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Project
Project #
Designer
Checked

Wildcat Lake Park Shelter
WA-0364
zbu Date 17-May-17
Date

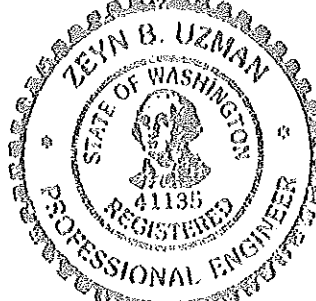
Project Data:

Wildcat Lake Park Shelter
17-S017
Port Orchard, WA

Client:

Natural Structures

Baker City, Oregon
(541) 523-0224



The following calculations have

been prepared under my

direct supervision

~~EXPIRE~~

Signature

10/3/2017
Date

11/21/2017
Expiration Date

RECEIVED
OCT 16 2017
KITSAP COUNTY
PARKS & RECREATION

Natural Structures Shelter Engineering Request

Date: 5/16/2017

Project Name: Wildcat Lake Park

NS Job # 17-S017

Project Location: Port Orchard, Wa 98366

State for Engineering: WA

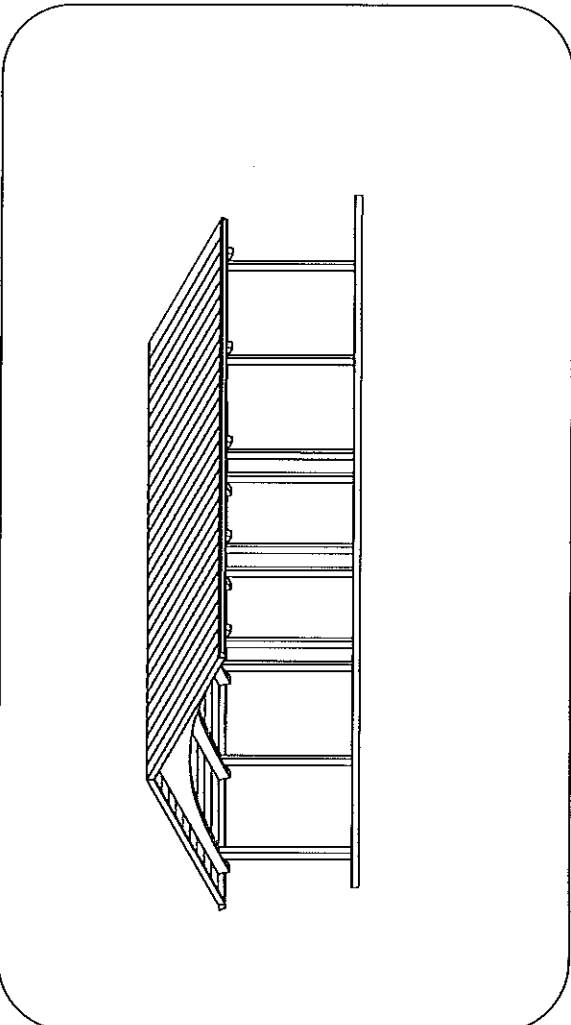
Copies Required: 6

Sign & Stamp Each Page: No

Shelter Size	30' x 36'	Siskiyou Mountain Series
Snow Load	30#	
Wind Load	90 MPH, Class C	
Roof Pitch	4/12	
Post Size	8 x 6 x 3/16" Sq. Tube	
Post Top Plate	5-1/4" wide pocket x 1/4 plate	(5) 3/4 x 7 Hex Bolts
Base Plate	1/2 x 12 x 12	
Beam Material	Douglas Fir Glu-lam beam Architectural Grade x 5-1/8"	Roof Truss
Roof Decking	2 x 6 T&G	
Roof Material	36" Hi Rib	
Footings	32" Diam x 48" Deep	
Anchor Bolts	1 per post	
Anchor Bolt Style	Zinc All-thread	Epoxy
Anchor Bolt Size	1" x 14"	
Notes: 7' 6" Eave Height		

