

OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT **FACILITIES DEVELOPMENT DIVISION**

ICATION FOR OSHPD PREAPPROVAL OF

OFFICE USE ONLY

| MANUFACTURER'S CERTIFICATION (OSM) | APPLICATION #: OPM-0377 |
|--|-------------------------|
| OSHPD Preapproval of Manufacturer's Certification OPM) | |
| Type: New X Renewal/Update | |
| Manufacturer Information | |
| Manufacturer: BRACELOK.com | |
| Manufacturer's Technical Representative: Scott Simpson | |
| Mailing Address: PO Box 31270, Milford, Auckland, New Zealand | |
| Telephone: (858) 437-6024 Email: scott.simpsor | n@bracelok.com |
| Product Information CODE | |
| Product Name: BRACELOK RETRO | OMB |
| Product Type: Partition Wall and Ceiling Bracing | |
| Product Model Number: SPT 10-R OPM-0377 | A C |
| General Description: Rigid brace system designed to be used with steel | MARKY WA |
| Applicant Information | |
| Applicant Company Name: BRACELOK P:TD DATE: 04/09/2020 | 0 76 |
| Contact Person: Scott Simpson | No. |
| Mailing Address: P.O. BOX 31270,MILFORD,, AUCKLAND, CA 0620 | 10D\$ |
| Telephone: (642) 111-1610 Email: SCOTT SIME | PSON@BRACELOK.COM |
| Title: Chief Technical Offcier | |
| Registered Design Professonal Preparing Engineering Recom | nmendations |
| Company Name: DEGENKOLB ENGINEERS | |
| Name: Alvaro Celestino Californi Number | a License S5580 |
| Mailing Address: 225 Broadway Suite 1325, San Diego, CA 92101 | |
| Telephone: (213) 309-2044 Email: acelestino@d | degenkolb.com |
| OSHPD Special Seismic Certification Preapproval (OSP) | |
| Special Seismic Certification is preapproved under OSP | OSP Number: |



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT FACILITIES DEVELOPMENT DIVISION

| CC-ES AC156 |
|---|
| S100-16 Section K |
| ted by the California Building Standards Code, 2019 (CBSC 2019) for component supports or distribution system, interior partition wall, and suspended ceiling seismic bracings, test e CBSC 2019 may be used when approved by OSHPD prior to testing. |
| |
| |
| , and/or Experience Data (Please Specify): |
| |
| FOR CODE |
| Title: Senior Structural Engineer |
| OSHPD C |
| OPM-0377 |
| BY: Jeffrey Kikumoto |
| DATE: 04/09/2020 |
| |

GENERAL NOTES

GENERAL

- THIS OSHPD PRE-APPROVAL OF MANUFACTURE'S CERTIFICATION (OPM) IS BASED ON 8. THE CBC 2019. THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE CBC 2019.
- THIS PRE-APPROVAL IS VALID FOR THE SYSTEM DESCRIBED IN THESE DRAWINGS 2. THROUGHOUT THE STATE OF CALIFORNIA, AND IS VALID FOR INTERIOR WALLS INSTALLED AT ANY HEIGHT WITHIN THE BUILDING, SEE Sps LIMITATIONS ON SHEET S3

II. RESPONSIBILITIES OF THE STRUCTURAL ENGINEER OF RECORD

- VERIFY MATERIALS AND WORKMANSHIP TO CONFORM WITH THE 2019 EDITION OF THE CALIFORNIA BUILDING CODE AND THE REQUIREMENTS OF THIS PRE-APPROVAL DOCUMENT.
- VERIFY THE ADEQUACY OF THE EXISTING FRAMING TO SUPPORT THE LOADS 2. INDICATED ON THIS SHEET, IN ADDITION TO ALL OTHER LOADS.
- VERIFY ANCHORS ARE AT ADEQUATE DISTANCES FROM OPENINGS AND EDGES OF 3. SLABS AS NOTED IN THE GENERAL NOTES SECTION IV.
- VERIFY ANCHORS ARE AT ADEQUATE DISTANCES FROM NEW OR EXISTING ANCHORS AS NOTED IN THE GENERAL NOTES SECTION IV.
- DESIGN ANY SUPPLEMENTARY MEMBER AND THEIR ATTACHMENTS OTHER THAN 5. THOSE DETAILED WITHIN THIS PRE-APPROVAL.
- VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH THE 2019 CBC AND WITH THE DETAILS SHOWN IN THIS PRE-APPROVAL.
- VERIFY THAT THE SITE SEISMIC PARAMETERS DON'T EXCEED WHAT IS PERMITTED 7. **UNDER THIS OPM**

COLD-FORMED METAL FRAMING

- STUDS: ASTM C955 AND ASTM A1003, "C" SHAPED WITH LIPPED FLANGES AND PUNCHED WEB. PROVIDE G60 COATING MINIMUM.
 - 43 MIL (18 GAGE) AND LIGHTER: GRADE 33 TYPE H
 - 54 MIL (16 GAGE) AND HEAVIER: GRADE 50 TYPE H
- TRACK: ASTM C955 AND ASTM A1003, "U" SHAPED WITH UN-PUNCHED WEB. PROVIDE 2. G60 COATING MINIMUM.
 - MATCH DEPTH, THICKNESS AND GRADE OF STUDS.
- FRAMING DESIGNATIONS ON PLANS ARE BASED ON THE STEEL STUD 3. MANUFACTURER'S ASSOCIATION (SSMA) PRODUCT TECHNICAL GUIDE (ICC-ESR-3064P).
- INSTALL STUDS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND ASTM 4. C1007.
- SHEET METAL SCREWS: SELF-DRILLING, SELF-TAPPING, HDG PER ASTM A153, PAN OR HEX WASHER HEAD AS REQUIRED BY FINISH.
 - PRODUCTS: ITW-BUILDEX TEKS SELECT (ICC-ESR-3223), GRABBER DRIVALL (ICC-ESR-1271)
- MINIMUM SCREW SPACING AND EDGE DISTANCE TO BE 3/4". 6.
- POWDER ACTUATED FASTENERS: HILTI LOW-VELOCITY FASTENERS (ICC-ESR-2269).

| <u>BASE</u> | <u>FASTENERS</u> | MINIMUM | MINIMUM EDGE | MINIMUM |
|-------------|------------------|-----------|--------------|---------|
| MATERIAL | | EMBEDMENT | DISTANCE | SPACING |
| STEEL | HILTI X-U | PER MANUF | 1/2" | 5 1/2" |
| CONCRETE | HILTI X-P | 1" | 3" | |

PAF SHALL NOT BE USED IN PRE-STRESSED CONCRETE UNLESS NON-DESTRUCTIVE TESTING METHODS ARE USED TO LOCATE STRAND AND REINFORCEMENT PRIOR TO FASTENER INSTALLATION.

TENSION TESTING IS NOT REQUIRED FOR POWDER ACTUATED FASTENERS USED TO ATTACH TRACKS OF INTERIOR NON-SHEAR WALL PARTITIONS FOR SHEAR ONLY. WHERE THERE ARE AT LEAST THREE FASTENERS PER SEGMENT OF TRACK.

IV. MECHANICAL ANCHORS

- EXPANSION OR WEDGE ANCHORS INTO CONCRETE: HILTI KB-TZ (ICC ESR-1917), SIMPSON STRONG-BOLT 2 (ICC-ESR-3037) OR DEWALT POWER-STUD+ SD2 (ICC-
- SCREW ANCHORS, HILTI HUS-EZ (ICC-ESR-3027), SIMPSON STRONG-TIE TITEN-HD (ICC-ESR-2713), OR DEWALT SCREW-BOLT + (ICC-ESR-3889)
- INSTALL ANCHORS IN ACCORDANCE WITH LATEST ICC-ESR REPORT AND MANUFACTURER INSTRUCTIONS.
- IF REINFORCEMENT IS ENCOUNTERED DURING DRILLING, ABANDON AND SHIFT THE HOLE LOCATION TO AVOID THE REINFORCEMENT. PROVIDE A MINIMUM OF 2 ANCHOR DIAMETERS OR 1 INCH, WHICHEVER IS LARGER, OF SOUND CONCRETE BETWEEN THE DOWEL AND THE ABANDONED HOLE. FILL THE ABANDONED HOLE WITH NON-SHRINK GROUT APPROVED BY THE STRUCTURAL ENGINEER OF RECORD. NOTIFY THE STRUCTURAL ENGINEER OF RECORD IF ANY REINFORCING IS DAMAGED.
- ANCHORS WILL BE PROOF-TESTED BY OWNER'S TESTING AND INSPECTION AGENCY. WITH A REPORT OF THE TEST RESULTS SUBMITTED TO OSHPD.
- IF ANY ANCHOR FAILS TESTING, REPLACE ANCHOR AND TEST ADDITIONAL ANCHORS OF THE SAME CATEGORY NOT PREVIOUSLY TESTED UNTIL TWENTY (20) CONSECUTIVE PASS, THEN RESUME INITIAL TESTING FREQUENCY.
- TEST ANCHORS NO SOONER THAN 24 HOURS AFTER INSTALLATION.
- TEST WEDGE ANCHORS PER THE FOLLOWING METHOD:
 - TORQUE WRENCH METHOD: TEST ANCHORS TO THE TORQUE LOAD INDICATED IN THE TABLE BELOW WITHIN THE FOLLOWING LIMITS:
 - ONE-HALF TURN OF THE NUT.

| WEDGE | | |
|------------------|----------------------|--|
| ANCHOR DIA. (IN) | TORQUE LOAD (FT-LBS) | |
| 3/8 | 25 | |

TENSION TEST SCREW ANCHORS PER THE FOLLOWING METHOD: A. HYDRAULIC RAM METHOD: THE ANCHOR SHALL MAINTAIN THE TEST LOAD (AS DEFINED BELOW) FOR A MINIMUM OF 15 SECONDS AND SHALL HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD. IN THE CASE WHERE OTHER THAN BOND IS BEING TESTED. THE TESTING DEVICE SHALL NOT RESTRICT THE CONCRETE SHEAR CONE TYPE FAILURE MECHANISM FROM OCCURRING

| 2011 | SCREW | |
|------------------|--------------------|--|
| ANCHOR DIA. (IN) | TENSION LOAD (LBS) | |
| 3/8 | 566 | |

FOR POST INSTALLED ANCHORS USED FOR NONSTRUCTURAL APPLICATIONS, 50 PERCENT OR ALTERNATE BOLTS IN A GROUP, INCLUDING AT LEAST ONE-HALF THE ANCHORS IN EACH GROUP, SHALL BE TESTED.

