

## Code Compliance Research Report CCRR-0207

Issue Date: 04-27-2017 Renewal Date: 04-25-2018

DIVISION: 05 00 00 – METALS Section: 05 40 00 – Cold-Formed Metal Framing DIVISION: 09 00 00 – FINISHES Section: 09 22 00 – Supports for Plaster and Gypsum Board Section: 09 22 16 – Non-Structural Metal Framing

#### **REPORT HOLDER:**

ClarkDietrich Building Systems, LLC 9100 Centre Pointe Drive, Suite 210 West Chester, OH 45069 614-423-8860 www.clarkdietrich.com

REPORT SUBJECT: ProSTUD Cold-Formed Steel Studs ProTRAK Cold-Formed Steel Tracks

#### **1.0 SCOPE OF EVALUATION**

**1.1** This Research Report addresses compliance with the following Codes:

- 2015 International Building Code<sup>®</sup> (IBC)
- 2015 International Residential Code<sup>®</sup> (IRC)
- 2014 Florida Building Code Building (FBC-B) (see Section 9)
- 2014 Florida Building Code Residential (FBC-R) (see Section 9)
- 2016 California Building Code (CBC) (see Section 10)
- 2016 California Residential Code (CRC) (see Section 10)

**1.2** ProSTUD and ProTRAK have been evaluated for the following properties:

- Structural
- Acoustical
- Fire Resistance

**1.3** ProSTUD and ProTRAK have been evaluated for use as interior nonload-bearing (nonstructural), gypsum board sheathed walls and ceilings in compliance with Sections 2210.1 and 2508 of the IBC, FBC-B, and CBC, and Sections R603 and R702.3 of the IRC, FBC-R, and CRC.

## 2.0 STATEMENT OF COMPLIANCE

ProSTUD and ProTRAK comply with the Codes listed in Section 1.1, for the properties stated in Section 1.2 and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.0.

#### 3.0 DESCRIPTION

3.1 General - ProSTUD steel framing members are "C" shaped members with three evenly spaced grooves in each flange. ProSTUD members have offsets in the web, and diamond embosses on the center of the web of 2-1/2" and deeper members. The flanges of the ProSTUD members may be formed with or without knurling. ProTRAK steel framing members are "U" shaped members without a flange stiffener. ProTRAK members may be formed with or without two evenly spaced grooves in each flange and the flanges may be formed with or without a hem. ProTRAK members may be formed with or without a web offset or the diamond emboss. The flanges of ProSTUD and ProTRAK members may be formed with or without knurling. See Figures 1-3. The ProSTUD framing system products that are recognized in this report are limited to the products whose designations are found in Table 2.

**3.2** ProSTUD and ProTRAK framing members (studs and tracks) are fabricated from steel coil conforming to the mechanical and chemical properties of ASTM A1003. Steel grades for each ProSTUD and ProTRAK framing member designations and specifications are recognized. See Table 2. The ProSTUD and ProTRAK members have a protective coating which conforms to ASTM Specification C645 and have a protective coating conforming to Specification A653/A653M–G40 minimum or have a protective coating which provides an equivalent corrosion resistance to a G40 coating. ProSTUD and ProTRAK members' equivalent corrosion resistance coatings are designated G40EQ or G40EQ DiamondPlus<sup>™</sup>.







**3.3** ProSTUD is available in steel design thicknesses of 0.0158", 0.0200", 0.0232", 0.0312", and 0.0346". The framing members are available in depths of 1-5/8", 2-1/2", 3-1/2", 3-5/8", 4", 5-1/2" and 6". See Figure 1 for stud profiles and Table 1 for recognized product designations.

**3.4** ProTRAK thicknesses correspond to the stud thicknesses. See Figure 3 for track profiles and Table 1 for recognized product designations.

**3.5** ProSTUD is pre-punched with knockouts spaced every 48 inches throughout the stud length and shall not be located less than 10 inches from the end of the member to the near edge of the web knockout. Punch-out hole dimensions are as indicated in Figure 4 for each stud depth.

**3.6** Fasteners for attachment of gypsum wall board to framing shall be a minimum #6 Type S drywall screws complying with SAE J78 and ASTM C1002. Fasteners are spaced a maximum of 16 inches on center for 16 in. or 12 in. stud spacing; and 12 inches on center for 24 in. stud spacing.

**3.7** Gypsum wallboard for composite assemblies shall comply with ASTM C1396 and be 5/8" thick Type X gypsum, manufactured by American, CertainTeed, Georgia Pacific, Continental, National, PABCO, or United States Gypsum.

#### 4.0 PERFORMANCE CHARACTERISTICS

**4.1** Reference the ClarkDietrich Building Systems ProSTUD Product Catalog (attached) for design capacities, where only the following pages are within the scope of this report:

**4.1.1** ProSTUD and ProTRAK Section Properties on pages 4-7.

**4.1.2** ProSTUD and ProTRAK Screw Connection Values on page 8.

**4.1.3** ProSTUD Composite Limiting Height tables and instructions on pages 9-11. When composite limiting heights are used the interior nonload-bearing wall assemblies shall be limited to interior installations where the superimposed axial load is zero pounds.

**4.1.4** ProSTUD Non-Composite Limiting Height tables on pages 12-13. Per ASTM C645, nonstructural wall studs manufactured from steel with a minimum measured thickness of 0.0179" (18 mil) may have a superimposed

vertical load, exclusive of sheathing materials, not exceeding 100 lb/ft, or a superimposed vertical load not exceeding 200 lbs. per stud.

**4.1.5** ProSTUD Sound Assemblies identified in the tables on pages 14-15 provide the Sound Transmission Class (STC) required for air-borne sound according to IBC, FBC and CBC Section 1207.2 and IRC Section AK102 where STC ratings are not less than 50 and 45, respectively.

**4.1.6** ProSTUD Fire Rated Assemblies identified in the tables on page 16. ProSTUD and ProTRAK framing meet requirements for use in fire-resistance rated assemblies in accordance with IBC, FBC and CBC Section 703.2 when used in accordance with UL Certification CIKV.R26512 and related UL Design Nos.

**4.1.7** ProSTUD Allowable Ceiling Span tables on page 18.

**4.2** For construction governed by the FBC High Velocity Hurricane Zone (HVHZ), the wall height is limited to the height at the L/240 deflection level.

**4.3** Non-loadbearing (nonstructural) wall heights are determined by the lesser of the limiting conditions which include wall deflection, shear strength, web crippling strength, or flexural strength of the stud.

## 5.0 INSTALLATION

**5.1** ProSTUD and ProTRAK must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.

**5.2** Framing shall be in accordance with the code requirements, ASTM C645 and ASTM C754.

**5.3** Fire rated assemblies shall be in accordance with the applicable UL Design No. from UL Certification CIKV.R26512.

**5.4** Sound rated assemblies shall be in accordance with the wall assembly description given in the sound transmission test report correlating with the sound assembly from pages 14-15 in the attached product catalog.







#### 6.0 CONDITIONS OF USE

**6.1** Installation must comply with this Research Report, the manufacturer's published installation instructions, and the applicable Code. In the event of a conflict, this report governs.

**6.2** All designs and calculations shall be prepared by a licensed design professional according to the requirements in the jurisdiction where the project is located.

**6.3** Jobsite manufacturing of studs or tracks is outside the scope of this report.

**6.4** The minimum base steel thickness of the section delivered to the jobsite must be a minimum of 95% of the design thickness.

**6.5** The ProSTUD and ProTRAK Framing identified in this report is manufactured in accordance with the manufacturer's approved quality control system with inspections by Intertek. See Table 1 for approved manufacturing locations.

#### 7.0 SUPPORTING EVIDENCE

**7.1** Manufacturer's drawings and installation instructions.

**7.2** Reports of testing and engineering analysis in accordance with ICC-ES AC86, Acceptance Criteria for Steel Studs and Gypsum-Board Interior Nonload-Bearing Walls-Composite Construction, revised August 2015.

**7.3** Reports of evaluation and engineering analysis in accordance with AISI S100-07 with 2010 supplement, North American Specification for the Design of Cold-Formed Steel Structural Members.

**7.3.1** AISI S100-07 reviewed and deemed equivalent to AISI S100-12 for compliance with 2015 IBC.

**7.4** Reports of testing and engineering analysis demonstrating compliance with ICC-ES AC46, Acceptance Criteria for Cold-Formed Steel Framing Members, revised April 2015.

**7.5** Reports of testing and evaluation of G40EQ and G40EQ DiamondPlus coating to verify equivalent corrosion

resistance to G40 coated specimens per the requirements of ASTM C645.

**7.6** Reports of acoustical testing in accordance with ASTM E90-04 – Testing Standard for Air-Borne Sound Transmission Loss of Building Partitions and Elements.

**7.7** Documentation of an Intertek approved quality control system for the manufacturing of products recognized in this report.

#### 8.0 IDENTIFICATION

ProSTUD and ProTRAK produced in accordance with this report shall be identified with labeling at a maximum spacing of 96 inches that includes the following information:

8.1 The manufacturers name, logo, or initials;

8.2 The ProSTUD and ProTRAK framing designation;

**8.3** Minimum base steel thickness (uncoated) in decimals or mils;

8.4 Yield strength;

**8.5** Galvanization coating designation G40, G40EQ or G40EQ DiamondPlus.

**8.6** The Intertek Code Compliance Research Report identification and number, "Intertek CCRR-0207"

**8.7** ProSTUD and ProTRAK Framing to be used in fire-resistance rated assemblies shall be labeled in accordance with UL certification CIKV.R26512.

**8.8** Bundles of like members shall be identified with the Intertek identification mark and Code Compliance Research Report number as shown:









#### 9.0 FLORIDA BUILDING CODE

**9.1 Scope of Evaluation:** The ProSTUD and ProTRAK were evaluated for compliance with the 2014 *Florida Building Code – Building and Florida Building Code – Residential.* 

**9.2 Conclusion:** The ProSTUD and ProTRAK, described in Sections 2.0 through 7.0 of this Research Report, comply with the 2014 *Florida Building Code – Building* and *Florida Building Code – Residential*, including the High-Velocity Hurricane Zone provisions.

#### **10.0 CALIFORNIA BUILDING CODE**

**10.1 Scope of Evaluation:** The ProSTUD and ProTRAK were evaluated for compliance with the 2016 *California Building Code* and *California Residential Code*.

**10.2 Conclusion:** The ProSTUD and ProTRAK, described in Sections 2.0 through 7.0 of this Research Report, comply with the 2016 *California Building Code* and *California Residential Code*.

#### **11.0 CODE COMPLIANCE RESEARCH REPORT USE**

**11.1** Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

**11.2** Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.

**11.3** Reference to the <u>https://bpdirectory.intertek.com</u> is recommended to ascertain the current version and status of this report.

This Code Compliance Research Report ("Report") is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Report. Only the Client is authorized to permit copying or distribution of this Report and then only in its entirety, and the Client shall not use the Report in a misleading manner. Client further agrees and understands that reliance upon the Report is limited to the representations made therein. The Report is not an endorsement or recommendation for use of the subject and/or product described herein. This Report is not the Intertek Listing Report covering the subject product and utilized for Intertek Certification and this Report does not represent authorization for the use of any Intertek certification marks. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.







Table	e 1 - Code Referenced Stand	ards

2015 IBC	2014 FBC	2016 CBC
AISI \$100-12	AISI S100-07	AISI \$100-07
AISI S220-11	AISI S200-07	AISI S220-11
ASTM C645-13 Section 10	ASTM C645-08a	ASTM C645-13 Section 10

Table 2 - ProSTUD and ProTRAK Specifications<sup>1</sup>

ClarkDietrich Designation	Min. Base Steel Thickness	Min. Yield Strength (ksi)
ProSTUD 25	0.0150" (15-mil)	NS 50
ProSTUD 20	0.0190" (19-mil)	NS 65
ProSTUD 20XD	0.0220" (22-mil)	NS 57
ProSTUD 30	0.0296" (30-mil)	NS 33
ProSTUD 33	0.0329" (33-mil)	NS 33
ProTRAK 25	0.0150" (15-mil)	NS 50
ProTRAK 20	0.0190" (19-mil)	NS 50
ProTRAK 20XD	0.0220" (22-mil)	NS 50
ProTRAK 30	0.0296" (30-mil)	NS 33
ProTRAK 33	0.0329" (33-mil)	NS 33

<sup>1</sup> *ProSTUD* and *ProTRAK* are available in depths of 1-5/8", 2-1/2", 3-1/2", 3-5/8", 4", 5-1/2" and 6".