MODEL: 98-S30036-4T-SPWB-HR SISKIYOU MOUNTAIN SERIES SHELTERS

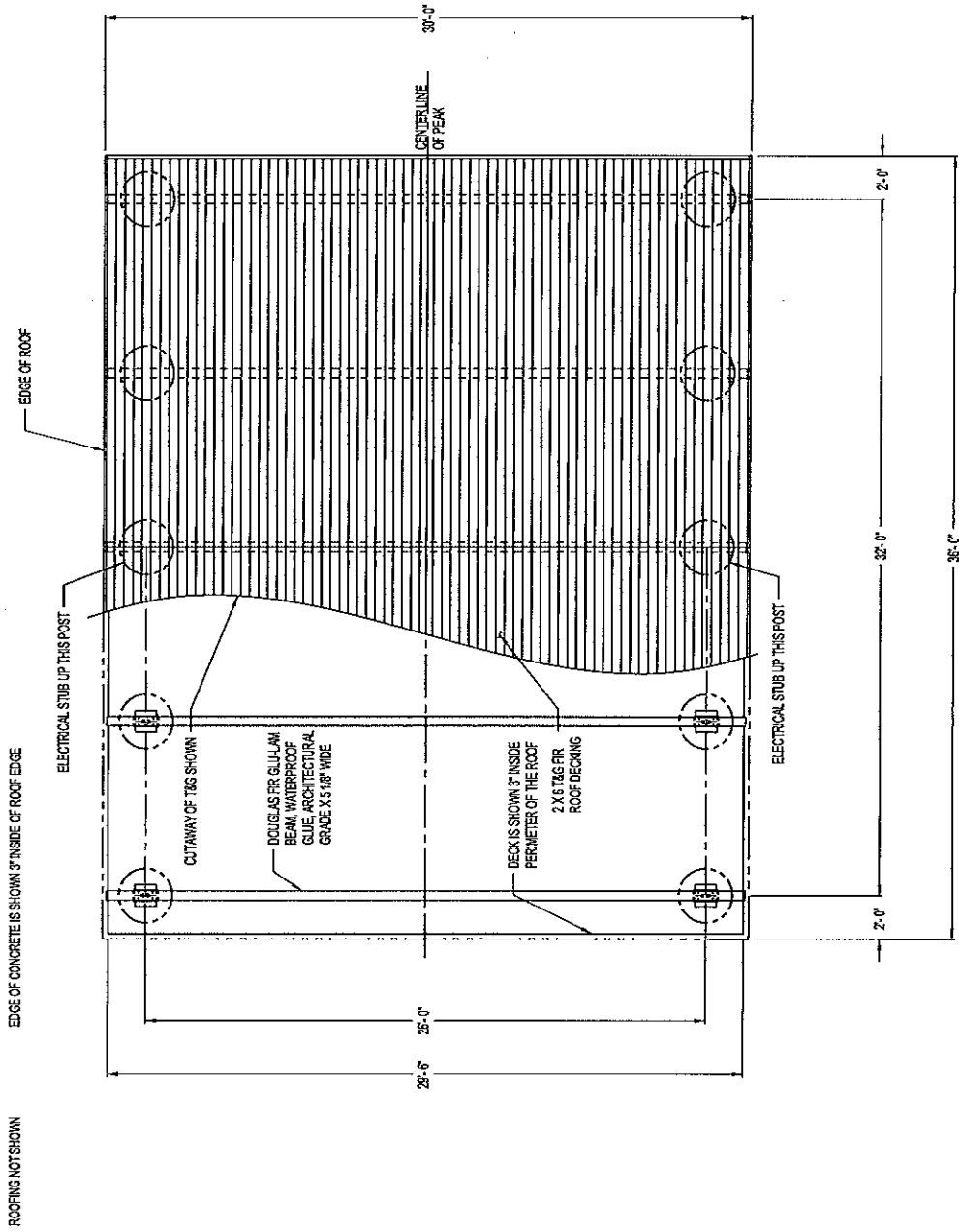
WIDTH OF SHELTER: 30' - 0"
LENGTH OF SHELTER: 36' - 0"
HEIGHT OF EAVE: 7' - 6"
OVERALL HEIGHT: 13' - 9 1/2"
ROOF TYPE: 26 GAUGE HI RIB
ROOF DECK: 2X6 FR T&G
FASCIA: 2X8 FR
ROOF PITCH: 4/12



