

**2018 APPENDIX B
BUILDING CODE SUMMARY
FOR ALL COMMERCIAL PROJECTS
(EXCEPT 1 AND 2 FAMILY DWELLINGS AND TOWNHOUSES)**

Name Of Project: **Buies Creek Fire Department**
 Address: **112 Marshbanks Street Lillington, NC 27546**
 Owner Or Authorized Agent: **Jeff Walker Phone 910-890-1268 E mail jiw08@centurylink.net**
 Owned By: City / County Private State
 Code Enforcement Jurisdiction: City County State

CONTACT: **Robert J. Bracken, Jr. - P.E.**
 DESIGNER: FIRM **RJB PE PA** NAME **RJ Bracken** LICENSE# **NC 7291** TELEPHONE# **(919) 774-6074** E-MAIL **rjbracken@windstream.net**
 Engineer **RJB PE PA** NAME **RJ Bracken** LICENSE# **NC 7291** TELEPHONE# **(919) 774-6074** E-MAIL **rjbracken@windstream.net**
 Civil _____
 Electrical _____
 Fire Alarm _____
 Plumbing _____
 Mechanical _____
 Sprinkler - Standpipe _____
 Structural _____
 Retaining Wall > 5' High _____
 Other _____

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

2018 NC CODE BUILDING CODE: New Building Addition Renovation

1st Time Interior Completion
 Shell / Core - Contact the local inspection jurisdiction for possible additional procedures and requirements
 Phased Construction - Shell / Core - Contact the local inspection jurisdiction for possible additional procedures and requirements

2018 EXISTING BUILDING CODE: EXISTING: Prescriptive Repair Chapter 14
 Alteration: Level I Level II Level III
 Historic Property Change Of Use

CONSTRUCTION: (Date) _____ CURRENT OCCUPANCY (S) (CH. 3): _____
 RENOVATED: (Date) _____ PROPOSED OCCUPANCY (S) (CH. 3): _____
 OCCUPANCY CATEGORY (Table 1604.5) Current: I II III IV
 Proposed: I II III IV

BASIC BUILDING DATA

Construction Type: I-A II-A III-A IV-A
 I-B II-B III-B IV-B

Sprinklers: No Partial Yes NFPA 13 NFPA 13R NFPA 13D

Standpipes: No Yes Class I II III Wet Dry

Fire District: No Yes Flood Hazard Area: No Yes

Special Inspections Required: No Yes (Contact the local inspection jurisdiction for additional procedures and requirements)

FLOOR	Existing (SQ. FT.)	NEW (SQ. FT.)	SUB-TOTAL
3rd Floor			
2nd Floor			
Mezzanine			
1st Floor		2,250	2,250
Basement			
TOTAL			2,250

ALLOWABLE AREA

Primary Occupancy (s): Select One
 Assembly A-1 A-2 A-3 A-4 A-5
 Business
 Educational
 Factory F-1 Moderate F-2 Low
 Hazardous H-1 Detonate H-2 Deflagrate H-3 Combat H-4 Health H-5 HPM
 Institutional I-1 Condition I-2 I-3 Condition I-4
 Mercantile
 Residential R-1 R-2 R-3 R-4
 Storage S-1 Moderate S-2 Low High Piled **17,500 ft²**
 Parking Garage Open Enclosed Repair Garage

Utility and Miscellaneous
 Accessory Occupancy Classification (s): _____
 Incidental Uses (Table 509): _____
 Special Uses (Chapter 4 - List Code Section): _____
 Special Provisions: (Chapter 5 - List Code Sections): _____
 Mixed Occupancy: No Yes Separation: _____ Hr. Exception: _____

Non-Separated Use (508.3) - The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building.

Separated Use (509.4) - See below for area calculations for each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.00
 Actual Area Of Occupancy A = _____
 Allowable Area Of Occupancy A = _____
 Actual Area Of Occupancy B = _____
 Allowable Area Of Occupancy B = _____
 _____ ≤ 1.00

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 AREA	(C) AREA FOR FRONTAGE INCREASE	(D) ALLOWABLE AREA PER STORY OR UNLIMITED

- Frontage area increase from Section 506.2 are computed thus:
 a. Perimeter which fronts a public way or open space having 20 feet minimum width = _____ (P)
 b. Total Building Perimeter = _____ (P)
 c. Ratio (F/P) = _____ (F/P)
 d. W = Minimum width of public way = _____ (W)
 e. Percent of frontage increase = 100 (F/P - 0.25) x W / 30 = _____ (%)
- Unlimited area applicable under conditions of Section 507.
- Maximum Building Area = total number of stories in building x D (maximum 3 stories) 506.2
- The maximum Area of open parking garages must comply with Table 406.5.4 The Maximum area of air traffic control towers must comply with Table 412.3.1.
- Frontage increase is based on the un sprinklered area value in Table 506.2

