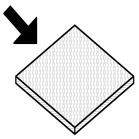
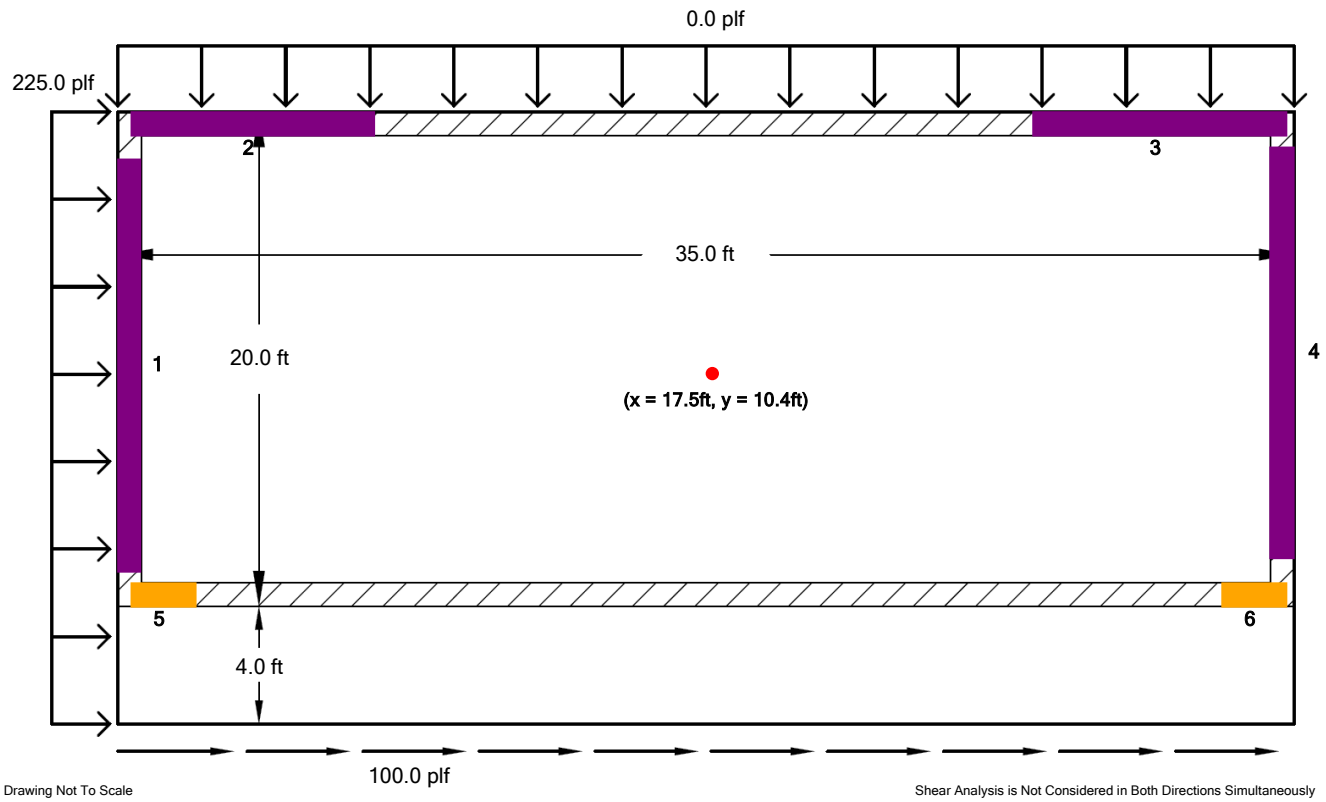


Cantilevered Diaphragm Design Summary

Diaphragm Design Summary				
Diaphragm Loading	**Critical Shear**	**Chord Forces**	**Diaphragm Deflection**	**Diaphragm Aspect Ratio**
Depth Loading	114.40 plf (27%)	1960.8 lbs (20%)	0.044 in	0.69 (17%)
Width Loading	133.31 plf (31%)	826.2 lbs (8%)	0.122 in	0.69 (17%)

Shear Wall Design Summary					
Wall ID	**Design Shear**	**Chord Forces**	**Hold Down Capacity**	**Wall Deflection**	**Wall Aspect Ratio**
Depth Loading - Wall #1	81.85 plf (22%)	818.47 lbs (8%)	818.47 lbs (26%)	0.323 in (11%)	0.57 (16%)
Depth Loading - Wall #2	95.34 plf (25%)	953.42 lbs (9%)	953.42 lbs (30%)	0.552 in (18%)	1.35 (39%)
Depth Loading - Wall #3	97.56 plf (26%)	975.58 lbs (9%)	975.58 lbs (31%)	0.552 in (18%)	1.30 (37%)
Depth Loading - Wall #4	-81.72 plf (22%)	-817.20 lbs (8%)	-817.20 lbs (26%)	-0.323 in (11%)	0.57 (16%)
Depth Loading - Wall #5	1660.72 plf (83%)	N/A	18979.66 lbs (71%)	0.580 in (85%)	N/A
Depth Loading - Wall #6	1660.72 plf (83%)	N/A	18979.66 lbs (71%)	0.580 in (85%)	N/A
Width Loading - Wall #1	182.00 plf (48%)	1819.99 lbs (18%)	1819.99 lbs (58%)	0.717 in (24%)	0.57 (16%)
Width Loading - Wall #2	-5.66 plf (1%)	-56.55 lbs (1%)	-56.55 lbs (2%)	-0.033 in (1%)	1.35 (39%)
Width Loading - Wall #3	-5.79 plf (2%)	-57.87 lbs (1%)	-57.87 lbs (2%)	-0.033 in (1%)	1.30 (37%)
Width Loading - Wall #4	153.81 plf (40%)	1538.06 lbs (15%)	1538.06 lbs (49%)	0.607 in (20%)	0.57 (16%)
Width Loading - Wall #5	21.72 plf (1%)	N/A	248.25 lbs (1%)	0.008 in (1%)	N/A
Width Loading - Wall #6	21.72 plf (1%)	N/A	248.25 lbs (1%)	0.008 in (1%)	N/A

2015 SDPWS Cantilevered Diaphragm Design - Depth Loading



Drawing Not To Scale

Shear Analysis is Not Considered in Both Directions Simultaneously

Diaphragm Type	Framing Species	Panel Thickness	Nail Size/Spacing	Load Case	Construction Method	Diaphragm Capacity
Standard Diaphragm	Douglas Fir	23/32"	10d at 4"	Case 1 & 3	Blocked	425.0 plf

Shear - Left Line	Shear - Right Line	Shear - Top Line	Shear - Bottom Line	Diaphragm Deflection	Aspect Ratio	Cantilever (L'/W')
60.0 plf (14%)	-59.6 plf (14%)	41.7 plf (10%)	114.4 plf (27%)	0.04 in @ 10.0 ft	0.69 (17%)	1.00 (25%)

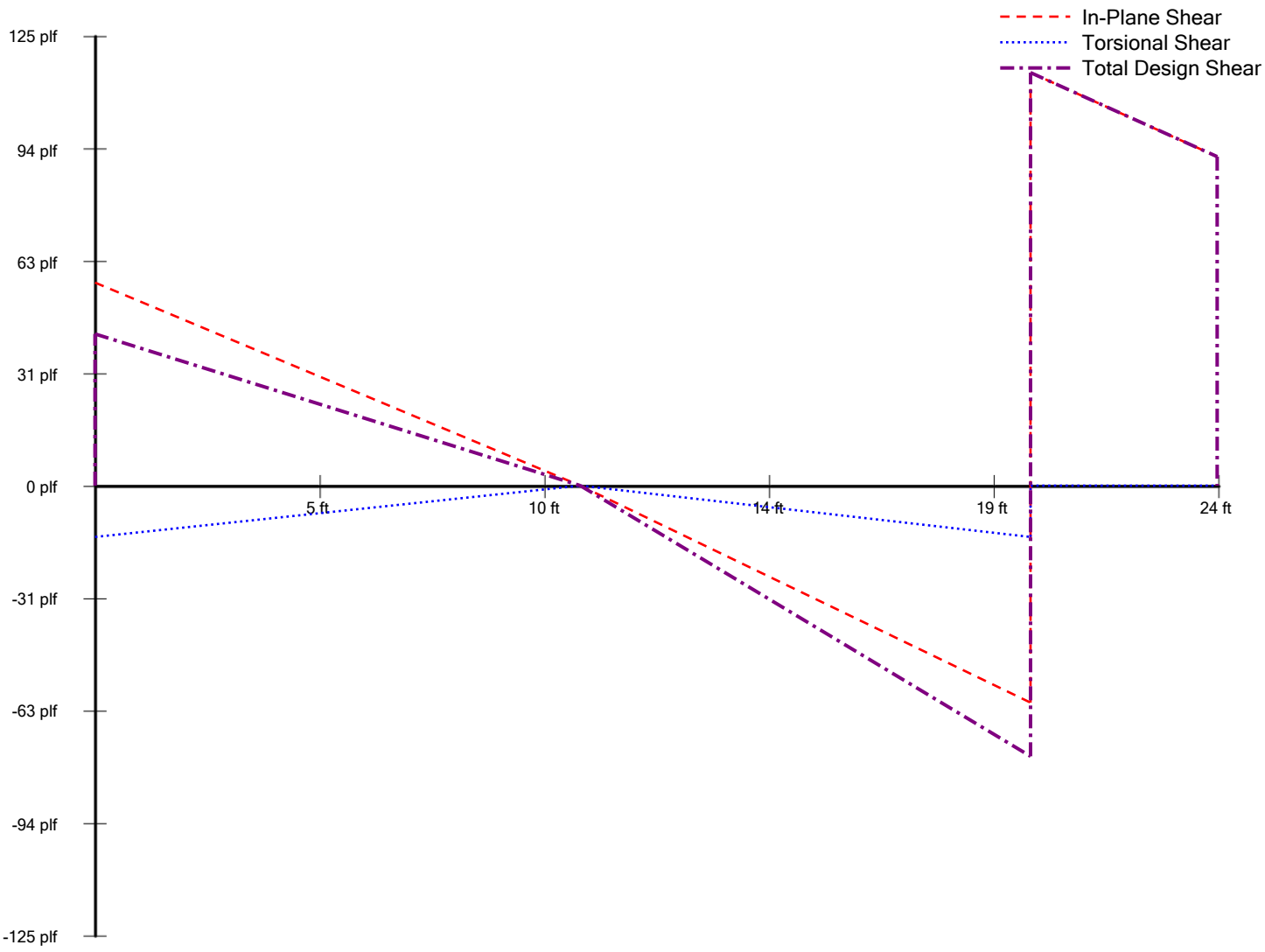
- Design loads indicated in this table have been adjusted for Allowable Stress Design, and include contributions from diaphragm shear and rigid torsional effects.
- Design diaphragm deflection is calculated assuming OSB sheathing installed in dry service conditions. If plywood sheathing is used, diaphragm shear stiffness will be reduced, which may increase diaphragm deflection.
- Deflection values are determined using design strength level seismic loads, with redundancy factor (Rho) set to 1.3.
- Design torsional loads have been increased per the amplification of accidental torsion factor (Ax) with a value of 1.538.
- Total design torsional distance from diaphragm center of rigidity, including amplification of accidental torsion and user defined torsion, is 3.46 ft.
- This diaphragm has a horizontal structural irregularity Type 1b as defined in Table 12.3-1 in ASCE 7-16. This diaphragm is not permitted in seismic design categories E or F.