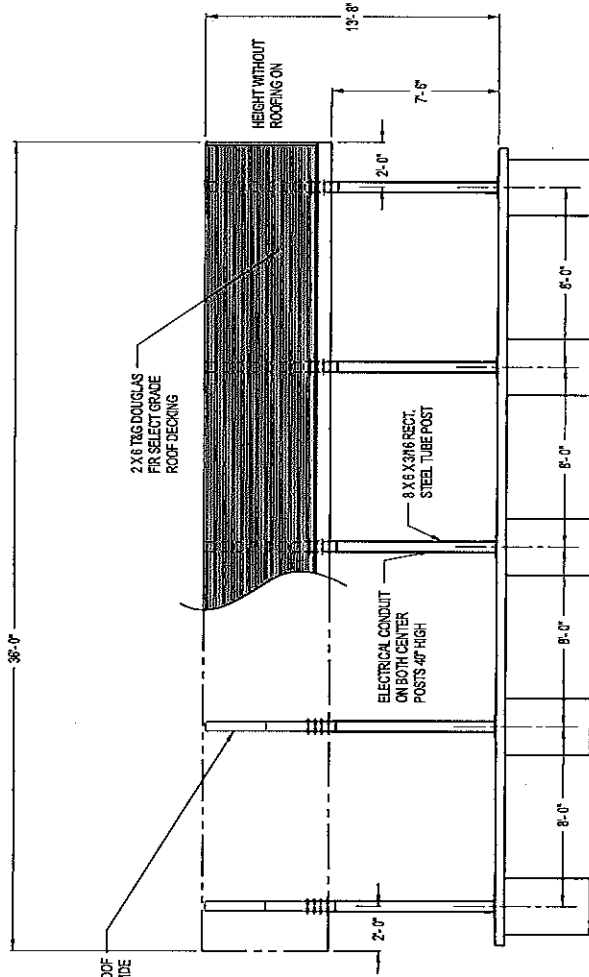
- SHELTER IS 30' WIDE BY 36' LONG OUTSIDE TO OUTSIDE OF ROOF PERIMETER. POSTS TO BE 8 X 6 X 3/16 RECTANGULAR STEEL TUBE AND ROOF BEAMS 5-1/8" ARCHITECTURAL GLU-LAM. EACH POST HAS BASE PLATE ATTACHED TO FOOTING WITH SINGLE BOLT EPOXIED INTO CONCRETE. BOLT IS ACCESSED THROUGH HOLE WITH COVER PLATE.
- ALL STEEL SHALL BE POWDER COATED WITH A COLOR TBD. ANY SCRATCHED OR DAMAGED PAINT TO BE TOUCHED UP AFTER FINAL ASSEMBLY. POWDER COATING TO ADHERE TO THE FOLLOWING STANDARDS:
 - FLEXIBILITY (ASTM D-1735)
 - IMPACT (ASTM D-2794)
 - ADHESION (ASTM D-3359)
 - HARDNESS (ASTM D-3363)
 - OVERBAKE RESISTANCE (ASTM D-2464)
 - WEATHERABILITY (ASTM D-822)
- SHELTER SHALL BE DESIGNED FOR A 30 PSF SNOW LOAD AND A 90 MPH CLASS C WIND LOAD. A PROFESSIONAL ENGINEER CERTIFIED IN THE STATE WHERE SHELTER IS TO BE INSTALLED SHALL VERIFY THE DESIGN, RUN STRUCTURAL CALCULATIONS, AND PROVIDE STAMPED, SIGNED AND SEALED FILE COPIES IF PURCHASED BY CUSTOMER.
- 2 X 6 NOMINAL TONGUE AND GROOVE, SELECT GRADE ROOF DECKING, ATTACHED MECHANICALLY TO THE BEAMS WITH 16D COMMON NAILS.
- ROOFING TO BE 36" WIDE 26 GA HI RIB, COLOR OF WHICH IS TBD. INSTALLATION OF ROOFING IS TO CONFORM TO THE MANUFACTURE'S SPECIFICATIONS.
- FOUNDATION SLAB BY OTHERS. SEE SHEETS 5 AND 6 FOR DIMENSIONS AND DETAILS.
- ALL HARDWARE #307.

ACCEPTED
 ACCEPTED WITH COMMENTS
 REVISE AND RESUBMIT
 REJECTED

SIGNATURE: _____ DATE: _____



ROOFING NOT SHOWN



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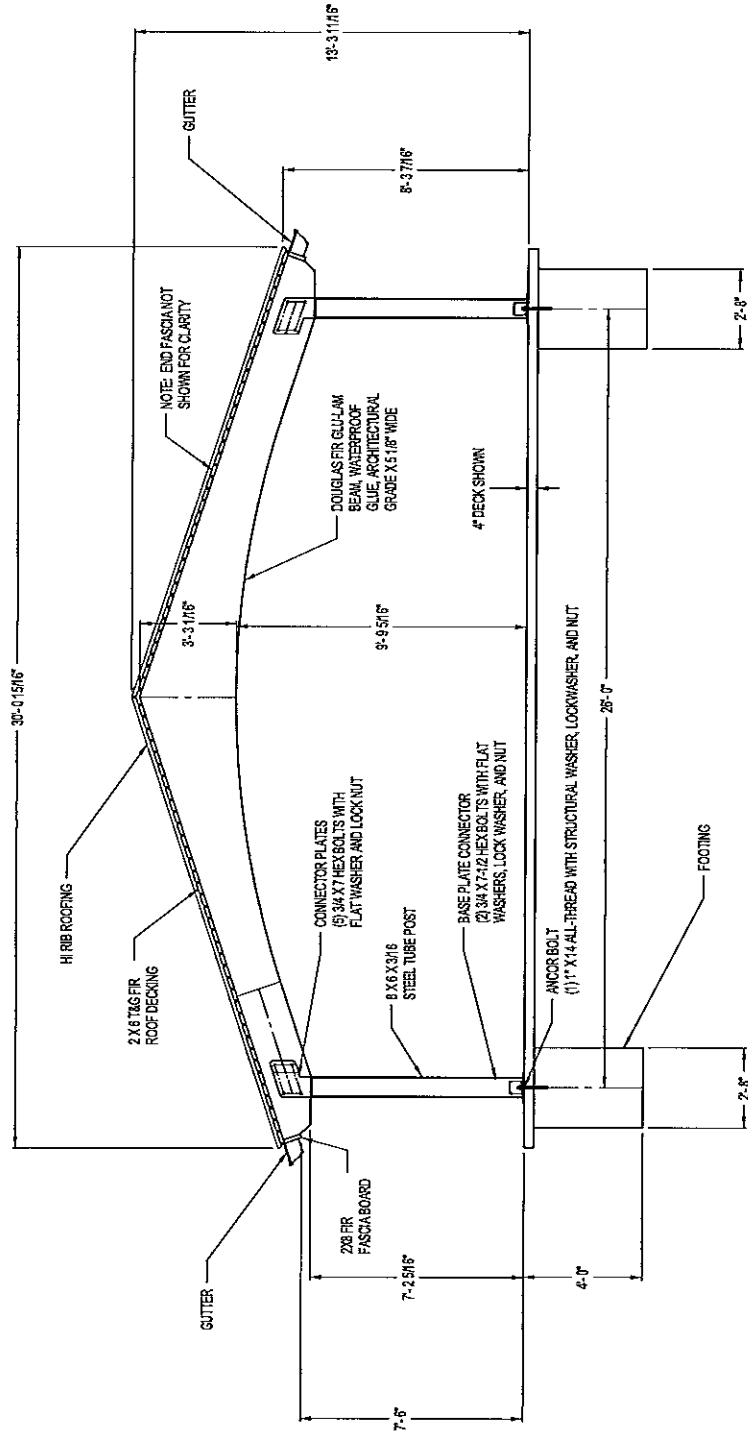
SIDE ELEVATION VIEW

