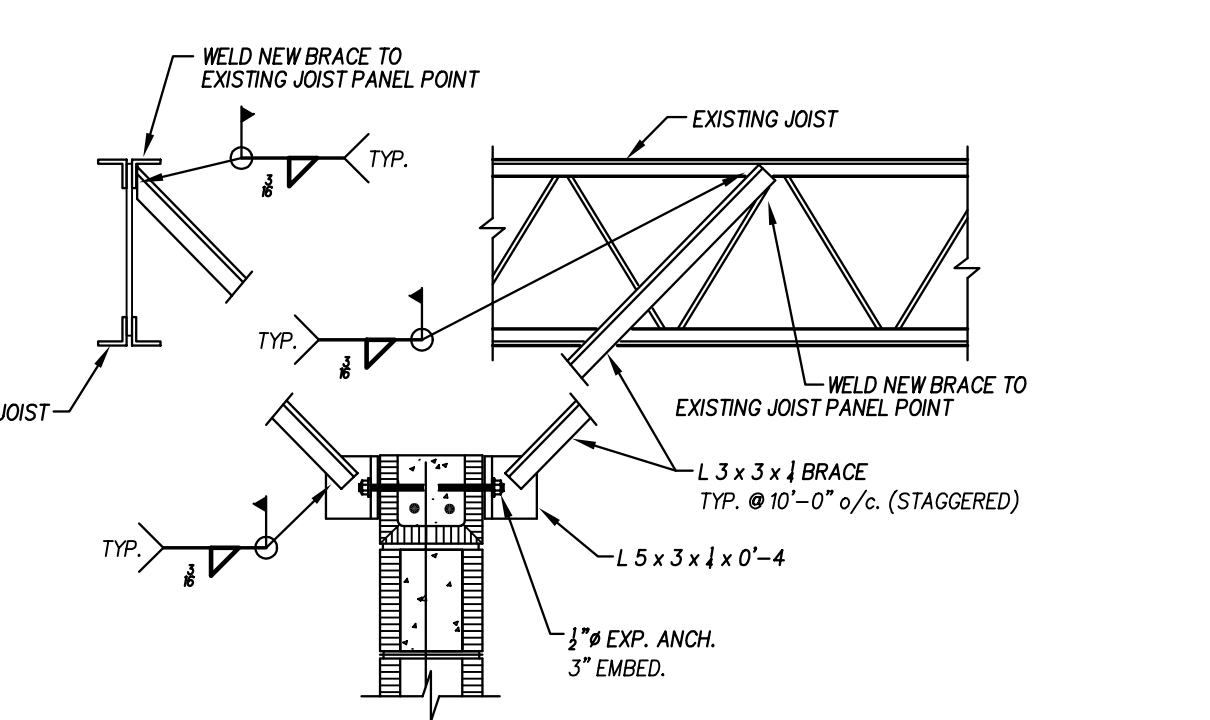
**6 DOUBLE WALL SECTION**  
NO SCALE

- 1) DOMELS OCCUR AT 24" o/c. AT ALL CORNERS AND AT OPENINGS. GROUT ALL FILLED CELLS SOLID.



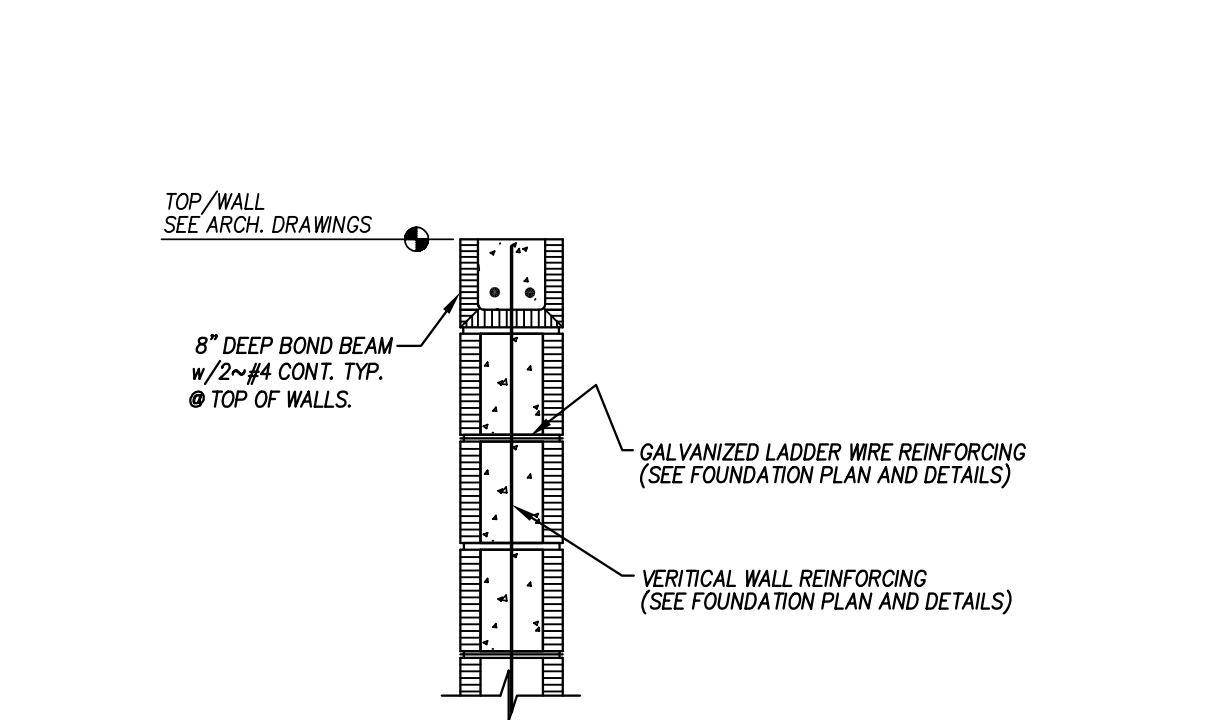
**7 TYPICAL POURED STAIR DETAIL**  
NO SCALE

- 1) DOMELS OCCUR AT 24" o/c. AT ALL CORNERS AND AT OPENINGS. GROUT ALL FILLED CELLS SOLID.

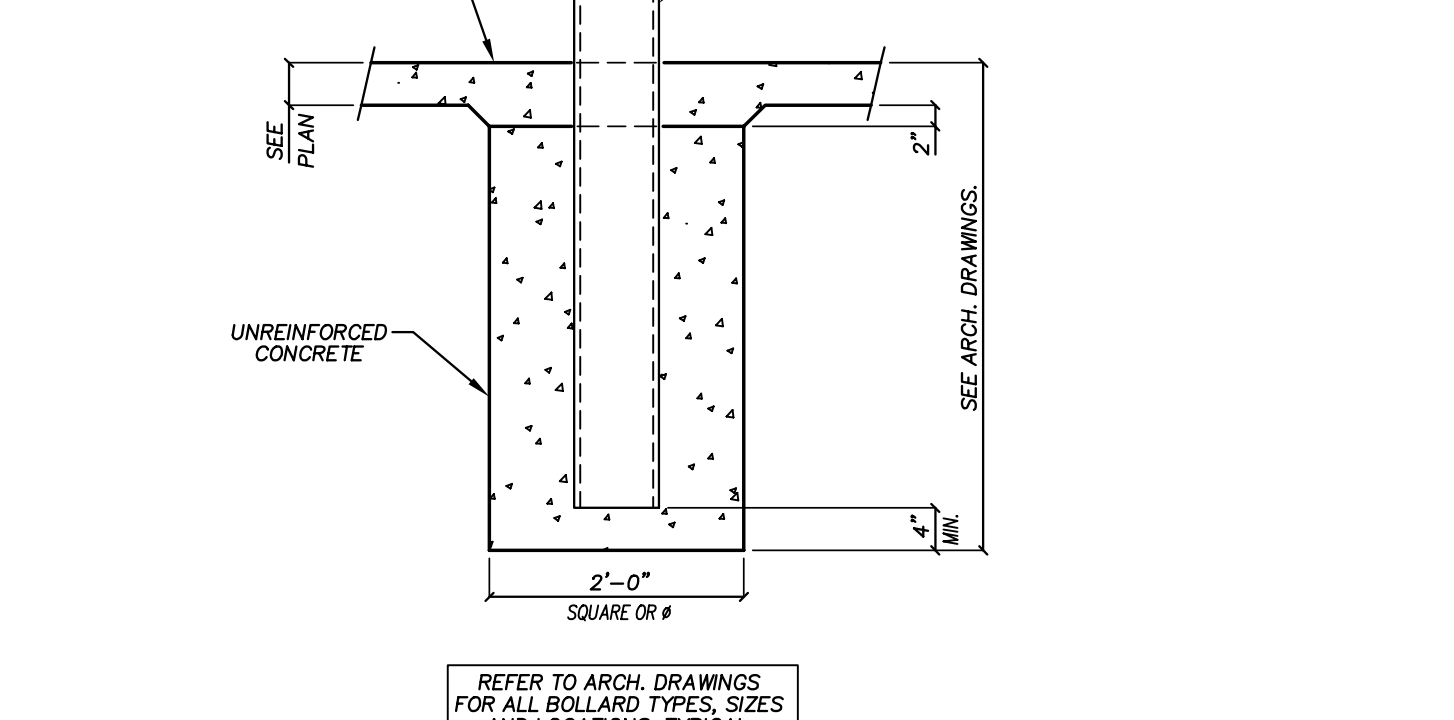


**8 TOP-OF-WALL TIE FOR NEW CMU CLASSROOM PARTITION WALLS**  
NO SCALE

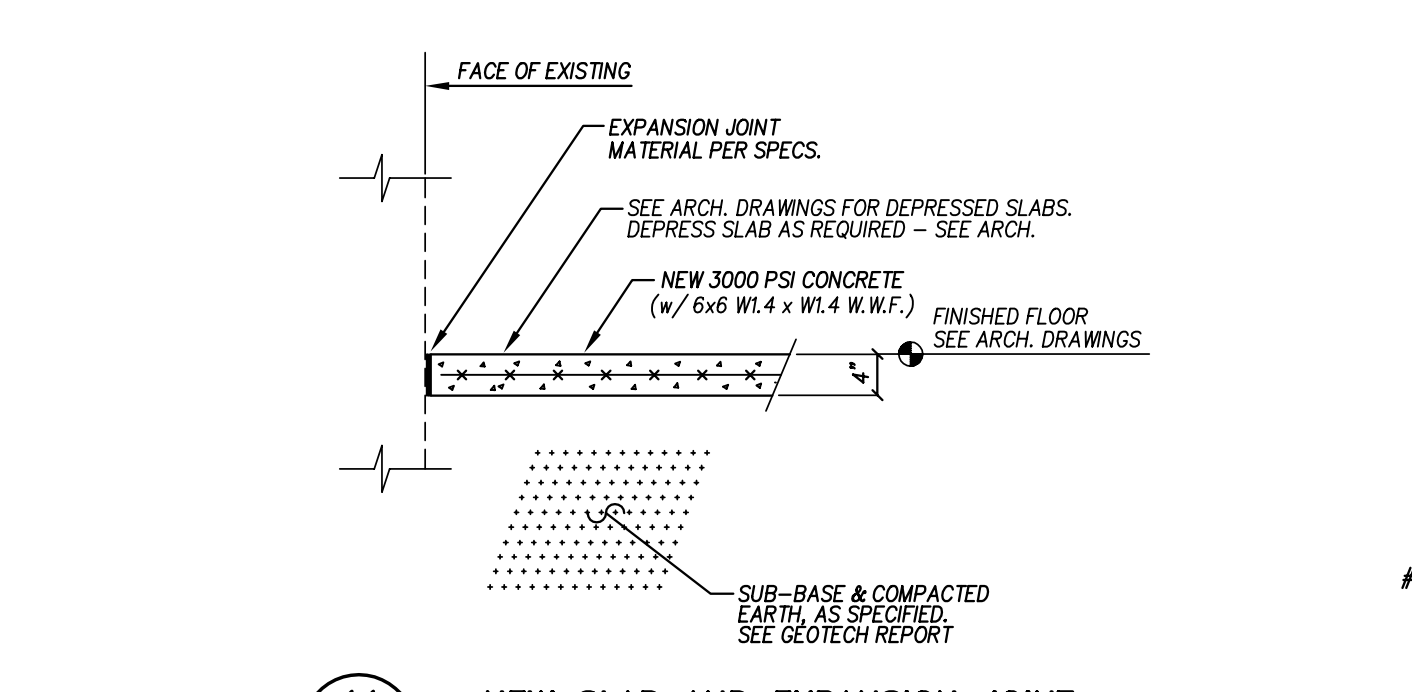
- CONTRACTOR NOTE: THIS DETAIL IS NEEDED ONLY WHERE CORNER-TO-CORNER LENGTH OF WALLS IS GREATER THAN 20'-0".



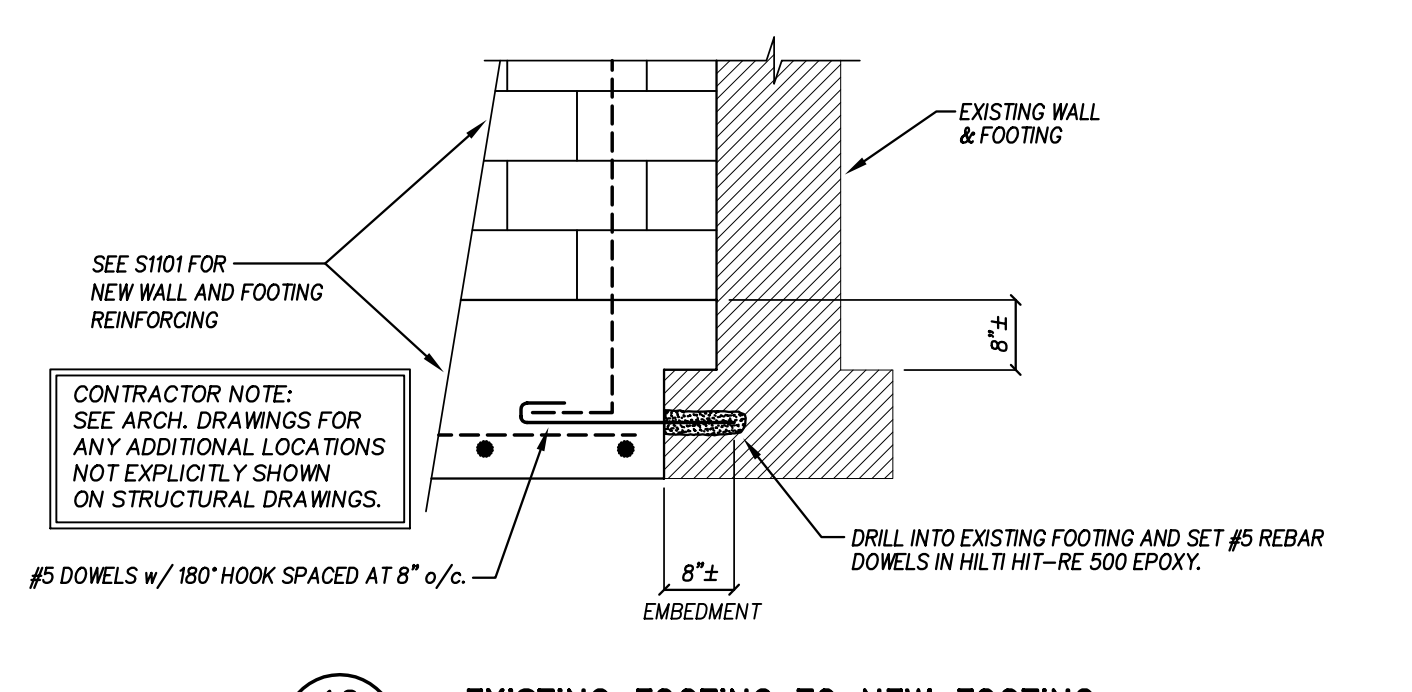
**9 TYPICAL BOND BEAM AT TOP OF ALL NEW CMU WALLS**  
NO SCALE



**10 TYPICAL BOLLARD FOOTING DETAIL**  
NO SCALE

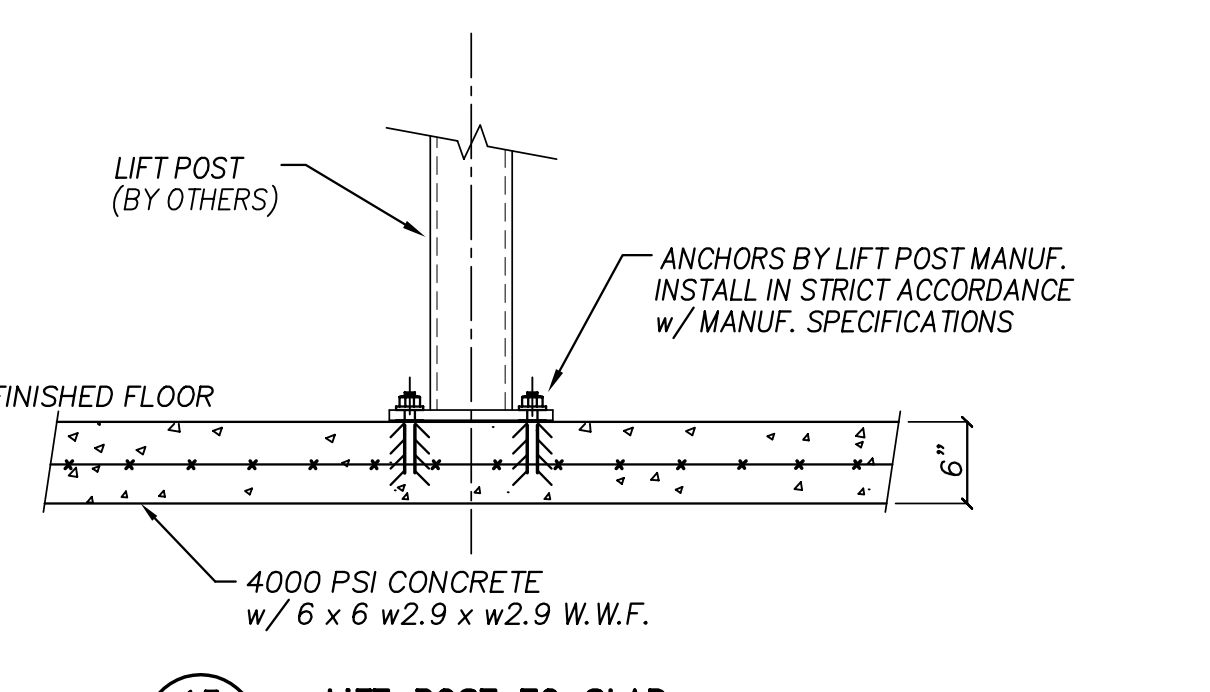


**11 NEW SLAB AND EXPANSION JOINT**  
NO SCALE

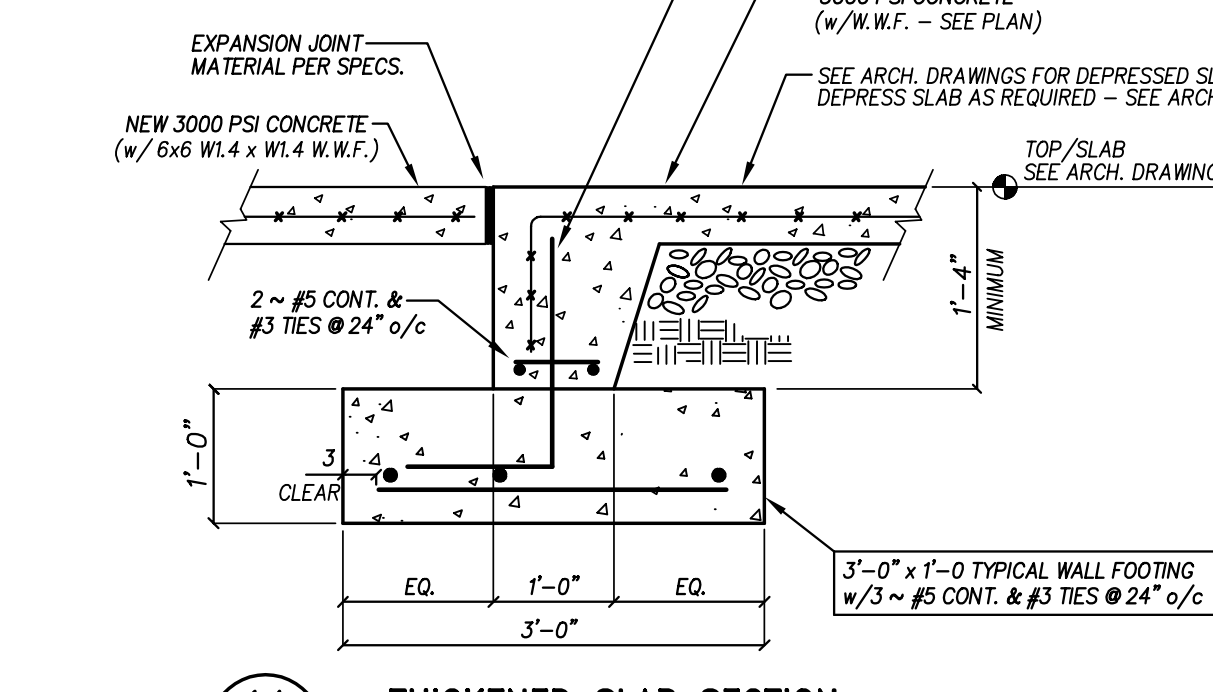


**12 EXISTING FOOTING TO NEW FOOTING**  
NO SCALE

- SEE SECTIONS ON S101 & S102 FOR ADDITIONAL INFORMATION NOT SHOWN.

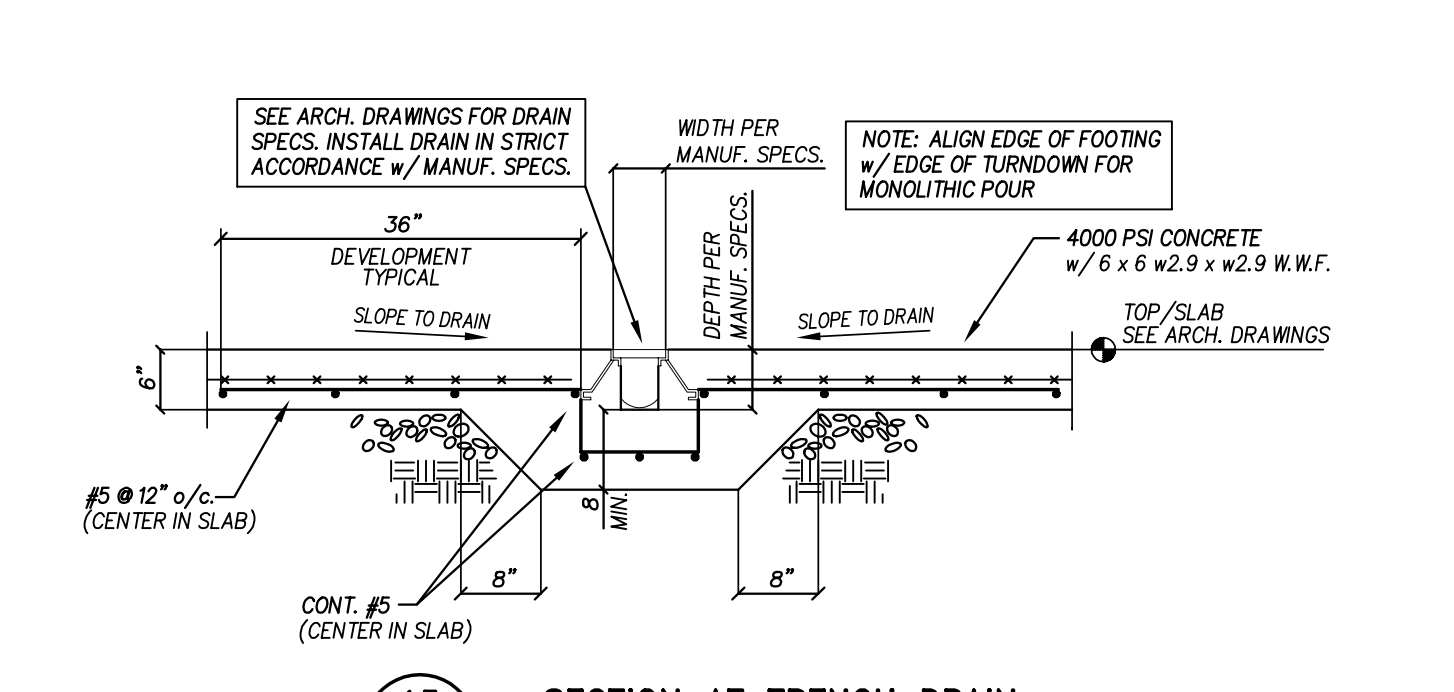


**13 LIFT POST TO SLAB**  
NO SCALE

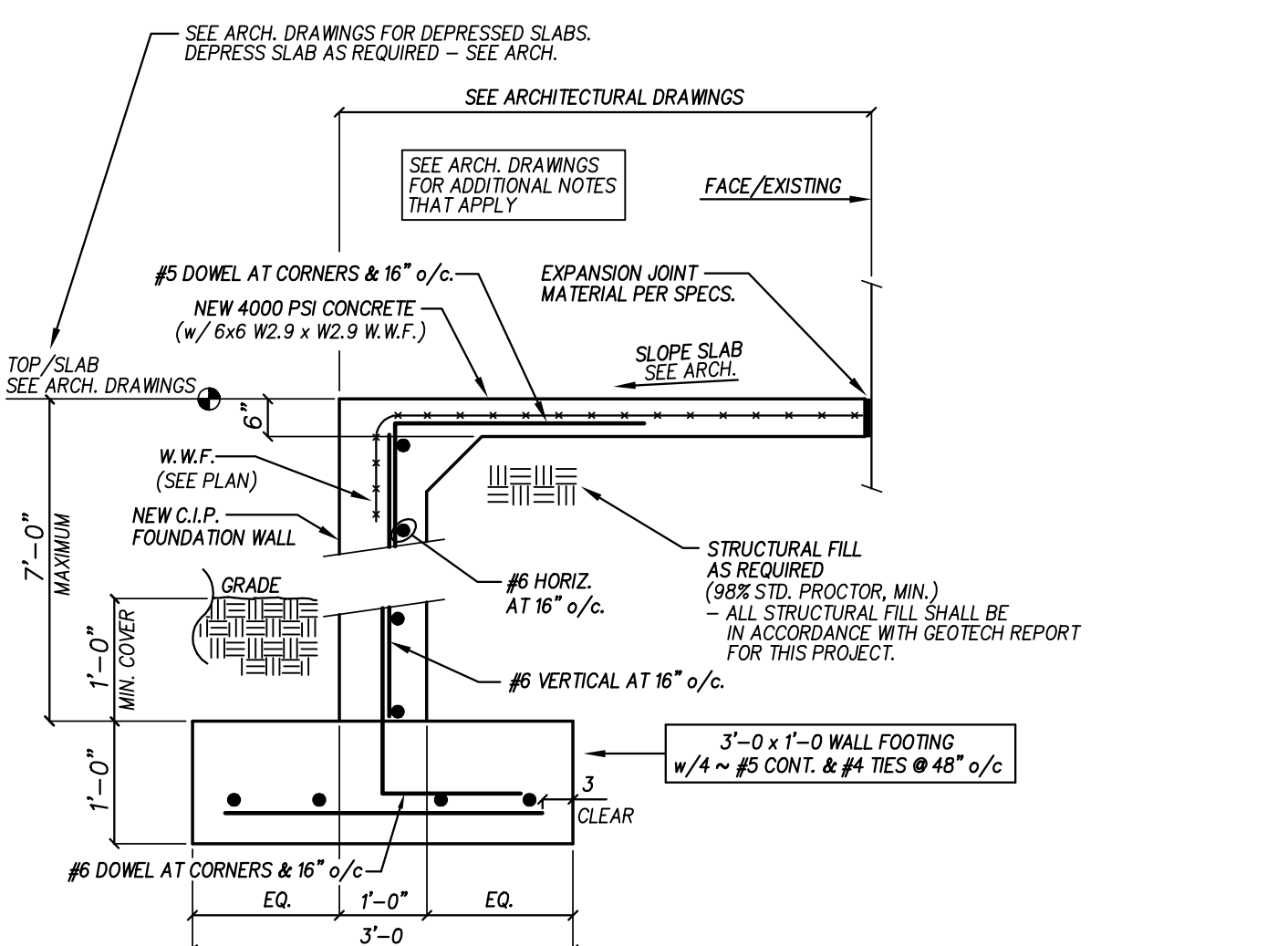


**14 THICKENED SLAB SECTION**  
NO SCALE

- 1) DOMELS OCCUR AT 24" o/c. AT ALL CORNERS AND AT OPENINGS. GROUT ALL FILLED CELLS SOLID.
- 2) ALL CMU CELLS BELOW FINISHED FLOOR SHALL BE FILLED WITH CONCRETE.

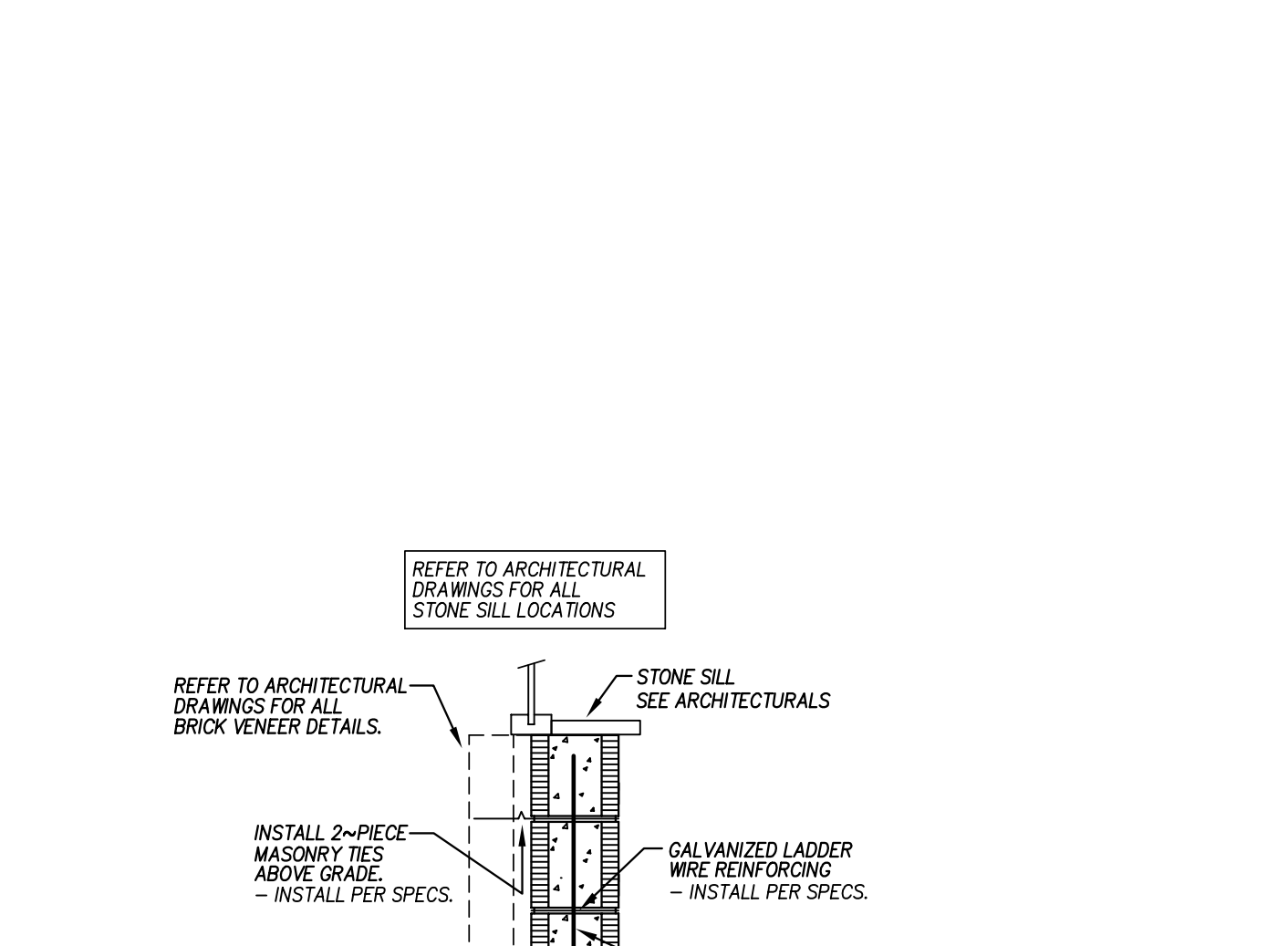


**15 SECTION AT TRENCH DRAIN**  
NO SCALE



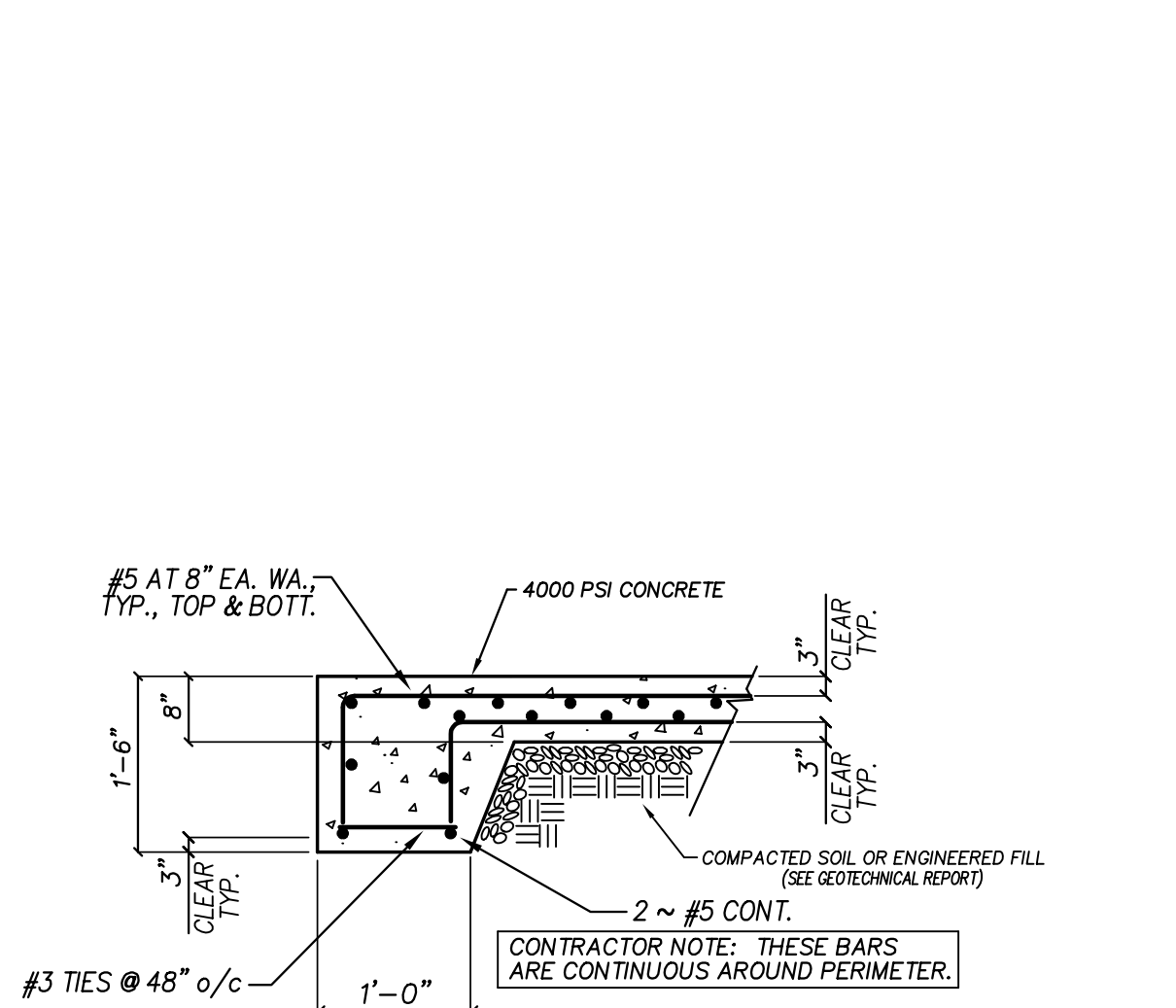
**16 CONCRETE RAMP & PLATFORM SECTION**  
NO SCALE

- 1) SEE ARCH. DRAWINGS FOR ALL RAMP & PLATFORM LOCATIONS.



**17 STONE SILL DETAIL AT CMU**  
NO SCALE

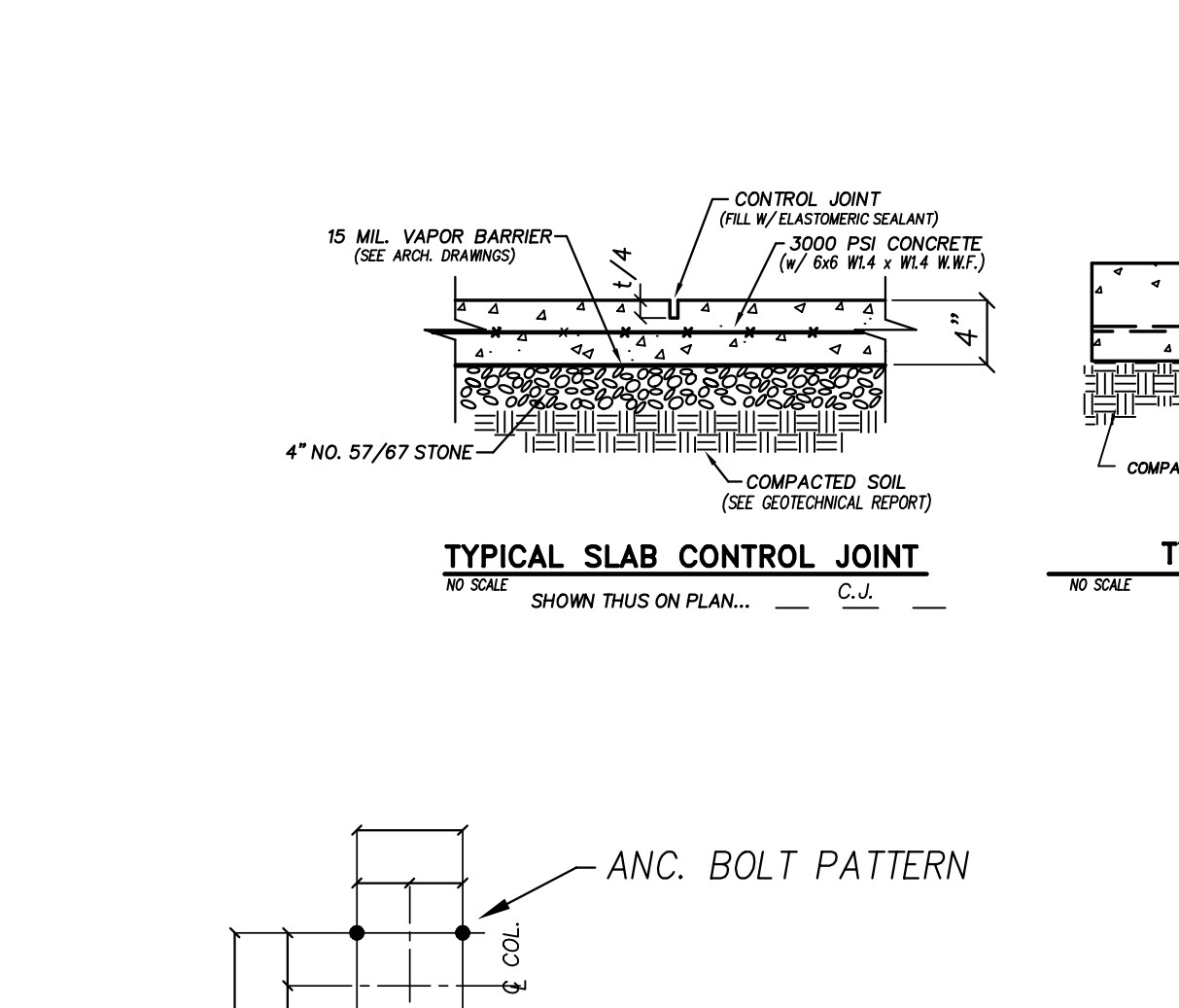
- 1) SEE ARCH. DINGS FOR ALL LOCATIONS THAT APPLY.
- 2) SEE ARCH. DINGS FOR ADDITIONAL NOTES THAT APPLY.



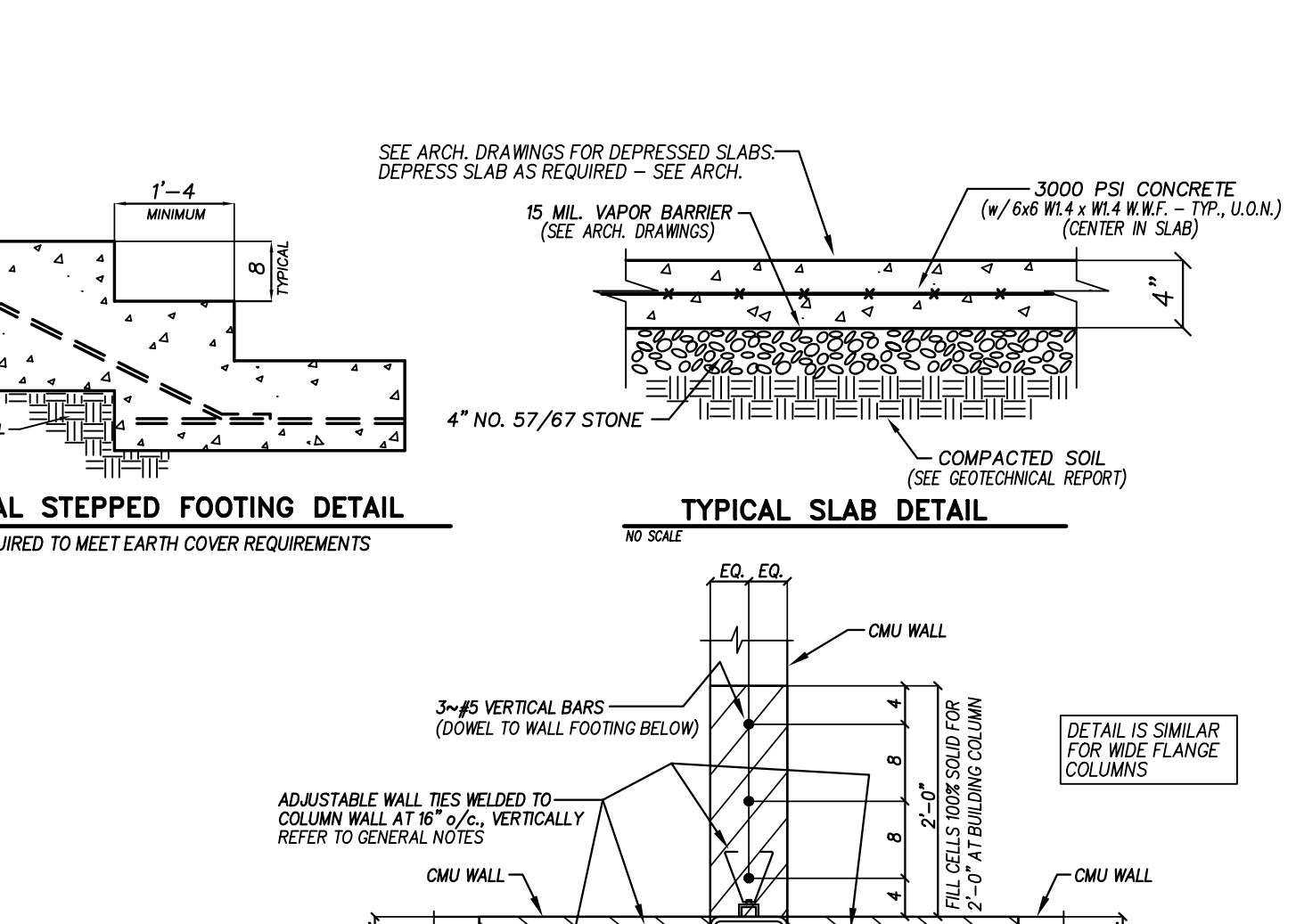
**18 CHILLER PAD DETAIL**  
NO SCALE

- SEE ARCH. AND CIVIL DRAWINGS FOR LOCATION.

MARK	SIZE	REINFORCING & NOTES
(A)	10'-0" x 10'-0" x 20"	10 ~ #6 EA. WA. (BOTTOM ONLY)
(B)	8'-0" x 8'-0" x 16"	9 ~ #5 EA. WA. (BOTTOM ONLY)
(C)	7'-0" x 7'-0" x 14"	7 ~ #5 EA. WA. (BOTTOM ONLY)
(D)	6'-0" x 6'-0" x 13"	6 ~ #5 EA. WA. (BOTTOM ONLY)
(E)	5'-0" x 5'-0" x 12"	5 ~ #5 EA. WA. (BOTTOM ONLY)
(F)	4'-0" x 4'-0" x 12"	4 ~ #5 EA. WA. (BOTTOM ONLY)
(G)	3'-0" x 3'-0" x 12"	4 ~ #5 EA. WA. (BOTTOM ONLY)
(H)	6'-0" x 6'-0" x 13"	6 ~ #5 EA. WA. (TOP & BOTTOM)

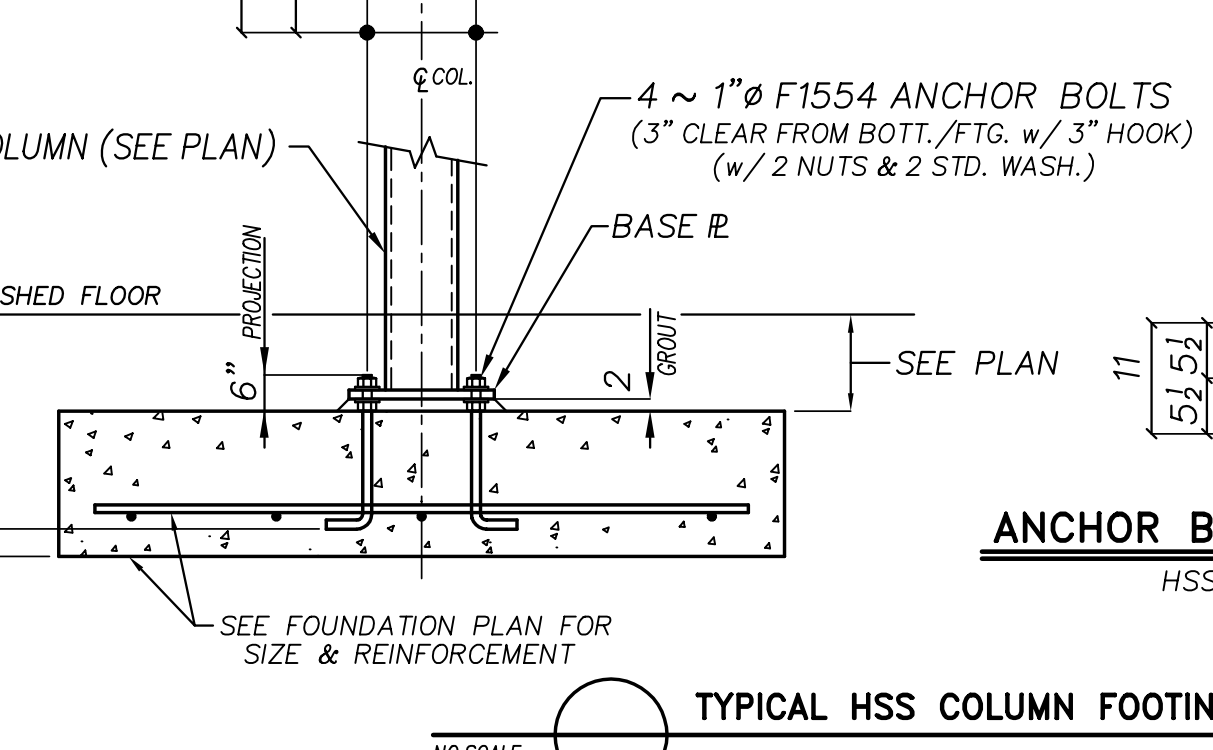


**19 TYPICAL SLAB CONTROL JOINT**  
NO SCALE



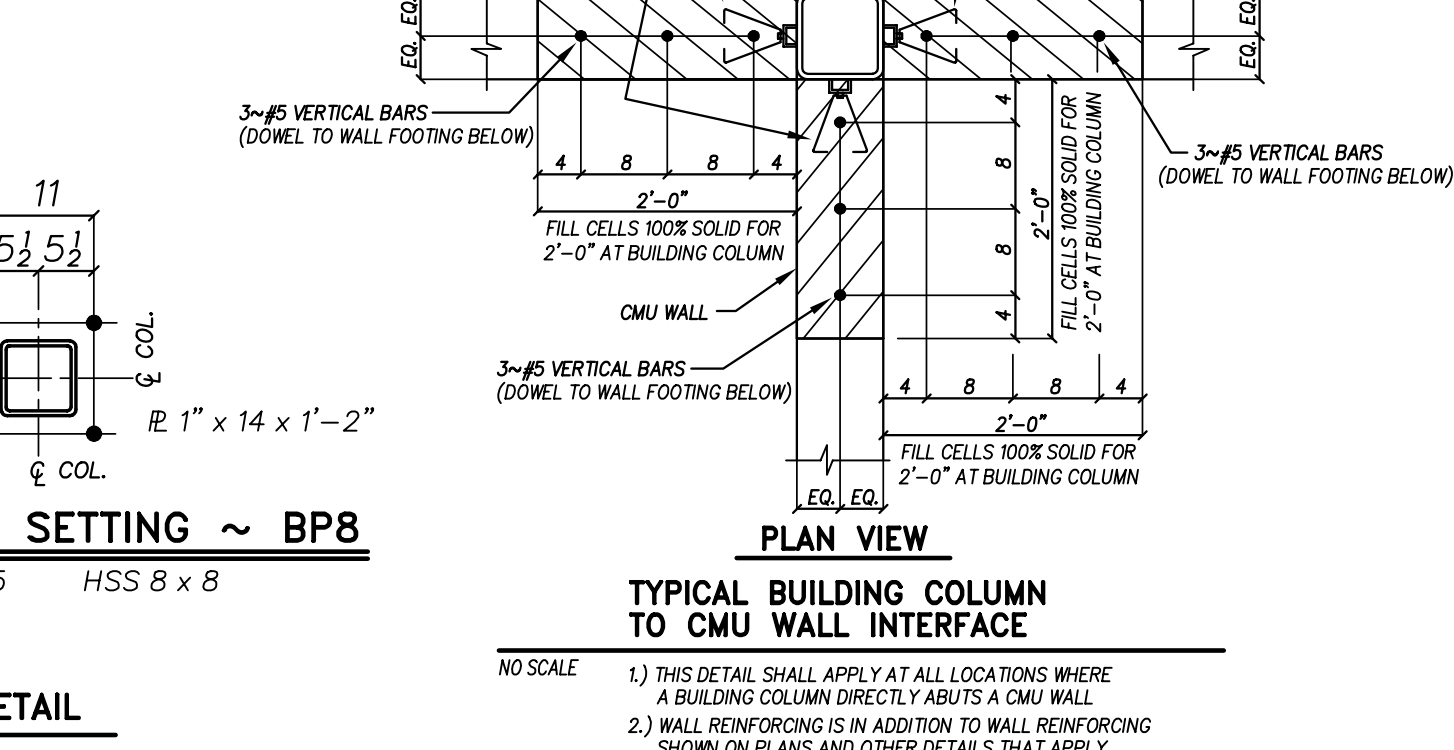
**20 TYPICAL STEPPED FOOTING DETAIL**  
NO SCALE

- IF REQUIRED TO MEET EARTH COVER REQUIREMENTS.



**21 TYPICAL HSS COLUMN FOOTING DETAIL**  
NO SCALE

- & TYPICAL ANCHOR BOLT PATTERN AS NOTED.



**22 TYPICAL BUILDING COLUMN TO CMU WALL INTERFACE**  
NO SCALE

- 1) THIS DETAIL SHALL APPLY AT ALL LOCATIONS WHERE A BUILDING COLUMN DIRECTLY ABUTS A CMU WALL.
- 2) WALL REINFORCING IS IN ADDITION TO WALL REINFORCING SHOWN ON PLANS AND OTHER DETAILS THAT APPLY.

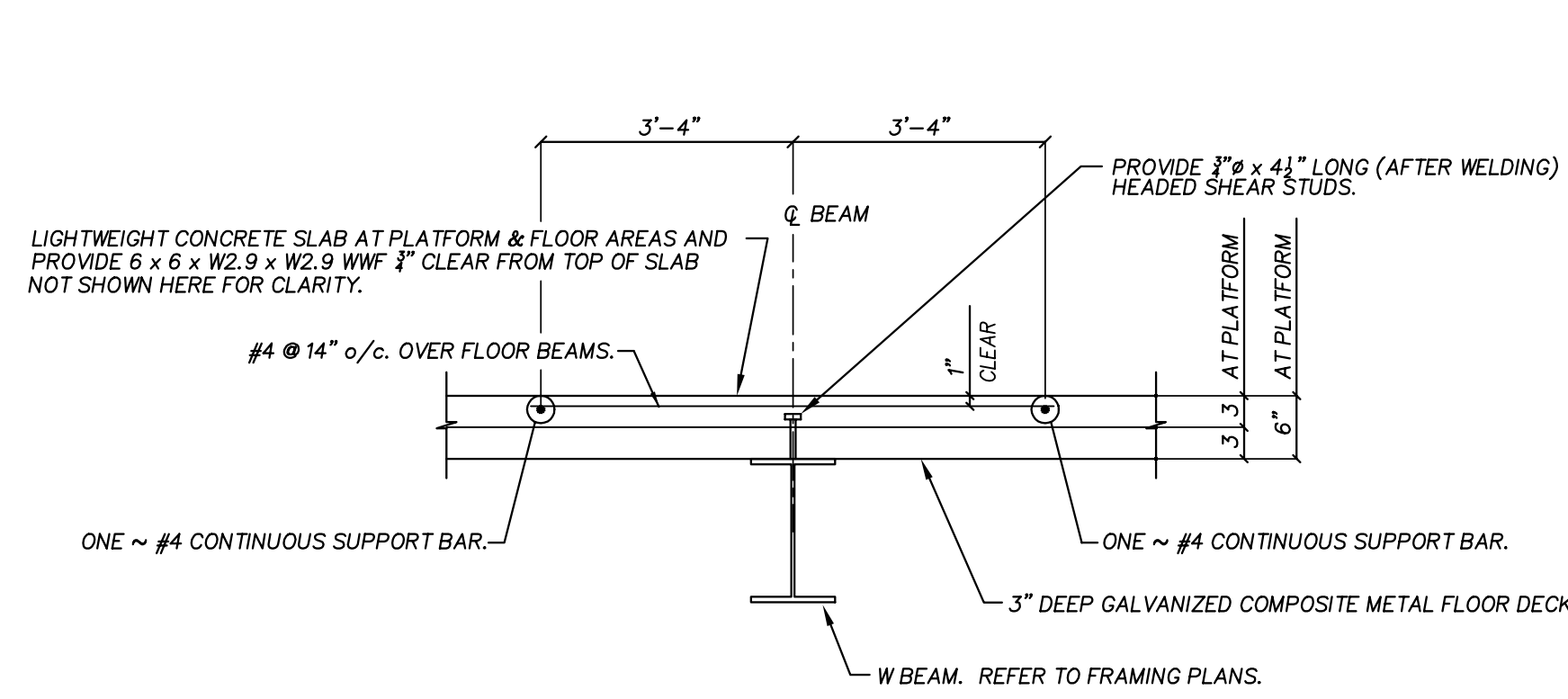
Revision	NO. DATE

**Hite associates**  
ARCHITECTURE ENGINEERING TECHNOLOGY  
2600 Meridian Drive / Greenville, NC 27858 / tel (252) 757-0333

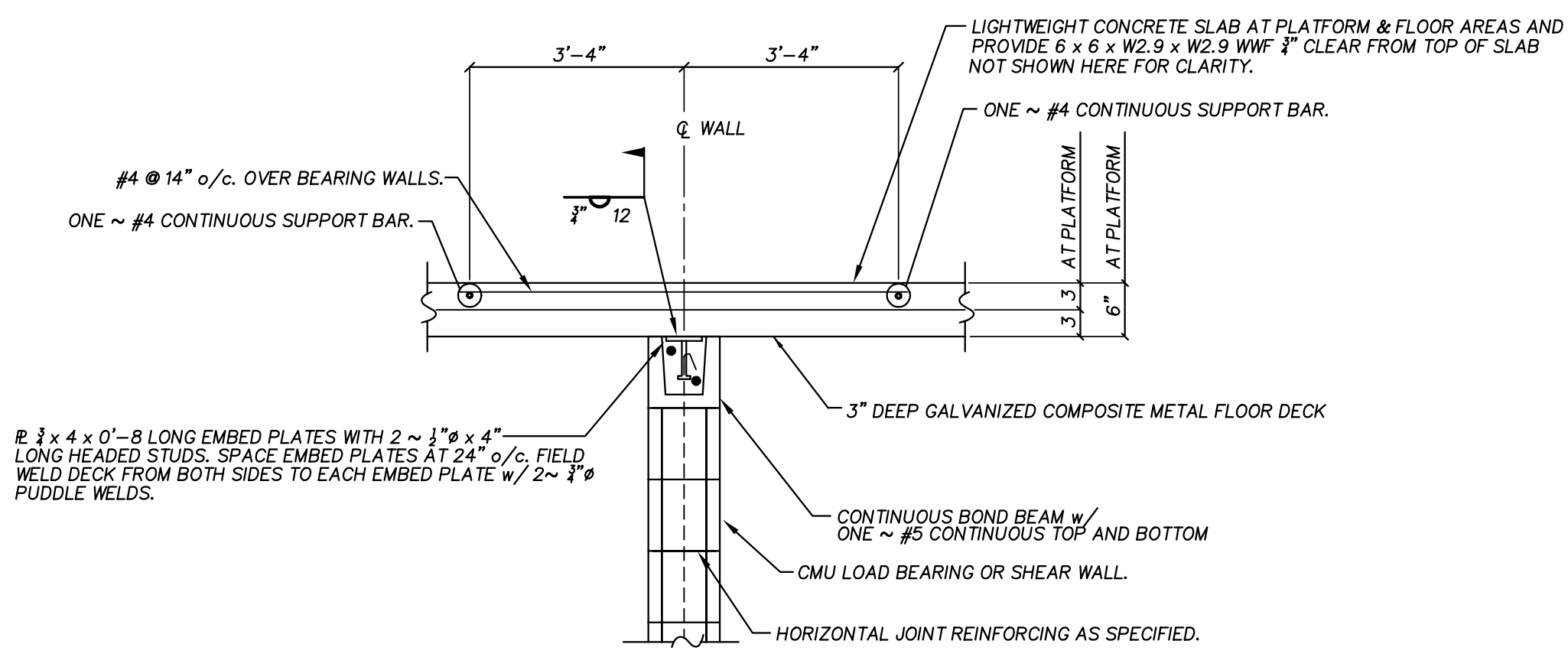
QUEEN ENGINEERING & DESIGN  
ARCHITECTURE ENGINEERING TECHNOLOGY  
2600 Meridian Drive / Greenville, NC 27858  
26 FEB 2025

NEW CTE BUILDING FOR  
**NEW BERTIE HIGH SCHOOL**  
716 US 13 NORTH / NCDPS UNIT 080 - SCHOOL 312  
WINDSOR / BERTIE COUNTY / NORTH CAROLINA

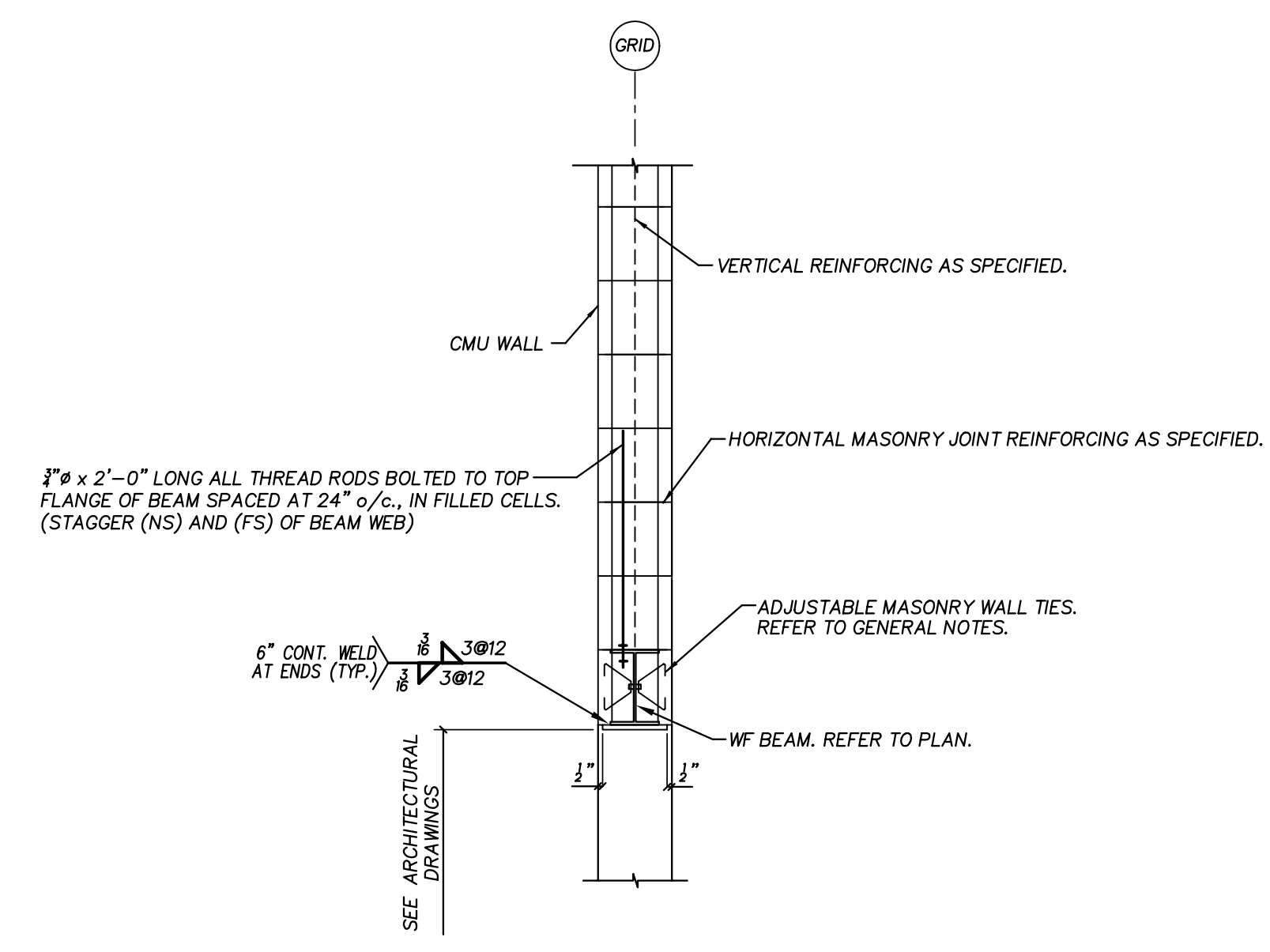
Project No. 22351  
Date: 26 FEB 2025  
Drawing No. S 1101



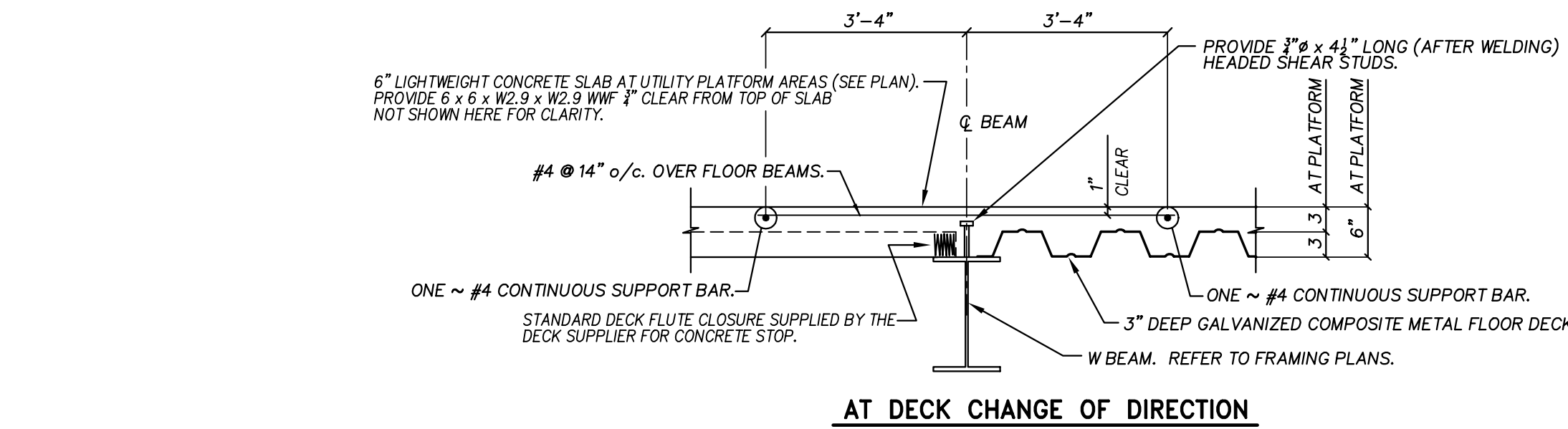
1 TYPICAL PLATFORM SUPPORT BEAM  
NO SCALE



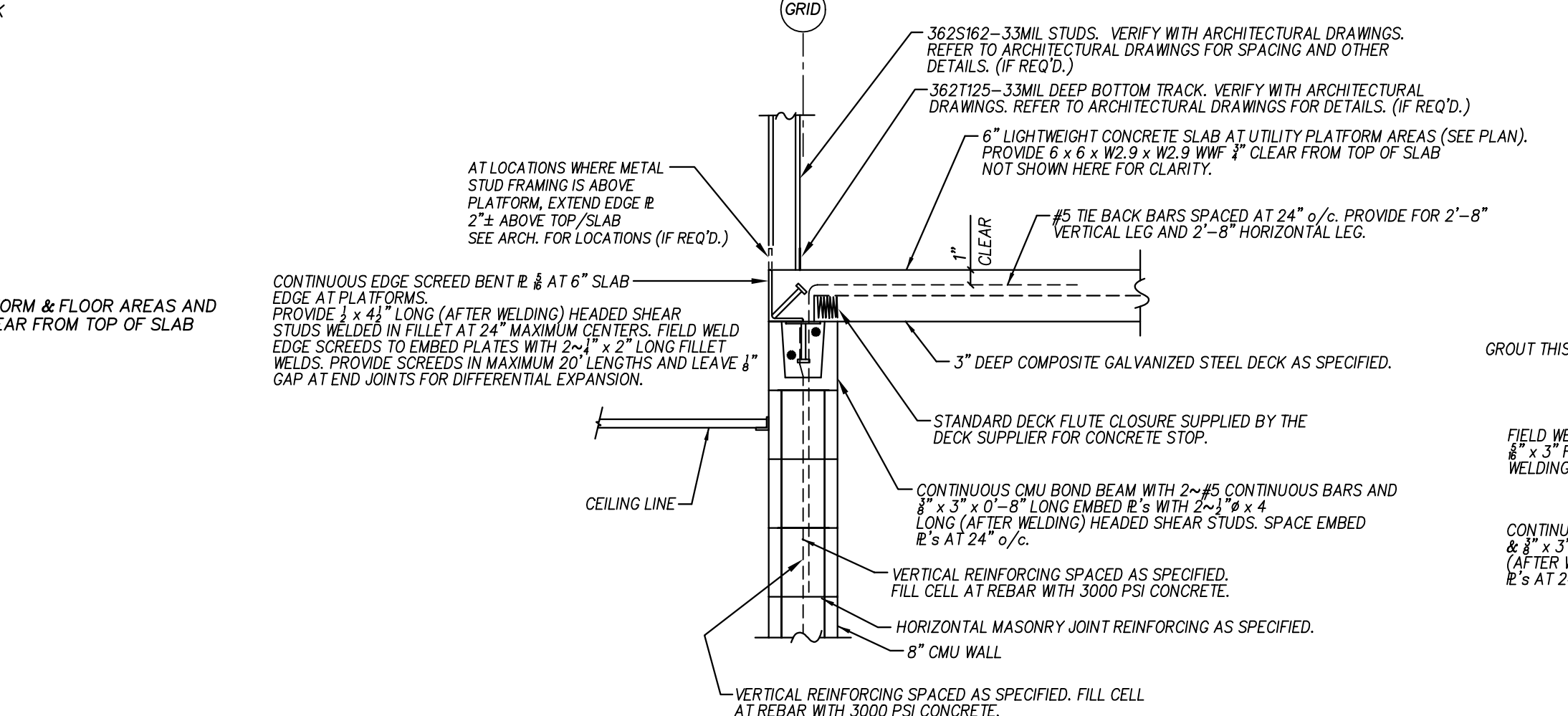
3 TYPICAL CMU LOAD BEARING WALL DETAIL AT ELEVATED SLAB  
NO SCALE



5 TYPICAL WF BEAM AT CMU WALL  
NO SCALE



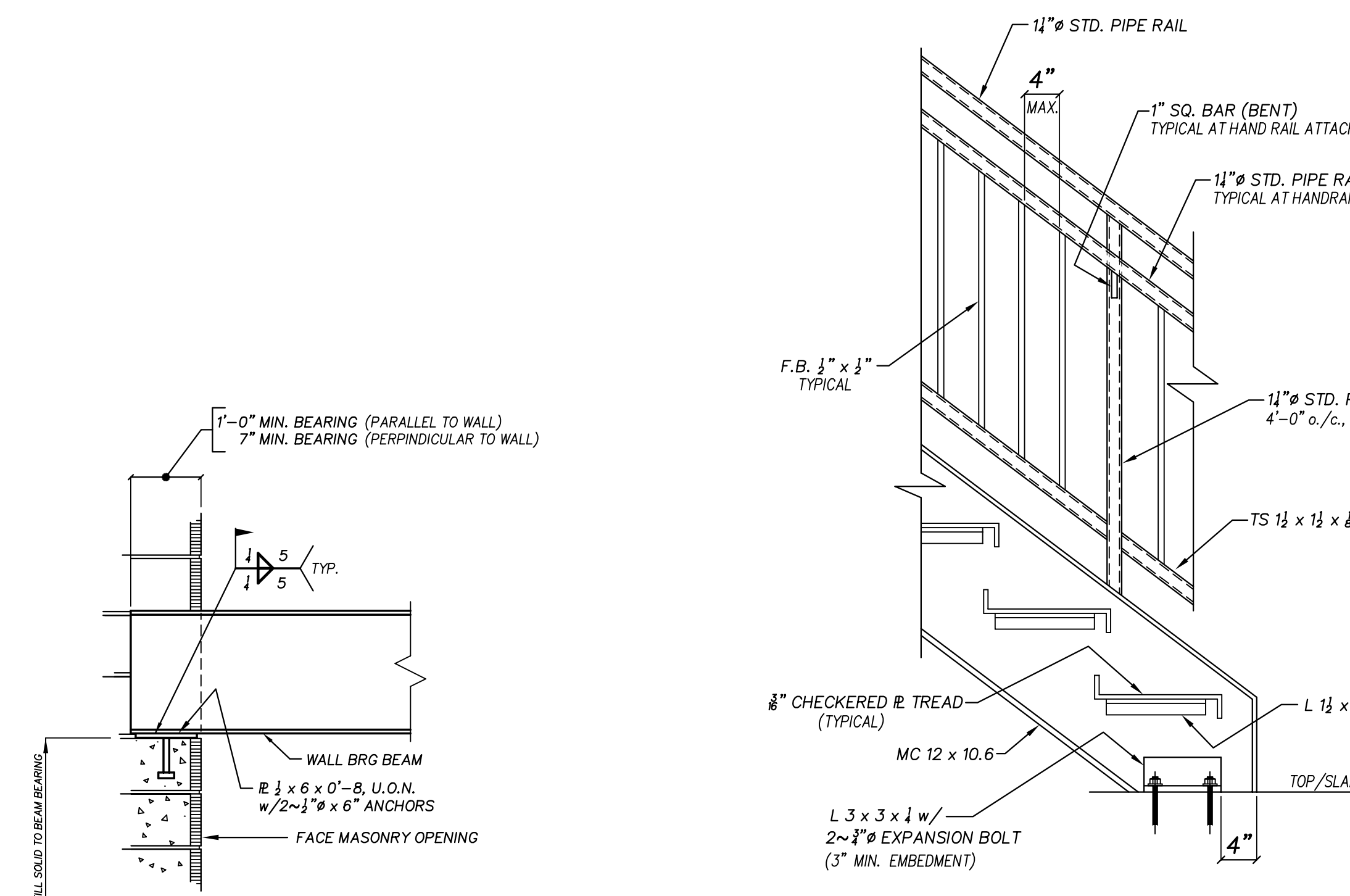
2 TYPICAL ELEVATED SLAB EDGE DETAILS  
NO SCALE



