

Technical Evaluation Report

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DIVISION: 05 00 00—METALS
SECTION: 05 05 23 — METAL

THIS DOCUMENT CONTAINS (3) PAGES: THE FIRST PAGE MUST BEAR AN ORIGINAL SIGNATURE & SEAL OF THE CERTIFYING PE TO BE VALID FOR USE

(Issued August 21, 2018 Subject to Renew August 21, 2020)
(or next code cycle change)

EVALUATION SUBJECT: 4"x4" POST BASE Items #: 54207 (4x4-PB-LSL) 52107 (4x4-PB-IWL)

TER-6761-1a

2015 International Building Code

REPORT HOLDER:

OZCO BUILDING PRODUCTS
216 N. INTERURBAN
RICHARDSON, TEXAS 75081
(469) 916-7503 | OZCOBP.COM

SCOPE OF EVALUATION (compliance with the following codes):

This Product Evaluation Report is being issued in accordance with the requirements of the 2015 International Building Code for generic use within the state seal shown per Section 104.11. The product noted on this report has been tested and/or evaluated as summarized herein. Re-evaluation of this product shall be required following pertinent International Building Code and local state code modifications or revisions.

SUBSTANTIATING DATA:

• Product Test Reports

Uplift and download forces and torsional moment for structural performance has been tested using the methods described by ASTM D1761 and ASTM D7147 Standard Test Methods for Mechanical Fasteners in Wood as per test report # 34919 by Metallurgical Engineering Services, Inc. (Report date: 09/04/18).

• Structural Engineering Calculations

Structural engineering calculations have been prepared which evaluate the product based on comparative and/or rational analysis to qualify the following design criteria:

Maximum allowable uplift capacity
Maximum allowable gravity capacity
Anchor capacity

No 33% increase in allowable stress has been used in the design of this product.

INSTALLATION:

The product listed above shall be installed in strict compliance with the Product Evaluation Document (i.e. engineering drawing from the test report), along with all components noted therein.

The product components shall be of the material specified in the Product Evaluation Document. Screws must be installed in accordance with the applicable provisions in the NDS and anchor manufacturer's published installation instructions.

Full engagement shall be provided when connecting the steel flanges (lips) together for full capacity (leave 1/8" minimum length of uncovered lip past the outer steel plane surface).

LIMITATIONS & CONDITIONS OF USE:

Use of this product shall be in strict accordance with the Product Evaluation Documents as noted herein.

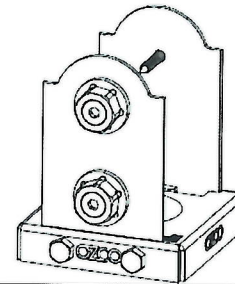
All supporting host structures shall be designed to resist all superimposed loads and shall be of a material listed in this report. Host structure conditions which are not accounted for in this product's respective anchor schedule shall be designed for on a site-specific basis by a registered Professional Engineer.

Adjustment factors noted herein and all applicable codes shall be considered by the installer, where applicable.

All components which are permanently installed shall be protected against corrosion, contamination, and other such damage at all times. Installer is responsible to protect against dissimilar materials.

FASTENINGS

Fasteners, including washers, for use in exterior conditions and in contact with preservative-treated wood or for fire-retardant-treated wood shall be of hot-dipped zinc-coated galvanized steel, stainless steel, silicon bronze or copper. Wood screws shall be permitted to be of mechanically deposited zinc-coated steel with coating weights in accordance with ASTM B 695, Class 55 minimum.



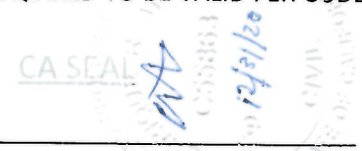
ELEVATED POST HOLDOWN FOR SOLID SAWN LUMBER

The post base architectural line has a 1/2" standoff height to reduce the potential effects of decay at post and post ends.

MATERIAL: 11 gauge steel (see Table 1) in accordance with ASTM A36 with minimum yield strength, $F_y = 36$ ksi and a minimum tensile strength, $F_u = 58$ ksi.

