2018 BUILDING CODE SUMMARY - APPENDIX B

Name of Project: YMCA of the Sandhills, Harnett County Pavilion Shelter Address: 107 CARLETTA CAGLE DRIVE Zip Code TBD Owner/Authorized Agent: Rick Houp Phone #: (910) 426 - 9622 E-Mail: rickh.ymcanc@gmail.com ☑ Private/Nonprofit ☐ State ☐ County - Harnett ☐ State

CONTRACT AND DEMAND DON'TTE ALA

CONTACT: <u>AN</u>	<u>DREW W. PRIVETTE, A</u>	<u>IA</u>			
DESIGNER	FIRM	NAME	LICENSE	TELEPHONE	E-MAIL
Architectural	Designed to Build	Andrew Privette	3877	(910) 485-8567	andy@designedtobuild.com
Civil					
Electrical					
Fire Alarm					
Plumbing					
Mechanical					
Sprinkler-Standpipe					
Structural	Designed to Build	Andrew Privette	3877	(910) 485-8567	andy@designedtobuild.com
Retaining Walls >5' H	ligh				
Other					

2018 NC BUILDING CODE: ⊠ New Building ☐ Shell/Core ☐ 1st Time Interior Completions Phased Construction-Shell Core ☐ Prescriptive ☐ Alteration Level 1 ☐ Historic Property **2018 NC EXISTING BUILDING CODE:** Repair Alteration Level 2 Change of Use ☐ Chapter 14 ☐ Alteration Level 3 CURRENT OCCUPANCY(S) (Ch. 3): _ **CONSTRUCTED:** (date) **RENOVATED:** (date) PROPOSED OCCUPANCY(S) (Ch. 3): OCCUPANCY CATEGORY (Table 1604.5): Current: N/A Proposed: II

BASIC BUILDING DATA Construction Type:

□IV ☐ V-A ☐ III-A ☐ III-B ☐ II-B ☐ NFPA 13 ☐ NFPA 13R ☐ NFPA 13D Class I III III Wet Dry Flood Hazard Area: No Yes **Special Inspections Required:** No Yes **Fire Flow:** 1,500 gpm for 2 hours

GROSS BUILDING AREA TABLE

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL								
3 rd Floor											
2 nd Floor											
Mezzanine											
1st Floor		1,513 SF									
Basement											
Total		1,513 SF									

ALLOWABLE AREA Primary Occupancy Classification(s):

> \square A-1 \square A-2 \square A-3 \square A-4 \square A-5 Business

Educational ☐ F-1 Moderate ☐ F-2 Low Factory ☐ H-1 Detonate ☐ H-2 Deflagrate ☐ H-3 Combust ☐ H-4 Health ☐ H-5 HPM Hazardous ☐ I-2 ☐ I-3 Institutional

 \square 1 \square 2 I-3 Condition I-2 Condition 1 2 I-3 Condition \Box 1 \Box 2 \Box 3 \Box 4 \Box 5

Mercantile Residential □ R-3 ☐ S-1 Moderate ☐ S-2 Low ☐ High Piled ☐ Parking Garage ☐ Open ☐ Enclosed

Utility and Miscellaneous Accessory Occupancy Classification(s): N.A

Incidental Uses (Table 509): N/A_ Special Uses (Chapter 4 – List Code Sections) : N/A_

Special Provisions (Chapter 5 – List Code Sections) : N/A __ Mixed Occupancy: No Yes Separation: _____ Hr. Exception: ____ Non-separated Use (508.3)

Separated Use (508.4) - See below for area calculations for each story. <u>Actual Area of Occupancy A</u> + <u>Actual Area of Occupancy B</u> ≤ 1

Allowable Area of Occupancy A Allowable Area of Occupancy B

					_
STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 ⁴ AREA	(C) AREA FOR FRONTAGE INCREASE1,5	(D) ALLOWABLE AREA PER STORY OR UNLIMITED2,3
1	UTILITY SHELTER	1,513	5,500	4,125	9,625

¹ Frontage area increases from Section 506.2 are computed thus:

a. Perimeter which fronts a public way or open space having 20 feet minimum width = ALL (F)

Total Building Perimeter = ALL(P)Ratio (F/P) = 1 (F/P)

d. W = Minimum width of public way = 30 (W)Percent of frontage increase $I_f = 100[F/P - 0.25] \times W/30 = 75$ (%)

² Unlimited area applicable under conditions of Section 507.

 3 Maximum Building Area = total number of stories in the building x D (maximum3 stories) (506.2). ⁴ The maximum area of open parking garages must comply with Table 406.5.4. The maximum area of air traffic control towers must comply with Table 412.3.1.

⁵ Frontage increase is based on the unsprinklered area value in Table 506.2.

ALLOWARLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3)	40'	15'	
Building Height in Stories (Table 504.4)	1	1	