DRAWN BY	DATE
REVISIONS	PROJECT NO.
SCALE	DATE

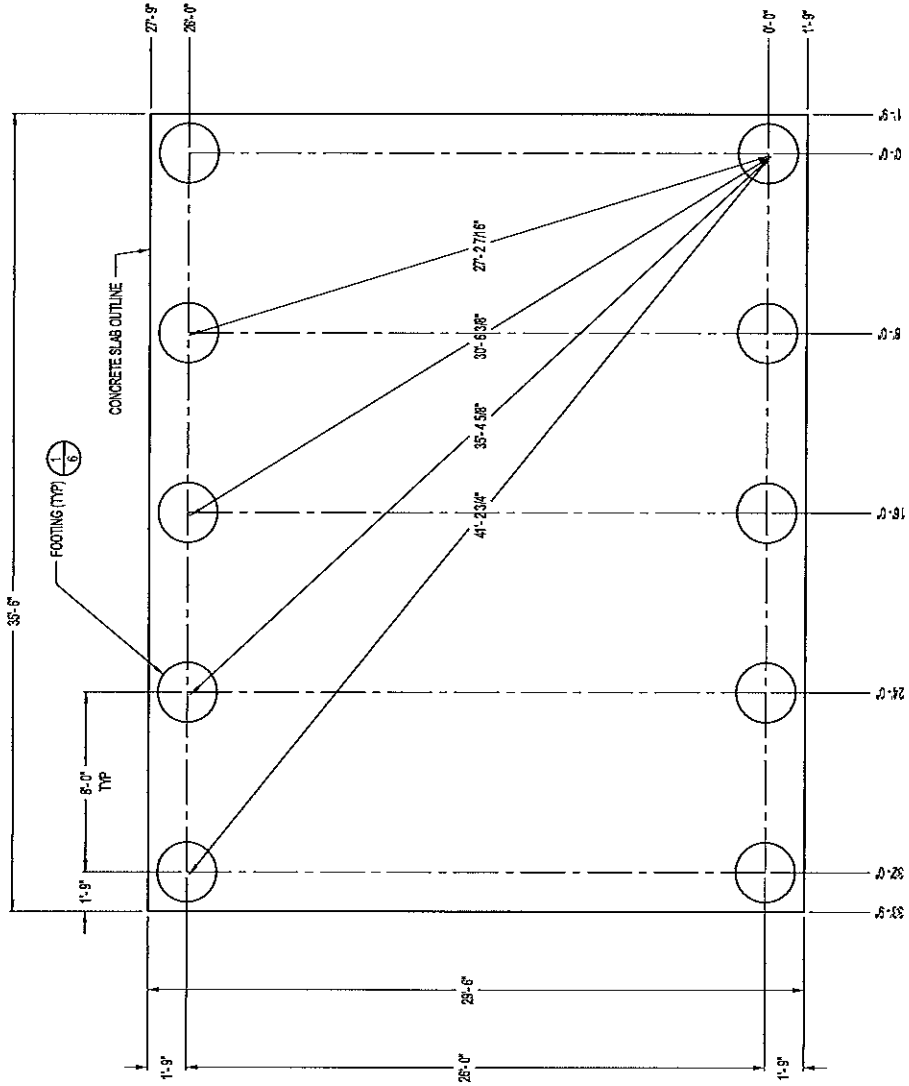
SCALE 3/8" = 1'-0"
PAGE

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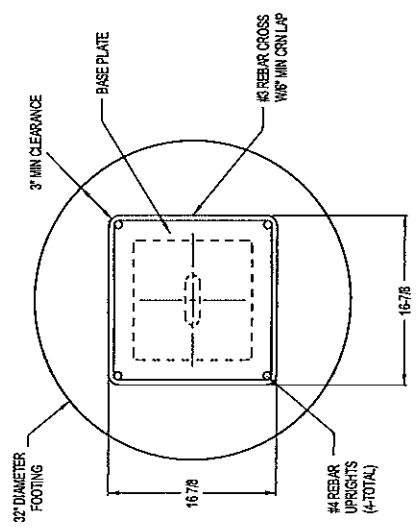
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SLAB IS 9" INSIDE OF ROOF OUTLINE ON ALL SIDES