Table 3 - <i>ProSTUD®</i> and <i>F</i>	ProTRAK® Manufacturing Locations
ClarkDietrich™ Building System - BALTIMORE 4601 North Point Blvd.	ClarkDietrich™ Building System – MCDONOUGH
Baltimore, MD 21219	McDonough, GA 30253
ClarkDietrich <sup>™</sup> Building System - BAYTOWN	ClarkDietrich <sup>™</sup> Building System - RIVERSIDE
4200 Cedar Blvd.	6510 General Drive
Baytown, TX 77520	Riverside, CA 92509
ClarkDiatrich™ Building System - BPISTOL	Clark Diatrich™ Building System - POCHELLE
780 James P. Casey Road	501 Stewart Road
Bristol CT 06010	Bochelle II 61068
ClarkDietrich™ Building System – DADE CITY	ClarkDietrich™ Building System – WOODLAND
38020 Pulp Drive	1685 Tide Court
Dade City, FL 33523	Woodland, CA 95776
ClarkDietrich™ Building System – DALLAS	ClarkDietrich <sup>™</sup> Building System – VIENNA
10340 Denton Drive	1455 Ridge Road
Dallas, TX 75220	Vienna Township, OH 44473
ClarkDietrich™ Building System - HAWAII	
91-300 Hanua Street	
Kapolei, HI 96707	











Retu	rn Lip Dimens	sions				
Section	Minimum	Return				
1629125	THICKNESS	цр				
2509125						
3509125						
400\$125	0.0150"	0.250"				
550\$125						
6005125						
162S125		0 265"				
250S125		0.300"				
350S125		0.315"				
400S125	0.0190"	0.330"				
550S125		0.350"				
600S125		0.360"				
162S125		0.250"				
250S125		0.250"				
350S125	0.0000	0.250"				
400S125	0.0220"	0.250"				
550S125		0.251"				
600S125		0.257"				
162S125						
250S125						
350S125	0.0206"	0.250"				
400S125	0.0296	0.250				
550S125						
600S125						
162S125						
250S125						
350S125	0.0329"	0.250"				
400S125	0.0325	0.200				
550S125						
600S125						

3-1/2", 3-5/8", 4", 5-1/2" & 6" Studs

Figure 1 – ProSTUD Section Profiles







Figure 2 – Web Embossment Detail (No embossment on 1-5/8" studs)



Figure 3 – ProTRAK Section Profile







Figure 4 – Punch-out Hole Dimensions





## **ProSTUD®** PRODUCT CATALOG



Matter



DRYWALL FRAMING SYSTEM

# ClarkDietrich. WHEREINNOVATION TAKESFORM.

The ProSTUD® Drywall Framing System can be called many things. Strong. Versatile. Fast. And without a doubt—revolutionary. But one of the biggest benefits to keep in mind is this: ProSTUD was developed, tested and approved by pros in the field who demanded nothing less than achieving absolute ease of use. Its performance has also been proven by the most extensive laboratory evaluations available. All of which means ProSTUD comes with complete confidence and no questions about code compliance. With the backing of online, mobile and data-rich BIM resources, there's no better example of a broader vision at work.

ProSTUD, in fact, is just one example of how ClarkDietrich can reinforce your efforts to design and build more intelligently. Yes, we're known as a manufacturer of extensively tested, code-compliant steel framing products, but we offer so much more. Our products perform as a system. We support a range of efforts for smarter installation and design. We provide the expertise of a versatile engineering services team. And we do it all on a nationwide scale.

We've put together an incredible array of resources to help you be successful on any project, regardless of size or complexity. Within this catalog you'll discover the multiple advantages ProSTUD has to offer, as well as detailed information on the product lineup, limiting heights, sound and fire assemblies, and more.

Ultimately, your choice of ProSTUD doesn't come down to the integrity of the product alone, or even its ease of use. You're also looking to the strength of the company that stands behind it. Count on the expertise, services and full support of ClarkDietrich today—and far into the future.

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## Need Product Submittals? Use SubmittalPro<sup>®</sup> at clarkdietrich.com.

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## WHAT IS AN EQUIVALENT (EQ) DRYWALL STUD?

Gauge equivalent drywall framing must meet the minimum performance requirements of conventional drywall framing as defined by the Steel Framing Industry Association (SFIA) and the Steel Stud Manufacturers Association (SSMA). The industry's "EQ" product of choice, ProSTUD,<sup>®</sup> employs roll-forming and steel-making technology, exceeding the performance of conventional drywall framing for allowable moment and screw connection strength. When comparing drywall framing systems, it is important to keep in mind Life Safety, System Performance and Connections. The ProSTUD Drywall Framing System provides peace of mind for all three important functions by providing the right selection of products and product data for every application.

Comparison of ProSTUD Drywall Framing to Conventional Drywall Framing													
ProSTUD Drywall F	raming		Conventional Drywall Framing										
ProSTUD 25	15mil		25 Gauge	18mil									
ProSTUD 20 19mil 20 Gauge 30mil													

#### Life Safety

Life Safety is the primary concern and duty of all construction and design professionals. For interior drywall framing members, bending strength is the criteria most important to the strength of a wall or ceiling. AISI defines bending or flexural strength by Allowable Moment. The corresponding chart compares the bending strength of ProSTUD and conventional drywall studs.

#### System Performance

Given ProSTUD's strength and versatility, it's important to know the performance of the ProSTUD member under your project's specific criteria. This catalog will provide guidance in a variety of assemblies and loading criteria, based on current building codes. Additional data is available at clarkdietrich.com.



#### Connections

In addition to sufficient member strength, it's important to know how connections will perform. Connections can be critical to the capacity and safety of an assembly, but they are also important for the attachment of cabinets, shelving, handrails, and other accessories to steel framing. The tables below compare the screw performance of ProSTUD to conventional drywall framing. This performance relationship to conventional studs can be applied to a variety of fasteners and connections.



#### #6 Screw Shear (Bearing) Values



Along with connection capacity, conventional framing members are required to meet performance criteria for screw spinout. ProSTUD was developed with screw performance in mind. High-strength steel, flange stiffening grooves, web embossments, and knurling features combine to provide the best performance per thickness, exceeding the requirements of ASTM C645.

## CONSTRUCTION ADVANTAGES

- High-strength steel combined with low-profile flange stiffening grooves and double offset web planking increases strength and provides greater limiting heights
- Diamond-embossed web creates stiffness, reducing flange fade and screw spinout during drywall installation
- Strong, lightweight stud and track cuts and handles easier than conventional flat steel studs
- Flange grooves provide sight line for drywall alignment and aid in positioning screws at drywall joints to maintain the 3/8" edge requirement
- Web and leg enhancements in ProTRAK® provide straight and rigid legs, making it the best choice for framing walls, headers, soffits, and bulkheads

## DESIGN ADVANTAGES

- Designed to meet the additional strength requirements of today's building codes: IBC 2015, AISI NASPEC (S100), ICC-ES AC86 (2015)
- UL Classified and listed in over 50 designs, including U419, V438, and chase wall assemblies
- Exceptional sound performance in over 50 tested sound assemblies
- Can contribute LEED® points in LEED v4 or LEED 2009. EPD and HPD verifications also available
- National availability

## **ProSTUD**®



- Web Widths: 1-5/8," 2-1/2," 3-1/2," 3-5/8," 4," 5-1/2," and 6"
- Flange: 1-1/4"
- Return Lip: varies by stud size
- Material Thicknesses: ProSTUD 25 / 15mil (25ga EQ) 50ksi ProSTUD 20 / 19mil (20ga EQ) 65ksi ProSTUD 30MIL 33ksi ProSTUD 33MIL 33ksi
- Available G40EQ, G40 (CP60 available as special order)
- G40EQ DiamondPlus<sup>™</sup> available for 15mil & 19mil only. Contact your ClarkDietrich Sales Representative for market availability.



\*Except in 1-5/8"

## ProTRAK



ProST	U D®	25	DRY	WALL	STUD

ClarkDietrich ProSTUD 25 (15mil) physical and structural properties

	Design	_		Gro	oss Sectio	on Proper	ties			e Section	n Properti	Torsional Properties								
Member	thickness (in)	⊦y (ksi)	Area (in²)	Weight (lb/ft)	lx (in⁴)	Rx (in)	ly (in⁴)	Ry (in)	Ae (in²)	lx (in <sup>4</sup> )	Sx (in³)	Ma (in-Ibs)	Vag (Ib)	Vanet (lb)	Jx1000 (in <sup>4</sup> )	Cw (in <sup>6</sup> )	Xo (in)	Ro (in)	β Beta	Lu (in)
162PDS125-15	0.0158	50	0.071	0.24	0.033	0.688	0.015	0.466	0.033	0.030	0.024	719	232	104	0.00589	0.009	-1.088	1.369	0.368	24.8
250PDS125-15	0.0158	50	0.085	0.29	0.088	1.020	0.018	0.459	0.033	0.080	0.044	1198	147	141	0.00704	0.023	-0.959	1.473	0.576	24.5
362PDS125-151	0.0158	50	0.102	0.35	0.206	1.420	0.020	0.442	0.034	0.190	0.056	1689	100	100	0.00852	0.051	-0.837	1.706	0.760	24.3
400PDS125-151	0.0158	50	0.108	0.37	0.260	1.549	0.021	0.436	0.034	0.233	0.062	1870	90	90	0.00901	0.064	-0.803	1.798	0.800	24.2
600PDS125-152	0.0158	50	0.140	0.48	0.683	2.209	0.023	0.404	0.034	0.537	0.105	2781	60	60	0.01164	0.161	-0.666	2.343	0.919	23.6

## ProTRAK<sup>®</sup> 25 DRYWALL TRACK

#### ClarkDietrich ProTRAK 25 (15mil) physical and structural properties

	Design	_	Gross Section Properties							ffective Se	ection Pro	perties at F	у	Torsional Properties					
Member	thickness (in)	Fy (ksi)	Area (in²)	Weight (Ib/ft)	lx (in⁴)	Rx (in)	ly (in⁴)	Ry (in)	Ae (in²)	lx (in⁴)	Sx (in³)	Ma (in-lbs)	Vag (Ib)	Jx1000 (in4)	Cw (in <sup>6</sup> )	Xo (in)	Ro (in)	β Beta	
162PDT125-15	0.0158	50	0.065	0.22	0.034	0.717	0.011	0.412	0.020	0.021	0.016	464	222	0.00542	0.006	-0.881	1.208	0.468	
250PDT125-15	0.0158	50	0.079	0.27	0.085	1.038	0.013	0.400	0.020	0.059	0.024	724	143	0.00657	0.015	-0.771	1.353	0.675	
362PDT125-151	0.0158	50	0.097	0.33	0.196	1.425	0.014	0.381	0.021	0.125	0.035	1059	98	0.00805	0.034	-0.668	1.619	0.830	
400PDT125-151	0.0158	50	0.103	0.35	0.247	1.550	0.014	0.374	0.021	0.153	0.039	1171	89	0.00854	0.043	-0.640	1.718	0.861	
600PDT125-15 <sup>2</sup>	0.0158	50	0.134	0.46	0.646	2.194	0.016	0.343	0.021	0.350	0.059	1762	59	0.01117	0.108	-0.524	2.282	0.947	
162PDT200-15	0.0158	50	0.089	0.30	0.050	0.752	0.039	0.663	0.020	0.025	0.015	455	222	0.00739	0.020	-1.579	1.870	0.287	
250PDT200-15	0.0158	50	0.103	0.35	0.124	1.098	0.045	0.662	0.021	0.064	0.024	720	143	0.00854	0.052	-1.431	1.921	0.445	
362PDT200-151	0.0158	50	0.120	0.41	0.277	1.516	0.051	0.648	0.021	0.137	0.036	1063	98	0.01002	0.120	-1.282	2.088	0.623	
400PDT200-151	0.0158	50	0.126	0.43	0.344	1.650	0.052	0.642	0.021	0.168	0.039	1178	89	0.01052	0.151	-1.240	2.162	0.671	
600PDT200-15 <sup>2</sup>	0.0158	50	0.158	0.54	0.864	2.338	0.058	0.608	0.021	0.389	0.060	1789	59	0.01315	0.383	-1.058	2.638	0.839	
162PDT250-15	0.0158	50	0.105	0.36	0.061	0.766	0.071	0.824	0.020	0.027	0.015	455	222	0.00871	0.038	-2.058	2.345	0.230	
250PDT250-15	0.0158	50	0.118	0.40	0.150	1.123	0.082	0.831	0.021	0.066	0.024	725	143	0.00986	0.096	-1.892	2.352	0.353	
362PDT250-151	0.0158	50	0.136	0.46	0.330	1.557	0.092	0.823	0.021	0.142	0.036	1073	98	0.01134	0.220	-1.720	2.462	0.512	
400PDT250-151	0.0158	50	0.142	0.48	0.409	1.696	0.095	0.819	0.021	0.174	0.040	1189	89	0.01183	0.275	-1.670	2.517	0.560	
600PDT250-15 <sup>2</sup>	0.0158	50	0.174	0.59	1.009	2.409	0.108	0.787	0.021	0.404	0.060	1809	59	0.01446	0.697	-1.452	2.921	0.753	

- Calculated properties are based on AISI S100-12, North American Specification for Design of Cold-Formed Steel Structural Members and AISI S220-15, North American Standard for Cold-Formed Steel Framing—Nonstructural Members.
- Effective properties incorporate the strength increase from the cold work of forming as applicable per AISI A7.2.
- Tabulated gross properties, including torsional properties, are based on full-unreduced cross section of the studs, away from punchouts.
- Tabulated gross properties, including torsional properties, are based on full-unreduced cross section of the tracks.
- For deflection calculations, use the effective moment of inertia.
- Allowable moment includes cold work of forming.
- Allowable moment is taken as the lowest value based on local or distortional buckling. Distortional buckling strength is based on a k-phi = 0.
- Web depth for track sections is equal to the nominal height plus two times the design thickness plus the bend radius. Hems on nonstructural track sections are ignored.
- 1 Web-height to thickness ratio exceeds 200. Web stiffeners are required at bearing points.
- 2 Web-height to thickness ratio exceeds 260. Web stiffeners are required at bearing and intermediate points.

