2013 CBC
STANDARD
PARTITION WALL
DETAILS
STX.01

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SECTION TITLE:
STANDARD PARTITION WALL DETAILS

SHEET TITLE:
DRAWING INDEX (CONTINUED)

OPD NO.: STX.01
NARRATIVE

2013 California Building Code (2013 CBC) Standard Partition Wall Details document contains OSHPD Pre-Approved Details (OPD), which may be incorporated into construction documents. These details have been reviewed for compliance with the 2013 CBC and, when used as shown, without modifications, are deemed to comply with code. They are intended to cover common conditions that occur on many projects. It is anticipated that use of these details will facilitate the design, review, and construction process.

The Narrative and supporting Flowchart, which follows the Narrative, are provided to assist in selecting applicable details from the OPD for incorporation into the construction documents. It is to be used only as a guide and does not provide complete step-by-step instructions for use of the OPD. Narrative comment numbers correspond to the numbered items on the Flowchart.

The following steps apply to use of OPD:

1. Define Project Parameters
   
   A. Short Period Spectral Response Acceleration ($S_{0S}$) for project site.
   
      i. The ($S_{0S}$) identified for use with the OPD shall not be lower than the $S_{0S}$ documented in the project General Notes and/or Specifications.

   B. Type of construction.
   
      i. The Registered Design Professional (RDP) in responsible charge shall identify the floor and/or roof framing materials which apply to the use of the OPD under consideration (e.g. wood, concrete, metal deck).

   C. Project specific geometry and other conditions.
   
      i. The RDP in responsible charge shall identify the geometry which applies to the use of the OPD under consideration (e.g. floor-to-floor height, wall thickness).

      ii. The RDP in responsible charge shall identify other unique conditions which apply to the use of the OPD under consideration (e.g. mechanical duct conflicts, door openings in partition walls, partial-height vs full-height partition walls, attachments suspended from partition walls).

2. Verify Applicability of OPD
   
   Refer to PIN 51.

   OPD allow design professionals to incorporate pre-approved details into their construction documents. Projects that utilize OPD shall satisfy the following conditions.
A. The RDP in responsible charge shall verify the applicability of the OPD for their specific project conditions. For example, when designing a fire-rated corridor, use of partition wall framing OPD are acceptable provided the OPD are compatible with the construction requirements for the fire rated wall assembly.

B. The details must be directly applicable to the project conditions. For example, OPD for attachment of a soffit suspended below a steel deck with concrete fill are not applicable to wood frame construction.

C. Substitutions of items shown in the OPD are not permitted, unless specifically allowed by the OPD. For example, a power-actuated fastener (PAF) may not be substituted in a connection detail that specifies an expansion anchor, unless the OPD specifically permits it. Use of post-installed anchors from different manufacturers is permitted, provided the substituted anchors meet the installation criteria and Allowable Strengths as specified in the OPD.

D. Changes to the OPD to accommodate project conditions are not permitted. In such cases, project specific details are required.

3. Select Appropriate Details from OPD
Review OPD General Notes before the start of OPD selection process.

A. For partition wall design, begin at ST2.00.

B. Enter ST2.01 with partition wall height, condition and SD value to select metal stud size.

C. The following framing components are covered by the OPD:
Furring, attachment anchorage to the partition walls, framing of openings (3.D), lateral in-plane bracing of the partition walls, partition wall top and bottom connections to structure (3.E). See flowchart for corresponding detail numbers.

D. Framing of openings.
   i. Select opening framing members per ST3.00 or ST3.01 based upon opening width per ST2.06.
   ii. Apply the information found in these schedules to select appropriate framing details.
      1) Header detail ST3.02 provides a choice of screw or welded connections.
      2) Sill detail ST3.03 provides a choice of screw or welded connections.
      3) Jamb detail ST3.04 provides a choice of screw or welded connections.
         a) See ST2.06 and ST7.10 for top track connection at jambs.
         b) See ST8.05 for fasteners for bottom connection at jambs based on opening size and the substrate below.
4) Depending upon the opening width, use header and sill connection to jamb per ST3.05 or ST3.06, both of which provide options for bent web or gage plate connections.

E. Partition wall connection to structure.

i. Partition wall top connection design.

1) For partial height partition top connection, brace design begins at ST6.00.

   a) For brace spacing size and connections at either end of the brace, enter schedule on ST6.01 with \( S_d \) and partition wall condition information. Determine maximum allowable brace spacing based on the chosen brace size (stud width and thickness).

   b) For brace configuration and components, see ST6.02 and ST6.03.

   c) Brace connection to the structure above is specific to the construction type (e.g. substrate for fastener placement). See ST6.04 through ST6.10.

   d) Select appropriate fastener.

   e) For fasteners installed in concrete or steel choose qualified fastener manufacturer based on fastener installation criteria and Allowable Strength as specified in the OPD as well as criteria specified in the General Notes.

   f) For fasteners installed in wood, use fasteners per NDS for Wood Construction.

2) For full height partition wall, top connection design begins at ST7.00.

   a) For nested and vertically slotted track configurations, see ST7.01.

   b) Top track connection to the structure above is specific to the construction type (e.g. substrate for fastener placement). See ST7.02 through ST7.10.

   c) See 3.E.i.1(d) for further steps.

ii. For partition wall bottom connection, design begins at ST8.00.

1) For connection to concrete, see ST8.01.

   a) To select fastener type, size, embed and spacing for connection to LWC filled metal deck or NWC slab, enter schedule on ST8.02 or ST8.03 with partition wall condition, height and \( S_d \) information.

2) For connection to wood, see ST8.04.
F. For soffit design, begin at ST9.00.
   i. See soffit framing on ST9.01 for framing elements specific to $s_{05}$ level and soffit lateral
      brace length.
   ii. Depending on the substrate, use ST9.02 or ST9.03 for the soffit connection to the
       structure above.

1) Choose qualified manufacturer based on fastener installation criteria and
   Allowable Strengths as specified in the OPD as well as criteria specified in the
   General Notes. See ST1.03 and ST1.04 in addition to OPD General Notes.

4. Implementation and Use of OPD During Plan Review
   Refer to PIN 51.

5. Implementation and Use of OPD During Construction Process
   Refer to PIN 51.

A. During construction, OPD are treated as any other detail in the approved documents.

B. If during the course of construction, it is necessary to modify an OPD or project specific detail to
   accommodate existing conditions and there is an alternate OPD that will work for the condition
   and is appropriate for use, substitution of OPD for the existing detail does not materially alter
   the work, for the purposes of submitting an Amended Construction Document.

C. Changing the scope of a project (adding additional partition walls, for example) does constitute
   a material alteration to the project, even if OPD can be used for all conditions. In such a case,
   an Amended Construction Document must be submitted to OSHPD field staff for review.
1. Project Parameters

2. Applicability (Refer to PIN 51)
   - NO → Create Project Specific Details
   - YES → OPD Selection

3. OPD-0001-13
   - Refer to expanded flowcharts on STX.07-STX.11

4. OPD Incorporation in Construction Documents
   (Refer to PIN 51)
STANDARD PARTITION WALL DETAILS

FLOWCHART - PARTITION WALLS

3.A
Partition Wall Design

Partition Wall Conditions (ST2.00)

3.B
Stud Size (ST2.01)

3.C
Framing Components (ST2.06)

3.D
Furring (ST2.05)
Attachments and Backing (ST2.03, ST2.04, ST5.00-ST5.02)
Openings (ST3.00-ST3.06)
Lateral Bracing (ST4.00, ST4.01)

3.E
Connection to Structure

3.E.i
Top Connection (ST6.00-ST7.00 Series)
Continued on STX.09

3.E.ii
Bottom Connection (ST8.00 Series)
Continued on STX.10

Continued on STX.08
3.D

Openings (ST2.06, ST3.00- ST3.06)

3.D.i

Opening Width ≤ 4'-0" (ST3.00)

3.D.i

4'-0" < Opening ≤ 10' 0" Width (ST3.01)

3.D.ii.1)

Header (ST3.02)

3.D.ii.2)

Sill (ST3.03)

3.D.ii.3)

Jambs (ST3.04)

3.D.ii.4)

Header/Sill Connection to Jambs (ST3.05-ST3.06)

3.D.ii.3)a)

Top Jamb Connection (ST2.06, ST7.10)

3.D.ii.3)b)

Bottom Jamb Connection (ST8.05)

See Step 4 on STX.06

Continued from STX.07

STANDARD PARTITION WALL DETAILS

FLOWCHART - PARTITION WALL OPENINGS

OPD-0001-13; Reviewed for Code Compliance by Karim

STX.08
3.E.ii

Bottom Connection
(ST8.00)

3.E.ii.1

Connection To Concrete
(ST8.01)

PAF

PAF Size, Embed, Spacing
(ST8.02-ST8.03)

Expansion Anchor Size, Embed,
Spacing (ST8.02-ST8.03)

Selection of Qualified
Expansion Anchor Manufacturer
(OPD General Notes)

Selection of Qualified
PAF Manufacturer
(OPD General Notes)

3.E.ii.2

Connection to Wood
(ST8.04)

Screw Anchors

Screw Anchor Size, Embed,
Spacing (ST8.02-ST8.03)

Screw Anchor General Notes and
Allowable Strengths
(ST1:09-ST1:10)

Selection of Qualified
Screw Anchor Manufacturer
(OPD General Notes)

Fasteners per NDS
for Wood Construction

See Step 4
on STX.06

Continued
from STX.07
STANDARD PARTITION WALL DETAILS

FLOWCHART - SOFFIT

3.F
- Soffit Design (ST9.00)

3.F.i
- Soffit Framing Details (ST9.01)

3.F.ii
- Soffit Connection to Concrete Substrate (ST9.02)
- Soffit Connection to Steel Substrate (ST9.03)

3.F.ii.1
- Fastener General Notes and Allowable Strengths (ST1.03-ST1.04, ST1.06-ST1.08)

Selection of Qualified Fastener Manufacturer (OPD General Notes)

See Step 4 on STX.08
GENERAL NOTES


2. THE CONTRACTOR SHALL NOTIFY OSHPD AND THE REGISTERED DESIGN PROFESSIONAL (RDP) IN RESPONSIBLE CHARGE WHERE A CONFLICT OR DISCREPANCY OCCURS BETWEEN THE OSHPD PRE-APPROVED DETAILS (OPD) AND ANY OTHER PORTION OF THE CONSTRUCTION DOCUMENTS, FIELD CONDITIONS OR WHERE ANY CONDITIONS ARISE NOT COVERED BY THESE DOCUMENTS WHEREIN WORK WILL NOT COMPLY WITH THE REQUIREMENTS OF THE 2013 CBC.

3. THE INTENT OF THE OPD IS TO CONSTRUCT THE HOSPITAL BUILDING IN ACCORDANCE WITH THE 2013 CBC. SHOULD ANY CONDITION DEVELOP NOT COVERED BY THE APPROVED PLANS AND SPECIFICATIONS WHEREIN THE WORK WILL NOT COMPLY WITH THE 2013 CBC, A CHANGE ORDER DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY OSHPD BEFORE PROCEEDING WITH THE WORK.

4. GALVANIZED METAL STUDS, TRACKS AND SHEET STEEL SHALL CONFORM TO ASTM A635-09a MATERIAL, OR OTHER EQUIVALENT ASTM LISTED MATERIALS IN SECTION A2.1 OF THE AISI S100-07/S2-10: NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, WITH SUPPLEMENT 2, DATED 2010, WITH A MINIMUM YIELD STRENGTH OF 33 KSI FOR 43 MIL (18 GAGE) AND LIGHTER AND MINIMUM YIELD STRENGTH OF 50 KSI FOR HEAVIER GAGES.

5. METAL STUDS AND TRACKS SHALL BE OF SIZE, THICKNESS AND SECTION PROPERTIES SHOWN ON TABLES I-1, I-2 AND I-3 OF THE AISI MANUAL, COLD-FORMED STEEL DESIGN, 2008 EDITION. THE RDP IN RESPONSIBLE CHARGE SHALL OBTAIN OSHPD APPROVAL FOR ANY SUBSTITUTIONS.

6. THESE OPD REFER TO FASTENER TYPE AND SIZE BUT DO NOT SPECIFY OR ENDORSE A SPECIFIC MANUFACTURER. THE RDP IN RESPONSIBLE CHARGE SHALL SELECT A MANUFACTURER, AND SELECTED FASTENER CAPACITIES SHALL MATCH OR EXCEED THE ALLOWABLE STRENGTHS LISTED HEREIN. THE FOLLOWING REQUIREMENTS SHALL ALSO BE MET:

A. SHEET METAL SCREWS SHALL COMPLY WITH ASTM C 1513-10, ASME B18.6.4-98 (R2005) AND ICC-ES AC 118 AND ALLOWABLE STRENGTH SHALL BE BASED ON INFORMATION PROVIDED IN ST1.07 AND ST1.08. PENETRATION OF SCREWS THROUGH JOINED MATERIAL SHALL NOT BE LESS THAN THREE EXPOSED THREADS.

B. WELDING SHALL BE IN ACCORDANCE WITH AWS D1.3 USING E60XX SERIES ELECTRODES. ALL FIELD WELDING SHALL HAVE SPECIAL INSPECTION IN ACCORDANCE WITH 2013 CBC 1705A.2.
C. POST-INSTALLED ANCHORS (E.G. EXPANSION ANCHORS, SCREW ANCHORS, AND POWER-ACTUATED FASTENERS) SHALL HAVE SPECIAL INSPECTION AND TESTING IN ACCORDANCE WITH THE 2013 CBC SECTIONS 1705A.3 & 1913A.7. FOR QUALIFICATION, DESIGN AND USE OF POST-INSTALLED ANCHORS IN CONCRETE, SEE THE 2013 CBC SECTIONS 1616A.1.19 AND 1908A.1.1 LISTING OF CURRENT ICC-ES EVALUATION REPORTS (OR REPORTS FROM OTHER TESTING AGENCIES ACCEPTABLE TO OSHPD) SHALL BE REQUIRED FOR FASTENERS USED.

D. POWER-ACTUATED FASTENERS (PAF), POWDER DRIVEN FASTENERS (PDF), POWER DRIVEN PINS (PDP) AND SHOT PINS ALL REPRESENT THE SAME DEVICE AND WILL HEREAFTER BE REFERRED TO AS POWER ACTUATED FASTENERS (PAF). PAF SHALL SATISFY THE CURRENT AC70-ACCEPTANCE CRITERIA FOR FASTENERS POWER-DRIVEN INTO CONCRETE, STEEL AND MASONRY ELEMENTS AND THE 2013 CBC SECTION 1908A.1.1. LISTING OF CURRENT ICC-ES EVALUATION REPORTS (OR REPORTS FROM OTHER TESTING AGENCIES ACCEPTABLE TO OSHPD) SHALL BE REQUIRED FOR FASTENERS USED.

E. FOR PAF INSTALLED IN STEEL THE FASTENER PENETRATION SHALL HAVE THE ENTIRE POINTED END OF THE FASTENER DRIVEN THROUGH THE STEEL MEMBER, EXCEPT AS NOTED IN CURRENT REPORTS FROM TESTING AGENCIES ACCEPTABLE TO OSHPD.

7. DESIGN CRITERIA

A. CODE: 2013 CALIFORNIA BUILDING STANDARDS CODE (2013 CBC), ASCE 7-10 WITH SUPPLEMENT #1, AISI S100-07/S2-10, AISI S211-07 WALL STUD DESIGN AND AISI S212-07 FOR HEADER DESIGN.

B. LOAD COMBINATIONS: ALLOWABLE STRESS DESIGN IN ACCORDANCE WITH 2013 CBC SECTION 1605A.3.1.

C. SYSTEM WEIGHTS:

PARTITION WALLS = 7.5 PSF (INCLUDES METAL STUDS, TWO LAYERS OF GYP BOARD, TWO LAYERS ON ONE SIDE OR ONE LAYER ON BOTH SIDES, AND 1 PSF FOR INSULATION AND FINISHES)

SOFFITS = 10 PSF (INCLUDES METAL STUDS, TWO LAYERS OF GYP BOARD, TWO LAYERS ON ONE SIDE OR ONE LAYER ON BOTH SIDES, AND 3.5 PSF FOR INSULATION, FINISHES AND MINOR FIXTURES)

DOORS AND WINDOWS = 10 PSF

CABINETS = 38 PCF (INCLUDES CONTENTS AT 33 PCF PER 2013 CBC TABLE 1607A.1 AND CABINET SELF WEIGHT OF 5 PCF)

EQUIPMENT = 38 PCF (EQUIPMENT LOAD IS ASSUMED TO BE THE SAME AS CABINET LOAD)
D. SEISMIC COEFFICIENTS:

\[ a_p = 1.0 \text{ (ASCE 7-10, TABLE 13.5-1, CEILINGS, PARTITIONS, CABINETS, ETC.)} \]

\[ R_p = 2.5 \text{ (ASCE 7-10, TABLE 13.5-1, CEILINGS, PARTITIONS, CABINETS, ETC.)} \]

\[ \Omega_p = 2.5 \text{ (ASCE 7-10, TABLE 13.5-1, CEILINGS, PARTITIONS, CABINETS, ETC.)} \]

\[ l_p = 1.5 \text{ (ASCE 7-10, SECTION 13.1.3)} \]

\[ z/h = 1.0 \text{ (ALLOWS FOR INSTALLATION AT ANY FLOOR OR ROOF LEVEL OF THE BUILDING)} \]

\[ F_p = \text{LARGER OF 5 PSF IN ACCORDANCE WITH 2013 CBC SECTION 1607A.14 OR SEISMIC DESIGN} \]

\[ \text{FORCE IN ACCORDANCE WITH ASCE 7-10 SECTION 13.3.1)} \]

\[ F_v = 0.2S_{0d}D \text{ (ASCE 7-10, SECTION 13.3.1), APPLIED CONCURRENTLY WITH } F_p \]

\[ p = 1.0 \text{ (ASCE 7-10, SECTION 13.3.1)} \]

\[ S_{0d} - \text{WHERE LIMITING } S_{0d} \text{ VALUES ARE NOT EXPLICITLY NOTED IN THE OPD, FRAMING SYSTEM OR} \]

\[ \text{COMPONENT SHOWN IN THE OPD HAS BEEN DESIGNED TO ACCOMMODATE ALL } S_{0d} \text{ VALUES UP} \]

\[ \text{TO 1.95g. PROJECT SPECIFIC DESIGN IS REQUIRED FOR } S_{0d} \text{ HIGHER THAN 1.95g.} \]

