

BUILDING DESIGN NOTE:
IN ACCORDANCE WITH THE 2018 INTERNATIONAL BUILDING CODE

STRUCTURAL DESIGN NOTES:

1. Contractor to verify all dimensions at construction site prior to beginning construction work.
2. Contractor is responsible for compliance with all local building codes and ordinances.
3. These notes shall apply where indicated otherwise by drawings or specifications. A detail shown for one condition shall apply for all like or similar conditions unless specific detailing is shown on the plans.
4. The contractor shall provide adequate shoring and bracing for all the work during the construction period and protection from the public.
5. All roots, stumps and wooden limbs or lumber shall be removed from the entire foundation and underside of slab area.
6. Provide sleeves in either foundation or outside wall areas, where needed, for entry of plumbing or electrical service. Seal sleeve openings after plumbing and electrical services have been installed.
7. All concrete shall be standard weight 3000psi compressive strength at 28 days unless noted otherwise. Use "Fibermesh" concrete in all slabs on grade.
8. Construction or control joints shall be provided in slabs on grade so that the maximum area between joints shall be 800 square feet and the length not more than twice the width.
9. Reinforcing bars shall conform to ASTM A-615. All bar sizes #3 and smaller shall be grade 40. Bar sizes #4 and larger shall be grade 60.
10. Bending of reinforcing rods by heat shall not be allowed.
11. All bolts, plates, clips, anchors, etc., shall be hot-dipped galvanized as per ASTM A-123. All bolts shall be ASTM A-307.
12. Apply a protective coat of rust resistant paint to all exposed metal bolts, plates, clips, anchors, etc.
13. Install 6 mil polyethylene vapor barrier under slab (and welded wire fabric where used) at all slabs on grade prior to pour. Overlap joints a minimum of (12) twelve inches.
14. All compacted fill to be 95% Proctor.
15. Contractor to establish finished slab elevation per latest F.E.M.A. zone requirements.

SPECIAL STRUCTURAL NOTES

1. The maximum spans of these buildings is forty (40) feet when using 2 1/2" 12 gauge, galvanized metal columns.
2. The maximum spacing of the 2 1/2", 15 gauge or better, galv. column for sidewalls will be (4) feet.
3. The max. roof peak height is not to exceed 21 feet. Maintain 5' max for horizontal bracing.
4. Columns installed at all door openings (not to exceed 12' wide).
5. Use 2 1/2" sq. overhead header beam over each door opening. Header beams for door openings at the ends to be tied to the matching overhead rafter at three equally spaced joints.

STRUCTURAL MATERIAL COMPONENTS

1. 29 gauge "Ground Rib" (80KS1) steel roofing with a 30 year life span warranty, by Fabral (or approved equal). These sheets are rated as follows:
 - a. Class 90 uplift test rating (UL 580)
 - b. Class 4 impact resistance rating (UL 2218)
 - c. Class A fire resistance rating (UL 790)
2. Fasten sheets to each frame using 12-14, TY 3 point, self-drilling, TEK screws by Rosko Fasteners (or equal).
3. Frames to be 2 1/2" square, 12 gauge, minimum yielding of 50 KSI, galvanized tube steel by Allied Tube and Conduit Co. (or equal).
4. Minimum edge distance or spacing for TEK screws is 3/4". Two required for each connection.
5. Spaces to be 4'-0" max. when using 29 gauge metal.
6. Spaces to be 5'-0" max. when more than 50 miles from the coast.
7. For vertical sheeting, can run 12'-0" max spacing with horizontal bracing.
8. For units or buildings installed 50 miles of coastline that exceed 11' sidewall height, min. of 3' of sheeting shall be installed from the top down and fastened with 12-14, TY 3 point, self-drilling TEK screws by Rosko Fasteners (or equal)

NOTE:

THE FOLLOWING APPLICATIONS AND TOLERANCES ON WIDTH AND LENGTH ON THE FOLLOWING DRAWINGS CAN GO AS WIDE AS 40'-0" IN WIDTH AND DOWN TO 10'-0" IN WIDTH. THE LENGTH CAN GO UP TO 120'-0" AND DOWN TO 10'-0". ALL REQUIREMENTS ARE TO BE FOLLOWED AS INDICATED ON THE DRAWINGS.