ProSTUD <sup>®</sup> 20 DRYWALL STUD									ClarkDietrich ProSTUD 20 (19mil) physical and structural properties											s
	Design	_		Gross Section Properties						Effective Section Properties at Fy						Torsional Properties				
Member	thickness (in)	Fy (ksi)	Area (in²)	Weight (lb/ft)	lx (in4)	Rx (in)	ly (in⁴)	Ry (in)	Ae (in²)	lx (in4)	Sx (in³)	Ma (in-Ibs)	Vag (Ib)	Vanet (lb)	Jx1000 (in <sup>4</sup> )	Cw (in <sup>6</sup> )	Xo (in)	Ro (in)	β Beta	Lu (in)
162PDS125-19	0.0200	65	0.090	0.31	0.042	0.685	0.020	0.466	0.042	0.037	0.031	1193	473	165	0.01197	0.012	-1.096	1.374	0.364	22.0
250PDS125-19	0.0200	65	0.109	0.37	0.112	1.017	0.024	0.467	0.046	0.104	0.061	2110	299	226	0.01449	0.032	-0.992	1.495	0.560	22.2
362PDS125-19	0.0200	65	0.132	0.45	0.266	1.420	0.027	0.454	0.048	0.254	0.080	3103	203	189	0.01757	0.072	-0.876	1.729	0.743	22.1
400PDS125-19	0.0200	65	0.140	0.48	0.336	1.550	0.028	0.451	0.050	0.316	0.091	3537	184	184	0.01865	0.092	-0.851	1.825	0.783	22.2
600PDS125-19 <sup>2</sup>	0.0200	65	0.181	0.62	0.892	2.220	0.033	0.425	0.051	0.727	0.158	5421	121	121	0.02414	0.236	-0.723	2.373	0.907	21.9

ClarkDietrich ProTRAK 20 (19mil) physical and structural properties

	Design			G	ross Sectio	on Properti	es		E	ffective Se	ection Pro	perties at F	v	Torsional Properties						
Member	thickness (in)	Fy (ksi)	Area (in²)	Weight (lb/ft)	lx (in⁴)	Rx (in)	ly (in⁴)	Ry (in)	Ae (in²)	lx (in⁴)	Sx (in³)	Ma (in-Ibs)	Vag (Ib)	Jx1000 (in <sup>4</sup> )	Cw (in <sup>6</sup> )	Xo (in)	Ro (in)	β Beta		
162PDT125-19	0.0200	50	0.082	0.28	0.043	0.719	0.014	0.411	0.031	0.028	0.024	718	421	0.01099	0.007	-0.879	1.207	0.470		
250PDT125-19	0.0200	50	0.100	0.34	0.108	1.039	0.016	0.400	0.032	0.078	0.038	1136	289	0.01333	0.018	-0.769	1.353	0.677		
362PDT125-19	0.0200	50	0.122	0.42	0.249	1.426	0.018	0.380	0.032	0.191	0.055	1650	199	0.01633	0.043	-0.666	1.619	0.831		
400PDT125-19	0.0200	50	0.130	0.44	0.312	1.551	0.018	0.374	0.032	0.232	0.061	1822	180	0.01733	0.054	-0.638	1.718	0.862		
600PDT125-192	0.0200	50	0.170	0.58	0.819	2.195	0.020	0.342	0.032	0.508	0.091	2717	119	0.02266	0.137	-0.523	2.282	0.948		
162PDT200-19	0.0200	50	0.112	0.38	0.064	0.754	0.049	0.662	0.031	0.034	0.024	707	421	0.01499	0.026	-1.576	1.868	0.288		
250PDT200-19	0.0200	50	0.130	0.44	0.157	1.099	0.057	0.661	0.032	0.094	0.037	1119	289	0.01733	0.066	-1.429	1.920	0.446		
362PDT200-19	0.0200	50	0.152	0.52	0.351	1.517	0.064	0.647	0.032	0.205	0.055	1651	199	0.02033	0.152	-1.280	2.088	0.624		
400PDT200-19	0.0200	50	0.160	0.54	0.436	1.651	0.066	0.642	0.032	0.251	0.061	1829	180	0.02133	0.191	-1.238	2.161	0.672		
600PDT200-192	0.0200	50	0.200	0.68	1.094	2.339	0.074	0.607	0.033	0.580	0.093	2780	119	0.02666	0.485	-1.056	2.637	0.840		
162PDT250-19	0.0200	50	0.132	0.45	0.078	0.768	0.090	0.823	0.031	0.037	0.023	698	421	0.01766	0.048	-2.055	2.343	0.231		
250PDT250-19	0.0200	50	0.150	0.51	0.190	1.125	0.103	0.830	0.032	0.099	0.037	1113	289	0.01999	0.121	-1.890	2.351	0.354		
362PDT250-19	0.0200	50	0.172	0.59	0.419	1.558	0.117	0.822	0.032	0.213	0.055	1649	199	0.02299	0.278	-1.718	2.461	0.513		
400PDT250-19	0.0200	50	0.180	0.61	0.518	1.697	0.120	0.818	0.032	0.261	0.061	1829	180	0.02399	0.348	-1.668	2.517	0.561		
600PDT250-19 <sup>2</sup>	0.0200	50	0.220	0.75	1.278	2.410	0.136	0.786	0.033	0.605	0.093	2788	119	0.02933	0.881	-1.450	2.920	0.754		

#### Notes:

- Calculated properties are based on AISI S100-12, North American Specification for Design of Cold-Formed Steel Structural Members and AISI S220-15, North American Standard for Cold-Formed Steel Framing—Nonstructural Members.
- Effective properties incorporate the strength increase from the cold work of forming as applicable per AISI A7.2.
- Tabulated gross properties, including torsional properties, are based on full-unreduced cross section of the studs, away from punchouts.
- Tabulated gross properties, including torsional properties, are based on full-unreduced cross section of the tracks.
- For deflection calculations, use the effective moment of inertia.

ProTRAK<sup>®</sup> 20 DRYWALL TRACK

- Allowable moment includes cold work of forming.
- Allowable moment is taken as the lowest value based on local or distortional buckling. Distortional buckling strength is based on a k-phi = 0.
- Web depth for track sections is equal to the nominal height plus two times the design thickness plus the bend radius. Hems on nonstructural track sections are ignored.
- 1 Web-height to thickness ratio exceeds 200. Web stiffeners are required at bearing points.
- 2 Web-height to thickness ratio exceeds 260. Web stiffeners are required at bearing and intermediate points.

#### ProSTUD® 30MIL DRYWALL STUD (AVAILABLE IN SELECT MARKETS)

#### ClarkDietrich ProSTUD 30MIL physical and structural properties

	Design	_		Gro	oss Sectio	n Proper	ties			Effectiv	e Sectior	n Properti	es at Fy			Torsio	nal Prope	rties		
Member	thickness (in)	Fy (ksi)	Area (in²)	Weight (lb/ft)	lx (in <sup>4</sup> )	Rx (in)	ly (in⁴)	Ry (in)	Ae (in²)	lx (in⁴)	Sx (in³)	Ma (in-lbs)	Vag (Ib)	Vanet (Ib)	J* 1000 (in <sup>4</sup> )	Cw (in <sup>6</sup> )	Xo (in)	Ro (in)	β Beta	Lu (in)
162PDS125-30	0.0312	33	0.137	0.47	0.064	0.681	0.029	0.458	0.098	0.064	0.067	1332	572	124	0.04459	0.017	-1.070	1.348	0.371	30.8
250PDS125-30	0.0312	33	0.165	0.56	0.169	1.012	0.034	0.451	0.106	0.168	0.121	2356	832	397	0.05345	0.042	-0.941	1.454	0.581	30.1
362PDS125-30	0.0312	33	0.200	0.68	0.398	1.411	0.038	0.434	0.107	0.396	0.170	3358	776	457	0.06484	0.096	-0.820	1.689	0.764	29.7
400PDS125-30	0.0312	33	0.212	0.72	0.501	1.540	0.039	0.428	0.108	0.499	0.189	3737	701	490	0.06864	0.120	-0.787	1.781	0.805	29.5
600PDS125-30	0.0312	33	0.274	0.93	1.324	2.199	0.043	0.396	0.109	1.281	0.338	6031	461	461	0.08888	0.303	-0.651	2.327	0.922	28.7

## ProTRAK<sup>®</sup> 30MIL DRYWALL TRACK

#### ClarkDietrich ProTRAK 30MIL physical and structural properties

	Design	_		G	ross Sectio	n Propert	ies		E	ffective Se	ection Pro	perties at F	у		Torsi	onal Prope	rties	
Member	thickness (in)	Fy (ksi)	Area (in²)	Weight (Ib/ft)	lx (in4)	Rx (in)	ly (in⁴)	Ry (in)	Ae (in²)	lx (in⁴)	Sx (in³)	Ma (in-Ibs)	Vag (Ib)	J* 1000 (in <sup>4</sup> )	Cw (in <sup>6</sup> )	Xo (in)	Ro (in)	β Beta
162PDT125-30	0.0312	33	0.128	0.44	0.067	0.722	0.022	0.409	0.080	0.054	0.048	951	610	0.04168	0.011	-0.872	1.204	0.475
250PDT125-30	0.0312	33	0.156	0.53	0.169	1.042	0.025	0.397	0.084	0.140	0.087	1713	832	0.05054	0.029	-0.763	1.351	0.681
362PDT125-30	0.0312	33	0.191	0.65	0.389	1.428	0.027	0.378	0.087	0.330	0.149	2938	755	0.06193	0.067	-0.661	1.619	0.833
400PDT125-30	0.0312	33	0.203	0.69	0.489	1.553	0.028	0.371	0.088	0.417	0.172	3407	683	0.06573	0.084	-0.633	1.718	0.864
600PDT125-30	0.0312	33	0.265	0.90	1.278	2.196	0.031	0.340	0.090	1.074	0.240	4737	454	0.08597	0.212	-0.519	2.282	0.948
162PDT200-30	0.0312	33	0.175	0.60	0.101	0.758	0.076	0.660	0.081	0.067	0.052	1028	610	0.05687	0.040	-1.570	1.864	0.291
250PDT200-30	0.0312	33	0.203	0.69	0.246	1.103	0.088	0.659	0.086	0.170	0.094	1862	832	0.06573	0.103	-1.423	1.917	0.449
362PDT200-30	0.0312	33	0.238	0.81	0.549	1.520	0.099	0.645	0.089	0.397	0.160	3159	755	0.07712	0.237	-1.274	2.086	0.627
400PDT200-30	0.0312	33	0.249	0.85	0.682	1.654	0.102	0.639	0.089	0.502	0.176	3480	683	0.08091	0.297	-1.232	2.160	0.674
600PDT200-30	0.0312	33	0.312	1.06	1.710	2.342	0.114	0.605	0.091	1.353	0.262	5170	454	0.10116	0.754	-1.051	2.637	0.841
162PDT250-30	0.0312	33	0.206	0.70	0.123	0.772	0.139	0.821	0.082	0.073	0.054	1059	610	0.06699	0.075	-2.048	2.338	0.233
250PDT250-30	0.0312	33	0.234	0.80	0.298	1.129	0.160	0.828	0.086	0.186	0.097	1926	832	0.07585	0.190	-1.883	2.347	0.356
362PDT250-30	0.0312	33	0.269	0.92	0.656	1.562	0.181	0.820	0.089	0.436	0.157	3097	755	0.08724	0.435	-1.712	2.458	0.515
400PDT250-30	0.0312	33	0.281	0.96	0.812	1.701	0.187	0.816	0.090	0.551	0.173	3425	683	0.09104	0.543	-1.662	2.514	0.563
600PDT250-30	0.0312	33	0.343	1.17	1.997	2.413	0.211	0.784	0.092	1.473	0.261	5162	454	0.11128	1.373	-1.444	2.919	0.755

- Calculated properties are based on AISI S100-12, North American Specification for Design of Cold-Formed Steel Structural Members and AISI S220-15, North American Standard for Cold-Formed Steel Framing—Nonstructural Members.
- Effective properties incorporate the strength increase from the cold work of forming as applicable per AISI A7.2.
- Tabulated gross properties, including torsional properties, are based on full-unreduced cross section of the studs, away from punchouts.
- Tabulated gross properties, including torsional properties, are based on full-unreduced cross section of the tracks.
- For deflection calculations, use the effective moment of inertia.
- Allowable moment includes cold work of forming.
- Allowable moment is taken as the lowest value based on local or distortional buckling. Distortional buckling strength is based on a k-phi = 0.
- Web depth for track sections is equal to the nominal height plus two times the design thickness plus the bend radius. Hems on nonstructural track sections are ignored.
- 1 Web-height to thickness ratio exceeds 200. Web stiffeners are required at bearing points.
- 2 Web-height to thickness ratio exceeds 260. Web stiffeners are required at bearing and intermediate points.

