



# NEW RAMP & SCREEN WALL GATES COUNTY HIGH SCHOOL GATES COUNTY, NORTH CAROLINA



## GENERAL

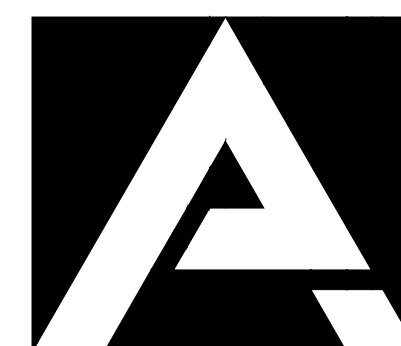
G1.0 COVER SHEET  
G2.0 APPENDIX "B"

## ARCHITECTURAL

A1.0 DEMO, FLOOR PLAN, DETAILS

## STRUCTURAL

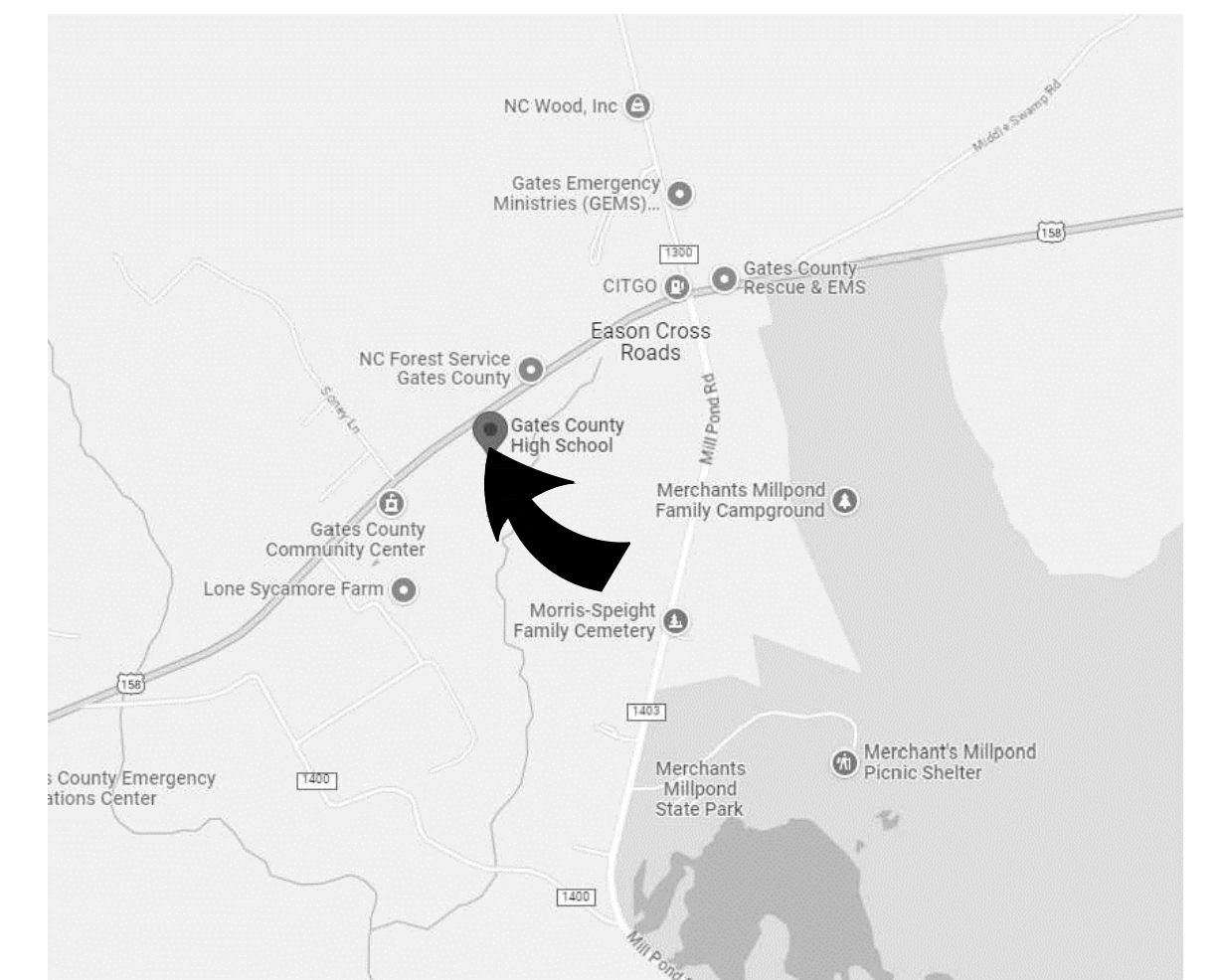
S100 FOUNDATION & ROOF FRAMING PLAN  
S200 GENERAL NOTES, SPECIAL INSPECTIONS REQUIREMENTS  
S201 TYPICAL SECTIONS & DETAILS



**PINNACLE ARCHITECTURE**  
**PROFESSIONAL ASSOCIATION**

P.O. BOX 187, 630 TEAM ROAD, SUITE 200  
MATTHEWS, NORTH CAROLINA 28106  
PH: (704) 847-9851 FAX: (704) 847-9853

701 EAST BAY STREET, SUITE 302  
CHARLESTON, SOUTH CAROLINA 29403  
PH: (843) 872-5345 FAX: (843) 872-5374



**SITE REFERENCE MAP**

**COVER**  
**G1.0**

Name of Project: GATES COUNTY HIGH SCHOOL ADDITIONS & RENOVATIONS  
 Address: --- Zip Code: ---  
 Owner/Authorized Agent: RANDY BAKER Phone: 704.911.0112 E-Mail: randy@pmacsciencearchitecture.net  
 Owned By: ☒ City/County ☐ Private ☐ State  
 Code Enforcement Jurisdiction: ☐ City ☒ County GATES ☐ State

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	PINNACLE ARCHITECTURE, P.A.	FRANK M. WILLIAMS	1611	(704) 847-1951	mwilliams@pinnaclearchitecture.net aelli@triad-designgroup.com
Civil	MS&G ENGINEERS, INC.	MATTHEW D. KNOTTS	36875	(704) 527-2112	matthew@mswg.com
Electrical	MS&G ENGINEERS, INC.	MATTHEW D. KNOTTS	36875	(704) 527-2112	matthew@mswg.com
Fire Alarm	MS&G ENGINEERS, INC.	J. CRAIG CHAMPION	11250	(704) 527-2112	cchampion@mswg.com
MECHANICAL	MS&G ENGINEERS, INC.	J. CRAIG CHAMPION	11250	(704) 527-2112	cchampion@mswg.com
Mechanical	MS&G ENGINEERS, INC.	J. CRAIG CHAMPION	11250	(704) 527-2112	cchampion@mswg.com
Sprinkler-Standpipe					
Structural					
Retaining Walls/High					
Other					
(Other) should include firms and individuals such as truss, precast, pre-engineered, interior designers, etc.)					

RISK CATEGORY (Table 1604.5): Current: ☐ I ☒ II ☐ III ☐ IV  
Proposed: ☐ I ☒ II ☐ III ☐ IV

Construction Type:	<input type="checkbox"/> I-A	<input type="checkbox"/> II-A	<input type="checkbox"/> III-A	<input type="checkbox"/> IV	<input type="checkbox"/> V-A
(check all that apply)	<input type="checkbox"/> I-B	<input type="checkbox"/> II-B	<input type="checkbox"/> III-B		<input checked="" type="checkbox"/> V-B
Sprinklers:	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Partial	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NFPA 13	<input type="checkbox"/> NFPA 13R
Standpipes:	<input checked="" type="checkbox"/> No	<input type="checkbox"/> YES	<input type="checkbox"/> Class I	<input type="checkbox"/> II	<input type="checkbox"/> III
Primary Fire District:	<input type="checkbox"/> No	<input checked="" type="checkbox"/> YES	Flood Hazard Area:		
Special Inspections Required:	<input type="checkbox"/> No	<input checked="" type="checkbox"/> YES	(Contact local inspection jurisdiction for possible additional procedures and requirements.)		
			<input checked="" type="checkbox"/> No	<input type="checkbox"/> YES	

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
3rd Floor			
2nd Floor			
UPPER LEVEL			
INTERMEDIATE LEVEL			
LOWER LEVEL	70120	--	
TOTAL	70120	--	

Assembly ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ A-5

Business ☐ B-1

Educational ☐ E-1

Factory ☐ F-1 Moderate ☐ F-2 Low ☐ F-3 High

Hazardous ☐ H-1 Detonate ☐ H-2 Deflagrate ☐ H-3 Combust ☐ H-4 Health ☐ H-5 HPM

Institutional ☐ I-1 ☐ I-2 ☐ I-3 ☐ I-4

I-1 Condition ☐ 1 ☐ 2

I-2 Condition ☐ 1 ☐ 2

I-3 Condition ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

Mercantile ☐ M-1

Residential ☐ R-1 ☐ R-2 ☐ R-3 ☐ R-4

Storage ☐ S-1 Moderate ☐ S-2 Low ☐ High-Filled

☐ Parking garage ☐ Open ☐ Enclosed ☐ Repair garage

Utility and Miscellaneous ☐ U-1

be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.

