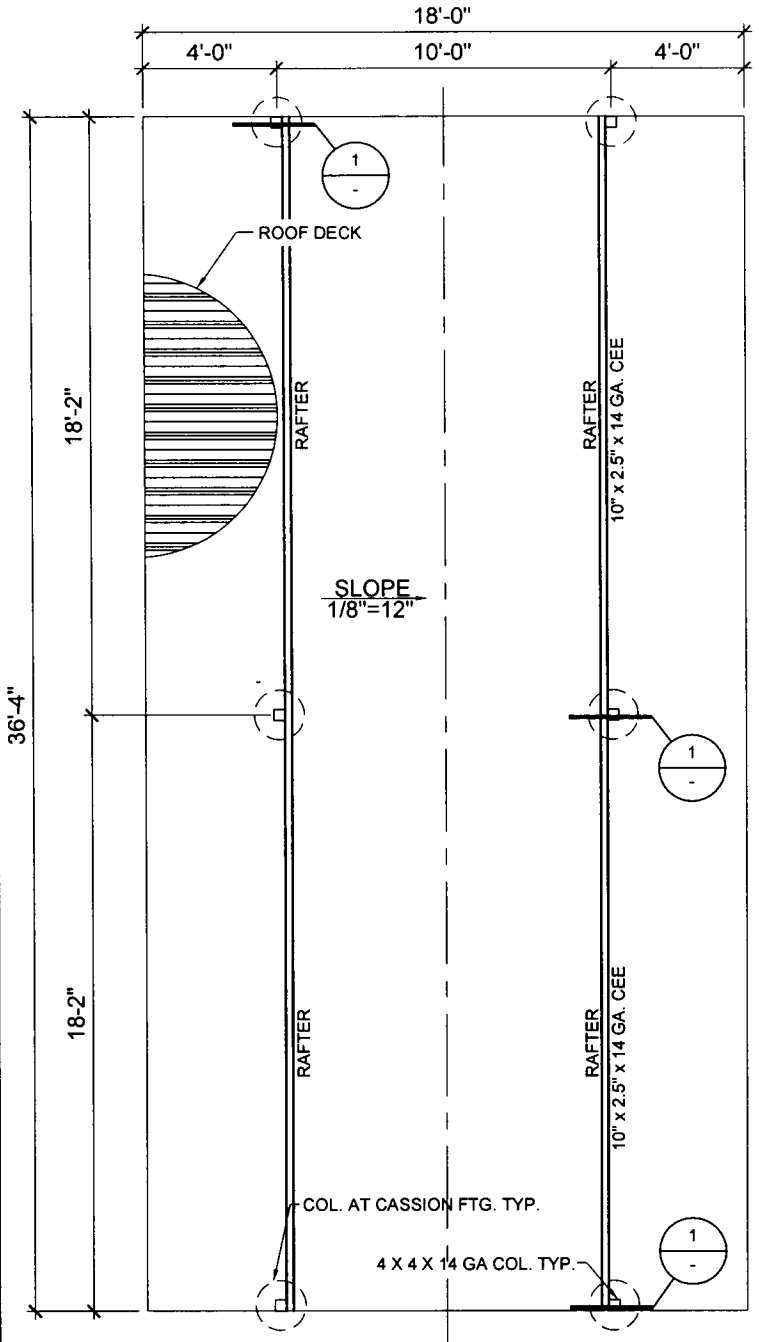
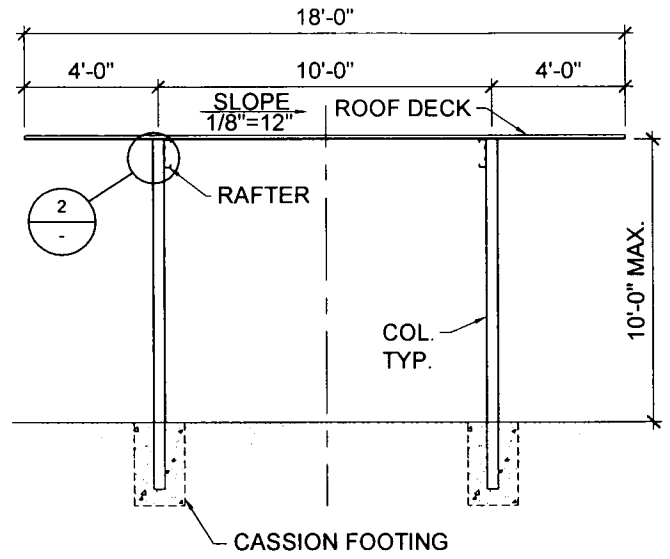


