

FBC APPROVED PRODUCTS LIST

PRODUCT CATEGORY	SUB CATEGORY	MANUFACTURER	APPROVAL No. & DATE	QA EXPIRATION DATE	MAXIMUM ALLOWABLE WIND SPEED		
					OPEN	ENCLOSED	PARTIALLY ENCLOSED
STRUCTURAL COMPONENTS	ROOF DECK	CAROLINA CARPORTS, INC. 26 Gauge AG Panel	FL6596-1-R6 12/15/20	04/05/27	180	180	180
STRUCTURAL COMPONENTS	STRUCTURAL WALL	CAROLINA CARPORTS, INC. 26 Gauge AG Panel	FL6702-1-R6 12/15/20	03/14/27	180	180	180
STRUCTURAL COMPONENTS	STRUCTURAL WALL	CAROLINA CARPORTS, INC. 26 Gauge Dutch Lap Wall Panel	FL6702-3-R6 12/15/20	03/14/27	N/A	164	143
STRUCTURAL COMPONENTS	FLOOD VENT	CRAWL SPACE DOOR SYSTEMS, INC. 16x8 Flood Vent	FL29622-1-R1 02/28/21	09/30/22	N/A	N/A	N/A
EXTERIOR DOORS	SWINGING	ELIXIR DOOR AND METAL COMPANY Series 402-14	FL17996-3-R2 02/28/21	08/26/25	N/A	139	139
EXTERIOR DOORS	SWINGING	ELIXIR DOOR AND METAL COMPANY Series 407	FL17996-5-R2 02/28/21	08/19/25	N/A	174	155
EXTERIOR DOORS	ROLL-UP	ASTA INDUSTRIES INC. Model 203 (12 Max. Width)	FL8888-1-R6 02/09/21	12/31/21	N/A	180	174
EXTERIOR DOORS	ROLL-UP	CAROLINA CARPORTS, INC. Steel Roll Up Sheet Door (12' Max. Width)	FL16806-1-R5 12/16/20	04/05/27	N/A	179	154
EXTERIOR DOORS	ROLL-UP	CAROLINA CARPORTS, INC. Steel Roll-Up Sheet Door - (6' Max. Width)	FL16806-2-R5 12/16/20	04/05/27	N/A	180	180
EXTERIOR DOORS	ROLL-UP	CAROLINA CARPORTS, INC. Steel Roll-Up Sheet Door - (16' Max. Width)	FL16806-3-R5 12/16/20	04/05/27	N/A	155	133
EXTERIOR DOORS	ROLL-UP	CAROLINA CARPORTS, INC. Steel Roll-Up Sheet Door - (10' Max. Width)	FL16806-4-R5 12/16/20	04/05/27	N/A	180	172
WINDOWS	SINGLE HUNG	MI WINDOWS AND DOORS Model 165SH	FL17489-1-R8 11/27/20	10/17/23	N/A	175	157

NOTES:
 1. DOORS AND WINDOWS SHOWN MAY BE SUBSTITUTED FOR DIFFERENT PRODUCT LINES AND/OR MODEL S, 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"

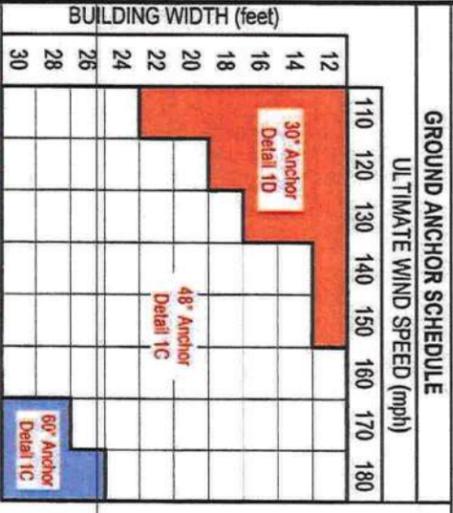
GENERAL NOTES:

- 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 UTILITY/STORAGE BUILDINGS (RISK CATEGORY 1) 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 60 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 2500 PSI AT 28 DAYS. THE REINFORCING STEEL SHALL BE MINIMUM GRADE 40. CONCRETE SLAB FOUNDATIONS SHALL BE REINFORCED WITH 6X6-W1 .4XWV1 .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 TYPE GROUND ANCHOR REQUIREMENTS.
- CONCRETE ANCHORS SHALL BE TAPCON REDHEAD LDT 1/2" x 5" OR EQUIVALENT OR WELTIT ANKR-TITE MODEL AT1252, OR SLEEVE ANCHOR MODEL HSA 1260, OR EQUIVALENT.
- POST/RAFTER BRACING: BRACE ON EVERY POST/RAFTER CONNECTION, EXCEPT FOR END WALLS.
- SLAB FOUNDATION SUBGRADE SOILS SHALL BE TERMINATE TREATED AND COVERED WITH 6 MIL VAPOR RETARDER PER SECTION R318.1 OF THE FBC SEVENTH EDITION (2020) - RESIDENTIAL, AND SECTION 1816.1 OF THE FBC SEVENTH EDITION (2020) - BUILDING. MINIMUM ALLOWABLE FOUNDATION SOIL CONTACT BEARING PRESSURE OF 2,000 PSF IS ASSUMED.
- 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.
- ENCLOSED AREAS REQUIRING FLOOD OPENINGS MUST HAVE A MINIMUM OF TWO (2) OPENINGS ON EXTERIOR WALLS. OPENINGS SHOULD BE INSTALLED ON AT LEAST TWO (2) SIDES OF ENCLOSED AREA, WITH BASE OF OPENINGS SET WITHIN 1-FOOT OF THE HIGHER OF INTERIOR OR EXTERIOR GRADE. REQUIRED TOTAL NUMBER OF FLOOD VENTS NOTED IN THE FBC APPROVED PRODUCTS LIST SHALL BE BASED ON ONE (1) FLOOD VENT PER EVERY 309 SQUARE FEET OF ENCLOSED AREA. SEE TYPICAL FLOOD VENT FRAMING PLAN, SHEET 5 OF 6.