E. DEFLECTION LIMIT = L/120 \text{(2013 CBC TABLE 1604A.3, INTERIOR PARTITION WALLS WITH FLEXIBLE} \]

\[ \text{FINISHES). NOT PERMITTED FOR INTERIOR PARTITION WALLS WITH BRITTLE FINISHES.} \]

F. FASTENER ALLOWABLE STRENGTH TABLES WERE DEVELOPED BASED ON ICC REPORTS BY \]

\[ \text{MULTIPLE MANUFACTURERS.} \]

G. THE OPD DESIGN ASSUMES THAT STRUCTURAL ELEMENTS AND SUPPORTS TO WHICH THE \]

\[ \text{COMPONENTS ARE ANCHORED HAVE SUFFICIENT CAPACITY TO CARRY THE LOADS IMPOSED BY} \]

\[ \text{THE COMPONENTS IN COMBINATION WITH ALL OTHER LOADS. EVALUATION OF THE CAPACITY} \]

\[ \text{OF THESE SUPPORTING STRUCTURAL ELEMENTS IS BEYOND THE SCOPE OF THE OPD.} \]

H. LG BEAMER 8.10 SOFTWARE WAS USED FOR STUD CAPACITY CHECK. THIS SOFTWARE USES AISI \]

\[ S100-07/S2-10 AS THE BASIS FOR SECTION PROPERTY CALCULATIONS AND INTERACTION CHECKS. \]

8. THE RDP IN RESPONSIBLE CHARGE SHALL VERIFY FIRE RESISTIVE AND ACOUSTICAL RATINGS FOR ALL \]

\[ \text{PARTITION WALL ASSEMBLIES.} \]

9. INDIVIDUAL DETAILS WITHIN THIS OPD TYPICALLY RELY UPON OTHER DETAILS FOR INFORMATION \]

\[ \text{ESSENTIAL TO THEIR APPLICATION. OPD ARE TO BE USED IN CONJUNCTION WITH ALL RELATED,} \]

\[ \text{APPLICABLE DETAILS WITHIN THIS OPD PACKAGE INCLUDING THE GENERAL NOTES.} \]

10. OPD PROVIDE OPTIONS FOR COMPONENTS SUCH AS STUD SIZES, BRACES SIZES, FASTENERS, ETC. \]

\[ \text{THE RDP IN RESPONSIBLE CHARGE SHALL CLEARLY IDENTIFY ALL COMPONENTS SELECTED FOR USE IN} \]

\[ \text{THE PROJECT-SPECIFIC CONDITIONS.} \]
STANDARD PARTITION WALL DETAILS

SECTION TITLE:
METAL STUD PROFILES

NOTES:
1. SEE WALL STUD FRAMING SECTIONS FOR THICKNESS OF STUDS & TRACKS.
2. $F_y = 50$ksi FOR 54 MIL (16GA) & THICKER SECTIONS, AND $F_y = 33$ksi FOR SECTIONS UP TO & INCLUDING 43 MIL (18GA).
3. SIZES AND THICKNESS ARE CONSIDERED Minimums.
4. STRUCTURAL STUDS MAY BE PUNCHED UNLESS NOTED OTHERWISE. STRUCTURAL TRACK SHALL BE UNPUNCHED UNLESS NOTED OTHERWISE.

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STRUCTURAL STUD (S' SECTIONS)

STRUCTURAL TRACK (T' SECTIONS)

* DEEP LEG TRACK (WHERE OCCURS AS NOTED IN DETAILS)
POWER ACTUATED FASTENER (PAF) GENERAL NOTES (INSTALLED IN CONCRETE FILLED METAL DECK OR CONC SLAB)

1. POWER ACTUATED FASTENER (PAF), POWDER DRIVEN FASTENERS (PDF), POWER DRIVEN PINS (PDP), SHOT PINS ALL REPRESENT THE SAME FASTENER AND WILL HEREAFTER BE REFERRED TO AS POWER ACTUATED FASTENERS (PAF).

2. ALLOWABLE STRENGTHS SHALL BE COMPARED TO ALLOWABLE STRESS DESIGN (ASD) LEVEL DEMAND IN ACCORDANCE WITH THE 2013 CBC SECTION 1605A.3.1.

3. ALLOWABLE STRENGTHS ARE FOR A SINGLE FASTENER WHICH MEET REQUIREMENTS PER SECTION BELOW AND TABLES ON ST1.02. THE ALLOWABLE STRENGTHS ARE BASED UPON THE LEAST OF THE ALLOWABLE STRENGTHS LISTED IN THE ICC ESRS 1799, 2024, 2138, & 2269.

4. MINIMUM CONCRETE STRENGTH f'c=2000 PSI FOR NORMAL WEIGHT CONCRETE AND f'c=3000 PSI FOR ALL LIGHT WEIGHT CONCRETE UNLESS NOTED OTHERWISE.

5. POWER ACTUATED FASTENER INSTALLED THROUGH LOW FLUTES OF THE METAL DECK SHALL MEET THE REQUIREMENTS OF THE INSTALLATION CRITERIA AND SECTION BELOW.

6. MINIMUM EDGE DISTANCE OF 1 1/8" FROM THE EDGE OF METAL DECK WEB AND 4" FROM THE EDGE OF THE DECK.

7. STEEL DECK TO BE A MINIMUM OF 20GA.

8. CONCRETE FILL DEPTH ABOVE THE TOP OF METAL DECK MUST BE A MINIMUM OF 3 1/4" AT LIGHT WEIGHT CONCRETE COMPOSITE METAL DECK.

9. PAF SHALL NOT BE USED TO RESIST SEISMIC SHEAR FORCES EXCEPT AT INTERIOR NON-LOAD BEARING, NON-SHEAR WALL PARTITION WALLS (AS PERMITTED BY 2013 CBC SECTION 1908A.1.1) AND COMPONENTS EXEMPT FROM CONSTRUCTION DOCUMENT REVIEW BY 2013 CBC SECTION 1616A.1.18 (NOT PERMITTED TO TAKE SEISMIC SHEAR BY ICC-ES AC70 FOR ANY OTHER CONDITIIONS). PAF SHALL NOT BE USED TO CARRY SEISMIC TENSION LOADS (EXCEPT FOR VERTICAL SEISMIC LOAD PRODUCED BY SELF WEIGHT OF THE COMPONENTS) OR IN CRACKED CONCRETE UNLESS APPROVED FOR SUCH LOADING BY OSHPD.

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

11. PAF INSTALLATION SHALL NOT NICK OR DAMAGE EXISTING CONCRETE REINFORCEMENT. SHOULD THIS OCCUR THE RDP IN RESPONSIBLE CHARGE SHALL BE NOTIFIED IMMEDIATELY. PAF SHALL BE INSTALLED 1" CLEAR OF EXISTING REINFORCEMENT. THIS MAY REQUIRE NON-DESTRUCTIVE TESTING.

12. PAF SHALL BE INSTALLED PER CURRENT ICC-ES EVALUATION REPORTS (OR REPORTS FROM OTHER TESTING AGENCIES ACCEPTABLE TO OSHPD).

13. TESTING OF PAF SHALL BE PER 2013 CBC SECTION 1913A.7. MINIMUM CONCRETE SUBSTRATE THICKNESS IS THREE TIMES THE PAF PENETRATION INTO THE CONCRETE SUBSTRATE.

14. TESTING IS NOT REQUIRED OF PAF USED TO ATTACHED TRACKS OF INTERIOR NON-SHEAR WALL PARTITIONS FOR SHEAR ONLY WHERE THERE ARE AT LEAST THREE FASTENERS.

15. TOTAL ALLOWABLE LOADS IN TENSION, SHEAR OR TENSION-SHEAR COMBINATIONS SHALL NOT EXCEED 90 LB AS PERMITTED BY EXCEPTION TO THE ASCE 7-10 SECTION 13.4.5.

16. REFER TO NOTE 6D ON ST1.01 FOR ADDITIONAL PAF REQUIREMENTS.
### Table 1
**Power Actuated Fastener Installed in Sand-Lightweight Concrete Through Metal Deck (f'c min=3000 PSI)**

<table>
<thead>
<tr>
<th>Nominal Shank Diameter (in)</th>
<th>Min. Embed (in)</th>
<th>Min. Spacing (in)</th>
<th>Min. Edge Distance (in)</th>
<th>Tension (lb) (See Note 15)</th>
<th>Shear (lb) (See Note 15)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.145 Min</td>
<td>1 1/4</td>
<td>5.1</td>
<td>4</td>
<td>90</td>
<td>90</td>
</tr>
</tbody>
</table>

### Table 2
**Power Actuated Fastener Installed Into Structural Sand-Lightweight Concrete (f'c min=3000 PSI)**

<table>
<thead>
<tr>
<th>Nominal Shank Diameter (in)</th>
<th>Min. Embed (in)</th>
<th>Min. Spacing (in)</th>
<th>Min. Edge Distance (in)</th>
<th>Tension (lb) (See Note 15)</th>
<th>Shear (lb) (See Note 15)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.145 Min</td>
<td>1 1/4</td>
<td>5.1</td>
<td>4</td>
<td>90</td>
<td>90</td>
</tr>
</tbody>
</table>

### Table 3
**Power Actuated Fastener Installed Into Normal-Weight Concrete (f'c min=2000 PSI)**

<table>
<thead>
<tr>
<th>Nominal Shank Diameter (in)</th>
<th>Min. Embed (in)</th>
<th>Min. Spacing (in)</th>
<th>Min. Edge Distance (in)</th>
<th>Tension (lb) (See Note 15)</th>
<th>Shear (lb) (See Note 15)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.145 Min</td>
<td>1 1/4</td>
<td>5.1</td>
<td>4</td>
<td>90</td>
<td>90</td>
</tr>
</tbody>
</table>
EXPANSION ANCHOR GENERAL NOTES

1. Allowable strengths shall be compared to allowable stress design (ASD) level demand in accordance with the 2013 CBC Section 1605A.3.1.
2. Allowable strengths are for single anchors which meet min. requirements per table & section below.
3. Minimum concrete strength $f_c = 3000$ PSI.
4. Expansion anchors installed through upper or lower flutes of metal deck shall meet the requirements of the installation criteria and section below.
5. Steel deck to be min. 20 ga. W-Deck.
6. Minimum concrete fill depth above the top of metal deck per section and installation criteria below.
7. Expansion anchors shall not be used in pre-stressed concrete unless non-destructive testing methods are used to locate strand & reinforcing prior to anchor installation.
8. Expansion anchor installation shall not nick or damage existing reinforcement. Should this occur the RDP In Responsible Charge shall be notified immediately. Expansion anchors shall be installed 1" clear of existing reinforcement.
9. Expansion anchors shall be installed per current ICC-ES evaluation report or report from other testing agency acceptable to OSHPD.
10. Testing of expansion anchors shall be per 2013 CBC Section 1913A.7.
11. Expansion anchors shall be installed to comply w/ the minimum slab thickness requirements established by the ICC-ESR for the specified anchor.
12. Refer to Note 6C on ST1.01 for additional expansion anchor requirements.
13. All values in tables are for cracked concrete & include reduction based on ACI 318-11 D3.3.4 requirements. The allowable strengths are based upon the least of the allowable strengths calculated using the ICC ESRS 1917, 2427, 2502, & 3037 and using an $\alpha$ factor of 1.4.
14. All values in tables reflect the allowable strengths with 20% allowable stress increase for load combinations with overstrength factor in accordance with ASCE 7-10 Section 12.4.3.3.

<table>
<thead>
<tr>
<th>Expansion Anchors Installation Criteria</th>
<th>Nominal Anchor Diameter (in)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3/8</td>
</tr>
<tr>
<td>Effective Min. Embedment (in)</td>
<td>2</td>
</tr>
<tr>
<td>Min. Member Thickness NWC Slab or Beam Only (in)</td>
<td>4.5</td>
</tr>
<tr>
<td>Min. Anchor Spacing (3 x Embed) (in)</td>
<td>6 3/4</td>
</tr>
<tr>
<td>Min. Edge Distance (in)</td>
<td>6</td>
</tr>
</tbody>
</table>
### Expansion Anchor Allowable Strengths

**Table 1**
Expansion anchors installed into the underside of structural sand-lightweight concrete (f'c min=3000 PSI) over metal deck

<table>
<thead>
<tr>
<th>Anchor Dia. (IN)</th>
<th>Embed (IN)</th>
<th>Shear (LB)</th>
<th>Tension (LB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/8</td>
<td>2</td>
<td>747</td>
<td>604</td>
</tr>
<tr>
<td>1/2</td>
<td>2 1/4</td>
<td>1029</td>
<td>610</td>
</tr>
<tr>
<td>1/2</td>
<td>3 1/4</td>
<td>1173</td>
<td>1086</td>
</tr>
<tr>
<td>5/8</td>
<td>3 1/4</td>
<td>1353</td>
<td>836</td>
</tr>
<tr>
<td>5/8</td>
<td>4 1/4</td>
<td>2477</td>
<td>1941</td>
</tr>
</tbody>
</table>

**Table 2**
Expansion anchors installed into the top of structural sand-lightweight concrete (f'c min=3000 PSI) over metal deck

<table>
<thead>
<tr>
<th>Anchor Dia. (IN)</th>
<th>Embed (IN)</th>
<th>Shear (LB)</th>
<th>Tension (LB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/8</td>
<td>2</td>
<td>806</td>
<td>624</td>
</tr>
<tr>
<td>1/2</td>
<td>2 1/4</td>
<td>948</td>
<td>660</td>
</tr>
</tbody>
</table>

**Table 3**
Expansion anchors installed in normal weight concrete (f'c min=3000 PSI)

<table>
<thead>
<tr>
<th>Anchor Dia. (IN)</th>
<th>Embed (IN)</th>
<th>Shear (LB)</th>
<th>Tension (LB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/8</td>
<td>2</td>
<td>1020</td>
<td>961</td>
</tr>
<tr>
<td>1/2</td>
<td>2 1/4</td>
<td>1580</td>
<td>1101</td>
</tr>
<tr>
<td>1/2</td>
<td>3 1/4</td>
<td>2591</td>
<td>2003</td>
</tr>
<tr>
<td>5/8</td>
<td>3 1/4</td>
<td>2579</td>
<td>2150</td>
</tr>
<tr>
<td>5/8</td>
<td>4 1/4</td>
<td>3772</td>
<td>3113</td>
</tr>
</tbody>
</table>
POWER ACTUATED FASTENER (PAF) GENERAL NOTES (INSTALLED IN STEEL)

1. MINIMUM STEEL TENSILE STRENGTH $F_u=58$ KSI.
2. MINIMUM SPACING 1 INCH.
3. MINIMUM EDGE DISTANCE 1/2 INCH.
4. USE KNURLED SHANK.
5. POWER ACTUATED FASTENERS (PAF) SHALL BE INSTALLED PER CURRENT ICC-ES EVALUATION REPORTS OR REPORTS FROM OTHER TESTING AGENCIES ACCEPTABLE TO OSHPD.
6. SEE GENERAL NOTE 6D & E ON ST0.01 FOR PAF REQUIREMENTS & ATTACHMENT TO STEEL.
7. POWER POWER ACTUATED FASTENER (PAF), POWDER DRIVEN FASTENERS (PDF), POWER DRIVEN PINS (PDP), SHOT PINS, ARE COMMON NOMINATIONS THAT ALL REPRESENT THE SAME FASTENER.
8. ALLOWABLE STRENGTHS SHALL BE COMPARED TO ALLOWABLE STRESS DESIGN (ASD) LEVEL DEMAND IN ACCORDANCE WITH THE 2013 CBC SECTION 1605A.3.1.
10. TOTAL ALLOWABLE TENSION, SHEAR OR TENSION SHEAR COMBINATION SHALL NOT EXCEED 250 LB AS REQUIRED BY THE EXCEPTION TO ASCE 7-10 SECTION 13.4.5.
11. LIMIT USE TO INTERIOR NON-BEARING, NON-SHEAR WALL PARTITIONS AND COMPONENTS EXEMPT FROM CONSTRUCTION DOCUMENTS REVIEW BY THE 2013 CBC SECTION 1616A.1.18 (NOT PERMITTED TO TAKE SEISMIC SHEAR BY ICC-ES AC 70 FOR ANY OTHER CONDITIONS.)

POWER ACTUATED FASTENER (PAF) ALLOWABLE STRENGTHS (INSTALLED IN STEEL)

<table>
<thead>
<tr>
<th>NOMINAL SHANK DIAMETER (IN)</th>
<th>STEEL THICKNESS (IN)</th>
<th>3/16</th>
<th>1/4</th>
<th>3/8</th>
<th>1/2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TENSION (LB)</td>
<td>SHEAR (LB)</td>
<td>TENSION (LB)</td>
<td>SHEAR (LB)</td>
<td>TENSION (LB)</td>
</tr>
<tr>
<td>0.145 MIN</td>
<td>155</td>
<td>250</td>
<td>230</td>
<td>250</td>
<td>250</td>
</tr>
</tbody>
</table>
SHEET METAL SCREW (SMS) GENERAL NOTES

1. The allowable strengths are based upon the AISI S100-07/S2-10 and are limited by actual tested strength of the screws in tension and shear.

2. The allowable strengths are based upon the least of the average tested tensile and shear strengths tabulated from ICC ESR’s 1976, 2196, 1730, 1408, and the steel stud manufacturer’s association (SSMA). Fastener types and sizes apply to non-proprietary fastener types and sizes, and does not endorse a specific manufacturer. Where proprietary fasteners are specified, no exceptions are taken to the use of manufacturer specific values that are based upon the AISI S100-07/S2-10, Section E4. All screw fasteners shall satisfy ICC-ES AC118—Acceptance criteria for self tapping screw fasteners.

3. Table 1 represents allowable tension and shear strengths for non-proprietary sheet metal screws for steel to steel connections.

4. Table 2 and 3 represent allowable tension and shear strengths that incorporate the effects of either one or two layers of 5/8” gypsum board between fastener head and connecting steel material.

5. In order to use the values in Tables 1, 2, and 3, the attachments shall be detailed in such a way as to avoid prying and the studs must be stabilized with full-depth blocking with continuous straps along the flanges or with backing bars.

