



**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION  
FACILITIES DEVELOPMENT DIVISION**

**APPLICATION FOR PREAPPROVED PREFABRICATED  
COMPONENTS AND SYSTEMS**

OFFICE USE ONLY

APPLICATION #: PCS0003

**HCAI Preapproved Prefabricated Components and Systems (PCS)**

Type:  New  Renewal

**Manufacturer Information**

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**Product Information**

Product Name: SurePods Prefabricated Bathroom Pods

Product Type: Pre-manufactured cold form steel self supporting pods

General Description: Single occupancy/stall prefabricated restroom pods constructed in a factory setting.

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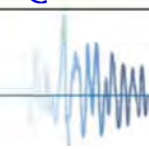
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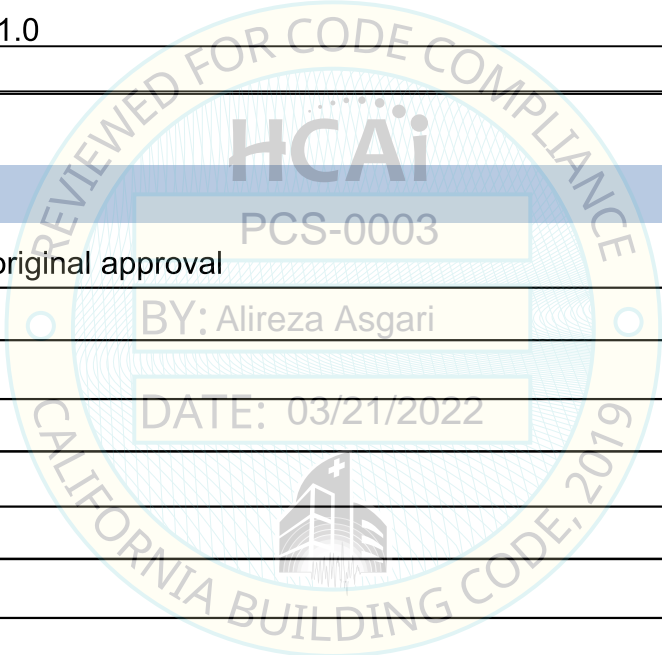
Disciplines Involved

- Structural     Architectural     Mechanical     Electrical     Plumbing     Fire Life Safety

OFFICE USE ONLY – HCAI APPROVAL  
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Approved Version Number v1.0

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| v1.0 | March 17, 2022 | original approval |
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## SurePods Pod Type S3

# STRUCTURAL DESIGN MANUAL

PCS-0003  
Version V1.0

BY: Alireza Asgari

DATE: 03/21/2022

March 17, 2022



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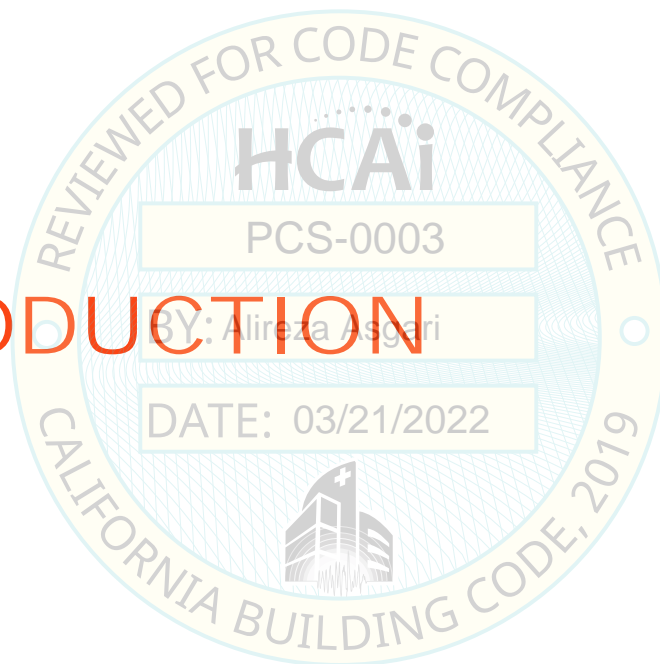
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Section 1

# INTRODUCTION



## 1.1 PREFACE

SurePods are free-standing light weight pre-assembled bathroom units that are custom configured for a given project installation. The units are made up structurally of conventional light gage stud framing walls and ceiling with sheathing applied to one side. The units are self-supporting laterally and resist seismic forces through diagonal flat strap metal bracing.

The plan dimensions, height, and weight of a given SurePods unit is defined uniquely for each project, but fall within a limited range of sizes and weights. This limited range of geometric characteristics, along with the seismicity, location within a structure, and the type of building, are used to determine the seismic design forces for the structural components that make up each SurePods unit. Based on the range for each of these variables defined in this manual, the structural components that make up SurePods units have been pre-engineered in accordance with the 2019 California Building Code (CBC). The details and components for a given set of design parameters are summarized in lookup tables in this manual. The engineering calculations for each tabulated component are based on the worst case assumptions within the given set of parameters.

This manual summarizes the required configuration of the walls, ceiling, flat strapping, connections, and anchorages for a given SurePods unit. The manual does not cover all possible conditions and configurations and should not be used when project parameters fall outside of the scope of this manual. There are three different SurePods unit types, but only type S-3 is covered in this manual.

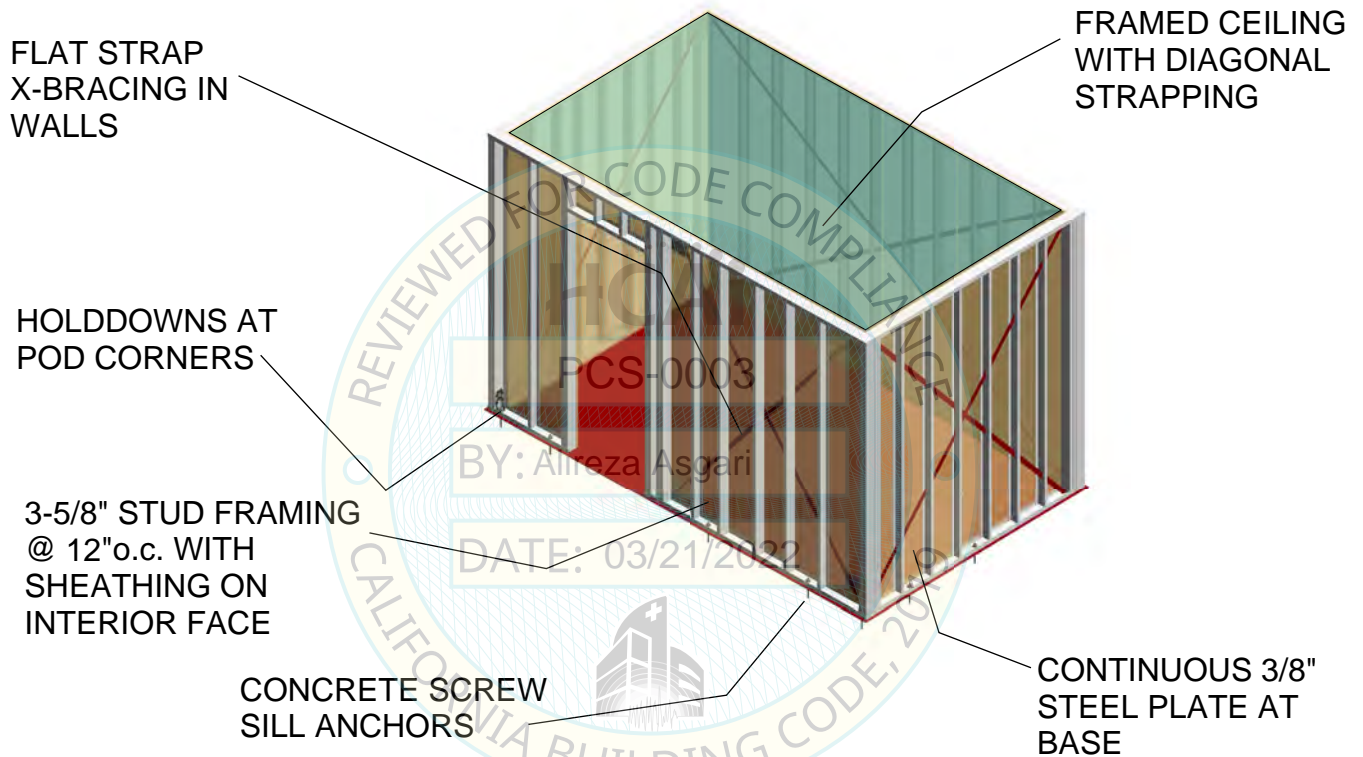
| Pod Type | Description   | Limits of this Manual |
|----------|---|-----------------------|
| S-1      | Commercial Buildings with Pods built using 1-5/8" Wall Studs      | Not Covered           |
| S-2      | Commercial Buildings with Pods built using 3-5/8" wall studs      | Not Covered           |
| S-3      | HCAI/OSHPD-1 applications with Pods built using 3-5/8" wall studs | Covered               |

This manual includes only the structural design and detailing of SurePods units. Design and component configuration for all other disciplines, including architectural, mechanical, electrical, plumbing, and fire-life safety are not included. Project specific review and approval of disciplines other than structural is assumed to be required.

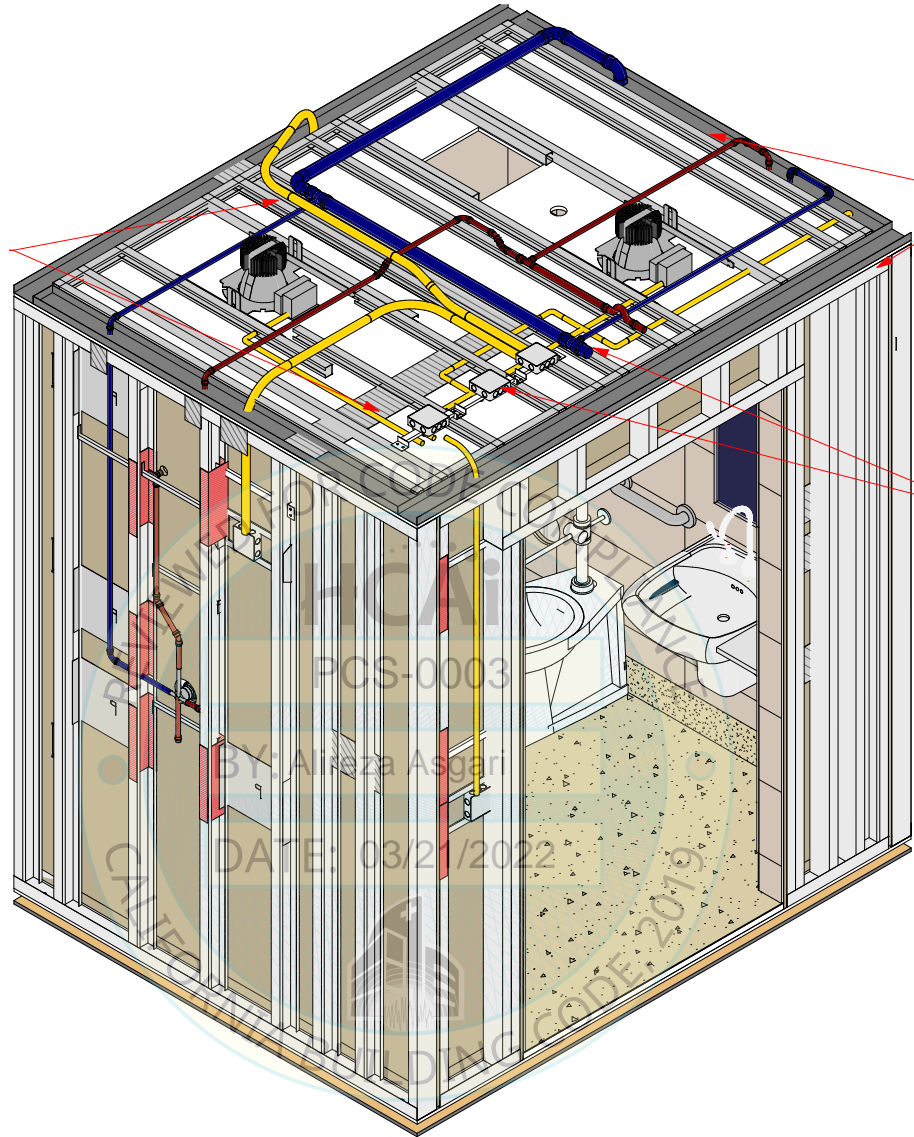
An HCAI Testing, Inspection and Observation Form is included as an Appendix to this Manual.







**SUREPODS BATHROOM UNIT**



**SUREPODS BATHROOM UNIT**  
**(STRAPPING NOT SHOWN IN THIS VIEW)**

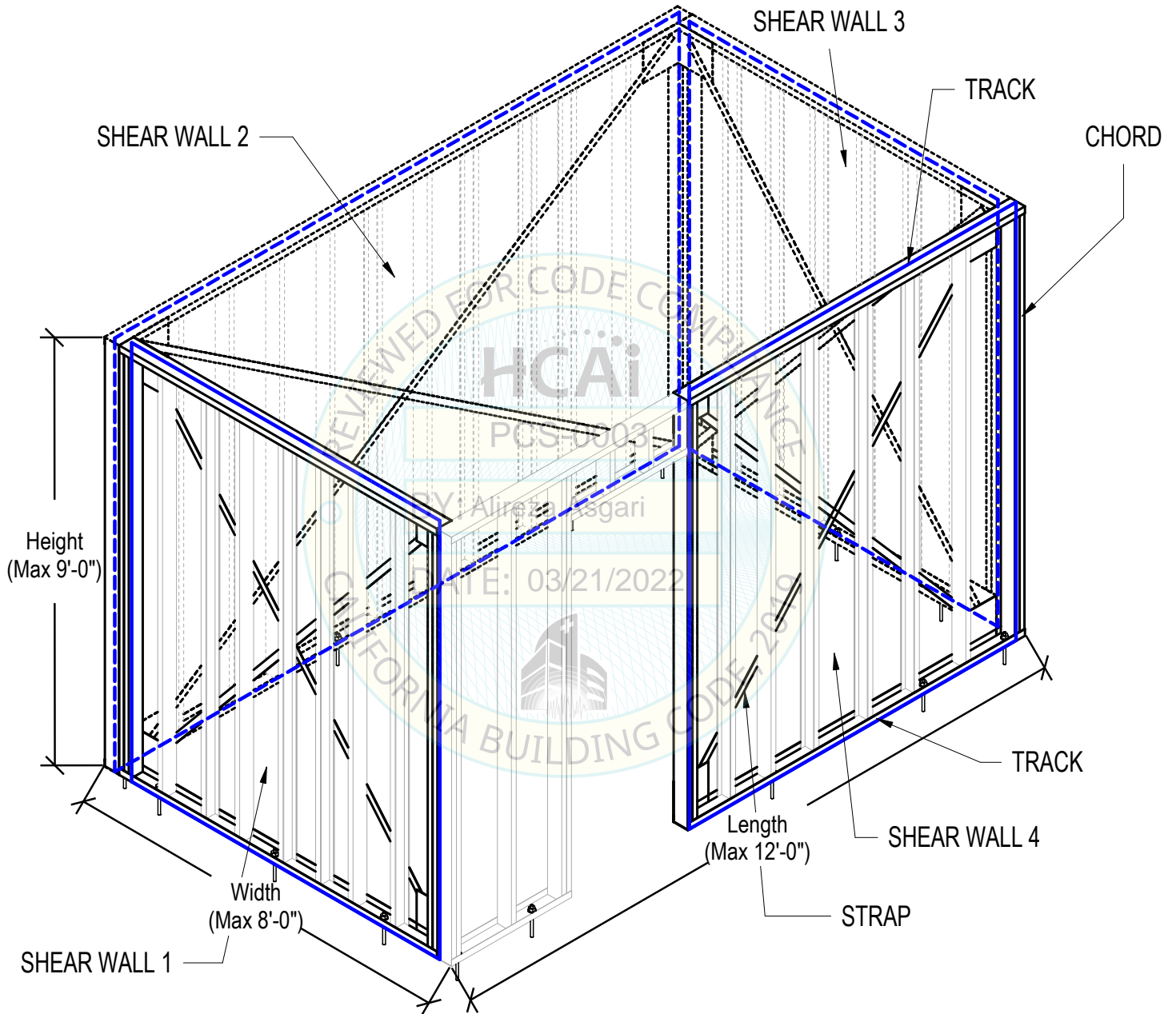
## 1.2 LIMITS OF PRE-APPROVAL

For projects that fall outside of these limits, consult a qualified structural engineer for assistance in establishing minimum structural design requirements. Structural Design of the Pods covered by this manual is based on the following:

| TABLE 1.2: LIMITS OF PRE-APPROVAL |  |   |
|-----------------------------------|--|---|
| Item                              | Description  | Limits of this Manual                                   |
| Seismic Hazard                    | Force Factor, $S_{DS}$   | Not to Exceed $S_{DS} = 2.0g$                           |
|                                   | Importance Factor, $I_p$   | Not to Exceed $I_p = 1.50$                              |
| Pod Dimensions                    | Clear Height Below Finished Ceiling  | Not to exceed 9'-0"                                     |
|                                   | Maximum Plan Dimensions  | Not to exceed 12'-0" x 8'-0"                            |
|                                   | Pod Shape (in Plan View)   | This pre-approval is limited to rectangular plans only. |
| Pod Weight                        | Maximum Pod Self-Weight  | 5000 lbs  |
| Shear Wall Layout                 | This manual is limited to Pods with Shear Wall panels defined on <u>all four sides of the Pod</u> . Pods with one or more fully open sided walls are not covered in this manual. Minimum defined Shear Wall length is 2'-0", and maximum Shear Wall aspect ratio is 3.5. However, each wall shall be as long as possible, extending from corner to corner of a Pod, except to allow for a doorway. |   |
| Architectural                     | Not covered  | Project specific approval required.                     |
| Mechanical                        | Not covered  | Project specific approval required.                     |
| Electrical                        | Not covered  | Project specific approval required.                     |
| Plumbing                          | Not covered  | Project specific approval required.                     |
| Fire / Life Safety                | Not covered  | Project specific approval required.                     |
| Other Non-Structural              | Not covered  | Project specific approval required.                     |

### TYPICAL POD SHOWING SHEAR WALL LAYOUT

Shear walls defined on all four sides of the Pod - each wall as long as possible, extending from corner to corner of the Pod, except to allow for a doorway



### 1.3 BASIS OF DESIGN

Structural requirements contained herein meet the following criteria:

| TABLE 1.3: BASIS OF DESIGN   |  |   |
|--|--|---|
| Item   | Description  | Limits of this Manual                                 |
| Applicable Design Codes  | General Design   | 2019 California Building Code (with OSHPD Amendments) |
|  | General Seismic Design   | ASCE 7-16   |
|  | Cold Formed Metals   | AISI S100-16<br>AISI S400-15/S1-16                    |
|  | Post-Installed Anchors   | ASCE 7-16-13.4<br>ACI 2014 Ch-17                      |
| Live Load on Ceiling   | Ability of Ceiling Framing to support persons or superimposed loads. (See Note 1)        | 0 psf   |
| Lateral "Wind" Load  | Maximum Differential Pressure acting on all wall and ceiling planes per 2019 CBC 1607.15 | 5 psf (ASD)   |
| Seismic Design Parameters  | Seismic Hazard, $S_{DS}$ and $I_p$   | See Above   |
|  | Non-structural Component factors in ASCE 7-16 Equation 13.3-1                            | $a_p = 2.5$<br>$R_p = 3.5$                            |
| Note 1: Ceiling framing will support the weight of finishes, lighting, plumbing and electrical distribution lines. |  |   |

### 1.4 INTRODUCTION

This manual provides a methodology for defining structural requirements for a given SurePods project. Successful use of this manual requires an understanding of the organization of the manual:

Section 1: Understand the "Responsibilities of SurePods" and the "Responsibilities of the SEOR"

Section 2: The Pod's structural requirements vary considerably, depending on several factors presented in this Section of the manual. When SurePods considers a particular project, these parameters must be determined as a first step. Section 2 walks the user through the process of "Criteria Selection".

Section 3: Provides definitions of the SurePods components that are used to resist seismic forces.

Section 4: Once the project parameters are understood as per Section 2, Section 4 guides the user in determining the minimum required structural members and connections that will be needed.

Section 5: This section provides the necessary structural details for fabrication of the Pod along with sample "General Notes" to be posted on the permit submittal.

Section 6: This section outlines the Structural Basis of Approval documents that will be required for a given project.



## 1.5 RESPONSIBILITIES OF SUREPODS

**Project Due Diligence:** When Surepods is evaluating projects as potential candidates for this product, Surepods shall evaluate the structural floor proposed for the project with respect to the following:

- Confirm that one of the available approved floor anchors found on Tables 4.6.2.X will supply the needed required anchorage force determined in Section 4.3.2 of this manual, for the structural floor deck system proposed for the project. The capacity of post-installed anchors in concrete toppings over metal deck - especially light weight concrete toppings - is very limited, and if special considerations will be needed, Surepods must understand and include these needs in their considerations before contracting for the work.
- SurePods units will be located within localized floor depressions whose depths and extents are defined by the project AOR and SEOR. SurePods shall confirm that the proposed building structure provides sufficient structural floor thickness to accommodate the Pod. SurePods shall provide the pod shear and overturning force values to the SEOR for checking the floor capacity and providing testing specifications. See also Section 1.6 Responsibilities of the SEOR below.
- Is there sufficient thickness of concrete below the bottom of depression to accommodate the anchors needed? All anchors have a minimum thickness of concrete requirement for the anchor to be viable.

For a given project, it is SurePods' responsibility to determine the structural requirements for the Pod using this manual and it is SurePods' responsibility to know when a given Pod falls outside of the limits of this manual. In addition, SurePods must provide the following documentation for the record:

**Fabrication Drawings:** SurePods can produce Fabrication drawings in accordance with their normal practices. When submitting a SurePods project for approval by the authority having jurisdiction, the SurePods fabrication drawings shall include the "Structural Basis of Approval" document described below.

**Structural Basis of Approval Documents:** The following documents should accompany SurePods' fabrication drawings, and may be integrated into SurePods' fabrication drawings where appropriate:

- Structural General Notes
- Structural Design Criteria
- Pod Anchorage Forces for Review by the SEOR
- Typical Structural Details for Fabrication and Installation
- This Manual, including all Appendices

Section 6 of this manual provides a guide for creating these "Structural Basis of Approval" items, and examples are provided.



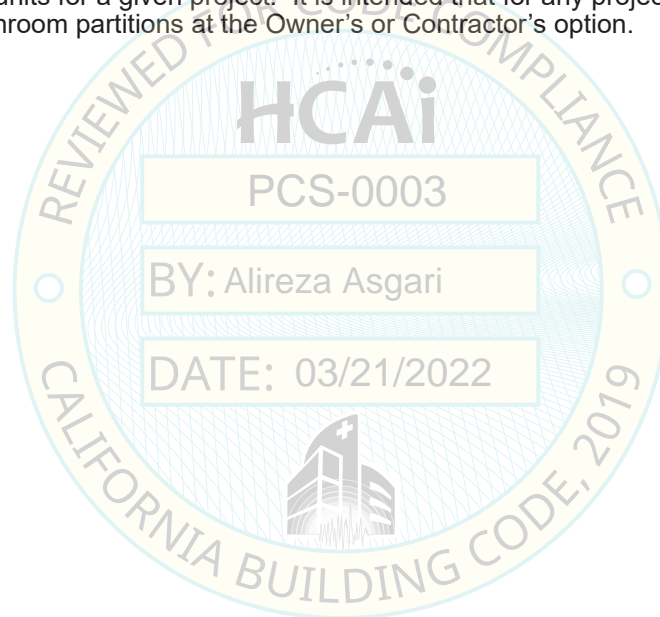
## 1.6 RESPONSIBILITIES OF THE SEOR

The SurePods restroom Pod is to be treated like any large non-structural component or piece of equipment where the required anchorage is determined by SurePods, but the confirmation of the floor strength to resist the shear and overturning forces imposed by the Pod on the superstructure lies with the Structural Engineer of Record, or SEOR. It is the SEOR's responsibility to confirm that the floor structure can resist shear and overturning forces exerted by the Pod on the structural floor. Structural forces imposed on the superstructure are summarized on the "Structural Basis of Approval" documents included with this submittal.

It should be noted that the proposed pods are set in a depression provided in the structural floor system. It is the SEOR & AOR's responsibility to define the dimensions of the depressions in the floor system. Considerations include the thickness of concrete below the depression, structural strength, and fire protection.

## 1.7 OTHER DESIGN RESPONSIBILITIES

SurePods are intended to follow the bathroom layout defined for a given project by the architect of record (AOR) and the overall design team. Therefore, the responsibility to meet all CBC requirements for access, fire/life-safety, and all other functional considerations remains with the AOR and the design team. SurePods does not perform or dictate the layout or configuration of the bathroom units for a given project. It is intended that for any project, SurePods can be used interchangeably with stick built bathroom partitions at the Owner's or Contractor's option.



**Section 2**

**CRITERIA SELECTION**





## 2.1 PURPOSE

In order to use this manual, all of the parameters defined below and that describe the Pod's structural design criteria and geometry must be defined before design details can be determined. Using the project's Contract Documents, project specific values for "Seismicity", "Importance Factor" and "Position in Building" should be defined. Then, using SurePods's preliminary Pod design, determine the "Pod Weight", "Shear Wall Identification" and "Shear Wall Aspect Ratios". With these six parameters in hand, proceed to Section 4 and determine the structural design requirements for the Pod.

## 2.2 SEISMICITY ( $S_{DS}$ FACTOR)

Locate the project Structural Drawings and find the section of notes describing the *Structural Design Criteria* or *Basis of Design*. These notes should include a section on *Seismic Design Requirements*, including a parameter " $S_{DS}$ ". This parameter is a numeric value, for example  $S_{DS}=1.0$ . This value is needed to navigate the Tables in Section 4.

*Note: If the project structural drawings post an  $S_{DS}$  value that is higher than the  $S_{DS}$  value listed in any of the Tables of Section 3, then this manual is not appropriate for this project and you should contact the authors of this manual for assistance.*

See Figures 2.2.1, 2.2.2 and 2.2.3 for mapped  $S_{DS}$  values. These maps are intended to show a general pattern of  $S_{DS}$  values across the United States, but these maps are not sufficiently accurate to make a determination of a project-specific  $S_{DS}$  value. Always obtain the project-specific  $S_{DS}$  value from the project's Structural Drawings.

## 2.3 IMPORTANCE FACTOR ( $I_p$ FACTOR)

Locate the  $I_p$  parameter in the same *Seismic Design Requirements* located above. Do not confuse the  $I_p$  value with "I" or " $I_w$ " or any other version of "I"; use the  $I_p$  value only. You will need this value to navigate the Tables in Section 4.

## 2.4 VERTICAL POSITION IN THE BUILDING (z/h FACTORS)

The  $S_{DS}$  and  $I_p$  parameters describe the seismic forces at the *ground level*, but for Pods located on floors above the ground floor, seismic forces will be higher because buildings amplify ground shaking. This amplified force increase is determined for a given floor by the "z/h ratio", where z is height of a given floor above the foundation level, and h is the overall height of the building, from the foundation level. A z/h ratio of "0.0" denotes the ground floor, a z/h ratio of "1.0" denotes the roof.

*Example: Suppose the building is 120 feet tall, measured from the ground floor to the roof; or  $h=120$ . A floor midway up the building sits (for example) 40 ft above the ground floor;  $z=40$ . The z/h ratio for this floor is  $z/h = 40/120 = 0.33$ .*

If the building has a basement, the lowest basement floor elevation would be taken as "Ground" level, or  $z=0.0$ . For any given Pod, the floor elevation shall be determined as the floor the Pod is resting on.

**Vertical Zones:** Typically, Pods will be located on multiple floors in a structure, and the structural requirements will vary from floor to floor. Using this manual, unique designs can be created for each floor, or more commonly for a defined group of floors, herein called "Vertical Zones".

*For example, if SurePods units are planned for floors 3 through 10 in a building, seven unique designs could be created, or three vertical zones could be created, for example grouping floors 3-5, 6-8 and 9-10 into three distinct design groups.*

In the above example, three unique structural designs would need to be created. The "finished" appearance of all the pods would be identical; only the structural parameters would change from group to group. When dividing a project into "Vertical Zones", each vertical zone must be assigned a "z/h ratio" for use in Section 4. The correct z/h ratio for any given vertical one is the z/h ratio value for the top-most floor in each vertical zone.

*For example, if SurePods desired to have a single pod design for an entire building, the correct z/h ratio would be the z/h value for the top most pod-occupied floor in the building.*



## 2.5 POD WEIGHT (W)

Before using the Design Procedures in Section 4, the weight of the Pod must be determined. This weight is the “operating weight” of the Pod following installation and should include the weight of all structure, finishes, utilities and equipment/furnishings. Do not include the weight of any shipping accessories such as pallets or removable lifting lugs. When using the Tables in Section 4, select the appropriate table that matches the weight as determined herein. If the pod weight does not match any of the weight values listed for a table, select the table with the next highest weight.

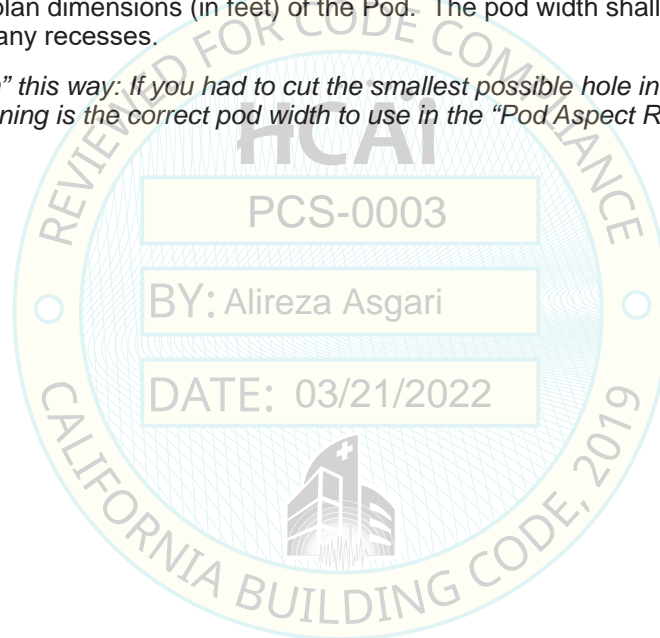
*Note: Avoid being excessively conservative when calculating the Pod weight, because the higher the Pod weight, the more stringent the seismic requirements are and therefore the more expensive the structural requirements will be. Provide an accurate estimate of weight, and understand that the Tables in Section 3 are specific to several – but not all – possible weights. You will want to use the Table with a posted weight limit that exceeds your calculated weight by the smallest amount.*

## 2.6 MAX POD ASPECT RATIO

In structural engineering language, the term “aspect ratio” is used frequently, and it reflects the ratio of the lengths of two sides of a rectangle, hence a square has an aspect ratio of 1.0.

In Section 4.3, you will need to locate values on a table using a parameter called the “Max Pod Aspect Ratio” to find the correct values. The “Max Pod Aspect Ratio” is defined as the clear height to the finished ceiling (feet) divided by the smaller of the two orthogonal plan dimensions (in feet) of the Pod. The pod width shall be taken as the width of the pod as seen in side view, ignoring any recesses.

*It is simplest to think of “width” this way: If you had to cut the smallest possible hole in a wall to push the entire pod through, the width of that opening is the correct pod width to use in the “Pod Aspect Ratio”.*



### ASCE 7-16 $S_{DS}$ VALUES United States

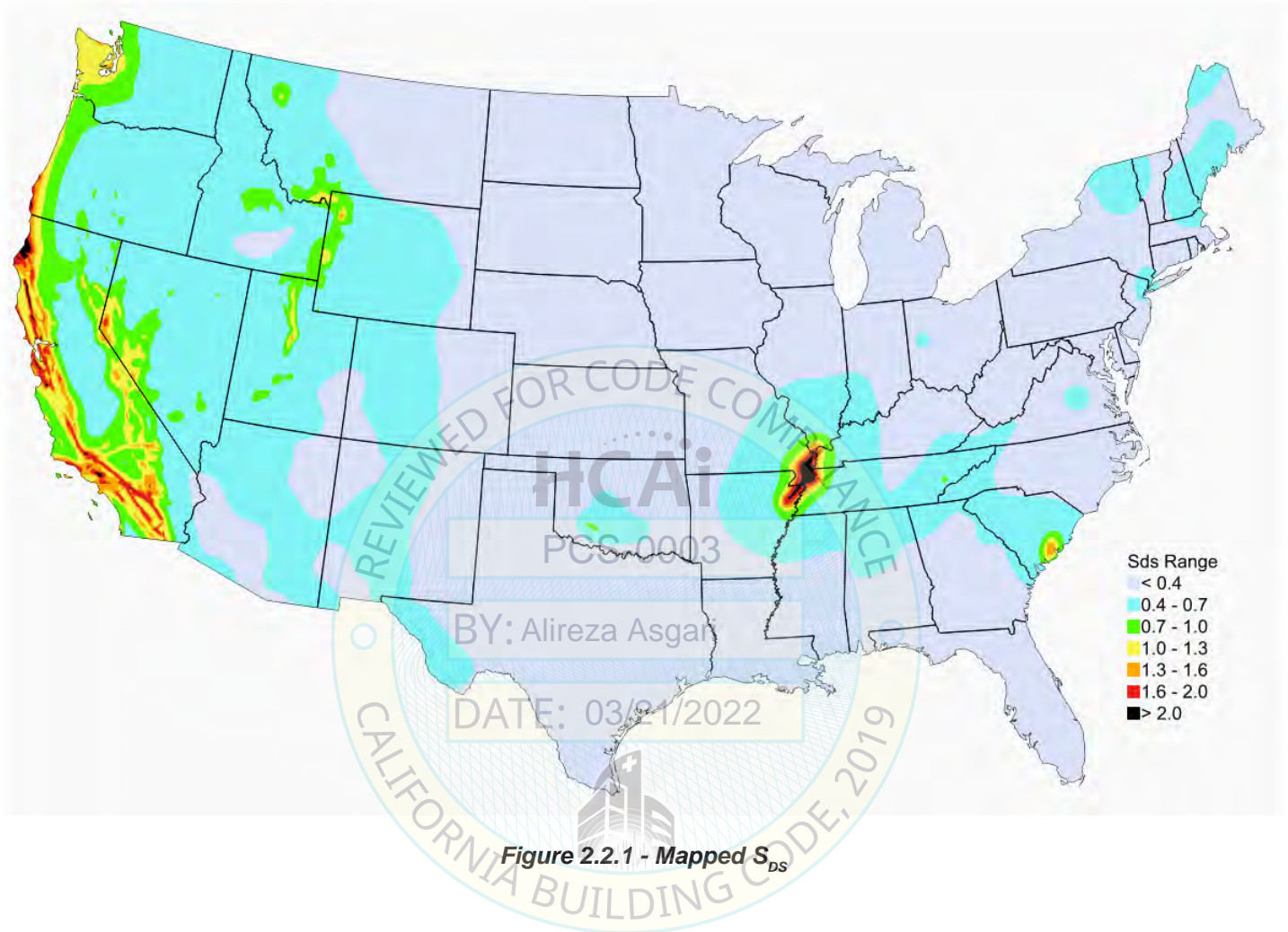


Figure 2.2.1 - Mapped  $S_{DS}$

### ASCE 7-16 $S_{DS}$ VALUES Northern California

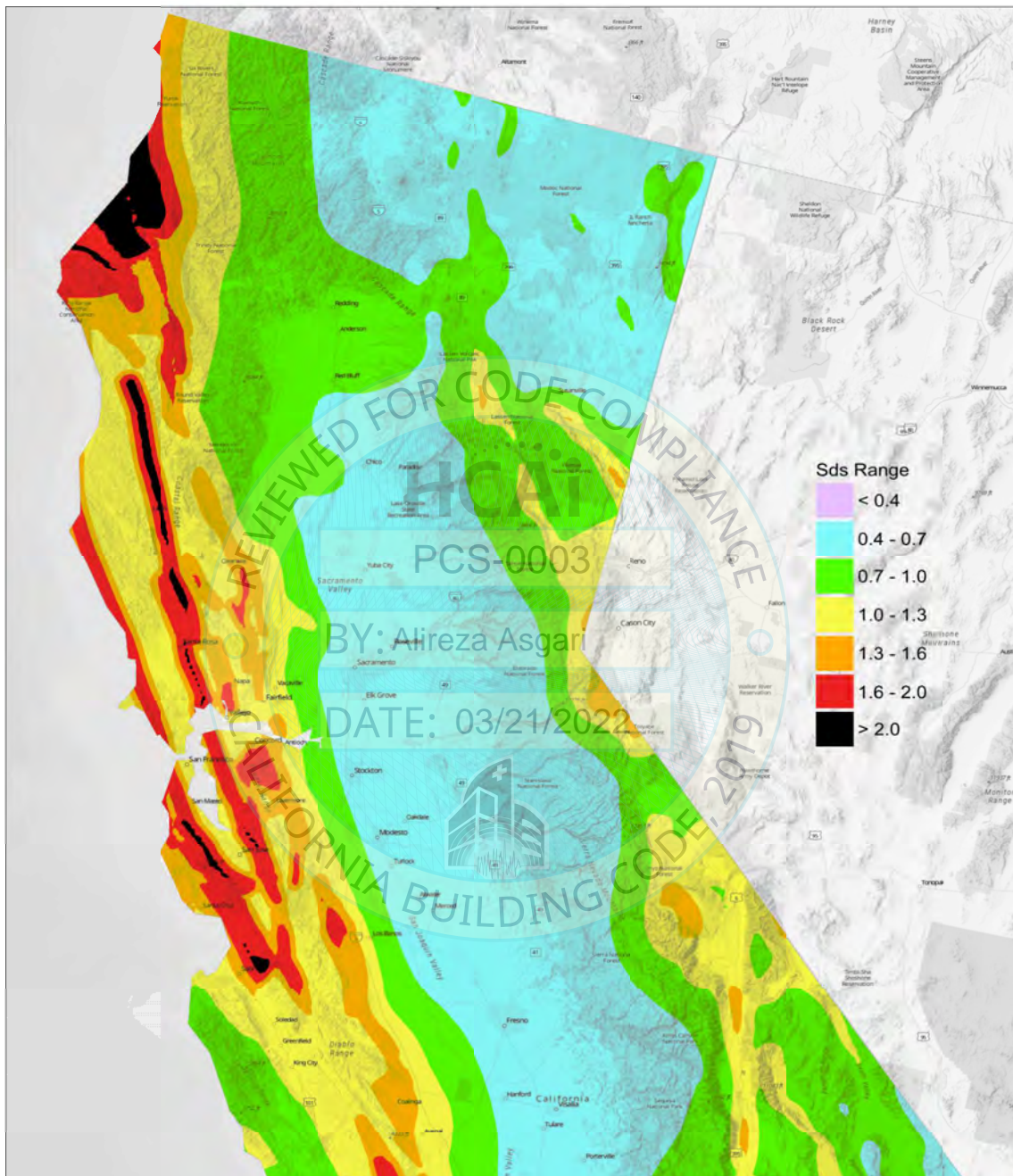


Figure 2.2.2 - Mapped  $S_{DS}$

### ASCE 7-16 $S_{DS}$ VALUES Southern California

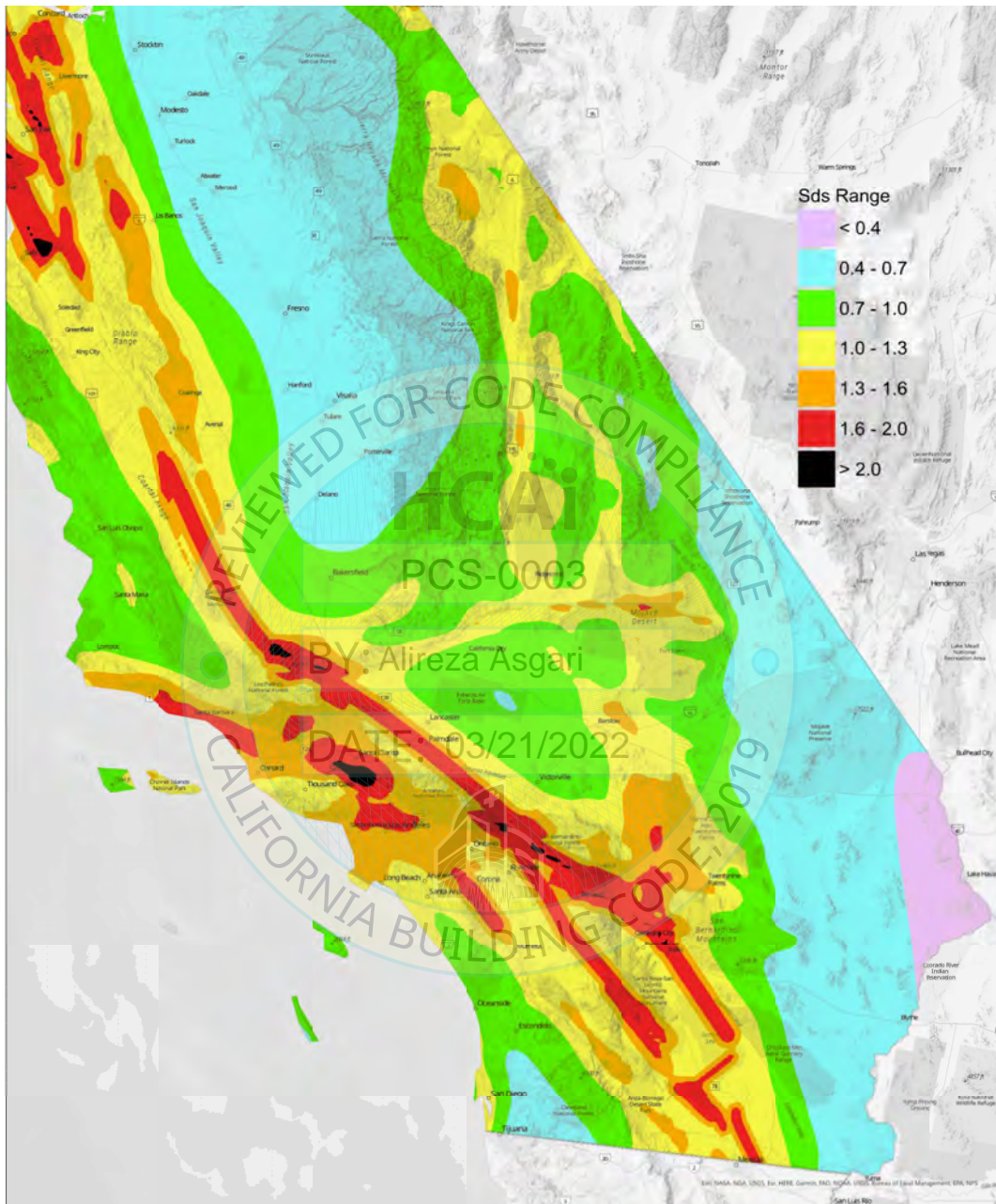
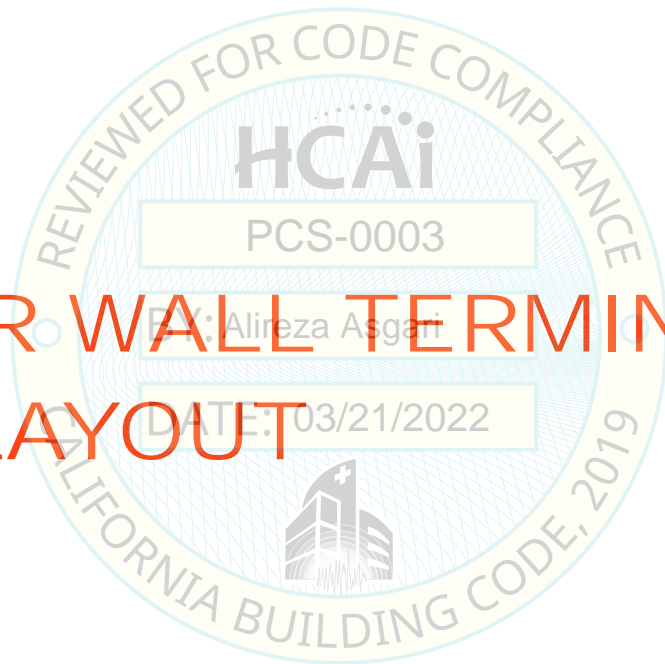


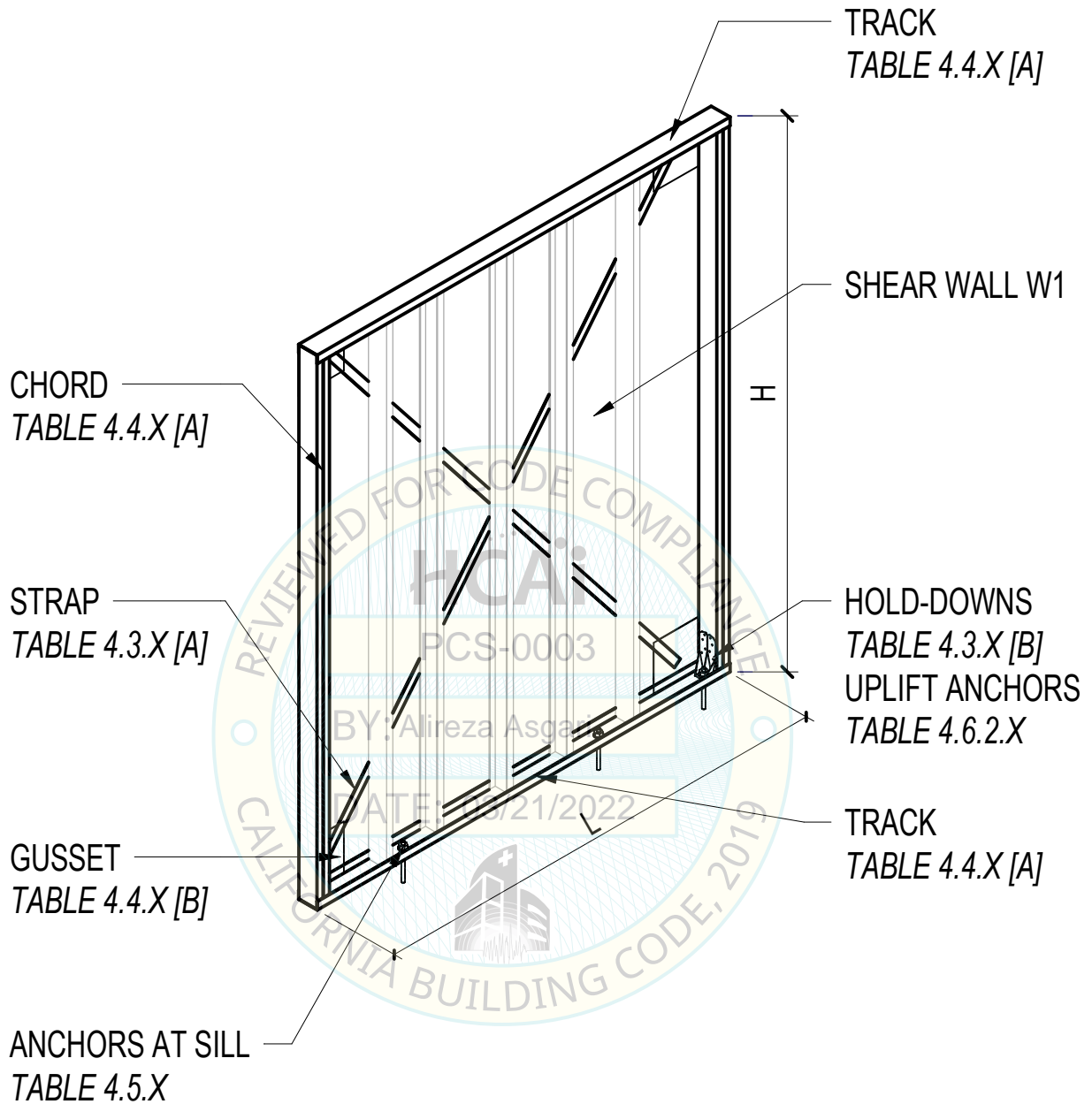
Figure 2.2.3 - Mapped  $S_{DS}$

**Section 3**

**SHEAR WALL TERMINOLOGY  
AND LAYOUT**



### SHEAR WALL COMPONENTS AND LOOKUP TABLE REFERENCES



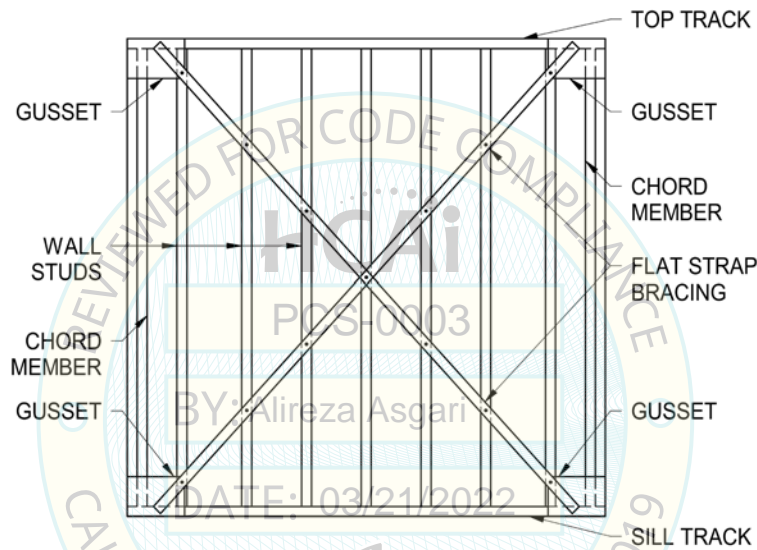
### 3.1 INTRODUCTION TO SHEAR WALLS

In this manual, “Shear walls” are metal stud bearing walls that are also braced and anchored to resist seismic-generated lateral forces. In Section 4 of this manual, the structural requirements for each shear wall of the Pod are determined. This means a user must first identify all of the shear wall locations for the pod and gather the length and height of each Shear Wall. Described in detail in Section 3.4, this action is termed “Defining Shear Walls” and is a critically important step in designing shear wall panels for a pod.

Before diving into “Defining Shear Walls”, an introduction to “Shear Wall” terminology is provided in Section 3.2.

### 3.2 SHEAR WALL TERMINOLOGY

Prior to using Section 4, you must also become familiar with the names of each part of a shear wall detailed in this manual. The following figure will provide a guide to identifying the various parts, and notes regarding each part are provided in Figure 3.2.1 below:



**Figure 3.2.1 – Flat Strap Shear Wall Parts and Names**

**Wall Stud:**

Studs for general wall infill framing are simple cold-formed wall studs.

*Stud sizes are called out using SSMA nomenclature (See Figure 3.2.2 at the end of this Section), which takes the form “WWW SXXX-YY-ZZ” where “WWW” denotes the stud depth x 100 (e.g. 3-5/8” would appear as “362”), “S”=Stud, “XXX” denotes the flange width x 100, “-YY” denotes the thickness in mils and “-ZZ” denotes the ASTM A653 steel grade (i.e. “-33” denotes Grade 33 and/or “-50” denotes Grade 50 Class I). Thus, a 362S125-33-33 stud is 3-5/8” deep by 1-1/4” wide rolled from 33-mil sheet steel using  $F_y=33,000$  grade materials.*

**Flat Strap Bracing:**

These opposing straps are the heart of the Shear Wall, composed of sheet metal straps that get attached at each end to the “gusset” using sheet metal screws. Flat strap braces are placed on one side of the wall only. (We recommend the interior face of the wall, to facilitate installation of anchorage devices during installation.)



*Flat-Strap Braces are called out using SSMA-like nomenclature, which for sheet metal straps takes the form “XXXFS-YY-ZZ” where “XXX” denotes the strap width in inchesx100, “FS”=Flat Strap, “-YY” denotes the thickness in mils and “-ZZ” denotes the ASTM A653 steel grade (i.e. “-33” denotes Grade 33 and/or “-50” denotes Grade 50 Class I).*

**Gusset:** These are flat rectangular metal sheets that get fastened to the Chord Members and the Tracks and in turn the flat-strap braces are attached to the gusset. These are critical structural connections.

*Gussets are called out using SSMA-like nomenclature, which takes the form of “WWWGXXX-YY-ZZ” where “WWW” denotes the height in inchesx100, “G”=Gusset, “XXX” denotes the width in inchesx100, “-YY” denotes the thickness in mils and “-ZZ” denotes the ASTM A653 steel grade (i.e. “-33” denotes Grade 33 and/or “-50” denotes Grade 50 Class I).*

**Top Track:** These are standard cold-formed track sections; the gages used at shear walls are generally heavier than as for a general wall.

*Tracks are called out using SSMA nomenclature, which takes the form “WWW TXXX-YY-ZZ” where “WWW” denotes the track depthx100 (e.g. 3-5/8” would appear as “362”), “T”=Track, “XXX” denotes the flange widthx100 and “-YY” denotes the thickness in mils and “-ZZ” denotes the ASTM A653 steel grade (i.e. “-33” denotes Grade 33 and/or “-50” denotes Grade 50 Class I).*

**Sill Track:** These are also standard cold-formed track sections. These sill tracks are fastened to the steel plate floor, permanently locking the walls to the floor plate.

*For call-outs, see “Top Track” above; the same nomenclature is used for bottom tracks.*

**Chord Member:** “Chords” are composed of boxed or back-to-back pairs of wall studs or - in some cases - of structural steel HSS shapes. Chords shall be located at each end of the shear wall, and every designated shear wall shall have two chords. The shear wall “length” is measured as out-to-out of the chord studs. Typically, these chord members are heavier than the normal wall stud. When “stud sections” are not strong enough, hollow structural steel tubes are called for. In either case, these chord members are installed in the same manner as wall studs. HSS shapes will be 1/8-inch less than the stud depth, hence shimming at the track locations may be needed.

*For Chord Members composed of cold-formed studs, the callout takes the form “WWWSXXX-YY-ZZ Method” where the “WWWSXXX-YY-ZZ” callout describes two identical metal studs using the same nomenclature as for “Wall Stud” above but where “Method” denotes the manner in which these two studs are configured (i.e. “Method” can be “Boxed”, where the two studs form a rectangular cross section, or “Back-to-Back”, where the two studs are placed in a back-to-back configuration. Both conditions are shown in detail in Section 5 of this manual.*

*For Chord Members composed of hollow structural steel (HSS) tubes, the callout takes the AISC form “HSS W.WWxX.XXxY.YY, where “W.WW” and “X.XX” denote the outside dimensions of the rectangle, in decimal inches and “Y.YY” denotes the thickness of all walls, in decimal inches.*

**Nomenclature Guide:** The member call-outs described above are based on the Steel Stud Manufacturers Association (SSMA) “Product Technical Guide”. Figure 3.2.2, copied from the 2015 SSMA PTG (shown below) shows the basic method for designating the dimensional requirements for cold-formed structural members. In this manual, this basic SSMA convention is used with two changes:

- SSMA uses “S”, “T”, “U” & “F” designators; this manual introduces “FS” for “Flat Strap” and “G” for “Gussets”
- SSMA does not use a “steel grade” indicator; this manual introduces the “-33” and “-50” as suffixes at the end of the SSMA call out. These values indicate “Grade 33” and “Grade 50” steels respectively.

All SSMA products have a four-part identification code that identifies the web depth, flange width, style, and mil thickness.

**Member Web Depth**

(Example: 6" = 600 × 1/100 inch)

All member depths are given in 1/100 inch.

For all "T" sections, member depth is the inside to inside dimension.

**Flange Width**

(Example: 1 5/8" = 1.625" ≈ 162 × 1/100 inch)

All flange widths are given in 1/100 inch.

**Style**

(Example: Stud or Joist section = S)

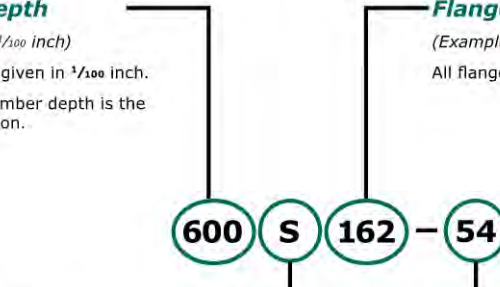
Nomenclature uses the following four characters to designate the profile:

- S** = Stud or Joist Sections
- T** = Track Sections
- U** = Channel Sections
- F** = Furring Channel Sections

**Mil Thickness**

(Example: 0.054" = 54 mils; 1 mil = 1/1000 inch)

Mil thickness is the minimum base steel thickness measured in 1/1000 inch. Minimum base steel thickness represents 95 percent of the design thickness.



**Figure 3.2.2 - SSMA Section Nomenclature**

**Thickness of Cold Formed Metals:** The SSMA convention denotes thickness using “mils” (inches divided by 1,000) These “mil” values can be compared to the older “gage” values as follows:

- 33 mil = 20 gage
- 43 mil = 18 gage
- 54 mil = 16 gage
- 68 mil = 14 gage
- 97 mil = 12 gage

**3.3 SHEAR WALL ASPECT RATIO (H/L)**

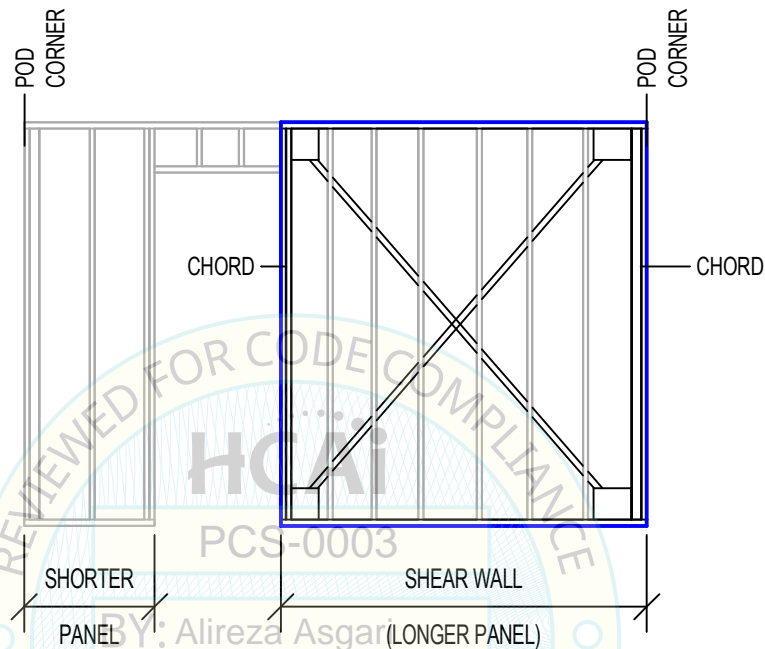
Once you have identified all “shear walls” for the Pod using Section 3.4 below and before using the Tables in Section 4, you will need to determine the “Aspect Ratio” for each shear wall. The Aspect Ratio is defined as the height H, divided by the length L, for the wall. “H” may be taken as the pod clear ceiling height relative to the top of steel floor plate. “L” shall be taken as the out-to-out dimension of the shear wall chords. As noted in the Limits of Application, the maximum shear wall aspect ratio is 3.5.

*For example, for a pod with 8-foot ceilings and for a wall 6'-3" long, the Aspect Ratio (H/L) would equal 8 divided by 6.25, or 1.28. When using the Tables in Section 4, design requirements are posted for multiple Aspect Ratios such as 1.00, 1.25, 1.50, 1.75 etc. To continue the example, for an actual Aspect Ratio of 1.28, you would obtain design requirements for the next higher ratio, 1.50. Using the values for a ratio of 1.25 would not be correct and would yield a lower strength design, even though it is closer to 1.28.*

**3.4 DEFINING SHEAR WALLS**

In the Section 4 of this manual, you will determine the structural requirements for the shear walls making up a pod unit. Before starting in Section 4, you must first “define” the shear walls. “Defining Shear Walls” means drawing a floor plan of the pod, and then locating the best locations for the chords that really define the length of the shear wall. (Recall that a “chord” must exist at each end of each shear wall; see Section 3.2, under “Chords”.) Since you will need unique structural designs for each wall, it is good practice to label each wall (for example Wall-1, Wall-2, Wall-3, etc.) for ease in tracking and review. For each Pod, Shear Walls should be defined fulfilling all of the following requirements:

1. Each pod shall have at least four Shear Walls located around the outer perimeter of the pod, with two such walls in each principal (perpendicular) direction;
2. Each wall shall extend from corner to corner of the pod. **Exception:** Where a wall plane has an opening for a doorway, the entire wall will consist of two solid planes either side of the doorway. Of the two solid wall panels, select at least one panel with the lowest Height-to-Length (aspect) ratio to be the "shear wall" on that face of the pod. This shear wall shall extend from door jamb to corner.

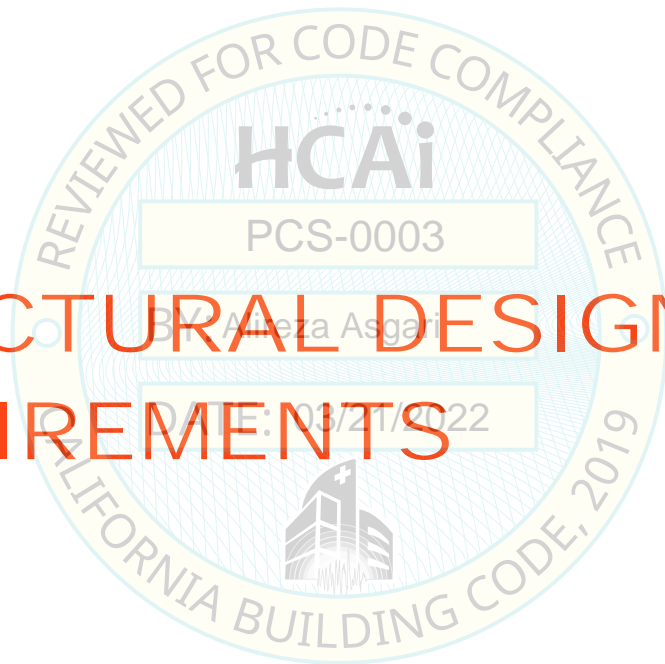


**Figure 3.4.1 – Pod Wall with Doorway**

3. Walls to be considered as shear walls shall be at least 24-inches long and with a Height-to-Length (aspect) ratio (Section 3.3) no greater than 3.5 (see Table 1.2).
4. If it is not possible to define a wall within the above criteria on one or more sides of the Pod, this Manual cannot be used and a special structural design will be needed. Contact the authors of this manual or any qualified engineer for support.

**Section 4**

**STRUCTURAL DESIGN  
REQUIREMENTS**



## 4.1 INTRODUCTION

Section 4 of the manual provides all of the structural design requirements for a given Pod. These requirements are determined by locating applicable tables in this section. These tables are generally accessed using:

- The seismic parameters  $S_{DS}$  and  $I_p$  (See Section 2.2 and 2.3 respectively)
- The vertical position in the building,  $z/h$  (See Section 2.4)
- The pod operating weight (See Section 2.5)
- The pod aspect ratio (See Section 2.6)
- The individual “Shear Wall Aspect Ratios” for each defined shear wall (See Section 3.3)

This information should be determined before beginning in this Section 4.

### 4.1.1 VERTICAL ZONES

The specific structural requirements for a pod will vary within a given building, where the “lightest” design will be found on the lowest floor and the “heaviest” design will be found at the highest floor of installation. It is SurePods’s responsibility to meet these structural requirements at all floor locations, but SurePods may elect to divide the building into vertical zones to minimize the number of unique pod designs to be built for a given project. In such a scenario, the highest floor in the zone will dictate structural requirements for all pods in that zone. The number and breakdown of zones is entirely up to SurePods’s design. Depending on how the zones are divided, the structural requirements for a pod may be different in each vertical zone, especially in regions of high seismicity. (See also Section 2.4.)

### 4.1.2 DESIGN AID

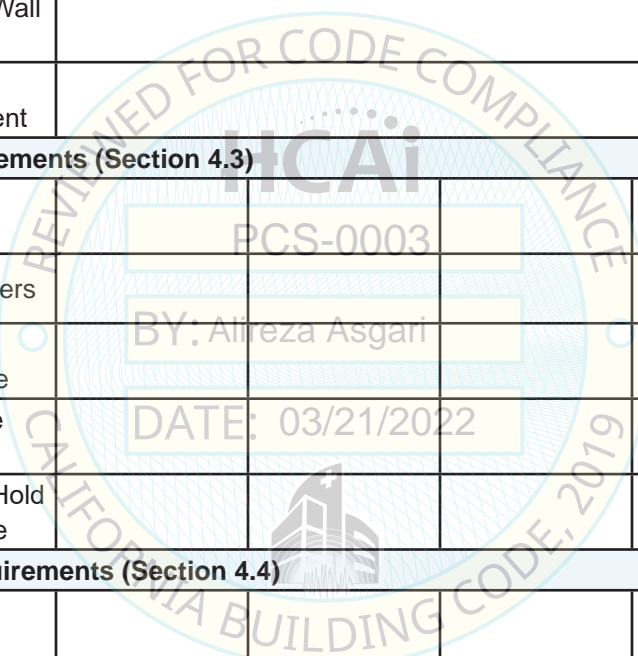
The requirements determined in this section include wall framing sizes, ceiling framing sizes, and seismic bracing requirements and all associated connection requirements such as size and number of screws at a connection. The amount of information gleaned from this manual for one pod is large, and to facilitate the organization of this information, a “fill-in-the-blanks” form is provided, see Table 4.1.2, parts 1 and 2. Use this table to record the design information collected while navigating through this Section.

### 4.1.3 GENERAL PROCEDURE

For each vertical zone, and for each shear wall in the Pod, the work flow contained in this Section is shown as a flow chart on Figure 4.1.3. The structural requirements for a pod will be determined by working through each of these sections:

- Section 4.2: Determine General Requirements
- Section 4.3: Determine “Gross Shear Wall Requirements”
- Section 4.4: Determine “Detailed Shear Wall Requirements”
- Section 4.5: Determine “Pod Shear Anchorage” Requirements”
- Section 4.6: Determine “Pod Overturning Anchorage Requirements”
- Section 4.7: Determine “Pod Ceiling Diaphragm Requirements”

| TABLE 4.1.2: BLANK SHEAR WALL SCHEDULE (PART 1)       |                         |         |         |         |         |         |
|---|-------------------------|---------|---------|---------|---------|---------|
| Type  | $S_{ps}$                | $I_p$   | W       | Floor   | Zone    | z/h     |
| Reference   | Item                    | Wall #1 | Wall #2 | Wall #3 | Wall #4 | Wall #5 |
| <b>General Information</b>                            |                         |         |         |         |         |         |
| ~   | Ceiling Height (inches) |         |         |         |         |         |
| ~   | Wall Length (inches)    |         |         |         |         |         |
| Section 3.3   | Wall Aspect Ratio       |         |         |         |         |         |
| Section 2.6   | Pod Aspect Ratio        |         |         |         |         |         |
| <b>Minimum Wall Framing (Section 4.2)</b>             |                         |         |         |         |         |         |
| Table 4.2.1   | Minimum Wall Framing    |         |         |         |         |         |
| Table 4.2.1   | Bridging Requirement    |         |         |         |         |         |
| <b>Gross Shear Wall Requirements (Section 4.3)</b>    |                         |         |         |         |         |         |
| Tables 4.3.x (Table A)                                | Shear Loading           |         |         |         |         |         |
| Tables 4.3.x (Table A)                                | Sill Fasteners          |         |         |         |         |         |
| Tables 4.3.x (Table A)                                | Required Brace Type     |         |         |         |         |         |
| Tables 4.3.x (Table B)                                | Anchorage Force         |         |         |         |         |         |
| Tables 4.3.x (Table B)                                | Required Hold Down Type |         |         |         |         |         |
| <b>Detailed Shear Wall Requirements (Section 4.4)</b> |                         |         |         |         |         |         |
| Tables 4.4.x (Table A)                                | Chords                  |         |         |         |         |         |
| Tables 4.4.x (Table A)                                | Tracks                  |         |         |         |         |         |
| Tables 4.4.x (Table B)                                | Gusset                  |         |         |         |         |         |
| Tables 4.4.x (Table B)                                | Strap-to -Gusset        |         |         |         |         |         |
| Tables 4.4.x (Table B)                                | Gusset-to -Chord        |         |         |         |         |         |
| Tables 4.4.x (Table B)                                | Gusset-to -Track        |         |         |         |         |         |



| TABLE 4.1.2: BLANK SHEAR WALL SCHEDULE (PART 2)         |                                 |         |         |         |         |         |
|---|---------------------------------|---------|---------|---------|---------|---------|
| Type  | $S_{DS}$                        | $I_p$   | W       | Floor   | Zone    | z/h     |
| Reference   | Item                            | Wall #1 | Wall #2 | Wall #3 | Wall #4 | Wall #5 |
| <b>Pod Anchorage for Shear (Section 4.5)</b>            |                                 |         |         |         |         |         |
| Table 4.5.1   | Min Sill Fastener (All Walls)   |         |         |         |         |         |
| Table 4.5.2   | Min Sill Fastener (Shear Walls) |         |         |         |         |         |
| Table 4.5.3   | Required Mastic                 |         |         |         |         |         |
| Table 4.5.4   | Shear Anchorage Requirement     |         |         |         |         |         |
| <b>Pod Anchorage for Overturning (Section 4.6)</b>      |                                 |         |         |         |         |         |
| Structural Drawings                                     | Floor Type                      |         |         |         |         |         |
| Table 4.6.x   | Uplift Device                   |         |         |         |         |         |
| Table 4.6.x   | Anchor Spec                     |         |         |         |         |         |
| <b>Ceiling and Diaphragm Construction (Section 4.7)</b> |                                 |         |         |         |         |         |
| Table 4.7.1   | Min Rafter Size & Screws Req'd  |         |         |         |         |         |
| Table 4.7.3   | Strap Size & Screws Req'd       |         |         |         |         |         |
| ~   | Top Track Size                  |         |         |         |         |         |
| Table 4.7.4.x   | Maximum Unbraced Track Length   |         |         |         |         |         |

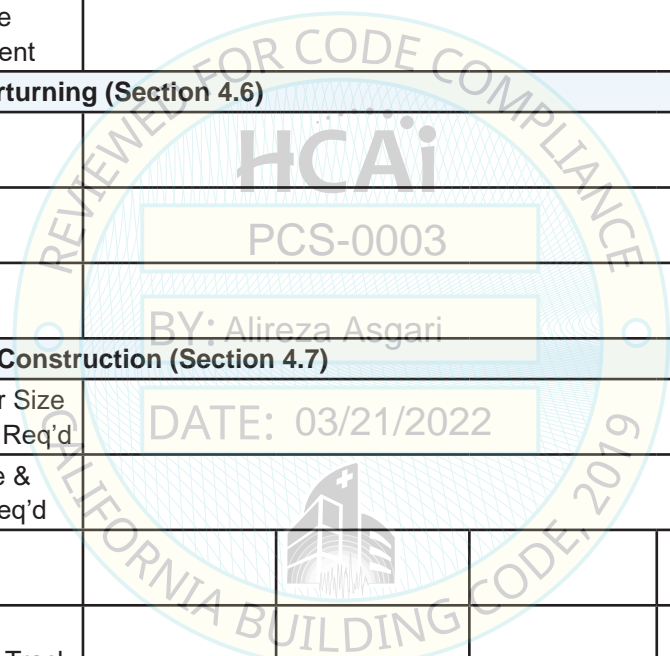
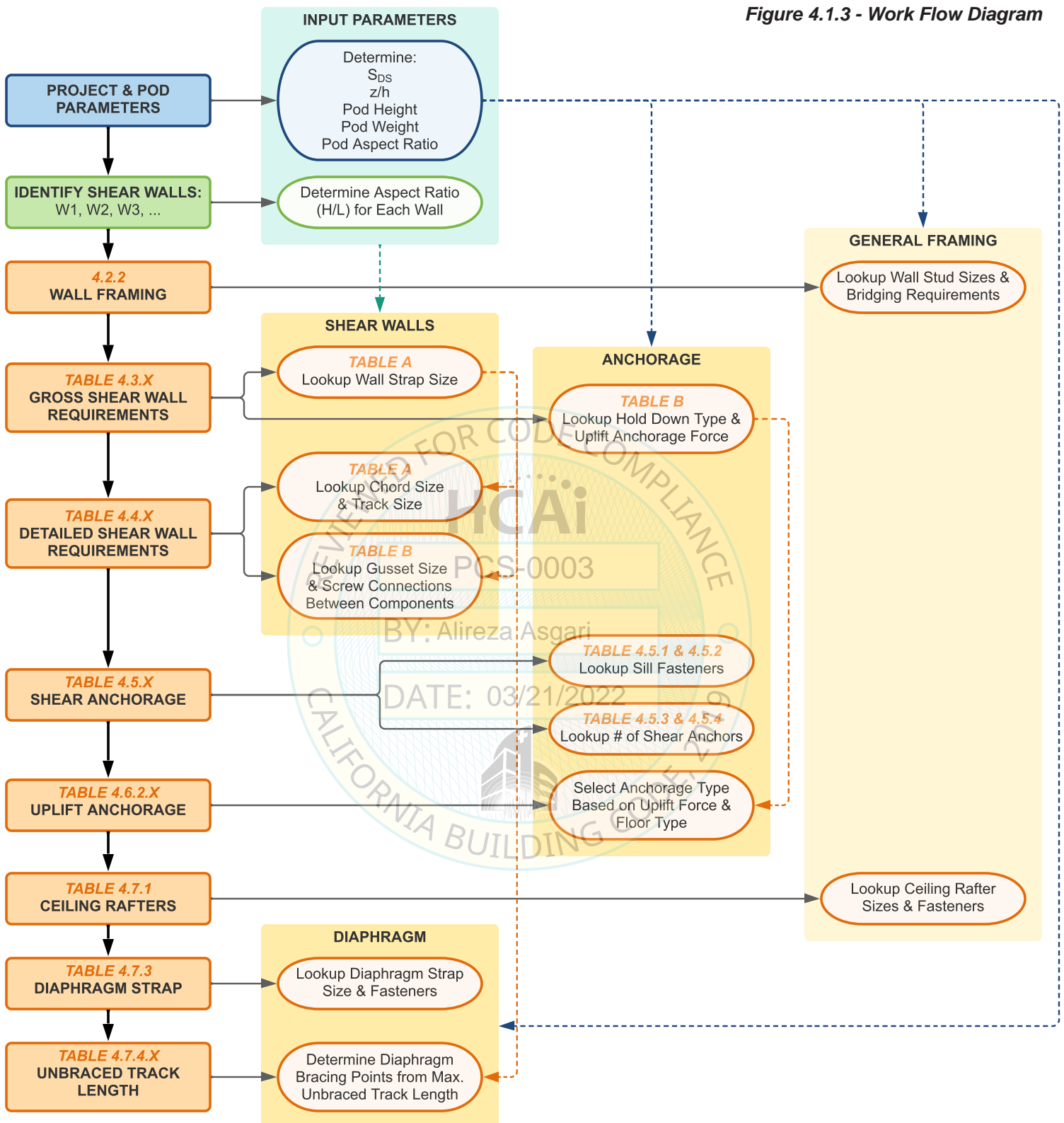


Figure 4.1.3 - Work Flow Diagram





## 4.2 GENERAL POD FABRICATION

**Purpose:** For all pods in the project, determine the minimum floor and wall construction requirements using the guides below. Record your findings on the “Blank Shear Wall Schedule” (Table 4.1.2).

### 4.2.1 NOTES ON FLOOR CONSTRUCTION

These pods are designed to be built on a continuous 3/8” steel plate foundation. Cold-formed steel wall assemblies are to be set on this plate and fastened to the plate using “Sill Fasteners”. These “Sill Fasteners” connect the wall track to the steel floor plate only. Once the pod is installed in a building, additional anchors (“Pod Shear Anchors”) to the structure may be required.

Requirements for “Sill Fasteners” and for “Pod Shear Anchors” and “Pod Overturning Anchors” are presented in Section 4.5 and 4.6.

### 4.2.2 NOTES ON WALL CONSTRUCTION

All wall studs for S3 pods shall be 362S125-33-33 @ 12” O.C (for SSMA nomenclature, refer to Section 3.2).

The webs of S3 pod wall studs may be punched.

No bridging is required for S3 pod wall studs, but note that the wall stud size provided is only applicable for pods within the maximum ceiling height of 9'-0”.

At door openings, provide a double scheduled stud at each jamb.

Sizes of shear wall “chords” are not indicated here, see section 4.3 for “chord” studs.

Sizes of Tracks are not indicated here, see also Section 4.3 and 4.6 for “track” requirements.

Where walls meet at corners and “tee” intersections, interconnect studs per detail 5.2.2.3 and top tracks per detail 5.7.2.2.

### 4.2.3 NOTES ON MINIMUM SCREW FASTENERS

Screw sizes called for in this manual are sized to (1) resist the required forces and (2) grip the total thickness of material in the connection assembly. Table 4.2.3 below summarizes the minimum screw size based on the materials joined and is used throughout this manual. The quantity of screws will be determined in the sub-sections of Section 4.

**TABLE 4.2.3: MINIMUM SCREW SIZE**

| Joint                | Layer Against Screw Head | Other Layer                | Minimum Screw Size |
|----------------------|--------------------------|----------------------------|--------------------|
| Flat Strap-to-Gusset | 33 mil Flat Strap        | 33 mil Gusset              | #8-18 PMTH         |
| Gusset-to-Chord      | 33 mil Gusset            | 33-to-54 mil Chord Stud    | #8-18 PMTH         |
|                      |                          | 68 mil Chord Stud          | #10-16 PWH         |
|                      |                          | 97 mil Chord Stud          | #12-14 RPFH        |
|                      |                          | 0.064” HSS Chord           | #8-18 PMTH         |
|                      |                          | 0.083”-to-0.165” HSS Chord | #12-14 RPFH        |
| Gusset-to-Track      | 33 mil Gusset            | 3/16-to-1/4” HSS Chord     | #10-22 RPFH        |
|                      |                          | 33-to-54 mil Track         | #8-18 PMTH         |
|                      |                          | 68 mil Track               | #10-16 PWH         |
|                      |                          | 97 mil Track               | #12-14 RPFH        |

All screws shall have capacities listed in ICC reports greater than or equal to Senco Grabber screws (ICC ESR 3558)



## 4.3 GROSS SHEAR WALL REQUIREMENTS

**Purpose:** Using the Pod Type,  $S_{DS}$ ,  $I_p$  and Pod Weight values determined in Section 2, for each “Vertical Zone” and for each “Shear Wall”, use this Section to determine the Pod “Shear Loading” and the “Required Strap Size” for use in later sections. Also, use this Section to determine the Pod’s “Required Anchorage Force” and “Required Hold Down Type” for use in later sections. Record your findings on the “Blank Shear Wall Schedule” (Table 4.1.2).

### 4.3.1 FIND THE CORRECT TABLE 4.3.X

In this Section, there are numerous tables starting with the label “Table 4.3.x”, where x is a counter. Locate the Table 4.3.x that best corresponds to the design parameters for your project. Across the top of each page is a line labeled “PARAMETERS” that lists specific values of Pod Type,  $I_p$ ,  $S_{DS}$  and Pod Weight. Refer to Section 2 of this manual to determine each of these parameters. Pick the table that provides the closest match to your parameters. You will only need one such table for a given project.

*Note: Your actual  $S_{DS}$  and  $W$  values may lie between the tabulated values in Tables 4.3.x. To find an appropriate table, round-up your  $S_{DS}$  and  $W$  values to the nearest match. Do not round down.*

Once you have found the correct Table, extract the design requirements for each wall of the pod and for each vertical zone in the building, as explained below.

### 4.3.2 EXTRACTING VALUES FROM THE TABLE

On each Table, there are two sub-tables, Table A and Table B. Navigate both tables in the same manner: First, find the column of data that best matches the “Aspect Ratio”. (Note: Table A uses the “Shear Wall Aspect Ratio” (Section 3.3); Table B uses the “Pod Aspect Ratio” (Section 2.6). If a particular wall aspect ratio is not listed on the table, round your actual aspect ratio up to the closest matching aspect ratio on the table. Next, find the row that best fits your vertical location or “z/h” ratio, rounding up if necessary. At the intersection of this column and row, record the data listed.

**TABLE A: SHEAR LOADING & REQUIRED STRAP TYPE:** Two values are provided. The upper value is the shear loading for the wall, provided in units of pounds per foot or “plf”. The lower value is the “Required Flat Strap Type”, presented as a specification code. See Section 3.2, under “Flat Strap” bracing for how to interpret the specification code.

*Note: The “Shear Loading” values represent the unit shear loading of the wall panel, i.e. the total seismic shear on the wall divided by its length. Record the values on the blank form; they will be needed in Section 4.5.*

*Note: The “Required Strap Type” is listed in a spec form, or “call-out” form. Record the code on your blank form; it will be needed to access “Detail Requirements” in the next section. Each wall shall have two flat strap braces arranged in an “X” pattern as shown on Figure 3.2.1.*

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD-DOWN TYPE:** Two values are provided. The upper value is the “Required Anchorage Force” provided in “pound” units or “lbs”. The lower value is the “Required Hold Down Type”, presented as “HD-x” where x varies from 1 (The lightest load rating) to 3 or more. The “Required Anchorage Force” and “Hold Down Type” values will be used in Section 4.6.

*Final Tip: Cycle through the above exercise for all defined shear walls, using the same Table 4.3.x, but using the proper “Shear Wall Aspect Ratio” for each wall. The Table B information will be the same for all walls, so this table is only accessed one time per vertical zone. Once completed, move to Section 4.4.*

## 4.4 DETAILED SHEAR WALL REQUIREMENTS

**Purpose:** Using the “Required Strap Type” determined in Section 4.3, for each “Vertical Zone” and for each “Shear Wall”, determine the “Detailed Shear Wall Requirements” for each shear wall. Record the values in your “Blank Shear Wall Schedule” (Table 4.1.2). For each shear wall:

### 4.4.1 FIND THE CORRECT TABLE 4.4.X

Using the “Required Strap Type” value for this wall, locate the “Table 4.4.x” that matches the “Required Strap Type” for this wall. The “Strap Type” for each page is listed at the top right-hand corner of the table.

*Note: The Building Code dictates that “Flat-Strap Braced Shear Walls” be designed such that the Flat Strap Braces are the “weak link” in the built shear wall. This means that the chords, tracks, gussets and connecting screws must all be stronger than the strap. Compliance with this requirement is built into the tables, but this creates an important rule: Whenever selecting a Section 4.4 Table, always select the table for the strap type to be built. For example, if the previous section (Section 4.3) requires a “100FS-33-50” and you have determined that all pods will be built using “150FS-33-50” straps, then you must select the Section 4.4 table for the “150FS-33-50” strap type. This will ensure the weak-link requirement noted above.*

### 4.4.2 EXTRACTING VALUES FROM THE TABLE

On each table, there are two sub-tables, Table A and Table B. Navigate both tables in the same manner: First, find the column that best matches the “Aspect Ratio” for the shear wall being considered. If a particular wall aspect ratio is not listed on the table, round your actual Aspect Ratio as follows:

- For sizing Chords, Round Up
- For sizing Tracks, Round Down
- For Sizing the Gusset Height, Round Up
- For Sizing the Gusset Width, Round Down

Next, find the row that best matches the Pod Ceiling Height, rounding your actual ceiling height up to the next closest value. At the intersection of this row and column, record the data listed.

**TABLE A: MINIMUM REQUIRED CHORD & TRACK SIZES:** Two values are provided, namely the required “Chord” & “Track” sizes. Provide the required “Chord” member at each end of the shear wall, selecting either a light-gage stud combination or a closed HSS tube as appropriate. Provide the required “Track” at the top track and sill track for the shear wall.

*Note: In some cases you will find that the listed size for a c-section chord is “No Solutions”. This means that there is no available cold-formed metal stud sizes that work. (We have limited stud gages to 16 gage, or 54 mil per SurePods’ direction.) In these cases, the only solution will be a closed HSS tube shape. You will encounter this when looking at shear walls with high “Shear Wall Aspect Ratios”.*

**TABLE B: MINIMUM REQUIRED GUSSET & SCREW CONNECTIONS:** Five values are provided; be sure to record all of these values! The first value refers to a graphic depiction of the brace-gusset connection, for use interpreting the values provided. These figures are provided following the Table 4.4.x series. The minimum required “Gusset” is identified using spec or call-out code per Section 3.2. and then the minimum required screw size and quantity is provided for three connections at each end of each brace: Strap-to-Gusset, Gusset-to-Chord and Gusset-to-Track.

*Note: To ensure acceptance of the pod on site, it’s critically important that these minimum requirements are met in the delivered product. The “Detail” reference provided shows the geometry and layout for the strap connection to scale, with each required screw located on the drawing, to avoid mis-interpretations of the information presented in Table B.*

## 4.5 POD ANCHORAGE FOR SHEAR

**Purpose:** First, determine the minimum connection between pod walls and the steel floor plate, using Section 4.5.1 and 4.5.2 below. Next, using the “Shear Loading” determined in Section 4.3, for each “Vertical Zone” and for each pod as a whole and for each shear wall, determine the minimum connection between the pod and the buildings’ floor slab using Section 4.5.3 and 4.5.4 below.

Record the values in your “Blank Shear Wall Schedule” (Table 4.1.2).

### 4.5.1 SILL FASTENERS TO THE STEEL PLATE:

All walls of the pod - whether defined as “Shear Walls” or not – must be fastened to the steel floor plate per Table 4.5.1.

| TABLE 4.5.1: MINIMUM REQUIRED SILL FASTENERS AT ALL WALLS  |  |                         |
|--|--|-------------------------|
| Condition  | Fastener                                     | Maximum Spacing         |
| All Walls  | ¼-20 ASTM A307A, A307B or ASME Grade 2 Bolts | 24” O.C.                |
| Door Jambs   | Same   | Within 4” of Jamb Studs |
| <i>Alternative fasteners may be used. Said fasteners shall have an allowable shear loading of 1,350 lbs per bolt (LRFD shear of 2,000 lbs) when connecting 33-mil or thicker metals to ¼” thick steel plate.</i> |  |                         |

### 4.5.2 ADDITIONAL SILL FASTENERS TO THE STEEL PLATE: Required for all “Shear Walls” of the Pod

All shear walls of the Pod shall meet the requirements listed in Table 4.5.1 above, however for certain highly loaded walls, additional fasteners may be needed. Using the “Shear Loading” found in Section 4.3 (Tables 4.3.x [A]), use Table 4.5.2 below to determine any additional requirements:

| TABLE 4.5.2: MINIMUM REQUIRED SILL FASTENERS AT SHEAR WALLS |  |                 |
|---|--|-----------------|
| Section 4.3 Shear Loading                                   | Fastener                                     | Maximum Spacing |
| 0 – 1,000 PLF   | Use Table 4.5.1                              |                 |
| 1,001 to 2,000 PLF  | ¼-20 ASTM A307A, A307B or ASME Grade 2 Bolts | 12” O.C.        |
| 2,001 to 3,000 PLF  | ¼-20 ASTM A307A, A307B or ASME Grade 2 Bolts | 6” O.C.         |

### 4.5.3 SETTING MASTIC & SHEAR ANCHORS FOR THE OVERALL POD

Sections 4.5.1 and 4.5.2 above only address the connection of metal stud framed walls to the steel floor plate. In addition, the Pod shall be anchored against sliding (shear) to the building floor structure as required in this section. While there is no structural requirement to set the Pods on a bed of mastic, a mastic bed can be incorporated into the design using approved non-resinous mastics, provided the thickness of mastic is included in the Pod depression dimension.

The approved non-resinous mastic compounds are listed in the “General Notes” found in Section 5 of this manual. The thickness of mastic shall conform to the requirements of the mastic manufacturer, not to exceed 3/8 inches. Regardless of the use of a mastic, all S3 Pods shall be positively anchored to the structural floor deck; see Section 4.5.4 for details.

### 4.5.4 MECHANICAL SHEAR ANCHOR REQUIREMENT FOR TYPE S3 PODS

Type S3 Pods must be mechanically anchored to the floor slab to prevent sliding under seismic loading, ignoring the bonding capabilities of the floor mastic. Table 4.5.4 provides the required total “Pod Shear Force” to be resisted and the “Number of Screw Anchors” needed to meet this requirement.

**Find the Correct Table:** There are five tables included in Table 4.5.4, spanning three pages. Each of these five tables covers one seismic  $S_{DS}$  (Section 2.2) factor, so find the table that best matches the project  $S_{DS}$ , rounding up to the next closest value. All of these tables apply to Type S3 pods only.

**Navigating the Table:** First, select the column of values that best matches the Pod Weight,  $W$  (Section 2.5), rounding up to the next closest value posted on the table. Next, select the row of values that best matches the  $z/h$  ratio defining the Vertical Zone under consideration. At the intersection of this column and row, you will find the requirements for the vertical zone under consideration.

**Extracting the Values:** There are two values: The first is the “Total Pod Shear Force” to be resisted and the second value is the “Number of Screw Anchors” needed to resist the total force. (*The “Shear Force” value is not needed to continue, but see the note following*) Record the “Number of Screw Anchors” value on the “Blank Shear Wall Schedule”.

*Note: The default screw anchor is a Hilti 3/8”x2” KH-EZ Screw Anchor placed in a floor slab at least 2.5 inches thick with a 28-day compressive strength of at least 3,000 psi. Table 4.5.4 is based on this anchor and floor type. If SurePods wishes to change the anchor type or take advantage of higher present concrete strengths, an engineering review will be needed, and the “Total Pod Shear Force” value can be used to design a different type of anchor. This force magnitude is an LRFD-based lateral base shear for the Pod, with  $\Omega_o = 1.0$ .*

**Implementation:** Shear Anchors, when required, shall be uniformly distributed around the perimeter of the Pod, with no less than the “Number of Screw Anchors” determined in Table 4.5.4 provided.

## 4.6 POD ANCHORAGE FOR OVERTURNING

**Purpose:** Using the “Required Anchorage Force” and the “Required Hold Down Type” determined in Section 4.3, determine the requirements for hold-down anchorage for the pod. Record the values in your “Blank Shear Wall Schedule” (Table 4.1.2). This procedure should be repeated for each “Vertical Zone” defined for the project.

### 4.6.1 ASSESSMENT FOR “UPLIFT”

The terms “over-turning” and “uplift” are used to describe what may happen to a pod subjected to the building code seismic forces. If the seismic force is large compared to the narrowest width of the pod, the pod can “uplift” along one side of the pod; this is the result of “over-turning” forces that are large enough to overcome gravity and result in one wall of the pod “uplifting” from the floor slab. Hold-down devices anchored to the building’s structural concrete floor deck prevent this from occurring. They are not needed for all pods, but will be needed in many cases.

The building code requires that the Pod be positively anchored to the building’s floor structure to prevent uplift due to “over-turning” caused by seismic forces. In section 4.3 of this manual, you found a “Required Anchorage Force” value in Table 4.3.x for your Pod, based on the “Pod Aspect Ratio” and “Vertical Position (z/h)”. If the resulting “Required Anchorage Force” value was “zero”, there is no net uplift, but the wall must still be anchored to the Steel Floor Plate using Hold Down Type HD-0, as described in Section 4.6.2 and 4.6.3.

If the “Required Anchorage Force” is a value other than zero, the Pod is predicted to have net uplift, and hold-down devices will be needed to anchor the pod to the building’s structural concrete floor deck in addition to the steel floor plate. The type of anchor is determined in Section 4.6.2 below, and the layout of anchors is explained in Section 4.6.3.

### 4.6.2 DETERMINE “ANCHORAGE REQUIREMENTS”

First, in Section 4.3, the “Table B” query provided a “Hold Down Type” and an “Anchorage Force”, both recorded on your “Blank Shear Wall Schedule”. Using these two values, determine the “Hold-Down Device” and “Anchorage Requirement” in the next two paragraphs.

**Hold-Down Device:** Using the “Hold Down Type”, determine the required hold-down device from Table 4.6.2.1 below:

| TABLE 4.6.2.1: APPROVED HOLD DOWN DEVICES |                              |
|---|------------------------------|
| Hold Down Type                            | Approved Device              |
| HD-0                                      | See note below* (Fig 5.6.2)  |
| HD-1                                      | Simpson DTT-1Z (Fig 5.6.1)   |
| HD-2                                      | Simpson S/LTT-20 (Fig 5.6.1) |
| HD-3                                      | Simpson DTT-2Z (Fig 5.6.1)   |

\* HD-0: If HD-1, HD-2 or HD-3 is indicated in Table 4.3.X.B, use the same Hold Down device at all HD-0 locations. If Table 4.3.X.B specifies HD-0, use Simpson DTT-1Z at all HD-0 locations.

**Anchorage Requirement:** Second, determine the required post-installed uplift anchor to be used to anchor the hold-down device to the building’s floor structure. The required “post-installed” anchors are found by querying Tables 4.6.2.3, 4.6.2.4, 4.6.2.5 or higher. These tables (found at the end of this section of the manual) provide anchorage information for a specific type of floor structure. You must therefore select the table best matching the floor structure supporting your pods. Note that for all anchor types in this manual, the minimum required edge distance to the anchor is assumed to be 12”.

**Navigate the Table:** Each 4.6.2.x Table is organized in the same manner: The floor system type is indicated on a line just below the title line. Each table contains three sub-tables, A, B and C corresponding to solutions using Hilti, Simpson and Mitek anchorage products. Each of these tables A, B and C is further divided into three sections, providing designs for Expansion Anchors, Resin Anchors and Screw Anchors. Finally, each table lists three columns of values for three listed 28-day concrete compression strengths ( $f'_c$ ).

*SurePods is free to choose between the products listed on each table, selecting from Hilti, Simpson or Mitek brands as desired, and selecting from among the available expansion anchors, resin (epoxy) anchors and screw anchors. This gives Surepods maximum flexibility in selecting suitable anchorage devices.*

**Extract the Requirements:** The values listed for any given anchor type and concrete strength represent the anchor’s “uplift” or “pull-out” strength for the Table’s listed floor system type and 28-day minimum strength. You may select any anchor product whose capacity meets or exceeds the “Anchorage Force” requirement found in Section 4.3 for the Pod.

*Plan Checkers Note: All or most of these anchor designs are classified as non-ductile per ACI 318-18 Section 17.2.3.4.3(d). Therefore, the “Anchorage Force” requirement found in Section 4.3 represents the net LRFD uplift, factored by  $\Omega_u=2.5$ . These forces can be directly compared to the values in Tables 4.6.2.x.*

**Anchor Type Call-Outs:** In each Table A, B and C, under the column labeled “Anchor Type”, anchors are listed using a special code, as defined herein: The post-installed anchors codes are presented in this form:

**XXX YYYY ZZZ**

Where: **XXX** denotes the anchor diameter in inches x100 (e.g. 375 denotes 3/8”)

**YYYY** denotes the anchor type code (See Below)

**ZZZ** denotes the minimum depth of embedment in inches x100 (e.g. 375 denotes 3-3/4”)

The types of post-installed anchors listed in these tables includes the following:

| TABLE 4.6.2.2: APPROVED POST-INSTALLED ANCHORS |                       |                  |                    |          |
|--|-----------------------|------------------|--------------------|----------|
| Anchor Code                                    | Manufacturer          | Model            | Material           | Approval |
| KBTZ2  | Hilti, Inc            | Kwik Bolt TZ2    | Carbon Steel       | ESR-4266 |
| RE100  | Hilti, Inc.           | HIT-RE 100       | ASTM A193 Grade B7 | ESR-3829 |
| RE500  | Hilti, Inc.           | HIT-RE 500 V3    | ASTM A193 Grade B7 | ESR-3814 |
| KHEZ   | Hilti, Inc.           | Kwik Hus-EZ      | Carbon Steel       | ESR-3027 |
| CSSB2  | Simpson Strongtie Co. | CS Strong Bolt 2 | Carbon Steel       | ESR-3037 |
| SET3G  | Simpson Strongtie Co. | SET-3G           | ASTM A193 Grade B7 | ESR-4057 |
| TITEN  | Simpson Strongtie Co. | Titen HD         | Carbon Steel       | ESR-2713 |
| WACW   | Mitek                 | WAC Wedge        | Carbon Steel       | ESR-4298 |
| CIAG7C   | Mitek                 | CIA-Gel 7000-C   | ASTM A193 Grade B7 | ER-0473  |
| SACHS  | Mitek                 | SACH             | Carbon Steel       | ESR-4419 |

**Potential Problems and Helpful Hints:** You may encounter one of several situations where a working solution cannot be found. The following bullets will help navigate these issues:

- **Situation 1 - "No Solution":** Table 4.6.2.x may inform you that the "Uplift Capacity" for a preferred anchor is "N/A" for the specific floor system you are working with. This means that the listed anchor is not approved for the floor system, and another type of anchor must be selected.
- **Situation 2:** Table 4.3.x may inform you that there is "No Solution" - or - Table 4.6.2.x may inform you that there is no anchor with enough "Uplift Capacity" to satisfy the requirement determined above. This means that the uplift force is higher than any of the conventional post-installed anchor solutions that the manual can satisfy, and a special solution will be needed to anchor the pod. This could be the case, for example, with projects using thin deck fills on metal deck in high seismic regions. This may also occur where the uplift requirements are simply too high for conventional post-installed anchorage products, and other solutions are needed. See Section 4.6.4 below for potential solutions.

#### 4.6.3 LOCATING HOLD DOWN DEVICES

Provide the hold-down device determined in Section 4.6.2, using the layout rules below, and record this layout on the structural floor plan for the Pod, for approval. Satisfy these rules:

1. Each "chord" member of each shear wall shall have a hold-down device, HD-0 or greater as determined in Section 4.6.2. Since there are a minimum of four walls per Pod, each pod will have a minimum of 8 hold-down devices. Locate hold-down devices at the base of each shear wall chord member.
2. The minimum hold-down device is HD-0. This device shall connect the shear wall chord member to the steel plate floor of the pod. Details are provided in Section 5, see Detail 5.6.2.
3. If it is determined in Section 4.6.2 that hold-downs with anchorage to the structural concrete floor deck (HD-1, HD-2, or HD-3) are required, provide a minimum of four (4) such anchors per Pod, with one at each corner of the Pod. This means that of the eight total number of hold-down devices required in item 1 above, four must be anchored to the slab below, and these anchors must be located at the Pod corners. The remaining four hold-down devices will be HD-0 type devices bolted to the steel floor plate. Where two shear walls share a common corner, one hold-down will be HD-0 and the other hold-down will be anchored into the slab below using one of the Post-Installed Anchors listed in Table 4.6.2.2.
4. If it is determined in Section 4.6.2 that the required hold-down type is HD-0, provide a minimum of eight (8) HD-0 anchors per pod.

#### 4.6.4 VERY HIGH UPLIFT ANCHORAGE REQUIREMENTS

As noted in Section 4.6.2 above, situations will arise where the conventional "Post-Installed" anchor solutions contained in this manual will not satisfy the "Anchorage Force Requirement" found therein. In these cases, the following solutions can be used:

1. Suggest a higher strength concrete mix or a thicker topping thickness to the SEOR for consideration.
2. Barring the above solution, use a through-the-deck bolted anchor as per Detail 5.6.5.1 in this manual. The thru-the-deck bolt diameter must match the Hold Down Type requirement, as explained on this detail. This approach requires careful coordination with structural framing and possible plumbing, electrical, mechanical or other equipment below the deck.
3. Barring any of the above solutions, consult the Authors of this manual for assistance.



## 4.7 CEILING & DIAPHRAGM CONSTRUCTION

**Purpose:** Using the overall pod dimensions and the Track size determined in Section 4.4, Determine two requirements for the Pod as a unit: First, determine the minimum rafter size for ceiling framing; See Section 4.7.1. Second, determine the ceiling diaphragm bracing layout and struts needed to create the “Ceiling Diaphragm”. See Sections 4.7.2, 4.7.3 and 4.7.4. Record the values in your “Blank Shear Wall Schedule” (Table 4.1.2).

### 4.7.1 SIZE THE RAFTERS

First, note that Rafters shall be laid out to span across the narrow dimension of the Pod, thus the “Rafter Span” in the table below should correspond to the length of the narrow dimension of the Pod. Next, using Table 4.7.1 below, find the row with a rafter span that meets and/or exceeds the narrow dimension of the pod, and select the rafter & fastener requirements for that span condition.

| TABLE 4.7.1: MINIMUM CEILING RAFTERS  |                              |   |  |  |
|---|------------------------------|---|--|--|
| Rafter Span   | Rafter Size<br>(Pod Type S3) | Fasteners @<br>33-54 mil (20-<br>16 ga) Track | Fasteners @<br>63 mil (14 ga)<br>Track | Fasteners @<br>97 mil (12 ga)<br>Track |
| 5'-0"   | 350S162-43-33                | #8-18 PMTH                                    | #10-16 PWH                             | #12-14 RPFH                            |
| 5'-6"   | 350S162-43-33                | (2) for Non-<br>Brace Rafters                 | (2) for Non-<br>Brace Rafters          | (2) for Non-<br>Brace Rafters          |
| 6'-0"   | 350S200-43-33                |   |  |  |
| 6'-6"   | 350S200-43-33                | (6) for Brace<br>Rafters                      | (6) for Brace<br>Rafters               | (6) for Brace<br>Rafters               |
| 7'-0"   | 350S200-43-33                |   |  |  |
| 7'-6"   | 400S200-43-33                | (6) for Brace<br>Rafters                      | (6) for Brace<br>Rafters               | (6) for Brace<br>Rafters               |
| 8'-0"   | 550S200-43-33                |   |  |  |
| Screw sizes vary with base metal thickness, provide quantity posted at each end of strap.<br>For location of "Brace Rafters" and "Non-Brace Rafters", see Figure 4.7.2. |                              |   |  |  |

**Rafter Layout Rules:** Observe these rules when laying out ceiling rafters:

- Rafters shall span across the narrow dimension of the Pod.
- Rafters shall be oriented flat-wise on the top track with flanges pointing upward, as shown on Figure 5.7.1
- Spacing of rafters shall be the same as used for wall studs.
- Rafters shall be laid out so that the rafter lands directly over a wall stud(s) and therefore avoids bending the top track. Placing rafters between wall studs is not permitted.
- Brace Rafters differ from typical ceiling rafters only in the connections to the Tracks at their ends, not in the size of the section itself

### 4.7.2 LAYOUT THE DIAPHRAGM ELEMENTS

The building code requires that the “roof” or ceiling of the pod be capable of distributing seismic forces to the walls of the pod. The ceiling material used in a SurePods pod is not recognized as suitable for this requirement, therefore each pod will need to include flat-strap bracing in the ceiling plane, to act as a “diaphragm” to distribute seismic forces to the walls.

The layout of bracing for the Ceiling Diaphragm must satisfy several requirements listed below. In general terms, the ceiling plan is sub-divided into multiple sections where each section contains one pair of flat-strap braces arranged in an “X” pattern, as shown in Figure 4.7.2 below:

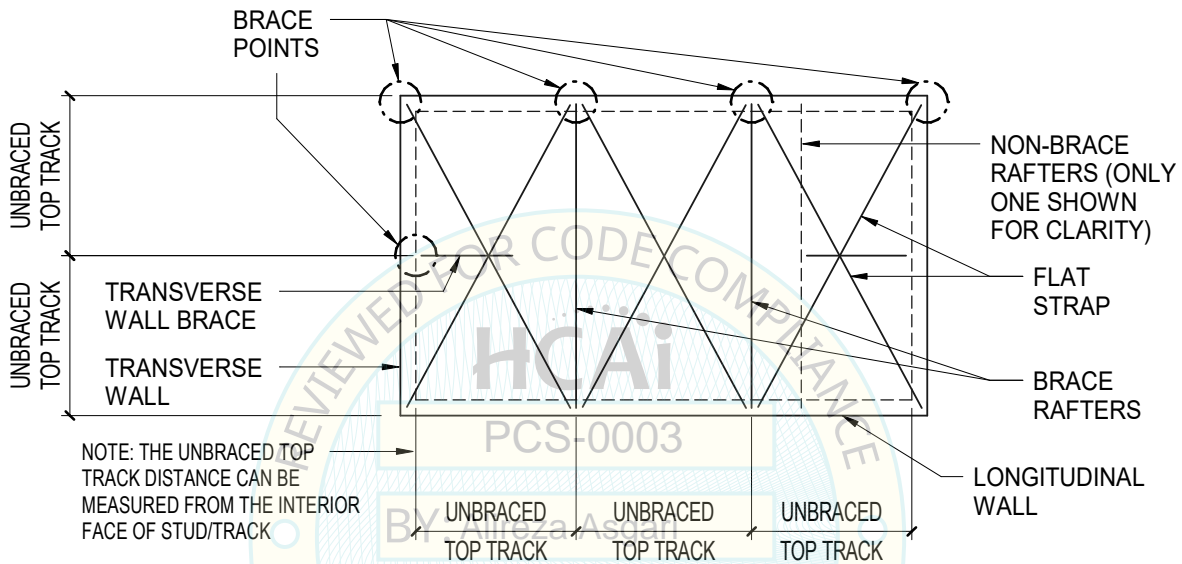


Figure 4.7.2 – Pod Ceiling Diaphragm Layout

**Sub-division of the Ceiling Plan:** Subdivide the top track into short segments. In Section 4.7.4 to follow, you will determine the "Maximum Unbraced Track Length" of the top track, and the goal for the layout of the ceiling diaphragm is to provide "Brace Points" along the top track that are spaced less than the "Maximum Unbraced Track Length." Brace Points define a rafter location and thus shall occur over wall stud locations below. Use these rules to layout the ceiling diaphragm brace points:

- The “Unbraced Top Track” length between any two “Braced Points” must be less than the “Maximum Unbraced Top Track Length” determined in Section 4.7.4 below. This applies to all walls.
- For longitudinal walls, the top track is subdivided by introducing pairs of diagonal strap braces to create “Braced Points” that satisfy the “Maximum Unbraced Top Track” length determined for that wall.
- For transverse walls, the top track is subdivided by introducing one or more flat-strap ties (labeled "Transverse Wall Brace") running from the needed “Brace Point” to the nearest “X” intersection. There must be at least one brace point along the transverse walls.

- A Pod shall have at least two pairs of flat-strap braces. In other words, in addition to the brace points at the corners of the Pod, there must be at least one brace point along the span of the longitudinal wall.
- A Rafter shall occur between each pair of braced panels.

Before laying out the Ceiling Diaphragm Bracing, determine the minimum required diaphragm strap size using Section 4.7.3 and determine the “Maximum Unbraced Track Length” using Section 4.7.4 below. See Section 5 for details of construction.

### 4.7.3 MINIMUM REQUIRED STRAP SIZE

Using Table 4.7.3 below, determine the minimum required strap specification for Ceiling Diaphragm construction:

| TABLE 4.7.3: MINIMUM REQUIRED DIAPHRAGM STRAP SPECIFICATION                               |                   |
|---|-------------------|
| Pod Type  | S3                |
| Flat-Strap Spec   | 150FS-33-50       |
| Fasteners @ 33-54 mil Track<br><i>Min Edge Distance 0.25”</i><br><i>Min Spacing 0.50”</i> | (10) - #8-18 PMTH |
| Fasteners @ 68 mil Track<br><i>Min Edge Distance 0.30”</i><br><i>Min Spacing 0.60”</i>    | (9) - #10-16PWH   |
| Fasteners @ 97 mil Track<br><i>Min Edge Distance 0.35”</i><br><i>Min Spacing 0.70”</i>    | (9) - #12-14RPFH  |

### 4.7.4 MAXIMUM UNBRACED TRACK LENGTH

Follow these steps to determine the maximum unbraced track lengths for a pod. A series of tables labeled “Table 4.7.4.x” is provided for this step, and first you must select the appropriate table. Tables are provided for various combinations of  $S_{DS}$  and Pod weight. These parameters are listed just below the Title line. Select the table that best matches your project pod type,  $S_{DS}$  and weight parameters.

**Navigate the Table:** First, find the column of data that best matches the length across the narrow dimension of the pod. Next, find the row of data that best matches the z/h parameter, then the row matching the track section designator. Notice that for each z/h row, there are multiple lines of data, each corresponding to a unique track size. Select the row that best matches both the z/h value and the track size determined in Section 4.4.

**Extract the Requirements:** At the intersection of the row and column identified above, note the dimension provided: this is the “Maximum Unbraced Track Length” for the track size selected. You can use this value to layout “Braced Points” along the top track. If the pod uses multiple top track sizes based on shear wall requirements, you will need to find the “Maximum Unbraced Top Track Length” for each top track size used, and adjust the layout of braced points to meet the requirements along each type of top track.

*Note 1: Notice that some of the values in these tables are shaded. This shading is a simple device to show when the “maximum unbraced track length” is less than the “Pod Width”, which of course means that “Braced Points” will need to be added to that particular track member.*

*Note 2: It is possible to avoid adding one or more “Braced Points” by up-sizing the track section used. The essential criteria must still be met: Determine the “Maximum Unbraced Track Length” for the new track, and compare with your proposed subdivision scheme for the pod.*

**TABLE 4.3.X**

# GROSS SHEAR WALL REQUIREMENTS



### Seismic Parameters

---

#### Assumptions:

$I_p = 1.0$  for Pod Types S1 & S2,  $I_p = 1.5$  for Pod type S3

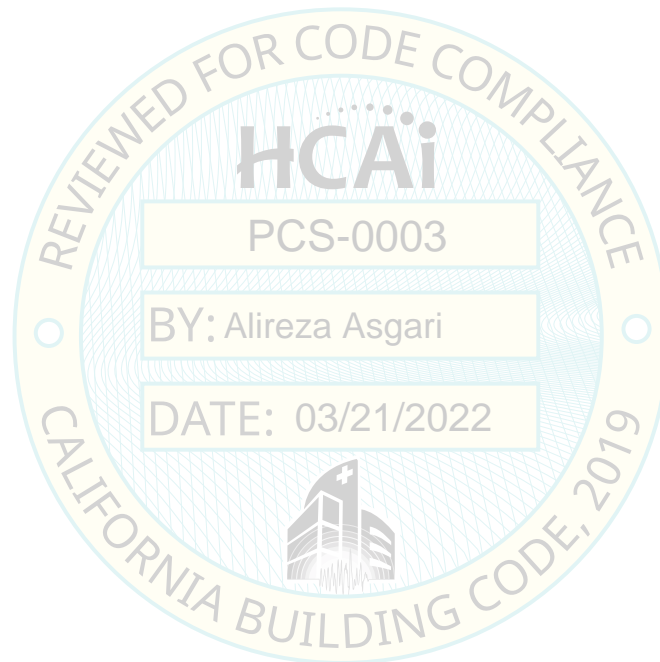
$a_p = 2.5$  per ASCE 7-16 Table 13.5-1 for flexible components

*Note that assuming flexibility is conservative, as rigid components have a lower  $a_p = 1.0$ .*

$R_p = 3.5$  per ASCE 7-16 Table 13.5-1 for high deformability elements

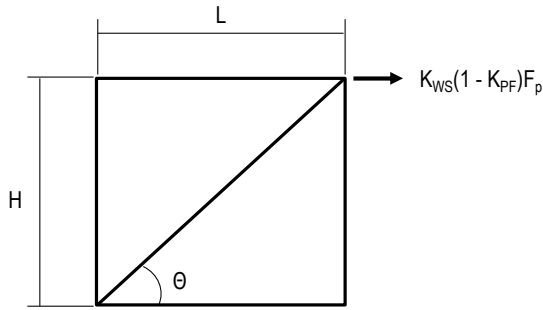
*Note that AISI S400-20 E3.2.2 (ref. ASCE 7-16 Table 12.2-1 Line A.18) allows  $R = 4$  for cold-formed steel light frame strap braced wall systems, so  $R_p = 3.5$  is conservative.*

$F_p = \max(0.3, \min(1.6, 0.4 * (a_p / R_p) * (1 + 2 * z/h))) * I_p * S_{DS} * \text{Weight}$  per ASCE 7-16 13.3.1.1



**Strap Forces**

**Example Calculation**



$$F_p = \max(0.3, \min(1.6, 0.4 * (a_p / R_p) * (1 + 2 * z/h))) * l_p * S_{DS} * \text{Weight}$$

$$\sum F_x = 0:$$

$$\Phi T_{n,b} \geq T_{u,b} = K_{WS} * (1 - K_{PF}) * F_p / \cos \theta, \quad \theta = \arctan(H/L)$$

$$\Phi T_{n,b} = \Phi * F_{y,b} * w_b * t_b$$

$$\rightarrow w_b \geq K_{WS} F_p / \cos(\arctan(H/L)) / (\Phi * F_{y,b} * t_b)$$

\*  $w_b$  = minimum required flat strap brace width

\*  $t_b$  = flat strap brace thickness

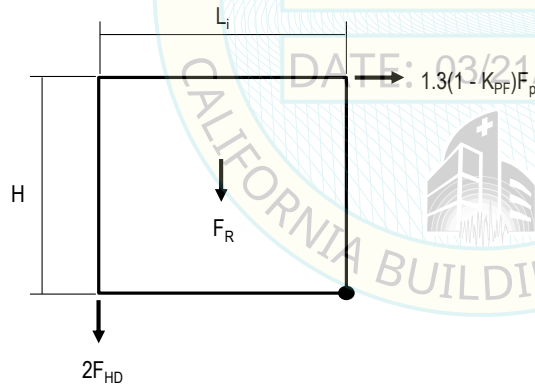
\*  $F_{y,b}$  = flat strap brace yield strength

\*  $K_{PF}$  = lower-bound portion of total pod weight in the floor = 0.65

\*  $K_{WS}$  = upper-bound portion of total pod shear force per wall = 0.6

**Hold-Down Forces**

**Example Calculation**



$$\sum M = 0:$$

$$1.3 * (1 - K_{PF}) * F_p * H - F_R * L_i / 2 - 2 * F_{HD} * L = 0$$

$$F_R = (0.9 - 0.2 * S_{DS}) * \text{Weight}$$

$$\rightarrow F_{HD} = 0.5 * (1.3 * (1 - K_{PF}) * F_p * H/L - 0.5 * (0.9 - 0.2 * S_{DS}) * \text{Weight}) \geq 0$$

$$F_{AN} = \Omega * F_{HD}, \quad \Omega = 2.5$$

\*  $F_{HD}$  = required hold-down force

\*  $F_{AN}$  = required anchorage force

**TABLE 4.3.161: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 0.40 | Weight | 2000 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                   |                   |                   |                   |                    |                    |                    |
|----------------------|-------------------------|-------------------|-------------------|-------------------|-------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25              | 1.50              | 1.75              | 2.00              | 2.50               | 3.00               | 3.50               |
| 1.0                  | 48<br>150FS-33-50       | 60<br>150FS-33-50 | 72<br>150FS-33-50 | 84<br>150FS-33-50 | 96<br>150FS-33-50 | 120<br>150FS-33-50 | 144<br>150FS-33-50 | 168<br>150FS-33-50 |
| 0.9                  | 45<br>150FS-33-50       | 56<br>150FS-33-50 | 67<br>150FS-33-50 | 78<br>150FS-33-50 | 90<br>150FS-33-50 | 112<br>150FS-33-50 | 134<br>150FS-33-50 | 157<br>150FS-33-50 |
| 0.8                  | 42<br>150FS-33-50       | 52<br>150FS-33-50 | 62<br>150FS-33-50 | 73<br>150FS-33-50 | 83<br>150FS-33-50 | 104<br>150FS-33-50 | 125<br>150FS-33-50 | 146<br>150FS-33-50 |
| 0.7                  | 38<br>150FS-33-50       | 48<br>150FS-33-50 | 58<br>150FS-33-50 | 67<br>150FS-33-50 | 77<br>150FS-33-50 | 96<br>150FS-33-50  | 115<br>150FS-33-50 | 134<br>150FS-33-50 |
| 0.6                  | 35<br>150FS-33-50       | 44<br>150FS-33-50 | 53<br>150FS-33-50 | 62<br>150FS-33-50 | 70<br>150FS-33-50 | 88<br>150FS-33-50  | 106<br>150FS-33-50 | 123<br>150FS-33-50 |
| 0.5                  | 32<br>150FS-33-50       | 40<br>150FS-33-50 | 48<br>150FS-33-50 | 56<br>150FS-33-50 | 64<br>150FS-33-50 | 80<br>150FS-33-50  | 96<br>150FS-33-50  | 112<br>150FS-33-50 |
| 0.4                  | 29<br>150FS-33-50       | 36<br>150FS-33-50 | 43<br>150FS-33-50 | 50<br>150FS-33-50 | 58<br>150FS-33-50 | 72<br>150FS-33-50  | 86<br>150FS-33-50  | 101<br>150FS-33-50 |
| 0.3                  | 26<br>150FS-33-50       | 32<br>150FS-33-50 | 38<br>150FS-33-50 | 45<br>150FS-33-50 | 51<br>150FS-33-50 | 64<br>150FS-33-50  | 77<br>150FS-33-50  | 90<br>150FS-33-50  |
| 0.2                  | 22<br>150FS-33-50       | 28<br>150FS-33-50 | 34<br>150FS-33-50 | 39<br>150FS-33-50 | 45<br>150FS-33-50 | 56<br>150FS-33-50  | 67<br>150FS-33-50  | 78<br>150FS-33-50  |
| 0.1                  | 19<br>150FS-33-50       | 24<br>150FS-33-50 | 29<br>150FS-33-50 | 34<br>150FS-33-50 | 38<br>150FS-33-50 | 48<br>150FS-33-50  | 58<br>150FS-33-50  | 67<br>150FS-33-50  |
| 0.0                  | 17<br>150FS-33-50       | 21<br>150FS-33-50 | 25<br>150FS-33-50 | 29<br>150FS-33-50 | 34<br>150FS-33-50 | 42<br>150FS-33-50  | 50<br>150FS-33-50  | 59<br>150FS-33-50  |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |           |           |           |           |           |             |             |
|----------------------|----------------------------|-----------|-----------|-----------|-----------|-----------|-------------|-------------|
|                      | 0.50                       | 0.75      | 1.00      | 1.25      | 1.50      | 1.75      | 2.00        | 2.25        |
| 1.0                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 145<br>HD-1 | 291<br>HD-1 |
| 0.9                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 67<br>HD-1  | 204<br>HD-1 |
| 0.8                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 116<br>HD-1 |
| 0.7                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 28<br>HD-1  |
| 0.6                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.5                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.4                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |



**TABLE 4.3.162: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 0.40 | Weight | 2200 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                   |                   |                   |                    |                    |                    |                    |
|-------------------------|-------------------------|-------------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|
|                         | 1.00                    | 1.25              | 1.50              | 1.75              | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                     | 53<br>150FS-33-50       | 66<br>150FS-33-50 | 79<br>150FS-33-50 | 92<br>150FS-33-50 | 106<br>150FS-33-50 | 132<br>150FS-33-50 | 158<br>150FS-33-50 | 185<br>150FS-33-50 |
| 0.9                     | 49<br>150FS-33-50       | 62<br>150FS-33-50 | 74<br>150FS-33-50 | 86<br>150FS-33-50 | 99<br>150FS-33-50  | 123<br>150FS-33-50 | 148<br>150FS-33-50 | 172<br>150FS-33-50 |
| 0.8                     | 46<br>150FS-33-50       | 57<br>150FS-33-50 | 69<br>150FS-33-50 | 80<br>150FS-33-50 | 92<br>150FS-33-50  | 114<br>150FS-33-50 | 137<br>150FS-33-50 | 160<br>150FS-33-50 |
| 0.7                     | 42<br>150FS-33-50       | 53<br>150FS-33-50 | 63<br>150FS-33-50 | 74<br>150FS-33-50 | 84<br>150FS-33-50  | 106<br>150FS-33-50 | 127<br>150FS-33-50 | 148<br>150FS-33-50 |
| 0.6                     | 39<br>150FS-33-50       | 48<br>150FS-33-50 | 58<br>150FS-33-50 | 68<br>150FS-33-50 | 77<br>150FS-33-50  | 97<br>150FS-33-50  | 116<br>150FS-33-50 | 136<br>150FS-33-50 |
| 0.5                     | 35<br>150FS-33-50       | 44<br>150FS-33-50 | 53<br>150FS-33-50 | 62<br>150FS-33-50 | 70<br>150FS-33-50  | 88<br>150FS-33-50  | 106<br>150FS-33-50 | 123<br>150FS-33-50 |
| 0.4                     | 32<br>150FS-33-50       | 40<br>150FS-33-50 | 48<br>150FS-33-50 | 55<br>150FS-33-50 | 63<br>150FS-33-50  | 79<br>150FS-33-50  | 95<br>150FS-33-50  | 111<br>150FS-33-50 |
| 0.3                     | 28<br>150FS-33-50       | 35<br>150FS-33-50 | 42<br>150FS-33-50 | 49<br>150FS-33-50 | 56<br>150FS-33-50  | 70<br>150FS-33-50  | 84<br>150FS-33-50  | 99<br>150FS-33-50  |
| 0.2                     | 25<br>150FS-33-50       | 31<br>150FS-33-50 | 37<br>150FS-33-50 | 43<br>150FS-33-50 | 49<br>150FS-33-50  | 62<br>150FS-33-50  | 74<br>150FS-33-50  | 86<br>150FS-33-50  |
| 0.1                     | 21<br>150FS-33-50       | 26<br>150FS-33-50 | 32<br>150FS-33-50 | 37<br>150FS-33-50 | 42<br>150FS-33-50  | 53<br>150FS-33-50  | 63<br>150FS-33-50  | 74<br>150FS-33-50  |
| 0.0                     | 18<br>150FS-33-50       | 23<br>150FS-33-50 | 28<br>150FS-33-50 | 32<br>150FS-33-50 | 37<br>150FS-33-50  | 46<br>150FS-33-50  | 55<br>150FS-33-50  | 65<br>150FS-33-50  |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |           |           |           |           |           |             |             |
|-------------------------|----------------------------|-----------|-----------|-----------|-----------|-----------|-------------|-------------|
|                         | 0.50                       | 0.75      | 1.00      | 1.25      | 1.50      | 1.75      | 2.00        | 2.25        |
| 1.0                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 160<br>HD-1 | 320<br>HD-1 |
| 0.9                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 74<br>HD-1  | 224<br>HD-1 |
| 0.8                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 127<br>HD-1 |
| 0.7                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 31<br>HD-1  |
| 0.6                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.5                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.4                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.3                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.2                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |





**TABLE 4.3.163: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |            |                 |      |        |          |
|--------------------|------|----|------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (Ip = 1.5) | S <sub>DS</sub> | 0.40 | Weight | 2400 lbs |
|--------------------|------|----|------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                   |                   |                    |                    |                    |                    |                    |
|-------------------------|-------------------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                         | 1.00                    | 1.25              | 1.50              | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                     | 58<br>150FS-33-50       | 72<br>150FS-33-50 | 86<br>150FS-33-50 | 101<br>150FS-33-50 | 115<br>150FS-33-50 | 144<br>150FS-33-50 | 173<br>150FS-33-50 | 202<br>150FS-33-50 |
| 0.9                     | 54<br>150FS-33-50       | 67<br>150FS-33-50 | 81<br>150FS-33-50 | 94<br>150FS-33-50  | 108<br>150FS-33-50 | 134<br>150FS-33-50 | 161<br>150FS-33-50 | 188<br>150FS-33-50 |
| 0.8                     | 50<br>150FS-33-50       | 62<br>150FS-33-50 | 75<br>150FS-33-50 | 87<br>150FS-33-50  | 100<br>150FS-33-50 | 125<br>150FS-33-50 | 150<br>150FS-33-50 | 175<br>150FS-33-50 |
| 0.7                     | 46<br>150FS-33-50       | 58<br>150FS-33-50 | 69<br>150FS-33-50 | 81<br>150FS-33-50  | 92<br>150FS-33-50  | 115<br>150FS-33-50 | 138<br>150FS-33-50 | 161<br>150FS-33-50 |
| 0.6                     | 42<br>150FS-33-50       | 53<br>150FS-33-50 | 63<br>150FS-33-50 | 74<br>150FS-33-50  | 84<br>150FS-33-50  | 106<br>150FS-33-50 | 127<br>150FS-33-50 | 148<br>150FS-33-50 |
| 0.5                     | 38<br>150FS-33-50       | 48<br>150FS-33-50 | 58<br>150FS-33-50 | 67<br>150FS-33-50  | 77<br>150FS-33-50  | 96<br>150FS-33-50  | 115<br>150FS-33-50 | 134<br>150FS-33-50 |
| 0.4                     | 35<br>150FS-33-50       | 43<br>150FS-33-50 | 52<br>150FS-33-50 | 60<br>150FS-33-50  | 69<br>150FS-33-50  | 86<br>150FS-33-50  | 104<br>150FS-33-50 | 121<br>150FS-33-50 |
| 0.3                     | 31<br>150FS-33-50       | 38<br>150FS-33-50 | 46<br>150FS-33-50 | 54<br>150FS-33-50  | 61<br>150FS-33-50  | 77<br>150FS-33-50  | 92<br>150FS-33-50  | 108<br>150FS-33-50 |
| 0.2                     | 27<br>150FS-33-50       | 34<br>150FS-33-50 | 40<br>150FS-33-50 | 47<br>150FS-33-50  | 54<br>150FS-33-50  | 67<br>150FS-33-50  | 81<br>150FS-33-50  | 94<br>150FS-33-50  |
| 0.1                     | 23<br>150FS-33-50       | 29<br>150FS-33-50 | 35<br>150FS-33-50 | 40<br>150FS-33-50  | 46<br>150FS-33-50  | 58<br>150FS-33-50  | 69<br>150FS-33-50  | 81<br>150FS-33-50  |
| 0.0                     | 20<br>150FS-33-50       | 25<br>150FS-33-50 | 30<br>150FS-33-50 | 35<br>150FS-33-50  | 40<br>150FS-33-50  | 50<br>150FS-33-50  | 60<br>150FS-33-50  | 71<br>150FS-33-50  |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |           |           |           |           |           |             |             |
|-------------------------|----------------------------|-----------|-----------|-----------|-----------|-----------|-------------|-------------|
|                         | 0.50                       | 0.75      | 1.00      | 1.25      | 1.50      | 1.75      | 2.00        | 2.25        |
| 1.0                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 174<br>HD-1 | 350<br>HD-1 |
| 0.9                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 80<br>HD-1  | 244<br>HD-1 |
| 0.8                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 139<br>HD-1 |
| 0.7                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 34<br>HD-1  |
| 0.6                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.5                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.4                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.3                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.2                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |



**TABLE 4.3.164: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                 |          |      |        |          |
|--------------------|------|----|-----------------|----------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | ( $I_p = 1.5$ ) | $S_{DS}$ | 0.40 | Weight | 2600 lbs |
|--------------------|------|----|-----------------|----------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                   |                   |                    |                    |                    |                    |                    |
|----------------------|-------------------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25              | 1.50              | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 62<br>150FS-33-50       | 78<br>150FS-33-50 | 94<br>150FS-33-50 | 109<br>150FS-33-50 | 125<br>150FS-33-50 | 156<br>150FS-33-50 | 187<br>150FS-33-50 | 218<br>150FS-33-50 |
| 0.9                  | 58<br>150FS-33-50       | 73<br>150FS-33-50 | 87<br>150FS-33-50 | 102<br>150FS-33-50 | 116<br>150FS-33-50 | 146<br>150FS-33-50 | 175<br>150FS-33-50 | 204<br>150FS-33-50 |
| 0.8                  | 54<br>150FS-33-50       | 68<br>150FS-33-50 | 81<br>150FS-33-50 | 95<br>150FS-33-50  | 108<br>150FS-33-50 | 135<br>150FS-33-50 | 162<br>150FS-33-50 | 189<br>150FS-33-50 |
| 0.7                  | 50<br>150FS-33-50       | 62<br>150FS-33-50 | 75<br>150FS-33-50 | 87<br>150FS-33-50  | 100<br>150FS-33-50 | 125<br>150FS-33-50 | 150<br>150FS-33-50 | 175<br>150FS-33-50 |
| 0.6                  | 46<br>150FS-33-50       | 57<br>150FS-33-50 | 69<br>150FS-33-50 | 80<br>150FS-33-50  | 92<br>150FS-33-50  | 114<br>150FS-33-50 | 137<br>150FS-33-50 | 160<br>150FS-33-50 |
| 0.5                  | 42<br>150FS-33-50       | 52<br>150FS-33-50 | 62<br>150FS-33-50 | 73<br>150FS-33-50  | 83<br>150FS-33-50  | 104<br>150FS-33-50 | 125<br>150FS-33-50 | 146<br>150FS-33-50 |
| 0.4                  | 37<br>150FS-33-50       | 47<br>150FS-33-50 | 56<br>150FS-33-50 | 66<br>150FS-33-50  | 75<br>150FS-33-50  | 94<br>150FS-33-50  | 112<br>150FS-33-50 | 131<br>150FS-33-50 |
| 0.3                  | 33<br>150FS-33-50       | 42<br>150FS-33-50 | 50<br>150FS-33-50 | 58<br>150FS-33-50  | 67<br>150FS-33-50  | 83<br>150FS-33-50  | 100<br>150FS-33-50 | 116<br>150FS-33-50 |
| 0.2                  | 29<br>150FS-33-50       | 36<br>150FS-33-50 | 44<br>150FS-33-50 | 51<br>150FS-33-50  | 58<br>150FS-33-50  | 73<br>150FS-33-50  | 87<br>150FS-33-50  | 102<br>150FS-33-50 |
| 0.1                  | 25<br>150FS-33-50       | 31<br>150FS-33-50 | 37<br>150FS-33-50 | 44<br>150FS-33-50  | 50<br>150FS-33-50  | 62<br>150FS-33-50  | 75<br>150FS-33-50  | 87<br>150FS-33-50  |
| 0.0                  | 22<br>150FS-33-50       | 27<br>150FS-33-50 | 33<br>150FS-33-50 | 38<br>150FS-33-50  | 44<br>150FS-33-50  | 55<br>150FS-33-50  | 66<br>150FS-33-50  | 76<br>150FS-33-50  |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |           |           |           |           |           |             |             |
|----------------------|----------------------------|-----------|-----------|-----------|-----------|-----------|-------------|-------------|
|                      | 0.50                       | 0.75      | 1.00      | 1.25      | 1.50      | 1.75      | 2.00        | 2.25        |
| 1.0                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 189<br>HD-1 | 379<br>HD-1 |
| 0.9                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 87<br>HD-1  | 265<br>HD-1 |
| 0.8                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 150<br>HD-1 |
| 0.7                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 36<br>HD-1  |
| 0.6                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.5                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.4                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |



**TABLE 4.3.165: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                 |          |      |        |          |
|--------------------|------|----|-----------------|----------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | ( $I_p = 1.5$ ) | $S_{DS}$ | 0.40 | Weight | 2800 lbs |
|--------------------|------|----|-----------------|----------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                   |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25              | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 67<br>150FS-33-50       | 84<br>150FS-33-50 | 101<br>150FS-33-50 | 118<br>150FS-33-50 | 134<br>150FS-33-50 | 168<br>150FS-33-50 | 202<br>150FS-33-50 | 235<br>150FS-33-50 |
| 0.9                  | 63<br>150FS-33-50       | 78<br>150FS-33-50 | 94<br>150FS-33-50  | 110<br>150FS-33-50 | 125<br>150FS-33-50 | 157<br>150FS-33-50 | 188<br>150FS-33-50 | 220<br>150FS-33-50 |
| 0.8                  | 58<br>150FS-33-50       | 73<br>150FS-33-50 | 87<br>150FS-33-50  | 102<br>150FS-33-50 | 116<br>150FS-33-50 | 146<br>150FS-33-50 | 175<br>150FS-33-50 | 204<br>150FS-33-50 |
| 0.7                  | 54<br>150FS-33-50       | 67<br>150FS-33-50 | 81<br>150FS-33-50  | 94<br>150FS-33-50  | 108<br>150FS-33-50 | 134<br>150FS-33-50 | 161<br>150FS-33-50 | 188<br>150FS-33-50 |
| 0.6                  | 49<br>150FS-33-50       | 62<br>150FS-33-50 | 74<br>150FS-33-50  | 86<br>150FS-33-50  | 99<br>150FS-33-50  | 123<br>150FS-33-50 | 148<br>150FS-33-50 | 172<br>150FS-33-50 |
| 0.5                  | 45<br>150FS-33-50       | 56<br>150FS-33-50 | 67<br>150FS-33-50  | 78<br>150FS-33-50  | 90<br>150FS-33-50  | 112<br>150FS-33-50 | 134<br>150FS-33-50 | 157<br>150FS-33-50 |
| 0.4                  | 40<br>150FS-33-50       | 50<br>150FS-33-50 | 60<br>150FS-33-50  | 71<br>150FS-33-50  | 81<br>150FS-33-50  | 101<br>150FS-33-50 | 121<br>150FS-33-50 | 141<br>150FS-33-50 |
| 0.3                  | 36<br>150FS-33-50       | 45<br>150FS-33-50 | 54<br>150FS-33-50  | 63<br>150FS-33-50  | 72<br>150FS-33-50  | 90<br>150FS-33-50  | 108<br>150FS-33-50 | 125<br>150FS-33-50 |
| 0.2                  | 31<br>150FS-33-50       | 39<br>150FS-33-50 | 47<br>150FS-33-50  | 55<br>150FS-33-50  | 63<br>150FS-33-50  | 78<br>150FS-33-50  | 94<br>150FS-33-50  | 110<br>150FS-33-50 |
| 0.1                  | 27<br>150FS-33-50       | 34<br>150FS-33-50 | 40<br>150FS-33-50  | 47<br>150FS-33-50  | 54<br>150FS-33-50  | 67<br>150FS-33-50  | 81<br>150FS-33-50  | 94<br>150FS-33-50  |
| 0.0                  | 24<br>150FS-33-50       | 29<br>150FS-33-50 | 35<br>150FS-33-50  | 41<br>150FS-33-50  | 47<br>150FS-33-50  | 59<br>150FS-33-50  | 71<br>150FS-33-50  | 82<br>150FS-33-50  |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |           |           |           |           |           |             |             |
|----------------------|----------------------------|-----------|-----------|-----------|-----------|-----------|-------------|-------------|
|                      | 0.50                       | 0.75      | 1.00      | 1.25      | 1.50      | 1.75      | 2.00        | 2.25        |
| 1.0                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 203<br>HD-1 | 408<br>HD-1 |
| 0.9                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 94<br>HD-1  | 285<br>HD-1 |
| 0.8                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 162<br>HD-1 |
| 0.7                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 39<br>HD-1  |
| 0.6                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.5                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.4                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |



**TABLE 4.3.166: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                 |          |      |        |          |
|--------------------|------|----|-----------------|----------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | ( $I_p = 1.5$ ) | $S_{DS}$ | 0.40 | Weight | 3000 lbs |
|--------------------|------|----|-----------------|----------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                   |                    |                    |                    |                    |                    |                    |
|-------------------------|-------------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                         | 1.00                    | 1.25              | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                     | 72<br>150FS-33-50       | 90<br>150FS-33-50 | 108<br>150FS-33-50 | 126<br>150FS-33-50 | 144<br>150FS-33-50 | 180<br>150FS-33-50 | 216<br>150FS-33-50 | 252<br>150FS-33-50 |
| 0.9                     | 67<br>150FS-33-50       | 84<br>150FS-33-50 | 101<br>150FS-33-50 | 118<br>150FS-33-50 | 134<br>150FS-33-50 | 168<br>150FS-33-50 | 202<br>150FS-33-50 | 235<br>150FS-33-50 |
| 0.8                     | 62<br>150FS-33-50       | 78<br>150FS-33-50 | 94<br>150FS-33-50  | 109<br>150FS-33-50 | 125<br>150FS-33-50 | 156<br>150FS-33-50 | 187<br>150FS-33-50 | 218<br>150FS-33-50 |
| 0.7                     | 58<br>150FS-33-50       | 72<br>150FS-33-50 | 86<br>150FS-33-50  | 101<br>150FS-33-50 | 115<br>150FS-33-50 | 144<br>150FS-33-50 | 173<br>150FS-33-50 | 202<br>150FS-33-50 |
| 0.6                     | 53<br>150FS-33-50       | 66<br>150FS-33-50 | 79<br>150FS-33-50  | 92<br>150FS-33-50  | 106<br>150FS-33-50 | 132<br>150FS-33-50 | 158<br>150FS-33-50 | 185<br>150FS-33-50 |
| 0.5                     | 48<br>150FS-33-50       | 60<br>150FS-33-50 | 72<br>150FS-33-50  | 84<br>150FS-33-50  | 96<br>150FS-33-50  | 120<br>150FS-33-50 | 144<br>150FS-33-50 | 168<br>150FS-33-50 |
| 0.4                     | 43<br>150FS-33-50       | 54<br>150FS-33-50 | 65<br>150FS-33-50  | 76<br>150FS-33-50  | 86<br>150FS-33-50  | 108<br>150FS-33-50 | 130<br>150FS-33-50 | 151<br>150FS-33-50 |
| 0.3                     | 38<br>150FS-33-50       | 48<br>150FS-33-50 | 58<br>150FS-33-50  | 67<br>150FS-33-50  | 77<br>150FS-33-50  | 96<br>150FS-33-50  | 115<br>150FS-33-50 | 134<br>150FS-33-50 |
| 0.2                     | 34<br>150FS-33-50       | 42<br>150FS-33-50 | 50<br>150FS-33-50  | 59<br>150FS-33-50  | 67<br>150FS-33-50  | 84<br>150FS-33-50  | 101<br>150FS-33-50 | 118<br>150FS-33-50 |
| 0.1                     | 29<br>150FS-33-50       | 36<br>150FS-33-50 | 43<br>150FS-33-50  | 50<br>150FS-33-50  | 58<br>150FS-33-50  | 72<br>150FS-33-50  | 86<br>150FS-33-50  | 101<br>150FS-33-50 |
| 0.0                     | 25<br>150FS-33-50       | 32<br>150FS-33-50 | 38<br>150FS-33-50  | 44<br>150FS-33-50  | 50<br>150FS-33-50  | 63<br>150FS-33-50  | 76<br>150FS-33-50  | 88<br>150FS-33-50  |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |           |           |           |           |           |             |             |
|-------------------------|----------------------------|-----------|-----------|-----------|-----------|-----------|-------------|-------------|
|                         | 0.50                       | 0.75      | 1.00      | 1.25      | 1.50      | 1.75      | 2.00        | 2.25        |
| 1.0                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 218<br>HD-1 | 437<br>HD-1 |
| 0.9                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 101<br>HD-1 | 305<br>HD-1 |
| 0.8                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 174<br>HD-1 |
| 0.7                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 42<br>HD-1  |
| 0.6                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.5                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.4                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.3                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.2                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |



**TABLE 4.3.167: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 0.40 | Weight | 3200 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                   |                    |                    |                    |                    |                    |                    |
|-------------------------|-------------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                         | 1.00                    | 1.25              | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                     | 77<br>150FS-33-50       | 96<br>150FS-33-50 | 115<br>150FS-33-50 | 134<br>150FS-33-50 | 154<br>150FS-33-50 | 192<br>150FS-33-50 | 230<br>150FS-33-50 | 269<br>150FS-33-50 |
| 0.9                     | 72<br>150FS-33-50       | 90<br>150FS-33-50 | 108<br>150FS-33-50 | 125<br>150FS-33-50 | 143<br>150FS-33-50 | 179<br>150FS-33-50 | 215<br>150FS-33-50 | 251<br>150FS-33-50 |
| 0.8                     | 67<br>150FS-33-50       | 83<br>150FS-33-50 | 100<br>150FS-33-50 | 116<br>150FS-33-50 | 133<br>150FS-33-50 | 166<br>150FS-33-50 | 200<br>150FS-33-50 | 233<br>150FS-33-50 |
| 0.7                     | 61<br>150FS-33-50       | 77<br>150FS-33-50 | 92<br>150FS-33-50  | 108<br>150FS-33-50 | 123<br>150FS-33-50 | 154<br>150FS-33-50 | 184<br>150FS-33-50 | 215<br>150FS-33-50 |
| 0.6                     | 56<br>150FS-33-50       | 70<br>150FS-33-50 | 84<br>150FS-33-50  | 99<br>150FS-33-50  | 113<br>150FS-33-50 | 141<br>150FS-33-50 | 169<br>150FS-33-50 | 197<br>150FS-33-50 |
| 0.5                     | 51<br>150FS-33-50       | 64<br>150FS-33-50 | 77<br>150FS-33-50  | 90<br>150FS-33-50  | 102<br>150FS-33-50 | 128<br>150FS-33-50 | 154<br>150FS-33-50 | 179<br>150FS-33-50 |
| 0.4                     | 46<br>150FS-33-50       | 58<br>150FS-33-50 | 69<br>150FS-33-50  | 81<br>150FS-33-50  | 92<br>150FS-33-50  | 115<br>150FS-33-50 | 138<br>150FS-33-50 | 161<br>150FS-33-50 |
| 0.3                     | 41<br>150FS-33-50       | 51<br>150FS-33-50 | 61<br>150FS-33-50  | 72<br>150FS-33-50  | 82<br>150FS-33-50  | 102<br>150FS-33-50 | 123<br>150FS-33-50 | 143<br>150FS-33-50 |
| 0.2                     | 36<br>150FS-33-50       | 45<br>150FS-33-50 | 54<br>150FS-33-50  | 63<br>150FS-33-50  | 72<br>150FS-33-50  | 90<br>150FS-33-50  | 108<br>150FS-33-50 | 125<br>150FS-33-50 |
| 0.1                     | 31<br>150FS-33-50       | 38<br>150FS-33-50 | 46<br>150FS-33-50  | 54<br>150FS-33-50  | 61<br>150FS-33-50  | 77<br>150FS-33-50  | 92<br>150FS-33-50  | 108<br>150FS-33-50 |
| 0.0                     | 27<br>150FS-33-50       | 34<br>150FS-33-50 | 40<br>150FS-33-50  | 47<br>150FS-33-50  | 54<br>150FS-33-50  | 67<br>150FS-33-50  | 81<br>150FS-33-50  | 94<br>150FS-33-50  |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |           |           |           |           |           |             |             |
|-------------------------|----------------------------|-----------|-----------|-----------|-----------|-----------|-------------|-------------|
|                         | 0.50                       | 0.75      | 1.00      | 1.25      | 1.50      | 1.75      | 2.00        | 2.25        |
| 1.0                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 232<br>HD-1 | 466<br>HD-1 |
| 0.9                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 107<br>HD-1 | 326<br>HD-1 |
| 0.8                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 185<br>HD-1 |
| 0.7                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 45<br>HD-1  |
| 0.6                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.5                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.4                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.3                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.2                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |



**TABLE 4.3.168: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |            |                 |      |        |          |
|--------------------|------|----|------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (Ip = 1.5) | S <sub>DS</sub> | 0.40 | Weight | 3400 lbs |
|--------------------|------|----|------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|-------------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                         | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                     | 82<br>150FS-33-50       | 102<br>150FS-33-50 | 122<br>150FS-33-50 | 143<br>150FS-33-50 | 163<br>150FS-33-50 | 204<br>150FS-33-50 | 245<br>150FS-33-50 | 286<br>150FS-33-50 |
| 0.9                     | 76<br>150FS-33-50       | 95<br>150FS-33-50  | 114<br>150FS-33-50 | 133<br>150FS-33-50 | 152<br>150FS-33-50 | 190<br>150FS-33-50 | 228<br>150FS-33-50 | 267<br>150FS-33-50 |
| 0.8                     | 71<br>150FS-33-50       | 88<br>150FS-33-50  | 106<br>150FS-33-50 | 124<br>150FS-33-50 | 141<br>150FS-33-50 | 177<br>150FS-33-50 | 212<br>150FS-33-50 | 248<br>150FS-33-50 |
| 0.7                     | 65<br>150FS-33-50       | 82<br>150FS-33-50  | 98<br>150FS-33-50  | 114<br>150FS-33-50 | 131<br>150FS-33-50 | 163<br>150FS-33-50 | 196<br>150FS-33-50 | 228<br>150FS-33-50 |
| 0.6                     | 60<br>150FS-33-50       | 75<br>150FS-33-50  | 90<br>150FS-33-50  | 105<br>150FS-33-50 | 120<br>150FS-33-50 | 150<br>150FS-33-50 | 180<br>150FS-33-50 | 209<br>150FS-33-50 |
| 0.5                     | 54<br>150FS-33-50       | 68<br>150FS-33-50  | 82<br>150FS-33-50  | 95<br>150FS-33-50  | 109<br>150FS-33-50 | 136<br>150FS-33-50 | 163<br>150FS-33-50 | 190<br>150FS-33-50 |
| 0.4                     | 49<br>150FS-33-50       | 61<br>150FS-33-50  | 73<br>150FS-33-50  | 86<br>150FS-33-50  | 98<br>150FS-33-50  | 122<br>150FS-33-50 | 147<br>150FS-33-50 | 171<br>150FS-33-50 |
| 0.3                     | 44<br>150FS-33-50       | 54<br>150FS-33-50  | 65<br>150FS-33-50  | 76<br>150FS-33-50  | 87<br>150FS-33-50  | 109<br>150FS-33-50 | 131<br>150FS-33-50 | 152<br>150FS-33-50 |
| 0.2                     | 38<br>150FS-33-50       | 48<br>150FS-33-50  | 57<br>150FS-33-50  | 67<br>150FS-33-50  | 76<br>150FS-33-50  | 95<br>150FS-33-50  | 114<br>150FS-33-50 | 133<br>150FS-33-50 |
| 0.1                     | 33<br>150FS-33-50       | 41<br>150FS-33-50  | 49<br>150FS-33-50  | 57<br>150FS-33-50  | 65<br>150FS-33-50  | 82<br>150FS-33-50  | 98<br>150FS-33-50  | 114<br>150FS-33-50 |
| 0.0                     | 29<br>150FS-33-50       | 36<br>150FS-33-50  | 43<br>150FS-33-50  | 50<br>150FS-33-50  | 57<br>150FS-33-50  | 71<br>150FS-33-50  | 86<br>150FS-33-50  | 100<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |           |           |           |           |           |             |             |
|-------------------------|----------------------------|-----------|-----------|-----------|-----------|-----------|-------------|-------------|
|                         | 0.50                       | 0.75      | 1.00      | 1.25      | 1.50      | 1.75      | 2.00        | 2.25        |
| 1.0                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 247<br>HD-1 | 495<br>HD-1 |
| 0.9                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 114<br>HD-1 | 346<br>HD-1 |
| 0.8                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 197<br>HD-1 |
| 0.7                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 48<br>HD-1  |
| 0.6                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.5                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.4                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.3                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.2                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |



**TABLE 4.3.169: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 0.40 | Weight | 3600 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|-------------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                         | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                     | 86<br>150FS-33-50       | 108<br>150FS-33-50 | 130<br>150FS-33-50 | 151<br>150FS-33-50 | 173<br>150FS-33-50 | 216<br>150FS-33-50 | 259<br>150FS-33-50 | 302<br>150FS-33-50 |
| 0.9                     | 81<br>150FS-33-50       | 101<br>150FS-33-50 | 121<br>150FS-33-50 | 141<br>150FS-33-50 | 161<br>150FS-33-50 | 202<br>150FS-33-50 | 242<br>150FS-33-50 | 282<br>150FS-33-50 |
| 0.8                     | 75<br>150FS-33-50       | 94<br>150FS-33-50  | 112<br>150FS-33-50 | 131<br>150FS-33-50 | 150<br>150FS-33-50 | 187<br>150FS-33-50 | 225<br>150FS-33-50 | 262<br>150FS-33-50 |
| 0.7                     | 69<br>150FS-33-50       | 86<br>150FS-33-50  | 104<br>150FS-33-50 | 121<br>150FS-33-50 | 138<br>150FS-33-50 | 173<br>150FS-33-50 | 207<br>150FS-33-50 | 242<br>150FS-33-50 |
| 0.6                     | 63<br>150FS-33-50       | 79<br>150FS-33-50  | 95<br>150FS-33-50  | 111<br>150FS-33-50 | 127<br>150FS-33-50 | 158<br>150FS-33-50 | 190<br>150FS-33-50 | 222<br>150FS-33-50 |
| 0.5                     | 58<br>150FS-33-50       | 72<br>150FS-33-50  | 86<br>150FS-33-50  | 101<br>150FS-33-50 | 115<br>150FS-33-50 | 144<br>150FS-33-50 | 173<br>150FS-33-50 | 202<br>150FS-33-50 |
| 0.4                     | 52<br>150FS-33-50       | 65<br>150FS-33-50  | 78<br>150FS-33-50  | 91<br>150FS-33-50  | 104<br>150FS-33-50 | 130<br>150FS-33-50 | 156<br>150FS-33-50 | 181<br>150FS-33-50 |
| 0.3                     | 46<br>150FS-33-50       | 58<br>150FS-33-50  | 69<br>150FS-33-50  | 81<br>150FS-33-50  | 92<br>150FS-33-50  | 115<br>150FS-33-50 | 138<br>150FS-33-50 | 161<br>150FS-33-50 |
| 0.2                     | 40<br>150FS-33-50       | 50<br>150FS-33-50  | 60<br>150FS-33-50  | 71<br>150FS-33-50  | 81<br>150FS-33-50  | 101<br>150FS-33-50 | 121<br>150FS-33-50 | 141<br>150FS-33-50 |
| 0.1                     | 35<br>150FS-33-50       | 43<br>150FS-33-50  | 52<br>150FS-33-50  | 60<br>150FS-33-50  | 69<br>150FS-33-50  | 86<br>150FS-33-50  | 104<br>150FS-33-50 | 121<br>150FS-33-50 |
| 0.0                     | 30<br>150FS-33-50       | 38<br>150FS-33-50  | 45<br>150FS-33-50  | 53<br>150FS-33-50  | 60<br>150FS-33-50  | 76<br>150FS-33-50  | 91<br>150FS-33-50  | 106<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |           |           |           |           |           |             |             |
|-------------------------|----------------------------|-----------|-----------|-----------|-----------|-----------|-------------|-------------|
|                         | 0.50                       | 0.75      | 1.00      | 1.25      | 1.50      | 1.75      | 2.00        | 2.25        |
| 1.0                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 261<br>HD-1 | 524<br>HD-1 |
| 0.9                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 121<br>HD-1 | 366<br>HD-1 |
| 0.8                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 208<br>HD-1 |
| 0.7                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 50<br>HD-1  |
| 0.6                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.5                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.4                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.3                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.2                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |



**TABLE 4.3.170: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 0.40 | Weight | 3800 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 91<br>150FS-33-50       | 114<br>150FS-33-50 | 137<br>150FS-33-50 | 160<br>150FS-33-50 | 182<br>150FS-33-50 | 228<br>150FS-33-50 | 274<br>150FS-33-50 | 319<br>150FS-33-50 |
| 0.9                  | 85<br>150FS-33-50       | 106<br>150FS-33-50 | 128<br>150FS-33-50 | 149<br>150FS-33-50 | 170<br>150FS-33-50 | 213<br>150FS-33-50 | 255<br>150FS-33-50 | 298<br>150FS-33-50 |
| 0.8                  | 79<br>150FS-33-50       | 99<br>150FS-33-50  | 119<br>150FS-33-50 | 138<br>150FS-33-50 | 158<br>150FS-33-50 | 198<br>150FS-33-50 | 237<br>150FS-33-50 | 277<br>150FS-33-50 |
| 0.7                  | 73<br>150FS-33-50       | 91<br>150FS-33-50  | 109<br>150FS-33-50 | 128<br>150FS-33-50 | 146<br>150FS-33-50 | 182<br>150FS-33-50 | 219<br>150FS-33-50 | 255<br>150FS-33-50 |
| 0.6                  | 67<br>150FS-33-50       | 84<br>150FS-33-50  | 100<br>150FS-33-50 | 117<br>150FS-33-50 | 134<br>150FS-33-50 | 167<br>150FS-33-50 | 201<br>150FS-33-50 | 234<br>150FS-33-50 |
| 0.5                  | 61<br>150FS-33-50       | 76<br>150FS-33-50  | 91<br>150FS-33-50  | 106<br>150FS-33-50 | 122<br>150FS-33-50 | 152<br>150FS-33-50 | 182<br>150FS-33-50 | 213<br>150FS-33-50 |
| 0.4                  | 55<br>150FS-33-50       | 68<br>150FS-33-50  | 82<br>150FS-33-50  | 96<br>150FS-33-50  | 109<br>150FS-33-50 | 137<br>150FS-33-50 | 164<br>150FS-33-50 | 192<br>150FS-33-50 |
| 0.3                  | 49<br>150FS-33-50       | 61<br>150FS-33-50  | 73<br>150FS-33-50  | 85<br>150FS-33-50  | 97<br>150FS-33-50  | 122<br>150FS-33-50 | 146<br>150FS-33-50 | 170<br>150FS-33-50 |
| 0.2                  | 43<br>150FS-33-50       | 53<br>150FS-33-50  | 64<br>150FS-33-50  | 74<br>150FS-33-50  | 85<br>150FS-33-50  | 106<br>150FS-33-50 | 128<br>150FS-33-50 | 149<br>150FS-33-50 |
| 0.1                  | 36<br>150FS-33-50       | 46<br>150FS-33-50  | 55<br>150FS-33-50  | 64<br>150FS-33-50  | 73<br>150FS-33-50  | 91<br>150FS-33-50  | 109<br>150FS-33-50 | 128<br>150FS-33-50 |
| 0.0                  | 32<br>150FS-33-50       | 40<br>150FS-33-50  | 48<br>150FS-33-50  | 56<br>150FS-33-50  | 64<br>150FS-33-50  | 80<br>150FS-33-50  | 96<br>150FS-33-50  | 112<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |           |           |           |           |           |             |             |
|----------------------|----------------------------|-----------|-----------|-----------|-----------|-----------|-------------|-------------|
|                      | 0.50                       | 0.75      | 1.00      | 1.25      | 1.50      | 1.75      | 2.00        | 2.25        |
| 1.0                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 276<br>HD-1 | 553<br>HD-1 |
| 0.9                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 127<br>HD-1 | 387<br>HD-1 |
| 0.8                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 220<br>HD-1 |
| 0.7                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 53<br>HD-1  |
| 0.6                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.5                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.4                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |





**TABLE 4.3.171: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                 |          |      |        |          |
|--------------------|------|----|-----------------|----------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | ( $I_p = 1.5$ ) | $S_{DS}$ | 0.40 | Weight | 4000 lbs |
|--------------------|------|----|-----------------|----------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 96<br>150FS-33-50       | 120<br>150FS-33-50 | 144<br>150FS-33-50 | 168<br>150FS-33-50 | 192<br>150FS-33-50 | 240<br>150FS-33-50 | 288<br>150FS-33-50 | 336<br>150FS-33-50 |
| 0.9                  | 90<br>150FS-33-50       | 112<br>150FS-33-50 | 134<br>150FS-33-50 | 157<br>150FS-33-50 | 179<br>150FS-33-50 | 224<br>150FS-33-50 | 269<br>150FS-33-50 | 314<br>150FS-33-50 |
| 0.8                  | 83<br>150FS-33-50       | 104<br>150FS-33-50 | 125<br>150FS-33-50 | 146<br>150FS-33-50 | 166<br>150FS-33-50 | 208<br>150FS-33-50 | 250<br>150FS-33-50 | 291<br>150FS-33-50 |
| 0.7                  | 77<br>150FS-33-50       | 96<br>150FS-33-50  | 115<br>150FS-33-50 | 134<br>150FS-33-50 | 154<br>150FS-33-50 | 192<br>150FS-33-50 | 230<br>150FS-33-50 | 269<br>150FS-33-50 |
| 0.6                  | 70<br>150FS-33-50       | 88<br>150FS-33-50  | 106<br>150FS-33-50 | 123<br>150FS-33-50 | 141<br>150FS-33-50 | 176<br>150FS-33-50 | 211<br>150FS-33-50 | 246<br>150FS-33-50 |
| 0.5                  | 64<br>150FS-33-50       | 80<br>150FS-33-50  | 96<br>150FS-33-50  | 112<br>150FS-33-50 | 128<br>150FS-33-50 | 160<br>150FS-33-50 | 192<br>150FS-33-50 | 224<br>150FS-33-50 |
| 0.4                  | 58<br>150FS-33-50       | 72<br>150FS-33-50  | 86<br>150FS-33-50  | 101<br>150FS-33-50 | 115<br>150FS-33-50 | 144<br>150FS-33-50 | 173<br>150FS-33-50 | 202<br>150FS-33-50 |
| 0.3                  | 51<br>150FS-33-50       | 64<br>150FS-33-50  | 77<br>150FS-33-50  | 90<br>150FS-33-50  | 102<br>150FS-33-50 | 128<br>150FS-33-50 | 154<br>150FS-33-50 | 179<br>150FS-33-50 |
| 0.2                  | 45<br>150FS-33-50       | 56<br>150FS-33-50  | 67<br>150FS-33-50  | 78<br>150FS-33-50  | 90<br>150FS-33-50  | 112<br>150FS-33-50 | 134<br>150FS-33-50 | 157<br>150FS-33-50 |
| 0.1                  | 38<br>150FS-33-50       | 48<br>150FS-33-50  | 58<br>150FS-33-50  | 67<br>150FS-33-50  | 77<br>150FS-33-50  | 96<br>150FS-33-50  | 115<br>150FS-33-50 | 134<br>150FS-33-50 |
| 0.0                  | 34<br>150FS-33-50       | 42<br>150FS-33-50  | 50<br>150FS-33-50  | 59<br>150FS-33-50  | 67<br>150FS-33-50  | 84<br>150FS-33-50  | 101<br>150FS-33-50 | 118<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |           |           |           |           |           |             |             |
|----------------------|----------------------------|-----------|-----------|-----------|-----------|-----------|-------------|-------------|
|                      | 0.50                       | 0.75      | 1.00      | 1.25      | 1.50      | 1.75      | 2.00        | 2.25        |
| 1.0                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 290<br>HD-1 | 583<br>HD-1 |
| 0.9                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 134<br>HD-1 | 407<br>HD-1 |
| 0.8                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 232<br>HD-1 |
| 0.7                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 56<br>HD-1  |
| 0.6                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.5                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.4                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |



**TABLE 4.3.172: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |            |                 |      |        |          |
|--------------------|------|----|------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (lp = 1.5) | S <sub>DS</sub> | 0.40 | Weight | 4200 lbs |
|--------------------|------|----|------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|-------------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                         | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                     | 101<br>150FS-33-50      | 126<br>150FS-33-50 | 151<br>150FS-33-50 | 176<br>150FS-33-50 | 202<br>150FS-33-50 | 252<br>150FS-33-50 | 302<br>150FS-33-50 | 353<br>150FS-33-50 |
| 0.9                     | 94<br>150FS-33-50       | 118<br>150FS-33-50 | 141<br>150FS-33-50 | 165<br>150FS-33-50 | 188<br>150FS-33-50 | 235<br>150FS-33-50 | 282<br>150FS-33-50 | 329<br>150FS-33-50 |
| 0.8                     | 87<br>150FS-33-50       | 109<br>150FS-33-50 | 131<br>150FS-33-50 | 153<br>150FS-33-50 | 175<br>150FS-33-50 | 218<br>150FS-33-50 | 262<br>150FS-33-50 | 306<br>150FS-33-50 |
| 0.7                     | 81<br>150FS-33-50       | 101<br>150FS-33-50 | 121<br>150FS-33-50 | 141<br>150FS-33-50 | 161<br>150FS-33-50 | 202<br>150FS-33-50 | 242<br>150FS-33-50 | 282<br>150FS-33-50 |
| 0.6                     | 74<br>150FS-33-50       | 92<br>150FS-33-50  | 111<br>150FS-33-50 | 129<br>150FS-33-50 | 148<br>150FS-33-50 | 185<br>150FS-33-50 | 222<br>150FS-33-50 | 259<br>150FS-33-50 |
| 0.5                     | 67<br>150FS-33-50       | 84<br>150FS-33-50  | 101<br>150FS-33-50 | 118<br>150FS-33-50 | 134<br>150FS-33-50 | 168<br>150FS-33-50 | 202<br>150FS-33-50 | 235<br>150FS-33-50 |
| 0.4                     | 60<br>150FS-33-50       | 76<br>150FS-33-50  | 91<br>150FS-33-50  | 106<br>150FS-33-50 | 121<br>150FS-33-50 | 151<br>150FS-33-50 | 181<br>150FS-33-50 | 212<br>150FS-33-50 |
| 0.3                     | 54<br>150FS-33-50       | 67<br>150FS-33-50  | 81<br>150FS-33-50  | 94<br>150FS-33-50  | 108<br>150FS-33-50 | 134<br>150FS-33-50 | 161<br>150FS-33-50 | 188<br>150FS-33-50 |
| 0.2                     | 47<br>150FS-33-50       | 59<br>150FS-33-50  | 71<br>150FS-33-50  | 82<br>150FS-33-50  | 94<br>150FS-33-50  | 118<br>150FS-33-50 | 141<br>150FS-33-50 | 165<br>150FS-33-50 |
| 0.1                     | 40<br>150FS-33-50       | 50<br>150FS-33-50  | 60<br>150FS-33-50  | 71<br>150FS-33-50  | 81<br>150FS-33-50  | 101<br>150FS-33-50 | 121<br>150FS-33-50 | 141<br>150FS-33-50 |
| 0.0                     | 35<br>150FS-33-50       | 44<br>150FS-33-50  | 53<br>150FS-33-50  | 62<br>150FS-33-50  | 71<br>150FS-33-50  | 88<br>150FS-33-50  | 106<br>150FS-33-50 | 123<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |           |           |           |           |           |             |             |
|-------------------------|----------------------------|-----------|-----------|-----------|-----------|-----------|-------------|-------------|
|                         | 0.50                       | 0.75      | 1.00      | 1.25      | 1.50      | 1.75      | 2.00        | 2.25        |
| 1.0                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 305<br>HD-1 | 612<br>HD-1 |
| 0.9                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 141<br>HD-1 | 427<br>HD-1 |
| 0.8                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 243<br>HD-1 |
| 0.7                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 59<br>HD-1  |
| 0.6                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.5                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.4                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.3                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.2                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |



**TABLE 4.3.173: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 0.40 | Weight | 4400 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|-------------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                         | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                     | 106<br>150FS-33-50      | 132<br>150FS-33-50 | 158<br>150FS-33-50 | 185<br>150FS-33-50 | 211<br>150FS-33-50 | 264<br>150FS-33-50 | 317<br>150FS-33-50 | 370<br>150FS-33-50 |
| 0.9                     | 99<br>150FS-33-50       | 123<br>150FS-33-50 | 148<br>150FS-33-50 | 172<br>150FS-33-50 | 197<br>150FS-33-50 | 246<br>150FS-33-50 | 296<br>150FS-33-50 | 345<br>150FS-33-50 |
| 0.8                     | 92<br>150FS-33-50       | 114<br>150FS-33-50 | 137<br>150FS-33-50 | 160<br>150FS-33-50 | 183<br>150FS-33-50 | 229<br>150FS-33-50 | 275<br>150FS-33-50 | 320<br>150FS-33-50 |
| 0.7                     | 84<br>150FS-33-50       | 106<br>150FS-33-50 | 127<br>150FS-33-50 | 148<br>150FS-33-50 | 169<br>150FS-33-50 | 211<br>150FS-33-50 | 253<br>150FS-33-50 | 296<br>150FS-33-50 |
| 0.6                     | 77<br>150FS-33-50       | 97<br>150FS-33-50  | 116<br>150FS-33-50 | 136<br>150FS-33-50 | 155<br>150FS-33-50 | 194<br>150FS-33-50 | 232<br>150FS-33-50 | 271<br>150FS-33-50 |
| 0.5                     | 70<br>150FS-33-50       | 88<br>150FS-33-50  | 106<br>150FS-33-50 | 123<br>150FS-33-50 | 141<br>150FS-33-50 | 176<br>150FS-33-50 | 211<br>150FS-33-50 | 246<br>150FS-33-50 |
| 0.4                     | 63<br>150FS-33-50       | 79<br>150FS-33-50  | 95<br>150FS-33-50  | 111<br>150FS-33-50 | 127<br>150FS-33-50 | 158<br>150FS-33-50 | 190<br>150FS-33-50 | 222<br>150FS-33-50 |
| 0.3                     | 56<br>150FS-33-50       | 70<br>150FS-33-50  | 84<br>150FS-33-50  | 99<br>150FS-33-50  | 113<br>150FS-33-50 | 141<br>150FS-33-50 | 169<br>150FS-33-50 | 197<br>150FS-33-50 |
| 0.2                     | 49<br>150FS-33-50       | 62<br>150FS-33-50  | 74<br>150FS-33-50  | 86<br>150FS-33-50  | 99<br>150FS-33-50  | 123<br>150FS-33-50 | 148<br>150FS-33-50 | 172<br>150FS-33-50 |
| 0.1                     | 42<br>150FS-33-50       | 53<br>150FS-33-50  | 63<br>150FS-33-50  | 74<br>150FS-33-50  | 84<br>150FS-33-50  | 106<br>150FS-33-50 | 127<br>150FS-33-50 | 148<br>150FS-33-50 |
| 0.0                     | 37<br>150FS-33-50       | 46<br>150FS-33-50  | 55<br>150FS-33-50  | 65<br>150FS-33-50  | 74<br>150FS-33-50  | 92<br>150FS-33-50  | 111<br>150FS-33-50 | 129<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |           |           |           |           |           |             |             |
|-------------------------|----------------------------|-----------|-----------|-----------|-----------|-----------|-------------|-------------|
|                         | 0.50                       | 0.75      | 1.00      | 1.25      | 1.50      | 1.75      | 2.00        | 2.25        |
| 1.0                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 319<br>HD-1 | 641<br>HD-1 |
| 0.9                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 147<br>HD-1 | 448<br>HD-1 |
| 0.8                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 255<br>HD-1 |
| 0.7                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 62<br>HD-1  |
| 0.6                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.5                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.4                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.3                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.2                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |



**TABLE 4.3.174: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                 |          |      |        |          |
|--------------------|------|----|-----------------|----------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | ( $I_p = 1.5$ ) | $S_{DS}$ | 0.40 | Weight | 4600 lbs |
|--------------------|------|----|-----------------|----------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|-------------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                         | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                     | 110<br>150FS-33-50      | 138<br>150FS-33-50 | 166<br>150FS-33-50 | 193<br>150FS-33-50 | 221<br>150FS-33-50 | 276<br>150FS-33-50 | 331<br>150FS-33-50 | 386<br>150FS-33-50 |
| 0.9                     | 103<br>150FS-33-50      | 129<br>150FS-33-50 | 155<br>150FS-33-50 | 180<br>150FS-33-50 | 206<br>150FS-33-50 | 258<br>150FS-33-50 | 309<br>150FS-33-50 | 361<br>150FS-33-50 |
| 0.8                     | 96<br>150FS-33-50       | 120<br>150FS-33-50 | 144<br>150FS-33-50 | 167<br>150FS-33-50 | 191<br>150FS-33-50 | 239<br>150FS-33-50 | 287<br>150FS-33-50 | 335<br>150FS-33-50 |
| 0.7                     | 88<br>150FS-33-50       | 110<br>150FS-33-50 | 132<br>150FS-33-50 | 155<br>150FS-33-50 | 177<br>150FS-33-50 | 221<br>150FS-33-50 | 265<br>150FS-33-50 | 309<br>150FS-33-50 |
| 0.6                     | 81<br>150FS-33-50       | 101<br>150FS-33-50 | 121<br>150FS-33-50 | 142<br>150FS-33-50 | 162<br>150FS-33-50 | 202<br>150FS-33-50 | 243<br>150FS-33-50 | 283<br>150FS-33-50 |
| 0.5                     | 74<br>150FS-33-50       | 92<br>150FS-33-50  | 110<br>150FS-33-50 | 129<br>150FS-33-50 | 147<br>150FS-33-50 | 184<br>150FS-33-50 | 221<br>150FS-33-50 | 258<br>150FS-33-50 |
| 0.4                     | 66<br>150FS-33-50       | 83<br>150FS-33-50  | 99<br>150FS-33-50  | 116<br>150FS-33-50 | 132<br>150FS-33-50 | 166<br>150FS-33-50 | 199<br>150FS-33-50 | 232<br>150FS-33-50 |
| 0.3                     | 59<br>150FS-33-50       | 74<br>150FS-33-50  | 88<br>150FS-33-50  | 103<br>150FS-33-50 | 118<br>150FS-33-50 | 147<br>150FS-33-50 | 177<br>150FS-33-50 | 206<br>150FS-33-50 |
| 0.2                     | 52<br>150FS-33-50       | 64<br>150FS-33-50  | 77<br>150FS-33-50  | 90<br>150FS-33-50  | 103<br>150FS-33-50 | 129<br>150FS-33-50 | 155<br>150FS-33-50 | 180<br>150FS-33-50 |
| 0.1                     | 44<br>150FS-33-50       | 55<br>150FS-33-50  | 66<br>150FS-33-50  | 77<br>150FS-33-50  | 88<br>150FS-33-50  | 110<br>150FS-33-50 | 132<br>150FS-33-50 | 155<br>150FS-33-50 |
| 0.0                     | 39<br>150FS-33-50       | 48<br>150FS-33-50  | 58<br>150FS-33-50  | 68<br>150FS-33-50  | 77<br>150FS-33-50  | 97<br>150FS-33-50  | 116<br>150FS-33-50 | 135<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |           |           |           |           |           |             |             |
|-------------------------|----------------------------|-----------|-----------|-----------|-----------|-----------|-------------|-------------|
|                         | 0.50                       | 0.75      | 1.00      | 1.25      | 1.50      | 1.75      | 2.00        | 2.25        |
| 1.0                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 334<br>HD-1 | 670<br>HD-1 |
| 0.9                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 154<br>HD-1 | 468<br>HD-1 |
| 0.8                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 266<br>HD-1 |
| 0.7                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 64<br>HD-1  |
| 0.6                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.5                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.4                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.3                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.2                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |



**TABLE 4.3.175: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                 |          |      |        |          |
|--------------------|------|----|-----------------|----------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | ( $I_p = 1.5$ ) | $S_{DS}$ | 0.40 | Weight | 4800 lbs |
|--------------------|------|----|-----------------|----------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|-------------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                         | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                     | 115<br>150FS-33-50      | 144<br>150FS-33-50 | 173<br>150FS-33-50 | 202<br>150FS-33-50 | 230<br>150FS-33-50 | 288<br>150FS-33-50 | 346<br>150FS-33-50 | 403<br>150FS-33-50 |
| 0.9                     | 108<br>150FS-33-50      | 134<br>150FS-33-50 | 161<br>150FS-33-50 | 188<br>150FS-33-50 | 215<br>150FS-33-50 | 269<br>150FS-33-50 | 323<br>150FS-33-50 | 376<br>150FS-33-50 |
| 0.8                     | 100<br>150FS-33-50      | 125<br>150FS-33-50 | 150<br>150FS-33-50 | 175<br>150FS-33-50 | 200<br>150FS-33-50 | 250<br>150FS-33-50 | 300<br>150FS-33-50 | 349<br>150FS-33-50 |
| 0.7                     | 92<br>150FS-33-50       | 115<br>150FS-33-50 | 138<br>150FS-33-50 | 161<br>150FS-33-50 | 184<br>150FS-33-50 | 230<br>150FS-33-50 | 276<br>150FS-33-50 | 323<br>150FS-33-50 |
| 0.6                     | 84<br>150FS-33-50       | 106<br>150FS-33-50 | 127<br>150FS-33-50 | 148<br>150FS-33-50 | 169<br>150FS-33-50 | 211<br>150FS-33-50 | 253<br>150FS-33-50 | 296<br>150FS-33-50 |
| 0.5                     | 77<br>150FS-33-50       | 96<br>150FS-33-50  | 115<br>150FS-33-50 | 134<br>150FS-33-50 | 154<br>150FS-33-50 | 192<br>150FS-33-50 | 230<br>150FS-33-50 | 269<br>150FS-33-50 |
| 0.4                     | 69<br>150FS-33-50       | 86<br>150FS-33-50  | 104<br>150FS-33-50 | 121<br>150FS-33-50 | 138<br>150FS-33-50 | 173<br>150FS-33-50 | 207<br>150FS-33-50 | 242<br>150FS-33-50 |
| 0.3                     | 61<br>150FS-33-50       | 77<br>150FS-33-50  | 92<br>150FS-33-50  | 108<br>150FS-33-50 | 123<br>150FS-33-50 | 154<br>150FS-33-50 | 184<br>150FS-33-50 | 215<br>150FS-33-50 |
| 0.2                     | 54<br>150FS-33-50       | 67<br>150FS-33-50  | 81<br>150FS-33-50  | 94<br>150FS-33-50  | 108<br>150FS-33-50 | 134<br>150FS-33-50 | 161<br>150FS-33-50 | 188<br>150FS-33-50 |
| 0.1                     | 46<br>150FS-33-50       | 58<br>150FS-33-50  | 69<br>150FS-33-50  | 81<br>150FS-33-50  | 92<br>150FS-33-50  | 115<br>150FS-33-50 | 138<br>150FS-33-50 | 161<br>150FS-33-50 |
| 0.0                     | 40<br>150FS-33-50       | 50<br>150FS-33-50  | 60<br>150FS-33-50  | 71<br>150FS-33-50  | 81<br>150FS-33-50  | 101<br>150FS-33-50 | 121<br>150FS-33-50 | 141<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |           |           |           |           |           |             |             |
|-------------------------|----------------------------|-----------|-----------|-----------|-----------|-----------|-------------|-------------|
|                         | 0.50                       | 0.75      | 1.00      | 1.25      | 1.50      | 1.75      | 2.00        | 2.25        |
| 1.0                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 348<br>HD-1 | 699<br>HD-1 |
| 0.9                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 161<br>HD-1 | 488<br>HD-1 |
| 0.8                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 278<br>HD-1 |
| 0.7                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 67<br>HD-1  |
| 0.6                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.5                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.4                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.3                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.2                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |



**TABLE 4.3.176: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |            |                 |      |        |          |
|--------------------|------|----|------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (Ip = 1.5) | S <sub>DS</sub> | 0.40 | Weight | 5000 lbs |
|--------------------|------|----|------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 120<br>150FS-33-50      | 150<br>150FS-33-50 | 180<br>150FS-33-50 | 210<br>150FS-33-50 | 240<br>150FS-33-50 | 300<br>150FS-33-50 | 360<br>150FS-33-50 | 420<br>150FS-33-50 |
| 0.9                  | 112<br>150FS-33-50      | 140<br>150FS-33-50 | 168<br>150FS-33-50 | 196<br>150FS-33-50 | 224<br>150FS-33-50 | 280<br>150FS-33-50 | 336<br>150FS-33-50 | 392<br>150FS-33-50 |
| 0.8                  | 104<br>150FS-33-50      | 130<br>150FS-33-50 | 156<br>150FS-33-50 | 182<br>150FS-33-50 | 208<br>150FS-33-50 | 260<br>150FS-33-50 | 312<br>150FS-33-50 | 364<br>150FS-33-50 |
| 0.7                  | 96<br>150FS-33-50       | 120<br>150FS-33-50 | 144<br>150FS-33-50 | 168<br>150FS-33-50 | 192<br>150FS-33-50 | 240<br>150FS-33-50 | 288<br>150FS-33-50 | 336<br>150FS-33-50 |
| 0.6                  | 88<br>150FS-33-50       | 110<br>150FS-33-50 | 132<br>150FS-33-50 | 154<br>150FS-33-50 | 176<br>150FS-33-50 | 220<br>150FS-33-50 | 264<br>150FS-33-50 | 308<br>150FS-33-50 |
| 0.5                  | 80<br>150FS-33-50       | 100<br>150FS-33-50 | 120<br>150FS-33-50 | 140<br>150FS-33-50 | 160<br>150FS-33-50 | 200<br>150FS-33-50 | 240<br>150FS-33-50 | 280<br>150FS-33-50 |
| 0.4                  | 72<br>150FS-33-50       | 90<br>150FS-33-50  | 108<br>150FS-33-50 | 126<br>150FS-33-50 | 144<br>150FS-33-50 | 180<br>150FS-33-50 | 216<br>150FS-33-50 | 252<br>150FS-33-50 |
| 0.3                  | 64<br>150FS-33-50       | 80<br>150FS-33-50  | 96<br>150FS-33-50  | 112<br>150FS-33-50 | 128<br>150FS-33-50 | 160<br>150FS-33-50 | 192<br>150FS-33-50 | 224<br>150FS-33-50 |
| 0.2                  | 56<br>150FS-33-50       | 70<br>150FS-33-50  | 84<br>150FS-33-50  | 98<br>150FS-33-50  | 112<br>150FS-33-50 | 140<br>150FS-33-50 | 168<br>150FS-33-50 | 196<br>150FS-33-50 |
| 0.1                  | 48<br>150FS-33-50       | 60<br>150FS-33-50  | 72<br>150FS-33-50  | 84<br>150FS-33-50  | 96<br>150FS-33-50  | 120<br>150FS-33-50 | 144<br>150FS-33-50 | 168<br>150FS-33-50 |
| 0.0                  | 42<br>150FS-33-50       | 53<br>150FS-33-50  | 63<br>150FS-33-50  | 74<br>150FS-33-50  | 84<br>150FS-33-50  | 105<br>150FS-33-50 | 126<br>150FS-33-50 | 147<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |           |           |           |           |           |             |             |
|----------------------|----------------------------|-----------|-----------|-----------|-----------|-----------|-------------|-------------|
|                      | 0.50                       | 0.75      | 1.00      | 1.25      | 1.50      | 1.75      | 2.00        | 2.25        |
| 1.0                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 363<br>HD-1 | 728<br>HD-1 |
| 0.9                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 168<br>HD-1 | 509<br>HD-1 |
| 0.8                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 289<br>HD-1 |
| 0.7                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 70<br>HD-1  |
| 0.6                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.5                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.4                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   |



**TABLE 4.3.177: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 0.70 | Weight | 2000 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|-------------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                         | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                     | 84<br>150FS-33-50       | 105<br>150FS-33-50 | 126<br>150FS-33-50 | 147<br>150FS-33-50 | 168<br>150FS-33-50 | 210<br>150FS-33-50 | 252<br>150FS-33-50 | 294<br>150FS-33-50 |
| 0.9                     | 78<br>150FS-33-50       | 98<br>150FS-33-50  | 118<br>150FS-33-50 | 137<br>150FS-33-50 | 157<br>150FS-33-50 | 196<br>150FS-33-50 | 235<br>150FS-33-50 | 274<br>150FS-33-50 |
| 0.8                     | 73<br>150FS-33-50       | 91<br>150FS-33-50  | 109<br>150FS-33-50 | 127<br>150FS-33-50 | 146<br>150FS-33-50 | 182<br>150FS-33-50 | 218<br>150FS-33-50 | 255<br>150FS-33-50 |
| 0.7                     | 67<br>150FS-33-50       | 84<br>150FS-33-50  | 101<br>150FS-33-50 | 118<br>150FS-33-50 | 134<br>150FS-33-50 | 168<br>150FS-33-50 | 202<br>150FS-33-50 | 235<br>150FS-33-50 |
| 0.6                     | 62<br>150FS-33-50       | 77<br>150FS-33-50  | 92<br>150FS-33-50  | 108<br>150FS-33-50 | 123<br>150FS-33-50 | 154<br>150FS-33-50 | 185<br>150FS-33-50 | 216<br>150FS-33-50 |
| 0.5                     | 56<br>150FS-33-50       | 70<br>150FS-33-50  | 84<br>150FS-33-50  | 98<br>150FS-33-50  | 112<br>150FS-33-50 | 140<br>150FS-33-50 | 168<br>150FS-33-50 | 196<br>150FS-33-50 |
| 0.4                     | 50<br>150FS-33-50       | 63<br>150FS-33-50  | 76<br>150FS-33-50  | 88<br>150FS-33-50  | 101<br>150FS-33-50 | 126<br>150FS-33-50 | 151<br>150FS-33-50 | 176<br>150FS-33-50 |
| 0.3                     | 45<br>150FS-33-50       | 56<br>150FS-33-50  | 67<br>150FS-33-50  | 78<br>150FS-33-50  | 90<br>150FS-33-50  | 112<br>150FS-33-50 | 134<br>150FS-33-50 | 157<br>150FS-33-50 |
| 0.2                     | 39<br>150FS-33-50       | 49<br>150FS-33-50  | 59<br>150FS-33-50  | 69<br>150FS-33-50  | 78<br>150FS-33-50  | 98<br>150FS-33-50  | 118<br>150FS-33-50 | 137<br>150FS-33-50 |
| 0.1                     | 34<br>150FS-33-50       | 42<br>150FS-33-50  | 50<br>150FS-33-50  | 59<br>150FS-33-50  | 67<br>150FS-33-50  | 84<br>150FS-33-50  | 101<br>150FS-33-50 | 118<br>150FS-33-50 |
| 0.0                     | 29<br>150FS-33-50       | 37<br>150FS-33-50  | 44<br>150FS-33-50  | 51<br>150FS-33-50  | 59<br>150FS-33-50  | 74<br>150FS-33-50  | 88<br>150FS-33-50  | 103<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |           |            |             |             |             |              |              |
|-------------------------|----------------------------|-----------|------------|-------------|-------------|-------------|--------------|--------------|
|                         | 0.50                       | 0.75      | 1.00       | 1.25        | 1.50        | 1.75        | 2.00         | 2.25         |
| 1.0                     | 0<br>HD-0                  | 0<br>HD-0 | 74<br>HD-1 | 330<br>HD-1 | 586<br>HD-1 | 842<br>HD-1 | 1098<br>HD-1 | 1353<br>HD-1 |
| 0.9                     | 0<br>HD-0                  | 0<br>HD-0 | 5<br>HD-1  | 244<br>HD-1 | 483<br>HD-1 | 722<br>HD-1 | 961<br>HD-1  | 1200<br>HD-1 |
| 0.8                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 159<br>HD-1 | 381<br>HD-1 | 603<br>HD-1 | 825<br>HD-1  | 1046<br>HD-1 |
| 0.7                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 74<br>HD-1  | 279<br>HD-1 | 483<br>HD-1 | 688<br>HD-1  | 893<br>HD-1  |
| 0.6                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 176<br>HD-1 | 364<br>HD-1 | 552<br>HD-1  | 739<br>HD-1  |
| 0.5                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 74<br>HD-1  | 244<br>HD-1 | 415<br>HD-1  | 586<br>HD-1  |
| 0.4                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 0<br>HD-0   | 125<br>HD-1 | 279<br>HD-1  | 432<br>HD-1  |
| 0.3                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 0<br>HD-0   | 5<br>HD-1   | 142<br>HD-1  | 279<br>HD-1  |
| 0.2                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 5<br>HD-1    | 125<br>HD-1  |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    |



**TABLE 4.3.178: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                 |          |      |        |          |
|--------------------|------|----|-----------------|----------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | ( $I_p = 1.5$ ) | $S_{DS}$ | 0.70 | Weight | 2200 lbs |
|--------------------|------|----|-----------------|----------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 92<br>150FS-33-50       | 116<br>150FS-33-50 | 139<br>150FS-33-50 | 162<br>150FS-33-50 | 185<br>150FS-33-50 | 231<br>150FS-33-50 | 277<br>150FS-33-50 | 323<br>150FS-33-50 |
| 0.9                  | 86<br>150FS-33-50       | 108<br>150FS-33-50 | 129<br>150FS-33-50 | 151<br>150FS-33-50 | 172<br>150FS-33-50 | 216<br>150FS-33-50 | 259<br>150FS-33-50 | 302<br>150FS-33-50 |
| 0.8                  | 80<br>150FS-33-50       | 100<br>150FS-33-50 | 120<br>150FS-33-50 | 140<br>150FS-33-50 | 160<br>150FS-33-50 | 200<br>150FS-33-50 | 240<br>150FS-33-50 | 280<br>150FS-33-50 |
| 0.7                  | 74<br>150FS-33-50       | 92<br>150FS-33-50  | 111<br>150FS-33-50 | 129<br>150FS-33-50 | 148<br>150FS-33-50 | 185<br>150FS-33-50 | 222<br>150FS-33-50 | 259<br>150FS-33-50 |
| 0.6                  | 68<br>150FS-33-50       | 85<br>150FS-33-50  | 102<br>150FS-33-50 | 119<br>150FS-33-50 | 136<br>150FS-33-50 | 169<br>150FS-33-50 | 203<br>150FS-33-50 | 237<br>150FS-33-50 |
| 0.5                  | 62<br>150FS-33-50       | 77<br>150FS-33-50  | 92<br>150FS-33-50  | 108<br>150FS-33-50 | 123<br>150FS-33-50 | 154<br>150FS-33-50 | 185<br>150FS-33-50 | 216<br>150FS-33-50 |
| 0.4                  | 55<br>150FS-33-50       | 69<br>150FS-33-50  | 83<br>150FS-33-50  | 97<br>150FS-33-50  | 111<br>150FS-33-50 | 139<br>150FS-33-50 | 166<br>150FS-33-50 | 194<br>150FS-33-50 |
| 0.3                  | 49<br>150FS-33-50       | 62<br>150FS-33-50  | 74<br>150FS-33-50  | 86<br>150FS-33-50  | 99<br>150FS-33-50  | 123<br>150FS-33-50 | 148<br>150FS-33-50 | 172<br>150FS-33-50 |
| 0.2                  | 43<br>150FS-33-50       | 54<br>150FS-33-50  | 65<br>150FS-33-50  | 75<br>150FS-33-50  | 86<br>150FS-33-50  | 108<br>150FS-33-50 | 129<br>150FS-33-50 | 151<br>150FS-33-50 |
| 0.1                  | 37<br>150FS-33-50       | 46<br>150FS-33-50  | 55<br>150FS-33-50  | 65<br>150FS-33-50  | 74<br>150FS-33-50  | 92<br>150FS-33-50  | 111<br>150FS-33-50 | 129<br>150FS-33-50 |
| 0.0                  | 32<br>150FS-33-50       | 40<br>150FS-33-50  | 49<br>150FS-33-50  | 57<br>150FS-33-50  | 65<br>150FS-33-50  | 81<br>150FS-33-50  | 97<br>150FS-33-50  | 113<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |           |            |             |             |             |              |              |
|----------------------|----------------------------|-----------|------------|-------------|-------------|-------------|--------------|--------------|
|                      | 0.50                       | 0.75      | 1.00       | 1.25        | 1.50        | 1.75        | 2.00         | 2.25         |
| 1.0                  | 0<br>HD-0                  | 0<br>HD-0 | 81<br>HD-1 | 363<br>HD-1 | 644<br>HD-1 | 926<br>HD-1 | 1207<br>HD-1 | 1489<br>HD-1 |
| 0.9                  | 0<br>HD-0                  | 0<br>HD-0 | 6<br>HD-1  | 269<br>HD-1 | 532<br>HD-1 | 794<br>HD-1 | 1057<br>HD-1 | 1320<br>HD-1 |
| 0.8                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 175<br>HD-1 | 419<br>HD-1 | 663<br>HD-1 | 907<br>HD-1  | 1151<br>HD-1 |
| 0.7                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 81<br>HD-1  | 306<br>HD-1 | 532<br>HD-1 | 757<br>HD-1  | 982<br>HD-1  |
| 0.6                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 194<br>HD-1 | 400<br>HD-1 | 607<br>HD-1  | 813<br>HD-1  |
| 0.5                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 81<br>HD-1  | 269<br>HD-1 | 457<br>HD-1  | 644<br>HD-1  |
| 0.4                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 0<br>HD-0   | 137<br>HD-1 | 306<br>HD-1  | 475<br>HD-1  |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 0<br>HD-0   | 6<br>HD-1   | 156<br>HD-1  | 306<br>HD-1  |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 6<br>HD-1    | 137<br>HD-1  |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    |





**TABLE 4.3.179: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                 |          |      |        |          |
|--------------------|------|----|-----------------|----------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | ( $I_p = 1.5$ ) | $S_{DS}$ | 0.70 | Weight | 2400 lbs |
|--------------------|------|----|-----------------|----------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 101<br>150FS-33-50      | 126<br>150FS-33-50 | 151<br>150FS-33-50 | 176<br>150FS-33-50 | 202<br>150FS-33-50 | 252<br>150FS-33-50 | 302<br>150FS-33-50 | 353<br>150FS-33-50 |
| 0.9                  | 94<br>150FS-33-50       | 118<br>150FS-33-50 | 141<br>150FS-33-50 | 165<br>150FS-33-50 | 188<br>150FS-33-50 | 235<br>150FS-33-50 | 282<br>150FS-33-50 | 329<br>150FS-33-50 |
| 0.8                  | 87<br>150FS-33-50       | 109<br>150FS-33-50 | 131<br>150FS-33-50 | 153<br>150FS-33-50 | 175<br>150FS-33-50 | 218<br>150FS-33-50 | 262<br>150FS-33-50 | 306<br>150FS-33-50 |
| 0.7                  | 81<br>150FS-33-50       | 101<br>150FS-33-50 | 121<br>150FS-33-50 | 141<br>150FS-33-50 | 161<br>150FS-33-50 | 202<br>150FS-33-50 | 242<br>150FS-33-50 | 282<br>150FS-33-50 |
| 0.6                  | 74<br>150FS-33-50       | 92<br>150FS-33-50  | 111<br>150FS-33-50 | 129<br>150FS-33-50 | 148<br>150FS-33-50 | 185<br>150FS-33-50 | 222<br>150FS-33-50 | 259<br>150FS-33-50 |
| 0.5                  | 67<br>150FS-33-50       | 84<br>150FS-33-50  | 101<br>150FS-33-50 | 118<br>150FS-33-50 | 134<br>150FS-33-50 | 168<br>150FS-33-50 | 202<br>150FS-33-50 | 235<br>150FS-33-50 |
| 0.4                  | 60<br>150FS-33-50       | 76<br>150FS-33-50  | 91<br>150FS-33-50  | 106<br>150FS-33-50 | 121<br>150FS-33-50 | 151<br>150FS-33-50 | 181<br>150FS-33-50 | 212<br>150FS-33-50 |
| 0.3                  | 54<br>150FS-33-50       | 67<br>150FS-33-50  | 81<br>150FS-33-50  | 94<br>150FS-33-50  | 108<br>150FS-33-50 | 134<br>150FS-33-50 | 161<br>150FS-33-50 | 188<br>150FS-33-50 |
| 0.2                  | 47<br>150FS-33-50       | 59<br>150FS-33-50  | 71<br>150FS-33-50  | 82<br>150FS-33-50  | 94<br>150FS-33-50  | 118<br>150FS-33-50 | 141<br>150FS-33-50 | 165<br>150FS-33-50 |
| 0.1                  | 40<br>150FS-33-50       | 50<br>150FS-33-50  | 60<br>150FS-33-50  | 71<br>150FS-33-50  | 81<br>150FS-33-50  | 101<br>150FS-33-50 | 121<br>150FS-33-50 | 141<br>150FS-33-50 |
| 0.0                  | 35<br>150FS-33-50       | 44<br>150FS-33-50  | 53<br>150FS-33-50  | 62<br>150FS-33-50  | 71<br>150FS-33-50  | 88<br>150FS-33-50  | 106<br>150FS-33-50 | 123<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |           |            |             |             |              |              |              |
|----------------------|----------------------------|-----------|------------|-------------|-------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75      | 1.00       | 1.25        | 1.50        | 1.75         | 2.00         | 2.25         |
| 1.0                  | 0<br>HD-0                  | 0<br>HD-0 | 89<br>HD-1 | 396<br>HD-1 | 703<br>HD-1 | 1010<br>HD-1 | 1317<br>HD-1 | 1624<br>HD-1 |
| 0.9                  | 0<br>HD-0                  | 0<br>HD-0 | 7<br>HD-1  | 293<br>HD-1 | 580<br>HD-1 | 867<br>HD-1  | 1153<br>HD-1 | 1440<br>HD-1 |
| 0.8                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 191<br>HD-1 | 457<br>HD-1 | 723<br>HD-1  | 989<br>HD-1  | 1256<br>HD-1 |
| 0.7                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 88<br>HD-1  | 334<br>HD-1 | 580<br>HD-1  | 826<br>HD-1  | 1071<br>HD-1 |
| 0.6                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 211<br>HD-1 | 437<br>HD-1  | 662<br>HD-1  | 887<br>HD-1  |
| 0.5                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 89<br>HD-1  | 293<br>HD-1  | 498<br>HD-1  | 703<br>HD-1  |
| 0.4                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 0<br>HD-0   | 150<br>HD-1  | 334<br>HD-1  | 518<br>HD-1  |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 0<br>HD-0   | 7<br>HD-1    | 170<br>HD-1  | 334<br>HD-1  |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 7<br>HD-1    | 150<br>HD-1  |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |



**TABLE 4.3.180: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 0.70 | Weight | 2600 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 109<br>150FS-33-50      | 137<br>150FS-33-50 | 164<br>150FS-33-50 | 191<br>150FS-33-50 | 218<br>150FS-33-50 | 273<br>150FS-33-50 | 328<br>150FS-33-50 | 382<br>150FS-33-50 |
| 0.9                  | 102<br>150FS-33-50      | 127<br>150FS-33-50 | 153<br>150FS-33-50 | 178<br>150FS-33-50 | 204<br>150FS-33-50 | 255<br>150FS-33-50 | 306<br>150FS-33-50 | 357<br>150FS-33-50 |
| 0.8                  | 95<br>150FS-33-50       | 118<br>150FS-33-50 | 142<br>150FS-33-50 | 166<br>150FS-33-50 | 189<br>150FS-33-50 | 237<br>150FS-33-50 | 284<br>150FS-33-50 | 331<br>150FS-33-50 |
| 0.7                  | 87<br>150FS-33-50       | 109<br>150FS-33-50 | 131<br>150FS-33-50 | 153<br>150FS-33-50 | 175<br>150FS-33-50 | 218<br>150FS-33-50 | 262<br>150FS-33-50 | 306<br>150FS-33-50 |
| 0.6                  | 80<br>150FS-33-50       | 100<br>150FS-33-50 | 120<br>150FS-33-50 | 140<br>150FS-33-50 | 160<br>150FS-33-50 | 200<br>150FS-33-50 | 240<br>150FS-33-50 | 280<br>150FS-33-50 |
| 0.5                  | 73<br>150FS-33-50       | 91<br>150FS-33-50  | 109<br>150FS-33-50 | 127<br>150FS-33-50 | 146<br>150FS-33-50 | 182<br>150FS-33-50 | 218<br>150FS-33-50 | 255<br>150FS-33-50 |
| 0.4                  | 66<br>150FS-33-50       | 82<br>150FS-33-50  | 98<br>150FS-33-50  | 115<br>150FS-33-50 | 131<br>150FS-33-50 | 164<br>150FS-33-50 | 197<br>150FS-33-50 | 229<br>150FS-33-50 |
| 0.3                  | 58<br>150FS-33-50       | 73<br>150FS-33-50  | 87<br>150FS-33-50  | 102<br>150FS-33-50 | 116<br>150FS-33-50 | 146<br>150FS-33-50 | 175<br>150FS-33-50 | 204<br>150FS-33-50 |
| 0.2                  | 51<br>150FS-33-50       | 64<br>150FS-33-50  | 76<br>150FS-33-50  | 89<br>150FS-33-50  | 102<br>150FS-33-50 | 127<br>150FS-33-50 | 153<br>150FS-33-50 | 178<br>150FS-33-50 |
| 0.1                  | 44<br>150FS-33-50       | 55<br>150FS-33-50  | 66<br>150FS-33-50  | 76<br>150FS-33-50  | 87<br>150FS-33-50  | 109<br>150FS-33-50 | 131<br>150FS-33-50 | 153<br>150FS-33-50 |
| 0.0                  | 38<br>150FS-33-50       | 48<br>150FS-33-50  | 57<br>150FS-33-50  | 67<br>150FS-33-50  | 76<br>150FS-33-50  | 96<br>150FS-33-50  | 115<br>150FS-33-50 | 134<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |           |            |             |             |              |              |              |
|----------------------|----------------------------|-----------|------------|-------------|-------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75      | 1.00       | 1.25        | 1.50        | 1.75         | 2.00         | 2.25         |
| 1.0                  | 0<br>HD-0                  | 0<br>HD-0 | 96<br>HD-1 | 429<br>HD-1 | 761<br>HD-1 | 1094<br>HD-1 | 1427<br>HD-1 | 1759<br>HD-1 |
| 0.9                  | 0<br>HD-0                  | 0<br>HD-0 | 7<br>HD-1  | 318<br>HD-1 | 628<br>HD-1 | 939<br>HD-1  | 1249<br>HD-1 | 1560<br>HD-1 |
| 0.8                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 207<br>HD-1 | 495<br>HD-1 | 783<br>HD-1  | 1072<br>HD-1 | 1360<br>HD-1 |
| 0.7                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 96<br>HD-1  | 362<br>HD-1 | 628<br>HD-1  | 894<br>HD-1  | 1161<br>HD-1 |
| 0.6                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 229<br>HD-1 | 473<br>HD-1  | 717<br>HD-1  | 961<br>HD-1  |
| 0.5                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 96<br>HD-1  | 318<br>HD-1  | 540<br>HD-1  | 761<br>HD-1  |
| 0.4                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 0<br>HD-0   | 162<br>HD-1  | 362<br>HD-1  | 562<br>HD-1  |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 0<br>HD-0   | 7<br>HD-1    | 185<br>HD-1  | 362<br>HD-1  |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 7<br>HD-1    | 162<br>HD-1  |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |



**TABLE 4.3.181: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 0.70 | Weight | 2800 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|-------------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                         | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                     | 118<br>150FS-33-50      | 147<br>150FS-33-50 | 176<br>150FS-33-50 | 206<br>150FS-33-50 | 235<br>150FS-33-50 | 294<br>150FS-33-50 | 353<br>150FS-33-50 | 412<br>150FS-33-50 |
| 0.9                     | 110<br>150FS-33-50      | 137<br>150FS-33-50 | 165<br>150FS-33-50 | 192<br>150FS-33-50 | 220<br>150FS-33-50 | 274<br>150FS-33-50 | 329<br>150FS-33-50 | 384<br>150FS-33-50 |
| 0.8                     | 102<br>150FS-33-50      | 127<br>150FS-33-50 | 153<br>150FS-33-50 | 178<br>150FS-33-50 | 204<br>150FS-33-50 | 255<br>150FS-33-50 | 306<br>150FS-33-50 | 357<br>150FS-33-50 |
| 0.7                     | 94<br>150FS-33-50       | 118<br>150FS-33-50 | 141<br>150FS-33-50 | 165<br>150FS-33-50 | 188<br>150FS-33-50 | 235<br>150FS-33-50 | 282<br>150FS-33-50 | 329<br>150FS-33-50 |
| 0.6                     | 86<br>150FS-33-50       | 108<br>150FS-33-50 | 129<br>150FS-33-50 | 151<br>150FS-33-50 | 172<br>150FS-33-50 | 216<br>150FS-33-50 | 259<br>150FS-33-50 | 302<br>150FS-33-50 |
| 0.5                     | 78<br>150FS-33-50       | 98<br>150FS-33-50  | 118<br>150FS-33-50 | 137<br>150FS-33-50 | 157<br>150FS-33-50 | 196<br>150FS-33-50 | 235<br>150FS-33-50 | 274<br>150FS-33-50 |
| 0.4                     | 71<br>150FS-33-50       | 88<br>150FS-33-50  | 106<br>150FS-33-50 | 123<br>150FS-33-50 | 141<br>150FS-33-50 | 176<br>150FS-33-50 | 212<br>150FS-33-50 | 247<br>150FS-33-50 |
| 0.3                     | 63<br>150FS-33-50       | 78<br>150FS-33-50  | 94<br>150FS-33-50  | 110<br>150FS-33-50 | 125<br>150FS-33-50 | 157<br>150FS-33-50 | 188<br>150FS-33-50 | 220<br>150FS-33-50 |
| 0.2                     | 55<br>150FS-33-50       | 69<br>150FS-33-50  | 82<br>150FS-33-50  | 96<br>150FS-33-50  | 110<br>150FS-33-50 | 137<br>150FS-33-50 | 165<br>150FS-33-50 | 192<br>150FS-33-50 |
| 0.1                     | 47<br>150FS-33-50       | 59<br>150FS-33-50  | 71<br>150FS-33-50  | 82<br>150FS-33-50  | 94<br>150FS-33-50  | 118<br>150FS-33-50 | 141<br>150FS-33-50 | 165<br>150FS-33-50 |
| 0.0                     | 41<br>150FS-33-50       | 51<br>150FS-33-50  | 62<br>150FS-33-50  | 72<br>150FS-33-50  | 82<br>150FS-33-50  | 103<br>150FS-33-50 | 123<br>150FS-33-50 | 144<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |           |             |             |             |              |              |              |
|-------------------------|----------------------------|-----------|-------------|-------------|-------------|--------------|--------------|--------------|
|                         | 0.50                       | 0.75      | 1.00        | 1.25        | 1.50        | 1.75         | 2.00         | 2.25         |
| 1.0                     | 0<br>HD-0                  | 0<br>HD-0 | 103<br>HD-1 | 462<br>HD-1 | 820<br>HD-1 | 1176<br>HD-1 | 1537<br>HD-1 | 1895<br>HD-1 |
| 0.9                     | 0<br>HD-0                  | 0<br>HD-0 | 8<br>HD-1   | 342<br>HD-1 | 677<br>HD-1 | 1011<br>HD-1 | 1345<br>HD-1 | 1680<br>HD-1 |
| 0.8                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 223<br>HD-1 | 533<br>HD-1 | 844<br>HD-1  | 1154<br>HD-1 | 1465<br>HD-1 |
| 0.7                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 103<br>HD-1 | 390<br>HD-1 | 677<br>HD-1  | 963<br>HD-1  | 1250<br>HD-1 |
| 0.6                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 247<br>HD-1 | 509<br>HD-1  | 772<br>HD-1  | 1035<br>HD-1 |
| 0.5                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 103<br>HD-1 | 342<br>HD-1  | 581<br>HD-1  | 820<br>HD-1  |
| 0.4                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 175<br>HD-1  | 390<br>HD-1  | 605<br>HD-1  |
| 0.3                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 8<br>HD-1    | 199<br>HD-1  | 390<br>HD-1  |
| 0.2                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 8<br>HD-1    | 175<br>HD-1  |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |



**TABLE 4.3.182: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 0.70 | Weight | 3000 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 126<br>150FS-33-50      | 158<br>150FS-33-50 | 189<br>150FS-33-50 | 221<br>150FS-33-50 | 252<br>150FS-33-50 | 315<br>150FS-33-50 | 378<br>150FS-33-50 | 441<br>150FS-33-50 |
| 0.9                  | 118<br>150FS-33-50      | 147<br>150FS-33-50 | 176<br>150FS-33-50 | 206<br>150FS-33-50 | 235<br>150FS-33-50 | 294<br>150FS-33-50 | 353<br>150FS-33-50 | 412<br>150FS-33-50 |
| 0.8                  | 109<br>150FS-33-50      | 137<br>150FS-33-50 | 164<br>150FS-33-50 | 191<br>150FS-33-50 | 218<br>150FS-33-50 | 273<br>150FS-33-50 | 328<br>150FS-33-50 | 382<br>150FS-33-50 |
| 0.7                  | 101<br>150FS-33-50      | 126<br>150FS-33-50 | 151<br>150FS-33-50 | 176<br>150FS-33-50 | 202<br>150FS-33-50 | 252<br>150FS-33-50 | 302<br>150FS-33-50 | 353<br>150FS-33-50 |
| 0.6                  | 92<br>150FS-33-50       | 116<br>150FS-33-50 | 139<br>150FS-33-50 | 162<br>150FS-33-50 | 185<br>150FS-33-50 | 231<br>150FS-33-50 | 277<br>150FS-33-50 | 323<br>150FS-33-50 |
| 0.5                  | 84<br>150FS-33-50       | 105<br>150FS-33-50 | 126<br>150FS-33-50 | 147<br>150FS-33-50 | 168<br>150FS-33-50 | 210<br>150FS-33-50 | 252<br>150FS-33-50 | 294<br>150FS-33-50 |
| 0.4                  | 76<br>150FS-33-50       | 95<br>150FS-33-50  | 113<br>150FS-33-50 | 132<br>150FS-33-50 | 151<br>150FS-33-50 | 189<br>150FS-33-50 | 227<br>150FS-33-50 | 265<br>150FS-33-50 |
| 0.3                  | 67<br>150FS-33-50       | 84<br>150FS-33-50  | 101<br>150FS-33-50 | 118<br>150FS-33-50 | 134<br>150FS-33-50 | 168<br>150FS-33-50 | 202<br>150FS-33-50 | 235<br>150FS-33-50 |
| 0.2                  | 59<br>150FS-33-50       | 74<br>150FS-33-50  | 88<br>150FS-33-50  | 103<br>150FS-33-50 | 118<br>150FS-33-50 | 147<br>150FS-33-50 | 176<br>150FS-33-50 | 206<br>150FS-33-50 |
| 0.1                  | 50<br>150FS-33-50       | 63<br>150FS-33-50  | 76<br>150FS-33-50  | 88<br>150FS-33-50  | 101<br>150FS-33-50 | 126<br>150FS-33-50 | 151<br>150FS-33-50 | 176<br>150FS-33-50 |
| 0.0                  | 44<br>150FS-33-50       | 55<br>150FS-33-50  | 66<br>150FS-33-50  | 77<br>150FS-33-50  | 88<br>150FS-33-50  | 110<br>150FS-33-50 | 132<br>150FS-33-50 | 154<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |           |             |             |             |              |              |              |
|----------------------|----------------------------|-----------|-------------|-------------|-------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75      | 1.00        | 1.25        | 1.50        | 1.75         | 2.00         | 2.25         |
| 1.0                  | 0<br>HD-0                  | 0<br>HD-0 | 111<br>HD-1 | 495<br>HD-1 | 878<br>HD-1 | 1262<br>HD-1 | 1646<br>HD-1 | 2030<br>HD-1 |
| 0.9                  | 0<br>HD-0                  | 0<br>HD-0 | 8<br>HD-1   | 367<br>HD-1 | 725<br>HD-1 | 1083<br>HD-1 | 1442<br>HD-1 | 1800<br>HD-1 |
| 0.8                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 239<br>HD-1 | 571<br>HD-1 | 904<br>HD-1  | 1237<br>HD-1 | 1569<br>HD-1 |
| 0.7                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 111<br>HD-1 | 418<br>HD-1 | 725<br>HD-1  | 1032<br>HD-1 | 1339<br>HD-1 |
| 0.6                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 264<br>HD-1 | 546<br>HD-1  | 827<br>HD-1  | 1109<br>HD-1 |
| 0.5                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 111<br>HD-1 | 367<br>HD-1  | 623<br>HD-1  | 878<br>HD-1  |
| 0.4                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 187<br>HD-1  | 418<br>HD-1  | 648<br>HD-1  |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 8<br>HD-1    | 213<br>HD-1  | 418<br>HD-1  |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 8<br>HD-1    | 187<br>HD-1  |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |



**TABLE 4.3.183: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                 |          |      |        |          |
|--------------------|------|----|-----------------|----------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | ( $I_p = 1.5$ ) | $S_{DS}$ | 0.70 | Weight | 3200 lbs |
|--------------------|------|----|-----------------|----------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 134<br>150FS-33-50      | 168<br>150FS-33-50 | 202<br>150FS-33-50 | 235<br>150FS-33-50 | 269<br>150FS-33-50 | 336<br>150FS-33-50 | 403<br>150FS-33-50 | 470<br>150FS-33-50 |
| 0.9                  | 125<br>150FS-33-50      | 157<br>150FS-33-50 | 188<br>150FS-33-50 | 220<br>150FS-33-50 | 251<br>150FS-33-50 | 314<br>150FS-33-50 | 376<br>150FS-33-50 | 439<br>150FS-33-50 |
| 0.8                  | 116<br>150FS-33-50      | 146<br>150FS-33-50 | 175<br>150FS-33-50 | 204<br>150FS-33-50 | 233<br>150FS-33-50 | 291<br>150FS-33-50 | 349<br>150FS-33-50 | 408<br>150FS-33-50 |
| 0.7                  | 108<br>150FS-33-50      | 134<br>150FS-33-50 | 161<br>150FS-33-50 | 188<br>150FS-33-50 | 215<br>150FS-33-50 | 269<br>150FS-33-50 | 323<br>150FS-33-50 | 376<br>150FS-33-50 |
| 0.6                  | 99<br>150FS-33-50       | 123<br>150FS-33-50 | 148<br>150FS-33-50 | 172<br>150FS-33-50 | 197<br>150FS-33-50 | 246<br>150FS-33-50 | 296<br>150FS-33-50 | 345<br>150FS-33-50 |
| 0.5                  | 90<br>150FS-33-50       | 112<br>150FS-33-50 | 134<br>150FS-33-50 | 157<br>150FS-33-50 | 179<br>150FS-33-50 | 224<br>150FS-33-50 | 269<br>150FS-33-50 | 314<br>150FS-33-50 |
| 0.4                  | 81<br>150FS-33-50       | 101<br>150FS-33-50 | 121<br>150FS-33-50 | 141<br>150FS-33-50 | 161<br>150FS-33-50 | 202<br>150FS-33-50 | 242<br>150FS-33-50 | 282<br>150FS-33-50 |
| 0.3                  | 72<br>150FS-33-50       | 90<br>150FS-33-50  | 108<br>150FS-33-50 | 125<br>150FS-33-50 | 143<br>150FS-33-50 | 179<br>150FS-33-50 | 215<br>150FS-33-50 | 251<br>150FS-33-50 |
| 0.2                  | 63<br>150FS-33-50       | 78<br>150FS-33-50  | 94<br>150FS-33-50  | 110<br>150FS-33-50 | 125<br>150FS-33-50 | 157<br>150FS-33-50 | 188<br>150FS-33-50 | 220<br>150FS-33-50 |
| 0.1                  | 54<br>150FS-33-50       | 67<br>150FS-33-50  | 81<br>150FS-33-50  | 94<br>150FS-33-50  | 108<br>150FS-33-50 | 134<br>150FS-33-50 | 161<br>150FS-33-50 | 188<br>150FS-33-50 |
| 0.0                  | 47<br>150FS-33-50       | 59<br>150FS-33-50  | 71<br>150FS-33-50  | 82<br>150FS-33-50  | 94<br>150FS-33-50  | 118<br>150FS-33-50 | 141<br>150FS-33-50 | 165<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |           |             |             |             |              |              |              |
|----------------------|----------------------------|-----------|-------------|-------------|-------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75      | 1.00        | 1.25        | 1.50        | 1.75         | 2.00         | 2.25         |
| 1.0                  | 0<br>HD-0                  | 0<br>HD-0 | 118<br>HD-1 | 528<br>HD-1 | 937<br>HD-1 | 1347<br>HD-1 | 1756<br>HD-1 | 2166<br>HD-1 |
| 0.9                  | 0<br>HD-0                  | 0<br>HD-0 | 9<br>HD-1   | 391<br>HD-1 | 773<br>HD-1 | 1155<br>HD-1 | 1538<br>HD-1 | 1920<br>HD-1 |
| 0.8                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 255<br>HD-1 | 609<br>HD-1 | 964<br>HD-1  | 1319<br>HD-1 | 1674<br>HD-1 |
| 0.7                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 118<br>HD-1 | 446<br>HD-1 | 773<br>HD-1  | 1101<br>HD-1 | 1428<br>HD-1 |
| 0.6                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 282<br>HD-1 | 582<br>HD-1  | 882<br>HD-1  | 1183<br>HD-1 |
| 0.5                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 118<br>HD-1 | 391<br>HD-1  | 664<br>HD-1  | 937<br>HD-1  |
| 0.4                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 200<br>HD-1  | 446<br>HD-1  | 691<br>HD-1  |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 9<br>HD-1    | 227<br>HD-1  | 446<br>HD-1  |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 9<br>HD-1    | 200<br>HD-1  |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |



**TABLE 4.3.184: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                 |          |      |        |          |
|--------------------|------|----|-----------------|----------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | ( $I_p = 1.5$ ) | $S_{DS}$ | 0.70 | Weight | 3400 lbs |
|--------------------|------|----|-----------------|----------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 143<br>150FS-33-50      | 179<br>150FS-33-50 | 214<br>150FS-33-50 | 250<br>150FS-33-50 | 286<br>150FS-33-50 | 357<br>150FS-33-50 | 428<br>150FS-33-50 | 500<br>200FS-33-50 |
| 0.9                  | 133<br>150FS-33-50      | 167<br>150FS-33-50 | 200<br>150FS-33-50 | 233<br>150FS-33-50 | 267<br>150FS-33-50 | 333<br>150FS-33-50 | 400<br>150FS-33-50 | 466<br>150FS-33-50 |
| 0.8                  | 124<br>150FS-33-50      | 155<br>150FS-33-50 | 186<br>150FS-33-50 | 217<br>150FS-33-50 | 248<br>150FS-33-50 | 309<br>150FS-33-50 | 371<br>150FS-33-50 | 433<br>150FS-33-50 |
| 0.7                  | 114<br>150FS-33-50      | 143<br>150FS-33-50 | 171<br>150FS-33-50 | 200<br>150FS-33-50 | 228<br>150FS-33-50 | 286<br>150FS-33-50 | 343<br>150FS-33-50 | 400<br>150FS-33-50 |
| 0.6                  | 105<br>150FS-33-50      | 131<br>150FS-33-50 | 157<br>150FS-33-50 | 183<br>150FS-33-50 | 209<br>150FS-33-50 | 262<br>150FS-33-50 | 314<br>150FS-33-50 | 367<br>150FS-33-50 |
| 0.5                  | 95<br>150FS-33-50       | 119<br>150FS-33-50 | 143<br>150FS-33-50 | 167<br>150FS-33-50 | 190<br>150FS-33-50 | 238<br>150FS-33-50 | 286<br>150FS-33-50 | 333<br>150FS-33-50 |
| 0.4                  | 86<br>150FS-33-50       | 107<br>150FS-33-50 | 129<br>150FS-33-50 | 150<br>150FS-33-50 | 171<br>150FS-33-50 | 214<br>150FS-33-50 | 257<br>150FS-33-50 | 300<br>150FS-33-50 |
| 0.3                  | 76<br>150FS-33-50       | 95<br>150FS-33-50  | 114<br>150FS-33-50 | 133<br>150FS-33-50 | 152<br>150FS-33-50 | 190<br>150FS-33-50 | 228<br>150FS-33-50 | 267<br>150FS-33-50 |
| 0.2                  | 67<br>150FS-33-50       | 83<br>150FS-33-50  | 100<br>150FS-33-50 | 117<br>150FS-33-50 | 133<br>150FS-33-50 | 167<br>150FS-33-50 | 200<br>150FS-33-50 | 233<br>150FS-33-50 |
| 0.1                  | 57<br>150FS-33-50       | 71<br>150FS-33-50  | 86<br>150FS-33-50  | 100<br>150FS-33-50 | 114<br>150FS-33-50 | 143<br>150FS-33-50 | 171<br>150FS-33-50 | 200<br>150FS-33-50 |
| 0.0                  | 50<br>150FS-33-50       | 62<br>150FS-33-50  | 75<br>150FS-33-50  | 87<br>150FS-33-50  | 100<br>150FS-33-50 | 125<br>150FS-33-50 | 150<br>150FS-33-50 | 175<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |           |             |             |             |              |              |              |
|----------------------|----------------------------|-----------|-------------|-------------|-------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75      | 1.00        | 1.25        | 1.50        | 1.75         | 2.00         | 2.25         |
| 1.0                  | 0<br>HD-0                  | 0<br>HD-0 | 125<br>HD-1 | 560<br>HD-1 | 996<br>HD-1 | 1434<br>HD-1 | 1866<br>HD-1 | 2301<br>HD-1 |
| 0.9                  | 0<br>HD-0                  | 0<br>HD-0 | 9<br>HD-1   | 415<br>HD-1 | 822<br>HD-1 | 1228<br>HD-1 | 1634<br>HD-1 | 2040<br>HD-1 |
| 0.8                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 270<br>HD-1 | 647<br>HD-1 | 1025<br>HD-1 | 1402<br>HD-1 | 1779<br>HD-1 |
| 0.7                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 125<br>HD-1 | 473<br>HD-1 | 822<br>HD-1  | 1170<br>HD-1 | 1518<br>HD-1 |
| 0.6                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 299<br>HD-1 | 618<br>HD-1  | 938<br>HD-1  | 1257<br>HD-1 |
| 0.5                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 125<br>HD-1 | 415<br>HD-1  | 706<br>HD-1  | 996<br>HD-1  |
| 0.4                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 212<br>HD-1  | 473<br>HD-1  | 735<br>HD-1  |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 9<br>HD-1    | 241<br>HD-1  | 473<br>HD-1  |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 9<br>HD-1    | 212<br>HD-1  |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |



**TABLE 4.3.185: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 0.70 | Weight | 3600 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|-------------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                         | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                     | 151<br>150FS-33-50      | 189<br>150FS-33-50 | 227<br>150FS-33-50 | 265<br>150FS-33-50 | 302<br>150FS-33-50 | 378<br>150FS-33-50 | 454<br>150FS-33-50 | 529<br>200FS-33-50 |
| 0.9                     | 141<br>150FS-33-50      | 176<br>150FS-33-50 | 212<br>150FS-33-50 | 247<br>150FS-33-50 | 282<br>150FS-33-50 | 353<br>150FS-33-50 | 423<br>150FS-33-50 | 494<br>200FS-33-50 |
| 0.8                     | 131<br>150FS-33-50      | 164<br>150FS-33-50 | 197<br>150FS-33-50 | 229<br>150FS-33-50 | 262<br>150FS-33-50 | 328<br>150FS-33-50 | 393<br>150FS-33-50 | 459<br>150FS-33-50 |
| 0.7                     | 121<br>150FS-33-50      | 151<br>150FS-33-50 | 181<br>150FS-33-50 | 212<br>150FS-33-50 | 242<br>150FS-33-50 | 302<br>150FS-33-50 | 363<br>150FS-33-50 | 423<br>150FS-33-50 |
| 0.6                     | 111<br>150FS-33-50      | 139<br>150FS-33-50 | 166<br>150FS-33-50 | 194<br>150FS-33-50 | 222<br>150FS-33-50 | 277<br>150FS-33-50 | 333<br>150FS-33-50 | 388<br>150FS-33-50 |
| 0.5                     | 101<br>150FS-33-50      | 126<br>150FS-33-50 | 151<br>150FS-33-50 | 176<br>150FS-33-50 | 202<br>150FS-33-50 | 252<br>150FS-33-50 | 302<br>150FS-33-50 | 353<br>150FS-33-50 |
| 0.4                     | 91<br>150FS-33-50       | 113<br>150FS-33-50 | 136<br>150FS-33-50 | 159<br>150FS-33-50 | 181<br>150FS-33-50 | 227<br>150FS-33-50 | 272<br>150FS-33-50 | 318<br>150FS-33-50 |
| 0.3                     | 81<br>150FS-33-50       | 101<br>150FS-33-50 | 121<br>150FS-33-50 | 141<br>150FS-33-50 | 161<br>150FS-33-50 | 202<br>150FS-33-50 | 242<br>150FS-33-50 | 282<br>150FS-33-50 |
| 0.2                     | 71<br>150FS-33-50       | 88<br>150FS-33-50  | 106<br>150FS-33-50 | 123<br>150FS-33-50 | 141<br>150FS-33-50 | 176<br>150FS-33-50 | 212<br>150FS-33-50 | 247<br>150FS-33-50 |
| 0.1                     | 60<br>150FS-33-50       | 76<br>150FS-33-50  | 91<br>150FS-33-50  | 106<br>150FS-33-50 | 121<br>150FS-33-50 | 151<br>150FS-33-50 | 181<br>150FS-33-50 | 212<br>150FS-33-50 |
| 0.0                     | 53<br>150FS-33-50       | 66<br>150FS-33-50  | 79<br>150FS-33-50  | 93<br>150FS-33-50  | 106<br>150FS-33-50 | 132<br>150FS-33-50 | 159<br>150FS-33-50 | 185<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |           |             |             |              |              |              |              |
|-------------------------|----------------------------|-----------|-------------|-------------|--------------|--------------|--------------|--------------|
|                         | 0.50                       | 0.75      | 1.00        | 1.25        | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                     | 0<br>HD-0                  | 0<br>HD-0 | 133<br>HD-1 | 593<br>HD-1 | 1054<br>HD-1 | 1515<br>HD-1 | 1976<br>HD-1 | 2436<br>HD-1 |
| 0.9                     | 0<br>HD-0                  | 0<br>HD-0 | 10<br>HD-1  | 440<br>HD-1 | 870<br>HD-1  | 1300<br>HD-1 | 1730<br>HD-1 | 2160<br>HD-1 |
| 0.8                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 286<br>HD-1 | 686<br>HD-1  | 1085<br>HD-1 | 1484<br>HD-1 | 1883<br>HD-1 |
| 0.7                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 133<br>HD-1 | 501<br>HD-1  | 870<br>HD-1  | 1238<br>HD-1 | 1607<br>HD-1 |
| 0.6                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 317<br>HD-1  | 655<br>HD-1  | 993<br>HD-1  | 1331<br>HD-1 |
| 0.5                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 133<br>HD-1  | 440<br>HD-1  | 747<br>HD-1  | 1054<br>HD-1 |
| 0.4                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 225<br>HD-1  | 501<br>HD-1  | 778<br>HD-1  |
| 0.3                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 10<br>HD-1   | 256<br>HD-1  | 501<br>HD-1  |
| 0.2                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 10<br>HD-1   | 225<br>HD-1  |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |



**TABLE 4.3.186: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                 |          |      |        |          |
|--------------------|------|----|-----------------|----------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | ( $I_p = 1.5$ ) | $S_{DS}$ | 0.70 | Weight | 3800 lbs |
|--------------------|------|----|-----------------|----------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 160<br>150FS-33-50      | 200<br>150FS-33-50 | 239<br>150FS-33-50 | 279<br>150FS-33-50 | 319<br>150FS-33-50 | 399<br>150FS-33-50 | 479<br>200FS-33-50 | 559<br>200FS-33-50 |
| 0.9                  | 149<br>150FS-33-50      | 186<br>150FS-33-50 | 223<br>150FS-33-50 | 261<br>150FS-33-50 | 298<br>150FS-33-50 | 372<br>150FS-33-50 | 447<br>150FS-33-50 | 521<br>200FS-33-50 |
| 0.8                  | 138<br>150FS-33-50      | 173<br>150FS-33-50 | 207<br>150FS-33-50 | 242<br>150FS-33-50 | 277<br>150FS-33-50 | 346<br>150FS-33-50 | 415<br>150FS-33-50 | 484<br>200FS-33-50 |
| 0.7                  | 128<br>150FS-33-50      | 160<br>150FS-33-50 | 192<br>150FS-33-50 | 223<br>150FS-33-50 | 255<br>150FS-33-50 | 319<br>150FS-33-50 | 383<br>150FS-33-50 | 447<br>150FS-33-50 |
| 0.6                  | 117<br>150FS-33-50      | 146<br>150FS-33-50 | 176<br>150FS-33-50 | 205<br>150FS-33-50 | 234<br>150FS-33-50 | 293<br>150FS-33-50 | 351<br>150FS-33-50 | 410<br>150FS-33-50 |
| 0.5                  | 106<br>150FS-33-50      | 133<br>150FS-33-50 | 160<br>150FS-33-50 | 186<br>150FS-33-50 | 213<br>150FS-33-50 | 266<br>150FS-33-50 | 319<br>150FS-33-50 | 372<br>150FS-33-50 |
| 0.4                  | 96<br>150FS-33-50       | 120<br>150FS-33-50 | 144<br>150FS-33-50 | 168<br>150FS-33-50 | 192<br>150FS-33-50 | 239<br>150FS-33-50 | 287<br>150FS-33-50 | 335<br>150FS-33-50 |
| 0.3                  | 85<br>150FS-33-50       | 106<br>150FS-33-50 | 128<br>150FS-33-50 | 149<br>150FS-33-50 | 170<br>150FS-33-50 | 213<br>150FS-33-50 | 255<br>150FS-33-50 | 298<br>150FS-33-50 |
| 0.2                  | 74<br>150FS-33-50       | 93<br>150FS-33-50  | 112<br>150FS-33-50 | 130<br>150FS-33-50 | 149<br>150FS-33-50 | 186<br>150FS-33-50 | 223<br>150FS-33-50 | 261<br>150FS-33-50 |
| 0.1                  | 64<br>150FS-33-50       | 80<br>150FS-33-50  | 96<br>150FS-33-50  | 112<br>150FS-33-50 | 128<br>150FS-33-50 | 160<br>150FS-33-50 | 192<br>150FS-33-50 | 223<br>150FS-33-50 |
| 0.0                  | 56<br>150FS-33-50       | 70<br>150FS-33-50  | 84<br>150FS-33-50  | 98<br>150FS-33-50  | 112<br>150FS-33-50 | 140<br>150FS-33-50 | 168<br>150FS-33-50 | 196<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |           |             |             |              |              |              |              |
|----------------------|----------------------------|-----------|-------------|-------------|--------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75      | 1.00        | 1.25        | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                  | 0<br>HD-0                  | 0<br>HD-0 | 140<br>HD-1 | 626<br>HD-1 | 1113<br>HD-1 | 1599<br>HD-1 | 2085<br>HD-1 | 2572<br>HD-1 |
| 0.9                  | 0<br>HD-0                  | 0<br>HD-0 | 10<br>HD-1  | 464<br>HD-1 | 918<br>HD-1  | 1372<br>HD-1 | 1826<br>HD-1 | 2280<br>HD-1 |
| 0.8                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 302<br>HD-1 | 724<br>HD-1  | 1145<br>HD-1 | 1567<br>HD-1 | 1988<br>HD-1 |
| 0.7                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 140<br>HD-1 | 529<br>HD-1  | 918<br>HD-1  | 1307<br>HD-1 | 1696<br>HD-1 |
| 0.6                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 335<br>HD-1  | 691<br>HD-1  | 1048<br>HD-1 | 1404<br>HD-1 |
| 0.5                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 140<br>HD-1  | 464<br>HD-1  | 789<br>HD-1  | 1113<br>HD-1 |
| 0.4                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 237<br>HD-1  | 529<br>HD-1  | 821<br>HD-1  |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 10<br>HD-1   | 270<br>HD-1  | 529<br>HD-1  |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 10<br>HD-1   | 237<br>HD-1  |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |





**TABLE 4.3.187: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 0.70 | Weight | 4000 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 168<br>150FS-33-50      | 210<br>150FS-33-50 | 252<br>150FS-33-50 | 294<br>150FS-33-50 | 336<br>150FS-33-50 | 420<br>150FS-33-50 | 504<br>200FS-33-50 | 588<br>200FS-33-50 |
| 0.9                  | 157<br>150FS-33-50      | 196<br>150FS-33-50 | 235<br>150FS-33-50 | 274<br>150FS-33-50 | 314<br>150FS-33-50 | 392<br>150FS-33-50 | 470<br>200FS-33-50 | 549<br>200FS-33-50 |
| 0.8                  | 146<br>150FS-33-50      | 182<br>150FS-33-50 | 218<br>150FS-33-50 | 255<br>150FS-33-50 | 291<br>150FS-33-50 | 364<br>150FS-33-50 | 437<br>150FS-33-50 | 510<br>200FS-33-50 |
| 0.7                  | 134<br>150FS-33-50      | 168<br>150FS-33-50 | 202<br>150FS-33-50 | 235<br>150FS-33-50 | 269<br>150FS-33-50 | 336<br>150FS-33-50 | 403<br>150FS-33-50 | 470<br>150FS-33-50 |
| 0.6                  | 123<br>150FS-33-50      | 154<br>150FS-33-50 | 185<br>150FS-33-50 | 216<br>150FS-33-50 | 246<br>150FS-33-50 | 308<br>150FS-33-50 | 370<br>150FS-33-50 | 431<br>150FS-33-50 |
| 0.5                  | 112<br>150FS-33-50      | 140<br>150FS-33-50 | 168<br>150FS-33-50 | 196<br>150FS-33-50 | 224<br>150FS-33-50 | 280<br>150FS-33-50 | 336<br>150FS-33-50 | 392<br>150FS-33-50 |
| 0.4                  | 101<br>150FS-33-50      | 126<br>150FS-33-50 | 151<br>150FS-33-50 | 176<br>150FS-33-50 | 202<br>150FS-33-50 | 252<br>150FS-33-50 | 302<br>150FS-33-50 | 353<br>150FS-33-50 |
| 0.3                  | 90<br>150FS-33-50       | 112<br>150FS-33-50 | 134<br>150FS-33-50 | 157<br>150FS-33-50 | 179<br>150FS-33-50 | 224<br>150FS-33-50 | 269<br>150FS-33-50 | 314<br>150FS-33-50 |
| 0.2                  | 78<br>150FS-33-50       | 98<br>150FS-33-50  | 118<br>150FS-33-50 | 137<br>150FS-33-50 | 157<br>150FS-33-50 | 196<br>150FS-33-50 | 235<br>150FS-33-50 | 274<br>150FS-33-50 |
| 0.1                  | 67<br>150FS-33-50       | 84<br>150FS-33-50  | 101<br>150FS-33-50 | 118<br>150FS-33-50 | 134<br>150FS-33-50 | 168<br>150FS-33-50 | 202<br>150FS-33-50 | 235<br>150FS-33-50 |
| 0.0                  | 59<br>150FS-33-50       | 74<br>150FS-33-50  | 88<br>150FS-33-50  | 103<br>150FS-33-50 | 118<br>150FS-33-50 | 147<br>150FS-33-50 | 176<br>150FS-33-50 | 206<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |           |             |             |              |              |              |              |
|----------------------|----------------------------|-----------|-------------|-------------|--------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75      | 1.00        | 1.25        | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                  | 0<br>HD-0                  | 0<br>HD-0 | 148<br>HD-1 | 659<br>HD-1 | 1171<br>HD-1 | 1683<br>HD-1 | 2195<br>HD-1 | 2707<br>HD-1 |
| 0.9                  | 0<br>HD-0                  | 0<br>HD-0 | 11<br>HD-1  | 489<br>HD-1 | 967<br>HD-1  | 1444<br>HD-1 | 1922<br>HD-1 | 2400<br>HD-1 |
| 0.8                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 318<br>HD-1 | 762<br>HD-1  | 1205<br>HD-1 | 1649<br>HD-1 | 2093<br>HD-1 |
| 0.7                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 148<br>HD-1 | 557<br>HD-1  | 967<br>HD-1  | 1376<br>HD-1 | 1786<br>HD-1 |
| 0.6                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 352<br>HD-1  | 728<br>HD-1  | 1103<br>HD-1 | 1478<br>HD-1 |
| 0.5                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 148<br>HD-1  | 489<br>HD-1  | 830<br>HD-1  | 1171<br>HD-1 |
| 0.4                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 250<br>HD-1  | 557<br>HD-1  | 864<br>HD-1  |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 11<br>HD-1   | 284<br>HD-1  | 557<br>HD-1  |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 11<br>HD-1   | 250<br>HD-1  |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |



**TABLE 4.3.188: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |            |                 |      |        |          |
|--------------------|------|----|------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (lp = 1.5) | S <sub>DS</sub> | 0.70 | Weight | 4200 lbs |
|--------------------|------|----|------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|-------------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                         | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                     | 176<br>150FS-33-50      | 221<br>150FS-33-50 | 265<br>150FS-33-50 | 309<br>150FS-33-50 | 353<br>150FS-33-50 | 441<br>150FS-33-50 | 529<br>200FS-33-50 | 617<br>200FS-33-50 |
| 0.9                     | 165<br>150FS-33-50      | 206<br>150FS-33-50 | 247<br>150FS-33-50 | 288<br>150FS-33-50 | 329<br>150FS-33-50 | 412<br>150FS-33-50 | 494<br>200FS-33-50 | 576<br>200FS-33-50 |
| 0.8                     | 153<br>150FS-33-50      | 191<br>150FS-33-50 | 229<br>150FS-33-50 | 268<br>150FS-33-50 | 306<br>150FS-33-50 | 382<br>150FS-33-50 | 459<br>150FS-33-50 | 535<br>200FS-33-50 |
| 0.7                     | 141<br>150FS-33-50      | 176<br>150FS-33-50 | 212<br>150FS-33-50 | 247<br>150FS-33-50 | 282<br>150FS-33-50 | 353<br>150FS-33-50 | 423<br>150FS-33-50 | 494<br>200FS-33-50 |
| 0.6                     | 129<br>150FS-33-50      | 162<br>150FS-33-50 | 194<br>150FS-33-50 | 226<br>150FS-33-50 | 259<br>150FS-33-50 | 323<br>150FS-33-50 | 388<br>150FS-33-50 | 453<br>150FS-33-50 |
| 0.5                     | 118<br>150FS-33-50      | 147<br>150FS-33-50 | 176<br>150FS-33-50 | 206<br>150FS-33-50 | 235<br>150FS-33-50 | 294<br>150FS-33-50 | 353<br>150FS-33-50 | 412<br>150FS-33-50 |
| 0.4                     | 106<br>150FS-33-50      | 132<br>150FS-33-50 | 159<br>150FS-33-50 | 185<br>150FS-33-50 | 212<br>150FS-33-50 | 265<br>150FS-33-50 | 318<br>150FS-33-50 | 370<br>150FS-33-50 |
| 0.3                     | 94<br>150FS-33-50       | 118<br>150FS-33-50 | 144<br>150FS-33-50 | 165<br>150FS-33-50 | 188<br>150FS-33-50 | 235<br>150FS-33-50 | 282<br>150FS-33-50 | 329<br>150FS-33-50 |
| 0.2                     | 82<br>150FS-33-50       | 103<br>150FS-33-50 | 123<br>150FS-33-50 | 144<br>150FS-33-50 | 165<br>150FS-33-50 | 206<br>150FS-33-50 | 247<br>150FS-33-50 | 288<br>150FS-33-50 |
| 0.1                     | 71<br>150FS-33-50       | 88<br>150FS-33-50  | 106<br>150FS-33-50 | 123<br>150FS-33-50 | 141<br>150FS-33-50 | 176<br>150FS-33-50 | 212<br>150FS-33-50 | 247<br>150FS-33-50 |
| 0.0                     | 62<br>150FS-33-50       | 77<br>150FS-33-50  | 93<br>150FS-33-50  | 108<br>150FS-33-50 | 123<br>150FS-33-50 | 154<br>150FS-33-50 | 185<br>150FS-33-50 | 216<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |           |             |             |              |              |              |              |
|-------------------------|----------------------------|-----------|-------------|-------------|--------------|--------------|--------------|--------------|
|                         | 0.50                       | 0.75      | 1.00        | 1.25        | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                     | 0<br>HD-0                  | 0<br>HD-0 | 155<br>HD-1 | 692<br>HD-1 | 1230<br>HD-1 | 1767<br>HD-1 | 2305<br>HD-1 | 2842<br>HD-1 |
| 0.9                     | 0<br>HD-0                  | 0<br>HD-0 | 12<br>HD-1  | 513<br>HD-1 | 1015<br>HD-1 | 1516<br>HD-1 | 2018<br>HD-1 | 2520<br>HD-1 |
| 0.8                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 334<br>HD-1 | 800<br>HD-1  | 1266<br>HD-1 | 1731<br>HD-1 | 2197<br>HD-1 |
| 0.7                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 195<br>HD-1 | 585<br>HD-1  | 1015<br>HD-1 | 1445<br>HD-1 | 1875<br>HD-1 |
| 0.6                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 370<br>HD-1  | 764<br>HD-1  | 1158<br>HD-1 | 1552<br>HD-1 |
| 0.5                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 155<br>HD-1  | 513<br>HD-1  | 872<br>HD-1  | 1230<br>HD-1 |
| 0.4                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 262<br>HD-1  | 585<br>HD-1  | 907<br>HD-1  |
| 0.3                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 12<br>HD-1   | 298<br>HD-1  | 585<br>HD-1  |
| 0.2                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 12<br>HD-1   | 262<br>HD-1  |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |



**TABLE 4.3.189: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |            |                 |      |        |          |
|--------------------|------|----|------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (Ip = 1.5) | S <sub>DS</sub> | 0.70 | Weight | 4400 lbs |
|--------------------|------|----|------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 185<br>150FS-33-50      | 231<br>150FS-33-50 | 277<br>150FS-33-50 | 323<br>150FS-33-50 | 370<br>150FS-33-50 | 462<br>200FS-33-50 | 554<br>200FS-33-50 | 647<br>250FS-33-50 |
| 0.9                  | 172<br>150FS-33-50      | 216<br>150FS-33-50 | 259<br>150FS-33-50 | 302<br>150FS-33-50 | 345<br>150FS-33-50 | 431<br>150FS-33-50 | 517<br>200FS-33-50 | 604<br>200FS-33-50 |
| 0.8                  | 160<br>150FS-33-50      | 200<br>150FS-33-50 | 240<br>150FS-33-50 | 280<br>150FS-33-50 | 320<br>150FS-33-50 | 400<br>150FS-33-50 | 480<br>200FS-33-50 | 561<br>200FS-33-50 |
| 0.7                  | 148<br>150FS-33-50      | 185<br>150FS-33-50 | 222<br>150FS-33-50 | 259<br>150FS-33-50 | 296<br>150FS-33-50 | 370<br>150FS-33-50 | 444<br>150FS-33-50 | 517<br>200FS-33-50 |
| 0.6                  | 136<br>150FS-33-50      | 169<br>150FS-33-50 | 203<br>150FS-33-50 | 237<br>150FS-33-50 | 271<br>150FS-33-50 | 339<br>150FS-33-50 | 407<br>150FS-33-50 | 474<br>150FS-33-50 |
| 0.5                  | 123<br>150FS-33-50      | 154<br>150FS-33-50 | 185<br>150FS-33-50 | 216<br>150FS-33-50 | 246<br>150FS-33-50 | 308<br>150FS-33-50 | 370<br>150FS-33-50 | 431<br>150FS-33-50 |
| 0.4                  | 111<br>150FS-33-50      | 139<br>150FS-33-50 | 166<br>150FS-33-50 | 194<br>150FS-33-50 | 222<br>150FS-33-50 | 277<br>150FS-33-50 | 333<br>150FS-33-50 | 388<br>150FS-33-50 |
| 0.3                  | 99<br>150FS-33-50       | 123<br>150FS-33-50 | 148<br>150FS-33-50 | 172<br>150FS-33-50 | 197<br>150FS-33-50 | 246<br>150FS-33-50 | 296<br>150FS-33-50 | 345<br>150FS-33-50 |
| 0.2                  | 86<br>150FS-33-50       | 108<br>150FS-33-50 | 129<br>150FS-33-50 | 151<br>150FS-33-50 | 172<br>150FS-33-50 | 216<br>150FS-33-50 | 259<br>150FS-33-50 | 302<br>150FS-33-50 |
| 0.1                  | 74<br>150FS-33-50       | 92<br>150FS-33-50  | 111<br>150FS-33-50 | 129<br>150FS-33-50 | 148<br>150FS-33-50 | 185<br>150FS-33-50 | 222<br>150FS-33-50 | 259<br>150FS-33-50 |
| 0.0                  | 65<br>150FS-33-50       | 81<br>150FS-33-50  | 97<br>150FS-33-50  | 113<br>150FS-33-50 | 129<br>150FS-33-50 | 162<br>150FS-33-50 | 194<br>150FS-33-50 | 226<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |           |             |             |              |              |              |              |
|----------------------|----------------------------|-----------|-------------|-------------|--------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75      | 1.00        | 1.25        | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                  | 0<br>HD-0                  | 0<br>HD-0 | 162<br>HD-1 | 725<br>HD-1 | 1288<br>HD-1 | 1854<br>HD-1 | 2415<br>HD-1 | 2978<br>HD-1 |
| 0.9                  | 0<br>HD-0                  | 0<br>HD-0 | 12<br>HD-1  | 538<br>HD-1 | 1063<br>HD-1 | 1589<br>HD-1 | 2114<br>HD-1 | 2640<br>HD-1 |
| 0.8                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 350<br>HD-1 | 838<br>HD-1  | 1326<br>HD-1 | 1814<br>HD-1 | 2302<br>HD-1 |
| 0.7                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 162<br>HD-1 | 613<br>HD-1  | 1063<br>HD-1 | 1514<br>HD-1 | 1964<br>HD-1 |
| 0.6                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 387<br>HD-1  | 800<br>HD-1  | 1213<br>HD-1 | 1626<br>HD-1 |
| 0.5                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 162<br>HD-1  | 538<br>HD-1  | 913<br>HD-1  | 1288<br>HD-1 |
| 0.4                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 275<br>HD-1  | 613<br>HD-1  | 951<br>HD-1  |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 12<br>HD-1   | 312<br>HD-1  | 613<br>HD-1  |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 12<br>HD-1   | 275<br>HD-1  |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |



**TABLE 4.3.190: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |            |                 |      |        |          |
|--------------------|------|----|------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (Ip = 1.5) | S <sub>DS</sub> | 0.70 | Weight | 4600 lbs |
|--------------------|------|----|------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|-------------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                         | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                     | 193<br>150FS-33-50      | 242<br>150FS-33-50 | 290<br>150FS-33-50 | 338<br>150FS-33-50 | 386<br>150FS-33-50 | 483<br>200FS-33-50 | 580<br>200FS-33-50 | 676<br>250FS-33-50 |
| 0.9                     | 180<br>150FS-33-50      | 225<br>150FS-33-50 | 270<br>150FS-33-50 | 316<br>150FS-33-50 | 361<br>150FS-33-50 | 451<br>150FS-33-50 | 541<br>200FS-33-50 | 631<br>200FS-33-50 |
| 0.8                     | 167<br>150FS-33-50      | 209<br>150FS-33-50 | 251<br>150FS-33-50 | 293<br>150FS-33-50 | 335<br>150FS-33-50 | 419<br>150FS-33-50 | 502<br>200FS-33-50 | 586<br>200FS-33-50 |
| 0.7                     | 155<br>150FS-33-50      | 193<br>150FS-33-50 | 232<br>150FS-33-50 | 270<br>150FS-33-50 | 309<br>150FS-33-50 | 386<br>150FS-33-50 | 464<br>150FS-33-50 | 541<br>200FS-33-50 |
| 0.6                     | 142<br>150FS-33-50      | 177<br>150FS-33-50 | 213<br>150FS-33-50 | 248<br>150FS-33-50 | 283<br>150FS-33-50 | 354<br>150FS-33-50 | 425<br>150FS-33-50 | 496<br>200FS-33-50 |
| 0.5                     | 129<br>150FS-33-50      | 161<br>150FS-33-50 | 193<br>150FS-33-50 | 225<br>150FS-33-50 | 258<br>150FS-33-50 | 322<br>150FS-33-50 | 386<br>150FS-33-50 | 451<br>150FS-33-50 |
| 0.4                     | 116<br>150FS-33-50      | 145<br>150FS-33-50 | 174<br>150FS-33-50 | 203<br>150FS-33-50 | 232<br>150FS-33-50 | 290<br>150FS-33-50 | 348<br>150FS-33-50 | 406<br>150FS-33-50 |
| 0.3                     | 103<br>150FS-33-50      | 129<br>150FS-33-50 | 155<br>150FS-33-50 | 180<br>150FS-33-50 | 206<br>150FS-33-50 | 258<br>150FS-33-50 | 309<br>150FS-33-50 | 361<br>150FS-33-50 |
| 0.2                     | 90<br>150FS-33-50       | 113<br>150FS-33-50 | 135<br>150FS-33-50 | 158<br>150FS-33-50 | 180<br>150FS-33-50 | 225<br>150FS-33-50 | 270<br>150FS-33-50 | 316<br>150FS-33-50 |
| 0.1                     | 77<br>150FS-33-50       | 97<br>150FS-33-50  | 116<br>150FS-33-50 | 135<br>150FS-33-50 | 155<br>150FS-33-50 | 193<br>150FS-33-50 | 232<br>150FS-33-50 | 270<br>150FS-33-50 |
| 0.0                     | 68<br>150FS-33-50       | 85<br>150FS-33-50  | 101<br>150FS-33-50 | 118<br>150FS-33-50 | 135<br>150FS-33-50 | 169<br>150FS-33-50 | 203<br>150FS-33-50 | 237<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |           |             |             |              |              |              |              |
|-------------------------|----------------------------|-----------|-------------|-------------|--------------|--------------|--------------|--------------|
|                         | 0.50                       | 0.75      | 1.00        | 1.25        | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                     | 0<br>HD-0                  | 0<br>HD-0 | 170<br>HD-1 | 758<br>HD-1 | 1347<br>HD-1 | 1936<br>HD-1 | 2524<br>HD-1 | 3113<br>HD-1 |
| 0.9                     | 0<br>HD-0                  | 0<br>HD-0 | 13<br>HD-1  | 562<br>HD-1 | 1111<br>HD-1 | 1661<br>HD-1 | 2210<br>HD-1 | 2760<br>HD-1 |
| 0.8                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 366<br>HD-1 | 876<br>HD-1  | 1386<br>HD-1 | 1896<br>HD-1 | 2407<br>HD-1 |
| 0.7                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 170<br>HD-1 | 641<br>HD-1  | 1111<br>HD-1 | 1582<br>HD-1 | 2053<br>HD-1 |
| 0.6                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 405<br>HD-1  | 837<br>HD-1  | 1268<br>HD-1 | 1700<br>HD-1 |
| 0.5                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 170<br>HD-1  | 562<br>HD-1  | 955<br>HD-1  | 1347<br>HD-1 |
| 0.4                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 287<br>HD-1  | 641<br>HD-1  | 994<br>HD-1  |
| 0.3                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 13<br>HD-1   | 327<br>HD-1  | 641<br>HD-1  |
| 0.2                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 13<br>HD-1   | 287<br>HD-1  |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |



**TABLE 4.3.191: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                 |          |      |        |          |
|--------------------|------|----|-----------------|----------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | ( $I_p = 1.5$ ) | $S_{DS}$ | 0.70 | Weight | 4800 lbs |
|--------------------|------|----|-----------------|----------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|-------------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                         | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                     | 202<br>150FS-33-50      | 252<br>150FS-33-50 | 302<br>150FS-33-50 | 353<br>150FS-33-50 | 403<br>150FS-33-50 | 504<br>200FS-33-50 | 605<br>200FS-33-50 | 706<br>250FS-33-50 |
| 0.9                     | 188<br>150FS-33-50      | 235<br>150FS-33-50 | 282<br>150FS-33-50 | 329<br>150FS-33-50 | 376<br>150FS-33-50 | 470<br>200FS-33-50 | 564<br>200FS-33-50 | 659<br>250FS-33-50 |
| 0.8                     | 175<br>150FS-33-50      | 218<br>150FS-33-50 | 262<br>150FS-33-50 | 306<br>150FS-33-50 | 349<br>150FS-33-50 | 437<br>150FS-33-50 | 524<br>200FS-33-50 | 612<br>200FS-33-50 |
| 0.7                     | 161<br>150FS-33-50      | 202<br>150FS-33-50 | 242<br>150FS-33-50 | 282<br>150FS-33-50 | 323<br>150FS-33-50 | 403<br>150FS-33-50 | 484<br>200FS-33-50 | 564<br>200FS-33-50 |
| 0.6                     | 148<br>150FS-33-50      | 185<br>150FS-33-50 | 222<br>150FS-33-50 | 259<br>150FS-33-50 | 296<br>150FS-33-50 | 370<br>150FS-33-50 | 444<br>150FS-33-50 | 517<br>200FS-33-50 |
| 0.5                     | 134<br>150FS-33-50      | 168<br>150FS-33-50 | 202<br>150FS-33-50 | 235<br>150FS-33-50 | 269<br>150FS-33-50 | 336<br>150FS-33-50 | 403<br>150FS-33-50 | 470<br>150FS-33-50 |
| 0.4                     | 121<br>150FS-33-50      | 151<br>150FS-33-50 | 181<br>150FS-33-50 | 212<br>150FS-33-50 | 242<br>150FS-33-50 | 302<br>150FS-33-50 | 363<br>150FS-33-50 | 423<br>150FS-33-50 |
| 0.3                     | 108<br>150FS-33-50      | 134<br>150FS-33-50 | 161<br>150FS-33-50 | 188<br>150FS-33-50 | 215<br>150FS-33-50 | 269<br>150FS-33-50 | 323<br>150FS-33-50 | 376<br>150FS-33-50 |
| 0.2                     | 94<br>150FS-33-50       | 118<br>150FS-33-50 | 141<br>150FS-33-50 | 165<br>150FS-33-50 | 188<br>150FS-33-50 | 235<br>150FS-33-50 | 282<br>150FS-33-50 | 329<br>150FS-33-50 |
| 0.1                     | 81<br>150FS-33-50       | 101<br>150FS-33-50 | 121<br>150FS-33-50 | 141<br>150FS-33-50 | 161<br>150FS-33-50 | 202<br>150FS-33-50 | 242<br>150FS-33-50 | 282<br>150FS-33-50 |
| 0.0                     | 71<br>150FS-33-50       | 88<br>150FS-33-50  | 106<br>150FS-33-50 | 123<br>150FS-33-50 | 141<br>150FS-33-50 | 176<br>150FS-33-50 | 212<br>150FS-33-50 | 247<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |           |             |             |              |              |              |              |
|-------------------------|----------------------------|-----------|-------------|-------------|--------------|--------------|--------------|--------------|
|                         | 0.50                       | 0.75      | 1.00        | 1.25        | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                     | 0<br>HD-0                  | 0<br>HD-0 | 177<br>HD-1 | 791<br>HD-1 | 1406<br>HD-1 | 2020<br>HD-1 | 2634<br>HD-1 | 3248<br>HD-2 |
| 0.9                     | 0<br>HD-0                  | 0<br>HD-0 | 13<br>HD-1  | 587<br>HD-1 | 1160<br>HD-1 | 1733<br>HD-1 | 2306<br>HD-1 | 2880<br>HD-1 |
| 0.8                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 382<br>HD-1 | 914<br>HD-1  | 1446<br>HD-1 | 1979<br>HD-1 | 2511<br>HD-1 |
| 0.7                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 177<br>HD-1 | 668<br>HD-1  | 1160<br>HD-1 | 1651<br>HD-1 | 2143<br>HD-1 |
| 0.6                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 423<br>HD-1  | 873<br>HD-1  | 1324<br>HD-1 | 1774<br>HD-1 |
| 0.5                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 177<br>HD-1  | 587<br>HD-1  | 996<br>HD-1  | 1406<br>HD-1 |
| 0.4                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 300<br>HD-1  | 668<br>HD-1  | 1037<br>HD-1 |
| 0.3                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 13<br>HD-1   | 341<br>HD-1  | 668<br>HD-1  |
| 0.2                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 13<br>HD-1   | 300<br>HD-1  |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |



**TABLE 4.3.192: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 0.70 | Weight | 5000 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 210<br>150FS-33-50      | 263<br>150FS-33-50 | 315<br>150FS-33-50 | 368<br>150FS-33-50 | 420<br>150FS-33-50 | 525<br>200FS-33-50 | 630<br>250FS-33-50 | 735<br>250FS-33-50 |
| 0.9                  | 196<br>150FS-33-50      | 245<br>150FS-33-50 | 294<br>150FS-33-50 | 343<br>150FS-33-50 | 392<br>150FS-33-50 | 490<br>200FS-33-50 | 588<br>200FS-33-50 | 686<br>250FS-33-50 |
| 0.8                  | 182<br>150FS-33-50      | 228<br>150FS-33-50 | 273<br>150FS-33-50 | 319<br>150FS-33-50 | 364<br>150FS-33-50 | 455<br>150FS-33-50 | 546<br>200FS-33-50 | 637<br>250FS-33-50 |
| 0.7                  | 168<br>150FS-33-50      | 210<br>150FS-33-50 | 252<br>150FS-33-50 | 294<br>150FS-33-50 | 336<br>150FS-33-50 | 420<br>150FS-33-50 | 504<br>200FS-33-50 | 588<br>200FS-33-50 |
| 0.6                  | 154<br>150FS-33-50      | 193<br>150FS-33-50 | 231<br>150FS-33-50 | 270<br>150FS-33-50 | 308<br>150FS-33-50 | 385<br>150FS-33-50 | 462<br>150FS-33-50 | 539<br>200FS-33-50 |
| 0.5                  | 140<br>150FS-33-50      | 175<br>150FS-33-50 | 210<br>150FS-33-50 | 245<br>150FS-33-50 | 280<br>150FS-33-50 | 350<br>150FS-33-50 | 420<br>150FS-33-50 | 490<br>200FS-33-50 |
| 0.4                  | 126<br>150FS-33-50      | 158<br>150FS-33-50 | 189<br>150FS-33-50 | 221<br>150FS-33-50 | 252<br>150FS-33-50 | 315<br>150FS-33-50 | 378<br>150FS-33-50 | 441<br>150FS-33-50 |
| 0.3                  | 112<br>150FS-33-50      | 140<br>150FS-33-50 | 168<br>150FS-33-50 | 196<br>150FS-33-50 | 224<br>150FS-33-50 | 280<br>150FS-33-50 | 336<br>150FS-33-50 | 392<br>150FS-33-50 |
| 0.2                  | 98<br>150FS-33-50       | 123<br>150FS-33-50 | 147<br>150FS-33-50 | 172<br>150FS-33-50 | 196<br>150FS-33-50 | 245<br>150FS-33-50 | 294<br>150FS-33-50 | 343<br>150FS-33-50 |
| 0.1                  | 84<br>150FS-33-50       | 105<br>150FS-33-50 | 126<br>150FS-33-50 | 147<br>150FS-33-50 | 168<br>150FS-33-50 | 210<br>150FS-33-50 | 252<br>150FS-33-50 | 294<br>150FS-33-50 |
| 0.0                  | 74<br>150FS-33-50       | 92<br>150FS-33-50  | 110<br>150FS-33-50 | 129<br>150FS-33-50 | 147<br>150FS-33-50 | 184<br>150FS-33-50 | 221<br>150FS-33-50 | 257<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |           |             |             |              |              |              |              |
|----------------------|----------------------------|-----------|-------------|-------------|--------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75      | 1.00        | 1.25        | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                  | 0<br>HD-0                  | 0<br>HD-0 | 184<br>HD-1 | 824<br>HD-1 | 1464<br>HD-1 | 2104<br>HD-1 | 2744<br>HD-1 | 3384<br>HD-2 |
| 0.9                  | 0<br>HD-0                  | 0<br>HD-0 | 14<br>HD-1  | 611<br>HD-1 | 1208<br>HD-1 | 1805<br>HD-1 | 2403<br>HD-1 | 3000<br>HD-1 |
| 0.8                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 398<br>HD-1 | 952<br>HD-1  | 1507<br>HD-1 | 2061<br>HD-1 | 2616<br>HD-1 |
| 0.7                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 184<br>HD-1 | 696<br>HD-1  | 1208<br>HD-1 | 1720<br>HD-1 | 2232<br>HD-1 |
| 0.6                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 440<br>HD-1  | 910<br>HD-1  | 1379<br>HD-1 | 1848<br>HD-1 |
| 0.5                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 184<br>HD-1  | 611<br>HD-1  | 1038<br>HD-1 | 1464<br>HD-1 |
| 0.4                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 312<br>HD-1  | 696<br>HD-1  | 1080<br>HD-1 |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 14<br>HD-1   | 355<br>HD-1  | 696<br>HD-1  |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 14<br>HD-1   | 312<br>HD-1  |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0 | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    |



**TABLE 4.3.193: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |            |                 |      |        |          |
|--------------------|------|----|------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (Ip = 1.5) | S <sub>DS</sub> | 1.00 | Weight | 2000 lbs |
|--------------------|------|----|------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 120<br>150FS-33-50      | 150<br>150FS-33-50 | 180<br>150FS-33-50 | 210<br>150FS-33-50 | 240<br>150FS-33-50 | 300<br>150FS-33-50 | 360<br>150FS-33-50 | 420<br>150FS-33-50 |
| 0.9                  | 112<br>150FS-33-50      | 140<br>150FS-33-50 | 168<br>150FS-33-50 | 196<br>150FS-33-50 | 224<br>150FS-33-50 | 280<br>150FS-33-50 | 336<br>150FS-33-50 | 392<br>150FS-33-50 |
| 0.8                  | 104<br>150FS-33-50      | 130<br>150FS-33-50 | 156<br>150FS-33-50 | 182<br>150FS-33-50 | 208<br>150FS-33-50 | 260<br>150FS-33-50 | 312<br>150FS-33-50 | 364<br>150FS-33-50 |
| 0.7                  | 96<br>150FS-33-50       | 120<br>150FS-33-50 | 144<br>150FS-33-50 | 168<br>150FS-33-50 | 192<br>150FS-33-50 | 240<br>150FS-33-50 | 288<br>150FS-33-50 | 336<br>150FS-33-50 |
| 0.6                  | 88<br>150FS-33-50       | 110<br>150FS-33-50 | 132<br>150FS-33-50 | 154<br>150FS-33-50 | 176<br>150FS-33-50 | 220<br>150FS-33-50 | 264<br>150FS-33-50 | 308<br>150FS-33-50 |
| 0.5                  | 80<br>150FS-33-50       | 100<br>150FS-33-50 | 120<br>150FS-33-50 | 140<br>150FS-33-50 | 160<br>150FS-33-50 | 200<br>150FS-33-50 | 240<br>150FS-33-50 | 280<br>150FS-33-50 |
| 0.4                  | 72<br>150FS-33-50       | 90<br>150FS-33-50  | 108<br>150FS-33-50 | 126<br>150FS-33-50 | 144<br>150FS-33-50 | 180<br>150FS-33-50 | 216<br>150FS-33-50 | 252<br>150FS-33-50 |
| 0.3                  | 64<br>150FS-33-50       | 80<br>150FS-33-50  | 96<br>150FS-33-50  | 112<br>150FS-33-50 | 128<br>150FS-33-50 | 160<br>150FS-33-50 | 192<br>150FS-33-50 | 224<br>150FS-33-50 |
| 0.2                  | 56<br>150FS-33-50       | 70<br>150FS-33-50  | 84<br>150FS-33-50  | 98<br>150FS-33-50  | 112<br>150FS-33-50 | 140<br>150FS-33-50 | 168<br>150FS-33-50 | 196<br>150FS-33-50 |
| 0.1                  | 48<br>150FS-33-50       | 60<br>150FS-33-50  | 72<br>150FS-33-50  | 84<br>150FS-33-50  | 96<br>150FS-33-50  | 120<br>150FS-33-50 | 144<br>150FS-33-50 | 168<br>150FS-33-50 |
| 0.0                  | 42<br>150FS-33-50       | 53<br>150FS-33-50  | 63<br>150FS-33-50  | 74<br>150FS-33-50  | 84<br>150FS-33-50  | 105<br>150FS-33-50 | 126<br>150FS-33-50 | 147<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |             |             |             |              |              |              |              |
|----------------------|----------------------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75        | 1.00        | 1.25        | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                  | 0<br>HD-0                  | 222<br>HD-1 | 588<br>HD-1 | 953<br>HD-1 | 1319<br>HD-1 | 1684<br>HD-1 | 2050<br>HD-1 | 2416<br>HD-1 |
| 0.9                  | 0<br>HD-0                  | 149<br>HD-1 | 490<br>HD-1 | 831<br>HD-1 | 1173<br>HD-1 | 1514<br>HD-1 | 1855<br>HD-1 | 2196<br>HD-1 |
| 0.8                  | 0<br>HD-0                  | 76<br>HD-1  | 393<br>HD-1 | 709<br>HD-1 | 1026<br>HD-1 | 1343<br>HD-1 | 1660<br>HD-1 | 1977<br>HD-1 |
| 0.7                  | 0<br>HD-0                  | 3<br>HD-1   | 295<br>HD-1 | 588<br>HD-1 | 880<br>HD-1  | 1173<br>HD-1 | 1465<br>HD-1 | 1758<br>HD-1 |
| 0.6                  | 0<br>HD-0                  | 0<br>HD-0   | 198<br>HD-1 | 466<br>HD-1 | 734<br>HD-1  | 1002<br>HD-1 | 1270<br>HD-1 | 1538<br>HD-1 |
| 0.5                  | 0<br>HD-0                  | 0<br>HD-0   | 100<br>HD-1 | 344<br>HD-1 | 588<br>HD-1  | 831<br>HD-1  | 1075<br>HD-1 | 1319<br>HD-1 |
| 0.4                  | 0<br>HD-0                  | 0<br>HD-0   | 3<br>HD-1   | 222<br>HD-1 | 441<br>HD-1  | 661<br>HD-1  | 880<br>HD-1  | 1099<br>HD-1 |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 100<br>HD-1 | 295<br>HD-1  | 490<br>HD-1  | 685<br>HD-1  | 880<br>HD-1  |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 149<br>HD-1  | 319<br>HD-1  | 490<br>HD-1  | 661<br>HD-1  |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 3<br>HD-1    | 149<br>HD-1  | 295<br>HD-1  | 441<br>HD-1  |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 21<br>HD-1   | 149<br>HD-1  | 277<br>HD-1  |



**TABLE 4.3.194: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |            |                 |      |        |          |
|--------------------|------|----|------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (Ip = 1.5) | S <sub>DS</sub> | 1.00 | Weight | 2200 lbs |
|--------------------|------|----|------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|-------------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                         | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                     | 132<br>150FS-33-50      | 165<br>150FS-33-50 | 198<br>150FS-33-50 | 231<br>150FS-33-50 | 264<br>150FS-33-50 | 330<br>150FS-33-50 | 396<br>150FS-33-50 | 462<br>150FS-33-50 |
| 0.9                     | 123<br>150FS-33-50      | 154<br>150FS-33-50 | 185<br>150FS-33-50 | 216<br>150FS-33-50 | 246<br>150FS-33-50 | 308<br>150FS-33-50 | 370<br>150FS-33-50 | 431<br>150FS-33-50 |
| 0.8                     | 114<br>150FS-33-50      | 143<br>150FS-33-50 | 172<br>150FS-33-50 | 200<br>150FS-33-50 | 229<br>150FS-33-50 | 286<br>150FS-33-50 | 343<br>150FS-33-50 | 400<br>150FS-33-50 |
| 0.7                     | 106<br>150FS-33-50      | 132<br>150FS-33-50 | 158<br>150FS-33-50 | 185<br>150FS-33-50 | 211<br>150FS-33-50 | 264<br>150FS-33-50 | 317<br>150FS-33-50 | 370<br>150FS-33-50 |
| 0.6                     | 97<br>150FS-33-50       | 121<br>150FS-33-50 | 145<br>150FS-33-50 | 169<br>150FS-33-50 | 194<br>150FS-33-50 | 242<br>150FS-33-50 | 290<br>150FS-33-50 | 339<br>150FS-33-50 |
| 0.5                     | 88<br>150FS-33-50       | 110<br>150FS-33-50 | 132<br>150FS-33-50 | 154<br>150FS-33-50 | 176<br>150FS-33-50 | 220<br>150FS-33-50 | 264<br>150FS-33-50 | 308<br>150FS-33-50 |
| 0.4                     | 79<br>150FS-33-50       | 99<br>150FS-33-50  | 119<br>150FS-33-50 | 139<br>150FS-33-50 | 158<br>150FS-33-50 | 198<br>150FS-33-50 | 238<br>150FS-33-50 | 277<br>150FS-33-50 |
| 0.3                     | 70<br>150FS-33-50       | 88<br>150FS-33-50  | 106<br>150FS-33-50 | 123<br>150FS-33-50 | 141<br>150FS-33-50 | 176<br>150FS-33-50 | 211<br>150FS-33-50 | 246<br>150FS-33-50 |
| 0.2                     | 62<br>150FS-33-50       | 77<br>150FS-33-50  | 92<br>150FS-33-50  | 108<br>150FS-33-50 | 123<br>150FS-33-50 | 154<br>150FS-33-50 | 185<br>150FS-33-50 | 216<br>150FS-33-50 |
| 0.1                     | 53<br>150FS-33-50       | 66<br>150FS-33-50  | 79<br>150FS-33-50  | 92<br>150FS-33-50  | 106<br>150FS-33-50 | 132<br>150FS-33-50 | 158<br>150FS-33-50 | 185<br>150FS-33-50 |
| 0.0                     | 46<br>150FS-33-50       | 58<br>150FS-33-50  | 69<br>150FS-33-50  | 81<br>150FS-33-50  | 92<br>150FS-33-50  | 116<br>150FS-33-50 | 139<br>150FS-33-50 | 162<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |             |             |              |              |              |              |              |
|-------------------------|----------------------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|
|                         | 0.50                       | 0.75        | 1.00        | 1.25         | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                     | 0<br>HD-0                  | 244<br>HD-1 | 646<br>HD-1 | 1048<br>HD-1 | 1451<br>HD-1 | 1853<br>HD-1 | 2255<br>HD-1 | 2657<br>HD-1 |
| 0.9                     | 0<br>HD-0                  | 164<br>HD-1 | 539<br>HD-1 | 914<br>HD-1  | 1290<br>HD-1 | 1665<br>HD-1 | 2041<br>HD-1 | 2416<br>HD-1 |
| 0.8                     | 0<br>HD-0                  | 83<br>HD-1  | 432<br>HD-1 | 780<br>HD-1  | 1129<br>HD-1 | 1477<br>HD-1 | 1826<br>HD-1 | 2175<br>HD-1 |
| 0.7                     | 0<br>HD-0                  | 3<br>HD-1   | 325<br>HD-1 | 646<br>HD-1  | 968<br>HD-1  | 1290<br>HD-1 | 1612<br>HD-1 | 1933<br>HD-1 |
| 0.6                     | 0<br>HD-0                  | 0<br>HD-0   | 217<br>HD-1 | 512<br>HD-1  | 807<br>HD-1  | 1102<br>HD-1 | 1397<br>HD-1 | 1692<br>HD-1 |
| 0.5                     | 0<br>HD-0                  | 0<br>HD-0   | 110<br>HD-1 | 378<br>HD-1  | 646<br>HD-1  | 914<br>HD-1  | 1183<br>HD-1 | 1451<br>HD-1 |
| 0.4                     | 0<br>HD-0                  | 0<br>HD-0   | 3<br>HD-1   | 244<br>HD-1  | 485<br>HD-1  | 727<br>HD-1  | 968<br>HD-1  | 1209<br>HD-1 |
| 0.3                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 110<br>HD-1  | 325<br>HD-1  | 539<br>HD-1  | 754<br>HD-1  | 968<br>HD-1  |
| 0.2                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 164<br>HD-1  | 351<br>HD-1  | 539<br>HD-1  | 727<br>HD-1  |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 3<br>HD-1    | 164<br>HD-1  | 325<br>HD-1  | 485<br>HD-1  |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 23<br>HD-1   | 164<br>HD-1  | 304<br>HD-1  |





**TABLE 4.3.195: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                 |          |      |        |          |
|--------------------|------|----|-----------------|----------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | ( $I_p = 1.5$ ) | $S_{DS}$ | 1.00 | Weight | 2400 lbs |
|--------------------|------|----|-----------------|----------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 144<br>150FS-33-50      | 180<br>150FS-33-50 | 216<br>150FS-33-50 | 252<br>150FS-33-50 | 288<br>150FS-33-50 | 360<br>150FS-33-50 | 432<br>150FS-33-50 | 504<br>200FS-33-50 |
| 0.9                  | 134<br>150FS-33-50      | 168<br>150FS-33-50 | 202<br>150FS-33-50 | 235<br>150FS-33-50 | 269<br>150FS-33-50 | 336<br>150FS-33-50 | 403<br>150FS-33-50 | 470<br>150FS-33-50 |
| 0.8                  | 125<br>150FS-33-50      | 156<br>150FS-33-50 | 187<br>150FS-33-50 | 218<br>150FS-33-50 | 250<br>150FS-33-50 | 312<br>150FS-33-50 | 374<br>150FS-33-50 | 437<br>150FS-33-50 |
| 0.7                  | 115<br>150FS-33-50      | 144<br>150FS-33-50 | 173<br>150FS-33-50 | 202<br>150FS-33-50 | 230<br>150FS-33-50 | 288<br>150FS-33-50 | 346<br>150FS-33-50 | 403<br>150FS-33-50 |
| 0.6                  | 106<br>150FS-33-50      | 132<br>150FS-33-50 | 158<br>150FS-33-50 | 185<br>150FS-33-50 | 211<br>150FS-33-50 | 264<br>150FS-33-50 | 317<br>150FS-33-50 | 370<br>150FS-33-50 |
| 0.5                  | 96<br>150FS-33-50       | 120<br>150FS-33-50 | 144<br>150FS-33-50 | 168<br>150FS-33-50 | 192<br>150FS-33-50 | 240<br>150FS-33-50 | 288<br>150FS-33-50 | 336<br>150FS-33-50 |
| 0.4                  | 86<br>150FS-33-50       | 108<br>150FS-33-50 | 130<br>150FS-33-50 | 151<br>150FS-33-50 | 173<br>150FS-33-50 | 216<br>150FS-33-50 | 259<br>150FS-33-50 | 302<br>150FS-33-50 |
| 0.3                  | 77<br>150FS-33-50       | 96<br>150FS-33-50  | 115<br>150FS-33-50 | 134<br>150FS-33-50 | 154<br>150FS-33-50 | 192<br>150FS-33-50 | 230<br>150FS-33-50 | 269<br>150FS-33-50 |
| 0.2                  | 67<br>150FS-33-50       | 84<br>150FS-33-50  | 101<br>150FS-33-50 | 118<br>150FS-33-50 | 134<br>150FS-33-50 | 168<br>150FS-33-50 | 202<br>150FS-33-50 | 235<br>150FS-33-50 |
| 0.1                  | 58<br>150FS-33-50       | 72<br>150FS-33-50  | 86<br>150FS-33-50  | 101<br>150FS-33-50 | 115<br>150FS-33-50 | 144<br>150FS-33-50 | 173<br>150FS-33-50 | 202<br>150FS-33-50 |
| 0.0                  | 50<br>150FS-33-50       | 63<br>150FS-33-50  | 76<br>150FS-33-50  | 88<br>150FS-33-50  | 101<br>150FS-33-50 | 126<br>150FS-33-50 | 151<br>150FS-33-50 | 176<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |             |             |              |              |              |              |              |
|----------------------|----------------------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75        | 1.00        | 1.25         | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                  | 0<br>HD-0                  | 266<br>HD-1 | 705<br>HD-1 | 1144<br>HD-1 | 1583<br>HD-1 | 2024<br>HD-1 | 2460<br>HD-1 | 2899<br>HD-1 |
| 0.9                  | 0<br>HD-0                  | 179<br>HD-1 | 588<br>HD-1 | 998<br>HD-1  | 1407<br>HD-1 | 1817<br>HD-1 | 2226<br>HD-1 | 2636<br>HD-1 |
| 0.8                  | 0<br>HD-0                  | 91<br>HD-1  | 471<br>HD-1 | 851<br>HD-1  | 1232<br>HD-1 | 1612<br>HD-1 | 1992<br>HD-1 | 2372<br>HD-1 |
| 0.7                  | 0<br>HD-0                  | 3<br>HD-1   | 354<br>HD-1 | 705<br>HD-1  | 1056<br>HD-1 | 1407<br>HD-1 | 1758<br>HD-1 | 2109<br>HD-1 |
| 0.6                  | 0<br>HD-0                  | 0<br>HD-0   | 237<br>HD-1 | 559<br>HD-1  | 881<br>HD-1  | 1202<br>HD-1 | 1524<br>HD-1 | 1846<br>HD-1 |
| 0.5                  | 0<br>HD-0                  | 0<br>HD-0   | 120<br>HD-1 | 413<br>HD-1  | 705<br>HD-1  | 998<br>HD-1  | 1290<br>HD-1 | 1583<br>HD-1 |
| 0.4                  | 0<br>HD-0                  | 0<br>HD-0   | 3<br>HD-1   | 266<br>HD-1  | 530<br>HD-1  | 793<br>HD-1  | 1056<br>HD-1 | 1319<br>HD-1 |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 120<br>HD-1  | 354<br>HD-1  | 588<br>HD-1  | 822<br>HD-1  | 1056<br>HD-1 |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 179<br>HD-1  | 383<br>HD-1  | 588<br>HD-1  | 793<br>HD-1  |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 3<br>HD-1    | 179<br>HD-1  | 354<br>HD-1  | 530<br>HD-1  |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 25<br>HD-1   | 179<br>HD-1  | 332<br>HD-1  |



**TABLE 4.3.196: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |            |                 |      |        |          |
|--------------------|------|----|------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (Ip = 1.5) | S <sub>DS</sub> | 1.00 | Weight | 2600 lbs |
|--------------------|------|----|------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|-------------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                         | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                     | 156<br>150FS-33-50      | 195<br>150FS-33-50 | 234<br>150FS-33-50 | 273<br>150FS-33-50 | 312<br>150FS-33-50 | 390<br>150FS-33-50 | 468<br>150FS-33-50 | 546<br>200FS-33-50 |
| 0.9                     | 146<br>150FS-33-50      | 182<br>150FS-33-50 | 218<br>150FS-33-50 | 255<br>150FS-33-50 | 291<br>150FS-33-50 | 364<br>150FS-33-50 | 437<br>150FS-33-50 | 510<br>200FS-33-50 |
| 0.8                     | 135<br>150FS-33-50      | 169<br>150FS-33-50 | 203<br>150FS-33-50 | 237<br>150FS-33-50 | 270<br>150FS-33-50 | 338<br>150FS-33-50 | 406<br>150FS-33-50 | 473<br>150FS-33-50 |
| 0.7                     | 125<br>150FS-33-50      | 156<br>150FS-33-50 | 187<br>150FS-33-50 | 218<br>150FS-33-50 | 250<br>150FS-33-50 | 312<br>150FS-33-50 | 374<br>150FS-33-50 | 437<br>150FS-33-50 |
| 0.6                     | 114<br>150FS-33-50      | 143<br>150FS-33-50 | 172<br>150FS-33-50 | 200<br>150FS-33-50 | 229<br>150FS-33-50 | 286<br>150FS-33-50 | 343<br>150FS-33-50 | 400<br>150FS-33-50 |
| 0.5                     | 104<br>150FS-33-50      | 130<br>150FS-33-50 | 156<br>150FS-33-50 | 182<br>150FS-33-50 | 208<br>150FS-33-50 | 260<br>150FS-33-50 | 312<br>150FS-33-50 | 364<br>150FS-33-50 |
| 0.4                     | 94<br>150FS-33-50       | 117<br>150FS-33-50 | 140<br>150FS-33-50 | 164<br>150FS-33-50 | 187<br>150FS-33-50 | 234<br>150FS-33-50 | 281<br>150FS-33-50 | 328<br>150FS-33-50 |
| 0.3                     | 83<br>150FS-33-50       | 104<br>150FS-33-50 | 125<br>150FS-33-50 | 146<br>150FS-33-50 | 166<br>150FS-33-50 | 208<br>150FS-33-50 | 250<br>150FS-33-50 | 291<br>150FS-33-50 |
| 0.2                     | 73<br>150FS-33-50       | 91<br>150FS-33-50  | 109<br>150FS-33-50 | 127<br>150FS-33-50 | 146<br>150FS-33-50 | 182<br>150FS-33-50 | 218<br>150FS-33-50 | 255<br>150FS-33-50 |
| 0.1                     | 62<br>150FS-33-50       | 78<br>150FS-33-50  | 94<br>150FS-33-50  | 109<br>150FS-33-50 | 125<br>150FS-33-50 | 156<br>150FS-33-50 | 187<br>150FS-33-50 | 218<br>150FS-33-50 |
| 0.0                     | 55<br>150FS-33-50       | 68<br>150FS-33-50  | 82<br>150FS-33-50  | 96<br>150FS-33-50  | 109<br>150FS-33-50 | 137<br>150FS-33-50 | 164<br>150FS-33-50 | 191<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |             |             |              |              |              |              |              |
|-------------------------|----------------------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|
|                         | 0.50                       | 0.75        | 1.00        | 1.25         | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                     | 0<br>HD-0                  | 288<br>HD-1 | 764<br>HD-1 | 1239<br>HD-1 | 1714<br>HD-1 | 2190<br>HD-1 | 2665<br>HD-1 | 3140<br>HD-1 |
| 0.9                     | 0<br>HD-0                  | 193<br>HD-1 | 637<br>HD-1 | 1081<br>HD-1 | 1524<br>HD-1 | 1968<br>HD-1 | 2412<br>HD-1 | 2855<br>HD-1 |
| 0.8                     | 0<br>HD-0                  | 98<br>HD-1  | 510<br>HD-1 | 922<br>HD-1  | 1334<br>HD-1 | 1746<br>HD-1 | 2158<br>HD-1 | 2570<br>HD-1 |
| 0.7                     | 0<br>HD-0                  | 3<br>HD-1   | 384<br>HD-1 | 764<br>HD-1  | 1144<br>HD-1 | 1524<br>HD-1 | 1905<br>HD-1 | 2285<br>HD-1 |
| 0.6                     | 0<br>HD-0                  | 0<br>HD-0   | 257<br>HD-1 | 605<br>HD-1  | 954<br>HD-1  | 1302<br>HD-1 | 1651<br>HD-1 | 2000<br>HD-1 |
| 0.5                     | 0<br>HD-0                  | 0<br>HD-0   | 130<br>HD-1 | 447<br>HD-1  | 764<br>HD-1  | 1081<br>HD-1 | 1398<br>HD-1 | 1714<br>HD-1 |
| 0.4                     | 0<br>HD-0                  | 0<br>HD-0   | 3<br>HD-1   | 288<br>HD-1  | 574<br>HD-1  | 859<br>HD-1  | 1144<br>HD-1 | 1429<br>HD-1 |
| 0.3                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 130<br>HD-1  | 384<br>HD-1  | 637<br>HD-1  | 891<br>HD-1  | 1144<br>HD-1 |
| 0.2                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 193<br>HD-1  | 415<br>HD-1  | 637<br>HD-1  | 859<br>HD-1  |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 3<br>HD-1    | 193<br>HD-1  | 384<br>HD-1  | 574<br>HD-1  |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 27<br>HD-1   | 193<br>HD-1  | 360<br>HD-1  |



**TABLE 4.3.197: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.00 | Weight | 2800 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 168<br>150FS-33-50      | 210<br>150FS-33-50 | 252<br>150FS-33-50 | 294<br>150FS-33-50 | 336<br>150FS-33-50 | 420<br>150FS-33-50 | 504<br>200FS-33-50 | 588<br>200FS-33-50 |
| 0.9                  | 157<br>150FS-33-50      | 196<br>150FS-33-50 | 235<br>150FS-33-50 | 274<br>150FS-33-50 | 314<br>150FS-33-50 | 392<br>150FS-33-50 | 470<br>200FS-33-50 | 549<br>200FS-33-50 |
| 0.8                  | 146<br>150FS-33-50      | 182<br>150FS-33-50 | 218<br>150FS-33-50 | 255<br>150FS-33-50 | 291<br>150FS-33-50 | 364<br>150FS-33-50 | 437<br>150FS-33-50 | 510<br>200FS-33-50 |
| 0.7                  | 134<br>150FS-33-50      | 168<br>150FS-33-50 | 202<br>150FS-33-50 | 235<br>150FS-33-50 | 269<br>150FS-33-50 | 336<br>150FS-33-50 | 403<br>150FS-33-50 | 470<br>150FS-33-50 |
| 0.6                  | 123<br>150FS-33-50      | 154<br>150FS-33-50 | 185<br>150FS-33-50 | 216<br>150FS-33-50 | 246<br>150FS-33-50 | 308<br>150FS-33-50 | 370<br>150FS-33-50 | 431<br>150FS-33-50 |
| 0.5                  | 112<br>150FS-33-50      | 140<br>150FS-33-50 | 168<br>150FS-33-50 | 196<br>150FS-33-50 | 224<br>150FS-33-50 | 280<br>150FS-33-50 | 336<br>150FS-33-50 | 392<br>150FS-33-50 |
| 0.4                  | 101<br>150FS-33-50      | 126<br>150FS-33-50 | 151<br>150FS-33-50 | 176<br>150FS-33-50 | 202<br>150FS-33-50 | 252<br>150FS-33-50 | 302<br>150FS-33-50 | 353<br>150FS-33-50 |
| 0.3                  | 90<br>150FS-33-50       | 112<br>150FS-33-50 | 134<br>150FS-33-50 | 157<br>150FS-33-50 | 179<br>150FS-33-50 | 224<br>150FS-33-50 | 269<br>150FS-33-50 | 314<br>150FS-33-50 |
| 0.2                  | 78<br>150FS-33-50       | 98<br>150FS-33-50  | 118<br>150FS-33-50 | 137<br>150FS-33-50 | 157<br>150FS-33-50 | 196<br>150FS-33-50 | 235<br>150FS-33-50 | 274<br>150FS-33-50 |
| 0.1                  | 67<br>150FS-33-50       | 84<br>150FS-33-50  | 101<br>150FS-33-50 | 118<br>150FS-33-50 | 134<br>150FS-33-50 | 168<br>150FS-33-50 | 202<br>150FS-33-50 | 235<br>150FS-33-50 |
| 0.0                  | 59<br>150FS-33-50       | 74<br>150FS-33-50  | 88<br>150FS-33-50  | 103<br>150FS-33-50 | 118<br>150FS-33-50 | 147<br>150FS-33-50 | 176<br>150FS-33-50 | 206<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |             |             |              |              |              |              |              |
|----------------------|----------------------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75        | 1.00        | 1.25         | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                  | 0<br>HD-0                  | 311<br>HD-1 | 823<br>HD-1 | 1334<br>HD-1 | 1846<br>HD-1 | 2356<br>HD-1 | 2870<br>HD-1 | 3382<br>HD-2 |
| 0.9                  | 0<br>HD-0                  | 208<br>HD-1 | 686<br>HD-1 | 1164<br>HD-1 | 1642<br>HD-1 | 2119<br>HD-1 | 2597<br>HD-1 | 3075<br>HD-1 |
| 0.8                  | 0<br>HD-0                  | 106<br>HD-1 | 550<br>HD-1 | 993<br>HD-1  | 1437<br>HD-1 | 1880<br>HD-1 | 2324<br>HD-1 | 2768<br>HD-1 |
| 0.7                  | 0<br>HD-0                  | 4<br>HD-1   | 413<br>HD-1 | 823<br>HD-1  | 1232<br>HD-1 | 1642<br>HD-1 | 2051<br>HD-1 | 2461<br>HD-1 |
| 0.6                  | 0<br>HD-0                  | 0<br>HD-0   | 277<br>HD-1 | 652<br>HD-1  | 1027<br>HD-1 | 1403<br>HD-1 | 1778<br>HD-1 | 2153<br>HD-1 |
| 0.5                  | 0<br>HD-0                  | 0<br>HD-0   | 140<br>HD-1 | 481<br>HD-1  | 823<br>HD-1  | 1164<br>HD-1 | 1505<br>HD-1 | 1846<br>HD-1 |
| 0.4                  | 0<br>HD-0                  | 0<br>HD-0   | 4<br>HD-1   | 311<br>HD-1  | 618<br>HD-1  | 925<br>HD-1  | 1232<br>HD-1 | 1539<br>HD-1 |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 140<br>HD-1  | 413<br>HD-1  | 686<br>HD-1  | 959<br>HD-1  | 1232<br>HD-1 |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 208<br>HD-1  | 447<br>HD-1  | 686<br>HD-1  | 925<br>HD-1  |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 4<br>HD-1    | 208<br>HD-1  | 413<br>HD-1  | 618<br>HD-1  |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 29<br>HD-1   | 208<br>HD-1  | 387<br>HD-1  |



**TABLE 4.3.198: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                 |          |      |        |          |
|--------------------|------|----|-----------------|----------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | ( $I_p = 1.5$ ) | $S_{DS}$ | 1.00 | Weight | 3000 lbs |
|--------------------|------|----|-----------------|----------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|-------------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                         | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                     | 180<br>150FS-33-50      | 225<br>150FS-33-50 | 270<br>150FS-33-50 | 315<br>150FS-33-50 | 360<br>150FS-33-50 | 450<br>150FS-33-50 | 540<br>200FS-33-50 | 630<br>200FS-33-50 |
| 0.9                     | 168<br>150FS-33-50      | 210<br>150FS-33-50 | 252<br>150FS-33-50 | 294<br>150FS-33-50 | 336<br>150FS-33-50 | 420<br>150FS-33-50 | 504<br>200FS-33-50 | 588<br>200FS-33-50 |
| 0.8                     | 156<br>150FS-33-50      | 195<br>150FS-33-50 | 234<br>150FS-33-50 | 273<br>150FS-33-50 | 312<br>150FS-33-50 | 390<br>150FS-33-50 | 468<br>150FS-33-50 | 546<br>200FS-33-50 |
| 0.7                     | 144<br>150FS-33-50      | 180<br>150FS-33-50 | 216<br>150FS-33-50 | 252<br>150FS-33-50 | 288<br>150FS-33-50 | 360<br>150FS-33-50 | 432<br>150FS-33-50 | 504<br>200FS-33-50 |
| 0.6                     | 132<br>150FS-33-50      | 165<br>150FS-33-50 | 198<br>150FS-33-50 | 231<br>150FS-33-50 | 264<br>150FS-33-50 | 330<br>150FS-33-50 | 396<br>150FS-33-50 | 462<br>150FS-33-50 |
| 0.5                     | 120<br>150FS-33-50      | 150<br>150FS-33-50 | 180<br>150FS-33-50 | 210<br>150FS-33-50 | 240<br>150FS-33-50 | 300<br>150FS-33-50 | 360<br>150FS-33-50 | 420<br>150FS-33-50 |
| 0.4                     | 108<br>150FS-33-50      | 135<br>150FS-33-50 | 162<br>150FS-33-50 | 189<br>150FS-33-50 | 216<br>150FS-33-50 | 270<br>150FS-33-50 | 324<br>150FS-33-50 | 378<br>150FS-33-50 |
| 0.3                     | 96<br>150FS-33-50       | 120<br>150FS-33-50 | 144<br>150FS-33-50 | 168<br>150FS-33-50 | 192<br>150FS-33-50 | 240<br>150FS-33-50 | 288<br>150FS-33-50 | 336<br>150FS-33-50 |
| 0.2                     | 84<br>150FS-33-50       | 105<br>150FS-33-50 | 126<br>150FS-33-50 | 147<br>150FS-33-50 | 168<br>150FS-33-50 | 210<br>150FS-33-50 | 252<br>150FS-33-50 | 294<br>150FS-33-50 |
| 0.1                     | 72<br>150FS-33-50       | 90<br>150FS-33-50  | 108<br>150FS-33-50 | 126<br>150FS-33-50 | 144<br>150FS-33-50 | 180<br>150FS-33-50 | 216<br>150FS-33-50 | 252<br>150FS-33-50 |
| 0.0                     | 63<br>150FS-33-50       | 79<br>150FS-33-50  | 95<br>150FS-33-50  | 110<br>150FS-33-50 | 126<br>150FS-33-50 | 158<br>150FS-33-50 | 189<br>150FS-33-50 | 221<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |             |             |              |              |              |              |              |
|-------------------------|----------------------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|
|                         | 0.50                       | 0.75        | 1.00        | 1.25         | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                     | 0<br>HD-0                  | 333<br>HD-1 | 881<br>HD-1 | 1430<br>HD-1 | 1978<br>HD-1 | 2527<br>HD-1 | 3075<br>HD-1 | 3623<br>HD-2 |
| 0.9                     | 0<br>HD-0                  | 223<br>HD-1 | 735<br>HD-1 | 1247<br>HD-1 | 1759<br>HD-1 | 2271<br>HD-1 | 2783<br>HD-1 | 3294<br>HD-2 |
| 0.8                     | 0<br>HD-0                  | 113<br>HD-1 | 589<br>HD-1 | 1064<br>HD-1 | 1539<br>HD-1 | 2015<br>HD-1 | 2490<br>HD-1 | 2965<br>HD-1 |
| 0.7                     | 0<br>HD-0                  | 4<br>HD-1   | 443<br>HD-1 | 881<br>HD-1  | 1320<br>HD-1 | 1759<br>HD-1 | 2198<br>HD-1 | 2636<br>HD-1 |
| 0.6                     | 0<br>HD-0                  | 0<br>HD-0   | 296<br>HD-1 | 698<br>HD-1  | 1101<br>HD-1 | 1503<br>HD-1 | 1905<br>HD-1 | 2307<br>HD-1 |
| 0.5                     | 0<br>HD-0                  | 0<br>HD-0   | 150<br>HD-1 | 516<br>HD-1  | 881<br>HD-1  | 1247<br>HD-1 | 1613<br>HD-1 | 1978<br>HD-1 |
| 0.4                     | 0<br>HD-0                  | 0<br>HD-0   | 4<br>HD-1   | 333<br>HD-1  | 662<br>HD-1  | 991<br>HD-1  | 1320<br>HD-1 | 1649<br>HD-1 |
| 0.3                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 150<br>HD-1  | 443<br>HD-1  | 735<br>HD-1  | 1028<br>HD-1 | 1320<br>HD-1 |
| 0.2                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 223<br>HD-1  | 479<br>HD-1  | 735<br>HD-1  | 991<br>HD-1  |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 4<br>HD-1    | 223<br>HD-1  | 443<br>HD-1  | 662<br>HD-1  |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 31<br>HD-1   | 223<br>HD-1  | 415<br>HD-1  |



**TABLE 4.3.199: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.00 | Weight | 3200 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 192<br>150FS-33-50      | 240<br>150FS-33-50 | 288<br>150FS-33-50 | 336<br>150FS-33-50 | 384<br>150FS-33-50 | 480<br>200FS-33-50 | 576<br>200FS-33-50 | 672<br>250FS-33-50 |
| 0.9                  | 179<br>150FS-33-50      | 224<br>150FS-33-50 | 269<br>150FS-33-50 | 314<br>150FS-33-50 | 358<br>150FS-33-50 | 448<br>150FS-33-50 | 538<br>200FS-33-50 | 627<br>200FS-33-50 |
| 0.8                  | 166<br>150FS-33-50      | 208<br>150FS-33-50 | 250<br>150FS-33-50 | 291<br>150FS-33-50 | 333<br>150FS-33-50 | 416<br>150FS-33-50 | 499<br>200FS-33-50 | 582<br>200FS-33-50 |
| 0.7                  | 154<br>150FS-33-50      | 192<br>150FS-33-50 | 230<br>150FS-33-50 | 269<br>150FS-33-50 | 307<br>150FS-33-50 | 384<br>150FS-33-50 | 461<br>150FS-33-50 | 538<br>200FS-33-50 |
| 0.6                  | 141<br>150FS-33-50      | 176<br>150FS-33-50 | 211<br>150FS-33-50 | 246<br>150FS-33-50 | 282<br>150FS-33-50 | 352<br>150FS-33-50 | 422<br>150FS-33-50 | 493<br>200FS-33-50 |
| 0.5                  | 128<br>150FS-33-50      | 160<br>150FS-33-50 | 192<br>150FS-33-50 | 224<br>150FS-33-50 | 256<br>150FS-33-50 | 320<br>150FS-33-50 | 384<br>150FS-33-50 | 448<br>150FS-33-50 |
| 0.4                  | 115<br>150FS-33-50      | 144<br>150FS-33-50 | 173<br>150FS-33-50 | 202<br>150FS-33-50 | 230<br>150FS-33-50 | 288<br>150FS-33-50 | 346<br>150FS-33-50 | 403<br>150FS-33-50 |
| 0.3                  | 102<br>150FS-33-50      | 128<br>150FS-33-50 | 154<br>150FS-33-50 | 179<br>150FS-33-50 | 205<br>150FS-33-50 | 256<br>150FS-33-50 | 307<br>150FS-33-50 | 358<br>150FS-33-50 |
| 0.2                  | 90<br>150FS-33-50       | 112<br>150FS-33-50 | 134<br>150FS-33-50 | 157<br>150FS-33-50 | 179<br>150FS-33-50 | 224<br>150FS-33-50 | 269<br>150FS-33-50 | 314<br>150FS-33-50 |
| 0.1                  | 77<br>150FS-33-50       | 96<br>150FS-33-50  | 115<br>150FS-33-50 | 134<br>150FS-33-50 | 154<br>150FS-33-50 | 192<br>150FS-33-50 | 230<br>150FS-33-50 | 269<br>150FS-33-50 |
| 0.0                  | 67<br>150FS-33-50       | 84<br>150FS-33-50  | 101<br>150FS-33-50 | 118<br>150FS-33-50 | 134<br>150FS-33-50 | 168<br>150FS-33-50 | 202<br>150FS-33-50 | 235<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |             |             |              |              |              |              |              |
|----------------------|----------------------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75        | 1.00        | 1.25         | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                  | 0<br>HD-0                  | 355<br>HD-1 | 940<br>HD-1 | 1625<br>HD-1 | 2110<br>HD-1 | 2695<br>HD-1 | 3280<br>HD-2 | 3865<br>HD-2 |
| 0.9                  | 0<br>HD-0                  | 238<br>HD-1 | 784<br>HD-1 | 1330<br>HD-1 | 1876<br>HD-1 | 2422<br>HD-1 | 2968<br>HD-1 | 3514<br>HD-2 |
| 0.8                  | 0<br>HD-0                  | 121<br>HD-1 | 628<br>HD-1 | 1135<br>HD-1 | 1642<br>HD-1 | 2149<br>HD-1 | 2656<br>HD-1 | 3163<br>HD-1 |
| 0.7                  | 0<br>HD-0                  | 4<br>HD-1   | 472<br>HD-1 | 940<br>HD-1  | 1408<br>HD-1 | 1876<br>HD-1 | 2344<br>HD-1 | 2812<br>HD-1 |
| 0.6                  | 0<br>HD-0                  | 0<br>HD-0   | 316<br>HD-1 | 745<br>HD-1  | 1174<br>HD-1 | 1603<br>HD-1 | 2032<br>HD-1 | 2461<br>HD-1 |
| 0.5                  | 0<br>HD-0                  | 0<br>HD-0   | 160<br>HD-1 | 550<br>HD-1  | 940<br>HD-1  | 1330<br>HD-1 | 1720<br>HD-1 | 2110<br>HD-1 |
| 0.4                  | 0<br>HD-0                  | 0<br>HD-0   | 4<br>HD-1   | 355<br>HD-1  | 706<br>HD-1  | 1057<br>HD-1 | 1408<br>HD-1 | 1759<br>HD-1 |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 160<br>HD-1  | 472<br>HD-1  | 784<br>HD-1  | 1096<br>HD-1 | 1408<br>HD-1 |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 238<br>HD-1  | 511<br>HD-1  | 784<br>HD-1  | 1057<br>HD-1 |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 4<br>HD-1    | 238<br>HD-1  | 472<br>HD-1  | 706<br>HD-1  |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 33<br>HD-1   | 238<br>HD-1  | 443<br>HD-1  |



**TABLE 4.3.200: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                 |          |      |        |          |
|--------------------|------|----|-----------------|----------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | ( $I_p = 1.5$ ) | $S_{DS}$ | 1.00 | Weight | 3400 lbs |
|--------------------|------|----|-----------------|----------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 204<br>150FS-33-50      | 255<br>150FS-33-50 | 306<br>150FS-33-50 | 357<br>150FS-33-50 | 408<br>150FS-33-50 | 510<br>200FS-33-50 | 612<br>200FS-33-50 | 714<br>250FS-33-50 |
| 0.9                  | 190<br>150FS-33-50      | 238<br>150FS-33-50 | 286<br>150FS-33-50 | 333<br>150FS-33-50 | 381<br>150FS-33-50 | 476<br>200FS-33-50 | 571<br>200FS-33-50 | 666<br>250FS-33-50 |
| 0.8                  | 177<br>150FS-33-50      | 221<br>150FS-33-50 | 265<br>150FS-33-50 | 309<br>150FS-33-50 | 354<br>150FS-33-50 | 442<br>150FS-33-50 | 530<br>200FS-33-50 | 619<br>200FS-33-50 |
| 0.7                  | 163<br>150FS-33-50      | 204<br>150FS-33-50 | 245<br>150FS-33-50 | 286<br>150FS-33-50 | 326<br>150FS-33-50 | 408<br>150FS-33-50 | 490<br>200FS-33-50 | 571<br>200FS-33-50 |
| 0.6                  | 150<br>150FS-33-50      | 187<br>150FS-33-50 | 224<br>150FS-33-50 | 262<br>150FS-33-50 | 299<br>150FS-33-50 | 374<br>150FS-33-50 | 449<br>150FS-33-50 | 524<br>200FS-33-50 |
| 0.5                  | 136<br>150FS-33-50      | 170<br>150FS-33-50 | 204<br>150FS-33-50 | 238<br>150FS-33-50 | 272<br>150FS-33-50 | 340<br>150FS-33-50 | 408<br>150FS-33-50 | 476<br>200FS-33-50 |
| 0.4                  | 122<br>150FS-33-50      | 153<br>150FS-33-50 | 184<br>150FS-33-50 | 214<br>150FS-33-50 | 245<br>150FS-33-50 | 306<br>150FS-33-50 | 367<br>150FS-33-50 | 428<br>150FS-33-50 |
| 0.3                  | 109<br>150FS-33-50      | 136<br>150FS-33-50 | 163<br>150FS-33-50 | 190<br>150FS-33-50 | 218<br>150FS-33-50 | 272<br>150FS-33-50 | 326<br>150FS-33-50 | 381<br>150FS-33-50 |
| 0.2                  | 95<br>150FS-33-50       | 119<br>150FS-33-50 | 143<br>150FS-33-50 | 167<br>150FS-33-50 | 190<br>150FS-33-50 | 238<br>150FS-33-50 | 286<br>150FS-33-50 | 333<br>150FS-33-50 |
| 0.1                  | 82<br>150FS-33-50       | 102<br>150FS-33-50 | 122<br>150FS-33-50 | 143<br>150FS-33-50 | 163<br>150FS-33-50 | 204<br>150FS-33-50 | 245<br>150FS-33-50 | 286<br>150FS-33-50 |
| 0.0                  | 71<br>150FS-33-50       | 89<br>150FS-33-50  | 107<br>150FS-33-50 | 125<br>150FS-33-50 | 143<br>150FS-33-50 | 179<br>150FS-33-50 | 214<br>150FS-33-50 | 250<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |             |             |              |              |              |              |              |
|----------------------|----------------------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75        | 1.00        | 1.25         | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                  | 0<br>HD-0                  | 377<br>HD-1 | 999<br>HD-1 | 1620<br>HD-1 | 2242<br>HD-1 | 2863<br>HD-1 | 3485<br>HD-2 | 4107<br>HD-2 |
| 0.9                  | 0<br>HD-0                  | 253<br>HD-1 | 833<br>HD-1 | 1413<br>HD-1 | 1993<br>HD-1 | 2573<br>HD-1 | 3154<br>HD-1 | 3734<br>HD-2 |
| 0.8                  | 0<br>HD-0                  | 129<br>HD-1 | 667<br>HD-1 | 1206<br>HD-1 | 1745<br>HD-1 | 2283<br>HD-1 | 2822<br>HD-1 | 3361<br>HD-2 |
| 0.7                  | 0<br>HD-0                  | 4<br>HD-1   | 502<br>HD-1 | 999<br>HD-1  | 1496<br>HD-1 | 1993<br>HD-1 | 2491<br>HD-1 | 2988<br>HD-1 |
| 0.6                  | 0<br>HD-0                  | 0<br>HD-0   | 336<br>HD-1 | 792<br>HD-1  | 1247<br>HD-1 | 1703<br>HD-1 | 2159<br>HD-1 | 2615<br>HD-1 |
| 0.5                  | 0<br>HD-0                  | 0<br>HD-0   | 170<br>HD-1 | 584<br>HD-1  | 999<br>HD-1  | 1413<br>HD-1 | 1828<br>HD-1 | 2242<br>HD-1 |
| 0.4                  | 0<br>HD-0                  | 0<br>HD-0   | 4<br>HD-1   | 377<br>HD-1  | 750<br>HD-1  | 1123<br>HD-1 | 1496<br>HD-1 | 1869<br>HD-1 |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 170<br>HD-1  | 502<br>HD-1  | 833<br>HD-1  | 1165<br>HD-1 | 1496<br>HD-1 |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 253<br>HD-1  | 543<br>HD-1  | 833<br>HD-1  | 1123<br>HD-1 |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 4<br>HD-1    | 253<br>HD-1  | 502<br>HD-1  | 750<br>HD-1  |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 35<br>HD-1   | 253<br>HD-1  | 470<br>HD-1  |



**TABLE 4.3.201: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.00 | Weight | 3600 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 216<br>150FS-33-50      | 270<br>150FS-33-50 | 324<br>150FS-33-50 | 378<br>150FS-33-50 | 432<br>150FS-33-50 | 540<br>200FS-33-50 | 648<br>250FS-33-50 | 756<br>250FS-33-50 |
| 0.9                  | 202<br>150FS-33-50      | 252<br>150FS-33-50 | 302<br>150FS-33-50 | 353<br>150FS-33-50 | 403<br>150FS-33-50 | 504<br>200FS-33-50 | 605<br>200FS-33-50 | 706<br>250FS-33-50 |
| 0.8                  | 187<br>150FS-33-50      | 234<br>150FS-33-50 | 281<br>150FS-33-50 | 328<br>150FS-33-50 | 374<br>150FS-33-50 | 468<br>200FS-33-50 | 562<br>200FS-33-50 | 655<br>250FS-33-50 |
| 0.7                  | 173<br>150FS-33-50      | 216<br>150FS-33-50 | 259<br>150FS-33-50 | 302<br>150FS-33-50 | 346<br>150FS-33-50 | 432<br>150FS-33-50 | 518<br>200FS-33-50 | 605<br>200FS-33-50 |
| 0.6                  | 158<br>150FS-33-50      | 198<br>150FS-33-50 | 238<br>150FS-33-50 | 277<br>150FS-33-50 | 317<br>150FS-33-50 | 396<br>150FS-33-50 | 475<br>200FS-33-50 | 554<br>200FS-33-50 |
| 0.5                  | 144<br>150FS-33-50      | 180<br>150FS-33-50 | 216<br>150FS-33-50 | 252<br>150FS-33-50 | 288<br>150FS-33-50 | 360<br>150FS-33-50 | 432<br>150FS-33-50 | 504<br>200FS-33-50 |
| 0.4                  | 130<br>150FS-33-50      | 162<br>150FS-33-50 | 194<br>150FS-33-50 | 227<br>150FS-33-50 | 259<br>150FS-33-50 | 324<br>150FS-33-50 | 389<br>150FS-33-50 | 454<br>150FS-33-50 |
| 0.3                  | 115<br>150FS-33-50      | 144<br>150FS-33-50 | 173<br>150FS-33-50 | 202<br>150FS-33-50 | 230<br>150FS-33-50 | 288<br>150FS-33-50 | 346<br>150FS-33-50 | 403<br>150FS-33-50 |
| 0.2                  | 101<br>150FS-33-50      | 126<br>150FS-33-50 | 151<br>150FS-33-50 | 176<br>150FS-33-50 | 202<br>150FS-33-50 | 252<br>150FS-33-50 | 302<br>150FS-33-50 | 353<br>150FS-33-50 |
| 0.1                  | 86<br>150FS-33-50       | 108<br>150FS-33-50 | 130<br>150FS-33-50 | 151<br>150FS-33-50 | 173<br>150FS-33-50 | 216<br>150FS-33-50 | 259<br>150FS-33-50 | 302<br>150FS-33-50 |
| 0.0                  | 76<br>150FS-33-50       | 95<br>150FS-33-50  | 113<br>150FS-33-50 | 132<br>150FS-33-50 | 151<br>150FS-33-50 | 189<br>150FS-33-50 | 227<br>150FS-33-50 | 265<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |             |              |              |              |              |              |              |
|----------------------|----------------------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75        | 1.00         | 1.25         | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                  | 0<br>HD-0                  | 399<br>HD-1 | 1058<br>HD-1 | 1716<br>HD-1 | 2374<br>HD-1 | 3032<br>HD-1 | 3690<br>HD-2 | 4348<br>HD-2 |
| 0.9                  | 0<br>HD-0                  | 268<br>HD-1 | 882<br>HD-1  | 1496<br>HD-1 | 2111<br>HD-1 | 2725<br>HD-1 | 3339<br>HD-2 | 3953<br>HD-2 |
| 0.8                  | 0<br>HD-0                  | 136<br>HD-1 | 707<br>HD-1  | 1277<br>HD-1 | 1847<br>HD-1 | 2418<br>HD-1 | 2988<br>HD-1 | 3558<br>HD-2 |
| 0.7                  | 0<br>HD-0                  | 5<br>HD-1   | 531<br>HD-1  | 1058<br>HD-1 | 1584<br>HD-1 | 2111<br>HD-1 | 2637<br>HD-1 | 3164<br>HD-1 |
| 0.6                  | 0<br>HD-0                  | 0<br>HD-0   | 356<br>HD-1  | 838<br>HD-1  | 1321<br>HD-1 | 1803<br>HD-1 | 2286<br>HD-1 | 2769<br>HD-1 |
| 0.5                  | 0<br>HD-0                  | 0<br>HD-0   | 180<br>HD-1  | 619<br>HD-1  | 1058<br>HD-1 | 1496<br>HD-1 | 1935<br>HD-1 | 2374<br>HD-1 |
| 0.4                  | 0<br>HD-0                  | 0<br>HD-0   | 5<br>HD-1    | 399<br>HD-1  | 794<br>HD-1  | 1189<br>HD-1 | 1584<br>HD-1 | 1979<br>HD-1 |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 180<br>HD-1  | 531<br>HD-1  | 882<br>HD-1  | 1233<br>HD-1 | 1584<br>HD-1 |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 268<br>HD-1  | 575<br>HD-1  | 882<br>HD-1  | 1189<br>HD-1 |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 5<br>HD-1    | 268<br>HD-1  | 531<br>HD-1  | 794<br>HD-1  |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    | 37<br>HD-1   | 268<br>HD-1  | 498<br>HD-1  |



**TABLE 4.3.202: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.00 | Weight | 3800 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|-------------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                         | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                     | 228<br>150FS-33-50      | 285<br>150FS-33-50 | 342<br>150FS-33-50 | 399<br>150FS-33-50 | 456<br>200FS-33-50 | 570<br>200FS-33-50 | 684<br>250FS-33-50 | 798<br>300FS-33-50 |
| 0.9                     | 213<br>150FS-33-50      | 266<br>150FS-33-50 | 319<br>150FS-33-50 | 372<br>150FS-33-50 | 426<br>150FS-33-50 | 532<br>200FS-33-50 | 638<br>250FS-33-50 | 745<br>250FS-33-50 |
| 0.8                     | 198<br>150FS-33-50      | 247<br>150FS-33-50 | 296<br>150FS-33-50 | 346<br>150FS-33-50 | 395<br>150FS-33-50 | 494<br>200FS-33-50 | 593<br>200FS-33-50 | 692<br>250FS-33-50 |
| 0.7                     | 182<br>150FS-33-50      | 228<br>150FS-33-50 | 274<br>150FS-33-50 | 319<br>150FS-33-50 | 365<br>150FS-33-50 | 456<br>150FS-33-50 | 547<br>200FS-33-50 | 638<br>250FS-33-50 |
| 0.6                     | 167<br>150FS-33-50      | 209<br>150FS-33-50 | 251<br>150FS-33-50 | 293<br>150FS-33-50 | 334<br>150FS-33-50 | 418<br>150FS-33-50 | 502<br>200FS-33-50 | 585<br>200FS-33-50 |
| 0.5                     | 152<br>150FS-33-50      | 190<br>150FS-33-50 | 228<br>150FS-33-50 | 266<br>150FS-33-50 | 304<br>150FS-33-50 | 380<br>150FS-33-50 | 456<br>150FS-33-50 | 532<br>200FS-33-50 |
| 0.4                     | 137<br>150FS-33-50      | 171<br>150FS-33-50 | 205<br>150FS-33-50 | 239<br>150FS-33-50 | 274<br>150FS-33-50 | 342<br>150FS-33-50 | 410<br>150FS-33-50 | 479<br>200FS-33-50 |
| 0.3                     | 122<br>150FS-33-50      | 152<br>150FS-33-50 | 182<br>150FS-33-50 | 213<br>150FS-33-50 | 243<br>150FS-33-50 | 304<br>150FS-33-50 | 365<br>150FS-33-50 | 426<br>150FS-33-50 |
| 0.2                     | 106<br>150FS-33-50      | 133<br>150FS-33-50 | 160<br>150FS-33-50 | 186<br>150FS-33-50 | 213<br>150FS-33-50 | 266<br>150FS-33-50 | 319<br>150FS-33-50 | 372<br>150FS-33-50 |
| 0.1                     | 91<br>150FS-33-50       | 114<br>150FS-33-50 | 137<br>150FS-33-50 | 160<br>150FS-33-50 | 182<br>150FS-33-50 | 228<br>150FS-33-50 | 274<br>150FS-33-50 | 319<br>150FS-33-50 |
| 0.0                     | 80<br>150FS-33-50       | 100<br>150FS-33-50 | 120<br>150FS-33-50 | 140<br>150FS-33-50 | 160<br>150FS-33-50 | 200<br>150FS-33-50 | 239<br>150FS-33-50 | 279<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |             |              |              |              |              |              |              |
|-------------------------|----------------------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                         | 0.50                       | 0.75        | 1.00         | 1.25         | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                     | 0<br>HD-0                  | 422<br>HD-1 | 1116<br>HD-1 | 1811<br>HD-1 | 2506<br>HD-1 | 3200<br>HD-2 | 3895<br>HD-2 | 4590<br>HD-2 |
| 0.9                     | 0<br>HD-0                  | 283<br>HD-1 | 931<br>HD-1  | 1579<br>HD-1 | 2228<br>HD-1 | 2876<br>HD-1 | 3525<br>HD-2 | 4173<br>HD-2 |
| 0.8                     | 0<br>HD-0                  | 144<br>HD-1 | 746<br>HD-1  | 1348<br>HD-1 | 1950<br>HD-1 | 2552<br>HD-1 | 3154<br>HD-1 | 3756<br>HD-2 |
| 0.7                     | 0<br>HD-0                  | 5<br>HD-1   | 561<br>HD-1  | 1116<br>HD-1 | 1672<br>HD-1 | 2228<br>HD-1 | 2784<br>HD-1 | 3339<br>HD-2 |
| 0.6                     | 0<br>HD-0                  | 0<br>HD-0   | 375<br>HD-1  | 885<br>HD-1  | 1394<br>HD-1 | 1904<br>HD-1 | 2413<br>HD-1 | 2922<br>HD-1 |
| 0.5                     | 0<br>HD-0                  | 0<br>HD-0   | 190<br>HD-1  | 653<br>HD-1  | 1116<br>HD-1 | 1579<br>HD-1 | 2043<br>HD-1 | 2506<br>HD-1 |
| 0.4                     | 0<br>HD-0                  | 0<br>HD-0   | 5<br>HD-1    | 422<br>HD-1  | 838<br>HD-1  | 1255<br>HD-1 | 1672<br>HD-1 | 2089<br>HD-1 |
| 0.3                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 190<br>HD-1  | 561<br>HD-1  | 931<br>HD-1  | 1302<br>HD-1 | 1672<br>HD-1 |
| 0.2                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 283<br>HD-1  | 607<br>HD-1  | 931<br>HD-1  | 1255<br>HD-1 |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 5<br>HD-1    | 283<br>HD-1  | 561<br>HD-1  | 838<br>HD-1  |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    | 39<br>HD-1   | 283<br>HD-1  | 526<br>HD-1  |





**TABLE 4.3.203: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.00 | Weight | 4000 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 240<br>150FS-33-50      | 300<br>150FS-33-50 | 360<br>150FS-33-50 | 420<br>150FS-33-50 | 480<br>200FS-33-50 | 600<br>200FS-33-50 | 720<br>250FS-33-50 | 840<br>300FS-33-50 |
| 0.9                  | 224<br>150FS-33-50      | 280<br>150FS-33-50 | 336<br>150FS-33-50 | 392<br>150FS-33-50 | 448<br>200FS-33-50 | 560<br>200FS-33-50 | 672<br>250FS-33-50 | 784<br>250FS-33-50 |
| 0.8                  | 208<br>150FS-33-50      | 260<br>150FS-33-50 | 312<br>150FS-33-50 | 364<br>150FS-33-50 | 416<br>150FS-33-50 | 520<br>200FS-33-50 | 624<br>200FS-33-50 | 728<br>250FS-33-50 |
| 0.7                  | 192<br>150FS-33-50      | 240<br>150FS-33-50 | 288<br>150FS-33-50 | 336<br>150FS-33-50 | 384<br>150FS-33-50 | 480<br>200FS-33-50 | 576<br>200FS-33-50 | 672<br>250FS-33-50 |
| 0.6                  | 176<br>150FS-33-50      | 220<br>150FS-33-50 | 264<br>150FS-33-50 | 308<br>150FS-33-50 | 352<br>150FS-33-50 | 440<br>150FS-33-50 | 528<br>200FS-33-50 | 616<br>200FS-33-50 |
| 0.5                  | 160<br>150FS-33-50      | 200<br>150FS-33-50 | 240<br>150FS-33-50 | 280<br>150FS-33-50 | 320<br>150FS-33-50 | 400<br>150FS-33-50 | 480<br>200FS-33-50 | 560<br>200FS-33-50 |
| 0.4                  | 144<br>150FS-33-50      | 180<br>150FS-33-50 | 216<br>150FS-33-50 | 252<br>150FS-33-50 | 288<br>150FS-33-50 | 360<br>150FS-33-50 | 432<br>150FS-33-50 | 504<br>200FS-33-50 |
| 0.3                  | 128<br>150FS-33-50      | 160<br>150FS-33-50 | 192<br>150FS-33-50 | 224<br>150FS-33-50 | 256<br>150FS-33-50 | 320<br>150FS-33-50 | 384<br>150FS-33-50 | 448<br>150FS-33-50 |
| 0.2                  | 112<br>150FS-33-50      | 140<br>150FS-33-50 | 168<br>150FS-33-50 | 196<br>150FS-33-50 | 224<br>150FS-33-50 | 280<br>150FS-33-50 | 336<br>150FS-33-50 | 392<br>150FS-33-50 |
| 0.1                  | 96<br>150FS-33-50       | 120<br>150FS-33-50 | 144<br>150FS-33-50 | 168<br>150FS-33-50 | 192<br>150FS-33-50 | 240<br>150FS-33-50 | 288<br>150FS-33-50 | 336<br>150FS-33-50 |
| 0.0                  | 84<br>150FS-33-50       | 105<br>150FS-33-50 | 126<br>150FS-33-50 | 147<br>150FS-33-50 | 168<br>150FS-33-50 | 210<br>150FS-33-50 | 252<br>150FS-33-50 | 294<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |             |              |              |              |              |              |              |
|----------------------|----------------------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75        | 1.00         | 1.25         | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                  | 0<br>HD-0                  | 444<br>HD-1 | 1175<br>HD-1 | 1906<br>HD-1 | 2638<br>HD-1 | 3369<br>HD-2 | 4100<br>HD-2 | 4831<br>HD-3 |
| 0.9                  | 0<br>HD-0                  | 298<br>HD-1 | 980<br>HD-1  | 1663<br>HD-1 | 2345<br>HD-1 | 3028<br>HD-1 | 3710<br>HD-2 | 4393<br>HD-2 |
| 0.8                  | 0<br>HD-0                  | 151<br>HD-1 | 785<br>HD-1  | 1419<br>HD-1 | 2053<br>HD-1 | 2686<br>HD-1 | 3320<br>HD-2 | 3954<br>HD-2 |
| 0.7                  | 0<br>HD-0                  | 5<br>HD-1   | 590<br>HD-1  | 1175<br>HD-1 | 1760<br>HD-1 | 2345<br>HD-1 | 2930<br>HD-1 | 3515<br>HD-2 |
| 0.6                  | 0<br>HD-0                  | 0<br>HD-0   | 395<br>HD-1  | 931<br>HD-1  | 1468<br>HD-1 | 2004<br>HD-1 | 2540<br>HD-1 | 3076<br>HD-1 |
| 0.5                  | 0<br>HD-0                  | 0<br>HD-0   | 200<br>HD-1  | 688<br>HD-1  | 1175<br>HD-1 | 1663<br>HD-1 | 2150<br>HD-1 | 2638<br>HD-1 |
| 0.4                  | 0<br>HD-0                  | 0<br>HD-0   | 5<br>HD-1    | 444<br>HD-1  | 883<br>HD-1  | 1321<br>HD-1 | 1760<br>HD-1 | 2199<br>HD-1 |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 200<br>HD-1  | 590<br>HD-1  | 980<br>HD-1  | 1370<br>HD-1 | 1760<br>HD-1 |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 298<br>HD-1  | 639<br>HD-1  | 980<br>HD-1  | 1321<br>HD-1 |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 5<br>HD-1    | 298<br>HD-1  | 590<br>HD-1  | 883<br>HD-1  |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    | 42<br>HD-1   | 298<br>HD-1  | 553<br>HD-1  |



**TABLE 4.3.204: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |            |                 |      |        |          |
|--------------------|------|----|------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (lp = 1.5) | S <sub>DS</sub> | 1.00 | Weight | 4200 lbs |
|--------------------|------|----|------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|-------------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                         | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                     | 252<br>150FS-33-50      | 315<br>150FS-33-50 | 378<br>150FS-33-50 | 441<br>200FS-33-50 | 504<br>200FS-33-50 | 630<br>250FS-33-50 | 756<br>250FS-33-50 | 882<br>300FS-33-50 |
| 0.9                     | 235<br>150FS-33-50      | 294<br>150FS-33-50 | 353<br>150FS-33-50 | 412<br>150FS-33-50 | 470<br>200FS-33-50 | 588<br>200FS-33-50 | 706<br>250FS-33-50 | 823<br>300FS-33-50 |
| 0.8                     | 218<br>150FS-33-50      | 273<br>150FS-33-50 | 328<br>150FS-33-50 | 382<br>150FS-33-50 | 437<br>150FS-33-50 | 546<br>200FS-33-50 | 655<br>250FS-33-50 | 764<br>250FS-33-50 |
| 0.7                     | 202<br>150FS-33-50      | 252<br>150FS-33-50 | 302<br>150FS-33-50 | 353<br>150FS-33-50 | 403<br>150FS-33-50 | 504<br>200FS-33-50 | 605<br>200FS-33-50 | 706<br>250FS-33-50 |
| 0.6                     | 185<br>150FS-33-50      | 231<br>150FS-33-50 | 277<br>150FS-33-50 | 323<br>150FS-33-50 | 370<br>150FS-33-50 | 462<br>200FS-33-50 | 554<br>200FS-33-50 | 647<br>250FS-33-50 |
| 0.5                     | 168<br>150FS-33-50      | 210<br>150FS-33-50 | 252<br>150FS-33-50 | 294<br>150FS-33-50 | 336<br>150FS-33-50 | 420<br>150FS-33-50 | 504<br>200FS-33-50 | 588<br>200FS-33-50 |
| 0.4                     | 151<br>150FS-33-50      | 189<br>150FS-33-50 | 227<br>150FS-33-50 | 265<br>150FS-33-50 | 302<br>150FS-33-50 | 378<br>150FS-33-50 | 454<br>150FS-33-50 | 529<br>200FS-33-50 |
| 0.3                     | 134<br>150FS-33-50      | 168<br>150FS-33-50 | 202<br>150FS-33-50 | 235<br>150FS-33-50 | 269<br>150FS-33-50 | 336<br>150FS-33-50 | 403<br>150FS-33-50 | 470<br>150FS-33-50 |
| 0.2                     | 118<br>150FS-33-50      | 147<br>150FS-33-50 | 176<br>150FS-33-50 | 206<br>150FS-33-50 | 235<br>150FS-33-50 | 294<br>150FS-33-50 | 353<br>150FS-33-50 | 412<br>150FS-33-50 |
| 0.1                     | 101<br>150FS-33-50      | 126<br>150FS-33-50 | 151<br>150FS-33-50 | 176<br>150FS-33-50 | 202<br>150FS-33-50 | 252<br>150FS-33-50 | 302<br>150FS-33-50 | 353<br>150FS-33-50 |
| 0.0                     | 88<br>150FS-33-50       | 110<br>150FS-33-50 | 132<br>150FS-33-50 | 154<br>150FS-33-50 | 176<br>150FS-33-50 | 221<br>150FS-33-50 | 265<br>150FS-33-50 | 309<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |             |              |              |              |              |              |              |
|-------------------------|----------------------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                         | 0.50                       | 0.75        | 1.00         | 1.25         | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                     | 0<br>HD-0                  | 466<br>HD-1 | 1234<br>HD-1 | 2002<br>HD-1 | 2769<br>HD-1 | 3537<br>HD-2 | 4305<br>HD-2 | 5073<br>HD-3 |
| 0.9                     | 0<br>HD-0                  | 312<br>HD-1 | 1029<br>HD-1 | 1746<br>HD-1 | 2462<br>HD-1 | 3179<br>HD-2 | 3896<br>HD-2 | 4612<br>HD-2 |
| 0.8                     | 0<br>HD-0                  | 159<br>HD-1 | 824<br>HD-1  | 1490<br>HD-1 | 2155<br>HD-1 | 2821<br>HD-1 | 3486<br>HD-2 | 4151<br>HD-2 |
| 0.7                     | 0<br>HD-0                  | 5<br>HD-1   | 620<br>HD-1  | 1234<br>HD-1 | 1848<br>HD-1 | 2462<br>HD-1 | 3077<br>HD-1 | 3691<br>HD-2 |
| 0.6                     | 0<br>HD-0                  | 0<br>HD-0   | 415<br>HD-1  | 978<br>HD-1  | 1541<br>HD-1 | 2104<br>HD-1 | 2667<br>HD-1 | 3230<br>HD-2 |
| 0.5                     | 0<br>HD-0                  | 0<br>HD-0   | 210<br>HD-1  | 722<br>HD-1  | 1234<br>HD-1 | 1746<br>HD-1 | 2258<br>HD-1 | 2769<br>HD-1 |
| 0.4                     | 0<br>HD-0                  | 0<br>HD-0   | 5<br>HD-1    | 466<br>HD-1  | 927<br>HD-1  | 1387<br>HD-1 | 1848<br>HD-1 | 2309<br>HD-1 |
| 0.3                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 210<br>HD-1  | 620<br>HD-1  | 1029<br>HD-1 | 1439<br>HD-1 | 1848<br>HD-1 |
| 0.2                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 312<br>HD-1  | 671<br>HD-1  | 1029<br>HD-1 | 1387<br>HD-1 |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 5<br>HD-1    | 312<br>HD-1  | 620<br>HD-1  | 927<br>HD-1  |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    | 44<br>HD-1   | 312<br>HD-1  | 581<br>HD-1  |



**TABLE 4.3.205: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.00 | Weight | 4400 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 264<br>150FS-33-50      | 330<br>150FS-33-50 | 396<br>150FS-33-50 | 462<br>200FS-33-50 | 528<br>200FS-33-50 | 660<br>250FS-33-50 | 792<br>300FS-33-50 | 924<br>300FS-33-50 |
| 0.9                  | 246<br>150FS-33-50      | 308<br>150FS-33-50 | 370<br>150FS-33-50 | 431<br>200FS-33-50 | 493<br>200FS-33-50 | 616<br>250FS-33-50 | 739<br>250FS-33-50 | 862<br>300FS-33-50 |
| 0.8                  | 229<br>150FS-33-50      | 286<br>150FS-33-50 | 343<br>150FS-33-50 | 400<br>150FS-33-50 | 458<br>200FS-33-50 | 572<br>200FS-33-50 | 686<br>250FS-33-50 | 801<br>300FS-33-50 |
| 0.7                  | 211<br>150FS-33-50      | 264<br>150FS-33-50 | 317<br>150FS-33-50 | 370<br>150FS-33-50 | 422<br>150FS-33-50 | 528<br>200FS-33-50 | 634<br>250FS-33-50 | 739<br>250FS-33-50 |
| 0.6                  | 194<br>150FS-33-50      | 242<br>150FS-33-50 | 290<br>150FS-33-50 | 339<br>150FS-33-50 | 387<br>150FS-33-50 | 484<br>200FS-33-50 | 581<br>200FS-33-50 | 678<br>250FS-33-50 |
| 0.5                  | 176<br>150FS-33-50      | 220<br>150FS-33-50 | 264<br>150FS-33-50 | 308<br>150FS-33-50 | 352<br>150FS-33-50 | 440<br>150FS-33-50 | 528<br>200FS-33-50 | 616<br>200FS-33-50 |
| 0.4                  | 158<br>150FS-33-50      | 198<br>150FS-33-50 | 238<br>150FS-33-50 | 277<br>150FS-33-50 | 317<br>150FS-33-50 | 396<br>150FS-33-50 | 475<br>200FS-33-50 | 554<br>200FS-33-50 |
| 0.3                  | 141<br>150FS-33-50      | 176<br>150FS-33-50 | 214<br>150FS-33-50 | 246<br>150FS-33-50 | 282<br>150FS-33-50 | 352<br>150FS-33-50 | 422<br>150FS-33-50 | 493<br>200FS-33-50 |
| 0.2                  | 123<br>150FS-33-50      | 154<br>150FS-33-50 | 185<br>150FS-33-50 | 216<br>150FS-33-50 | 246<br>150FS-33-50 | 308<br>150FS-33-50 | 370<br>150FS-33-50 | 431<br>150FS-33-50 |
| 0.1                  | 106<br>150FS-33-50      | 132<br>150FS-33-50 | 158<br>150FS-33-50 | 185<br>150FS-33-50 | 211<br>150FS-33-50 | 264<br>150FS-33-50 | 317<br>150FS-33-50 | 370<br>150FS-33-50 |
| 0.0                  | 92<br>150FS-33-50       | 116<br>150FS-33-50 | 139<br>150FS-33-50 | 162<br>150FS-33-50 | 185<br>150FS-33-50 | 231<br>150FS-33-50 | 277<br>150FS-33-50 | 323<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |             |              |              |              |              |              |              |
|----------------------|----------------------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75        | 1.00         | 1.25         | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                  | 0<br>HD-0                  | 488<br>HD-1 | 1293<br>HD-1 | 2097<br>HD-1 | 2901<br>HD-1 | 3706<br>HD-2 | 4510<br>HD-2 | 5314<br>HD-3 |
| 0.9                  | 0<br>HD-0                  | 327<br>HD-1 | 1078<br>HD-1 | 1829<br>HD-1 | 2580<br>HD-1 | 3330<br>HD-2 | 4081<br>HD-2 | 4832<br>HD-3 |
| 0.8                  | 0<br>HD-0                  | 166<br>HD-1 | 864<br>HD-1  | 1561<br>HD-1 | 2258<br>HD-1 | 2955<br>HD-1 | 3652<br>HD-2 | 4349<br>HD-2 |
| 0.7                  | 0<br>HD-0                  | 6<br>HD-1   | 649<br>HD-1  | 1293<br>HD-1 | 1936<br>HD-1 | 2580<br>HD-1 | 3223<br>HD-2 | 3867<br>HD-2 |
| 0.6                  | 0<br>HD-0                  | 0<br>HD-0   | 435<br>HD-1  | 1024<br>HD-1 | 1614<br>HD-1 | 2204<br>HD-1 | 2794<br>HD-1 | 3384<br>HD-2 |
| 0.5                  | 0<br>HD-0                  | 0<br>HD-0   | 220<br>HD-1  | 756<br>HD-1  | 1293<br>HD-1 | 1829<br>HD-1 | 2365<br>HD-1 | 2901<br>HD-1 |
| 0.4                  | 0<br>HD-0                  | 0<br>HD-0   | 6<br>HD-1    | 488<br>HD-1  | 971<br>HD-1  | 1453<br>HD-1 | 1936<br>HD-1 | 2419<br>HD-1 |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 220<br>HD-1  | 649<br>HD-1  | 1078<br>HD-1 | 1507<br>HD-1 | 1936<br>HD-1 |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 327<br>HD-1  | 703<br>HD-1  | 1078<br>HD-1 | 1453<br>HD-1 |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 6<br>HD-1    | 327<br>HD-1  | 649<br>HD-1  | 971<br>HD-1  |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    | 46<br>HD-1   | 327<br>HD-1  | 609<br>HD-1  |



**TABLE 4.3.206: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.00 | Weight | 4600 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|-------------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                         | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                     | 276<br>150FS-33-50      | 345<br>150FS-33-50 | 414<br>200FS-33-50 | 483<br>200FS-33-50 | 552<br>200FS-33-50 | 690<br>250FS-33-50 | 828<br>300FS-33-50 | 966<br>400FS-33-50 |
| 0.9                     | 258<br>150FS-33-50      | 322<br>150FS-33-50 | 386<br>150FS-33-50 | 451<br>200FS-33-50 | 515<br>200FS-33-50 | 644<br>250FS-33-50 | 773<br>250FS-33-50 | 902<br>300FS-33-50 |
| 0.8                     | 239<br>150FS-33-50      | 299<br>150FS-33-50 | 359<br>150FS-33-50 | 419<br>150FS-33-50 | 478<br>200FS-33-50 | 598<br>200FS-33-50 | 718<br>250FS-33-50 | 837<br>300FS-33-50 |
| 0.7                     | 221<br>150FS-33-50      | 276<br>150FS-33-50 | 331<br>150FS-33-50 | 386<br>150FS-33-50 | 442<br>200FS-33-50 | 552<br>200FS-33-50 | 662<br>250FS-33-50 | 773<br>250FS-33-50 |
| 0.6                     | 202<br>150FS-33-50      | 253<br>150FS-33-50 | 304<br>150FS-33-50 | 354<br>150FS-33-50 | 405<br>150FS-33-50 | 506<br>200FS-33-50 | 607<br>200FS-33-50 | 708<br>250FS-33-50 |
| 0.5                     | 184<br>150FS-33-50      | 230<br>150FS-33-50 | 276<br>150FS-33-50 | 322<br>150FS-33-50 | 368<br>150FS-33-50 | 460<br>200FS-33-50 | 552<br>200FS-33-50 | 644<br>250FS-33-50 |
| 0.4                     | 166<br>150FS-33-50      | 207<br>150FS-33-50 | 248<br>150FS-33-50 | 290<br>150FS-33-50 | 331<br>150FS-33-50 | 414<br>150FS-33-50 | 497<br>200FS-33-50 | 580<br>200FS-33-50 |
| 0.3                     | 147<br>150FS-33-50      | 184<br>150FS-33-50 | 221<br>150FS-33-50 | 258<br>150FS-33-50 | 294<br>150FS-33-50 | 368<br>150FS-33-50 | 442<br>150FS-33-50 | 515<br>200FS-33-50 |
| 0.2                     | 129<br>150FS-33-50      | 161<br>150FS-33-50 | 193<br>150FS-33-50 | 225<br>150FS-33-50 | 258<br>150FS-33-50 | 322<br>150FS-33-50 | 386<br>150FS-33-50 | 451<br>150FS-33-50 |
| 0.1                     | 110<br>150FS-33-50      | 138<br>150FS-33-50 | 166<br>150FS-33-50 | 193<br>150FS-33-50 | 221<br>150FS-33-50 | 276<br>150FS-33-50 | 331<br>150FS-33-50 | 386<br>150FS-33-50 |
| 0.0                     | 97<br>150FS-33-50       | 121<br>150FS-33-50 | 145<br>150FS-33-50 | 169<br>150FS-33-50 | 193<br>150FS-33-50 | 242<br>150FS-33-50 | 290<br>150FS-33-50 | 338<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |             |              |              |              |              |              |                      |
|-------------------------|----------------------------|-------------|--------------|--------------|--------------|--------------|--------------|----------------------|
|                         | 0.50                       | 0.75        | 1.00         | 1.25         | 1.50         | 1.75         | 2.00         | 2.25                 |
| 1.0                     | 0<br>HD-0                  | 510<br>HD-1 | 1351<br>HD-1 | 2192<br>HD-1 | 3033<br>HD-1 | 3874<br>HD-2 | 4715<br>HD-2 | 5556<br>No Solutions |
| 0.9                     | 0<br>HD-0                  | 342<br>HD-1 | 1127<br>HD-1 | 1912<br>HD-1 | 2697<br>HD-1 | 3482<br>HD-2 | 4267<br>HD-2 | 5051<br>HD-3         |
| 0.8                     | 0<br>HD-0                  | 174<br>HD-1 | 903<br>HD-1  | 1632<br>HD-1 | 2360<br>HD-1 | 3089<br>HD-1 | 3818<br>HD-2 | 4547<br>HD-2         |
| 0.7                     | 0<br>HD-0                  | 6<br>HD-1   | 679<br>HD-1  | 1351<br>HD-1 | 2024<br>HD-1 | 2697<br>HD-1 | 3370<br>HD-2 | 4042<br>HD-2         |
| 0.6                     | 0<br>HD-0                  | 0<br>HD-0   | 454<br>HD-1  | 1071<br>HD-1 | 1688<br>HD-1 | 2304<br>HD-1 | 2921<br>HD-1 | 3538<br>HD-2         |
| 0.5                     | 0<br>HD-0                  | 0<br>HD-0   | 230<br>HD-1  | 791<br>HD-1  | 1351<br>HD-1 | 1912<br>HD-1 | 2473<br>HD-1 | 3033<br>HD-1         |
| 0.4                     | 0<br>HD-0                  | 0<br>HD-0   | 6<br>HD-1    | 510<br>HD-1  | 1015<br>HD-1 | 1519<br>HD-1 | 2024<br>HD-1 | 2529<br>HD-1         |
| 0.3                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 230<br>HD-1  | 679<br>HD-1  | 1127<br>HD-1 | 1576<br>HD-1 | 2024<br>HD-1         |
| 0.2                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 342<br>HD-1  | 735<br>HD-1  | 1127<br>HD-1 | 1519<br>HD-1         |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 6<br>HD-1    | 342<br>HD-1  | 679<br>HD-1  | 1015<br>HD-1         |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    | 48<br>HD-1   | 342<br>HD-1  | 636<br>HD-1          |



**TABLE 4.3.207: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.00 | Weight | 4800 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                     |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50                |
| 1.0                  | 288<br>150FS-33-50      | 360<br>150FS-33-50 | 432<br>200FS-33-50 | 504<br>200FS-33-50 | 576<br>200FS-33-50 | 720<br>250FS-33-50 | 864<br>300FS-33-50 | 1008<br>400FS-33-50 |
| 0.9                  | 269<br>150FS-33-50      | 336<br>150FS-33-50 | 403<br>150FS-33-50 | 470<br>200FS-33-50 | 538<br>200FS-33-50 | 672<br>250FS-33-50 | 806<br>300FS-33-50 | 941<br>300FS-33-50  |
| 0.8                  | 250<br>150FS-33-50      | 312<br>150FS-33-50 | 374<br>150FS-33-50 | 437<br>200FS-33-50 | 499<br>200FS-33-50 | 624<br>250FS-33-50 | 749<br>250FS-33-50 | 874<br>300FS-33-50  |
| 0.7                  | 230<br>150FS-33-50      | 288<br>150FS-33-50 | 346<br>150FS-33-50 | 403<br>150FS-33-50 | 461<br>200FS-33-50 | 576<br>200FS-33-50 | 691<br>250FS-33-50 | 806<br>300FS-33-50  |
| 0.6                  | 211<br>150FS-33-50      | 264<br>150FS-33-50 | 317<br>150FS-33-50 | 370<br>150FS-33-50 | 422<br>150FS-33-50 | 528<br>200FS-33-50 | 634<br>250FS-33-50 | 739<br>250FS-33-50  |
| 0.5                  | 192<br>150FS-33-50      | 240<br>150FS-33-50 | 288<br>150FS-33-50 | 336<br>150FS-33-50 | 384<br>150FS-33-50 | 480<br>200FS-33-50 | 576<br>200FS-33-50 | 672<br>250FS-33-50  |
| 0.4                  | 173<br>150FS-33-50      | 216<br>150FS-33-50 | 259<br>150FS-33-50 | 302<br>150FS-33-50 | 346<br>150FS-33-50 | 432<br>150FS-33-50 | 518<br>200FS-33-50 | 605<br>200FS-33-50  |
| 0.3                  | 154<br>150FS-33-50      | 192<br>150FS-33-50 | 230<br>150FS-33-50 | 269<br>150FS-33-50 | 307<br>150FS-33-50 | 384<br>150FS-33-50 | 461<br>150FS-33-50 | 538<br>200FS-33-50  |
| 0.2                  | 134<br>150FS-33-50      | 168<br>150FS-33-50 | 202<br>150FS-33-50 | 235<br>150FS-33-50 | 269<br>150FS-33-50 | 336<br>150FS-33-50 | 403<br>150FS-33-50 | 470<br>150FS-33-50  |
| 0.1                  | 115<br>150FS-33-50      | 144<br>150FS-33-50 | 173<br>150FS-33-50 | 202<br>150FS-33-50 | 230<br>150FS-33-50 | 288<br>150FS-33-50 | 346<br>150FS-33-50 | 403<br>150FS-33-50  |
| 0.0                  | 101<br>150FS-33-50      | 126<br>150FS-33-50 | 151<br>150FS-33-50 | 176<br>150FS-33-50 | 202<br>150FS-33-50 | 252<br>150FS-33-50 | 302<br>150FS-33-50 | 353<br>150FS-33-50  |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |             |              |              |              |              |              |                      |
|----------------------|----------------------------|-------------|--------------|--------------|--------------|--------------|--------------|----------------------|
|                      | 0.50                       | 0.75        | 1.00         | 1.25         | 1.50         | 1.75         | 2.00         | 2.25                 |
| 1.0                  | 0<br>HD-0                  | 533<br>HD-1 | 1410<br>HD-1 | 2288<br>HD-1 | 3165<br>HD-1 | 4043<br>HD-2 | 4920<br>HD-3 | 5798<br>No Solutions |
| 0.9                  | 0<br>HD-0                  | 357<br>HD-1 | 1176<br>HD-1 | 1995<br>HD-1 | 2814<br>HD-1 | 3633<br>HD-2 | 4452<br>HD-2 | 5271<br>HD-3         |
| 0.8                  | 0<br>HD-0                  | 182<br>HD-1 | 942<br>HD-1  | 1703<br>HD-1 | 2463<br>HD-1 | 3224<br>HD-2 | 3984<br>HD-2 | 4745<br>HD-3         |
| 0.7                  | 0<br>HD-0                  | 6<br>HD-1   | 708<br>HD-1  | 1410<br>HD-1 | 2112<br>HD-1 | 2814<br>HD-1 | 3516<br>HD-2 | 4218<br>HD-2         |
| 0.6                  | 0<br>HD-0                  | 0<br>HD-0   | 474<br>HD-1  | 1118<br>HD-1 | 1761<br>HD-1 | 2405<br>HD-1 | 3048<br>HD-1 | 3692<br>HD-2         |
| 0.5                  | 0<br>HD-0                  | 0<br>HD-0   | 240<br>HD-1  | 825<br>HD-1  | 1410<br>HD-1 | 1995<br>HD-1 | 2580<br>HD-1 | 3165<br>HD-1         |
| 0.4                  | 0<br>HD-0                  | 0<br>HD-0   | 6<br>HD-1    | 533<br>HD-1  | 1059<br>HD-1 | 1586<br>HD-1 | 2112<br>HD-1 | 2639<br>HD-1         |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 240<br>HD-1  | 708<br>HD-1  | 1176<br>HD-1 | 1644<br>HD-1 | 2112<br>HD-1         |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 357<br>HD-1  | 767<br>HD-1  | 1176<br>HD-1 | 1586<br>HD-1         |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 6<br>HD-1    | 357<br>HD-1  | 708<br>HD-1  | 1059<br>HD-1         |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    | 50<br>HD-1   | 357<br>HD-1  | 664<br>HD-1          |



**TABLE 4.3.208: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.00 | Weight | 5000 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                     |
|-------------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
|                         | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50                |
| 1.0                     | 300<br>150FS-33-50      | 375<br>150FS-33-50 | 450<br>200FS-33-50 | 525<br>200FS-33-50 | 600<br>250FS-33-50 | 750<br>250FS-33-50 | 900<br>300FS-33-50 | 1050<br>400FS-33-50 |
| 0.9                     | 280<br>150FS-33-50      | 350<br>150FS-33-50 | 420<br>200FS-33-50 | 490<br>200FS-33-50 | 560<br>200FS-33-50 | 700<br>250FS-33-50 | 840<br>300FS-33-50 | 980<br>400FS-33-50  |
| 0.8                     | 260<br>150FS-33-50      | 325<br>150FS-33-50 | 390<br>150FS-33-50 | 455<br>200FS-33-50 | 520<br>200FS-33-50 | 650<br>250FS-33-50 | 780<br>250FS-33-50 | 910<br>300FS-33-50  |
| 0.7                     | 240<br>150FS-33-50      | 300<br>150FS-33-50 | 360<br>150FS-33-50 | 420<br>150FS-33-50 | 480<br>200FS-33-50 | 600<br>200FS-33-50 | 720<br>250FS-33-50 | 840<br>300FS-33-50  |
| 0.6                     | 220<br>150FS-33-50      | 275<br>150FS-33-50 | 330<br>150FS-33-50 | 385<br>150FS-33-50 | 440<br>150FS-33-50 | 550<br>200FS-33-50 | 660<br>250FS-33-50 | 770<br>250FS-33-50  |
| 0.5                     | 200<br>150FS-33-50      | 250<br>150FS-33-50 | 300<br>150FS-33-50 | 350<br>150FS-33-50 | 400<br>150FS-33-50 | 500<br>200FS-33-50 | 600<br>200FS-33-50 | 700<br>250FS-33-50  |
| 0.4                     | 180<br>150FS-33-50      | 225<br>150FS-33-50 | 270<br>150FS-33-50 | 315<br>150FS-33-50 | 360<br>150FS-33-50 | 450<br>150FS-33-50 | 540<br>200FS-33-50 | 630<br>200FS-33-50  |
| 0.3                     | 160<br>150FS-33-50      | 200<br>150FS-33-50 | 240<br>150FS-33-50 | 280<br>150FS-33-50 | 320<br>150FS-33-50 | 400<br>150FS-33-50 | 480<br>200FS-33-50 | 560<br>200FS-33-50  |
| 0.2                     | 140<br>150FS-33-50      | 175<br>150FS-33-50 | 210<br>150FS-33-50 | 245<br>150FS-33-50 | 280<br>150FS-33-50 | 350<br>150FS-33-50 | 420<br>150FS-33-50 | 490<br>200FS-33-50  |
| 0.1                     | 120<br>150FS-33-50      | 150<br>150FS-33-50 | 180<br>150FS-33-50 | 210<br>150FS-33-50 | 240<br>150FS-33-50 | 300<br>150FS-33-50 | 360<br>150FS-33-50 | 420<br>150FS-33-50  |
| 0.0                     | 105<br>150FS-33-50      | 131<br>150FS-33-50 | 158<br>150FS-33-50 | 184<br>150FS-33-50 | 210<br>150FS-33-50 | 263<br>150FS-33-50 | 315<br>150FS-33-50 | 368<br>150FS-33-50  |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |             |              |              |              |              |              |                      |
|-------------------------|----------------------------|-------------|--------------|--------------|--------------|--------------|--------------|----------------------|
|                         | 0.50                       | 0.75        | 1.00         | 1.25         | 1.50         | 1.75         | 2.00         | 2.25                 |
| 1.0                     | 0<br>HD-0                  | 555<br>HD-1 | 1469<br>HD-1 | 2383<br>HD-1 | 3297<br>HD-2 | 4214<br>HD-2 | 5125<br>HD-3 | 6039<br>No Solutions |
| 0.9                     | 0<br>HD-0                  | 372<br>HD-1 | 1225<br>HD-1 | 2078<br>HD-1 | 2931<br>HD-1 | 3784<br>HD-2 | 4638<br>HD-2 | 5491<br>HD-3         |
| 0.8                     | 0<br>HD-0                  | 189<br>HD-1 | 981<br>HD-1  | 1773<br>HD-1 | 2566<br>HD-1 | 3358<br>HD-2 | 4150<br>HD-2 | 4942<br>HD-3         |
| 0.7                     | 0<br>HD-0                  | 6<br>HD-1   | 788<br>HD-1  | 1469<br>HD-1 | 2200<br>HD-1 | 2931<br>HD-1 | 3663<br>HD-2 | 4394<br>HD-2         |
| 0.6                     | 0<br>HD-0                  | 0<br>HD-0   | 494<br>HD-1  | 1164<br>HD-1 | 1834<br>HD-1 | 2505<br>HD-1 | 3175<br>HD-2 | 3845<br>HD-2         |
| 0.5                     | 0<br>HD-0                  | 0<br>HD-0   | 250<br>HD-1  | 859<br>HD-1  | 1469<br>HD-1 | 2078<br>HD-1 | 2688<br>HD-1 | 3297<br>HD-2         |
| 0.4                     | 0<br>HD-0                  | 0<br>HD-0   | 6<br>HD-1    | 555<br>HD-1  | 1103<br>HD-1 | 1652<br>HD-1 | 2200<br>HD-1 | 2748<br>HD-1         |
| 0.3                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 250<br>HD-1  | 738<br>HD-1  | 1225<br>HD-1 | 1713<br>HD-1 | 2200<br>HD-1         |
| 0.2                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 372<br>HD-1  | 798<br>HD-1  | 1225<br>HD-1 | 1652<br>HD-1         |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 6<br>HD-1    | 372<br>HD-1  | 738<br>HD-1  | 1103<br>HD-1         |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 0<br>HD-0    | 0<br>HD-0    | 52<br>HD-1   | 372<br>HD-1  | 692<br>HD-1          |



**TABLE 4.3.209: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.30 | Weight | 2000 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|-------------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                         | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                     | 156<br>150FS-33-50      | 195<br>150FS-33-50 | 234<br>150FS-33-50 | 273<br>150FS-33-50 | 312<br>150FS-33-50 | 390<br>150FS-33-50 | 468<br>150FS-33-50 | 546<br>200FS-33-50 |
| 0.9                     | 146<br>150FS-33-50      | 182<br>150FS-33-50 | 218<br>150FS-33-50 | 255<br>150FS-33-50 | 291<br>150FS-33-50 | 364<br>150FS-33-50 | 437<br>150FS-33-50 | 510<br>200FS-33-50 |
| 0.8                     | 135<br>150FS-33-50      | 169<br>150FS-33-50 | 203<br>150FS-33-50 | 237<br>150FS-33-50 | 270<br>150FS-33-50 | 338<br>150FS-33-50 | 406<br>150FS-33-50 | 473<br>150FS-33-50 |
| 0.7                     | 125<br>150FS-33-50      | 156<br>150FS-33-50 | 187<br>150FS-33-50 | 218<br>150FS-33-50 | 250<br>150FS-33-50 | 312<br>150FS-33-50 | 374<br>150FS-33-50 | 437<br>150FS-33-50 |
| 0.6                     | 114<br>150FS-33-50      | 143<br>150FS-33-50 | 172<br>150FS-33-50 | 200<br>150FS-33-50 | 229<br>150FS-33-50 | 286<br>150FS-33-50 | 343<br>150FS-33-50 | 400<br>150FS-33-50 |
| 0.5                     | 104<br>150FS-33-50      | 130<br>150FS-33-50 | 156<br>150FS-33-50 | 182<br>150FS-33-50 | 208<br>150FS-33-50 | 260<br>150FS-33-50 | 312<br>150FS-33-50 | 364<br>150FS-33-50 |
| 0.4                     | 94<br>150FS-33-50       | 117<br>150FS-33-50 | 140<br>150FS-33-50 | 164<br>150FS-33-50 | 187<br>150FS-33-50 | 234<br>150FS-33-50 | 281<br>150FS-33-50 | 328<br>150FS-33-50 |
| 0.3                     | 83<br>150FS-33-50       | 104<br>150FS-33-50 | 125<br>150FS-33-50 | 146<br>150FS-33-50 | 166<br>150FS-33-50 | 208<br>150FS-33-50 | 250<br>150FS-33-50 | 291<br>150FS-33-50 |
| 0.2                     | 73<br>150FS-33-50       | 91<br>150FS-33-50  | 109<br>150FS-33-50 | 127<br>150FS-33-50 | 146<br>150FS-33-50 | 182<br>150FS-33-50 | 218<br>150FS-33-50 | 255<br>150FS-33-50 |
| 0.1                     | 62<br>150FS-33-50       | 78<br>150FS-33-50  | 94<br>150FS-33-50  | 109<br>150FS-33-50 | 125<br>150FS-33-50 | 156<br>150FS-33-50 | 187<br>150FS-33-50 | 218<br>150FS-33-50 |
| 0.0                     | 55<br>150FS-33-50       | 68<br>150FS-33-50  | 82<br>150FS-33-50  | 96<br>150FS-33-50  | 109<br>150FS-33-50 | 137<br>150FS-33-50 | 164<br>150FS-33-50 | 191<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |             |              |              |              |              |              |              |
|-------------------------|----------------------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                         | 0.50                       | 0.75        | 1.00         | 1.25         | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                     | 151<br>HD-1                | 626<br>HD-1 | 1101<br>HD-1 | 1577<br>HD-1 | 2052<br>HD-1 | 2527<br>HD-1 | 3003<br>HD-1 | 3478<br>HD-2 |
| 0.9                     | 87<br>HD-1                 | 531<br>HD-1 | 975<br>HD-1  | 1418<br>HD-1 | 1862<br>HD-1 | 2305<br>HD-1 | 2749<br>HD-1 | 3193<br>HD-2 |
| 0.8                     | 24<br>HD-1                 | 436<br>HD-1 | 848<br>HD-1  | 1260<br>HD-1 | 1672<br>HD-1 | 2084<br>HD-1 | 2496<br>HD-1 | 2907<br>HD-1 |
| 0.7                     | 0<br>HD-0                  | 341<br>HD-1 | 721<br>HD-1  | 1101<br>HD-1 | 1482<br>HD-1 | 1862<br>HD-1 | 2242<br>HD-1 | 2622<br>HD-1 |
| 0.6                     | 0<br>HD-0                  | 246<br>HD-1 | 594<br>HD-1  | 943<br>HD-1  | 1291<br>HD-1 | 1640<br>HD-1 | 1989<br>HD-1 | 2337<br>HD-1 |
| 0.5                     | 0<br>HD-0                  | 151<br>HD-1 | 468<br>HD-1  | 784<br>HD-1  | 1101<br>HD-1 | 1418<br>HD-1 | 1735<br>HD-1 | 2052<br>HD-1 |
| 0.4                     | 0<br>HD-0                  | 56<br>HD-1  | 341<br>HD-1  | 626<br>HD-1  | 911<br>HD-1  | 1196<br>HD-1 | 1482<br>HD-1 | 1767<br>HD-1 |
| 0.3                     | 0<br>HD-0                  | 0<br>HD-0   | 214<br>HD-1  | 468<br>HD-1  | 721<br>HD-1  | 975<br>HD-1  | 1228<br>HD-1 | 1482<br>HD-1 |
| 0.2                     | 0<br>HD-0                  | 0<br>HD-0   | 87<br>HD-1   | 309<br>HD-1  | 531<br>HD-1  | 753<br>HD-1  | 975<br>HD-1  | 1196<br>HD-1 |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 151<br>HD-1  | 341<br>HD-1  | 531<br>HD-1  | 721<br>HD-1  | 911<br>HD-1  |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 32<br>HD-1   | 198<br>HD-1  | 365<br>HD-1  | 531<br>HD-1  | 697<br>HD-1  |



**TABLE 4.3.210: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.30 | Weight | 2200 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 172<br>150FS-33-50      | 215<br>150FS-33-50 | 257<br>150FS-33-50 | 300<br>150FS-33-50 | 343<br>150FS-33-50 | 429<br>150FS-33-50 | 515<br>200FS-33-50 | 601<br>200FS-33-50 |
| 0.9                  | 160<br>150FS-33-50      | 200<br>150FS-33-50 | 240<br>150FS-33-50 | 280<br>150FS-33-50 | 320<br>150FS-33-50 | 400<br>150FS-33-50 | 480<br>200FS-33-50 | 561<br>200FS-33-50 |
| 0.8                  | 149<br>150FS-33-50      | 186<br>150FS-33-50 | 223<br>150FS-33-50 | 260<br>150FS-33-50 | 297<br>150FS-33-50 | 372<br>150FS-33-50 | 446<br>150FS-33-50 | 521<br>200FS-33-50 |
| 0.7                  | 137<br>150FS-33-50      | 172<br>150FS-33-50 | 206<br>150FS-33-50 | 240<br>150FS-33-50 | 275<br>150FS-33-50 | 343<br>150FS-33-50 | 412<br>150FS-33-50 | 480<br>200FS-33-50 |
| 0.6                  | 126<br>150FS-33-50      | 157<br>150FS-33-50 | 189<br>150FS-33-50 | 220<br>150FS-33-50 | 252<br>150FS-33-50 | 315<br>150FS-33-50 | 378<br>150FS-33-50 | 440<br>150FS-33-50 |
| 0.5                  | 114<br>150FS-33-50      | 143<br>150FS-33-50 | 172<br>150FS-33-50 | 200<br>150FS-33-50 | 229<br>150FS-33-50 | 286<br>150FS-33-50 | 343<br>150FS-33-50 | 400<br>150FS-33-50 |
| 0.4                  | 103<br>150FS-33-50      | 129<br>150FS-33-50 | 154<br>150FS-33-50 | 180<br>150FS-33-50 | 206<br>150FS-33-50 | 257<br>150FS-33-50 | 309<br>150FS-33-50 | 360<br>150FS-33-50 |
| 0.3                  | 92<br>150FS-33-50       | 114<br>150FS-33-50 | 137<br>150FS-33-50 | 160<br>150FS-33-50 | 183<br>150FS-33-50 | 229<br>150FS-33-50 | 275<br>150FS-33-50 | 320<br>150FS-33-50 |
| 0.2                  | 80<br>150FS-33-50       | 100<br>150FS-33-50 | 120<br>150FS-33-50 | 140<br>150FS-33-50 | 160<br>150FS-33-50 | 200<br>150FS-33-50 | 240<br>150FS-33-50 | 280<br>150FS-33-50 |
| 0.1                  | 69<br>150FS-33-50       | 86<br>150FS-33-50  | 103<br>150FS-33-50 | 120<br>150FS-33-50 | 137<br>150FS-33-50 | 172<br>150FS-33-50 | 206<br>150FS-33-50 | 240<br>150FS-33-50 |
| 0.0                  | 60<br>150FS-33-50       | 75<br>150FS-33-50  | 90<br>150FS-33-50  | 105<br>150FS-33-50 | 120<br>150FS-33-50 | 150<br>150FS-33-50 | 180<br>150FS-33-50 | 210<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |             |              |              |              |              |              |              |
|----------------------|----------------------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75        | 1.00         | 1.25         | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                  | 166<br>HD-1                | 689<br>HD-1 | 1211<br>HD-1 | 1734<br>HD-1 | 2257<br>HD-1 | 2780<br>HD-1 | 3303<br>HD-2 | 3826<br>HD-2 |
| 0.9                  | 96<br>HD-1                 | 584<br>HD-1 | 1072<br>HD-1 | 1560<br>HD-1 | 2048<br>HD-1 | 2536<br>HD-1 | 3024<br>HD-1 | 3512<br>HD-2 |
| 0.8                  | 26<br>HD-1                 | 479<br>HD-1 | 933<br>HD-1  | 1386<br>HD-1 | 1839<br>HD-1 | 2292<br>HD-1 | 2745<br>HD-1 | 3198<br>HD-2 |
| 0.7                  | 0<br>HD-0                  | 375<br>HD-1 | 793<br>HD-1  | 1211<br>HD-1 | 1630<br>HD-1 | 2048<br>HD-1 | 2466<br>HD-1 | 2884<br>HD-1 |
| 0.6                  | 0<br>HD-0                  | 270<br>HD-1 | 654<br>HD-1  | 1037<br>HD-1 | 1421<br>HD-1 | 1804<br>HD-1 | 2187<br>HD-1 | 2571<br>HD-1 |
| 0.5                  | 0<br>HD-0                  | 166<br>HD-1 | 514<br>HD-1  | 863<br>HD-1  | 1211<br>HD-1 | 1560<br>HD-1 | 1909<br>HD-1 | 2257<br>HD-1 |
| 0.4                  | 0<br>HD-0                  | 61<br>HD-1  | 375<br>HD-1  | 689<br>HD-1  | 1002<br>HD-1 | 1316<br>HD-1 | 1630<br>HD-1 | 1943<br>HD-1 |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0   | 235<br>HD-1  | 514<br>HD-1  | 793<br>HD-1  | 1072<br>HD-1 | 1351<br>HD-1 | 1630<br>HD-1 |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0   | 96<br>HD-1   | 340<br>HD-1  | 584<br>HD-1  | 828<br>HD-1  | 1072<br>HD-1 | 1316<br>HD-1 |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 166<br>HD-1  | 375<br>HD-1  | 584<br>HD-1  | 793<br>HD-1  | 1002<br>HD-1 |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 35<br>HD-1   | 218<br>HD-1  | 401<br>HD-1  | 584<br>HD-1  | 767<br>HD-1  |





**TABLE 4.3.211: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.30 | Weight | 2400 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 187<br>150FS-33-50      | 234<br>150FS-33-50 | 281<br>150FS-33-50 | 328<br>150FS-33-50 | 374<br>150FS-33-50 | 468<br>200FS-33-50 | 562<br>200FS-33-50 | 655<br>250FS-33-50 |
| 0.9                  | 175<br>150FS-33-50      | 218<br>150FS-33-50 | 262<br>150FS-33-50 | 306<br>150FS-33-50 | 349<br>150FS-33-50 | 437<br>150FS-33-50 | 524<br>200FS-33-50 | 612<br>200FS-33-50 |
| 0.8                  | 162<br>150FS-33-50      | 203<br>150FS-33-50 | 243<br>150FS-33-50 | 284<br>150FS-33-50 | 324<br>150FS-33-50 | 406<br>150FS-33-50 | 487<br>200FS-33-50 | 568<br>200FS-33-50 |
| 0.7                  | 150<br>150FS-33-50      | 187<br>150FS-33-50 | 225<br>150FS-33-50 | 262<br>150FS-33-50 | 300<br>150FS-33-50 | 374<br>150FS-33-50 | 449<br>150FS-33-50 | 524<br>200FS-33-50 |
| 0.6                  | 137<br>150FS-33-50      | 172<br>150FS-33-50 | 206<br>150FS-33-50 | 240<br>150FS-33-50 | 275<br>150FS-33-50 | 343<br>150FS-33-50 | 412<br>150FS-33-50 | 480<br>200FS-33-50 |
| 0.5                  | 125<br>150FS-33-50      | 156<br>150FS-33-50 | 187<br>150FS-33-50 | 218<br>150FS-33-50 | 250<br>150FS-33-50 | 312<br>150FS-33-50 | 374<br>150FS-33-50 | 437<br>150FS-33-50 |
| 0.4                  | 112<br>150FS-33-50      | 140<br>150FS-33-50 | 168<br>150FS-33-50 | 197<br>150FS-33-50 | 225<br>150FS-33-50 | 281<br>150FS-33-50 | 337<br>150FS-33-50 | 393<br>150FS-33-50 |
| 0.3                  | 100<br>150FS-33-50      | 125<br>150FS-33-50 | 150<br>150FS-33-50 | 175<br>150FS-33-50 | 200<br>150FS-33-50 | 250<br>150FS-33-50 | 300<br>150FS-33-50 | 349<br>150FS-33-50 |
| 0.2                  | 87<br>150FS-33-50       | 109<br>150FS-33-50 | 131<br>150FS-33-50 | 153<br>150FS-33-50 | 175<br>150FS-33-50 | 218<br>150FS-33-50 | 262<br>150FS-33-50 | 306<br>150FS-33-50 |
| 0.1                  | 75<br>150FS-33-50       | 94<br>150FS-33-50  | 112<br>150FS-33-50 | 131<br>150FS-33-50 | 150<br>150FS-33-50 | 187<br>150FS-33-50 | 225<br>150FS-33-50 | 262<br>150FS-33-50 |
| 0.0                  | 66<br>150FS-33-50       | 82<br>150FS-33-50  | 98<br>150FS-33-50  | 115<br>150FS-33-50 | 131<br>150FS-33-50 | 164<br>150FS-33-50 | 197<br>150FS-33-50 | 229<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |             |              |              |              |              |              |              |
|----------------------|----------------------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75        | 1.00         | 1.25         | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                  | 181<br>HD-1                | 751<br>HD-1 | 1322<br>HD-1 | 1892<br>HD-1 | 2462<br>HD-1 | 3033<br>HD-1 | 3603<br>HD-2 | 4173<br>HD-2 |
| 0.9                  | 105<br>HD-1                | 637<br>HD-1 | 1169<br>HD-1 | 1702<br>HD-1 | 2234<br>HD-1 | 2766<br>HD-1 | 3299<br>HD-2 | 3831<br>HD-2 |
| 0.8                  | 29<br>HD-1                 | 523<br>HD-1 | 1017<br>HD-1 | 1512<br>HD-1 | 2006<br>HD-1 | 2500<br>HD-1 | 2995<br>HD-1 | 3489<br>HD-2 |
| 0.7                  | 0<br>HD-0                  | 409<br>HD-1 | 865<br>HD-1  | 1322<br>HD-1 | 1778<br>HD-1 | 2234<br>HD-1 | 2690<br>HD-1 | 3147<br>HD-1 |
| 0.6                  | 0<br>HD-0                  | 295<br>HD-1 | 713<br>HD-1  | 1131<br>HD-1 | 1550<br>HD-1 | 1968<br>HD-1 | 2386<br>HD-1 | 2804<br>HD-1 |
| 0.5                  | 0<br>HD-0                  | 181<br>HD-1 | 561<br>HD-1  | 941<br>HD-1  | 1322<br>HD-1 | 1702<br>HD-1 | 2082<br>HD-1 | 2462<br>HD-1 |
| 0.4                  | 0<br>HD-0                  | 67<br>HD-1  | 409<br>HD-1  | 751<br>HD-1  | 1093<br>HD-1 | 1436<br>HD-1 | 1778<br>HD-1 | 2120<br>HD-1 |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0   | 257<br>HD-1  | 561<br>HD-1  | 865<br>HD-1  | 1169<br>HD-1 | 1474<br>HD-1 | 1778<br>HD-1 |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0   | 105<br>HD-1  | 371<br>HD-1  | 637<br>HD-1  | 903<br>HD-1  | 1169<br>HD-1 | 1436<br>HD-1 |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 181<br>HD-1  | 409<br>HD-1  | 637<br>HD-1  | 865<br>HD-1  | 1093<br>HD-1 |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 38<br>HD-1   | 238<br>HD-1  | 437<br>HD-1  | 637<br>HD-1  | 837<br>HD-1  |



**TABLE 4.3.212: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                 |          |      |        |          |
|--------------------|------|----|-----------------|----------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | ( $I_p = 1.5$ ) | $S_{DS}$ | 1.30 | Weight | 2600 lbs |
|--------------------|------|----|-----------------|----------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 203<br>150FS-33-50      | 254<br>150FS-33-50 | 304<br>150FS-33-50 | 355<br>150FS-33-50 | 406<br>150FS-33-50 | 507<br>200FS-33-50 | 608<br>200FS-33-50 | 710<br>250FS-33-50 |
| 0.9                  | 189<br>150FS-33-50      | 237<br>150FS-33-50 | 284<br>150FS-33-50 | 331<br>150FS-33-50 | 379<br>150FS-33-50 | 473<br>200FS-33-50 | 568<br>200FS-33-50 | 662<br>250FS-33-50 |
| 0.8                  | 176<br>150FS-33-50      | 220<br>150FS-33-50 | 264<br>150FS-33-50 | 308<br>150FS-33-50 | 352<br>150FS-33-50 | 439<br>150FS-33-50 | 527<br>200FS-33-50 | 615<br>200FS-33-50 |
| 0.7                  | 162<br>150FS-33-50      | 203<br>150FS-33-50 | 243<br>150FS-33-50 | 284<br>150FS-33-50 | 324<br>150FS-33-50 | 406<br>150FS-33-50 | 487<br>200FS-33-50 | 568<br>200FS-33-50 |
| 0.6                  | 149<br>150FS-33-50      | 186<br>150FS-33-50 | 223<br>150FS-33-50 | 260<br>150FS-33-50 | 297<br>150FS-33-50 | 372<br>150FS-33-50 | 446<br>150FS-33-50 | 521<br>200FS-33-50 |
| 0.5                  | 135<br>150FS-33-50      | 169<br>150FS-33-50 | 203<br>150FS-33-50 | 237<br>150FS-33-50 | 270<br>150FS-33-50 | 338<br>150FS-33-50 | 406<br>150FS-33-50 | 473<br>150FS-33-50 |
| 0.4                  | 122<br>150FS-33-50      | 152<br>150FS-33-50 | 183<br>150FS-33-50 | 213<br>150FS-33-50 | 243<br>150FS-33-50 | 304<br>150FS-33-50 | 365<br>150FS-33-50 | 426<br>150FS-33-50 |
| 0.3                  | 108<br>150FS-33-50      | 135<br>150FS-33-50 | 162<br>150FS-33-50 | 189<br>150FS-33-50 | 216<br>150FS-33-50 | 270<br>150FS-33-50 | 324<br>150FS-33-50 | 379<br>150FS-33-50 |
| 0.2                  | 95<br>150FS-33-50       | 118<br>150FS-33-50 | 142<br>150FS-33-50 | 166<br>150FS-33-50 | 189<br>150FS-33-50 | 237<br>150FS-33-50 | 284<br>150FS-33-50 | 331<br>150FS-33-50 |
| 0.1                  | 81<br>150FS-33-50       | 101<br>150FS-33-50 | 122<br>150FS-33-50 | 142<br>150FS-33-50 | 162<br>150FS-33-50 | 203<br>150FS-33-50 | 243<br>150FS-33-50 | 284<br>150FS-33-50 |
| 0.0                  | 71<br>150FS-33-50       | 89<br>150FS-33-50  | 106<br>150FS-33-50 | 124<br>150FS-33-50 | 142<br>150FS-33-50 | 177<br>150FS-33-50 | 213<br>150FS-33-50 | 248<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |             |              |              |              |              |              |              |
|----------------------|----------------------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75        | 1.00         | 1.25         | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                  | 196<br>HD-1                | 814<br>HD-1 | 1432<br>HD-1 | 2050<br>HD-1 | 2667<br>HD-1 | 3285<br>HD-2 | 3903<br>HD-2 | 4521<br>HD-2 |
| 0.9                  | 113<br>HD-1                | 690<br>HD-1 | 1267<br>HD-1 | 1844<br>HD-1 | 2420<br>HD-1 | 2997<br>HD-1 | 3574<br>HD-2 | 4150<br>HD-2 |
| 0.8                  | 31<br>HD-1                 | 567<br>HD-1 | 1102<br>HD-1 | 1638<br>HD-1 | 2173<br>HD-1 | 2709<br>HD-1 | 3244<br>HD-2 | 3780<br>HD-2 |
| 0.7                  | 0<br>HD-0                  | 443<br>HD-1 | 937<br>HD-1  | 1432<br>HD-1 | 1926<br>HD-1 | 2420<br>HD-1 | 2915<br>HD-1 | 3409<br>HD-2 |
| 0.6                  | 0<br>HD-0                  | 319<br>HD-1 | 773<br>HD-1  | 1226<br>HD-1 | 1679<br>HD-1 | 2132<br>HD-1 | 2585<br>HD-1 | 3038<br>HD-1 |
| 0.5                  | 0<br>HD-0                  | 196<br>HD-1 | 608<br>HD-1  | 1020<br>HD-1 | 1432<br>HD-1 | 1844<br>HD-1 | 2256<br>HD-1 | 2667<br>HD-1 |
| 0.4                  | 0<br>HD-0                  | 72<br>HD-1  | 443<br>HD-1  | 814<br>HD-1  | 1184<br>HD-1 | 1555<br>HD-1 | 1926<br>HD-1 | 2297<br>HD-1 |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0   | 278<br>HD-1  | 608<br>HD-1  | 937<br>HD-1  | 1267<br>HD-1 | 1596<br>HD-1 | 1926<br>HD-1 |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0   | 113<br>HD-1  | 402<br>HD-1  | 690<br>HD-1  | 978<br>HD-1  | 1267<br>HD-1 | 1555<br>HD-1 |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 196<br>HD-1  | 443<br>HD-1  | 690<br>HD-1  | 937<br>HD-1  | 1184<br>HD-1 |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 41<br>HD-1   | 258<br>HD-1  | 474<br>HD-1  | 690<br>HD-1  | 906<br>HD-1  |



**TABLE 4.3.213: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.30 | Weight | 2800 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|-------------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                         | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                     | 218<br>150FS-33-50      | 273<br>150FS-33-50 | 328<br>150FS-33-50 | 382<br>150FS-33-50 | 437<br>150FS-33-50 | 546<br>200FS-33-50 | 655<br>250FS-33-50 | 764<br>250FS-33-50 |
| 0.9                     | 204<br>150FS-33-50      | 255<br>150FS-33-50 | 306<br>150FS-33-50 | 357<br>150FS-33-50 | 408<br>150FS-33-50 | 510<br>200FS-33-50 | 612<br>200FS-33-50 | 713<br>250FS-33-50 |
| 0.8                     | 189<br>150FS-33-50      | 237<br>150FS-33-50 | 284<br>150FS-33-50 | 331<br>150FS-33-50 | 379<br>150FS-33-50 | 473<br>200FS-33-50 | 568<br>200FS-33-50 | 662<br>250FS-33-50 |
| 0.7                     | 175<br>150FS-33-50      | 218<br>150FS-33-50 | 262<br>150FS-33-50 | 306<br>150FS-33-50 | 349<br>150FS-33-50 | 437<br>150FS-33-50 | 524<br>200FS-33-50 | 612<br>200FS-33-50 |
| 0.6                     | 160<br>150FS-33-50      | 200<br>150FS-33-50 | 240<br>150FS-33-50 | 280<br>150FS-33-50 | 320<br>150FS-33-50 | 400<br>150FS-33-50 | 480<br>200FS-33-50 | 561<br>200FS-33-50 |
| 0.5                     | 146<br>150FS-33-50      | 182<br>150FS-33-50 | 218<br>150FS-33-50 | 255<br>150FS-33-50 | 291<br>150FS-33-50 | 364<br>150FS-33-50 | 437<br>150FS-33-50 | 510<br>200FS-33-50 |
| 0.4                     | 131<br>150FS-33-50      | 164<br>150FS-33-50 | 197<br>150FS-33-50 | 229<br>150FS-33-50 | 262<br>150FS-33-50 | 328<br>150FS-33-50 | 393<br>150FS-33-50 | 459<br>150FS-33-50 |
| 0.3                     | 116<br>150FS-33-50      | 146<br>150FS-33-50 | 175<br>150FS-33-50 | 204<br>150FS-33-50 | 233<br>150FS-33-50 | 291<br>150FS-33-50 | 349<br>150FS-33-50 | 408<br>150FS-33-50 |
| 0.2                     | 102<br>150FS-33-50      | 127<br>150FS-33-50 | 153<br>150FS-33-50 | 178<br>150FS-33-50 | 204<br>150FS-33-50 | 255<br>150FS-33-50 | 306<br>150FS-33-50 | 357<br>150FS-33-50 |
| 0.1                     | 87<br>150FS-33-50       | 109<br>150FS-33-50 | 131<br>150FS-33-50 | 153<br>150FS-33-50 | 175<br>150FS-33-50 | 218<br>150FS-33-50 | 262<br>150FS-33-50 | 306<br>150FS-33-50 |
| 0.0                     | 76<br>150FS-33-50       | 96<br>150FS-33-50  | 115<br>150FS-33-50 | 134<br>150FS-33-50 | 153<br>150FS-33-50 | 191<br>150FS-33-50 | 229<br>150FS-33-50 | 268<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |             |              |              |              |              |              |              |
|-------------------------|----------------------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                         | 0.50                       | 0.75        | 1.00         | 1.25         | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                     | 211<br>HD-1                | 876<br>HD-1 | 1542<br>HD-1 | 2207<br>HD-1 | 2873<br>HD-1 | 3538<br>HD-2 | 4204<br>HD-2 | 4869<br>HD-3 |
| 0.9                     | 122<br>HD-1                | 743<br>HD-1 | 1364<br>HD-1 | 1985<br>HD-1 | 2606<br>HD-1 | 3228<br>HD-2 | 3849<br>HD-2 | 4470<br>HD-2 |
| 0.8                     | 33<br>HD-1                 | 610<br>HD-1 | 1187<br>HD-1 | 1764<br>HD-1 | 2340<br>HD-1 | 2917<br>HD-1 | 3494<br>HD-2 | 4070<br>HD-2 |
| 0.7                     | 0<br>HD-0                  | 477<br>HD-1 | 1009<br>HD-1 | 1542<br>HD-1 | 2074<br>HD-1 | 2606<br>HD-1 | 3139<br>HD-1 | 3671<br>HD-2 |
| 0.6                     | 0<br>HD-0                  | 344<br>HD-1 | 832<br>HD-1  | 1320<br>HD-1 | 1808<br>HD-1 | 2296<br>HD-1 | 2784<br>HD-1 | 3272<br>HD-2 |
| 0.5                     | 0<br>HD-0                  | 211<br>HD-1 | 655<br>HD-1  | 1098<br>HD-1 | 1542<br>HD-1 | 1985<br>HD-1 | 2429<br>HD-1 | 2873<br>HD-1 |
| 0.4                     | 0<br>HD-0                  | 78<br>HD-1  | 477<br>HD-1  | 876<br>HD-1  | 1276<br>HD-1 | 1675<br>HD-1 | 2074<br>HD-1 | 2473<br>HD-1 |
| 0.3                     | 0<br>HD-0                  | 0<br>HD-0   | 300<br>HD-1  | 655<br>HD-1  | 1009<br>HD-1 | 1364<br>HD-1 | 1719<br>HD-1 | 2074<br>HD-1 |
| 0.2                     | 0<br>HD-0                  | 0<br>HD-0   | 122<br>HD-1  | 433<br>HD-1  | 743<br>HD-1  | 1054<br>HD-1 | 1364<br>HD-1 | 1675<br>HD-1 |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 211<br>HD-1  | 477<br>HD-1  | 743<br>HD-1  | 1009<br>HD-1 | 1276<br>HD-1 |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0   | 0<br>HD-0    | 45<br>HD-1   | 277<br>HD-1  | 510<br>HD-1  | 743<br>HD-1  | 976<br>HD-1  |



**TABLE 4.3.214: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |            |                 |      |        |          |
|--------------------|------|----|------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (Ip = 1.5) | S <sub>DS</sub> | 1.30 | Weight | 3000 lbs |
|--------------------|------|----|------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |             |             |             |             |             |             |             |
|----------------------|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                      | 1.00                    | 1.25        | 1.50        | 1.75        | 2.00        | 2.50        | 3.00        | 3.50        |
| 1.0                  | 234                     | 293         | 351         | 410         | 468         | 585         | 702         | 819         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 |
| 0.9                  | 218                     | 273         | 328         | 382         | 437         | 546         | 655         | 764         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 |
| 0.8                  | 203                     | 254         | 304         | 355         | 406         | 507         | 608         | 710         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 |
| 0.7                  | 187                     | 234         | 281         | 328         | 374         | 468         | 562         | 655         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 |
| 0.6                  | 172                     | 215         | 257         | 300         | 343         | 429         | 515         | 601         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 |
| 0.5                  | 156                     | 195         | 234         | 273         | 312         | 390         | 468         | 546         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 |
| 0.4                  | 140                     | 176         | 211         | 246         | 281         | 351         | 421         | 491         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 |
| 0.3                  | 125                     | 156         | 187         | 218         | 250         | 312         | 374         | 437         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 |
| 0.2                  | 109                     | 137         | 164         | 191         | 218         | 273         | 328         | 382         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 |
| 0.1                  | 94                      | 117         | 140         | 164         | 187         | 234         | 281         | 328         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 |
| 0.0                  | 82                      | 102         | 123         | 143         | 164         | 205         | 246         | 287         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |      |      |      |      |      |      |      |
|----------------------|----------------------------|------|------|------|------|------|------|------|
|                      | 0.50                       | 0.75 | 1.00 | 1.25 | 1.50 | 1.75 | 2.00 | 2.25 |
| 1.0                  | 226                        | 939  | 1652 | 2365 | 3078 | 3791 | 4504 | 5217 |
|                      | HD-1                       | HD-1 | HD-1 | HD-1 | HD-1 | HD-2 | HD-2 | HD-3 |
| 0.9                  | 131                        | 796  | 1462 | 2127 | 2793 | 3458 | 4124 | 4789 |
|                      | HD-1                       | HD-1 | HD-1 | HD-1 | HD-1 | HD-2 | HD-2 | HD-3 |
| 0.8                  | 36                         | 654  | 1272 | 1890 | 2507 | 3125 | 3743 | 4361 |
|                      | HD-1                       | HD-1 | HD-1 | HD-1 | HD-1 | HD-1 | HD-2 | HD-2 |
| 0.7                  | 0                          | 511  | 1082 | 1652 | 2222 | 2793 | 3363 | 3933 |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1 | HD-1 | HD-2 | HD-2 |
| 0.6                  | 0                          | 369  | 891  | 1414 | 1937 | 2460 | 2983 | 3506 |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1 | HD-1 | HD-1 | HD-2 |
| 0.5                  | 0                          | 226  | 701  | 1177 | 1652 | 2127 | 2603 | 3078 |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1 | HD-1 | HD-1 | HD-1 |
| 0.4                  | 0                          | 83   | 511  | 939  | 1367 | 1794 | 2222 | 2650 |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1 | HD-1 | HD-1 | HD-1 |
| 0.3                  | 0                          | 0    | 321  | 701  | 1082 | 1462 | 1842 | 2222 |
|                      | HD-0                       | HD-0 | HD-1 | HD-1 | HD-1 | HD-1 | HD-1 | HD-1 |
| 0.2                  | 0                          | 0    | 131  | 464  | 796  | 1129 | 1462 | 1794 |
|                      | HD-0                       | HD-0 | HD-1 | HD-1 | HD-1 | HD-1 | HD-1 | HD-1 |
| 0.1                  | 0                          | 0    | 0    | 226  | 511  | 796  | 1082 | 1367 |
|                      | HD-0                       | HD-0 | HD-0 | HD-1 | HD-1 | HD-1 | HD-1 | HD-1 |
| 0.0                  | 0                          | 0    | 0    | 48   | 297  | 547  | 796  | 1046 |
|                      | HD-0                       | HD-0 | HD-0 | HD-1 | HD-1 | HD-1 | HD-1 | HD-1 |



**TABLE 4.3.215: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.30 | Weight | 3200 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 250<br>150FS-33-50      | 312<br>150FS-33-50 | 374<br>150FS-33-50 | 437<br>200FS-33-50 | 499<br>200FS-33-50 | 624<br>250FS-33-50 | 749<br>250FS-33-50 | 874<br>300FS-33-50 |
| 0.9                  | 233<br>150FS-33-50      | 291<br>150FS-33-50 | 349<br>150FS-33-50 | 408<br>150FS-33-50 | 466<br>200FS-33-50 | 582<br>200FS-33-50 | 699<br>250FS-33-50 | 815<br>300FS-33-50 |
| 0.8                  | 216<br>150FS-33-50      | 270<br>150FS-33-50 | 324<br>150FS-33-50 | 379<br>150FS-33-50 | 433<br>150FS-33-50 | 541<br>200FS-33-50 | 649<br>250FS-33-50 | 757<br>250FS-33-50 |
| 0.7                  | 200<br>150FS-33-50      | 250<br>150FS-33-50 | 300<br>150FS-33-50 | 349<br>150FS-33-50 | 399<br>150FS-33-50 | 499<br>200FS-33-50 | 599<br>200FS-33-50 | 699<br>250FS-33-50 |
| 0.6                  | 183<br>150FS-33-50      | 229<br>150FS-33-50 | 275<br>150FS-33-50 | 320<br>150FS-33-50 | 366<br>150FS-33-50 | 458<br>150FS-33-50 | 549<br>200FS-33-50 | 641<br>250FS-33-50 |
| 0.5                  | 166<br>150FS-33-50      | 208<br>150FS-33-50 | 250<br>150FS-33-50 | 291<br>150FS-33-50 | 333<br>150FS-33-50 | 416<br>150FS-33-50 | 499<br>200FS-33-50 | 582<br>200FS-33-50 |
| 0.4                  | 150<br>150FS-33-50      | 187<br>150FS-33-50 | 225<br>150FS-33-50 | 262<br>150FS-33-50 | 300<br>150FS-33-50 | 374<br>150FS-33-50 | 449<br>150FS-33-50 | 524<br>200FS-33-50 |
| 0.3                  | 133<br>150FS-33-50      | 166<br>150FS-33-50 | 200<br>150FS-33-50 | 233<br>150FS-33-50 | 266<br>150FS-33-50 | 333<br>150FS-33-50 | 399<br>150FS-33-50 | 466<br>150FS-33-50 |
| 0.2                  | 116<br>150FS-33-50      | 146<br>150FS-33-50 | 175<br>150FS-33-50 | 204<br>150FS-33-50 | 233<br>150FS-33-50 | 291<br>150FS-33-50 | 349<br>150FS-33-50 | 408<br>150FS-33-50 |
| 0.1                  | 100<br>150FS-33-50      | 125<br>150FS-33-50 | 150<br>150FS-33-50 | 175<br>150FS-33-50 | 200<br>150FS-33-50 | 250<br>150FS-33-50 | 300<br>150FS-33-50 | 349<br>150FS-33-50 |
| 0.0                  | 87<br>150FS-33-50       | 109<br>150FS-33-50 | 131<br>150FS-33-50 | 153<br>150FS-33-50 | 175<br>150FS-33-50 | 218<br>150FS-33-50 | 262<br>150FS-33-50 | 306<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |              |              |              |              |              |              |                      |
|----------------------|----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------------|
|                      | 0.50                       | 0.75         | 1.00         | 1.25         | 1.50         | 1.75         | 2.00         | 2.25                 |
| 1.0                  | 241<br>HD-1                | 1002<br>HD-1 | 1762<br>HD-1 | 2523<br>HD-1 | 3283<br>HD-2 | 4044<br>HD-2 | 4804<br>HD-3 | 5565<br>No Solutions |
| 0.9                  | 140<br>HD-1                | 849<br>HD-1  | 1559<br>HD-1 | 2269<br>HD-1 | 2979<br>HD-1 | 3689<br>HD-2 | 4398<br>HD-2 | 5108<br>HD-3         |
| 0.8                  | 38<br>HD-1                 | 697<br>HD-1  | 1356<br>HD-1 | 2016<br>HD-1 | 2675<br>HD-1 | 3334<br>HD-2 | 3993<br>HD-2 | 4652<br>HD-2         |
| 0.7                  | 0<br>HD-0                  | 545<br>HD-1  | 1154<br>HD-1 | 1762<br>HD-1 | 2370<br>HD-1 | 2979<br>HD-1 | 3587<br>HD-2 | 4196<br>HD-2         |
| 0.6                  | 0<br>HD-0                  | 393<br>HD-1  | 951<br>HD-1  | 1509<br>HD-1 | 2066<br>HD-1 | 2624<br>HD-1 | 3182<br>HD-2 | 3739<br>HD-2         |
| 0.5                  | 0<br>HD-0                  | 241<br>HD-1  | 748<br>HD-1  | 1255<br>HD-1 | 1762<br>HD-1 | 2269<br>HD-1 | 2776<br>HD-1 | 3283<br>HD-2         |
| 0.4                  | 0<br>HD-0                  | 89<br>HD-1   | 545<br>HD-1  | 1002<br>HD-1 | 1458<br>HD-1 | 1914<br>HD-1 | 2370<br>HD-1 | 2827<br>HD-1         |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0    | 342<br>HD-1  | 748<br>HD-1  | 1154<br>HD-1 | 1559<br>HD-1 | 1965<br>HD-1 | 2370<br>HD-1         |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0    | 140<br>HD-1  | 495<br>HD-1  | 849<br>HD-1  | 1204<br>HD-1 | 1559<br>HD-1 | 1914<br>HD-1         |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0    | 0<br>HD-0    | 241<br>HD-1  | 545<br>HD-1  | 849<br>HD-1  | 1154<br>HD-1 | 1458<br>HD-1         |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0    | 0<br>HD-0    | 51<br>HD-1   | 317<br>HD-1  | 583<br>HD-1  | 849<br>HD-1  | 1116<br>HD-1         |



**TABLE 4.3.216: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                 |          |      |        |          |
|--------------------|------|----|-----------------|----------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | ( $I_p = 1.5$ ) | $S_{DS}$ | 1.30 | Weight | 3400 lbs |
|--------------------|------|----|-----------------|----------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 265<br>150FS-33-50      | 332<br>150FS-33-50 | 398<br>150FS-33-50 | 464<br>200FS-33-50 | 530<br>200FS-33-50 | 663<br>250FS-33-50 | 796<br>300FS-33-50 | 928<br>300FS-33-50 |
| 0.9                  | 248<br>150FS-33-50      | 309<br>150FS-33-50 | 371<br>150FS-33-50 | 433<br>200FS-33-50 | 495<br>200FS-33-50 | 619<br>250FS-33-50 | 743<br>250FS-33-50 | 866<br>300FS-33-50 |
| 0.8                  | 230<br>150FS-33-50      | 287<br>150FS-33-50 | 345<br>150FS-33-50 | 402<br>150FS-33-50 | 460<br>200FS-33-50 | 575<br>200FS-33-50 | 690<br>250FS-33-50 | 804<br>300FS-33-50 |
| 0.7                  | 212<br>150FS-33-50      | 265<br>150FS-33-50 | 318<br>150FS-33-50 | 371<br>150FS-33-50 | 424<br>150FS-33-50 | 530<br>200FS-33-50 | 636<br>250FS-33-50 | 743<br>250FS-33-50 |
| 0.6                  | 194<br>150FS-33-50      | 243<br>150FS-33-50 | 292<br>150FS-33-50 | 340<br>150FS-33-50 | 389<br>150FS-33-50 | 486<br>200FS-33-50 | 583<br>200FS-33-50 | 681<br>250FS-33-50 |
| 0.5                  | 177<br>150FS-33-50      | 221<br>150FS-33-50 | 265<br>150FS-33-50 | 309<br>150FS-33-50 | 354<br>150FS-33-50 | 442<br>150FS-33-50 | 530<br>200FS-33-50 | 619<br>200FS-33-50 |
| 0.4                  | 159<br>150FS-33-50      | 199<br>150FS-33-50 | 239<br>150FS-33-50 | 278<br>150FS-33-50 | 318<br>150FS-33-50 | 398<br>150FS-33-50 | 477<br>200FS-33-50 | 557<br>200FS-33-50 |
| 0.3                  | 141<br>150FS-33-50      | 177<br>150FS-33-50 | 212<br>150FS-33-50 | 248<br>150FS-33-50 | 283<br>150FS-33-50 | 354<br>150FS-33-50 | 424<br>150FS-33-50 | 495<br>200FS-33-50 |
| 0.2                  | 124<br>150FS-33-50      | 155<br>150FS-33-50 | 186<br>150FS-33-50 | 217<br>150FS-33-50 | 248<br>150FS-33-50 | 309<br>150FS-33-50 | 371<br>150FS-33-50 | 433<br>150FS-33-50 |
| 0.1                  | 106<br>150FS-33-50      | 133<br>150FS-33-50 | 159<br>150FS-33-50 | 186<br>150FS-33-50 | 212<br>150FS-33-50 | 265<br>150FS-33-50 | 318<br>150FS-33-50 | 371<br>150FS-33-50 |
| 0.0                  | 93<br>150FS-33-50       | 116<br>150FS-33-50 | 139<br>150FS-33-50 | 162<br>150FS-33-50 | 186<br>150FS-33-50 | 232<br>150FS-33-50 | 278<br>150FS-33-50 | 325<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |              |              |              |              |              |              |                      |
|----------------------|----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------------|
|                      | 0.50                       | 0.75         | 1.00         | 1.25         | 1.50         | 1.75         | 2.00         | 2.25                 |
| 1.0                  | 256<br>HD-1                | 1064<br>HD-1 | 1872<br>HD-1 | 2680<br>HD-1 | 3488<br>HD-2 | 4296<br>HD-2 | 5104<br>HD-3 | 5912<br>No Solutions |
| 0.9                  | 148<br>HD-1                | 902<br>HD-1  | 1657<br>HD-1 | 2411<br>HD-1 | 3165<br>HD-1 | 3919<br>HD-2 | 4673<br>HD-2 | 5427<br>HD-3         |
| 0.8                  | 41<br>HD-1                 | 741<br>HD-1  | 1441<br>HD-1 | 2141<br>HD-1 | 2842<br>HD-1 | 3542<br>HD-2 | 4242<br>HD-2 | 4943<br>HD-3         |
| 0.7                  | 0<br>HD-0                  | 579<br>HD-1  | 1226<br>HD-1 | 1872<br>HD-1 | 2519<br>HD-1 | 3165<br>HD-1 | 3811<br>HD-2 | 4458<br>HD-2         |
| 0.6                  | 0<br>HD-0                  | 418<br>HD-1  | 1010<br>HD-1 | 1603<br>HD-1 | 2195<br>HD-1 | 2788<br>HD-1 | 3380<br>HD-2 | 3973<br>HD-2         |
| 0.5                  | 0<br>HD-0                  | 256<br>HD-1  | 795<br>HD-1  | 1333<br>HD-1 | 1872<br>HD-1 | 2411<br>HD-1 | 2950<br>HD-1 | 3488<br>HD-2         |
| 0.4                  | 0<br>HD-0                  | 94<br>HD-1   | 579<br>HD-1  | 1064<br>HD-1 | 1549<br>HD-1 | 2034<br>HD-1 | 2519<br>HD-1 | 3003<br>HD-1         |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0    | 364<br>HD-1  | 795<br>HD-1  | 1226<br>HD-1 | 1657<br>HD-1 | 2088<br>HD-1 | 2519<br>HD-1         |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0    | 148<br>HD-1  | 525<br>HD-1  | 902<br>HD-1  | 1280<br>HD-1 | 1657<br>HD-1 | 2034<br>HD-1         |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0    | 0<br>HD-0    | 256<br>HD-1  | 579<br>HD-1  | 902<br>HD-1  | 1226<br>HD-1 | 1549<br>HD-1         |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0    | 0<br>HD-0    | 54<br>HD-1   | 337<br>HD-1  | 620<br>HD-1  | 902<br>HD-1  | 1185<br>HD-1         |



**TABLE 4.3.217: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.30 | Weight | 3600 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |             |             |             |             |             |             |             |
|----------------------|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                      | 1.00                    | 1.25        | 1.50        | 1.75        | 2.00        | 2.50        | 3.00        | 3.50        |
| 1.0                  | 281                     | 351         | 421         | 491         | 562         | 702         | 842         | 983         |
|                      | 150FS-33-50             | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 |
| 0.9                  | 262                     | 328         | 393         | 459         | 524         | 655         | 786         | 917         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 | 300FS-33-50 |
| 0.8                  | 243                     | 304         | 365         | 426         | 487         | 608         | 730         | 852         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 |
| 0.7                  | 225                     | 281         | 337         | 393         | 449         | 562         | 674         | 786         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 |
| 0.6                  | 206                     | 257         | 309         | 360         | 412         | 515         | 618         | 721         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 |
| 0.5                  | 187                     | 234         | 281         | 328         | 374         | 468         | 562         | 655         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 |
| 0.4                  | 168                     | 211         | 253         | 295         | 337         | 421         | 505         | 590         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 |
| 0.3                  | 150                     | 187         | 226         | 262         | 300         | 374         | 449         | 524         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 |
| 0.2                  | 131                     | 164         | 197         | 229         | 262         | 328         | 393         | 459         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 |
| 0.1                  | 112                     | 140         | 168         | 197         | 225         | 281         | 337         | 393         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 |
| 0.0                  | 98                      | 123         | 147         | 172         | 197         | 246         | 295         | 344         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |      |      |      |      |      |      |              |
|----------------------|----------------------------|------|------|------|------|------|------|--------------|
|                      | 0.50                       | 0.75 | 1.00 | 1.25 | 1.50 | 1.75 | 2.00 | 2.25         |
| 1.0                  | 271                        | 1127 | 1982 | 2838 | 3693 | 4549 | 5405 | 6260         |
|                      | HD-1                       | HD-1 | HD-1 | HD-1 | HD-2 | HD-2 | HD-3 | No Solutions |
| 0.9                  | 157                        | 956  | 1754 | 2553 | 3351 | 4150 | 4948 | 5747         |
|                      | HD-1                       | HD-1 | HD-1 | HD-1 | HD-2 | HD-2 | HD-3 | No Solutions |
| 0.8                  | 43                         | 784  | 1526 | 2267 | 3009 | 3750 | 4492 | 5233         |
|                      | HD-1                       | HD-1 | HD-1 | HD-1 | HD-1 | HD-2 | HD-2 | HD-3         |
| 0.7                  | 0                          | 613  | 1298 | 1982 | 2667 | 3351 | 4036 | 4720         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1 | HD-2 | HD-2 | HD-2         |
| 0.6                  | 0                          | 442  | 1070 | 1697 | 2324 | 2952 | 3579 | 4207         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1 | HD-1 | HD-2 | HD-2         |
| 0.5                  | 0                          | 271  | 842  | 1412 | 1982 | 2553 | 3123 | 3693         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1 | HD-1 | HD-1 | HD-2         |
| 0.4                  | 0                          | 100  | 613  | 1127 | 1640 | 2153 | 2667 | 3180         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1 | HD-1 | HD-1 | HD-2         |
| 0.3                  | 0                          | 0    | 385  | 842  | 1298 | 1754 | 2210 | 2667         |
|                      | HD-0                       | HD-0 | HD-1 | HD-1 | HD-1 | HD-1 | HD-1 | HD-1         |
| 0.2                  | 0                          | 0    | 157  | 556  | 956  | 1355 | 1754 | 2153         |
|                      | HD-0                       | HD-0 | HD-1 | HD-1 | HD-1 | HD-1 | HD-1 | HD-1         |
| 0.1                  | 0                          | 0    | 0    | 271  | 613  | 956  | 1298 | 1640         |
|                      | HD-0                       | HD-0 | HD-0 | HD-1 | HD-1 | HD-1 | HD-1 | HD-1         |
| 0.0                  | 0                          | 0    | 0    | 57   | 357  | 656  | 956  | 1255         |
|                      | HD-0                       | HD-0 | HD-0 | HD-1 | HD-1 | HD-1 | HD-1 | HD-1         |



**TABLE 4.3.218: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.30 | Weight | 3800 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                     |
|-------------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
|                         | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50                |
| 1.0                     | 296<br>150FS-33-50      | 371<br>150FS-33-50 | 445<br>200FS-33-50 | 519<br>200FS-33-50 | 593<br>250FS-33-50 | 741<br>250FS-33-50 | 889<br>300FS-33-50 | 1037<br>400FS-33-50 |
| 0.9                     | 277<br>150FS-33-50      | 346<br>150FS-33-50 | 415<br>200FS-33-50 | 484<br>200FS-33-50 | 553<br>200FS-33-50 | 692<br>250FS-33-50 | 830<br>300FS-33-50 | 968<br>400FS-33-50  |
| 0.8                     | 257<br>150FS-33-50      | 321<br>150FS-33-50 | 385<br>150FS-33-50 | 450<br>200FS-33-50 | 514<br>200FS-33-50 | 642<br>250FS-33-50 | 771<br>250FS-33-50 | 899<br>300FS-33-50  |
| 0.7                     | 237<br>150FS-33-50      | 296<br>150FS-33-50 | 356<br>150FS-33-50 | 415<br>150FS-33-50 | 474<br>200FS-33-50 | 593<br>200FS-33-50 | 711<br>250FS-33-50 | 830<br>300FS-33-50  |
| 0.6                     | 217<br>150FS-33-50      | 272<br>150FS-33-50 | 326<br>150FS-33-50 | 380<br>150FS-33-50 | 435<br>150FS-33-50 | 543<br>200FS-33-50 | 652<br>250FS-33-50 | 761<br>250FS-33-50  |
| 0.5                     | 198<br>150FS-33-50      | 247<br>150FS-33-50 | 296<br>150FS-33-50 | 346<br>150FS-33-50 | 395<br>150FS-33-50 | 494<br>200FS-33-50 | 593<br>200FS-33-50 | 692<br>250FS-33-50  |
| 0.4                     | 178<br>150FS-33-50      | 222<br>150FS-33-50 | 267<br>150FS-33-50 | 311<br>150FS-33-50 | 356<br>150FS-33-50 | 445<br>150FS-33-50 | 534<br>200FS-33-50 | 622<br>200FS-33-50  |
| 0.3                     | 158<br>150FS-33-50      | 198<br>150FS-33-50 | 237<br>150FS-33-50 | 277<br>150FS-33-50 | 316<br>150FS-33-50 | 395<br>150FS-33-50 | 474<br>200FS-33-50 | 553<br>200FS-33-50  |
| 0.2                     | 138<br>150FS-33-50      | 173<br>150FS-33-50 | 207<br>150FS-33-50 | 242<br>150FS-33-50 | 277<br>150FS-33-50 | 346<br>150FS-33-50 | 415<br>150FS-33-50 | 484<br>200FS-33-50  |
| 0.1                     | 119<br>150FS-33-50      | 148<br>150FS-33-50 | 178<br>150FS-33-50 | 207<br>150FS-33-50 | 237<br>150FS-33-50 | 296<br>150FS-33-50 | 356<br>150FS-33-50 | 415<br>150FS-33-50  |
| 0.0                     | 104<br>150FS-33-50      | 130<br>150FS-33-50 | 156<br>150FS-33-50 | 182<br>150FS-33-50 | 207<br>150FS-33-50 | 259<br>150FS-33-50 | 311<br>150FS-33-50 | 363<br>150FS-33-50  |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |              |              |              |              |              |                      |                      |
|-------------------------|----------------------------|--------------|--------------|--------------|--------------|--------------|----------------------|----------------------|
|                         | 0.50                       | 0.75         | 1.00         | 1.25         | 1.50         | 1.75         | 2.00                 | 2.25                 |
| 1.0                     | 286<br>HD-1                | 1189<br>HD-1 | 2092<br>HD-1 | 2995<br>HD-1 | 3899<br>HD-2 | 4802<br>HD-3 | 5705<br>No Solutions | 6608<br>No Solutions |
| 0.9                     | 166<br>HD-1                | 1009<br>HD-1 | 1852<br>HD-1 | 2694<br>HD-1 | 3537<br>HD-2 | 4380<br>HD-2 | 5223<br>HD-3         | 6066<br>No Solutions |
| 0.8                     | 45<br>HD-1                 | 828<br>HD-1  | 1611<br>HD-1 | 2393<br>HD-1 | 3176<br>HD-2 | 3959<br>HD-2 | 4741<br>HD-3         | 5524<br>No Solutions |
| 0.7                     | 0<br>HD-0                  | 647<br>HD-1  | 1370<br>HD-1 | 2092<br>HD-1 | 2815<br>HD-2 | 3537<br>HD-2 | 4260<br>HD-2         | 4982<br>HD-3         |
| 0.6                     | 0<br>HD-0                  | 467<br>HD-1  | 1129<br>HD-1 | 1791<br>HD-1 | 2454<br>HD-1 | 3116<br>HD-1 | 3778<br>HD-2         | 4440<br>HD-2         |
| 0.5                     | 0<br>HD-0                  | 286<br>HD-1  | 888<br>HD-1  | 1490<br>HD-1 | 2092<br>HD-1 | 2694<br>HD-1 | 3297<br>HD-2         | 3899<br>HD-2         |
| 0.4                     | 0<br>HD-0                  | 106<br>HD-1  | 647<br>HD-1  | 1189<br>HD-1 | 1731<br>HD-1 | 2273<br>HD-1 | 2815<br>HD-1         | 3357<br>HD-2         |
| 0.3                     | 0<br>HD-0                  | 0<br>HD-0    | 407<br>HD-1  | 888<br>HD-1  | 1370<br>HD-1 | 1852<br>HD-1 | 2333<br>HD-1         | 2815<br>HD-1         |
| 0.2                     | 0<br>HD-0                  | 0<br>HD-0    | 166<br>HD-1  | 587<br>HD-1  | 1009<br>HD-1 | 1430<br>HD-1 | 1852<br>HD-1         | 2273<br>HD-1         |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0    | 0<br>HD-0    | 286<br>HD-1  | 647<br>HD-1  | 1009<br>HD-1 | 1370<br>HD-1         | 1731<br>HD-1         |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0    | 0<br>HD-0    | 60<br>HD-1   | 376<br>HD-1  | 693<br>HD-1  | 1009<br>HD-1         | 1325<br>HD-1         |





**TABLE 4.3.219: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.30 | Weight | 4000 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                     |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50                |
| 1.0                  | 312<br>150FS-33-50      | 390<br>200FS-33-50 | 468<br>200FS-33-50 | 546<br>200FS-33-50 | 624<br>250FS-33-50 | 780<br>300FS-33-50 | 936<br>300FS-33-50 | 1092<br>400FS-33-50 |
| 0.9                  | 291<br>150FS-33-50      | 364<br>150FS-33-50 | 437<br>200FS-33-50 | 510<br>200FS-33-50 | 582<br>200FS-33-50 | 728<br>250FS-33-50 | 874<br>300FS-33-50 | 1019<br>400FS-33-50 |
| 0.8                  | 270<br>150FS-33-50      | 338<br>150FS-33-50 | 406<br>150FS-33-50 | 473<br>200FS-33-50 | 541<br>200FS-33-50 | 676<br>250FS-33-50 | 811<br>300FS-33-50 | 946<br>300FS-33-50  |
| 0.7                  | 250<br>150FS-33-50      | 312<br>150FS-33-50 | 374<br>150FS-33-50 | 437<br>200FS-33-50 | 499<br>200FS-33-50 | 624<br>250FS-33-50 | 749<br>250FS-33-50 | 874<br>300FS-33-50  |
| 0.6                  | 229<br>150FS-33-50      | 286<br>150FS-33-50 | 343<br>150FS-33-50 | 400<br>150FS-33-50 | 458<br>200FS-33-50 | 572<br>200FS-33-50 | 686<br>250FS-33-50 | 801<br>300FS-33-50  |
| 0.5                  | 208<br>150FS-33-50      | 260<br>150FS-33-50 | 312<br>150FS-33-50 | 364<br>150FS-33-50 | 416<br>150FS-33-50 | 520<br>200FS-33-50 | 624<br>200FS-33-50 | 728<br>250FS-33-50  |
| 0.4                  | 187<br>150FS-33-50      | 234<br>150FS-33-50 | 281<br>150FS-33-50 | 328<br>150FS-33-50 | 374<br>150FS-33-50 | 468<br>200FS-33-50 | 562<br>200FS-33-50 | 655<br>250FS-33-50  |
| 0.3                  | 166<br>150FS-33-50      | 208<br>150FS-33-50 | 250<br>150FS-33-50 | 291<br>150FS-33-50 | 333<br>150FS-33-50 | 416<br>150FS-33-50 | 499<br>200FS-33-50 | 582<br>200FS-33-50  |
| 0.2                  | 146<br>150FS-33-50      | 182<br>150FS-33-50 | 218<br>150FS-33-50 | 255<br>150FS-33-50 | 291<br>150FS-33-50 | 364<br>150FS-33-50 | 437<br>150FS-33-50 | 510<br>200FS-33-50  |
| 0.1                  | 125<br>150FS-33-50      | 156<br>150FS-33-50 | 187<br>150FS-33-50 | 218<br>150FS-33-50 | 250<br>150FS-33-50 | 312<br>150FS-33-50 | 374<br>150FS-33-50 | 437<br>150FS-33-50  |
| 0.0                  | 109<br>150FS-33-50      | 137<br>150FS-33-50 | 164<br>150FS-33-50 | 191<br>150FS-33-50 | 218<br>150FS-33-50 | 273<br>150FS-33-50 | 328<br>150FS-33-50 | 382<br>150FS-33-50  |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |              |              |              |              |              |                      |                      |
|----------------------|----------------------------|--------------|--------------|--------------|--------------|--------------|----------------------|----------------------|
|                      | 0.50                       | 0.75         | 1.00         | 1.25         | 1.50         | 1.75         | 2.00                 | 2.25                 |
| 1.0                  | 301<br>HD-1                | 1252<br>HD-1 | 2203<br>HD-1 | 3153<br>HD-1 | 4104<br>HD-2 | 5054<br>HD-3 | 6005<br>No Solutions | 6956<br>No Solutions |
| 0.9                  | 175<br>HD-1                | 1062<br>HD-1 | 1949<br>HD-1 | 2836<br>HD-1 | 3724<br>HD-2 | 4611<br>HD-2 | 5498<br>HD-3         | 6385<br>No Solutions |
| 0.8                  | 48<br>HD-1                 | 872<br>HD-1  | 1696<br>HD-1 | 2519<br>HD-1 | 3343<br>HD-2 | 4167<br>HD-2 | 4991<br>HD-3         | 5815<br>No Solutions |
| 0.7                  | 0<br>HD-0                  | 682<br>HD-1  | 1442<br>HD-1 | 2203<br>HD-1 | 2963<br>HD-2 | 3724<br>HD-2 | 4484<br>HD-2         | 5245<br>HD-3         |
| 0.6                  | 0<br>HD-0                  | 491<br>HD-1  | 1189<br>HD-1 | 1886<br>HD-1 | 2583<br>HD-1 | 3280<br>HD-2 | 3977<br>HD-2         | 4674<br>HD-2         |
| 0.5                  | 0<br>HD-0                  | 301<br>HD-1  | 935<br>HD-1  | 1569<br>HD-1 | 2203<br>HD-1 | 2836<br>HD-1 | 3470<br>HD-2         | 4104<br>HD-2         |
| 0.4                  | 0<br>HD-0                  | 111<br>HD-1  | 682<br>HD-1  | 1252<br>HD-1 | 1822<br>HD-1 | 2393<br>HD-1 | 2963<br>HD-1         | 3533<br>HD-2         |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0    | 428<br>HD-1  | 935<br>HD-1  | 1442<br>HD-1 | 1949<br>HD-1 | 2456<br>HD-1         | 2963<br>HD-1         |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0    | 175<br>HD-1  | 618<br>HD-1  | 1062<br>HD-1 | 1505<br>HD-1 | 1949<br>HD-1         | 2393<br>HD-1         |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0    | 0<br>HD-0    | 301<br>HD-1  | 682<br>HD-1  | 1062<br>HD-1 | 1442<br>HD-1         | 1822<br>HD-1         |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0    | 0<br>HD-0    | 64<br>HD-1   | 396<br>HD-1  | 729<br>HD-1  | 1062<br>HD-1         | 1394<br>HD-1         |



**TABLE 4.3.220: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |            |                 |      |        |          |
|--------------------|------|----|------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (Ip = 1.5) | S <sub>DS</sub> | 1.30 | Weight | 4200 lbs |
|--------------------|------|----|------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                     |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50                |
| 1.0                  | 328<br>150FS-33-50      | 410<br>200FS-33-50 | 491<br>200FS-33-50 | 573<br>250FS-33-50 | 655<br>250FS-33-50 | 819<br>300FS-33-50 | 983<br>400FS-33-50 | 1147<br>400FS-33-50 |
| 0.9                  | 306<br>150FS-33-50      | 382<br>150FS-33-50 | 459<br>200FS-33-50 | 535<br>200FS-33-50 | 612<br>250FS-33-50 | 764<br>300FS-33-50 | 917<br>300FS-33-50 | 1070<br>400FS-33-50 |
| 0.8                  | 284<br>150FS-33-50      | 355<br>150FS-33-50 | 426<br>200FS-33-50 | 497<br>200FS-33-50 | 568<br>200FS-33-50 | 710<br>250FS-33-50 | 852<br>300FS-33-50 | 994<br>400FS-33-50  |
| 0.7                  | 262<br>150FS-33-50      | 328<br>150FS-33-50 | 393<br>150FS-33-50 | 459<br>200FS-33-50 | 524<br>200FS-33-50 | 655<br>250FS-33-50 | 786<br>300FS-33-50 | 917<br>300FS-33-50  |
| 0.6                  | 240<br>150FS-33-50      | 300<br>150FS-33-50 | 360<br>150FS-33-50 | 420<br>150FS-33-50 | 480<br>200FS-33-50 | 601<br>200FS-33-50 | 721<br>250FS-33-50 | 841<br>300FS-33-50  |
| 0.5                  | 218<br>150FS-33-50      | 273<br>150FS-33-50 | 328<br>150FS-33-50 | 382<br>150FS-33-50 | 437<br>150FS-33-50 | 546<br>200FS-33-50 | 655<br>250FS-33-50 | 764<br>250FS-33-50  |
| 0.4                  | 197<br>150FS-33-50      | 246<br>150FS-33-50 | 295<br>150FS-33-50 | 344<br>150FS-33-50 | 393<br>150FS-33-50 | 491<br>200FS-33-50 | 590<br>200FS-33-50 | 688<br>250FS-33-50  |
| 0.3                  | 175<br>150FS-33-50      | 218<br>150FS-33-50 | 262<br>150FS-33-50 | 306<br>150FS-33-50 | 349<br>150FS-33-50 | 437<br>150FS-33-50 | 524<br>200FS-33-50 | 612<br>200FS-33-50  |
| 0.2                  | 153<br>150FS-33-50      | 191<br>150FS-33-50 | 229<br>150FS-33-50 | 268<br>150FS-33-50 | 306<br>150FS-33-50 | 382<br>150FS-33-50 | 459<br>150FS-33-50 | 535<br>200FS-33-50  |
| 0.1                  | 131<br>150FS-33-50      | 164<br>150FS-33-50 | 197<br>150FS-33-50 | 229<br>150FS-33-50 | 262<br>150FS-33-50 | 328<br>150FS-33-50 | 393<br>150FS-33-50 | 459<br>150FS-33-50  |
| 0.0                  | 115<br>150FS-33-50      | 143<br>150FS-33-50 | 172<br>150FS-33-50 | 201<br>150FS-33-50 | 229<br>150FS-33-50 | 297<br>150FS-33-50 | 344<br>150FS-33-50 | 401<br>150FS-33-50  |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |              |              |              |              |              |                      |                      |
|----------------------|----------------------------|--------------|--------------|--------------|--------------|--------------|----------------------|----------------------|
|                      | 0.50                       | 0.75         | 1.00         | 1.25         | 1.50         | 1.75         | 2.00                 | 2.25                 |
| 1.0                  | 316<br>HD-1                | 434<br>HD-1  | 2313<br>HD-1 | 3311<br>HD-2 | 4309<br>HD-2 | 5307<br>HD-3 | 6305<br>No Solutions | 7303<br>No Solutions |
| 0.9                  | 183<br>HD-1                | 1115<br>HD-1 | 2046<br>HD-1 | 2978<br>HD-1 | 3910<br>HD-2 | 4841<br>HD-3 | 5773<br>No Solutions | 6705<br>No Solutions |
| 0.8                  | 50<br>HD-1                 | 915<br>HD-1  | 1780<br>HD-1 | 2645<br>HD-1 | 3510<br>HD-2 | 4375<br>HD-2 | 5241<br>HD-3         | 6106<br>No Solutions |
| 0.7                  | 0<br>HD-0                  | 716<br>HD-1  | 1514<br>HD-1 | 2313<br>HD-1 | 3111<br>HD-1 | 3910<br>HD-2 | 4708<br>HD-2         | 5507<br>No Solutions |
| 0.6                  | 0<br>HD-0                  | 516<br>HD-1  | 1248<br>HD-1 | 1980<br>HD-1 | 2712<br>HD-1 | 3444<br>HD-2 | 4176<br>HD-2         | 4908<br>HD-3         |
| 0.5                  | 0<br>HD-0                  | 316<br>HD-1  | 982<br>HD-1  | 1647<br>HD-1 | 2313<br>HD-1 | 2978<br>HD-1 | 3644<br>HD-2         | 4309<br>HD-2         |
| 0.4                  | 0<br>HD-0                  | 117<br>HD-1  | 716<br>HD-1  | 1314<br>HD-1 | 1913<br>HD-1 | 2512<br>HD-1 | 3111<br>HD-1         | 3710<br>HD-2         |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0    | 449<br>HD-1  | 982<br>HD-1  | 1514<br>HD-1 | 2046<br>HD-1 | 2579<br>HD-1         | 3111<br>HD-1         |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0    | 183<br>HD-1  | 649<br>HD-1  | 1115<br>HD-1 | 1581<br>HD-1 | 2046<br>HD-1         | 2512<br>HD-1         |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0    | 0<br>HD-0    | 316<br>HD-1  | 716<br>HD-1  | 1115<br>HD-1 | 1514<br>HD-1         | 1913<br>HD-1         |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0    | 0<br>HD-0    | 67<br>HD-1   | 416<br>HD-1  | 765<br>HD-1  | 1115<br>HD-1         | 1464<br>HD-1         |



**TABLE 4.3.221: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.30 | Weight | 4400 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                     |                     |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00                | 3.50                |
| 1.0                  | 343<br>150FS-33-50      | 429<br>200FS-33-50 | 515<br>200FS-33-50 | 601<br>250FS-33-50 | 686<br>250FS-33-50 | 858<br>300FS-33-50 | 1030<br>400FS-33-50 | 1201<br>400FS-33-50 |
| 0.9                  | 320<br>150FS-33-50      | 400<br>200FS-33-50 | 480<br>200FS-33-50 | 561<br>200FS-33-50 | 641<br>250FS-33-50 | 801<br>300FS-33-50 | 961<br>400FS-33-50  | 1121<br>400FS-33-50 |
| 0.8                  | 297<br>150FS-33-50      | 372<br>150FS-33-50 | 446<br>200FS-33-50 | 521<br>200FS-33-50 | 595<br>250FS-33-50 | 744<br>250FS-33-50 | 892<br>300FS-33-50  | 1041<br>400FS-33-50 |
| 0.7                  | 275<br>150FS-33-50      | 343<br>150FS-33-50 | 412<br>200FS-33-50 | 480<br>200FS-33-50 | 549<br>200FS-33-50 | 686<br>250FS-33-50 | 824<br>300FS-33-50  | 961<br>400FS-33-50  |
| 0.6                  | 252<br>150FS-33-50      | 315<br>150FS-33-50 | 378<br>150FS-33-50 | 440<br>200FS-33-50 | 503<br>200FS-33-50 | 629<br>250FS-33-50 | 755<br>250FS-33-50  | 881<br>300FS-33-50  |
| 0.5                  | 229<br>150FS-33-50      | 286<br>150FS-33-50 | 343<br>150FS-33-50 | 400<br>150FS-33-50 | 458<br>200FS-33-50 | 572<br>200FS-33-50 | 686<br>250FS-33-50  | 801<br>300FS-33-50  |
| 0.4                  | 206<br>150FS-33-50      | 257<br>150FS-33-50 | 309<br>150FS-33-50 | 360<br>150FS-33-50 | 412<br>150FS-33-50 | 515<br>200FS-33-50 | 618<br>200FS-33-50  | 721<br>250FS-33-50  |
| 0.3                  | 183<br>150FS-33-50      | 229<br>150FS-33-50 | 275<br>150FS-33-50 | 320<br>150FS-33-50 | 366<br>150FS-33-50 | 458<br>150FS-33-50 | 549<br>200FS-33-50  | 641<br>250FS-33-50  |
| 0.2                  | 160<br>150FS-33-50      | 200<br>150FS-33-50 | 240<br>150FS-33-50 | 280<br>150FS-33-50 | 320<br>150FS-33-50 | 400<br>150FS-33-50 | 480<br>200FS-33-50  | 561<br>200FS-33-50  |
| 0.1                  | 137<br>150FS-33-50      | 172<br>150FS-33-50 | 206<br>150FS-33-50 | 240<br>150FS-33-50 | 275<br>150FS-33-50 | 343<br>150FS-33-50 | 412<br>150FS-33-50  | 480<br>200FS-33-50  |
| 0.0                  | 120<br>150FS-33-50      | 150<br>150FS-33-50 | 180<br>150FS-33-50 | 210<br>150FS-33-50 | 240<br>150FS-33-50 | 300<br>150FS-33-50 | 360<br>150FS-33-50  | 420<br>150FS-33-50  |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |              |              |              |              |                      |                      |                      |
|----------------------|----------------------------|--------------|--------------|--------------|--------------|----------------------|----------------------|----------------------|
|                      | 0.50                       | 0.75         | 1.00         | 1.25         | 1.50         | 1.75                 | 2.00                 | 2.25                 |
| 1.0                  | 331<br>HD-1                | 1377<br>HD-1 | 2423<br>HD-1 | 3468<br>HD-2 | 4514<br>HD-2 | 5560<br>No Solutions | 6606<br>No Solutions | 7651<br>No Solutions |
| 0.9                  | 192<br>HD-1                | 1168<br>HD-1 | 2144<br>HD-1 | 3120<br>HD-1 | 4096<br>HD-2 | 5072<br>HD-3         | 6048<br>No Solutions | 7024<br>No Solutions |
| 0.8                  | 53<br>HD-1                 | 959<br>HD-1  | 1865<br>HD-1 | 2771<br>HD-1 | 3678<br>HD-2 | 4584<br>HD-2         | 5490<br>HD-3         | 6396<br>No Solutions |
| 0.7                  | 0<br>HD-0                  | 750<br>HD-1  | 1586<br>HD-1 | 2423<br>HD-1 | 3259<br>HD-2 | 4096<br>HD-2         | 4932<br>HD-3         | 5769<br>No Solutions |
| 0.6                  | 0<br>HD-0                  | 541<br>HD-1  | 1307<br>HD-1 | 2074<br>HD-1 | 2841<br>HD-1 | 3608<br>HD-2         | 4375<br>HD-2         | 5142<br>HD-3         |
| 0.5                  | 0<br>HD-0                  | 331<br>HD-1  | 1029<br>HD-1 | 1726<br>HD-1 | 2423<br>HD-1 | 3120<br>HD-1         | 3817<br>HD-2         | 4514<br>HD-2         |
| 0.4                  | 0<br>HD-0                  | 122<br>HD-1  | 750<br>HD-1  | 1377<br>HD-1 | 2004<br>HD-1 | 2632<br>HD-1         | 3259<br>HD-2         | 3887<br>HD-2         |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0    | 471<br>HD-1  | 1029<br>HD-1 | 1586<br>HD-1 | 2144<br>HD-1         | 2702<br>HD-1         | 3259<br>HD-2         |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0    | 192<br>HD-1  | 680<br>HD-1  | 1168<br>HD-1 | 1656<br>HD-1         | 2144<br>HD-1         | 2632<br>HD-1         |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0    | 0<br>HD-0    | 331<br>HD-1  | 750<br>HD-1  | 1168<br>HD-1         | 1586<br>HD-1         | 2004<br>HD-1         |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0    | 0<br>HD-0    | 70<br>HD-1   | 436<br>HD-1  | 802<br>HD-1          | 1168<br>HD-1         | 1534<br>HD-1         |



**TABLE 4.3.222: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |            |                 |      |        |          |
|--------------------|------|----|------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (Ip = 1.5) | S <sub>DS</sub> | 1.30 | Weight | 4600 lbs |
|--------------------|------|----|------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |             |             |             |             |             |             |             |
|----------------------|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                      | 1.00                    | 1.25        | 1.50        | 1.75        | 2.00        | 2.50        | 3.00        | 3.50        |
| 1.0                  | 359                     | 449         | 538         | 628         | 718         | 897         | 1076        | 1256        |
|                      | 200FS-33-50             | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 |
| 0.9                  | 335                     | 419         | 502         | 586         | 670         | 837         | 1005        | 1172        |
|                      | 150FS-33-50             | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 |
| 0.8                  | 311                     | 389         | 466         | 544         | 622         | 777         | 933         | 1088        |
|                      | 150FS-33-50             | 200FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 | 300FS-33-50 | 400FS-33-50 |
| 0.7                  | 287                     | 359         | 431         | 502         | 574         | 718         | 861         | 1005        |
|                      | 150FS-33-50             | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 |
| 0.6                  | 263                     | 329         | 395         | 460         | 526         | 658         | 789         | 921         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 | 300FS-33-50 |
| 0.5                  | 239                     | 299         | 359         | 419         | 478         | 598         | 718         | 837         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 |
| 0.4                  | 215                     | 269         | 323         | 377         | 431         | 538         | 646         | 753         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 |
| 0.3                  | 191                     | 239         | 287         | 335         | 383         | 478         | 574         | 670         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 |
| 0.2                  | 167                     | 209         | 251         | 293         | 335         | 419         | 502         | 586         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 |
| 0.1                  | 144                     | 179         | 215         | 251         | 287         | 359         | 431         | 502         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 |
| 0.0                  | 126                     | 157         | 188         | 220         | 251         | 314         | 377         | 440         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |      |      |      |      |              |              |              |
|----------------------|----------------------------|------|------|------|------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75 | 1.00 | 1.25 | 1.50 | 1.75         | 2.00         | 2.25         |
| 1.0                  | 346                        | 1440 | 2533 | 3626 | 4719 | 5813         | 6906         | 7999         |
|                      | HD-1                       | HD-1 | HD-1 | HD-2 | HD-2 | No Solutions | No Solutions | No Solutions |
| 0.9                  | 201                        | 1221 | 2241 | 3262 | 4282 | 5302         | 6323         | 7343         |
|                      | HD-1                       | HD-1 | HD-1 | HD-2 | HD-2 | HD-3         | No Solutions | No Solutions |
| 0.8                  | 55                         | 1002 | 1950 | 2897 | 3845 | 4792         | 5740         | 6687         |
|                      | HD-1                       | HD-1 | HD-1 | HD-1 | HD-2 | HD-3         | No Solutions | No Solutions |
| 0.7                  | 0                          | 784  | 1658 | 2533 | 3407 | 4282         | 5157         | 6031         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-2 | HD-2         | HD-3         | No Solutions |
| 0.6                  | 0                          | 565  | 1367 | 2168 | 2970 | 3772         | 4574         | 5375         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1 | HD-2         | HD-2         | HD-3         |
| 0.5                  | 0                          | 346  | 1075 | 1804 | 2533 | 3262         | 3991         | 4719         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1 | HD-2         | HD-2         | HD-2         |
| 0.4                  | 0                          | 128  | 784  | 1440 | 2096 | 2752         | 3407         | 4063         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1 | HD-1         | HD-2         | HD-2         |
| 0.3                  | 0                          | 0    | 492  | 1075 | 1658 | 2241         | 2824         | 3407         |
|                      | HD-0                       | HD-0 | HD-1 | HD-1 | HD-1 | HD-1         | HD-1         | HD-2         |
| 0.2                  | 0                          | 0    | 201  | 711  | 1221 | 1731         | 2241         | 2752         |
|                      | HD-0                       | HD-0 | HD-1 | HD-1 | HD-1 | HD-1         | HD-1         | HD-1         |
| 0.1                  | 0                          | 0    | 0    | 346  | 784  | 1221         | 1658         | 2096         |
|                      | HD-0                       | HD-0 | HD-0 | HD-1 | HD-1 | HD-1         | HD-1         | HD-1         |
| 0.0                  | 0                          | 0    | 0    | 73   | 456  | 838          | 1221         | 1604         |
|                      | HD-0                       | HD-0 | HD-0 | HD-1 | HD-1 | HD-1         | HD-1         | HD-1         |



**TABLE 4.3.223: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.30 | Weight | 4800 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                     |                     |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00                | 3.50                |
| 1.0                  | 374<br>200FS-33-50      | 468<br>200FS-33-50 | 562<br>250FS-33-50 | 655<br>250FS-33-50 | 749<br>300FS-33-50 | 936<br>400FS-33-50 | 1123<br>400FS-33-50 | 1310<br>500FS-33-50 |
| 0.9                  | 349<br>200FS-33-50      | 437<br>200FS-33-50 | 524<br>200FS-33-50 | 612<br>250FS-33-50 | 699<br>250FS-33-50 | 874<br>300FS-33-50 | 1048<br>400FS-33-50 | 1223<br>400FS-33-50 |
| 0.8                  | 324<br>150FS-33-50      | 406<br>200FS-33-50 | 487<br>200FS-33-50 | 568<br>200FS-33-50 | 649<br>250FS-33-50 | 811<br>300FS-33-50 | 973<br>400FS-33-50  | 1136<br>400FS-33-50 |
| 0.7                  | 300<br>150FS-33-50      | 374<br>150FS-33-50 | 449<br>200FS-33-50 | 524<br>200FS-33-50 | 599<br>250FS-33-50 | 749<br>250FS-33-50 | 899<br>300FS-33-50  | 1048<br>400FS-33-50 |
| 0.6                  | 275<br>150FS-33-50      | 343<br>150FS-33-50 | 412<br>200FS-33-50 | 480<br>200FS-33-50 | 549<br>200FS-33-50 | 686<br>250FS-33-50 | 824<br>300FS-33-50  | 961<br>400FS-33-50  |
| 0.5                  | 250<br>150FS-33-50      | 312<br>150FS-33-50 | 374<br>150FS-33-50 | 437<br>200FS-33-50 | 499<br>200FS-33-50 | 624<br>250FS-33-50 | 749<br>250FS-33-50  | 874<br>300FS-33-50  |
| 0.4                  | 225<br>150FS-33-50      | 281<br>150FS-33-50 | 337<br>150FS-33-50 | 393<br>150FS-33-50 | 449<br>200FS-33-50 | 562<br>200FS-33-50 | 674<br>250FS-33-50  | 786<br>250FS-33-50  |
| 0.3                  | 200<br>150FS-33-50      | 250<br>150FS-33-50 | 300<br>150FS-33-50 | 349<br>150FS-33-50 | 399<br>150FS-33-50 | 499<br>200FS-33-50 | 599<br>200FS-33-50  | 699<br>250FS-33-50  |
| 0.2                  | 175<br>150FS-33-50      | 218<br>150FS-33-50 | 262<br>150FS-33-50 | 306<br>150FS-33-50 | 349<br>150FS-33-50 | 437<br>150FS-33-50 | 524<br>200FS-33-50  | 612<br>200FS-33-50  |
| 0.1                  | 150<br>150FS-33-50      | 187<br>150FS-33-50 | 225<br>150FS-33-50 | 262<br>150FS-33-50 | 300<br>150FS-33-50 | 374<br>150FS-33-50 | 449<br>150FS-33-50  | 524<br>200FS-33-50  |
| 0.0                  | 131<br>150FS-33-50      | 164<br>150FS-33-50 | 197<br>150FS-33-50 | 229<br>150FS-33-50 | 262<br>150FS-33-50 | 328<br>150FS-33-50 | 393<br>150FS-33-50  | 459<br>150FS-33-50  |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |              |              |              |              |                      |                      |                      |
|----------------------|----------------------------|--------------|--------------|--------------|--------------|----------------------|----------------------|----------------------|
|                      | 0.50                       | 0.75         | 1.00         | 1.25         | 1.50         | 1.75                 | 2.00                 | 2.25                 |
| 1.0                  | 362<br>HD-1                | 1502<br>HD-1 | 2643<br>HD-1 | 3784<br>HD-2 | 4925<br>HD-3 | 6065<br>No Solutions | 7206<br>No Solutions | 8347<br>No Solutions |
| 0.9                  | 209<br>HD-1                | 1274<br>HD-1 | 2339<br>HD-1 | 3404<br>HD-2 | 4468<br>HD-2 | 5533<br>No Solutions | 6598<br>No Solutions | 7662<br>No Solutions |
| 0.8                  | 57<br>HD-1                 | 1046<br>HD-1 | 2035<br>HD-1 | 3023<br>HD-1 | 4012<br>HD-2 | 5001<br>HD-3         | 5989<br>No Solutions | 6978<br>No Solutions |
| 0.7                  | 0<br>HD-0                  | 818<br>HD-1  | 1730<br>HD-1 | 2643<br>HD-1 | 3556<br>HD-2 | 4468<br>HD-2         | 5381<br>HD-3         | 6293<br>No Solutions |
| 0.6                  | 0<br>HD-0                  | 590<br>HD-1  | 1426<br>HD-1 | 2263<br>HD-1 | 3099<br>HD-1 | 3936<br>HD-2         | 4772<br>HD-3         | 5609<br>No Solutions |
| 0.5                  | 0<br>HD-0                  | 362<br>HD-1  | 1122<br>HD-1 | 1883<br>HD-1 | 2643<br>HD-1 | 3404<br>HD-2         | 4164<br>HD-2         | 4925<br>HD-3         |
| 0.4                  | 0<br>HD-0                  | 133<br>HD-1  | 818<br>HD-1  | 1502<br>HD-1 | 2187<br>HD-1 | 2871<br>HD-1         | 3556<br>HD-2         | 4240<br>HD-2         |
| 0.3                  | 0<br>HD-0                  | 0<br>HD-0    | 514<br>HD-1  | 1122<br>HD-1 | 1730<br>HD-1 | 2339<br>HD-1         | 2947<br>HD-1         | 3556<br>HD-2         |
| 0.2                  | 0<br>HD-0                  | 0<br>HD-0    | 209<br>HD-1  | 742<br>HD-1  | 1274<br>HD-1 | 1806<br>HD-1         | 2339<br>HD-1         | 2871<br>HD-1         |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0    | 0<br>HD-0    | 362<br>HD-1  | 818<br>HD-1  | 1274<br>HD-1         | 1730<br>HD-1         | 2187<br>HD-1         |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0    | 0<br>HD-0    | 76<br>HD-1   | 476<br>HD-1  | 875<br>HD-1          | 1274<br>HD-1         | 1673<br>HD-1         |



**TABLE 4.3.224: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |            |                 |      |        |          |
|--------------------|------|----|------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (Ip = 1.5) | S <sub>DS</sub> | 1.30 | Weight | 5000 lbs |
|--------------------|------|----|------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |             |             |             |             |             |             |             |
|----------------------|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                      | 1.00                    | 1.25        | 1.50        | 1.75        | 2.00        | 2.50        | 3.00        | 3.50        |
| 1.0                  | 390                     | 488         | 585         | 683         | 780         | 975         | 1170        | 1365        |
|                      | 200FS-33-50             | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 | 500FS-33-50 |
| 0.9                  | 364                     | 455         | 546         | 637         | 728         | 910         | 1092        | 1274        |
|                      | 200FS-33-50             | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 500FS-33-50 |
| 0.8                  | 338                     | 423         | 507         | 592         | 676         | 845         | 1014        | 1183        |
|                      | 150FS-33-50             | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 |
| 0.7                  | 312                     | 390         | 468         | 546         | 624         | 780         | 936         | 1092        |
|                      | 150FS-33-50             | 200FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 | 300FS-33-50 | 400FS-33-50 |
| 0.6                  | 286                     | 358         | 429         | 501         | 572         | 715         | 858         | 1001        |
|                      | 150FS-33-50             | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 |
| 0.5                  | 260                     | 325         | 390         | 455         | 520         | 650         | 780         | 910         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 |
| 0.4                  | 234                     | 293         | 351         | 410         | 468         | 585         | 702         | 819         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 |
| 0.3                  | 208                     | 260         | 312         | 364         | 416         | 520         | 624         | 728         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 |
| 0.2                  | 182                     | 228         | 273         | 319         | 364         | 455         | 546         | 637         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 250FS-33-50 |
| 0.1                  | 156                     | 195         | 234         | 273         | 312         | 390         | 468         | 546         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 |
| 0.0                  | 137                     | 171         | 205         | 239         | 273         | 341         | 410         | 478         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |      |      |      |      |              |              |              |
|----------------------|----------------------------|------|------|------|------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75 | 1.00 | 1.25 | 1.50 | 1.75         | 2.00         | 2.25         |
| 1.0                  | 377                        | 1565 | 2753 | 3941 | 5130 | 6318         | 7506         | 8695         |
|                      | HD-1                       | HD-1 | HD-1 | HD-2 | HD-3 | No Solutions | No Solutions | No Solutions |
| 0.9                  | 218                        | 1327 | 2436 | 3545 | 4654 | 5763         | 6873         | 7982         |
|                      | HD-1                       | HD-1 | HD-1 | HD-2 | HD-2 | No Solutions | No Solutions | No Solutions |
| 0.8                  | 60                         | 1090 | 2119 | 3149 | 4179 | 5209         | 6239         | 7269         |
|                      | HD-1                       | HD-1 | HD-1 | HD-1 | HD-2 | HD-3         | No Solutions | No Solutions |
| 0.7                  | 0                          | 852  | 1803 | 2753 | 3704 | 4654         | 5605         | 6556         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-2 | HD-2         | No Solutions | No Solutions |
| 0.6                  | 0                          | 614  | 1486 | 2357 | 3228 | 4100         | 4971         | 5843         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-2 | HD-2         | HD-3         | No Solutions |
| 0.5                  | 0                          | 377  | 1169 | 1961 | 2753 | 3545         | 4338         | 5130         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1 | HD-2         | HD-2         | HD-3         |
| 0.4                  | 0                          | 139  | 852  | 1565 | 2278 | 2991         | 3704         | 4417         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1 | HD-1         | HD-2         | HD-2         |
| 0.3                  | 0                          | 0    | 535  | 1169 | 1803 | 2436         | 3070         | 3704         |
|                      | HD-0                       | HD-0 | HD-1 | HD-1 | HD-1 | HD-1         | HD-1         | HD-2         |
| 0.2                  | 0                          | 0    | 218  | 773  | 1327 | 1882         | 2436         | 2991         |
|                      | HD-0                       | HD-0 | HD-1 | HD-1 | HD-1 | HD-1         | HD-1         | HD-1         |
| 0.1                  | 0                          | 0    | 0    | 377  | 852  | 1327         | 1803         | 2278         |
|                      | HD-0                       | HD-0 | HD-0 | HD-1 | HD-1 | HD-1         | HD-1         | HD-1         |
| 0.0                  | 0                          | 0    | 0    | 79   | 495  | 911          | 1327         | 1743         |
|                      | HD-0                       | HD-0 | HD-0 | HD-1 | HD-1 | HD-1         | HD-1         | HD-1         |