**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	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.



DETAILS 1C AND 1D SHOWN ON SHEET 4 OF 6

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

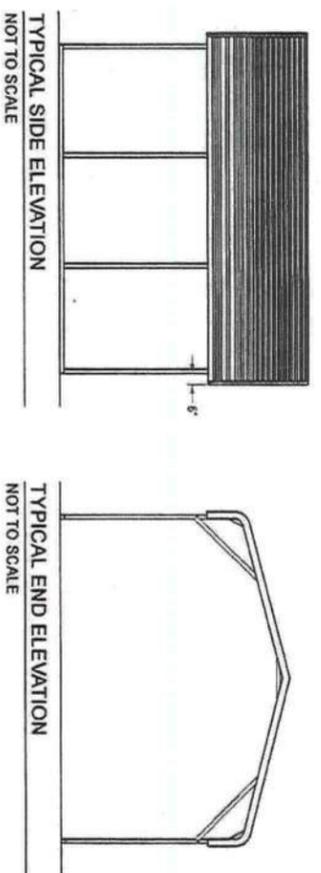
PREPARED BY:
 BECHTOL ENGINEERING AND TESTING, INC.
 605 WEST NEW YORK AVENUE
 DELAND, FLORIDA 32720
 Certificate of Authorization No. 000005492



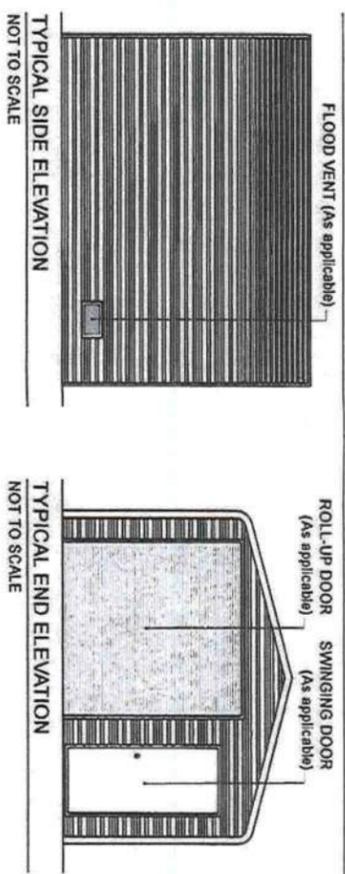
**CAROLINA CARPORTS, INC.
GENERIC PLANS FOR USE IN THE STATE OF FLORIDA**

DATE	06/04/2021
SCALE	NTS
DESIGNER	MB
CHECKER	MB
PROJECT NO.	G21001
PROJECT	TB
SHEET	1 OF 6

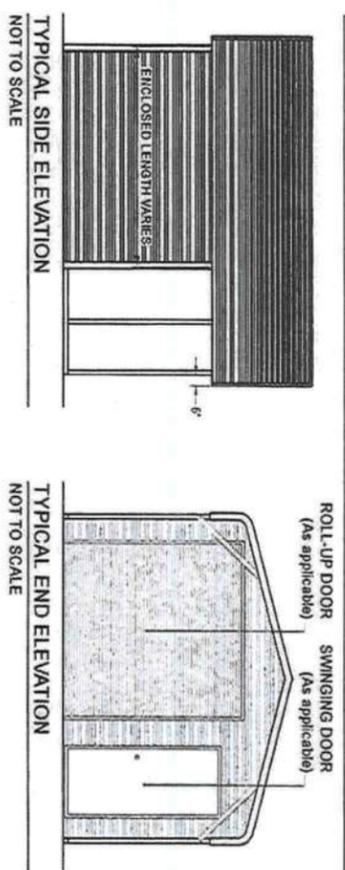
BOW FRAME RAFTER OPEN CARPORT - HORIZONTAL ROOF