ALLOWABLE HEIGHT			
ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE	
Building Height in Feet (Table 504.3)	55'	18'-2"	T 504.3
Building Height in Stories (Table 504.4)	2	1	T 504.4

*Provide code reference if the "Shown on Plans" quality is not based on Table 504.3 or 504.4

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
Structural Frame, including columns, girders & trusses						
Bearing walls						
Exterior						
North						
East						
West						
South						
Interior						
Nonbearing walls and partitions						
Exterior Walls						
North						
East						
West						
South						
Interior walls & partitions						
Floor construction including supporting beams & joist						
Floor Ceiling Assembly						
Columns Supporting Floors						
Roof construction including supporting beams & joist						
Roof Ceiling Assembly						
Columns Supporting Roof						
Shaft Enclosures - Elev						
Shaft Enclosures - Other						
Corridor Separation						
Occupancy / Fire Barrier Separation						
Part / Fire Wall Separation						
Smoke Partition						
Stair / Egress Enclosure						
Sleeping Unit Separation						
Incidental Use Separation						

* Indicates section number permitting reduction

FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	PERCENTAGE OF WALL OPENING CALCULATIONS (TABLE 705.9)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: No Yes
 Exit Signs: No Yes
 Fire Alarm: No Yes
 Smoke Detection Systems: No Yes Partial
 Panic Hardware: No Yes

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet # _____

Fire and / or smoke rated walls locations (Chapter 7)
 Assumed and real property line locations. (If not on site plan)
 Exterior wall opening area with respect to distance to assumed property line (705.8)
 Occupancy Use for each area as it relates to occupant load calculations (Table 1004.1.2)
 Occupant loads for each area.
 Exit access travel distance (1017)
 Common path of travel distance (Tables 1006.2.1 & 1006.3.2(1))
 Dead end lengths (1020.4)
 Clear exit widths for each door.
 Maximum calculations 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 structures provided for purpose of occupancy separation.
 Location of doors with panic hardware (1010.1.10)
 Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)
 Location of doors with electromagnetic egress locks (1010.1.9.9)
 Location of doors equipped with hold-open devices.
 Location of emergency escape windows (1030)
 The square footage of each fire area (202)
 The square footage of each smoke compartment for Occupancy Classification 1-2 (407.5)
 Note any code exceptions or table notes that may have been utilized regarding the items above.

ACCESSIBLE DWELLING UNITS
(Section 1107)

TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE 'A' UNITS REQUIRED	TYPE 'A' UNITS PROVIDED	TYPE 'B' UNITS REQUIRED	TYPE 'B' UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED

ACCESSIBLE PARKING
(Section 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED		TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	REGULAR WITH VAN SPACES WITH ACCESSIBLE	ADDITIONAL	

PLUMBING FIXTURE REQUIREMENTS
(Table 506.1)

USE	Water Closets		Urinals		Lavatories		Showers		Drinking Fountains	
	Existing	Required	Existing	Required	Existing	Required	Existing	Required	Existing	Required
SPACE										

SPECIAL APPROVALS
 Special Approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc. described below)
NONE

ENERGY SUMMARY

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

Existing building envelope complies with code: No Yes (The remainder of this is not applicable)
 Exempt Building: No Yes (Provide code or statutory reference)
 Climate Zone: 3A 4A 5A
 Method of Compliance: Energy Code Performance Prescriptive
 ASHRAE 90.1 Performance Prescriptive
 (If "Other" specify source here)

THERMAL ENVELOPE (Prescriptive method only)

Roof / Ceiling (each assembly)
 Description of assembly: _____
 U-Value of total assembly: _____
 R-Value of insulation: _____
 Skylights in each assembly: _____
 U-Value of skylights: _____
 total square footage of skylights in each assembly: _____

Exterior Walls (each assembly)
 Description of assembly: _____
 U-Value of total assembly: _____
 R-Value of insulation: _____
 Openings (windows or doors with glazing)
 U-Value of assembly: _____
 Solar heat gain coefficient: _____
 Projection factor: _____
 Door R-Value: _____

Wall below grade (each assembly)
 Description of assembly: _____
 U-Value of total assembly: _____
 R-Value of insulation: _____

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

Floor slab on grade
 Description of assembly: _____
 U-Value of total assembly: _____
 R-Value of insulation: _____
 Horizontal / vertical requirement:
 Slab heated: _____

STRUCTURAL DESIGN
(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)

