Wildcat Lake Park Shelter
17-S017
Port Orchard, WA

Client:
Natural Structures
Baker City, Oregon
(541) 523-0224

RECEIVED
OCT 16 2017
KITSAP COUNTY
PARKS & RECREATION
Natural Structures Shelter
Engineering Request

Date: 5/16/2017

Project Name: Wildcat Lake Park
Project Location: Port Orchard, Wa 98366

# Copies Required: 6

<table>
<thead>
<tr>
<th>Shelter Size</th>
<th>30' x 36'</th>
<th>Siskiyous Mountain Series</th>
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<tbody>
<tr>
<td>Snow Load</td>
<td>30#</td>
<td></td>
</tr>
<tr>
<td>Wind Load</td>
<td>90 MPH, Class C</td>
<td></td>
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<tr>
<td>Roof Pitch</td>
<td>4/12</td>
<td></td>
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<tr>
<td>Post Size</td>
<td>8 x 6 x 3/16&quot; Sq. Tube</td>
<td></td>
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<tr>
<td>Post Top Plate</td>
<td>5-1/4&quot; wide pocket x 1/4 plate</td>
<td>(5) 3/4 x 7 Hex Bolts</td>
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<tr>
<td>Base Plate</td>
<td>1/2 x 12 x 12</td>
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<tr>
<td>Beam Material</td>
<td>Douglas Fir Glu-lam beam</td>
<td>Roof Truss</td>
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<tr>
<td></td>
<td>Architectural Grade x 5-1/8&quot;</td>
<td></td>
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<tr>
<td>Roof Decking</td>
<td>2 x 6 T&amp;G</td>
<td></td>
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<tr>
<td>Roof Material</td>
<td>36&quot; Hi Rib</td>
<td></td>
</tr>
<tr>
<td>Footings</td>
<td>32&quot; Diam x 48&quot; Deep</td>
<td></td>
</tr>
<tr>
<td>Anchor Bolts</td>
<td>1 per post</td>
<td></td>
</tr>
<tr>
<td>Anchor Bolt Style</td>
<td>Zinc All-thread</td>
<td>Epoxy</td>
</tr>
<tr>
<td>Anchor Bolt Size</td>
<td>1&quot; x 14&quot;</td>
<td></td>
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Notes: 7' 6" Eave Height
1. SHIELD IS 39' WIDE BY 39' LONG OUTSIDE TO OUTSIDE OF ROOF PERIMETER. POSTS TO BE 8 X 8 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 ACCESS THROUGH HOLE WITH COVER PLATE.

2. 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:
   1) FLEXIBILITY (ASTM D-1735)
   2) IMPACT (ASTM D-2794)
   3) ADOPTION (ASTM D-3339)
   4) HARDNESS (ASTM 3-3059)
   5) OVERMOKE RESISTANCE (ASTM D-2454)
   6) WEATHERABILITY (ASTM D-822)

3. SHIELD 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 SHIELD IS TO BE INSTALLED SHALL VERIFY THE DESIGN, RUN STRUCTURAL CALCULATIONS, AND PROVIDE STAMPED, SIGNED AND SEALED FILE COPIES IF PURCHASED BY CUSTOMER.

4. 2 X 6 NOMINAL TONGUE AND GROOVE, SELECT GRADE ROOF DECKING, ATTACHED MECHANICALLY TO THE BEAMS WITH 16D COMMON NAILS.

5. ROOFING TO BE 30' WIDE 26 GA RIB, COLOR OF WHICH IS TBD. INSTALLATION OF ROOFING IS TO CONFORM TO THE MANUFACTURER'S SPECIFICATIONS.

6. FOUNDATION SLAB BY OTHERS. SEE SHEETS 5 AND 6 FOR DIMENSIONS AND DETAILS.

7. ALL HARDWARE ASP07.
FOOTING DETAIL

1. LAYOUT FOOTING LOCATIONS
2. EER FOOTINGS ACCORDING TO FOOTING DETAILS
3. FORM FOOTINGS AND PLACE REBAR
4. CALL FOR FOOTING INSPECTION
5. POURED FOOTING CONCRETE TO BE 5500 PSI MIN RATING
6. LET CONCRETE CUR
7. CALL FOR INSPECTION
8. STAND POST AND BASE PLATE AS Template TO DRILL HOLES TO DEPTH
9. ACCORDING TO FOOTING DETAIL. WHEN FINISHED MOVE POST OUT OF WAY.
10. BRUSH HOLES AND BLOW DUST UNTIL HOLE IS CLEAN.
11. PULL HOLE 30 FULL WITH EPOXY
12. INSERT ANCHOR BOLT INTO HOLE. EPOXY SHOULD JUST SQUEEZE OUT TOP OF HOE.
13. IF NOT THEN PULL OUT AND ADD MORE EPOXY.
14. ALLOW ADEQUATE CURING TIME BEFORE CONTINUING WITH SLIDE INSTALL.

CURING TIMES FOR EPOXY IS AS FOLLOWS:
- 12 Fencemist or 22 Celsius = 12 HOURS
- 20 Fencemist or 28 Celsius = 24 HOURS
- 25 Fencemist or 35 Celsius = 72 HOURS

MATERIAL TYPES
- EPOXY:
  - SIMPSON SET 22 HINT-STRONG EPOXY ICON ESR-1172

NOTE:
- ALL CONCRETE F005 ARE TO BE 5500 PSI MIN RATING.
- THE GROUND BEARING PRESSURE IS 3500 PSI OR GREATER.
- THE TOP OF ALL FOOTINGS SHALL BE OF THE SAME ELEVATION.
- ANCHOR BOLTS ARE INSTALLED AFTER CONCRETE CUR.
- DIMENSIONS GIVEN ON FOOTING LAYOUT ARE TO THE CENTER OF THE FOOTING.
- LOCATIONS THAT HAVE CONCRETE VIDEO AND ASH NEED A MINIMUM THICKNESS CONCRETE SLAB.
- 3" MIN CLEARANCE ON ALL REBAR TO OUTSIDE OF CONCRETE (TOP, SIDE, AND BOTTOM)
INSTALLATION INSTRUCTIONS - DIB ROOFING

1. INSTALL DRAIN EDGE ALONG BOTTOM.
2. ROLL OUT 30# FELT UNDERLAMINATION STARTING FROM THE GABLE AND GO UP THE ROOF OVERLAPPING THE SHEET BELOW AND KAIL 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 LOCATION 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 DRAIN EDGE.
4. INSTALL ROOFING.

NO STICK SCREW AT TOP ROW

EDGE OF SHEET WITH SHORT LEG LAPS OVER SHEET WITH LONG LEG

STITCH SCREWS 12" O.C.
CONTINUE TO TOP OF SHEET

EDGE OF ROOF

1-1/2" OVERHANG

21/2" FROM BOTTOM OF SHEET TO FIRST STITCH SCREW

24" FROM BOTTOM OF SHEET TO FIRST ROW OF SCREWS

36" O.C.
CONTINUED TO TOP OF SHEET

24" O.C.

ROOF TRUSC

FASTENBOARD

6" WIDE 24 GA STEEL GUTTER

DROP EDGE

GUTTER HANGER

FASCIA BOARD

20# FELT UNDERLAMINATION

ROOF METAL

WIND DIRECTION

31" COVERAGE

TOP ROW OF SCREWS 1" DOWN FROM TOP OF METAL