6. Penetration of screws through joined material should not be less than 3 exposed threads.

7. Steel thicknesses joined are assumed to be the same. If dissimilar thicknesses are being connected, the value for the thinner part joined shall be used.

8. The minimum spacing between centers of fasteners shall not be less than 3 x fastener diameter. The minimum edge distance from the center of a fastener to the edge of any part shall not be less than 1.5 x fastener diameter. Where the end distance is parallel to the force on the fastener, the nominal shear strength shall be limited by Section E4.3.2 of the AISI S100-07/S2-10.

9. Galvanized metal studs, track and sheet steel shall conform to ASTM A653-09a material (or other equivalent ASTM listed materials in the AISI S100-07/S2-10, Section A2.1) with a minimum yield strength of 33 ksi for 43 mil (18 ga) and lighter, and minimum yield strength of 50 ksi for 54 mil (16 ga) & heavier.

10. Where values are not given, such combinations of screw sizes & material thickness are not recommended.

11. If the attachment details result in prying with a moment arm not to exceed 1 5/8”, the values in Table 4 may be used. If the attachment details result in prying with a moment arm that exceeds 1 5/8”, the reregistered design professional in responsible charge of the project shall determine the allowable values and submit substantiation for them to OSHPD for review.

12. Interaction of shear and tension shall be based on T/J_all + V/J_all ≤ 1.0.

13. Refer to Note 6a on ST0.00 for additional sheet metal screw requirements.
### Table 1

**Sheet Metal Screw Allowable Strengths**

<table>
<thead>
<tr>
<th>$F_y$ (KSI)</th>
<th>Mil (Steel GA)</th>
<th>No. 14</th>
<th>No. 12</th>
<th>No. 10</th>
<th>No. 8</th>
<th>No. 6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.250 IN</td>
<td>0.216 IN</td>
<td>0.190 IN</td>
<td>0.164 IN</td>
<td>0.138 IN</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>97 (12)</td>
<td>704</td>
<td>275</td>
<td>525</td>
<td>205</td>
<td></td>
</tr>
<tr>
<td></td>
<td>68 (14)</td>
<td>704</td>
<td>275</td>
<td>525</td>
<td>405</td>
<td>159</td>
</tr>
<tr>
<td></td>
<td>54 (16)</td>
<td>613</td>
<td>261</td>
<td>525</td>
<td>405</td>
<td>159</td>
</tr>
<tr>
<td>33</td>
<td>43 (18)</td>
<td>302</td>
<td>144</td>
<td>280</td>
<td>124</td>
<td>263</td>
</tr>
<tr>
<td></td>
<td>33 (20)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

1. See General Notes on ST1.06 for more information.
2. Where one or two layers of gyp board occurs between steel surfaces, the allowable values of Table 2 & 3 shall be used.
3. Allowable strength values do not account for effects from prying. RDP is responsible charge of the project shall provide adequate blocking/restraint to prevent prying action. Where prying occurs, the values and constraints of Table 4 shall be used.

### Table 2 - Non-Prying Condition

<table>
<thead>
<tr>
<th>$F_y$ (KSI)</th>
<th>Mil (Steel GA)</th>
<th>No. 14</th>
<th>No. 12</th>
<th>No. 10</th>
<th>No. 8</th>
<th>No. 6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.250 IN</td>
<td>0.216 IN</td>
<td>0.190 IN</td>
<td>0.164 IN</td>
<td>0.138 IN</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>97 (12)</td>
<td>226</td>
<td>275</td>
<td>180</td>
<td>205</td>
<td></td>
</tr>
<tr>
<td></td>
<td>68 (14)</td>
<td>226</td>
<td>275</td>
<td>180</td>
<td>205</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>54 (16)</td>
<td>226</td>
<td>261</td>
<td>180</td>
<td>205</td>
<td>140</td>
</tr>
<tr>
<td>33</td>
<td>43 (18)</td>
<td>226</td>
<td>144</td>
<td>180</td>
<td>124</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>33 (20)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

1. See General Notes on ST1.06 for more information.
2. Allowable strength values do not account for effects from prying. RDP is responsible charge to provide adequate blocking/restraint to prevent prying action. Where prying occurs, the values and constraints of Table 4 shall be used.
### TABLE 3 - NON-PRYING CONDITION

Sheet metal screw allowable strengths for steel to steel connections with two layers of 5/8" gyp board between steel surfaces.

<table>
<thead>
<tr>
<th>$F_y$ (ksi)</th>
<th>MIL (steel ga)</th>
<th>FASTENER SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>NO. 14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.250 in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SHEAR (LB)</td>
</tr>
<tr>
<td>50</td>
<td>97 (12)</td>
<td>166</td>
</tr>
<tr>
<td></td>
<td>68 (14)</td>
<td>166</td>
</tr>
<tr>
<td></td>
<td>54 (16)</td>
<td>166</td>
</tr>
<tr>
<td>33</td>
<td>43 (18)</td>
<td>166</td>
</tr>
<tr>
<td></td>
<td>33 (20)</td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:**
1. See general notes on ST1.06 for more information.
2. Allowable strength values do not account for effects from prying. RDP in responsible charge to provide adequate blocking/restraint to prevent prying action. Where prying occurs, the values and constraints of Table 4 shall be used.

### TABLE 4 - PRYING CONDITION (SEE DETAILS BELOW - STRUT CAN BE HORIZONTAL OR VERTICAL)

Sheet metal screw allowable strengths for steel to steel connections with one or two layers of 5/8" gyp board between steel surfaces and maximum prying moment arm of 1 5/8".

<table>
<thead>
<tr>
<th>$F_y$ (ksi)</th>
<th>MIL (steel ga)</th>
<th>FASTENER SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>NO. 14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.250 in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SHEAR (LB)</td>
</tr>
<tr>
<td>50</td>
<td>97 (12)</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>68 (14)</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>54 (16)</td>
<td>40</td>
</tr>
<tr>
<td>33</td>
<td>43 (18)</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>33 (20)</td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:**
1. See general notes on ST1.06 for more information.
2. The allowable strength values listed in Table 4 are based upon a limited test assembly where the origin and direction of the load results in prying upon the fastener. The magnitude of this prying effect shall be limited to a moment arm of 1 5/8" from the fastener.
SCREW ANCHOR GENERAL NOTES

1. ALLOWABLE STRENGTHS SHALL BE COMPARED TO ALLOWABLE STRESS DESIGN (ASD) LEVEL DEMAND IN ACCORDANCE WITH THE 2013 CBC SECTION 1605A.3.1.
2. ALLOWABLE STRENGTHS ARE FOR SINGLE ANCHORS WHICH MEET MIN. REQUIREMENTS PER TABLE & SECTION BELOW.
3. MINIMUM CONCRETE STRENGTH f′c=3000 PSI.
4. STEEL DECK TO BE MIN. 20 GA. W-DECK.
5. MINIMUM CONCRETE FILL DEPTH ABOVE THE TOP OF METAL DECK PER SECTION AND INSTALLATION CRITERIA BELOW.
6. SCREW ANCHORS SHALL NOT BE USED IN PRE-STRESSED CONCRETE UNLESS NON-DESTRUCTIVE TESTING METHODS ARE USED TO LOCATE STRAND & REINFORCING PRIOR TO ANCHOR INSTALLATION.
7. SCREW ANCHOR INSTALLATION SHALL NOT NICK OR DAMAGE EXISTING REINFORCEMENT. SHOULD THIS OCCUR THE RDP IN RESPONSIBLE Charge SHALL BE NOTIFIED IMMEDIATELY. SCREW ANCHORS SHALL BE INSTALLED 1” CLEAR OF EXISTING REINFORCEMENT.
8. SCREW ANCHORS SHALL BE INSTALLED PER CURRENT ICC-ES EVALUATION REPORT OR REPORT FROM OTHER TESTING AGENCIES ACCEPTABLE TO OSHPD.
9. TESTING OF SCREW ANCHORS SHALL BE PER 2013 CBC SECTION 1913A.7.
10. SCREW ANCHORS SHALL BE INSTALLED TO COMPLY W/ THE MINIMUM SLAB THICKNESS REQUIREMENTS ESTABLISHED BY THE ICC-ESR FOR THE SPECIFIED ANCHOR.
11. REFER TO NOTE 6C ON ST0.01 FOR ADDITIONAL SCREW ANCHOR REQUIREMENTS.
12. ALL VALUES IN TABLES ARE FOR CRACKED CONCRETE & INCLUDE REDUCTION BASED ON ACI 318-11 D3.3.4 REQUIREMENTS. THE ALLOWABLE STRENGTHS ARE BASED UPON THE LEAST OF THE ALLOWABLE STRENGTHS CALCULATED USING THE ICC ESRS 2526, 2713 & 3027 AND USING AN α FACTOR OF 1.4.
13. USE OF SCREW ANCHOR SHALL BE LIMITED TO DRY INTERIOR CONDITIONS. REUSE OF SCREW ANCHOR OR SCREW ANCHOR HOLE SHALL NOT BE PERMITTED.
14. ALL VALUES IN TABLES REFLECT THE ALLOWABLE STRENGTHS WITH 20% ALLOWABLE STRESS INCREASE FOR LOAD COMBINATIONS WITH OVERSTRENGTH FACTOR IN ACCORDANCE WITH ASCE 7-10 SECTION 12.4.3.3.

---

### Section - Composite Deck

- **HOLE DIAMETER IN THE STEEL DECK MUST NOT EXCEED THE DIAMETER OF THE HOLE IN THE CONCRETE BY MORE THAN 1/8".**
- **FOR ESR 2526 & 2713, TOP CONCRETE COVER CAN BE REDUCED TO 3/4".**

---

### Section - Slab or Beam

<table>
<thead>
<tr>
<th>Screw Anchors Installation Criteria</th>
<th>Nominal Anchor Diameter (in)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3/8</td>
</tr>
<tr>
<td>Effective Min. Embedment (in)</td>
<td>2 1/2</td>
</tr>
<tr>
<td>Min. Member Thickness NWC Slab or Beam Only (in)</td>
<td>4 1/4</td>
</tr>
<tr>
<td>Min. Anchor Spacing (in)</td>
<td>3</td>
</tr>
<tr>
<td>Min. Edge Distance (in)</td>
<td>3 3/4</td>
</tr>
</tbody>
</table>

---

**Section Title:** STANDARD PARTITION WALL DETAILS

**Sheet Title:** SCREW ANCHOR GENERAL NOTES

---

**OPD No.: ST1.09**
### Screw Anchor Allowable Strengths

#### Table 1
Screw anchors installed in the underside of structural sand-lightweight concrete (f’c min=3000 psi) over metal deck

<table>
<thead>
<tr>
<th>Anchor Dia. (in)</th>
<th>Embed (in)</th>
<th>Shear (lb)</th>
<th>Tension (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/8</td>
<td>2 1/2</td>
<td>465</td>
<td>364</td>
</tr>
<tr>
<td>1/2</td>
<td>2 1/2</td>
<td>496</td>
<td>343</td>
</tr>
</tbody>
</table>

#### Table 2
Screw anchors installed in the top of structural sand-lightweight concrete (f’c min=3000 psi) over metal deck

<table>
<thead>
<tr>
<th>Anchor Dia. (in)</th>
<th>Embed (in)</th>
<th>Shear (lb)</th>
<th>Tension (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/8</td>
<td>2 1/2</td>
<td>571</td>
<td>283</td>
</tr>
<tr>
<td>1/2</td>
<td>2 1/2</td>
<td>628</td>
<td>371</td>
</tr>
</tbody>
</table>

#### Table 3
Screw anchors installed in normal weight concrete (f’c min=3000 psi)

<table>
<thead>
<tr>
<th>Anchor Dia. (in)</th>
<th>Embed (in)</th>
<th>Shear (lb)</th>
<th>Tension (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/8</td>
<td>2 1/2</td>
<td>951</td>
<td>497</td>
</tr>
<tr>
<td>1/2</td>
<td>2 1/2</td>
<td>1047</td>
<td>618</td>
</tr>
<tr>
<td>1/2</td>
<td>3 1/2</td>
<td>2013</td>
<td>1153</td>
</tr>
<tr>
<td>5/8</td>
<td>3 1/4</td>
<td>1756</td>
<td>1412</td>
</tr>
<tr>
<td>5/8</td>
<td>5</td>
<td>3463</td>
<td>1637</td>
</tr>
</tbody>
</table>
POWER ACTUATED FASTENER (PAF) GENERAL NOTES (INSTALLED IN CONCRETE FILLED METAL B-DECK)

1. POWER ACTUATED FASTENER (PAF), POWER DRIVEN FASTENERS (PDF), POWER DRIVEN PINS (PDP), SHOT PINS ALL REPRESENT THE SAME FASTENER AND WILL HEREAFTER BE REFERRED TO AS POWER ACTUATED FASTENERS (PAF).

2. ALLOWABLE STRENGTHS SHALL BE COMPARED TO ALLOWABLE STRESS DESIGN (ASD) LEVEL DEMAND IN ACCORDANCE WITH THE 2013 CBC SECTION 1605A.3.1.

3. ALLOWABLE STRENGTHS ARE FOR A SINGLE FASTENER WHICH MEET REQUIREMENTS PER SECTION BELOW AND TABLES ON ST1.12. THE ALLOWABLE STRENGTHS ARE BASED UPON THE LEAST OF THE ALLOWABLE STRENGTHS LISTED IN ICC ESRS 2024, 2138, & 2269.

4. MINIMUM CONCRETE STRENGTH \( f'c = 3000 \) PSI FOR NORMAL WEIGHT CONCRETE AND \( f'c = 3000 \) PSI FOR ALL LIGHT WEIGHT CONCRETE UNLESS NOTED OTHERWISE.

5. POWER ACTUATED FASTENER INSTALLED THROUGH LOW FLUTES OF THE METAL DECK SHALL MEET THE REQUIREMENTS OF THE INSTALLATION CRITERIA AND SECTION BELOW.

6. MINIMUM EDGE DISTANCE OF \( \frac{1}{8}'' \) FROM THE EDGE OF METAL DECK WEB AND 4" FROM THE EDGE OF THE DECK.

7. STEEL DECK TO BE A MINIMUM OF 20 GA. B-DECK.

8. CONCRETE FILL DEPTH ABOVE THE TOP OF METAL DECK MUST BE A MINIMUM OF \( \frac{2}{5}'' \) AT NORMAL WEIGHT OR LIGHT WEIGHT CONCRETE COMPOSITE METAL DECK.

9. PAF SHALL NOT BE USED TO RESIST SEISMIC SHEAR FORCES EXCEPT AT INTERIOR NON-LOAD BEARING, NON-SHEAR WALL PARTITION WALLS (AS PERMITTED BY 2013 CBC 1908A.1.1) AND COMPONENTS EXEMPT FROM CONSTRUCTION DOCUMENT REVIEW BY 2013 CBC SECTION 1616A.1.18 (NOT PERMITTED TO TAKE SEISMIC SHEAR BY ICC-ES AC70 FOR ANY OTHER CONDITIONS). PAF SHALL NOT BE USED TO CARRY SEISMIC TENSION LOADS (EXCEPT FOR VERTICAL SEISMIC LOAD PRODUCED BY SELF WEIGHT OF THE COMPONENTS) OR IN CRACKED CONCRETE UNLESS APPROVED FOR SUCH LOADING BY OSMPO.

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

11. PAF INSTALLATION SHALL NOT NICHE OR DAMAGE EXISTING CONCRETE REINFORCEMENT. SHOULD THIS OCCUR THE RDP IN RESPONSIBLE CHARGE SHALL BE NOTIFIED IMMEDIATELY. PAF SHALL BE INSTALLED 1" CLEAR OF EXISTING REINFORCEMENT. THIS MAY REQUIRE NON-DESTRUCTIVE TESTING.

12. PAF SHALL BE INSTALLED PER CURRENT ICC-ES EVALUATION REPORTS (OR REPORTS FROM OTHER TESTING AGENCIES ACCEPTABLE TO OSMPO).

13. TESTING OF PAF SHALL BE PER 2013 CBC SECTION 1913A.7. MINIMUM CONCRETE SUBSTRATE THICKNESS IS THREE TIMES THE PAF PENETRATION INTO THE CONCRETE SUBSTRATE.

14. TESTING IS NOT REQUIRED OF PAF USED TO ATTACH TRACKS OF INTERIOR NON-SHEAR WALL PARTITIONS FOR SHEAR ONLY WHERE THERE ARE AT LEAST THREE FASTENERS.

15. TOTAL ALLOWABLE LOADS IN TENSION, SHEAR OR TENSION SHEAR COMBINATION SHALL NOT EXCEED 90 LBS AS PERMITTED BY EXCEPTION TO THE AISC 7-10 SECTION 13.4.5.