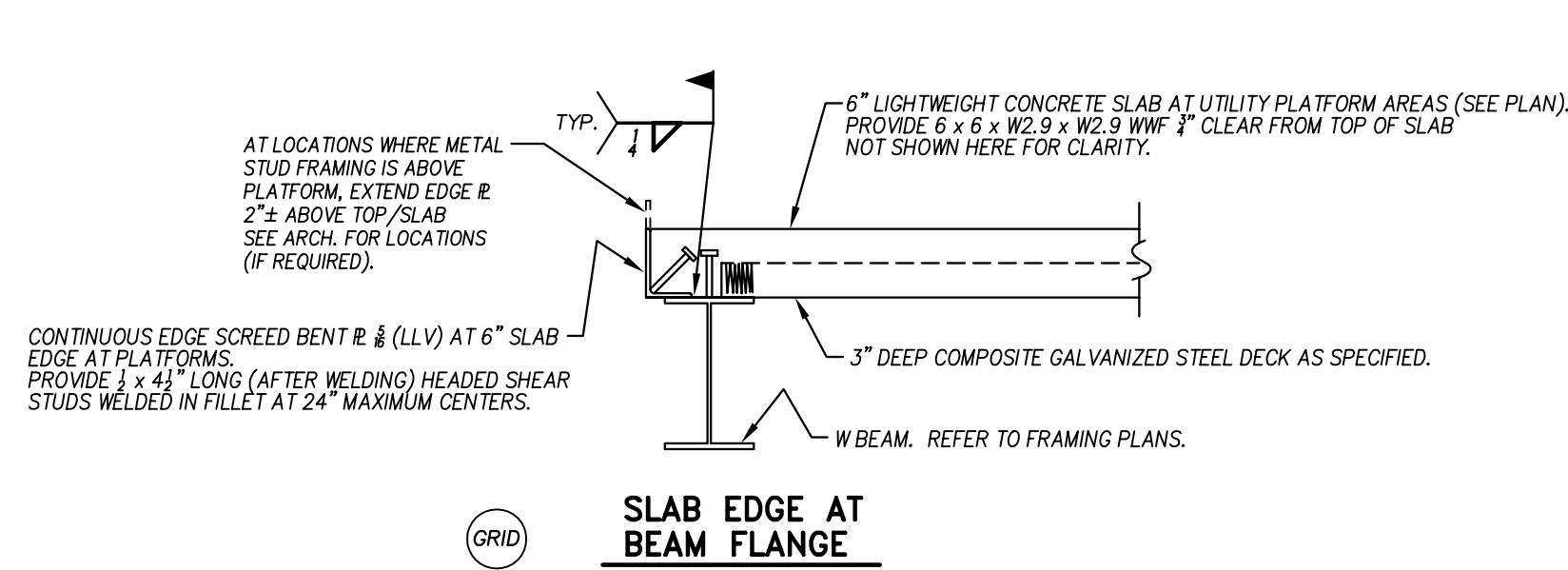
4 TYPICAL WF LINTEL BEAM AT CMU AND BRICK  
NO SCALE



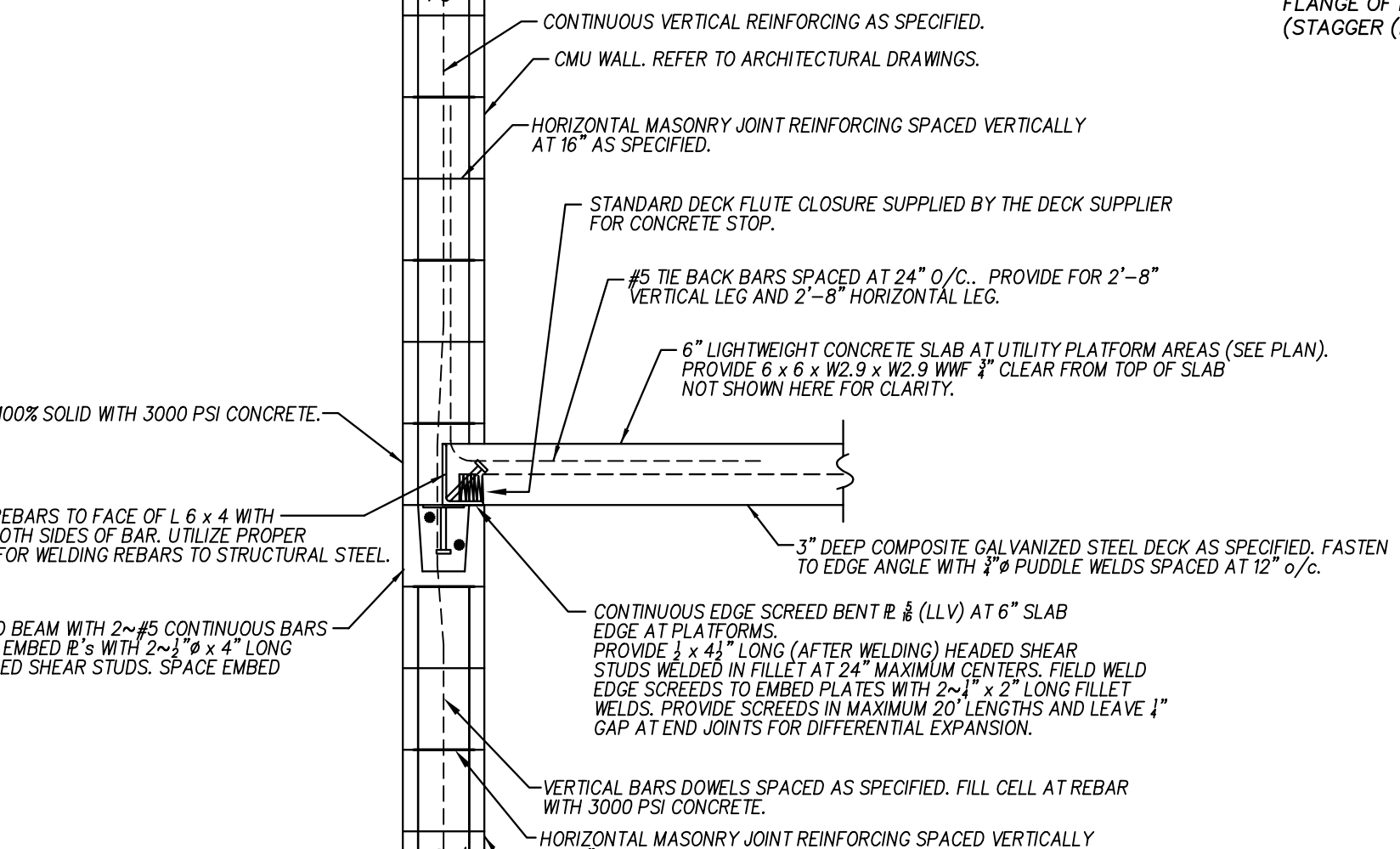
6 TYPICAL BEAM BEARING DETAIL  
NO SCALE



7 TYPICAL STAIR CONSTRUCTION  
NO SCALE



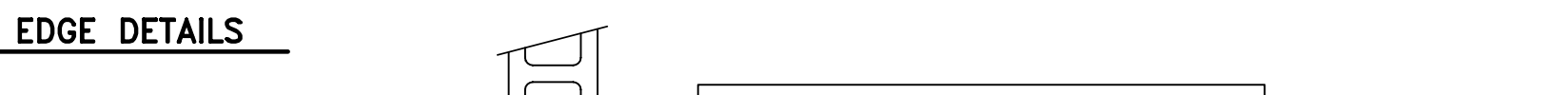
8 BEAM CANTILEVER DETAIL  
NO SCALE



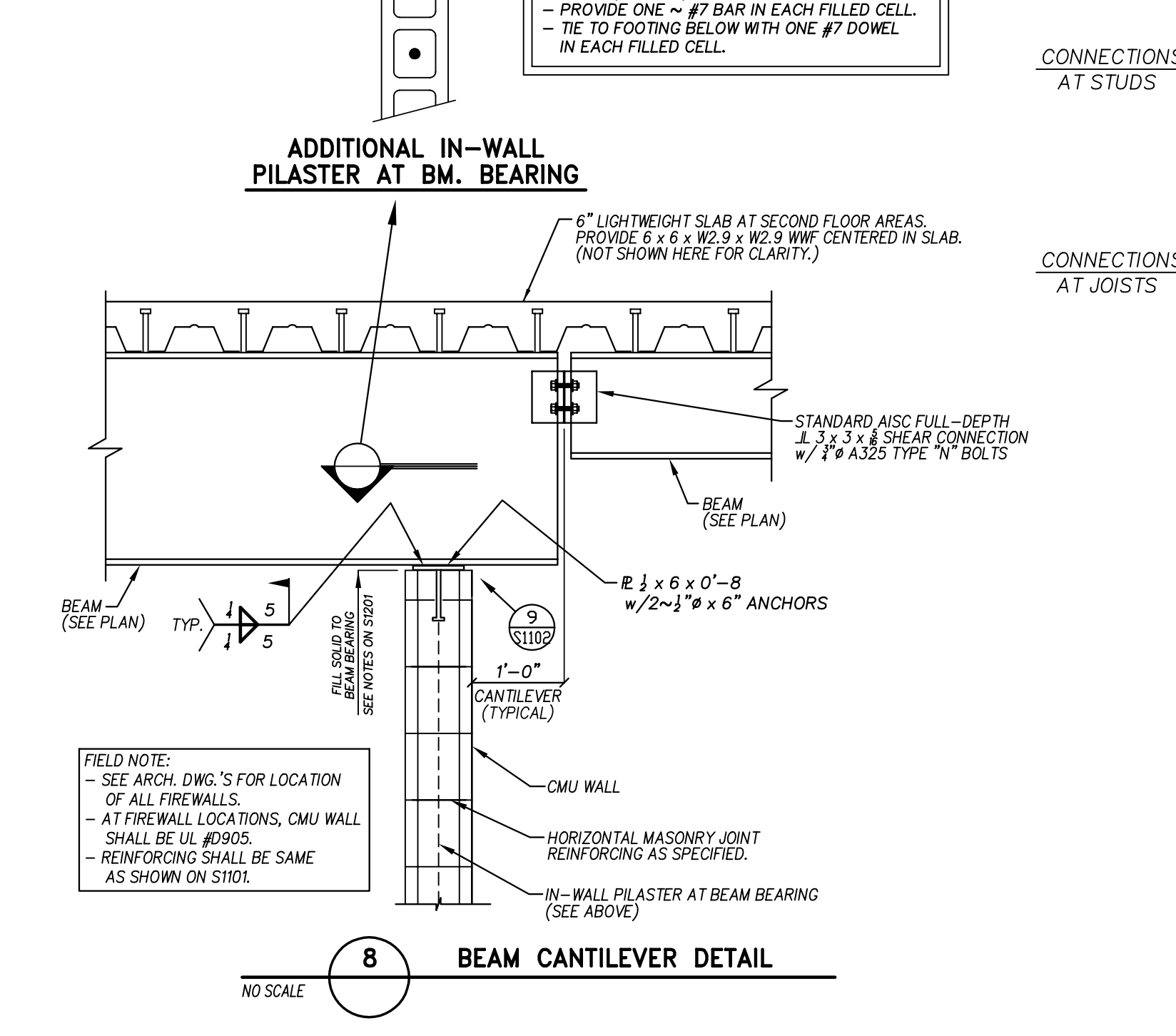
9 NOT USED



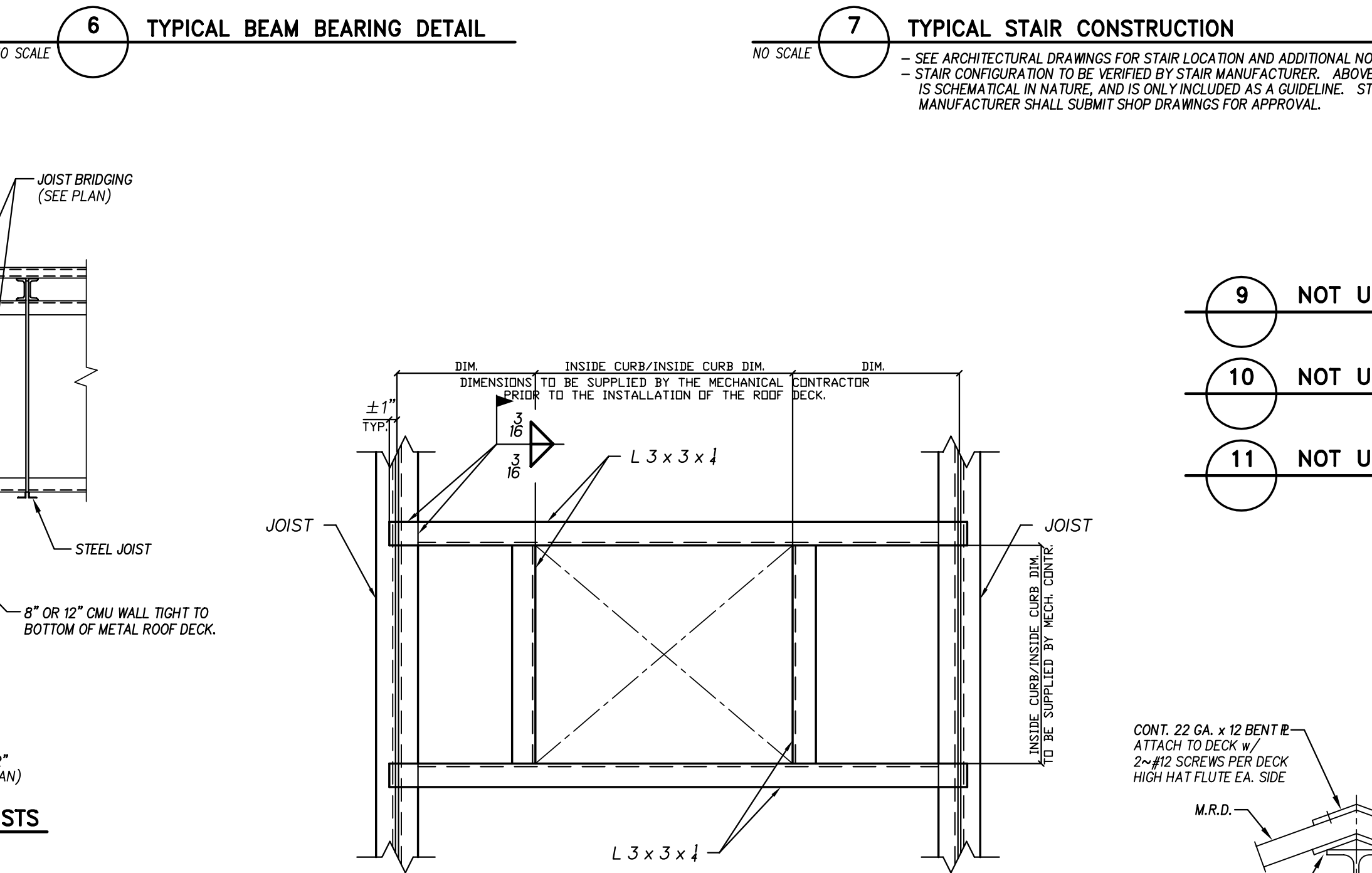
10 NOT USED



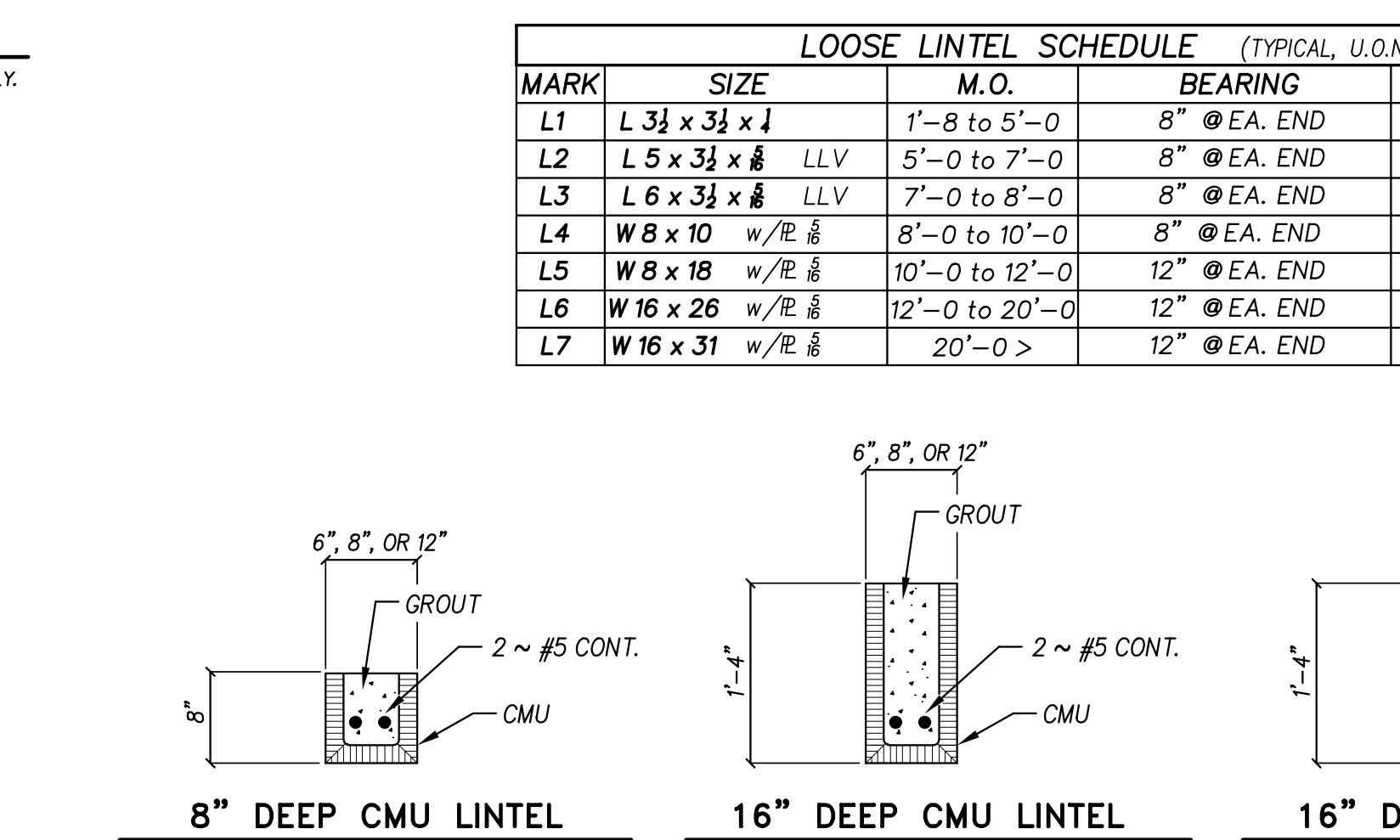
11 NOT USED



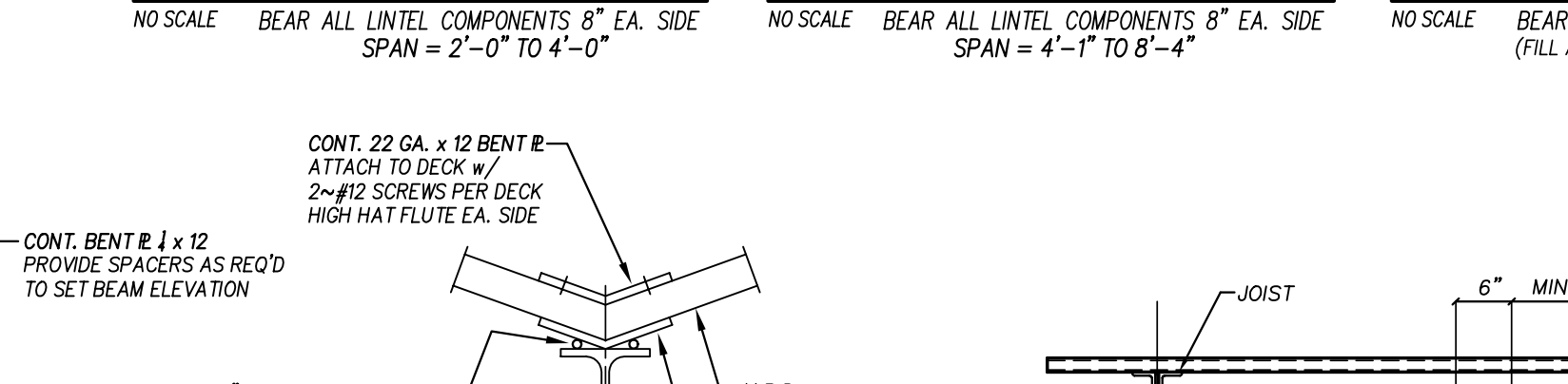
12 TYPICAL INTERIOR CMU WALL SEALED TO METAL ROOF DECK  
NO SCALE



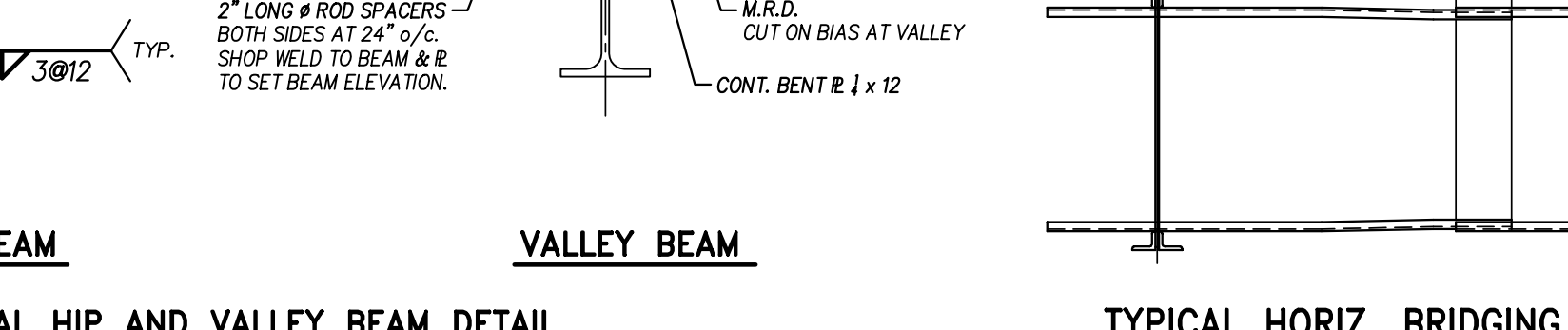
13 TYPICAL ROOF FRAME DETAIL (IF REQUIRED)  
NO SCALE



9 NOT USED

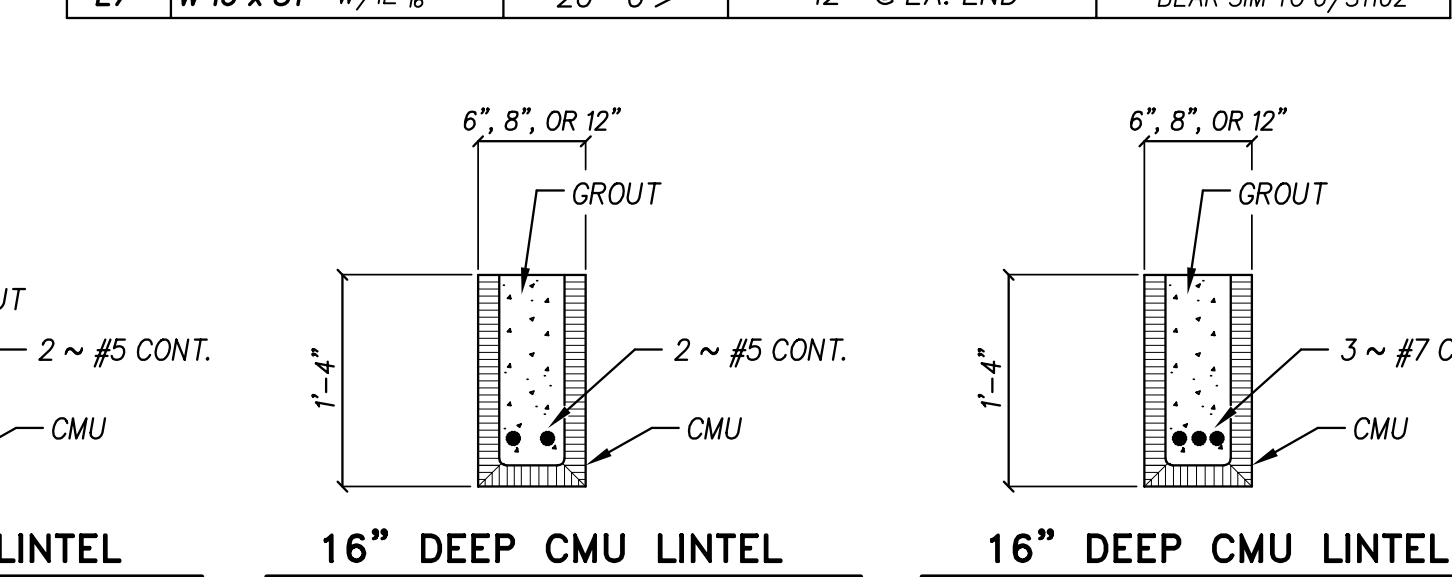


10 NOT USED



11 NOT USED

MARK	SIZE	M.O.	BEARING	REMARKS
L1	L 3 1/2 x 3 1/2 x 1/4	1'-8 to 5'-0	8" @ EA. END	
L2	L 5 x 3 1/2 x 1/4	5'-0 to 7'-0	8" @ EA. END	
L3	L 6 x 3 1/2 x 1/4	7'-0 to 8'-0	8" @ EA. END	
L4	W 8 x 10	w/E	8" @ EA. END	BEAR SIM TO 6/S1102
L5	W 8 x 18	w/E	10'-0 to 12'-0	12" @ EA. END BEAR SIM TO 6/S1102
L6	W 16 x 26	w/E	12'-0 to 20'-0	12" @ EA. END BEAR SIM TO 6/S1102
L7	W 16 x 31	w/E	20'-0 >	12" @ EA. END BEAR SIM TO 6/S1102



PERPENDICULAR TO JOISTS

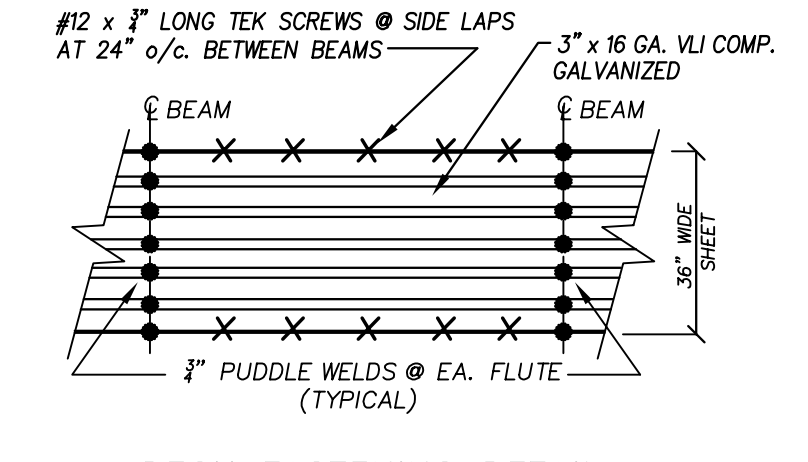
PARALLEL TO JOISTS

HIP AND RIDGE BEAM

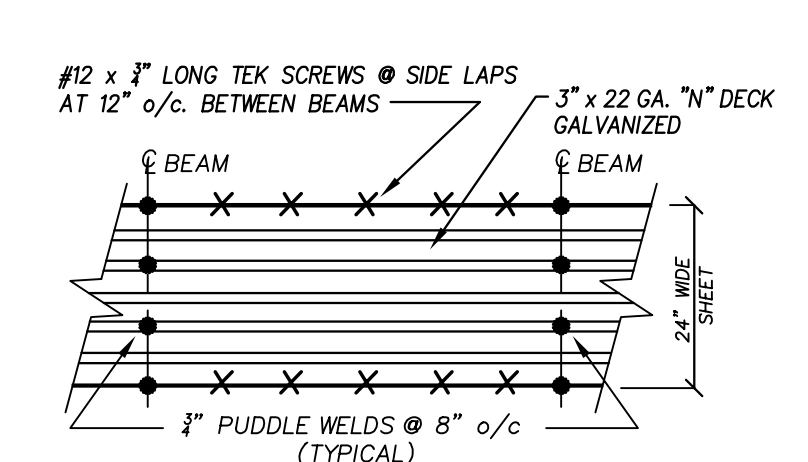
VALLEY BEAM

TYPICAL HIP AND VALLEY BEAM DETAIL

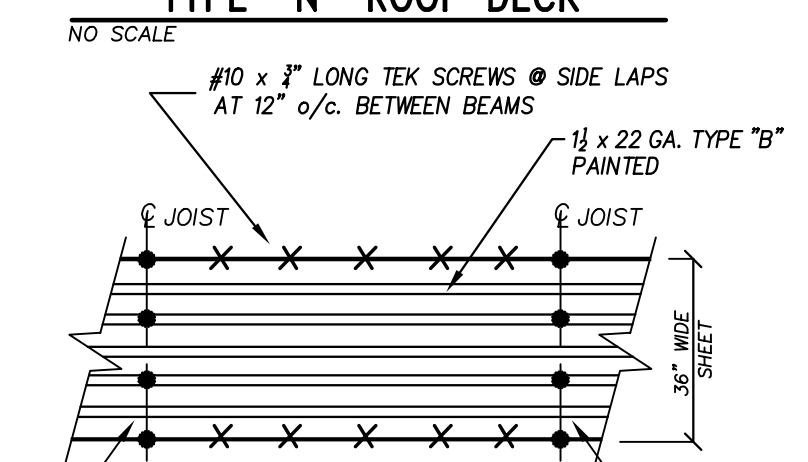
TYPICAL HORIZ. BRIDGING SPLICE DETAIL



DECK FASTENING DETAIL TYPE "A" ROOF DECK



DECK FASTENING DETAIL TYPE "B" ROOF DECK



DECK FASTENING DETAIL TYPE "B" ROOF DECK

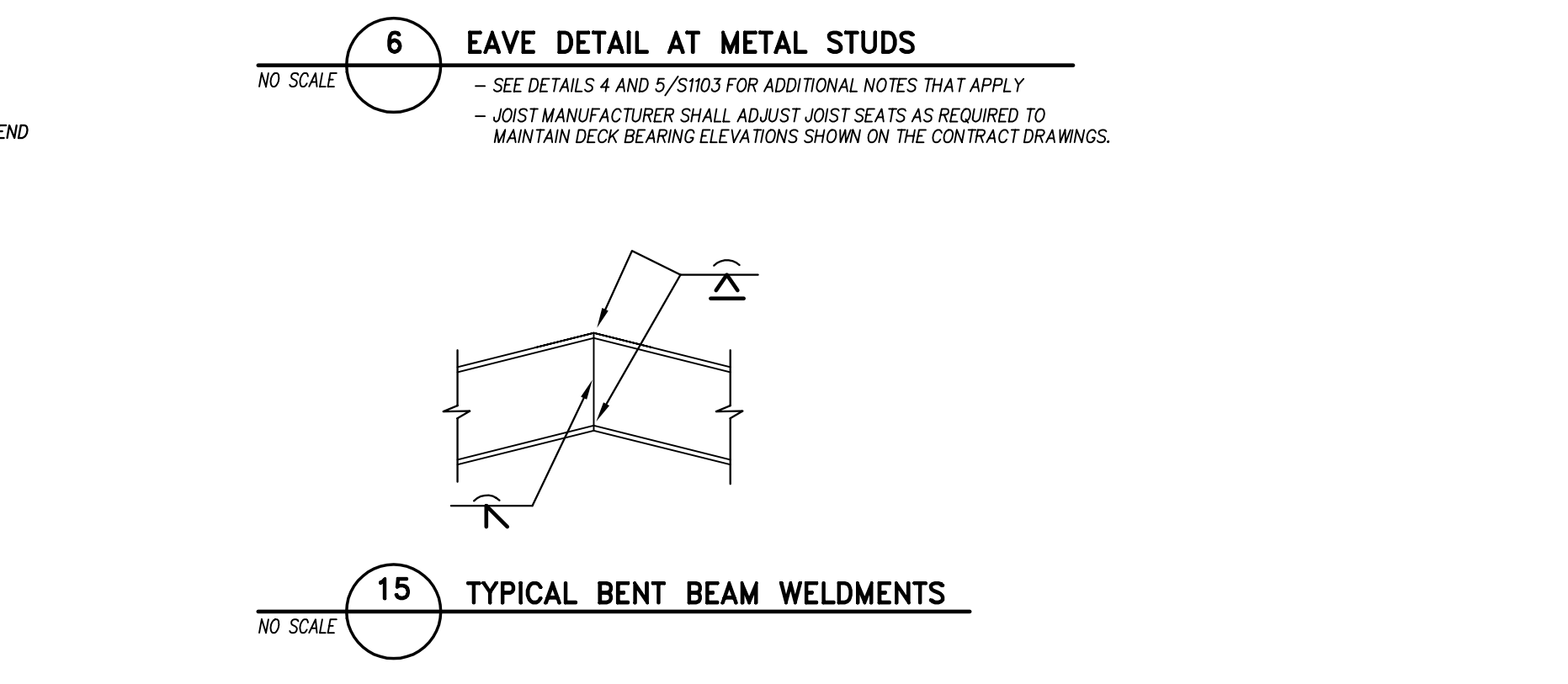
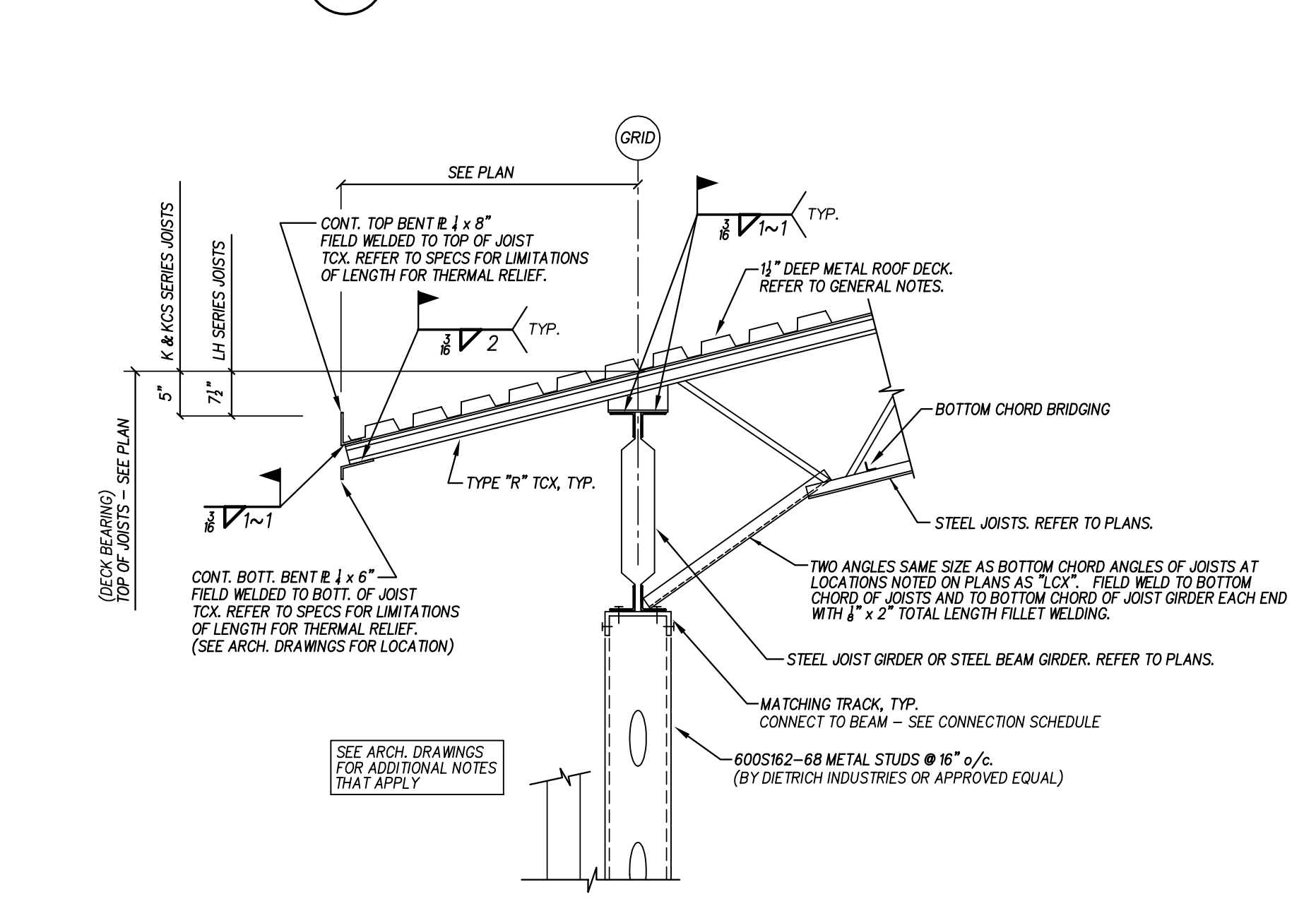
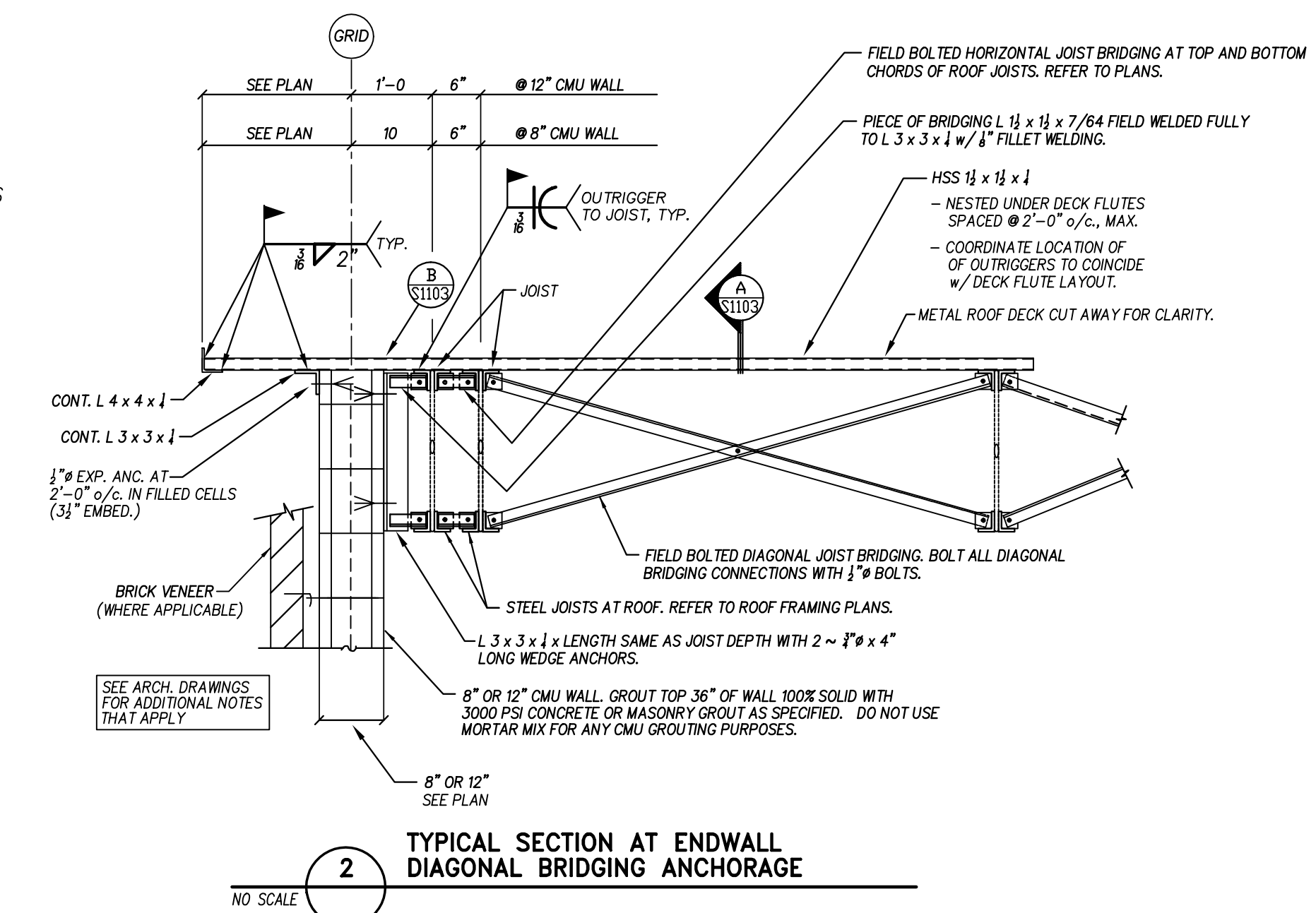
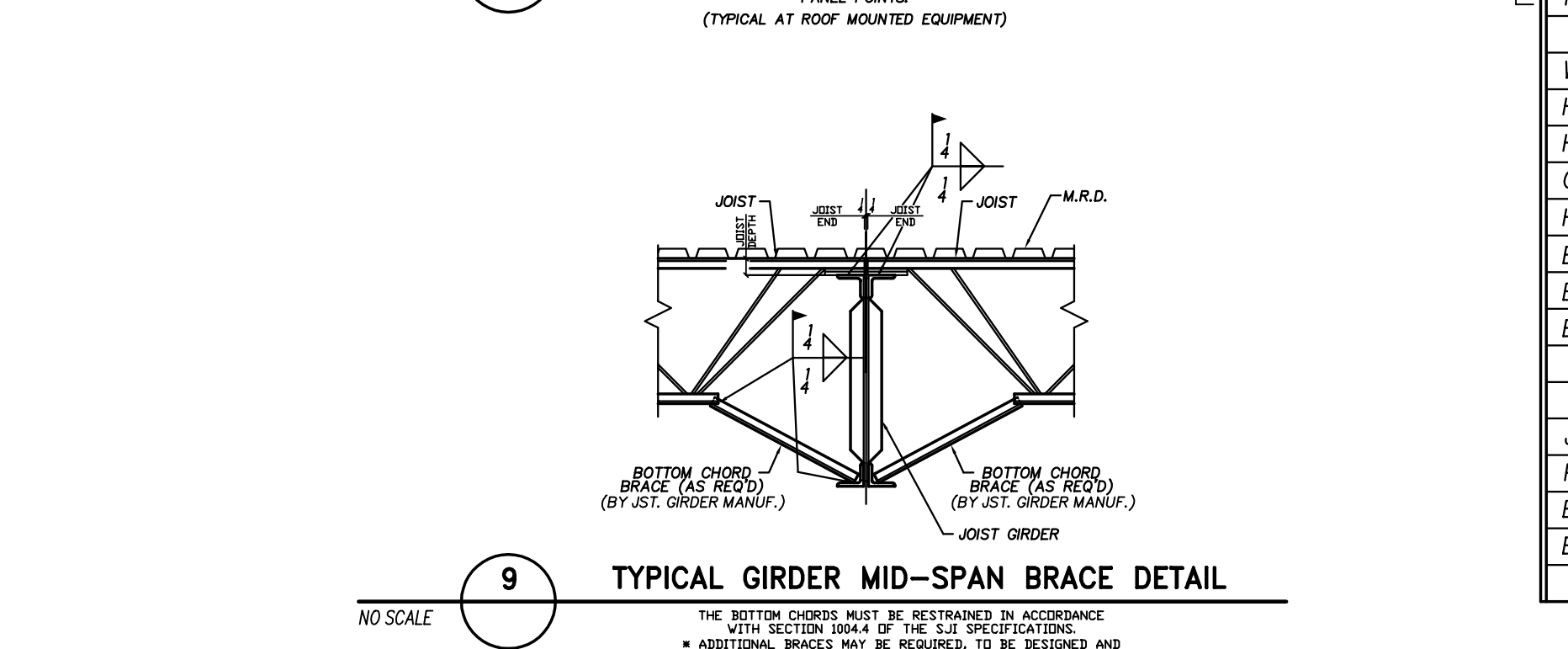
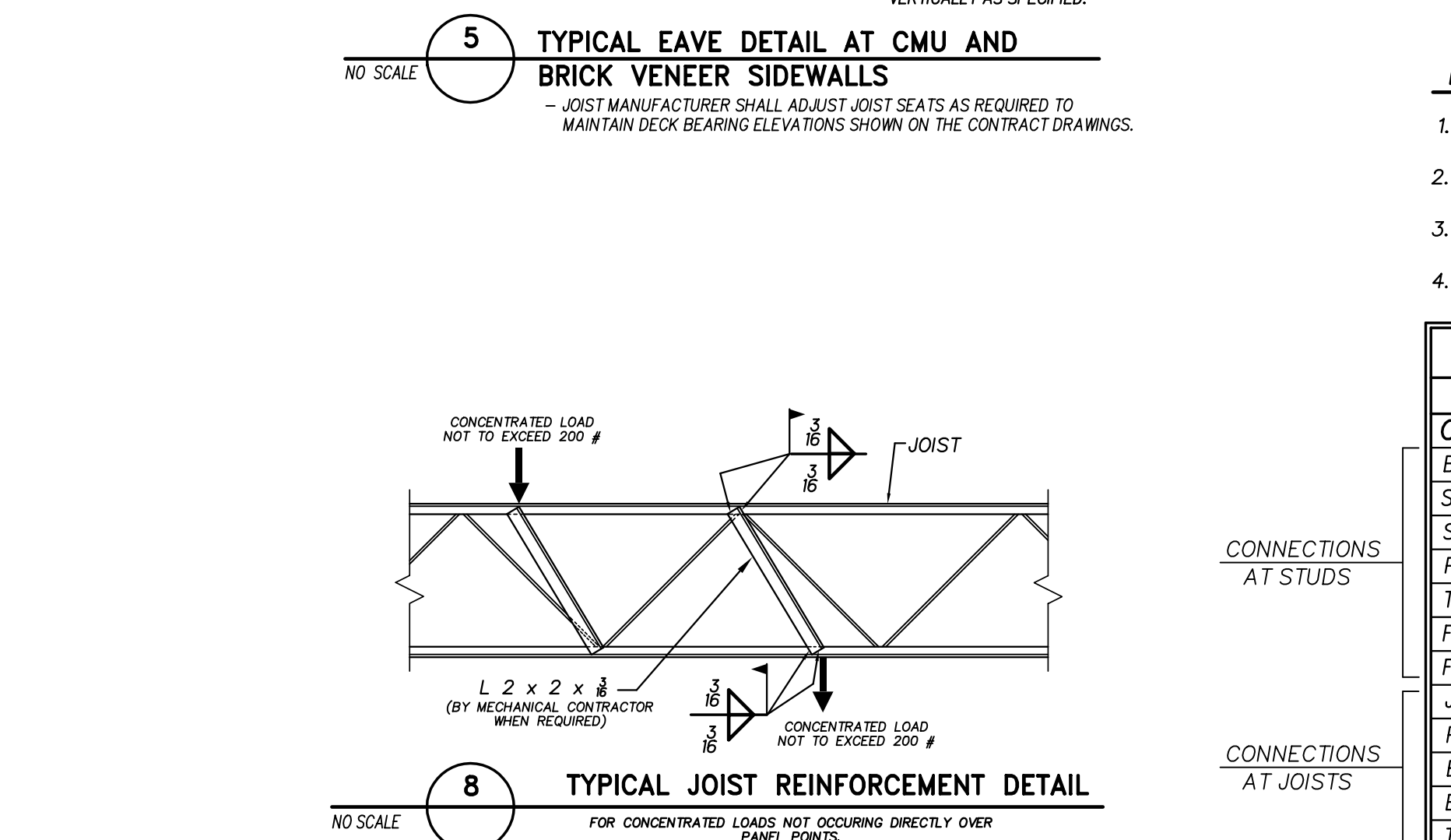
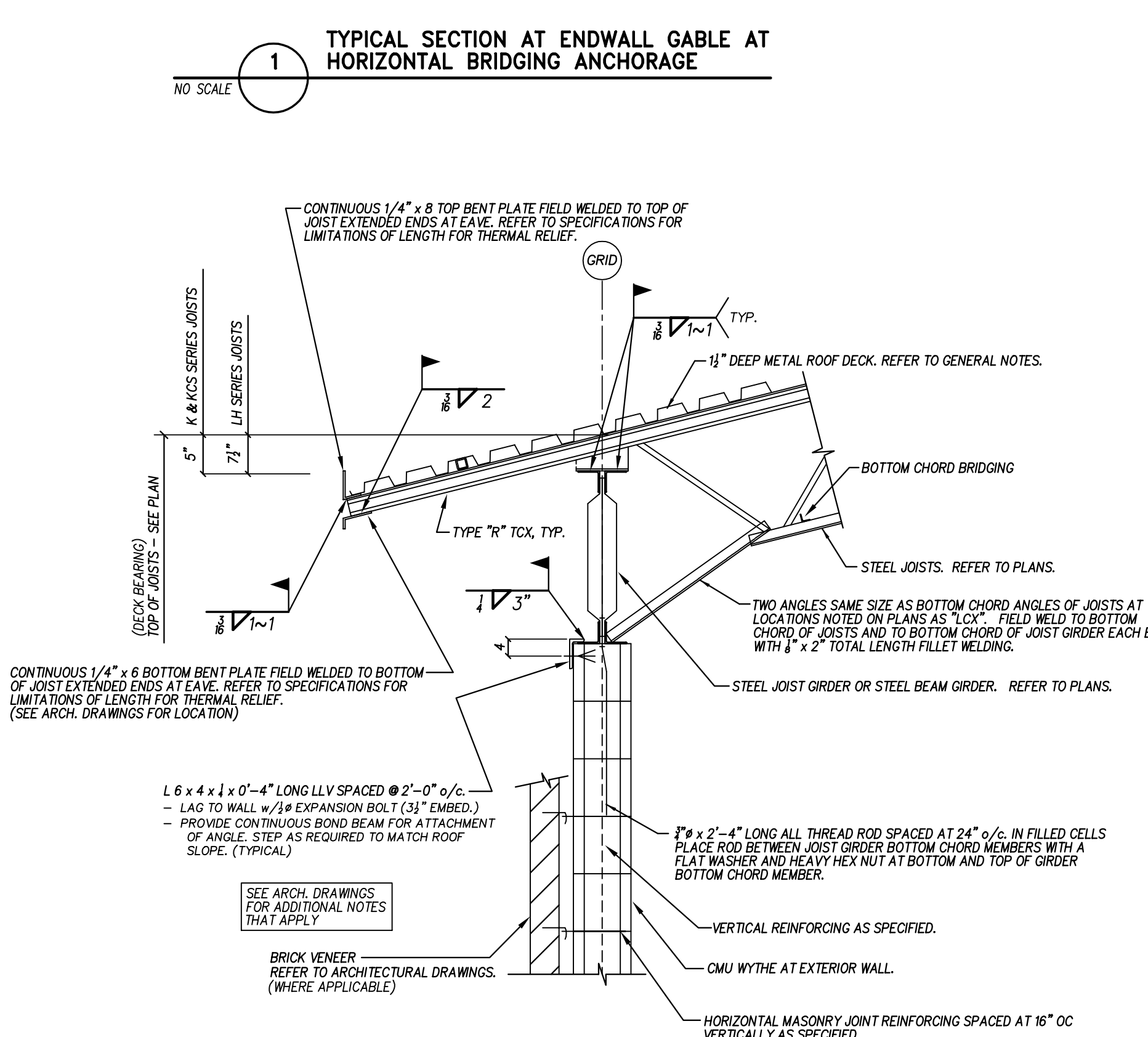
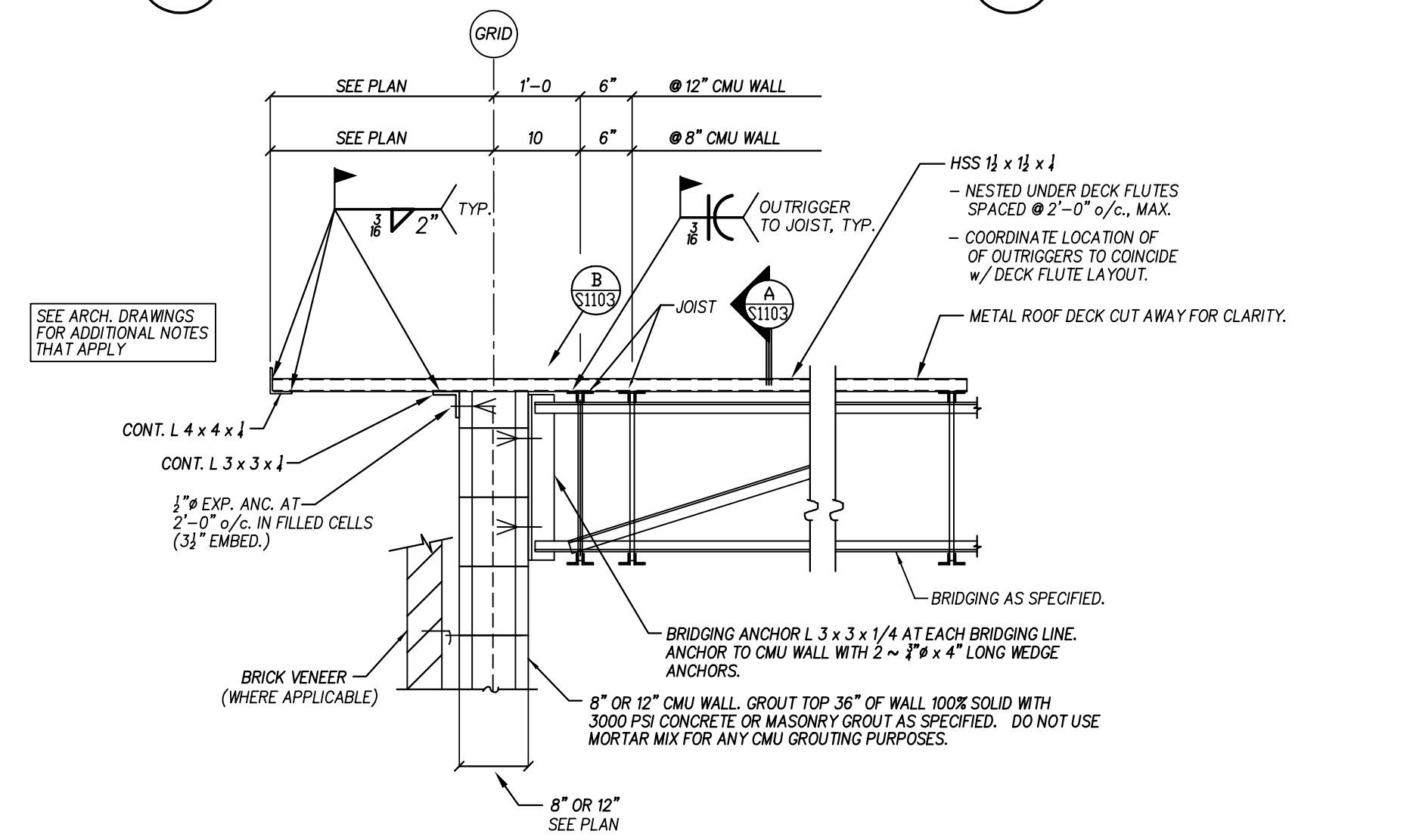
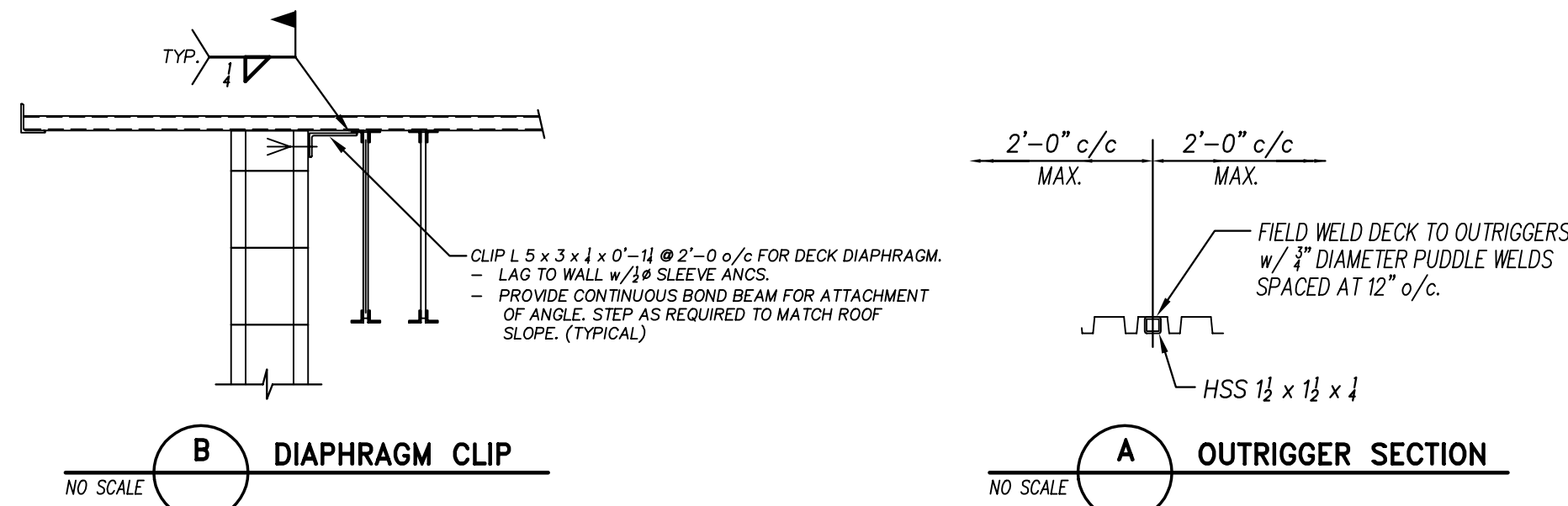
NOTE: ALL METAL STUDS AND METAL SYSTEM TO BE MANUFACTURED BY DIETRICH INDUSTRIES OR APPROVED EQUAL

CONNECTION TYPE	COMMENTS
BOTTOM TRACK TO FLOOR	2~ POWDER DRIVEN FASTENERS @ 24" o/c
STUD TO BOTTOM TRACK	ONE SCREW IN EA. FLANGE, U.O.N.
STUD TO TOP TRACK	ONE SCREW IN EA. FLANGE, U.O.N.
TOP TRACK TO BEAM/GIRDER/JOIST	2~ POWDER DRIVEN FASTENERS @ 24" o/c
PLYWOOD TO STUDS	SCREW @ 6" o/c ALONG EA. STUD
TOP PL TO TRACK	#10 TEK AT 12" o/c
FC TO STUD	4~#10 TEK
FC TO SLAB	3" EXP. ANCH.
JOIST TO TOP TRACK (BEARING)	(2) SCREWS IN FLANGE
PLYWOOD FLOORING TO JOIST	SCREW @ 12" o/c ALONG EA. JOIST
BRIDGING TO JOISTS	16 GA. CLIP ANGLE w/ 4 SCREWS
BLOCKING TO JOISTS	16 GA. CLIP ANGLE w/ 4 SCREWS
TREAD TO VERTICAL STUD	(4) #10 TEK SCREWS IN WEB
WOOD SHEATHING	8d, 12" o/c AT SUPPORTS, 6" o/c AT EDGES
HEADER TO HEADER	#10 TEK AT 12" o/c. STAGGERED (WEB TO WEB)
HEADER TO CRIPPLE	SA 18 GA. w/ 4~#8 TEK PER LEG
CRIPPLE TO LOWER TRACK	2~#8 TEK EA. FL.
HEADER TO BEARING STUD	SA 18 GA. w/ 4~#8 TEK PER LEG
BEARING STUD TO CRC BRACE	BRIDGE CLIP
BEARING STUD TO BRIDGE CLIP	4~#10 TEK
BRIDGE CLIP TO CRC	4~#10 TEK
STUD TO WALL	2 SCREWS IN EA. WEB @ 16" o/c
JOIST TO JOIST INTERFACE	ONE SCREW IN EA. FLANGE
PLYWOOD FLOORING TO JOIST	SCREW @ 12" o/c ALONG EA. JOIST
BRIDGING TO JOISTS	16 GA. CLIP ANGLE w/ 4 SCREWS
BLOCKING TO JOISTS	16 GA. CLIP ANGLE w/ 4 SCREWS
DOUBLE OR SINGLE 2x PLATE TO MASONRY	1" POWDER ACTUATED FASTENER OR MASONRY SCREW AT 12" o/c, TYPICAL

Hite associates  
ARCHITECTURE ENGINEERING TECHNOLOGY  
2600 Meridian Drive / Greenville, NC 27958 / tel (252) 757-0333

NEW CTE BUILDING FOR  
NEW BERTIE HIGH SCHOOL  
716 US 13 NORTH / NCDPS UNIT 080 - SCHOOL 312  
WINDSOR / BERTIE COUNTY / NORTH CAROLINA