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

$$\frac{\text{N/A}}{\text{N/A}} + \frac{\text{N/A}}{\text{N/A}} + \dots = \frac{\text{N/A}}{\text{N/A}} \leq 1.00$$

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 <sup>4</sup> AREA	(C) AREA FOR FRONTAGE INCREASE <sup>1, 5</sup>	(D) ALLOWABLE AREA PER STORY OR UNLIMITED <sup>2, 3</sup>
--	--	--	--	--	--

1. Percent increase is based on the unspiked area value in Table SDC.2.

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3)	--	EXISTING	
Building Height in Stories (Table 504.4)	--	EXISTING	

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING PROVIDED (N/V REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
Structural Frame including columns, girders, trusses						
Bearing Walls						
Exterior		N/A				
North		N/A				
East		N/A				
West		N/A				
South		N/A				
Interior						
Nonbearing walls and partitions						
Exterior walls						
North		N/A				
East		N/A				
West		N/A				
South		N/A				
Interior Walls and partitions						
Floor Construction including supporting beams and joists						
Floor Ceiling Assembly		N/A				
Columns Supporting Floors		N/A				
Roof Construction, including supporting beams and joists						
Roof Ceiling Assembly		N/A				
Columns Supporting Roof		N/A				
Shaft Enclosures - Exit		N/A				
Shaft Enclosures - Other		N/A				
Corridor Separation		EXIS. 1HR.				
Occupancy/Fire Barrier Separation		N/A				
Party/Fire Wall Separation		N/A				
Smoke Barrier Separation		N/A				
Smoke Partition		N/A				
Tenant/Dwelling Unit/ Sleeping Unit Separation		N/A				
Incidental Use Separation		N/A				

- Indicate section number permitting reduction

EXISTING - NO ALTERATIONS			
FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 105.3)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
N/A			

Emergency Lighting: ☐ Yes ☐ No

Exit Signs: ☐ Yes ☐ No

Fire Alarm: ☐ Yes ☐ No

Smoke Detection Systems: ☐ Yes ☐ No ☐ Partial \_\_\_\_\_

Carbon Monoxide Detection: ☐ Yes ☐ No

Life Safety Plan Sheet #: \_\_\_\_\_

Fire and/or smoke rated wall locations (Chapter 7)  
Assumed and real property line locations (if not on the site plan)  
Exterior wall opening area with respect to distance to assumed property lines (105.B)  
Occupancy use for each area as it relates to occupant load calculation (Table 1004.1.2)  
Occupant load for each area  
Exit access travel distances (1017)  
Common path of travel distances (Table 1006.2.1.4 1006.3.2(1))  
Dead end lengths (1020.4)  
Clear exit widths for each exit door  
Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)  
Actual occupant load for each exit door  
A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation  
Location of doors with panic hardware (1010.1.1.9)  
Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)  
Location of doors with electromagnetic egress locks (1010.1.9.9)  
Location of doors equipped with hold-open devices  
Location of emergency escape windows (1030)  
The square footage of each fire area (1002)  
The square footage of each smoke compartment for Occupancy Classification 1-2 (407.5)  
Note any code exceptions or table notes that may have been utilized regarding the items above

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

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED			TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	REGULAR WITH 5 ACCESSIBLE	VAN SPACES WITH 132" ACCESSIBLE	3' ACCESSIBLE	
PARKING	---	---	---			---
TOTAL						

1000

USE		WATERCLOSETS			URINALS	LAVATOIRES			SHOWERS/ TUBS	DRINKING REGULAR	FOUNTAINS ACCESSIBLE
		MALE	FEMALE	UNISEX		MALE	FEMALE	UNISEX			
--	EXISTING										
--	NEW	---	---			---	---			---	---
--	REQUIRED	---	---			---	---				---
	EXISTING										
	NEW										
	REQUIRED										

\* URINALS SUBSTITUTED FOR WATER CLOSETS PER SECTION 403.8.5.3 OF NCSPC  
 \*\* URINALS SUBSTITUTED FOR WATER CLOSETS PER SECTION 419.2 OF NCSPC (EDUCATIONAL / ALL OTHER OCCUPANCIES)

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, ICC, etc., describe below)  
LOCAL JURISDICTION

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R-Value of Insulation: \_\_\_\_\_  
Horizontal Ventilation Requirement: \_\_\_\_\_[illegible]

<sup>9</sup> Common Path of Travel (Section 1006.2.1)

USE GROUP OR SPACE DESCRIPTION	(a)		(b)		(c)		EXT INTDTH (in) <sup>2,3,4,5,6</sup>			
	AREA <sup>1</sup> sq. ft.	AREA <sup>1</sup> PER OCCUPANT (TABLE 1004.1.2)	CALCULATED OCCUPANT LOAD (a ÷ b)	EGRESS INTDTH PER OCCUPANT (1009.3)		REQUIRED INTDTH (SECTION 1009.3) (a - b) × c		ACTUAL INTDTH SHOWN ON PLANS		
				STAIR	LEVEL	STAIR	LEVEL	STAIR	LEVEL	
TOTALS	2600	640	87	1.5	1.0		17.4		148	

6 Assembly occupancies (Section 1029)

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THIS DRAWING IS THE PROPERTY OF THE ARCHITECTS AND CAN NOT BE USED FOR CONSTRUCTION PURPOSES OR REPRODUCED WITHOUT WRITTEN CONSENT OF THE ARCHITECT.

PINNACLE ARCHITECTURE  
PROFESSIONAL ASSOCIATION

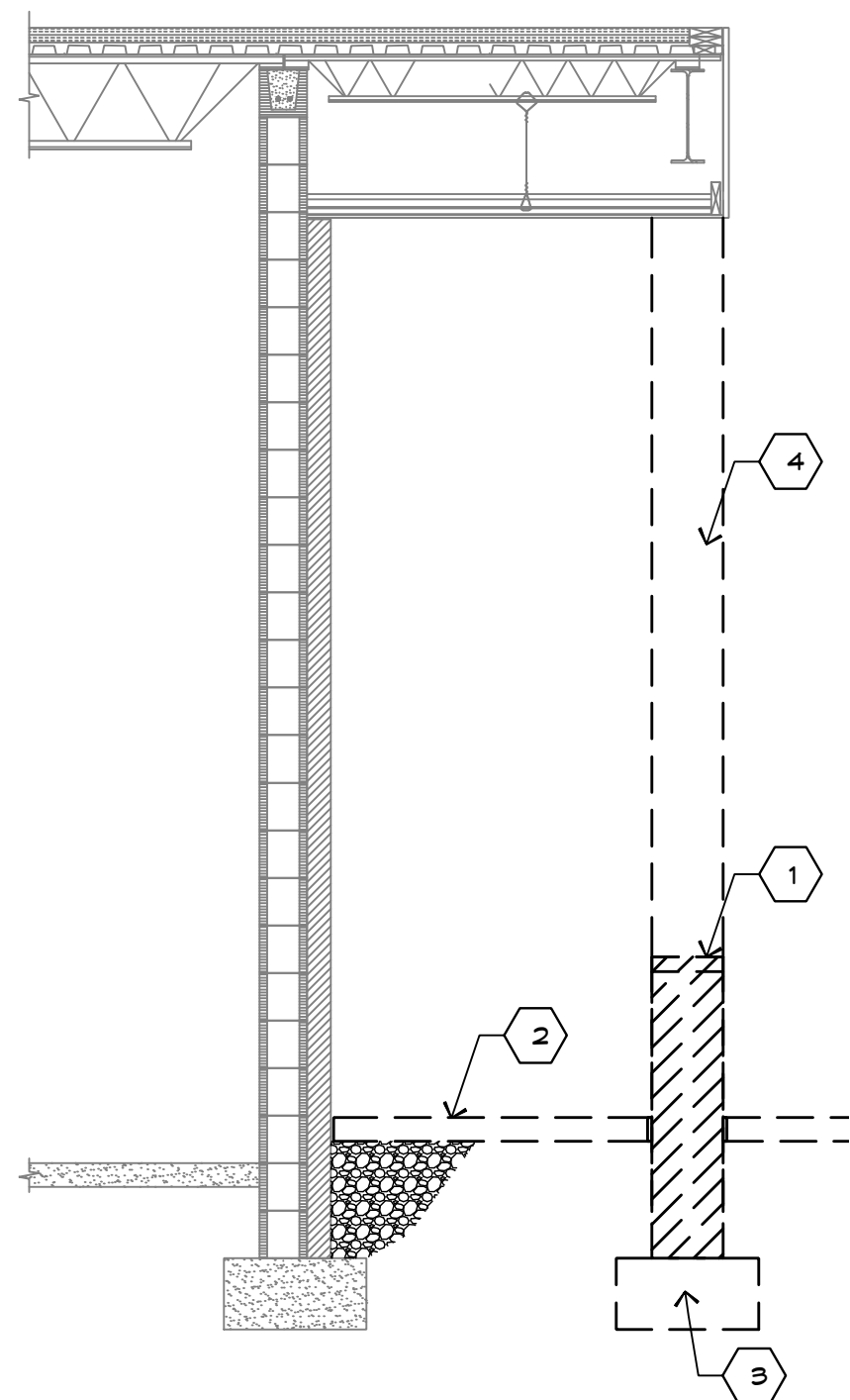
P.O. BOX 187, 630 TEAM ROAD, SUITE 200  
MATTHEWS, NORTH CAROLINA 28106  
PH: (704) 847-9851 FAX: (704) 847-9853  
701 EAST BAY STREET, SUITE 302  
CHARLESTON, SOUTH CAROLINA 29403  
PH: (843) 872-5345 FAX: (843) 872-5374