	IRE PROTECTION REQUIREMENTS										
BUILDING ELEMENT	FIRE		ATING	DETAIL #	DESIGN #	SHEET # FOR	SHEET # FOR				
	SEPARATION DISTANCE	REQ'D	PROVIDED (W/ *	AND SHEET #	FOR RATED ASSEMBLY	RATED PENETRATION	RATED JOINTS				
	(FEET)		REDUCTION)		ASSEMBET	LIVETRATION					
Structural Frame		0	0								
Including columns, girders, trusses		٥	U								
Bearing Walls	N/A	N/A	N/A								
Exterior		N/A	N/A								
North		N/A	N/A								
East		N/A	N/A								
West		N/A	N/A								
South		N/A	N/A								
Interior		N/A	N/A								
Nonbearing Walls and Partitions	N/A	N/A	N/A								
Exterior		N/A	N/A								
North		N/A	N/A								
East		N/A	N/A								
West		N/A	N/A								
South		N/A	N/A								
Interior		N/A	N/A								
Floor Construction		N/A	N/A								
Including supporting beams and joi	sts										
Floor Ceiling Assembly		N/A	N/A								
Columns Supporting Floors		N/A	N/A								
Roof Construction		0	0								
Including supporting beams and joi	sts										
Roof Ceiling Assembly		N/A	N/A								
Columns Supporting Roof		0	0								
Shaft Enclosures - Exit		N/A	N/A								
Shaft Enclosures - Other		N/A	N/A								
Corridor Separation		N/A	N/A								
Occupancy/Fire Barrier Separation		N/A	N/A								
Party/Fire Wall Separation		N/A	N/A								
Smoke Barrier Separation		N/A	N/A								
Smoke Partition		N/A	N/A								
Tenant/Dwelling Unit/Sleeping Unit	it Separation	N/A	N/A								
Incidental Use Separation		N/A	N/A								
* Indicate section number permitting red	luction										

PERCENTAGE OF WALL OPENING CALCULATIONS

FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	Allowable area (%)	ACTUAL SHOWN ON PLANS (%)
>30'	UP, US	NO LIMIT	100%

LIFE SAFETY SYSTEM REQUIREMENTS ☐Yes ⊠ No Exit Signs: ☐ Yes ⊠ No ☐ Yes ☐ No Fire Alarm: ☐ Yes ⊠ No Smoke Detection System: ☐ Yes ☐ No

LIFE SAFETY PLAN REQUIREMENTS – N/A, OPEN AIR SHELTER

Fire and/or smoke rated wall locations (Chapter 7) Assumed and real property line locations (if not on the site plan)

Exterior wall opening area with respect to distance to assumed property lines (705.8)

Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)

Occupant loads for each area Exit access travel distances (1017)

Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))

Dead end lengths (1020.4)

Clear exit widths for each exit door Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)

Actual occupant load for each exit door

A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for

purposes of occupancy separation Location of doors with panic hardware (1010.1.10)

Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)

Location of doors with electromagnetic egress locks (1010.1.9.9) Location of doors equipped with hold-open devices

Location of emergency escape windows (1030)

☐ The square footage of each fire area (202)

☐ The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)

Note any code exceptions or table notes that may have been utilized regarding the items above

ACCESSIBLE DWELLING UNITS (SECTION 1107) – N/A TOTAL ACCESSIBLE ACCESSIBLE TYPE A TYPE B TYPE B TOTAL

Units	Units Required	Units Provided	Units Required	Units Provided	Units Required	Units Provided	ACCESSIBLE UNITS PROVIDED

ACCESSIBLE PARKING (SECTION 1106) – EXISTING PARKING LOT, NO CHANGES

LOT OR PARKING	TOTAL # OF PA	RKING SPACES	# OF AC	TOTAL#		
AREA	REQUIRED	PROVIDED	REGULAR WITH	VAN SPAC	ACCESSIBLE	
			5' ACCESS AISLE	132" ACCESS AISLE	8' ACCESS AISLE	PROVIDED
TOTAL						

PLUMB	ING FI	XTURE	REQUII	REMENT	is (tab	LE 2902.	.1) N/A I	FACILITI	ES PROV	IDED ELSE	EWHERE
USE	W.	WATERCLOSETS		URINALS	LAVATORIES		SHOWERS	DRINKING	FOUNTAINS	SERVICE	
	MALE	FEMALE	UNISEX		MALE	FEMALE	UNISEX	/ TUBS	REGULAR	ACCESSIBLE	SINK
EXIST'G											
NEW											
PEO'D											

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

ENERGY SUMMARY

ENERGY REQUIREMENTS: N/A – OPEN AIR SHELTER

Existing building envelope complies with code: [(If checked, the remainder of this section is not applicable.)

Provide code or statutory reference:

☐ 4A ☐ 5A

Method of Compliance:

Energy Code: Prescriptive ASHSAE 90.1: Prescriptive Performance (If "Other" specify source here)

THERMAL ENVELOPE (Prescriptive method only)

Roof/ceiling Assembly (each assembly) Description of assembly: U-Value of total assembly R-Value of insulation: Skylights in each assembly

> U-Value of skylight 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-Values:

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

Floors over unconditioned space (each assembly) Description of assembly:

LIST OF DRAWINGS

G-101 COVER SHEET AND 2018

A-101 PLAN AND SPECIFICATIONS A-102 ELEVATIONS AND SECTIONS

A-103 POST AND BEAMS DETAILS

S-101 FOUNDATION, SALB, DETAILS S-102 FRAMING PLAN AND DETAILS

NORTH CAROLINA BUILDING

CODE SUMMARY APPENDIX B

INFORMATIONAL

<u>ARCHITECTURAL</u>

U-Value of total assembly R-Value of insulation: Floors slab on grade

Description of assembly: U-Value of total assembly: R-Value of insulation: Horizontal/vertical requirement

NOTICE TO CONTRACTOR All construction must comply with current NC Building Codes and is subject to field inspection and verification. **APPROVED** Limited building only review Permit holder responsible fo full compliance with the code 04/22/2021

YMCA of the SANDHILLS

HARNETT COUNTY SHELTER

107 CARLETTA CAGLE DRIVE

HARNETT COUNTY, NORTH CAROLINA

Vesigned to Build

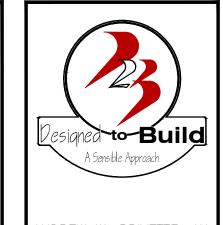
A Sensible Approach

ANDREW W. PRIVETTE, ARCHITECT

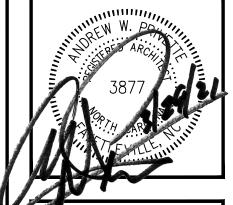
1920 FT. BRAGG ROAD - FAYETTEVILLE, N.C. 28303 - (910) 485-8567