DESIGN LOADS:
 Importance Factor: Snow (I) **1.2**
 Sismic (I) **1.5**

Live Loads: Roof **20** psf
 Mezzanine **100** psf
 Floor **150** psf

Ground Snow Load: **15.0** psf

Wind Load: Basic Wind Speed **125** mph (ASCE-7)
 Exposure Category **C**

SEISMIC DESIGN CATEGORY: A B C D
 Provide the following Seismic Design Parameters:
 Risk Category (Table 1604.5) I II III IV
 Special Response Acceleration: S_{DS} **1.57** % S_{D1} **134** %
 Site Classification (ASCE 7) A B C D E F

Data Source: Field Test Presumptive Historical Data
 Bearing Wall Dual w/ Special Moment Frame
 Building Frame Dual w/ Intermediate R/C or Special Steel
 Moment Frame Inverted Pendulum

Analysis Procedure: Simplified Equivalent Lateral Force Dynamic
 Architectural, Mechanical, Components anchored? Yes No

LATERAL DESIGN CONTROL: Earthquake Wind

SOIL BEARING CAPACITIES:
 Field Test (provide copy of test report) _____ psf
 Presumptive Bearing capacity **2,000** psf
 Pile size, type, and capacity: _____

Review For Fire Code Compliance
 Leslie Jackson
 01/03/2023 9:23:38 AM


MECHANICAL SUMMARY
(PROVIDE IN THE MECHANICAL SHEETS IF APPLICABLE)

MECHANICAL SYSTEMS, SERVICES AND EQUIPMENT

Thermal Zone
 winter dry bulb: _____
 summer dry bulb: _____

Interior design conditions:
 winter dry bulb: _____
 summer dry bulb: _____
 relative humidity: _____

Building heating load: _____
 Building cooling load: _____
 Mechanical Spacing Conditioning System Unit

description of unit: _____
 heating efficiency: _____
 cooling efficiency: _____
 size category of unit: _____

Boiler
 Size category: If oversized, state reason: _____

Chiller
 Size category: If oversized, state reason: _____

List equipment efficiencies: _____

ELECTRICITY SUMMARY
(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)

ELECTRICAL SYSTEM AND EQUIPMENT
 Method of Compliance: Energy Code Performance Prescriptive
 ASHRAE 90.1 Performance Prescriptive

Lighting schedule (Each fixture type)
 lamp type required in fixture: _____
 number of lamps in fixture: _____
 ballast type used in the fixture: _____
 number of ballast in fixture: _____
 total wattage per fixture: _____
 total interior wattage specified vs allowed: whole building or space by space
 total exterior wattage specified vs allowed: _____

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

REVISIONS

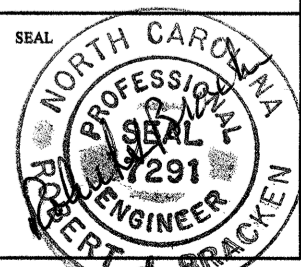
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BUIES CREEK FIRE DEPARTMENT
112 Marshbanks St.
Lillington, NC 27546

RJB, PE, PA
 C-0269
Robert J. Bracken
ENGINEERING • SURVEYING
 3768 Caribton Road • Sanford, NC 27330