**TABLE 4.3.225: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.60 | Weight | 2000 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|-------------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                         | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                     | 192<br>150FS-33-50      | 240<br>150FS-33-50 | 288<br>150FS-33-50 | 336<br>150FS-33-50 | 384<br>150FS-33-50 | 480<br>200FS-33-50 | 576<br>200FS-33-50 | 672<br>250FS-33-50 |
| 0.9                     | 179<br>150FS-33-50      | 224<br>150FS-33-50 | 269<br>150FS-33-50 | 314<br>150FS-33-50 | 358<br>150FS-33-50 | 448<br>150FS-33-50 | 538<br>200FS-33-50 | 627<br>200FS-33-50 |
| 0.8                     | 166<br>150FS-33-50      | 208<br>150FS-33-50 | 250<br>150FS-33-50 | 291<br>150FS-33-50 | 333<br>150FS-33-50 | 416<br>150FS-33-50 | 499<br>200FS-33-50 | 582<br>200FS-33-50 |
| 0.7                     | 154<br>150FS-33-50      | 192<br>150FS-33-50 | 230<br>150FS-33-50 | 269<br>150FS-33-50 | 307<br>150FS-33-50 | 384<br>150FS-33-50 | 461<br>150FS-33-50 | 538<br>200FS-33-50 |
| 0.6                     | 141<br>150FS-33-50      | 176<br>150FS-33-50 | 211<br>150FS-33-50 | 246<br>150FS-33-50 | 282<br>150FS-33-50 | 352<br>150FS-33-50 | 422<br>150FS-33-50 | 493<br>200FS-33-50 |
| 0.5                     | 128<br>150FS-33-50      | 160<br>150FS-33-50 | 192<br>150FS-33-50 | 224<br>150FS-33-50 | 256<br>150FS-33-50 | 320<br>150FS-33-50 | 384<br>150FS-33-50 | 448<br>150FS-33-50 |
| 0.4                     | 115<br>150FS-33-50      | 144<br>150FS-33-50 | 173<br>150FS-33-50 | 202<br>150FS-33-50 | 230<br>150FS-33-50 | 288<br>150FS-33-50 | 346<br>150FS-33-50 | 403<br>150FS-33-50 |
| 0.3                     | 102<br>150FS-33-50      | 128<br>150FS-33-50 | 154<br>150FS-33-50 | 179<br>150FS-33-50 | 205<br>150FS-33-50 | 256<br>150FS-33-50 | 307<br>150FS-33-50 | 358<br>150FS-33-50 |
| 0.2                     | 90<br>150FS-33-50       | 112<br>150FS-33-50 | 134<br>150FS-33-50 | 157<br>150FS-33-50 | 179<br>150FS-33-50 | 224<br>150FS-33-50 | 269<br>150FS-33-50 | 314<br>150FS-33-50 |
| 0.1                     | 77<br>150FS-33-50       | 96<br>150FS-33-50  | 115<br>150FS-33-50 | 134<br>150FS-33-50 | 154<br>150FS-33-50 | 192<br>150FS-33-50 | 230<br>150FS-33-50 | 269<br>150FS-33-50 |
| 0.0                     | 67<br>150FS-33-50       | 84<br>150FS-33-50  | 101<br>150FS-33-50 | 118<br>150FS-33-50 | 134<br>150FS-33-50 | 168<br>150FS-33-50 | 202<br>150FS-33-50 | 235<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |              |              |              |              |              |              |              |
|-------------------------|----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                         | 0.50                       | 0.75         | 1.00         | 1.25         | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                     | 445<br>HD-1                | 1030<br>HD-1 | 1615<br>HD-1 | 2200<br>HD-1 | 2785<br>HD-1 | 3370<br>HD-2 | 3955<br>HD-2 | 4540<br>HD-2 |
| 0.9                     | 367<br>HD-1                | 913<br>HD-1  | 1459<br>HD-1 | 2005<br>HD-1 | 2551<br>HD-1 | 3097<br>HD-1 | 3643<br>HD-2 | 4189<br>HD-2 |
| 0.8                     | 289<br>HD-1                | 796<br>HD-1  | 1303<br>HD-1 | 1810<br>HD-1 | 2317<br>HD-1 | 2824<br>HD-1 | 3331<br>HD-2 | 3838<br>HD-2 |
| 0.7                     | 211<br>HD-1                | 679<br>HD-1  | 1147<br>HD-1 | 1615<br>HD-1 | 2083<br>HD-1 | 2551<br>HD-1 | 3019<br>HD-1 | 3487<br>HD-2 |
| 0.6                     | 133<br>HD-1                | 562<br>HD-1  | 991<br>HD-1  | 1420<br>HD-1 | 1849<br>HD-1 | 2278<br>HD-1 | 2707<br>HD-1 | 3136<br>HD-1 |
| 0.5                     | 55<br>HD-1                 | 445<br>HD-1  | 835<br>HD-1  | 1225<br>HD-1 | 1615<br>HD-1 | 2005<br>HD-1 | 2395<br>HD-1 | 2785<br>HD-1 |
| 0.4                     | 0<br>HD-0                  | 328<br>HD-1  | 679<br>HD-1  | 1030<br>HD-1 | 1381<br>HD-1 | 1732<br>HD-1 | 2083<br>HD-1 | 2434<br>HD-1 |
| 0.3                     | 0<br>HD-0                  | 211<br>HD-1  | 523<br>HD-1  | 835<br>HD-1  | 1147<br>HD-1 | 1459<br>HD-1 | 1771<br>HD-1 | 2083<br>HD-1 |
| 0.2                     | 0<br>HD-0                  | 94<br>HD-1   | 367<br>HD-1  | 640<br>HD-1  | 913<br>HD-1  | 1186<br>HD-1 | 1459<br>HD-1 | 1732<br>HD-1 |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0    | 211<br>HD-1  | 445<br>HD-1  | 679<br>HD-1  | 913<br>HD-1  | 1147<br>HD-1 | 1381<br>HD-1 |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0    | 94<br>HD-1   | 299<br>HD-1  | 504<br>HD-1  | 708<br>HD-1  | 913<br>HD-1  | 1118<br>HD-1 |



**TABLE 4.3.226: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.60 | Weight | 2200 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 211<br>150FS-33-50      | 264<br>150FS-33-50 | 317<br>150FS-33-50 | 370<br>150FS-33-50 | 422<br>150FS-33-50 | 528<br>200FS-33-50 | 634<br>250FS-33-50 | 739<br>250FS-33-50 |
| 0.9                  | 197<br>150FS-33-50      | 246<br>150FS-33-50 | 296<br>150FS-33-50 | 345<br>150FS-33-50 | 394<br>150FS-33-50 | 493<br>200FS-33-50 | 591<br>200FS-33-50 | 690<br>250FS-33-50 |
| 0.8                  | 183<br>150FS-33-50      | 229<br>150FS-33-50 | 275<br>150FS-33-50 | 320<br>150FS-33-50 | 366<br>150FS-33-50 | 458<br>150FS-33-50 | 549<br>200FS-33-50 | 641<br>250FS-33-50 |
| 0.7                  | 169<br>150FS-33-50      | 211<br>150FS-33-50 | 253<br>150FS-33-50 | 296<br>150FS-33-50 | 338<br>150FS-33-50 | 422<br>150FS-33-50 | 507<br>200FS-33-50 | 591<br>200FS-33-50 |
| 0.6                  | 155<br>150FS-33-50      | 194<br>150FS-33-50 | 232<br>150FS-33-50 | 271<br>150FS-33-50 | 310<br>150FS-33-50 | 387<br>150FS-33-50 | 465<br>150FS-33-50 | 542<br>200FS-33-50 |
| 0.5                  | 141<br>150FS-33-50      | 176<br>150FS-33-50 | 211<br>150FS-33-50 | 246<br>150FS-33-50 | 282<br>150FS-33-50 | 352<br>150FS-33-50 | 422<br>150FS-33-50 | 493<br>200FS-33-50 |
| 0.4                  | 127<br>150FS-33-50      | 158<br>150FS-33-50 | 190<br>150FS-33-50 | 222<br>150FS-33-50 | 253<br>150FS-33-50 | 317<br>150FS-33-50 | 380<br>150FS-33-50 | 444<br>150FS-33-50 |
| 0.3                  | 113<br>150FS-33-50      | 141<br>150FS-33-50 | 169<br>150FS-33-50 | 197<br>150FS-33-50 | 225<br>150FS-33-50 | 282<br>150FS-33-50 | 338<br>150FS-33-50 | 394<br>150FS-33-50 |
| 0.2                  | 99<br>150FS-33-50       | 123<br>150FS-33-50 | 148<br>150FS-33-50 | 172<br>150FS-33-50 | 197<br>150FS-33-50 | 246<br>150FS-33-50 | 296<br>150FS-33-50 | 345<br>150FS-33-50 |
| 0.1                  | 84<br>150FS-33-50       | 106<br>150FS-33-50 | 127<br>150FS-33-50 | 148<br>150FS-33-50 | 169<br>150FS-33-50 | 211<br>150FS-33-50 | 253<br>150FS-33-50 | 296<br>150FS-33-50 |
| 0.0                  | 74<br>150FS-33-50       | 92<br>150FS-33-50  | 111<br>150FS-33-50 | 129<br>150FS-33-50 | 148<br>150FS-33-50 | 185<br>150FS-33-50 | 222<br>150FS-33-50 | 259<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |              |              |              |              |              |              |              |
|----------------------|----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75         | 1.00         | 1.25         | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                  | 490<br>HD-1                | 1133<br>HD-1 | 1777<br>HD-1 | 2420<br>HD-1 | 3064<br>HD-1 | 3707<br>HD-2 | 4351<br>HD-2 | 4994<br>HD-3 |
| 0.9                  | 404<br>HD-1                | 1004<br>HD-1 | 1605<br>HD-1 | 2206<br>HD-1 | 2806<br>HD-1 | 3407<br>HD-2 | 4007<br>HD-2 | 4608<br>HD-2 |
| 0.8                  | 318<br>HD-1                | 876<br>HD-1  | 1433<br>HD-1 | 1991<br>HD-1 | 2549<br>HD-1 | 3106<br>HD-1 | 3664<br>HD-2 | 4222<br>HD-2 |
| 0.7                  | 232<br>HD-1                | 747<br>HD-1  | 1262<br>HD-1 | 1777<br>HD-1 | 2291<br>HD-1 | 2806<br>HD-1 | 3321<br>HD-2 | 3836<br>HD-2 |
| 0.6                  | 146<br>HD-1                | 618<br>HD-1  | 1090<br>HD-1 | 1562<br>HD-1 | 2034<br>HD-1 | 2506<br>HD-1 | 2978<br>HD-1 | 3450<br>HD-2 |
| 0.5                  | 61<br>HD-1                 | 490<br>HD-1  | 919<br>HD-1  | 1348<br>HD-1 | 1777<br>HD-1 | 2206<br>HD-1 | 2635<br>HD-1 | 3064<br>HD-1 |
| 0.4                  | 0<br>HD-0                  | 361<br>HD-1  | 747<br>HD-1  | 1133<br>HD-1 | 1519<br>HD-1 | 1905<br>HD-1 | 2291<br>HD-1 | 2677<br>HD-1 |
| 0.3                  | 0<br>HD-0                  | 232<br>HD-1  | 575<br>HD-1  | 919<br>HD-1  | 1262<br>HD-1 | 1605<br>HD-1 | 1948<br>HD-1 | 2291<br>HD-1 |
| 0.2                  | 0<br>HD-0                  | 103<br>HD-1  | 404<br>HD-1  | 704<br>HD-1  | 1004<br>HD-1 | 1305<br>HD-1 | 1605<br>HD-1 | 1905<br>HD-1 |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0    | 232<br>HD-1  | 490<br>HD-1  | 747<br>HD-1  | 1004<br>HD-1 | 1262<br>HD-1 | 1519<br>HD-1 |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0    | 103<br>HD-1  | 329<br>HD-1  | 554<br>HD-1  | 779<br>HD-1  | 1004<br>HD-1 | 1230<br>HD-1 |





**TABLE 4.3.227: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.60 | Weight | 2400 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 230<br>150FS-33-50      | 288<br>150FS-33-50 | 346<br>150FS-33-50 | 403<br>150FS-33-50 | 461<br>200FS-33-50 | 576<br>200FS-33-50 | 691<br>250FS-33-50 | 806<br>300FS-33-50 |
| 0.9                  | 215<br>150FS-33-50      | 269<br>150FS-33-50 | 323<br>150FS-33-50 | 376<br>150FS-33-50 | 430<br>150FS-33-50 | 538<br>200FS-33-50 | 645<br>250FS-33-50 | 753<br>250FS-33-50 |
| 0.8                  | 200<br>150FS-33-50      | 250<br>150FS-33-50 | 300<br>150FS-33-50 | 349<br>150FS-33-50 | 399<br>150FS-33-50 | 499<br>200FS-33-50 | 599<br>200FS-33-50 | 699<br>250FS-33-50 |
| 0.7                  | 184<br>150FS-33-50      | 230<br>150FS-33-50 | 276<br>150FS-33-50 | 323<br>150FS-33-50 | 369<br>150FS-33-50 | 461<br>200FS-33-50 | 553<br>200FS-33-50 | 645<br>250FS-33-50 |
| 0.6                  | 169<br>150FS-33-50      | 211<br>150FS-33-50 | 253<br>150FS-33-50 | 296<br>150FS-33-50 | 338<br>150FS-33-50 | 422<br>150FS-33-50 | 507<br>200FS-33-50 | 591<br>200FS-33-50 |
| 0.5                  | 154<br>150FS-33-50      | 192<br>150FS-33-50 | 230<br>150FS-33-50 | 269<br>150FS-33-50 | 307<br>150FS-33-50 | 384<br>150FS-33-50 | 461<br>150FS-33-50 | 538<br>200FS-33-50 |
| 0.4                  | 138<br>150FS-33-50      | 173<br>150FS-33-50 | 207<br>150FS-33-50 | 242<br>150FS-33-50 | 276<br>150FS-33-50 | 346<br>150FS-33-50 | 415<br>150FS-33-50 | 484<br>200FS-33-50 |
| 0.3                  | 123<br>150FS-33-50      | 154<br>150FS-33-50 | 184<br>150FS-33-50 | 215<br>150FS-33-50 | 246<br>150FS-33-50 | 307<br>150FS-33-50 | 369<br>150FS-33-50 | 430<br>150FS-33-50 |
| 0.2                  | 108<br>150FS-33-50      | 134<br>150FS-33-50 | 161<br>150FS-33-50 | 188<br>150FS-33-50 | 215<br>150FS-33-50 | 269<br>150FS-33-50 | 323<br>150FS-33-50 | 376<br>150FS-33-50 |
| 0.1                  | 92<br>150FS-33-50       | 115<br>150FS-33-50 | 138<br>150FS-33-50 | 161<br>150FS-33-50 | 184<br>150FS-33-50 | 230<br>150FS-33-50 | 276<br>150FS-33-50 | 323<br>150FS-33-50 |
| 0.0                  | 81<br>150FS-33-50       | 101<br>150FS-33-50 | 121<br>150FS-33-50 | 141<br>150FS-33-50 | 161<br>150FS-33-50 | 202<br>150FS-33-50 | 242<br>150FS-33-50 | 282<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |              |              |              |              |              |              |              |
|----------------------|----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75         | 1.00         | 1.25         | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                  | 534<br>HD-1                | 1236<br>HD-1 | 1938<br>HD-1 | 2640<br>HD-1 | 3342<br>HD-2 | 4044<br>HD-2 | 4746<br>HD-3 | 5448<br>HD-3 |
| 0.9                  | 440<br>HD-1                | 1096<br>HD-1 | 1751<br>HD-1 | 2406<br>HD-1 | 3061<br>HD-1 | 3716<br>HD-2 | 4372<br>HD-2 | 5027<br>HD-3 |
| 0.8                  | 347<br>HD-1                | 955<br>HD-1  | 1564<br>HD-1 | 2172<br>HD-1 | 2780<br>HD-1 | 3389<br>HD-2 | 3997<br>HD-2 | 4606<br>HD-2 |
| 0.7                  | 253<br>HD-1                | 815<br>HD-1  | 1376<br>HD-1 | 1938<br>HD-1 | 2500<br>HD-1 | 3061<br>HD-1 | 3623<br>HD-2 | 4184<br>HD-2 |
| 0.6                  | 160<br>HD-1                | 674<br>HD-1  | 1189<br>HD-1 | 1704<br>HD-1 | 2219<br>HD-1 | 2734<br>HD-1 | 3248<br>HD-2 | 3763<br>HD-2 |
| 0.5                  | 66<br>HD-1                 | 534<br>HD-1  | 1002<br>HD-1 | 1470<br>HD-1 | 1938<br>HD-1 | 2406<br>HD-1 | 2874<br>HD-1 | 3342<br>HD-2 |
| 0.4                  | 0<br>HD-0                  | 394<br>HD-1  | 815<br>HD-1  | 1236<br>HD-1 | 1657<br>HD-1 | 2078<br>HD-1 | 2500<br>HD-1 | 2921<br>HD-1 |
| 0.3                  | 0<br>HD-0                  | 253<br>HD-1  | 628<br>HD-1  | 1002<br>HD-1 | 1376<br>HD-1 | 1751<br>HD-1 | 2125<br>HD-1 | 2500<br>HD-1 |
| 0.2                  | 0<br>HD-0                  | 113<br>HD-1  | 440<br>HD-1  | 768<br>HD-1  | 1096<br>HD-1 | 1423<br>HD-1 | 1751<br>HD-1 | 2078<br>HD-1 |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0    | 253<br>HD-1  | 534<br>HD-1  | 815<br>HD-1  | 1096<br>HD-1 | 1376<br>HD-1 | 1657<br>HD-1 |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0    | 113<br>HD-1  | 359<br>HD-1  | 604<br>HD-1  | 850<br>HD-1  | 1096<br>HD-1 | 1341<br>HD-1 |



**TABLE 4.3.228: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.60 | Weight | 2600 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|-------------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                         | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                     | 250<br>150FS-33-50      | 312<br>150FS-33-50 | 374<br>150FS-33-50 | 437<br>200FS-33-50 | 499<br>200FS-33-50 | 624<br>250FS-33-50 | 749<br>250FS-33-50 | 874<br>300FS-33-50 |
| 0.9                     | 233<br>150FS-33-50      | 291<br>150FS-33-50 | 349<br>150FS-33-50 | 408<br>150FS-33-50 | 466<br>200FS-33-50 | 582<br>200FS-33-50 | 699<br>250FS-33-50 | 815<br>300FS-33-50 |
| 0.8                     | 216<br>150FS-33-50      | 270<br>150FS-33-50 | 324<br>150FS-33-50 | 379<br>150FS-33-50 | 433<br>150FS-33-50 | 541<br>200FS-33-50 | 649<br>250FS-33-50 | 757<br>250FS-33-50 |
| 0.7                     | 200<br>150FS-33-50      | 250<br>150FS-33-50 | 300<br>150FS-33-50 | 349<br>150FS-33-50 | 399<br>150FS-33-50 | 499<br>200FS-33-50 | 599<br>200FS-33-50 | 699<br>250FS-33-50 |
| 0.6                     | 183<br>150FS-33-50      | 229<br>150FS-33-50 | 275<br>150FS-33-50 | 320<br>150FS-33-50 | 366<br>150FS-33-50 | 458<br>150FS-33-50 | 549<br>200FS-33-50 | 641<br>250FS-33-50 |
| 0.5                     | 166<br>150FS-33-50      | 208<br>150FS-33-50 | 250<br>150FS-33-50 | 291<br>150FS-33-50 | 333<br>150FS-33-50 | 416<br>150FS-33-50 | 499<br>200FS-33-50 | 582<br>200FS-33-50 |
| 0.4                     | 150<br>150FS-33-50      | 187<br>150FS-33-50 | 225<br>150FS-33-50 | 262<br>150FS-33-50 | 300<br>150FS-33-50 | 374<br>150FS-33-50 | 449<br>150FS-33-50 | 524<br>200FS-33-50 |
| 0.3                     | 133<br>150FS-33-50      | 166<br>150FS-33-50 | 200<br>150FS-33-50 | 233<br>150FS-33-50 | 266<br>150FS-33-50 | 333<br>150FS-33-50 | 399<br>150FS-33-50 | 466<br>150FS-33-50 |
| 0.2                     | 116<br>150FS-33-50      | 146<br>150FS-33-50 | 175<br>150FS-33-50 | 204<br>150FS-33-50 | 233<br>150FS-33-50 | 291<br>150FS-33-50 | 349<br>150FS-33-50 | 408<br>150FS-33-50 |
| 0.1                     | 100<br>150FS-33-50      | 125<br>150FS-33-50 | 150<br>150FS-33-50 | 175<br>150FS-33-50 | 200<br>150FS-33-50 | 250<br>150FS-33-50 | 300<br>150FS-33-50 | 349<br>150FS-33-50 |
| 0.0                     | 87<br>150FS-33-50       | 109<br>150FS-33-50 | 131<br>150FS-33-50 | 153<br>150FS-33-50 | 175<br>150FS-33-50 | 218<br>150FS-33-50 | 262<br>150FS-33-50 | 306<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |              |              |              |              |              |              |                      |
|-------------------------|----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------------|
|                         | 0.50                       | 0.75         | 1.00         | 1.25         | 1.50         | 1.75         | 2.00         | 2.25                 |
| 1.0                     | 579<br>HD-1                | 1339<br>HD-1 | 2100<br>HD-1 | 2860<br>HD-1 | 3621<br>HD-2 | 4381<br>HD-2 | 5142<br>HD-3 | 5902<br>No Solutions |
| 0.9                     | 477<br>HD-1                | 1187<br>HD-1 | 1897<br>HD-1 | 2607<br>HD-1 | 3316<br>HD-2 | 4026<br>HD-2 | 4736<br>HD-3 | 5446<br>HD-3         |
| 0.8                     | 376<br>HD-1                | 1035<br>HD-1 | 1694<br>HD-1 | 2353<br>HD-1 | 3012<br>HD-1 | 3671<br>HD-2 | 4330<br>HD-2 | 4989<br>HD-3         |
| 0.7                     | 274<br>HD-1                | 883<br>HD-1  | 1491<br>HD-1 | 2100<br>HD-1 | 2708<br>HD-1 | 3316<br>HD-2 | 3925<br>HD-2 | 4533<br>HD-2         |
| 0.6                     | 173<br>HD-1                | 731<br>HD-1  | 1288<br>HD-1 | 1846<br>HD-1 | 2404<br>HD-1 | 2961<br>HD-1 | 3519<br>HD-2 | 4077<br>HD-2         |
| 0.5                     | 72<br>HD-1                 | 579<br>HD-1  | 1086<br>HD-1 | 1593<br>HD-1 | 2100<br>HD-1 | 2607<br>HD-1 | 3114<br>HD-1 | 3621<br>HD-2         |
| 0.4                     | 0<br>HD-0                  | 426<br>HD-1  | 883<br>HD-1  | 1339<br>HD-1 | 1795<br>HD-1 | 2252<br>HD-1 | 2708<br>HD-1 | 3164<br>HD-1         |
| 0.3                     | 0<br>HD-0                  | 274<br>HD-1  | 680<br>HD-1  | 1086<br>HD-1 | 1491<br>HD-1 | 1897<br>HD-1 | 2302<br>HD-1 | 2708<br>HD-1         |
| 0.2                     | 0<br>HD-0                  | 122<br>HD-1  | 477<br>HD-1  | 832<br>HD-1  | 1187<br>HD-1 | 1542<br>HD-1 | 1897<br>HD-1 | 2252<br>HD-1         |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0    | 274<br>HD-1  | 579<br>HD-1  | 883<br>HD-1  | 1187<br>HD-1 | 1491<br>HD-1 | 1795<br>HD-1         |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0    | 122<br>HD-1  | 388<br>HD-1  | 655<br>HD-1  | 921<br>HD-1  | 1187<br>HD-1 | 1453<br>HD-1         |



**TABLE 4.3.229: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.60 | Weight | 2800 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ  
 XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade  
 \* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                    |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50               |
| 1.0                  | 269<br>150FS-33-50      | 336<br>150FS-33-50 | 403<br>150FS-33-50 | 470<br>200FS-33-50 | 538<br>200FS-33-50 | 672<br>250FS-33-50 | 806<br>300FS-33-50 | 941<br>300FS-33-50 |
| 0.9                  | 251<br>150FS-33-50      | 314<br>150FS-33-50 | 376<br>150FS-33-50 | 439<br>200FS-33-50 | 502<br>200FS-33-50 | 627<br>250FS-33-50 | 753<br>250FS-33-50 | 878<br>300FS-33-50 |
| 0.8                  | 233<br>150FS-33-50      | 291<br>150FS-33-50 | 349<br>150FS-33-50 | 408<br>150FS-33-50 | 466<br>200FS-33-50 | 582<br>200FS-33-50 | 699<br>250FS-33-50 | 815<br>300FS-33-50 |
| 0.7                  | 215<br>150FS-33-50      | 269<br>150FS-33-50 | 323<br>150FS-33-50 | 376<br>150FS-33-50 | 430<br>150FS-33-50 | 538<br>200FS-33-50 | 645<br>250FS-33-50 | 753<br>250FS-33-50 |
| 0.6                  | 197<br>150FS-33-50      | 246<br>150FS-33-50 | 296<br>150FS-33-50 | 345<br>150FS-33-50 | 394<br>150FS-33-50 | 493<br>200FS-33-50 | 591<br>200FS-33-50 | 690<br>250FS-33-50 |
| 0.5                  | 179<br>150FS-33-50      | 224<br>150FS-33-50 | 269<br>150FS-33-50 | 314<br>150FS-33-50 | 358<br>150FS-33-50 | 448<br>150FS-33-50 | 538<br>200FS-33-50 | 627<br>200FS-33-50 |
| 0.4                  | 161<br>150FS-33-50      | 202<br>150FS-33-50 | 242<br>150FS-33-50 | 282<br>150FS-33-50 | 323<br>150FS-33-50 | 403<br>150FS-33-50 | 484<br>200FS-33-50 | 564<br>200FS-33-50 |
| 0.3                  | 143<br>150FS-33-50      | 179<br>150FS-33-50 | 215<br>150FS-33-50 | 251<br>150FS-33-50 | 287<br>150FS-33-50 | 358<br>150FS-33-50 | 430<br>150FS-33-50 | 502<br>200FS-33-50 |
| 0.2                  | 125<br>150FS-33-50      | 157<br>150FS-33-50 | 188<br>150FS-33-50 | 220<br>150FS-33-50 | 251<br>150FS-33-50 | 314<br>150FS-33-50 | 376<br>150FS-33-50 | 439<br>150FS-33-50 |
| 0.1                  | 108<br>150FS-33-50      | 134<br>150FS-33-50 | 161<br>150FS-33-50 | 188<br>150FS-33-50 | 215<br>150FS-33-50 | 269<br>150FS-33-50 | 323<br>150FS-33-50 | 376<br>150FS-33-50 |
| 0.0                  | 94<br>150FS-33-50       | 118<br>150FS-33-50 | 141<br>150FS-33-50 | 165<br>150FS-33-50 | 188<br>150FS-33-50 | 235<br>150FS-33-50 | 282<br>150FS-33-50 | 329<br>150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:  
 HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)  
 \* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |              |              |              |              |              |                      |                      |
|----------------------|----------------------------|--------------|--------------|--------------|--------------|--------------|----------------------|----------------------|
|                      | 0.50                       | 0.75         | 1.00         | 1.25         | 1.50         | 1.75         | 2.00                 | 2.25                 |
| 1.0                  | 623<br>HD-1                | 1442<br>HD-1 | 2261<br>HD-1 | 3080<br>HD-1 | 3899<br>HD-2 | 4718<br>HD-2 | 5537<br>No Solutions | 6356<br>No Solutions |
| 0.9                  | 514<br>HD-1                | 1278<br>HD-1 | 2043<br>HD-1 | 2807<br>HD-1 | 3571<br>HD-2 | 4336<br>HD-2 | 5100<br>HD-3         | 5865<br>No Solutions |
| 0.8                  | 405<br>HD-1                | 1114<br>HD-1 | 1824<br>HD-1 | 2534<br>HD-1 | 3244<br>HD-2 | 3954<br>HD-2 | 4663<br>HD-2         | 5373<br>HD-3         |
| 0.7                  | 295<br>HD-1                | 951<br>HD-1  | 1606<br>HD-1 | 2261<br>HD-1 | 2916<br>HD-2 | 3571<br>HD-2 | 4227<br>HD-2         | 4882<br>HD-3         |
| 0.6                  | 186<br>HD-1                | 787<br>HD-1  | 1387<br>HD-1 | 1988<br>HD-1 | 2589<br>HD-1 | 3189<br>HD-2 | 3790<br>HD-2         | 4390<br>HD-2         |
| 0.5                  | 77<br>HD-1                 | 623<br>HD-1  | 1169<br>HD-1 | 1715<br>HD-1 | 2261<br>HD-1 | 2807<br>HD-1 | 3353<br>HD-2         | 3899<br>HD-2         |
| 0.4                  | 0<br>HD-0                  | 459<br>HD-1  | 951<br>HD-1  | 1442<br>HD-1 | 1933<br>HD-1 | 2425<br>HD-1 | 2916<br>HD-1         | 3408<br>HD-2         |
| 0.3                  | 0<br>HD-0                  | 295<br>HD-1  | 732<br>HD-1  | 1169<br>HD-1 | 1606<br>HD-1 | 2043<br>HD-1 | 2479<br>HD-1         | 2916<br>HD-1         |
| 0.2                  | 0<br>HD-0                  | 132<br>HD-1  | 514<br>HD-1  | 896<br>HD-1  | 1278<br>HD-1 | 1660<br>HD-1 | 2043<br>HD-1         | 2425<br>HD-1         |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0    | 295<br>HD-1  | 623<br>HD-1  | 951<br>HD-1  | 1278<br>HD-1 | 1606<br>HD-1         | 1933<br>HD-1         |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0    | 132<br>HD-1  | 418<br>HD-1  | 705<br>HD-1  | 992<br>HD-1  | 1278<br>HD-1         | 1565<br>HD-1         |



**TABLE 4.3.230: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |            |                 |      |        |          |
|--------------------|------|----|------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (Ip = 1.5) | S <sub>DS</sub> | 1.60 | Weight | 3000 lbs |
|--------------------|------|----|------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg<br>(z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                     |
|-------------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
|                         | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50                |
| 1.0                     | 288<br>150FS-33-50      | 360<br>150FS-33-50 | 432<br>200FS-33-50 | 504<br>200FS-33-50 | 576<br>200FS-33-50 | 720<br>250FS-33-50 | 864<br>300FS-33-50 | 1008<br>400FS-33-50 |
| 0.9                     | 269<br>150FS-33-50      | 336<br>150FS-33-50 | 403<br>150FS-33-50 | 470<br>200FS-33-50 | 538<br>200FS-33-50 | 672<br>250FS-33-50 | 806<br>300FS-33-50 | 941<br>300FS-33-50  |
| 0.8                     | 250<br>150FS-33-50      | 312<br>150FS-33-50 | 374<br>150FS-33-50 | 437<br>200FS-33-50 | 499<br>200FS-33-50 | 624<br>250FS-33-50 | 749<br>250FS-33-50 | 874<br>300FS-33-50  |
| 0.7                     | 230<br>150FS-33-50      | 288<br>150FS-33-50 | 346<br>150FS-33-50 | 403<br>150FS-33-50 | 461<br>200FS-33-50 | 576<br>200FS-33-50 | 691<br>250FS-33-50 | 806<br>300FS-33-50  |
| 0.6                     | 211<br>150FS-33-50      | 264<br>150FS-33-50 | 317<br>150FS-33-50 | 370<br>150FS-33-50 | 422<br>150FS-33-50 | 528<br>200FS-33-50 | 634<br>250FS-33-50 | 739<br>250FS-33-50  |
| 0.5                     | 192<br>150FS-33-50      | 240<br>150FS-33-50 | 288<br>150FS-33-50 | 336<br>150FS-33-50 | 384<br>150FS-33-50 | 480<br>200FS-33-50 | 576<br>200FS-33-50 | 672<br>250FS-33-50  |
| 0.4                     | 173<br>150FS-33-50      | 216<br>150FS-33-50 | 259<br>150FS-33-50 | 302<br>150FS-33-50 | 346<br>150FS-33-50 | 432<br>150FS-33-50 | 518<br>200FS-33-50 | 605<br>200FS-33-50  |
| 0.3                     | 154<br>150FS-33-50      | 192<br>150FS-33-50 | 230<br>150FS-33-50 | 269<br>150FS-33-50 | 307<br>150FS-33-50 | 384<br>150FS-33-50 | 461<br>150FS-33-50 | 538<br>200FS-33-50  |
| 0.2                     | 134<br>150FS-33-50      | 168<br>150FS-33-50 | 202<br>150FS-33-50 | 235<br>150FS-33-50 | 269<br>150FS-33-50 | 336<br>150FS-33-50 | 403<br>150FS-33-50 | 470<br>150FS-33-50  |
| 0.1                     | 115<br>150FS-33-50      | 144<br>150FS-33-50 | 173<br>150FS-33-50 | 202<br>150FS-33-50 | 230<br>150FS-33-50 | 288<br>150FS-33-50 | 346<br>150FS-33-50 | 403<br>150FS-33-50  |
| 0.0                     | 101<br>150FS-33-50      | 126<br>150FS-33-50 | 151<br>150FS-33-50 | 176<br>150FS-33-50 | 202<br>150FS-33-50 | 252<br>150FS-33-50 | 302<br>150FS-33-50 | 353<br>150FS-33-50  |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg<br>(z/h) | Max Pod Aspect Ratio (H/L) |              |              |              |              |              |                      |                      |
|-------------------------|----------------------------|--------------|--------------|--------------|--------------|--------------|----------------------|----------------------|
|                         | 0.50                       | 0.75         | 1.00         | 1.25         | 1.50         | 1.75         | 2.00                 | 2.25                 |
| 1.0                     | 668<br>HD-1                | 1545<br>HD-1 | 2423<br>HD-1 | 3300<br>HD-2 | 4178<br>HD-2 | 5055<br>HD-3 | 5933<br>No Solutions | 6810<br>No Solutions |
| 0.9                     | 551<br>HD-1                | 1370<br>HD-1 | 2189<br>HD-1 | 3008<br>HD-1 | 3827<br>HD-1 | 4646<br>HD-2 | 5465<br>HD-3         | 6284<br>No Solutions |
| 0.8                     | 434<br>HD-1                | 1194<br>HD-1 | 1955<br>HD-1 | 2715<br>HD-1 | 3476<br>HD-2 | 4236<br>HD-2 | 4997<br>HD-3         | 5757<br>No Solutions |
| 0.7                     | 317<br>HD-1                | 1019<br>HD-1 | 1721<br>HD-1 | 2423<br>HD-1 | 3125<br>HD-1 | 3827<br>HD-2 | 4529<br>HD-2         | 5231<br>HD-3         |
| 0.6                     | 200<br>HD-1                | 843<br>HD-1  | 1487<br>HD-1 | 2130<br>HD-1 | 2774<br>HD-1 | 3417<br>HD-2 | 4061<br>HD-2         | 4704<br>HD-2         |
| 0.5                     | 83<br>HD-1                 | 668<br>HD-1  | 1253<br>HD-1 | 1838<br>HD-1 | 2423<br>HD-1 | 3008<br>HD-1 | 3593<br>HD-2         | 4178<br>HD-2         |
| 0.4                     | 0<br>HD-0                  | 492<br>HD-1  | 1019<br>HD-1 | 1545<br>HD-1 | 2072<br>HD-1 | 2598<br>HD-1 | 3125<br>HD-1         | 3651<br>HD-2         |
| 0.3                     | 0<br>HD-0                  | 317<br>HD-1  | 785<br>HD-1  | 1253<br>HD-1 | 1721<br>HD-1 | 2189<br>HD-1 | 2657<br>HD-1         | 3125<br>HD-1         |
| 0.2                     | 0<br>HD-0                  | 141<br>HD-1  | 551<br>HD-1  | 960<br>HD-1  | 1370<br>HD-1 | 1779<br>HD-1 | 2189<br>HD-1         | 2598<br>HD-1         |
| 0.1                     | 0<br>HD-0                  | 0<br>HD-0    | 317<br>HD-1  | 668<br>HD-1  | 1019<br>HD-1 | 1370<br>HD-1 | 1721<br>HD-1         | 2072<br>HD-1         |
| 0.0                     | 0<br>HD-0                  | 0<br>HD-0    | 141<br>HD-1  | 448<br>HD-1  | 755<br>HD-1  | 1062<br>HD-1 | 1370<br>HD-1         | 1677<br>HD-1         |



**TABLE 4.3.231: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.60 | Weight | 3200 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                     |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50                |
| 1.0                  | 307<br>150FS-33-50      | 384<br>150FS-33-50 | 461<br>200FS-33-50 | 538<br>200FS-33-50 | 614<br>250FS-33-50 | 768<br>300FS-33-50 | 922<br>300FS-33-50 | 1075<br>400FS-33-50 |
| 0.9                  | 287<br>150FS-33-50      | 358<br>150FS-33-50 | 430<br>200FS-33-50 | 502<br>200FS-33-50 | 573<br>200FS-33-50 | 717<br>250FS-33-50 | 860<br>300FS-33-50 | 1004<br>400FS-33-50 |
| 0.8                  | 266<br>150FS-33-50      | 333<br>150FS-33-50 | 399<br>150FS-33-50 | 466<br>200FS-33-50 | 532<br>200FS-33-50 | 666<br>250FS-33-50 | 799<br>300FS-33-50 | 932<br>300FS-33-50  |
| 0.7                  | 246<br>150FS-33-50      | 307<br>150FS-33-50 | 369<br>150FS-33-50 | 430<br>200FS-33-50 | 492<br>200FS-33-50 | 614<br>250FS-33-50 | 737<br>250FS-33-50 | 860<br>300FS-33-50  |
| 0.6                  | 225<br>150FS-33-50      | 282<br>150FS-33-50 | 338<br>150FS-33-50 | 394<br>150FS-33-50 | 451<br>200FS-33-50 | 563<br>200FS-33-50 | 676<br>250FS-33-50 | 788<br>250FS-33-50  |
| 0.5                  | 205<br>150FS-33-50      | 256<br>150FS-33-50 | 307<br>150FS-33-50 | 358<br>150FS-33-50 | 410<br>150FS-33-50 | 512<br>200FS-33-50 | 614<br>200FS-33-50 | 717<br>250FS-33-50  |
| 0.4                  | 184<br>150FS-33-50      | 230<br>150FS-33-50 | 276<br>150FS-33-50 | 323<br>150FS-33-50 | 369<br>150FS-33-50 | 461<br>200FS-33-50 | 553<br>200FS-33-50 | 645<br>250FS-33-50  |
| 0.3                  | 164<br>150FS-33-50      | 205<br>150FS-33-50 | 246<br>150FS-33-50 | 287<br>150FS-33-50 | 328<br>150FS-33-50 | 410<br>150FS-33-50 | 492<br>200FS-33-50 | 573<br>200FS-33-50  |
| 0.2                  | 143<br>150FS-33-50      | 179<br>150FS-33-50 | 215<br>150FS-33-50 | 251<br>150FS-33-50 | 287<br>150FS-33-50 | 358<br>150FS-33-50 | 430<br>150FS-33-50 | 502<br>200FS-33-50  |
| 0.1                  | 123<br>150FS-33-50      | 154<br>150FS-33-50 | 184<br>150FS-33-50 | 215<br>150FS-33-50 | 246<br>150FS-33-50 | 307<br>150FS-33-50 | 369<br>150FS-33-50 | 430<br>150FS-33-50  |
| 0.0                  | 108<br>150FS-33-50      | 134<br>150FS-33-50 | 161<br>150FS-33-50 | 188<br>150FS-33-50 | 215<br>150FS-33-50 | 269<br>150FS-33-50 | 323<br>150FS-33-50 | 376<br>150FS-33-50  |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |              |              |              |              |              |                      |                      |
|----------------------|----------------------------|--------------|--------------|--------------|--------------|--------------|----------------------|----------------------|
|                      | 0.50                       | 0.75         | 1.00         | 1.25         | 1.50         | 1.75         | 2.00                 | 2.25                 |
| 1.0                  | 712<br>HD-1                | 1648<br>HD-1 | 2584<br>HD-1 | 3520<br>HD-2 | 4456<br>HD-2 | 5392<br>HD-3 | 6328<br>No Solutions | 7264<br>No Solutions |
| 0.9                  | 587<br>HD-1                | 1461<br>HD-1 | 2334<br>HD-1 | 3208<br>HD-2 | 4082<br>HD-2 | 4955<br>HD-3 | 5829<br>No Solutions | 6702<br>No Solutions |
| 0.8                  | 462<br>HD-1                | 1274<br>HD-1 | 2085<br>HD-1 | 2896<br>HD-1 | 3707<br>HD-2 | 4518<br>HD-2 | 5330<br>HD-3         | 6141<br>No Solutions |
| 0.7                  | 338<br>HD-1                | 1086<br>HD-1 | 1835<br>HD-1 | 2584<br>HD-1 | 3333<br>HD-2 | 4082<br>HD-2 | 4830<br>HD-3         | 5579<br>No Solutions |
| 0.6                  | 213<br>HD-1                | 899<br>HD-1  | 1586<br>HD-1 | 2272<br>HD-1 | 2958<br>HD-1 | 3645<br>HD-2 | 4331<br>HD-2         | 5018<br>HD-3         |
| 0.5                  | 88<br>HD-1                 | 712<br>HD-1  | 1336<br>HD-1 | 1960<br>HD-1 | 2584<br>HD-1 | 3208<br>HD-2 | 3832<br>HD-2         | 4456<br>HD-2         |
| 0.4                  | 0<br>HD-0                  | 525<br>HD-1  | 1086<br>HD-1 | 1648<br>HD-1 | 2210<br>HD-1 | 2771<br>HD-1 | 3333<br>HD-2         | 3894<br>HD-2         |
| 0.3                  | 0<br>HD-0                  | 338<br>HD-1  | 837<br>HD-1  | 1336<br>HD-1 | 1835<br>HD-1 | 2334<br>HD-1 | 2834<br>HD-1         | 3333<br>HD-2         |
| 0.2                  | 0<br>HD-0                  | 150<br>HD-1  | 587<br>HD-1  | 1024<br>HD-1 | 1461<br>HD-1 | 1898<br>HD-1 | 2334<br>HD-1         | 2771<br>HD-1         |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0    | 338<br>HD-1  | 712<br>HD-1  | 1086<br>HD-1 | 1461<br>HD-1 | 1835<br>HD-1         | 2210<br>HD-1         |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0    | 150<br>HD-1  | 478<br>HD-1  | 806<br>HD-1  | 1133<br>HD-1 | 1461<br>HD-1         | 1788<br>HD-1         |



**TABLE 4.3.232: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.60 | Weight | 3400 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                    |                     |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00               | 3.50                |
| 1.0                  | 326<br>150FS-33-50      | 408<br>200FS-33-50 | 490<br>200FS-33-50 | 571<br>200FS-33-50 | 653<br>250FS-33-50 | 816<br>300FS-33-50 | 979<br>400FS-33-50 | 1142<br>400FS-33-50 |
| 0.9                  | 305<br>150FS-33-50      | 381<br>150FS-33-50 | 457<br>200FS-33-50 | 533<br>200FS-33-50 | 609<br>250FS-33-50 | 762<br>250FS-33-50 | 914<br>300FS-33-50 | 1066<br>400FS-33-50 |
| 0.8                  | 283<br>150FS-33-50      | 354<br>150FS-33-50 | 424<br>200FS-33-50 | 495<br>200FS-33-50 | 566<br>200FS-33-50 | 707<br>250FS-33-50 | 849<br>300FS-33-50 | 990<br>400FS-33-50  |
| 0.7                  | 261<br>150FS-33-50      | 326<br>150FS-33-50 | 392<br>150FS-33-50 | 457<br>200FS-33-50 | 522<br>200FS-33-50 | 653<br>250FS-33-50 | 783<br>300FS-33-50 | 914<br>300FS-33-50  |
| 0.6                  | 239<br>150FS-33-50      | 299<br>150FS-33-50 | 359<br>150FS-33-50 | 419<br>150FS-33-50 | 479<br>200FS-33-50 | 598<br>200FS-33-50 | 718<br>250FS-33-50 | 838<br>300FS-33-50  |
| 0.5                  | 218<br>150FS-33-50      | 272<br>150FS-33-50 | 326<br>150FS-33-50 | 381<br>150FS-33-50 | 435<br>150FS-33-50 | 544<br>200FS-33-50 | 653<br>250FS-33-50 | 762<br>250FS-33-50  |
| 0.4                  | 196<br>150FS-33-50      | 245<br>150FS-33-50 | 294<br>150FS-33-50 | 343<br>150FS-33-50 | 392<br>150FS-33-50 | 490<br>200FS-33-50 | 588<br>200FS-33-50 | 685<br>250FS-33-50  |
| 0.3                  | 174<br>150FS-33-50      | 218<br>150FS-33-50 | 261<br>150FS-33-50 | 305<br>150FS-33-50 | 348<br>150FS-33-50 | 435<br>150FS-33-50 | 522<br>200FS-33-50 | 609<br>200FS-33-50  |
| 0.2                  | 152<br>150FS-33-50      | 190<br>150FS-33-50 | 228<br>150FS-33-50 | 267<br>150FS-33-50 | 305<br>150FS-33-50 | 381<br>150FS-33-50 | 457<br>150FS-33-50 | 533<br>200FS-33-50  |
| 0.1                  | 131<br>150FS-33-50      | 165<br>150FS-33-50 | 196<br>150FS-33-50 | 228<br>150FS-33-50 | 261<br>150FS-33-50 | 326<br>150FS-33-50 | 392<br>150FS-33-50 | 457<br>150FS-33-50  |
| 0.0                  | 114<br>150FS-33-50      | 143<br>150FS-33-50 | 171<br>150FS-33-50 | 200<br>150FS-33-50 | 228<br>150FS-33-50 | 286<br>150FS-33-50 | 343<br>150FS-33-50 | 400<br>150FS-33-50  |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |              |              |              |              |                      |                      |                      |
|----------------------|----------------------------|--------------|--------------|--------------|--------------|----------------------|----------------------|----------------------|
|                      | 0.50                       | 0.75         | 1.00         | 1.25         | 1.50         | 1.75                 | 2.00                 | 2.25                 |
| 1.0                  | 757<br>HD-1                | 1751<br>HD-1 | 2746<br>HD-1 | 3740<br>HD-2 | 4735<br>HD-3 | 5729<br>No Solutions | 6724<br>No Solutions | 7718<br>No Solutions |
| 0.9                  | 624<br>HD-1                | 1552<br>HD-1 | 2480<br>HD-1 | 3409<br>HD-2 | 4337<br>HD-2 | 5265<br>HD-3         | 6193<br>No Solutions | 7121<br>No Solutions |
| 0.8                  | 491<br>HD-1                | 1353<br>HD-1 | 2215<br>HD-1 | 3077<br>HD-1 | 3939<br>HD-2 | 4801<br>HD-3         | 5663<br>No Solutions | 6525<br>No Solutions |
| 0.7                  | 359<br>HD-1                | 1154<br>HD-1 | 1950<br>HD-1 | 2746<br>HD-1 | 3541<br>HD-2 | 4337<br>HD-2         | 5132<br>HD-3         | 5928<br>No Solutions |
| 0.6                  | 226<br>HD-1                | 955<br>HD-1  | 1685<br>HD-1 | 2414<br>HD-1 | 3143<br>HD-1 | 3873<br>HD-2         | 4602<br>HD-2         | 5331<br>HD-3         |
| 0.5                  | 94<br>HD-1                 | 757<br>HD-1  | 1420<br>HD-1 | 2083<br>HD-1 | 2746<br>HD-1 | 3409<br>HD-2         | 4072<br>HD-2         | 4735<br>HD-3         |
| 0.4                  | 0<br>HD-0                  | 558<br>HD-1  | 1154<br>HD-1 | 1751<br>HD-1 | 2348<br>HD-1 | 2944<br>HD-1         | 3541<br>HD-2         | 4138<br>HD-2         |
| 0.3                  | 0<br>HD-0                  | 359<br>HD-1  | 889<br>HD-1  | 1420<br>HD-1 | 1950<br>HD-1 | 2480<br>HD-1         | 3011<br>HD-1         | 3541<br>HD-2         |
| 0.2                  | 0<br>HD-0                  | 160<br>HD-1  | 624<br>HD-1  | 1088<br>HD-1 | 1552<br>HD-1 | 2016<br>HD-1         | 2480<br>HD-1         | 2944<br>HD-1         |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0    | 359<br>HD-1  | 757<br>HD-1  | 1154<br>HD-1 | 1552<br>HD-1         | 1950<br>HD-1         | 2348<br>HD-1         |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0    | 160<br>HD-1  | 508<br>HD-1  | 856<br>HD-1  | 1204<br>HD-1         | 1552<br>HD-1         | 1900<br>HD-1         |



**TABLE 4.3.233: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |            |                 |      |        |          |
|--------------------|------|----|------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (Ip = 1.5) | S <sub>DS</sub> | 1.60 | Weight | 3600 lbs |
|--------------------|------|----|------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |             |             |             |             |             |             |             |
|----------------------|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                      | 1.00                    | 1.25        | 1.50        | 1.75        | 2.00        | 2.50        | 3.00        | 3.50        |
| 1.0                  | 346                     | 432         | 518         | 605         | 691         | 864         | 1037        | 1210        |
|                      | 150FS-33-50             | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 |
| 0.9                  | 323                     | 403         | 484         | 564         | 645         | 806         | 968         | 1129        |
|                      | 150FS-33-50             | 200FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 |
| 0.8                  | 300                     | 374         | 449         | 524         | 599         | 749         | 899         | 1048        |
|                      | 150FS-33-50             | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 |
| 0.7                  | 276                     | 346         | 415         | 484         | 553         | 691         | 829         | 968         |
|                      | 150FS-33-50             | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 |
| 0.6                  | 253                     | 317         | 380         | 444         | 507         | 634         | 760         | 887         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 |
| 0.5                  | 230                     | 288         | 346         | 403         | 461         | 576         | 691         | 806         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 |
| 0.4                  | 207                     | 259         | 311         | 363         | 415         | 518         | 622         | 726         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 |
| 0.3                  | 184                     | 230         | 276         | 323         | 369         | 461         | 553         | 645         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 |
| 0.2                  | 161                     | 202         | 242         | 282         | 323         | 403         | 484         | 564         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 |
| 0.1                  | 138                     | 173         | 207         | 242         | 276         | 346         | 415         | 484         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 |
| 0.0                  | 121                     | 151         | 181         | 212         | 242         | 302         | 363         | 423         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |      |      |      |      |              |              |              |
|----------------------|----------------------------|------|------|------|------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75 | 1.00 | 1.25 | 1.50 | 1.75         | 2.00         | 2.25         |
| 1.0                  | 801                        | 1854 | 2907 | 3960 | 5013 | 6066         | 7119         | 8172         |
|                      | HD-1                       | HD-1 | HD-1 | HD-2 | HD-3 | No Solutions | No Solutions | No Solutions |
| 0.9                  | 661                        | 1643 | 2626 | 3609 | 4592 | 5575         | 6557         | 7540         |
|                      | HD-1                       | HD-1 | HD-1 | HD-2 | HD-2 | No Solutions | No Solutions | No Solutions |
| 0.8                  | 520                        | 1433 | 2345 | 3258 | 4171 | 5083         | 5996         | 6908         |
|                      | HD-1                       | HD-1 | HD-1 | HD-2 | HD-2 | HD-3         | No Solutions | No Solutions |
| 0.7                  | 380                        | 1222 | 2065 | 2907 | 3749 | 4592         | 5434         | 6277         |
|                      | HD-1                       | HD-1 | HD-1 | HD-1 | HD-2 | HD-2         | HD-3         | No Solutions |
| 0.6                  | 239                        | 1012 | 1784 | 2556 | 3328 | 4100         | 4873         | 5645         |
|                      | HD-1                       | HD-1 | HD-1 | HD-1 | HD-2 | HD-2         | HD-3         | No Solutions |
| 0.5                  | 99                         | 801  | 1503 | 2205 | 2907 | 3609         | 4311         | 5013         |
|                      | HD-1                       | HD-1 | HD-1 | HD-1 | HD-1 | HD-2         | HD-2         | HD-3         |
| 0.4                  | 0                          | 590  | 1222 | 1854 | 2486 | 3118         | 3749         | 4381         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1 | HD-1         | HD-2         | HD-2         |
| 0.3                  | 0                          | 380  | 941  | 1503 | 2065 | 2626         | 3188         | 3749         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1 | HD-1         | HD-2         | HD-2         |
| 0.2                  | 0                          | 169  | 661  | 1152 | 1643 | 2135         | 2626         | 3118         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1 | HD-1         | HD-1         | HD-1         |
| 0.1                  | 0                          | 0    | 380  | 801  | 1222 | 1643         | 2065         | 2486         |
|                      | HD-0                       | HD-0 | HD-1 | HD-1 | HD-1 | HD-1         | HD-1         | HD-1         |
| 0.0                  | 0                          | 0    | 169  | 538  | 906  | 1275         | 1643         | 2012         |
|                      | HD-0                       | HD-0 | HD-1 | HD-1 | HD-1 | HD-1         | HD-1         | HD-1         |



**TABLE 4.3.234: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |            |                 |      |        |          |
|--------------------|------|----|------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (Ip = 1.5) | S <sub>DS</sub> | 1.60 | Weight | 3800 lbs |
|--------------------|------|----|------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |                    |                    |                    |                    |                    |                     |                     |
|----------------------|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|
|                      | 1.00                    | 1.25               | 1.50               | 1.75               | 2.00               | 2.50               | 3.00                | 3.50                |
| 1.0                  | 365<br>200FS-33-50      | 456<br>200FS-33-50 | 547<br>200FS-33-50 | 638<br>250FS-33-50 | 730<br>250FS-33-50 | 912<br>300FS-33-50 | 1094<br>400FS-33-50 | 1277<br>500FS-33-50 |
| 0.9                  | 340<br>150FS-33-50      | 426<br>200FS-33-50 | 511<br>200FS-33-50 | 596<br>250FS-33-50 | 681<br>250FS-33-50 | 851<br>300FS-33-50 | 1021<br>400FS-33-50 | 1192<br>400FS-33-50 |
| 0.8                  | 316<br>150FS-33-50      | 395<br>200FS-33-50 | 474<br>200FS-33-50 | 553<br>200FS-33-50 | 632<br>250FS-33-50 | 790<br>300FS-33-50 | 948<br>400FS-33-50  | 1107<br>400FS-33-50 |
| 0.7                  | 292<br>150FS-33-50      | 365<br>150FS-33-50 | 438<br>200FS-33-50 | 511<br>200FS-33-50 | 584<br>200FS-33-50 | 730<br>250FS-33-50 | 876<br>300FS-33-50  | 1021<br>400FS-33-50 |
| 0.6                  | 268<br>150FS-33-50      | 334<br>150FS-33-50 | 401<br>150FS-33-50 | 468<br>200FS-33-50 | 535<br>200FS-33-50 | 669<br>250FS-33-50 | 803<br>300FS-33-50  | 936<br>300FS-33-50  |
| 0.5                  | 243<br>150FS-33-50      | 304<br>150FS-33-50 | 365<br>150FS-33-50 | 426<br>150FS-33-50 | 486<br>200FS-33-50 | 608<br>200FS-33-50 | 730<br>250FS-33-50  | 851<br>300FS-33-50  |
| 0.4                  | 219<br>150FS-33-50      | 274<br>150FS-33-50 | 328<br>150FS-33-50 | 383<br>150FS-33-50 | 438<br>150FS-33-50 | 547<br>200FS-33-50 | 657<br>250FS-33-50  | 766<br>250FS-33-50  |
| 0.3                  | 195<br>150FS-33-50      | 243<br>150FS-33-50 | 292<br>150FS-33-50 | 340<br>150FS-33-50 | 389<br>150FS-33-50 | 486<br>200FS-33-50 | 584<br>200FS-33-50  | 681<br>250FS-33-50  |
| 0.2                  | 170<br>150FS-33-50      | 213<br>150FS-33-50 | 255<br>150FS-33-50 | 298<br>150FS-33-50 | 340<br>150FS-33-50 | 426<br>150FS-33-50 | 511<br>200FS-33-50  | 596<br>200FS-33-50  |
| 0.1                  | 146<br>150FS-33-50      | 182<br>150FS-33-50 | 219<br>150FS-33-50 | 255<br>150FS-33-50 | 292<br>150FS-33-50 | 365<br>150FS-33-50 | 438<br>150FS-33-50  | 511<br>200FS-33-50  |
| 0.0                  | 128<br>150FS-33-50      | 160<br>150FS-33-50 | 192<br>150FS-33-50 | 223<br>150FS-33-50 | 255<br>150FS-33-50 | 319<br>150FS-33-50 | 383<br>150FS-33-50  | 447<br>150FS-33-50  |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |              |              |              |              |                      |                      |                      |
|----------------------|----------------------------|--------------|--------------|--------------|--------------|----------------------|----------------------|----------------------|
|                      | 0.50                       | 0.75         | 1.00         | 1.25         | 1.50         | 1.75                 | 2.00                 | 2.25                 |
| 1.0                  | 846<br>HD-1                | 1957<br>HD-1 | 3069<br>HD-1 | 4180<br>HD-2 | 5292<br>HD-3 | 6403<br>No Solutions | 7515<br>No Solutions | 8626<br>No Solutions |
| 0.9                  | 697<br>HD-1                | 1735<br>HD-1 | 2772<br>HD-1 | 3810<br>HD-2 | 4847<br>HD-3 | 5884<br>No Solutions | 6922<br>No Solutions | 7959<br>No Solutions |
| 0.8                  | 549<br>HD-1                | 1512<br>HD-1 | 2476<br>HD-1 | 3439<br>HD-2 | 4402<br>HD-2 | 5366<br>HD-3         | 6329<br>No Solutions | 7292<br>No Solutions |
| 0.7                  | 401<br>HD-1                | 1290<br>HD-1 | 2179<br>HD-1 | 3069<br>HD-1 | 3958<br>HD-2 | 4847<br>HD-3         | 5736<br>No Solutions | 6625<br>No Solutions |
| 0.6                  | 253<br>HD-1                | 1068<br>HD-1 | 1883<br>HD-1 | 2698<br>HD-1 | 3513<br>HD-2 | 4328<br>HD-2         | 5143<br>HD-3         | 5958<br>No Solutions |
| 0.5                  | 105<br>HD-1                | 846<br>HD-1  | 1587<br>HD-1 | 2328<br>HD-1 | 3069<br>HD-1 | 3810<br>HD-2         | 4551<br>HD-2         | 5292<br>HD-3         |
| 0.4                  | 0<br>HD-0                  | 623<br>HD-1  | 1290<br>HD-1 | 1957<br>HD-1 | 2624<br>HD-1 | 3291<br>HD-2         | 3958<br>HD-2         | 4625<br>HD-2         |
| 0.3                  | 0<br>HD-0                  | 401<br>HD-1  | 994<br>HD-1  | 1587<br>HD-1 | 2179<br>HD-1 | 2772<br>HD-1         | 3365<br>HD-2         | 3958<br>HD-2         |
| 0.2                  | 0<br>HD-0                  | 179<br>HD-1  | 697<br>HD-1  | 1216<br>HD-1 | 1735<br>HD-1 | 2253<br>HD-1         | 2772<br>HD-1         | 3291<br>HD-2         |
| 0.1                  | 0<br>HD-0                  | 0<br>HD-0    | 401<br>HD-1  | 846<br>HD-1  | 1290<br>HD-1 | 1735<br>HD-1         | 2179<br>HD-1         | 2624<br>HD-1         |
| 0.0                  | 0<br>HD-0                  | 0<br>HD-0    | 179<br>HD-1  | 568<br>HD-1  | 957<br>HD-1  | 1346<br>HD-1         | 1735<br>HD-1         | 2124<br>HD-1         |





**TABLE 4.3.235: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.60 | Weight | 4000 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |             |             |             |             |             |             |             |
|----------------------|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                      | 1.00                    | 1.25        | 1.50        | 1.75        | 2.00        | 2.50        | 3.00        | 3.50        |
| 1.0                  | 384                     | 480         | 576         | 672         | 768         | 960         | 1152        | 1344        |
|                      | 200FS-33-50             | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 | 500FS-33-50 |
| 0.9                  | 358                     | 448         | 538         | 627         | 717         | 896         | 1075        | 1254        |
|                      | 200FS-33-50             | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 |
| 0.8                  | 333                     | 416         | 499         | 582         | 666         | 832         | 998         | 1165        |
|                      | 150FS-33-50             | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 |
| 0.7                  | 307                     | 384         | 461         | 538         | 614         | 768         | 922         | 1075        |
|                      | 150FS-33-50             | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 | 300FS-33-50 | 400FS-33-50 |
| 0.6                  | 282                     | 352         | 422         | 493         | 563         | 704         | 845         | 986         |
|                      | 150FS-33-50             | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 |
| 0.5                  | 256                     | 320         | 384         | 448         | 512         | 640         | 768         | 896         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 |
| 0.4                  | 230                     | 288         | 346         | 403         | 461         | 576         | 691         | 806         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 |
| 0.3                  | 205                     | 256         | 307         | 358         | 410         | 512         | 614         | 717         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 |
| 0.2                  | 179                     | 224         | 269         | 314         | 358         | 448         | 538         | 627         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 |
| 0.1                  | 154                     | 192         | 230         | 269         | 307         | 384         | 461         | 538         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 |
| 0.0                  | 134                     | 168         | 202         | 235         | 269         | 336         | 403         | 470         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |      |      |      |              |              |              |              |
|----------------------|----------------------------|------|------|------|--------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75 | 1.00 | 1.25 | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                  | 890                        | 2060 | 3230 | 4400 | 5570         | 6740         | 7910         | 9080         |
|                      | HD-1                       | HD-1 | HD-2 | HD-2 | No Solutions | No Solutions | No Solutions | No Solutions |
| 0.9                  | 734                        | 1826 | 2918 | 4010 | 5102         | 6194         | 7286         | 8378         |
|                      | HD-1                       | HD-1 | HD-1 | HD-2 | HD-3         | No Solutions | No Solutions | No Solutions |
| 0.8                  | 578                        | 1592 | 2606 | 3620 | 4634         | 5648         | 6662         | 7676         |
|                      | HD-1                       | HD-1 | HD-1 | HD-2 | HD-2         | No Solutions | No Solutions | No Solutions |
| 0.7                  | 422                        | 1358 | 2294 | 3230 | 4166         | 5102         | 6038         | 6974         |
|                      | HD-1                       | HD-1 | HD-1 | HD-2 | HD-2         | HD-3         | No Solutions | No Solutions |
| 0.6                  | 266                        | 1124 | 1982 | 2840 | 3698         | 4556         | 5414         | 6272         |
|                      | HD-1                       | HD-1 | HD-1 | HD-1 | HD-2         | HD-2         | HD-3         | No Solutions |
| 0.5                  | 110                        | 890  | 1670 | 2450 | 3230         | 4010         | 4790         | 5570         |
|                      | HD-1                       | HD-1 | HD-1 | HD-1 | HD-2         | HD-2         | HD-3         | No Solutions |
| 0.4                  | 0                          | 656  | 1358 | 2060 | 2762         | 3464         | 4166         | 4868         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1         | HD-2         | HD-2         | HD-3         |
| 0.3                  | 0                          | 422  | 1046 | 1670 | 2294         | 2918         | 3542         | 4166         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1         | HD-1         | HD-2         | HD-2         |
| 0.2                  | 0                          | 188  | 734  | 1280 | 1826         | 2372         | 2918         | 3464         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1         | HD-1         | HD-1         | HD-2         |
| 0.1                  | 0                          | 0    | 422  | 890  | 1358         | 1826         | 2294         | 2762         |
|                      | HD-0                       | HD-0 | HD-1 | HD-1 | HD-1         | HD-1         | HD-1         | HD-1         |
| 0.0                  | 0                          | 0    | 188  | 598  | 1007         | 1417         | 1826         | 2236         |
|                      | HD-0                       | HD-0 | HD-1 | HD-1 | HD-1         | HD-1         | HD-1         | HD-1         |



**TABLE 4.3.236: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |            |                 |      |        |          |
|--------------------|------|----|------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (Ip = 1.5) | S <sub>DS</sub> | 1.60 | Weight | 4200 lbs |
|--------------------|------|----|------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |             |             |             |             |             |             |             |
|----------------------|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                      | 1.00                    | 1.25        | 1.50        | 1.75        | 2.00        | 2.50        | 3.00        | 3.50        |
| 1.0                  | 403                     | 504         | 605         | 706         | 806         | 1008        | 1210        | 1411        |
|                      | 200FS-33-50             | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 | 500FS-33-50 |
| 0.9                  | 376                     | 470         | 564         | 659         | 753         | 941         | 1129        | 1317        |
|                      | 200FS-33-50             | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 | 500FS-33-50 |
| 0.8                  | 349                     | 437         | 524         | 612         | 699         | 874         | 1048        | 1223        |
|                      | 200FS-33-50             | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 |
| 0.7                  | 323                     | 403         | 484         | 564         | 645         | 806         | 968         | 1129        |
|                      | 150FS-33-50             | 200FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 |
| 0.6                  | 296                     | 370         | 444         | 517         | 591         | 739         | 887         | 1035        |
|                      | 150FS-33-50             | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 |
| 0.5                  | 269                     | 336         | 403         | 470         | 538         | 672         | 806         | 941         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 | 300FS-33-50 |
| 0.4                  | 242                     | 302         | 363         | 423         | 484         | 605         | 726         | 847         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 |
| 0.3                  | 215                     | 269         | 323         | 376         | 430         | 538         | 645         | 753         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 |
| 0.2                  | 188                     | 235         | 282         | 329         | 376         | 470         | 564         | 659         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 |
| 0.1                  | 161                     | 202         | 242         | 282         | 323         | 403         | 484         | 564         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 |
| 0.0                  | 141                     | 176         | 212         | 247         | 282         | 353         | 423         | 494         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |      |      |      |              |              |              |              |
|----------------------|----------------------------|------|------|------|--------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75 | 1.00 | 1.25 | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                  | 935                        | 2163 | 3392 | 4620 | 5849         | 7077         | 8306         | 9534         |
|                      | HD-1                       | HD-1 | HD-2 | HD-2 | No Solutions | No Solutions | No Solutions | No Solutions |
| 0.9                  | 771                        | 1917 | 3064 | 4211 | 5357         | 6504         | 7650         | 8797         |
|                      | HD-1                       | HD-1 | HD-1 | HD-2 | HD-3         | No Solutions | No Solutions | No Solutions |
| 0.8                  | 607                        | 1672 | 2736 | 3801 | 4866         | 5930         | 6995         | 8060         |
|                      | HD-1                       | HD-1 | HD-1 | HD-2 | HD-3         | No Solutions | No Solutions | No Solutions |
| 0.7                  | 443                        | 1426 | 2409 | 3392 | 4374         | 5357         | 6340         | 7323         |
|                      | HD-1                       | HD-1 | HD-1 | HD-2 | HD-2         | HD-3         | No Solutions | No Solutions |
| 0.6                  | 279                        | 1180 | 2081 | 2982 | 3883         | 4784         | 5685         | 6586         |
|                      | HD-1                       | HD-1 | HD-1 | HD-1 | HD-2         | HD-3         | No Solutions | No Solutions |
| 0.5                  | 116                        | 935  | 1754 | 2573 | 3392         | 4211         | 5030         | 5849         |
|                      | HD-1                       | HD-1 | HD-1 | HD-1 | HD-2         | HD-2         | HD-3         | No Solutions |
| 0.4                  | 0                          | 689  | 1426 | 2163 | 2900         | 3637         | 4374         | 5111         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1         | HD-2         | HD-2         | HD-3         |
| 0.3                  | 0                          | 443  | 1098 | 1754 | 2409         | 3064         | 3719         | 4374         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1         | HD-1         | HD-2         | HD-2         |
| 0.2                  | 0                          | 197  | 771  | 1344 | 1917         | 2491         | 3064         | 3637         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1         | HD-1         | HD-1         | HD-2         |
| 0.1                  | 0                          | 0    | 443  | 935  | 1426         | 1917         | 2409         | 2900         |
|                      | HD-0                       | HD-0 | HD-1 | HD-1 | HD-1         | HD-1         | HD-1         | HD-1         |
| 0.0                  | 0                          | 0    | 197  | 627  | 1057         | 1487         | 1917         | 2347         |
|                      | HD-0                       | HD-0 | HD-1 | HD-1 | HD-1         | HD-1         | HD-1         | HD-1         |



**TABLE 4.3.237: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |                        |                 |      |        |          |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (I <sub>p</sub> = 1.5) | S <sub>DS</sub> | 1.60 | Weight | 4400 lbs |
|--------------------|------|----|------------------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |             |             |             |             |             |             |             |
|----------------------|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                      | 1.00                    | 1.25        | 1.50        | 1.75        | 2.00        | 2.50        | 3.00        | 3.50        |
| 1.0                  | 422                     | 528         | 634         | 739         | 845         | 1056        | 1267        | 1478        |
|                      | 200FS-33-50             | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 300FS-33-50 | 400FS-33-50 | 500FS-33-50 | 500FS-33-50 |
| 0.9                  | 394                     | 493         | 591         | 690         | 788         | 986         | 1183        | 1380        |
|                      | 200FS-33-50             | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 | 500FS-33-50 |
| 0.8                  | 366                     | 458         | 549         | 641         | 732         | 915         | 1098        | 1281        |
|                      | 200FS-33-50             | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 500FS-33-50 |
| 0.7                  | 338                     | 422         | 507         | 591         | 676         | 845         | 1014        | 1183        |
|                      | 150FS-33-50             | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 |
| 0.6                  | 310                     | 387         | 465         | 542         | 620         | 774         | 929         | 1084        |
|                      | 150FS-33-50             | 200FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 | 300FS-33-50 | 400FS-33-50 |
| 0.5                  | 282                     | 352         | 422         | 493         | 563         | 704         | 845         | 986         |
|                      | 150FS-33-50             | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 |
| 0.4                  | 253                     | 317         | 380         | 444         | 507         | 634         | 760         | 887         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 |
| 0.3                  | 225                     | 282         | 336         | 394         | 451         | 563         | 676         | 788         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 |
| 0.2                  | 197                     | 246         | 296         | 345         | 394         | 493         | 591         | 690         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 |
| 0.1                  | 169                     | 211         | 253         | 296         | 338         | 422         | 507         | 591         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 |
| 0.0                  | 148                     | 185         | 222         | 259         | 296         | 370         | 444         | 517         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |      |      |      |              |              |              |              |
|----------------------|----------------------------|------|------|------|--------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75 | 1.00 | 1.25 | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                  | 979                        | 2266 | 3553 | 4840 | 6127         | 7414         | 8701         | 9988         |
|                      | HD-1                       | HD-1 | HD-2 | HD-3 | No Solutions | No Solutions | No Solutions | No Solutions |
| 0.9                  | 807                        | 2009 | 3210 | 4411 | 5612         | 6813         | 8015         | 9216         |
|                      | HD-1                       | HD-1 | HD-2 | HD-2 | No Solutions | No Solutions | No Solutions | No Solutions |
| 0.8                  | 636                        | 1751 | 2867 | 3982 | 5097         | 6213         | 7328         | 8444         |
|                      | HD-1                       | HD-1 | HD-1 | HD-2 | HD-3         | No Solutions | No Solutions | No Solutions |
| 0.7                  | 464                        | 1494 | 2523 | 3553 | 4583         | 5612         | 6642         | 7671         |
|                      | HD-1                       | HD-1 | HD-1 | HD-2 | HD-2         | No Solutions | No Solutions | No Solutions |
| 0.6                  | 293                        | 1236 | 2180 | 3124 | 4068         | 5012         | 5955         | 6899         |
|                      | HD-1                       | HD-1 | HD-1 | HD-1 | HD-2         | HD-3         | No Solutions | No Solutions |
| 0.5                  | 121                        | 979  | 1837 | 2695 | 3553         | 4411         | 5269         | 6127         |
|                      | HD-1                       | HD-1 | HD-1 | HD-1 | HD-2         | HD-2         | HD-3         | No Solutions |
| 0.4                  | 0                          | 722  | 1494 | 2266 | 3038         | 3810         | 4583         | 5355         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1         | HD-2         | HD-2         | HD-3         |
| 0.3                  | 0                          | 464  | 1151 | 1837 | 2523         | 3210         | 3896         | 4583         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1         | HD-2         | HD-2         | HD-2         |
| 0.2                  | 0                          | 207  | 807  | 1408 | 2009         | 2609         | 3210         | 3810         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1         | HD-1         | HD-2         | HD-2         |
| 0.1                  | 0                          | 0    | 464  | 979  | 1494         | 2009         | 2523         | 3038         |
|                      | HD-0                       | HD-0 | HD-1 | HD-1 | HD-1         | HD-1         | HD-1         | HD-1         |
| 0.0                  | 0                          | 0    | 207  | 657  | 1108         | 1558         | 2009         | 2459         |
|                      | HD-0                       | HD-0 | HD-1 | HD-1 | HD-1         | HD-1         | HD-1         | HD-1         |



**TABLE 4.3.238: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |            |                 |      |        |          |
|--------------------|------|----|------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (Ip = 1.5) | S <sub>DS</sub> | 1.60 | Weight | 4600 lbs |
|--------------------|------|----|------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |             |             |             |             |             |             |             |
|----------------------|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                      | 1.00                    | 1.25        | 1.50        | 1.75        | 2.00        | 2.50        | 3.00        | 3.50        |
| 1.0                  | 442                     | 552         | 662         | 773         | 883         | 1104        | 1325        | 1546        |
|                      | 200FS-33-50             | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 | 500FS-33-50 | 500FS-33-50 |
| 0.9                  | 412                     | 515         | 618         | 721         | 824         | 1030        | 1236        | 1443        |
|                      | 200FS-33-50             | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 | 500FS-33-50 |
| 0.8                  | 383                     | 478         | 574         | 670         | 765         | 957         | 1148        | 1340        |
|                      | 200FS-33-50             | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 | 500FS-33-50 |
| 0.7                  | 353                     | 442         | 530         | 618         | 707         | 883         | 1060        | 1236        |
|                      | 200FS-33-50             | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 |
| 0.6                  | 324                     | 405         | 486         | 567         | 648         | 810         | 972         | 1133        |
|                      | 150FS-33-50             | 200FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 |
| 0.5                  | 294                     | 368         | 442         | 515         | 589         | 736         | 883         | 1030        |
|                      | 150FS-33-50             | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 |
| 0.4                  | 265                     | 331         | 397         | 464         | 530         | 662         | 795         | 927         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 | 300FS-33-50 |
| 0.3                  | 236                     | 294         | 353         | 412         | 471         | 589         | 707         | 824         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 |
| 0.2                  | 206                     | 258         | 309         | 361         | 412         | 515         | 618         | 721         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 |
| 0.1                  | 177                     | 221         | 265         | 309         | 353         | 442         | 530         | 618         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 |
| 0.0                  | 155                     | 193         | 232         | 270         | 309         | 396         | 464         | 541         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |      |      |      |              |              |              |              |
|----------------------|----------------------------|------|------|------|--------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75 | 1.00 | 1.25 | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                  | 1024                       | 2369 | 3715 | 5060 | 6406         | 7751         | 9097         | 10442        |
|                      | HD-1                       | HD-1 | HD-2 | HD-3 | No Solutions | No Solutions | No Solutions | No Solutions |
| 0.9                  | 844                        | 2100 | 3356 | 4612 | 5867         | 7123         | 8379         | 9635         |
|                      | HD-1                       | HD-1 | HD-2 | HD-2 | No Solutions | No Solutions | No Solutions | No Solutions |
| 0.8                  | 665                        | 1831 | 2997 | 4163 | 5329         | 6495         | 7661         | 8827         |
|                      | HD-1                       | HD-1 | HD-1 | HD-2 | HD-3         | No Solutions | No Solutions | No Solutions |
| 0.7                  | 485                        | 1562 | 2638 | 3715 | 4791         | 5867         | 6944         | 8020         |
|                      | HD-1                       | HD-1 | HD-1 | HD-2 | HD-3         | No Solutions | No Solutions | No Solutions |
| 0.6                  | 306                        | 1293 | 2279 | 3266 | 4253         | 5239         | 6226         | 7213         |
|                      | HD-1                       | HD-1 | HD-1 | HD-2 | HD-2         | HD-3         | No Solutions | No Solutions |
| 0.5                  | 127                        | 1024 | 1921 | 2818 | 3715         | 4612         | 5509         | 6406         |
|                      | HD-1                       | HD-1 | HD-1 | HD-1 | HD-2         | HD-2         | No Solutions | No Solutions |
| 0.4                  | 0                          | 754  | 1562 | 2369 | 3176         | 3984         | 4791         | 5598         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-2         | HD-2         | HD-3         | No Solutions |
| 0.3                  | 0                          | 485  | 1203 | 1921 | 2638         | 3356         | 4073         | 4791         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1         | HD-2         | HD-2         | HD-3         |
| 0.2                  | 0                          | 216  | 844  | 1472 | 2100         | 2728         | 3356         | 3984         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1         | HD-1         | HD-2         | HD-2         |
| 0.1                  | 0                          | 0    | 485  | 1024 | 1562         | 2100         | 2638         | 3176         |
|                      | HD-0                       | HD-0 | HD-1 | HD-1 | HD-1         | HD-1         | HD-1         | HD-2         |
| 0.0                  | 0                          | 0    | 216  | 687  | 1158         | 1629         | 2100         | 2571         |
|                      | HD-0                       | HD-0 | HD-1 | HD-1 | HD-1         | HD-1         | HD-1         | HD-1         |



**TABLE 4.3.239: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |            |                 |      |        |          |
|--------------------|------|----|------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (Ip = 1.5) | S <sub>DS</sub> | 1.60 | Weight | 4800 lbs |
|--------------------|------|----|------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |             |             |             |             |             |             |             |
|----------------------|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                      | 1.00                    | 1.25        | 1.50        | 1.75        | 2.00        | 2.50        | 3.00        | 3.50        |
| 1.0                  | 461                     | 576         | 691         | 806         | 922         | 1152        | 1382        | 1613        |
|                      | 200FS-33-50             | 250FS-33-50 | 300FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 | 500FS-33-50 | #VALUE!     |
| 0.9                  | 430                     | 538         | 645         | 753         | 860         | 1075        | 1290        | 1505        |
|                      | 200FS-33-50             | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 300FS-33-50 | 400FS-33-50 | 500FS-33-50 | 500FS-33-50 |
| 0.8                  | 399                     | 499         | 599         | 699         | 799         | 998         | 1198        | 1398        |
|                      | 200FS-33-50             | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 | 500FS-33-50 |
| 0.7                  | 369                     | 461         | 553         | 645         | 737         | 922         | 1106        | 1290        |
|                      | 200FS-33-50             | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 | 500FS-33-50 |
| 0.6                  | 338                     | 422         | 507         | 591         | 676         | 845         | 1014        | 1183        |
|                      | 150FS-33-50             | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 |
| 0.5                  | 307                     | 384         | 461         | 538         | 614         | 768         | 922         | 1075        |
|                      | 150FS-33-50             | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 | 300FS-33-50 | 400FS-33-50 |
| 0.4                  | 276                     | 346         | 415         | 484         | 553         | 691         | 829         | 968         |
|                      | 150FS-33-50             | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 |
| 0.3                  | 246                     | 307         | 369         | 430         | 492         | 614         | 737         | 860         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 |
| 0.2                  | 215                     | 269         | 323         | 376         | 430         | 538         | 645         | 753         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 |
| 0.1                  | 184                     | 230         | 276         | 323         | 369         | 461         | 553         | 645         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 |
| 0.0                  | 161                     | 202         | 242         | 282         | 323         | 403         | 484         | 564         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |      |      |      |              |              |              |              |
|----------------------|----------------------------|------|------|------|--------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75 | 1.00 | 1.25 | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                  | 1068                       | 2472 | 3876 | 5280 | 6684         | 8088         | 9492         | 10896        |
|                      | HD-1                       | HD-1 | HD-2 | HD-3 | No Solutions | No Solutions | No Solutions | No Solutions |
| 0.9                  | 881                        | 2191 | 3502 | 4812 | 6122         | 7433         | 8743         | 10054        |
|                      | HD-1                       | HD-1 | HD-2 | HD-3 | No Solutions | No Solutions | No Solutions | No Solutions |
| 0.8                  | 694                        | 1910 | 3127 | 4344 | 5561         | 6778         | 7994         | 9211         |
|                      | HD-1                       | HD-1 | HD-1 | HD-2 | No Solutions | No Solutions | No Solutions | No Solutions |
| 0.7                  | 506                        | 1630 | 2753 | 3876 | 4999         | 6122         | 7246         | 8369         |
|                      | HD-1                       | HD-1 | HD-1 | HD-2 | HD-3         | No Solutions | No Solutions | No Solutions |
| 0.6                  | 319                        | 1349 | 2378 | 3408 | 4438         | 5467         | 6497         | 7526         |
|                      | HD-1                       | HD-1 | HD-1 | HD-2 | HD-2         | HD-3         | No Solutions | No Solutions |
| 0.5                  | 132                        | 1068 | 2004 | 2940 | 3876         | 4812         | 5748         | 6684         |
|                      | HD-1                       | HD-1 | HD-1 | HD-1 | HD-2         | HD-3         | No Solutions | No Solutions |
| 0.4                  | 0                          | 787  | 1630 | 2472 | 3314         | 4157         | 4999         | 5842         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-2         | HD-2         | HD-3         | No Solutions |
| 0.3                  | 0                          | 506  | 1255 | 2004 | 2753         | 3502         | 4250         | 4999         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1         | HD-2         | HD-2         | HD-3         |
| 0.2                  | 0                          | 226  | 881  | 1536 | 2191         | 2846         | 3502         | 4157         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1 | HD-1         | HD-1         | HD-2         | HD-2         |
| 0.1                  | 0                          | 0    | 506  | 1068 | 1630         | 2191         | 2753         | 3314         |
|                      | HD-0                       | HD-0 | HD-1 | HD-1 | HD-1         | HD-1         | HD-1         | HD-2         |
| 0.0                  | 0                          | 0    | 226  | 717  | 1208         | 1700         | 2191         | 2683         |
|                      | HD-0                       | HD-0 | HD-1 | HD-1 | HD-1         | HD-1         | HD-1         | HD-1         |



**TABLE 4.3.240: GROSS SHEAR WALL REQUIREMENTS**

|                    |      |    |            |                 |      |        |          |
|--------------------|------|----|------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (Ip = 1.5) | S <sub>DS</sub> | 1.60 | Weight | 5000 lbs |
|--------------------|------|----|------------|-----------------|------|--------|----------|

**TABLE A: SHEAR LOADING & REQUIRED BRACE TYPE**

Key: XXXFS-YY-ZZ

XXX = Flat Strap Width (inches x 100), YY = Flat Strap Thickness (mils), ZZ = ASTM A653 Steel Grade

\* Value above strap type indicates the shear loading (LRFD Basis - not factored for expected forces, lb/ft)

| Height in Bldg (z/h) | Wall Aspect Ratio (H/L) |             |             |             |             |             |             |             |
|----------------------|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                      | 1.00                    | 1.25        | 1.50        | 1.75        | 2.00        | 2.50        | 3.00        | 3.50        |
| 1.0                  | 480                     | 600         | 720         | 840         | 960         | 1200        | 1440        | 1680        |
|                      | 250FS-33-50             | 250FS-33-50 | 300FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 | 500FS-33-50 | #VALUE!     |
| 0.9                  | 448                     | 560         | 672         | 784         | 896         | 1120        | 1344        | 1568        |
|                      | 200FS-33-50             | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 | 500FS-33-50 | 500FS-33-50 |
| 0.8                  | 416                     | 520         | 624         | 728         | 832         | 1040        | 1248        | 1456        |
|                      | 200FS-33-50             | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 | 500FS-33-50 |
| 0.7                  | 384                     | 480         | 576         | 672         | 768         | 960         | 1152        | 1344        |
|                      | 200FS-33-50             | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 | 500FS-33-50 |
| 0.6                  | 352                     | 440         | 528         | 616         | 704         | 880         | 1056        | 1232        |
|                      | 200FS-33-50             | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 |
| 0.5                  | 320                     | 400         | 480         | 560         | 640         | 800         | 960         | 1120        |
|                      | 150FS-33-50             | 200FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 | 400FS-33-50 |
| 0.4                  | 288                     | 360         | 432         | 504         | 576         | 720         | 864         | 1008        |
|                      | 150FS-33-50             | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 300FS-33-50 | 400FS-33-50 |
| 0.3                  | 256                     | 320         | 384         | 448         | 512         | 640         | 768         | 896         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 | 300FS-33-50 |
| 0.2                  | 224                     | 280         | 336         | 392         | 448         | 560         | 672         | 784         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 | 250FS-33-50 |
| 0.1                  | 192                     | 240         | 288         | 336         | 384         | 480         | 576         | 672         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 | 250FS-33-50 |
| 0.0                  | 168                     | 210         | 252         | 294         | 336         | 420         | 504         | 588         |
|                      | 150FS-33-50             | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 150FS-33-50 | 200FS-33-50 | 200FS-33-50 |

**TABLE B: ANCHORAGE FORCE & REQUIRED HOLD DOWN TYPE**

Key:

HD-0 = DTT1Z (Fig 5.6.2), HD-1 = DTT1Z (Fig 5.6.1), HD-2 = S/LTT-20 (Fig 5.6.1), HD-3 = DTT2Z (Fig 5.6.1)

\* Value above hold-down type indicates the required anchorage force (LRFD Net Uplift - factored by 2.5 for non-ductile anchors, lbs)

| Height in Bldg (z/h) | Max Pod Aspect Ratio (H/L) |      |      |              |              |              |              |              |
|----------------------|----------------------------|------|------|--------------|--------------|--------------|--------------|--------------|
|                      | 0.50                       | 0.75 | 1.00 | 1.25         | 1.50         | 1.75         | 2.00         | 2.25         |
| 1.0                  | 1113                       | 2575 | 4038 | 5500         | 6963         | 8425         | 9888         | 11350        |
|                      | HD-1                       | HD-1 | HD-2 | No Solutions | No Solutions | No Solutions | No Solutions | No Solutions |
| 0.9                  | 918                        | 2283 | 3648 | 5013         | 6378         | 7743         | 9108         | 10473        |
|                      | HD-1                       | HD-1 | HD-2 | HD-3         | No Solutions | No Solutions | No Solutions | No Solutions |
| 0.8                  | 723                        | 1990 | 3258 | 4525         | 5793         | 7060         | 8328         | 9595         |
|                      | HD-1                       | HD-1 | HD-2 | HD-2         | No Solutions | No Solutions | No Solutions | No Solutions |
| 0.7                  | 528                        | 1698 | 2868 | 4038         | 5208         | 6378         | 7548         | 8718         |
|                      | HD-1                       | HD-1 | HD-1 | HD-2         | HD-3         | No Solutions | No Solutions | No Solutions |
| 0.6                  | 333                        | 1405 | 2478 | 3550         | 4623         | 5695         | 6768         | 7840         |
|                      | HD-1                       | HD-1 | HD-1 | HD-2         | HD-2         | No Solutions | No Solutions | No Solutions |
| 0.5                  | 138                        | 1113 | 2088 | 3063         | 4038         | 5013         | 5988         | 6963         |
|                      | HD-1                       | HD-1 | HD-1 | HD-1         | HD-2         | HD-3         | No Solutions | No Solutions |
| 0.4                  | 0                          | 820  | 1698 | 2575         | 3453         | 4330         | 5208         | 6085         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1         | HD-2         | HD-2         | HD-3         | No Solutions |
| 0.3                  | 0                          | 528  | 1308 | 2088         | 2868         | 3648         | 4428         | 5208         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1         | HD-1         | HD-2         | HD-2         | HD-3         |
| 0.2                  | 0                          | 235  | 918  | 1600         | 2283         | 2965         | 3648         | 4330         |
|                      | HD-0                       | HD-1 | HD-1 | HD-1         | HD-1         | HD-1         | HD-2         | HD-2         |
| 0.1                  | 0                          | 0    | 528  | 1113         | 1698         | 2283         | 2868         | 3453         |
|                      | HD-0                       | HD-0 | HD-1 | HD-1         | HD-1         | HD-1         | HD-1         | HD-2         |
| 0.0                  | 0                          | 0    | 235  | 747          | 1259         | 1771         | 2283         | 2794         |
|                      | HD-0                       | HD-0 | HD-1 | HD-1         | HD-1         | HD-1         | HD-1         | HD-1         |



**TABLE 4.4.X**

# DETAILED SHEAR WALL REQUIREMENTS



| TABLE 4.4.7: DETAILED SHEAR WALL REQUIREMENTS |  |             |         |              |         |             |        |
|---|--|-------------|---------|--------------|---------|-------------|--------|
| PARAMETERS:                                   |  | Strap Width | 1.00 in | Strap Thick. | 33 mils | Strap Grade | 50 ksi |

TABLE A: MINIMUM REQUIRED CHORD & TRACK SIZES

**Key:**  
 Chords (C-Section): WWWXXX-YY-ZZ (Method), WWW = Web Depth (inches x 100), XXX = Flange Width (inches x 100), YY = Thickness (mils), ZZ = ASTM A653 Steel Grade  
 Chords (HSS): W.WWxX.XXxY.YYY, W.WW = Web Depth (inches), X.XX = Flange Width (inches), Y.YYY = Thickness (inches), all HSS are A500 Grade B (46 ksi)  
 Tracks: WWWXXX-YY-ZZ, WWW = Web Depth (inches x 100), XXX = Flange Width (inches x 100), YY = Thickness (mils), ZZ = ASTM A653 Steel Grade

| Pod Height | Member Type        | Wall Aspect Ratio (H/L) |                       |                       |                       |                       |                       |                       |                       |
|------------|--------------------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|            |                    | 1.00                    | 1.25                  | 1.50                  | 1.75                  | 2.00                  | 2.50                  | 3.00                  | 3.50                  |
| 7.50 ft    | Chords (C-Section) | 362S125-33-33 (Boxed)   | 362S125-33-33 (Boxed) | 362S125-33-33 (Boxed) | 362S125-33-33 (Boxed) | 362S125-43-33 (Boxed) | 362S125-43-33 (Boxed) | 362S125-43-50 (Boxed) | 362S125-43-50 (Boxed) |
|            | Chords (HSS)       | 3.5x1.5x1/8             | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           |
|            | Tracks             | 362T125-33-50           | 362T125-33-50         | 362T125-33-50         | 362T125-33-50         | 362T125-33-50         | 362T125-33-50         | 362T125-33-50         | 362T125-33-50         |
| 8.00 ft    | Chords (C-Section) | 362S125-33-33 (Boxed)   | 362S125-33-33 (Boxed) | 362S125-33-33 (Boxed) | 362S125-33-33 (Boxed) | 362S125-43-33 (Boxed) | 362S125-43-33 (Boxed) | 362S125-43-50 (Boxed) | 362S125-43-50 (Boxed) |
|            | Chords (HSS)       | 3.5x1.5x1/8             | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           |
|            | Tracks             | 362T125-33-50           | 362T125-33-50         | 362T125-33-50         | 362T125-33-50         | 362T125-33-50         | 362T125-33-50         | 362T125-33-50         | 362T125-33-50         |
| 9.00 ft    | Chords (C-Section) | 362S125-33-33 (Boxed)   | 362S125-33-33 (Boxed) | 362S125-33-33 (Boxed) | 362S125-33-33 (Boxed) | 362S125-43-33 (Boxed) | 362S125-43-33 (Boxed) | 362S125-43-50 (Boxed) | 362S125-43-50 (Boxed) |
|            | Chords (HSS)       | 3.5x1.5x1/8             | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           |
|            | Tracks             | 362T125-33-50           | 362T125-33-50         | 362T125-33-50         | 362T125-33-50         | 362T125-33-50         | 362T125-33-50         | 362T125-33-50         | 362T125-33-50         |

TABLE B: MINIMUM REQUIRED GUSSET & SCREW CONNECTIONS

**Key:**  
 Gussets: WWWGXXX-YY-ZZ, WWW = Height (inches x 100), XXX = Width (inches x 100), YY = Thickness (mils), ZZ = ASTM A653 Steel Grade  
 Strap-to-Gusset: A(B)xC, A = Total Number of Screws, B = Number of Screws per Row, C = Screw Type  
 Gusset-to-Chord: A(B)xC, A = Total Number of Screws, B = Number of Screws per Row, C = Screw Type  
 Gusset-to-Track: A(B)xC, A = Total Number of Screws, B = Number of Screws per Row, C = Screw Type

| Pod Height | Connection Component | Wall Aspect Ratio (H/L) |                 |                 |                 |                 |                 |                 |                 |
|------------|----------------------|-------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|            |                      | 1.00                    | 1.25            | 1.50            | 1.75            | 2.00            | 2.50            | 3.00            | 3.50            |
| 7.50 ft    | Detail #             | 7.1.1                   | 7.1.2           | 7.1.3           | 7.1.4           | 7.1.5           | 7.1.6           | 7.1.7           | 7.1.8           |
|            | Gussets              | 650G750-33-50           | 700G700-33-50   | 800G650-33-50   | 850G600-33-50   | 900G600-33-50   | 1000G550-33-50  | 1100G500-33-50  | 1200G500-33-50  |
|            | Strap-to-Gusset      | 9(1)x#8-18 PMTH         | 9(1)x#8-18 PMTH | 9(1)x#8-18 PMTH | 9(1)x#8-18 PMTH | 9(1)x#8-18 PMTH | 9(1)x#8-18 PMTH | 9(1)x#8-18 PMTH | 9(1)x#8-18 PMTH |
|            | Gusset-to-Chord      | 6(2)x#8-18 PMTH         | 6(2)x#8-18 PMTH | 6(2)x#8-18 PMTH | 6(2)x#8-18 PMTH | 6(2)x#8-18 PMTH | 6(2)x#8-18 PMTH | 6(2)x#8-18 PMTH | 8(2)x#8-18 PMTH |
|            | Gusset-to-Track      | 7(1)x#8-18 PMTH         | 6(1)x#8-18 PMTH | 5(1)x#8-18 PMTH | 5(1)x#8-18 PMTH | 4(1)x#8-18 PMTH | 4(1)x#8-18 PMTH | 3(1)x#8-18 PMTH | 3(1)x#8-18 PMTH |
| 8.00 ft    | Detail #             | 7.2.1                   | 7.2.2           | 7.2.3           | 7.2.4           | 7.2.5           | 7.2.6           | 7.2.7           | 7.2.8           |
|            | Gussets              | 650G750-33-50           | 700G700-33-50   | 800G650-33-50   | 850G600-33-50   | 900G600-33-50   | 1000G550-33-50  | 1100G500-33-50  | 1200G500-33-50  |
|            | Strap-to-Gusset      | 9(1)x#8-18 PMTH         | 9(1)x#8-18 PMTH | 9(1)x#8-18 PMTH | 9(1)x#8-18 PMTH | 9(1)x#8-18 PMTH | 9(1)x#8-18 PMTH | 9(1)x#8-18 PMTH | 9(1)x#8-18 PMTH |
|            | Gusset-to-Chord      | 6(2)x#8-18 PMTH         | 6(2)x#8-18 PMTH | 6(2)x#8-18 PMTH | 6(2)x#8-18 PMTH | 6(2)x#8-18 PMTH | 6(2)x#8-18 PMTH | 6(2)x#8-18 PMTH | 8(2)x#8-18 PMTH |
|            | Gusset-to-Track      | 7(1)x#8-18 PMTH         | 6(1)x#8-18 PMTH | 5(1)x#8-18 PMTH | 5(1)x#8-18 PMTH | 4(1)x#8-18 PMTH | 4(1)x#8-18 PMTH | 3(1)x#8-18 PMTH | 3(1)x#8-18 PMTH |
| 9.00 ft    | Detail #             | 7.3.1                   | 7.3.2           | 7.3.3           | 7.3.4           | 7.3.5           | 7.3.6           | 7.3.7           | 7.3.8           |
|            | Gussets              | 650G750-33-50           | 700G700-33-50   | 800G650-33-50   | 850G600-33-50   | 900G600-33-50   | 1000G550-33-50  | 1100G500-33-50  | 1200G500-33-50  |
|            | Strap-to-Gusset      | 9(1)x#8-18 PMTH         | 9(1)x#8-18 PMTH | 9(1)x#8-18 PMTH | 9(1)x#8-18 PMTH | 9(1)x#8-18 PMTH | 9(1)x#8-18 PMTH | 9(1)x#8-18 PMTH | 9(1)x#8-18 PMTH |
|            | Gusset-to-Chord      | 6(2)x#8-18 PMTH         | 6(2)x#8-18 PMTH | 6(2)x#8-18 PMTH | 6(2)x#8-18 PMTH | 6(2)x#8-18 PMTH | 6(2)x#8-18 PMTH | 6(2)x#8-18 PMTH | 8(2)x#8-18 PMTH |
|            | Gusset-to-Track      | 7(1)x#8-18 PMTH         | 6(1)x#8-18 PMTH | 5(1)x#8-18 PMTH | 5(1)x#8-18 PMTH | 4(1)x#8-18 PMTH | 4(1)x#8-18 PMTH | 3(1)x#8-18 PMTH | 3(1)x#8-18 PMTH |





| TABLE 4.4.8: DETAILED SHEAR WALL REQUIREMENTS |  |             |         |              |         |             |        |
|---|--|-------------|---------|--------------|---------|-------------|--------|
| PARAMETERS:                                   |  | Strap Width | 1.50 in | Strap Thick. | 33 mils | Strap Grade | 50 ksi |

TABLE A: MINIMUM REQUIRED CHORD & TRACK SIZES

**Key:**  
 Chords (C-Section): WWWXXX-YY-ZZ (Method), WWW = Web Depth (inches x 100), XXX = Flange Width (inches x 100), YY = Thickness (mils), ZZ = ASTM A653 Steel Grade  
 Chords (HSS): W.WWxX.XXxY.YYY, W.WW = Web Depth (inches), X.XX = Flange Width (inches), Y.YYY = Thickness (inches), all HSS are A500 Grade B (46 ksi)  
 Tracks: WWWXXX-YY-ZZ, WWW = Web Depth (inches x 100), XXX = Flange Width (inches x 100), YY = Thickness (mils), ZZ = ASTM A653 Steel Grade

| Pod Height | Member Type        | Wall Aspect Ratio (H/L)  |                          |                          |                          |                          |                          |                          |                          |
|------------|--------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|            |                    | 1.00                     | 1.25                     | 1.50                     | 1.75                     | 2.00                     | 2.50                     | 3.00                     | 3.50                     |
| 7.50 ft    | Chords (C-Section) | 362S125-33-50<br>(Boxed) | 362S125-43-33<br>(Boxed) | 362S125-43-33<br>(Boxed) | 362S125-43-33<br>(Boxed) | 362S125-43-50<br>(Boxed) | 362S125-54-50<br>(Boxed) | 362S125-54-50<br>(Boxed) | 362S125-54-50<br>(Boxed) |
|            | Chords (HSS)       | 3.5x1.5x1/8              | 3.5x1.5x1/8              | 3.5x1.5x1/8              | 3.5x1.5x1/8              | 3.5x1.5x1/8              | 3.5x1.5x1/8              | 3.5x1.5x1/8              | 3.5x1.5x1/8              |
|            | Tracks             | 362T125-43-50            | 362T125-43-50            | 362T125-33-50            | 362T125-33-50            | 362T125-33-50            | 362T125-33-50            | 362T125-33-50            | 362T125-33-50            |
| 8.00 ft    | Chords (C-Section) | 362S125-43-33<br>(Boxed) | 362S125-43-33<br>(Boxed) | 362S125-43-33<br>(Boxed) | 362S125-43-33<br>(Boxed) | 362S125-43-50<br>(Boxed) | 362S125-54-50<br>(Boxed) | 362S125-54-50<br>(Boxed) | 362S125-54-50<br>(Boxed) |
|            | Chords (HSS)       | 3.5x1.5x1/8              | 3.5x1.5x1/8              | 3.5x1.5x1/8              | 3.5x1.5x1/8              | 3.5x1.5x1/8              | 3.5x1.5x1/8              | 3.5x1.5x1/8              | 3.5x1.5x1/8              |
|            | Tracks             | 362T125-43-50            | 362T125-43-50            | 362T125-33-50            | 362T125-33-50            | 362T125-33-50            | 362T125-33-50            | 362T125-33-50            | 362T125-33-50            |
| 9.00 ft    | Chords (C-Section) | 362S125-43-33<br>(Boxed) | 362S125-43-33<br>(Boxed) | 362S125-43-33<br>(Boxed) | 362S125-43-33<br>(Boxed) | 362S125-54-33<br>(Boxed) | 362S125-54-50<br>(Boxed) | 362S125-54-50<br>(Boxed) | 362S125-54-50<br>(Boxed) |
|            | Chords (HSS)       | 3.5x1.5x1/8              | 3.5x1.5x1/8              | 3.5x1.5x1/8              | 3.5x1.5x1/8              | 3.5x1.5x1/8              | 3.5x1.5x1/8              | 3.5x1.5x1/8              | 3.5x1.5x1/8              |
|            | Tracks             | 362T125-43-50            | 362T125-43-50            | 362T125-33-50            | 362T125-33-50            | 362T125-33-50            | 362T125-33-50            | 362T125-33-50            | 362T125-33-50            |

TABLE B: MINIMUM REQUIRED GUSSET & SCREW CONNECTIONS

**Key:**  
 Gussets: WWWGXXX-YY-ZZ, WWW = Height (inches x 100), XXX = Width (inches x 100), YY = Thickness (mils), ZZ = ASTM A653 Steel Grade  
 Strap-to-Gusset: A(B)xC, A = Total Number of Screws, B = Number of Screws per Row, C = Screw Type  
 Gusset-to-Chord: A(B)xC, A = Total Number of Screws, B = Number of Screws per Row, C = Screw Type  
 Gusset-to-Track: A(B)xC, A = Total Number of Screws, B = Number of Screws per Row, C = Screw Type

| Pod Height | Connection Component | Wall Aspect Ratio (H/L) |                  |                  |                  |                  |                  |                  |                  |
|------------|----------------------|-------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|            |                      | 1.00                    | 1.25             | 1.50             | 1.75             | 2.00             | 2.50             | 3.00             | 3.50             |
| 7.50 ft    | Detail #             | 8.1.1                   | 8.1.2            | 8.1.3            | 8.1.4            | 8.1.5            | 8.1.6            | 8.1.7            | 8.1.8            |
|            | Gussets              | 600G700-33-50           | 650G650-33-50    | 750G650-33-50    | 800G600-33-50    | 850G600-33-50    | 1000G550-33-50   | 1100G550-33-50   | 1200G500-33-50   |
|            | Strap-to-Gusset      | 14(2)x#8-18 PMTH        | 14(2)x#8-18 PMTH | 14(2)x#8-18 PMTH | 14(2)x#8-18 PMTH | 14(2)x#8-18 PMTH | 14(2)x#8-18 PMTH | 14(2)x#8-18 PMTH | 14(2)x#8-18 PMTH |
|            | Gusset-to-Chord      | 8(2)x#8-18 PMTH         | 8(2)x#8-18 PMTH  | 8(2)x#8-18 PMTH  | 10(2)x#8-18 PMTH | 10(2)x#8-18 PMTH | 10(2)x#8-18 PMTH | 10(2)x#8-18 PMTH | 10(2)x#8-18 PMTH |
| 8.00 ft    | Detail #             | 8.2.1                   | 8.2.2            | 8.2.3            | 8.2.4            | 8.2.5            | 8.2.6            | 8.2.7            | 8.2.8            |
|            | Gussets              | 600G700-33-50           | 650G650-33-50    | 750G650-33-50    | 800G600-33-50    | 850G600-33-50    | 1000G550-33-50   | 1100G550-33-50   | 1200G500-33-50   |
|            | Strap-to-Gusset      | 14(2)x#8-18 PMTH        | 14(2)x#8-18 PMTH | 14(2)x#8-18 PMTH | 14(2)x#8-18 PMTH | 14(2)x#8-18 PMTH | 14(2)x#8-18 PMTH | 14(2)x#8-18 PMTH | 14(2)x#8-18 PMTH |
|            | Gusset-to-Chord      | 8(2)x#8-18 PMTH         | 8(2)x#8-18 PMTH  | 8(2)x#8-18 PMTH  | 10(2)x#8-18 PMTH | 10(2)x#8-18 PMTH | 10(2)x#8-18 PMTH | 10(2)x#8-18 PMTH | 10(2)x#8-18 PMTH |
| 9.00 ft    | Detail #             | 8.3.1                   | 8.3.2            | 8.3.3            | 8.3.4            | 8.3.5            | 8.3.6            | 8.3.7            | 8.3.8            |
|            | Gussets              | 600G700-33-50           | 650G650-33-50    | 750G650-33-50    | 800G600-33-50    | 850G600-33-50    | 1000G550-33-50   | 1100G550-33-50   | 1200G500-33-50   |
|            | Strap-to-Gusset      | 14(2)x#8-18 PMTH        | 14(2)x#8-18 PMTH | 14(2)x#8-18 PMTH | 14(2)x#8-18 PMTH | 14(2)x#8-18 PMTH | 14(2)x#8-18 PMTH | 14(2)x#8-18 PMTH | 14(2)x#8-18 PMTH |
|            | Gusset-to-Chord      | 8(2)x#8-18 PMTH         | 8(2)x#8-18 PMTH  | 8(2)x#8-18 PMTH  | 10(2)x#8-18 PMTH | 10(2)x#8-18 PMTH | 10(2)x#8-18 PMTH | 10(2)x#8-18 PMTH | 10(2)x#8-18 PMTH |
| 9.00 ft    | Gusset-to-Track      | 7(1)x#8-18 PMTH         | 6(1)x#8-18 PMTH  | 8(1)x#8-18 PMTH  | 7(1)x#8-18 PMTH  | 6(1)x#8-18 PMTH  | 5(1)x#8-18 PMTH  | 5(1)x#8-18 PMTH  | 4(1)x#8-18 PMTH  |



| TABLE 4.4.9: DETAILED SHEAR WALL REQUIREMENTS |  |             |         |              |         |             |        |
|---|--|-------------|---------|--------------|---------|-------------|--------|
| PARAMETERS:                                   |  | Strap Width | 2.00 in | Strap Thick. | 33 mils | Strap Grade | 50 ksi |

**TABLE A: MINIMUM REQUIRED CHORD & TRACK SIZES**

*Key:*  
 Chords (C-Section): WWWXXX-YY-ZZ (Method), WWW = Web Depth (inches x 100), XXX = Flange Width (inches x 100), YY = Thickness (mils), ZZ = ASTM A653 Steel Grade  
 Chords (HSS): W.WWxX.XXxY.YYY, W.WW = Web Depth (inches), X.XX = Flange Width (inches), Y.YYY = Thickness (inches), all HSS are A500 Grade B (46 ksi)  
 Tracks: WWWXXX-YY-ZZ, WWW = Web Depth (inches x 100), XXX = Flange Width (inches x 100), YY = Thickness (mils), ZZ = ASTM A653 Steel Grade

| Pod Height | Member Type        | Wall Aspect Ratio (H/L) |                       |                       |                       |                       |                       |                       |                       |
|------------|--------------------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|            |                    | 1.00                    | 1.25                  | 1.50                  | 1.75                  | 2.00                  | 2.50                  | 3.00                  | 3.50                  |
| 7.50 ft    | Chords (C-Section) | 362S125-43-50 (Boxed)   | 362S125-43-50 (Boxed) | 362S125-43-50 (Boxed) | 362S125-54-33 (Boxed) | 362S125-54-50 (Boxed) | 362S125-54-50 (Boxed) | 362S125-54-50 (Boxed) | 362S125-68-50 (Boxed) |
|            | Chords (HSS)       | 3.5x1.5x1/8             | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           |
|            | Tracks             | 362T125-43-50           | 362T125-43-50         | 362T125-43-50         | 362T125-43-50         | 362T125-33-50         | 362T125-33-50         | 362T125-33-50         | 362T125-33-50         |
| 8.00 ft    | Chords (C-Section) | 362S125-43-50 (Boxed)   | 362S125-43-50 (Boxed) | 362S125-54-33 (Boxed) | 362S125-54-33 (Boxed) | 362S125-54-50 (Boxed) | 362S125-54-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) |
|            | Chords (HSS)       | 3.5x1.5x1/8             | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           |
|            | Tracks             | 362T125-43-50           | 362T125-43-50         | 362T125-43-50         | 362T125-43-50         | 362T125-33-50         | 362T125-33-50         | 362T125-33-50         | 362T125-33-50         |
| 9.00 ft    | Chords (C-Section) | 362S125-43-50 (Boxed)   | 362S125-43-50 (Boxed) | 362S125-54-33 (Boxed) | 362S125-54-33 (Boxed) | 362S125-54-50 (Boxed) | 362S125-54-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) |
|            | Chords (HSS)       | 3.5x1.5x1/8             | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x0.165         | 3.5x1.5x0.165         | 3.5x1.5x0.165         |
|            | Tracks             | 362T125-43-50           | 362T125-43-50         | 362T125-43-50         | 362T125-43-50         | 362T125-33-50         | 362T125-33-50         | 362T125-33-50         | 362T125-33-50         |

**TABLE B: MINIMUM REQUIRED GUSSET & SCREW CONNECTIONS**

*Key:*  
 Gussets: WWWGXXX-YY-ZZ, WWW = Height (inches x 100), XXX = Width (inches x 100), YY = Thickness (mils), ZZ = ASTM A653 Steel Grade  
 Strap-to-Gusset: A(B)xC, A = Total Number of Screws, B = Number of Screws per Row, C = Screw Type  
 Gusset-to-Chord: A(B)xC, A = Total Number of Screws, B = Number of Screws per Row, C = Screw Type  
 Gusset-to-Track: A(B)xC, A = Total Number of Screws, B = Number of Screws per Row, C = Screw Type

| Pod Height | Connection Component | Wall Aspect Ratio (H/L) |                  |                  |                  |                  |                  |                  |                  |
|------------|----------------------|-------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|            |                      | 1.00                    | 1.25             | 1.50             | 1.75             | 2.00             | 2.50             | 3.00             | 3.50             |
| 7.50 ft    | Detail #             | 9.1.1                   | 9.1.2            | 9.1.3            | 9.1.4            | 9.1.5            | 9.1.6            | 9.1.7            | 9.1.8            |
|            | Gussets              | 700G850-33-50           | 800G800-33-50    | 900G750-33-50    | 950G700-33-50    | 1050G700-33-50   | 1150G650-33-50   | 1300G600-33-50   | 1400G600-33-50   |
|            | Strap-to-Gusset      | 18(3)x#8-18 PMTH        | 18(3)x#8-18 PMTH | 18(3)x#8-18 PMTH | 18(3)x#8-18 PMTH | 18(3)x#8-18 PMTH | 18(3)x#8-18 PMTH | 18(3)x#8-18 PMTH | 18(3)x#8-18 PMTH |
|            | Gusset-to-Chord      | 10(2)x#8-18 PMTH        | 10(2)x#8-18 PMTH | 12(2)x#8-18 PMTH | 12(2)x#8-18 PMTH | 12(2)x#8-18 PMTH | 12(2)x#8-18 PMTH | 12(2)x#8-18 PMTH | 12(2)x#10-16 PWH |
| 8.00 ft    | Detail #             | 9.2.1                   | 9.2.2            | 9.2.3            | 9.2.4            | 9.2.5            | 9.2.6            | 9.2.7            | 9.2.8            |
|            | Gussets              | 700G850-33-50           | 800G800-33-50    | 900G750-33-50    | 950G700-33-50    | 1050G700-33-50   | 1150G650-33-50   | 1300G600-33-50   | 1400G600-33-50   |
|            | Strap-to-Gusset      | 18(3)x#8-18 PMTH        | 18(3)x#8-18 PMTH | 18(3)x#8-18 PMTH | 18(3)x#8-18 PMTH | 18(3)x#8-18 PMTH | 18(3)x#8-18 PMTH | 18(3)x#8-18 PMTH | 18(3)x#8-18 PMTH |
|            | Gusset-to-Chord      | 10(2)x#8-18 PMTH        | 10(2)x#8-18 PMTH | 12(2)x#8-18 PMTH | 12(2)x#8-18 PMTH | 12(2)x#8-18 PMTH | 12(2)x#8-18 PMTH | 12(2)x#10-16 PWH | 12(2)x#10-16 PWH |
| 9.00 ft    | Detail #             | 9.3.1                   | 9.3.2            | 9.3.3            | 9.3.4            | 9.3.5            | 9.3.6            | 9.3.7            | 9.3.8            |
|            | Gussets              | 700G850-33-50           | 800G800-33-50    | 900G750-33-50    | 950G700-33-50    | 1050G700-33-50   | 1150G650-33-50   | 1300G600-33-50   | 1400G600-33-50   |
|            | Strap-to-Gusset      | 18(3)x#8-18 PMTH        | 18(3)x#8-18 PMTH | 18(3)x#8-18 PMTH | 18(3)x#8-18 PMTH | 18(3)x#8-18 PMTH | 18(3)x#8-18 PMTH | 18(3)x#8-18 PMTH | 18(3)x#8-18 PMTH |
|            | Gusset-to-Chord      | 10(2)x#8-18 PMTH        | 10(2)x#8-18 PMTH | 12(2)x#8-18 PMTH | 12(2)x#8-18 PMTH | 12(2)x#8-18 PMTH | 12(2)x#8-18 PMTH | 12(2)x#10-16 PWH | 12(2)x#10-16 PWH |
| 9.00 ft    | Gusset-to-Track      | 9(1)x#8-18 PMTH         | 8(1)x#8-18 PMTH  | 7(1)x#8-18 PMTH  | 7(1)x#8-18 PMTH  | 8(1)x#8-18 PMTH  | 7(1)x#8-18 PMTH  | 6(1)x#8-18 PMTH  | 5(1)x#8-18 PMTH  |



| TABLE 4.4.10: DETAILED SHEAR WALL REQUIREMENTS |  |             |         |              |         |             |        |
|--|--|-------------|---------|--------------|---------|-------------|--------|
| PARAMETERS:                                    |  | Strap Width | 2.50 in | Strap Thick. | 33 mils | Strap Grade | 50 ksi |

TABLE A: MINIMUM REQUIRED CHORD & TRACK SIZES

**Key:**  
 Chords (C-Section): WWWXXX-YY-ZZ (Method), WWW = Web Depth (inches x 100), XXX = Flange Width (inches x 100), YY = Thickness (mils), ZZ = ASTM A653 Steel Grade  
 Chords (HSS): W.WWxX.XXxY.YYY, W.WW = Web Depth (inches), X.XX = Flange Width (inches), Y.YYY = Thickness (inches), all HSS are A500 Grade B (46 ksi)  
 Tracks: WWWXXX-YY-ZZ, WWW = Web Depth (inches x 100), XXX = Flange Width (inches x 100), YY = Thickness (mils), ZZ = ASTM A653 Steel Grade

| Pod Height | Member Type        | Wall Aspect Ratio (H/L) |                       |                       |                       |                       |                       |                       |                       |
|------------|--------------------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|            |                    | 1.00                    | 1.25                  | 1.50                  | 1.75                  | 2.00                  | 2.50                  | 3.00                  | 3.50                  |
| 7.50 ft    | Chords (C-Section) | 362S125-54-33 (Boxed)   | 362S125-54-33 (Boxed) | 362S125-54-50 (Boxed) | 362S125-54-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) |
|            | Chords (HSS)       | 3.5x1.5x1/8             | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x0.165         |
|            | Tracks             | 362T125-54-50           | 362T125-43-50         | 362T125-43-50         | 362T125-43-50         | 362T125-43-50         | 362T125-33-50         | 362T125-33-50         | 362T125-33-50         |
| 8.00 ft    | Chords (C-Section) | 362S125-54-33 (Boxed)   | 362S125-54-33 (Boxed) | 362S125-54-50 (Boxed) | 362S125-54-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) |
|            | Chords (HSS)       | 3.5x1.5x1/8             | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x0.165         | 3.5x1.5x0.165         | 3.5x1.5x0.165         |
|            | Tracks             | 362T125-54-50           | 362T125-43-50         | 362T125-43-50         | 362T125-43-50         | 362T125-43-50         | 362T125-33-50         | 362T125-33-50         | 362T125-33-50         |
| 9.00 ft    | Chords (C-Section) | 362S125-54-33 (Boxed)   | 362S125-54-50 (Boxed) | 362S125-54-50 (Boxed) | 362S125-54-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) |
|            | Chords (HSS)       | 3.5x1.5x1/8             | 3.5x1.5x1/8           | 3.5x1.5x0.165         | 3.5x1.5x0.165         | 3.5x1.5x0.165         | 3.5x1.5x3/16          | 3.5x1.5x3/16          | 3.5x1.5x3/16          |
|            | Tracks             | 362T125-54-50           | 362T125-43-50         | 362T125-43-50         | 362T125-43-50         | 362T125-43-50         | 362T125-33-50         | 362T125-33-50         | 362T125-33-50         |

TABLE B: MINIMUM REQUIRED GUSSET & SCREW CONNECTIONS

**Key:**  
 Gussets: WWWGXXX-YY-ZZ, WWW = Height (inches x 100), XXX = Width (inches x 100), YY = Thickness (mils), ZZ = ASTM A653 Steel Grade  
 Strap-to-Gusset: A(B)xC, A = Total Number of Screws, B = Number of Screws per Row, C = Screw Type  
 Gusset-to-Chord: A(B)xC, A = Total Number of Screws, B = Number of Screws per Row, C = Screw Type  
 Gusset-to-Track: A(B)xC, A = Total Number of Screws, B = Number of Screws per Row, C = Screw Type

| Pod Height | Connection Component | Wall Aspect Ratio (H/L) |                  |                  |                  |                  |                  |                  |                  |
|------------|----------------------|-------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|            |                      | 1.00                    | 1.25             | 1.50             | 1.75             | 2.00             | 2.50             | 3.00             | 3.50             |
| 7.50 ft    | Detail #             | 10.1.1                  | 10.1.2           | 10.1.3           | 10.1.4           | 10.1.5           | 10.1.6           | 10.1.7           | 10.1.8           |
|            | Gussets              | 850G950-33-50           | 950G900-33-50    | 1050G850-33-50   | 1100G800-33-50   | 1200G800-33-50   | 1300G750-33-50   | 1450G700-33-50   | 1550G650-33-50   |
|            | Strap-to-Gusset      | 22(4)x#8-18 PMTH        | 22(4)x#8-18 PMTH | 21(4)x#8-18 PMTH | 21(4)x#8-18 PMTH | 21(4)x#8-18 PMTH | 20(4)x#8-18 PMTH | 20(4)x#8-18 PMTH | 20(4)x#8-18 PMTH |
|            | Gusset-to-Chord      | 12(2)x#8-18 PMTH        | 12(2)x#8-18 PMTH | 14(2)x#8-18 PMTH | 14(2)x#8-18 PMTH | 12(2)x#10-16 PWH | 12(2)x#10-16 PWH | 12(2)x#10-16 PWH | 12(2)x#10-16 PWH |
|            | Gusset-to-Track      | 12(1)x#8-18 PMTH        | 10(1)x#8-18 PMTH | 9(1)x#8-18 PMTH  | 8(1)x#8-18 PMTH  | 7(1)x#8-18 PMTH  | 8(1)x#8-18 PMTH  | 7(1)x#8-18 PMTH  | 6(1)x#8-18 PMTH  |
| 8.00 ft    | Detail #             | 10.2.1                  | 10.2.2           | 10.2.3           | 10.2.4           | 10.2.5           | 10.2.6           | 10.2.7           | 10.2.8           |
|            | Gussets              | 850G950-33-50           | 950G900-33-50    | 1050G850-33-50   | 1100G800-33-50   | 1200G800-33-50   | 1400G750-33-50   | 1550G700-33-50   | 1650G700-33-50   |
|            | Strap-to-Gusset      | 22(4)x#8-18 PMTH        | 22(4)x#8-18 PMTH | 22(4)x#8-18 PMTH | 21(4)x#8-18 PMTH | 21(4)x#8-18 PMTH | 21(4)x#8-18 PMTH | 21(4)x#8-18 PMTH | 21(4)x#8-18 PMTH |
|            | Gusset-to-Chord      | 12(2)x#8-18 PMTH        | 14(2)x#8-18 PMTH | 14(2)x#8-18 PMTH | 14(2)x#8-18 PMTH | 12(2)x#10-16 PWH | 12(2)x#10-16 PWH | 12(2)x#10-16 PWH | 12(2)x#10-16 PWH |
|            | Gusset-to-Track      | 12(1)x#8-18 PMTH        | 10(1)x#8-18 PMTH | 9(1)x#8-18 PMTH  | 8(1)x#8-18 PMTH  | 7(1)x#8-18 PMTH  | 8(1)x#8-18 PMTH  | 7(1)x#8-18 PMTH  | 6(1)x#8-18 PMTH  |
| 9.00 ft    | Detail #             | 10.3.1                  | 10.3.2           | 10.3.3           | 10.3.4           | 10.3.5           | 10.3.6           | 10.3.7           | 10.3.8           |
|            | Gussets              | 850G950-33-50           | 950G900-33-50    | 1050G850-33-50   | 1150G800-33-50   | 1200G800-33-50   | 1400G750-33-50   | 1550G700-33-50   | 1650G700-33-50   |
|            | Strap-to-Gusset      | 22(4)x#8-18 PMTH        | 22(4)x#8-18 PMTH | 22(4)x#8-18 PMTH | 22(4)x#8-18 PMTH | 22(4)x#8-18 PMTH | 22(4)x#8-18 PMTH | 22(4)x#8-18 PMTH | 22(4)x#8-18 PMTH |
|            | Gusset-to-Chord      | 12(2)x#8-18 PMTH        | 14(2)x#8-18 PMTH | 14(2)x#8-18 PMTH | 14(2)x#8-18 PMTH | 12(2)x#10-16 PWH | 14(2)x#10-16 PWH | 14(2)x#10-16 PWH | 14(2)x#10-16 PWH |
|            | Gusset-to-Track      | 12(1)x#8-18 PMTH        | 10(1)x#8-18 PMTH | 9(1)x#8-18 PMTH  | 8(1)x#8-18 PMTH  | 7(1)x#8-18 PMTH  | 8(1)x#8-18 PMTH  | 7(1)x#8-18 PMTH  | 6(1)x#8-18 PMTH  |



| TABLE 4.4.11: DETAILED SHEAR WALL REQUIREMENTS |  |             |         |              |         |             |        |
|--|--|-------------|---------|--------------|---------|-------------|--------|
| PARAMETERS:                                    |  | Strap Width | 3.00 in | Strap Thick. | 33 mils | Strap Grade | 50 ksi |

TABLE A: MINIMUM REQUIRED CHORD & TRACK SIZES

**Key:**  
 Chords (C-Section): WWWXXX-YY-ZZ (Method), WWW = Web Depth (inches x 100), XXX = Flange Width (inches x 100), YY = Thickness (mils), ZZ = ASTM A653 Steel Grade  
 Chords (HSS): W.WWxX.XXxY.YYY, W.WW = Web Depth (inches), X.XX = Flange Width (inches), Y.YYY = Thickness (inches), all HSS are A500 Grade B (46 ksi)  
 Tracks: WWWXXX-YY-ZZ, WWW = Web Depth (inches x 100), XXX = Flange Width (inches x 100), YY = Thickness (mils), ZZ = ASTM A653 Steel Grade

| Pod Height | Member Type        | Wall Aspect Ratio (H/L) |                       |                       |                       |                       |                       |                       |                       |
|------------|--------------------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|            |                    | 1.00                    | 1.25                  | 1.50                  | 1.75                  | 2.00                  | 2.50                  | 3.00                  | 3.50                  |
| 7.50 ft    | Chords (C-Section) | 362S125-54-50 (Boxed)   | 362S125-54-50 (Boxed) | 362S125-54-50 (Boxed) | 362S125-54-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) |
|            | Chords (HSS)       | 3.5x1.5x1/8             | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x0.165         | 3.5x1.5x0.165         | 3.5x1.5x0.165         | 3.5x1.5x0.165         |
|            | Tracks             | 362T125-54-50           | 362T125-54-50         | 362T125-43-50         | 362T125-43-50         | 362T125-43-50         | 362T125-43-50         | 362T125-33-50         | 362T125-33-50         |
| 8.00 ft    | Chords (C-Section) | 362S125-54-50 (Boxed)   | 362S125-54-50 (Boxed) | 362S125-54-50 (Boxed) | 362S125-54-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) |
|            | Chords (HSS)       | 3.5x1.5x1/8             | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x1/8           | 3.5x1.5x0.165         | 3.5x1.5x0.165         | 3.5x1.5x0.165         | 3.5x1.5x3/16          |
|            | Tracks             | 362T125-54-50           | 362T125-54-50         | 362T125-43-50         | 362T125-43-50         | 362T125-43-50         | 362T125-43-50         | 362T125-33-50         | 362T125-33-50         |
| 9.00 ft    | Chords (C-Section) | 362S125-54-50 (Boxed)   | 362S125-54-50 (Boxed) | 362S125-68-33 (Boxed) | 362S125-68-33 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) | 362S137-68-50 (Boxed) |
|            | Chords (HSS)       | 3.5x1.5x0.165           | 3.5x1.5x0.165         | 3.5x1.5x0.165         | 3.5x1.5x0.165         | 3.5x2x1/8             | 3.5x2x1/8             | 3.5x2x1/8             | 3.5x2x1/8             |
|            | Tracks             | 362T125-54-50           | 362T125-54-50         | 362T125-54-50         | 362T125-43-50         | 362T125-43-50         | 362T125-43-50         | 362T125-33-50         | 362T125-33-50         |

TABLE B: MINIMUM REQUIRED GUSSET & SCREW CONNECTIONS

**Key:**  
 Gussets: WWWGXXX-YY-ZZ, WWW = Height (inches x 100), XXX = Width (inches x 100), YY = Thickness (mils), ZZ = ASTM A653 Steel Grade  
 Strap-to-Gusset: A(B)xC, A = Total Number of Screws, B = Number of Screws per Row, C = Screw Type  
 Gusset-to-Chord: A(B)xC, A = Total Number of Screws, B = Number of Screws per Row, C = Screw Type  
 Gusset-to-Track: A(B)xC, A = Total Number of Screws, B = Number of Screws per Row, C = Screw Type

| Pod Height | Connection Component | Wall Aspect Ratio (H/L) |                  |                  |                  |                  |                  |                  |                  |
|------------|----------------------|-------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|            |                      | 1.00                    | 1.25             | 1.50             | 1.75             | 2.00             | 2.50             | 3.00             | 3.50             |
| 7.50 ft    | Detail #             | 11.1.1                  | 11.1.2           | 11.1.3           | 11.1.4           | 11.1.5           | 11.1.6           | 11.1.7           | 11.1.8           |
|            | Gussets              | 950G1100-33-50          | 1050G1000-33-50  | 1150G950-33-50   | 1250G900-33-50   | 1350G850-33-50   | 1500G800-33-50   | 1650G800-33-50   | 1800G750-33-50   |
|            | Strap-to-Gusset      | 25(5)x#8-18 PMTH        | 24(5)x#8-18 PMTH | 24(5)x#8-18 PMTH | 24(5)x#8-18 PMTH | 23(5)x#8-18 PMTH | 23(5)x#8-18 PMTH | 23(5)x#8-18 PMTH | 23(5)x#8-18 PMTH |
|            | Gusset-to-Chord      | 14(2)x#8-18 PMTH        | 14(2)x#8-18 PMTH | 14(2)x#8-18 PMTH | 16(2)x#8-18 PMTH | 14(2)x#10-16 PWH | 14(2)x#10-16 PWH | 14(2)x#10-16 PWH | 14(2)x#10-16 PWH |
|            | Gusset-to-Track      | 13(1)x#8-18 PMTH        | 11(1)x#8-18 PMTH | 10(1)x#8-18 PMTH | 9(1)x#8-18 PMTH  | 8(1)x#8-18 PMTH  | 7(1)x#8-18 PMTH  | 8(1)x#8-18 PMTH  | 7(1)x#8-18 PMTH  |
| 8.00 ft    | Detail #             | 11.2.1                  | 11.2.2           | 11.2.3           | 11.2.4           | 11.2.5           | 11.2.6           | 11.2.7           | 11.2.8           |
|            | Gussets              | 1050G1150-33-50         | 1050G1000-33-50  | 1150G950-33-50   | 1250G900-33-50   | 1350G850-33-50   | 1500G800-33-50   | 1650G800-33-50   | 1800G750-33-50   |
|            | Strap-to-Gusset      | 26(5)x#8-18 PMTH        | 25(5)x#8-18 PMTH | 24(5)x#8-18 PMTH | 24(5)x#8-18 PMTH | 24(5)x#8-18 PMTH | 24(5)x#8-18 PMTH | 23(5)x#8-18 PMTH | 23(5)x#8-18 PMTH |
|            | Gusset-to-Chord      | 14(2)x#8-18 PMTH        | 14(2)x#8-18 PMTH | 16(2)x#8-18 PMTH | 16(2)x#8-18 PMTH | 14(2)x#10-16 PWH | 14(2)x#10-16 PWH | 14(2)x#10-16 PWH | 14(2)x#10-16 PWH |
|            | Gusset-to-Track      | 13(1)x#8-18 PMTH        | 11(1)x#8-18 PMTH | 10(1)x#8-18 PMTH | 9(1)x#8-18 PMTH  | 8(1)x#8-18 PMTH  | 7(1)x#8-18 PMTH  | 8(1)x#8-18 PMTH  | 7(1)x#8-18 PMTH  |
| 9.00 ft    | Detail #             | 11.3.1                  | 11.3.2           | 11.3.3           | 11.3.4           | 11.3.5           | 11.3.6           | 11.3.7           | 11.3.8           |
|            | Gussets              | 1050G1150-33-50         | 1150G1100-33-50  | 1150G950-33-50   | 1250G900-33-50   | 1350G900-33-50   | 1500G800-33-50   | 1650G800-33-50   | 1850G750-33-50   |
|            | Strap-to-Gusset      | 27(5)x#8-18 PMTH        | 26(5)x#8-18 PMTH | 25(5)x#8-18 PMTH | 25(5)x#8-18 PMTH | 25(5)x#8-18 PMTH | 24(5)x#8-18 PMTH | 24(5)x#8-18 PMTH | 24(5)x#8-18 PMTH |
|            | Gusset-to-Chord      | 14(2)x#8-18 PMTH        | 16(2)x#8-18 PMTH | 14(2)x#10-16 PWH | 14(2)x#10-16 PWH | 14(2)x#10-16 PWH | 14(2)x#10-16 PWH | 14(2)x#10-16 PWH | 16(2)x#10-16 PWH |
|            | Gusset-to-Track      | 14(1)x#8-18 PMTH        | 12(1)x#8-18 PMTH | 10(1)x#8-18 PMTH | 9(1)x#8-18 PMTH  | 8(1)x#8-18 PMTH  | 7(1)x#8-18 PMTH  | 8(1)x#8-18 PMTH  | 7(1)x#8-18 PMTH  |



| TABLE 4.4.12: DETAILED SHEAR WALL REQUIREMENTS |  |             |         |              |         |             |        |
|--|--|-------------|---------|--------------|---------|-------------|--------|
| PARAMETERS:                                    |  | Strap Width | 4.00 in | Strap Thick. | 33 mils | Strap Grade | 50 ksi |

TABLE A: MINIMUM REQUIRED CHORD & TRACK SIZES

**Key:**  
 Chords (C-Section): WWWXXX-YY-ZZ (Method), WWW = Web Depth (inches x 100), XXX = Flange Width (inches x 100), YY = Thickness (mils), ZZ = ASTM A653 Steel Grade  
 Chords (HSS): W.WWxX.XXxY.YYY, W.WW = Web Depth (inches), X.XX = Flange Width (inches), Y.YYY = Thickness (inches), all HSS are A500 Grade B (46 ksi)  
 Tracks: WWWXXX-YY-ZZ, WWW = Web Depth (inches x 100), XXX = Flange Width (inches x 100), YY = Thickness (mils), ZZ = ASTM A653 Steel Grade

| Pod Height | Member Type        | Wall Aspect Ratio (H/L)  |                          |                          |                          |                          |                          |                          |                          |
|------------|--------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|            |                    | 1.00                     | 1.25                     | 1.50                     | 1.75                     | 2.00                     | 2.50                     | 3.00                     | 3.50                     |
| 7.50 ft    | Chords (C-Section) | 362S125-54-50<br>(Boxed) | 362S125-68-50<br>(Boxed) | 362S125-68-50<br>(Boxed) | 362S125-68-50<br>(Boxed) | 362S125-68-50<br>(Boxed) | 362S137-68-50<br>(Boxed) | 362S137-68-50<br>(Boxed) | 362S137-68-50<br>(Boxed) |
|            | Chords (HSS)       | 3.5x1.5x1/8              | 3.5x1.5x1/8              | 3.5x1.5x0.165            | 3.5x1.5x0.165            | 3.5x1.5x3/16             | 3.5x1.5x3/16             | 3.5x2x1/8                | 3.5x2x1/8                |
|            | Tracks             | 362T125-54-50            | 362T125-54-50            | 362T125-54-50            | 362T125-54-50            | 362T125-43-50            | 362T125-43-50            | 362T125-43-50            | 362T125-33-50            |
| 8.00 ft    | Chords (C-Section) | 362S125-68-33<br>(Boxed) | 362S125-68-50<br>(Boxed) | 362S125-68-50<br>(Boxed) | 362S125-68-50<br>(Boxed) | 362S125-68-50<br>(Boxed) | 362S137-68-50<br>(Boxed) | 362S137-68-50<br>(Boxed) | 362S162-68-50<br>(Boxed) |
|            | Chords (HSS)       | 3.5x1.5x0.165            | 3.5x1.5x0.165            | 3.5x1.5x0.165            | 3.5x1.5x0.165            | 3.5x2x1/8                | 3.5x2x1/8                | 3.5x2x1/8                | 3.5x2x3/16               |
|            | Tracks             | 362T125-68-50            | 362T125-54-50            | 362T125-54-50            | 362T125-54-50            | 362T125-43-50            | 362T125-43-50            | 362T125-43-50            | 362T125-33-50            |
| 9.00 ft    | Chords (C-Section) | 362S125-68-50<br>(Boxed) | 362S125-68-50<br>(Boxed) | 362S125-68-50<br>(Boxed) | 362S125-68-50<br>(Boxed) | 362S137-68-50<br>(Boxed) | 362S137-68-50<br>(Boxed) | 362S162-68-50<br>(Boxed) | 362S162-68-50<br>(Boxed) |
|            | Chords (HSS)       | 3.5x1.5x3/16             | 3.5x2x1/8                | 3.5x2x1/8                | 3.5x2x1/8                | 3.5x2x3/16               | 3.5x2x3/16               | 3.5x2x3/16               | 3.5x2x3/16               |
|            | Tracks             | 362T125-68-50            | 362T125-54-50            | 362T125-54-50            | 362T125-54-50            | 362T125-43-50            | 362T125-43-50            | 362T125-43-50            | 362T125-43-50            |

TABLE B: MINIMUM REQUIRED GUSSET & SCREW CONNECTIONS

**Key:**  
 Gussets: WWWGXXX-YY-ZZ, WWW = Height (inches x 100), XXX = Width (inches x 100), YY = Thickness (mils), ZZ = ASTM A653 Steel Grade  
 Strap-to-Gusset: A(B)xC, A = Total Number of Screws, B = Number of Screws per Row, C = Screw Type  
 Gusset-to-Chord: A(B)xC, A = Total Number of Screws, B = Number of Screws per Row, C = Screw Type  
 Gusset-to-Track: A(B)xC, A = Total Number of Screws, B = Number of Screws per Row, C = Screw Type

| Pod Height | Connection Component | Wall Aspect Ratio (H/L) |                  |                  |                  |                  |                  |                  |                  |
|------------|----------------------|-------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|            |                      | 1.00                    | 1.25             | 1.50             | 1.75             | 2.00             | 2.50             | 3.00             | 3.50             |
| 7.50 ft    | Detail #             | 12.1.1                  | 12.1.2           | 12.1.3           | 12.1.4           | 12.1.5           | 12.1.6           | 12.1.7           | 12.1.8           |
|            | Gussets              | 1100G1250-33-50         | 1250G1150-33-50  | 1350G1100-33-50  | 1500G1050-33-50  | 1600G1050-33-50  | 1750G1000-33-50  | 1950G950-33-50   | 2150G900-33-50   |
|            | Strap-to-Gusset      | 31(7)x#8-18 PMTH        | 30(7)x#8-18 PMTH | 29(7)x#8-18 PMTH | 29(7)x#8-18 PMTH | 29(7)x#8-18 PMTH | 28(7)x#8-18 PMTH | 28(7)x#8-18 PMTH | 28(7)x#8-18 PMTH |
|            | Gusset-to-Chord      | 16(2)x#8-18 PMTH        | 16(2)x#10-16 PWH | 16(2)x#10-16 PWH | 16(2)x#10-16 PWH | 16(2)x#10-16 PWH | 18(2)x#10-16 PWH | 18(2)x#10-16 PWH | 18(2)x#10-16 PWH |
|            | Gusset-to-Track      | 16(1)x#8-18 PMTH        | 14(1)x#8-18 PMTH | 12(1)x#8-18 PMTH | 11(1)x#8-18 PMTH | 10(1)x#8-18 PMTH | 8(1)x#8-18 PMTH  | 7(1)x#8-18 PMTH  | 8(1)x#8-18 PMTH  |
| 8.00 ft    | Detail #             | 12.2.1                  | 12.2.2           | 12.2.3           | 12.2.4           | 12.2.5           | 12.2.6           | 12.2.7           | 12.2.8           |
|            | Gussets              | 1150G1250-33-50         | 1250G1150-33-50  | 1350G1100-33-50  | 1500G1050-33-50  | 1600G1050-33-50  | 1800G1000-33-50  | 2000G950-33-50   | 2250G950-33-50   |
|            | Strap-to-Gusset      | 31(7)x#8-18 PMTH        | 30(7)x#8-18 PMTH | 30(7)x#8-18 PMTH | 29(7)x#8-18 PMTH | 29(7)x#8-18 PMTH | 29(7)x#8-18 PMTH | 29(7)x#8-18 PMTH | 29(7)x#8-18 PMTH |
|            | Gusset-to-Chord      | 14(2)x#10-16 PWH        | 16(2)x#10-16 PWH | 16(2)x#10-16 PWH | 16(2)x#10-16 PWH | 16(2)x#10-16 PWH | 18(2)x#10-16 PWH | 18(2)x#10-16 PWH | 18(2)x#10-16 PWH |
|            | Gusset-to-Track      | 14(1)x#10-16 PWH        | 14(1)x#8-18 PMTH | 12(1)x#8-18 PMTH | 11(1)x#8-18 PMTH | 10(1)x#8-18 PMTH | 8(1)x#8-18 PMTH  | 7(1)x#8-18 PMTH  | 8(1)x#8-18 PMTH  |
| 9.00 ft    | Detail #             | 12.3.1                  | 12.3.2           | 12.3.3           | 12.3.4           | 12.3.5           | 12.3.6           | 12.3.7           | 12.3.8           |
|            | Gussets              | 1150G1300-33-50         | 1300G1200-33-50  | 1350G1100-33-50  | 1500G1050-33-50  | 1600G1050-33-50  | 1800G1000-33-50  | 2100G1000-33-50  | 2250G950-33-50   |
|            | Strap-to-Gusset      | 32(7)x#8-18 PMTH        | 31(7)x#8-18 PMTH | 31(7)x#8-18 PMTH | 30(7)x#8-18 PMTH | 30(7)x#8-18 PMTH | 30(7)x#8-18 PMTH | 30(7)x#8-18 PMTH | 30(7)x#8-18 PMTH |
|            | Gusset-to-Chord      | 14(2)x#10-16 PWH        | 16(2)x#10-16 PWH | 16(2)x#10-16 PWH | 16(2)x#10-16 PWH | 18(2)x#10-16 PWH | 18(2)x#10-16 PWH | 18(2)x#10-16 PWH | 18(2)x#10-16 PWH |
|            | Gusset-to-Track      | 14(1)x#10-16 PWH        | 14(1)x#8-18 PMTH | 12(1)x#8-18 PMTH | 11(1)x#8-18 PMTH | 10(1)x#8-18 PMTH | 8(1)x#8-18 PMTH  | 7(1)x#8-18 PMTH  | 6(1)x#8-18 PMTH  |



| TABLE 4.4.13: DETAILED SHEAR WALL REQUIREMENTS |  |             |         |              |         |             |        |
|--|--|-------------|---------|--------------|---------|-------------|--------|
| PARAMETERS:                                    |  | Strap Width | 5.00 in | Strap Thick. | 33 mils | Strap Grade | 50 ksi |

TABLE A: MINIMUM REQUIRED CHORD & TRACK SIZES

**Key:**  
 Chords (C-Section): WWWXXX-YY-ZZ (Method), WWW = Web Depth (inches x 100), XXX = Flange Width (inches x 100), YY = Thickness (mils), ZZ = ASTM A653 Steel Grade  
 Chords (HSS): W.WWxX.XXxY.YYY, W.WW = Web Depth (inches), X.XX = Flange Width (inches), Y.YYY = Thickness (inches), all HSS are A500 Grade B (46 ksi)  
 Tracks: WWWXXX-YY-ZZ, WWW = Web Depth (inches x 100), XXX = Flange Width (inches x 100), YY = Thickness (mils), ZZ = ASTM A653 Steel Grade

| Pod Height | Member Type        | Wall Aspect Ratio (H/L) |                       |                       |                       |                       |                       |                       |                       |
|------------|--------------------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|            |                    | 1.00                    | 1.25                  | 1.50                  | 1.75                  | 2.00                  | 2.50                  | 3.00                  | 3.50                  |
| 7.50 ft    | Chords (C-Section) | 362S125-68-50 (Boxed)   | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) |
|            | Chords (HSS)       | 3.5x1.5x0.165           | 3.5x1.5x0.165         | 3.5x1.5x3/16          | 3.5x1.5x3/16          | 3.5x2x3/16            | 3.5x2x3/16            | 3.5x2x3/16            | 3.5x2x3/16            |
|            | Tracks             | 362T125-68-50           | 362T125-68-50         | 362T125-54-50         | 362T125-54-50         | 362T125-54-50         | 362T125-43-50         | 362T125-43-50         | 362T125-43-50         |
| 8.00 ft    | Chords (C-Section) | 362S125-68-50 (Boxed)   | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) | 362S125-68-50 (Boxed) |
|            | Chords (HSS)       | 3.5x1.5x0.165           | 3.5x1.5x3/16          | 3.5x2x1/8             | 3.5x2x1/8             | 3.5x2x3/16            | 3.5x2x3/16            | 3.5x2x3/16            | 3.5x2x3/16            |
|            | Tracks             | 362T125-68-50           | 362T125-68-50         | 362T125-54-50         | 362T125-54-50         | 362T125-54-50         | 362T125-43-50         | 362T125-43-50         | 362T125-43-50         |
| 9.00 ft    | Chords (C-Section) | 362S125-68-50 (Boxed)   | 362S125-68-50 (Boxed) | 362S137-68-50 (Boxed) | 362S137-68-50 (Boxed) | 362S162-68-50 (Boxed) | 362S162-68-50 (Boxed) | 362S162-68-50 (Boxed) | 362S162-68-50 (Boxed) |
|            | Chords (HSS)       | 3.5x2x1/8               | 3.5x2x1/8             | 3.5x2x1/8             | 3.5x2x3/16            | 3.5x2x3/16            | 3.5x2x3/16            | 3.5x2x3/16            | 3.5x2x3/16            |
|            | Tracks             | 362T125-68-50           | 362T125-68-50         | 362T125-54-50         | 362T125-54-50         | 362T125-54-50         | 362T125-43-50         | 362T125-43-50         | 362T125-43-50         |

TABLE B: MINIMUM REQUIRED GUSSET & SCREW CONNECTIONS

**Key:**  
 Gussets: WWWGXXX-YY-ZZ, WWW = Height (inches x 100), XXX = Width (inches x 100), YY = Thickness (mils), ZZ = ASTM A653 Steel Grade  
 Strap-to-Gusset: A(B)xC, A = Total Number of Screws, B = Number of Screws per Row, C = Screw Type  
 Gusset-to-Chord: A(B)xC, A = Total Number of Screws, B = Number of Screws per Row, C = Screw Type  
 Gusset-to-Track: A(B)xC, A = Total Number of Screws, B = Number of Screws per Row, C = Screw Type

| Pod Height | Connection Component | Wall Aspect Ratio (H/L) |                  |                  |                  |                  |                  |                  |                  |
|------------|----------------------|-------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|            |                      | 1.00                    | 1.25             | 1.50             | 1.75             | 2.00             | 2.50             | 3.00             | 3.50             |
| 7.50 ft    | Detail #             | 13.1.1                  | 13.1.2           | 13.1.3           | 13.1.4           | 13.1.5           | 13.1.6           | 13.1.7           | 13.1.8           |
|            | Gussets              | 1300G1450-33-50         | 1450G1450-33-50  | 1600G1300-33-50  | 1750G1250-33-50  | 1900G1250-33-50  | 2150G1200-33-50  | 2500G1200-33-50  | 2750G1150-33-50  |
|            | Strap-to-Gusset      | 36(9)x#8-18 PMTH        | 35(9)x#8-18 PMTH | 35(9)x#8-18 PMTH | 34(9)x#8-18 PMTH | 34(9)x#8-18 PMTH | 34(9)x#8-18 PMTH | 34(9)x#8-18 PMTH | 34(9)x#8-18 PMTH |
|            | Gusset-to-Chord      | 16(2)x#10-16 PWH        | 18(2)x#10-16 PWH | 18(2)x#10-16 PWH | 20(2)x#10-16 PWH | 20(2)x#10-16 PWH | 20(2)x#10-16 PWH | 20(4)x#10-16 PWH | 20(4)x#10-16 PWH |
|            | Gusset-to-Track      | 16(1)x#10-16 PWH        | 14(1)x#10-16 PWH | 14(1)x#8-18 PMTH | 12(1)x#8-18 PMTH | 11(1)x#8-18 PMTH | 9(1)x#8-18 PMTH  | 8(1)x#8-18 PMTH  | 7(1)x#8-18 PMTH  |
| 8.00 ft    | Detail #             | 13.2.1                  | 13.2.2           | 13.2.3           | 13.2.4           | 13.2.5           | 13.2.6           | 13.2.7           | 13.2.8           |
|            | Gussets              | 1350G1450-33-50         | 1450G1450-33-50  | 1600G1300-33-50  | 1750G1250-33-50  | 1900G1250-33-50  | 2150G1200-33-50  | 2500G1200-33-50  | 2750G1150-33-50  |
|            | Strap-to-Gusset      | 36(9)x#8-18 PMTH        | 36(9)x#8-18 PMTH | 35(9)x#8-18 PMTH | 35(9)x#8-18 PMTH | 35(9)x#8-18 PMTH | 34(9)x#8-18 PMTH | 34(9)x#8-18 PMTH | 34(9)x#8-18 PMTH |
|            | Gusset-to-Chord      | 16(2)x#10-16 PWH        | 18(2)x#10-16 PWH | 18(2)x#10-16 PWH | 20(2)x#10-16 PWH | 20(2)x#10-16 PWH | 20(2)x#10-16 PWH | 20(4)x#10-16 PWH | 20(4)x#10-16 PWH |
|            | Gusset-to-Track      | 16(1)x#10-16 PWH        | 14(1)x#10-16 PWH | 14(1)x#8-18 PMTH | 13(1)x#8-18 PMTH | 11(1)x#8-18 PMTH | 9(1)x#8-18 PMTH  | 8(1)x#8-18 PMTH  | 7(1)x#8-18 PMTH  |
| 9.00 ft    | Detail #             | 13.3.1                  | 13.3.2           | 13.3.3           | 13.3.4           | 13.3.5           | 13.3.6           | 13.3.7           | 13.3.8           |
|            | Gussets              | 1450G1600-33-50         | 1600G1500-33-50  | 1650G1350-33-50  | 1750G1250-33-50  | 1950G1250-33-50  | 2150G1200-33-50  | 2500G1200-33-50  | 2750G1200-33-50  |
|            | Strap-to-Gusset      | 38(9)x#8-18 PMTH        | 37(9)x#8-18 PMTH | 36(9)x#8-18 PMTH | 36(9)x#8-18 PMTH | 35(9)x#8-18 PMTH | 35(9)x#8-18 PMTH | 35(9)x#8-18 PMTH | 35(9)x#8-18 PMTH |
|            | Gusset-to-Chord      | 18(2)x#10-16 PWH        | 18(2)x#10-16 PWH | 20(2)x#10-16 PWH | 20(2)x#10-16 PWH | 20(2)x#10-16 PWH | 20(2)x#10-16 PWH | 22(4)x#10-16 PWH | 22(4)x#10-16 PWH |
|            | Gusset-to-Track      | 17(1)x#10-16 PWH        | 14(1)x#10-16 PWH | 15(1)x#8-18 PMTH | 13(1)x#8-18 PMTH | 12(1)x#8-18 PMTH | 10(1)x#8-18 PMTH | 8(1)x#8-18 PMTH  | 7(1)x#8-18 PMTH  |



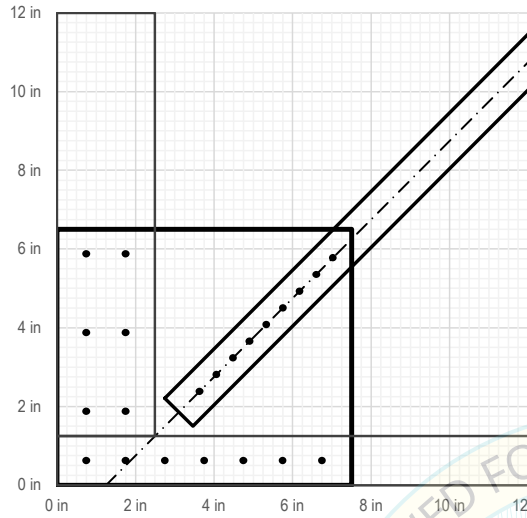
**CONNECTION DETAILS**

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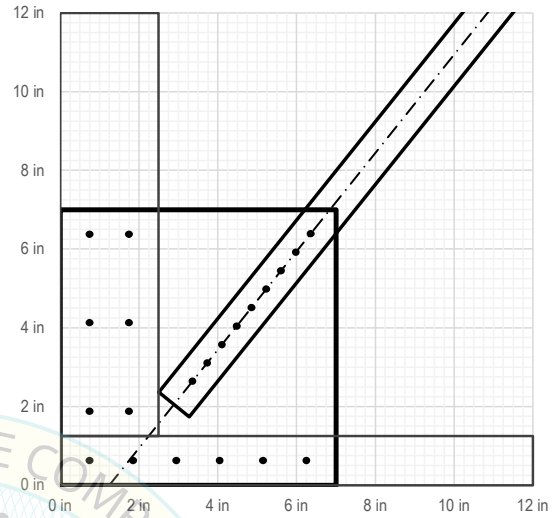
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|--------------------|-------------|---------|--------------|---------|-------------|--------|

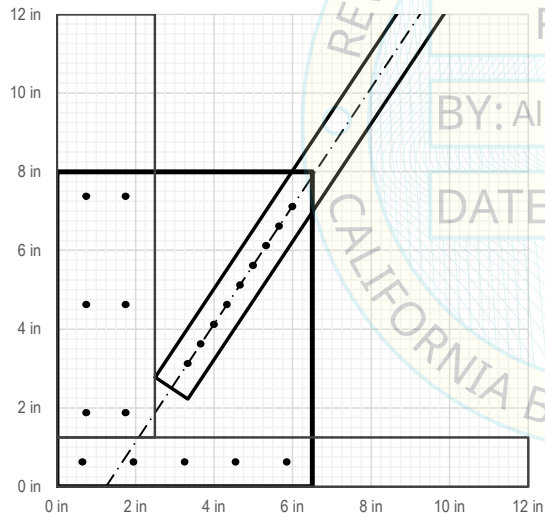
DETAIL 7.1.1



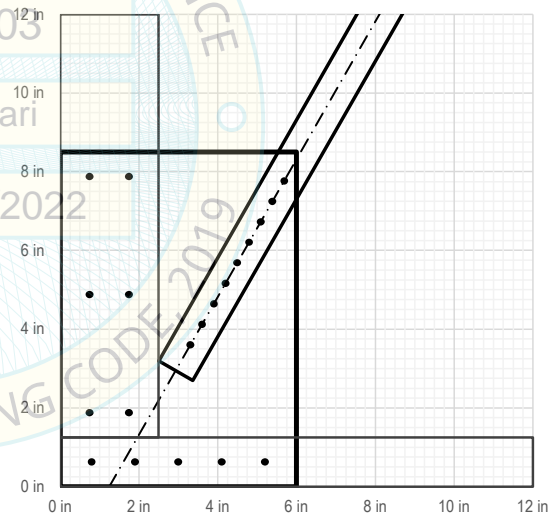
DETAIL 7.1.2



DETAIL 7.1.3



DETAIL 7.1.4



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 PCS-0003  
 BY: Alireza Asgari  
 DATE: 03/21/2022  
 CALIFORNIA BUILDING CODE 2019



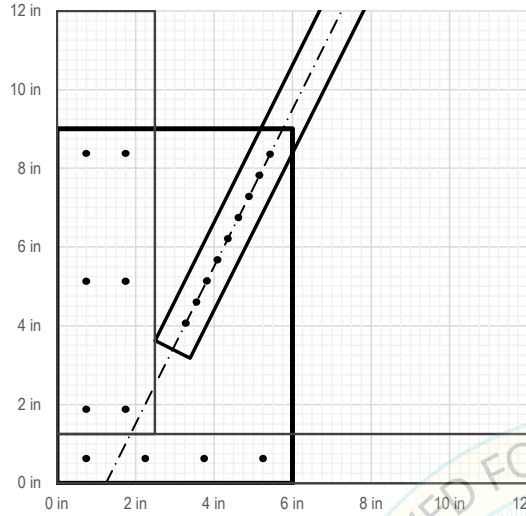
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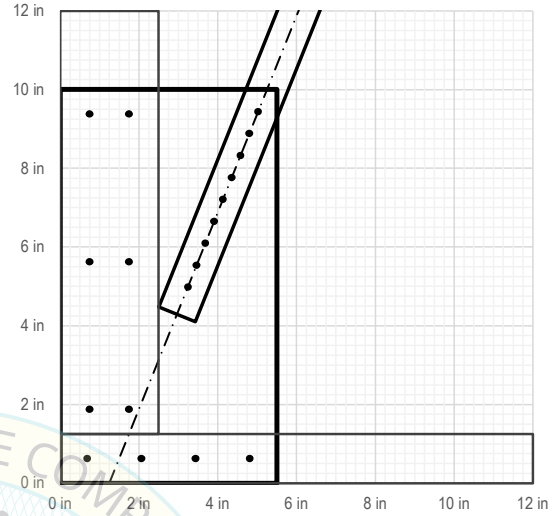
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| <b>STRAP TYPE:</b> | Strap Width | 1.00 in | Strap Thick. | 33 mils | Strap Grade | 50 ksi |
|--------------------|-------------|---------|--------------|---------|-------------|--------|

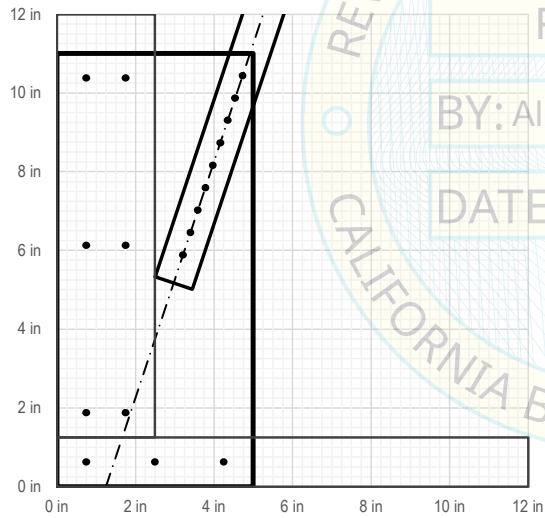
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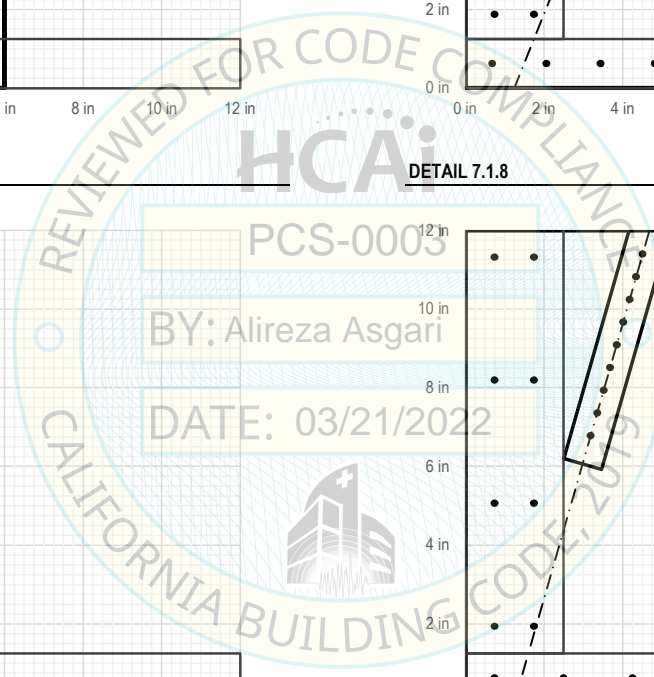
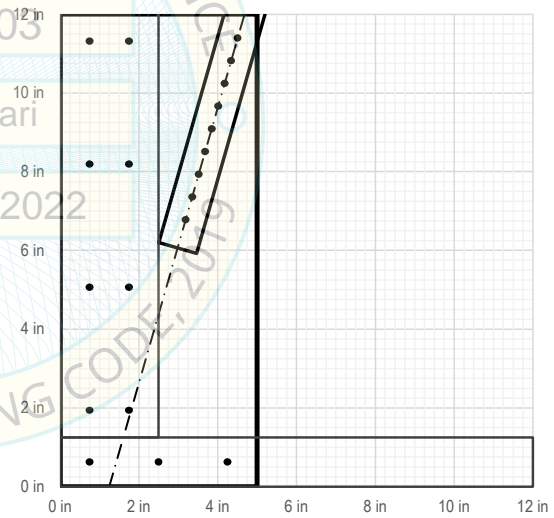
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DETAIL 7.1.7



DETAIL 7.1.8





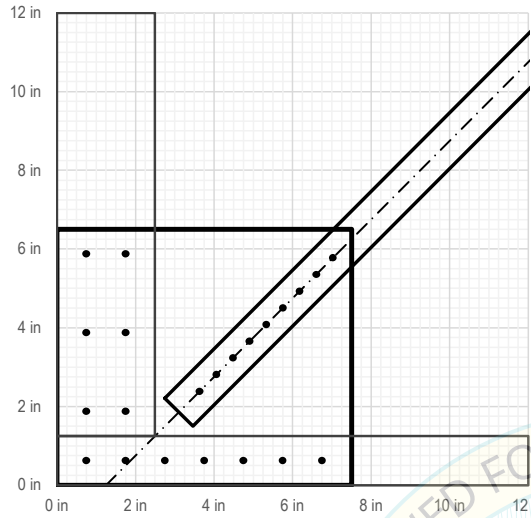
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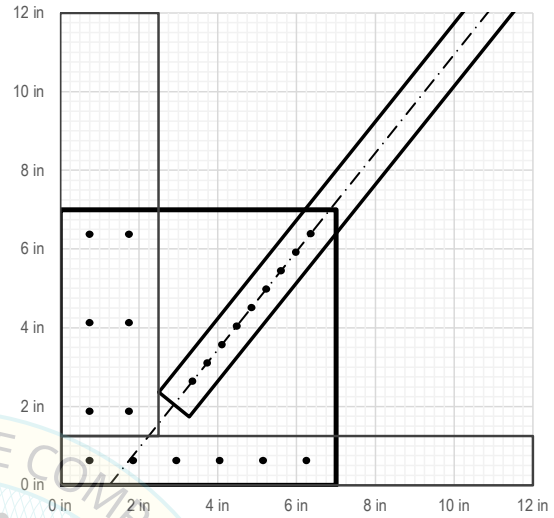
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| <b>STRAP TYPE:</b> | Strap Width | 1.00 in | Strap Thick. | 33 mils | Strap Grade | 50 ksi |
|--------------------|-------------|---------|--------------|---------|-------------|--------|

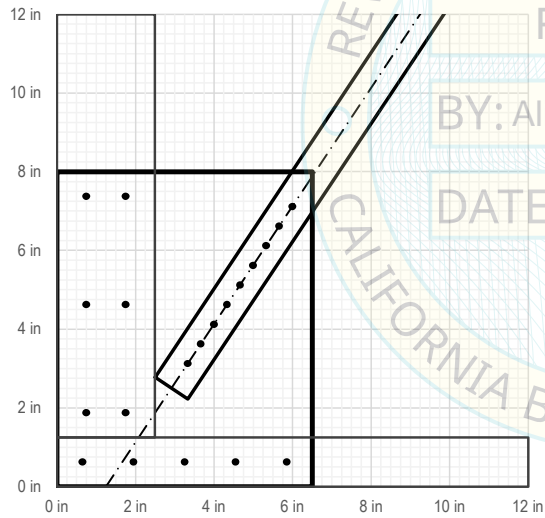
DETAIL 7.2.1



DETAIL 7.2.2



DETAIL 7.2.3



DETAIL 7.2.4



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 DATE: 03/21/2022  
 CALIFORNIA BUILDING CODE 2019



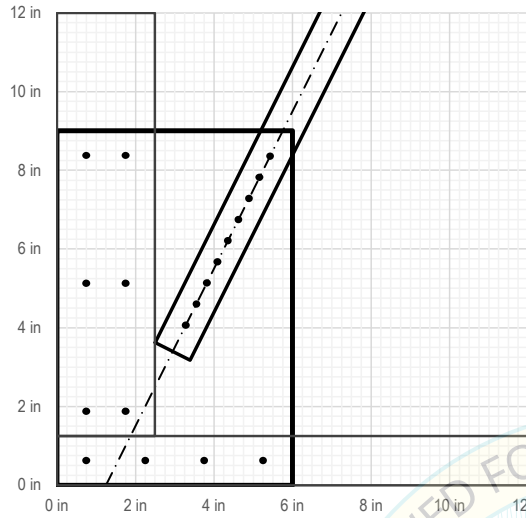
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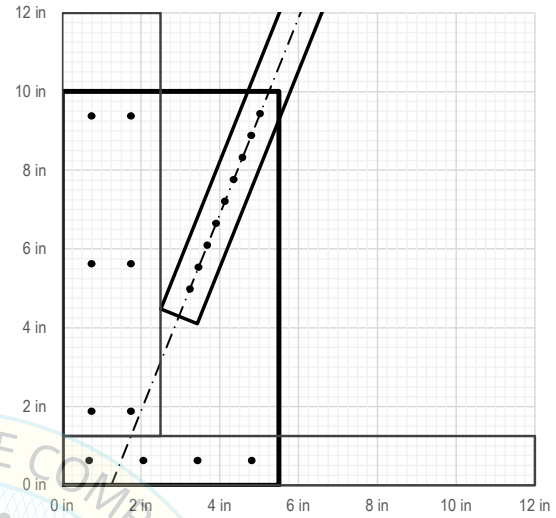
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|--------------------|-------------|---------|--------------|---------|-------------|--------|
| <b>STRAP TYPE:</b> | Strap Width | 1.00 in | Strap Thick. | 33 mils | Strap Grade | 50 ksi |
|--------------------|-------------|---------|--------------|---------|-------------|--------|

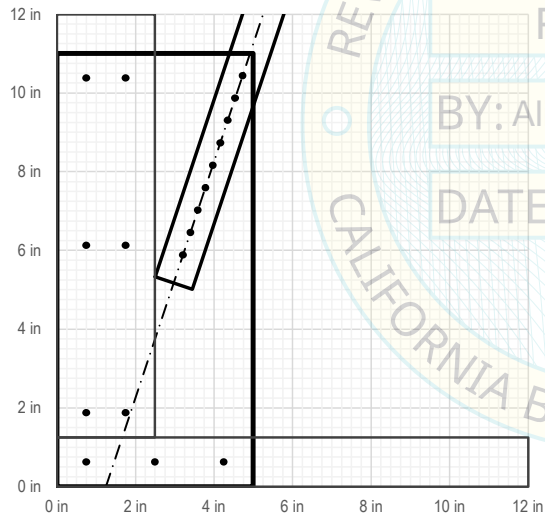
DETAIL 7.2.5



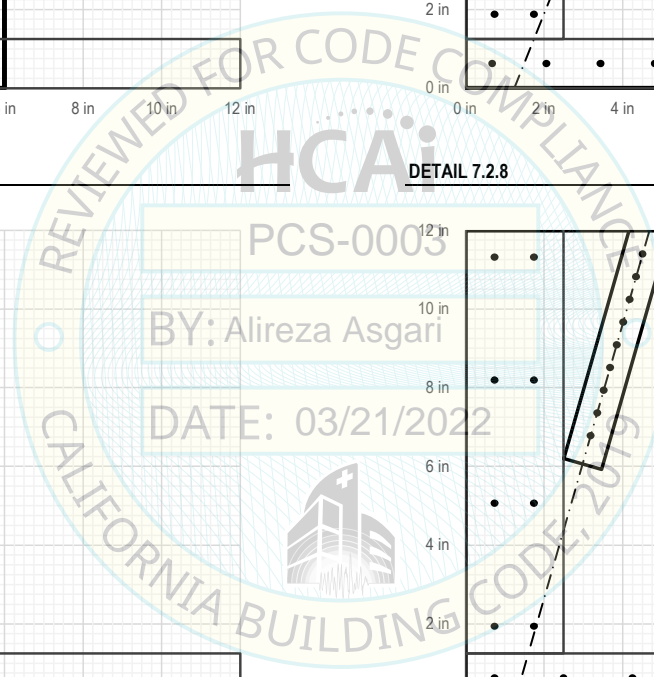
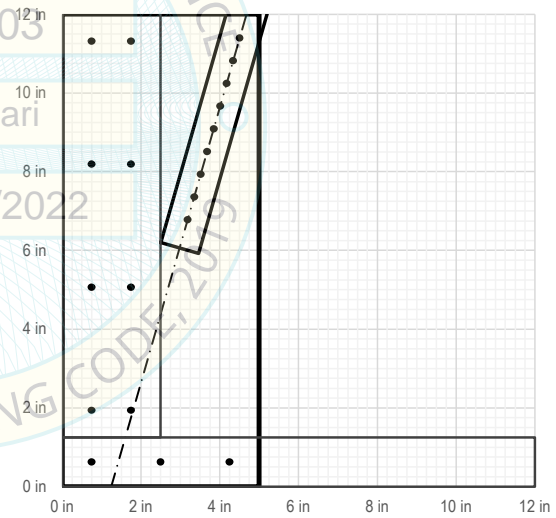
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DETAIL 7.2.7



DETAIL 7.2.8



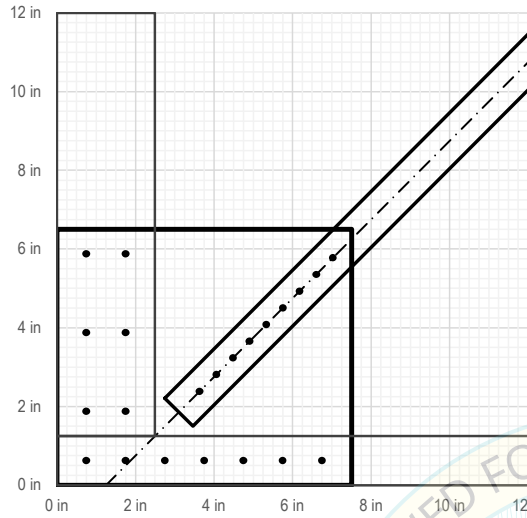
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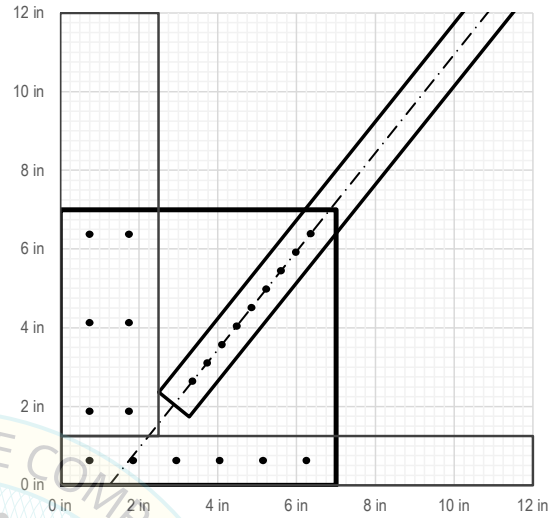
100FS-33-50

|                    |             |         |              |         |             |        |
|--------------------|-------------|---------|--------------|---------|-------------|--------|
| <b>STRAP TYPE:</b> | Strap Width | 1.00 in | Strap Thick. | 33 mils | Strap Grade | 50 ksi |
|--------------------|-------------|---------|--------------|---------|-------------|--------|

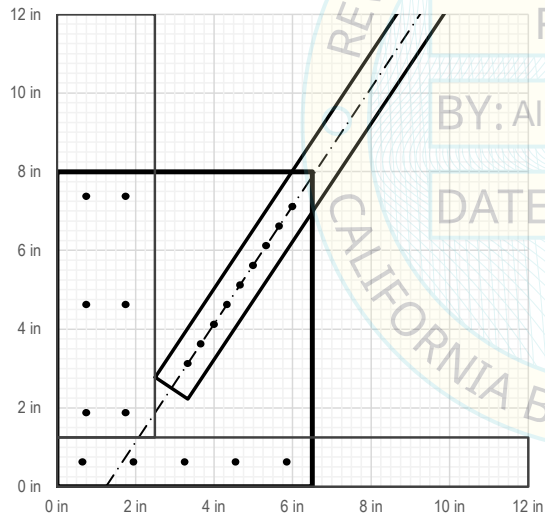
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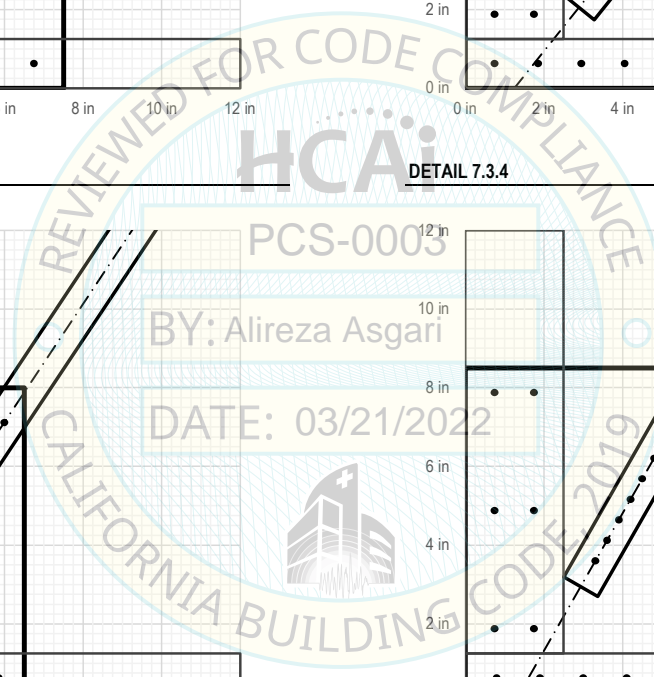
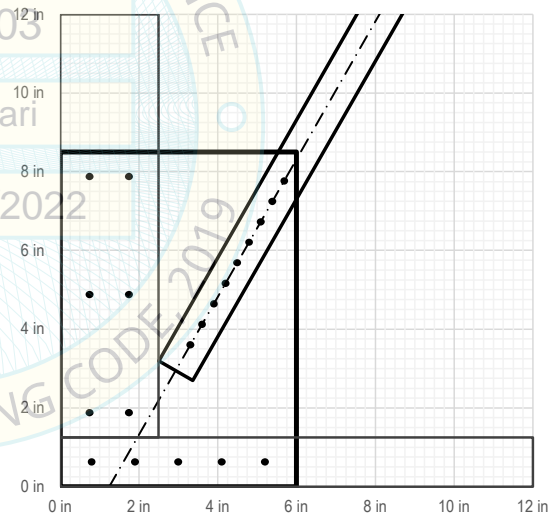
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**DETAIL 7.3.3**



**DETAIL 7.3.4**



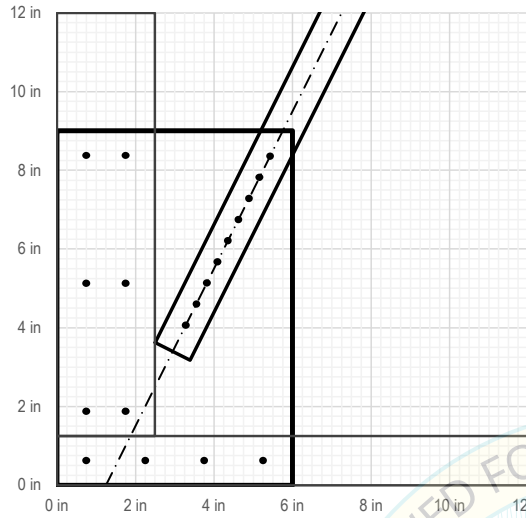
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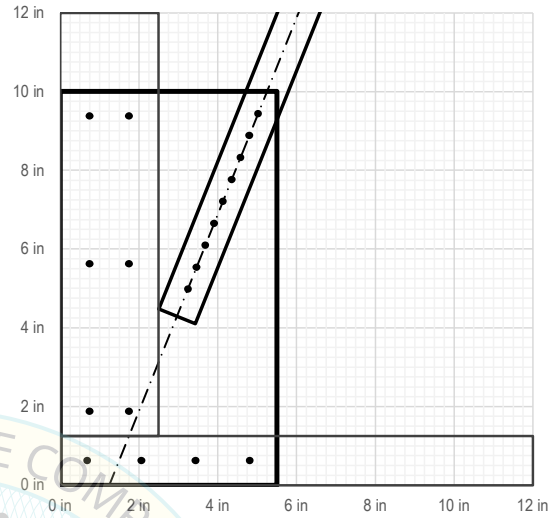
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|                    |             |         |              |         |             |        |
|--------------------|-------------|---------|--------------|---------|-------------|--------|
| <b>STRAP TYPE:</b> | Strap Width | 1.00 in | Strap Thick. | 33 mils | Strap Grade | 50 ksi |
|--------------------|-------------|---------|--------------|---------|-------------|--------|

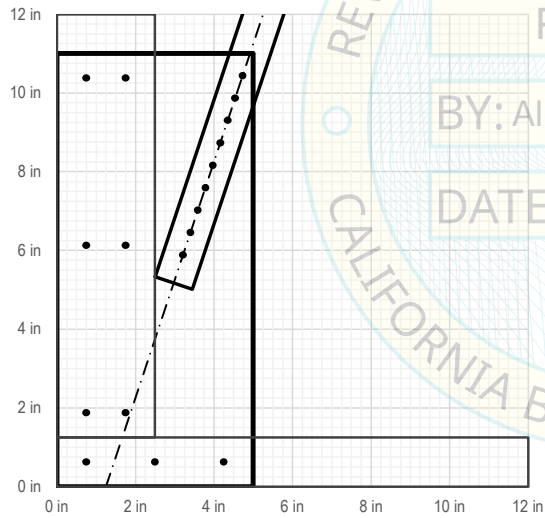
DETAIL 7.3.5



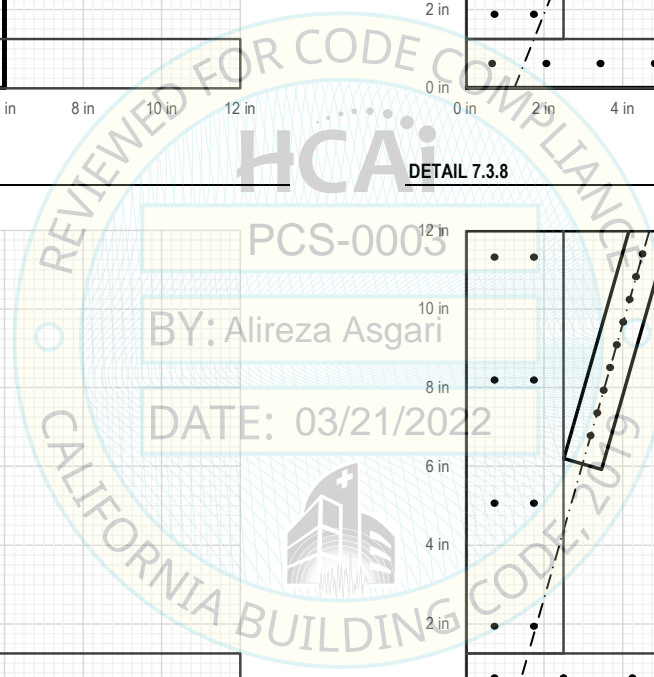
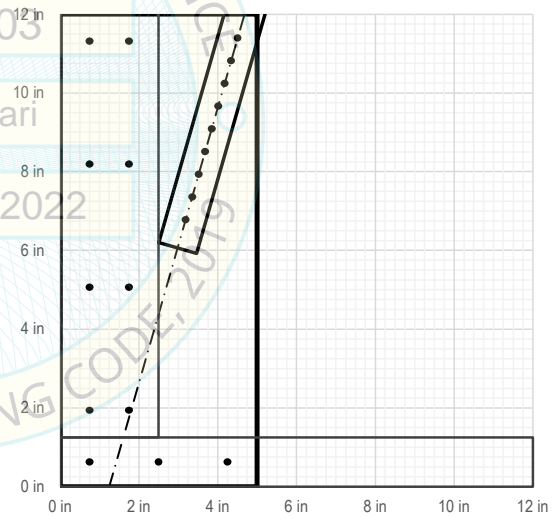
DETAIL 7.3.6



DETAIL 7.3.7



DETAIL 7.3.8



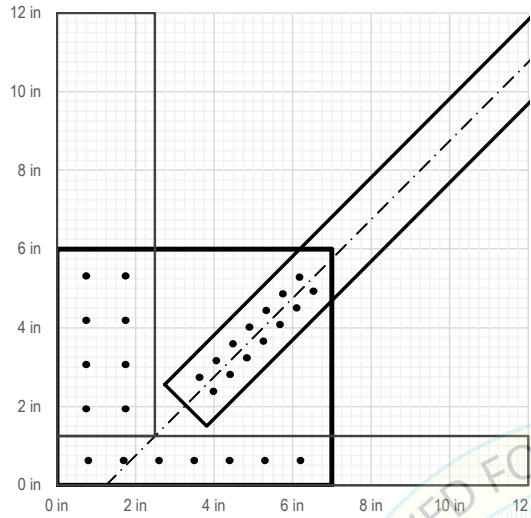
**CONNECTION DETAILS**

S3

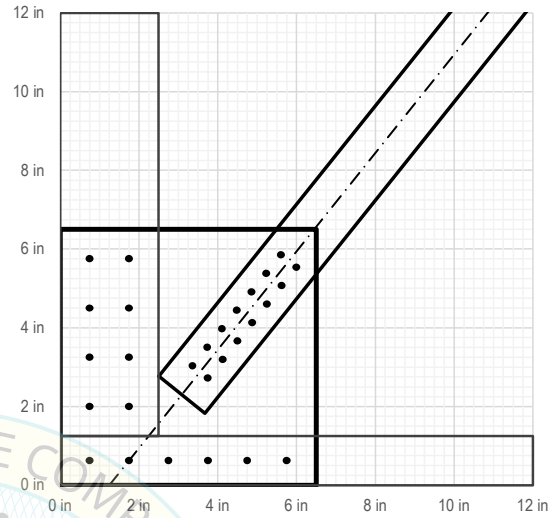
150FS-33-50

|                    |             |         |              |         |             |        |
|--------------------|-------------|---------|--------------|---------|-------------|--------|
| <b>STRAP TYPE:</b> | Strap Width | 1.50 in | Strap Thick. | 33 mils | Strap Grade | 50 ksi |
|--------------------|-------------|---------|--------------|---------|-------------|--------|

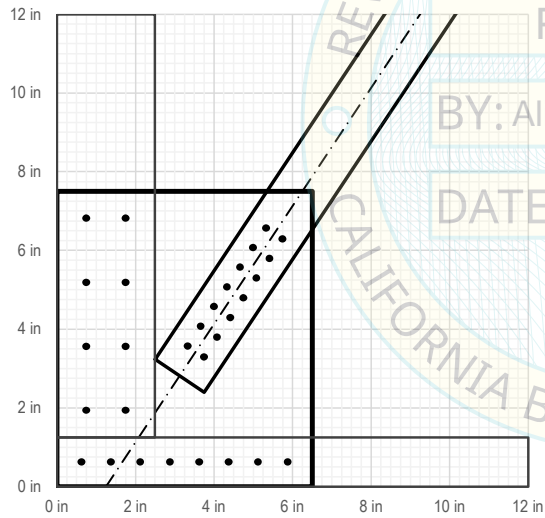
**DETAIL 8.1.1**



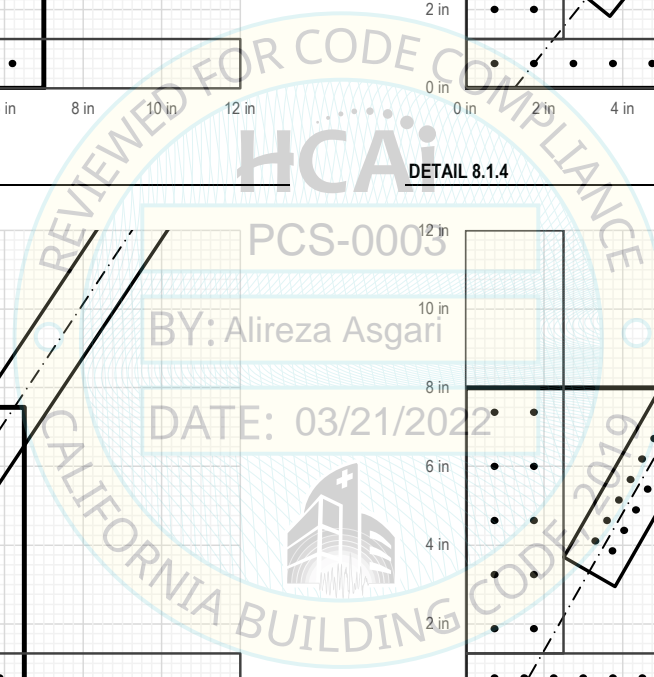
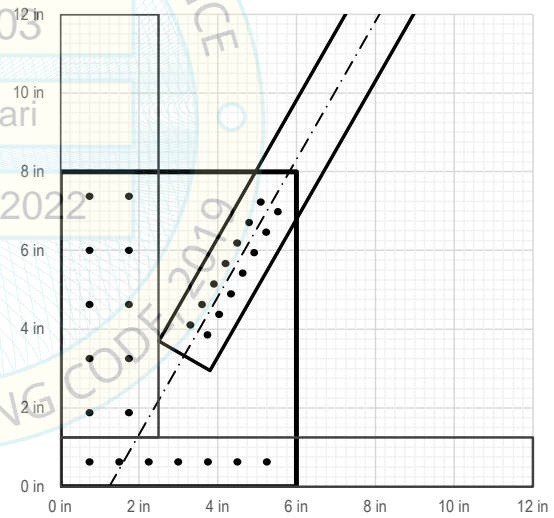
**DETAIL 8.1.2**



**DETAIL 8.1.3**



**DETAIL 8.1.4**



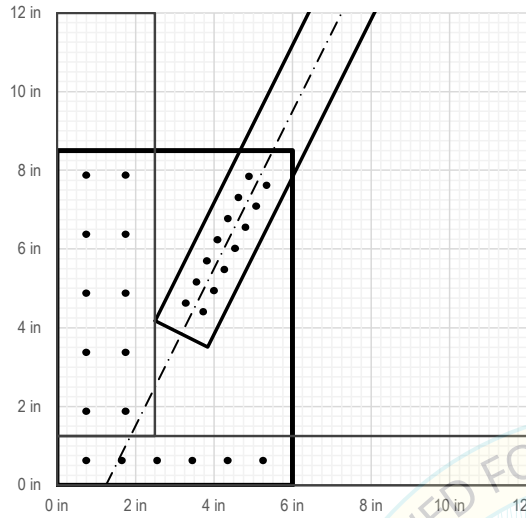
**CONNECTION DETAILS**

S3

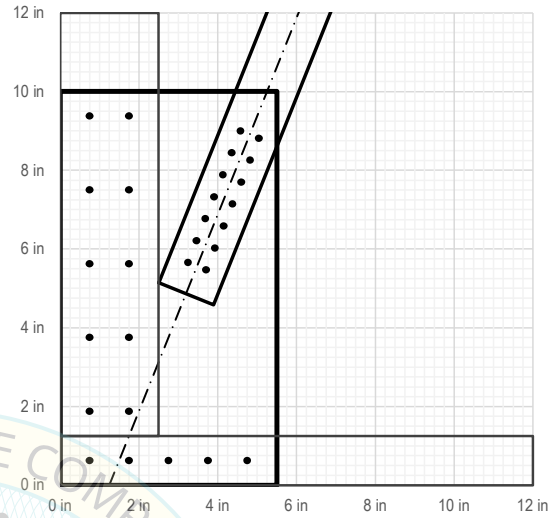
150FS-33-50

|                    |             |         |              |         |             |        |
|--------------------|-------------|---------|--------------|---------|-------------|--------|
| <b>STRAP TYPE:</b> | Strap Width | 1.50 in | Strap Thick. | 33 mils | Strap Grade | 50 ksi |
|--------------------|-------------|---------|--------------|---------|-------------|--------|

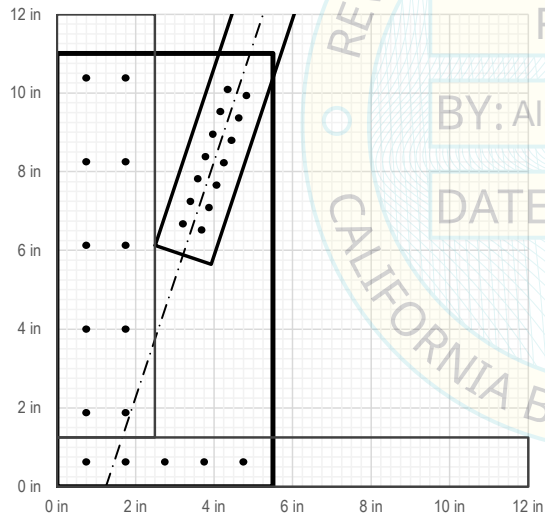
DETAIL 8.1.5



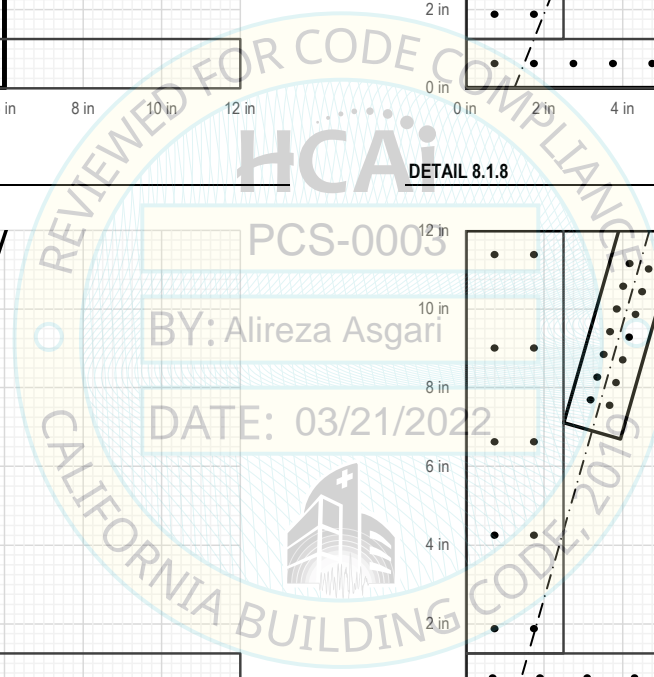
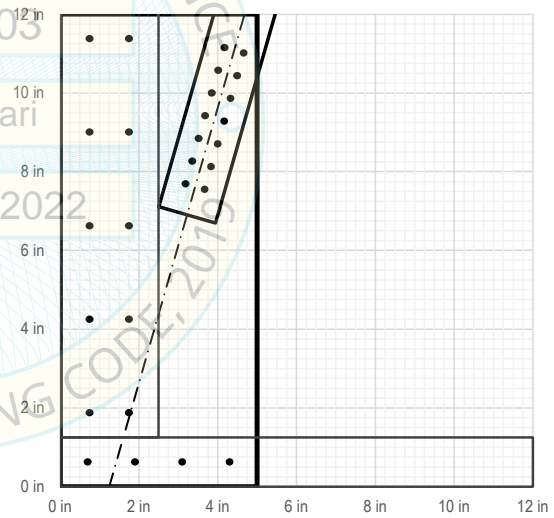
DETAIL 8.1.6



DETAIL 8.1.7



DETAIL 8.1.8



**CONNECTION DETAILS**

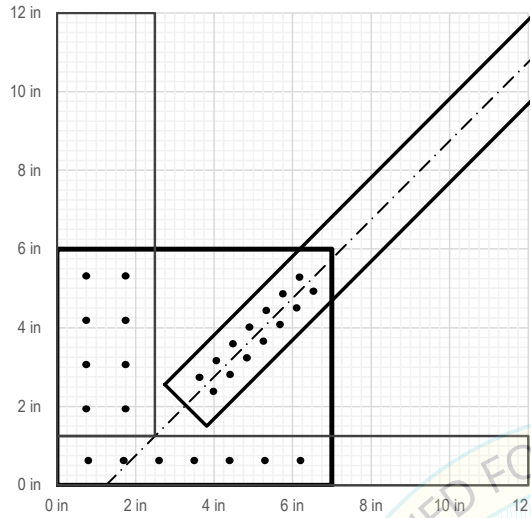
S3

150FS-33-50

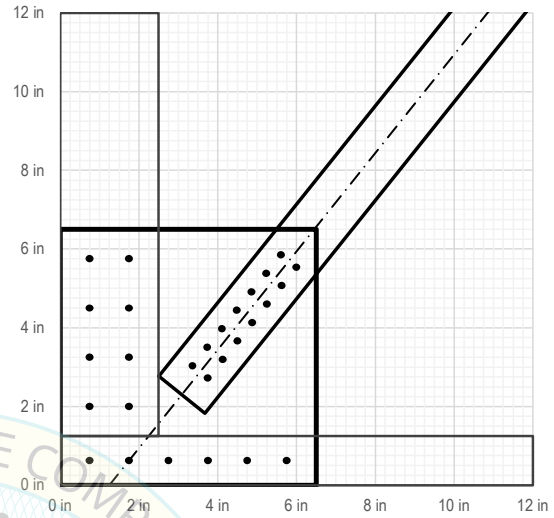
**STRAP TYPE:**

Strap Width 1.50 in Strap Thick. 33 mils Strap Grade 50 ksi

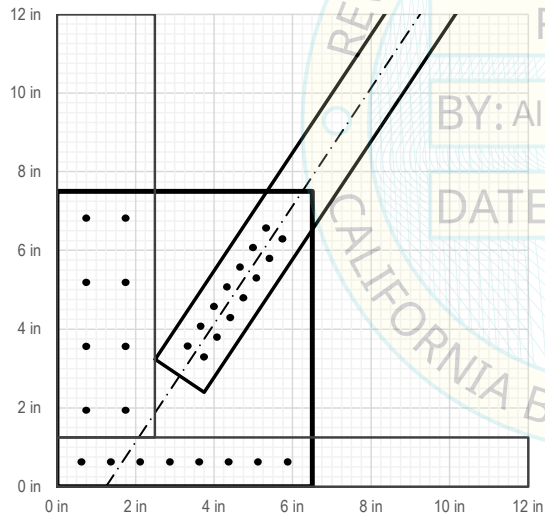
**DETAIL 8.2.1**



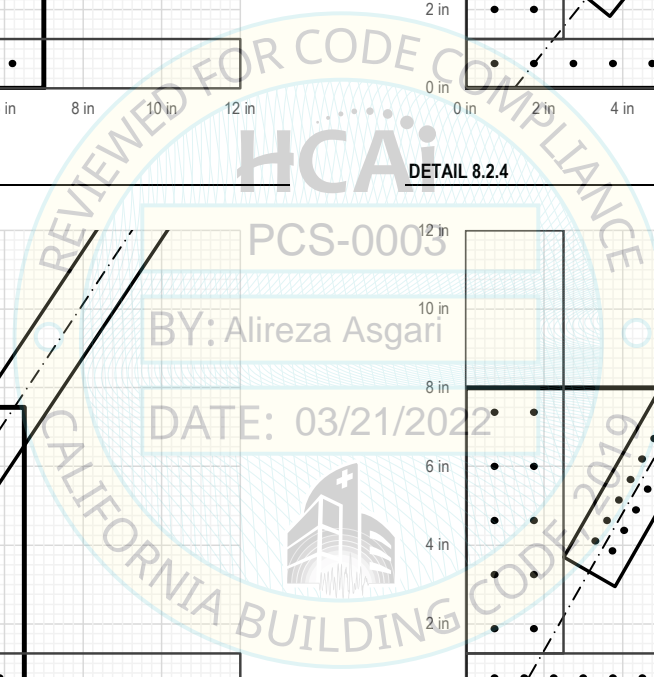
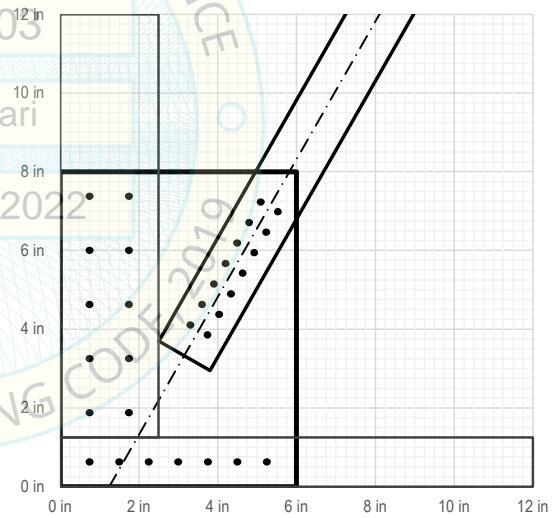
**DETAIL 8.2.2**



**DETAIL 8.2.3**



**DETAIL 8.2.4**



**CONNECTION DETAILS**

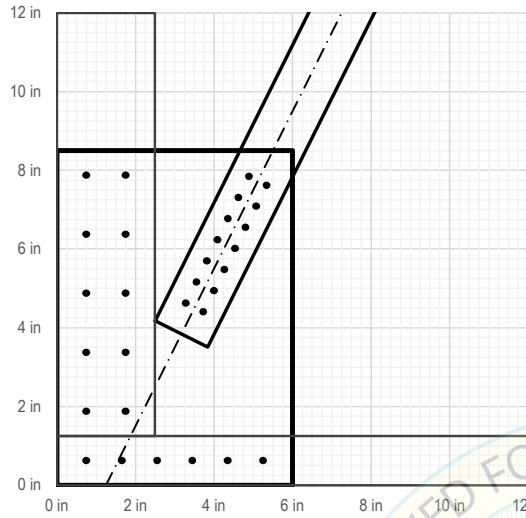
S3

150FS-33-50

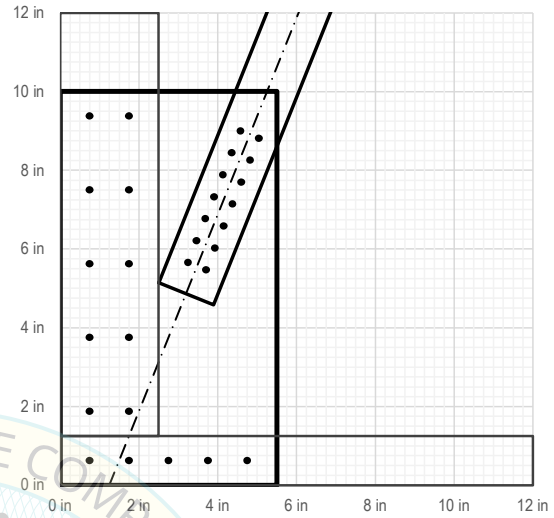
**STRAP TYPE:**

Strap Width 1.50 in Strap Thick. 33 mils Strap Grade 50 ksi

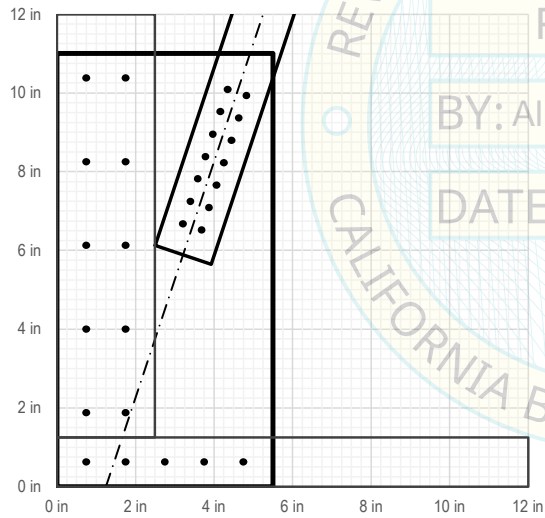
**DETAIL 8.2.5**



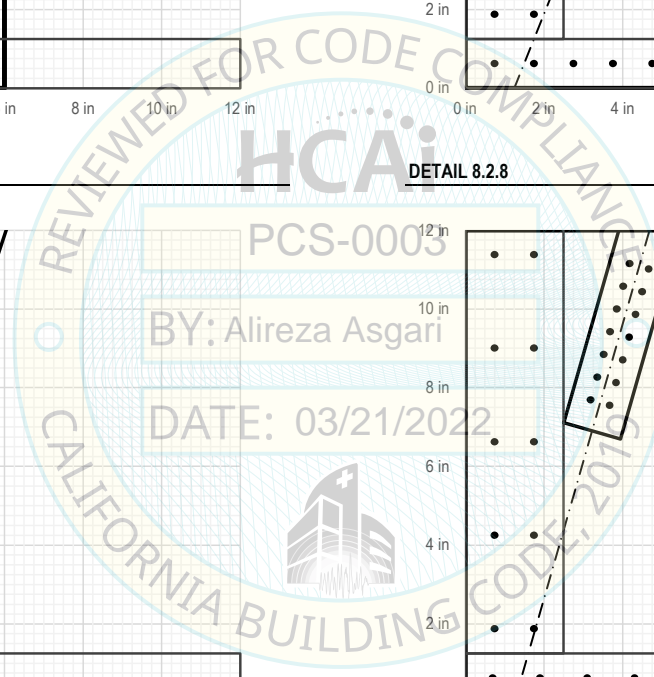
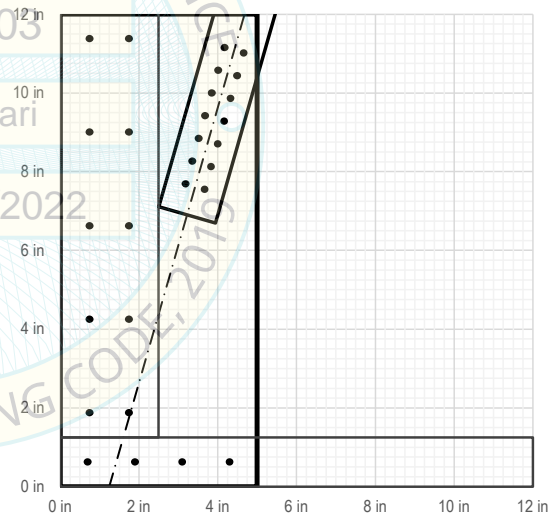
**DETAIL 8.2.6**



**DETAIL 8.2.7**



**DETAIL 8.2.8**





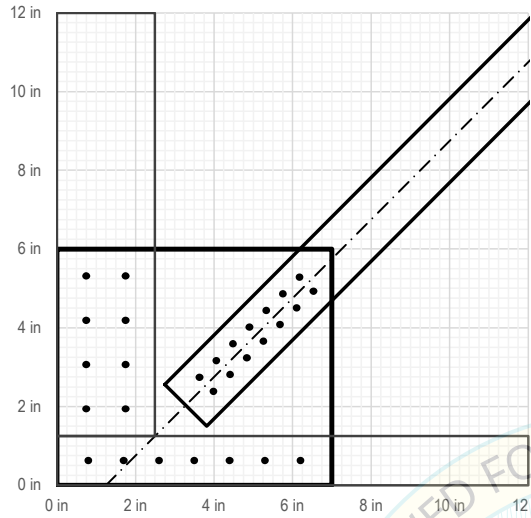
**CONNECTION DETAILS**

S3

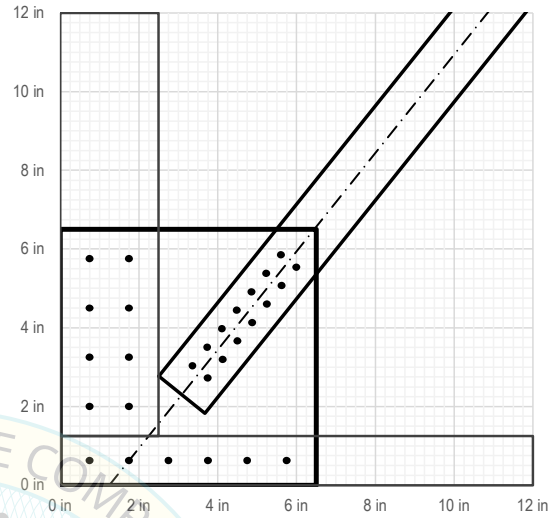
150FS-33-50

|                    |             |         |              |         |             |        |
|--------------------|-------------|---------|--------------|---------|-------------|--------|
| <b>STRAP TYPE:</b> | Strap Width | 1.50 in | Strap Thick. | 33 mils | Strap Grade | 50 ksi |
|--------------------|-------------|---------|--------------|---------|-------------|--------|

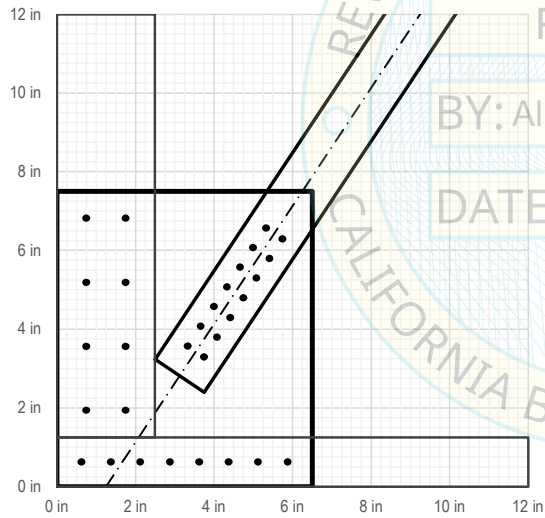
DETAIL 8.3.1



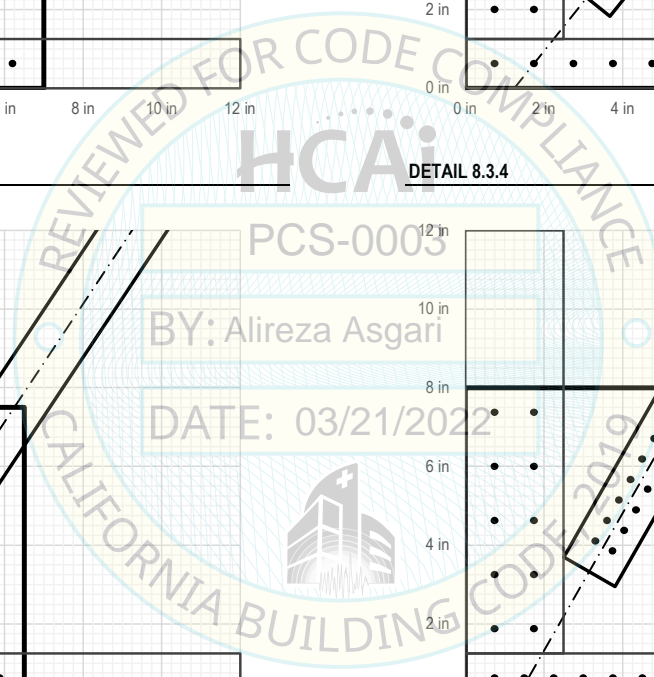
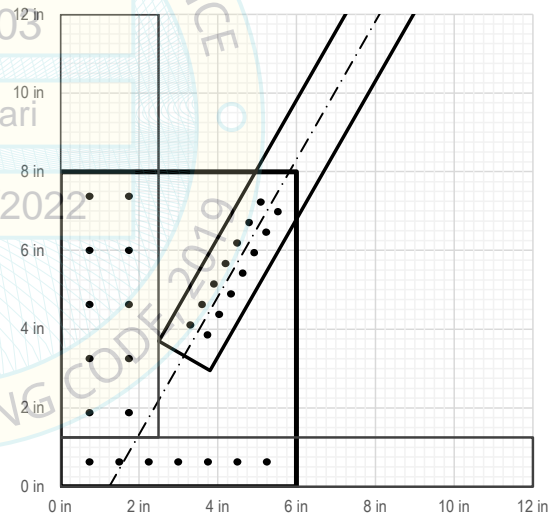
DETAIL 8.3.2



DETAIL 8.3.3



DETAIL 8.3.4



**CONNECTION DETAILS**

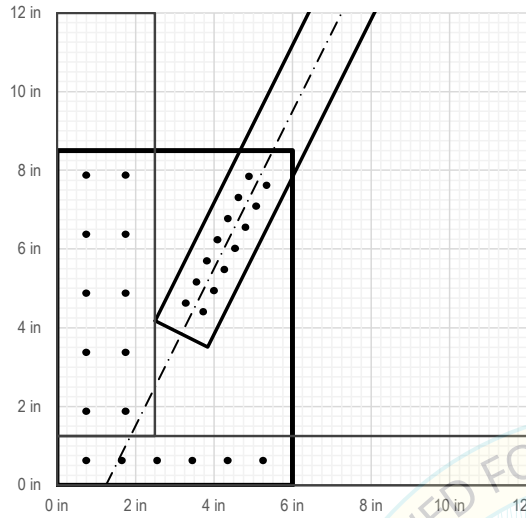
S3

150FS-33-50

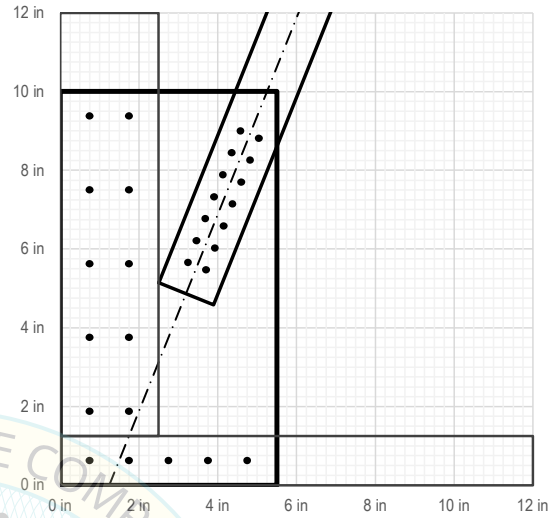
**STRAP TYPE:**

Strap Width 1.50 in Strap Thick. 33 mils Strap Grade 50 ksi

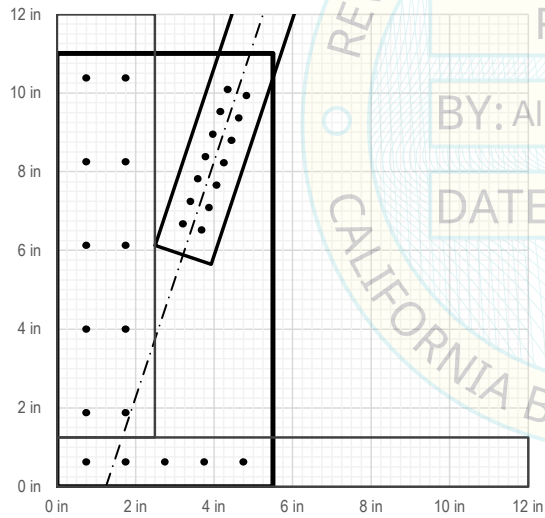
**DETAIL 8.3.5**



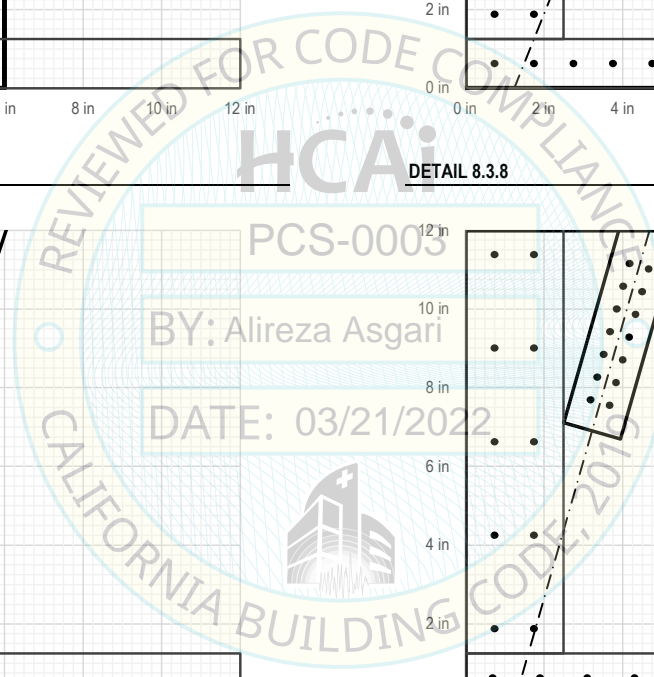
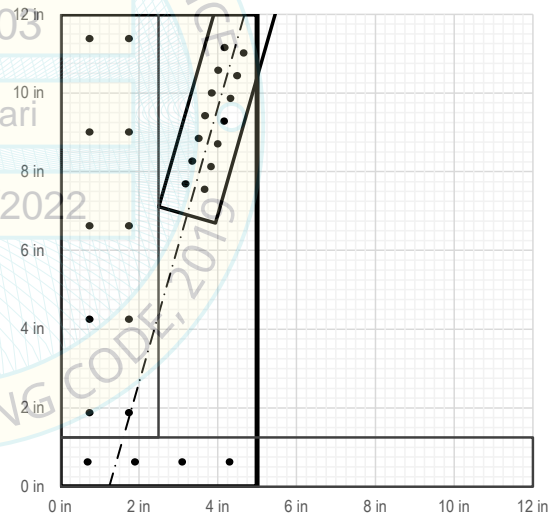
**DETAIL 8.3.6**



**DETAIL 8.3.7**



**DETAIL 8.3.8**



**CONNECTION DETAILS**

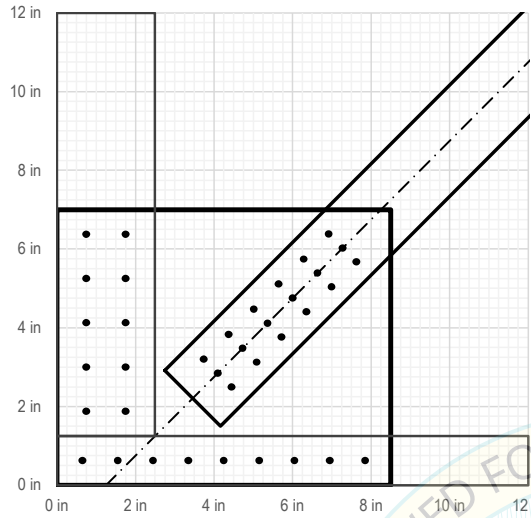
S3

200FS-33-50

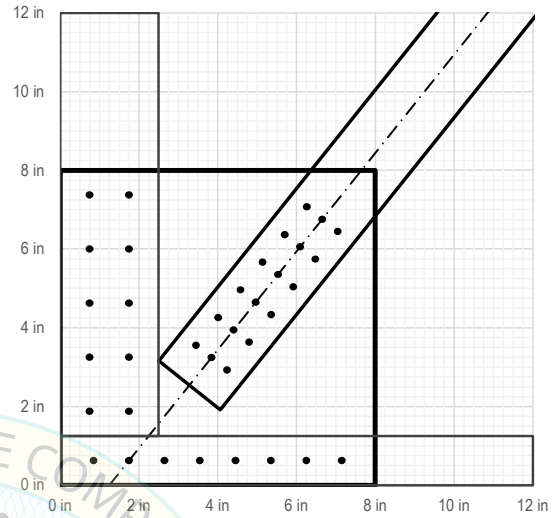
**STRAP TYPE:**

Strap Width 2.00 in Strap Thick. 33 mils Strap Grade 50 ksi

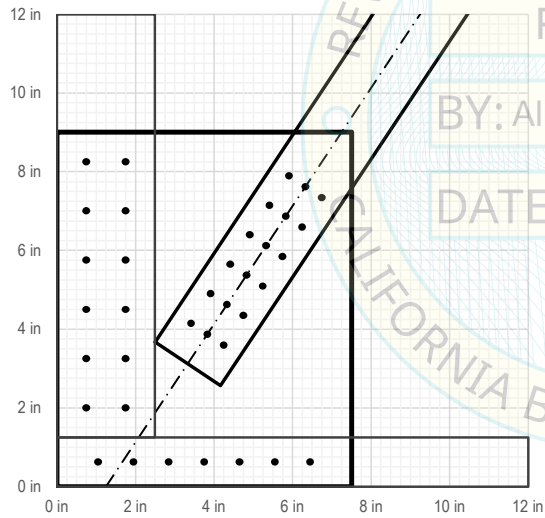
DETAIL 9.1.1



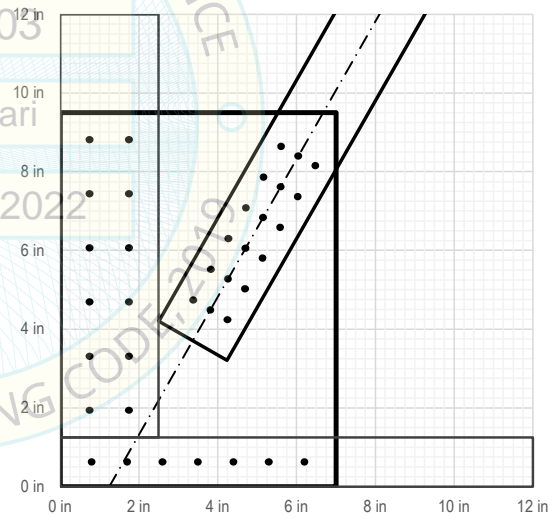
DETAIL 9.1.2



DETAIL 9.1.3



DETAIL 9.1.4



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 PCS-0003  
 BY: Alireza Asgari  
 DATE: 03/21/2022  
 CALIFORNIA BUILDING CODE OFFICIAL



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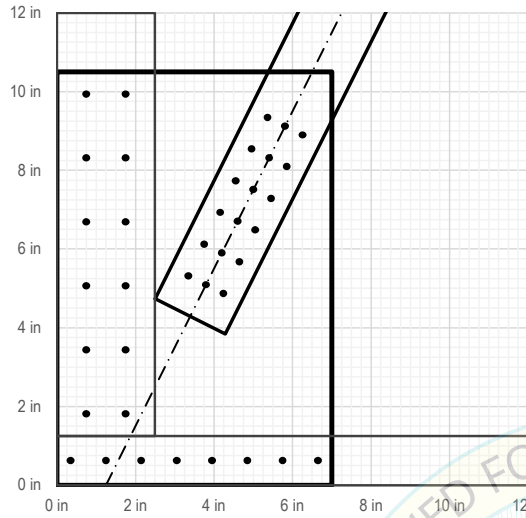
S3