ProSTU (AVAILAB	D <sup>®</sup> 33	MI ELE(	<b>L D R</b> ст ма	RKETS	<b>4 L L</b> ( 5)	STU	D	Clar	kDiet	rich Pr	oSTU	D 33MI	Lphy	sical a	nd stru	ctural	prope	rties		
	Design	-		Gro	oss Sectio	n Proper	ties			Effectiv	e Sectior	n Properti	ies at Fy			Torsio	nal Prope	rties		
Member	thickness (in)	Fy (ksi)	Area (in²)	Weight (lb/ft)	lx (in <sup>4</sup> )	Rx (in)	ly (in⁴)	Ry (in)	Ae (in²)	lx (in⁴)	Sx (in³)	Ma (in-lbs)	Vag (Ib)	Vanet (Ib)	J* 1000 (in4)	Cw (in <sup>6</sup> )	Xo (in)	Ro (in)	β Beta	Lu (in)
162PDS125-33	0.0346	33	0.152	0.52	0.070	0.679	0.032	0.456	0.114	0.070	0.078	1541	632	123	0.06059	0.019	-1.065	1.344	0.371	30.8
250PDS125-33	0.0346	33	0.182	0.62	0.186	1.010	0.037	0.449	0.125	0.186	0.138	2697	1007	431	0.07267	0.046	-0.937	1.449	0.582	30.1
362PDS125-33	0.0346	33	0.221	0.75	0.439	1.409	0.041	0.433	0.127	0.439	0.200	3943	1024	541	0.08820	0.106	-0.816	1.685	0.766	29.6
400PDS125-33	0.0346	33	0.234	0.80	0.553	1.538	0.043	0.426	0.128	0.553	0.222	4394	957	602	0.09338	0.132	-0.783	1.777	0.806	29.5
600PDS125-33	0.0346	33	0.303	1.03	1.463	2.196	0.047	0.394	0.130	1.428	0.399	7021	630	630	0.12100	0.332	-0.647	2.323	0.922	28.6

ProT R A	K® 33	MIL	DRY	WAL	LTR	ΑСΚ	Cl	arkDie	trich P	roTRA	K 33MI	L physi	cal and	d struct	ural pr	opertie	25	
	Design	-		Gi	ross Sectio	n Properti	ies		E	ffective Se	ection Pro	perties at F	у		Torsi	onal Prope	rties	
Member	thickness (in)	Fy (ksi)	Area (in²)	Weight (lb/ft)	lx (in <sup>4</sup> )	Rx (in)	ly (in⁴)	Ry (in)	Ae (in²)	lx (in⁴)	Sx (in³)	Ma (in-Ibs)	Vag (Ib)	J* 1000 (in <sup>4</sup> )	Cw (in <sup>6</sup> )	Xo (in)	Ro (in)	β Beta
162PDT125-33	0.0346	33	0.142	0.48	0.075	0.723	0.024	0.409	0.095	0.063	0.056	1104	677	0.05683	0.012	-0.870	1.203	0.477
250PDT125-33	0.0346	33	0.173	0.59	0.188	1.043	0.027	0.397	0.102	0.160	0.100	1972	1024	0.06891	0.032	-0.762	1.351	0.682
362PDT125-33	0.0346	33	0.212	0.72	0.432	1.429	0.030	0.377	0.105	0.375	0.170	3358	1024	0.08444	0.074	-0.659	1.618	0.834
400PDT125-33	0.0346	33	0.225	0.77	0.542	1.554	0.031	0.371	0.106	0.473	0.197	3887	931	0.08962	0.093	-0.632	1.718	0.865
600PDT125-33	0.0346	33	0.294	1.00	1.418	2.197	0.034	0.339	0.109	1.237	0.287	5681	619	0.11723	0.234	-0.517	2.282	0.949
162PDT200-33	0.0346	33	0.194	0.66	0.112	0.759	0.085	0.660	0.097	0.077	0.061	1198	677	0.07754	0.045	-1.568	1.862	0.292
250PDT200-33	0.0346	33	0.225	0.77	0.274	1.104	0.097	0.658	0.104	0.196	0.109	2150	1024	0.08962	0.114	-1.421	1.916	0.450
362PDT200-33	0.0346	33	0.264	0.90	0.610	1.521	0.110	0.645	0.107	0.452	0.186	3669	1024	0.10515	0.263	-1.272	2.085	0.628
400PDT200-33	0.0346	33	0.276	0.94	0.758	1.655	0.113	0.639	0.108	0.567	0.215	4246	931	0.11033	0.329	-1.230	2.159	0.675
600PDT200-33	0.0346	33	0.346	1.18	1.897	2.342	0.126	0.604	0.111	1.520	0.322	6355	619	0.13795	0.835	-1.050	2.637	0.842
162PDT250-33	0.0346	33	0.229	0.78	0.137	0.774	0.154	0.821	0.098	0.085	0.063	1235	677	0.09135	0.083	-2.046	2.336	0.233
250PDT250-33	0.0346	33	0.259	0.88	0.331	1.130	0.177	0.827	0.104	0.214	0.113	2225	1024	0.10343	0.211	-1.881	2.346	0.357
362PDT250-33	0.0346	33	0.298	1.01	0.728	1.563	0.200	0.820	0.108	0.493	0.193	3808	1024	0.11896	0.482	-1.710	2.457	0.516
400PDT250-33	0.0346	33	0.311	1.06	0.901	1.702	0.207	0.815	0.109	0.622	0.214	4221	931	0.12414	0.602	-1.660	2.514	0.564
600PDT250-33	0.0346	33	0.380	1.29	2.216	2.414	0.233	0.783	0.111	1.657	0.320	6327	619	0.15175	1.522	-1.443	2.919	0.756

- Calculated properties are based on AISI S100-12, North American Specification for Design of Cold-Formed Steel Structural Members and AISI S220-15, North American Standard for Cold-Formed Steel Framing—Nonstructural Members.
- Effective properties incorporate the strength increase from the cold work of forming as applicable per AISI A7.2.
- Tabulated gross properties, including torsional properties, are based on full-unreduced cross section of the studs, away from punchouts.
- Tabulated gross properties, including torsional properties, are based on full-unreduced cross section of the tracks.
- For deflection calculations, use the effective moment of inertia.
- Allowable moment includes cold work of forming.
- Allowable moment is taken as the lowest value based on local or distortional buckling. Distortional buckling strength is based on a k-phi = 0.
- Web depth for track sections is equal to the nominal height plus two times the design thickness plus the bend radius. Hems on nonstructural track sections are ignored.
- 1 Web-height to thickness ratio exceeds 200. Web stiffeners are required at bearing points.
- 2 Web-height to thickness ratio exceeds 260. Web stiffeners are required at bearing and intermediate points.

## ALLOWABLE SCREW DESIGN VALUES (LBS)

A.4. 1	<b>TI</b> 1 1	Design	V: 11		#6 Sci	ew (0.138"	Dia., 5/16"	Head)	#8 Sci	rew (0.164"	Dia., 5/16"	Head)	#10 Sc	rew (0.190"	Dia., 0.34	' Head)
designation	(mils)	thickness (in)	(ksi)	Ultimate	Shear, Ibs	1-Side	2-Side	Pullout, Ibs	Shear, Ibs	1-Side	2-Side	Pullout, Ibs	Shear, Ibs	1-Side	2-Side	Pullout, Ibs
PDS125-15	15	0.0158	50	50	52	62	123	31	56	62	123	37	61	67	134	43
PDS125-19	19	0.0200	65	65	96	102	203	51	104	102	203	60	112	111	221	70
PDS125-30	30	0.0312	33	33	95	80	161	40	103	80	161	48	111	88	175	55
PDS125-33	33	0.0346	33	45	151	122	243	61	164	122	243	72	177	132	265	84

#### Notes:

- Allowable screw connection capacities are based on Section E4 of the AISI S100-12 Specification.

- When connecting materials of different steel thicknesses or tensile strengths, use the lowest values. Tabulated values assume two sheets of equal thickness are connected.

- Screw shear and tension capacities were developed using published screw manufacturer data and evaluation reports available at the time of publication.
- Screw capacities are based on Allowable Strength Design (ASD) and include a safety factor of 3.0.
- When multiple fasteners are used, screws are assumed to have a center-to-center spacing of at least three times the nominal diameter (d).
- Screws are assumed to have a center-of-screw to edge-of-steel dimension of at least 1-1/2 times the nominal diameter (d) of the screw.
- Tension capacity is based on the lesser of pullout capacity in sheet closest to screw tip, or pullover capacity for sheet closest to screw head (using head diameter).
- Screw capacities are governed by a conservative estimate of screw capacity, not by sheet steel failure.
- For higher screw capacities, especially for screw strength, use specific screws from specific manufacturer. See manufacturer's data for specific allowable values and installation instructions.



Pullout / Shear



2-Sided Pullover



## WHICH ProSTUD® LIMITING HEIGHTS TABLE SHOULD I USE?

ProSTUD, like any interior drywall stud, may be used in a variety of applications including walls, ceilings, and soffits. While some conditions may require the expertise of a design professional, many assemblies can be selected based on tabulated data. Using the diagrams below, locate the required assembly and follow the instructions for selecting the proper ProSTUD member.

#### **Composite Assemblies**

Composite limiting height data can be applied to walls where gypsum board is installed on both flanges of the stud for the full height of the wall. ProSTUD composite data is based on the 2015 International Building Code, and was tested and analyzed in accordance with the most recent version of AC86 (2015). Composite limiting height tables for ProSTUD members are available starting on page 10 of this catalog. In addition, a comprehensive offering is available at clarkdietrich.com.



#### Non-Composite Assemblies

Non-composite conditions are common in all structures. When the gypsum board stops at the ceiling level, but the stud continues to the deck, it is a non-composite condition. While there may be advantages to contacting Technical Services or a Design Professional, many conditions can be covered by limiting heights tables shown in this catalog or at clarkdietrich.com. When in doubt, call our complimentary Technical Services Hotline at 888-437-3244.



Distance of unbraced length (Lu) can be found in the physical and structural properties starting on page 4.

#### Chase Walls or Furred Walls

Chase and furred walls are common, but the conditions vary greatly depending on the building requirements. While noncomposite tables may be used conservatively, when in doubt, contact our Technical Services Hotline at 888-437-3244 for chase wall designs.

#### Ceilings

Interior ceilings are often supported by ProSTUD framing. The design criteria varies greatly based on the weight of the ceiling, bracing, and support points. You'll find a partial listing of ceiling span tables on page 18; visit clarkdietrich.com/ProSTUD for more comprehensive data.