MARCH 29, 2021





ANDREW W. PRIVETTE, AL 1920 FT. BRAGG ROAD FAYETTEVILLE, NORTH CAROLINA 28303 VOX. (910) 485-8567 andy**©**designedtobuild.com

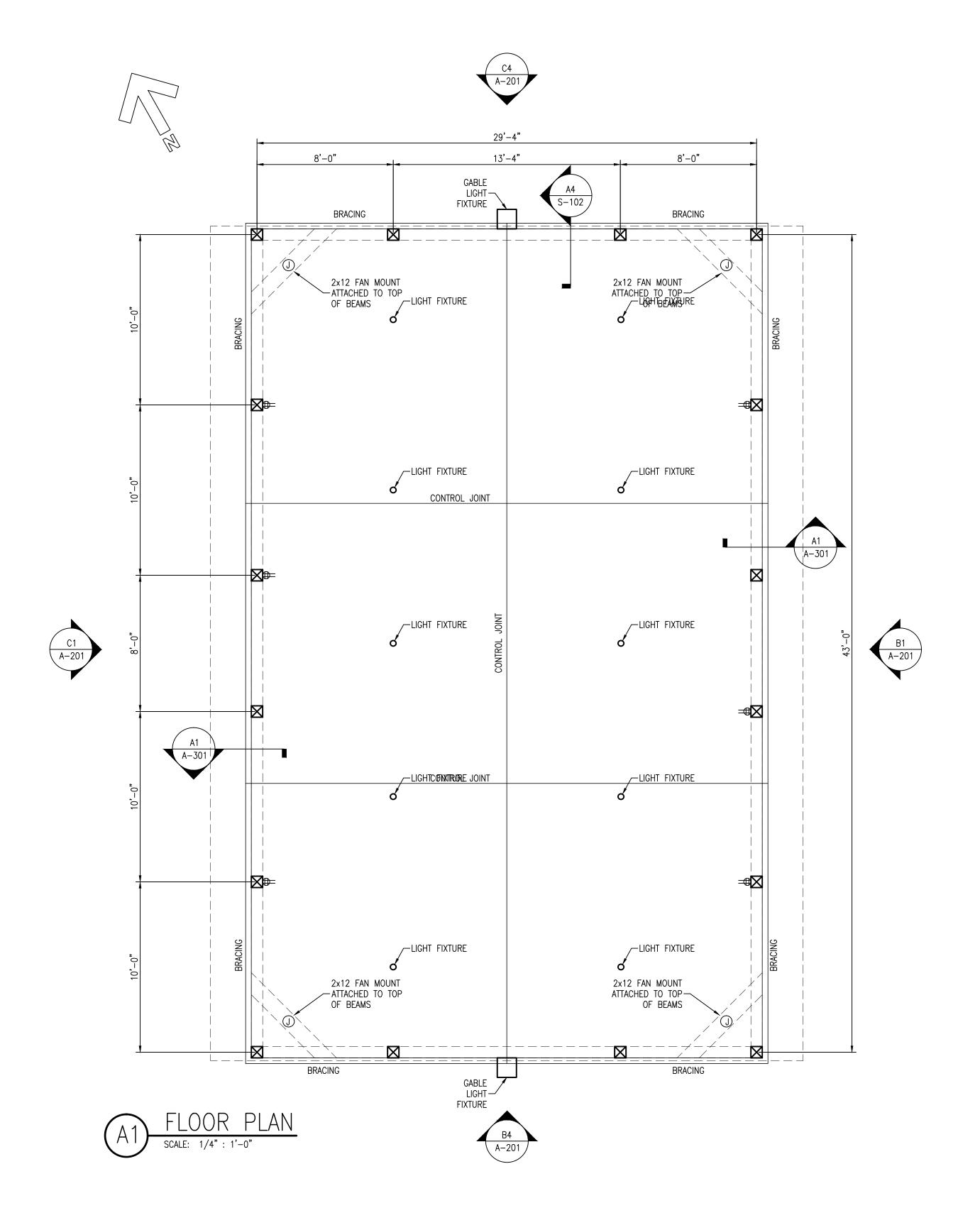


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CAGLE DRIVE
VORTH CAROLIN YMCA of the HARNETT CC 107 CARLET HARNETT COUNT

DRAWN BY: **A. PRIVETTE** CHECKED BY: A. PRIVETTE DESIGNED TO BUILD

CODE SUMMARY

MARCH 29, 2021



DIVISION 3 - CONCRETE

- 1. All concrete work shall be in compliance with the American Concrete Institute, latest edition, including reinforcement, and finishes.
- 2. All reinforcing shall be fabricated, installed, and supported in accordance with the "Manual of Standard Practice" of the Concrete Reinforcing Steel
- 3. All reinforcing bars shall conform to the ASTM Specification Designation A615, Grade 60. All welded wire fabric shall conform to the ASTM Specification Designation A185, and shall be provided in sheets, not rolls. Support for reinforcing shall be via protected metal spacers, chairs, bolsters, or ties.
- 4. Concrete shall be composed of Type I Portland Cement conforming to ASTM C50, fine and coarse aggregates conforming to ASTM C33, and mixing water free of oil, acid, or injurious amounts of alkalis and other salts. Accelerating and decelerating admixtures may not be used. Water reducing admixtures conforming to ASTM C494 Type A may be used, but their use shall not relax the maximum allowable slump noted herein. Air entraining shall conform to ASTM C260.
- 5. Physical properties of the concrete shall be 3,000psi and 4 inch slump. air entrainment not required
- 6. Slab floor shall be minimum 4 inches thick, concrete reinforced slab with 6 inch x 6 inch/w2.0 x w2.0 welded wire fabric. Floor shall be capable of supporting 150 p.s.f. loads. Floor slab shall receive a steel trowel finish. Ramps, if any, shall have a broom finish. Floor slabs shall be installed over 10 mil vapor barrier over a minimum 4" base course of compacted 1" slag or crushed stone placed over compacted subgrade.
- 7. All areas shall receive cure & seal floor sealer as manufactured by Euclid Chemical Company or equal. 8. All concrete slabs shall be saw cut as soon as the concrete will support the sawing equipment and does not ravel during the sawing operation. All saw cutting shall be done the same day the concrete is placed. Saw cuts shall be 1/8 inch wide with depths of at least 25%%% of the slab thickness. Jointing pattern shall be in a pattern as shown on the drawings.

