

FBC APPROVED PRODUCTS LIST

PRODUCT CATEGORY		SUB CATEGORY		MANUFACTURER		APPROVAL No. & DATE		QA EXPIRATION DATE		MAXIMUM ALLOWABLE WIND SPEED		
STRUCTURAL COMPONENTS		ROOF DECK		CAROLINA CARPORTS, INC. 26 Gauge AG Panel		FL6596-1-R7 12/12/23		04/05/27		OPEN	ENCLOSED	PARTIALLY ENCLOSED
STRUCTURAL COMPONENTS		STRUCTURAL WALL		CAROLINA CARPORTS, INC. 26 Gauge AG Panel		FL6702-1-R7 12/12/23		03/14/27		180	180	180
STRUCTURAL COMPONENTS		STRUCTURAL WALL		CAROLINA CARPORTS, INC. 26 Gauge Dutch Lap Wall Panel		FL6702-3-R7 12/12/23		03/14/27		N/A	164	143
EXTERIOR DOORS		SWINGING		ELIXIR DOOR AND METAL COMPANY Series 402-14		FL17996-3-R3 12/26/23		08/26/25		N/A	139	139
EXTERIOR DOORS		SWINGING		ELIXIR DOOR AND METAL COMPANY Series 407		FL17996-5-R3 12/26/23		08/19/25		N/A	174	155
EXTERIOR DOORS		ROLL-UP		ASTA INDUSTRIES INC. Model 203 (12" Max. Width)		FL8888-1-R7 11/06/23		12/31/24		N/A	180	174
EXTERIOR DOORS		ROLL-UP		CAROLINA CARPORTS, INC. Steel Roll Up Sheet Door (8" Max. Width)		FL16806-2-R6 12/13/23		04/05/27		N/A	180	180
EXTERIOR DOORS		ROLL-UP		CAROLINA CARPORTS, INC. Steel Roll-Up Sheet Door - (10" Max. Width)		FL16806-4-R6 12/13/23		04/05/27		N/A	180	172
EXTERIOR DOORS		ROLL-UP		CAROLINA CARPORTS, INC. Steel Roll-Up Sheet Door - (12" Max. Width)		FL16806-1-R6 12/13/23		04/05/27		N/A	179	154
EXTERIOR DOORS		ROLL-UP		CAROLINA CARPORTS, INC. Steel Roll-Up Sheet Door - (16" Max. Width)		FL41335-1-R1 12/13/23		04/05/27		N/A	163	142
WINDOWS		SINGLE HUNG		CGI WINDOWS AND DOORS Model SH 4000A		FL23358-2-R7 12/19/23		02/28/32		N/A	174	156

NOTES:  
1. DOORS AND WINDOWS SHOWN MAY BE SUBSTITUTED FOR DIFFERENT PRODUCT LINES AND/OR MODELS PROVIDED THE FOLLOWING CONDITIONS ARE MET:  
A. PRODUCT SHALL HAVE A VALID FBC PRODUCT APPROVAL  
B. COMPONENTS ARE INSTALLED ACCORDING TO MANUFACTURER'S INSTALLATION REQUIREMENTS  
2. FRAMING CONNECTIONS FOR DOOR AND WINDOW FRAMES REMAIN THE SAME FOR SUBSTITUTED PRODUCTS. HEADERS AND WINDOW RAILS MAY BE RAISED OR LOWERED AS NECESSARY TO ACCOMMODATE SUBSTITUTED PRODUCT  
\*\* MAXIMUM POST SPACING FOR DUTCH LAP IS 4'0"

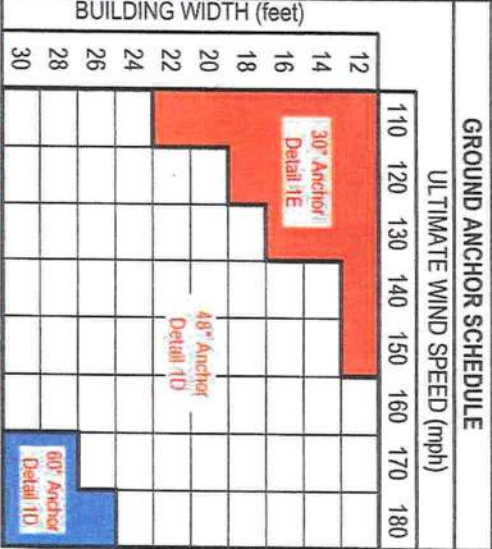
GENERAL NOTES:

- THESE PLANS PERTAIN ONLY TO THE STRUCTURE, INCLUDING MAIN WIND FORCE RESISTING SYSTEM, COMPONENTS AND CLADDING, AND BASE RAIL ANCHORAGE. OTHER DESIGN ISSUES, INCLUDING BUT NOT LIMITED TO PLUMBING, ELECTRICAL, INGRESS/EGRESS, PROPERTY SET-BACKS, FINISH FLOOR ELEVATION AND SLOPE, OR OTHER LOCAL ZONING REQUIREMENTS ARE THE RESPONSIBILITY OF OTHERS.
- THESE STRUCTURES ARE DESIGNED AS NON-HABITABLE UTILITIES TOGAGE BUILDINGS (RISK CATEGORY I) CAPABLE OF SUPPORTING DEAD LOAD OF THE STRUCTURE AND APPLICABLE LIVE AND WIND LOADS. IMPROVEMENTS NOT SPECIFICALLY ADDRESSED HEREIN INCLUDING DOORS, WINDOWS, OR OTHER COMPONENTS NOT LISTED IN THE FBC APPROVED PRODUCTS LIST (THIS SHEET), AND NOT PROVIDED AND INSTALLED BY CAROLINA CARPORTS, INC., WHICH EXERT ADDITIONAL LOADS ON THE STRUCTURE, SHALL BE AT THE OWNER'S RISK. BECHTOL ENGINEERING AND TESTING, INC. SHALL NOT BE RESPONSIBLE FOR STRUCTURAL DAMAGE OR FAILURE DUE TO THE APPLICATION OF ADDITIONAL LOADS.
- ALL STEEL TUBING SHALL BE 50 KSI GALVANIZED STEEL. ALL FASTENERS SHALL BE GALVANIZED OR STAINLESS STEEL OR ZINC PLATED.
- ALL COMPONENTS AND CLADDING SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND SHALL MEET THE DESIGN PRESSURES REQUIRED BY THE FLORIDA BUILDING CODE (FBC) AT THE LOCATION OF THE BUILDING WITHIN THE STATE OF FLORIDA.
- ALL FIELD FRAMING CONNECTIONS SHALL BE #12-14 x 3/4" SELF-DRILLING SCREWS WITHOUT CONTROL SEAL WASHER. ALL SHOP FRAMING CONNECTIONS SHALL BE WELDED.
- CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2800 PSI AT 28 DAYS. THE REINFORCING STEEL SHALL BE MINIMUM GRADE 40. CONCRETE SLAB FOUNDATIONS SHALL BE REINFORCED WITH 6X6-W1,4XW1.4 WELDED WIRE FABRIC COMPLYING WITH ASTM A 185, OR WITH SYNTHETIC FIBER REINFORCEMENT COMPLYING WITH ASTM C1116.
- BASE RAIL GROUND ANCHOR REQUIREMENTS: ONE WITHIN 6" OF EVERY POST LOCATION, AND BOTH SIDES OF OPENINGS WHERE BASE RAIL IS ABSENT. GROUND ANCHORS ARE NOT REQUIRED FOR CONCRETE FOOTING AND/OR CONCRETE SLAB CONSTRUCTION. SEE GROUND ANCHOR SCHEDULE (THIS SHEET) FOR SPECIFIC GROUND ANCHOR SIZE REQUIREMENTS.
- CONCRETE ANCHORS SHALL BE TAPCON REDHEAD LDT 1/2" x 5" OR EQUIVALENT.
- POST/RAFTER BRACING: BRACE ON EVERY POST/RAFTER CONNECTION, EXCEPT FOR END WALLS.
- SLAB FOUNDATION SUBGRADE SOILS SHALL BE TERMITE TREATED AND COVERED WITH 6 MIL VAPOR RETARDER PER SECTION R318.1 OF THE FLORIDA BUILDING CODE EIGHTH EDITION (2023). RESIDENTIAL, AND SECTION 1816.1 OF THE FLORIDA BUILDING CODE EIGHTH EDITION (2023).
- 14 GA FRAMING: 2-1/2" x 2-1/2" TUBE STEEL (TS) WITH 2-1/4" x 2-1/4" TS NIPPLES.
- 12 GA FRAMING: 2-1/4" x 2-1/4" TS WITH 2" x 2" TS NIPPLES.
- FOR CONTINUOUS REINFORCING, MINIMUM BAR OVERLAP SHALL BE 40 BARS DIAMETERS ( 25" FOR #5 REBAR).
- TORNADO VELOCITY COMPLIANCE IS NOT REQUIRED FOR RISK I OR RISK II STRUCTURES PER SECTION R301.2.1.1 OF THE FLORIDA BUILDING CODE EIGHTH EDITION (2023). RESIDENTIAL AND SECTION 1603.1.4 OF THE FLORIDA BUILDING CODE EIGHTH EDITION (2023) - BUILDING, AND ASCE 7-22

TABLE 1  
RAFTER FRAME, END POST, GROUND ANCHOR AND PANEL FASTENER SPACING SPECIFICATIONS

RISK CATEGORY	WIND EXPOSURE CATEGORY	ULTIMATE WIND SPEED (MPH)	NOMINAL WIND SPEED (MPH)	MAXIMUM POST / RAFTER SPACING (FEET)	AVERAGE FASTENER SPACING ON-CENTERS ALONG RAFTERS OR PURLINS, AND POSTS OR GIRTS (INCHES)	
					INTERIOR POSTS/RAFTERS	END POSTS/RAFTERS
I	B or C	110 TO 150	89 TO 116	5.0	6	6
		151 TO 180	117 TO 139	4.0	6	6

NOTES: 1. Specifications applicable to 26 gauge metal roof and wall panels fastened directly to 12 or 14 gauge steel tube framing, or 18 gauge hat channel roof purlins.  
2. Specifications applicable only for mean roof height of 20 feet or less, and roof slopes of 7° to 27° (1.5:12 to 6:12 pitch). Spacing requirements for other roof heights and/or slopes may vary.



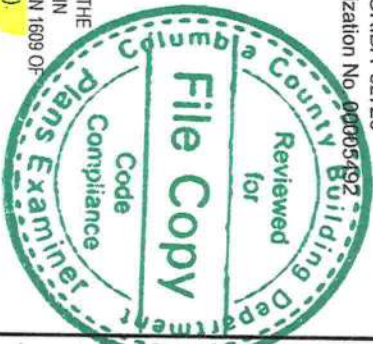
METAL CARPORT INSTALLATION PLANS  
AND DETAILS AND FRAMING AND  
FASTENER SPECIFICATIONS

