

PowerBrace™ Stairs System Technical Specifications

PBB (Wall Beam):

S4 x 7.7 ASTM A572 Grade 50

EBBW6 (Interior Beam):

W6 x 8.5 ASTM A572 Grade 5

SJQ350T84, SJQ350T120 (Horizontal Post):

HSS 3.50" square tube x 0.095" wall x 84" or 120" long, field cut to length, ASTM A500 Grade C

PBSTB and PBSTBR (Top Bracket and Runners):

1/4" ASTM A572 Grade 50 plate
(2) 3/16" ASTM A572 Grade 50 plates
(40) #10 x 2.00" long wood screws

PBSBB (Bottom Bracket):

HSS 6.00 x 2.00 tube x 0.25" wall, ASTM A500 Grade C
(6) Ø 1/2" x 3.00" long concrete screw anchors

PBSCB (Capture Bracket):

3/16" ASTM A572 Grade 50 bent plate
(5) 12-24 x 1.25" long self-drilling screws

SJQ350TI (Threaded Post Cap):

3.63" square x 0.75" thick ASTM A572 Grade 50 plate with tapped threads
0.120" ASTM A36 bent capture plates

SJQ125ATR (All-Thread Rod):

Ø1-1/4" x 10.0" long ASTM A108 Grade 1018 all-thread rod with welded heavy hex nut
Yield strength = 54 ksi (min.)
Tensile strength = 64 ksi (min.)

SJQ350TPS4 (Clip Plate):

3/16" x 3.00 x 6.00 ASTM A36 bent plate
Ø1.50" x 0.250" wall x 1.38" long CDS or DOM

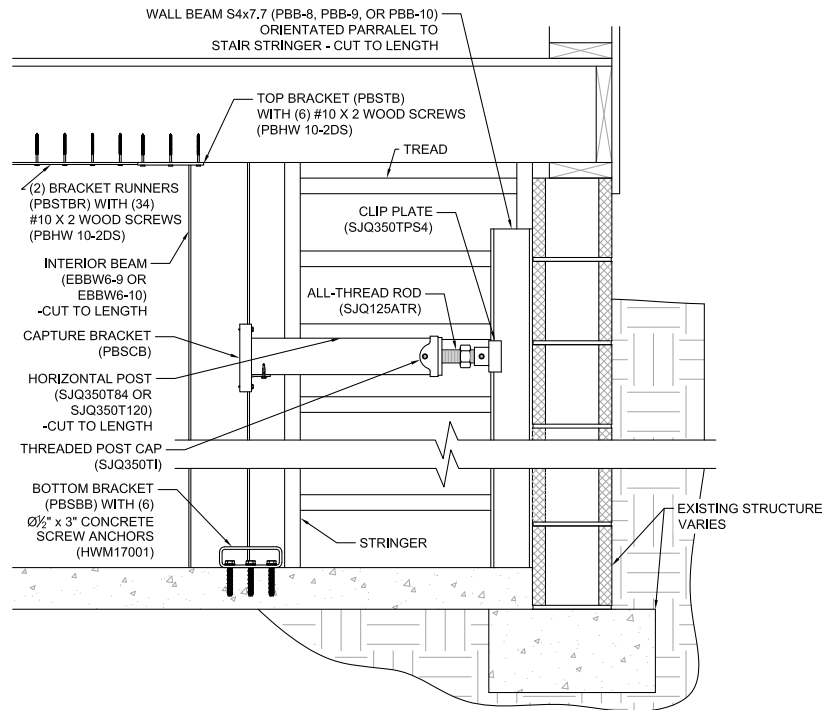
PB2BB1 (Bottom Bracket - used with PBS-ALT): (not shown)

1/4" ASTM A572 Grade 50 L-shaped bent plate 1.56" x 1.50" x 4.88" long with holes for bracket hardware
(2) Ø1/2" x 3" concrete screw anchors⁽⁶⁾

Note: For additional system configurations, visit www.onstableground.com

Surface Finish:

Steel beams are provided as hot-dip galvanized per ASTM A123 or electrozinc plated per ASTM B633. Horizontal post is provided as either triple-coated in-line galvanized, hot-dip galvanized per ASTM A123, or electrozinc plated per ASTM B633. All other items are electrozinc plated per ASTM B633.



- (1) Interior beams should be spaced similar to the spacing requirements for PowerBrace found in Appendix 3B within the Technical Manual based on the condition of the wall and severity of the wall displacement.
- (2) Torque applied to the PowerBrace Stairs adjustment bolt should not exceed 85 ft-lb for either CMU or poured concrete walls.
- (3) Leaning poured concrete walls are often generally intact and typically show maximum inward movement at the top of the wall. Poured concrete walls that are bowing or have unusual crack patterns may need to consider alternate spacing and design considerations.
- (4) Refer to Section 3.1.6 of the Technical Manual for information about the design methodology used to develop these recommendations.
- (5) Because variations in building design and construction materials are common, PowerBrace applications should be reviewed by a qualified professional.
- (6) Concrete slabs should be intact and have a thickness of at least 3.5". For broken or thin slabs, contact Foundation Supportworks for alternative installation guidelines.