200FS-33-50

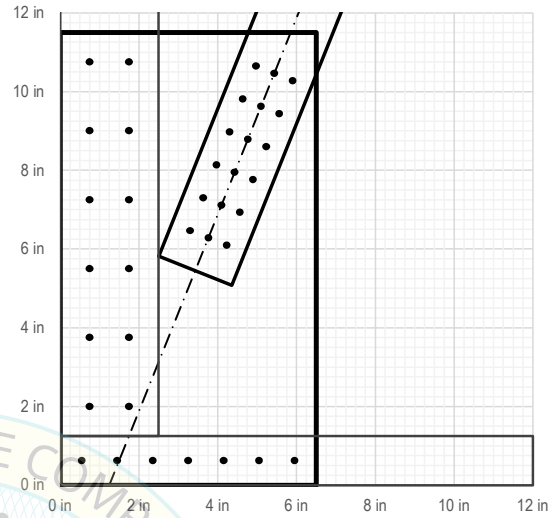
**STRAP TYPE:**

Strap Width 2.00 in Strap Thick. 33 mils Strap Grade 50 ksi

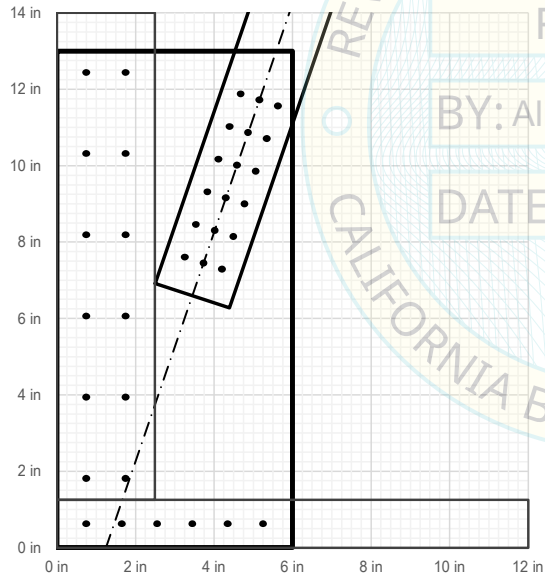
DETAIL 9.1.5



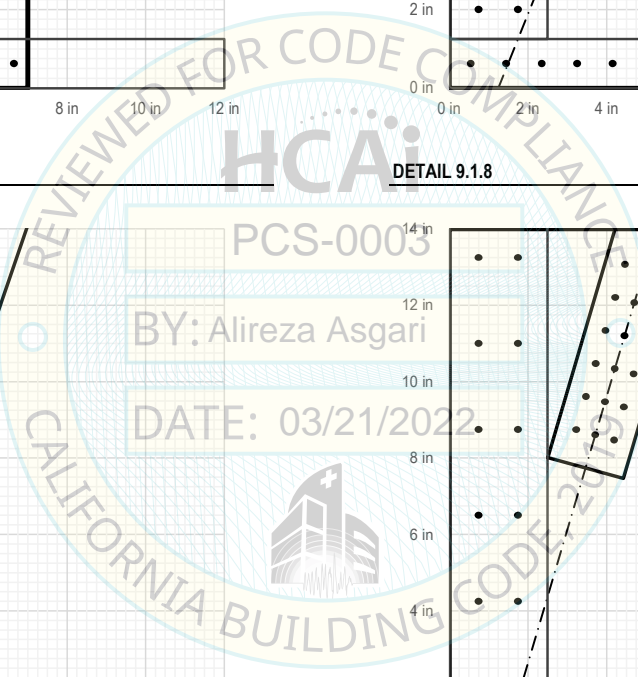
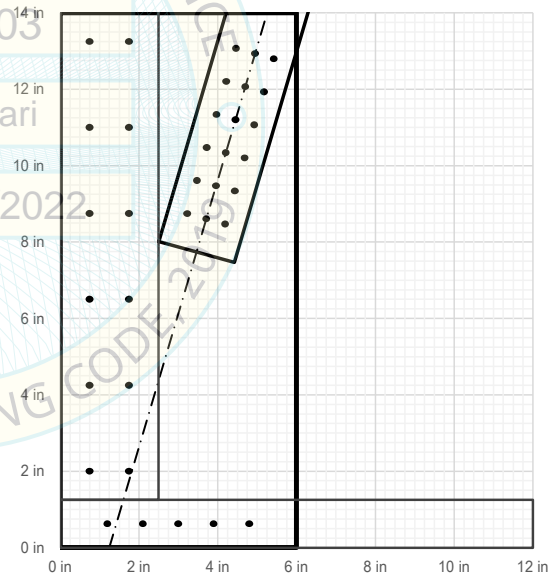
DETAIL 9.1.6



DETAIL 9.1.7



DETAIL 9.1.8



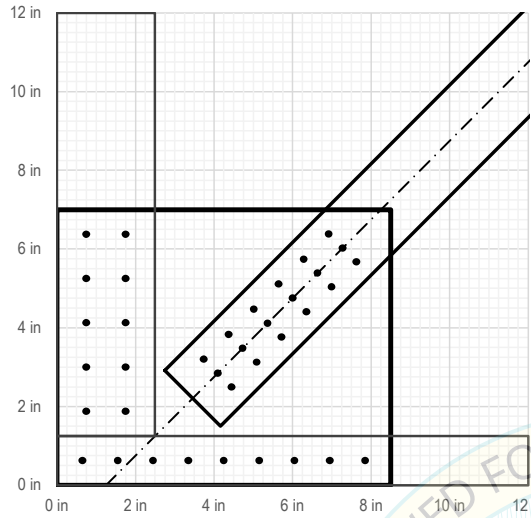
**CONNECTION DETAILS**

S3

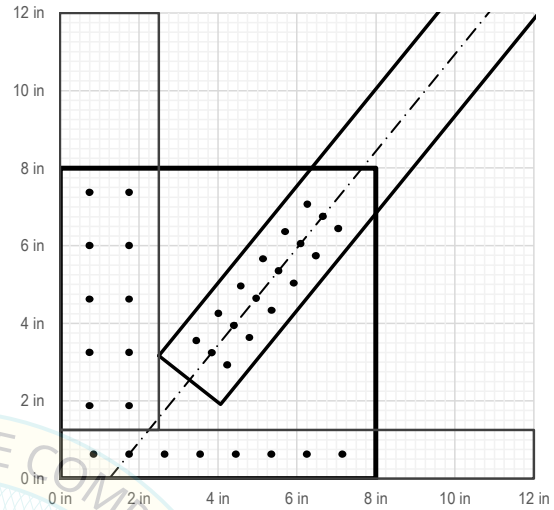
200FS-33-50

|                    |             |         |              |         |             |        |
|--------------------|-------------|---------|--------------|---------|-------------|--------|
| <b>STRAP TYPE:</b> | Strap Width | 2.00 in | Strap Thick. | 33 mils | Strap Grade | 50 ksi |
|--------------------|-------------|---------|--------------|---------|-------------|--------|

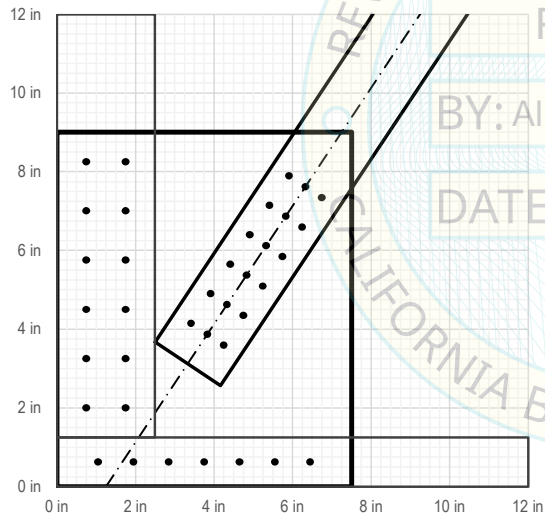
DETAIL 9.2.1



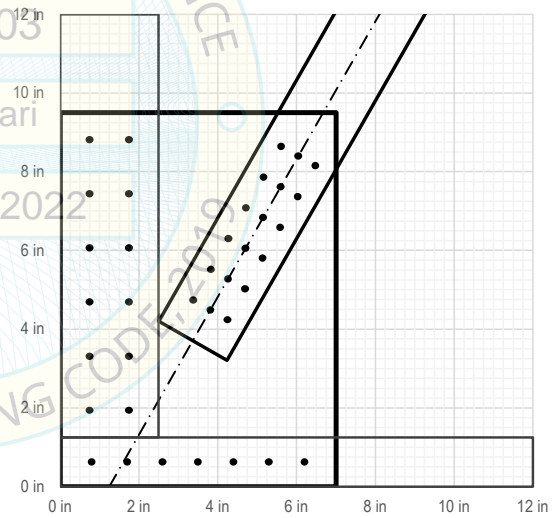
DETAIL 9.2.2



DETAIL 9.2.3



DETAIL 9.2.4



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 DATE: 03/21/2022  
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**CONNECTION DETAILS**

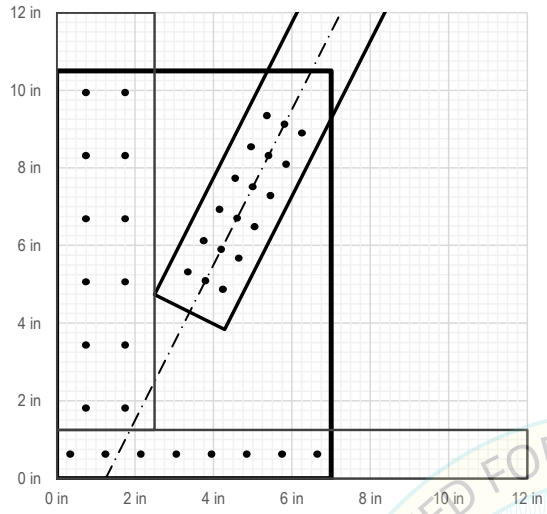
S3

200FS-33-50

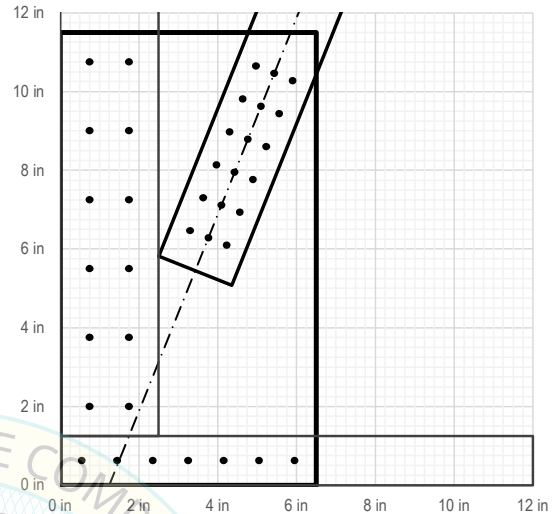
**STRAP TYPE:**

Strap Width 2.00 in Strap Thick. 33 mils Strap Grade 50 ksi

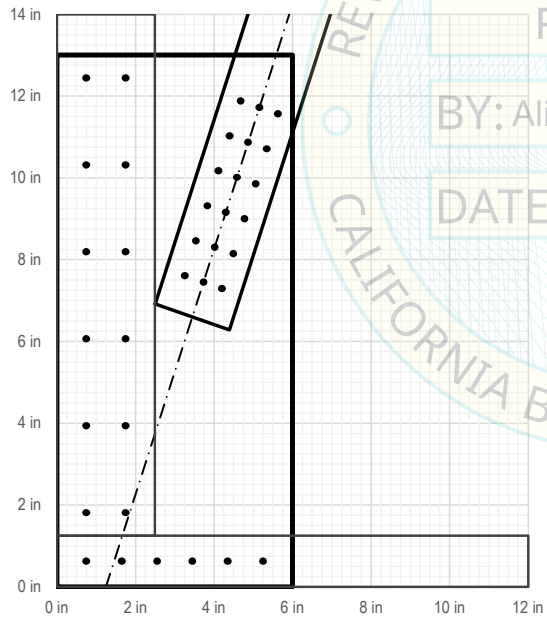
DETAIL 9.2.5



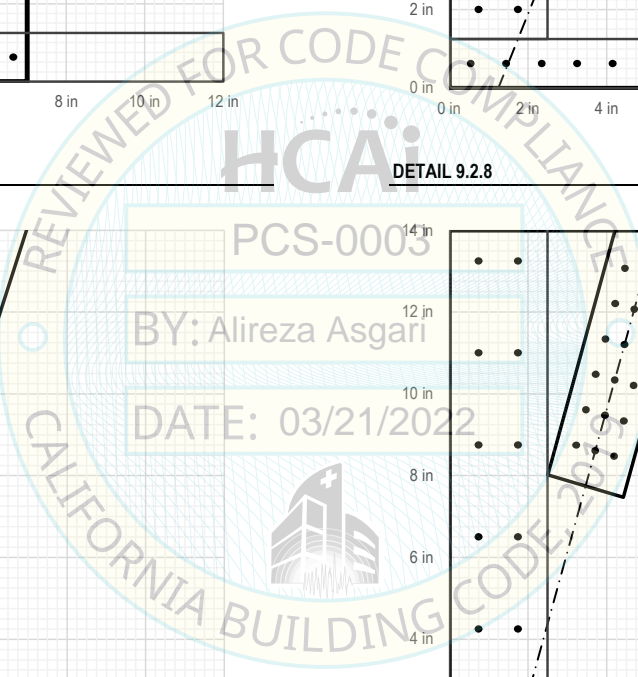
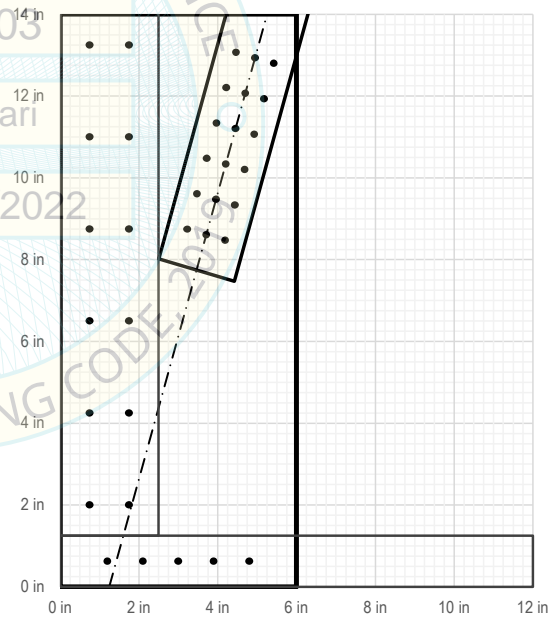
DETAIL 9.2.6



DETAIL 9.2.7



DETAIL 9.2.8



**CONNECTION DETAILS**

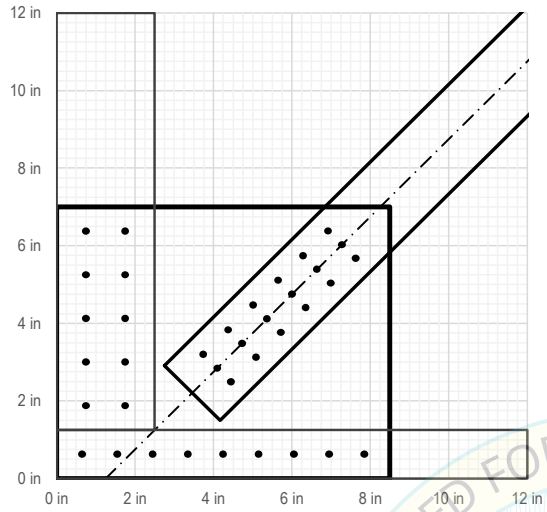
S3

200FS-33-50

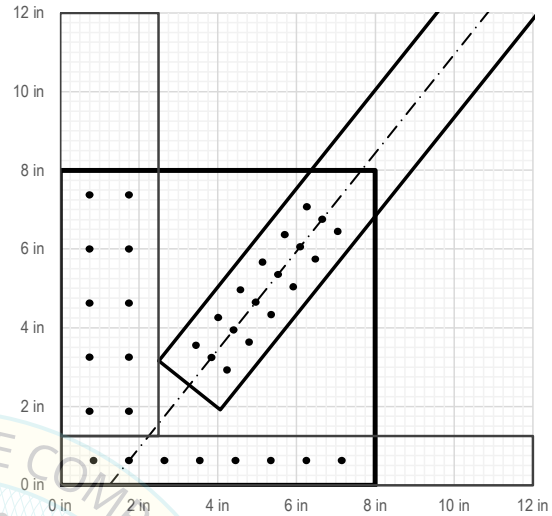
**STRAP TYPE:**

Strap Width 2.00 in Strap Thick. 33 mils Strap Grade 50 ksi

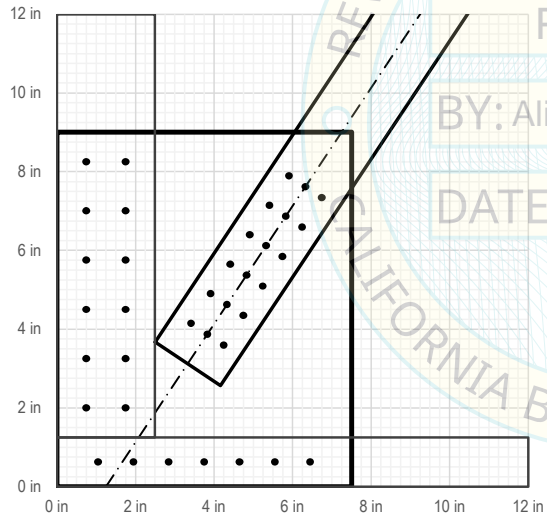
DETAIL 9.3.1



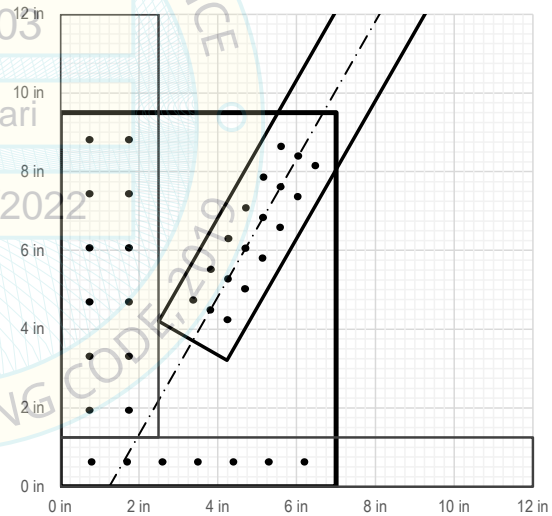
DETAIL 9.3.2



DETAIL 9.3.3



DETAIL 9.3.4



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 DATE: 03/21/2022  
 CALIFORNIA BUILDING CODE SERVICES

**CONNECTION DETAILS**

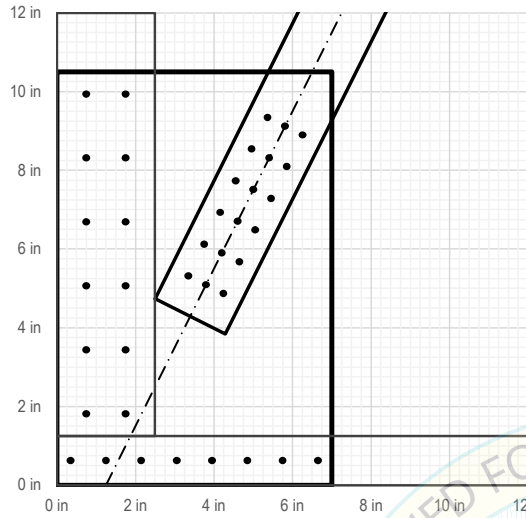
S3

200FS-33-50

**STRAP TYPE:**

Strap Width 2.00 in Strap Thick. 33 mils Strap Grade 50 ksi

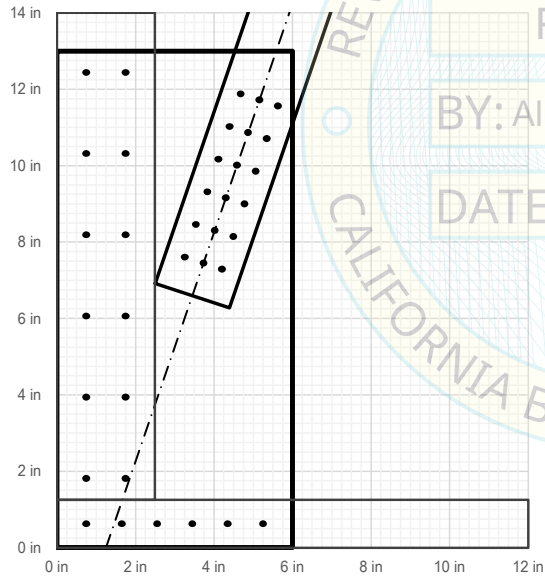
DETAIL 9.3.5



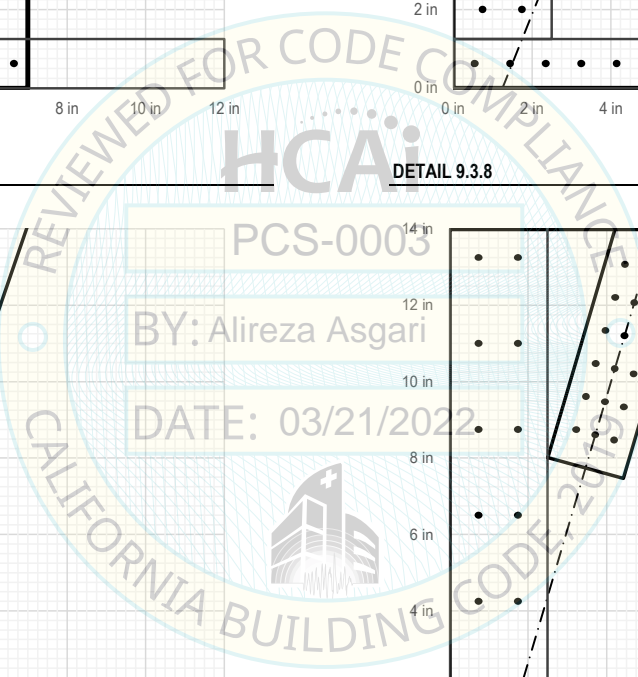
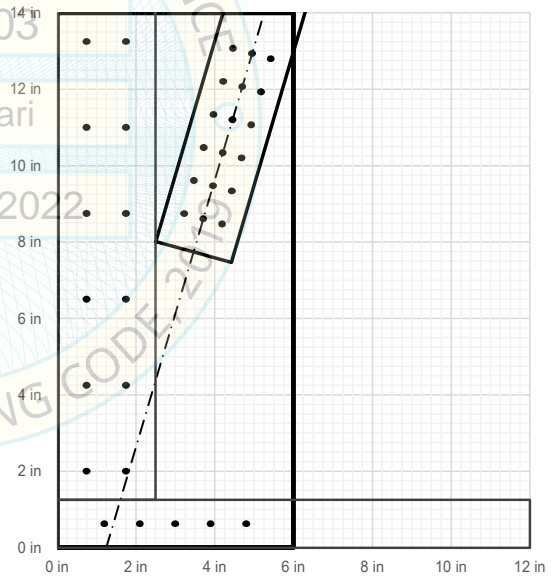
DETAIL 9.3.6



DETAIL 9.3.7



DETAIL 9.3.8





**CONNECTION DETAILS**

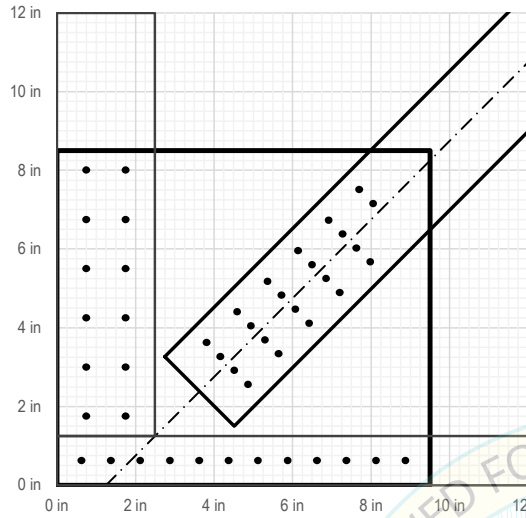
S3

250FS-33-50

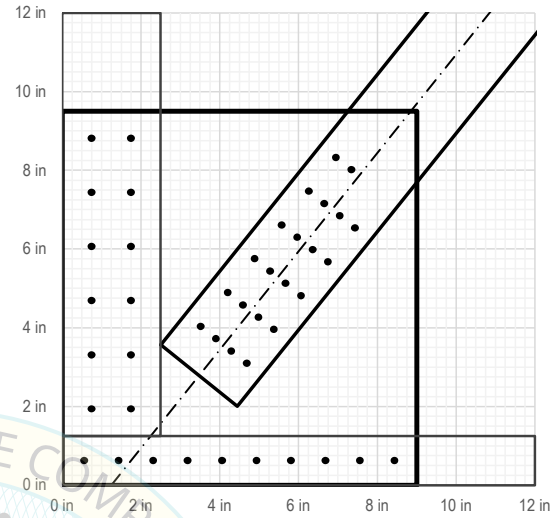
**STRAP TYPE:**

Strap Width 2.50 in Strap Thick. 33 mils Strap Grade 50 ksi

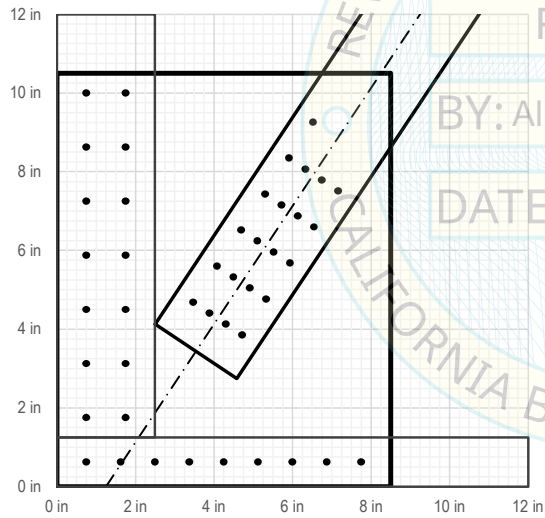
DETAIL 10.1.1



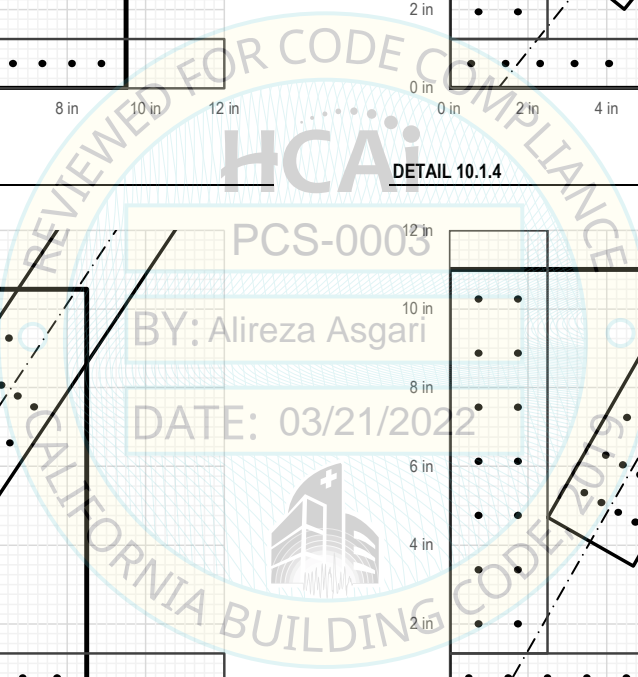
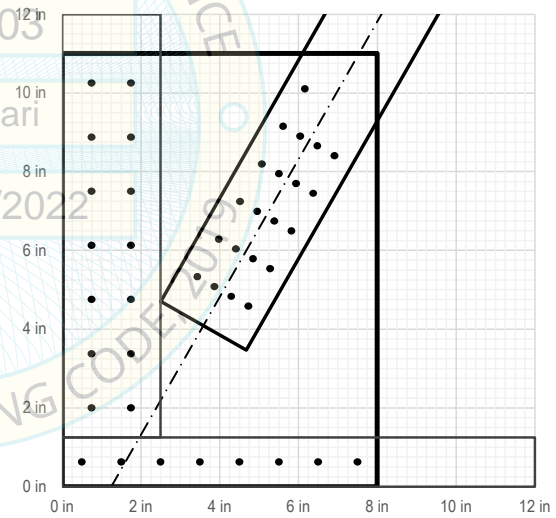
DETAIL 10.1.2



DETAIL 10.1.3



DETAIL 10.1.4



**CONNECTION DETAILS**

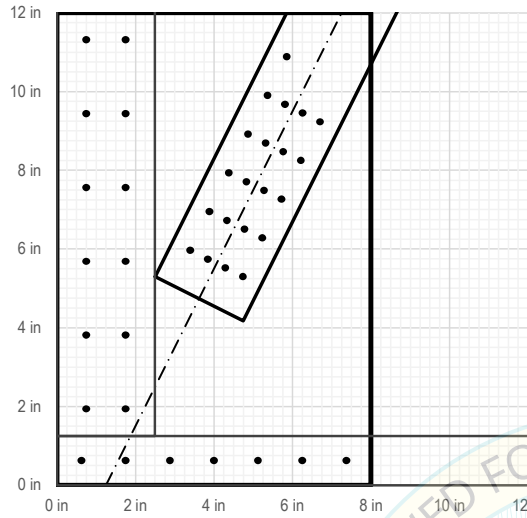
S3

250FS-33-50

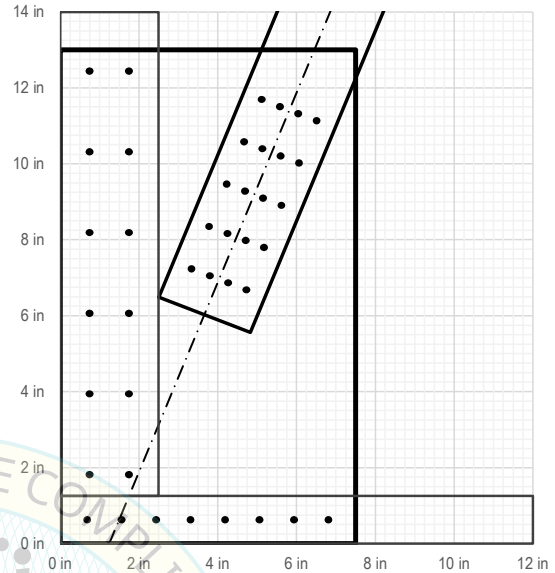
**STRAP TYPE:**

Strap Width 2.50 in Strap Thick. 33 mils Strap Grade 50 ksi

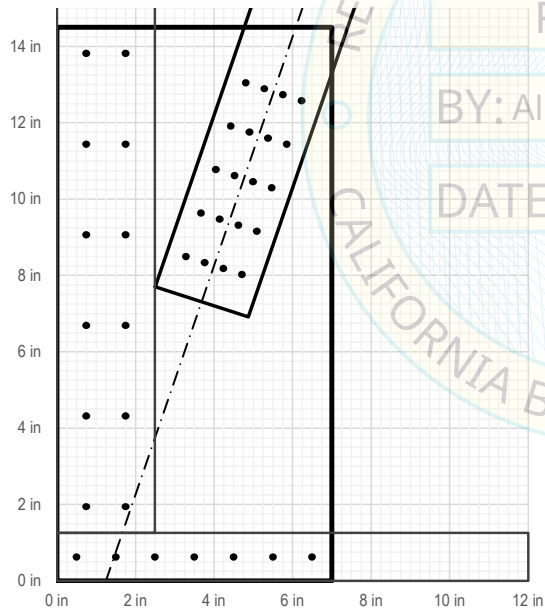
DETAIL 10.1.5



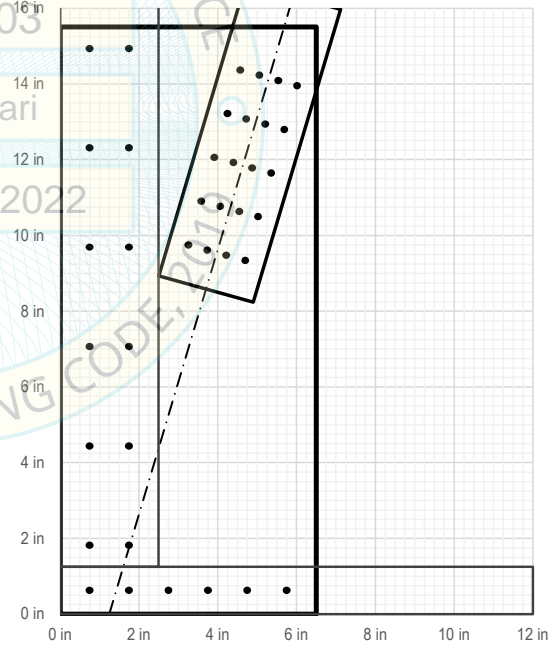
DETAIL 10.1.6



DETAIL 10.1.7



DETAIL 10.1.8



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 HCA  
 PCS-0003  
 BY: Alireza Asgari  
 DATE: 03/21/2022  
 CALIFORNIA BUILDING CODE 2019



**CONNECTION DETAILS**

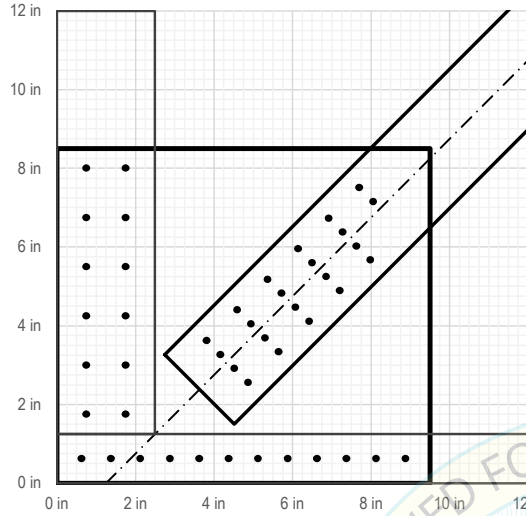
S3

250FS-33-50

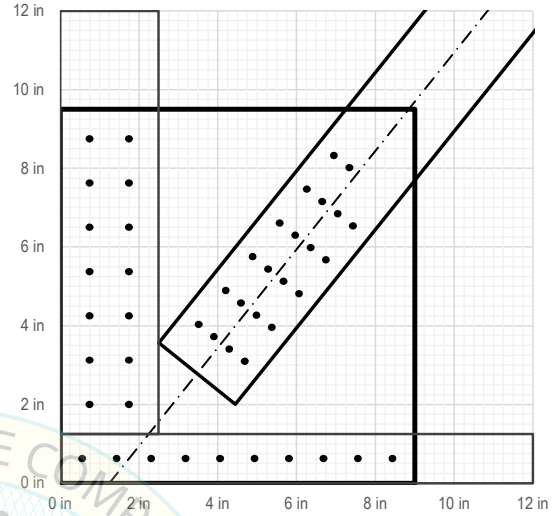
**STRAP TYPE:**

Strap Width 2.50 in Strap Thick. 33 mils Strap Grade 50 ksi

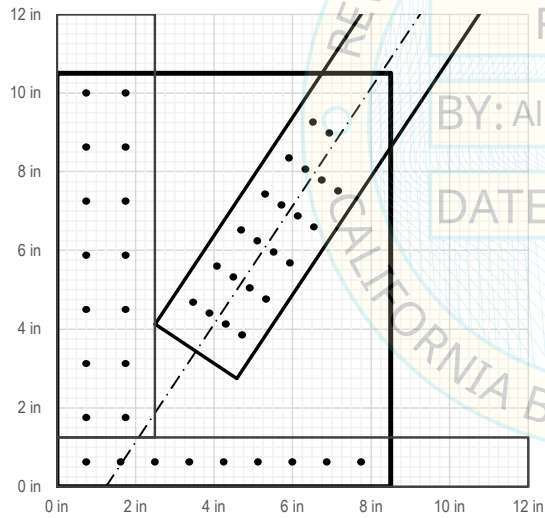
DETAIL 10.2.1



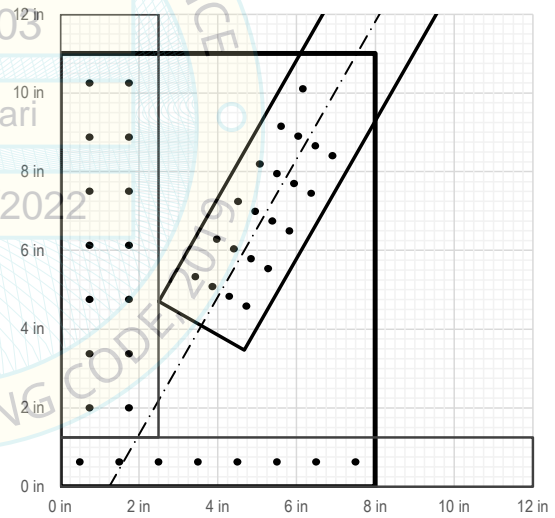
DETAIL 10.2.2



DETAIL 10.2.3



DETAIL 10.2.4



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 DATE: 03/21/2022  
 CALIFORNIA BUILDING CODE



**CONNECTION DETAILS**

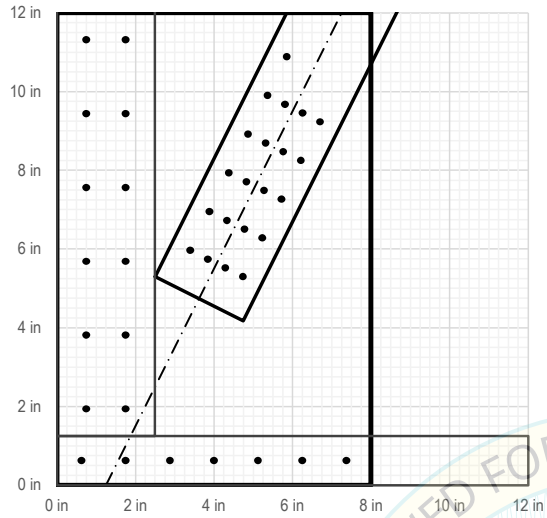
S3

250FS-33-50

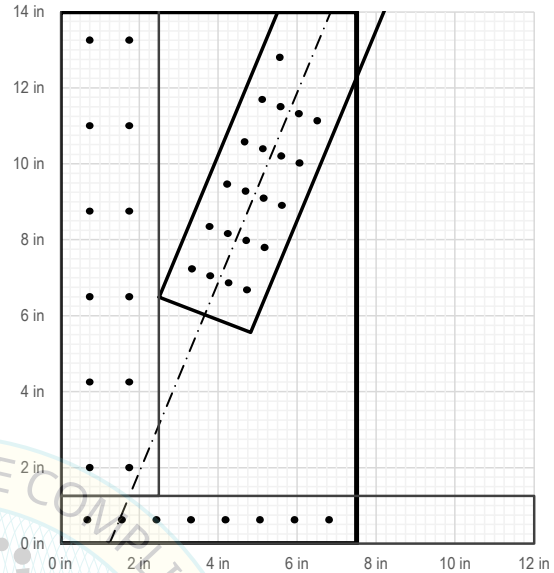
**STRAP TYPE:**

Strap Width 2.50 in Strap Thick. 33 mils Strap Grade 50 ksi

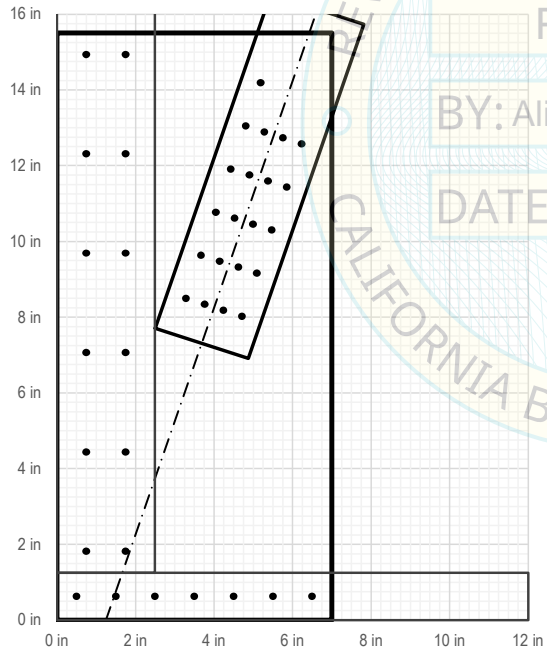
DETAIL 10.2.5



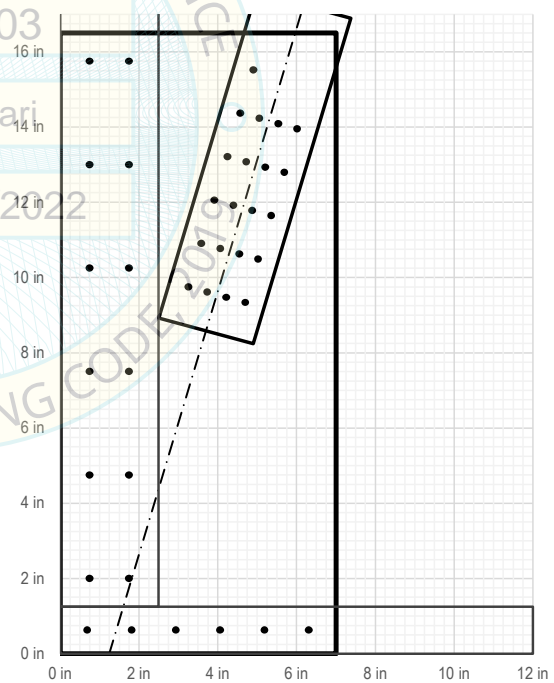
DETAIL 10.2.6



DETAIL 10.2.7



DETAIL 10.2.8



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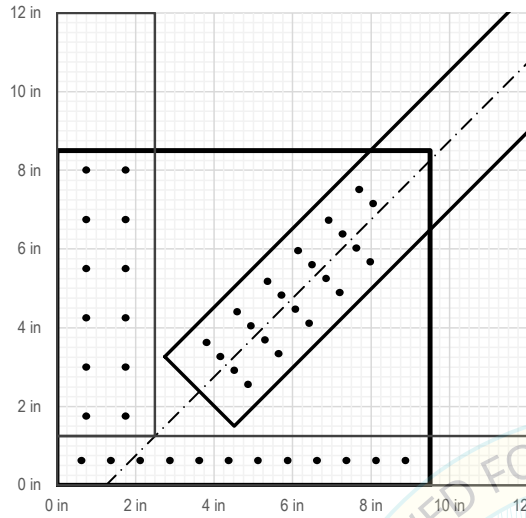
S3

250FS-33-50

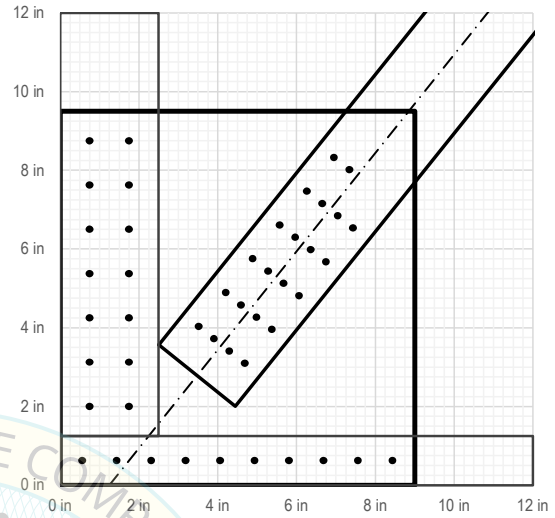
**STRAP TYPE:**

Strap Width 2.50 in Strap Thick. 33 mils Strap Grade 50 ksi

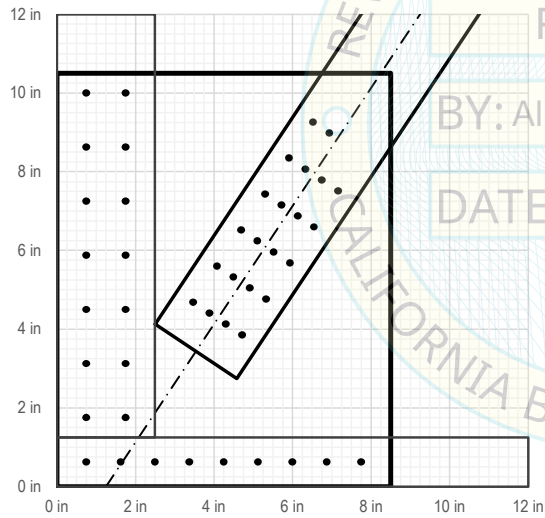
**DETAIL 10.3.1**



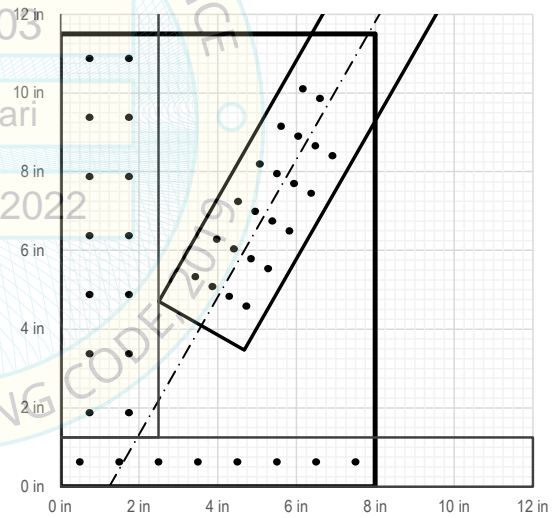
**DETAIL 10.3.2**



**DETAIL 10.3.3**



**DETAIL 10.3.4**



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**CONNECTION DETAILS**

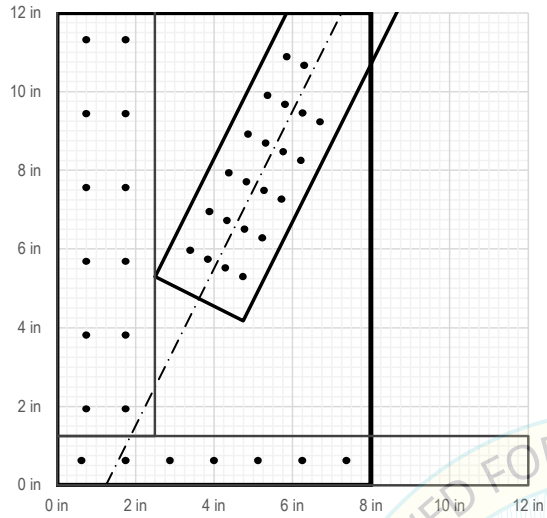
S3

250FS-33-50

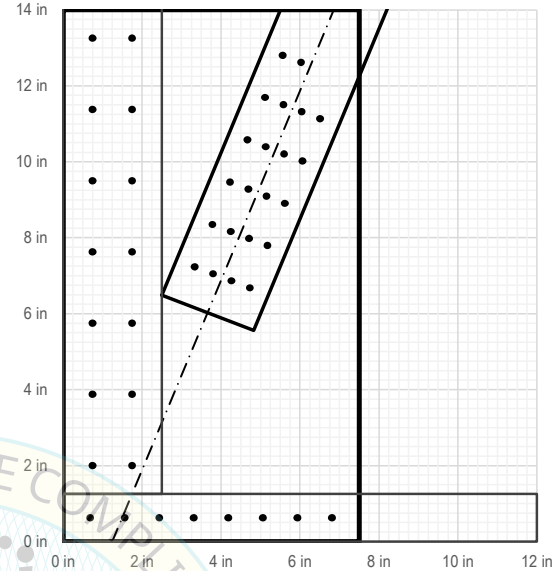
**STRAP TYPE:**

Strap Width 2.50 in Strap Thick. 33 mils Strap Grade 50 ksi

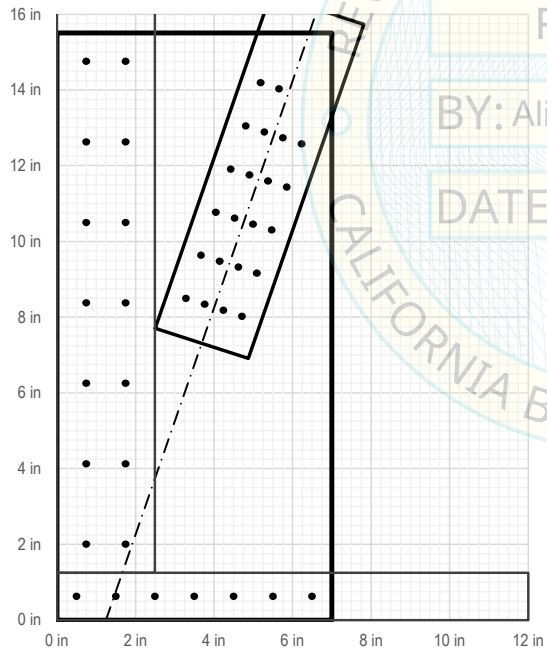
DETAIL 10.3.5



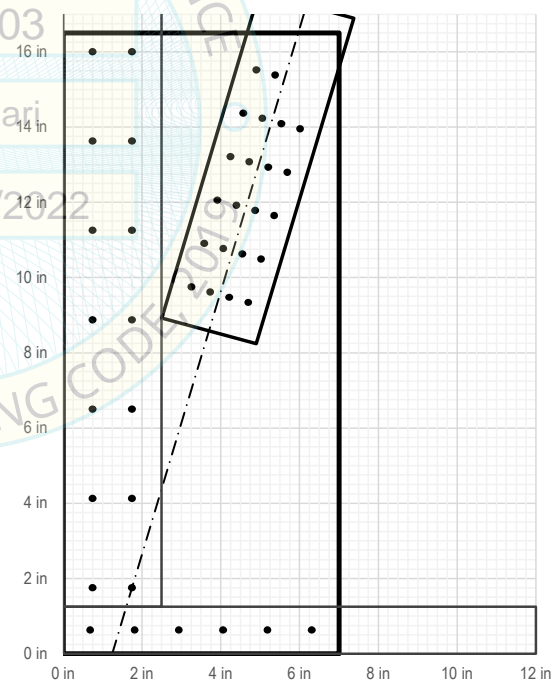
DETAIL 10.3.6



DETAIL 10.3.7



DETAIL 10.3.8



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**CONNECTION DETAILS**

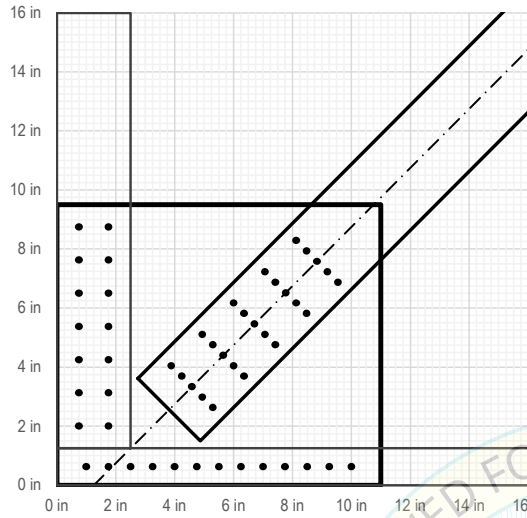
S3

300FS-33-50

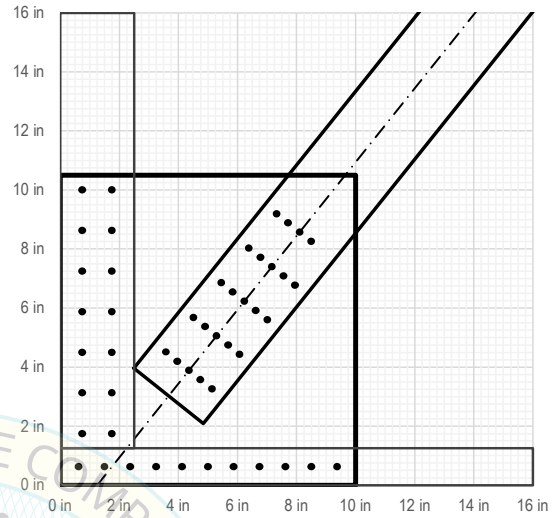
**STRAP TYPE:**

Strap Width 3.00 in Strap Thick. 33 mils Strap Grade 50 ksi

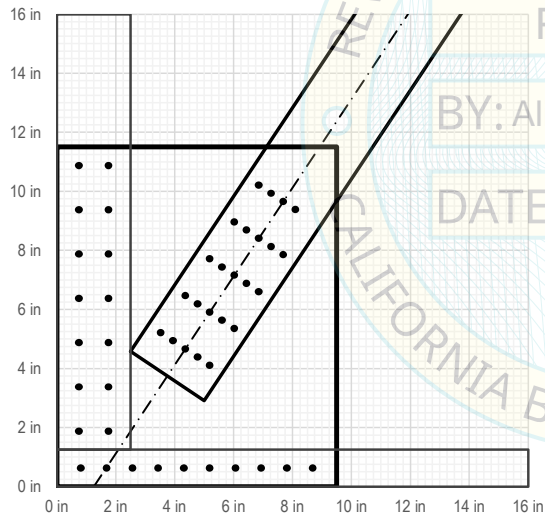
DETAIL 11.1.1



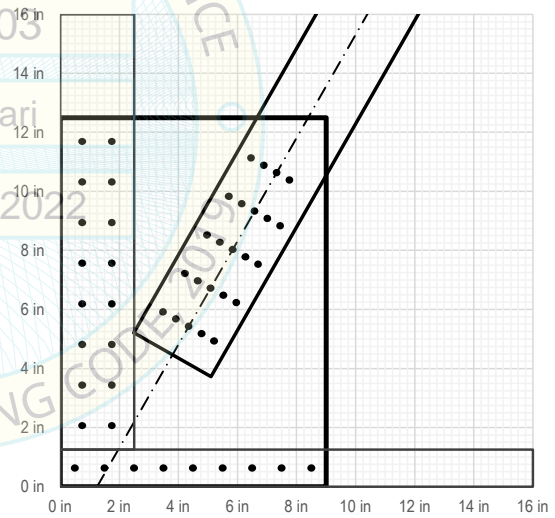
DETAIL 11.1.2



DETAIL 11.1.3



DETAIL 11.1.4



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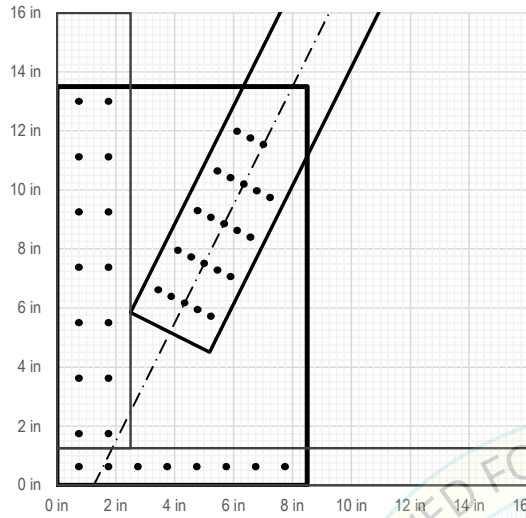
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300FS-33-50

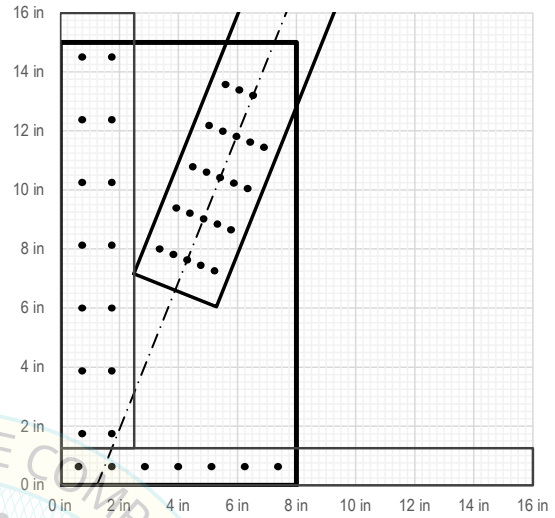
**STRAP TYPE:**

Strap Width 3.00 in Strap Thick. 33 mils Strap Grade 50 ksi

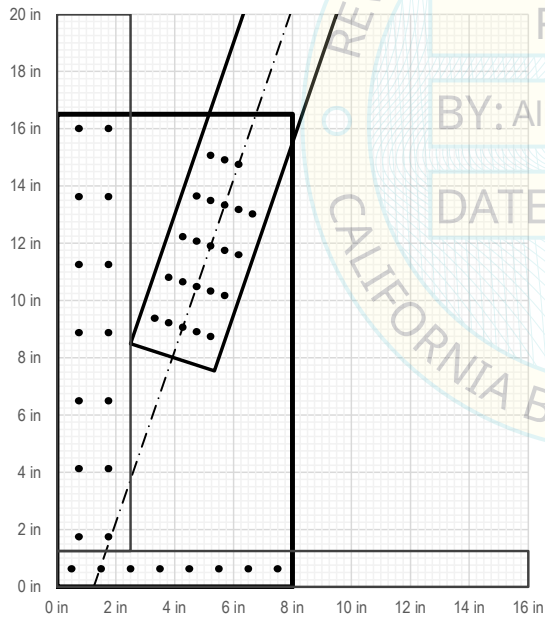
DETAIL 11.1.5



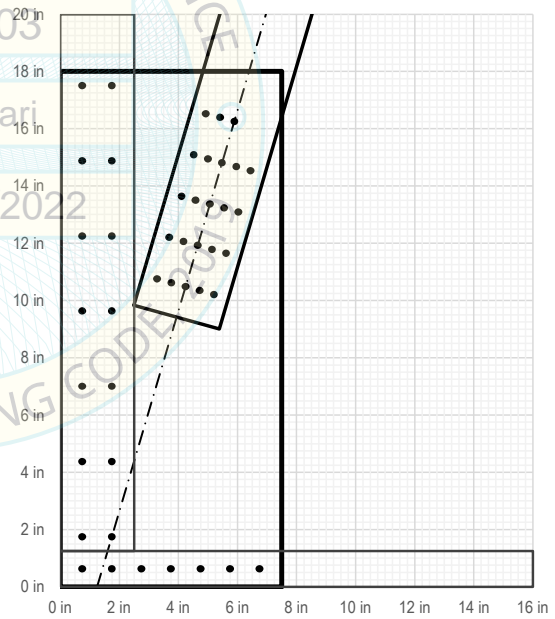
DETAIL 11.1.6



DETAIL 11.1.7



DETAIL 11.1.8



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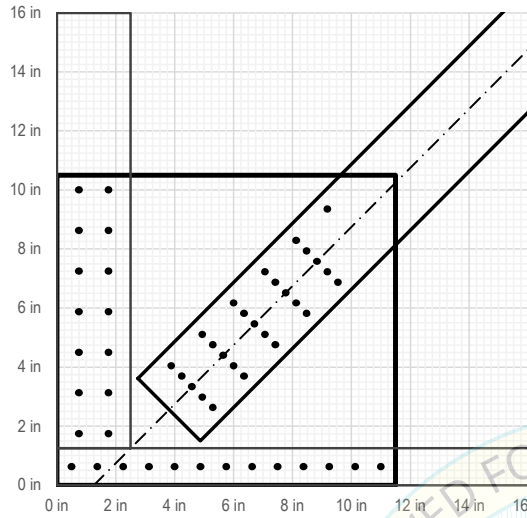
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300FS-33-50

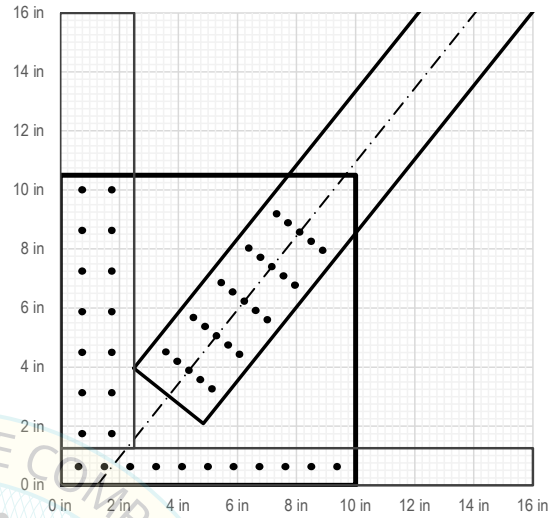
**STRAP TYPE:**

Strap Width 3.00 in Strap Thick. 33 mils Strap Grade 50 ksi

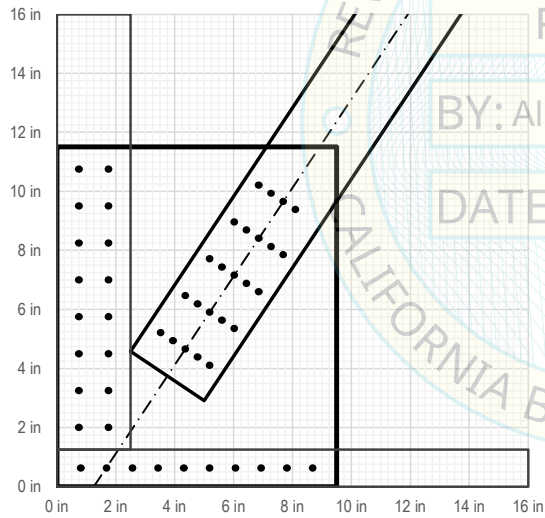
DETAIL 11.2.1



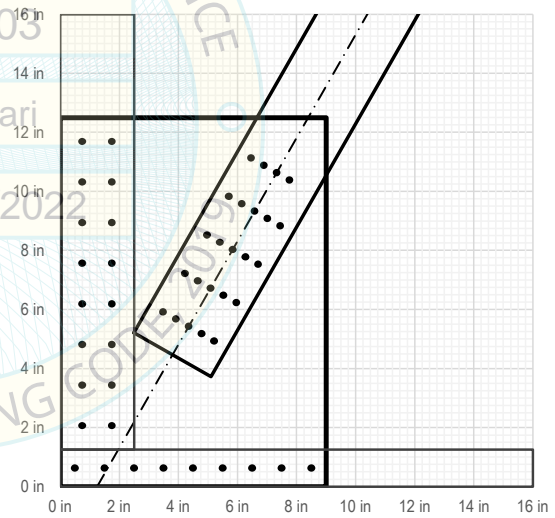
DETAIL 11.2.2



DETAIL 11.2.3



DETAIL 11.2.4



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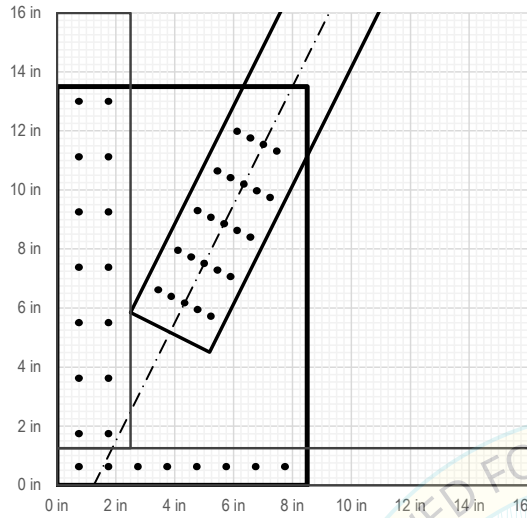
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300FS-33-50

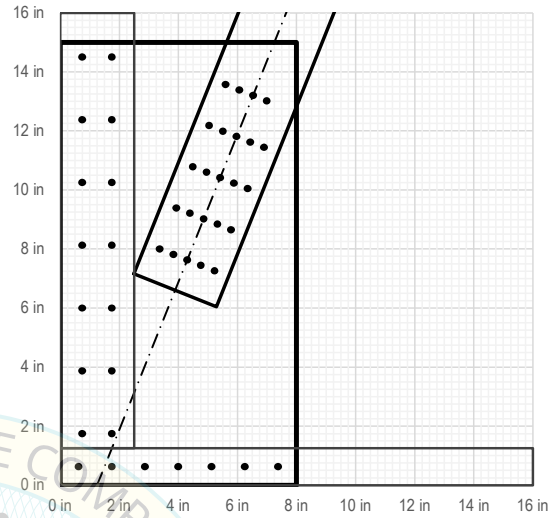
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Strap Width 3.00 in Strap Thick. 33 mils Strap Grade 50 ksi

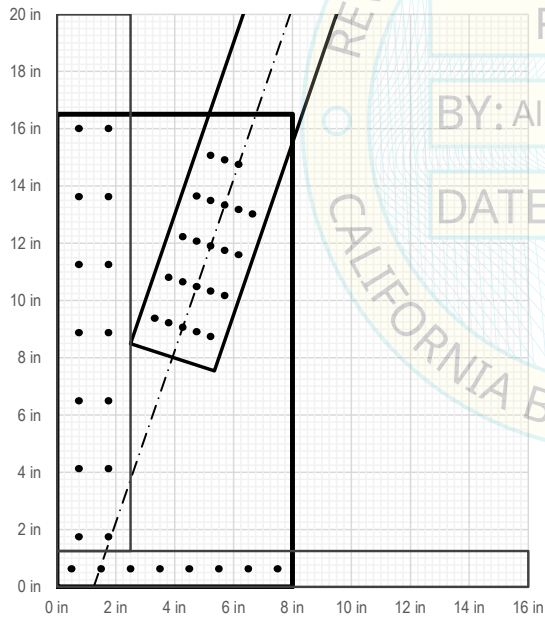
DETAIL 11.2.5



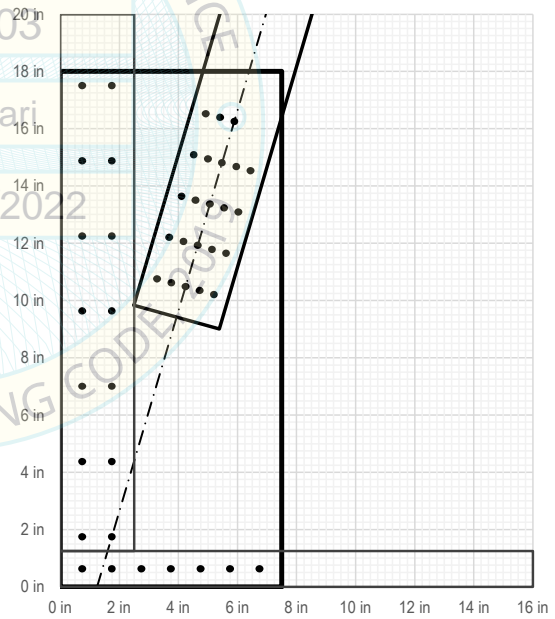
DETAIL 11.2.6



DETAIL 11.2.7



DETAIL 11.2.8



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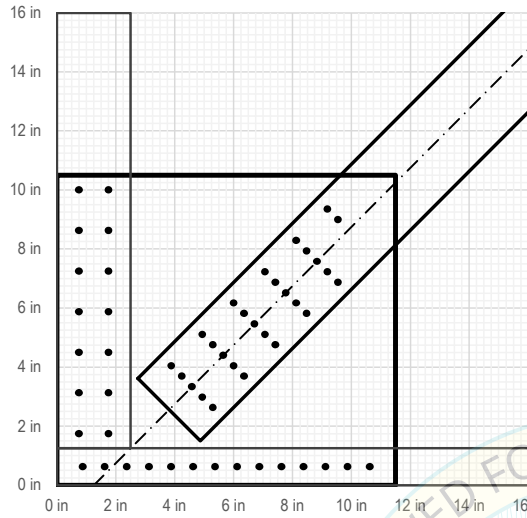
S3

300FS-33-50

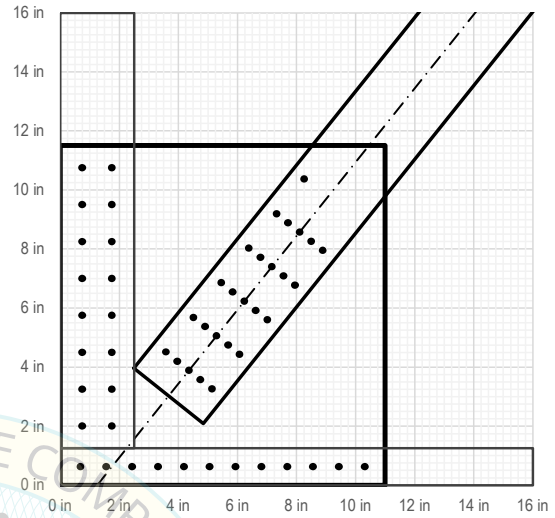
**STRAP TYPE:**

Strap Width 3.00 in Strap Thick. 33 mils Strap Grade 50 ksi

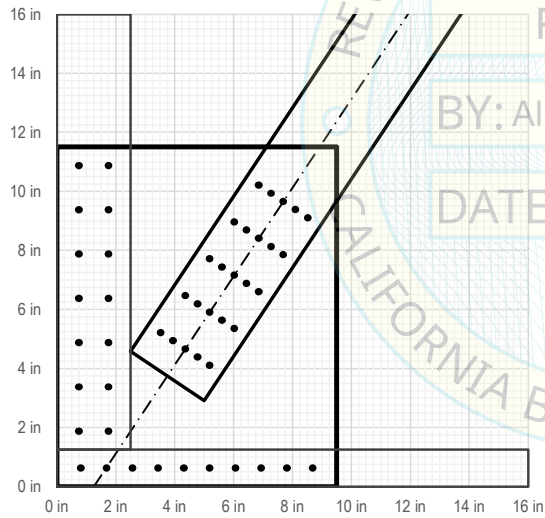
DETAIL 11.3.1



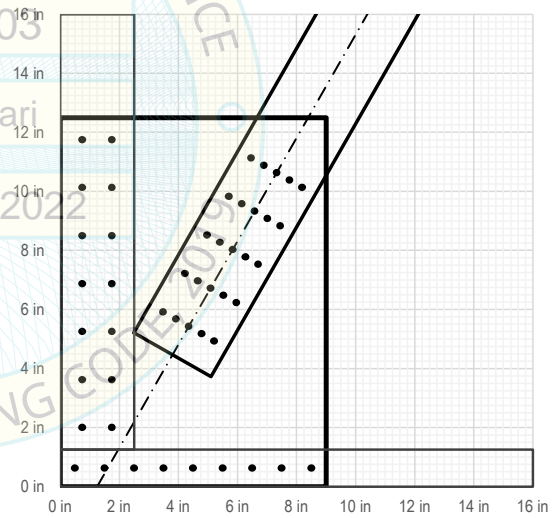
DETAIL 11.3.2



DETAIL 11.3.3



DETAIL 11.3.4



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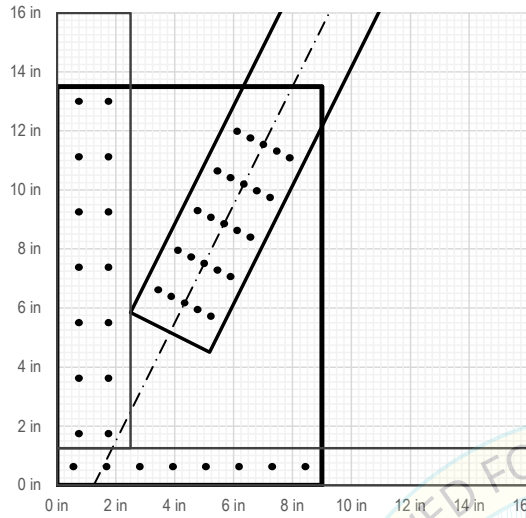
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300FS-33-50

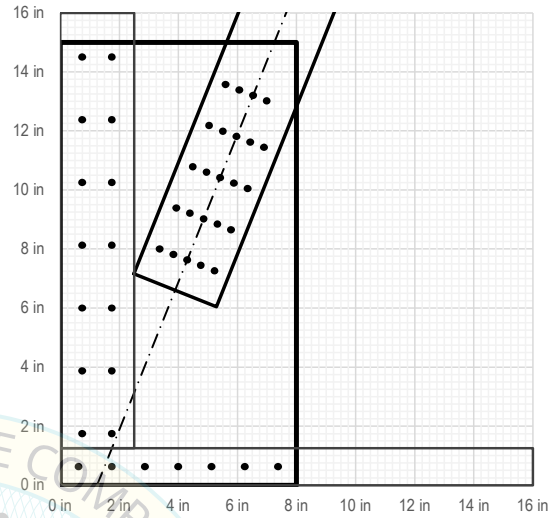
**STRAP TYPE:**

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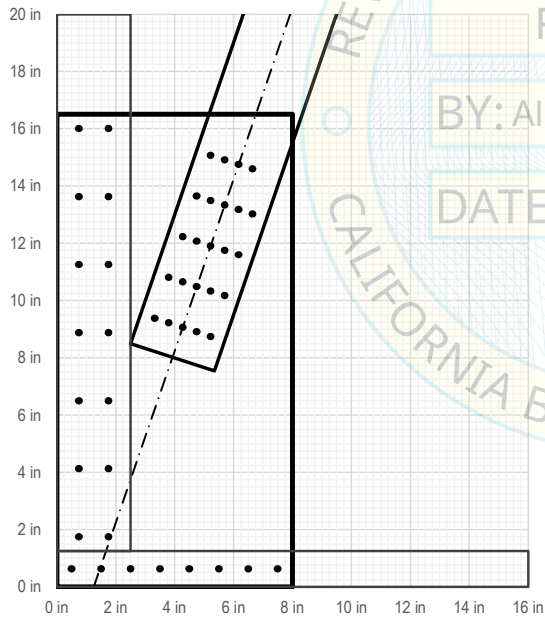
DETAIL 11.3.5



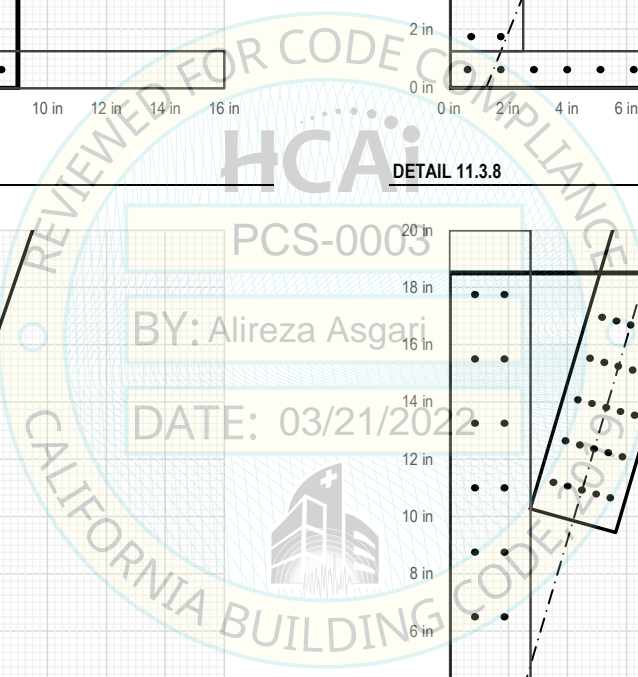
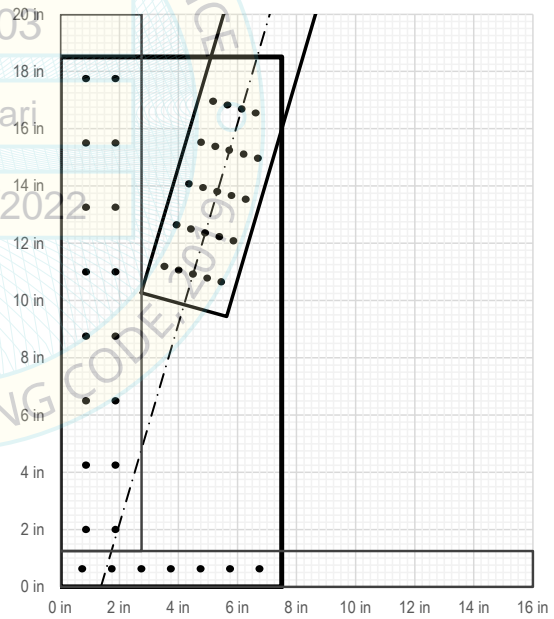
DETAIL 11.3.6



DETAIL 11.3.7



DETAIL 11.3.8



**CONNECTION DETAILS**

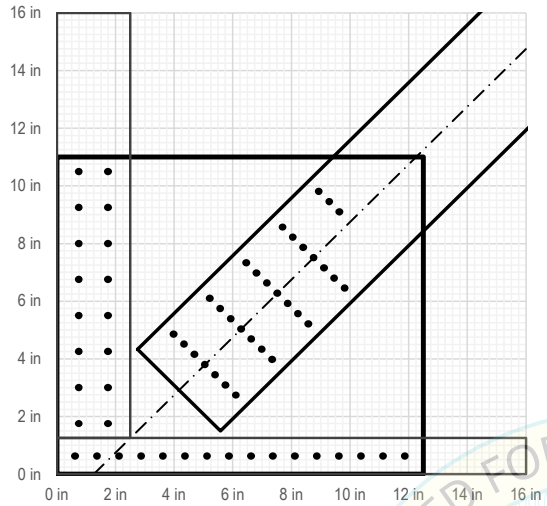
S3

400FS-33-50

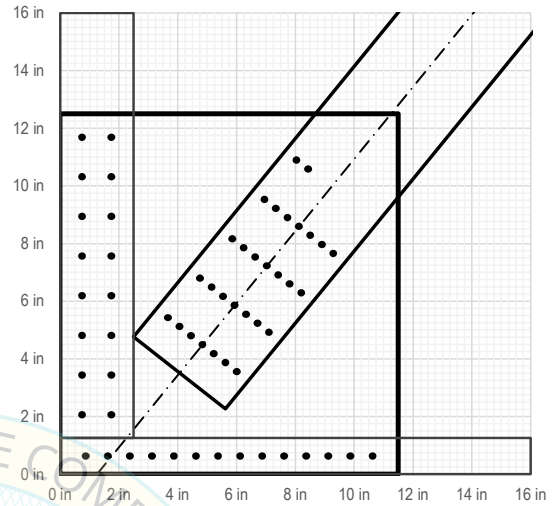
**STRAP TYPE:**

Strap Width 4.00 in Strap Thick. 33 mils Strap Grade 50 ksi

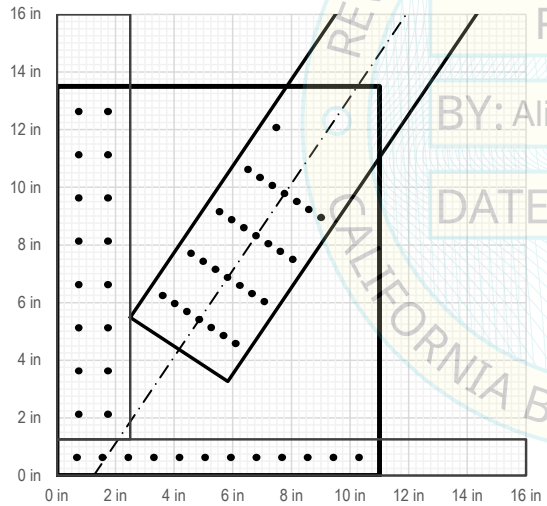
DETAIL 12.1.1



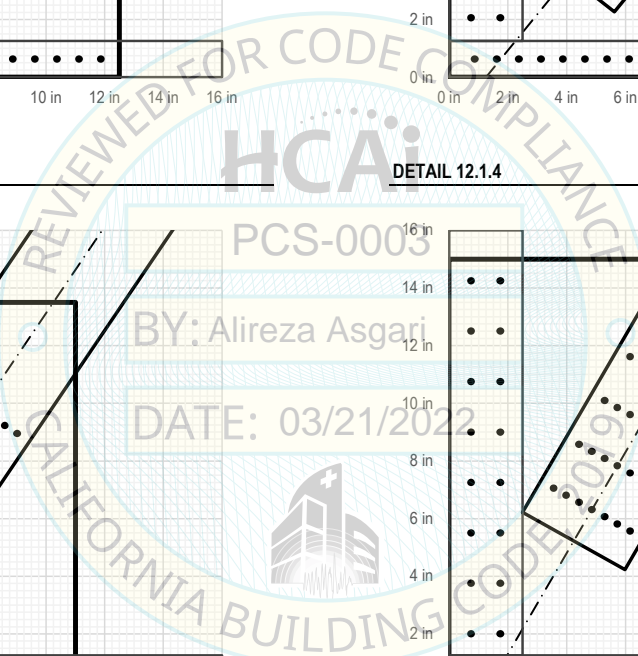
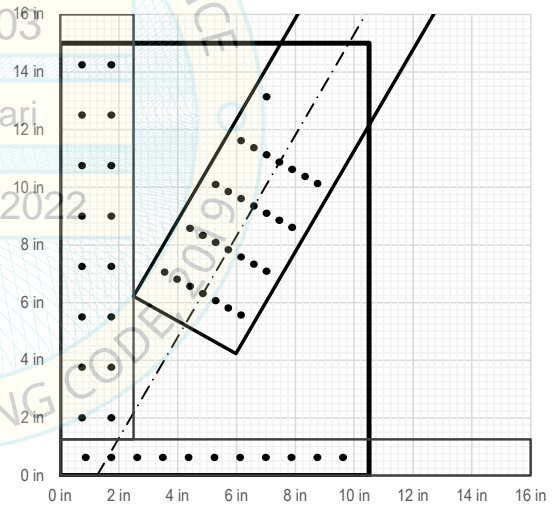
DETAIL 12.1.2



DETAIL 12.1.3



DETAIL 12.1.4



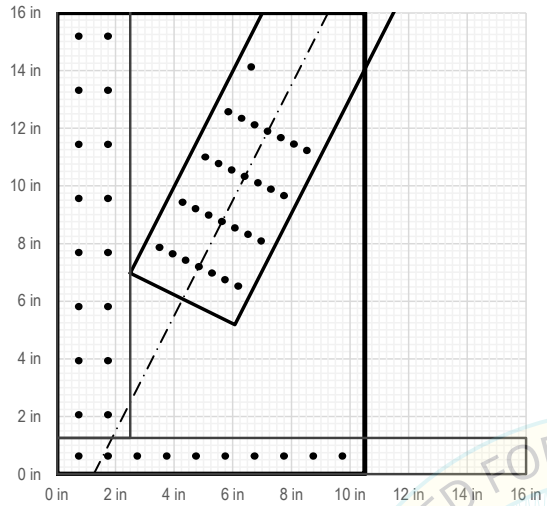
**CONNECTION DETAILS**

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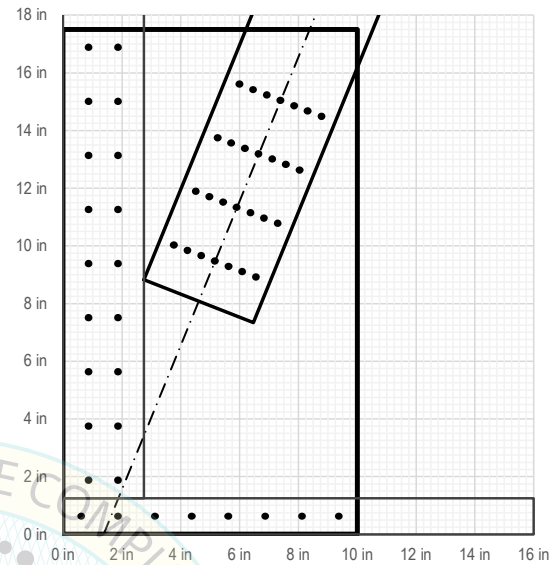
400FS-33-50

|                    |             |         |              |         |             |        |
|--------------------|-------------|---------|--------------|---------|-------------|--------|
| <b>STRAP TYPE:</b> | Strap Width | 4.00 in | Strap Thick. | 33 mils | Strap Grade | 50 ksi |
|--------------------|-------------|---------|--------------|---------|-------------|--------|

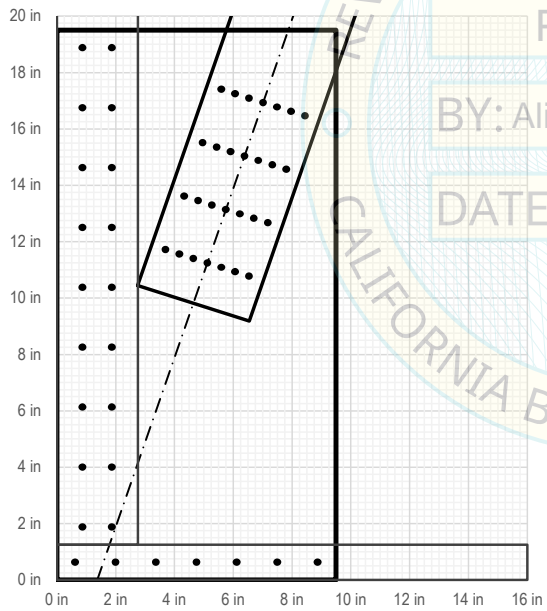
DETAIL 12.1.5



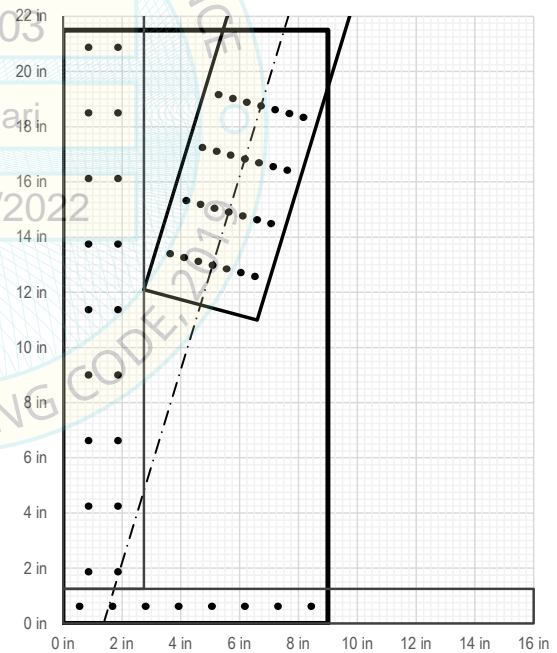
DETAIL 12.1.6



DETAIL 12.1.7



DETAIL 12.1.8



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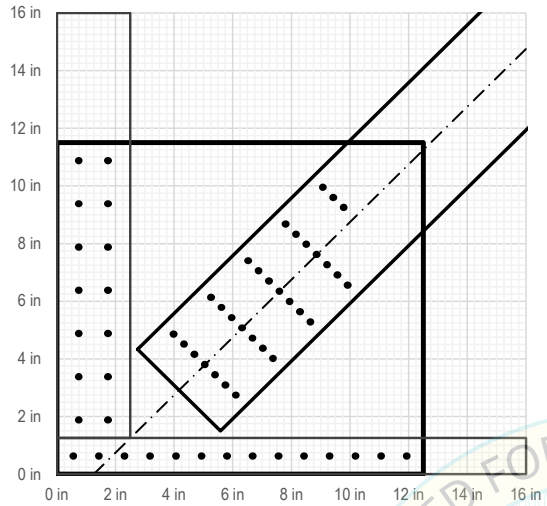
S3

400FS-33-50

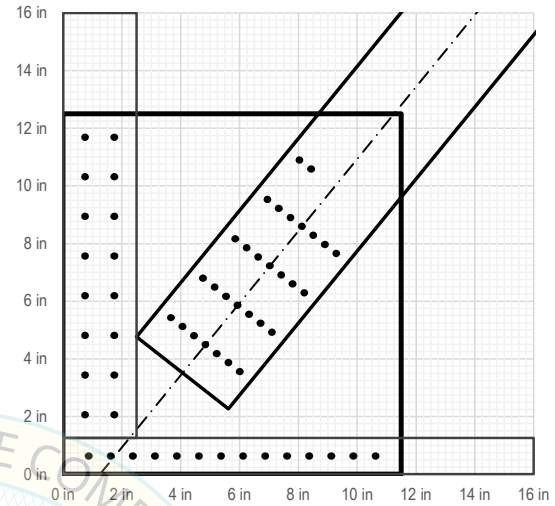
**STRAP TYPE:**

Strap Width 4.00 in Strap Thick. 33 mils Strap Grade 50 ksi

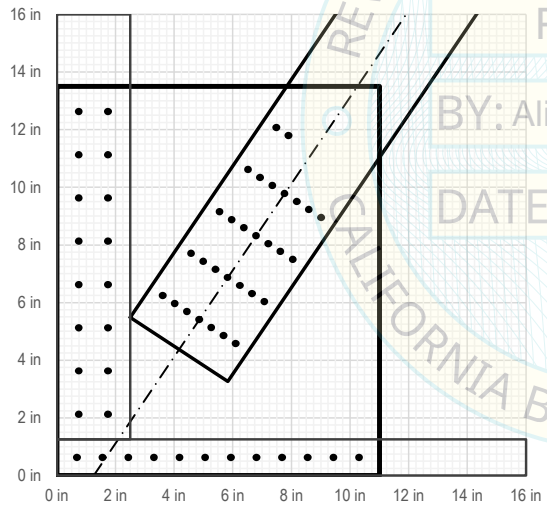
DETAIL 12.2.1



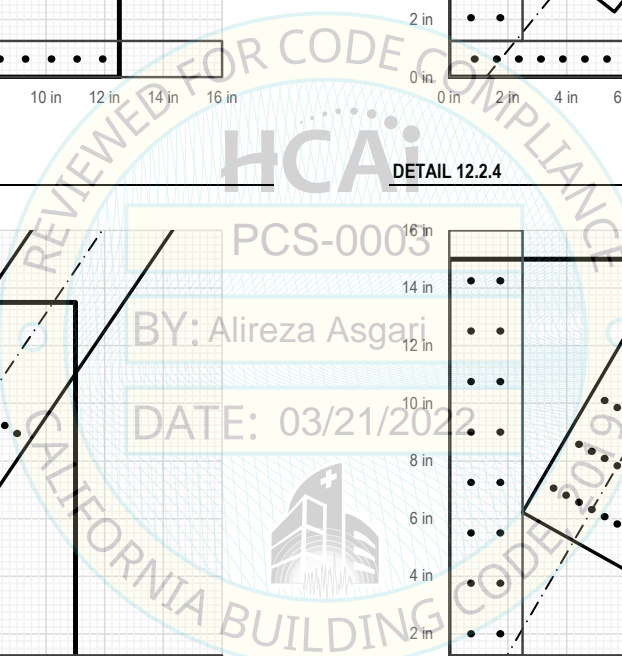
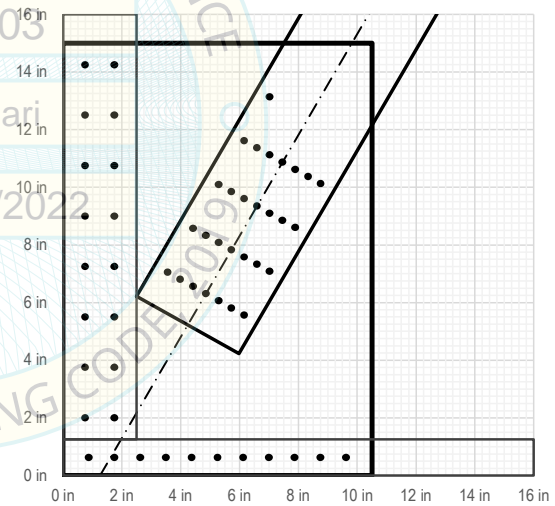
DETAIL 12.2.2



DETAIL 12.2.3



DETAIL 12.2.4



**CONNECTION DETAILS**

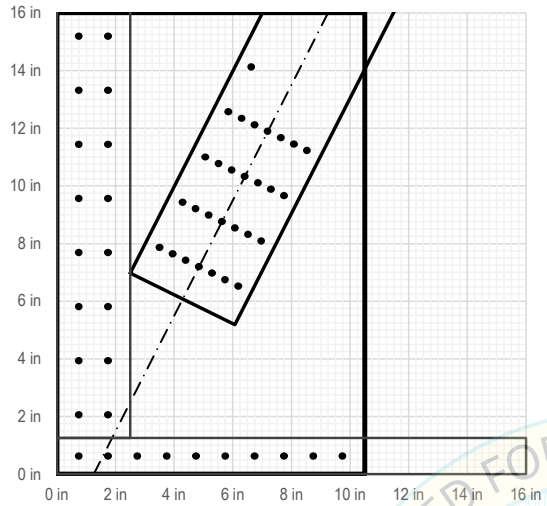
S3

400FS-33-50

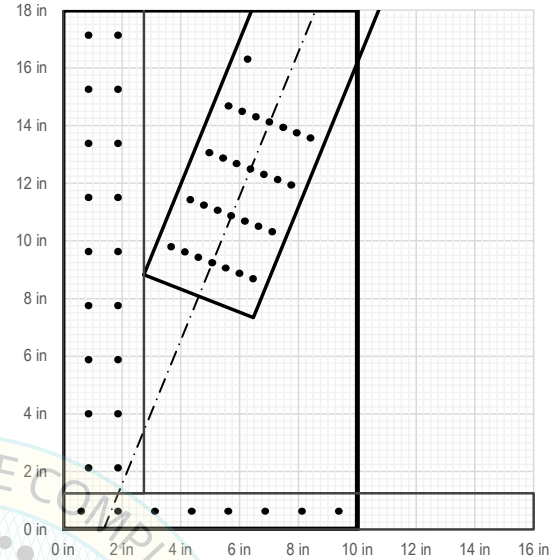
**STRAP TYPE:**

Strap Width 4.00 in Strap Thick. 33 mils Strap Grade 50 ksi

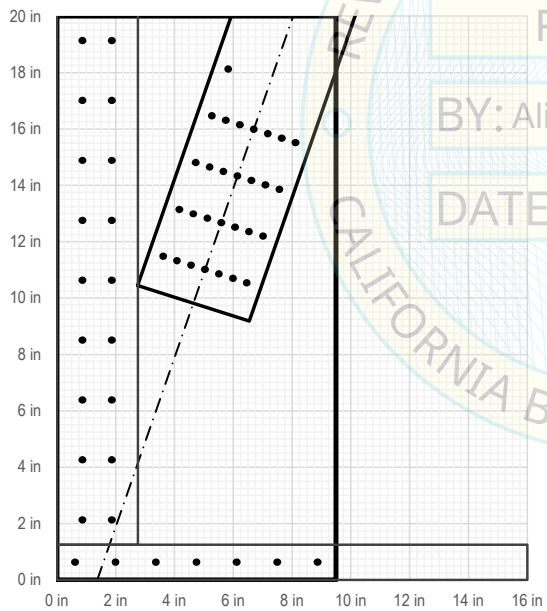
DETAIL 12.2.5



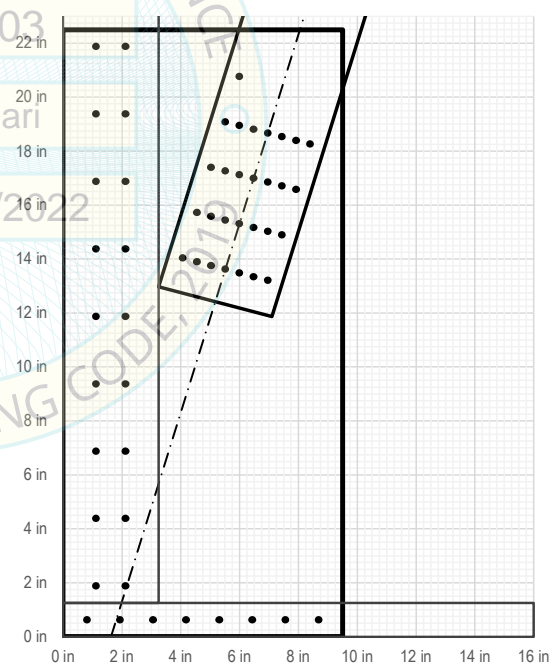
DETAIL 12.2.6



DETAIL 12.2.7



DETAIL 12.2.8



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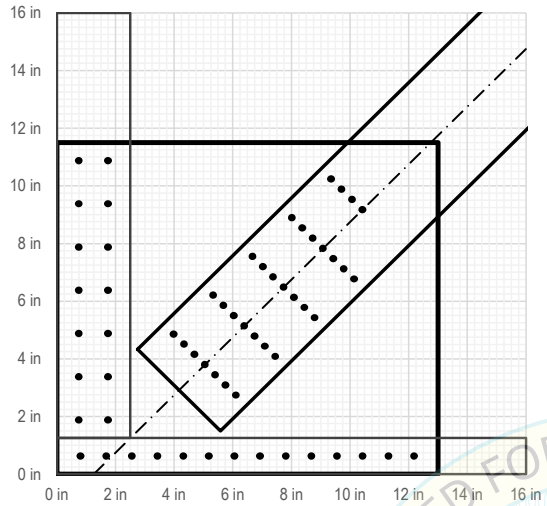
S3

400FS-33-50

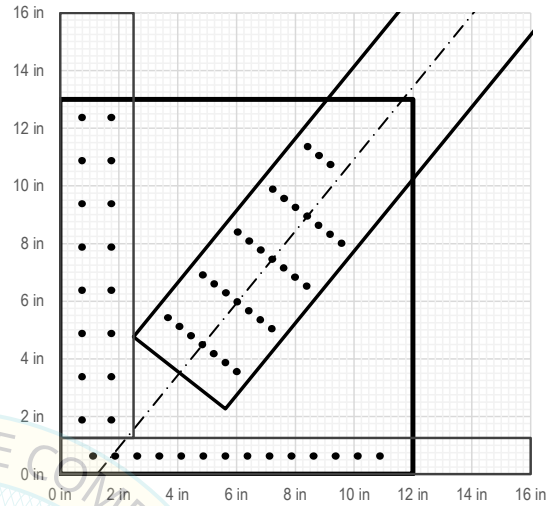
**STRAP TYPE:**

Strap Width 4.00 in Strap Thick. 33 mils Strap Grade 50 ksi

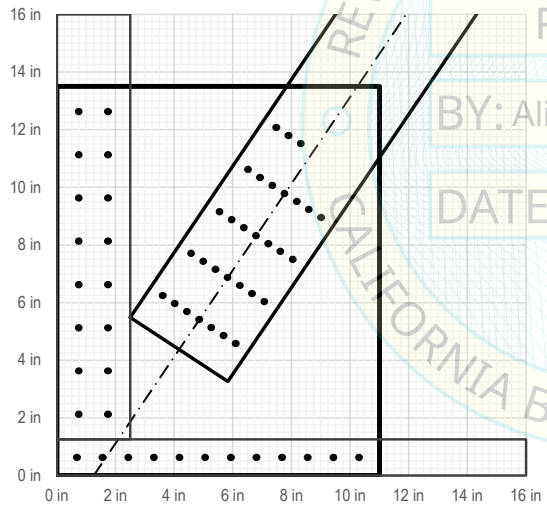
DETAIL 12.3.1



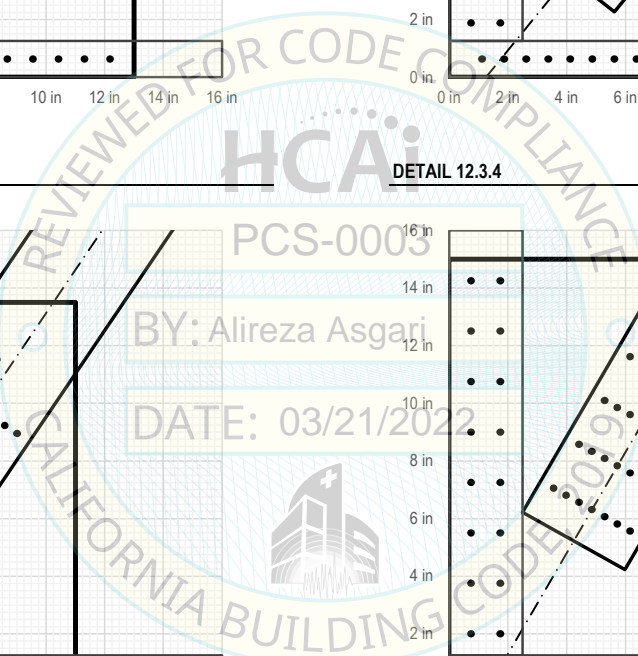
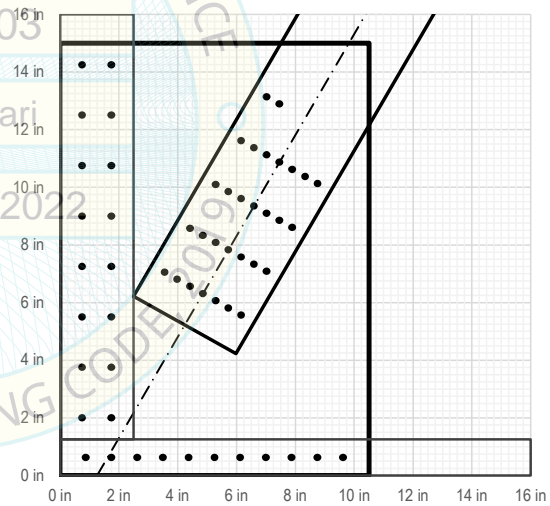
DETAIL 12.3.2



DETAIL 12.3.3



DETAIL 12.3.4



**CONNECTION DETAILS**

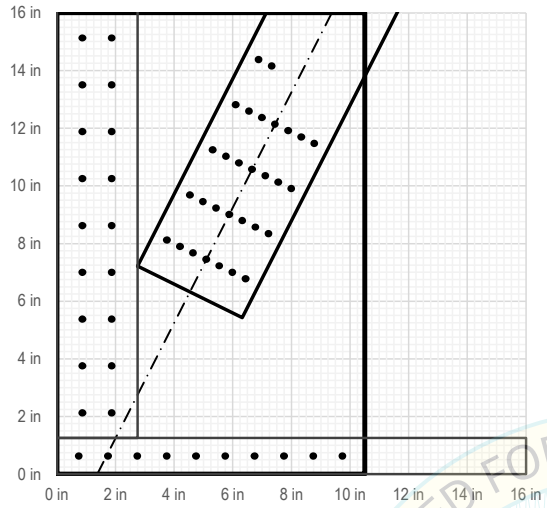
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400FS-33-50

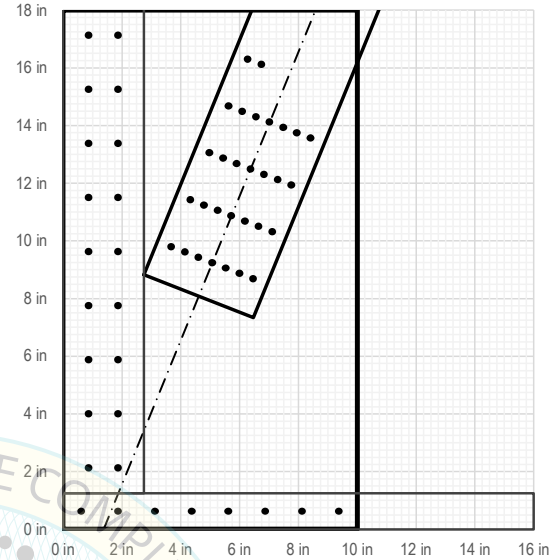
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Strap Width 4.00 in Strap Thick. 33 mils Strap Grade 50 ksi

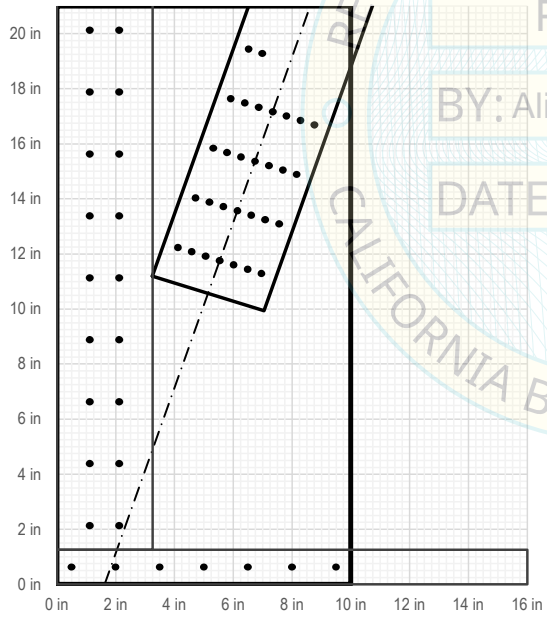
DETAIL 12.3.5



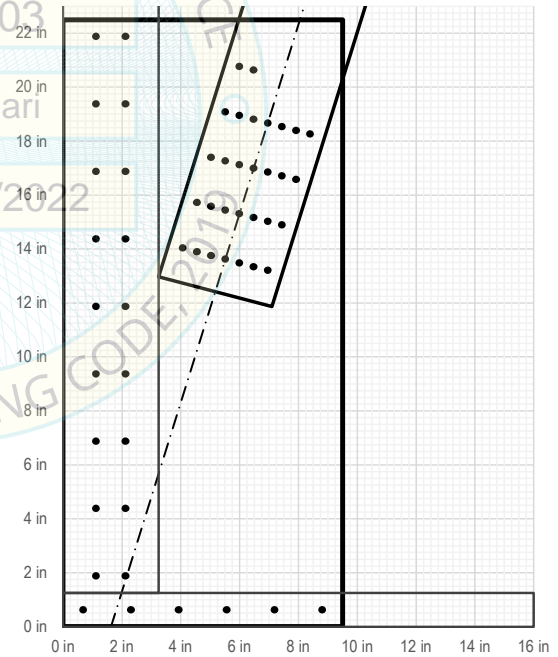
DETAIL 12.3.6



DETAIL 12.3.7



DETAIL 12.3.8



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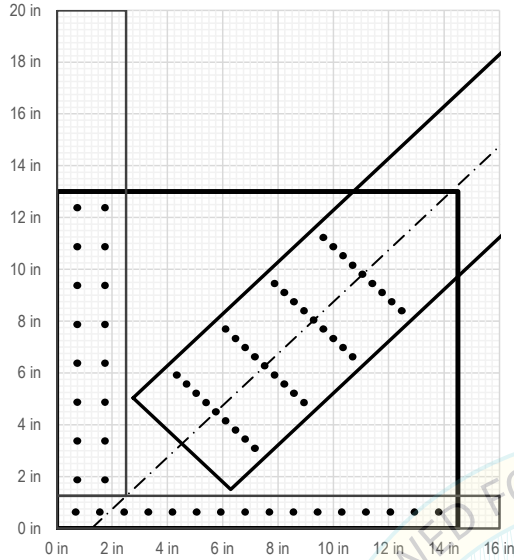
S3

500FS-33-50

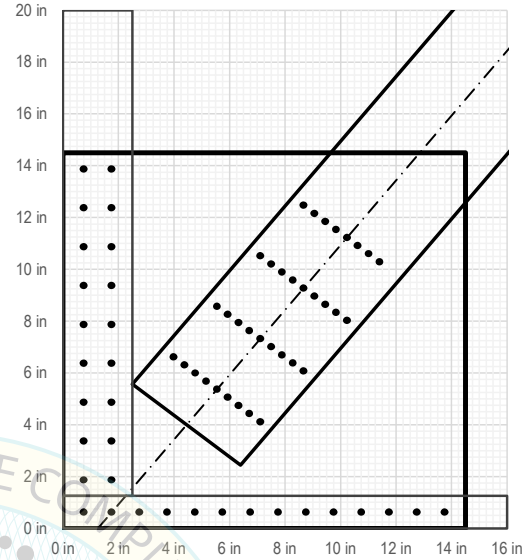
**STRAP TYPE:**

Strap Width 5.00 in Strap Thick. 33 mils Strap Grade 50 ksi

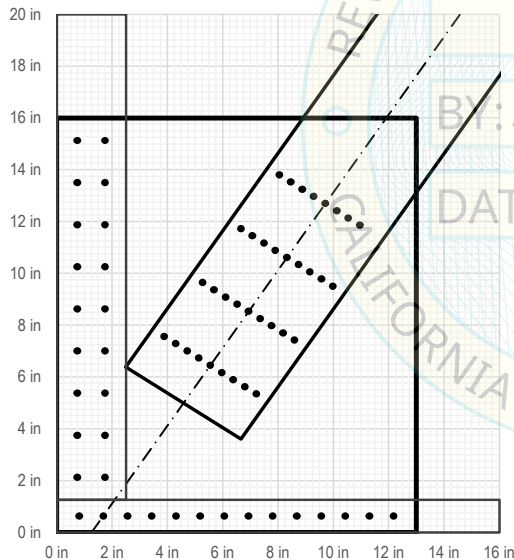
DETAIL 13.1.1



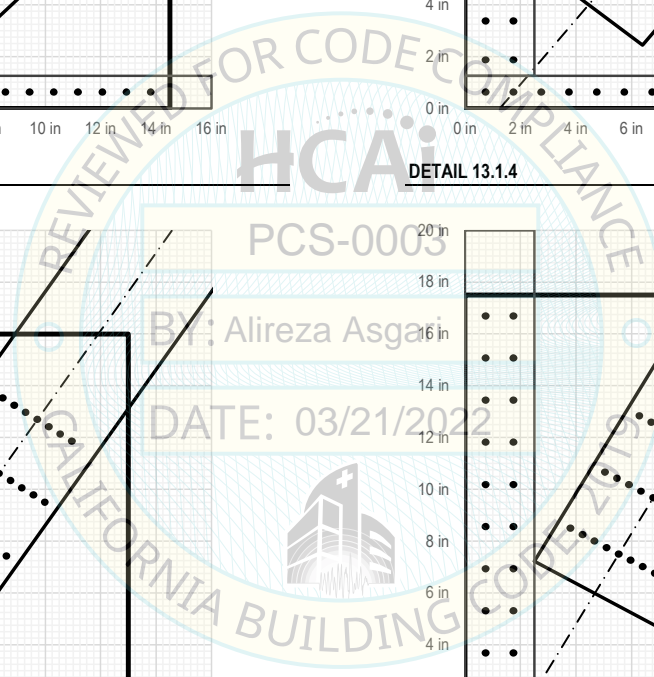
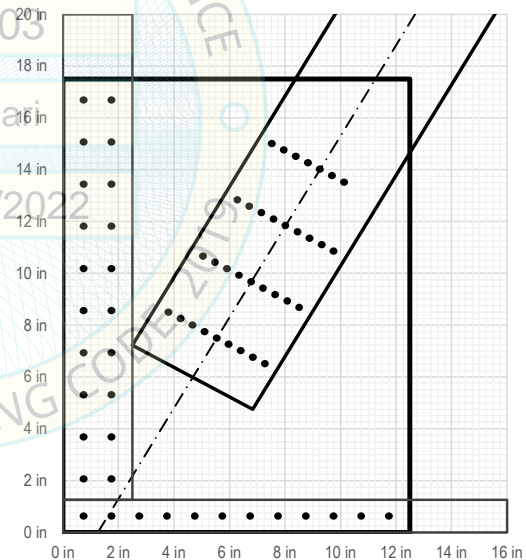
DETAIL 13.1.2



DETAIL 13.1.3



DETAIL 13.1.4



**CONNECTION DETAILS**

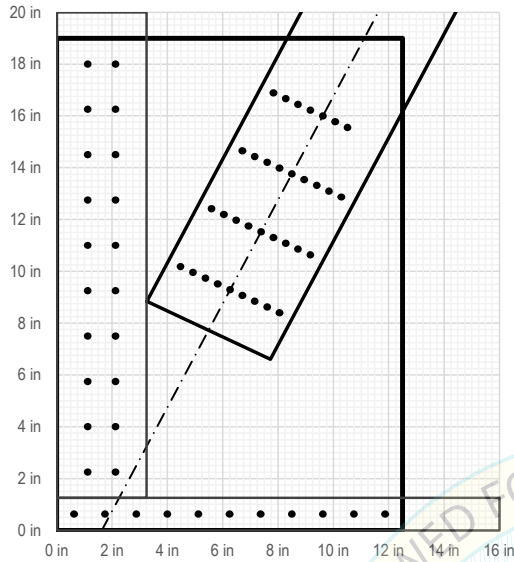
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500FS-33-50

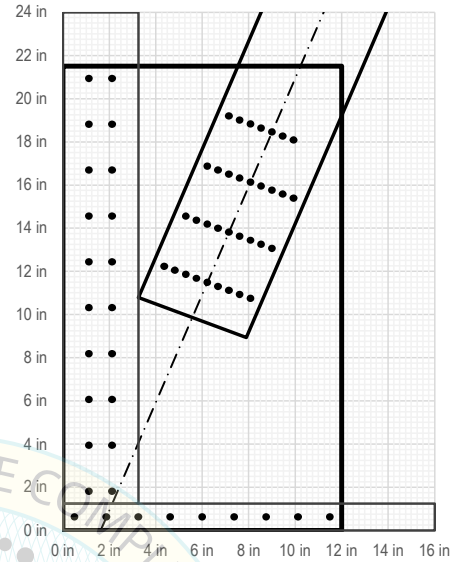
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Strap Width 5.00 in Strap Thick. 33 mils Strap Grade 50 ksi

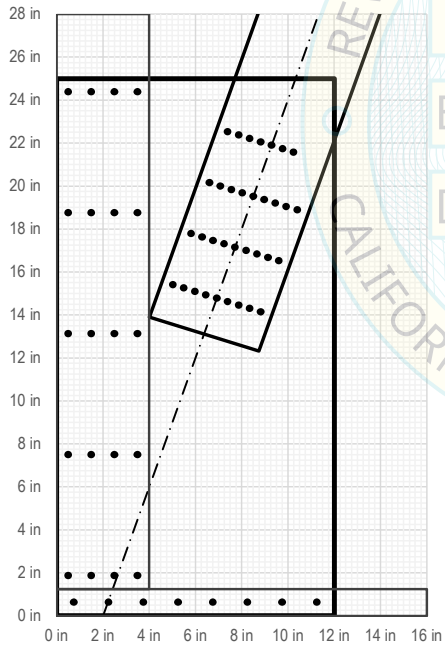
DETAIL 13.1.5



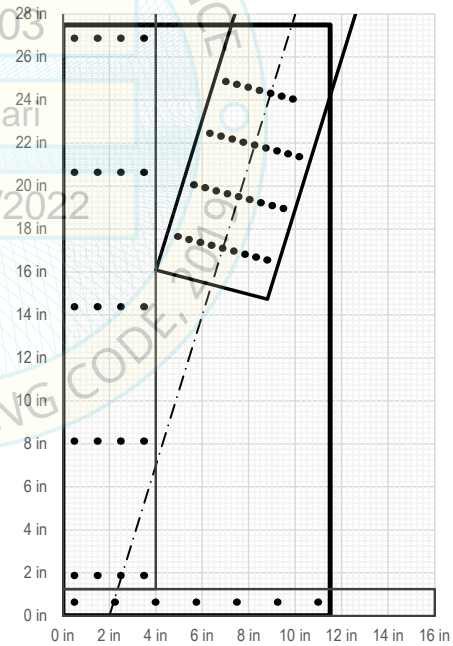
DETAIL 13.1.6



DETAIL 13.1.7



DETAIL 13.1.8



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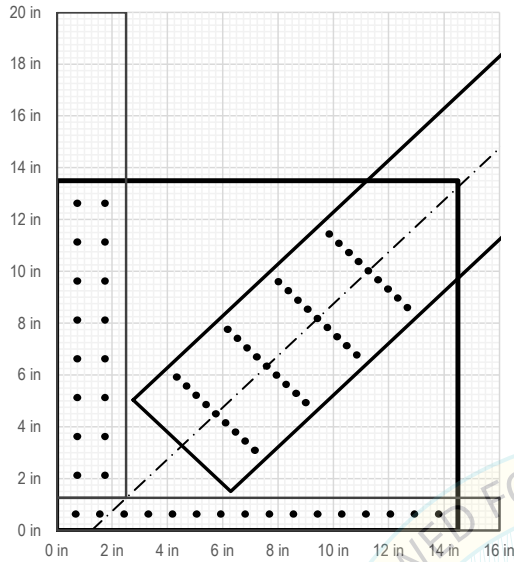
**CONNECTION DETAILS**

S3

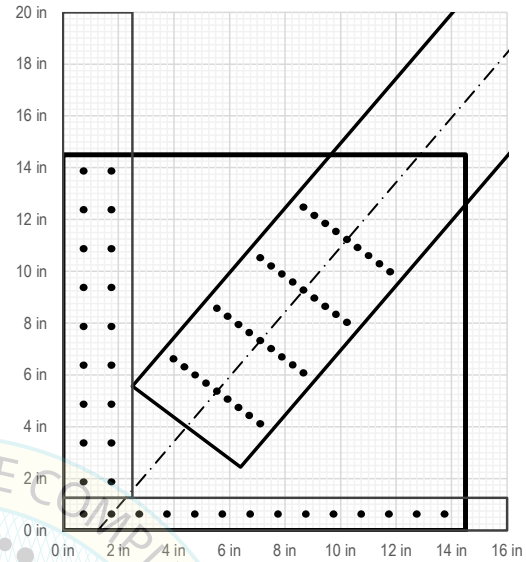
500FS-33-50

|                    |             |         |              |         |             |        |
|--------------------|-------------|---------|--------------|---------|-------------|--------|
| <b>STRAP TYPE:</b> | Strap Width | 5.00 in | Strap Thick. | 33 mils | Strap Grade | 50 ksi |
|--------------------|-------------|---------|--------------|---------|-------------|--------|

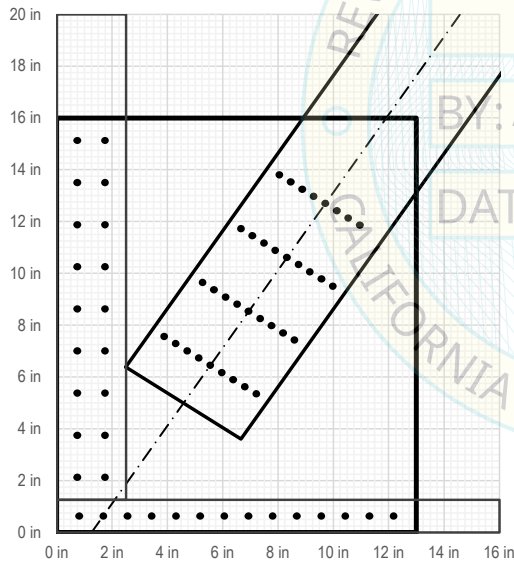
DETAIL 13.2.1



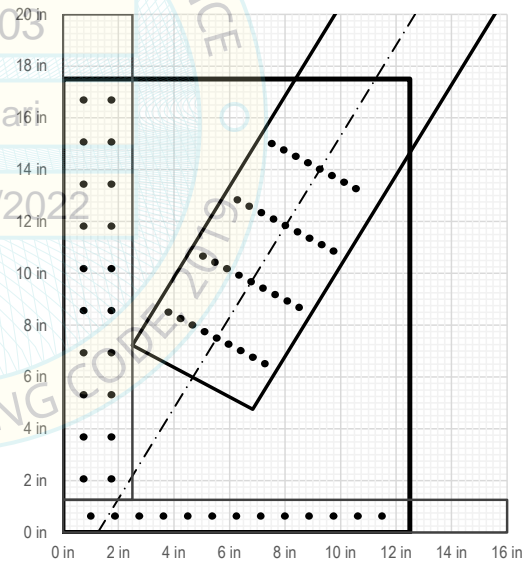
DETAIL 13.2.2



DETAIL 13.2.3



DETAIL 13.2.4



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 DATE: 03/21/2022  
 CALIFORNIA BUILDING CONSTRUCTION CODE

**CONNECTION DETAILS**

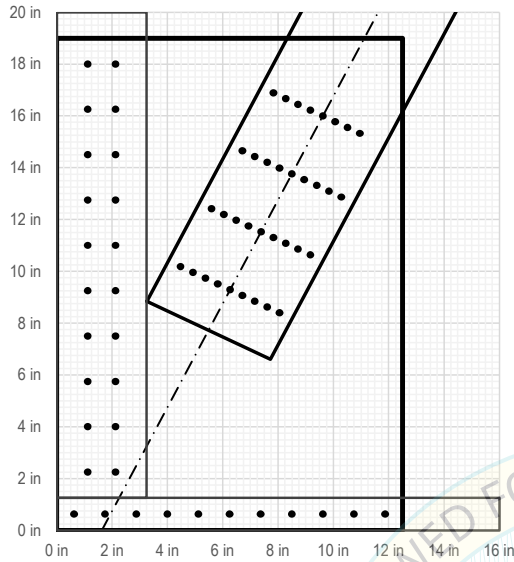
S3

500FS-33-50

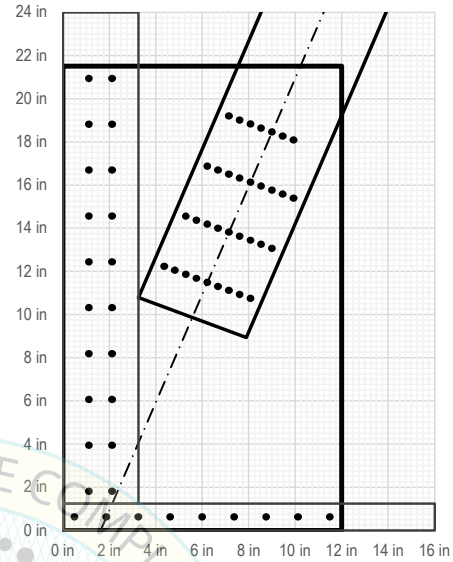
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Strap Width 5.00 in Strap Thick. 33 mils Strap Grade 50 ksi

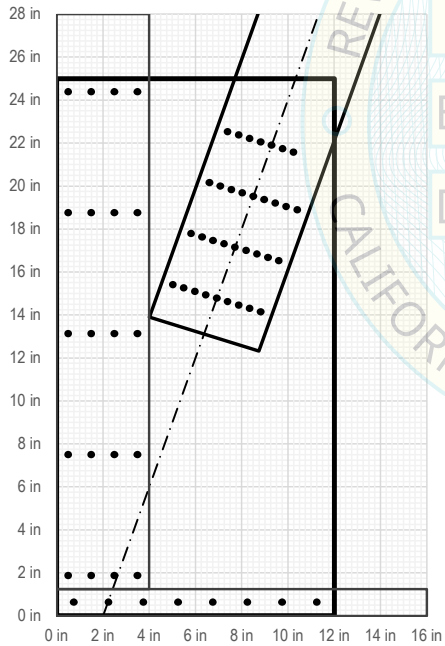
DETAIL 13.2.5



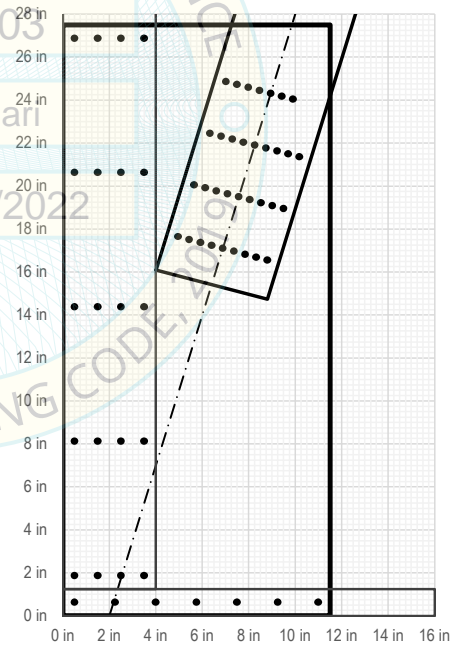
DETAIL 13.2.6



DETAIL 13.2.7



DETAIL 13.2.8



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**CONNECTION DETAILS**

S3

500FS-33-50

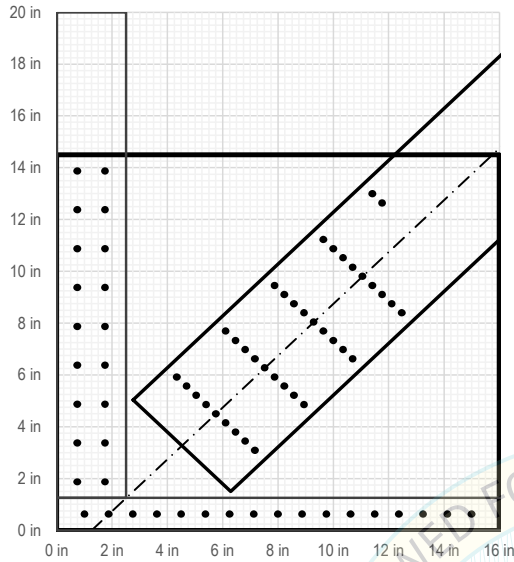
**STRAP TYPE:**

Strap Width 5.00 in

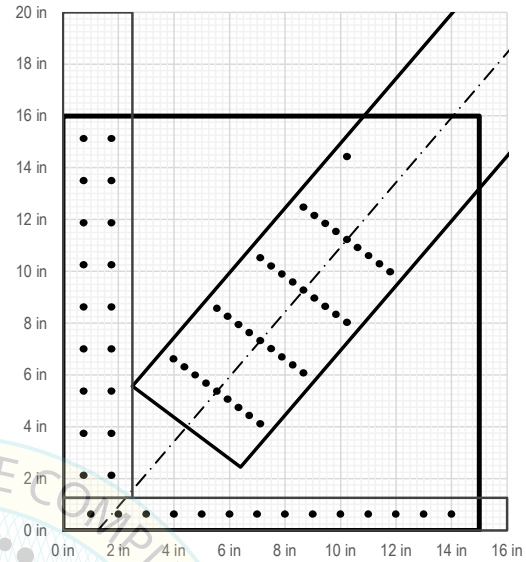
Strap Thick. 33 mils

Strap Grade 50 ksi

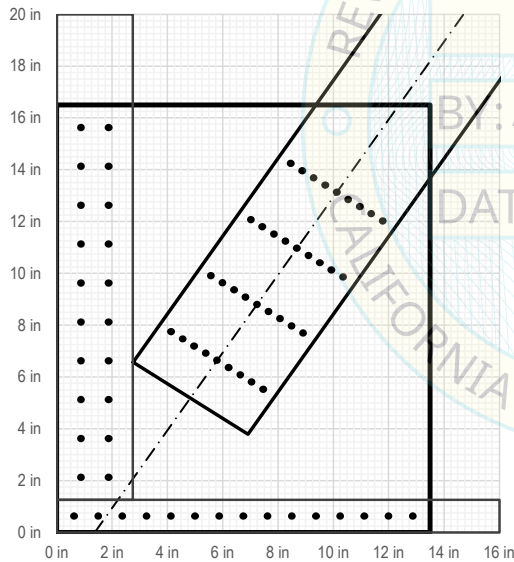
DETAIL 13.3.1



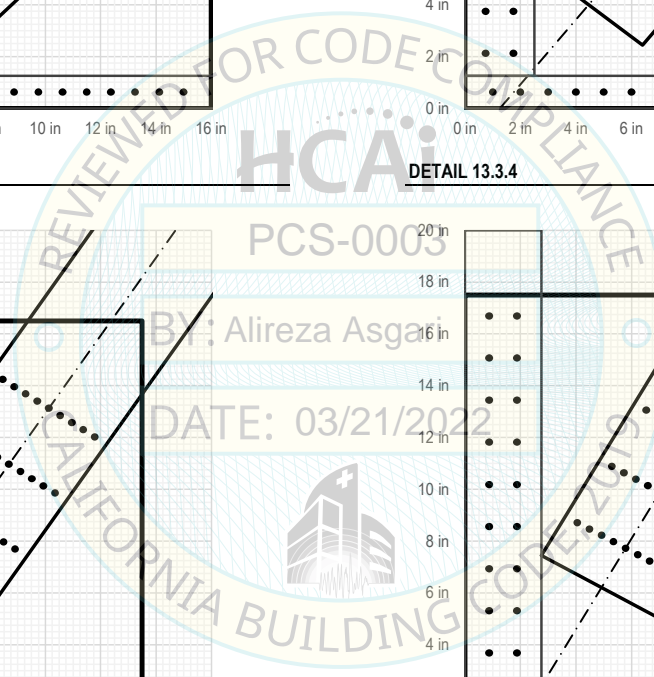
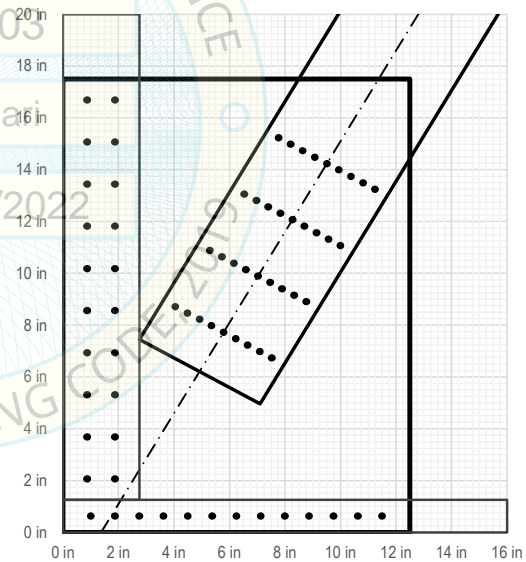
DETAIL 13.3.2



DETAIL 13.3.3



DETAIL 13.3.4



**CONNECTION DETAILS**

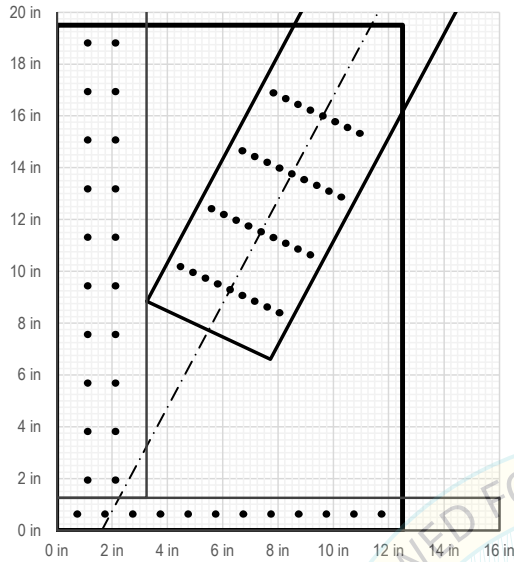
S3

500FS-33-50

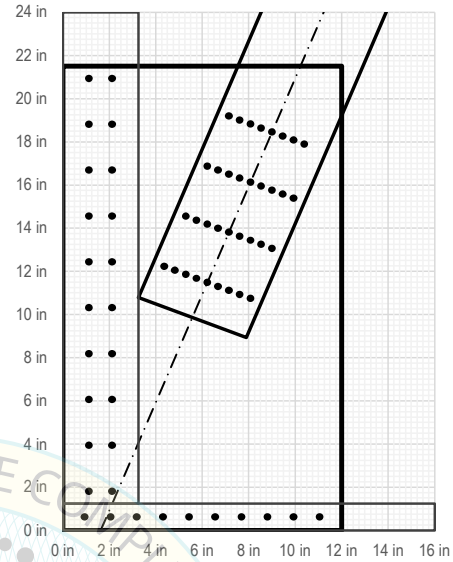
**STRAP TYPE:**

Strap Width 5.00 in Strap Thick. 33 mils Strap Grade 50 ksi

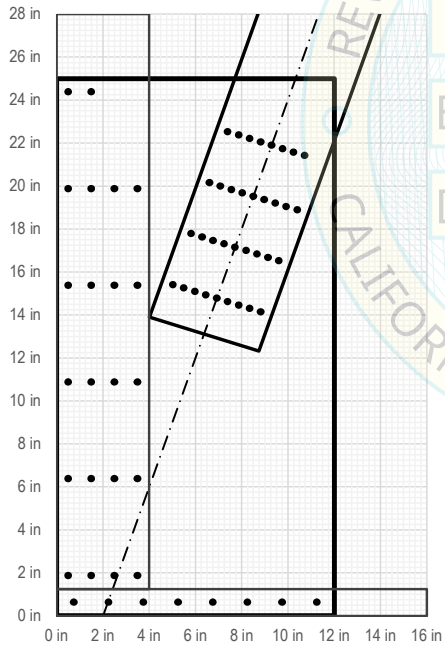
DETAIL 13.3.5



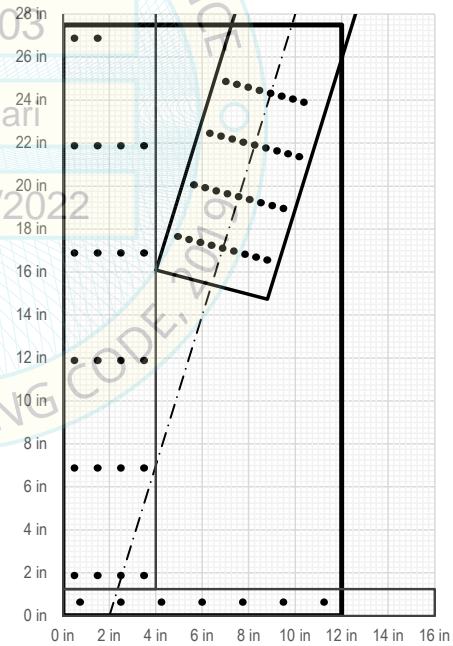
DETAIL 13.3.6



DETAIL 13.3.7



DETAIL 13.3.8



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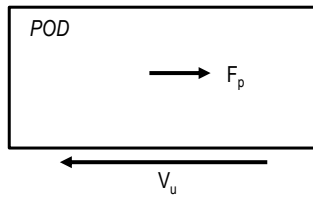
**TABLE 4.5.4**

# MINIMUM SHEAR ANCHORAGE REQUIREMENTS



Shear Anchorage

**Example Calculation**



$$F_p = \max(0.3, \min(1.6, 0.4 * (a_p / R_p) * (1 + 2 * z/h))) * I_p * S_{Ds} * \text{Weight}$$

$$\sum F_y = 0:$$

$$\Phi V_n \geq V_u = F_p$$

$$V_n = v_{n,an} * n_{an} / \Omega, \quad \Omega = 2.5$$

$$\rightarrow n_{an} \geq \Omega F_p / (\Phi v_{n,an})$$

\*  $\Phi v_{n,an}$  = nominal shear capacity per anchor = 450 lb

\*  $n_{an}$  = required number of shear anchors



**TABLE 4.5.4: MINIMUM SHEAR ANCHORAGE REQUIREMENTS** S3 ( $I_p = 1.5$ )

**TABLE A:**  $S_{DS} = 0.40$

**Key:**  
 \* Top value is the total pod shear force,  $V_u$  (lbs)  
 \* Bottom value is the required number of shear anchors

| Height in Bldg (z/h) | Pod Weight |          |          |          |          |          |          |          |          |
|----------------------|------------|----------|----------|----------|----------|----------|----------|----------|----------|
|                      | 2000 lbs   | 2200 lbs | 2400 lbs | 2600 lbs | 2800 lbs | 3000 lbs | 3200 lbs | 3400 lbs | 3600 lbs |
| 1.0                  | 1029       | 1131     | 1234     | 1337     | 1440     | 1543     | 1646     | 1749     | 1851     |
|                      | 6          | 7        | 7        | 8        | 8        | 9        | 10       | 10       | 11       |
| 0.9                  | 960        | 1056     | 1152     | 1248     | 1344     | 1440     | 1536     | 1632     | 1728     |
|                      | 6          | 6        | 7        | 7        | 8        | 8        | 9        | 10       | 10       |
| 0.8                  | 891        | 981      | 1070     | 1159     | 1248     | 1337     | 1426     | 1515     | 1605     |
|                      | 5          | 6        | 6        | 7        | 7        | 8        | 8        | 9        | 9        |
| 0.7                  | 823        | 905      | 987      | 1070     | 1152     | 1234     | 1317     | 1399     | 1481     |
|                      | 5          | 6        | 6        | 6        | 7        | 7        | 8        | 8        | 9        |
| 0.6                  | 754        | 830      | 905      | 981      | 1056     | 1131     | 1207     | 1282     | 1358     |
|                      | 5          | 5        | 6        | 6        | 6        | 7        | 7        | 8        | 8        |
| 0.5                  | 686        | 754      | 823      | 891      | 960      | 1029     | 1097     | 1166     | 1234     |
|                      | 4          | 5        | 5        | 5        | 6        | 6        | 7        | 7        | 7        |
| 0.4                  | 617        | 679      | 741      | 802      | 864      | 926      | 987      | 1049     | 1111     |
|                      | 4          | 4        | 5        | 5        | 5        | 6        | 6        | 6        | 7        |
| 0.3                  | 549        | 603      | 658      | 713      | 768      | 823      | 878      | 933      | 987      |
|                      | 4          | 4        | 4        | 4        | 5        | 5        | 5        | 6        | 6        |
| 0.2                  | 480        | 528      | 576      | 624      | 672      | 720      | 768      | 816      | 864      |
|                      | 3          | 3        | 4        | 4        | 4        | 4        | 5        | 5        | 5        |
| 0.1                  | 411        | 453      | 494      | 535      | 576      | 617      | 658      | 699      | 741      |
|                      | 3          | 3        | 3        | 3        | 4        | 4        | 4        | 4        | 5        |
| 0.0                  | 360        | 396      | 432      | 468      | 504      | 540      | 576      | 612      | 648      |
|                      | 2          | 3        | 3        | 3        | 3        | 3        | 4        | 4        | 4        |

**TABLE B:**  $S_{DS} = 0.70$

**Key:**  
 \* Top value is the total pod shear force,  $V_u$  (lbs)  
 \* Bottom value is the required number of shear anchors

| Height in Bldg (z/h) | Pod Weight |          |          |          |          |          |          |          |          |
|----------------------|------------|----------|----------|----------|----------|----------|----------|----------|----------|
|                      | 2000 lbs   | 2200 lbs | 2400 lbs | 2600 lbs | 2800 lbs | 3000 lbs | 3200 lbs | 3400 lbs | 3600 lbs |
| 1.0                  | 1800       | 1980     | 2160     | 2340     | 2520     | 2700     | 2880     | 3060     | 3240     |
|                      | 10         | 11       | 12       | 13       | 14       | 15       | 16       | 17       | 18       |
| 0.9                  | 1680       | 1848     | 2016     | 2184     | 2352     | 2520     | 2688     | 2856     | 3024     |
|                      | 10         | 11       | 12       | 13       | 14       | 14       | 15       | 16       | 17       |
| 0.8                  | 1560       | 1716     | 1872     | 2028     | 2184     | 2340     | 2496     | 2652     | 2808     |
|                      | 9          | 10       | 11       | 12       | 13       | 13       | 14       | 15       | 16       |
| 0.7                  | 1440       | 1584     | 1728     | 1872     | 2016     | 2160     | 2304     | 2448     | 2592     |
|                      | 8          | 9        | 10       | 11       | 12       | 12       | 13       | 14       | 15       |
| 0.6                  | 1320       | 1452     | 1584     | 1716     | 1848     | 1980     | 2112     | 2244     | 2376     |
|                      | 8          | 9        | 9        | 10       | 11       | 11       | 12       | 13       | 14       |
| 0.5                  | 1200       | 1320     | 1440     | 1560     | 1680     | 1800     | 1920     | 2040     | 2160     |
|                      | 7          | 8        | 8        | 9        | 10       | 10       | 11       | 12       | 12       |
| 0.4                  | 1080       | 1188     | 1296     | 1404     | 1512     | 1620     | 1728     | 1836     | 1944     |
|                      | 6          | 7        | 8        | 8        | 9        | 9        | 10       | 11       | 11       |
| 0.3                  | 960        | 1056     | 1152     | 1248     | 1344     | 1440     | 1536     | 1632     | 1728     |
|                      | 6          | 6        | 7        | 7        | 8        | 8        | 9        | 10       | 10       |
| 0.2                  | 840        | 924      | 1008     | 1092     | 1176     | 1260     | 1344     | 1428     | 1512     |
|                      | 5          | 6        | 6        | 7        | 7        | 7        | 8        | 8        | 9        |
| 0.1                  | 720        | 792      | 864      | 936      | 1008     | 1080     | 1152     | 1224     | 1296     |
|                      | 4          | 5        | 5        | 6        | 6        | 6        | 7        | 7        | 8        |
| 0.0                  | 630        | 693      | 756      | 819      | 882      | 945      | 1008     | 1071     | 1134     |
|                      | 4          | 4        | 5        | 5        | 5        | 6        | 6        | 6        | 7        |



**TABLE 4.5.4: MINIMUM SHEAR ANCHORAGE REQUIREMENTS** S3 ( $I_p = 1.5$ )

TABLE C:  $S_{DS} = 1.00$

**Key:**  
 \* Top value is the total pod shear force,  $V_u$  (lbs)  
 \* Bottom value is the required number of shear anchors

| Height in Bldg (z/h) | Pod Weight |          |          |          |          |          |          |          |          |
|----------------------|------------|----------|----------|----------|----------|----------|----------|----------|----------|
|                      | 2000 lbs   | 2200 lbs | 2400 lbs | 2600 lbs | 2800 lbs | 3000 lbs | 3200 lbs | 3400 lbs | 3600 lbs |
| 1.0                  | 2571       | 2829     | 3086     | 3343     | 3600     | 3857     | 4114     | 4371     | 4629     |
|                      | 15         | 16       | 18       | 19       | 20       | 22       | 23       | 25       | 26       |
| 0.9                  | 2400       | 2640     | 2880     | 3120     | 3360     | 3600     | 3840     | 4080     | 4320     |
|                      | 14         | 15       | 16       | 18       | 19       | 20       | 22       | 23       | 24       |
| 0.8                  | 2229       | 2451     | 2674     | 2897     | 3120     | 3343     | 3566     | 3789     | 4011     |
|                      | 13         | 14       | 15       | 17       | 18       | 19       | 20       | 22       | 23       |
| 0.7                  | 2057       | 2263     | 2469     | 2674     | 2880     | 3086     | 3291     | 3497     | 3703     |
|                      | 12         | 13       | 14       | 15       | 16       | 18       | 19       | 20       | 21       |
| 0.6                  | 1886       | 2074     | 2263     | 2451     | 2640     | 2829     | 3017     | 3206     | 3394     |
|                      | 11         | 12       | 13       | 14       | 15       | 16       | 17       | 18       | 19       |
| 0.5                  | 1714       | 1886     | 2057     | 2229     | 2400     | 2571     | 2743     | 2914     | 3086     |
|                      | 10         | 11       | 12       | 13       | 14       | 15       | 16       | 17       | 18       |
| 0.4                  | 1543       | 1697     | 1851     | 2006     | 2160     | 2314     | 2469     | 2623     | 2777     |
|                      | 9          | 10       | 11       | 12       | 12       | 13       | 14       | 15       | 16       |
| 0.3                  | 1371       | 1509     | 1646     | 1783     | 1920     | 2057     | 2194     | 2331     | 2469     |
|                      | 8          | 9        | 10       | 10       | 11       | 12       | 13       | 13       | 14       |
| 0.2                  | 1200       | 1320     | 1440     | 1560     | 1680     | 1800     | 1920     | 2040     | 2160     |
|                      | 7          | 8        | 8        | 9        | 10       | 10       | 11       | 12       | 12       |
| 0.1                  | 1029       | 1131     | 1234     | 1337     | 1440     | 1543     | 1646     | 1749     | 1851     |
|                      | 6          | 7        | 7        | 8        | 8        | 9        | 10       | 10       | 11       |
| 0.0                  | 900        | 990      | 1080     | 1170     | 1260     | 1350     | 1440     | 1530     | 1620     |
|                      | 5          | 6        | 6        | 7        | 7        | 8        | 8        | 9        | 9        |

TABLE D:  $S_{DS} = 1.30$

**Key:**  
 \* Top value is the total pod shear force,  $V_u$  (lbs)  
 \* Bottom value is the required number of shear anchors

| Height in Bldg (z/h) | Pod Weight |          |          |          |          |          |          |          |          |
|----------------------|------------|----------|----------|----------|----------|----------|----------|----------|----------|
|                      | 2000 lbs   | 2200 lbs | 2400 lbs | 2600 lbs | 2800 lbs | 3000 lbs | 3200 lbs | 3400 lbs | 3600 lbs |
| 1.0                  | 3343       | 3677     | 4011     | 4346     | 4680     | 5014     | 5349     | 5683     | 6017     |
|                      | 19         | 21       | 23       | 25       | 26       | 28       | 30       | 32       | 34       |
| 0.9                  | 3120       | 3432     | 3744     | 4056     | 4368     | 4680     | 4992     | 5304     | 5616     |
|                      | 18         | 20       | 21       | 23       | 25       | 26       | 28       | 30       | 32       |
| 0.8                  | 2897       | 3187     | 3477     | 3766     | 4056     | 4346     | 4635     | 4925     | 5215     |
|                      | 17         | 18       | 20       | 21       | 23       | 25       | 26       | 28       | 29       |
| 0.7                  | 2674       | 2942     | 3209     | 3477     | 3744     | 4011     | 4279     | 4546     | 4814     |
|                      | 15         | 17       | 18       | 20       | 21       | 23       | 24       | 26       | 27       |
| 0.6                  | 2451       | 2697     | 2942     | 3187     | 3432     | 3677     | 3922     | 4167     | 4413     |
|                      | 14         | 15       | 17       | 18       | 20       | 21       | 22       | 24       | 25       |
| 0.5                  | 2229       | 2451     | 2674     | 2897     | 3120     | 3343     | 3566     | 3789     | 4011     |
|                      | 13         | 14       | 15       | 17       | 18       | 19       | 20       | 22       | 23       |
| 0.4                  | 2006       | 2206     | 2407     | 2607     | 2808     | 3009     | 3209     | 3410     | 3610     |
|                      | 12         | 13       | 14       | 15       | 16       | 17       | 18       | 19       | 21       |
| 0.3                  | 1783       | 1961     | 2139     | 2318     | 2496     | 2674     | 2853     | 3031     | 3209     |
|                      | 10         | 11       | 12       | 13       | 14       | 15       | 16       | 17       | 18       |
| 0.2                  | 1560       | 1716     | 1872     | 2028     | 2184     | 2340     | 2496     | 2652     | 2808     |
|                      | 9          | 10       | 11       | 12       | 13       | 13       | 14       | 15       | 16       |
| 0.1                  | 1337       | 1471     | 1605     | 1738     | 1872     | 2006     | 2139     | 2273     | 2407     |
|                      | 8          | 9        | 9        | 10       | 11       | 12       | 12       | 13       | 14       |
| 0.0                  | 1170       | 1287     | 1404     | 1521     | 1638     | 1755     | 1872     | 1989     | 2106     |
|                      | 7          | 8        | 8        | 9        | 10       | 10       | 11       | 12       | 12       |



**TABLE 4.5.4: MINIMUM SHEAR ANCHORAGE REQUIREMENTS** S3 ( $I_p = 1.5$ )

TABLE E:  $S_{DS} = 1.60$

**Key:**

\* Top value is the total pod shear force,  $V_u$  (lbs)

\* Bottom value is the required number of shear anchors

| Height in Bldg<br>(z/h) | Pod Weight |          |          |          |          |          |          |          |          |
|-------------------------|------------|----------|----------|----------|----------|----------|----------|----------|----------|
|                         | 2000 lbs   | 2200 lbs | 2400 lbs | 2600 lbs | 2800 lbs | 3000 lbs | 3200 lbs | 3400 lbs | 3600 lbs |
| 1.0                     | 4114       | 4526     | 4937     | 5349     | 5760     | 6171     | 6583     | 6994     | 7406     |
|                         | 23         | 26       | 28       | 30       | 32       | 35       | 37       | 39       | 42       |
| 0.9                     | 3840       | 4224     | 4608     | 4992     | 5376     | 5760     | 6144     | 6528     | 6912     |
|                         | 22         | 24       | 26       | 28       | 30       | 32       | 35       | 37       | 39       |
| 0.8                     | 3566       | 3922     | 4279     | 4635     | 4992     | 5349     | 5705     | 6062     | 6418     |
|                         | 20         | 22       | 24       | 26       | 28       | 30       | 32       | 34       | 36       |
| 0.7                     | 3291       | 3621     | 3950     | 4279     | 4608     | 4937     | 5266     | 5595     | 5925     |
|                         | 19         | 21       | 22       | 24       | 26       | 28       | 30       | 32       | 33       |
| 0.6                     | 3017       | 3319     | 3621     | 3922     | 4224     | 4526     | 4827     | 5129     | 5431     |
|                         | 17         | 19       | 21       | 22       | 24       | 26       | 27       | 29       | 31       |
| 0.5                     | 2743       | 3017     | 3291     | 3566     | 3840     | 4114     | 4389     | 4663     | 4937     |
|                         | 16         | 17       | 19       | 20       | 22       | 23       | 25       | 26       | 28       |
| 0.4                     | 2469       | 2715     | 2962     | 3209     | 3456     | 3703     | 3950     | 4197     | 4443     |
|                         | 14         | 16       | 17       | 18       | 20       | 21       | 22       | 24       | 25       |
| 0.3                     | 2194       | 2414     | 2633     | 2853     | 3072     | 3291     | 3511     | 3730     | 3950     |
|                         | 13         | 14       | 15       | 16       | 18       | 19       | 20       | 21       | 22       |
| 0.2                     | 1920       | 2112     | 2304     | 2496     | 2688     | 2880     | 3072     | 3264     | 3456     |
|                         | 11         | 12       | 13       | 14       | 15       | 16       | 18       | 19       | 20       |
| 0.1                     | 1646       | 1816     | 1975     | 2139     | 2304     | 2469     | 2633     | 2798     | 2962     |
|                         | 10         | 11       | 11       | 12       | 13       | 14       | 15       | 16       | 17       |
| 0.0                     | 1440       | 1584     | 1728     | 1872     | 2016     | 2160     | 2304     | 2448     | 2592     |
|                         | 8          | 9        | 10       | 11       | 12       | 12       | 13       | 14       | 15       |

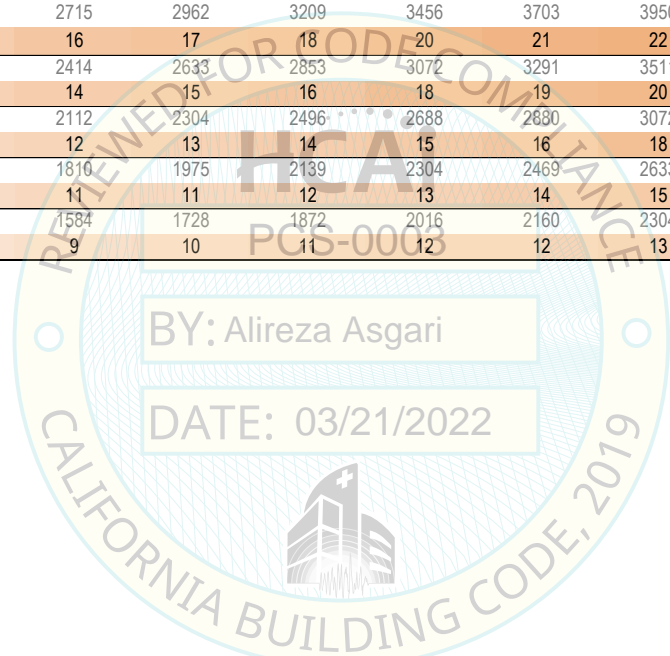
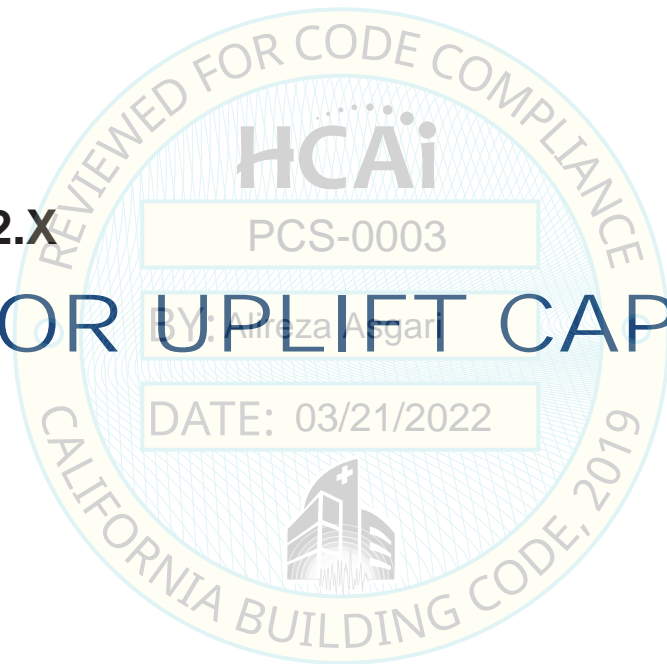


TABLE 4.6.2.X

# ANCHOR UPLIFT CAPACITIES



**TABLE 4.6.2.3: ANCHOR UPLIFT CAPACITIES** 6" NWC Slab

**Key:**  
 Anchor Type: XXX YYYY ZZZ,  
 XXX = Anchor Size (inches x 100), YYYY = Anchor Code, ZZZ = Effective Embedment Depth (inches x 100)  
 \* Value in the table indicates the anchor uplift capacity (lbs) for the specific anchor type, slab/deck type and concrete strength combination. If there is no anchor capacity greater than the required anchorage force from Table 4.3.X.B, there are no solutions.

**TABLE A: HILTI ANCHORS**

| Anchor Type | Min. Concrete Thickness | Concrete Strength (28-day) |          |          |      |
|-------------|-------------------------|----------------------------|----------|----------|------|
|             |                         | 3000 psi                   | 4000 psi | 5000 psi |      |
| EXPANSION   | 250 KBTZ2 150           | 3.25"                      | 220      | 250      | 270  |
|             | 375 KBTZ2 250           | 5.00"                      | 1790     | 2070     | 2310 |
|             | 500 KBTZ2 325           | 5.50"                      | 2650     | 3070     | 3430 |
|             | 625 KBTZ2 400           | 6.00"                      | 3630     | 4190     | 4680 |
|             | 750 KBTZ2 375           | 6.00"                      | 4070     | 4700     | 5250 |
| RESIN       | 500 RE100 475           | Embedment + 1.25"          | 1670     | 1720     | 1760 |
|             | 625 RE100 450           | Embedment + 1.50"          | 1980     | 2040     | 2090 |
|             | 750 RE100 425           | Embedment + 1.875"         | 2140     | 2200     | 2250 |
|             | 500 RE500 475           | Embedment + 1.25"          | 4410     | 4600     | 4760 |
|             | 625 RE500 450           | Embedment + 1.50"          | 4330     | 5000     | 5590 |
|             | 750 RE500 425           | Embedment + 1.875"         | 3970     | 4590     | 5130 |
| SCREW       | 250 KHEZ 192            | 4.125"                     | 620      | 710      | 800  |
|             | 375 KHEZ 250            | 4.00"                      | 1790     | 2070     | 2310 |
|             | 500 KHEZ 216            | 4.75"                      | 1440     | 1660     | 1860 |
|             | 625 KHEZ 303            | 6.00"                      | 2390     | 2760     | 3090 |
|             | 750 KHEZ 292            | 6.00"                      | 2260     | 2610     | 2920 |

**TABLE B: SIMPSON ANCHORS**

| Anchor Type | Min. Concrete Thickness | Concrete Strength (28-day) |          |          |      |
|-------------|-------------------------|----------------------------|----------|----------|------|
|             |                         | 3000 psi                   | 4000 psi | 5000 psi |      |
| EXPANSION   | 375 CSSB2 250           | 4.50"                      | 1480     | 1710     | 1910 |
|             | 500 CSSB2 338           | 6.00"                      | 2660     | 3070     | 3430 |
|             | 625 CSSB2 300           | 6.00"                      | 2300     | 2650     | 2970 |
|             | 750 CSSB2 ###           | 6.75"                      | N/A      | N/A      | N/A  |
| RESIN       | 375 SET3G 475           | Embedment + 1.25"          | 4120     | 4420     | 4660 |
|             | 500 SET3G 475           | Embedment + 1.25"          | 4700     | 5130     | 5420 |
|             | 625 SET3G 450           | Embedment + 1.50"          | 4330     | 5000     | 5590 |
|             | 750 SET3G 425           | Embedment + 1.875"         | 3970     | 4590     | 5130 |
| SCREW       | 250 TITEN 194           | 3.50"                      | 1010     | 1170     | 1310 |
|             | 375 TITEN 240           | 5.00"                      | 1440     | 1660     | 1860 |
|             | 500 TITEN 278           | 5.83"                      | 2100     | 2430     | 2710 |
|             | 625 TITEN 297           | 6.00"                      | 1620     | 1870     | 2090 |
|             | 750 TITEN 294           | 6.00"                      | 2050     | 2360     | 2640 |

**TABLE C: MITEK ANCHORS**

| Anchor Type | Min. Concrete Thickness | Concrete Strength (28-day) |          |          |      |
|-------------|-------------------------|----------------------------|----------|----------|------|
|             |                         | 3000 psi                   | 4000 psi | 5000 psi |      |
| EXPANSION   | 375 WACW 200            | 4.00"                      | 1120     | 1300     | 1450 |
|             | 500 WACW 325            | 6.00"                      | 2250     | 2570     | 2850 |
|             | 625 WACW 275            | 5.50"                      | 2550     | 2950     | 3300 |
|             | 750 WACW 325            | 6.00"                      | 3280     | 3790     | 4240 |
| RESIN       | 375 CIAG7C 388          | 1.5 x Embedment            | 2550     | 2550     | 2550 |
|             | 500 CIAG7C 388          | 1.5 x Embedment            | 3160     | 3160     | 3160 |
|             | 625 CIAG7C 388          | 1.5 x Embedment            | 3460     | 3680     | 3680 |
|             | 750 CIAG7C 388          | 1.5 x Embedment            | 3460     | 3990     | 4160 |
| SCREW       | 375 SACHS 249           | 4.75"                      | 1780     | 2050     | 2300 |
|             | 500 SACHS 221           | 4.75"                      | 1670     | 1850     | 2000 |
|             | 625 SACHS 236           | 5.00"                      | 1640     | 1900     | 2120 |
|             | 750 SACHS 297           | 6.00"                      | 2320     | 2680     | 2990 |



**TABLE 4.6.2.4: ANCHOR UPLIFT CAPACITIES** 3.5" NWC + 3" Metal Deck

**Key:**  
 Anchor Type: XXX YYYY ZZZ,  
 XXX = Anchor Size (inches x 100), YYYY = Anchor Code, ZZZ = Effective Embedment Depth (inches x 100)  
 \* Value in the table indicates the anchor uplift capacity (lbs) for the specific anchor type, slab/deck type and concrete strength combination. If there is no anchor capacity greater than the required anchorage force from Table 4.3.X.B, there are no solutions.

**TABLE A: HILTI ANCHORS**

| Anchor Type | Min. Concrete Thickness Over Deck | Concrete Strength (28-day) |          |          |      |
|-------------|-----------------------------------|----------------------------|----------|----------|------|
|             |                                   | 3000 psi                   | 4000 psi | 5000 psi |      |
| EXPANSION   | 250 KBTZ2 150                     | 2.50"                      | 220      | 250      | 270  |
|             | 375 KBTZ2 200                     | 2.50"                      | 1580     | 1830     | 2040 |
|             | 500 KBTZ2 200                     | 3.25"                      | 1580     | 1830     | 2040 |
|             | 625 KBTZ2 ###                     | 5.00"                      | N/A      | N/A      | N/A  |
|             | 750 KBTZ2 ###                     | 5.50"                      | N/A      | N/A      | N/A  |
| RESIN       | 500 RE100 ###                     | N/A                        | N/A      | N/A      | N/A  |
|             | 625 RE100 ###                     | N/A                        | N/A      | N/A      | N/A  |
|             | 750 RE100 ###                     | N/A                        | N/A      | N/A      | N/A  |
|             | 500 RE500 ###                     | N/A                        | N/A      | N/A      | N/A  |
|             | 625 RE500 ###                     | N/A                        | N/A      | N/A      | N/A  |
| SCREW       | 250 KHEZ 118                      | 2.50"                      | 190      | 200      | 220  |
|             | 375 KHEZ 111                      | 2.50"                      | 380      | 440      | 500  |
|             | 500 KHEZ ###                      | 4.50"                      | N/A      | N/A      | N/A  |
|             | 625 KHEZ ###                      | 5.00"                      | N/A      | N/A      | N/A  |
|             | 750 KHEZ ###                      | 6.00"                      | N/A      | N/A      | N/A  |

**TABLE B: SIMPSON ANCHORS**

| Anchor Type | Min. Concrete Thickness Over Deck | Concrete Strength (28-day) |          |          |      |
|-------------|-----------------------------------|----------------------------|----------|----------|------|
|             |                                   | 3000 psi                   | 4000 psi | 5000 psi |      |
| EXPANSION   | 375 CSSB2 150                     | 3.25"                      | 690      | 800      | 890  |
|             | 500 CSSB2 225                     | 3.25"                      | 1530     | 1760     | 1970 |
|             | 625 CSSB2 ###                     | 5.50"                      | N/A      | N/A      | N/A  |
|             | 750 CSSB2 ###                     | 6.75"                      | N/A      | N/A      | N/A  |
| RESIN       | 375 SET3G ###                     | N/A                        | N/A      | N/A      | N/A  |
|             | 500 SET3G ###                     | N/A                        | N/A      | N/A      | N/A  |
|             | 625 SET3G ###                     | N/A                        | N/A      | N/A      | N/A  |
|             | 750 SET3G ###                     | N/A                        | N/A      | N/A      | N/A  |
| SCREW       | 250 TITEN 119                     | 3.25"                      | 580      | 680      | 760  |
|             | 375 TITEN 177                     | 3.25"                      | 650      | 760      | 850  |
|             | 500 TITEN ###                     | 5.00"                      | N/A      | N/A      | N/A  |
|             | 625 TITEN ###                     | 6.00"                      | N/A      | N/A      | N/A  |
|             | 750 TITEN ###                     | 6.00"                      | N/A      | N/A      | N/A  |

**TABLE C: MITEK ANCHORS**

| Anchor Type | Min. Concrete Thickness Over Deck | Concrete Strength (28-day) |          |          |
|-------------|-----------------------------------|----------------------------|----------|----------|
|             |                                   | 3000 psi                   | 4000 psi | 5000 psi |
| EXPANSION   | 375 WACW ###                      | N/A                        | N/A      | N/A      |
|             | 500 WACW ###                      | N/A                        | N/A      | N/A      |
|             | 625 WACW ###                      | N/A                        | N/A      | N/A      |
|             | 750 WACW ###                      | N/A                        | N/A      | N/A      |
| RESIN       | 375 CIAG7C ###                    | N/A                        | N/A      | N/A      |
|             | 500 CIAG7C ###                    | N/A                        | N/A      | N/A      |
|             | 625 CIAG7C ###                    | N/A                        | N/A      | N/A      |
| SCREW       | 375 SACHS ###                     | N/A                        | N/A      | N/A      |
|             | 500 SACHS ###                     | N/A                        | N/A      | N/A      |
|             | 625 SACHS ###                     | N/A                        | N/A      | N/A      |
|             | 750 SACHS ###                     | N/A                        | N/A      | N/A      |





**TABLE 4.6.2.5: ANCHOR UPLIFT CAPACITIES** 4.5" NWC + 3" Metal Deck

**Key:**  
 Anchor Type: XXX YYYY ZZZ,  
 XXX = Anchor Size (inches x 100), YYYY = Anchor Code, ZZZ = Effective Embedment Depth (inches x 100)  
 \* Value in the table indicates the anchor uplift capacity (lbs) for the specific anchor type, slab/deck type and concrete strength combination. If there is no anchor capacity greater than the required anchorage force from Table 4.3.X.B, there are no solutions.

**TABLE A: HILTI ANCHORS**

| Anchor Type   | Min. Concrete Thickness Over Deck | Concrete Strength (28-day) |          |          |      |
|---------------|-----------------------------------|----------------------------|----------|----------|------|
|               |                                   | 3000 psi                   | 4000 psi | 5000 psi |      |
| EXPANSION     | 250 KBTZ2 150                     | 2.50"                      | 220      | 250      | 270  |
|               | 375 KBTZ2 200                     | 2.50"                      | 1580     | 1830     | 2040 |
|               | 500 KBTZ2 200                     | 3.25"                      | 1580     | 1830     | 2040 |
|               | 625 KBTZ2 ###                     | 5.00"                      | N/A      | N/A      | N/A  |
|               | 750 KBTZ2 ###                     | 5.50"                      | N/A      | N/A      | N/A  |
| RESIN         | 500 RE100 ###                     | N/A                        | N/A      | N/A      | N/A  |
|               | 625 RE100 ###                     | N/A                        | N/A      | N/A      | N/A  |
|               | 750 RE100 ###                     | N/A                        | N/A      | N/A      | N/A  |
|               | 500 RE500 ###                     | N/A                        | N/A      | N/A      | N/A  |
|               | 625 RE500 ###                     | N/A                        | N/A      | N/A      | N/A  |
| 750 RE500 ### | N/A                               | N/A                        | N/A      | N/A      |      |
| SCREW         | 250 KHEZ 192                      | 4.125"                     | 620      | 710      | 800  |
|               | 375 KHEZ 186                      | 4.00"                      | 1150     | 1320     | 1480 |
|               | 500 KHEZ 152                      | 4.50"                      | 850      | 980      | 1090 |
|               | 625 KHEZ ###                      | 5.00"                      | N/A      | N/A      | N/A  |
|               | 750 KHEZ ###                      | 6.00"                      | N/A      | N/A      | N/A  |

**TABLE B: SIMPSON ANCHORS**

| Anchor Type | Min. Concrete Thickness Over Deck | Concrete Strength (28-day) |          |          |      |
|-------------|-----------------------------------|----------------------------|----------|----------|------|
|             |                                   | 3000 psi                   | 4000 psi | 5000 psi |      |
| EXPANSION   | 375 CSSB2 250                     | 4.50"                      | 1480     | 1710     | 1910 |
|             | 500 CSSB2 250                     | 4.44"                      | 1780     | 2060     | 2300 |
|             | 625 CSSB2 ###                     | 5.50"                      | N/A      | N/A      | N/A  |
|             | 750 CSSB2 ###                     | 6.75"                      | N/A      | N/A      | N/A  |
| RESIN       | 375 SET3G ###                     | N/A                        | N/A      | N/A      | N/A  |
|             | 500 SET3G ###                     | N/A                        | N/A      | N/A      | N/A  |
|             | 625 SET3G ###                     | N/A                        | N/A      | N/A      | N/A  |
|             | 750 SET3G ###                     | N/A                        | N/A      | N/A      | N/A  |
| SCREW       | 250 TITEN 194                     | 3.50"                      | 1010     | 1170     | 1310 |
|             | 375 TITEN 198                     | 4.33"                      | 920      | 1060     | 1180 |
|             | 500 TITEN ###                     | 5.00"                      | N/A      | N/A      | N/A  |
|             | 625 TITEN ###                     | 6.00"                      | N/A      | N/A      | N/A  |
|             | 750 TITEN ###                     | 6.00"                      | N/A      | N/A      | N/A  |

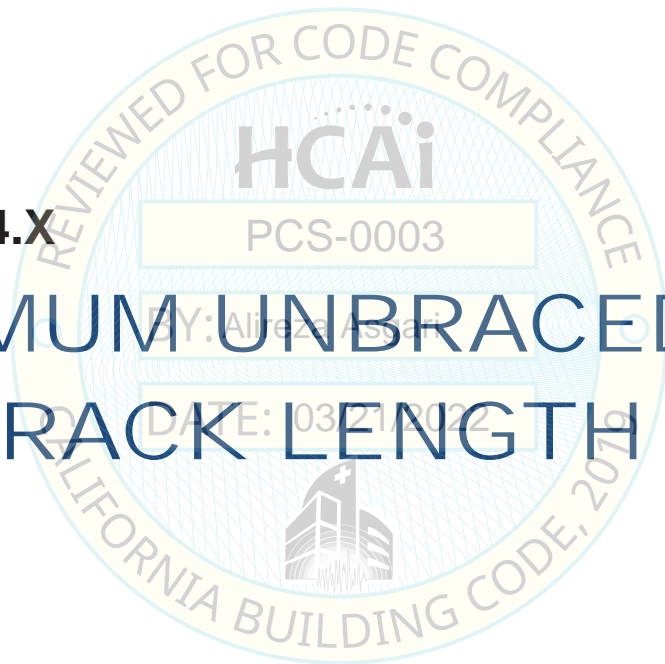
**TABLE C: MITEK ANCHORS**

| Anchor Type   | Min. Concrete Thickness Over Deck | Concrete Strength (28-day) |          |          |
|---------------|-----------------------------------|----------------------------|----------|----------|
|               |                                   | 3000 psi                   | 4000 psi | 5000 psi |
| EXPANSION     | 375 WACW ###                      | N/A                        | N/A      | N/A      |
|               | 500 WACW ###                      | N/A                        | N/A      | N/A      |
|               | 625 WACW ###                      | N/A                        | N/A      | N/A      |
|               | 750 WACW ###                      | N/A                        | N/A      | N/A      |
| RESIN         | 375 CIAG7C ###                    | N/A                        | N/A      | N/A      |
|               | 500 CIAG7C ###                    | N/A                        | N/A      | N/A      |
|               | 625 CIAG7C ###                    | N/A                        | N/A      | N/A      |
| SCREW         | 750 CIAG7C ###                    | N/A                        | N/A      | N/A      |
|               | 375 SACHS ###                     | N/A                        | N/A      | N/A      |
|               | 500 SACHS ###                     | N/A                        | N/A      | N/A      |
|               | 625 SACHS ###                     | N/A                        | N/A      | N/A      |
| 750 SACHS ### | N/A                               | N/A                        | N/A      |          |



**TABLE 4.7.4.X**

# MAXIMUM UNBRACED TOP TRACK LENGTH



**TABLE 4.7.4.161: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | ( $p = 1.5$ ) | S <sub>DS</sub> | 0.40    | Weight  | 2000 lbs |               |
|---|---------------|-----------|---------|---------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |               |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |               |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |               |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 10'-4"    | 10'-10" | 11'-4"        | 11'-10"         | 12'-3"  | 12'-8"  | 13'-2"   | 362T125-33-50 |
|   | 362T125-43-50 | 13'-2"    | 13'-10" | 14'-6"        | 15'-1"          | 15'-8"  | 16'-3"  | 16'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 16'-1"    | 16'-11" | 17'-8"        | 18'-5"          | 19'-1"  | 19'-9"  | 20'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 19'-5"    | 20'-4"  | 21'-3"        | 22'-2"          | 23'-0"  | 23'-10" | 24'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 23'-7"    | 24'-9"  | 25'-10"       | 26'-11"         | 27'-11" | 28'-11" | 29'-11"  | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 10'-8"    | 11'-3"  | 11'-9"        | 12'-3"          | 12'-9"  | 13'-2"  | 13'-7"   | 362T125-33-50 |
|   | 362T125-43-50 | 13'-8"    | 14'-4"  | 15'-0"        | 15'-8"          | 16'-3"  | 16'-10" | 17'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 16'-8"    | 17'-6"  | 18'-3"        | 19'-1"          | 19'-9"  | 20'-6"  | 21'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 20'-1"    | 21'-1"  | 22'-1"        | 23'-0"          | 23'-10" | 24'-8"  | 25'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 24'-5"    | 25'-7"  | 26'-9"        | 27'-10"         | 28'-11" | 29'-11" | 31'-0"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 11'-1"    | 11'-8"  | 12'-2"        | 12'-9"          | 13'-2"  | 13'-8"  | 14'-2"   | 362T125-33-50 |
|   | 362T125-43-50 | 14'-2"    | 14'-11" | 15'-7"        | 16'-3"          | 16'-10" | 17'-6"  | 18'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 17'-4"    | 18'-2"  | 19'-0"        | 19'-9"          | 20'-7"  | 21'-3"  | 22'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 20'-10"   | 21'-11" | 22'-11"       | 23'-10"         | 24'-9"  | 25'-8"  | 26'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 25'-4"    | 26'-7"  | 27'-9"        | 28'-11"         | 30'-1"  | 31'-1"  | 32'-2"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 11'-7"    | 12'-2"  | 12'-9"        | 13'-3"          | 13'-9"  | 14'-3"  | 14'-9"   | 362T125-33-50 |
|   | 362T125-43-50 | 14'-9"    | 15'-6"  | 16'-3"        | 16'-11"         | 17'-7"  | 18'-2"  | 18'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 18'-0"    | 18'-11" | 19'-9"        | 20'-7"          | 21'-5"  | 22'-2"  | 22'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 21'-9"    | 22'-10" | 23'-10"       | 24'-10"         | 25'-10" | 26'-9"  | 27'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 26'-5"    | 27'-8"  | 28'-11"       | 30'-2"          | 31'-4"  | 32'-5"  | 32'-6"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 12'-1"    | 12'-9"  | 13'-4"        | 13'-10"         | 14'-5"  | 14'-11" | 15'-5"   | 362T125-33-50 |
|   | 362T125-43-50 | 15'-6"    | 16'-3"  | 17'-0"        | 17'-8"          | 18'-4"  | 19'-0"  | 19'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 18'-10"   | 19'-9"  | 20'-8"        | 21'-7"          | 22'-4"  | 23'-2"  | 23'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 22'-9"    | 23'-10" | 24'-11"       | 26'-0"          | 27'-0"  | 27'-11" | 28'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 27'-7"    | 28'-11" | 30'-3"        | 31'-6"          | 32'-9"  | 33'-11" | 35'-0"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 12'-9"    | 13'-4"  | 14'-0"        | 14'-7"          | 15'-1"  | 15'-8"  | 16'-2"   | 362T125-33-50 |
|   | 362T125-43-50 | 16'-3"    | 17'-1"  | 17'-10"       | 18'-7"          | 19'-3"  | 20'-0"  | 20'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 19'-10"   | 20'-9"  | 21'-9"        | 22'-7"          | 23'-6"  | 24'-4"  | 25'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 23'-10"   | 25'-1"  | 26'-2"        | 27'-3"          | 28'-4"  | 29'-4"  | 30'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 28'-11"   | 30'-5"  | 31'-9"        | 33'-1"          | 34'-4"  | 35'-7"  | 36'-9"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 13'-5"    | 14'-1"  | 14'-9"        | 15'-4"          | 15'-11" | 16'-6"  | 17'-1"   | 362T125-33-50 |
|   | 362T125-43-50 | 17'-2"    | 18'-0"  | 18'-10"       | 19'-7"          | 20'-4"  | 21'-1"  | 21'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 20'-11"   | 21'-11" | 22'-11"       | 23'-10"         | 24'-9"  | 25'-8"  | 26'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 25'-2"    | 26'-5"  | 27'-7"        | 28'-9"          | 29'-10" | 30'-11" | 31'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 30'-6"    | 32'-1"  | 33'-6"        | 34'-11"         | 36'-3"  | 37'-6"  | 38'-9"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 14'-3"    | 15'-0"  | 15'-8"        | 16'-4"          | 16'-11" | 17'-7"  | 18'-2"   | 362T125-33-50 |
|   | 362T125-43-50 | 18'-2"    | 19'-1"  | 20'-0"        | 20'-10"         | 21'-7"  | 22'-4"  | 23'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 22'-2"    | 23'-3"  | 24'-4"        | 25'-4"          | 26'-4"  | 27'-3"  | 28'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 26'-9"    | 28'-1"  | 29'-4"        | 30'-6"          | 31'-8"  | 32'-10" | 33'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 32'-5"    | 34'-0"  | 35'-7"        | 37'-0"          | 38'-5"  | 39'-10" | 41'-2"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 15'-3"    | 16'-1"  | 16'-9"        | 17'-6"          | 18'-2"  | 18'-9"  | 19'-5"   | 362T125-33-50 |
|   | 362T125-43-50 | 19'-6"    | 20'-5"  | 21'-5"        | 22'-3"          | 23'-1"  | 23'-11" | 24'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 23'-9"    | 24'-11" | 26'-0"        | 27'-1"          | 28'-2"  | 29'-2"  | 30'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 28'-7"    | 30'-0"  | 31'-5"        | 32'-8"          | 33'-11" | 35'-2"  | 36'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 34'-8"    | 36'-5"  | 38'-1"        | 39'-7"          | 41'-2"  | 42'-7"  | 44'-0"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 16'-6"    | 17'-4"  | 18'-2"        | 18'-11"         | 19'-8"  | 20'-4"  | 21'-0"   | 362T125-33-50 |
|   | 362T125-43-50 | 21'-1"    | 22'-1"  | 23'-1"        | 24'-1"          | 25'-0"  | 25'-11" | 26'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 25'-8"    | 26'-11" | 28'-2"        | 29'-4"          | 30'-5"  | 31'-6"  | 32'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 30'-11"   | 32'-6"  | 33'-11"       | 35'-4"          | 36'-8"  | 38'-0"  | 39'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 37'-6"    | 39'-4"  | 41'-2"        | 42'-10"         | 44'-6"  | 46'-1"  | 47'-7"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 17'-8"    | 18'-7"  | 19'-5"        | 20'-3"          | 21'-0"  | 21'-9"  | 22'-6"   | 362T125-33-50 |
|   | 362T125-43-50 | 22'-7"    | 23'-8"  | 24'-9"        | 25'-9"          | 26'-9"  | 27'-9"  | 28'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 27'-6"    | 28'-10" | 30'-2"        | 31'-5"          | 32'-7"  | 33'-9"  | 34'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 33'-1"    | 34'-9"  | 36'-4"        | 37'-10"         | 39'-3"  | 40'-8"  | 42'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 40'-2"    | 42'-1"  | 44'-0"        | 45'-10"         | 47'-7"  | 49'-3"  | 50'-11"  | 362T125-97-50 |



**TABLE 4.7.4.162: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | ( $p = 1.5$ ) | S <sub>DS</sub> | 0.40    | Weight  | 2200 lbs |               |
|---|---------------|-----------|---------|---------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |               |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |               |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |               |                 |         |         |          |               |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  | Track Section |
| 1.0   | 362T125-33-50 | 9'-10"    | 10'-4"  | 10'-9"        | 11'-3"          | 11'-8"  | 12'-1"  | 12'-6"   | 362T125-33-50 |
|   | 362T125-43-50 | 12'-7"    | 13'-2"  | 13'-9"        | 14'-4"          | 14'-11" | 15'-5"  | 16'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 15'-4"    | 16'-1"  | 16'-10"       | 17'-6"          | 18'-2"  | 18'-10" | 19'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 18'-6"    | 19'-5"  | 20'-3"        | 21'-1"          | 21'-11" | 22'-8"  | 23'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 22'-5"    | 23'-7"  | 24'-7"        | 25'-8"          | 26'-7"  | 27'-7"  | 28'-6"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 10'-2"    | 10'-8"  | 11'-2"        | 11'-8"          | 12'-1"  | 12'-6"  | 12'-11"  | 362T125-33-50 |
|   | 362T125-43-50 | 13'-0"    | 13'-8"  | 14'-3"        | 14'-11"         | 15'-5"  | 16'-0"  | 16'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 15'-10"   | 16'-8"  | 17'-5"        | 18'-2"          | 18'-10" | 19'-6"  | 20'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 19'-2"    | 20'-1"  | 21'-0"        | 21'-10"         | 22'-9"  | 23'-6"  | 24'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 23'-3"    | 24'-5"  | 25'-6"        | 26'-7"          | 27'-7"  | 28'-7"  | 29'-6"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 10'-7"    | 11'-1"  | 11'-7"        | 12'-1"          | 12'-7"  | 13'-0"  | 13'-6"   | 362T125-33-50 |
|   | 362T125-43-50 | 13'-6"    | 14'-2"  | 14'-10"       | 15'-5"          | 16'-1"  | 16'-8"  | 17'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 16'-6"    | 17'-4"  | 18'-1"        | 18'-10"         | 19'-7"  | 20'-3"  | 20'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 19'-10"   | 20'-10" | 21'-10"       | 22'-9"          | 23'-7"  | 24'-5"  | 25'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 24'-2"    | 25'-4"  | 26'-6"        | 27'-7"          | 28'-8"  | 29'-8"  | 30'-8"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 11'-0"    | 11'-7"  | 12'-1"        | 12'-7"          | 13'-1"  | 13'-7"  | 14'-0"   | 362T125-33-50 |
|   | 362T125-43-50 | 14'-1"    | 14'-9"  | 15'-6"        | 16'-1"          | 16'-9"  | 17'-4"  | 17'-11"  | 362T125-43-50 |
|   | 362T125-54-50 | 17'-2"    | 18'-0"  | 18'-10"       | 19'-8"          | 20'-5"  | 21'-1"  | 21'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 20'-9"    | 21'-9"  | 22'-9"        | 23'-8"          | 24'-7"  | 25'-5"  | 26'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 25'-2"    | 26'-5"  | 27'-7"        | 28'-9"          | 29'-10" | 30'-11" | 31'-1"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 11'-6"    | 12'-1"  | 12'-8"        | 13'-2"          | 13'-8"  | 14'-2"  | 14'-8"   | 362T125-33-50 |
|   | 362T125-43-50 | 14'-9"    | 15'-6"  | 16'-2"        | 16'-10"         | 17'-6"  | 18'-1"  | 18'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 17'-11"   | 18'-10" | 19'-8"        | 20'-6"          | 21'-4"  | 22'-1"  | 22'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 21'-8"    | 22'-9"  | 23'-9"        | 24'-9"          | 25'-8"  | 26'-7"  | 27'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 26'-3"    | 27'-7"  | 28'-10"       | 30'-0"          | 31'-2"  | 32'-3"  | 33'-4"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 12'-1"    | 12'-9"  | 13'-4"        | 13'-10"         | 14'-5"  | 14'-11" | 15'-5"   | 362T125-33-50 |
|   | 362T125-43-50 | 15'-6"    | 16'-3"  | 17'-0"        | 17'-8"          | 18'-4"  | 19'-0"  | 19'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 18'-10"   | 19'-9"  | 20'-8"        | 21'-7"          | 22'-4"  | 23'-2"  | 23'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 22'-9"    | 23'-10" | 24'-11"       | 26'-0"          | 27'-0"  | 27'-11" | 28'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 27'-7"    | 28'-11" | 30'-3"        | 31'-6"          | 32'-9"  | 33'-11" | 35'-0"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 12'-9"    | 13'-5"  | 14'-0"        | 14'-8"          | 15'-2"  | 15'-9"  | 16'-3"   | 362T125-33-50 |
|   | 362T125-43-50 | 16'-4"    | 17'-2"  | 17'-11"       | 18'-8"          | 19'-5"  | 20'-1"  | 20'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 19'-11"   | 20'-11" | 21'-10"       | 22'-9"          | 23'-7"  | 24'-5"  | 25'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 24'-0"    | 25'-2"  | 26'-4"        | 27'-5"          | 28'-5"  | 29'-6"  | 30'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 29'-1"    | 30'-6"  | 31'-11"       | 33'-3"          | 34'-6"  | 35'-9"  | 36'-11"  | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 13'-7"    | 14'-3"  | 14'-11"       | 15'-6"          | 16'-2"  | 16'-9"  | 17'-3"   | 362T125-33-50 |
|   | 362T125-43-50 | 17'-4"    | 18'-2"  | 19'-0"        | 19'-10"         | 20'-7"  | 21'-4"  | 22'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 21'-2"    | 22'-2"  | 23'-2"        | 24'-2"          | 25'-1"  | 26'-0"  | 26'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 25'-6"    | 26'-9"  | 27'-11"       | 29'-1"          | 30'-2"  | 31'-3"  | 32'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 30'-11"   | 32'-5"  | 33'-11"       | 35'-3"          | 36'-8"  | 37'-11" | 39'-2"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 14'-7"    | 15'-3"  | 16'-0"        | 16'-8"          | 17'-3"  | 17'-11" | 18'-6"   | 362T125-33-50 |
|   | 362T125-43-50 | 18'-7"    | 19'-6"  | 20'-4"        | 21'-3"          | 22'-0"  | 22'-10" | 23'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 22'-7"    | 23'-9"  | 24'-10"       | 25'-10"         | 26'-10" | 27'-9"  | 28'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 27'-3"    | 28'-7"  | 29'-11"       | 31'-2"          | 32'-4"  | 33'-6"  | 34'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 33'-1"    | 34'-8"  | 36'-3"        | 37'-9"          | 39'-2"  | 40'-7"  | 41'-11"  | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 15'-9"    | 16'-6"  | 17'-3"        | 18'-0"          | 18'-8"  | 19'-4"  | 20'-0"   | 362T125-33-50 |
|   | 362T125-43-50 | 20'-1"    | 21'-1"  | 22'-0"        | 22'-11"         | 23'-10" | 24'-8"  | 25'-6"   | 362T125-43-50 |
|   | 362T125-54-50 | 24'-5"    | 25'-8"  | 26'-10"       | 27'-11"         | 29'-0"  | 30'-0"  | 31'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 29'-6"    | 30'-11" | 32'-4"        | 33'-8"          | 34'-11" | 36'-2"  | 37'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 35'-9"    | 37'-6"  | 39'-2"        | 40'-10"         | 42'-4"  | 43'-11" | 45'-4"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 16'-10"   | 17'-8"  | 18'-6"        | 19'-3"          | 20'-0"  | 20'-9"  | 21'-5"   | 362T125-33-50 |
|   | 362T125-43-50 | 21'-6"    | 22'-7"  | 23'-7"        | 24'-7"          | 25'-6"  | 26'-5"  | 27'-3"   | 362T125-43-50 |
|   | 362T125-54-50 | 26'-2"    | 27'-6"  | 28'-9"        | 29'-11"         | 31'-0"  | 32'-2"  | 33'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 31'-6"    | 33'-1"  | 34'-7"        | 36'-0"          | 37'-5"  | 38'-9"  | 40'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 38'-3"    | 40'-2"  | 41'-11"       | 43'-8"          | 45'-4"  | 46'-11" | 48'-6"   | 362T125-97-50 |



**TABLE 4.7.4.163: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | ( $p = 1.5$ ) | S <sub>DS</sub> | 0.40    | Weight  | 2400 lbs |               |
|---|---------------|-----------|---------|---------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |               |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |               |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |               |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 9'-5"     | 9'-10"  | 10'-4"        | 10'-9"          | 11'-2"  | 11'-7"  | 11'-11"  | 362T125-33-50 |
|   | 362T125-43-50 | 12'-0"    | 12'-7"  | 13'-2"        | 13'-9"          | 14'-3"  | 14'-9"  | 15'-3"   | 362T125-43-50 |
|   | 362T125-54-50 | 14'-8"    | 15'-5"  | 16'-1"        | 16'-9"          | 17'-5"  | 18'-0"  | 18'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 17'-8"    | 18'-7"  | 19'-5"        | 20'-2"          | 21'-0"  | 21'-9"  | 22'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 21'-5"    | 22'-6"  | 23'-6"        | 24'-6"          | 25'-6"  | 26'-4"  | 27'-3"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 9'-9"     | 10'-3"  | 10'-8"        | 11'-2"          | 11'-7"  | 12'-0"  | 12'-5"   | 362T125-33-50 |
|   | 362T125-43-50 | 12'-5"    | 13'-1"  | 13'-8"        | 14'-3"          | 14'-9"  | 15'-4"  | 15'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 15'-2"    | 15'-11" | 16'-8"        | 17'-4"          | 18'-0"  | 18'-8"  | 19'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 18'-4"    | 19'-3"  | 20'-1"        | 20'-11"         | 21'-9"  | 22'-6"  | 23'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 22'-3"    | 23'-4"  | 24'-5"        | 25'-5"          | 26'-4"  | 27'-4"  | 28'-3"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 10'-1"    | 10'-7"  | 11'-1"        | 11'-7"          | 12'-0"  | 12'-5"  | 12'-10"  | 362T125-33-50 |
|   | 362T125-43-50 | 12'-11"   | 13'-7"  | 14'-2"        | 14'-9"          | 15'-4"  | 15'-11" | 16'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 15'-9"    | 16'-7"  | 17'-4"        | 18'-0"          | 18'-9"  | 19'-5"  | 20'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 19'-0"    | 19'-11" | 20'-10"       | 21'-9"          | 22'-7"  | 23'-5"  | 24'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 23'-1"    | 24'-3"  | 25'-4"        | 26'-5"          | 27'-5"  | 28'-4"  | 29'-4"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 10'-6"    | 11'-1"  | 11'-7"        | 12'-1"          | 12'-6"  | 13'-0"  | 13'-5"   | 362T125-33-50 |
|   | 362T125-43-50 | 13'-6"    | 14'-2"  | 14'-9"        | 15'-5"          | 16'-0"  | 16'-7"  | 17'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 16'-5"    | 17'-3"  | 18'-0"        | 18'-9"          | 19'-6"  | 20'-2"  | 20'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 19'-10"   | 20'-10" | 21'-9"        | 22'-8"          | 23'-6"  | 24'-4"  | 25'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 24'-0"    | 25'-3"  | 26'-5"        | 27'-6"          | 28'-6"  | 29'-6"  | 30'-6"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 11'-0"    | 11'-7"  | 12'-1"        | 12'-7"          | 13'-1"  | 13'-7"  | 14'-0"   | 362T125-33-50 |
|   | 362T125-43-50 | 14'-1"    | 14'-9"  | 15'-6"        | 16'-1"          | 16'-9"  | 17'-4"  | 17'-11"  | 362T125-43-50 |
|   | 362T125-54-50 | 17'-2"    | 18'-0"  | 18'-10"       | 19'-8"          | 20'-5"  | 21'-1"  | 21'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 20'-9"    | 21'-9"  | 22'-9"        | 23'-8"          | 24'-7"  | 25'-5"  | 26'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 25'-2"    | 26'-5"  | 27'-7"        | 28'-9"          | 29'-10" | 30'-11" | 31'-11"  | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 11'-7"    | 12'-2"  | 12'-9"        | 13'-3"          | 13'-9"  | 14'-3"  | 14'-9"   | 362T125-33-50 |
|   | 362T125-43-50 | 14'-9"    | 15'-6"  | 16'-3"        | 16'-11"         | 17'-7"  | 18'-2"  | 18'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 18'-0"    | 18'-11" | 19'-9"        | 20'-7"          | 21'-5"  | 22'-2"  | 22'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 21'-9"    | 22'-10" | 23'-10"       | 24'-10"         | 25'-10" | 26'-9"  | 27'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 26'-5"    | 27'-8"  | 28'-11"       | 30'-2"          | 31'-4"  | 32'-5"  | 33'-6"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 12'-3"    | 12'-10" | 13'-5"        | 14'-0"          | 14'-6"  | 15'-1"  | 15'-7"   | 362T125-33-50 |
|   | 362T125-43-50 | 15'-7"    | 16'-5"  | 17'-2"        | 17'-10"         | 18'-6"  | 19'-2"  | 19'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 19'-0"    | 20'-0"  | 20'-11"       | 21'-9"          | 22'-7"  | 23'-5"  | 24'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 22'-11"   | 24'-1"  | 25'-2"        | 26'-3"          | 27'-3"  | 28'-2"  | 29'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 27'-10"   | 29'-2"  | 30'-6"        | 31'-10"         | 33'-0"  | 34'-2"  | 35'-4"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 13'-0"    | 13'-8"  | 14'-3"        | 14'-10"         | 15'-5"  | 16'-0"  | 16'-6"   | 362T125-33-50 |
|   | 362T125-43-50 | 16'-7"    | 17'-5"  | 18'-2"        | 18'-11"         | 19'-8"  | 20'-5"  | 21'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 20'-3"    | 21'-3"  | 22'-2"        | 23'-1"          | 24'-0"  | 24'-10" | 25'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 24'-4"    | 25'-7"  | 26'-9"        | 27'-10"         | 28'-11" | 29'-11" | 30'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 29'-6"    | 31'-0"  | 32'-5"        | 33'-9"          | 35'-1"  | 36'-4"  | 37'-6"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 13'-11"   | 14'-7"  | 15'-3"        | 15'-11"         | 16'-6"  | 17'-1"  | 17'-8"   | 362T125-33-50 |
|   | 362T125-43-50 | 17'-9"    | 18'-8"  | 19'-6"        | 20'-4"          | 21'-1"  | 21'-10" | 22'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 21'-8"    | 22'-8"  | 23'-9"        | 24'-9"          | 25'-8"  | 26'-7"  | 27'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 26'-1"    | 27'-4"  | 28'-7"        | 29'-9"          | 30'-11" | 32'-0"  | 33'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 31'-8"    | 33'-2"  | 34'-8"        | 36'-1"          | 37'-6"  | 38'-10" | 40'-2"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 15'-1"    | 15'-10" | 16'-6"        | 17'-3"          | 17'-11" | 18'-6"  | 19'-2"   | 362T125-33-50 |
|   | 362T125-43-50 | 19'-2"    | 20'-2"  | 21'-1"        | 21'-11"         | 22'-9"  | 23'-7"  | 24'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 23'-5"    | 24'-7"  | 25'-8"        | 26'-9"          | 27'-9"  | 28'-9"  | 29'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 28'-2"    | 29'-7"  | 30'-11"       | 32'-3"          | 33'-5"  | 34'-8"  | 35'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 34'-2"    | 35'-11" | 37'-6"        | 39'-1"          | 40'-7"  | 42'-0"  | 43'-5"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 16'-2"    | 16'-11" | 17'-8"        | 18'-5"          | 19'-2"  | 19'-10" | 20'-6"   | 362T125-33-50 |
|   | 362T125-43-50 | 20'-7"    | 21'-7"  | 22'-7"        | 23'-6"          | 24'-5"  | 25'-3"  | 26'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 25'-1"    | 26'-3"  | 27'-6"        | 28'-7"          | 29'-8"  | 30'-9"  | 31'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 30'-2"    | 31'-8"  | 33'-1"        | 34'-6"          | 35'-9"  | 37'-1"  | 38'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 36'-7"    | 38'-5"  | 40'-2"        | 41'-9"          | 43'-5"  | 44'-11" | 46'-5"   | 362T125-97-50 |



**TABLE 4.7.4.164: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | ( $p = 1.5$ ) | S <sub>DS</sub> | 0.40    | Weight  | 2600 lbs |               |
|---|---------------|-----------|---------|---------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |               |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |               |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |               |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 9'-0"     | 9'-5"   | 9'-11"        | 10'-4"          | 10'-8"  | 11'-1"  | 11'-6"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-6"    | 12'-1"  | 12'-8"        | 13'-2"          | 13'-8"  | 14'-2"  | 14'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 14'-1"    | 14'-9"  | 15'-5"        | 16'-1"          | 16'-8"  | 17'-4"  | 17'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 16'-11"   | 17'-10" | 18'-7"        | 19'-5"          | 20'-2"  | 20'-10" | 21'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 20'-7"    | 21'-7"  | 22'-7"        | 23'-6"          | 24'-5"  | 25'-4"  | 26'-2"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 9'-4"     | 9'-10"  | 10'-3"        | 10'-8"          | 11'-1"  | 11'-6"  | 11'-11"  | 362T125-33-50 |
|   | 362T125-43-50 | 11'-11"   | 12'-6"  | 13'-1"        | 13'-8"          | 14'-2"  | 14'-8"  | 15'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 14'-7"    | 15'-3"  | 16'-0"        | 16'-8"          | 17'-4"  | 17'-11" | 18'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 17'-7"    | 18'-5"  | 19'-3"        | 20'-1"          | 20'-10" | 21'-7"  | 22'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 21'-4"    | 22'-5"  | 23'-5"        | 24'-5"          | 25'-4"  | 26'-3"  | 27'-1"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 9'-8"     | 10'-2"  | 10'-8"        | 11'-1"          | 11'-6"  | 11'-11" | 12'-4"   | 362T125-33-50 |
|   | 362T125-43-50 | 12'-5"    | 13'-0"  | 13'-7"        | 14'-2"          | 14'-9"  | 15'-3"  | 15'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 15'-2"    | 15'-11" | 16'-7"        | 17'-4"          | 18'-0"  | 18'-7"  | 19'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 18'-3"    | 19'-2"  | 20'-0"        | 20'-10"         | 21'-8"  | 22'-5"  | 23'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 22'-2"    | 23'-3"  | 24'-4"        | 25'-4"          | 26'-4"  | 27'-3"  | 28'-2"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 10'-1"    | 10'-7"  | 11'-1"        | 11'-7"          | 12'-0"  | 12'-5"  | 12'-10"  | 362T125-33-50 |
|   | 362T125-43-50 | 12'-11"   | 13'-7"  | 14'-2"        | 14'-9"          | 15'-4"  | 15'-11" | 16'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 15'-9"    | 16'-7"  | 17'-4"        | 18'-0"          | 18'-9"  | 19'-5"  | 20'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 19'-0"    | 19'-11" | 20'-10"       | 21'-9"          | 22'-7"  | 23'-5"  | 24'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 23'-1"    | 24'-3"  | 25'-4"        | 26'-5"          | 27'-5"  | 28'-4"  | 29'-4"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 10'-7"    | 11'-1"  | 11'-7"        | 12'-1"          | 12'-7"  | 13'-0"  | 13'-6"   | 362T125-33-50 |
|   | 362T125-43-50 | 13'-6"    | 14'-2"  | 14'-10"       | 15'-5"          | 16'-1"  | 16'-8"  | 17'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 16'-6"    | 17'-4"  | 18'-1"        | 18'-10"         | 19'-7"  | 20'-3"  | 20'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 19'-11"   | 20'-10" | 21'-10"       | 22'-9"          | 23'-7"  | 24'-5"  | 25'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 24'-2"    | 25'-4"  | 26'-6"        | 27'-7"          | 28'-8"  | 29'-8"  | 30'-8"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 11'-1"    | 11'-8"  | 12'-2"        | 12'-9"          | 13'-2"  | 13'-8"  | 14'-2"   | 362T125-33-50 |
|   | 362T125-43-50 | 14'-2"    | 14'-11" | 15'-7"        | 16'-3"          | 16'-10" | 17'-6"  | 18'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 17'-4"    | 18'-2"  | 19'-0"        | 19'-9"          | 20'-7"  | 21'-3"  | 22'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 20'-10"   | 21'-11" | 22'-11"       | 23'-10"         | 24'-9"  | 25'-8"  | 26'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 25'-4"    | 26'-7"  | 27'-10"       | 28'-11"         | 30'-1"  | 31'-1"  | 32'-2"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 11'-9"    | 12'-4"  | 12'-11"       | 13'-5"          | 13'-11" | 14'-5"  | 14'-11"  | 362T125-33-50 |
|   | 362T125-43-50 | 15'-0"    | 15'-9"  | 16'-5"        | 17'-2"          | 17'-10" | 18'-5"  | 19'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 18'-3"    | 19'-2"  | 20'-1"        | 20'-11"         | 21'-8"  | 22'-5"  | 23'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 22'-0"    | 23'-1"  | 24'-2"        | 25'-2"          | 26'-2"  | 27'-1"  | 28'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 26'-9"    | 28'-1"  | 29'-4"        | 30'-6"          | 31'-8"  | 32'-10" | 33'-11"  | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 12'-6"    | 13'-1"  | 13'-8"        | 14'-3"          | 14'-10" | 15'-4"  | 15'-10"  | 362T125-33-50 |
|   | 362T125-43-50 | 15'-11"   | 16'-9"  | 17'-6"        | 18'-2"          | 18'-11" | 19'-7"  | 20'-3"   | 362T125-43-50 |
|   | 362T125-54-50 | 19'-5"    | 20'-4"  | 21'-3"        | 22'-2"          | 23'-0"  | 23'-10" | 24'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 23'-5"    | 24'-7"  | 25'-8"        | 26'-9"          | 27'-9"  | 28'-9"  | 29'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 28'-4"    | 29'-9"  | 31'-2"        | 32'-5"          | 33'-8"  | 34'-10" | 36'-0"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 13'-4"    | 14'-0"  | 14'-8"        | 15'-3"          | 15'-10" | 16'-5"  | 17'-0"   | 362T125-33-50 |
|   | 362T125-43-50 | 17'-1"    | 17'-11" | 18'-8"        | 19'-6"          | 20'-3"  | 20'-11" | 21'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 20'-9"    | 21'-10" | 22'-9"        | 23'-9"          | 24'-8"  | 25'-6"  | 26'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 25'-0"    | 26'-3"  | 27'-6"        | 28'-7"          | 29'-8"  | 30'-9"  | 31'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 30'-4"    | 31'-10" | 33'-4"        | 34'-8"          | 36'-0"  | 37'-4"  | 38'-6"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 14'-5"    | 15'-2"  | 15'-10"       | 16'-6"          | 17'-2"  | 17'-9"  | 18'-4"   | 362T125-33-50 |
|   | 362T125-43-50 | 18'-5"    | 19'-4"  | 20'-3"        | 21'-1"          | 21'-11" | 22'-8"  | 23'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 22'-6"    | 23'-7"  | 24'-8"        | 25'-8"          | 26'-8"  | 27'-7"  | 28'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 27'-1"    | 28'-5"  | 29'-8"        | 30'-11"         | 32'-1"  | 33'-3"  | 34'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 32'-10"   | 34'-6"  | 36'-0"        | 37'-6"          | 38'-11" | 40'-4"  | 41'-8"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 15'-6"    | 16'-3"  | 17'-0"        | 17'-8"          | 18'-5"  | 19'-0"  | 19'-8"   | 362T125-33-50 |
|   | 362T125-43-50 | 19'-9"    | 20'-9"  | 21'-8"        | 22'-7"          | 23'-5"  | 24'-3"  | 25'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 24'-1"    | 25'-3"  | 26'-5"        | 27'-6"          | 28'-6"  | 29'-6"  | 30'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 29'-0"    | 30'-5"  | 31'-9"        | 33'-1"          | 34'-4"  | 35'-7"  | 36'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 35'-2"    | 36'-11" | 38'-6"        | 40'-2"          | 41'-8"  | 43'-2"  | 44'-7"   | 362T125-97-50 |



**TABLE 4.7.4.165: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | ( $p = 1.5$ ) | S <sub>Ds</sub> | 0.40    | Weight  | 2800 lbs      |               |
|---|---------------|-----------|---------|---------------|-----------------|---------|---------|---------------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |               |                 |         |         |               |               |
| <u>Note:</u> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |               |                 |         |         |               |               |
| Height in Bldg (z/h)  | Track Section | Pod Width |         |               |                 |         |         |               |               |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft       | Track Section |
| 1.0   | 362T125-33-50 | 8'-8"     | 9'-1"   | 9'-6"         | 9'-11"          | 10'-4"  | 10'-8"  | 11'-0"        | 362T125-33-50 |
|   | 362T125-43-50 | 11'-1"    | 11'-8"  | 12'-2"        | 12'-8"          | 13'-2"  | 13'-8"  | 14'-1"        | 362T125-43-50 |
|   | 362T125-54-50 | 13'-6"    | 14'-3"  | 14'-10"       | 15'-6"          | 16'-1"  | 16'-8"  | 17'-3"        | 362T125-54-50 |
|   | 362T125-68-50 | 16'-4"    | 17'-2"  | 17'-11"       | 18'-8"          | 19'-5"  | 20'-1"  | 20'-9"        | 362T125-68-50 |
| 0.9   | 362T125-33-50 | 9'-0"     | 9'-5"   | 9'-10"        | 10'-3"          | 10'-8"  | 11'-1"  | 11'-5"        | 362T125-33-50 |
|   | 362T125-43-50 | 11'-6"    | 12'-1"  | 12'-7"        | 13'-2"          | 13'-8"  | 14'-2"  | 14'-7"        | 362T125-43-50 |
|   | 362T125-54-50 | 14'-0"    | 14'-9"  | 15'-5"        | 16'-0"          | 16'-8"  | 17'-3"  | 17'-10"       | 362T125-54-50 |
|   | 362T125-68-50 | 16'-11"   | 17'-9"  | 18'-7"        | 19'-4"          | 20'-1"  | 20'-10" | 21'-6"        | 362T125-68-50 |
| 0.8   | 362T125-33-50 | 9'-4"     | 9'-10"  | 10'-3"        | 10'-8"          | 11'-1"  | 11'-6"  | 11'-11"       | 362T125-33-50 |
|   | 362T125-43-50 | 11'-11"   | 12'-6"  | 13'-1"        | 13'-8"          | 14'-2"  | 14'-8"  | 15'-2"        | 362T125-43-50 |
|   | 362T125-54-50 | 14'-7"    | 15'-3"  | 16'-0"        | 16'-8"          | 17'-4"  | 17'-11" | 18'-6"        | 362T125-54-50 |
|   | 362T125-68-50 | 17'-7"    | 18'-5"  | 19'-3"        | 20'-1"          | 20'-10" | 21'-7"  | 22'-4"        | 362T125-68-50 |
| 0.7   | 362T125-33-50 | 9'-9"     | 10'-3"  | 10'-8"        | 11'-2"          | 11'-7"  | 12'-0"  | 12'-5"        | 362T125-33-50 |
|   | 362T125-43-50 | 12'-5"    | 13'-1"  | 13'-8"        | 14'-3"          | 14'-9"  | 15'-4"  | 15'-10"       | 362T125-43-50 |
|   | 362T125-54-50 | 15'-2"    | 15'-11" | 16'-8"        | 17'-4"          | 18'-0"  | 18'-8"  | 19'-4"        | 362T125-54-50 |
|   | 362T125-68-50 | 18'-4"    | 19'-3"  | 20'-1"        | 20'-11"         | 21'-9"  | 22'-6"  | 23'-3"        | 362T125-68-50 |
| 0.6   | 362T125-33-50 | 10'-2"    | 10'-8"  | 11'-2"        | 11'-8"          | 12'-1"  | 12'-6"  | 12'-11"       | 362T125-33-50 |
|   | 362T125-43-50 | 13'-0"    | 13'-8"  | 14'-3"        | 14'-11"         | 15'-5"  | 16'-0"  | 16'-7"        | 362T125-43-50 |
|   | 362T125-54-50 | 15'-10"   | 16'-8"  | 17'-5"        | 18'-2"          | 18'-10" | 19'-6"  | 20'-2"        | 362T125-54-50 |
|   | 362T125-68-50 | 19'-2"    | 20'-1"  | 21'-0"        | 21'-10"         | 22'-8"  | 23'-6"  | 24'-4"        | 362T125-68-50 |
| 0.5   | 362T125-33-50 | 10'-8"    | 11'-3"  | 11'-9"        | 12'-3"          | 12'-9"  | 13'-2"  | 13'-7"        | 362T125-33-50 |
|   | 362T125-43-50 | 13'-8"    | 14'-4"  | 15'-0"        | 15'-8"          | 16'-3"  | 16'-10" | 17'-4"        | 362T125-43-50 |
|   | 362T125-54-50 | 16'-8"    | 17'-6"  | 18'-3"        | 19'-1"          | 19'-9"  | 20'-6"  | 21'-2"        | 362T125-54-50 |
|   | 362T125-68-50 | 20'-1"    | 21'-1"  | 22'-1"        | 23'-0"          | 23'-10" | 24'-8"  | 25'-6"        | 362T125-68-50 |
| 0.4   | 362T125-33-50 | 11'-3"    | 11'-10" | 12'-5"        | 12'-11"         | 13'-5"  | 13'-11" | 14'-4"        | 362T125-33-50 |
|   | 362T125-43-50 | 14'-5"    | 15'-2"  | 15'-10"       | 16'-6"          | 17'-2"  | 17'-9"  | 18'-4"        | 362T125-43-50 |
|   | 362T125-54-50 | 17'-7"    | 18'-6"  | 19'-4"        | 20'-1"          | 20'-11" | 21'-7"  | 22'-4"        | 362T125-54-50 |
|   | 362T125-68-50 | 21'-2"    | 22'-3"  | 23'-3"        | 24'-3"          | 25'-2"  | 26'-1"  | 26'-11"       | 362T125-68-50 |
| 0.3   | 362T125-33-50 | 12'-0"    | 12'-7"  | 13'-2"        | 13'-9"          | 14'-3"  | 14'-9"  | 15'-3"        | 362T125-33-50 |
|   | 362T125-43-50 | 15'-4"    | 16'-1"  | 16'-10"       | 17'-6"          | 18'-2"  | 18'-10" | 19'-6"        | 362T125-43-50 |
|   | 362T125-54-50 | 18'-8"    | 19'-7"  | 20'-6"        | 21'-4"          | 22'-2"  | 23'-0"  | 23'-9"        | 362T125-54-50 |
|   | 362T125-68-50 | 22'-6"    | 23'-8"  | 24'-8"        | 25'-9"          | 26'-9"  | 27'-8"  | 28'-7"        | 362T125-68-50 |
| 0.2   | 362T125-33-50 | 12'-10"   | 13'-6"  | 14'-1"        | 14'-8"          | 15'-3"  | 15'-10" | 16'-4"        | 362T125-33-50 |
|   | 362T125-43-50 | 16'-5"    | 17'-3"  | 18'-0"        | 18'-9"          | 19'-6"  | 20'-2"  | 20'-10"       | 362T125-43-50 |
|   | 362T125-54-50 | 20'-0"    | 21'-0"  | 21'-11"       | 22'-10"         | 23'-9"  | 24'-7"  | 25'-5"        | 362T125-54-50 |
|   | 362T125-68-50 | 24'-1"    | 25'-4"  | 26'-5"        | 27'-7"          | 28'-7"  | 29'-7"  | 30'-7"        | 362T125-68-50 |
| 0.1   | 362T125-33-50 | 13'-11"   | 14'-7"  | 15'-3"        | 15'-11"         | 16'-6"  | 17'-1"  | 17'-8"        | 362T125-33-50 |
|   | 362T125-43-50 | 17'-9"    | 18'-8"  | 19'-6"        | 20'-4"          | 21'-1"  | 21'-10" | 22'-7"        | 362T125-43-50 |
|   | 362T125-54-50 | 21'-8"    | 22'-8"  | 23'-9"        | 24'-9"          | 25'-8"  | 26'-7"  | 27'-6"        | 362T125-54-50 |
|   | 362T125-68-50 | 26'-1"    | 27'-4"  | 28'-7"        | 29'-9"          | 30'-11" | 32'-0"  | 33'-1"        | 362T125-68-50 |
| 0.0   | 362T125-33-50 | 14'-11"   | 15'-8"  | 16'-4"        | 17'-0"          | 17'-8"  | 18'-4"  | 18'-11"       | 362T125-33-50 |
|   | 362T125-43-50 | 19'-0"    | 19'-11" | 20'-10"       | 21'-9"          | 22'-7"  | 23'-4"  | 24'-2"        | 362T125-43-50 |
|   | 362T125-54-50 | 23'-2"    | 24'-4"  | 25'-5"        | 26'-5"          | 27'-6"  | 28'-5"  | 29'-5"        | 362T125-54-50 |
|   | 362T125-68-50 | 27'-11"   | 29'-3"  | 30'-7"        | 31'-11"         | 33'-1"  | 34'-3"  | 35'-5"        | 362T125-68-50 |
| 362T125-97-50   | 33'-10"       | 35'-6"    | 37'-1"  | 38'-8"        | 40'-2"          | 41'-7"  | 42'-11" | 362T125-97-50 |               |



**TABLE 4.7.4.166: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | (p = 1.5) | S <sub>Ds</sub> | 0.40    | Weight  | 3000 lbs |               |
|---|---------------|-----------|---------|-----------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |           |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |           |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |           |                 |         |         |          |               |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft   | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  | Track Section |
| 1.0   | 362T125-33-50 | 8'-4"     | 8'-9"   | 9'-2"     | 9'-7"           | 9'-11"  | 10'-4"  | 10'-8"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-8"    | 11'-3"  | 11'-9"    | 12'-3"          | 12'-9"  | 13'-2"  | 13'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-1"    | 13'-9"  | 14'-4"    | 14'-11"         | 15'-6"  | 16'-1"  | 16'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-9"    | 16'-6"  | 17'-3"    | 18'-0"          | 18'-9"  | 19'-5"  | 20'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 19'-2"    | 20'-1"  | 21'-0"    | 21'-11"         | 22'-9"  | 23'-6"  | 24'-4"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 8'-8"     | 9'-1"   | 9'-6"     | 9'-11"          | 10'-4"  | 10'-8"  | 11'-0"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-1"    | 11'-8"  | 12'-2"    | 12'-8"          | 13'-2"  | 13'-8"  | 14'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-6"    | 14'-2"  | 14'-10"   | 15'-6"          | 16'-1"  | 16'-8"  | 17'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 16'-4"    | 17'-2"  | 17'-11"   | 18'-8"          | 19'-5"  | 20'-1"  | 20'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 19'-10"   | 20'-10" | 21'-9"    | 22'-8"          | 23'-6"  | 24'-5"  | 25'-2"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 9'-0"     | 9'-5"   | 9'-11"    | 10'-4"          | 10'-8"  | 11'-1"  | 11'-6"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-6"    | 12'-1"  | 12'-8"    | 13'-2"          | 13'-8"  | 14'-2"  | 14'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 14'-1"    | 14'-9"  | 15'-5"    | 16'-1"          | 16'-8"  | 17'-4"  | 17'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 16'-11"   | 17'-10" | 18'-7"    | 19'-5"          | 20'-2"  | 20'-10" | 21'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 20'-7"    | 21'-7"  | 22'-7"    | 23'-6"          | 24'-5"  | 25'-4"  | 26'-2"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 9'-5"     | 9'-10"  | 10'-4"    | 10'-9"          | 11'-2"  | 11'-7"  | 11'-11"  | 362T125-33-50 |
|   | 362T125-43-50 | 12'-0"    | 12'-7"  | 13'-2"    | 13'-9"          | 14'-3"  | 14'-9"  | 15'-3"   | 362T125-43-50 |
|   | 362T125-54-50 | 14'-8"    | 15'-5"  | 16'-1"    | 16'-9"          | 17'-5"  | 18'-0"  | 18'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 17'-8"    | 18'-7"  | 19'-5"    | 20'-2"          | 21'-0"  | 21'-9"  | 22'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 21'-5"    | 22'-6"  | 23'-6"    | 24'-6"          | 25'-6"  | 26'-4"  | 27'-3"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 9'-10"    | 10'-4"  | 10'-9"    | 11'-3"          | 11'-8"  | 12'-1"  | 12'-6"   | 362T125-33-50 |
|   | 362T125-43-50 | 12'-7"    | 13'-2"  | 13'-9"    | 14'-4"          | 14'-11" | 15'-5"  | 16'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 15'-4"    | 16'-1"  | 16'-10"   | 17'-6"          | 18'-2"  | 18'-10" | 19'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 18'-6"    | 19'-5"  | 20'-3"    | 21'-1"          | 21'-11" | 22'-8"  | 23'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 22'-5"    | 23'-7"  | 24'-7"    | 25'-8"          | 26'-7"  | 27'-7"  | 28'-6"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 10'-4"    | 10'-10" | 11'-4"    | 11'-10"         | 12'-3"  | 12'-8"  | 13'-2"   | 362T125-33-50 |
|   | 362T125-43-50 | 13'-2"    | 13'-10" | 14'-6"    | 15'-1"          | 15'-8"  | 16'-3"  | 16'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 16'-1"    | 16'-11" | 17'-8"    | 18'-5"          | 19'-1"  | 19'-9"  | 20'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 19'-5"    | 20'-4"  | 21'-3"    | 22'-2"          | 23'-0"  | 23'-10" | 24'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 23'-7"    | 24'-9"  | 25'-10"   | 26'-11"         | 27'-11" | 28'-11" | 29'-11"  | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 10'-11"   | 11'-5"  | 12'-0"    | 12'-6"          | 12'-11" | 13'-5"  | 13'-10"  | 362T125-33-50 |
|   | 362T125-43-50 | 13'-11"   | 14'-7"  | 15'-3"    | 15'-11"         | 16'-6"  | 17'-2"  | 17'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 17'-0"    | 17'-10" | 18'-8"    | 19'-5"          | 20'-2"  | 20'-11" | 21'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 20'-6"    | 21'-6"  | 22'-6"    | 23'-5"          | 24'-4"  | 25'-2"  | 26'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 24'-10"   | 26'-1"  | 27'-3"    | 28'-5"          | 29'-6"  | 30'-6"  | 31'-7"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 11'-7"    | 12'-2"  | 12'-9"    | 13'-3"          | 13'-9"  | 14'-3"  | 14'-9"   | 362T125-33-50 |
|   | 362T125-43-50 | 14'-9"    | 15'-6"  | 16'-3"    | 16'-11"         | 17'-7"  | 18'-2"  | 18'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 18'-0"    | 18'-11" | 19'-9"    | 20'-7"          | 21'-5"  | 22'-2"  | 22'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 21'-9"    | 22'-10" | 23'-10"   | 24'-10"         | 25'-10" | 26'-9"  | 27'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 26'-5"    | 27'-8"  | 28'-11"   | 30'-2"          | 31'-4"  | 32'-5"  | 33'-6"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 12'-5"    | 13'-0"  | 13'-7"    | 14'-2"          | 14'-9"  | 15'-3"  | 15'-9"   | 362T125-33-50 |
|   | 362T125-43-50 | 15'-10"   | 16'-8"  | 17'-5"    | 18'-1"          | 18'-10" | 19'-6"  | 20'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 19'-4"    | 20'-3"  | 21'-2"    | 22'-1"          | 22'-11" | 23'-9"  | 24'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 23'-3"    | 24'-5"  | 25'-6"    | 26'-7"          | 27'-7"  | 28'-7"  | 29'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 28'-3"    | 29'-8"  | 31'-0"    | 32'-3"          | 33'-6"  | 34'-8"  | 35'-10"  | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 13'-5"    | 14'-1"  | 14'-9"    | 15'-4"          | 15'-11" | 16'-6"  | 17'-1"   | 362T125-33-50 |
|   | 362T125-43-50 | 17'-2"    | 18'-0"  | 18'-10"   | 19'-7"          | 20'-4"  | 21'-1"  | 21'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 20'-11"   | 21'-11" | 22'-11"   | 23'-10"         | 24'-9"  | 25'-8"  | 26'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 25'-2"    | 26'-5"  | 27'-7"    | 28'-9"          | 29'-10" | 30'-11" | 31'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 30'-6"    | 32'-1"  | 33'-6"    | 34'-11"         | 36'-3"  | 37'-6"  | 38'-9"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 14'-5"    | 15'-1"  | 15'-9"    | 16'-5"          | 17'-1"  | 17'-8"  | 18'-3"   | 362T125-33-50 |
|   | 362T125-43-50 | 18'-4"    | 19'-3"  | 20'-2"    | 21'-0"          | 21'-9"  | 22'-7"  | 23'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 22'-4"    | 23'-6"  | 24'-6"    | 25'-7"          | 26'-6"  | 27'-6"  | 28'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 26'-11"   | 28'-3"  | 29'-7"    | 30'-9"          | 32'-0"  | 33'-1"  | 34'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 32'-8"    | 34'-4"  | 35'-10"   | 37'-4"          | 38'-9"  | 40'-2"  | 41'-6"   | 362T125-97-50 |