SCALE: 1/4" = 1'-0"
 DRAWN BY: WRJ
 DATE: _____
 CHECKED BY: RJB
 DWG NUMBER: _____
 JOB NUMBER: _____

SHEET NO: **APPENDIX 'B'**


 12/7/22

GENERAL FOUNDATION NOTES

1. ALL FOUNDATION SAW CUTS, EXPANSION JOINTS & CONSTRUCTION JOINTS BY GENERAL CONTRACTOR, INSTALLED @ MAX. OF 18'-0" O/C. ALTERNATE SAW CUT & CONSTRUCTION JOINTS.
2. ALL FOOTINGS SHALL BEAR ON SOIL CAPABLE OF SUPPORTING A DESIGN BEARING OF 2000 PSF.
3. ELEVATIONS OF TOP OF ALL FOOTINGS SHALL BE SHOWN ON THE FOUNDATION PLAN. THESE ELEVATIONS ARE A MAX. AND SHALL BE LOWERED AS REQUIRED TO OBTAIN THE REQUIRED DESIGN PRESSURE. ANY UNUSUAL SOIL CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
4. ALL CONCRETE INCLUDING SLAB-ON-GRADE SHALL OBTAIN A COMPRESSIVE STRENGTH OF 3000 PSI AT AN AGE OF 28 DAYS.
5. ALL REINFORCING STEEL SHALL BE IN ACCORDANCE WITH THE ASTM-615 GRADE 60.
6. CONCRETE PROTECTION FOR REINFORCING STEEL AND OTHER GENERAL REQUIREMENTS FOR FABRICATION & PLACING OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN CONCRETE INSTITUTE BUILDING CODE. (ACI 318-LATEST EDITION)
7. ALL REINFORCING MARKED CONTINUOUS (CONT.) ON THE PLANS AND DETAILS SHALL BE LAPPED 30 BAR DIAMETERS (MIN.), UNLESS NOTED OTHERWISE (U.N.O.)
8. NO BACK FILL SHALL BE DONE AGAINST MASONRY WALLS UNLESS ALL SLABS ARE POURED AND / OR SECURELY BRACED AGAINST OVERTURNING.
9. ALL MASONRY UNITS SHALL BE IN ACCORDANCE WITH ASTM C-90 TYPE I GRADE N-1 (FM-1350 PSI).
10. GROUT FOR MASONRY WALLS SHALL BE ASTM C-476 AND SHALL BE PROPORTIONED TO OBTAIN A 28 DAY COMPRESSION STRENGTH OF 2500 PSI. ALL MORTAR SHALL BE ASTM C-270 TYPE M OR S.
11. ALL DIMENSIONS SHALL BE FIELD VERIFIED BY CONTRACTOR.
12. ALL DEVIATIONS FROM WORKING DRAWINGS (EXISTING AND NEW) SHALL BE FORWARDED TO THE ENGINEER.
13. ALL WORK SHALL BE IN ACCORDANCE WITH THE MOST CURRENT EDITION OF THE NORTH CAROLINA BUILDING CODE.
14. REBAR DETAILING SHALL MEET CRSI RECOMMENDATIONS.