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PAGE SCALE: 1"=1'	
PAGE: 6	

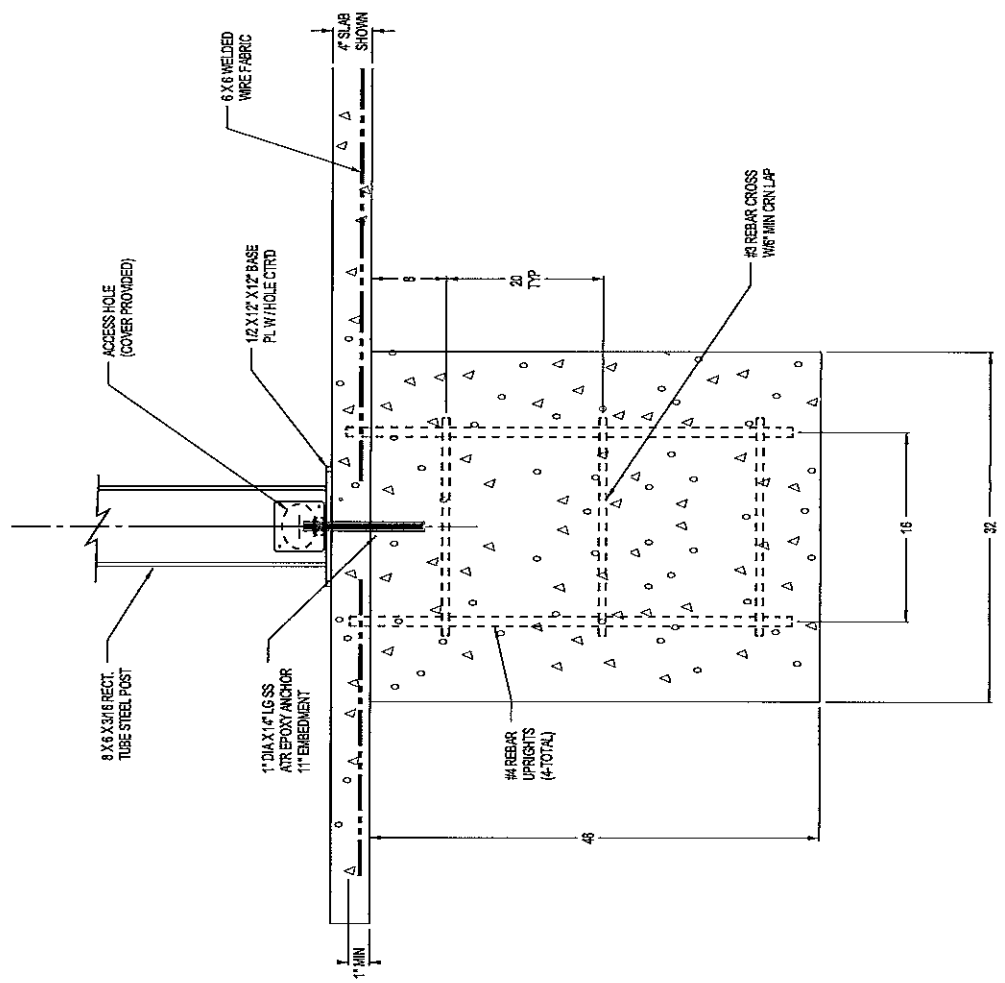


- LAYOUT FOOTING LOCATIONS
- DIS FOOTINGS ACCORDING TO FOOTING DETAILS
- FORM FOOTINGS AND PLACE REBAR.
- CALL FOR FOOTING INSPECTION.
- POUR FOOTINGS. CONCRETE TO BE 2500 PSI MIN RATING
- LET CONCRETE CURE
- CALL FOR INSPECTION
- STAND POST AND USE BASE PLATE AS TEMPLATE TO DRILL HOLES TO DEPTH ACCORDING TO FOOTING DETAIL. WHEN FINISHED REMOVE POST OUT OF WAY.
- BRUSH HOLES AND BLOW OUT UNTIL HOLE IS CLEAN.
- FILL HOLE 2/3 FULL WITH EPOXY.
- INSERT ANCHOR ROD INTO HOLE. EPOXY SHOULD JUST SQUEEZE OUT TOP OF HOLE. IF NOT THEN PULL OUT ROD AND ADD MORE EPOXY.
- ALLOW ADEQUATE CURING TIME BEFORE CONTINUING WITH SLIDE INSTALL.

CURE TIMES FOR EPOXY ARE AS FOLLOWS:
 80° FAHRENHEIT OR 27° CELSIUS = 16 HOURS
 85° FAHRENHEIT OR 29° CELSIUS = 20 HOURS
 85° FAHRENHEIT OR 18° CELSIUS = 24 HOURS
 40° FAHRENHEIT OR 4° CELSIUS = 72 HOURS

MATERIAL TYPES
 - EPOXY
 SIMPSON SET 21 HIGH STRENGTH EPOXY (CCHESR172)