16. REFER TO NOTE 6d ON ST0.01 FOR ADDITIONAL PAF REQUIREMENTS.

---

STANDARD PARTITION WALL DETAILS

SECTION TITLE:

POWER ACTUATED FASTENER (PAF) GENERAL NOTES (INSTALLED IN CONCRETE FILLED METAL B DECK)

OPD NO: ST1.11
### TABLE 1

Power-actuated fastener installed to the underside of normal weight or sand-lightweight concrete through B-deck ($f'_c \text{ Min} = 3000 \text{ psi}$)

<table>
<thead>
<tr>
<th>Nominal Shank Diameter (in)</th>
<th>Min. Embed (in)</th>
<th>Min. Spacing (in)</th>
<th>Min. Edge Distance (in)</th>
<th>Tension (lb)</th>
<th>Shear (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.157 Min</td>
<td>1”</td>
<td>4”</td>
<td>4”</td>
<td>90</td>
<td>90</td>
</tr>
</tbody>
</table>

*See Note 15*
EXPANSION ANCHOR GENERAL NOTES

1. ALLOWABLE STRENGTHS SHALL BE COMPARED TO ALLOWABLE STRESS DESIGN (ASD) LEVEL DEMAND IN ACCORDANCE WITH THE 2013 CBC SECTION 1605A.3.1.
2. ALLOWABLE STRENGTHS SHOWN IN TABLES ON ST1.14 ARE FOR SINGLE ANCHORS WHICH MEET MIN. REQUIREMENTS PER TABLE AND SECTION BELOW.
3. MINIMUM CONCRETE STRENGTH f’c = 3000 PSI.
4. EXPANSION ANCHORS INSTALLED THROUGH LOWER FLUTES OF METAL DECK SHALL MEET THE REQUIREMENTS OF THE INSTALLATION CRITERIA AND SECTION BELOW.
5. STEEL DECK TO BE MIN 20 GA. B-DECK.
6. MINIMUM CONCRETE FILL DEPTH ABOVE THE TOP OF THE METAL DECK PER SECTION AND INSTALLATION CRITERIA BELOW.
7. EXPANSION ANCHORS SHALL NOT BE USED IN PRE-STRESSED CONCRETE UNLESS NON-DESTRUCTIVE TESTING METHODS ARE USED TO LOCATE STRAND & REINFORCING PRIOR TO ANCHOR INSTALLATION.
8. EXPANSION ANCHOR INSTALLATION SHALL NOT NICK OR DAMAGE EXISTING REINFORCEMENT. SHOULD THIS OCCUR, THE RDP IN RESPONSIBLE CHARGE SHALL BE NOTIFIED IMMEDIATELY. EXPANSION ANCHORS SHALL BE INSTALLED 1” CLEAR OF EXISTING REINFORCEMENT.
9. EXPANSION ANCHORS SHALL BE INSTALLED PER CURRENT ICC-ES EVALUATION REPORT OR REPORT FROM OTHER TESTING AGENCY ACCEPTABLE TO OSHPD.
10. TESTING OF EXPANSION ANCHORS SHALL BE PER 2013 CBC SECTION 1913A.7.
11. REFER TO NOTE 6c ON ST0.01 FOR ADDITIONAL EXPANSION ANCHOR REQUIREMENTS.
12. ALL VALUES IN TABLES ARE FOR CRACKED CONCRETE & INCLUDE REDUCTION BASED ON ACI 318-11 D.3.3.4.3 REQUIREMENTS. THE ALLOWABLE STRENGTHS ARE BASED UPON THE LEAST OF THE ALLOWABLE STRENGTHS CALCULATED USING THE ICC ESRS 1917 AND 2502 AND USING AN n FACTOR OF 1.4.
13. ALL VALUES IN TABLE REFLECT ALLOWABLE STRENGTHS WITH 20% ALLOWABLE STRESS INCREASE FOR LOAD COMBINATIONS WITH OVERSTRENGTH FACTOR IN ACCORDANCE WITH ASCE 7-10 SECTION 12.4.3.3.

EXPANSION ANCHOR PER TABLE BELOW, TYP

MIN f’c=3000 PSI NORMAL WEIGHT CONCRETE
MIN 20 GA STEEL B-DECK

SECTION - COMPOSITE B-DECK

<table>
<thead>
<tr>
<th>ANCHOR DIAMETER</th>
<th>EFFECTIVE EMBEDMENT</th>
<th>MIN EDGE DISTANCE</th>
<th>MIN SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/8&quot;</td>
<td>2&quot;</td>
<td>6&quot;</td>
<td>6½&quot;</td>
</tr>
<tr>
<td>1/2&quot;</td>
<td>2&quot;</td>
<td>7&quot;</td>
<td>6½&quot;</td>
</tr>
</tbody>
</table>

** UNDERSIDE INSTALLATION **

** UNDERSIDE APPLICATION ONLY.

STANDARD PARTITION WALL DETAILS

EXPANSION ANCHOR GENERAL NOTES INSTALLED IN CONCRETE FILLED METAL B DECK

ST1.13
## Expansion Anchor Allowable Strengths into B-Deck

**Table 1**

Expansion anchors installed into the underside of normal weight concrete through B-deck (f’c min = 3000 PSI)

<table>
<thead>
<tr>
<th>Anchor Diameter (in)</th>
<th>Embed (in)</th>
<th>Shear (lb)</th>
<th>Tension (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/8&quot;</td>
<td>2</td>
<td>997</td>
<td>522</td>
</tr>
<tr>
<td>5/8&quot;</td>
<td>2</td>
<td>1440</td>
<td>600</td>
</tr>
</tbody>
</table>

**Note:** Underside application only. See note on ST1.13.
TYPICAL PARTITION WALL CONDITIONS

CONDITION 'A' - PARTITION WALL WITHOUT ATTACHMENTS. SEE DETAIL ST2.02

CONDITION 'B' - PARTITION WALL SUPPORTING CABINETS OR EQUIPMENT ON ONE SIDE OR BOTH SIDES OF THE WALL DISTRIBUTING UP TO 50 LB TOTAL VERTICAL LOAD PER STUD (37 PLF). REFER TO GENERAL NOTE 7C ON ST0.01. CENTER OF GRAVITY LESS THAN 6" FROM THE FACE OF THE STUD. SEE DETAIL ST2.03.

CONDITION 'C' - PARTITION WALL SUPPORTING OVERHEAD AND/OR BASE CABINETS OR EQUIPMENT ON ONE SIDE OR BOTH SIDES OF THE WALL, DISTRIBUTING UP TO 152 LB TOTAL VERTICAL LOAD PER STUD (114 PLF). REFER TO GENERAL NOTE 7C ON ST0.01. CENTER OF GRAVITY WITHIN 6" OF FACE OF THE STUD. SEE DETAIL ST2.04.

CONDITION 'D' - PARTITION WALL SUPPORTING FULL HEIGHT CABINETS OR EQUIPMENT ON ONE SIDE OR BOTH SIDES OF THE WALL, DISTRIBUTING UP TO 380 LB TOTAL VERTICAL LOAD PER STUD (285 PLF). REFER TO GENERAL NOTE 7C ON ST0.01. CENTER OF GRAVITY WITHIN 6" OF FACE OF THE STUD. SEE DETAIL ST2.04.
### PARTITION WALL SCHEDULES

#### SCHEDULE 1: MINIMUM PARTITION WALL STUD SIZE (PARTITION CONDITION 'A')

<table>
<thead>
<tr>
<th>S</th>
<th>9 FT</th>
<th>12 FT</th>
<th>16 FT</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25-0.99</td>
<td>362S137-33</td>
<td>362S137-33</td>
<td>362S137-43</td>
</tr>
<tr>
<td>1.00-1.25</td>
<td>362S137-33</td>
<td>362S137-33</td>
<td>362S137-43</td>
</tr>
<tr>
<td>1.26-1.45</td>
<td>362S137-33</td>
<td>362S137-33</td>
<td>362S137-43</td>
</tr>
<tr>
<td>1.46-1.95</td>
<td>362S137-33</td>
<td>362S137-33</td>
<td>362S137-54</td>
</tr>
</tbody>
</table>

#### SCHEDULE 2: MINIMUM PARTITION WALL STUD SIZE (PARTITION CONDITION 'B')

<table>
<thead>
<tr>
<th>S</th>
<th>9 FT</th>
<th>12 FT</th>
<th>16 FT</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25-0.99</td>
<td>362S137-33</td>
<td>362S137-43</td>
<td>362S137-54</td>
</tr>
<tr>
<td>1.00-1.25</td>
<td>362S137-33</td>
<td>362S137-43</td>
<td>362S137-54</td>
</tr>
<tr>
<td>1.26-1.45</td>
<td>362S137-33</td>
<td>362S137-43</td>
<td>NA</td>
</tr>
<tr>
<td>1.46-1.95</td>
<td>362S137-33</td>
<td>362S137-43</td>
<td>NA</td>
</tr>
</tbody>
</table>

#### SCHEDULE 3: MINIMUM PARTITION WALL STUD SIZE (PARTITION CONDITION 'C')

<table>
<thead>
<tr>
<th>S</th>
<th>9 FT</th>
<th>12 FT</th>
<th>16 FT</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25-0.99</td>
<td>362S137-43</td>
<td>400S137-43</td>
<td>400S137-43</td>
</tr>
<tr>
<td>1.00-1.25</td>
<td>362S137-43</td>
<td>400S137-43</td>
<td>400S137-43</td>
</tr>
<tr>
<td>1.26-1.45</td>
<td>362S137-43</td>
<td>400S137-43</td>
<td>NA</td>
</tr>
<tr>
<td>1.46-1.95</td>
<td>362S137-43</td>
<td>400S137-43</td>
<td>NA</td>
</tr>
</tbody>
</table>

#### SCHEDULE 4: MINIMUM PARTITION WALL STUD SIZE (PARTITION CONDITION 'D')

<table>
<thead>
<tr>
<th>S</th>
<th>9 FT</th>
<th>12 FT</th>
<th>16 FT</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25-0.99</td>
<td>362S137-33</td>
<td>400S137-43</td>
<td>400S137-43</td>
</tr>
<tr>
<td>1.00-1.25</td>
<td>362S137-43</td>
<td>400S137-43</td>
<td>400S137-43</td>
</tr>
<tr>
<td>1.26-1.45</td>
<td>362S137-43</td>
<td>400S137-43</td>
<td>NA</td>
</tr>
<tr>
<td>1.46-1.95</td>
<td>362S137-43</td>
<td>400S137-43</td>
<td>NA</td>
</tr>
</tbody>
</table>

**NOTES:**
1. Partition wall studs are spaced @ 16" O.C. typical unless noted otherwise.
2. See ST2.06 for partition wall elevation & additional information.
3. See ST2.00 for definition of partition wall conditions.
4. See ST1.00 for metal stud profiles.
5. 362S137-33 is a 3 5/8" wide SSMA stud with 1 3/8" wide flange that is 33 mil thick.
6. Studs shown in the tables above can be replaced by equivalent studs with equal or higher area (A), section modulus (Sx, Sy) and moment of inertia (Ix, Iy) provided materials conform to the same ASTM standard with equal or higher yield strength (fy) and ultimate strength (fu) when approved.
7. Partition walls to have lateral bracing @ 48" O.C. per ST4.00 or ST4.01, for full ht of partition wall, lateral bracing is not required where gyp board is installed on both sides of partition wall.
TYPICAL PARTITION WALL SECTIONS

STANDARD PARTITION WALL DETAILS

M. R. Karim

OPD-0001-13

05/11/2017

SECTION TITLE:
STANDARD PARTITION WALL DETAILS

SHEET TITLE:
TYPICAL PARTITION WALL SECTIONS

ST2.02

NOTES:
1. PARTITION WALL SCHEDULES PER ST2.01.
2. SEE ST2.00 FOR DEFINITION OF PARTITION WALL CONDITIONS.
3. SEE ST6.11 FOR TOP & BOTTOM CONNECTION DEMANDS.
4. LATERAL BRACING IS NOT REQUIRED WHERE GYP BOARD IS INSTALLED ON BOTH SIDES OF PARTITION WALL.

FULL HEIGHT PARTITION WALL

PARTIAL HEIGHT PARTITION WALL
PARTITION WALL CONDITION 'B'

OPTION 1

PARTITION WALL CONDITION 'B'

OPTION 2

NOTES:
1. THIS DETAIL APPLIES TO PARTITION WALLS SUPPORTING CABINETS OR EQUIPMENT THAT CONFORM TO THE REQUIREMENTS OF CONDITION 'B' PER ST2.00.
2. WHERE CABINETS OR EQUIPMENT OCCUR ON BOTH SIDES OF THE PARTITION WALL, EITHER OF THE FOLLOWING OPTIONS MAY BE USED:
   A. DECREASE SPACING OF WALL STUDS, BOTTOM TRACK ANCHORAGE AND TOP TRACK ANCHORAGE BY 50% FROM THAT SHOWN ON ST2.02, ST6.00, ST7.00 & ST8.00 (I.E. PROVIDE TWICE THE QUANTITY OF WALL STUDS AND TOP AND BOTTOM TRACK ANCHORAGE).
   B. LIMIT THE COMBINED WEIGHT OF CABINETS OR EQUIPMENT ON OPPOSITE SIDES OF WALL AS SHOWN IN OPTION 2.
      FOR EXAMPLE:
      W1 = 50 LB/ STUD MAX
      W2 + W3 = 50 LB/ STUD MAX
3. SEE ST2.01 FOR MINIMUM PARTITION WALL STUD SIZE.
4. FOR TYPICAL PARTITION WALL SECTIONS SEE ST2.02.
CONDITION 'C'
OVERHEAD AND/OR BASE CABINETS
OR EQUIPMENT

CONDITION 'D'
FULL HEIGHT CABINETS
OR EQUIPMENT

NOTES:
1. THIS DETAIL APPLIES TO PARTITION WALLS SUPPORTING CABINETS OR EQUIPMENT THAT CONFORM TO THE
   REQUIREMENTS OF CONDITION 'C' OR 'D' PER ST2.00.
2. THIS DETAIL APPLIES TO PARTITION WALLS SUPPORTING OVERHEAD AND/OR BASE CABINET OR EQUIPMENT ON
   ONE SIDE OF THE WALL. WHERE CABINETS OR EQUIPMENT OCCUR ON BOTH SIDES OF THE WALL, THE
   FOLLOWING OPTION MAY BE USED:
   A. DECREASE SPACING OF WALL STUDS, BOTTOM TRACK ANCHORAGE AND TOP TRACK ANCHORAGE BY 50%
      FROM THAT SHOWN ON ST2.02, ST6.00, ST7.00 & ST8.00. (I.E. PROVIDE TWICE THE QUANTITY OF
      WALL STUDS AND TOP AND BOTTOM TRACK ANCHORAGE).
3. SEE ST2.01 FOR MINIMUM WALL STUD SIZE.
4. FOR TYPICAL PARTITION SECTIONS SEE ST2.02.
CONC. OR CONC. BLOCK WALL

2 3/4"x2 3/4"x0'-6"x54 MIL CLIP ANGLE @ 32" O.C. W/ (2) #8 S.M.S. TO TOP TRACK & (2) PAF TO CONC. WALL.
SHORTEN HORIZONTAL LEG OF CLIP ANGLE AS REQ'D TO COORDINATE WITH GAP, TYP.

CEILING LINE

MIN

STUD FURRING ATTACHMENT TO CONCRETE OR CONCRETE BLOCK WALL

1 5/8" MINx54 MIL METAL FURRING STUD @ 16" O.C. MAX
W/ 2 3/4"x2 3/4"x0'-2 1/2"x54 MIL CLIP ANGLE @ EA.
STUD @ 4'-0" O.C. VERTICALLY W/ (1) #8 S.M.S. TO
FURRING STUD & (2) PAF TO CONC. WALL.
ALTERNATIVELY, USE STUD SIZES PER ST2.01 WITH
LATERAL BRACING PER ST4.00 & ST4.01.

1 1/4" MAX GAP

NO CABINET OR EQUIPMENT SHALL BE ANCHORED TO THIS FURRING

BOTTOM ANCHORAGE PER ST8.00

SCREW MAY BE INSTALLED FROM THE INSIDE OR OUTSIDE FACE OF TRACK

NOTES:
1. SEE TOP CONNECTION DEMAND SCHEDULE ON ST6.11.
2. SEE ST1.01 & ST1.02 FOR PAF REQUIREMENTS AND ST1.03 & ST1.04 FOR EXPANSION ANCHOR REQUIREMENTS OR
   ST1.09 & ST1.10 FOR SCREW ANCHOR REQUIREMENTS.
3. DETAIL IS LIMITED TO PARTITION WALL CONDITION 'A' PER ST2.00.

SECTION TITLE:
STANDARD PARTITION WALL DETAILS

SHEET TITLE:
STUD FURRING ATTACHMENT TO CONCRETE OR CONCRETE BLOCK WALL

OPD NO.: ST2.05
PARTITION WALL ELEVATION

NOTES:
1. ATTACHMENT OF CEILING, EQUIPMENT, ETC. TO THE JAMB, HEADER OR STUD ABOVE THE HEADER IS NOT PERMITTED WITHOUT THE APPROVAL OF THE RDP IN RESPONSIBLE CHARGE & OSHPD.
2. LATERAL BRACING PER ST4.00 & ST4.01 @ 4'-0" O.C. MAX. LATERAL BRACING NOT REQUIRED WHERE GYP. BOARD OCCURS ON BOTH SIDES OF PARTITION WALL.
3. SEE ST2.07 FOR CONDITION AT OVERLAPPING OPENINGS.
DUCT OPENING/WALL PENETRATION WHERE OCCURS

EXTEND HEADER FRAMING FROM JAMB OF DOOR/WINDOW TO END OF DUCT OPENING/WALL OPENING

WINDOW SILL WHERE OCCURS

FLOOR

JA MB S PER ST 3.04

FRAMING AT OVERLAPPING OPENINGS

BY: M. R. Karim

DATE: 05/11/2017

NOTES:
1. SEE ST 2.06 FOR ADDITIONAL INFORMATION.
2. ATTACHMENT OF CEILING EQUIPMENT, ETC. TO THE JAMB, HEADER OR STUD ABOVE THE HEADER IS NOT PERMITTED WITHOUT THE APPROVAL OF THE RDP IN RESPONSIBLE CHARGE & OSHPD.