ROOF FRAMING & FOUNDATION PLAN

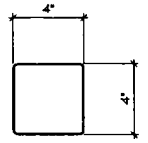
SCALE: 3/8" = 1'-0"



FRONT ELEVATION

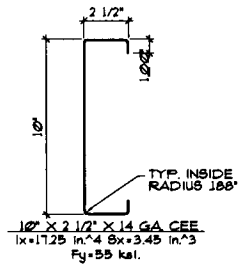
SCALE: 3/8" = 1'-0"

JOB NUMBER	1305-09	
ROOF DECK	26 GA. WESTERN PANEL	Fy =80 KSI
PURLIN	10" x 2 1/2" x 14 GA. CEE	Fy = 55 KSI
COLUMN 1	4" X 4" X 14 GA. TUBE	Fy = 55 KSI
FOUNDATION TYPE:		
	DIMENSIONS	DEPTH
CANOPY CAISSONS	24"Ø	4'-0"
OPT. SPREAD FOOTING	2'-6" SQ.	2'-0"



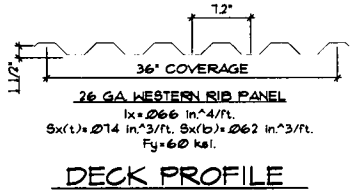
4" X 4" X 14 GA. TUBE
Ix=2.91 in.^4 Sx=1.45 in.^3
Fy=55 ksi.

COLUMNS



10" X 2 1/2" X 14 GA. CEE
Ix=17.25 in.^4 Sx=3.45 in.^3
Fy=55 ksi.

RAFTER

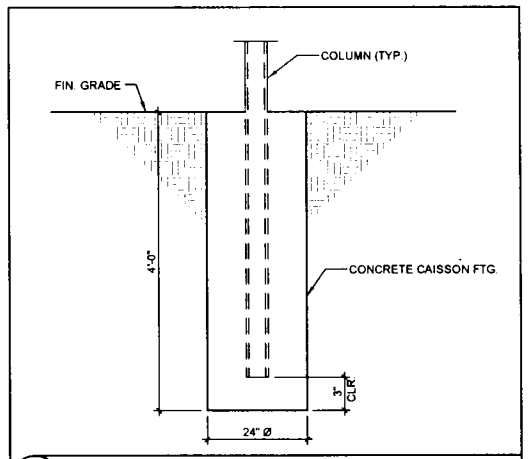


26 GA WESTERN RIB PANEL
Ix=.066 in.^4/ft.
Sx(t)=.074 in.^3/ft. Sx(b)=.062 in.^3/ft.
Fy=60 ksi.

DECK PROFILE

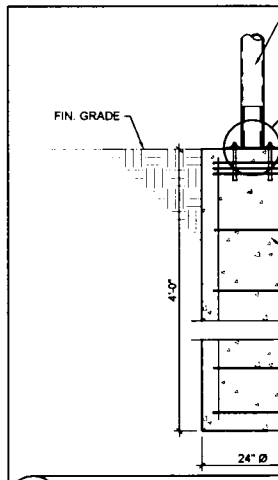
NOTE: STRUCTURE SHALL NOT BE MODIFIED OR ALTERED WITHOUT WRITTEN PERMISSION FROM WESTERN STATES DECKING. STRUCTURAL CALCULATION REQUIRED FOR ANY MODIFICATION.

BASE PLATE SOLD SEPARATELY



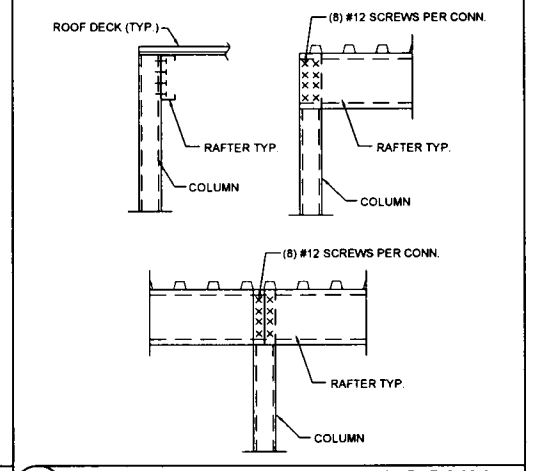
1A STANDARD FOOTING

3/4" = 1'-0"