## ProSTUD<sup>®</sup> COMPOSITE LIMITING HEIGHTS

#### 5/8" Type X Gypsum Board

		D .	V: LL					L	ateral Load (ps	f)			
Width	Stud member	thickness	strength	Spacing		5psf			7.5psf			10psf	
(in)		(in)	(ksi)	(inches)	L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
				12	14' 1"	11'7"	10' 1"	12' 3"	10' 1"	8' 7"	11' 2"	9' 1"	_
	ProSTUD 25	0.0158	50	16	12' 9"	10' 6"	9' 0"	11' 2"	9' 1"	_	10' 2"	8' 1"	_
	162PDS125-15			24	11' 2"	9'1"	_	9'9"	_	_	8' 5"	_	_
				12	14' 10"	12' 11"	11' 2"	12' 11"	11' 3"	9' 9"	11'9"	10' 3"	8' 8"
	ProSTUD 20	0.0200	65	16	13' 5"	11' 8"	10' 1"	11' 9"	10' 3"	8' 8"	10' 8"	9' 2"	_
	162PDS125-19			24	11' 9"	10' 3"	8' 8"	10' 3"	8' 8"	_	9' 2"	_	_
1-5/8				12	16' 3"	12' 11"	11' 3"	14' 3"	11' 3"	9' 10"	12' 11"	10' 3"	8' 8"
	ProSTUD 30	0.0312	33	16	14' 9"	11' 9"	10' 3"	12' 11"	10' 3"	8' 8"	11' 9"	9' 2"	_
	162PDS125-30			24	12' 11"	10' 3"	8' 8"	11' 3"	8' 8"	_	10' 3"	_	_
	-			12	17' 0"	13' 6"	11' 10"	14' 10"	11' 10"	10' 4"	13' 6"	10' 9"	9' 3"
	ProSTUD 33	0.0346	33	16	15' 6"	12' 3"	10' 9"	13' 6"	10' 9"	9' 3"	12' 3"	9' 9"	_
	162PDS125-33			24	13' 6"	10' 9"	9' 3"	11' 10"	9' 3"	_	10' 9"	_	_
				1									
				12	17' 2"	14' 8"	13' 0"	15' 0"	12' 10"	11' 4"	13' 3" f	11' 8"	10' 4"
	ProSTUD 25	0.0158	50	16	15' 7"	13' 4"	11' 9"	13' 3" f	11' 8"	10' 4"	11' 5" f	10' 7"	9' 1"
	250PDS125-15			24	13' 3" f	11' 8"	10' 4"	10' 10" f	10' 2"	8' 6"	9' 4" f	8' 11"	_
				12	18' 1"	15' 9"	14' 0"	15' 9"	13' 9"	12' 3"	14' 4"	12' 6"	11' 1"
	ProSTUD 20	0.0200	65	16	16' 5"	14' 4"	12' 8"	14' 4"	12' 6"	11' 1"	13' 0"	11' 4"	10' 1"
	250PDS125-19			24	14' 4"	12' 6"	11' 1"	12' 6" f	10' 11"	9' 8"	11' 5"	9' 11"	8'7"
2-1/2				12	19' 9"	16' 3"	14' 4"	17' 3"	14' 2"	12' 6"	15' 8"	12' 11"	11' 4"
	ProSTUD 30	0.0312	33	16	17' 11"	14' 9"	13' 0"	15' 8"	12' 11"	11' 4"	14' 3"	11' 9"	10' 4"
	250PDS125-30			24	15' 8"	12' 11"	11' 4"	13' 8" f	11' 3"	9' 11"	12' 5"	10' 3"	8' 8"
				12	20' 4"	16' 9"	14' 9"	17' 9"	14' 7"	12' 10"	16' 2"	13' 3"	11' 8"
	ProSTUD 33	0.0346	33	16	18' 6"	15' 2"	13' 5"	16' 2"	13' 3"	11' 8"	14' 8"	12' 1"	10' 7"
	250PDS125-33			24	16' 2"	13' 3"	11' 8"	14' 1"	11' 7"	10' 3"	12' 10"	10' 7"	9' 1"
				1									
	D. OTHD OF			12	21' 6"	17' 1"	14' 11"	18' 4" f	14' 11"	13' 0"	15' 10" f	13' 7"	11' 10"
	ProSTUD 25	0.0158	50	16	19' 5" f	15' 6"	13' 7"	15' 10" f	13' 7"	11' 10"	13' 9" f	12' 4"	10' 7"
	362PDS125-15			24	15' 10" f	13' 7"	11' 10"	12' 11" f	11' 10"	10' 1"	11' 2" f	10' 7"	9' 0"
				12	23' 3"	18' 5"	16' 1"	20' 4"	16' 1"	14' 1"	18' 5"	14' 8"	12' 10"
	ProSTUD 20	0.0200	65	16	21' 1"	16' 9"	14' 8"	18' 5"	14' 8"	12' 10"	16' 7" f	13' 4"	11' 7"
	362PDS125-19			24	18' 5"	14' 8"	12' 10"	15' 8" f	12' 10"	11' 1"	13' 7" f	11' 7"	9' 11"
3-5/8	D. OTHER CO.			12	25' 8"	20' 5"	17' 10"	22' 5"	17' 10"	15' 7"	20' 5"	16' 2"	14' 2"
	ProSTUD 30	0.0312	33	16	23' 4"	18' 6"	16' 2"	20' 5"	16' 2"	14' 2"	18' 6"	14' 8"	12' 10"
	302405125-30			24	20' 5"	16' 2"	14' 2"	17' 10"	14' 2"	12' 3"	16' 2"	12' 10"	11' 0"
				12	26' 7"	21' 2"	18' 5"	23' 3"	18' 5"	16' 1"	21' 2"	16' 9"	14' 8"
	ProSTUD 33	0.0346	33	16	24' 2"	19' 2"	16' 9"	21' 2"	16' 9"	14' 8"	19' 2"	15' 3"	13' 4"
	302PD5125-33			24	21' 2"	16' 9"	14' 8"	18' 5"	14' 8"	12' 10"	16' 9"	13' 4"	11' 6"

- Allowable composite limiting heights were determined in accordance with ICC-ES AC86-2015.
- Additional composite wall testing and analysis requirements of the SFIA Code Compliance Certification Program were observed.
- 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:
  - Screws spaced a minimum of 16 in. o.c. to framing members spaced at 16 in. or 12 in. o.c.
  - Screws spaced a minimum of 12 in. o.c. to framing members spaced at 24 in. o.c.
- No fasteners are required for attaching the stud to the track except as detailed in ASTM C754.
- Stud end bearing must be a minimum of 1 inch.
- **f** Adjacent to the height value indicates that flexural stress controls the allowable wall height.
- s Adjacent to the height value indicates that shear/end reaction controls the allowable wall height.

Pro	₀STUD® C¢	ΟΜΡΟ	OSITE		'ING H	EIGHT	s	5/8" T	уре Х Бур	sum Boar	d		
		Design	Viald					L	ateral Load (ps	f)			
Width	Stud member	thickness	strength	Spacing		5psf			7.5psf			10psf	
(in)		(in)	(ksi)	(inches)	L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
				12	22' 8"	18' 0"	15' 9"	19' 1" f	15' 9"	13' 9"	16' 6" f	14' 4"	12' 6"
	ProSTUD 25	0.0158	50	16	20' 3" f	16' 4"	14' 4"	16' 6" f	14' 4"	12' 6"	14' 4" f	13' 0"	11' 3"
	400PD5125-15			24	16' 6" f	14' 4"	12' 6"	13' 6" f	12' 6"	10' 8"	11' 8" f	11' 3"	9' 6"
	D. OTUD 00			12	24' 4"	20' 2"	17' 9"	21' 3"	17' 8"	15' 6"	19' 4"	16' 0"	14' 1"
	ProSTUD 20	0.0200	65	16	22' 2"	18' 4"	16' 1"	19' 4"	16' 0"	14' 1"	17' 7" f	14' 7"	12' 9"
4	400FD3125-19			24	19' 4"	16' 0"	14' 1"	16' 6" f	14' 0"	12' 4"	14' 4" f	12' 9"	11' 0"
4				12	27' 5"	21' 9"	19' 0"	24' 0"	19' 0"	16' 8"	21' 9"	17' 4"	15' 1"
	400PDS10D 30	0.0312	33	16	24' 11"	19' 10"	17' 4"	21' 9"	17' 4"	15' 1"	19' 10"	15' 9"	13' 9"
	400FD3123-30			24	21'9"	17' 4"	15' 1"	19' 0"	15' 1"	13' 2"	17' 4"	13' 9"	11' 10"
				12	27' 10"	22' 9"	20' 1"	24' 3"	19' 11"	17' 7"	22' 1"	18' 1"	15' 11"
	ProSTUD 33	0.0346	33	16	25' 3"	20' 8"	18' 3"	22' 1"	18' 1"	15' 11"	20' 1"	16' 5"	14' 6"
	400FD3125-55			24	22' 1"	18' 1"	15' 11"	19' 3"	15' 10"	13' 11"	17' 6"	14' 4"	12' 8"
							-			-			-
	DroSTUD 25			12	27' 10" f	24' 2"	21' 5"	22' 9" f	21' 1"	18' 8"	19' 8" f	19' 2"	17' 0"
	600PDS125-15	0.0158	50	16	24' 1" f	21' 11"	19' 5"	19' 8" f	19' 2"	17' 0"	17' 1" f	17' 1" f	15' 5"
	0001 20120 10			24	19' 8" f	19' 2"	17' 0"	16' 1" f	16' 1" f	14' 9"	13' 11" f	13' 11" f	13' 4"
	DroSTUD 20			12	32' 0"	26' 5"	23' 2"	28' 0"	23' 1"	20' 3"	24' 9" f	21' 0"	18' 5"
	600PDS125-19	0.0200	65	16	29' 1"	24' 0"	21' 1"	24' 9" f	21' 0"	18' 5"	21' 5" f	19' 1"	16' 9"
6	0001 00123-13			24	24' 9" f	21' 0"	18' 5"	20' 3" f	18' 4"	16' 1"	17' 6" f	16' 8"	14' 4"
0				12	36' 7"	29' 1"	25' 5"	32' 0"	25' 5"	22' 2"	29' 1"	23' 1"	20' 2"
	600PDS125-30	0.0312	33	16	33' 3"	26' 5"	23' 1"	29' 1"	23' 1"	20' 2"	26' 5"	20' 11"	18' 4"
	0001 D0120-00			24	29' 1"	23' 1"	20' 2"	25' 5"	20' 2"	17' 7"	22' 6" f	18' 4"	
				12	36' 8"	30' 1"	26' 6"	32' 0"	26' 3"	23' 2"	29' 1"	23' 10"	21' 0"
	600PDS125-33	0.0346	33	16	33' 3"	27' 4"	24' 1"	29' 1"	23' 10"	21'0"	26' 5"	21' 8"	19' 1"
	0001 00120-00			24	29' 1"	23' 10"	21' 0"	25' 5"	20' 10"	18' 4"	23' 1"	18' 11"	

- Allowable composite limiting heights were determined in accordance with ICC-ES AC86-2015.
- Additional composite wall testing and analysis requirements of the SFIA Code Compliance Certification Program were observed.
- 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:
  - Screws spaced a minimum of 16 in. o.c. to framing members spaced at 16 in. or 12 in. o.c.
  - Screws spaced a minimum of 12 in. o.c. to framing members spaced at 24 in. o.c.
- No fasteners are required for attaching the stud to the track except as detailed in ASTM C754.
- Stud end bearing must be a minimum of 1 inch.
- **f** Adjacent to the height value indicates that flexural stress controls the allowable wall height.
- s Adjacent to the height value indicates that shear/end reaction controls the allowable wall height.