**TABLE 4.7.4.167: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | ( $p = 1.5$ ) | S <sub>DS</sub> | 0.40    | Weight  | 3200 lbs |               |
|---|---------------|-----------|---------|---------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |               |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |               |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |               |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 8'-1"     | 8'-6"   | 8'-10"        | 9'-3"           | 9'-7"   | 9'-11"  | 10'-4"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-4"    | 10'-10" | 11'-4"        | 11'-10"         | 12'-4"  | 12'-9"  | 13'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-8"    | 13'-3"  | 13'-10"       | 14'-5"          | 15'-0"  | 15'-6"  | 16'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-3"    | 16'-0"  | 16'-9"        | 17'-5"          | 18'-1"  | 18'-9"  | 19'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 18'-6"    | 19'-5"  | 20'-4"        | 21'-2"          | 22'-0"  | 22'-9"  | 23'-6"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 8'-4"     | 8'-9"   | 9'-2"         | 9'-7"           | 10'-0"  | 10'-4"  | 10'-8"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-9"    | 11'-3"  | 11'-9"        | 12'-3"          | 12'-9"  | 13'-2"  | 13'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-1"    | 13'-9"  | 14'-4"        | 15'-0"          | 15'-7"  | 16'-1"  | 16'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-9"    | 16'-7"  | 17'-4"        | 18'-1"          | 18'-9"  | 19'-5"  | 20'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 19'-2"    | 20'-2"  | 21'-1"        | 21'-11"         | 22'-9"  | 23'-7"  | 24'-5"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 8'-8"     | 9'-2"   | 9'-7"         | 10'-0"          | 10'-4"  | 10'-9"  | 11'-1"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-2"    | 11'-8"  | 12'-3"        | 12'-9"          | 13'-3"  | 13'-9"  | 14'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-7"    | 14'-3"  | 14'-11"       | 15'-7"          | 16'-2"  | 16'-9"  | 17'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 16'-5"    | 17'-3"  | 18'-0"        | 18'-9"          | 19'-6"  | 20'-2"  | 20'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 19'-11"   | 20'-11" | 21'-10"       | 22'-9"          | 23'-8"  | 24'-6"  | 25'-4"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 9'-1"     | 9'-6"   | 10'-0"        | 10'-5"          | 10'-9"  | 11'-2"  | 11'-7"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-7"    | 12'-2"  | 12'-9"        | 13'-3"          | 13'-10" | 14'-4"  | 14'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 14'-2"    | 14'-10" | 15'-7"        | 16'-2"          | 16'-10" | 17'-5"  | 18'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 17'-1"    | 17'-11" | 18'-9"        | 19'-6"          | 20'-4"  | 21'-0"  | 21'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 20'-9"    | 21'-9"  | 22'-9"        | 23'-9"          | 24'-8"  | 25'-6"  | 26'-4"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 9'-6"     | 10'-0"  | 10'-5"        | 10'-10"         | 11'-3"  | 11'-8"  | 12'-1"   | 362T125-33-50 |
|   | 362T125-43-50 | 12'-2"    | 12'-9"  | 13'-4"        | 13'-11"         | 14'-5"  | 14'-11" | 15'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 14'-10"   | 15'-7"  | 16'-3"        | 16'-11"         | 17'-7"  | 18'-3"  | 18'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 17'-10"   | 18'-9"  | 19'-7"        | 20'-5"          | 21'-3"  | 22'-0"  | 22'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 21'-8"    | 22'-9"  | 23'-10"       | 24'-10"         | 25'-9"  | 26'-8"  | 27'-7"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 10'-0"    | 10'-6"  | 10'-11"       | 11'-5"          | 11'-10" | 12'-3"  | 12'-8"   | 362T125-33-50 |
|   | 362T125-43-50 | 12'-9"    | 13'-5"  | 14'-0"        | 14'-7"          | 15'-2"  | 15'-8"  | 16'-3"   | 362T125-43-50 |
|   | 362T125-54-50 | 15'-7"    | 16'-4"  | 17'-1"        | 17'-10"         | 18'-6"  | 19'-2"  | 19'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 18'-9"    | 19'-8"  | 20'-7"        | 21'-5"          | 22'-3"  | 23'-1"  | 23'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 22'-9"    | 23'-11" | 25'-0"        | 26'-0"          | 27'-0"  | 28'-0"  | 28'-11"  | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 10'-6"    | 11'-1"  | 11'-7"        | 12'-1"          | 12'-6"  | 13'-0"  | 13'-5"   | 362T125-33-50 |
|   | 362T125-43-50 | 13'-6"    | 14'-2"  | 14'-9"        | 15'-5"          | 16'-0"  | 16'-7"  | 17'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 16'-5"    | 17'-3"  | 18'-0"        | 18'-9"          | 19'-6"  | 20'-2"  | 20'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 19'-10"   | 20'-10" | 21'-9"        | 22'-8"          | 23'-6"  | 24'-4"  | 25'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 24'-0"    | 25'-3"  | 26'-5"        | 27'-6"          | 28'-6"  | 29'-6"  | 30'-6"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 11'-2"    | 11'-9"  | 12'-4"        | 12'-10"         | 13'-4"  | 13'-9"  | 14'-3"   | 362T125-33-50 |
|   | 362T125-43-50 | 14'-4"    | 15'-0"  | 15'-8"        | 16'-4"          | 17'-0"  | 17'-7"  | 18'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 17'-5"    | 18'-4"  | 19'-2"        | 19'-11"         | 20'-9"  | 21'-5"  | 22'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 21'-0"    | 22'-1"  | 23'-1"        | 24'-0"          | 25'-0"  | 25'-10" | 26'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 25'-6"    | 26'-10" | 28'-0"        | 29'-2"          | 30'-3"  | 31'-4"  | 32'-5"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 12'-0"    | 12'-7"  | 13'-2"        | 13'-9"          | 14'-3"  | 14'-9"  | 15'-3"   | 362T125-33-50 |
|   | 362T125-43-50 | 15'-4"    | 16'-1"  | 16'-10"       | 17'-6"          | 18'-2"  | 18'-10" | 19'-6"   | 362T125-43-50 |
|   | 362T125-54-50 | 18'-8"    | 19'-7"  | 20'-6"        | 21'-4"          | 22'-2"  | 23'-0"  | 23'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 22'-6"    | 23'-8"  | 24'-8"        | 25'-9"          | 26'-9"  | 27'-8"  | 28'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 27'-4"    | 28'-8"  | 30'-0"        | 31'-3"          | 32'-5"  | 33'-7"  | 34'-8"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 13'-0"    | 13'-8"  | 14'-3"        | 14'-10"         | 15'-5"  | 16'-0"  | 16'-6"   | 362T125-33-50 |
|   | 362T125-43-50 | 16'-7"    | 17'-5"  | 18'-2"        | 18'-11"         | 19'-8"  | 20'-5"  | 21'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 20'-3"    | 21'-3"  | 22'-2"        | 23'-1"          | 24'-0"  | 24'-10" | 25'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 24'-4"    | 25'-7"  | 26'-9"        | 27'-10"         | 28'-11" | 29'-11" | 30'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 29'-7"    | 31'-0"  | 32'-5"        | 33'-9"          | 35'-1"  | 36'-4"  | 37'-6"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 13'-11"   | 14'-7"  | 15'-3"        | 15'-11"         | 16'-6"  | 17'-1"  | 17'-8"   | 362T125-33-50 |
|   | 362T125-43-50 | 17'-9"    | 18'-8"  | 19'-6"        | 20'-4"          | 21'-1"  | 21'-10" | 22'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 21'-8"    | 22'-8"  | 23'-9"        | 24'-9"          | 25'-8"  | 26'-7"  | 27'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 26'-1"    | 27'-4"  | 28'-7"        | 29'-9"          | 30'-11" | 32'-0"  | 33'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 31'-8"    | 33'-2"  | 34'-8"        | 36'-1"          | 37'-6"  | 38'-10" | 40'-2"   | 362T125-97-50 |



**TABLE 4.7.4.168: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | (p = 1.5) | S <sub>DS</sub> | 0.40    | Weight  | 3400 lbs |         |               |
|---|---------------|-----------|---------|-----------|-----------------|---------|---------|----------|---------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |           |                 |         |         |          |         |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |           |                 |         |         |          |         |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |           |                 |         |         |          |         | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft   | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |         |               |
| 1.0   | 362T125-33-50 | 7'-10"    | 8'-3"   | 8'-7"     | 8'-11"          | 9'-4"   | 9'-8"   | 10'-0"   | 10'-0"  | 362T125-33-50 |
|   | 362T125-43-50 | 10'-0"    | 10'-6"  | 11'-0"    | 11'-6"          | 11'-11" | 12'-4"  | 12'-9"   | 12'-9"  | 362T125-43-50 |
|   | 362T125-54-50 | 12'-3"    | 12'-10" | 13'-5"    | 14'-0"          | 14'-7"  | 15'-1"  | 15'-7"   | 15'-7"  | 362T125-54-50 |
|   | 362T125-68-50 | 14'-9"    | 15'-6"  | 16'-3"    | 16'-11"         | 17'-7"  | 18'-2"  | 18'-9"   | 18'-9"  | 362T125-68-50 |
|   | 362T125-97-50 | 17'-11"   | 18'-10" | 19'-8"    | 20'-6"          | 21'-4"  | 22'-1"  | 22'-10"  | 22'-10" | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 8'-1"     | 8'-6"   | 8'-11"    | 9'-3"           | 9'-8"   | 10'-0"  | 10'-4"   | 10'-4"  | 362T125-33-50 |
|   | 362T125-43-50 | 10'-5"    | 10'-11" | 11'-5"    | 11'-11"         | 12'-4"  | 12'-10" | 13'-3"   | 13'-3"  | 362T125-43-50 |
|   | 362T125-54-50 | 12'-8"    | 13'-4"  | 13'-11"   | 14'-6"          | 15'-1"  | 15'-7"  | 16'-2"   | 16'-2"  | 362T125-54-50 |
|   | 362T125-68-50 | 15'-4"    | 16'-1"  | 16'-10"   | 17'-6"          | 18'-2"  | 18'-10" | 19'-6"   | 19'-6"  | 362T125-68-50 |
|   | 362T125-97-50 | 18'-7"    | 19'-6"  | 20'-5"    | 21'-3"          | 22'-1"  | 22'-10" | 23'-8"   | 23'-8"  | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 8'-5"     | 8'-10"  | 9'-3"     | 9'-8"           | 10'-0"  | 10'-5"  | 10'-9"   | 10'-9"  | 362T125-33-50 |
|   | 362T125-43-50 | 10'-9"    | 11'-4"  | 11'-10"   | 12'-4"          | 12'-10" | 13'-4"  | 13'-9"   | 13'-9"  | 362T125-43-50 |
|   | 362T125-54-50 | 13'-2"    | 13'-10" | 14'-6"    | 15'-1"          | 15'-8"  | 16'-3"  | 16'-9"   | 16'-9"  | 362T125-54-50 |
|   | 362T125-68-50 | 15'-11"   | 16'-8"  | 17'-5"    | 18'-2"          | 18'-11" | 19'-7"  | 20'-3"   | 20'-3"  | 362T125-68-50 |
|   | 362T125-97-50 | 19'-4"    | 20'-3"  | 21'-2"    | 22'-1"          | 22'-11" | 23'-9"  | 24'-7"   | 24'-7"  | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 8'-9"     | 9'-3"   | 9'-8"     | 10'-1"          | 10'-5"  | 10'-10" | 11'-2"   | 11'-2"  | 362T125-33-50 |
|   | 362T125-43-50 | 11'-3"    | 11'-10" | 12'-4"    | 12'-10"         | 13'-4"  | 13'-10" | 14'-4"   | 14'-4"  | 362T125-43-50 |
|   | 362T125-54-50 | 13'-9"    | 14'-5"  | 15'-1"    | 15'-8"          | 16'-4"  | 16'-11" | 17'-6"   | 17'-6"  | 362T125-54-50 |
|   | 362T125-68-50 | 16'-7"    | 17'-5"  | 18'-2"    | 18'-11"         | 19'-8"  | 20'-5"  | 21'-1"   | 21'-1"  | 362T125-68-50 |
|   | 362T125-97-50 | 20'-1"    | 21'-1"  | 22'-1"    | 23'-0"          | 23'-11" | 24'-9"  | 25'-7"   | 25'-7"  | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 9'-2"     | 9'-8"   | 10'-1"    | 10'-6"          | 10'-11" | 11'-4"  | 11'-9"   | 11'-9"  | 362T125-33-50 |
|   | 362T125-43-50 | 11'-9"    | 12'-4"  | 12'-11"   | 13'-6"          | 14'-0"  | 14'-6"  | 15'-0"   | 15'-0"  | 362T125-43-50 |
|   | 362T125-54-50 | 14'-4"    | 15'-1"  | 15'-9"    | 16'-5"          | 17'-1"  | 17'-8"  | 18'-3"   | 18'-3"  | 362T125-54-50 |
|   | 362T125-68-50 | 17'-4"    | 18'-2"  | 19'-0"    | 19'-10"         | 20'-7"  | 21'-4"  | 22'-0"   | 22'-0"  | 362T125-68-50 |
|   | 362T125-97-50 | 21'-0"    | 22'-1"  | 23'-1"    | 24'-1"          | 25'-0"  | 25'-10" | 26'-9"   | 26'-9"  | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 9'-8"     | 10'-2"  | 10'-7"    | 11'-1"          | 11'-6"  | 11'-11" | 12'-4"   | 12'-4"  | 362T125-33-50 |
|   | 362T125-43-50 | 12'-4"    | 13'-0"  | 13'-7"    | 14'-2"          | 14'-8"  | 15'-3"  | 15'-9"   | 15'-9"  | 362T125-43-50 |
|   | 362T125-54-50 | 15'-1"    | 15'-10" | 16'-7"    | 17'-3"          | 17'-11" | 18'-7"  | 19'-2"   | 19'-2"  | 362T125-54-50 |
|   | 362T125-68-50 | 18'-2"    | 19'-1"  | 20'-0"    | 20'-10"         | 21'-7"  | 22'-4"  | 23'-1"   | 23'-1"  | 362T125-68-50 |
|   | 362T125-97-50 | 22'-1"    | 23'-2"  | 24'-3"    | 25'-3"          | 26'-3"  | 27'-2"  | 28'-1"   | 28'-1"  | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 10'-2"    | 10'-9"  | 11'-3"    | 11'-8"          | 12'-2"  | 12'-7"  | 13'-0"   | 13'-0"  | 362T125-33-50 |
|   | 362T125-43-50 | 13'-1"    | 13'-8"  | 14'-4"    | 14'-11"         | 15'-6"  | 16'-1"  | 16'-7"   | 16'-7"  | 362T125-43-50 |
|   | 362T125-54-50 | 15'-11"   | 16'-9"  | 17'-6"    | 18'-2"          | 18'-11" | 19'-7"  | 20'-3"   | 20'-3"  | 362T125-54-50 |
|   | 362T125-68-50 | 19'-2"    | 20'-2"  | 21'-1"    | 21'-11"         | 22'-9"  | 23'-7"  | 24'-5"   | 24'-5"  | 362T125-68-50 |
|   | 362T125-97-50 | 23'-4"    | 24'-6"  | 25'-7"    | 26'-8"          | 27'-8"  | 28'-8"  | 29'-7"   | 29'-7"  | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 10'-10"   | 11'-5"  | 11'-11"   | 12'-5"          | 12'-11" | 13'-4"  | 13'-10"  | 13'-10" | 362T125-33-50 |
|   | 362T125-43-50 | 13'-10"   | 14'-7"  | 15'-3"    | 15'-10"         | 16'-6"  | 17'-1"  | 17'-8"   | 17'-8"  | 362T125-43-50 |
|   | 362T125-54-50 | 16'-11"   | 17'-9"  | 18'-7"    | 19'-4"          | 20'-1"  | 20'-10" | 21'-6"   | 21'-6"  | 362T125-54-50 |
|   | 362T125-68-50 | 20'-5"    | 21'-5"  | 22'-4"    | 23'-4"          | 24'-2"  | 25'-1"  | 25'-11"  | 25'-11" | 362T125-68-50 |
|   | 362T125-97-50 | 24'-9"    | 26'-0"  | 27'-2"    | 28'-3"          | 29'-4"  | 30'-5"  | 31'-5"   | 31'-5"  | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 11'-8"    | 12'-3"  | 12'-9"    | 13'-4"          | 13'-10" | 14'-4"  | 14'-10"  | 14'-10" | 362T125-33-50 |
|   | 362T125-43-50 | 14'-10"   | 15'-7"  | 16'-4"    | 17'-0"          | 17'-8"  | 18'-3"  | 18'-11"  | 18'-11" | 362T125-43-50 |
|   | 362T125-54-50 | 18'-1"    | 19'-0"  | 19'-10"   | 20'-8"          | 21'-6"  | 22'-3"  | 23'-0"   | 23'-0"  | 362T125-54-50 |
|   | 362T125-68-50 | 21'-10"   | 22'-11" | 23'-11"   | 24'-11"         | 25'-11" | 26'-10" | 27'-9"   | 27'-9"  | 362T125-68-50 |
|   | 362T125-97-50 | 26'-6"    | 27'-10" | 29'-1"    | 30'-3"          | 31'-5"  | 32'-7"  | 33'-8"   | 33'-8"  | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 12'-7"    | 13'-3"  | 13'-10"   | 14'-5"          | 15'-0"  | 15'-6"  | 16'-0"   | 16'-0"  | 362T125-33-50 |
|   | 362T125-43-50 | 16'-1"    | 16'-11" | 17'-8"    | 18'-5"          | 19'-1"  | 19'-9"  | 20'-5"   | 20'-5"  | 362T125-43-50 |
|   | 362T125-54-50 | 19'-7"    | 20'-7"  | 21'-6"    | 22'-5"          | 23'-3"  | 24'-1"  | 24'-11"  | 24'-11" | 362T125-54-50 |
|   | 362T125-68-50 | 23'-7"    | 24'-10" | 25'-11"   | 27'-0"          | 28'-0"  | 29'-0"  | 30'-0"   | 30'-0"  | 362T125-68-50 |
|   | 362T125-97-50 | 28'-8"    | 30'-1"  | 31'-5"    | 32'-9"          | 34'-0"  | 35'-2"  | 36'-4"   | 36'-4"  | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 13'-6"    | 14'-2"  | 14'-10"   | 15'-5"          | 16'-0"  | 16'-7"  | 17'-2"   | 17'-2"  | 362T125-33-50 |
|   | 362T125-43-50 | 17'-3"    | 18'-1"  | 18'-11"   | 19'-8"          | 20'-5"  | 21'-2"  | 21'-10"  | 21'-10" | 362T125-43-50 |
|   | 362T125-54-50 | 21'-0"    | 22'-0"  | 23'-0"    | 24'-0"          | 24'-11" | 25'-9"  | 26'-8"   | 26'-8"  | 362T125-54-50 |
|   | 362T125-68-50 | 25'-3"    | 26'-6"  | 27'-9"    | 28'-11"         | 30'-0"  | 31'-1"  | 32'-1"   | 32'-1"  | 362T125-68-50 |
|   | 362T125-97-50 | 30'-8"    | 32'-2"  | 33'-8"    | 35'-0"          | 36'-4"  | 37'-8"  | 38'-11"  | 38'-11" | 362T125-97-50 |



**TABLE 4.7.4.169: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | ( $p = 1.5$ ) | S <sub>Ds</sub> | 0.40    | Weight  | 3600 lbs |               |
|---|---------------|-----------|---------|---------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |               |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |               |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |               |                 |         |         |          |               |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  | Track Section |
| 1.0   | 362T125-33-50 | 7'-7"     | 8'-0"   | 8'-4"         | 8'-8"           | 9'-0"   | 9'-4"   | 9'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-9"     | 10'-3"  | 10'-8"        | 11'-2"          | 11'-7"  | 12'-0"  | 12'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-11"   | 12'-6"  | 13'-1"        | 13'-7"          | 14'-1"  | 14'-8"  | 15'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-4"    | 15'-1"  | 15'-9"        | 16'-5"          | 17'-0"  | 17'-8"  | 18'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-5"    | 18'-4"  | 19'-2"        | 19'-11"         | 20'-8"  | 21'-5"  | 22'-2"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 7'-10"    | 8'-3"   | 8'-8"         | 9'-0"           | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-1"    | 10'-7"  | 11'-1"        | 11'-6"          | 12'-0"  | 12'-5"  | 12'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 12'-4"    | 12'-11" | 13'-6"        | 14'-1"          | 14'-8"  | 15'-2"  | 15'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-10"   | 15'-7"  | 16'-4"        | 17'-0"          | 17'-8"  | 18'-3"  | 18'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 18'-1"    | 18'-11" | 19'-10"       | 20'-8"          | 21'-5"  | 22'-3"  | 22'-11"  | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 8'-2"     | 8'-7"   | 9'-0"         | 9'-4"           | 9'-9"   | 10'-1"  | 10'-5"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-6"    | 11'-0"  | 11'-6"        | 12'-0"          | 12'-6"  | 12'-11" | 13'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-10"   | 13'-5"  | 14'-1"        | 14'-8"          | 15'-2"  | 15'-9"  | 16'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-5"    | 16'-2"  | 16'-11"       | 17'-8"          | 18'-4"  | 19'-0"  | 19'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 18'-9"    | 19'-8"  | 20'-7"        | 21'-5"          | 22'-3"  | 23'-1"  | 23'-10"  | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 8'-6"     | 9'-0"   | 9'-4"         | 9'-9"           | 10'-2"  | 10'-6"  | 10'-10"  | 362T125-33-50 |
|   | 362T125-43-50 | 10'-11"   | 11'-6"  | 12'-0"        | 12'-6"          | 13'-0"  | 13'-5"  | 13'-11"  | 362T125-43-50 |
|   | 362T125-54-50 | 13'-4"    | 14'-0"  | 14'-8"        | 15'-3"          | 15'-10" | 16'-5"  | 17'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 16'-1"    | 16'-11" | 17'-8"        | 18'-5"          | 19'-1"  | 19'-10" | 20'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 19'-6"    | 20'-6"  | 21'-5"        | 22'-4"          | 23'-2"  | 24'-0"  | 24'-10"  | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 8'-11"    | 9'-5"   | 9'-10"        | 10'-3"          | 10'-7"  | 11'-0"  | 11'-5"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-5"    | 12'-0"  | 12'-7"        | 13'-1"          | 13'-7"  | 14'-1"  | 14'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-11"   | 14'-8"  | 15'-4"        | 15'-11"         | 16'-7"  | 17'-2"  | 17'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 16'-10"   | 17'-8"  | 18'-6"        | 19'-3"          | 20'-0"  | 20'-8"  | 21'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 20'-5"    | 21'-5"  | 22'-5"        | 23'-4"          | 24'-3"  | 25'-1"  | 26'-0"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 9'-5"     | 9'-10"  | 10'-4"        | 10'-9"          | 11'-2"  | 11'-7"  | 11'-11"  | 362T125-33-50 |
|   | 362T125-43-50 | 12'-0"    | 12'-7"  | 13'-2"        | 13'-9"          | 14'-3"  | 14'-9"  | 15'-3"   | 362T125-43-50 |
|   | 362T125-54-50 | 14'-8"    | 15'-5"  | 16'-1"        | 16'-9"          | 17'-5"  | 18'-0"  | 18'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 17'-8"    | 18'-7"  | 19'-5"        | 20'-2"          | 21'-0"  | 21'-9"  | 22'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 21'-5"    | 22'-6"  | 23'-6"        | 24'-6"          | 25'-6"  | 26'-4"  | 27'-3"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 9'-11"    | 10'-5"  | 10'-11"       | 11'-4"          | 11'-9"  | 12'-3"  | 12'-7"   | 362T125-33-50 |
|   | 362T125-43-50 | 12'-8"    | 13'-4"  | 13'-11"       | 14'-6"          | 15'-1"  | 15'-7"  | 16'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 15'-6"    | 16'-3"  | 17'-0"        | 17'-8"          | 18'-4"  | 19'-0"  | 19'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 18'-8"    | 19'-7"  | 20'-6"        | 21'-4"          | 22'-2"  | 22'-11" | 23'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 22'-8"    | 23'-9"  | 24'-10"       | 25'-10"         | 26'-10" | 27'-10" | 28'-9"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 10'-6"    | 11'-1"  | 11'-7"        | 12'-1"          | 12'-6"  | 13'-0"  | 13'-5"   | 362T125-33-50 |
|   | 362T125-43-50 | 13'-6"    | 14'-2"  | 14'-9"        | 15'-5"          | 16'-0"  | 16'-7"  | 17'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 16'-5"    | 17'-3"  | 18'-0"        | 18'-9"          | 19'-6"  | 20'-2"  | 20'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 19'-10"   | 20'-10" | 21'-9"        | 22'-8"          | 23'-6"  | 24'-4"  | 25'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 24'-0"    | 25'-3"  | 26'-5"        | 27'-6"          | 28'-6"  | 29'-7"  | 30'-6"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 11'-3"    | 11'-10" | 12'-5"        | 12'-11"         | 13'-5"  | 13'-11" | 14'-4"   | 362T125-33-50 |
|   | 362T125-43-50 | 14'-5"    | 15'-2"  | 15'-10"       | 16'-6"          | 17'-2"  | 17'-9"  | 18'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 17'-7"    | 18'-6"  | 19'-4"        | 20'-1"          | 20'-11" | 21'-7"  | 22'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 21'-2"    | 22'-3"  | 23'-3"        | 24'-3"          | 25'-2"  | 26'-1"  | 26'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 25'-9"    | 27'-0"  | 28'-3"        | 29'-5"          | 30'-6"  | 31'-7"  | 32'-8"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 12'-3"    | 12'-10" | 13'-5"        | 14'-0"          | 14'-6"  | 15'-1"  | 15'-7"   | 362T125-33-50 |
|   | 362T125-43-50 | 15'-7"    | 16'-5"  | 17'-2"        | 17'-10"         | 18'-6"  | 19'-2"  | 19'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 19'-0"    | 20'-0"  | 20'-11"       | 21'-9"          | 22'-7"  | 23'-5"  | 24'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 22'-11"   | 24'-1"  | 25'-2"        | 26'-3"          | 27'-3"  | 28'-2"  | 29'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 27'-10"   | 29'-2"  | 30'-6"        | 31'-10"         | 33'-0"  | 34'-2"  | 35'-4"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 13'-1"    | 13'-9"  | 14'-5"        | 15'-0"          | 15'-7"  | 16'-1"  | 16'-8"   | 362T125-33-50 |
|   | 362T125-43-50 | 16'-9"    | 17'-7"  | 18'-4"        | 19'-1"          | 19'-10" | 20'-7"  | 21'-3"   | 362T125-43-50 |
|   | 362T125-54-50 | 20'-4"    | 21'-5"  | 22'-4"        | 23'-3"          | 24'-2"  | 25'-0"  | 25'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 24'-7"    | 25'-9"  | 26'-11"       | 28'-1"          | 29'-2"  | 30'-2"  | 31'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 29'-9"    | 31'-3"  | 32'-8"        | 34'-0"          | 35'-4"  | 36'-7"  | 37'-10"  | 362T125-97-50 |



**TABLE 4.7.4.170: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | (p = 1.5) | S <sub>DS</sub> | 0.40    | Weight  | 3800 lbs |               |
|---|---------------|-----------|---------|-----------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |           |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |           |                 |         |         |          |               |
| Height in Bldg (z/h)  | Track Section | Pod Width |         |           |                 |         |         |          |               |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft   | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  | Track Section |
| 1.0   | 362T125-33-50 | 7'-4"     | 7'-9"   | 8'-1"     | 8'-5"           | 8'-9"   | 9'-1"   | 9'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-5"     | 9'-11"  | 10'-5"    | 10'-10"         | 11'-3"  | 11'-8"  | 12'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-7"    | 12'-2"  | 12'-8"    | 13'-3"          | 13'-9"  | 14'-3"  | 14'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-11"   | 14'-8"  | 15'-4"    | 15'-11"         | 16'-7"  | 17'-2"  | 17'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-11"   | 17'-10" | 18'-7"    | 19'-5"          | 20'-2"  | 20'-10" | 21'-7"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 7'-8"     | 8'-0"   | 8'-5"     | 8'-9"           | 9'-1"   | 9'-5"   | 9'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-10"    | 10'-4"  | 10'-9"    | 11'-3"          | 11'-8"  | 12'-1"  | 12'-6"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-0"    | 12'-7"  | 13'-2"    | 13'-8"          | 14'-3"  | 14'-9"  | 15'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-5"    | 15'-2"  | 15'-10"   | 16'-6"          | 17'-2"  | 17'-9"  | 18'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-7"    | 18'-5"  | 19'-3"    | 20'-1"          | 20'-10" | 21'-7"  | 22'-4"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 7'-11"    | 8'-4"   | 8'-9"     | 9'-1"           | 9'-6"   | 9'-10"  | 10'-2"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-2"    | 10'-8"  | 11'-2"    | 11'-8"          | 12'-1"  | 12'-7"  | 13'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-5"    | 13'-1"  | 13'-8"    | 14'-3"          | 14'-9"  | 15'-4"  | 15'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 15'-0"    | 15'-9"  | 16'-6"    | 17'-2"          | 17'-10" | 18'-6"  | 19'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 18'-3"    | 19'-2"  | 20'-0"    | 20'-10"         | 21'-8"  | 22'-5"  | 23'-2"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 8'-3"     | 8'-9"   | 9'-1"     | 9'-6"           | 9'-10"  | 10'-3"  | 10'-7"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-7"    | 11'-2"  | 11'-8"    | 12'-2"          | 12'-8"  | 13'-1"  | 13'-6"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-0"    | 13'-7"  | 14'-3"    | 14'-10"         | 15'-5"  | 16'-0"  | 16'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-8"    | 16'-5"  | 17'-2"    | 17'-11"         | 18'-7"  | 19'-3"  | 19'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 19'-0"    | 19'-11" | 20'-10"   | 21'-9"          | 22'-7"  | 23'-4"  | 24'-2"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 8'-8"     | 9'-1"   | 9'-6"     | 9'-11"          | 10'-4"  | 10'-8"  | 11'-1"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-1"    | 11'-8"  | 12'-2"    | 12'-9"          | 13'-2"  | 13'-8"  | 14'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-7"    | 14'-3"  | 14'-11"   | 15'-6"          | 16'-1"  | 16'-8"  | 17'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 16'-4"    | 17'-2"  | 18'-0"    | 18'-9"          | 19'-5"  | 20'-2"  | 20'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 19'-10"   | 20'-10" | 21'-10"   | 22'-9"          | 23'-7"  | 24'-5"  | 25'-3"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 9'-1"     | 9'-7"   | 10'-0"    | 10'-5"          | 10'-10" | 11'-3"  | 11'-7"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-8"    | 12'-3"  | 12'-10"   | 13'-4"          | 13'-10" | 14'-4"  | 14'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 14'-3"    | 14'-11" | 15'-8"    | 16'-4"          | 16'-11" | 17'-6"  | 18'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 17'-2"    | 18'-0"  | 18'-10"   | 19'-8"          | 20'-5"  | 21'-2"  | 21'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 20'-10"   | 21'-11" | 22'-11"   | 23'-10"         | 24'-9"  | 25'-8"  | 26'-6"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 9'-8"     | 10'-1"  | 10'-7"    | 11'-0"          | 11'-6"  | 11'-10" | 12'-3"   | 362T125-33-50 |
|   | 362T125-43-50 | 12'-4"    | 12'-11" | 13'-6"    | 14'-1"          | 14'-8"  | 15'-2"  | 15'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 15'-0"    | 15'-9"  | 16'-6"    | 17'-2"          | 17'-10" | 18'-6"  | 19'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 18'-2"    | 19'-0"  | 19'-11"   | 20'-9"          | 21'-7"  | 22'-4"  | 23'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 22'-0"    | 23'-1"  | 24'-2"    | 25'-2"          | 26'-2"  | 27'-1"  | 28'-0"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 10'-3"    | 10'-9"  | 11'-3"    | 11'-9"          | 12'-2"  | 12'-7"  | 13'-1"   | 362T125-33-50 |
|   | 362T125-43-50 | 13'-1"    | 13'-9"  | 14'-5"    | 15-0"           | 15-7"   | 16-1"   | 16-8"    | 362T125-43-50 |
|   | 362T125-54-50 | 16'-0"    | 16'-9"  | 17'-6"    | 18'-3"          | 19'-0"  | 19'-8"  | 20'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 19'-3"    | 20'-3"  | 21'-2"    | 22'-0"          | 22'-10" | 23'-8"  | 24'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 23'-5"    | 24'-7"  | 25'-8"    | 26'-9"          | 27'-9"  | 28'-9"  | 29'-8"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 11'-0"    | 11'-6"  | 12'-1"    | 12'-7"          | 13'-1"  | 13'-6"  | 14'-0"   | 362T125-33-50 |
|   | 362T125-43-50 | 14'-0"    | 14'-9"  | 15'-5"    | 16'-1"          | 16'-8"  | 17'-3"  | 17'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 17'-1"    | 18'-0"  | 18'-9"    | 19'-7"          | 20'-4"  | 21'-0"  | 21'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 20'-7"    | 21'-8"  | 22'-8"    | 23'-7"          | 24'-6"  | 25'-4"  | 26'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 25'-0"    | 26'-3"  | 27'-6"    | 28'-7"          | 29'-8"  | 30'-9"  | 31'-9"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 11'-11"   | 12'-6"  | 13'-1"    | 13'-7"          | 14'-2"  | 14'-8"  | 15'-2"   | 362T125-33-50 |
|   | 362T125-43-50 | 15'-2"    | 15'-11" | 16'-8"    | 17'-4"          | 18'-0"  | 18'-8"  | 19'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 18'-6"    | 19'-5"  | 20'-4"    | 21'-2"          | 22'-0"  | 22'-9"  | 23'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 22'-4"    | 23'-5"  | 24'-6"    | 25'-6"          | 26'-6"  | 27'-5"  | 28'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 27'-1"    | 28'-5"  | 29'-8"    | 30'-11"         | 32'-1"  | 33'-3"  | 34'-4"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 12'-9"    | 13'-4"  | 14'-0"    | 14'-7"          | 15'-2"  | 15'-8"  | 16'-2"   | 362T125-33-50 |
|   | 362T125-43-50 | 16'-3"    | 17'-1"  | 17'-10"   | 18'-7"          | 19'-4"  | 20'-0"  | 20'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 19'-10"   | 20'-10" | 21'-9"    | 22'-8"          | 23'-6"  | 24'-4"  | 25'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 23'-11"   | 25'-1"  | 26'-3"    | 27'-4"          | 28'-4"  | 29'-4"  | 30'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 29'-0"    | 30'-5"  | 31'-10"   | 33'-1"          | 34'-5"  | 35'-7"  | 36'-9"   | 362T125-97-50 |



**TABLE 4.7.4.171: MAXIMUM UNBRACED TOP TRACK LENGTH**

| <b>PARAMETERS:</b>  |               | Type      | S3      | (lp = 1.5) | S <sub>Ds</sub> | 0.40    | Weight  | 4000 lbs |               |
|---|---------------|-----------|---------|------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |            |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |            |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |            |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft    | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 7'-2"     | 7'-6"   | 7'-11"     | 8'-3"           | 8'-7"   | 8'-10"  | 9'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-2"     | 9'-8"   | 10'-1"     | 10'-7"          | 10'-11" | 11'-4"  | 11'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-3"    | 11'-10" | 12'-4"     | 12'-11"         | 13'-5"  | 13'-10" | 14'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-7"    | 14'-3"  | 14'-11"    | 15'-6"          | 16'-2"  | 16'-9"  | 17'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-6"    | 17'-4"  | 18'-1"     | 18'-11"         | 19'-7"  | 20'-4"  | 21'-0"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 7'-5"     | 7'-10"  | 8'-2"      | 8'-6"           | 8'-10"  | 9'-2"   | 9'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-6"     | 10'-0"  | 10'-6"     | 10'-11"         | 11'-4"  | 11'-9"  | 12'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-8"    | 12'-3"  | 12'-10"    | 13'-4"          | 13'-10" | 14'-4"  | 14'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 14'-1"    | 14'-9"  | 15'-5"     | 16'-1"          | 16'-9"  | 17'-4"  | 17'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 17'-1"    | 17'-11" | 18'-9"     | 19'-7"          | 20'-4"  | 21'-1"  | 21'-9"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 7'-9"     | 8'-1"   | 8'-6"      | 8'-10"          | 9'-3"   | 9'-7"   | 9'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 9'-11"    | 10'-5"  | 10'-11"    | 11'-4"          | 11'-10" | 12'-3"  | 12'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-1"    | 12'-9"  | 13'-4"     | 13'-10"         | 14'-5"  | 14'-11" | 15'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-7"    | 15'-4"  | 16'-1"     | 16'-9"          | 17'-4"  | 18'-0"  | 18'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-9"    | 18'-8"  | 19'-6"     | 20'-4"          | 21'-1"  | 21'-10" | 22'-7"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 8'-1"     | 8'-6"   | 8'-10"     | 9'-3"           | 9'-7"   | 9'-11"  | 10'-4"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-4"    | 10'-10" | 11'-4"     | 11'-10"         | 12'-4"  | 12'-9"  | 13'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-8"    | 13'-3"  | 13'-10"    | 14'-5"          | 15'-0"  | 15'-6"  | 16'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-3"    | 16'-0"  | 16'-9"     | 17'-5"          | 18'-1"  | 18'-9"  | 19'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 18'-6"    | 19'-5"  | 20'-4"     | 21'-2"          | 22'-0"  | 22'-9"  | 23'-6"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 8'-5"     | 8'-10"  | 9'-3"      | 9'-8"           | 10'-1"  | 10'-5"  | 10'-9"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-10"   | 11'-4"  | 11'-11"    | 12'-5"          | 12'-10" | 13'-4"  | 13'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-2"    | 13'-10" | 14'-6"     | 15'-1"          | 15'-8"  | 16'-3"  | 16'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 15'-11"   | 16'-9"  | 17'-6"     | 18'-3"          | 18'-11" | 19'-7"  | 20'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 19'-4"    | 20'-4"  | 21'-3"     | 22'-2"          | 23'-0"  | 23'-10" | 24'-7"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 8'-11"    | 9'-4"   | 9'-9"      | 10'-2"          | 10'-7"  | 10'-11" | 11'-4"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-4"    | 11'-11" | 12'-6"     | 13'-0"          | 13'-6"  | 14'-0"  | 14'-6"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-11"   | 14'-7"  | 15'-3"     | 15'-10"         | 16'-6"  | 17'-1"  | 17'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 16'-9"    | 17'-7"  | 18'-4"     | 19'-2"          | 19'-11" | 20'-7"  | 21'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 20'-4"    | 21'-4"  | 22'-4"     | 23'-3"          | 24'-2"  | 25'-0"  | 25'-10"  | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 9'-5"     | 9'-10"  | 10'-4"     | 10'-9"          | 11'-2"  | 11'-7"  | 11'-11"  | 362T125-33-50 |
|   | 362T125-43-50 | 12'-0"    | 12'-7"  | 13'-2"     | 13'-9"          | 14'-3"  | 14'-9"  | 15'-3"   | 362T125-43-50 |
|   | 362T125-54-50 | 14'-8"    | 15'-5"  | 16'-1"     | 16'-9"          | 17'-5"  | 18'-0"  | 18'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 17'-8"    | 18'-7"  | 19'-5"     | 20'-2"          | 21'-0"  | 21'-9"  | 22'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 21'-5"    | 22'-6"  | 23'-6"     | 24'-6"          | 25'-6"  | 26'-4"  | 27'-3"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 10'-0"    | 10'-6"  | 10'-11"    | 11'-5"          | 11'-10" | 12'-3"  | 12'-8"   | 362T125-33-50 |
|   | 362T125-43-50 | 12'-9"    | 13'-5"  | 14'-0"     | 14'-7"          | 15'-2"  | 15'-8"  | 16'-3"   | 362T125-43-50 |
|   | 362T125-54-50 | 15'-7"    | 16'-4"  | 17'-1"     | 17'-10"         | 18'-6"  | 19'-2"  | 19'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 18'-9"    | 19'-8"  | 20'-7"     | 21'-5"          | 22'-3"  | 23'-1"  | 23'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 22'-9"    | 23'-11" | 25'-0"     | 26'-0"          | 27'-0"  | 28'-0"  | 28'-11"  | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 10'-8"    | 11'-3"  | 11'-9"     | 12'-3"          | 12'-9"  | 13'-2"  | 13'-7"   | 362T125-33-50 |
|   | 362T125-43-50 | 13'-8"    | 14'-4"  | 15'-0"     | 15'-8"          | 16'-3"  | 16'-10" | 17'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 16'-8"    | 17'-6"  | 18'-3"     | 19'-1"          | 19'-9"  | 20'-6"  | 21'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 20'-1"    | 21'-1"  | 22'-1"     | 23'-0"          | 23'-10" | 24'-8"  | 25'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 24'-5"    | 25'-7"  | 26'-9"     | 27'-11"         | 28'-11" | 29'-11" | 31'-0"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 11'-7"    | 12'-2"  | 12'-9"     | 13'-3"          | 13'-9"  | 14'-3"  | 14'-9"   | 362T125-33-50 |
|   | 362T125-43-50 | 14'-9"    | 15'-6"  | 16'-3"     | 16'-11"         | 17'-7"  | 18'-2"  | 18'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 18'-0"    | 18'-11" | 19'-9"     | 20'-7"          | 21'-5"  | 22'-2"  | 22'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 21'-9"    | 22'-10" | 23'-10"    | 24'-10"         | 25'-10" | 26'-9"  | 27'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 26'-5"    | 27'-8"  | 28'-11"    | 30'-2"          | 31'-4"  | 32'-5"  | 33'-6"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 12'-5"    | 13'-0"  | 13'-7"     | 14'-2"          | 14'-9"  | 15'-3"  | 15'-9"   | 362T125-33-50 |
|   | 362T125-43-50 | 15'-10"   | 16'-8"  | 17'-5"     | 18'-1"          | 18'-10" | 19'-6"  | 20'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 19'-4"    | 20'-3"  | 21'-2"     | 22'-1"          | 22'-11" | 23'-9"  | 24'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 23'-3"    | 24'-5"  | 25'-6"     | 26'-7"          | 27'-7"  | 28'-7"  | 29'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 28'-3"    | 29'-7"  | 31'-0"     | 32'-3"          | 33'-6"  | 34'-8"  | 35'-10"  | 362T125-97-50 |



**TABLE 4.7.4.172: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | ( $p = 1.5$ ) | S <sub>DS</sub> | 0.40    | Weight  | 4200 lbs |               |
|---|---------------|-----------|---------|---------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |               |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |               |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |               |                 |         |         |          |               |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  | Track Section |
| 1.0   | 362T125-33-50 | 7'-0"     | 7'-4"   | 7'-8"         | 8'-0"           | 8'-4"   | 8'-8"   | 8'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 9'-0"     | 9'-5"   | 9'-10"        | 10'-3"          | 10'-8"  | 11'-1"  | 11'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-0"    | 11'-6"  | 12'-1"        | 12'-7"          | 13'-1"  | 13'-6"  | 14'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-3"    | 13'-11" | 14'-6"        | 15'-2"          | 15'-9"  | 16'-4"  | 16'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 16'-1"    | 16'-11" | 17'-8"        | 18'-5"          | 19'-1"  | 19'-10" | 20'-6"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 7'-3"     | 7'-7"   | 8'-0"         | 8'-4"           | 8'-8"   | 8'-11"  | 9'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-4"     | 9'-9"   | 10'-3"        | 10'-8"          | 11'-1"  | 11'-6"  | 11'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 11'-4"    | 11'-11" | 12'-6"        | 13'-0"          | 13'-6"  | 14'-0"  | 14'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-9"    | 14'-5"  | 15'-1"        | 15'-8"          | 16'-4"  | 16'-11" | 17'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-8"    | 17'-6"  | 18'-4"        | 19'-1"          | 19'-10" | 20'-6"  | 21'-3"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 7'-6"     | 7'-11"  | 8'-3"         | 8'-8"           | 9'-0"   | 9'-4"   | 9'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-8"     | 10'-2"  | 10'-8"        | 11'-1"          | 11'-6"  | 11'-11" | 12'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-10"   | 12'-5"  | 13'-0"        | 13'-6"          | 14'-1"  | 14'-7"  | 15'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-3"    | 15'-0"  | 15'-8"        | 16'-4"          | 16'-11" | 17'-7"  | 18'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-4"    | 18'-2"  | 19'-0"        | 19'-10"         | 20'-7"  | 21'-4"  | 22'-0"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 7'-10"    | 8'-3"   | 8'-8"         | 8'-8"           | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-1"    | 10'-7"  | 11'-1"        | 11'-6"          | 12'-0"  | 12'-5"  | 12'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 12'-4"    | 12'-11" | 13'-6"        | 14'-1"          | 14'-8"  | 15'-2"  | 15'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-10"   | 15'-7"  | 16'-4"        | 17'-0"          | 17'-8"  | 18'-3"  | 18'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 18'-1"    | 18'-11" | 19'-10"       | 20'-8"          | 21'-5"  | 22'-3"  | 22'-11"  | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 8'-3"     | 8'-8"   | 9'-1"         | 9'-5"           | 9'-10"  | 10'-2"  | 10'-6"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-7"    | 11'-1"  | 11'-7"        | 12'-1"          | 12'-7"  | 13'-0"  | 13'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-11"   | 13'-6"  | 14'-2"        | 14'-9"          | 15'-4"  | 15'-10" | 16'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-6"    | 16'-4"  | 17'-1"        | 17'-9"          | 18'-6"  | 19'-1"  | 19'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 18'-11"   | 19'-10" | 20'-9"        | 21'-7"          | 22'-5"  | 23'-3"  | 24'-0"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 8'-8"     | 9'-1"   | 9'-6"         | 9'-11"          | 10'-4"  | 10'-8"  | 11'-0"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-1"    | 11'-8"  | 12'-2"        | 12'-8"          | 13'-2"  | 13'-8"  | 14'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-6"    | 14'-3"  | 14'-10"       | 15'-6"          | 16'-1"  | 16'-8"  | 17'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 16'-4"    | 17'-2"  | 17'-11"       | 18'-8"          | 19'-5"  | 20'-1"  | 20'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 19'-10"   | 20'-10" | 21'-9"        | 22'-8"          | 23'-6"  | 24'-5"  | 25'-2"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 9'-2"     | 9'-7"   | 10'-1"        | 10'-6"          | 10'-11" | 11'-3"  | 11'-8"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-8"    | 12'-3"  | 12'-10"       | 13'-5"          | 13'-11" | 14'-5"  | 14'-11"  | 362T125-43-50 |
|   | 362T125-54-50 | 14'-3"    | 15'-0"  | 15'-8"        | 16'-4"          | 17'-0"  | 17'-7"  | 18'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 17'-3"    | 18'-1"  | 18'-11"       | 19'-8"          | 20'-6"  | 21'-2"  | 21'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 20'-11"   | 22'-0"  | 23'-0"        | 23'-11"         | 24'-10" | 25'-9"  | 26'-7"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 9'-9"     | 10'-3"  | 10'-8"        | 11'-2"          | 11'-7"  | 12'-0"  | 12'-5"   | 362T125-33-50 |
|   | 362T125-43-50 | 12'-5"    | 13'-1"  | 13'-8"        | 14'-3"          | 14'-9"  | 15'-4"  | 15'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 15'-2"    | 15'-11" | 16'-8"        | 17'-4"          | 18'-0"  | 18'-8"  | 19'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 18'-4"    | 19'-3"  | 20'-1"        | 20'-11"         | 21'-9"  | 22'-6"  | 23'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 22'-3"    | 23'-4"  | 24'-5"        | 25'-5"          | 26'-4"  | 27'-4"  | 28'-3"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 10'-5"    | 10'-11" | 11'-5"        | 11'-11"         | 12'-5"  | 12'-10" | 13'-3"   | 362T125-33-50 |
|   | 362T125-43-50 | 13'-4"    | 14'-0"  | 14'-8"        | 15'-3"          | 15'-10" | 16'-5"  | 16'-11"  | 362T125-43-50 |
|   | 362T125-54-50 | 16'-3"    | 17'-1"  | 17'-10"       | 18'-7"          | 19'-4"  | 20'-0"  | 20'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 19'-7"    | 20'-7"  | 21'-6"        | 22'-5"          | 23'-3"  | 24'-1"  | 24'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 23'-9"    | 25'-0"  | 26'-1"        | 27'-2"          | 28'-3"  | 29'-3"  | 30'-3"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 11'-3"    | 11'-10" | 12'-5"        | 12'-11"         | 13'-5"  | 13'-11" | 14'-4"   | 362T125-33-50 |
|   | 362T125-43-50 | 14'-5"    | 15'-2"  | 15'-10"       | 16'-6"          | 17'-2"  | 17'-9"  | 18'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 17'-7"    | 18'-6"  | 19'-4"        | 20'-1"          | 20'-11" | 21'-7"  | 22'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 21'-2"    | 22'-3"  | 23'-3"        | 24'-3"          | 25'-2"  | 26'-1"  | 26'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 25'-9"    | 27'-0"  | 28'-3"        | 29'-5"          | 30'-6"  | 31'-7"  | 32'-8"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 12'-1"    | 12'-8"  | 13'-3"        | 13'-10"         | 14'-4"  | 14'-11" | 15'-5"   | 362T125-33-50 |
|   | 362T125-43-50 | 15'-5"    | 16'-3"  | 16'-11"       | 17'-8"          | 18'-4"  | 19'-0"  | 19'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 18'-10"   | 19'-9"  | 20'-8"        | 21'-6"          | 22'-4"  | 23'-2"  | 23'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 22'-8"    | 23'-10" | 24'-11"       | 25'-11"         | 26'-11" | 27'-11" | 28'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 27'-7"    | 28'-11" | 30'-3"        | 31'-6"          | 32'-8"  | 33'-10" | 35'-0"   | 362T125-97-50 |



**TABLE 4.7.4.173: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | ( $p = 1.5$ ) | S <sub>DS</sub> | 0.40    | Weight  | 4400 lbs |               |
|---|---------------|-----------|---------|---------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |               |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |               |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |               |                 |         |         |          |               |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  | Track Section |
| 1.0   | 362T125-33-50 | 6'-10"    | 7'-2"   | 7'-6"         | 7'-10"          | 8'-2"   | 8'-5"   | 8'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-9"     | 9'-2"   | 9'-7"         | 10'-0"          | 10'-5"  | 10'-10" | 11'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-8"    | 11'-3"  | 11'-9"        | 12'-3"          | 12'-9"  | 13'-2"  | 13'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-11"   | 13'-7"  | 14'-2"        | 14'-9"          | 15'-4"  | 15'-11" | 16'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-9"    | 16'-6"  | 17'-3"        | 18'-0"          | 18'-8"  | 19'-4"  | 20'-0"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 7'-1"     | 7'-5"   | 7'-9"         | 8'-1"           | 8'-5"   | 8'-9"   | 9'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-1"     | 9'-6"   | 10'-0"        | 10'-5"          | 10'-10" | 11'-2"  | 11'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-1"    | 11'-8"  | 12'-2"        | 12'-8"          | 13'-2"  | 13'-8"  | 14'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-5"    | 14'-1"  | 14'-8"        | 15'-4"          | 15'-11" | 16'-6"  | 17'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-3"    | 17'-1"  | 17'-11"       | 18'-7"          | 19'-4"  | 20'-0"  | 20'-9"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 7'-4"     | 7'-9"   | 8'-1"         | 8'-5"           | 8'-9"   | 9'-1"   | 9'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-5"     | 9'-11"  | 10'-4"        | 10'-10"         | 11'-3"  | 11'-8"  | 12'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-6"    | 12'-1"  | 12'-8"        | 13'-2"          | 13'-9"  | 14'-3"  | 14'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-11"   | 14'-7"  | 15'-3"        | 15'-11"         | 16'-6"  | 17'-2"  | 17'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-11"   | 17'-9"  | 18'-7"        | 19'-4"          | 20'-1"  | 20'-10" | 21'-6"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 7'-8"     | 8'-1"   | 8'-5"         | 8'-10"          | 8'-9"   | 9'-2"   | 9'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 9'-10"    | 10'-4"  | 10'-10"       | 11'-3"          | 11'-8"  | 12'-2"  | 12'-6"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-0"    | 12'-7"  | 13'-2"        | 13'-9"          | 14'-4"  | 14'-10" | 15'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-6"    | 15'-3"  | 15'-11"       | 16'-7"          | 17'-3"  | 17'-10" | 18'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-7"    | 18'-6"  | 19'-4"        | 20'-2"          | 20'-11" | 21'-8"  | 22'-5"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 8'-0"     | 8'-5"   | 8'-10"        | 9'-2"           | 9-7"    | 9-11"   | 10-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 10'-4"    | 10'-10" | 11'-4"        | 11'-9"          | 12'-3"  | 12'-8"  | 13'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-7"    | 13'-2"  | 13'-10"       | 14'-5"          | 14'-11" | 15'-6"  | 16'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-2"    | 15'-11" | 16'-8"        | 17'-4"          | 18'-0"  | 18'-8"  | 19'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 18'-5"    | 19'-4"  | 20'-3"        | 21'-1"          | 21'-11" | 22'-8"  | 23'-5"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 8'-5"     | 8'-10"  | 9'-3"         | 9'-8"           | 10'-1"  | 10'-5"  | 10'-9"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-10"   | 11'-4"  | 11'-11"       | 12'-5"          | 12'-10" | 13'-4"  | 13'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-2"    | 13'-10" | 14'-6"        | 15'-1"          | 15'-8"  | 16'-3"  | 16'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 15'-11"   | 16'-9"  | 17'-6"        | 18'-3"          | 18'-11" | 19'-7"  | 20'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 19'-4"    | 20'-4"  | 21'-3"        | 22'-2"          | 23'-0"  | 23'-10" | 24'-7"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 8'-11"    | 9'-5"   | 9'-10"        | 10'-3"          | 10'-7"  | 11'-0"  | 11'-5"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-5"    | 12'-0"  | 12'-7"        | 13'-1"          | 13'-7"  | 14'-1"  | 14'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-11"   | 14'-8"  | 15'-4"        | 15'-11"         | 16'-7"  | 17'-2"  | 17'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 16'-10"   | 17'-8"  | 18'-6"        | 19'-3"          | 20'-0"  | 20'-8"  | 21'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 20'-5"    | 21'-5"  | 22'-5"        | 23'-4"          | 24'-3"  | 25'-1"  | 26'-0"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 9'-6"     | 10'-0"  | 10'-5"        | 10'-10"         | 11'-3"  | 11'-8"  | 12'-1"   | 362T125-33-50 |
|   | 362T125-43-50 | 12'-2"    | 12'-9"  | 13'-4"        | 13'-11"         | 14'-5"  | 14'-11" | 15'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 14'-10"   | 15'-7"  | 16'-3"        | 16'-11"         | 17'-7"  | 18'-3"  | 18'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 17'-10"   | 18'-9"  | 19'-7"        | 20'-5"          | 21'-3"  | 22'-0"  | 22'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 21'-8"    | 22'-9"  | 23'-10"       | 24'-10"         | 25'-9"  | 26'-8"  | 27'-7"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 10'-2"    | 10'-8"  | 11'-2"        | 11'-8"          | 12'-1"  | 12'-6"  | 12'-11"  | 362T125-33-50 |
|   | 362T125-43-50 | 13'-0"    | 13'-8"  | 14'-3"        | 14'-11"         | 15'-5"  | 16'-0"  | 16'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 15'-10"   | 16'-8"  | 17'-5"        | 18'-2"          | 18'-10" | 19'-6"  | 20'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 19'-2"    | 20'-1"  | 21'-0"        | 21'-10"         | 22'-8"  | 23'-6"  | 24'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 23'-3"    | 24'-5"  | 25'-6"        | 26'-7"          | 27'-7"  | 28'-7"  | 29'-6"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 11'-0"    | 11'-7"  | 12'-1"        | 12'-7"          | 13'-1"  | 13'-7"  | 14'-0"   | 362T125-33-50 |
|   | 362T125-43-50 | 14'-1"    | 14'-9"  | 15'-6"        | 16'-1"          | 16'-9"  | 17'-4"  | 17'-11"  | 362T125-43-50 |
|   | 362T125-54-50 | 17'-2"    | 18'-0"  | 18'-10"       | 19'-8"          | 20'-5"  | 21'-1"  | 21'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 20'-8"    | 21'-9"  | 22'-9"        | 23'-8"          | 24'-7"  | 25'-5"  | 26'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 25'-2"    | 26'-5"  | 27'-7"        | 28'-9"          | 29'-10" | 30'-11" | 31'-11"  | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 11'-10"   | 12'-5"  | 13'-0"        | 13'-6"          | 14'-0"  | 14'-6"  | 15'-0"   | 362T125-33-50 |
|   | 362T125-43-50 | 15'-1"    | 15'-10" | 16'-7"        | 17'-3"          | 17'-11" | 18'-7"  | 19'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 18'-5"    | 19'-4"  | 20'-2"        | 21'-0"          | 21'-10" | 22'-7"  | 23'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 22'-2"    | 23'-3"  | 24'-4"        | 25'-4"          | 26'-4"  | 27'-3"  | 28'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 26'-11"   | 28'-3"  | 29'-6"        | 30'-9"          | 31'-11" | 33'-1"  | 34'-2"   | 362T125-97-50 |



**TABLE 4.7.4.174: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:          |               | Type          | S3        | ( $p = 1.5$ ) | S <sub>Ds</sub> | 0.40    | Weight  | 4600 lbs |               |
|----------------------|---------------|---------------|-----------|---------------|-----------------|---------|---------|----------|---------------|
| Height in Bldg (z/h) |               | Track Section | Pod Width |               |                 |         |         |          | Track Section |
|                      |               | 5.00 ft       | 5.50 ft   | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0                  | 362T125-33-50 | 6'-8"         | 7'-0"     | 7'-4"         | 7'-8"           | 7'-11"  | 8'-3"   | 8'-6"    | 362T125-33-50 |
|                      | 362T125-43-50 | 8'-7"         | 9'-0"     | 9'-5"         | 9'-10"          | 10'-2"  | 10'-7"  | 10'-11"  | 362T125-43-50 |
|                      | 362T125-54-50 | 10'-5"        | 11'-0"    | 11'-6"        | 12'-0"          | 12'-5"  | 12'-11" | 13'-4"   | 362T125-54-50 |
|                      | 362T125-68-50 | 12'-7"        | 13'-3"    | 13'-10"       | 14'-5"          | 15'-0"  | 15'-7"  | 16'-1"   | 362T125-68-50 |
|                      | 362T125-97-50 | 15'-4"        | 16'-1"    | 16'-10"       | 17'-7"          | 18'-3"  | 18'-11" | 19'-6"   | 362T125-97-50 |
| 0.9                  | 362T125-33-50 | 6'-11"        | 7'-3"     | 7'-7"         | 7'-11"          | 8'-3"   | 8'-6"   | 8'-10"   | 362T125-33-50 |
|                      | 362T125-43-50 | 8'-10"        | 9'-4"     | 9'-9"         | 10'-2"          | 10'-7"  | 10'-11" | 11'-4"   | 362T125-43-50 |
|                      | 362T125-54-50 | 10'-10"       | 11'-5"    | 11'-11"       | 12'-5"          | 12'-11" | 13'-4"  | 13'-10"  | 362T125-54-50 |
|                      | 362T125-68-50 | 13'-1"        | 13'-9"    | 14'-4"        | 15'-0"          | 15'-7"  | 16'-1"  | 16'-8"   | 362T125-68-50 |
|                      | 362T125-97-50 | 15'-11"       | 16'-9"    | 17'-6"        | 18'-2"          | 18'-11" | 19'-7"  | 20'-3"   | 362T125-97-50 |
| 0.8                  | 362T125-33-50 | 7'-2"         | 7'-7"     | 7'-11"        | 8'-3"           | 8'-7"   | 8'-10"  | 9'-2"    | 362T125-33-50 |
|                      | 362T125-43-50 | 9'-3"         | 9'-8"     | 10'-2"        | 10'-7"          | 11'-0"  | 11'-4"  | 11'-9"   | 362T125-43-50 |
|                      | 362T125-54-50 | 11'-3"        | 11'-10"   | 12'-5"        | 12'-11"         | 13'-5"  | 13'-11" | 14'-4"   | 362T125-54-50 |
|                      | 362T125-68-50 | 13'-7"        | 14'-3"    | 14'-11"       | 15'-7"          | 16'-2"  | 16'-9"  | 17'-4"   | 362T125-68-50 |
|                      | 362T125-97-50 | 16'-6"        | 17'-4"    | 18'-2"        | 18'-11"         | 19'-8"  | 20'-4"  | 21'-0"   | 362T125-97-50 |
| 0.7                  | 362T125-33-50 | 7'-6"         | 7'-11"    | 8'-3"         | 8'-7"           | 8'-11"  | 9'-3"   | 9'-7"    | 362T125-33-50 |
|                      | 362T125-43-50 | 9'-7"         | 10'-1"    | 10'-7"        | 11'-0"          | 11'-5"  | 11'-10" | 12'-3"   | 362T125-43-50 |
|                      | 362T125-54-50 | 11'-9"        | 12'-4"    | 12'-11"       | 13'-5"          | 14'-0"  | 14'-6"  | 14'-11"  | 362T125-54-50 |
|                      | 362T125-68-50 | 14'-2"        | 14'-11"   | 15'-7"        | 16'-3"          | 16'-10" | 17'-5"  | 18'-0"   | 362T125-68-50 |
|                      | 362T125-97-50 | 17'-3"        | 18'-1"    | 18'-11"       | 19'-8"          | 20'-6"  | 21'-2"  | 21'-11"  | 362T125-97-50 |
| 0.6                  | 362T125-33-50 | 7'-10"        | 8'-3"     | 8'-8"         | 9'-0"           | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-33-50 |
|                      | 362T125-43-50 | 10'-1"        | 10'-7"    | 11'-1"        | 11'-6"          | 12'-0"  | 12'-5"  | 12'-10"  | 362T125-43-50 |
|                      | 362T125-54-50 | 12'-3"        | 12'-11"   | 13'-6"        | 14'-1"          | 14'-7"  | 15'-2"  | 15'-8"   | 362T125-54-50 |
|                      | 362T125-68-50 | 14'-10"       | 15'-7"    | 16'-3"        | 17'-0"          | 17'-7"  | 18'-3"  | 18'-10"  | 362T125-68-50 |
|                      | 362T125-97-50 | 18'-0"        | 18'-11"   | 19'-9"        | 20'-7"          | 21'-5"  | 22'-2"  | 22'-11"  | 362T125-97-50 |
| 0.5                  | 362T125-33-50 | 8'-3"         | 8'-8"     | 9'-1"         | 9'-5"           | 9'-10"  | 10'-2"  | 10'-6"   | 362T125-33-50 |
|                      | 362T125-43-50 | 10'-7"        | 11'-1"    | 11'-7"        | 12'-1"          | 12'-7"  | 13'-0"  | 13'-6"   | 362T125-43-50 |
|                      | 362T125-54-50 | 12'-11"       | 13'-7"    | 14'-2"        | 14'-9"          | 15'-4"  | 15'-11" | 16'-5"   | 362T125-54-50 |
|                      | 362T125-68-50 | 15'-7"        | 16'-4"    | 17'-1"        | 17'-10"         | 18'-6"  | 19'-2"  | 19'-10"  | 362T125-68-50 |
|                      | 362T125-97-50 | 18'-11"       | 19'-10"   | 20'-9"        | 21'-8"          | 22'-6"  | 23'-3"  | 24'-1"   | 362T125-97-50 |
| 0.4                  | 362T125-33-50 | 8'-9"         | 9'-2"     | 9'-7"         | 10'-0"          | 10'-5"  | 10'-9"  | 11'-1"   | 362T125-33-50 |
|                      | 362T125-43-50 | 11'-2"        | 11'-9"    | 12'-3"        | 12'-9"          | 13'-3"  | 13'-9"  | 14'-3"   | 362T125-43-50 |
|                      | 362T125-54-50 | 13'-8"        | 14'-4"    | 15'-0"        | 15'-7"          | 16'-2"  | 16'-9"  | 17'-4"   | 362T125-54-50 |
|                      | 362T125-68-50 | 16'-5"        | 17'-3"    | 18'-1"        | 18'-10"         | 19'-6"  | 20'-3"  | 20'-11"  | 362T125-68-50 |
|                      | 362T125-97-50 | 20'-0"        | 21'-0"    | 21'-11"       | 22'-10"         | 23'-9"  | 24'-7"  | 25'-5"   | 362T125-97-50 |
| 0.3                  | 362T125-33-50 | 9'-3"         | 9'-9"     | 10'-2"        | 10'-7"          | 11'-0"  | 11'-5"  | 11'-10"  | 362T125-33-50 |
|                      | 362T125-43-50 | 11'-10"       | 12'-6"    | 13'-0"        | 13'-7"          | 14'-1"  | 14'-7"  | 15'-1"   | 362T125-43-50 |
|                      | 362T125-54-50 | 14'-6"        | 15'-2"    | 15'-11"       | 16'-7"          | 17'-2"  | 17'-10" | 18'-5"   | 362T125-54-50 |
|                      | 362T125-68-50 | 17'-6"        | 18'-4"    | 19'-2"        | 20'-0"          | 20'-9"  | 21'-6"  | 22'-2"   | 362T125-68-50 |
|                      | 362T125-97-50 | 21'-3"        | 22'-3"    | 23'-3"        | 24'-3"          | 25'-2"  | 26'-1"  | 26'-11"  | 362T125-97-50 |
| 0.2                  | 362T125-33-50 | 9'-11"        | 10'-5"    | 10'-11"       | 11'-5"          | 11'-10" | 12'-3"  | 12'-8"   | 362T125-33-50 |
|                      | 362T125-43-50 | 12'-9"        | 13'-4"    | 14'-0"        | 14'-7"          | 15'-1"  | 15'-8"  | 16'-2"   | 362T125-43-50 |
|                      | 362T125-54-50 | 15'-6"        | 16'-3"    | 17'-0"        | 17'-9"          | 18'-5"  | 19'-1"  | 19'-9"   | 362T125-54-50 |
|                      | 362T125-68-50 | 18'-8"        | 19'-8"    | 20'-6"        | 21'-5"          | 22'-2"  | 23'-0"  | 23'-9"   | 362T125-68-50 |
|                      | 362T125-97-50 | 22'-8"        | 23'-10"   | 24'-11"       | 25'-11"         | 26'-11" | 27'-11" | 28'-10"  | 362T125-97-50 |
| 0.1                  | 362T125-33-50 | 10'-9"        | 11'-4"    | 11'-10"       | 12'-4"          | 12'-10" | 13'-3"  | 13'-9"   | 362T125-33-50 |
|                      | 362T125-43-50 | 13'-9"        | 14'-5"    | 15'-1"        | 15'-9"          | 16'-4"  | 16'-11" | 17'-6"   | 362T125-43-50 |
|                      | 362T125-54-50 | 16'-9"        | 17'-7"    | 18'-5"        | 19'-2"          | 19'-11" | 20'-8"  | 21'-4"   | 362T125-54-50 |
|                      | 362T125-68-50 | 20'-3"        | 21'-3"    | 22'-3"        | 23'-2"          | 24'-0"  | 24'-11" | 25'-9"   | 362T125-68-50 |
|                      | 362T125-97-50 | 24'-7"        | 25'-9"    | 27'-0"        | 28'-1"          | 29'-2"  | 30'-2"  | 31'-2"   | 362T125-97-50 |
| 0.0                  | 362T125-33-50 | 11'-6"        | 12'-1"    | 12'-8"        | 13'-2"          | 13'-9"  | 14'-3"  | 14'-8"   | 362T125-33-50 |
|                      | 362T125-43-50 | 14'-9"        | 15'-6"    | 16'-2"        | 16'-10"         | 17'-6"  | 18'-2"  | 18'-9"   | 362T125-43-50 |
|                      | 362T125-54-50 | 18'-0"        | 18'-10"   | 19'-9"        | 20'-7"          | 21'-4"  | 22'-1"  | 22'-10"  | 362T125-54-50 |
|                      | 362T125-68-50 | 21'-8"        | 22'-9"    | 23'-9"        | 24'-9"          | 25'-9"  | 26'-8"  | 27'-6"   | 362T125-68-50 |
|                      | 362T125-97-50 | 26'-4"        | 27'-7"    | 28'-10"       | 30'-1"          | 31'-2"  | 32'-4"  | 33'-5"   | 362T125-97-50 |

\* Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.

Note: If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track.





**TABLE 4.7.4.175: MAXIMUM UNBRACED TOP TRACK LENGTH**

| <b>PARAMETERS:</b>  |               | Type      | S3      | ( $\rho = 1.5$ ) | S <sub>DS</sub> | 0.40    | Weight  | 4800 lbs |               |
|---|---------------|-----------|---------|------------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |                  |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |                  |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |                  |                 |         |         |          |               |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft          | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  | Track Section |
| 1.0   | 362T125-33-50 | 6'-6"     | 6'-10"  | 7'-2"            | 7'-6"           | 7'-9"   | 8'-1"   | 8'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-4"     | 8'-9"   | 9'-2"            | 9'-7"           | 10'-0"  | 10'-4"  | 10'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-3"    | 10'-9"  | 11'-3"           | 11'-9"          | 12'-2"  | 12'-7"  | 13'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-4"    | 13'-0"  | 13'-7"           | 14'-2"          | 14'-8"  | 15'-3"  | 15'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-0"    | 15'-9"  | 16'-6"           | 17'-2"          | 17'-10" | 18'-6"  | 19'-1"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 6'-9"     | 7'-1"   | 7'-5"            | 7'-9"           | 8'-1"   | 8'-4"   | 8'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-8"     | 9'-1"   | 9'-6"            | 9'-11"          | 10'-4"  | 10'-8"  | 11'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-7"    | 11'-2"  | 11'-8"           | 12'-2"          | 12'-7"  | 13'-1"  | 13'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-10"   | 13'-5"  | 14'-1"           | 14'-8"          | 15'-3"  | 15'-9"  | 16'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-7"    | 16'-4"  | 17'-1"           | 17'-10"         | 18'-6"  | 19'-2"  | 19'-10"  | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 7'-0"     | 7'-5"   | 7'-9"            | 8'-1"           | 8'-4"   | 8'-8"   | 9'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-0"     | 9'-6"   | 9'-11"           | 10'-4"          | 10'-9"  | 11'-1"  | 11'-6"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-0"    | 11'-7"  | 12'-1"           | 12'-7"          | 13'-1"  | 13'-7"  | 14'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-4"    | 14'-0"  | 14'-7"           | 15'-3"          | 15'-10" | 16'-5"  | 16'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 16'-2"    | 17'-0"  | 17'-9"           | 18'-6"          | 19'-3"  | 19'-11" | 20'-7"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 7'-4"     | 7'-8"   | 8'-1"            | 8'-5"           | 8'-9"   | 9'-1"   | 9'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-5"     | 9'-11"  | 10'-4"           | 10'-9"          | 11'-2"  | 11'-7"  | 12'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-6"    | 12'-1"  | 12'-7"           | 13'-2"          | 13'-8"  | 14'-2"  | 14'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-10"   | 14'-7"  | 15'-3"           | 15'-10"         | 16'-6"  | 17'-1"  | 17'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-10"   | 17'-8"  | 18'-6"           | 19'-3"          | 20'-0"  | 20'-9"  | 21'-5"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 7'-8"     | 8'-1"   | 8'-5"            | 8'-10"          | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 9'-10"    | 10'-4"  | 10'-10"          | 11'-3"          | 11'-8"  | 12'-2"  | 12'-6"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-0"    | 12'-7"  | 13'-2"           | 13'-9"          | 14'-4"  | 14'-10" | 15'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-6"    | 15'-3"  | 15'-11"          | 16'-7"          | 17'-3"  | 17'-10" | 18'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-7"    | 18'-6"  | 19'-4"           | 20'-2"          | 20'-11" | 21'-8"  | 22'-5"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 8'-1"     | 8'-6"   | 8'-10"           | 9'-3"           | 9'-7"   | 9'-11"  | 10'-4"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-4"    | 10'-10" | 11'-4"           | 11'-10"         | 12'-4"  | 12'-9"  | 13'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-8"    | 13'-3"  | 13'-10"          | 14'-5"          | 15'-0"  | 15'-6"  | 16'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-3"    | 16'-0"  | 16'-9"           | 17'-5"          | 18'-1"  | 18'-9"  | 19'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 18'-6"    | 19'-5"  | 20'-4"           | 21'-2"          | 22'-0"  | 22'-9"  | 23'-6"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 8'-6"     | 9'-0"   | 9'-4"            | 9'-9"           | 10'-2"  | 10'-6"  | 10'-10"  | 362T125-33-50 |
|   | 362T125-43-50 | 10'-11"   | 11'-6"  | 12'-0"           | 12'-6"          | 13'-0"  | 13'-5"  | 13'-11"  | 362T125-43-50 |
|   | 362T125-54-50 | 13'-4"    | 14'-0"  | 14'-8"           | 15'-3"          | 15'-10" | 16'-5"  | 17'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 16'-1"    | 16'-11" | 17'-8"           | 18'-5"          | 19'-1"  | 19'-10" | 20'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 19'-6"    | 20'-6"  | 21'-5"           | 22'-4"          | 23'-2"  | 24'-0"  | 24'-10"  | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 9'-1"     | 9'-6"   | 10'-0"           | 10'-5"          | 10'-9"  | 11'-2"  | 11'-7"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-7"    | 12'-2"  | 12'-9"           | 13'-3"          | 13'-10" | 14'-4"  | 14'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 14'-2"    | 14'-10" | 15'-7"           | 16'-2"          | 16'-10" | 17'-5"  | 18'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 17'-1"    | 17'-11" | 18'-9"           | 19'-6"          | 20'-4"  | 21'-0"  | 21'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 20'-9"    | 21'-9"  | 22'-9"           | 23'-9"          | 24'-8"  | 25'-6"  | 26'-4"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 9'-9"     | 10'-3"  | 10'-8"           | 11'-2"          | 11'-7"  | 12'-0"  | 12'-5"   | 362T125-33-50 |
|   | 362T125-43-50 | 12'-5"    | 13'-1"  | 13'-8"           | 14'-3"          | 14'-9"  | 15'-4"  | 15'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 15'-2"    | 15'-11" | 16'-8"           | 17'-4"          | 18'-0"  | 18'-8"  | 19'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 18'-4"    | 19'-3"  | 20'-1"           | 20'-11"         | 21'-9"  | 22'-6"  | 23'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 22'-3"    | 23'-4"  | 24'-5"           | 25'-5"          | 26'-4"  | 27'-4"  | 28'-3"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 10'-6"    | 11'-1"  | 11'-7"           | 12'-1"          | 12'-6"  | 13'-0"  | 13'-5"   | 362T125-33-50 |
|   | 362T125-43-50 | 13'-6"    | 14'-2"  | 14'-9"           | 15'-5"          | 16'-0"  | 16'-7"  | 17'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 16'-5"    | 17'-3"  | 18'-0"           | 18'-9"          | 19'-6"  | 20'-2"  | 20'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 19'-10"   | 20'-10" | 21'-9"           | 22'-8"          | 23'-6"  | 24'-4"  | 25'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 24'-0"    | 25'-3"  | 26'-5"           | 27'-6"          | 28'-6"  | 29'-6"  | 30'-6"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 11'-3"    | 11'-10" | 12'-5"           | 12'-11"         | 13'-5"  | 13'-11" | 14'-4"   | 362T125-33-50 |
|   | 362T125-43-50 | 14'-5"    | 15'-2"  | 15'-10"          | 16'-6"          | 17'-2"  | 17'-9"  | 18'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 17'-7"    | 18'-6"  | 19'-4"           | 20'-1"          | 20'-11" | 21'-7"  | 22'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 21'-2"    | 22'-3"  | 23'-3"           | 24'-3"          | 25'-2"  | 26'-1"  | 26'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 25'-9"    | 27'-0"  | 28'-3"           | 29'-5"          | 30'-6"  | 31'-7"  | 32'-8"   | 362T125-97-50 |



**TABLE 4.7.4.176: MAXIMUM UNBRACED TOP TRACK LENGTH**

| <b>PARAMETERS:</b>  |               |                   |                 |         |         |          |         |         |               |
|---|---------------|-------------------|-----------------|---------|---------|----------|---------|---------|---------------|
| Type  | S3            | ( <i>l</i> = 1.5) | S <sub>Ds</sub> | 0.40    | Weight  | 5000 lbs |         |         |               |
| <i>* Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.</i>  |               |                   |                 |         |         |          |         |         |               |
| <i>Note: If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track.</i> |               |                   |                 |         |         |          |         |         |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width         |                 |         |         |          |         |         | Track Section |
|   |               | 5.00 ft           | 5.50 ft         | 6.00 ft | 6.50 ft | 7.00 ft  | 7.50 ft | 8.00 ft |               |
| 1.0   | 362T125-33-50 | 6'-4"             | 6'-8"           | 7'-0"   | 7'-4"   | 7'-7"    | 7'-10"  | 8'-2"   | 362T125-33-50 |
|   | 362T125-43-50 | 8'-2"             | 8'-7"           | 9'-0"   | 9'-5"   | 9'-9"    | 10'-1"  | 10'-5"  | 362T125-43-50 |
|   | 362T125-54-50 | 10'-0"            | 10'-6"          | 11'-0"  | 11'-6"  | 11'-11"  | 12'-4"  | 12'-9"  | 362T125-54-50 |
|   | 362T125-68-50 | 12'-1"            | 12'-8"          | 13'-3"  | 13'-10" | 14'-5"   | 14'-11" | 15'-5"  | 362T125-68-50 |
| 0.9   | 362T125-97-50 | 14'-8"            | 15'-5"          | 16'-2"  | 16'-10" | 17'-6"   | 18'-1"  | 18'-9"  | 362T125-97-50 |
|   | 362T125-33-50 | 6'-7"             | 6'-11"          | 7'-3"   | 7'-7"   | 7'-11"   | 8'-2"   | 8'-5"   | 362T125-33-50 |
|   | 362T125-43-50 | 8'-6"             | 8'-11"          | 9'-4"   | 9'-9"   | 10'-1"   | 10'-6"  | 10'-10" | 362T125-43-50 |
|   | 362T125-54-50 | 10'-5"            | 10'-11"         | 11'-5"  | 11'-11" | 12'-4"   | 12'-10" | 13'-3"  | 362T125-54-50 |
| 0.8   | 362T125-68-50 | 12'-6"            | 13'-2"          | 13'-9"  | 14'-4"  | 14'-11"  | 15'-5"  | 16'-0"  | 362T125-68-50 |
|   | 362T125-97-50 | 15'-3"            | 16'-0"          | 16'-9"  | 17'-5"  | 18'-1"   | 18'-9"  | 19'-5"  | 362T125-97-50 |
|   | 362T125-33-50 | 6'-10"            | 7'-3"           | 7'-7"   | 7'-11"  | 8'-2"    | 8'-6"   | 8'-9"   | 362T125-33-50 |
|   | 362T125-43-50 | 8'-10"            | 9'-3"           | 9'-8"   | 10'-1"  | 10'-6"   | 10'-11" | 11'-3"  | 362T125-43-50 |
| 0.7   | 362T125-54-50 | 10'-9"            | 11'-4"          | 11'-10" | 12'-4"  | 12'-10"  | 13'-4"  | 13'-9"  | 362T125-54-50 |
|   | 362T125-68-50 | 13'-0"            | 13'-8"          | 14'-4"  | 14'-11" | 15'-6"   | 16'-1"  | 16'-7"  | 362T125-68-50 |
|   | 362T125-97-50 | 15'-10"           | 16'-8"          | 17'-5"  | 18'-1"  | 18'-10"  | 19'-6"  | 20'-2"  | 362T125-97-50 |
|   | 362T125-33-50 | 7'-2"             | 7'-6"           | 7'-11"  | 8'-3"   | 8'-7"    | 8'-10"  | 9'-2"   | 362T125-33-50 |
| 0.6   | 362T125-43-50 | 9'-2"             | 9'-8"           | 10'-1"  | 10'-7"  | 10'-11"  | 11'-4"  | 11'-9"  | 362T125-43-50 |
|   | 362T125-54-50 | 11'-3"            | 11'-10"         | 12'-4"  | 12'-11" | 13'-5"   | 13'-10" | 14'-4"  | 362T125-54-50 |
|   | 362T125-68-50 | 13'-7"            | 14'-3"          | 14'-11" | 15'-6"  | 16'-2"   | 16'-9"  | 17'-3"  | 362T125-68-50 |
|   | 362T125-97-50 | 16'-6"            | 17'-4"          | 18'-1"  | 18'-11" | 19'-7"   | 20'-4"  | 21'-0"  | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 7'-6"             | 7'-11"          | 8'-3"   | 8'-7"   | 8'-11"   | 9'-3"   | 9'-7"   | 362T125-33-50 |
|   | 362T125-43-50 | 9'-8"             | 10'-1"          | 10'-7"  | 11'-0"  | 11'-5"   | 11'-10" | 12'-3"  | 362T125-43-50 |
|   | 362T125-54-50 | 11'-9"            | 12'-4"          | 12'-11" | 13'-6"  | 14'-0"   | 14'-6"  | 15'-0"  | 362T125-54-50 |
|   | 362T125-68-50 | 14'-2"            | 14'-11"         | 15'-7"  | 16'-3"  | 16'-11"  | 17'-6"  | 18'-1"  | 362T125-68-50 |
| 0.4   | 362T125-97-50 | 17'-3"            | 18'-1"          | 18'-11" | 19'-9"  | 20'-6"   | 21'-3"  | 21'-11" | 362T125-97-50 |
|   | 362T125-33-50 | 7'-11"            | 8'-4"           | 8'-8"   | 9'-1"   | 9'-5"    | 9'-9"   | 10'-1"  | 362T125-33-50 |
|   | 362T125-43-50 | 10'-1"            | 10'-8"          | 11'-1"  | 11'-7"  | 12'-0"   | 12'-6"  | 12'-11" | 362T125-43-50 |
|   | 362T125-54-50 | 12'-4"            | 13'-0"          | 13'-7"  | 14'-2"  | 14'-8"   | 15'-3"  | 15'-9"  | 362T125-54-50 |
| 0.3   | 362T125-68-50 | 14'-11"           | 15'-8"          | 16'-5"  | 17'-1"  | 17'-9"   | 18'-4"  | 18'-10" | 362T125-68-50 |
|   | 362T125-97-50 | 18'-1"            | 19'-0"          | 19'-11" | 20'-9"  | 21'-6"   | 22'-4"  | 23'-1"  | 362T125-97-50 |
|   | 362T125-33-50 | 8'-4"             | 8'-9"           | 9'-2"   | 9'-7"   | 9'-11"   | 10'-4"  | 10'-8"  | 362T125-33-50 |
|   | 362T125-43-50 | 10'-8"            | 11'-3"          | 11'-9"  | 12'-3"  | 12'-9"   | 13'-2"  | 13'-7"  | 362T125-43-50 |
| 0.2   | 362T125-54-50 | 13'-1"            | 13'-9"          | 14'-4"  | 14'-11" | 15'-6"   | 16'-1"  | 16'-7"  | 362T125-54-50 |
|   | 362T125-68-50 | 15'-9"            | 16'-6"          | 17'-3"  | 18'-0"  | 18'-9"   | 19'-5"  | 20'-0"  | 362T125-68-50 |
|   | 362T125-97-50 | 19'-2"            | 20'-1"          | 21'-0"  | 21'-11" | 22'-9"   | 23'-6"  | 24'-4"  | 362T125-97-50 |
|   | 362T125-33-50 | 8'-11"            | 9'-4"           | 9'-9"   | 10'-2"  | 10'-7"   | 10'-11" | 11'-4"  | 362T125-33-50 |
| 0.1   | 362T125-43-50 | 11'-4"            | 11'-11"         | 12'-6"  | 13'-0"  | 13'-6"   | 14'-0"  | 14'-6"  | 362T125-43-50 |
|   | 362T125-54-50 | 13'-11"           | 14'-7"          | 15'-3"  | 15'-10" | 16'-6"   | 17'-1"  | 17'-8"  | 362T125-54-50 |
|   | 362T125-68-50 | 16'-9"            | 17'-7"          | 18'-4"  | 19'-2"  | 19'-11"  | 20'-7"  | 21'-3"  | 362T125-68-50 |
|   | 362T125-97-50 | 20'-4"            | 21'-4"          | 22'-4"  | 23'-3"  | 24'-2"   | 25'-0"  | 25'-10" | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 9'-6"             | 10'-0"          | 10'-6"  | 10'-11" | 11'-4"   | 11'-9"  | 12'-2"  | 362T125-33-50 |
|   | 362T125-43-50 | 12'-2"            | 12'-9"          | 13'-4"  | 13'-11" | 14'-6"   | 15'-0"  | 15'-6"  | 362T125-43-50 |
|   | 362T125-54-50 | 14'-10"           | 15'-7"          | 16'-4"  | 17'-0"  | 17'-8"   | 18'-3"  | 18'-11" | 362T125-54-50 |
|   | 362T125-68-50 | 17'-11"           | 18'-10"         | 19'-8"  | 20'-6"  | 21'-3"   | 22'-0"  | 22'-9"  | 362T125-68-50 |
| 0.0   | 362T125-97-50 | 21'-9"            | 22'-10"         | 23'-11" | 24'-10" | 25'-10"  | 26'-9"  | 27'-8"  | 362T125-97-50 |
|   | 362T125-33-50 | 10'-4"            | 10'-10"         | 11'-4"  | 11'-10" | 12'-3"   | 12'-8"  | 13'-2"  | 362T125-33-50 |
|   | 362T125-43-50 | 13'-2"            | 13'-10"         | 14'-6"  | 15'-1"  | 15'-8"   | 16'-3"  | 16'-9"  | 362T125-43-50 |
|   | 362T125-54-50 | 16'-1"            | 16'-11"         | 17'-8"  | 18'-5"  | 19'-1"   | 19'-9"  | 20'-5"  | 362T125-54-50 |
| 0.0   | 362T125-68-50 | 19'-5"            | 20'-4"          | 21'-3"  | 22'-2"  | 23'-0"   | 23'-10" | 24'-8"  | 362T125-68-50 |
|   | 362T125-97-50 | 23'-7"            | 24'-9"          | 25'-10" | 26'-11" | 27'-11"  | 28'-11" | 29'-11" | 362T125-97-50 |
|   | 362T125-33-50 | 11'-1"            | 11'-7"          | 12'-2"  | 12'-8"  | 13'-2"   | 13'-7"  | 14'-1"  | 362T125-33-50 |
|   | 362T125-43-50 | 14'-1"            | 14'-10"         | 15'-6"  | 16'-2"  | 16'-9"   | 17'-5"  | 18'-0"  | 362T125-43-50 |
| 0.0   | 362T125-54-50 | 17'-3"            | 18'-1"          | 18'-11" | 19'-8"  | 20'-5"   | 21'-2"  | 21'-11" | 362T125-54-50 |
|   | 362T125-68-50 | 20'-9"            | 21'-10"         | 22'-9"  | 23'-9"  | 24'-8"   | 25'-6"  | 26'-5"  | 362T125-68-50 |
|   | 362T125-97-50 | 25'-2"            | 26'-5"          | 27'-8"  | 28'-10" | 29'-11"  | 31'-0"  | 32'-0"  | 362T125-97-50 |



**TABLE 4.7.4.177: MAXIMUM UNBRACED TOP TRACK LENGTH**

| <b>PARAMETERS:</b>  |               | Type      | S3      | (p = 1.5) | S <sub>Ds</sub> | 0.70    | Weight  | 2000 lbs |               |
|---|---------------|-----------|---------|-----------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |           |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |           |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |           |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft   | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 7'-8"     | 8'-1"   | 8'-6"     | 8'-10"          | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 9'-10"    | 10'-4"  | 10'-10"   | 11'-4"          | 11'-9"  | 12'-2"  | 12'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-1"    | 12'-8"  | 13'-3"    | 13'-10"         | 14'-4"  | 14'-10" | 15'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-7"    | 15'-3"  | 16'-0"    | 16'-8"          | 17'-3"  | 17'-11" | 18'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-8"    | 18'-7"  | 19'-5"    | 20'-3"          | 21'-0"  | 21'-9"  | 22'-6"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 8'-0"     | 8'-5"   | 8'-9"     | 9'-2"           | 9'-6"   | 9'-10"  | 10'-2"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-3"    | 10'-9"  | 11'-3"    | 11'-9"          | 12'-2"  | 12'-7"  | 13'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-6"    | 13'-1"  | 13'-9"    | 14'-4"          | 14'-10" | 15'-5"  | 15'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 15'-1"    | 15'-10" | 16'-7"    | 17'-3"          | 17'-11" | 18'-7"  | 19'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 18'-4"    | 19'-3"  | 20'-1"    | 20'-11"         | 21'-9"  | 22'-6"  | 23'-3"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 8'-4"     | 8'-9"   | 9'-1"     | 9'-6"           | 9'-11"  | 10'-3"  | 10'-7"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-8"    | 11'-2"  | 11'-8"    | 12'-2"          | 12'-8"  | 13'-1"  | 13'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-0"    | 13'-8"  | 14'-3"    | 14'-10"         | 15'-5"  | 16'-0"  | 16'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-8"    | 16'-5"  | 17'-2"    | 17'-11"         | 18'-7"  | 19'-3"  | 19'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 19'-0"    | 20'-0"  | 20'-11"   | 21'-9"          | 22'-7"  | 23'-5"  | 24'-2"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 8'-8"     | 9'-1"   | 9'-6"     | 9'-11"          | 10'-4"  | 10'-8"  | 11'-0"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-1"    | 11'-8"  | 12'-2"    | 12'-8"          | 13'-2"  | 13'-8"  | 14'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-6"    | 14'-3"  | 14'-10"   | 15'-6"          | 16'-1"  | 16'-8"  | 17'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 16'-4"    | 17'-2"  | 17'-11"   | 18'-8"          | 19'-5"  | 20'-1"  | 20'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 19'-10"   | 20'-10" | 21'-9"    | 22'-8"          | 23'-6"  | 24'-5"  | 25'-2"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 9'-1"     | 9'-6"   | 9'-11"    | 10'-4"          | 10'-9"  | 11'-2"  | 11'-7"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-7"    | 12'-2"  | 12'-9"    | 13'-3"          | 13'-9"  | 14'-3"  | 14'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 14'-2"    | 14'-10" | 15'-6"    | 16'-2"          | 16'-10" | 17'-5"  | 18'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 17'-1"    | 17'-11" | 18'-9"    | 19'-6"          | 20'-3"  | 21'-0"  | 21'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 20'-9"    | 21'-9"  | 22'-9"    | 23'-8"          | 24'-7"  | 25'-6"  | 26'-4"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 9'-6"     | 10'-0"  | 10'-6"    | 10'-11"         | 11'-4"  | 11'-9"  | 12'-2"   | 362T125-33-50 |
|   | 362T125-43-50 | 12'-2"    | 12'-9"  | 13'-4"    | 13'-11"         | 14'-6"  | 15'-0"  | 15'-6"   | 362T125-43-50 |
|   | 362T125-54-50 | 14'-10"   | 15'-7"  | 16'-4"    | 17'-0"          | 17'-8"  | 18'-3"  | 18'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 17'-11"   | 18'-10" | 19'-8"    | 20'-6"          | 21'-3"  | 22'-0"  | 22'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 21'-9"    | 22'-10" | 23'-11"   | 24'-10"         | 25'-10" | 26'-9"  | 27'-8"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 10'-1"    | 10'-7"  | 11'-1"    | 11'-6"          | 12'-0"  | 12'-5"  | 12'-10"  | 362T125-33-50 |
|   | 362T125-43-50 | 12'-10"   | 13'-6"  | 14'-1"    | 14'-9"          | 15'-3"  | 15'-10" | 16'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 15'-8"    | 16'-6"  | 17'-3"    | 17'-11"         | 18'-8"  | 19'-4"  | 19'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 18'-11"   | 19'-10" | 20'-9"    | 21'-7"          | 22'-5"  | 23'-3"  | 24'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 23'-0"    | 24'-1"  | 25'-2"    | 26'-3"          | 27'-3"  | 28'-3"  | 29'-2"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 10'-8"    | 11'-3"  | 11'-9"    | 12'-3"          | 12'-9"  | 13'-2"  | 13'-7"   | 362T125-33-50 |
|   | 362T125-43-50 | 13'-8"    | 14'-4"  | 15'-0"    | 15'-8"          | 16'-3"  | 16'-10" | 17'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 16'-8"    | 17'-6"  | 18'-3"    | 19'-1"          | 19'-9"  | 20'-6"  | 21'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 20'-1"    | 21'-1"  | 22'-1"    | 23'-0"          | 23'-10" | 24'-8"  | 25'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 24'-5"    | 25'-7"  | 26'-9"    | 27'-10"         | 28'-11" | 30'-0"  | 31'-0"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 11'-5"    | 12'-0"  | 12'-7"    | 13'-1"          | 13'-7"  | 14'-1"  | 14'-7"   | 362T125-33-50 |
|   | 362T125-43-50 | 14'-8"    | 15'-4"  | 16'-1"    | 16'-9"          | 17'-5"  | 18'-0"  | 18'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 17'-10"   | 18'-9"  | 19'-7"    | 20'-5"          | 21'-2"  | 21'-11" | 22'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 21'-6"    | 22'-7"  | 23'-7"    | 24'-7"          | 25'-6"  | 26'-5"  | 27'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 26'-1"    | 27'-5"  | 28'-8"    | 29'-10"         | 31'-0"  | 32'-1"  | 33'-2"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 12'-5"    | 13'-0"  | 13'-7"    | 14'-2"          | 14'-9"  | 15'-3"  | 15'-9"   | 362T125-33-50 |
|   | 362T125-43-50 | 15'-10"   | 16'-8"  | 17'-5"    | 18'-1"          | 18'-10" | 19'-6"  | 20'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 19'-4"    | 20'-3"  | 21'-2"    | 22'-1"          | 22'-11" | 23'-9"  | 24'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 23'-3"    | 24'-5"  | 25'-6"    | 26'-7"          | 27'-7"  | 28'-7"  | 29'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 28'-3"    | 29'-7"  | 31'-0"    | 32'-3"          | 33'-6"  | 34'-8"  | 35'-10"  | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 13'-3"    | 13'-11" | 14'-7"    | 15'-2"          | 15'-9"  | 16'-4"  | 16'-11"  | 362T125-33-50 |
|   | 362T125-43-50 | 17'-0"    | 17'-10" | 18'-7"    | 19'-5"          | 20'-2"  | 20'-10" | 21'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 20'-8"    | 21'-8"  | 22'-8"    | 23'-7"          | 24'-6"  | 25'-5"  | 26'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 24'-11"   | 26'-2"  | 27'-4"    | 28'-6"          | 29'-7"  | 30'-7"  | 31'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 30'-2"    | 31'-9"  | 33'-2"    | 34'-6"          | 35'-10" | 37'-1"  | 38'-4"   | 362T125-97-50 |



**TABLE 4.7.4.178: MAXIMUM UNBRACED TOP TRACK LENGTH**

| <b>PARAMETERS:</b>  |               |           |                 |         |         |          |         |         |               |
|---|---------------|-----------|-----------------|---------|---------|----------|---------|---------|---------------|
| Type  | S3            | (p = 1.5) | S <sub>DS</sub> | 0.70    | Weight  | 2200 lbs |         |         |               |
| <i>* Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.</i>  |               |           |                 |         |         |          |         |         |               |
| <i>Note: If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track.</i> |               |           |                 |         |         |          |         |         |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |                 |         |         |          |         |         | Track Section |
|   |               | 5.00 ft   | 5.50 ft         | 6.00 ft | 6.50 ft | 7.00 ft  | 7.50 ft | 8.00 ft |               |
| 1.0   | 362T125-33-50 | 7'-4"     | 7'-8"           | 8'-1"   | 8'-5"   | 8'-9"    | 9'-0"   | 9'-4"   | 362T125-33-50 |
|   | 362T125-43-50 | 9'-5"     | 9'-10"          | 10'-4"  | 10'-9"  | 11'-2"   | 11'-7"  | 12'-0"  | 362T125-43-50 |
|   | 362T125-54-50 | 11'-6"    | 12'-1"          | 12'-7"  | 13'-2"  | 13'-8"   | 14'-2"  | 14'-7"  | 362T125-54-50 |
|   | 362T125-68-50 | 13'-10"   | 14'-6"          | 15'-2"  | 15'-10" | 16'-5"   | 17'-1"  | 17'-7"  | 362T125-68-50 |
|   | 362T125-97-50 | 16'-10"   | 17'-8"          | 18'-6"  | 19'-3"  | 20'-0"   | 20'-9"  | 21'-5"  | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 7'-7"     | 8'-0"           | 8'-4"   | 8'-8"   | 9'-0"    | 9'-4"   | 9'-8"   | 362T125-33-50 |
|   | 362T125-43-50 | 9'-9"     | 10'-3"          | 10'-8"  | 11'-2"  | 11'-7"   | 12'-0"  | 12'-5"  | 362T125-43-50 |
|   | 362T125-54-50 | 11'-11"   | 12'-6"          | 13'-1"  | 13'-7"  | 14'-2"   | 14'-8"  | 15'-2"  | 362T125-54-50 |
|   | 362T125-68-50 | 14'-4"    | 15'-1"          | 15'-9"  | 16'-5"  | 17'-1"   | 17'-8"  | 18'-3"  | 362T125-68-50 |
|   | 362T125-97-50 | 17'-5"    | 18'-4"          | 19'-2"  | 19'-11" | 20'-9"   | 21'-5"  | 22'-2"  | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 7'-11"    | 8'-3"           | 8'-8"   | 9'-1"   | 9'-5"    | 9'-9"   | 10'-1"  | 362T125-33-50 |
|   | 362T125-43-50 | 10'-1"    | 10'-8"          | 11'-1"  | 11'-7"  | 12'-0"   | 12'-6"  | 12'-11" | 362T125-43-50 |
|   | 362T125-54-50 | 12'-4"    | 13'-0"          | 13'-7"  | 14'-2"  | 14'-8"   | 15'-3"  | 15'-9"  | 362T125-54-50 |
|   | 362T125-68-50 | 14'-11"   | 15'-8"          | 16'-4"  | 17'-1"  | 17'-9"   | 18'-4"  | 19'-0"  | 362T125-68-50 |
|   | 362T125-97-50 | 18'-1"    | 19'-0"          | 19'-11" | 20'-9"  | 21'-6"   | 22'-3"  | 23'-0"  | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 8'-3"     | 8'-8"           | 9'-1"   | 9'-5"   | 9'-10"   | 10'-2"  | 10'-6"  | 362T125-33-50 |
|   | 362T125-43-50 | 10'-7"    | 11'-1"          | 11'-7"  | 12'-1"  | 12'-7"   | 13'-0"  | 13'-5"  | 362T125-43-50 |
|   | 362T125-54-50 | 12'-11"   | 13'-6"          | 14'-2"  | 14'-9"  | 15'-4"   | 15'-10" | 16'-5"  | 362T125-54-50 |
|   | 362T125-68-50 | 15'-6"    | 16'-4"          | 17'-1"  | 17'-9"  | 18'-6"   | 19'-1"  | 19'-9"  | 362T125-68-50 |
|   | 362T125-97-50 | 18'-11"   | 19'-10"         | 20'-9"  | 21'-7"  | 22'-5"   | 23'-3"  | 24'-0"  | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 8'-7"     | 9'-1"           | 9'-6"   | 9'-10"  | 10'-3"   | 10'-8"  | 11'-0"  | 362T125-33-50 |
|   | 362T125-43-50 | 11'-0"    | 11'-7"          | 12'-1"  | 12'-8"  | 13'-1"   | 13'-7"  | 14'-1"  | 362T125-43-50 |
|   | 362T125-54-50 | 13'-6"    | 14'-2"          | 14'-9"  | 15'-5"  | 16'-0"   | 16'-7"  | 17'-2"  | 362T125-54-50 |
|   | 362T125-68-50 | 16'-3"    | 17'-1"          | 17'-10" | 18'-7"  | 19'-4"   | 20'-0"  | 20'-8"  | 362T125-68-50 |
|   | 362T125-97-50 | 19'-9"    | 20'-9"          | 21'-8"  | 22'-7"  | 23'-5"   | 24'-3"  | 25'-1"  | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 9'-1"     | 9'-6"           | 9'-11"  | 10'-4"  | 10'-9"   | 11'-2"  | 11'-7"  | 362T125-33-50 |
|   | 362T125-43-50 | 11'-7"    | 12'-2"          | 12'-9"  | 13'-3"  | 13'-9"   | 14'-3"  | 14'-9"  | 362T125-43-50 |
|   | 362T125-54-50 | 14'-2"    | 14'-10"         | 15'-6"  | 16'-2"  | 16'-10"  | 17'-5"  | 18'-0"  | 362T125-54-50 |
|   | 362T125-68-50 | 17'-1"    | 17'-11"         | 18'-9"  | 19'-6"  | 20'-3"   | 21'-0"  | 21'-8"  | 362T125-68-50 |
|   | 362T125-97-50 | 20'-9"    | 21'-9"          | 22'-9"  | 23'-8"  | 24'-7"   | 25'-6"  | 26'-4"  | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 9'-7"     | 10'-1"          | 10'-6"  | 10'-11" | 11'-5"   | 11'-10" | 12'-2"  | 362T125-33-50 |
|   | 362T125-43-50 | 12'-3"    | 12'-10"         | 13'-5"  | 14'-0"  | 14'-7"   | 15'-1"  | 15'-7"  | 362T125-43-50 |
|   | 362T125-54-50 | 14'-11"   | 15'-8"          | 16'-5"  | 17'-1"  | 17'-9"   | 18'-5"  | 19'-0"  | 362T125-54-50 |
|   | 362T125-68-50 | 18'-0"    | 18'-11"         | 19'-9"  | 20'-7"  | 21'-5"   | 22'-2"  | 22'-11" | 362T125-68-50 |
|   | 362T125-97-50 | 21'-10"   | 23'-0"          | 24'-0"  | 25'-0"  | 26'-0"   | 26'-11" | 27'-10" | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 10'-2"    | 10'-8"          | 11'-2"  | 11'-8"  | 12'-1"   | 12'-6"  | 12'-11" | 362T125-33-50 |
|   | 362T125-43-50 | 13'-0"    | 13'-8"          | 14'-3"  | 14'-11" | 15'-5"   | 16'-0"  | 16'-7"  | 362T125-43-50 |
|   | 362T125-54-50 | 15'-10"   | 16'-8"          | 17'-5"  | 18'-2"  | 18'-10"  | 19'-6"  | 20'-2"  | 362T125-54-50 |
|   | 362T125-68-50 | 19'-2"    | 20'-1"          | 21'-0"  | 21'-10" | 22'-8"   | 23'-6"  | 24'-4"  | 362T125-68-50 |
|   | 362T125-97-50 | 23'-3"    | 24'-5"          | 25'-6"  | 26'-7"  | 27'-7"   | 28'-7"  | 29'-6"  | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 10'-11"   | 11'-5"          | 12'-0"  | 12'-6"  | 13'-0"   | 13'-5"  | 13'-11" | 362T125-33-50 |
|   | 362T125-43-50 | 13'-11"   | 14'-8"          | 15'-4"  | 15'-11" | 16'-7"   | 17'-2"  | 17'-9"  | 362T125-43-50 |
|   | 362T125-54-50 | 17'-0"    | 17'-10"         | 18'-8"  | 19'-5"  | 20'-2"   | 20'-11" | 21'-7"  | 362T125-54-50 |
|   | 362T125-68-50 | 20'-6"    | 21'-6"          | 22'-6"  | 23'-5"  | 24'-4"   | 25'-2"  | 26'-0"  | 362T125-68-50 |
|   | 362T125-97-50 | 24'-10"   | 26'-1"          | 27'-3"  | 28'-5"  | 29'-6"   | 30'-7"  | 31'-7"  | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 11'-10"   | 12'-5"          | 13'-0"  | 13'-6"  | 14'-0"   | 14'-6"  | 15'-0"  | 362T125-33-50 |
|   | 362T125-43-50 | 15'-1"    | 15'-10"         | 16'-7"  | 17'-3"  | 17'-11"  | 18'-7"  | 19'-2"  | 362T125-43-50 |
|   | 362T125-54-50 | 18'-5"    | 19'-4"          | 20'-2"  | 21'-0"  | 21'-10"  | 22'-7"  | 23'-4"  | 362T125-54-50 |
|   | 362T125-68-50 | 22'-2"    | 23'-3"          | 24'-4"  | 25'-4"  | 26'-4"   | 27'-3"  | 28'-2"  | 362T125-68-50 |
|   | 362T125-97-50 | 26'-11"   | 28'-3"          | 29'-6"  | 30'-9"  | 31'-11"  | 33'-1"  | 34'-2"  | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 12'-8"    | 13'-3"          | 13'-11" | 14'-6"  | 15'-0"   | 15'-7"  | 16'-1"  | 362T125-33-50 |
|   | 362T125-43-50 | 16'-2"    | 16'-11"         | 17'-9"  | 18'-6"  | 19'-2"   | 19'-10" | 20'-6"  | 362T125-43-50 |
|   | 362T125-54-50 | 19'-8"    | 20'-8"          | 21'-7"  | 22'-6"  | 23'-4"   | 24'-2"  | 25'-0"  | 362T125-54-50 |
|   | 362T125-68-50 | 23'-9"    | 24'-11"         | 26'-0"  | 27'-1"  | 28'-2"   | 29'-2"  | 30'-2"  | 362T125-68-50 |
|   | 362T125-97-50 | 28'-9"    | 30'-3"          | 31'-7"  | 32'-11" | 34'-2"   | 35'-4"  | 36'-6"  | 362T125-97-50 |



**TABLE 4.7.4.179: MAXIMUM UNBRACED TOP TRACK LENGTH**

| <b>PARAMETERS:</b>  |               | Type      | S3      | ( $p = 1.5$ ) | S <sub>Ds</sub> | 0.70    | Weight  | 2400 lbs |               |
|---|---------------|-----------|---------|---------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |               |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |               |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |               |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 7'-0"     | 7'-4"   | 7'-8"         | 8'-0"           | 8'-4"   | 8'-8"   | 8'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 9'-0"     | 9'-5"   | 9'-10"        | 10'-3"          | 10'-8"  | 11'-1"  | 11'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-0"    | 11'-6"  | 12'-1"        | 12'-7"          | 13'-1"  | 13'-6"  | 14'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-3"    | 13'-11" | 14'-6"        | 15'-2"          | 15'-9"  | 16'-4"  | 16'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 16'-1"    | 16'-11" | 17'-8"        | 18'-5"          | 19'-1"  | 19'-10" | 20'-6"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 7'-3"     | 7'-7"   | 8'-0"         | 8'-4"           | 8'-8"   | 8'-11"  | 9'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-4"     | 9'-9"   | 10'-3"        | 10'-8"          | 11'-1"  | 11'-6"  | 11'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 11'-4"    | 11'-11" | 12'-6"        | 13'-0"          | 13'-6"  | 14'-0"  | 14'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-9"    | 14'-5"  | 15'-1"        | 15'-8"          | 16'-4"  | 16'-11" | 17'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-8"    | 17'-6"  | 18'-4"        | 19'-1"          | 19'-10" | 20'-6"  | 21'-3"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 7'-6"     | 7'-11"  | 8'-3"         | 8'-8"           | 9'-0"   | 9'-4"   | 9'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-8"     | 10'-2"  | 10'-8"        | 11'-1"          | 11'-6"  | 11'-11" | 12'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-10"   | 12'-5"  | 13'-0"        | 13'-6"          | 14'-1"  | 14'-7"  | 15'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-3"    | 15'-0"  | 15'-8"        | 16'-4"          | 16'-11" | 17'-7"  | 18'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-4"    | 18'-2"  | 19'-0"        | 19'-10"         | 20'-7"  | 21'-4"  | 22'-0"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 7'-10"    | 8'-3"   | 8'-8"         | 9'-1"           | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-1"    | 10'-7"  | 11'-1"        | 11'-6"          | 12'-0"  | 12'-5"  | 12'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 12'-4"    | 12'-11" | 13'-6"        | 14'-1"          | 14'-8"  | 15'-2"  | 15'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-10"   | 15'-7"  | 16'-4"        | 17'-0"          | 17'-8"  | 18'-3"  | 18'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 18'-1"    | 18'-11" | 19'-10"       | 20'-8"          | 21'-5"  | 22'-3"  | 22'-11"  | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 8'-3"     | 8'-8"   | 9'-1"         | 9'-5"           | 9'-10"  | 10'-2"  | 10'-6"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-7"    | 11'-1"  | 11'-7"        | 12'-1"          | 12'-7"  | 13'-0"  | 13'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-11"   | 13'-6"  | 14'-2"        | 14'-9"          | 15'-4"  | 15'-10" | 16'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-6"    | 16'-4"  | 17'-1"        | 17'-9"          | 18'-6"  | 19'-1"  | 19'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 18'-11"   | 19'-10" | 20'-9"        | 21'-7"          | 22'-5"  | 23'-3"  | 23'-0"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 8'-8"     | 9'-1"   | 9'-6"         | 9'-11"          | 10'-4"  | 10'-8"  | 11'-0"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-1"    | 11'-8"  | 12'-2"        | 12'-8"          | 13'-2"  | 13'-8"  | 14'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-6"    | 14'-3"  | 14'-10"       | 15'-6"          | 16'-1"  | 16'-8"  | 17'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 16'-4"    | 17'-2"  | 17'-11"       | 18'-8"          | 19'-5"  | 20'-1"  | 20'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 19'-10"   | 20'-10" | 21'-9"        | 22'-8"          | 23'-6"  | 24'-5"  | 25'-2"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 9'-2"     | 9'-7"   | 10'-1"        | 10'-6"          | 10'-11" | 11'-3"  | 11'-8"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-8"    | 12'-3"  | 12'-10"       | 13'-5"          | 13'-11" | 14'-5"  | 14'-11"  | 362T125-43-50 |
|   | 362T125-54-50 | 14'-3"    | 15'-0"  | 15'-8"        | 16'-4"          | 17'-0"  | 17'-7"  | 18'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 17'-3"    | 18'-1"  | 18'-11"       | 19'-8"          | 20'-6"  | 21'-2"  | 21'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 20'-11"   | 22'-0"  | 23'-0"        | 23'-11"         | 24'-10" | 25'-9"  | 26'-7"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 9'-9"     | 10'-3"  | 10'-8"        | 11'-2"          | 11'-7"  | 12'-0"  | 12'-5"   | 362T125-33-50 |
|   | 362T125-43-50 | 12'-5"    | 13'-1"  | 13'-8"        | 14'-3"          | 14'-9"  | 15'-4"  | 15'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 15'-2"    | 15'-11" | 16'-8"        | 17'-4"          | 18'-0"  | 18'-8"  | 19'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 18'-4"    | 19'-3"  | 20'-1"        | 20'-11"         | 21'-9"  | 22'-6"  | 23'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 22'-3"    | 23'-4"  | 24'-5"        | 25'-5"          | 26'-4"  | 27'-4"  | 28'-3"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 10'-5"    | 10'-11" | 11'-5"        | 11'-11"         | 12'-5"  | 12'-10" | 13'-3"   | 362T125-33-50 |
|   | 362T125-43-50 | 13'-4"    | 14'-0"  | 14'-8"        | 15'-3"          | 15'-10" | 16'-5"  | 16'-11"  | 362T125-43-50 |
|   | 362T125-54-50 | 16'-3"    | 17'-1"  | 17'-10"       | 18'-7"          | 19'-4"  | 20'-0"  | 20'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 19'-7"    | 20'-7"  | 21'-6"        | 22'-5"          | 23'-3"  | 24'-1"  | 24'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 23'-9"    | 25'-0"  | 26'-1"        | 27'-2"          | 28'-3"  | 29'-3"  | 30'-3"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 11'-3"    | 11'-10" | 12'-5"        | 12'-11"         | 13'-5"  | 13'-11" | 14'-4"   | 362T125-33-50 |
|   | 362T125-43-50 | 14'-5"    | 15'-2"  | 15'-10"       | 16'-6"          | 17'-2"  | 17'-9"  | 18'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 17'-7"    | 18'-6"  | 19'-4"        | 20'-1"          | 20'-11" | 21'-7"  | 22'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 21'-2"    | 22'-3"  | 23'-3"        | 24'-3"          | 25'-2"  | 26'-1"  | 26'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 25'-9"    | 27'-0"  | 28'-3"        | 29'-5"          | 30'-6"  | 31'-7"  | 32'-8"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 12'-1"    | 12'-8"  | 13'-3"        | 13'-10"         | 14'-4"  | 14'-11" | 15'-5"   | 362T125-33-50 |
|   | 362T125-43-50 | 15'-5"    | 16'-3"  | 16'-11"       | 17'-8"          | 18'-4"  | 19'-0"  | 19'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 18'-10"   | 19'-9"  | 20'-8"        | 21'-6"          | 22'-4"  | 23'-2"  | 23'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 22'-8"    | 23'-10" | 24'-11"       | 25'-11"         | 26'-11" | 27'-11" | 28'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 27'-7"    | 28'-11" | 30'-3"        | 31'-6"          | 32'-8"  | 33'-10" | 35'-0"   | 362T125-97-50 |



**TABLE 4.7.4.180: MAXIMUM UNBRACED TOP TRACK LENGTH**

| <b>PARAMETERS:</b>  |               | Type      | S3      | ( $p = 1.5$ ) | S <sub>Ds</sub> | 0.70    | Weight  | 2600 lbs |               |
|---|---------------|-----------|---------|---------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |               |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |               |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |               |                 |         |         |          |               |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  | Track Section |
| 1.0   | 362T125-33-50 | 6'-8"     | 7'-0"   | 7'-4"         | 7'-8"           | 8'-0"   | 8'-3"   | 8'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-7"     | 9'-0"   | 9'-5"         | 9'-10"          | 10'-3"  | 10'-7"  | 11'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-6"    | 11'-1"  | 11'-7"        | 12'-1"          | 12'-6"  | 13'-0"  | 13'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-8"    | 13'-4"  | 13'-11"       | 14'-6"          | 15'-1"  | 15'-8"  | 16'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-5"    | 16'-3"  | 16'-11"       | 17'-8"          | 18'-4"  | 19'-0"  | 19'-8"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 6'-11"    | 7'-4"   | 7'-8"         | 8'-0"           | 8'-3"   | 8'-7"   | 8'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 8'-11"    | 9'-4"   | 9'-10"        | 10'-3"          | 10'-7"  | 11'-0"  | 11'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-11"   | 11'-5"  | 12'-0"        | 12'-6"          | 13'-0"  | 13'-5"  | 13'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 13'-2"    | 13'-10" | 14'-5"        | 15'-1"          | 15'-8"  | 16'-3"  | 16'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-0"    | 16'-10" | 17'-7"        | 18'-4"          | 19'-0"  | 19'-8"  | 20'-4"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 7'-3"     | 7'-7"   | 7'-11"        | 8'-3"           | 8'-7"   | 8'-11"  | 9'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-3"     | 9'-9"   | 10'-2"        | 10'-7"          | 11'-0"  | 11'-5"  | 11'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 11'-4"    | 11'-11" | 12'-5"        | 13'-0"          | 13'-6"  | 14'-0"  | 14'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-8"    | 14'-4"  | 15'-0"        | 15'-8"          | 16'-3"  | 16'-10" | 17'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-7"    | 17'-5"  | 18'-3"        | 19'-0"          | 19'-9"  | 20'-6"  | 21'-2"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 7'-6"     | 7'-11"  | 8'-3"         | 8'-8"           | 9'-0"   | 9'-4"   | 9'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-8"     | 10'-2"  | 10'-8"        | 11'-1"          | 11'-6"  | 11'-11" | 12'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-10"   | 12'-5"  | 13'-0"        | 13'-6"          | 14'-1"  | 14'-7"  | 15'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-3"    | 15'-0"  | 15'-8"        | 16'-4"          | 16'-11" | 17'-7"  | 18'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-4"    | 18'-2"  | 19'-0"        | 19'-10"         | 20'-7"  | 21'-4"  | 22'-0"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 7'-11"    | 8'-3"   | 8'-8"         | 9'-1"           | 9'-5"   | 9'-9"   | 10'-1"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-1"    | 10'-8"  | 11'-1"        | 11'-7"          | 12'-0"  | 12'-6"  | 12'-11"  | 362T125-43-50 |
|   | 362T125-54-50 | 12'-4"    | 13'-0"  | 13'-7"        | 14'-2"          | 14'-8"  | 15'-3"  | 15'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-11"   | 15'-8"  | 16'-4"        | 17'-1"          | 17'-9"  | 18'-4"  | 19'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 18'-1"    | 19'-0"  | 19'-11"       | 20'-9"          | 21'-6"  | 22'-3"  | 23'-0"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 8'-4"     | 8'-9"   | 9'-1"         | 9'-6"           | 9'-11"  | 10'-3"  | 10'-7"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-8"    | 11'-2"  | 11'-8"        | 12'-2"          | 12'-8"  | 13'-1"  | 13'-6"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-0"    | 13'-8"  | 14'-3"        | 14'-10"         | 15'-5"  | 16'-0"  | 16'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-8"    | 16'-5"  | 17'-2"        | 17'-11"         | 18'-7"  | 19'-3"  | 19'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 19'-0"    | 20'-0"  | 20'-11"       | 21'-9"          | 22'-7"  | 23'-5"  | 24'-2"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 8'-9"     | 9'-3"   | 9'-8"         | 10'-1"          | 10'-5"  | 10'-10" | 11'-2"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-3"    | 11'-10" | 12'-4"        | 12'-10"         | 13'-4"  | 13'-10" | 14'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-9"    | 14'-5"  | 15'-1"        | 15'-8"          | 16'-3"  | 16'-10" | 17'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 16'-6"    | 17'-4"  | 18'-2"        | 18'-11"         | 19'-8"  | 20'-4"  | 21'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 20'-1"    | 21'-1"  | 22'-0"        | 22'-11"         | 23'-10" | 24'-8"  | 25'-6"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 9'-4"     | 9'-10"  | 10'-3"        | 10'-8"          | 11'-1"  | 11'-6"  | 11'-11"  | 362T125-33-50 |
|   | 362T125-43-50 | 11'-11"   | 12'-6"  | 13'-1"        | 13'-8"          | 14'-2"  | 14'-8"  | 15'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 14'-7"    | 15'-3"  | 16'-0"        | 16'-8"          | 17'-4"  | 17'-11" | 18'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 17'-7"    | 18'-5"  | 19'-3"        | 20'-1"          | 20'-10" | 21'-7"  | 22'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 21'-4"    | 22'-5"  | 23'-5"        | 24'-5"          | 25'-4"  | 26'-3"  | 27'-1"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 10'-0"    | 10'-6"  | 11'-0"        | 11'-5"          | 11'-11" | 12'-4"  | 12'-9"   | 362T125-33-50 |
|   | 362T125-43-50 | 12'-9"    | 13'-5"  | 14'-0"        | 14'-8"          | 15'-2"  | 15'-9"  | 16'-3"   | 362T125-43-50 |
|   | 362T125-54-50 | 15'-7"    | 16'-5"  | 17'-1"        | 17'-10"         | 18'-6"  | 19'-2"  | 19'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 18'-10"   | 19'-9"  | 20'-8"        | 21'-6"          | 22'-4"  | 23'-2"  | 23'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 22'-10"   | 24'-0"  | 25'-1"        | 26'-1"          | 27'-1"  | 28'-1"  | 29'-0"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 10'-10"   | 11'-5"  | 11'-11"       | 12'-5"          | 12'-11" | 13'-4"  | 13'-9"   | 362T125-33-50 |
|   | 362T125-43-50 | 13'-10"   | 14'-6"  | 15'-2"        | 15'-10"         | 16'-5"  | 17'-0"  | 17'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 16'-11"   | 17'-9"  | 18'-6"        | 19'-4"          | 20'-1"  | 20'-9"  | 21'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 20'-4"    | 21'-4"  | 22'-4"        | 23'-3"          | 24'-2"  | 25'-0"  | 25'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 24'-8"    | 25'-11" | 27'-1"        | 28'-3"          | 29'-4"  | 30'-4"  | 31'-4"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 11'-7"    | 12'-2"  | 12'-9"        | 13'-3"          | 13'-10" | 14'-3"  | 14'-9"   | 362T125-33-50 |
|   | 362T125-43-50 | 14'-10"   | 15'-7"  | 16'-3"        | 16'-11"         | 17'-7"  | 18'-3"  | 18'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 18'-1"    | 19'-0"  | 19'-10"       | 20'-8"          | 21'-5"  | 22'-3"  | 23'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 21'-9"    | 22'-11" | 23'-11"       | 24'-11"         | 25'-10" | 26'-9"  | 27'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 26'-5"    | 27'-9"  | 29'-0"        | 30'-3"          | 31'-4"  | 32'-6"  | 33'-7"   | 362T125-97-50 |



**TABLE 4.7.4.181: MAXIMUM UNBRACED TOP TRACK LENGTH**

**PARAMETERS:** Type S3 (p = 1.5) S<sub>Ds</sub> 0.70 Weight 2800 lbs

\* Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.

**Note:** If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track.

| Height in Bldg (z/h) | Track Section | Pod Width |         |         |         |         |         |         | Track Section |
|----------------------|---------------|-----------|---------|---------|---------|---------|---------|---------|---------------|
|                      |               | 5.00 ft   | 5.50 ft | 6.00 ft | 6.50 ft | 7.00 ft | 7.50 ft | 8.00 ft |               |
| 1.0                  | 362T125-33-50 | 6'-5"     | 6'-9"   | 7'-1"   | 7'-5"   | 7'-8"   | 8'-0"   | 8'-3"   | 362T125-33-50 |
|                      | 362T125-43-50 | 8'-3"     | 8'-8"   | 9'-1"   | 9'-6"   | 9'-10"  | 10'-3"  | 10'-7"  | 362T125-43-50 |
|                      | 362T125-54-50 | 10'-1"    | 10'-8"  | 11'-1"  | 11'-7"  | 12'-0"  | 12'-6"  | 12'-11" | 362T125-54-50 |
|                      | 362T125-68-50 | 12'-3"    | 12'-10" | 13'-5"  | 14'-0"  | 14'-6"  | 15'-1"  | 15'-7"  | 362T125-68-50 |
|                      | 362T125-97-50 | 14'-10"   | 15'-7"  | 16'-4"  | 17'-0"  | 17'-8"  | 18'-4"  | 18'-11" | 362T125-97-50 |
| 0.9                  | 362T125-33-50 | 6'-8"     | 7'-0"   | 7'-4"   | 7'-8"   | 8'-0"   | 8'-3"   | 8'-6"   | 362T125-33-50 |
|                      | 362T125-43-50 | 8'-7"     | 9'-0"   | 9'-5"   | 9'-10"  | 10'-3"  | 10'-7"  | 10'-11" | 362T125-43-50 |
|                      | 362T125-54-50 | 10'-6"    | 11'-0"  | 11'-6"  | 12'-0"  | 12'-11" | 13'-4"  | 13'-11" | 362T125-54-50 |
|                      | 362T125-68-50 | 12'-8"    | 13'-4"  | 13'-11" | 14'-6"  | 15'-1"  | 15'-7"  | 16'-2"  | 362T125-68-50 |
|                      | 362T125-97-50 | 15'-5"    | 16'-2"  | 16'-11" | 17'-7"  | 18'-4"  | 19'-0"  | 19'-7"  | 362T125-97-50 |
| 0.8                  | 362T125-33-50 | 6'-11"    | 7'-4"   | 7'-8"   | 8'-0"   | 8'-3"   | 8'-7"   | 8'-11"  | 362T125-33-50 |
|                      | 362T125-43-50 | 8'-11"    | 9'-4"   | 9'-10"  | 10'-3"  | 10'-7"  | 11'-0"  | 11'-4"  | 362T125-43-50 |
|                      | 362T125-54-50 | 10'-11"   | 11'-5"  | 12'-0"  | 12'-6"  | 13'-0"  | 13'-5"  | 13'-11" | 362T125-54-50 |
|                      | 362T125-68-50 | 13'-2"    | 13'-10" | 14'-5"  | 15'-1"  | 15'-8"  | 16'-3"  | 16'-9"  | 362T125-68-50 |
|                      | 362T125-97-50 | 16'-0"    | 16'-10" | 17'-7"  | 18'-4"  | 19'-0"  | 19'-8"  | 20'-4"  | 362T125-97-50 |
| 0.7                  | 362T125-33-50 | 7'-3"     | 7'-7"   | 8'-0"   | 8'-4"   | 8'-8"   | 8'-11"  | 9'-3"   | 362T125-33-50 |
|                      | 362T125-43-50 | 9'-4"     | 9'-9"   | 10'-3"  | 10'-8"  | 11'-1"  | 11'-6"  | 11'-10" | 362T125-43-50 |
|                      | 362T125-54-50 | 11'-4"    | 11'-11" | 12'-6"  | 13'-0"  | 13'-6"  | 14'-0"  | 14'-6"  | 362T125-54-50 |
|                      | 362T125-68-50 | 13'-9"    | 14'-5"  | 15'-1"  | 15'-8"  | 16'-4"  | 16'-11" | 17'-6"  | 362T125-68-50 |
|                      | 362T125-97-50 | 16'-8"    | 17'-6"  | 18'-4"  | 19'-1"  | 19'-10" | 20'-6"  | 21'-3"  | 362T125-97-50 |
| 0.6                  | 362T125-33-50 | 7'-7"     | 8'-0"   | 8'-4"   | 8'-8"   | 9'-0"   | 9'-4"   | 9'-8"   | 362T125-33-50 |
|                      | 362T125-43-50 | 9'-9"     | 10'-3"  | 10'-8"  | 11'-2"  | 11'-7"  | 12'-0"  | 12'-5"  | 362T125-43-50 |
|                      | 362T125-54-50 | 11'-11"   | 12'-6"  | 13'-1"  | 13'-7"  | 14'-2"  | 14'-8"  | 15'-2"  | 362T125-54-50 |
|                      | 362T125-68-50 | 14'-4"    | 15'-1"  | 15'-9"  | 16'-5"  | 17'-1"  | 17'-8"  | 18'-3"  | 362T125-68-50 |
|                      | 362T125-97-50 | 17'-5"    | 18'-4"  | 19'-2"  | 19'-11" | 20'-9"  | 21'-5"  | 22'-2"  | 362T125-97-50 |
| 0.5                  | 362T125-33-50 | 8'-0"     | 8'-5"   | 8'-9"   | 9'-2"   | 9'-6"   | 9'-10"  | 10'-2"  | 362T125-33-50 |
|                      | 362T125-43-50 | 10'-3"    | 10'-9"  | 11'-3"  | 11'-9"  | 12'-2"  | 12'-7"  | 13'-0"  | 362T125-43-50 |
|                      | 362T125-54-50 | 12'-6"    | 13'-1"  | 13'-9"  | 14'-4"  | 14'-10" | 15'-5"  | 15'-11" | 362T125-54-50 |
|                      | 362T125-68-50 | 15'-1"    | 15'-10" | 16'-7"  | 17'-3"  | 17'-11" | 18'-7"  | 19'-2"  | 362T125-68-50 |
|                      | 362T125-97-50 | 18'-4"    | 19'-3"  | 20'-1"  | 20'-11" | 21'-9"  | 22'-6"  | 23'-3"  | 362T125-97-50 |
| 0.4                  | 362T125-33-50 | 8'-5"     | 8'-10"  | 9'-3"   | 9'-8"   | 10'-0"  | 10'-5"  | 10'-9"  | 362T125-33-50 |
|                      | 362T125-43-50 | 10'-10"   | 11'-4"  | 11'-10" | 12'-4"  | 12'-10" | 13'-4"  | 13'-9"  | 362T125-43-50 |
|                      | 362T125-54-50 | 13'-2"    | 13'-10" | 14'-6"  | 15'-1"  | 15'-8"  | 16'-3"  | 16'-9"  | 362T125-54-50 |
|                      | 362T125-68-50 | 15'-11"   | 16'-9"  | 17'-6"  | 18'-2"  | 18'-11" | 19'-7"  | 20'-3"  | 362T125-68-50 |
|                      | 362T125-97-50 | 19'-4"    | 20'-4"  | 21'-3"  | 22'-1"  | 22'-11" | 23'-9"  | 24'-7"  | 362T125-97-50 |
| 0.3                  | 362T125-33-50 | 9'-0"     | 9'-5"   | 9'-10"  | 10'-3"  | 10'-8"  | 11'-1"  | 11'-5"  | 362T125-33-50 |
|                      | 362T125-43-50 | 11'-6"    | 12'-1"  | 12'-7"  | 13'-2"  | 13'-8"  | 14'-2"  | 14'-7"  | 362T125-43-50 |
|                      | 362T125-54-50 | 14'-0"    | 14'-9"  | 15'-5"  | 16'-0"  | 16'-8"  | 17'-3"  | 17'-10" | 362T125-54-50 |
|                      | 362T125-68-50 | 16'-11"   | 17'-9"  | 18'-7"  | 19'-4"  | 20'-1"  | 20'-10" | 21'-6"  | 362T125-68-50 |
|                      | 362T125-97-50 | 20'-6"    | 21'-7"  | 22'-6"  | 23'-6"  | 24'-5"  | 25'-3"  | 26'-1"  | 362T125-97-50 |
| 0.2                  | 362T125-33-50 | 9'-7"     | 10'-1"  | 10'-7"  | 11'-0"  | 11'-5"  | 11'-10" | 12'-3"  | 362T125-33-50 |
|                      | 362T125-43-50 | 12'-4"    | 12'-11" | 13'-6"  | 14'-1"  | 14'-7"  | 15'-2"  | 15'-8"  | 362T125-43-50 |
|                      | 362T125-54-50 | 15'-0"    | 15'-9"  | 16'-6"  | 17'-2"  | 17'-10" | 18'-6"  | 19'-1"  | 362T125-54-50 |
|                      | 362T125-68-50 | 18'-1"    | 19'-0"  | 19'-11" | 20'-9"  | 21'-6"  | 22'-3"  | 23'-0"  | 362T125-68-50 |
|                      | 362T125-97-50 | 22'-0"    | 23'-1"  | 24'-2"  | 25'-2"  | 26'-1"  | 27'-0"  | 27'-11" | 362T125-97-50 |
| 0.1                  | 362T125-33-50 | 10'-5"    | 10'-11" | 11'-5"  | 11'-11" | 12'-5"  | 12'-10" | 13'-3"  | 362T125-33-50 |
|                      | 362T125-43-50 | 13'-4"    | 14'-0"  | 14'-8"  | 15'-3"  | 15'-10" | 16'-5"  | 16'-11" | 362T125-43-50 |
|                      | 362T125-54-50 | 16'-3"    | 17'-1"  | 17'-10" | 18'-7"  | 19'-4"  | 20'-0"  | 20'-8"  | 362T125-54-50 |
|                      | 362T125-68-50 | 19'-7"    | 20'-7"  | 21'-6"  | 22'-5"  | 23'-3"  | 24'-1"  | 24'-11" | 362T125-68-50 |
|                      | 362T125-97-50 | 23'-9"    | 25'-0"  | 26'-1"  | 27'-2"  | 28'-3"  | 29'-3"  | 30'-3"  | 362T125-97-50 |
| 0.0                  | 362T125-33-50 | 11'-2"    | 11'-9"  | 12'-3"  | 12'-9"  | 13'-3"  | 13'-9"  | 14'-3"  | 362T125-33-50 |
|                      | 362T125-43-50 | 14'-3"    | 15'-0"  | 15'-8"  | 16'-4"  | 16'-11" | 17'-7"  | 18'-2"  | 362T125-43-50 |
|                      | 362T125-54-50 | 17'-5"    | 18'-3"  | 19'-1"  | 19'-11" | 20'-8"  | 21'-5"  | 22'-1"  | 362T125-54-50 |
|                      | 362T125-68-50 | 21'-0"    | 22'-0"  | 23'-0"  | 24'-0"  | 24'-11" | 25'-10" | 26'-8"  | 362T125-68-50 |
|                      | 362T125-97-50 | 25'-6"    | 26'-9"  | 27'-11" | 29'-1"  | 30'-3"  | 31'-3"  | 32'-4"  | 362T125-97-50 |



**TABLE 4.7.4.182: MAXIMUM UNBRACED TOP TRACK LENGTH**

| <b>PARAMETERS:</b>  |               | Type      | S3      | ( $p = 1.5$ ) | $S_{Ds}$ | 0.70    | Weight  | 3000 lbs |               |
|---|---------------|-----------|---------|---------------|----------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |               |          |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |               |          |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |               |          |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft  | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 6'-2"     | 6'-6"   | 6'-10"        | 7'-1"    | 7'-5"   | 7'-8"   | 7'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 8'-0"     | 8'-5"   | 8'-9"         | 9'-2"    | 9'-6"   | 9'-10"  | 10'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-9"     | 10'-3"  | 10'-9"        | 11'-2"   | 11'-7"  | 12'-0"  | 12'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-9"    | 12'-5"  | 12'-11"       | 13'-6"   | 14'-0"  | 14'-6"  | 15'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-4"    | 15'-1"  | 15'-9"        | 16'-5"   | 17'-1"  | 17'-8"  | 18'-3"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 6'-5"     | 6'-9"   | 7'-1"         | 7'-5"    | 7'-8"   | 8'-0"   | 8'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-3"     | 8'-8"   | 9'-1"         | 9'-6"    | 9'-10"  | 10'-3"  | 10'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-1"    | 10'-8"  | 11'-1"        | 11'-7"   | 12'-0"  | 12'-6"  | 12'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 12'-3"    | 12'-10" | 13'-5"        | 14'-0"   | 14'-6"  | 15'-1"  | 15'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-10"   | 15'-7"  | 16'-4"        | 17'-0"   | 17'-8"  | 18'-4"  | 18'-11"  | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 6'-8"     | 7'-0"   | 7'-4"         | 7'-8"    | 8'-0"   | 8'-3"   | 8'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-7"     | 9'-0"   | 9'-5"         | 9'-10"   | 10'-3"  | 10'-7"  | 11'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-6"    | 11'-1"  | 11'-7"        | 12'-1"   | 12'-6"  | 13'-0"  | 13'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-8"    | 13'-4"  | 13'-11"       | 14'-6"   | 15'-1"  | 15'-8"  | 16'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-5"    | 16'-3"  | 16'-11"       | 17'-8"   | 18'-4"  | 19'-0"  | 19'-8"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 7'-0"     | 7'-4"   | 7'-8"         | 8'-0"    | 8'-4"   | 8'-8"   | 8'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 9'-0"     | 9'-5"   | 9'-10"        | 10'-3"   | 10'-8"  | 11'-1"  | 11'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-0"    | 11'-6"  | 12'-1"        | 12'-7"   | 13'-1"  | 13'-6"  | 14'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-3"    | 13'-11" | 14'-6"        | 15'-2"   | 15'-9"  | 16'-4"  | 16'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 16'-1"    | 16'-11" | 17'-8"        | 18'-5"   | 19'-1"  | 19'-10" | 20'-6"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 7'-4"     | 7'-8"   | 8'-1"         | 8'-5"    | 8'-9"   | 9'-0"   | 9'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-5"     | 9'-10"  | 10'-4"        | 10'-9"   | 11'-2"  | 11'-7"  | 12'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-6"    | 12'-1"  | 12'-7"        | 13'-2"   | 13'-8"  | 14'-2"  | 14'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-10"   | 14'-6"  | 15'-2"        | 15'-10"  | 16'-5"  | 17'-1"  | 17'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-10"   | 17'-8"  | 18'-6"        | 19'-3"   | 20'-0"  | 20'-9"  | 21'-5"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 7'-8"     | 8'-1"   | 8'-5"         | 8'-10"   | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 9'-10"    | 10'-4"  | 10'-10"       | 11'-4"   | 11'-9"  | 12'-2"  | 12'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-1"    | 12'-8"  | 13'-3"        | 13'-10"  | 14'-4"  | 14'-10" | 15'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-7"    | 15'-3"  | 16'-0"        | 16'-8"   | 17'-3"  | 17'-11" | 18'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-8"    | 18'-7"  | 19'-5"        | 20'-3"   | 21'-0"  | 21'-9"  | 22'-6"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 8'-2"     | 8'-7"   | 8'-11"        | 9'-4"    | 9'-8"   | 10'-0"  | 10'-5"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-5"    | 10'-11" | 11'-5"        | 11'-11"  | 12'-5"  | 12'-10" | 13'-3"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-9"    | 13'-4"  | 14'-0"        | 14'-7"   | 15'-2"  | 15'-8"  | 16'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-4"    | 16'-2"  | 16'-10"       | 17'-7"   | 18'-3"  | 18'-11" | 19'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 18'-8"    | 19'-7"  | 20'-6"        | 21'-4"   | 22'-2"  | 22'-11" | 23'-9"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 8'-8"     | 9'-1"   | 9'-6"         | 9'-11"   | 10'-4"  | 10'-8"  | 11'-0"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-1"    | 11'-8"  | 12'-2"        | 12'-8"   | 13'-2"  | 13'-8"  | 14'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-6"    | 14'-3"  | 14'-10"       | 15'-6"   | 16'-1"  | 16'-8"  | 17'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 16'-4"    | 17'-2"  | 17'-11"       | 18'-8"   | 19'-5"  | 20'-1"  | 20'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 19'-10"   | 20'-10" | 21'-9"        | 22'-8"   | 23'-6"  | 24'-5"  | 25'-2"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 9'-3"     | 9'-9"   | 10'-2"        | 10'-8"   | 11'-0"  | 11'-5"  | 11'-10"  | 362T125-33-50 |
|   | 362T125-43-50 | 11'-10"   | 12'-6"  | 13'-0"        | 13'-7"   | 14'-1"  | 14'-7"  | 15'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 14'-6"    | 15'-3"  | 15'-11"       | 16'-7"   | 17'-3"  | 17'-10" | 18'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 17'-6"    | 18'-4"  | 19'-2"        | 20'-0"   | 20'-9"  | 21'-6"  | 22'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 21'-3"    | 22'-3"  | 23'-4"        | 24'-3"   | 25'-2"  | 26'-1"  | 27'-0"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 10'-1"    | 10'-7"  | 11'-1"        | 11'-6"   | 12'-0"  | 12'-5"  | 12'-10"  | 362T125-33-50 |
|   | 362T125-43-50 | 12'-10"   | 13'-6"  | 14'-1"        | 14'-9"   | 15'-3"  | 15'-10" | 16'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 15'-8"    | 16'-6"  | 17'-3"        | 17'-11"  | 18'-8"  | 19'-4"  | 19'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 18'-11"   | 19'-10" | 20'-9"        | 21'-8"   | 22'-6"  | 23'-3"  | 24'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 23'-0"    | 24'-1"  | 25'-2"        | 26'-3"   | 27'-3"  | 28'-3"  | 29'-2"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 10'-9"    | 11'-4"  | 11'-10"       | 12'-4"   | 12'-10" | 13'-3"  | 13'-9"   | 362T125-33-50 |
|   | 362T125-43-50 | 13'-9"    | 14'-6"  | 15'-1"        | 15'-9"   | 16'-4"  | 16'-11" | 17'-6"   | 362T125-43-50 |
|   | 362T125-54-50 | 16'-10"   | 17'-8"  | 18'-5"        | 19'-2"   | 19'-11" | 20'-8"  | 21'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 20'-3"    | 21'-3"  | 22'-3"        | 23'-2"   | 24'-1"  | 25'-9"  | 26'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 24'-7"    | 25'-10" | 27'-0"        | 28'-1"   | 29'-2"  | 30'-2"  | 31'-3"   | 362T125-97-50 |





**TABLE 4.7.4.183: MAXIMUM UNBRACED TOP TRACK LENGTH**

| <b>PARAMETERS:</b>  |               | Type      | S3      | ( $p = 1.5$ ) | S <sub>Ds</sub> | 0.70    | Weight  | 3200 lbs |               |
|---|---------------|-----------|---------|---------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |               |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |               |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |               |                 |         |         |          |               |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  | Track Section |
| 1.0   | 362T125-33-50 | 6'-0"     | 6'-4"   | 6'-7"         | 6'-11"          | 7'-2"   | 7'-5"   | 7'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-9"     | 8'-1"   | 8'-6"         | 8'-10"          | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-5"     | 9'-11"  | 10'-4"        | 10'-10"         | 11'-3"  | 11'-8"  | 12'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-5"    | 12'-0"  | 12'-6"        | 13'-1"          | 13'-7"  | 14'-1"  | 14'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-10"   | 14'-7"  | 15'-3"        | 15'-10"         | 16'-6"  | 17'-1"  | 17'-8"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 6'-3"     | 6'-6"   | 6'-10"        | 7'-2"           | 7'-5"   | 7'-8"   | 7'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 8'-0"     | 8'-5"   | 8'-10"        | 9'-2"           | 9'-6"   | 9'-10"  | 10'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-9"     | 10'-3"  | 10'-9"        | 11'-2"          | 11'-8"  | 12'-1"  | 12'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-10"   | 12'-5"  | 13'-0"        | 13'-6"          | 14'-1"  | 14'-7"  | 15'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-4"    | 15'-1"  | 15'-9"        | 16'-5"          | 17'-1"  | 17'-8"  | 18'-4"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 6'-6"     | 6'-10"  | 7'-1"         | 7'-5"           | 7'-9"   | 8'-0"   | 8'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-4"     | 8'-9"   | 9'-2"         | 9'-6"           | 9'-11"  | 10'-3"  | 10'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-2"    | 10'-8"  | 11'-2"        | 11'-8"          | 12'-1"  | 12'-6"  | 13'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-3"    | 12'-11" | 13'-6"        | 14'-1"          | 14'-7"  | 15'-2"  | 15'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-11"   | 15'-8"  | 16'-5"        | 17'-1"          | 17'-9"  | 18'-5"  | 19'-0"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 6'-9"     | 7'-1"   | 7'-5"         | 7'-9"           | 8'-1"   | 8'-4"   | 8'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-8"     | 9'-1"   | 9'-6"         | 9'-11"          | 10'-4"  | 10'-8"  | 11'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-7"    | 11'-2"  | 11'-8"        | 12'-2"          | 12'-7"  | 13'-1"  | 13'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-10"   | 13'-5"  | 14'-1"        | 14'-8"          | 15'-3"  | 15'-9"  | 16'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-7"    | 16'-4"  | 17'-1"        | 17'-10"         | 18'-6"  | 19'-2"  | 19'-10"  | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 7'-1"     | 7'-5"   | 7'-9"         | 8'-1"           | 8'-5"   | 8'-9"   | 9'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-1"     | 9'-6"   | 10'-0"        | 10'-5"          | 10'-10" | 11'-2"  | 11'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-1"    | 11'-8"  | 12'-2"        | 12'-8"          | 13'-2"  | 13'-8"  | 14'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-5"    | 14'-1"  | 14'-8"        | 15'-4"          | 15'-11" | 16'-6"  | 17'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-3"    | 17'-1"  | 17'-11"       | 18'-7"          | 19'-4"  | 20'-0"  | 20'-9"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 7'-5"     | 7'-10"  | 8'-2"         | 8'-6"           | 8'-10"  | 9'-2"   | 9'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-6"     | 10'-0"  | 10'-6"        | 10'-11"         | 11'-4"  | 11'-9"  | 12'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-8"    | 12'-3"  | 12'-10"       | 13'-4"          | 13'-10" | 14'-4"  | 14'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 14'-1"    | 14'-9"  | 15'-5"        | 16'-1"          | 16'-9"  | 17'-4"  | 17'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 17'-1"    | 17'-11" | 18'-9"        | 19'-7"          | 20'-4"  | 21'-1"  | 21'-9"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 7'-10"    | 8'-3"   | 8'-8"         | 9'-0"           | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-1"    | 10'-7"  | 11'-1"        | 11'-6"          | 12'-0"  | 12'-5"  | 12'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 12'-4"    | 12'-11" | 13'-6"        | 14'-1"          | 14'-8"  | 15'-2"  | 15'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-10"   | 15'-7"  | 16'-4"        | 17'-0"          | 17'-8"  | 18'-3"  | 18'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 18'-1"    | 18'-11" | 19'-10"       | 20'-8"          | 21'-5"  | 22'-3"  | 22'-11"  | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 8'-4"     | 8'-9"   | 9'-2"         | 9'-7"           | 10'-0"  | 10'-4"  | 10'-8"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-9"    | 11'-3"  | 11'-9"        | 11'-9"          | 12'-9"  | 13'-2"  | 13'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-1"    | 13'-9"  | 14'-4"        | 15'-0"          | 15'-7"  | 16'-1"  | 16'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-9"    | 16'-7"  | 17'-4"        | 18'-1"          | 18'-9"  | 19'-5"  | 20'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 19'-2"    | 20'-2"  | 21'-1"        | 21'-11"         | 22'-9"  | 23'-7"  | 24'-5"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 9'-0"     | 9'-5"   | 9'-10"        | 10'-3"          | 10'-8"  | 11'-1"  | 11'-5"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-6"    | 12'-1"  | 12'-7"        | 13'-2"          | 13'-8"  | 14'-2"  | 14'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 14'-0"    | 14'-9"  | 15'-5"        | 16'-0"          | 16'-8"  | 17'-3"  | 17'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 16'-11"   | 17'-9"  | 18'-7"        | 19'-4"          | 20'-1"  | 20'-10" | 21'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 20'-6"    | 21'-7"  | 22'-6"        | 23'-6"          | 24'-5"  | 25'-3"  | 26'-1"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 9'-9"     | 10'-3"  | 10'-8"        | 11'-2"          | 11'-7"  | 12'-0"  | 12'-5"   | 362T125-33-50 |
|   | 362T125-43-50 | 12'-5"    | 13'-1"  | 13'-8"        | 14'-3"          | 14'-9"  | 15'-4"  | 15'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 15'-2"    | 15'-11" | 16'-8"        | 17'-4"          | 18'-0"  | 18'-8"  | 19'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 18'-4"    | 19'-3"  | 20'-1"        | 20'-11"         | 21'-9"  | 22'-6"  | 23'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 22'-3"    | 23'-4"  | 24'-5"        | 25'-5"          | 26'-4"  | 27'-4"  | 28'-3"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 10'-5"    | 10'-11" | 11'-5"        | 11'-11"         | 12'-5"  | 12'-10" | 13'-3"   | 362T125-33-50 |
|   | 362T125-43-50 | 13'-4"    | 14'-0"  | 14'-8"        | 15'-3"          | 15'-10" | 16'-5"  | 16'-11"  | 362T125-43-50 |
|   | 362T125-54-50 | 16'-3"    | 17'-1"  | 17'-10"       | 18'-7"          | 19'-4"  | 20'-0"  | 20'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 19'-7"    | 20'-7"  | 21'-6"        | 22'-5"          | 23'-3"  | 24'-1"  | 24'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 23'-9"    | 25'-0"  | 26'-1"        | 27'-2"          | 28'-3"  | 29'-3"  | 30'-2"   | 362T125-97-50 |

TABLE 4.7.4.184: MAXIMUM UNBRACED TOP TRACK LENGTH

Table with columns: PARAMETERS: Type, S3, (lp = 1.5), S\_Ds, 0.70, Weight, 3400 lbs. Rows include height in Bldg (z/h) and Pod Width (5.00 ft to 8.00 ft) for various track sections (362T125-33-50 to 362T125-97-50).

\* Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.
Note: If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track.



**TABLE 4.7.4.185: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | ( $p = 1.5$ ) | S <sub>Ds</sub> | 0.70    | Weight  | 3600 lbs |               |
|---|---------------|-----------|---------|---------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |               |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |               |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |               |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 5'-8"     | 5'-11"  | 6'-2"         | 6'-6"           | 6'-9"   | 7'-0"   | 7'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-3"     | 7'-7"   | 8'-0"         | 8'-4"           | 8'-8"   | 8'-11"  | 9'-3"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-10"    | 9'-4"   | 9'-9"         | 10'-2"          | 10'-7"  | 10'-11" | 11'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-9"    | 11'-3"  | 11'-9"        | 12'-3"          | 12'-9"  | 13'-3"  | 13'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-1"    | 13'-8"  | 14'-4"        | 14'-11"         | 15'-6"  | 16'-1"  | 16'-7"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 5'-10"    | 6'-2"   | 6'-5"         | 6'-8"           | 7'-0"   | 7'-3"   | 7'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-6"     | 7'-11"  | 8'-3"         | 8'-7"           | 8'-11"  | 9'-3"   | 9'-7"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-2"     | 9'-8"   | 10'-1"        | 10'-6"          | 10'-11" | 11'-4"  | 11'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-1"    | 11'-8"  | 12'-3"        | 12'-9"          | 13'-3"  | 13'-8"  | 14'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-6"    | 14'-2"  | 14'-10"       | 15'-6"          | 16'-1"  | 16'-8"  | 17'-3"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 6'-1"     | 6'-5"   | 6'-8"         | 7'-0"           | 7'-3"   | 7'-6"   | 7'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-10"    | 8'-3"   | 8'-7"         | 9'-0"           | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-7"     | 10'-1"  | 10'-6"        | 10'-11"         | 11'-5"  | 11'-10" | 12'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-7"    | 12'-2"  | 12'-8"        | 13'-3"          | 13'-9"  | 14'-3"  | 14'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-1"    | 14'-9"  | 15'-5"        | 16'-1"          | 16'-8"  | 17'-4"  | 17'-11"  | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 6'-4"     | 6'-8"   | 7'-0"         | 7'-3"           | 7'-7"   | 7'-10"  | 8'-1"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-2"     | 8'-7"   | 9'-0"         | 9'-4"           | 9'-9"   | 10'-1"  | 10'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-0"    | 10'-6"  | 11'-0"        | 11'-5"          | 11'-10" | 12'-4"  | 12'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-0"    | 12'-8"  | 13'-3"        | 13'-9"          | 14'-4"  | 14'-10" | 15'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-8"    | 15'-5"  | 16'-1"        | 16'-9"          | 17'-5"  | 18'-0"  | 18'-8"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 6'-8"     | 7'-0"   | 7'-4"         | 7'-7"           | 7'-11"  | 8'-3"   | 8'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-6"     | 9'-0"   | 9'-5"         | 9'-9"           | 10'-2"  | 10'-6"  | 10'-11"  | 362T125-43-50 |
|   | 362T125-54-50 | 10'-5"    | 11'-0"  | 11'-6"        | 11'-11"         | 12'-5"  | 12'-10" | 13'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-7"    | 13'-3"  | 13'-10"       | 14'-5"          | 15'-0"  | 15'-6"  | 16'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-4"    | 16'-1"  | 16'-10"       | 17'-6"          | 18'-2"  | 18'-10" | 19'-6"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 7'-0"     | 7'-4"   | 7'-8"         | 8'-0"           | 8'-4"   | 8'-8"   | 8'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 9'-0"     | 9'-5"   | 9'-10"        | 10'-3"          | 10'-8"  | 11'-1"  | 11'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-0"    | 11'-6"  | 12'-1"        | 12'-7"          | 13'-1"  | 13'-6"  | 14'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-3"    | 13'-11" | 14'-6"        | 15-2"           | 15-9"   | 16'-4"  | 16'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 16'-1"    | 16'-11" | 17'-8"        | 18'-5"          | 19'-1"  | 19'-10" | 20'-6"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 7'-5"     | 7'-9"   | 8'-2"         | 8'-6"           | 8'-10"  | 9'-1"   | 9'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-6"     | 10'-0"  | 10'-5"        | 10'-10"         | 11'-3"  | 11'-8"  | 12'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-7"    | 12'-2"  | 12'-9"        | 13'-3"          | 13'-9"  | 14'-3"  | 14'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-0"    | 14'-8"  | 15'-4"        | 16'-0"          | 16'-7"  | 17'-3"  | 17'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-0"    | 17'-10" | 18'-8"        | 19'-5"          | 20'-2"  | 20'-11" | 21'-7"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 7'-10"    | 8'-3"   | 8'-8"         | 9'-0"           | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-1"    | 10'-7"  | 11'-1"        | 11'-6"          | 12'-0"  | 12'-5"  | 12'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 12'-4"    | 12'-11" | 13'-6"        | 14'-1"          | 14'-8"  | 15'-2"  | 15'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-10"   | 15'-7"  | 16'-4"        | 17'-0"          | 17'-8"  | 18'-3"  | 18'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 18'-1"    | 18'-11" | 19'-10"       | 20'-8"          | 21'-5"  | 22'-3"  | 22'-11"  | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 8'-5"     | 8'-10"  | 9'-3"         | 9'-8"           | 10'-0"  | 10'-5"  | 10'-9"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-10"   | 11'-4"  | 11'-10"       | 12'-4"          | 12'-10" | 13'-4"  | 13'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-2"    | 13'-10" | 14'-6"        | 15'-1"          | 15'-8"  | 16'-3"  | 16'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-11"   | 16'-9"  | 17'-6"        | 18'-2"          | 18'-11" | 19'-7"  | 20'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 19'-4"    | 20'-4"  | 21'-3"        | 22'-1"          | 22'-11" | 23'-9"  | 24'-7"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 9'-2"     | 9'-7"   | 10'-1"        | 10'-6"          | 10'-11" | 11'-3"  | 11'-8"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-8"    | 12'-3"  | 12'-10"       | 13'-5"          | 13'-11" | 14'-5"  | 14'-11"  | 362T125-43-50 |
|   | 362T125-54-50 | 14'-3"    | 15'-0"  | 15'-8"        | 16'-4"          | 17'-0"  | 17'-7"  | 18'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 17'-3"    | 18'-1"  | 18'-11"       | 19'-8"          | 20'-6"  | 21'-2"  | 21'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 20'-11"   | 22'-0"  | 23'-0"        | 23'-11"         | 24'-10" | 25'-9"  | 26'-7"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 9'-10"    | 10'-4"  | 10'-9"        | 11'-3"          | 11'-8"  | 12'-1"  | 12'-6"   | 362T125-33-50 |
|   | 362T125-43-50 | 12'-6"    | 13'-2"  | 13'-9"        | 14'-4"          | 14'-11" | 15'-5"  | 15'-11"  | 362T125-43-50 |
|   | 362T125-54-50 | 15'-4"    | 16'-1"  | 16'-10"       | 17'-6"          | 18'-2"  | 18'-10" | 19'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 18'-5"    | 19'-4"  | 20'-3"        | 21'-1"          | 21'-11" | 22'-8"  | 23'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 22'-5"    | 23'-6"  | 24'-7"        | 25'-7"          | 26'-7"  | 27'-6"  | 28'-5"   | 362T125-97-50 |



**TABLE 4.7.4.186: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | (lp = 1.5) | S <sub>DS</sub> | 0.70    | Weight  | 3800 lbs |               |
|---|---------------|-----------|---------|------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |            |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |            |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |            |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft    | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 5'-6"     | 5'-9"   | 6'-0"      | 6'-3"           | 6'-6"   | 6'-9"   | 7'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-0"     | 7'-5"   | 7'-9"      | 8'-1"           | 8'-5"   | 8'-8"   | 9'-0"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-7"     | 9'-1"   | 9'-6"      | 9'-11"          | 10'-3"  | 10'-8"  | 11'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-5"    | 10'-11" | 11'-5"     | 11'-11"         | 12'-5"  | 12'-10" | 13'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-8"    | 13'-4"  | 13'-11"    | 14'-6"          | 15'-1"  | 15'-8"  | 16'-2"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 5'-8"     | 6'-0"   | 6'-3"      | 6'-6"           | 6'-9"   | 7'-0"   | 7'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-4"     | 7'-8"   | 8'-0"      | 8'-5"           | 8'-8"   | 9'-0"   | 9'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-11"    | 9'-5"   | 9'-10"     | 10'-3"          | 10'-8"  | 11'-0"  | 11'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-10"   | 11'-4"  | 11'-10"    | 12'-4"          | 12'-10" | 13'-4"  | 13'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-2"    | 13'-10" | 14'-5"     | 15'-1"          | 15'-8"  | 16'-2"  | 16'-9"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 5'-11"    | 6'-2"   | 6'-6"      | 6'-9"           | 7'-1"   | 7'-4"   | 7'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-7"     | 8'-0"   | 8'-4"      | 8'-9"           | 9'-1"   | 9'-5"   | 9'-8"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-4"     | 9'-9"   | 10'-3"     | 10'-8"          | 11'-1"  | 11'-6"  | 11'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 11'-3"    | 11'-10" | 12'-4"     | 12'-10"         | 13'-4"  | 13'-10" | 14'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-8"    | 14'-4"  | 15'-0"     | 15'-8"          | 16'-3"  | 16'-10" | 17'-5"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 6'-2"     | 6'-6"   | 6'-9"      | 7'-1"           | 7'-4"   | 7'-7"   | 7'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 7'-11"    | 8'-4"   | 8'-9"      | 9'-1"           | 9'-5"   | 9'-9"   | 10'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-8"     | 10'-2"  | 10'-8"     | 11'-1"          | 11'-6"  | 11'-11" | 12'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-8"    | 12'-4"  | 12'-10"    | 13'-5"          | 13'-11" | 14'-5"  | 14'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 14'-3"    | 14'-11" | 15'-8"     | 16'-4"          | 16'-11" | 17'-7"  | 18'-2"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 6'-5"     | 6'-9"   | 7'-1"      | 7'-5"           | 7'-8"   | 8'-0"   | 8'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-4"     | 8'-9"   | 9'-1"      | 9'-6"           | 9'-11"  | 10'-3"  | 10'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-2"    | 10'-8"  | 11'-2"     | 11'-7"          | 12'-1"  | 12'-6"  | 12'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 12'-3"    | 12'-10" | 13'-5"     | 14'-0"          | 14'-7"  | 15'-1"  | 15'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-11"   | 15'-8"  | 16'-4"     | 17'-1"          | 17'-8"  | 18'-4"  | 19'-0"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 6'-9"     | 7'-2"   | 7'-6"      | 7'-9"           | 8'-1"   | 8'-5"   | 8'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-9"     | 9'-2"   | 9'-7"      | 10'-0"          | 10'-5"  | 10'-9"  | 11'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-8"    | 11'-2"  | 11'-9"     | 12'-2"          | 12'-8"  | 13'-2"  | 13'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-10"   | 13'-6"  | 14'-2"     | 14'-9"          | 15'-4"  | 15'-10" | 16'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-8"    | 16'-5"  | 17'-2"     | 17'-11"         | 18'-7"  | 19'-3"  | 19'-11"  | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 7'-2"     | 7'-7"   | 7'-11"     | 8'-3"           | 8'-7"   | 8'-10"  | 9'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-3"     | 9'-8"   | 10'-2"     | 10'-7"          | 11'-0"  | 11'-4"  | 11'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-3"    | 11'-10" | 12'-4"     | 12'-11"         | 13'-5"  | 13'-11" | 14'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-7"    | 14'-3"  | 14'-11"    | 15'-7"          | 16'-2"  | 16'-9"  | 17'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-6"    | 17'-4"  | 18'-2"     | 18'-11"         | 19'-8"  | 20'-4"  | 21'-0"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 7'-8"     | 8'-0"   | 8'-5"      | 8'-9"           | 9'-1"   | 9'-5"   | 9'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-10"    | 10'-4"  | 10'-9"     | 11'-3"          | 11'-8"  | 12'-1"  | 12'-6"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-0"    | 12'-7"  | 13'-2"     | 13'-8"          | 14'-3"  | 14'-9"  | 15'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-5"    | 15'-2"  | 15'-10"    | 16'-6"          | 17'-2"  | 17'-9"  | 18'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-7"    | 18'-5"  | 19'-3"     | 20'-1"          | 20'-10" | 21'-7"  | 22'-4"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 8'-2"     | 8'-7"   | 9'-0"      | 9'-5"           | 9'-9"   | 10'-1"  | 10'-6"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-6"    | 11'-0"  | 11'-6"     | 12'-0"          | 12'-6"  | 12'-11" | 13'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-10"   | 13'-6"  | 14'-1"     | 14'-8"          | 15'-3"  | 15'-9"  | 16'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-6"    | 16'-3"  | 17'-0"     | 17'-8"          | 18'-5"  | 19'-1"  | 19'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 18'-10"   | 19'-9"  | 20'-8"     | 21'-6"          | 22'-4"  | 23'-2"  | 23'-11"  | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 8'-11"    | 9'-4"   | 9'-9"      | 10'-2"          | 10'-7"  | 11'-0"  | 11'-4"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-5"    | 11'-11" | 12'-6"     | 13'-0"          | 13'-6"  | 14'-0"  | 14'-6"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-11"   | 14'-7"  | 15'-3"     | 15'-11"         | 16'-6"  | 17'-1"  | 17'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 16'-9"    | 17'-7"  | 18'-5"     | 19'-2"          | 19'-11" | 20'-7"  | 21'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 20'-4"    | 21'-4"  | 22'-4"     | 23'-3"          | 24'-2"  | 25'-0"  | 25'-10"  | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 9'-6"     | 10'-0"  | 10'-6"     | 10'-11"         | 11'-4"  | 11'-9"  | 12'-2"   | 362T125-33-50 |
|   | 362T125-43-50 | 12'-2"    | 12'-10" | 13'-5"     | 13'-11"         | 14'-6"  | 15'-0"  | 15'-6"   | 362T125-43-50 |
|   | 362T125-54-50 | 14'-10"   | 15'-7"  | 16'-4"     | 17'-0"          | 17'-8"  | 18'-4"  | 18'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 17'-11"   | 18'-10" | 19'-8"     | 20'-6"          | 21'-4"  | 22'-10" | 22'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 21'-9"    | 22'-10" | 23'-11"    | 24'-11"         | 25'-10" | 26'-9"  | 27'-8"   | 362T125-97-50 |



**TABLE 4.7.4.187: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | ( $lp = 1.5$ ) | S <sub>DS</sub> | 0.70    | Weight  | 4000 lbs |               |
|---|---------------|-----------|---------|----------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |                |                 |         |         |          |               |
| <u>Note:</u> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |                |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |                |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft        | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 5'-4"     | 5'-7"   | 5'-10"         | 6'-1"           | 6'-4"   | 6'-7"   | 6'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 6'-10"    | 7'-2"   | 7'-6"          | 7'-10"          | 8'-2"   | 8'-6"   | 8'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-5"     | 8'-10"  | 9'-3"          | 9'-7"           | 10'-0"  | 10'-4"  | 10'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-2"    | 10'-8"  | 11'-2"         | 11'-7"          | 12'-1"  | 12'-6"  | 12'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 12'-4"    | 13'-0"  | 13'-7"         | 14'-2"          | 14'-8"  | 15'-3"  | 15'-9"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 5'-6"     | 5'-10"  | 6'-1"          | 6'-4"           | 6'-7"   | 6'-10"  | 7'-1"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-1"     | 7'-6"   | 7'-10"         | 8'-2"           | 8'-6"   | 8'-9"   | 9'-1"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-8"     | 9'-2"   | 9'-7"          | 10'-0"          | 10'-4"  | 10'-9"  | 11'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-6"    | 11'-1"  | 11'-7"         | 12'-1"          | 12'-6"  | 13'-0"  | 13'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-10"   | 13'-5"  | 14'-1"         | 14'-8"          | 15'-3"  | 15'-9"  | 16'-4"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 5'-9"     | 6'-0"   | 6'-4"          | 6'-7"           | 6'-10"  | 7'-1"   | 7'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-5"     | 7'-9"   | 8'-2"          | 8'-5"           | 8'-9"   | 9'-2"   | 9'-5"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-1"     | 9'-6"   | 9'-11"         | 10'-4"          | 10'-9"  | 11'-2"  | 11'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-11"   | 11'-6"  | 12'-0"         | 12'-6"          | 13'-0"  | 13'-6"  | 13'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 13'-4"    | 14'-0"  | 14'-7"         | 15'-3"          | 15'-10" | 16'-5"  | 16'-11"  | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 6'-0"     | 6'-4"   | 6'-7"          | 6'-11"          | 7'-2"   | 7'-5"   | 7'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-9"     | 8'-1"   | 8'-6"          | 8'-10"          | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-5"     | 9'-11"  | 10'-4"         | 10'-10"         | 11'-3"  | 11'-8"  | 12'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-5"    | 12'-0"  | 12'-6"         | 13'-1"          | 13'-7"  | 14'-1"  | 14'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-10"   | 14'-7"  | 15'-3"         | 15'-10"         | 16'-6"  | 17'-1"  | 17'-8"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 6'-3"     | 6'-7"   | 6'-11"         | 7'-2"           | 7'-6"   | 7'-9"   | 8'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-1"     | 8'-6"   | 8'-11"         | 9'-3"           | 9'-7"   | 10'-0"  | 10'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-11"    | 10'-5"  | 10'-10"        | 11'-4"          | 11'-9"  | 12'-2"  | 12'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-11"   | 12'-6"  | 13'-1"         | 13'-8"          | 14'-2"  | 14'-8"  | 15'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-6"    | 15'-3"  | 15'-11"        | 16'-7"          | 17'-3"  | 17'-10" | 18'-6"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 6'-7"     | 6'-11"  | 7'-3"          | 7'-7"           | 7'-11"  | 8'-2"   | 8'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-6"     | 8'-11"  | 9'-4"          | 9'-9"           | 10'-1"  | 10'-6"  | 10'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 10'-5"    | 10'-11" | 11'-5"         | 11'-11"         | 12'-4"  | 12'-10" | 13'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-6"    | 13'-2"  | 13'-9"         | 14'-4"          | 14'-11" | 15'-5"  | 16'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-3"    | 16'-0"  | 16'-9"         | 17'-5"          | 18'-1"  | 18'-9"  | 19'-5"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 7'-0"     | 7'-4"   | 7'-8"          | 8'-0"           | 8'-4"   | 8'-8"   | 8'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 9'-0"     | 9'-5"   | 9'-10"         | 10'-3"          | 10'-8"  | 11'-1"  | 11'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-0"    | 11'-6"  | 12'-1"         | 12'-7"          | 13'-1"  | 13'-6"  | 14'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-3"    | 13'-11" | 14'-6"         | 15'-2"          | 15'-9"  | 16'-4"  | 16'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 16'-1"    | 16'-11" | 17'-8"         | 18'-5"          | 19'-1"  | 19'-10" | 20'-6"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 7'-5"     | 7'-10"  | 8'-2"          | 8'-6"           | 8'-10"  | 9'-2"   | 9'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-6"     | 10'-0"  | 10'-6"         | 10'-11"         | 11'-4"  | 11'-9"  | 12'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-8"    | 12'-3"  | 12'-10"        | 13'-4"          | 13'-10" | 14'-4"  | 14'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 14'-1"    | 14'-9"  | 15'-5"         | 16'-1"          | 16'-9"  | 17'-4"  | 17'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 17'-1"    | 17'-11" | 18'-9"         | 19'-7"          | 20'-4"  | 21'-1"  | 21'-9"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 8'-0"     | 8'-5"   | 8'-9"          | 9'-2"           | 9'-6"   | 9'-10"  | 10'-2"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-3"    | 10'-9"  | 11'-3"         | 11'-9"          | 12'-2"  | 12'-7"  | 13'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-6"    | 13'-1"  | 13'-9"         | 14'-4"          | 14'-10" | 15'-5"  | 15'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 15'-1"    | 15'-10" | 16'-7"         | 17'-3"          | 17'-11" | 18'-7"  | 19'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 18'-4"    | 19'-3"  | 20'-1"         | 20'-11"         | 21'-9"  | 22'-6"  | 23'-3"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 8'-8"     | 9'-1"   | 9'-6"          | 9'-11"          | 10'-4"  | 10'-8"  | 11'-0"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-1"    | 11'-8"  | 12'-2"         | 12'-8"          | 13'-2"  | 13'-8"  | 14'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-6"    | 14'-2"  | 14'-10"        | 15'-6"          | 16'-1"  | 16'-8"  | 17'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 16'-4"    | 17'-2"  | 17'-11"        | 18'-8"          | 19'-5"  | 20'-1"  | 20'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 19'-10"   | 20'-10" | 21'-9"         | 22'-8"          | 23'-6"  | 24'-5"  | 25'-2"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 9'-3"     | 9'-9"   | 10'-2"         | 10'-8"          | 11'-0"  | 11'-5"  | 11'-10"  | 362T125-33-50 |
|   | 362T125-43-50 | 11'-10"   | 12'-6"  | 13'-0"         | 13'-7"          | 14'-1"  | 14'-7"  | 15'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 14'-6"    | 15'-3"  | 15'-11"        | 16'-7"          | 17'-3"  | 17'-10" | 18'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 17'-6"    | 18'-4"  | 19'-2"         | 20'-0"          | 20'-9"  | 21'-6"  | 22'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 21'-3"    | 22'-3"  | 23'-4"         | 24'-3"          | 25'-2"  | 26'-1"  | 27'-0"   | 362T125-97-50 |



**TABLE 4.7.4.188: MAXIMUM UNBRACED TOP TRACK LENGTH**

**PARAMETERS:** Type S3 (lp = 1.5) S<sub>DS</sub> 0.70 Weight 4200 lbs

\* Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.  
**Note:** If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track.

| Height in Bldg (z/h) | Track Section | Pod Width |         |         |         |         |         |         | Track Section |
|----------------------|---------------|-----------|---------|---------|---------|---------|---------|---------|---------------|
|                      |               | 5.00 ft   | 5.50 ft | 6.00 ft | 6.50 ft | 7.00 ft | 7.50 ft | 8.00 ft |               |
| 1.0                  | 362T125-33-50 | 5'-2"     | 5'-5"   | 5'-8"   | 5'-11"  | 6'-2"   | 6'-5"   | 6'-8"   | 362T125-33-50 |
|                      | 362T125-43-50 | 6'-8"     | 7'-0"   | 7'-4"   | 7'-8"   | 8'-0"   | 8'-3"   | 8'-6"   | 362T125-43-50 |
|                      | 362T125-54-50 | 8'-2"     | 8'-7"   | 9'-0"   | 9'-5"   | 9'-9"   | 10'-1"  | 10'-5"  | 362T125-54-50 |
|                      | 362T125-68-50 | 9'-11"    | 10'-5"  | 10'-10" | 11'-4"  | 11'-9"  | 12'-2"  | 12'-7"  | 362T125-68-50 |
|                      | 362T125-97-50 | 12'-0"    | 12'-8"  | 13'-3"  | 13'-9"  | 14'-4"  | 14'-10" | 15'-4"  | 362T125-97-50 |
| 0.9                  | 362T125-33-50 | 5'-4"     | 5'-8"   | 5'-11"  | 6'-2"   | 6'-5"   | 6'-8"   | 6'-11"  | 362T125-33-50 |
|                      | 362T125-43-50 | 6'-11"    | 7'-3"   | 7'-7"   | 7'-11"  | 8'-3"   | 8'-7"   | 8'-10"  | 362T125-43-50 |
|                      | 362T125-54-50 | 8'-6"     | 8'-11"  | 9'-4"   | 9'-9"   | 10'-1"  | 10'-6"  | 10'-10" | 362T125-54-50 |
|                      | 362T125-68-50 | 10'-3"    | 10'-9"  | 11'-3"  | 11'-9"  | 12'-2"  | 12'-8"  | 13'-1"  | 362T125-68-50 |
|                      | 362T125-97-50 | 12'-6"    | 13'-1"  | 13'-9"  | 14'-3"  | 14'-10" | 15'-5"  | 15'-11" | 362T125-97-50 |
| 0.8                  | 362T125-33-50 | 5'-7"     | 5'-11"  | 6'-2"   | 6'-5"   | 6'-8"   | 6'-11"  | 7'-2"   | 362T125-33-50 |
|                      | 362T125-43-50 | 7'-2"     | 7'-7"   | 7'-11"  | 8'-3"   | 8'-7"   | 8'-11"  | 9'-2"   | 362T125-43-50 |
|                      | 362T125-54-50 | 8'-10"    | 9'-3"   | 9'-8"   | 10'-1"  | 10'-6"  | 10'-11" | 11'-3"  | 362T125-54-50 |
|                      | 362T125-68-50 | 10'-8"    | 11'-2"  | 11'-9"  | 12'-2"  | 12'-8"  | 13'-2"  | 13'-7"  | 362T125-68-50 |
|                      | 362T125-97-50 | 13'-0"    | 13'-7"  | 14'-3"  | 14'-10" | 15'-5"  | 16'-0"  | 16'-6"  | 362T125-97-50 |
| 0.7                  | 362T125-33-50 | 5'-10"    | 6'-2"   | 6'-5"   | 6'-8"   | 7'-0"   | 7'-3"   | 7'-6"   | 362T125-33-50 |
|                      | 362T125-43-50 | 7'-6"     | 7'-11"  | 8'-3"   | 8'-7"   | 8'-11"  | 9'-3"   | 9'-7"   | 362T125-43-50 |
|                      | 362T125-54-50 | 9'-2"     | 9'-8"   | 10'-1"  | 10'-6"  | 10'-11" | 11'-4"  | 11'-9"  | 362T125-54-50 |
|                      | 362T125-68-50 | 11'-1"    | 11'-8"  | 12'-3"  | 12'-9"  | 13'-3"  | 13'-8"  | 14'-2"  | 362T125-68-50 |
|                      | 362T125-97-50 | 13'-6"    | 14'-2"  | 14'-10" | 15'-6"  | 16'-1"  | 16'-8"  | 17'-3"  | 362T125-97-50 |
| 0.6                  | 362T125-33-50 | 6'-1"     | 6'-5"   | 6'-9"   | 7'-0"   | 7'-4"   | 7'-7"   | 7'-10"  | 362T125-33-50 |
|                      | 362T125-43-50 | 7'-10"    | 8'-3"   | 8'-8"   | 9'-0"   | 9'-4"   | 9'-9"   | 10'-1"  | 362T125-43-50 |
|                      | 362T125-54-50 | 9'-8"     | 10'-1"  | 10'-7"  | 11'-0"  | 11'-6"  | 11'-10" | 12'-3"  | 362T125-54-50 |
|                      | 362T125-68-50 | 11'-7"    | 12'-3"  | 12'-9"  | 13'-4"  | 13'-10" | 14'-4"  | 14'-10" | 362T125-68-50 |
|                      | 362T125-97-50 | 14'-2"    | 14'-10" | 15'-6"  | 16'-2"  | 16'-10" | 17'-5"  | 18'-0"  | 362T125-97-50 |
| 0.5                  | 362T125-33-50 | 6'-5"     | 6'-9"   | 7'-1"   | 7'-5"   | 7'-8"   | 8'-0"   | 8'-3"   | 362T125-33-50 |
|                      | 362T125-43-50 | 8'-3"     | 8'-8"   | 9'-1"   | 9'-6"   | 9'-10"  | 10'-3"  | 10'-7"  | 362T125-43-50 |
|                      | 362T125-54-50 | 10'-1"    | 10'-8"  | 11'-1"  | 11'-7"  | 12'-0"  | 12'-6"  | 12'-11" | 362T125-54-50 |
|                      | 362T125-68-50 | 12'-3"    | 12'-10" | 13'-5"  | 14'-0"  | 14'-6"  | 15'-1"  | 15'-7"  | 362T125-68-50 |
|                      | 362T125-97-50 | 14'-10"   | 15'-7"  | 16'-4"  | 17'-0"  | 17'-8"  | 18'-4"  | 18'-11" | 362T125-97-50 |
| 0.4                  | 362T125-33-50 | 6'-10"    | 7'-2"   | 7'-6"   | 7'-10"  | 8'-1"   | 8'-5"   | 8'-8"   | 362T125-33-50 |
|                      | 362T125-43-50 | 8'-9"     | 9'-2"   | 9'-7"   | 10'-0"  | 10'-5"  | 10'-9"  | 11'-2"  | 362T125-43-50 |
|                      | 362T125-54-50 | 10'-8"    | 11'-3"  | 11'-9"  | 12'-3"  | 12'-9"  | 13'-2"  | 13'-7"  | 362T125-54-50 |
|                      | 362T125-68-50 | 12'-11"   | 13'-7"  | 14'-2"  | 14'-9"  | 15'-4"  | 15'-11" | 16'-5"  | 362T125-68-50 |
|                      | 362T125-97-50 | 15'-8"    | 16'-6"  | 17'-3"  | 17'-11" | 18'-8"  | 19'-4"  | 20'-0"  | 362T125-97-50 |
| 0.3                  | 362T125-33-50 | 7'-3"     | 7'-7"   | 8'-0"   | 8'-4"   | 8'-8"   | 8'-11"  | 9'-3"   | 362T125-33-50 |
|                      | 362T125-43-50 | 9'-4"     | 9'-9"   | 10'-3"  | 10'-8"  | 11'-1"  | 11'-6"  | 11'-10" | 362T125-43-50 |
|                      | 362T125-54-50 | 11'-4"    | 11'-11" | 12'-6"  | 13'-0"  | 13'-6"  | 14'-0"  | 14'-6"  | 362T125-54-50 |
|                      | 362T125-68-50 | 13'-9"    | 14'-5"  | 15'-1"  | 15'-8"  | 16'-4"  | 16'-11" | 17'-6"  | 362T125-68-50 |
|                      | 362T125-97-50 | 16'-8"    | 17'-6"  | 18'-4"  | 19'-1"  | 19'-10" | 20'-6"  | 21'-3"  | 362T125-97-50 |
| 0.2                  | 362T125-33-50 | 7'-9"     | 8'-2"   | 8'-7"   | 8'-11"  | 9'-3"   | 9'-7"   | 9'-11"  | 362T125-33-50 |
|                      | 362T125-43-50 | 10'-0"    | 10'-6"  | 10'-11" | 11'-5"  | 11'-10" | 12'-3"  | 12'-8"  | 362T125-43-50 |
|                      | 362T125-54-50 | 12'-2"    | 12'-10" | 13'-5"  | 13'-11" | 14'-6"  | 15'-0"  | 15'-6"  | 362T125-54-50 |
|                      | 362T125-68-50 | 14'-8"    | 15'-5"  | 16'-2"  | 16'-10" | 17'-6"  | 18'-1"  | 18'-8"  | 362T125-68-50 |
|                      | 362T125-97-50 | 17'-10"   | 18'-9"  | 19'-7"  | 20'-5"  | 21'-3"  | 22'-0"  | 22'-9"  | 362T125-97-50 |
| 0.1                  | 362T125-33-50 | 8'-5"     | 8'-10"  | 9'-3"   | 9'-8"   | 10'-0"  | 10'-5"  | 10'-9"  | 362T125-33-50 |
|                      | 362T125-43-50 | 10'-10"   | 11'-4"  | 11'-10" | 12'-4"  | 12'-10" | 13'-4"  | 13'-9"  | 362T125-43-50 |
|                      | 362T125-54-50 | 13'-2"    | 13'-10" | 14'-6"  | 15'-1"  | 15'-8"  | 16'-3"  | 16'-9"  | 362T125-54-50 |
|                      | 362T125-68-50 | 15'-11"   | 16'-9"  | 17'-6"  | 18'-2"  | 18'-11" | 19'-7"  | 20'-3"  | 362T125-68-50 |
|                      | 362T125-97-50 | 19'-4"    | 20'-4"  | 21'-3"  | 22'-1"  | 22'-11" | 23'-9"  | 24'-7"  | 362T125-97-50 |
| 0.0                  | 362T125-33-50 | 9'-1"     | 9'-6"   | 9'-11"  | 10'-4"  | 10'-9"  | 11'-2"  | 11'-6"  | 362T125-33-50 |
|                      | 362T125-43-50 | 11'-7"    | 12'-2"  | 12'-9"  | 13'-3"  | 13'-9"  | 14'-3"  | 14'-9"  | 362T125-43-50 |
|                      | 362T125-54-50 | 14'-2"    | 14'-10" | 15'-6"  | 16'-2"  | 16'-9"  | 17'-5"  | 18'-0"  | 362T125-54-50 |
|                      | 362T125-68-50 | 17'-1"    | 17'-11" | 18'-9"  | 19'-6"  | 20'-3"  | 21'-0"  | 21'-8"  | 362T125-68-50 |
|                      | 362T125-97-50 | 20'-8"    | 21'-9"  | 22'-9"  | 23'-8"  | 24'-7"  | 25'-5"  | 26'-4"  | 362T125-97-50 |



**TABLE 4.7.4.189: MAXIMUM UNBRACED TOP TRACK LENGTH**

| <b>PARAMETERS:</b>  |               | Type      | S3      | ( <i>l<sub>p</sub></i> = 1.5) | S <sub>DS</sub> | 0.70    | Weight  | 4400 lbs |               |
|---|---------------|-----------|---------|-------------------------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |                               |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |                               |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |                               |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft                       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 5'-1"     | 5'-4"   | 5'-7"                         | 5'-10"          | 6'-0"   | 6'-3"   | 6'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-6"     | 6'-10"  | 7'-2"                         | 7'-6"           | 7'-9"   | 8'-1"   | 8'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-0"     | 8'-5"   | 8'-9"                         | 9'-2"           | 9'-6"   | 9'-10"  | 10'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-8"     | 10'-2"  | 10'-7"                        | 11'-1"          | 11'-6"  | 11'-11" | 12'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-9"    | 12'-4"  | 12'-11"                       | 13'-6"          | 14'-0"  | 14'-6"  | 15'-0"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 5'-3"     | 5'-6"   | 5'-9"                         | 6'-0"           | 6'-3"   | 6'-6"   | 6'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-9"     | 7'-1"   | 7'-5"                         | 7'-9"           | 8'-1"   | 8'-4"   | 8'-8"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-3"     | 8'-8"   | 9'-1"                         | 9'-6"           | 9'-10"  | 10'-3"  | 10'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-0"    | 10'-6"  | 11'-0"                        | 11'-6"          | 11'-11" | 12'-4"  | 12'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-2"    | 12'-10" | 13'-5"                        | 13'-11"         | 14'-6"  | 15'-0"  | 15'-6"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 5'-5"     | 5'-9"   | 6'-0"                         | 6'-3"           | 6'-6"   | 6'-9"   | 7'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-0"     | 7'-5"   | 7'-9"                         | 8'-1"           | 8'-5"   | 8'-8"   | 9'-0"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-7"     | 9'-1"   | 9'-6"                         | 9'-10"          | 10'-3"  | 10'-7"  | 11'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-5"    | 10'-11" | 11'-5"                        | 11'-11"         | 12'-5"  | 12'-10" | 13'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-8"    | 13'-4"  | 13'-11"                       | 14'-6"          | 15'-1"  | 15'-7"  | 16'-2"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 5'-8"     | 6'-0"   | 6'-3"                         | 6'-6"           | 6'-10"  | 7'-1"   | 7'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-4"     | 7'-8"   | 8'-1"                         | 8'-5"           | 8'-9"   | 9'-1"   | 9'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-0"     | 9'-5"   | 9'-10"                        | 10'-3"          | 10'-8"  | 11'-1"  | 11'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-10"   | 11'-5"  | 11'-11"                       | 12'-5"          | 12'-11" | 13'-4"  | 13'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 13'-2"    | 13'-10" | 14'-6"                        | 15'-1"          | 15'-8"  | 16'-3"  | 16'-10"  | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 6'-0"     | 6'-3"   | 6'-7"                         | 6'-10"          | 7'-1"   | 7'-5"   | 7'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-8"     | 8'-1"   | 8'-5"                         | 8'-10"          | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-5"     | 9'-10"  | 10'-4"                        | 10'-9"          | 11'-2"  | 11'-7"  | 12'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-4"    | 11'-11" | 12'-6"                        | 13'-0"          | 13'-6"  | 14'-0"  | 14'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-10"   | 14'-6"  | 15'-2"                        | 15'-10"         | 16'-5"  | 17'-0"  | 17'-7"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 6'-3"     | 6'-7"   | 6'-11"                        | 7'-2"           | 7'-6"   | 7'-9"   | 8'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-1"     | 8'-6"   | 8'-11"                        | 9'-3"           | 9'-7"   | 10'-0"  | 10'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-11"    | 10'-5"  | 10'-10"                       | 11'-4"          | 11'-9"  | 12'-2"  | 12'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-11"   | 12'-6"  | 13'-1"                        | 13'-8"          | 14'-2"  | 14'-8"  | 15'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-6"    | 15'-3"  | 15'-11"                       | 16'-7"          | 17'-3"  | 17'-10" | 18'-6"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 6'-8"     | 7'-0"   | 7'-4"                         | 7'-7"           | 7'-11"  | 8'-3"   | 8'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-6"     | 9'-0"   | 9'-5"                         | 9'-9"           | 10'-2"  | 10'-6"  | 10'-11"  | 362T125-43-50 |
|   | 362T125-54-50 | 10'-5"    | 11'-0"  | 11'-6"                        | 11'-11"         | 12'-5"  | 12'-10" | 13'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-7"    | 13'-3"  | 13'-10"                       | 14'-5"          | 15'-0"  | 15'-6"  | 16'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-4"    | 16'-1"  | 16'-10"                       | 17'-6"          | 18'-2"  | 18'-10" | 19'-6"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 7'-1"     | 7'-5"   | 7'-9"                         | 8'-1"           | 8'-5"   | 8'-9"   | 9'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-1"     | 9'-6"   | 10'-0"                        | 10'-5"          | 10'-10" | 11'-2"  | 11'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-1"    | 11'-8"  | 12'-2"                        | 12'-8"          | 13'-2"  | 13'-8"  | 14'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-5"    | 14'-1"  | 14'-8"                        | 15'-4"          | 15'-11" | 16'-6"  | 17'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-3"    | 17'-1"  | 17'-11"                       | 18'-7"          | 19'-4"  | 20'-0"  | 20'-9"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 7'-7"     | 8'-0"   | 8'-4"                         | 8'-8"           | 9'-0"   | 9'-4"   | 9'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-9"     | 10'-3"  | 10'-8"                        | 11'-2"          | 11'-7"  | 12'-0"  | 12'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-11"   | 12'-6"  | 13'-1"                        | 13'-7"          | 14'-2"  | 14'-8"  | 15'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-4"    | 15'-1"  | 15'-9"                        | 16'-5"          | 17'-1"  | 17'-8"  | 18'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-5"    | 18'-4"  | 19'-2"                        | 19'-11"         | 20'-9"  | 21'-5"  | 22'-2"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 8'-3"     | 8'-8"   | 9'-1"                         | 9'-5"           | 9'-10"  | 10'-2"  | 10'-6"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-7"    | 11'-1"  | 11'-7"                        | 12'-1"          | 12'-7"  | 13'-0"  | 13'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-11"   | 13'-6"  | 14'-2"                        | 14'-9"          | 15'-4"  | 15'-10" | 16'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-6"    | 16'-4"  | 17'-1"                        | 17'-9"          | 18'-6"  | 19'-1"  | 19'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 18'-11"   | 19'-10" | 20'-9"                        | 21'-7"          | 22'-5"  | 23'-3"  | 24'-0"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 8'-10"    | 9'-3"   | 9'-8"                         | 10'-1"          | 10'-6"  | 10'-11" | 11'-3"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-4"    | 11'-10" | 12'-5"                        | 12'-11"         | 13'-5"  | 13'-11" | 14'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-10"   | 14'-6"  | 15'-2"                        | 15'-9"          | 16'-5"  | 17'-0"  | 17'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 16'-8"    | 17'-6"  | 18'-3"                        | 19'-0"          | 19'-9"  | 20'-6"  | 21'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 20'-3"    | 21'-3"  | 22'-2"                        | 23'-1"          | 24'-0"  | 24'-10" | 25'-8"   | 362T125-97-50 |



**TABLE 4.7.4.190: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | (p = 1.5) | S <sub>Ds</sub> | 0.70    | Weight  | 4600 lbs |               |
|---|---------------|-----------|---------|-----------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |           |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |           |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |           |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft   | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 4'-11"    | 5'-2"   | 5'-5"     | 5'-8"           | 5'-11"  | 6'-1"   | 6'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-4"     | 6'-8"   | 7'-0"     | 7'-4"           | 7'-7"   | 7'-10"  | 8'-2"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-10"    | 8'-2"   | 8'-7"     | 8'-11"          | 9'-3"   | 9'-8"   | 9'-11"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-5"     | 9'-11"  | 10'-4"    | 10'-10"         | 11'-3"  | 11'-8"  | 12'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-6"    | 12'-1"  | 12'-7"    | 13'-2"          | 13'-8"  | 14'-2"  | 14'-8"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 5'-1"     | 5'-5"   | 5'-8"     | 5'-11"          | 6'-1"   | 6'-4"   | 6'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-7"     | 6'-11"  | 7'-3"     | 7'-7"           | 7'-10"  | 8'-2"   | 8'-5"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-1"     | 8'-6"   | 8'-11"    | 9'-3"           | 9'-8"   | 10'-0"  | 10'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-9"     | 10'-3"  | 10'-9"    | 11'-2"          | 11'-8"  | 12'-1"  | 12'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-11"   | 12'-6"  | 13'-1"    | 13'-8"          | 14'-2"  | 14'-8"  | 15'-2"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 5'-4"     | 5'-7"   | 5'-10"    | 6'-1"           | 6'-4"   | 6'-7"   | 6'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 6'-10"    | 7'-3"   | 7'-7"     | 7'-10"          | 8'-2"   | 8'-6"   | 8'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-5"     | 8'-10"  | 9'-3"     | 9'-8"           | 10'-0"  | 10'-5"  | 10'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-2"    | 10'-8"  | 11'-2"    | 11'-8"          | 12'-1"  | 12'-6"  | 13'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-4"    | 13'-0"  | 13'-7"    | 14'-2"          | 14'-9"  | 15'-3"  | 15'-9"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 5'-7"     | 5'-10"  | 6'-1"     | 6'-5"           | 6'-8"   | 6'-11"  | 7'-1"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-2"     | 7'-6"   | 7'-11"    | 8'-3"           | 8'-6"   | 8'-10"  | 9'-2"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-9"     | 9'-3"   | 9'-8"     | 10'-1"          | 10'-5"  | 10'-10" | 11'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-7"    | 11'-2"  | 11'-8"    | 12'-2"          | 12'-7"  | 13'-1"  | 13'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-11"   | 13'-7"  | 14'-2"    | 14'-9"          | 15'-4"  | 15'-11" | 16'-5"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 5'-10"    | 6'-2"   | 6'-5"     | 6'-8"           | 6'-11"  | 7'-3"   | 7'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-6"     | 7'-11"  | 8'-3"     | 8'-7"           | 8'-11"  | 9'-3"   | 9'-7"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-2"     | 9'-8"   | 10'-1"    | 10'-6"          | 10'-11" | 11'-4"  | 11'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-1"    | 11'-8"  | 12'-2"    | 12'-8"          | 13'-2"  | 13'-8"  | 14'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-6"    | 14'-2"  | 14'-10"   | 15'-5"          | 16'-1"  | 16'-8"  | 17'-2"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 6'-2"     | 6'-5"   | 6'-9"     | 7'-0"           | 7'-4"   | 7'-7"   | 7'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 7'-11"    | 8'-3"   | 8'-8"     | 9'-0"           | 9'-5"   | 9'-9"   | 10'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-8"     | 10'-2"  | 10'-7"    | 11'-1"          | 11'-6"  | 11'-11" | 12'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-8"    | 12'-3"  | 12'-10"   | 13'-4"          | 13'-10" | 14'-4"  | 14'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 14'-2"    | 14'-11" | 15'-7"    | 16'-3"          | 16'-10" | 17'-6"  | 18'-1"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 6'-6"     | 6'-10"  | 7'-2"     | 7'-5"           | 7'-9"   | 8'-0"   | 8'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-4"     | 8'-9"   | 9'-2"     | 9'-7"           | 9'-11"  | 10'-3"  | 10'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-2"    | 10'-9"  | 11'-2"    | 11'-8"          | 12'-2"  | 12'-7"  | 13'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-4"    | 12'-11" | 13'-6"    | 14'-1"          | 14'-8"  | 15'-2"  | 15'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-0"    | 15'-9"  | 16'-5"    | 17'-2"          | 17'-10" | 18'-5"  | 19'-1"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 6'-11"    | 7'-3"   | 7'-7"     | 7'-11"          | 8'-3"   | 8'-6"   | 8'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 8'-10"    | 9'-4"   | 9'-9"     | 10'-2"          | 10'-7"  | 10'-11" | 11'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-10"   | 11'-5"  | 11'-11"   | 12'-5"          | 12'-11" | 13'-4"  | 13'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 13'-1"    | 13'-9"  | 14'-4"    | 15'-0"          | 15'-7"  | 16'-1"  | 16'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-11"   | 16'-9"  | 17'-6"    | 18'-2"          | 18'-11" | 19'-7"  | 20'-3"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 7'-5"     | 7'-9"   | 8'-2"     | 8'-6"           | 8'-10"  | 9'-2"   | 9'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-6"     | 10'-0"  | 10'-5"    | 10'-11"         | 11'-4"  | 11'-9"  | 12'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-7"    | 12'-2"  | 12'-9"    | 13'-4"          | 13'-10" | 14'-4"  | 14'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 14'-0"    | 14'-9"  | 15'-5"    | 16'-1"          | 16'-8"  | 17'-3"  | 17'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 17'-1"    | 17'-11" | 18'-9"    | 19'-6"          | 20'-3"  | 21'-0"  | 21'-8"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 8'-0"     | 8'-5"   | 8'-10"    | 9'-3"           | 9'-7"   | 9'-11"  | 10'-3"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-4"    | 10'-10" | 11'-4"    | 11'-10"         | 12'-3"  | 12'-8"  | 13'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-7"    | 13'-3"  | 13'-10"   | 14'-5"          | 15'-0"  | 15'-6"  | 16'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-2"    | 15'-11" | 16'-8"    | 17'-4"          | 18'-1"  | 18'-8"  | 19'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 18'-5"    | 19'-4"  | 20'-3"    | 21'-1"          | 21'-11" | 22'-8"  | 23'-5"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 8'-7"     | 9'-1"   | 9'-6"     | 9'-11"          | 10'-3"  | 10'-8"  | 11'-0"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-1"    | 11'-7"  | 12'-2"    | 12'-8"          | 13'-2"  | 13'-7"  | 14'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-6"    | 14'-2"  | 14'-10"   | 15'-5"          | 16'-0"  | 16'-7"  | 17'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 16'-3"    | 17'-1"  | 17'-10"   | 18'-7"          | 19'-4"  | 20'-0"  | 20'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 19'-9"    | 20'-9"  | 21'-8"    | 22'-7"          | 23'-6"  | 24'-4"  | 25'-1"   | 362T125-97-50 |





TABLE 4.7.4.191: MAXIMUM UNBRACED TOP TRACK LENGTH

| PARAMETERS:  |               |               |                 |         |         |          |         |         |               |
|--|---------------|---------------|-----------------|---------|---------|----------|---------|---------|---------------|
| Type   | S3            | ( $p = 1.5$ ) | S <sub>DS</sub> | 0.70    | Weight  | 4800 lbs |         |         |               |
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.  |               |               |                 |         |         |          |         |         |               |
| Note: If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |               |                 |         |         |          |         |         |               |
| Height in Bldg<br>(z/h)  | Track Section | Pod Width     |                 |         |         |          |         |         | Track Section |
|  |               | 5.00 ft       | 5.50 ft         | 6.00 ft | 6.50 ft | 7.00 ft  | 7.50 ft | 8.00 ft |               |
| 1.0  | 362T125-33-50 | 4'-10"        | 5'-1"           | 5'-4"   | 5'-6"   | 5'-9"    | 6'-0"   | 6'-2"   | 362T125-33-50 |
|  | 362T125-43-50 | 6'-3"         | 6'-6"           | 6'-10"  | 7'-2"   | 7'-5"    | 7'-8"   | 7'-11"  | 362T125-43-50 |
|  | 362T125-54-50 | 7'-7"         | 8'-0"           | 8'-5"   | 8'-9"   | 9'-1"    | 9'-5"   | 9'-9"   | 362T125-54-50 |
|  | 362T125-68-50 | 9'-3"         | 9'-8"           | 10'-2"  | 10'-7"  | 11'-0"   | 11'-5"  | 11'-9"  | 362T125-68-50 |
|  | 362T125-97-50 | 11'-3"        | 11'-10"         | 12'-4"  | 12'-10" | 13'-4"   | 13'-10" | 14'-4"  | 362T125-97-50 |
| 0.9  | 362T125-33-50 | 5'-0"         | 5'-3"           | 5'-6"   | 5'-9"   | 6'-0"    | 6'-2"   | 6'-5"   | 362T125-33-50 |
|  | 362T125-43-50 | 6'-5"         | 6'-9"           | 7'-1"   | 7'-5"   | 7'-8"    | 8'-0"   | 8'-3"   | 362T125-43-50 |
|  | 362T125-54-50 | 7'-11"        | 8'-4"           | 8'-8"   | 9'-1"   | 9'-5"    | 9'-9"   | 10'-1"  | 362T125-54-50 |
|  | 362T125-68-50 | 9'-7"         | 10'-0"          | 10'-6"  | 10'-11" | 11'-5"   | 11'-10" | 12'-2"  | 362T125-68-50 |
|  | 362T125-97-50 | 11'-8"        | 12'-3"          | 12'-10" | 13'-4"  | 13'-10"  | 14'-4"  | 14'-10" | 362T125-97-50 |
| 0.8  | 362T125-33-50 | 5'-2"         | 5'-6"           | 5'-9"   | 6'-0"   | 6'-3"    | 6'-5"   | 6'-8"   | 362T125-33-50 |
|  | 362T125-43-50 | 6'-9"         | 7'-1"           | 7'-5"   | 7'-8"   | 8'-0"    | 8'-4"   | 8'-7"   | 362T125-43-50 |
|  | 362T125-54-50 | 8'-3"         | 8'-8"           | 9'-0"   | 9'-5"   | 9'-10"   | 10'-2"  | 10'-6"  | 362T125-54-50 |
|  | 362T125-68-50 | 9'-11"        | 10'-5"          | 10'-11" | 11'-5"  | 11'-10"  | 12'-3"  | 12'-8"  | 362T125-68-50 |
|  | 362T125-97-50 | 12'-1"        | 12'-9"          | 13'-4"  | 13'-10" | 14'-5"   | 14'-11" | 15'-5"  | 362T125-97-50 |
| 0.7  | 362T125-33-50 | 5'-5"         | 5'-9"           | 6'-0"   | 6'-3"   | 6'-6"    | 6'-9"   | 6'-11"  | 362T125-33-50 |
|  | 362T125-43-50 | 7'-0"         | 7'-4"           | 7'-8"   | 8'-0"   | 8'-4"    | 8'-8"   | 8'-11"  | 362T125-43-50 |
|  | 362T125-54-50 | 8'-7"         | 9'-0"           | 9'-5"   | 9'-10"  | 10'-3"   | 10'-7"  | 10'-11" | 362T125-54-50 |
|  | 362T125-68-50 | 10'-4"        | 10'-11"         | 11'-5"  | 11'-10" | 12'-4"   | 12'-9"  | 13'-3"  | 362T125-68-50 |
|  | 362T125-97-50 | 12'-7"        | 13'-3"          | 13'-10" | 14'-5"  | 15'-0"   | 15'-7"  | 16'-1"  | 362T125-97-50 |
| 0.6  | 362T125-33-50 | 5'-8"         | 6'-0"           | 6'-3"   | 6'-6"   | 6'-10"   | 7'-1"   | 7'-3"   | 362T125-33-50 |
|  | 362T125-43-50 | 7'-4"         | 7'-8"           | 8'-1"   | 8'-5"   | 8'-9"    | 9'-1"   | 9'-4"   | 362T125-43-50 |
|  | 362T125-54-50 | 9'-0"         | 9'-5"           | 9'-10"  | 10'-3"  | 10'-8"   | 11'-1"  | 11'-5"  | 362T125-54-50 |
|  | 362T125-68-50 | 10'-10"       | 11'-5"          | 11'-11" | 12'-5"  | 12'-11"  | 13'-4"  | 13'-10" | 362T125-68-50 |
|  | 362T125-97-50 | 13'-2"        | 13'-10"         | 14'-6"  | 15'-1"  | 15'-8"   | 16'-3"  | 16'-10" | 362T125-97-50 |
| 0.5  | 362T125-33-50 | 6'-0"         | 6'-4"           | 6'-7"   | 6'-11"  | 7'-2"    | 7'-5"   | 7'-8"   | 362T125-33-50 |
|  | 362T125-43-50 | 7'-9"         | 8'-1"           | 8'-6"   | 8'-10"  | 9'-2"    | 9'-6"   | 9'-10"  | 362T125-43-50 |
|  | 362T125-54-50 | 9'-5"         | 9'-11"          | 10'-4"  | 10'-10" | 11'-3"   | 11'-8"  | 12'-0"  | 362T125-54-50 |
|  | 362T125-68-50 | 11'-5"        | 12'-0"          | 12'-6"  | 13'-1"  | 13'-7"   | 14'-1"  | 14'-6"  | 362T125-68-50 |
|  | 362T125-97-50 | 13'-10"       | 14'-7"          | 15'-3"  | 15'-10" | 16'-6"   | 17'-1"  | 17'-8"  | 362T125-97-50 |
| 0.4  | 362T125-33-50 | 6'-4"         | 6'-8"           | 7'-0"   | 7'-3"   | 7'-7"    | 7'-10"  | 8'-1"   | 362T125-33-50 |
|  | 362T125-43-50 | 8'-2"         | 8'-7"           | 9'-0"   | 9'-4"   | 9'-9"    | 10'-1"  | 10'-5"  | 362T125-43-50 |
|  | 362T125-54-50 | 10'-0"        | 10'-6"          | 10'-11" | 11'-5"  | 11'-10"  | 12'-4"  | 12'-9"  | 362T125-54-50 |
|  | 362T125-68-50 | 12'-0"        | 12'-8"          | 13'-3"  | 13'-9"  | 14'-4"   | 14'-10" | 15'-4"  | 362T125-68-50 |
|  | 362T125-97-50 | 14'-8"        | 15'-5"          | 16'-1"  | 16'-9"  | 17'-5"   | 18'-0"  | 18'-8"  | 362T125-97-50 |
| 0.3  | 362T125-33-50 | 6'-9"         | 7'-1"           | 7'-5"   | 7'-9"   | 8'-1"    | 8'-4"   | 8'-8"   | 362T125-33-50 |
|  | 362T125-43-50 | 8'-8"         | 9'-1"           | 9'-6"   | 9'-11"  | 10'-4"   | 10'-8"  | 11'-1"  | 362T125-43-50 |
|  | 362T125-54-50 | 10'-7"        | 11'-2"          | 11'-8"  | 12'-2"  | 12'-7"   | 13'-1"  | 13'-6"  | 362T125-54-50 |
|  | 362T125-68-50 | 12'-10"       | 13'-5"          | 14'-1"  | 14'-8"  | 15'-3"   | 15'-9"  | 16'-4"  | 362T125-68-50 |
|  | 362T125-97-50 | 15'-7"        | 16'-4"          | 17'-1"  | 17'-10" | 18'-6"   | 19'-2"  | 19'-10" | 362T125-97-50 |
| 0.2  | 362T125-33-50 | 7'-3"         | 7'-7"           | 8'-0"   | 8'-4"   | 8'-8"    | 8'-11"  | 9'-3"   | 362T125-33-50 |
|  | 362T125-43-50 | 9'-4"         | 9'-9"           | 10'-3"  | 10'-8"  | 11'-1"   | 11'-6"  | 11'-10" | 362T125-43-50 |
|  | 362T125-54-50 | 11'-4"        | 11'-11"         | 12'-6"  | 13'-0"  | 13'-6"   | 14'-0"  | 14'-6"  | 362T125-54-50 |
|  | 362T125-68-50 | 13'-9"        | 14'-5"          | 15'-1"  | 15'-8"  | 16'-4"   | 16'-11" | 17'-6"  | 362T125-68-50 |
|  | 362T125-97-50 | 16'-8"        | 17'-6"          | 18'-4"  | 19'-1"  | 19'-10"  | 20'-6"  | 21'-3"  | 362T125-97-50 |
| 0.1  | 362T125-33-50 | 7'-10"        | 8'-3"           | 8'-8"   | 9'-0"   | 9'-4"    | 9'-8"   | 10'-0"  | 362T125-33-50 |
|  | 362T125-43-50 | 10'-1"        | 10'-7"          | 11'-1"  | 11'-6"  | 12'-0"   | 12'-5"  | 12'-10" | 362T125-43-50 |
|  | 362T125-54-50 | 12'-4"        | 12'-11"         | 13'-6"  | 14'-1"  | 14'-8"   | 15'-2"  | 15'-8"  | 362T125-54-50 |
|  | 362T125-68-50 | 14'-10"       | 15'-7"          | 16'-4"  | 17'-0"  | 17'-8"   | 18'-3"  | 18'-11" | 362T125-68-50 |
|  | 362T125-97-50 | 18'-1"        | 18'-11"         | 19'-10" | 20'-8"  | 21'-5"   | 22'-3"  | 22'-11" | 362T125-97-50 |
| 0.0  | 362T125-33-50 | 8'-5"         | 8'-10"          | 9'-3"   | 9'-8"   | 10'-0"   | 10'-5"  | 10'-9"  | 362T125-33-50 |
|  | 362T125-43-50 | 10'-10"       | 11'-4"          | 11'-10" | 12'-4"  | 12'-10"  | 13'-4"  | 13'-9"  | 362T125-43-50 |
|  | 362T125-54-50 | 13'-2"        | 13'-10"         | 14'-6"  | 15'-1"  | 15'-8"   | 16'-3"  | 16'-9"  | 362T125-54-50 |
|  | 362T125-68-50 | 15'-11"       | 16'-9"          | 17'-6"  | 18'-2"  | 18'-11"  | 19'-7"  | 20'-3"  | 362T125-68-50 |
|  | 362T125-97-50 | 19'-4"        | 20'-4"          | 21'-3"  | 22'-1"  | 22'-11"  | 23'-9"  | 24'-7"  | 362T125-97-50 |



**TABLE 4.7.4.192: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | ( $p = 1.5$ ) | S <sub>Ds</sub> | 0.70    | Weight  | 5000 lbs |               |
|---|---------------|-----------|---------|---------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |               |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |               |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |               |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 4'-8"     | 4'-11"  | 5'-2"         | 5'-5"           | 5'-8"   | 5'-10"  | 6'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-1"     | 6'-5"   | 6'-8"         | 7'-0"           | 7'-3"   | 7'-6"   | 7'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-5"     | 7'-10"  | 8'-2"         | 8'-7"           | 8'-11"  | 9'-3"   | 9'-6"    | 362T125-54-50 |
|   | 362T125-68-50 | 9'-0"     | 9'-6"   | 9'-11"        | 10'-4"          | 10'-9"  | 11'-2"  | 11'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-0"    | 11'-7"  | 12'-1"        | 12'-7"          | 13'-1"  | 13'-7"  | 14'-0"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 4'-11"    | 5'-2"   | 5'-5"         | 5'-7"           | 5'-10"  | 6'-1"   | 6'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-4"     | 6'-8"   | 6'-11"        | 7'-3"           | 7'-6"   | 7'-10"  | 8'-1"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-9"     | 8'-2"   | 8'-6"         | 8'-10"          | 9'-3"   | 9'-7"   | 9'-11"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-4"     | 9'-10"  | 10'-3"        | 10'-9"          | 11'-2"  | 11'-7"  | 11'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 11'-5"    | 12'-0"  | 12'-6"        | 13'-1"          | 13'-7"  | 14'-1"  | 14'-6"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 5'-1"     | 5'-4"   | 5'-7"         | 5'-10"          | 6'-1"   | 6'-4"   | 6'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-7"     | 6'-11"  | 7'-3"         | 7'-6"           | 7'-10"  | 8'-1"   | 8'-5"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-1"     | 8'-5"   | 8'-10"        | 9'-3"           | 9'-7"   | 9'-11"  | 10'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-9"     | 10'-3"  | 10'-8"        | 11'-2"          | 11'-7"  | 12'-0"  | 12'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-10"   | 12'-5"  | 13'-0"        | 13'-7"          | 14'-1"  | 14'-7"  | 15'-1"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 5'-4"     | 5'-7"   | 5'-10"        | 6'-1"           | 6'-4"   | 6'-7"   | 6'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 6'-10"    | 7'-2"   | 7'-6"         | 7'-10"          | 8'-2"   | 8'-6"   | 8'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-5"     | 8'-10"  | 9'-3"         | 9'-7"           | 10'-0"  | 10'-4"  | 10'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-2"    | 10'-8"  | 11'-2"        | 11'-7"          | 12'-1"  | 12'-6"  | 12'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 12'-4"    | 13'-0"  | 13'-7"        | 14'-2"          | 14'-8"  | 15'-3"  | 15'-9"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 5'-7"     | 5'-10"  | 6'-2"         | 6'-5"           | 6'-8"   | 6'-11"  | 7'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-2"     | 7'-7"   | 7'-11"        | 8'-3"           | 8'-7"   | 8'-10"  | 9'-2"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-9"     | 9'-3"   | 9'-8"         | 10'-1"          | 10'-6"  | 10'-10" | 11'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-7"    | 11'-2"  | 11'-8"        | 12'-2"          | 12'-8"  | 13'-1"  | 13'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-11"   | 13'-7"  | 14'-2"        | 14'-10"         | 15'-4"  | 15'-11" | 16'-6"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 5'-10"    | 6'-2"   | 6'-5"         | 6'-9"           | 7'-0"   | 7'-3"   | 7'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-7"     | 7'-11"  | 8'-4"         | 8'-8"           | 9'-0"   | 9'-4"   | 9'-8"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-3"     | 9'-8"   | 10'-2"        | 10'-7"          | 11'-0"  | 11'-5"  | 11'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-2"    | 11'-9"  | 12'-3"        | 12'-9"          | 13'-3"  | 13'-9"  | 14'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-7"    | 14'-3"  | 14'-11"       | 15'-7"          | 16'-2"  | 16'-9"  | 17'-3"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 6'-2"     | 6'-6"   | 6'-10"        | 7'-1"           | 7'-5"   | 7'-8"   | 7'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 8'-0"     | 8'-5"   | 8'-9"         | 9'-2"           | 9'-6"   | 9'-10"  | 10'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-9"     | 10'-3"  | 10'-9"        | 11'-2"          | 11'-7"  | 12'-0"  | 12'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-9"    | 12'-5"  | 12'-11"       | 13'-6"          | 14'-0"  | 14'-6"  | 15'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-4"    | 15'-1"  | 15'-9"        | 16'-5"          | 17'-1"  | 17'-8"  | 18'-3"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 6'-7"     | 6'-11"  | 7'-3"         | 7'-7"           | 7'-11"  | 8'-2"   | 8'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-6"     | 8'-11"  | 9'-4"         | 9'-9"           | 10'-1"  | 10'-6"  | 10'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 10'-5"    | 10'-11" | 11'-5"        | 11'-11"         | 12'-4"  | 12'-10" | 13'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-6"    | 13'-2"  | 13'-9"        | 14'-4"          | 14'-11" | 15'-5"  | 16'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-3"    | 16'-0"  | 16'-9"        | 17'-5"          | 18'-1"  | 18'-9"  | 19'-5"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 7'-1"     | 7'-5"   | 7'-10"        | 8'-2"           | 8'-5"   | 8'-9"   | 9'-1"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-1"     | 9'-7"   | 10'-0"        | 10'-5"          | 10'-10" | 11'-3"  | 11'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-2"    | 11'-8"  | 12'-3"        | 12'-9"          | 13'-3"  | 13'-9"  | 14'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-5"    | 14'-1"  | 14'-9"        | 15'-4"          | 16'-0"  | 16'-6"  | 17'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-4"    | 17'-2"  | 17'-11"       | 18'-8"          | 19'-5"  | 20'-1"  | 20'-9"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 7'-8"     | 8'-1"   | 8'-6"         | 8'-10"          | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 9'-10"    | 10'-4"  | 10'-10"       | 11'-4"          | 11'-9"  | 12'-2"  | 12'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-1"    | 12'-8"  | 13'-3"        | 13'-10"         | 14'-4"  | 14'-10" | 15'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-7"    | 15'-3"  | 16'-0"        | 16'-8"          | 17'-3"  | 17'-11" | 18'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-8"    | 18'-7"  | 19'-5"        | 20'-3"          | 21'-0"  | 21'-9"  | 22'-6"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 8'-3"     | 8'-8"   | 9'-1"         | 9'-6"           | 9'-10"  | 10'-2"  | 10'-6"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-7"    | 11'-1"  | 11'-7"        | 12'-1"          | 12'-7"  | 13'-0"  | 13'-6"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-11"   | 13'-7"  | 14'-2"        | 14'-9"          | 15'-4"  | 15'-11" | 16'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-7"    | 16'-4"  | 17'-1"        | 17'-10"         | 18'-6"  | 19'-2"  | 19'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 18'-11"   | 19'-11" | 20'-9"        | 21'-8"          | 22'-6"  | 23'-3"  | 24'-1"   | 362T125-97-50 |



**TABLE 4.7.4.193: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | (lp = 1.5) | S <sub>DS</sub> | 1.00    | Weight  | 2000 lbs |               |
|---|---------------|-----------|---------|------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |            |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |            |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |            |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft    | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 6'-4"     | 6'-8"   | 7'-0"      | 7'-4"           | 7'-7"   | 7'-10"  | 8'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-2"     | 8'-7"   | 9'-0"      | 9'-5"           | 9'-9"   | 10'-1"  | 10'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-0"    | 10'-6"  | 11'-0"     | 11'-6"          | 11'-11" | 12'-4"  | 12'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-1"    | 12'-8"  | 13'-3"     | 13'-10"         | 14'-5"  | 14'-11" | 15'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-8"    | 15'-5"  | 16'-2"     | 16'-10"         | 17'-6"  | 18'-1"  | 18'-9"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 6'-7"     | 6'-11"  | 7'-3"      | 7'-7"           | 7'-11"  | 8'-2"   | 8'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-6"     | 8'-11"  | 9'-4"      | 9'-9"           | 10'-1"  | 10'-6"  | 10'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 10'-5"    | 10'-11" | 11'-5"     | 11'-11"         | 12'-4"  | 12'-10" | 13'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-6"    | 13'-2"  | 13'-9"     | 14'-4"          | 14'-11" | 15'-5"  | 16'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-3"    | 16'-0"  | 16'-9"     | 17'-5"          | 18'-1"  | 18'-9"  | 19'-5"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 6'-10"    | 7'-3"   | 7'-7"      | 7'-11"          | 8'-2"   | 8'-6"   | 8'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-10"    | 9'-3"   | 9'-8"      | 10'-1"          | 10'-6"  | 10'-11" | 11'-3"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-9"    | 11'-4"  | 11'-10"    | 12'-4"          | 12'-10" | 13'-4"  | 13'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-0"    | 13'-8"  | 14'-4"     | 14'-11"         | 15'-6"  | 16'-1"  | 16'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-10"   | 16'-8"  | 17'-5"     | 18'-1"          | 18'-10" | 19'-6"  | 20'-2"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 7'-2"     | 7'-6"   | 7'-11"     | 8'-3"           | 8'-7"   | 8'-10"  | 9'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-2"     | 9'-8"   | 10'-1"     | 10'-7"          | 10'-11" | 11'-4"  | 11'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-3"    | 11'-10" | 12'-4"     | 12'-11"         | 13'-5"  | 13'-10" | 14'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-7"    | 14'-3"  | 14'-11"    | 15'-6"          | 16'-2"  | 16'-9"  | 17'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-6"    | 17'-4"  | 18'-1"     | 18'-11"         | 19'-7"  | 20'-4"  | 21'-0"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 7'-6"     | 7'-11"  | 8'-3"      | 8'-7"           | 8'-11"  | 9'-3"   | 9'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-8"     | 10'-1"  | 10'-7"     | 11'-0"          | 11'-5"  | 11'-10" | 12'-3"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-9"    | 12'-4"  | 12'-11"    | 13'-6"          | 14'-0"  | 14'-6"  | 15'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-2"    | 14'-11" | 15'-7"     | 16'-3"          | 16'-11" | 17'-6"  | 18'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-3"    | 18'-1"  | 18'-11"    | 19'-9"          | 20'-6"  | 21'-3"  | 21'-11"  | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 7'-11"    | 8'-4"   | 8'-8"      | 9'-1"           | 9'-5"   | 9'-9"   | 10'-1"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-1"    | 10'-8"  | 11'-1"     | 11'-7"          | 12'-0"  | 12'-6"  | 12'-11"  | 362T125-43-50 |
|   | 362T125-54-50 | 12'-4"    | 13'-0"  | 13'-7"     | 14'-2"          | 14'-8"  | 15'-3"  | 15'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-11"   | 15'-8"  | 16'-5"     | 17'-1"          | 17'-9"  | 18'-4"  | 19'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 18'-1"    | 19'-0"  | 19'-11"    | 20'-9"          | 21'-6"  | 22'-4"  | 23'-1"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 8'-4"     | 8'-9"   | 9'-2"      | 9'-7"           | 9'-11"  | 10'-4"  | 10'-8"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-8"    | 11'-3"  | 11'-9"     | 12'-3"          | 12'-9"  | 13'-2"  | 13'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-1"    | 13'-9"  | 14'-4"     | 14'-11"         | 15'-6"  | 16'-1"  | 16'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-9"    | 16'-6"  | 17'-3"     | 18'-0"          | 18'-9"  | 19'-5"  | 20'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 19'-2"    | 20'-1"  | 21'-0"     | 21'-11"         | 22'-9"  | 23'-6"  | 24'-4"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 8'-11"    | 9'-4"   | 9'-9"      | 10'-2"          | 10'-7"  | 10'-11" | 11'-4"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-4"    | 11'-11" | 12'-6"     | 13'-0"          | 13'-6"  | 14'-0"  | 14'-6"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-10"   | 14'-7"  | 15'-3"     | 15'-10"         | 16'-6"  | 17'-1"  | 17'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 16'-9"    | 17'-7"  | 18'-4"     | 19'-2"          | 19'-11" | 20'-7"  | 21'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 20'-4"    | 21'-4"  | 22'-4"     | 23'-3"          | 24'-2"  | 25'-0"  | 25'-10"  | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 9'-6"     | 10'-0"  | 10'-6"     | 10'-11"         | 11'-4"  | 11'-9"  | 12'-2"   | 362T125-33-50 |
|   | 362T125-43-50 | 12'-2"    | 12'-9"  | 13'-4"     | 13'-11"         | 14'-6"  | 15'-0"  | 15'-6"   | 362T125-43-50 |
|   | 362T125-54-50 | 14'-10"   | 15'-7"  | 16'-4"     | 17'-0"          | 17'-8"  | 18'-3"  | 18'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 17'-11"   | 18'-10" | 19'-8"     | 20'-6"          | 21'-3"  | 22'-1"  | 22'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 21'-9"    | 22'-10" | 23'-11"    | 24'-10"         | 25'-10" | 26'-9"  | 27'-8"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 10'-4"    | 10'-10" | 11'-4"     | 11'-10"         | 12'-3"  | 12'-8"  | 13'-2"   | 362T125-33-50 |
|   | 362T125-43-50 | 13'-2"    | 13'-10" | 14'-6"     | 15'-1"          | 15'-8"  | 16'-3"  | 16'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 16'-1"    | 16'-11" | 17'-8"     | 18'-5"          | 19'-1"  | 19'-9"  | 20'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 19'-5"    | 20'-4"  | 21'-4"     | 22'-2"          | 23'-0"  | 23'-10" | 24'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 23'-7"    | 24'-9"  | 25'-10"    | 26'-11"         | 27'-11" | 28'-11" | 29'-11"  | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 11'-1"    | 11'-7"  | 12'-2"     | 12'-8"          | 13'-2"  | 13'-7"  | 14'-1"   | 362T125-33-50 |
|   | 362T125-43-50 | 14'-1"    | 14'-10" | 15'-6"     | 16'-2"          | 16'-9"  | 17'-5"  | 18'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 17'-3"    | 18'-1"  | 18'-11"    | 19'-8"          | 20'-5"  | 21'-2"  | 21'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 20'-9"    | 21'-9"  | 22'-9"     | 23'-9"          | 24'-8"  | 25'-6"  | 26'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 25'-2"    | 26'-6"  | 27'-8"     | 28'-9"          | 29'-11" | 31'-0"  | 32'-0"   | 362T125-97-50 |