- NOTES:
- ALL CONCRETE FTGS ARE TO BE 2500 PSI MINIMUM RATING.
 - THE SOIL BEARING STRENGTH IS TO BE 1500 PSF OR GREATER.
 - THE TOP OF ALL FOOTINGS SHALL BE THE SAME ELEVATION
 - ANCHOR BOLTS ARE INSTALLED AFTER CONCRETE CURES.
 - DIMENSIONS GIVEN ON FOOTING LAYOUT PASTE ARE TO THE CENTER OF THE FOOTING.
 - LOCATIONS THAT HAVE CONCRETE WEDGE ANCHORS NEED A 4" MINIMUM THICKNESS CONCRETE SLAB.
 - 3" MIN CLEARANCE ON ALL REBAR TO OUTSIDE OF CONCRETE (TOP, SIDE, AND BOTTOM)

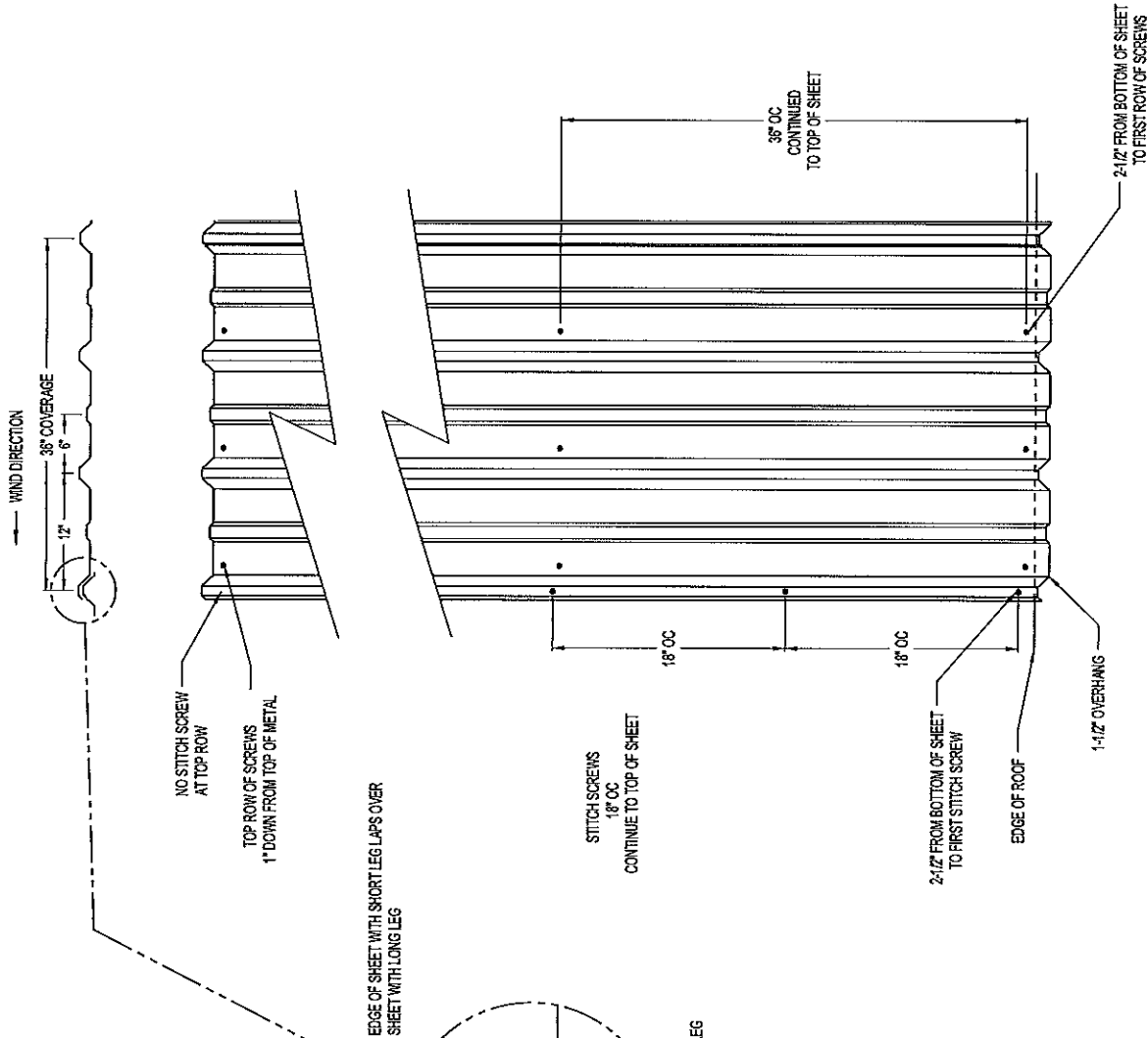
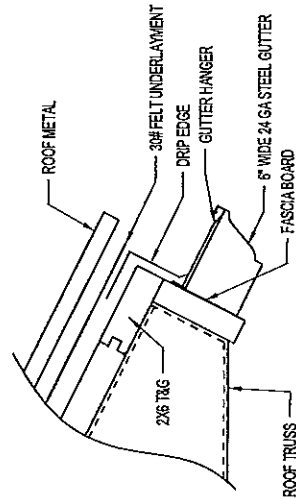