DIVISION 5 - METAL

- 1. Timber connectors to be Simpson or equal galvanized per manufacturer 2. Other shop fabricated plates and connectors to by hot-dipped galvanized
- 3. All welding to conform to American Welding Society "Structural Welding
- Code" latest edition grind smooth all exposed welds.
- 4. Bolts, wadhers, and nuts to be hot—dipped galvanized

DIVISION 6 - WOOD & PLASTICS

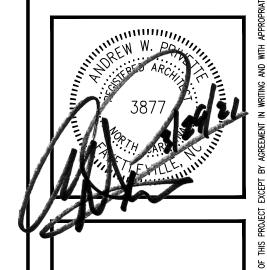
- 1. The installation of rough and finish carpentry shall be in accordance with the industry standards, in the locations shown on the drawings and specified herein, using the best methods of craftsmanship to produce a first class installation in every respect.
- 2. All exposed lumber shall be pressure treated with Wolman wood preservative chemicals by Koppers Co., Inc. (Wolmanized) or equivalent. This would include the bracing material and fan mounts.
- 3. Roof trusses to be fabircated by a certified truss maunfacturer. Wood species
- and sizes are as selected and specified by the truss engineer. 4. Beams shall be engineered laminated material by TrusJoist or equivalent.
- 5. Posts shall be pressure treated rough sawn Southern Pine or Douglas
- 6. Other framing materials my be Spruce—Pine—Fir #2 or better.
- 7. Nails, spikes, and staples shall be galvanized for exterior locations, high humidity locations, and for treated wood. Framing bolts, nuts, washers shall be medium carbon steel and have a galvanized finish.
- 8. The installation of finished carpentry shall be in accordance with AWI
- 9. Wood trim and siding shall LP SmartSide by Lousiana Pacific. Trim shall be pre-primed and ready for painting.

DIVISION 7 - ROOFING

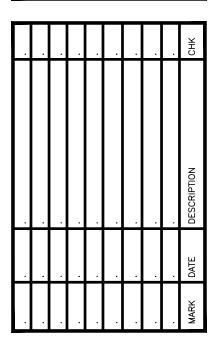
- 1. The installation of roofing shall be in accordance with the industry standards, in the locations shown on the drawings and specified herein, using the best methods of craftsmanship to produce a first class installation in every
- 2. Roofing material to be SM—Rib Galvalume Steel 29—Gauge Roof/Siding Panel by Gibraltar Building Products or equivalent. Color as selected by Owner from standard color offerings.



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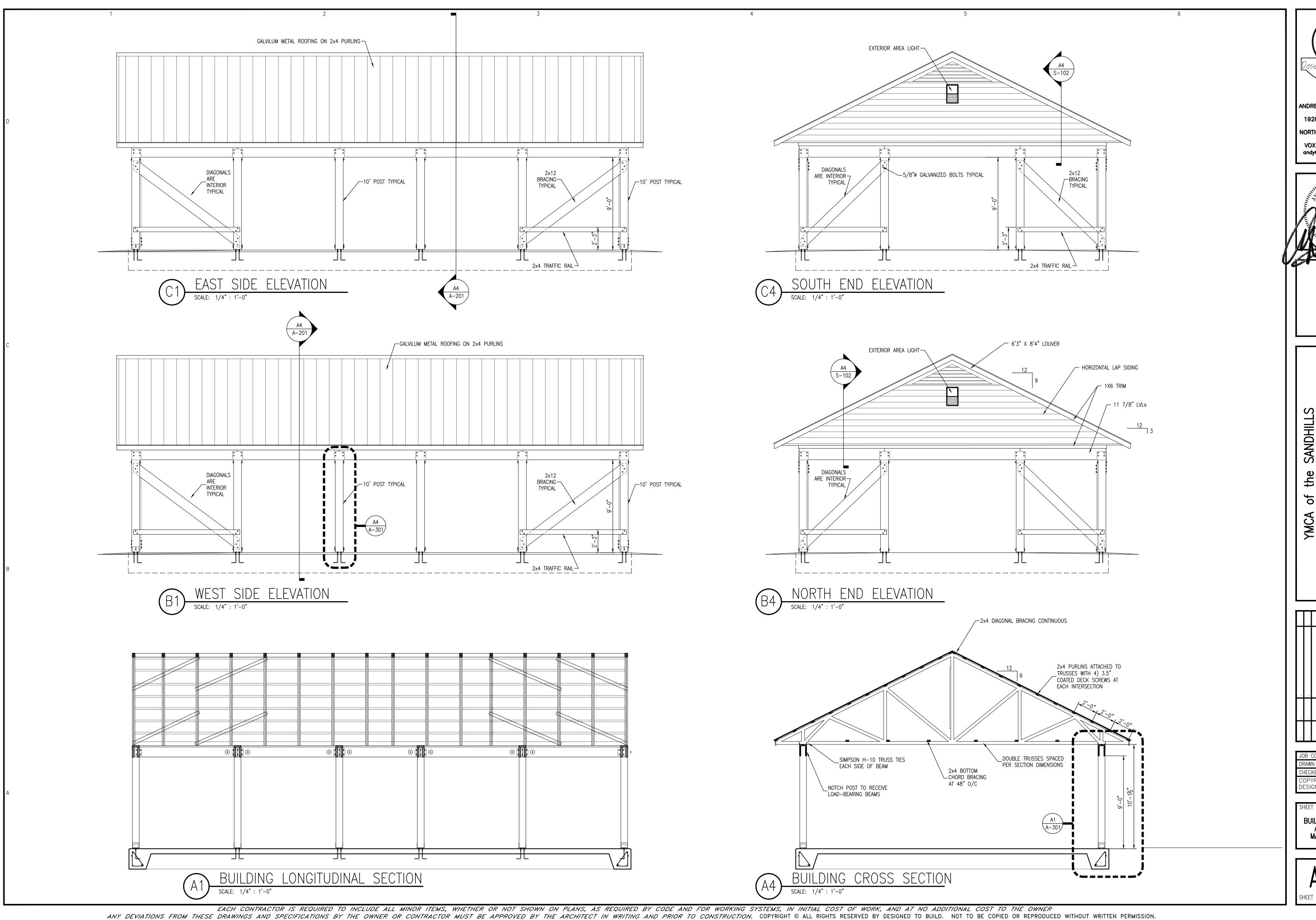