ISSUE DATE: 10.27.2025  
DRAWN BY: JAE  
CHECKED BY: FMW/REB  
PROJECT: 2256-20

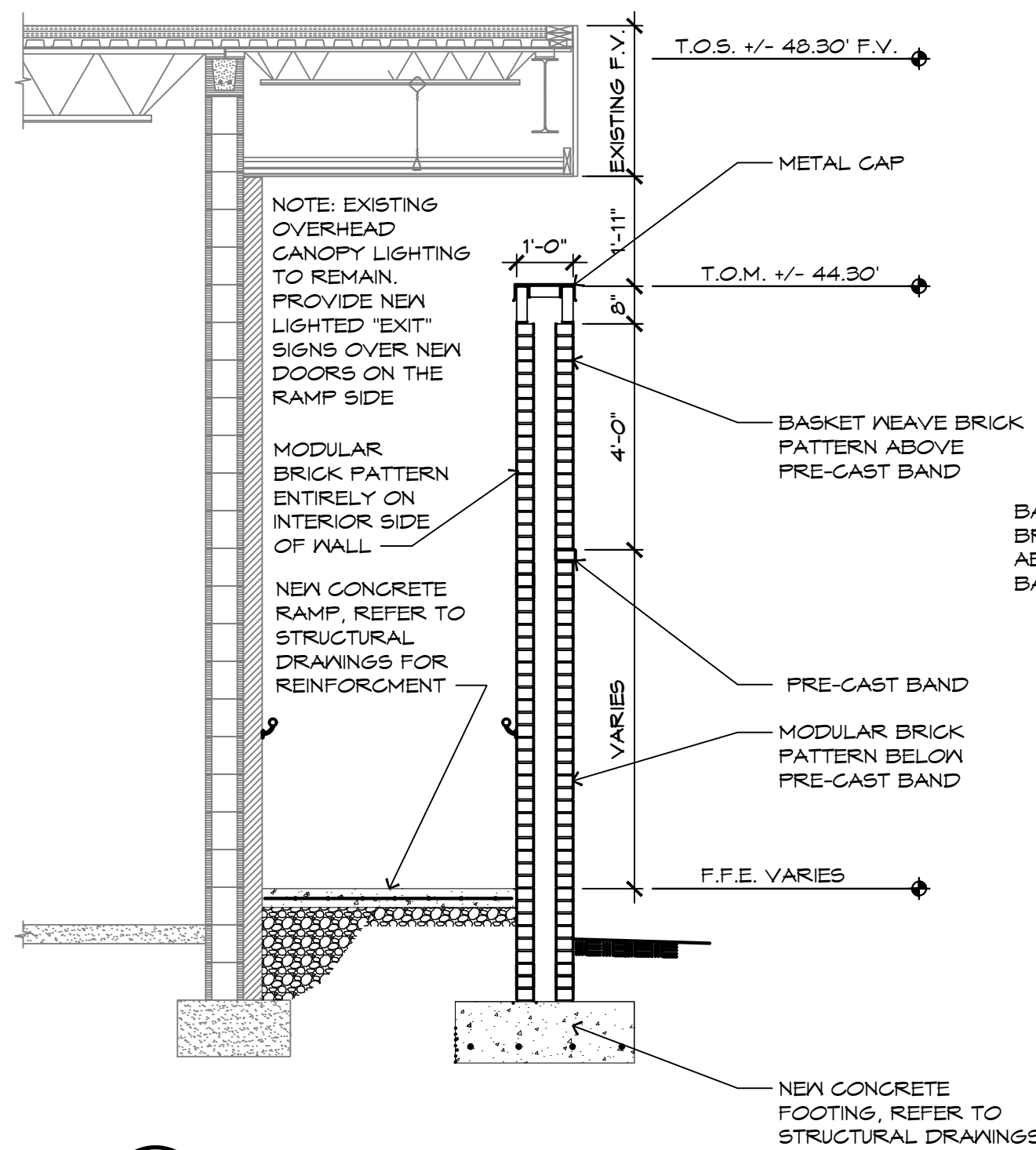
**ADDITIONS & RENOVATIONS  
GATES COUNTY HIGH SCHOOL  
GATESVILLE, NC**

REVISION SCHEDULE		
NO.	DATE	REFERENCE

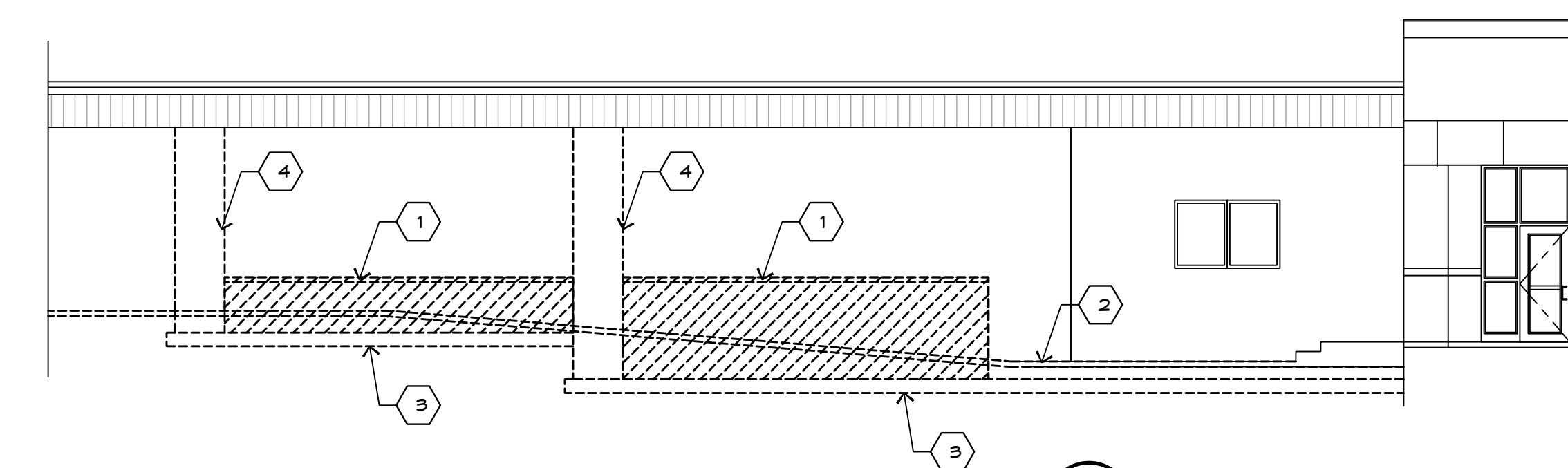
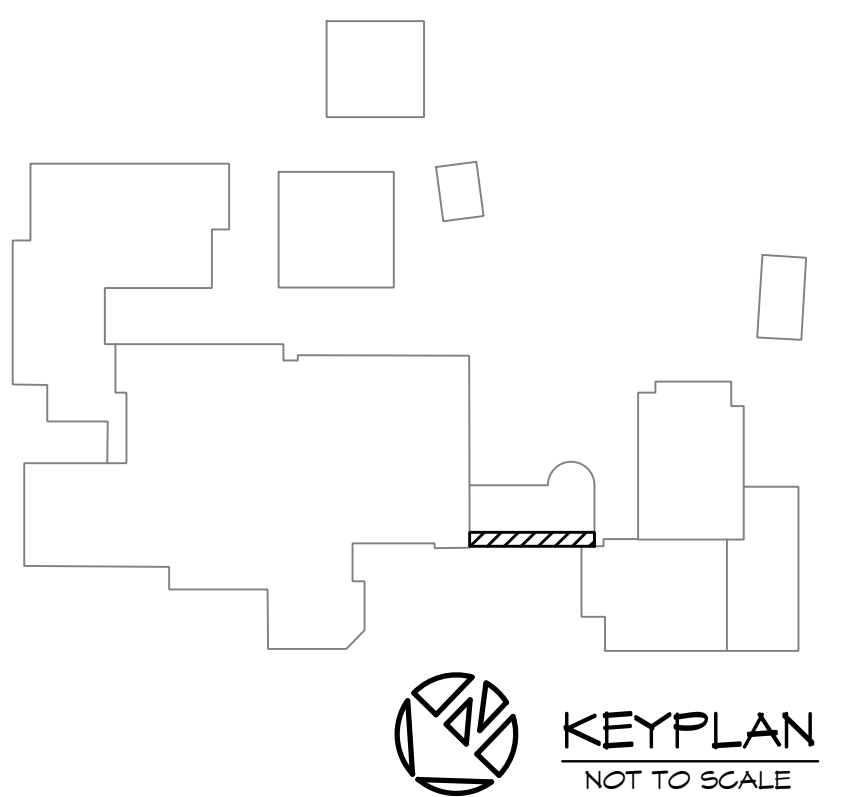
# G2.0