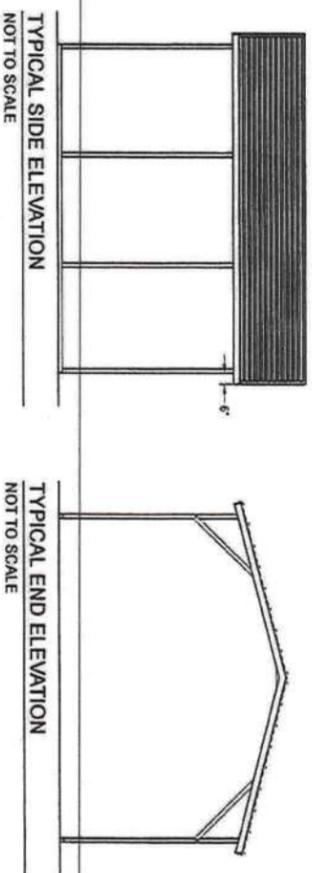
BOW FRAME RAFTER ENCLOSED BUILDING - HORIZONTAL ROOF



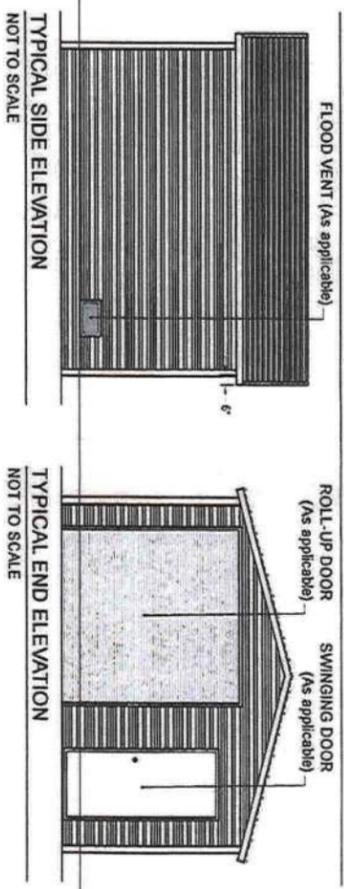
BOW FRAME RAFTER UTILITY BUILDING - HORIZONTAL ROOF



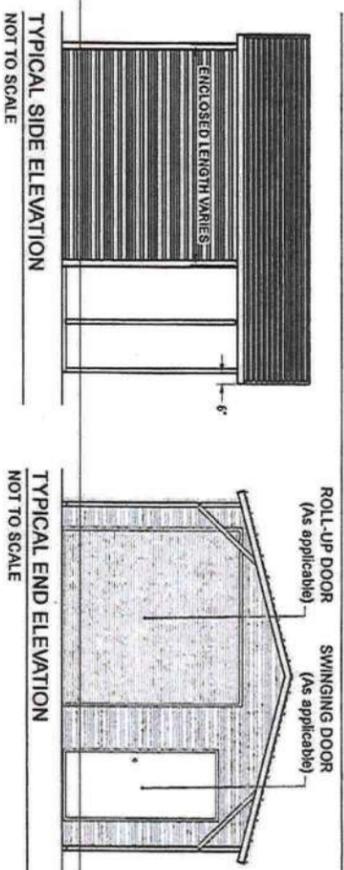
BOX EAVE FRAME RAFTER OPEN CARPORT - HORIZONTAL ROOF



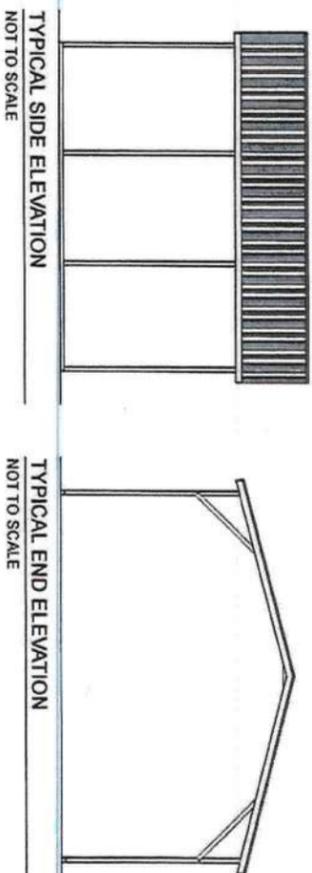
BOX EAVE FRAME RAFTER ENCLOSED BLDG - HORIZONTAL ROOF



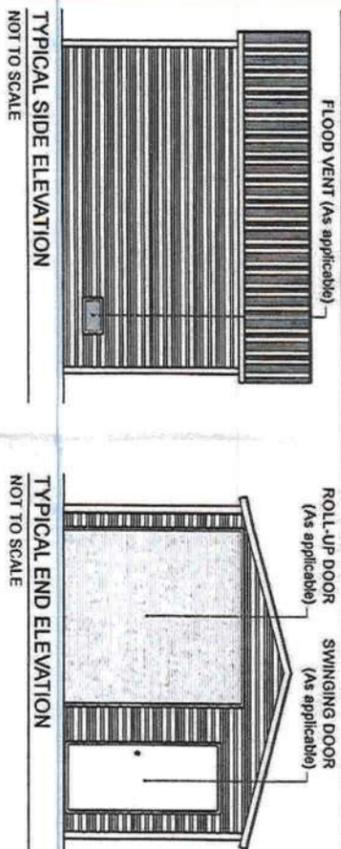
BOX EAVE FRAME RAFTER UTILITY BLDG - HORIZONTAL ROOF