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NORTH CAROLIN the OUN YMCA of t HARNETT CC 107 CARLET HARNETT COUNT



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FLOOR PLAN AND SPECIFICATION MARCH 29, 2021

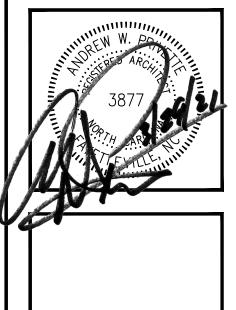




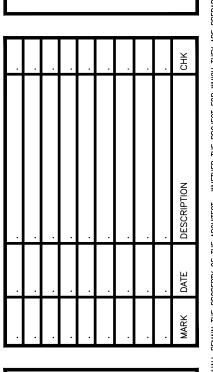
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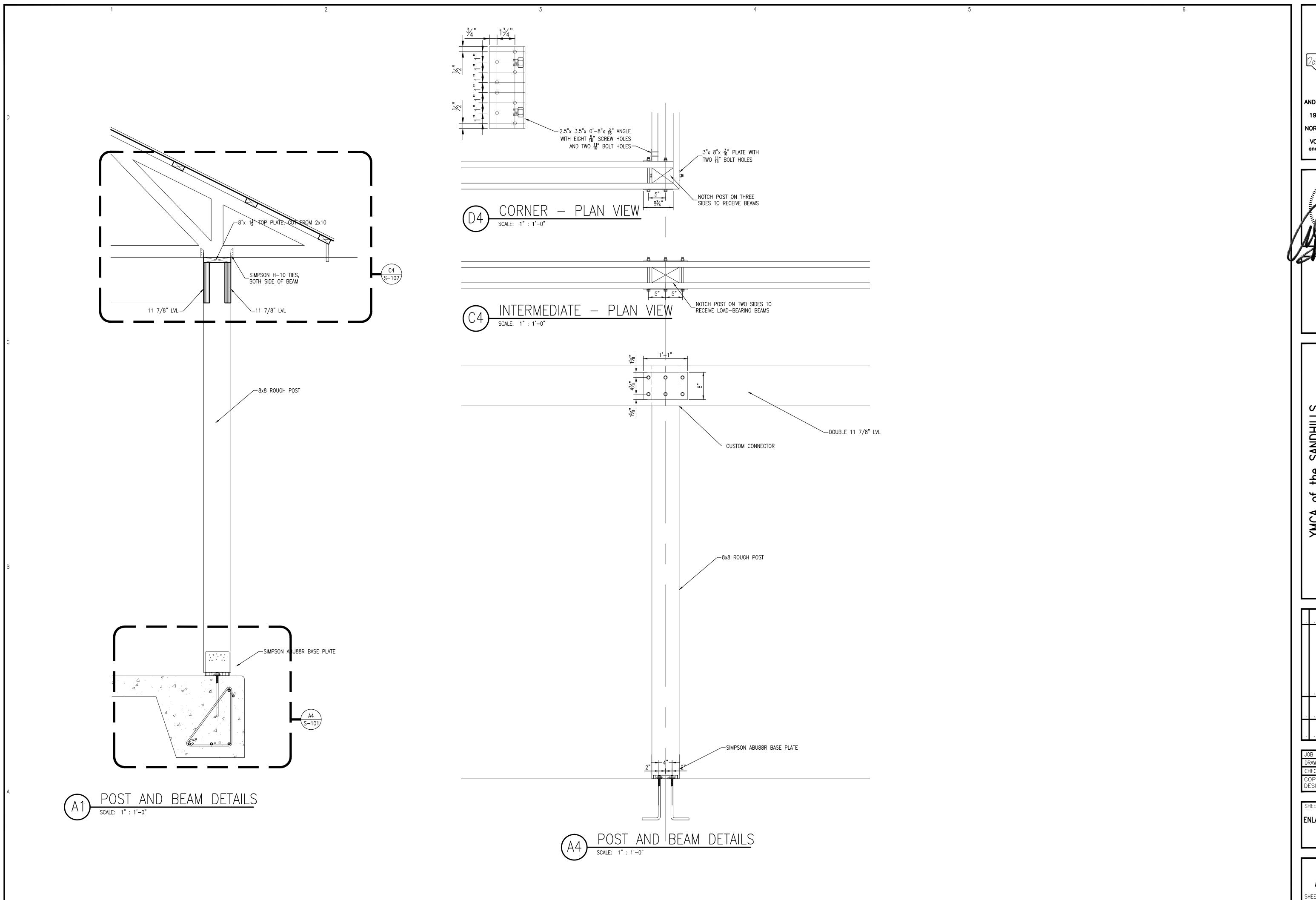
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BUILDING ELEVATIONS
AND SECTIONS
MARCH 29, 2021

