**Mark Disosway, P.E.**
POB 868, Lake City, FL 32056, Ph (386) 754-5419

September 26, 2013

Columbia County Building Department

Re: Aaron Simque Homes, Inc. / The Carolina Model / Lot 133 Preserve S/D Columbia County, Florida

To whom it may concern:

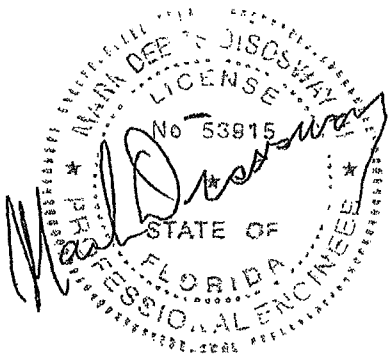
This letter is in reference to inspection issues on the above referenced project.

1. The windload engineering we provided called for standard Simpson strapping beside openings over 5'-0". It is ok to use Simpson SDWC15600 top and Simpson SDWC15450 bottom instead.

2. The windload engineering we provided called for standard Simpson strapping for the truss to wall conection. It is ok to use Simpson SDWC15600 instead.

   Note: install all Simpson screws per truss uplift.

#31334




Mark Disosway, PE
Florida Professional Engineer #53915

*Straps & Ties*

# SDWC *Structural Wood Screws*

SIMPSON Strong-Tie

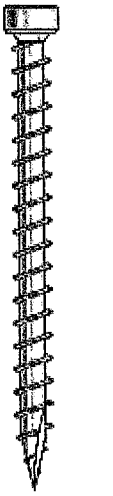
The new Strong-Drive® SDWC structural wood screw provides a stud-to-bottom plate or stud-to-top plate connection as well as fastening trusses and rafters to top plates. The fully threaded shank engages the entire length of the fastener providing that secure connection. The SDWC is tested in accordance with ICC-ES AC233 *(screw)* and AC13 *(wall assembly)* for uplift and lateral loads between wall plates and vertical wall framing

MATERIAL: Carbon steel FINISH: SDWC15450—E-Coat™; SDWC15600—Clear Zinc

INSTALLATION: • See General Notes.

- See F-SDWC12, F-SDWCST2PL12 or visit *www.strongtie.com*.
- Allowable loads in the $F_1$ direction are not intended to replace diaphragm boundry members or cross grain bending of the truss or rafter members.
- When cross-grain bending or cross-grain tension cannot be avoided in the members, mechanical reinforcement to resist such forces may be considered.

CODES: See page 13 for Code Reference Key Chart



SDWC15600
*(other models similar)*

## Roof-to-Wall Connections

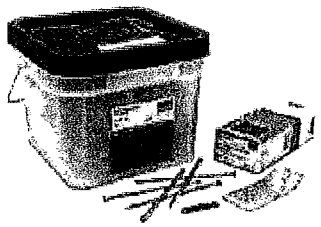
| Model No. | Minor Diameter (in.) | Length (in.) | Thread Length (in.) | Allowable Loads (lbs.) (160)[1,2,5] | | | | | | Code Ref. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | DF/SP | | | SPF/HF | | | |
| | | | | Uplift | $F_1$ | $F_2$ | Uplift | $F_1$ | $F_2$ | |
| SDWC15600 | 0.152 | 6 | 5⅜ | 610 | 130 | 385 | 485 | 115 | 385 | IP5, FI4 |

1. Loads have been increased for wind or earthquake loading with no further increases allowed; reduce where other loads govern.
2. Allowable loads are for an SDWC installed per the 'Recommended' or 'Optional' installation instructions. The SDWC is to be installed through a double 2x top plate into a minimum 2x4 truss or rafter.
3. SDWC screws may be used in 2- or 3-ply rafters or trusses. The allowable uplift load for each screw shall be multiplied by 0.90, but may be limited by the capacity of the plate or the connection between the top plate to the framing below. SDWC screws in multi-ply assemblies must be spaced a minimum of 1⅛" o.c.
4. Screws are shown installed on the interior side of the wall. Installations on the exterior side of the wall are acceptable when the rafter or truss overhangs the top plates a minimum of 3½".
5. For Uplift Continuous Load Path, top plate to stud connectors such as the H2.5A, TSP or MTS12 must be located on the same side of the wall as the screw.
6. When the screw is loaded simultaneously in more than one direction, the allowable load must be evaluated using the following unity equation: (Design Uplift ÷ Allowable Uplift) + (Design $F_1$ ÷ Allowable $F_1$) + (Design $F_2$ ÷ Allowable $F_2$) ≤ 1.0.
7. Table loads do not apply to trusses with end-grain bearing.
8. Top plate, stud and top plate splice fastened per applicable Building Code.

## Stud-to-Plate Connections

| Model No. | No. of Screws Installed | Minor Diameter (in.) | Length (in.) | Thread Length (in.) | Plate Size | Allowable Loads (lbs.) (160)[1,2,6,7] | | | | Code Ref. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | DF/SP | | SPF/HF | | |
| | | | | | | Uplift | $F_2$ | Uplift | $F_2$ | |
| SDWC15450[3] | 1 | 0.152 | 4½ | 4½ | 2x | 360 | 215 | 310 | 153 | 160 |
| | 2 | | | | | 690 | 380 | 595 | 280 | |
| | 3 | | | | | 1035 | 585 | 895 | 420 | |
| SDWC15600[4] | 1 | 0.152 | 6 | 5⅜ | 2x | 450 | 189 | 310 | 153 | IP5, FI4 |
| | 2 | | | | | 865 | 345 | 595 | 280 | |
| | 3 | | | | | 1295 | 515 | 895 | 420 | |
| SDWC15600[5] | 1 | 0.152 | 6 | 5⅜ | (2) 2x | 590 | 177 | 510 | 152 | IP5, FI4 |
| | 2 | | | | | 1135 | 320 | 980 | 275 | |
| | 3 | | | | | 1700 | 485 | 1470 | 415 | |

1. Loads have been increased 60% for wind or earthquake loading with no further increases allowed; reduce where other loads govern.
2. Allowable loads are for SDWC installed per the installation instructions.
3. The SDWC15450 is to be installed through the face of 2x stud into a single 2x bottom plate over a concrete/masonry foundation.
4. The SDWC15600 is to be installed through the face of 2x stud into a single 2x bottom plate over a wood floor system.
5. The SDWC15600 is to be installed through the face of 2x stud into a double 2x top or bottom plate.
6. Double-top plates shall be fastened together as required by applicable Code.
7. When the screw is loaded simultaneously in more than one direction, the allowable load must be evaluated using the following unity equation: (Design Uplift ÷ Allowable Uplift) + (Design $F_2$ ÷ Allowable $F_2$) ≤ 1.0.



**SDWC15450-KT and SDWC15600-KT contains:**

- (50) Strong-Drive® SDWC screws
- (1) Matched-tolerance driver bit *(Part no. BIT30T-RTY; also sold separately)*
- (1) Metal installation guide tool
  - SDWC-GUIDE *(for SDWC15600 only; also sold separately)*
  - or
  - SDWC-GUIDE275 *(for SDWC15450 only; also sold separately)*

**SDWC15450B-KT and SDWC15600B-KT contains:**

- (500) Strong-Drive® SDWC screws
- (2) Matched-tolerance driver bits *(Part no. BIT30T-RTY; also sold separately)*
- (2) Metal installation guide tools
  - SDWC-GUIDE *(for SDWC15600 only; also sold separately)*
  - or
  - SDWC-GUIDE275 *(for SDWC15450 only; also sold separately)*