FOR CONSTRUCTION IN THE STATE OF FLORIDA

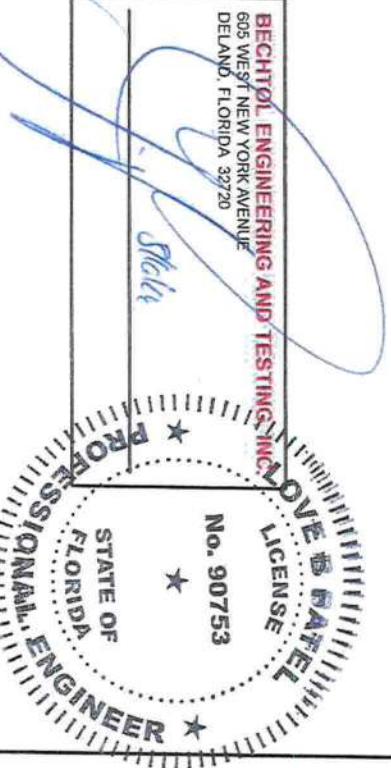
PREPARED FOR:  
CAROLINA CARPORTS, INC.  
P.O. BOX 1263  
DOBSON, NORTH CAROLINA 27017

PREPARED BY:  
BECHTOL ENGINEERING AND TESTING, INC.  
605 WEST NEW YORK AVENUE  
DELAND, FLORIDA 32720  
Certificate of Authorization No. 00005032

THIS IS TO CERTIFY THAT THE CALCULATIONS AND SPECIFICATIONS HEREIN HAVE BEEN PREPARED BY THE UNDERSIGNED PROFESSIONAL ENGINEER, AND ARE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 1609 OF THE FLORIDA BUILDING CODE, EIGHTH EDITION (2023).



BECHTOL ENGINEERING AND TESTING, INC.  
605 WEST NEW YORK AVENUE  
DELAND, FLORIDA 32720

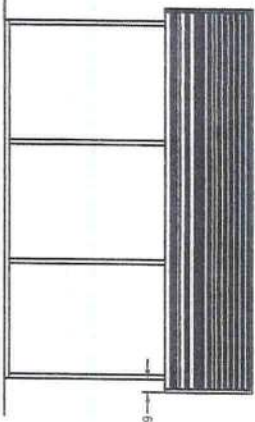


CAROLINA CARPORTS, INC.  
UP TO 30' WIDE  
GENERIC PLANS FOR USE IN THE STATE OF FLORIDA

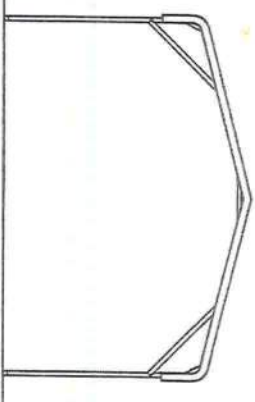
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CS		5/14/24	
CHECKED		SCALE	
CS / JD		NTS	
APPROVED		PROJECT NO.	
TB / LP		G24001	
		SHEET 1 OF 6	



BOW FRAME RAFTER OPEN CARPORT - HORIZONTAL ROOF



TYPICAL SIDE ELEVATION  
NOT TO SCALE

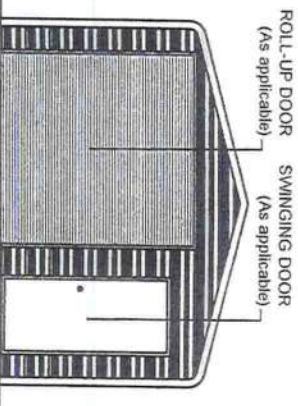


TYPICAL END ELEVATION  
NOT TO SCALE

BOW FRAME RAFTER ENCLOSED BUILDING - HORIZONTAL ROOF

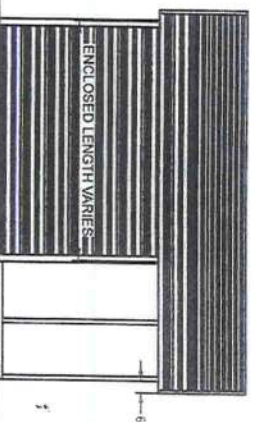


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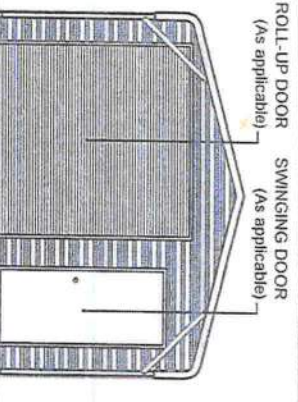


TYPICAL END ELEVATION  
NOT TO SCALE

BOW FRAME RAFTER UTILITY BUILDING - HORIZONTAL ROOF

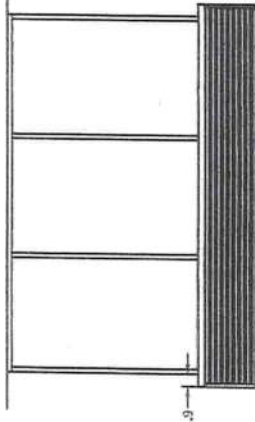


TYPICAL SIDE ELEVATION  
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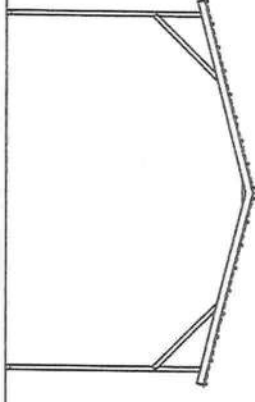