## ProSTUD® NON-COMPOSITE LIMITING HEIGHTS

## ClarkDietrich ProSTUD Non-Composite Limiting Heights—**FULLY BRACED**

		Design	Yield	Spacing				L	ateral Load (ps	;f)			
Depth	Stud member	thickness	strength	o.c.		5psf			7.5psf			10psf	
(in)		(in)	(ksi)	(in)	L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
		0.0158	50	12	9' 2"	7' 4"	6'4"	8' 0"	6' 4"	5' 7"	6' 11"	5' 9"	5' 1"
	ProSTUD 25	0.0158	50	16	8' 4"	6' 8"	5' 9"	6' 11"	5' 9"	5' 1"	6' 0"	5' 3"	<u>4'</u> 7"
	162PDS125-15	0.0159	50	24	6' 11"	5' 0"	5'1"	5'9"	5' 1"	1'5"	/ 11"	/' 7"	4' 0"
		0.0130	50	40	0 11	7 40"	C 10"	0'0"	C 10"	4.5	7 10	47	40
	ProSTUD 20	0.0200	60	12	9 11	7 10	0 10	0 0	0 10	60	7 10	03	5 5
	162PDS125-19	0.0200	65	16	9.0.	7.2"	6.3	7'10"	6.3	5'5"	7.2"	5.8"	4' 11"
1-5/8		0.0200	65	24	7' 10"	6' 3"	5' 5"	6' 10"	5' 5"	4' 9"	6' 3"	4' 11"	4' 4"
	ProSTLID 30MII	0.0312	33	12	11' 10"	9' 5"	8' 3"	10' 4"	8' 3"	7' 2"	9' 5"	7' 6"	6' 6"
	162PDS125-30	0.0312	33	16	10' 9"	8' 7"	7' 6"	9' 5"	7' 6"	6' 6"	8' 2"	6' 9"	5' 11"
	102FD3123-30	0.0312	33	24	9' 5"	7' 6"	6' 6"	7' 8"	6' 6"	5' 8"	6' 8"	5' 11"	5' 2"
		0.0346	33	12	12' 3"	9' 9"	8' 6"	10' 8"	8' 6"	7' 5"	9' 9"	7' 9"	6' 9"
	ProSTUD 33MIL	0.0346	33	16	11'2"	8' 10"	7' 9"	9' 9"	7' 9"	6'.9"	8' 9"	7' 0"	6'1"
	162PDS125-33	0.0346	33	24	9' 9"	7' 9"	6' 9"	8' 3"	6' 9"	5' 11"	7' 2"	6' 1"	5' 4"
		0.0040	00	27	5.5	15	0.0	00	0.0	0 11	12	01	0 -
		0.0159	50	10	10'0"	10' 2"	0' 11"	10' 4"	0' 11"	7' 0"	0' 11"	0' 1"	7' 1"
	ProSTUD 25	0.0150	50	12	12 0	10 2	0 11	0.44	011	7 3	7 0		
	250PDS125-15	0.0158	50	16	10.11	9.3	8 1	8 11	8 1	7 1	7.9	7.4	6.5
		0.0158	50	24	8' 11"	8' 1"	/' 1"	7'4"	/' 1"	6'2"	6'4"	6'4"	5'7"
	ProSTLID 20	0.0200	65	12	14' 0"	11' 1"	9' 8"	12' 3"	9' 8"	8' 6"	11' 1"	8' 10"	7' 8"
	250PDS125-10	0.0200	65	16	12' 8"	10' 1"	8' 10"	11' 1"	8' 10"	7' 8"	10' 1"	8' 0"	7' 0"
2 1/2	2001 00120-13	0.0200	65	24	11' 1"	8' 10"	7' 8"	9' 8"	7' 8"	6' 9"	8' 5"	7' 0"	6' 1"
2-1/2	D. OTHER STORY	0.0312	33	12	16' 5"	13' 0"	11' 4"	14' 4"	11' 4"	9' 11"	12' 6"	10' 4"	9' 0"
	ProSTUD 30MIL	0.0312	33	16	14' 11"	11' 10"	10' 4"	12'6"	10' 4"	9' 0"	10' 10"	9' 5"	8' 2"
	250PDS125-30	0.0312	33	24	12'6"	10' 4"	9' 0"	10' 3"	9' 0"	7' 11"	8' 10"	8' 2"	7' 2"
-		0.0346	22	10	16' 11"	10 -	11' 0"	14' 10"	11' 0"	10' 2"	12' 5"	10' 0"	0' 4"
	ProSTUD 33MIL	0.0340	33	12		13 5	11.9	14 10	11.9	10.5	15 5	10.0	94
	250PDS125-33	0.0346	33	16	15.5	12.3	10.8	13.5	10.8	9'4"	11.7	9.8	8.6
		0.0346	33	24	13' 5"	10' 8"	9' 4"	10'11"	9' 4"	8'2"	9' 6"	8'6"	7'5"
	ProSTLID 25	0.0158	50	12	15' 0"	13' 7"	11' 10"	12' 3"	11' 10"	10' 4"	10' 7"*	10' 7"*	9' 5"
	262DDS125 151	0.0158	50	16	13' 0"	12' 4"	10' 9"	10' 7"*	10' 7"*	9' 5"	7' 11"*	7' 11"*	7' 11"*
	JUZI DU120-10	0.0158	50	24	10' 7"*	10' 7"*	9' 5"	7' 1"*	7' 1"*	7' 1"*	5' 4"*	5' 4"*	5' 4"*
		0.0200	65	12	18' 10"	14' 11"	13' 0"	16' 5"	13' 0"	11' 5"	14' 5"	11' 10"	10' 4"
	ProSTUD 20	0.0200	65	16	17' 1"	13' 7"	11' 10"	14' 5"	11' 10"	10' 4"	12' 5"	10' 9"	9' 5"
	362PDS125-19	0.0200	65	24	14' 5"	11' 10"	10' 4"	11' 9"	10'4"	9' 0"	10' 2"	9' 5"	8' 3"
3-5/8		0.0200	33	12	21' 2"	17' //"	15' 2"	17' 2"	15' 2"	12'2"	15' 0"	12'0"	12'0"
	ProSTUD 30MIL	0.0312	33	12	212	17 4	10 2	17.5	10 2	10.0	10 14"	10.9	12 0
	362PDS125-30	0.0312	33	10	10 4	15.9	13.9	15 0	13.9	12 0	12 11	12 0	10 11
		0.0312	33	24	15' 0"	13' 9"	12'0"	12'3"	12' 0"	10' 6"	10' 7"	10' 7"	9. 6.
	ProSTLID 33MII	0.0346	33	12	22' 7"	17' 11"	15' 8"	18' 9"	15' 8"	13' 8"	16' 3"	14' 3"	12' 5"
	362PDS125-33	0.0346	33	16	19' 10"	16' 3"	14' 3"	16' 3"	14' 3"	12' 5"	14' 0"	12' 11"	11' 3"
	0021 00120 00	0.0346	33	24	16' 3"	14' 3"	12' 5"	13' 3"	12' 5"	10' 10"	11' 6"	11' 3"	9' 10"
		0.0158	50	12	15' 9"	14' 6"	12' 8"	12' 6"*	12' 6"*	11' 1"	9' 4"*	9' 4"*	9' 4"*
	ProSTUD 25	0.0158	50	16	13' 8"	13' 2"	11' 6"	9' 4"*	9' 4"*	9' 4"*	7' 0"*	7' 0"*	7' 0"*
	400PDS125-15'	0.0158	50	24	9' 4"*	9' 4"*	9' 4"*	6' 3"*	6' 3"*	6' 3"*	4' 8"*	4' 8"*	4' 8"*
		0.0200	65	12	20' 3"	16' 1"	14' 0"	17' 8"	14' 0"	12' 3"	15' 4"	12' 9"	11' 2"
	ProSTUD 20	0.0200	65	16	19'5"	14' 7"	12'0"	15' 4"	12'0"	11' 2"	12' //"	11' 7"	10' 1"
	400PDS125-19	0.0200	65	24	16 3	12'0"	14' 0"	10'4	11' 0"	0'0"	10' 10"	10'1"	0' 10"
4		0.0200	00	24	10 4	12 9		12 0		9 9	10 10	10 1	0 10
	ProSTUD 30MIL	0.0312	33	12	22 4"	18.8	10.4	18'3'	10.4	14.3	15.9"	14 10"	13.0"
	400PDS125-30	0.0312	33	16	19' 4"	17'0"	14' 10"	15' 9"	14' 10"	13' 0"	13' 8"	13' 6"	11'9"
		0.0312	33	24	15' 9"	14' 10"	13' 0"	12' 11"	12' 11"	11' 4"	11' 2"	11' 2"	10' 3"
		0.0346	33	12	24' 2"	19' 4"	16' 11"	19' 9"	16' 11"	14' 9"	17' 1"	15' 4"	13' 5"
	400000010D 331VIIL	0.0346	33	16	21'0"	17' 7"	15' 4"	17' 1"	15' 4"	13' 5"	14' 10"	13' 11"	12' 2"
	400PD5125-33	0.0346	33	24	17' 1"	15' 4"	13' 5"	14' 0"	13' 5"	11' 9"	12' 1"	12' 1"	10' 8"
·													
		0.0158	50	12	19' 3"	19' 2"	16' 9"	15' 9"	15' 9"	14' 8"	11' 11"	11' 11"	11' 11"
	ProSTUD 25	0.0158	50	16	16' 8"	16' 8"	15' 3"	11' 11"	11' 11"	11' 11"	8' 11"	8' 11"	8' 11"
	600PDS125-15 <sup>2</sup>	0.0159	50	24	11' 11"	11" 11"	11' 11"	7' 11"	7' 11"	7' 11"	6'0"	6'0"	6' 0"
		0.0100	50	<u>24</u>		041.01	401.01	7 11	1010	1 11	401.01	100	141.01
	ProSTUD 20	0.0200	60	12	20.9	212	10 0	21 11	10 0	10 2	19.0	10 10	14 8
	600PDS125-192	0.0200	65	16	23'3"	19'3"	16' 10"	19'0"	16' 10"	14' 8"	16' 6"	15' 3"	13' 4"
6		0.0200	65	24	19' 0"	16' 10"	14' 8"	15' 6"	14' 8"	12' 10"	12' 1"	12' 1"	11' 8"
		0.0312	33	12	28' 4"	25' 7"	22' 4"	23' 2"	22' 4"	19' 7"	20' 1"	20' 1"	17' 9"
	F10310D 30IVIL	0.0312	33	16	24'7"	23' 3"	20' 4"	20' 1"	20' 1"	17' 9"	17' 4"	17' 4"	16' 2"
	000503120-30	0.0312	33	24	20' 1"	20' 1"	17' 9"	16' 4"	16' 4"	15' 6"	14' 2"	14' 2"	14' 1"
		0.0346	33	12	30' 7"	26'7"	23' 2"	25' 0"	23' 2"	20' 3"	21' 8"	21'1"	18' 5"
	ProSTUD 33MIL	0.0346	33	16	26' 6"	24' 1"	21' 1"	21' 8"	21' 1"	18'5"	18' 9"	18' 9"	16' 9"
	600PDS125-33	0.0346	33	24	21' 9"	21' 1"	18'5"	17' 9"	17' 9"	16' 1"	15' 4"	15' 4"	1/1 7"
		0.0340		24	210	211	10.0	11.0	110	101	10.4	10.4	14 /

#### Notes:

- Heights are based on AISI S100-12, North American Specification and AISI S220-15, North American Standard for Cold-Formed Steel Framing-

Nonstructural Members, using steel properties alone.

- Above listed Non-Composite Limiting Heights are applicable when the unbraced length is less than or equal to Lu.

- Heights are limited by moment, deflection, shear, and web crippling (assuming 1" end reaction bearing).

1 Web-height to thickness ratio exceeds 200. Web stiffeners are required at bearing points.

2 Web-height to thickness ratio exceeds 260. Web stiffeners are required at bearing and intermediate points.

\*Higher heights can be achieved by using end-bearing stiffeners. See full ProSTUD non-composite charts at clarkdietrich.com.