WHERE POST-INSTALLED ANCHORS ARE USED FOR SILL PLATE BOLTING APPLICATIONS, 10 PERCENT OF THE ANCHORS SHALL BE TESTED.

- MINIMUM EDGE DISTANCE: 11.
 - A. 3/8" EXPANSION ANCHOR = 6"
 - B. 3/8" SCREW ANCHOR = 3 3/4"
- MINIMUM SPACING (FROM NEW OR EXISTING ADJACENT ANCHORS):
 - A. 3/8" EXPANSION ANCHOR = 6"
 - B. 3/8" SCREW ANCHOR = 3"

VI. STRUCTURAL TESTS, INSPECTIONS, AND OBSERVATIONS

CONFORMING TO 2019 CBC SECTION 1703A, WILL BE RETAINED BY THE OWNER TO PERFORM THE FOLLOWING TESTS AND INSPECTIONS. PROVIDE ACCESS AND FURNISH SAMPLES TO THE AGENCY AS REQUIRED.

AN INDEPENDENT APPROVED TESTING AGENCY AND SPECIAL INSPECTORS,

- THE FOLLOWING ITEMS REQUIRE TESTS AND INSPECTIONS IN ACCORDANCE WITH THE REQUIREMENTS OF THE CHAPTER "STRUCTURAL TESTS AND INSPECTIONS" OF THE CODE.
- **MECHANICAL ANCHORS:** 3.
 - VERIFY TYPE OF ANCHOR, ANCHOR DIMENSIONS, CONCRETE TYPE AND COMPRESSIVE STRENGTH. PREDRILLED HOLE DIMENSIONS. ANCHOR SPACING, EDGE DISTANCE, SLAB THICKNESS AND ANCHOR EMBEDMENT.
 - PROOF-TEST AS INDICATED IN THE MECHANICAL ANCHORS SECTION OF THESE GENERAL NOTES.

VII. DESIGN CRITERIA

- APPLICABLE CODE: 2019 CALIFORNIA BUILDING CODE.
- 2. SEISMIC DESIGN:

SEISMIC FORCE F (LRFD) = $0.4 * S_{DS} * a_{p} (1 + 2* Z/h) Wp$

| WH | ERE: |
|----|------|
| | |

 $S_{DS} = 195\% G$ MAX ACCEL. (SEE S3)

lp = 1.5

Z/h = 1.0FOR ANY FLOOR

Rp = 2.5ap = 1.0

0 = 2.0

VIII. HOW TO USE THIS PRE-APPROVAL

- REVIEW AND UNDERSTAND ALL GENERAL NOTES AND FIGURES BEFORE PROCEEDING.
- FOR THE SELECTED INTERIOR WALL CONDITION AND SEISMICITY (SDS) DETERMINE THE TOP TRACK CONDITION, BRACE AND WALL STUD SECTIONS. AND BRACELOK SPACING FROM THE TABLES ON S3.
- BASED ON THE STRUCTURE TYPE, SELECT A BRACE CONNECTION AND WALL BASE CONNECTION FROM THE TABLE ON S4.
- DETERMINE THE IMPACT ON THE EXISTING STRUCTURE FROM THE BRACELOK FROM THE TABLE ON S3. AND VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE WITH THE STRUCTURAL ENGINEER OF RECORD FOR THE BUILDING.

SHEET LIST

S

| S1 | GENERAL NOTES | S9 | BRACELOK PARTS |
|----|--------------------------|-----|--------------------------------------|
| S2 | BRACING LAYOUT PLANS | S10 | OPD-0001-13 DETAILS (ST2.00, ST2.02) |
| S3 | WALL SECTION & SCHEDULES | S11 | OPD-0001-13 DETAILS (ST2.03, ST2.04) |
| S4 | TOP & BOTTOM CONNECTIONS | S12 | OPD-0001-13 DETAILS (ST4.00, ST4.01) |
| S5 | BRACELOK CONNECTIONS | S13 | OPD-0001-13 DETAILS (ST6.08, ST6.09) |
| S6 | BRACE CONNECTIONS | S14 | OPD-0001-13 DETAILS (ST1.00, ST5.00) |
| S7 | BRACE CONNECTIONS | S15 | OPD-0001-13 DETAILS (ST5.01, ST5.02) |
| S8 | BRACELOK PARTS | | |

RETRO CONNECTOR, MODEL NO. SPT-10-R

| S1 | |
|----|----|
| OF | Sh |

| Drawn: | JEB | Job number: B8/69007.01 | Onc |
|---------|----------|--------------------------------|-----|
| Design: | PGM | Rev: | (|
| Check: | AC | Scale: NTS | |
| Date | 07/10/19 | | |
| | | | |

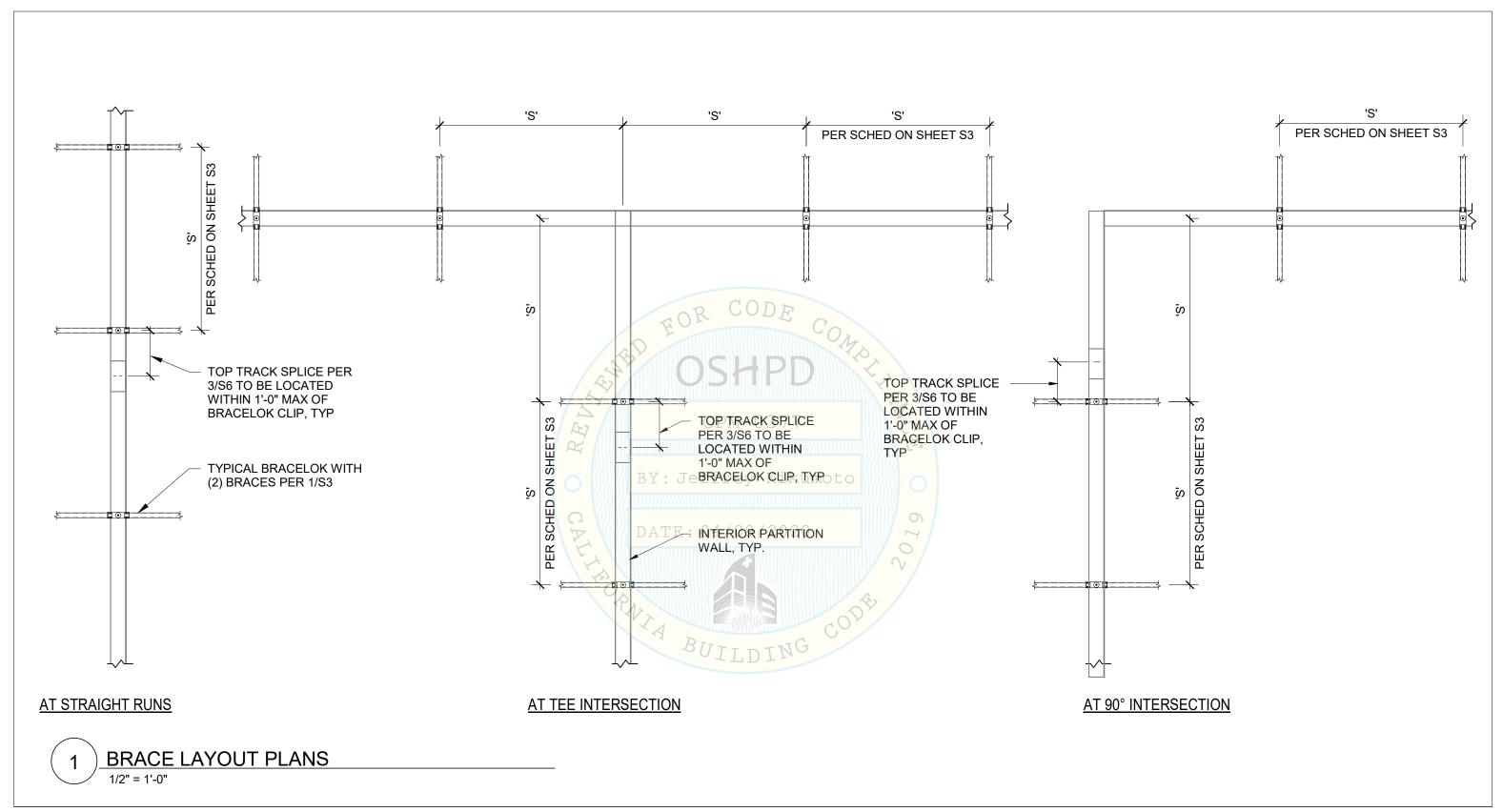


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BRACELOK™

GENERAL NOTES

D070007 04







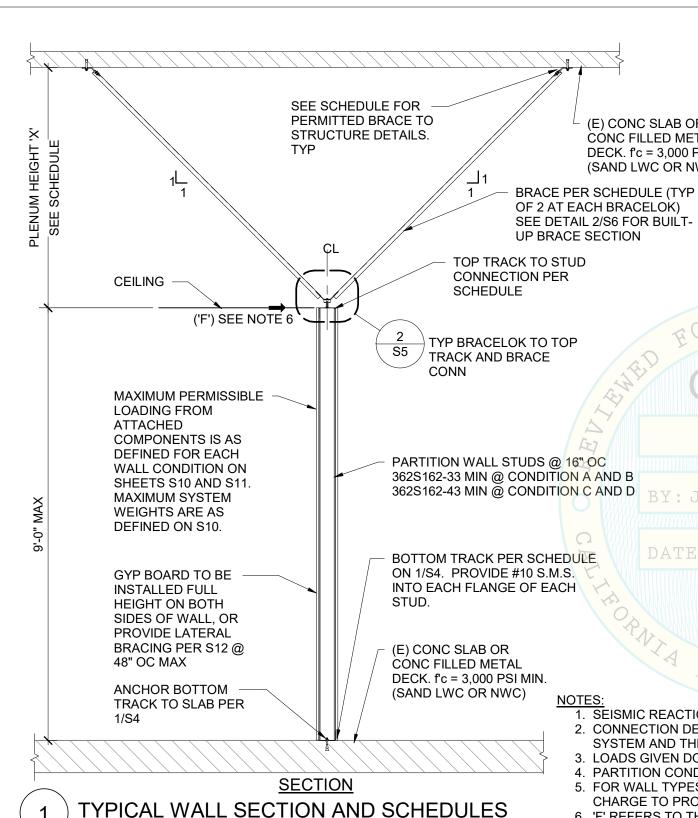
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BRACELOK™ RETRO CONNECTOR, MODEL NO. SPT-10-R

