ProSTUD® 20 / 18mil Head-of-Wall (HOW) Composite Limiting Heights w/ 30mil 2-1/2" Leg Deflection Track

w/ 30mil 2-1/2 Leg Deflection Track							5/8° Type X Gypsum Board					
Width	Stud Member	Yield Strength	Spacing (in) o.c.	5psf			7.5psf			10psf		
				L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
2-1/2"	ProSTUD 20 / 18 mil 250PDS125-18	70 ksi	12	16'-6"	14'-1"	12'-4"	14'-6"	12'-4"	10'-9"	13'-3"	11'-2"	9'-9"
			16	15'-11"	13'-5″	11'-8"	13'-11"	11'-8″	10'-3"	12'-8"	10'-8"	9'-0"
			24	14'-5"	12'-2"	10'-7"	12'-6" f	10'-7"	8'-11"	10'-10" f	9'-6"	_
3-5/8"	ProSTUD 20 / 18 mil 362PDS125-18	70 ksi	12	21'-2"	17'-8"	15'-5″	18'-6"	15'-6"	13'-5″	16'-10"	14'-1"	12'-3"
			16	19'-11"	16'-8"	14'-6"	17'-5″	14'-7"	12'-8"	15'-10"	13'-3"	11'-3"
			24	18'-0"	14'-11"	13'-0"	15'-9"	13'-1"	11'-1"	13'-7" f	11'-10''	9'-9"
4"	ProSTUD 20 / 18 mil 400PDS125-18	70 ksi	12	22'-5″	18'-7"	16'-4"	19'-7"	16'-3"	14'-3"	17'-10"	14'-9"	12'-11"
			16	20'-10"	17'-3"	15'-2"	18'-3"	15'-1"	13'-3"	16'-7"	13'-9"	12'-1"
			24	18'-7"	15'-5″	13'-6"	16'-3"	13'-6"	11'-9"	14'-2" f	12'-3"	10'-2"
6"	ProSTUD 20 / 18 mil 600PDS125-18	70 ksi	12	29'-6"	24'-8"	21'-9"	25'-9"	21'-6"	19'-0"	22'-5" f	19'-7"	17'-3"
			16	27'-9"	23'-2"	20'-5"	23'-4" f	20'-3"	17'-10"	20'-3" f	18'-5″	16'-2"
			24	24'-3" f	20'-11"	18'-3"	19'-10" f	18'-3"	15'-11"	17'-2" f	16'-7"	13'-8"

Notes:

- Allowable HOW composite limiting heights were tested in accordance with AISI S916 and ICC-ES AC86.

- The tests were modified from the standards with the tracks fastened to the test fixture such that the wall stiffness included the track deformation.

- In accordance with current building codes and AISI design standards, the 1/3 Stress Increase for strength was not used.

 The composite limiting heights provided in the tables are based on a single layer of 5/8" Type X Gypsum Board from the following manufacturers: American, CertainTeed, Georgia Pacific, Continental, National, PABCO, and USG.

 The gypsum board must be applied full height in the vertical orientation to each stud flange and installed in accordance with ASTM C754 using minimum No. 6 Type S Drywall screws spaced as listed below:

- Sheathing screws spaced a maximum of 16 in on-center to framing members (including bottom track) when studs spaced at 16 in or 12 in on-center. - Sheathing screws spaced a maximum of 12 in on-center to framing members (including bottom track) when studs spaced at 24 in on-center.

No fasteners are required for attaching the stud to the Deflection track at the top except as detailed in ASTM C754.:

- Stud to track connection must be installed as depicted in figure with a maximum gap of 7/8" between the web of the Deflection track and end of stud.

- The maximum amount of total vertical movement (compression + extension) cannot exceed 1-1/2".

- To permit head of wall deflection, gypsum board must not be fastened directly to the Deflection track.

- No fasteners are required for attaching the stud to the bottom track except as detailed in ASTM C754.

- A spazzer spacing bar shall be installed in the punchouts immediately adjacent to the top track (Deflection Track) to hold studs in place.

f Adjacent to the height value indicates that flexural stress controls the allowable wall height.