A-201

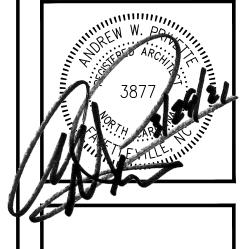




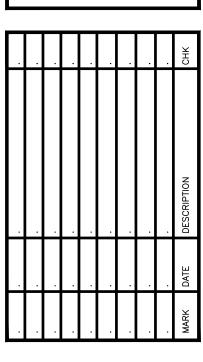
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YMCA of the SANDHILLS
HARNETT COUNTY SHELTER
107 CARLETTA CAGLE DRIVE
HARNETT COUNTY, NORTH CAROLINA



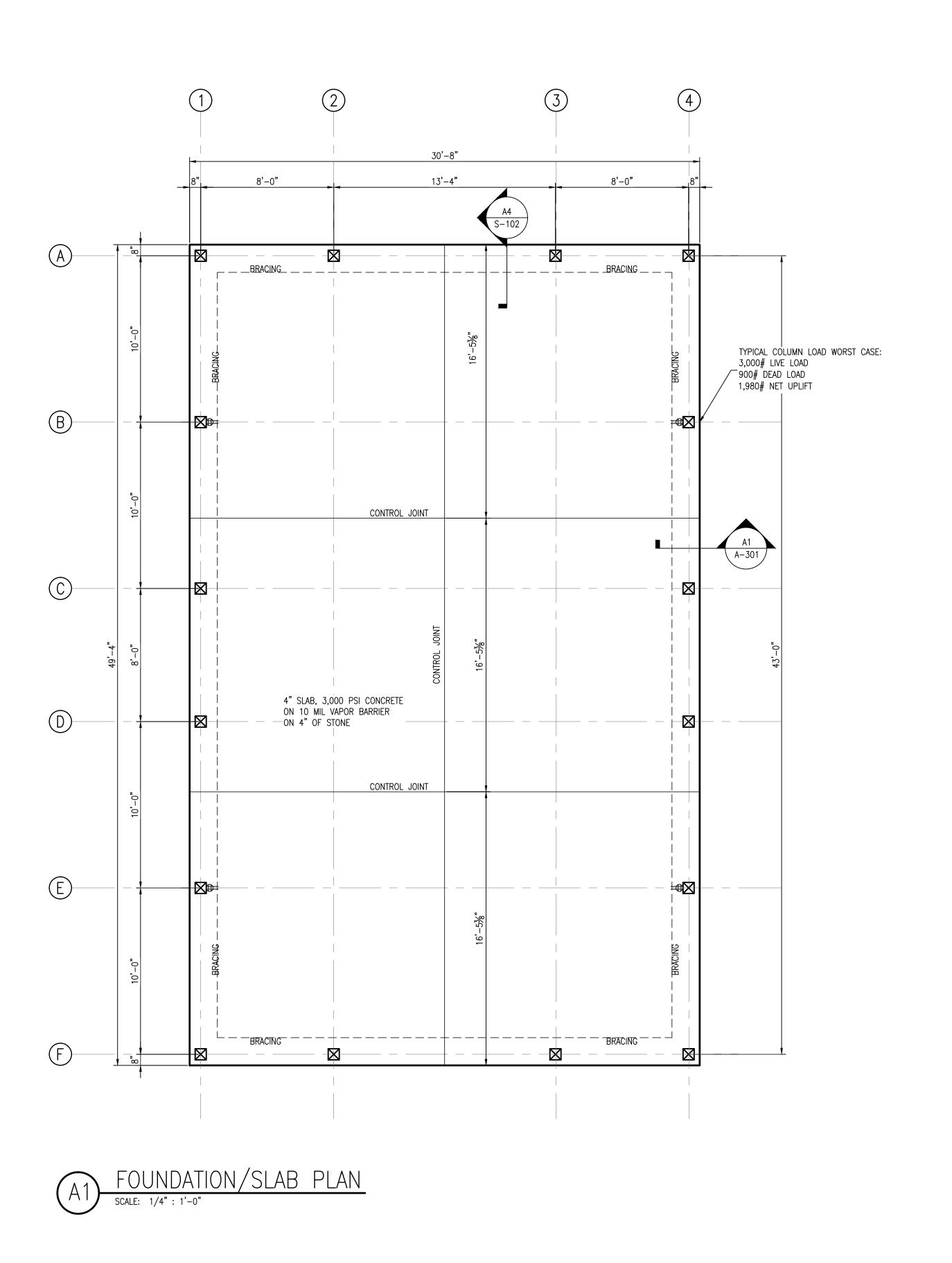
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SHEET TITLE:

ENLARGED POST DETAILS

MARCH 29, 2021

A-301

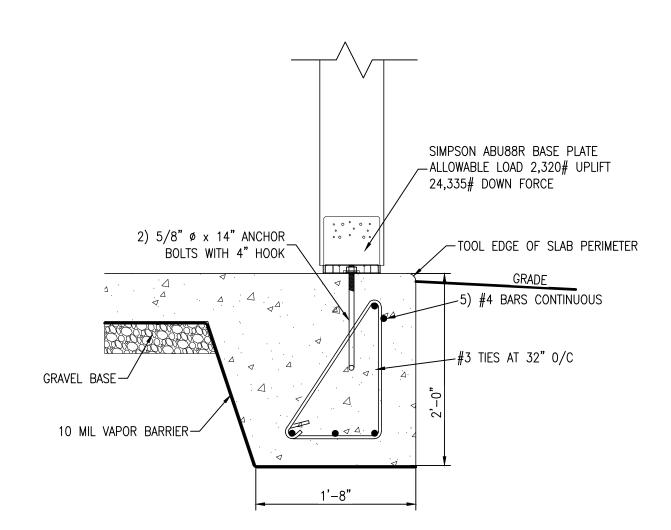


APPENDIX B 2018 BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS STRUCTURAL DESIGN DESIGN LOADS: Importance Factors: Wind (Iw) <u>1</u> Snow (Is) <u>1</u> Seismic (le) 1 Live Loads: Basic Wind Speed 118 mph (ASCE-7-16) Exposure Category B SEISMIC DESIGN CATEGORY: Provide the following Seismic Design Paramet<u>ers</u>: Occupancy Category (Table 1604.5): 🔲 I Spectral Response Acceleration: Ss <u>0.147</u> %g S1 <u>0.070</u> %g

Site Classification (ASCE 7): A B C D E F

Data Source: Field Test Presumptive Historical Data <u>Basic</u> structural system: ___Dual w/Special Moment Frame __Bearing Wall 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? LATERAL DESIGN CONTROL: DEarthquake Wind SOIL BEARING CAPACITIES:



Field Test (provide copy of test report) N/A

1,500 psf

N/A

Presumptive Bearing capacity

Pile size, type, and capacity

TYPICAL FOOTING DETAIL

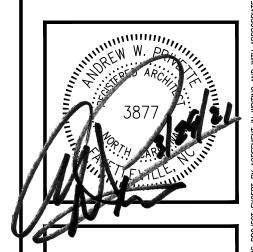
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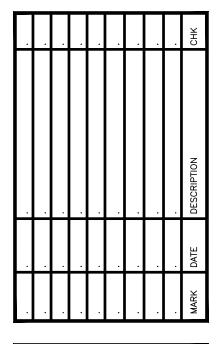
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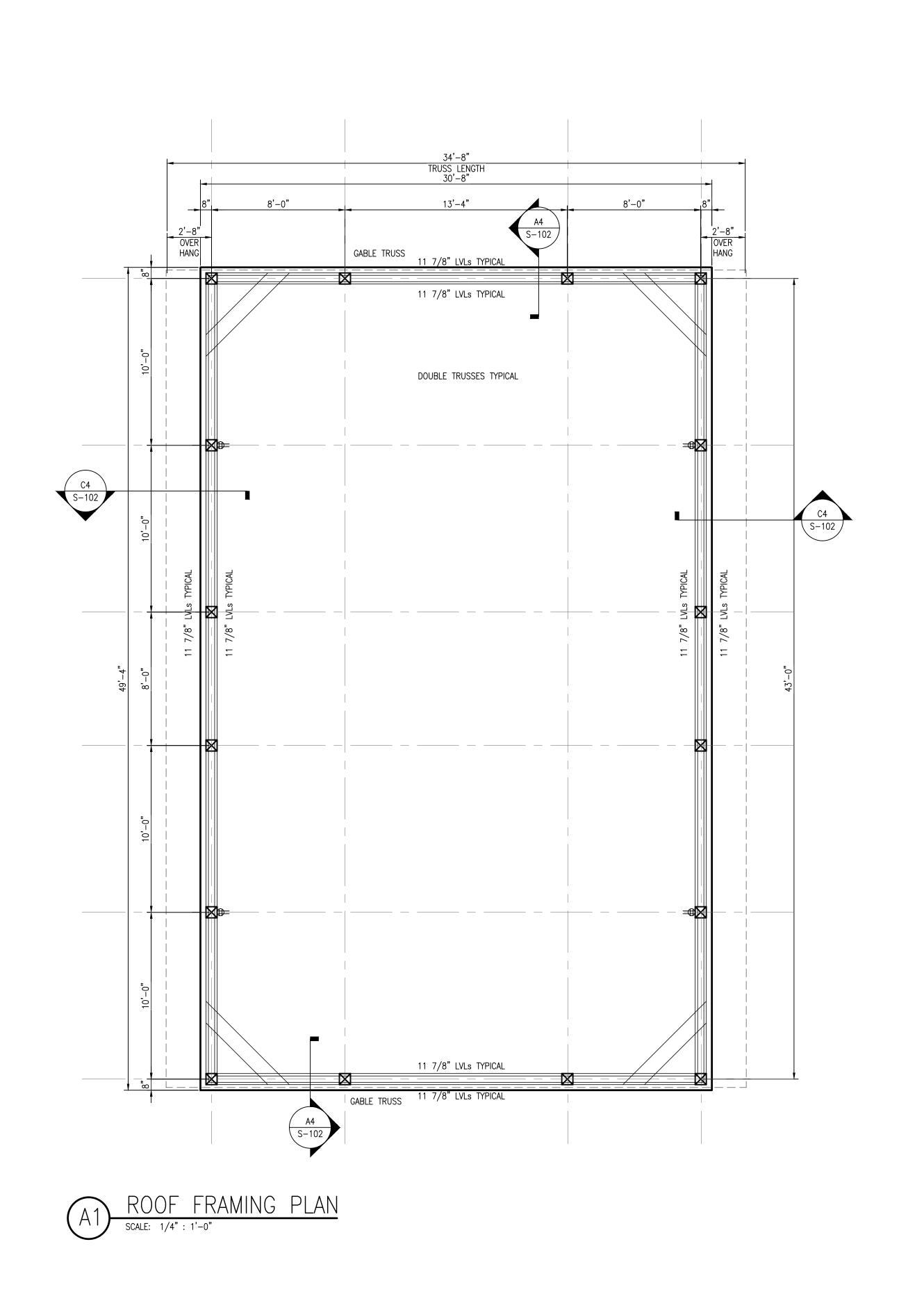
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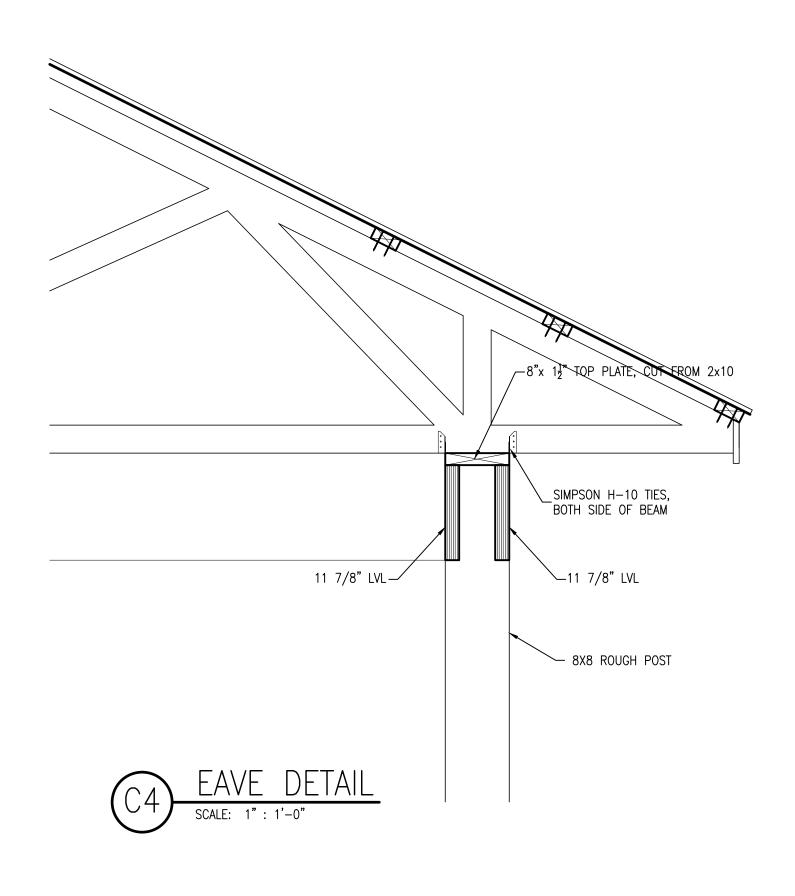