BRACING LAYOUT PLANS

| Drawn: | JEB | Job number: B8769007.0 |
|---------|----------|------------------------|
| Design: | PGM | Rev: |
| Check: | AC | Scale: 1/2" = 1'-0" |
| Date | 07/10/19 | |

Sheet **S2** OF Sheets



| | CONDITION A FOR 9 FT MAX INTERIOR WALL (SEE NOTE 4) | | | | | | | | |
|-----------|---|-----------------------------|--|--|---------------------|------------|--------------------------------------|--|--|
| Sds | TOP TRACK TO STUD CONN DETAIL | BRACELOK SPACING, 'S' | MAX ASD TOP TRACK REACTION (PLF) | ASD HORIZ LOAD AT BRACE (LB) ('F') | PLENUM HEIGHT | BRACE SIZE | BRACE TO STRUCTURE CONN DETAIL | | |
| 0.05.0.00 | 2/S4 OR 3/S4 | 8'-0" | 17 | 136 | 'X' < 5'-0" | 250S162-33 | 1/S6, 1/S7, 2/S7, | | |
| 0.25-0.99 | 2/34 OK 3/34 | 6 - 0 | 17 | 130 | 5'-0" < 'X' < 7'-3" | 362S162-33 | 1/S13 | | |
| 1.00-1.25 | 0/04 00 0/04 | 8'-0" | 22 | 176 | 'X' < 5'-0" | 250S162-33 | 1/S6, 1/S7, 2/S7, | | |
| 1.00-1.25 | 2/S4 OR 3/S4 | 0-0 | 22 | | 5'-0" < 'X' < 7'-3" | 362S162-33 | 1/S13 | | |
| 1.26-1.45 | 2/S4 OR 3/S4 | S4 OR 3/S4 8'-0" | 26 | 208 | 'X' < 5'-0" | 250S162-33 | 1/S6, 1/S7, 2/S7, | | |
| 1.20-1.43 | 2/34 UK 3/34 | 0-0 | 20 | 200 | 5'-0" < 'X' < 7'-3" | 362S162-33 | 1/S13 | | |
| 1.46-1.95 | 2/84 OD 2/84 | 0' O" | 34 | 272 | 'X' < 5'-0" | 250S162-33 | 1/S6, 1/S7, 2/S7, | | |
| 1.40-1.95 | 5 2/S4 OR 3/S4 | 8'-0" | | | 5'-0" < 'X' < 7'-3" | 362S162-33 | 1/S13 | | |

| | CONDITION B FOR 9 FT MAX INTERIOR WALL (SEE NOTE 4) | | | | | | | | |
|---------|---|-------------------------------------|--------------------------|--|--|---------------------|-------------------|--------------------------------------|--|
| 3 | C Sps | TOP TRACK TO STUD CONN DETAIL | BRACELOK SPACING, 'S' | MAX ASD TOP TRACK REACTION (PLF) | ASD HORIZ LOAD AT BRACE (LB) ('F') | PLENUM HEIGHT | BRACE SIZE | BRACE TO STRUCTURE CONN DETAIL | |
| | 0.25-0.99 | 2/S4 OR 3/S4 | 8'-0" | 29 | 232 | 'X' < 5'-0" | 250S162-33 | 1/S6, 1/S7, 2/S7, | |
| | 0.25-0.99 | 2/34 UK 3/34 | 0-0 | 29 | 232 | 5'-0" < 'X' < 7'-3" | 362S162-33 | 1/S13 | |
| | 1.00-1.25 | 2/S4 OR 3/S4 | 8'-0" | 36 | 288 | 'X' < 5'-0" | 250S162-33 | 1/S6, 1/S7, 2/S7, | |
| | 1.00-1.23 | 2/34 01(3/34 | 7 | 30 | 200 | 5'-0" < 'X' < 7'-3" | 362S162-33 | 1/S13 | |
| OD: | 1 26 7 7 5 | 7 2/S4 OR 3/S4 | 7'-3" | 42 | 305 | 'X' < 5'-0" | 250S162-33 | 1/S6, 1/S7, 2/S7, | |
| OP. | MI.20-1.43 | 2/34 OK 3/34 | // / (-3 | 42 | 303 | 5'-0" < 'X' < 7'-3" | 362S162-33 | 1/S13 | |
| | 1,46-1,95 2/S4 OR 3/S4 | 5'-6" | 56 | 308 | 'X' < 5'-0" | 250S162-33 | 1/S6, 1/S7, 2/S7, | | |
| <u></u> | 1.40-1.33 | 2/04 01(3/04 | | 30 | 300 | 5'-0" < 'X' < 7'-3" | 362S162-33 | 1/S13 | |
| ffr | 1.26-1.45 | 3/S4 | 8'-0" | 42 | 336 | 'X' < 5'-0" | 250S162-33 | 1/S7, 2/S7, 2/S13 | |
| | 1.20-1.43 | 3/54 | 0-0 | 42 | 330 | 5'-0" < 'X' < 7'-3" | 362S162-33 | 1/37, 2/37, 2/313 | |
| 0.4 | 1.46-1.95 | 2 0 3/\$4 | <mark>8'-0"</mark> 56 | 448 | 'X' < 5'-0" | 250S162-33 | 1/S7, 2/S7, 2/S13 | | |
| 04/ | 0-9-71.29 | 20 3/34 | 0,10 | 30 | 770 | 5'-0" < 'X' < 7'-3" | 362S162-33 | 1/01, 2/01, 2/010 | |

CONDITION C AND D FOR 9 FT MAX INTERIOR WALL (SEE NOTE 4)

ASD HORIZ LOAD

AT BRACE (LB)

('F')

616

(E) CONC SLAB OR

CONC FILLED METAL

DECK. f'c = 3,000 PSI MIN. (SAND LWC OR NWC)

1. SEISMIC REACTIONS AT THE TOP AND BOTTOM CONNECTION ARE FOR A WALL HEIGHT OF 9'-0".

- 2. CONNECTION DEMANDS ARE PROVIDED TO ALLOW RDP IN RESPONSIBLE CHARGE TO VERIFY NON PRE-APPROVED COMPONENTS OF THE FRAMING SYSTEM AND THE SUPPORTING STRUCTURE.
- 3. LOADS GIVEN DO NOT INCLUDE OVER-STRENGTH FACTOR (OMEGA). FOR CONCRETE ATTACHMENTS SEE ASCE 7-16 TABLE 13.5-1.
- 4. PARTITION CONDITIONS A, B, C, AND D ARE AS DEFINED ON SHEET \$10 AND \$11.

TOP TRACK

TO STUD

CONN DETAIL

3/S4

Sps

0.25-0.99

5. FOR WALL TYPES THAT DO NOT MEET THE CRITERIA OF CONDITIONS A, B, C, OR D AS DEFINED ON SHEETS \$10 AND \$11; RDP IN RESPONSIBLE CHARGE TO PROVIDE JUSTIFICATION THAT THE TOP TRACK DEMAND IS LOWER THAN THOSE IN THE TABLE ABOVE.

MAX ASD TOP

TRACK

REACTION (PLF)

77

- 6. 'F' REFERS TO THE FORCE BEING RESISTED BY EACH BRACELOK RETRO CONNECTOR. DEMANDS CALCULATED IN ACCORDANCE WITH ASCE 7-16.
- 7. NOTES & DETAIL CALLOUTS IN SPECIFIC DETAILS TAKE PRECEDENCE OVER THE "OPD" DETAILS.



PROFESSIONAL BUNKO CELE,

A CELES, IS

No. S 5580

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BRACELOK™ RETRO CONNECTOR, MODEL NO. SPT-10-R

BRACELOK

SPACING

8'-0"

WALL SECTION & SCHEDULES

| Drawn: | JEB | Job number: | B8769007.01 |
|---------|----------|-------------|--------------|
| Design: | PGM | Rev: | |
| Check: | AC | Scale: | 1/2" = 1'-0" |
| Date | 07/10/19 | | |
| | | | |

PLENUM HEIGHT

'X' < 5'-0"

5'-0" < 'X' < 8'-6" (2)-362S162-33

S3

BRACE TO

STRUCTURE

CONN DETAIL

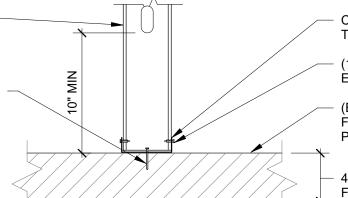
/S7, 2/S7, 2/S13

BRACE SIZE

362S162-33



ANCHOR AND SPACING PER SCHEDULE BELOW. PROVIDE **ANCHOR 3" MAX FROM** END OF TRACK, TYP SEE GENERAL NOTES FOR SPACING AND EDGE DISTANCE **REQUIREMENTS**



CONTINUOUS BOTTOM TRACK TO MATCH STUD THICKNESS

(1) #10 S.M.S. MINIMUM @ EÁCH SIDE @ EACH STUD

(E) CONC SLAB OR CONC FILLED METAL DECK. f'c = 3,000 PSI MIN. (SAND LWC OR NWC)