Project No. 22351  
Date: 26 FEB 2025  
Drawing no. S 1102

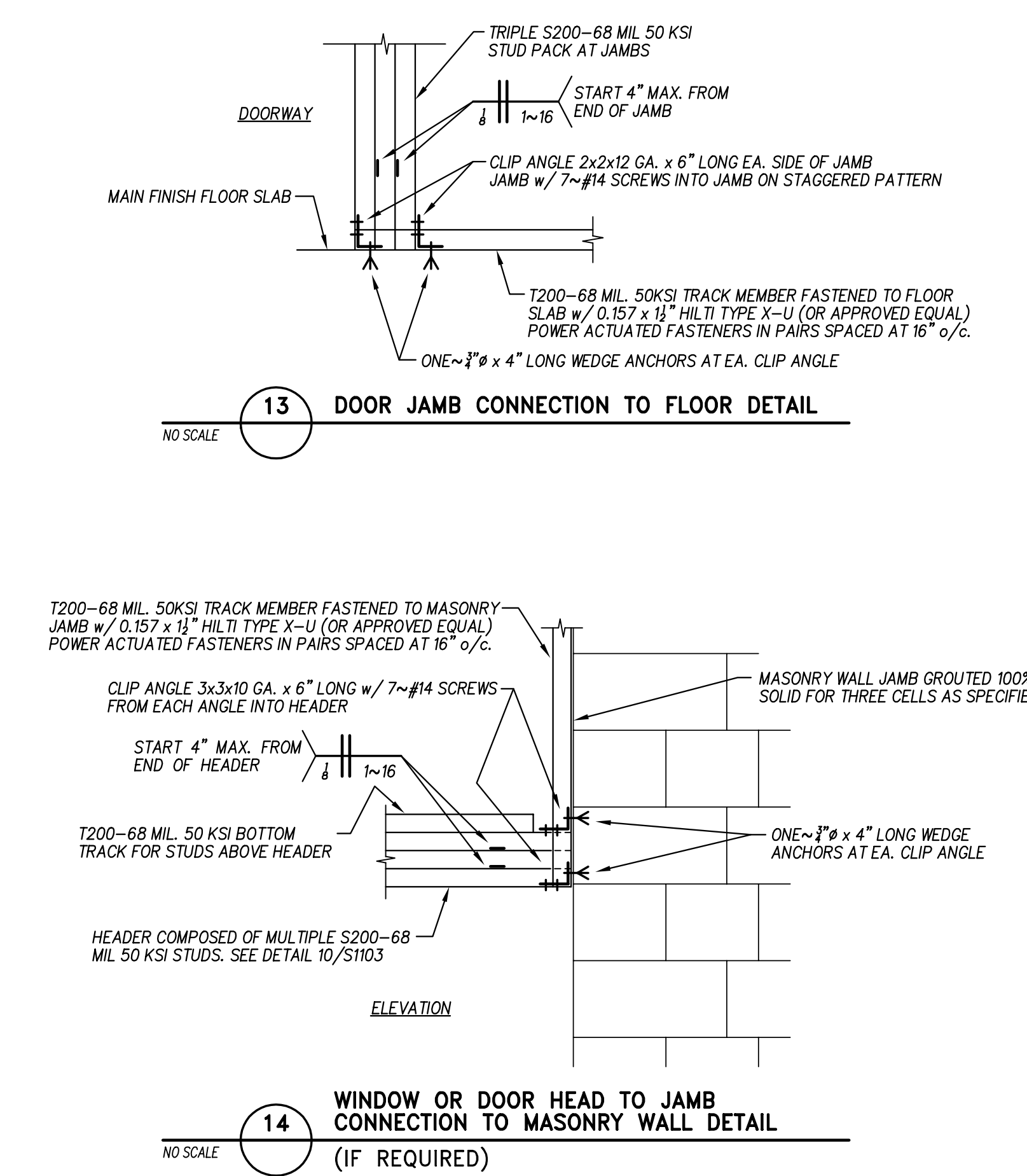
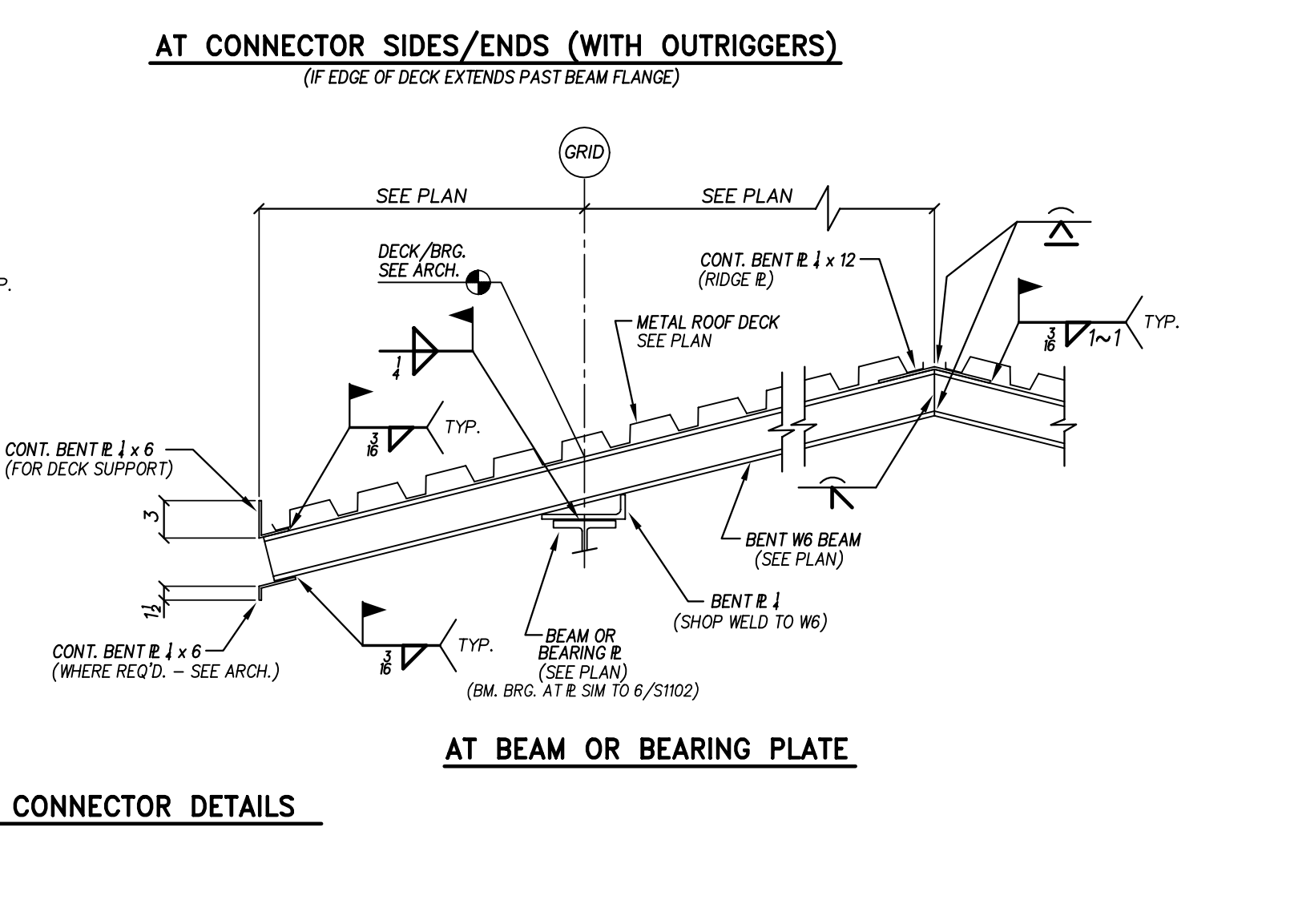
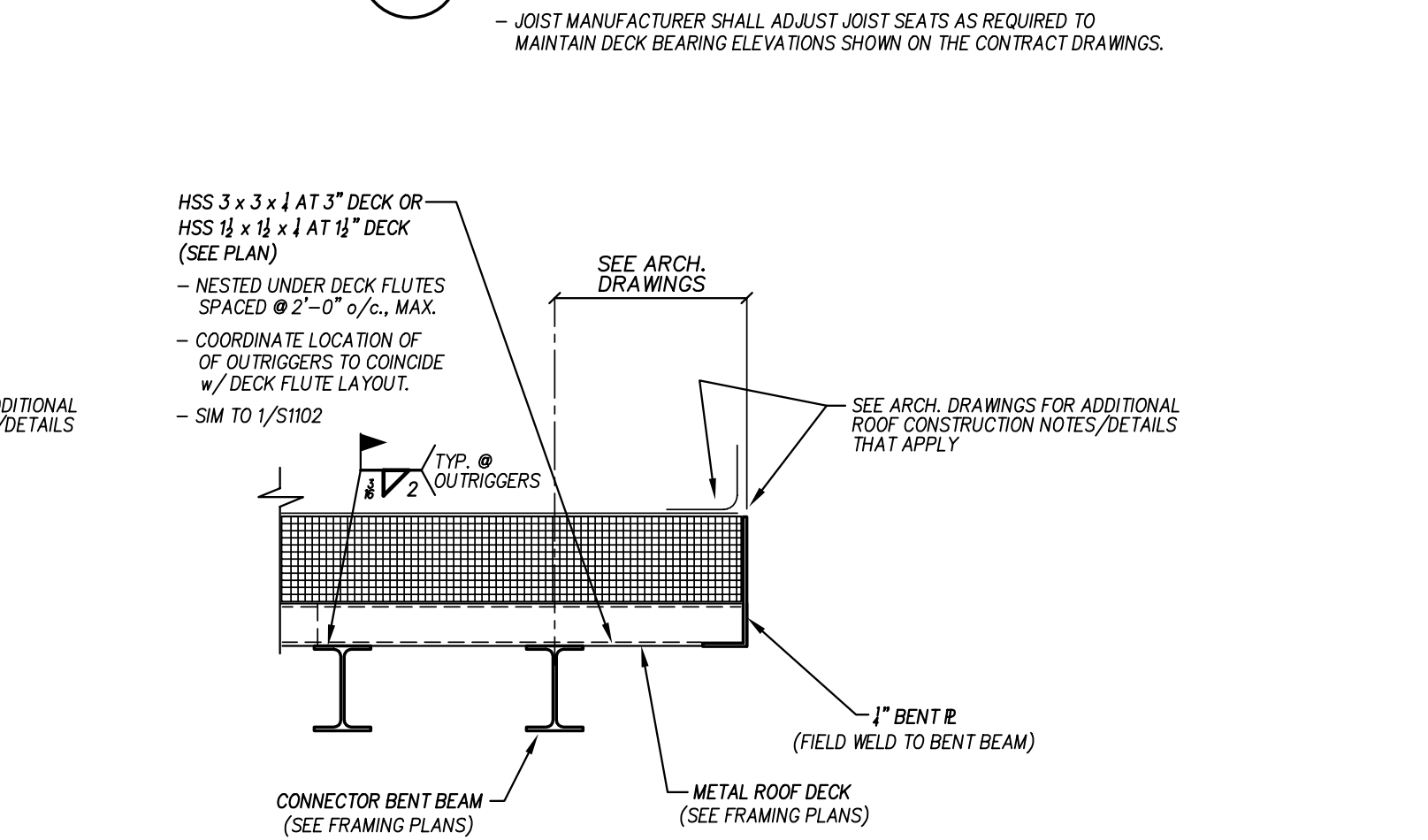
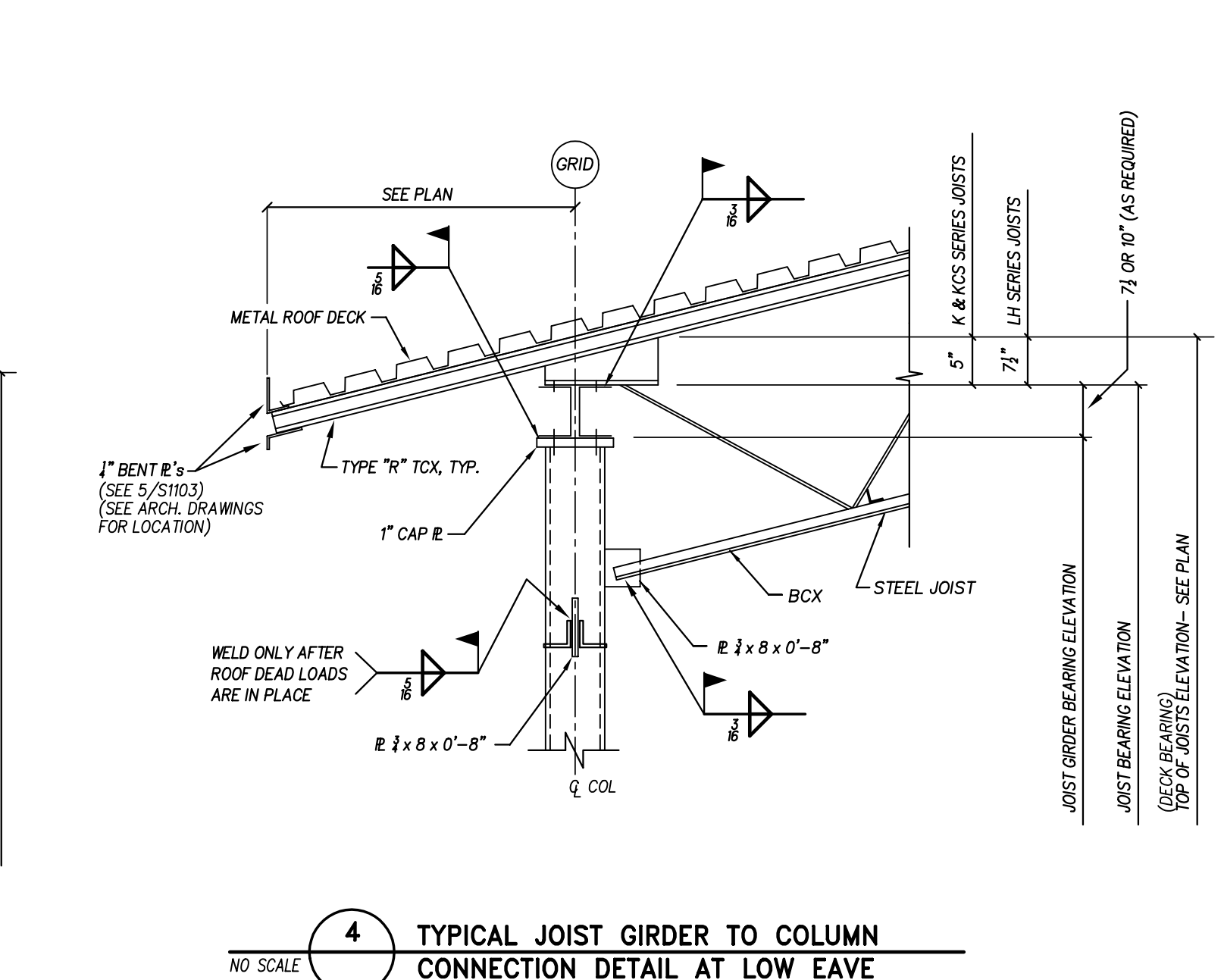
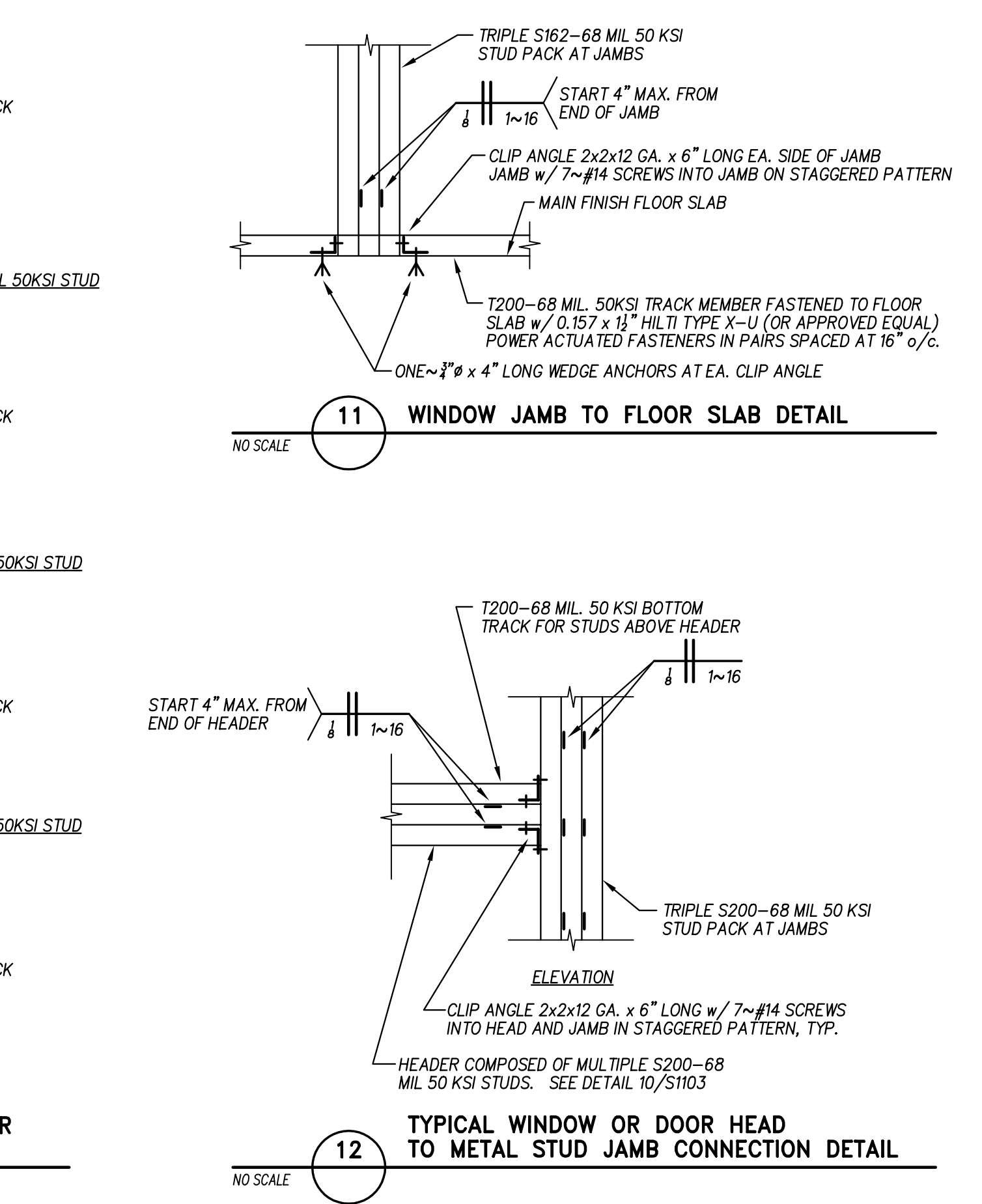
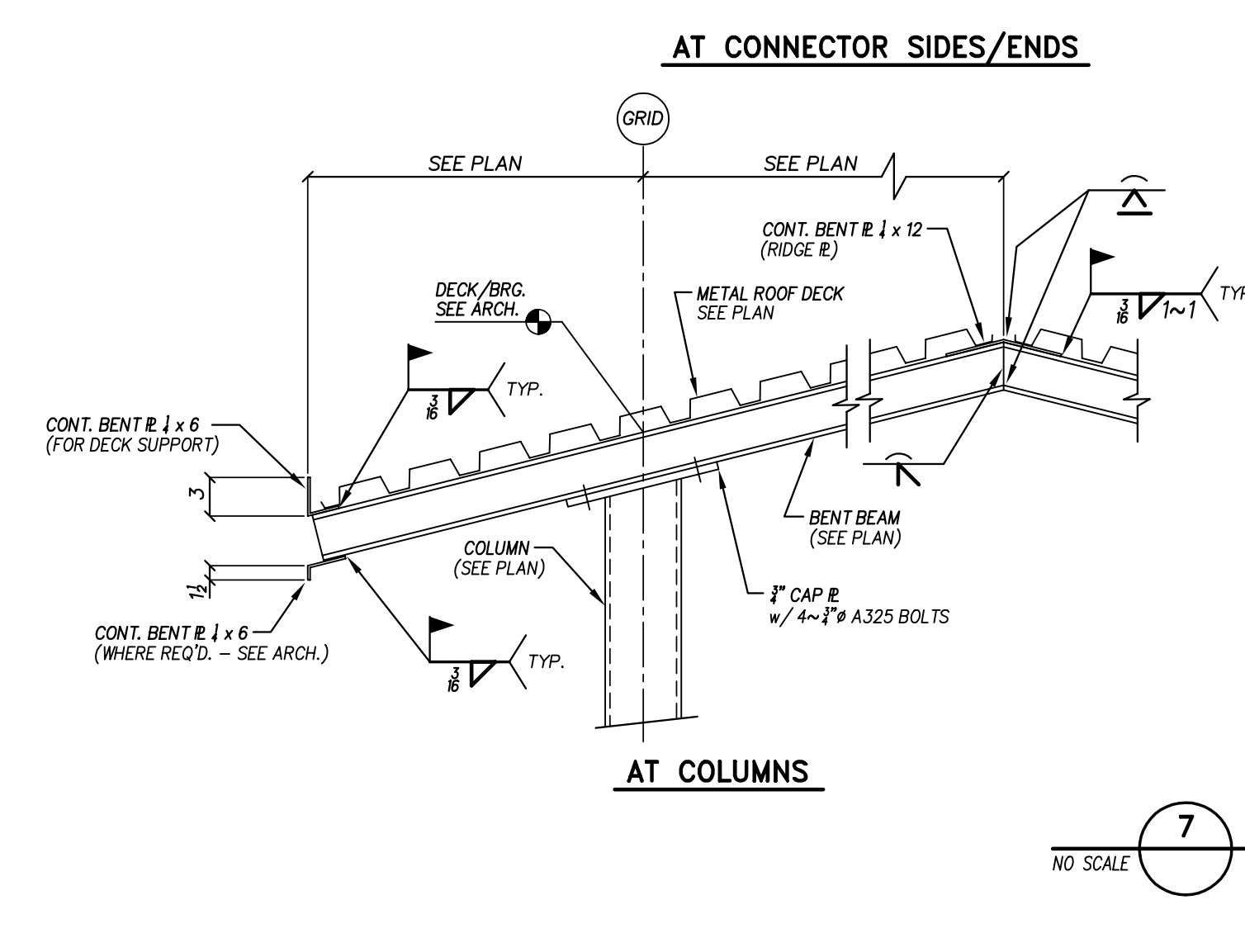
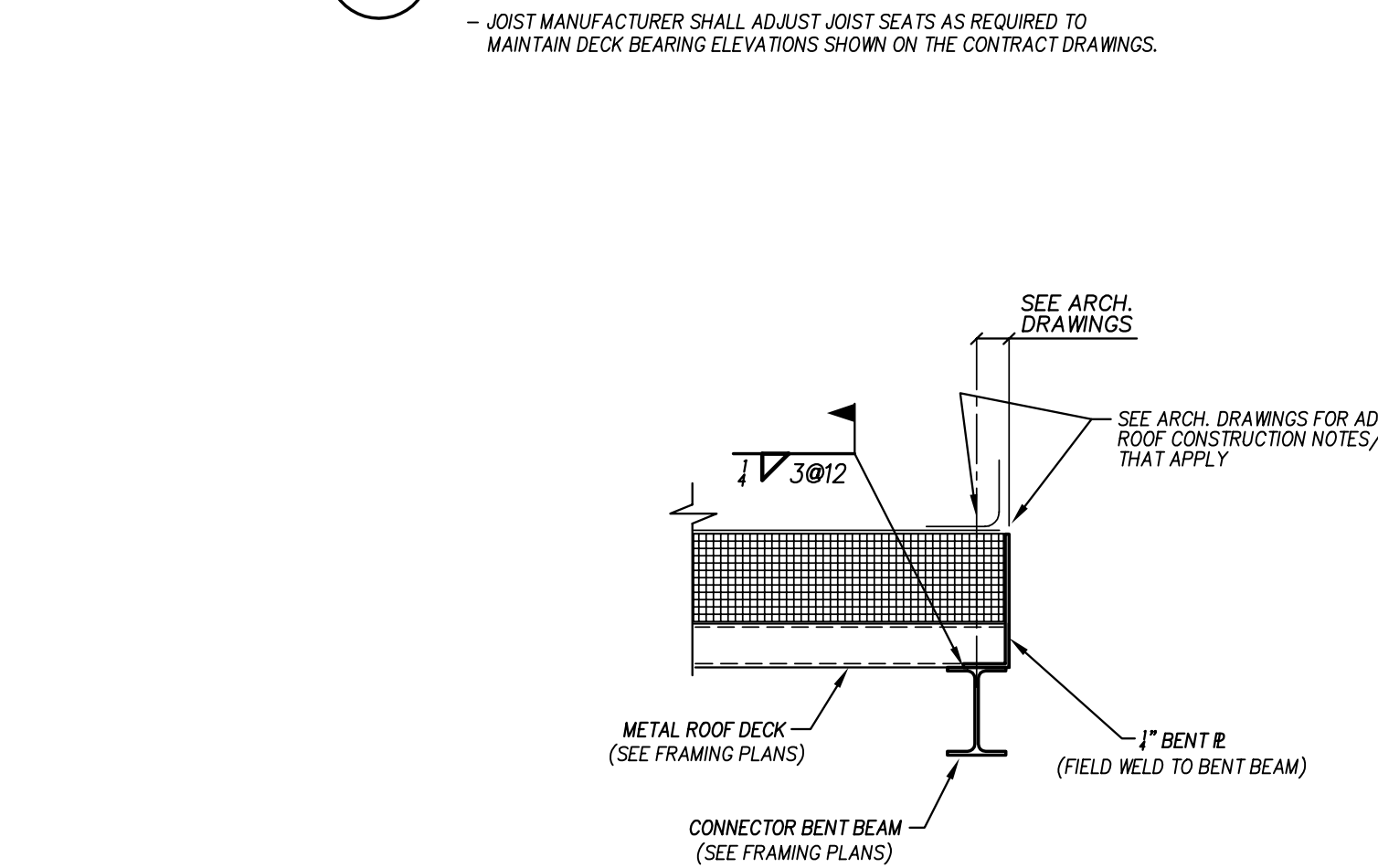
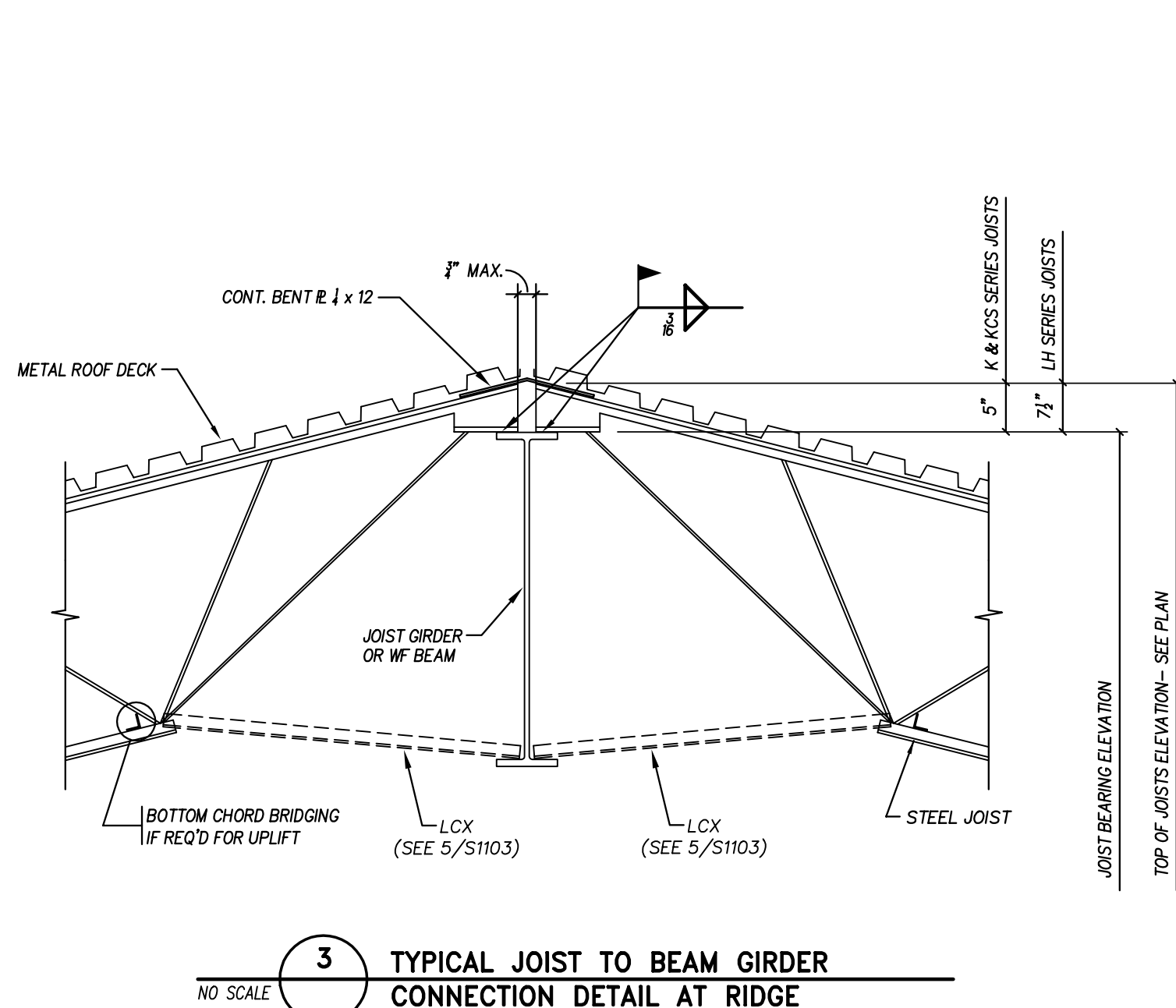


**METAL STUD GENERAL NOTES**

- ALL METAL STUD MATERIAL SHALL BE MANUFACTURED BY DIETRICH INDUSTRIES OR APPROVED EQUAL.
- CONTRACTOR SHALL INSTALL ALL COMPONENTS IN STRICT COMPLIANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND DETAILS PRIOR TO CONSTRUCTION.
- ALL METAL STUD MEMBERS SHALL HAVE  $F_y = 33$  KSI, MINIMUM.

**NOTE:** ALL METAL STUDS AND METAL SYSTEM TO BE MANUFACTURED BY DIETRICH INDUSTRIES OR EQUAL

CONNECTION TYPE	COMMENTS
BOTTOM TRACK TO FLOOR	2~ POWDER DRIVEN FASTENERS @ 24" o/c
STUD TO BOTTOM TRACK	ONE SCREW IN EA. FLANGE, U.O.N.
STUD TO TOP TRACK	ONE SCREW IN EA. FLANGE, U.O.N.
PLYWOOD TO STUDS	SCREW @ 6" o/c ALONG EA. STUD
TOP PL. TO TRACK	#10 TEK AT 12" o/c.
FC TO STUD	4~#10 TEK
FC TO SLAB	1" EXP. ANCH.
JOIST TO TOP TRACK (BEARING)	(2) SCREWS IN FLANGE
PLYWOOD FLOORING TO JOIST	SCREW @ 12" o/c ALONG EA. JOIST
BRIDGING TO JOISTS	16 GA. CLIP ANGLE w/ 4 SCREWS
BLOCKING TO JOISTS	16 GA. CLIP ANGLE w/ 4 SCREWS
TREAD TO VERTICAL STUD	(4) #10 TEK SCREWS IN WEB
WOOD SHEATHING	8d, 12" o/c AT SUPPORTS, 6" o/c AT EDGES
HEADER TO HEADER	#10 TEK AT 12" o/c STAGGERED (WEB TO WEB)
HEADER TO CRIPPLE	SA18 GA. w/ 4#8 TEK PER LEG
CRIPPLE TO LOWER TRACK	2~#8 TEK EA. FL.
HEADER TO BEARING STUD	SA 18 GA. w/ 4~#8 TEK PER LEG
BEARING STUD TO CRC BRACE	BRIDGE CLIP
BEARING STUD TO BRIDGE CLIP	4~#10 TEK
BRIDGE CLIP TO CRC	4~#10 TEK
STUD TO WALL	2 SCREWS IN EA. WEB @ 16" o/c
JOIST TO JOIST INTERFACE	ONE SCREW IN EA. FLANGE
PLYWOOD FLOORING TO JOIST	SCREW @ 12" o/c ALONG EA. JOIST
BRIDGING TO JOISTS	16 GA. CLIP ANGLE w/ 4 SCREWS
BLOCKING TO JOISTS	16 GA. CLIP ANGLE w/ 4 SCREWS



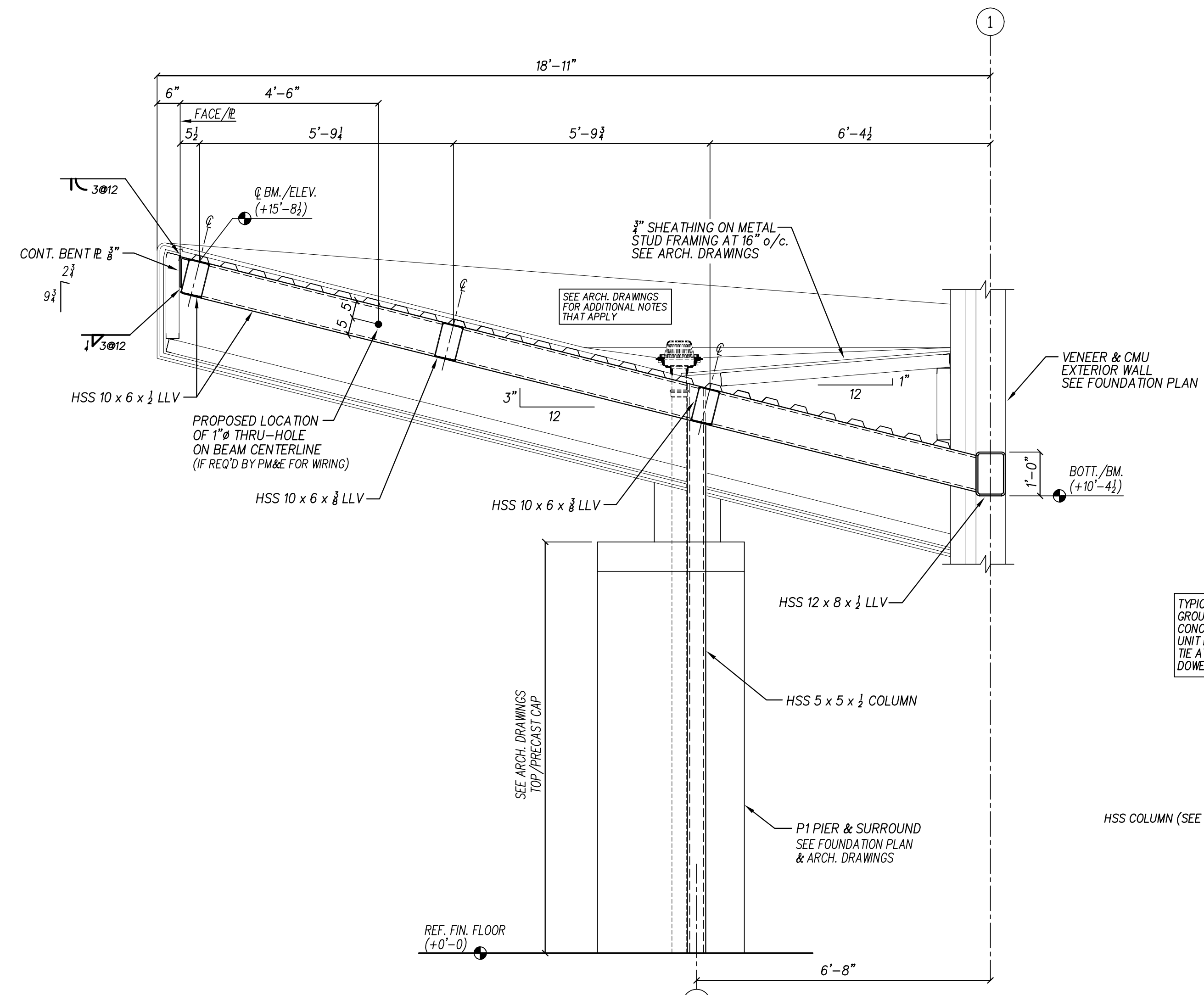
Revision	Date

**Hite associates**  
ARCHITECTURE/ENGINEERING/TECHNOLOGY  
2600 Meridian Drive / Greenville, NC 27838 / tel (252) 757-0333

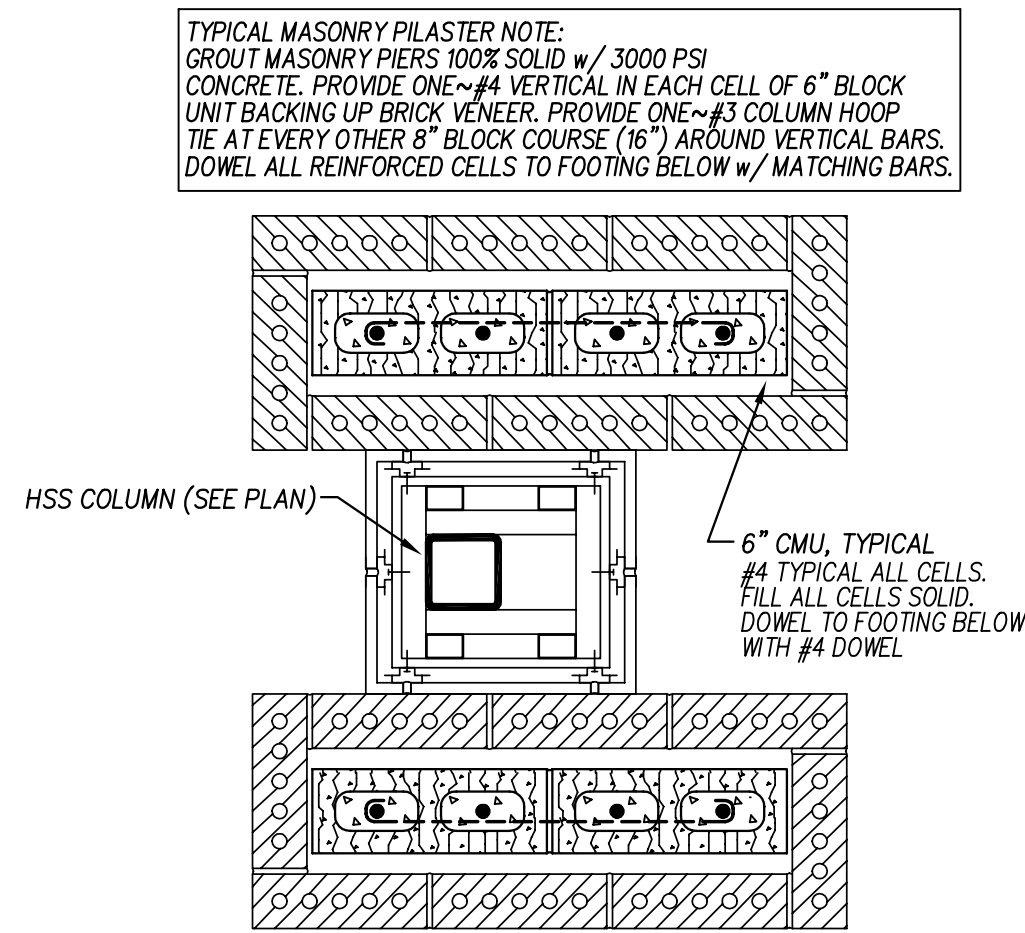
NE, LIC. C-1020  
**QED**  
QUEEN ENGINEERING & DESIGN  
2600 MERIDIAN DRIVE, GREENVILLE, NC 27838  
252-757-0333  
26 FEB 2025

NEW CTE BUILDING FOR  
**NEW BERTIE HIGH SCHOOL**  
716 US 13 NORTH / NCDPS UNIT 080 - SCHOOL 312  
WINDSOR / BERTIE COUNTY / NORTH CAROLINA

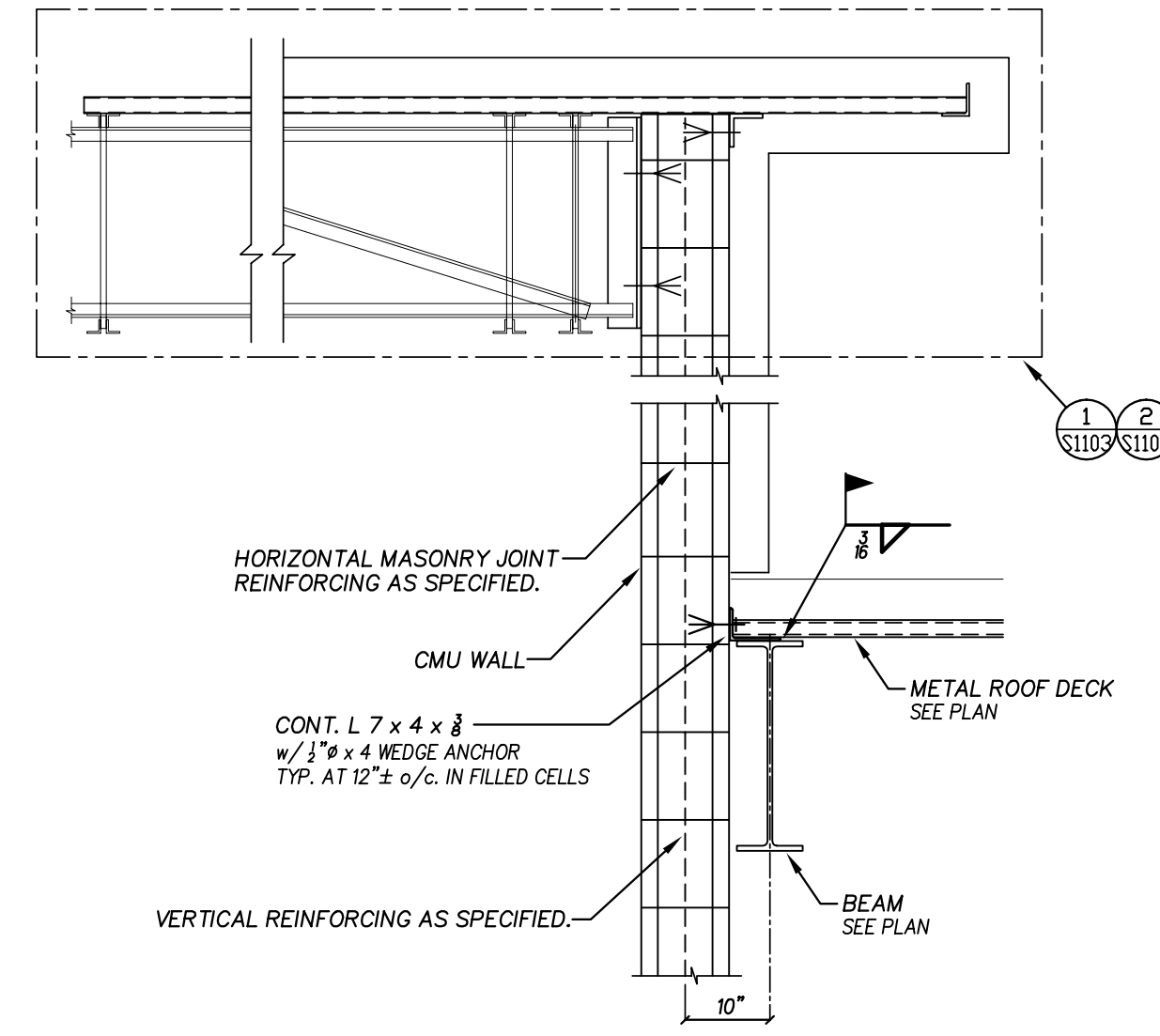
Project No. 22351  
Date: 26 FEB 2025  
Drawing No. S 1103



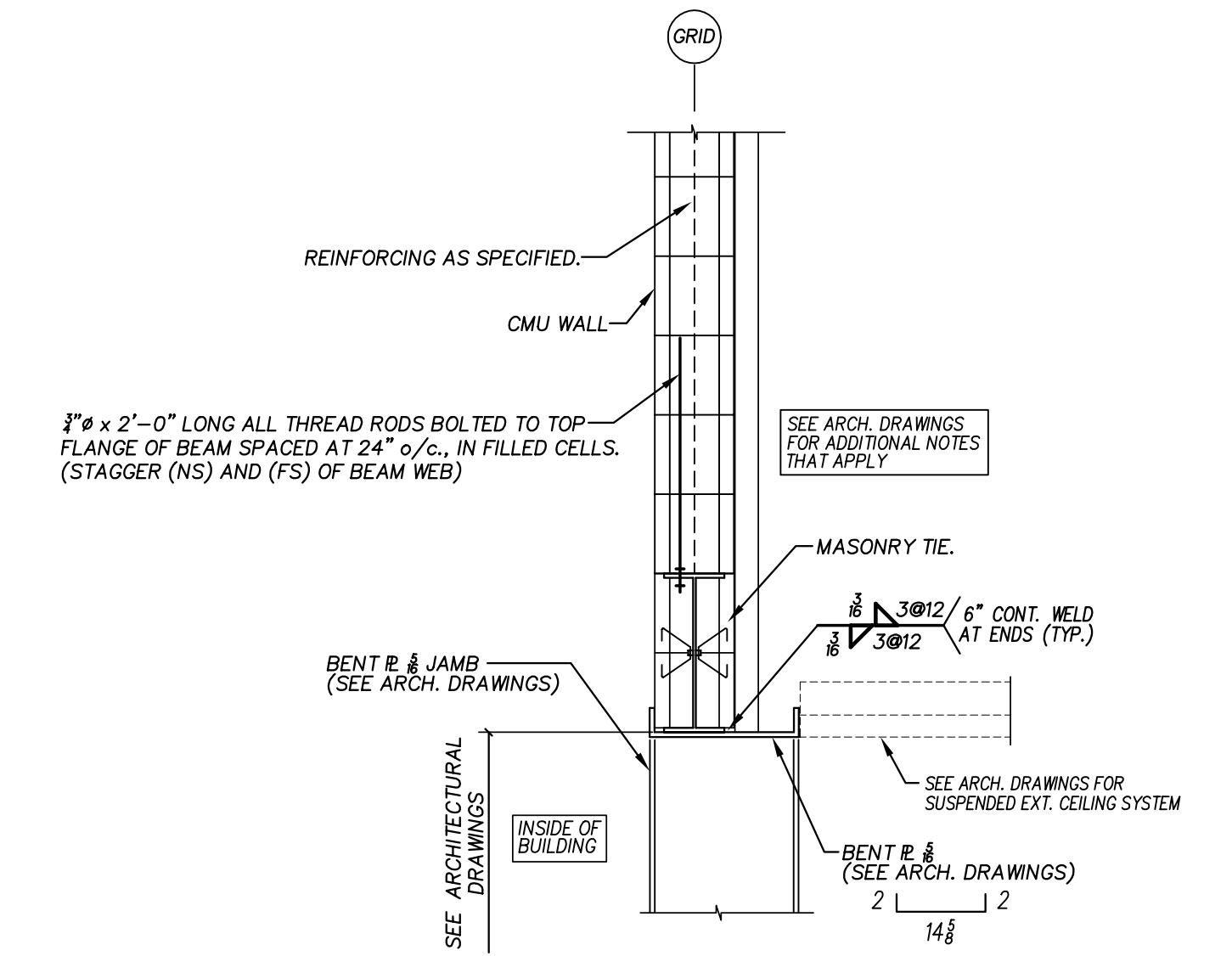
**1 FEATURE CANOPY SECTION**  
NO SCALE  
VERIFY ALL DIMENSIONS/ELEVATIONS WITH ARCHITECTURAL DRAWINGS.



**2 PILASTER "P1"**  
NO SCALE  
NOTE: SEE ARCH. DRAWINGS FOR ADDITIONAL NOTES AND SECTIONS THAT APPLY. AS NOTED "P1" ON PLAN.



**3 HIGH/LOW BEAM SECTION**  
NO SCALE



**4 WF LINTEL SECTION AT OVERHEAD DOOR**  
NO SCALE

No.	Date	Revision

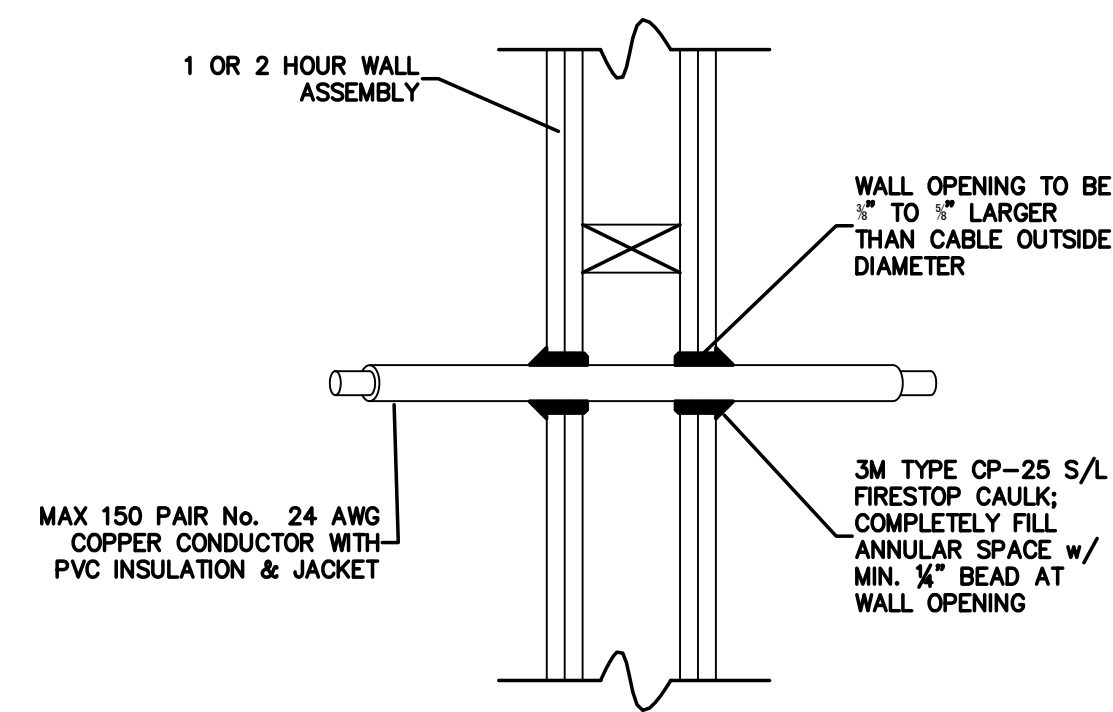
**Hite associates**  
ARCHITECTURE / ENGINEERING / TECHNOLOGY  
2600 Meridian Drive / Greenville, NC 27838 / tel (252) 757-0333

NE LIC C-1050  
**QED**  
QUINN ENGINEERING & DESIGN  
2600 MERIDIAN DRIVE, GREENVILLE, NC 27838  
PH: 252-757-0333  
WWW.QED-NC.COM  
BRUCE L. QUINN  
ENGINEER  
19891  
26 FEB 2025

NEW CTE BUILDING FOR  
**NEW BERTIE HIGH SCHOOL**  
716 US 13 NORTH / NCDPS UNIT 080 - SCHOOL 312  
WINDSOR / BERTIE COUNTY / NORTH CAROLINA

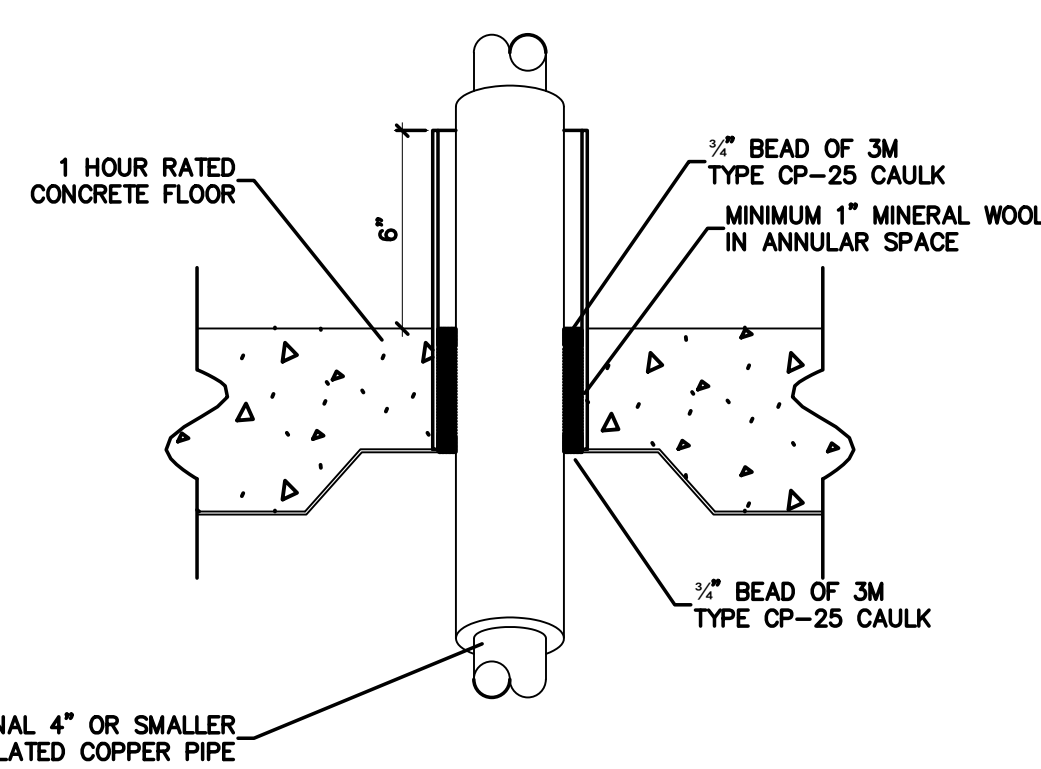
Project No. 22351  
Date: 26 FEB 2025  
Drawing no. S 1104





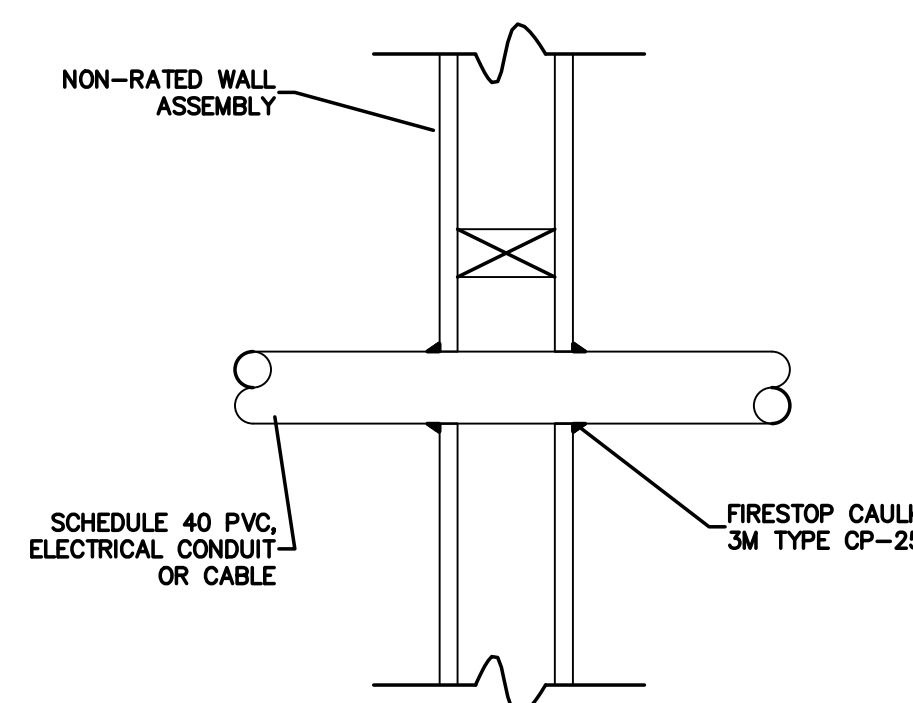
FIRESTOP PENETRATION UL # W-L-3001

001.16 CABLE THROUGH 1 OR 2 HOUR RATED GYPBOARD WALL  
SCALE: none

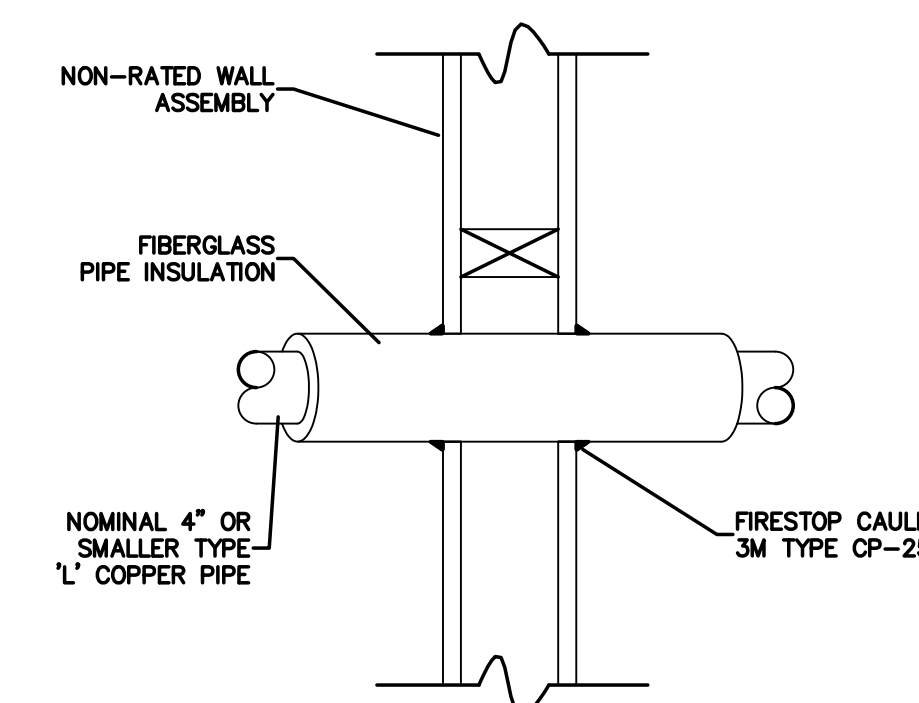


FIRESTOP PENETRATION UL # C-AJ-5001

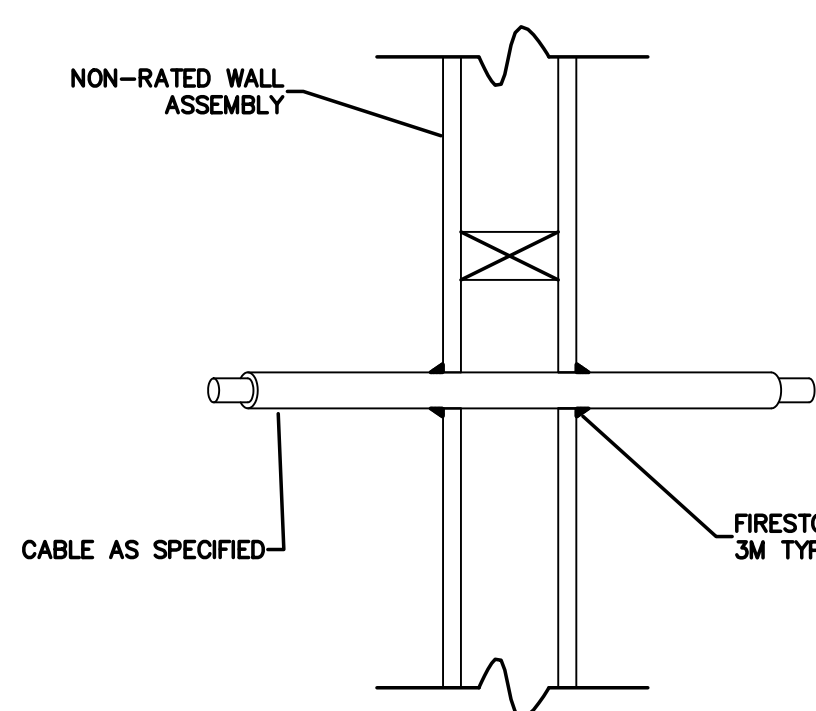
001.12 INSULATED PIPE THRU 1 HOUR RATED CONCRETE FLOOR  
SCALE: none



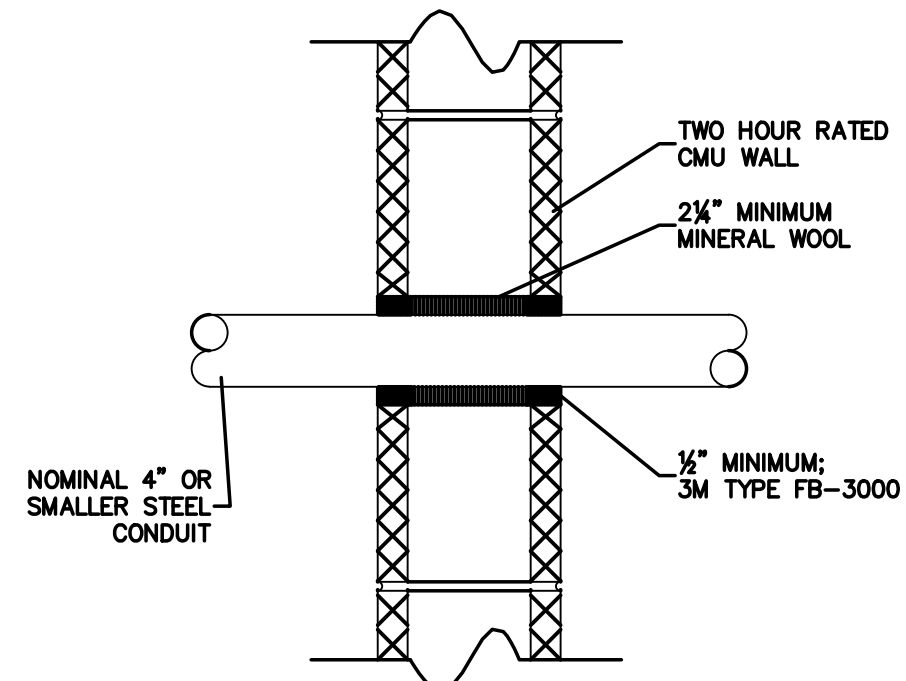
001.8 PIPE / CONDUIT / CABLE THRU NON-RATED WALL  
SCALE: none