Splice Length	Design Moment	Splice Tension	Splice Capacity	Min. Nail Count	Nail Size
16.0 ft	58800.0 ft-lbs	1960.8 lbs (97%)	2030.4 lbs	9	16d Common (0.162" x 3.5")

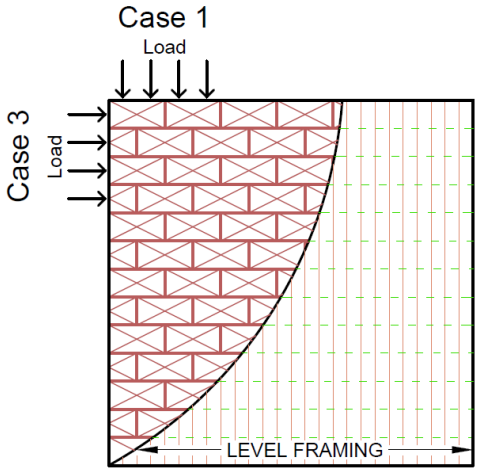
- Chord forces have been increased for the redundancy factor (Rho) and accidental torsion effects (Ax).
- Nail count is determined at each edge of splice. The splice assembly will require twice the nail count as indicated above to tie each end of splice together.

Diaphragm Moment	Moment Location	Chord Tension	Allowable Tension	Chord Compression	Allowable Compression
58800.0 ft-lbs	24.00 ft From Top	1960.8 lbs (20%)	9867.0 lbs	1960.8 lbs (10%)	19274.1 lbs

2015 SDPWS Cantilevered Diaphragm Design - Depth Loading

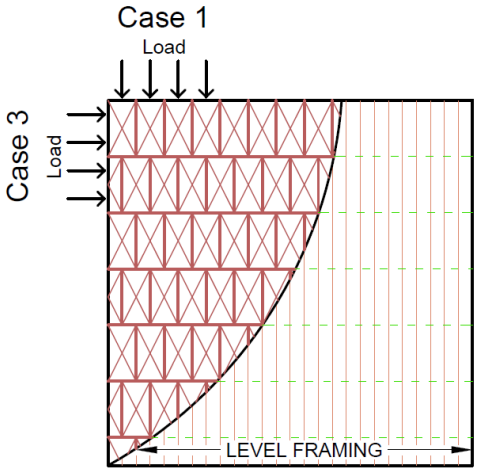


LONG PANEL DIRECTION PERPENDICULAR TO SUPPORTS



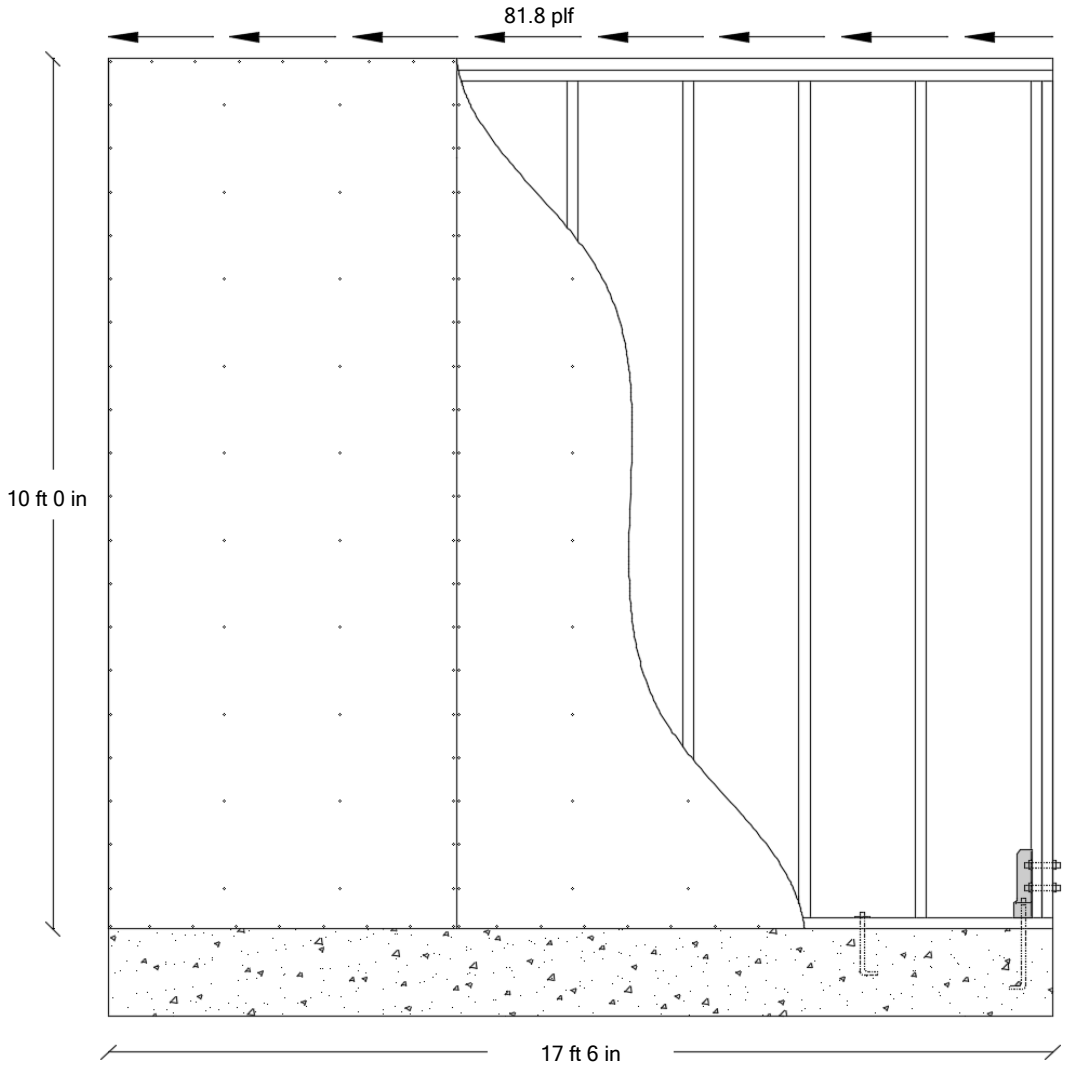
CASE 1 & CASE 3 - BLOCKED

LONG PANEL DIRECTION PARALLEL TO SUPPORTS



CASE 1 & CASE 3 - BLOCKED

Shear Wall #1 Design - Depth Loading



This drawing is conceptual. Actual construction methods & dimensions may differ from that which is shown above.

Stud Species	Panel Thickness	Nail Size	Edge Nail Spacing	Construction Type	Wall Capacity	Stud Size	Stud Spacing
Douglas Fir	7/16"	8d	4"	Single Panel	380 plf	2x6	16 in

Wall Aspect Ratio	Torsional Load	Diaphragm Shear	Total Design Load	Wall Deflection	Allowable Deflection	Story Drift
0.57 (16%)	1438.8 lbs	0.0 lbs	81.85 plf (22%)	0.081 in (3%)	3.000 in	0.323 in (11%)

- Design loads indicated in this table have been adjusted for Allowable Stress Design.
- Allowable deflection limits are determined per Table 12.12-1 of ASCE 7-16. More stringent deflection criteria may be required for windows, doors, or other finish material.
- Design wall deflection is calculated assuming OSB wall sheathing installed in dry service conditions. If plywood sheathing is used, wall shear stiffness will be reduced, which may increase the design wall deflection.
- Deflection values are determined using design strength level seismic loads, with redundancy factor (Rho) set to 1.3.
- Story drift values are determined using design strength level seismic loads, with Cd value of 4.0, and Ie value of 1.00.
- Design torsional loads have been increased per the amplification of accidental torsion factor (Ax) with a value of 1.538.

Chord Size	Design Tension	Allowable Tension	Allowable Chord Compression	Design Plate Compression	Allowable Plate Compression
Double 2x6 Douglas Fir	818.47 lbs (6%)	19734.0 lbs	14746.8 lbs	818.47 lbs (8%)	10312.5 lbs

- All wall framing analysis is determined assuming visual grade #2 lumber.
- Plate compression does not consider compression performance of floor sheathing. Additional analysis may be necessary to accomodate sheathing compression allowance.
- A 0.6 design adjustment has been taken to chord compression to accomodate this multi-ply assembly.

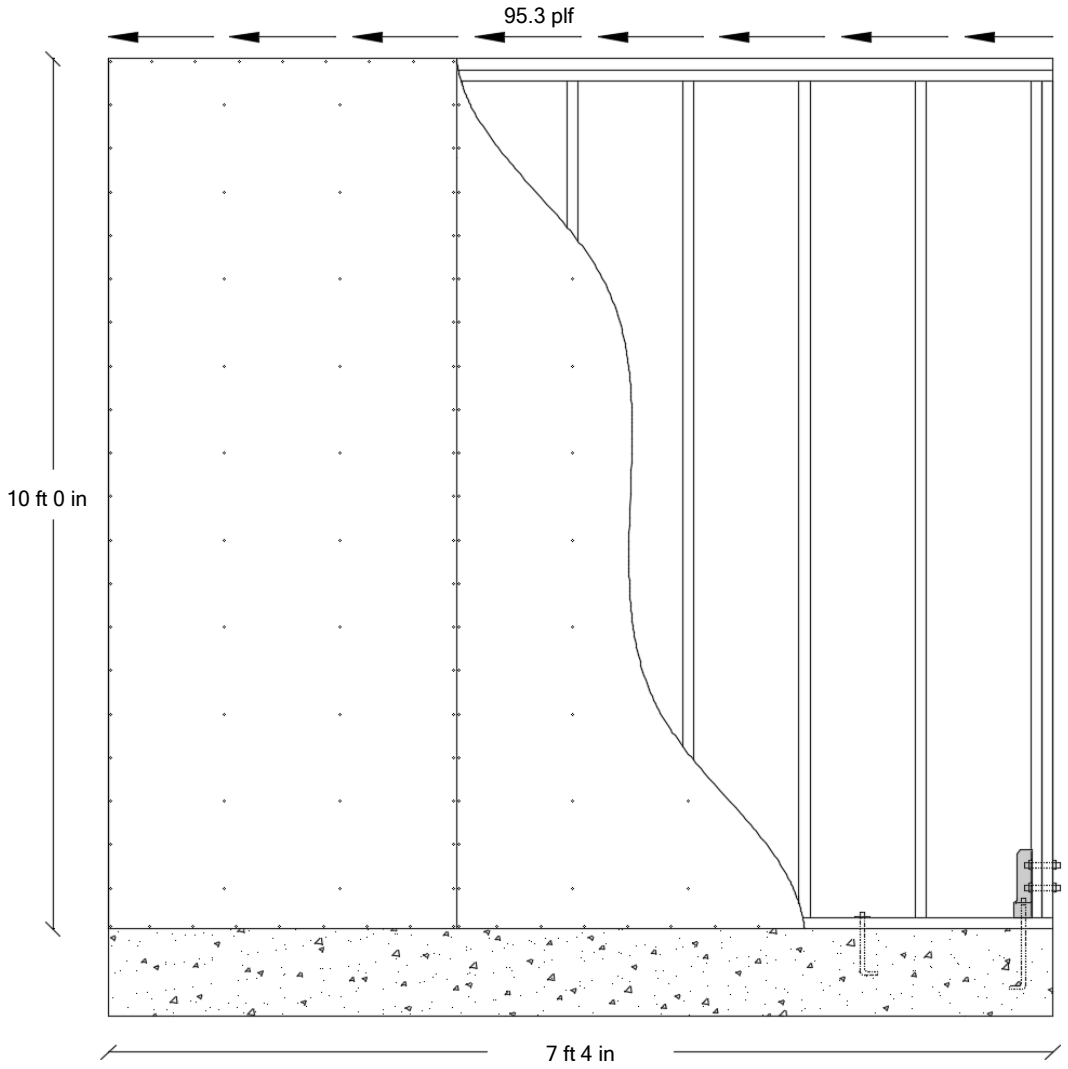
Hold Down	Design Tension	Tension Capacity	Design Deflection	Allowable Deflection
HD3B	818.47 lbs (26%)	3130.0 lbs	0.031 in (26%)	0.120 in

- Hold down tension loads have not been adjusted for the stabilizing moment induced by design dead load overtop this shear wall.