4" MIN AT CONC SLAB. AT CONC FILLED METAL DECK 3 1/4" MIN FILL ABOVE UPPER FLUTE

| 1 CDC | BOTTOM ACTION (PLF) | 0.145"DIA PAF W/ 1 1/4" EMBED | 3/8" DIA EXP ANCHOR W/ 2" EMBED | 3/8" DIA SCREW ANCHOR W/ 2 1/2" EMBED |
|-----------|------------------------|----------------------------------|------------------------------------|--|
| 0.25-0.99 | 17 | 32 | 32 | 32 |
| 1.00-1.25 | 22 | 24 | 32 | 32 E |
| 1.26-1.45 | 26 | 16 | 32 | 32 |
| 1.46-1.95 | 34 | 16 | 32 | 32 |

CONDITION A FOR 9 FT INTERIOR WALL

| | MAXIMUM FASTEN | ER SPACING AT BO | OTTOM CONNECTION (INCHES) | CONDITON B |
|-----------|--------------------------|----------------------------------|------------------------------------|--|
| Sps | BOTTOM REACTION (PLF) | 0.145"DIA PAF W/ 1 1/4" EMBED | 3/8" DIA EXP ANCHOR W/ 2" EMBED | 3/8" DIA SCREW ANCHOR W/ 2 1/2" EMBED |
| 0.25-0.99 | 25 | 16 | 32 | /32//////////////////////////////////// |
| 1.00-1.25 | 32 | 16 | 32 | 32 |
| 1.26-1.45 | 37 | 8 | 32 | 32 DATE |
| 1.46-1.95 | 50 | 8 | 32 | 32 |

CONDITION B FOR 9 FT INTERIOR WALL

| MAXIMUM FASTENER SPACING AT BOTTOM CONNECTION (INCHES) CONDITION C AND D | | | | | | |
|--|--------------------------|----------------------------------|------------------------------------|--|--|--|
| Sds | BOTTOM REACTION (PLF) | 0.145"DIA PAF W/ 1 1/4" EMBED | 3/8" DIA EXP ANCHOR W/ 2" EMBED | 3/8" DIA SCREW ANCHOR W/ 2 1/2" EMBED | | |
| 0.25-0.99 | 101 | - | 32 | 32 | | |

CONDITION C AND D FOR 9 FT INTERIOR WALL

NOTES:

PROFESSIONAL PROFESSIONAL PROFESSIONAL

No. S 5580

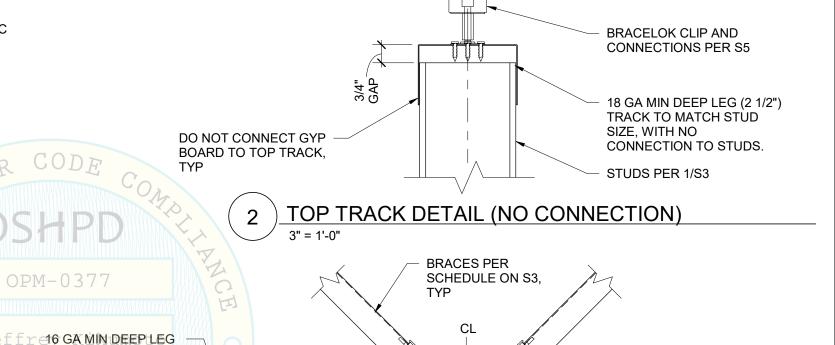
1. LOADS ABOVE DO NOT INCLUDE Ω_0 FOR CONCRETE ATTACHMENT.

BOTTOM TRACK CONNECTION

1 1/2" = 1'-0"



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Z Z

BRACES PER

CL

TYP

SCHEDULE ON S3.

TOP TRACK CONNECTION (SLOTTED CONNECTION) 3" = 1'-0"

ELEVATION A-A

BRACELOK™ RETRO CONNECTOR, MODEL NO. SPT-10-R

TOP & BOTTOM CONNECTIONS

| Drawn: | JEB | Job numb | per: B8769007.01 |
|---------|----------|----------|------------------|
| Design: | PGM | Rev: | |
| Check: | AC | Scale: | As indicated |
| Date | 07/10/19 | | |

BRACELOK CLIP AND CONNECTIONS PER S5

STUDS PER 1/S3

#10 S.M.S. FROM SLOTTED TRACK TO EACH FLANGE OF EACH STUD.

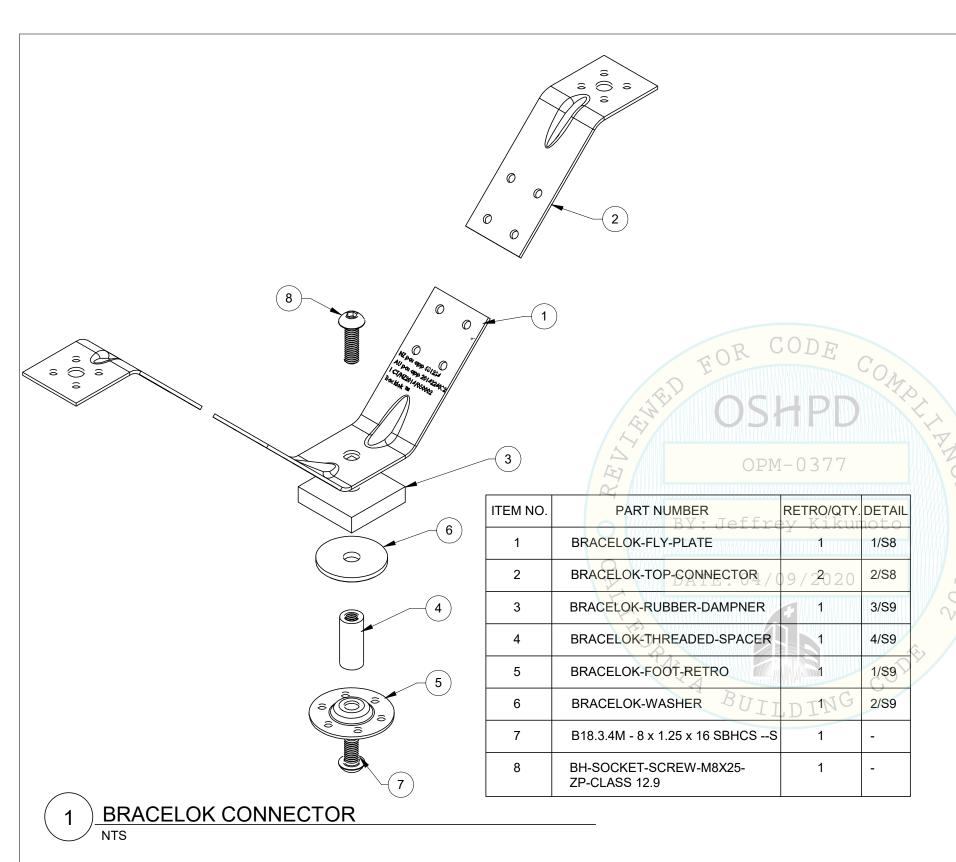


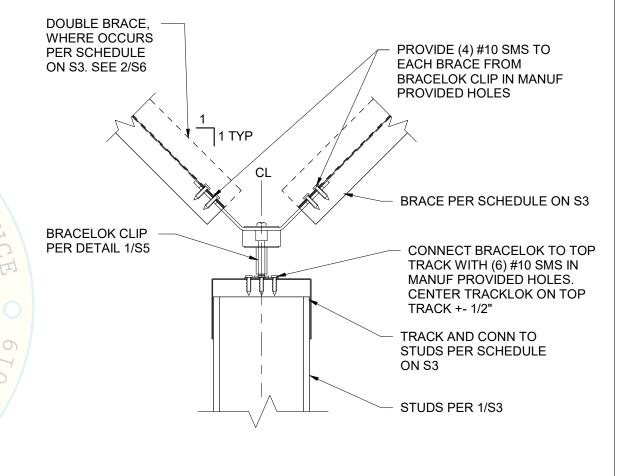
TYP

(2 1/2") SLOTTED TRACK TO MATCH

DO NOT CONNECT GYP BOARD TO TOP TRACK.

STUD SIZE. 04/09/2020





BRACELOK CLIP CONNECTION

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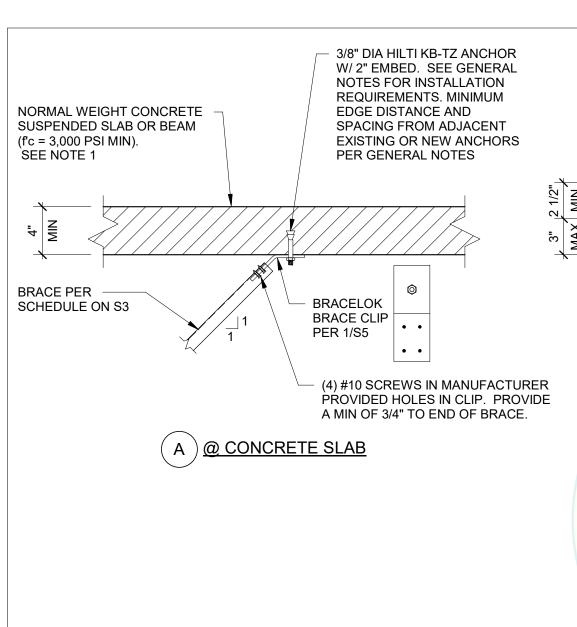
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BRACELOK™ RETRO CONNECTOR, MODEL NO. SPT-10-R

BRACELOK CONNECTIONS

| Drawn: | JEB | Job numbe | er: B8769007.01 |
|---------|----------|-----------|-----------------|
| Design: | PGM | Rev: | |
| Check: | AC | Scale: | As indicated |
| Date | 07/10/19 | | |
| | | | |