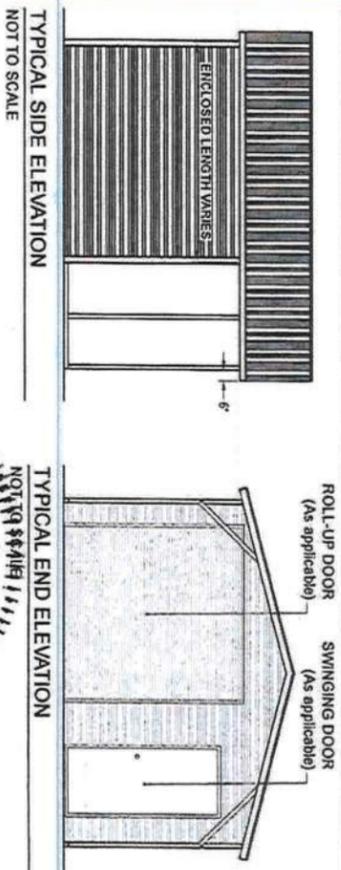
BOX EAVE FRAME RAFTER OPEN CARPORT - VERTICAL ROOF



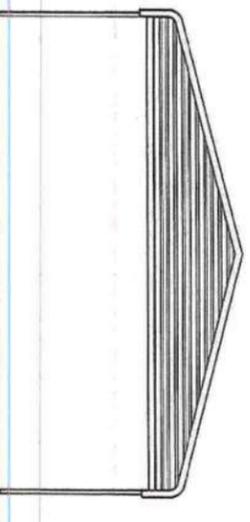
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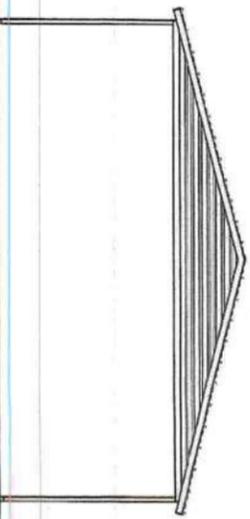
BOX EAVE FRAME RAFTER UTILITY BLDG - VERTICAL ROOF



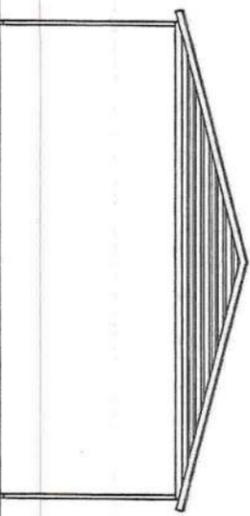
TYPICAL BOW RAFTER GABLE END ELEVATION
NOT TO SCALE