Total Design Load	Anchor Bolt Size	Anchor Bolt Spacing	Washer Size	Nail Size	Nail Spacing
81.8 plf	5/8"	218 in	Standard cut washer	16d Common	33 in

- Use either the anchor bolt or nailed connection options listed above, dependent upon what structural support is below this shear wall.
- Nail spacing shows 16d common installed in a single row. This spacing does not account for additional load from walls at levels above, and may be increased if rim board and plate below can accommodate multiple rows of fasteners.

Shear Wall #2 Design - Depth Loading



This drawing is conceptual. Actual construction methods & dimensions may differ from that which is shown above.

Stud Species	Panel Thickness	Nail Size	Edge Nail Spacing	Construction Type	Wall Capacity	Stud Size	Stud Spacing
Douglas Fir	7/16"	8d	4"	Single Panel	380 plf	2x6	16 in

Wall Aspect Ratio	Torsional Load	Diaphragm Shear	Total Design Load	Wall Deflection	Allowable Deflection	Story Drift
1.35 (39%)	-244.6 lbs	950.1 lbs	95.34 plf (25%)	0.138 in (5%)	3.000 in	0.552 in (18%)

- Design loads indicated in this table have been adjusted for Allowable Stress Design.
- Allowable deflection limits are determined per Table 12.12-1 of ASCE 7-16. More stringent deflection criteria may be required for windows, doors, or other finish material.
- Design wall deflection is calculated assuming OSB wall sheathing installed in dry service conditions. If plywood sheathing is used, wall shear stiffness will be reduced, which may increase the design wall deflection.
- Deflection values are determined using design strength level seismic loads, with redundancy factor (Rho) set to 1.3.
- Story drift values are determined using design strength level seismic loads, with Cd value of 4.0, and Ie value of 1.00.
- Design torsional loads have been increased per the amplification of accidental torsion factor (Ax) with a value of 1.538.

Chord Size	Design Tension	Allowable Tension	Allowable Chord Compression	Design Plate Compression	Allowable Plate Compression
Double 2x6 Douglas Fir	953.42 lbs (6%)	19734.0 lbs	14746.8 lbs	953.42 lbs (9%)	10312.5 lbs

- All wall framing analysis is determined assuming visual grade #2 lumber.
- Plate compression does not consider compression performance of floor sheathing. Additional analysis may be necessary to accomodate sheathing compression allowance.
- A 0.6 design adjustment has been taken to chord compression to accomodate this multi-ply assembly.

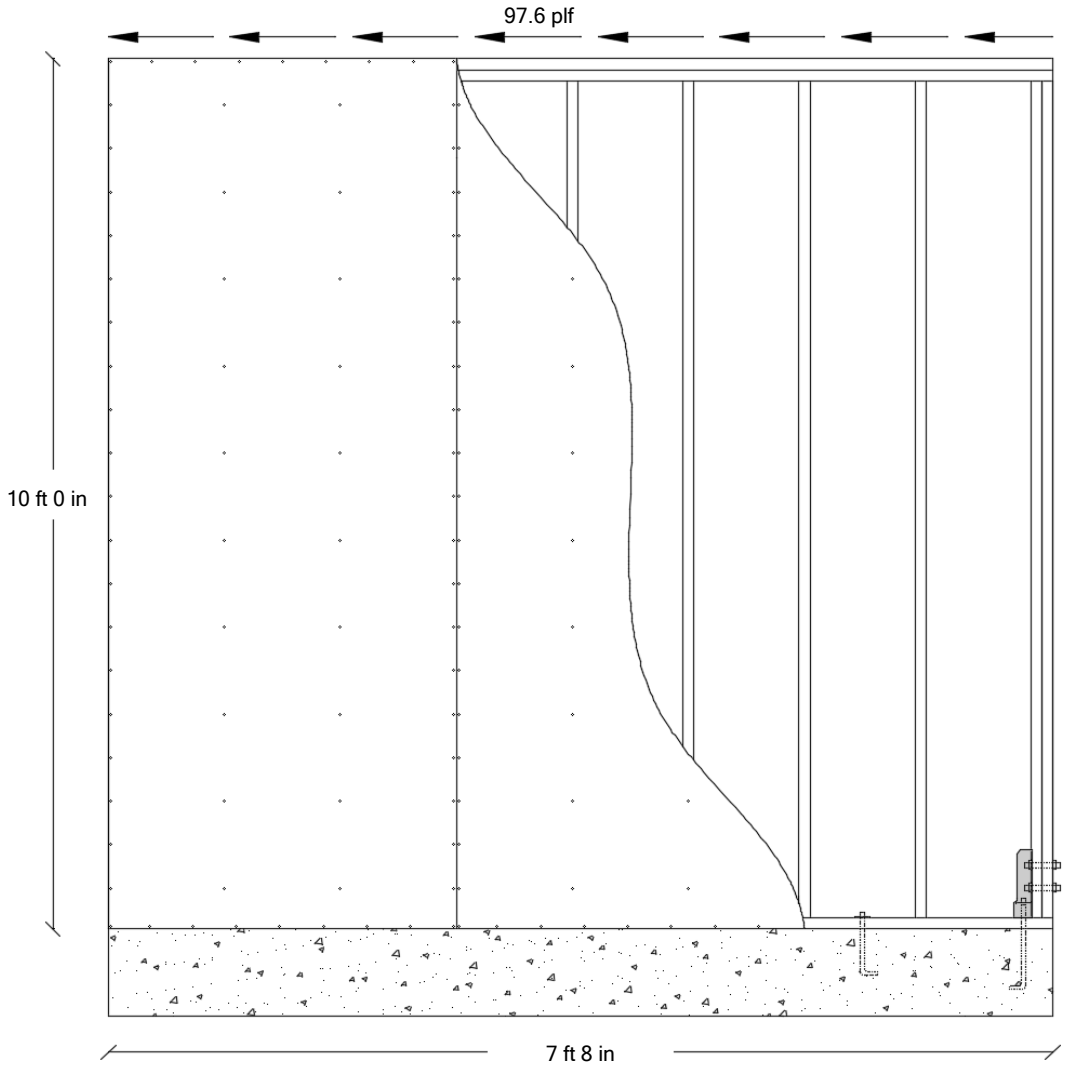
Hold Down	Design Tension	Tension Capacity	Design Deflection	Allowable Deflection
HD3B	953.42 lbs (30%)	3130.0 lbs	0.037 in (30%)	0.120 in

- Hold down tension loads have not been adjusted for the stabilizing moment induced by design dead load overtop this shear wall.

Total Design Load	Anchor Bolt Size	Anchor Bolt Spacing	Washer Size	Nail Size	Nail Spacing
95.3 plf	5/8"	187 in	Standard cut washer	16d Common	28 in

- Use either the anchor bolt or nailed connection options listed above, dependent upon what structural support is below this shear wall.
- Nail spacing shows 16d common installed in a single row. This spacing does not account for additional load from walls at levels above, and may be increased if rim board and plate below can accommodate multiple rows of fasteners.

Shear Wall #3 Design - Depth Loading



This drawing is conceptual. Actual construction methods & dimensions may differ from that which is shown above.

Stud Species	Panel Thickness	Nail Size	Edge Nail Spacing	Construction Type	Wall Capacity	Stud Size	Stud Spacing
Douglas Fir	7/16"	8d	4"	Single Panel	380 plf	2x6	16 in

Wall Aspect Ratio	Torsional Load	Diaphragm Shear	Total Design Load	Wall Deflection	Allowable Deflection	Story Drift
1.30 (37%)	-261.0 lbs	1013.9 lbs	97.56 plf (26%)	0.138 in (5%)	3.000 in	0.552 in (18%)

- Design loads indicated in this table have been adjusted for Allowable Stress Design.
- Allowable deflection limits are determined per Table 12.12-1 of ASCE 7-16. More stringent deflection criteria may be required for windows, doors, or other finish material.
- Design wall deflection is calculated assuming OSB wall sheathing installed in dry service conditions. If plywood sheathing is used, wall shear stiffness will be reduced, which may increase the design wall deflection.
- Deflection values are determined using design strength level seismic loads, with redundancy factor (Rho) set to 1.3.
- Story drift values are determined using design strength level seismic loads, with Cd value of 4.0, and Ie value of 1.00.
- Design torsional loads have been increased per the amplification of accidental torsion factor (Ax) with a value of 1.538.

Chord Size	Design Tension	Allowable Tension	Allowable Chord Compression	Design Plate Compression	Allowable Plate Compression
Double 2x6 Douglas Fir	975.58 lbs (7%)	19734.0 lbs	14746.8 lbs	975.58 lbs (9%)	10312.5 lbs

- All wall framing analysis is determined assuming visual grade #2 lumber.
- Plate compression does not consider compression performance of floor sheathing. Additional analysis may be necessary to accomodate sheathing compression allowance.
- A 0.6 design adjustment has been taken to chord compression to accomodate this multi-ply assembly.