**7 DEMOLITION SECTION**  
A1.0 SCALE: 3/8"=1'-0"

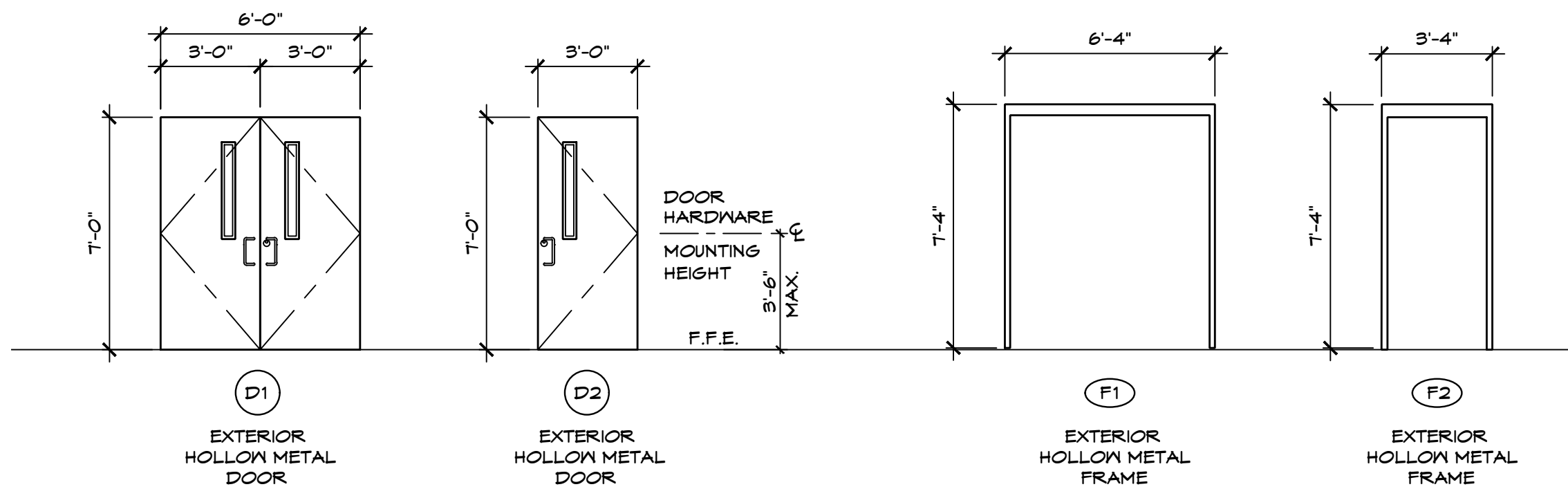


**8 DEMOLITION SECTION**  
A1.0 SCALE: 3/8"=1'-0"

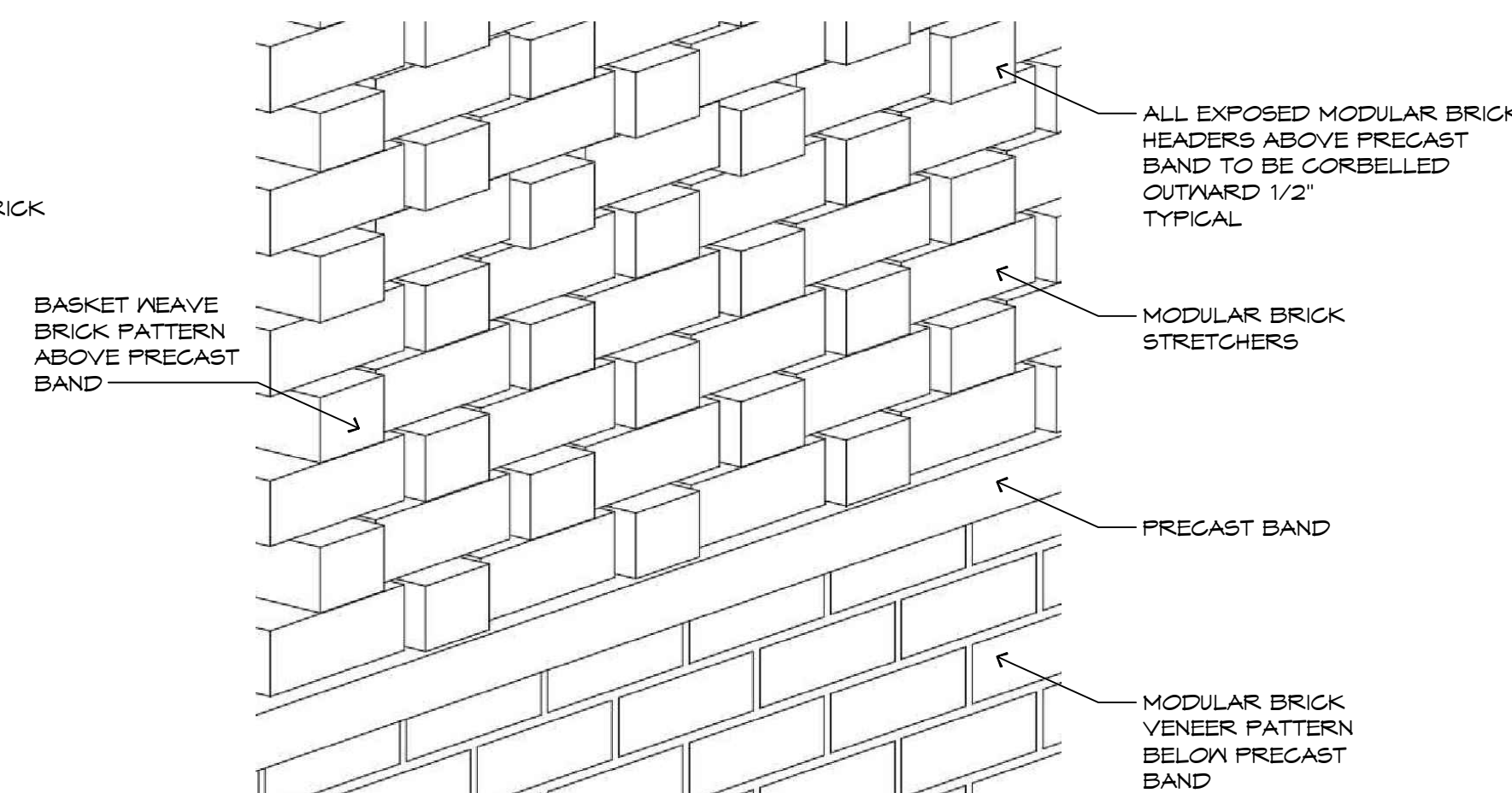


**3 DEMOLITION ELEVATION**  
A1.0 SCALE: 1/8"=1'-0"

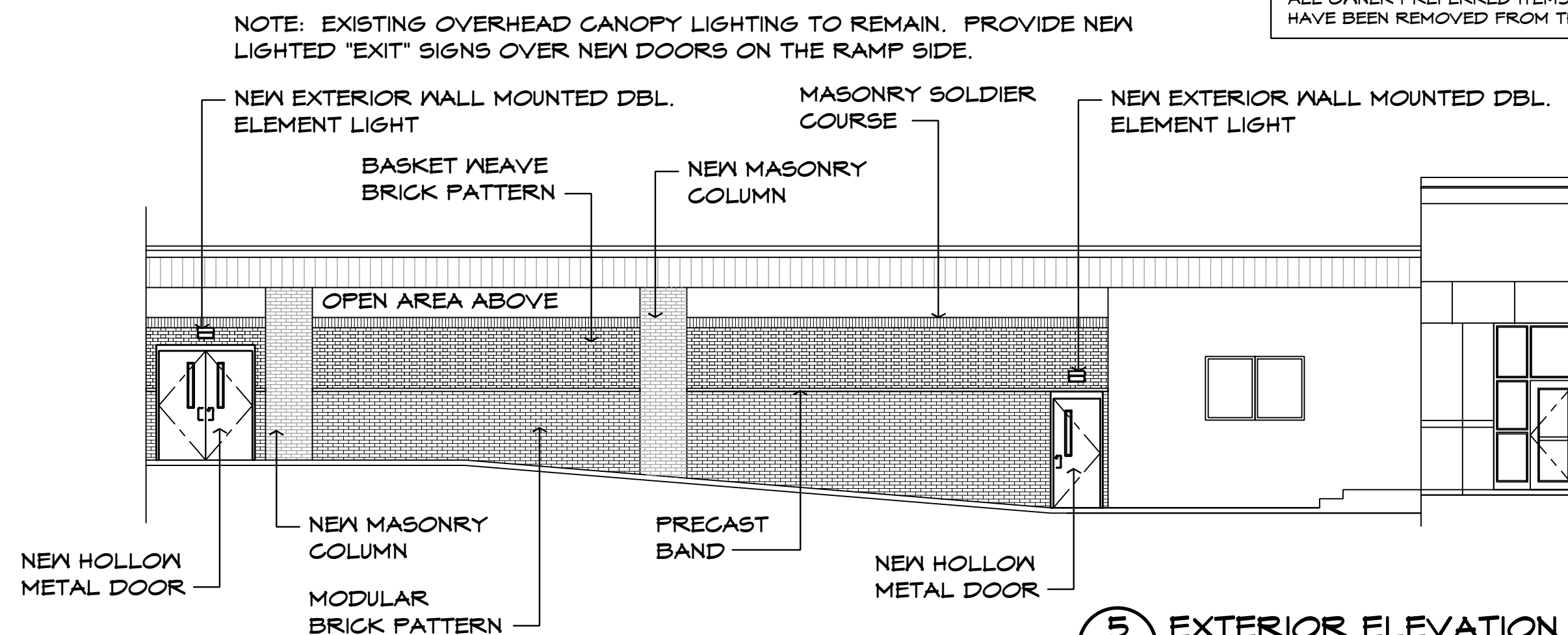
NOTE: G.C. TO COORDINATE W/ OWNER TO PROVIDE ENTRY DEVICES TO MATCH OWNER'S KEYING SYSTEM.

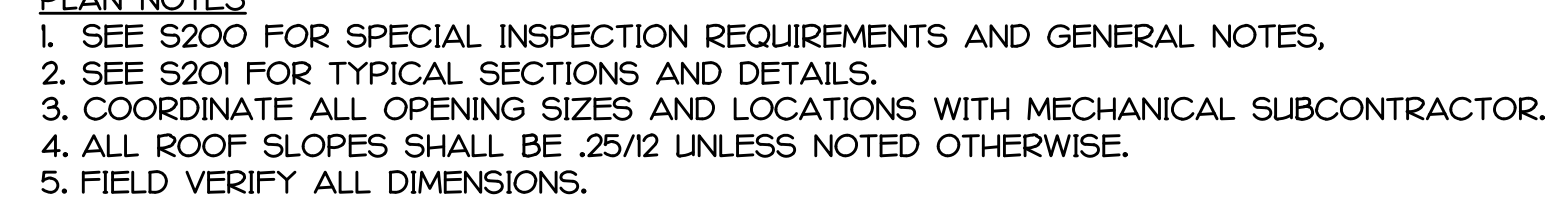


**4 DOOR & FRAME ELEVATIONS**  
A1.0 SCALE: 1/4"=1'-0"



**5 TYPICAL BRICK PATTERN DETAIL**  
A1.0 SCALE: NOT TO SCALE

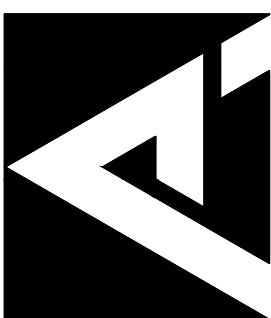




\$100

ADDITIONS & RENOVATIONS  
GATES COUNTY HIGH SCHOOL  
GATESVILLE, NC  
NEW SCREEN WALL @ RAMP  
FOUNDATION/SLAB AND  
ROOF FRAMING PLAN

ISSUE DATE: 10.25.2025  
DRAWN BY: RMR  
CHECKED BY: RMR  
PROJECT: 2256-20

PINNACLE ARCHITECTURE  
PROFESSIONAL ASSOCIATION

P.O. BOX 187, 630 TEAM ROAD, SUITE 200  
MATTHEWS, NORTH CAROLINA 28106  
PH: (704) 847-9851 FAX: (704) 847-9853

**RUGGLES ENGINEERING PC**  
**Structural Engineers**

1116 Whispering Winds Drive  
Catawba, NC 28609  
Ph. 704-778-5192  
Fax 828-478-9119  
Firm No. C-2817  
Email: [rugglesengineering@embarqmail.com](mailto:rugglesengineering@embarqmail.com)

**CONTRACTOR TO VERIFY ALL DIMENSIONS.**

Qualification Requirements for Inspectors and Testing Technicians

PE/SE Structural Engineer – licensed PE or SE specializing in the design of buildings and structures  
PE/GE Geotechnical Engineer – licensed PE specializing in soil mechanics and foundations  
EIT Engineer-In-Training – graduate engineer who has passed the Fundamentals of engineering examination

American Concrete Institute (ACI) Certification  
ACI-CCSI Concrete Construction Special Inspector  
ACI-LTTT Concrete Laboratory Testing Technician Level 1 or 2  
ACI-STT Concrete Strength Testing Technician  
ACI-FTT Concrete Field Testing Technician – Grade 1

American Society of Non-Destructive Testing (ASNT) Certification  
Non-Destructive Testing Technician – Level II or III

American Welding Society (AWS) Certification  