TYPICAL BOX EAVE RAFTER GABLE END ELEVATION
NOT TO SCALE



TYPICAL BOX EAVE RAFTER GABLE END ELEVATION
NOT TO SCALE

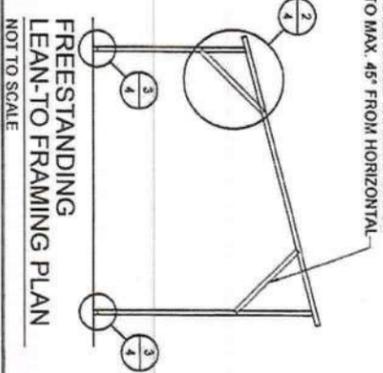
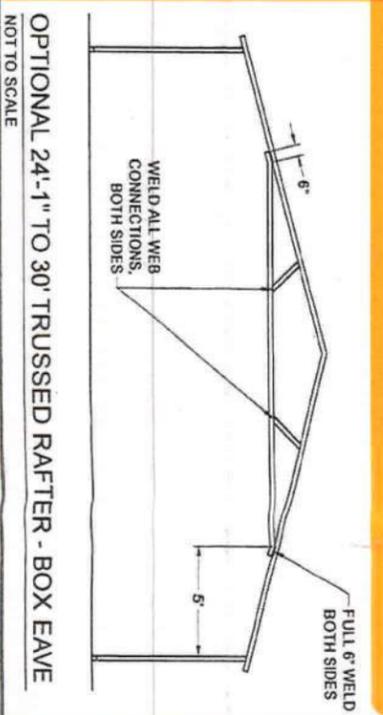
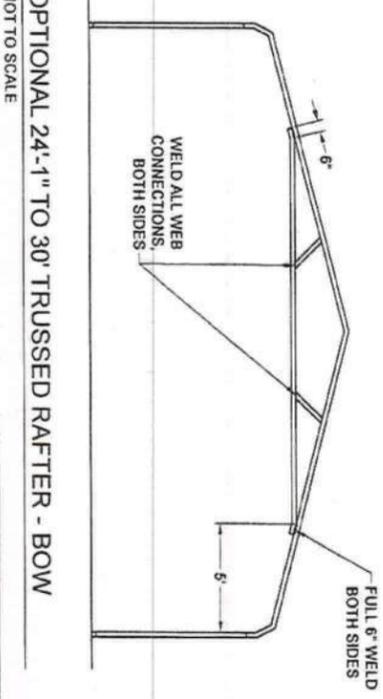
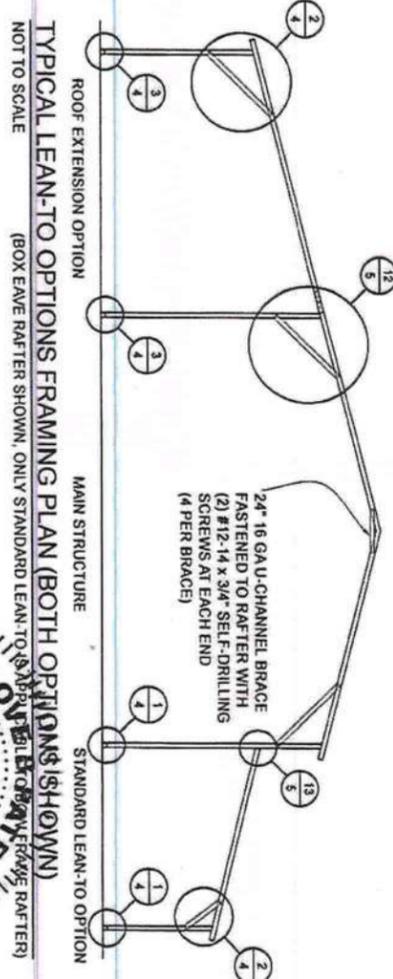
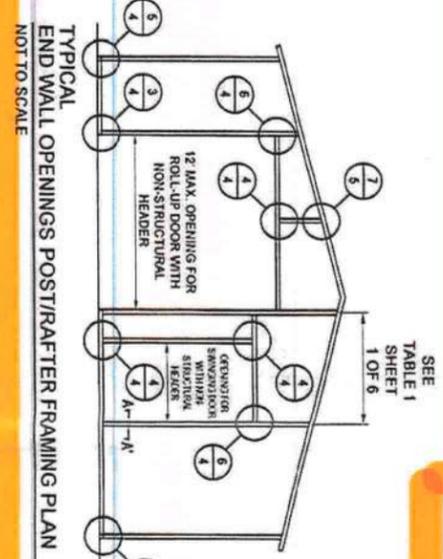
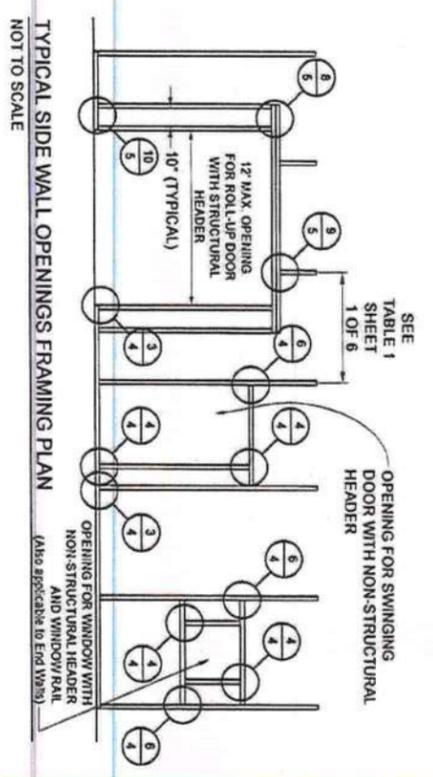