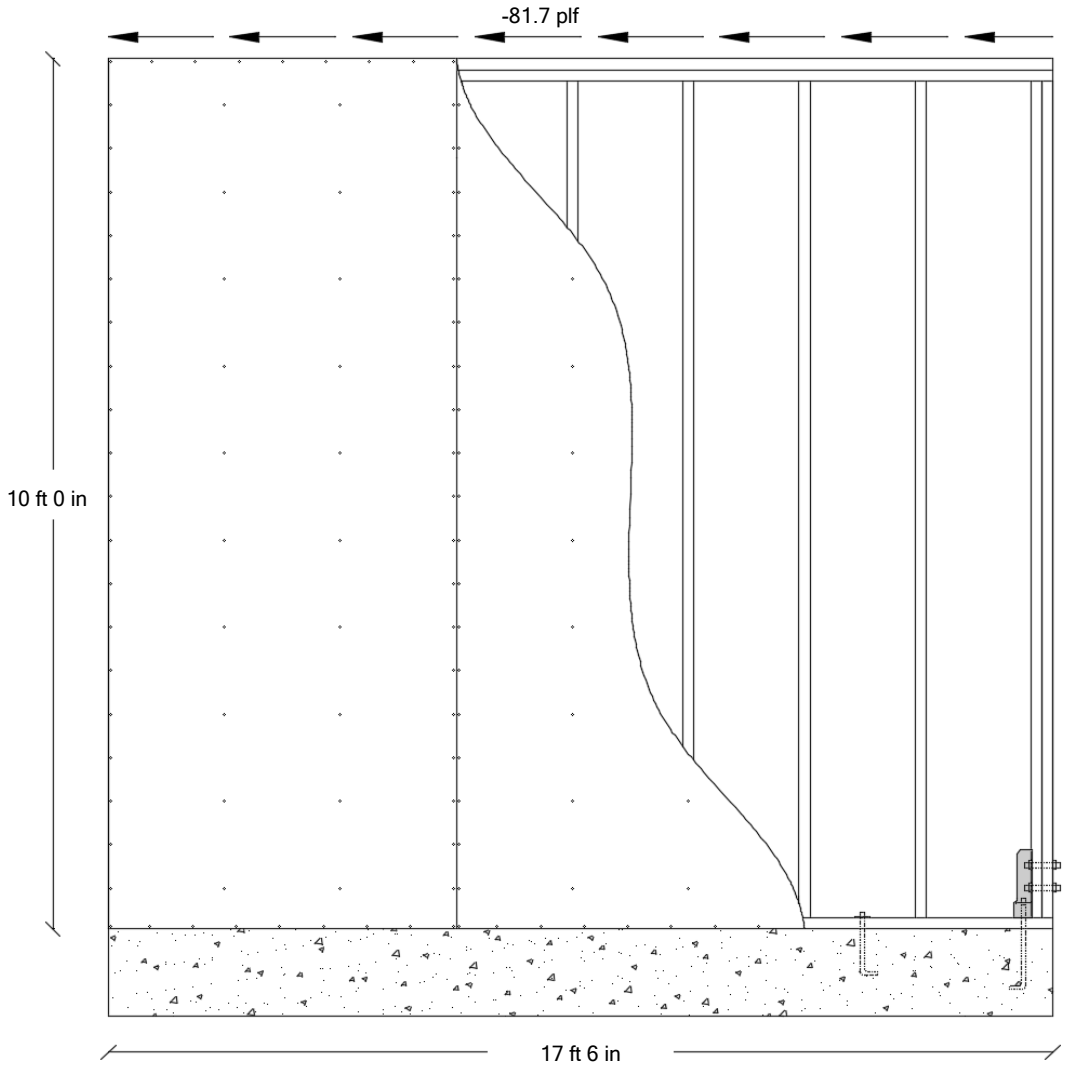
Hold Down	Design Tension	Tension Capacity	Design Deflection	Allowable Deflection
HD3B	975.58 lbs (31%)	3130.0 lbs	0.037 in (31%)	0.120 in

- Hold down tension loads have not been adjusted for the stabilizing moment induced by design dead load overtop this shear wall.

Total Design Load	Anchor Bolt Size	Anchor Bolt Spacing	Washer Size	Nail Size	Nail Spacing
97.6 plf	5/8"	183 in	Standard cut washer	16d Common	27 in

- Use either the anchor bolt or nailed connection options listed above, dependent upon what structural support is below this shear wall.
- Nail spacing shows 16d common installed in a single row. This spacing does not account for additional load from walls at levels above, and may be increased if rim board and plate below can accommodate multiple rows of fasteners.

Shear Wall #4 Design - Depth Loading



This drawing is conceptual. Actual construction methods & dimensions may differ from that which is shown above.

Stud Species	Panel Thickness	Nail Size	Edge Nail Spacing	Construction Type	Wall Capacity	Stud Size	Stud Spacing
Douglas Fir	7/16"	8d	4"	Single Panel	380 plf	2x6	16 in

Wall Aspect Ratio	Torsional Load	Diaphragm Shear	Total Design Load	Wall Deflection	Allowable Deflection	Story Drift
0.57 (16%)	-1431.4 lbs	0.0 lbs	-81.72 plf (22%)	-0.081 in (3%)	3.000 in	-0.323 in (11%)

- Design loads indicated in this table have been adjusted for Allowable Stress Design.
- Allowable deflection limits are determined per Table 12.12-1 of ASCE 7-16. More stringent deflection criteria may be required for windows, doors, or other finish material.
- Design wall deflection is calculated assuming OSB wall sheathing installed in dry service conditions. If plywood sheathing is used, wall shear stiffness will be reduced, which may increase the design wall deflection.
- Deflection values are determined using design strength level seismic loads, with redundancy factor (Rho) set to 1.3.
- Story drift values are determined using design strength level seismic loads, with Cd value of 4.0, and Ie value of 1.00.
- Design torsional loads have been increased per the amplification of accidental torsion factor (Ax) with a value of 1.538.

Chord Size	Design Tension	Allowable Tension	Allowable Chord Compression	Design Plate Compression	Allowable Plate Compression
Double 2x6 Douglas Fir	817.20 lbs (6%)	19734.0 lbs	14746.8 lbs	817.20 lbs (8%)	10312.5 lbs

- All wall framing analysis is determined assuming visual grade #2 lumber.
- Plate compression does not consider compression performance of floor sheathing. Additional analysis may be necessary to accomodate sheathing compression allowance.
- A 0.6 design adjustment has been taken to chord compression to accomodate this multi-ply assembly.

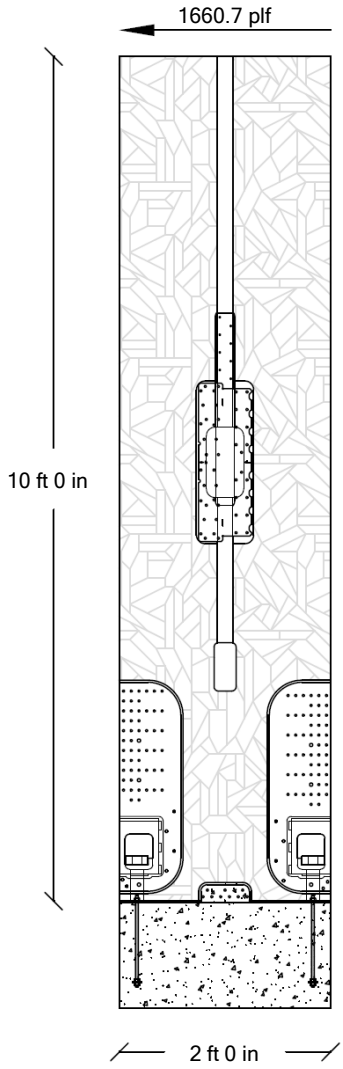
Hold Down	Design Tension	Tension Capacity	Design Deflection	Allowable Deflection
HD3B	817.20 lbs (26%)	3130.0 lbs	0.031 in (26%)	0.120 in

- Hold down tension loads have not been adjusted for the stabilizing moment induced by design dead load overtop this shear wall.

Total Design Load	Anchor Bolt Size	Anchor Bolt Spacing	Washer Size	Nail Size	Nail Spacing
-81.7 plf	5/8"	218 in	Standard cut washer	16d Common	33 in

- Use either the anchor bolt or nailed connection options listed above, dependent upon what structural support is below this shear wall.
- Nail spacing shows 16d common installed in a single row. This spacing does not account for additional load from walls at levels above, and may be increased if rim board and plate below can accommodate multiple rows of fasteners.

Shear Wall #5 Design - Depth Loading



This drawing is conceptual. Actual construction methods & dimensions may differ from that which is shown above.

Wall Type	Wall Capacity	Min Allowable Wall Height	Max Allowable Wall Height	Wall Stud Size
WSWH 24x10	2005 plf	6 ft 2.5 in	10 ft	2x6

- Install the panel flush to the outside face of the framing and add furring to the inside face as required to accommodate finish material.

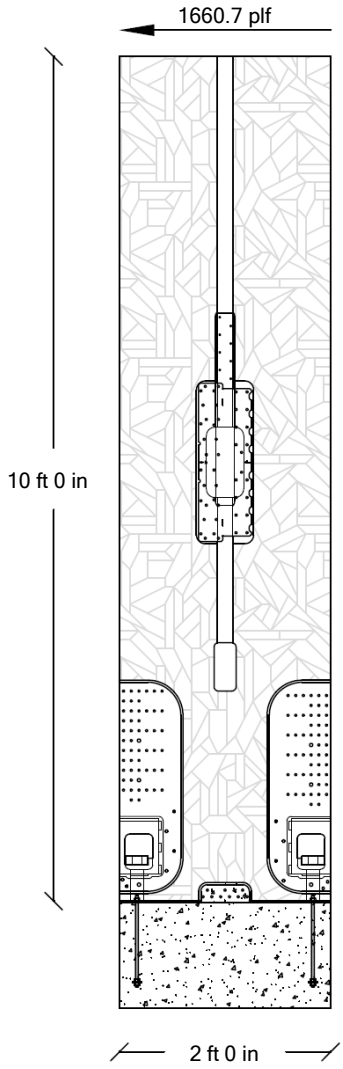
Torsional Load	Diaphragm Shear	Total Design Load	Wall Deflection	Allowable Deflection	Story Drift
253.9 lbs	3067.5 lbs	1660.72 plf (83%)	0.580 in (85%)	0.686 in	2.318 in (77%)

- Design loads indicated in this table have been adjusted for Allowable Stress Design, and assumes minimum 2,500 psi concrete below.
- Allowable deflection limits are defined in Simpson Strong-Tie C-L-SW21. More stringent deflection criteria may be required for windows, doors, or other finish material.
- Deflection values are determined using design strength level seismic loads, with redundancy factor (Rho) set to 1.3.
- Story drift values are determined using design strength level seismic loads, with Cd value of 4.0, and Ie value of 1.00.
- Design torsional loads have been increased per the amplification of accidental torsion factor (Ax) with a value of 1.538.

Hold Down	Design Tension	Tension Capacity	Bolt Diameter	Minimum Bolt Embedment
WSWH-AB Anchor Bolt	18979.66 lbs (71%)	26860.0 lbs	1.0 in	15.5 in

- Hold down tension loads have not been adjusted for the stabilizing moment induced by design dead load overtop this shear wall.
- Additional concrete reinforcement may be required to achieve listed anchor design loads. Refer to Simpson Strong-Tie C-L-SW21 for additional information.

Shear Wall #6 Design - Depth Loading



This drawing is conceptual. Actual construction methods & dimensions may differ from that which is shown above.