FINISH: Shall be comprised of powder coated, hot dip galvanized steel conforming to ASTM A153.

ORIGINAL SIGNATURE AND RAISED SEAL
OR DIGITAL SEAL REQUIRED TO BE VALID PER CODE:



Enrique Matta, P.E.
ERM CONSULTING INC.
PE# C55863

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INSTALLATION: Use all specified fasteners. Assembly kit includes fasteners for uniform finishing. See General Notes.

This product does not provide adequate resistance to prevent members from rotating about the base or torsion along longitudinal axis and therefore is not recommended for non top-supported installations or moment connections at the base, such as fences or unbraced carports.

Use of post base with engineered wood products and different wood species other than those listed herein as Southern Yellow Pine (specific gravity, G=0.55) or Douglas Fir-Larch (specific gravity, G=0.50) are not covered under this report and shall be evaluated by redesigned Professional Engineer. 4"x4" minimum wood post size is required.

All side plates are required to be installed with full engagement of lips at base to obtain full load capacity, 1/8" past outer steel plane. min.

OPTIONS: For specific scenarios contact OZCO for custom solutions. Extended bottom flange also available.

Table 1: 4"x4" Post Base Load Capacities

MODEL No.	POST SIZE	MATERIAL	DIMENSIONS (IN)			FASTENERS			ALLOWABLE LOADS -DF/SP (LBS)			
			W	H1	H2	ANCHOR		QTY.	DOWN (100)	UPLIFT (160)	F1 (160)	F2 (160)
4x4-PB-LS	4X4	11 Ga	4.63	1.00	5.86	HOST	3/8" dia. Bolts	1	6,141	794	1,107	1,107
						BASE	3/8" dia. Hbolt x 3/4"	4				
						POST	OTW Timber x1-3/4" screws	4				
4x4-PB-IWL	4X4	11 Ga	4.63	1.00	5.86	HOST	3/8" dia. Bolts	1	6,141	794	1,107	1,107
						BASE	3/8" dia. Hbolt x 3/4"	4				
						POST	OTW Timber x1-3/4" screws	4				

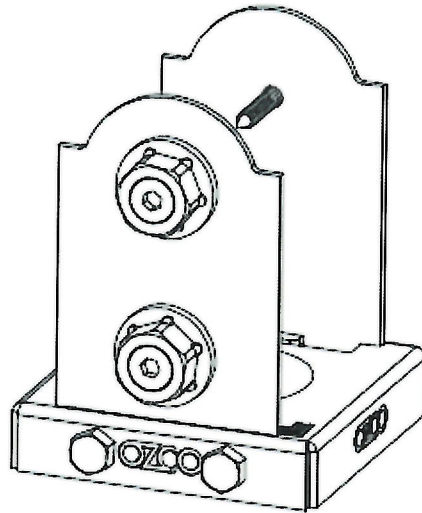
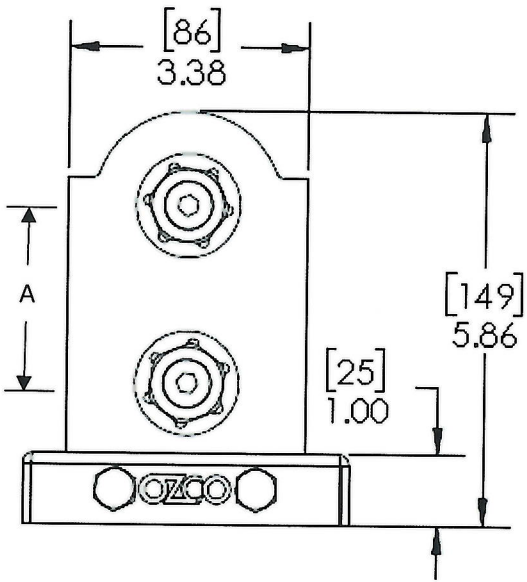
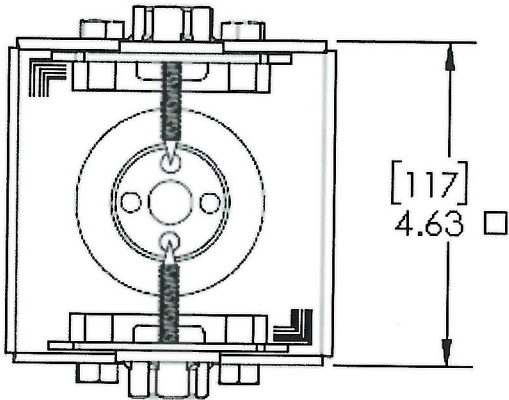
GENERAL NOTES:

- 1- The tabulated allowable loads shown are based on Allowable Stress Design (ASD) and loads have been increased for wind or earthquake loading according to load duration factor, CD under the 2015 National Design Specification for Wood Construction (NDS) with no further increase allowed. Load reduction may apply where other loads govern.
- 2- Tabulated allowable loads shown apply to connections into wood used under dry conditions, with moisture content equal or less than 19% and where sustained temperatures are 100°F (37.8°C) or less. The allowable loads must be adjusted by the applicable factors for wet service conditions and higher temperatures in accordance with the National Design Specification for Wood Construction (NDS).
- 3- Anchor bolts to host structure/foundation shall be grade 8 and have minimum yield strength, Fy = 130 ksi and tensile strength, Fu = 150 ksi, minimum 3/8" diameter. Anchor specification shall be as per Professional Engineer who shall verify host structure for shear and uplift capacity. Design of anchor bolts and concrete footings is outside the scope of this report.
- 4- Screws are provided with hex washer head with 1-1/2" diameter hex washer cap plug. Minimum bending yield strength for screws, Fyb = 62.7 ksi and ultimate tensile strength, Fu = 73.2 ksi, Wood thread penetration shall be 1-1/4 inches min. into solid wood and does not include thickness of any finishes.
- 5- Designer shall consider effects on strength of lumber from new preservative treatments or fire retardant treatments other than under National Design Specification for Wood Construction (NDS).
- 6- For higher gravity loads, provide solid packed grout under 1/2" standoff plate before installing into concrete base. Base download capacity on column or concrete shall be in accordance with code, by others.
- 7- Gravity load capacity shall be reduced where limited by the capacity of the wood member.
- 8- Combining vertical and lateral loads using a unity equation is recommended for final connection capacity, per Professional Engineer.

NOTES:

- 1- Uplift and gravity loads capacity shall be based on the member design calculated per code, not included in this evaluation re
- 2- This product is not designed for welded or nailer applications.

IN ALL CONDITIONS IT IS THE RESPONSIBILITY OF THE PERMIT HOLDER TO ENSURE THE HOST STRUCTURE IS CAPABLE OF WITHSTANDING THE RATED GRAVITY, LATERAL, AND UPLIFT FORCES BY SITE-SPECIFIC DESIGN. NO WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, IS OFFERED BY ENGINEER AS TO THE INTEGRITY OF THE HOST STRUCTURE TO CARRY DESIGN FORCE LOADS INCURRED BY THIS UNIT.



DIMENSIONS (IN)	
A	SEE MANUFACTURER BROCHURE

LIMITATIONS & CONDITIONS OF USE:

Use of this product shall be in strict accordance with this TER as noted herein. The supporting host structure shall be designed to resist all superimposed loads as determined by others on a site specific basis as may be required by the Authority Having Jurisdiction. Host structure conditions which are not accounted for in this product's respective anchor schedule shall be designed for on a site-specific basis by a registered professional engineer. No evaluation is offered for the host supporting structure by use of this document; Adjustment factors noted herein and the applicable codes must be considered, where applicable. All supporting components which are permanently installed shall be protected against corrosion, contamination, and other such damage at all times. Fasteners must penetrate the supporting members such that the full length of the threaded portion is embedded within the main member. This evaluation does not offer any evaluation to meet large missile impact debris requirements which typically are not required for this type of product.