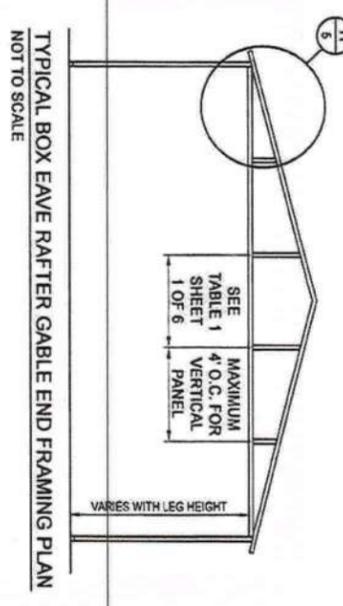
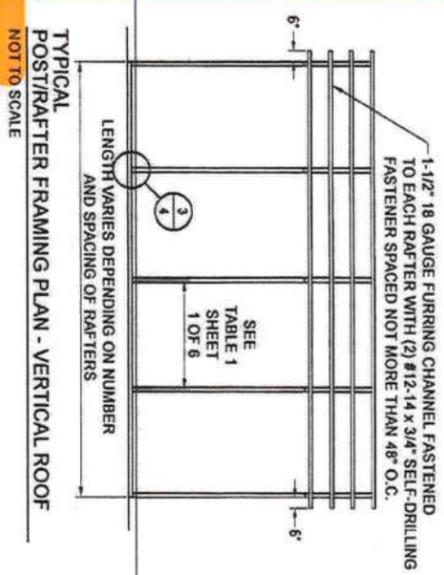
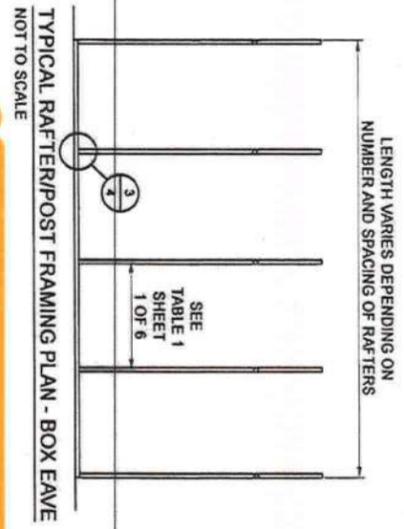
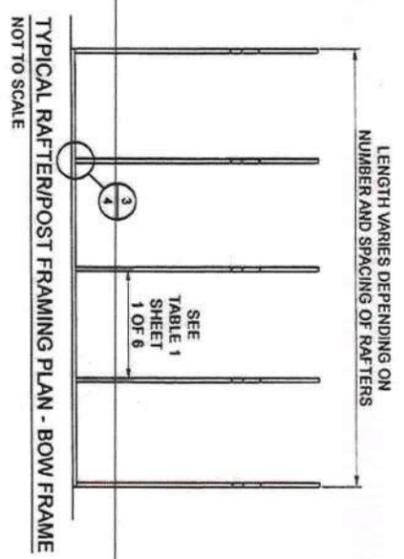
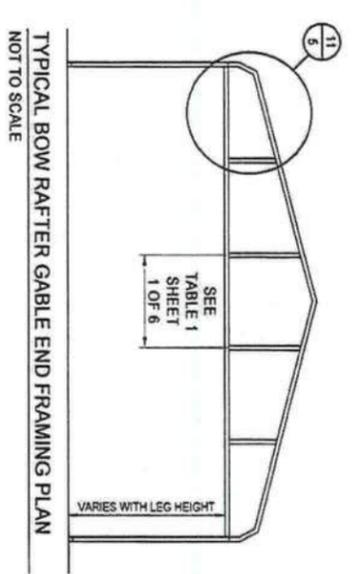
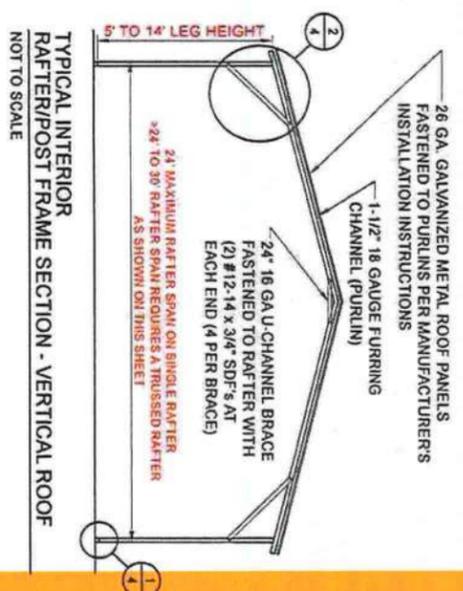
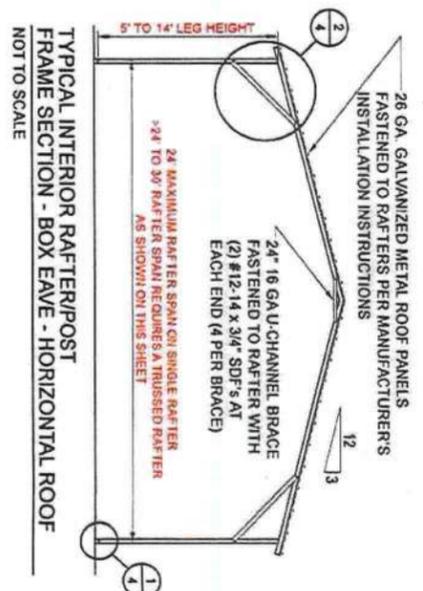
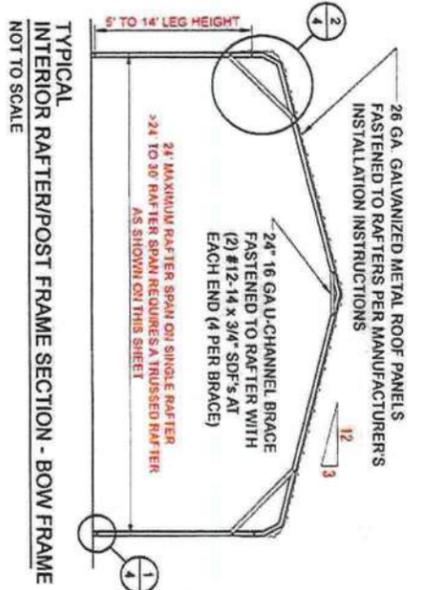