NORTH & SOUTH CAROLINA _____ SPAN ROOF SHEETED ONLY
140 MPG WIND / 30 PSF ROOF (LIVE-SNOW)



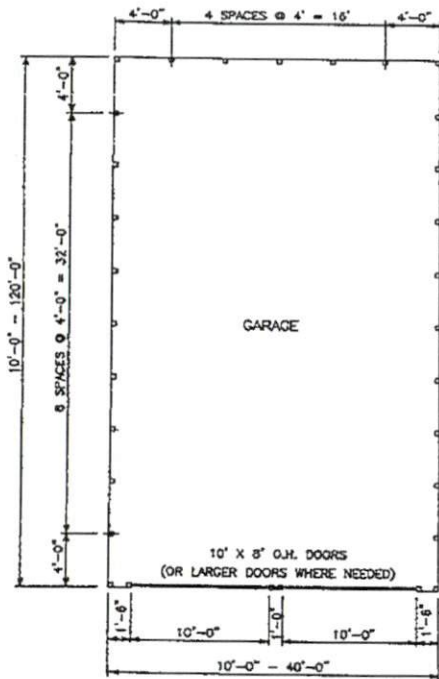
CUSTOMER NAME: _____
BUILDING SIZE: _____
JOB SITE LOC.: _____
INVOICE # _____ DATE _____
ADDRESS: _____
CITY-STATE: _____

GENERAL SPECIFICATIONS

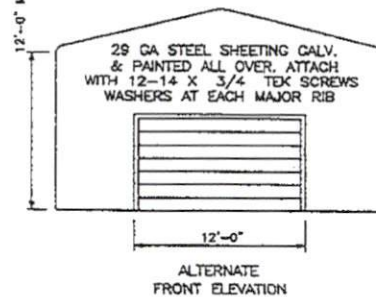
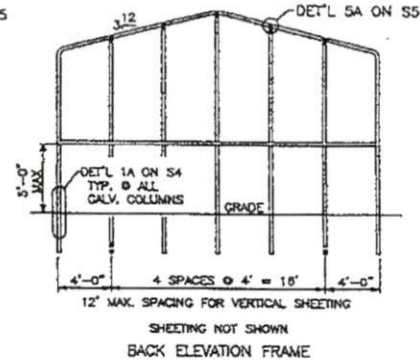
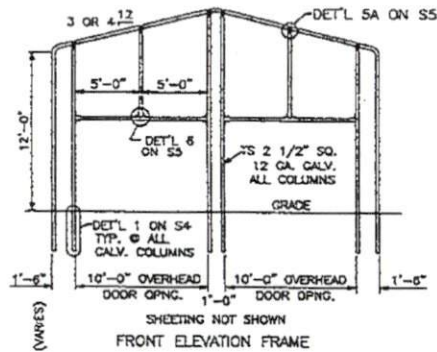
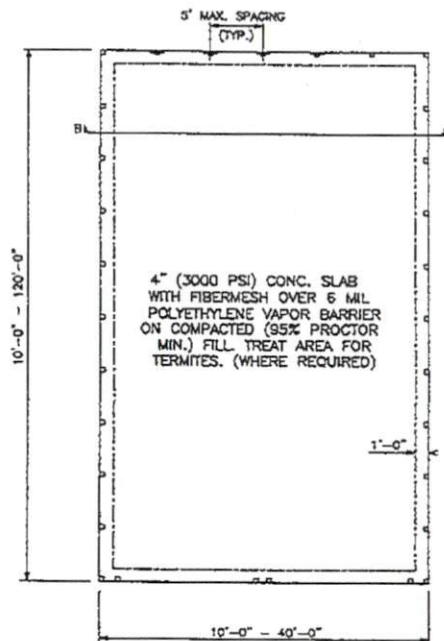
K & G STORAGE, INC.
1736 HWY 301 SOUTH
DILLON, S.C. 29536
KENNY NORRIS (843) 774-2150