001.4 INSULATED PIPE THRU NON-RATED WALL  
SCALE: none

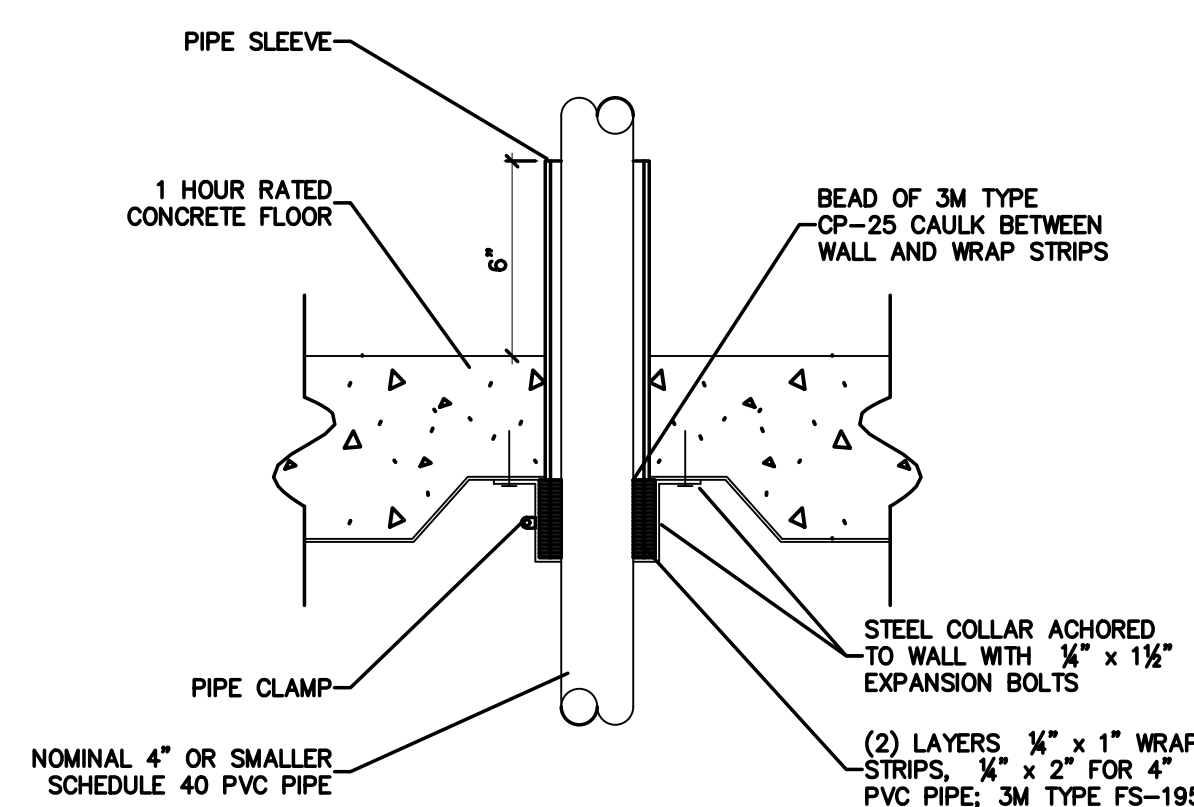


001.15 CABLE THRU NON-RATED WALL  
SCALE: none



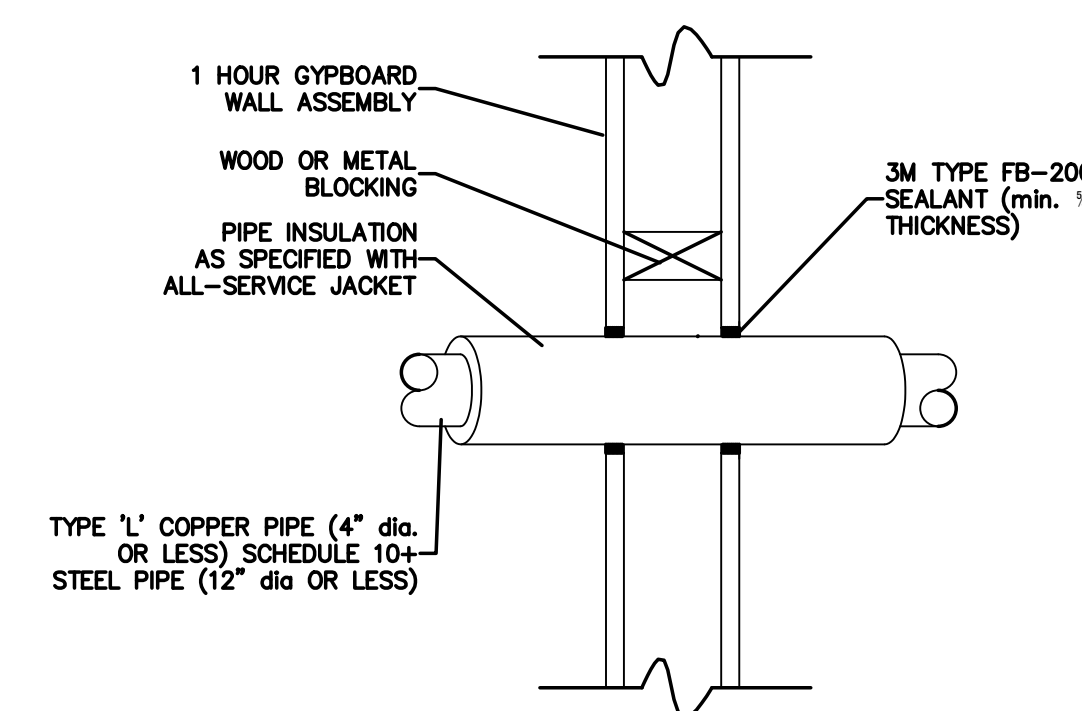
FIRESTOP PENETRATION UL # C-AJ-1014

001.11 CONDUIT THRU 2 HOUR RATED CMU WALL  
SCALE: none



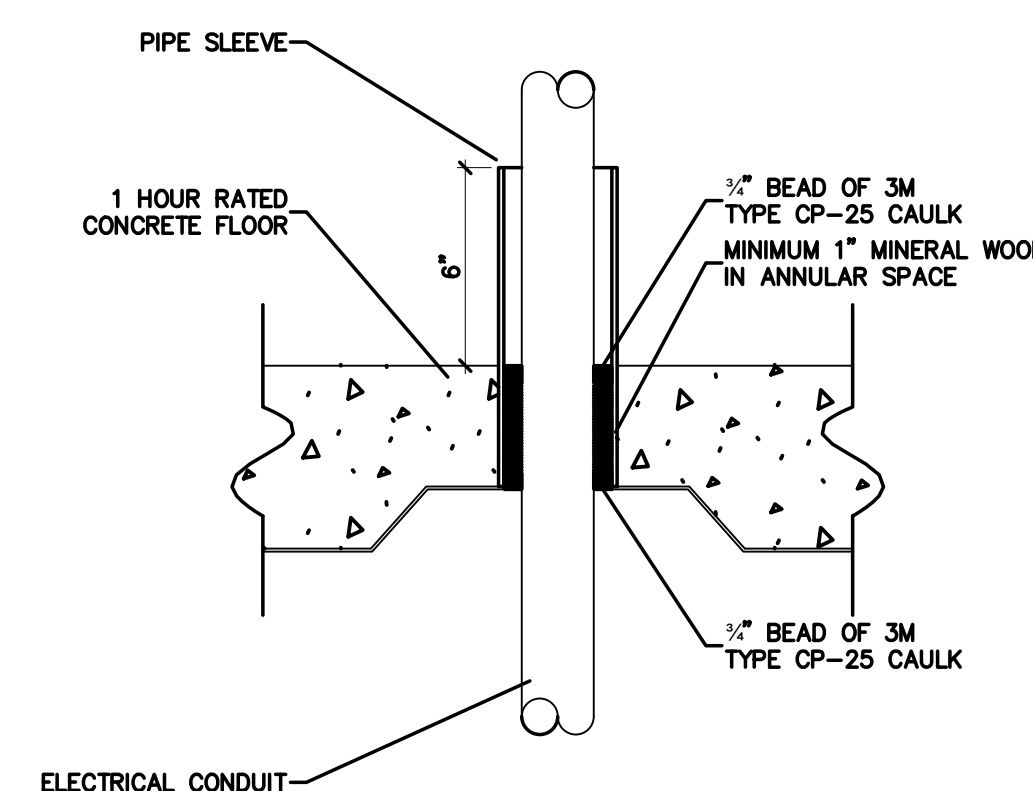
FIRESTOP PENETRATION UL # C-AJ-2001

001.7 PVC PIPE THRU 1 HOUR RATED CONCRETE FLOOR  
SCALE: none



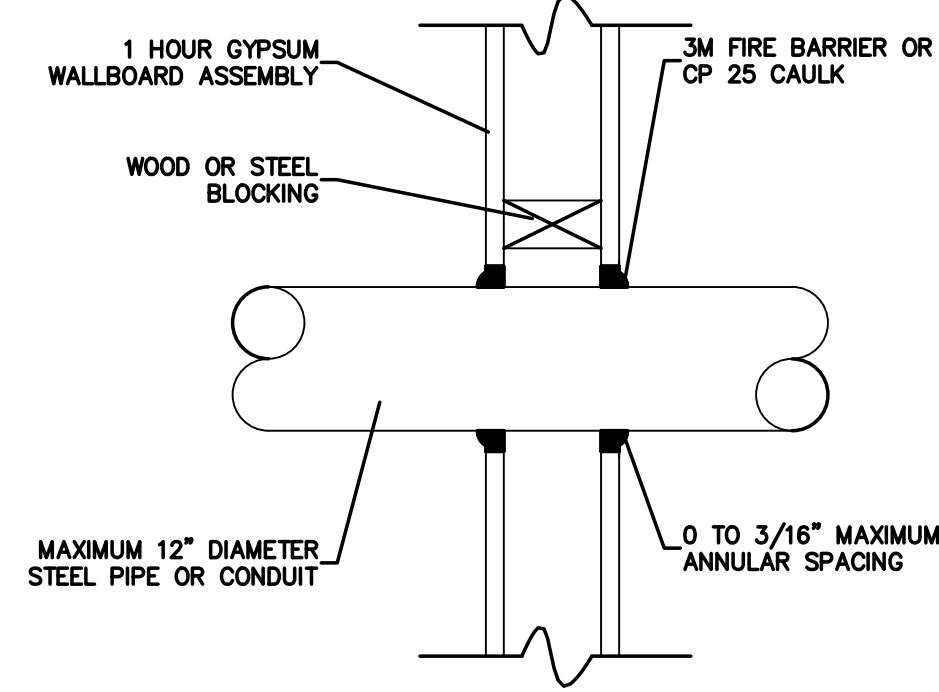
FIRESTOP PENETRATION UL # W-L-5032

001.3 INSULATED PIPE THRU 1 HOUR RATED GYPBOARD WALL  
SCALE: none



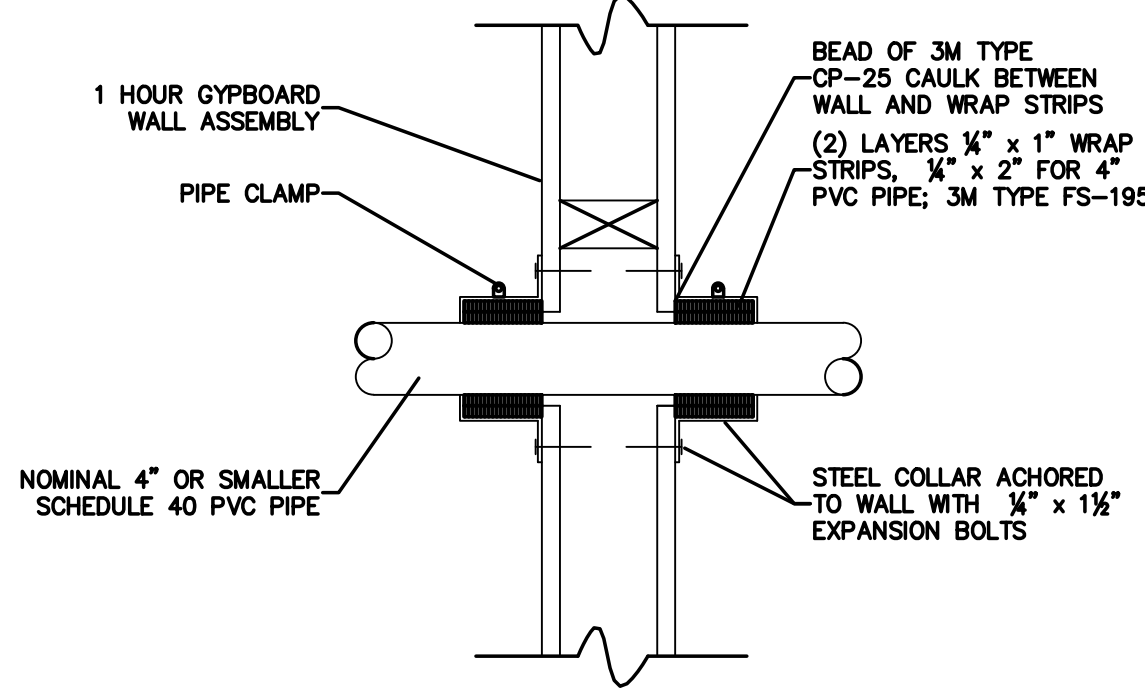
FIRESTOP PENETRATION UL # C-AJ-2001

001.14 CONDUIT THRU 1 HOUR RATED CONCRETE FLOOR  
SCALE: none



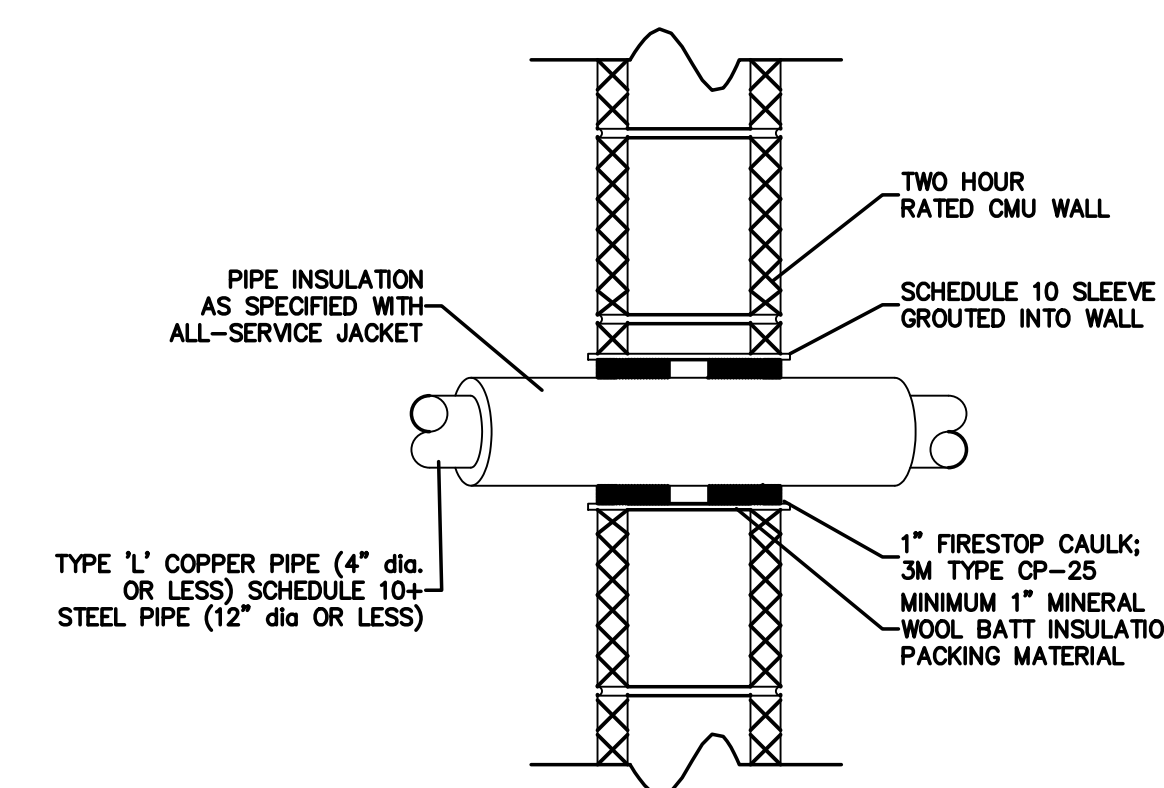
FIRESTOP PENETRATION UL # W-L-1001

001.10 CONDUIT THRU 1 HOUR RATED GYPBOARD WALL  
SCALE: none



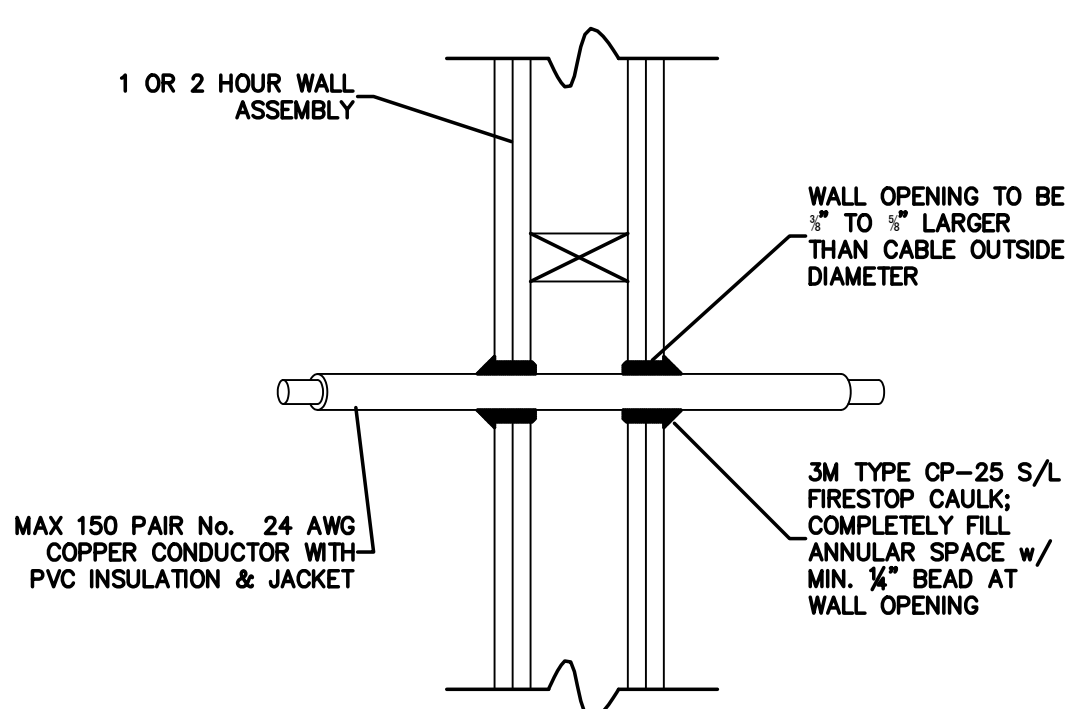
FIRESTOP PENETRATION UL # W-L-2002

001.6 PVC PIPE THRU 1 HOUR RATED GYPBOARD WALL  
SCALE: none



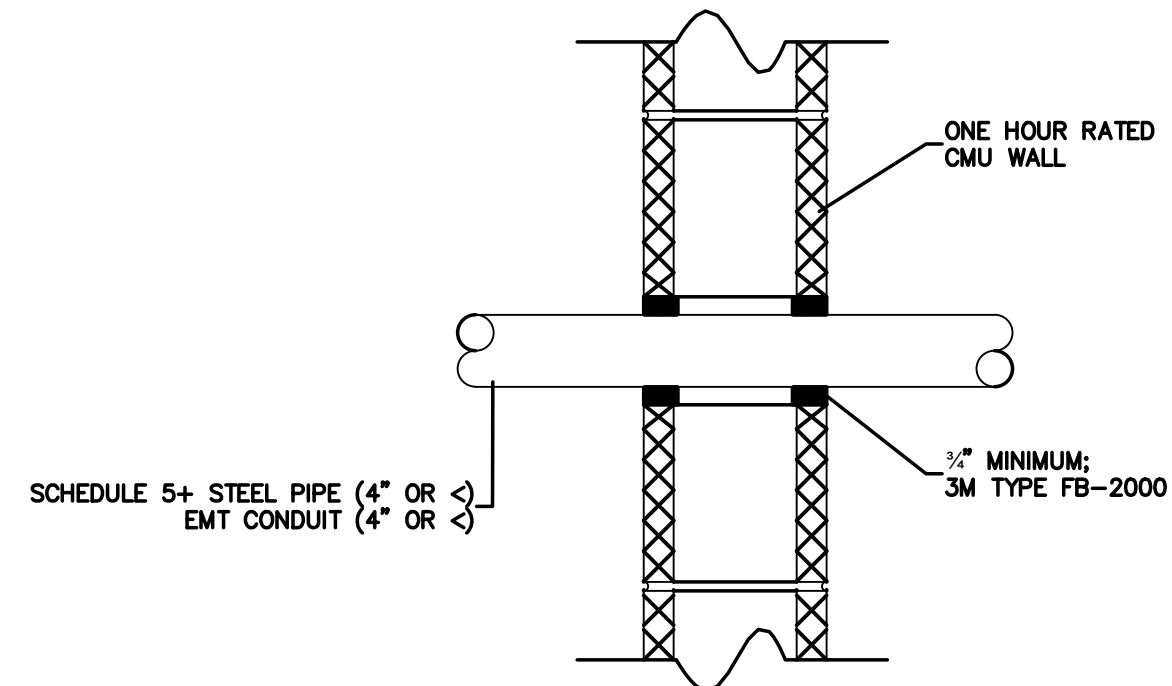
FIRESTOP PENETRATION UL # C-AJ-5001

001.2 INSULATED PIPE THRU 2 HOUR RATED CMU WALL  
SCALE: none



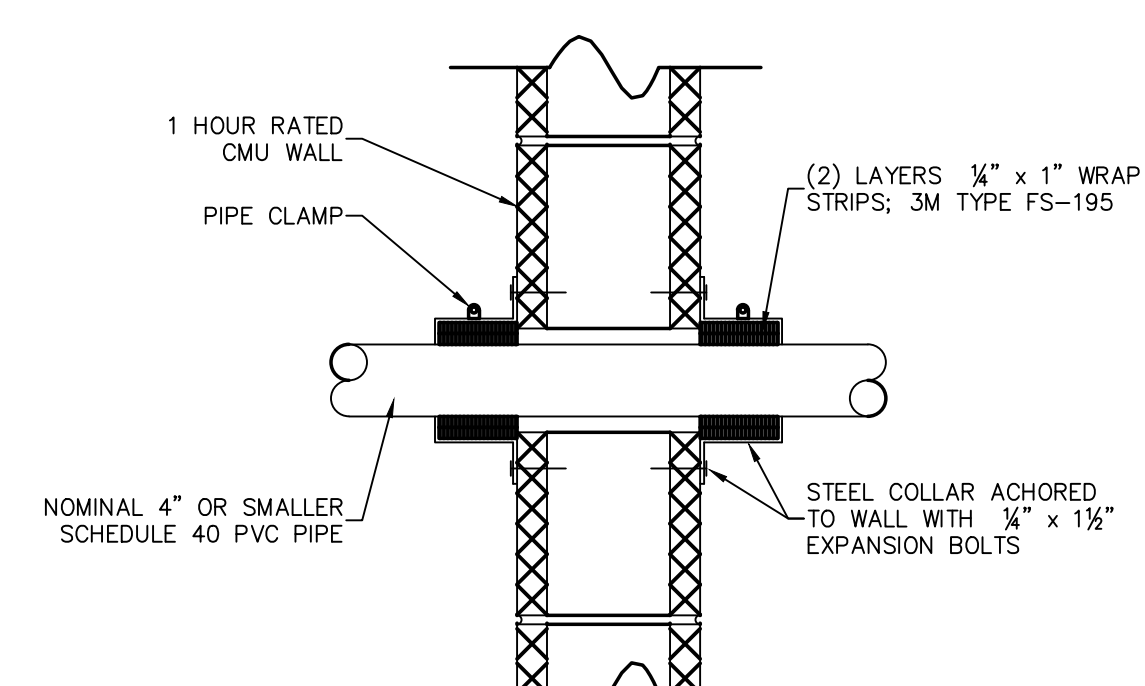
FIRESTOP PENETRATION UL # W-L-3001

001.13 CABLE THROUGH 1 OR 2 HOUR RATED GYPBOARD WALL  
SCALE: none



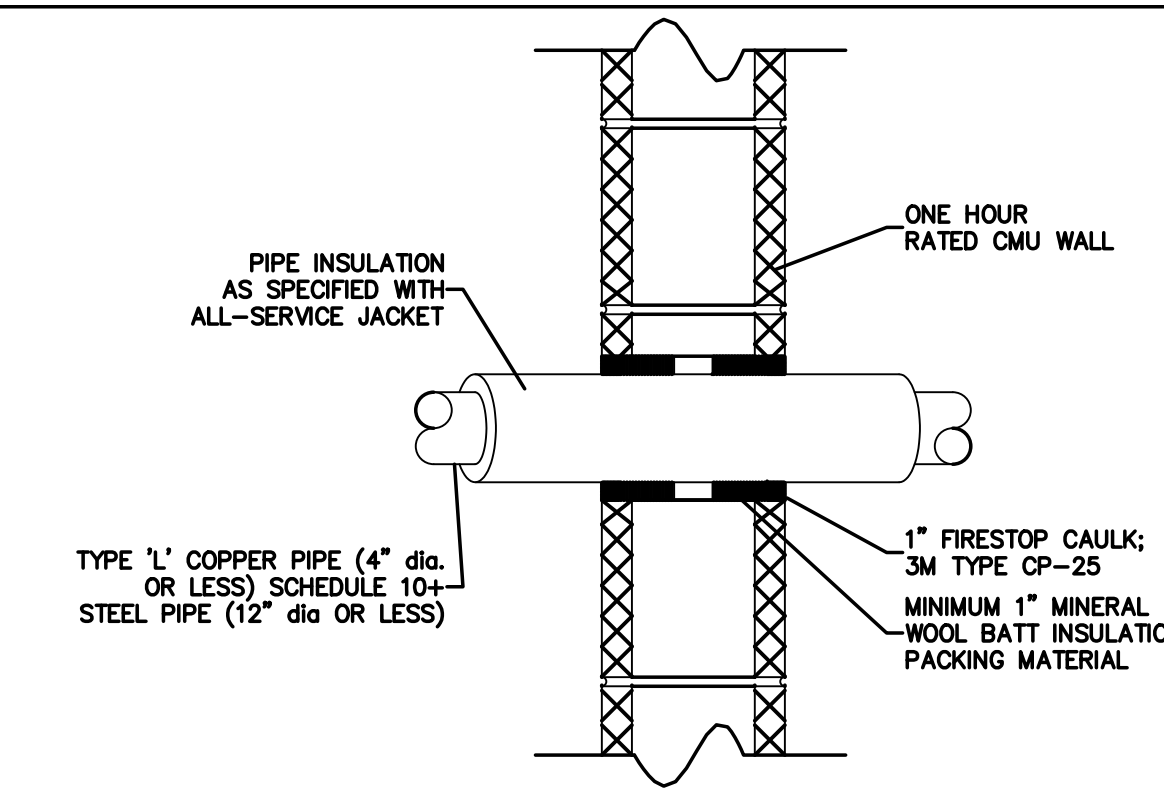
FIRESTOP PENETRATION UL # C-AJ-1013

001.9 CONDUIT THRU 1 HOUR RATED CMU WALL  
SCALE: none



FIRESTOP PENETRATION UL # C-AJ-2025

001.5 PVC PIPE THRU 1 HOUR RATED CMU WALL  
SCALE: none



FIRESTOP PENETRATION UL # C-AJ-5001

001.1 INSULATED PIPE THRU 1 HOUR RATED CMU WALL  
SCALE: none

NOTE: ALL MEMBRANE PENETRATIONS SHALL BE SEALED PER THE CORRESPONDING THROUGH PENETRATION DETAIL PER NC BUILDING CODE.

ES Project No. ES24055  
 102-62 Rogeway Blvd., Greenville, NC 27834  
 E-Mail Address: general@hiteassociates.com  
 New (919) 438-0328 • Fax (919) 438-0462 • File #C-1073

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 SOURCE OF NC, P.A.

Professional Seal: D. Hite, P.E., No. 12125, State of NC, Mechanical Engineering, expires 12/31/25.

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 2600 Meridian Drive / Greenville, NC 27834 / Tel (252) 757-0333

Professional Seal: HITE ASSOCIATES, P.C., ENGINEER, STATE OF NC, LICENSE NO. 4118, EXPIRES 12/31/25.

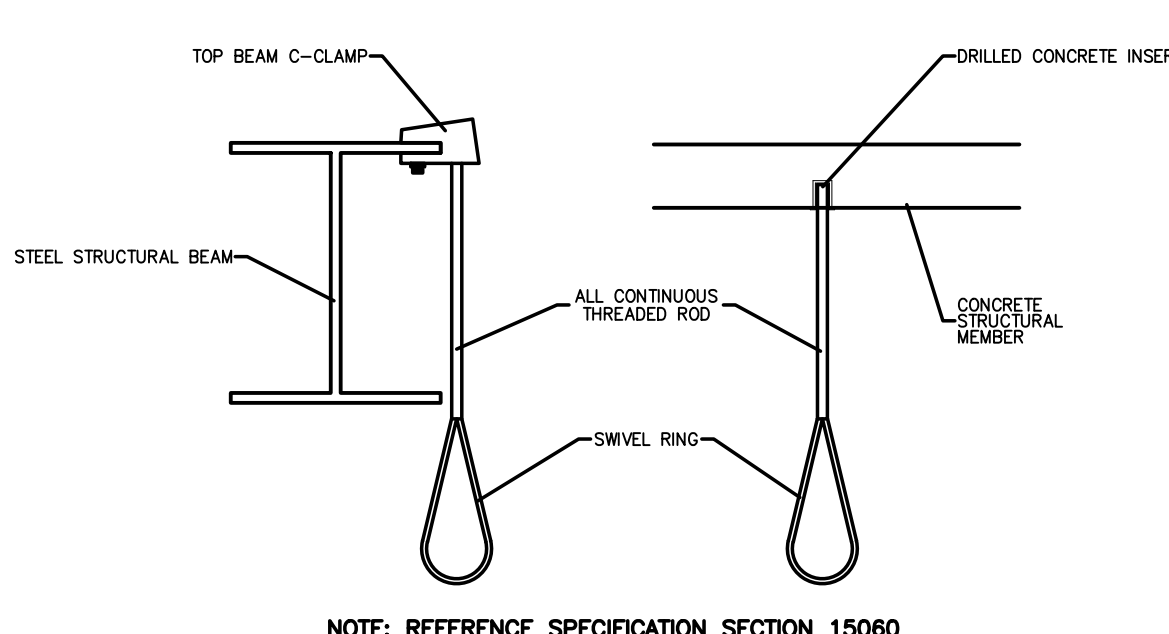
NEW CTE BUILDING FOR  
**Bertie High School**  
 716 US 13 North / NCDPS Unit 080 - School 312  
 Windsor / Bertie County / North Carolina

Project No. 22351  
 Date: March 2025  
 Drawing No. **FP 001**

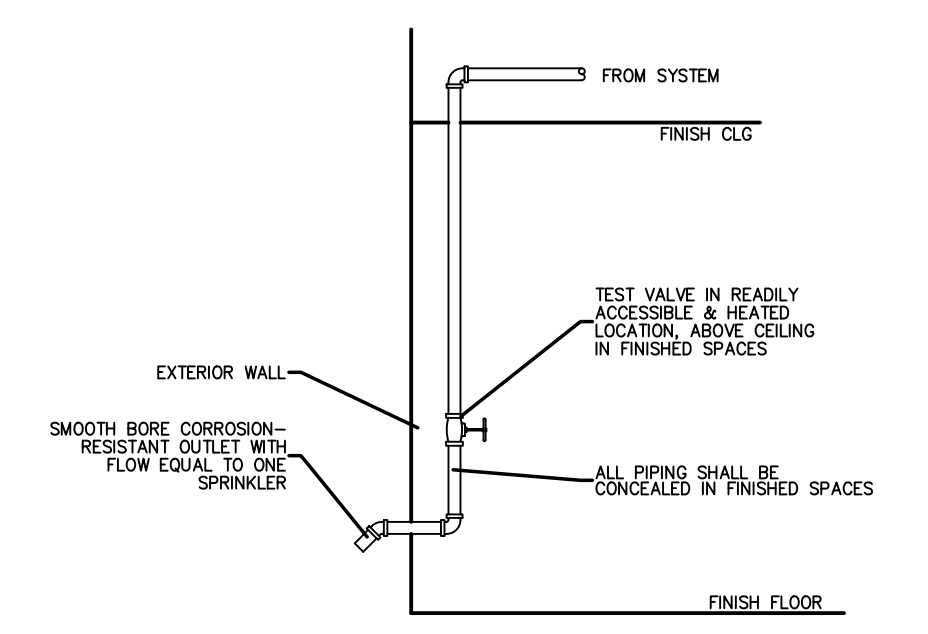




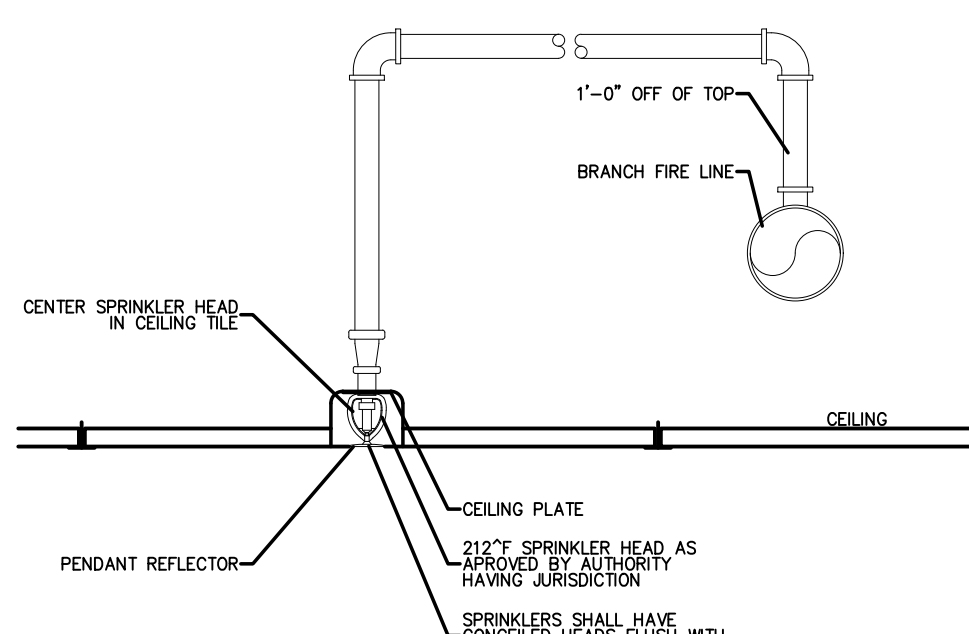
**101.1 MAIN FLOOR SPRINKLER PLAN**  
SCALE: 1/8"=1'-0"



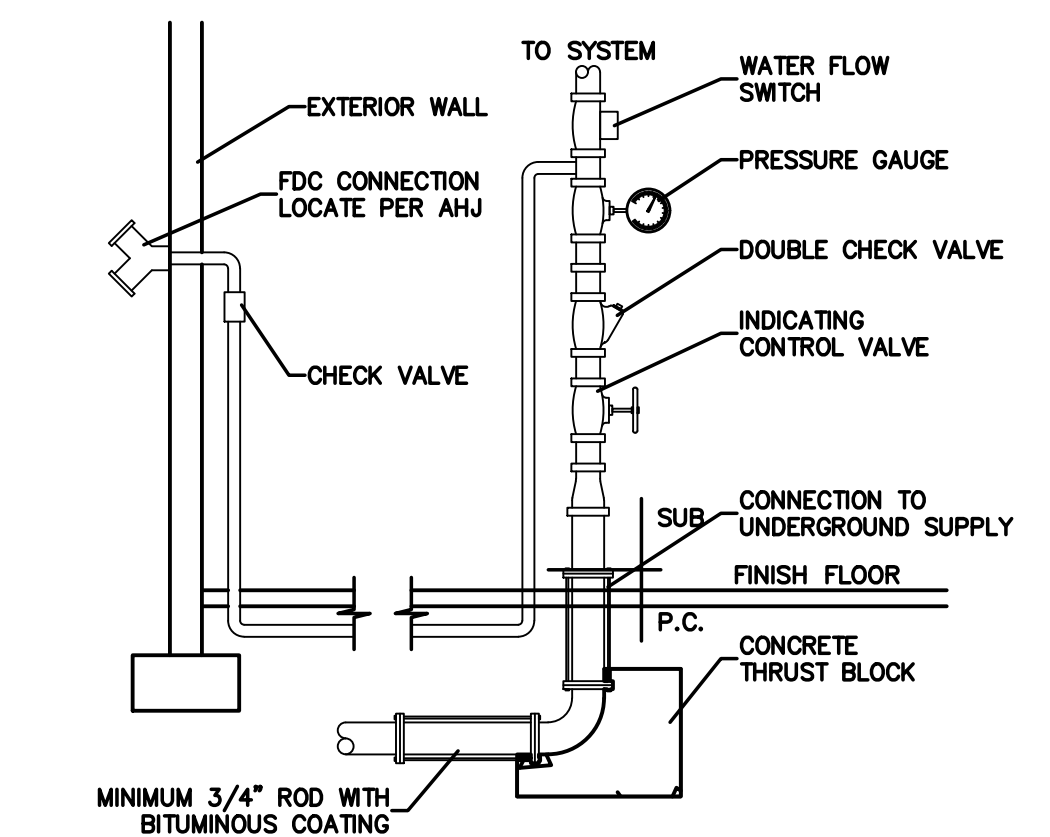
**101.5 HANGER DETAILS**  
SCALE: none



**101.4 SYSTEM TEST CONNECTION**  
SCALE: none



**101.3 SPRINKLER HEAD DETAIL**  
SCALE: none



**101.2 SPRINKLER SYSTEM RISER**  
SCALE: none

**CLASSROOM DESIGN CRITERIA**

SYSTEM TYPE:	WET
CLASSIFICATION:	REFER TO SPECIFICATIONS
DENSITY:	REF. SPECS. DESIGN CRITERIA
PROTECTION AREA:	27,255
MIN. FIRE FLOW PER NC FIRE CODE TABLE 8105.1.2:	1,000 gpm
PIPE SIZING:	HYD CALCS
REMOTE AREA:	1500 sf
HOSE:	250 gpm

**FIRE FLOW DATA**

MAIN SIZE:	PROPOSED 6"
ELEV.:	36.00'
STATIC PRESS.:	72 PSI
VOLUME:	920 GPM
RESIDUAL PRESS.:	30 PSI
LOCATION:	HYDRANT #1

REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

NOTE: FLOWS MUST MEET NC FIRE CODE APPENDIX B FOR TYPE IIB OVERHEAD AND THE FLOW RATE OF EACH SPRINKLER MUST BE 1.0 GPM PER S.F. OF PROTECTION AREA. THE FLOW RATE OF EACH SPRINKLER MUST BE 1.0 GPM PER S.F. OF PROTECTION AREA. THE FLOW RATE OF EACH SPRINKLER MUST BE 1.0 GPM PER S.F. OF PROTECTION AREA. THE FLOW RATE OF EACH SPRINKLER MUST BE 1.0 GPM PER S.F. OF PROTECTION AREA.

**ENGINEERING**  
SOURCE OF NC, PA.

102-42 Ragsdale Blvd., Greenville, NC 27834  
E-Mail Address: general@hiteassociates.com  
Tel (252) 438-3228 • Fax (252) 438-0462 • File #E-1073

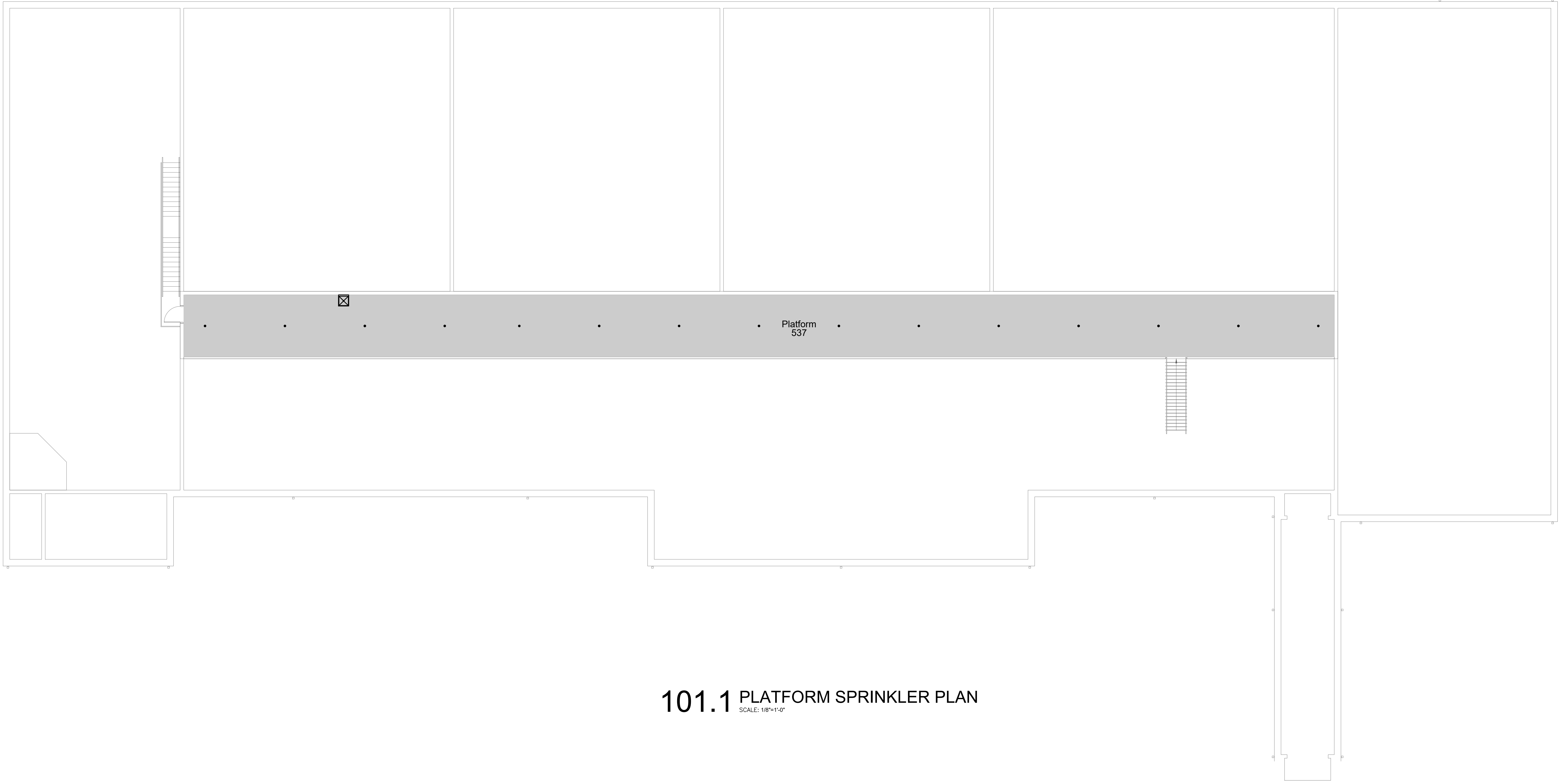
3/12/25

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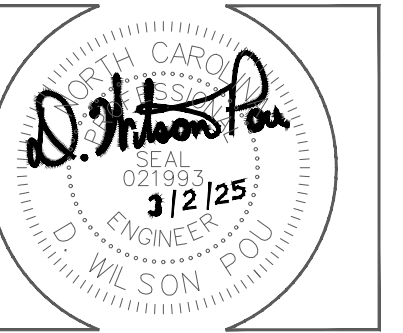
NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 312  
Windsor / Bertie County / North Carolina

Project No. 22351  
Date: March 2025  
Drawing No. FS 101



**101.1 PLATFORM SPRINKLER PLAN**  
SCALE: 1/8"=1'-0"

ES Project No: ES24055  
 102-A2 Hagerly Blvd., Greenville, NC 27834  
 E-Mail Address: general@hiteassociates.com  
 Tel (252) 438-3328 • Fax (252) 438-9462 • Web (P-187)



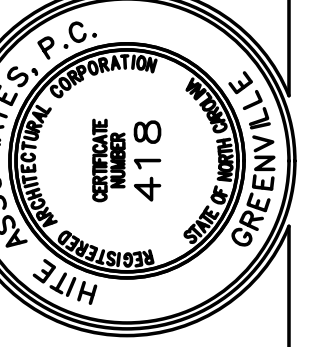
Project No. 22351

Date: March 2025

Drawing No.

**FS  
102**

NEW CTE BUILDING FOR  
**Bertie High School**  
 716 US 13 North / NCDPS Unit 080 - School 312  
 Windsor / Bertie County / North Carolina



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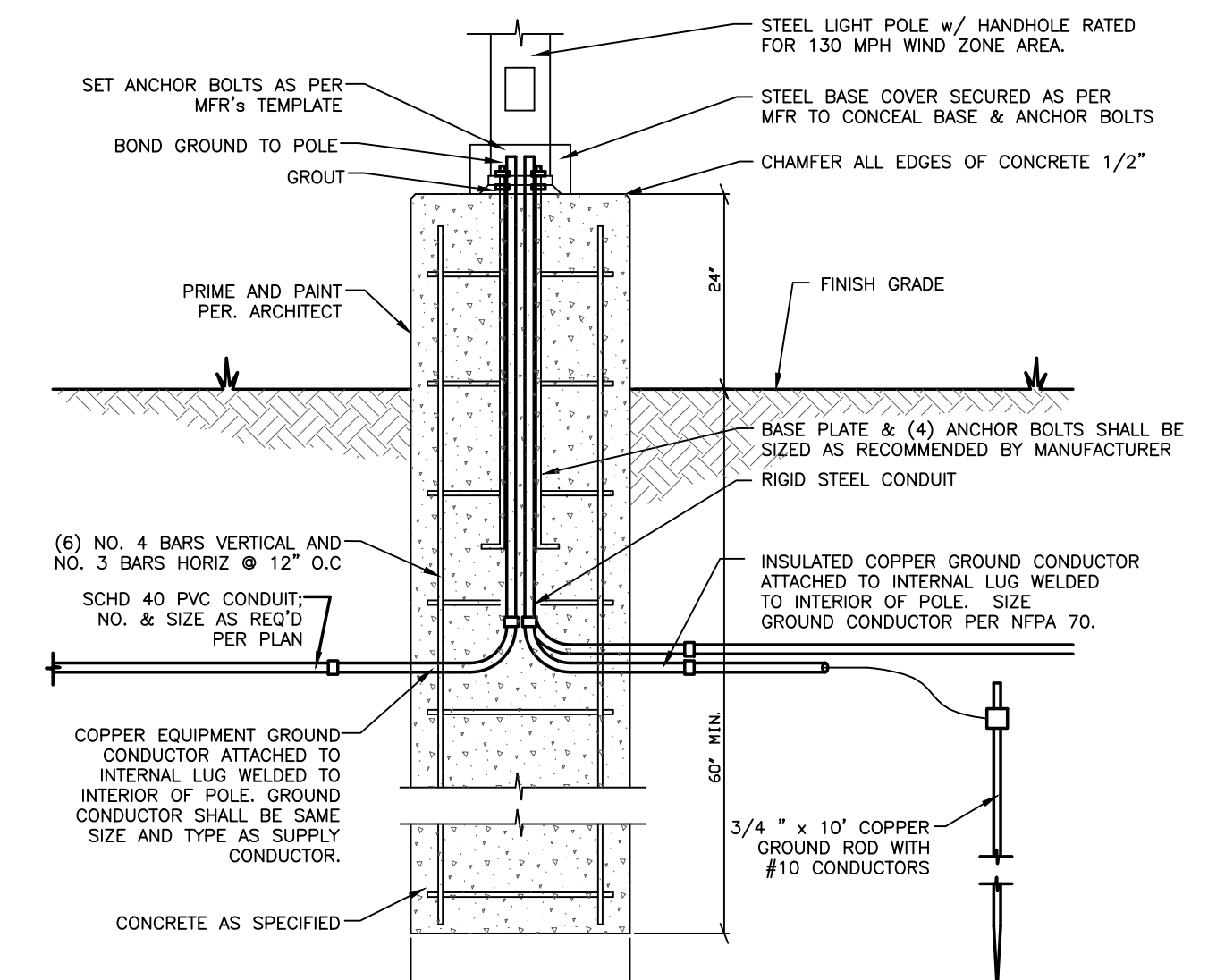
No	Date	Revision

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### SITE LIGHT FIXTURE SCHEDULE

TYPE	DESCRIPTION	LAMPS	VOLTS	WATTS	B.F.	CATALOG NUMBER
D2	SINGLE HEAD 30' POLE LIGHT	LED	MVOLT	185	-	POLE MOUNTED D-SERIES SIZE 2 SITE LIGHT WITH ARM AND LED HEAD ON 30'-0" ROUND POLE. FIXTURE BY LITHONIA #PZ-50K-T2M-MVOLT-RPA (D2A) SELECTED COLOR. OR APPROVED EQUAL BY WILLIAMS, PHILIPS, OR HUBBELL

- NOTES:
- 1) REFERENCE SPECIFICATION SECTION 16500
  - 2) PROVIDE SUBMITTALS FOR PRE-BID APPROVAL AS SPECIFIED IN "INSTRUCTIONS TO BIDDERS", ARTICLE 3.3.2
  - 3) WATTS = INPUT WATTS, B.F. = BALLAST FACTOR
  - 4) ALL INTERIOR LAMPS TO HAVE A COLOR RENDERING TEMPERATURE INDEX OF 3500K TO 4000K
  - 5) CATALOG NUMBERS MAY NOT BE COMPLETE; CONTRACTORS RESPONSIBILITY TO VERIFY CATALOG NUMBER

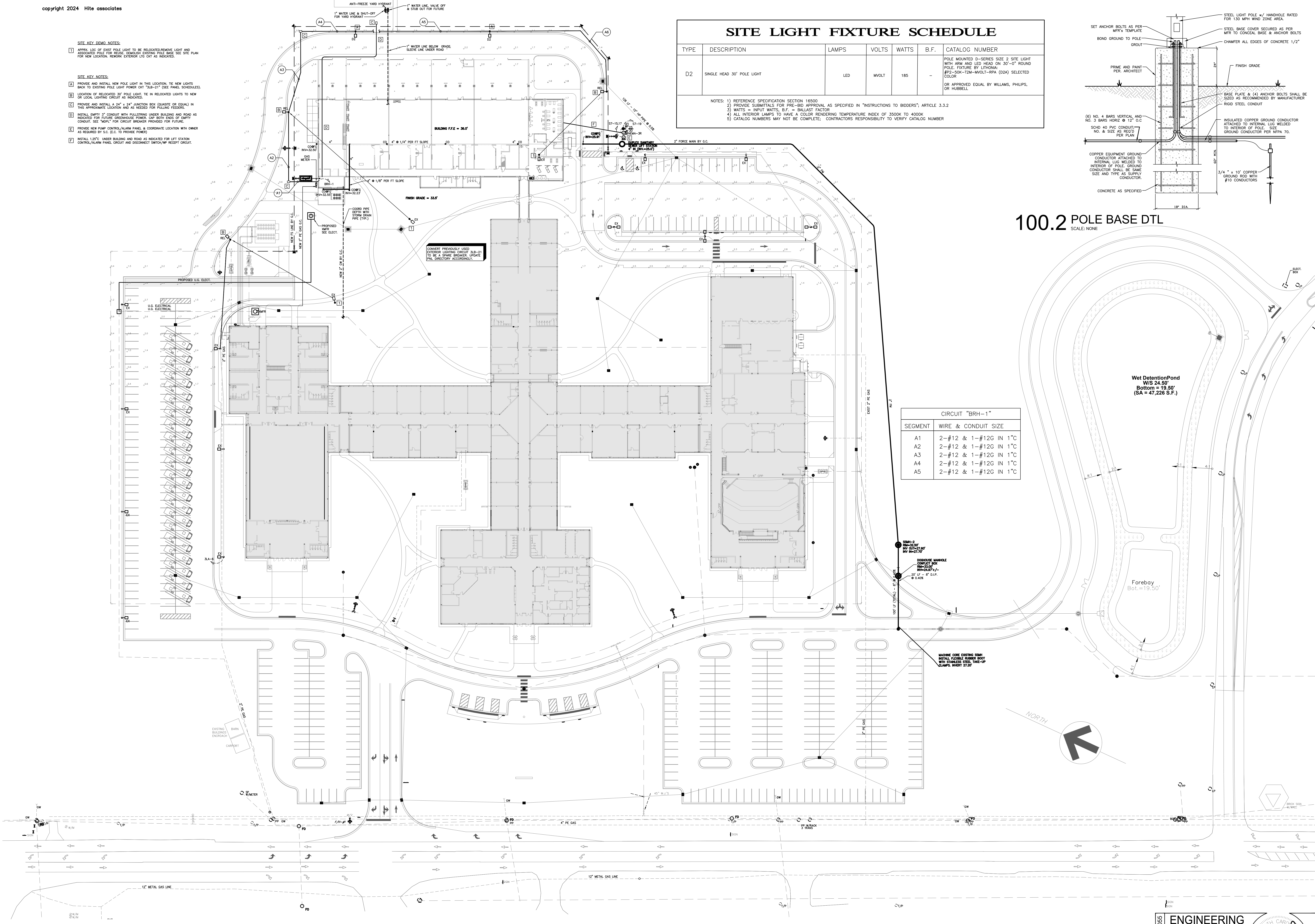


100.2 POLE BASE DTL  
SCALE: NONE

CIRCUIT "BRH-1"

SEGMENT	WIRE & CONDUIT SIZE
A1	2-#12 & 1-#12G IN 1" C
A2	2-#12 & 1-#12G IN 1" C
A3	2-#12 & 1-#12G IN 1" C
A4	2-#12 & 1-#12G IN 1" C
A5	2-#12 & 1-#12G IN 1" C

- SITE KEY DEMO NOTES:**
- 1) APPROX. LOC. OF EXIST. POLE LIGHT TO BE RELOCATED. REMOVE LIGHT AND ASSOCIATED POLE FOR REUSE. EXHIBIT DRAWING POLE BASE SEE SITE PLAN FOR NEW LOCATION. REWORK EXTERIOR LTO CRT AS INDICATED.
- SITE KEY NOTES:**
- A) PROVIDE AND INSTALL NEW POLE LIGHT IN THIS LOCATION. THE NEW LIGHTS BACK TO EXISTING POLE LIGHT POWER CRT "3LB-21" (SEE PANEL SCHEDULES).
  - B) LOCATION OF RELOCATED 30' POLE LIGHT THE IN RELOCATED LIGHTS TO NEW OR LOCAL LIGHTING CIRCUIT AS INDICATED.
  - C) PROVIDE AND INSTALL A 24" x 24" JUNCTION BOX (QUARTER OR EQUAL) IN THIS APPROXIMATE LOCATION AND AS NEEDED FOR PULLING FEEDERS.
  - D) INSTALL EMPTY 3" CONDUIT WITH PULLSTRINGS UNDER BUILDING AND ROAD AS INDICATED FOR FUTURE GREENHOUSE POWER CAP BOTH ENDS OF EMPTY CONDUIT. SEE "NOTES" FOR CIRCUIT BREAKER PROVIDED FOR FUTURE.
  - E) PROVIDE NEW PUMP CONTROL, ALARM PANEL & COORDINATE LOCATION WITH OWNER AS REQUIRED BY S.C. (E.C. TO PROVIDE POWER).
  - F) METALL LIGHTS UNDER BUILDING AND ROAD AS INDICATED FOR LIGHT STATION CONTROL/ALARM PANEL GROUP AND DISCONNECT SWITCH/RECEPT CIRCUIT.



100.1 SITE PLAN  
SCALE: 1"=40'

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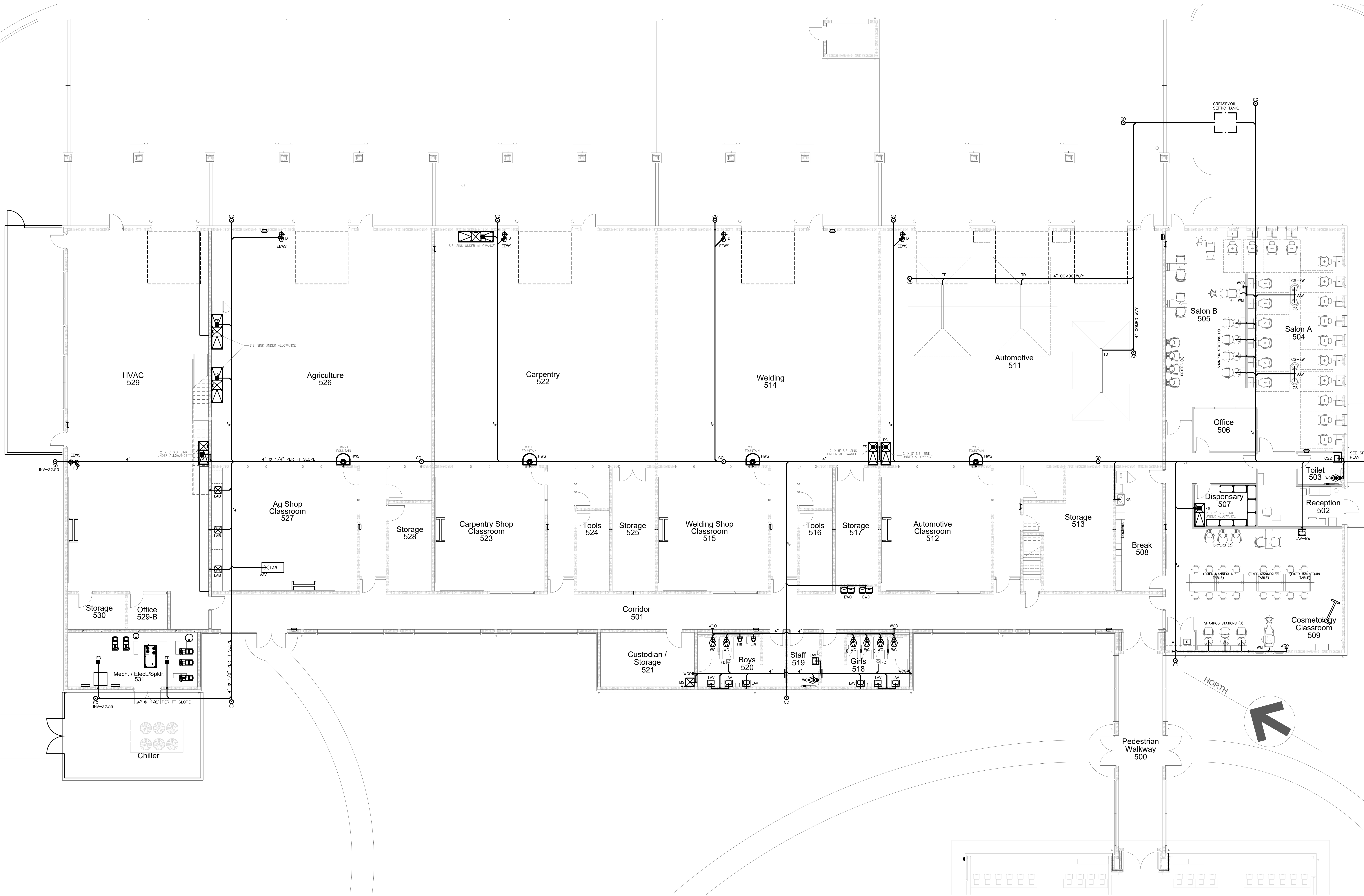
NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 312  
Windsor / Bertie County / North Carolina

Project No. 22351  
Date: March 2025  
Drawing no. **PME 100**

ES24055  
ENGINEERING  
SOURCE OF NC, P.A.

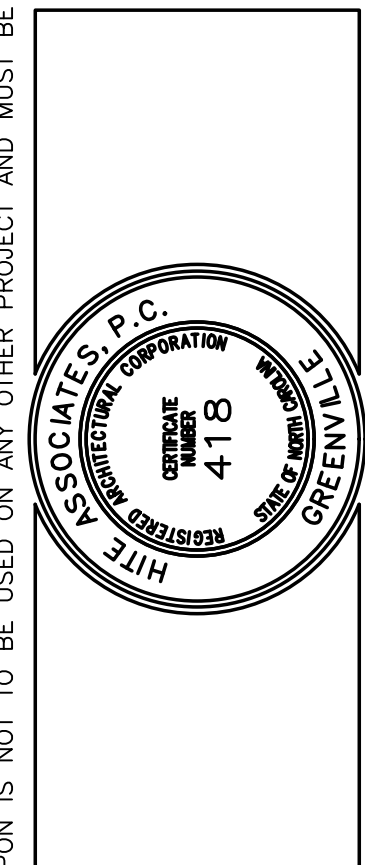
102-A2 Region 08a, Greenville, NC 27834  
E-Mail Address: general@engsource.com  
New 252 438-0338 • Fax 252 438-0462 • File 0-1013





No.	Date	Revision

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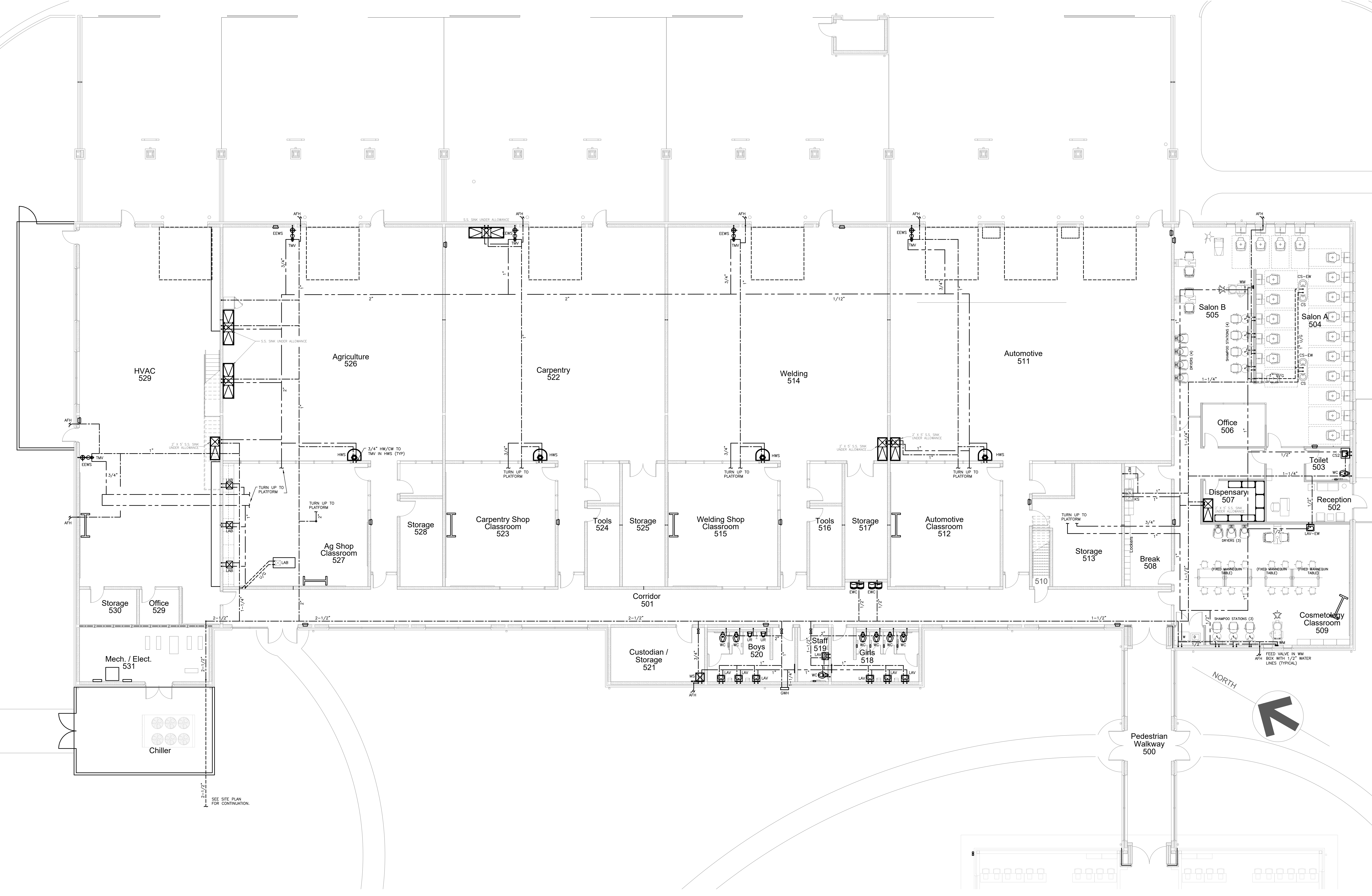
NEW CTE BUILDING FOR  
**Bertie High School**  
 716 US 13 North / NCDPS Unit 080 - School 312  
 Windsor / Bertie County / North Carolina

Project No.	22351
Date:	March 2025
Drawing no.	P 101

**101.1 SANITARY SEWER PLAN**  
 SCALE: 1/8"=1'-0"

ES24055  
**ENGINEERING**  
 SOURCE OF NC, P.A.  
 102-A2 Regency Blvd., Greenville, NC 27834  
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**102.1 POTABLE WATER PLAN**  
 SCALE: 1/8"=1'-0"

No.	Date	Revision

**Hite associates**  
 ARCHITECTURE / PLANNING / TECHNOLOGY  
 2500 Meridian Drive / Greenville, NC 27834 / tel (252) 759-0333

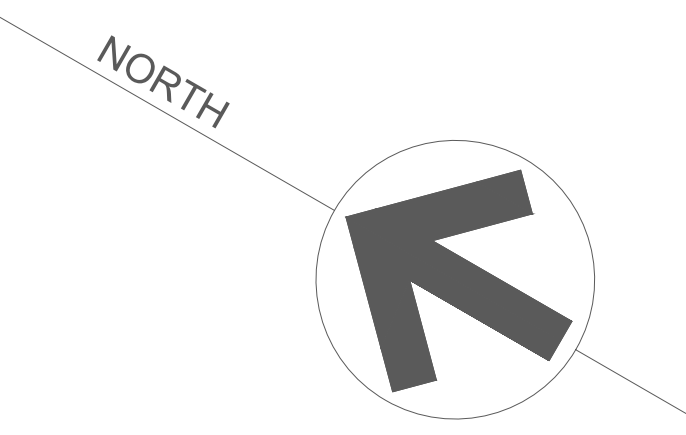
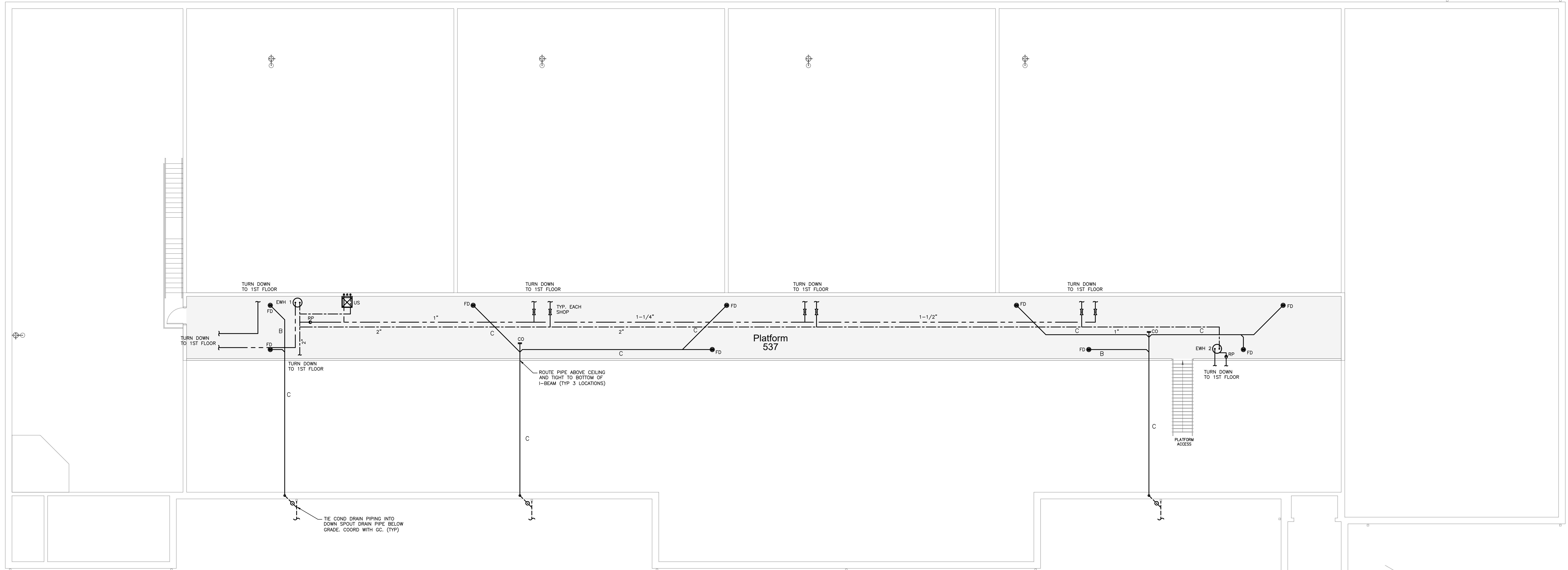
REGISTERED PROFESSIONAL ENGINEER  
 STATE OF NORTH CAROLINA  
 No. 418  
 EXPIRES 12/31/2025

**NEW CTE BUILDING FOR Bertie High School**  
 716 US 13 North / NCDPS Unit 080 - School 312  
 Windsor / Bertie County / North Carolina

Project No. 22351  
 Date: March 2025  
 Drawing no. **P 102**

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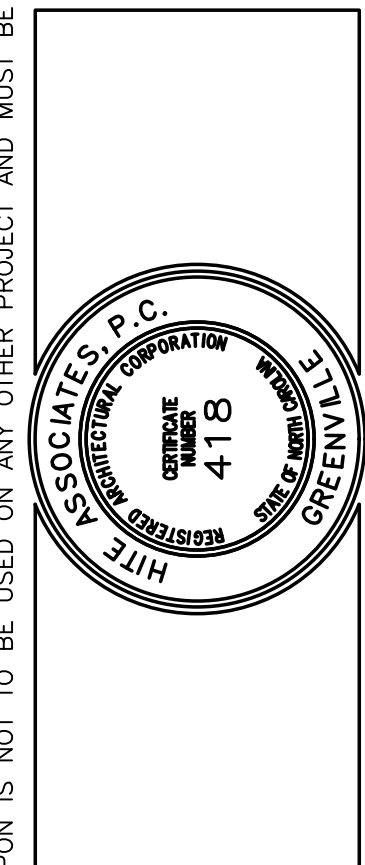
CONDENSATE DRAIN SCHEDULE		
MARK	PIPE SIZE	LOAD - TONS
A	3/4"	0-2 TONS CONNECTED
B	1"	2-5 TONS CONNECTED
C	1 1/4"	5-30 TONS CONNECTED
D	1 1/2"	30-50 TONS CONNECTED
E	2"	50-170 TONS CONNECTED

# 103.1 PLATFORM PLUMBING FLOOR PLAN

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

No.	Date	Revision

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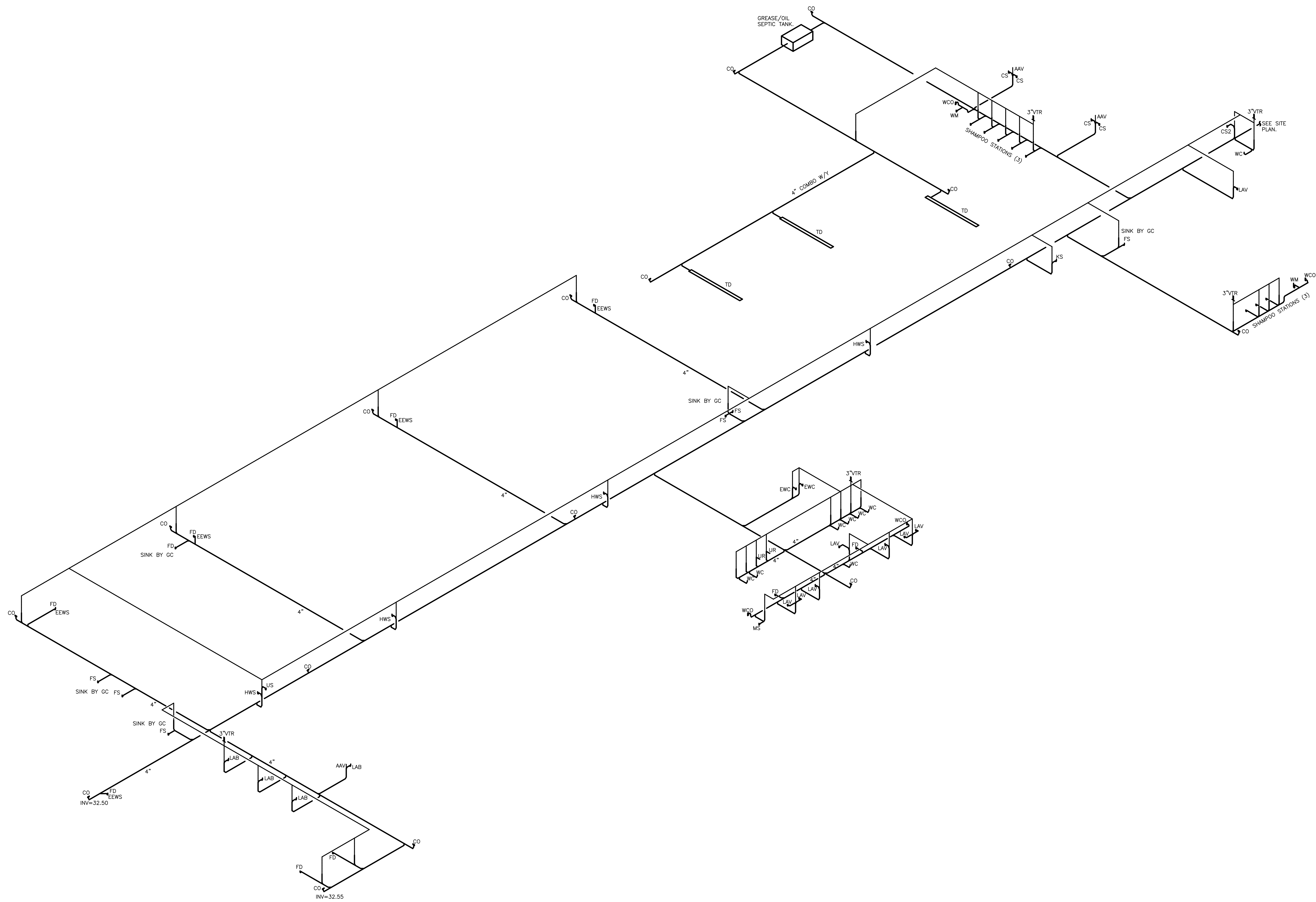


NEW CTE BUILDING FOR  
**Bertie High School**  
 716 US 13 North / NCDPS Unit 080 - School 312  
 Windsor / Bertie County / North Carolina

Project No.	22351
Date:	March 2025
Drawing no.	<b>P 103</b>

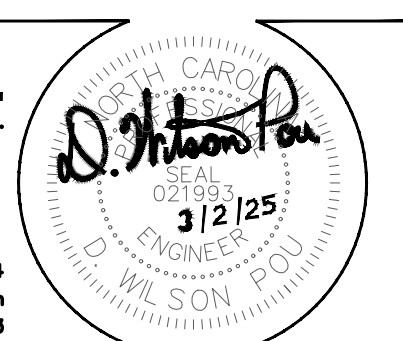
ES24055  
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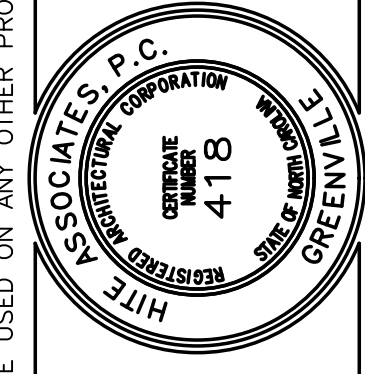
104.1 DWV RISER DIAGRAM  
SCALE: NTS

ES24055  
**ENGINEERING**  
 SOURCE OF NC, P.A.  
 102-A2 Regency Blvd., Greenville, NC 27834  
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Project No.	22351
Date:	March 2025
Drawing no.	P 104

NEW CTE BUILDING FOR  
**Bertie High School**  
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 Windsor / Bertie County / North Carolina

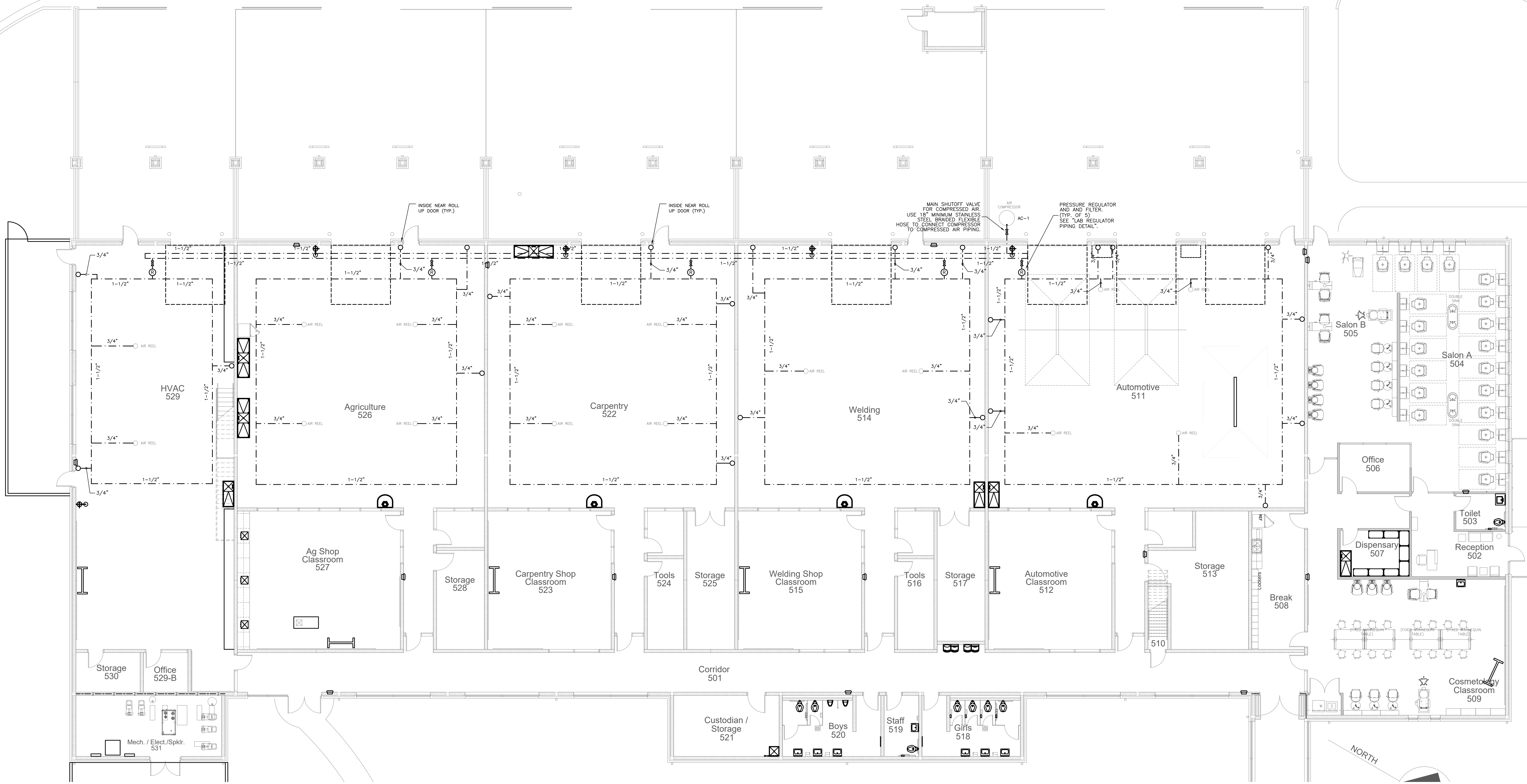


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**105.1 COMPRESSED AIR PIPING PLAN**  
SCALE: 1/8"=1'-0"

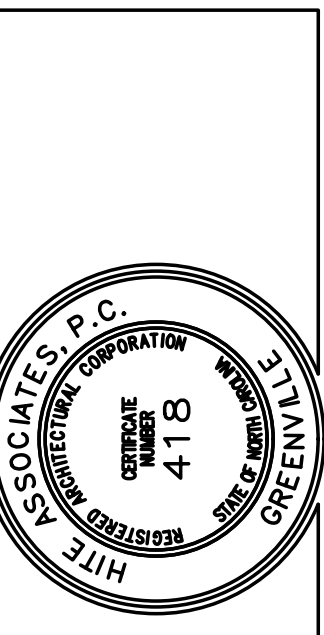
AIR COMPRESSOR SCHEDULE											
MARK	SCFM	TYPE	AIR RECEIVER	MAX. PRESSURE	MFR/MODEL	HP	VOLT	MCA	MOCP	WEIGHT	NOTES
AC-1	139.9	ROTARY SCREW	120 GAL.	175 PSI	QUINCY / QG5V30	30	460V / 3ø	50	80	1,330	1-4

NOTES:  
 1. AIR COMPRESSOR SHALL BE VARIABLE SPEED, DIRECT DRIVE ROTARY SCREW COMPRESSOR.  
 2. PROVIDE UNIT WITH MANUFACTURER'S INTEGRAL DRYER, WATER SEPARATOR, & FILTER.  
 3. PROVIDE UNIT WITH INTEGRAL AIR RECEIVER TANK (120 GALLON MINIMUM).  
 4. VALUES LISTED ABOVE ARE MINIMUM ACCEPTABLE VALUES.  
 5. QUINCY IS BASIS OF DESIGN. EQUALS BY INGERSOLL RAND, CHICAGO PNEUMATIC, CHAMPION, KAESER, & SULLIVAN-PALATEK. OTHER MANUFACTURERS MUST BE SUBMITTED FOR APPROVAL BY ENGINEER.

ABBREVIATIONS:  
 SCFM = CAPACITY AT 100 PSI (CFM)  
 MAX. PRESSURE = MAXIMUM OPERATING PRESSURE (PSI)  
 HP = COMPRESSOR HORSEPOWER (HP)  
 MCA = MINIMUM CIRCUIT AMPACITY (AMPS)  
 MOCP = MAXIMUM OVER CURRENT PROTECTION (AMPS)  
 WEIGHT = OPERATING WEIGHT (LBS.)