REVISIONS	
NO.	DATE

BUIES CREEK FIRE DEPARTMENT
112 Marshbanks St.
Lillington, NC 27546

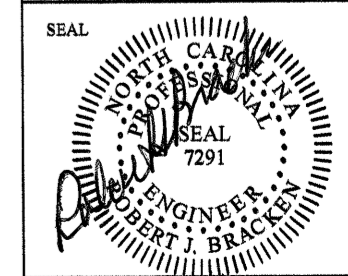
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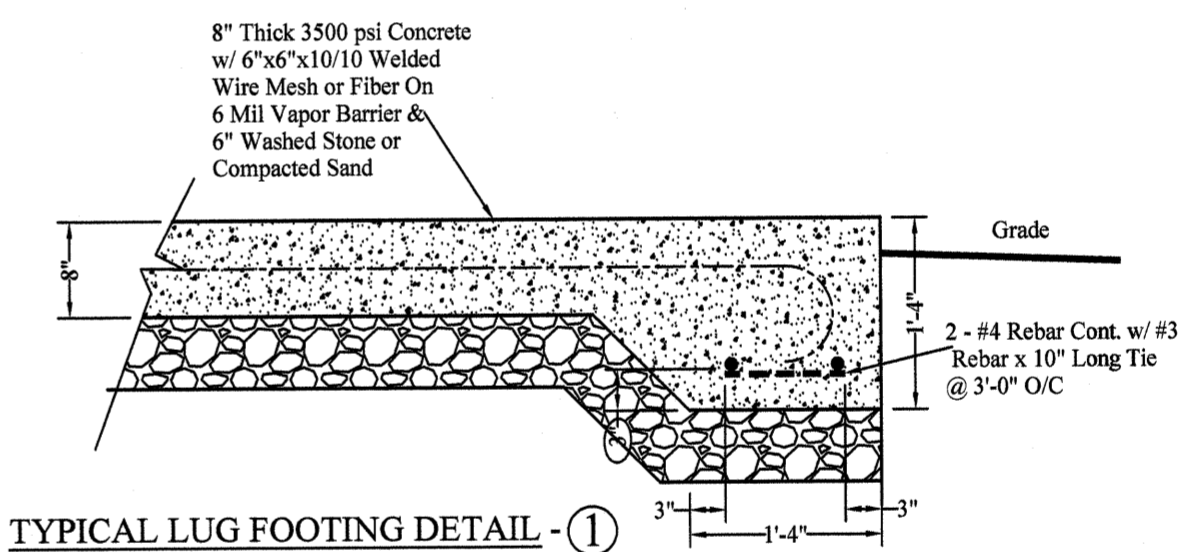
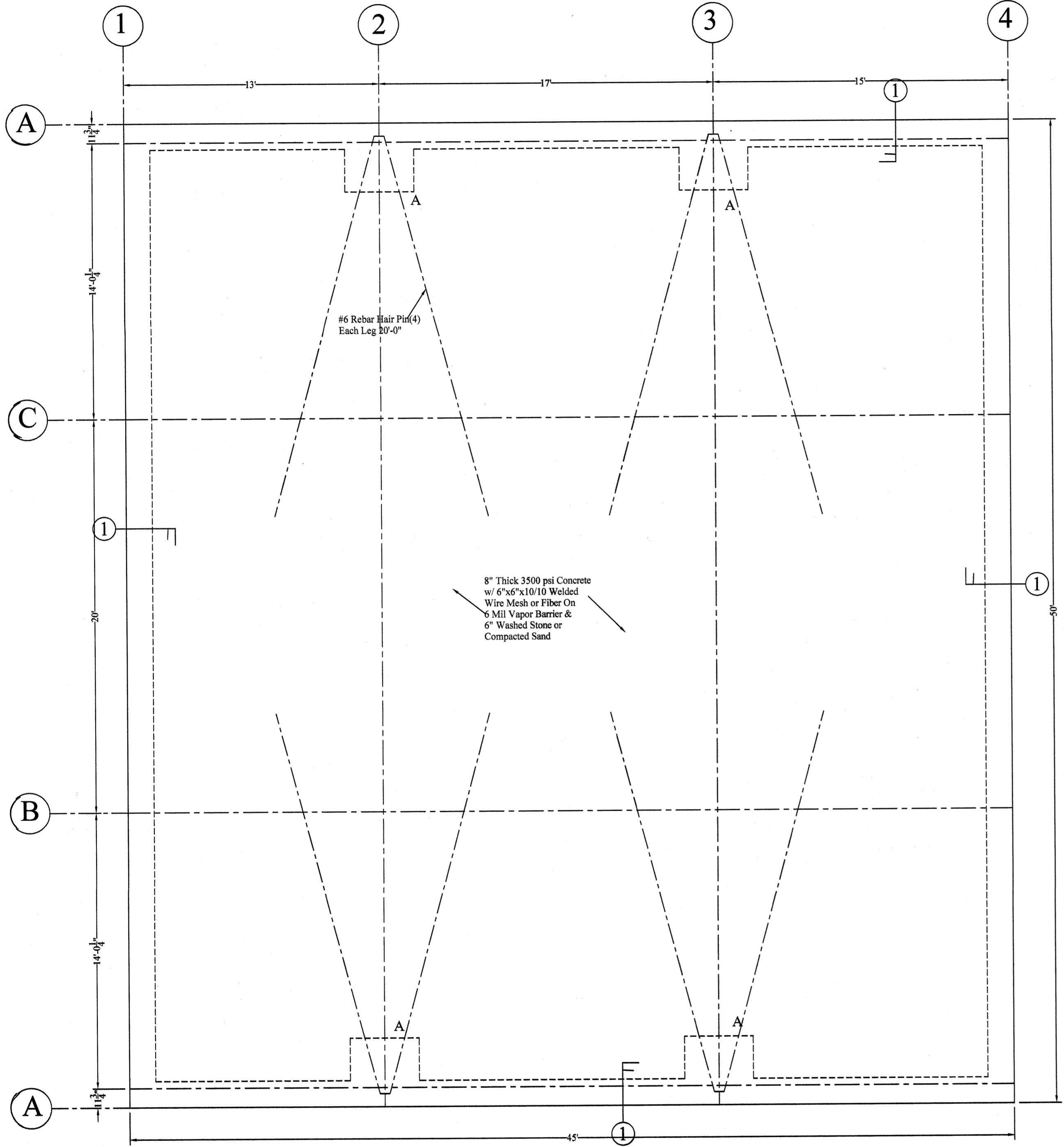
3768 Caribton Road • Sanford, NC 27330

SCALE: 1/4" = 1'-0"
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CHECKED BY: RJB
DWG. NUMBER:
JOB NUMBER:

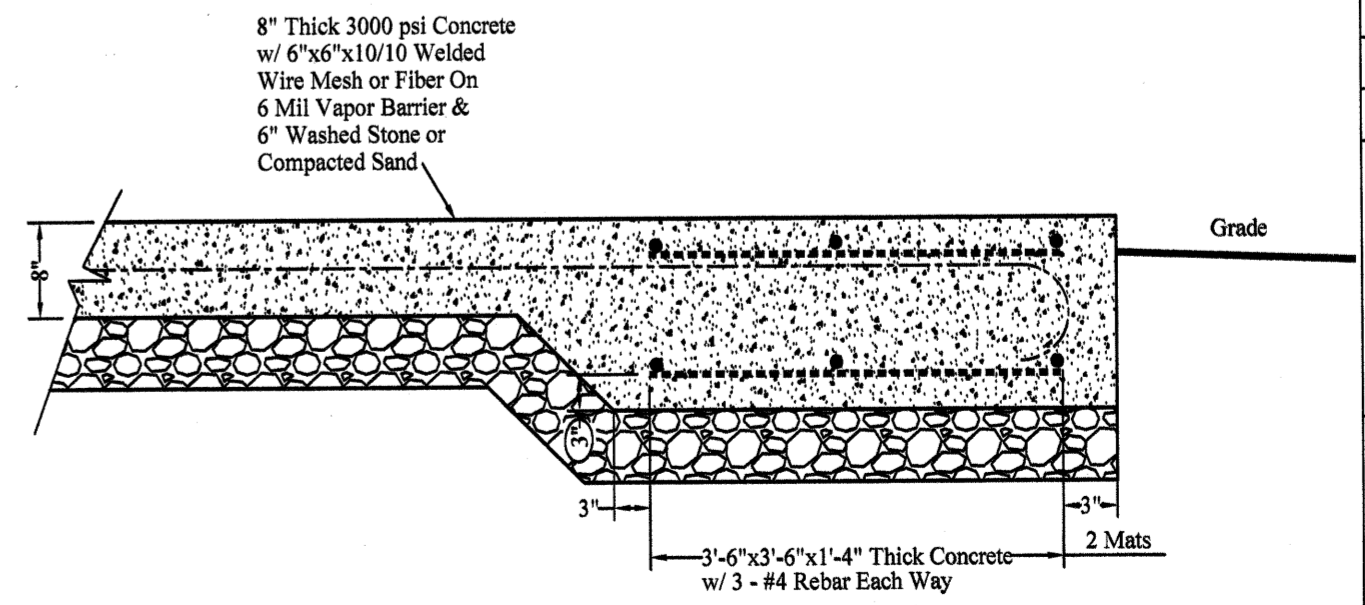
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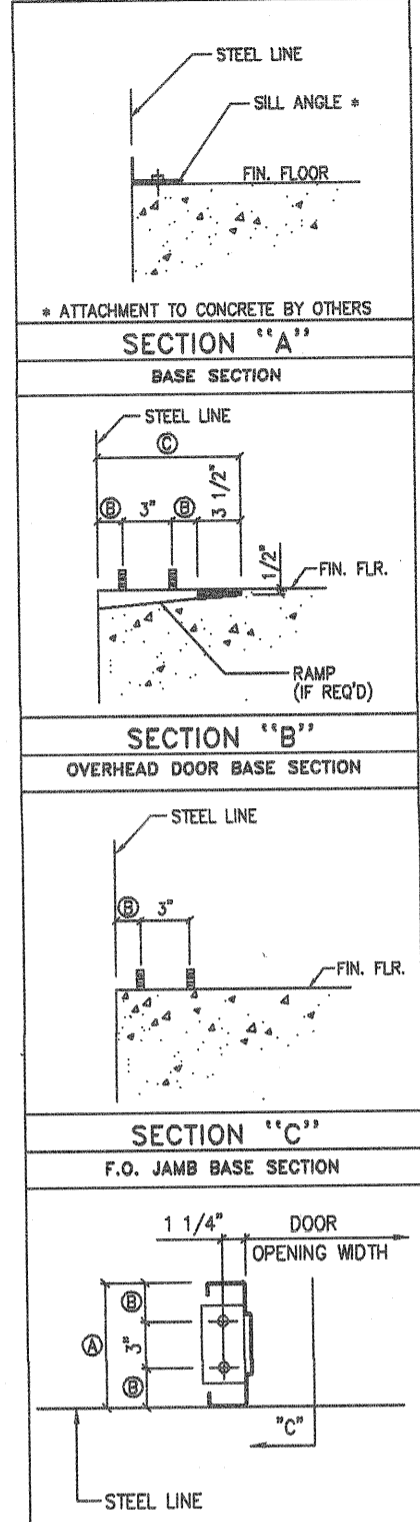
12/7/22