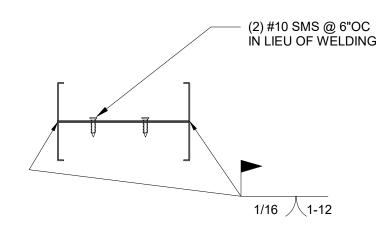
S5



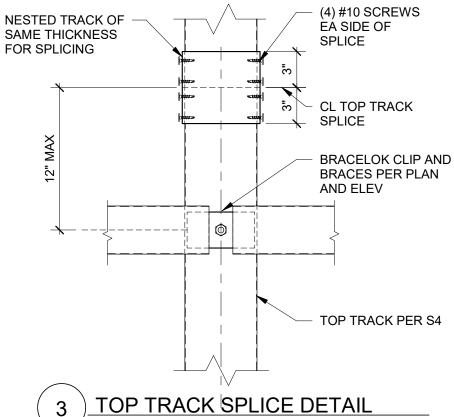
SAND LWC OR NWC FILLED METAL DECK (f'c = 3,000 PSI MIN) 1" MIN SEE NOTE 1 **∤** TYP Z Z 1'-0" MIN 20 GA 1" MAX /CL WEB STEEL W-DECK CL WEB TYP @ 4 1/2" WIDE UD A FLUTE 3 7/8" MIN OWER FLUTE (RIDGE) 4 1/2" MAX @ CONC FILLED METAL DECK - W DECK

В SAND LWC OR NWC FILLED METAL DECK (f'c = 3,000 PSI MIN) SEE NOTE 1 3 1/2" 3/4" MIN MIN 6" -2 1/2" MIN MIN, TYP MIN 20 GA STEEL B-DECK

@ CONC FILLED METAL DECK - B DECK



BACK-TO-BACK BRACE SECTION



1 1/2" = 1'-0"

Drawn: JEB Job number: B8769007.01 **PGM** Design: AC As indicated Check Date 07/10/19

S6 OF Sheets

Sheet

NOTES:

1. DETAIL MAY ONLY BE USED WHERE INDICATED ON THE SCHEDULE ON SHEET S3.

BRACE TO SLAB CONNECTION

1 1/2" = 1'-0" DROLESS IONAL

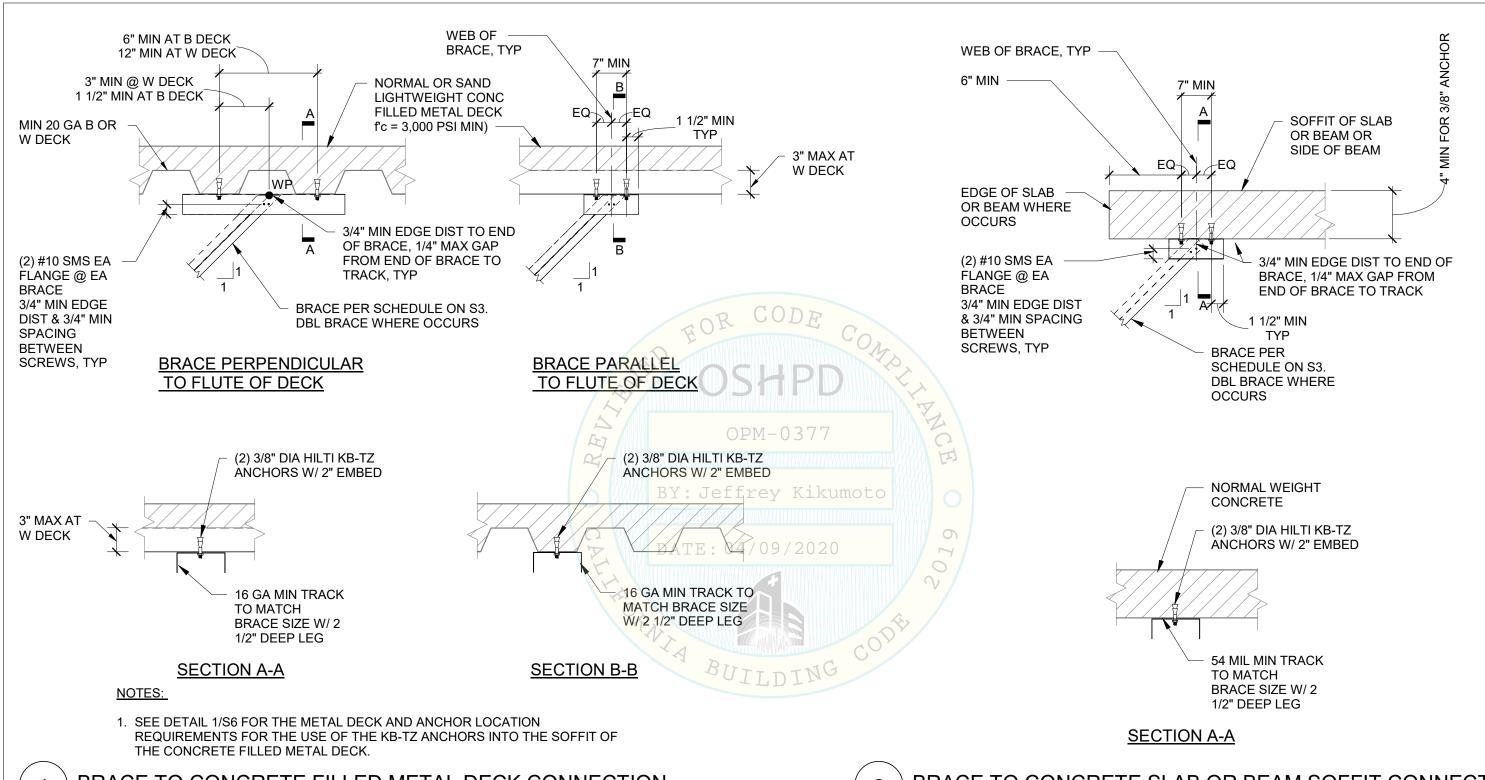


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BRACELOK™ RETRO CONNECTOR, MODEL NO. SPT-10-R

BRACE CONNECTIONS

OPM-0377: Reviewed for Code Compliance by Jeffrey Kikumoto



BRACE TO CONCRETE FILLED METAL DECK CONNECTION 1" = 1'-0"

BRACE TO CONCRETE SLAB OR BEAM SOFFIT CONNECTION 1" = 1'-0"





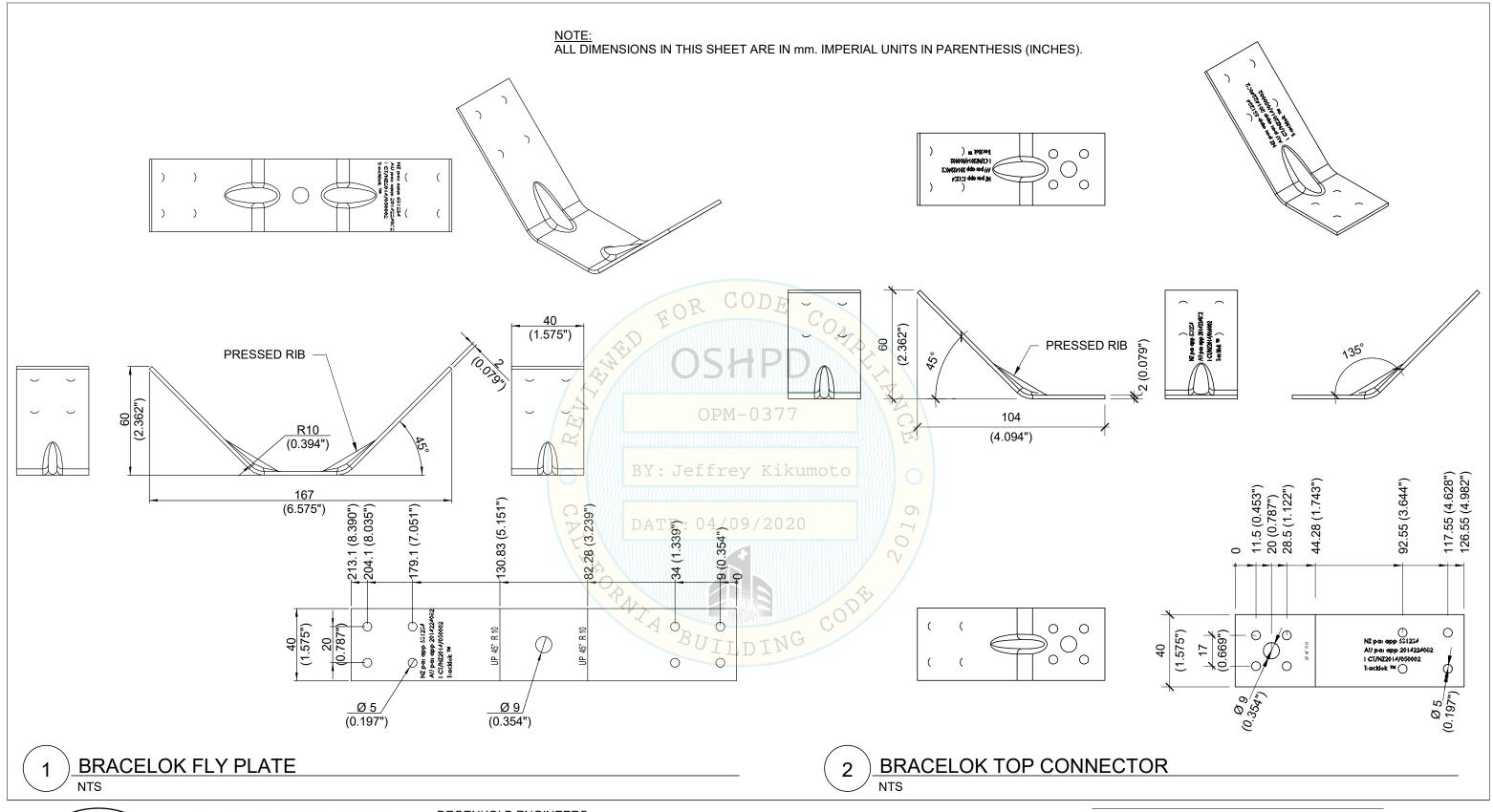
DEGENKOLB ENGINEERS 225 Broadway, Suite 1325 619.515.0299 PHONE www.degenkolb.com

BRACELOK™ RETRO CONNECTOR, MODEL NO. SPT-10-R

BRACE CONNECTIONS

| Drawn: | JEB | Job number: | B8769007.0 |
|---------|----------|-------------|------------|
| Design: | PGM | Rev: | |
| Check: | AC | Scale: | 1" = 1'-0" |
| Date | 07/10/19 | | |