LOVE B. PATE
 LICENSED PROFESSIONAL ENGINEER
 STATE OF FLORIDA
 No. 90753

BECHTOL ENGINEERING AND TESTING, INC.
 605 WEST NEW YORK AVENUE
 DELAND, FLORIDA 32726

CAROLINA CARPORTS, INC.
 GENERIC PLANS FOR USE IN THE STATE OF FLORIDA

DATE	09/04/2021
SCALE	NTS
PROJECT	G21001
SHEET	SHEET 2 OF 6

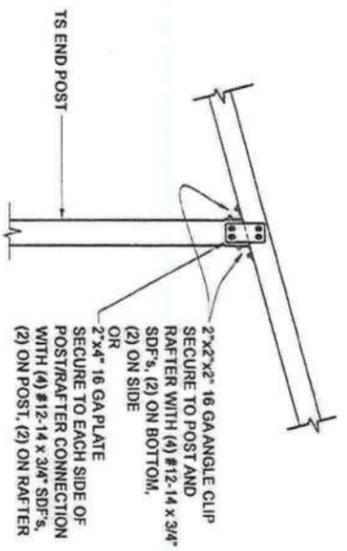


BECHTOL ENGINEERING AND TESTING, INC.
 605 WEST NEW YORK AVENUE
 DELAND, FLORIDA 32720
 No. 90753
 LICENSED PROFESSIONAL ENGINEER
 STATE OF FLORIDA

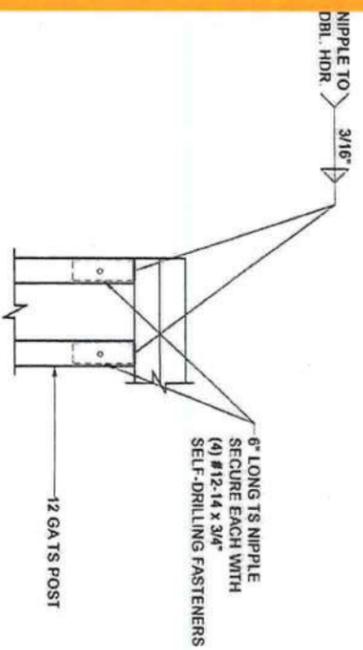
CAROLINA AIRPORTS, INC.
 GENERIC PLANS FOR USE IN THE STATE OF FLORIDA

BECHTOL ENGINEERING AND TESTING, INC.
 CONSULTING ENGINEER, ARCHITECT, AND WRITER-AS-BUILT DOCUMENTS
 605 WEST NEW YORK AVENUE
 DELAND, FLORIDA 32720

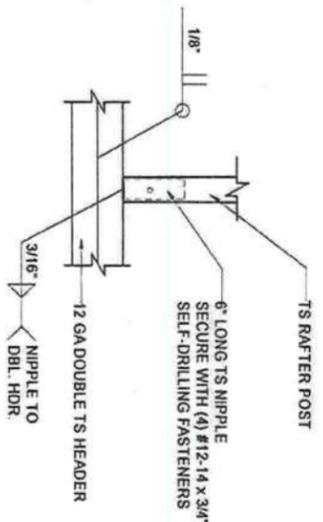
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DESIGNER	mbd
CHECKER	NTS
PROJECT NO.	G21001
DATE PLOTTED	8/10/21
APPROVED BY	TB
SHEET	3 OF 6



