

STRUCTURAL STEEL

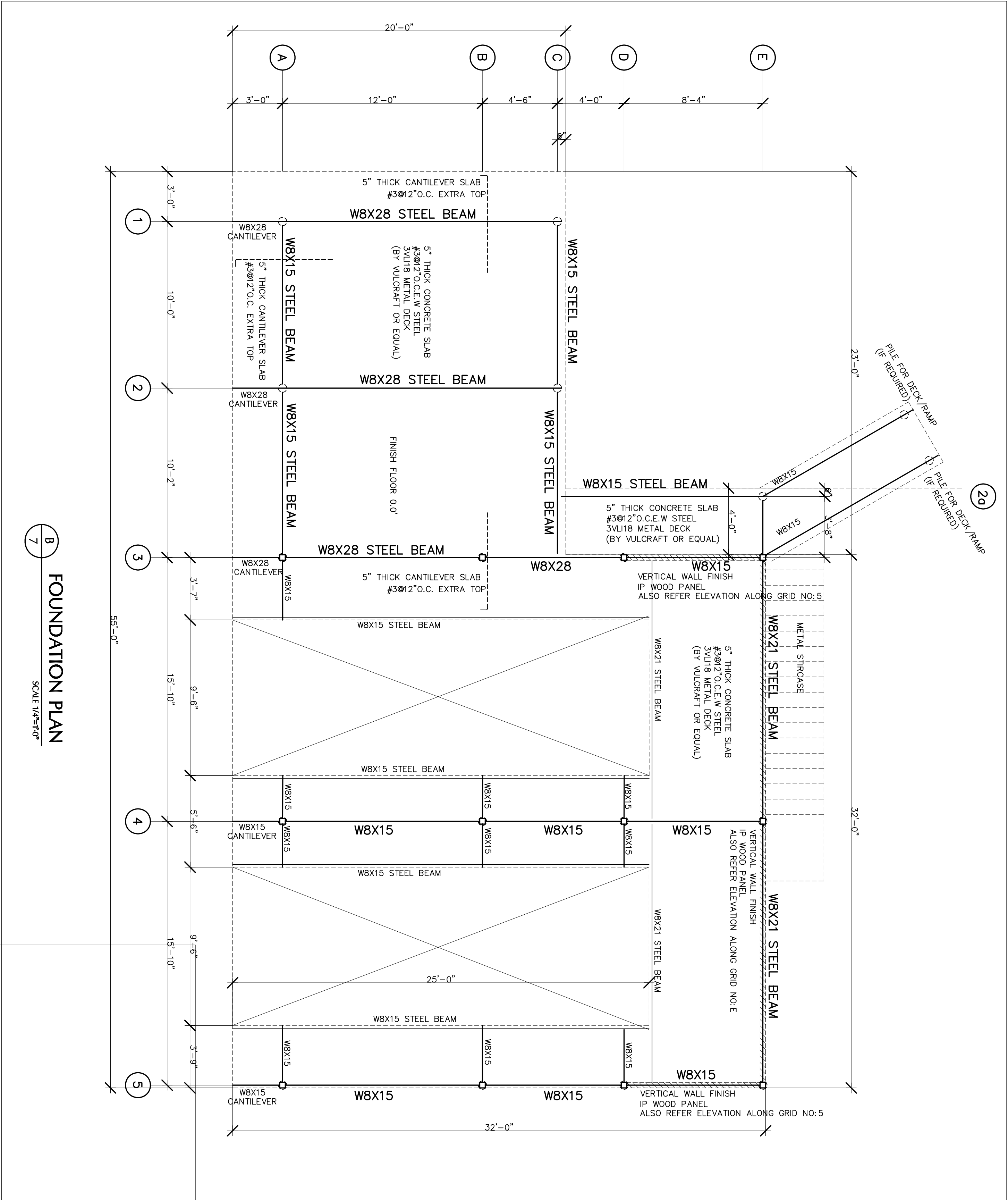
1. Structural Steel shall conform to ASTM Specification A292, or ASTM A572, Grade 50 except where A36 is noted on print, except that A36 shall be used for all connections.
2. Steel plate shall conform to ASTM Specification A33, Type E or S, Grade B. Rectangular plate structural steel sections shall conform to ASTM Specification A 500, Grade B, $t \geq 4$ in. Round hollow tube shall conform to ASTM Specification A 500, grade B, $F_y = 42$ ksi.
3. Column base plates shall be grouted with a non-shrink, high strength nonmetallic grout.
4. All welded structural steel members is prohibited without prior approval of the Engineer as to location and type of splice to be made. Any welding of structural steel members shall be done in accordance with the following splice not shown and detailed on shop drawings will be rejected.
5. All welds applied as repair or completion or full penetration weld shall be ultrasonically or x-ray certified by an independent testing agency.
6. Contractor shall coordinate structural steel fireproofing requirements, including but not limited to, fireproofing of steel members, and be required to receive spray applied fireproofing shall be delivered to the project site unpainted. Steel exposed to corrosive conditions after installation shall be primed with a protective coating which does not diminish the fireproofing. Fireproofing shall be applied to all structural steel.
7. Any primer, and/or coating applied to structural steel shall be approved for use in the applicable UL Fire Resistance Assembly used on the project. Contractor shall protect any unpainted structural steel from corrosion by the use of a zinc-rich primer, which shall be applied and protected by the new construction.
8. Shop painting: Paint structural steel with one coat of manufacturer's standard red oxide primer applied at a rate to provide a uniform dry film thickness of 2.5 mils.
9. Submittal: Provide drawings showing details for fabrication and shop assembly of members, erection plans and details. Include details of connection drawings shall not be made using reproductions of the contract drawings.