SECTION TITLE:
STANDARD PARTITION WALL DETAILS

SHEET TITLE:
PARTITION WALL ELEVATION - FRAMING AT OVERLAPPING OPENINGS

OPD NO: ST2.07
## PARTITION WALL OPENING FRAMING SCHEDULE

<table>
<thead>
<tr>
<th>OPENING WIDTH</th>
<th>SdS</th>
<th>PARTITION WALL HT UP TO:</th>
<th>JOINTS</th>
<th>HEADER</th>
<th>SILL (SEE NOTE 3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>3.5/8&quot; WALL</td>
<td>4&quot; WALL</td>
<td>6&quot; WALL</td>
</tr>
<tr>
<td>0.25 - 0.99</td>
<td>9' - 0&quot;</td>
<td>ST3.05-A OR ST3.05-B</td>
<td>(1)-33</td>
<td>(1)-33</td>
<td>(1)-33</td>
</tr>
<tr>
<td></td>
<td>12' - 0&quot;</td>
<td></td>
<td>(2)-33</td>
<td>(1)-54 OR (2)-33</td>
<td>(1)-54 OR (2)-33</td>
</tr>
<tr>
<td></td>
<td>16' - 0&quot;</td>
<td></td>
<td>(2)-33</td>
<td>(2)-33</td>
<td>(2)-33</td>
</tr>
<tr>
<td>1.00 - 1.25</td>
<td>9' - 0&quot;</td>
<td>ST3.05-A OR ST3.05-B</td>
<td>(1)-33</td>
<td>(1)-33</td>
<td>(1)-33</td>
</tr>
<tr>
<td></td>
<td>12' - 0&quot;</td>
<td></td>
<td>(2)-33</td>
<td>(2)-33</td>
<td>(1)-54 OR (2)-33</td>
</tr>
<tr>
<td></td>
<td>16' - 0&quot;</td>
<td></td>
<td>(2)-43</td>
<td>(2)-33</td>
<td>(2)-33</td>
</tr>
<tr>
<td>1.26 - 1.45</td>
<td>9' - 0&quot;</td>
<td>ST3.05-A OR ST3.05-B</td>
<td>(1)-33</td>
<td>(1)-33</td>
<td>(1)-33</td>
</tr>
<tr>
<td></td>
<td>12' - 0&quot;</td>
<td></td>
<td>(2)-33</td>
<td>(2)-33</td>
<td>(1)-54 OR (2)-33</td>
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<td></td>
<td>16' - 0&quot;</td>
<td></td>
<td>(2)-43</td>
<td>(2)-43</td>
<td>(2)-33</td>
</tr>
<tr>
<td>1.45 - 1.95</td>
<td>9' - 0&quot;</td>
<td>ST3.05-A OR ST3.05-B</td>
<td>(1)-43 OR (2)-33</td>
<td>(1)-43 OR (2)-33</td>
<td>(1)-33</td>
</tr>
<tr>
<td></td>
<td>12' - 0&quot;</td>
<td></td>
<td>(2)-33</td>
<td>(2)-33</td>
<td>(1)-54 OR (2)-33</td>
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<td>16' - 0&quot;</td>
<td></td>
<td>(2)-54</td>
<td>(2)-54</td>
<td>(2)-43</td>
</tr>
</tbody>
</table>

**NOTES:**

1. SEE GENERAL NOTES ON ST0.00, ST0.01, & ST0.02 FOR LIGHT GAUGE STEEL REQUIREMENTS AND DETAIL ST1.00 FOR SECTION PROFILES.
2. STUDS SHALL MATCH WALL SIZES, I.E. .3625 FOR 3 5/8" WALL, 400S FOR 4" WALL & 600S FOR 6" WALL.
3. SCHEDULE FOR SILL BASED ON 4'-0" MAX HT, FOR SILLS TALLER THAN 4'-0" USE HEADER FRAMING.
4. JAMB, HEADER & SILL DESIGN BASED ON PARTITION WALL CONDITION 'A' ON ST2.00 & THE FOLLOWING DESIGN ASSUMPTIONS:

---

**SECTION TITLE:**

STANDARD PARTITION WALL DETAILS

**SHEET TITLE:**

PARTITION WALL OPENING FRAMING SCHEDULE (4'-0" MAX OPENING WIDTH)

**OPD NO.:** ST3.00
## Partition Wall Opening Framing Schedule

<table>
<thead>
<tr>
<th>Opening Width</th>
<th>Sps</th>
<th>Partition Wall Hit Up To:</th>
<th>Conn. Detail</th>
<th>Jambs (# of Stud)=Mil</th>
<th>Header</th>
<th>Sill (See Note 3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3 5/8&quot; Wall</td>
<td>4&quot; Wall</td>
<td>6&quot; Wall</td>
</tr>
<tr>
<td>&gt;4'-0&quot; to ≤10'-0&quot;</td>
<td>0.25 - 0.99</td>
<td>9'-0&quot; &amp; 12'-0&quot; &amp; 16'-0&quot;</td>
<td>ST3.06-C OR ST3.06-D OR ST3.06-E</td>
<td>(1)-54 OR (2)-33</td>
<td>(1)-54 OR (2)-33</td>
<td>(1)-43 OR (2)-33</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(2)-54</td>
<td>(2)-33</td>
<td>(2)-33</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>(2)-33</td>
<td>(2)-33</td>
<td>(2)-33</td>
</tr>
</tbody>
</table>

**Notes:**
1. See general notes on ST1.00, ST2.01 & ST2.02 for light gauge steel requirements and detail ST1.00 for section profiles.
2. Studs shall match wall sizes, i.e., 3625 for 3 5/8" wall, 400S for 4" wall & 600S for 6" wall.
3. Schedule for sill based on 4'-0" max ht. for sills taller than 4'-0" use header framing.
4. See ST3.00 for design assumptions.

---

**Section Title:**
Standard Partition Wall Details

**Sheet Title:**
WALL OPENING FRAMING SCHEDULE (OPENING WIDTH 4'-0" TO 10'-0" MAX)

---

OPD-0001-13; Reviewed for Code Compliance by Karim
STANDARD PARTITION WALL DETAILS

Note:
1. Attachment of ceiling, equipment, etc. to the header or studs above the header is not permitted without the approval of the RPD in responsible charge & OSHPD.

A. Header at opening 4'-0' max

UNPUNCHED STD. TRACK SEE SCHEDULE ON ST3.00

(1) #10 S.M.S.
@ 12" O.C. FOR WALL HEIGHT < 12' OR
(2) ROWS OF #10 S.M.S.
@ 4" O.C. FOR WALL HEIGHT ≥ 12'

HEADER STUD (WHERE OCCURS) SEE SCHEDULE ON ST3.00

IN LIEU OF SCREWS 1/16 2-12

Optional: Use 33 mil. unpunched track, width to match stud width, to enclose stud. Alternate: in lieu of stud & track use welded stud.

B. Header at opening 4'-0" to 10'-0" max

3 5/8" MIN. WALL STUD PER SCHEDULE ON ST2.01

UNPUNCHED STD. TRACK SEE SCHEDULE ON ST3.01

(1) #10 S.M.S.
@ EA. SIDE
@ EA. STUD

STUD HEADER SEE SCHEDULE ON ST3.01

3 5/8" MIN. WALL STUD PER SCHEDULE ON ST2.01

IN LIEU OF SCREWS 1/16 2-12

(2) ROWS OF #10 S.M.S.
@ 4" O.C. TOP & BOTTOM, STAGGERED

OPD NO.: ST3.02
UNPUNCHED TRACK, SEE SCHEDULE ON ST3.00

3 5/8" MIN. WALL STUD PER SCHEDULE ON ST2.01

(1) #10 S.M.S. MIN. @ EA. SIDE @ EA. STUD

(2) ROWS OF #10 S.M.S. @ 4" O.C. IN LIEU OF WELDING

ALTERNATE
IN LIEU OF TRACK & STUD USE WELDED STUD.

SILL AT OPENING 4'-0" TO 10'-0" MAX

ALTERNATE

STANDARD PARTITION WALL DETAILS

SILL SECTION

ST3.03
A DOUBLE JAMB STUD DETAIL

B DOUBLE JAMB STUD DETAIL (ALTERNATE)

C TRIPLE JAMB STUD DETAIL

D TRIPLE JAMB STUD DETAIL (ALTERNATE)

NOTES:
1. WHERE (2) STUDS ARE INDICATED ON PLANS OR ELEVATIONS, USE DOUBLE STUD DETAIL A OR B ABOVE. WHERE (3) STUDS ARE INDICATED ON PLANS OR ELEVATIONS, USE TRIPLE STUD DETAIL C OR D ABOVE.
2. FOR STUD THICKNESSES, SEE SCHEDULE ON ST3.00 & ST3.01.

SECTION TITLE:
STANDARD PARTITION WALL DETAILS

SHEET TITLE:
JAMB STUD DETAILS

OPD NO.:
ST3.04

M. R. Karim
OPD-0001-13
05/11/2017

OPD-0001-13; Reviewed for Code Compliance by Karim
Page 44 of 86
1. NO STUD PUNCHES OR HOLES SHALL OCCUR WITHIN 10" ABOVE OR BELOW THE HEADER OR SILL OR INSIDE THE HEADER OR SILL ZONE.

**SECTION TITLE:**
STANDARD PARTITION WALL DETAILS

**SHEET TITLE:**
HEADER & SILL CONNECTION
TO JAMB STUDS (4'-0" MAX OPENING WIDTH)

**OPD NO.:**
ST3.05
C. OPENING WIDTH 4'-0" TO 10'-0" MAX

1. DETAILS

D. ALTERNATE CONNECTION 1

E. OPENING WIDTH 4'-0" TO 10'-0" MAX

1. NO STUD PUNCHES OR HOLES SHALL OCCUR WITHIN 10" ABOVE OR BELOW THE HEADER OR SILL OR INSIDE THE HEADER OR SILL ZONE.

FOR OPENING WIDTH 4'-0" TO 10'-0" MAX

ALTERNATE CONNECTION 2 - AT DOOR HEADERS

SECTION TITLE: STANDARD PARTITION WALL DETAILS

SHEET TITLE: HEADER & SILL CONNECTION TO JAMB STUDS (OPENING WIDTH 4'-0" TO 10'-0" MAX)

OPD NO: ST3.06
METAL STUD LATERAL BRACING TYPE 1 - OPTION 1

METAL STUD LATERAL BRACING TYPE 1 - OPTION 2

NOTES:
1. LATERAL BRACING IS NOT REQUIRED WHERE GYP. BOARD IS INSTALLED ON BOTH SIDES OF PARTITION WALL.
2. NOTCHING OR CUTTING OF COLD-ROLLED CHANNEL IS NOT PERMITTED FOR ANY CONDITION.
**METAL STUD LATERAL BRACING TYPE 2**

**NOTES:**
1. LATERAL BRACING IS NOT REQUIRED WHERE GYP. BOARD IS INSTALLED ON BOTH SIDES OF PARTITION WALL.
2. NOTCHING OF BLOCKING OR STRAP IS NOT PERMITTED FOR ANY CONDITION.

**PLAN**

- **2" x 43 MIL CONT. STRAP** @ SIDES WITH NO SHEATHING, SPACING PER ST2.06.
- **CUT TRACK FLANGE & WEB AS REQ'D & BEND WEB W/ (2) #8 S.M.S. TO EA. STUD, TYP.**
- **(1) #8 S.M.S. @ EA. STUD TYP. WHERE STRAP OCCURS**
- **PARTITION WALL STUD PER SCHEDULE, SEE ST12.01**
- **OPTIONAL IN LIEU OF SCREWS**
- **1/16**
- **SPlice strap at blocking if required**
- **(2) #8 S.M.S. @ EA. SIDE OF SPlice**
- **(4) #8 S.M.S. TOTAL EACH FACE OF BLOCKING @ SPlice, (2) #8 S.M.S. IF STRAP IS NOT SPliced.**

**TRACK BLOCKING TO MATCH SIZE & THICKNESS OF VERT. STUDS. LOCATE @ EA. END OF WALL AND AT 8'-0" O.C. MAX BETWEEN. INSTALL WITH NO GAP BETWEEN ENDS OF BLOCKING & VERTICAL STUD, SEE PLAN.**

---

**SECTION TITLE:**
STANDARD PARTITION WALL DETAILS

**SHEET TITLE:**
METAL STUD LATERAL BRACING TYPE 2

**OPD NO.:**
ST4.01

**DATE:**
05/11/2017

**OPD-0001-13; Reviewed for Code Compliance by Karim**

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INTERMEDIATE CONDITION

SPlice CONDITION

END CONDITION

PARTITION WALL STUDS @ 16" O.C.
MAX PER SCHEDULE, SEE ST2.01

MIN. 6"x54 MIL UNPUNCHED BACKING TRACK, DO NOT CUT FLANGES BETWEEN SUPPORTING STUDS.

IN LIEU OF SCREWS

MAX LOAD TO BACKING PLATE (SEE SECTION B FOR MAX LOAD TO STUD)

ISOMETRIC DETAIL

EXTEND BACKING ONE STUD BAY BEYOND EDGE OF CABINET OR EQUIP'T.

1/4" MAX GAP

CABINET/EQUIPMENT

SECTION

PLAN DETAIL

BACKING PLATE DETAIL TYPE 1

NOTES:
1. BACKING, CONNECTION TO STUD, AND STUDS FOR CABINETS OR EQUIPMENT EXCEEDING THIS LIMIT SHALL BE DESIGNED AND DETAILED BY RDP IN RESPONSIBLE CHARGE.
2. ST5.01 MAY BE USED FOR ATTACHMENT OF CABINETS OR EQUIPMENT DISTRIBUTING LESS THAN 20# PER STUD (CENTER OF GRAVITY LESS THAN 6" FROM FACE OF STUD).
3. NOTCHING OR CUTTING OF BACKING PLATE IS NOT PERMITTED EXCEPT AS SHOWN.

SECTION TITLE:
STANDARD PARTITION WALL DETAILS

SHEET TITLE:
BACKING PLATE DETAIL TYPE 1

ST5.00
NOTES:
1. THIS DETAIL MAY BE USED FOR ATTACHMENT OF CABINETS OR EQUIPMENT DISTRIBUTING LESS THAN 20# PER STUD
   (CENTER OF GRAVITY LESS THAN 6" FROM FACE OF STUD).
2. SEE ST5.00 FOR ALTERNATE WELDING OPTION.
3. NOTCHING OR CUTTING OF BACKING PLATE IS NOT PERMITTED.
SEOR SHALL SPECIFY CONNECTION BETWEEN SLEEPER AND CABINET/EQUIPMENT WHEN CABINET IS HIGHER THAN 3'-0" OR ANCHOR LAYOUT OPTION-2 IS USED.

CABINET OR EQUIPMENT (BY OTHERS)

CONCRETE (LWC OR NWC)

(3) 16d PREDRILLED OR (3) #8 WOOD SCREWS PREDRILLED

3/8"Ø EXPANSION ANCHORS OR 3/8"Ø SCREW ANCHORS

**ANCHOR DETAIL**

1. **ANCHOR LAYOUT OPTION - 1**
2. **ANCHOR LAYOUT OPTION - 2**

**NOTE:**
1. SEE ST1.03 & ST1.04 FOR EXPANSION ANCHOR REQUIREMENTS, AND SEE ST1.09 & ST1.10 FOR SCREW ANCHOR REQUIREMENTS.

**SECTION TITLE:**
STANDARD PARTITION WALL DETAILS

**SHEET TITLE:**
BASE CABINET OR EQUIPMENT ANCHORAGE

**OPD NO.:**
ST5.02
CUT TOP & BOTTOM FLANGES OF TRACK AT EACH STUD, TYP.

MIN. 6"x54 MIL UNPUNCHED BACKING TRACK. DO NOT CUT FLANGES BETWEEN SUPPORTING STUDS.

PARTITION WALL STUDS @ 16" O.C. MAX PER SCHEDULE, SEE ST2.01

IN LIEU OF SCREWS

(3) #10 S.M.S. 250# GRAB BAR LOAD APPLIED IN ANY DIRECTION

@ EA. END OF BACKING TRACK

@ EA. STUD

ISOMETRIC DETAIL

BACKING PLATE DETAIL FOR GRAB BAR

NOTES:
1. NOTCHING OR CUTTING OF BACKING PLATE IS NOT PERMITTED EXCEPT AS SHOWN.
### Top Connection Conditions - Partial Height Partition Wall

<table>
<thead>
<tr>
<th>Structure Above Top Track</th>
<th>Partial Height Partition Wall-Brace to Structure Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light Weight (Min. 3000 PSI) Concrete Filled Metal Deck</td>
<td>ST6.04</td>
</tr>
<tr>
<td>Normal Weight (Min. 3000 PSI) Concrete Slab or Beam Soffit</td>
<td>ST6.05</td>
</tr>
<tr>
<td>Concrete Pan Joist or Waffle Slab System</td>
<td>ST6.06</td>
</tr>
<tr>
<td>Metal Roof Deck without Concrete Fill</td>
<td>ST6.07</td>
</tr>
<tr>
<td>Steel Beam</td>
<td>ST6.08 &amp; ST6.09</td>
</tr>
<tr>
<td>Wood Framing</td>
<td>ST6.10</td>
</tr>
</tbody>
</table>

**Notes:**
1. See ST6.02 & ST6.03 for typical details of ceiling height partition walls with a top track connection braced to the structure above. See ST6.01 for brace spacing, size and connection schedule.
2. See ST7.00 for full height partition walls.
3. For top & bottom connection demand schedule see ST6.11.
## PARTIAL HEIGHT PARTITION WALL BRACE SPACING, SIZE AND CONNECTION SCHEDULES

### PARTITION WALL CONDITION 'A'

<table>
<thead>
<tr>
<th>Sds</th>
<th>Max Brace Spacing (FT)</th>
<th>Single Stud Brace</th>
<th>Back to Back Brace</th>
<th>S.M.S. Connections at Brace Ends</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>3 5/8&quot; 4&quot; 6&quot;</td>
<td>3 5/8&quot; 4&quot; 6&quot;</td>
<td>Bottom of Brace (TO Top Track)</td>
</tr>
<tr>
<td>0.25-0.99</td>
<td>10</td>
<td>3625162-43 3005162-43 6005162-43</td>
<td>(2)3625162-43 (2)4005162-43 (2)6005162-43</td>
<td>(4) #10 S.M.S.</td>
</tr>
<tr>
<td>1.00-1.25</td>
<td>9.33</td>
<td>3625162-43 3005162-43 6005162-43</td>
<td>(2)3625162-43 (2)4005162-43 (2)6005162-43</td>
<td>(9) #10 S.M.S. OR (4) #12 S.M.S.</td>
</tr>
<tr>
<td>1.26-1.45</td>
<td>8.75</td>
<td>3625162-43 3005162-43 6005162-43</td>
<td>(2)3625162-43 (2)4005162-43 (2)6005162-43</td>
<td>(5) #10 S.M.S.</td>
</tr>
<tr>
<td>1.46-1.95</td>
<td>7</td>
<td>3625162-43 3005162-43 6005162-43</td>
<td>(2)3625162-43 (2)4005162-43 (2)6005162-43</td>
<td>(5) #10 S.M.S.</td>
</tr>
</tbody>
</table>

