AMERICAN WOOD COUNCIL

January 2021

ERRATA
to the 2018 and Prior Editions of
the National Design Specification® (NDS®) for Wood Construction

Page	**Revision**
91	Revise footnote 1 in Table 12.5.1D as follows:

1. The ℓ/D ratio used to determine the minimum ~~edge distance~~ spacing between rows shall be the lesser of:
   (a) length of fastener in wood main member/D = ℓ_m/D
   (b) total length of fastener in wood side member(s)/D = ℓ_s /D

AMERICAN WOOD COUNCIL

July 2020

ERRATA
to the 2018 and Prior Editions of
the National Design Specification® (NDS®) for Wood Construction

Page	Revision
166	Clarifies that the following calculations in Example E.7 Sample Solution of Row of Bolts is intended for a single-row bolted connection with a 3-1/2″ thick main member and 1-1/2″ thick side member:

E.7 Sample Solution of Row of Bolts

Calculate the net section area tension and row tear-out adjusted ASD design capacities for the single-shear single-row bolted connection represented in Figure E2.

Main and Side Members:
#2 grade Hem-Fir ~~2x4~~ lumber. See *NDS Supplement* Table 4A – Visually Graded Dimension Lumber for reference design values. Adjustment factors C_D, C_T, C_M, and C_i are assumed to equal 1.0 in this example for calculation of adjusted design values.

$F_t' = 525 \text{ psi } (C_F) = 525(1.5) = 788 \text{ psi}$

$F_v' = 150 \text{ psi}$

Connection Details:
Bolt diameter, D: 1/2 in.
Bolt hole diameter, D_h: 0.5625 in.
Adjusted ASD bolt design value, $Z_{\|}'$: 550 lbs
(See NDS Table 12A for 3-1/2″ main member thickness and 1-1/2″ side member thickness. For this trial design, the group action factor, C_g, is taken as 1.0).

Adjusted ASD Connection Capacity, n $Z_{\|}'$:

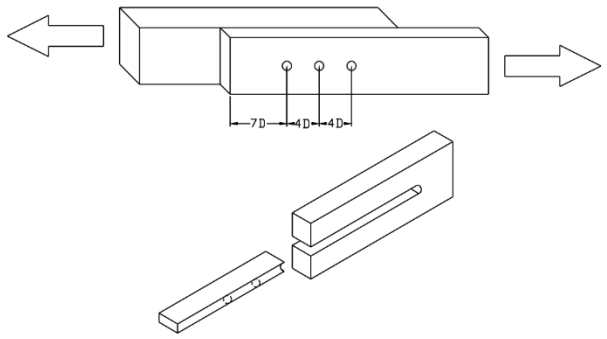
$nZ_{\|}' = (3 \text{ bolts})(550 \text{ lbs}) = 1{,}650 \text{ lbs}$

~~Adjusted~~ For side member, adjusted ASD Net Section Area Tension Capacity, Z_{NT}':

$$Z_{NT}' = F_t' \, t \, [w - n_{row} \, D_h]$$

$Z_{NT}' = (788 \text{ psi})(1.5'')[3.5'' - 1(0.5625'')] = 3{,}470 \text{ lbs}$

Figure E2 Single Row of Bolts



~~Adjusted~~ For side member, adjusted ASD Row Tear-Out Capacity, Z_{RT}':

$$Z_{RTi}' = n_i F_v' \, ts_{critical}$$

$Z_{RT1}' = 3(150 \text{ psi})(1.5'')(2'') = 1{,}350 \text{ lbs}$

In this sample calculation, the adjusted ASD connection capacity is limited to 1,350 pounds by row tear-out, Z_{RT}'.

AMERICAN WOOD COUNCIL

March 2019

ERRATA
to the 2018 Edition of
the National Design Specification® (NDS®) for Wood Construction
(all versions)

Page	Revision
167	Revise the following calculations in Example E.8 Sample Solution of Row of Split Rings (remainder of example is unchanged):

E.8 Sample Solution of Row of Split Rings

Calculate the net section area tension and row tear-out adjusted ASD design capacities for the single-shear single- row split ring connection represented in Figure E3.

Main and Side Members:
#2 grade Southern Pine 2x4 lumber. See *NDS Supplement* Table 4B – Visually Graded Southern Pine Dimension Lumber for reference design values. Adjustment factors C_D, C_T, C_M, and C_i are assumed to equal 1.0 in this example for calculation of adjusted design values.

$F_t' = \cancel{825}\ 675$ psi

$F_v' = 175$ psi

Main member thickness, t_m: 1.5 in.
Side member thickness, t_s: 1.5 in.
Main and side member width, w: 3.5 in.

Connection Details:
Split ring diameter, D: 2.5 in. (see Appendix K for connector dimensions)
Adjusted ASD split ring design value, P′: 2,730 lbs (see Table 13.2A. For this trial design, the group action factor, C_g, is taken as 1.0).

Adjusted ASD Connection Capacity, nP′:

$nP' = (2 \text{ split rings})(2{,}730 \text{ lbs}) = 5{,}460 \text{ lbs}$

Adjusted ASD Net Section Area Tension Capacity, Z_{NT}':

$$Z_{NT}' = F_t' A_{net}$$

$Z_{NT}' = F_t' [A_{2x4} - A_{bolt\text{-}hole} - A_{split\ ring\ projected\ area}]$

$Z_{NT}' = (\cancel{825}\ 675 \text{ psi})[5.25 \text{ in.}^2 - 1.5\text{" (0.5625")} - 1.1 \text{ in.}^2]$

$= \cancel{2{,}728}\ 2{,}232$ lbs

Adjusted ASD Row Tear-Out Capacity, Z_{RT}':

$$Z_{RTi}' = n_i \frac{F_v' A_{critical}}{2}$$

$Z_{RT1}' = [(2 \text{ connectors})(175 \text{ psi})/2](21.735 \text{ in.}^2)$

$= 3{,}804$ lbs

where:

$A_{critical} = 21.735 \text{ in.}^2$ (See Figures E4 and E5)

In this sample calculation, the adjusted ASD connection capacity is limited to $\cancel{2{,}728}\ 2{,}232$ pounds by net section area tension capacity, Z_{NT}'.

AMERICAN WOOD COUNCIL

May 2018

ERRATA
to the 2018 Edition of
the National Design Specification® (NDS®) for Wood Construction
(web version dated 11-17)

Page	**Revision**
40	Revise K_{rs} as described in Equation (5.4-3) as follows (replace d_e with d_c):

K_{rs} = empirical radial stress factor

= $0.29(\cancel{d_e} d_c/R_m) + 0.32 \tan^{1.2} \phi_T$