S7 OF Sheets







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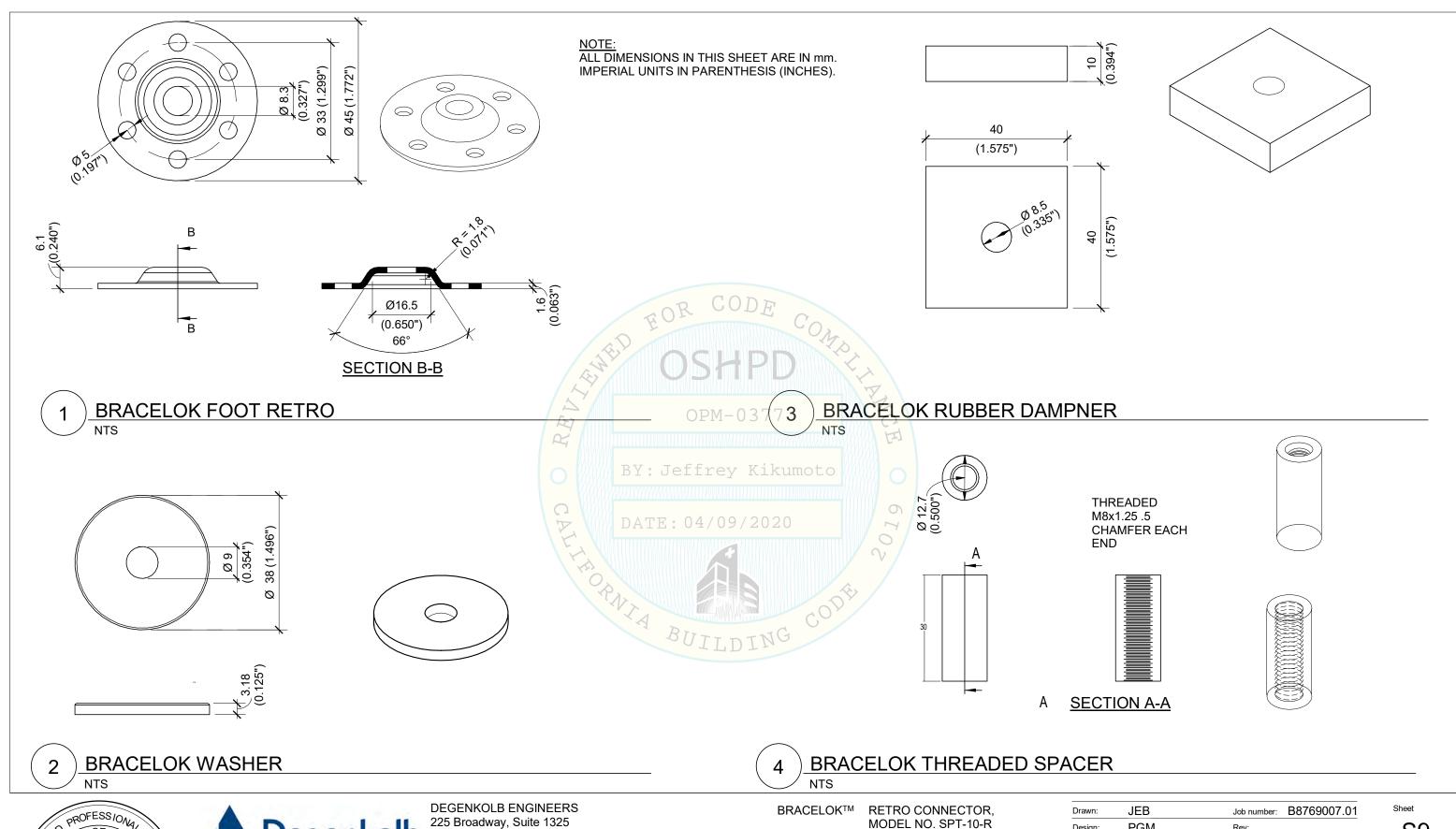
BRACELOK PARTS

| Drawn: | Author | Job number: B8769007.01 |
|---------|----------|-------------------------|
| Design: | Designer | Rev: |
| Check: | Checker | Scale: NTS |
| Date | 07/10/19 | |

Sheet

S8

OF Sheets





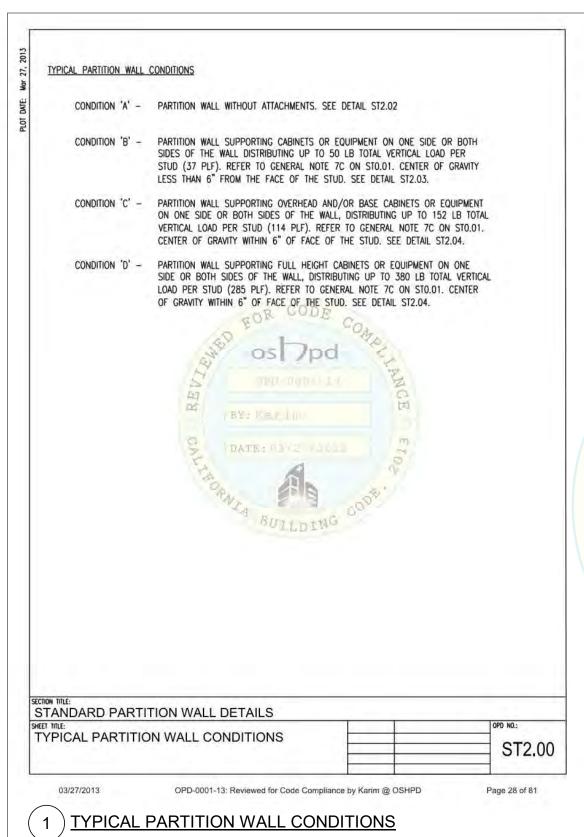


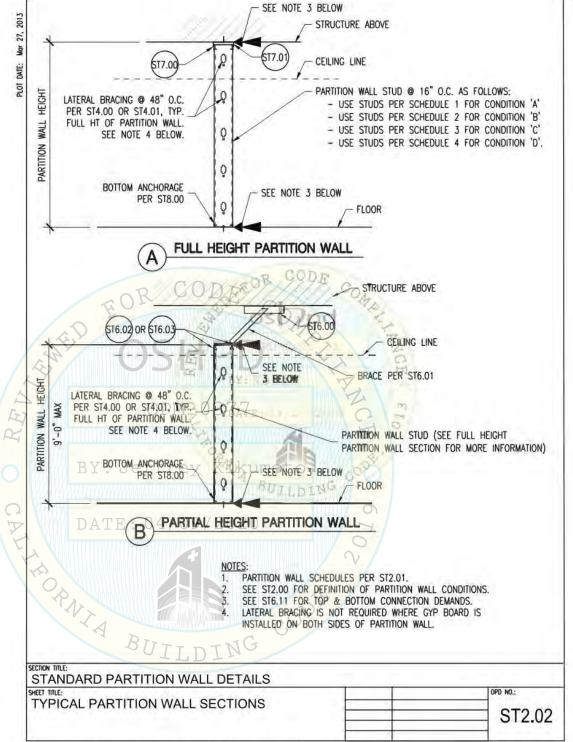
225 Broadway, Suite 1325 San Diego, CA 92101 619.515.0299 PHONE www.degenkolb.com

BRACELOK PARTS

| Drawn: | JEB | Job number: | B8769007.01 |
|---------|----------|-------------|-------------|
| Design: | PGM | Rev: | |
| Check: | AC | Scale: | NTS |
| Date | 07/10/19 | | |
| | | | |







SHEET NOTES:

- 1. THIS OPM IS BASED ON THE FOLLOWING SYSTEM WEIGHTS:
 - PARTITION WALLS=7.5 psf [INCLUDES METAL STUDS, (2) LAYERS OF GYPBD, (2) LAYERS ON (1) SIDE OR (1) LAYER ON BOTH SIDES, & 1 psf FOR **INSULATION & FINISHESI**
 - CABINETS=38 pcf (INCLUDES CONTENTS AT 33 pcf PER 2019 CBC TABLE 1607A.1 & CABINET SELF WT OF 5 pcf)
 - EQUIPMENT=38 pcf (EQUIPMENT LOAD IS ASSUMED TO BE THE SAME AS CABINET LOAD)
- 2. NOTES & DETAIL CALLOUTS IN SPECIFIC DETAILS TAKE PRECEDENCE OVER THE "OPD" DETAILS CALLED OUT ON THIS SHEET.
- 3. SEE SCHEDULE ON SHEET S3 FOR APPLICABLE STUD AND BRACE SIZE INFORMATION.

TYPICAL PARTITION WALL SECTIONS

03/27/2013

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No. S 5580

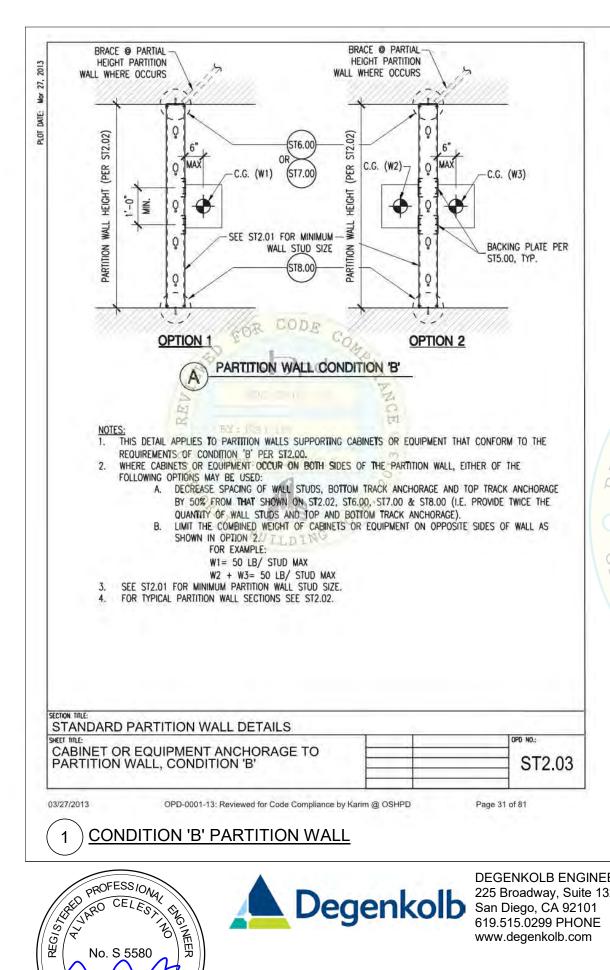
DEGENKOLB ENGINEERS 225 Broadway, Suite 1325 San Diego, CA 92101 619.515.0299 PHONE www.degenkolb.com