### PARTITION WALL CONDITION 'B'

<table>
<thead>
<tr>
<th>Sds</th>
<th>Max Brace Spacing (FT)</th>
<th>Single Stud Brace</th>
<th>Back to Back Brace</th>
<th>S.M.S. Connections at Brace Ends</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>3 5/8&quot; 4&quot; 6&quot;</td>
<td>3 5/8&quot; 4&quot; 6&quot;</td>
<td>Bottom of Brace (TO Top Track)</td>
</tr>
<tr>
<td>0.25-0.99</td>
<td>8</td>
<td>3625162-43 3005162-43 6005162-43</td>
<td>(2)3625162-43 (2)4005162-43 (2)6005162-43</td>
<td>(5) #10 S.M.S.</td>
</tr>
<tr>
<td>1.00-1.25</td>
<td>7</td>
<td>3625162-43 3005162-43 6005162-43</td>
<td>(2)3625162-43 (2)4005162-43 (2)6005162-43</td>
<td>(6) #10 S.M.S. OR (5) #12 S.M.S.</td>
</tr>
<tr>
<td>1.26-1.45</td>
<td>6.5</td>
<td>3625162-43 3005162-43 6005162-43</td>
<td>(2)3625162-43 (2)4005162-43 (2)6005162-43</td>
<td>(6) #10 S.M.S. OR (5) #12 S.M.S.</td>
</tr>
<tr>
<td>1.46-1.95</td>
<td>5.33</td>
<td>3625162-43 3005162-43 6005162-43</td>
<td>(2)3625162-43 (2)4005162-43 (2)6005162-43</td>
<td>(6) #10 S.M.S.</td>
</tr>
</tbody>
</table>

### PARTITION WALL CONDITION 'C' and 'D'

<table>
<thead>
<tr>
<th>Sds</th>
<th>Max Brace Spacing (FT)</th>
<th>Brace Size and Mil</th>
<th>Number of S.M.S. at Top and Bottom of Brace</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>3 5/8&quot; 4&quot; 6&quot;</td>
<td>3 5/8&quot; 4&quot; 6&quot;</td>
</tr>
<tr>
<td>0.25-0.99</td>
<td>6.67</td>
<td>(2)3625162-43 (2)4005162-43 (2)6005162-43</td>
<td>(8) #10 S.M.S.</td>
</tr>
<tr>
<td>1.00-1.25</td>
<td>6</td>
<td>(2)3625162-43 (2)4005162-43 (2)6005162-43</td>
<td>(8) #10 S.M.S.</td>
</tr>
<tr>
<td>1.26-1.45</td>
<td>5.5</td>
<td>(2)3625162-43 (2)4005162-43 (2)6005162-43</td>
<td>(8) #10 S.M.S.</td>
</tr>
<tr>
<td>1.46-1.95</td>
<td>3.33</td>
<td>(2)3625162-43 (2)4005162-43 (2)6005162-43</td>
<td>(8) #10 S.M.S.</td>
</tr>
</tbody>
</table>

**NOTES:***

1. THESE TABLES ARE BASED ON THE FOLLOWING DESIGN CRITERIA:
   A. DEMAND LOADS PER ST6.11.
   B. 9 FT MAX PARTITION WALL HEIGHT.
   C. MAX BRACE LENGTH PER ST6.02 OR ST6.03.
   D. LIMIT OF KL/r TO 200 WHERE:
      \[ K = 1.0 \times \text{EFFECTIVE\ LENGTH\ FACTOR} \]
      \[ L = \text{LENGTH\ OF\ BRACE\ PER\ ST6.02\ AND\ ST6.03\ (INCHES)} \]
      \[ r = \text{MINIMUM\ RADIUS\ OF\ CYRATATION\ OF\ STUD\ (INCHES)} \]
2. RDP IN RESPONSIBLE CHARGE SHALL DESIGN FOR OTHER CONDITIONS.

---

**SECTION TITLE:**

STANDARD PARTITION WALL DETAILS

**SHEET TITLE:**

PARTIAL HEIGHT PARTITION WALL BRACE SPACING, SIZE AND CONNECTION SCHEDULES

**OPD No:**

ST6.01
PARTIAL HEIGHT PARTITION WALL

NOTES:
1. SEE TOP & BOTTOM CONNECTION DEMAND SCHEDULE ON ST6.11.
2. SEE ST2.00 FOR DEFINITION OF PARTITION WALL CONDITIONS.
3. DETAIL APPLIES TO PARTITION WALL CONDITIONS 'A' & 'B', ALL SD8 CATEGORIES.
PARTIAL HEIGHT PARTITION WALL TOP BRACING - PARTITION WALL CONDITIONS 'C' & 'D'

1. SECTION
   (2) BACK-TO-BACK STUDS

2. ELEVATION

PARTIAL HEIGHT PARTITION WALL

NOTES:
1. SEE TOP & BOTTOM CONNECTION SCHEDULE ON ST6.11.
2. SEE ST2.00 FOR DEFINITION OF PARTITION WALL CONDITIONS.
3. DETAIL APPLIES TO PARTITION WALL CONDITIONS 'C' & 'D', ALL S05 CATEGORIES.

SECTION TITLE:
STANDARD PARTITION WALL DETAILS

SHEET TITLE:
PARTIAL HEIGHT PARTITION WALL TOP BRACING - PARTITION WALL CONDITIONS 'C' & 'D'

OPD NO.: ST6.03
Brace Connection to Concrete Filled Metal Deck - All Partition Wall Conditions

**Standard Partition Wall Details**

<table>
<thead>
<tr>
<th>$S_{ds}$</th>
<th>Partition Wall Type</th>
<th>Expansion Anchor Quantity</th>
<th>Allowable Deck Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25 TO 1.95</td>
<td>CONDITION 'A' &amp; 'B'</td>
<td>(2) 3/8&quot;Ø WITH 2&quot; EMBED</td>
<td>W3&quot;+3 1/4&quot; CONC FILLED DECK PER ST1.09 OR 1 1/2&quot;+2 1/4&quot; CONC FILLED B-DECK PER ST1.13</td>
</tr>
<tr>
<td>0.25 TO 1.95</td>
<td>CONDITION 'C' &amp; 'D'</td>
<td>(2) 5/8&quot;Ø WITH 4 1/4&quot; EMBED</td>
<td>W3&quot;+3 1/4&quot; CONC FILLED DECK PER ST1.09 ONLY</td>
</tr>
</tbody>
</table>

**Notes:**
1. See Top & Bottom Connection Demand Schedule on ST6.11.
2. See ST1.03 & ST1.04 for Expansion Anchor Requirements.
3. Detail Applies to All Partition Wall Conditions & All $S_{ds}$ Categories.
SECTION

A

BRACE TO CONC. SLAB OR BEAM SOFFIT

BRACE ANCHORAGE TO CONCRETE SLAB OR BEAM SOFFIT

<table>
<thead>
<tr>
<th>$S_{ds}$</th>
<th>PARTITION WALL TYPE</th>
<th>EXPANSION ANCHOR QUANTITY, SIZE AND EMBED</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25 TO 1.95</td>
<td>CONDITION 'A' &amp; 'B'</td>
<td>(2) 3/8&quot;Ø WITH 2&quot; EMBED</td>
</tr>
<tr>
<td>0.25 TO 1.95</td>
<td>CONDITION 'C' &amp; 'D'</td>
<td>(2) 5/8&quot;Ø WITH 4 1/4&quot; EMBED</td>
</tr>
</tbody>
</table>

NOTES:
1. SEE TOP & BOTTOM CONNECTION DEMAND SCHEDULE ON ST6.11.
2. SEE ST1.03 & ST1.04 FOR EXPANSION ANCHOR REQUIREMENTS.
3. DETAIL APPLIES TO ALL PARTITION WALL CONDITIONS & ALL $S_{ds}$ CATEGORIES.

STANDARD PARTITION WALL DETAILS

BRACE CONNECTION TO CONCRETE SLAB OR BEAM SOFFIT - ALL PARTITION WALL CONDITIONS

OPD-0001-13; Reviewed for Code Compliance by Karim
STANDARD PARTITION WALL DETAILS

SECTION TITLE:
BRACE CONNECTION TO CONCRETE PAN JOIST OR WAFFLE SLAB SYSTEM
- ALL PARTITION WALL CONDITIONS

NOTE:
1. SEE TOP CONNECTION DEMAND SCHEDULE ON ST6.11.
2. SEE ST1.03 & ST1.04 FOR EXPANSION ANCHOR REQUIREMENTS.
3. RDP IN RESPONSIBLE CHARGE SHALL VERIFY LOADS IMPOSED ON JOISTS.
4. PRIOR TO ANCHOR INSTALLATION, REINFORCING/ PRESTRESSING BAR LOCATIONS SHALL BE DETERMINED BY NON-DESTRUCTIVE TESTING.
5. DETAIL APPLIES TO ALL PARTITION WALL CONDITIONS & ALL S05 CATEGORIES.
**BRACE PERPENDICULAR TO FLUTE OF DECK**

**BRACE PARALLEL TO FLUTE OF DECK**

**NOTES:**
1. RDP IN RESPONSIBLE CHARGE TO PROVIDE CALCULATION FOR OSHPD REVIEW JUSTIFYING THE ABILITY OF METAL DECK TO SUPPORT THE REACTIONS FROM BRACE. SEE TOP CONNECTION DEMAND SCHEDULE ON ST6.11 FOR BRACE REACTIONS.
2. THIS DETAIL IS APPLICABLE ONLY FOR PARTITION WALL CONDITIONS 'A' & 'B', ALL SD5 CATEGORIES.
3. RDP IN RESPONSIBLE CHARGE TO EVALUATE PARTITION WALL BRACING FOR CONDITIONS 'C' & 'D', ALL SD5 CATEGORIES.

**SECTION TITLE:**
STANDARD PARTITION WALL DETAILS

**SHEET TITLE:**
BRACE CONNECTION TO METAL ROOF DECK WITHOUT STRUCTURAL CONCRETE FILL - PARTITION WALL CONDITIONS 'A' & 'B'

**OPD NO.:**
ST6.07
PERPENDICULAR TO STEEL BEAM

BRACE PARALLEL TO STEEL BEAM

NOTES:
1. SEE TOP CONNECTION DEMAND SCHEDULE ON ST6.11.
2. SEE ST1.05 FOR PAF REQUIREMENTS.
3. THIS DETAIL IS APPLICABLE ONLY FOR PARTITION WALL CONDITIONS 'A' & 'B', ALL S60 CATEGORIES.
4. STEEL BEAM FLANGE & WEB MINIMUM THICKNESS = 3/16".
5. RDP IN RESPONSIBLE CHARGE, IOR AND CONTRACTOR TO VERIFY THAT NO PDF IS INSTALLED IN THE PROTECTED ZONE OF ANY STEEL MEMBER, SEE ANSI/AISC 341-10.
BRACE PERPENDICULAR TO STEEL BEAM

C

BRACE PARALLEL TO STEEL BEAM

D

SECTION

2

NOTES:
1. SEE TOP CONNECTION DEMAND SCHEDULE ON ST6.11.
2. THIS DETAIL IS APPLICABLE FOR PARTITION WALL CONDITIONS 'C' & 'D', ALL S05 CATEGORIES. AS AN ALTERNATE TO ST6.08, THIS DETAIL CAN BE USED FOR ALL PARTITION WALL CONDITIONS.
3. STEEL BEAM FLANGE & WEB MINIMUM THICKNESS = 3/16”.
4. RDP IN RESPONSIBLE CHARGE, IOR AND CONTRACTOR TO VERIFY THAT NO WELD IS INSTALLED IN THE PROTECTED ZONE OF ANY STEEL MEMBER, SEE ANSI/AISC 341-10.
(5) 8d NAILS - OMIT IF ADJACENT BLOCKING IS USED

3/4" MIN EDGE DISTANCE TO END OF BRACE, 1/4" MAX GAP FROM END OF BRACE TO TRACK.

PLYWOOD SHEATHING

IN LIEU OF NAILS THRU SHEATHING ABOVE
DIAG. BRACE, ADD 4x6 BLK'G EA. SIDE OF BRACE.
SNUG FIT W/ SIMPSON A34 OR EQ.
@ EA. SIDE
@ EACH END.

3/4" MIN
TYP

4x6 BLK'G (FLAT) WITH SIMPSON A34
OR EQ. @ EA. SIDE @ EA. END.

WEB OF
BRACE

3/4" MIN. EDGE DIST. & 3/4" MIN. SPACING BETWEEN SCREWS, TYP.

54 MIL MIN. TRACK TO MATCH BRACE SIZE W/ DEEP LEG PER ST1.01 W/ (6) #14"x3" WOOD SCREWS INTO BLOCKING FOR COND. 'A' & 'B', (8) #14"x3" WOOD SCREWS INTO BLOCKING FOR COND. 'C' & 'D'.

DIAGONAL BRACE PER SCHEDULE ON ST6.01 & DETAILS ON ST6.02 & ST6.03. DOUBLE STUD WHERE OCCURS.

A

3/4" MIN EDGE DISTANCE TO END OF BRACE, 1/4" MAX GAP FROM END OF BRACE TO TRACK.

PLYWOOD SHEATHING

4x6 BLK'G EA. SIDE W/ SIMPSON A34
OR EQ. @ EA. SIDE
@ EA. END WITHIN 12" OF BRACE

3/4" MIN
TYP

OPTION WHERE BRACE ALIGNS W/ JOIST
(10" MAX HORIZ SKEW)

FOR TRACK SEE DETAIL A.

B

DIAGONAL BRACE PER SCHEDULE ON ST6.01. DETAILS ON ST6.02 & ST6.03.

NOTES:
1. SEE TOP CONNECTION DEMAND SCHEDULE ON ST6.11.
2. DETAIL APPLIES TO ALL PARTITION WALL CONDITIONS & ALL S05 CATEGORIES.

SECTION TITLE:
STANDARD PARTITION WALL DETAILS

SHEET TITLE:
BRACE CONNECTION TO WOOD FRAMING - ALL PARTITION WALL CONDITIONS

OPD NO.: ST6.10

05/11/2017
OPD-0001-13; Reviewed for Code Compliance by Karim
Page 63 of 86
### TOP AND BOTTOM CONNECTION DEMAND SCHEDULES

#### TOP AND BOTTOM CONNECTION DEMANDS (PARTITION WALL CONDITION 'A')

<table>
<thead>
<tr>
<th>$S_{dz}$</th>
<th>SEISMIC REACTION AT THE TOP &amp; BOTTOM CONNECTION FOR DIFFERENT WALL HEIGHT (LBS/FT)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9 FT</td>
</tr>
<tr>
<td>0.25-0.99</td>
<td>17</td>
</tr>
<tr>
<td>1.00-1.25</td>
<td>22</td>
</tr>
<tr>
<td>1.25-1.45</td>
<td>26</td>
</tr>
<tr>
<td>1.46-1.95</td>
<td>34</td>
</tr>
</tbody>
</table>

#### TOP AND BOTTOM CONNECTION DEMANDS (PARTITION WALL CONDITION 'B')

<table>
<thead>
<tr>
<th>$S_{dz}$</th>
<th>SEISMIC REACTION AT THE TOP &amp; BOTTOM CONNECTION FOR DIFFERENT WALL HEIGHT (LBS/FT)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9 FT</td>
</tr>
<tr>
<td></td>
<td>BOTTOM</td>
</tr>
<tr>
<td>0.25-0.99</td>
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</tr>
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<td>1.00-1.25</td>
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<td>37</td>
</tr>
<tr>
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<td>50</td>
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</table>

#### TOP AND BOTTOM CONNECTION DEMANDS (PARTITION WALL CONDITION 'C')

<table>
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<tr>
<th>$S_{dz}$</th>
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<tbody>
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<td></td>
<td>BOTTOM</td>
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<td>1.00-1.25</td>
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<td>254</td>
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</table>

#### TOP AND BOTTOM CONNECTION DEMANDS (PARTITION WALL CONDITION 'D')

<table>
<thead>
<tr>
<th>$S_{dz}$</th>
<th>SEISMIC REACTION AT THE TOP &amp; BOTTOM CONNECTION FOR DIFFERENT WALL HEIGHT (LBS/FT)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9 FT</td>
</tr>
<tr>
<td></td>
<td>BOTTOM</td>
</tr>
<tr>
<td>0.25-0.99</td>
<td>101</td>
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<td>1.00-1.25</td>
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<td>149</td>
</tr>
<tr>
<td>1.46-1.95</td>
<td>200</td>
</tr>
</tbody>
</table>

### NOTES:

1. CONNECTION DEMANDS ARE PROVIDED TO ALLOW RDP IN RESPONSIBLE CHARGE TO VERIFY NON PRE-APPROVED COMPONENTS OF THE FRAMING SYSTEM AND THE SUPPORTING STRUCTURE.
2. SEE SI2.02 FOR TYPICAL PARTITION WALL SECTIONS.
3. LOADS GIVEN IN PLF MULTIPLY BY APPROPRIATE BRACE SPACING FOR REACTIONS.
4. LOADS GIVEN DO NOT INCLUDE $Q$, FOR CONCRETE ATTACHMENTS ASCE 7-10 W/ SUPPLEMENT #1 TABLE 13.5-1.