No.	Date	Revision

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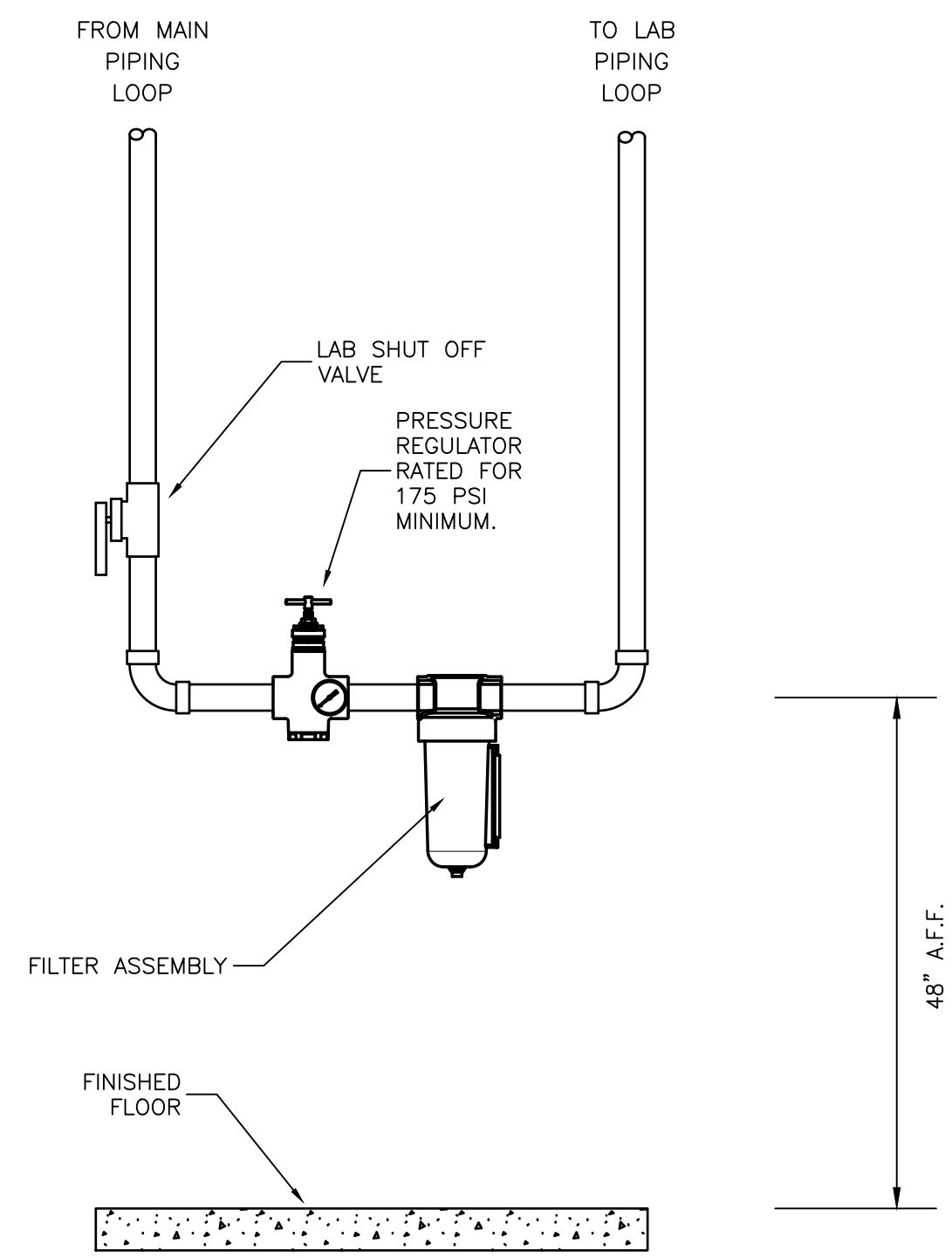


NEW CTE BUILDING FOR  
**Bertie High School**  
 716 US 13 North / NCDPS Unit 080 - School 312  
 Windsor / Bertie County / North Carolina

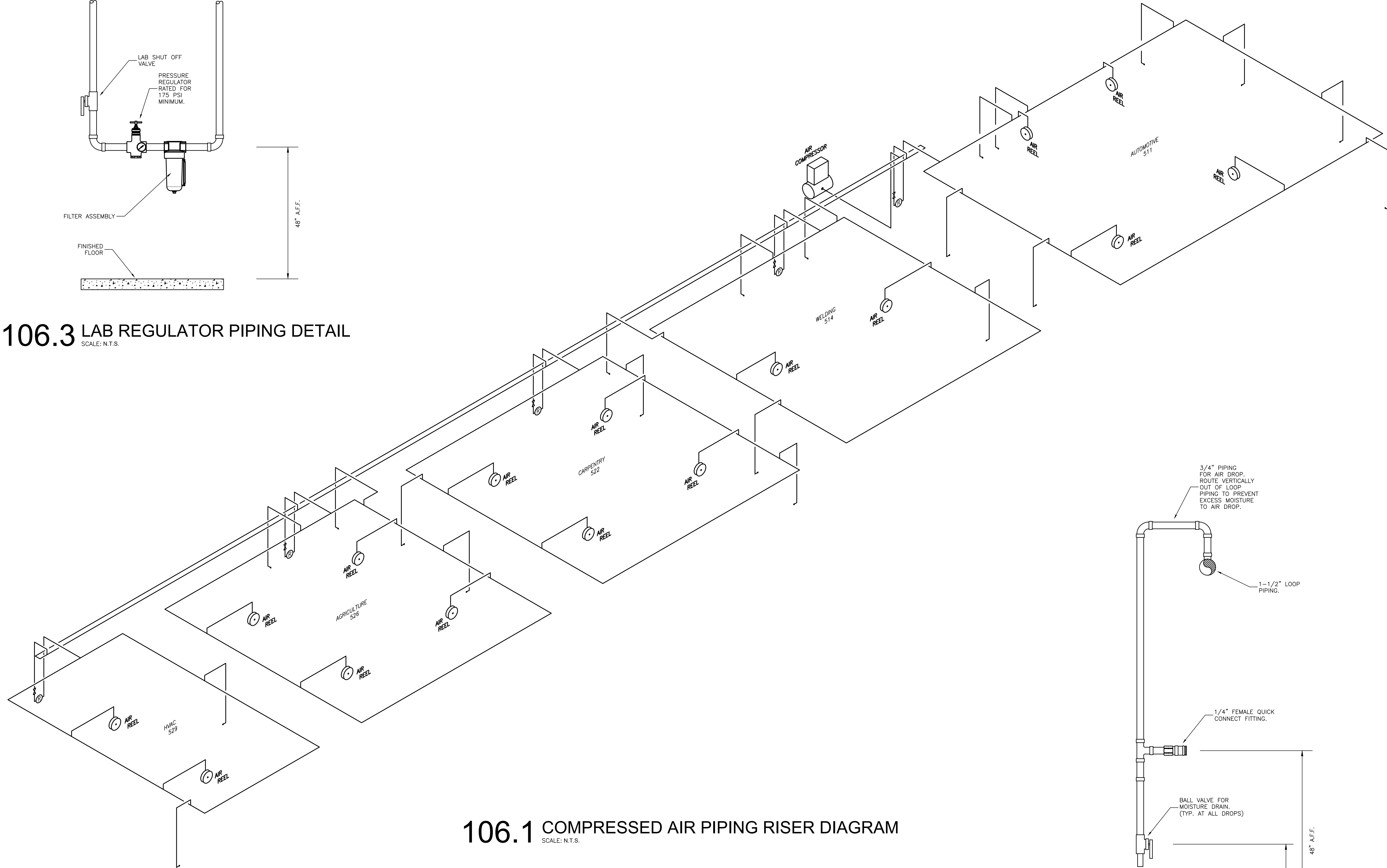
Project No. 22351  
 Date: March 2025  
 Drawing No. **P 105**

ES24055  
**ENGINEERING**  
 SOURCE OF NC, P.A.  
 102-A2 Regency Blvd., Greenville, NC 27834  
 E-Mail Address: general@engsource.com  
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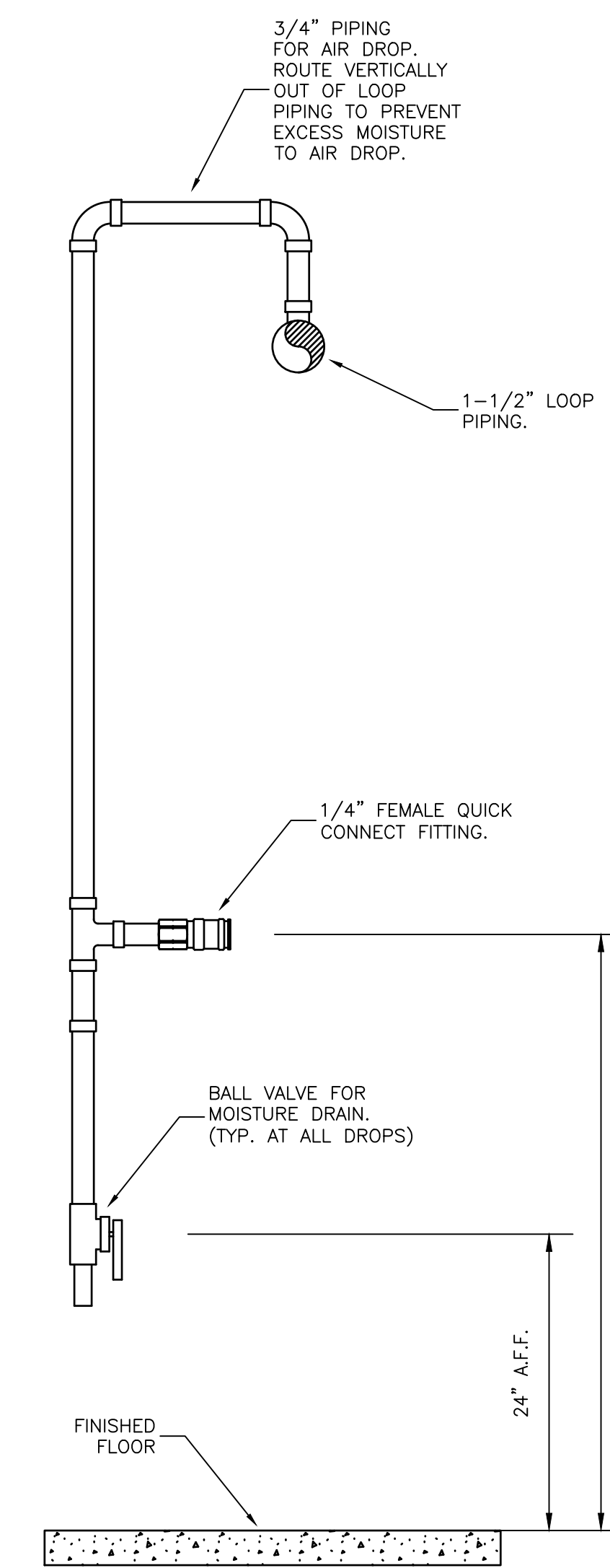
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**106.3 LAB REGULATOR PIPING DETAIL**  
SCALE: N.T.S.



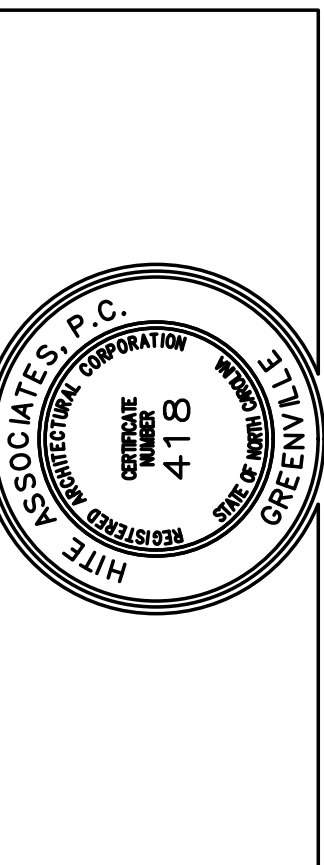
**106.1 COMPRESSED AIR PIPING RISER DIAGRAM**  
SCALE: N.T.S.



**106.2 TYPICAL COMPRESSED AIR DROP DETAIL**  
SCALE: N.T.S.

No.	Date	Revision

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NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 312  
Windsor / Bertie County / North Carolina

Project No.	22351
Date:	March 2025
Drawing no.	<b>P</b> <b>106</b>

ES24055  
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**MECHANICAL GENERAL NOTES:**

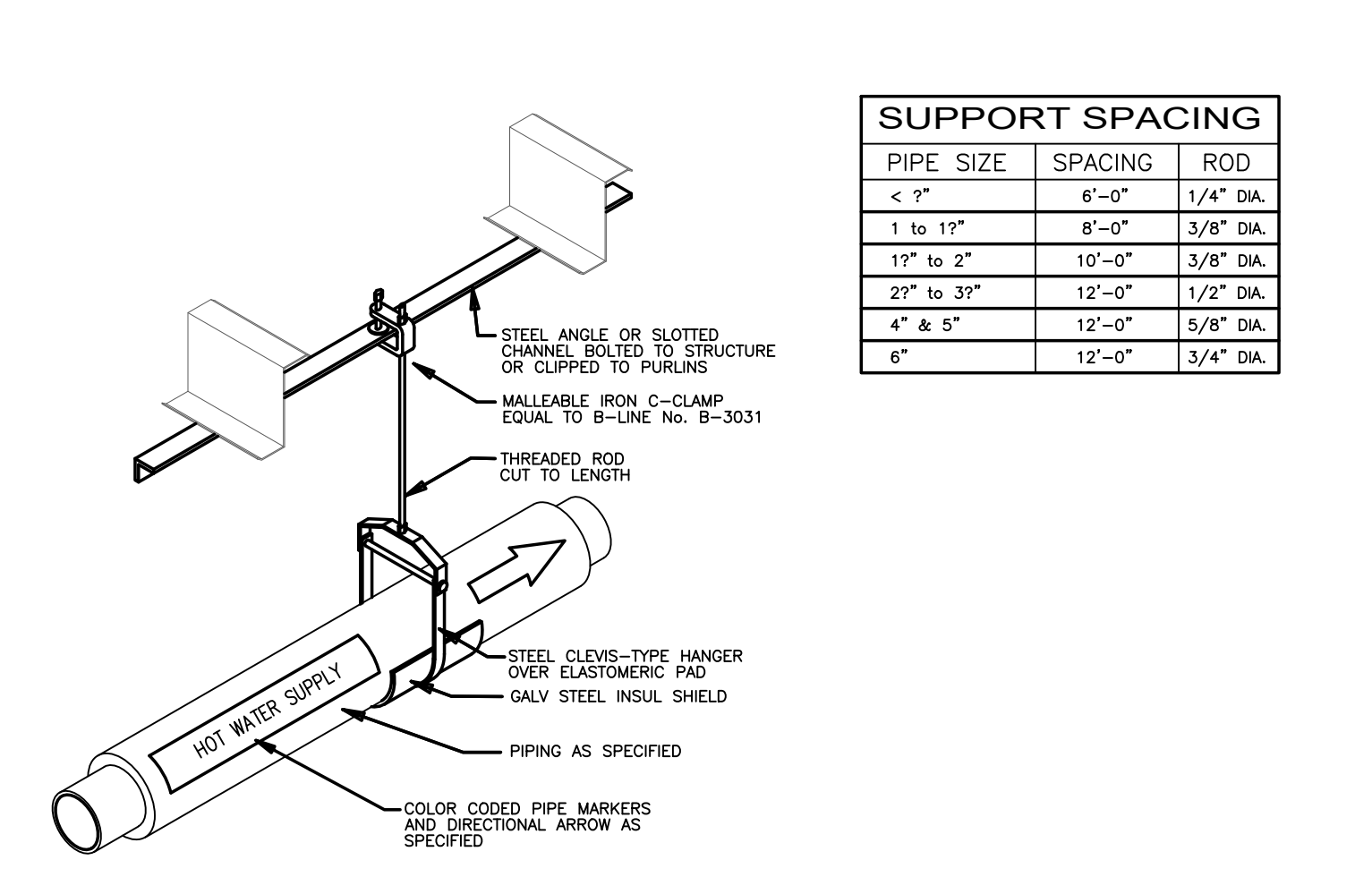
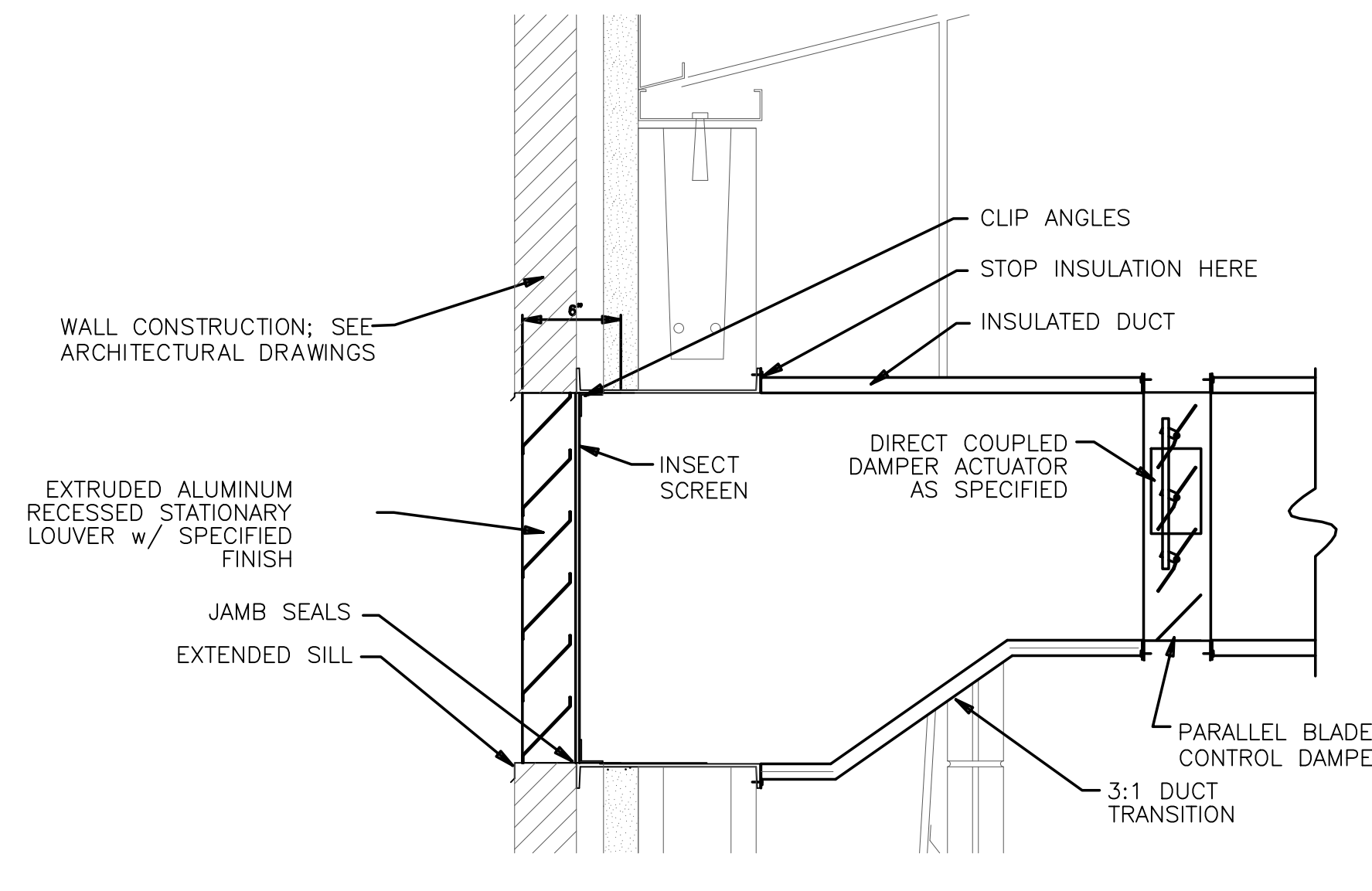
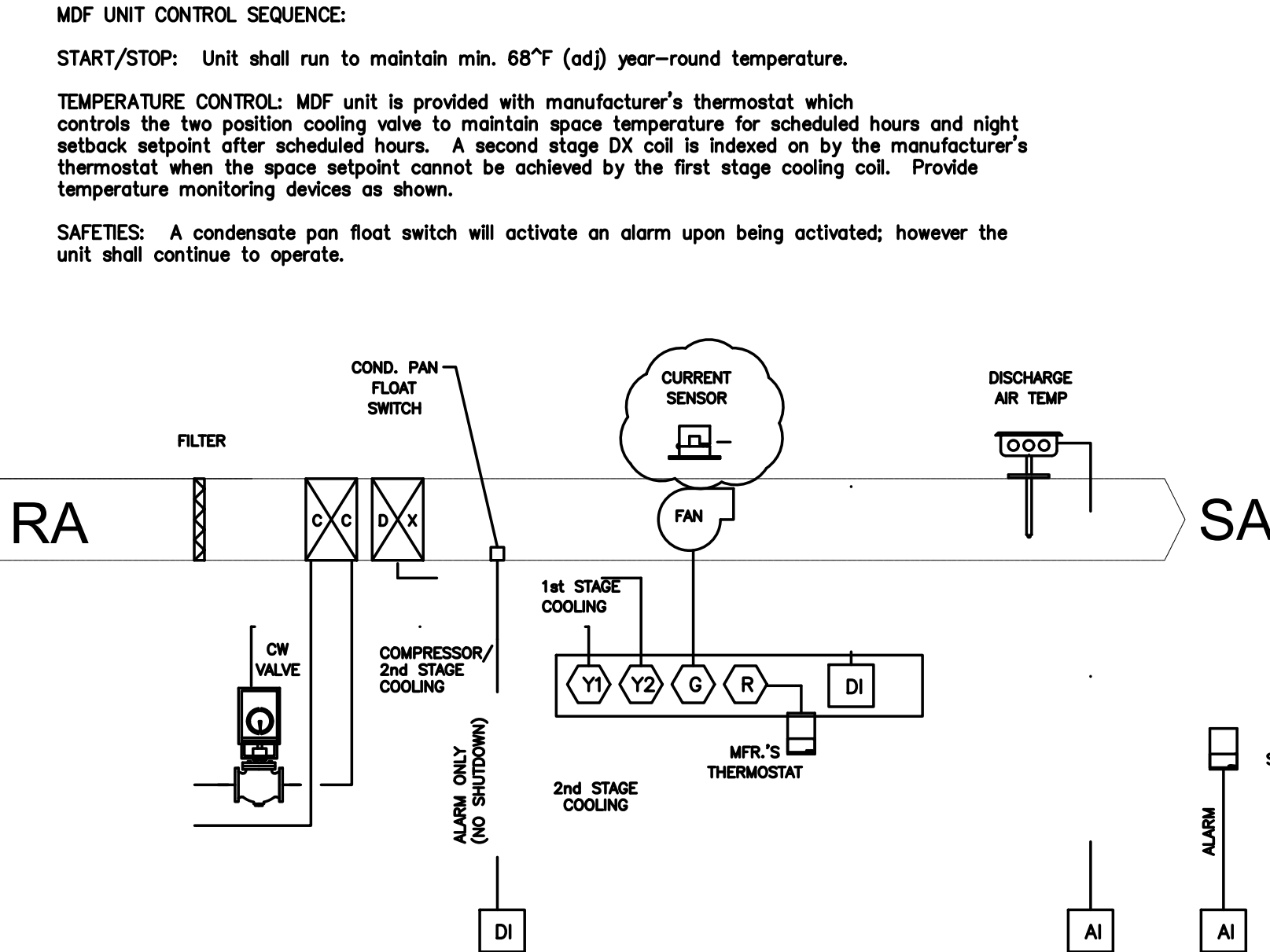
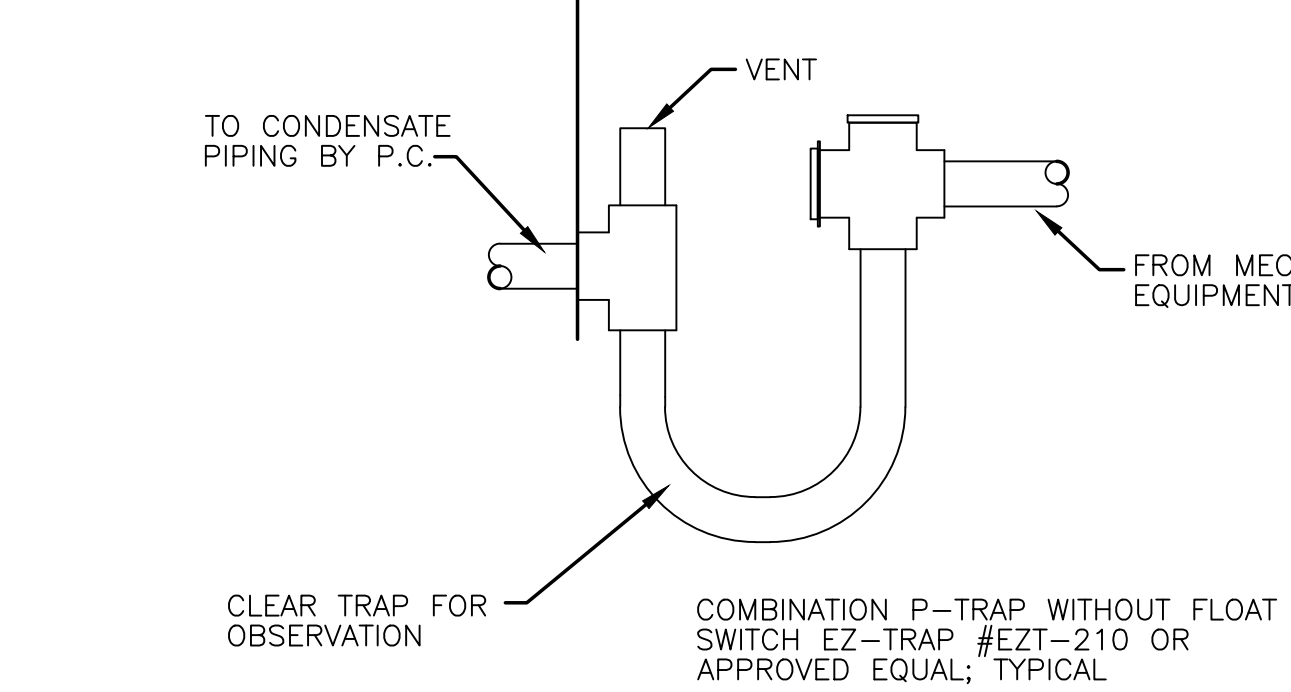
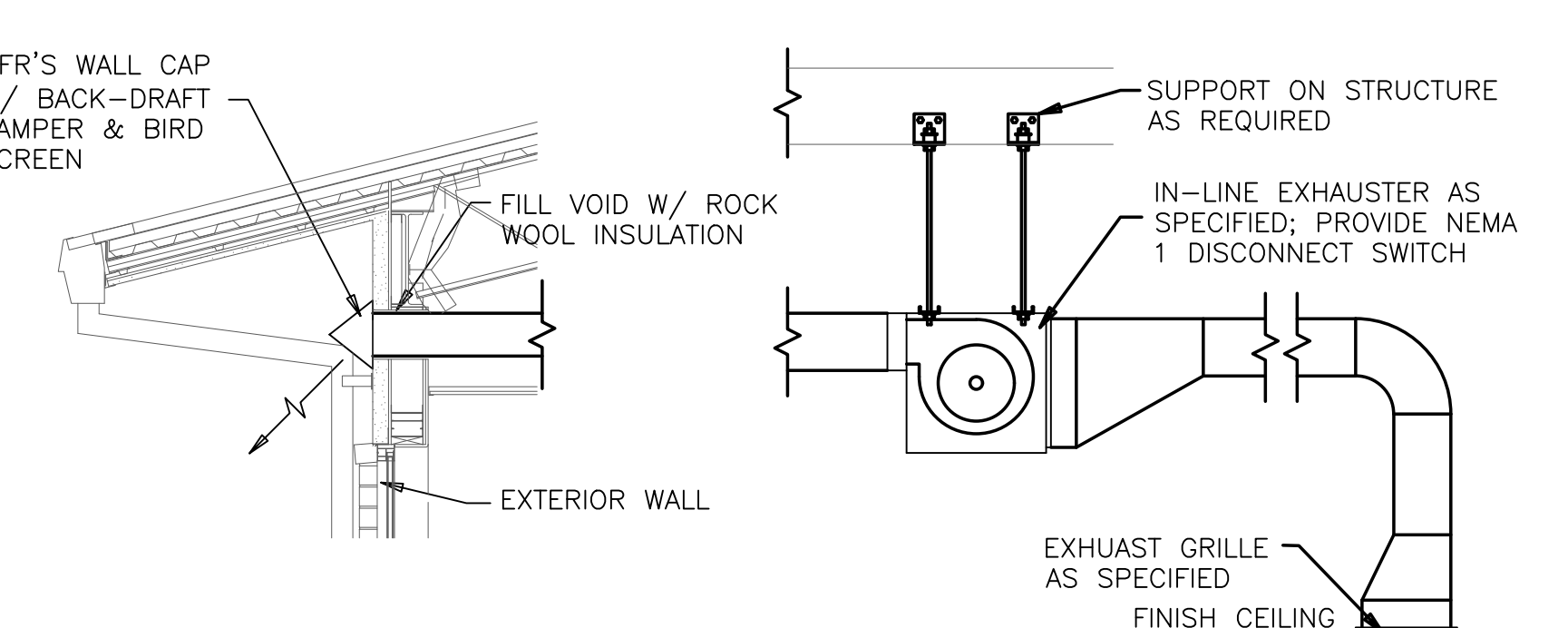
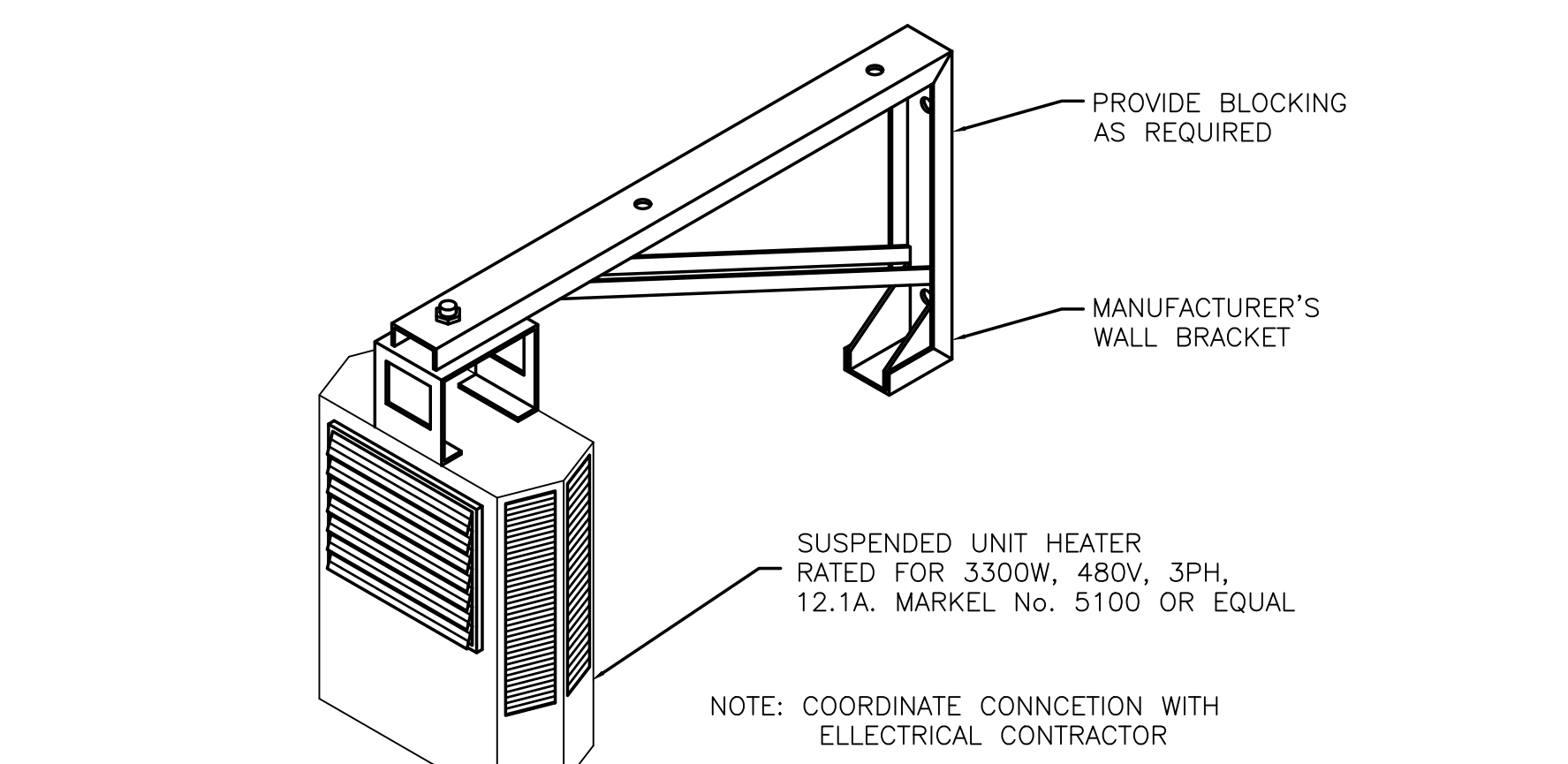
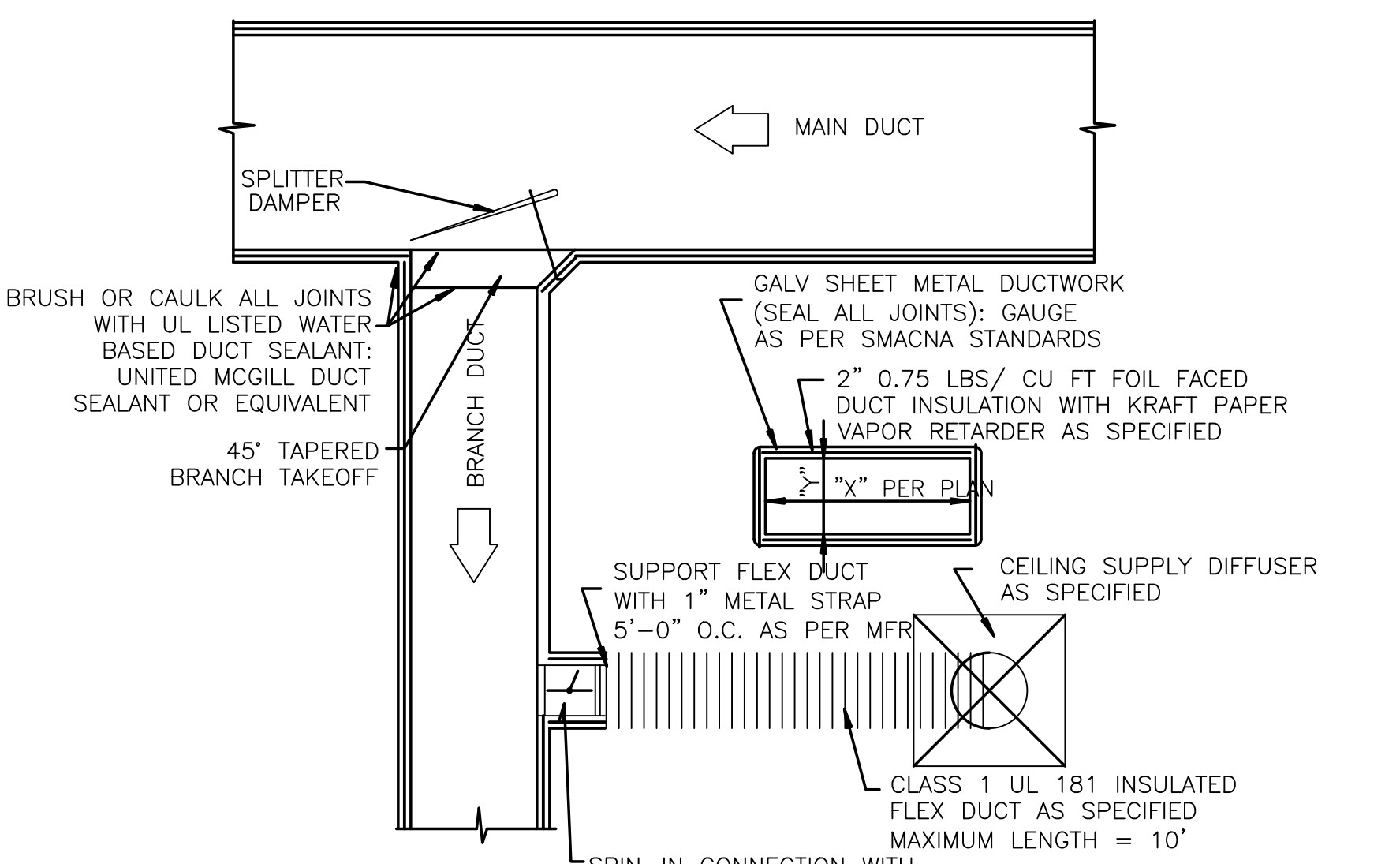
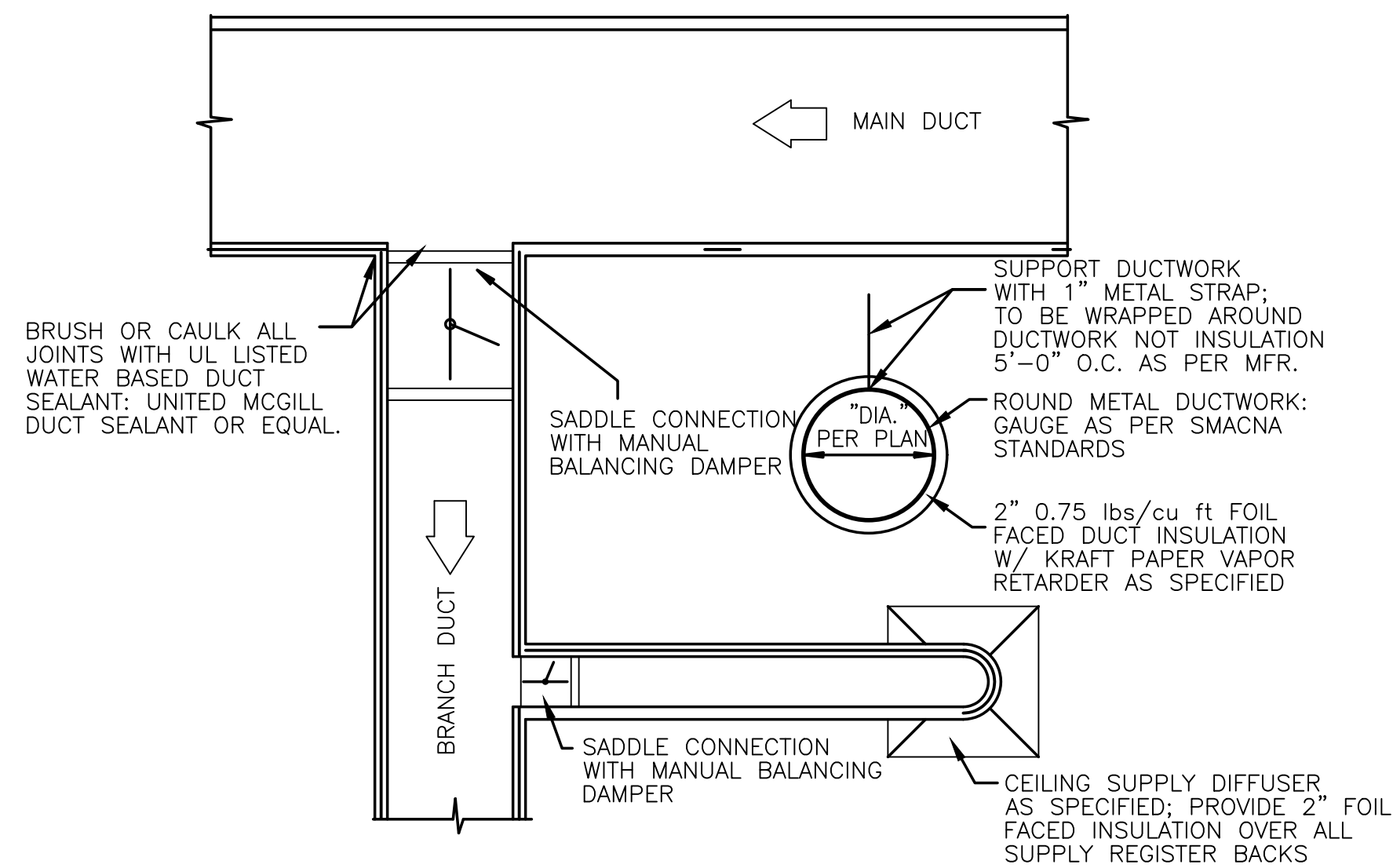
- REFERENCE ARCHITECTURAL, STRUCTURAL, PLUMBING, & ELECTRICAL DRAWINGS, AND SPECIFICATIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL VISIT SITE PRIOR TO SUBMITTING BID.
- ALL WORK SHALL BE IN STRICT ACCORDANCE WITH THE NC BUILDING CODE & CONTRACTOR SHALL NOTIFY ENGINEER IN WRITING REGARDING ANY CODE DISCREPANCIES FOUND ON PLANS. CONTRACTOR IS RESPONSIBLE FOR PERMITS, INSPECTIONS AND FEES. THE CONTROLS CONTRACTOR (C.C.) SHALL PROVIDE ALL CONTROL VALVES, ACTUATORS, DAMPERS, FAN COIL COMBINATION STARTERS. C.C. SHALL PROVIDE ALL LOAD SIDE WIRING ASSOCIATED WITH ALL FAN COIL COMBINATION STARTERS. VALVE TAGS AND LABELING SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR (M.C.).
- DO NOT SCALE THESE DRAWINGS. REFER TO LARGEST SCALE ARCHITECTURAL DRAWINGS. THESE DRAWINGS ARE DIAGRAMMATIC ONLY & ARE NOT INTENDED TO SHOW MINOR DETAILS & EXACT LOCATIONS. DESIGN ADJUSTMENTS SHALL BE ANTICIPATED BY THE CONTRACTORS TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.
- "PROVIDE" IS DEFINED AS FURNISH & INSTALL AS PER MANUFACTURERS RECOMMENDATIONS.
- THE MECHANICAL & CONTROLS CONTRACTOR SHALL COORDINATE THE INSTALLATION OF HVAC EQUIPMENT & CONTROLS WITH GENERAL CONTRACTOR PRIOR TO INSTALLATION TO AVOID CONFLICT. CONTACT ARCHITECT IF ALTERNATE INSTALLATION METHOD IS REQUIRED.
- SYSTEMS INDICATED ON PLANS ARE DIAGRAMMATIC IN NATURE. CONTRACTOR SHALL EXAMINE SITE CONDITIONS PRIOR TO DUCT CONSTRUCTION AND COORDINATE INSTALLATION WITH OTHER TRADES. CONTRACTOR SHALL PROVIDE NECESSARY HANGERS, FASTENERS ETC. TO PROVIDE A COMPLETE AND WORKING SYSTEM.
- CONTRACTOR SHALL SEAL ALL DUCTWORK WITH A PAINT ON MASTIC. ALL WALL PENETRATIONS SHALL BE SEALED AIR TIGHT.
- CONTRACTOR SHALL COORDINATE ALL DUCTWORK, DIFFUSER AND GRILLE LOCATION WITH OTHER CEILING MOUNTED DEVICES SHOWN ON THE ARCHITECTURAL REFLECTED CEILING PLAN.
- CONTRACTOR SHALL INSTALL BALANCING DAMPERS IN EACH BRANCH DUCT TO PROVIDE PROPER AIRFLOW TO EACH ZONE.
- LOCATE THERMOSTATS AND TEMPERATURE SENSORS AT 4'-0" A.F.F. (CENTER OF BOX FOR GYP BRD, TOP OF BOX FOR MASONRY) IN LOCATIONS INDICATED ON PLANS.
- ALL DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS.
- CONTRACTOR SHALL COORDINATE ALL ROOF AND FLOOR PENETRATION LOCATIONS AND SIZES.
- FABRICATE AND INSTALL ALL DUCT WORK PER SMACNA 1.5" W.C. PRESSURE. ALL ELBOWS SHALL HAVE 1.5R CENTERLINE. ALL DUCT UNDER SLAB SHALL BE FIBERGLASS.
- ALL DUCT WORK SHALL BE SUPPORTED WITH METAL STRAPS AT LEAST 1" WIDE AND SHALL BE THE SAME GAUGE OR HEAVIER THAN THE DUCT. STRAPPING SHOULD BE SPACED AT NO MORE THAN 64" APART AND SHALL BE SECURELY FASTENED TO THE BUILDING STRUCTURE.
- SUSPEND ALL CEILING MOUNT AIR DISTRIBUTION DEVICES FROM STRUCTURE WITH 12 GA. WIRE. ALL HANGERS AND SUPPORTS TO BE INSTALLED PRIOR TO FIREPROOFING OF ROOF STRUCTURE.
- ALL FLEXIBLE ROUND DUCT SHALL BE PRE-INSULATED DOUBLE WALLED WITH SPIRAL METAL RIB, AND SHALL HAVE MIN. RESISTANCE VALUE OF R-6. MAXIMUM LENGTH SHALL BE 10'-0" UNLESS SHOWN SPECIFICALLY OTHERWISE IN PLAN. SECURE ENDS WITH NYLON BANDS AND TAPE.
- ALL SUPPLY AND RETURN DUCT SHALL BE INSULATED WITH A MINIMUM OF 2-3/16" 3/4 LB. OR 2" OF 1.0 LB. DENSITY FIBERGLASS WRAP. INSULATED DOUBLE WALLED SPIRAL DUCT SHALL HAVE A MINIMUM INSULATION THICKNESS OF 2" OF 1.5 LB. DENSITY. PIPING INSULATION (REFRIGERANT OR WATER) SHALL BE A MINIMUM OF 1-1/2" THICK OR PER LATEST NC ENERGY CODE, WHICHEVER IS GREATER.
- MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALUMINUM JACKET PROTECTIVE COVERING FOR ALL REFRIGERANT PIPE INSULATION INSTALLED ON THE BUILDING EXTERIOR.
- CABLE TRAY HAS RIGHT-OF-WAY OVER DUCTWORK; SEE ELECTRICAL DRAWINGS FOR LOCATION.
- SIDEWALL SUPPLY REGISTERS AND RETURN GRILLES ARE TO BE INSTALLED PLUMB AND LEVEL ALONG A COMMON ELEVATION. INSULATE BACK OF ALL LAY-IN CEILING SUPPLY REGISTERS AND DIFFUSERS.
- PROVIDE FLEXIBLE CONNECTORS ON SUPPLY AND RETURN CONNECTIONS TO HVAC UNITS.
- PROVIDE AUXILIARY CONDENSATE DRAIN PAN FOR ALL AIR HANDLING UNITS, FAN COIL UNITS, FURNACE WITH COOLING COIL, ETC. CONTRACTOR SHALL PROVIDE AND INSTALL WATER LEVEL FLOAT SWITCH IN AUXILIARY DRAIN PAN. FLOAT SWITCH SHALL SHUT DOWN INDOOR AND ASSOCIATED OUTDOOR UNIT WHEN ACTIVATED.
- CONDENSATE PIPE SHALL BE HARD DRAWN COPPER. INSTALL WITH PROPER SLOPE AND NO SAGS. COPPER PIPE SHALL BE INSULATED WITH 1/2" THICK CLOSED CELL INSULATION.
- ALL DUCTWORK AND PIPING SHALL BE CONCEALED ABOVE CEILINGS, TRUSSES AND SOFFITS EXCEPT IN MECHANICAL ROOMS, UTILITY PLATFORMS, AREAS WITH EXPOSED STRUCTURE (NO CEILINGS), AND WHERE NOTED OTHERWISE.
- CONTROLS CONTRACTOR IS RESPONSIBLE FOR ALL CONTROL WIRING AND CONNECTIONS TO MECHANICAL EQUIPMENT.
- MECHANICAL CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL EXTERNAL DISCONNECTS THAT ARE REQUIRED FOR EQUIPMENT PROVIDED UNDER THIS CONTRACT. MECHANICAL CONTRACTOR SHALL FURNISH ALL REQUIRED FUSES FOR ALL FUSED DISCONNECT SWITCHES. COORDINATE DISCONNECT AND FUSE INSTALLATION WITH ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING DISCONNECT SWITCHES AND FUSES. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL LINE SIDE WIRING AND CONDUIT TO EXTERNALLY OR INTERNALLY MOUNTED DISCONNECTS AND SHALL PROVIDE AND INSTALL LOAD SIDE WIRING AND CONDUIT FROM EXTERNALLY MOUNTED DISCONNECT SWITCHES TO MECHANICAL EQUIPMENT. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINAL ELECTRICAL CONNECTIONS TO EQUIPMENT PROVIDED BY THE MECHANICAL CONTRACTOR. SEE "MECHANICAL EQUIPMENT ELECTRICAL CONNECTION DETAIL".
- DISCONNECT SWITCHES INDICATED TO BE PROVIDED BY MECHANICAL CONTRACTOR SHALL BE HEAVY DUTY NEMA-1 FOR INTERIOR INSTALLATIONS AND HEAVY DUTY NEMA-3R FOR EXTERIOR INSTALLATIONS. SEE ALSO DIVISION 16 SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- ALL EXPOSED GAS PIPE AS SHOWN (INTERIOR OR EXTERIOR) SHALL BE SCHEDULE 40 BLACK STEEL PAINTED OSHA YELLOW OR YELLOW FLEXIBLE STAINLESS STEEL. ALL GAS PIPING SHALL BE LABELED WITH THE TYPE OF GAS AND SUPPLY PRESSURE. GAS PIPING CONCEALED IN WALL CAVITY SHALL NOT BE REQUIRED TO BE PAINTED YELLOW. CONTRACTOR SHALL INSTALL GAS PIPE PER INSTALLATION STANDARD MSS SP-58. M.C. SHALL PROVIDE MAPA PRODUCTS PIPE SUPPORTS WITH E-6000 ADHESIVE OR APPROVED EQUALS.
- MINIMUM GAS PIPING SIZE SHALL BE 3/4" FOR ALL BRANCH LINES. CONTRACTOR SHALL REDUCE TO SMALLER SIZES AT GAS FIRED EQUIPMENT, AS REQUIRED, FOR CONNECTION TO EQUIPMENT.
- GAS PIPE SIZES INDICATED ON PLANS ARE MINIMUM ALLOWABLE SIZES. CONTRACTOR MAY USE LARGER SIZES THAN INDICATED.
- MECHANICAL CONTRACTOR MAY USE ROUND DUCT OF EQUIV. AREA IN LIEU OF RECTANGULAR. COORD. ROUND DUCT SIZES W/ ENGINEER. USE INSULATED DOUBLE WALLED SPIRAL DUCT WITH PAINT GRIP FINISH WHERE DUCT IS TO BE EXPOSED.
- MECHANICAL CONTRACTOR SHALL PROVIDE ENGR. WITH AN AIR BALANCE REPORT INDICATING INITIAL AND FINAL READINGS AT EACH DIFFUSER AND TOTAL CFM PER UNIT. INCLUDE IN DOCUMENTS PROVIDED TO OWNER AT JOB CLOSEOUT.
- MECHANICAL CONTRACTOR SHALL LABEL ALL EQUIPMENT WITH ENGRAVED PLASTIC LAMINATE, SCREWED TO PIECE OF EQUIPMENT.
- CONVENTIONAL FURNACES SHALL HAVE TYPE B VENTS, CONDENSING TYPE SHALL HAVE PVC VENTS.
- MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL CO SENSOR FOR ALL GAS FIRED EQUIPMENT IF A FIRE ALARM SYSTEM IS NOT INCLUDED ON THE PROJECT. COORDINATE WITH EC.
- M.C. SHALL COORDINATE ALL EXTERIOR MECHANICAL EQUIPMENT LOCATIONS WITH G.C. PRIOR TO INSTALLATION AND SHALL PROVIDE 3'-0" MIN. SERVICE CLEARANCE OR MANUFACTURER'S RECOMMENDATIONS, WHICHEVER IS GREATER, BETWEEN ALL MECHANICAL EQUIPMENT AND ALL OBSTRUCTIONS. IF THERE ARE MECHANICAL ENCLOSURES OR FENCING, M.C. SHALL COORDINATE THE SIZES AND CLEARANCES IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION MANUAL AND PROVIDE 3'-0" MIN. CLEARANCE OR MANUFACTURER'S RECOMMENDED CLEARANCES, WHICHEVER IS GREATER. M.C. SHALL VERIFY AND COORDINATE THAT FENCING BEING PROVIDED BY G.C. IS APPROVED FOR OPERATION WITH THE MECHANICAL EQUIPMENT MANUFACTURER. FENCING AND CLEARANCE DIMENSIONS SHOWN ON THESE PLANS ARE DIAGRAMMATIC ONLY. IF CHANGES TO FENCE SIZES AND UNIT CLEARANCES ARE NEEDED, THE M.C. SHALL BE RESPONSIBLE FOR NOTIFYING THE G.C. AND THE ENGINEER/ARCHITECT.
- UNIT CONTROLLER OR PROGRAMMABLE THERMOSTAT SHALL HAVE 7 DAY PROGRAMING, TIMED OVER-RIDE AND THE ABILITY TO RUN FANS IN OCCUP. MODE & CYCLE FANS IN UN-OCCUP. MODE.
- THE M.C. & C.C. SHALL PROTECT EQUIPMENT DURING CONSTRUCTION & BRAZING AS REQ'D. CLEAN ALL EQUIP. SURFACES OF GREASE, DIRT, DUST, & OTHER FOREIGN MATERIALS PRIOR TO PROJECT CLOSEOUT.
- MECHANICAL CONTRACTOR SHALL CHANGE UNIT FILTERS AFTER EACH TWO WEEKS OF RUN TIME, AND SHALL LEAVE ONE CHANGE OF FILTERS FOR OWNER TO USE FOR NEXT FILTER CHANGE.
- MECHANICAL CONTRACTOR SHALL NOT ALLOW DUCTWORK TO CONTACT LAY-IN LIGHT FIXTURES. ROUTE ACCORDINGLY.
- MECHANICAL CONTRACTOR SHALL INSTALL DUCT MOUNTED SMOKE DETECTORS WHERE INDICATED ON PLANS. IF AN EXISTING FIRE ALARM SYSTEM IS PRESENT, DUCT DETECTORS SHALL BE CONNECTED TO EXISTING FIRE ALARM SYSTEM. MECHANICAL CONTRACTOR SHALL COORDINATE CONNECTION TO FIRE ALARM SYSTEM WITH ELECTRICAL CONTRACTOR AND/OR FIRE ALARM CONTRACTOR. IF A FIRE ALARM SYSTEM IS NOT PRESENT, PROVIDE DETECTOR & ASSOCIATED HORN/STROBE ALARM (HONEYWELL RTS2-AOS MULTI-SIGNALING) AS REQUIRED BY N.C. MECHANICAL CODE SECTION 606.4.1. M.C. IS RESPONSIBLE FOR DUCT ACCESS DOORS UNDER ALL CIRCUMSTANCES.
- PROVIDE HEAT PUMP WITH CONTROLS TO PREVENT HEAT STRIP FROM OPERATING WHEN OUTSIDE AIR TEMP. IS ABOVE 40F. HEAT STRIP LOCKOUT SHALL NOT PREVENT HEAT STRIP OPERATION DURING DEFROST. (403.2.4.1.1 NCEC)
- ALL SUMP PUMPS INDICATED ON THESE PLANS SHALL BE OIL MINDING SUMP PUMPS, UNLESS INDICATED OTHERWISE.

**HVAC SYMBOL LEGEND**

**ABBREVIATIONS:**

GC	GENERAL CONTRACTOR	AI	ANALOG INPUT
PC	PLUMBING CONTRACTOR	AO	ANALOG OUTPUT
MC	MECHANICAL CONTRACTOR	DI	DIGITAL INPUT
EC	ELECTRICAL CONTRACTOR	DO	DIGITAL OUTPUT
AD	ACCESS DOOR	FD	FIRE DAMPER
MA	MIXED AIR	AF	ABOVE FINISH FLOOR
OA	OUTSIDE AIR	UN	UNLESS OTHERWISE NOTED
ODD	OPPOSED BLADE DAMPER	NO	NORMALLY OPEN
RA	RETURN AIR	NC	NORMALLY CLOSED
SA	SUPPLY AIR	P-T	PRESSURE-TEMPERATURE

**NOTE: LEGEND IS FOR REFERENCE ONLY - SYMBOLS/OBSERVATIONS SHOWN DO NOT NECESSARILY APPLY TO THIS PROJECT. ALSO SHEET 1-1.**



**HVAC DRAWING INDEX**

M-001	MECHANICAL NOTES, LEGEND, & DETAILS
M-002	MECHANICAL SCHEDULES & DETAILS
M-003	HYDRONIC HEATING SYSTEM FLOW & CONTROL DIAGRAM
M-004	CHILLED WATER SYSTEM FLOW & CONTROL DIAGRAM
M-101	MECHANICAL PLAN
M-102	MECHANICAL PLATFORM PLAN
M-103	MECHANICAL PLATFORM PIPING PLAN & BOILER ROOM PLAN

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ES-240458

PROJECT No. 22351

DATE: March 2025

DRAWING No. M 001

Hite associates ARCHITECTURE / PLANNING / TECHNOLOGY  
2600 Meridian Drive / Greenville, NC 27834 / Tel: (252) 757-0333

NEW CTE BUILDING FOR Bertie High School  
716 US 13 North / NCDPS Unit 080 - School 312  
Windsor / Bertie County / North Carolina

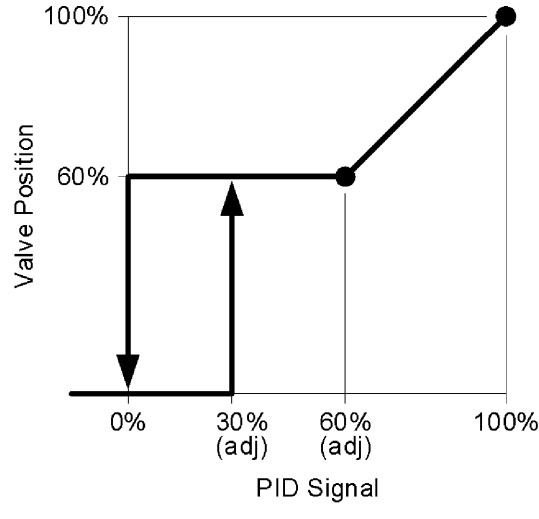
Project No. 22351  
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FAN COIL UNIT WITH OUTSIDE AIR (CHWHW)

- Occupied Mode Operation**
- A. Safety Devices: Safeties shall be in operation at all times (Fan in auto, hand, override, etc.).
    1. Fire Alarm Shutdown: When the fire alarm is active, stop fan via fire alarm system shut down relay. BAS shall return valves to the off positions. Generate an alarm. Safeties shall be hardware and require manual reset (via fire alarm system control panel).
    2. Float Switch: When the float switch is active, stop fan and return valves to off positions. Generate an alarm. Safeties shall be hardware and require manual reset (via graphics). Float switch shall be installed by BAS contractor on auxiliary drain pan. Coordinate with equipment.
    3. After all safeties have cleared, allow Fan Coil Unit fan operation.
  - B. Fan
    1. The fan shall run continuously. Determine fan status through a current sensor. If a fan fails to start as commanded, generate an alarm.
      - a. Fan shall have a cooling fan speed and a heating fan speed. See equipment schedule for values.
    2. Determine fan status through a current sensor. If a fan fails to start as commanded, generate an alarm.
    3. After fan status has been proven, allow remainder of Occupied Mode Operation below.
  - C. Outside Air Dampers
    1. Index all building common outside air dampers to the open position.
  - D. Heating (HW)/Cooling (CHW) Coils
    1. Open/close/modulate the cooling valve to maintain the space at the cooling setpoint (72°F, adj), in accordance with the PID chart below.

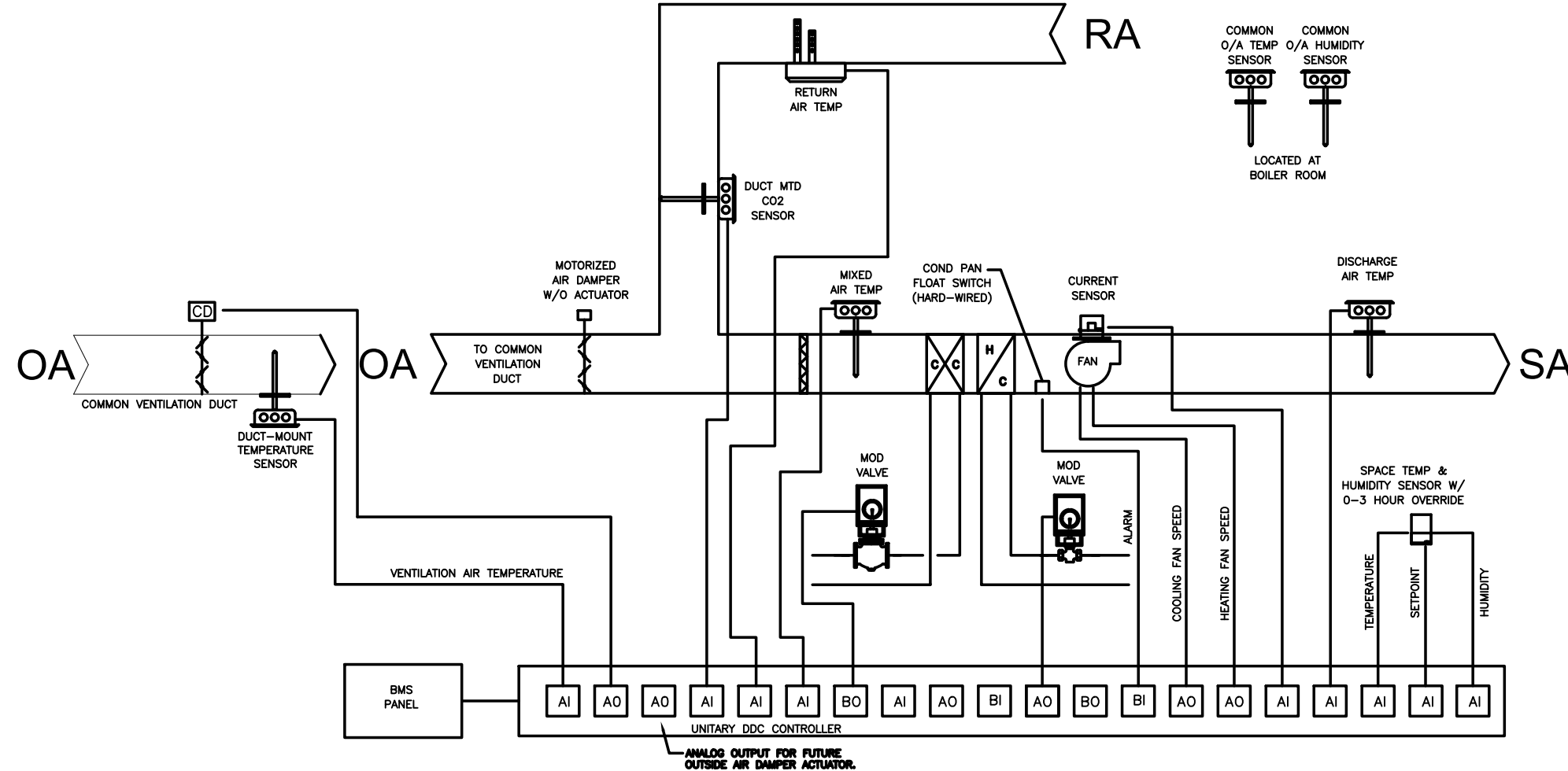


2. Modulate the heating valve to maintain the space at the heating setpoint (68°F, adj).
  3. Provide a minimum 2°F (non-adj) deadband between cooling and heating setpoints.
- E. Dehumidification**
1. If the space temperature is satisfied and relative humidity in the space rises above 65% (adj), slow fan speed to heating fan speed, open the cooling valve to 100%, and modulate the reheat valve to maintain the space at the cooling setpoint. The unit shall return to normal operation when the space relative humidity falls below 55% (adj).
  2. If space humidity remains above 65% (adj) for 15 minutes (adj), generate an alarm.
- F. Belt (where applicable)**
1. Generate an alarm for belt change when fan runtime exceeds user input maximum (8,000 hours, adj).
- G. Additional Control Requirements**
1. Provide with wall module.
    - a. Wall module shall read space temperature, space humidity, and space CO2 levels (CO2 readings shall be from duct mounted sensor).

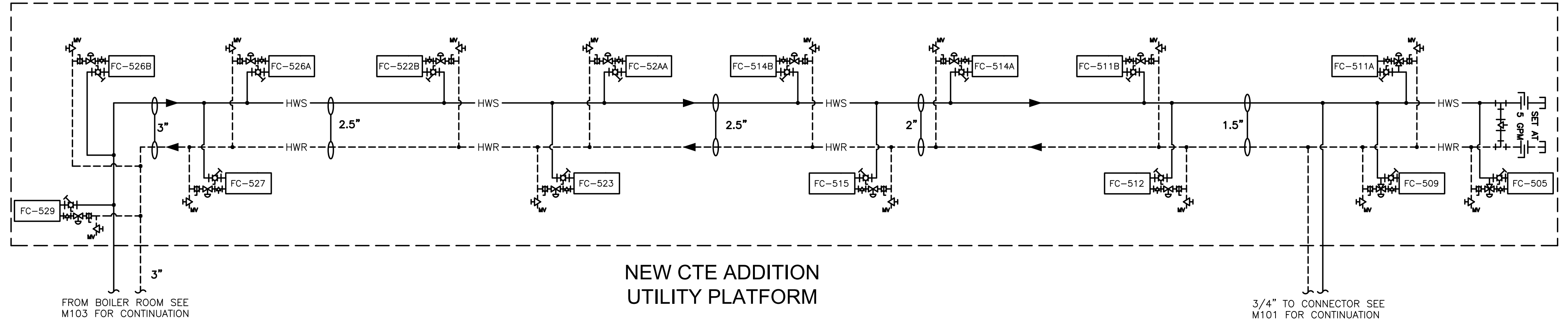
- Unoccupied Mode Operation**
- A. Unit shall operate as described above in Occupied Mode Operation, except:
    1. Fan mode shall be cycle with heating and cooling, without circulation regardless of user selection, valves shall modulate to maintain heating/cooling setpoint, and common outside air damper shall be in off position.
    2. Increase cooling setpoint to 78°F (unoccupied cooling setpoint, adj) and decrease heating setpoint to 62°F (unoccupied heating setpoint, adj).
    3. If the occupancy override is pressed, or the space temperature rises above the unoccupied cooling setpoint, or falls below the unoccupied heating setpoint, place the unit into pre-occupancy mode. The unit shall control to the occupied setpoints.
    4. The unit shall return to unoccupied operation when occupied setpoints are reached, the minimum runtime of 30 minutes (adj) has been met, and the occupancy override expires.

- Preoccupancy Mode Operation**
- A. Unit shall enter pre-occupancy period prior to occupied period in accordance with the following:
    1. Unit shall enter Preoccupancy Mode one hour (user adjustable) prior to Occupied Mode Schedule.
  - B. Unit shall operate as described in Occupied Mode Operation above, except:
    1. Dampers shall be in off position. Minimum outside air shall not be introduced.
    2. Fan shall cycle with heating and cooling, without circulation regardless of user selection, valves shall modulate to maintain heating/cooling setpoint.
  - C. Once temperature setpoint is reached, unit shall continue to operate in Preoccupancy Mode until BMS schedule changes to Occupied Mode Operation.

- Graphical Interface**
- A. Provide a graphical display for the unit ventilator, with a schematic of the unit and the following points:
    - System on/off
    - Occupancy status
    - Float switch(es) and fire alarms
    - Supply fan on/off, mode, and runtime
    - Supply fan status and alarm
    - Outside and return air damper commands
    - HW / CHW coil valve commands
    - CHW valve PID open/close/modulate setpoints
    - Dehumidification mode enable/disable limits
    - Belt runtime and time to next change
    - Space temperature and heating/cooling setpoints
    - Space temperature setpoint max and min limits
    - Space override status
    - Space humidity, alarm, and alarm setpoint (where applicable)
    - Space CO2 level, alarm, and alarm setpoint (where applicable)
    - Supply air temperature
  - B. Provide a tabular graphical display for the following points:
    - Associated exhaust fan(s) status, on/off/alarm, speed command, speed feedback, fault and fault text
    - Associated common outside air isolation damper open/close



003.3 TYPICAL FAN COIL CONTROL DIAGRAM  
SCALE: N.T.S.



003.1 HOT WATER PIPING FLOW DIAGRAM  
SCALE: NONE

HOT WATER (HW) PLANT, PRI-SEC W/ DEDICATED PRIMARY PUMPS, ON/OFF STAINLESS STEEL BOILERS

- General**
- A. The HW plant shall operate:
    1. There is a call for heating from the HVAC system (either heating or dehumidification call), or
    2. There is a freeze/trip for any piece of equipment utilizing HW. Then
    3. Start lead HW boiler and start lead primary pump.
  - B. Calculate building capacity (in MBH) using the following formula:  
 $Load = (500/12,000) \times Flow \times (HWR - HWS \text{ to Building})$

- Operation**
- A. Safety Devices: Safeties shall be in operation at all times (HW boiler/pump in auto, hand, override, etc.).
    1. Remote Emergency Power Off (EPO) Shutdown: When the EPO is pressed, stop boilers and pumps, generate an alarm. Safeties shall be hardware to boilers, networked to pumps, and require manual reset.
    2. After all safeties have cleared, allow HW plant operation.
  - B. Primary HW Pumps (PHWP)
    1. BAS shall control primary HW pumps (PHWP). Upon HW boiler start command, BAS shall start pump and prove flow for 2 minutes (adj) prior to starting the HW boiler. Upon HW boiler stop command, HW boiler shall be stopped, and pump shall continue to run until temperatures inside HW boiler have stabilized (5 minutes, adj) prior to stopping pump.
    2. Determine pump status through a current sensor. If a pump fails to start as commanded, generate an alarm.
  - C. HW Boilers
    1. General
      - a. Internal safeties (high pressure/temperature safety, flow safeties, etc) to protect equipment shall be provided by factory as required. In addition, provide the following points:
        - A) Provide with hardware HW boiler start/stop.
    2. Staging (PID Control)
      - a. HW boilers will operate in a lead/lag fashion.
      - b. When HW plant is enabled, enable PID and stage HW boilers on/off to maintain HWS setpoint.
        - A) Stage 1: Lead HW boiler
        - B) Stage 2: Lag HW boiler
      - c) PID shall be tuned to minimize fluctuations in HWS temperature while not creating excessive start/stops of HW boilers. HW boilers shall remain off for 15 minutes (adj) prior to staging on again.
  3. Scheduled and Fallover Rotation
    - a. HW boiler shall rotate weekly (adj) automatically. Via graphics, user shall be able to:
      - A) Select which HW boiler shall be lead and lag on the next rotation.
      - B) Schedule the day of week and hour of day to rotate HW boiler.
      - C) Override rotation and keep lead/lag as-is.
      - D) Rotate HW boiler immediately.
      - E) Ability to "lockout" HW boiler for servicing, to prevent rotation to that HW boiler.
    - b. Fallover
      - A) If the lead HW boiler fails, generate an alarm. Disable failed HW boiler and rotate lag HW boiler into lead. Operation shall continue as described above. If lag HW boiler is already running, do not disable and restart on rotation to lead.
      - B) Failed HW boiler shall remain off until alarm is manually cleared (via graphic). Once cleared, HW boiler shall enter and remain in lag position until next rotation.
- D. Secondary HW Pumps (SHWP)
  1. General
    - a. Occupied Mode Operation
      - A) Secondary HW pump(s) shall run when there is any call for heating or dehumidification. Determine pump(s) status through a current sensor. If a pump(s) fails to start as commanded, generate an alarm.
    - b. Unoccupied Mode Operation
      - A) Secondary HW pump(s) shall run when the HW plant is enabled. Determine pump(s) status through a current sensor. If a pump(s) fails to start as commanded, generate an alarm.
  - c. The pump(s) speed shall modulate to maintain differential pressure (DP) setpoint. All pumps shall operate at the same speed.
    - A) Single DP sensor plants: The BAS shall modulate pump speed to satisfy the DP sensor setpoint (to be determined by TAB, initially 10 psig, adj). If DP sensor signal goes to zero or infinity, generate an alarm and pump speed shall fail to last known speed.
      - 1) Note to TAB contractor: final DP setpoint shall be sufficient to keep critical circuit CHW coil valve between 85 and 95% open.
    - B) Reference the floorplans for DP sensor location(s).
  - d. If any DP sensor is 2 psi (adj) below setpoint for 20 minutes (adj), generate an alarm.

