



ERRATA
to the 2015 Edition of
Special Design Provisions for Wind & Seismic (SDPWS) Commentary
 (web version dated 07-15 and printed version dated 07-15)

Page Revision

70 In Example C4.2.2-3, revise reference to section in NDS as follows:

EXAMPLE C4.2.2-3 Calculate Mid-Span Diaphragm Deflection (continued)

<p>where:</p> <p style="padding-left: 20px;">$\gamma = 11,737 \text{ lb/in./nail}$, load slip modulus for dowel type fasteners determined in accordance with <i>National Design Specification for Wood Construction</i> 11.3.6 (NDS) Section 10.3.6, $\gamma = 180,000 D^{1.5}$.</p> <p>(Note: A constant of 2 is used in the numerator to account for slip in nailed splices on each side of the joint.)</p> <p>Deflection due to tension chord splice slip is:</p> $\delta_{dia(\text{tension chord splice slip})} = \frac{\sum (16 \text{ ft} \times 0.054 \text{ in.}) + (16 \text{ ft} \times 0.054 \text{ in.})}{2(24 \text{ ft})}$ <p style="text-align: center;">$= 0.036 \text{ in.}$</p> <p>Assuming butt joints in the compression chord are not tight and have a gap that exceeds the splice slip, the tension chord slip calculation is also applicable to the compression chord:</p>	<p style="text-align: right;">$\delta_{dia(\text{compression chord splice slip})} = 0.036 \text{ in.}$</p> <p>Total deflection due to chord splice slip is:</p> <p style="text-align: right;">$\delta_{dia(\text{chord splice slip})} = 0.036 \text{ in.} + 0.036 \text{ in.} = 0.072 \text{ in.}$</p> <p>Total mid-span deflection:</p> <p style="padding-left: 20px;">Summing deflection components from deflection equation Term 1, Term 2, and Term 3 results in the following total diaphragm mid-span deflection:</p> <p style="text-align: right;">$\delta_{dia} = 0.078 \text{ in.} + 0.306 \text{ in.} + 0.072 \text{ in.} = 0.456 \text{ in.}$</p>
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EXAMPLE C4.4.1-1 Calculate Nominal Uplift Capacity for Combined Uplift and Shear Case

Calculate the nominal uplift capacity in *SDPWS* Table 4.4.1 for a wood structural panel shear wall constructed as follows:

- Sheathing grade = Structural I (OSB)
- Nail size = 10d common (0.148" diameter, 3" length)
- Minimum nominal panel thickness = 15/32"
- Nailing for shear = 6" panel edge spacing (2 nails per foot), 12" field spacing
- Alternate nail spacing at top and bottom plate edges = 3" (single row, 4 nails per foot)
- Nails available for uplift = Nails from alternate nail spacing – Nails available for shear only
= 4 nails per foot – 2 nails per foot = 2 nails per foot

12Q

$Z = 82 \text{ lb NDS Table 11Q}$ (Main member:
G = 0.42 (SPF), Side member: 15/32" OSB)

$C_D = 1.6$ (NDS Table 2.3.2)

$Z' = 82 \text{ lb} \times 1.6 = 131 \text{ lb}$

Allowable uplift capacity = 131 lb x 2 nails/foot = 262 plf

Nominal uplift capacity = 262 plf x ASD reduction factor

Nominal uplift capacity = 262 plf x 2 = 524 plf (SDPWS Table 4.4.1)

When subjected to combined shear and wind uplift forces, the calculation for nominal uplift capacity is based on the assumption that nails resist either shear or wind uplift forces.

EXAMPLE C4.4.2-1 Calculate Nominal Uplift Capacity for Wind Uplift Only Case

Calculate nominal uplift capacity, in *SDPWS* Table 4.4.2 for wood structural panel sheathing over framing constructed as follows:

- Sheathing grade = Structural I (OSB)
- Nail size = 10d common (0.148" diameter, 3" length)
- Minimum nominal panel thickness = 3/8"
- Alternate nail spacing at top and bottom plate edges = 3" (single row, 4 nails per foot)
- Nails available for uplift = Nails from alternate nail spacing
= 4 nails per foot

12Q

$Z = 78 \text{ lb NDS Table 11Q}$ (Main member:
G = 0.42 (SPF), Side member: 3/8" OSB)

$C_D = 1.6$ (NDS Table 2.3.2)

$Z' = 78 \times 1.6 = 125 \text{ lb}$

Allowable uplift capacity = 125 lb x 4 nails/ft = 500 plf

Nominal uplift capacity = 500 plf x ASD reduction factor

Nominal uplift capacity = 500 plf x 2 = 1,000 plf (SDPWS Table 4.4.2)