---

**STANDARD PARTITION WALL DETAILS**

**TOP & BOTTOM CONNECTION DEMAND SCHEDULES**

ST6.11
<table>
<thead>
<tr>
<th>STRUCTURE ABOVE TOP TRACK</th>
<th>FULL HEIGHT PARTITION WALL- TOP TRACK TO STRUCTURE CONNECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIGHT WEIGHT (MIN. 3000 PSI) CONCRETE FILLED METAL DECK</td>
<td>ST7.02 &amp; ST7.03</td>
</tr>
<tr>
<td>NORMAL WEIGHT (MIN. 3000 PSI) CONCRETE SLAB OR BEAM SOFFIT</td>
<td>ST7.02 &amp; ST7.03</td>
</tr>
<tr>
<td>CONCRETE PAN JOIST OR WAFFLE SLAB SYSTEM</td>
<td>ST7.03, ST7.05 &amp; ST7.06</td>
</tr>
<tr>
<td>METAL ROOF DECK WITHOUT STRUCTURAL CONCRETE FILL.</td>
<td>ST7.07</td>
</tr>
<tr>
<td>STEEL BEAM</td>
<td>ST7.08</td>
</tr>
<tr>
<td>WOOD FRAMING</td>
<td>ST7.09</td>
</tr>
</tbody>
</table>

NOTES:
1. SEE ST7.01 THROUGH ST7.10 FOR TYPICAL DETAILS OF FULL HEIGHT PARTITION WALLS WITH A TOP TRACK CONNECTION DIRECTLY TO THE STRUCTURE ABOVE.
2. SEE ST6.00 FOR PARTIAL HEIGHT PARTITION WALLS.
3. FOR TOP & BOTTOM CONNECTION DEMAND SCHEDULE SEE ST6.11.
ST7.01

TYPICAL TOP TRACK
ANCHORAGE - ALL PARTITION WALL CONDITIONS

SECTION TITLE:
STANDARD PARTITION WALL DETAILS

SHEET TITLE:
TYPICAL TOP TRACK
ANCHORAGE - ALL PARTITION WALL CONDITIONS

NOTE:
1. DO NOT CONNECT OUTER TRACK TO INNER TRACK OR STUDS (DETAIL A ONLY).
2. DO NOT CONNECT WALL FINISH TO OUTER TRACK (DETAILS A & B).
3. GAP 'X' - BY RDP IN RESPONSIBLE CHARGE, 1/2" MIN. TO 3/4" MAX.
4. RDP IN RESPONSIBLE CHARGE TO VERIFY "UL" RATING FOR HEAD OF WALL ASSEMBLY. APPROVED FIRE RESISTANT ASSEMBLY REQUIRED.
5. DETAIL B TO BE USED WHERE ONLY VERTICAL SLIP REQUIRED. WHERE HORIZONTAL, IN-PLANE SLIP IS REQUIRED, USE DETAIL A, DO NOT USE DETAIL B. DO NOT USE DETAIL B FOR ST7.08.
6. SEE TOP CONNECTION DEMAND SCHEDULE ON ST6.11.
7. LATERAL BRACING ONLY REQUIRED IF GYP BOARD IS NOT FULL HEIGHT ON BOTH SIDES OF PARTITION WALL SEE ST12.06, ST4.00 & ST4.01.
8. DETAIL APPLIES TO ALL PARTITION WALL CONDITIONS & ALL S05 CATEGORIES.
(1) PAF centered in deck flute into deck. See spacing schedule on ST7.04.

LWC (min 3000 PSI) filled metal deck or NWC (min 3000 PSI) w/ t MIN = 4"

TOP TRACK PER ST7.01, SEE NOTE 1.

ANCHORAGE TO CONC. SLAB & CONC. FILLED METAL DECK
(FLUTES PERPENDICULAR TO WALL)

A

(2) #10 S/M.S. @ E.A. STRAP

1/2" TYP.

LWC (min 3000 PSI) filled metal deck

TOP TRACK PER ST7.01, SEE NOTE 1

54 MIL x 4" wide strap w/ (2) PAF center in deck flute spaced per sched on ST7.04. Omit straps where wall aligns w/ lower flute. Strap spacing per sched on ST7.04.

ANCHORAGE TO CONC. FILLED METAL DECK
(FLUTES PARALLEL TO WALL)

B

NOTES:
1. SEE TOP CONNECTION DEMAND SCHEDULE ON ST6.11.
2. SEE ST1.01 & ST1.02 FOR PAF REQUIREMENTS.
3. SEE ST7.10 FOR CONNECTION AT JAMB LOCATION.
4. SEE ST2.01 FOR PARTITION WALL STUD SCHEDULE.
5. DETAIL APPLIES TO ALL PARTITION WALL CONDITIONS & ALL SDS CATEGORIES.

SECTION TITLE:
STANDARD PARTITION WALL DETAILS

SHEET TITLE:
TOP TRACK CONNECTION TO LWC FILLED METAL DECK & NWC SLAB - ALL PARTITION WALL CONDITIONS

OPD NO.: ST7.02

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LWC (MIN 3000 PSI) FILLED METAL DECK OR NWC (MIN 3000 PSI) W/ I MIN=4"

TOP TRACK
PER ST7.01 W/ (2) #10 S.M.S. INTO Z-CLIP, SEE NOTE 1.

10" MIN. FIRE PROOFING WHERE OCCURS

x 54 MIL W/ (3) PAF SPACED 4" APART TO BOTTOM
FLUTE OF DECK CENTERED IN FLUTE. Z-CLIP SHALL BE SPACED PER SCHEDULE ON ST7.04.

ANCHORAGE TO CONC. SLAB & FILLED METAL DECK W/ FIREPROOFING
(FLUTES PERPENDICULAR TO PARTITION WALL)

LWC (MIN 3000 PSI) FILLED METAL DECK

TOP TRACK PER ST7.01 W/ (2) #10 S.M.S. INTO Z-CLIP, SEE NOTE 1.

10" MIN. FIRE PROOFING WHERE OCCURS

x 54 MIL W/ (3) PAF TO BOTTOM FLUTE OF DECK CENTERED IN FLUTE. Z-CLIP WALL BE SPACED PER SCHEDULE ON ST7.04.

ANCHORAGE TO CONC. FILLED METAL DECK W/ FIREPROOFING
(FLUTES PARALLEL TO PARTITION WALL)

NOTES:
1. SEE TOP CONNECTION DEMAND SCHEDULE ON ST6.11.
2. SEE ST1.01 & ST1.02 FOR PAF REQUIREMENTS.
3. SEE ST7.10 FOR CONNECTION AT JAMB LOCATION.
4. SEE ST2.01 FOR PARTITION WALL PARTITION STUD SCHEDULE.
5. DETAIL APPLIES TO ALL PARTITION WALL CONDITIONS & ALL S慧 CATEGORIES.

SECTION TITLE:
STANDARD PARTITION WALL DETAILS

SHEET TITLE:
TOP TRACK CONNECTION TO LWC FILLED METAL DECK & NWC SLAB W/ FIREPROOFING-ALL PARTITION WALL CONDITIONS

OPD NO.:
ST7.03
### Partition Wall Condition 'A'

<table>
<thead>
<tr>
<th>SPH Wall Height</th>
<th>PAF Spacing (Inches O.C.) Per ST7.02 Detail A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9 FT</td>
</tr>
<tr>
<td>0.25-0.99</td>
<td>30</td>
</tr>
<tr>
<td>1.00-1.25</td>
<td>24</td>
</tr>
<tr>
<td>1.26-1.45</td>
<td>24</td>
</tr>
<tr>
<td>1.46-1.95</td>
<td>18</td>
</tr>
</tbody>
</table>

For Detail B Through D (strap or Z-Clip) double the spacing indicated up to 48" OC.

### Partition Wall Condition 'B'

<table>
<thead>
<tr>
<th>SPH Wall Height</th>
<th>PAF Spacing (Inches O.C.) Per ST7.02 Detail A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9 FT</td>
</tr>
<tr>
<td>0.25-0.99</td>
<td>18</td>
</tr>
<tr>
<td>1.00-1.25</td>
<td>12</td>
</tr>
<tr>
<td>1.26-1.45</td>
<td>12</td>
</tr>
<tr>
<td>1.46-1.95</td>
<td>6</td>
</tr>
</tbody>
</table>

For Detail B Through D (strap or Z-Clip) double the spacing indicated up to 48" OC.

### Partition Wall Condition 'C'

<table>
<thead>
<tr>
<th>SPH Wall Height</th>
<th>PAF Spacing (Inches O.C.) Per ST7.02 Detail A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9 FT</td>
</tr>
<tr>
<td>0.25-0.99</td>
<td>6</td>
</tr>
<tr>
<td>1.00-1.25</td>
<td>6</td>
</tr>
<tr>
<td>1.26-1.45</td>
<td>6</td>
</tr>
<tr>
<td>1.46-1.95</td>
<td>6</td>
</tr>
</tbody>
</table>

For Detail B Through D (strap or Z-Clip) double the spacing indicated up to 48" OC.

### Partition Wall Condition 'D'

<table>
<thead>
<tr>
<th>SPH Wall Height</th>
<th>PAF Spacing (Inches O.C.) Per ST7.02 Detail A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9 FT</td>
</tr>
<tr>
<td>0.25-0.99</td>
<td>6</td>
</tr>
<tr>
<td>1.00-1.25</td>
<td>6</td>
</tr>
<tr>
<td>1.26-1.45</td>
<td>6</td>
</tr>
<tr>
<td>1.46-1.95</td>
<td>6</td>
</tr>
</tbody>
</table>

For Detail B Through D (strap or Z-Clip) double the spacing indicated up to 48" OC.

**NOTES:**

1. See ST7.02 & ST7.03 for Details A, B, C, & D.
2. Values in tables above represent maximum spacing. Decrease spacing as req’d to coordinate w/ metal deck flue spacing. Where PAF spacing is less than 12" OC, OK to provide multiple PAF at low flue as required. Maintain edge distance and spacing requirements per ST1.01 & ST1.02.
3. Spacing listed includes Q, per ASCE 7-10 w/ Supplement #1 Table 13.5-1.
ANCHORAGE TO CONC. WAFFLE SLAB

A

(1) PAF (EXCEPT WHERE CONCRETE THICKNESS IS LESS THAN 4" USE 1" EMBED)
2 1/2" x 33 MIL METAL STUD FOR INFILL/WALL AS REQ'D

CLIP FLANGES & FOLD WEB

43 MIL TRACK TOP & BOTTOM W/ #8 S.M.S. TO EA. SIDE SHAFT WALL STUDS

TOP TRACK PER ST7.01, SEE NOTE 1

600S137-33 W/ (2) PDF @ EA. END (4) TOTAL.
600S137-33 SHALL BE LOCATED @ 32" O.C. MAX FOR PARTITION CONDITION 'A' & 'B' OR 16" O.C. MAX FOR PARTITION CONDITION 'C' & 'D'.

ANCHORAGE FOR PARTITION WALL PARALLEL TO CONC. PAN JOIST

B

(2) #10 S.M.S.

NOTES:
1. SEE TOP CONNECTION DEMAND SCHEDULE ON ST6.11.
2. SEE ST1.01 & ST1.02 FOR PAF REQUIREMENTS.
3. SEE ST2.00 FOR TYPICAL PARTITION WALL CONDITIONS.
4. SEE ST2.01 FOR PARTITION WALL STUD SCHEDULE.
5. DETAIL APPLIES TO ALL PARTITION WALL CONDITIONS & ALL Sds CATEGORIES.

SECTION TITLE:
STANDARD PARTITION WALL DETAILS

SHEET TITLE:
TOP TRACK CONNECTION TO CONCRETE PAN JOIST AND WAFFLE SLAB SYSTEM - ALL PARTITION WALL CONDITIONS

OPD NO.: ST7.05
ANCHORAGE FOR PARTITION WALL PERPENDICULAR TO CONC. PAN JOIST

<table>
<thead>
<tr>
<th>PARTITION TYPE</th>
<th>CONDITION 'A'</th>
<th>CONDITION 'B'</th>
<th>CONDITIONS 'C' &amp; 'D'</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDS/WALL HT.</td>
<td>9 FT</td>
<td>12 FT</td>
<td>16 FT</td>
</tr>
<tr>
<td>0.25-0.99</td>
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<td>✓</td>
<td>✓</td>
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<td>1.00-1.25</td>
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<td>✓</td>
<td>✓</td>
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<td>1.26-1.45</td>
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</tr>
<tr>
<td>1.46-1.95</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

- DETAIL D CAN BE USED FOR THIS CONDITION
- DETAIL D CAN NOT BE USED FOR THIS CONDITION

NOTES:
1. SEE TOP CONNECTION DEMAND SCHEDULE ON ST6.11.
2. SEE ST1.01 & ST1.02 FOR PAF REQUIREMENTS.
3. SEE ST2.00 FOR TYPICAL PARTITION WALL CONDITIONS.
4. SEE ST2.01 FOR PARTITION WALL PARTITION STUD SCHEDULE.
5. DETAIL APPLIES TO ALL PARTITION WALL CONDITIONS & ALL SDS CATEGORIES.
TOP TRACK CONNECTION TO METAL ROOF DECK WITHOUT CONCRETE FILL - ALL PARTITION WALL CONDITIONS

**ANCHORAGE TO METAL ROOF DECK**

_(FLUTES PARALLEL TO PARTITION WALL)_

33 MIL MIN. BARE METAL DECK

FIRE PROOFING WHERE OCCURS. FOR METAL DECK W/O FIRE PROOFING 54 MIL x 4” FLAT STRAP CAN BE USED IN LIEU OF Z-CLIP.

1 1/2” TYP.

TOP TRACK PER ST7.01 W/ (2) #10 S.M.S. INTO Z-CLIP, SEE NOTE 1

PARTITION WALL STUD 16" O.C. MAX.

PER SCHEDULE SEE ST2.01

**ANCHORAGE TO METAL ROOF DECK**

_(FLUTES PERPENDICULAR TO PARTITION WALL)_

33 MIL MIN. BARE METAL DECK

FIRE PROOFING WHERE OCCURS. FOR METAL DECK W/O FIRE PROOFING 54 MIL x 4” FLAT STRAP CAN BE USED IN LIEU OF Z-CLIP.

TOP TRACK PER ST7.01 W/ (2) #10 S.M.S. INTO Z-CLIP, SEE NOTE 1

PARTITION WALL STUD 16" O.C. MAX.

PER SCHEDULE: ST2.01

**NOTES:**

1. SEE TOP CONNECTION DEMAND SCHEDULE ON ST6.11.
2. RDP IN RESPONSIBLE CHARGE TO EVALUATE STEEL DECK FOR CAPACITY.
3. SEE ST2.00 FOR TYPICAL PARTITION WALL CONDITIONS.
4. CONNECTION SPACING SHOWN ABOVE REPRESENTS MAXIMUM SPACING. DECREASE SPACING AS REQ’D TO COORDINATE W/ METAL DECK FLUTE SPACING.
5. DETAIL APPLIES TO ALL PARTITION WALL CONDITIONS & ALL SPS CATEGORIES.

**SECTION TITLE:**

STANDARD PARTITION WALL DETAILS

**SHEET TITLE:**

TOP TRACK CONNECTION TO METAL ROOF DECK WITHOUT CONCRETE FILL - ALL PARTITION WALL CONDITIONS

**OPD NO.:**

ST7.07
TOP TRACK PER ST7.01 W/(2) #10 S.M.S. INTO Z-CLIP, SEE NOTE 1 & 5 IF USING VERTICALLY SLOTTED TOP TRACK PER DETAIL B ON ST7.01, DO NOT INSTALL SCREWS THROUGH SLOTTED TRACK AND PROVIDE LATERAL BRACING PER ST4.00 OR ST4.01 WITHIN 18" OF THE TOP OF THE WALL.

WALL STUD @ 16" O.C. MAX PER SCHEDULE, SEE ST2.01

NOTES:
1. SEE TOP CONNECTION DEMAND SCHEDULE ON ST6.11.
2. SEE ST1.05 FOR PAF REQUIREMENTS.
3. DETAIL APPLIES TO ALL PARTITION WALL CONDITIONS & ALL SWS CATEGORIES.
4. RDP IN RESPONSIBLE CHARGE, IOR AND CONTRACTOR TO VERIFY THAT NO PFD IS INSTALLED IN THE PROTECTED ZONE OF ANY STEEL MEMBER, SEE ANSI/ASC 341-10.
5. IN-PLANE SLIP REQUIRED.

<table>
<thead>
<tr>
<th>SWH WALL HEIGHT</th>
<th>Z-CLIP SPACING (INCHES O.C.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9 FT</td>
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<tr>
<td>0.25-1.95</td>
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</tbody>
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<table>
<thead>
<tr>
<th>SWH WALL HEIGHT</th>
<th>Z-CLIP SPACING (INCHES O.C.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9 FT</td>
</tr>
<tr>
<td>0.25-1.25</td>
<td>48</td>
</tr>
<tr>
<td>1.26-1.95</td>
<td>32</td>
</tr>
</tbody>
</table>

SECTION TITLE:
STANDARD PARTITION WALL DETAILS

SHEET TITLE:
TOP TRACK CONNECTION TO STEEL BEAM
- ALL PARTITION WALL CONDITIONS

ST7.08
PARTITION WALL PARALLEL TO JOIST ABOVE

PARTITION WALL PERPENDICULAR TO JOIST ABOVE

NOTES:
1. SEE TOP CONNECTION DEMAND SCHEDULE ON ST6.11.
2. DETAIL APPLIES TO ALL PARTITION WALL CONDITIONS & ALL SDS CATEGORIES.
ANCHORAGE TO CONC. FILLED METAL DECK AT JAMB LOCATION

A (FLUTES PERPENDICULAR TO WALL)

NOTE:
PROVIDE Z-CLIP PER ST7.03 AS REQ'D @ FIREPROOFING

12" MAX

B (FLUTES PARALLEL TO WALL)

NOTE:
PROVIDE Z-CLIP PER ST7.03 AS REQ'D @ FIREPROOFING

54 MIL x 4" WIDE STRAP EA. SIDE OF JAMB W/ (3) PAF (1) IN EACH FLUTE

NOTE:
1. SEE ST1.01, ST1.02 & ST1.05 FOR PAF REQUIREMENTS.