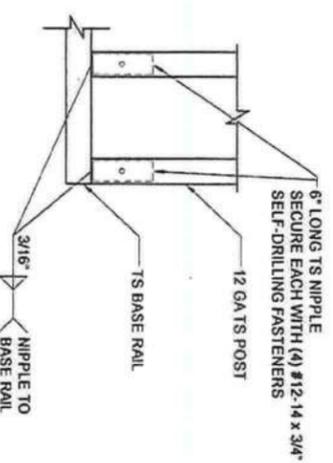
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END POST/RAFTER CONN. DETAIL
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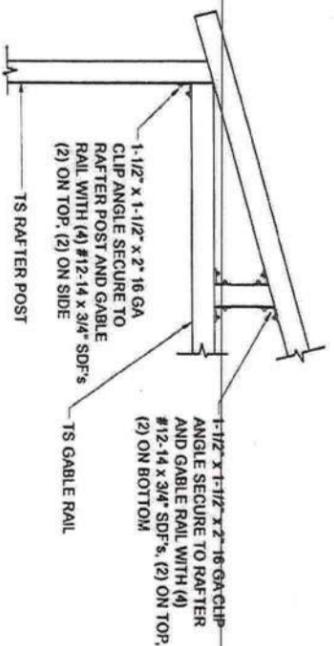
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RAFTER POST/DBL. HEADER DETAIL
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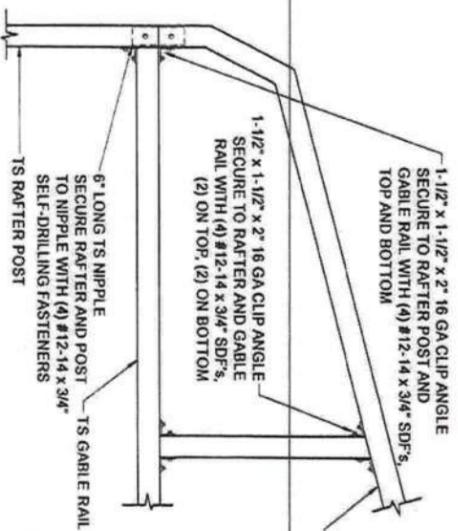
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RAFTER POST/HEADER DETAIL
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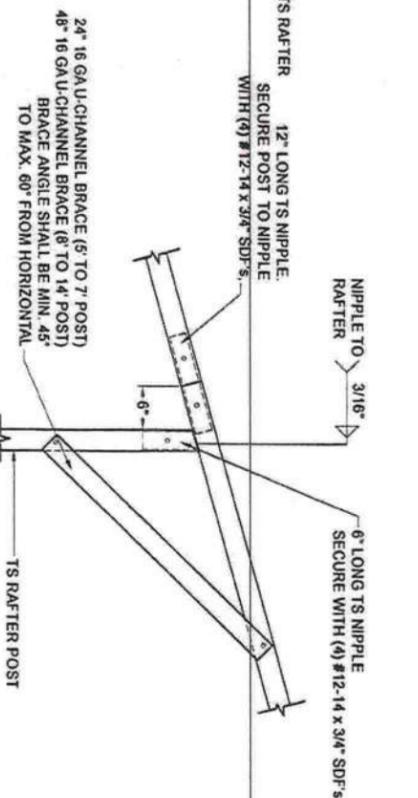
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RAFTER POST/BASE RAIL CONNECTION DETAIL
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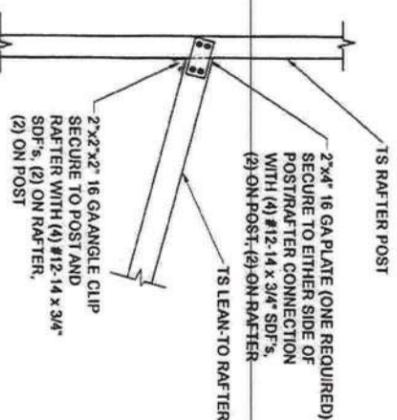
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GABLE RAIL TO RAFTER POST CONNECTION DETAIL
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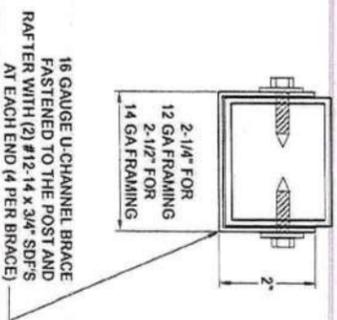
11B
GABLE RAIL TO RAFTER POST CONNECTION DETAIL
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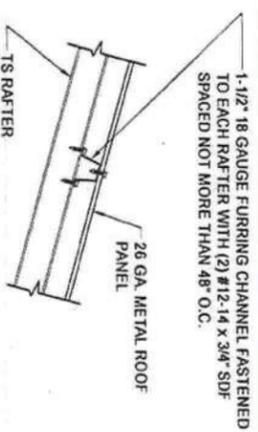
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SIDE EXTENSION RAFTER/POST DETAIL
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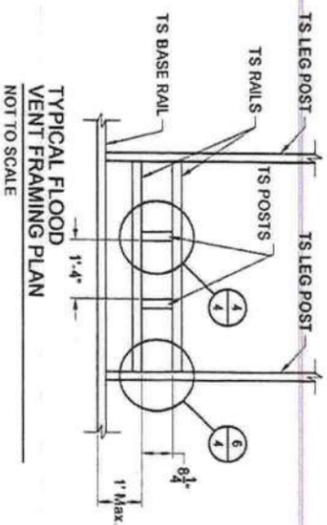
13
POST / LEAN-TO RAFTER CONN. DETAIL
Not To Scale



BRACE SECTION
Not To Scale



ROOF PANEL ATTACHMENT
(ALTERNATE FOR VERTICAL ROOF PANELS)
Not To Scale



TYPICAL FLOOD VENT FRAMING PLAN
NOT TO SCALE

SEE GENERAL NOTE NO. 12, SHEET 1 OF 6.



BECHTOL ENGINEERING AND TESTING, INC.
605 WEST NEW YORK AVENUE
DELAND, FLORIDA 32722

CAROLINA CARPORTS, INC.
GENERIC PLANS FOR USE IN THE STATE OF FLORIDA

BECHTOL ENGINEERING AND TESTING, INC.
CORPORATE GEOGRAPHICAL ENVIRONMENTAL, AND WATER SERVICES
GENERAL ENGINEERING DIVISION

FIELD	DATE	06/04/2021
DESIGN	BY	NTS
CHECKED	ID	G21001
APPROVED	TB	SHEET 5 OF 6