Benjamin L. Smith, P.E.
S.C. LIC. # 22439 - N.C. LIC. # 28666

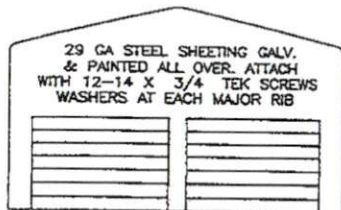
FRAMING PLANS AND DETAILS



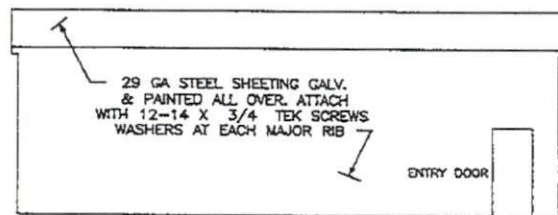
GARAGE



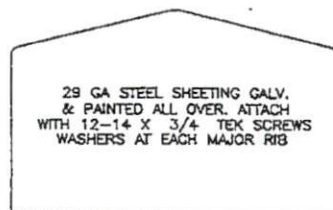
NOTE: 26 FT. TO 40 FT. WIDE, USE "W" TYPE TRUSS. SEE DETAIL ON S5



FRONT ELEVATION



SIDE ELEVATION



REAR ELEVATION

1. 2018 INTERNATIONAL BUILDING CODE.
2. 140 MPH WIND LOADS ON BUILDING AND ROOF.
3. DP 45 FOR ALL GLASS, IF ADDED.
4. SEISMIC LOAD D-1 IN SITE CLASS D.

5. SOILS DESIGN RESISTANCE OF 1 TON PER SQUARE FOOT.
6. DESIGN DATA.
 - a. ROOF L.L. = 30 PSF D.L. = 1 PSF
 - b. SLAB ON GRADE TO CARRY L.L. = 500 PSF