Durn bits         Used matrix	F	ProSTUD®	NON-	COMP	OSITE	LIMIT	NG HE	EIGHTS		ClarkD Limitir	ietrich Pr 1g Heights	oSTUD No — <b>BRACE</b>	on-Compo <b>D AT 48" c</b>	site <b>).c</b> .
Bird market (b)         Start market (b)         Start (b)         Start (c)         Start (c)         Start (c)         Start (c) <th>-</th> <th></th> <th>Design</th> <th>Yield</th> <th>Spacing</th> <th></th> <th></th> <th></th> <th>L</th> <th>ateral Load (ps</th> <th>sf)</th> <th></th> <th></th> <th></th>	-		Design	Yield	Spacing				L	ateral Load (ps	sf)			
UND         Ch0         Ch3         Ch3         L120         L12	Depth	Stud member	thickness	strength	0.c.		5psf			7.5psf			10psf	
Part D 28 (1)         Common 200 (1)         Common 200 (1) <thcommon 200<br="">(1)         Common 20</thcommon>	(In)		(in)	(ksi)	(in)	L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
Importance         Outside         Gould and the second			0.0158	50	12	8' 1"	7' 4"	6' 4"	6' 7"	6' 4"	5' 7"	5' 9"	5' 9"	5' 1"
Part OLD 20         00158         90         24         9''         6''         4''         4''         4''         4''         4''         4''         4''         4''         4''         4'''         4'''         5'''         4'''         5'''         4'''         5''''         6'''         5''''         5''''         6''''         5'''''         5'''''         5''''''         5''''''''''''         6''''''''''''''''''''''''''''''''''''		PI0510D 25	0.0158	50	16	7' 0"	6' 8"	5' 9"	5' 9"	5' 9"	5' 1"	4' 11"	4' 11"	4' 7"
Part D 20 (1600)         D 2000 (0000)         G 5 (12)         9 (1)         7 (10')         6 (10')         8 (0')         7 7 4'         6 3''         5 5''         6 4''         7 4''         6 3''         5 5''         6 4''         7 4''         6 3''         5 5''         6 4''         7 4''         6 3''         5 5''         6 4''         7 7 4''         6 3''         5 5''         6 4''         7 7 4''         6 3''         5 5''         6 4''         7 7 4''         6 5''         4 1''         7 6''         6 1''         7 7 4''         6 5''         7 7 4'''         7 7 4'''         7 7 4''' <td></td> <td>102FD3125-15</td> <td>0.0158</td> <td>50</td> <td>24</td> <td>5' 9"</td> <td>5' 9"</td> <td>5' 1"</td> <td>4' 8"</td> <td>4' 8"</td> <td>4' 5"</td> <td>4' 0"</td> <td>4' 0"</td> <td>4' 0"</td>		102FD3125-15	0.0158	50	24	5' 9"	5' 9"	5' 1"	4' 8"	4' 8"	4' 5"	4' 0"	4' 0"	4' 0"
158         Imposibility of a set			0.0200	65	12	9' 11"	7' 10"	6' 10"	8' 6"	6' 10"	6' 0"	7' 4"	6' 3"	5' 5"
1:56       Macrosculary       0.0200       0.65       2.44       7.4'       6.3'       5.5'       6.0'       5.5'       4.9'       7.2'       4.11'       7.6'       6.6'         Perstrup       0.0312       33       164       10.9'       8.7'       7.8'       8.11'       7.6'       6.6'       7.8'       6.9'       7.8'       6.9'       7.8'       6.9'       7.8'       6.9'       7.8'       6.9'       7.8'       6.9'       7.8'       6.9'       7.8'       6.9'       7.8'       6.9'       7.8'       6.9'       7.9'       7.4'       7.7'       6.9'       7.8'       6.9'       7.9'       7.4'       7.7'       6.9'       7.9'       7.4'       7.7'       6.9'       7.9'       7.4'       7.7'		Prostud 20	0.0200	65	16	9' 0"	7' 2"	6' 3"	7' 4"	6' 3"	5' 5"	6' 4"	5' 8"	4' 11"
Prostud Same Prostud	4 5/0	102PD3125-19	0.0200	65	24	7' 4"	6' 3"	5' 5"	6' 0"	5' 5"	4' 9"	5' 2"	4' 11"	4' 4"
Image: Solution of the second secon	1-5/8	D. OTUD COM	0.0312	33	12	11' 10"	9' 5"	8' 3"	10' 3"	8' 3"	7' 2"	8' 11"	7' 6"	6' 6"
Image: constraint of the second sec		162005100 301VIL	0.0312	33	16	10' 9"	8' 7"	7' 6"	8' 11"	7' 6"	6' 6"	7' 8"	6' 9"	5' 11"
PNSTUD 20401 102PD512-53         0.0346         33         12         12 3'         9 9'         8 6'         10 9'         8 6''         7 9''         6 9''         7 9''         6 9''         7 9''         6 9''         7 9''         6 9''         7 9''         6 9''         7 9''         6 9''         7 9''         6 9''         7 9''         6 9''         7 9''         6 9''         7 9''         6 9''         7 9''         6 9''         7 9''         6 9''         7 9''         6 9''         7 9''         6 9''         7 9''         6 9''         7 9''         6 9''         7 9''         7 9''         6 9''         7 9''         6 9''         7 9''         7 9''         6 9''         7 9''         7 9''         6 9''         7 9''         7 9''         7 9''         7 9''         7 9''         6 9''         7 9'''         7 9'''         9 4''' </td <td></td> <td>102PD3125-30</td> <td>0.0312</td> <td>33</td> <td>24</td> <td>8' 11"</td> <td>7' 6"</td> <td>6' 6"</td> <td>7' 3"</td> <td>6' 6"</td> <td>5' 8"</td> <td>6' 3"</td> <td>5' 11"</td> <td>5' 2"</td>		102PD3125-30	0.0312	33	24	8' 11"	7' 6"	6' 6"	7' 3"	6' 6"	5' 8"	6' 3"	5' 11"	5' 2"
Postub zmail         0.0346         33         16         11/2*         8 10*         7 9*         9 5*         7 9*         6 9*         7 9*         7 9*         7 9*         7 9*         7 4*         7 4*         7 9*         7 9*         7 4*         7 4*         7 4*         7 9*         7 9*         7 4*         7 4*         7 4*         7 9*         9 0*         9 0*         9 0*         9 0*         9 0*         9 0*         9 0*         9 0*         9 0*         9 0*         9 0*         9 0*         9 0*         9 0*         9 0*         9 0*         9 0*         9 0*			0.0346	33	12	12' 3"	9' 9"	8' 6"	10' 8"	8' 6"	7' 5"	9' 5"	7' 9"	6' 9"
Non-Description         0.0046         33         24         9.5'         7.8'         6.9'         7.8'         6.9'         5.11'         6.8'         6.1'         5.4'           2-00-Dest25-15         0.0158         60         16         90'         8'1'         7.4'         7.4'         7.1'         7.6''         6'0'         6'0'         5'3'3'         5'3'		162DDS125 22	0.0346	33	16	11' 2"	8' 10"	7' 9"	9' 5"	7' 9"	6' 9"	8' 2"	7' 0"	6' 1"
PostTUD 25 200PD612515         0.0158 0.0158         50 50         12 12         10 5' 9 0' 9 0' 7 4' 7 4' 7 4' 7 4' 7 4' 7 4' 7 4' 7 4		102PD3125-55	0.0346	33	24	9' 5"	7' 9"	6' 9"	7' 8"	6' 9"	5' 11"	6' 8"	6' 1"	5' 4"
PustTup 25 2007B12515         0.0158 0.0158         600         112         10 5' 0 0' 20         10 5' 0 0' 20         10 5' 0 0' 20         8 6' 0 0' 20         8 6' 20         8 6' 20         7 4' 7 4'         7 4'         7 4' 7 4'														
Part UD 20 2007 012515         Ontes 0.0018         50 50         16 16         90' 17         81' 17         74' 17         74' 11			0.0158	50	12	10' 5"	10' 2"	8' 11"	8' 6"	8' 6"	7' 9"	7' 4"	7' 4"	7' 1"
Past UD 20         0.0168         50         24         7.4'         7.4'         7.1'         6''         6''         6''         5''         7'''         7''''         7'''''         5'''         5'''         5'''         5''''         5''''''         5''''''''''''''''''''''''''''''''''''		250DDS10D 25	0.0158	50	16	9' 0"	9' 0"	8' 1"	7' 4"	7' 4"	7' 1"	6' 5"	6' 5"	6' 5"
Pastud 21, 2020bit 22-19         0.00200         65         12         13 10'         111'         9 8'         114'         9 8'         8 6''         9 9''         8 10''         7 8''           22.12         0.0200         65         14         10''         10''         8 0''         7 8''         5 9''         8 0''         7 8''         5 9''         8 0''         7 8''         5 9''         8 1''         6 1''         6 1''         6 1''         6 1''         6 1''         6 1''         6 1''         6 1''         6 1''         6 1''         6 1''         6 1''         6 1''         6 1''         6 1''         6 1''         6 1''         6 1''         6 1''         7 8''         9 0''         7 1''         1 1'''		2001 00120-10	0.0158	50	24	7' 4"	7' 4"	7' 1"	6' 0"	6' 0"	6' 0"	5' 3"	5' 3"	5' 3"
2+12         2+00000000         65         16         12 0°         10 1°         8*10°         7*8*         8*6*         8*0°         7*0°           2+12         2+0000000         65         24         9*9         8*10°         7*8*         8°0°         7*8*         8°0°         7*8*         8°0°         7*8*         8°0°         7*8*         8°0°         7*8*         8°0°         7*8*         8°0°         7*8*         8°0°         7*8*         8°0°         7*8*         8°0°         7*8*         8°0°         7*8*         8°0°         7*8*         8°0°         7*8*         8°0°         7*8*         8°0°         7*0*         9*9*         9*0°         9*111*         11*10*         10*4*         9*0°         7*11*         8*4*         8*2*         7*2*         10*3*         12*5*         10*3*         12*5*         10*3*         12*5*         10*3*         12*5*         10*3*         12*5*         10*3*         12*5*         10*3*         12*5*         10*0*         10*0*         10*0*         10*0*         10*0*         10*5*         7*7*         7*7*         7*7*         7*7*         7*7*         7*7*         7*7*         7*7*         7*7*         7*7*         7*7*         7*7*		D OTUD 00	0.0200	65	12	13' 10"	11' 1"	9' 8"	11' 4"	9' 8"	8' 6"	9' 9"	8' 10"	7' 8"
2-12         0.0200         65         24         9 °         8 10°         7 8°         8 °         7 8°         6 °         9 11°         11 °         6 11°         6 °         9 °°         9 °°         9 °11°         11 °°         10 °°         9 °°         8 °°         7 °°         6 °°         9 °°         9 °°         10 °°         10 °°         9 °°         8 °°         7 °°         6 °°         8 °°         7 °°         6 °°         7 °°         6 °°         8 °°         7 °°		ProSTUD 20	0.0200	65	16	12' 0"	10' 1"	8' 10"	9' 9"	8' 10"	7' 8"	8' 6"	8' 0"	7' 0"
2*1/2         PostUD 30ML         0.0312         33         12         16         16         17         11         10'         11'4'         9.11'         11'1'0'         10'4'         9.11'           PostUD 30ML         0.0312         33         24         11'1'0'         10'4'         90'         10'3'         9.5'         8.2'         7.2'           0.0346         33         16         14'5'         11'0'         10'4'         90'         10'3'         12'5'         10'8'         94'         10'9'         94'         10'9'         94'         10'9'         94'         10'9'         94'         10'9'         94'         10'9'         94'         10'9'         94'         10'9'         94'         10'9'         94'         10'9'         94'         10'9'         94'         10'9'         94''         10'2'         94''         81'0'         8'9'         8'9'         8'9'         8'9'         8'9'         8'9'         8'9'         8'9'         8'9'         7'7'         7'7'         7'7'         7'7'         7'7'         7'7'         7'7'         7'7'         7'7'         7'7'         7'7'         7'7'         7'7'         7'7'         7'7''         7'7''         7'7''''	0.4/0	200905120-19	0.0200	65	24	9' 9"	8' 10"	7' 8"	8' 0"	7' 8"	6' 9"	6' 11"	6' 11"	6' 1"
Prost UD 30, UD 3012         0.0312         0.0118         0.0112         0.0111	Z-1/Z	D. OTUD COM	0.0312	33	12	16' 5"	13' 0"	11' 4"	13' 8"	11' 4"	9' 11"	11' 10"	10' 4"	9' 0"
Prostup 33ML         0.0312         33         24         11 10°         10 4'         9 0°         7 11°         8 4'         8 2'         7 2'           Prostup 33ML         0.0346         33         12         16 11°         13 5'         11 9'         14 4'         11 9'         10 3'         12 5'         10 8'         9 4'         10 2'         9 4'         10 9'         9 8'         8 6'           Prostup 22         0.0346         33         12 5'         10 8'         9 4'         10 2'         9 4'         10 2'         8 10'         8 6'         7 5'           Prostup 25         0.0158         50         12         12 5'         10 9'         8 9'         8 9'         7 7' <td></td> <td>ProSTUD 30MIL</td> <td>0.0312</td> <td>33</td> <td>16</td> <td>14' 6"</td> <td>11' 10"</td> <td>10' 4"</td> <td>11' 10"</td> <td>10' 4"</td> <td>9' 0"</td> <td>10' 3"</td> <td>9' 5"</td> <td>8' 2"</td>		ProSTUD 30MIL	0.0312	33	16	14' 6"	11' 10"	10' 4"	11' 10"	10' 4"	9' 0"	10' 3"	9' 5"	8' 2"
ProSTUD 33ML         0.0346         33         12         16         13         17         17         17         17         10         19         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         11         10         10         11         10         10         11         10		200905120-30	0.0312	33	24	11' 10"	10' 4"	9' 0"	9' 8"	9' 0"	7' 11"	8' 4"	8' 2"	7' 2"
Prost UD 34ML         0.0346         33         16         15 st         12 st         10 st         12 st         10 st         9 st         8 st         8 st         7 st           Prost UD 25         0.0148         50         12 st         10 st         9 st         10 st         9 st         8 st         7 st         7 st           Sage DS125.15         0.0158         50         14         10 st         11 st         11 10'         11 10'         11 10'         11 10'         11 10'         11 10'         11 10'         11 10'         11 10'         11 10'         11 10'         11 10'         10 st		D. OTHE COLUMN	0.0346	33	12	16' 11"	13' 5"	11' 9"	14' 4"	11' 9"	10' 3"	12' 5"	10' 8"	9' 4"
Approx (25.3.3)         0.0346         33         24         12.5"         10'8"         9.4"         10'2"         9'4"         8'2"         8'10"         8'6"         7'5"           3/5         0.0158         50         12         12.5"         12.5"         12.5"         12.5"         10'1"         10'1"         10'1"         8'9"         8'9"         8'9"         8'9"         8'9"         8'9"         8'9"         8'9"         8'9"         8'9"         8'9"         7'13'1'1'1'1'1'1'1'1'1'1'1'1'		ProSTUD 33MIL	0.0346	33	16	15' 3"	12' 3"	10' 8"	12' 5"	10' 8"	9' 4"	10' 9"	9' 8"	8' 6"
4         ProSTUD 25 00158         00158 50         12 12         12 12         12 57         12 10         10 9         9         9 9		200905120-33	0.0346	33	24	12' 5"	10' 8"	9' 4"	10' 2"	9' 4"	8' 2"	8' 10"	8' 6"	7' 5"
ProSTUD 25 382PDS125-15         0.0158 0.0158         50 50         12 4         12 55         11 55         10 55         11 55         11 55         10 55         11 55         <														