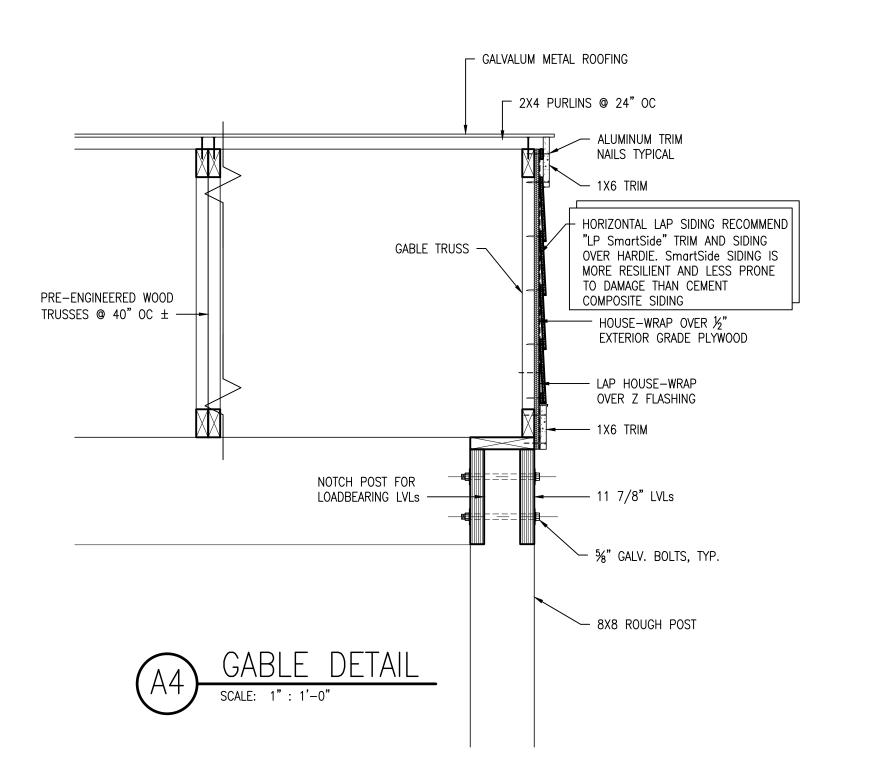
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FOUNDATION/SLAB
PLAN AND DETAIL
MARCH 29, 2021

S-101
SHEET 5 OF 6





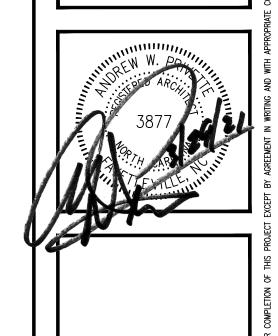




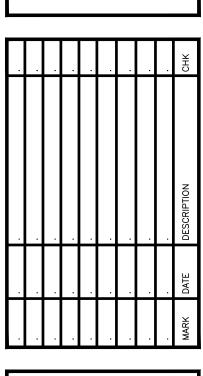
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ROOF FRAMING PLAN AND ROOF DETAILS MARCH 29, 2021

S-102