INSTALLATION INSTRUCTIONS HI-RIB ROOFING

1. INSTALL DRIP EDGE ALONG BOTTOM.
2. ROLL OUT 30# FELT UNDERLAYMENT STARTING FROM THE EAVE AND GO UP THE ROOF OVERLAPPING THE ONE BELOW AND NAIL DOWN.
3. START FIRST ROOF PANEL ON THE END OPPOSITE THE PREVAILING WINDS, ONE-HALF INCH IN FROM THE END OF THE ROOF.
4. SQUARE THE SHEET AND SCREW DOWN. (SEE SCREW LAYOUT DETAIL ON RIGHT).
5. LAP NEXT SHEET OVER PREVIOUS SHEET AND SCREW DOWN.
6. CONTINUE SHEETING TO END OF ROOF.
7. TRIM THE LAST SHEET TO WITHIN A HALF-INCH OF THE END, (IF NEEDED)
8. ROOF OTHER SIDE OF ROOF THE SAME.
9. INSTALL GABLE TRIM BOTH ENDS
10. INSTALL RIDGE CAP

INSTALLATION INSTRUCTIONS GUTTER

1. MOUNT GUTTER TO FASCIA WITH WOOD SCREWS.
2. INSERT HANGERS AND SCREW TO FASCIA (HANGERS EVERY 2 FEET)
3. INSTALL DRIP EDGE.
4. INSTALL ROOFING.



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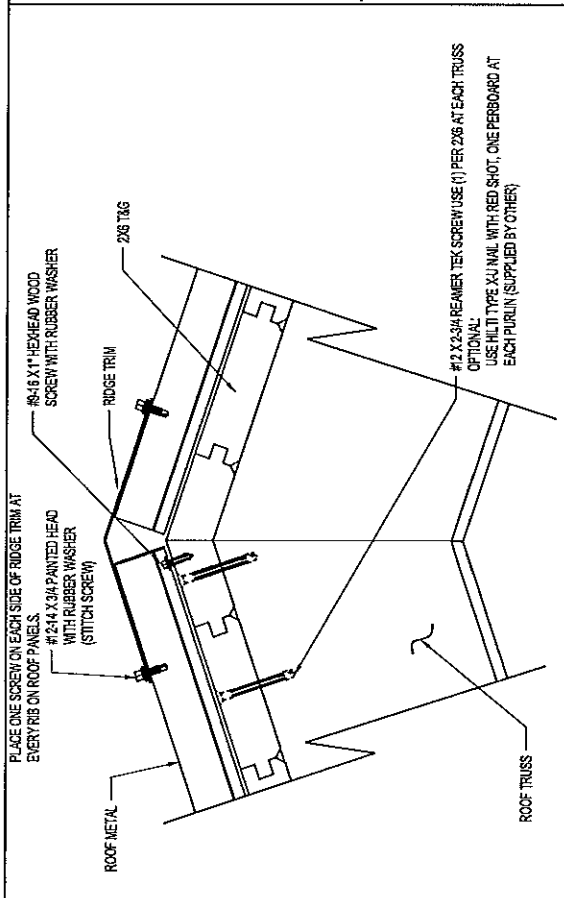
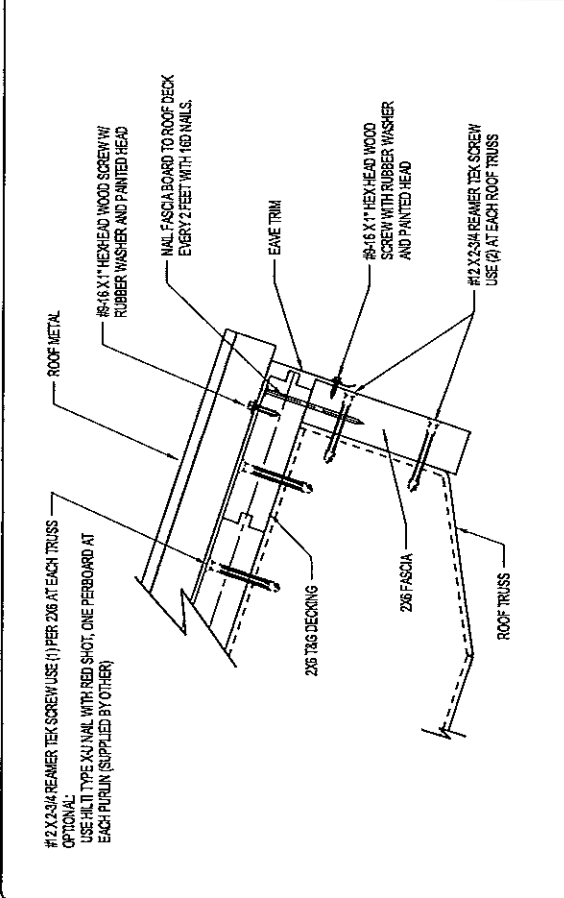
HI-RIB ROOFING INSTRUCTIONS