**TABLE 4.7.4.194: MAXIMUM UNBRACED TOP TRACK LENGTH**

| <b>PARAMETERS:</b>  |               | Type      | S <sub>3</sub> | ( $p = 1.5$ ) | S <sub>Ds</sub> | 1.00    | Weight  | 2200 lbs |               |
|---|---------------|-----------|----------------|---------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |                |               |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |                |               |                 |         |         |          |               |
| Height in Bldg (z/h)  | Track Section | Pod Width |                |               |                 |         |         |          |               |
|   |               | 5.00 ft   | 5.50 ft        | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 6'-1"     | 6'-4"          | 6'-8"         | 6'-11"          | 7'-3"   | 7'-6"   | 7'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-9"     | 8'-2"          | 8'-7"         | 8'-11"          | 9'-3"   | 9'-7"   | 9'-11"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-6"     | 10'-0"         | 10'-6"        | 10'-11"         | 11'-4"  | 11'-9"  | 12'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-6"    | 12'-1"         | 12'-8"        | 13'-2"          | 13'-8"  | 14'-2"  | 14'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-0"    | 14'-8"         | 15'-5"        | 16'-0"          | 16'-8"  | 17'-3"  | 17'-10"  | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 6'-3"     | 6'-7"          | 6'-11"        | 7'-2"           | 7'-6"   | 7'-9"   | 8'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-1"     | 8'-6"          | 8'-11"        | 9'-3"           | 9'-7"   | 10'-0"  | 10'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-11"    | 10'-5"         | 10'-10"       | 11'-4"          | 11'-9"  | 12'-2"  | 12'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-11"   | 12'-6"         | 13'-1"        | 13'-8"          | 14'-2"  | 14'-8"  | 15'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-6"    | 15'-3"         | 15'-11"       | 16'-7"          | 17'-3"  | 17'-10" | 18'-6"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 6'-6"     | 6'-10"         | 7'-2"         | 7'-6"           | 7'-9"   | 8'-1"   | 8'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-5"     | 8'-10"         | 9'-3"         | 9'-7"           | 10'-0"  | 10'-4"  | 10'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-3"    | 10'-9"         | 11'-3"        | 11'-9"          | 12'-3"  | 12'-8"  | 13'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-5"    | 13'-0"         | 13'-7"        | 14'-2"          | 14'-9"  | 15'-3"  | 15'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-1"    | 15'-10"        | 16'-7"        | 17'-3"          | 17'-11" | 18'-7"  | 19'-2"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 6'-10"    | 7'-2"          | 7'-6"         | 7'-10"          | 8'-2"   | 8'-5"   | 8'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-9"     | 9'-2"          | 9'-7"         | 10'-0"          | 10'-5"  | 10'-10" | 11'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-8"    | 11'-3"         | 11'-9"        | 12'-3"          | 12'-9"  | 13'-2"  | 13'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-11"   | 13'-7"         | 14'-2"        | 14'-9"          | 15'-4"  | 15'-11" | 16'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-9"    | 16'-6"         | 17'-3"        | 18'-0"          | 18'-8"  | 19'-4"  | 20'-0"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 7'-2"     | 7'-6"          | 7'-10"        | 8'-2"           | 8'-6"   | 8'-10"  | 9'-1"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-2"     | 9'-8"          | 10'-1"        | 10'-6"          | 10'-11" | 11'-4"  | 11'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-2"    | 11'-9"         | 12'-4"        | 12'-10"         | 13'-4"  | 13'-10" | 14'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-6"    | 14'-2"         | 14'-10"       | 15'-6"          | 16'-1"  | 16'-8"  | 17'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-5"    | 17'-3"         | 18'-1"        | 18'-10"         | 19'-6"  | 20'-3"  | 20'-11"  | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 7'-6"     | 7'-11"         | 8'-3"         | 8'-7"           | 8'-11"  | 9'-3"   | 9'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-8"     | 10'-1"         | 10'-7"        | 11'-0"          | 11'-5"  | 11'-10" | 12'-3"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-9"    | 12'-4"         | 12'-11"       | 13'-6"          | 14'-0"  | 14'-6"  | 15'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-2"    | 14'-11"        | 15'-7"        | 16'-3"          | 16'-11" | 17'-6"  | 18'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-3"    | 18'-1"         | 18'-11"       | 19'-9"          | 20'-6"  | 21'-3"  | 21'-11"  | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 7'-11"    | 8'-4"          | 8'-9"         | 9'-1"           | 9'-5"   | 9'-10"  | 10'-2"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-2"    | 10'-8"         | 11'-2"        | 11'-8"          | 12'-1"  | 12'-6"  | 13'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-5"    | 13'-1"         | 13'-8"        | 14'-3"          | 14'-9"  | 15'-4"  | 15'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 15'-0"    | 15'-9"         | 16'-6"        | 17'-2"          | 17'-10" | 18'-5"  | 19'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 18'-3"    | 19'-2"         | 20'-0"        | 20'-10"         | 21'-8"  | 22'-5"  | 23'-2"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 8'-5"     | 8'-10"         | 9'-3"         | 9'-8"           | 10'-1"  | 10'-5"  | 10'-9"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-10"   | 11'-4"         | 11'-11"       | 12'-5"          | 12'-10" | 13'-4"  | 13'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-2"    | 13'-11"        | 14'-6"        | 15'-1"          | 15'-8"  | 16'-3"  | 16'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 15'-11"   | 16'-9"         | 17'-6"        | 18'-3"          | 18'-11" | 19'-7"  | 20'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 19'-4"    | 20'-4"         | 21'-3"        | 22'-2"          | 23'-0"  | 23'-10" | 24'-7"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 9'-1"     | 9'-6"          | 9'-11"        | 10'-4"          | 10'-9"  | 11'-2"  | 11'-7"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-7"    | 12'-2"         | 12'-9"        | 13'-3"          | 13'-9"  | 14'-3"  | 14'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 14'-2"    | 14'-10"        | 15'-6"        | 16'-2"          | 16'-10" | 17'-5"  | 18'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 17'-1"    | 17'-11"        | 18'-9"        | 19'-6"          | 20'-3"  | 21'-0"  | 21'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 20'-9"    | 21'-9"         | 22'-9"        | 23'-8"          | 24'-7"  | 25'-6"  | 26'-4"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 9'-10"    | 10'-4"         | 10'-9"        | 11'-3"          | 11'-8"  | 12'-1"  | 12'-6"   | 362T125-33-50 |
|   | 362T125-43-50 | 12'-7"    | 13'-2"         | 13'-9"        | 14'-4"          | 14'-11" | 15'-5"  | 16'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 15'-4"    | 16'-1"         | 16'-10"       | 17'-6"          | 18'-2"  | 18'-10" | 19'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 18'-6"    | 19'-5"         | 20'-3"        | 21'-1"          | 21'-11" | 22'-8"  | 23'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 22'-5"    | 23'-7"         | 24'-7"        | 25'-8"          | 26'-7"  | 27'-7"  | 28'-6"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 10'-6"    | 11'-1"         | 11'-7"        | 12'-0"          | 12'-6"  | 13'-0"  | 13'-5"   | 362T125-33-50 |
|   | 362T125-43-50 | 13'-5"    | 14'-1"         | 14'-9"        | 15'-5"          | 16'-0"  | 16'-7"  | 17'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 16'-5"    | 17'-3"         | 18'-0"        | 18'-9"          | 19'-6"  | 20'-2"  | 20'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 19'-9"    | 20'-9"         | 21'-8"        | 22'-7"          | 23'-6"  | 24'-4"  | 25'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 24'-0"    | 25'-2"         | 26'-4"        | 27'-5"          | 28'-6"  | 29'-6"  | 30'-6"   | 362T125-97-50 |



**TABLE 4.7.4.195: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | ( $p = 1.5$ ) | S <sub>Ds</sub> | 1.00    | Weight  | 2400 lbs |               |
|---|---------------|-----------|---------|---------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |               |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |               |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |               |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 5'-9"     | 6'-1"   | 6'-4"         | 6'-8"           | 6'-11"  | 7'-2"   | 7'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-5"     | 7'-10"  | 8'-2"         | 8'-6"           | 8'-10"  | 9'-2"   | 9'-6"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-1"     | 9'-7"   | 10'-0"        | 10'-5"          | 10'-10" | 11'-3"  | 11'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-0"    | 11'-7"  | 12'-1"        | 12'-7"          | 13'-1"  | 13'-7"  | 14'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-5"    | 14'-1"  | 14'-8"        | 15'-4"          | 15'-11" | 16'-6"  | 17'-1"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 6'-0"     | 6'-4"   | 6'-7"         | 6'-11"          | 7'-2"   | 7'-5"   | 7'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-9"     | 8'-1"   | 8'-6"         | 8'-10"          | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-5"     | 9'-11"  | 10'-4"        | 10'-10"         | 11'-3"  | 11'-8"  | 12'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-5"    | 12'-0"  | 12'-6"        | 13'-1"          | 13'-7"  | 14'-1"  | 14'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-10"   | 14'-7"  | 15'-3"        | 15'-10"         | 16'-6"  | 17'-1"  | 17'-8"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 6'-3"     | 6'-7"   | 6'-10"        | 7'-2"           | 7'-5"   | 7'-9"   | 8'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-0"     | 8'-5"   | 8'-10"        | 9'-2"           | 9'-7"   | 9'-11"  | 10'-3"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-10"    | 10'-4"  | 10'-9"        | 11'-3"          | 11'-8"  | 12'-1"  | 12'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-10"   | 12'-5"  | 13'-0"        | 13'-7"          | 14'-1"  | 14'-7"  | 15'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-5"    | 15'-2"  | 15'-10"       | 16'-6"          | 17'-2"  | 17'-9"  | 18'-4"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 6'-6"     | 6'-10"  | 7'-2"         | 7'-6"           | 7'-9"   | 8'-1"   | 8'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-4"     | 8'-9"   | 9'-2"         | 9'-7"           | 10'-0"  | 10'-4"  | 10'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-3"    | 10'-9"  | 11'-3"        | 11'-9"          | 12'-2"  | 12'-7"  | 13'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-4"    | 13'-0"  | 13'-7"        | 14'-2"          | 14'-8"  | 15'-3"  | 15'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-0"    | 15'-9"  | 16'-6"        | 17'-2"          | 17'-10" | 18'-6"  | 19'-1"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 6'-10"    | 7'-2"   | 7'-6"         | 7'-10"          | 8'-2"   | 8'-5"   | 8'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-9"     | 9'-2"   | 9'-7"         | 10'-0"          | 10'-5"  | 10'-10" | 11'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-8"    | 11'-3"  | 11'-9"        | 12'-3"          | 12'-9"  | 13'-2"  | 13'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-11"   | 13'-7"  | 14'-2"        | 14'-9"          | 15'-4"  | 15'-11" | 16'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-9"    | 16'-6"  | 17'-3"        | 18'-0"          | 18'-8"  | 19'-4"  | 20'-0"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 7'-2"     | 7'-6"   | 7'-11"        | 8'-3"           | 8'-7"   | 8'-10"  | 9'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-2"     | 9'-8"   | 10'-1"        | 10'-7"          | 10'-11" | 11'-4"  | 11'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-3"    | 11'-10" | 12'-4"        | 12'-11"         | 13'-5"  | 13'-10" | 14'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-7"    | 14'-3"  | 14'-11"       | 15'-6"          | 16'-2"  | 16'-9"  | 17'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-6"    | 17'-4"  | 18'-1"        | 18'-11"         | 19'-7"  | 20'-4"  | 21'-0"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 7'-7"     | 8'-0"   | 8'-4"         | 8'-8"           | 9'-0"   | 9'-4"   | 9'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-9"     | 10'-3"  | 10'-8"        | 11'-2"          | 11'-7"  | 12'-0"  | 12'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-11"   | 12'-6"  | 13'-1"        | 13'-7"          | 14'-1"  | 14'-8"  | 15'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-4"    | 15'-1"  | 15'-9"        | 16'-5"          | 17'-0"  | 17'-8"  | 18'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-5"    | 18'-4"  | 19'-2"        | 19'-11"         | 20'-8"  | 21'-5"  | 22'-2"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 8'-1"     | 8'-6"   | 8'-10"        | 9'-3"           | 9'-7"   | 9'-11"  | 10'-4"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-4"    | 10'-10" | 11'-4"        | 11'-10"         | 12'-4"  | 12'-9"  | 13'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-8"    | 13'-3"  | 13'-10"       | 14'-5"          | 15'-0"  | 15'-6"  | 16'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-3"    | 16'-0"  | 16'-9"        | 17'-5"          | 18'-1"  | 18'-9"  | 19'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 18'-6"    | 19'-5"  | 20'-4"        | 21'-2"          | 22'-0"  | 22'-9"  | 23'-6"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 8'-8"     | 9'-1"   | 9'-6"         | 9'-11"          | 10'-4"  | 10'-8"  | 11'-0"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-1"    | 11'-8"  | 12'-2"        | 12'-8"          | 13'-2"  | 13'-8"  | 14'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-6"    | 14'-3"  | 14'-10"       | 15'-6"          | 16'-1"  | 16'-8"  | 17'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 16'-4"    | 17'-2"  | 17'-11"       | 18'-8"          | 19'-5"  | 20'-1"  | 20'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 19'-10"   | 20'-10" | 21'-9"        | 22'-8"          | 23'-6"  | 24'-5"  | 25'-2"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 9'-5"     | 9'-10"  | 10'-4"        | 10'-9"          | 11'-2"  | 11'-7"  | 11'-11"  | 362T125-33-50 |
|   | 362T125-43-50 | 12'-0"    | 12'-7"  | 13'-2"        | 13'-9"          | 14'-3"  | 14'-9"  | 15'-3"   | 362T125-43-50 |
|   | 362T125-54-50 | 14'-8"    | 15'-5"  | 16'-1"        | 16'-9"          | 17'-5"  | 18'-0"  | 18'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 17'-8"    | 18'-7"  | 19'-5"        | 20'-2"          | 21'-0"  | 21'-9"  | 22'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 21'-5"    | 22'-6"  | 23'-6"        | 24'-6"          | 25'-6"  | 26'-4"  | 27'-3"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 10'-1"    | 10'-7"  | 11'-1"        | 11'-6"          | 12'-0"  | 12'-5"  | 12'-10"  | 362T125-33-50 |
|   | 362T125-43-50 | 12'-10"   | 13'-6"  | 14'-1"        | 14'-9"          | 15'-3"  | 15'-10" | 16'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 15'-8"    | 16'-6"  | 17'-3"        | 17'-11"         | 18'-8"  | 19'-4"  | 19'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 18'-11"   | 19'-10" | 20'-9"        | 21'-8"          | 22'-5"  | 23'-3"  | 24'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 23'-0"    | 24'-1"  | 25'-2"        | 26'-3"          | 27'-3"  | 28'-3"  | 29'-2"   | 362T125-97-50 |



**TABLE 4.7.4.196: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | ( $l_p = 1.5$ ) | S <sub>DS</sub> | 1.00    | Weight  | 2600 lbs |               |
|---|---------------|-----------|---------|-----------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |                 |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |                 |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |                 |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft         | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 5'-6"     | 5'-10"  | 6'-1"           | 6'-4"           | 6'-7"   | 6'-10"  | 7'-1"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-2"     | 7'-6"   | 7'-10"          | 8'-2"           | 8'-6"   | 8'-10"  | 9'-1"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-9"     | 9'-2"   | 9'-7"           | 10'-0"          | 10'-5"  | 10'-9"  | 11'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-6"    | 11'-1"  | 11'-7"          | 12'-1"          | 12'-7"  | 13'-0"  | 13'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-10"   | 13'-6"  | 14'-1"          | 14'-8"          | 15'-3"  | 15'-10" | 16'-4"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 5'-9"     | 6'-0"   | 6'-4"           | 6'-7"           | 6'-10"  | 7'-1"   | 7'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-5"     | 7'-9"   | 8'-2"           | 8'-6"           | 8'-10"  | 9'-2"   | 9'-5"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-1"     | 9'-6"   | 9'-11"          | 10'-4"          | 10'-9"  | 11'-2"  | 11'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-11"   | 11'-6"  | 12'-0"          | 12'-6"          | 13'-0"  | 13'-6"  | 13'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 13'-4"    | 14'-0"  | 14'-7"          | 15'-3"          | 15'-10" | 16'-5"  | 16'-11"  | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 6'-0"     | 6'-3"   | 6'-7"           | 6'-10"          | 7'-2"   | 7'-5"   | 7'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-8"     | 8'-1"   | 8'-5"           | 8'-10"          | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-5"     | 9'-11"  | 10'-4"          | 10'-9"          | 11'-2"  | 11'-7"  | 12'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-4"    | 11'-11" | 12'-6"          | 13'-0"          | 13'-6"  | 14'-0"  | 14'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-10"   | 14'-6"  | 15'-2"          | 15'-10"         | 16'-5"  | 17'-0"  | 17'-7"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 6'-3"     | 6'-7"   | 6'-10"          | 7'-2"           | 7'-5"   | 7'-9"   | 8'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-0"     | 8'-5"   | 8'-10"          | 9'-2"           | 9'-7"   | 9'-11"  | 10'-3"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-10"    | 10'-4"  | 10'-9"          | 11'-3"          | 11'-8"  | 12'-1"  | 12'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-10"   | 12'-5"  | 13'-0"          | 13'-7"          | 14'-1"  | 14'-7"  | 15'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-5"    | 15'-2"  | 15'-10"         | 16'-6"          | 17'-2"  | 17'-9"  | 18'-4"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 6'-6"     | 6'-10"  | 7'-2"           | 7'-6"           | 7'-9"   | 8'-1"   | 8'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-5"     | 8'-10"  | 9'-3"           | 9'-7"           | 10'-0"  | 10'-4"  | 10'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-3"    | 10'-9"  | 11'-3"          | 11'-9"          | 12'-3"  | 12'-8"  | 13'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-5"    | 13'-0"  | 13'-7"          | 14'-2"          | 14'-9"  | 15'-3"  | 15'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-1"    | 15'-10" | 16'-7"          | 17'-3"          | 17'-11" | 18'-7"  | 19'-2"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 6'-10"    | 7'-3"   | 7'-7"           | 7'-11"          | 8'-2"   | 8'-6"   | 8'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-10"    | 9'-3"   | 9'-8"           | 10'-1"          | 10'-6"  | 10'-11" | 11'-3"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-9"    | 11'-4"  | 11'-10"         | 12'-4"          | 12'-10" | 13'-4"  | 13'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-0"    | 13'-8"  | 14'-4"          | 14'-11"         | 15'-6"  | 16'-1"  | 16'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-10"   | 16'-8"  | 17'-5"          | 18'-1"          | 18'-10" | 19'-6"  | 20'-2"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 7'-3"     | 7'-8"   | 8'-0"           | 8'-4"           | 8'-8"   | 9'-0"   | 9'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-4"     | 9'-10"  | 10'-3"          | 10'-8"          | 11'-1"  | 11'-6"  | 11'-11"  | 362T125-43-50 |
|   | 362T125-54-50 | 11'-5"    | 12'-0"  | 12'-6"          | 13'-1"          | 13'-7"  | 14'-0"  | 14'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-9"    | 14'-5"  | 15'-1"          | 15'-9"          | 16'-4"  | 16'-11" | 17'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-9"    | 17'-7"  | 18'-4"          | 19'-1"          | 19'-10" | 20'-7"  | 21'-3"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 7'-9"     | 8'-2"   | 8'-6"           | 8'-10"          | 9'-3"   | 9'-7"   | 9'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 9'-11"    | 10'-5"  | 10'-11"         | 11'-4"          | 11'-10" | 12'-3"  | 12'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-1"    | 12'-9"  | 13'-4"          | 13'-10"         | 14'-5"  | 14'-11" | 15'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-7"    | 15'-4"  | 16'-1"          | 16'-9"          | 17'-4"  | 18'-0"  | 18'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-9"    | 18'-8"  | 19'-6"          | 20'-4"          | 21'-1"  | 21'-10" | 22'-7"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 8'-4"     | 8'-9"   | 9'-1"           | 9'-6"           | 9'-11"  | 10'-3"  | 10'-7"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-8"    | 11'-2"  | 11'-8"          | 12'-2"          | 12'-8"  | 13'-1"  | 13'-6"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-0"    | 13'-8"  | 14'-3"          | 14'-10"         | 15'-5"  | 16'-0"  | 16'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-8"    | 16'-5"  | 17'-2"          | 17'-11"         | 18'-7"  | 19'-3"  | 19'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 19'-0"    | 20'-0"  | 20'-11"         | 21'-9"          | 22'-7"  | 23'-5"  | 24'-2"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 9'-0"     | 9'-5"   | 9'-11"          | 10'-4"          | 10'-8"  | 11'-1"  | 11'-6"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-6"    | 12'-1"  | 12'-8"          | 13'-2"          | 13'-8"  | 14'-2"  | 14'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 14'-1"    | 14'-9"  | 15'-5"          | 16'-1"          | 16'-8"  | 17'-4"  | 17'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 16'-11"   | 17'-10" | 18'-7"          | 19'-5"          | 20'-2"  | 20'-10" | 21'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 20'-7"    | 21'-7"  | 22'-7"          | 23'-6"          | 24'-5"  | 25'-4"  | 26'-2"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 9'-8"     | 10'-2"  | 10'-7"          | 11'-1"          | 11'-6"  | 11'-11" | 12'-3"   | 362T125-33-50 |
|   | 362T125-43-50 | 12'-4"    | 12'-11" | 13'-7"          | 14'-1"          | 14'-8"  | 15'-2"  | 15'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 15'-1"    | 15'-10" | 16'-6"          | 17'-3"          | 17'-11" | 18'-6"  | 19'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 18'-2"    | 19'-1"  | 19'-11"         | 20'-9"          | 21'-7"  | 22'-4"  | 23'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 22'-1"    | 23'-2"  | 24'-2"          | 25'-2"          | 26'-2"  | 27'-1"  | 28'-0"   | 362T125-97-50 |



**TABLE 4.7.4.197: MAXIMUM UNBRACED TOP TRACK LENGTH**

| <b>PARAMETERS:</b>  |               | Type      | S3      | ( $p = 1.5$ ) | S <sub>DS</sub> | 1.00    | Weight  | 2800 lbs |               |
|---|---------------|-----------|---------|---------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.<br>Note: If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |               |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |               |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 5'-4"     | 5'-7"   | 5'-10"        | 6'-1"           | 6'-4"   | 6'-7"   | 6'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 6'-10"    | 7'-2"   | 7'-6"         | 7'-10"          | 8'-2"   | 8'-6"   | 8'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-5"     | 8'-10"  | 9'-3"         | 9'-7"           | 10'-0"  | 10'-4"  | 10'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-2"    | 10'-8"  | 11'-2"        | 11'-7"          | 12'-1"  | 12'-6"  | 12'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 12'-4"    | 13'-0"  | 13'-7"        | 14'-2"          | 14'-8"  | 15'-3"  | 15'-9"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 5'-6"     | 5'-10"  | 6'-1"         | 6'-4"           | 6'-7"   | 6'-10"  | 7'-1"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-1"     | 7'-6"   | 7'-10"        | 8'-2"           | 8'-6"   | 8'-9"   | 9'-1"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-8"     | 9'-2"   | 9'-7"         | 10'-0"          | 10'-4"  | 10'-9"  | 11'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-6"    | 11'-1"  | 11'-7"        | 12'-1"          | 12'-6"  | 13'-0"  | 13'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-10"   | 13'-5"  | 14'-1"        | 14'-8"          | 15'-3"  | 15'-9"  | 16'-4"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 5'-9"     | 6'-0"   | 6'-4"         | 6'-7"           | 6'-10"  | 7'-1"   | 7'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-5"     | 7'-9"   | 8'-2"         | 8'-5"           | 8'-10"  | 9'-2"   | 9'-5"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-1"     | 9'-6"   | 9'-11"        | 10'-4"          | 10'-9"  | 11'-2"  | 11'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-11"   | 11'-6"  | 12'-0"        | 12'-6"          | 13'-0"  | 13'-6"  | 13'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 13'-4"    | 14'-0"  | 14'-7"        | 15'-3"          | 15'-10" | 16'-5"  | 16'-11"  | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 6'-0"     | 6'-4"   | 6'-7"         | 6'-11"          | 7'-2"   | 7'-5"   | 7'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-9"     | 8'-1"   | 8'-6"         | 8'-10"          | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-5"     | 9'-11"  | 10'-4"        | 10'-10"         | 11'-3"  | 11'-8"  | 12'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-5"    | 12'-0"  | 12'-6"        | 13'-1"          | 13'-7"  | 14'-1"  | 14'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-10"   | 14'-7"  | 15'-3"        | 15'-10"         | 16'-6"  | 17'-1"  | 17'-8"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 6'-3"     | 6'-7"   | 6'-11"        | 7'-2"           | 7'-6"   | 7'-9"   | 8'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-1"     | 8'-6"   | 8'-11"        | 9'-3"           | 9'-7"   | 10'-0"  | 10'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-11"    | 10'-5"  | 10'-10"       | 11'-4"          | 11'-9"  | 12'-2"  | 12'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-11"   | 12'-6"  | 13'-1"        | 13'-8"          | 14'-2"  | 14'-8"  | 15'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-6"    | 15'-3"  | 15'-11"       | 16'-7"          | 17'-3"  | 17'-10" | 18'-6"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 6'-7"     | 6'-11"  | 7'-3"         | 7'-7"           | 7'-11"  | 8'-2"   | 8'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-6"     | 8'-11"  | 9'-4"         | 9'-9"           | 10'-1"  | 10'-6"  | 10'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 10'-5"    | 10'-11" | 11'-5"        | 11'-11"         | 12'-4"  | 12'-10" | 13'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-6"    | 13'-2"  | 13'-9"        | 14'-4"          | 14'-11" | 15'-5"  | 16'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-3"    | 16'-0"  | 16'-9"        | 17'-5"          | 18'-1"  | 18'-9"  | 19'-5"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 7'-0"     | 7'-4"   | 7'-8"         | 8'-0"           | 8'-4"   | 8'-8"   | 8'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 9'-0"     | 9'-5"   | 9'-10"        | 10'-3"          | 10'-8"  | 11'-1"  | 11'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-0"    | 11'-6"  | 12'-1"        | 12'-7"          | 13'-1"  | 13'-6"  | 14'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-3"    | 13'-11" | 14'-6"        | 15'-2"          | 15'-9"  | 16'-4"  | 16'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 16'-1"    | 16'-11" | 17'-8"        | 18'-5"          | 19'-1"  | 19'-10" | 20'-6"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 7'-5"     | 7'-10"  | 8'-2"         | 8'-6"           | 8'-10"  | 9'-2"   | 9'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-6"     | 10'-0"  | 10'-6"        | 10'-11"         | 11'-4"  | 11'-9"  | 12'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-8"    | 12'-3"  | 12'-10"       | 13'-4"          | 13'-10" | 14'-4"  | 14'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 14'-1"    | 14'-9"  | 15'-5"        | 16'-1"          | 16'-9"  | 17'-4"  | 17'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 17'-1"    | 17'-11" | 18'-9"        | 19'-7"          | 20'-4"  | 21'-1"  | 21'-9"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 8'-0"     | 8'-5"   | 8'-9"         | 9'-2"           | 9'-6"   | 9'-10"  | 10'-2"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-3"    | 10'-9"  | 11'-3"        | 11'-9"          | 12'-2"  | 12'-7"  | 13'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-6"    | 13'-1"  | 13'-9"        | 14'-4"          | 14'-10" | 15'-5"  | 15'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 15'-1"    | 15'-10" | 16'-7"        | 17'-3"          | 17'-11" | 18'-7"  | 19'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 18'-4"    | 19'-3"  | 20'-1"        | 20'-11"         | 21'-9"  | 22'-6"  | 23'-3"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 8'-8"     | 9'-1"   | 9'-6"         | 9'-11"          | 10'-4"  | 10'-8"  | 11'-0"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-1"    | 11'-8"  | 12'-2"        | 12'-8"          | 13'-2"  | 13'-8"  | 14'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-6"    | 14'-2"  | 14'-10"       | 15'-6"          | 16'-1"  | 16'-8"  | 17'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 16'-4"    | 17'-2"  | 17'-11"       | 18'-8"          | 19'-5"  | 20'-1"  | 20'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 19'-10"   | 20'-10" | 21'-9"        | 22'-8"          | 23'-6"  | 24'-5"  | 25'-2"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 9'-3"     | 9'-9"   | 10'-2"        | 10'-8"          | 11'-0"  | 11'-5"  | 11'-10"  | 362T125-33-50 |
|   | 362T125-43-50 | 11'-10"   | 12'-6"  | 13'-0"        | 13'-7"          | 14'-1"  | 14'-7"  | 15'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 14'-6"    | 15'-3"  | 15'-11"       | 16'-7"          | 17'-3"  | 17'-10" | 18'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 17'-6"    | 18'-4"  | 19'-2"        | 20'-0"          | 20'-9"  | 21'-6"  | 22'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 21'-3"    | 22'-3"  | 23'-4"        | 24'-3"          | 25'-2"  | 26'-1"  | 27'-0"   | 362T125-97-50 |

**TABLE 4.7.4.198: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | (lp = 1.5) | S <sub>Ds</sub> | 1.00    | Weight  | 3000 lbs |               |
|---|---------------|-----------|---------|------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |            |                 |         |         |          |               |
| <u>Note:</u> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |            |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |            |                 |         |         |          |               |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft    | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  | Track Section |
| 1.0   | 362T125-33-50 | 5'-1"     | 5'-5"   | 5'-8"      | 5'-11"          | 6'-1"   | 6'-4"   | 6'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-7"     | 6'-11"  | 7'-3"      | 7'-7"           | 7'-11"  | 8'-2"   | 8'-5"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-1"     | 8'-6"   | 8'-11"     | 9'-3"           | 9'-8"   | 10'-0"  | 10'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-9"     | 10'-3"  | 10'-9"     | 11'-2"          | 11'-8"  | 12'-1"  | 12'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-11"   | 12'-6"  | 13'-1"     | 13'-8"          | 14'-2"  | 14'-8"  | 15'-2"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 5'-4"     | 5'-7"   | 5'-10"     | 6'-1"           | 6'-4"   | 6'-7"   | 6'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 6'-10"    | 7'-2"   | 7'-6"      | 7'-10"          | 8'-2"   | 8'-6"   | 8'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-5"     | 8'-10"  | 9'-3"      | 9'-7"           | 10'-0"  | 10'-4"  | 10'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-2"    | 10'-8"  | 11'-2"     | 11'-7"          | 12'-1"  | 12'-6"  | 12'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 12'-4"    | 13'-0"  | 13'-7"     | 14'-2"          | 14'-8"  | 15'-3"  | 15'-9"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 5'-6"     | 5'-10"  | 6'-1"      | 6'-4"           | 6'-7"   | 6'-10"  | 7'-1"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-2"     | 7'-6"   | 7'-10"     | 8'-2"           | 8'-6"   | 8'-10"  | 9'-1"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-9"     | 9'-2"   | 9'-7"      | 10'-0"          | 10'-5"  | 10'-9"  | 11'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-6"    | 11'-1"  | 11'-7"     | 12'-1"          | 12'-7"  | 13'-0"  | 13'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-10"   | 13'-6"  | 14'-1"     | 14'-8"          | 15'-3"  | 15'-10" | 16'-4"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 5'-9"     | 6'-1"   | 6'-4"      | 6'-8"           | 6'-11"  | 7'-2"   | 7'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-5"     | 7'-10"  | 8'-2"      | 8'-6"           | 8'-10"  | 9'-2"   | 9'-6"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-1"     | 9'-7"   | 10'-0"     | 10'-5"          | 10'-10" | 11'-3"  | 11'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-0"    | 11'-7"  | 12'-1"     | 12'-7"          | 13'-1"  | 13'-7"  | 14'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-5"    | 14'-1"  | 14'-8"     | 15'-4"          | 15'-11" | 16'-6"  | 17'-1"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 6'-1"     | 6'-4"   | 6'-8"      | 6'-11"          | 7'-3"   | 7'-6"   | 7'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-9"     | 8'-2"   | 8'-7"      | 8'-11"          | 9'-3"   | 9'-7"   | 9'-11"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-6"     | 10'-0"  | 10'-6"     | 10'-11"         | 11'-4"  | 11'-9"  | 12'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-6"    | 12'-1"  | 12'-8"     | 13'-2"          | 13'-8"  | 14'-2"  | 14'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-0"    | 14'-8"  | 15'-5"     | 16'-0"          | 16'-8"  | 17'-3"  | 17'-10"  | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 6'-4"     | 6'-8"   | 7'-0"      | 7'-4"           | 7'-7"   | 7'-10"  | 8'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-2"     | 8'-7"   | 9'-0"      | 9'-5"           | 9'-9"   | 10'-1"  | 10'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-0"    | 10'-6"  | 11'-0"     | 11'-6"          | 11'-11" | 12'-4"  | 12'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-1"    | 12'-8"  | 13'-3"     | 13'-10"         | 14'-5"  | 14'-11" | 15'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-8"    | 15'-5"  | 16'-2"     | 16'-10"         | 17'-6"  | 18'-1"  | 18'-9"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 6'-9"     | 7'-1"   | 7'-5"      | 7'-9"           | 8'-0"   | 8'-4"   | 8'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-8"     | 9'-1"   | 9'-6"      | 9'-11"          | 10'-4"  | 10'-8"  | 11'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-7"    | 11'-1"  | 11'-7"     | 12'-1"          | 12'-7"  | 13'-0"  | 13'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-9"    | 13'-5"  | 14'-0"     | 14'-7"          | 15'-2"  | 15'-9"  | 16'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-6"    | 16'-4"  | 17'-1"     | 17'-9"          | 18'-5"  | 19'-1"  | 19'-9"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 7'-2"     | 7'-6"   | 7'-11"     | 8'-3"           | 8'-7"   | 8'-10"  | 9'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-2"     | 9'-8"   | 10'-1"     | 10'-7"          | 10'-11" | 11'-4"  | 11'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-3"    | 11'-10" | 12'-4"     | 12'-11"         | 13'-5"  | 13'-10" | 14'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-7"    | 14'-3"  | 14'-11"    | 15'-6"          | 16'-2"  | 16'-9"  | 17'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-6"    | 17'-4"  | 18'-1"     | 18'-11"         | 19'-7"  | 20'-4"  | 21'-0"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 7'-8"     | 8'-1"   | 8'-6"      | 8'-10"          | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 9'-10"    | 10'-4"  | 10'-10"    | 11'-4"          | 11'-9"  | 12'-2"  | 12'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-1"    | 12'-8"  | 13'-3"     | 13'-10"         | 14'-4"  | 14'-10" | 15'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-7"    | 15'-3"  | 16'-0"     | 16'-8"          | 17'-3"  | 17'-11" | 18'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-8"    | 18'-7"  | 19'-5"     | 20'-3"          | 21'-0"  | 21'-9"  | 22'-6"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 8'-4"     | 8'-9"   | 9'-2"      | 9'-7"           | 9'-11"  | 10'-4"  | 10'-8"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-8"    | 11'-3"  | 11'-9"     | 12'-3"          | 12'-9"  | 13'-2"  | 13'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-1"    | 13'-9"  | 14'-4"     | 14'-11"         | 15'-6"  | 16'-1"  | 16'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-9"    | 16'-6"  | 17'-3"     | 18'-0"          | 18'-9"  | 19'-5"  | 20'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 19'-2"    | 20'-1"  | 21'-0"     | 21'-11"         | 22'-9"  | 23'-6"  | 24'-4"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 8'-11"    | 9'-5"   | 9'-10"     | 10'-3"          | 10'-8"  | 11'-0"  | 11'-5"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-6"    | 12'-0"  | 12'-7"     | 13'-1"          | 13'-7"  | 14'-1"  | 14'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 14'-0"    | 14'-8"  | 15'-4"     | 16'-0"          | 16'-7"  | 17'-3"  | 17'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 16'-10"   | 17'-9"  | 18'-6"     | 19'-4"          | 20'-0"  | 20'-9"  | 21'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 20'-6"    | 21'-6"  | 22'-6"     | 23'-5"          | 24'-4"  | 25'-2"  | 26'-0"   | 362T125-97-50 |





**TABLE 4.7.4.199: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS: | Type | S3 | (p = 1.5) | S <sub>Ds</sub> | 1.00 | Weight | 3200 lbs |
|-------------|------|----|-----------|-----------------|------|--------|----------|
|-------------|------|----|-----------|-----------------|------|--------|----------|

\* Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.  
 Note: If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track.

| Height in Bldg (z/h) | Track Section | Pod Width |         |         |         |         |         |         | Track Section |
|----------------------|---------------|-----------|---------|---------|---------|---------|---------|---------|---------------|
|                      |               | 5.00 ft   | 5.50 ft | 6.00 ft | 6.50 ft | 7.00 ft | 7.50 ft | 8.00 ft |               |
| 1.0                  | 362T125-33-50 | 4'-11"    | 5'-2"   | 5'-5"   | 5'-8"   | 5'-11"  | 6'-1"   | 6'-4"   | 362T125-33-50 |
|                      | 362T125-43-50 | 6'-5"     | 6'-8"   | 7'-0"   | 7'-4"   | 7'-7"   | 7'-11"  | 8'-2"   | 362T125-43-50 |
|                      | 362T125-54-50 | 7'-10"    | 8'-3"   | 8'-7"   | 9'-0"   | 9'-4"   | 9'-8"   | 10'-0"  | 362T125-54-50 |
|                      | 362T125-68-50 | 9'-5"     | 9'-11"  | 10'-5"  | 10'-10" | 11'-3"  | 11'-8"  | 12'-1"  | 362T125-68-50 |
|                      | 362T125-97-50 | 11'-6"    | 12'-1"  | 12'-8"  | 13'-2"  | 13'-9"  | 14'-2"  | 14'-8"  | 362T125-97-50 |
| 0.9                  | 362T125-33-50 | 5'-2"     | 5'-5"   | 5'-8"   | 5'-11"  | 6'-2"   | 6'-4"   | 6'-7"   | 362T125-33-50 |
|                      | 362T125-43-50 | 6'-7"     | 7'-0"   | 7'-3"   | 7'-7"   | 7'-11"  | 8'-2"   | 8'-6"   | 362T125-43-50 |
|                      | 362T125-54-50 | 8'-1"     | 8'-6"   | 8'-11"  | 9'-4"   | 9'-8"   | 10'-0"  | 10'-4"  | 362T125-54-50 |
|                      | 362T125-68-50 | 9'-10"    | 10'-4"  | 10'-9"  | 11'-3"  | 11'-8"  | 12'-1"  | 12'-6"  | 362T125-68-50 |
|                      | 362T125-97-50 | 11'-11"   | 12'-7"  | 13'-1"  | 13'-8"  | 14'-3"  | 14'-9"  | 15'-3"  | 362T125-97-50 |
| 0.8                  | 362T125-33-50 | 5'-4"     | 5'-7"   | 5'-11"  | 6'-2"   | 6'-5"   | 6'-7"   | 6'-10"  | 362T125-33-50 |
|                      | 362T125-43-50 | 6'-11"    | 7'-3"   | 7'-7"   | 7'-11"  | 8'-3"   | 8'-6"   | 8'-10"  | 362T125-43-50 |
|                      | 362T125-54-50 | 8'-5"     | 8'-10"  | 9'-3"   | 9'-8"   | 10'-1"  | 10'-5"  | 10'-9"  | 362T125-54-50 |
|                      | 362T125-68-50 | 10'-2"    | 10'-8"  | 11'-2"  | 11'-8"  | 12'-2"  | 12'-7"  | 13'-0"  | 362T125-68-50 |
|                      | 362T125-97-50 | 12'-5"    | 13'-0"  | 13'-8"  | 14'-3"  | 14'-9"  | 15'-4"  | 15'-10" | 362T125-97-50 |
| 0.7                  | 362T125-33-50 | 5'-7"     | 5'-10"  | 6'-2"   | 6'-5"   | 6'-8"   | 6'-11"  | 7'-2"   | 362T125-33-50 |
|                      | 362T125-43-50 | 7'-2"     | 7'-7"   | 7'-11"  | 8'-3"   | 8'-7"   | 8'-11"  | 9'-2"   | 362T125-43-50 |
|                      | 362T125-54-50 | 8'-10"    | 9'-3"   | 9'-8"   | 10'-1"  | 10'-6"  | 10'-10" | 11'-3"  | 362T125-54-50 |
|                      | 362T125-68-50 | 10'-8"    | 11'-2"  | 11'-8"  | 12'-2"  | 12'-8"  | 13'-1"  | 13'-7"  | 362T125-68-50 |
|                      | 362T125-97-50 | 12'-11"   | 13'-7"  | 14'-3"  | 14'-10" | 15'-5"  | 15'-11" | 16'-6"  | 362T125-97-50 |
| 0.6                  | 362T125-33-50 | 5'-10"    | 6'-2"   | 6'-5"   | 6'-9"   | 7'-0"   | 7'-3"   | 7'-6"   | 362T125-33-50 |
|                      | 362T125-43-50 | 7'-6"     | 7'-11"  | 8'-3"   | 8'-8"   | 9'-0"   | 9'-4"   | 9'-7"   | 362T125-43-50 |
|                      | 362T125-54-50 | 9'-3"     | 9'-8"   | 10'-1"  | 10'-7"  | 11'-0"  | 11'-4"  | 11'-9"  | 362T125-54-50 |
|                      | 362T125-68-50 | 11'-1"    | 11'-8"  | 12'-3"  | 12'-9"  | 13'-3"  | 13'-9"  | 14'-2"  | 362T125-68-50 |
|                      | 362T125-97-50 | 13'-6"    | 14'-3"  | 14'-10" | 15'-6"  | 16'-1"  | 16'-8"  | 17'-3"  | 362T125-97-50 |
| 0.5                  | 362T125-33-50 | 6'-2"     | 6'-6"   | 6'-9"   | 7'-1"   | 7'-4"   | 7'-7"   | 7'-10"  | 362T125-33-50 |
|                      | 362T125-43-50 | 7'-11"    | 8'-4"   | 8'-8"   | 9'-1"   | 9'-5"   | 9'-9"   | 10'-1"  | 362T125-43-50 |
|                      | 362T125-54-50 | 9'-8"     | 10'-2"  | 10'-8"  | 11'-1"  | 11'-6"  | 11'-11" | 12'-4"  | 362T125-54-50 |
|                      | 362T125-68-50 | 11'-8"    | 12'-3"  | 12'-10" | 13'-5"  | 13'-11" | 14'-5"  | 14'-11" | 362T125-68-50 |
|                      | 362T125-97-50 | 14'-3"    | 14'-11" | 15'-7"  | 16'-3"  | 16'-11" | 17'-6"  | 18'-1"  | 362T125-97-50 |
| 0.4                  | 362T125-33-50 | 6'-6"     | 6'-10"  | 7'-2"   | 7'-6"   | 7'-9"   | 8'-1"   | 8'-4"   | 362T125-33-50 |
|                      | 362T125-43-50 | 8'-4"     | 8'-9"   | 9'-2"   | 9'-7"   | 10'-0"  | 10'-4"  | 10'-8"  | 362T125-43-50 |
|                      | 362T125-54-50 | 10'-3"    | 10'-9"  | 11'-3"  | 11'-9"  | 12'-2"  | 12'-7"  | 13'-0"  | 362T125-54-50 |
|                      | 362T125-68-50 | 12'-4"    | 13'-0"  | 13'-7"  | 14'-2"  | 14'-8"  | 15'-3"  | 15'-9"  | 362T125-68-50 |
|                      | 362T125-97-50 | 15'-0"    | 15'-9"  | 16'-6"  | 17'-2"  | 17'-10" | 18'-6"  | 19'-1"  | 362T125-97-50 |
| 0.3                  | 362T125-33-50 | 6'-11"    | 7'-3"   | 7'-7"   | 7'-11"  | 8'-3"   | 8'-7"   | 8'-10"  | 362T125-33-50 |
|                      | 362T125-43-50 | 8'-11"    | 9'-4"   | 9'-9"   | 10'-2"  | 10'-7"  | 11'-0"  | 11'-4"  | 362T125-43-50 |
|                      | 362T125-54-50 | 10'-11"   | 11'-5"  | 11'-11" | 12'-5"  | 12'-11" | 13'-5"  | 13'-10" | 362T125-54-50 |
|                      | 362T125-68-50 | 13'-2"    | 13'-9"  | 14'-5"  | 15'-0"  | 15'-7"  | 16'-2"  | 16'-9"  | 362T125-68-50 |
|                      | 362T125-97-50 | 16'-0"    | 16'-9"  | 17'-6"  | 18'-3"  | 19'-0"  | 19'-8"  | 20'-4"  | 362T125-97-50 |
| 0.2                  | 362T125-33-50 | 7'-5"     | 7'-10"  | 8'-2"   | 8'-6"   | 8'-10"  | 9'-2"   | 9'-6"   | 362T125-33-50 |
|                      | 362T125-43-50 | 9'-6"     | 10'-0"  | 10'-6"  | 10'-11" | 11'-4"  | 11'-9"  | 12'-2"  | 362T125-43-50 |
|                      | 362T125-54-50 | 11'-8"    | 12'-3"  | 12'-10" | 13'-4"  | 13'-10" | 14'-4"  | 14'-10" | 362T125-54-50 |
|                      | 362T125-68-50 | 14'-1"    | 14'-9"  | 15'-5"  | 16'-1"  | 16'-9"  | 17'-4"  | 17'-11" | 362T125-68-50 |
|                      | 362T125-97-50 | 17'-1"    | 17'-11" | 18'-9"  | 19'-7"  | 20'-4"  | 21'-1"  | 21'-9"  | 362T125-97-50 |
| 0.1                  | 362T125-33-50 | 8'-1"     | 8'-6"   | 8'-10"  | 9'-3"   | 9'-7"   | 9'-11"  | 10'-4"  | 362T125-33-50 |
|                      | 362T125-43-50 | 10'-4"    | 10'-10" | 11'-4"  | 11'-10" | 12'-4"  | 12'-9"  | 13'-2"  | 362T125-43-50 |
|                      | 362T125-54-50 | 12'-8"    | 13'-3"  | 13'-10" | 14'-5"  | 15'-0"  | 15'-6"  | 16'-1"  | 362T125-54-50 |
|                      | 362T125-68-50 | 15'-3"    | 16'-0"  | 16'-9"  | 17'-5"  | 18'-1"  | 18'-9"  | 19'-5"  | 362T125-68-50 |
|                      | 362T125-97-50 | 18'-6"    | 19'-5"  | 20'-4"  | 21'-2"  | 22'-0"  | 22'-9"  | 23'-6"  | 362T125-97-50 |
| 0.0                  | 362T125-33-50 | 8'-8"     | 9'-1"   | 9'-6"   | 9'-11"  | 10'-4"  | 10'-8"  | 11'-0"  | 362T125-33-50 |
|                      | 362T125-43-50 | 11'-1"    | 11'-8"  | 12'-2"  | 12'-8"  | 13'-2"  | 13'-8"  | 14'-1"  | 362T125-43-50 |
|                      | 362T125-54-50 | 13'-6"    | 14'-3"  | 14'-10" | 15'-6"  | 16'-1"  | 16'-8"  | 17'-3"  | 362T125-54-50 |
|                      | 362T125-68-50 | 16'-4"    | 17'-2"  | 17'-11" | 18'-8"  | 19'-5"  | 20'-1"  | 20'-9"  | 362T125-68-50 |
|                      | 362T125-97-50 | 19'-10"   | 20'-10" | 21'-9"  | 22'-8"  | 23'-6"  | 24'-5"  | 25'-2"  | 362T125-97-50 |



**TABLE 4.7.4.200: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | ( $p = 1.5$ ) | S <sub>DS</sub> | 1.00    | Weight  | 3400 lbs |               |
|---|---------------|-----------|---------|---------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |               |                 |         |         |          |               |
| <u>Note:</u> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |               |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |               |                 |         |         |          |               |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  | Track Section |
| 1.0   | 362T125-33-50 | 4'-9"     | 5'-0"   | 5'-3"         | 5'-6"           | 5'-9"   | 5'-11"  | 6'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-2"     | 6'-6"   | 6'-10"        | 7'-1"           | 7'-4"   | 7'-8"   | 7'-11"   | 362T125-43-50 |
|   | 362T125-54-50 | 7'-7"     | 8'-0"   | 8'-4"         | 8'-8"           | 9'-0"   | 9'-4"   | 9'-8"    | 362T125-54-50 |
|   | 362T125-68-50 | 9'-2"     | 9'-7"   | 10'-1"        | 10'-6"          | 10'-11" | 11'-4"  | 11'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-2"    | 11'-9"  | 12'-3"        | 12'-9"          | 13'-3"  | 13'-9"  | 14'-3"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 5'-0"     | 5'-3"   | 5'-6"         | 5'-8"           | 5'-11"  | 6'-2"   | 6'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-5"     | 6'-9"   | 7'-1"         | 7'-4"           | 7'-8"   | 7'-11"  | 8'-2"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-10"    | 8'-3"   | 8'-8"         | 9'-0"           | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-6"     | 10'-0"  | 10'-5"        | 10'-11"         | 11'-4"  | 11'-9"  | 12'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-7"    | 12'-2"  | 12'-9"        | 13'-3"          | 13'-9"  | 14'-3"  | 14'-9"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 5'-2"     | 5'-5"   | 5'-8"         | 5'-11"          | 6'-2"   | 6'-5"   | 6'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-8"     | 7'-0"   | 7'-4"         | 7'-8"           | 7'-11"  | 8'-3"   | 8'-6"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-2"     | 8'-7"   | 9'-0"         | 9'-4"           | 9'-9"   | 10'-1"  | 10'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-10"    | 10'-4"  | 10'-10"       | 11'-4"          | 11'-9"  | 12'-2"  | 12'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-0"    | 12'-8"  | 13'-3"        | 13'-9"          | 14'-4"  | 14'-10" | 15'-4"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 5'-5"     | 5'-8"   | 5'-11"        | 6'-2"           | 6'-5"   | 6'-8"   | 6'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 6'-11"    | 7'-4"   | 7'-8"         | 8'-0"           | 8'-4"   | 8'-7"   | 8'-11"   | 362T125-43-50 |
|   | 362T125-54-50 | 8'-6"     | 8'-11"  | 9'-4"         | 9'-9"           | 10'-2"  | 10'-6"  | 10'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 10'-4"    | 10'-10" | 11'-4"        | 11'-10"         | 12'-3"  | 12'-8"  | 13'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-6"    | 13'-2"  | 13'-9"        | 14'-4"          | 14'-11" | 15'-5"  | 16'-0"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 5'-8"     | 5'-11"  | 6'-3"         | 6'-6"           | 6'-9"   | 7'-0"   | 7'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-3"     | 7'-8"   | 8'-0"         | 8'-4"           | 8'-8"   | 9'-0"   | 9'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-11"    | 9'-4"   | 9'-10"        | 10'-3"          | 10'-7"  | 11'-0"  | 11'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-9"    | 11'-4"  | 11'-10"       | 12'-4"          | 12'-10" | 13'-3"  | 13'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-1"    | 13'-9"  | 14'-5"        | 15'-0"          | 15'-7"  | 16'-2"  | 16'-9"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 5'-11"    | 6'-3"   | 6'-7"         | 6'-10"          | 7'-1"   | 7'-4"   | 7'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-8"     | 8'-1"   | 8'-5"         | 8'-9"           | 9'-2"   | 9'-6"   | 9'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-5"     | 9'-10"  | 10'-4"        | 10'-9"          | 11'-2"  | 11'-7"  | 12'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-4"    | 11'-11" | 12'-5"        | 13'-0"          | 13'-6"  | 14'-0"  | 14'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-9"    | 14'-6"  | 15'-2"        | 15'-9"          | 16'-5"  | 17'-0"  | 17'-7"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 6'-4"     | 6'-7"   | 6'-11"        | 7'-3"           | 7'-6"   | 7'-10"  | 8'-1"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-1"     | 8'-6"   | 8'-11"        | 9'-3"           | 9'-8"   | 10'-0"  | 10'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-11"    | 10'-5"  | 10'-11"       | 11'-4"          | 11'-10" | 12'-3"  | 12'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-0"    | 12'-7"  | 13'-2"        | 13'-8"          | 14'-3"  | 14'-9"  | 15'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-7"    | 15'-3"  | 16'-0"        | 16'-8"          | 17'-4"  | 17'-11" | 18'-6"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 6'-9"     | 7'-1"   | 7'-5"         | 7'-8"           | 8'-0"   | 8'-4"   | 8'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-7"     | 9'-1"   | 9'-6"         | 9'-11"          | 10'-3"  | 10'-8"  | 11'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-6"    | 11'-1"  | 11'-7"        | 12'-1"          | 12'-6"  | 13'-0"  | 13'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-9"    | 13'-4"  | 14'-0"        | 14'-7"          | 15'-2"  | 15'-8"  | 16'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-6"    | 16'-3"  | 17'-0"        | 17'-8"          | 18'-5"  | 19'-1"  | 19'-8"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 7'-2"     | 7'-7"   | 7'-11"        | 8'-3"           | 8'-7"   | 8'-11"  | 9'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-3"     | 9'-9"   | 10'-2"        | 10'-7"          | 11'-0"  | 11'-5"  | 11'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-4"    | 11'-10" | 12'-5"        | 12'-11"         | 13'-5"  | 13'-11" | 14'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-8"    | 14'-4"  | 15'-0"        | 15'-7"          | 16'-2"  | 16'-9"  | 17'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-7"    | 17'-5"  | 18'-2"        | 19'-0"          | 19'-8"  | 20'-5"  | 21'-1"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 7'-10"    | 8'-3"   | 8'-7"         | 8'-11"          | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-0"    | 10'-6"  | 11'-0"        | 11'-6"          | 11'-11" | 12'-4"  | 12'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-3"    | 12'-10" | 13'-5"        | 14'-0"          | 14'-7"  | 15'-1"  | 15'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-9"    | 15'-6"  | 16'-3"        | 16'-11"         | 17'-7"  | 18'-2"  | 18'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-11"   | 18'-10" | 19'-8"        | 20'-6"          | 21'-4"  | 22'-1"  | 22'-10"  | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 8'-5"     | 8'-10"  | 9'-3"         | 9'-7"           | 10'-0"  | 10'-4"  | 10'-8"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-9"    | 11'-3"  | 11'-10"       | 12'-4"          | 12'-9"  | 13'-3"  | 13'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-1"    | 13'-9"  | 14'-5"        | 15'-0"          | 15'-7"  | 16'-2"  | 16'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-10"   | 16'-7"  | 17'-4"        | 18'-1"          | 18'-9"  | 19'-6"  | 20'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 19'-3"    | 20'-2"  | 21'-1"        | 22'-0"          | 22'-10" | 23'-8"  | 24'-5"   | 362T125-97-50 |



**TABLE 4.7.4.201: MAXIMUM UNBRACED TOP TRACK LENGTH**

| <b>PARAMETERS:</b>  |               | Type      | S3      | ( $p = 1.5$ ) | S <sub>DS</sub> | 1.00    | Weight  | 3600 lbs |               |
|---|---------------|-----------|---------|---------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |               |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |               |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |               |                 |         |         |          |               |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  | Track Section |
| 1.0   | 362T125-33-50 | 4'-8"     | 4'-10"  | 5'-1"         | 5'-4"           | 5'-6"   | 5'-9"   | 5'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 6'-0"     | 6'-4"   | 6'-7"         | 6'-11"          | 7'-2"   | 7'-5"   | 7'-8"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-4"     | 7'-9"   | 8'-1"         | 8'-5"           | 8'-9"   | 9'-1"   | 9'-5"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-11"    | 9'-4"   | 9'-9"         | 10'-2"          | 10'-7"  | 11'-0"  | 11'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-10"   | 11'-5"  | 11'-11"       | 12'-5"          | 12'-11" | 13'-4"  | 13'-10"  | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 4'-10"    | 5'-1"   | 5'-4"         | 5'-6"           | 5'-9"   | 6'-0"   | 6'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-3"     | 6'-6"   | 6'-10"        | 7'-2"           | 7'-5"   | 7'-8"   | 7'-11"   | 362T125-43-50 |
|   | 362T125-54-50 | 7'-7"     | 8'-0"   | 8'-5"         | 8'-9"           | 9'-1"   | 9'-5"   | 9'-9"    | 362T125-54-50 |
|   | 362T125-68-50 | 9'-3"     | 9'-8"   | 10'-2"        | 10'-7"          | 11'-0"  | 11'-5"  | 11'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-3"    | 11'-10" | 12'-4"        | 12'-10"         | 13'-4"  | 13'-10" | 14'-4"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 5'-0"     | 5'-3"   | 5'-6"         | 5'-9"           | 6'-0"   | 6'-3"   | 6'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-6"     | 6'-10"  | 7'-1"         | 7'-5"           | 7'-9"   | 8'-0"   | 8'-3"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-11"    | 8'-4"   | 8'-9"         | 9'-1"           | 9'-5"   | 9'-9"   | 10'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-7"     | 10'-1"  | 10'-6"        | 11'-0"          | 11'-5"  | 11'-10" | 12'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-8"    | 12'-3"  | 12'-10"       | 13'-4"          | 13'-11" | 14'-5"  | 14'-11"  | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 5'-3"     | 5'-6"   | 5'-9"         | 6'-0"           | 6'-3"   | 6'-6"   | 6'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-9"     | 7'-1"   | 7'-5"         | 7'-9"           | 8'-1"   | 8'-4"   | 8'-8"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-3"     | 8'-8"   | 9'-1"         | 9'-6"           | 9'-10"  | 10'-3"  | 10'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-0"    | 10'-6"  | 11'-0"        | 11'-5"          | 11'-11" | 12'-4"  | 12'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-2"    | 12'-9"  | 13'-4"        | 13'-11"         | 14'-6"  | 15'-0"  | 15'-6"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 5'-6"     | 5'-9"   | 6'-0"         | 6'-4"           | 6'-7"   | 6'-10"  | 7'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-1"     | 7'-5"   | 7'-9"         | 8'-1"           | 8'-5"   | 8'-9"   | 9'-0"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-8"     | 9'-1"   | 9'-6"         | 9'-11"          | 10'-4"  | 10'-8"  | 11'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-5"    | 11'-0"  | 11'-6"        | 12'-0"          | 12'-5"  | 12'-11" | 13'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-9"    | 13'-5"  | 14'-0"        | 14'-7"          | 15'-2"  | 15'-8"  | 16'-3"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 5'-9"     | 6'-1"   | 6'-4"         | 6'-8"           | 6'-11"  | 7'-2"   | 7'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-5"     | 7'-10"  | 8'-2"         | 8'-6"           | 8'-10"  | 9'-2"   | 9'-6"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-1"     | 9'-7"   | 10'-0"        | 10'-5"          | 10'-10" | 11'-3"  | 11'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-0"    | 11'-7"  | 12'-1"        | 12'-7"          | 13'-1"  | 13'-7"  | 14'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-5"    | 14'-1"  | 14'-8"        | 15'-4"          | 15'-11" | 16'-6"  | 17'-1"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 6'-1"     | 6'-5"   | 6'-9"         | 7'-0"           | 7'-3"   | 7'-7"   | 7'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 7'-10"    | 8'-3"   | 8'-8"         | 9'-0"           | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-7"     | 10'-1"  | 10'-7"        | 11'-0"          | 11'-5"  | 11'-10" | 12'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-7"    | 12'-2"  | 12'-9"        | 13'-4"          | 13'-10" | 14'-4"  | 14'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 14'-2"    | 14'-10" | 15'-6"        | 16'-2"          | 16'-10" | 17'-5"  | 18'-0"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 6'-6"     | 6'-10"  | 7'-2"         | 7'-6"           | 7'-9"   | 8'-1"   | 8'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-4"     | 8'-9"   | 9'-2"         | 9'-7"           | 10'-0"  | 10'-4"  | 10'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-3"    | 10'-9"  | 11'-3"        | 11'-9"          | 12'-2"  | 12'-7"  | 13'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-4"    | 13'-0"  | 13'-7"        | 14'-2"          | 14'-8"  | 15'-3"  | 15'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-0"    | 15'-9"  | 16'-6"        | 17'-2"          | 17'-10" | 18'-6"  | 19'-1"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 7'-0"     | 7'-4"   | 7'-8"         | 8'-0"           | 8'-4"   | 8'-8"   | 8'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 9'-0"     | 9'-5"   | 9'-10"        | 10'-3"          | 10'-8"  | 11'-1"  | 11'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-0"    | 11'-6"  | 12'-1"        | 12'-7"          | 13'-1"  | 13'-6"  | 14'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-3"    | 13'-11" | 14'-6"        | 15'-2"          | 15'-9"  | 16'-4"  | 16'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 16'-1"    | 16'-11" | 17'-8"        | 18'-5"          | 19'-1"  | 19'-10" | 20'-6"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 7'-7"     | 8'-0"   | 8'-4"         | 8'-8"           | 9'-0"   | 9'-4"   | 9'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-9"     | 10'-3"  | 10'-8"        | 11'-2"          | 11'-7"  | 12'-0"  | 12'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-11"   | 12'-6"  | 13'-1"        | 13'-7"          | 14'-1"  | 14'-8"  | 15'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-4"    | 15'-1"  | 15'-9"        | 16'-5"          | 17'-0"  | 17'-8"  | 18'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-5"    | 18'-4"  | 19'-2"        | 19'-11"         | 20'-8"  | 21'-5"  | 22'-2"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 8'-2"     | 8'-7"   | 8'-11"        | 9'-4"           | 9'-8"   | 10'-0"  | 10'-5"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-5"    | 10'-11" | 11'-5"        | 11'-11"         | 12'-5"  | 12'-10" | 13'-3"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-9"    | 13'-4"  | 14'-0"        | 14'-7"          | 15'-2"  | 15'-8"  | 16'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-4"    | 16'-2"  | 16'-10"       | 17'-7"          | 18'-3"  | 18'-11" | 19'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 18'-8"    | 19'-7"  | 20'-6"        | 21'-4"          | 22'-2"  | 22'-11" | 23'-9"   | 362T125-97-50 |

**TABLE 4.7.4.202: MAXIMUM UNBRACED TOP TRACK LENGTH**

| <b>PARAMETERS:</b>   |               |           |         |            |                 |         |         |          |               |
|--|---------------|-----------|---------|------------|-----------------|---------|---------|----------|---------------|
|  |               | Type      | S3      | (Ip = 1.5) | S <sub>DS</sub> | 1.00    | Weight  | 3800 lbs |               |
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.  |               |           |         |            |                 |         |         |          |               |
| Note: If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |            |                 |         |         |          |               |
| Height in Bldg (z/h)   | Track Section | Pod Width |         |            |                 |         |         |          | Track Section |
|  |               | 5.00 ft   | 5.50 ft | 6.00 ft    | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0  | 362T125-33-50 | 4'-6"     | 4'-9"   | 4'-11"     | 5'-2"           | 5'-5"   | 5'-7"   | 5'-9"    | 362T125-33-50 |
|  | 362T125-43-50 | 5'-10"    | 6'-1"   | 6'-5"      | 6'-8"           | 6'-11"  | 7'-2"   | 7'-5"    | 362T125-43-50 |
|  | 362T125-54-50 | 7'-2"     | 7'-6"   | 7'-10"     | 8'-2"           | 8'-6"   | 8'-10"  | 9'-2"    | 362T125-54-50 |
|  | 362T125-68-50 | 8'-8"     | 9'-1"   | 9'-6"      | 9'-11"          | 10'-3"  | 10'-8"  | 11'-0"   | 362T125-68-50 |
|  | 362T125-97-50 | 10'-6"    | 11'-1"  | 11'-7"     | 12'-1"          | 12'-6"  | 13'-0"  | 13'-5"   | 362T125-97-50 |
| 0.9  | 362T125-33-50 | 4'-8"     | 4'-11"  | 5'-2"      | 5'-4"           | 5'-7"   | 5'-10"  | 6'-0"    | 362T125-33-50 |
|  | 362T125-43-50 | 6'-0"     | 6'-4"   | 6'-8"      | 6'-11"          | 7'-2"   | 7'-6"   | 7'-9"    | 362T125-43-50 |
|  | 362T125-54-50 | 7'-5"     | 7'-9"   | 8'-2"      | 8'-6"           | 8'-10"  | 9'-2"   | 9'-6"    | 362T125-54-50 |
|  | 362T125-68-50 | 8'-11"    | 9'-5"   | 9'-10"     | 10'-3"          | 10'-8"  | 11'-1"  | 11'-5"   | 362T125-68-50 |
|  | 362T125-97-50 | 10'-11"   | 11'-6"  | 12'-0"     | 12'-6"          | 13'-0"  | 13'-6"  | 13'-11"  | 362T125-97-50 |
| 0.8  | 362T125-33-50 | 4'-10"    | 5'-1"   | 5'-4"      | 5'-7"           | 5'-10"  | 6'-0"   | 6'-3"    | 362T125-33-50 |
|  | 362T125-43-50 | 6'-3"     | 6'-7"   | 6'-11"     | 7'-3"           | 7'-6"   | 7'-9"   | 8'-0"    | 362T125-43-50 |
|  | 362T125-54-50 | 7'-8"     | 8'-1"   | 8'-6"      | 8'-10"          | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-54-50 |
|  | 362T125-68-50 | 9'-4"     | 9'-9"   | 10'-3"     | 10'-8"          | 11'-1"  | 11'-6"  | 11'-11"  | 362T125-68-50 |
|  | 362T125-97-50 | 11'-4"    | 11'-11" | 12'-6"     | 13'-0"          | 13'-6"  | 14'-0"  | 14'-6"   | 362T125-97-50 |
| 0.7  | 362T125-33-50 | 5'-1"     | 5'-4"   | 5'-7"      | 5'-10"          | 6'-1"   | 6'-4"   | 6'-6"    | 362T125-33-50 |
|  | 362T125-43-50 | 6'-7"     | 6'-11"  | 7'-3"      | 7'-6"           | 7'-10"  | 8'-1"   | 8'-5"    | 362T125-43-50 |
|  | 362T125-54-50 | 8'-0"     | 8'-5"   | 8'-10"     | 9'-3"           | 9'-7"   | 9'-11"  | 10'-3"   | 362T125-54-50 |
|  | 362T125-68-50 | 9'-9"     | 10'-2"  | 10'-8"     | 11'-2"          | 11'-7"  | 12'-0"  | 12'-5"   | 362T125-68-50 |
|  | 362T125-97-50 | 11'-10"   | 12'-5"  | 13'-0"     | 13'-7"          | 14'-1"  | 14'-7"  | 15'-1"   | 362T125-97-50 |
| 0.6  | 362T125-33-50 | 5'-4"     | 5'-7"   | 5'-10"     | 6'-1"           | 6'-4"   | 6'-7"   | 6'-10"   | 362T125-33-50 |
|  | 362T125-43-50 | 6'-10"    | 7'-3"   | 7'-7"      | 7'-11"          | 8'-2"   | 8'-6"   | 8'-9"    | 362T125-43-50 |
|  | 362T125-54-50 | 8'-5"     | 8'-10"  | 9'-3"      | 9'-8"           | 10'-0"  | 10'-5"  | 10'-9"   | 362T125-54-50 |
|  | 362T125-68-50 | 10'-2"    | 10'-8"  | 11'-2"     | 11'-8"          | 12'-1"  | 12'-7"  | 13'-0"   | 362T125-68-50 |
|  | 362T125-97-50 | 12'-5"    | 13'-0"  | 13'-7"     | 14'-2"          | 14'-9"  | 15'-3"  | 15'-9"   | 362T125-97-50 |
| 0.5  | 362T125-33-50 | 5'-7"     | 5'-11"  | 6'-2"      | 6'-5"           | 6'-8"   | 6'-11"  | 7'-2"    | 362T125-33-50 |
|  | 362T125-43-50 | 7'-3"     | 7'-7"   | 7'-11"     | 8'-3"           | 8'-7"   | 8'-11"  | 9'-3"    | 362T125-43-50 |
|  | 362T125-54-50 | 8'-10"    | 9'-4"   | 9'-9"      | 10'-2"          | 10'-6"  | 10'-11" | 11'-3"   | 362T125-54-50 |
|  | 362T125-68-50 | 10'-8"    | 11'-3"  | 11'-9"     | 12'-3"          | 12'-9"  | 13'-2"  | 13'-8"   | 362T125-68-50 |
|  | 362T125-97-50 | 13'-0"    | 13'-8"  | 14'-4"     | 14'-11"         | 15'-6"  | 16'-0"  | 16'-7"   | 362T125-97-50 |
| 0.4  | 362T125-33-50 | 5'-11"    | 6'-3"   | 6'-6"      | 6'-10"          | 7'-1"   | 7'-4"   | 7'-7"    | 362T125-33-50 |
|  | 362T125-43-50 | 7'-8"     | 8'-0"   | 8'-5"      | 8'-9"           | 9'-1"   | 9'-5"   | 9'-9"    | 362T125-43-50 |
|  | 362T125-54-50 | 9'-4"     | 9'-10"  | 10'-3"     | 10'-9"          | 11'-2"  | 11'-6"  | 11'-11"  | 362T125-54-50 |
|  | 362T125-68-50 | 11'-3"    | 11'-10" | 12'-5"     | 12'-11"         | 13'-5"  | 13'-11" | 14'-5"   | 362T125-68-50 |
|  | 362T125-97-50 | 13'-9"    | 14'-5"  | 15'-1"     | 15'-9"          | 16'-4"  | 16'-11" | 17'-6"   | 362T125-97-50 |
| 0.3  | 362T125-33-50 | 6'-4"     | 6'-8"   | 7'-0"      | 7'-3"           | 7'-7"   | 7'-10"  | 8'-1"    | 362T125-33-50 |
|  | 362T125-43-50 | 8'-2"     | 8'-7"   | 8'-11"     | 9'-4"           | 9'-8"   | 10'-0"  | 10'-4"   | 362T125-43-50 |
|  | 362T125-54-50 | 9'-11"    | 10'-5"  | 10'-11"    | 11'-5"          | 11'-10" | 12'-3"  | 12'-8"   | 362T125-54-50 |
|  | 362T125-68-50 | 12'-0"    | 12'-7"  | 13'-2"     | 13'-9"          | 14'-3"  | 14'-10" | 15'-4"   | 362T125-68-50 |
|  | 362T125-97-50 | 14'-7"    | 15'-4"  | 16'-1"     | 16'-9"          | 17'-4"  | 18'-0"  | 18'-7"   | 362T125-97-50 |
| 0.2  | 362T125-33-50 | 6'-9"     | 7'-2"   | 7'-6"      | 7'-9"           | 8'-1"   | 8'-5"   | 8'-8"    | 362T125-33-50 |
|  | 362T125-43-50 | 8'-9"     | 9'-2"   | 9'-7"      | 10'-0"          | 10'-5"  | 10'-9"  | 11'-1"   | 362T125-43-50 |
|  | 362T125-54-50 | 10'-8"    | 11'-2"  | 11'-9"     | 12'-2"          | 12'-8"  | 13'-2"  | 13'-7"   | 362T125-54-50 |
|  | 362T125-68-50 | 12'-10"   | 13'-6"  | 14'-2"     | 14'-9"          | 15'-4"  | 15'-10" | 16'-5"   | 362T125-68-50 |
|  | 362T125-97-50 | 15'-8"    | 16'-5"  | 17'-2"     | 17'-11"         | 18'-7"  | 19'-3"  | 19'-11"  | 362T125-97-50 |
| 0.1  | 362T125-33-50 | 7'-4"     | 7'-9"   | 8'-1"      | 8'-5"           | 8'-9"   | 9'-1"   | 9'-5"    | 362T125-33-50 |
|  | 362T125-43-50 | 9'-5"     | 9'-11"  | 10'-5"     | 10'-10"         | 11'-3"  | 11'-8"  | 12'-1"   | 362T125-43-50 |
|  | 362T125-54-50 | 11'-7"    | 12'-2"  | 12'-8"     | 13'-3"          | 13'-9"  | 14'-3"  | 14'-9"   | 362T125-54-50 |
|  | 362T125-68-50 | 13'-11"   | 14'-8"  | 15'-4"     | 15'-11"         | 16'-7"  | 17'-2"  | 17'-9"   | 362T125-68-50 |
|  | 362T125-97-50 | 16'-11"   | 17'-10" | 18'-7"     | 19'-5"          | 20'-2"  | 20'-10" | 21'-7"   | 362T125-97-50 |
| 0.0  | 362T125-33-50 | 7'-11"    | 8'-4"   | 8'-8"      | 9'-1"           | 9'-5"   | 9'-9"   | 10'-1"   | 362T125-33-50 |
|  | 362T125-43-50 | 10'-2"    | 10'-8"  | 11'-2"     | 11'-7"          | 12'-1"  | 12'-6"  | 12'-11"  | 362T125-43-50 |
|  | 362T125-54-50 | 12'-5"    | 13'-0"  | 13'-7"     | 14'-2"          | 14'-9"  | 15'-3"  | 15'-9"   | 362T125-54-50 |
|  | 362T125-68-50 | 14'-11"   | 15'-8"  | 16'-5"     | 17'-1"          | 17'-9"  | 18'-5"  | 19'-0"   | 362T125-68-50 |
|  | 362T125-97-50 | 18'-2"    | 19'-1"  | 19'-11"    | 20'-9"          | 21'-7"  | 22'-4"  | 23'-1"   | 362T125-97-50 |



**TABLE 4.7.4.203: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | (lp = 1.5) | S <sub>Ds</sub> | 1.00    | Weight  | 4000 lbs |               |
|---|---------------|-----------|---------|------------|-----------------|---------|---------|----------|---------------|
| <p>* Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.</p> <p><b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track.</p> |               |           |         |            |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |            |                 |         |         |          |               |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft    | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  | Track Section |
| 1.0   | 362T125-33-50 | 4'-4"     | 4'-7"   | 4'-10"     | 5'-0"           | 5'-3"   | 5'-5"   | 5'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-8"     | 5'-11"  | 6'-3"      | 6'-6"           | 6'-9"   | 7'-0"   | 7'-3"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-11"    | 7'-4"   | 7'-8"      | 8'-0"           | 8'-3"   | 8'-7"   | 8'-11"   | 362T125-54-50 |
|   | 362T125-68-50 | 8'-5"     | 8'-10"  | 9'-3"      | 9'-8"           | 10'-0"  | 10'-5"  | 10'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-3"    | 10'-9"  | 11'-3"     | 11'-9"          | 12'-2"  | 12'-8"  | 13'-1"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 4'-6"     | 4'-9"   | 5'-0"      | 5'-3"           | 5'-5"   | 5'-8"   | 5'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 5'-10"    | 6'-2"   | 6'-6"      | 6'-9"           | 7'-0"   | 7'-3"   | 7'-6"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-2"     | 7'-7"   | 7'-11"     | 8'-3"           | 8'-7"   | 8'-11"  | 9'-3"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-9"     | 9'-2"   | 9'-7"      | 10'-0"          | 10'-5"  | 10'-9"  | 11'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-7"    | 11'-2"  | 11'-8"     | 12'-2"          | 12'-8"  | 13'-1"  | 13'-7"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 4'-9"     | 5'-0"   | 5'-3"      | 5'-5"           | 5'-8"   | 5'-10"  | 6'-1"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-1"     | 6'-5"   | 6'-9"      | 7'-0"           | 7'-4"   | 7'-7"   | 7'-10"   | 362T125-43-50 |
|   | 362T125-54-50 | 7'-6"     | 7'-11"  | 8'-3"      | 8'-7"           | 8'-11"  | 9'-3"   | 9'-7"    | 362T125-54-50 |
|   | 362T125-68-50 | 9'-1"     | 9'-6"   | 10'-0"     | 10'-5"          | 10'-10" | 11'-2"  | 11'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-1"    | 11'-7"  | 12'-2"     | 12'-8"          | 13'-2"  | 13'-8"  | 14'-1"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 4'-11"    | 5'-2"   | 5'-5"      | 5'-8"           | 5'-11"  | 6'-1"   | 6'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-5"     | 6'-8"   | 7'-0"      | 7'-4"           | 7'-7"   | 7'-11"  | 8'-2"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-10"    | 8'-3"   | 8'-7"      | 9'-0"           | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-5"     | 9'-11"  | 10'-5"     | 10'-10"         | 11'-3"  | 11'-8"  | 12'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-6"    | 12'-1"  | 12'-8"     | 13'-2"          | 13'-9"  | 14'-2"  | 14'-8"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 5'-2"     | 5'-5"   | 5'-8"      | 5'-11"          | 6'-2"   | 6'-5"   | 6'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-8"     | 7'-0"   | 7'-4"      | 7'-8"           | 8'-0"   | 8'-3"   | 8'-7"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-2"     | 8'-7"   | 9'-0"      | 9'-5"           | 9'-9"   | 10'-1"  | 10'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-11"    | 10'-5"  | 10'-11"    | 11'-4"          | 11'-9"  | 12'-3"  | 12'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-1"    | 12'-8"  | 13'-3"     | 13'-10"         | 14'-4"  | 14'-10" | 15'-4"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 5'-5"     | 5'-9"   | 6'-0"      | 6'-3"           | 6'-6"   | 6'-9"   | 7'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-0"     | 7'-5"   | 7'-9"      | 8'-1"           | 8'-5"   | 8'-8"   | 9'-0"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-7"     | 9'-1"   | 9'-6"      | 9'-10"          | 10'-3"  | 10'-8"  | 11'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-5"    | 10'-11" | 11'-5"     | 11'-11"         | 12'-5"  | 12'-10" | 13'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-8"    | 13'-4"  | 13'-11"    | 14'-6"          | 15'-1"  | 15'-7"  | 16'-2"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 5'-9"     | 6'-1"   | 6'-4"      | 6'-8"           | 6'-11"  | 7'-2"   | 7'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-5"     | 7'-10"  | 8'-2"      | 8'-6"           | 8'-10"  | 9'-2"   | 9'-6"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-1"     | 9'-7"   | 10'-0"     | 10'-5"          | 10'-10" | 11'-3"  | 11'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-0"    | 11'-7"  | 12'-1"     | 12'-7"          | 13'-1"  | 13'-7"  | 14'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-5"    | 14'-1"  | 14'-8"     | 15'-4"          | 15'-11" | 16'-6"  | 17'-1"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 6'-2"     | 6'-6"   | 6'-9"      | 7'-1"           | 7'-4"   | 7'-7"   | 7'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 7'-11"    | 8'-4"   | 8'-8"      | 9'-1"           | 9'-5"   | 9'-9"   | 10'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-8"     | 10'-2"  | 10'-8"     | 11'-1"          | 11'-6"  | 11'-11" | 12'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-8"    | 12'-3"  | 12'-10"    | 13'-5"          | 13'-11" | 14'-5"  | 14'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 14'-3"    | 14'-11" | 15'-7"     | 16'-3"          | 16'-11" | 17'-6"  | 18'-1"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 6'-7"     | 6'-11"  | 7'-3"      | 7'-7"           | 7'-11"  | 8'-2"   | 8'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-6"     | 8'-11"  | 9'-4"      | 9'-9"           | 10'-1"  | 10'-6"  | 10'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 10'-5"    | 10'-11" | 11'-5"     | 11'-11"         | 12'-4"  | 12'-10" | 13'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-6"    | 13'-2"  | 13'-9"     | 14'-4"          | 14'-11" | 15'-5"  | 16'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-3"    | 16'-0"  | 16'-9"     | 17'-5"          | 18'-1"  | 18'-9"  | 19'-5"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 7'-2"     | 7'-6"   | 7'-11"     | 8'-3"           | 8'-7"   | 8'-10"  | 9'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-2"     | 9'-8"   | 10'-1"     | 10'-7"          | 10'-11" | 11'-4"  | 11'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-3"    | 11'-10" | 12'-4"     | 12'-11"         | 13'-5"  | 13'-10" | 14'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-7"    | 14'-3"  | 14'-11"    | 15'-6"          | 16'-2"  | 16'-9"  | 17'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-6"    | 17'-4"  | 18'-1"     | 18'-11"         | 19'-7"  | 20'-4"  | 21'-0"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 7'-8"     | 8'-1"   | 8'-6"      | 8'-10"          | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 9'-10"    | 10'-4"  | 10'-10"    | 11'-4"          | 11'-9"  | 12'-2"  | 12'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-1"    | 12'-8"  | 13'-3"     | 13'-10"         | 14'-4"  | 14'-10" | 15'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-7"    | 15'-3"  | 16'-0"     | 16'-8"          | 17'-3"  | 17'-11" | 18'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-8"    | 18'-7"  | 19'-5"     | 20'-3"          | 21'-0"  | 21'-9"  | 22'-6"   | 362T125-97-50 |

**TABLE 4.7.4.204: MAXIMUM UNBRACED TOP TRACK LENGTH**

| <b>PARAMETERS:</b>  |               | Type      | S3      | ( $p = 1.5$ ) | S <sub>Ds</sub> | 1.00    | Weight  | 4200 lbs |               |
|---|---------------|-----------|---------|---------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |               |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |               |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |               |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 4'-3"     | 4'-6"   | 4'-8"         | 4'-11"          | 5'-1"   | 5'-3"   | 5'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-6"     | 5'-10"  | 6'-1"         | 6'-4"           | 6'-7"   | 6'-10"  | 7'-1"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-9"     | 7'-1"   | 7'-5"         | 7'-9"           | 8'-1"   | 8'-4"   | 8'-8"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-2"     | 8'-7"   | 9'-0"         | 9'-5"           | 9'-9"   | 10'-1"  | 10'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-0"    | 10'-6"  | 11'-0"        | 11'-5"          | 11'-11" | 12'-4"  | 12'-9"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 4'-5"     | 4'-8"   | 4'-10"        | 5'-1"           | 5'-3"   | 5'-6"   | 5'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-9"     | 6'-0"   | 6'-4"         | 6'-7"           | 6'-10"  | 7'-1"   | 7'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-0"     | 7'-5"   | 7'-9"         | 8'-1"           | 8'-4"   | 8'-8"   | 9'-0"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-6"     | 8'-11"  | 9'-4"         | 9'-9"           | 10'-1"  | 10'-6"  | 10'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 10'-4"    | 10'-11" | 11'-5"        | 11'-10"         | 12'-4"  | 12'-9"  | 13'-3"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 4'-7"     | 4'-10"  | 5'-1"         | 5'-4"           | 5'-6"   | 5'-9"   | 5'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 5'-11"    | 6'-3"   | 6'-7"         | 6'-10"          | 7'-1"   | 7'-4"   | 7'-7"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-4"     | 7'-8"   | 8'-0"         | 8'-5"           | 8'-9"   | 9'-0"   | 9'-4"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-10"    | 9'-3"   | 9'-9"         | 10'-2"          | 10'-6"  | 10'-11" | 11'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-9"    | 11'-4"  | 11'-10"       | 12'-4"          | 12'-10" | 13'-3"  | 13'-9"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 4'-10"    | 5'-1"   | 5'-4"         | 5'-6"           | 5'-9"   | 6'-0"   | 6'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-3"     | 6'-6"   | 6'-10"        | 7'-2"           | 7'-5"   | 7'-8"   | 7'-11"   | 362T125-43-50 |
|   | 362T125-54-50 | 7'-7"     | 8'-0"   | 8'-5"         | 8'-9"           | 9'-1"   | 9'-5"   | 9'-9"    | 362T125-54-50 |
|   | 362T125-68-50 | 9'-3"     | 9'-8"   | 10'-2"        | 10'-7"          | 11'-0"  | 11'-5"  | 11'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-3"    | 11'-10" | 12'-4"        | 12'-10"         | 13'-4"  | 13'-10" | 14'-4"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 5'-1"     | 5'-4"   | 5'-7"         | 5'-10"          | 6'-0"   | 6'-3"   | 6'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-6"     | 6'-10"  | 7'-2"         | 7'-6"           | 7'-9"   | 8'-1"   | 8'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-0"     | 8'-5"   | 8'-9"         | 9'-2"           | 9'-6"   | 9'-10"  | 10'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-8"     | 10'-2"  | 10'-7"        | 11'-1"          | 11'-6"  | 11'-11" | 12'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-9"    | 12'-4"  | 12'-11"       | 13'-6"          | 14'-0"  | 14'-6"  | 15'-0"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 5'-4"     | 5'-7"   | 5'-10"        | 6'-1"           | 6'-4"   | 6'-7"   | 6'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 6'-10"    | 7'-2"   | 7'-6"         | 7'-10"          | 8'-2"   | 8'-6"   | 8'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-5"     | 8'-10"  | 9'-3"         | 9'-7"           | 10'-0"  | 10'-4"  | 10'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-2"    | 10'-8"  | 11'-2"        | 11'-7"          | 12'-1"  | 12'-6"  | 12'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 12'-4"    | 13'-0"  | 13'-7"        | 14'-2"          | 14'-8"  | 15'-3"  | 15'-9"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 5'-8"     | 5'-11"  | 6'-2"         | 6'-6"           | 6'-9"   | 7'-0"   | 7'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-3"     | 7'-7"   | 8'-0"         | 8'-4"           | 8'-8"   | 8'-11"  | 9'-3"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-10"    | 9'-4"   | 9'-9"         | 10'-2"          | 10'-7"  | 10'-11" | 11'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-9"    | 11'-3"  | 11'-9"        | 12'-3"          | 12'-9"  | 13'-3"  | 13'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-1"    | 13'-8"  | 14'-4"        | 14'-11"         | 15'-6"  | 16'-1"  | 16'-7"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 6'-0"     | 6'-4"   | 6'-7"         | 6'-11"          | 7'-2"   | 7'-5"   | 7'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-9"     | 8'-1"   | 8'-6"         | 8'-10"          | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-5"     | 9'-11"  | 10'-4"        | 10'-10"         | 11'-3"  | 11'-8"  | 12'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-5"    | 12'-0"  | 12'-6"        | 13'-1"          | 13'-7"  | 14'-1"  | 14'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-10"   | 14'-7"  | 15'-3"        | 15'-10"         | 16'-6"  | 17'-1"  | 17'-8"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 6'-5"     | 6'-9"   | 7'-1"         | 7'-5"           | 7'-8"   | 8'-0"   | 8'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-3"     | 8'-8"   | 9'-1"         | 9'-6"           | 9'-10"  | 10'-3"  | 10'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-1"    | 10'-8"  | 11'-1"        | 11'-7"          | 12'-0"  | 12'-6"  | 12'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 12'-3"    | 12'-10" | 13'-5"        | 14'-0"          | 14'-6"  | 15'-1"  | 15'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-10"   | 15'-7"  | 16'-4"        | 17'-0"          | 17'-8"  | 18'-4"  | 18'-11"  | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 7'-0"     | 7'-4"   | 7'-8"         | 8'-0"           | 8'-4"   | 8'-8"   | 8'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 9'-0"     | 9'-5"   | 9'-10"        | 10'-3"          | 10'-8"  | 11'-1"  | 11'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-0"    | 11'-6"  | 12'-1"        | 12'-7"          | 13'-1"  | 13'-6"  | 14'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-3"    | 13'-11" | 14'-6"        | 15'-2"          | 15'-9"  | 16'-4"  | 16'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 16'-1"    | 16'-11" | 17'-8"        | 18'-5"          | 19'-1"  | 19'-10" | 20'-6"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 7'-6"     | 7'-11"  | 8'-3"         | 8'-7"           | 8'-11"  | 9'-3"   | 9'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-7"     | 10'-1"  | 10'-7"        | 11'-0"          | 11'-5"  | 11'-10" | 12'-3"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-9"    | 12'-4"  | 12'-11"       | 13'-5"          | 14'-0"  | 14'-6"  | 15'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-2"    | 14'-11" | 15'-7"        | 16'-3"          | 16'-10" | 17'-6"  | 18'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-3"    | 18'-1"  | 18'-11"       | 19'-9"          | 20'-6"  | 21'-3"  | 21'-11"  | 362T125-97-50 |



**TABLE 4.7.4.205: MAXIMUM UNBRACED TOP TRACK LENGTH**

| <b>PARAMETERS:</b>  |               | Type      | S3      | (p = 1.5) | S <sub>DS</sub> | 1.00    | Weight  | 4400 lbs |               |
|---|---------------|-----------|---------|-----------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |           |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |           |                 |         |         |          |               |
| Height in Bldg (z/h)  | Track Section | Pod Width |         |           |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft   | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 4'-2"     | 4'-4"   | 4'-7"     | 4'-9"           | 5'-0"   | 5'-2"   | 5'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-4"     | 5'-8"   | 5'-11"    | 6'-2"           | 6'-5"   | 6'-8"   | 6'-11"   | 362T125-43-50 |
|   | 362T125-54-50 | 6'-7"     | 6'-11"  | 7'-3"     | 7'-7"           | 7'-11"  | 8'-2"   | 8'-5"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-0"     | 8'-5"   | 8'-9"     | 9'-2"           | 9'-6"   | 9'-10"  | 10'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 9'-9"     | 10'-3"  | 10'-9"    | 11'-2"          | 11'-7"  | 12'-0"  | 12'-5"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 4'-4"     | 4'-6"   | 4'-9"     | 4'-11"          | 5'-2"   | 5'-4"   | 5'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-7"     | 5'-10"  | 6'-2"     | 6'-5"           | 6'-8"   | 6'-11"  | 7'-2"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-10"    | 7'-2"   | 7'-6"     | 7'-10"          | 8'-2"   | 8'-6"   | 8'-9"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-3"     | 8'-8"   | 9'-1"     | 9'-6"           | 9'-11"  | 10'-3"  | 10'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-1"    | 10'-7"  | 11'-1"    | 11'-7"          | 12'-0"  | 12'-6"  | 12'-11"  | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 4'-6"     | 4'-9"   | 4'-11"    | 5'-2"           | 5'-4"   | 5'-7"   | 5'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-10"    | 6'-1"   | 6'-5"     | 6'-8"           | 6'-11"  | 7'-2"   | 7'-5"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-2"     | 7'-6"   | 7'-10"    | 8'-2"           | 8'-6"   | 8'-10"  | 9'-1"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-7"     | 9'-1"   | 9'-6"     | 9'-11"          | 10'-3"  | 10'-8"  | 11'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-6"    | 11'-0"  | 11'-7"    | 12'-0"          | 12'-6"  | 13'-0"  | 13'-5"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 4'-8"     | 4'-11"  | 5'-2"     | 5'-5"           | 5'-7"   | 5'-10"  | 6'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-1"     | 6'-4"   | 6'-8"     | 7'-0"           | 7'-3"   | 7'-6"   | 7'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-5"     | 7'-10"  | 8'-2"     | 8'-6"           | 8'-10"  | 9'-2"   | 9'-6"    | 362T125-54-50 |
|   | 362T125-68-50 | 9'-0"     | 9'-5"   | 9'-11"    | 10'-4"          | 10'-9"  | 11'-1"  | 11'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-11"   | 11'-6"  | 12'-1"    | 12'-7"          | 13'-1"  | 13'-6"  | 14'-0"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 4'-11"    | 5'-2"   | 5'-5"     | 5'-8"           | 5'-11"  | 6'-1"   | 6'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-4"     | 6'-8"   | 7'-0"     | 7'-3"           | 7'-7"   | 7'-10"  | 8'-1"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-9"     | 8'-2"   | 8'-7"     | 8'-11"          | 9'-3"   | 9'-7"   | 9'-11"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-5"     | 9'-11"  | 10'-4"    | 10'-9"          | 11'-3"  | 11'-7"  | 12'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-6"    | 12'-1"  | 12'-7"    | 13'-2"          | 13'-8"  | 14'-2"  | 14'-7"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 5'-2"     | 5'-5"   | 5'-8"     | 5'-11"          | 6'-2"   | 6'-5"   | 6'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-8"     | 7'-0"   | 7'-4"     | 7'-8"           | 8'-0"   | 8'-3"   | 8'-7"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-2"     | 8'-7"   | 9'-0"     | 9'-5"           | 9'-9"   | 10'-1"  | 10'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-11"    | 10'-5"  | 10'-11"   | 11'-4"          | 11'-9"  | 12'-3"  | 12'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-1"    | 12'-8"  | 13'-3"    | 13'-10"         | 14'-4"  | 14'-10" | 15'-4"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 5'-6"     | 5'-9"   | 6'-0"     | 6'-4"           | 6'-7"   | 6'-10"  | 7'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-1"     | 7'-5"   | 7'-9"     | 8'-1"           | 8'-5"   | 8'-9"   | 9'-0"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-8"     | 9'-1"   | 9'-6"     | 9'-11"          | 10'-4"  | 10'-8"  | 11'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-5"    | 11'-0"  | 11'-6"    | 12'-0"          | 12'-5"  | 12'-11" | 13'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-9"    | 13'-5"  | 14'-0"    | 14'-7"          | 15'-2"  | 15'-8"  | 16'-3"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 5'-10"    | 6'-2"   | 6'-5"     | 6'-9"           | 7'-0"   | 7'-3"   | 7'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-6"     | 7'-11"  | 8'-3"     | 8'-8"           | 9'-0"   | 9'-4"   | 9'-7"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-3"     | 9'-8"   | 10'-1"    | 10'-7"          | 11'-0"  | 11'-4"  | 11'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-1"    | 11'-8"  | 12'-3"    | 12'-9"          | 13'-3"  | 13'-9"  | 14'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-6"    | 14'-3"  | 14'-10"   | 15'-6"          | 16'-1"  | 16'-8"  | 17'-3"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 6'-3"     | 6'-7"   | 6'-11"    | 7'-2"           | 7'-6"   | 7'-9"   | 8'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-1"     | 8'-6"   | 8'-11"    | 9'-3"           | 9'-7"   | 10'-0"  | 10'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-11"    | 10'-5"  | 10'-10"   | 11'-4"          | 11'-9"  | 12'-2"  | 12'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-11"   | 12'-6"  | 13'-1"    | 13'-8"          | 14'-2"  | 14'-8"  | 15'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-6"    | 15'-3"  | 15'-11"   | 16'-7"          | 17'-3"  | 17'-10" | 18'-6"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 6'-10"    | 7'-2"   | 7'-6"     | 7'-10"          | 8'-2"   | 8'-5"   | 8'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-9"     | 9'-2"   | 9'-7"     | 10'-0"          | 10'-5"  | 10'-10" | 11'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-8"    | 11'-3"  | 11'-9"    | 12'-3"          | 12'-9"  | 13'-2"  | 13'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-11"   | 13'-7"  | 14'-2"    | 14'-9"          | 15'-4"  | 15'-11" | 16'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-9"    | 16'-6"  | 17'-3"    | 18'-0"          | 18'-8"  | 19'-4"  | 20'-0"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 7'-4"     | 7'-8"   | 8'-1"     | 8'-5"           | 8'-9"   | 9'-0"   | 9'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-5"     | 9'-10"  | 10'-4"    | 10'-9"          | 11'-2"  | 11'-7"  | 12'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-6"    | 12'-1"  | 12'-7"    | 13'-2"          | 13'-8"  | 14'-2"  | 14'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-10"   | 14'-6"  | 15'-2"    | 15'-10"         | 16'-5"  | 17'-1"  | 17'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-10"   | 17'-8"  | 18'-6"    | 19'-3"          | 20'-0"  | 20'-9"  | 21'-5"   | 362T125-97-50 |



**TABLE 4.7.4.206: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | (Ip = 1.5) | S <sub>Ds</sub> | 1.00    | Weight  | 4600 lbs |               |
|---|---------------|-----------|---------|------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |            |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |            |                 |         |         |          |               |
| Height in Bldg (z/h)  | Track Section | Pod Width |         |            |                 |         |         |          |               |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft    | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  | Track Section |
| 1.0   | 362T125-33-50 | 4'-1"     | 4'-3"   | 4'-6"      | 4'-8"           | 4'-10"  | 5'-0"   | 5'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-3"     | 5'-6"   | 5'-9"      | 6'-0"           | 6'-3"   | 6'-6"   | 6'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-5"     | 6'-9"   | 7'-1"      | 7'-5"           | 7'-8"   | 8'-0"   | 8'-3"    | 362T125-54-50 |
|   | 362T125-68-50 | 7'-10"    | 8'-2"   | 8'-7"      | 8'-11"          | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 9'-6"     | 10'-0"  | 10'-6"     | 10'-11"         | 11'-4"  | 11'-9"  | 12'-2"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 4'-2"     | 4'-5"   | 4'-8"      | 4'-10"          | 5'-0"   | 5'-3"   | 5'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-5"     | 5'-9"   | 6'-0"      | 6'-3"           | 6'-6"   | 6'-9"   | 7'-0"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-8"     | 7'-0"   | 7'-4"      | 7'-8"           | 8'-0"   | 8'-3"   | 8'-7"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-1"     | 8'-6"   | 8'-11"     | 9'-3"           | 9'-8"   | 10'-0"  | 10'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 9'-10"    | 10'-4"  | 10'-10"    | 11'-4"          | 11'-9"  | 12'-2"  | 12'-7"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 4'-5"     | 4'-7"   | 4'-10"     | 5'-0"           | 5'-3"   | 5'-5"   | 5'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-8"     | 6'-0"   | 6'-3"      | 6'-6"           | 6'-9"   | 7'-0"   | 7'-3"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-0"     | 7'-4"   | 7'-8"      | 8'-0"           | 8'-4"   | 8'-7"   | 8'-11"   | 362T125-54-50 |
|   | 362T125-68-50 | 8'-5"     | 8'-10"  | 9'-3"      | 9'-8"           | 10'-0"  | 10'-5"  | 10'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-3"    | 10'-9"  | 11'-3"     | 11'-9"          | 12'-3"  | 12'-8"  | 13'-1"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 4'-7"     | 4'-10"  | 5'-1"      | 5'-3"           | 5'-6"   | 5'-8"   | 5'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 5'-11"    | 6'-3"   | 6'-6"      | 6'-10"          | 7'-1"   | 7'-4"   | 7'-7"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-3"     | 7'-8"   | 8'-0"      | 8'-4"           | 8'-8"   | 9'-0"   | 9'-3"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-9"     | 9'-3"   | 9'-8"      | 10'-1"          | 10'-6"  | 10'-10" | 11'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-8"    | 11'-3"  | 11'-9"     | 12'-3"          | 12'-9"  | 13'-3"  | 13'-8"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 4'-10"    | 5'-1"   | 5'-3"      | 5'-6"           | 5'-9"   | 5'-11"  | 6'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-2"     | 6'-6"   | 6'-10"     | 7'-1"           | 7'-5"   | 7'-8"   | 7'-11"   | 362T125-43-50 |
|   | 362T125-54-50 | 7'-7"     | 8'-0"   | 8'-4"      | 8'-9"           | 9'-1"   | 9'-5"   | 9'-9"    | 362T125-54-50 |
|   | 362T125-68-50 | 9'-2"     | 9'-8"   | 10'-1"     | 10'-6"          | 10'-11" | 11'-4"  | 11'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-2"    | 11'-9"  | 12'-4"     | 12'-10"         | 13'-4"  | 13'-10" | 14'-3"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 5'-1"     | 5'-4"   | 5'-7"      | 5'-10"          | 6'-1"   | 6'-3"   | 6'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-6"     | 6'-10"  | 7'-2"      | 7'-6"           | 7'-9"   | 8'-1"   | 8'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-0"     | 8'-5"   | 8'-10"     | 9'-2"           | 9'-6"   | 9'-11"  | 10'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-8"     | 10'-2"  | 10'-8"     | 11'-1"          | 11'-6"  | 11'-11" | 12'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-9"    | 12'-4"  | 12'-11"    | 13'-6"          | 14'-0"  | 14'-6"  | 15'-0"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 5'-4"     | 5'-8"   | 5'-11"     | 6'-2"           | 6'-5"   | 6'-8"   | 6'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 6'-11"    | 7'-3"   | 7'-7"      | 7'-11"          | 8'-3"   | 8'-6"   | 8'-10"   | 362T125-43-50 |
|   | 362T125-54-50 | 8'-5"     | 8'-11"  | 9'-4"      | 9'-8"           | 10'-1"  | 10'-5"  | 10'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 10'-3"    | 10'-9"  | 11'-3"     | 11'-8"          | 12'-2"  | 12'-7"  | 13'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-5"    | 13'-1"  | 13'-8"     | 14'-3"          | 14'-10" | 15'-4"  | 15'-10"  | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 5'-8"     | 6'-0"   | 6'-3"      | 6'-7"           | 6'-10"  | 7'-1"   | 7'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-4"     | 7'-9"   | 8'-1"      | 8'-5"           | 8'-9"   | 9'-1"   | 9'-5"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-0"     | 9'-5"   | 9'-11"     | 10'-4"          | 10'-9"  | 11'-1"  | 11'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-10"   | 11'-5"  | 11'-11"    | 12'-5"          | 12'-11" | 13'-5"  | 13'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 13'-3"    | 13'-11" | 14'-6"     | 15'-2"          | 15'-9"  | 16'-4"  | 16'-10"  | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 6'-2"     | 6'-5"   | 6'-9"      | 7'-0"           | 7'-4"   | 7'-7"   | 7'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 7'-11"    | 8'-3"   | 8'-8"      | 9'-0"           | 9'-5"   | 9'-9"   | 10'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-8"     | 10'-2"  | 10'-7"     | 11'-1"          | 11'-6"  | 11'-11" | 12'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-8"    | 12'-3"  | 12'-10"    | 13'-4"          | 13'-10" | 14'-4"  | 14'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 14'-2"    | 14'-11" | 15'-7"     | 16'-3"          | 16'-10" | 17'-6"  | 18'-1"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 6'-8"     | 7'-0"   | 7'-4"      | 7'-8"           | 7'-11"  | 8'-3"   | 8'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-7"     | 9'-0"   | 9'-5"      | 9'-10"          | 10'-2"  | 10'-7"  | 10'-11"  | 362T125-43-50 |
|   | 362T125-54-50 | 10'-5"    | 11'-0"  | 11'-6"     | 12'-0"          | 12'-5"  | 12'-11" | 13'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-7"    | 13'-3"  | 13'-10"    | 14'-5"          | 15'-0"  | 15'-7"  | 16'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-4"    | 16'-1"  | 16'-10"    | 17'-7"          | 18'-3"  | 18'-11" | 19'-6"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 7'-2"     | 7'-6"   | 7'-10"     | 8'-2"           | 8'-6"   | 8'-10"  | 9'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-2"     | 9'-8"   | 10'-1"     | 10'-6"          | 10'-11" | 11'-4"  | 11'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-3"    | 11'-9"  | 12'-4"     | 12'-10"         | 13'-4"  | 13'-10" | 14'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-6"    | 14'-3"  | 14'-10"    | 15'-6"          | 16'-1"  | 16'-8"  | 17'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-5"    | 17'-3"  | 18'-1"     | 18'-10"         | 19'-7"  | 20'-3"  | 20'-11"  | 362T125-97-50 |



**TABLE 4.7.4.207: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | ( $l_p = 1.5$ ) | S <sub>DS</sub> | 1.00    | Weight  | 4800 lbs |               |
|---|---------------|-----------|---------|-----------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |                 |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |                 |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |                 |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft         | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 3'-11"    | 4'-2"   | 4'-4"           | 4'-7"           | 4'-9"   | 4'-11"  | 5'-1"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-1"     | 5'-5"   | 5'-8"           | 5'-11"          | 6'-2"   | 6'-4"   | 6'-7"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-4"     | 6'-7"   | 6'-11"          | 7'-3"           | 7'-6"   | 7'-10"  | 8'-1"    | 362T125-54-50 |
|   | 362T125-68-50 | 7'-7"     | 8'-0"   | 8'-5"           | 8'-9"           | 9'-1"   | 9'-5"   | 9'-9"    | 362T125-68-50 |
|   | 362T125-97-50 | 9'-4"     | 9'-9"   | 10'-3"          | 10'-8"          | 11'-1"  | 11'-6"  | 11'-11"  | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 4'-1"     | 4'-4"   | 4'-6"           | 4'-9"           | 4'-11"  | 5'-1"   | 5'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-4"     | 5'-7"   | 5'-10"          | 6'-1"           | 6'-4"   | 6'-7"   | 6'-10"   | 362T125-43-50 |
|   | 362T125-54-50 | 6'-6"     | 6'-10"  | 7'-2"           | 7'-6"           | 7'-10"  | 8'-1"   | 8'-4"    | 362T125-54-50 |
|   | 362T125-68-50 | 7'-11"    | 8'-4"   | 8'-8"           | 9'-1"           | 9'-5"   | 9'-9"   | 10'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 9'-8"     | 10'-2"  | 10'-7"          | 11'-1"          | 11'-6"  | 11'-11" | 12'-4"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 4'-3"     | 4'-6"   | 4'-9"           | 4'-11"          | 5'-1"   | 5'-4"   | 5'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-6"     | 5'-10"  | 6'-1"           | 6'-4"           | 6'-7"   | 6'-10"  | 7'-1"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-10"    | 7'-2"   | 7'-6"           | 7'-10"          | 8'-1"   | 8'-5"   | 8'-8"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-3"     | 8'-8"   | 9'-1"           | 9'-5"           | 9'-10"  | 10'-2"  | 10'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-0"    | 10'-7"  | 11'-0"          | 11'-6"          | 11'-11" | 12'-5"  | 12'-10"  | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 4'-6"     | 4'-8"   | 4'-11"          | 5'-2"           | 5'-4"   | 5'-7"   | 5'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-9"     | 6'-1"   | 6'-4"           | 6'-8"           | 6'-11"  | 7'-2"   | 7'-5"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-1"     | 7'-6"   | 7'-10"          | 8'-2"           | 8'-6"   | 8'-9"   | 9'-1"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-7"     | 9'-0"   | 9'-5"           | 9'-10"          | 10'-3"  | 10'-7"  | 11'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-6"    | 11'-0"  | 11'-6"          | 12'-0"          | 12'-6"  | 12'-11" | 13'-4"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 4'-8"     | 4'-11"  | 5'-2"           | 5'-5"           | 5'-7"   | 5'-10"  | 6'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-1"     | 6'-4"   | 6'-8"           | 7'-0"           | 7'-3"   | 7'-6"   | 7'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-5"     | 7'-10"  | 8'-2"           | 8'-6"           | 8'-10"  | 9'-2"   | 9'-6"    | 362T125-54-50 |
|   | 362T125-68-50 | 9'-0"     | 9'-5"   | 9'-11"          | 10'-4"          | 10'-9"  | 11'-1"  | 11'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-11"   | 11'-6"  | 12'-1"          | 12'-7"          | 13'-1"  | 13'-6"  | 14'-0"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 4'-11"    | 5'-2"   | 5'-5"           | 5'-8"           | 5'-11"  | 6'-1"   | 6'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-5"     | 6'-8"   | 7'-0"           | 7'-4"           | 7'-7"   | 7'-11"  | 8'-2"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-10"    | 8'-3"   | 8'-7"           | 9'-0"           | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-5"     | 9'-11"  | 10'-5"          | 10'-10"         | 11'-3"  | 11'-8"  | 12'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-6"    | 12'-1"  | 12'-8"          | 13'-2"          | 13'-9"  | 14'-2"  | 14'-8"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 5'-3"     | 5'-6"   | 5'-9"           | 6'-0"           | 6'-3"   | 6'-6"   | 6'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-9"     | 7'-1"   | 7'-5"           | 7'-9"           | 8'-1"   | 8'-4"   | 8'-8"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-3"     | 8'-8"   | 9'-1"           | 9'-6"           | 9'-10"  | 10'-3"  | 10'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-0"    | 10'-6"  | 11'-0"          | 11'-5"          | 11'-11" | 12'-4"  | 12'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-2"    | 12'-9"  | 13'-4"          | 13'-11"         | 14'-6"  | 15'-0"  | 15'-6"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 5'-7"     | 5'-10"  | 6'-2"           | 6'-5"           | 6'-8"   | 6'-11"  | 7'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-2"     | 7'-7"   | 7'-11"          | 8'-3"           | 8'-7"   | 8'-11"  | 9'-2"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-10"    | 9'-3"   | 9'-8"           | 10'-1"          | 10'-6"  | 10'-10" | 11'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-8"    | 11'-2"  | 11'-8"          | 12'-2"          | 12'-8"  | 13'-1"  | 13'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-11"   | 13'-7"  | 14'-3"          | 14'-10"         | 15'-5"  | 15'-11" | 16'-6"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 6'-0"     | 6'-4"   | 6'-7"           | 6'-11"          | 7'-2"   | 7'-5"   | 7'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-9"     | 8'-1"   | 8'-6"           | 8'-10"          | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-5"     | 9'-11"  | 10'-4"          | 10'-10"         | 11'-3"  | 11'-8"  | 12'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-5"    | 12'-0"  | 12'-6"          | 13'-1"          | 13'-7"  | 14'-1"  | 14'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-10"   | 14'-7"  | 15'-3"          | 15'-10"         | 16'-6"  | 17'-1"  | 17'-8"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 6'-6"     | 6'-10"  | 7'-2"           | 7'-6"           | 7'-9"   | 8'-1"   | 8'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-4"     | 8'-9"   | 9'-2"           | 9'-7"           | 10'-0"  | 10'-4"  | 10'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-3"    | 10'-9"  | 11'-3"          | 11'-9"          | 12'-2"  | 12'-7"  | 13'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-4"    | 13'-0"  | 13'-7"          | 14'-2"          | 14'-8"  | 15'-3"  | 15'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-0"    | 15'-9"  | 16'-6"          | 17'-2"          | 17'-10" | 18'-6"  | 19'-1"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 7'-0"     | 7'-4"   | 7'-8"           | 8'-0"           | 8'-4"   | 8'-8"   | 8'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 9'-0"     | 9'-5"   | 9'-10"          | 10'-3"          | 10'-8"  | 11'-1"  | 11'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-0"    | 11'-6"  | 12'-1"          | 12'-7"          | 13'-1"  | 13'-6"  | 14'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-3"    | 13'-11" | 14'-6"          | 15'-2"          | 15'-9"  | 16'-4"  | 16'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 16'-1"    | 16'-11" | 17'-8"          | 18'-5"          | 19'-1"  | 19'-10" | 20'-6"   | 362T125-97-50 |



**TABLE 4.7.4.208: MAXIMUM UNBRACED TOP TRACK LENGTH**

**PARAMETERS:** Type S3 (p = 1.5) S<sub>Ds</sub> 1.00 Weight 5000 lbs

\* Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.

**Note:** If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track.

| Height in Bldg (z/h) | Track Section | Pod Width |         |         |         |         |         |         | Track Section |
|----------------------|---------------|-----------|---------|---------|---------|---------|---------|---------|---------------|
|                      |               | 5.00 ft   | 5.50 ft | 6.00 ft | 6.50 ft | 7.00 ft | 7.50 ft | 8.00 ft |               |
| 1.0                  | 362T125-33-50 | 3'-10"    | 4'-1"   | 4'-3"   | 4'-5"   | 4'-7"   | 4'-10"  | 5'-0"   | 362T125-33-50 |
|                      | 362T125-43-50 | 5'-0"     | 5'-3"   | 5'-6"   | 5'-9"   | 6'-0"   | 6'-3"   | 6'-5"   | 362T125-43-50 |
|                      | 362T125-54-50 | 6'-2"     | 6'-6"   | 6'-9"   | 7'-1"   | 7'-4"   | 7'-8"   | 7'-11"  | 362T125-54-50 |
|                      | 362T125-68-50 | 7'-5"     | 7'-10"  | 8'-3"   | 8'-7"   | 8'-11"  | 9'-3"   | 9'-7"   | 362T125-68-50 |
|                      | 362T125-97-50 | 9'-1"     | 9'-7"   | 10'-0"  | 10'-5"  | 10'-10" | 11'-3"  | 11'-8"  | 362T125-97-50 |
| 0.9                  | 362T125-33-50 | 4'-0"     | 4'-3"   | 4'-5"   | 4'-7"   | 4'-10"  | 5'-0"   | 5'-2"   | 362T125-33-50 |
|                      | 362T125-43-50 | 5'-2"     | 5'-6"   | 5'-9"   | 6'-0"   | 6'-3"   | 6'-5"   | 6'-8"   | 362T125-43-50 |
|                      | 362T125-54-50 | 6'-5"     | 6'-9"   | 7'-0"   | 7'-4"   | 7'-8"   | 7'-11"  | 8'-2"   | 362T125-54-50 |
|                      | 362T125-68-50 | 7'-9"     | 8'-2"   | 8'-6"   | 8'-11"  | 9'-3"   | 9'-7"   | 9'-11"  | 362T125-68-50 |
|                      | 362T125-97-50 | 9'-5"     | 9'-11"  | 10'-5"  | 10'-10" | 11'-3"  | 11'-8"  | 12'-1"  | 362T125-97-50 |
| 0.8                  | 362T125-33-50 | 4'-2"     | 4'-5"   | 4'-7"   | 4'-10"  | 5'-0"   | 5'-2"   | 5'-4"   | 362T125-33-50 |
|                      | 362T125-43-50 | 5'-5"     | 5'-8"   | 6'-0"   | 6'-3"   | 6'-6"   | 6'-9"   | 6'-11"  | 362T125-43-50 |
|                      | 362T125-54-50 | 6'-8"     | 7'-0"   | 7'-4"   | 7'-8"   | 7'-11"  | 8'-3"   | 8'-6"   | 362T125-54-50 |
|                      | 362T125-68-50 | 8'-1"     | 8'-6"   | 8'-10"  | 9'-3"   | 9'-7"   | 9'-11"  | 10'-4"  | 362T125-68-50 |
|                      | 362T125-97-50 | 9'-10"    | 10'-4"  | 10'-10" | 11'-3"  | 11'-8"  | 12'-2"  | 12'-6"  | 362T125-97-50 |
| 0.7                  | 362T125-33-50 | 4'-4"     | 4'-7"   | 4'-10"  | 5'-0"   | 5'-3"   | 5'-5"   | 5'-7"   | 362T125-33-50 |
|                      | 362T125-43-50 | 5'-8"     | 5'-11"  | 6'-3"   | 6'-6"   | 6'-9"   | 7'-0"   | 7'-3"   | 362T125-43-50 |
|                      | 362T125-54-50 | 6'-11"    | 7'-4"   | 7'-8"   | 8'-0"   | 8'-3"   | 8'-7"   | 8'-11"  | 362T125-54-50 |
|                      | 362T125-68-50 | 8'-5"     | 8'-10"  | 9'-3"   | 9'-8"   | 10'-0"  | 10'-5"  | 10'-9"  | 362T125-68-50 |
|                      | 362T125-97-50 | 10'-3"    | 10'-9"  | 11'-3"  | 11'-9"  | 12'-2"  | 12'-8"  | 13'-1"  | 362T125-97-50 |
| 0.6                  | 362T125-33-50 | 4'-7"     | 4'-10"  | 5'-1"   | 5'-3"   | 5'-6"   | 5'-8"   | 5'-11"  | 362T125-33-50 |
|                      | 362T125-43-50 | 5'-11"    | 6'-3"   | 6'-6"   | 6'-10"  | 7'-1"   | 7'-4"   | 7'-7"   | 362T125-43-50 |
|                      | 362T125-54-50 | 7'-3"     | 7'-8"   | 8'-0"   | 8'-4"   | 8'-8"   | 9'-0"   | 9'-4"   | 362T125-54-50 |
|                      | 362T125-68-50 | 8'-10"    | 9'-3"   | 9'-8"   | 10'-1"  | 10'-6"  | 10'-10" | 11'-3"  | 362T125-68-50 |
|                      | 362T125-97-50 | 10'-9"    | 11'-3"  | 11'-9"  | 12'-3"  | 12'-9"  | 13'-3"  | 13'-8"  | 362T125-97-50 |
| 0.5                  | 362T125-33-50 | 4'-10"    | 5'-1"   | 5'-4"   | 5'-7"   | 5'-9"   | 6'-0"   | 6'-2"   | 362T125-33-50 |
|                      | 362T125-43-50 | 6'-3"     | 6'-7"   | 6'-10"  | 7'-2"   | 7'-5"   | 7'-9"   | 8'-0"   | 362T125-43-50 |
|                      | 362T125-54-50 | 7'-8"     | 8'-1"   | 8'-5"   | 8'-9"   | 9'-1"   | 9'-5"   | 9'-9"   | 362T125-54-50 |
|                      | 362T125-68-50 | 9'-3"     | 9'-9"   | 10'-2"  | 10'-7"  | 11'-0"  | 11'-5"  | 11'-10" | 362T125-68-50 |
|                      | 362T125-97-50 | 11'-3"    | 11'-10" | 12'-5"  | 12'-11" | 13'-5"  | 13'-11" | 14'-5"  | 362T125-97-50 |
| 0.4                  | 362T125-33-50 | 5'-1"     | 5'-5"   | 5'-8"   | 5'-11"  | 6'-1"   | 6'-4"   | 6'-7"   | 362T125-33-50 |
|                      | 362T125-43-50 | 6'-7"     | 6'-11"  | 7'-3"   | 7'-7"   | 7'-11"  | 8'-2"   | 8'-5"   | 362T125-43-50 |
|                      | 362T125-54-50 | 8'-1"     | 8'-6"   | 8'-11"  | 9'-3"   | 9'-8"   | 10'-0"  | 10'-4"  | 362T125-54-50 |
|                      | 362T125-68-50 | 9'-9"     | 10'-3"  | 10'-9"  | 11'-2"  | 11'-8"  | 12'-1"  | 12'-6"  | 362T125-68-50 |
|                      | 362T125-97-50 | 11'-11"   | 12'-6"  | 13'-1"  | 13'-8"  | 14'-2"  | 14'-8"  | 15'-2"  | 362T125-97-50 |
| 0.3                  | 362T125-33-50 | 5'-5"     | 5'-9"   | 6'-0"   | 6'-3"   | 6'-6"   | 6'-9"   | 7'-0"   | 362T125-33-50 |
|                      | 362T125-43-50 | 7'-0"     | 7'-5"   | 7'-9"   | 8'-1"   | 8'-5"   | 8'-8"   | 9'-0"   | 362T125-43-50 |
|                      | 362T125-54-50 | 8'-7"     | 9'-1"   | 9'-6"   | 9'-10"  | 10'-3"  | 10'-8"  | 11'-0"  | 362T125-54-50 |
|                      | 362T125-68-50 | 10'-5"    | 10'-11" | 11'-5"  | 11'-11" | 12'-5"  | 12'-10" | 13'-3"  | 362T125-68-50 |
|                      | 362T125-97-50 | 12'-8"    | 13'-4"  | 13'-11" | 14'-6"  | 15'-1"  | 15'-7"  | 16'-2"  | 362T125-97-50 |
| 0.2                  | 362T125-33-50 | 5'-10"    | 6'-2"   | 6'-5"   | 6'-9"   | 7'-0"   | 7'-3"   | 7'-6"   | 362T125-33-50 |
|                      | 362T125-43-50 | 7'-7"     | 7'-11"  | 8'-4"   | 8'-8"   | 9'-0"   | 9'-4"   | 9'-8"   | 362T125-43-50 |
|                      | 362T125-54-50 | 9'-3"     | 9'-8"   | 10'-2"  | 10'-7"  | 11'-0"  | 11'-5"  | 11'-9"  | 362T125-54-50 |
|                      | 362T125-68-50 | 11'-2"    | 11'-9"  | 12'-3"  | 12'-9"  | 13'-3"  | 13'-9"  | 14'-3"  | 362T125-68-50 |
|                      | 362T125-97-50 | 13'-7"    | 14'-3"  | 14'-11" | 15'-7"  | 16'-2"  | 16'-9"  | 17'-3"  | 362T125-97-50 |
| 0.1                  | 362T125-33-50 | 6'-4"     | 6'-8"   | 7'-0"   | 7'-4"   | 7'-7"   | 7'-10"  | 8'-2"   | 362T125-33-50 |
|                      | 362T125-43-50 | 8'-2"     | 8'-7"   | 9'-0"   | 9'-5"   | 9'-9"   | 10'-1"  | 10'-5"  | 362T125-43-50 |
|                      | 362T125-54-50 | 10'-0"    | 10'-6"  | 11'-0"  | 11'-6"  | 11'-11" | 12'-4"  | 12'-9"  | 362T125-54-50 |
|                      | 362T125-68-50 | 12'-1"    | 12'-8"  | 13'-3"  | 13'-10" | 14'-5"  | 14'-11" | 15'-5"  | 362T125-68-50 |
|                      | 362T125-97-50 | 14'-8"    | 15'-5"  | 16'-2"  | 16'-10" | 17'-6"  | 18'-1"  | 18'-9"  | 362T125-97-50 |
| 0.0                  | 362T125-33-50 | 6'-10"    | 7'-2"   | 7'-6"   | 7'-10"  | 8'-2"   | 8'-5"   | 8'-9"   | 362T125-33-50 |
|                      | 362T125-43-50 | 8'-9"     | 9'-3"   | 9'-8"   | 10'-1"  | 10'-5"  | 10'-10" | 11'-2"  | 362T125-43-50 |
|                      | 362T125-54-50 | 10'-9"    | 11'-3"  | 11'-10" | 12'-3"  | 12'-9"  | 13'-3"  | 13'-8"  | 362T125-54-50 |
|                      | 362T125-68-50 | 12'-11"   | 13'-7"  | 14'-3"  | 14'-10" | 15'-5"  | 16'-0"  | 16'-6"  | 362T125-68-50 |
|                      | 362T125-97-50 | 15'-9"    | 16'-7"  | 17'-4"  | 18'-0"  | 18'-9"  | 19'-5"  | 20'-1"  | 362T125-97-50 |



**TABLE 4.7.4.209: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | (p = 1.5) | S <sub>DS</sub> | 1.30    | Weight  | 2000 lbs |               |               |
|---|---------------|-----------|---------|-----------|-----------------|---------|---------|----------|---------------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |           |                 |         |         |          |               |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |           |                 |         |         |          |               |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |           |                 |         |         |          |               | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft   | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |               |
| 1.0   | 362T125-33-50 | 5'-6"     | 5'-10"  | 6'-1"     | 6'-4"           | 6'-7"   | 6'-10"  | 7'-1"    | 362T125-33-50 |               |
|   | 362T125-43-50 | 7'-2"     | 7'-6"   | 7'-10"    | 8'-2"           | 8'-6"   | 8'-10"  | 9'-1"    | 362T125-43-50 |               |
|   | 362T125-54-50 | 8'-9"     | 9'-2"   | 9'-7"     | 10'-0"          | 10'-5"  | 10'-9"  | 11'-2"   | 362T125-54-50 |               |
|   | 362T125-68-50 | 10'-6"    | 11'-1"  | 11'-7"    | 12'-1"          | 12'-7"  | 13'-0"  | 13'-5"   | 362T125-68-50 |               |
|   | 362T125-97-50 | 12'-10"   | 13'-6"  | 14'-1"    | 14'-8"          | 15'-3"  | 15'-10" | 16'-4"   | 362T125-97-50 |               |
| 0.9   | 362T125-33-50 | 5'-9"     | 6'-0"   | 6'-4"     | 6'-7"           | 6'-10"  | 7'-1"   | 7'-4"    | 362T125-33-50 |               |
|   | 362T125-43-50 | 7'-5"     | 7'-9"   | 8'-2"     | 8'-6"           | 8'-10"  | 9'-2"   | 9'-5"    | 362T125-43-50 |               |
|   | 362T125-54-50 | 9'-1"     | 9'-6"   | 9'-11"    | 10'-4"          | 10'-9"  | 11'-2"  | 11'-7"   | 362T125-54-50 |               |
|   | 362T125-68-50 | 10'-11"   | 11'-6"  | 12'-0"    | 12'-6"          | 13'-0"  | 13'-6"  | 13'-11"  | 362T125-68-50 |               |
|   | 362T125-97-50 | 13'-4"    | 14'-0"  | 14'-7"    | 15'-3"          | 15'-10" | 16'-5"  | 16'-11"  | 362T125-97-50 |               |
| 0.8   | 362T125-33-50 | 6'-0"     | 6'-3"   | 6'-7"     | 6'-10"          | 7'-2"   | 7'-5"   | 7'-8"    | 362T125-33-50 |               |
|   | 362T125-43-50 | 7'-8"     | 8'-1"   | 8'-5"     | 8'-10"          | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-43-50 |               |
|   | 362T125-54-50 | 9'-5"     | 9'-11"  | 10'-4"    | 10'-9"          | 11'-2"  | 11'-7"  | 12'-0"   | 362T125-54-50 |               |
|   | 362T125-68-50 | 11'-4"    | 11'-11" | 12'-6"    | 13'-0"          | 13'-6"  | 14'-0"  | 14'-6"   | 362T125-68-50 |               |
|   | 362T125-97-50 | 13'-10"   | 14'-6"  | 15'-2"    | 15'-10"         | 16'-5"  | 17'-0"  | 17'-7"   | 362T125-97-50 |               |
| 0.7   | 362T125-33-50 | 6'-3"     | 6'-7"   | 6'-10"    | 7'-2"           | 7'-5"   | 7'-9"   | 8'-0"    | 362T125-33-50 |               |
|   | 362T125-43-50 | 8'-0"     | 8'-5"   | 8'-10"    | 9'-2"           | 9'-7"   | 9'-11"  | 10'-3"   | 362T125-43-50 |               |
|   | 362T125-54-50 | 9'-10"    | 10'-4"  | 10'-9"    | 11'-3"          | 11'-8"  | 12'-1"  | 12'-6"   | 362T125-54-50 |               |
|   | 362T125-68-50 | 11'-10"   | 12'-5"  | 13'-0"    | 13'-7"          | 14'-1"  | 14'-7"  | 15'-1"   | 362T125-68-50 |               |
|   | 362T125-97-50 | 14'-5"    | 15'-2"  | 15'-10"   | 16'-6"          | 17'-2"  | 17'-9"  | 18'-4"   | 362T125-97-50 |               |
| 0.6   | 362T125-33-50 | 6'-6"     | 6'-10"  | 7'-2"     | 7'-6"           | 7'-9"   | 8'-1"   | 8'-4"    | 362T125-33-50 |               |
|   | 362T125-43-50 | 8'-5"     | 8'-10"  | 9'-3"     | 9'-7"           | 10'-0"  | 10'-4"  | 10'-9"   | 362T125-43-50 |               |
|   | 362T125-54-50 | 10'-3"    | 10'-9"  | 11'-3"    | 11'-9"          | 12'-3"  | 12'-8"  | 13'-1"   | 362T125-54-50 |               |
|   | 362T125-68-50 | 12'-5"    | 13'-0"  | 13'-7"    | 14'-2"          | 14'-9"  | 15'-3"  | 15'-9"   | 362T125-68-50 |               |
|   | 362T125-97-50 | 15'-1"    | 15'-10" | 16'-7"    | 17'-3"          | 17'-11" | 18'-7"  | 19'-2"   | 362T125-97-50 |               |
| 0.5   | 362T125-33-50 | 6'-10"    | 7'-3"   | 7'-7"     | 7'-11"          | 8'-2"   | 8'-6"   | 8'-9"    | 362T125-33-50 |               |
|   | 362T125-43-50 | 8'-10"    | 9'-3"   | 9'-8"     | 10'-1"          | 10'-6"  | 10'-11" | 11'-3"   | 362T125-43-50 |               |
|   | 362T125-54-50 | 10'-9"    | 11'-4"  | 11'-10"   | 12'-4"          | 12'-10" | 13'-4"  | 13'-9"   | 362T125-54-50 |               |
|   | 362T125-68-50 | 13'-0"    | 13'-8"  | 14'-4"    | 14'-11"         | 15'-6"  | 16'-1"  | 16'-7"   | 362T125-68-50 |               |
|   | 362T125-97-50 | 15'-10"   | 16'-8"  | 17'-5"    | 18'-1"          | 18'-10" | 19'-6"  | 20'-2"   | 362T125-97-50 |               |
| 0.4   | 362T125-33-50 | 7'-3"     | 7'-8"   | 8'-0"     | 8'-4"           | 8'-8"   | 9'-0"   | 9'-3"    | 362T125-33-50 |               |
|   | 362T125-43-50 | 9'-4"     | 9'-10"  | 10'-3"    | 10'-8"          | 11'-1"  | 11'-6"  | 11'-11"  | 362T125-43-50 |               |
|   | 362T125-54-50 | 11'-5"    | 12'-0"  | 12'-6"    | 13'-1"          | 13'-7"  | 14'-0"  | 14'-6"   | 362T125-54-50 |               |
|   | 362T125-68-50 | 13'-9"    | 14'-5"  | 15'-1"    | 15'-9"          | 16'-4"  | 16'-11" | 17'-6"   | 362T125-68-50 |               |
|   | 362T125-97-50 | 16'-9"    | 17'-7"  | 18'-4"    | 19'-1"          | 19'-10" | 20'-7"  | 21'-3"   | 362T125-97-50 |               |
| 0.3   | 362T125-33-50 | 7'-9"     | 8'-2"   | 8'-6"     | 8'-10"          | 9'-3"   | 9'-7"   | 9'-10"   | 362T125-33-50 |               |
|   | 362T125-43-50 | 9'-11"    | 10'-5"  | 10'-11"   | 11'-4"          | 11'-10" | 12'-3"  | 12'-8"   | 362T125-43-50 |               |
|   | 362T125-54-50 | 12'-1"    | 12'-9"  | 13'-4"    | 13'-10"         | 14'-5"  | 14'-11" | 15'-5"   | 362T125-54-50 |               |
|   | 362T125-68-50 | 14'-7"    | 15'-4"  | 16'-1"    | 16'-9"          | 17'-4"  | 18'-0"  | 18'-7"   | 362T125-68-50 |               |
|   | 362T125-97-50 | 17'-9"    | 18'-8"  | 19'-6"    | 20'-4"          | 21'-1"  | 21'-10" | 22'-7"   | 362T125-97-50 |               |
| 0.2   | 362T125-33-50 | 8'-4"     | 8'-9"   | 9'-1"     | 9'-6"           | 9'-11"  | 10'-3"  | 10'-7"   | 362T125-33-50 |               |
|   | 362T125-43-50 | 10'-8"    | 11'-2"  | 11'-8"    | 12'-2"          | 12'-8"  | 13'-1"  | 13'-6"   | 362T125-43-50 |               |
|   | 362T125-54-50 | 13'-0"    | 13'-8"  | 14'-3"    | 14'-10"         | 15'-5"  | 16'-0"  | 16'-6"   | 362T125-54-50 |               |
|   | 362T125-68-50 | 15'-8"    | 16'-5"  | 17'-2"    | 17'-11"         | 18'-7"  | 19'-3"  | 19'-11"  | 362T125-68-50 |               |
|   | 362T125-97-50 | 19'-0"    | 20'-0"  | 20'-11"   | 21'-9"          | 22'-7"  | 23'-5"  | 24'-2"   | 362T125-97-50 |               |
| 0.1   | 362T125-33-50 | 9'-0"     | 9'-5"   | 9'-11"    | 10'-4"          | 10'-8"  | 11'-1"  | 11'-6"   | 362T125-33-50 |               |
|   | 362T125-43-50 | 11'-6"    | 12'-1"  | 12'-8"    | 13'-2"          | 13'-8"  | 14'-2"  | 14'-8"   | 362T125-43-50 |               |
|   | 362T125-54-50 | 14'-1"    | 14'-9"  | 15'-5"    | 16'-1"          | 16'-8"  | 17'-4"  | 17'-11"  | 362T125-54-50 |               |
|   | 362T125-68-50 | 16'-11"   | 17'-10" | 18'-7"    | 19'-5"          | 20'-2"  | 20'-10" | 21'-7"   | 362T125-68-50 |               |
|   | 362T125-97-50 | 20'-7"    | 21'-7"  | 22'-7"    | 23'-6"          | 24'-5"  | 25'-4"  | 26'-2"   | 362T125-97-50 |               |
| 0.0   | 362T125-33-50 | 9'-8"     | 10'-2"  | 10'-7"    | 11'-1"          | 11'-6"  | 11'-11" | 12'-3"   | 362T125-33-50 |               |
|   | 362T125-43-50 | 12'-4"    | 12'-11" | 13'-7"    | 14'-1"          | 14'-8"  | 15'-2"  | 15'-8"   | 362T125-43-50 |               |
|   | 362T125-54-50 | 15'-1"    | 15'-10" | 16'-6"    | 17'-3"          | 17'-11" | 18'-6"  | 19'-2"   | 362T125-54-50 |               |
|   | 362T125-68-50 | 18'-2"    | 19'-1"  | 19'-11"   | 20'-9"          | 21'-7"  | 22'-4"  | 23'-1"   | 362T125-68-50 |               |
|   | 362T125-97-50 | 22'-1"    | 23'-2"  | 24'-2"    | 25'-2"          | 26'-2"  | 27'-1"  | 28'-0"   | 362T125-97-50 |               |



**TABLE 4.7.4.210: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | ( $l_p = 1.5$ ) | $S_{Ds}$ | 1.30    | Weight  | 2200 lbs |               |
|---|---------------|-----------|---------|-----------------|----------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |                 |          |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |                 |          |         |         |          |               |
| Height in Bldg (z/h)  | Track Section | Pod Width |         |                 |          |         |         |          |               |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft         | 6.50 ft  | 7.00 ft | 7.50 ft | 8.00 ft  | Track Section |
| 1.0   | 362T125-33-50 | 5'-3"     | 5'-6"   | 5'-9"           | 6'-0"    | 6'-3"   | 6'-6"   | 6'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-9"     | 7'-1"   | 7'-5"           | 7'-9"    | 8'-1"   | 8'-4"   | 8'-8"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-4"     | 8'-9"   | 9'-2"           | 9'-6"    | 9'-11"  | 10'-3"  | 10'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-0"    | 10'-6"  | 11'-0"          | 11'-6"   | 11'-11" | 12'-4"  | 12'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 12'-3"    | 12'-10" | 13'-5"          | 14'-0"   | 14'-6"  | 15'-1"  | 15'-7"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 5'-5"     | 5'-9"   | 6'-0"           | 6'-3"    | 6'-6"   | 6'-9"   | 7'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-0"     | 7'-5"   | 7'-9"           | 8'-1"    | 8'-5"   | 8'-8"   | 9'-0"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-7"     | 9'-1"   | 9'-6"           | 9'-10"   | 10'-3"  | 10'-7"  | 11'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-5"    | 10'-11" | 11'-5"          | 11'-11"  | 12'-5"  | 12'-10" | 13'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-8"    | 13'-4"  | 13'-11"         | 14'-6"   | 15'-1"  | 15'-7"  | 16'-2"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 5'-8"     | 6'-0"   | 6'-3"           | 6'-6"    | 6'-9"   | 7'-0"   | 7'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-4"     | 7'-8"   | 8'-0"           | 8'-5"    | 8'-9"   | 9'-0"   | 9'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-11"    | 9'-5"   | 9'-10"          | 10'-3"   | 10'-8"  | 11'-1"  | 11'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-10"   | 11'-4"  | 11'-11"         | 12'-5"   | 12'-10" | 13'-4"  | 13'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-2"    | 13'-10" | 14'-5"          | 15'-1"   | 15'-8"  | 16'-3"  | 16'-9"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 5'-11"    | 6'-3"   | 6'-6"           | 6'-10"   | 7'-1"   | 7'-4"   | 7'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-8"     | 8'-0"   | 8'-5"           | 8'-9"    | 9'-1"   | 9'-5"   | 9'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-4"     | 9'-10"  | 10'-3"          | 10'-8"   | 11'-1"  | 11'-6"  | 11'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 11'-3"    | 11'-10" | 12'-5"          | 12'-11"  | 13'-5"  | 13'-11" | 14'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-9"    | 14'-5"  | 15'-1"          | 15'-8"   | 16'-4"  | 16'-11" | 17'-6"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 6'-3"     | 6'-6"   | 6'-10"          | 7'-2"    | 7'-5"   | 7'-8"   | 7'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 8'-0"     | 8'-5"   | 8'-9"           | 9'-2"    | 9'-6"   | 9'-10"  | 10'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-9"     | 10'-3"  | 10'-9"          | 11'-2"   | 11'-7"  | 12'-1"  | 12'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-10"   | 12'-5"  | 13'-0"          | 13'-6"   | 14'-0"  | 14'-6"  | 15'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-4"    | 15'-1"  | 15'-9"          | 16'-5"   | 17'-1"  | 17'-8"  | 18'-3"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 6'-6"     | 6'-10"  | 7'-2"           | 7'-6"    | 7'-9"   | 8'-1"   | 8'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-5"     | 8'-10"  | 9'-3"           | 9'-7"    | 10'-0"  | 10'-4"  | 10'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-3"    | 10'-9"  | 11'-3"          | 11'-9"   | 12'-3"  | 12'-8"  | 13'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-5"    | 13'-0"  | 13'-7"          | 14'-2"   | 14'-9"  | 15'-3"  | 15'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-1"    | 15'-10" | 16'-7"          | 17'-3"   | 17'-11" | 18'-7"  | 19'-2"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 6'-11"    | 7'-3"   | 7'-7"           | 7'-11"   | 8'-3"   | 8'-6"   | 8'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 8'-10"    | 9'-4"   | 9'-9"           | 10'-2"   | 10'-7"  | 10'-11" | 11'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-10"   | 11'-5"  | 11'-11"         | 12'-5"   | 12'-11" | 13'-4"  | 13'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 13'-1"    | 13'-9"  | 14'-5"          | 15'-0"   | 15'-7"  | 16'-2"  | 16'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-11"   | 16'-9"  | 17'-6"          | 18'-3"   | 18'-11" | 19'-7"  | 20'-3"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 7'-4"     | 7'-9"   | 8'-1"           | 8'-5"    | 8'-9"   | 9'-1"   | 9'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-5"     | 9'-11"  | 10'-4"          | 10'-10"  | 11'-3"  | 11'-8"  | 12'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-6"    | 12'-1"  | 12'-8"          | 13'-2"   | 13'-9"  | 14'-3"  | 14'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-11"   | 14'-7"  | 15'-3"          | 15'-11"  | 16'-6"  | 17'-2"  | 17'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-11"   | 17'-9"  | 18'-7"          | 19'-4"   | 20'-1"  | 20'-10" | 21'-6"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 7'-11"    | 8'-3"   | 8'-8"           | 9'-1"    | 9'-5"   | 9'-9"   | 10'-1"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-1"    | 10'-8"  | 11'-1"          | 11'-7"   | 12'-0"  | 12'-6"  | 12'-11"  | 362T125-43-50 |
|   | 362T125-54-50 | 12'-4"    | 13'-0"  | 13'-7"          | 14'-2"   | 14'-8"  | 15'-3"  | 15'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-11"   | 15'-8"  | 16'-4"          | 17'-1"   | 17'-9"  | 18'-4"  | 19'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 18'-1"    | 19'-0"  | 19'-11"         | 20'-9"   | 21'-6"  | 22'-3"  | 23'-0"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 8'-7"     | 9'-0"   | 9'-5"           | 9'-10"   | 10'-2"  | 10'-7"  | 10'-11"  | 362T125-33-50 |
|   | 362T125-43-50 | 10'-11"   | 11'-6"  | 12'-0"          | 12'-7"   | 13'-0"  | 13'-6"  | 13'-11"  | 362T125-43-50 |
|   | 362T125-54-50 | 13'-5"    | 14'-1"  | 14'-8"          | 15'-4"   | 15'-11" | 16'-6"  | 17'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 16'-2"    | 16'-11" | 17'-9"          | 18'-6"   | 19'-2"  | 19'-10" | 20'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 19'-7"    | 20'-7"  | 21'-6"          | 22'-5"   | 23'-3"  | 24'-1"  | 24'-11"  | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 9'-2"     | 9'-8"   | 10'-1"          | 10'-6"   | 10'-11" | 11'-4"  | 11'-8"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-9"    | 12'-4"  | 12'-11"         | 13'-5"   | 14'-0"  | 14'-6"  | 14'-11"  | 362T125-43-50 |
|   | 362T125-54-50 | 14'-4"    | 15'-1"  | 15'-9"          | 16'-5"   | 17'-0"  | 17'-8"  | 18'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 17'-3"    | 18'-2"  | 19'-0"          | 19'-9"   | 20'-7"  | 21'-3"  | 22'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 21'-0"    | 22'-1"  | 23'-1"          | 24'-0"   | 24'-11" | 25'-10" | 26'-8"   | 362T125-97-50 |



**TABLE 4.7.4.211: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | ( $lp = 1.5$ ) | S <sub>DS</sub> | 1.30    | Weight  | 2400 lbs |               |
|---|---------------|-----------|---------|----------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |                |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |                |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |                |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft        | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 5'-0"     | 5'-3"   | 5'-6"          | 5'-9"           | 6'-0"   | 6'-3"   | 6'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-6"     | 6'-10"  | 7'-1"          | 7'-5"           | 7'-9"   | 8'-0"   | 8'-3"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-11"    | 8'-4"   | 8'-9"          | 9'-1"           | 9'-5"   | 9'-9"   | 10'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-7"     | 10'-1"  | 10'-6"         | 11'-0"          | 11'-5"  | 11'-10" | 12'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-8"    | 12'-3"  | 12'-10"        | 13'-4"          | 13'-11" | 14'-5"  | 14'-11"  | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 5'-2"     | 5'-6"   | 5'-9"          | 6'-0"           | 6'-3"   | 6'-5"   | 6'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-9"     | 7'-1"   | 7'-5"          | 7'-8"           | 8'-0"   | 8'-4"   | 8'-7"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-3"     | 8'-8"   | 9'-0"          | 9'-5"           | 9'-10"  | 10'-2"  | 10'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-11"    | 10'-5"  | 10'-11"        | 11'-5"          | 11'-10" | 12'-3"  | 12'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-1"    | 12'-9"  | 13'-4"         | 13'-10"         | 14'-5"  | 14'-11" | 15'-5"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 5'-5"     | 5'-8"   | 6'-0"          | 6'-3"           | 6'-6"   | 6'-8"   | 6'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 7'-0"     | 7'-4"   | 7'-8"          | 8'-0"           | 8'-4"   | 8'-8"   | 8'-11"   | 362T125-43-50 |
|   | 362T125-54-50 | 8'-7"     | 9'-0"   | 9'-5"          | 9'-10"          | 10'-2"  | 10'-7"  | 10'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 10'-4"    | 10'-10" | 11'-4"         | 11'-10"         | 12'-4"  | 12'-9"  | 13'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-7"    | 13'-3"  | 13'-10"        | 14'-5"          | 15'-0"  | 15'-6"  | 16'-0"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 5'-8"     | 5'-11"  | 6'-3"          | 6'-6"           | 6'-9"   | 7'-0"   | 7'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-3"     | 7'-8"   | 8'-0"          | 8'-4"           | 8'-8"   | 9'-0"   | 9'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-11"    | 9'-4"   | 9'-10"         | 10'-3"          | 10'-7"  | 11'-0"  | 11'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-9"    | 11'-4"  | 11'-10"        | 12'-4"          | 12'-10" | 13'-3"  | 13'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-1"    | 13'-9"  | 14'-5"         | 15'-0"          | 15'-7"  | 16'-2"  | 16'-8"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 5'-11"    | 6'-3"   | 6'-6"          | 6'-10"          | 7'-1"   | 7'-4"   | 7'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-8"     | 8'-0"   | 8'-5"          | 8'-9"           | 9'-1"   | 9'-5"   | 9'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-4"     | 9'-10"  | 10'-3"         | 10'-8"          | 11'-1"  | 11'-6"  | 11'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 11'-3"    | 11'-10" | 12'-5"         | 12'-11"         | 13'-5"  | 13'-11" | 14'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-9"    | 14'-5"  | 15'-1"         | 15'-8"          | 16'-4"  | 16'-11" | 17'-6"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 6'-3"     | 6'-7"   | 6'-10"         | 7'-2"           | 7'-5"   | 7'-9"   | 8'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-0"     | 8'-5"   | 8'-10"         | 9'-2"           | 9'-7"   | 9'-11"  | 10'-3"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-10"    | 10'-4"  | 10'-9"         | 11'-3"          | 11'-8"  | 12'-1"  | 12'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-10"   | 12'-5"  | 13'-0"         | 13'-7"          | 14'-1"  | 14'-7"  | 15'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-5"    | 15'-2"  | 15'-10"        | 16'-6"          | 17'-2"  | 17'-9"  | 18'-4"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 6'-7"     | 6'-11"  | 7'-3"          | 7'-7"           | 7'-10"  | 8'-2"   | 8'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-6"     | 8'-11"  | 9'-4"          | 9'-9"           | 10'-1"  | 10'-6"  | 10'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 10'-4"    | 10'-11" | 11'-5"         | 11'-10"         | 12'-4"  | 12'-9"  | 13'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-6"    | 13'-2"  | 13'-9"         | 14'-4"          | 14'-11" | 15'-5"  | 15'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 15'-3"    | 16'-0"  | 16'-9"         | 17'-5"          | 18'-1"  | 18'-9"  | 19'-4"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 7'-0"     | 7'-5"   | 7'-9"          | 8'-1"           | 8'-4"   | 8'-8"   | 9'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-0"     | 9'-6"   | 9'-11"         | 10'-4"          | 10'-9"  | 11'-1"  | 11'-6"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-0"    | 11'-7"  | 12'-1"         | 12'-7"          | 13'-1"  | 13'-7"  | 14'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-4"    | 14'-0"  | 14'-7"         | 15'-3"          | 15'-10" | 16'-5"  | 16'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 16'-2"    | 17'-0"  | 17'-9"         | 18'-6"          | 19'-3"  | 19'-11" | 20'-7"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 7'-6"     | 7'-11"  | 8'-4"          | 8'-8"           | 9'-0"   | 9'-4"   | 9'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-8"     | 10'-2"  | 10'-7"         | 11'-1"          | 11'-6"  | 11'-11" | 12'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-10"   | 12'-5"  | 13'-0"         | 13'-6"          | 14'-1"  | 14'-7"  | 15'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-3"    | 15'-0"  | 15'-8"         | 16'-4"          | 16'-11" | 17'-7"  | 18'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-4"    | 18'-2"  | 19'-0"         | 19'-10"         | 20'-7"  | 21'-4"  | 22'-0"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 8'-2"     | 8'-7"   | 9'-0"          | 9'-4"           | 9'-9"   | 10'-1"  | 10'-5"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-6"    | 11'-0"  | 11'-6"         | 12'-0"          | 12'-6"  | 12'-11" | 13'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-10"   | 13'-5"  | 14'-1"         | 14'-8"          | 15'-2"  | 15'-9"  | 16'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-5"    | 16'-2"  | 16'-11"        | 17'-8"          | 18'-4"  | 19'-0"  | 19'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 18'-9"    | 19'-8"  | 20'-7"         | 21'-5"          | 22'-3"  | 23'-1"  | 23'-10"  | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 8'-9"     | 9'-3"   | 9'-8"          | 10'-1"          | 10'-5"  | 10'-10" | 11'-2"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-3"    | 11'-10" | 12'-4"         | 12'-10"         | 13'-4"  | 13'-10" | 14'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-8"    | 14'-5"  | 15'-1"         | 15'-8"          | 16'-3"  | 16'-10" | 17'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 16'-6"    | 17'-4"  | 18'-2"         | 18'-11"         | 19'-8"  | 20'-4"  | 21'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 20'-1"    | 21'-1"  | 22'-0"         | 22'-11"         | 23'-10" | 24'-8"  | 25'-6"   | 362T125-97-50 |



**TABLE 4.7.4.212: MAXIMUM UNBRACED TOP TRACK LENGTH**

| <b>PARAMETERS:</b>   |               | Type      | S3      | ( $p = 1.5$ ) | S <sub>DS</sub> | 1.30    | Weight  | 2600 lbs |               |
|--|---------------|-----------|---------|---------------|-----------------|---------|---------|----------|---------------|
| <p>* Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.<br/>                     Note: If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track.</p> |               |           |         |               |                 |         |         |          |               |
| Height in Bldg<br>(z/h)  | Track Section | Pod Width |         |               |                 |         |         |          | Track Section |
|  |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0  | 362T125-33-50 | 4'-10"    | 5'-1"   | 5'-3"         | 5'-6"           | 5'-9"   | 5'-11"  | 6'-2"    | 362T125-33-50 |
|  | 362T125-43-50 | 6'-2"     | 6'-6"   | 6'-10"        | 7'-1"           | 7'-5"   | 7'-8"   | 7'-11"   | 362T125-43-50 |
|  | 362T125-54-50 | 7'-7"     | 8'-0"   | 8'-4"         | 8'-9"           | 9'-1"   | 9'-5"   | 9'-8"    | 362T125-54-50 |
|  | 362T125-68-50 | 9'-2"     | 9'-8"   | 10'-1"        | 10'-6"          | 10'-11" | 11'-4"  | 11'-9"   | 362T125-68-50 |
|  | 362T125-97-50 | 11'-2"    | 11'-9"  | 12'-4"        | 12'-10"         | 13'-4"  | 13'-10" | 14'-3"   | 362T125-97-50 |
| 0.9  | 362T125-33-50 | 5'-0"     | 5'-3"   | 5'-6"         | 5'-9"           | 5'-11"  | 6'-2"   | 6'-5"    | 362T125-33-50 |
|  | 362T125-43-50 | 6'-5"     | 6'-9"   | 7'-1"         | 7'-5"           | 7'-8"   | 7'-11"  | 8'-3"    | 362T125-43-50 |
|  | 362T125-54-50 | 7'-11"    | 8'-3"   | 8'-8"         | 9'-0"           | 9'-5"   | 9'-9"   | 10'-1"   | 362T125-54-50 |
|  | 362T125-68-50 | 9'-6"     | 10'-0"  | 10'-6"        | 10'-11"         | 11'-4"  | 11'-9"  | 12'-2"   | 362T125-68-50 |
|  | 362T125-97-50 | 11'-7"    | 12'-2"  | 12'-9"        | 13'-4"          | 13'-10" | 14'-4"  | 14'-10"  | 362T125-97-50 |
| 0.8  | 362T125-33-50 | 5'-2"     | 5'-5"   | 5'-9"         | 5'-11"          | 6'-2"   | 6'-5"   | 6'-8"    | 362T125-33-50 |
|  | 362T125-43-50 | 6'-8"     | 7'-0"   | 7'-4"         | 7'-8"           | 8'-0"   | 8'-3"   | 8'-7"    | 362T125-43-50 |
|  | 362T125-54-50 | 8'-2"     | 8'-7"   | 9'-0"         | 9'-5"           | 9'-9"   | 10'-1"  | 10'-6"   | 362T125-54-50 |
|  | 362T125-68-50 | 9'-11"    | 10'-5"  | 10'-11"       | 11'-4"          | 11'-10" | 12'-3"  | 12'-8"   | 362T125-68-50 |
|  | 362T125-97-50 | 12'-1"    | 12'-8"  | 13'-3"        | 13'-10"         | 14'-4"  | 14'-10" | 15'-4"   | 362T125-97-50 |
| 0.7  | 362T125-33-50 | 5'-5"     | 5'-8"   | 6'-0"         | 6'-3"           | 6'-6"   | 6'-8"   | 6'-11"   | 362T125-33-50 |
|  | 362T125-43-50 | 7'-0"     | 7'-4"   | 7'-8"         | 8'-0"           | 8'-4"   | 8'-8"   | 8'-11"   | 362T125-43-50 |
|  | 362T125-54-50 | 8'-7"     | 9'-0"   | 9'-5"         | 9'-10"          | 10'-2"  | 10'-7"  | 10'-11"  | 362T125-54-50 |
|  | 362T125-68-50 | 10'-4"    | 10'-10" | 11'-4"        | 11'-10"         | 12'-4"  | 12'-9"  | 13'-2"   | 362T125-68-50 |
|  | 362T125-97-50 | 12'-7"    | 13'-3"  | 13'-10"       | 14'-5"          | 15'-0"  | 15'-6"  | 16'-0"   | 362T125-97-50 |
| 0.6  | 362T125-33-50 | 5'-8"     | 6'-0"   | 6'-3"         | 6'-6"           | 6'-9"   | 7'-0"   | 7'-3"    | 362T125-33-50 |
|  | 362T125-43-50 | 7'-4"     | 7'-8"   | 8'-0"         | 8'-5"           | 8'-9"   | 9'-0"   | 9'-4"    | 362T125-43-50 |
|  | 362T125-54-50 | 8'-11"    | 9'-5"   | 9'-10"        | 10'-3"          | 10'-8"  | 11'-1"  | 11'-5"   | 362T125-54-50 |
|  | 362T125-68-50 | 10'-10"   | 11'-4"  | 11'-11"       | 12'-5"          | 12'-10" | 13'-4"  | 13'-9"   | 362T125-68-50 |
|  | 362T125-97-50 | 13'-2"    | 13'-10" | 14'-5"        | 15'-1"          | 15'-8"  | 16'-3"  | 16'-9"   | 362T125-97-50 |
| 0.5  | 362T125-33-50 | 6'-0"     | 6'-3"   | 6'-7"         | 6'-10"          | 7'-2"   | 7'-5"   | 7'-8"    | 362T125-33-50 |
|  | 362T125-43-50 | 7'-8"     | 8'-1"   | 8'-5"         | 8'-10"          | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-43-50 |
|  | 362T125-54-50 | 9'-5"     | 9'-11"  | 10'-4"        | 10'-9"          | 11'-2"  | 11'-7"  | 12'-0"   | 362T125-54-50 |
|  | 362T125-68-50 | 11'-4"    | 11'-11" | 12'-6"        | 13'-0"          | 13'-6"  | 14'-0"  | 14'-6"   | 362T125-68-50 |
|  | 362T125-97-50 | 13'-10"   | 14'-6"  | 15'-2"        | 15'-10"         | 16'-5"  | 17'-0"  | 17'-7"   | 362T125-97-50 |
| 0.4  | 362T125-33-50 | 6'-4"     | 6'-8"   | 6'-11"        | 7'-3"           | 7'-6"   | 7'-10"  | 8'-1"    | 362T125-33-50 |
|  | 362T125-43-50 | 8'-2"     | 8'-6"   | 8'-11"        | 9'-4"           | 9'-8"   | 10'-0"  | 10'-4"   | 362T125-43-50 |
|  | 362T125-54-50 | 9'-11"    | 10'-5"  | 10'-11"       | 11'-5"          | 11'-10" | 12'-3"  | 12'-8"   | 362T125-54-50 |
|  | 362T125-68-50 | 12'-0"    | 12'-7"  | 13'-2"        | 13'-9"          | 14'-3"  | 14'-10" | 15'-4"   | 362T125-68-50 |
|  | 362T125-97-50 | 14'-7"    | 15'-4"  | 16'-0"        | 16'-9"          | 17'-4"  | 18'-0"  | 18'-7"   | 362T125-97-50 |
| 0.3  | 362T125-33-50 | 6'-9"     | 7'-1"   | 7'-5"         | 7'-9"           | 8'-0"   | 8'-4"   | 8'-7"    | 362T125-33-50 |
|  | 362T125-43-50 | 8'-8"     | 9'-1"   | 9'-6"         | 9'-11"          | 10'-4"  | 10'-8"  | 11'-0"   | 362T125-43-50 |
|  | 362T125-54-50 | 10'-7"    | 11'-1"  | 11'-7"        | 12'-1"          | 12'-7"  | 13'-0"  | 13'-6"   | 362T125-54-50 |
|  | 362T125-68-50 | 12'-9"    | 13'-5"  | 14'-0"        | 14'-7"          | 15'-2"  | 15'-9"  | 16'-3"   | 362T125-68-50 |
|  | 362T125-97-50 | 15'-6"    | 16'-4"  | 17'-0"        | 17'-9"          | 18'-5"  | 19'-1"  | 19'-9"   | 362T125-97-50 |
| 0.2  | 362T125-33-50 | 7'-3"     | 7'-7"   | 7'-11"        | 8'-3"           | 8'-7"   | 8'-11"  | 9'-3"    | 362T125-33-50 |
|  | 362T125-43-50 | 9'-3"     | 9'-9"   | 10'-2"        | 10'-7"          | 11'-0"  | 11'-5"  | 11'-10"  | 362T125-43-50 |
|  | 362T125-54-50 | 11'-4"    | 11'-11" | 12'-5"        | 13'-0"          | 13'-6"  | 14'-0"  | 14'-5"   | 362T125-54-50 |
|  | 362T125-68-50 | 13'-8"    | 14'-4"  | 15'-0"        | 15'-8"          | 16'-3"  | 16'-10" | 17'-5"   | 362T125-68-50 |
|  | 362T125-97-50 | 16'-7"    | 17'-5"  | 18'-3"        | 19'-0"          | 19'-9"  | 20'-6"  | 21'-2"   | 362T125-97-50 |
| 0.1  | 362T125-33-50 | 7'-10"    | 8'-3"   | 8'-7"         | 9'-0"           | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-33-50 |
|  | 362T125-43-50 | 10'-1"    | 10'-7"  | 11'-0"        | 11'-6"          | 11'-11" | 12'-5"  | 12'-10"  | 362T125-43-50 |
|  | 362T125-54-50 | 12'-3"    | 12'-11" | 13'-6"        | 14'-1"          | 14'-7"  | 15'-1"  | 15'-7"   | 362T125-54-50 |
|  | 362T125-68-50 | 14'-10"   | 15'-7"  | 16'-3"        | 16'-11"         | 17'-7"  | 18'-3"  | 18'-10"  | 362T125-68-50 |
|  | 362T125-97-50 | 18'-0"    | 18'-11" | 19'-9"        | 20'-7"          | 21'-5"  | 22'-2"  | 22'-11"  | 362T125-97-50 |
| 0.0  | 362T125-33-50 | 8'-5"     | 8'-10"  | 9'-3"         | 9'-8"           | 10'-0"  | 10'-4"  | 10'-9"   | 362T125-33-50 |
|  | 362T125-43-50 | 10'-9"    | 11'-4"  | 11'-10"       | 12'-4"          | 12'-10" | 13'-3"  | 13'-9"   | 362T125-43-50 |
|  | 362T125-54-50 | 13'-2"    | 13'-10" | 14'-5"        | 15'-1"          | 15'-7"  | 16'-2"  | 16'-9"   | 362T125-54-50 |
|  | 362T125-68-50 | 15'-10"   | 16'-8"  | 17'-5"        | 18'-2"          | 18'-10" | 19'-6"  | 20'-2"   | 362T125-68-50 |
|  | 362T125-97-50 | 19'-3"    | 20'-3"  | 21'-2"        | 22'-0"          | 22'-11" | 23'-8"  | 24'-6"   | 362T125-97-50 |

**TABLE 4.7.4.213: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | ( $p = 1.5$ ) | S <sub>DS</sub> | 1.30    | Weight  | 2800 lbs |               |
|---|---------------|-----------|---------|---------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |               |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |               |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |               |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 4'-7"     | 4'-10"  | 5'-1"         | 5'-4"           | 5'-6"   | 5'-9"   | 5'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 5'-11"    | 6'-3"   | 6'-7"         | 6'-10"          | 7'-1"   | 7'-4"   | 7'-7"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-4"     | 7'-8"   | 8'-0"         | 8'-5"           | 8'-9"   | 9'-0"   | 9'-4"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-10"    | 9'-3"   | 9'-9"         | 10'-2"          | 10'-6"  | 10'-11" | 11'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-9"    | 11'-4"  | 11'-10"       | 12'-4"          | 12'-10" | 13'-3"  | 13'-9"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 4'-9"     | 5'-0"   | 5'-3"         | 5'-6"           | 5'-9"   | 5'-11"  | 6'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-2"     | 6'-6"   | 6'-10"        | 7'-1"           | 7'-4"   | 7'-8"   | 7'-11"   | 362T125-43-50 |
|   | 362T125-54-50 | 7'-7"     | 8'-0"   | 8'-4"         | 8'-8"           | 9'-0"   | 9'-4"   | 9'-8"    | 362T125-54-50 |
|   | 362T125-68-50 | 9'-2"     | 9'-8"   | 10'-1"        | 10'-6"          | 10'-11" | 11'-4"  | 11'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-2"    | 11'-9"  | 12'-3"        | 12'-9"          | 13'-3"  | 13'-9"  | 14'-3"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 5'-0"     | 5'-3"   | 5'-6"         | 5'-9"           | 5'-11"  | 6'-2"   | 6'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-5"     | 6'-9"   | 7'-1"         | 7'-5"           | 7'-8"   | 7'-11"  | 8'-3"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-11"    | 8'-3"   | 8'-8"         | 9'-0"           | 9'-5"   | 9'-9"   | 10'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-6"     | 10'-0"  | 10'-6"        | 10'-11"         | 11'-4"  | 11'-9"  | 12'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-7"    | 12'-2"  | 12'-9"        | 13'-4"          | 13'-10" | 14'-4"  | 14'-10"  | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 5'-2"     | 5'-6"   | 5'-9"         | 6'-0"           | 6'-3"   | 6'-5"   | 6'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-9"     | 7'-1"   | 7'-5"         | 7'-8"           | 8'-0"   | 8'-4"   | 8'-7"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-3"     | 8'-8"   | 9'-0"         | 9'-5"           | 9'-10"  | 10'-2"  | 10'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-11"    | 10'-5"  | 10'-11"       | 11'-5"          | 11'-10" | 12'-3"  | 12'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-1"    | 12'-9"  | 13'-4"        | 13'-10"         | 14'-5"  | 14'-11" | 15'-5"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 5'-5"     | 5'-9"   | 6'-0"         | 6'-3"           | 6'-6"   | 6'-9"   | 7'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-0"     | 7'-5"   | 7'-9"         | 8'-1"           | 8'-5"   | 8'-8"   | 9'-0"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-7"     | 9'-1"   | 9'-6"         | 9'-10"          | 10'-3"  | 10'-7"  | 11'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-5"    | 10'-11" | 11'-5"        | 11'-11"         | 12'-5"  | 12'-10" | 13'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-8"    | 13'-4"  | 13'-11"       | 14'-6"          | 15'-1"  | 15'-7"  | 16'-2"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 5'-9"     | 6'-0"   | 6'-4"         | 6'-7"           | 6'-10"  | 7'-1"   | 7'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-5"     | 7'-9"   | 8'-2"         | 8'-6"           | 8'-10"  | 9'-2"   | 9'-5"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-1"     | 9'-6"   | 9'-11"        | 10'-4"          | 10'-9"  | 11'-2"  | 11'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-11"   | 11'-6"  | 12'-0"        | 12'-6"          | 13'-0"  | 13'-6"  | 13'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 13'-4"    | 14'-0"  | 14'-7"        | 15'-3"          | 15'-10" | 16'-5"  | 16'-11"  | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 6'-1"     | 6'-5"   | 6'-8"         | 7'-0"           | 7'-3"   | 7'-6"   | 7'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-10"    | 8'-3"   | 8'-7"         | 9'-0"           | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-7"     | 10'-1"  | 10'-6"        | 10'-11"         | 11'-5"  | 11'-10" | 12'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-7"    | 12'-2"  | 12'-8"        | 13'-3"          | 13'-9"  | 14'-3"  | 14'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-1"    | 14'-9"  | 15'-5"        | 16'-1"          | 16'-8"  | 17'-4"  | 17'-11"  | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 6'-6"     | 6'-10"  | 7'-1"         | 7'-5"           | 7'-9"   | 8'-0"   | 8'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-4"     | 8'-9"   | 9'-2"         | 9'-6"           | 9'-11"  | 10'-3"  | 10'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-2"    | 10'-8"  | 11'-2"        | 11'-8"          | 12'-1"  | 12'-6"  | 13'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-3"    | 12'-11" | 13'-6"        | 14'-1"          | 14'-7"  | 15'-2"  | 15'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-11"   | 15'-8"  | 16'-5"        | 17'-1"          | 17'-9"  | 18'-5"  | 19'-0"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 6'-11"    | 7'-4"   | 7'-8"         | 8'-0"           | 8'-3"   | 8'-7"   | 8'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 8'-11"    | 9'-4"   | 9'-10"        | 10'-3"          | 10'-7"  | 11'-0"  | 11'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-11"   | 11'-5"  | 12'-0"        | 12'-6"          | 13'-0"  | 13'-5"  | 13'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 13'-2"    | 13'-10" | 14'-5"        | 15'-1"          | 15'-8"  | 16'-3"  | 16'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-0"    | 16'-10" | 17'-7"        | 18'-4"          | 19'-0"  | 19'-8"  | 20'-4"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 7'-6"     | 7'-11"  | 8'-3"         | 8'-8"           | 9'-0"   | 9'-4"   | 9'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-8"     | 10'-2"  | 10'-8"        | 11'-1"          | 11'-6"  | 11'-11" | 12'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-10"   | 12'-5"  | 13'-0"        | 13'-6"          | 14'-1"  | 14'-7"  | 15'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-3"    | 15'-0"  | 15'-8"        | 16'-4"          | 16'-11" | 17'-7"  | 18'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-4"    | 18'-2"  | 19'-0"        | 19'-10"         | 20'-7"  | 21'-4"  | 22'-0"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 8'-1"     | 8'-6"   | 8'-11"        | 9'-3"           | 9'-8"   | 10'-0"  | 10'-4"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-4"    | 10'-11" | 11'-5"        | 11'-10"         | 12'-4"  | 12'-9"  | 13'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-8"    | 13'-4"  | 13'-11"       | 14'-6"          | 15'-0"  | 15'-7"  | 16'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-3"    | 16'-0"  | 16'-9"        | 17'-6"          | 18'-2"  | 18'-10" | 19'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 18'-7"    | 19'-6"  | 20'-4"        | 21'-3"          | 22'-0"  | 22'-10" | 23'-7"   | 362T125-97-50 |



**TABLE 4.7.4.214: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | ( $p = 1.5$ ) | S <sub>DS</sub> | 1.30    | Weight  | 3000 lbs |               |
|---|---------------|-----------|---------|---------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |               |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |               |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |               |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 4'-5"     | 4'-8"   | 4'-11"        | 5'-1"           | 5'-4"   | 5'-6"   | 5'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-9"     | 6'-0"   | 6'-4"         | 6'-7"           | 6'-10"  | 7'-1"   | 7'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-0"     | 7'-5"   | 7'-9"         | 8'-1"           | 8'-5"   | 8'-8"   | 9'-0"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-6"     | 8'-11"  | 9'-4"         | 9'-9"           | 10'-2"  | 10'-6"  | 10'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 10'-5"    | 10'-11" | 11'-5"        | 11'-11"         | 12'-4"  | 12'-10" | 13'-3"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 4'-7"     | 4'-10"  | 5'-1"         | 5'-4"           | 5'-6"   | 5'-9"   | 5'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 5'-11"    | 6'-3"   | 6'-7"         | 6'-10"          | 7'-1"   | 7'-4"   | 7'-7"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-4"     | 7'-8"   | 8'-0"         | 8'-5"           | 8'-9"   | 9'-0"   | 9'-4"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-10"    | 9'-3"   | 9'-9"         | 10'-2"          | 10'-6"  | 10'-11" | 11'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-9"    | 11'-4"  | 11'-10"       | 12'-4"          | 12'-10" | 13'-3"  | 13'-9"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 4'-10"    | 5'-1"   | 5'-3"         | 5'-6"           | 5'-9"   | 5'-11"  | 6'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-2"     | 6'-6"   | 6'-10"        | 7'-1"           | 7'-5"   | 7'-8"   | 7'-11"   | 362T125-43-50 |
|   | 362T125-54-50 | 7'-7"     | 8'-0"   | 8'-4"         | 8'-9"           | 9'-1"   | 9'-5"   | 9'-8"    | 362T125-54-50 |
|   | 362T125-68-50 | 9'-2"     | 9'-8"   | 10'-1"        | 10'-6"          | 10'-11" | 11'-4"  | 11'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-2"    | 11'-9"  | 12'-4"        | 12'-10"         | 13'-4"  | 13'-10" | 14'-3"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 5'-0"     | 5'-3"   | 5'-6"         | 5'-9"           | 6'-0"   | 6'-3"   | 6'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-6"     | 6'-10"  | 7'-1"         | 7'-5"           | 7'-9"   | 8'-0"   | 8'-3"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-11"    | 8'-4"   | 8'-9"         | 9'-1"           | 9'-5"   | 9'-9"   | 10'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-7"     | 10'-1"  | 10'-6"        | 11'-0"          | 11'-5"  | 11'-10" | 12'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-8"    | 12'-3"  | 12'-10"       | 13'-4"          | 13'-11" | 14'-5"  | 14'-11"  | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 5'-3"     | 5'-6"   | 5'-9"         | 6'-0"           | 6'-3"   | 6'-6"   | 6'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-9"     | 7'-1"   | 7'-5"         | 7'-9"           | 8'-1"   | 8'-4"   | 8'-8"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-4"     | 8'-9"   | 9'-2"         | 9'-6"           | 9'-11"  | 10'-3"  | 10'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-0"    | 10'-6"  | 11'-0"        | 11'-6"          | 11'-11" | 12'-4"  | 12'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 12'-3"    | 12'-10" | 13'-5"        | 14'-0"          | 14'-6"  | 15'-1"  | 15'-7"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 5'-6"     | 5'-10"  | 6'-1"         | 6'-4"           | 6'-7"   | 6'-10"  | 7'-1"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-2"     | 7'-6"   | 7'-10"        | 8'-2"           | 8'-6"   | 8'-10"  | 9'-1"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-9"     | 9'-2"   | 9'-7"         | 10'-0"          | 10'-5"  | 10'-9"  | 11'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-6"    | 11'-1"  | 11'-7"        | 12'-1"          | 12'-7"  | 13'-0"  | 13'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-10"   | 13'-6"  | 14'-1"        | 14'-8"          | 15'-3"  | 15'-10" | 16'-4"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 5'-10"    | 6'-2"   | 6'-5"         | 6'-9"           | 7'-0"   | 7'-3"   | 7'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-6"     | 7'-11"  | 8'-3"         | 8'-8"           | 9'-0"   | 9'-4"   | 9'-7"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-3"     | 9'-8"   | 10'-2"        | 10'-7"          | 11'-0"  | 11'-5"  | 11'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-2"    | 11'-8"  | 12'-3"        | 12'-9"          | 13'-3"  | 13'-9"  | 14'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-7"    | 14'-3"  | 14'-11"       | 15'-6"          | 16'-1"  | 16'-8"  | 17'-3"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 6'-3"     | 6'-7"   | 6'-10"        | 7'-2"           | 7'-5"   | 7'-9"   | 8'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-0"     | 8'-5"   | 8'-10"        | 9'-2"           | 9'-7"   | 9'-11"  | 10'-3"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-10"    | 10'-4"  | 10'-9"        | 11'-3"          | 11'-8"  | 12'-1"  | 12'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-10"   | 12'-5"  | 13'-0"        | 13'-7"          | 14'-1"  | 14'-7"  | 15'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-5"    | 15'-2"  | 15'-10"       | 16'-6"          | 17'-2"  | 17'-9"  | 18'-4"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 6'-8"     | 7'-0"   | 7'-4"         | 7'-8"           | 8'-0"   | 8'-3"   | 8'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-7"     | 9'-0"   | 9'-5"         | 9'-10"          | 10'-3"  | 10'-7"  | 11'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-6"    | 11'-1"  | 11'-7"        | 12'-1"          | 12'-6"  | 13'-0"  | 13'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-8"    | 13'-4"  | 13'-11"       | 14'-6"          | 15'-1"  | 15'-8"  | 16'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-5"    | 16'-3"  | 16'-11"       | 17'-8"          | 18'-4"  | 19'-0"  | 19'-8"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 7'-3"     | 7'-8"   | 8'-0"         | 8'-4"           | 8'-8"   | 9'-0"   | 9'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-4"     | 9'-10"  | 10'-3"        | 10'-8"          | 11'-1"  | 11'-6"  | 11'-11"  | 362T125-43-50 |
|   | 362T125-54-50 | 11'-5"    | 12'-0"  | 12'-6"        | 13'-1"          | 13'-7"  | 14'-0"  | 14'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-9"    | 14'-5"  | 15'-1"        | 15'-9"          | 16'-4"  | 16'-11" | 17'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-9"    | 17'-7"  | 18'-4"        | 19'-1"          | 19'-10" | 20'-7"  | 21'-3"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 7'-10"    | 8'-2"   | 8'-7"         | 8'-11"          | 9'-3"   | 9'-8"   | 9'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-0"    | 10'-6"  | 11'-0"        | 11'-5"          | 11'-11" | 12'-4"  | 12'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-3"    | 12'-10" | 13'-5"        | 14'-0"          | 14'-6"  | 15'-0"  | 15'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-9"    | 15'-6"  | 16'-2"        | 16'-10"         | 17'-6"  | 18'-2"  | 18'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-11"   | 18'-10" | 19'-8"        | 20'-6"          | 21'-3"  | 22'-0"  | 22'-9"   | 362T125-97-50 |





**TABLE 4.7.4.215: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | ( $l_p = 1.5$ ) | S <sub>Ds</sub> | 1.30    | Weight  | 3200 lbs |               |
|---|---------------|-----------|---------|-----------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |                 |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |                 |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |                 |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft         | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 4'-3"     | 4'-6"   | 4'-9"           | 4'-11"          | 5'-1"   | 5'-4"   | 5'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-6"     | 5'-10"  | 6'-1"           | 6'-4"           | 6'-7"   | 6'-10"  | 7'-1"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-10"    | 7'-2"   | 7'-6"           | 7'-10"          | 8'-1"   | 8'-5"   | 8'-8"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-3"     | 8'-8"   | 9'-1"           | 9'-5"           | 9'-10"  | 10'-2"  | 10'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-0"    | 10'-7"  | 11'-0"          | 11'-6"          | 11'-11" | 12'-5"  | 12'-10"  | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 4'-5"     | 4'-8"   | 4'-11"          | 5'-1"           | 5'-4"   | 5'-6"   | 5'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-9"     | 6'-1"   | 6'-4"           | 6'-7"           | 6'-10"  | 7'-1"   | 7'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-1"     | 7'-5"   | 7'-9"           | 8'-1"           | 8'-5"   | 8'-9"   | 9'-0"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-6"     | 9'-0"   | 9'-5"           | 9'-9"           | 10'-2"  | 10'-7"  | 10'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 10'-5"    | 10'-11" | 11'-5"          | 11'-11"         | 12'-5"  | 12'-10" | 13'-3"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 4'-8"     | 4'-10"  | 5'-1"           | 5'-4"           | 5'-6"   | 5'-9"   | 5'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 6'-0"     | 6'-4"   | 6'-7"           | 6'-10"          | 7'-2"   | 7'-5"   | 7'-8"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-4"     | 7'-9"   | 8'-1"           | 8'-5"           | 8'-9"   | 9'-1"   | 9'-5"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-10"    | 9'-4"   | 9'-9"           | 10'-2"          | 10'-7"  | 11'-0"  | 11'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-10"   | 11'-4"  | 11'-11"         | 12'-5"          | 12'-11" | 13'-4"  | 13'-10"  | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 4'-10"    | 5'-1"   | 5'-4"           | 5'-7"           | 5'-9"   | 6'-0"   | 6'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-3"     | 6'-7"   | 6'-11"          | 7'-2"           | 7'-5"   | 7'-9"   | 8'-0"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-8"     | 8'-1"   | 8'-5"           | 8'-9"           | 9'-2"   | 9'-6"   | 9'-9"    | 362T125-54-50 |
|   | 362T125-68-50 | 9'-3"     | 9'-9"   | 10'-2"          | 10'-7"          | 11'-0"  | 11'-5"  | 11'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 11'-3"    | 11'-10" | 12'-5"          | 12'-11"         | 13'-5"  | 13'-11" | 14'-5"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 5'-1"     | 5'-4"   | 5'-7"           | 5'-10"          | 6'-1"   | 6'-3"   | 6'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-7"     | 6'-11"  | 7'-2"           | 7'-6"           | 7'-10"  | 8'-1"   | 8'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-0"     | 8'-5"   | 8'-10"          | 9'-2"           | 9'-7"   | 9'-11"  | 10'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-8"     | 10'-2"  | 10'-8"          | 11'-1"          | 11'-7"  | 12'-0"  | 12'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-10"   | 12'-5"  | 13'-0"          | 13'-6"          | 14'-1"  | 14'-7"  | 15'-1"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 5'-4"     | 5'-7"   | 5'-11"          | 6'-2"           | 6'-5"   | 6'-7"   | 6'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 6'-11"    | 7'-3"   | 7'-7"           | 7'-11"          | 8'-3"   | 8'-6"   | 8'-10"   | 362T125-43-50 |
|   | 362T125-54-50 | 8'-5"     | 8'-10"  | 9'-3"           | 9'-8"           | 10'-1"  | 10'-5"  | 10'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-2"    | 10'-8"  | 11'-2"          | 11'-8"          | 12'-2"  | 12'-7"  | 13'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-5"    | 13'-0"  | 13'-8"          | 14'-3"          | 14'-9"  | 15'-4"  | 15'-10"  | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 5'-8"     | 5'-11"  | 6'-3"           | 6'-6"           | 6'-9"   | 7'-0"   | 7'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-3"     | 7'-8"   | 8'-0"           | 8'-4"           | 8'-8"   | 9'-0"   | 9'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-11"    | 9'-4"   | 9'-10"          | 10'-3"          | 10'-7"  | 11'-0"  | 11'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-9"    | 11'-4"  | 11'-10"         | 12'-4"          | 12'-10" | 13'-3"  | 13'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-1"    | 13'-9"  | 14'-5"          | 15'-0"          | 15'-7"  | 16'-2"  | 16'-8"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 6'-0"     | 6'-4"   | 6'-8"           | 6'-11"          | 7'-2"   | 7'-5"   | 7'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-9"     | 8'-2"   | 8'-6"           | 8'-11"          | 9'-3"   | 9'-7"   | 9'-11"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-6"     | 10'-0"  | 10'-5"          | 10'-10"         | 11'-3"  | 11'-8"  | 12'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-5"    | 12'-0"  | 12'-7"          | 13'-1"          | 13'-8"  | 14'-1"  | 14'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-11"   | 14'-8"  | 15'-4"          | 15'-11"         | 16'-7"  | 17'-2"  | 17'-9"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 6'-6"     | 6'-10"  | 7'-1"           | 7'-5"           | 7'-9"   | 8'-0"   | 8'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-4"     | 8'-9"   | 9'-2"           | 9'-6"           | 9'-11"  | 10'-3"  | 10'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-2"    | 10'-8"  | 11'-2"          | 11'-8"          | 12'-1"  | 12'-6"  | 13'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-3"    | 12'-11" | 13'-6"          | 14'-1"          | 14'-7"  | 15'-2"  | 15'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-11"   | 15'-8"  | 16'-5"          | 17'-1"          | 17'-9"  | 18'-5"  | 19'-0"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 7'-0"     | 7'-5"   | 7'-9"           | 8'-1"           | 8'-4"   | 8'-8"   | 9'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-0"     | 9'-6"   | 9'-11"          | 10'-4"          | 10'-9"  | 11'-1"  | 11'-6"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-0"    | 11'-7"  | 12'-1"          | 12'-7"          | 13'-1"  | 13'-7"  | 14'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-4"    | 14'-0"  | 14'-7"          | 15'-3"          | 15'-10" | 16'-5"  | 16'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 16'-2"    | 17'-0"  | 17'-9"          | 18'-6"          | 19'-3"  | 19'-11" | 20'-7"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 7'-6"     | 7'-11"  | 8'-3"           | 8'-8"           | 9'-0"   | 9'-4"   | 9'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-8"     | 10'-2"  | 10'-8"          | 11'-1"          | 11'-6"  | 11'-11" | 12'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-10"   | 12'-5"  | 13'-0"          | 13'-6"          | 14'-1"  | 14'-7"  | 15'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-3"    | 15'-0"  | 15'-8"          | 16'-4"          | 16'-11" | 17'-7"  | 18'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-4"    | 18'-2"  | 19'-0"          | 19'-10"         | 20'-7"  | 21'-4"  | 22'-0"   | 362T125-97-50 |



**TABLE 4.7.4.216: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:  |               | Type      | S3      | ( $p = 1.5$ ) | S <sub>Ds</sub> | 1.30    | Weight  | 3400 lbs |               |
|--|---------------|-----------|---------|---------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.  |               |           |         |               |                 |         |         |          |               |
| Note: If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |               |                 |         |         |          |               |
| Height in Bldg<br>(z/h)  | Track Section | Pod Width |         |               |                 |         |         |          | Track Section |
|  |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0  | 362T125-33-50 | 4'-2"     | 4'-4"   | 4'-7"         | 4'-9"           | 4'-11"  | 5'-2"   | 5'-4"    | 362T125-33-50 |
|  | 362T125-43-50 | 5'-4"     | 5'-8"   | 5'-11"        | 6'-2"           | 6'-5"   | 6'-8"   | 6'-10"   | 362T125-43-50 |
|  | 362T125-54-50 | 6'-7"     | 6'-11"  | 7'-3"         | 7'-7"           | 7'-10"  | 8'-2"   | 8'-5"    | 362T125-54-50 |
|  | 362T125-68-50 | 8'-0"     | 8'-4"   | 8'-9"         | 9'-2"           | 9'-6"   | 9'-10"  | 10'-2"   | 362T125-68-50 |
|  | 362T125-97-50 | 9'-9"     | 10'-3"  | 10'-8"        | 11'-2"          | 11'-7"  | 12'-0"  | 12'-5"   | 362T125-97-50 |
| 0.9  | 362T125-33-50 | 4'-4"     | 4'-6"   | 4'-9"         | 4'-11"          | 5'-2"   | 5'-4"   | 5'-6"    | 362T125-33-50 |
|  | 362T125-43-50 | 5'-7"     | 5'-10"  | 6'-2"         | 6'-5"           | 6'-8"   | 6'-11"  | 7'-2"    | 362T125-43-50 |
|  | 362T125-54-50 | 6'-10"    | 7'-2"   | 7'-6"         | 7'-10"          | 8'-2"   | 8'-5"   | 8'-9"    | 362T125-54-50 |
|  | 362T125-68-50 | 8'-3"     | 8'-8"   | 9'-1"         | 9'-6"           | 9'-10"  | 10'-3"  | 10'-7"   | 362T125-68-50 |
|  | 362T125-97-50 | 10'-1"    | 10'-7"  | 11'-1"        | 11'-7"          | 12'-0"  | 12'-5"  | 12'-10"  | 362T125-97-50 |
| 0.8  | 362T125-33-50 | 4'-6"     | 4'-9"   | 4'-11"        | 5'-2"           | 5'-4"   | 5'-7"   | 5'-9"    | 362T125-33-50 |
|  | 362T125-43-50 | 5'-10"    | 6'-1"   | 6'-5"         | 6'-8"           | 6'-11"  | 7'-2"   | 7'-5"    | 362T125-43-50 |
|  | 362T125-54-50 | 7'-1"     | 7'-6"   | 7'-10"        | 8'-2"           | 8'-6"   | 8'-9"   | 9'-1"    | 362T125-54-50 |
|  | 362T125-68-50 | 8'-7"     | 9'-0"   | 9'-5"         | 9'-10"          | 10'-3"  | 10'-7"  | 11'-0"   | 362T125-68-50 |
|  | 362T125-97-50 | 10'-6"    | 11'-0"  | 11'-6"        | 12'-0"          | 12'-6"  | 12'-11" | 13'-4"   | 362T125-97-50 |
| 0.7  | 362T125-33-50 | 4'-8"     | 4'-11"  | 5'-2"         | 5'-5"           | 5'-7"   | 5'-10"  | 6'-0"    | 362T125-33-50 |
|  | 362T125-43-50 | 6'-1"     | 6'-4"   | 6'-8"         | 6'-11"          | 7'-3"   | 7'-6"   | 7'-9"    | 362T125-43-50 |
|  | 362T125-54-50 | 7'-5"     | 7'-10"  | 8'-2"         | 8'-6"           | 8'-10"  | 9'-2"   | 9'-6"    | 362T125-54-50 |
|  | 362T125-68-50 | 9'-0"     | 9'-5"   | 9'-10"        | 10'-3"          | 10'-8"  | 11'-1"  | 11'-5"   | 362T125-68-50 |
|  | 362T125-97-50 | 10'-11"   | 11'-6"  | 12'-0"        | 12'-6"          | 13'-0"  | 13'-6"  | 13'-11"  | 362T125-97-50 |
| 0.6  | 362T125-33-50 | 4'-11"    | 5'-2"   | 5'-5"         | 5'-8"           | 5'-10"  | 6'-1"   | 6'-4"    | 362T125-33-50 |
|  | 362T125-43-50 | 6'-4"     | 6'-8"   | 7'-0"         | 7'-3"           | 7'-7"   | 7'-10"  | 8'-1"    | 362T125-43-50 |
|  | 362T125-54-50 | 7'-9"     | 8'-2"   | 8'-7"         | 8'-11"          | 9'-3"   | 9'-7"   | 9'-11"   | 362T125-54-50 |
|  | 362T125-68-50 | 9'-5"     | 9'-10"  | 10'-4"        | 10'-9"          | 11'-2"  | 11'-7"  | 12'-0"   | 362T125-68-50 |
|  | 362T125-97-50 | 11'-5"    | 12'-0"  | 12'-7"        | 13'-1"          | 13'-7"  | 14'-1"  | 14'-7"   | 362T125-97-50 |
| 0.5  | 362T125-33-50 | 5'-2"     | 5'-5"   | 5'-8"         | 5'-11"          | 6'-2"   | 6'-5"   | 6'-7"    | 362T125-33-50 |
|  | 362T125-43-50 | 6'-8"     | 7'-0"   | 7'-4"         | 7'-8"           | 7'-11"  | 8'-3"   | 8'-6"    | 362T125-43-50 |
|  | 362T125-54-50 | 8'-2"     | 8'-7"   | 9'-0"         | 9'-4"           | 9'-9"   | 10'-1"  | 10'-5"   | 362T125-54-50 |
|  | 362T125-68-50 | 9'-10"    | 10'-4"  | 10'-10"       | 11'-4"          | 11'-9"  | 12'-2"  | 12'-7"   | 362T125-68-50 |
|  | 362T125-97-50 | 12'-0"    | 12'-8"  | 13'-3"        | 13'-9"          | 14'-4"  | 14'-10" | 15'-4"   | 362T125-97-50 |
| 0.4  | 362T125-33-50 | 5'-6"     | 5'-9"   | 6'-0"         | 6'-3"           | 6'-6"   | 6'-9"   | 7'-0"    | 362T125-33-50 |
|  | 362T125-43-50 | 7'-1"     | 7'-5"   | 7'-9"         | 8'-1"           | 8'-5"   | 8'-9"   | 9'-0"    | 362T125-43-50 |
|  | 362T125-54-50 | 8'-8"     | 9'-1"   | 9'-6"         | 9'-11"          | 10'-3"  | 10'-8"  | 11'-0"   | 362T125-54-50 |
|  | 362T125-68-50 | 10'-5"    | 11'-0"  | 11'-6"        | 11'-11"         | 12'-5"  | 12'-10" | 13'-4"   | 362T125-68-50 |
|  | 362T125-97-50 | 12'-8"    | 13'-4"  | 13'-11"       | 14'-7"          | 15'-1"  | 15'-8"  | 16'-2"   | 362T125-97-50 |
| 0.3  | 362T125-33-50 | 5'-10"    | 6'-2"   | 6'-5"         | 6'-8"           | 7'-0"   | 7'-3"   | 7'-6"    | 362T125-33-50 |
|  | 362T125-43-50 | 7'-6"     | 7'-11"  | 8'-3"         | 8'-7"           | 8'-11"  | 9'-3"   | 9'-7"    | 362T125-43-50 |
|  | 362T125-54-50 | 9'-2"     | 9'-8"   | 10'-1"        | 10'-6"          | 10'-11" | 11'-4"  | 11'-9"   | 362T125-54-50 |
|  | 362T125-68-50 | 11'-1"    | 11'-8"  | 12'-2"        | 12'-9"          | 13'-2"  | 13'-8"  | 14'-2"   | 362T125-68-50 |
|  | 362T125-97-50 | 13'-6"    | 14'-2"  | 14'-10"       | 15'-6"          | 16'-1"  | 16'-8"  | 17'-2"   | 362T125-97-50 |
| 0.2  | 362T125-33-50 | 6'-3"     | 6'-7"   | 6'-11"        | 7'-2"           | 7'-6"   | 7'-9"   | 8'-0"    | 362T125-33-50 |
|  | 362T125-43-50 | 8'-1"     | 8'-6"   | 8'-10"        | 9'-3"           | 9'-7"   | 9'-11"  | 10'-3"   | 362T125-43-50 |
|  | 362T125-54-50 | 9'-10"    | 10'-4"  | 10'-10"       | 11'-3"          | 11'-9"  | 12'-2"  | 12'-7"   | 362T125-54-50 |
|  | 362T125-68-50 | 11'-11"   | 12'-6"  | 13'-1"        | 13'-7"          | 14'-2"  | 14'-8"  | 15'-2"   | 362T125-68-50 |
|  | 362T125-97-50 | 14'-6"    | 15'-2"  | 15'-11"       | 16'-7"          | 17'-2"  | 17'-10" | 18'-5"   | 362T125-97-50 |
| 0.1  | 362T125-33-50 | 6'-10"    | 7'-2"   | 7'-6"         | 7'-10"          | 8'-1"   | 8'-5"   | 8'-8"    | 362T125-33-50 |
|  | 362T125-43-50 | 8'-9"     | 9'-2"   | 9'-7"         | 10'-0"          | 10'-5"  | 10'-9"  | 11'-2"   | 362T125-43-50 |
|  | 362T125-54-50 | 10'-8"    | 11'-3"  | 11'-9"        | 12'-3"          | 12'-8"  | 13'-2"  | 13'-7"   | 362T125-54-50 |
|  | 362T125-68-50 | 12'-11"   | 13'-6"  | 14'-2"        | 14'-9"          | 15'-4"  | 15'-11" | 16'-5"   | 362T125-68-50 |
|  | 362T125-97-50 | 15'-8"    | 16'-6"  | 17'-3"        | 17'-11"         | 18'-8"  | 19'-4"  | 19'-11"  | 362T125-97-50 |
| 0.0  | 362T125-33-50 | 7'-4"     | 7'-8"   | 8'-0"         | 8'-4"           | 8'-8"   | 9'-0"   | 9'-4"    | 362T125-33-50 |
|  | 362T125-43-50 | 9'-4"     | 9'-10"  | 10'-4"        | 10'-9"          | 11'-2"  | 11'-7"  | 11'-11"  | 362T125-43-50 |
|  | 362T125-54-50 | 11'-5"    | 12'-0"  | 12'-7"        | 13'-1"          | 13'-7"  | 14'-1"  | 14'-7"   | 362T125-54-50 |
|  | 362T125-68-50 | 13'-10"   | 14'-6"  | 15'-2"        | 15'-10"         | 16'-5"  | 17'-0"  | 17'-7"   | 362T125-68-50 |
|  | 362T125-97-50 | 16'-9"    | 17'-8"  | 18'-5"        | 19'-2"          | 19'-11" | 20'-8"  | 21'-4"   | 362T125-97-50 |



**TABLE 4.7.4.217: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | (Ip = 1.5) | S <sub>Ds</sub> | 1.30    | Weight  | 3600 lbs |               |
|---|---------------|-----------|---------|------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |            |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |            |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |            |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft    | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 4'-0"     | 4'-3"   | 4'-5"      | 4'-7"           | 4'-10"  | 5'-0"   | 5'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-2"     | 5'-6"   | 5'-9"      | 6'-0"           | 6'-3"   | 6'-5"   | 6'-8"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-5"     | 6'-9"   | 7'-0"      | 7'-4"           | 7'-7"   | 7'-11"  | 8'-2"    | 362T125-54-50 |
|   | 362T125-68-50 | 7'-9"     | 8'-1"   | 8'-6"      | 8'-10"          | 9'-3"   | 9'-7"   | 9'-11"   | 362T125-68-50 |
|   | 362T125-97-50 | 9'-5"     | 9'-11"  | 10'-4"     | 10'-10"         | 11'-3"  | 11'-8"  | 12'-1"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 4'-2"     | 4'-5"   | 4'-7"      | 4'-9"           | 5'-0"   | 5'-2"   | 5'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-5"     | 5'-8"   | 5'-11"     | 6'-2"           | 6'-5"   | 6'-8"   | 6'-11"   | 362T125-43-50 |
|   | 362T125-54-50 | 6'-8"     | 7'-0"   | 7'-4"      | 7'-7"           | 7'-11"  | 8'-2"   | 8'-6"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-0"     | 8'-5"   | 8'-10"     | 9'-2"           | 9'-7"   | 9'-11"  | 10'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 9'-9"     | 10'-3"  | 10'-9"     | 11'-3"          | 11'-8"  | 12'-1"  | 12'-6"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 4'-4"     | 4'-7"   | 4'-9"      | 5'-0"           | 5'-2"   | 5'-5"   | 5'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-7"     | 5'-11"  | 6'-2"      | 6'-5"           | 6'-8"   | 6'-11"  | 7'-2"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-11"    | 7'-3"   | 7'-7"      | 7'-11"          | 8'-3"   | 8'-6"   | 8'-10"   | 362T125-54-50 |
|   | 362T125-68-50 | 8'-4"     | 8'-9"   | 9'-2"      | 9'-7"           | 9'-11"  | 10'-4"  | 10'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-2"    | 10'-8"  | 11'-2"     | 11'-8"          | 12'-1"  | 12'-7"  | 13'-0"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 4'-6"     | 4'-9"   | 5'-0"      | 5'-3"           | 5'-5"   | 5'-7"   | 5'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 5'-10"    | 6'-2"   | 6'-5"      | 6'-9"           | 7'-0"   | 7'-3"   | 7'-6"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-2"     | 7'-7"   | 7'-11"     | 8'-3"           | 8'-7"   | 8'-11"  | 9'-2"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-8"     | 9'-2"   | 9'-7"      | 10'-0"          | 10'-4"  | 10'-9"  | 11'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-7"    | 11'-2"  | 11'-8"     | 12'-2"          | 12'-8"  | 13'-1"  | 13'-6"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 4'-9"     | 5'-0"   | 5'-3"      | 5'-6"           | 5'-8"   | 5'-11"  | 6'-1"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-2"     | 6'-6"   | 6'-9"      | 7'-1"           | 7'-4"   | 7'-7"   | 7'-10"   | 362T125-43-50 |
|   | 362T125-54-50 | 7'-6"     | 7'-11"  | 8'-3"      | 8'-8"           | 9'-0"   | 9'-4"   | 9'-8"    | 362T125-54-50 |
|   | 362T125-68-50 | 9'-1"     | 9'-7"   | 10'-0"     | 10'-5"          | 10'-10" | 11'-3"  | 11'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-1"    | 11'-8"  | 12'-2"     | 12'-9"          | 13'-3"  | 13'-8"  | 14'-2"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 5'-0"     | 5'-3"   | 5'-6"      | 5'-9"           | 6'-0"   | 6'-3"   | 6'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-6"     | 6'-10"  | 7'-1"      | 7'-5"           | 7'-9"   | 8'-0"   | 8'-3"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-11"    | 8'-4"   | 8'-9"      | 9'-1"           | 9'-5"   | 9'-9"   | 10'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-7"     | 10'-1"  | 10'-6"     | 11'-0"          | 11'-5"  | 11'-10" | 12'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-8"    | 12'-3"  | 12'-10"    | 13'-4"          | 13'-11" | 14'-5"  | 14'-11"  | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 5'-4"     | 5'-7"   | 5'-10"     | 6'-1"           | 6'-4"   | 6'-7"   | 6'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 6'-10"    | 7'-2"   | 7'-6"      | 7'-10"          | 8'-2"   | 8'-5"   | 8'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-5"     | 8'-10"  | 9'-3"      | 9'-7"           | 10'-0"  | 10'-4"  | 10'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-1"    | 10'-8"  | 11'-2"     | 11'-7"          | 12'-1"  | 12'-6"  | 12'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 12'-4"    | 12'-11" | 13'-7"     | 14'-1"          | 14'-8"  | 15'-2"  | 15'-9"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 5'-8"     | 5'-11"  | 6'-3"      | 6'-6"           | 6'-9"   | 7'-0"   | 7'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-3"     | 7'-8"   | 8'-0"      | 8'-4"           | 8'-8"   | 9'-0"   | 9'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-11"    | 9'-4"   | 9'-10"     | 10'-3"          | 10'-7"  | 11'-0"  | 11'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-9"    | 11'-4"  | 11'-10"    | 12'-4"          | 12'-10" | 13'-3"  | 13'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-1"    | 13'-9"  | 14'-5"     | 15'-0"          | 15'-7"  | 16'-2"  | 16'-8"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 6'-1"     | 6'-5"   | 6'-8"      | 7'-0"           | 7'-3"   | 7'-6"   | 7'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-10"    | 8'-3"   | 8'-7"      | 9'-0"           | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-7"     | 10'-1"  | 10'-6"     | 10'-11"         | 11'-5"  | 11'-10" | 12'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-7"    | 12'-2"  | 12'-8"     | 13'-3"          | 13'-9"  | 14'-3"  | 14'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-1"    | 14'-9"  | 15'-5"     | 16'-1"          | 16'-8"  | 17'-4"  | 17'-11"  | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 6'-7"     | 6'-11"  | 7'-3"      | 7'-7"           | 7'-10"  | 8'-2"   | 8'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-6"     | 8'-11"  | 9'-4"      | 9'-9"           | 10'-1"  | 10'-6"  | 10'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 10'-4"    | 10'-11" | 11'-5"     | 11'-10"         | 12'-4"  | 12'-9"  | 13'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-6"    | 13'-2"  | 13'-9"     | 14'-4"          | 14'-11" | 15'-5"  | 15'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 15'-3"    | 16'-0"  | 16'-9"     | 17'-5"          | 18'-1"  | 18'-9"  | 19'-4"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 7'-1"     | 7'-5"   | 7'-9"      | 8'-1"           | 8'-5"   | 8'-9"   | 9'-1"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-1"     | 9'-7"   | 10'-0"     | 10'-5"          | 10'-10" | 11'-2"  | 11'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-1"    | 11'-8"  | 12'-2"     | 12'-9"          | 13'-3"  | 13'-8"  | 14'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-5"    | 14'-1"  | 14'-9"     | 15'-4"          | 15'-11" | 16'-6"  | 17'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-4"    | 17'-1"  | 17'-11"    | 18'-8"          | 19'-4"  | 20'-1"  | 20'-9"   | 362T125-97-50 |



**TABLE 4.7.4.218: MAXIMUM UNBRACED TOP TRACK LENGTH**

| <b>PARAMETERS:</b>   |               | Type      | S3      | ( $l_p = 1.5$ ) | S <sub>DS</sub> | 1.30    | Weight  | 3800 lbs |               |
|--|---------------|-----------|---------|-----------------|-----------------|---------|---------|----------|---------------|
| <p>* Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.<br/>                     Note: If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track.</p> |               |           |         |                 |                 |         |         |          |               |
| Height in Bldg<br>(z/h)  | Track Section | Pod Width |         |                 |                 |         |         |          |               |
|  |               | 5.00 ft   | 5.50 ft | 6.00 ft         | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  | Track Section |
| 1.0  | 362T125-33-50 | 3'-11"    | 4'-1"   | 4'-3"           | 4'-6"           | 4'-8"   | 4'-10"  | 5'-0"    | 362T125-33-50 |
|  | 362T125-43-50 | 5'-1"     | 5'-4"   | 5'-7"           | 5'-10"          | 6'-0"   | 6'-3"   | 6'-6"    | 362T125-43-50 |
|  | 362T125-54-50 | 6'-2"     | 6'-6"   | 6'-10"          | 7'-1"           | 7'-5"   | 7'-8"   | 7'-11"   | 362T125-54-50 |
|  | 362T125-68-50 | 7'-6"     | 7'-11"  | 8'-3"           | 8'-7"           | 8'-11"  | 9'-3"   | 9'-7"    | 362T125-68-50 |
|  | 362T125-97-50 | 9'-2"     | 9'-8"   | 10'-1"          | 10'-6"          | 10'-11" | 11'-4"  | 11'-9"   | 362T125-97-50 |
| 0.9  | 362T125-33-50 | 4'-0"     | 4'-3"   | 4'-5"           | 4'-8"           | 4'-10"  | 5'-0"   | 5'-2"    | 362T125-33-50 |
|  | 362T125-43-50 | 5'-3"     | 5'-6"   | 5'-9"           | 6'-0"           | 6'-3"   | 6'-6"   | 6'-9"    | 362T125-43-50 |
|  | 362T125-54-50 | 6'-5"     | 6'-9"   | 7'-1"           | 7'-5"           | 7'-8"   | 8'-0"   | 8'-3"    | 362T125-54-50 |
|  | 362T125-68-50 | 7'-9"     | 8'-2"   | 8'-7"           | 8'-11"          | 9'-3"   | 9'-8"   | 10'-0"   | 362T125-68-50 |
|  | 362T125-97-50 | 9'-6"     | 10'-0"  | 10'-5"          | 10'-11"         | 11'-4"  | 11'-9"  | 12'-2"   | 362T125-97-50 |
| 0.8  | 362T125-33-50 | 4'-2"     | 4'-5"   | 4'-8"           | 4'-10"          | 5'-0"   | 5'-3"   | 5'-5"    | 362T125-33-50 |
|  | 362T125-43-50 | 5'-5"     | 5'-9"   | 6'-0"           | 6'-3"           | 6'-6"   | 6'-9"   | 7'-0"    | 362T125-43-50 |
|  | 362T125-54-50 | 6'-8"     | 7'-1"   | 7'-4"           | 7'-8"           | 8'-0"   | 8'-3"   | 8'-7"    | 362T125-54-50 |
|  | 362T125-68-50 | 8'-1"     | 8'-6"   | 8'-11"          | 9'-4"           | 9'-8"   | 10'-0"  | 10'-4"   | 362T125-68-50 |
|  | 362T125-97-50 | 9'-11"    | 10'-5"  | 10'-10"         | 11'-4"          | 11'-9"  | 12'-2"  | 12'-7"   | 362T125-97-50 |
| 0.7  | 362T125-33-50 | 4'-5"     | 4'-8"   | 4'-10"          | 5'-1"           | 5'-3"   | 5'-6"   | 5'-8"    | 362T125-33-50 |
|  | 362T125-43-50 | 5'-8"     | 6'-0"   | 6'-3"           | 6'-6"           | 6'-10"  | 7'-1"   | 7'-4"    | 362T125-43-50 |
|  | 362T125-54-50 | 7'-0"     | 7'-4"   | 7'-8"           | 8'-0"           | 8'-4"   | 8'-8"   | 8'-11"   | 362T125-54-50 |
|  | 362T125-68-50 | 8'-5"     | 8'-11"  | 9'-4"           | 9'-8"           | 10'-1"  | 10'-5"  | 10'-10"  | 362T125-68-50 |
|  | 362T125-97-50 | 10'-4"    | 10'-10" | 11'-4"          | 11'-10"         | 12'-3"  | 12'-9"  | 13'-2"   | 362T125-97-50 |
| 0.6  | 362T125-33-50 | 4'-7"     | 4'-10"  | 5'-1"           | 5'-4"           | 5'-6"   | 5'-9"   | 5'-11"   | 362T125-33-50 |
|  | 362T125-43-50 | 6'-0"     | 6'-3"   | 6'-7"           | 6'-10"          | 7'-1"   | 7'-5"   | 7'-8"    | 362T125-43-50 |
|  | 362T125-54-50 | 7'-4"     | 7'-8"   | 8'-1"           | 8'-5"           | 8'-9"   | 9'-1"   | 9'-4"    | 362T125-54-50 |
|  | 362T125-68-50 | 8'-10"    | 9'-4"   | 9'-9"           | 10'-2"          | 10'-7"  | 10'-11" | 11'-4"   | 362T125-68-50 |
|  | 362T125-97-50 | 10'-10"   | 11'-4"  | 11'-10"         | 12'-4"          | 12'-10" | 13'-4"  | 13'-9"   | 362T125-97-50 |
| 0.5  | 362T125-33-50 | 4'-10"    | 5'-1"   | 5'-4"           | 5'-7"           | 5'-10"  | 6'-0"   | 6'-3"    | 362T125-33-50 |
|  | 362T125-43-50 | 6'-3"     | 6'-7"   | 6'-11"          | 7'-3"           | 7'-6"   | 7'-9"   | 8'-0"    | 362T125-43-50 |
|  | 362T125-54-50 | 7'-8"     | 8'-1"   | 8'-6"           | 8'-10"          | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-54-50 |
|  | 362T125-68-50 | 9'-4"     | 9'-9"   | 10'-3"          | 10'-8"          | 11'-1"  | 11'-6"  | 11'-11"  | 362T125-68-50 |
|  | 362T125-97-50 | 11'-4"    | 11'-11" | 12'-6"          | 13'-0"          | 13'-6"  | 14'-0"  | 14'-6"   | 362T125-97-50 |
| 0.4  | 362T125-33-50 | 5'-2"     | 5'-5"   | 5'-8"           | 5'-11"          | 6'-2"   | 6'-5"   | 6'-7"    | 362T125-33-50 |
|  | 362T125-43-50 | 6'-8"     | 7'-0"   | 7'-4"           | 7'-8"           | 7'-11"  | 8'-3"   | 8'-6"    | 362T125-43-50 |
|  | 362T125-54-50 | 8'-2"     | 8'-7"   | 8'-11"          | 9'-4"           | 9'-8"   | 10'-1"  | 10'-5"   | 362T125-54-50 |
|  | 362T125-68-50 | 9'-10"    | 10'-4"  | 10'-10"         | 11'-3"          | 11'-9"  | 12'-2"  | 12'-7"   | 362T125-68-50 |
|  | 362T125-97-50 | 12'-0"    | 12'-7"  | 13'-2"          | 13'-9"          | 14'-3"  | 14'-9"  | 15'-3"   | 362T125-97-50 |
| 0.3  | 362T125-33-50 | 5'-6"     | 5'-9"   | 6'-1"           | 6'-4"           | 6'-7"   | 6'-10"  | 7'-0"    | 362T125-33-50 |
|  | 362T125-43-50 | 7'-1"     | 7'-5"   | 7'-9"           | 8'-1"           | 8'-5"   | 8'-9"   | 9'-1"    | 362T125-43-50 |
|  | 362T125-54-50 | 8'-8"     | 9'-1"   | 9'-6"           | 9'-11"          | 10'-4"  | 10'-8"  | 11'-1"   | 362T125-54-50 |
|  | 362T125-68-50 | 10'-6"    | 11'-0"  | 11'-6"          | 12'-0"          | 12'-6"  | 12'-11" | 13'-4"   | 362T125-68-50 |
|  | 362T125-97-50 | 12'-9"    | 13'-5"  | 14'-0"          | 14'-7"          | 15'-2"  | 15'-9"  | 16'-3"   | 362T125-97-50 |
| 0.2  | 362T125-33-50 | 5'-11"    | 6'-2"   | 6'-6"           | 6'-9"           | 7'-1"   | 7'-4"   | 7'-7"    | 362T125-33-50 |
|  | 362T125-43-50 | 7'-7"     | 8'-0"   | 8'-4"           | 8'-9"           | 9'-1"   | 9'-5"   | 9'-8"    | 362T125-43-50 |
|  | 362T125-54-50 | 9'-4"     | 9'-9"   | 10'-3"          | 10'-8"          | 11'-1"  | 11'-6"  | 11'-10"  | 362T125-54-50 |
|  | 362T125-68-50 | 11'-3"    | 11'-10" | 12'-4"          | 12'-10"         | 13'-4"  | 13'-10" | 14'-4"   | 362T125-68-50 |
|  | 362T125-97-50 | 13'-8"    | 14'-4"  | 15'-0"          | 15'-8"          | 16'-3"  | 16'-10" | 17'-5"   | 362T125-97-50 |
| 0.1  | 362T125-33-50 | 6'-5"     | 6'-9"   | 7'-1"           | 7'-4"           | 7'-8"   | 7'-11"  | 8'-2"    | 362T125-33-50 |
|  | 362T125-43-50 | 8'-3"     | 8'-8"   | 9'-1"           | 9'-5"           | 9'-10"  | 10'-2"  | 10'-6"   | 362T125-43-50 |
|  | 362T125-54-50 | 10'-1"    | 10'-7"  | 11'-1"          | 11'-6"          | 12'-0"  | 12'-5"  | 12'-10"  | 362T125-54-50 |
|  | 362T125-68-50 | 12'-2"    | 12'-9"  | 13'-4"          | 13'-11"         | 14'-6"  | 15'-0"  | 15'-6"   | 362T125-68-50 |
|  | 362T125-97-50 | 14'-10"   | 15'-7"  | 16'-3"          | 16'-11"         | 17'-7"  | 18'-3"  | 18'-10"  | 362T125-97-50 |
| 0.0  | 362T125-33-50 | 6'-11"    | 7'-3"   | 7'-7"           | 7'-11"          | 8'-2"   | 8'-6"   | 8'-9"    | 362T125-33-50 |
|  | 362T125-43-50 | 8'-10"    | 9'-3"   | 9'-9"           | 10'-1"          | 10'-6"  | 10'-11" | 11'-3"   | 362T125-43-50 |
|  | 362T125-54-50 | 10'-10"   | 11'-4"  | 11'-10"         | 12'-4"          | 12'-10" | 13'-4"  | 13'-9"   | 362T125-54-50 |
|  | 362T125-68-50 | 13'-0"    | 13'-8"  | 14'-4"          | 14'-11"         | 15'-6"  | 16'-1"  | 16'-7"   | 362T125-68-50 |
|  | 362T125-97-50 | 15'-10"   | 16'-8"  | 17'-5"          | 18'-2"          | 18'-10" | 19'-6"  | 20'-2"   | 362T125-97-50 |



**TABLE 4.7.4.219: MAXIMUM UNBRACED TOP TRACK LENGTH**

| <b>PARAMETERS:</b>   |               |                 |          |         |         |          |         |               |               |
|--|---------------|-----------------|----------|---------|---------|----------|---------|---------------|---------------|
| Type   | S3            | ( $l_p = 1.5$ ) | $S_{Ds}$ | 1.30    | Weight  | 4000 lbs |         |               |               |
| <i>* Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.</i>   |               |                 |          |         |         |          |         |               |               |
| <i><b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track.</i> |               |                 |          |         |         |          |         |               |               |
| Height in Bldg<br>(z/h)  | Track Section | Pod Width       |          |         |         |          |         | Track Section |               |
|  |               | 5.00 ft         | 5.50 ft  | 6.00 ft | 6.50 ft | 7.00 ft  | 7.50 ft |               | 8.00 ft       |
| 1.0  | 362T125-33-50 | 3'-9"           | 4'-0"    | 4'-2"   | 4'-4"   | 4'-6"    | 4'-8"   | 4'-10"        | 362T125-33-50 |
|  | 362T125-43-50 | 4'-11"          | 5'-2"    | 5'-5"   | 5'-8"   | 5'-10"   | 6'-1"   | 6'-4"         | 362T125-43-50 |
|  | 362T125-54-50 | 6'-0"           | 6'-4"    | 6'-8"   | 6'-11"  | 7'-2"    | 7'-6"   | 7'-9"         | 362T125-54-50 |
|  | 362T125-68-50 | 7'-4"           | 7'-8"    | 8'-0"   | 8'-5"   | 8'-9"    | 9'-0"   | 9'-4"         | 362T125-68-50 |
|  | 362T125-97-50 | 8'-11"          | 9'-5"    | 9'-10"  | 10'-3"  | 10'-8"   | 11'-0"  | 11'-5"        | 362T125-97-50 |
| 0.9  | 362T125-33-50 | 3'-11"          | 4'-2"    | 4'-4"   | 4'-6"   | 4'-8"    | 4'-11"  | 5'-1"         | 362T125-33-50 |
|  | 362T125-43-50 | 5'-1"           | 5'-4"    | 5'-7"   | 5'-10"  | 6'-1"    | 6'-4"   | 6'-6"         | 362T125-43-50 |
|  | 362T125-54-50 | 6'-3"           | 6'-7"    | 6'-11"  | 7'-2"   | 7'-6"    | 7'-9"   | 8'-0"         | 362T125-54-50 |
|  | 362T125-68-50 | 7'-7"           | 8'-0"    | 8'-4"   | 8'-8"   | 9'-0"    | 9'-4"   | 9'-8"         | 362T125-68-50 |
|  | 362T125-97-50 | 9'-3"           | 9'-9"    | 10'-2"  | 10'-7"  | 11'-0"   | 11'-5"  | 11'-10"       | 362T125-97-50 |
| 0.8  | 362T125-33-50 | 4'-1"           | 4'-4"    | 4'-6"   | 4'-8"   | 4'-11"   | 5'-1"   | 5'-3"         | 362T125-33-50 |
|  | 362T125-43-50 | 5'-4"           | 5'-7"    | 5'-10"  | 6'-1"   | 6'-4"    | 6'-7"   | 6'-10"        | 362T125-43-50 |
|  | 362T125-54-50 | 6'-6"           | 6'-10"   | 7'-2"   | 7'-6"   | 7'-9"    | 8'-1"   | 8'-4"         | 362T125-54-50 |
|  | 362T125-68-50 | 7'-11"          | 8'-3"    | 8'-8"   | 9'-1"   | 9'-5"    | 9'-9"   | 10'-1"        | 362T125-68-50 |
|  | 362T125-97-50 | 9'-7"           | 10'-1"   | 10'-7"  | 11'-0"  | 11'-6"   | 11'-11" | 12'-3"        | 362T125-97-50 |
| 0.7  | 362T125-33-50 | 4'-3"           | 4'-6"    | 4'-9"   | 4'-11"  | 5'-1"    | 5'-4"   | 5'-6"         | 362T125-33-50 |
|  | 362T125-43-50 | 5'-6"           | 5'-10"   | 6'-1"   | 6'-4"   | 6'-7"    | 6'-10"  | 7'-1"         | 362T125-43-50 |
|  | 362T125-54-50 | 6'-10"          | 7'-2"    | 7'-6"   | 7'-10"  | 8'-1"    | 8'-5"   | 8'-8"         | 362T125-54-50 |
|  | 362T125-68-50 | 8'-3"           | 8'-8"    | 9'-1"   | 9'-5"   | 9'-10"   | 10'-2"  | 10'-6"        | 362T125-68-50 |
|  | 362T125-97-50 | 10'-0"          | 10'-7"   | 11'-0"  | 11'-6"  | 11'-11"  | 12'-5"  | 12'-10"       | 362T125-97-50 |
| 0.6  | 362T125-33-50 | 4'-6"           | 4'-9"    | 4'-11"  | 5'-2"   | 5'-4"    | 5'-7"   | 5'-9"         | 362T125-33-50 |
|  | 362T125-43-50 | 5'-10"          | 6'-1"    | 6'-5"   | 6'-8"   | 6'-11"   | 7'-2"   | 7'-5"         | 362T125-43-50 |
|  | 362T125-54-50 | 7'-2"           | 7'-6"    | 7'-10"  | 8'-2"   | 8'-6"    | 8'-10"  | 9'-1"         | 362T125-54-50 |
|  | 362T125-68-50 | 8'-7"           | 9'-1"    | 9'-6"   | 9'-11"  | 10'-3"   | 10'-8"  | 11'-0"        | 362T125-68-50 |
|  | 362T125-97-50 | 10'-6"          | 11'-0"   | 11'-7"  | 12'-0"  | 12'-6"   | 13'-0"  | 13'-5"        | 362T125-97-50 |
| 0.5  | 362T125-33-50 | 4'-9"           | 5'-0"    | 5'-3"   | 5'-5"   | 5'-8"    | 5'-10"  | 6'-1"         | 362T125-33-50 |
|  | 362T125-43-50 | 6'-1"           | 6'-5"    | 6'-9"   | 7'-0"   | 7'-4"    | 7'-7"   | 7'-10"        | 362T125-43-50 |
|  | 362T125-54-50 | 7'-6"           | 7'-11"   | 8'-3"   | 8'-7"   | 8'-11"   | 9'-3"   | 9'-7"         | 362T125-54-50 |
|  | 362T125-68-50 | 9'-1"           | 9'-6"    | 10'-0"  | 10'-5"  | 10'-10"  | 11'-2"  | 11'-7"        | 362T125-68-50 |
|  | 362T125-97-50 | 11'-1"          | 11'-7"   | 12'-2"  | 12'-8"  | 13'-2"   | 13'-8"  | 14'-1"        | 362T125-97-50 |
| 0.4  | 362T125-33-50 | 5'-0"           | 5'-3"    | 5'-6"   | 5'-9"   | 6'-0"    | 6'-3"   | 6'-5"         | 362T125-33-50 |
|  | 362T125-43-50 | 6'-6"           | 6'-10"   | 7'-1"   | 7'-5"   | 7'-9"    | 8'-0"   | 8'-3"         | 362T125-43-50 |
|  | 362T125-54-50 | 7'-11"          | 8'-4"    | 8'-9"   | 9'-1"   | 9'-5"    | 10'-1"  | 10'-1"        | 362T125-54-50 |
|  | 362T125-68-50 | 9'-7"           | 10'-1"   | 10'-6"  | 11'-0"  | 11'-5"   | 11'-10" | 12'-3"        | 362T125-68-50 |
|  | 362T125-97-50 | 11'-8"          | 12'-3"   | 12'-10" | 13'-4"  | 13'-11"  | 14'-5"  | 14'-11"       | 362T125-97-50 |
| 0.3  | 362T125-33-50 | 5'-4"           | 5'-7"    | 5'-11"  | 6'-2"   | 6'-5"    | 6'-7"   | 6'-10"        | 362T125-33-50 |
|  | 362T125-43-50 | 6'-11"          | 7'-3"    | 7'-7"   | 7'-11"  | 8'-3"    | 8'-6"   | 8'-10"        | 362T125-43-50 |
|  | 362T125-54-50 | 8'-5"           | 8'-10"   | 9'-3"   | 9'-8"   | 10'-1"   | 10'-5"  | 10'-9"        | 362T125-54-50 |
|  | 362T125-68-50 | 10'-2"          | 10'-8"   | 11'-2"  | 11'-8"  | 12'-2"   | 12'-7"  | 13'-0"        | 362T125-68-50 |
|  | 362T125-97-50 | 12'-5"          | 13'-0"   | 13'-8"  | 14'-3"  | 14'-9"   | 15'-4"  | 15'-10"       | 362T125-97-50 |
| 0.2  | 362T125-33-50 | 5'-9"           | 6'-0"    | 6'-4"   | 6'-7"   | 6'-10"   | 7'-1"   | 7'-4"         | 362T125-33-50 |
|  | 362T125-43-50 | 7'-5"           | 7'-9"    | 8'-2"   | 8'-6"   | 8'-10"   | 9'-2"   | 9'-5"         | 362T125-43-50 |
|  | 362T125-54-50 | 9'-1"           | 9'-6"    | 9'-11"  | 10'-4"  | 10'-9"   | 11'-2"  | 11'-7"        | 362T125-54-50 |
|  | 362T125-68-50 | 10'-11"         | 11'-6"   | 12'-0"  | 12'-6"  | 13'-0"   | 13'-6"  | 13'-11"       | 362T125-68-50 |
|  | 362T125-97-50 | 13'-4"          | 14'-0"   | 14'-7"  | 15'-3"  | 15'-10"  | 16'-5"  | 16'-11"       | 362T125-97-50 |
| 0.1  | 362T125-33-50 | 6'-3"           | 6'-7"    | 6'-10"  | 7'-2"   | 7'-5"    | 7'-9"   | 8'-0"         | 362T125-33-50 |
|  | 362T125-43-50 | 8'-0"           | 8'-5"    | 8'-10"  | 9'-2"   | 9'-7"    | 9'-11"  | 10'-3"        | 362T125-43-50 |
|  | 362T125-54-50 | 9'-10"          | 10'-4"   | 10'-9"  | 11'-3"  | 11'-8"   | 12'-1"  | 12'-6"        | 362T125-54-50 |
|  | 362T125-68-50 | 11'-10"         | 12'-5"   | 13'-0"  | 13'-7"  | 14'-1"   | 14'-7"  | 15'-1"        | 362T125-68-50 |
|  | 362T125-97-50 | 14'-5"          | 15'-2"   | 15'-10" | 16'-6"  | 17'-2"   | 17'-9"  | 18'-4"        | 362T125-97-50 |
| 0.0  | 362T125-33-50 | 6'-8"           | 7'-0"    | 7'-4"   | 7'-8"   | 8'-0"    | 8'-3"   | 8'-7"         | 362T125-33-50 |
|  | 362T125-43-50 | 8'-7"           | 9'-0"    | 9'-5"   | 9'-10"  | 10'-3"   | 10'-7"  | 11'-0"        | 362T125-43-50 |
|  | 362T125-54-50 | 10'-6"          | 11'-1"   | 11'-7"  | 12'-1"  | 12'-6"   | 13'-0"  | 13'-5"        | 362T125-54-50 |
|  | 362T125-68-50 | 12'-8"          | 13'-4"   | 13'-11" | 14'-6"  | 15'-1"   | 15'-8"  | 16'-2"        | 362T125-68-50 |
|  | 362T125-97-50 | 15'-5"          | 16'-3"   | 16'-11" | 17'-8"  | 18'-4"   | 19'-0"  | 19'-8"        | 362T125-97-50 |