AWS-CWI Certified Welding Inspector

Exterior Design Institute (EDI) Certification  
EDI-EIFS Certified EIFS inspector

International Code Council (ICC) Certification  
ICC-PCSI Prestressed Concrete Special Inspector  
ICC-RCSI Reinforced Concrete Special Inspector  
ICC-SSI Soils Special Inspector  
ICC-SFSI Spray-applied Fireproofing Special Inspector  
ICC-SMSI Structural Masonry Special Inspector  
ICC-SSBSI Structural Steel and Bolting Special Inspector  
ICC-SWSI Structural Welding Special Inspector

National Institute for Certification in Engineering Technologies (NICET) Certification  
NICET-CT Concrete Technician – Levels I, II, III and IV  
NICET-GET Geotechnical Engineering Technician - Levels I, II, III and IV  
NICET-ST Soils Technician - Levels I, II, III and IV

Listing of Required Structural Tests and Special Inspections

Required?	Structural Test or Special Inspection	Continuous	Periodic	Frequency of Periodic Test or Inspection
Concrete Construction (ref: IBC-15 Table 1705.3)				
X	1. Inspect reinforcing steel, including prestressing tendons, and placement.		X	
	2. Inspection of reinforcing steel welding in accordance with Steel Construction section above.		X	
X	3. Inspection of anchors cast in concrete.		X	
X	4. Inspection of anchors post-installed in hardened concrete members.		X	
X	5. Verify use of approved design mix.		X	
X	6. Prior to placement fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.		X	
X	7. Inspect concrete and shotcrete placement for proper application techniques.		X	
X	8. Inspect for maintenance of specified curing temperature and techniques.		X	
	9. Inspection of prestressed concrete: a. Application of prestressing forces		X	
	b. Grouting of bonded prestressing tendons in the seismic-force-resisting system.		X	
	10. Erection of precast structural members		X	
	11. Verification of in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.		X	
X	12. Inspection formwork for shape, location and dimensions of the concrete member being formed.		X	