TYPICAL END ELEVATION  
NOT TO SCALE

BOX EAVE FRAME RAFTER OPEN CARPORT - HORIZONTAL ROOF



TYPICAL SIDE ELEVATION  
NOT TO SCALE

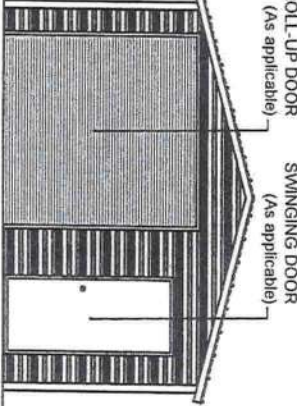


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NOT TO SCALE

BOX EAVE FRAME RAFTER ENCLOSED BLDG - HORIZONTAL ROOF

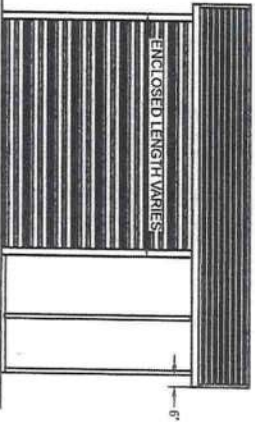


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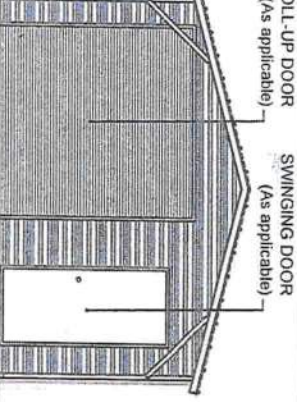


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BOX EAVE FRAME RAFTER UTILITY BLDG - HORIZONTAL ROOF

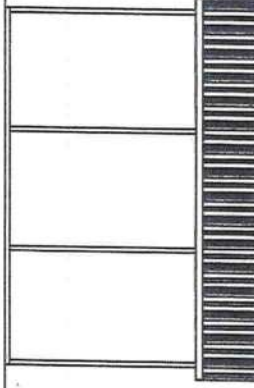


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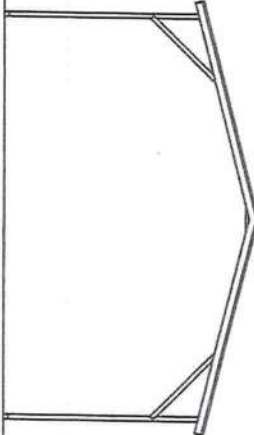


TYPICAL END ELEVATION  
NOT TO SCALE

BOX EAVE FRAME RAFTER OPEN CARPORT - VERTICAL ROOF



TYPICAL SIDE ELEVATION  
NOT TO SCALE

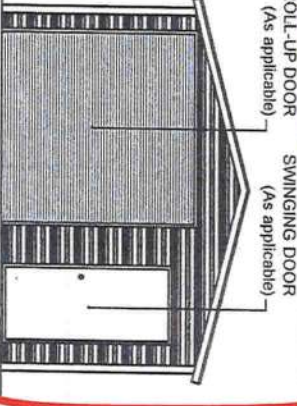


TYPICAL END ELEVATION  
NOT TO SCALE

BOX EAVE FRAME RAFTER ENCLOSED BLDG - VERTICAL ROOF



TYPICAL SIDE ELEVATION  
NOT TO SCALE

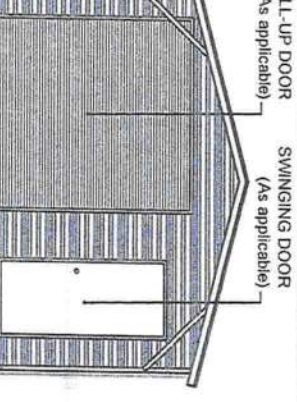


TYPICAL END ELEVATION  
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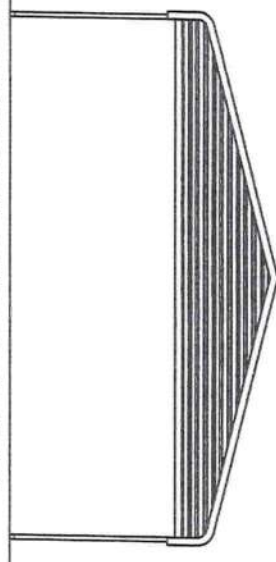
BOX EAVE FRAME RAFTER UTILITY BLDG - VERTICAL ROOF



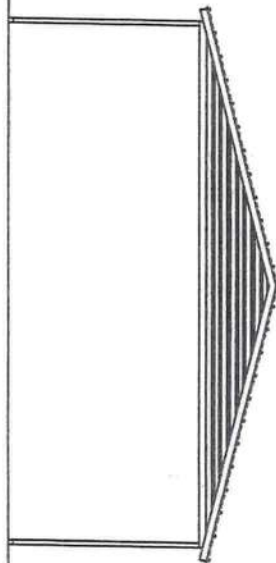
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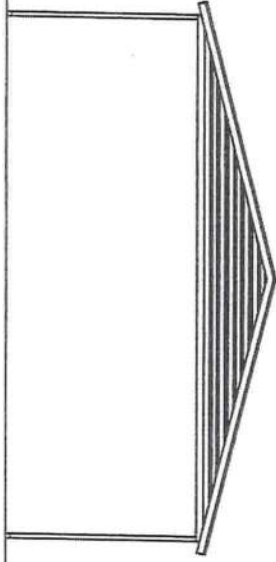
TYPICAL END ELEVATION  
NOT TO SCALE