Wall Type	Wall Capacity	Min Allowable Wall Height	Max Allowable Wall Height	Wall Stud Size
WSWH 24x10	2005 plf	6 ft 2.5 in	10 ft	2x6

- Install the panel flush to the outside face of the framing and add furring to the inside face as required to accommodate finish material.

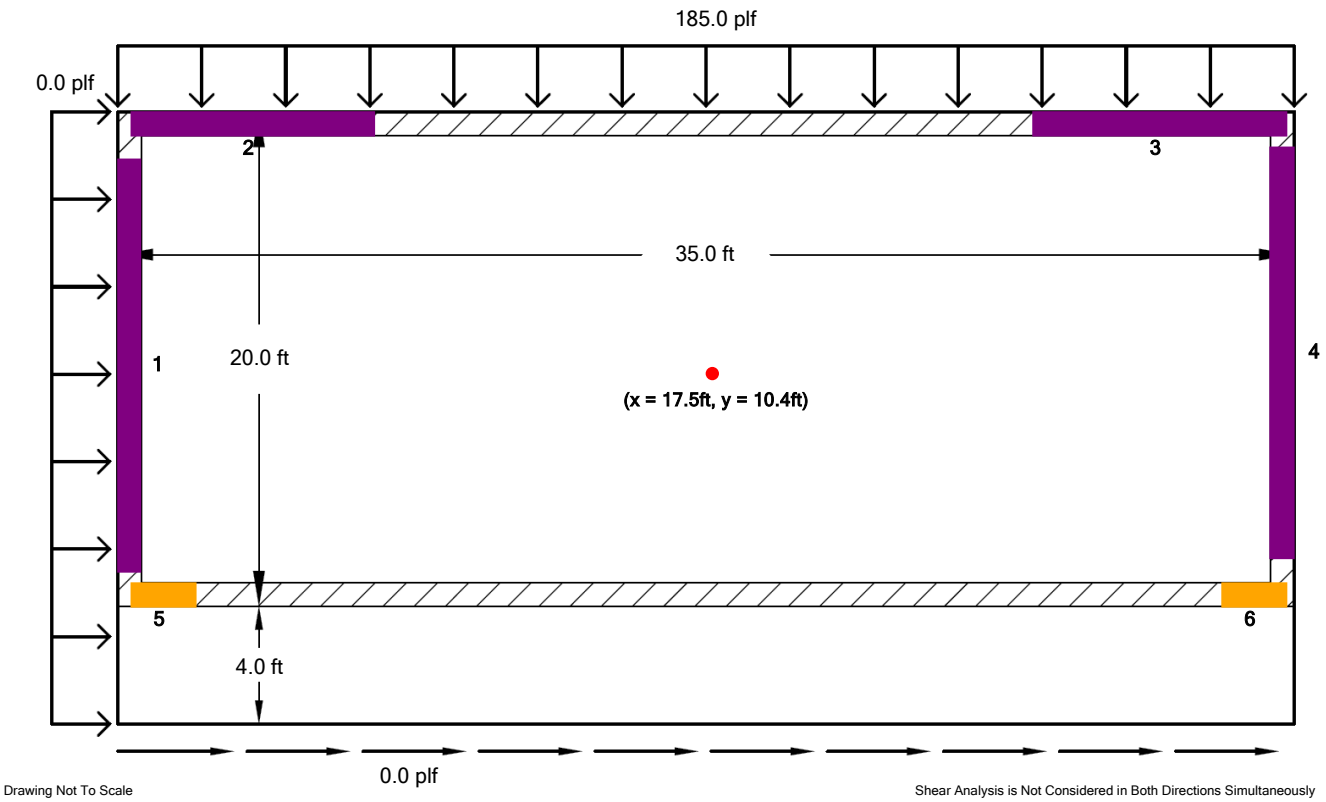
Torsional Load	Diaphragm Shear	Total Design Load	Wall Deflection	Allowable Deflection	Story Drift
253.9 lbs	3067.5 lbs	1660.72 plf (83%)	0.580 in (85%)	0.686 in	2.318 in (77%)

- Design loads indicated in this table have been adjusted for Allowable Stress Design, and assumes minimum 2,500 psi concrete below.
- Allowable deflection limits are defined in Simpson Strong-Tie C-L-SW21. More stringent deflection criteria may be required for windows, doors, or other finish material.
- Deflection values are determined using design strength level seismic loads, with redundancy factor (Rho) set to 1.3.
- Story drift values are determined using design strength level seismic loads, with Cd value of 4.0, and Ie value of 1.00.
- Design torsional loads have been increased per the amplification of accidental torsion factor (Ax) with a value of 1.538.

Hold Down	Design Tension	Tension Capacity	Bolt Diameter	Minimum Bolt Embedment
WSWH-AB Anchor Bolt	18979.66 lbs (71%)	26860.0 lbs	1.0 in	15.5 in

- Hold down tension loads have not been adjusted for the stabilizing moment induced by design dead load overtop this shear wall.
- Additional concrete reinforcement may be required to achieve listed anchor design loads. Refer to Simpson Strong-Tie C-L-SW21 for additional information.

2015 SDPWS Cantilevered Diaphragm Design - Width Loading



Drawing Not To Scale

Shear Analysis is Not Considered in Both Directions Simultaneously

Diaphragm Type	Framing Species	Panel Thickness	Nail Size/Spacing	Load Case	Construction Method	Diaphragm Capacity
Standard Diaphragm	Douglas Fir	23/32"	10d at 4"	Case 1 & 3	Blocked	425.0 plf

Shear - Left Line	Shear - Right Line	Shear - Top Line	Shear - Bottom Line	Diaphragm Deflection	Aspect Ratio	Cantilever (L'/W')
133.3 plf (31%)	112.3 plf (26%)	-2.5 plf (1%)	2.5 plf (1%)	0.12 in @ 17.5 ft	0.69 (17%)	1.00 (25%)

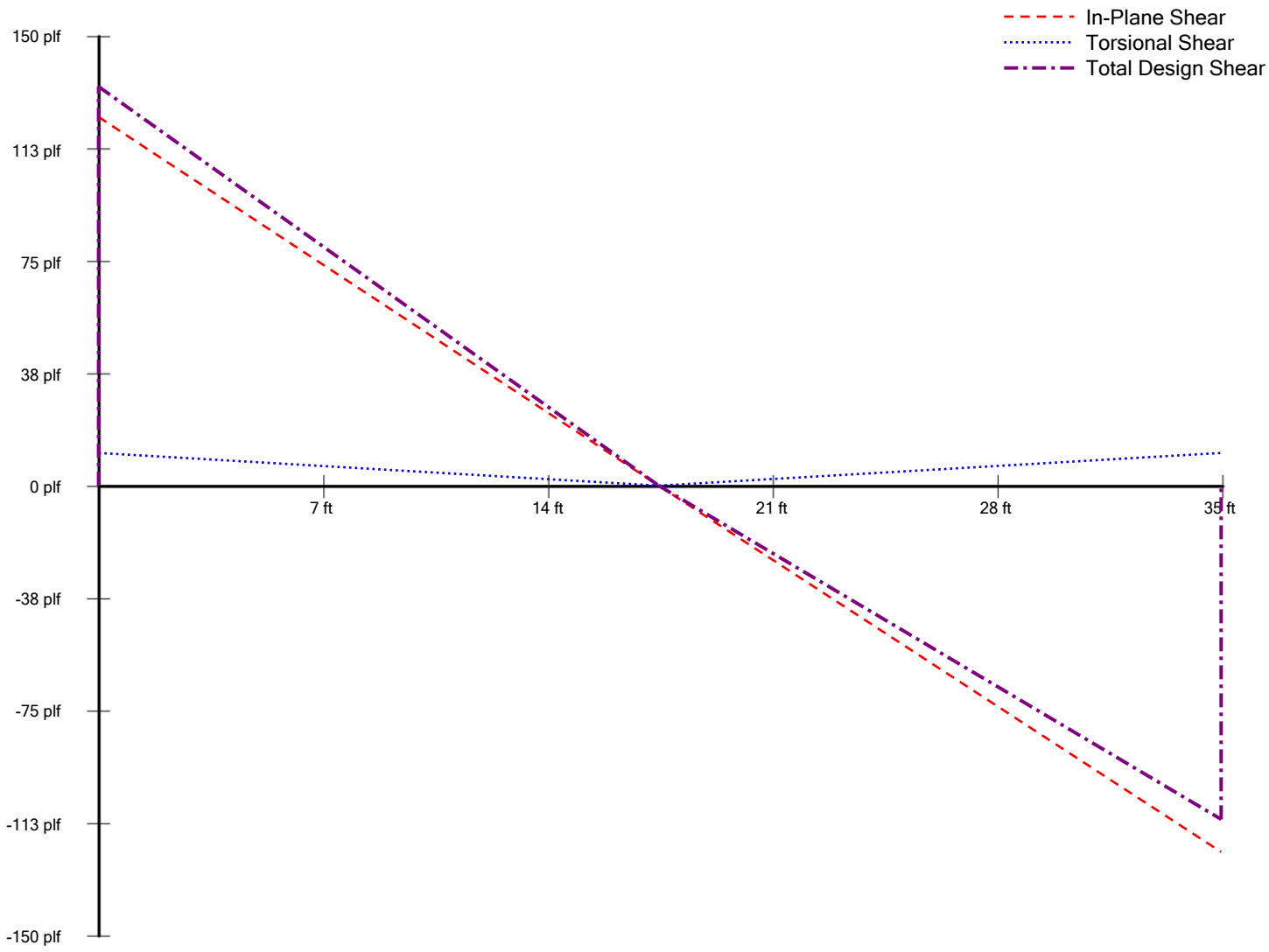
- Design loads indicated in this table have been adjusted for Allowable Stress Design, and include contributions from diaphragm shear and rigid torsional effects.
- Design diaphragm deflection is calculated assuming OSB sheathing installed in dry service conditions. If plywood sheathing is used, diaphragm shear stiffness will be reduced, which may increase diaphragm deflection.
- Deflection values are determined using design strength level seismic loads, with redundancy factor (Rho) set to 1.3.
- Total design torsional distance from diaphragm center of rigidity, including amplification of accidental torsion and user defined torsion, is 1.75 ft.