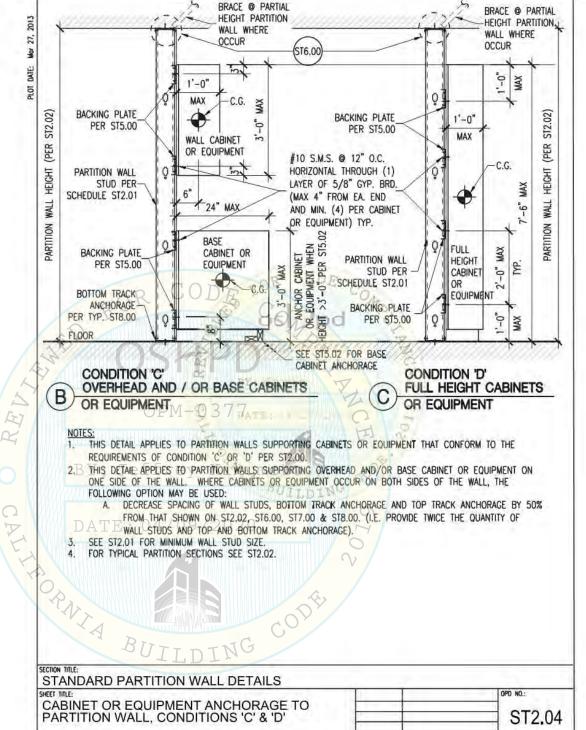
BRACELOK™ RETRO CONNECTOR, MODEL NO. SPT-10-R Page 30 of 81

OPD-0001-13: Reviewed for Code Compliance by Karim @ OSHPD

OPD-0001-13 DETAILS (ST2.00, ST2.02)

| _JEB | Job number: | B8769007.01 |
|----------|-------------|--------------------|
| PGM | Rev: | |
| AC | Scale: | |
| 07/10/19 | | _ |
| | PGM AC_ | PGM Rev: AC Scale: |





SHEET NOTES:

- 1. NOTES & DETAIL CALLOUTS IN SPECIFIC DETAILS TAKE PRECEDENCE OVER THE "OPD" DETAILS CALLED OUT ON THIS SHEET.
- 2. SEE GENERAL NOTES FOR EXPANSION ANCHOR. SCREW ANCHOR, SHEET METAL SCREW, AND PAF REQUIREMENTS.
- 3. SEE SCHEDULE ON SHEET S3 FOR APPLICABLE STUD AND BRACE SIZE INFORMATION.

CONDITION 'C' & 'D' PARTITION WALL

03/27/2013

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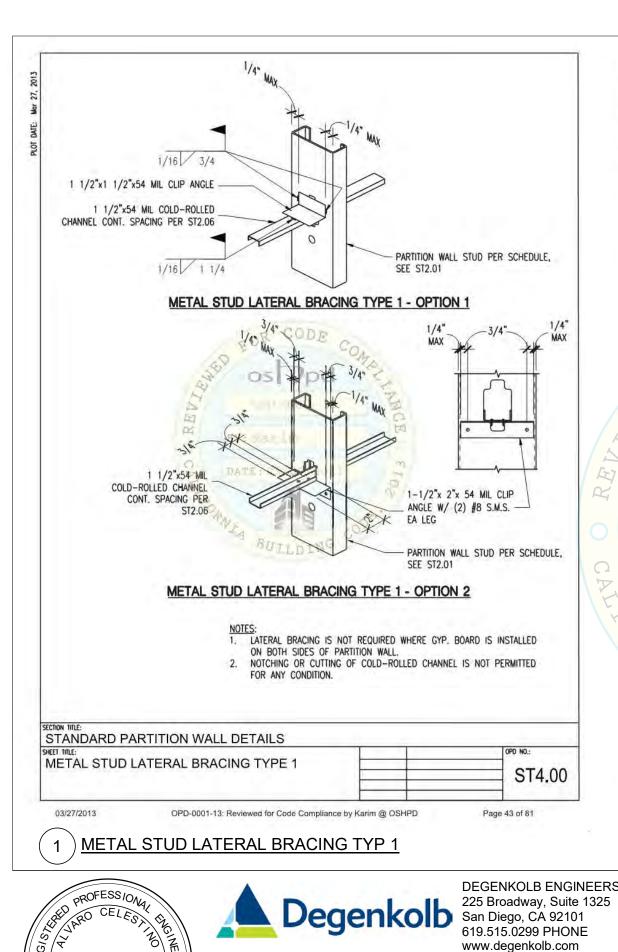
BRACELOK™ RETRO CONNECTOR, MODEL NO. SPT-10-R Page 32 of 81

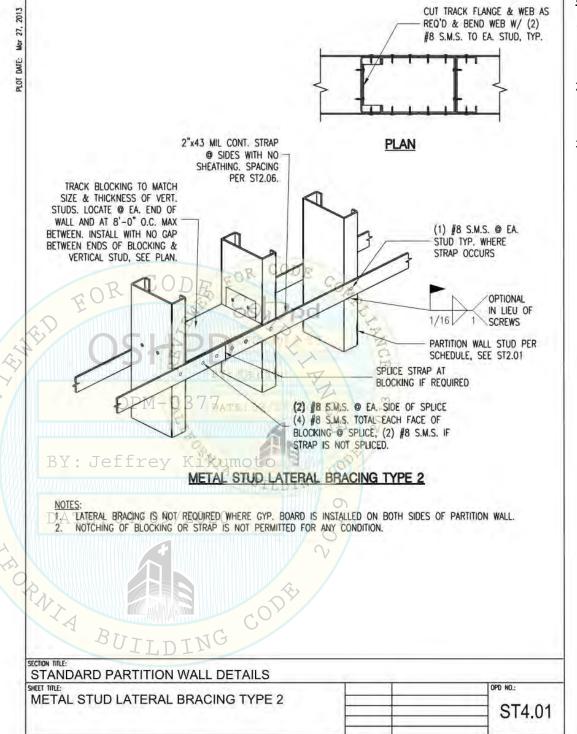
OPD-0001-13: Reviewed for Code Compliance by Karim @ OSHPD

OPD-0001-13 DETAILS (ST2.03, ST2.04)

| Drawn: | JEB | Job number: | B8769007.01 |
|---------|----------|-------------|-------------|
| Design: | PGM | Rev: | |
| Check: | AC | Scale: | |
| Date | 07/10/19 | | |
| | | | |

S11





SHEET NOTES:

- 1. NOTES & DETAIL CALLOUTS IN SPECIFIC DETAILS TAKE PRECEDENCE OVER THE "OPD" DETAILS CALLED OUT ON THIS SHEET.
- 2. SEE GENERAL NOTES FOR EXPANSION ANCHOR. SCREW ANCHOR, SHEET METAL SCREW, AND PAF REQUIREMENTS.
- 3. SEE SCHEDULE ON SHEET S3 FOR APPLICABLE STUD AND BRACE SIZE INFORMATION.

METAL STUD LATERAL BRACING TYP 2 2

03/27/2013

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No. S 5580

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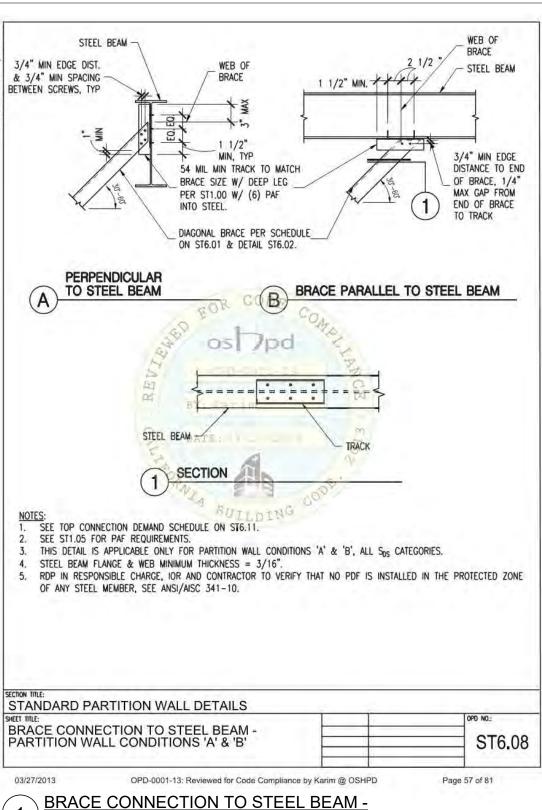
BRACELOK™ RETRO CONNECTOR, MODEL NO. SPT-10-R

OPD-0001-13: Reviewed for Code Compliance by Karim @ OSHPD

OPD-0001-13 DETAILS (ST4.00, ST4.01)

| Drawn: | JEB | Job number: | B8769007.01 |
|---------|----------|-------------|-------------|
| Design: | PGM | Rev: | |
| Check: | AC | Scale: | |
| Date | 07/10/19 | | |

S12



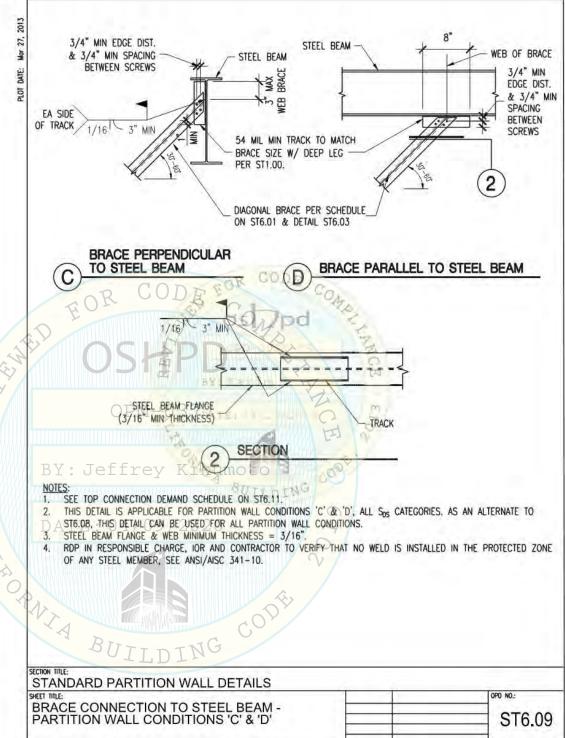
ST6.08

STEEL BEAM TIONS 'A' & 'B'

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03/27/2013



SHEET NOTES:

- 1. NOTES & DETAIL CALLOUTS IN SPECIFIC DETAILS TAKE PRECEDENCE OVER THE "OPD" DETAILS CALLED OUT ON THIS SHEET.
- SEE GENERAL NOTES FOR EXPANSION ANCHOR, SCREW ANCHOR, SHEET METAL SCREW, AND PAF REQUIREMENTS.
- 3. SEE SCHEDULE ON SHEET S3 FOR APPLICABLE STUD AND BRACE SIZE INFORMATION.