TYPICAL BOW RAFTER GABLE END ELEVATION  
NOT TO SCALE



TYPICAL BOX EAVE RAFTER GABLE END ELEVATION  
HORIZONTAL ROOF  
NOT TO SCALE



TYPICAL BOX EAVE RAFTER GABLE END ELEVATION  
VERTICAL ROOF  
NOT TO SCALE

**BECHTOL ENGINEERING AND TESTING, INC.**  
605 WEST NEW YORK AVENUE  
DELAND, FLORIDA 32720

*[Signature]*

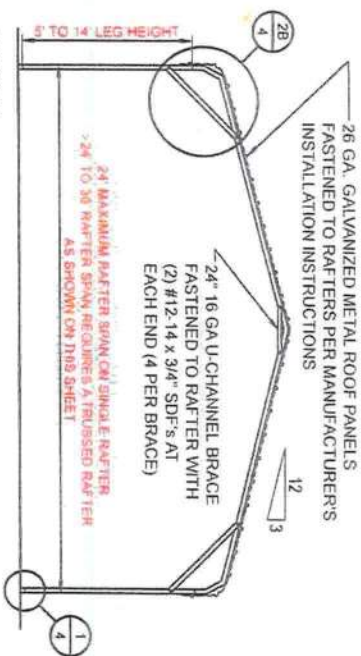
**PROFESSIONAL ENGINEER**  
STATE OF FLORIDA  
No. 90753

**CAROLINA CARPORTS, INC.**  
GENERIC PLANS FOR USE IN THE STATE OF FLORIDA  
UP TO 30' WIDE

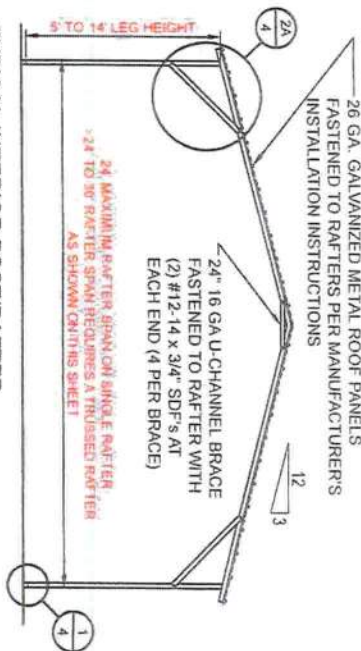
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CHECKED	CS / ID	PROJ. NO.	G24001
APPROVED	TB / LP	SHEET	2 OF 6

BECHTOL ENGINEERING AND TESTING, Inc.  
CORPORATING GEOGRAPHICAL, ENVIRONMENTAL, AND MATERIAL TESTING SERVICES  
Certificate of Authorization No. 00005452

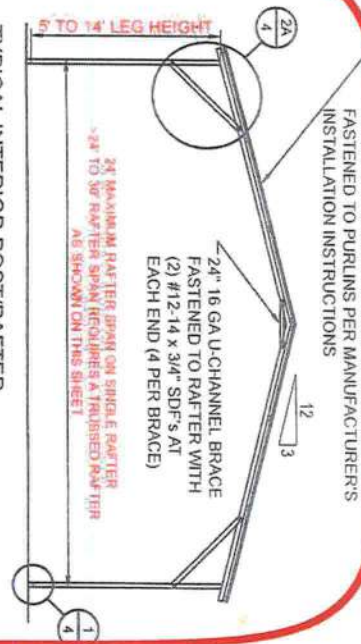




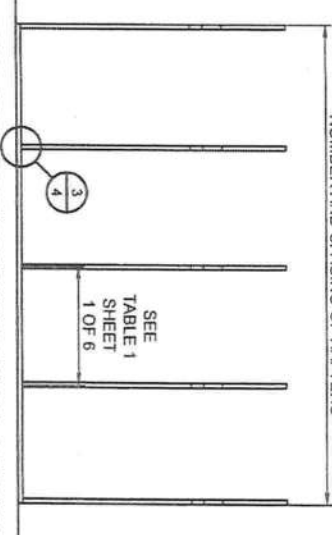
TYPICAL  
INTERIOR POST/RAFTER FRAME SECTION - BOW FRAME  
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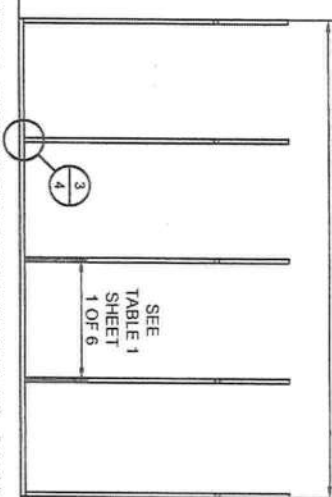
TYPICAL INTERIOR POST/RAFTER  
FRAME SECTION - HORIZONTAL ROOF - BOX EAVE  
NOT TO SCALE



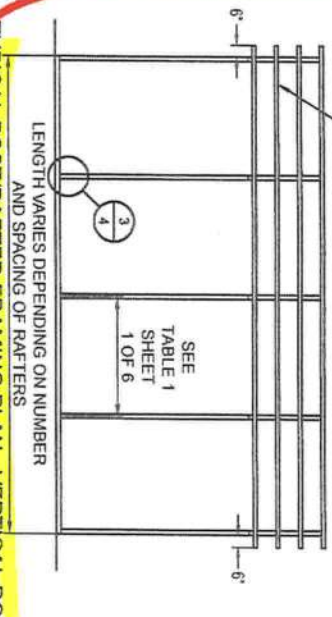
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FRAME SECTION - VERTICAL ROOF - BOX EAVE  
NOT TO SCALE