2. Staging
    - a. Pumps shall operate in a lead/lag fashion.
    - b. Limit pump ramp speeds (up and down) to prevent pressure blips during staging on and off.
    - c. If the lead pump runs for 15 minutes (adj) above 95% speed (adj), stage on lag pump. Pump speeds should synchronize after approximately five minutes.
    - d. If the lead and lag pump run for 15 minutes (adj) below 40% speed (adj), stage off lag pump. Ramp lag pump speed to minimum speed (0%) before stopping.
  3. Scheduled and Fallover Rotation
    - A) Pump shall rotate weekly automatically. Via graphics, user shall be able to:
      - A) Select which pump shall be lead and lag on the next rotation.
      - B) Schedule the day of week and hour of day to rotate pump.
    - E) Override rotation and keep lead/lag as-is.
    - F) Rotate pumps immediately.
    - G) Ability to "lockout" pump for servicing, to prevent rotation to that pump.
  - b. Fallover
    - A) If the lead pump fails, generate an alarm. Disable failed pump and rotate lag pump into lead. Operation shall continue as described above. If lag pump is already running, do not stop and restart on rotation to lead.
    - B) Failed pump shall remain off until alarm is manually cleared (via graphic). Once cleared, pump shall enter and remain in lag position until next rotation.
- E. Effective HWS Temperature Setpoint
  1. The following items will control the effective HWS temperature setpoint, in order of decreasing priority:
    - a. Cold-End Corrosion Temperature Setpoint (Cast-Iron Boilers only)
    - b. Operator Override
    2. The HWS temperature to the building shall be controlled to the effective HWS temperature setpoint. If the HWS temperature is +/-10°F (adj) from effective setpoint for 15 minutes (adj), generate an alarm. Disable HWS temperature alarm when staging HW boilers.
    3. Cold-End Corrosion Temperature Setpoint (Cast-Iron Boilers only): provide a minimum HWS return water temperature setpoint of 140°F (hardcoded, non-adj) to prevent possible cold-end corrosion of boiler. HWS shall control the boilers to ensure return water temperature does not drop below setpoint.

- Graphical Interface**
- A. Provide a graphical display for the HW plant, with a schematic of the plant and the following points:
    - HW boiler start/stop
    - System on/off
    - Number of HW calls required for enable setpoint
    - EPO and fire alarms
    - Pump status, on/off/alarm, speed command, speed feedback, fault and fault text (each pump/VFD)
    - Current lead/lag pump, next rotation time, next lead/lag pump (upcoming rotation) and ability to adjust all.
    - Pump accumulated runtime and runtime reset (each pump)
    - HW boiler EWT and LWT (each HW boiler)
    - Current lead/lag HW boiler, next rotation time, next lead/lag HW boiler (upcoming rotation) and ability to adjust all.
    - HW boiler accumulated runtime and runtime reset (each HW boiler)
    - HW boiler load (each HW boiler, in MBH)
    - HW boiler percent capacity (each HW boiler, in percent)
    - Differential pressure and setpoint (each DP sensor)
    - HW supply and return temperatures to building
    - HW supply temperature setpoint and alarm
    - HW bridge temperature
    - HW secondary flow (in GPM)
    - HW secondary bypass valve command
    - HW secondary bypass mixed water temperature
    - Building HW Load (in MBH)
    - Effective HWS temperature setpoint and alarm
    - Chart for HW OAT reset, with four points shown on chart
  - B. Provide a graphical table for the HW System Terminal Load, with the following points:
    - Equipment Name
    - HW valve position
    - Terminal load
    - Dehumidification status/call
    - Freeze protection status/call
    - Critically ranking

003.2 HOT WATER PLANT CONTROL SEQUENCE  
SCALE: N.T.S.

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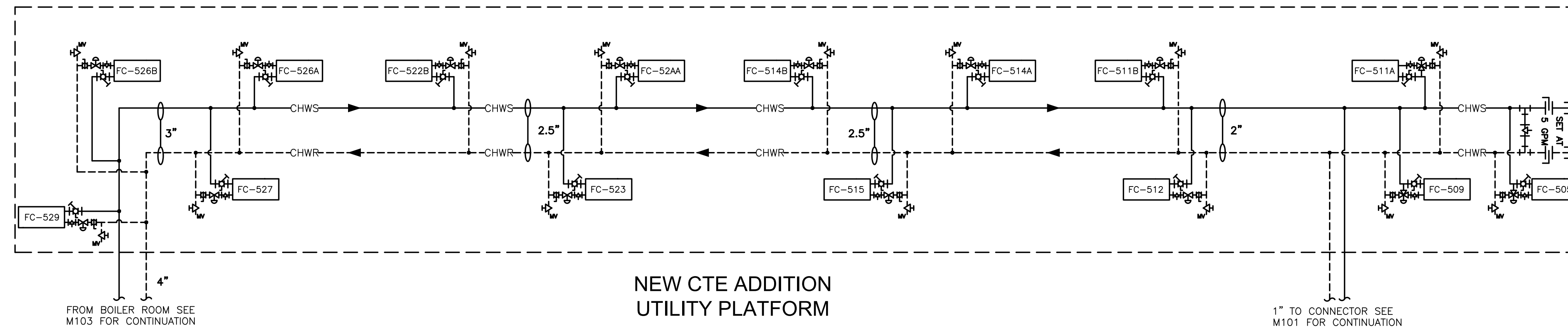
NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 312  
Windsor / Bertie County / North Carolina

Project No.	22351
Date:	March 2025
Drawing No.	<b>M 003</b>

ES Project No: ES24055

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# 004.1 CHILLED WATER PIPING FLOW DIAGRAM

SCALE: NONE

NOTES:

- THIS DETAIL IS DIAGRAMATIC ONLY; SEE PLANS AND DETAILS FOR ACTUAL PIPING AND DEVICES
- REFERENCE SPECIFICATION SECTION 15966 FOR PUMP STAGING CONTROLLER

## CHILLED WATER (CHW) PLANT, PRI-SEC W/ DEDICATED PRIMARY PUMPS, AIR-COOLED CHILLERS

### General

- The CHW plant shall operate and provide CHW to the building:
  - There is a call for cooling from the HVAC system, and
  - The Building Loop CHWR temperature is greater than or equal to 46°F. Then
  - Enable lead chiller and start lead primary pump.
- Calculate building capacity (in tons) using the following formula:  
 $Load = (500/12,000) \times Flow \times (CHWR - CHWS \text{ to Building})$

### Operation

- Primary CHW Pumps (PCHWP)
  - Chiller shall control its own primary CHW pump via factory controls. Upon chiller enable command, chiller shall start pump and prove flow prior to starting the chiller. Upon chiller disable command, chiller shall stop, and pump shall continue to run until temperatures/pressures inside chiller have stabilized prior to stopping pump.
  - Determine pump status through a current sensor. If a pump fails to start as commanded, generate an alarm. Enable command for chiller shall be used as proxy for the CHW pump start. Provide delay to prevent nuisance alarms.
- Chillers
  - General
    - Chiller shall be provided with factory controls. Factory controls shall be sufficient and robust enough to allow chiller to operate nearly independently from the BAS. In general, factory controls will stage/modulate compressors, stage/modulate fans, and adjust capacity control to maintain CHW setpoint. Sequences as described below are for the interface between the BAS and factory controls and not intended to fully describe the chiller operation. Internal safeties (high/low pressure safeties, flow safeties, freeze protection, etc) to protect equipment shall be provided by factory as required, in addition to safeties listed below. Factory controls shall be configured/programmed to achieve the sequence as written below. Unless explicitly stated otherwise, factory will provide all control points, both hardware and software, as shown on the accompanying schematic or called for in sequence, and wire points back to factory controls. The BAS contractor will interface with the chiller to obtain data for trending, alarming, and graphics purposes. In addition, provide the following points:
      - Provide with connection to BAS network.
      - Provide with chiller entering water (EWT) and leaving water temperatures (LWT) and communicate values over BAS network.
      - Provide with chiller capacity (in percent) and communicate value over BAS network.
      - Provide with writable point for CHW setpoint and communicate/adjust value over BAS network.
      - Provide with hardwired chiller enable/disable.
    - Chillers shall operate in a lead/lag fashion.
      - The lead chiller shall remain enabled so long as the CHW plant is enabled.
    - Stage on first lag chiller if:
      - The lead chiller runs for 30 minutes (adj) above 95% capacity (adj) per factory controls, or
      - The lead chiller runs for 30 minutes (adj) above 95% capacity (adj) per calculated capacity, or
      - The CHWS temperature to building is 2°F (adj) above setpoint for 30 minutes (adj). Chiller will via factory controls reach CHW setpoint. Fluctuations in CHWS temperature to building will not exceed 15 minutes. Lag chiller shall remain on for 15 minutes (adj) prior to staging off again.
    - Stage off lag chiller if:
      - If the lead and lag chiller run for 30 minutes (adj) below 40% capacity (adj) per factory controls, or
      - If the lead and lag chiller run for 30 minutes (adj) below 40% capacity (adj) per calculated capacity.
    - Chiller will ramp down and turn off via factory controls. Fluctuations in CHWS temperature to building will not exceed 15 minutes. First lag chiller shall remain off for 30 minutes (adj) prior to staging on again.
  - Stage on second lag chiller if:
    - The lead and first lag chillers both run for 30 minutes (adj) above 95% capacity (adj) per factory controls, or
    - The lead and first lag chillers both run for 30 minutes (adj) above 95% capacity (adj) per calculated capacity, or

- The CHWS temperature to building is 2°F (adj) above setpoint for 30 minutes (adj). Chiller will via factory controls reach CHW setpoint. Fluctuations in CHWS temperature to building will not exceed 15 minutes. Second lag chiller shall remain on for 15 minutes (adj) prior to staging off again.

- Stage off second lag chiller if:
  - If all chillers run for 30 minutes (adj) below 40% capacity (adj) per factory controls, or
  - If all chillers run for 30 minutes (adj) below 40% capacity (adj) per calculated capacity.

- Scheduled and Failover Rotation
  - Chillers CH-1 and CH-2 shall be lead and first lag during Occupied Mode Operation and shall rotate weekly (adj.) automatically. CH-3 shall be second lag chiller during Occupied Mode Operation. CH-3 shall be lead chiller during Unoccupied Mode Operation and CH-1 and CH-2 shall be first lag and second lag chillers and shall rotate weekly (adj.) automatically. Via graphics, user shall be able to:
    - Select which chiller shall be lead, first lag, and second lag on the next rotation.
    - Schedule the day of week and hour of day to rotate chiller.
    - Override rotation and keep lead/lag/as-is.
    - Rotate chiller immediately.

- Ability to "lockout" chiller for servicing, to prevent rotation to that chiller.
  - Failover
    - Chillers CH-1 and CH-2 shall be lead or first lag chillers. CH-3 shall always be second lag chiller in Occupied Mode Operation unless there is a chiller failure.
    - If the lead chiller fails, generate an alarm. Disable failed chiller and rotate first lag chiller into lead and second lag chiller to first lag position. Operation shall continue as described above. If lag chiller is already running, do not disable and restart on rotation to lead and rotate second lag chiller to first lag chiller.
    - If the first lag chiller fails, generate an alarm. Disable failed chiller and rotate second lag chiller to first lag position. Operation shall continue as described above. If second lag chiller is already running, do not disable and restart on rotation as first lag until failed chiller is operational.
    - Failed chiller shall remain off until alarm is manually cleared (via graphic). Once cleared, chiller shall enter and remain in lag position until next rotation.

- Secondary CHW Pumps (SCHWP)
  - General
    - Occupied Mode Operation
      - Secondary CHW pump(s) shall run when there is any call for CHW. Determine pump(s) status through a current sensor. If a pump(s) fails to start as commanded, generate an alarm.
    - Unoccupied Mode Operation
      - Secondary CHW pump(s) shall run when the CHW plant is enabled. Determine pump(s) status through a current sensor. If a pump(s) fails to start as commanded, generate an alarm.
  - The pump(s) speed shall modulate to maintain differential pressure (DP) setpoint. All pumps shall operate at the same speed.
    - Single DP sensor plants: The BAS shall modulate pump speed to satisfy the DP sensor setpoint (to be determined by TAB, initially 10 psig, adj). If DP sensor signal goes to zero or infinity, generate an alarm and pump speed shall fail to last known speed.
      - Note to TAB contractor: final DP setpoint shall be sufficient to keep critical circuit CHW coil valve between 85 and 95% open.
    - Reference the floorplans for DP sensor location(s).
    - If any DP sensor is 2 psi (adj) below setpoint for 20 minutes (adj), generate an alarm.

- Freeze Protection
  - On a freestart trip for any piece of equipment utilizing CHW, enable SCHWP operation. Chillers shall remain off.

- Ability to "lockout" pump for servicing, to prevent rotation to that pump.
  - Failover
    - If the lead pump fails, generate an alarm. Disable failed pump and rotate lag pump into lead. Operation shall continue as described above. If lag pump is already running, do not stop and restart on rotation to lead.
    - Failed pump shall remain off until alarm is manually cleared (via graphic). Once cleared, pump shall enter and remain in lag position until next rotation.

- Effective CHWS Temperature Setpoint
  - The following items will control the effective CHWS temperature setpoint, in order of decreasing priority. Display the active mode on the graphics.
    - Operator Override
    - Dehumidification (fixed setpoint)
    - Energy Savings (calculated setpoint)
  - The effective CHWS temperature setpoint shall be communicated to chiller factory controls. If the CHWS temperature is +2°F (adj) from effective setpoint for 15 minutes (adj), generate an alarm. Disable CHWS temperature alarm when staging chillers.

- Dehumidification
  - On a call for dehumidification from any piece of equipment utilizing CHW, CHW plant shall enter dehumidification mode.
  - CHWS temperature setpoint shall be 42°F (adj).
  - If there is no call for dehumidification from any piece of equipment utilizing CHW for 30 minutes, CHW plant shall leave dehumidification mode.

- Freeze Protection
  - On a freestart trip for any piece of equipment utilizing CHW, enable SCHWP operation. Chillers shall remain off.

- Provide a graphical display for the CHW plant, with a schematic of the plant and the following points:
  - System on/off
  - Number of CHW calls required for enable setpoint
  - EPO and fire alarms
  - Pump status, on/off/alarm, speed command, speed feedback, fault and fault text (each pump/VFD)
  - Current lead/lag pump, next rotation time, next lead/lag pump (upcoming rotation) and ability to adjust all.
  - Pump accumulated runtime and runtime reset (each pump)
  - Chiller enable/disable
  - Chiller EWT and LWT (each chiller)
  - Chiller load (tons), percent run load amps (RLA), and percent capacity (each chiller, via hardware or BAS network connection)
  - Chiller percent capacity (each chiller, calculated)
  - Chiller CHW setpoint (each chiller)
  - Chiller pressures, temperatures, alarms, and other data via BAS network connection (each chiller)
  - Current lead/first lag/second lag chiller, next rotation time, next lead/first lag/second lag chiller (upcoming rotation) and ability to adjust all.
  - Chiller accumulated runtime and runtime reset (each chiller)
  - Differential pressure and setpoint (each DP sensor)
  - CHW supply and return temperatures to building
  - CHW building flow (in GPM)
  - CHW building bypass valve command
  - CHW building bypass mixed water temperature
  - Building CHW Load (in tons)
  - Effective CHWS temperature mode, setpoint, and alarm
  - Dehumidification CHWS temperature setpoint
  - Chart for CHW OAT reset, with four points shown on chart
  - CHW bridge temperature

- Provide a graphical table for the CHW System Terminal Load, with the following points:
  - Equipment Name
  - CHW valve position
  - Terminal load
  - Dehumidification status/call
  - Freeze protection status/call
  - Criticality ranking

- General
  - Occupied Mode Operation
    - Secondary CHW pump(s) shall run when there is any call for CHW. Determine pump(s) status through a current sensor. If a pump(s) fails to start as commanded, generate an alarm.
  - Unoccupied Mode Operation
    - Secondary CHW pump(s) shall run when the CHW plant is enabled. Determine pump(s) status through a current sensor. If a pump(s) fails to start as commanded, generate an alarm.
- The pump(s) speed shall modulate to maintain differential pressure (DP) setpoint. All pumps shall operate at the same speed.
  - Single DP sensor plants: The BAS shall modulate pump speed to satisfy the DP sensor setpoint (to be determined by TAB, initially 10 psig, adj). If DP sensor signal goes to zero or infinity, generate an alarm and pump speed shall fail to last known speed.
    - Note to TAB contractor: final DP setpoint shall be sufficient to keep critical circuit CHW coil valve between 85 and 95% open.
  - Reference the floorplans for DP sensor location(s).
  - If any DP sensor is 2 psi (adj) below setpoint for 20 minutes (adj), generate an alarm.

- Freeze Protection
  - On a freestart trip for any piece of equipment utilizing CHW, enable SCHWP operation. Chillers shall remain off.

- Provide a graphical display for the CHW plant, with a schematic of the plant and the following points:
  - System on/off
  - Number of CHW calls required for enable setpoint
  - EPO and fire alarms
  - Pump status, on/off/alarm, speed command, speed feedback, fault and fault text (each pump/VFD)
  - Current lead/lag pump, next rotation time, next lead/lag pump (upcoming rotation) and ability to adjust all.
  - Pump accumulated runtime and runtime reset (each pump)
  - Chiller enable/disable
  - Chiller EWT and LWT (each chiller)
  - Chiller load (tons), percent run load amps (RLA), and percent capacity (each chiller, via hardware or BAS network connection)
  - Chiller percent capacity (each chiller, calculated)
  - Chiller CHW setpoint (each chiller)
  - Chiller pressures, temperatures, alarms, and other data via BAS network connection (each chiller)
  - Current lead/first lag/second lag chiller, next rotation time, next lead/first lag/second lag chiller (upcoming rotation) and ability to adjust all.
  - Chiller accumulated runtime and runtime reset (each chiller)
  - Differential pressure and setpoint (each DP sensor)
  - CHW supply and return temperatures to building
  - CHW building flow (in GPM)
  - CHW building bypass valve command
  - CHW building bypass mixed water temperature
  - Building CHW Load (in tons)
  - Effective CHWS temperature mode, setpoint, and alarm
  - Dehumidification CHWS temperature setpoint
  - Chart for CHW OAT reset, with four points shown on chart
  - CHW bridge temperature

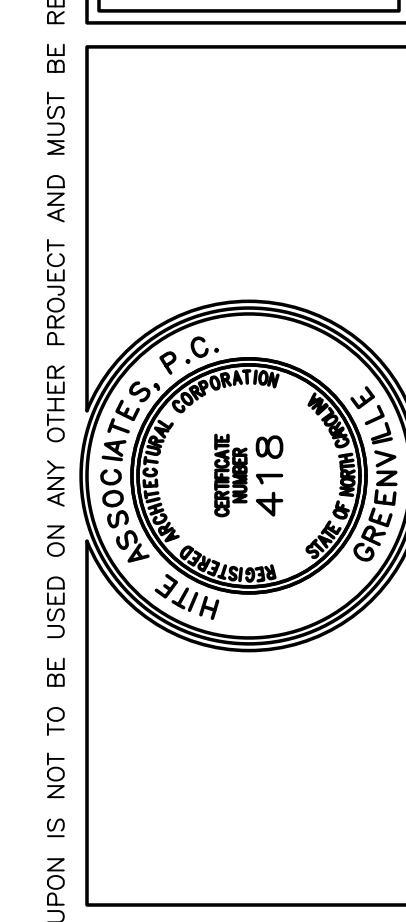
- Provide a graphical table for the CHW System Terminal Load, with the following points:
  - Equipment Name
  - CHW valve position
  - Terminal load
  - Dehumidification status/call
  - Freeze protection status/call
  - Criticality ranking

# 004.2 CHILLED WATER PLANT CONTROL SEQUENCE

SCALE: N.T.S.

No.	Date

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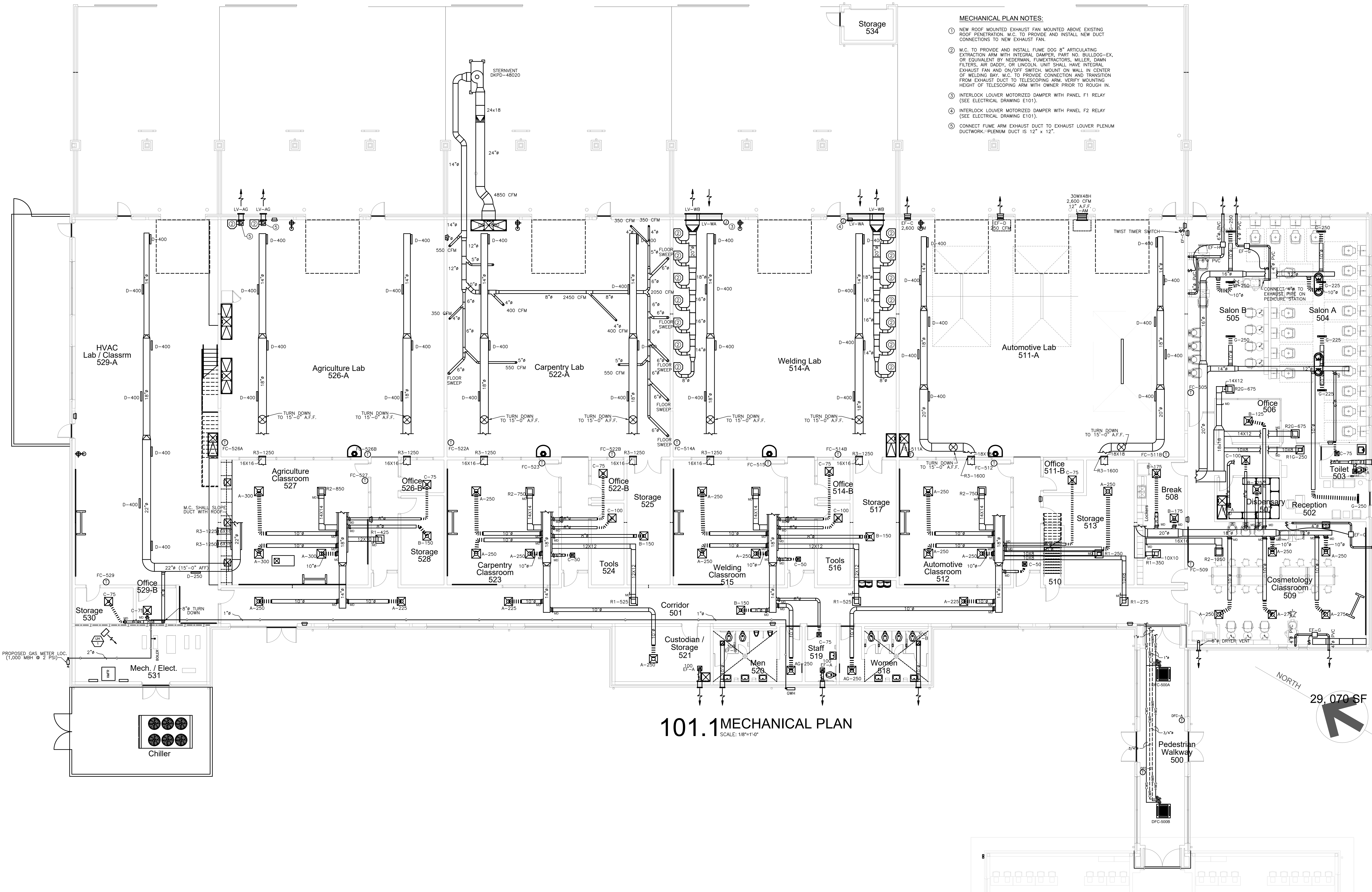


NEW CTE BUILDING FOR  
**Bertie High School**  
 716 US 13 North / NCDPS Unit 080 - School 312  
 Windsor / Bertie County / North Carolina

Project No.	22351
Date	March 2025
Drawing No.	M 004

ES Project No. ES24055  
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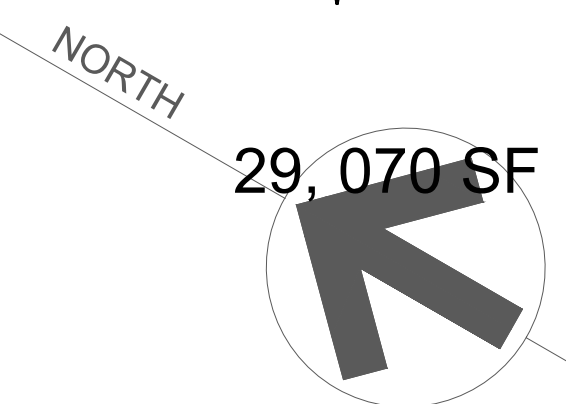


MECHANICAL PLAN NOTES:

- ① NEW ROOF MOUNTED EXHAUST FAN MOUNTED ABOVE EXISTING ROOF PENETRATION, M.C. TO PROVIDE AND INSTALL NEW DUCT CONNECTIONS TO NEW EXHAUST FAN.
- ② M.C. TO PROVIDE AND INSTALL FUME DOG 8" ARTICULATING EXTRACTION ARM WITH INTEGRAL DAMPER, PART NO. BULLDOG-EX, OR EQUIVALENT BY NEDERMAN, FUMEXTRACTORS, MILLER, DAMM FILTERS, AIR DADDY, OR LINCOLN. UNIT SHALL HAVE INTEGRAL EXHAUST FAN AND ON/OFF SWITCH. MOUNT ON WALL IN CENTER OF WELDING BAY. M.C. TO PROVIDE CONNECTION AND TRANSITION FROM EXHAUST DUCT TO TELESCOPING ARM. VERIFY MOUNTING HEIGHT OF TELESCOPING ARM WITH OWNER PRIOR TO ROUGH IN.
- ③ INTERLOCK LOUVER MOTORIZED DAMPER WITH PANEL F1 RELAY (SEE ELECTRICAL DRAWING E101).
- ④ INTERLOCK LOUVER MOTORIZED DAMPER WITH PANEL F2 RELAY (SEE ELECTRICAL DRAWING E101).
- ⑤ CONNECT FUME ARM EXHAUST DUCT TO EXHAUST LOUVER PLENUM DUCTWORK- PLENUM DUCT IS 12" x 12".

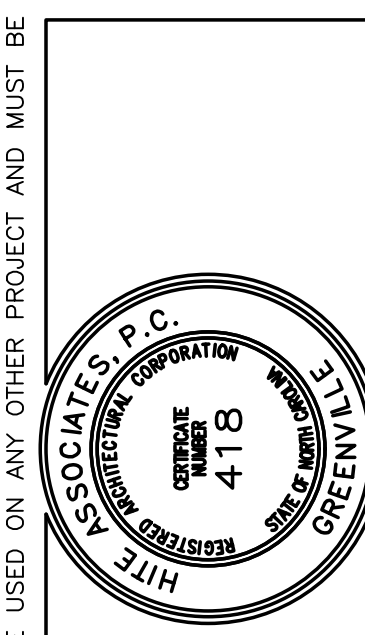
101.1 MECHANICAL PLAN  
SCALE: 1/8"=1'-0"

29,070 SF



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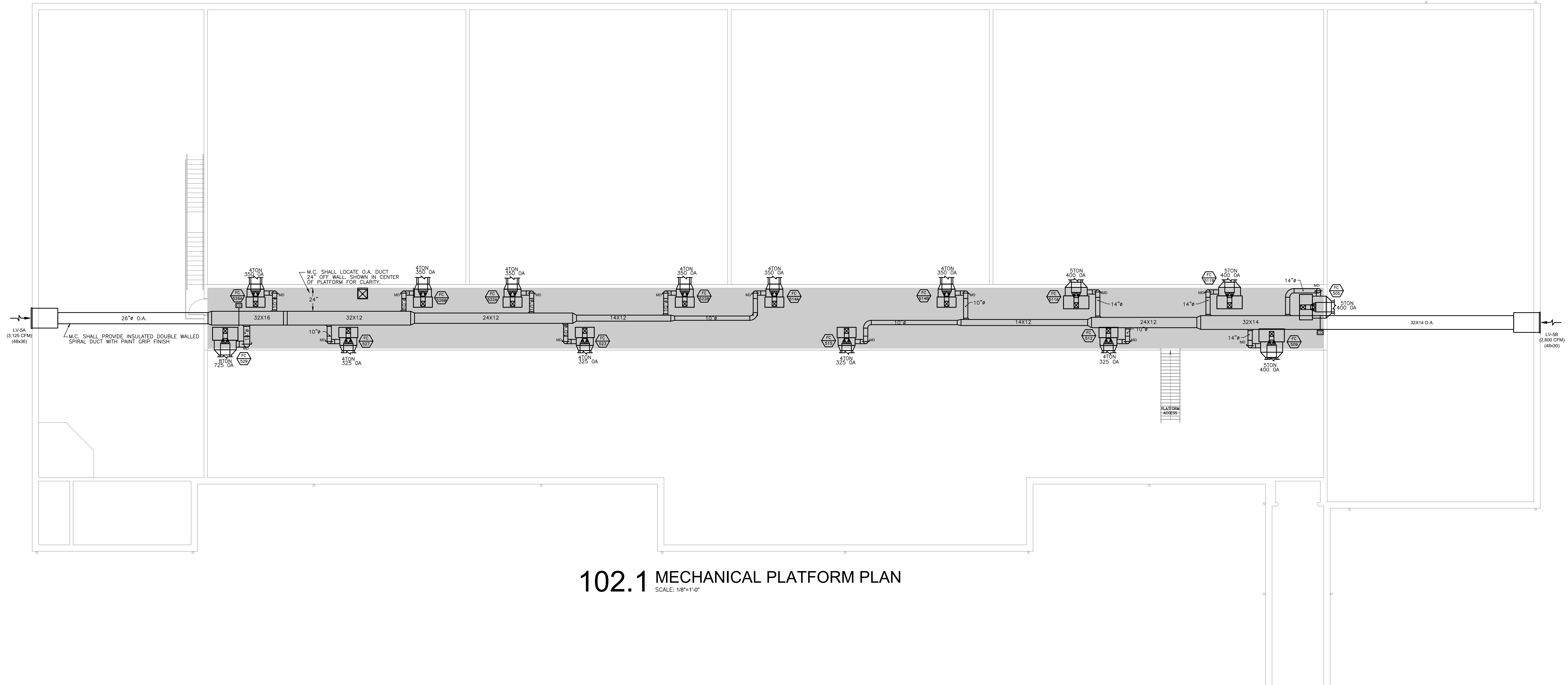


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 Windsor / Bertie County / North Carolina

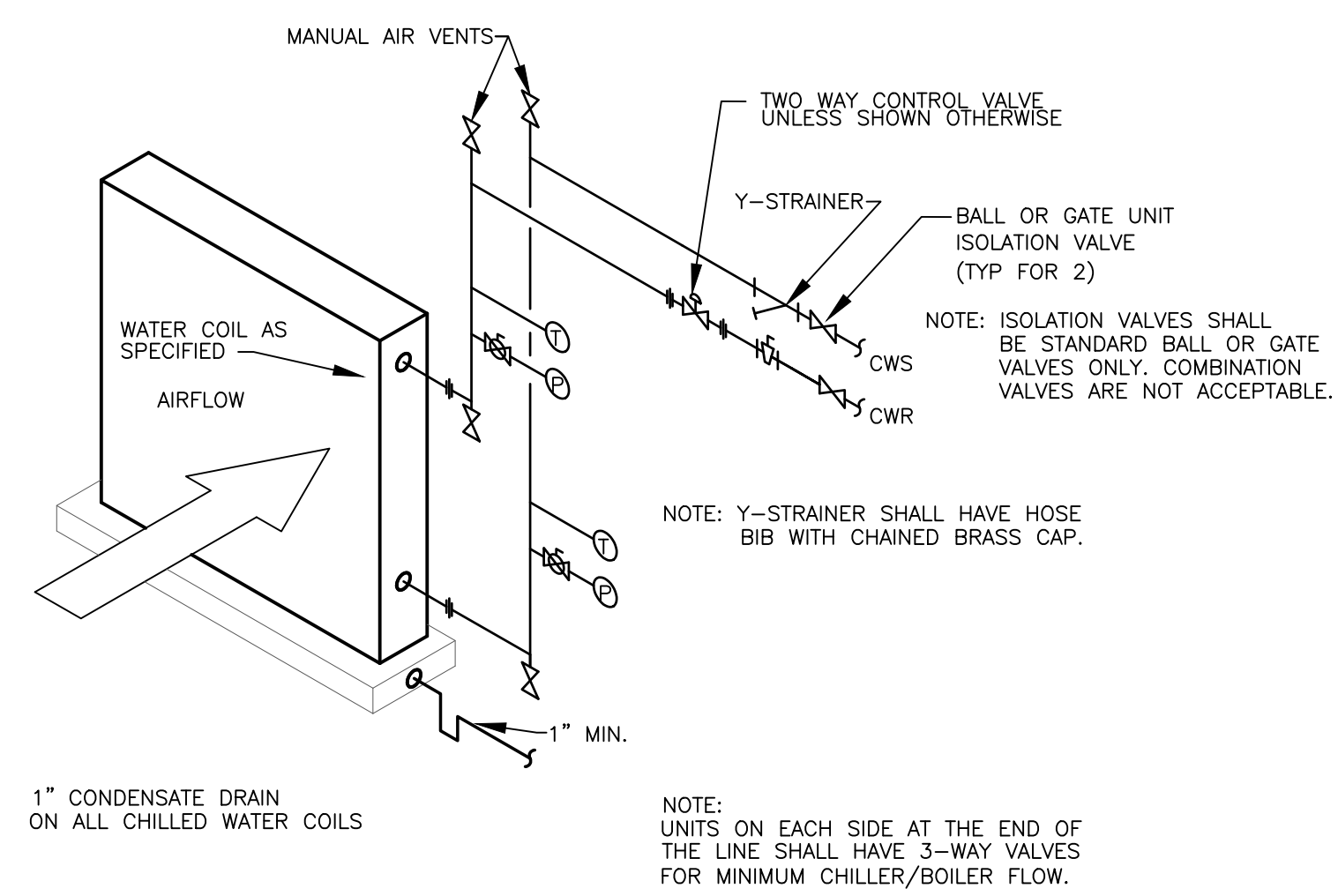
Project No.	22351
Date	March 2025
Drawing No.	M 101

ES Project No. ES24055  
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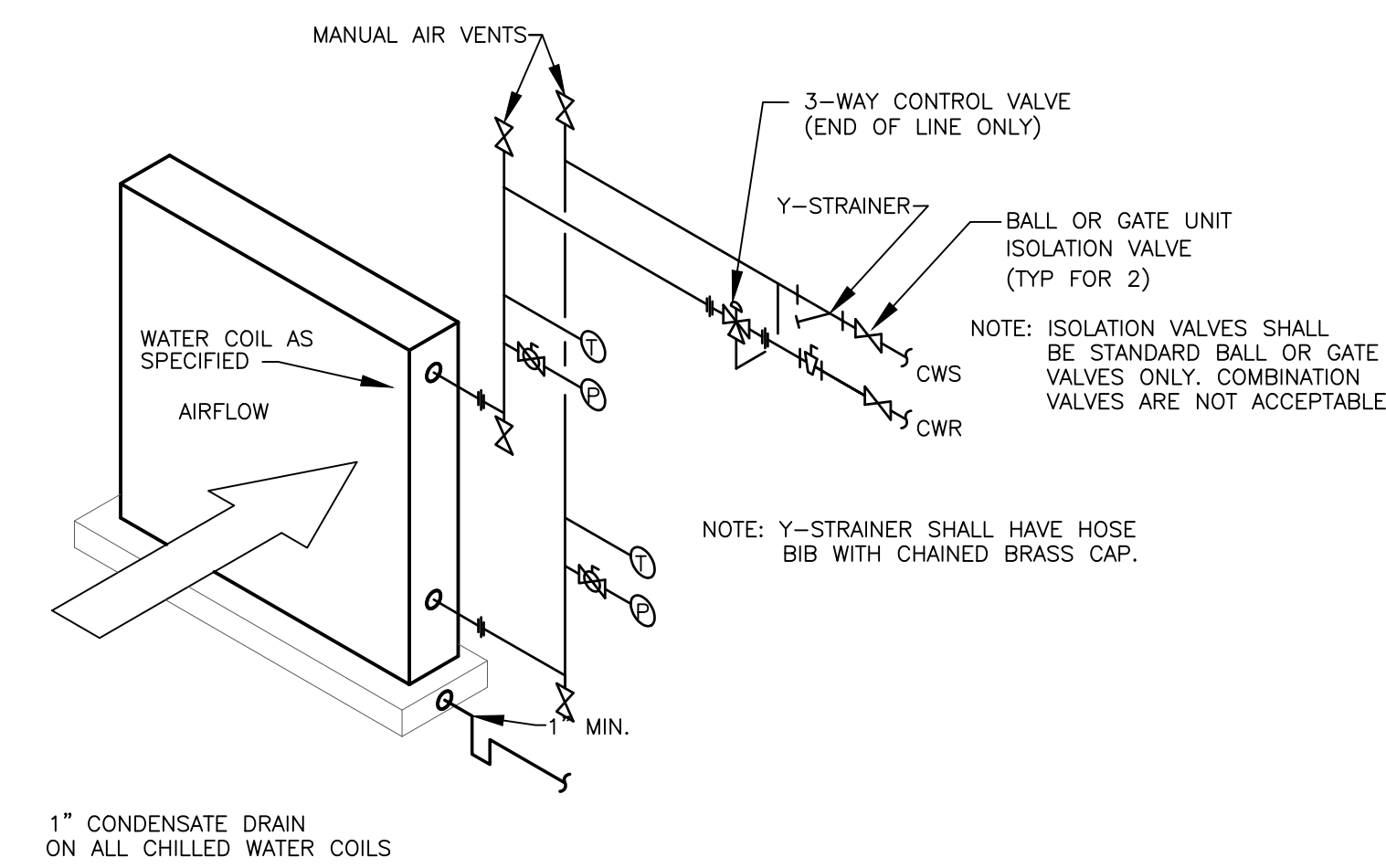
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102.1 MECHANICAL PLATFORM PLAN  
SCALE: 1/8"=1'-0"



102.2 2-WAY VALVE COIL PIPING DETAIL  
SCALE: N.T.S.



102.3 3-WAY VALVE COIL PIPING DETAIL  
SCALE: N.T.S.

No.	Date	Revision

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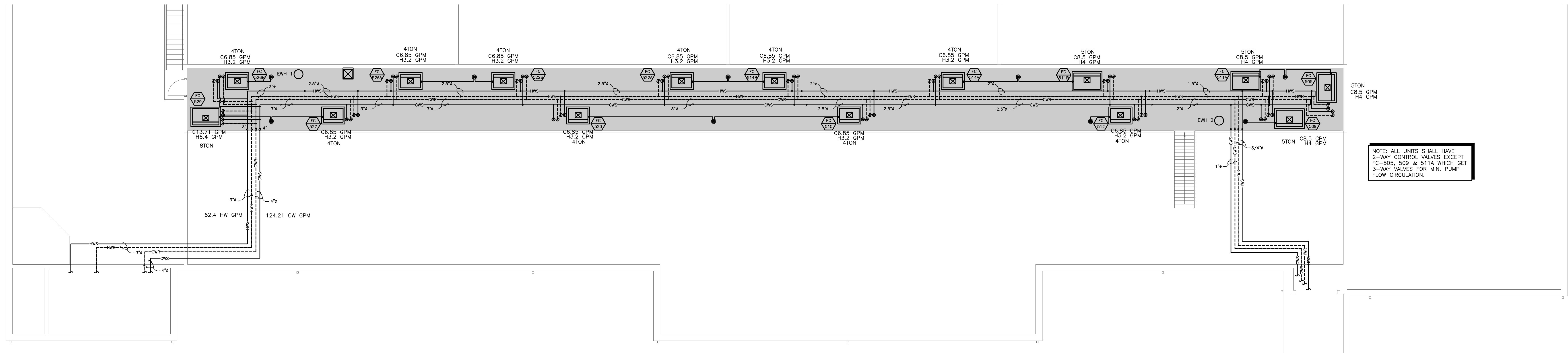
NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 312  
Windsor / Bertie County / North Carolina

Project No. 22351  
Date: March 2025  
Drawing No. **M 102**

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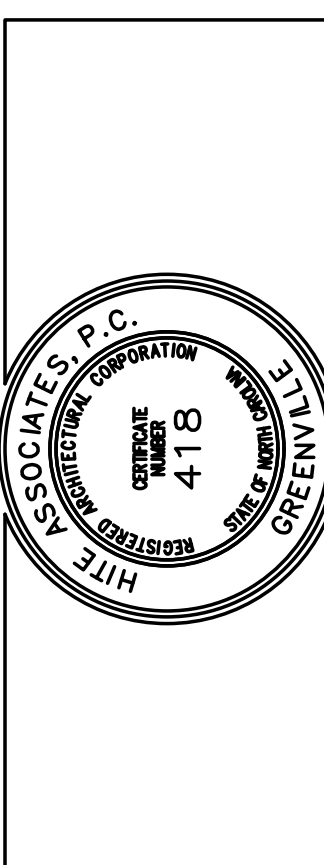




103.1 MECHANICAL PLATFORM PIPING PLAN  
SCALE: 1/8"=1'-0"

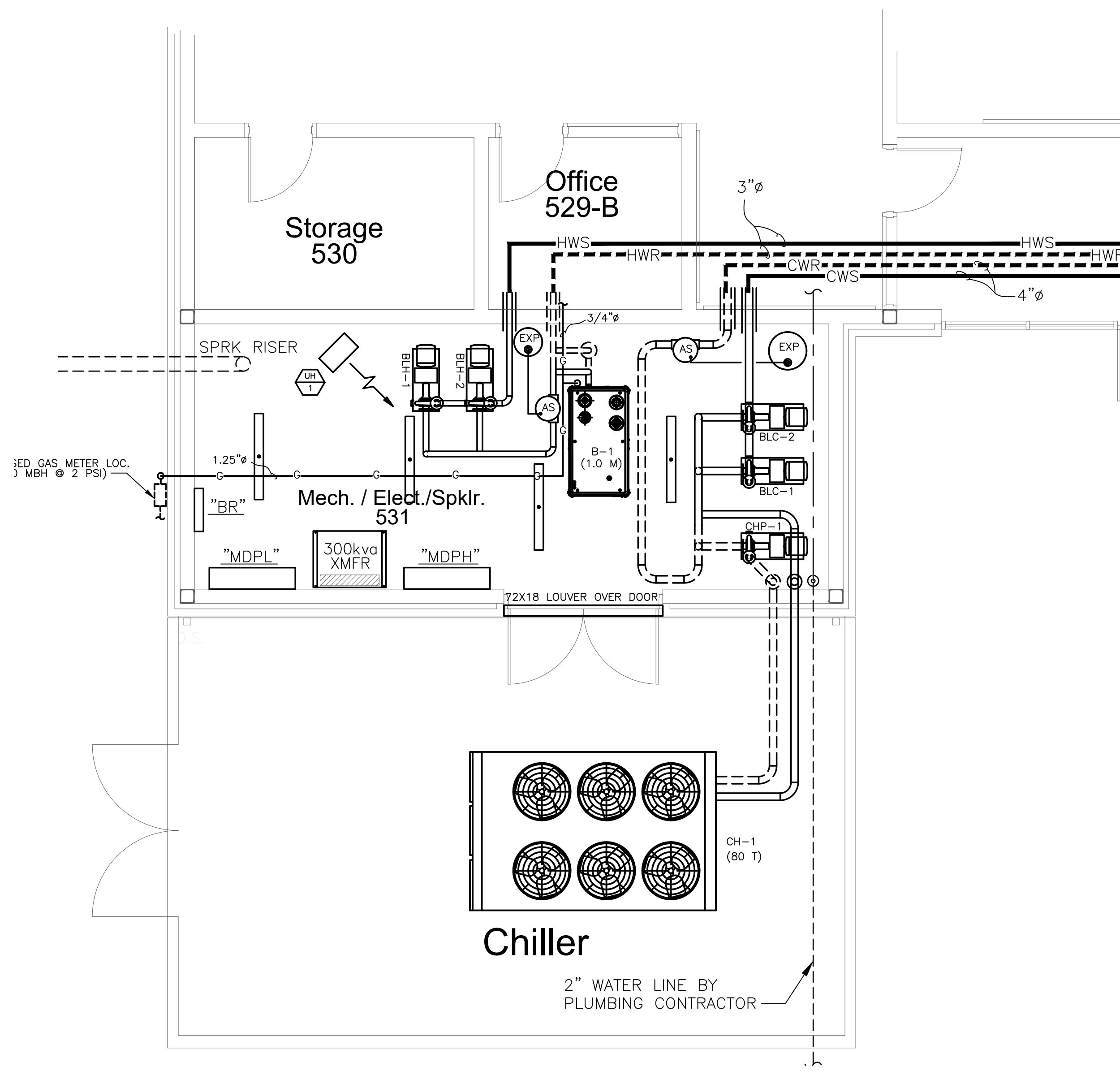
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2600 Meridian Drive / Greenville, NC 27834 / Tel (252) 757-0333



NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 312  
Windsor / Bertie County / North Carolina

Project No. 22351  
Date: March 2025  
Drawing No. **M 103**



103.2 BOILER ROOM PIPING PLAN  
SCALE: 1/8"=1'-0"

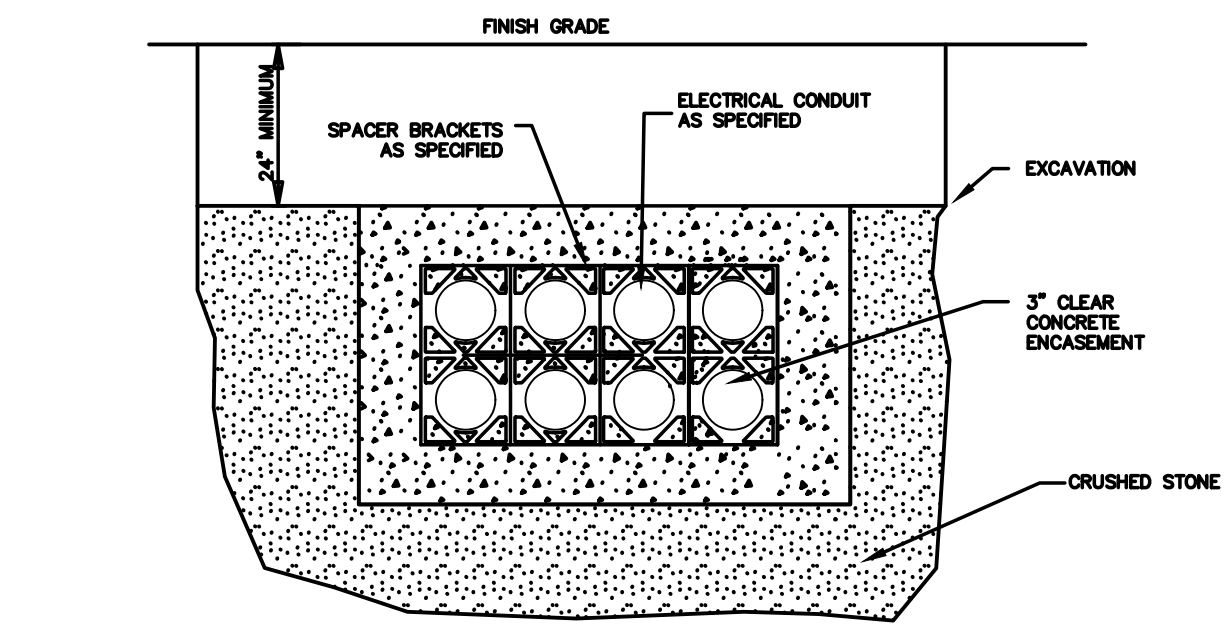
### FAN COIL EQUIPMENT SCHEDULE

TAG	SYSTEM	ZONE	AIR DATA		COOLING DATA							HEATING DATA							MOTOR DATA				EQUIPMENT DATA								
			CFM	OA	TCL	SC	EATdb	LATdb	ΔTdb	GPM	LWT	CONN	PD	CFM	HEAT	EAT	LAT	LWT	GPM	CONN	PD	ESP	HP	MCA	MOCIP	ELECT	DESCRIPTION	MFR./MODEL NO.	ROWS	NOTES	WEIGHT
DFC-500A	CONNECTOR		430	0	12	8.9	74.0	55.0	19.0	2	54.0	1"	10	430	15.9	71.0	105.0	128.8	1.5	1"	10	1.25	0.1	1	15	208/16	DUCTLESS FAN COIL	MULTI-AQUA MHEFC-4.1	2/1		
DFC-500B	CONNECTOR		430	0	12	8.9	74.0	55.0	19.0	2	54.0	1"	10	430	15.9	71.0	105.0	128.8	1.5	1"	10	1.25	0.1	1	15	208/16	DUCTLESS FAN COIL	MULTI-AQUA MHEFC-4.1	2/1		
FC-505	COSMOTOLOGY		2000	400	60	50.3	78.2	55.0	23.2	9	55.3	1-1/4"	10	1400	67.7	60.4	105.0	122.9	5	1"	10	1.25	1	8.63	15	2777/16	VERTICAL BLOWER COIL	ENVIRO-TEC/VDD20	6/2		
FC-509	COSMOTOLOGY		2000	400	60	50.3	78.2	55.0	23.2	9	55.3	1-1/4"	10	1400	67.7	60.4	105.0	122.9	5	1"	10	1.25	1	8.63	15	2777/16	VERTICAL BLOWER COIL	ENVIRO-TEC/VDD20	6/2		
FC-511A	AUTOMOTIVE LAB		2000	400	60	50.3	78.2	55.0	23.2	9	55.3	1-1/4"	10	1400	67.7	60.4	105.0	122.9	5	1"	10	1.25	1	8.63	15	2777/16	VERTICAL BLOWER COIL	ENVIRO-TEC/VDD20	6/2		
FC-511B	AUTOMOTIVE LAB		2000	400	60	50.3	78.2	55.0	23.2	9	55.3	1-1/4"	10	1400	67.7	60.4	105.0	122.9	5	1"	10	1.25	1	8.63	15	2777/16	VERTICAL BLOWER COIL	ENVIRO-TEC/VDD20	6/2		
FC-512	AUTOMOTIVE CLASS		1600	325	48	40.4	78.3	55.0	23.3	7	55.7	1-1/4"	10	1200	58.3	60.2	105.0	120.9	4	1"	10	1.25	1	8.63	15	2777/16	VERTICAL BLOWER COIL	ENVIRO-TEC/VDD16	6/2		
FC-514A	WELDING LAB		1600	350	48	41.0	78.6	55.0	23.6	7	55.7	1-1/4"	10	1200	59.4	59.4	105.0	120.3	4	1"	10	1.25	1	8.63	15	2777/16	VERTICAL BLOWER COIL	ENVIRO-TEC/VDD16	6/2		
FC-514B	WELDING LAB		1600	350	48	41.0	78.6	55.0	23.6	7	55.7	1-1/4"	10	1200	59.4	59.4	105.0	120.3	4	1"	10	1.25	1	8.63	15	2777/16	VERTICAL BLOWER COIL	ENVIRO-TEC/VDD16	6/2		
FC-515	WELDING CLASS		1600	325	48	40.4	78.3	55.0	23.3	7	55.7	1-1/4"	10	1200	58.3	60.2	105.0	120.9	4	1"	10	1.25	1	8.63	15	2777/16	VERTICAL BLOWER COIL	ENVIRO-TEC/VDD16	6/2		
FC-522A	CARPENTRY LAB		1600	350	48	41.0	78.6	55.0	23.6	7	55.7	1-1/4"	10	1200	59.4	59.4	105.0	120.3	4	1"	10	1.25	1	8.63	15	2777/16	VERTICAL BLOWER COIL	ENVIRO-TEC/VDD16	6/2		
FC-522B	CARPENTRY LAB		1600	350	48	41.0	78.6	55.0	23.6	7	55.7	1-1/4"	10	1200	59.4	59.4	105.0	120.3	4	1"	10	1.25	1	8.63	15	2777/16	VERTICAL BLOWER COIL	ENVIRO-TEC/VDD16	6/2		
FC-523	CARPENTRY CLASS		1600	325	48	40.4	78.3	55.0	23.3	7	55.7	1-1/4"	10	1200	58.3	60.2	105.0	120.9	4	1"	10	1.25	1	8.63	15	2777/16	VERTICAL BLOWER COIL	ENVIRO-TEC/VDD16	6/2		
FC-526A	AG LAB		1600	350	48	41.0	78.6	55.0	23.6	7	55.7	1-1/4"	10	1200	59.4	59.4	105.0	120.3	4	1"	10	1.25	1	8.63	15	2777/16	VERTICAL BLOWER COIL	ENVIRO-TEC/VDD16	6/2		
FC-526B	AG LAB		1600	350	48	41.0	78.6	55.0	23.6	7	55.7	1-1/4"	10	1200	59.4	59.4	105.0	120.3	4	1"	10	1.25	1	8.63	15	2777/16	VERTICAL BLOWER COIL	ENVIRO-TEC/VDD16	6/2		
FC-527	AG CLASS		1600	320	48	40.3	78.2	55.0	23.2	7	55.7	1-1/4"	10	1200	58.1	60.4	105.0	121.0	4	1"	10	1.25	1	8.63	15	2777/16	VERTICAL BLOWER COIL	ENVIRO-TEC/VDD16	6/2		
FC-529	HVAC LAB/CLASS		3200	725	96	82.5	78.8	55.0	23.8	14	55.7	1-1/2"	10	2300	114.8	59.0	105.0	121.3	8	1-1/4"	10	1.25	2	3.4	15	480/36	VERTICAL BLOWER COIL	ENVIRO-TEC/VDD30	6/2		

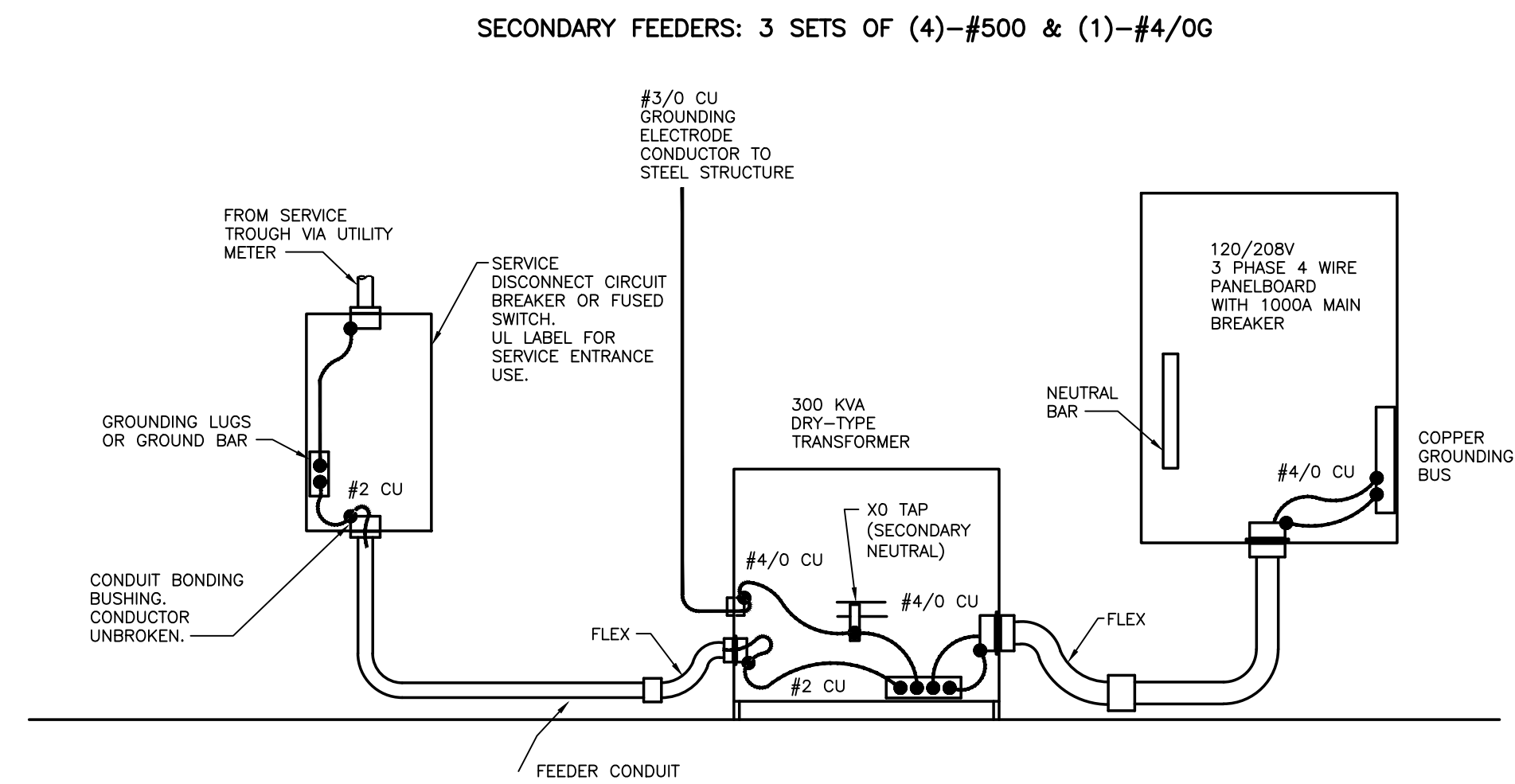
ES Project No. ES24055  
**ENGINEERING**  
 SOURCE OF NC, P.A.  
 102-42 Papey Blvd., Greenville, NC 27834  
 E-Mail Address: general@hiteassociates.com  
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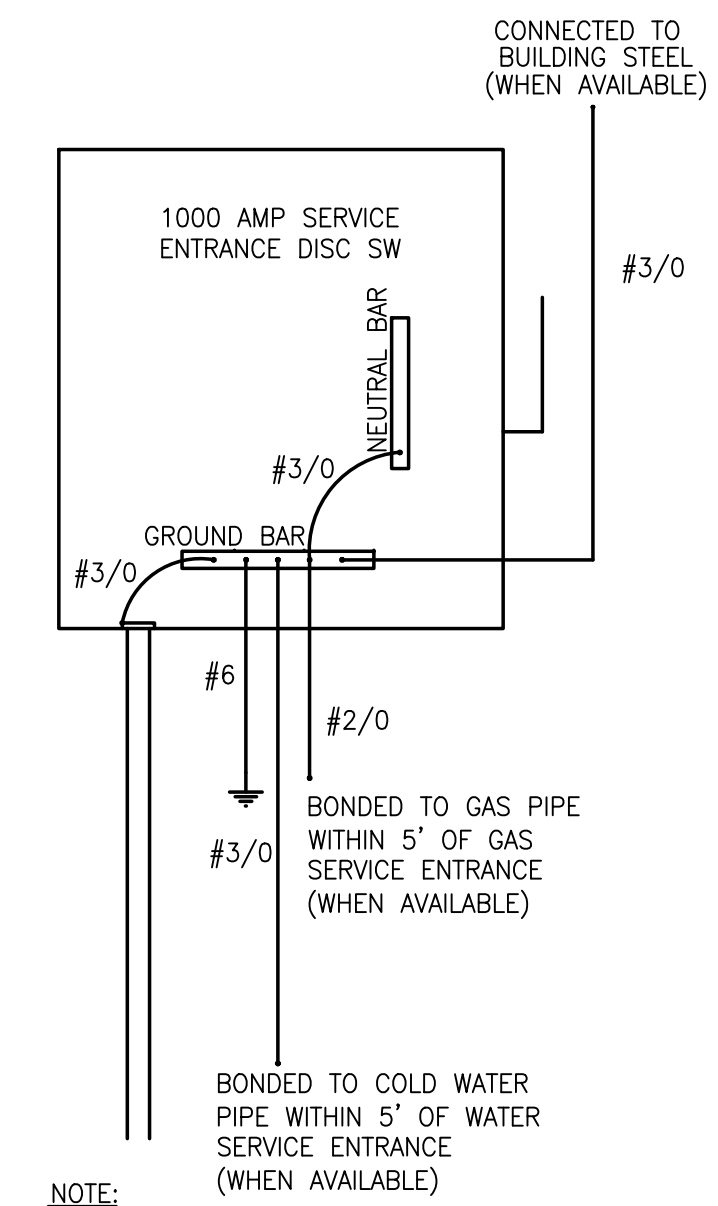




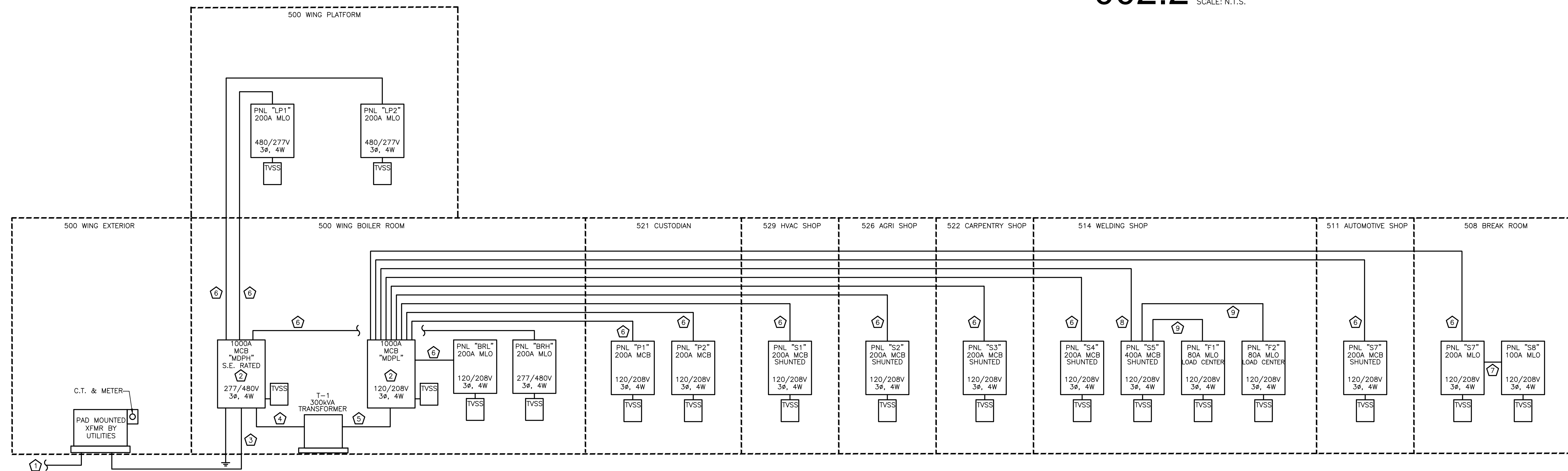
**002.3 SE DUCT BANK DETAIL**  
SCALE: N.T.S.



**002.4 300 KVA TRANSFORMER GROUNDING DIAGRAM**  
SCALE: N.T.S.



**002.2 1000A SERVICE ENTRANCE GROUNDING DETAIL**  
SCALE: N.T.S.

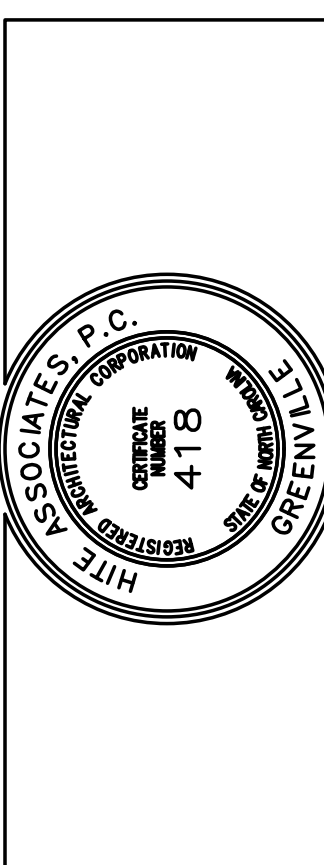


**002.1 POWER RISER DIAGRAM**  
SCALE: N.T.S.

- ELECTRICAL RISER NOTES:**
- ① COORDINATE UNDERGROUND/OVERHEAD SERVICE WITH UTILITY CO. PROVIDE ALL CONDUIT, WIRING, LABOR, AND/OR OTHER WORK AS REQUIRED BY UTILITY CO.
  - ② GROUND SERVICE ENTRANCE PER "SERVICE ENTRANCE GROUNDING DETAIL"
  - ③ 3 SETS: 4-#400KCMIL IN 3.5" UNDERSLAB
  - ④ 2 SETS: 3-#250 & 1-#1/0G IN 3"
  - ⑤ 3 SETS: 4-#400 & 1-#3/0 IN 3.5" C
  - ⑥ 4-#3/0 & 1-#6G. IN 2.5"
  - ⑦ 4-#3 & 1-#6G. IN 1.5"
  - ⑧ 2 SETS: 4-#3/0 & 1-#3G. IN 2.5"
  - ⑨ 4-#4 & 1-#8 IN 1.25"

No.	Date	Revision

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ARCHITECTURE / PLANNING / TECHNOLOGY  
2600 Meridian Drive / Greenville, NC 27834 / Tel (252) 757-0233

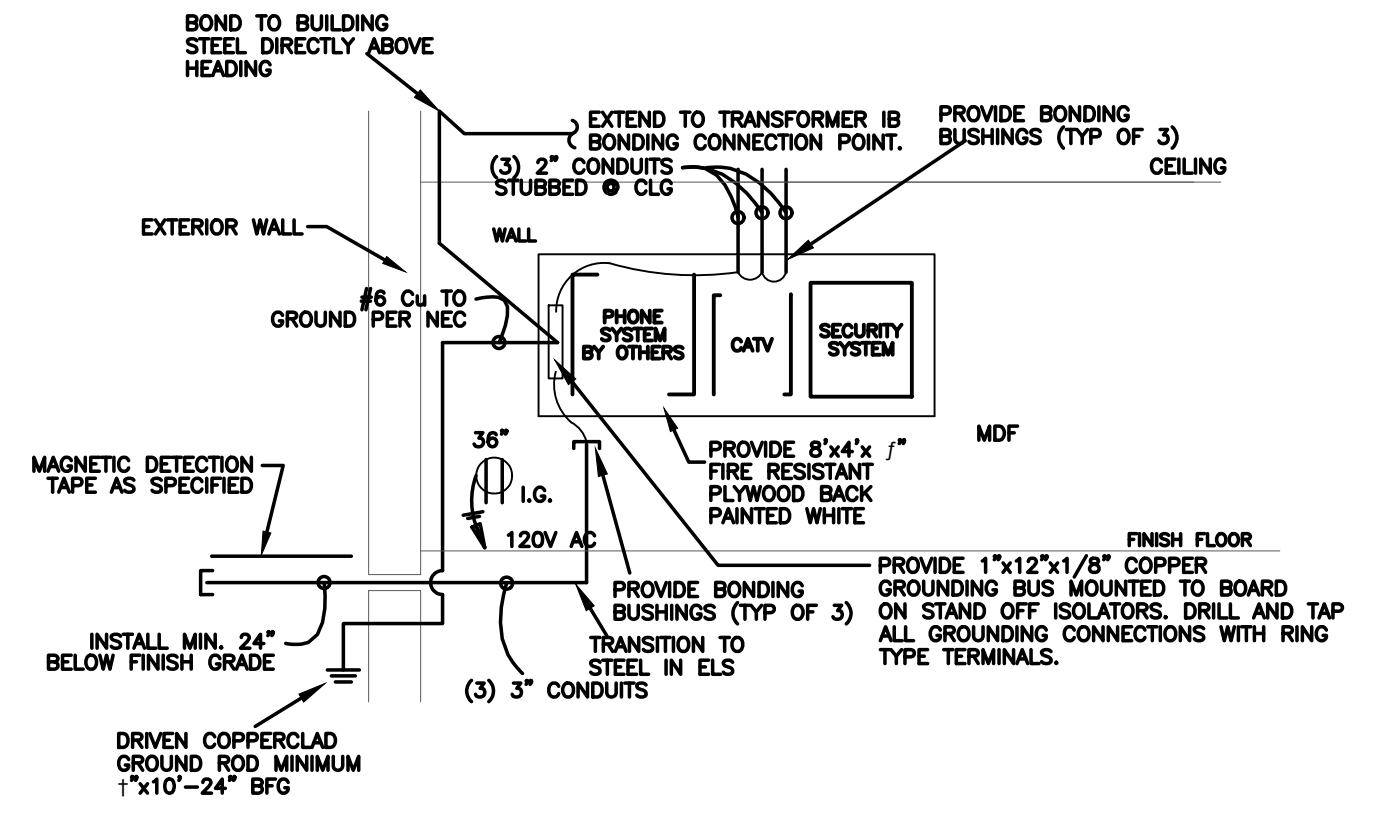


NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 312  
Windsor / Bertie County / North Carolina

Project No.	22351
Date	March 2025
Drawing No.	<b>E 002</b>

**ENGINEERING**  
SOURCE OF NC, P.A.  
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**003.1 TELEPHONE SYSTEM RISER**  
SCALE: N.T.S.