Required?	Structural Test or Special Inspection	Continuous	Periodic	Frequency of Periodic Test or Inspection
Masonry Construction (ref: IBC-15 Section 1705.4)				
	1. Inspect masonry construction in accordance with IBC-15 Section 1705.4 and TMS 602-13/ACI 530.1-13/ASCE 6-13 Article 1.6.			
	Level C Quality Assurance Tests:			
	1. Verify f'm and f'aac in accordance with TMS 602-13/ACI 530.1-13/ ASCE 6-13 Specification Article 1.4B prior to construction, and for every 5000 square feet during construction			
	2. Verify proportions of materials in premixed or pre-blended mortar, prestressing grout, and grout other than self-consolidating grout as delivered to the project site.			
	3. Verify slump flow and Visual Stability Index (VSI) as delivered to the project site in accordance with TMS 602-13/ACI 530.1-13/ASCE 6-13 Specification Article 1.5B.1.b.3 for self-consolidating grout			
	Inspection:			
X	1. Verify compliance with the approved submittals and project specifications.		X	
X	2. Verify:			
	a. Proportions of site-prepared mortar, grout and prestressing grout for bonded tendons		X	
X	b. Grade, type and size of reinforcement and anchor bolts, and prestressing tendons and anchorages		X	
X	c. Placement of masonry units and construction of mortar joints.		X	
X	d. Placement of reinforcement, connectors and prestressing tendons and anchorages		X	
X	e. Grout space prior to grouting.		X	
X	f. Placement of grout and prestressing grout for bonded tendons.		X	
X	g. Size and location of structural elements.		X	
X	h. Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames or other construction.		X	
	i. Welding of reinforcement.		X	
X	j. Preparation, construction and protection of masonry during cold weather (temperature below 40°F) or hot weather (temperature above 90°F).		X	
	k. Application and measurement of prestressing force.		X	
	l. Placement of AAC masonry units and construction of thin-bed mortar joints.		X	
	m. Properties of thin-bed mortar for AAC masonry.		X	
X	3. Observe preparation of grout specimens, mortar specimens and/or prisms		X	

Required?	Structural Test or Special Inspection	Continuous	Periodic	Frequency of Periodic Test or Inspection
X	1. Verify materials below shallow foundations are adequate to achieve the required bearing capacity.		X	
X	2. Verify excavations are extended to proper depth and have reached proper material.		X	
X	3. Perform classification and testing of compacted fill materials.		X	
X	4. Verify use of proper materials, densities and lift thickness during placement and compaction of compacted fill.		X	
X	5. Prior to placement of controlled fill, observe sub-grade and verify that site has been prepared properly.		X	

Required?	Structural Test or Special Inspection	Continuous	Periodic	Frequency of Periodic Test or Inspection
Wind Resistance (ref: IBC-15 Section 1705.11)				
	1. Provide inspections when required by Section 1705.11.			

Required?	Structural Test or Special Inspection	Continuous	Periodic	Frequency of Periodic Test or Inspection
Seismic Resistance (ref: IBC-15 Section 1705.12)				
	1. Provide inspections when required by Section 1705.12.			

GENERAL NOTES

1. GENERAL
- A. THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH AND COORDINATED WITH THE ARCHITECTURAL DRAWINGS.
- B. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND SHALL AT ALL TIMES TAKE ALL REASONABLE PRECAUTIONS FOR THE SAFETY OF ITS EMPLOYEES ON THE PROJECT. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF FEDERAL, STATE AND MUNICIPAL SAFETY LAWS AND BUILDING CODES.
- C. FOUNDATIONS ARE DESIGNED BASED ON A PRESUMED BEARING PRESSURE OF 2000 PSF BEARING. BEARING PRESSURE SHALL BE VERIFIED BY GEO-TECHNICAL ENGINEER PRIOR TO POURING FOUNDATIONS.
- D. IF EXISTING CONDITIONS MAKE IT NECESSARY TO REVISE STRUCTURAL DETAILS. ADVISE STRUCTURAL ENGINEER BEFORE PROCEEDING WITH ANY CHANGE.

2. DESIGN CRITERIA:
- A. BUILDING DESIGNED IN ACCORDANCE WITH THE 2018 NORTH CAROLINA STATE BUILDING CODE.
- B. FLOOR LIVE LOADS:  
1. ASSEMBLY / 1ST FLOOR -100 PSF
- C. ROOF LIVE LOAD 20 PSF
- D. ROOF SNOW LOAD  
1. GROUND SNOW LOAD Pg=10 PSF  
2. FLAT-ROOF SNOW LOAD Ph=1 PSF  
3. SNOW EXPOSURE FACTOR Ce=1.0  
4. THERMAL FACTOR I=1  
5. SNOW LOAD IMPORTANCE FACTOR I=1
- E. WIND LOADS DESIGNED IN ACCORDANCE WITH 2018 NORTH CAROLINA STATE BUILDING CODE AND ANSI/ASCE 7-10  
1. BASIC WIND SPEED (3-SECOND GUST) ULT. 122 MPH  
BASIC WIND SPEED (3-SECOND GUST) ASD. 95 MPH  
2. WIND EXPOSURE C  
3. INTERNAL PRESSURE COEFFICIENT GCp=+1.8  
4. COMPONENTS AND CLADDING SHALL BE DESIGNED FOR THE ULTIMATE WIND PRESSURE TABULATED BELOW:  
5. WIND BASE SHEAR: N.A.

ZONE PER FIG. 30.5-1	EFFECTIVE WIND AREA	POSITIVE PRESSURE PSF	NEGATIVE PRESSURE PSF
1	50	+2.0	-32.5
2	50	+2.0	-43.5
3	50	+2.0	-52.3
4	10	+34.4	-37.4
4	20	+32.9	-35.8
4	50	+30.9	-33.8
4	100	+29.3	-32.2
5	10	+34.4	-46.2
5	20	+32.9	-43.1
5	50	+30.9	-39.0
5	100	+29.3	-35.8

- F. EARTHQUAKE DESIGN DATA  
1. RISK CATEGORY III  
2. SEISMIC IMPORTANCE FACTOR : Ie = 1.25  
3. SPECTRAL RESPONSE ACCELERATIONS : Sa = .103 Ss = .052  
4. SPECTRAL RESPONSE COEFFICIENTS: Sds = .109 Sds = .083  
5. SEISMIC SITE CLASS D  
6. BASIC SEISMIC-FORCE-RESISTING-SYSTEM : CANTILEVER COLUMN SYSTEMS  
7. SEISMIC BASE SHEAR : N.A.  
8. SEISMIC RESPONSE COEFFICIENT : Cs = .095  
9. RESPONSE MODIFICATION COEFFICIENT : R = 1.5  
10. ANALYSIS PROCEDURE - EQUIVALENT LATERAL FORCE  
11. SEISMIC DESIGN CATEGORY B

3. CONCRETE
- A. REINFORCING STEEL ASTM A615 GRADE 60  
WELDED WIRE FABRIC ASTM A185 MESH
- B. UNLESS OTHERWISE NOTED ON THE DRAWINGS, LAP SPLICES SHALL BE A CLASS B SPLICE.  
#4 LAP = 28"  
#5 LAP = 35"  
#6 LAP = 42"  
#7 LAP = 43"
- C. CONCRETE LOCATION 28 DAY STRENGTH  
FOOTINGS, SLABS, MISC. 3000 PSI NORMAL WEIGHT (MAX. W/C RATIO = .50)  
BLOCK FILL 3000 PSI NORMAL WEIGHT COARSE GROUT (ASTM C476)