STRUCTURAL STEEL CONNECTIONS


1. Welding shall conform to AWS/AISC D1.1, latest edition.
2. Bolts conform to ASTM A325. Bolts shall be designed using values for bearing type bolts with threads shown in the shop prints.
3. Structural steel connections not specifically detailed on the Drawings shall conform to the provisions of the Specification for Structural Steel of a registered engineer licensed in the State of Texas. Sealed calculations for all connections designed by the Contractor shall be submitted for the architect's files.
4. Beam connections shall be designed and detailed as follows, unless noted otherwise on the Drawings:
 - a. Connections shall be AISC Type 2 simple framing connections. Shop cut connections shall not be used.
 - b. In general, shop connections shall be bolted or welded and field connections shall be bolted.
 - c. Where indicated, connections shall be designed for the schedule shear force, the shear force indicated on the Drawings as $V =$ and the horizontal force indicated as $H =$.
 - d. If not indicated on the Drawings, connections shall be designed for 55 percent of the total load capacity for the beam span indicated in the beam tables in Section 2 of the AISC Manual, ninth edition.
 - e. The minimum number of rows of bolts shall be 1/6 of the beam depth with any fraction be rounded to the next higher number.
 - f. Bolts shall be "A325" UNF.
 - g. Short slotted holes shall be permitted provided washers are installed in accordance with AISC requirements. Washers shall be installed where A325 bolts are utilized.
 - h. Wind force and truss connections shall be designed and detailed as follows, unless noted otherwise on the Drawings:
 1. Connections shall be welded.
 2. Connections shall be designed and detailed for the forces shown on the Drawings.
 3. If forces are not indicated on the Drawings, connections shall be designed to develop the full tensile capacity of the members.
 4. For connections not specifically addressed by these notes or the Drawings, provide full welds of all contact surfaces sufficient to develop the tensile strength of the smaller member of the joint.
 5. To develop the full capacity of the member on both sides of the moment connections indicated on Drawings as "MC" shall be welded using full penetration member.
 6. Root edges angles shall be continuous and shall be spliced only at supports. Splices shall be butt-welded to develop full capacity of the member.
 7. Filled welds with no size specified shall be 3/16", or minimum size required by AISC, whichever is larger.
5. Slabs ON PERMANENT FORM DECK
 1. Steel for deck shall conform to ASTM A446, grade E, with a galvanized coating conforming to ASTM A525, G90 coating class.
 2. Lap ends of deck, 2" of lap welds and 1 connection at slabs. Weld deck to supports with 1/2" lap welds per sheet per drawing, using 1/2" weld washers. Attach deck to concrete supports using three 3/16" powder actuated pins per sheet per bearing.