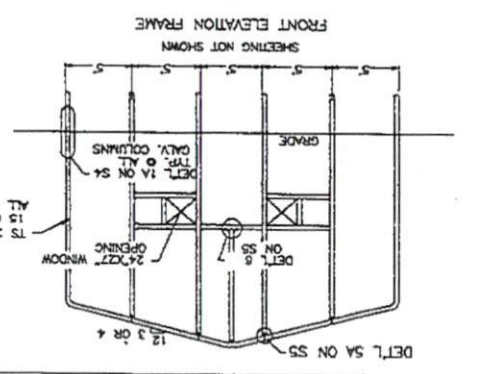
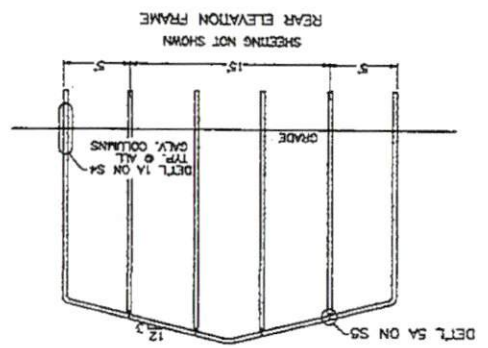
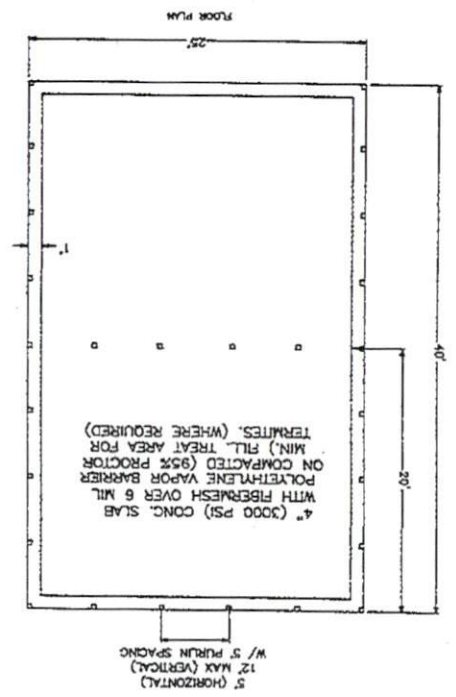
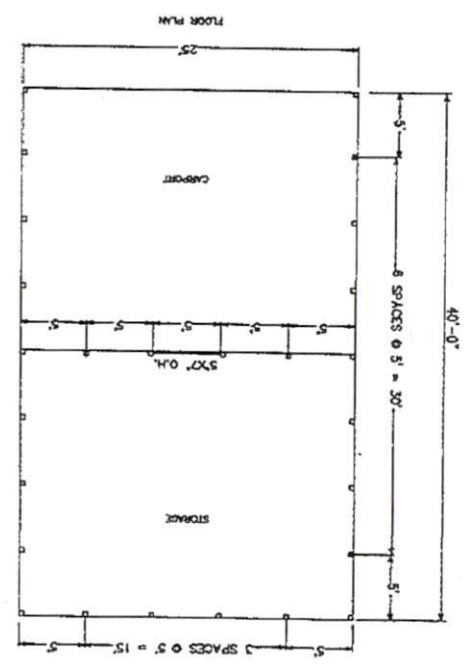
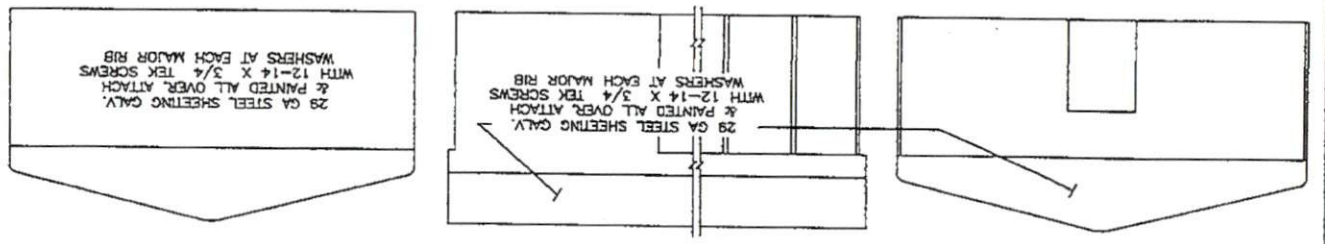


Benjamin L. Smith, PE
S.C. LIC. # 22439 - N.C. LIC. # 28666

GARAGE	
TITLE: GARAGE DETAILS	
DESIGNED BY: Benjamin L. Smith	DRAWN BY: Benjamin L. Smith
FIRM: K & G STORAGE INC.-DILLON, S.C. 29536 KENNY NORRIS (843) 774-2150	
DATE:	SCALE: N.T.S.
SHEET NUMBER: SHEET 52	

1. 2018 INTERNATIONAL BUILDING CODE.
2. 140 MPH WIND LOADS ON BUILDING AND ROOF.
3. DP 45 FOR ALL GLASS, IF ADDED.
4. SEISMIC LOAD D-1 IN SITE CLASS D.
5. SOILS DESIGN RESISTANCE OF 1 TON PER SQUARE FOOT.
6. DESIGN DATA
7. ROOF L.L. = 30 PSF D.L. = 1 PSF
8. SLAB ON GRADE TO CARRY L.L. = 500 PSF

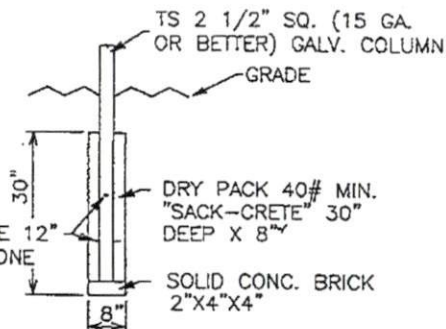
FRONT ELEVATION SIDE ELEVATION REAR ELEVATION