TYPICAL LUG FOOTING DETAIL - 1
Scale: 3/4" = 1'-0" x3

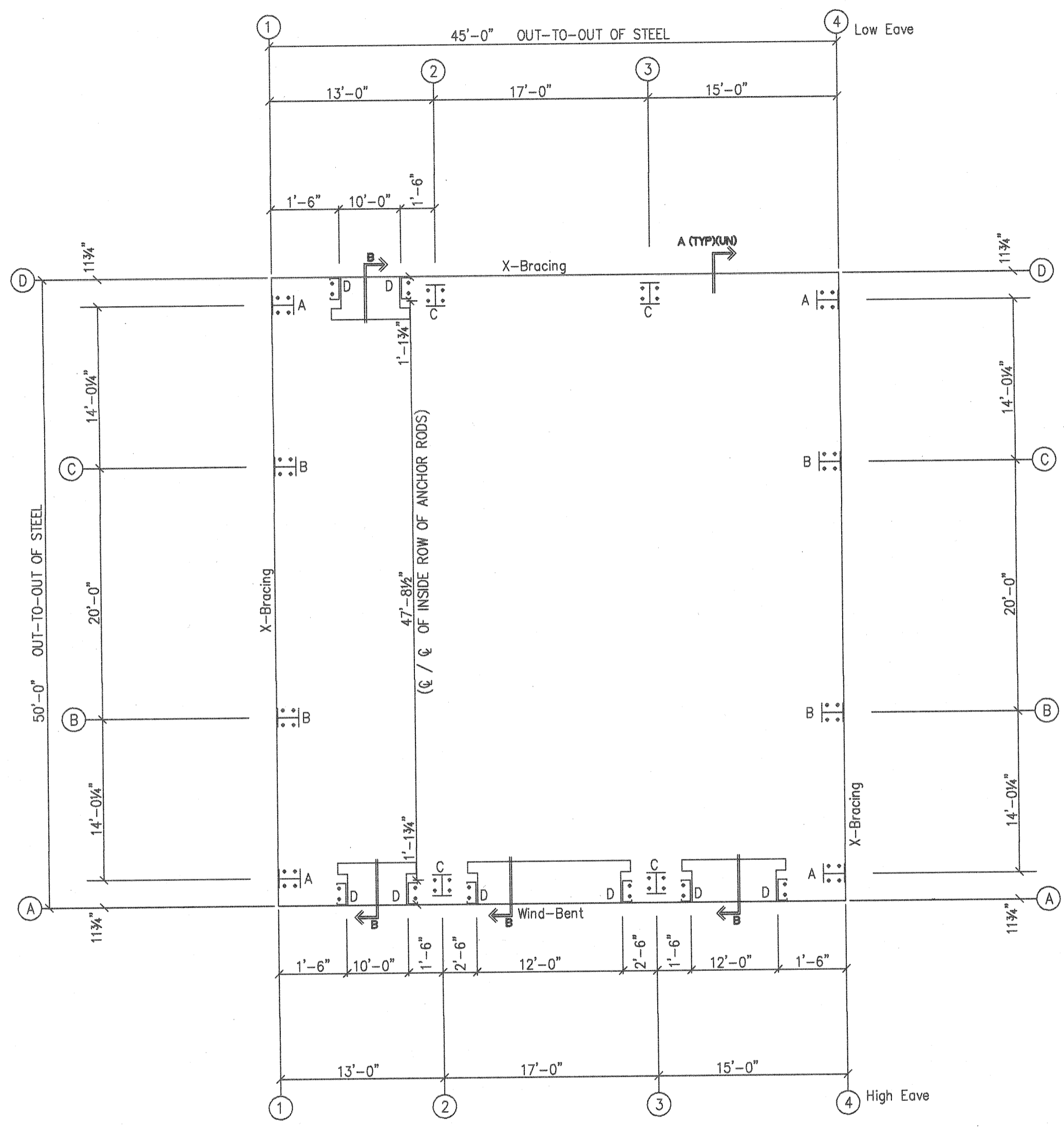


COLUMN FOOTING DETAIL - A
Scale: 3/4" = 1'-0"