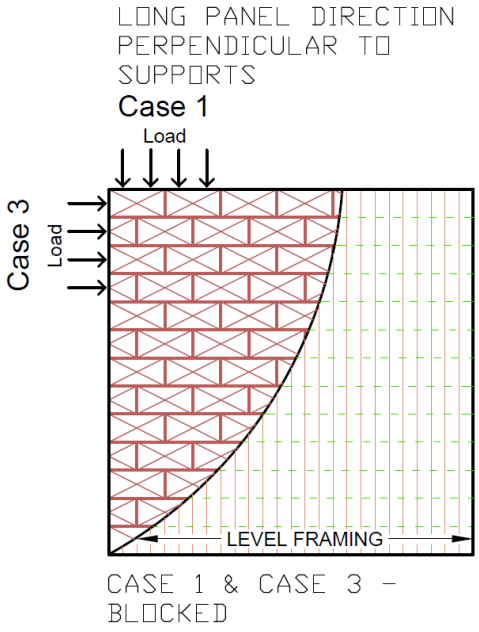
Splice Length	Design Moment	Splice Tension	Splice Capacity	Min. Nail Count	Nail Size
16.0 ft	19829.7 ft-lbs	826.2 lbs (92%)	902.4 lbs	4	16d Common (0.162" x 3.5")

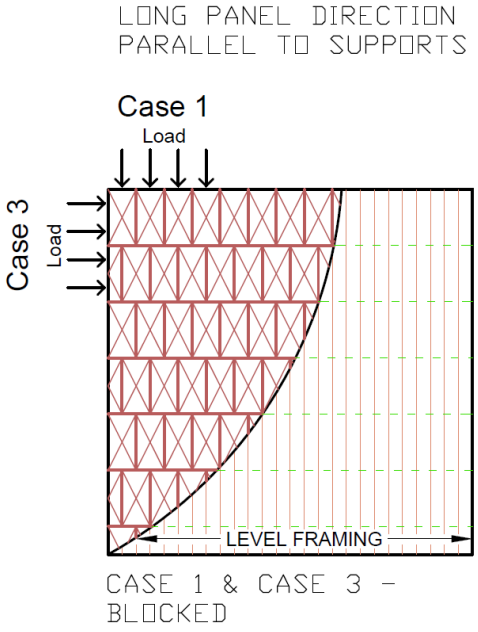
- Chord forces have been increased for the redundancy factor (Rho) and accidental torsion effects (Ax).
- Nail count is determined at each edge of splice. The splice assembly will require twice the nail count as indicated above to tie each end of splice together.

Diaphragm Moment	Moment Location	Chord Tension	Allowable Tension	Chord Compression	Allowable Compression
19829.7 ft-lbs	17.50 ft From Left	826.2 lbs (8%)	9867.0 lbs	826.2 lbs (4%)	19274.1 lbs

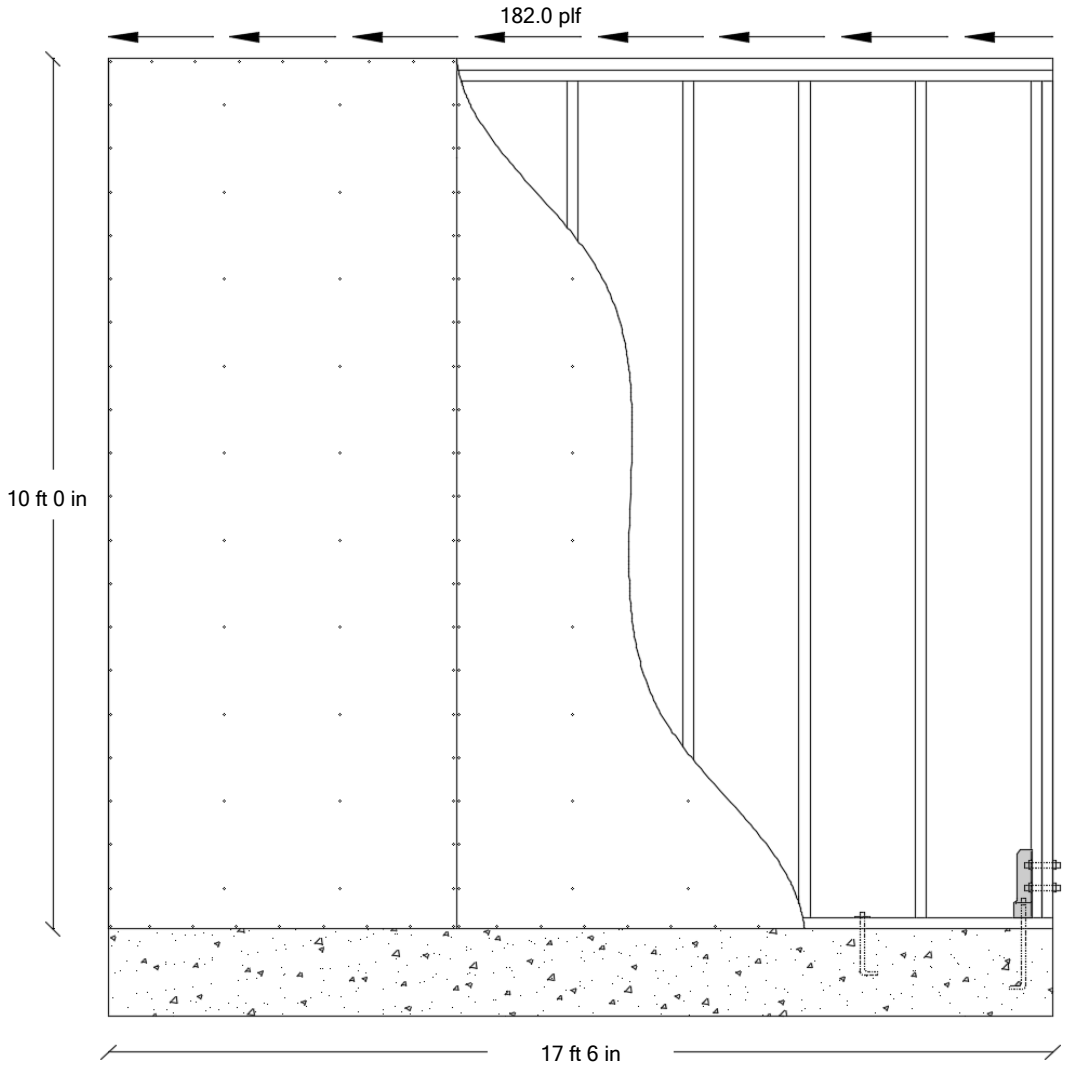
2015 SDPWS Cantilevered Diaphragm Design - Width Loading







Shear Wall #1 Design - Width Loading



This drawing is conceptual. Actual construction methods & dimensions may differ from that which is shown above.

Stud Species	Panel Thickness	Nail Size	Edge Nail Spacing	Construction Type	Wall Capacity	Stud Size	Stud Spacing
Douglas Fir	7/16"	8d	4"	Single Panel	380 plf	2x6	16 in

Wall Aspect Ratio	Torsional Load	Diaphragm Shear	Total Design Load	Wall Deflection	Allowable Deflection	Story Drift
0.57 (16%)	246.2 lbs	2953.3 lbs	182.00 plf (48%)	0.179 in (6%)	3.000 in	0.717 in (24%)

- Design loads indicated in this table have been adjusted for Allowable Stress Design.
- Allowable deflection limits are determined per Table 12.12-1 of ASCE 7-16. More stringent deflection criteria may be required for windows, doors, or other finish material.
- Design wall deflection is calculated assuming OSB wall sheathing installed in dry service conditions. If plywood sheathing is used, wall shear stiffness will be reduced, which may increase the design wall deflection.
- Deflection values are determined using design strength level seismic loads, with redundancy factor (Rho) set to 1.3.
- Story drift values are determined using design strength level seismic loads, with Cd value of 4.0, and Ie value of 1.00.

Chord Size	Design Tension	Allowable Tension	Allowable Chord Compression	Design Plate Compression	Allowable Plate Compression
Double 2x6 Douglas Fir	1819.99 lbs (12%)	19734.0 lbs	14746.8 lbs	1819.99 lbs (18%)	10312.5 lbs

- All wall framing analysis is determined assuming visual grade #2 lumber.
- Plate compression does not consider compression performance of floor sheathing. Additional analysis may be necessary to accomodate sheathing compression allowance.
- A 0.6 design adjustment has been taken to chord compression to accomodate this multi-ply assembly.

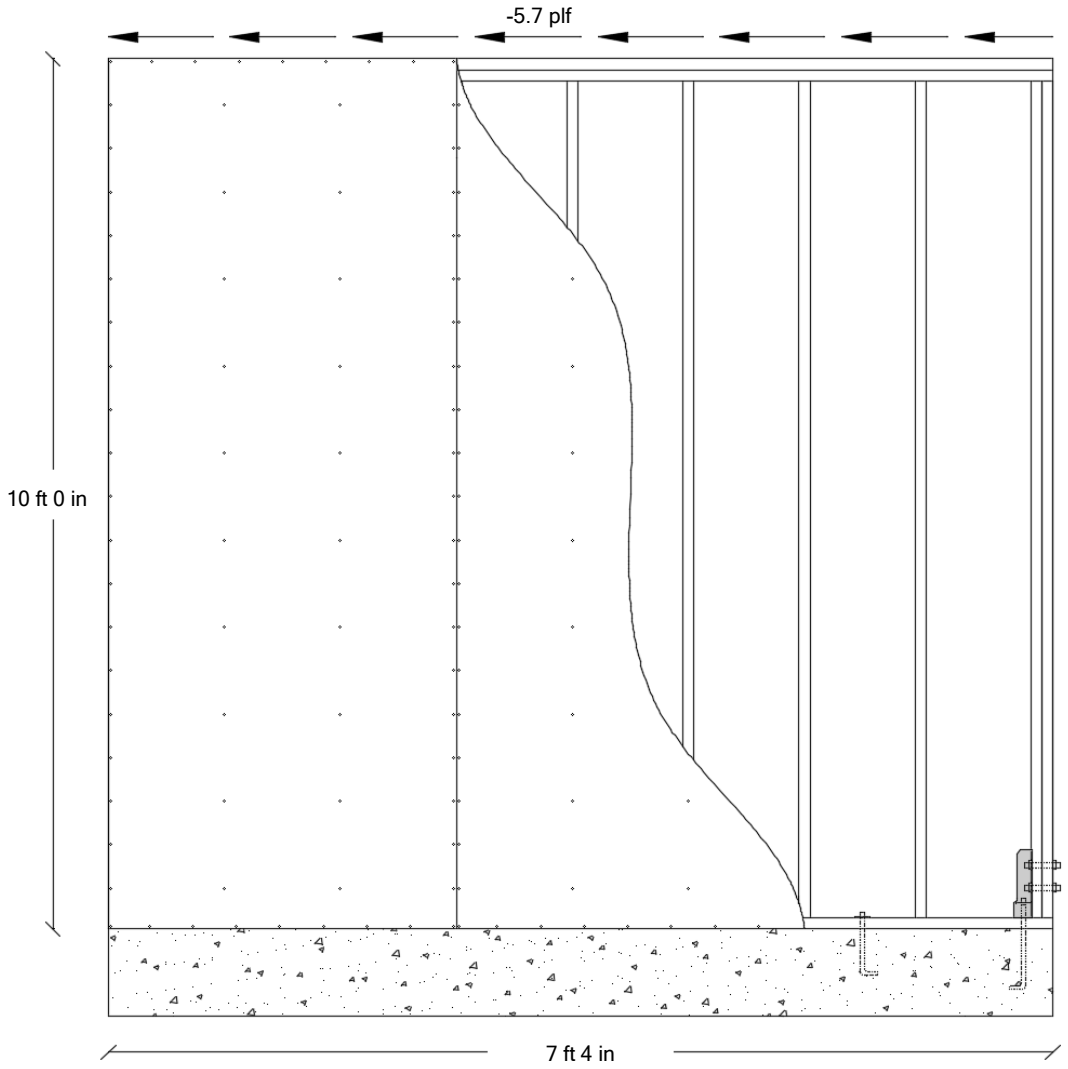
Hold Down	Design Tension	Tension Capacity	Design Deflection	Allowable Deflection
HD3B	1819.99 lbs (58%)	3130.0 lbs	0.070 in (58%)	0.120 in

- Hold down tension loads have not been adjusted for the stabilizing moment induced by design dead load overtop this shear wall.