DATE	BY	SCALE	SHEET NO.
N.T.S.			
DESIGNED BY	CHECKED BY	PROJECT	
Benjamin L. Smith	Benjamin L. Smith	K & Q STORAGE INC.-DILLON, S.C. 28536	
STORAGE/CARPORT DETAILS			



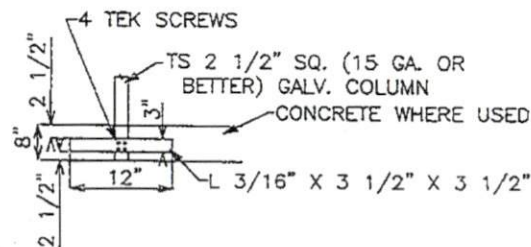
Benjamin L. Smith, PE
S.C. LIC. # 22438 - N.C. LIC. # 28666



2-#4 BARS, ONE 12" FROM BOT'M & ONE 14" FROM TOP

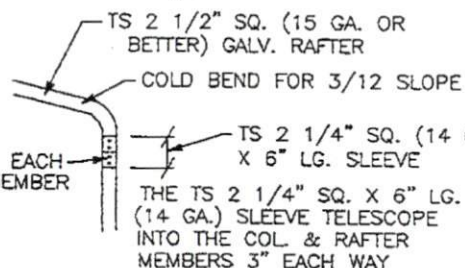
DETAIL 1

(140 MPH WIND LOAD)



DETAIL 1A

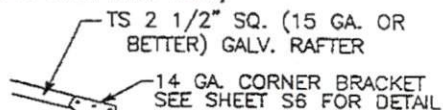
(OPTIONAL REPLACEMENT FOR DETAIL 1)
(140 MPH WIND LOAD)



DETAIL 2

(140 MPH WIND LOAD)

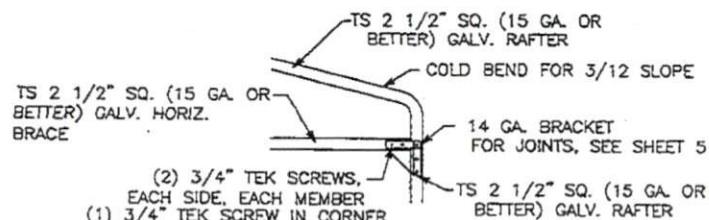
(2) 3/4" TEK SCREWS. EACH SIDE, EACH MEMBER



DETAIL 2A

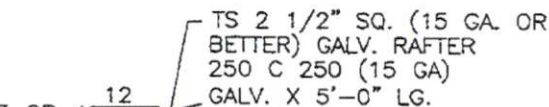
(OPTIONAL REPLACEMENT FOR DETAIL 2)
(140 MPH WIND LOAD)

(2) 3/4" TEK SCREWS. EACH SIDE, EACH MEMBER



DETAIL 4

(140 MPH WIND LOAD)



DETAIL 3

(140 MPH WIND LOAD)

FASTEN "C" SECTION TO TUBE SECTION WITH (6) 3/4" TEK SCREWS EACH SIDE



Benjamin L. Smith, PE
S.C. LIC. #22439 - N.C. LIC. #28666

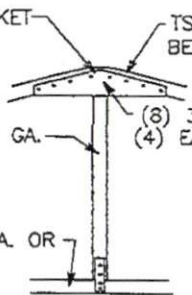
STRUCTURAL DETAILS			
DESIGNED BY	Benjamin L. Smith	DRAWN BY	Benjamin L. Smith
FOR	X & G STORAGE INC.-DILLON, S.C. 29536 KENNY NORRIS (843) 774-2150		
DATE		SCALE	N.T.S.
		DRAWING NUMBER	SHEET 54