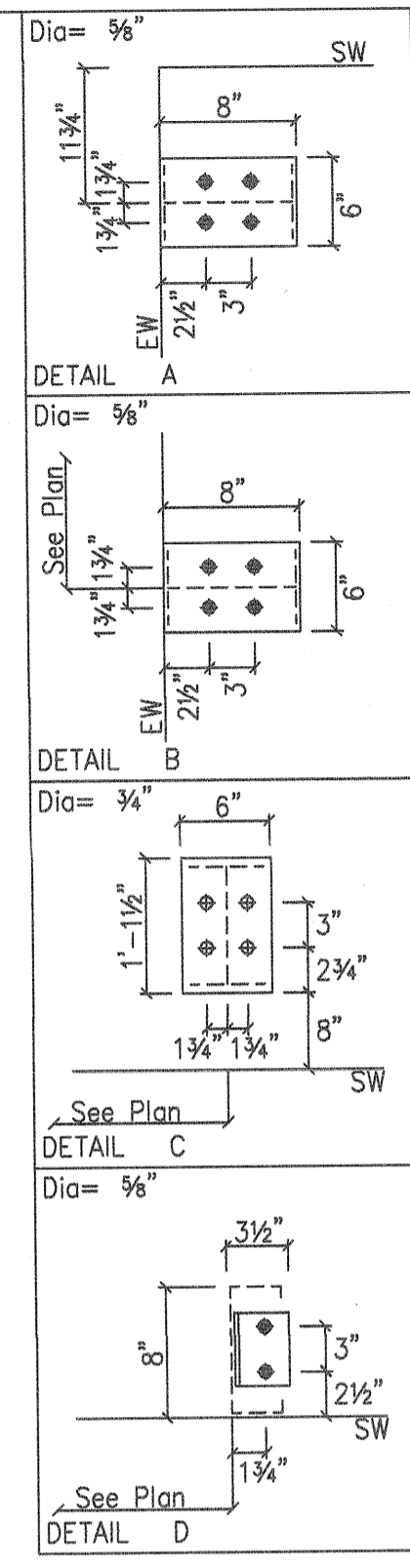


WALKDOOR BASE PLATE DETAIL

Girt Width	Walk Door Frame (A)	Dim. (B)	Ramp Width (C)
8"	8"	2 1/2"	11 1/2"
10"	10"	3 1/2"	1'-1 1/2"
12"	12"	4 1/2"	1'-3 1/2"



ANCHOR ROD PLAN
NOTE: All Base Plates @ 100'-0" (FINISH FLOOR)(UNLESS NOTED)

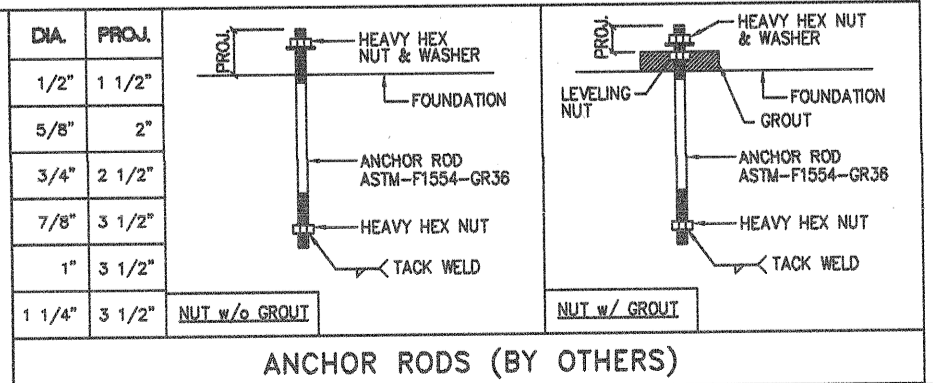


NOTE: SAME BASE □ FOR 3'-4" X 7'-2" FIELD LOCATED F.O.

ANCHOR RODS HAVE BEEN DESIGNED FOR SHEAR AND TENSION LOADS ONLY, PER APPENDIX D OF ACI 318-08.

DESIGN OF SHEAR ANGLES, TENSION PLATES, HAIRPINS, AND ANY OTHER EMBEDDED MATERIAL IN THE CONCRETE SHALL BE DETERMINED BY THE FOUNDATION DESIGN ENGINEER AND PROVIDED BY OTHERS.

ANCHOR ROD PROJECTION IS FROM BOTTOM OF BASE PLATE, UNLESS GROUPT IS REQUIRED.



DRAWING STATUS

FOR APPROVAL: THESE DRAWINGS, BEING FOR APPROVAL, ARE BY DEFINITION NOT FINAL, AND ARE FOR CONCEPTUAL REPRESENTATION ONLY. THEIR PURPOSE IS TO CONFIRM PROPER INTERPRETATION OF THE PROJECT DOCUMENTS. ONLY DRAWINGS ISSUED "FOR CONSTRUCTION" CAN BE CONSIDERED AS COMPLETE.

FOR PERMIT: THESE DRAWINGS, BEING FOR PERMIT, ARE BY DEFINITION NOT FINAL IN THAT, AS A MINIMUM, PIECE MARKINGS ARE NOT IDENTIFIED. ONLY DRAWINGS ISSUED "FOR CONSTRUCTION" CAN BE CONSIDERED AS COMPLETE.

FOR CONSTRUCTION: FINAL DRAWINGS.

REVISIONS

NO.	DATE	DESCRIPTION	BY	CHK'D
0	8/29/22	PERMIT FOR CONSTRUCTION	JS	JS

INLAND BUILDINGS
2141 SECOND AVENUE S.W. CULLMAN, AL. 35055
PHONE: 800.438.1606
FAX: 800.438.1626
www.inlandbuildings.com

DESCRIPTION ANCHOR ROD PLAN **SIZE** REFER TO C1

DRAWN BY JS **CUSTOMER** SANFORD METAL BUILDING, LLC

PROJECT Buies Creek Fire Dept **ADDRESS** P.O. BOX 5231

LOCATION 112 MARSHBANKS ST **SANFORD, NC 27331**

CAD BY JS **DATE** 8/29/22 **SCALE** N.T.S. **JOB NO.** 183791 **SHEET NO.** F1 of 2 **ISSUE** 0



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