METAL ROOF DECK

1. Roof deck shall be galvanized with a class 550 coating.
2. Roof deck shall be galvanized with a class 550 coating.
3. Roof deck shall be continuous over four or more supports.
4. Interior supports: puddle welds or power driven fasteners at each side lap and at intermediate ribs at 12" on center.
5. A perimeter supports: puddle welds or power driven fasteners at 12" on center.
6. A side laps: 2 screws equally spaced at 3 equal spaces between supports.
7. Screws shall be 1/4" or equal.
8. Power driven fasteners shall be selected by the contractor for the conditions of deck shape and deck support member thickness. The contractor shall provide the Engineer with the following information, including drop-in fastener type and fastener spacing for the review.
9. Puddle welds shall be 5/8" minimum diameter and shall be made through wet fasteners for 22 gauge and lighter decking.
10. Mechanical, electrical & plumbing systems shall not be supported by the metal roof deck.
11. Submittal: Submit deck layout plans and details indicating deck, type, fastening methods and layout, support locations, projections, openings and reinforcement, and dry other pertinent details and accessories.



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MR/ZA TAHIR BAIG, P.E. #82577 ON 05/10/2011 FROM REGISTRATION I-4951



THIS DRAWING AS AN INSTRUMENT OF SERVICE, AND SHALL REMAIN THE PROPERTY OF THE PSCE, INC. AND SHALL NOT BE REDRAWN, REPRODUCED IN ANY MANNER, OR REUSED FOR CONSTRUCTION WITHOUT THE WRITTEN PERMISSION OF THE PSCE, INC. ALL RIGHTS RESERVED. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE SITE BEFORE PROCEEDING WITH EACH PHASE OF HIS WORK AND BE RESPONSIBLE FOR SAME. NO WARRANTY, EXPRESSED OR IMPLIED, IS EITHER OR INTENDED. THE LIMIT OF LIABILITY SHALL NOT EXCEED THE FEE PAID FOR THESE PLANS.

6	ISSUED FOR APPROVAL	06/15/11	
5	ISSUED FOR APPROVAL	05/10/11	
4	ISSUED FOR APPROVAL	04/29/11	
3	ISSUED FOR APPROVAL	02/21/11	
2	ISSUED FOR APPROVAL	02/01/11	
1	ISSUED FOR APPROVAL	01/13/11	
0	ISSUED FOR APPROVAL	01/07/11	
Revision	Description	Date	Drawn

The logo for Professional Strucivil Engineers, Inc. features a stylized 'P' and 'E' on the left, each composed of a 3x3 grid of squares. The 'P' grid has a black square at (1,1), (1,2), (1,3), (2,1), (2,2), (2,3), (3,1), (3,2), and (3,3). The 'E' grid has a black square at (1,1), (1,2), (1,3), (2,1), (2,2), (2,3), (3,1), (3,2), and (3,3). To the right of the logo, the company name 'PROFESSIONAL STRUCIVIL ENGINEERS, INC.' is written in a large, bold, sans-serif font. Below the company name, the words 'CONSULTING CIVIL AND STRUCTURAL ENGINEERS' are written in a smaller, all-caps, sans-serif font. At the bottom of the logo area, the address '12710 RESEARCH BLVD., SUITE 390, AUSTIN, TX 78759 | TEL. 512.238.6422 | FAX. 512.258.8095' is displayed in a small, sans-serif font.

PROJECT	29126	Project :	HART RESIDENCE
		13500 PECAN DRIVE AUSTIN, TEXAS 78734	
SHEET	7 OF 8	Title :	BOAT HOUSE FOUNDATION PLAN