FLAT CENTER BRACKET
SEE SHEET 5
FOR DETAIL

TS 2 1/2" SQ. (15 GA. OR
BETTER) GALV. RAFTER

TS 2 1/2" SQ. (15 GA.
OR BETTER) GALV.
VERT. BRACE

TS 2 1/2" SQ. (15 GA. OR
BETTER) GALV. HORIZ.
BRACE



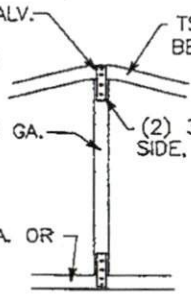
DETAIL 5

1/8" X 2" X 4" GALV.
FLAT PL. EACH
SIDE @ ALL TS
CONNECTIONS

TS 2 1/2" SQ. (15 GA. OR
BETTER) GALV. RAFTER

TS 2 1/2" SQ. (15 GA.
OR BETTER) GALV.
VERT. BRACE

(2) 3/4" TEK SCREWS, EACH
SIDE, EACH MEMBER

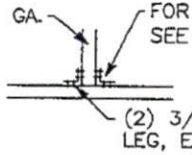


DETAIL 5A

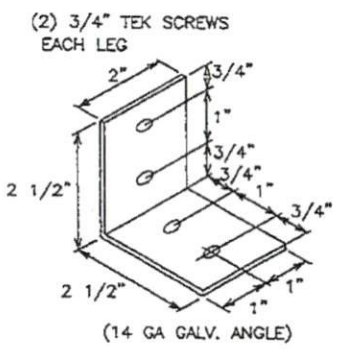
TS 2 1/2" (15 GA.
OR BETTER)
GALV. MEMBER

FOR ANGLE BRACKETS,
SEE DETAIL 7

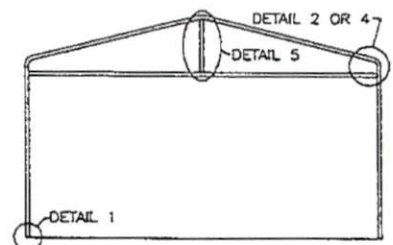
(2) 3/4" TEK SCREWS EACH
LEG, EACH MEMBER