**ELECTRICAL SUMMARY**  
ELECTRICAL SYSTEM AND EQUIPMENT

METHOD OF COMPLIANCE:  
ENERGY CODE: PRESCRIPTIVE  PERFORMANCE   
ASHRAE 90.1: PRESCRIPTIVE  PERFORMANCE

LIGHTING SCHEDULE  
LAMP TYPE REQUIRED IN FUTURE: VARIES (SEE LIGHT FIXTURE SCHEDULE THIS DRAWING)  
NUMBER OF LAMPS IN FUTURE: VARIES (SEE LIGHT FIXTURE SCHEDULE THIS DRAWING)  
BALLAST TYPE IN FUTURE: VARIES (SEE LIGHT FIXTURE SCHEDULE THIS DRAWING)  
NUMBER OF BALLASTS IN FUTURE: VARIES (SEE LIGHT FIXTURE SCHEDULE THIS DRAWING)  
TOTAL WATTAGE PER FIXTURE: VARIES (SEE LIGHT FIXTURE SCHEDULE THIS DRAWING)  
TOTAL INTERIOR WATTAGE SPECIFIED VS. ALLOWED: \*\* 10,264W VS. 25,320W \*\*  
EXTERIOR LIGHTING ZONE: 3  
EXTERIOR LIGHTING WATTAGE SPECIFIED VS. ALLOWED: \*\* 1,820W VS. 2,067W \*\*

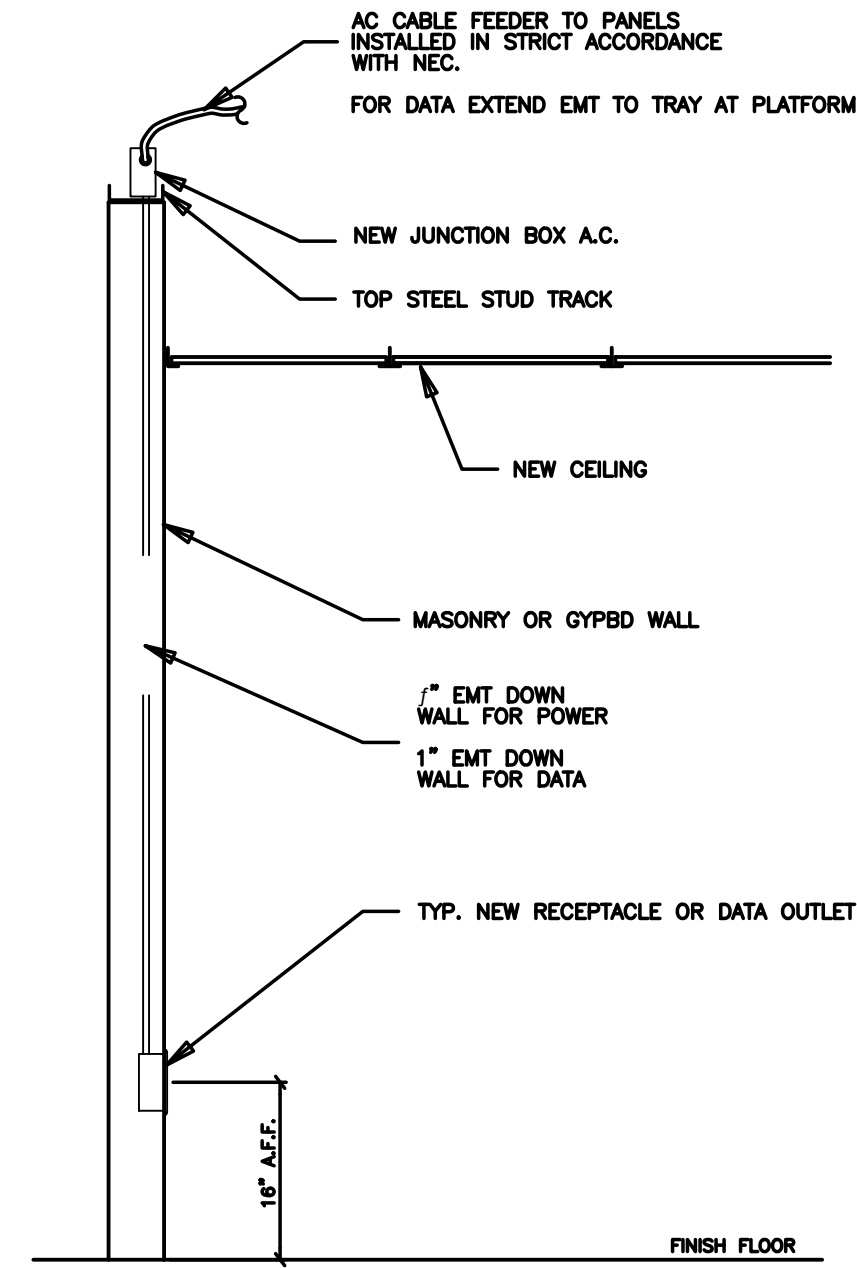
ADDITIONAL PRESCRIPTIVE COMPLIANCE  
 C406.2 More Efficient HVAC Equipment Performance  
 C406.3 Reduced Lighting Power Density  
 C406.4 Enhanced Digital Lighting Controls  
 C406.5 On-Site Renewable Energy  
 C406.6 Dedicated Outdoor Air System  
 C406.7 Reduced Energy Use in Service Water Heating

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 North Carolina Building Code, Energy Conservation Code.

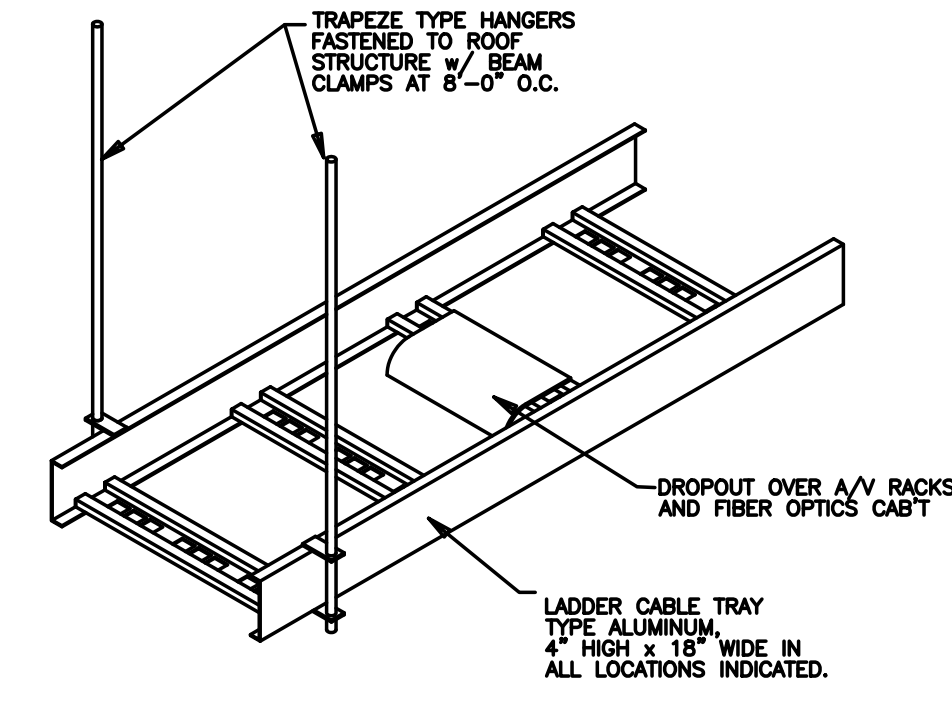
SIGNED: *D. Wilson*  
NAME: D. WILSON, P.O.U., P.E.  
TITLE: PROFESSIONAL ENGINEER

**003.2 LIGHTING LOAD SUMMARY**  
SCALE: N.T.S.

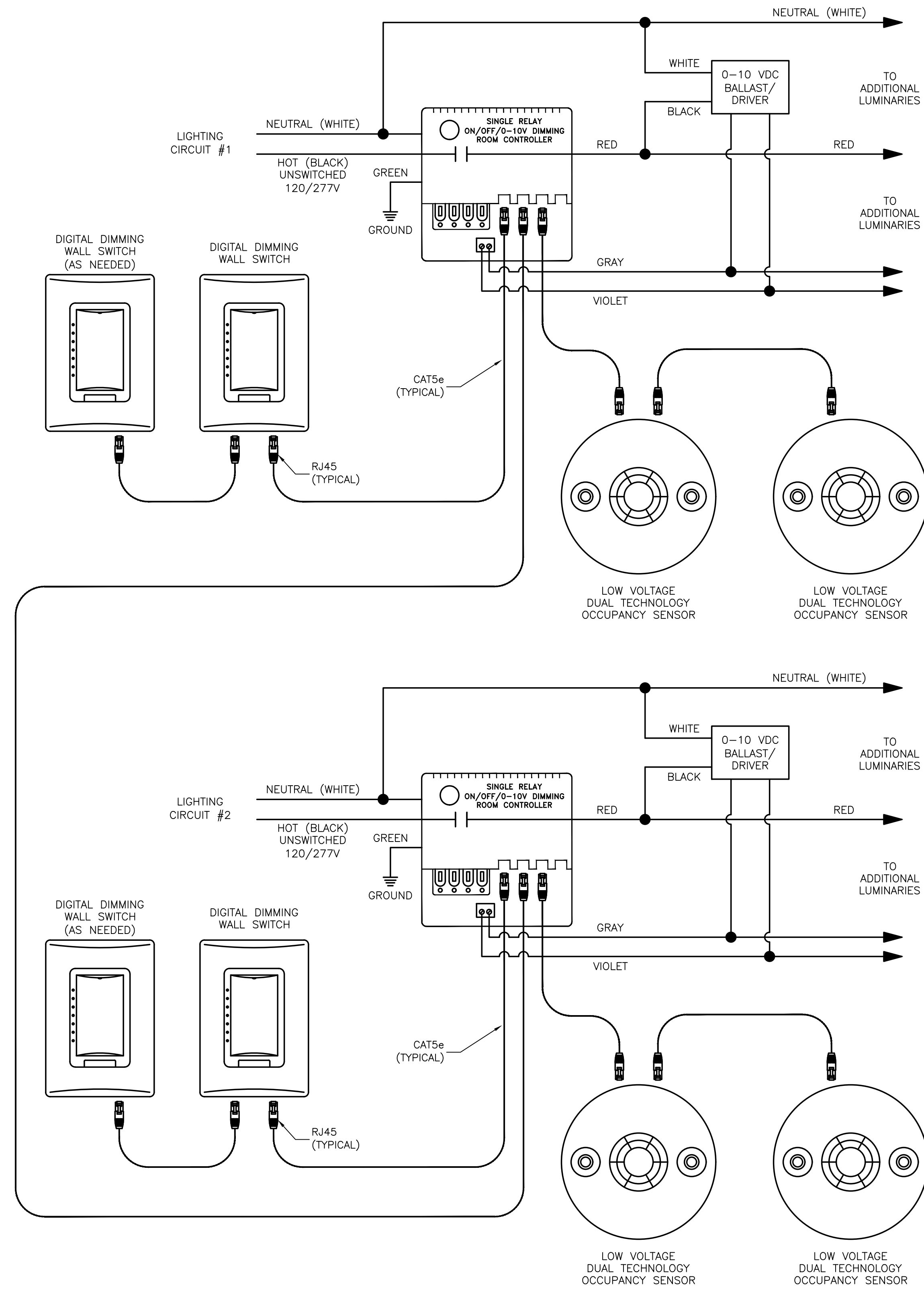
ALLOWED: \* 11,400W x 0.8 = 9,120W 508 COMPLIANCE  
TOTAL BUILDING INTERIOR LIGHTS WATTAGE: 26,100 SQFT (x .80) = 20,880W SPECIFIED C406.3 RP.D.  
\*\* ALLOWED: ZONE 3 @ 750W + 30W/SQFT FOR MAIN ENTRY  
+ 0.4W/250 SQFT ENTRY CANOPY + 0.113 W/ 14,851 SQFT FOR FACADES \*\*



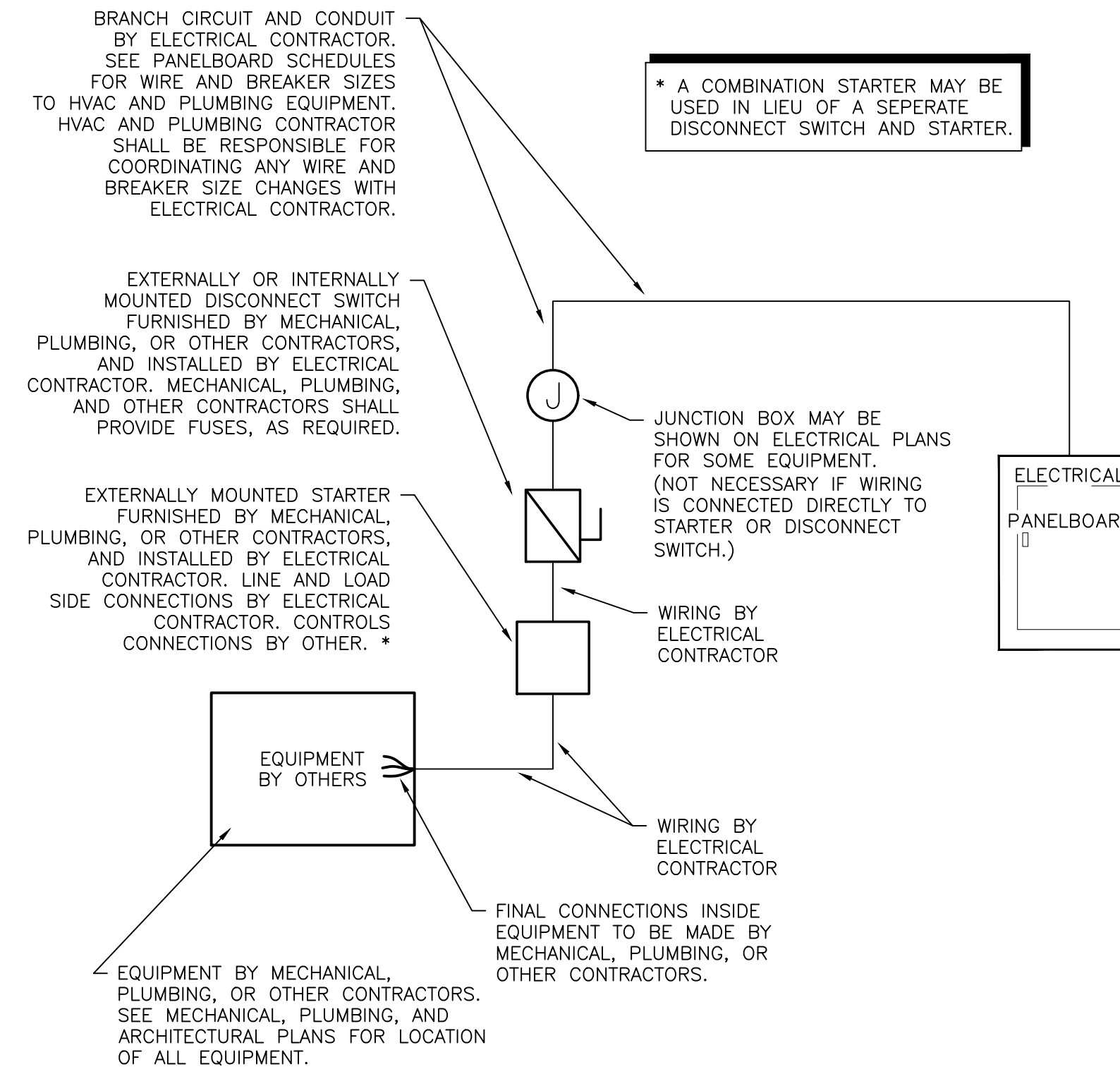
**003.3 RACEWAY INSTALLATION**  
SCALE: N.T.S.



**003.4 CABLE TRAY INSTALLATION DETAIL**  
SCALE: N.T.S.



**003.6 MULTI-ZONE LOW VOLTAGE ROOM CONTROLLERS**  
MULTI-LOCATION 0-10V DIMMING WIRING DIAGRAM  
SCALE: N.T.S.



**003.5 ELECTRICAL CONNECTION DETAIL**  
SCALE: N.T.S.

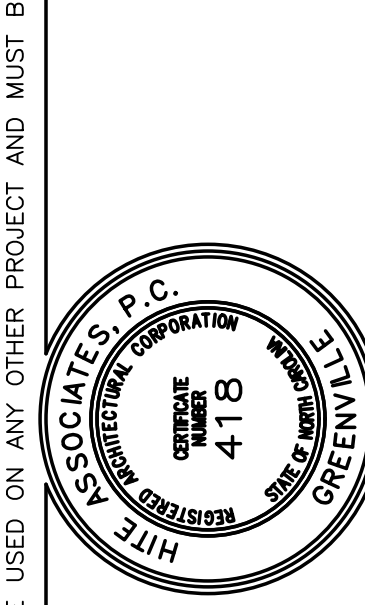
**OC. SENSOR SCHEDULE**

TYPE	DESCRIPTION
PIR	PASSIVE INEBARER
	-WALL MOUNT - WATT STOPPER #PW-100
	-CEILING MOUNT - WATT STOPPER #PW-305 W/BZ-150 PPAK
US	ULTRASONIC
	-WALL MOUNT - WATT STOPPER #WU-100
	-CEILING MOUNT - WATT STOPPER #UT-305 W/BZ-150 PPAK
DT DT-DR	DUAL TECHNOLOGY
	-WALL MOUNT - WATT STOPPER #DW-100
	-WALL MOUNT DUAL RELAY - WATT STOPPER #DW-200
	-CEILING MOUNT - WATT STOPPER #DT-305 W/BZ-150 PPAK
	-CEILING MOUNT DUAL RELAY - WATT STOPPER #DT-305 W/(2) BZ-150 PPAK
	-WALL MOUNT DUAL RELAY - WATT STOPPER #DS-400
TIME	PUSH BUTTON TIMER
	-WALL MOUNT - WATT STOPPER #TS-200

\* ALL OCCUPANCY SENSORS SPECIFIED USE 120/277V AC POWER. EQUALS ACCEPTED, MAKE AND MODEL USED TO SET STANDARD OF PERFORMANCE & QUALITY.  
\* ALL OCCUPANCY SENSORS ARE INSTALLED AND CIRCUITED PER PLANS.

No.	Date	Revision

**Hite associates**  
ARCHITECTURE / PLANNING / TECHNOLOGY  
2600 Meridian Drive / Greenville, NC 27834 / Tel (252) 767-0333

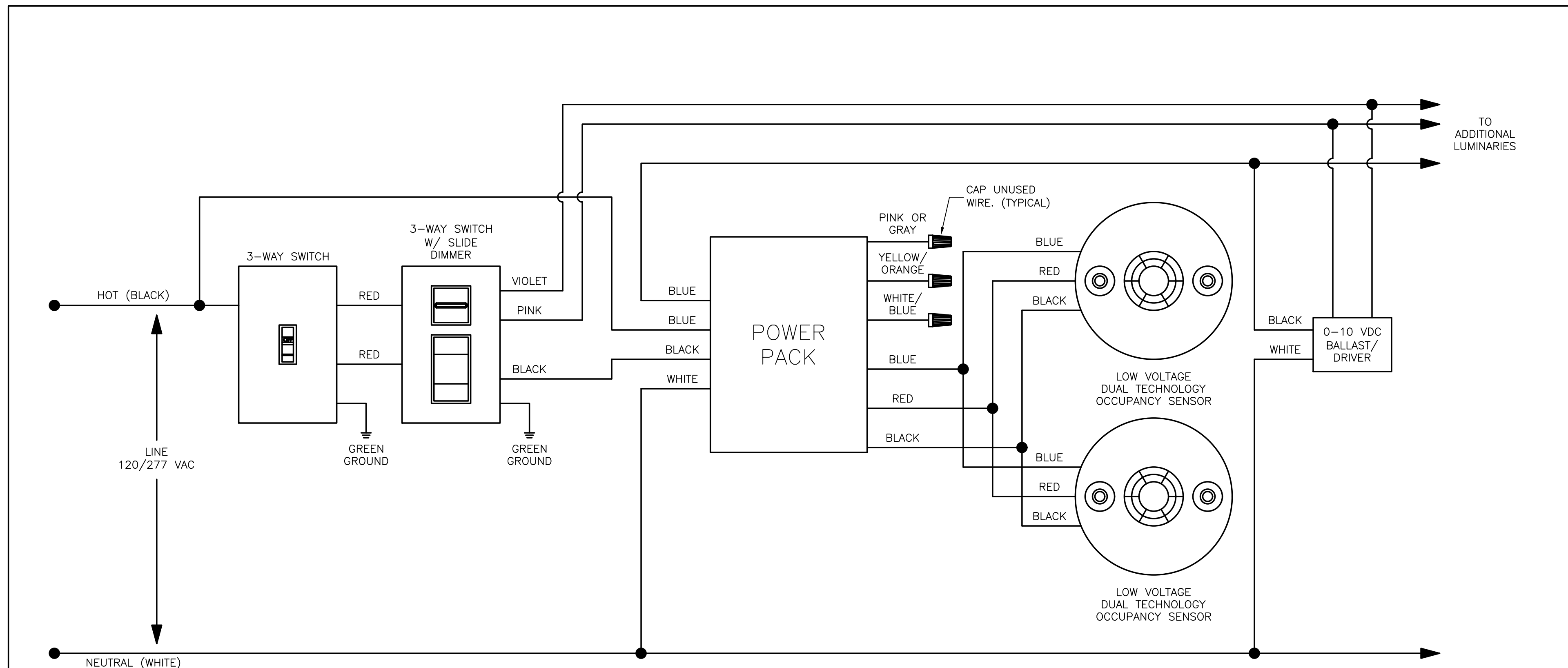


NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 312  
Windsor / Bertie County / North Carolina

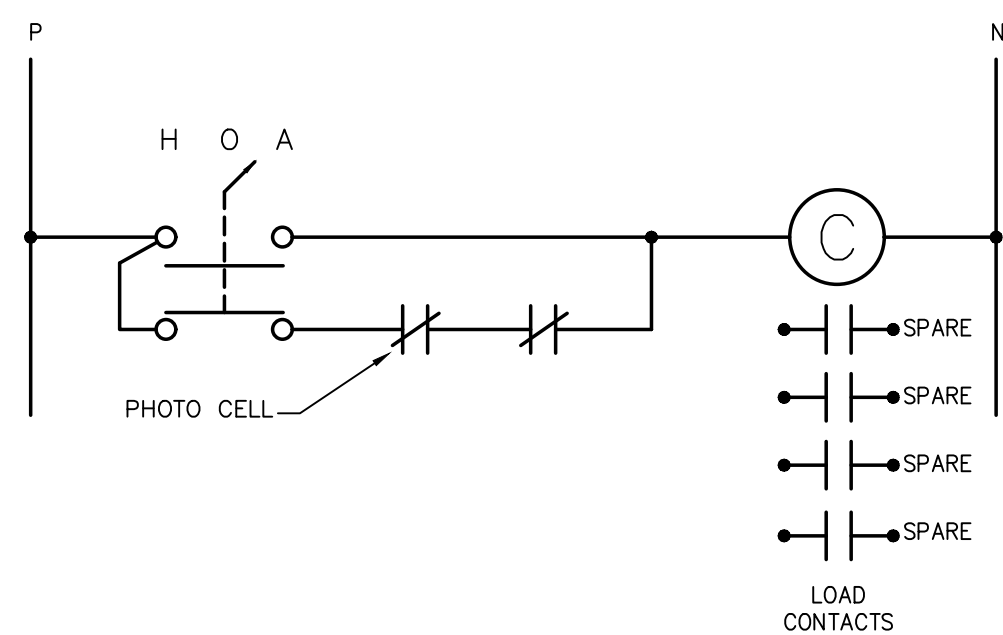
Project No. 22351  
Date: March 2025  
Drawing No. **E 003**

ES Project No. ES24055  
**ENGINEERING**  
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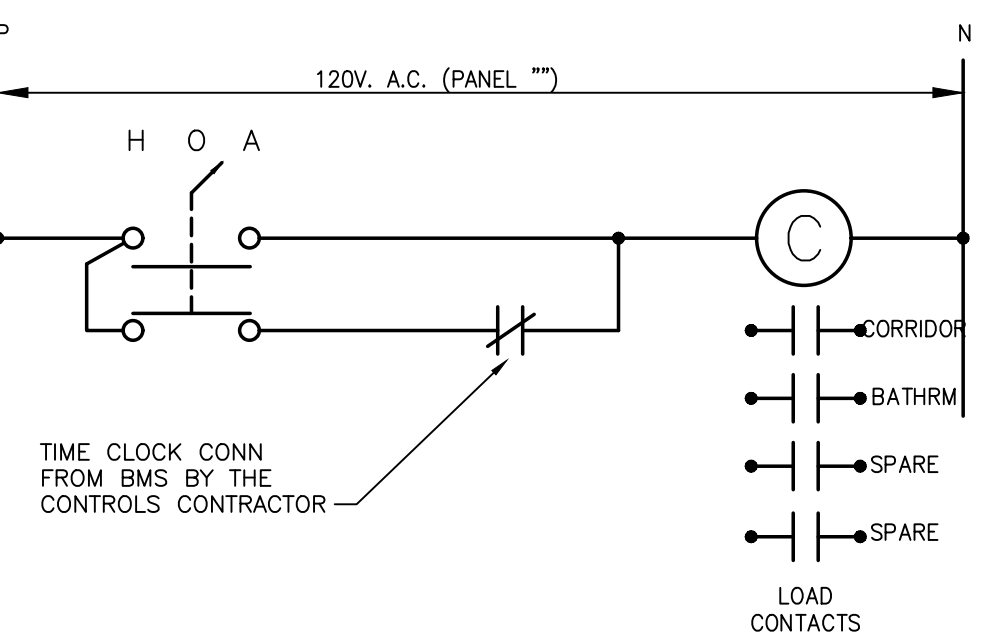
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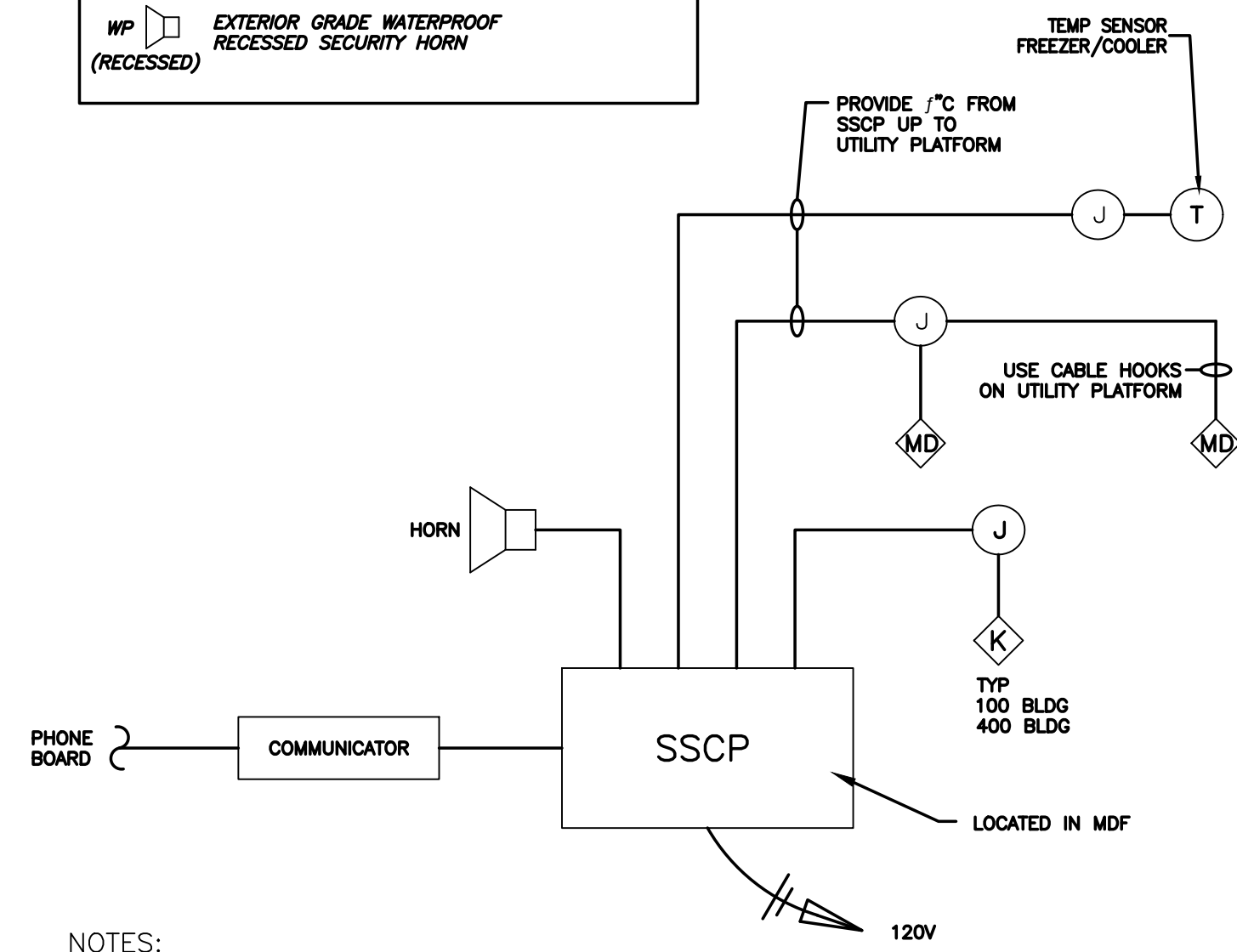
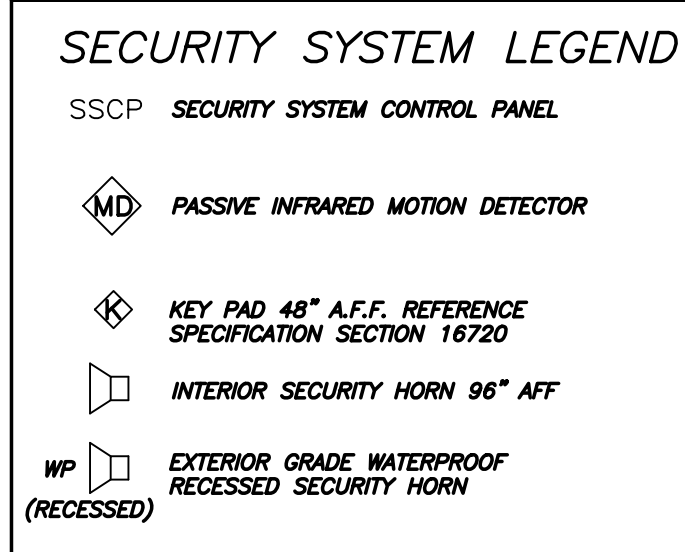
**004.1 SINGLE ZONE POWER PACK - LOW VOLTAGE DEVICES**  
**3-WAY SWITCHING WITH 0-10V DIMMING WIRING DIAGRAM**  
 SCALE: N.T.S.



**004.2 TYP EXTERIOR LIGHTING CONTACTOR**  
 SCALE: N.T.S.



**004.3 TYP INTERIOR LIGHTING CONTACTOR**  
 SCALE: N.T.S.



NOTES:  
 1) SEE SPECIFICATION FOR ADDITIONAL REQUIREMENTS  
 2) SEE PLANS FOR DEVICE QUANTITIES  
 3) ALL WIRING TERMINATIONS SHALL BE LABELED.

**004.4 SECURITY ALARM RISER DIAGRAM**  
 SCALE: N.T.S.

**LIGHT FIXTURE SCHEDULE**

TYPE	DESCRIPTION	LAMPS	VOLTS	WATTS	B. F.
A1	2'x4' LAY-IN LED FLAT PANEL WITH ACRYLIC LENS. PROVIDE WITH HIGH LUMEN PACKAGE (5000-6000 LUMENS) AND DIMMING DRIVER. PROVIDE: DAY-BRITE#; 2FP248L840-4-DS-UNV-DIM OR LITHONIA#; EPANL-2X4-5000LM-80CRI-40K-MIN10-DIM-MVOLT OR WILLIAMS#; BP24-LS-8CS-DIM-UNV	LED	UNV	54W	-
A2 /NL	2'x4' LAY-IN LED FLAT PANEL WITH ACRYLIC LENS. PROVIDE WITH MEDIUM LUMEN PACKAGE (4,600-5,600 LUMENS) AND DIMMING DRIVER. PROVIDE: DAY-BRITE#; 2FP248L840-4-DS-UNV-DIM LITHONIA#; EPANL-2X4-4800LM-80CRI-40K-MIN10-DIM-MVOLT OR WILLIAMS#; BP24-LS-8CS-DIM-UNV * /NL INDICATES FIXTURE TO BE USED AS NIGHT LIGHT AND SHALL HAVE POWER 24/7.	LED	UNV	45W	-
AG	2'x4' SURFACE MOUNT LED TROFFER WITH ACRYLIC LENS WITH MEDIUM LUMEN OUTPUT (4,600 LUMENS). PROVIDE DAY-BRITE # 2FP248L840-4-DS-UNV-DIM / FSP24 OR LITHONIA #; CPX24-5000L840-SML-MIN10-ZT-UNV / 2X4SMKS OR WILLIAMS #; BP24-LS-8CS-DIM-UNV / BP24SMK-W	LED	UNV	39W	-
B	8" VAPOR TIGHT LED PENDANT MOUNTED LIGHT FIXTURE 10,000-13,000 LUMENS; LITHONIA #; CSV1-L36-10,000LM-MVOLT-40K-80CRI OR OR EQUAL BY COOPER & DAY-BRITE	LED	UNV	88W	-
H /NL	6" LED DOWN LIGHT 2000 LUMENS WITH 0-10V DIMMING DRIVER; LITHONIA #; LDN6-L20-40-L06-ARCH-MVOLT-G210 OR WILLIAMS #; GDR-L20/840- DIM-UNV-0-10-05-N-F1 OR COOPER #; HALO PR6-FS24-D010-MVOLT * /NL INDICATES FIXTURE TO BE USED AS NIGHT LIGHT AND SHALL HAVE POWER 24/7.	LED	UNV	20W	-
K	3' ROUND LED PENDANT MOUNTED WITH OPEN CENTER HOOP STYLE PROVIDE WITH 0-10V DIMMING 2,500LM, 4000K, 80 CRI FINELITE # HP-2C-P-D-3'-S-840-DIM-277 OR EQUAL BY HUBBLE & COLUMBIA LIGHTING	LED	UNV	30W	-
S /NL	4' STRIP STYLE ENCLOSED LED LIGHT FIXTURE FOR EXTREME ENVIRONMENTS WITH MEDIUM LUMEN OUTPUT (4,850 LUMENS) AND FROSTED ACRYLIC LENS. PROVIDE: LEDALUX #; MY04-S0W-277-DDK-W-F OR WILLIAMS #; EGL2-4-L107/840-(L50)-HAFR-HA/40C-DRV-UNV OR PHILIPS DAYBRITE #; DWAB51LH840-4-UNV-WHP * /NL INDICATES FIXTURE TO BE USED AS NIGHT LIGHT AND SHALL HAVE POWER 24/7.	LED	UNV	47W	-
WC	EXTERIOR SOFFIT MOUNTED 9" SQUARE RECESSED LED AND UL LISTED FOR WET LOCATIONS. FORWARD THROW OPTICS AIMED AWAY FROM BUILDING. PROVIDE: CEILEO #; CLO-80L-39-4K7-4F-UNV-SQ-ARCH SELECTED COLOR OR EQUAL BY HUBBLE & COLUMBIA LIGHTING	LED	UNV	35W	-
WCW	EXTERIOR CANOPY MOUNTED 9" SQUARE RECESSED LED AND UL LISTED FOR WET LOCATIONS. WIDE THROW OPTICS. PROVIDE: CEILEO #; CLO-80L-39-4K7-50W-UNV-SQ-ARCH COLOR OR EQUAL BY HUBBLE & COLUMBIA LIGHTING	LED	UNV	35W	-
	CEILING OR WALL MOUNTED LED EXIT LIGHT CONFORMING TO NFPA 101 STANDARDS, w/ BATTERY & SOLID STATE CHARGER, SELF DIAGNOSTICS w/ A TEST CYCLE EVERY 30 DAYS MINIMUM. SELF-CONTAINED, DOUBLE OR SINGLE WHITE FACE/BODY, ABS THERMOPLASTIC HOUSING, PILOT & STATUS INDICATING LIGHTS, TEST SWITCH, & 90 MIN. EMERGENCY RUN TIME. EXIT SIGN SHALL HAVE 5 YEAR WARRANTY. PROVIDE MULE #; RMX-U-R-W-EM-SD OR WILLIAMS #; EXIT-R-EM-WHT-SDT OR LITHONIA #; LQM-S-W-3-R-120/277-ELN-SD	RED LED	UNV 277/6V	3.5W	N/A
	AUTOMATIC, SELF-CONTAINED, SELF DIAGNOSTIC, MAINTENANCE FREE 2-HEAD EMERGENCY LIGHT. UL 924 LISTED AND NFPA 101 COMPLIANT, ABS THERMOPLASTIC HOUSING, PILOT & STATUS INDICATING LIGHTS. SELF DIAGNOSTICS SHALL INCLUDE CONTINUOUS SELF CHECKS AND 30 MINUTE FULL LOAD TEST WITH CHARGER OFF EVERY 30 DAYS. PROVIDE MULE #; TSR-W-SD OR WILLIAMS #; EMER/LED-WHT-HL-SDT OR LITHONIA #; E12-LED-M12	2-10W	UNV 277/6V	20W	N/A
	CEILING OR WALL MOUNTED LED EXIT & 2-HEAD EMERGENCY LIGHT CONFORMING TO NFPA 101 STANDARDS, w/ BATTERY & SOLID STATE CHARGER, SELF DIAGNOSTICS w/ A TEST CYCLE EVERY 30 DAYS MINIMUM. SELF-CONTAINED, DOUBLE OR SINGLE WHITE FACE/BODY, ABS THERMOPLASTIC HOUSING, PILOT & STATUS INDICATING LIGHTS, TEST SWITCH, & 90 MIN. EMERGENCY RUN TIME. EXIT LIGHT SHALL CONTINUE TO OPERATE FOR 24 HOURS FOLLOWING POWER OUTAGE; EXIT SIGN SHALL HAVE 5 YEAR WARRANTY. PROVIDE MULE #; SOCR-U-R-WW-SD OR LITHONIA #; LHM-LED-R-HO-SD OR WILLIAMS #; EXIT/EM/LED-SF-R-WHT-HL-SDT	2-10W HALOGEN	UNV 277/6V	20	N/A
	WALL MOUNTED SCONCE LIGHT WITH PREMIUM MARINE GRADE DIE-CAST ALUMINUM HOUSING AND POLYCARBONATE GASKETED LENS TO WITHSTAND EXTREME WEATHER CONDITIONS. MOUNT ABOVE EXTERIOR DOOR. EMERGENCY LIGHT SHALL CONFORM WITH NFPA 101 STANDARDS AND NEC-700.16. PROVIDE MULE #; MAKO-LED-ACEM-DB OR WILLIAMS #; EMER/DECO-DBR-LT OR LITHONIA #; AFN-DB-EXT	2-6W	UNV 277/6VDC	12W	-

No.	Date	Revision

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 ARCHITECTURE / PLANNING / TECHNOLOGY  
 2600 Meridian Drive / Greenville, NC 27834 / Tel (252) 767-0333

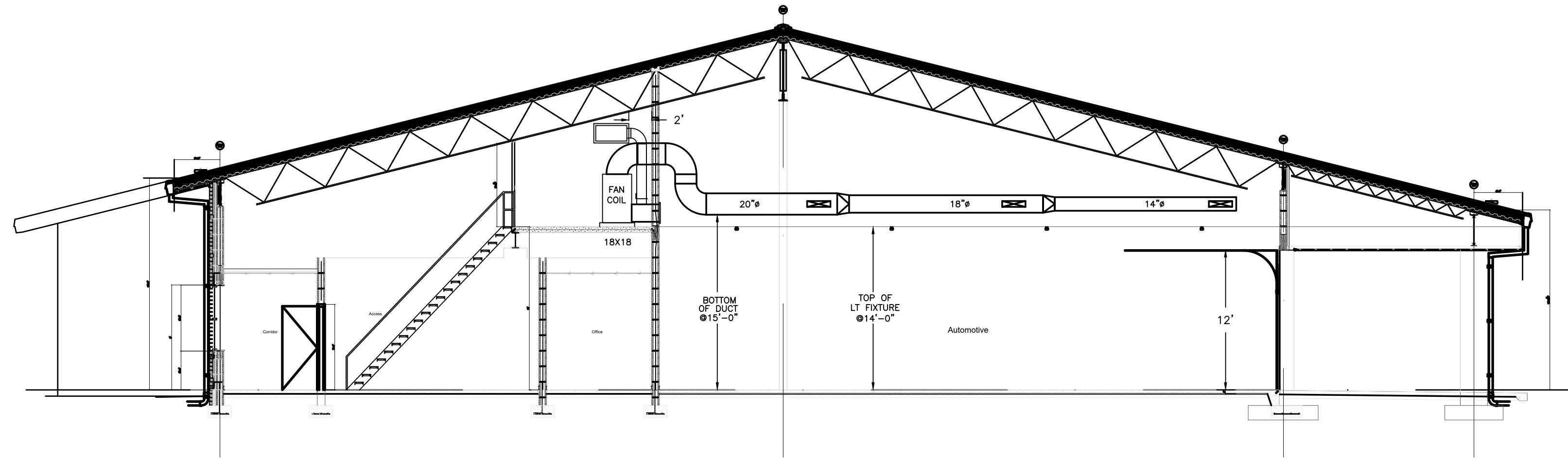


NEW CTE BUILDING FOR  
**Bertie High School**  
 716 US 13 North / NCDPS Unit 080 - School 312  
 Windsor / Bertie County / North Carolina

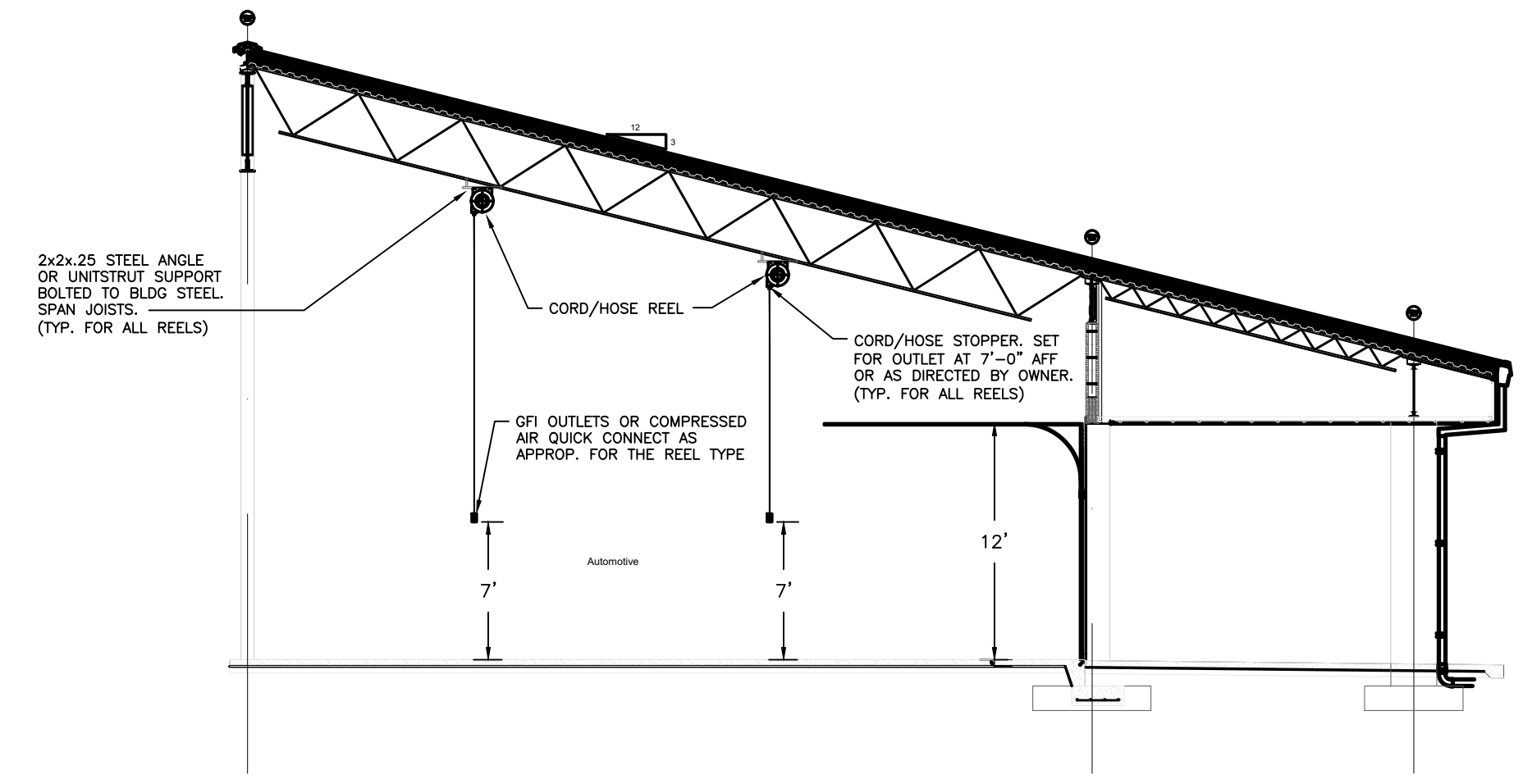
Project No.	22351
Date:	March 2025
Drawing No.	<b>E 004</b>

**ENGINEERING**  
 SOURCE OF NC, P.A.  
 102-A2 Regency Blvd., Greenville, NC 27834  
 E-mail Address: general@hiteassociates.com  
 Tel (252) 439-3328 • Fax (252) 439-0462 • File #E-1073

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**005.2 LAB SPACE TYPICAL SECTION**  
SCALE: N.T.S.

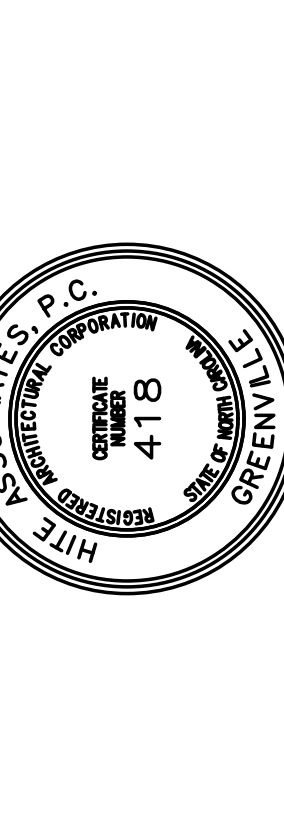


**005.1 CORD & HOSE REEL DETAIL**  
SCALE: N.T.S.

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NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 312  
Windsor / Bertie County / North Carolina

Project No.	22351
Date	March 2025
Drawing No.	<b>E</b> <b>005</b>

Project No. ES24055

**ENGINEERING**  
SOURCE OF NC, P.A.

102-A2 Ragsdale Blvd., Greenville, NC 27834  
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3/12/25







PANELBOARD SCHEDULE - 'P1' CUSTODIAN 521. Table with columns for main, voltage, phase, wire, mounting, surface, and load (kva). Includes a detailed load matrix and summary statistics.

S6 DEMAND CALCS. Summary table showing lighting (0.0 KVA), receptacle (5.4 KVA), motors (7.2 KVA), A/C (0.0 KVA), heating (0.0 KVA), future (0.0 KVA), kitchen (0.0 KVA), and miscellaneous (0.5 KVA) loads.

P1 DEMAND CALCS. Summary table showing lighting (0.04 KVA), receptacle (12.20 KVA), motors (5.21 KVA), A/C (0.00 KVA), heating (0.00 KVA), future (0.00 KVA), kitchen (0.00 KVA), and miscellaneous (1.50 KVA) loads.

SHUNTED PANELBOARD SCHEDULE - 'S6' AUTOMOTIVE. Table with columns for main, voltage, phase, wire, mounting, surface, and load (kva). Includes a detailed load matrix and summary statistics.

PANELBOARD SCHEDULE - 'S7' SALON. Table with columns for main, voltage, phase, wire, mounting, surface, and load (kva). Includes a detailed load matrix and summary statistics.

S7 DEMAND CALCS. Summary table showing lighting (0.14 KVA), receptacle (8.80 KVA), motors (1.30 KVA), A/C (0.00 KVA), heating (0.00 KVA), future (0.00 KVA), kitchen (0.00 KVA), and miscellaneous (21.80 KVA) loads.

P2 DEMAND CALCS. Summary table showing lighting (0.28 KVA), receptacle (9.00 KVA), motors (0.49 KVA), A/C (0.00 KVA), heating (0.00 KVA), future (0.00 KVA), kitchen (0.00 KVA), and miscellaneous (2.90 KVA) loads.

PANELBOARD SCHEDULE - 'P2' CUSTODIAN 521. Table with columns for main, voltage, phase, wire, mounting, surface, and load (kva). Includes a detailed load matrix and summary statistics.

PANELBOARD SCHEDULE - 'S' STORAGE BUILDING 538 FED FROM PANEL "P1". Table with columns for main, voltage, phase, wire, mounting, surface, and load (kva). Includes a detailed load matrix and summary statistics.

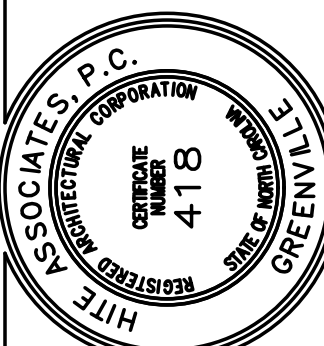
S DEMAND CALCS. Summary table showing lighting (0.04 KVA), receptacle (0.40 KVA), motors (0.08 KVA), A/C (0.00 KVA), heating (0.00 KVA), future (0.00 KVA), kitchen (0.00 KVA), and miscellaneous (0.00 KVA) loads.

PANELBOARD SCHEDULE - 'S8' COSMETOLOGY. Table with columns for main, voltage, phase, wire, mounting, surface, and load (kva). Includes a detailed load matrix and summary statistics.

S8 DEMAND CALCS. Summary table showing lighting (0.14 KVA), receptacle (2.60 KVA), motors (1.30 KVA), A/C (0.00 KVA), heating (0.00 KVA), future (0.00 KVA), kitchen (0.00 KVA), and miscellaneous (12.50 KVA) loads.

Vertical table with columns for project name, date, and revision.

Hite associates ARCHITECTURE / PLANNING / TECHNOLOGY. 2600 Meridian Drive / Greenville, NC 27834 / Tel (252) 757-0533.



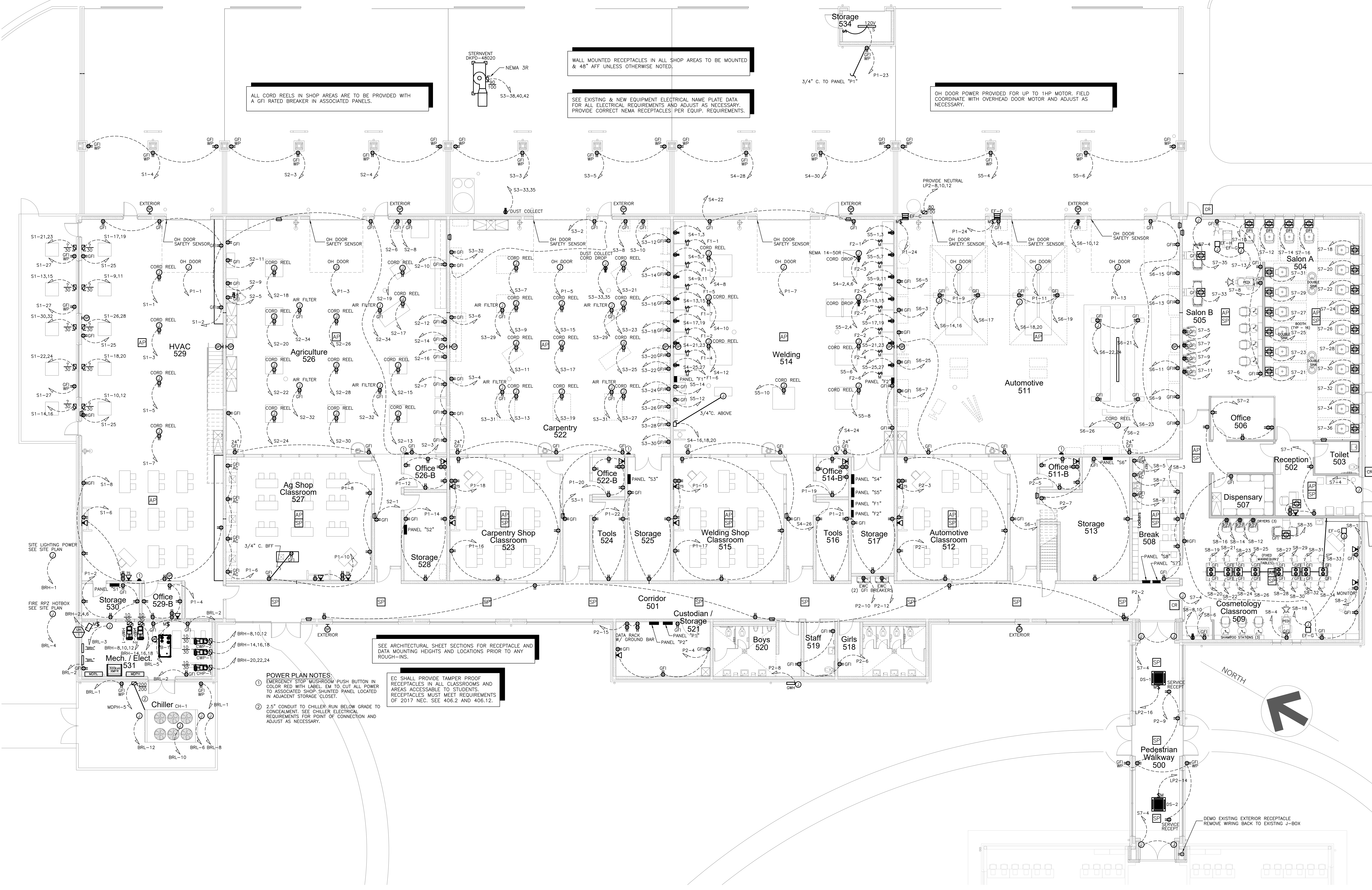
NEW CTE BUILDING FOR Bertie High School. 716 US 13 North / NCDPS Unit 080 - School 312. Windsor / Bertie County / North Carolina.

Project No. 22351

Date: March 2025

Drawing No. E 008

ENGINEERING SOURCE OF NC, PA. Logo and contact information for Hite Associates.



ALL CORD REELS IN SHOP AREAS ARE TO BE PROVIDED WITH A GFI RATED BREAKER IN ASSOCIATED PANELS.

WALL MOUNTED RECEPTACLES IN ALL SHOP AREAS TO BE MOUNTED & 48" AFF UNLESS OTHERWISE NOTED.

SEE EXISTING & NEW EQUIPMENT ELECTRICAL NAME PLATE DATA FOR ALL ELECTRICAL REQUIREMENTS AND ADJUST AS NECESSARY. PROVIDE CORRECT NEMA RECEPTACLES PER EQUIP. REQUIREMENTS.

OH DOOR POWER PROVIDED FOR UP TO 1HP MOTOR. FIELD COORDINATE WITH OVERHEAD DOOR MOTOR AND ADJUST AS NECESSARY.

SEE ARCHITECTURAL SHEET SECTIONS FOR RECEPTACLE AND DATA MOUNTING HEIGHTS AND LOCATIONS PRIOR TO ANY ROUGH-INS.

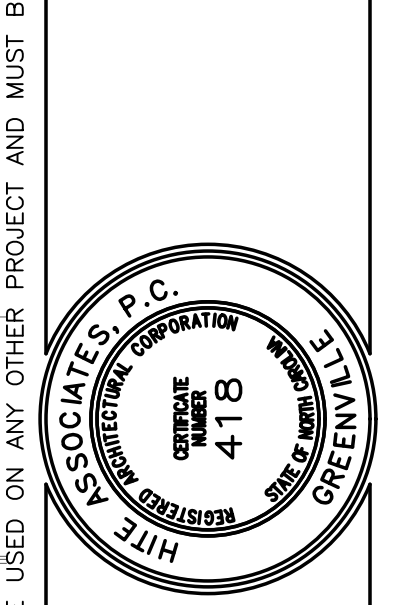
**POWER PLAN NOTES:**  
 ① EMERGENCY STOP MUSHROOM PUSH BUTTON IN COLOR RED WITH LABEL EM TO CUT ALL POWER TO ASSOCIATED SHOP SHUNTED PANEL LOCATED IN ADJACENT STORAGE CLOSET.  
 ② 2.5" CONDUIT TO CHILLER RUN BELOW GRADE TO CONCEALMENT. SEE CHILLER ELECTRICAL REQUIREMENTS FOR POINT OF CONNECTION AND ADJUST AS NECESSARY.

EC SHALL PROVIDE TAMPER PROOF RECEPTACLES IN ALL CLASSROOMS AND AREAS ACCESSIBLE TO STUDENTS. RECEPTACLES MUST MEET REQUIREMENTS OF 2017 NEC. SEE 406.2 AND 406.12.

**101.1 POWER PLAN**  
 SCALE: 1/8"=1'-0"

No.	Date	Revision

**Hite associates**  
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 2600 Meridian Drive / Greenville, NC 27834 / Tel (252) 757-0333



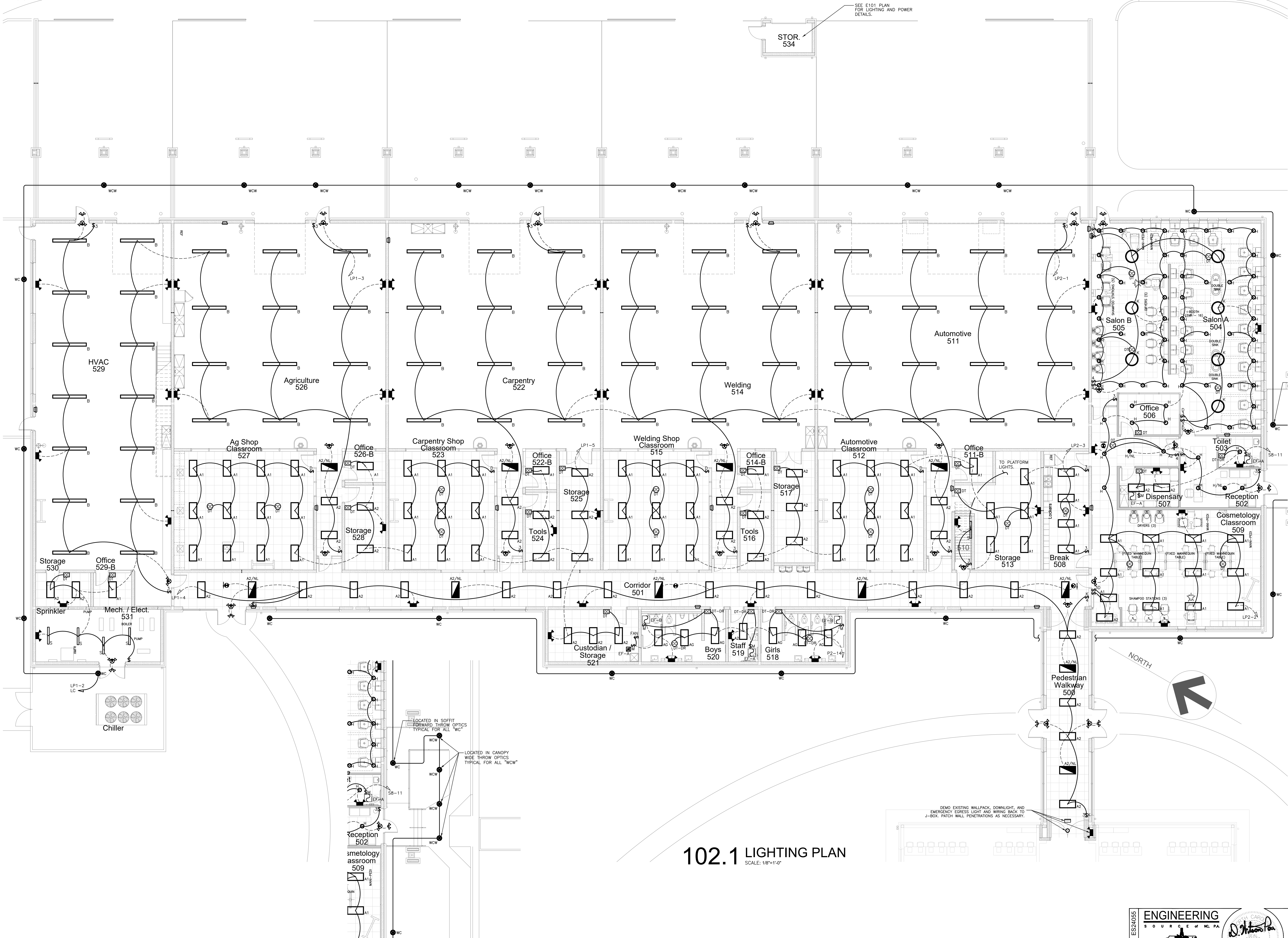
**NEW CTE BUILDING FOR Bertie High School**  
 716 US 13 North / NCDPS Unit 080 - School 312  
 Windsor / Bertie County / North Carolina

Project No. 22351  
 Date: March 2025

Drawing No. **101**

**ENGINEERING**  
 SOURCE OF NC, P.A.  
 ES Project No. ES24055  
 102-A2 Hargett Blvd., Greenville, NC 27834  
 E-Mail Address: general@hiteassociates.com  
 Tel (252) 438-3328 • Fax (252) 438-0462 • Web (P-103)

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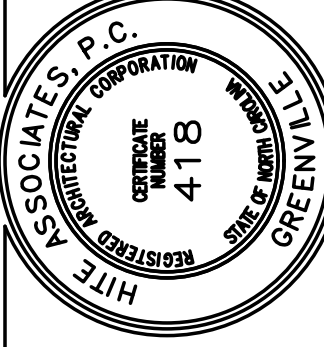


102.1 LIGHTING PLAN  
SCALE: 1/8"=1'-0"

102.2 ENTRY CANOPY LIGHTING PLAN  
SCALE: 1/8"=1'-0"

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NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 312  
Windsor / Bertie County / North Carolina

Project No. 22351

Date: March 2025

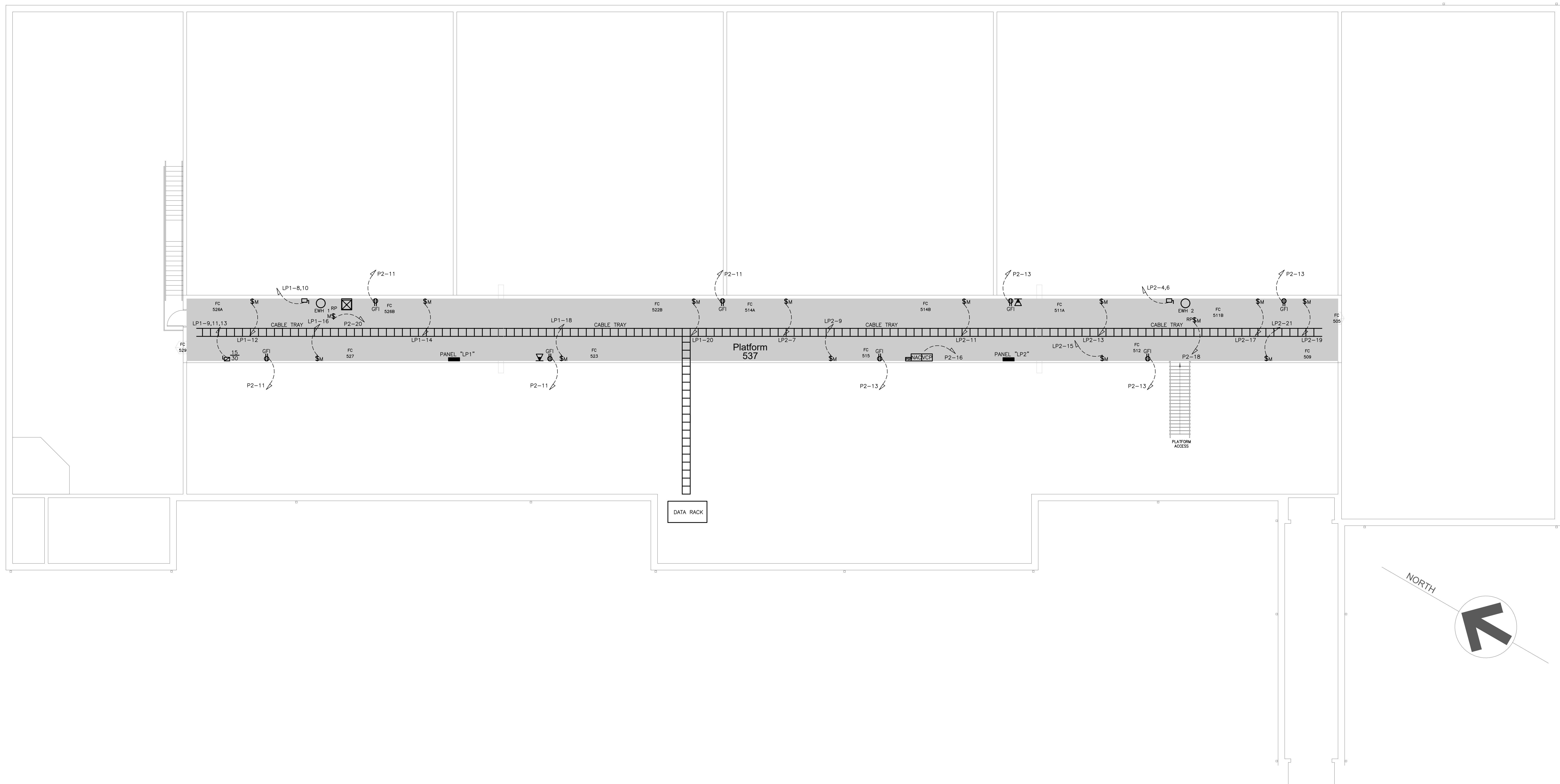
Drawing No.