2 BRACE CONNECTION TO STEEL BEAM - PARTITION WALL CONDITIONS 'C' & 'D'

BRACELOK™ RETRO CONNECTOR, MODEL NO. SPT-10-R

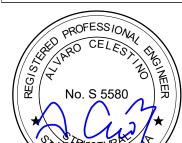
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OPD-0001-13 DETAILS (ST6.08, ST6.09)

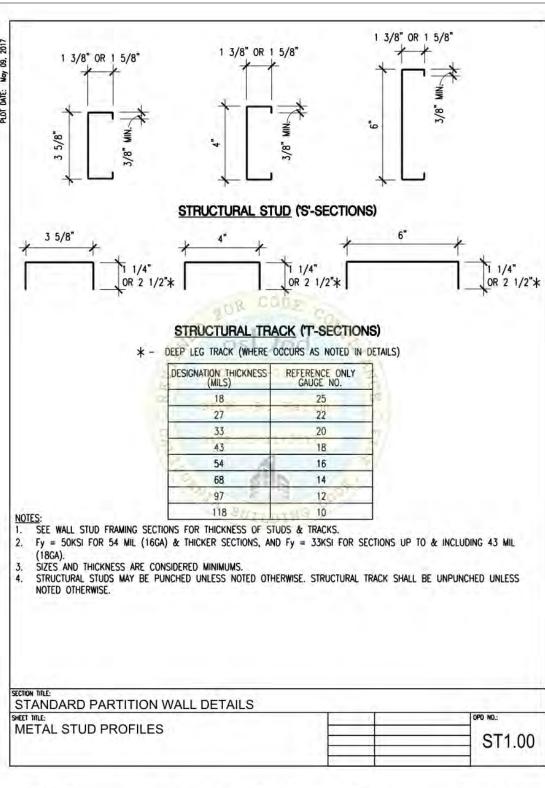
OPD-0001-13: Reviewed for Code Compliance by Karim @ OSHPD

| Drawn: | JEB | Job number: | B8769007.01 |
|---------|----------|-------------|-------------|
| Design: | PGM | Rev: | |
| Check: | AC | Scale: | |
| Date | 07/10/19 | | |
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S13



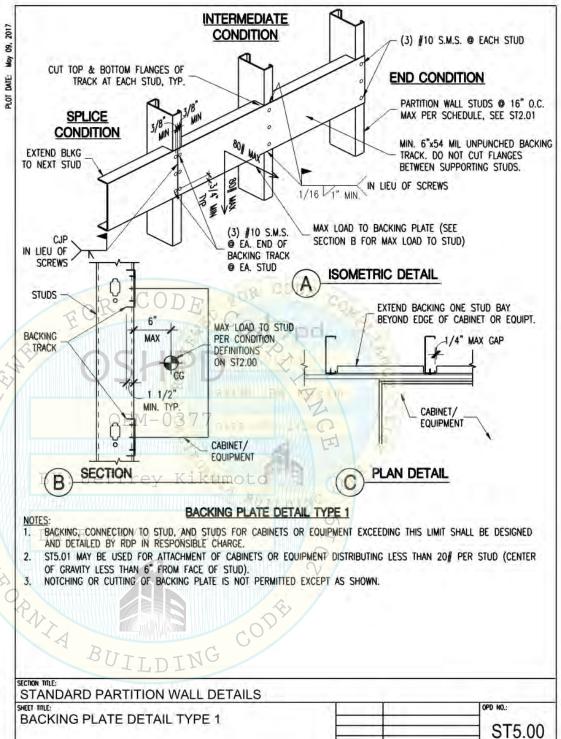
PARTITION WALL CONDITIONS 'A' & 'B'



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SHEET NOTES:

- 1. NOTES & DETAIL CALLOUTS IN SPECIFIC DETAILS TAKE PRECEDENCE OVER THE "OPD" DETAILS CALLED OUT ON THIS SHEET.
- 2. SEE GENERAL NOTES FOR EXPANSION ANCHOR. SCREW ANCHOR, SHEET METAL SCREW, AND PAF REQUIREMENTS.
- 3. SEE SCHEDULE ON SHEET S3 FOR APPLICABLE STUD AND BRACE SIZE INFORMATION.

OPD-0001-13: Reviewed for Code Compliance by Karim **BACKING PLATE DETAIL TYPE 1**

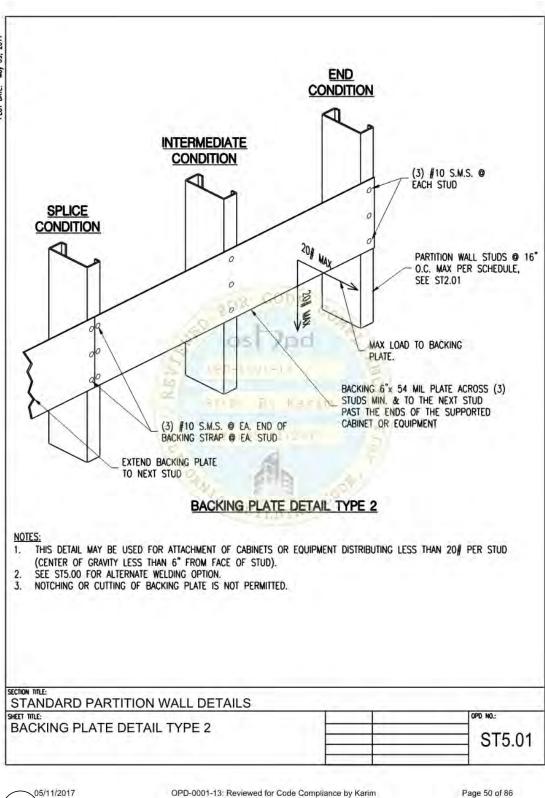
> BRACELOK™ RETRO CONNECTOR, MODEL NO. SPT-10-R

OPD-0001-13 DETAILS (ST1.00, ST5.00)

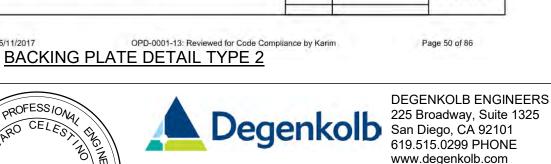
| Drawn: | JEB | Job number: | B8769007.01 |
|---------|----------|-------------|-------------|
| Design: | PGM | Rev: | |
| Check: | AC | Scale: | |
| Date | 07/10/19 | | |

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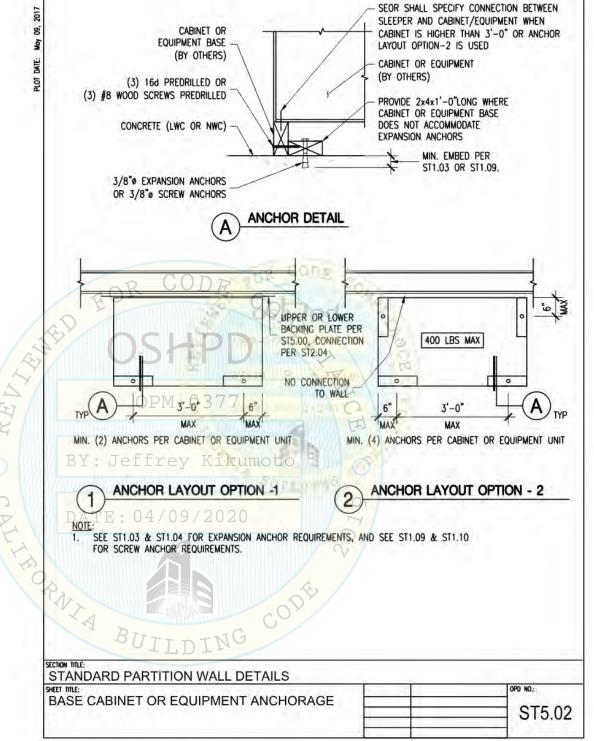
S14



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SHEET NOTES:

- 1. NOTES & DETAIL CALLOUTS IN SPECIFIC DETAILS TAKE PRECEDENCE OVER THE "OPD" DETAILS CALLED OUT ON THIS SHEET.
- 2. SEE GENERAL NOTES FOR EXPANSION ANCHOR, SCREW ANCHOR, SHEET METAL SCREW, AND PAF REQUIREMENTS.
- 3. SEE SCHEDULE ON SHEET S3 FOR APPLICABLE STUD AND BRACE SIZE INFORMATION.

OPD-0001-13: Reviewed for Code Compliance by Karim BASE CABINET OR EQUIPMENT ANCHORAGE

> BRACELOK™ RETRO CONNECTOR, MODEL NO. SPT-10-R

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OPD-0001-13 DETAILS (ST5.01, ST5.02)

| Drawn: | JEB | Job number: | B8769007.01 |
|---------|----------|-------------|-------------|
| Design: | PGM | Rev: | |
| Check: | AC | Scale: | |
| Date | 07/10/19 | | |
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S15