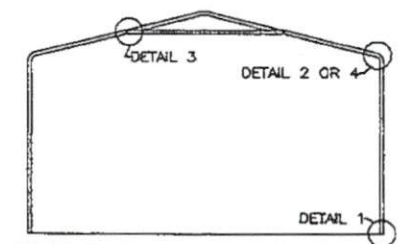
DETAIL 6



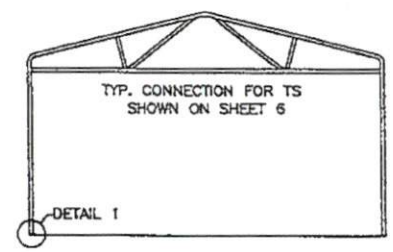
DETAIL 7
ANGLE BRACKET
DETAIL



TYPICAL ENDWALL



TYPICAL BUILDING FRAME

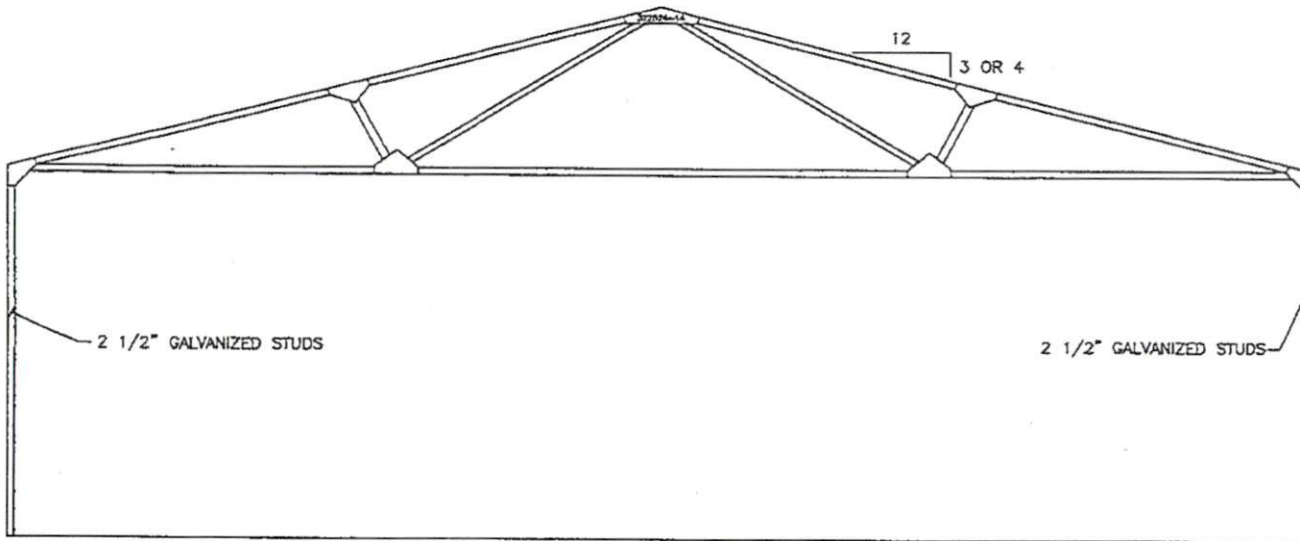


TYPICAL "W" TRUSS DETAIL



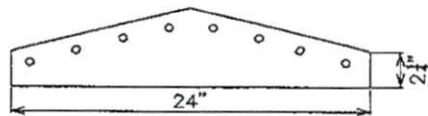
Benjamin L. Smith, PE
S.C. U.C. #22439 - N.C. U.C. #28666

DRAWING			
TITLE			
STRUCTURAL DETAILS			
DESIGNED BY	Benjamin L. Smith	CHECKED BY	Benjamin L. Smith
FOR	K & G STORAGE INC.-DILLON, S.C. 29536 KENNY NORRIS (843) 774-2150		
DATE	SCALE	PROJECT NUMBER	SHEET NO.
	N.T.S.		SHEET 53