4. STRUCTURAL STEEL
- A. ALL WIDE FLANGE AND STRUCTURAL TEES SHALL BE ASTM A992 (Fy=50 KSI). ALL OTHER STEEL SHALL BE ASTM A36 UNLESS NOTED OTHERWISE. TUBE STEEL SHALL CONFORM TO ASTM A500, GRADE B (Fy=46 KSI) PIPE STEEL SHALL BE ASTM A53 GRADE B, OR ASTM 501 (Fy=36 KSI) ALL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH AISC LATEST EDITION. ALL BOLTED CONNECTIONS ARE TO BE WITH A325 HIGH STRENGTH BOLTS. CONNECTIONS ARE TO DEVELOP THE REACTIONS SHOWN IN THE ALLOWABLE UNIFORM LOAD TABLES OF THE AISC MANUAL OR 6 KIPS WHICHEVER IS GREATER. FIELD WELDS SHALL ONLY BE MADE BY OPERATORS CERTIFIED BY TEST DESCRIBED IN AWS D11 SEE SPECIFICATIONS.
- B. FABRICATORS SHOP DRAWINGS SHALL SHOW AND NOTE ALL MATERIAL REQUIRED WITH RELATIVE LOCATIONS AND SUFFICIENT DETAILS FOR PROPER FABRICATION AND ERECTION IN ACCORDANCE WITH ALL CONTRACT DRAWINGS AND DOCUMENTS. SERIALS OF STRUCTURAL DRAWINGS SHALL NOT BE USED IN PREPARATION OF SHOP DRAWINGS.
- C. METAL DECK SIZE AND GAGE SHALL BE AS INDICATED ON PLANS. ALL DECK SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATION. THREE SPAN MIN. NO EQUIPMENT TO HANG FROM METAL DECK. RESPECTIVE CONTRACTOR TO PROVIDE SUPPORT AS REQUIRED, CEILING, LIGHTS AND DUCT MAY BE HUNG FROM DECK WITH CONCRETE SLAB.
- D. ROOF OPENINGS NOT SHOWN ON PLANS SHALL BE FRAMED WITH 3-1/2 X 3-1/2-1/4 ANGLES. FLOOR OPENINGS NOT SHOWN ON PLANS SHALL BE FRAMED WITH W8X10 BEAM.
- E. ALL EXTERIOR EXPOSED STEEL LINTELS, BEAMS, STUDS AND PLATES SHALL BE HOT DIPPED GALVANIZED.
- F. EPOXY ANCHORS SHALL BE ONE OF THE FOLLOWING OR APPROVED EQUAL:  
a. HILTI HIT ADHESIVE ANCHORS  
b. ITW RAMSET/REDHEAD: EPOCON ADHESIVE ANCHORS  
c. RAWL POWER FAST ADHESIVE ANCHORS

5. MASONRY
- A. SPECIFIED COMPRESSIVE STRENGTH OF MASONRY : f'm 1500 psi  
MASONRY MORTAR TO BE TYPE S. PROVIDE STANDARD (9 GAGE) HORIZONTAL JOINT REINFORCING AT 16" O.C. AT ALL BLOCK WALLS. JOINT REINFORCING AT EXTERIOR WALLS SHALL BE HOT DIPPED GALVANIZED AS PER SPECIFICATIONS. PROVIDE 1 # 4 BAR WITH CELL GROUTED SOLID AT ENDS, INTERSECTIONS, AND OPENINGS OF CMU WALLS.
- B. GROUT FOR HOLLOW UNIT SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI AND SHALL CONFORM TO ASTM C476 FOR COARSE GROUT. SLUMP SHALL BE 10" PLUS OR MINUS 1".
- C. LAP SPLICES FOR REBAR IN MASONRY WALLS  
#4 - 36"  
#5 - 45"  
#6 - 54"  
#7 - 63"
- D. MASONRY CONTROL JOINTS SHALL BE AS SHOWN ON ARCH. DRAWING, BUT SHALL NOT EXCEED 30 FEET ON CENTER.
- E. EPOXY ADHESIVE SHALL BE ONE OF THE FOLLOWING OR APPROVED EQUAL:  
a. HILTI - HVA ADHESIVE SYSTEM  
b. ITW RAMSET/REDHEAD - EPOCON SYSTEM  
c. RAWL - POWER FAST SYSTEM

REFERENCE DRAWINGS

- S100 FOUNDATION/SLAB AND ROOF FRAMING PLAN  
S200 GENERAL NOTES, SPECIAL INSPECTION REQUIREMENTS  
S201 TYPICAL SECTIONS AND DETAILS

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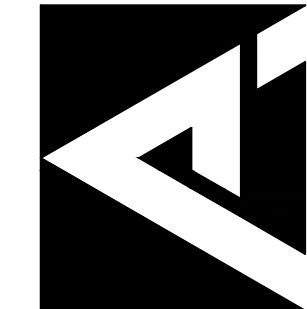
CONTRACTOR TO VERIFY ALL DIMENSIONS.

ADDITIONS & RENOVATIONS  
GATES COUNTY HIGH SCHOOL  
GATESVILLE, NC  
NEW SCREEN WALL @ RAMP  
GENERAL NOTES, SPECIAL  
INSPECTION REQUIREMENTS

REVISION  
DATE  
REFERENCE

S200

ISSUE DATE: 10/25/2025  
DRAWN BY: RWR  
CHECKED BY: RWR  
PROJECT: 2256-20



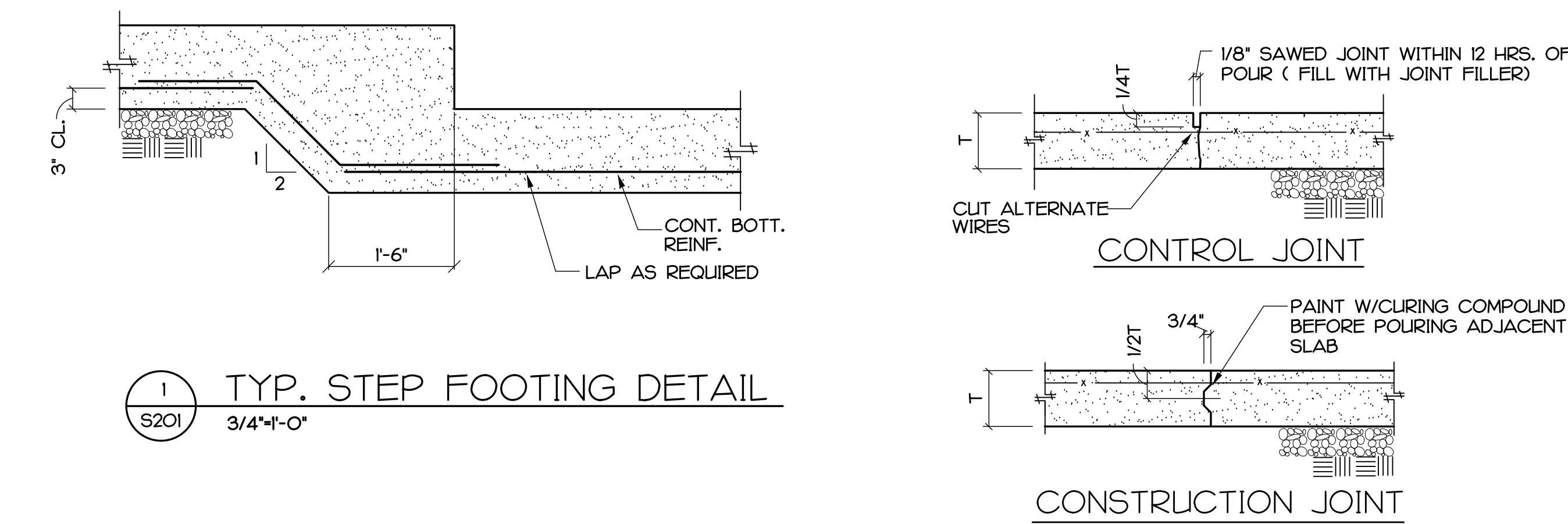
PINNACL ARCHITECTURE  
PROFESSIONAL ASSOCIATION