**TABLE 4.7.4.220: MAXIMUM UNBRACED TOP TRACK LENGTH**

| <b>PARAMETERS:</b>  |               | Type      | S <sub>3</sub> | (I <sub>p</sub> = 1.5) | S <sub>Ds</sub> | 1.30    | Weight  | 4200 lbs |               |
|---|---------------|-----------|----------------|------------------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |                |                        |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |                |                        |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |                |                        |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft        | 6.00 ft                | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 3'-8"     | 3'-10"         | 4'-1"                  | 4'-3"           | 4'-5"   | 4'-7"   | 4'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 4'-9"     | 5'-0"          | 5'-3"                  | 5'-6"           | 5'-9"   | 5'-11"  | 6'-2"    | 362T125-43-50 |
|   | 362T125-54-50 | 5'-11"    | 6'-2"          | 6'-6"                  | 6'-9"           | 7'-0"   | 7'-3"   | 7'-6"    | 362T125-54-50 |
|   | 362T125-68-50 | 7'-1"     | 7'-6"          | 7'-10"                 | 8'-2"           | 8'-6"   | 8'-10"  | 9'-1"    | 362T125-68-50 |
|   | 362T125-97-50 | 8'-8"     | 9'-2"          | 9'-7"                  | 10'-0"          | 10'-4"  | 10'-9"  | 11'-1"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 3'-10"    | 4'-0"          | 4'-3"                  | 4'-5"           | 4'-7"   | 4'-9"   | 4'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 5'-0"     | 5'-3"          | 5'-6"                  | 5'-8"           | 5'-11"  | 6'-2"   | 6'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-1"     | 6'-5"          | 6'-9"                  | 7'-0"           | 7'-3"   | 7'-7"   | 7'-10"   | 362T125-54-50 |
|   | 362T125-68-50 | 7'-5"     | 7'-9"          | 8'-2"                  | 8'-6"           | 8'-10"  | 9'-2"   | 9'-5"    | 362T125-68-50 |
|   | 362T125-97-50 | 9'-0"     | 9'-6"          | 9'-11"                 | 10'-4"          | 10'-9"  | 11'-2"  | 11'-6"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 4'-0"     | 4'-2"          | 4'-5"                  | 4'-7"           | 4'-9"   | 4'-11"  | 5'-1"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-2"     | 5'-5"          | 5'-8"                  | 5'-11"          | 6'-2"   | 6'-5"   | 6'-7"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-4"     | 6'-8"          | 7'-0"                  | 7'-3"           | 7'-7"   | 7'-10"  | 8'-2"    | 362T125-54-50 |
|   | 362T125-68-50 | 7'-8"     | 8'-1"          | 8'-5"                  | 8'-10"          | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-68-50 |
|   | 362T125-97-50 | 9'-5"     | 9'-10"         | 10'-4"                 | 10'-9"          | 11'-2"  | 11'-7"  | 12'-0"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 4'-2"     | 4'-5"          | 4'-7"                  | 4'-9"           | 5'-0"   | 5'-2"   | 5'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-5"     | 5'-8"          | 5'-11"                 | 6'-2"           | 6'-5"   | 6'-8"   | 6'-11"   | 362T125-43-50 |
|   | 362T125-54-50 | 6'-8"     | 7'-0"          | 7'-4"                  | 7'-7"           | 7'-11"  | 8'-2"   | 8'-6"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-0"     | 8'-5"          | 8'-10"                 | 9'-2"           | 9'-7"   | 9'-11"  | 10'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 9'-9"     | 10'-3"         | 10'-9"                 | 11'-3"          | 11'-8"  | 12'-1"  | 12'-6"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 4'-4"     | 4'-7"          | 4'-10"                 | 5'-0"           | 5'-3"   | 5'-5"   | 5'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-8"     | 5'-11"         | 6'-3"                  | 6'-6"           | 6'-9"   | 7'-0"   | 7'-3"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-11"    | 7'-4"          | 7'-8"                  | 8'-0"           | 8'-3"   | 8'-7"   | 8'-11"   | 362T125-54-50 |
|   | 362T125-68-50 | 8'-5"     | 8'-10"         | 9'-3"                  | 9'-8"           | 10'-0"  | 10'-5"  | 10'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-3"    | 10'-9"         | 11'-3"                 | 11'-9"          | 12'-2"  | 12'-8"  | 13'-1"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 4'-7"     | 4'-10"         | 5'-1"                  | 5'-4"           | 5'-6"   | 5'-9"   | 5'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 5'-11"    | 6'-3"          | 6'-7"                  | 6'-10"          | 7'-1"   | 7'-4"   | 7'-7"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-4"     | 7'-8"          | 8'-0"                  | 8'-5"           | 8'-9"   | 9'-0"   | 9'-4"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-10"    | 9'-3"          | 9'-9"                  | 10'-2"          | 10'-6"  | 10'-11" | 11'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-9"    | 11'-4"         | 11'-10"                | 12'-4"          | 12'-10" | 13'-3"  | 13'-9"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 4'-11"    | 5'-2"          | 5'-4"                  | 5'-7"           | 5'-10"  | 6'-1"   | 6'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-4"     | 6'-7"          | 6'-11"                 | 7'-3"           | 7'-6"   | 7'-10"  | 8'-1"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-9"     | 8'-1"          | 8'-6"                  | 8'-10"          | 9'-2"   | 9'-7"   | 9'-10"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-4"     | 9'-10"         | 10'-3"                 | 10'-8"          | 11'-1"  | 11'-6"  | 11'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 11'-5"    | 11'-11"        | 12'-6"                 | 13'-0"          | 13'-7"  | 14'-0"  | 14'-6"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 5'-2"     | 5'-6"          | 5'-9"                  | 6'-0"           | 6'-3"   | 6'-5"   | 6'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-9"     | 7'-1"          | 7'-5"                  | 7'-8"           | 8'-0"   | 8'-4"   | 8'-7"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-3"     | 8'-8"          | 9'-0"                  | 9'-5"           | 9'-10"  | 10'-2"  | 10'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-11"    | 10'-5"         | 10'-11"                | 11'-5"          | 11'-10" | 12'-3"  | 12'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-1"    | 12'-9"         | 13'-4"                 | 13'-10"         | 14'-5"  | 14'-11" | 15'-5"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 5'-7"     | 5'-11"         | 6'-2"                  | 6'-5"           | 6'-8"   | 6'-11"  | 7'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-2"     | 7'-7"          | 7'-11"                 | 8'-3"           | 8'-7"   | 8'-11"  | 9'-2"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-10"    | 9'-3"          | 9'-8"                  | 10'-1"          | 10'-6"  | 10'-11" | 11'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-8"    | 11'-2"         | 11'-9"                 | 12'-2"          | 12'-8"  | 13'-2"  | 13'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-0"    | 13'-7"         | 14'-3"                 | 14'-10"         | 15'-5"  | 16'-0"  | 16'-6"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 6'-1"     | 6'-5"          | 6'-8"                  | 7'-0"           | 7'-3"   | 7'-6"   | 7'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-10"    | 8'-3"          | 8'-7"                  | 9'-0"           | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-7"     | 10'-1"         | 10'-6"                 | 10'-11"         | 11'-5"  | 11'-10" | 12'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-7"    | 12'-2"         | 12'-8"                 | 13'-3"          | 13'-9"  | 14'-3"  | 14'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-1"    | 14'-9"         | 15'-5"                 | 16'-1"          | 16'-8"  | 17'-4"  | 17'-11"  | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 6'-6"     | 6'-10"         | 7'-2"                  | 7'-6"           | 7'-9"   | 8'-1"   | 8'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-5"     | 8'-10"         | 9'-3"                  | 9'-7"           | 10'-0"  | 10'-4"  | 10'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-3"    | 10'-9"         | 11'-3"                 | 11'-9"          | 12'-2"  | 12'-8"  | 13'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-5"    | 13'-0"         | 13'-7"                 | 14'-2"          | 14'-9"  | 15'-3"  | 15'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-1"    | 15'-10"        | 16'-6"                 | 17'-3"          | 17'-11" | 18'-6"  | 19'-2"   | 362T125-97-50 |



**TABLE 4.7.4.221: MAXIMUM UNBRACED TOP TRACK LENGTH**

| <b>PARAMETERS:</b>  |               | Type      | S3      | ( $p = 1.5$ ) | S <sub>Ds</sub> | 1.30    | Weight  | 4400 lbs |               |
|---|---------------|-----------|---------|---------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |               |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |               |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |               |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 3'-7"     | 3'-9"   | 3'-11"        | 4'-1"           | 4'-3"   | 4'-5"   | 4'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 4'-8"     | 4'-11"  | 5'-2"         | 5'-4"           | 5'-7"   | 5'-9"   | 6'-0"    | 362T125-43-50 |
|   | 362T125-54-50 | 5'-9"     | 6'-0"   | 6'-4"         | 6'-7"           | 6'-10"  | 7'-1"   | 7'-4"    | 362T125-54-50 |
|   | 362T125-68-50 | 6'-11"    | 7'-4"   | 7'-8"         | 8'-0"           | 8'-3"   | 8'-7"   | 8'-11"   | 362T125-68-50 |
|   | 362T125-97-50 | 8'-6"     | 8'-11"  | 9'-4"         | 9'-9"           | 10'-1"  | 10'-6"  | 10'-10"  | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 3'-9"     | 3'-11"  | 4'-1"         | 4'-3"           | 4'-5"   | 4'-7"   | 4'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 4'-10"    | 5'-1"   | 5'-4"         | 5'-7"           | 5'-9"   | 6'-0"   | 6'-2"    | 362T125-43-50 |
|   | 362T125-54-50 | 5'-11"    | 6'-3"   | 6'-7"         | 6'-10"          | 7'-1"   | 7'-4"   | 7'-7"    | 362T125-54-50 |
|   | 362T125-68-50 | 7'-2"     | 7'-7"   | 7'-11"        | 8'-3"           | 8'-7"   | 8'-11"  | 9'-3"    | 362T125-68-50 |
|   | 362T125-97-50 | 8'-10"    | 9'-3"   | 9'-8"         | 10'-1"          | 10'-6"  | 10'-10" | 11'-3"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 3'-11"    | 4'-1"   | 4'-3"         | 4'-6"           | 4'-8"   | 4'-10"  | 5'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-0"     | 5'-4"   | 5'-7"         | 5'-9"           | 6'-0"   | 6'-3"   | 6'-6"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-2"     | 6'-6"   | 6'-10"        | 7'-1"           | 7'-5"   | 7'-8"   | 7'-11"   | 362T125-54-50 |
|   | 362T125-68-50 | 7'-6"     | 7'-11"  | 8'-3"         | 8'-7"           | 8'-11"  | 9'-3"   | 9'-7"    | 362T125-68-50 |
|   | 362T125-97-50 | 9'-2"     | 9'-7"   | 10'-1"        | 10'-6"          | 10'-11" | 11'-4"  | 11'-8"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 4'-1"     | 4'-3"   | 4'-6"         | 4'-8"           | 4'-10"  | 5'-0"   | 5'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-3"     | 5'-6"   | 5'-10"        | 6'-1"           | 6'-3"   | 6'-6"   | 6'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-6"     | 6'-10"  | 7'-1"         | 7'-5"           | 7'-9"   | 8'-0"   | 8'-3"    | 362T125-54-50 |
|   | 362T125-68-50 | 7'-10"    | 8'-3"   | 8'-7"         | 9'-0"           | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 9'-7"     | 10'-0"  | 10'-6"        | 10'-11"         | 11'-4"  | 11'-9"  | 12'-2"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 4'-3"     | 4'-6"   | 4'-8"         | 4'-11"          | 5'-1"   | 5'-3"   | 5'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-6"     | 5'-10"  | 6'-1"         | 6'-4"           | 6'-7"   | 6'-10"  | 7'-1"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-9"     | 7'-1"   | 7'-5"         | 7'-9"           | 8'-1"   | 8'-5"   | 8'-8"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-2"     | 8'-7"   | 9'-0"         | 9'-5"           | 9'-9"   | 10'-1"  | 10'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-0"    | 10'-6"  | 11'-0"        | 11'-5"          | 11'-11" | 12'-4"  | 12'-9"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 4'-6"     | 4'-9"   | 4'-11"        | 5'-2"           | 5'-4"   | 5'-7"   | 5'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-10"    | 6'-1"   | 6'-5"         | 6'-8"           | 6'-11"  | 7'-2"   | 7'-5"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-2"     | 7'-6"   | 7'-10"        | 8'-2"           | 8'-6"   | 8'-10"  | 9'-1"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-7"     | 9'-1"   | 9'-6"         | 9'-11"          | 10'-3"  | 10'-8"  | 11'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-6"    | 11'-0"  | 11'-7"        | 12'-0"          | 12'-6"  | 13'-0"  | 13'-5"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 4'-9"     | 5'-0"   | 5'-3"         | 5'-6"           | 5'-8"   | 5'-11"  | 6'-1"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-2"     | 6'-6"   | 6'-9"         | 7'-1"           | 7'-4"   | 7'-7"   | 7'-10"   | 362T125-43-50 |
|   | 362T125-54-50 | 7'-6"     | 7'-11"  | 8'-3"         | 8'-8"           | 9'-0"   | 9'-4"   | 9'-8"    | 362T125-54-50 |
|   | 362T125-68-50 | 9'-1"     | 9'-7"   | 10'-0"        | 10'-5"          | 10'-10" | 11'-3"  | 11'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-1"    | 11'-8"  | 12'-2"        | 12'-9"          | 13'-3"  | 13'-8"  | 14'-2"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 5'-1"     | 5'-4"   | 5'-7"         | 5'-10"          | 6'-1"   | 6'-3"   | 6'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-7"     | 6'-11"  | 7'-2"         | 7'-6"           | 7'-10"  | 8'-1"   | 8'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-0"     | 8'-5"   | 8'-10"        | 9'-2"           | 9'-7"   | 9'-11"  | 10'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-8"     | 10'-2"  | 10'-8"        | 11'-1"          | 11'-7"  | 12'-0"  | 12'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-10"   | 12'-5"  | 13'-0"        | 13'-6"          | 14'-1"  | 14'-7"  | 15'-1"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 5'-5"     | 5'-9"   | 6'-0"         | 6'-3"           | 6'-6"   | 6'-9"   | 7'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-0"     | 7'-5"   | 7'-9"         | 8'-1"           | 8'-5"   | 8'-8"   | 9'-0"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-7"     | 9'-1"   | 9'-6"         | 9'-10"          | 10'-3"  | 10'-7"  | 11'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-5"    | 10'-11" | 11'-5"        | 11'-11"         | 12'-5"  | 12'-10" | 13'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-8"    | 13'-4"  | 13'-11"       | 14'-6"          | 15'-1"  | 15'-7"  | 16'-2"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 5'-11"    | 6'-3"   | 6'-6"         | 6'-10"          | 7'-1"   | 7'-4"   | 7'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-8"     | 8'-0"   | 8'-5"         | 8'-9"           | 9'-1"   | 9'-5"   | 9'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-4"     | 9'-10"  | 10'-3"        | 10'-8"          | 11'-1"  | 11'-6"  | 11'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 11'-3"    | 11'-10" | 12'-5"        | 12'-11"         | 13'-5"  | 13'-11" | 14'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-9"    | 14'-5"  | 15'-1"        | 15'-8"          | 16'-4"  | 16'-11" | 17'-6"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 6'-4"     | 6'-8"   | 7'-0"         | 7'-4"           | 7'-7"   | 7'-10"  | 8'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-2"     | 8'-7"   | 9'-0"         | 9'-5"           | 9'-9"   | 10'-1"  | 10'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-0"    | 10'-6"  | 11'-0"        | 11'-6"          | 11'-11" | 12'-4"  | 12'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-1"    | 12'-8"  | 13'-3"        | 13'-10"         | 14'-4"  | 14'-11" | 15'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-8"    | 15'-5"  | 16'-2"        | 16'-10"         | 17'-6"  | 18'-1"  | 18'-9"   | 362T125-97-50 |



**TABLE 4.7.4.222: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | ( $p = 1.5$ ) | S <sub>DS</sub> | 1.30    | Weight  | 4600 lbs      |               |
|---|---------------|-----------|---------|---------------|-----------------|---------|---------|---------------|---------------|
| <p>* Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.</p> <p><b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track.</p> |               |           |         |               |                 |         |         |               |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |               |                 |         |         |               | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft       |               |
| 1.0   | 362T125-33-50 | 3'-6"     | 3'-8"   | 3'-10"        | 4'-0"           | 4'-2"   | 4'-4"   | 4'-6"         | 362T125-33-50 |
|   | 362T125-43-50 | 4'-6"     | 4'-9"   | 5'-0"         | 5'-3"           | 5'-5"   | 5'-8"   | 5'-10"        | 362T125-43-50 |
|   | 362T125-54-50 | 5'-7"     | 5'-11"  | 6'-2"         | 6'-5"           | 6'-8"   | 6'-11"  | 7'-2"         | 362T125-54-50 |
|   | 362T125-68-50 | 6'-9"     | 7'-1"   | 7'-6"         | 7'-9"           | 8'-1"   | 8'-5"   | 8'-8"         | 362T125-68-50 |
|   | 362T125-97-50 | 8'-3"     | 8'-8"   | 9'-1"         | 9'-6"           | 9'-11"  | 10'-3"  | 10'-7"        | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 3'-7"     | 3'-10"  | 4'-0"         | 4'-2"           | 4'-4"   | 4'-6"   | 4'-8"         | 362T125-33-50 |
|   | 362T125-43-50 | 4'-9"     | 5'-0"   | 5'-2"         | 5'-5"           | 5'-8"   | 5'-10"  | 6'-1"         | 362T125-43-50 |
|   | 362T125-54-50 | 5'-10"    | 6'-1"   | 6'-5"         | 6'-8"           | 6'-11"  | 7'-2"   | 7'-5"         | 362T125-54-50 |
|   | 362T125-68-50 | 7'-0"     | 7'-5"   | 7'-9"         | 8'-1"           | 8'-5"   | 8'-8"   | 9'-0"         | 362T125-68-50 |
| 362T125-97-50   | 8'-7"         | 9'-0"     | 9'-5"   | 9'-10"        | 10'-3"          | 10'-7"  | 11'-0"  | 362T125-97-50 |               |
| 0.8   | 362T125-33-50 | 3'-9"     | 4'-0"   | 4'-2"         | 4'-4"           | 4'-6"   | 4'-8"   | 4'-10"        | 362T125-33-50 |
|   | 362T125-43-50 | 4'-11"    | 5'-2"   | 5'-5"         | 5'-8"           | 5'-11"  | 6'-1"   | 6'-4"         | 362T125-43-50 |
|   | 362T125-54-50 | 6'-1"     | 6'-4"   | 6'-8"         | 6'-11"          | 7'-3"   | 7'-6"   | 7'-9"         | 362T125-54-50 |
|   | 362T125-68-50 | 7'-4"     | 7'-8"   | 8'-1"         | 8'-5"           | 8'-9"   | 9'-1"   | 9'-4"         | 362T125-68-50 |
| 362T125-97-50   | 8'-11"        | 9'-5"     | 9'-10"  | 10'-3"        | 10'-8"          | 11'-1"  | 11'-5"  | 362T125-97-50 |               |
| 0.7   | 362T125-33-50 | 3'-11"    | 4'-2"   | 4'-4"         | 4'-7"           | 4'-9"   | 4'-11"  | 5'-1"         | 362T125-33-50 |
|   | 362T125-43-50 | 5'-2"     | 5'-5"   | 5'-8"         | 5'-11"          | 6'-2"   | 6'-4"   | 6'-7"         | 362T125-43-50 |
|   | 362T125-54-50 | 6'-4"     | 6'-8"   | 6'-11"        | 7'-3"           | 7'-6"   | 7'-10"  | 8'-1"         | 362T125-54-50 |
|   | 362T125-68-50 | 7'-8"     | 8'-0"   | 8'-5"         | 8'-9"           | 9'-1"   | 9'-5"   | 9'-9"         | 362T125-68-50 |
|   | 362T125-97-50 | 9'-4"     | 9'-10"  | 10'-3"        | 10'-8"          | 11'-1"  | 11'-6"  | 11'-11"       | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 4'-2"     | 4'-4"   | 4'-7"         | 4'-9"           | 5'-0"   | 5'-2"   | 5'-4"         | 362T125-33-50 |
|   | 362T125-43-50 | 5'-5"     | 5'-8"   | 5'-11"        | 6'-2"           | 6'-5"   | 6'-8"   | 6'-11"        | 362T125-43-50 |
|   | 362T125-54-50 | 6'-7"     | 6'-11"  | 7'-3"         | 7'-7"           | 7'-11"  | 8'-2"   | 8'-6"         | 362T125-54-50 |
|   | 362T125-68-50 | 8'-0"     | 8'-5"   | 8'-10"        | 9'-2"           | 9'-6"   | 9'-11"  | 10'-3"        | 362T125-68-50 |
|   | 362T125-97-50 | 9'-9"     | 10'-3"  | 10'-9"        | 11'-2"          | 11'-8"  | 12'-1"  | 12'-6"        | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 4'-5"     | 4'-7"   | 4'-10"        | 5'-0"           | 5'-3"   | 5'-5"   | 5'-7"         | 362T125-33-50 |
|   | 362T125-43-50 | 5'-8"     | 6'-0"   | 6'-3"         | 6'-6"           | 6'-9"   | 7'-0"   | 7'-3"         | 362T125-43-50 |
|   | 362T125-54-50 | 7'-0"     | 7'-4"   | 7'-8"         | 8'-0"           | 8'-4"   | 8'-7"   | 8'-11"        | 362T125-54-50 |
|   | 362T125-68-50 | 8'-5"     | 8'-10"  | 9'-3"         | 9'-8"           | 10'-0"  | 10'-5"  | 10'-9"        | 362T125-68-50 |
|   | 362T125-97-50 | 10'-3"    | 10'-9"  | 11'-3"        | 11'-9"          | 12'-3"  | 12'-8"  | 13'-1"        | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 4'-8"     | 4'-11"  | 5'-1"         | 5'-4"           | 5'-7"   | 5'-9"   | 5'-11"        | 362T125-33-50 |
|   | 362T125-43-50 | 6'-0"     | 6'-4"   | 6'-7"         | 6'-11"          | 7'-2"   | 7'-5"   | 7'-8"         | 362T125-43-50 |
|   | 362T125-54-50 | 7'-4"     | 7'-9"   | 8'-1"         | 8'-5"           | 8'-9"   | 9'-1"   | 9'-5"         | 362T125-54-50 |
|   | 362T125-68-50 | 8'-11"    | 9'-4"   | 9'-9"         | 10'-2"          | 10'-7"  | 11'-0"  | 11'-4"        | 362T125-68-50 |
|   | 362T125-97-50 | 10'-10"   | 11'-5"  | 11'-11"       | 12'-5"          | 12'-11" | 13'-5"  | 13'-10"       | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 4'-11"    | 5'-2"   | 5'-5"         | 5'-8"           | 5'-11"  | 6'-2"   | 6'-4"         | 362T125-33-50 |
|   | 362T125-43-50 | 6'-5"     | 6'-9"   | 7'-0"         | 7'-4"           | 7'-7"   | 7'-11"  | 8'-2"         | 362T125-43-50 |
|   | 362T125-54-50 | 7'-10"    | 8'-3"   | 8'-7"         | 9'-0"           | 9'-4"   | 9'-8"   | 10'-0"        | 362T125-54-50 |
|   | 362T125-68-50 | 9'-6"     | 9'-11"  | 10'-5"        | 10'-10"         | 11'-3"  | 11'-8"  | 12'-1"        | 362T125-68-50 |
|   | 362T125-97-50 | 11'-6"    | 12'-1"  | 12'-8"        | 13'-3"          | 13'-9"  | 14'-3"  | 14'-9"        | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 5'-4"     | 5'-7"   | 5'-10"        | 6'-1"           | 6'-4"   | 6'-7"   | 6'-10"        | 362T125-33-50 |
|   | 362T125-43-50 | 6'-10"    | 7'-3"   | 7'-7"         | 7'-10"          | 8'-2"   | 8'-6"   | 8'-9"         | 362T125-43-50 |
|   | 362T125-54-50 | 8'-5"     | 8'-10"  | 9'-3"         | 9'-8"           | 10'-0"  | 10'-5"  | 10'-9"        | 362T125-54-50 |
|   | 362T125-68-50 | 10'-2"    | 10'-8"  | 11'-2"        | 11'-8"          | 12'-1"  | 12'-6"  | 13'-0"        | 362T125-68-50 |
|   | 362T125-97-50 | 12'-4"    | 13'-0"  | 13'-7"        | 14'-2"          | 14'-9"  | 15'-3"  | 15'-9"        | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 5'-9"     | 6'-1"   | 6'-4"         | 6'-8"           | 6'-11"  | 7'-2"   | 7'-5"         | 362T125-33-50 |
|   | 362T125-43-50 | 7'-5"     | 7'-10"  | 8'-2"         | 8'-6"           | 8'-11"  | 9'-2"   | 9'-6"         | 362T125-43-50 |
|   | 362T125-54-50 | 9'-1"     | 9'-7"   | 10'-0"        | 10'-5"          | 10'-10" | 11'-3"  | 11'-8"        | 362T125-54-50 |
|   | 362T125-68-50 | 11'-0"    | 11'-7"  | 12'-1"        | 12'-7"          | 13'-1"  | 13'-7"  | 14'-0"        | 362T125-68-50 |
|   | 362T125-97-50 | 13'-5"    | 14'-1"  | 14'-9"        | 15'-4"          | 15'-11" | 16'-6"  | 17'-1"        | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 6'-3"     | 6'-6"   | 6'-10"        | 7'-2"           | 7'-5"   | 7'-8"   | 7'-11"        | 362T125-33-50 |
|   | 362T125-43-50 | 8'-0"     | 8'-5"   | 8'-9"         | 9'-2"           | 9'-6"   | 9'-10"  | 10'-2"        | 362T125-43-50 |
|   | 362T125-54-50 | 9'-9"     | 10'-3"  | 10'-9"        | 11'-2"          | 11'-8"  | 12'-1"  | 12'-6"        | 362T125-54-50 |
|   | 362T125-68-50 | 11'-10"   | 12'-5"  | 13'-0"        | 13'-6"          | 14'-1"  | 14'-7"  | 15'-1"        | 362T125-68-50 |
|   | 362T125-97-50 | 14'-4"    | 15'-1"  | 15'-9"        | 16'-5"          | 17'-1"  | 17'-8"  | 18'-3"        | 362T125-97-50 |





**TABLE 4.7.4.223: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:  |               | Type      | S3      | ( <i>lp</i> = 1.5) | S <sub>Ds</sub> | 1.30    | Weight  | 4800 lbs |               |
|--|---------------|-----------|---------|--------------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.<br><b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |                    |                 |         |         |          |               |
| Height in Bldg<br>(z/h)  | Track Section | Pod Width |         |                    |                 |         |         |          | Track Section |
|  |               | 5.00 ft   | 5.50 ft | 6.00 ft            | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0  | 362T125-33-50 | 3'-5"     | 3'-7"   | 3'-9"              | 3'-11"          | 4'-1"   | 4'-3"   | 4'-5"    | 362T125-33-50 |
|  | 362T125-43-50 | 4'-5"     | 4'-8"   | 4'-11"             | 5'-1"           | 5'-4"   | 5'-6"   | 5'-8"    | 362T125-43-50 |
|  | 362T125-54-50 | 5'-6"     | 5'-9"   | 6'-0"              | 6'-3"           | 6'-6"   | 6'-9"   | 7'-0"    | 362T125-54-50 |
|  | 362T125-68-50 | 6'-7"     | 7'-0"   | 7'-3"              | 7'-7"           | 7'-11"  | 8'-2"   | 8'-6"    | 362T125-68-50 |
|  | 362T125-97-50 | 8'-1"     | 8'-6"   | 8'-11"             | 9'-3"           | 9'-8"   | 10'-0"  | 10'-4"   | 362T125-97-50 |
| 0.9  | 362T125-33-50 | 3'-6"     | 3'-9"   | 3'-11"             | 4'-1"           | 4'-3"   | 4'-5"   | 4'-7"    | 362T125-33-50 |
|  | 362T125-43-50 | 4'-7"     | 4'-10"  | 5'-1"              | 5'-4"           | 5'-6"   | 5'-9"   | 5'-11"   | 362T125-43-50 |
|  | 362T125-54-50 | 5'-8"     | 6'-0"   | 6'-3"              | 6'-6"           | 6'-9"   | 7'-0"   | 7'-3"    | 362T125-54-50 |
|  | 362T125-68-50 | 6'-10"    | 7'-3"   | 7'-7"              | 7'-11"          | 8'-2"   | 8'-6"   | 8'-10"   | 362T125-68-50 |
|  | 362T125-97-50 | 8'-5"     | 8'-10"  | 9'-3"              | 9'-8"           | 10'-0"  | 10'-5"  | 10'-9"   | 362T125-97-50 |
| 0.8  | 362T125-33-50 | 3'-8"     | 3'-11"  | 4'-1"              | 4'-3"           | 4'-5"   | 4'-7"   | 4'-9"    | 362T125-33-50 |
|  | 362T125-43-50 | 4'-10"    | 5'-1"   | 5'-3"              | 5'-6"           | 5'-9"   | 5'-11"  | 6'-2"    | 362T125-43-50 |
|  | 362T125-54-50 | 5'-11"    | 6'-3"   | 6'-6"              | 6'-9"           | 7'-1"   | 7'-4"   | 7'-7"    | 362T125-54-50 |
|  | 362T125-68-50 | 7'-2"     | 7'-6"   | 7'-10"             | 8'-3"           | 8'-6"   | 8'-10"  | 9'-2"    | 362T125-68-50 |
|  | 362T125-97-50 | 8'-9"     | 9'-2"   | 9'-7"              | 10'-0"          | 10'-5"  | 10'-10" | 11'-2"   | 362T125-97-50 |
| 0.7  | 362T125-33-50 | 3'-10"    | 4'-1"   | 4'-3"              | 4'-5"           | 4'-8"   | 4'-10"  | 5'-0"    | 362T125-33-50 |
|  | 362T125-43-50 | 5'-0"     | 5'-3"   | 5'-6"              | 5'-9"           | 6'-0"   | 6'-3"   | 6'-5"    | 362T125-43-50 |
|  | 362T125-54-50 | 6'-2"     | 6'-6"   | 6'-9"              | 7'-1"           | 7'-4"   | 7'-8"   | 7'-11"   | 362T125-54-50 |
|  | 362T125-68-50 | 7'-6"     | 7'-10"  | 8'-3"              | 8'-7"           | 8'-11"  | 9'-3"   | 9'-7"    | 362T125-68-50 |
|  | 362T125-97-50 | 9'-1"     | 9'-7"   | 10'-0"             | 10'-5"          | 10'-10" | 11'-3"  | 11'-8"   | 362T125-97-50 |
| 0.6  | 362T125-33-50 | 4'-1"     | 4'-3"   | 4'-6"              | 4'-8"           | 4'-10"  | 5'-0"   | 5'-3"    | 362T125-33-50 |
|  | 362T125-43-50 | 5'-3"     | 5'-6"   | 5'-10"             | 6'-1"           | 6'-3"   | 6'-6"   | 6'-9"    | 362T125-43-50 |
|  | 362T125-54-50 | 6'-6"     | 6'-10"  | 7'-1"              | 7'-5"           | 7'-9"   | 8'-0"   | 8'-3"    | 362T125-54-50 |
|  | 362T125-68-50 | 7'-10"    | 8'-3"   | 8'-7"              | 9'-0"           | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-68-50 |
|  | 362T125-97-50 | 9'-7"     | 10'-0"  | 10'-6"             | 10'-11"         | 11'-4"  | 11'-9"  | 12'-2"   | 362T125-97-50 |
| 0.5  | 362T125-33-50 | 4'-3"     | 4'-6"   | 4'-9"              | 4'-11"          | 5'-1"   | 5'-4"   | 5'-6"    | 362T125-33-50 |
|  | 362T125-43-50 | 5'-6"     | 5'-10"  | 6'-1"              | 6'-4"           | 6'-7"   | 6'-10"  | 7'-1"    | 362T125-43-50 |
|  | 362T125-54-50 | 6'-10"    | 7'-2"   | 7'-6"              | 7'-10"          | 8'-1"   | 8'-5"   | 8'-8"    | 362T125-54-50 |
|  | 362T125-68-50 | 8'-3"     | 8'-8"   | 9'-1"              | 9'-5"           | 9'-10"  | 10'-2"  | 10'-6"   | 362T125-68-50 |
|  | 362T125-97-50 | 10'-0"    | 10'-7"  | 11'-0"             | 11'-6"          | 11'-11" | 12'-5"  | 12'-10"  | 362T125-97-50 |
| 0.4  | 362T125-33-50 | 4'-6"     | 4'-9"   | 5'-0"              | 5'-3"           | 5'-5"   | 5'-7"   | 5'-10"   | 362T125-33-50 |
|  | 362T125-43-50 | 5'-10"    | 6'-2"   | 6'-5"              | 6'-9"           | 7'-0"   | 7'-3"   | 7'-6"    | 362T125-43-50 |
|  | 362T125-54-50 | 7'-2"     | 7'-7"   | 7'-11"             | 8'-3"           | 8'-7"   | 8'-11"  | 9'-2"    | 362T125-54-50 |
|  | 362T125-68-50 | 8'-8"     | 9'-2"   | 9'-7"              | 10'-0"          | 10'-4"  | 10'-9"  | 11'-1"   | 362T125-68-50 |
|  | 362T125-97-50 | 10'-7"    | 11'-2"  | 11'-8"             | 12'-2"          | 12'-8"  | 13'-1"  | 13'-6"   | 362T125-97-50 |
| 0.3  | 362T125-33-50 | 4'-10"    | 5'-1"   | 5'-4"              | 5'-7"           | 5'-9"   | 6'-0"   | 6'-2"    | 362T125-33-50 |
|  | 362T125-43-50 | 6'-3"     | 6'-7"   | 6'-11"             | 7'-2"           | 7'-5"   | 7'-9"   | 8'-0"    | 362T125-43-50 |
|  | 362T125-54-50 | 7'-8"     | 8'-1"   | 8'-5"              | 8'-9"           | 9'-2"   | 9'-6"   | 9'-9"    | 362T125-54-50 |
|  | 362T125-68-50 | 9'-3"     | 9'-9"   | 10'-2"             | 10'-7"          | 11'-0"  | 11'-5"  | 11'-10"  | 362T125-68-50 |
|  | 362T125-97-50 | 11'-3"    | 11'-10" | 12'-5"             | 12'-11"         | 13'-5"  | 13'-11" | 14'-5"   | 362T125-97-50 |
| 0.2  | 362T125-33-50 | 5'-2"     | 5'-6"   | 5'-9"              | 6'-0"           | 6'-3"   | 6'-5"   | 6'-8"    | 362T125-33-50 |
|  | 362T125-43-50 | 6'-9"     | 7'-1"   | 7'-5"              | 7'-8"           | 8'-0"   | 8'-4"   | 8'-7"    | 362T125-43-50 |
|  | 362T125-54-50 | 8'-3"     | 8'-8"   | 9'-0"              | 9'-5"           | 9'-10"  | 10'-2"  | 10'-6"   | 362T125-54-50 |
|  | 362T125-68-50 | 9'-11"    | 10'-5"  | 10'-11"            | 11'-5"          | 11'-10" | 12'-3"  | 12'-8"   | 362T125-68-50 |
|  | 362T125-97-50 | 12'-1"    | 12'-9"  | 13'-4"             | 13'-10"         | 14'-5"  | 14'-11" | 15'-5"   | 362T125-97-50 |
| 0.1  | 362T125-33-50 | 5'-8"     | 5'-11"  | 6'-3"              | 6'-6"           | 6'-9"   | 7'-0"   | 7'-3"    | 362T125-33-50 |
|  | 362T125-43-50 | 7'-3"     | 7'-8"   | 8'-0"              | 8'-4"           | 8'-8"   | 9'-0"   | 9'-4"    | 362T125-43-50 |
|  | 362T125-54-50 | 8'-11"    | 9'-4"   | 9'-10"             | 10'-3"          | 10'-7"  | 11'-0"  | 11'-5"   | 362T125-54-50 |
|  | 362T125-68-50 | 10'-9"    | 11'-4"  | 11'-10"            | 12'-4"          | 12'-10" | 13'-3"  | 13'-9"   | 362T125-68-50 |
|  | 362T125-97-50 | 13'-1"    | 13'-9"  | 14'-5"             | 15'-0"          | 15'-7"  | 16'-2"  | 16'-8"   | 362T125-97-50 |
| 0.0  | 362T125-33-50 | 6'-1"     | 6'-5"   | 6'-8"              | 7'-0"           | 7'-3"   | 7'-6"   | 7'-9"    | 362T125-33-50 |
|  | 362T125-43-50 | 7'-10"    | 8'-3"   | 8'-7"              | 9'-0"           | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-43-50 |
|  | 362T125-54-50 | 9'-7"     | 10'-1"  | 10'-6"             | 10'-11"         | 11'-5"  | 11'-10" | 12'-2"   | 362T125-54-50 |
|  | 362T125-68-50 | 11'-7"    | 12'-2"  | 12'-8"             | 13'-3"          | 13'-9"  | 14'-3"  | 14'-9"   | 362T125-68-50 |
|  | 362T125-97-50 | 14'-1"    | 14'-9"  | 15'-5"             | 16'-1"          | 16'-8"  | 17'-4"  | 17'-11"  | 362T125-97-50 |



**TABLE 4.7.4.224: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | (lp = 1.5) | S <sub>Ds</sub> | 1.30    | Weight  | 5000 lbs |               |
|---|---------------|-----------|---------|------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |            |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |            |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |            |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft    | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 3'-4"     | 3'-6"   | 3'-8"      | 3'-10"          | 4'-0"   | 4'-2"   | 4'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 4'-4"     | 4'-7"   | 4'-9"      | 5'-0"           | 5'-2"   | 5'-5"   | 5'-7"    | 362T125-43-50 |
|   | 362T125-54-50 | 5'-4"     | 5'-7"   | 5'-11"     | 6'-2"           | 6'-5"   | 6'-8"   | 6'-10"   | 362T125-54-50 |
|   | 362T125-68-50 | 6'-8"     | 6'-10"  | 7'-2"      | 7'-5"           | 7'-9"   | 8'-0"   | 8'-4"    | 362T125-68-50 |
|   | 362T125-97-50 | 7'-11"    | 8'-4"   | 8'-9"      | 9'-1"           | 9'-5"   | 9'-10"  | 10'-2"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 3'-5"     | 3'-8"   | 3'-10"     | 4'-0"           | 4'-2"   | 4'-4"   | 4'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 4'-6"     | 4'-9"   | 5'-0"      | 5'-2"           | 5'-5"   | 5'-7"   | 5'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 5'-7"     | 5'-10"  | 6'-1"      | 6'-5"           | 6'-8"   | 6'-11"  | 7'-1"    | 362T125-54-50 |
|   | 362T125-68-50 | 6'-9"     | 7'-1"   | 7'-5"      | 7'-9"           | 8'-0"   | 8'-4"   | 8'-7"    | 362T125-68-50 |
|   | 362T125-97-50 | 8'-3"     | 8'-8"   | 9'-1"      | 9'-5"           | 9'-10"  | 10'-2"  | 10'-6"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 3'-7"     | 3'-10"  | 4'-0"      | 4'-2"           | 4'-4"   | 4'-6"   | 4'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 4'-8"     | 4'-11"  | 5'-2"      | 5'-5"           | 5'-7"   | 5'-10"  | 6'-0"    | 362T125-43-50 |
|   | 362T125-54-50 | 5'-9"     | 6'-1"   | 6'-4"      | 6'-8"           | 6'-11"  | 7'-2"   | 7'-5"    | 362T125-54-50 |
|   | 362T125-68-50 | 7'-0"     | 7'-4"   | 7'-8"      | 8'-0"           | 8'-4"   | 8'-8"   | 8'-11"   | 362T125-68-50 |
|   | 362T125-97-50 | 8'-7"     | 9'-0"   | 9'-5"      | 9'-10"          | 10'-2"  | 10'-7"  | 10'-11"  | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 3'-9"     | 4'-0"   | 4'-2"      | 4'-4"           | 4'-6"   | 4'-8"   | 4'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 4'-11"    | 5'-2"   | 5'-5"      | 5'-8"           | 5'-10"  | 6'-1"   | 6'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-0"     | 6'-4"   | 6'-8"      | 6'-11"          | 7'-2"   | 7'-6"   | 7'-9"    | 362T125-54-50 |
|   | 362T125-68-50 | 7'-4"     | 7'-8"   | 8'-0"      | 8'-5"           | 8'-9"   | 9'-0"   | 9'-4"    | 362T125-68-50 |
|   | 362T125-97-50 | 8'-11"    | 9'-5"   | 9'-10"     | 10'-3"          | 10'-8"  | 11'-0"  | 11'-5"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 4'-0"     | 4'-2"   | 4'-4"      | 4'-7"           | 4'-9"   | 4'-11"  | 5'-1"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-2"     | 5'-5"   | 5'-8"      | 5'-11"          | 6'-2"   | 6'-5"   | 6'-7"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-4"     | 6'-8"   | 7'-0"      | 7'-3"           | 7'-7"   | 7'-10"  | 8'-1"    | 362T125-54-50 |
|   | 362T125-68-50 | 7'-8"     | 8'-1"   | 8'-5"      | 8'-9"           | 9'-2"   | 9'-6"   | 9'-9"    | 362T125-68-50 |
|   | 362T125-97-50 | 9'-4"     | 9'-10"  | 10'-3"     | 10'-9"          | 11'-2"  | 11'-6"  | 11'-11"  | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 4'-2"     | 4'-5"   | 4'-7"      | 4'-10"          | 5'-0"   | 5'-2"   | 5'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-5"     | 5'-8"   | 6'-0"      | 6'-3"           | 6'-6"   | 6'-9"   | 6'-11"   | 362T125-43-50 |
|   | 362T125-54-50 | 6'-8"     | 7'-0"   | 7'-4"      | 7'-8"           | 7'-11"  | 8'-3"   | 8'-6"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-1"     | 8'-6"   | 8'-10"     | 9'-3"           | 9'-7"   | 9'-11"  | 10'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 9'-10"    | 10'-4"  | 10'-10"    | 11'-3"          | 11'-8"  | 12'-2"  | 12'-6"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 4'-5"     | 4'-8"   | 4'-11"     | 5'-1"           | 5'-4"   | 5'-6"   | 5'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-9"     | 6'-0"   | 6'-4"      | 6'-7"           | 6'-10"  | 7'-1"   | 7'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-0"     | 7'-5"   | 7'-9"      | 8'-1"           | 8'-5"   | 8'-8"   | 9'-0"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-6"     | 8'-11"  | 9'-4"      | 9'-9"           | 10'-2"  | 10'-6"  | 10'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 10'-5"    | 10'-11" | 11'-5"     | 11'-11"         | 12'-4"  | 12'-10" | 13'-3"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 4'-9"     | 5'-0"   | 5'-3"      | 5'-5"           | 5'-8"   | 5'-10"  | 6'-1"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-1"     | 6'-5"   | 6'-9"      | 7'-0"           | 7'-4"   | 7'-7"   | 7'-10"   | 362T125-43-50 |
|   | 362T125-54-50 | 7'-6"     | 7'-11"  | 8'-3"      | 8'-7"           | 8'-11"  | 9'-3"   | 9'-7"    | 362T125-54-50 |
|   | 362T125-68-50 | 9'-1"     | 9'-6"   | 10'-0"     | 10'-5"          | 10'-10" | 11'-2"  | 11'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-1"    | 11'-7"  | 12'-2"     | 12'-8"          | 13'-2"  | 13'-8"  | 14'-1"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 5'-1"     | 5'-4"   | 5'-7"      | 5'-10"          | 6'-1"   | 6'-4"   | 6'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-7"     | 6'-11"  | 7'-3"      | 7'-6"           | 7'-10"  | 8'-1"   | 8'-5"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-1"     | 8'-5"   | 8'-10"     | 9'-3"           | 9'-7"   | 9'-11"  | 10'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-9"     | 10'-3"  | 10'-8"     | 11'-2"          | 11'-7"  | 12'-0"  | 12'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-10"   | 12'-5"  | 13'-0"     | 13'-7"          | 14'-1"  | 14'-7"  | 15'-1"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 5'-6"     | 5'-10"  | 6'-1"      | 6'-4"           | 6'-7"   | 6'-10"  | 7'-1"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-2"     | 7'-6"   | 7'-10"     | 8'-2"           | 8'-6"   | 8'-10"  | 9'-1"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-9"     | 9'-2"   | 9'-7"      | 10'-0"          | 10'-5"  | 10'-9"  | 11'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-6"    | 11'-1"  | 11'-7"     | 12'-1"          | 12'-7"  | 13'-0"  | 13'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-10"   | 13'-6"  | 14'-1"     | 14'-8"          | 15'-3"  | 15'-10" | 16'-4"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 5'-11"    | 6'-3"   | 6'-7"      | 6'-10"          | 7'-1"   | 7'-4"   | 7'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-8"     | 8'-0"   | 8'-5"      | 8'-9"           | 9'-1"   | 9'-5"   | 9'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-4"     | 9'-10"  | 10'-3"     | 10'-9"          | 11'-2"  | 11'-7"  | 11'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 11'-4"    | 11'-11" | 12'-5"     | 12'-11"         | 13'-5"  | 13'-11" | 14'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-9"    | 14'-5"  | 15'-1"     | 15'-9"          | 16'-4"  | 16'-11" | 17'-6"   | 362T125-97-50 |



**TABLE 4.7.4.225: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | (p = 1.5) | S <sub>DS</sub> | 1.60    | Weight  | 2000 lbs |               |
|---|---------------|-----------|---------|-----------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |           |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |           |                 |         |         |          |               |
| Height in Bldg (z/h)  | Track Section | Pod Width |         |           |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft   | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 4'-11"    | 5'-2"   | 5'-5"     | 5'-8"           | 5'-11"  | 6'-1"   | 6'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-5"     | 6'-8"   | 7'-0"     | 7'-4"           | 7'-7"   | 7'-11"  | 8'-2"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-10"    | 8'-3"   | 8'-7"     | 9'-0"           | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-5"     | 9'-11"  | 10'-5"    | 10'-10"         | 11'-3"  | 11'-8"  | 12'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-6"    | 12'-1"  | 12'-8"    | 13'-2"          | 13'-9"  | 14'-2"  | 14'-8"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 5'-2"     | 5'-5"   | 5'-8"     | 5'-11"          | 6'-2"   | 6'-4"   | 6'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-7"     | 7'-0"   | 7'-3"     | 7'-7"           | 7'-11"  | 8'-2"   | 8'-6"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-1"     | 8'-6"   | 8'-11"    | 9'-4"           | 9'-8"   | 10'-0"  | 10'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-10"    | 10'-4"  | 10'-9"    | 11'-3"          | 11'-8"  | 12'-1"  | 12'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-11"   | 12'-7"  | 13'-1"    | 13'-8"          | 14'-3"  | 14'-9"  | 15'-3"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 5'-4"     | 5'-7"   | 5'-11"    | 6'-2"           | 6'-5"   | 6'-7"   | 6'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 6'-11"    | 7'-3"   | 7'-7"     | 7'-11"          | 8'-3"   | 8'-6"   | 8'-10"   | 362T125-43-50 |
|   | 362T125-54-50 | 8'-5"     | 8'-10"  | 9'-3"     | 9'-8"           | 10'-1"  | 10'-5"  | 10'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-2"    | 10'-8"  | 11'-2"    | 11'-8"          | 12'-2"  | 12'-7"  | 13'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-5"    | 13'-0"  | 13'-8"    | 14'-3"          | 14'-9"  | 15'-4"  | 15'-10"  | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 5'-7"     | 5'-10"  | 6'-2"     | 6'-5"           | 6'-8"   | 6'-11"  | 7'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-2"     | 7'-7"   | 7'-11"    | 8'-3"           | 8'-7"   | 8'-11"  | 9'-2"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-10"    | 9'-3"   | 9'-8"     | 10'-1"          | 10'-6"  | 10'-10" | 11'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-8"    | 11'-2"  | 11'-8"    | 12'-2"          | 12'-8"  | 13'-1"  | 13'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-11"   | 13'-7"  | 14'-3"    | 14'-10"         | 15'-5"  | 15'-11" | 16'-6"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 5'-10"    | 6'-2"   | 6'-5"     | 6'-9"           | 7'-0"   | 7'-3"   | 7'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-6"     | 7'-11"  | 8'-3"     | 8'-8"           | 9'-0"   | 9'-4"   | 9'-7"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-3"     | 9'-8"   | 10'-1"    | 10'-7"          | 11'-0"  | 11'-4"  | 11'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-1"    | 11'-8"  | 12'-3"    | 12'-9"          | 13'-3"  | 13'-9"  | 14'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-6"    | 14'-3"  | 14'-10"   | 15'-6"          | 16'-1"  | 16'-8"  | 17'-3"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 6'-2"     | 6'-6"   | 6'-9"     | 7'-1"           | 7'-4"   | 7'-7"   | 7'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 7'-11"    | 8'-4"   | 8'-8"     | 9'-1"           | 9'-5"   | 9'-9"   | 10'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-8"     | 10'-2"  | 10'-8"    | 11'-1"          | 11'-6"  | 11'-11" | 12'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-8"    | 12'-3"  | 12'-10"   | 13'-5"          | 13'-11" | 14'-5"  | 14'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 14'-3"    | 14'-11" | 15'-7"    | 16'-3"          | 16'-11" | 17'-6"  | 18'-1"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 6'-6"     | 6'-10"  | 7'-2"     | 7'-6"           | 7'-9"   | 8'-1"   | 8'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-4"     | 8'-9"   | 9'-2"     | 9'-7"           | 10'-0"  | 10'-4"  | 10'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-3"    | 10'-9"  | 11'-3"    | 11'-9"          | 12'-2"  | 12'-7"  | 13'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-4"    | 13'-0"  | 13'-7"    | 14'-2"          | 14'-8"  | 15'-3"  | 15'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-0"    | 15'-9"  | 16'-6"    | 17'-2"          | 17'-10" | 18'-6"  | 19'-1"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 6'-11"    | 7'-3"   | 7'-7"     | 7'-11"          | 8'-3"   | 8'-7"   | 8'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 8'-11"    | 9'-4"   | 9'-9"     | 10'-2"          | 10'-7"  | 11'-0"  | 11'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-11"   | 11'-5"  | 11'-11"   | 12'-5"          | 12'-11" | 13'-5"  | 13'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 13'-2"    | 13'-9"  | 14'-5"    | 15'-0"          | 15'-7"  | 16'-2"  | 16'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-0"    | 16'-9"  | 17'-6"    | 18'-3"          | 19'-0"  | 19'-8"  | 20'-4"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 7'-5"     | 7'-10"  | 8'-2"     | 8'-6"           | 8'-10"  | 9'-2"   | 9'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-6"     | 10'-0"  | 10'-6"    | 10'-11"         | 11'-4"  | 11'-9"  | 12'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-8"    | 12'-3"  | 12'-10"   | 13'-4"          | 13'-10" | 14'-4"  | 14'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 14'-1"    | 14'-9"  | 15'-5"    | 16'-1"          | 16'-9"  | 17'-4"  | 17'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 17'-1"    | 17'-11" | 18'-9"    | 19'-7"          | 20'-4"  | 21'-1"  | 21'-9"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 8'-1"     | 8'-6"   | 8'-10"    | 9'-3"           | 9'-7"   | 9'-11"  | 10'-4"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-4"    | 10'-10" | 11'-4"    | 11'-10"         | 12'-4"  | 12'-9"  | 13'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-8"    | 13'-3"  | 13'-10"   | 14'-5"          | 15'-0"  | 15'-7"  | 16'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-3"    | 16'-0"  | 16'-9"    | 17'-5"          | 18'-1"  | 18'-9"  | 19'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 18'-6"    | 19'-5"  | 20'-4"    | 21'-2"          | 22'-0"  | 22'-9"  | 23'-6"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 8'-8"     | 9'-1"   | 9'-6"     | 9'-11"          | 10'-4"  | 10'-8"  | 11'-0"   | 362T125-33-50 |
|   | 362T125-43-50 | 11'-1"    | 11'-8"  | 12'-2"    | 12'-8"          | 13'-2"  | 13'-8"  | 14'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 13'-6"    | 14'-3"  | 14'-10"   | 15'-6"          | 16'-1"  | 16'-8"  | 17'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 16'-4"    | 17'-2"  | 17'-11"   | 18'-8"          | 19'-5"  | 20'-1"  | 20'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 19'-10"   | 20'-10" | 21'-9"    | 22'-8"          | 23'-6"  | 24'-5"  | 25'-2"   | 362T125-97-50 |



**TABLE 4.7.4.226: MAXIMUM UNBRACED TOP TRACK LENGTH**

| <b>PARAMETERS:</b>  |               | Type      | S3      | ( $p = 1.5$ ) | S <sub>Ds</sub> | 1.60    | Weight  | 2200 lbs |               |
|---|---------------|-----------|---------|---------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.<br>Note: If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |               |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |               |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft       | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 4'-8"     | 4'-11"  | 5'-2"         | 5'-5"           | 5'-7"   | 5'-10"  | 6'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-1"     | 6'-4"   | 6'-8"         | 7'-0"           | 7'-3"   | 7'-6"   | 7'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-5"     | 7'-10"  | 8'-2"         | 8'-6"           | 8'-10"  | 9'-2"   | 9'-6"    | 362T125-54-50 |
|   | 362T125-68-50 | 9'-0"     | 9'-5"   | 9'-11"        | 10'-4"          | 10'-9"  | 11'-1"  | 11'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-11"   | 11'-6"  | 12'-1"        | 12'-7"          | 13'-1"  | 13'-6"  | 14'-0"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 4'-10"    | 5'-1"   | 5'-4"         | 5'-7"           | 5'-10"  | 6'-0"   | 6'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-3"     | 6'-7"   | 6'-11"        | 7'-3"           | 7'-6"   | 7'-9"   | 8'-1"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-9"     | 8'-1"   | 8'-6"         | 8'-10"          | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-4"     | 9'-10"  | 10'-3"        | 10'-8"          | 11'-1"  | 11'-6"  | 11'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 11'-4"    | 11'-11" | 12'-6"        | 13'-0"          | 13'-6"  | 14'-0"  | 14'-6"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 5'-1"     | 5'-4"   | 5'-7"         | 5'-10"          | 6'-1"   | 6'-3"   | 6'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-7"     | 6'-11"  | 7'-2"         | 7'-6"           | 7'-10"  | 8'-1"   | 8'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-0"     | 8'-5"   | 8'-10"        | 9'-2"           | 9'-7"   | 9'-11"  | 10'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-8"     | 10'-2"  | 10'-8"        | 11'-1"          | 11'-7"  | 12'-0"  | 12'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-10"   | 12'-5"  | 13'-0"        | 13'-6"          | 14'-1"  | 14'-7"  | 15'-1"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 5'-4"     | 5'-7"   | 5'-10"        | 6'-1"           | 6'-4"   | 6'-7"   | 6'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-10"    | 7'-2"   | 7'-6"         | 7'-10"          | 8'-2"   | 8'-5"   | 8'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-4"     | 8'-10"  | 9'-2"         | 9'-7"           | 10'-0"  | 10'-4"  | 10'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-1"    | 10'-7"  | 11'-1"        | 11'-7"          | 12'-0"  | 12'-6"  | 12'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 12'-4"    | 12'-11" | 13'-6"        | 14'-1"          | 14'-8"  | 15'-2"  | 15'-8"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 5'-7"     | 5'-10"  | 6'-1"         | 6'-5"           | 6'-8"   | 6'-10"  | 7'-1"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-2"     | 7'-6"   | 7'-10"        | 8'-2"           | 8'-6"   | 8'-10"  | 9'-2"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-9"     | 9'-2"   | 9'-8"         | 10'-0"          | 10'-5"  | 10'-10" | 11'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-7"    | 11'-1"  | 11'-8"        | 12'-1"          | 12'-7"  | 13'-1"  | 13'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-11"   | 13'-6"  | 14'-2"        | 14'-9"          | 15'-4"  | 15'-11" | 16'-5"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 5'-10"    | 6'-2"   | 6'-5"         | 6'-9"           | 7'-0"   | 7'-3"   | 7'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-6"     | 7'-11"  | 8'-3"         | 8'-8"           | 9'-0"   | 9'-4"   | 9'-7"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-3"     | 9'-8"   | 10'-1"        | 10'-7"          | 11'-0"  | 11'-4"  | 11'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-1"    | 11'-8"  | 12'-3"        | 12'-9"          | 13'-3"  | 13'-9"  | 14'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-6"    | 14'-3"  | 14'-10"       | 15'-6"          | 16'-1"  | 16'-8"  | 17'-3"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 6'-2"     | 6'-6"   | 6'-10"        | 7'-1"           | 7'-5"   | 7'-8"   | 7'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 7'-11"    | 8'-4"   | 8'-9"         | 9'-1"           | 9'-6"   | 9'-10"  | 10'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-9"     | 10'-3"  | 10'-8"        | 11'-2"          | 11'-7"  | 12'-0"  | 12'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-9"    | 12'-4"  | 12'-11"       | 13'-5"          | 14'-0"  | 14'-6"  | 15'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-4"    | 15'-0"  | 15'-8"        | 16'-4"          | 17'-0"  | 17'-7"  | 18'-2"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 6'-7"     | 6'-11"  | 7'-3"         | 7'-7"           | 7'-10"  | 8'-2"   | 8'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-6"     | 8'-11"  | 9'-4"         | 9'-8"           | 10'-1"  | 10'-5"  | 10'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 10'-4"    | 10'-10" | 11'-4"        | 11'-10"         | 12'-4"  | 12'-9"  | 13'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-6"    | 13'-1"  | 13'-9"        | 14'-4"          | 14'-10" | 15'-5"  | 15'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 15'-2"    | 15'-11" | 16'-8"        | 17'-5"          | 18'-1"  | 18'-9"  | 19'-4"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 7'-1"     | 7'-5"   | 7'-9"         | 8'-1"           | 8'-5"   | 8'-9"   | 9'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-1"     | 9'-6"   | 10'-0"        | 10'-5"          | 10'-10" | 11'-2"  | 11'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-1"    | 11'-8"  | 12'-2"        | 12'-8"          | 13'-2"  | 13'-8"  | 14'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-5"    | 14'-1"  | 14'-8"        | 15'-4"          | 15'-11" | 16'-6"  | 17'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-3"    | 17'-1"  | 17'-11"       | 18'-7"          | 19'-4"  | 20'-0"  | 20'-9"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 7'-8"     | 8'-1"   | 8'-5"         | 8'-10"          | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 9'-10"    | 10'-4"  | 10'-10"       | 11'-3"          | 11'-8"  | 12'-2"  | 12'-6"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-0"    | 12'-7"  | 13'-2"        | 13'-9"          | 14'-4"  | 14'-10" | 15'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-6"    | 15'-3"  | 15'-11"       | 16'-7"          | 17'-3"  | 17'-10" | 18'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-7"    | 18'-6"  | 19'-4"        | 20'-2"          | 20'-11" | 21'-8"  | 22'-5"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 8'-3"     | 8'-8"   | 9'-1"         | 9'-5"           | 9'-10"  | 10'-2"  | 10'-6"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-7"    | 11'-1"  | 11'-7"        | 12'-1"          | 12'-7"  | 13'-0"  | 13'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 12'-11"   | 13'-6"  | 14'-2"        | 14'-9"          | 15'-4"  | 15'-10" | 16'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 15'-6"    | 16'-4"  | 17'-1"        | 17'-9"          | 18'-6"  | 19'-1"  | 19'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 18'-11"   | 19'-10" | 20'-9"        | 21'-7"          | 22'-5"  | 23'-3"  | 24'-0"   | 362T125-97-50 |



**TABLE 4.7.4.227: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | (lp = 1.5) | S <sub>Ds</sub> | 1.60    | Weight  | 2400 lbs |               |
|---|---------------|-----------|---------|------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |            |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |            |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |            |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft    | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 4'-6"     | 4'-8"   | 4'-11"     | 5'-2"           | 5'-4"   | 5'-7"   | 5'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-9"     | 6'-1"   | 6'-4"      | 6'-8"           | 6'-11"  | 7'-2"   | 7'-5"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-1"     | 7'-6"   | 7'-10"     | 8'-2"           | 8'-6"   | 8'-9"   | 9'-1"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-7"     | 9'-0"   | 9'-5"      | 9'-10"          | 10'-3"  | 10'-7"  | 11'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-6"    | 11'-0"  | 11'-6"     | 12'-0"          | 12'-6"  | 12'-11" | 13'-4"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 4'-8"     | 4'-11"  | 5'-1"      | 5'-4"           | 5'-7"   | 5'-9"   | 6'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-0"     | 6'-4"   | 6'-7"      | 6'-11"          | 7'-2"   | 7'-5"   | 7'-8"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-4"     | 7'-9"   | 8'-1"      | 8'-5"           | 8'-9"   | 9'-1"   | 9'-5"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-11"    | 9'-4"   | 9'-10"     | 10'-3"          | 10'-7"  | 11'-0"  | 11'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-10"   | 11'-5"  | 11'-11"    | 12'-5"          | 12'-11" | 13'-5"  | 13'-10"  | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 4'-10"    | 5'-1"   | 5'-4"      | 5'-7"           | 5'-9"   | 6'-0"   | 6'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-3"     | 6'-7"   | 6'-11"     | 7'-2"           | 7'-5"   | 7'-9"   | 8'-0"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-8"     | 8'-1"   | 8'-5"      | 8'-9"           | 9'-2"   | 9'-6"   | 9'-9"    | 362T125-54-50 |
|   | 362T125-68-50 | 9'-3"     | 9'-9"   | 10'-2"     | 10'-7"          | 11'-0"  | 11'-5"  | 11'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 11'-3"    | 11'-10" | 12'-5"     | 12'-11"         | 13'-5"  | 13'-11" | 14'-5"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 5'-1"     | 5'-4"   | 5'-7"      | 5'-10"          | 6'-0"   | 6'-3"   | 6'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-6"     | 6'-10"  | 7'-2"      | 7'-6"           | 7'-9"   | 8'-1"   | 8'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-0"     | 8'-5"   | 8'-9"      | 9'-2"           | 9'-6"   | 9'-10"  | 10'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-8"     | 10'-2"  | 10'-7"     | 11'-1"          | 11'-6"  | 11'-11" | 12'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-9"    | 12'-4"  | 12'-11"    | 13'-6"          | 14'-0"  | 14'-6"  | 15'-0"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 5'-4"     | 5'-7"   | 5'-10"     | 6'-1"           | 6'-4"   | 6'-7"   | 6'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-10"    | 7'-2"   | 7'-6"      | 7'-10"          | 8'-2"   | 8'-5"   | 8'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-4"     | 8'-10"  | 9'-2"      | 9'-7"           | 10'-0"  | 10'-4"  | 10'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-1"    | 10'-7"  | 11'-1"     | 11'-7"          | 12'-0"  | 12'-6"  | 12'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 12'-4"    | 12'-11" | 13'-6"     | 14'-1"          | 14'-8"  | 15'-2"  | 15'-8"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 5'-7"     | 5'-10"  | 6'-2"      | 6'-5"           | 6'-8"   | 6'-11"  | 7'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-2"     | 7'-7"   | 7'-11"     | 8'-3"           | 8'-7"   | 8'-11"  | 9'-2"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-10"    | 9'-3"   | 9'-8"      | 10'-1"          | 10'-6"  | 10'-10" | 11'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-8"    | 11'-2"  | 11'-8"     | 12'-2"          | 12'-8"  | 13'-1"  | 13'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-11"   | 13'-7"  | 14'-3"     | 14'-10"         | 15'-5"  | 15'-11" | 16'-6"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 5'-11"    | 6'-2"   | 6'-6"      | 6'-9"           | 7'-1"   | 7'-4"   | 7'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-7"     | 8'-0"   | 8'-4"      | 8'-9"           | 9'-1"   | 9'-5"   | 9'-8"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-4"     | 9'-9"   | 10'-3"     | 10'-8"          | 11'-1"  | 11'-6"  | 11'-10"  | 362T125-54-50 |
|   | 362T125-68-50 | 11'-3"    | 11'-10" | 12'-4"     | 12'-10"         | 13'-4"  | 13'-10" | 14'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-8"    | 14'-4"  | 15'-0"     | 15'-8"          | 16'-3"  | 16'-10" | 17'-5"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 6'-3"     | 6'-7"   | 6'-11"     | 7'-3"           | 7'-6"   | 7'-9"   | 8'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-1"     | 8'-6"   | 8'-11"     | 9'-3"           | 9'-8"   | 10'-0"  | 10'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-11"    | 10'-5"  | 10'-10"    | 11'-4"          | 11'-9"  | 12'-2"  | 12'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-11"   | 12'-7"  | 13'-1"     | 13'-8"          | 14'-2"  | 14'-9"  | 15'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-6"    | 15'-3"  | 15'-11"    | 16'-8"          | 17'-3"  | 17'-11" | 18'-6"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 6'-9"     | 7'-1"   | 7'-5"      | 7'-9"           | 8'-1"   | 8'-4"   | 8'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-8"     | 9'-1"   | 9'-6"      | 9'-11"          | 10'-4"  | 10'-8"  | 11'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-7"    | 11'-2"  | 11'-8"     | 12'-2"          | 12'-7"  | 13'-1"  | 13'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-10"   | 13'-5"  | 14'-1"     | 14'-8"          | 15'-3"  | 15'-9"  | 16'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-7"    | 16'-4"  | 17'-1"     | 17'-10"         | 18'-6"  | 19'-2"  | 19'-10"  | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 7'-4"     | 7'-8"   | 8'-1"      | 8'-5"           | 8'-9"   | 9'-1"   | 9'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-5"     | 9'-11"  | 10'-4"     | 10'-9"          | 11'-2"  | 11'-7"  | 12'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-6"    | 12'-1"  | 12'-7"     | 13'-2"          | 13'-8"  | 14'-2"  | 14'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-10"   | 14'-7"  | 15'-3"     | 15'-10"         | 16'-6"  | 17'-1"  | 17'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-10"   | 17'-8"  | 18'-6"     | 19'-3"          | 20'-0"  | 20'-9"  | 21'-5"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 7'-10"    | 8'-3"   | 8'-8"      | 9'-0"           | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-33-50 |
|   | 362T125-43-50 | 10'-1"    | 10'-7"  | 11'-1"     | 11'-6"          | 12'-0"  | 12'-5"  | 12'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 12'-4"    | 12'-11" | 13'-6"     | 14'-1"          | 14'-8"  | 15'-2"  | 15'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-10"   | 15'-7"  | 16'-4"     | 17'-0"          | 17'-8"  | 18'-3"  | 18'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 18'-1"    | 18'-11" | 19'-10"    | 20'-8"          | 21'-5"  | 22'-3"  | 22'-11"  | 362T125-97-50 |



**TABLE 4.7.4.228: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | (lp = 1.5) | S <sub>DS</sub> | 1.60    | Weight  | 2600 lbs |               |
|---|---------------|-----------|---------|------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |            |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |            |                 |         |         |          |               |
| Height in Bldg (z/h)  | Track Section | Pod Width |         |            |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft    | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 4'-3"     | 4'-6"   | 4'-9"      | 4'-11"          | 5'-1"   | 5'-4"   | 5'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-6"     | 5'-10"  | 6'-1"      | 6'-4"           | 6'-7"   | 6'-10"  | 7'-1"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-10"    | 7'-2"   | 7'-6"      | 7'-10"          | 8'-1"   | 8'-5"   | 8'-8"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-3"     | 8'-8"   | 9'-1"      | 9'-5"           | 9'-10"  | 10'-2"  | 10'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-0"    | 10'-7"  | 11'-0"     | 11'-6"          | 11'-11" | 12'-5"  | 12'-10"  | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 4'-5"     | 4'-8"   | 4'-11"     | 5'-1"           | 5'-4"   | 5'-6"   | 5'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-9"     | 6'-1"   | 6'-4"      | 6'-7"           | 6'-10"  | 7'-1"   | 7'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-1"     | 7'-5"   | 7'-9"      | 8'-1"           | 8'-5"   | 8'-9"   | 9'-0"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-6"     | 9'-0"   | 9'-5"      | 9'-9"           | 10'-2"  | 10'-7"  | 10'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 10'-5"    | 10'-11" | 11'-5"     | 11'-11"         | 12'-5"  | 12'-10" | 13'-3"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 4'-8"     | 4'-10"  | 5'-1"      | 5'-4"           | 5'-6"   | 5'-9"   | 5'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 6'-0"     | 6'-4"   | 6'-7"      | 6'-10"          | 7'-2"   | 7'-5"   | 7'-8"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-4"     | 7'-9"   | 8'-1"      | 8'-5"           | 8'-9"   | 9'-1"   | 9'-5"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-10"    | 9'-4"   | 9'-9"      | 10'-2"          | 10'-7"  | 11'-0"  | 11'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-10"   | 11'-4"  | 11'-11"    | 12'-5"          | 12'-11" | 13'-4"  | 13'-10"  | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 4'-10"    | 5'-1"   | 5'-4"      | 5'-7"           | 5'-9"   | 6'-0"   | 6'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-3"     | 6'-7"   | 6'-11"     | 7'-2"           | 7'-5"   | 7'-9"   | 8'-0"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-8"     | 8'-1"   | 8'-5"      | 8'-9"           | 9'-2"   | 9'-6"   | 9'-9"    | 362T125-54-50 |
|   | 362T125-68-50 | 9'-3"     | 9'-9"   | 10'-2"     | 10'-7"          | 11'-0"  | 11'-5"  | 11'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 11'-3"    | 11'-10" | 12'-5"     | 12'-11"         | 13'-5"  | 13'-11" | 14'-5"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 5'-1"     | 5'-4"   | 5'-7"      | 5'-10"          | 6'-1"   | 6'-3"   | 6'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-7"     | 6'-11"  | 7'-2"      | 7'-6"           | 7'-10"  | 8'-1"   | 8'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-0"     | 8'-5"   | 8'-10"     | 9'-2"           | 9'-7"   | 9'-11"  | 10'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-8"     | 10'-2"  | 10'-8"     | 11'-1"          | 11'-7"  | 12'-0"  | 12'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-10"   | 12'-5"  | 13'-0"     | 13'-6"          | 14'-1"  | 14'-7"  | 15'-1"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 5'-4"     | 5'-7"   | 5'-11"     | 6'-2"           | 6'-5"   | 6'-7"   | 6'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 6'-11"    | 7'-3"   | 7'-7"      | 7'-11"          | 8'-3"   | 8'-6"   | 8'-10"   | 362T125-43-50 |
|   | 362T125-54-50 | 8'-5"     | 8'-10"  | 9'-3"      | 9'-8"           | 10'-1"  | 10'-5"  | 10'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-2"    | 10'-8"  | 11'-2"     | 11'-8"          | 12'-2"  | 12'-7"  | 13'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-5"    | 13'-0"  | 13'-8"     | 14'-3"          | 14'-9"  | 15'-4"  | 15'-10"  | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 5'-8"     | 5'-11"  | 6'-3"      | 6'-6"           | 6'-9"   | 7'-0"   | 7'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-3"     | 7'-8"   | 8'-0"      | 8'-4"           | 8'-8"   | 9'-0"   | 9'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-11"    | 9'-4"   | 9'-10"     | 10'-3"          | 10'-7"  | 11'-0"  | 11'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-9"    | 11'-4"  | 11'-10"    | 12'-4"          | 12'-10" | 13'-3"  | 13'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-1"    | 13'-9"  | 14'-5"     | 15'-0"          | 15'-7"  | 16'-2"  | 16'-8"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 6'-0"     | 6'-4"   | 6'-8"      | 6'-11"          | 7'-2"   | 7'-5"   | 7'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-9"     | 8'-2"   | 8'-6"      | 8'-11"          | 9'-3"   | 9'-7"   | 9'-11"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-6"     | 10'-0"  | 10'-5"     | 10'-10"         | 11'-3"  | 11'-8"  | 12'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-5"    | 12'-0"  | 12'-7"     | 13'-1"          | 13'-8"  | 14'-1"  | 14'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-11"   | 14'-8"  | 15'-4"     | 15'-11"         | 16'-7"  | 17'-2"  | 17'-9"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 6'-6"     | 6'-10"  | 7'-1"      | 7'-5"           | 7'-9"   | 8'-0"   | 8'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-4"     | 8'-9"   | 9'-2"      | 9'-6"           | 9'-11"  | 10'-3"  | 10'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-2"    | 10'-8"  | 11'-2"     | 11'-8"          | 12'-1"  | 12'-6"  | 13'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-3"    | 12'-11" | 13'-6"     | 14'-1"          | 14'-7"  | 15'-2"  | 15'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-11"   | 15'-8"  | 16'-5"     | 17'-1"          | 17'-9"  | 18'-5"  | 19'-0"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 7'-0"     | 7'-5"   | 7'-9"      | 8'-1"           | 8'-4"   | 8'-8"   | 9'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-0"     | 9'-6"   | 9'-11"     | 10'-4"          | 10'-9"  | 11'-1"  | 11'-6"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-0"    | 11'-7"  | 12'-1"     | 12'-7"          | 13'-1"  | 13'-7"  | 14'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-4"    | 14'-0"  | 14'-7"     | 15'-3"          | 15'-10" | 16'-5"  | 16'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 16'-2"    | 17'-0"  | 17'-9"     | 18'-6"          | 19'-3"  | 19'-11" | 20'-7"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 7'-6"     | 7'-11"  | 8'-3"      | 8'-8"           | 9'-0"   | 9'-4"   | 9'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-8"     | 10'-2"  | 10'-7"     | 11'-1"          | 11'-6"  | 11'-11" | 12'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-10"   | 12'-5"  | 13'-0"     | 13'-6"          | 14'-1"  | 14'-7"  | 15'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 14'-3"    | 15'-0"  | 15'-8"     | 16'-4"          | 16'-11" | 17'-7"  | 18'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 17'-4"    | 18'-2"  | 19'-0"     | 19'-10"         | 20'-7"  | 21'-4"  | 22'-0"   | 362T125-97-50 |



**TABLE 4.7.4.229: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | (p = 1.5) | S <sub>DS</sub> | 1.60    | Weight  | 2800 lbs |               |
|---|---------------|-----------|---------|-----------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |           |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |           |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |           |                 |         |         |          |               |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft   | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  | Track Section |
| 1.0   | 362T125-33-50 | 4'-1"     | 4'-4"   | 4'-6"     | 4'-9"           | 4'-11"  | 5'-1"   | 5'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-4"     | 5'-7"   | 5'-10"    | 6'-1"           | 6'-4"   | 6'-7"   | 6'-10"   | 362T125-43-50 |
|   | 362T125-54-50 | 6'-6"     | 6'-10"  | 7'-2"     | 7'-6"           | 7'-10"  | 8'-1"   | 8'-4"    | 362T125-54-50 |
|   | 362T125-68-50 | 7'-11"    | 8'-4"   | 8'-8"     | 9'-1"           | 9'-5"   | 9'-9"   | 10'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 9'-8"     | 10'-2"  | 10'-7"    | 11'-1"          | 11'-6"  | 11'-11" | 12'-4"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 4'-3"     | 4'-6"   | 4'-8"     | 4'-11"          | 5'-1"   | 5'-4"   | 5'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-6"     | 5'-10"  | 6'-1"     | 6'-4"           | 6'-7"   | 6'-10"  | 7'-1"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-9"     | 7'-2"   | 7'-6"     | 7'-9"           | 8'-1"   | 8'-5"   | 8'-8"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-2"     | 8'-7"   | 9'-0"     | 9'-5"           | 9'-9"   | 10'-2"  | 10'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-0"    | 10'-6"  | 11'-0"    | 11'-6"          | 11'-11" | 12'-4"  | 12'-9"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 4'-5"     | 4'-8"   | 4'-11"    | 5'-1"           | 5'-4"   | 5'-6"   | 5'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-9"     | 6'-1"   | 6'-4"     | 6'-7"           | 6'-10"  | 7'-1"   | 7'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-1"     | 7'-5"   | 7'-9"     | 8'-1"           | 8'-5"   | 8'-9"   | 9'-0"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-6"     | 9'-0"   | 9'-5"     | 9'-9"           | 10'-2"  | 10'-7"  | 10'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 10'-5"    | 10'-11" | 11'-5"    | 11'-11"         | 12'-5"  | 12'-10" | 13'-3"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 4'-8"     | 4'-11"  | 5'-1"     | 5'-4"           | 5'-7"   | 5'-9"   | 6'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-0"     | 6'-4"   | 6'-7"     | 6'-11"          | 7'-2"   | 7'-5"   | 7'-8"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-4"     | 7'-9"   | 8'-1"     | 8'-5"           | 8'-9"   | 9'-1"   | 9'-5"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-11"    | 9'-4"   | 9'-10"    | 10'-3"          | 10'-7"  | 11'-0"  | 11'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-10"   | 11'-5"  | 11'-11"   | 12'-5"          | 12'-11" | 13'-5"  | 13'-10"  | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 4'-10"    | 5'-1"   | 5'-4"     | 5'-7"           | 5'-10"  | 6'-0"   | 6'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-3"     | 6'-7"   | 6'-11"    | 7'-3"           | 7'-6"   | 7'-9"   | 8'-1"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-9"     | 8'-1"   | 8'-6"     | 8'-10"          | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-4"     | 9'-10"  | 10'-3"    | 10'-8"          | 11'-1"  | 11'-6"  | 11'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 11'-4"    | 11'-11" | 12'-6"    | 13'-0"          | 13'-6"  | 14'-0"  | 14'-6"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 5'-2"     | 5'-5"   | 5'-8"     | 5'-11"          | 6'-2"   | 6'-4"   | 6'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-7"     | 7'-0"   | 7'-3"     | 7'-7"           | 7'-11"  | 8'-2"   | 8'-6"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-1"     | 8'-6"   | 8'-11"    | 9'-4"           | 9'-8"   | 10'-0"  | 10'-4"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-10"    | 10'-4"  | 10'-9"    | 11'-3"          | 11'-8"  | 12'-1"  | 12'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-11"   | 12'-7"  | 13'-1"    | 13'-8"          | 14'-3"  | 14'-9"  | 15'-3"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 5'-5"     | 5'-9"   | 6'-0"     | 6'-3"           | 6'-6"   | 6'-9"   | 6'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 7'-0"     | 7'-4"   | 7'-8"     | 8'-0"           | 8'-4"   | 8'-8"   | 8'-11"   | 362T125-43-50 |
|   | 362T125-54-50 | 8'-7"     | 9'-0"   | 9'-5"     | 9'-10"          | 10'-3"  | 10'-7"  | 10'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 10'-4"    | 10'-11" | 11'-5"    | 11'-10"         | 12'-4"  | 12'-9"  | 13'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-7"    | 13'-3"  | 13'-10"   | 14'-5"          | 15'-0"  | 15'-7"  | 16'-1"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 5'-9"     | 6'-1"   | 6'-4"     | 6'-8"           | 6'-11"  | 7'-2"   | 7'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-5"     | 7'-10"  | 8'-2"     | 8'-7"           | 8'-11"  | 9'-2"   | 9'-6"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-1"     | 9'-7"   | 10'-0"    | 10'-5"          | 10'-10" | 11'-3"  | 11'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-0"    | 11'-7"  | 12'-1"    | 12'-7"          | 13'-1"  | 13'-7"  | 14'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-5"    | 14'-1"  | 14'-9"    | 15'-4"          | 15'-11" | 16'-6"  | 17'-1"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 6'-3"     | 6'-6"   | 6'-10"    | 7'-2"           | 7'-5"   | 7'-8"   | 7'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 8'-0"     | 8'-5"   | 8'-10"    | 9'-2"           | 9'-6"   | 9'-10"  | 10'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-9"     | 10'-3"  | 10'-9"    | 11'-2"          | 11'-8"  | 12'-1"  | 12'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-10"   | 12'-5"  | 13'-0"    | 13'-6"          | 14'-1"  | 14'-7"  | 15'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-4"    | 15'-1"  | 15'-9"    | 16'-5"          | 17'-1"  | 17'-8"  | 18'-4"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 6'-9"     | 7'-1"   | 7'-5"     | 7'-9"           | 8'-1"   | 8'-4"   | 8'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-8"     | 9'-1"   | 9'-6"     | 9'-11"          | 10'-4"  | 10'-8"  | 11'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-7"    | 11'-2"  | 11'-8"    | 12'-2"          | 12'-7"  | 13'-1"  | 13'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-10"   | 13'-5"  | 14'-1"    | 14'-8"          | 15'-3"  | 15'-9"  | 16'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-7"    | 16'-4"  | 17'-1"    | 17'-10"         | 18'-6"  | 19'-2"  | 19'-10"  | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 7'-3"     | 7'-7"   | 8'-0"     | 8'-4"           | 8'-8"   | 8'-11"  | 9'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 9'-4"     | 9'-9"   | 10'-3"    | 10'-8"          | 11'-1"  | 11'-6"  | 11'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 11'-4"    | 11'-11" | 12'-6"    | 13'-0"          | 13'-6"  | 14'-0"  | 14'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-9"    | 14'-5"  | 15'-1"    | 15'-8"          | 16'-4"  | 16'-11" | 17'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 16'-8"    | 17'-6"  | 18'-4"    | 19'-1"          | 19'-10" | 20'-6"  | 21'-3"   | 362T125-97-50 |



**TABLE 4.7.4.230: MAXIMUM UNBRACED TOP TRACK LENGTH**

| <b>PARAMETERS:</b>  |               | Type      | S3      | (lp = 1.5) | S <sub>Ds</sub> | 1.60    | Weight  | 3000 lbs |               |
|---|---------------|-----------|---------|------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.<br>Note: If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |            |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |            |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft    | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 3'-11"    | 4'-2"   | 4'-4"      | 4'-7"           | 4'-9"   | 4'-11"  | 5'-1"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-1"     | 5'-5"   | 5'-8"      | 5'-11"          | 6'-2"   | 6'-4"   | 6'-7"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-4"     | 6'-7"   | 6'-11"     | 7'-3"           | 7'-6"   | 7'-10"  | 8'-1"    | 362T125-54-50 |
|   | 362T125-68-50 | 7'-7"     | 8'-0"   | 8'-5"      | 8'-9"           | 9'-1"   | 9'-5"   | 9'-9"    | 362T125-68-50 |
|   | 362T125-97-50 | 9'-4"     | 9'-9"   | 10'-3"     | 10'-8"          | 11'-1"  | 11'-6"  | 11'-11"  | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 4'-1"     | 4'-4"   | 4'-6"      | 4'-9"           | 4'-11"  | 5'-1"   | 5'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-4"     | 5'-7"   | 5'-10"     | 6'-1"           | 6'-4"   | 6'-7"   | 6'-10"   | 362T125-43-50 |
|   | 362T125-54-50 | 6'-6"     | 6'-10"  | 7'-2"      | 7'-6"           | 7'-10"  | 8'-1"   | 8'-4"    | 362T125-54-50 |
|   | 362T125-68-50 | 7'-11"    | 8'-4"   | 8'-8"      | 9'-1"           | 9'-5"   | 9'-9"   | 10'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 9'-8"     | 10'-2"  | 10'-7"     | 11'-1"          | 11'-6"  | 11'-11" | 12'-4"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 4'-3"     | 4'-6"   | 4'-9"      | 4'-11"          | 5'-1"   | 5'-4"   | 5'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-6"     | 5'-10"  | 6'-1"      | 6'-4"           | 6'-7"   | 6'-10"  | 7'-1"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-10"    | 7'-2"   | 7'-6"      | 7'-10"          | 8'-1"   | 8'-5"   | 8'-8"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-3"     | 8'-8"   | 9'-1"      | 9'-5"           | 9'-10"  | 10'-2"  | 10'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-0"    | 10'-7"  | 11'-0"     | 11'-6"          | 11'-11" | 12'-5"  | 12'-10"  | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 4'-6"     | 4'-8"   | 4'-11"     | 5'-2"           | 5'-4"   | 5'-7"   | 5'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-9"     | 6'-1"   | 6'-4"      | 6'-8"           | 6'-11"  | 7'-2"   | 7'-5"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-1"     | 7'-6"   | 7'-10"     | 8'-2"           | 8'-6"   | 8'-9"   | 9'-1"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-7"     | 9'-0"   | 9'-5"      | 9'-10"          | 10'-3"  | 10'-7"  | 11'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-6"    | 11'-0"  | 11'-6"     | 12'-0"          | 12'-6"  | 12'-11" | 13'-4"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 4'-8"     | 4'-11"  | 5'-2"      | 5'-5"           | 5'-7"   | 5'-10"  | 6'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-1"     | 6'-4"   | 6'-8"      | 7'-0"           | 7'-3"   | 7'-6"   | 7'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-5"     | 7'-10"  | 8'-2"      | 8'-6"           | 8'-10"  | 9'-2"   | 9'-6"    | 362T125-54-50 |
|   | 362T125-68-50 | 9'-0"     | 9'-5"   | 9'-11"     | 10'-4"          | 10'-9"  | 11'-1"  | 11'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-11"   | 11'-6"  | 12'-1"     | 12'-7"          | 13'-1"  | 13'-6"  | 14'-0"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 4'-11"    | 5'-2"   | 5'-5"      | 5'-8"           | 5'-11"  | 6'-1"   | 6'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-5"     | 6'-8"   | 7'-0"      | 7'-4"           | 7'-7"   | 7'-11"  | 8'-2"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-10"    | 8'-3"   | 8'-7"      | 9'-0"           | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-5"     | 9'-11"  | 10'-5"     | 10'-10"         | 11'-3"  | 11'-8"  | 12'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-6"    | 12'-1"  | 12'-8"     | 13'-2"          | 13'-9"  | 14'-2"  | 14'-8"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 5'-3"     | 5'-6"   | 5'-9"      | 6'-0"           | 6'-3"   | 6'-6"   | 6'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-9"     | 7'-1"   | 7'-5"      | 7'-9"           | 8'-1"   | 8'-4"   | 8'-8"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-3"     | 8'-8"   | 9'-1"      | 9'-6"           | 9'-10"  | 10'-3"  | 10'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-0"    | 10'-6"  | 11'-0"     | 11'-5"          | 11'-11" | 12'-4"  | 12'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-2"    | 12'-9"  | 13'-4"     | 13'-11"         | 14'-6"  | 15'-0"  | 15'-6"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 5'-7"     | 5'-10"  | 6'-2"      | 6'-5"           | 6'-8"   | 6'-11"  | 7'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-2"     | 7'-7"   | 7'-11"     | 8'-3"           | 8'-7"   | 8'-11"  | 9'-2"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-10"    | 9'-3"   | 9'-8"      | 10'-1"          | 10'-6"  | 10'-10" | 11'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-8"    | 11'-2"  | 11'-8"     | 12'-2"          | 12'-8"  | 13'-1"  | 13'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-11"   | 13'-7"  | 14'-3"     | 14'-10"         | 15'-5"  | 15'-11" | 16'-6"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 6'-0"     | 6'-4"   | 6'-7"      | 6'-11"          | 7'-2"   | 7'-5"   | 7'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-9"     | 8'-1"   | 8'-6"      | 8'-10"          | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-5"     | 9'-11"  | 10'-4"     | 10'-10"         | 11'-3"  | 11'-8"  | 12'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-5"    | 12'-0"  | 12'-6"     | 13'-1"          | 13'-7"  | 14'-1"  | 14'-6"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-10"   | 14'-7"  | 15'-3"     | 15'-10"         | 16'-6"  | 17'-1"  | 17'-8"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 6'-6"     | 6'-10"  | 7'-2"      | 7'-6"           | 7'-9"   | 8'-1"   | 8'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-4"     | 8'-9"   | 9'-2"      | 9'-7"           | 10'-0"  | 10'-4"  | 10'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-3"    | 10'-9"  | 11'-3"     | 11'-9"          | 12'-2"  | 12'-7"  | 13'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-4"    | 13'-0"  | 13'-7"     | 14'-2"          | 14'-8"  | 15'-3"  | 15'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 15'-0"    | 15'-9"  | 16'-6"     | 17'-2"          | 17'-10" | 18'-6"  | 19'-1"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 7'-0"     | 7'-4"   | 7'-8"      | 8'-0"           | 8'-4"   | 8'-8"   | 8'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 9'-0"     | 9'-5"   | 9'-10"     | 10'-3"          | 10'-8"  | 11'-1"  | 11'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 11'-0"    | 11'-6"  | 12'-1"     | 12'-7"          | 13'-1"  | 13'-6"  | 14'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 13'-3"    | 13'-11" | 14'-6"     | 15'-2"          | 15'-9"  | 16'-4"  | 16'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 16'-1"    | 16'-11" | 17'-8"     | 18'-5"          | 19'-1"  | 19'-10" | 20'-6"   | 362T125-97-50 |





**TABLE 4.7.4.231: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:  |               | Type      | S3      | ( $l_p = 1.5$ ) | S <sub>DS</sub> | 1.60    | Weight  | 3200 lbs |               |
|--|---------------|-----------|---------|-----------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.  |               |           |         |                 |                 |         |         |          |               |
| Note: If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |                 |                 |         |         |          |               |
| Height in Bldg<br>(z/h)  | Track Section | Pod Width |         |                 |                 |         |         |          | Track Section |
|  |               | 5.00 ft   | 5.50 ft | 6.00 ft         | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0  | 362T125-33-50 | 3'-10"    | 4'-0"   | 4'-2"           | 4'-5"           | 4'-7"   | 4'-9"   | 4'-11"   | 362T125-33-50 |
|  | 362T125-43-50 | 4'-11"    | 5'-2"   | 5'-5"           | 5'-8"           | 5'-11"  | 6'-2"   | 6'-4"    | 362T125-43-50 |
|  | 362T125-54-50 | 6'-1"     | 6'-5"   | 6'-8"           | 7'-0"           | 7'-3"   | 7'-6"   | 7'-9"    | 362T125-54-50 |
|  | 362T125-68-50 | 7'-4"     | 7'-9"   | 8'-1"           | 8'-5"           | 8'-9"   | 9'-1"   | 9'-5"    | 362T125-68-50 |
|  | 362T125-97-50 | 9'-0"     | 9'-5"   | 9'-11"          | 10'-4"          | 10'-9"  | 11'-1"  | 11'-6"   | 362T125-97-50 |
| 0.9  | 362T125-33-50 | 3'-11"    | 4'-2"   | 4'-4"           | 4'-7"           | 4'-9"   | 4'-11"  | 5'-1"    | 362T125-33-50 |
|  | 362T125-43-50 | 5'-2"     | 5'-5"   | 5'-8"           | 5'-11"          | 6'-2"   | 6'-4"   | 6'-7"    | 362T125-43-50 |
|  | 362T125-54-50 | 6'-4"     | 6'-8"   | 6'-11"          | 7'-3"           | 7'-6"   | 7'-10"  | 8'-1"    | 362T125-54-50 |
|  | 362T125-68-50 | 7'-8"     | 8'-0"   | 8'-5"           | 8'-9"           | 9'-1"   | 9'-5"   | 9'-9"    | 362T125-68-50 |
|  | 362T125-97-50 | 9'-4"     | 9'-10"  | 10'-3"          | 10'-8"          | 11'-1"  | 11'-6"  | 11'-11"  | 362T125-97-50 |
| 0.8  | 362T125-33-50 | 4'-1"     | 4'-4"   | 4'-7"           | 4'-9"           | 4'-11"  | 5'-1"   | 5'-4"    | 362T125-33-50 |
|  | 362T125-43-50 | 5'-4"     | 5'-8"   | 5'-11"          | 6'-2"           | 6'-5"   | 6'-8"   | 6'-10"   | 362T125-43-50 |
|  | 362T125-54-50 | 6'-7"     | 6'-11"  | 7'-3"           | 7'-7"           | 7'-10"  | 8'-2"   | 8'-5"    | 362T125-54-50 |
|  | 362T125-68-50 | 7'-11"    | 8'-4"   | 8'-9"           | 9'-1"           | 9'-6"   | 9'-10"  | 10'-2"   | 362T125-68-50 |
|  | 362T125-97-50 | 9'-8"     | 10'-2"  | 10'-8"          | 11'-1"          | 11'-7"  | 12'-0"  | 12'-5"   | 362T125-97-50 |
| 0.7  | 362T125-33-50 | 4'-4"     | 4'-6"   | 4'-9"           | 5'-0"           | 5'-2"   | 5'-4"   | 5'-6"    | 362T125-33-50 |
|  | 362T125-43-50 | 5'-7"     | 5'-11"  | 6'-2"           | 6'-5"           | 6'-8"   | 6'-11"  | 7'-2"    | 362T125-43-50 |
|  | 362T125-54-50 | 6'-10"    | 7'-3"   | 7'-7"           | 7'-10"          | 8'-2"   | 8'-6"   | 8'-9"    | 362T125-54-50 |
|  | 362T125-68-50 | 8'-4"     | 8'-9"   | 9'-2"           | 9'-6"           | 9'-11"  | 10'-3"  | 10'-7"   | 362T125-68-50 |
|  | 362T125-97-50 | 10'-1"    | 10'-8"  | 11'-2"          | 11'-7"          | 12'-1"  | 12'-6"  | 12'-11"  | 362T125-97-50 |
| 0.6  | 362T125-33-50 | 4'-6"     | 4'-9"   | 5'-0"           | 5'-2"           | 5'-5"   | 5'-7"   | 5'-10"   | 362T125-33-50 |
|  | 362T125-43-50 | 5'-10"    | 6'-2"   | 6'-5"           | 6'-9"           | 7'-0"   | 7'-3"   | 7'-6"    | 362T125-43-50 |
|  | 362T125-54-50 | 7'-2"     | 7'-7"   | 7'-11"          | 8'-3"           | 8'-7"   | 8'-11"  | 9'-2"    | 362T125-54-50 |
|  | 362T125-68-50 | 8'-8"     | 9'-2"   | 9'-7"           | 10'-0"          | 10'-4"  | 10'-9"  | 11'-1"   | 362T125-68-50 |
|  | 362T125-97-50 | 10'-7"    | 11'-2"  | 11'-8"          | 12'-2"          | 12'-7"  | 13'-1"  | 13'-6"   | 362T125-97-50 |
| 0.5  | 362T125-33-50 | 4'-9"     | 5'-0"   | 5'-3"           | 5'-6"           | 5'-8"   | 5'-11"  | 6'-1"    | 362T125-33-50 |
|  | 362T125-43-50 | 6'-2"     | 6'-6"   | 6'-9"           | 7'-1"           | 7'-4"   | 7'-7"   | 7'-11"   | 362T125-43-50 |
|  | 362T125-54-50 | 7'-7"     | 7'-11"  | 8'-4"           | 8'-8"           | 9'-0"   | 9'-4"   | 9'-8"    | 362T125-54-50 |
|  | 362T125-68-50 | 9'-2"     | 9'-7"   | 10'-1"          | 10'-6"          | 10'-11" | 11'-3"  | 11'-8"   | 362T125-68-50 |
|  | 362T125-97-50 | 11'-2"    | 11'-8"  | 12'-3"          | 12'-9"          | 13'-3"  | 13'-9"  | 14'-2"   | 362T125-97-50 |
| 0.4  | 362T125-33-50 | 5'-1"     | 5'-4"   | 5'-7"           | 5'-10"          | 6'-0"   | 6'-3"   | 6'-6"    | 362T125-33-50 |
|  | 362T125-43-50 | 6'-6"     | 6'-10"  | 7'-2"           | 7'-6"           | 7'-9"   | 8'-1"   | 8'-4"    | 362T125-43-50 |
|  | 362T125-54-50 | 8'-0"     | 8'-5"   | 8'-9"           | 9'-2"           | 9'-6"   | 9'-10"  | 10'-2"   | 362T125-54-50 |
|  | 362T125-68-50 | 9'-8"     | 10'-2"  | 10'-7"          | 11'-1"          | 11'-6"  | 11'-11" | 12'-4"   | 362T125-68-50 |
|  | 362T125-97-50 | 11'-9"    | 12'-4"  | 12'-11"         | 13'-6"          | 14'-0"  | 14'-6"  | 15'-0"   | 362T125-97-50 |
| 0.3  | 362T125-33-50 | 5'-5"     | 5'-8"   | 5'-11"          | 6'-2"           | 6'-5"   | 6'-8"   | 6'-11"   | 362T125-33-50 |
|  | 362T125-43-50 | 6'-11"    | 7'-4"   | 7'-8"           | 8'-0"           | 8'-3"   | 8'-7"   | 8'-10"   | 362T125-43-50 |
|  | 362T125-54-50 | 8'-6"     | 8'-11"  | 9'-4"           | 9'-9"           | 10'-2"  | 10'-6"  | 10'-10"  | 362T125-54-50 |
|  | 362T125-68-50 | 10'-3"    | 10'-10" | 11'-4"          | 11'-9"          | 12'-3"  | 12'-8"  | 13'-1"   | 362T125-68-50 |
|  | 362T125-97-50 | 12'-6"    | 13'-2"  | 13'-9"          | 14'-4"          | 14'-11" | 15'-5"  | 15'-11"  | 362T125-97-50 |
| 0.2  | 362T125-33-50 | 5'-9"     | 6'-1"   | 6'-4"           | 6'-8"           | 6'-11"  | 7'-2"   | 7'-5"    | 362T125-33-50 |
|  | 362T125-43-50 | 7'-5"     | 7'-10"  | 8'-2"           | 8'-7"           | 8'-11"  | 9'-2"   | 9'-6"    | 362T125-43-50 |
|  | 362T125-54-50 | 9'-1"     | 9'-7"   | 10'-0"          | 10'-5"          | 10'-10" | 11'-3"  | 11'-8"   | 362T125-54-50 |
|  | 362T125-68-50 | 11'-0"    | 11'-7"  | 12'-1"          | 12'-7"          | 13'-1"  | 13'-7"  | 14'-1"   | 362T125-68-50 |
|  | 362T125-97-50 | 13'-5"    | 14'-1"  | 14'-9"          | 15'-4"          | 15'-11" | 16'-6"  | 17'-1"   | 362T125-97-50 |
| 0.1  | 362T125-33-50 | 6'-3"     | 6'-7"   | 6'-11"          | 7'-3"           | 7'-6"   | 7'-9"   | 8'-0"    | 362T125-33-50 |
|  | 362T125-43-50 | 8'-1"     | 8'-6"   | 8'-11"          | 9'-3"           | 9'-8"   | 10'-0"  | 10'-4"   | 362T125-43-50 |
|  | 362T125-54-50 | 9'-11"    | 10'-5"  | 10'-10"         | 11'-4"          | 11'-9"  | 12'-2"  | 12'-7"   | 362T125-54-50 |
|  | 362T125-68-50 | 11'-11"   | 12'-7"  | 13'-1"          | 13'-8"          | 14'-2"  | 14'-9"  | 15'-3"   | 362T125-68-50 |
|  | 362T125-97-50 | 14'-6"    | 15'-3"  | 15'-11"         | 16'-7"          | 17'-3"  | 17'-11" | 18'-6"   | 362T125-97-50 |
| 0.0  | 362T125-33-50 | 6'-9"     | 7'-1"   | 7'-5"           | 7'-9"           | 8'-1"   | 8'-4"   | 8'-8"    | 362T125-33-50 |
|  | 362T125-43-50 | 8'-8"     | 9'-1"   | 9'-6"           | 9'-11"          | 10'-4"  | 10'-8"  | 11'-1"   | 362T125-43-50 |
|  | 362T125-54-50 | 10'-7"    | 11'-2"  | 11'-8"          | 12'-2"          | 12'-7"  | 13'-1"  | 13'-6"   | 362T125-54-50 |
|  | 362T125-68-50 | 12'-10"   | 13'-5"  | 14'-1"          | 14'-8"          | 15'-3"  | 15'-9"  | 16'-4"   | 362T125-68-50 |
|  | 362T125-97-50 | 15'-7"    | 16'-4"  | 17'-1"          | 17'-10"         | 18'-6"  | 19'-2"  | 19'-10"  | 362T125-97-50 |



**TABLE 4.7.4.232: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | ( <i>l</i> = 1.5) | S <sub>DS</sub> | 1.60    | Weight  | 3400 lbs |               |
|---|---------------|-----------|---------|-------------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |                   |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |                   |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |                   |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft           | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 3'-8"     | 3'-10"  | 4'-1"             | 4'-3"           | 4'-5"   | 4'-7"   | 4'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 4'-9"     | 5'-0"   | 5'-3"             | 5'-6"           | 5'-9"   | 5'-11"  | 6'-2"    | 362T125-43-50 |
|   | 362T125-54-50 | 5'-11"    | 6'-2"   | 6'-6"             | 6'-9"           | 7'-0"   | 7'-4"   | 7'-7"    | 362T125-54-50 |
|   | 362T125-68-50 | 7'-2"     | 7'-6"   | 7'-10"            | 8'-2"           | 8'-6"   | 8'-10"  | 9'-2"    | 362T125-68-50 |
|   | 362T125-97-50 | 8'-9"     | 9'-2"   | 9'-7"             | 10'-0"          | 10'-5"  | 10'-9"  | 11'-2"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 3'-10"    | 4'-0"   | 4'-3"             | 4'-5"           | 4'-7"   | 4'-9"   | 4'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 5'-0"     | 5'-3"   | 5'-6"             | 5'-9"           | 5'-11"  | 6'-2"   | 6'-5"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-1"     | 6'-5"   | 6'-9"             | 7'-0"           | 7'-4"   | 7'-7"   | 7'-10"   | 362T125-54-50 |
|   | 362T125-68-50 | 7'-5"     | 7'-9"   | 8'-2"             | 8'-6"           | 8'-10"  | 9'-2"   | 9'-6"    | 362T125-68-50 |
|   | 362T125-97-50 | 9'-0"     | 9'-6"   | 9'-11"            | 10'-4"          | 10'-9"  | 11'-2"  | 11'-7"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 4'-0"     | 4'-2"   | 4'-5"             | 4'-7"           | 4'-9"   | 4'-11"  | 5'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-2"     | 5'-5"   | 5'-8"             | 5'-11"          | 6'-2"   | 6'-5"   | 6'-8"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-4"     | 6'-8"   | 7'-0"             | 7'-4"           | 7'-7"   | 7'-10"  | 8'-2"    | 362T125-54-50 |
|   | 362T125-68-50 | 7'-8"     | 8'-1"   | 8'-6"             | 8'-10"          | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-68-50 |
|   | 362T125-97-50 | 9'-5"     | 9'-10"  | 10'-4"            | 10'-9"          | 11'-2"  | 11'-7"  | 12'-0"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 4'-2"     | 4'-5"   | 4'-7"             | 4'-10"          | 5'-0"   | 5'-2"   | 5'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-5"     | 5'-8"   | 5'-11"            | 6'-3"           | 6'-5"   | 6'-8"   | 6'-11"   | 362T125-43-50 |
|   | 362T125-54-50 | 6'-8"     | 7'-0"   | 7'-4"             | 7'-7"           | 7'-11"  | 8'-3"   | 8'-6"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-0"     | 8'-5"   | 8'-10"            | 9'-3"           | 9'-7"   | 9'-11"  | 10'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 9'-10"    | 10'-4"  | 10'-9"            | 11'-3"          | 11'-8"  | 12'-1"  | 12'-6"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 4'-5"     | 4'-7"   | 4'-10"            | 5'-0"           | 5'-3"   | 5'-5"   | 5'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-8"     | 6'-0"   | 6'-3"             | 6'-6"           | 6'-9"   | 7'-0"   | 7'-3"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-11"    | 7'-4"   | 7'-8"             | 8'-0"           | 8'-4"   | 8'-7"   | 8'-11"   | 362T125-54-50 |
|   | 362T125-68-50 | 8'-5"     | 8'-10"  | 9'-3"             | 9'-8"           | 10'-0"  | 10'-5"  | 10'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-3"    | 10'-9"  | 11'-3"            | 11'-9"          | 12'-3"  | 12'-8"  | 13'-1"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 4'-7"     | 4'-10"  | 5'-1"             | 5'-4"           | 5'-6"   | 5'-9"   | 5'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 6'-0"     | 6'-3"   | 6'-7"             | 6'-10"          | 7'-1"   | 7'-5"   | 7'-8"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-4"     | 7'-8"   | 8'-1"             | 8'-5"           | 8'-9"   | 9'-1"   | 9'-4"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-10"    | 9'-4"   | 9'-9"             | 10'-2"          | 10'-7"  | 10'-11" | 11'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-9"    | 11'-4"  | 11'-10"           | 12'-4"          | 12'-10" | 13'-4"  | 13'-9"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 4'-11"    | 5'-2"   | 5'-5"             | 5'-7"           | 5'-10"  | 6'-1"   | 6'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-4"     | 6'-8"   | 6'-11"            | 7'-3"           | 7'-6"   | 7'-10"  | 8'-1"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-9"     | 8'-2"   | 8'-6"             | 8'-11"          | 9'-3"   | 9'-7"   | 9'-11"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-4"     | 9'-10"  | 10'-3"            | 10'-9"          | 11'-2"  | 11'-7"  | 11'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 11'-5"    | 12'-0"  | 12'-6"            | 13'-1"          | 13'-7"  | 14'-1"  | 14'-6"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 5'-3"     | 5'-6"   | 5'-9"             | 6'-0"           | 6'-3"   | 6'-5"   | 6'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-9"     | 7'-1"   | 7'-5"             | 7'-9"           | 8'-0"   | 8'-4"   | 8'-7"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-3"     | 8'-8"   | 9'-1"             | 9'-5"           | 9'-10"  | 10'-2"  | 10'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-11"    | 10'-5"  | 10'-11"           | 11'-5"          | 11'-10" | 12'-3"  | 12'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-1"    | 12'-9"  | 13'-4"            | 13'-11"         | 14'-5"  | 14'-11" | 15'-5"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 5'-7"     | 5'-11"  | 6'-2"             | 6'-5"           | 6'-8"   | 6'-11"  | 7'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-3"     | 7'-7"   | 7'-11"            | 8'-3"           | 8'-7"   | 8'-11"  | 9'-3"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-10"    | 9'-3"   | 9'-9"             | 10'-2"          | 10'-6"  | 10'-11" | 11'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-8"    | 11'-3"  | 11'-9"            | 12'-3"          | 12'-8"  | 13'-2"  | 13'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-0"    | 13'-8"  | 14'-3"            | 14'-11"         | 15'-5"  | 16'-0"  | 16'-7"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 6'-1"     | 6'-5"   | 6'-8"             | 7'-0"           | 7'-3"   | 7'-6"   | 7'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-10"    | 8'-3"   | 8'-7"             | 9'-0"           | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 9'-7"     | 10'-1"  | 10'-6"            | 11'-0"          | 11'-5"  | 11'-10" | 12'-3"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-7"    | 12'-2"  | 12'-9"            | 13'-3"          | 13'-9"  | 14'-3"  | 14'-9"   | 362T125-68-50 |
|   | 362T125-97-50 | 14'-1"    | 14'-9"  | 15'-6"            | 16'-1"          | 16'-9"  | 17'-4"  | 17'-11"  | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 6'-6"     | 6'-10"  | 7'-2"             | 7'-6"           | 7'-10"  | 8'-1"   | 8'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 8'-5"     | 8'-10"  | 9'-3"             | 9'-8"           | 10'-0"  | 10'-4"  | 10'-9"   | 362T125-43-50 |
|   | 362T125-54-50 | 10'-3"    | 10'-10" | 11'-3"            | 11'-9"          | 12'-3"  | 12'-8"  | 13'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 12'-5"    | 13'-0"  | 13'-8"            | 14'-2"          | 14'-9"  | 15'-3"  | 15'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 15'-1"    | 15'-10" | 16'-7"            | 17'-3"          | 17'-11" | 18'-7"  | 19'-2"   | 362T125-97-50 |



**TABLE 4.7.4.233: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:  |               | Type      | S3      | (lp = 1.5) | S <sub>Ds</sub> | 1.60    | Weight  | 3600 lbs |               |
|--|---------------|-----------|---------|------------|-----------------|---------|---------|----------|---------------|
| <p>* Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.<br/>                     Note: If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track.</p> |               |           |         |            |                 |         |         |          |               |
| Height in Bldg<br>(z/h)  | Track Section | Pod Width |         |            |                 |         |         |          |               |
|  |               | 5.00 ft   | 5.50 ft | 6.00 ft    | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  | Track Section |
| 1.0  | 362T125-33-50 | 3'-7"     | 3'-9"   | 3'-11"     | 4'-1"           | 4'-3"   | 4'-5"   | 4'-7"    | 362T125-33-50 |
|  | 362T125-43-50 | 4'-8"     | 4'-11"  | 5'-1"      | 5'-4"           | 5'-7"   | 5'-9"   | 5'-11"   | 362T125-43-50 |
|  | 362T125-54-50 | 5'-8"     | 6'-0"   | 6'-3"      | 6'-7"           | 6'-10"  | 7'-1"   | 7'-4"    | 362T125-54-50 |
|  | 362T125-68-50 | 6'-11"    | 7'-3"   | 7'-7"      | 7'-11"          | 8'-3"   | 8'-7"   | 8'-10"   | 362T125-68-50 |
|  | 362T125-97-50 | 8'-5"     | 8'-11"  | 9'-4"      | 9'-8"           | 10'-1"  | 10'-5"  | 10'-10"  | 362T125-97-50 |
| 0.9  | 362T125-33-50 | 3'-8"     | 3'-11"  | 4'-1"      | 4'-3"           | 4'-5"   | 4'-7"   | 4'-9"    | 362T125-33-50 |
|  | 362T125-43-50 | 4'-10"    | 5'-1"   | 5'-4"      | 5'-6"           | 5'-9"   | 6'-0"   | 6'-2"    | 362T125-43-50 |
|  | 362T125-54-50 | 5'-11"    | 6'-3"   | 6'-6"      | 6'-10"          | 7'-1"   | 7'-4"   | 7'-7"    | 362T125-54-50 |
|  | 362T125-68-50 | 7'-2"     | 7'-7"   | 7'-11"     | 8'-3"           | 8'-7"   | 8'-11"  | 9'-2"    | 362T125-68-50 |
|  | 362T125-97-50 | 8'-9"     | 9'-3"   | 9'-8"      | 10'-1"          | 10'-5"  | 10'-10" | 11'-2"   | 362T125-97-50 |
| 0.8  | 362T125-33-50 | 3'-10"    | 4'-1"   | 4'-3"      | 4'-5"           | 4'-8"   | 4'-10"  | 5'-0"    | 362T125-33-50 |
|  | 362T125-43-50 | 5'-0"     | 5'-3"   | 5'-6"      | 5'-9"           | 6'-0"   | 6'-3"   | 6'-5"    | 362T125-43-50 |
|  | 362T125-54-50 | 6'-2"     | 6'-6"   | 6'-9"      | 7'-1"           | 7'-4"   | 7'-8"   | 7'-11"   | 362T125-54-50 |
|  | 362T125-68-50 | 7'-6"     | 7'-10"  | 8'-3"      | 8'-7"           | 8'-11"  | 9'-3"   | 9'-7"    | 362T125-68-50 |
|  | 362T125-97-50 | 9'-1"     | 9'-7"   | 10'-0"     | 10'-5"          | 10'-10" | 11'-3"  | 11'-8"   | 362T125-97-50 |
| 0.7  | 362T125-33-50 | 4'-0"     | 4'-3"   | 4'-5"      | 4'-8"           | 4'-10"  | 5'-0"   | 5'-2"    | 362T125-33-50 |
|  | 362T125-43-50 | 5'-3"     | 5'-6"   | 5'-9"      | 6'-0"           | 6'-3"   | 6'-6"   | 6'-9"    | 362T125-43-50 |
|  | 362T125-54-50 | 6'-5"     | 6'-9"   | 7'-1"      | 7'-5"           | 7'-8"   | 8'-0"   | 8'-3"    | 362T125-54-50 |
|  | 362T125-68-50 | 7'-9"     | 8'-2"   | 8'-7"      | 8'-11"          | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-68-50 |
|  | 362T125-97-50 | 9'-6"     | 10'-0"  | 10'-6"     | 10'-11"         | 11'-4"  | 11'-9"  | 12'-2"   | 362T125-97-50 |
| 0.6  | 362T125-33-50 | 4'-3"     | 4'-6"   | 4'-8"      | 4'-11"          | 5'-1"   | 5'-3"   | 5'-5"    | 362T125-33-50 |
|  | 362T125-43-50 | 5'-6"     | 5'-9"   | 6'-1"      | 6'-4"           | 6'-7"   | 6'-10"  | 7'-0"    | 362T125-43-50 |
|  | 362T125-54-50 | 6'-9"     | 7'-1"   | 7'-5"      | 7'-9"           | 8'-1"   | 8'-4"   | 8'-8"    | 362T125-54-50 |
|  | 362T125-68-50 | 8'-2"     | 8'-7"   | 9'-0"      | 9'-4"           | 9'-9"   | 10'-1"  | 10'-5"   | 362T125-68-50 |
|  | 362T125-97-50 | 9'-11"    | 10'-6"  | 10'-11"    | 11'-5"          | 11'-10" | 12'-4"  | 12'-9"   | 362T125-97-50 |
| 0.5  | 362T125-33-50 | 4'-6"     | 4'-8"   | 4'-11"     | 5'-2"           | 5'-4"   | 5'-7"   | 5'-9"    | 362T125-33-50 |
|  | 362T125-43-50 | 5'-9"     | 6'-1"   | 6'-4"      | 6'-8"           | 6'-11"  | 7'-2"   | 7'-5"    | 362T125-43-50 |
|  | 362T125-54-50 | 7'-1"     | 7'-6"   | 7'-10"     | 8'-2"           | 8'-6"   | 8'-9"   | 9'-1"    | 362T125-54-50 |
|  | 362T125-68-50 | 8'-7"     | 9'-0"   | 9'-5"      | 9'-10"          | 10'-3"  | 10'-7"  | 11'-0"   | 362T125-68-50 |
|  | 362T125-97-50 | 10'-6"    | 11'-0"  | 11'-6"     | 12'-0"          | 12'-6"  | 12'-11" | 13'-4"   | 362T125-97-50 |
| 0.4  | 362T125-33-50 | 4'-9"     | 5'-0"   | 5'-3"      | 5'-5"           | 5'-8"   | 5'-10"  | 6'-1"    | 362T125-33-50 |
|  | 362T125-43-50 | 6'-1"     | 6'-5"   | 6'-9"      | 7'-0"           | 7'-4"   | 7'-7"   | 7'-10"   | 362T125-43-50 |
|  | 362T125-54-50 | 7'-6"     | 7'-11"  | 8'-3"      | 8'-7"           | 8'-11"  | 9'-3"   | 9'-7"    | 362T125-54-50 |
|  | 362T125-68-50 | 9'-1"     | 9'-6"   | 10'-0"     | 10'-5"          | 10'-10" | 11'-3"  | 11'-7"   | 362T125-68-50 |
|  | 362T125-97-50 | 11'-1"    | 11'-7"  | 12'-2"     | 12'-8"          | 13'-2"  | 13'-8"  | 14'-1"   | 362T125-97-50 |
| 0.3  | 362T125-33-50 | 5'-1"     | 5'-4"   | 5'-7"      | 5'-10"          | 6'-0"   | 6'-3"   | 6'-6"    | 362T125-33-50 |
|  | 362T125-43-50 | 6'-6"     | 6'-10"  | 7'-2"      | 7'-6"           | 7'-9"   | 8'-1"   | 8'-4"    | 362T125-43-50 |
|  | 362T125-54-50 | 8'-0"     | 8'-5"   | 8'-9"      | 9'-2"           | 9'-6"   | 9'-10"  | 10'-2"   | 362T125-54-50 |
|  | 362T125-68-50 | 9'-8"     | 10'-2"  | 10'-7"     | 11'-1"          | 11'-6"  | 11'-11" | 12'-4"   | 362T125-68-50 |
|  | 362T125-97-50 | 11'-9"    | 12'-4"  | 12'-11"    | 13'-6"          | 14'-0"  | 14'-6"  | 15'-0"   | 362T125-97-50 |
| 0.2  | 362T125-33-50 | 5'-5"     | 5'-9"   | 6'-0"      | 6'-3"           | 6'-6"   | 6'-9"   | 6'-11"   | 362T125-33-50 |
|  | 362T125-43-50 | 7'-0"     | 7'-4"   | 7'-8"      | 8'-0"           | 8'-4"   | 8'-8"   | 8'-11"   | 362T125-43-50 |
|  | 362T125-54-50 | 8'-7"     | 9'-0"   | 9'-5"      | 9'-10"          | 10'-3"  | 10'-7"  | 10'-11"  | 362T125-54-50 |
|  | 362T125-68-50 | 10'-4"    | 10'-11" | 11'-5"     | 11'-10"         | 12'-4"  | 12'-9"  | 13'-3"   | 362T125-68-50 |
|  | 362T125-97-50 | 12'-7"    | 13'-3"  | 13'-10"    | 14'-5"          | 15'-0"  | 15'-7"  | 16'-1"   | 362T125-97-50 |
| 0.1  | 362T125-33-50 | 5'-11"    | 6'-2"   | 6'-6"      | 6'-9"           | 7'-1"   | 7'-4"   | 7'-7"    | 362T125-33-50 |
|  | 362T125-43-50 | 7'-7"     | 8'-0"   | 8'-4"      | 8'-9"           | 9'-1"   | 9'-5"   | 9'-8"    | 362T125-43-50 |
|  | 362T125-54-50 | 9'-4"     | 9'-9"   | 10'-3"     | 10'-8"          | 11'-1"  | 11'-6"  | 11'-10"  | 362T125-54-50 |
|  | 362T125-68-50 | 11'-3"    | 11'-10" | 12'-4"     | 12'-10"         | 13'-4"  | 13'-10" | 14'-4"   | 362T125-68-50 |
|  | 362T125-97-50 | 13'-8"    | 14'-4"  | 15'-0"     | 15'-8"          | 16'-3"  | 16'-10" | 17'-5"   | 362T125-97-50 |
| 0.0  | 362T125-33-50 | 6'-4"     | 6'-8"   | 7'-0"      | 7'-3"           | 7'-7"   | 7'-10"  | 8'-1"    | 362T125-33-50 |
|  | 362T125-43-50 | 8'-2"     | 8'-7"   | 9'-0"      | 9'-4"           | 9'-9"   | 10'-1"  | 10'-5"   | 362T125-43-50 |
|  | 362T125-54-50 | 10'-0"    | 10'-6"  | 10'-11"    | 11'-5"          | 11'-10" | 12'-4"  | 12'-9"   | 362T125-54-50 |
|  | 362T125-68-50 | 12'-0"    | 12'-8"  | 13'-3"     | 13'-9"          | 14'-4"  | 14'-10" | 15'-4"   | 362T125-68-50 |
|  | 362T125-97-50 | 14'-8"    | 15'-5"  | 16'-1"     | 16'-9"          | 17'-5"  | 18'-0"  | 18'-8"   | 362T125-97-50 |



TABLE 4.7.4.234: MAXIMUM UNBRACED TOP TRACK LENGTH

Table with columns: PARAMETERS: Type, S3, (lp = 1.5), SDs, 1.60, Weight, 3800 lbs. Rows represent height in Bldg (z/h) from 1.0 to 0.0, with sub-rows for Track Section (362T125-33-50 to 362T125-97-50) and Pod Width (5.00 ft to 8.00 ft).

\* Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.

Note: If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track.



**TABLE 4.7.4.235: MAXIMUM UNBRACED TOP TRACK LENGTH**

| <b>PARAMETERS:</b>  |               |            |                 |         |         |          |         |         |               |
|---|---------------|------------|-----------------|---------|---------|----------|---------|---------|---------------|
| Type  | S3            | (lp = 1.5) | S <sub>DS</sub> | 1.60    | Weight  | 4000 lbs |         |         |               |
| <i>* Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.</i>  |               |            |                 |         |         |          |         |         |               |
| <i>Note: If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track.</i> |               |            |                 |         |         |          |         |         |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width  |                 |         |         |          |         |         | Track Section |
|   |               | 5.00 ft    | 5.50 ft         | 6.00 ft | 6.50 ft | 7.00 ft  | 7.50 ft | 8.00 ft |               |
| 1.0   | 362T125-33-50 | 3'-4"      | 3'-6"           | 3'-8"   | 3'-10"  | 4'-0"    | 4'-2"   | 4'-4"   | 362T125-33-50 |
|   | 362T125-43-50 | 4'-4"      | 4'-7"           | 4'-10"  | 5'-0"   | 5'-3"    | 5'-5"   | 5'-7"   | 362T125-43-50 |
|   | 362T125-54-50 | 5'-5"      | 5'-8"           | 5'-11"  | 6'-2"   | 6'-5"    | 6'-8"   | 6'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 6'-6"      | 6'-10"          | 7'-2"   | 7'-6"   | 7'-10"   | 8'-1"   | 8'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 8'-0"      | 8'-5"           | 8'-9"   | 9'-2"   | 9'-6"    | 9'-11"  | 10'-3"  | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 3'-6"      | 3'-8"           | 3'-10"  | 4'-0"   | 4'-2"    | 4'-4"   | 4'-6"   | 362T125-33-50 |
|   | 362T125-43-50 | 4'-7"      | 4'-9"           | 5'-0"   | 5'-3"   | 5'-5"    | 5'-8"   | 5'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 5'-7"      | 5'-11"          | 6'-2"   | 6'-5"   | 6'-8"    | 6'-11"  | 7'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 6'-9"      | 7'-2"           | 7'-6"   | 7'-9"   | 8'-1"    | 8'-5"   | 8'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 8'-3"      | 8'-9"           | 9'-1"   | 9'-6"   | 9'-11"   | 10'-3"  | 10'-7"  | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 3'-8"      | 3'-10"          | 4'-0"   | 4'-2"   | 4'-4"    | 4'-6"   | 4'-8"   | 362T125-33-50 |
|   | 362T125-43-50 | 4'-9"      | 5'-0"           | 5'-3"   | 5'-5"   | 5'-8"    | 5'-10"  | 6'-1"   | 362T125-43-50 |
|   | 362T125-54-50 | 5'-10"     | 6'-2"           | 6'-5"   | 6'-8"   | 7'-0"    | 7'-3"   | 7'-6"   | 362T125-54-50 |
|   | 362T125-68-50 | 7'-1"      | 7'-5"           | 7'-9"   | 8'-1"   | 8'-5"    | 8'-9"   | 9'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 8'-7"      | 9'-1"           | 9'-6"   | 9'-11"  | 10'-3"   | 10'-8"  | 11'-0"  | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 3'-10"     | 4'-0"           | 4'-2"   | 4'-5"   | 4'-7"    | 4'-9"   | 4'-11"  | 362T125-33-50 |
|   | 362T125-43-50 | 4'-11"     | 5'-2"           | 5'-5"   | 5'-8"   | 5'-11"   | 6'-2"   | 6'-4"   | 362T125-43-50 |
|   | 362T125-54-50 | 6'-1"      | 6'-5"           | 6'-8"   | 7'-0"   | 7'-3"    | 7'-6"   | 7'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 7'-4"      | 7'-9"           | 8'-1"   | 8'-5"   | 8'-9"    | 9'-1"   | 9'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 9'-0"      | 9'-5"           | 9'-11"  | 10'-4"  | 10'-9"   | 11'-1"  | 11'-6"  | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 4'-0"      | 4'-2"           | 4'-5"   | 4'-7"   | 4'-9"    | 5'-0"   | 5'-2"   | 362T125-33-50 |
|   | 362T125-43-50 | 5'-2"      | 5'-5"           | 5'-9"   | 6'-0"   | 6'-2"    | 6'-5"   | 6'-8"   | 362T125-43-50 |
|   | 362T125-54-50 | 6'-5"      | 6'-8"           | 7'-0"   | 7'-4"   | 7'-7"    | 7'-11"  | 8'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 7'-9"      | 8'-1"           | 8'-6"   | 8'-10"  | 9'-2"    | 9'-6"   | 9'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 9'-5"      | 9'-11"          | 10'-4"  | 10'-10" | 11'-3"   | 11'-8"  | 12'-0"  | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 4'-3"      | 4'-5"           | 4'-8"   | 4'-10"  | 5'-1"    | 5'-3"   | 5'-5"   | 362T125-33-50 |
|   | 362T125-43-50 | 5'-6"      | 5'-9"           | 6'-0"   | 6'-3"   | 6'-6"    | 6'-9"   | 7'-0"   | 362T125-43-50 |
|   | 362T125-54-50 | 6'-9"      | 7'-1"           | 7'-5"   | 7'-8"   | 8'-0"    | 8'-4"   | 8'-7"   | 362T125-54-50 |
|   | 362T125-68-50 | 8'-1"      | 8'-6"           | 8'-11"  | 9'-4"   | 9'-8"    | 10'-0"  | 10'-5"  | 362T125-68-50 |
|   | 362T125-97-50 | 9'-11"     | 10'-5"          | 10'-11" | 11'-4"  | 11'-10"  | 12'-3"  | 12'-8"  | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 4'-6"      | 4'-8"           | 4'-11"  | 5'-2"   | 5'-4"    | 5'-7"   | 5'-9"   | 362T125-33-50 |
|   | 362T125-43-50 | 5'-9"      | 6'-1"           | 6'-4"   | 6'-8"   | 6'-11"   | 7'-2"   | 7'-5"   | 362T125-43-50 |
|   | 362T125-54-50 | 7'-1"      | 7'-6"           | 7'-10"  | 8'-2"   | 8'-6"    | 8'-9"   | 9'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 8'-7"      | 9'-0"           | 9'-5"   | 9'-10"  | 10'-3"   | 10'-7"  | 11'-0"  | 362T125-68-50 |
|   | 362T125-97-50 | 10'-6"     | 11'-0"          | 11'-6"  | 12'-0"  | 12'-6"   | 12'-11" | 13'-4"  | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 4'-9"      | 5'-0"           | 5'-3"   | 5'-6"   | 5'-8"    | 5'-11"  | 6'-1"   | 362T125-33-50 |
|   | 362T125-43-50 | 6'-2"      | 6'-6"           | 6'-9"   | 7'-1"   | 7'-4"    | 7'-7"   | 7'-11"  | 362T125-43-50 |
|   | 362T125-54-50 | 7'-7"      | 7'-11"          | 8'-4"   | 8'-8"   | 9'-0"    | 9'-4"   | 9'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-2"      | 9'-7"           | 10'-1"  | 10'-6"  | 10'-11"  | 11'-3"  | 11'-8"  | 362T125-68-50 |
|   | 362T125-97-50 | 11'-2"     | 11'-8"          | 12'-3"  | 12'-9"  | 13'-3"   | 13'-9"  | 14'-2"  | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 5'-2"      | 5'-5"           | 5'-8"   | 5'-11"  | 6'-2"    | 6'-4"   | 6'-7"   | 362T125-33-50 |
|   | 362T125-43-50 | 6'-7"      | 7'-0"           | 7'-3"   | 7'-7"   | 7'-11"   | 8'-2"   | 8'-6"   | 362T125-43-50 |
|   | 362T125-54-50 | 8'-1"      | 8'-6"           | 8'-11"  | 9'-4"   | 9'-8"    | 10'-0"  | 10'-4"  | 362T125-54-50 |
|   | 362T125-68-50 | 9'-10"     | 10'-4"          | 10'-9"  | 11'-3"  | 11'-8"   | 12'-1"  | 12'-6"  | 362T125-68-50 |
|   | 362T125-97-50 | 11'-11"    | 12'-7"          | 13'-1"  | 13'-8"  | 14'-3"   | 14'-9"  | 15'-3"  | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 5'-7"      | 5'-10"          | 6'-2"   | 6'-5"   | 6'-8"    | 6'-11"  | 7'-2"   | 362T125-33-50 |
|   | 362T125-43-50 | 7'-2"      | 7'-7"           | 7'-11"  | 8'-3"   | 8'-7"    | 8'-11"  | 9'-2"   | 362T125-43-50 |
|   | 362T125-54-50 | 8'-10"     | 9'-3"           | 9'-8"   | 10'-1"  | 10'-6"   | 10'-10" | 11'-3"  | 362T125-54-50 |
|   | 362T125-68-50 | 10'-8"     | 11'-2"          | 11'-8"  | 12'-2"  | 12'-8"   | 13'-1"  | 13'-7"  | 362T125-68-50 |
|   | 362T125-97-50 | 12'-11"    | 13'-7"          | 14'-3"  | 14'-10" | 15'-5"   | 15'-11" | 16'-6"  | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 6'-0"      | 6'-4"           | 6'-7"   | 6'-11"  | 7'-2"    | 7'-5"   | 7'-8"   | 362T125-33-50 |
|   | 362T125-43-50 | 7'-9"      | 8'-1"           | 8'-6"   | 8'-10"  | 9'-2"    | 9'-6"   | 9'-10"  | 362T125-43-50 |
|   | 362T125-54-50 | 9'-5"      | 9'-11"          | 10'-4"  | 10'-10" | 11'-3"   | 11'-8"  | 12'-0"  | 362T125-54-50 |
|   | 362T125-68-50 | 11'-5"     | 12'-0"          | 12'-6"  | 13'-1"  | 13'-7"   | 14'-1"  | 14'-6"  | 362T125-68-50 |
|   | 362T125-97-50 | 13'-10"    | 14'-7"          | 15'-3"  | 15'-10" | 16'-6"   | 17'-1"  | 17'-8"  | 362T125-97-50 |



**TABLE 4.7.4.236: MAXIMUM UNBRACED TOP TRACK LENGTH**

| <b>PARAMETERS:</b>  |               | Type      | S3      | (lp = 1.5) | S <sub>Ds</sub> | 1.60    | Weight  | 4200 lbs |               |
|---|---------------|-----------|---------|------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |            |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |            |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |            |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft    | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 3'-3"     | 3'-5"   | 3'-7"      | 3'-9"           | 3'-11"  | 4'-1"   | 4'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 4'-3"     | 4'-6"   | 4'-8"      | 4'-11"          | 5'-1"   | 5'-3"   | 5'-6"    | 362T125-43-50 |
|   | 362T125-54-50 | 5'-3"     | 5'-6"   | 5'-9"      | 6'-0"           | 6'-3"   | 6'-6"   | 6'-9"    | 362T125-54-50 |
|   | 362T125-68-50 | 6'-4"     | 6'-8"   | 7'-0"      | 7'-4"           | 7'-7"   | 7'-11"  | 8'-2"    | 362T125-68-50 |
|   | 362T125-97-50 | 7'-9"     | 8'-2"   | 8'-7"      | 8'-11"          | 9'-3"   | 9'-8"   | 9'-11"   | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 3'-5"     | 3'-7"   | 3'-9"      | 3'-11"          | 4'-1"   | 4'-3"   | 4'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 4'-5"     | 4'-8"   | 4'-11"     | 5'-1"           | 5'-4"   | 5'-6"   | 5'-8"    | 362T125-43-50 |
|   | 362T125-54-50 | 5'-5"     | 5'-9"   | 6'-0"      | 6'-3"           | 6'-6"   | 6'-9"   | 7'-0"    | 362T125-54-50 |
|   | 362T125-68-50 | 6'-7"     | 6'-11"  | 7'-3"      | 7'-7"           | 7'-11"  | 8'-2"   | 8'-6"    | 362T125-68-50 |
|   | 362T125-97-50 | 8'-1"     | 8'-6"   | 8'-11"     | 9'-3"           | 9'-8"   | 10'-0"  | 10'-4"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 3'-6"     | 3'-9"   | 3'-11"     | 4'-1"           | 4'-3"   | 4'-5"   | 4'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 4'-7"     | 4'-10"  | 5'-1"      | 5'-4"           | 5'-6"   | 5'-9"   | 5'-11"   | 362T125-43-50 |
|   | 362T125-54-50 | 5'-8"     | 6'-0"   | 6'-3"      | 6'-6"           | 6'-9"   | 7'-0"   | 7'-3"    | 362T125-54-50 |
|   | 362T125-68-50 | 6'-10"    | 7'-3"   | 7'-7"      | 7'-11"          | 8'-2"   | 8'-6"   | 8'-10"   | 362T125-68-50 |
|   | 362T125-97-50 | 8'-5"     | 8'-10"  | 9'-3"      | 9'-8"           | 10'-0"  | 10'-5"  | 10'-9"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 3'-8"     | 3'-11"  | 4'-1"      | 4'-3"           | 4'-5"   | 4'-7"   | 4'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 4'-10"    | 5'-1"   | 5'-4"      | 5'-6"           | 5'-9"   | 6'-0"   | 6'-2"    | 362T125-43-50 |
|   | 362T125-54-50 | 5'-11"    | 6'-3"   | 6'-6"      | 6'-10"          | 7'-1"   | 7'-4"   | 7'-7"    | 362T125-54-50 |
|   | 362T125-68-50 | 7'-2"     | 7'-7"   | 7'-11"     | 8'-3"           | 8'-7"   | 8'-11"  | 9'-2"    | 362T125-68-50 |
|   | 362T125-97-50 | 8'-9"     | 9'-3"   | 9'-8"      | 10'-1"          | 10'-5"  | 10'-10" | 11'-2"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 3'-11"    | 4'-1"   | 4'-3"      | 4'-6"           | 4'-8"   | 4'-10"  | 5'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-1"     | 5'-4"   | 5'-7"      | 5'-10"          | 6'-0"   | 6'-3"   | 6'-6"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-3"     | 6'-6"   | 6'-10"     | 7'-2"           | 7'-5"   | 7'-8"   | 7'-11"   | 362T125-54-50 |
|   | 362T125-68-50 | 7'-6"     | 7'-11"  | 8'-3"      | 8'-8"           | 9'-0"   | 9'-4"   | 9'-7"    | 362T125-68-50 |
|   | 362T125-97-50 | 9'-2"     | 9'-8"   | 10'-1"     | 10'-6"          | 10'-11" | 11'-4"  | 11'-9"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 4'-1"     | 4'-4"   | 4'-6"      | 4'-9"           | 4'-11"  | 5'-1"   | 5'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-4"     | 5'-7"   | 5'-10"     | 6'-1"           | 6'-4"   | 6'-7"   | 6'-10"   | 362T125-43-50 |
|   | 362T125-54-50 | 6'-6"     | 6'-10"  | 7'-2"      | 7'-6"           | 7'-10"  | 8'-1"   | 8'-4"    | 362T125-54-50 |
|   | 362T125-68-50 | 7'-11"    | 8'-4"   | 8'-8"      | 9'-1"           | 9'-5"   | 9'-9"   | 10'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 9'-8"     | 10'-2"  | 10'-7"     | 11'-1"          | 11'-6"  | 11'-11" | 12'-4"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 4'-4"     | 4'-7"   | 4'-10"     | 5'-0"           | 5'-2"   | 5'-5"   | 5'-7"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-8"     | 5'-11"  | 6'-2"      | 6'-6"           | 6'-9"   | 7'-0"   | 7'-3"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-11"    | 7'-3"   | 7'-7"      | 7'-11"          | 8'-3"   | 8'-7"   | 8'-10"   | 362T125-54-50 |
|   | 362T125-68-50 | 8'-4"     | 8'-10"  | 9'-2"      | 9'-7"           | 10'-0"  | 10'-4"  | 10'-8"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-2"    | 10'-9"  | 11'-3"     | 11'-8"          | 12'-2"  | 12'-7"  | 13'-0"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 4'-8"     | 4'-11"  | 5'-1"      | 5'-4"           | 5'-7"   | 5'-9"   | 6'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-0"     | 6'-4"   | 6'-7"      | 6'-11"          | 7'-2"   | 7'-5"   | 7'-8"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-4"     | 7'-9"   | 8'-1"      | 8'-5"           | 8'-9"   | 9'-1"   | 9'-5"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-11"    | 9'-4"   | 9'-10"     | 10'-3"          | 10'-7"  | 11'-0"  | 11'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-10"   | 11'-5"  | 11'-11"    | 12'-5"          | 12'-11" | 13'-5"  | 13'-10"  | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 5'-0"     | 5'-3"   | 5'-6"      | 5'-9"           | 6'-0"   | 6'-2"   | 6'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-5"     | 6'-9"   | 7'-1"      | 7'-5"           | 7'-8"   | 8'-0"   | 8'-3"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-11"    | 8'-4"   | 8'-8"      | 9'-1"           | 9'-5"   | 9'-9"   | 10'-1"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-7"     | 10'-0"  | 10'-6"     | 10'-11"         | 11'-5"  | 11'-10" | 12'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-8"    | 12'-3"  | 12'-10"    | 13'-4"          | 13'-10" | 14'-4"  | 14'-10"  | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 5'-5"     | 5'-9"   | 6'-0"      | 6'-3"           | 6'-6"   | 6'-9"   | 6'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 7'-0"     | 7'-4"   | 7'-8"      | 8'-0"           | 8'-4"   | 8'-8"   | 8'-11"   | 362T125-43-50 |
|   | 362T125-54-50 | 8'-7"     | 9'-0"   | 9'-5"      | 9'-10"          | 10'-3"  | 10'-7"  | 10'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 10'-4"    | 10'-11" | 11'-5"     | 11'-10"         | 12'-4"  | 12'-9"  | 13'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-7"    | 13'-3"  | 13'-10"    | 14'-5"          | 15'-0"  | 15'-7"  | 16'-1"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 5'-10"    | 6'-2"   | 6'-5"      | 6'-8"           | 7'-0"   | 7'-3"   | 7'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-6"     | 7'-11"  | 8'-3"      | 8'-7"           | 8'-11"  | 9'-3"   | 9'-7"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-2"     | 9'-8"   | 10'-1"     | 10'-6"          | 10'-11" | 11'-4"  | 11'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 11'-1"    | 11'-8"  | 12'-3"     | 12'-9"          | 13'-3"  | 13'-8"  | 14'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 13'-6"    | 14'-2"  | 14'-10"    | 15'-6"          | 16'-1"  | 16'-8"  | 17'-3"   | 362T125-97-50 |



**TABLE 4.7.4.237: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | ( $l_p = 1.5$ ) | S <sub>DS</sub> | 1.60    | Weight  | 4400 lbs |               |
|---|---------------|-----------|---------|-----------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |                 |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |                 |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |                 |                 |         |         |          |               |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft         | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  | Track Section |
| 1.0   | 362T125-33-50 | 3'-2"     | 3'-4"   | 3'-6"           | 3'-8"           | 3'-10"  | 3'-11"  | 4'-1"    | 362T125-33-50 |
|   | 362T125-43-50 | 4'-2"     | 4'-4"   | 4'-7"           | 4'-9"           | 5'-0"   | 5'-2"   | 5'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 5'-1"     | 5'-5"   | 5'-8"           | 5'-11"          | 6'-1"   | 6'-4"   | 6'-7"    | 362T125-54-50 |
|   | 362T125-68-50 | 6'-2"     | 6'-6"   | 6'-10"          | 7'-2"           | 7'-5"   | 7'-8"   | 7'-11"   | 362T125-68-50 |
|   | 362T125-97-50 | 7'-7"     | 8'-0"   | 8'-4"           | 8'-9"           | 9'-1"   | 9'-5"   | 9'-9"    | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 3'-4"     | 3'-6"   | 3'-8"           | 3'-10"          | 4'-0"   | 4'-1"   | 4'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 4'-4"     | 4'-6"   | 4'-9"           | 5'-0"           | 5'-2"   | 5'-4"   | 5'-6"    | 362T125-43-50 |
|   | 362T125-54-50 | 5'-4"     | 5'-7"   | 5'-10"          | 6'-1"           | 6'-4"   | 6'-7"   | 6'-10"   | 362T125-54-50 |
|   | 362T125-68-50 | 6'-5"     | 6'-9"   | 7'-1"           | 7'-5"           | 7'-8"   | 8'-0"   | 8'-3"    | 362T125-68-50 |
|   | 362T125-97-50 | 7'-10"    | 8'-3"   | 8'-8"           | 9'-0"           | 9'-5"   | 9'-9"   | 10'-1"   | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 3'-5"     | 3'-8"   | 3'-10"          | 4'-0"           | 4'-2"   | 4'-3"   | 4'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 4'-6"     | 4'-9"   | 4'-11"          | 5'-0"           | 5'-5"   | 5'-7"   | 5'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 5'-6"     | 5'-10"  | 6'-1"           | 6'-4"           | 6'-7"   | 6'-10"  | 7'-1"    | 362T125-54-50 |
|   | 362T125-68-50 | 6'-8"     | 7'-1"   | 7'-5"           | 7'-8"           | 8'-0"   | 8'-4"   | 8'-7"    | 362T125-68-50 |
|   | 362T125-97-50 | 8'-2"     | 8'-7"   | 9'-0"           | 9'-5"           | 9'-9"   | 10'-2"  | 10'-6"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 3'-7"     | 3'-10"  | 4'-0"           | 4'-2"           | 4'-4"   | 4'-6"   | 4'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 4'-8"     | 4'-11"  | 5'-2"           | 5'-5"           | 5'-7"   | 5'-10"  | 6'-0"    | 362T125-43-50 |
|   | 362T125-54-50 | 5'-9"     | 6'-1"   | 6'-4"           | 6'-8"           | 6'-11"  | 7'-2"   | 7'-5"    | 362T125-54-50 |
|   | 362T125-68-50 | 7'-0"     | 7'-4"   | 7'-8"           | 8'-0"           | 8'-4"   | 8'-8"   | 9'-0"    | 362T125-68-50 |
|   | 362T125-97-50 | 8'-7"     | 9'-0"   | 9'-5"           | 9'-10"          | 10'-2"  | 10'-7"  | 10'-11"  | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 3'-9"     | 4'-0"   | 4'-2"           | 4'-4"           | 4'-6"   | 4'-9"   | 4'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 4'-11"    | 5'-2"   | 5'-5"           | 5'-8"           | 5'-11"  | 6'-1"   | 6'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-1"     | 6'-4"   | 6'-8"           | 6'-11"          | 7'-3"   | 7'-6"   | 7'-9"    | 362T125-54-50 |
|   | 362T125-68-50 | 7'-4"     | 7'-9"   | 8'-1"           | 8'-5"           | 8'-9"   | 9'-1"   | 9'-5"    | 362T125-68-50 |
|   | 362T125-97-50 | 8'-11"    | 9'-5"   | 9'-10"          | 10'-3"          | 10'-8"  | 11'-1"  | 11'-5"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 4'-0"     | 4'-2"   | 4'-5"           | 4'-7"           | 4'-9"   | 5'-0"   | 5'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-2"     | 5'-5"   | 5'-9"           | 6'-0"           | 6'-2"   | 6'-5"   | 6'-8"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-5"     | 6'-8"   | 7'-0"           | 7'-4"           | 7'-7"   | 7'-11"  | 8'-2"    | 362T125-54-50 |
|   | 362T125-68-50 | 7'-9"     | 8'-1"   | 8'-6"           | 8'-10"          | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-68-50 |
|   | 362T125-97-50 | 9'-5"     | 9'-11"  | 10'-4"          | 10'-10"         | 11'-3"  | 11'-8"  | 12'-0"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 4'-3"     | 4'-6"   | 4'-8"           | 4'-11"          | 5'-1"   | 5'-3"   | 5'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-6"     | 5'-9"   | 6'-1"           | 6'-4"           | 6'-7"   | 6'-10"  | 7'-0"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-9"     | 7'-1"   | 7'-5"           | 7'-9"           | 8'-1"   | 8'-4"   | 8'-8"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-2"     | 8'-7"   | 9'-0"           | 9'-4"           | 9'-9"   | 10'-1"  | 10'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 9'-11"    | 10'-6"  | 10'-11"         | 11'-5"          | 11'-10" | 12'-4"  | 12'-9"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 4'-6"     | 4'-9"   | 5'-0"           | 5'-2"           | 5'-5"   | 5'-7"   | 5'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 5'-10"    | 6'-2"   | 6'-5"           | 6'-9"           | 7'-0"   | 7'-3"   | 7'-6"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-2"     | 7'-7"   | 7'-11"          | 8'-3"           | 8'-7"   | 8'-11"  | 9'-2"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-8"     | 9'-2"   | 9'-7"           | 10'-0"          | 10'-4"  | 10'-9"  | 11'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-7"    | 11'-2"  | 11'-8"          | 12'-2"          | 12'-7"  | 13'-1"  | 13'-6"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 4'-10"    | 5'-1"   | 5'-4"           | 5'-7"           | 5'-10"  | 6'-0"   | 6'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-3"     | 6'-7"   | 6'-11"          | 7'-3"           | 7'-6"   | 7'-9"   | 8'-1"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-9"     | 8'-1"   | 8'-6"           | 8'-10"          | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-4"     | 9'-10"  | 10'-3"          | 10'-8"          | 11'-1"  | 11'-6"  | 11'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 11'-4"    | 11'-11" | 12'-6"          | 13'-0"          | 13'-6"  | 14'-0"  | 14'-6"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 5'-4"     | 5'-7"   | 5'-10"          | 6'-1"           | 6'-4"   | 6'-7"   | 6'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-10"    | 7'-2"   | 7'-6"           | 7'-10"          | 8'-2"   | 8'-5"   | 8'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-4"     | 8'-10"  | 9'-2"           | 9'-7"           | 10'-0"  | 10'-4"  | 10'-8"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-1"    | 10'-7"  | 11'-1"          | 11'-7"          | 12'-0"  | 12'-6"  | 12'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 12'-4"    | 12'-11" | 13'-6"          | 14'-1"          | 14'-8"  | 15'-2"  | 15'-8"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 5'-8"     | 6'-0"   | 6'-3"           | 6'-6"           | 6'-10"  | 7'-1"   | 7'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 7'-4"     | 7'-8"   | 8'-1"           | 8'-5"           | 8'-9"   | 9'-1"   | 9'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 9'-0"     | 9'-5"   | 9'-10"          | 10'-3"          | 10'-8"  | 11'-1"  | 11'-5"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-10"   | 11'-5"  | 11'-11"         | 12'-5"          | 12'-11" | 13'-4"  | 13'-10"  | 362T125-68-50 |
|   | 362T125-97-50 | 13'-2"    | 13'-10" | 14'-6"          | 15'-1"          | 15'-8"  | 16'-3"  | 16'-10"  | 362T125-97-50 |



**TABLE 4.7.4.238: MAXIMUM UNBRACED TOP TRACK LENGTH**

|                    |      |    |            |                 |      |        |          |
|--------------------|------|----|------------|-----------------|------|--------|----------|
| <b>PARAMETERS:</b> | Type | S3 | (lp = 1.5) | S <sub>Ds</sub> | 1.60 | Weight | 4600 lbs |
|--------------------|------|----|------------|-----------------|------|--------|----------|

\* Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.  
 Note: If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track.

| Height in Bldg (z/h) | Track Section | Pod Width |         |         |         |         |         | Track Section |               |
|----------------------|---------------|-----------|---------|---------|---------|---------|---------|---------------|---------------|
|                      |               | 5.00 ft   | 5.50 ft | 6.00 ft | 6.50 ft | 7.00 ft | 7.50 ft |               | 8.00 ft       |
| 1.0                  | 362T125-33-50 | 3'-1"     | 3'-3"   | 3'-5"   | 3'-7"   | 3'-9"   | 3'-10"  | 4'-0"         | 362T125-33-50 |
|                      | 362T125-43-50 | 4'-1"     | 4'-3"   | 4'-6"   | 4'-8"   | 4'-10"  | 5'-0"   | 5'-2"         | 362T125-43-50 |
|                      | 362T125-54-50 | 5'-0"     | 5'-3"   | 5'-6"   | 5'-9"   | 6'-0"   | 6'-2"   | 6'-5"         | 362T125-54-50 |
|                      | 362T125-68-50 | 6'-1"     | 6'-4"   | 6'-8"   | 6'-11"  | 7'-3"   | 7'-6"   | 7'-9"         | 362T125-68-50 |
|                      | 362T125-97-50 | 7'-5"     | 7'-9"   | 8'-2"   | 8'-6"   | 8'-10"  | 9'-2"   | 9'-6"         | 362T125-97-50 |
| 0.9                  | 362T125-33-50 | 3'-3"     | 3'-5"   | 3'-7"   | 3'-9"   | 3'-10"  | 4'-0"   | 4'-2"         | 362T125-33-50 |
|                      | 362T125-43-50 | 4'-2"     | 4'-5"   | 4'-8"   | 4'-10"  | 5'-0"   | 5'-3"   | 5'-5"         | 362T125-43-50 |
|                      | 362T125-54-50 | 5'-2"     | 5'-5"   | 5'-9"   | 6'-0"   | 6'-2"   | 6'-5"   | 6'-8"         | 362T125-54-50 |
|                      | 362T125-68-50 | 6'-3"     | 6'-7"   | 6'-11"  | 7'-3"   | 7'-6"   | 7'-9"   | 8'-1"         | 362T125-68-50 |
|                      | 362T125-97-50 | 7'-8"     | 8'-1"   | 8'-6"   | 8'-10"  | 9'-2"   | 9'-6"   | 9'-10"        | 362T125-97-50 |
| 0.8                  | 362T125-33-50 | 3'-4"     | 3'-6"   | 3'-8"   | 3'-10"  | 4'-0"   | 4'-2"   | 4'-4"         | 362T125-33-50 |
|                      | 362T125-43-50 | 4'-5"     | 4'-7"   | 4'-10"  | 5'-1"   | 5'-3"   | 5'-5"   | 5'-8"         | 362T125-43-50 |
|                      | 362T125-54-50 | 5'-5"     | 5'-8"   | 5'-11"  | 6'-2"   | 6'-5"   | 6'-8"   | 6'-11"        | 362T125-54-50 |
|                      | 362T125-68-50 | 6'-6"     | 6'-11"  | 7'-2"   | 7'-6"   | 7'-10"  | 8'-1"   | 8'-5"         | 362T125-68-50 |
|                      | 362T125-97-50 | 8'-0"     | 8'-5"   | 8'-10"  | 9'-2"   | 9'-7"   | 9'-11"  | 10'-3"        | 362T125-97-50 |
| 0.7                  | 362T125-33-50 | 3'-6"     | 3'-8"   | 3'-11"  | 4'-1"   | 4'-3"   | 4'-5"   | 4'-6"         | 362T125-33-50 |
|                      | 362T125-43-50 | 4'-7"     | 4'-10"  | 5'-1"   | 5'-3"   | 5'-6"   | 5'-8"   | 5'-11"        | 362T125-43-50 |
|                      | 362T125-54-50 | 5'-8"     | 5'-11"  | 6'-3"   | 6'-6"   | 6'-9"   | 7'-0"   | 7'-3"         | 362T125-54-50 |
|                      | 362T125-68-50 | 6'-10"    | 7'-2"   | 7'-6"   | 7'-10"  | 8'-2"   | 8'-5"   | 8'-9"         | 362T125-68-50 |
|                      | 362T125-97-50 | 8'-4"     | 8'-9"   | 9'-2"   | 9'-7"   | 10'-0"  | 10'-4"  | 10'-8"        | 362T125-97-50 |
| 0.6                  | 362T125-33-50 | 3'-8"     | 3'-11"  | 4'-1"   | 4'-3"   | 4'-5"   | 4'-7"   | 4'-9"         | 362T125-33-50 |
|                      | 362T125-43-50 | 4'-10"    | 5'-1"   | 5'-4"   | 5'-6"   | 5'-9"   | 6'-0"   | 6'-2"         | 362T125-43-50 |
|                      | 362T125-54-50 | 5'-11"    | 6'-3"   | 6'-6"   | 6'-10"  | 7'-1"   | 7'-4"   | 7'-7"         | 362T125-54-50 |
|                      | 362T125-68-50 | 7'-2"     | 7'-6"   | 7'-11"  | 8'-3"   | 8'-7"   | 8'-10"  | 9'-2"         | 362T125-68-50 |
|                      | 362T125-97-50 | 8'-9"     | 9'-2"   | 9'-7"   | 10'-0"  | 10'-5"  | 10'-10" | 11'-2"        | 362T125-97-50 |
| 0.5                  | 362T125-33-50 | 3'-11"    | 4'-1"   | 4'-4"   | 4'-6"   | 4'-8"   | 4'-10"  | 5'-0"         | 362T125-33-50 |
|                      | 362T125-43-50 | 5'-1"     | 5'-4"   | 5'-7"   | 5'-10"  | 6'-1"   | 6'-3"   | 6'-6"         | 362T125-43-50 |
|                      | 362T125-54-50 | 6'-3"     | 6'-7"   | 6'-10"  | 7'-2"   | 7'-5"   | 7'-8"   | 8'-0"         | 362T125-54-50 |
|                      | 362T125-68-50 | 7'-6"     | 7'-11"  | 8'-3"   | 8'-8"   | 9'-0"   | 9'-4"   | 9'-8"         | 362T125-68-50 |
|                      | 362T125-97-50 | 9'-2"     | 9'-8"   | 10'-1"  | 10'-7"  | 11'-0"  | 11'-4"  | 11'-9"        | 362T125-97-50 |
| 0.4                  | 362T125-33-50 | 4'-2"     | 4'-4"   | 4'-7"   | 4'-9"   | 4'-11"  | 5'-2"   | 5'-4"         | 362T125-33-50 |
|                      | 362T125-43-50 | 5'-4"     | 5'-8"   | 5'-11"  | 6'-2"   | 6'-5"   | 6'-8"   | 6'-10"        | 362T125-43-50 |
|                      | 362T125-54-50 | 6'-7"     | 6'-11"  | 7'-3"   | 7'-7"   | 7'-10"  | 8'-2"   | 8'-5"         | 362T125-54-50 |
|                      | 362T125-68-50 | 8'-0"     | 8'-5"   | 8'-9"   | 9'-2"   | 9'-6"   | 9'-10"  | 10'-2"        | 362T125-68-50 |
|                      | 362T125-97-50 | 9'-9"     | 10'-3"  | 10'-8"  | 11'-2"  | 11'-7"  | 12'-0"  | 12'-5"        | 362T125-97-50 |
| 0.3                  | 362T125-33-50 | 4'-5"     | 4'-8"   | 4'-10"  | 5'-1"   | 5'-3"   | 5'-6"   | 5'-8"         | 362T125-33-50 |
|                      | 362T125-43-50 | 5'-9"     | 6'-0"   | 6'-4"   | 6'-7"   | 6'-10"  | 7'-1"   | 7'-4"         | 362T125-43-50 |
|                      | 362T125-54-50 | 7'-0"     | 7'-5"   | 7'-9"   | 8'-1"   | 8'-4"   | 8'-8"   | 9'-0"         | 362T125-54-50 |
|                      | 362T125-68-50 | 8'-6"     | 8'-11"  | 9'-4"   | 9'-9"   | 10'-1"  | 10'-6"  | 10'-10"       | 362T125-68-50 |
|                      | 362T125-97-50 | 10'-4"    | 10'-10" | 11'-5"  | 11'-10" | 12'-4"  | 12'-9"  | 13'-2"        | 362T125-97-50 |
| 0.2                  | 362T125-33-50 | 4'-9"     | 5'-0"   | 5'-3"   | 5'-6"   | 5'-8"   | 5'-11"  | 6'-1"         | 362T125-33-50 |
|                      | 362T125-43-50 | 6'-2"     | 6'-6"   | 6'-9"   | 7'-1"   | 7'-4"   | 7'-7"   | 7'-10"        | 362T125-43-50 |
|                      | 362T125-54-50 | 7'-6"     | 7'-11"  | 8'-3"   | 8'-8"   | 9'-0"   | 9'-4"   | 9'-8"         | 362T125-54-50 |
|                      | 362T125-68-50 | 9'-1"     | 9'-7"   | 10'-0"  | 10'-5"  | 10'-10" | 11'-3"  | 11'-8"        | 362T125-68-50 |
|                      | 362T125-97-50 | 11'-1"    | 11'-8"  | 12'-2"  | 12'-9"  | 13'-3"  | 13'-8"  | 14'-2"        | 362T125-97-50 |
| 0.1                  | 362T125-33-50 | 5'-2"     | 5'-5"   | 5'-8"   | 5'-11"  | 6'-2"   | 6'-5"   | 6'-8"         | 362T125-33-50 |
|                      | 362T125-43-50 | 6'-8"     | 7'-0"   | 7'-4"   | 7'-8"   | 7'-11"  | 8'-3"   | 8'-6"         | 362T125-43-50 |
|                      | 362T125-54-50 | 8'-2"     | 8'-7"   | 9'-0"   | 9'-4"   | 9'-9"   | 10'-1"  | 10'-5"        | 362T125-54-50 |
|                      | 362T125-68-50 | 9'-11"    | 10'-5"  | 10'-10" | 11'-4"  | 11'-9"  | 12'-2"  | 12'-7"        | 362T125-68-50 |
|                      | 362T125-97-50 | 12'-0"    | 12'-8"  | 13'-3"  | 13'-9"  | 14'-4"  | 14'-10" | 15'-4"        | 362T125-97-50 |
| 0.0                  | 362T125-33-50 | 5'-7"     | 5'-10"  | 6'-1"   | 6'-5"   | 6'-8"   | 6'-11"  | 7'-1"         | 362T125-33-50 |
|                      | 362T125-43-50 | 7'-2"     | 7'-6"   | 7'-11"  | 8'-3"   | 8'-6"   | 8'-10"  | 9'-2"         | 362T125-43-50 |
|                      | 362T125-54-50 | 8'-9"     | 9'-3"   | 9'-8"   | 10'-1"  | 10'-5"  | 10'-10" | 11'-2"        | 362T125-54-50 |
|                      | 362T125-68-50 | 10'-7"    | 11'-2"  | 11'-8"  | 12'-2"  | 12'-7"  | 13'-1"  | 13'-6"        | 362T125-68-50 |
|                      | 362T125-97-50 | 12'-11"   | 13'-7"  | 14'-2"  | 14'-9"  | 15'-4"  | 15'-11" | 16'-5"        | 362T125-97-50 |





**TABLE 4.7.4.239: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | (lp = 1.5) | S <sub>DS</sub> | 1.60    | Weight  | 4800 lbs |               |
|---|---------------|-----------|---------|------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |            |                 |         |         |          |               |
| <u>Note:</u> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |            |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |            |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft    | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 3'-0"     | 3'-2"   | 3'-4"      | 3'-6"           | 3'-7"   | 3'-9"   | 3'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 3'-11"    | 4'-2"   | 4'-4"      | 4'-7"           | 4'-9"   | 4'-11"  | 5'-1"    | 362T125-43-50 |
|   | 362T125-54-50 | 4'-11"    | 5'-2"   | 5'-5"      | 5'-7"           | 5'-10"  | 6'-1"   | 6'-3"    | 362T125-54-50 |
|   | 362T125-68-50 | 5'-11"    | 6'-3"   | 6'-6"      | 6'-10"          | 7'-1"   | 7'-4"   | 7'-7"    | 362T125-68-50 |
|   | 362T125-97-50 | 7'-3"     | 7'-7"   | 8'-0"      | 8'-4"           | 8'-8"   | 9'-0"   | 9'-3"    | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 3'-2"     | 3'-4"   | 3'-6"      | 3'-7"           | 3'-9"   | 3'-11"  | 4'-1"    | 362T125-33-50 |
|   | 362T125-43-50 | 4'-1"     | 4'-4"   | 4'-6"      | 4'-9"           | 4'-11"  | 5'-1"   | 5'-3"    | 362T125-43-50 |
|   | 362T125-54-50 | 5'-1"     | 5'-4"   | 5'-7"      | 5'-10"          | 6'-1"   | 6'-3"   | 6'-6"    | 362T125-54-50 |
|   | 362T125-68-50 | 6'-2"     | 6'-6"   | 6'-9"      | 7'-1"           | 7'-4"   | 7'-7"   | 7'-10"   | 362T125-68-50 |
|   | 362T125-97-50 | 7'-6"     | 7'-11"  | 8'-3"      | 8'-8"           | 9'-0"   | 9'-4"   | 9'-7"    | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 3'-3"     | 3'-5"   | 3'-7"      | 3'-9"           | 3'-11"  | 4'-1"   | 4'-3"    | 362T125-33-50 |
|   | 362T125-43-50 | 4'-3"     | 4'-6"   | 4'-9"      | 4'-11"          | 5'-1"   | 5'-4"   | 5'-6"    | 362T125-43-50 |
|   | 362T125-54-50 | 5'-3"     | 5'-7"   | 5'-10"     | 6'-1"           | 6'-4"   | 6'-7"   | 6'-9"    | 362T125-54-50 |
|   | 362T125-68-50 | 6'-5"     | 6'-9"   | 7'-0"      | 7'-4"           | 7'-8"   | 7'-11"  | 8'-2"    | 362T125-68-50 |
|   | 362T125-97-50 | 7'-10"    | 8'-3"   | 8'-7"      | 9'-0"           | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 3'-5"     | 3'-7"   | 3'-9"      | 3'-11"          | 4'-1"   | 4'-3"   | 4'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 4'-6"     | 4'-9"   | 4'-11"     | 5'-2"           | 5'-4"   | 5'-7"   | 5'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 5'-6"     | 5'-10"  | 6'-1"      | 6'-4"           | 6'-7"   | 6'-10"  | 7'-1"    | 362T125-54-50 |
|   | 362T125-68-50 | 6'-8"     | 7'-0"   | 7'-4"      | 7'-8"           | 8'-0"   | 8'-3"   | 8'-7"    | 362T125-68-50 |
|   | 362T125-97-50 | 8'-2"     | 8'-7"   | 9'-0"      | 9'-4"           | 9'-9"   | 10'-1"  | 10'-5"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 3'-7"     | 3'-10"  | 4'-0"      | 4'-2"           | 4'-4"   | 4'-6"   | 4'-8"    | 362T125-33-50 |
|   | 362T125-43-50 | 4'-8"     | 4'-11"  | 5'-2"      | 5'-5"           | 5'-7"   | 5'-10"  | 6'-0"    | 362T125-43-50 |
|   | 362T125-54-50 | 5'-9"     | 6'-1"   | 6'-4"      | 6'-8"           | 6'-11"  | 7'-2"   | 7'-5"    | 362T125-54-50 |
|   | 362T125-68-50 | 7'-0"     | 7'-4"   | 7'-8"      | 8'-0"           | 8'-4"   | 8'-8"   | 9'-0"    | 362T125-68-50 |
|   | 362T125-97-50 | 8'-7"     | 9'-0"   | 9'-5"      | 9'-10"          | 10'-2"  | 10'-7"  | 10'-11"  | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 3'-10"    | 4'-0"   | 4'-2"      | 4'-5"           | 4'-7"   | 4'-9"   | 4'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 4'-11"    | 5'-2"   | 5'-5"      | 5'-8"           | 5'-11"  | 6'-2"   | 6'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-1"     | 6'-5"   | 6'-8"      | 7'-0"           | 7'-3"   | 7'-6"   | 7'-9"    | 362T125-54-50 |
|   | 362T125-68-50 | 7'-4"     | 7'-9"   | 8'-1"      | 8'-5"           | 8'-9"   | 9'-1"   | 9'-5"    | 362T125-68-50 |
|   | 362T125-97-50 | 9'-0"     | 9'-5"   | 9'-11"     | 10'-4"          | 10'-9"  | 11'-1"  | 11'-6"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 4'-0"     | 4'-3"   | 4'-5"      | 4'-8"           | 4'-10"  | 5'-0"   | 5'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-3"     | 5'-6"   | 5'-9"      | 6'-0"           | 6'-3"   | 6'-6"   | 6'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-5"     | 6'-9"   | 7'-1"      | 7'-5"           | 7'-8"   | 8'-0"   | 8'-3"    | 362T125-54-50 |
|   | 362T125-68-50 | 7'-9"     | 8'-2"   | 8'-7"      | 8'-11"          | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-68-50 |
|   | 362T125-97-50 | 9'-6"     | 10'-0"  | 10'-6"     | 10'-11"         | 11'-4"  | 11'-9"  | 12'-2"   | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 4'-4"     | 4'-6"   | 4'-9"      | 5'-0"           | 5'-2"   | 5'-4"   | 5'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-7"     | 5'-11"  | 6'-2"      | 6'-5"           | 6'-8"   | 6'-11"  | 7'-2"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-10"    | 7'-3"   | 7'-7"      | 7'-10"          | 8'-2"   | 8'-6"   | 8'-9"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-4"     | 8'-9"   | 9'-2"      | 9'-6"           | 9'-11"  | 10'-3"  | 10'-7"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-1"    | 10'-8"  | 11'-2"     | 11'-7"          | 12'-1"  | 12'-6"  | 12'-11"  | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 4'-8"     | 4'-11"  | 5'-1"      | 5'-4"           | 5'-7"   | 5'-9"   | 6'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-0"     | 6'-4"   | 6'-7"      | 6'-11"          | 7'-2"   | 7'-5"   | 7'-8"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-4"     | 7'-9"   | 8'-1"      | 8'-5"           | 8'-9"   | 9'-1"   | 9'-5"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-11"    | 9'-4"   | 9'-10"     | 10'-3"          | 10'-7"  | 11'-0"  | 11'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-10"   | 11'-5"  | 11'-11"    | 12'-5"          | 12'-11" | 13'-5"  | 13'-10"  | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 5'-1"     | 5'-4"   | 5'-7"      | 5'-10"          | 6'-0"   | 6'-3"   | 6'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-6"     | 6'-10"  | 7'-2"      | 7'-6"           | 7'-9"   | 8'-1"   | 8'-4"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-0"     | 8'-5"   | 8'-9"      | 9'-2"           | 9'-6"   | 9'-10"  | 10'-2"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-8"     | 10'-2"  | 10'-7"     | 11'-1"          | 11'-6"  | 11'-11" | 12'-4"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-9"    | 12'-4"  | 12'-11"    | 13'-6"          | 14'-0"  | 14'-6"  | 15'-0"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 5'-5"     | 5'-9"   | 6'-0"      | 6'-3"           | 6'-6"   | 6'-9"   | 6'-11"   | 362T125-33-50 |
|   | 362T125-43-50 | 7'-0"     | 7'-4"   | 7'-8"      | 8'-0"           | 8'-4"   | 8'-8"   | 8'-11"   | 362T125-43-50 |
|   | 362T125-54-50 | 8'-7"     | 9'-0"   | 9'-5"      | 9'-10"          | 10'-3"  | 10'-7"  | 10'-11"  | 362T125-54-50 |
|   | 362T125-68-50 | 10'-4"    | 10'-11" | 11'-5"     | 11'-10"         | 12'-4"  | 12'-9"  | 13'-3"   | 362T125-68-50 |
|   | 362T125-97-50 | 12'-7"    | 13'-3"  | 13'-10"    | 14'-5"          | 15'-0"  | 15'-7"  | 16'-1"   | 362T125-97-50 |



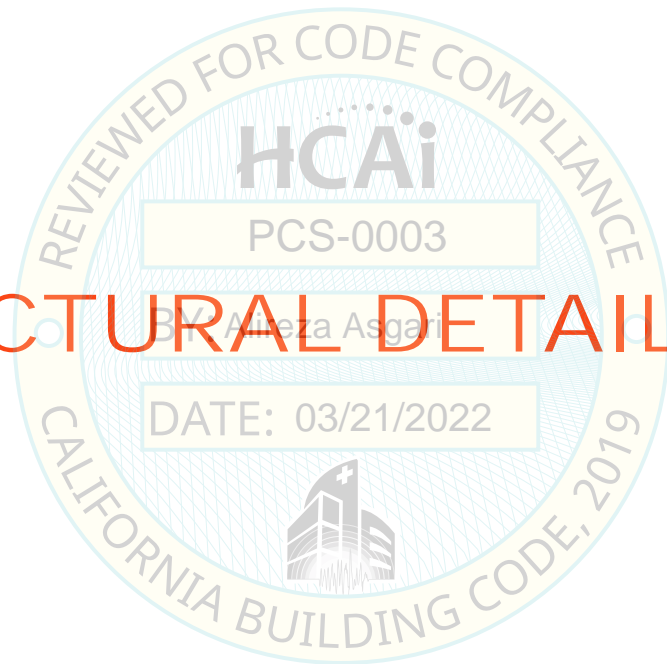
**TABLE 4.7.4.240: MAXIMUM UNBRACED TOP TRACK LENGTH**

| PARAMETERS:   |               | Type      | S3      | (lp = 1.5) | S <sub>DS</sub> | 1.60    | Weight  | 5000 lbs |               |
|---|---------------|-----------|---------|------------|-----------------|---------|---------|----------|---------------|
| * Value indicates the maximum unbraced top track length (ft) for the provided parameters and track section.   |               |           |         |            |                 |         |         |          |               |
| <b>Note:</b> If the unbraced track length in the table is less than the pod width, additional brace points will need to be added along the pod width track. |               |           |         |            |                 |         |         |          |               |
| Height in Bldg<br>(z/h)   | Track Section | Pod Width |         |            |                 |         |         |          | Track Section |
|   |               | 5.00 ft   | 5.50 ft | 6.00 ft    | 6.50 ft         | 7.00 ft | 7.50 ft | 8.00 ft  |               |
| 1.0   | 362T125-33-50 | 2'-11"    | 3'-1"   | 3'-3"      | 3'-5"           | 3'-6"   | 3'-8"   | 3'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 3'-10"    | 4'-1"   | 4'-3"      | 4'-5"           | 4'-8"   | 4'-10"  | 5'-0"    | 362T125-43-50 |
|   | 362T125-54-50 | 4'-9"     | 5'-0"   | 5'-3"      | 5'-6"           | 5'-8"   | 5'-11"  | 6'-2"    | 362T125-54-50 |
|   | 362T125-68-50 | 5'-9"     | 6'-1"   | 6'-4"      | 6'-8"           | 6'-11"  | 7'-2"   | 7'-5"    | 362T125-68-50 |
|   | 362T125-97-50 | 7'-1"     | 7'-5"   | 7'-10"     | 8'-2"           | 8'-6"   | 8'-9"   | 9'-1"    | 362T125-97-50 |
| 0.9   | 362T125-33-50 | 3'-1"     | 3'-3"   | 3'-5"      | 3'-6"           | 3'-8"   | 3'-10"  | 4'-0"    | 362T125-33-50 |
|   | 362T125-43-50 | 4'-0"     | 4'-3"   | 4'-5"      | 4'-7"           | 4'-10"  | 5'-0"   | 5'-2"    | 362T125-43-50 |
|   | 362T125-54-50 | 4'-11"    | 5'-3"   | 5'-6"      | 5'-8"           | 5'-11"  | 6'-2"   | 6'-4"    | 362T125-54-50 |
|   | 362T125-68-50 | 6'-0"     | 6'-4"   | 6'-7"      | 6'-11"          | 7'-2"   | 7'-5"   | 7'-8"    | 362T125-68-50 |
|   | 362T125-97-50 | 7'-4"     | 7'-9"   | 8'-1"      | 8'-5"           | 8'-9"   | 9'-1"   | 9'-5"    | 362T125-97-50 |
| 0.8   | 362T125-33-50 | 3'-2"     | 3'-4"   | 3'-6"      | 3'-8"           | 3'-10"  | 4'-0"   | 4'-2"    | 362T125-33-50 |
|   | 362T125-43-50 | 4'-2"     | 4'-5"   | 4'-7"      | 4'-10"          | 5'-0"   | 5'-2"   | 5'-5"    | 362T125-43-50 |
|   | 362T125-54-50 | 5'-2"     | 5'-5"   | 5'-8"      | 5'-11"          | 6'-2"   | 6'-5"   | 6'-7"    | 362T125-54-50 |
|   | 362T125-68-50 | 6'-3"     | 6'-7"   | 6'-11"     | 7'-2"           | 7'-6"   | 7'-9"   | 8'-0"    | 362T125-68-50 |
|   | 362T125-97-50 | 7'-8"     | 8'-1"   | 8'-5"      | 8'-9"           | 9'-2"   | 9'-6"   | 9'-10"   | 362T125-97-50 |
| 0.7   | 362T125-33-50 | 3'-4"     | 3'-6"   | 3'-8"      | 3'-10"          | 4'-0"   | 4'-2"   | 4'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 4'-4"     | 4'-7"   | 4'-10"     | 5'-0"           | 5'-3"   | 5'-5"   | 5'-7"    | 362T125-43-50 |
|   | 362T125-54-50 | 5'-5"     | 5'-8"   | 5'-11"     | 6'-2"           | 6'-5"   | 6'-8"   | 6'-11"   | 362T125-54-50 |
|   | 362T125-68-50 | 6'-6"     | 6'-10"  | 7'-2"      | 7'-6"           | 7'-10"  | 8'-1"   | 8'-4"    | 362T125-68-50 |
|   | 362T125-97-50 | 8'-0"     | 8'-5"   | 8'-9"      | 9'-2"           | 9'-6"   | 9'-11"  | 10'-3"   | 362T125-97-50 |
| 0.6   | 362T125-33-50 | 3'-6"     | 3'-9"   | 3'-11"     | 4'-1"           | 4'-3"   | 4'-5"   | 4'-6"    | 362T125-33-50 |
|   | 362T125-43-50 | 4'-7"     | 4'-10"  | 5'-1"      | 5'-3"           | 5'-6"   | 5'-8"   | 5'-11"   | 362T125-43-50 |
|   | 362T125-54-50 | 5'-8"     | 5'-11"  | 6'-3"      | 6'-6"           | 6'-9"   | 7'-0"   | 7'-3"    | 362T125-54-50 |
|   | 362T125-68-50 | 6'-10"    | 7'-2"   | 7'-6"      | 7'-10"          | 8'-2"   | 8'-6"   | 8'-9"    | 362T125-68-50 |
|   | 362T125-97-50 | 8'-4"     | 8'-10"  | 9'-2"      | 9'-7"           | 10'-0"  | 10'-4"  | 10'-8"   | 362T125-97-50 |
| 0.5   | 362T125-33-50 | 3'-9"     | 3'-11"  | 4'-1"      | 4'-3"           | 4'-6"   | 4'-8"   | 4'-9"    | 362T125-33-50 |
|   | 362T125-43-50 | 4'-10"    | 5'-1"   | 5'-4"      | 5'-7"           | 5'-9"   | 6'-0"   | 6'-2"    | 362T125-43-50 |
|   | 362T125-54-50 | 5'-11"    | 6'-3"   | 6'-7"      | 6'-10"          | 7'-1"   | 7'-4"   | 7'-7"    | 362T125-54-50 |
|   | 362T125-68-50 | 7'-2"     | 7'-7"   | 7'-11"     | 8'-3"           | 8'-7"   | 8'-11"  | 9'-3"    | 362T125-68-50 |
|   | 362T125-97-50 | 8'-10"    | 9'-3"   | 9'-8"      | 10'-1"          | 10'-6"  | 10'-11" | 11'-3"   | 362T125-97-50 |
| 0.4   | 362T125-33-50 | 3'-11"    | 4'-2"   | 4'-4"      | 4'-7"           | 4'-9"   | 4'-11"  | 5'-1"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-1"     | 5'-5"   | 5'-8"      | 5'-11"          | 6'-2"   | 6'-4"   | 6'-7"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-4"     | 6'-7"   | 6'-11"     | 7'-3"           | 7'-6"   | 7'-10"  | 8'-1"    | 362T125-54-50 |
|   | 362T125-68-50 | 7'-7"     | 8'-0"   | 8'-5"      | 8'-9"           | 9'-1"   | 9'-5"   | 9'-9"    | 362T125-68-50 |
|   | 362T125-97-50 | 9'-4"     | 9'-9"   | 10'-3"     | 10'-8"          | 11'-1"  | 11'-6"  | 11'-11"  | 362T125-97-50 |
| 0.3   | 362T125-33-50 | 4'-3"     | 4'-5"   | 4'-8"      | 4'-10"          | 5'-1"   | 5'-3"   | 5'-5"    | 362T125-33-50 |
|   | 362T125-43-50 | 5'-6"     | 5'-9"   | 6'-0"      | 6'-3"           | 6'-6"   | 6'-9"   | 7'-0"    | 362T125-43-50 |
|   | 362T125-54-50 | 6'-9"     | 7'-1"   | 7'-5"      | 7'-8"           | 8'-0"   | 8'-4"   | 8'-7"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-1"     | 8'-6"   | 8'-11"     | 9'-4"           | 9'-8"   | 10'-0"  | 10'-5"   | 362T125-68-50 |
|   | 362T125-97-50 | 9'-11"    | 10'-5"  | 10'-11"    | 11'-4"          | 11'-10" | 12'-3"  | 12'-8"   | 362T125-97-50 |
| 0.2   | 362T125-33-50 | 4'-6"     | 4'-9"   | 5'-0"      | 5'-3"           | 5'-5"   | 5'-8"   | 5'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 5'-10"    | 6'-2"   | 6'-6"      | 6'-9"           | 7'-0"   | 7'-3"   | 7'-6"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-2"     | 7'-7"   | 7'-11"     | 8'-3"           | 8'-7"   | 8'-11"  | 9'-3"    | 362T125-54-50 |
|   | 362T125-68-50 | 8'-9"     | 9'-2"   | 9'-7"      | 10'-0"          | 10'-5"  | 10'-9"  | 11'-2"   | 362T125-68-50 |
|   | 362T125-97-50 | 10'-7"    | 11'-2"  | 11'-8"     | 12'-2"          | 12'-8"  | 13'-1"  | 13'-7"   | 362T125-97-50 |
| 0.1   | 362T125-33-50 | 4'-11"    | 5'-2"   | 5'-5"      | 5'-8"           | 5'-11"  | 6'-1"   | 6'-4"    | 362T125-33-50 |
|   | 362T125-43-50 | 6'-5"     | 6'-8"   | 7'-0"      | 7'-4"           | 7'-7"   | 7'-11"  | 8'-2"    | 362T125-43-50 |
|   | 362T125-54-50 | 7'-10"    | 8'-3"   | 8'-7"      | 9'-0"           | 9'-4"   | 9'-8"   | 10'-0"   | 362T125-54-50 |
|   | 362T125-68-50 | 9'-5"     | 9'-11"  | 10'-5"     | 10'-10"         | 11'-3"  | 11'-8"  | 12'-1"   | 362T125-68-50 |
|   | 362T125-97-50 | 11'-6"    | 12'-1"  | 12'-8"     | 13'-2"          | 13'-9"  | 14'-2"  | 14'-8"   | 362T125-97-50 |
| 0.0   | 362T125-33-50 | 5'-4"     | 5'-7"   | 5'-10"     | 6'-1"           | 6'-4"   | 6'-7"   | 6'-10"   | 362T125-33-50 |
|   | 362T125-43-50 | 6'-10"    | 7'-2"   | 7'-6"      | 7'-10"          | 8'-2"   | 8'-6"   | 8'-9"    | 362T125-43-50 |
|   | 362T125-54-50 | 8'-5"     | 8'-10"  | 9'-3"      | 9'-7"           | 10'-0"  | 10'-4"  | 10'-9"   | 362T125-54-50 |
|   | 362T125-68-50 | 10'-2"    | 10'-8"  | 11'-2"     | 11'-7"          | 12'-1"  | 12'-6"  | 12'-11"  | 362T125-68-50 |
|   | 362T125-97-50 | 12'-4"    | 13'-0"  | 13'-7"     | 14'-2"          | 14'-8"  | 15'-3"  | 15'-9"   | 362T125-97-50 |



**Section 5**

**STRUCTURAL DETAILS**



## 5.1 INTRODUCTION

**Purpose:** Pods shall be fabricated and installed in accordance with the General Notes and Typical Details referenced in this section of the manual. Please note the following:

- Each section below shall be construed as “requirements for design” and all elements noted shall be incorporated into the design of the Pod.
- The organization of this section mirrors Section 4 of this manual, to facilitate movement back and forth between Section 4 and this section. For example, if you are working in Section 4.3 and want to see Shear Wall details, locate the figures in Section 5.3.
- The details in this section apply to the fabrication of SurePods in a SurePods manufacturing facility. These details are intended to provide for a code-compliant design once installed. Additional measures such as framing, bracing and lifting provisions may be needed to ship and/or install the Pod may be needed but are not included in this manual.

## 5.2 GENERAL POD FABRICATION

|                            |   |
|----------------------------|---|
| <b>General Notes:</b>      | Pods shall be fabricated and installed in accordance with the General Notes; See Figures 5.2.0.1, 5.2.0.2, 5.2.0.3 and 5.2.0.4. |
| <b>Floor Details:</b>      | Pods shall be built on a steel floor plate, See Figure 5.2.1.   |
| <b>Design:</b>             | Vertical wall framing shall comply to the requirements of Section 4.2.2.  |
| <b>Framing Elevation:</b>  | Wall framing shall comply with “Typical Wall Framing Elevation”, see Figure 5.2.2.1.  |
| <b>Stud-to-Track:</b>      | Connect each stud to the top and bottom track using Figure 5.2.2.2.   |
| <b>Stud Intersections:</b> | Studs and Chords shall be interconnected at all intersections, see Figure 5.2.2.3.  |
| <b>Openings in Walls:</b>  | Framing around doorway openings shall comply with Figure 5.2.2.4.   |
| <b>Bridging:</b>           | Where Bridging is required (see Section 4.2.2 & Table 4.2.2), comply with Figure 5.2.2.5.                                       |

## 5.3 GROSS SHEAR WALL REQUIREMENTS

|                           |   |
|---------------------------|---|
| <b>Design:</b>            | Designated shear walls shall comply with the Structural Design Requirements of Section 4.3. |
| <b>Framing Elevation:</b> | Shear wall framing shall comply with Figure 5.3.1.  |



## 5.4 DETAILED SHEAR WALL REQUIREMENTS

|                         |   |
|-------------------------|---|
| <b>Design:</b>          | Designated shear walls shall comply with the Structural Design Requirements of Section 4.4.   |
| <b>Chord Details:</b>   | Chord members shall comply with Figure 5.4.1a and 5.4.1b.   |
| <b>Bracing Details:</b> | The connection of Flat-Strap braces to Gussets, and the connection of Gussets-to-Chord and Gussets-to-Track shall comply with Figures 5.4.2a, 5.4.2b and 5.4.2c.  |
| <b>Pre-Tension:</b>     | Shear wall braces shall be pre-tensioned to remove all slack. This can be accomplished in a number of ways, one of which is suggested in Figure 5.4.3.  |
| <b>Strap-to-Stud:</b>   | Shear wall braces shall be attached to wall studs in accordance with Figure 5.4.4. Note: It is imperative that only one screw per stud be used to connect straps to wall studs. Any additional screws will weaken the strap and result in a premature rupture of the strap. |

## 5.5 POD SHEAR ANCHORAGE REQUIREMENTS

|                         |   |
|-------------------------|---|
| <b>Design:</b>          | All walls shall be fastened to the steel plate per Section 4.5.1 and Table 4.5.1 and said fastening shall comply with Figure 5.5.1.   |
| <b>Shear Walls:</b>     | All shear walls shall be fastened to the steel floor plate per Section 4.5.2 and Table 4.5.2. Figure 5.5.1 also applies to shear walls.   |
| <b>Shear Anchorage:</b> | When installed in a building, all pods shall be anchored to the floor structure per Section 4.5.3 and Table 4.5.3. Resinous and non-resinous setting mortars shall comply with the requirements listed in the general notes. See Figures 5.2.0.1, 5.2.0.2, 5.2.0.3 and 5.2.0.4. |
| <b>Type S3 Pods:</b>    | Type S3 pods shall be anchored to the building floor deck using mechanical anchors, in accordance with Section 4.5.4, which specifies the size and spacing of required shear anchors. Shear anchors shall be installed in accordance with Figure 5.5.2.                         |

## 5.6 POD OVERTURNING ANCHORAGE REQUIREMENTS

|                           |   |
|---------------------------|---|
| <b>Design:</b>            | Pods shall be anchored to the floor structure to prevent uplift in accordance with the requirements of Section 4.6. If, in the process of working through Section 4.6 it is determined that uplift anchorage is not required, the remainder of this section may be skipped. |
| <b>Hold-Down Devices:</b> | Attach "Required Hold Down Devices" to shear wall "chords" per Figures 5.6.1 or 5.6.2, using the screw size and quantity recommended by the manufacturer as posted in the ICC-ESR product approval.   |
| <b>Snubber Devices:</b>   | Where over-head snubber devices are to be used, comply with Figures 5.6.4.1, 5.6.4.2 and 5.6.4.3.   |
| <b>Through Bolts:</b>     | Where through-bolts are to be used, comply with Figure 5.6.5.1.   |

## 5.7 CEILING & DIAPHRAGM FRAMING

- Rafter Design:** Rafters for ceiling framing shall comply with the requirements of Section 4.7.1, Table 4.7.1 and Figure 5.7.1.
- Diaphragm Design:** Ceiling diaphragms shall comply with the requirements of Section 4.7.2, 4.7.3, 4.7.4 and 4.7.5.
- Framing Layout:** Ceiling rafter and diaphragm framing shall comply with Figure 5.7.2.1.
- Track Intersections:** Where top tracks meet at corners and T-intersections, they shall be interconnected in accordance with detail 5.7.2.2. This requirement does not apply to bottom tracks.
- Track Splicing:** There should never be a reason to splice top track elements between changes of direction, therefore splices between top track members are not permitted.
- Diaphragm Bracing:** The sizing and connection requirements for ceiling diaphragm braces shall be in accordance with the requirements of Section 4.7.3, and shall comply with Figure 5.7.3.1, Figure 5.7.3.2, and Figure 5.7.3.3.

## 5.8 NEXT STEPS

Turn to Section 6 for instructions on how to prepare a submittal for permit approval when using this manual.



**GENERAL NOTES – COLD FORMED METAL FRAMING:**

1. **COLD-FORMED METAL FRAMING:** THE DESIGN, INSTALLATION AND CONSTRUCTION OF COLD-FORMED FRAMING SHALL BE IN ACCORDANCE WITH AISI S100-16 “NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS”; AISI S202-15 “CODE OF STANDARD PRACTICE FOR COLD FORMED STEEL STRUCTURAL FRAMING”; AISI S220-15 “NORTH AMERICAN STANDARD FOR COLD FORMED STEEL FRAMING” AND AISI S400-15/S1-16 “NORTH AMERICAN STANDARD FOR SEISMIC DESIGN OF COLD FORMED STEEL STRUCTURAL SYSTEMS”. ALL PRODUCTS SHALL BE MANUFACTURED BY CURRENT MEMBERS OF THE STEEL STUD MANUFACTURERS ASSOCIATION (SSMA) PER ICC ES REPORT ESR-03064P. PROVIDE ALL ACCESSORIES INCLUDING BUT NOT LIMITED TO TRACKS, CLIPS, WEB STIFFENERS, ANCHORS, FASTENING DEVICES, RESILIENT CLIPS AND OTHER ACCESSORIES REQUIRED FOR A COMPLETE AND PROPER INSTALLATION AND AS RECOMMENDED BY THE MANUFACTURER FOR THE MEMBERS AND DEVICES USED.
2. **WEB PUNCHOUTS:** TRACK SECTION SHALL NOT HAVE ANY WEB PUNCHOUTS. WALL STUDS AND CHORDS MAY HAVE WEB PUNCHOUTS ONLY AS FOLLOWS: FOR 1-5/8” STUDS, WEB PUNCHOUTS ARE PERMITTED FOR ANY 33-MIL STUD, AND FOR 43-MIL STUDS FOR CEILING HEIGHTS 8’-0” OR LESS. FOR 3-5/8” STUDS, WEB PUNCHOUTS ARE PERMITTED FOR ALL GAGES AND CEILING HEIGHTS. WEB PUNCHOUTS, WHEN USED, SHALL COMPLY WITH SSMA STANDARDS, USING 3/4”X4” AT 24” O.C. MINIMUM SPACING FOR 1-5/8” STUDS AND 1-1/2”X4” AT 24” O.C. MINIMUM SPACING FOR 3-5/8” STUDS.
3. **CORROSION PROTECTION:** ALL STEEL MEMBERS AND COMPONENTS SHALL BE PROTECTED FROM CORROSION. COLD-FORMED AND SHEET METALS SHALL COMPLY WITH ASTM C955 PARAGRAPH 4.4: “MEMBERS SHALL HAVE A PROTECTIVE COATING IN ACCORDANCE WITH TABLE 1, CP 60 MINIMUM.”
4. **COLD-FORMED TRACK AND STUD:** SHEET STEEL SHALL CONFORM TO ASTM C955 AND ASTM A653 SS, WITH MEMBERS 18GA & LIGHTER CONFORMING TO GRADE 33 AND WITH MEMBERS 16GA AND HEAVIER CONFORMING TO GRADE 50, CLASS I UNLESS NOTED OTHERWISE. DIMENSIONS OF TRACK AND STUD MEMBERS SHALL BE AS DEFINED USING SSMA STANDARD NOMENCLATURE AND AS DEFINED ON THESE DRAWINGS.
5. **FLAT-STRAP BRACING & GUSSETS:** **DO NOT USE GRADE 33 SHEET METAL FOR THESE ELEMENTS.** SHEET STEEL SHALL CONFORM TO ASTM A653 GRADE 50 CLASS I. FLAT STRAP SHALL BE PROVIDED IN FACTORY-CUT WIDTHS WITH NO NOTCHES ALONG THE EDGES AND NO HOLES WHAT-SO-EVER EXCEPT AT SCREWED CONNECTION LOCATIONS. DO NOT USE MATERIAL WITH BENDS OR CREASES DUE TO ACCIDENTAL BENDING



**GENERAL NOTES – COLD FORMED METAL FRAMING:**

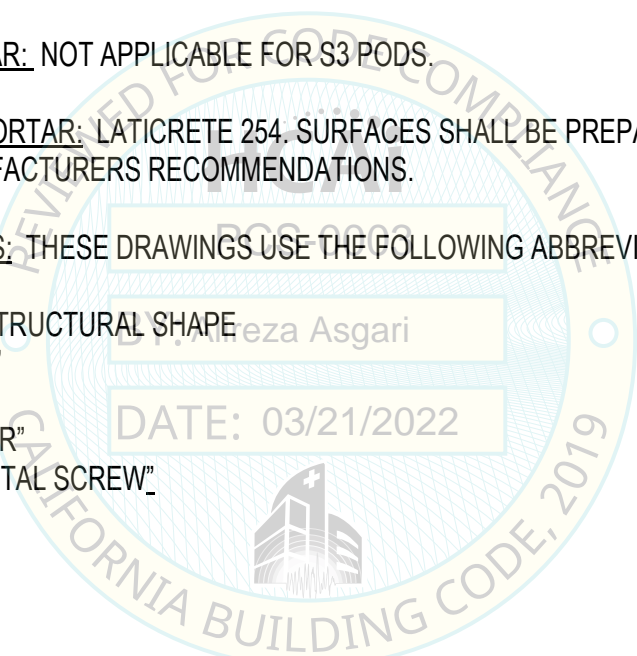
1. SHEET METAL SCREWS: ALL SCREWS SHALL CONFORM TO ASTM C1513 AND SHALL HAVE A CORROSION RESISTANT COATING. SIZES AND TYPES OF SCREWS SHALL CONFORM TO THE SCHEDULES AND DETAILS HEREIN, AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS REQUIREMENTS AND THE FOLLOWING: SCREW LENGTH AND DRILL POINTS SHALL BE SELECTED SO THAT SCREW THREADS SHALL TAP INTO AND SHALL ENGAGE THE ENTIRE THICKNESS OF ALL PIECES TO BE JOINED AND NOT LESS THAN THREE COMPLETE THREADS SHALL PENETRATE BEYOND THE METAL JOINED. SELF DRILLING SCREWS SHALL BE SELECTED SO THAT THE DRILL POINT COMPLETES DRILLING THRU ALL PLIES BEFORE THE LEAD THREADS BEGIN ENGAGING METAL. WHERE THESE DRAWINGS CALL FOR A SCREW SIZE THAT DOES NOT HAVE A DRILL POINT OF SUFFICIENT LENGTH, INCREASE THE SCREW SIZE TO COMPLY WITH THESE REQUIREMENTS. PRE-DRILLED HOLE DIAMETERS SHALL NOT EXCEED THE DIAMETER OF THE DRILL POINT FOR SPECIFIED SCREW. SCREW SPACING AND EDGE DISTANCE SHALL NOT BE LESS THAN 3 TIMES THE NOMINAL SCREW DIAMETER.
2. SHEET METAL SCREW SPECIFICATIONS: SHEET METAL SCREWS CALLED FOR ON THESE DRAWINGS SHALL CONFORM TO THE FOLLOWING:
  - a. SCREWS DENOTED AS “#8 SMS” SHALL BE #8-15 (WITH DRILL POINT #2) WITH MODIFIED TRUSS HEAD (PMTH), SENCO PART NUMBER 08M050CT RFSP, PER ICC ESR-3558.
  - b. SCREWS DENOTED AS “#10 SMS” SHALL BE #10-16 (WITH DRILL POINT #2) WITH PAN HEAD (SPFH), SENCO PART NUMBER 10M075CTMFDS, PER ICC ESR-3558
  - c. SCREWS DENTOED AS “#12 SMS” SHALL BE #12-18 (WITH DRILL POINT #4), SENCO PART NUMBER 12M087YKFF4X PER ICC ESR-3558.
3. WELDING OF COLD-FORMED STEEL: WELDING OF STRUCTURAL ELEMENTS IS NOT PERMITTED.
4. HOLD-DOWN DEVICES: WITH THE EXCEPTION TO THE DTT-1Z (SEE BELOW) HOLD-DOWN DEVICES CALLED FOR ARE TO BE MANUFACTURED BY SIMPSON STRONG-TIE COMPANY PER IAMPO EVALUATION REPORT ES-124. FASTENERS TO METAL FRAMING SHALL BE IN ACCORDANCE WITH THE PRODUCT APPROVAL EVALUATION REPORT. DTT-1Z DEVICES SHALL BE AS MANUFACTURED BY SIMPSON STONG-TIE COMPANY PER ICC-2330 AND SHALL BE ATTACHED TO METAL FRAMING USING 6-#10 SMS.