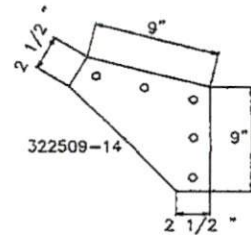


SECTION

"W" TRUSS FOR 26' TO 40' SPAN
TYPICAL DETAIL



FLAT CENTER BRACKET

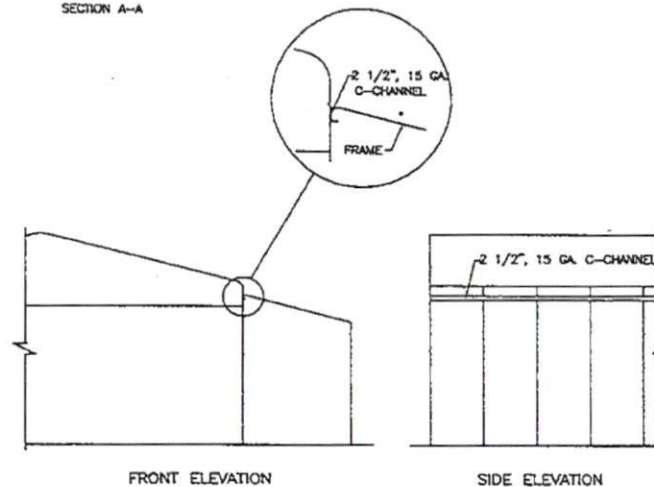
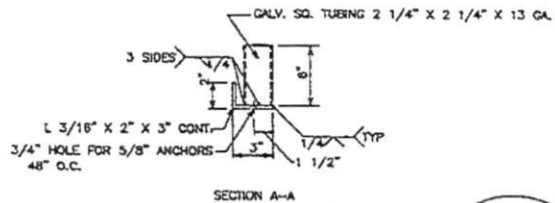
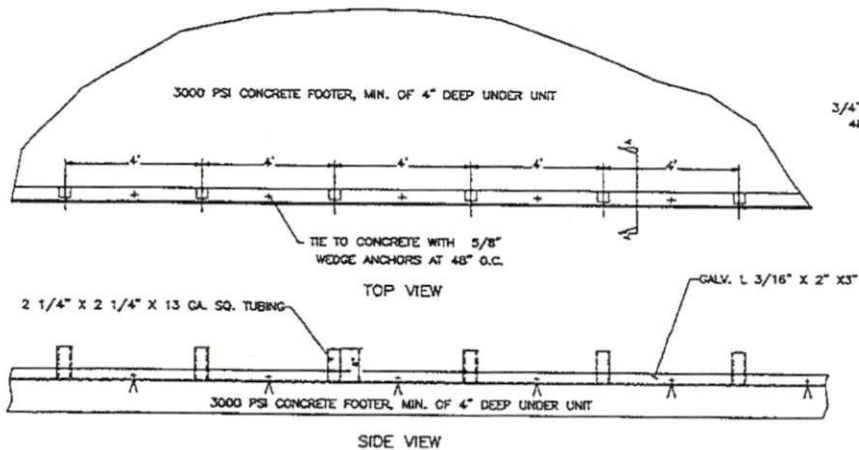


14 GA. BRACKET
FOR TRUSS JOINTS



Benjamin L. Smith, PE
S.C. LIC. #22439 - N.C. LIC. #28666

CUSTOMER		
TITLE W TRUSS FOR 26' TO 40' SPAN TYPICAL DETAIL		
DESIGNED BY Benjamin L. Smith	DRAWN BY Benjamin L. Smith	
FIRM K & G STORAGE INC.-DILLON, S.C. 29536 KENNY MORRIS (843) 774-2150		
DATE	SCALE N.T.S.	DRAWING NUMBER SHEET 58



TYPICAL FOR RAFTER EXTENSION OR LEAN TO CARPORT

1. INSTALL 2 1/4" X 2 1/4" X 13 GA. SQ. TUBING, 6 INCHES HIGH, 4 FT. O.C. TO GALV. L 3/16" X 2" X 3" SHOWN. WELD TO BASE TUBE.
2. SLIDE THE 2 1/2" X 2 1/2" X 13 GA. SQ. TUBING OVER THE 6" HIGH TUBING. FASTEN WITH 12-14 X 3/4" TEC SCREWS ON 3 SIDES.
3. THIS APPLIES TO SUPPORT FOR ALL STEEL STRUCTURAL UNITS.
4. WHERE UNITS ARE MORE THAN 50 MILES FROM COAST THE COLUMNS MAY BE 5 FEET ON CENTER. OTHERWISE COLUMNS TO BE 4 FEET ON CENTER.
5. SIDEWALL BRACING REQUIRED ON UNITS GREATER THAN 11 FT SIDEWALL HEIGHT, CONSISTING OF 3 FEET OF SHEETING FROM THE TOP.
6. WHERE COLUMNS ARE INSTALLED INTO THE CONCRETE FOOTERS USE #4 REBAR THROUGH THE COLUMNS IN TWO DIRECTIONS, WHEN THERE IS NO SLAB. USE ANGLE AS SHOWN IN DETAIL 1A WHEN USING A SLAB.



Benjamin L. Smith, PE
S.C. U.C. #22439 - N.C. U.C. #28666

REVISION			
TITLE ALTERNATE CARPORT STORAGE SYSTEM FOOTER SUPPORT SYSTEM			
DESIGNED BY Benjamin L. Smith	DRAWN BY Benjamin L. Smith		DATE
FIRM K & G STORAGE INC.-DILLON, S.C. 29536 KENNY NORRIS (843) 774-2150			
SCALE	N.T.S.	DATE	SHEET 57