Total Design Load	Anchor Bolt Size	Anchor Bolt Spacing	Washer Size	Nail Size	Nail Spacing
182.0 plf	5/8"	98 in	Standard cut washer	16d Common	14 in

- Use either the anchor bolt or nailed connection options listed above, dependent upon what structural support is below this shear wall.
- Nail spacing shows 16d common installed in a single row. This spacing does not account for additional load from walls at levels above, and may be increased if rim board and plate below can accommodate multiple rows of fasteners.

Shear Wall #2 Design - Width Loading



This drawing is conceptual. Actual construction methods & dimensions may differ from that which is shown above.

Stud Species	Panel Thickness	Nail Size	Edge Nail Spacing	Construction Type	Wall Capacity	Stud Size	Stud Spacing
Douglas Fir	7/16"	8d	4"	Single Panel	380 plf	2x6	16 in

Wall Aspect Ratio	Torsional Load	Diaphragm Shear	Total Design Load	Wall Deflection	Allowable Deflection	Story Drift
1.35 (39%)	-41.8 lbs	0.0 lbs	-5.66 plf (1%)	-0.008 in (0%)	3.000 in	-0.033 in (1%)

- Design loads indicated in this table have been adjusted for Allowable Stress Design.
- Allowable deflection limits are determined per Table 12.12-1 of ASCE 7-16. More stringent deflection criteria may be required for windows, doors, or other finish material.
- Design wall deflection is calculated assuming OSB wall sheathing installed in dry service conditions. If plywood sheathing is used, wall shear stiffness will be reduced, which may increase the design wall deflection.
- Deflection values are determined using design strength level seismic loads, with redundancy factor (Rho) set to 1.3.
- Story drift values are determined using design strength level seismic loads, with Cd value of 4.0, and Ie value of 1.00.

Chord Size	Design Tension	Allowable Tension	Allowable Chord Compression	Design Plate Compression	Allowable Plate Compression
Double 2x6 Douglas Fir	56.55 lbs (0%)	19734.0 lbs	14746.8 lbs	56.55 lbs (1%)	10312.5 lbs

- All wall framing analysis is determined assuming visual grade #2 lumber.
- Plate compression does not consider compression performance of floor sheathing. Additional analysis may be necessary to accomodate sheathing compression allowance.
- A 0.6 design adjustment has been taken to chord compression to accomodate this multi-ply assembly.

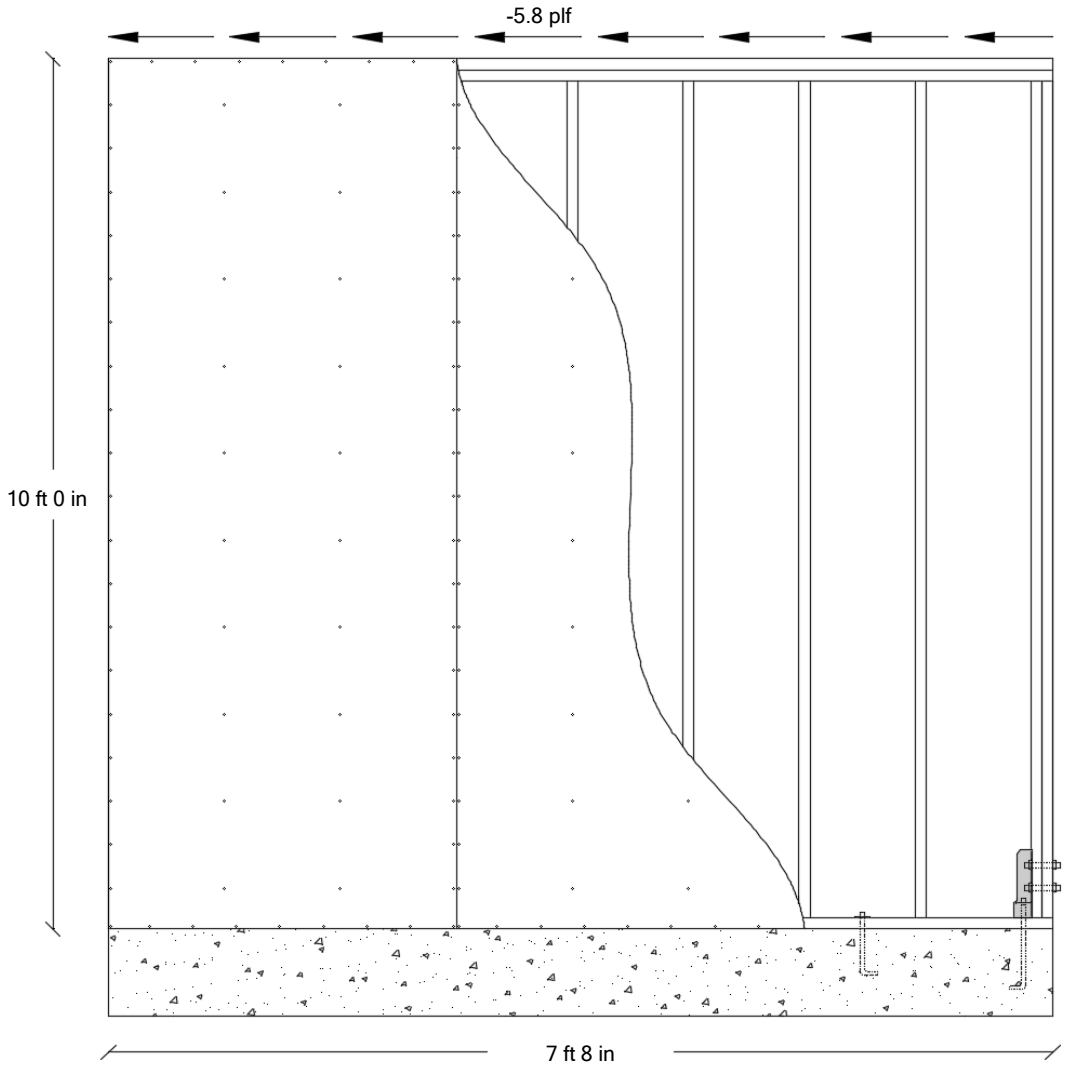
Hold Down	Design Tension	Tension Capacity	Design Deflection	Allowable Deflection
HD3B	56.55 lbs (2%)	3130.0 lbs	0.002 in (2%)	0.120 in

- Hold down tension loads have not been adjusted for the stabilizing moment induced by design dead load overtop this shear wall.

Total Design Load	Anchor Bolt Size	Anchor Bolt Spacing	Washer Size	Nail Size	Nail Spacing
-5.7 plf	5/8"	3157 in	Standard cut washer	16d Common	478 in

- Use either the anchor bolt or nailed connection options listed above, dependent upon what structural support is below this shear wall.
- Nail spacing shows 16d common installed in a single row. This spacing does not account for additional load from walls at levels above, and may be increased if rim board and plate below can accommodate multiple rows of fasteners.

Shear Wall #3 Design - Width Loading



This drawing is conceptual. Actual construction methods & dimensions may differ from that which is shown above.

Stud Species	Panel Thickness	Nail Size	Edge Nail Spacing	Construction Type	Wall Capacity	Stud Size	Stud Spacing
Douglas Fir	7/16"	8d	4"	Single Panel	380 plf	2x6	16 in

Wall Aspect Ratio	Torsional Load	Diaphragm Shear	Total Design Load	Wall Deflection	Allowable Deflection	Story Drift
1.30 (37%)	-44.7 lbs	0.0 lbs	-5.79 plf (2%)	-0.008 in (0%)	3.000 in	-0.033 in (1%)

- Design loads indicated in this table have been adjusted for Allowable Stress Design.
- Allowable deflection limits are determined per Table 12.12-1 of ASCE 7-16. More stringent deflection criteria may be required for windows, doors, or other finish material.
- Design wall deflection is calculated assuming OSB wall sheathing installed in dry service conditions. If plywood sheathing is used, wall shear stiffness will be reduced, which may increase the design wall deflection.
- Deflection values are determined using design strength level seismic loads, with redundancy factor (Rho) set to 1.3.
- Story drift values are determined using design strength level seismic loads, with Cd value of 4.0, and Ie value of 1.00.

Chord Size	Design Tension	Allowable Tension	Allowable Chord Compression	Design Plate Compression	Allowable Plate Compression
Double 2x6 Douglas Fir	57.87 lbs (0%)	19734.0 lbs	14746.8 lbs	57.87 lbs (1%)	10312.5 lbs

- All wall framing analysis is determined assuming visual grade #2 lumber.
- Plate compression does not consider compression performance of floor sheathing. Additional analysis may be necessary to accomodate sheathing compression allowance.
- A 0.6 design adjustment has been taken to chord compression to accomodate this multi-ply assembly.