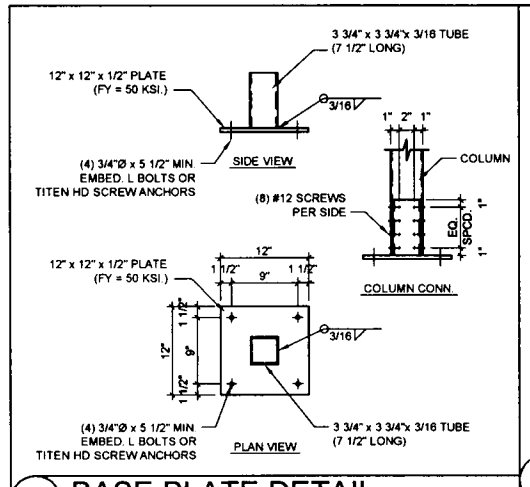
1B CASSION FTG. w/ BASE PLATE

3/4" = 1'-0"



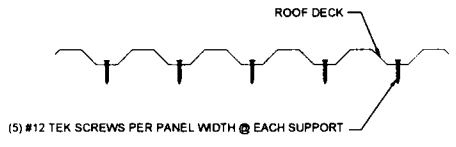
2 RAFTER TO COLUMN CONN.

3/4" = 1'-0"



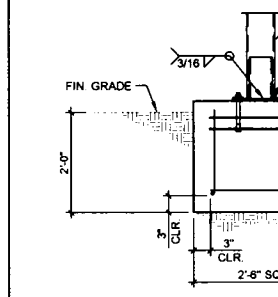
3 BASE PLATE DETAIL

1" = 1'-0"



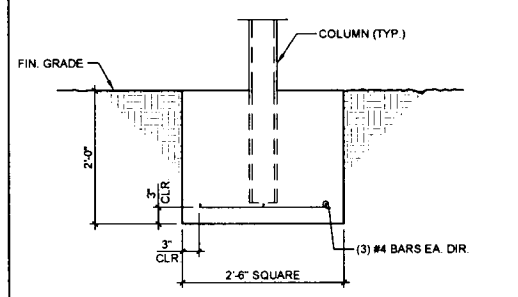
4 ROOF DECK CONNECTION

3/4" = 1'-0"



5A OPT. SPREAD FTG.

3/4" = 1'-0"



5B OPT. SPREAD FOOTING

3/4" = 1'-0"

GENERAL STRUCTURAL NOTES

1 CODE:

2006 International Building Code
2001 American Iron and Steel Intitute Handbook of Cold-Formed Steel Design w/2004 Supplement

2 Loads:

Roof Live Load = 20 PSF (Red.)

Basic Wind Speed = 90 mph , Importants Factor (I) = 1.0 , Exposure = C

Occupancy Category = II, Seismic Design Category = D

Basic Seismic - force - resisting System:
Lateral : Cantilevered Columns
Longitudinal: Cantilevered Columns
Analysis Proceedure: Equivalent Lateral Force Procedure

3 Foundations:

Allowable soil bearing value is 1500 PSF at 24" below finish grade or existing natural grade, whichever is the lower elevation. Round or square caisson footing embedment depths for footings do not apply to locations where walls of the hole will not stand without supplemental support, or where UNCOMPACTED fill of organic fill material exists. Design lateral soil pressure per IBC section 1804.2 for Class 5 soils.

4 Concrete:

All concrete herein required shall be done in accordance with ACI Standard 318-95, "Specifications for Structural Concrete for Buildings", which is hereby made a part of these documents, with the following modifications:

Para 2.1.2 Cement shall comply with ASTM C150, Type II, and shall contain no flyash.
Para 3.2 F'c shall be 2,500 PSI minimum for all concrete at 28 days for all concrete.
Para 4.1.3 The use of earth cuts for forms is permitted.
Para 5.2 Reinforcing shall be new billeted steel complying with ASTM A615, Grade 40.

Concrete shall be thoroughly consolidated by suitable means during placement and shall be thoroughly worked around reinforcement and embedded fixtures and into corners of the forms.
Curing of concrete shall be in accordance with sections 1905.11.1 through 1905.11.3.