ANCHORAGE TO CONC. FILLED METAL DECK AT JAMB LOCATION

STRUCTURAL CONDITION ABOVE TOP TRACK

<table>
<thead>
<tr>
<th>CONDITION</th>
<th>REQUIREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONCRETE PANT JOIST OR WAFFLE SLAB SYSTEM</td>
<td>ST7.05 OR ST7.06</td>
</tr>
<tr>
<td>METAL ROOF DECK WITHOUT STRUCTURAL CONCRETE FILL</td>
<td>ST7.07</td>
</tr>
<tr>
<td>STEEL BEAM</td>
<td>ST7.08</td>
</tr>
<tr>
<td>WOOD FRAMING</td>
<td>ST7.09</td>
</tr>
</tbody>
</table>

NOTE: PROVIDE ADD'L TOP TRACK CONN AT JAMB USING DETAIL LISTED ABOVE.
**BOTTOM CONNECTION SCHEDULE**

<table>
<thead>
<tr>
<th>STRUCTURAL CONDITION BELOW BOTTOM TRACK</th>
<th>BOTTOM TRACK CONNECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>LWC FILLED METAL DECK OR NWC SLAB</td>
<td>ST8.01</td>
</tr>
<tr>
<td>WOOD FRAMING</td>
<td>ST8.04</td>
</tr>
</tbody>
</table>

**NOTES:**
1. FOR PARTITION WALL CONDITION DESCRIPTION SEE ST2.00
2. FOR BOTTOM CONNECTION DEMAND SCHEDULE SEE ST6.11.
PARTITION WALL BOTTOM TRACK ANCHORAGE

LIGHT WEIGHT CONCRETE OVER METAL DECK OR NORMAL WEIGHT CONCRETE SLAB

BY: M. R. Karim
DATE: 05/11/2017

NOTES:
1. SEE ST1.01 & ST1.02 FOR PAF REQUIREMENT AND ST1.03 & ST1.04 FOR EXPANSION ANCHOR REQUIREMENTS AND ST1.09 & ST1.10 FOR SCREW ANCHOR REQUIREMENTS.
2. SEE ST8.05 FOR ANCHORAGE @ JAMBS.
3. FOR LIGHT WEIGHT CONCRETE OVER METAL DECK, SEE ST8.02 FOR FASTENER TO SLAB SCHEDULE.
4. FOR NORMAL WEIGHT CONCRETE SLAB, SEE ST8.03 FOR FASTENER TO SLAB SCHEDULE.
5. SEE ST2.01 FOR PARTITION WALL STUD SCHEDULE.
### Bottom Connection Demands (Partition Wall Condition 'A')

<table>
<thead>
<tr>
<th>Max Partition Wall Height</th>
<th>$S_{ps}$</th>
<th>Maximum Fastener Spacing in Inches at Bottom Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PAF</td>
<td>$\frac{3}{8}$&quot; Exp Anchor W/ 2&quot; Embed</td>
</tr>
<tr>
<td>9 FT</td>
<td>0.25-0.99</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>1.00-1.25</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>1.26-1.45</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>1.46-1.95</td>
<td>8</td>
</tr>
<tr>
<td>12 FT</td>
<td>0.25-0.99</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>1.00-1.25</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>1.26-1.45</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>1.46-1.95</td>
<td>8</td>
</tr>
<tr>
<td>16 FT</td>
<td>0.25-0.99</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>1.00-1.25</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>1.26-1.45</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>1.46-1.95</td>
<td>8</td>
</tr>
</tbody>
</table>

### Bottom Connection Demands (Partition Wall Condition 'B')

<table>
<thead>
<tr>
<th>Max Partition Wall Height</th>
<th>$S_{ps}$</th>
<th>Maximum Fastener Spacing in Inches at Bottom Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PAF</td>
<td>$\frac{3}{8}$&quot; Exp Anchor W/ 2&quot; Embed</td>
</tr>
<tr>
<td>9 FT</td>
<td>0.25-0.99</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>1.00-1.25</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>1.26-1.45</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>1.46-1.95</td>
<td>8</td>
</tr>
<tr>
<td>12 FT</td>
<td>0.25-0.99</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>1.00-1.25</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>1.26-1.45</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>1.46-1.95</td>
<td>8</td>
</tr>
<tr>
<td>16 FT</td>
<td>0.25-0.99</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>1.00-1.25</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>1.26-1.45</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>1.46-1.95</td>
<td>8</td>
</tr>
</tbody>
</table>

### Bottom Connection Demands (Partition Wall Conditions 'C' & 'D')

<table>
<thead>
<tr>
<th>Max Partition Wall Height</th>
<th>$S_{ps}$</th>
<th>Maximum Fastener Spacing in Inches at Bottom Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PAF</td>
<td>$\frac{3}{8}$&quot; Exp Anchor W/ 2&quot; Embed</td>
</tr>
<tr>
<td>9 FT</td>
<td>0.25-0.99</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>1.00-1.25</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>1.26-1.45</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>1.46-1.95</td>
<td>-</td>
</tr>
<tr>
<td>12 FT</td>
<td>0.25-0.99</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>1.00-1.25</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>1.26-1.45</td>
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</tr>
<tr>
<td></td>
<td>1.46-1.95</td>
<td>-</td>
</tr>
<tr>
<td>16 FT</td>
<td>0.25-0.99</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>1.00-1.25</td>
<td>-</td>
</tr>
<tr>
<td></td>
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<td>-</td>
</tr>
<tr>
<td></td>
<td>1.46-1.95</td>
<td>-</td>
</tr>
</tbody>
</table>

**Notes:**
1. See ST1.01 & ST1.02 for PAF requirements.
2. See ST1.03 & ST1.04 for Expansion Anchor requirements.
3. See ST1.09 & ST1.10 for Screw Anchor requirements.
## Bottom Track Connection to NWC Slab Fastener Max Spacing Schedule

### Bottom Connection Demands (Partition Wall Condition 'A')

<table>
<thead>
<tr>
<th>Max Partition Wall Height</th>
<th>SDS</th>
<th>Max. Fastener Spacing in Inches at Bottom Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>PAF</strong> 3/8&quot; EXP Anchor 1/2&quot; EXP Anchor 3/8&quot; Screw Anchor 1/2&quot; Screw Anchor</td>
</tr>
<tr>
<td>9 FT</td>
<td></td>
<td>2&quot; Embed 2 1/4&quot; Embed 2&quot; Embed 2 1/2&quot; Embed 2&quot; Embed 2 1/2&quot; Embed</td>
</tr>
<tr>
<td>0.25-0.99</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>1.00-1.25</td>
<td>32</td>
<td>32</td>
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<tr>
<td>1.26-1.45</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>1.46-1.95</td>
<td>8</td>
<td>32</td>
</tr>
<tr>
<td>12 FT</td>
<td></td>
<td>32</td>
</tr>
<tr>
<td>0.25-0.99</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>1.00-1.25</td>
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<td>32</td>
</tr>
<tr>
<td>16 FT</td>
<td></td>
<td>32</td>
</tr>
<tr>
<td>0.25-0.99</td>
<td>32</td>
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<td>32</td>
</tr>
<tr>
<td>1.46-1.95</td>
<td>8</td>
<td>32</td>
</tr>
</tbody>
</table>

### Bottom Connection Demands (Partition Wall Conditions 'C' & 'D')

<table>
<thead>
<tr>
<th>Max Partition Wall Height</th>
<th>SDS</th>
<th>Max. Fastener Spacing in Inches at Bottom Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>PAF</strong> 3/8&quot; EXP Anchor 1/2&quot; EXP Anchor 3/8&quot; Screw Anchor 1/2&quot; Screw Anchor</td>
</tr>
<tr>
<td>9 FT</td>
<td></td>
<td>2&quot; Embed 2 1/4&quot; Embed 2&quot; Embed 2 1/2&quot; Embed 2&quot; Embed 2 1/2&quot; Embed</td>
</tr>
<tr>
<td>0.25-0.99</td>
<td>-</td>
<td>32</td>
</tr>
<tr>
<td>1.00-1.25</td>
<td>-</td>
<td>32</td>
</tr>
<tr>
<td>1.26-1.45</td>
<td>-</td>
<td>32</td>
</tr>
<tr>
<td>1.46-1.95</td>
<td>-</td>
<td>32</td>
</tr>
<tr>
<td>12 FT</td>
<td></td>
<td>32</td>
</tr>
<tr>
<td>0.25-0.99</td>
<td>-</td>
<td>32</td>
</tr>
<tr>
<td>1.00-1.25</td>
<td>-</td>
<td>32</td>
</tr>
<tr>
<td>1.26-1.45</td>
<td>-</td>
<td>32</td>
</tr>
<tr>
<td>1.46-1.95</td>
<td>-</td>
<td>24</td>
</tr>
<tr>
<td>16 FT</td>
<td></td>
<td>32</td>
</tr>
<tr>
<td>0.25-0.99</td>
<td>-</td>
<td>32</td>
</tr>
<tr>
<td>1.00-1.25</td>
<td>-</td>
<td>32</td>
</tr>
<tr>
<td>1.26-1.45</td>
<td>-</td>
<td>24</td>
</tr>
</tbody>
</table>

### Notes:
1. See ST1.01 & ST1.02 for PAF requirements.
2. See ST1.03 & ST1.04 for expansion anchor requirements.
3. See ST1.09 & ST1.10 for screw anchor requirements.
(1) #10 WOOD SCREW x 2" MIN PENETRATION INTO BLOCKING @ 16" O.C.@ PART. COND. "A" & "B"; 4" O.C. @ PART. COND. "C" & "D", MIN. SCREWS PER EA. BLKG. SEE NOTE 5 BELOW.

A

PARTITION WALL PERPENDICULAR TO FLOOR JOIST

(1) #10 WOOD SCREW x 2" MIN. PENETRATION @ 16" O.C. @ PART. COND. "A" & "B"; 4" O.C. @ PART. COND. "C" & "D", CENTER SCREW IN JOIST & STAGGER SCREWS. SEE NOTE 5 BELOW.

#10 WOOD SCREWS @ 12" O.C. WITH 1" MIN. PENETRATION INTO BLOCKING,

(3) WOOD SCREWS MIN, TYP.

FLAT 2x4 BLOCKING @ 4'-0" O.C. W/ (2) 10d TOE NAILS EA. END, ALTERNATE

PARTITION WALL STUD @ 16" O.C. MAX PER SCHEDULE, SEE ST2.01

ALTERNATE: WHERE CONTINUOUS BOTTOM TRACK IS NOT USED, PROVIDE 12x2x54 MILX3" LONG BENT PL @ EA. STUD W/ (2) #10 S.M.S. TO STUD & (1) #10 WOOD SCREW TO BLKG @ PART. COND. "A" & "B" OR L2x4x54 MILX3" LONG BENT PL W/ (4) #10 WOOD SCREWS TO BLKG @ PART. COND. "C", SEE NOTE 5 BELOW.

B

PARTITION WALL PARALLEL TO FLOOR JOIST

PARTITION WALL STUD @ 16" O.C. MAX PER SCHEDULE, SEE ST2.01

ALTERNATE: WHERE CONTINUOUS BOTTOM TRACK IS NOT USED, PROVIDE 12x2x54 MILX3" LONG BENT PL @ EA. STUD W/ (2) #10 S.M.S. TO STUD & (1) #10 WOOD SCREW TO JOIST @ PART. COND. "A" & "B" OR L2x4x54 MILX3" LONG BENT PL W/ (4) #10 WOOD SCREWS TO JOIST @ PART. COND. "C", SEE NOTE 5 BELOW.

FLAT 2x4 BLOCKING @ 4'-0" O.C. W/ (2) 10d TOE NAILS EA. END, ALTERNATE

MIN. DOUBLE FLOOR JOIST BELOW PARTITION

NOTES:
1. SEE ST8.01 FOR BALANCE OF INFORMATION.
2. SEE ST8.05 FOR BOTTOM CONNECTION @ JAMB.
3. RDP IN RESPONSIBLE CHARGE SHALL VERIFY ADEQUACY OF FRAMING.
4. SEE ST2.01 FOR PARTITION WALL STUD SCHEDULE.
5. VERIFY SCREWS ARE INSTALLED 1/2" MIN FROM THE END OF BLKG.

SECTION TITLE: STANDARD PARTITION WALL DETAILS

SHEET TITLE: BOTTOM TRACK CONNECTION TO WOOD FRAMING - ALL PARTITION WALL CONDITIONS

OPD NO.: ST8.04
### STANDARD PARTITION WALL DETAILS

**Bottom Track Connection @ Jambbs - Partition Wall Condition 'A'**

#### Opening Size

<table>
<thead>
<tr>
<th>Opening Size</th>
<th>Jamb Stud Bottom Track Connection Type</th>
<th>Connection to Structure (Through Bent Pl Clip or Through Bottom Track)</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 4'-0&quot;</td>
<td>Bottom Track Connection to Structure (No Clip Required)</td>
<td>(1) 3/8&quot;Ø x 2&quot; Embed Expansion Anchor (1) 3/8&quot;Ø x 2 1/2&quot; Embed Screw Anchor (2) #10 Wood Screws</td>
</tr>
<tr>
<td>&gt;4'-0&quot; to ≤ 10'-0&quot;</td>
<td>Bent Pl Clip Connection to Structure</td>
<td>(1) 3/8&quot;Ø x 2&quot; Embed Expansion Anchor (1) 3/8&quot;Ø x 2 1/2&quot; Embed Screw Anchor (3) #10 Wood Screws</td>
</tr>
</tbody>
</table>

**Note:**

1. Bottom connection @ Jambbs at Partition Wall condition 'A', all S05 Categories.
## Suspended Soffit Connection Schedule

<table>
<thead>
<tr>
<th>Structure Above Suspended Soffit</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete slab, beam or LWC filled metal deck</td>
<td>ST9.02</td>
</tr>
<tr>
<td>Connection to steel beam</td>
<td>ST9.03</td>
</tr>
<tr>
<td>Concrete pan joist or waffle system slab system</td>
<td>Not Available</td>
</tr>
<tr>
<td>Metal roof deck without concrete fill system</td>
<td>Not Available</td>
</tr>
<tr>
<td>Wood framing</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

**Notes:**
1. See ST9.01 for suspended soffit detail.
2. See soffit loading diagram below. RDP in responsible charge to design connection and check supporting framing for all conditions not covered in these details. Loads shown at allowable stress level.
3. The demands listed do not include overstrength factor in accordance with ASCE 7-10 Supplement 1 Table 13.5-1. For anchorage to concrete, for connection to concrete demand shall be amplified by the overstrength factor in accordance with ASCE 7-10 Table 13.5-1.

---

**Diagram:**
- Structure above suspended soffit with loads and dimensions indicated.
- 680# loads at 3'-0" max.
- 279#/ft at 7'-0" max.

---

**Section Title:**
Standard Partition Wall Details

**Sheet Title:**
Suspension Soffit Connection Schedule

**OPD:**
OPD-0001-13

**BY:**
M. R. Karim

**DATE:**
05/11/2017

---

**OPD No.:**
ST9.00

---

05/11/2017  OPD-0001-13; Reviewed for Code Compliance by Karim  Page 82 of 86
DOUBLE STUD BRACE

NOTES:
1. USE MIN 4" x 33 MIL STUDS (400S137-33) FOR $S_D \leq 1.45$ & 4" x 43 MIL (400S137-43) FOR $1.45 < S_D \leq 1.95$
2. SUSPENDED SOFFITS ARE NOT DESIGNED TO SUPPORT ADJACENT HANGING OR FRAMED CEILINGS, EQUIPMENT OR CABINETS.
3. SEE ST1.03 & ST1.04 FOR EXPANSION ANCHOR REQUIREMENTS.

STANDARD PARTITION WALL DETAILS
SUSPENDED SOFFIT DETAIL

ST9.01
CONC. SLAB, SOFFIT OF CONCRETE BEAM OR W3+3 1/4" CONCRETE FILLED METAL DECK PERPENDICULAR TO WALL CONC FILLED B-DECK NOT PERMITTED.

1/2"ø EXPANSION ANCHORS W/ WASHER W/ 3 1/4" EMBED @ 16" O.C. (12" O.C. @ L.W.C. OVER METAL DECK) WITHIN 3" OF VERT. STUD, TYP. (CENTERED IN BOTTOM OF FLUTES @ L.W.C. OVER METAL DECK).

4"x3"x54MIL BENT PLATE W/ (2) 1/2"ø EXPANSION ANCHORS W/ 3 1/4" EMBED. CENTER EXPANSION ANCHORS IN BOTTOM FLUTE WHERE DECK OCCURS.

1/2"ø EXPANSION ANCHORS W/ WASHER W/ 3 1/4" EMBED CENTERED IN BOTTOM OF FLUTE @ 16" O.C. W/N 3" OF VERT. STUD, TYP. (CENTERED IN BOTTOM OF FLUTES @ L.W.C. OVER METAL DECK).

SOFFIT BELOW CONCRETE FRAMING OR PERPENDICULAR TO METAL DECK

400T125-54 W/ 3/8"ø EXPANSION ANCHORS W/ WASHER W/ 2" EMBED @ 16" O.C. & WITHIN 3" OF VERT. STUD, TYP. SCREW THE TOP TRACK W/ (1) #10 MIN. S.M.S. Ø EA LEG. (CENTERED IN BOTTOM OF FLUTES @ L.W.C. OVER METAL DECK).

SEE DETAIL C FOR ALTERNATE

W3+3 1/4" CONCRETE FILLED METAL DECK PARALLEL TO WALL CONC FILLED B-DECK NOT PERMITTED.

SOFFIT PARALLEL TO METAL DECK

4"x3"x54MIL BENT PLATE W/ (2) 3/8"ø EXPANSION ANCHORS W/ WASHERS W/ 2" EMBED. CENTER EXPANSION ANCHORS IN BOTTOM FLUTE WHERE DECK OCCURS.

(3) #10 S.M.S. TO BENT PLATE

ALTERNATE CONNECTION DETAIL

NOTES:
1. FOR REMAINDER OF WALL REQUIREMENTS SEE ST9.01.
2. SEE ST1.03 & ST1.04 FOR EXPANSION ANCHOR REQUIREMENTS.

SECTION TITLE:
STANDARD PARTITION WALL DETAILS

SHEET TITLE:
SUSPENDED SOFFIT CONNECTION TO CONC. SLAB, CONC. BEAM OR LWC FILLED METAL DECK

OPD NO.:
ST9.02
CONNECT TO STRUCTURE PER ST9.02

MIN. / MAX.
PER RDP IN
RESPONSIBLE
CHARGE
(6" MAX)

FACE OF FLANGE

RDP IN RESPONSIBLE CHARGE TO
determine requirements for
bottom flange bracing

1/16

SOFFIT TO BEAM ATTACHMENT:
OPTION 1: 400T100-54 W/ (4) #10
S.M.S. @ EA. VERT. STUD.
OPTION 2: SEE B.

FINISHED CEILING

(4) #10 S.M.S. @ DIAG BRACE
to vert. stud connection

3/8" TYP

6" MAX

3 1/2" MIN

1/16

3/8" A307
THRU BOLT

4x2x54 MIL BENT PLATE
W/ (4) #10 S.M.S. @ EA.
VERT. STUD

NOTES:
1. FOR REMAINDER OF SOFFIT REQUIREMENTS SEE ST9.01.
2. SEE ST1.03 & ST1.04 FOR EXPANSION ANCHOR REQUIREMENTS.
3. SEE ST1.05 FOR PAF REQUIREMENTS.
4. RDP IN RESPONSIBLE CHARGE, IOR AND CONTRACTOR TO VERIFY THAT NO WELD IS INSTALLED IN THE PROTECTED
ZONE OF ANY STEEL MEMBER, SEE ANSI/AISC 341-10.
OSHPD contact for question or comment:

OPD@oshpd.ca.gov