**E 102**

**ENGINEERING**  
SOURCE OF NC, P.A.

102-A2 Regeroy Blvd., Greenville, NC 27834  
E-Mail Address: general@esncpa.com  
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3/12/25



### 103.1 PLATFORM POWER PLAN

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

Project No. ES240055

**ENGINEERING**  
SOURCE OF NC, PA.

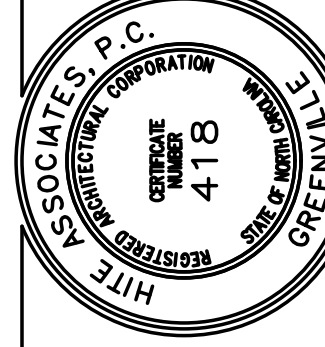
102-A2 Ragsdale Blvd., Greenville, NC 27834  
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3/12/25

Project No. 22351  
Date: March 2025

Drawing No. **E 103**

NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 312  
Windsor / Bertie County / North Carolina



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No.	Date	Revision

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# 104.1 PLATFORM LIGHTING PLAN

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

Project No. 22351  
Date: March 2025  
Drawing No. E 104

**ENGINEERING**  
SOURCE OF NC, P.A.

102-A2 Hagermyr Blvd., Greenville, NC 27834  
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No.	Date	Revision

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2600 Meridian Drive / Greenville, NC 27834 / Tel (252) 757-0333

HITE ASSOCIATES, P.C.  
REGISTERED PROFESSIONAL ENGINEER  
EXPIRES 4-18  
STATE OF NORTH CAROLINA  
RENEWAL 5/25

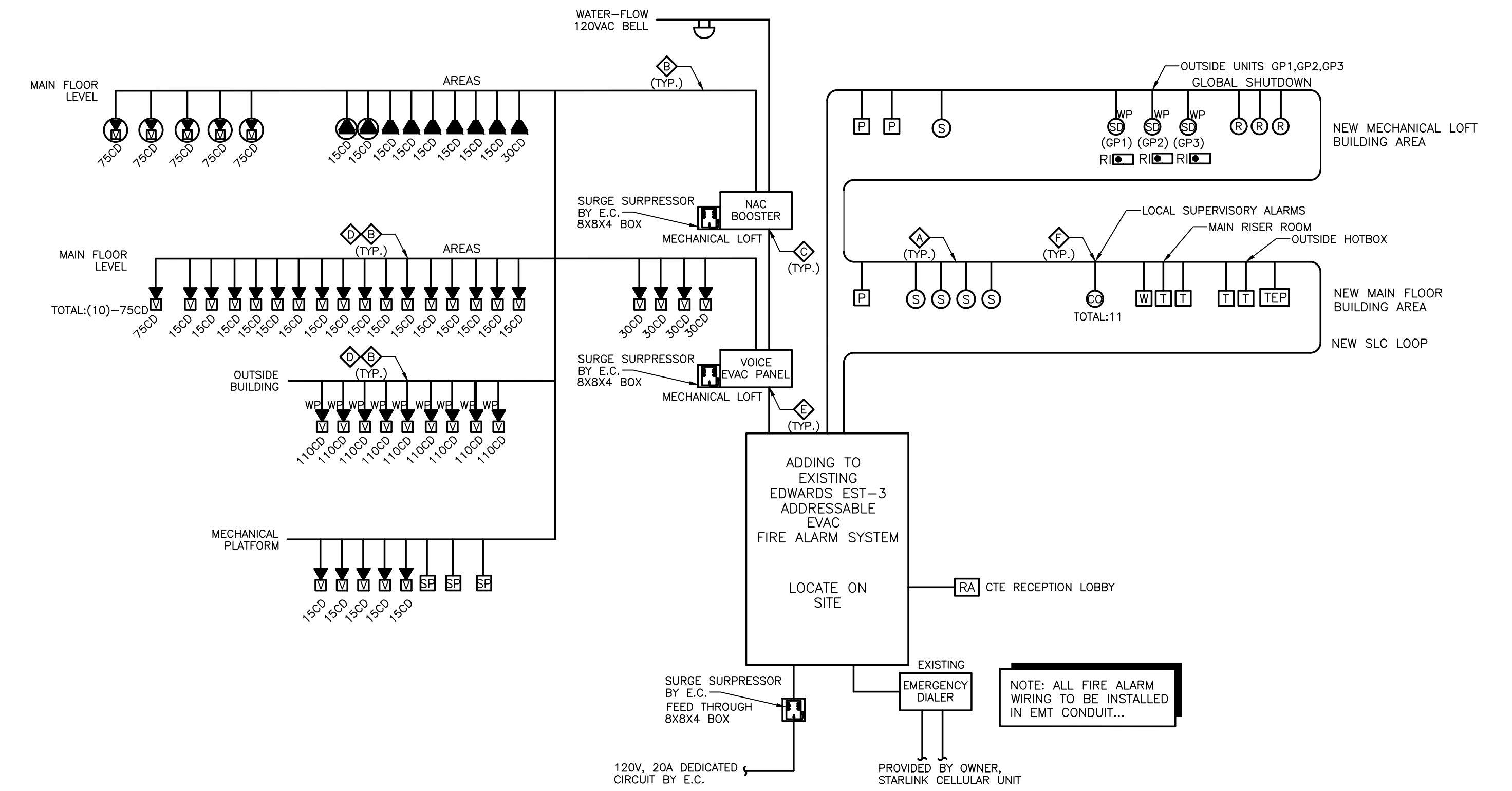
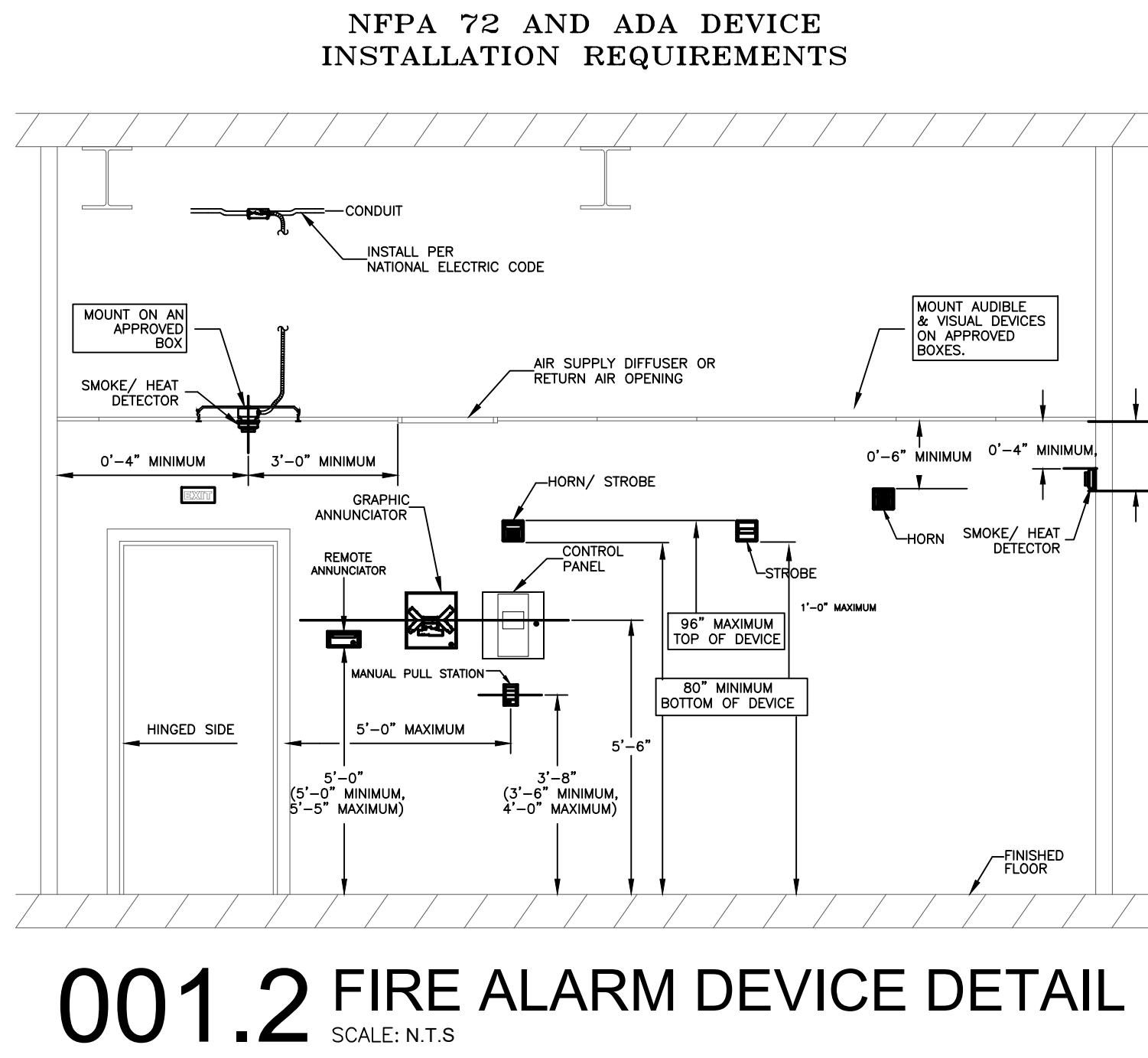
NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 312  
Windsor / Bertie County / North Carolina

Project No. 22351  
Date: March 2025  
Drawing No. E 104

FIRE ALARM SYMBOL LEGEND	
(SEE MOUNTING HEIGHT SCHEDULE FOR MOUNTING INFORMATION UNLESS NOTED OTHERWISE)	
	FIRE ALARM MANUAL PULL STATION
	FIRE ALARM HORN/STROBE
	VOICE NOTIFICATION WALL FIRE ALARM/STROBE
	VOICE NOTIFICATION CEILING FIRE ALARM/STROBE
	VOICE NOTIFICATION SPEAKER
	VOICE NOTIFICATION SPEAKER WALL
	FIRE ALARM CEILING STROBE
	FIRE ALARM WALL STROBE
	SMOKE DETECTOR
	HEAT DETECTOR, CEILING MOUNTED
	FIRE ALARM CONTROL PANEL, FLUSH MOUNTED.
	VOICE EVAC PANEL OR AMPLIFIER SYSTEM
	REMOTE ANNUNCIATOR PANEL, FLUSH MOUNTED
	NAC BOOSTER PANEL
	GRAPHIC ANNUNCIATOR PANEL, FLUSH MOUNTED
	DUCT MOUNTED SMOKE DETECTOR, PROVIDED AND WIRED BY E.C., INSTALLED BY SPRINKLER CONTRACTOR.
	SHUT DOWN RELAY PROVIDED AND WIRED BY E.C.
	DUCT MOUNTED SMOKE DETECTOR REMOTE INDICATOR LIGHT MOUNTED IN CEILING PROVIDED AND INSTALLED BY E.C., LABEL ACCORDING TO MECHANICAL UNIT SERVED.
	ADDRESSABLE BEAM DETECTOR
	BEAM DETECTOR REFLECTOR
	SPRINKLER RISER WATER FLOW SENSOR, PROVIDED & WIRED BY E.C., INSTALLED BY SPRINKLER CONTRACTOR.
	SPRINKLER RISER TAMPER SWITCH, PROVIDED AND WIRED BY E.C., INSTALLED BY SPRINKLER CONTRACTOR.
	SPRINKLER RISER WATER VALVE SHUT-OFF SENSOR, PROVIDED & WIRED BY E.C., INSTALLED BY SPRINKLER CONTRACTOR.
	TEMPERATURE SENSOR 40 DEGREES (FREEZE STAT) SWITCH, WIRED BY E.C., INSTALLED BY FIRE ALARM CONTRACTOR.
	MONITOR MODULE
	KITCHEN HOOD FIRE SUPPRESSION SYSTEM
	AREA OF RESCUE ASSISTANCE BASE STATION WITH VISUAL LOCATION INDICATOR, RATH 2500-205FMC (OR EQUAL)
	AREA OF RESCUE ASSISTANCE 2-WAY COMMUNICATION REMOTE STATION, RATH 2100 FLUSH MTD (OR EQUAL)
	MAGNETIC DOOR HOLD OPEN DEVICE (POE)
	CARBON MON-OXIDE SENSOR
	PANIC BUTTON
	POWER 120VAC SURGE PROTECTOR (DITEK DF-120S1) MODEL
	LOW VOLTAGE SURGE PROTECTOR (DITEK 2MHLPB-WB) MODEL
	CLEAR PROTECTIVE POLYCARB GUARD
	WIRE GUARD
	WEATHER PROOF DEVICE

WIRE LEGEND	
	1 PAIR #16 TWISTED UNSHIELDED CABLE (SLC)
	2 COND. #14 THHN (BLUE/BLACK) OR RED RISER CABLE (NAC)
	2 COND. #14 THHN (BLUE/BLACK) OR RED RISER CABLE (SYNC)
	1 PAIR #16 TWISTED SHIELDED (SPEAKERS)
	2 COND. #14 THHN (RED/BLACK) OR RED RISER CABLE (TRIGGER INPUT)
	2 COND. #16 THHN (RED/BLACK) OR RED RISER CABLE (CO DET. POWER)

- FIRE ALARM INSTALLATION NOTES:**
- FIRE ALARM SHALL BE INSTALLED BY A MANUFACTURER APPROVED INSTALLATION COMPANY.
  - E.C. OR E.C.'S REPRESENTATIVE SHALL PERFORM THOROUGH TRAINING WITH OWNER'S REPRESENTATIVES PRIOR TO OWNER OCCUPANCY OF THE BUILDING.
  - FIRE ALARM SYSTEM SHALL BE INSTALLED IN ACCORDANCE TO ALL APPLICABLE STATE AND LOCAL LAWS AND IN ACCORDANCE WITH THE LATEST EDITION OF NFPA 72.
  - ALARM SHALL HAVE A SOUND LEVEL MEETING THE dB REQUIREMENTS OF 907.6.2.1.1 OF THE NC FIRE PREVENTION CODE AND NOT LESS THAN 20 dB ABOVE AMBIENT NOISE LEVELS. (TYPICALLY, 55 dB AMBIENT NOISE PER BUSINESS OCCUPANCY, ADJUST FOR NOISY ENVIRONMENTS).
  - ALL WIRING INSTALLED MUST BE IN (E) EMT CONDUIT. USE COMPRESSION INSULATED CONNECTORS NO SCREW IN TYPE.
  - FIRE ALARM CONTRACTOR SHALL PROVIDE A FULL SET OF SHOP DRAWINGS, INCLUDING BATTERY CALCULATIONS, WIRING DIAGRAMS, AND DEVICE PRODUCT DATA TO THE AHJ FOR REVIEW AND APPROVAL PRIOR TO STARTING ROUGH-INS.
  - E.C. SHALL PROVIDE FRAMED BUILDING LAYOUT NEXT TO REMOTE ANNUNCIATOR. BUILDING LAYOUT SHALL SHOW ALL FIRE ALARM DEVICE LOCATIONS AND THEIR RESPECTIVE ADDRESSES.
  - EXISTING FIRE ALARM SYSTEM IN THE MAIN BUILDING IS AN EDWARDS EST-3 ADDRESSABLE SYSTEM. THE NEW CTE BUILDING FIRE ALARM DEVICES, SHALL BE CONNECTED INTO THE EXISTING FIRE ALARM SYSTEM COMMUNICATION LOOP. PROVIDE NEW ADDRESSES FOR THE NEW INITIATING (INPUT AND OUTPUT) DEVICES AND PROGRAM THEM INTO THE EXISTING FIRE ALARM SYSTEM.
  - PROVIDE A SYNC CIRCUIT FOR THE NEW NAC BOOSTER STROBE PANEL AND A TRIGGER CIRCUIT FOR THE VOICE EVAC PANEL.
  - ALL SLC (INITIATING) LOOP WIRING SHALL BE SUPERVISED IN A CLASS A STYLE LOOP. NO T-TAPS PERMITTED.



**001.1 FIRE ALARM RISER LAYOUT**  
SCALE: N.T.S.

FIRE ALARM SYSTEM ACTION MATRIX	SYSTEM ACTION															COMMENTS/REMARKS								
	ACTUATE COMMON ALARM SIGNAL INDICATOR	ACTUATE AUDIBLE ALARM SIGNAL	ACTUATE VOICE NOTIFICATION	ACTUATE COMMON SUPERVISORY SIGNAL INDICATOR	ACTUATE AUDIBLE SUPERVISORY SIGNAL	ACTUATE COMMON TROUBLE SIGNAL INDICATOR	ACTUATE AUDIBLE TROUBLE SIGNAL	ACTUATE APPROPRIATE LOCATION INDICATOR	ACTUATE ALL AUDIBLE EVACUATION SIGNALS	ACTUATE ALL VISIBLE EVACUATION SIGNALS	DISPLAY / PRINT CHANGE OF STATUS	TRANSMIT ALARM SIGNAL TO SUPERVISING STATION	TRANSMIT SUPERVISORY SIGNAL TO SUPERVISING STATION	TRANSMIT TROUBLE SIGNAL TO SUPERVISING STATION	FAN SHUT DOWN (UNIVERSAL)		GYM PA SYSTEM SHUT DOWN	DAMPER SHUT DOWN	RELEASE MAGNETIC DOORS	FIRE SHUTTERS	ACTIVATE SMOKE EVAC FAN IN RESPECTIVE CONNECTOR	SHUNT ALL GAS & POWER UNDER HOOD KITCHEN ZONE	FAN SHUT DOWN/AHU SERVING AREA	ACTUATE AN LOCAL AUDIBLE TEMP4 ALARM SIGNAL
MANUAL ALARM STATION	X	X	X					X	X	X	X	X			X	X	X	X	X					
SMOKE SENSOR / DETECTOR	X	X	X					X	X	X	X	X			X	X	X	X	X					
DUCT SENSOR / DETECTOR				X	X			X	X	X	X	X												
WATERFLOW SWITCH	X	X	X					X	X	X	X	X			X	X	X	X	X					
TAMPER SWITCH				X	X			X			X													
EMERGENCY LOCKDOWN BUTTON											X							X						
POST INDICATOR VALVE SWITCH				X	X			X			X													
FIRE ALARM AC POWER FAILURE						X	X				X													
FIRE ALARM SYSTEM LOW BATTERY						X	X				X													
OPEN CIRCUIT						X	X				X													
GROUND FAULT						X	X				X													
NOTIFICATION APPLIANCE CIRCUIT WIRE-TO-WIRE SHORT						X	X				X													
HOOD SUPPRESSION SYSTEM				X	X			X			X											X		
SMOKE DETECTOR - IN CONNECTORS ONLY						X	X				X							X						ONLY RELEASE DOORS IN SPECIFIC CONNECTOR
CARBON MONOXIDE DETECTOR - IN ROOMS SERVED BY A FUEL BURNING APPLIANCES.				X	X			X			X										X	X	X	SHUT OFF ALL GAS & POWER TO ALL GAS APPLIANCES IN AREA OF ACTIVATION

**FIRE ALARM MATRIX PLAN**  
SCALE: N.T.S.

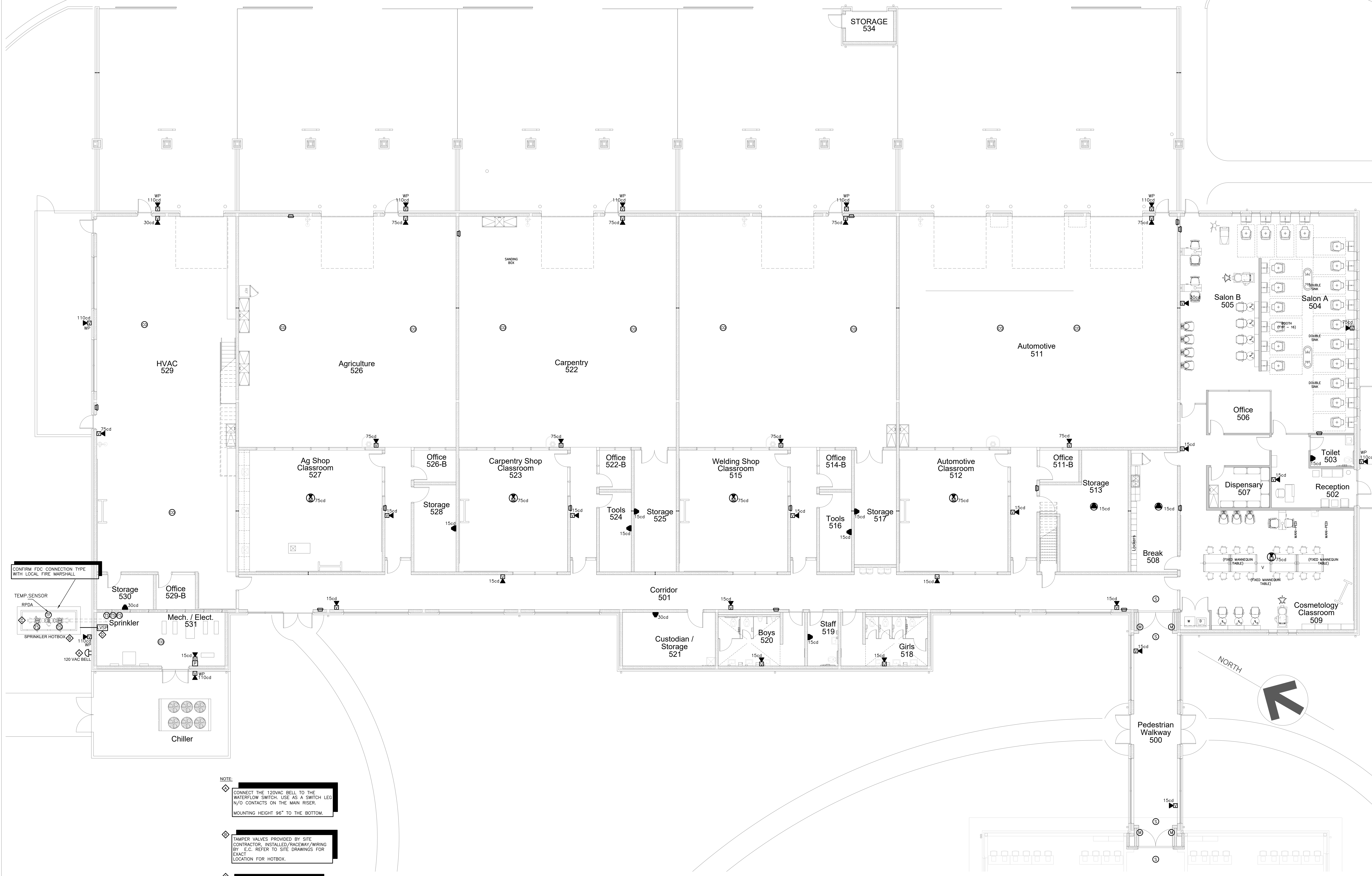
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Project No. 22351  
 Date: March 2025  
 Drawing No. FA 001

NEW CTE BUILDING FOR  
**Bertie High School**  
 716 US 13 North / NCDPS Unit 080 - School 312  
 Windsor / Bertie County / North Carolina



**NOTE:**

- CONNECT THE 120VAC BELL TO THE WATERFLOW SWITCH. USE AS A SWITCH LEG N/O CONTACTS ON THE MAIN RISER. MOUNTING HEIGHT 96" TO THE BOTTOM.

- TAMPER VALVES PROVIDED BY SITE CONTRACTOR, INSTALLED/RACEWAY/WIRING BY E.C. REFER TO SITE DRAWINGS FOR EXACT LOCATION FOR HOTBOX.

- E.C. NEEDS TO SET THE ELECTRIC HEATER TEMP. (50°-60°) RANGE.

- LOW VOLTAGE SURGE FOR TAMPER CIRCUITS FROM MODULES TO TAMPER SWITCHES. MOUNT IN 4x4 DEEP EMT BOXES. COVER PLATES. RELOCATE TO SURGE TO THE ACTUAL BUILDING PIPE LOCATION IN THE BOILER ROOM. BOXES MOUNTING HEIGHT 24" AFF.

HOTBOX FIRE CIRCUIT PROTECTION

# 101.1 MAIN FIRE ALARM FLOOR PLAN

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

**ENGINEERING**  
SOURCE OF NC, P.A.

102-42 Ragsdale Blvd., Greenville, NC 27834  
E-Mail Address: general@hiteassociates.com  
New (919) 438-3328 • Fax (919) 438-9462 • File #P-1073

3/12/25

No.	Date	Revision

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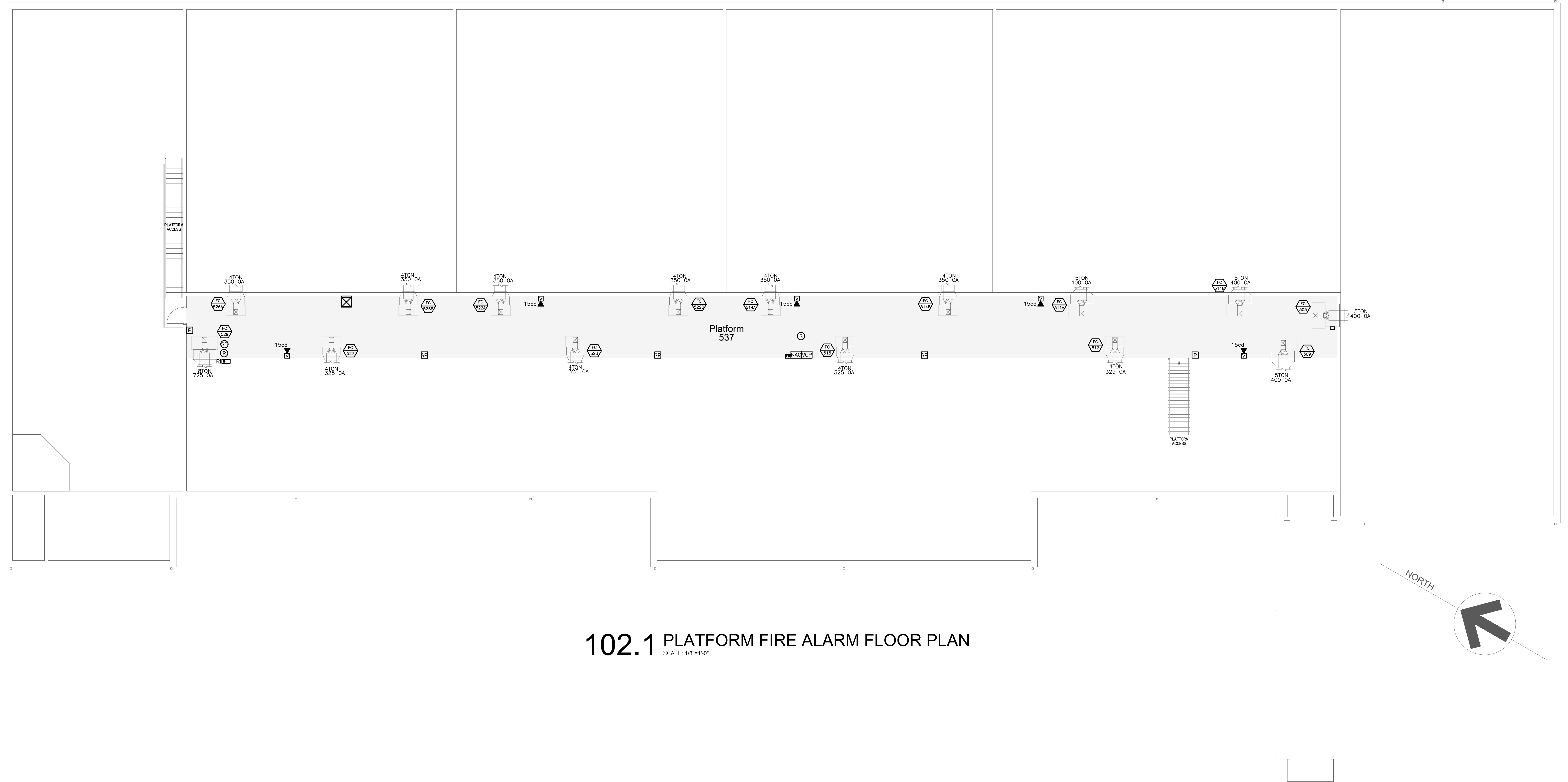
2600 Meridian Drive / Greenville, NC 27834 / Tel (252) 757-0333

HITE ASSOCIATES, P.C.  
REGISTERED PROFESSIONAL ENGINEER  
EXPIRES 4-18  
RENEWAL DUE 4-18

NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 312  
Windsor / Bertie County / North Carolina

Project No. 22351  
Date: March 2025  
Drawing No. **FA 101**

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102.1 PLATFORM FIRE ALARM FLOOR PLAN  
SCALE: 1/8"=1'-0"

ES Project No: ES24055

**ENGINEERING**  
SOURCE OF NC, PA.

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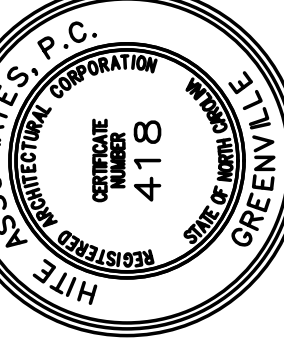
3/12/25

Project No. 22351

Date: March 2025

Drawing No. **FA 102**

NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 312  
Windsor / Bertie County / North Carolina

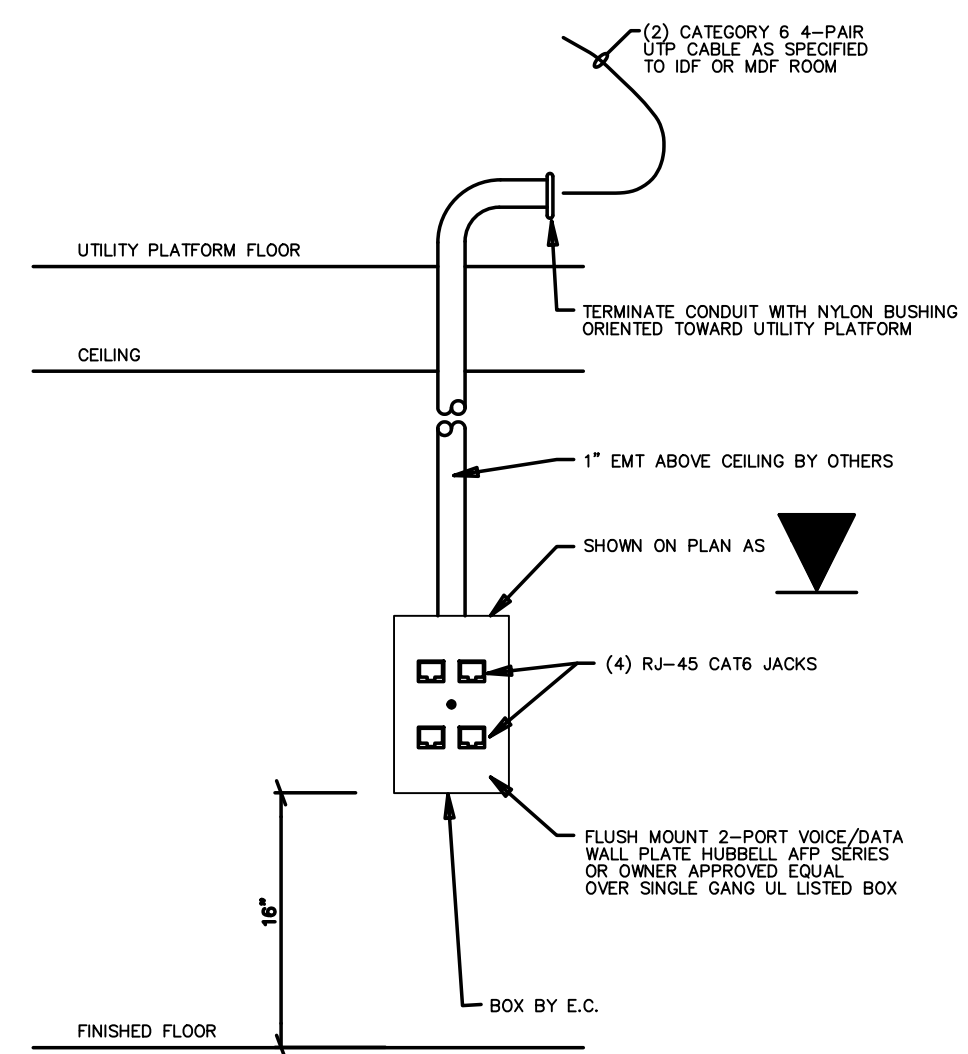


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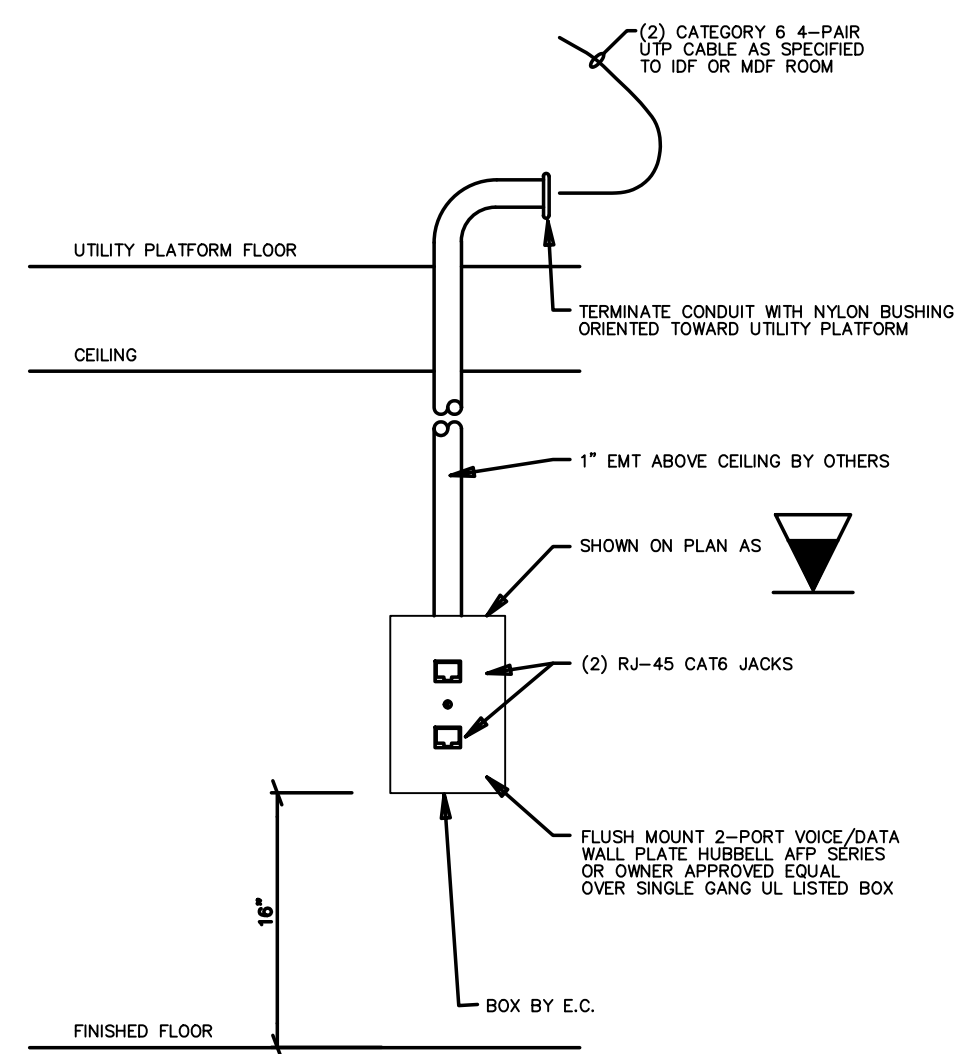
No.	Date	Revision

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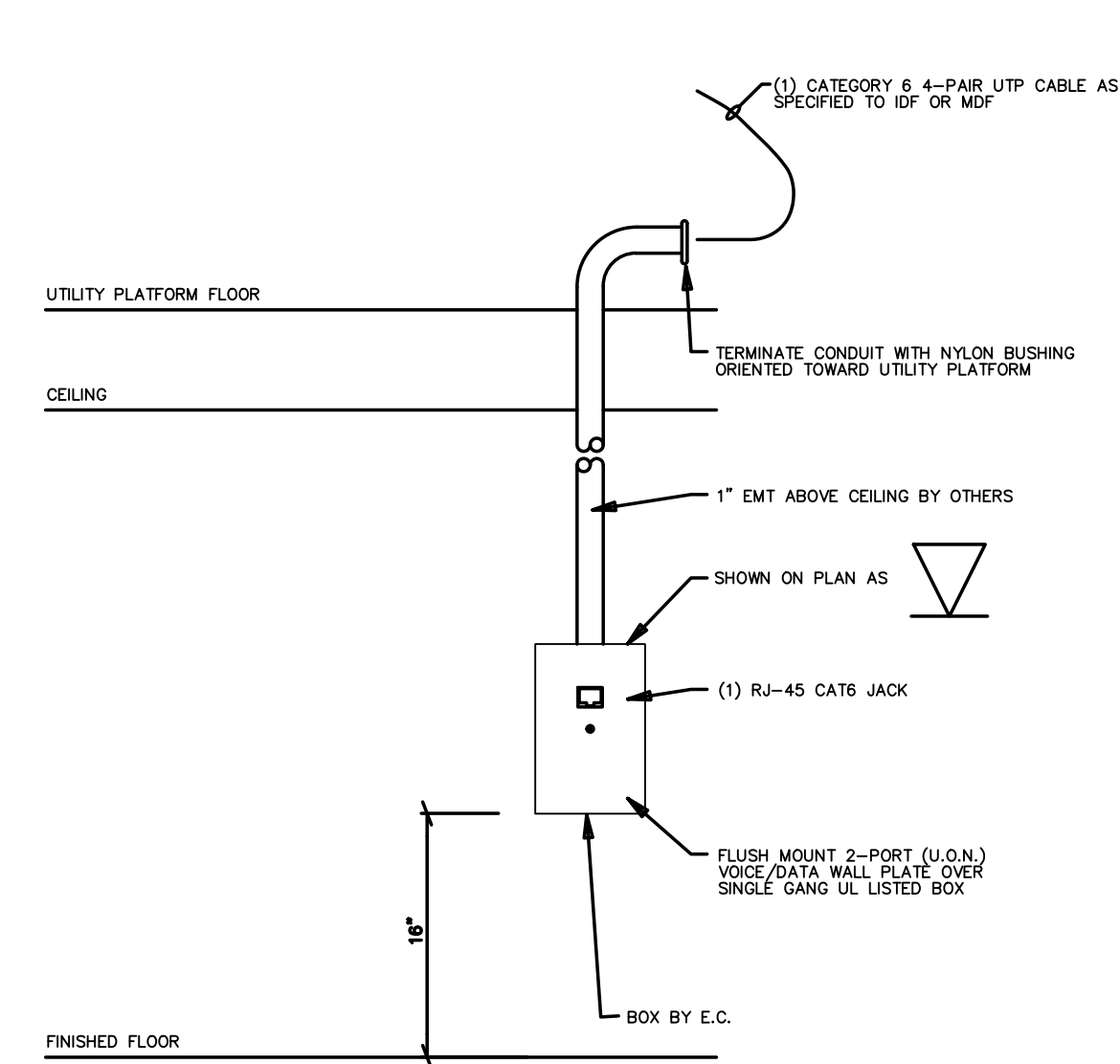




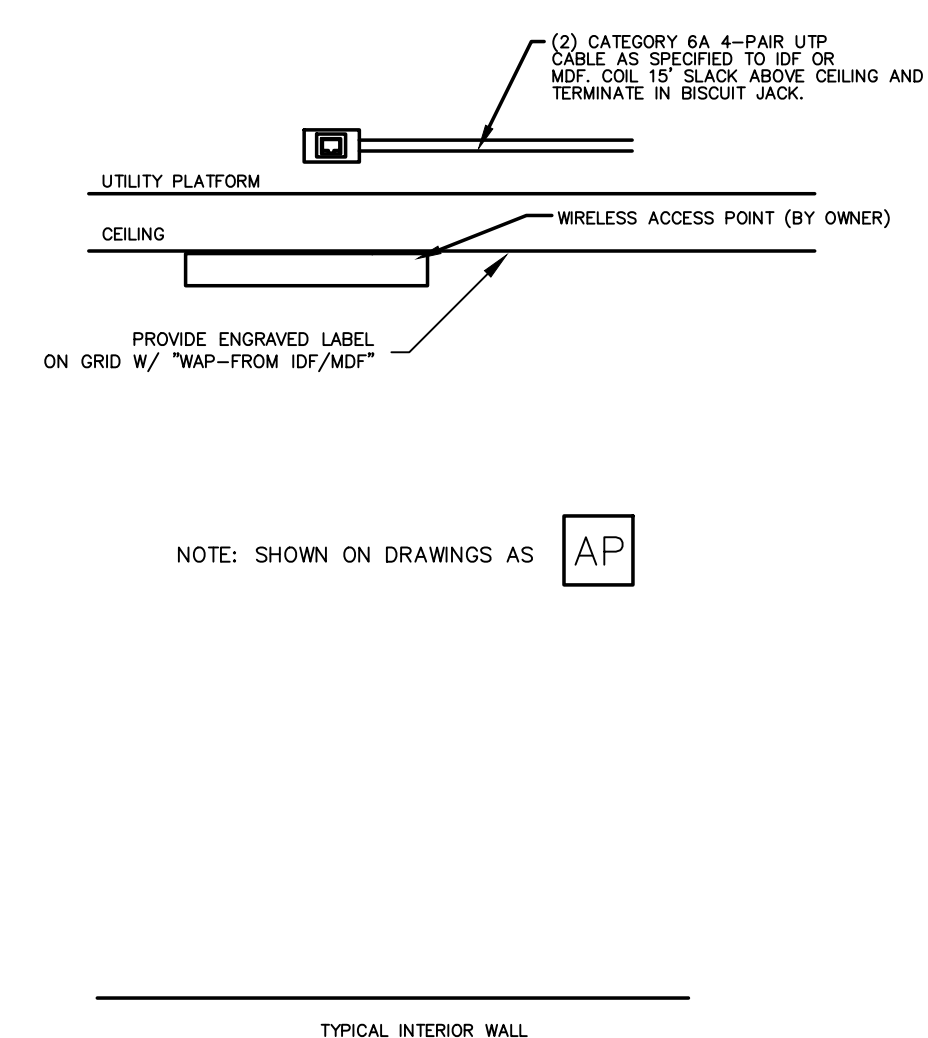
001.6 QUAD DATA OUTLET DETAIL  
SCALE: NONE



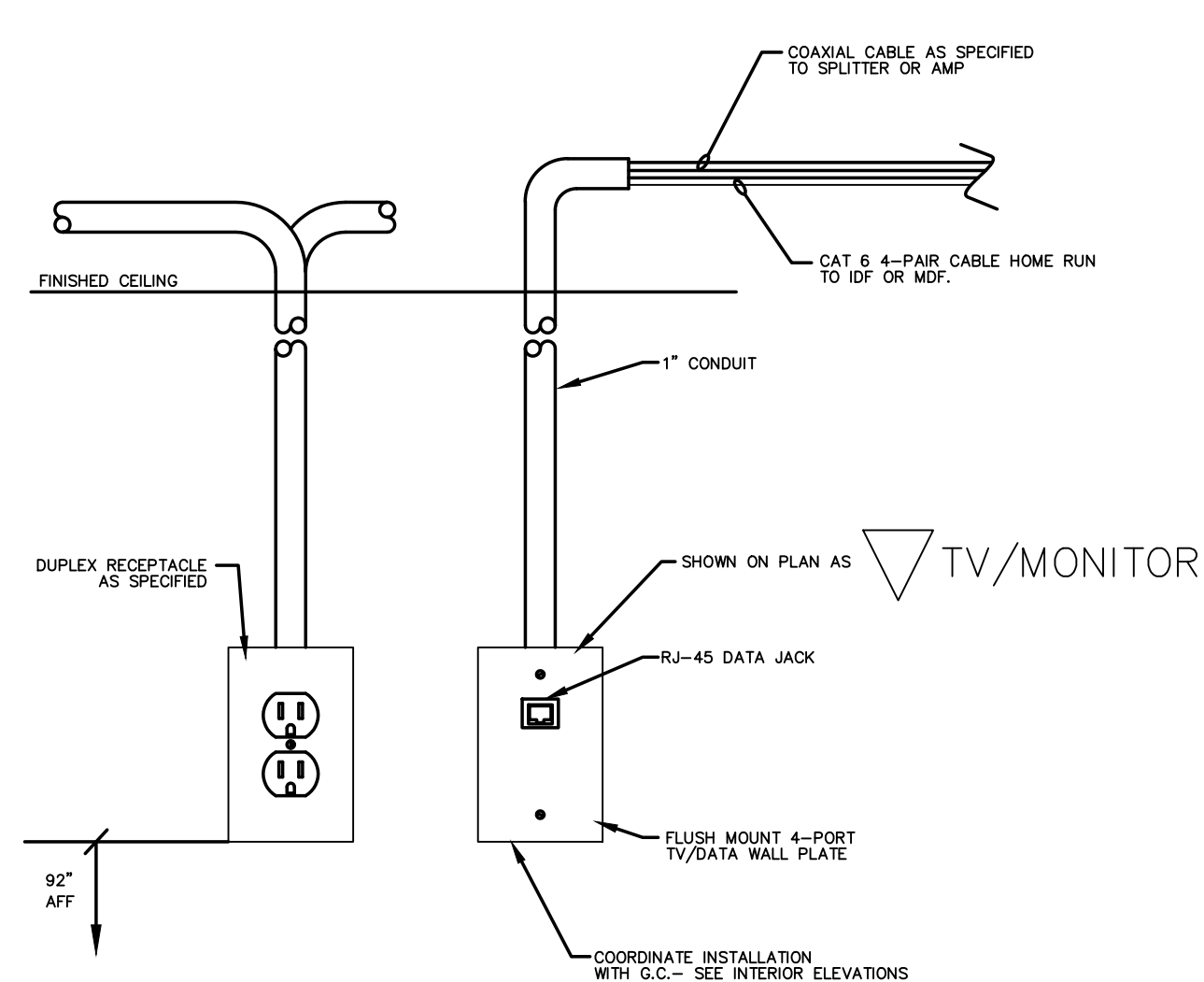
001.7 DUAL DATA OUTLET DETAIL  
SCALE: NONE



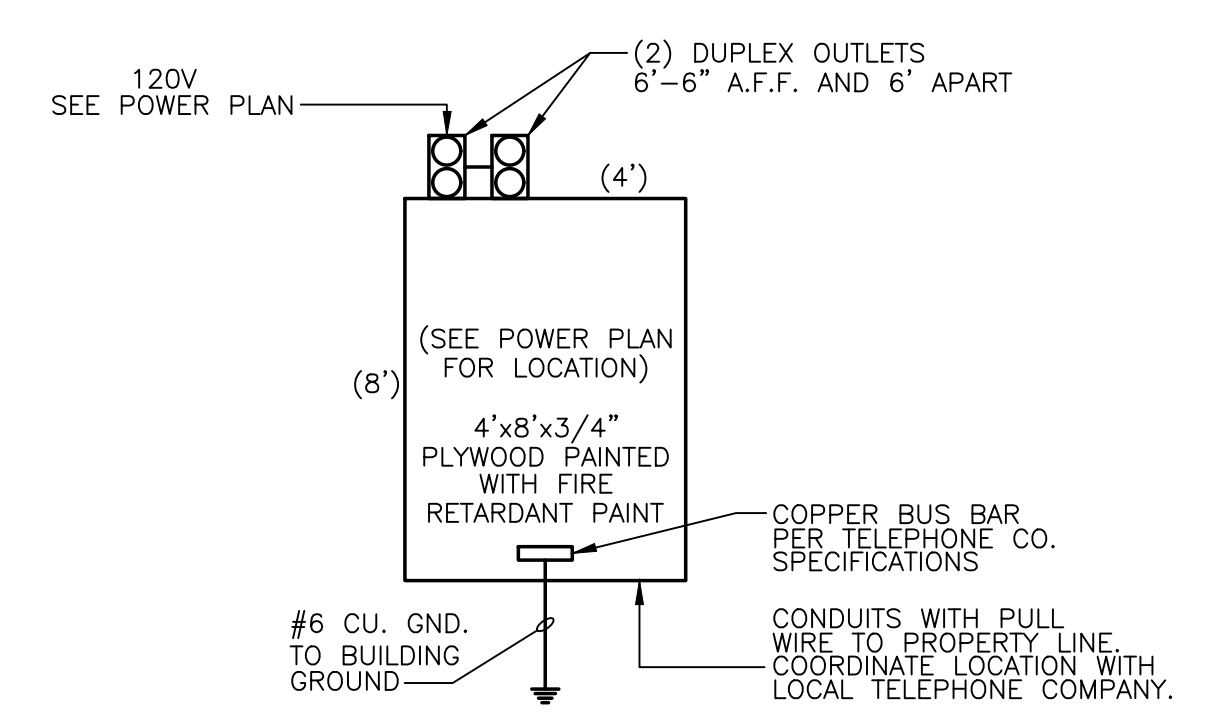
001.8 SINGLE DATA OUTLET DETAIL  
SCALE: NONE



001.3 WAP OUTLET DETAIL  
SCALE: NONE



001.4 POWER/TV/DATA WALL OUTLET DETAIL  
SCALE: NONE



001.5 IDF ROOM EQUIPMENT BOARD  
SCALE: NONE

### ICS SYMBOL LEGEND

- ▼ 4-PORT DATA OUTLET - SEE DETAIL
- ▼ 2-PORT DATA OUTLET - SEE DETAIL
- ▼ 2-PORT TEACHERS STATION - SEE DETAIL
- ▼ INTERACTIVE WHITE BOARD OUTLET - SEE DETAIL
- ▼ INTERCOM PHONE OUTLET - SEE DETAIL
- ▼ SINGLE PORT DATA OUTLET - SEE DETAIL
- ▼ MASTER ADMINISTRATIVE PHONE OUTLET
- ▼ CEILING MOUNTED SINGLE PORT DATA OUTLET
- ▼ 2 PORT TEACHERS STATION OUTLET IN BUILTIN DESK WITH CONDUIT FEED FROM BELOW FLOOR SLAB-SEE DETAIL
- ▼ CEILING MOUNTED WIRELESS ACCESS POINT-SEE DETAIL
- ▼ DUPLEX OUTLET - 18" A.F.F. CENTER (TYP) BY E.C.
- ▼ QUADRUPLX OUTLET BY E.C.
- ▼ FLOOR OUTLET BY E.C.
- ▼ CEILING MOUNTED INTERCOM SPEAKER
- ▼ CEILING MOUNTED SPEAKER - W/INTEGRAL AMPLIFIER
- ▼ RECESSED SPEAKER - WEATHERPROOF/VANDAL-RESISTANT
- ▼ SINGLE GANG MICROPHONE JACK
- ▼ DOOR CONTACT
- ▼ ELECTRIC DOOR STRIKE
- ▼ CARD READER SWIPE
- ▼ CEILING MOUNTED MOTION DETECTOR
- ▼ TV OUTLET - WALL MOUNT - SEE DETAIL
- ▼ TV OUTLET - CEILING MOUNT - SEE DETAIL
- ▼ INTERCOM VOLUME SWITCH
- ▼ CIRCUIT CAMERA SG BOX BY E.C.
- ▼ SECURITY KEYPAD, SG BOX 54" A.F.F.
- ▼ WIDE ANGLE MOTION DETECTOR FOR SECURITY SYSTEM
- ▼ LONG RANGE MOTION DETECTOR FOR SECURITY SYSTEM

ABBREVIATIONS:

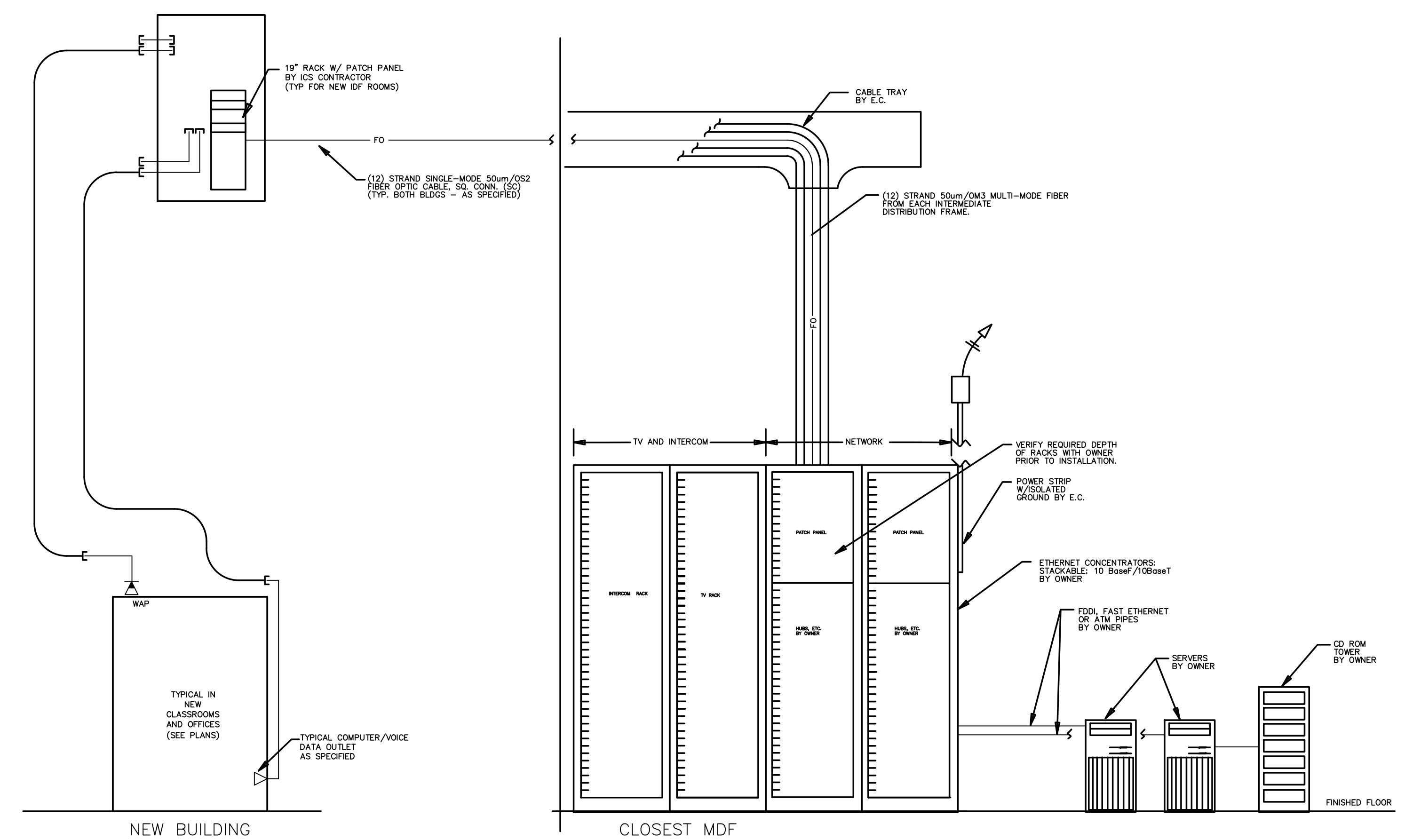
- A.C. ABOVE CEILING
- A.F.F. ABOVE FINISH FLOOR
- EF EXHAUST FAN
- EWV ELECTRIC WATER HEATER
- G.C. GENERAL CONTRACTOR
- P.C. PLUMBING CONTRACTOR
- M.C. MECHANICAL CONTRACTOR
- E.C. ELECTRICAL CONTRACTOR OR EMPTY CONDUIT
- T.C. TECHNOLOGY SYSTEM CONTRACTOR
- B-2 TYPICAL CIRCUIT DESIGNATION: PANEL 'B', BREAKER #2
- C CONDUIT AS SPECIFIED
- NL 24 HOUR NIGHT LIGHT
- U.G.M. UNLESS OTHERWISE NOTED
- U.G. UNDERGROUND

NOTE: LEGEND IS FOR REFERENCE ONLY - SYMBOLS/ABBREVIATIONS SHOWN DO NOT NECESSARILY APPLY TO THIS PROJECT.

CABLE SEPARATION DISTANCE TABLE			
	< 2kVA	2 TO 5kVA	> 5kVA
PANELS, MOTORS, XFORMERS, SIMILAR	18"	24"	36"
FLUORESCENT FIXT., HD BALLASTS, SIM.	12"	18"	24"
UNSHIELDED CONDUCTORS & POWER CONDUCTORS IN GROUND METALLIC CONDUIT	6"	12"	18"
SHIELDED LOW TENSION CONDUCTORS	6"	8"	12"

NOTE:

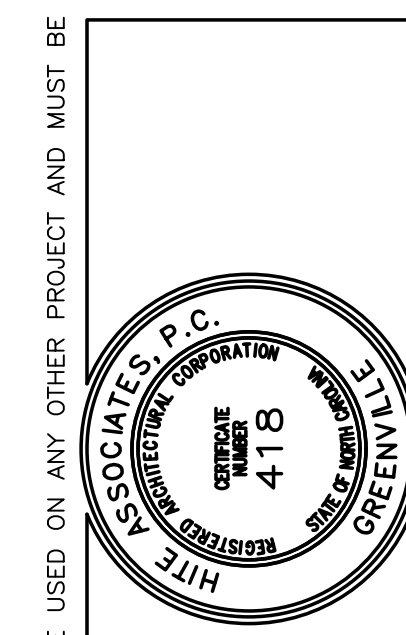
- 1) ALL FIRE ALARM CONDUCTORS SHALL BE RUN IN CONDUIT ON OPPOSITE SIDE OF TELECOM CLOSET ON UTILITY PLATFORM
- 2) VOICE & DATA TELECOMMUNICATIONS CABLE SHALL NOT BE RUN PARALLEL TO POWER CABLE WHEN WITHIN 36", EVEN FOR SHORT DISTANCES
- 3) DUCTWORK & PIPING HAVE RIGHT-OF-WAY OVER CABLEING



001.2 ICS CONNECTION DIAGRAM  
SCALE: NONE

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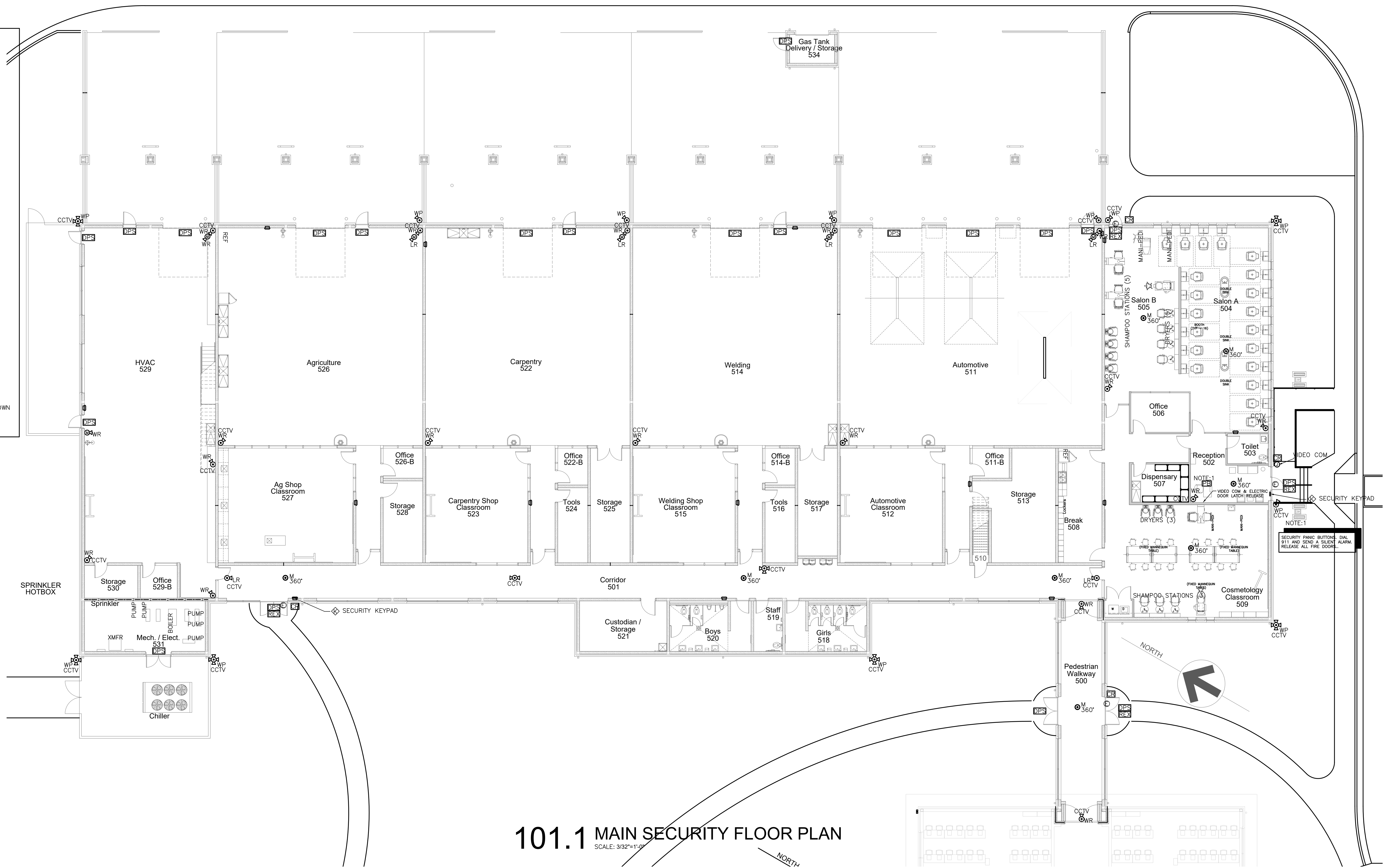
NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 312  
Windsor / Bertie County / North Carolina

Project No. 22351  
Date: March 2025  
Drawing No. **IT 001**

ES24055  
ENGINEERING  
SOURCE OF NC, P.A.  
102-62 Hagermyr Blvd., Greenville, NC 27834  
E-Mail Address: general@hiteassociates.com  
Web (252) 438-3328 • Fax (252) 438-0462 • File #P-1073

SECURITY SYMBOL LEGEND

- 360° CAMERA, BLANK-OFF QUAD IF NOT INDICATED ON DWG. OUTSIDE WEATHER PROOF HOUSING.
- 360° CAMERA, BLANK-OFF QUAD IF NOT INDICATED ON DWG.
- LONG RANGE CAMERA, BLANK-OFF QUAD IF NOT INDICATED ON DWG.
- WIDE RANGE CAMERA, BLANK-OFF QUAD IF NOT INDICATED ON DWG.
- TEMPERATURE SENSOR ALARM
- CEILING MOUNTED SPEAKER
- CEILING MOUNTED SPEAKER - W/INTEGRAL AMPLIFIER
- REQUEST TO EXIT
- DOOR POSITION SWITCH
- CARD READER
- FOB READER
- CALL STATION
- POWER FOR ELECTRIFIED DOOR
- VOLUME CONTROL
- CIRCUIT CAMERA SG BOX BY E.C. (SINGLE DIRECTION)
- CIRCUIT CAMERA SG BOX BY E.C. (DOUBLE DIRECTION)
- SECURITY KEYPAD, SG BOX 54" A.F.F.
- 360 DEGREE MOTION DETECTOR FOR SECURITY SYSTEM
- WIDE ANGLE MOTION DETECTOR FOR SECURITY SYSTEM
- LONG RANGE MOTION DETECTOR FOR SECURITY SYSTEM
- PANIC BUTTON FOR SECURITY SYSTEM
- ABBREVIATIONS:
- A.C. ABOVE CEILING
- A.F.F. ABOVE FINISH FLOOR
- WP WEATHERPROOF
- WG WIRE CAGE OR GUARD PROTECTION
- EX EXISTING
- EF EXHAUST FAN
- EWH ELECTRIC WATER HEATER
- G.C. GENERAL CONTRACTOR
- P.C. PLUMBING CONTRACTOR
- M.C. MECHANICAL CONTRACTOR
- E.C. ELECTRICAL CONTRACTOR OR EMPTY CONDUIT
- T.C. TECHNOLOGY SYSTEM CONTRACTOR
- B-2 TYPICAL CIRCUIT DESIGNATION: PANEL 'B', BREAKER #2
- C CONDUIT AS SPECIFIED
- NL 24 HOUR NIGHT LIGHT
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- U.G. UNDERGROUND
- NOTE: LEGEND IS FOR REFERENCE ONLY - SYMBOLS/ABBREVIATIONS SHOWN DO NOT NECESSARILY APPLY TO THIS PROJECT.



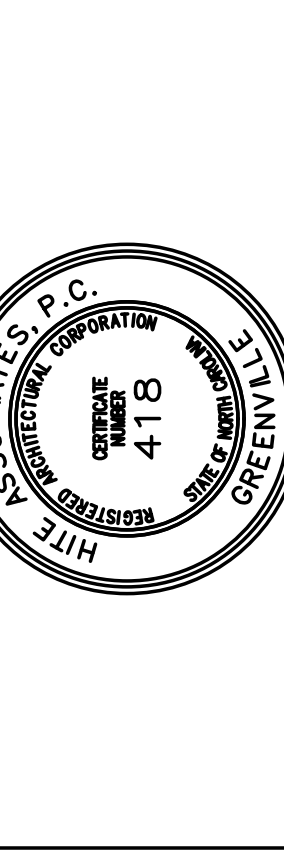
101.1 MAIN SECURITY FLOOR PLAN

SCALE: 3/32"=1'-0"

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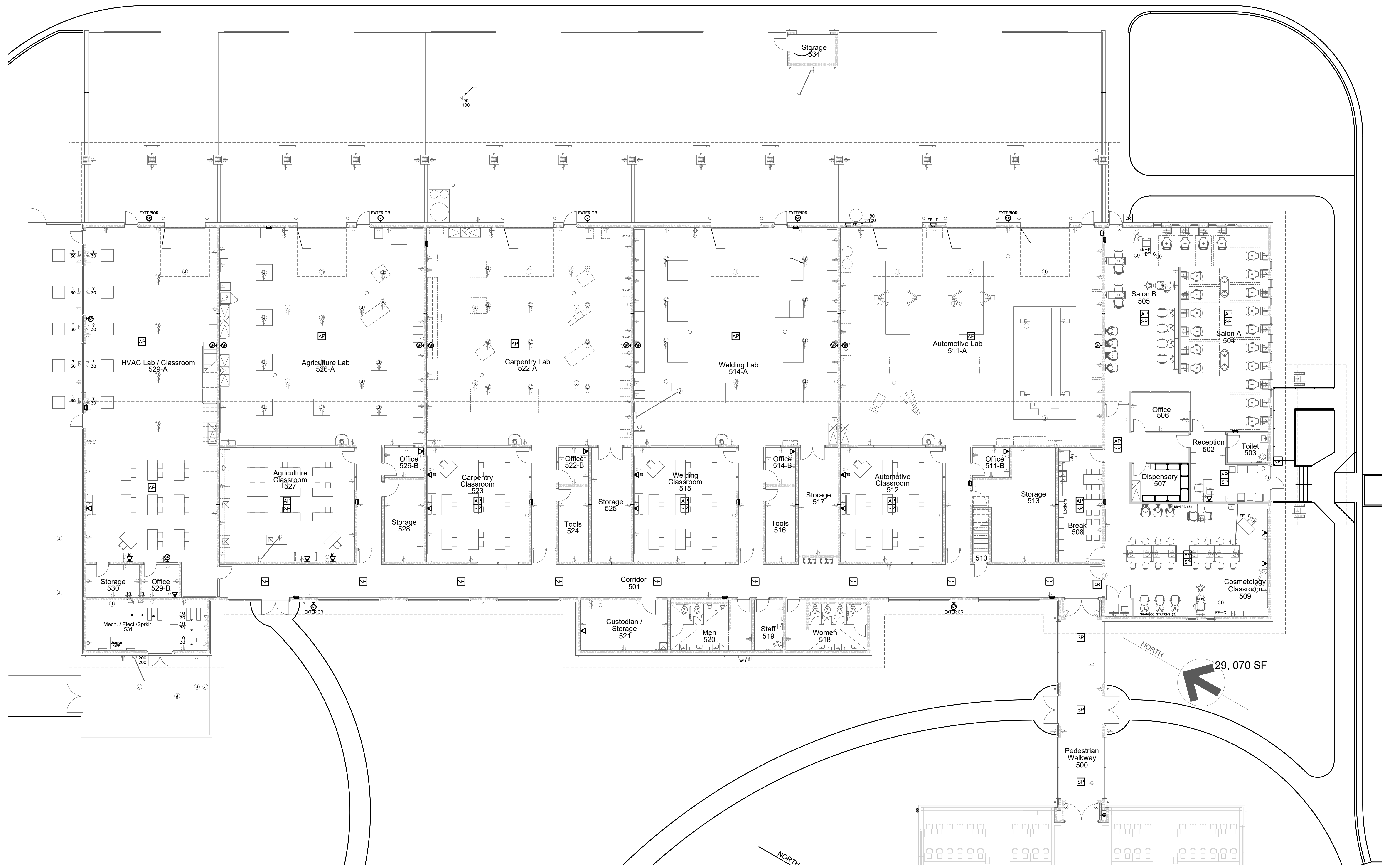


NEW CTE BUILDING FOR  
**Bertie High School**  
 716 US 13 North / NCDPS Unit 080 - School 312  
 Windsor / Bertie County / North Carolina

Project No.	22351
Date	March 2025
Drawing No.	IT 101

ES24055  
 PROJECT NO. ES24055  
 PROJECT NAME: NEW CTE BUILDING FOR BERTIE HIGH SCHOOL  
 PROJECT LOCATION: 716 US 13 NORTH, WINDSOR, NC 27884  
 PROJECT DATE: 3/25/25  
 PROJECT STATUS: PRELIMINARY

**ENGINEERING**  
 SOURCE OF NC, P.A.  
 102-A2 Ragsdale Blvd., Greenville, NC 27834  
 E-MAIL ADDRESS: general@engsource.com  
 TEL (252) 438-3328 • FAX (252) 438-9462 • WWW: ES-1073

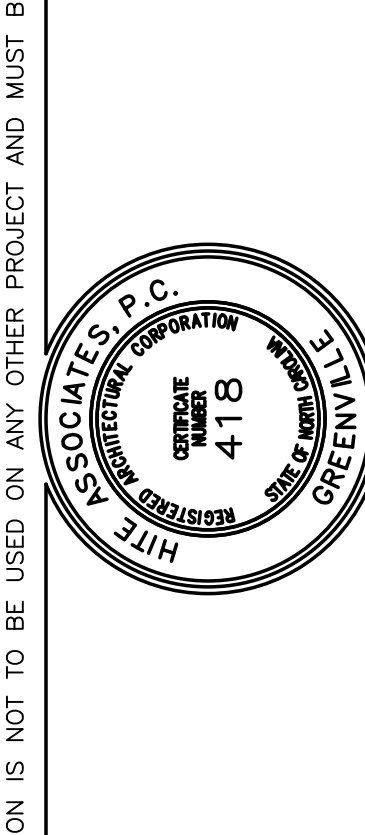


102.1 DATA/SPEAKER FLOOR PLAN  
 SCALE: 3/32"=1'-0"

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NEW CTE BUILDING FOR  
**Bertie High School**  
 716 US 13 North / NCDPS Unit 080 - School 312  
 Windsor / Bertie County / North Carolina

Project No.	22351
Date	March 2025
Drawing No.	IT 102

ES Project No. ES24055  
**ENGINEERING**  
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# 103.1 DATA PLATFORM FLOOR PLAN

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

Project No. ES240055

**ENGINEERING**  
SOURCE OF NC, P.A.

102-A2 Hargett Blvd., Greenville, NC 27834  
E-Mail Address: general@hiteassociates.com  
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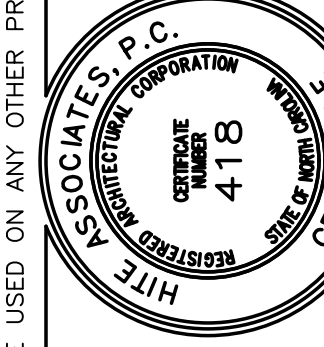
Project No. 22351

Date: March 2025

Drawing No.

**IT  
103**

NEW CTE BUILDING FOR  
**Bertie High School**  
716 US 13 North / NCDPS Unit 080 - School 312  
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