5 Structural Steel:

All structural steel shall be ASTM A36 (Fy=36,000 PSI) or ASTM A 572 GRADE 50 (Fy=50,000PSI); All pipe shall be ASTM A 501 (Fy= 36,000 PSI) or ASTM A53, Type 'E' or 'S' grade "B" (Fy= 36,000 PSI). All tubular steel shall be ASTM a500 (Fy=46,000 PSI). All bolts shall be ASTM A325. Latest AISC and AWS codes apply. All construction per latest AISC handbook. All expansion bolts to have current I.C.C. approval. All welding by welders holding valid certificates and having current experience in type of weld shown on the drawings or notes. Certificates shall be those issued by and accepted testing agency. All welding by E70 series low hydrogen rods. (Use E90 for ASTM A706 - grade 40 reinforcing bars). All welding per American Welding Society Standards.

6 Drawing sealing requirement

These drawings are to be wet sealed by the engineer. All copies shall bear wet seals.
If a copy of this drawing is disturbed without the proper wet seal the drawing is considered invalid.
The duplication or copying of this drawing could mean the original drawing has been modified from its original content. All liability is removed from the below wet sealed. All wet sealed drawings are signed in blue ink and are accompanied with a red ink "VALID ONLY WHEN WET SEALED" stamp.

7 Steel Decking / Screw Fasteners:

Steel roof deck shall conform to the specifications of the steel deck institute. FY = 80 KSI.
Screw connections to framing members shall be not less than noted below:

1. All Panel End Laps use (6) #12-14 tek screws per sheet. All Panel Intermediate supports use (3) #12-14 tek screws per sheet.
2. To all panel laps stitch screws #14-3/4" Tek screws @ 18" o.c.
3. Minimum spacing of screws shall not be less than 3 diameters.
4. The head of the screw or washer shall have a diameter, dw of not less than 5/16" washers shall be at least 0.05 "thick"

All screws shall conform to SAE J78 provisions of structural screws.

8 Light Gauge Structural Steel Framing:

All structural steel framing material and its erection shall be in accordance with the latest edition of the American Iron and Steel Institute "Specifications for the Design of Cold Formed Steel Structural Members".

All welding to be prepared by welders holding a valid certificate and having current experience in light gauge steel. Certificates shall be issued by an accepted testing agency. Do not drill or notch members without prior approval of the structural engineer. All welding to be performed in an approved fabricators shop.

Structural steel members are furnished to a specified minimum yield point greater than 55 KSI. The grade and the ASTM specification number or other specification designation shall be indicated by painting, decal, tagging or other suitable means on each lift or bundle of fabricated elements.

Gage No.	12	14	16	18	20	22	24	26	29	30
Design Thickness, Inches	0.1046	0.0747	0.0598	0.0478	0.0359	0.0299	0.0239	0.0179	0.0135	0.0120

9 Contractor:

The contractor must submit in writing any requests for modifications to the plans and specifications and no structural changes from the approved plans shall be made in the field, unless prior to making changes, written approval is obtained from the engineer. Shop drawings submitted the engineer for review do not constitute "in writing" unless it is noted that specific changes are being requested. If changes are made without written approval, such changes shall be the legal and financial responsibility of the contractor or sub-contractors involved and it shall be their responsibility to replace or repair the condition as directed by the engineer.

Contractor shall provide all temporary bracing, shoring, guying or other means to avoid excessive stresses and to hold structural elements in place during erection. The provisions shall remain in position until sufficient permanent members are erected to insure the safety of the partially erected structures. The contract structural drawings and specifications represent the finished structure. Observation visits to the site by the structural engineer shall not include inspection of the above items.

The above notes and specifications shall meet or exceed all state and local code requirements before erection.

The undersigned engineer will not supervise the fabrication or erection of this structure.

S. E. CONSULTANTS, Inc.
Structural Engineering Consultants

WESTERN STATES DECKING, INC.
18' x 36'-4" x 10'-0" MAX
6 POST CARPORT / 4 CARS
20 PSF, 90 MPH, SEISMIC DESIGN CAT. "D"
2006 INTERNATIONAL BUILDING CODE/UTAH

PLAN VIEWS & ELEVATIONS
DETAILS & PROFILES

design QCB
drawn JMC
check SWS
date 11/25/09

sheet S1
of 1
job 1305-09

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