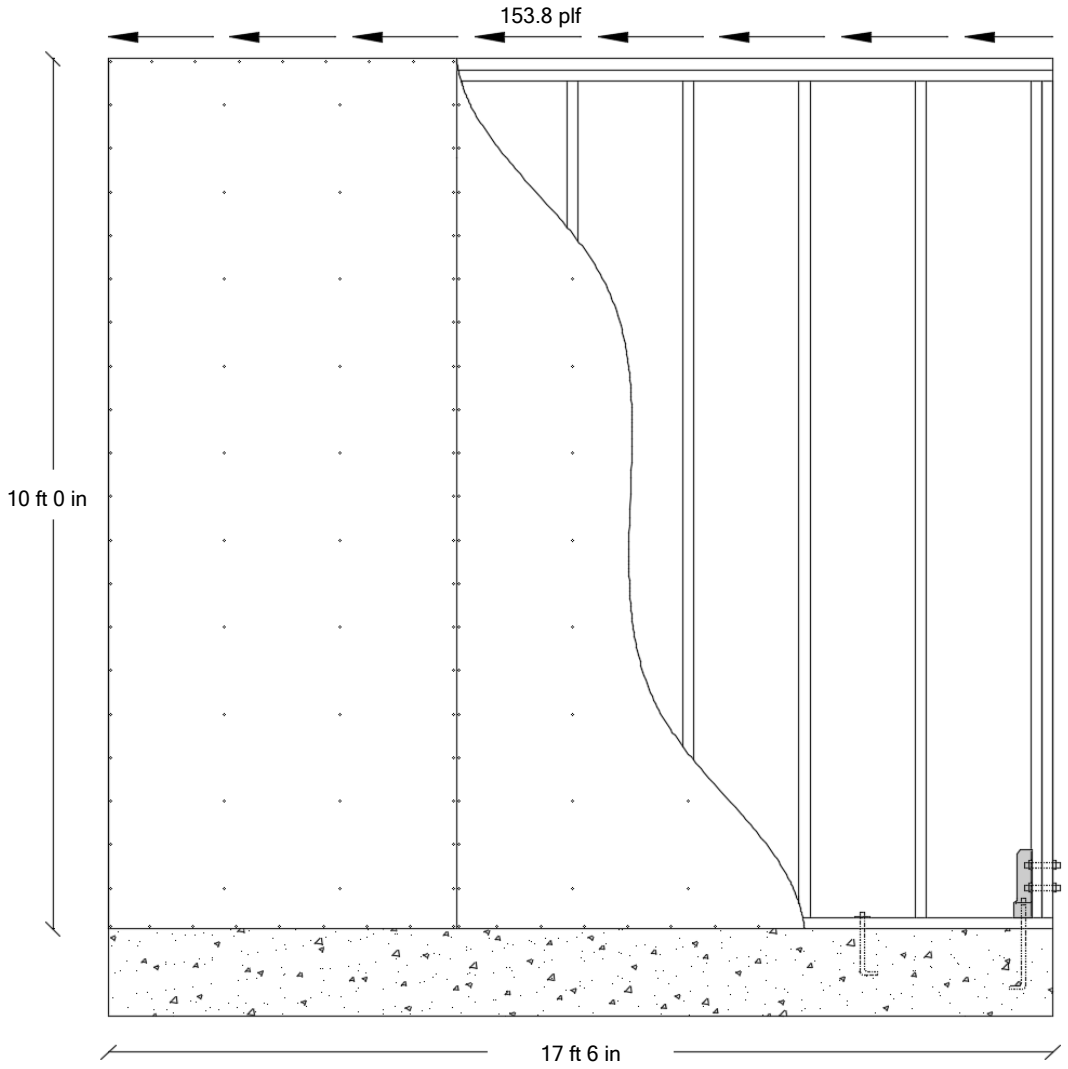
Hold Down	Design Tension	Tension Capacity	Design Deflection	Allowable Deflection
HD3B	57.87 lbs (2%)	3130.0 lbs	0.002 in (2%)	0.120 in

- Hold down tension loads have not been adjusted for the stabilizing moment induced by design dead load overtop this shear wall.

Total Design Load	Anchor Bolt Size	Anchor Bolt Spacing	Washer Size	Nail Size	Nail Spacing
-5.8 plf	5/8"	3085 in	Standard cut washer	16d Common	467 in

- Use either the anchor bolt or nailed connection options listed above, dependent upon what structural support is below this shear wall.
- Nail spacing shows 16d common installed in a single row. This spacing does not account for additional load from walls at levels above, and may be increased if rim board and plate below can accommodate multiple rows of fasteners.

Shear Wall #4 Design - Width Loading



This drawing is conceptual. Actual construction methods & dimensions may differ from that which is shown above.

Stud Species	Panel Thickness	Nail Size	Edge Nail Spacing	Construction Type	Wall Capacity	Stud Size	Stud Spacing
Douglas Fir	7/16"	8d	4"	Single Panel	380 plf	2x6	16 in

Wall Aspect Ratio	Torsional Load	Diaphragm Shear	Total Design Load	Wall Deflection	Allowable Deflection	Story Drift
0.57 (16%)	-244.9 lbs	2939.0 lbs	153.81 plf (40%)	0.152 in (5%)	3.000 in	0.607 in (20%)

- Design loads indicated in this table have been adjusted for Allowable Stress Design.
- Allowable deflection limits are determined per Table 12.12-1 of ASCE 7-16. More stringent deflection criteria may be required for windows, doors, or other finish material.
- Design wall deflection is calculated assuming OSB wall sheathing installed in dry service conditions. If plywood sheathing is used, wall shear stiffness will be reduced, which may increase the design wall deflection.
- Deflection values are determined using design strength level seismic loads, with redundancy factor (Rho) set to 1.3.
- Story drift values are determined using design strength level seismic loads, with Cd value of 4.0, and Ie value of 1.00.

Chord Size	Design Tension	Allowable Tension	Allowable Chord Compression	Design Plate Compression	Allowable Plate Compression
Double 2x6 Douglas Fir	1538.06 lbs (10%)	19734.0 lbs	14746.8 lbs	1538.06 lbs (15%)	10312.5 lbs

- All wall framing analysis is determined assuming visual grade #2 lumber.
- Plate compression does not consider compression performance of floor sheathing. Additional analysis may be necessary to accomodate sheathing compression allowance.
- A 0.6 design adjustment has been taken to chord compression to accomodate this multi-ply assembly.

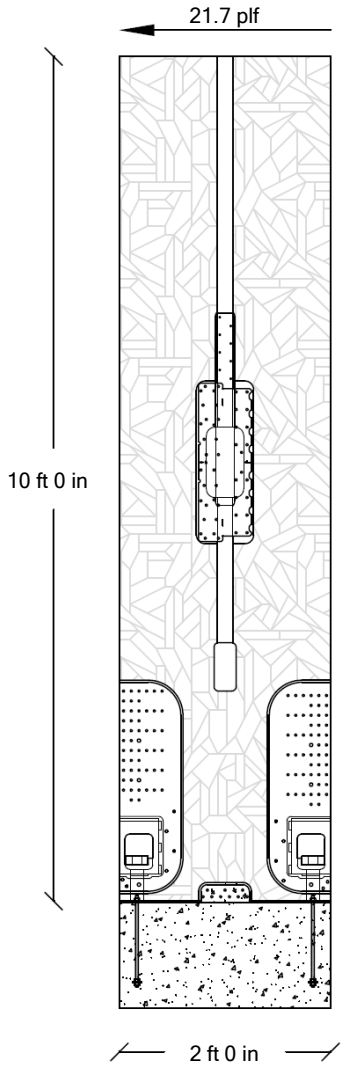
Hold Down	Design Tension	Tension Capacity	Design Deflection	Allowable Deflection
HD3B	1538.06 lbs (49%)	3130.0 lbs	0.059 in (49%)	0.120 in

- Hold down tension loads have not been adjusted for the stabilizing moment induced by design dead load overtop this shear wall.

Total Design Load	Anchor Bolt Size	Anchor Bolt Spacing	Washer Size	Nail Size	Nail Spacing
153.8 plf	5/8"	116 in	Standard cut washer	16d Common	17 in

- Use either the anchor bolt or nailed connection options listed above, dependent upon what structural support is below this shear wall.
- Nail spacing shows 16d common installed in a single row. This spacing does not account for additional load from walls at levels above, and may be increased if rim board and plate below can accommodate multiple rows of fasteners.

Shear Wall #5 Design - Width Loading



This drawing is conceptual. Actual construction methods & dimensions may differ from that which is shown above.

Wall Type	Wall Capacity	Min Allowable Wall Height	Max Allowable Wall Height	Wall Stud Size
WSWH 24x10	2005 plf	6 ft 2.5 in	10 ft	2x6

- Install the panel flush to the outside face of the framing and add furring to the inside face as required to accommodate finish material.

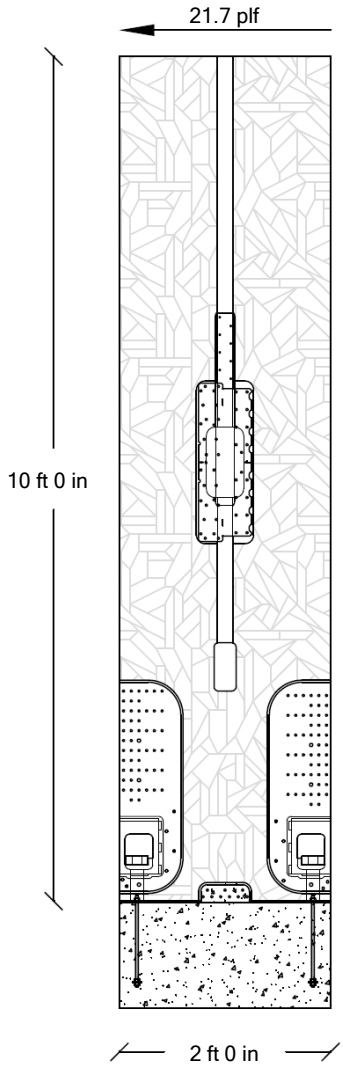
Torsional Load	Diaphragm Shear	Total Design Load	Wall Deflection	Allowable Deflection	Story Drift
43.4 lbs	0.0 lbs	21.72 plf (1%)	0.008 in (1%)	0.686 in	0.030 in (1%)

- Design loads indicated in this table have been adjusted for Allowable Stress Design, and assumes minimum 2,500 psi concrete below.
- Allowable deflection limits are defined in Simpson Strong-Tie C-L-SW21. More stringent deflection criteria may be required for windows, doors, or other finish material.
- Deflection values are determined using design strength level seismic loads, with redundancy factor (Rho) set to 1.3.
- Story drift values are determined using design strength level seismic loads, with Cd value of 4.0, and Ie value of 1.00.

Hold Down	Design Tension	Tension Capacity	Bolt Diameter	Minimum Bolt Embedment
WSWH-AB Anchor Bolt	248.25 lbs (1%)	26860.0 lbs	1.0 in	15.5 in

- Hold down tension loads have not been adjusted for the stabilizing moment induced by design dead load overtop this shear wall.
- Additional concrete reinforcement may be required to achieve listed anchor design loads. Refer to Simpson Strong-Tie C-L-SW21 for additional information.

Shear Wall #6 Design - Width Loading



This drawing is conceptual. Actual construction methods & dimensions may differ from that which is shown above.

Wall Type	Wall Capacity	Min Allowable Wall Height	Max Allowable Wall Height	Wall Stud Size
WSWH 24x10	2005 plf	6 ft 2.5 in	10 ft	2x6

- Install the panel flush to the outside face of the framing and add furring to the inside face as required to accommodate finish material.

Torsional Load	Diaphragm Shear	Total Design Load	Wall Deflection	Allowable Deflection	Story Drift
43.4 lbs	0.0 lbs	21.72 plf (1%)	0.008 in (1%)	0.686 in	0.030 in (1%)

- Design loads indicated in this table have been adjusted for Allowable Stress Design, and assumes minimum 2,500 psi concrete below.
- Allowable deflection limits are defined in Simpson Strong-Tie C-L-SW21. More stringent deflection criteria may be required for windows, doors, or other finish material.
- Deflection values are determined using design strength level seismic loads, with redundancy factor (Rho) set to 1.3.
- Story drift values are determined using design strength level seismic loads, with Cd value of 4.0, and Ie value of 1.00.

Hold Down	Design Tension	Tension Capacity	Bolt Diameter	Minimum Bolt Embedment
WSWH-AB Anchor Bolt	248.25 lbs (1%)	26860.0 lbs	1.0 in	15.5 in

- Hold down tension loads have not been adjusted for the stabilizing moment induced by design dead load overtop this shear wall.
- Additional concrete reinforcement may be required to achieve listed anchor design loads. Refer to Simpson Strong-Tie C-L-SW21 for additional information.