P.O. BOX 187, 630 TEAM ROAD, SUITE 200  
MATTHEWS, NORTH CAROLINA 28106  
PH: (704) 847-9851 FAX: (704) 847-9853

701 EAST BAY STREET, SUITE 302  
CHARLESTON SOUTH CAROLINA 29403  
PH: (843) 875-5345 FAX: (843) 872-5374

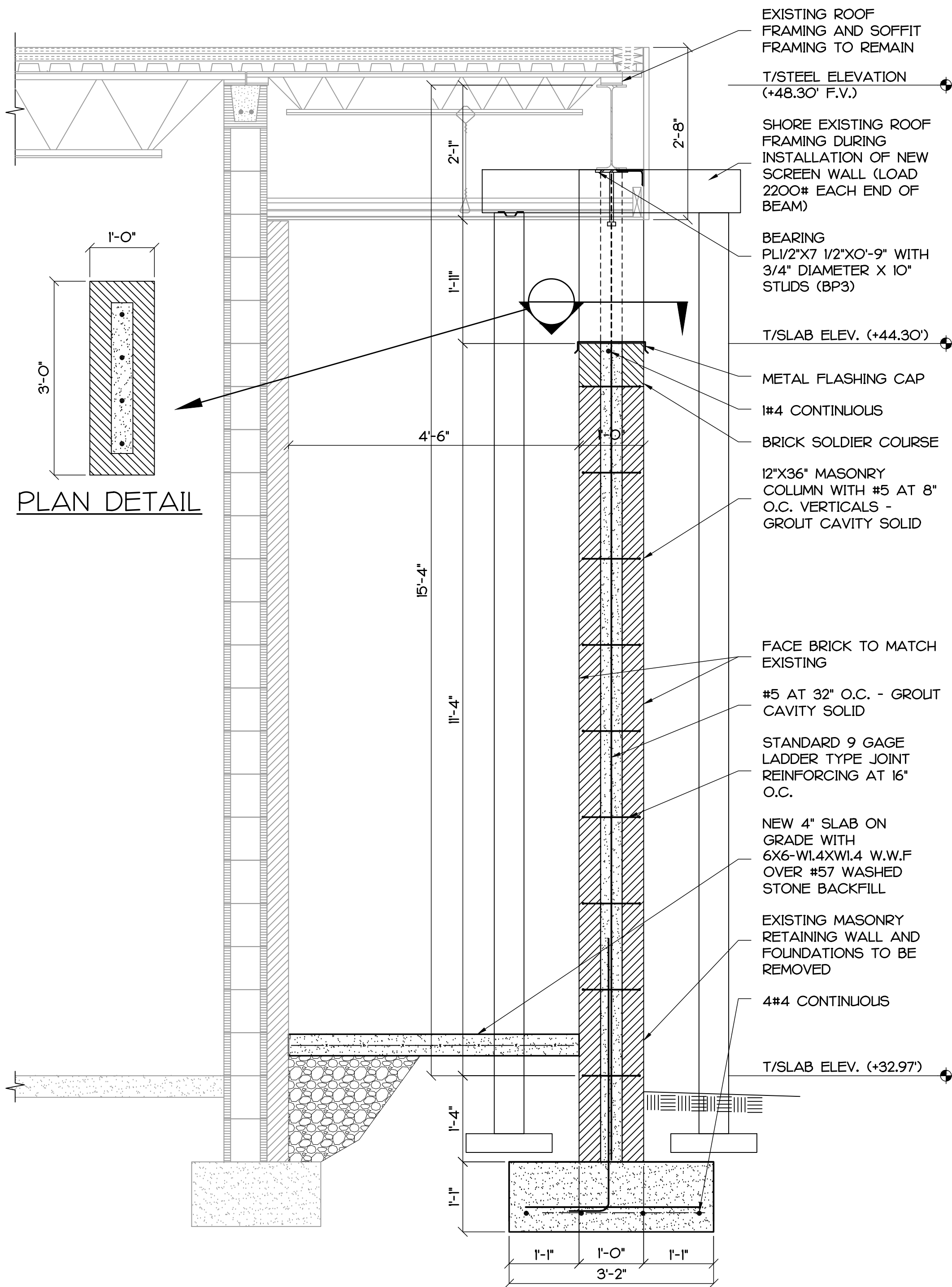
RUGGLES ENGINEERING PC  
Structural Engineers  
1116 Whispering Willows Drive  
Charlotte, NC 28217  
PH: 704-775-1182 Fax: 828-478-9119  
Firm No. C-2817  
Email: rugglesengineering@earthlink.net

CAROLINA PROFESSIONAL ASSOCIATION  
OF ARCHITECTS  
10/25/2025  
R. W. Ruggles, P.E.  
Professional Engineer  
No. 10000

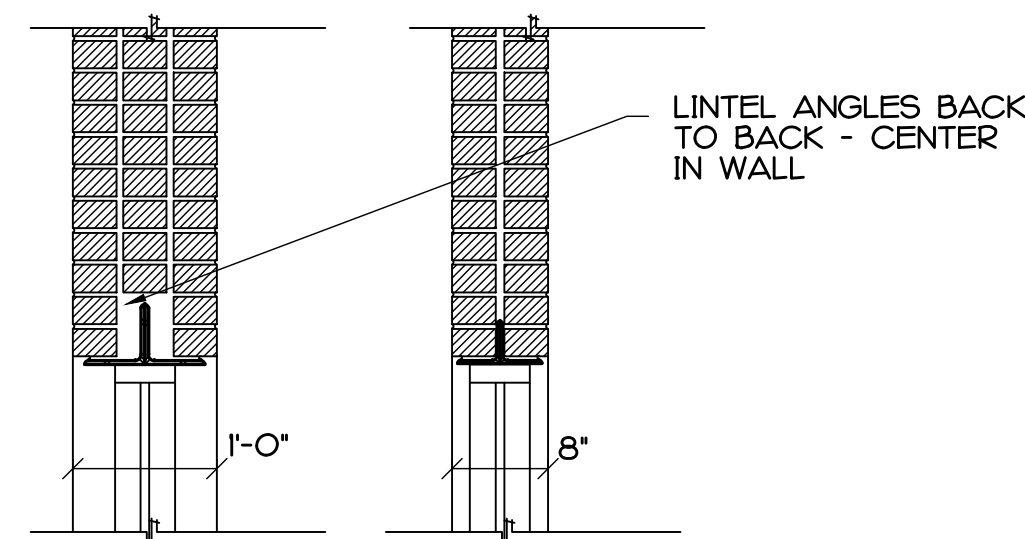


1 TYP. STEP FOOTING DETAIL  
3/4"-1'-0"

2 TYP. SLAB JOINTS  
3/4"-1'-0"



4 SECTION  
3/4"-1'-0"



TYPICAL LINEL DETAILS  
NO SCALE

LOOSE LINEL SCHEDULE		
WALL THICKNESS	ROUGH OPENING	ANGLE SIZE
8"	≤ 4'-0"	2-L3 1/2X3 1/2X1/4
8"	≤ 10'-0"	2-L6X3 1/2X5/16 (LLV)
12"	≤ 4'-0"	2-L5X3 1/2X1/4 (LLH)
12"	≤ 10'-0"	2-L5X5X5/16

NOTE: BEAR 8" EACH END OF OPENING  
ALL EXTERIOR LINELS TO BE GALVANIZED

3 TYP. LINEL DETAILS  
3/4"-1'-0"

BEARING PLATE SCHEDULE			
MARK	PLATE SIZE	SHEAR STUDS	ALLOWABLE LOAD
BP1	PL. 3/8"X7"X7"	1-1/2" DIA. X 6"	18k
BP2	PL. 1/2"X6"X9"	2-3/4" DIA. X 10"	20k
BP3	PL. 1/2"X7 1/2"X9"	2-3/4" DIA. X 10"	25k
BP4	PL. 7/8"X7 1/2"X12"	2- 3/4" DIA. X 8"	34k
BP5	PL. 1 1/4"X7 1/2"X16"	3-3/4" DIA. X 8"	45k
BP6	PL. 1 5/8"X7 1/2"X24"	3-3/4" DIA. X 8"	68k
BP7	PL. 2"X7 1/2"X28"	3-3/4" DIA. X 8"	79k
BP8	PL. 3/4"X10"X12"	2-3/4" DIA. X 8"	45k
BP9	PL. 3/8"X5"X10'-0"	3/4" DIA. X 10" STUDS AT 16"O.C.	-
BP10	PL. 1"X6"X16"	2-3/4" DIA. X 10"	36k
BP11	PL. 2"X6"X28"	3-3/4" DIA. X 10"	63k
BP12	PL. 3/4"X6"X12"	2-3/4" DIA. X 10"	27k
BP13	PL. 1 1/8"X11"X16"	4- 3/4" DIA. X 10"	66K
BP14	PL. 3/8"X7"X10'-0"	3/4" DIA. X 10" STUDS AT 16"O.C.	-

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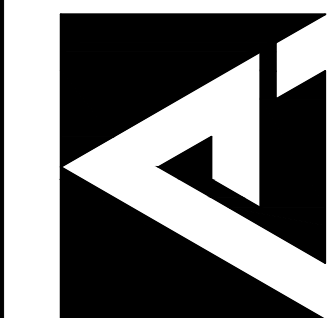
TYPICAL SECTIONS AND DETAILS

REVISION SCHEDULE

Δ	DATE	REFERENCE

S201

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P.O. BOX 187, 630 TEAM ROAD, SUITE 200  
MATTHEWS, NORTH CAROLINA 28106  
PH: (704) 847-9851 FAX: (704) 847-9853

RUGGLES ENGINEERING PC  
Structural Engineers

1116 Whispering Willows Drive  
Charlotte, NC 28217  
PH: (704) 775-5182 Fax: 828-476-9119  
Firm No. C-2817  
Email: rugglesengineering@earthlink.net

10/25/25