PREPARED BY: **B**
 DRAWN BY: **B**
 CHECKED BY: **B**
 DATE: **B**

PROJECT NO. **11-11**
 PAGE **7**

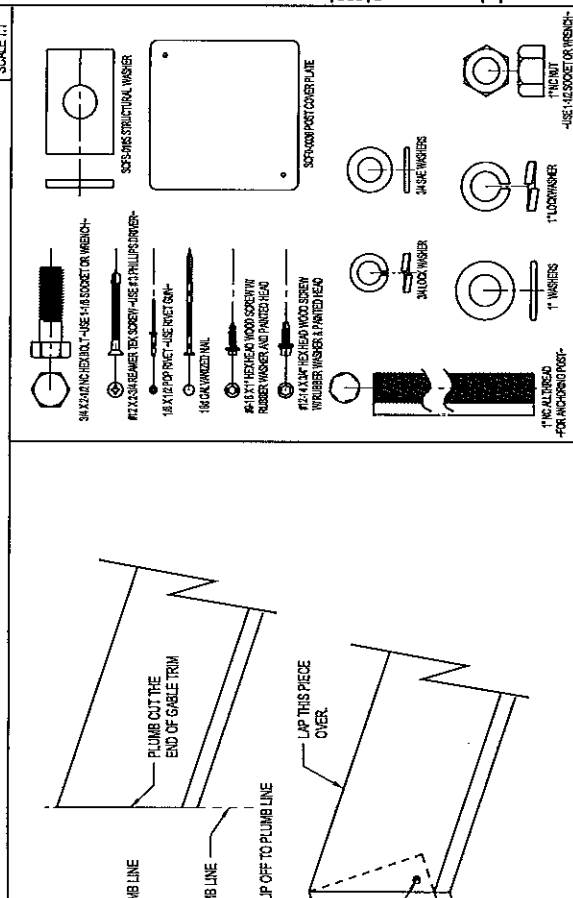
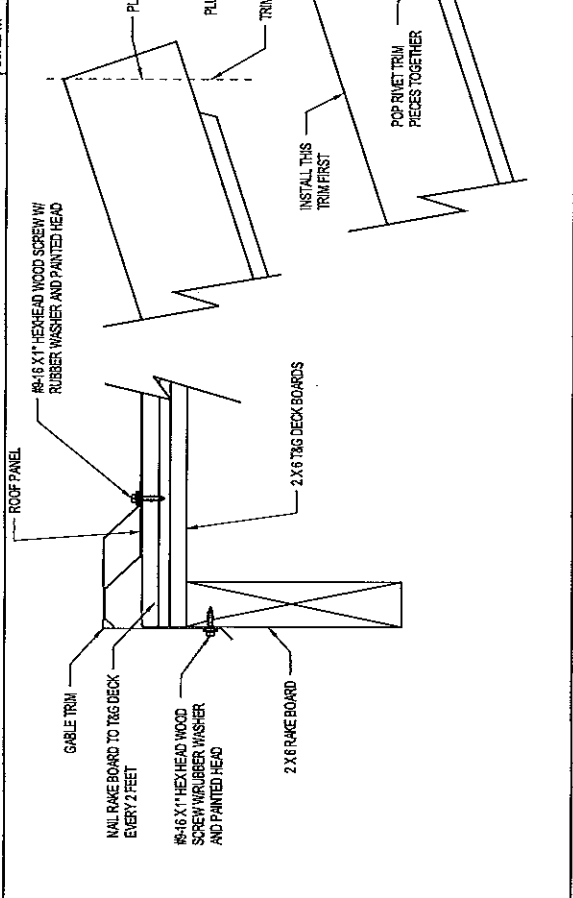
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1 SCALE 1/4"
EAVE AND EAVE TRIM DETAIL

2 SCALE 1/4"
RIDGE AND RIDGE TRIM DETAIL



3 SCALE 1/4"
GABLE TRIM DETAIL

4 SCALE 1/4"
H-RIB ROOF TRIM DETAIL

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SCALE: 1/4" = 1'-0"

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1	2	3	4
HARDWARE			
1" ALTRIED FOR INCH OR POST-	1" WASHERS	1" LOCKWASHER	1" NUTS -USE 1/8 SOCKET OR WASH-
3/4" LOCK WASHER	3/4" WASHERS	3/4" LOCK WASHER	3/4" WASHERS
3/4" X 2 1/2" REAMER TEK SCREW - USE 1/8 SOCKET OR WASH-	1/8" X 1 1/2" POP RIVET - USE RIVET TRIM	1/8" X 1 1/2" REAMER TEK SCREW - USE 1/8 PHILLIPS DRIVER	3/8" X 2 1/2" REAMER TEK SCREW USE (1) PER 2x6 AT EACH TRUSS OPTIONAL: USE HILTI TYPE XU NAIL WITH RED SHOT, ONE PER BOARD AT EACH PURLIN (SUPPLIED BY OTHER)
#16-16 X 1" HEX HEAD WOOD SCREW WITH RUBBER WASHER AND PAINTED HEAD	1/8" X 1 1/2" REAMER TEK SCREW	3/8" X 2 1/2" REAMER TEK SCREW USE (1) PER 2x6 AT EACH TRUSS OPTIONAL: USE HILTI TYPE XU NAIL WITH RED SHOT, ONE PER BOARD AT EACH PURLIN (SUPPLIED BY OTHER)	SPF 360 POST COVER PLATE
SPF 360 POST COVER PLATE	SPF 360 POST COVER PLATE	SPF 360 POST COVER PLATE	SPF 360 POST COVER PLATE