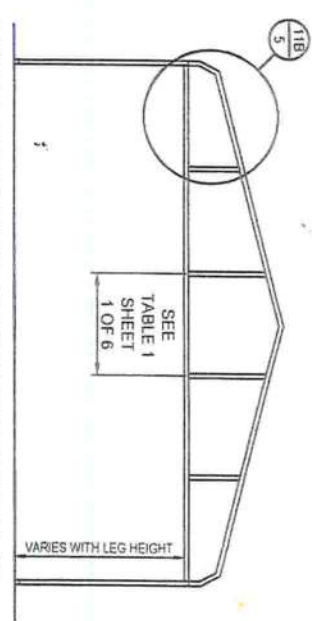
TYPICAL POST/RAFTER FRAMING PLAN - BOW FRAME  
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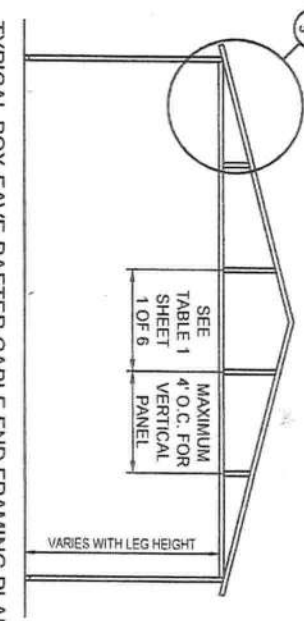
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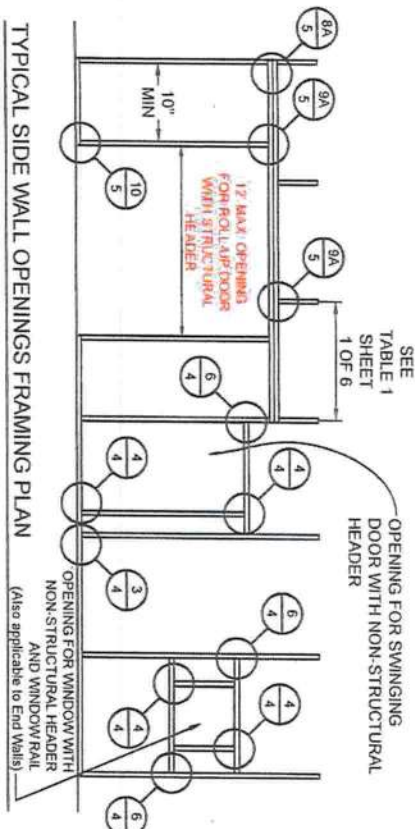
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NOT TO SCALE



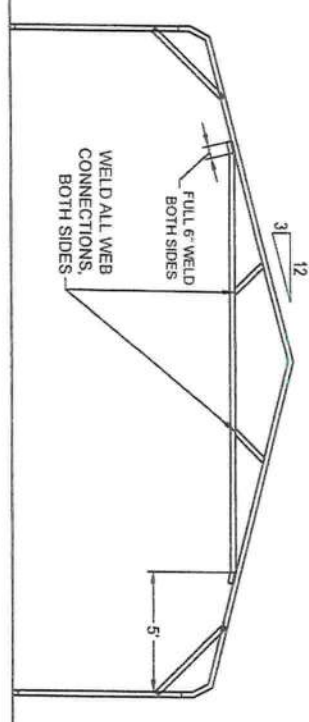
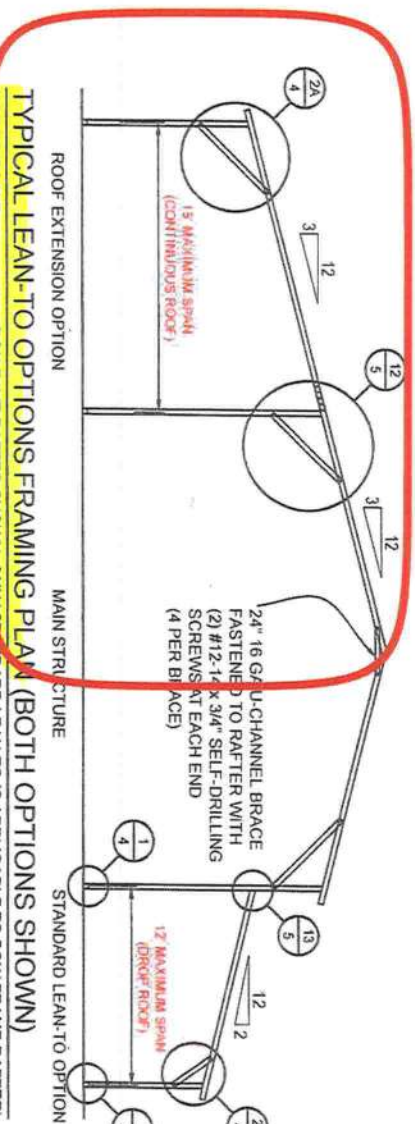
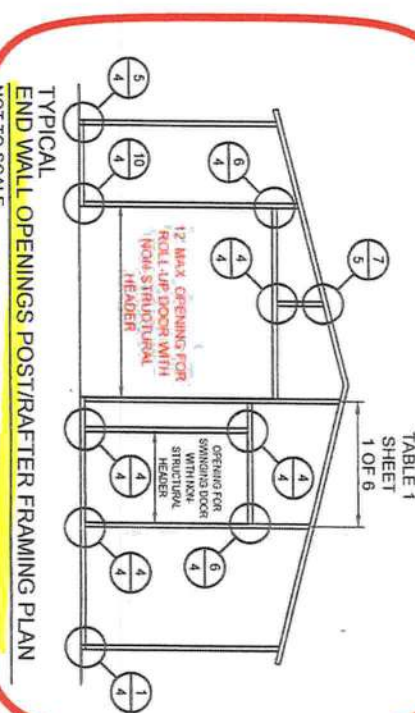
TYPICAL BOW RAFTER GABLE END FRAMING PLAN  
NOT TO SCALE