**GENERAL NOTES – MISCELLANEOUS:**

1. SILL FASTENERS: ASTM A307A, ASTM A307B OR ASME GRADE 2 BOLTS. LOW PROFILE HEADS MAY BE USED.
2. SCREW ANCHORS: HILTI KH-EZ CARBON STEEL SCREW ANCHORS. ANCHORS SHALL THE REQUIREMENTS OF AND SHALL BE INSTALLED IN ACCORDANCE WITH ICC ESR-3027.
3. EXPANSION ANCHORS: HILTI KB-TZ2 EXPANSION ANCHORS. ANCHORS SHALL THE REQUIREMENTS OF AND SHALL BE INSTALLED IN ACCORDANCE WITH ICC ESR-4266.
4. RESIN ANCHORS: ASTM F1554 GRADE 36 ALL-THREAD ONLY, TO BE SET IN HILTI HIT RE 500 V3 RESIN. ANCHORS SHALL THE REQUIREMENTS OF AND SHALL BE INSTALLED IN ACCORDANCE WITH ICC ESR-3814.
5. RESINOUS SETTING MORTAR: NOT APPLICABLE FOR S3 PODS.
6. NONRESINOUS SETTING MORTAR: LATICRETE 254. SURFACES SHALL BE PREPARED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
7. STANDARD ABBREVIATIONS: THESE DRAWINGS USE THE FOLLOWING ABBREVIATIONS:  
 “EA” DENOTES “EACH”  
 “HSS” DENOTES HOLLOW STRUCTURAL SHAPE  
 “MAX” DENOTES “MAXIMUM”  
 “MIN” DENOTES “MINIMUM”  
 “O.C.” DENOTES “ON CENTER”  
 “SMS” DENOTES “SHEET METAL SCREW”  
 “TYP” DENOTES “TYPICAL”



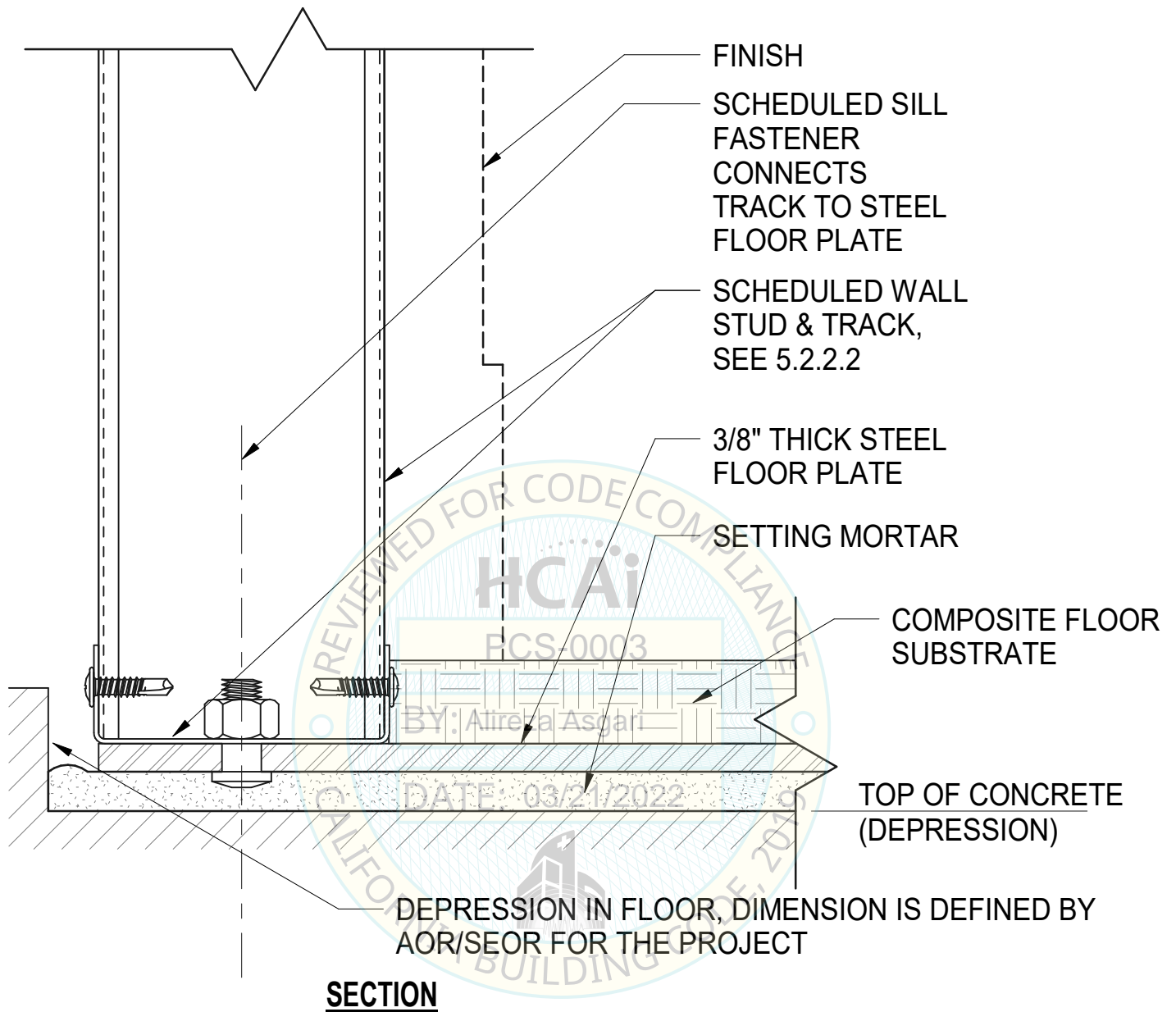
**STRUCTURAL BASIS OF DESIGN:**

1. **GOVERNING BUILDING CODE:** THE POD STRUCTURAL DESIGN SHALL MEET THE REQUIREMENTS OF THE 2019 CALIFORNIA BUILDING CODE (CBC) AND THE REQUIREMENTS OF ASCE 7-16.
2. **LIVE LOADS:** THESE PODS ARE NOT DESIGNED TO SUPPORT THE WEIGHT OF ANY PERSONS ON THE LID OF THE POD; NO LIVE LOADS ARE USED. WALL AND CEILING FRAMING COMPLIES WITH 2019 CBC SECTION 1607.15 MINIMUM DESIGN PRESSURE OF 5 PSF.
3. **WIND LOADS:** THESE PODS ARE PERMITTED FOR INTERNAL INSTALLATIONS ONLY, NO WIND LOADS.
4. **SEISMIC LOADS:** PODS ARE DESIGNED TO COMPLY WITH THE “SEISMIC DESIGN REQUIREMENTS FOR NONSTRUCTURAL COMPONENTS OF ASCE 7-16 CHAPTER 13, USING THE FOLLOWING PARAMETERS:
  - SHORT-PERIOD SPECTRAL ACCELERATION,  $S_d =$  fill in for this project
  - COMPONENT IMPORTANCE FACTOR,  $I_p =$  fill in for this project
  - COMPONENT ACCELERATION FACTOR,  $a_p = 2.5$
  - COMPONENT RESPONSE MODIFICATION FACTOR,  $R_p = 3.5$
  - OPERATING WEIGHT OF THIS POD,  $W =$  fill in for this project

**STRUCTURAL ENGINEER OF RECORD (SEOR):**

THESE PODS WILL IMPOSE VERTICAL DEAD LOAD REACTIONS AND SEISMIC OVER-TURNING FORCES ON THE SUPPORTING FLOOR STRUCTURE, AND IT IS THE STRUCTURAL ENGINEER OF RECORD'S (SEOR'S) RESPONSIBILITY TO CONFIRM THAT THE SUPPORTING FLOOR STRUCTURE AND ALL ASSOCIATED MEMBERS AND CONNECTIONS IN THE LOAD PATH CAN SUPPORT THESE LOADS IN ADDITION TO ALL OTHER LOADS IMPOSED ON THE FLOOR STRUCTURE. THE TOTAL OPERATING WEIGHT OF THE POD IS LISTED IN THE “STRUCTURAL BASIS OF DESIGN” PRESENTED ABOVE. THE LOCATION OF DEVICES ANCHORING THE POD TO THE FLOOR STRUCTURE ARE SHOWN ON THE “SHEAR WALL KEY PLAN” INCLUDED WITH THIS SUBMITTAL. THE “ANCHORAGE FORCE”, DEFINED AS 2.5 TIMES THE LRFD NET UPLIFT PER ASCE7-16 SECTION 12.4.2.3 EQUATION 6 IS fill in for this project

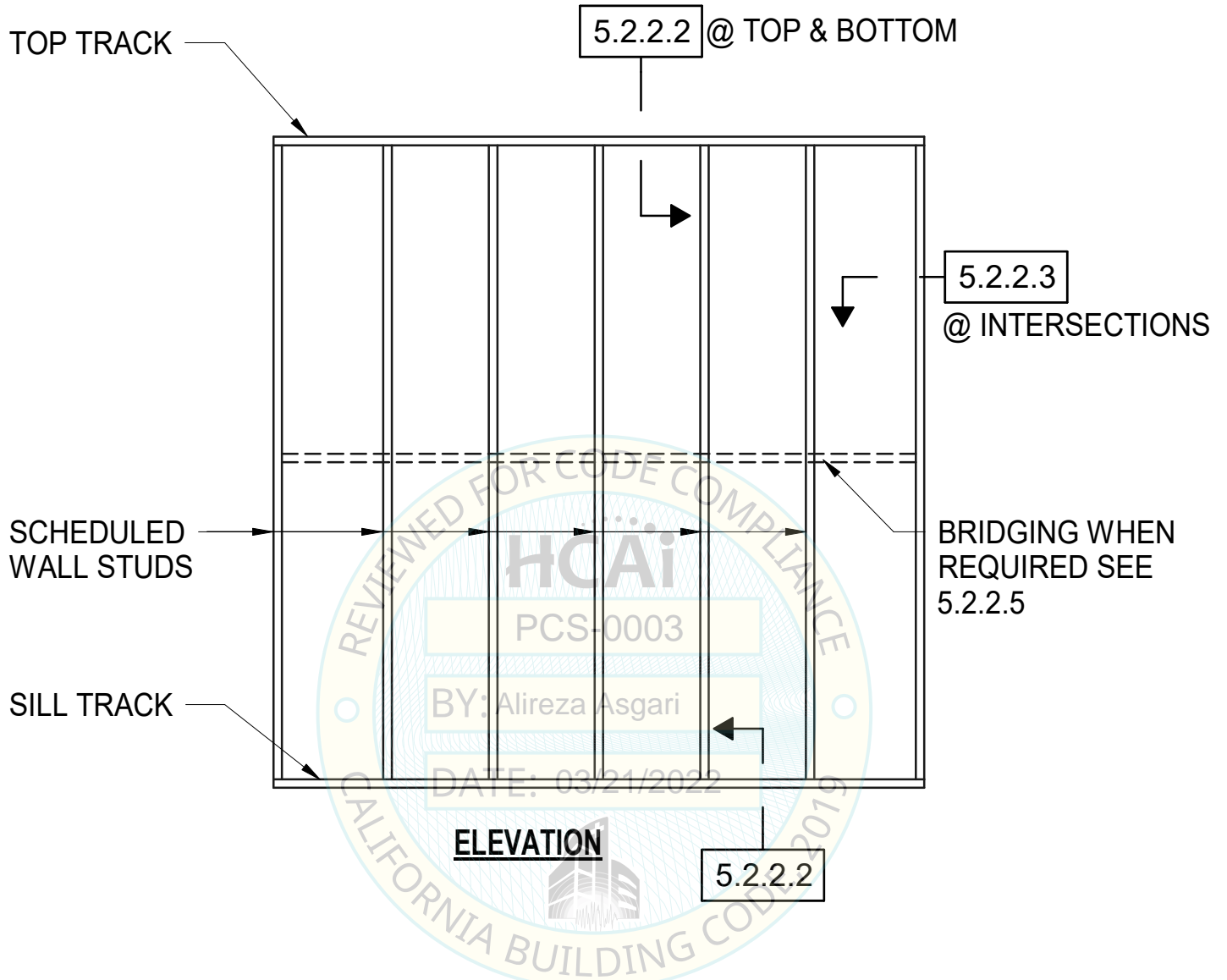




POD DETAIL SECTION AT FLOOR

SCALE 6" = 1'-0"

FIGURE 5.2.1



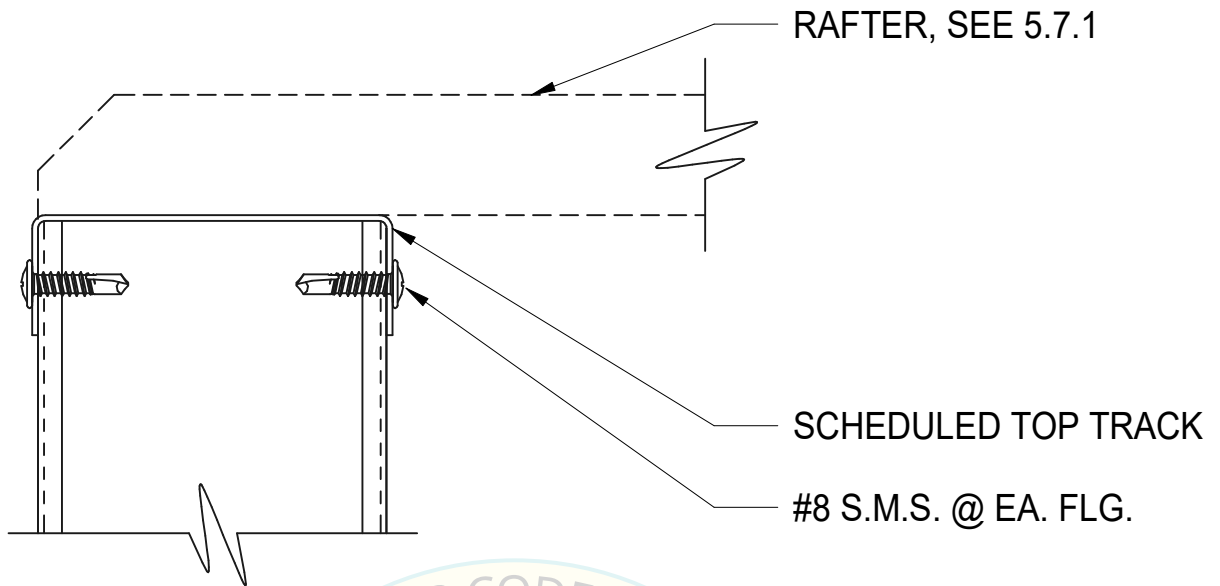
FOR WALLS WITH OPENINGS, SEE 5.2.2.4  
FOR SHEAR WALLS, SEE 5.3.1



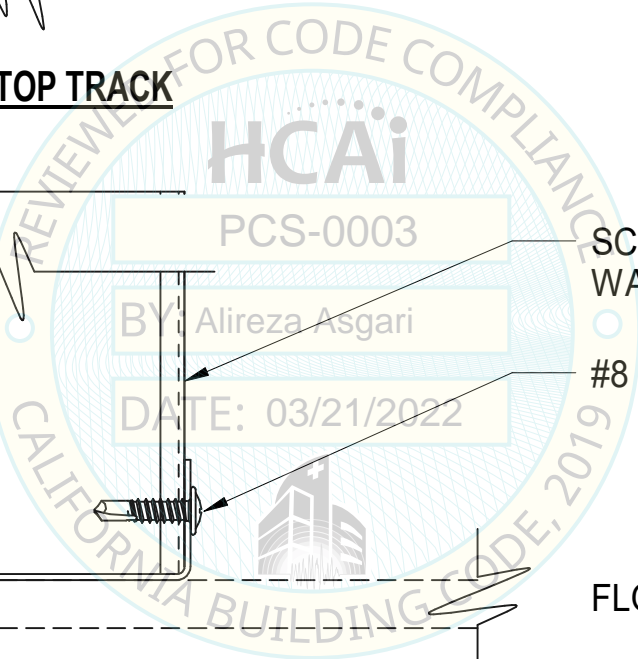
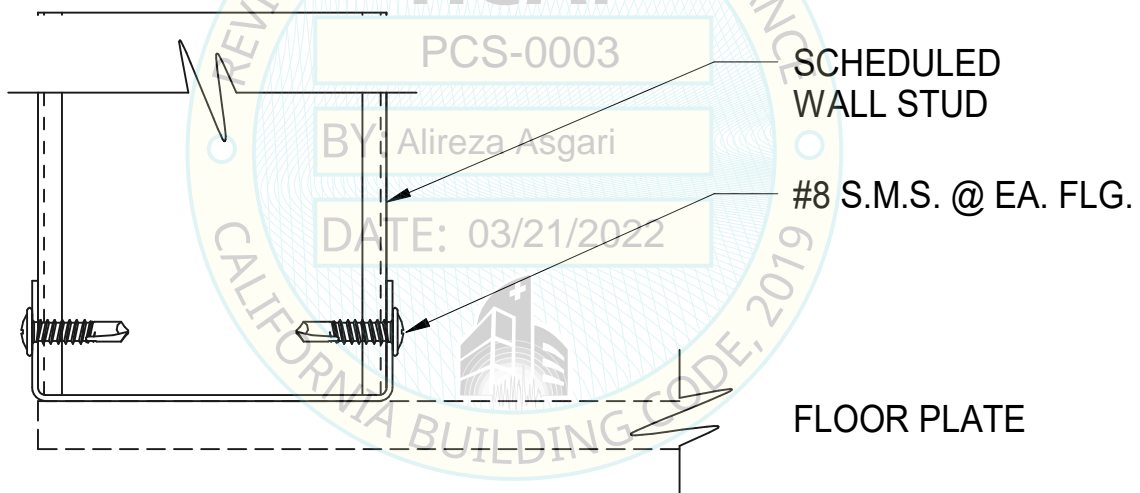
TYPICAL WALL FRAMING ELEVATION

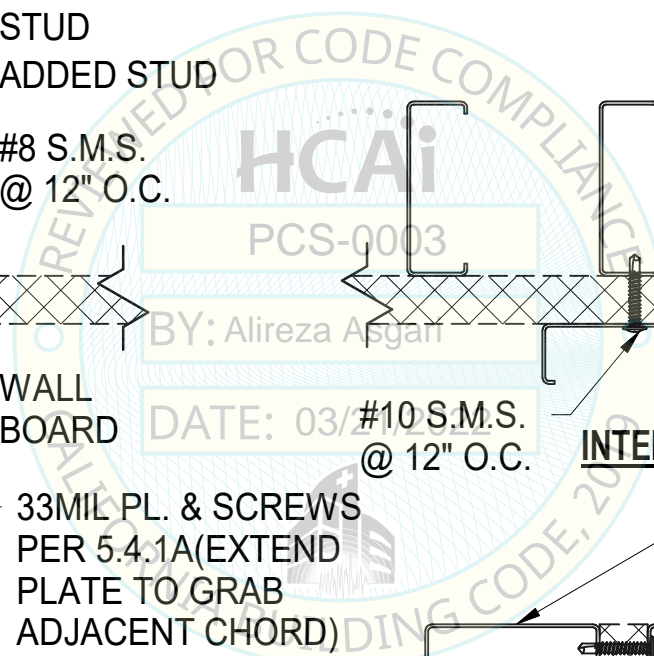
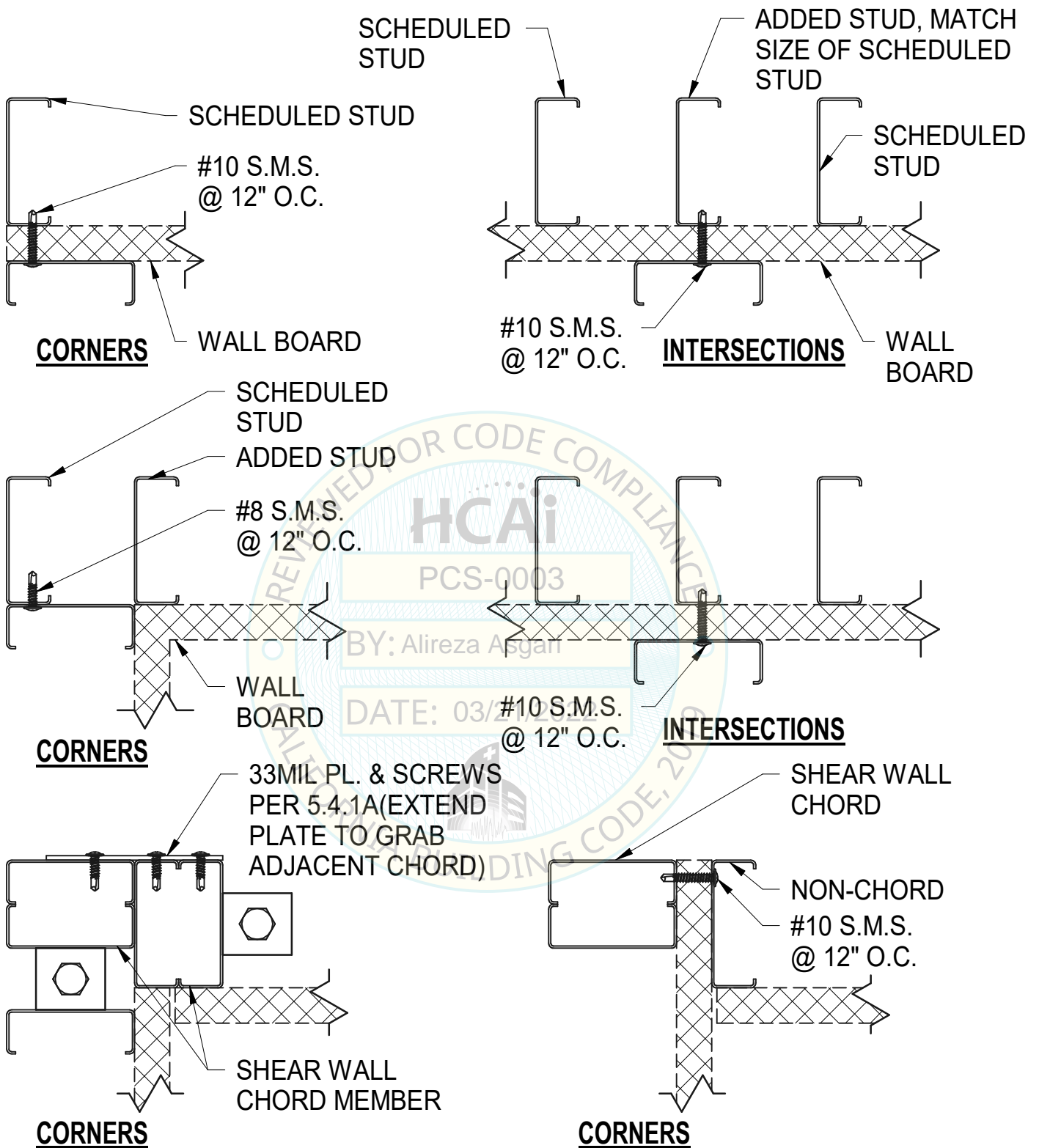
SCALE 1/2" = 1'-0"

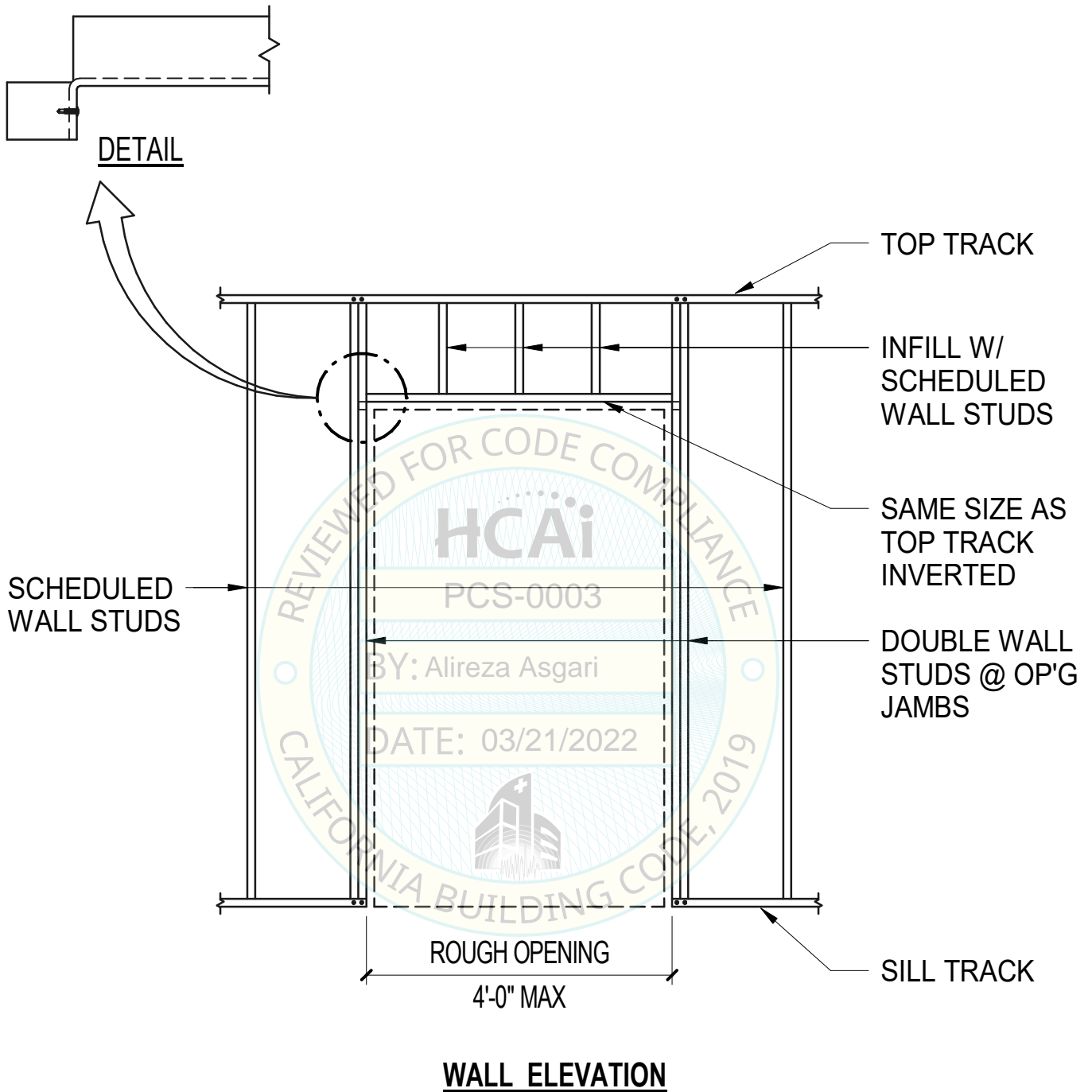
FIGURE 5.2.2.1



**STUD-TO-TOP TRACK**

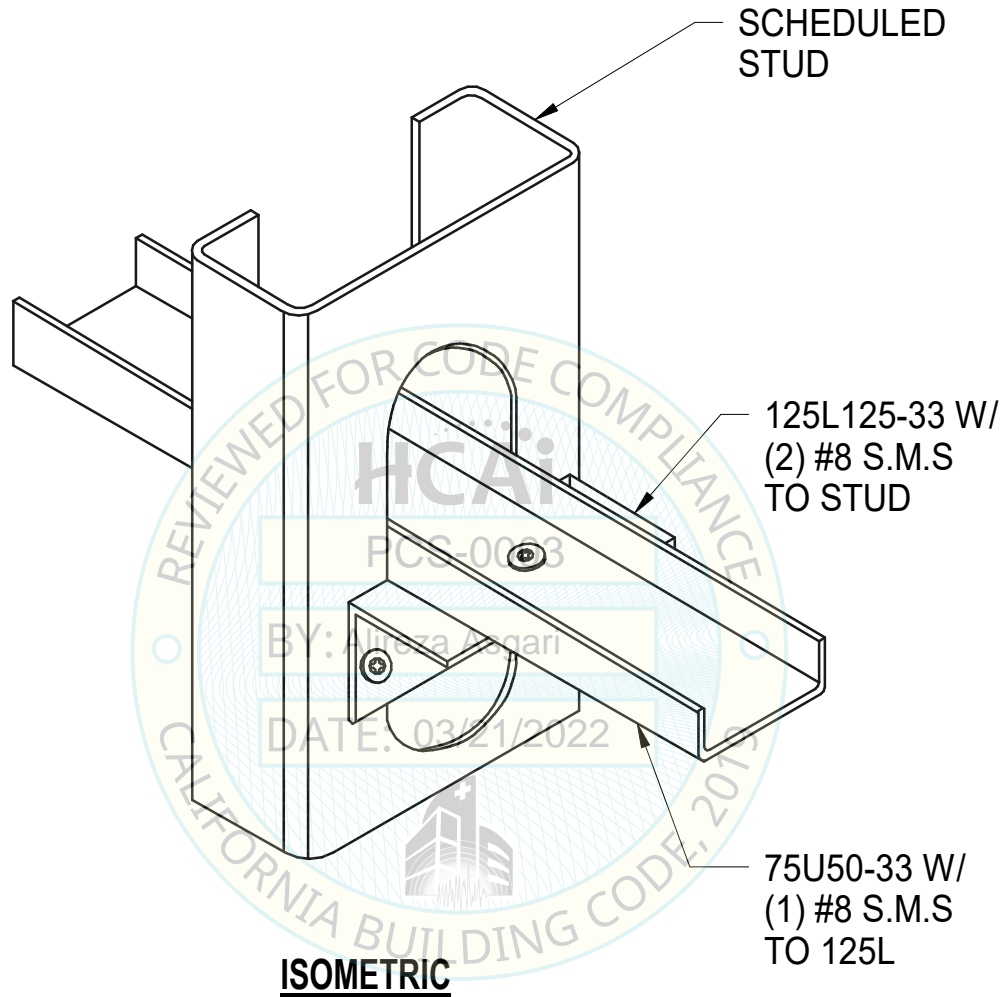






TYPICAL WALL FRAMING AT OPENING

SCALE 1/2" = 1'-0"  
FIGURE 5.2.2.4

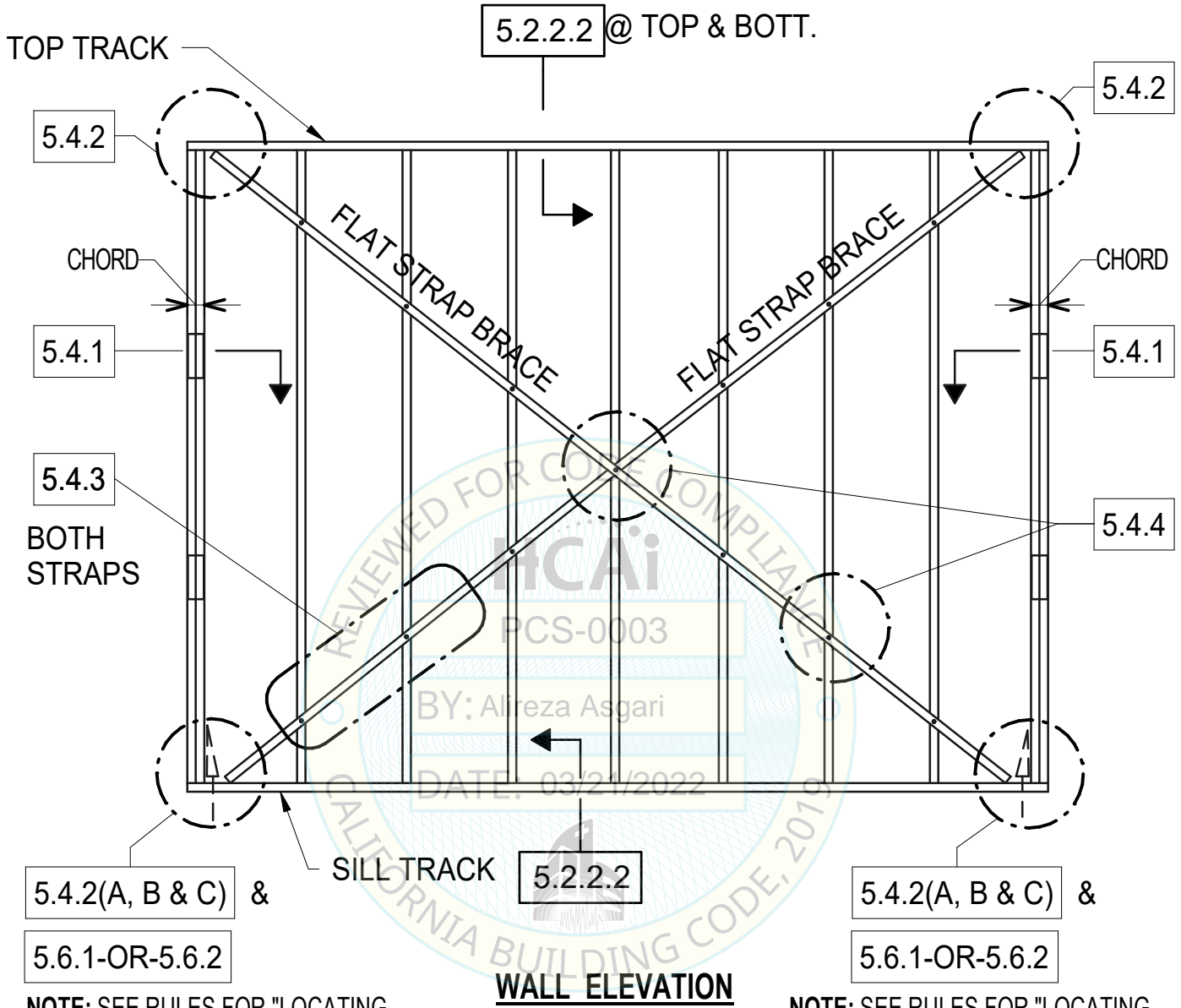


BRIDGING DETAILS



SCALE 6" = 1'-0"  
FIGURE 5.2.2.5





**NOTE:** SEE RULES FOR "LOCATING HOLD-DOWN DEVICES" IN SECTION 4.6.3

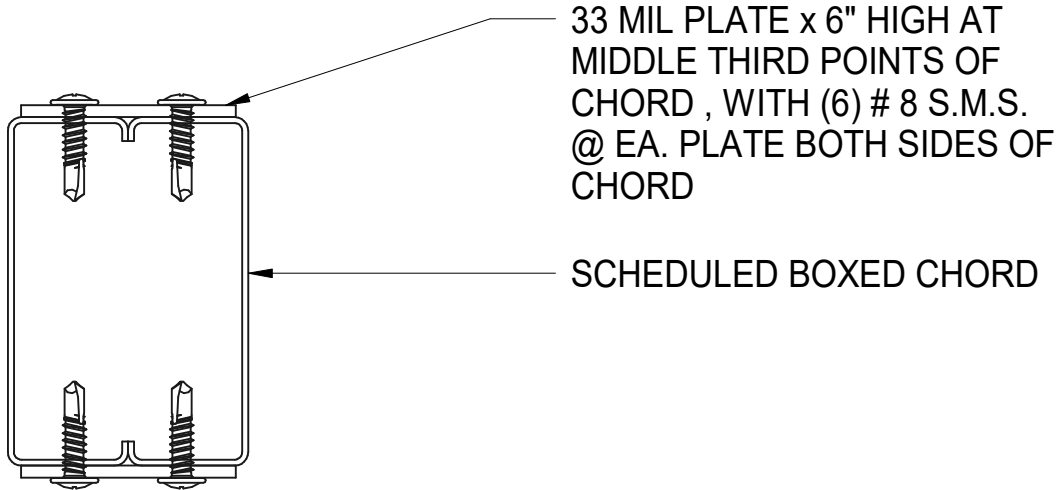
**NOTE:** SEE RULES FOR "LOCATING HOLD-DOWN DEVICES" IN SECTION 4.6.3



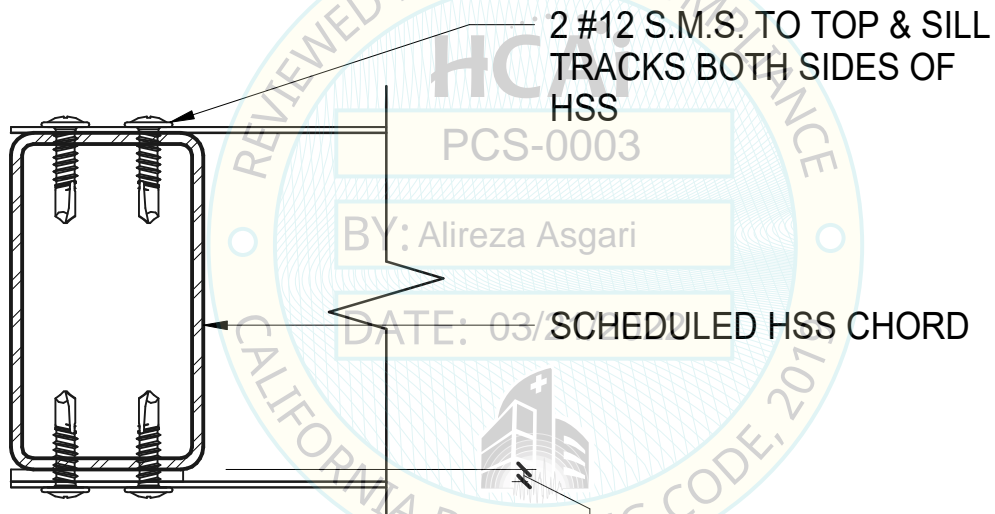
SHEAR WALL FRAMING ELEVATION

SCALE 1/2" = 1'-0"

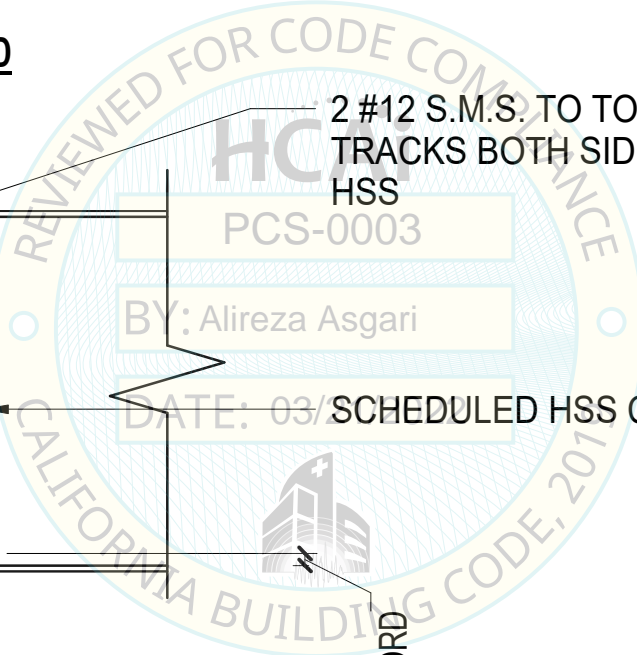
FIGURE 5.3.1

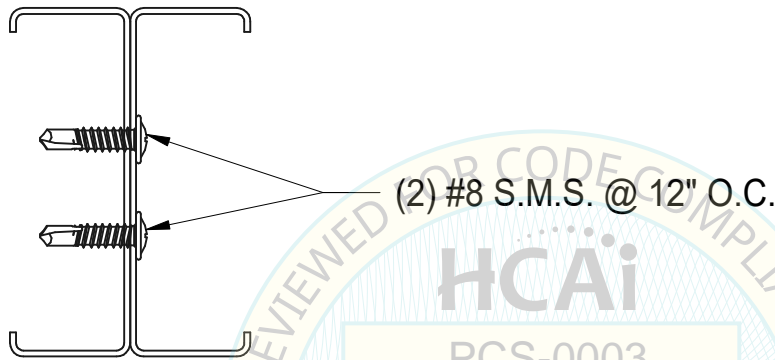


**BOXED CHORD**



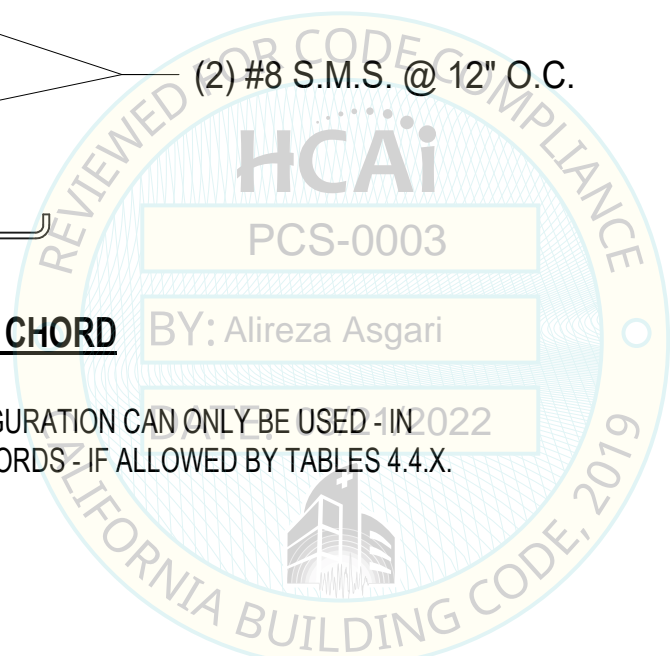
**HSS CHORD**





**BACK-TO-BACK CHORD**

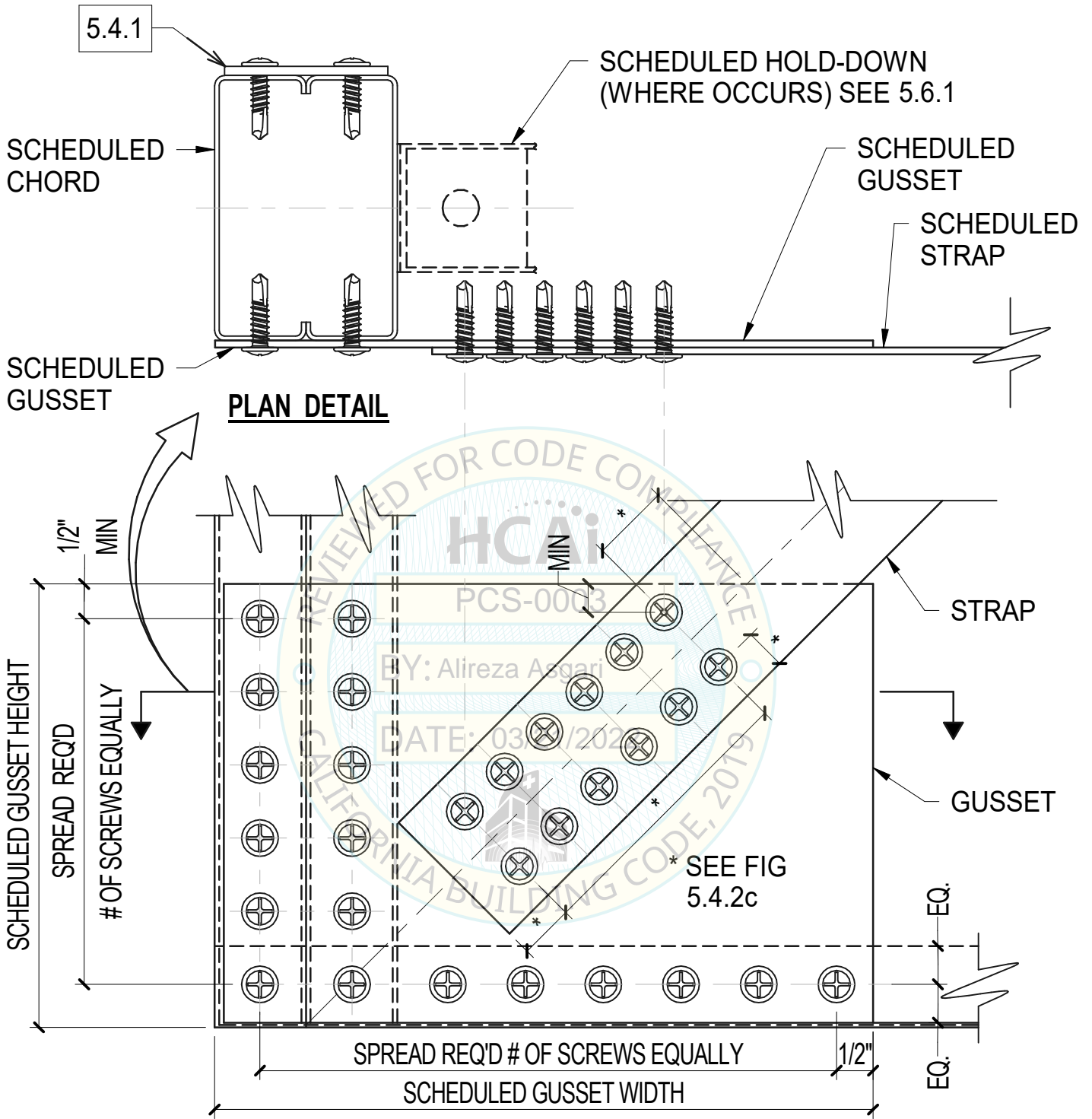
**NOTE:** THIS CONFIGURATION CAN ONLY BE USED IN LIEU OF BOXED CHORDS - IF ALLOWED BY TABLES 4.4.X.



CHORD DETAILS



SCALE 6" = 1'-0"  
FIGURE 5.4.1B

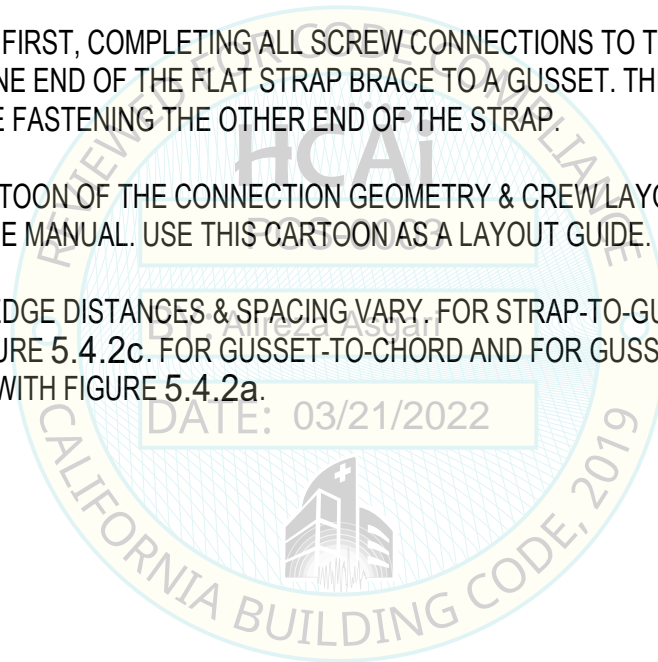


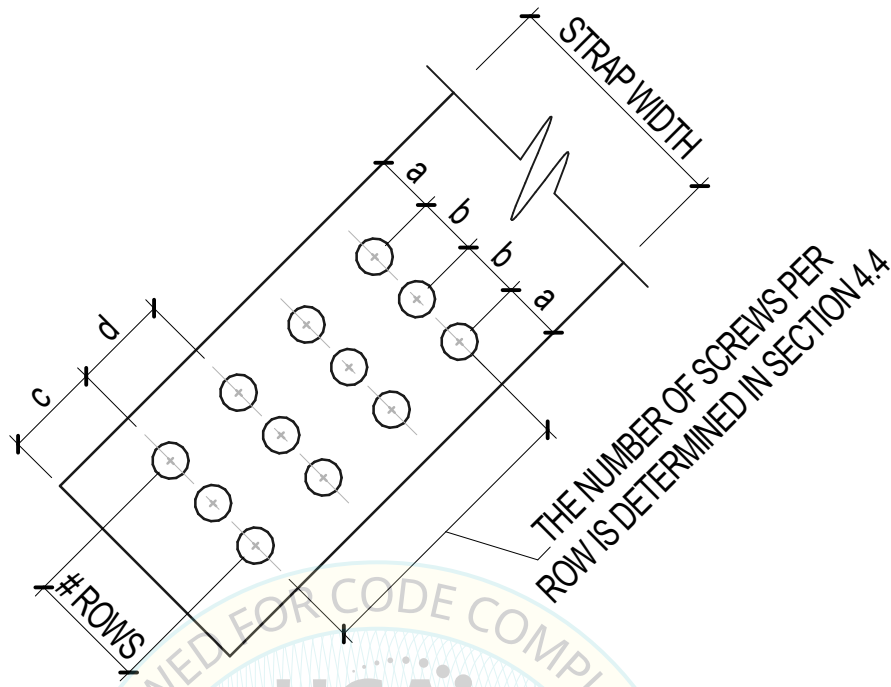
# FLAT STRAP BRACE CONNECTION

SCALE 6" = 1'-0"  
FIGURE 5.4.2A

## RULES FOR FLAT STRAP BRACE CONNECTION

1. THE STRAP CENTERLINE SHALL RUN FROM WORK POINTS AT EACH END OF THE BRACE.
2. LOCATE BRACE WORK POINTS AT THE CENTERLINE OF THE CHORD STUD, AT TOP OF TOP TRACK AND AT BOTTOM OF SILL TRACK.
3. CUT THE STRAP SUCH THAT IT DOES NOT OVERLAP EITHER THE CHORD STUD NOR THE TOP OR SILL TRACK.
4. LAYOUT SCREWS 1) MINDING THE MINIMUM EDGE DISTANCES SHOWN ON THE DETAIL, 2) WITH UNIFORM SPACING BETWEEN ROWS, 3) ALWAYS PARALLEL TO THE MEMBER (EXCEPT GUSSET) & 4) WITH A MINIMUM SPACING AS SHOWN ON THE DETAIL.
5. INSTALL GUSSETS FIRST, COMPLETING ALL SCREW CONNECTIONS TO THE CHORDS & TRACKS. THEN CONNECT ONE END OF THE FLAT STRAP BRACE TO A GUSSET. THEN TENSION THE STRAP (SEE 5.4.3) BEFORE FASTENING THE OTHER END OF THE STRAP.
6. A SCHEMATIC CARTOON OF THE CONNECTION GEOMETRY & CREW LAYOUT IS PROVIDED IN SECTION 4.4 OF THE MANUAL. USE THIS CARTOON AS A LAYOUT GUIDE.
7. MINIMUM SCREW EDGE DISTANCES & SPACING VARY. FOR STRAP-TO-GUSSET SCREW LAYOUT, COMPLY WITH FIGURE 5.4.2c. FOR GUSSET-TO-CHORD AND FOR GUSSET-TO-TRACK SCREW LAYOUT, COMPLY WITH FIGURE 5.4.2a.



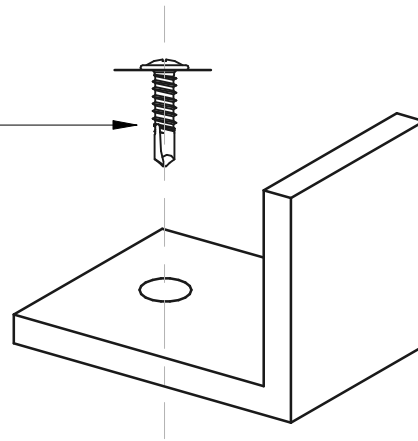


**MINIMUM EDGE DISTANCE & SPACING REQUIREMENTS**

| STRAP WIDTH | # ROWS | a      | b      | c      | d      |
|-------------|--------|--------|--------|--------|--------|
| 1.00"       | 1      | 0.5"   | n/a    | 0.75"  | 0.60"  |
| 1.50"       | 2      | 0.5"   | 0.5"   | 0.75"  | 0.60"  |
| 2.00"       | 2      | 0.625" | 0.75"  | 1.00"  | 0.60"  |
| 2.50"       | 3      | 0.625" | 0.625" | 1.00"  | 1.00"  |
| 3.00"       | 4      | 0.60"  | 0.60"  | 1.00"  | 1.125" |
| 4.00"       | 5      | 0.60"  | 0.70"  | 1.00"  | 1.375" |
| 5.00"       | 6      | 0.625" | 0.75"  | 1.125" | 1.50"  |
| 6.00"       | 7      | 0.75"  | 0.75"  | 1.00"  | 1.75"  |



SECURE "STRAP CLIP" TO FLAT STRAP W/ SCREW AT CENTERLINE OF STRAP ONLY, #10 MAX.

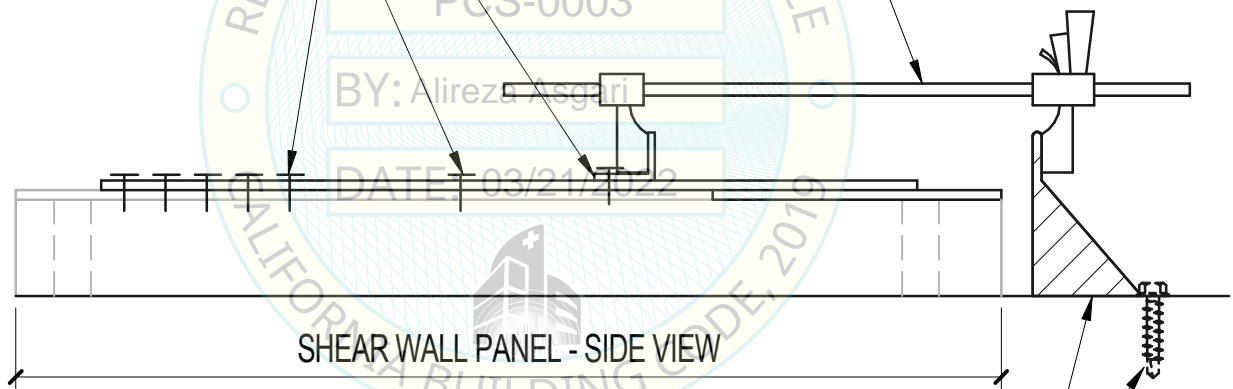


ISOMETRIC

STRAP WITH ONE END FASTENED

STRAP CLIP

GRIP CLAMP



SHEAR WALL PANEL - SIDE VIEW

MOVEABLE TABLE- DOG

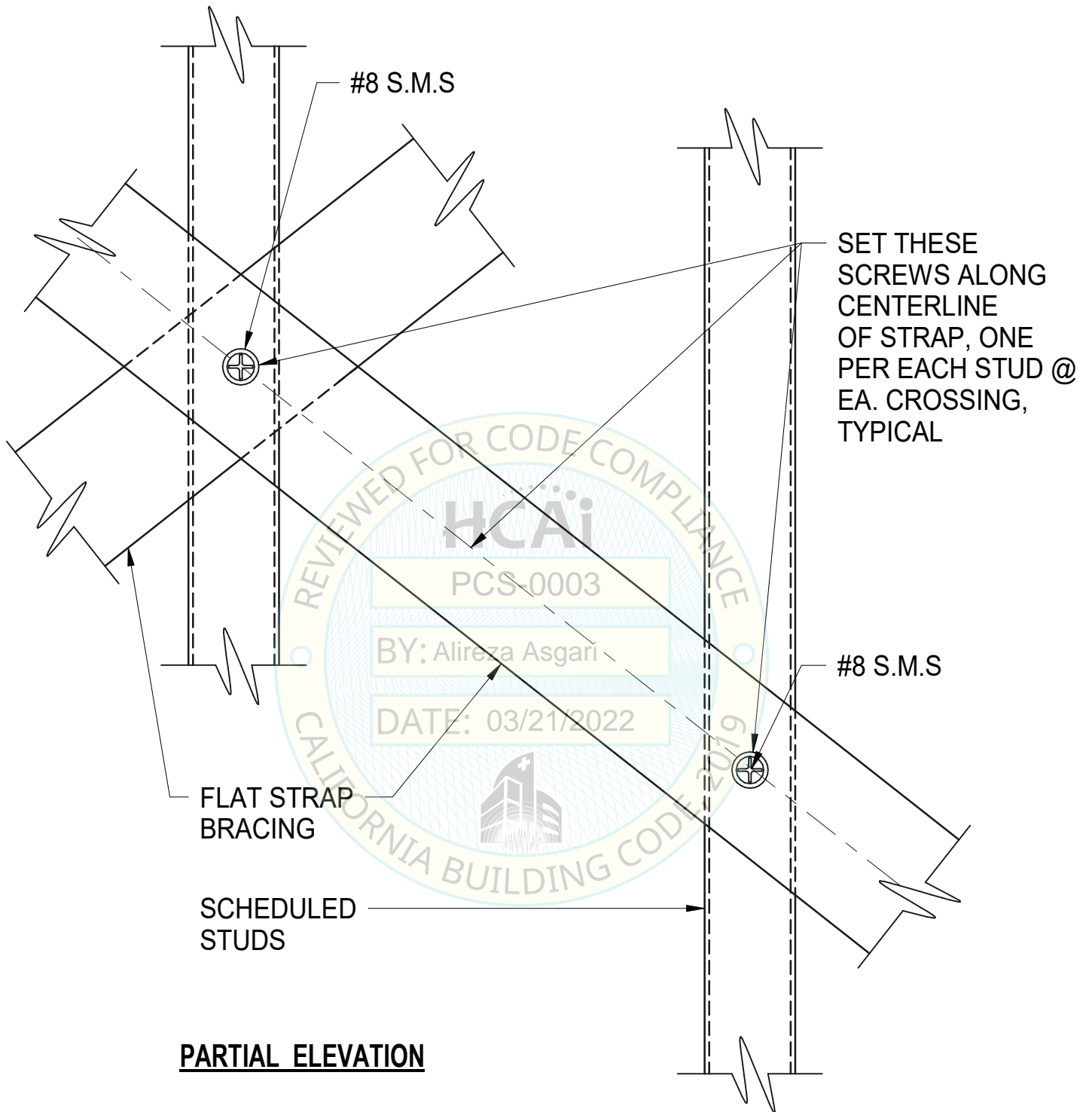
WITH THE FAR END OF THE STRAP CONNECTED TO THE WALL ASSEMBLY, PULL OR TENSION THE STRAP UNTIL ALL SLACK IS REMOVED FROM THE FLAT STRAP BRACE BEFORE ATTACHING THE OPPOSITE END TO THE WALL ASSEMBLY.



# FLAT STRAP BRACE TENSIONING

SCALE 6" = 1'-0"

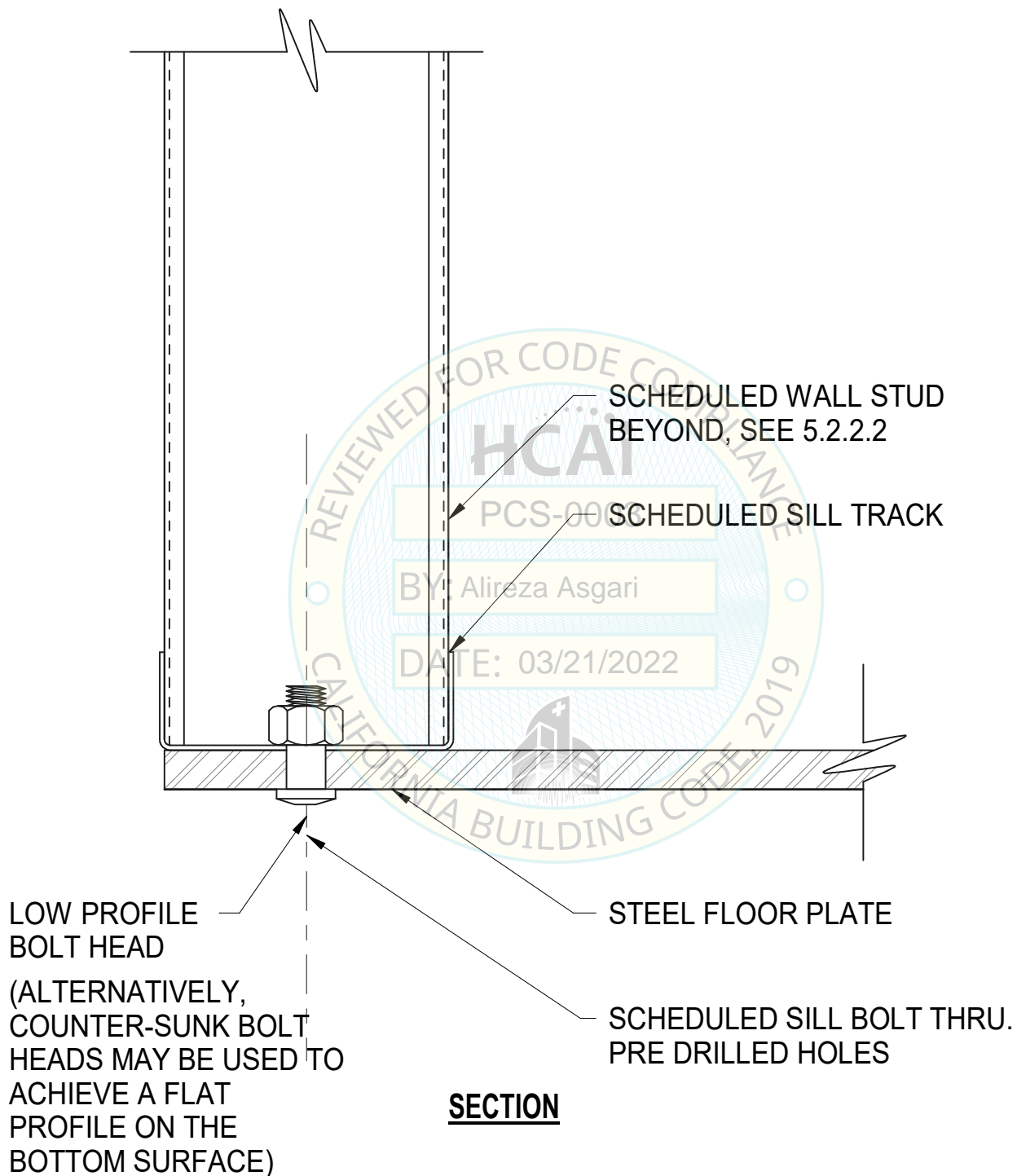
FIGURE 5.4.3



STRAP CONNECTION AT WALL STUD

SCALE 6" = 1'-0"  
FIGURE 5.4.4

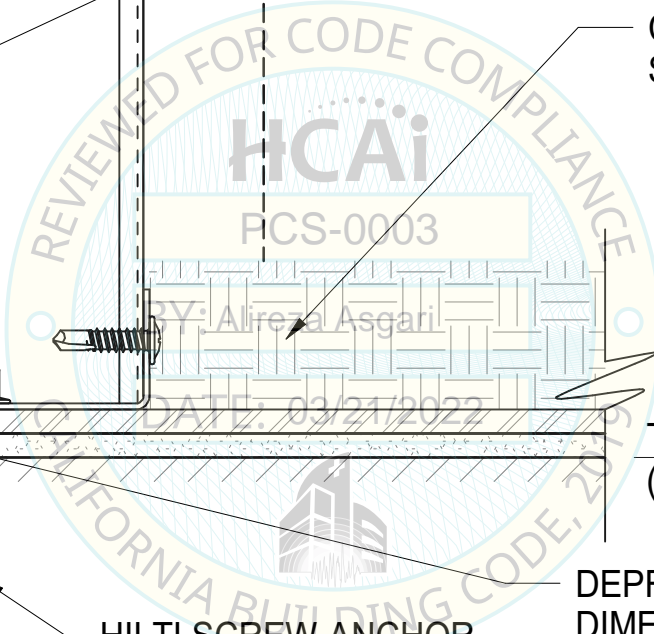
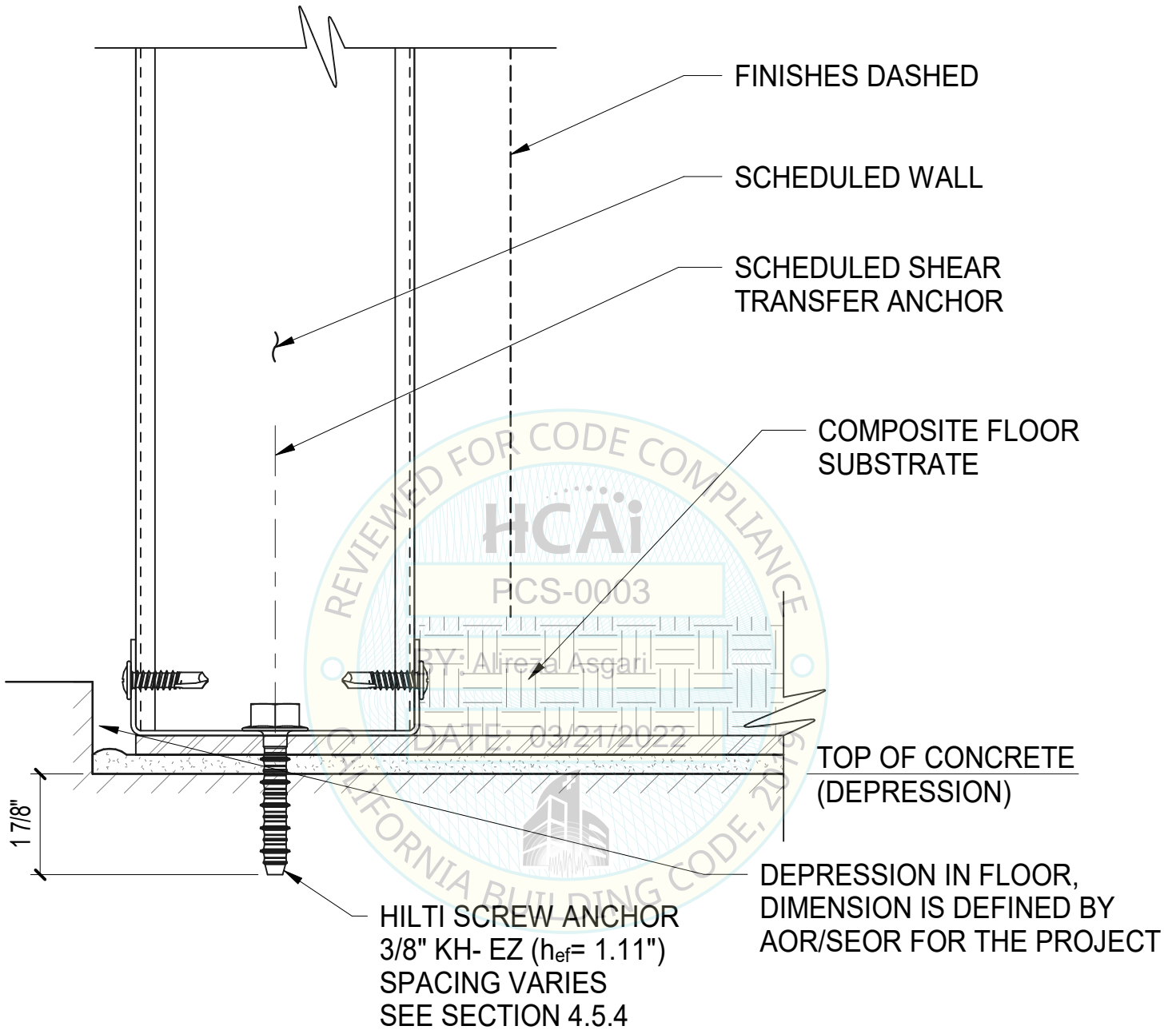




SILL FASTENING TO FLOOR PLATE

SCALE 6" = 1'-0"

FIGURE 5.5.1



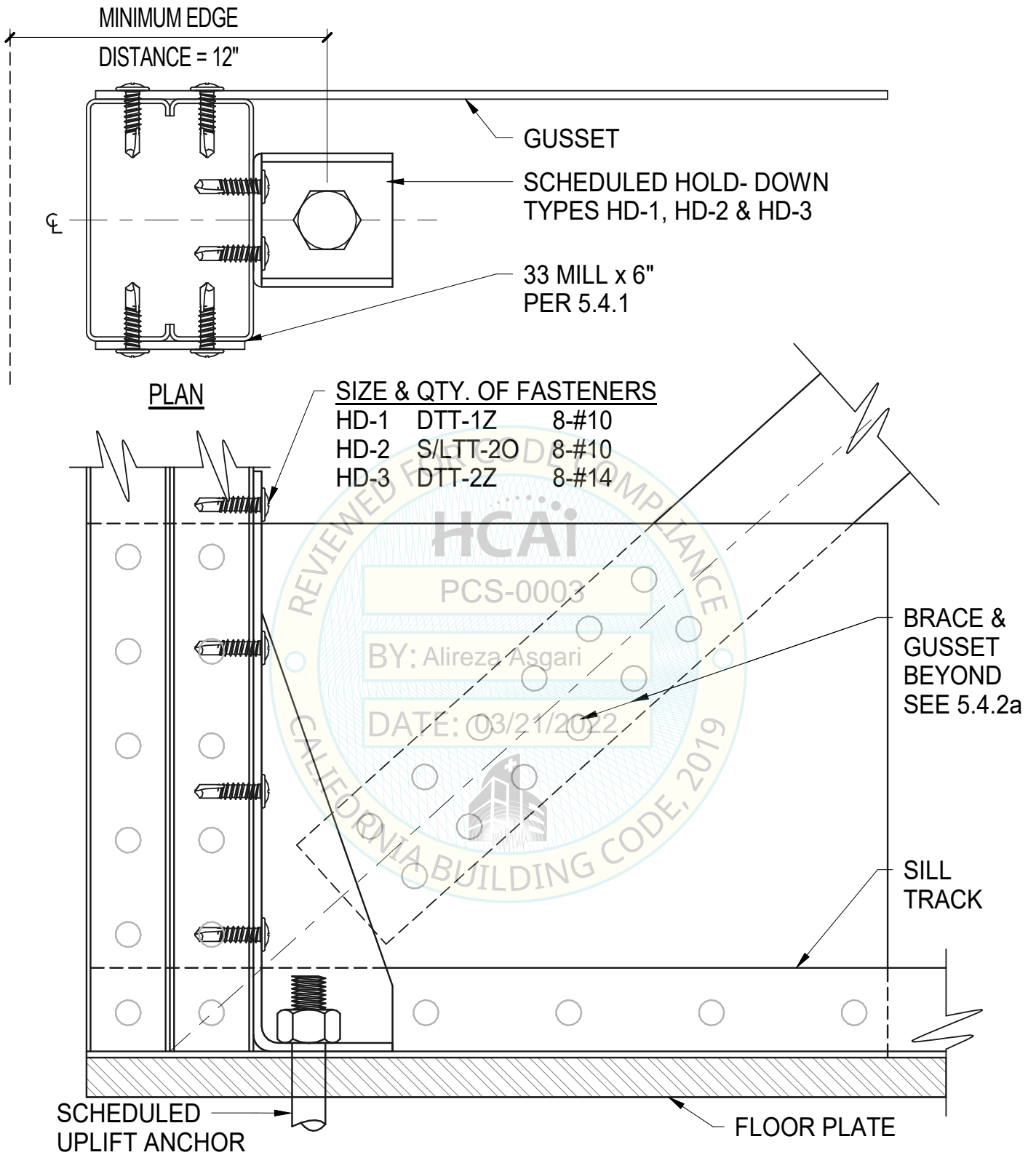
**SECTION**

FOR  
TYPE S- 3 PODS  
ONLY



ANCHOR FOR SHEAR TRANSFER

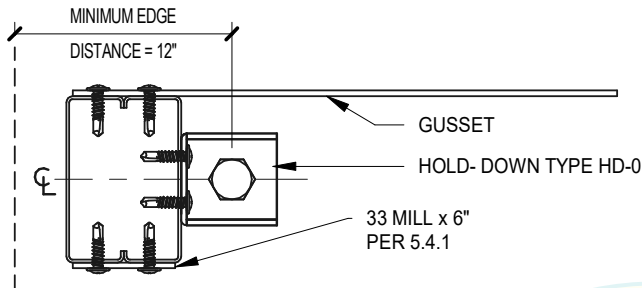
SCALE 6" = 1'-0"  
FIGURE 5.5.2



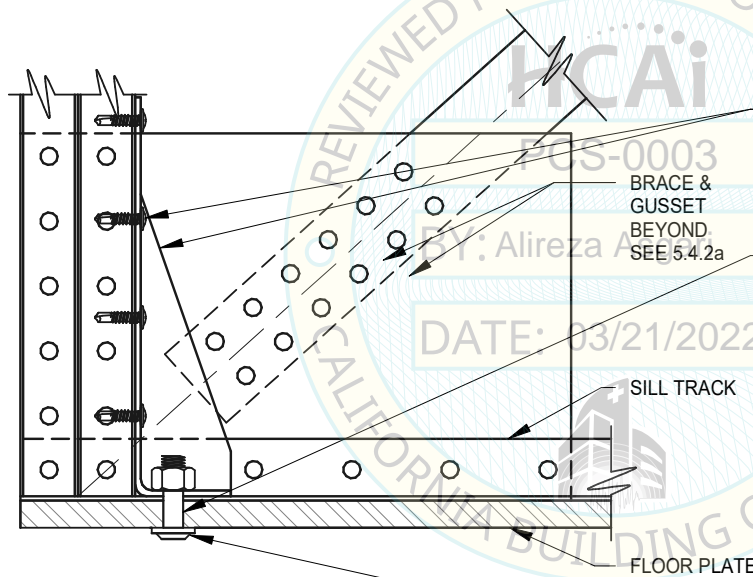
HOLD-DOWN DEVICE TO CHORD (HD-1, HD-2, HD-3)

SCALE 6" = 1'-0"

FIGURE 5.6.1



PLAN



SECTION

HOLD-DOWN DEVICE PER TABLE 4.6.2.1, w/  
MANUFACTURER RECOMMENDED FASTENERS TO  
CHORD MEMBER (USE 8-#10 FOR DTT-1Z ONLY).

ANCHOR HOLD-DOWN TO STEEL FLOOR PLATE  
DIAMETERS SHALL BE AS FOLLOWS:

- DTT-1Z: 3/8" DIAM.
- S/LTT-2: 1/2" DIAM.
- DTT-2Z: 1/2" DIAM.

HOLE IN STEEL FLOOR PLATE = 1/16" MAX OVER-SIZE

ANCHOR BOLT TYPE AT UNDERSIDE OF FLOOR PLATE  
GRADE & HEAD OF ANCHOR BOLT MAY BE ONE OF  
THESE THREE OPTIONS:

- GRADE 8.8 CAP SCREWS WITH LOW PROFILE HEAD  
(MINIMUM HEAD THICKNESS = 1/2 BOLT DIAMETER), OR
- ASTM A325 OR A490 WITH COUNTERSUNK HEAD  
MILLED INTO BOTTOM OF PLATE, OR
- WELDED THREADED STUD WITH A 60,000 MINIMUM  
TENSILE STRENGTH



SNUBBER DETAIL ELEVATION

SCALE 2" = 1'-0"  
FIGURE 5.6.4.1

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SNUBBER DETAIL SECTION

SCALE 3" = 1'-0"  
FIGURE 5.6.4.2

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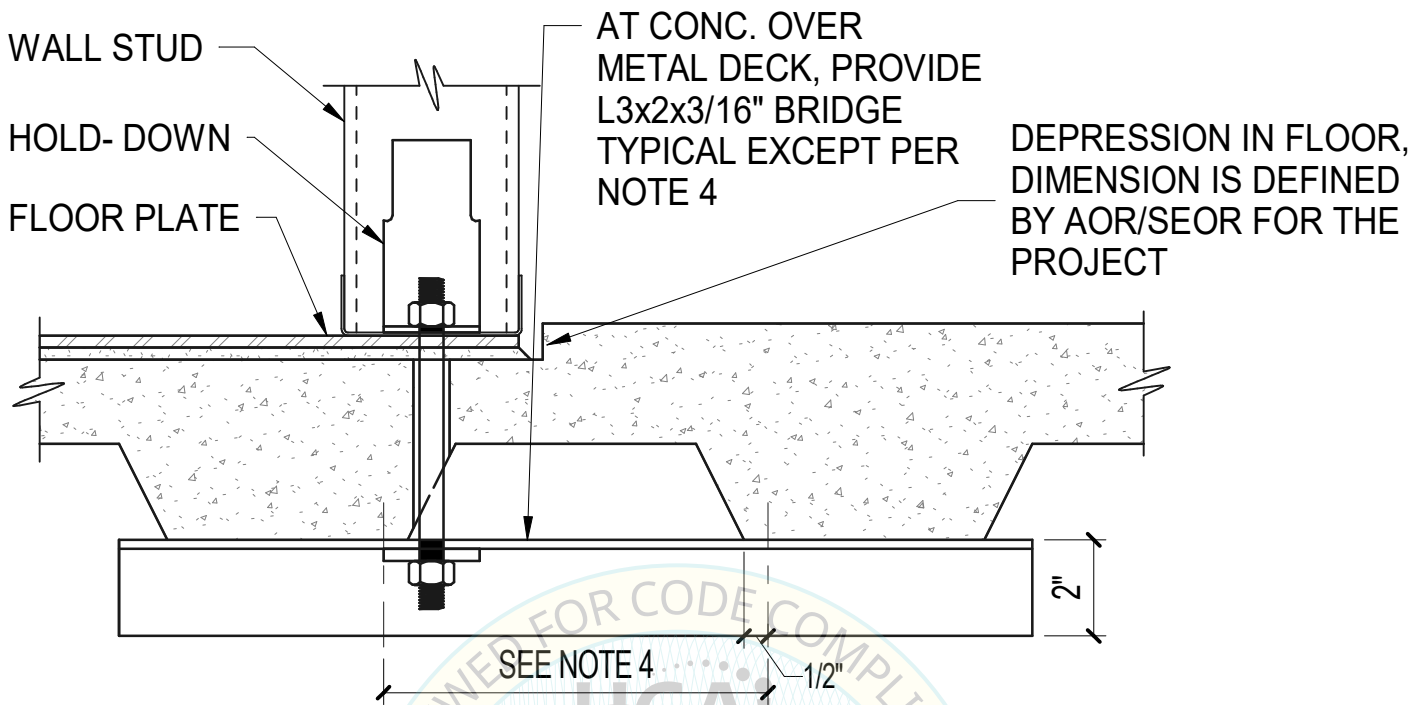


SNUBBER PLAN DETAIL

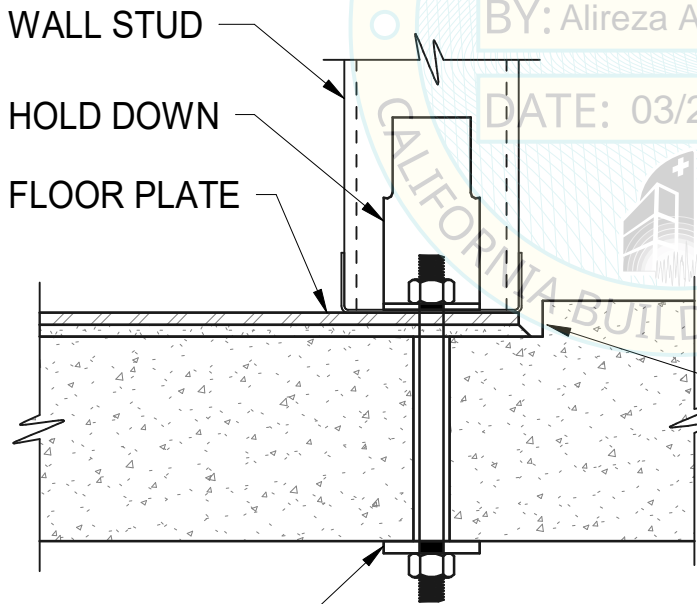


SCALE 4" = 1'-0"  
FIGURE 5.6.4.3

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**THROUGH-BOLT @ CONC. FILL OVER METAL DECK**



**THROUGH-BOLT @ FORMED SLAB**

**NOTES:**

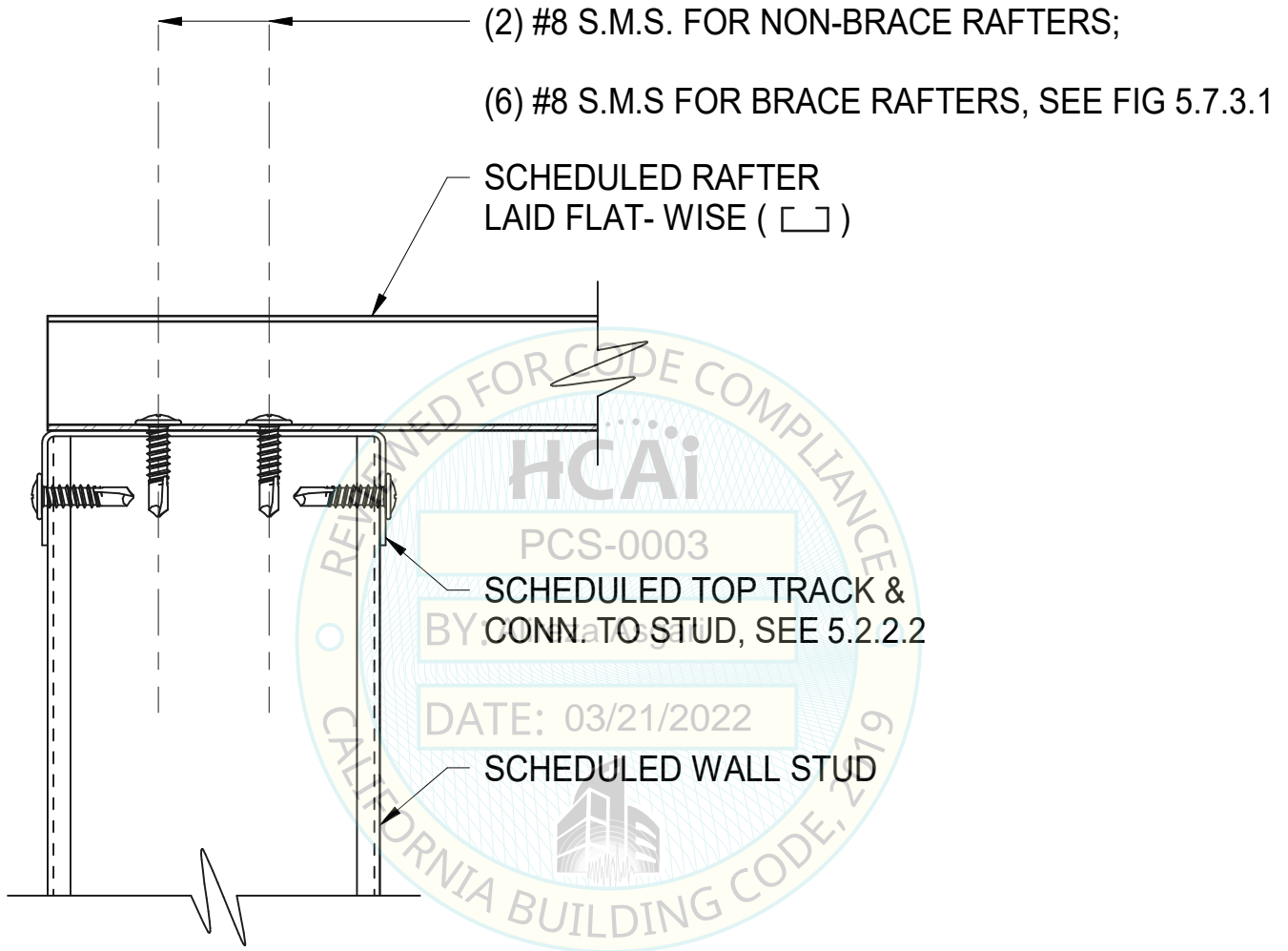
1. THROUGH BOLTS SHALL BE ASTM A193- B7 ALL THREAD ROD(ATR).
2. FOR HD- 1, USE 3/8"Ø ATR, FOR HD-2 & 3, USE 1/2"Ø ATR.
3. SET BOLT LOOSE IN 1/8" OVERSIZE DRILLED HOLE.
4. IF ANCHOR LOCATION IS WITHIN THIS ZONE, PROVIDE L3x2 BRIDGE, OTHERWISE USE DETAIL @ FORMED SLAB.



THROUGH BOLT DETAILS

SCALE 3" = 1'-0"  
FIGURE 5.6.5.1



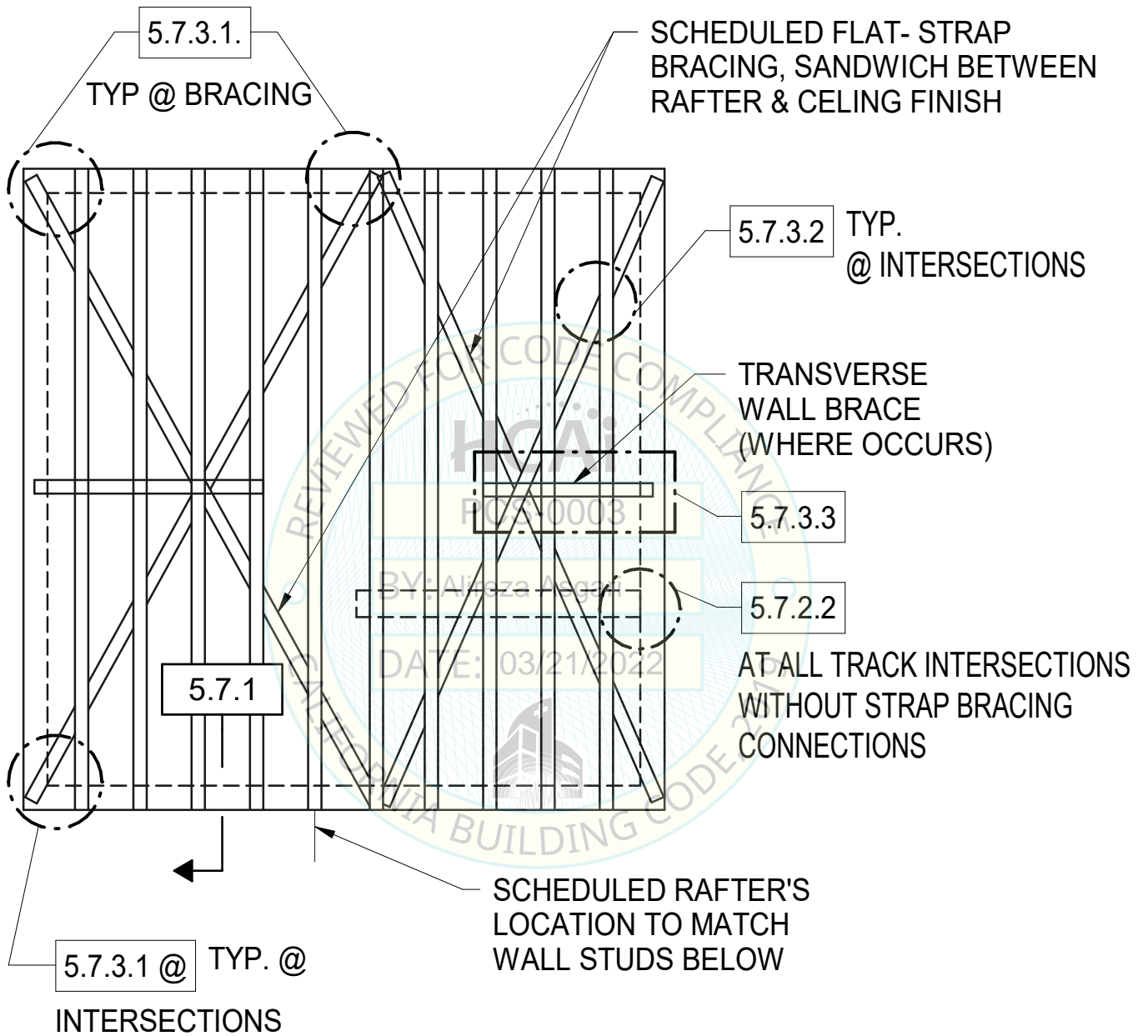


**WALL SECTION**



RAFTER TO WALL TRACK CONNECTION

SCALE 6" = 1'-0"  
FIGURE 5.7.1

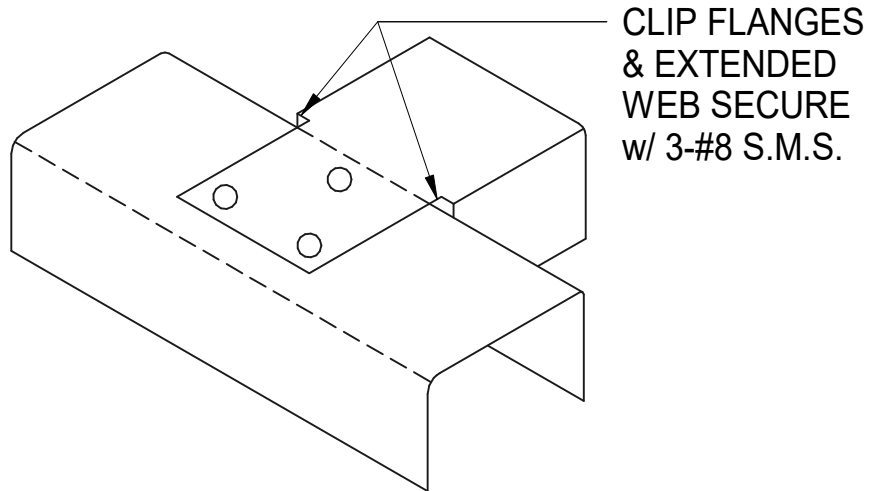


# CEILING FRAMING PLAN

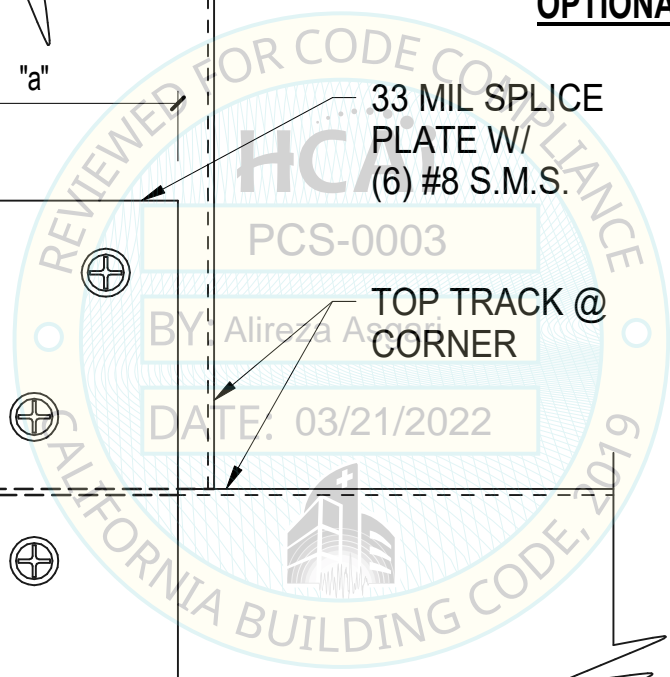
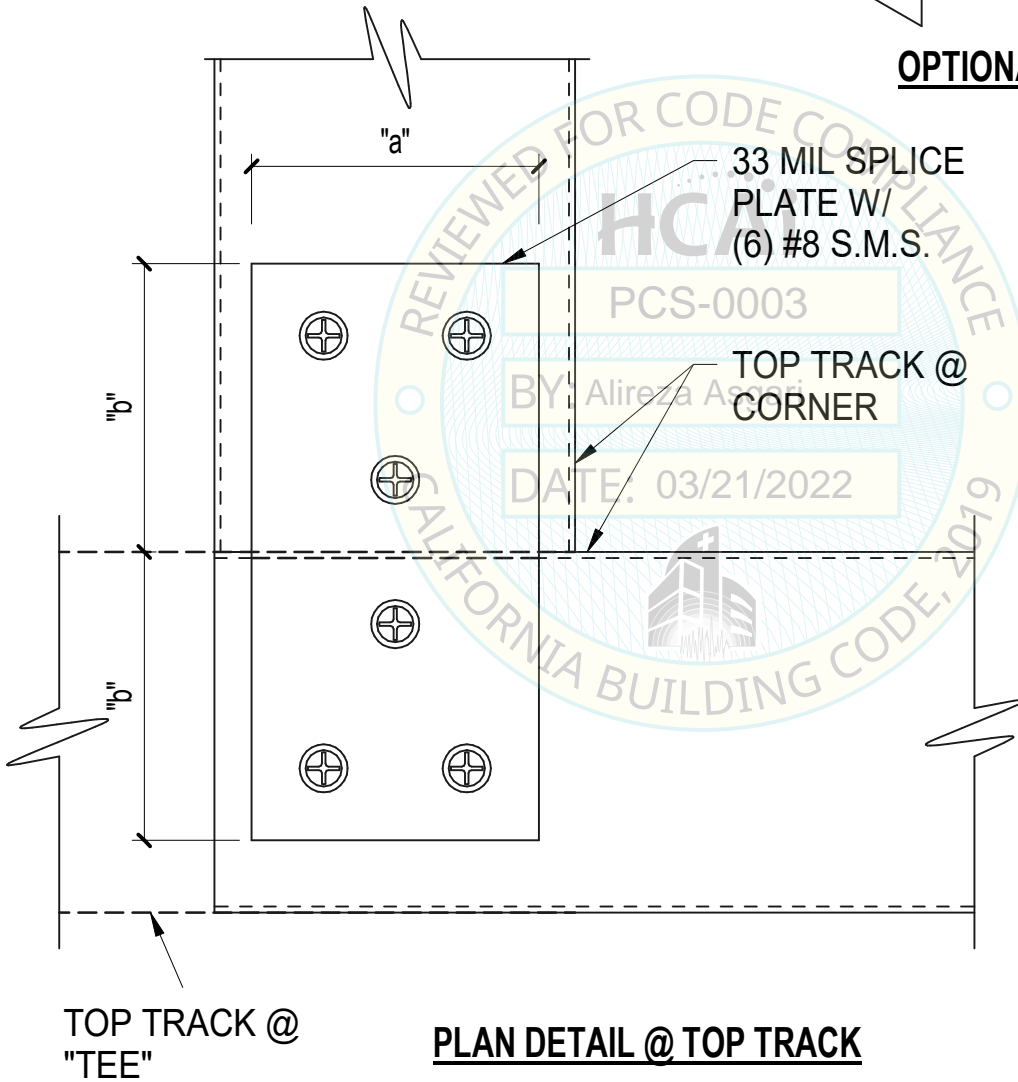
SCALE 1/2" = 1'-0"  
FIGURE 5.7.2.1

| STUD SIZE | "a"    | "b"    |
|-----------|--------|--------|
| 1 5/8"    | 1 5/8" | 1 5/8" |
| 3 5/8"    | 3 5/8" | 3 5/8" |

**NOTE:** THIS DETAIL MUST BE MODIFIED TO ACCEPT DIAPHRAGM STRAP BRACING; SEE FIGURE 5.7.3.1 FOR STRAP BRACING CONDITIONS.

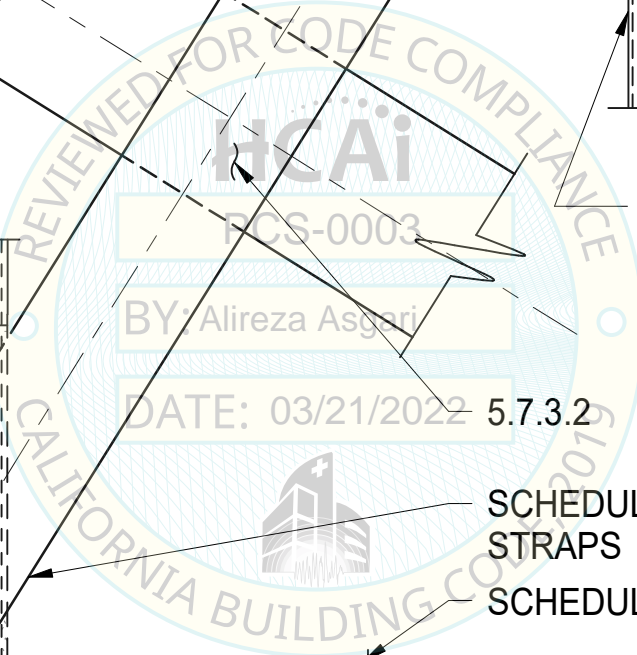
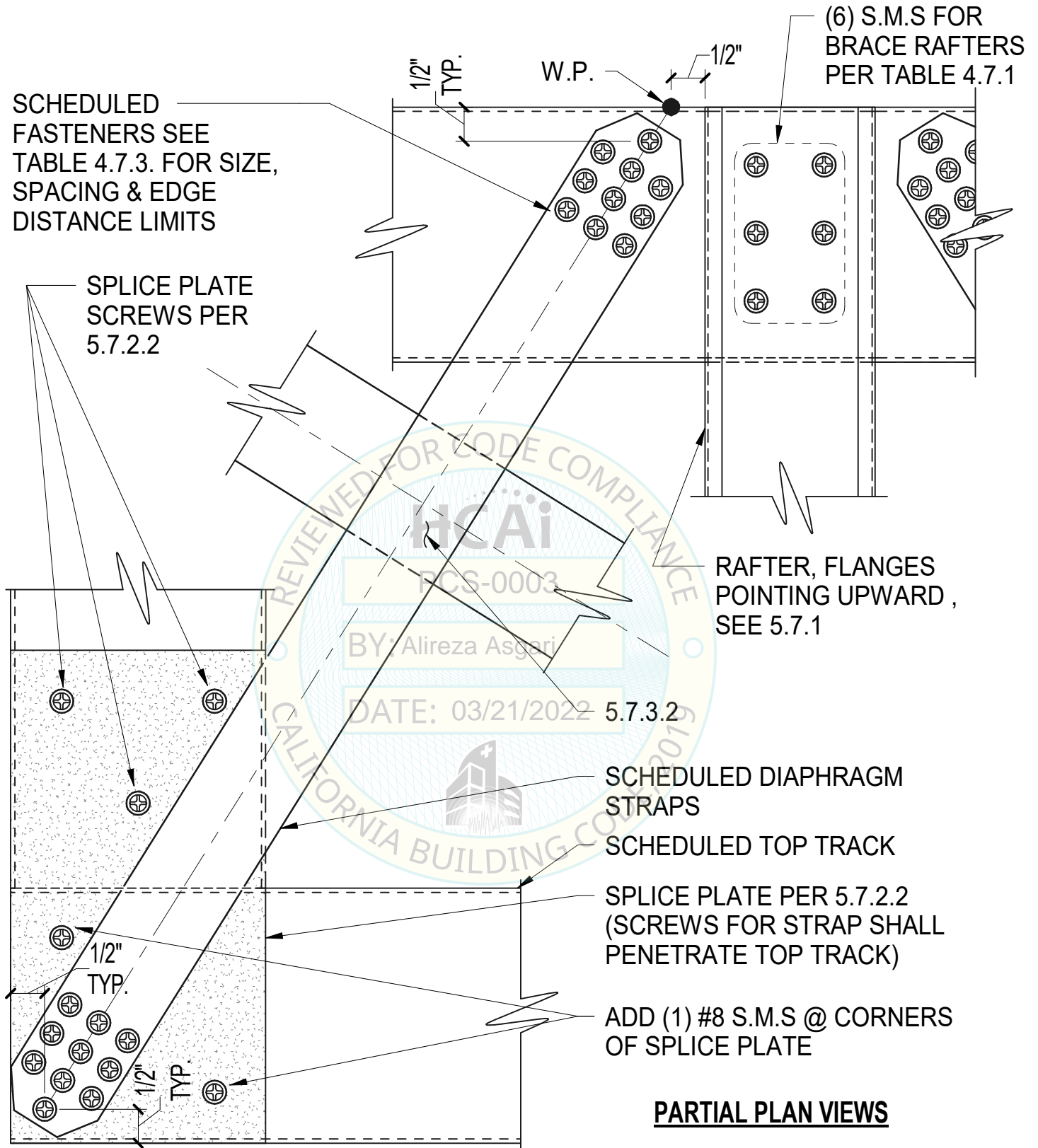


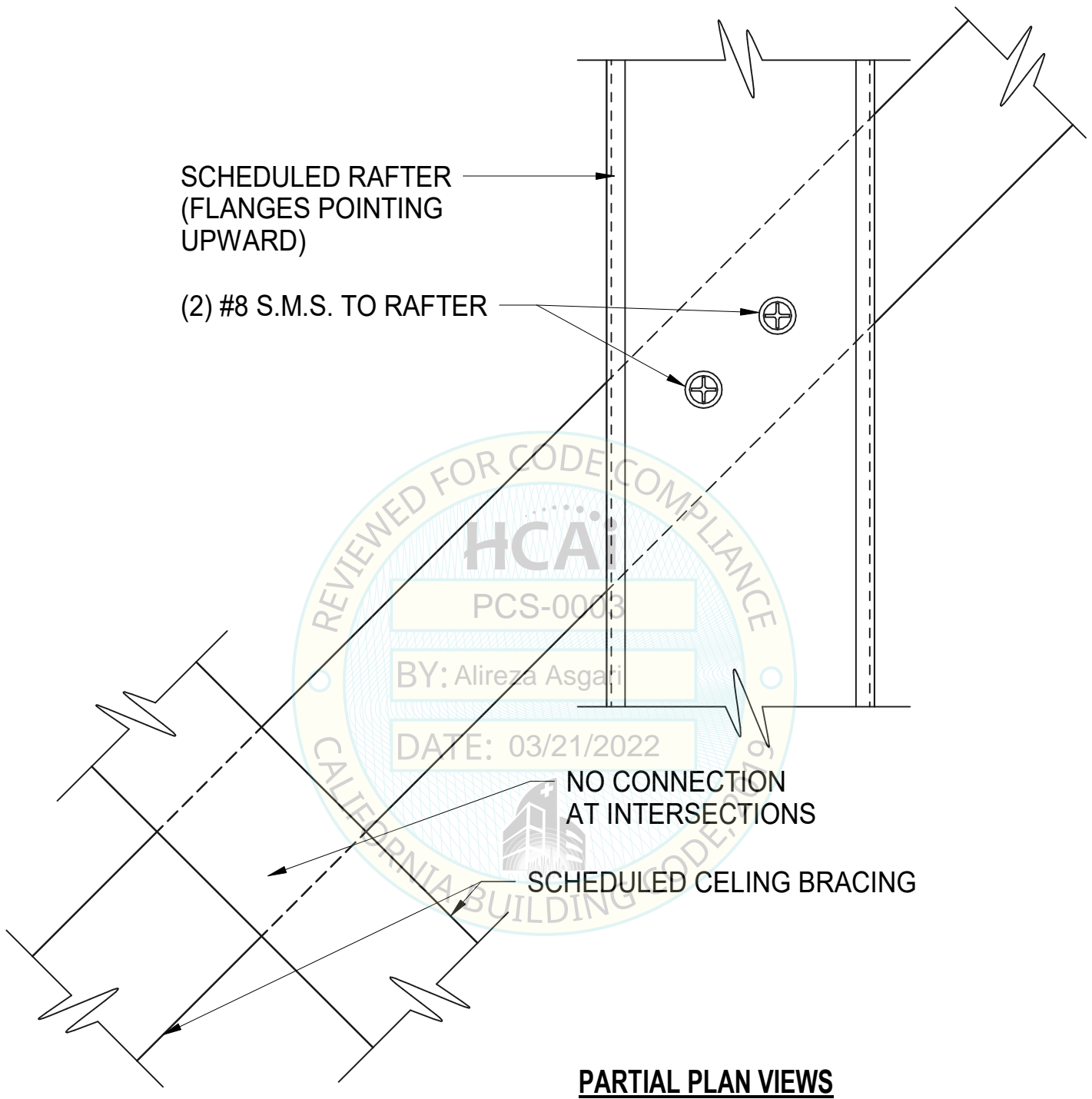
**OPTIONAL INTERSECTION DETAIL (ISOMETRIC)**



WALL TOP TRACK INTERSECTIONS

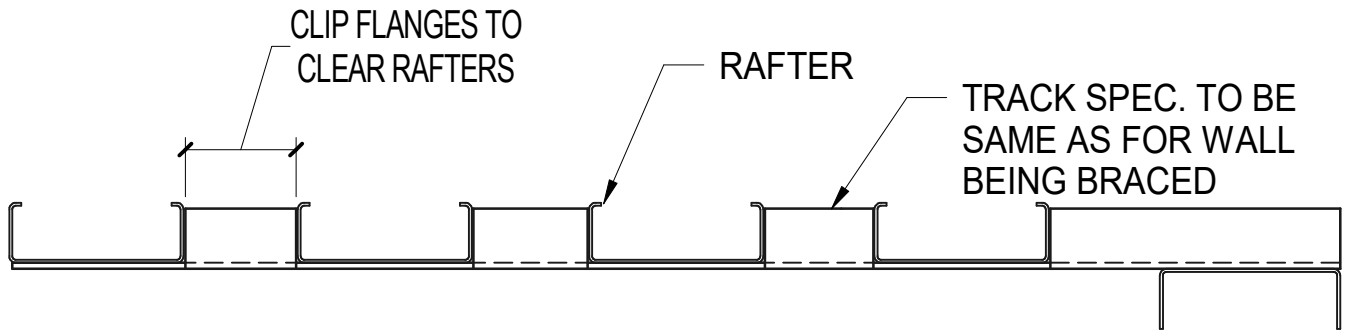
SCALE 6" = 1'-0"  
 FIGURE 5.7.2.2



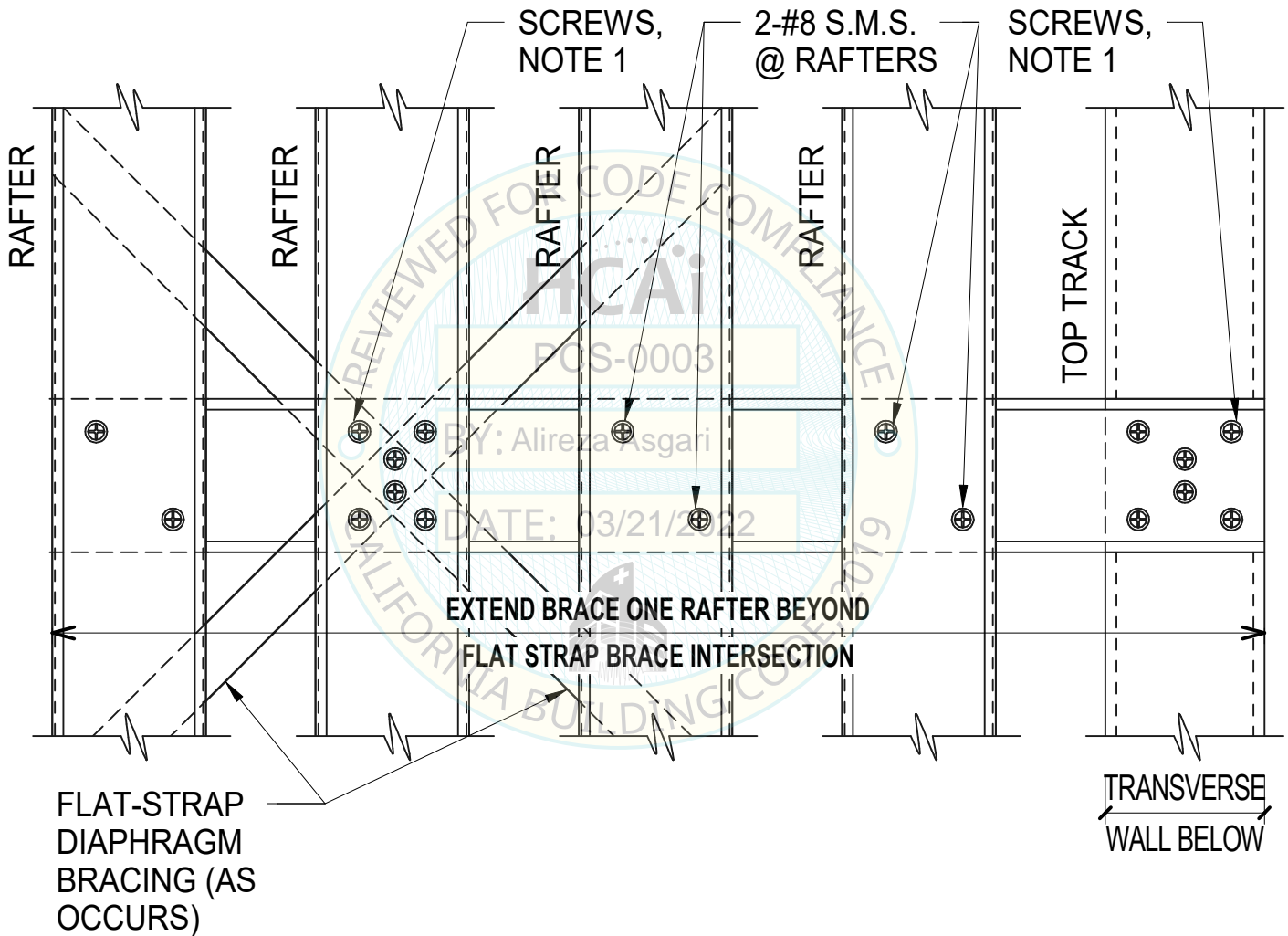


# FLAT STRAP BRACING INTERSECTIONS

SCALE 6" = 1'-0"  
FIGURE 5.7.3.2



**MODIFIED TRACK-ELEVATION**



**NOTE 1:** PROVIDE 6 SCREWS, SAME SIZE AS TABLE 4.7.1, SCREWS SHALL PENETRATE FLAT STRAP BRACING @ INTERSECTION, AND WALL TRACK AT OPPOSITE END.

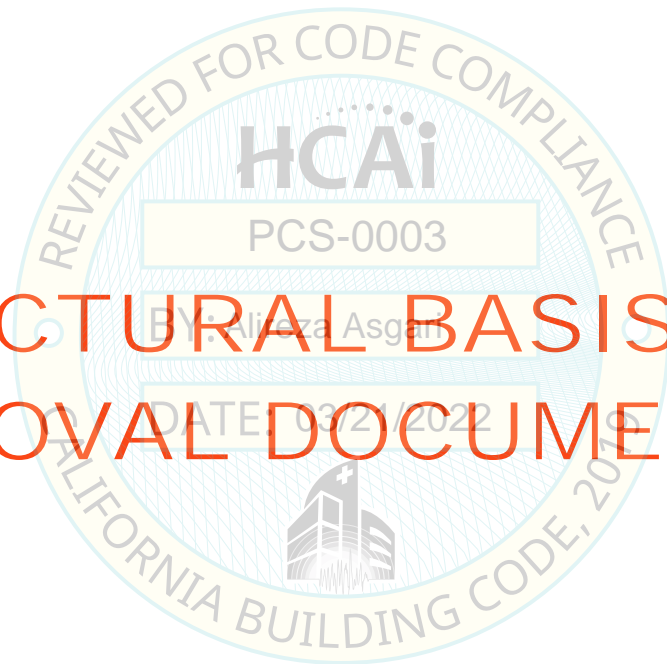


TRANSVERSE WALL BRACE

SCALE 3" = 1'-0"  
FIGURE 5.7.3.3

**Section 6**

**STRUCTURAL BASIS OF APPROVAL DOCUMENTS**



## 6.1 INTRODUCTION

**Purpose:** This section provides the information needed to prepare a submittal for structural approval. Additional information not listed here may be needed to complete the permit submittal such as finish schedules, utilities, doorways, etc.

Submittal requirements vary by jurisdictions and adjustments may be needed to comply with a specific jurisdiction. Nonetheless, structural submittals to the agency having jurisdiction should include the following:

- A drawing containing General Notes, Basis of Design Notes and Typical Details; See Section 6.2.
- A drawing with a “Shear Wall Key Plan” showing the overall Pod in plan, with all designated shear walls identified on the plan; See Section 6.3.
- A drawing posting the location and magnitude of forces anchoring the Pod to the superstructure, for review and acceptance by the project SEOR. See Section 1.6 and Section 6.4 below.
- Drawings as needed to describe the Pod; See Section 6.5.

## 6.2 GENERAL NOTES, BASIS OF DESIGN AND TYPICAL DETAILS

The submittal should include one or more drawings that provide a structural basis of approval for a Pod project. The general notes and typical structural details contained in Section 5 of this manual can be used to create these documents.

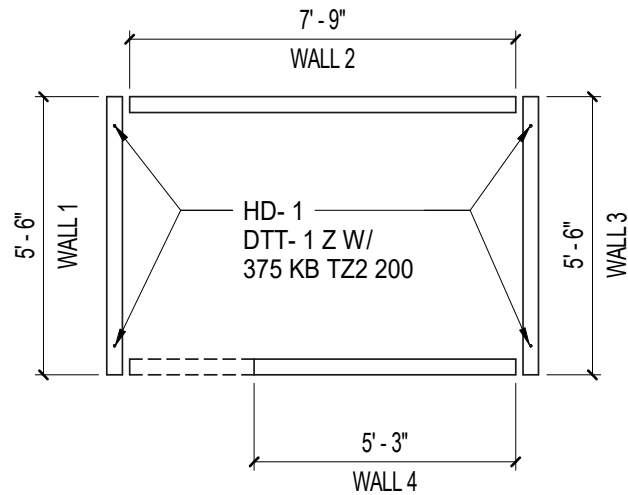
*Note: SurePods will need to “fill in the blanks” and complete the “Structural Basis of Design” notes contained in Figure 5.2.0.4, filling in criteria specific to the project, and filling in the loading information needed by the SEOR. There are four such fields to be filled in:*

- The project  $S_{DS}$  value (Section 2.2. This should match the value used to design the Pod !!)
- The project  $I_p$  value (Section 2.3. This should match the value used to design the Pod !!)
- The Pod’s Operating Weight (Section 2.5, this value should be the actual operating weight, not the round-ed-up value to design the Pod)
- The “Anchorage Force” determined in Section 4.3.2 for the Pod shall be written at the end of the paragraph titled “Structural Engineer of Record (SEOR).”

## 6.3 SHEAR WALL KEY PLAN AND SCHEDULE OF REQUIREMENTS

The Structural Basis of Approval Documents should include a “Shear Wall Key Plan” that shows a plan view of the pod at floor level, with all required shear walls and hold-down devices and all shear and uplift anchors connecting the pod to the superstructure identified on this plan. A sample “Shear Wall Key Plan” might look like Figure 6.4.1 below.





**Figure 6.4.1 – Shear Wall Key Plan**

## 6.4 FABRICATION AND INSTALLATION DETAILS

In addition to the General Notes and Typical Details noted in Section 6.2 and the Shear Wall Key Plan in Section 6.3, SurePods's submittal documents should include additional plans, elevations and details as needed to fully document the structural design of the Pod. For a typical project, these additional drawings would normally include:

- Floor Plate Plan, showing coordinated hole locations for Sill Fasteners and Shear Anchors (see Section 4.5) and for Hold-Down Anchors (See Section 4.6);
- Shear Wall Elevations: SurePods typically elevates each wall of a Pod, and these drawings will now need to include the flat-strap bracing, gussets and connections associated with each shear wall designed in Section 4.4;
- A Ceiling Framing Plan showing the layout of ceiling rafters and diaphragm strap bracing (See Section 4.7);
- Other plans, elevations and details as needed to describe all requirements.

## CONCLUSION & REFERRAL

This concludes the SurePods Structural Manual. Questions will arise and may be directed as follows:

Forell | Elseser Engineers

160 Pine Street #600

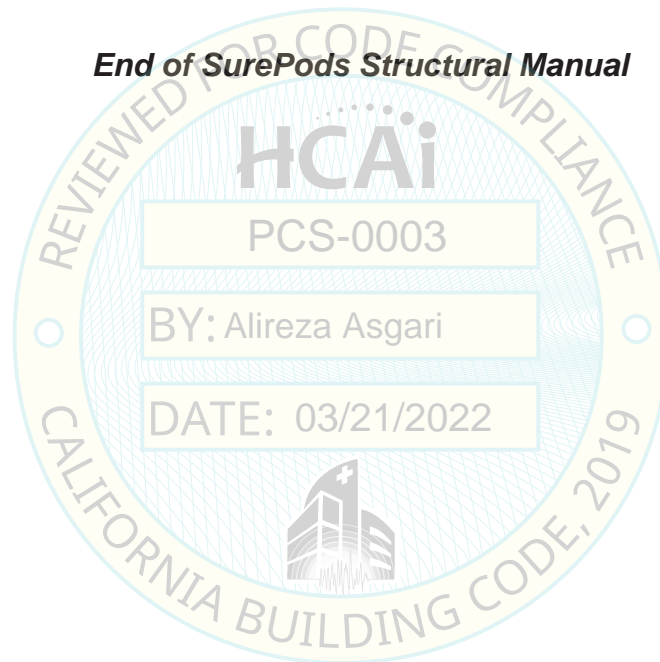
San Francisco, CA 94111

Attn: Marco Scanu

(415) 837-0700

Email: m.scanu@forell.com

**End of SurePods Structural Manual**





California Health and Human Services Agency

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## Testing, Inspection, and Observation Program

### 2019 California Building Standards Code - OSHPD 1

*This program is prepared and submitted for an OSHPD 1 project. OSHPD 1 projects include all construction and remodel projects for: general acute care hospitals, acute psychiatric hospitals, and general acute care hospitals providing only acute medical rehabilitation center services.*

| SECTION A                           |                         | PROJECT INFORMATION                                    |        |
|-------------------------------------|-------------------------|--|--------|
| Facility #:                         | Facility Name:          | Project #:   | Sub #: |
|                                     | SurePods - Type S3 Pods | PPSC-0003  |        |
| Street Address:                     |                         |  |        |
| City:                               |                         | County:  |        |
| Record Name (Scope of Project):     |                         | Pre-Manufactured Bathroom Pods Composed of CFS Framing |        |
| Abbreviations:                      |                         |  |        |
| CAC: California Administrative Code |                         | AAMA: American Architectural Manufacturers Association |        |
| CBC: California Building Code       |                         | NFPA: National Fire Protection Association             |        |
| CEC: California Electrical Code     |                         | FM: FM Approval Standards                              |        |
| CMC: California Mechanical Code     |                         | DPOR: Design Professional of Record                    |        |
| CPC: California Plumbing Code       |                         | Version: R03.7.8                                       |        |

| DESIGN PROFESSIONAL OF RECORD RESPONSIBILITY   |
|--|
| <p><b><i>The administration of the work of construction, including this TIO, shall be under the responsible charge of an architect and structural engineer. When a structural engineer is not substantially involved, the architect shall be solely responsible. Where neither structural nor architectural elements are substantially involved, a mechanical or electrical engineer registered in the branch of engineering most applicable to the project may be in responsible charge. (CAC 7-141(a))</i></b></p> <p><i>Note: HCAI plan review staff must provide verification that the TIO program has been "Reviewed" prior to plan approval to confirm the applicability of the tests and inspections identified in the TIO program for work scope, building systems, and the construction materials shown in the design drawings. Field staff will issue subsequent "TIO Program Approval".</i></p> <p><i>The "TIO Program Approval" from HCAI field staff must be obtained and included with the notice of start of construction required by CAC Section 7-137(a)4 and 7-145(a)5.A)</i></p> <p><i>Construction shall not commence until the health facility has obtained from HCAI "TIO Program Approval". (CAC Section 7-135(a)3)</i></p> |



**Testing, Inspection, and Observation Program**  
2019 California Building Standards Code - OSHPD 1

| SECTION B   |   | NOTE: Approved agencies, individuals, and all changes to the TIO program shall be identified, evaluated by the DPOR and approved by HCAI prior to proceeding with the related work. |  |  |            |   |  |   |                             |
|---|---|---|--|--|------------|---|--|---|-----------------------------|
| Facility #:   |   | Facility Name:  |  |  | Project #: |   |  |   |                             |
|   |   | SurePods - Type S3 Pods   |  |  | PPSC-0003  |   |  |   |                             |
| Index #   |   | TESTS   |  | Select with "X" or required information: |            | RESponsible Approved Agency and/or Individual |  | Compliance Verification by IOR (Initial/Date) | HCAI/FDD Use (Initial/Date) |
| REQUIRED (Select with "X")                                |   | Samples of test & inspection reports included   |  | OPAA No. and Expiration Date             |            |   |  |   |                             |
| <b>STRUCTURAL TESTS</b>                                   |   |   |  |  |            |   |  |   |                             |
| <b>Concrete</b>   |   |   |  |  |            |   |  |   |                             |
| B-C14   | X | Post-installed anchors<br>CBC 1910A.5<br>Installation verification test (includes adhesive, shot pins and mechanical anchors)   |  | PCS-0003                                 |            | SP. INSP                                      |  |   |                             |
| <b>Steel</b>  |   |   |  |  |            |   |  |   |                             |
| B-S1  | X | Steel<br>CBC 2202A.1<br>Identification test for structural steel and cold formed steel  |  |  |            | IOR   |  |   |                             |
| B-S3  | X | Steel<br>CBC 2213A.2<br>End-welded studs  |  |  |            | IOR   |  |   |                             |
| <b>Nonstructural Components, Supports and Attachments</b> |   |   |  |  |            |   |  |   |                             |
| B-N1  | X | Nonstructural components<br>CBC 1705A.13.2  |  |  |            |   |  |   |                             |

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### Testing, Inspection, and Observation Program 2019 California Building Standards Code - OSHPD 1

| SECTION C  |   | NOTE: Approved agencies, individuals, and all changes to the TIO program shall be identified, evaluated by the DPOR and approved by HCAI prior to proceeding with the related work. |  |   |                                 |  |  |                                |
|--|---|---|--|---|---------------------------------|--|--|--------------------------------|
| Facility #:  |   | Facility Name:  |  | Project #:  |                                 | Sub #:   |  |                                |
|  |   | SurePods - Type S3 Pods   |  | PPSC-0003   |                                 | 0  |  |                                |
| Index #<br>REQUIRED<br>(Select with "X")           |   | ON-SITE<br>SPECIAL<br>INSPECTIONS   |  | Select with "X" or<br>required information:         |                                 | RESPONSIBLE APPROVED<br>AGENCY AND/OR INDIVIDUAL<br>(IDENTIFY SPECIAL INSPECTOR) | COMPLIANCE<br>VERIFICATION<br>BY IOR<br>(Initial/Date) | HCAI/FDD USE<br>(Initial/Date) |
|  |   |   |  | Samples of test &<br>inspection<br>reports included | OPAA No. and<br>Expiration Date |  |  |                                |
| STRUCTURAL SPECIAL INSPECTIONS                     |   |   |  |   |                                 |  |  |                                |
| Concrete   |   |   |  |   |                                 |  |  |                                |
| C-C5   | X | Concrete<br>CBC 1705A.3<br>CIP & Post-installed anchors   |  |   |                                 | SP. INSP.  |  |                                |
| Steel  |   |   |  |   |                                 |  |  |                                |
| C-S1   | X | Steel<br>CBC 1705A.2.5 & 1705A.12.1<br>Automatic end-welded studs   |  |   |                                 | SP. INSP.  |  |                                |
| C-S5   | X | Steel<br>CBC 1705A.2, 1705A.12.3<br>Cold-formed steel light frame construction  |  |   |                                 | SP. INSP.  |  |                                |
| Nonstructural components, supports and attachments |   |   |  |   |                                 |  |  |                                |
| C-N1   | X | Architectural components<br>CBC 1705A.12.5 & 1705A.16<br>Cladding, nonbearing walls and veneer  |  |   |                                 |  |  |                                |
| C-N7   | X | Off-Site Fabrication<br>Pods are sheathed on one side only and are fully<br>visible for all required Inspections and Special<br>Inspections On-Site                                 |  |   |                                 |  |  |                                |

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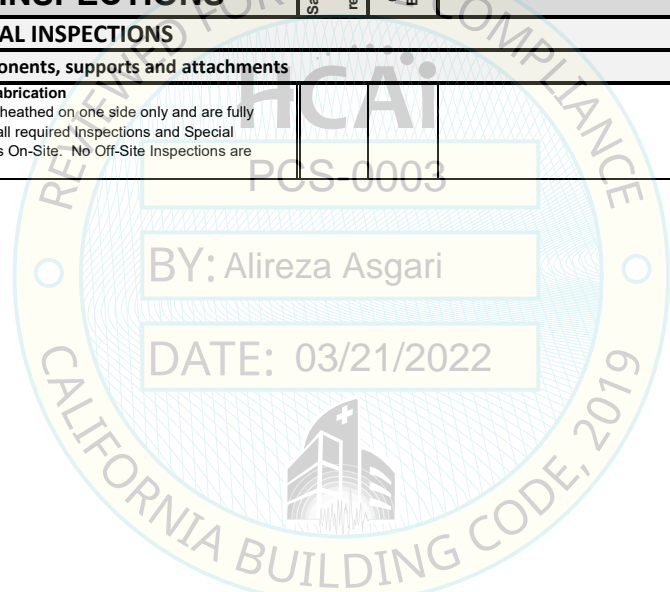
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### Testing, Inspection, and Observation Program 2019 California Building Standards Code - OSHPD 1

| SECTION D   |                            | NOTE: Approved agencies, individuals, and all changes to the TIO program shall be identified, evaluated by the DPOR and approved by HCAI prior to proceeding with the related work.        |   |                              |  |   |                             |
|---|----------------------------|--|---|------------------------------|--|---|-----------------------------|
| Facility #:   | Facility Name:             | Project #:   | Sub #:  |                              |  |   |                             |
|   | SurePods - Type S3 Pods    | PPSC-0003  | 0   |                              |  |   |                             |
|   |                            | Select with "X" or required information:   |   |                              |  |   |                             |
| Index #   | REQUIRED (Select with "X") | OFF-SITE SPECIAL INSPECTIONS   | Samples of test & inspection reports included | OPAA No. and Expiration Date | RESPONSIBLE APPROVED AGENCY AND/OR INDIVIDUAL (IDENTIFY SPECIAL INSPECTOR) | COMPLIANCE VERIFICATION BY IOR (Initial/Date) | HCAI/FDD USE (Initial/Date) |
| <b>STRUCTURAL SPECIAL INSPECTIONS</b>                     |                            |  |   |                              |  |   |                             |
| <b>Nonstructural components, supports and attachments</b> |                            |  |   |                              |  |   |                             |
| D-N7  | X                          | <b>Off-Site Fabrication</b><br>Pods are sheathed on one side only and are fully visible for all required Inspections and Special Inspections On-Site. No Off-Site Inspections are required |   |                              |  |   |                             |



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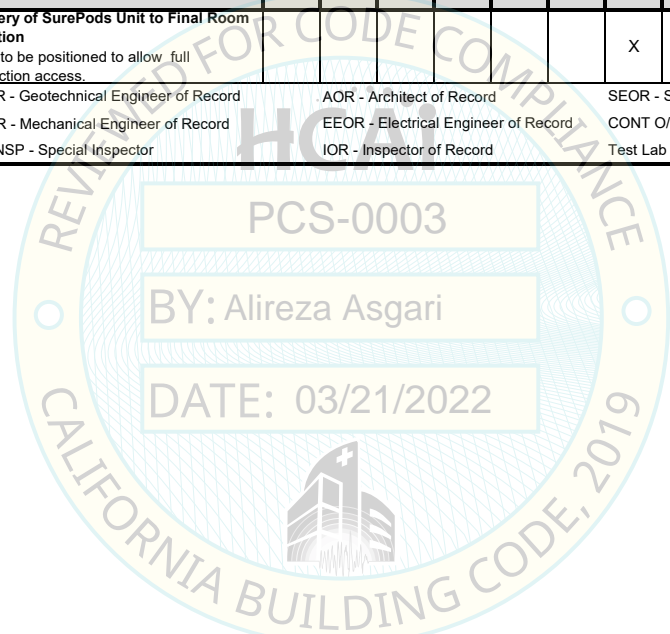
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**Testing, Inspection, and Observation Program**  
2019 California Building Standards Code - OSHPD 1

| SECTION F  |   | CONSTRUCTION VERIFICATION   |     |      |                                      |      |            |  |         |          |          |  |                   |
|--|---|---|-----|------|--------------------------------------|------|------------|--|---------|----------|----------|--|-------------------|
| Facility #:  | Facility Name:  |   |     |      |                                      |      | Project #: |  |         |          | Sub #:   |  |                   |
|  | SurePods - Type S3 Pods   |   |     |      |                                      |      | PPSC-0003  |  |         |          |          |  |                   |
| VERIFIED CONSTRUCTION INSPECTION AND OBSERVATION REPORTING |   |   |     |      |                                      |      |            |  |         |          |          |  | FOR HCAI USE ONLY |
| REFERENCE NUMBER   | PROJECT MILESTONE OR INTERVAL   | VERIFIED COMPLIANCE REPORT REQUIRED AS INDICATED<br>(Form OSH-FD-123)<br>(See "PERSONAL KNOWLEDGE" as defined in California Administrative Code, Section 7-151) |     |      |                                      |      |            |  |         |          |          |  |                   |
|  |   | GEOR  | AOR | SEOR | MEOR                                 | EEOR | CONT       | IOR                                      | SP INSP | TEST LAB | HCAI FDD |  |                   |
| 1  | Delivery of SurePods Unit to Final Room Location<br>Units to be positioned to allow full inspection access. |   |     |      |                                      |      |            | X  | X       |          |          |  |                   |
| <b>ABBREVIATIONS:</b>                                      |   | GEOR - Geotechnical Engineer of Record  |     |      | AOR - Architect of Record            |      |            | SEOR - Structural Engineer of Record     |         |          |          |  |                   |
|  |   | MEOR - Mechanical Engineer of Record  |     |      | EEOR - Electrical Engineer of Record |      |            | CONT O/B - Contractor or Owner/Builder   |         |          |          |  |                   |
|  |   | SP, INSP - Special Inspector  |     |      | IOR - Inspector of Record            |      |            | Test Lab - Engr. For the approved agency |         |          |          |  |                   |





GENERAL NOTES - COLD FORMED METAL FRAMING:

- COLD-FORMED METAL FRAMING:** THE DESIGN, INSTALLATION AND CONSTRUCTION OF COLD-FORMED FRAMING SHALL BE IN ACCORDANCE WITH AISI S100-16-S2-20 "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS"; AISI S202-20 "CODE OF STANDARD PRACTICE FOR COLD FORMED STEEL STRUCTURAL FRAMING"; AISI S220-20 "NORTH AMERICAN STANDARD FOR COLD FORMED STEEL FRAMING" AND AISI S400-20 "NORTH AMERICAN STANDARD FOR SEISMIC DESIGN OF COLD FORMED STEEL STRUCTURAL SYSTEMS". ALL PRODUCTS SHALL BE MANUFACTURED BY CURRENT MEMBERS OF THE STEEL STUD MANUFACTURERS ASSOCIATION (SSMA) PER ICC ES REPORT ESR-03064P. PROVIDE ALL ACCESSORIES INCLUDING BUT NOT LIMITED TO TRACKS, CLIPS, WEB STIFFENERS, ANCHORS, FASTENING DEVICES, RESILIENT CLIPS AND OTHER ACCESSORIES REQUIRED FOR A COMPLETE AND PROPER INSTALLATION AND AS RECOMMENDED BY THE MANUFACTURER FOR THE MEMBERS AND DEVICES USED.
- WEB PUNCHOUTS:** TRACK SECTION SHALL NOT HAVE ANY WEB PUNCHOUTS. WALL STUDS AND CHORDS MAY HAVE WEB PUNCHOUTS ONLY AS FOLLOWS: FOR 1-5/8" STUDS, WEB PUNCHOUTS ARE PERMITTED FOR ANY 33-MIL STUD, AND FOR 43-MIL STUDS FOR CEILING HEIGHTS 8'-0" OR LESS. FOR 3-5/8" STUDS, WEB PUNCHOUTS ARE PERMITTED FOR ALL GAGES AND CEILING HEIGHTS. WEB PUNCHOUTS, WHEN USED, SHALL COMPLY WITH SSMA STANDARDS, USING 3/4"x4" AT 24" O.C. MINIMUM SPACING FOR 1-5/8" STUDS AND 1-1/2"x4" AT 24" O.C. MINIMUM SPACING FOR 3-5/8" STUDS.
- CORROSION PROTECTION:** ALL STEEL MEMBERS AND COMPONENTS SHALL BE PROTECTED FROM CORROSION. COLD-FORMED AND SHEET METALS SHALL COMPLY WITH ASTM C955 PARAGRAPH 4.4: "MEMBERS SHALL HAVE A PROTECTIVE COATING IN ACCORDANCE WITH TABLE 1, CP 60 MINIMUM."
- COLD-FORMED TRACK AND STUD:** SHEET STEEL SHALL CONFORM TO ASTM C955 AND ASTM A653 SS, WITH MEMBERS 18GA & LIGHTER CONFORMING TO GRADE 33 AND WITH MEMBERS 16GA AND HEAVIER CONFORMING TO GRADE 50, CLASS 1 UNLESS NOTED OTHERWISE. DIMENSIONS OF TRACK AND STUD MEMBERS SHALL BE AS DEFINED USING SSMA STANDARD NOMENCLATURE AND AS DEFINED ON THESE DRAWINGS.
- FLAT-STRAP BRACING & GUSSETS: DO NOT USE GRADE 33 SHEET METAL FOR THESE ELEMENTS.** SHEET STEEL SHALL CONFORM TO ASTM A653 GRADE 50 CLASS 1. FLAT STRAP SHALL BE PROVIDED IN FACTORY-CUT WIDTHS WITH NO NOTCHES ALONG THE EDGES AND NO HOLES WHATSOEVER EXCEPT AT SCREWED CONNECTION LOCATIONS. DO NOT USE MATERIAL WITH BENDS OR CREASES DUE TO ACCIDENTAL BENDING

GENERAL NOTES - COLD FORMED METAL FRAMING:

- SHEET METAL SCREWS:** ALL SCREWS SHALL CONFORM TO ASTM C1513 AND SHALL HAVE A CORROSION RESISTANT COATING. SIZES AND TYPES OF SCREWS SHALL CONFORM TO THE SCHEDULES AND DETAILS HEREIN, AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS REQUIREMENTS AND THE FOLLOWING: SCREW LENGTH AND DRILL POINTS SHALL BE SELECTED SO THAT SCREW THREADS SHALL TAP INTO AND SHALL ENGAGE THE ENTIRE THICKNESS OF ALL PIECES TO BE JOINED AND NOT LESS THAN THREE COMPLETE THREADS SHALL PENETRATE BEYOND THE METAL JOINED. SELF DRILLING SCREWS SHALL BE SELECTED SO THAT THE DRILL POINT COMPLETES DRILLING THRU ALL PLIES BEFORE THE LEAD THREADS BEGIN ENGAGING METAL. WHERE THESE DRAWINGS CALL FOR A SCREW SIZE THAT DOES NOT HAVE A DRILL POINT OF SUFFICIENT LENGTH, INCREASE THE SCREW SIZE TO COMPLY WITH THESE REQUIREMENTS. PRE-DRILLED HOLE DIAMETERS SHALL NOT EXCEED THE DIAMETER OF THE DRILL POINT FOR SPECIFIED SCREW. SCREW SPACING AND EDGE DISTANCE SHALL NOT BE LESS THAN 3 TIMES THE NOMINAL SCREW DIAMETER.
- SHEET METAL SCREW SPECIFICATIONS:** SHEET METAL SCREWS CALLED FOR ON THESE DRAWINGS SHALL CONFORM TO THE FOLLOWING:
  - SCREWS DENOTED AS "#8 SMS" SHALL BE #8-15 (WITH DRILL POINT #2) WITH MODIFIED TRUSS HEAD (PMTH), SENCO PART NUMBER 08M050CT RFSP, PER ICC ESR-3558.
  - SCREWS DENOTED AS "#10 SMS" SHALL BE #10-16 (WITH DRILL POINT #2) WITH PAN HEAD (SPFH), SENCO PART NUMBER 10M075CTMFD, PER ICC ESR-3558
  - SCREWS DENOTED AS "#12 SMS" SHALL BE #12-18 (WITH DRILL POINT #4), SENCO PART NUMBER 12M087YKFF4X PER ICC ESR-3558.
- WELDING OF COLD-FORMED STEEL:** WELDING OF STRUCTURAL ELEMENTS IS NOT PERMITTED.
- HOLD-DOWN DEVICES:** WITH THE EXCEPTION TO THE DTT-1Z (SEE BELOW) HOLD-DOWN DEVICES CALLED FOR ARE TO BE MANUFACTURED BY SIMPSON STRONG-TIE COMPANY PER IAMPO EVALUATION REPORT ES-124. FASTENERS TO METAL FRAMING SHALL BE IN ACCORDANCE WITH THE PRODUCT APPROVAL EVALUATION REPORT. DTT-1Z DEVICES SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY PER ICC-2330 AND SHALL BE ATTACHED TO METAL FRAMING USING 6-#10 SMS.

GENERAL NOTES - MISCELLANEOUS:

- SILL FASTENERS:** ASTM A307A, ASTM A307B OR ASME GRADE 2 BOLTS. LOW PROFILE HEADS MAY BE USED.
- SCREW ANCHORS:** HILTI KH-EZ CARBON STEEL SCREW ANCHORS. ANCHORS SHALL THE REQUIREMENTS OF AND SHALL BE INSTALLED IN ACCORDANCE WITH ICC ESR-3027.
- EXPANSION ANCHORS:** HILTI KB-T2Z EXPANSION ANCHORS. ANCHORS SHALL THE REQUIREMENTS OF AND SHALL BE INSTALLED IN ACCORDANCE WITH ICC ESR-4266.
- RESIN ANCHORS:** ASTM F1554 GRADE 36 ALL-THREAD ONLY, TO BE SET IN HILTI HIT RE 500 V3 RESIN. ANCHORS SHALL THE REQUIREMENTS OF AND SHALL BE INSTALLED IN ACCORDANCE WITH ICC ESR-3814.
- RESINOUS SETTING MORTAR:** NOT USED FOR S-3 PODS
- NONRESINOUS SETTING MORTAR:** LATICRETE 254. SURFACES SHALL BE PREPARED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
- STANDARD ABBREVIATIONS:** THESE DRAWINGS USE THE FOLLOWING ABBREVIATIONS:
  - "EA" DENOTES "EACH"
  - "HSS" DENOTES HOLLOW STRUCTURAL SHAPE
  - "MAX" DENOTES "MAXIMUM"
  - "MIN" DENOTES "MINIMUM"
  - "O.C." DENOTES "ON CENTER"
  - "SMS" DENOTES "SHEET METAL SCREW"
  - "TYP" DENOTES "TYPICAL"

STRUCTURAL BASIS OF DESIGN:

- GOVERNING BUILDING CODE:** THE POD STRUCTURAL DESIGN SHALL MEET THE REQUIREMENTS OF THE 2019 CALIFORNIA BUILDING CODE (CBC) AND THE REQUIREMENTS OF ASCE 7-16.
- LIVE LOADS:** THESE PODS ARE NOT DESIGNED TO SUPPORT THE WEIGHT OF ANY PERSONS ON THE LID OF THE POD; NO LIVE LOADS ARE USED. WALL AND CEILING FRAMING COMPLIES WITH 2019 CBC SECTION 1607.15 MINIMUM DESIGN PRESSURE OF 5 PSF.
- WIND LOADS:** THESE PODS ARE PERMITTED FOR INTERNAL INSTALLATIONS ONLY, NO WIND LOADS.
- SEISMIC LOADS:** PODS ARE DESIGNED TO COMPLY WITH THE "SEISMIC DESIGN REQUIREMENTS FOR NONSTRUCTURAL COMPONENTS OF ASCE 7-16 CHAPTER 13, USING THE FOLLOWING PARAMETERS:
  - SHORT-PERIOD SPECTRAL ACCELERATION,  $S_{ds}$  = fill in for this project
  - COMPONENT IMPORTANCE FACTOR,  $I_p$  = fill in for this project
  - COMPONENT ACCELERATION FACTOR,  $a_p$  = 2.5
  - COMPONENT RESPONSE MODIFICATION FACTOR,  $R_p$  = 3.5
  - OPERATING WEIGHT OF THIS POD,  $W$  = fill in for this project

STRUCTURAL ENGINEER OF RECORD (SEOR):

THESE PODS WILL IMPOSE VERTICAL DEAD LOAD REACTIONS AND SEISMIC OVER-TURNING FORCES ON THE SUPPORTING FLOOR STRUCTURE, AND IT IS THE STRUCTURAL ENGINEER OF RECORD'S (SEOR'S) RESPONSIBILITY TO CONFIRM THAT THE SUPPORTING FLOOR STRUCTURE AND ALL ASSOCIATED MEMBERS AND CONNECTIONS IN THE LOAD PATH CAN SUPPORT THESE LOADS IN ADDITION TO ALL OTHER LOADS IMPOSED ON THE FLOOR STRUCTURE. THE TOTAL OPERATING WEIGHT OF THE POD IS LISTED IN THE "STRUCTURAL BASIS OF DESIGN" PRESENTED ABOVE. THE LOCATION OF DEVICES ANCHORING THE POD TO THE FLOOR STRUCTURE ARE SHOWN ON THE "SHEAR WALL KEY PLAN" INCLUDED WITH THIS SUBMITTAL. THE "ANCHORAGE FORCE", DEFINED AS 2.5 TIMES THE LRFD NET UPLIFT PER ASCE7-16 SECTION 12.4.2.3 EQUATION 6 IS fill in for this project

Figure 5.0.2.1

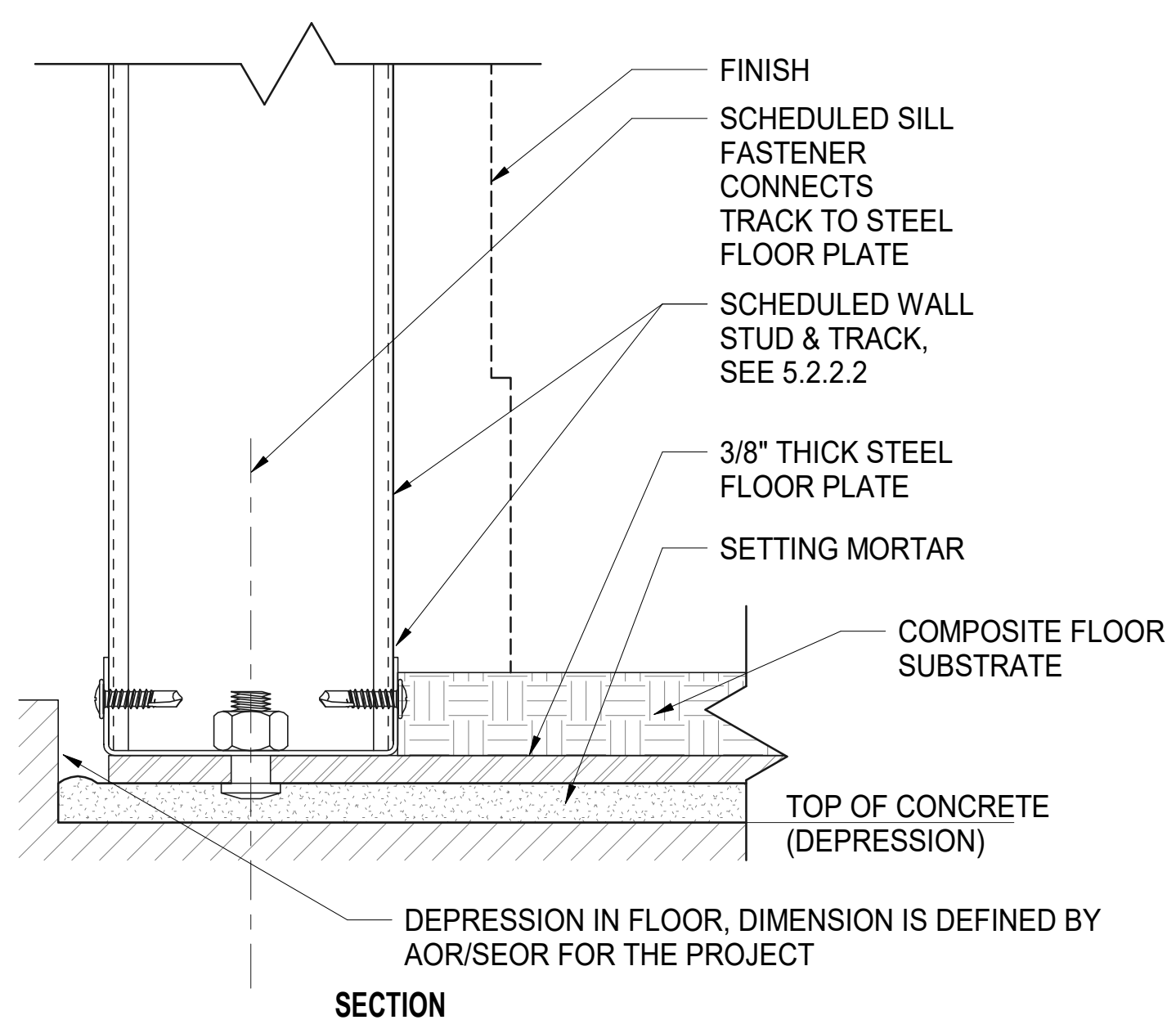


Figure 5.2.1

Figure 5.0.2.2

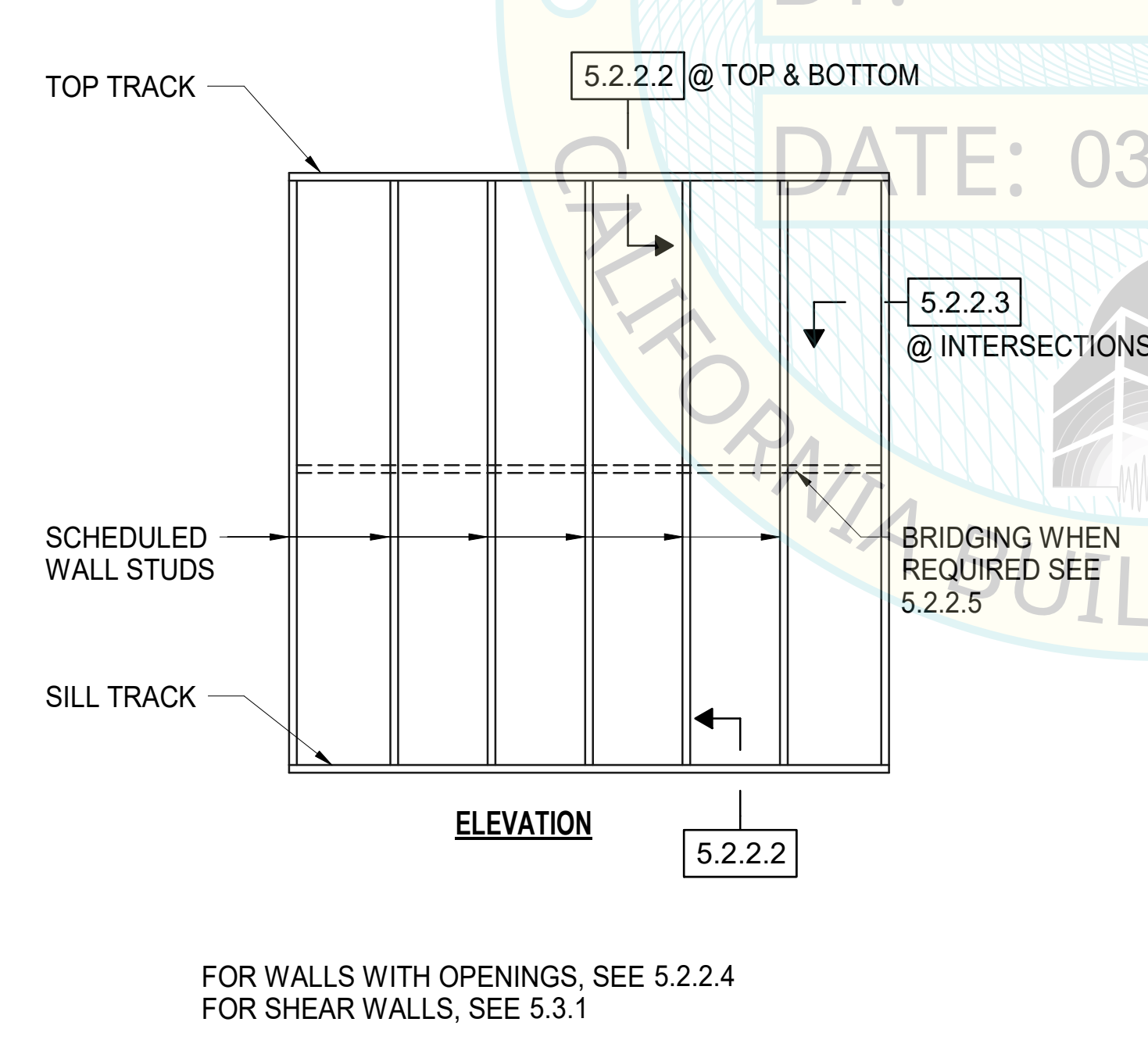


Figure 5.2.2.1

Figure 5.0.2.3

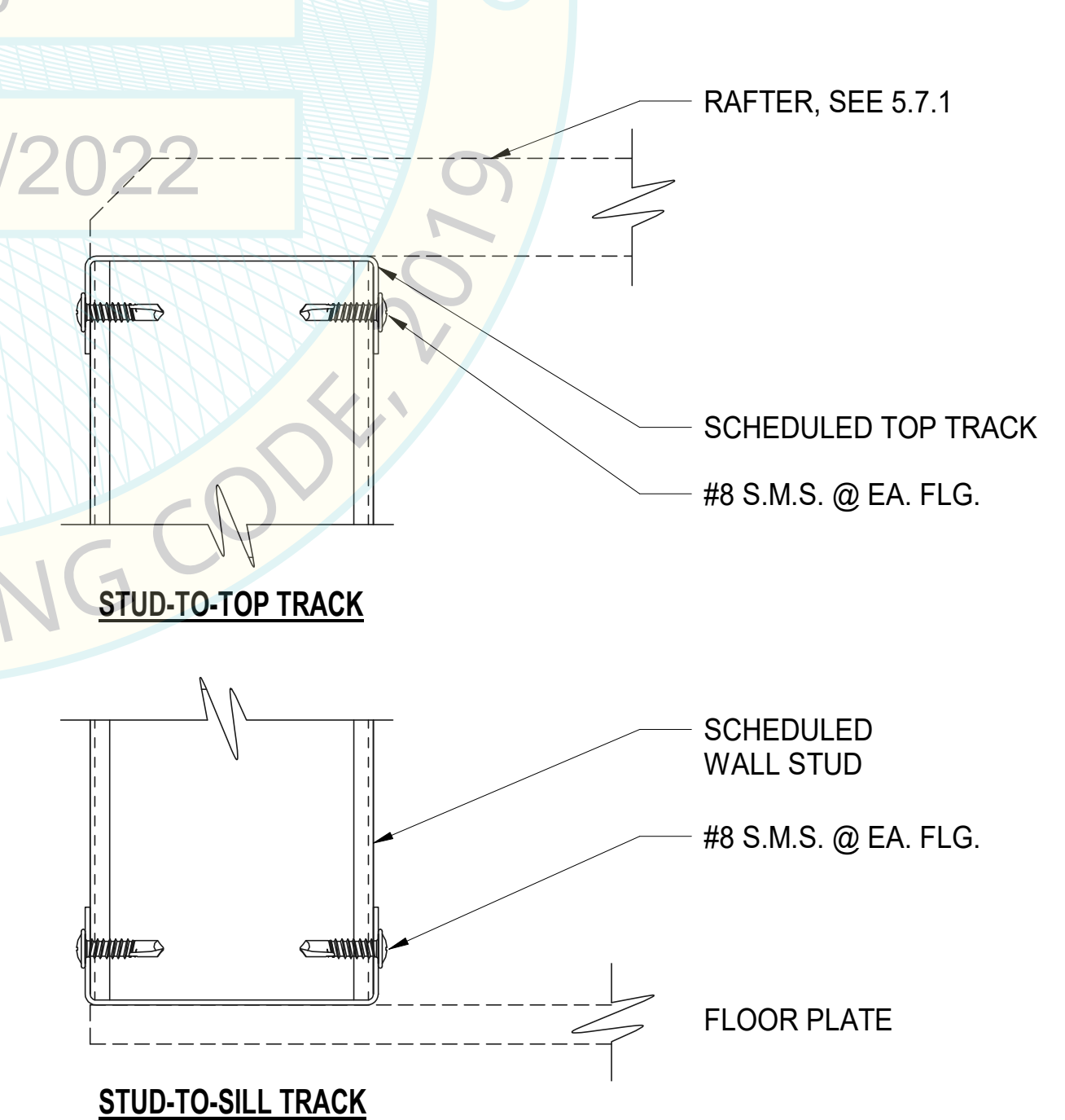


Figure 5.2.2.2

Figure 5.0.2.4

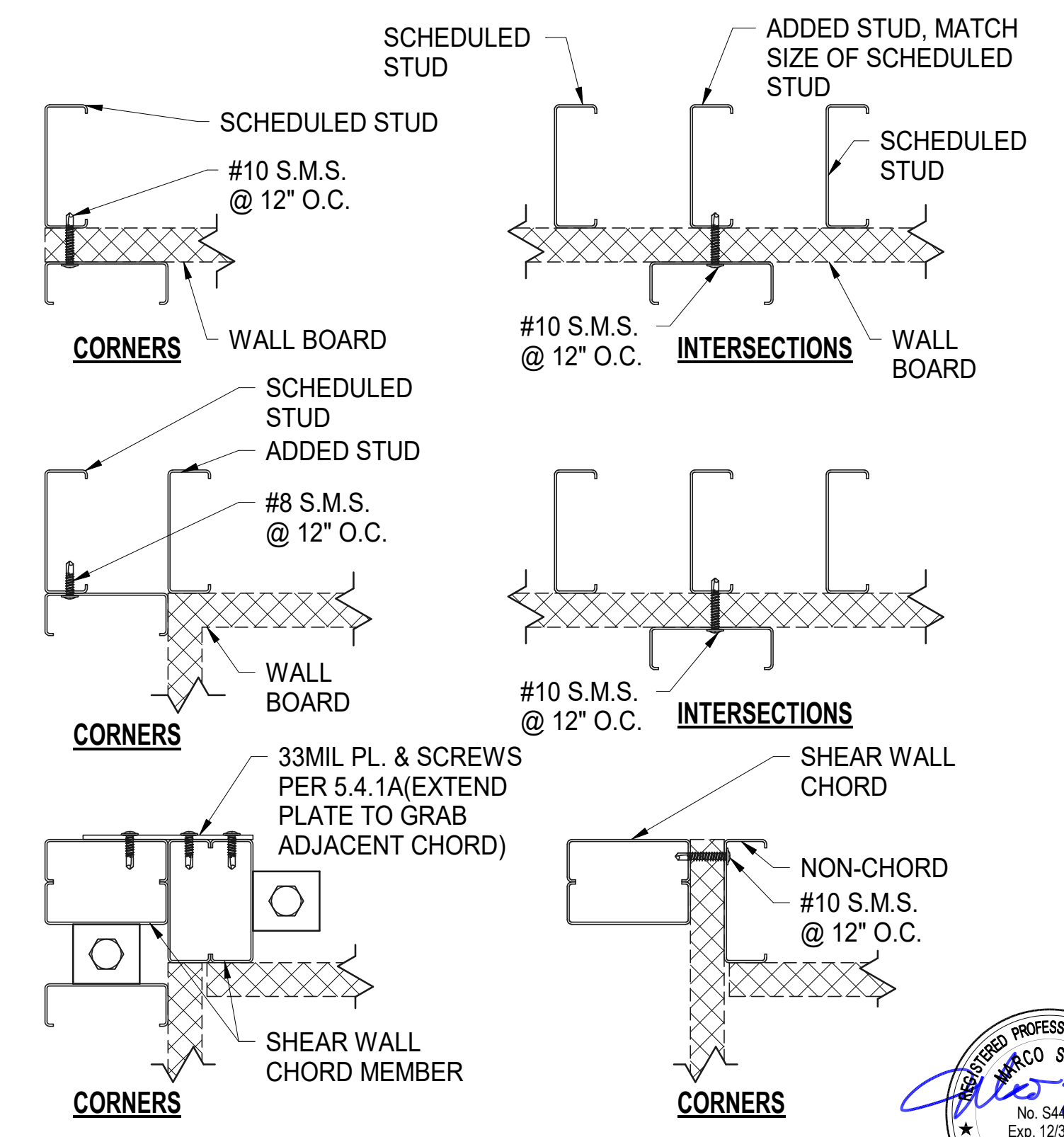


Figure 5.2.2.3

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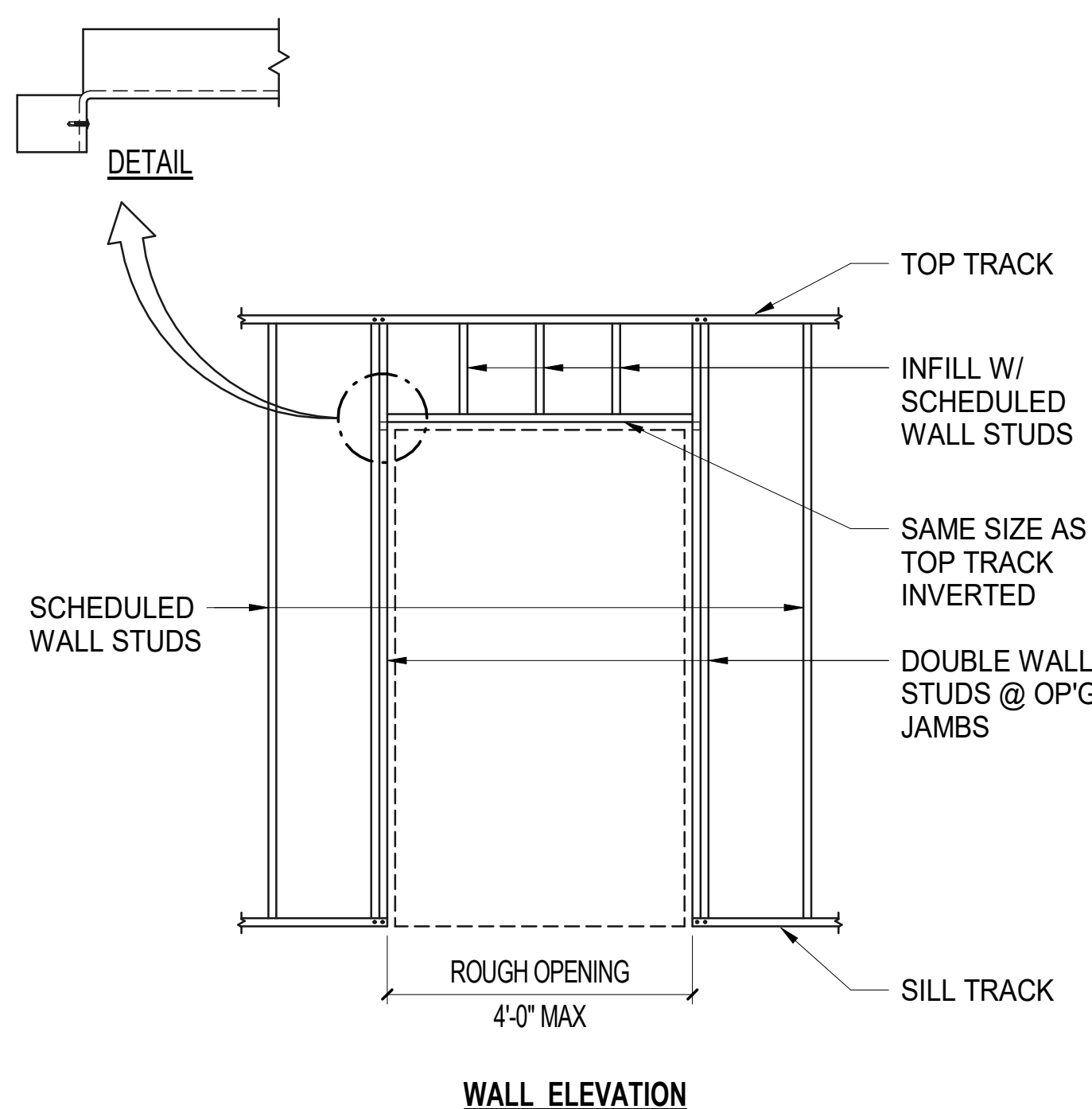


Figure 5.2.2.4

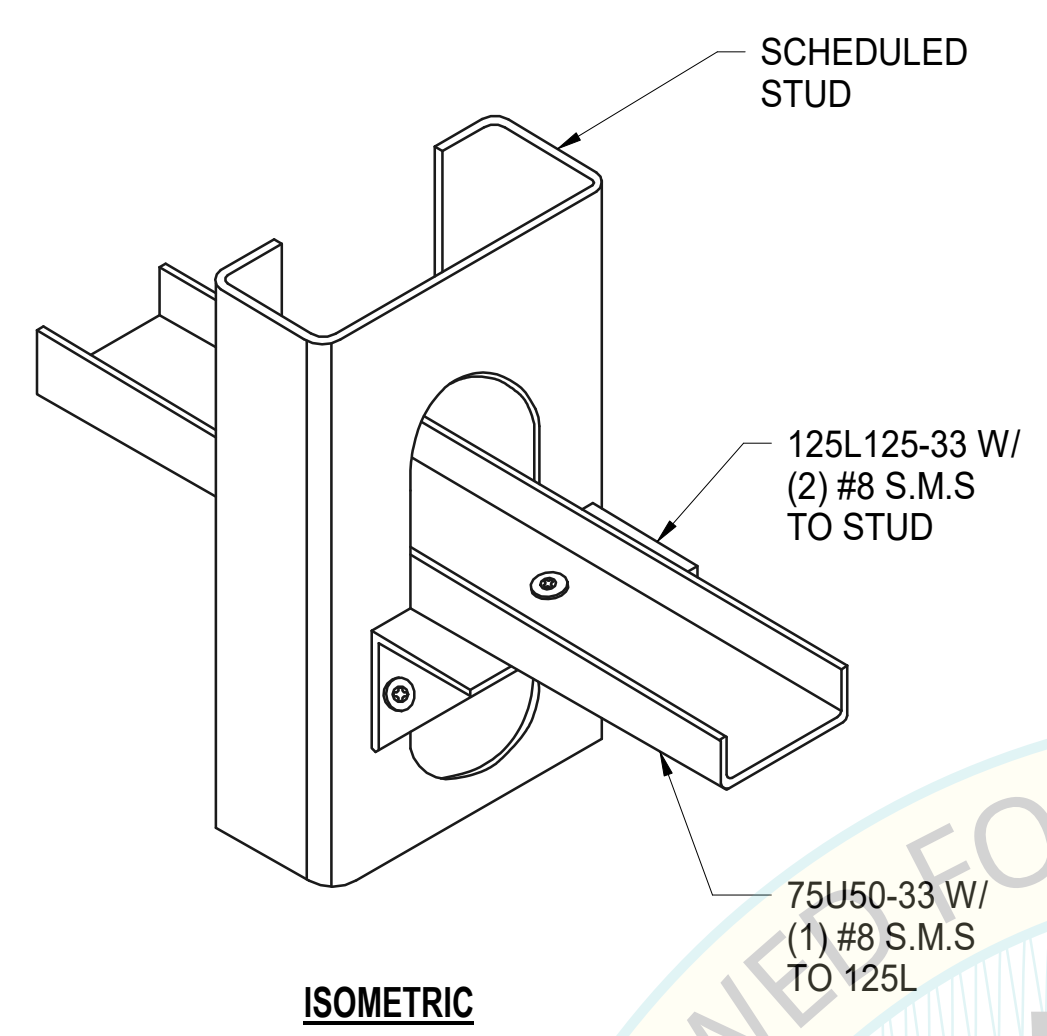


Figure 5.2.2.5

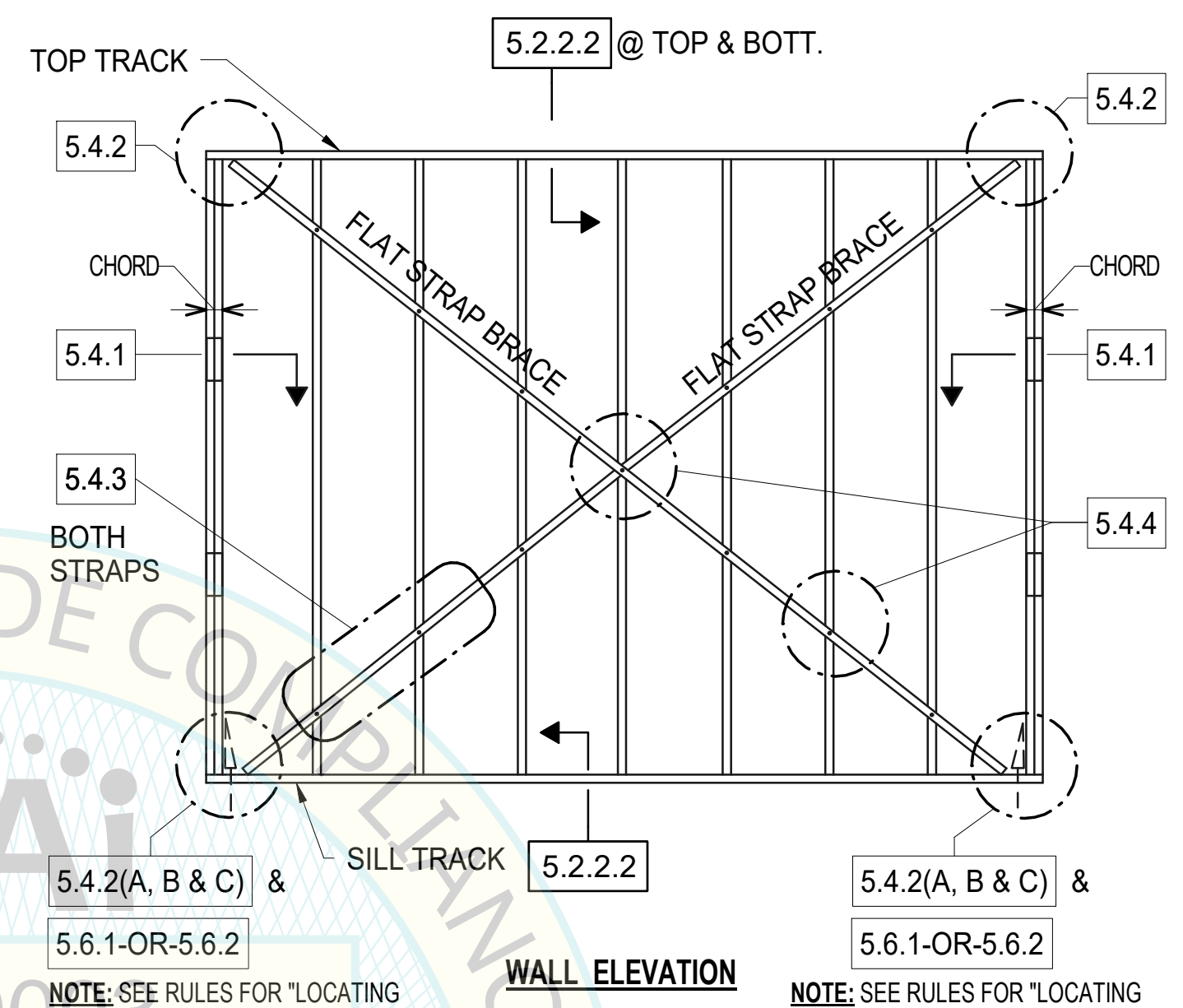


Figure 5.3.1

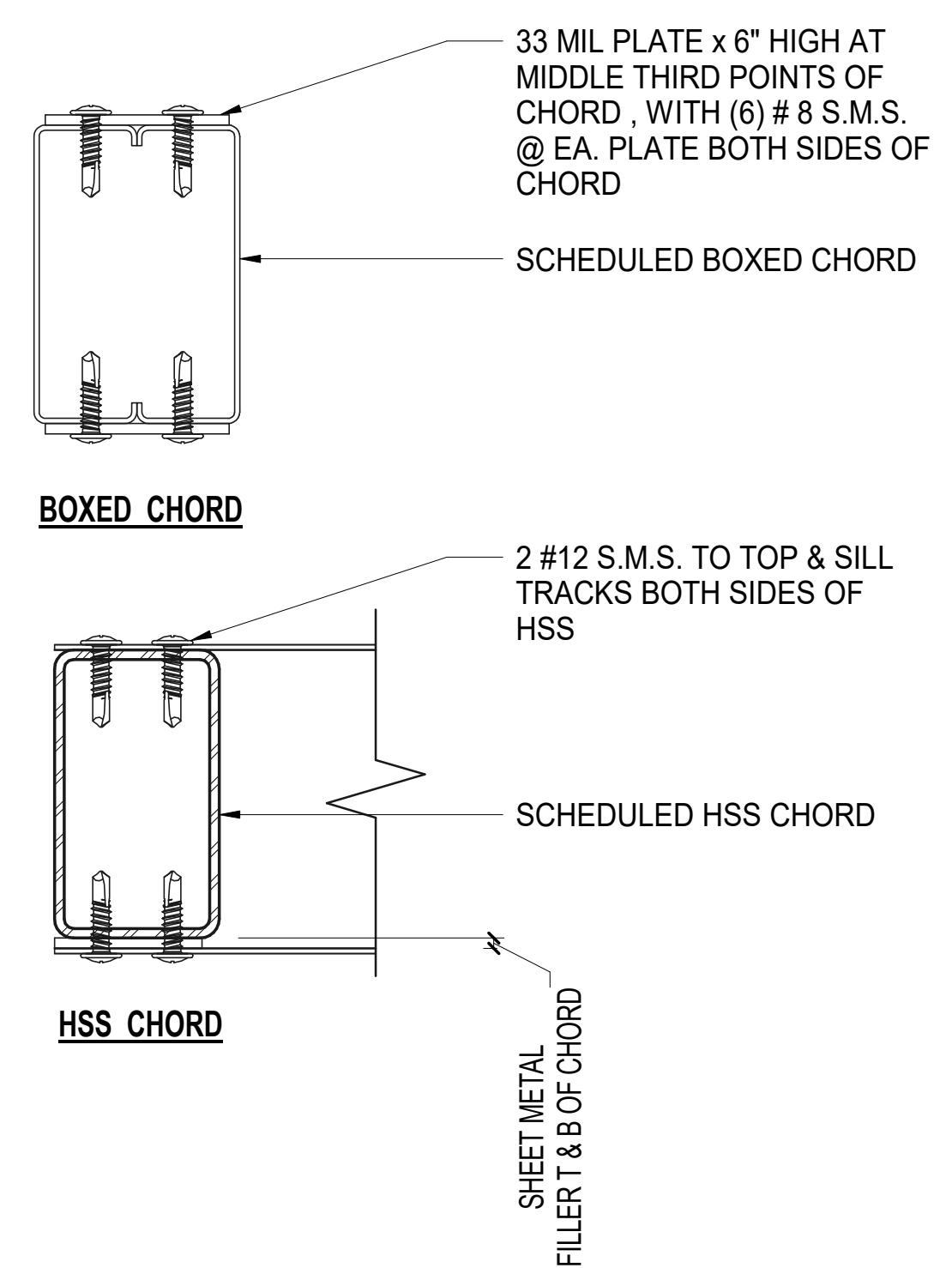


Figure 5.4.1a

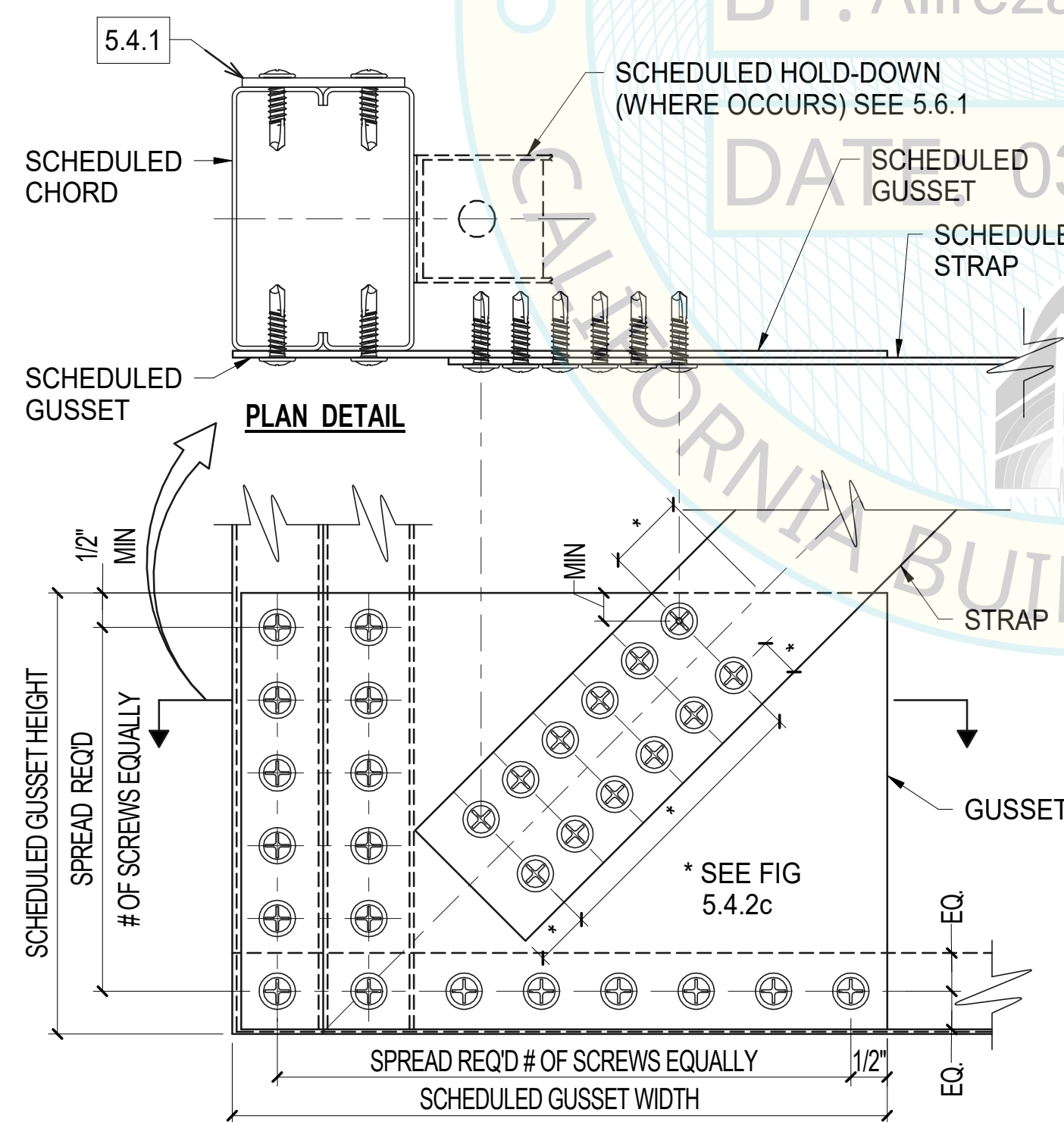
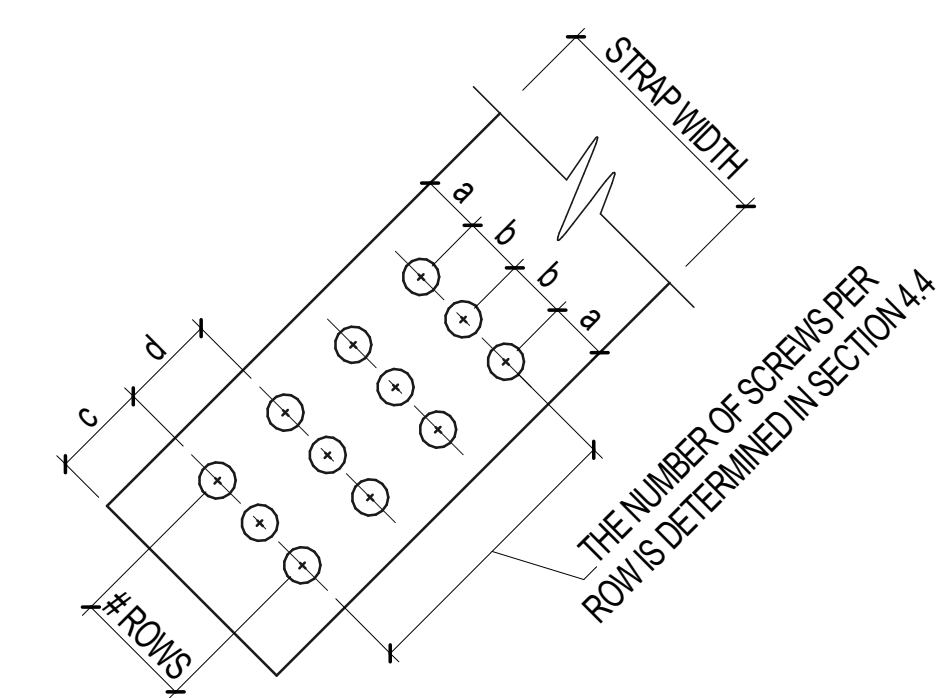


Figure 5.4.2a

- RULES FOR FLAT STRAP BRACE CONNECTION**
1. THE STRAP CENTERLINE SHALL RUN FROM WORK POINTS AT EACH END OF THE BRACE.
  2. LOCATE BRACE WORK POINTS AT THE CENTERLINE OF THE CHORD STUD, AT TOP OF TOP TRACK AND AT BOTTOM OF SILL TRACK.
  3. CUT THE STRAP SUCH THAT IT DOES NOT OVERLAP EITHER THE CHORD STUD NOR THE TOP OR SILL TRACK.
  4. LAYOUT SCREWS 1) MINDING THE MINIMUM EDGE DISTANCES SHOWN ON THE DETAIL, 2) WITH UNIFORM SPACING BETWEEN ROWS, 3) ALWAYS PARALLEL TO THE MEMBER (EXCEPT GUSSET) & 4) WITH A MINIMUM SPACING AS SHOWN ON THE DETAIL.
  5. INSTALL GUSSETS FIRST, COMPLETING ALL SCREW CONNECTIONS TO THE CHORDS & TRACKS. THEN CONNECT ONE END OF THE FLAT STRAP BRACE TO A GUSSET. THEN TENSION THE STRAP (SEE 5.4.3) BEFORE FASTENING THE OTHER END OF THE STRAP.
  6. A SCHEMATIC CARTOON OF THE CONNECTION GEOMETRY & CREW LAYOUT IS PROVIDED IN SECTION 4.4 OF THE MANUAL. USE THIS CARTOON AS A LAYOUT GUIDE.
  7. MINIMUM SCREW EDGE DISTANCES & SPACING VARY. FOR STRAP-TO-GUSSET SCREW LAYOUT, COMPLY WITH FIGURE 5.4.2c. FOR GUSSET-TO-CHORD AND FOR GUSSET-TO-TRACK SCREW LAYOUT, COMPLY WITH FIGURE 5.4.2a.

Figure 5.4.2.b



**MINIMUM EDGE DISTANCE & SPACING REQUIREMENTS**

| STRAP WIDTH | # ROWS | a      | b      | c      | d      |
|-------------|--------|--------|--------|--------|--------|
| 1.00"       | 1      | 0.5"   | n/a    | 0.75"  | 0.60"  |
| 1.50"       | 2      | 0.5"   | 0.5"   | 0.75"  | 0.60"  |
| 2.00"       | 2      | 0.625" | 0.75"  | 1.00"  | 0.60"  |
| 2.50"       | 3      | 0.625" | 0.625" | 1.00"  | 1.00"  |
| 3.00"       | 4      | 0.60"  | 0.60"  | 1.00"  | 1.125" |
| 4.00"       | 5      | 0.60"  | 0.70"  | 1.00"  | 1.375" |
| 5.00"       | 6      | 0.625" | 0.75"  | 1.125" | 1.50"  |
| 6.00"       | 7      | 0.75"  | 0.75"  | 1.00"  | 1.75"  |

Figure 5.4.2c

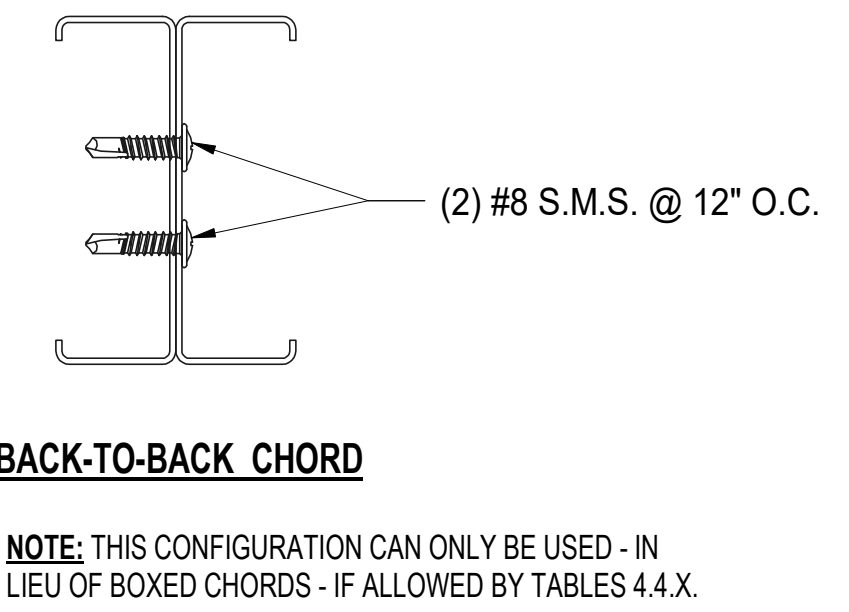


Figure 5.4.1b

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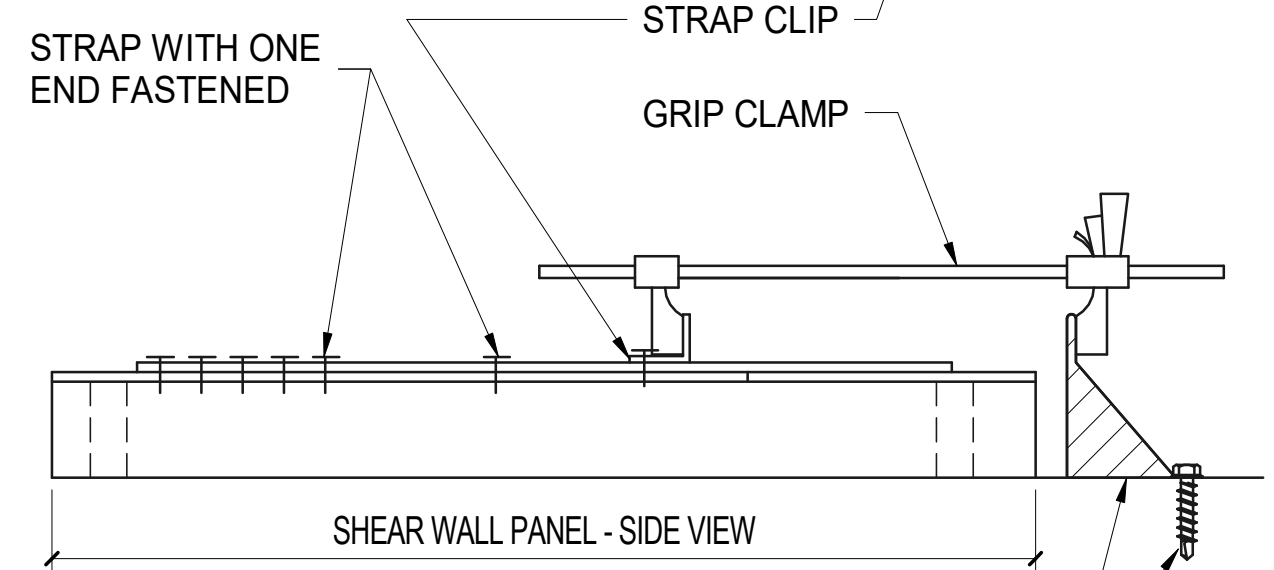
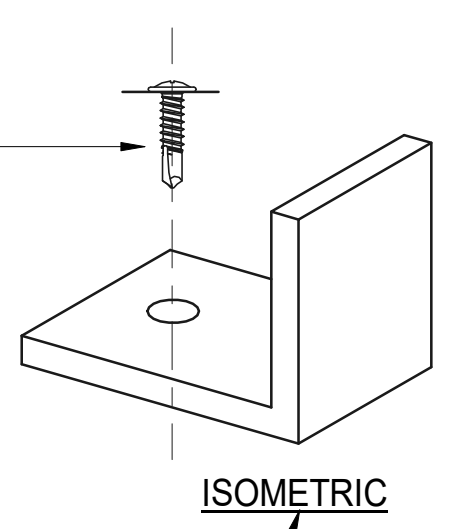
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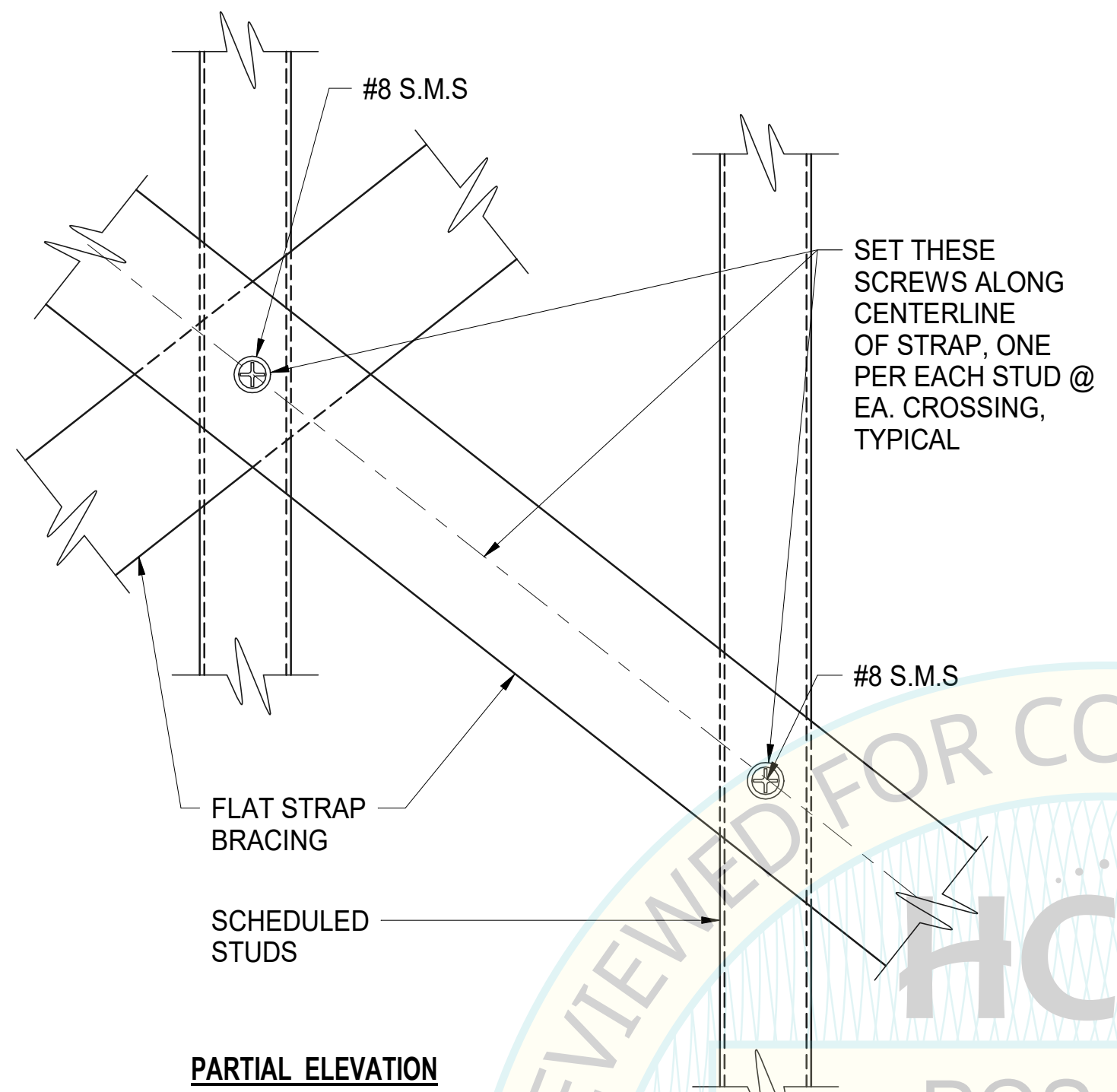


SECURE "STRAP CLIP" TO FLAT STRAP W/ SCREW AT CENTERLINE OF STRAP ONLY, #10 MAX.



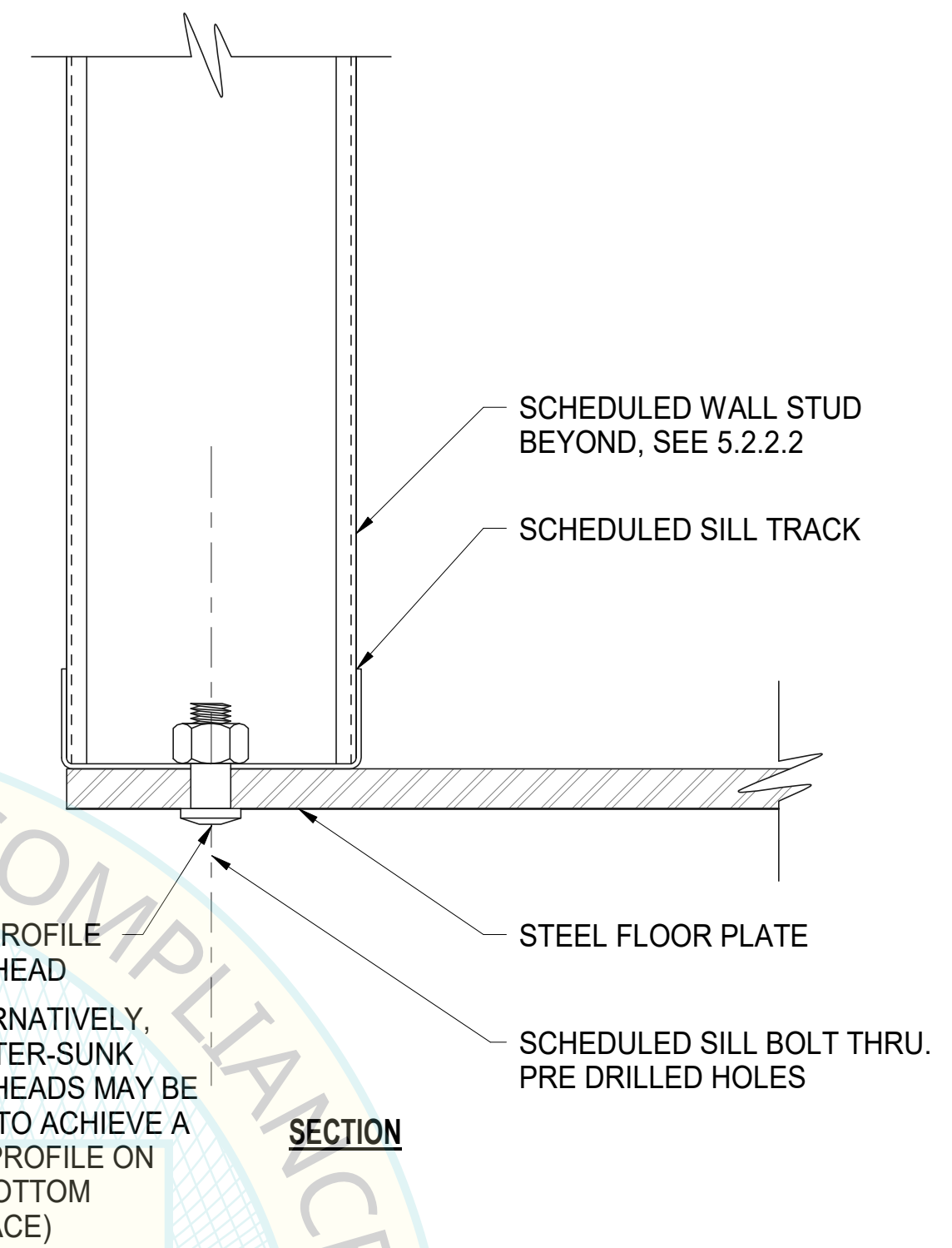
WITH THE FAR END OF THE STRAP CONNECTED TO THE WALL ASSEMBLY, PULL OR TENSION THE STRAP UNTIL ALL SLACK IS REMOVED FROM THE FLAT STRAP BRACE BEFORE ATTACHING THE OPPOSITE END TO THE WALL ASSEMBLY.

MOVEABLE TABLE- DOG



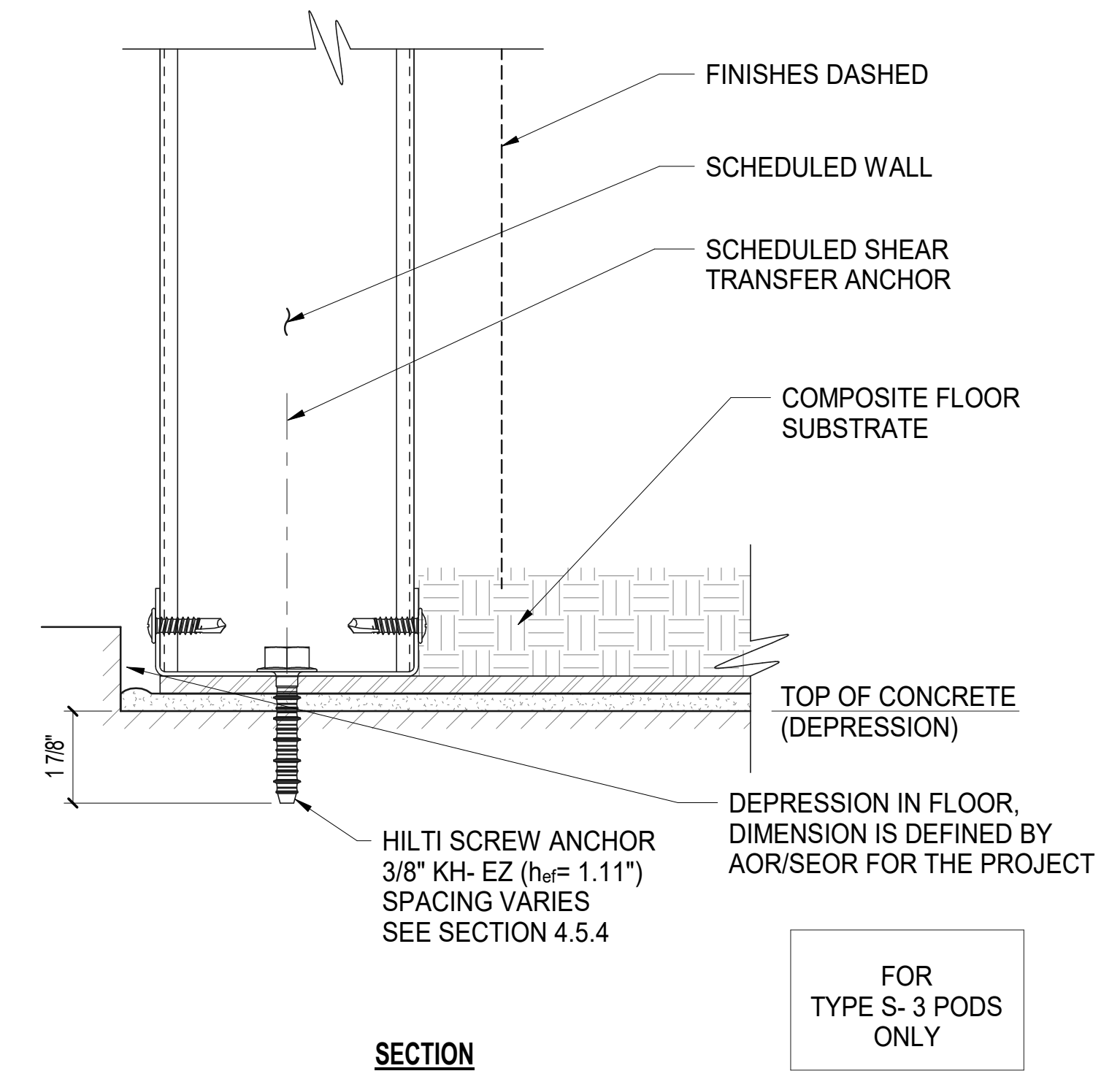
PARTIAL ELEVATION

Figure 5.4.4



SECTION

Figure 5.5.1



SECTION

Figure 5.5.2

FOR TYPE S- 3 PODS ONLY

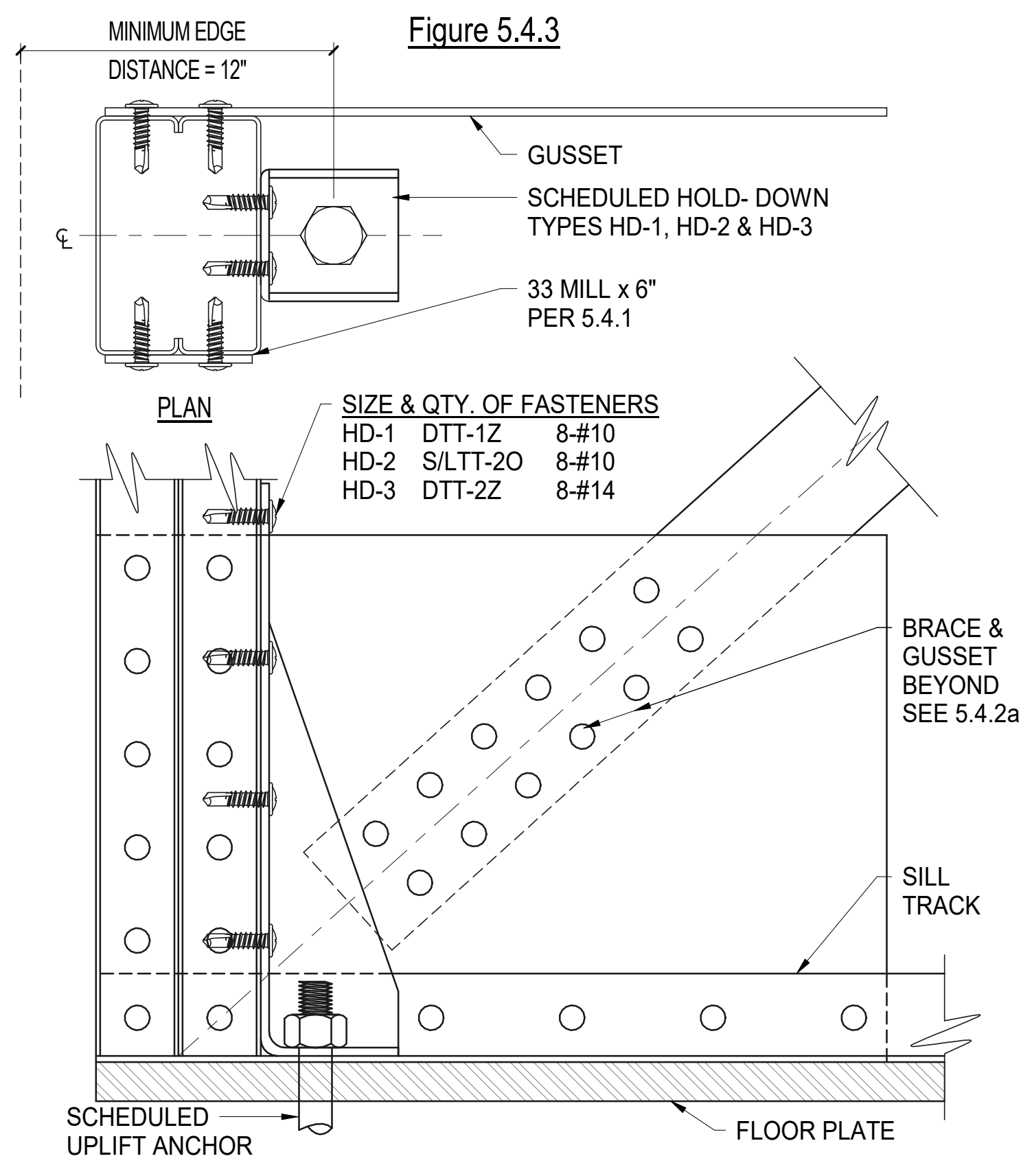
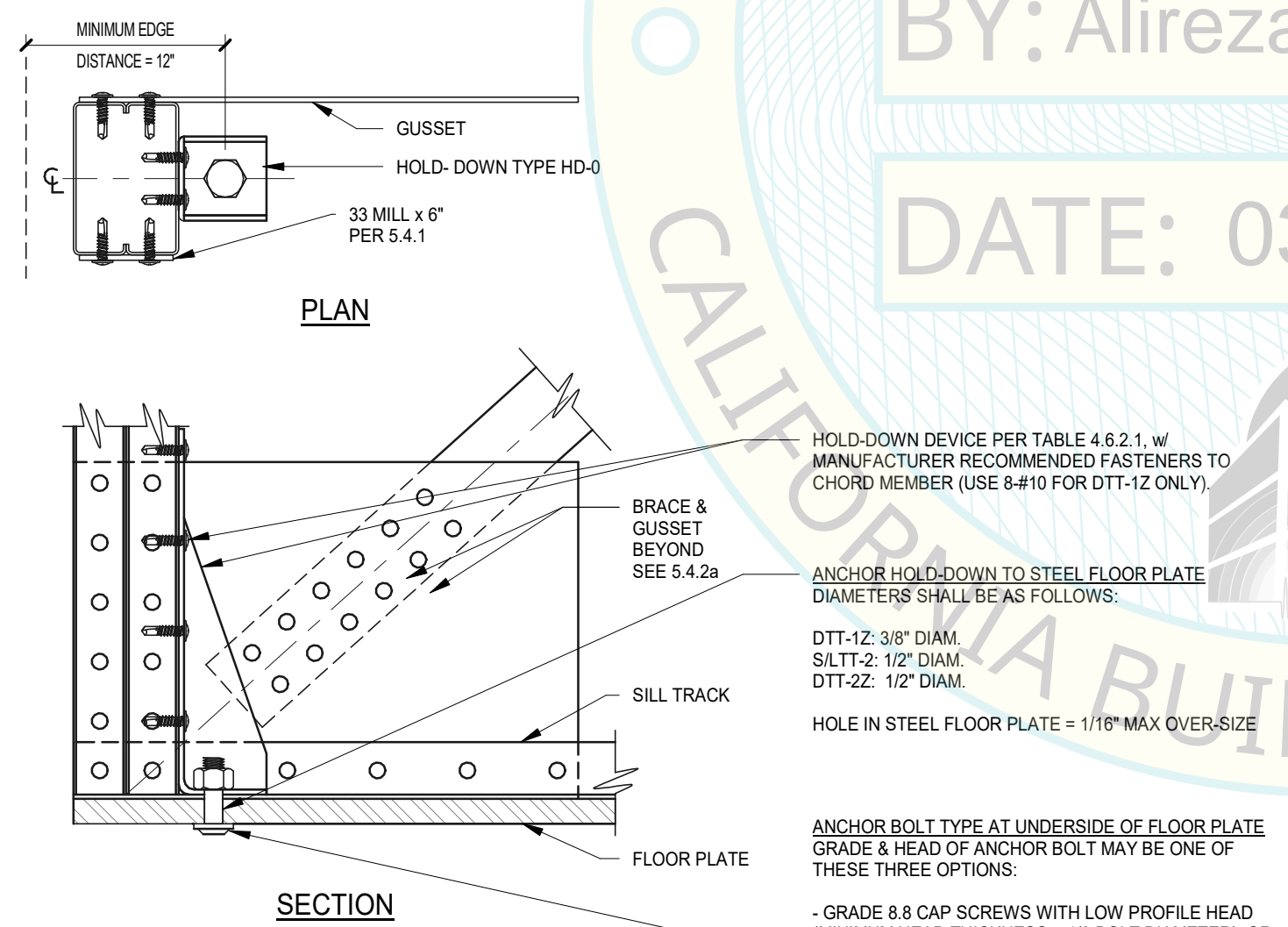


Figure 5.4.3

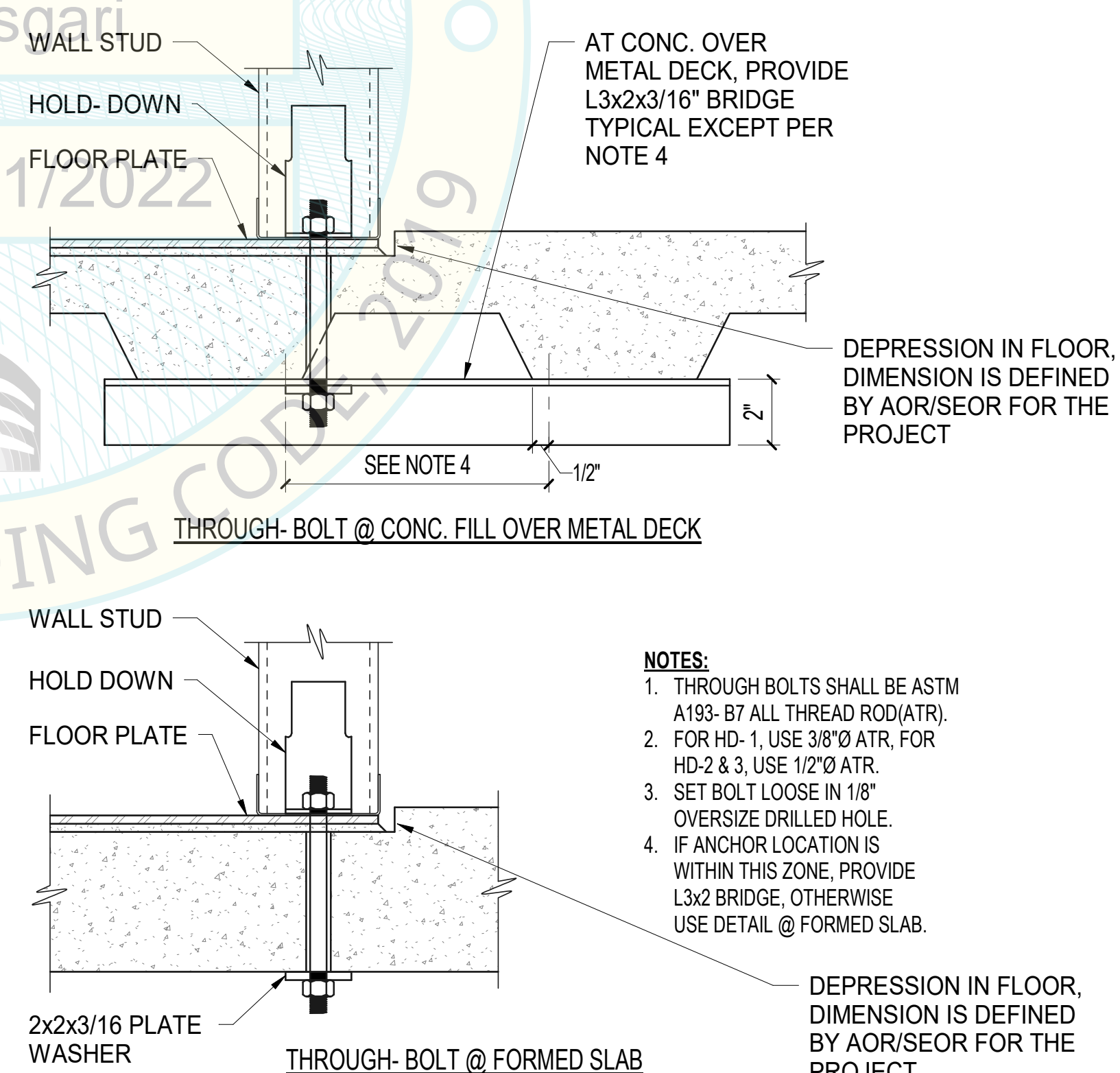


PLAN

SECTION

Figure 5.4.4

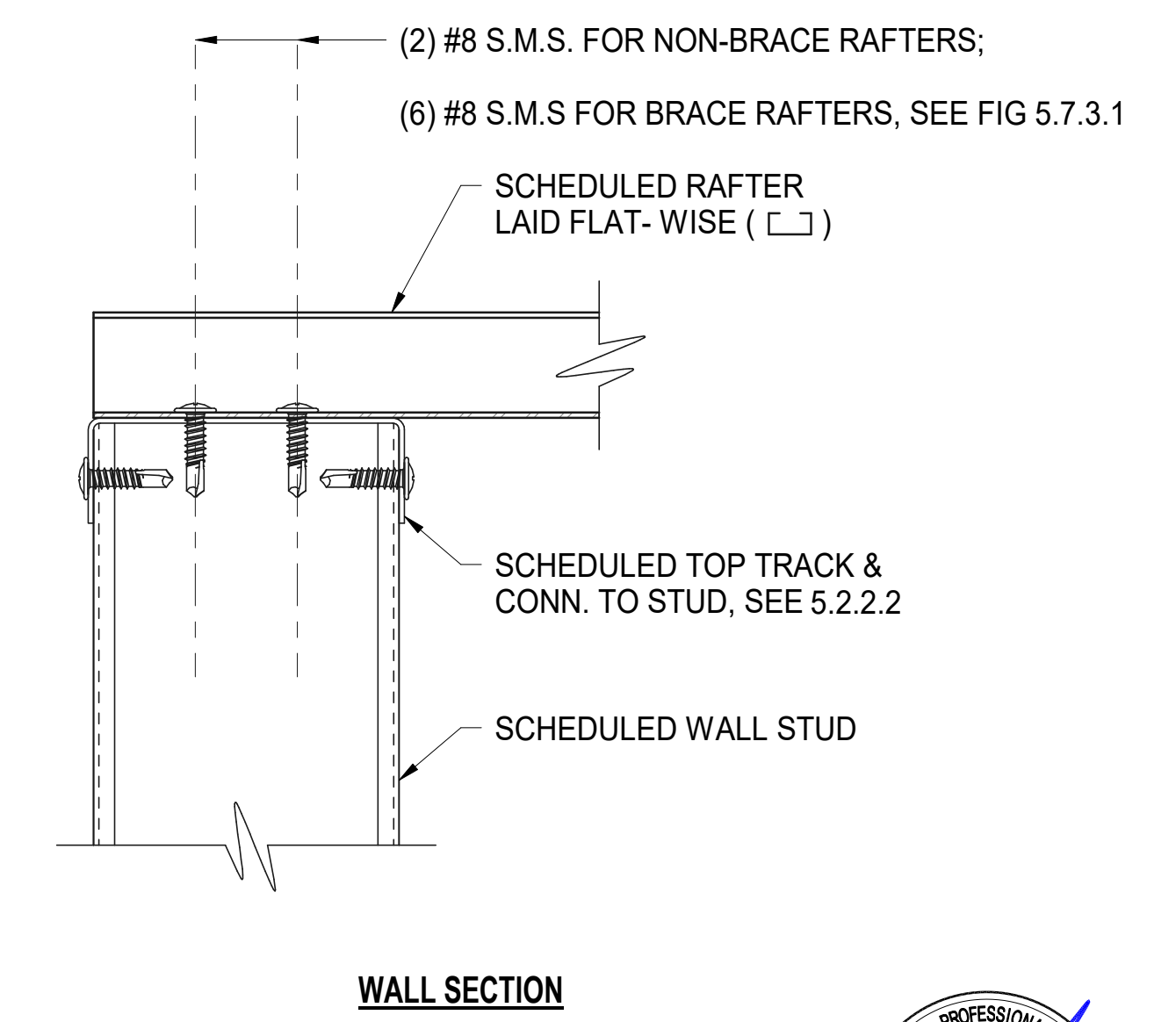
Figure 5.6.2



SECTION

Figure 5.6.5.1

- NOTES:
- THROUGH BOLTS SHALL BE ASTM A193- B7 ALL THREAD ROD(ATR).
  - FOR HD- 1, USE 3/8"Ø ATR, FOR HD-2 & 3, USE 1/2"Ø ATR.
  - SET BOLT LOOSE IN 1/8" OVERSIZE DRILLED HOLE.
  - IF ANCHOR LOCATION IS WITHIN THIS ZONE, PROVIDE L3x2 BRIDGE, OTHERWISE USE DETAIL @ FORMED SLAB.



WALL SECTION

Figure 5.7.1



|   |  |
|---|--|
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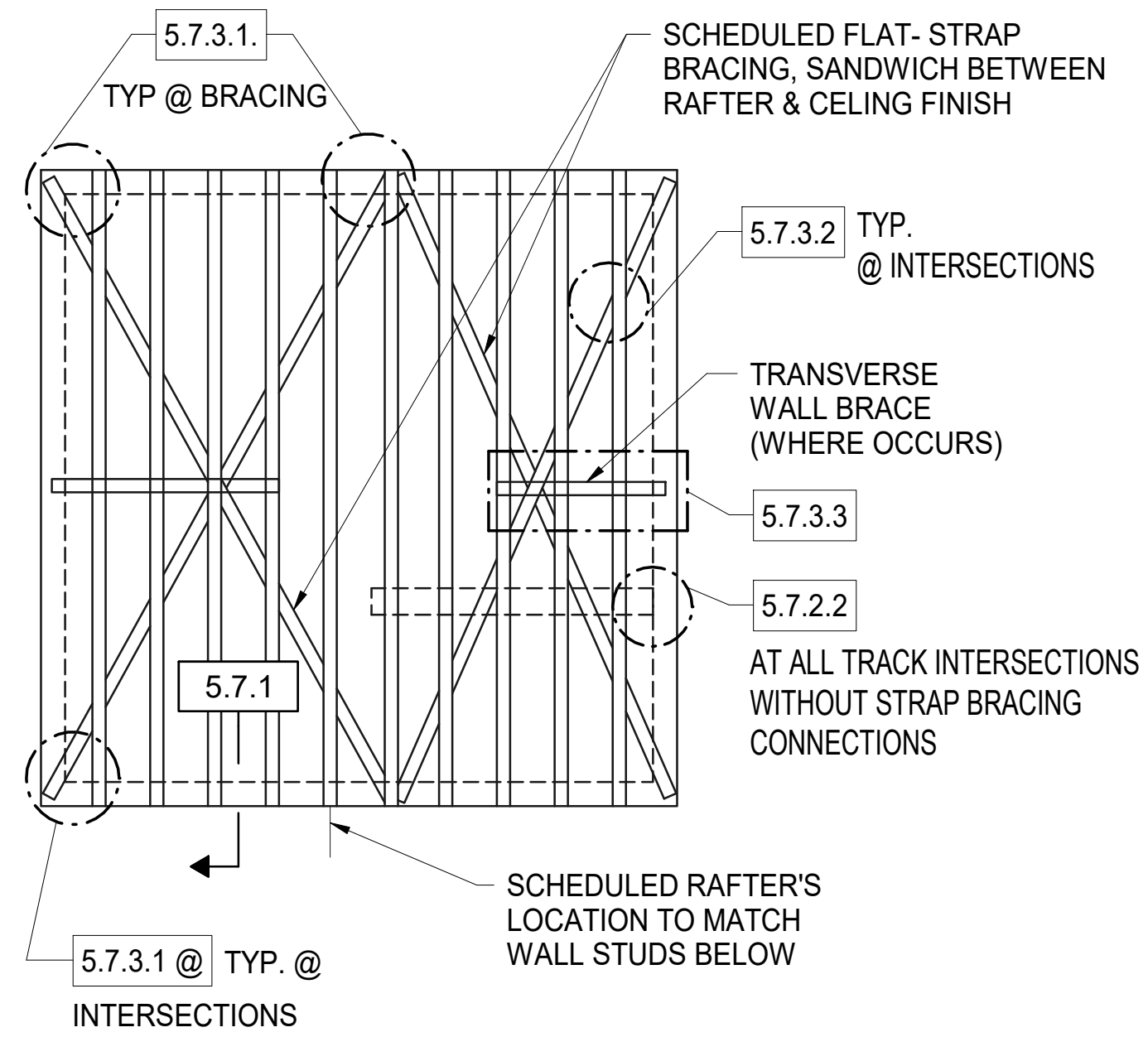
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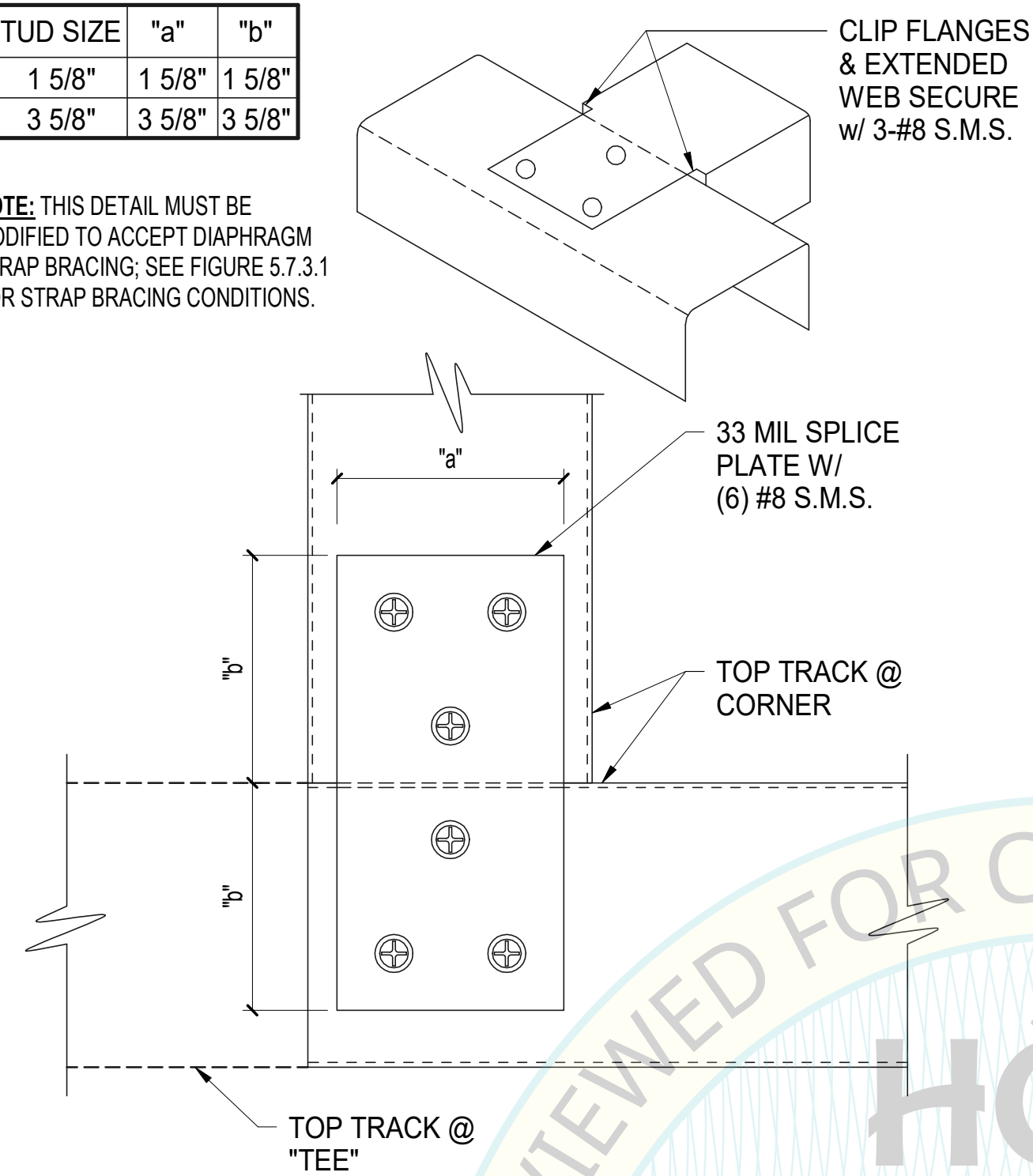
| STUD SIZE | "a"    | "b"    |
|-----------|--------|--------|
| 1 5/8"    | 1 5/8" | 1 5/8" |
| 3 5/8"    | 3 5/8" | 3 5/8" |

NOTE: THIS DETAIL MUST BE MODIFIED TO ACCEPT DIAPHRAGM STRAP BRACING; SEE FIGURE 5.7.3.1 FOR STRAP BRACING CONDITIONS.



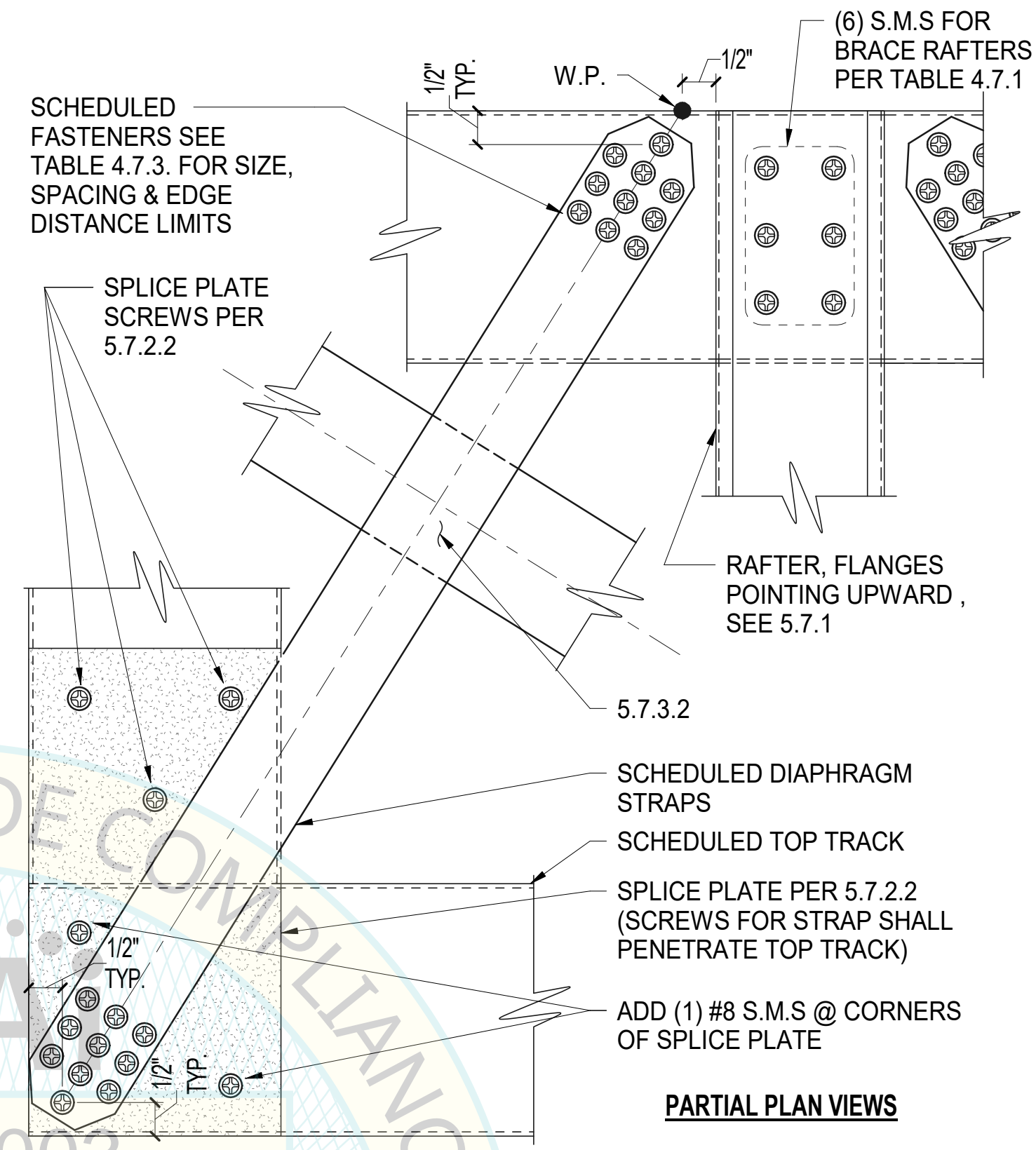
LAYOUT OF FLAT-STRAP BRACING SHALL COMPLY WITH MANUAL SECTION 3.6

Figure 5.7.2.1



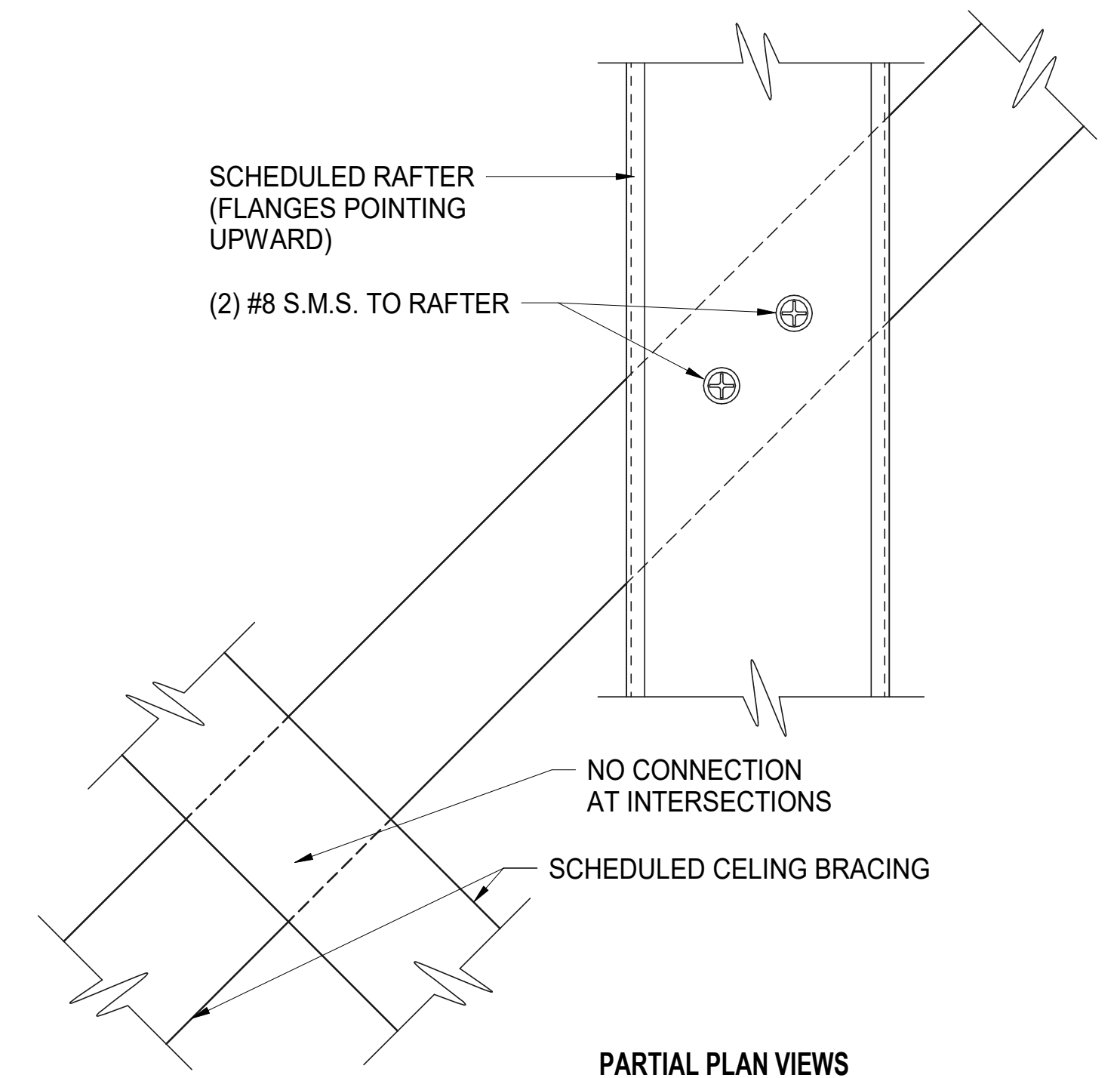
PLAN DETAIL @ TOP TRACK

Figure 5.7.2.2



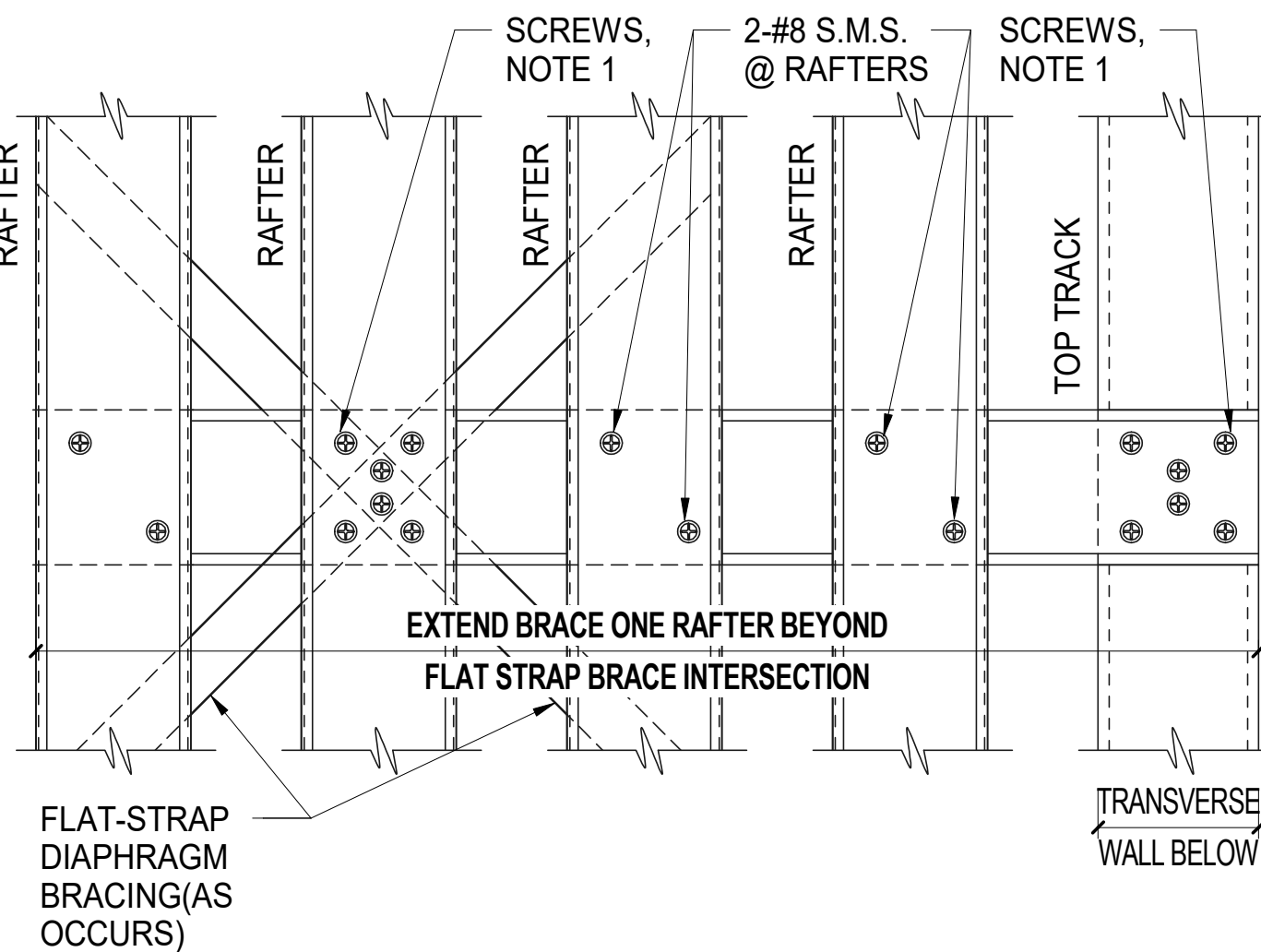
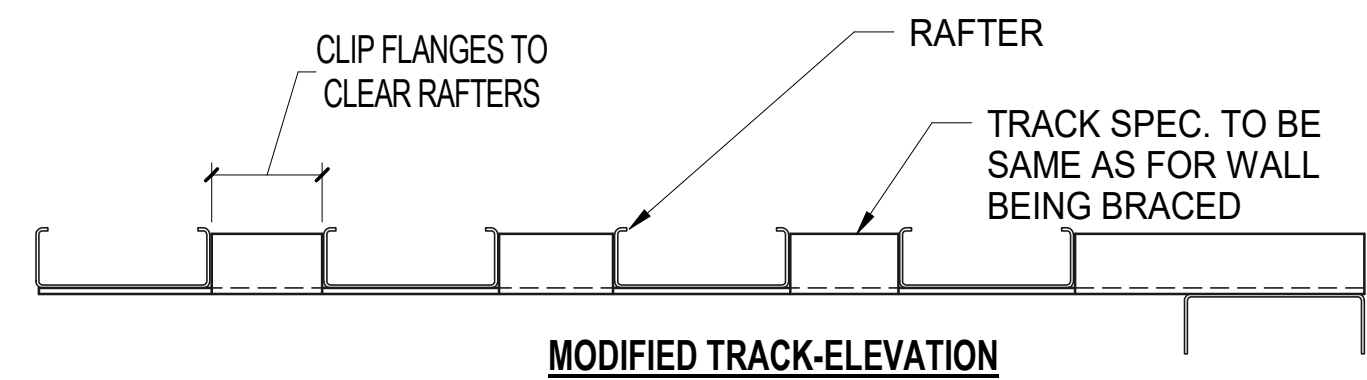
PARTIAL PLAN VIEWS

Figure 5.7.3.1



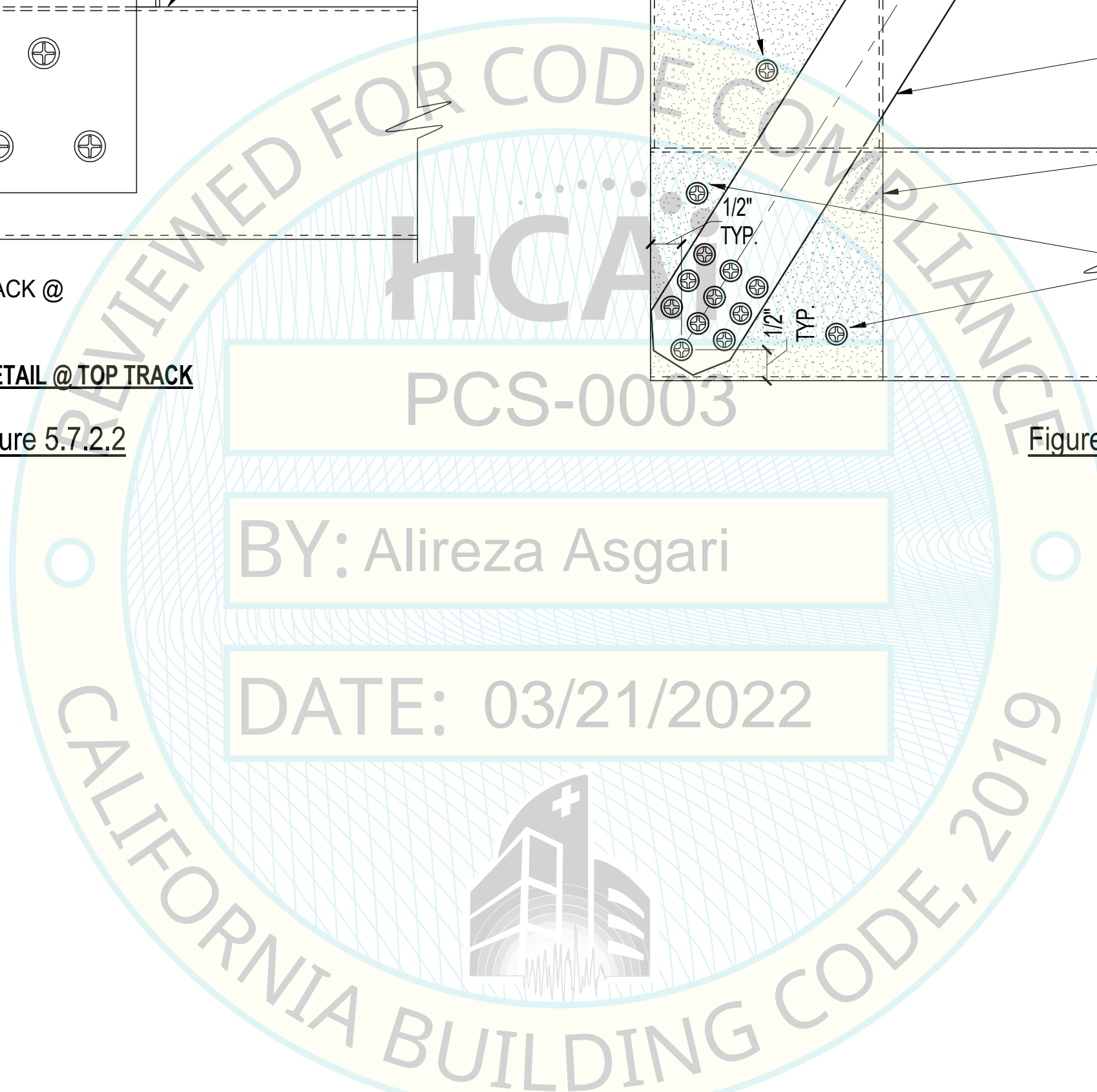
PARTIAL PLAN VIEWS

Figure 5.7.3.2



NOTE 1: PROVIDE 6 SCREWS, SAME SIZE AS TABLE 4.7.1, SCREWS SHALL PENETRATE FLAT STRAP BRACING @ INTERSECTION, AND WALL TRACK AT OPPOSITE END.

Figure 5.7.3.3



|   |  |                       |                        |                          |  |
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