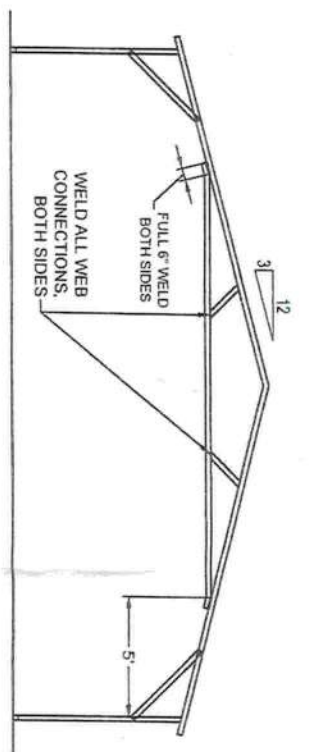
TYPICAL BOX EAVE RAFTER GABLE END FRAMING PLAN  
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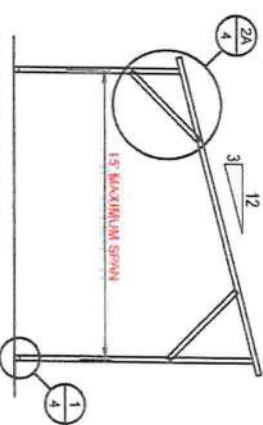
TYPICAL SIDE WALL OPENINGS FRAMING PLAN  
NOT TO SCALE



OPTIONAL 24-1" TO 30' TRUSSED RAFTER - BOW  
NOT TO SCALE



OPTIONAL 24-1" TO 30' TRUSSED RAFTER - BOX EAVE  
NOT TO SCALE



**BECHTOL ENGINEERING AND TESTING, INC.**  
605 WEST NEW YORK AVENUE  
DELAND, FLORIDA 32720

**LOVE B. PATEL**  
No. 90753  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER

**CAROLINA CARPORTS, INC.**  
GENERIC PLANS FOR USE IN THE STATE OF FLORIDA  
UP TO 30' WIDE

REVIEWED: 5/14/24 DATE: 1/1/2024  
DESIGN: CS SCALE: NTS  
CHECKED: CS/JID PROJECT: G24001  
APPROVED: TB/JLP SHEET 3 OF 6

BECHTOL ENGINEERING  
AND TESTING, Inc.  
CONSULTING ENGINEERS, ARCHITECTS, AND MATERIALS TESTERS/INSPECTION  
Certified in Alabama on 06/06/2023



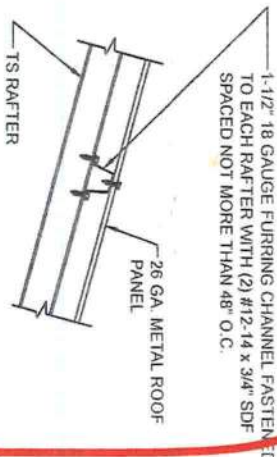
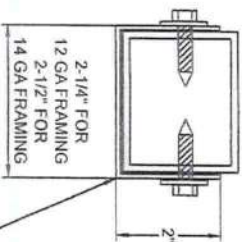








VERTICAL SIDE OPTION



16 GAUGE U-CHANNEL BRACE FASTENED TO THE POST AND RAFTER WITH (2) #12-14 x 3/4" SDF'S AT EACH END (4 PER BRACE)

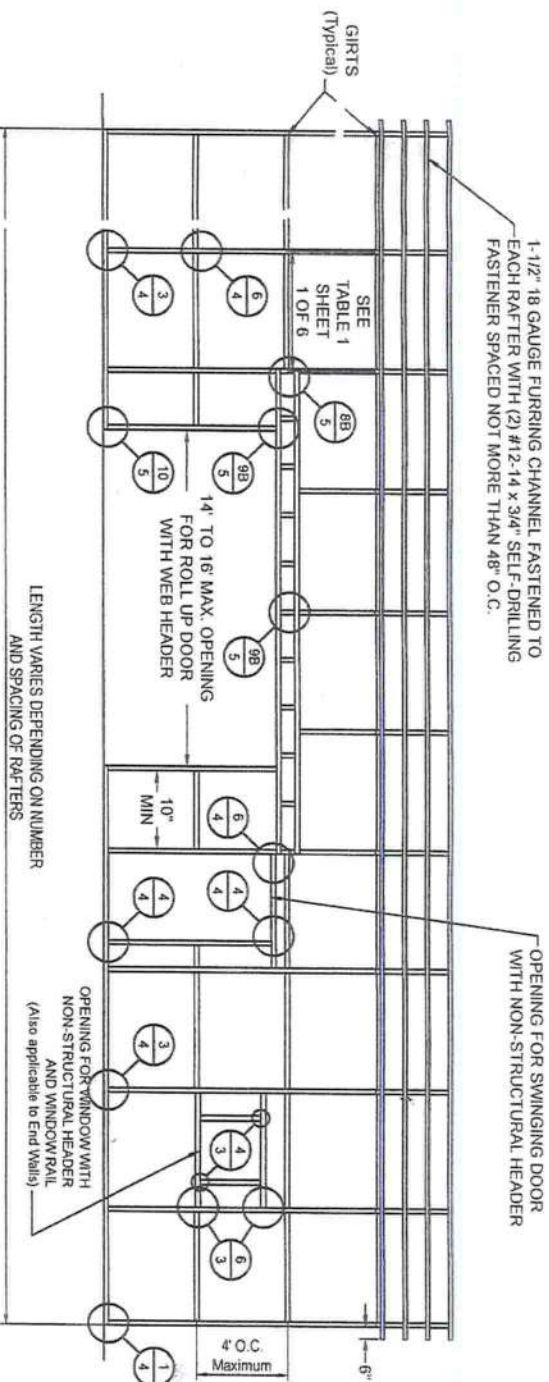
BRACE SECTION

Not To Scale

ROOF PANEL ATTACHMENT

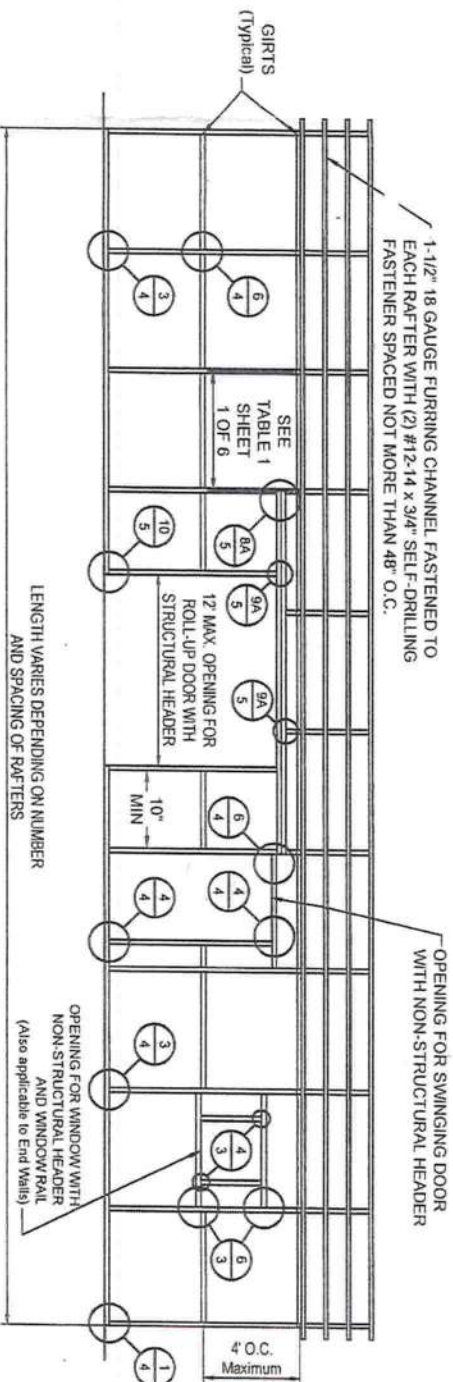
(ALTERNATE FOR VERTICAL ROOF PANELS)

Not To Scale



TYPICAL PC STR/RAFTER/GIRT FRAMING PLAN (14' TO 16' WIDE MAX. OPENING)

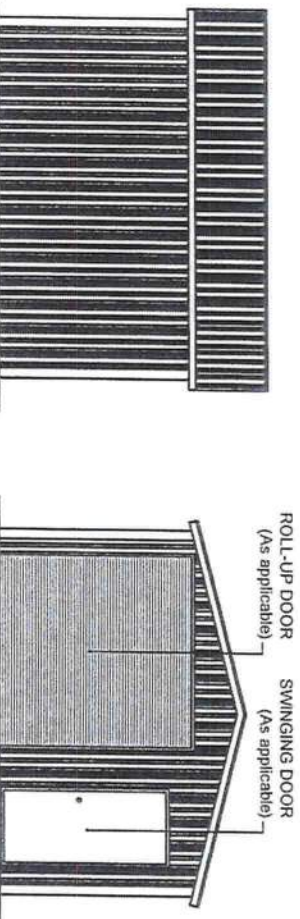
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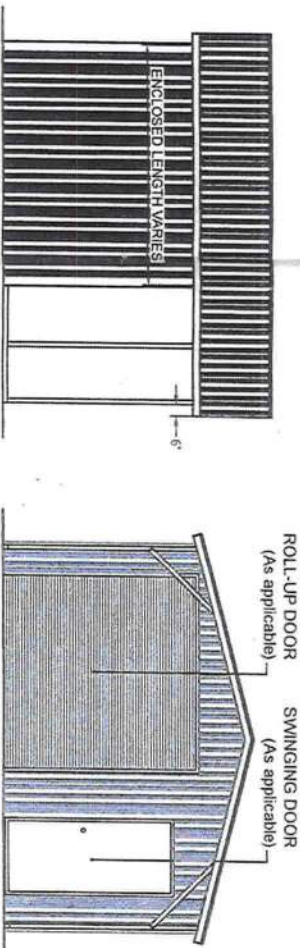
TYPICAL POST/RAFTER/GIRT FRAMING PLAN (12' WIDE MAX. OPENING)

NOT TO SCALE

BOX EAVE FRAME RAFTER ENCLOSED BLDG - VERTICAL SIDES



BOX EAVE FRAME RAFTER UTILITY BLDG - VERTICAL SIDES



**BECHTOL ENGINEERING AND TESTING, INC.**  
605 WEST NEW YORK AVENUE  
DELAND, FLORIDA 32720

*Steve*

**LOVE & PATEL**  
LICENSE  
No. 90753

STATE OF FLORIDA  
PROFESSIONAL ENGINEER

**CAROLINA CARPORTS, INC.**  
GENERIC PLANS FOR USE IN THE STATE OF FLORIDA  
UP TO 30' WIDE

REVISED	5/14/24	DATE	1/1/2024
DRAWN	CS	SCALE	NTS
CHECKED	CS/ID	PROJ. NO.	G24001
APPROVED	TB/JP	SHEET	6 OF 6

**BECHTOL ENGINEERING AND TESTING, INC.**  
CONSULTING GEOTECHNICAL, ENVIRONMENTAL, AND MATERIALS TESTING ENGINEERS  
CORPORATE HEADQUARTERS: 800-235-3829