4         Prostud 2a (2000)         0.0158 (2000)         50 (24)         10 g° (27)         10 g° (27)         10 g° (27)         8 g° (27)         7 T° (27)         22         22         22         22         22         22         22         22         22         22         22         22         22         22         22         22 <th23< th=""> <th23< th="">         22</th23<></th23<>		D. OTUD OF	0.0158	50	12	12' 5"	12' 5"	11' 10"	10' 1"	10' 1"	10' 1"	8' 9"	8' 9"	8' 9"
Add         Solution         Outside         Solution         S		ProSTUD 25	0.0158	50	16	10' 9"	10' 9"	10' 9"	8' 9"	8' 9"	8' 9"	7' 7"	7' 7"	7' 7"
3-5/8         ProSTUD 20 322PDST25-19         0.0200 0.0200         665 66         12 14         14         14         13         13         13         11         11         11         11         10         11         10         11         10         11         10         11         10         10         40         40         7         7         11         10         11         10         10         40         40         7         95         11         10         10         40         40         7         7         7         7         7         7         7         7         7         7         7         7         11         10         41         11         10         41         11         10         41         11         13         9'         11         11         10         10         41         11		302FD3123-13	0.0158	50	24	8' 9"	8' 9"	8' 9"	7' 1"*	7' 1"*	7' 1"*	5' 4"*	5' 4"*	5' 4"*
3-578         9PRSTUD 22-19 00200         0.0200 65         65         16         14*6*         13*7*         11*10*         11*13*         11*13*         11*13*         11*13*         11*13*         11*13*         11*13*         11*13*         11*13*         11*13*         11*13*         11*13*         11*13*         11*13*         11*13*         11*13*         11		D OTUD OG	0.0200	65	12	16' 9"	14' 11"	13' 0"	13' 8"	13' 0"	11' 5"	11' 10"	11' 10"	10' 4"
3-578         0.0200         65         24         1110°         1110°         10'4'         9'8'         12'8'         112'8'         12'2's'         12'2's'         12'2's'         12'2's'         12'2's'         12'2's'         12's'         12's'         12's'         12's'         12's'         12's'         12's'         12's'         12's'         12's''         12's'' <td></td> <td>ProSTUD 20</td> <td>0.0200</td> <td>65</td> <td>16</td> <td>14' 6"</td> <td>13' 7"</td> <td>11' 10"</td> <td>11' 10"</td> <td>11' 10"</td> <td>10' 4"</td> <td>10' 3"</td> <td>10' 3"</td> <td>9' 5"</td>		ProSTUD 20	0.0200	65	16	14' 6"	13' 7"	11' 10"	11' 10"	11' 10"	10' 4"	10' 3"	10' 3"	9' 5"
3-5/8         ProSTUD 30ML 362PDS125-30         0.0312         33         12         20 0°         17 4°         15 2°         16 4°         15 2°         13 3°         14 1°         13 9°         12 0°           ProSTUD 33ML 562PDS125-33         0.0312         33         16         17 3°         11 3°         11 6°         11 6°         11 6°         10 0°         10 0°         10 0°         9 6°           ProSTUD 33ML 562PDS125-33         0.0346         33         12         21 3°         11 1°         11 6°         11 6°         10 0°         10 0°         10 3°         12 1°         11 3°           0.0346         33         12         21 3°         11 3°         11 3°         11 3°         11 3°         11 3°         12 3°         10 10°         10 8°         9 2°	0.5/0	302PD3120-19	0.0200	65	24	11' 10"	11' 10"	10' 4"	9' 8"	9' 8"	9' 0"	8' 5"	8' 5"	8' 3"
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	3-5/8	D. OTUD COM	0.0312	33	12	20' 0"	17' 4"	15' 2"	16' 4"	15' 2"	13' 3"	14' 1"	13' 9"	12' 0"
Adv         Solver         0.0312         33         24         14'1'         13's'         12's'         11's'         11's'         10's'         10's'         10's'         10's'         10's'         10's'         10's'         11's'         11's' <th11's'< th=""> <th11's'< th=""> <th11's'< t<="" td=""><td></td><td>Prostud 30MIL</td><td>0.0312</td><td>33</td><td>16</td><td>17' 3"</td><td>15' 9"</td><td>13' 9"</td><td>14' 1"</td><td>13' 9"</td><td>12' 0"</td><td>12' 3"</td><td>12' 3"</td><td>10' 11"</td></th11's'<></th11's'<></th11's'<>		Prostud 30MIL	0.0312	33	16	17' 3"	15' 9"	13' 9"	14' 1"	13' 9"	12' 0"	12' 3"	12' 3"	10' 11"
ProSTUD 33ML 362PDS125.33         0.0346         33         12         21'3'         17'14'         15'8'         17'4'         15'8'         13'8'         16'0'         14'3'         12'1''         11'3''         12'5'         13'0'         12'1''         11'3''         12'5''         13'0'         12'1''         11'3''         12'1''         11'3''         12'5''         13'0'         12'1''         11'3''         12'1''         11'3''         12'5''         13'0''         12'1''         11'3''         12'5''         13'0''         12'1''         11'3''         12'3''         12'3''         12'3''         12'3''         12'1''         11'3''         12'1''         11'3''         12'1''         11'3''         12'3''         12'3'''         12''''         10'8''         10'8''         10'8''         10'8''         10'8''         10'8''         10'8''         10'8''         10'''''''         10''''''''''''''''''''''''''''''''''''		302FD3123-30	0.0312	33	24	14' 1"	13' 9"	12' 0"	11' 6"	11' 6"	10' 6"	10' 0"	10' 0"	9' 6"
Prostud 23ML G2PDS125-33         0.0346         33         16         18'5'         16'3'         14'3'         12'5'         13'0'         12'1'         11'3'           g2PDS125-33         0.0346         33         24         15'0'         14'3'         12'5'         12'3'         12'5'		D OTUD COM	0.0346	33	12	21' 3"	17' 11"	15' 8"	17' 4"	15' 8"	13' 8"	15' 0"	14' 3"	12' 5"
Our Dispess         0.0346         33         24         15 0"         14's"         12's"         12's"         10's"         10's"         10's"         9'10"           4         ProSTUD 25 400PDS125-15'         0.0158         50         12         13'0"         13'0"         12's"         10's"         10's"         9'2"		Prostud 33MIL	0.0346	33	16	18' 5"	16' 3"	14' 3"	15' 0"	14' 3"	12' 5"	13' 0"	12' 11"	11' 3"
$ \begin{tabular}{ c c c c c c c c c c c c c c c c c c c$		302FD3120-33	0.0346	33	24	15' 0"	14' 3"	12' 5"	12' 3"	12' 3"	10' 10"	10' 8"	10' 8"	9' 10"
ProSTUD 25 400PDS125.15'         0.0158         50         12         13'0'         12'8'         10'8'         10'8'         10'8'         92''         92''         92''         92''           4         4         50         16         11'3''         11'3''         92''         92''         92''         92''         70''''         70''''         70'''''         70'''														
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			0.0158	50	12	13' 0"	13' 0"	12' 8"	10' 8"	10' 8"	10' 8"	9' 2"	9' 2"	9' 2"
4         Hon BOLZAND         0.0158         50         24         9 2"         9 2"         6 3"         6 3"         6 3"         4 8"         4 8"         4 4"           ProSTUD 20 400PDS125-19         0.0200         65         12         17'11"         16'1"         14'0"         14'7"         14'0"         12'8"         11'2"         11'0"         10'1"         10'1"           40         ProSTUD 20 400PDS125-30         0.0200         65         12         17'1"         12'8"         11'2"         10'4"         10'4"         11'2"         11'0"         11'0"         10'1"           0.0312         33         12         21'1"         18'8"         16'4"         17'2"         16'4"         14'3"         14'11"         14'10"         13'0"           0.0312         33         16         18'3"         17'0"         14'10"         13'0"         12'2'2"         2'2'1'4"         10'6"         10'0'8"         10'8"         10'8"         11'2"         10'1"         14'11"         14'10"         13'0"         12'2'2"         2'2'2"         11'4"         10'6"         10'8"         10'8"         12'2'2"         2'2'2"         11'4"         10'6"         10'8"         12'2""         12'2'1"		400PDS10D 25	0.0158	50	16	11' 3"	11' 3"	11' 3"	9' 2"	9' 2"	9' 2"	7' 0"*	7' 0"*	7' 0"*
ProSTUD 20 400PDS125-19 0.0200         0.0200 65         65         12         17'11"         16'1"         14'0"         14'7"         14'0"         12'3"         12'8"         12'8"         11'2"           ProSTUD 20 400PDS125-19 0.0200         65         16         15'6"         14'7"         12'8"         11'2"         10'4"         9'9"         8'11"         8'11"         8'10"         10'4"         9'9"         8'11"         8'11"         8'10"         10'4"         9'9"         8'11"         14'10"         13'0"         12'11"         14'11"         14'10"         13'0"         12'11"         14'11"         14'10"         13'0"         12'11"         12'11"         12'11"         12'11"         12'11"         12'11"         14'10"         13'0"         12'11"         14'10"         13'0"         12'2"         11'2"         11'4"         10'6"         10'6"         10'3"         0'3'3         13'0"         12'2"         11'2"         11'3"         11'3'"         11'2"         10'3"         13'0"         12'2"         11'4"         10'6"         10'6"         10'3"         13'0"         12'2"         11'3"         11'3"         11'3"         11'3"         11'3"         11'3"         11'3"         11'3'"         13'0"		4001 00120-10	0.0158	50	24	9' 2"	9' 2"	9' 2"	6' 3"*	6' 3"*	6' 3"*	4' 8"*	4' 8"*	4' 8"*
4         ProSTUD 30/L125-19 400PDS125-19 400PDS125-19 400PDS125-19 400PDS125-30         0.0200 0.0200 0.0312         65 33         16 12         11/10"         11/10"         11/10"         11/10"         11/10"         10/1"           4         ProSTUD 30MIL 400PDS125-30         0.0312         33         12         21/1"         18/8"         11/6"4"         11/2"         10/4"         99"         8/11"         8/10"         8/10"           4         0.0312         33         12         21/1"         18/8"         16/4"         11/2"         16/4"         14/13"         14/11"         14/10"         13/0"         12/11"         12/2"         11/2"         13/2"			0.0200	65	12	17' 11"	16' 1"	14' 0"	14' 7"	14' 0"	12' 3"	12' 8"	12' 8"	11' 2"
4         Hon bergers         0.0200         65         24         12'8"         11'2"         10'4"         10'4"         9'9"         8'11"         8'11"         8'10"           ProSTUD 30MLL 400PD5125-30         0.0312         33         12         21'1"         18'8"         16'4"         17'2"         16'4"         14'3"         14'11"         14'10"         13'0"         12'11"         13'0"         12'11"         12'11"         11'9"         0.0312         33         24         14'11"         14'10"         13'0"         12'11"         10'6"         10'6"         10'6"         10'6"         10'3"           ProSTUD 33MLL 400PD5125-33         0.0346         33         12         22'5"         19'4"         16'11"         18'4"         16'11"         14'9"         15'10"         15'4"         13'5"         13'9"         13'9"         12'2"         2''           0.0346         33         12         22'5"         19'4"         15'10"         15'4"         13'0"         11'9"         11'3"         11'3"         11'3"         11'3"         11'3"         11'3"         11'3"         11'3"         11'3"         11'3"         11'3"         11'3"         11'3"         11'3"         11'3"         11'3"<		400PDS10D 20	0.0200	65	16	15' 6"	14' 7"	12' 9"	12' 8"	12' 8"	11' 2"	11' 0"	11' 0"	10' 1"
$ \left( \begin{array}{c c c c c c c c c c c c c c c c c c c $	4	4001 00120 13	0.0200	65	24	12' 8"	12' 8"	11' 2"	10' 4"	10' 4"	9' 9"	8' 11"	8' 11"	8' 10"
Prostud 200PDS125-30         0.0312         33         16         18'3"         17'0"         14'10"         14'11"         14'10"         13'0"         12'11"         12'11"         12'11"         12'11"         12'11"         11'9"           ProStUD 33MIL 400PDS125-33         0.0346         33         12         22'5"         19'4"         16'11"         18'4"         16'11"         14'9"         15'10"         15'4"         13'5"         13'9"         13'9"         12'2"           400PDS125-33         0.0346         33         16         19'5"         17'7"         15'4"         15'10"         13'0"         11'3"         11'3"         11'3"         12'2"           0.0346         33         16         19'5"         17'7"         15'4"         15'10"         13'0"         13'9"         13'9"         13'9"         13'9"         13'9"         13'9"         13'0"         11'3"         11'3"         10'8"           600PDS125-15'         0.0158         50         12         15'11"         15'11"         13'0"         13'0"         11'3"         11'3"         11'3"         11'3"         11'3"         11'3"         11'3"         11'3"         11'3"         11'3"         11'3"         11'3"         <	4	DroSTUD 20MI	0.0312	33	12	21' 1"	18' 8"	16' 4"	17' 2"	16' 4"	14' 3"	14' 11"	14' 10"	13' 0"
ProSTUD 25 600PDS125-15 <sup>2</sup> 0.0312         33         24         14'11"         14'10"         13'0"         12'2"         12'2"         11'4"         10'6"         10'6"         10'3"           ProSTUD 33MIL 400PDS125-33         0.0346         33         12         22'5"         19'4"         16'11"         18'4"         16'11"         14'9"         15'10"         15'4"         13'5"           0.0346         33         16         19'5"         17'7"         15'4"         15'10"         15'4"         13'0"         11'9"         13'9"         13'9"         12'2"           0.0346         33         24         15'10"         15'4"         13'0"         13'0"         11'9"         11'3"		400PDS125-30	0.0312	33	16	18' 3"	17' 0"	14' 10"	14' 11"	14' 10"	13' 0"	12' 11"	12' 11"	11'9"
ProSTUD 33MIL 400PDS125-33         0.0346         33         12         22'5"         19'4"         16'11"         18'4"         16'11"         14'9"         15'10"         15'4"         13'5"           0.0346         33         16         19'5"         17'7"         15'4"         15'10"         15'4"         13'5"         13'9"         13'9"         12'2"           0.0346         33         24         15'10"         15'4"         13'0"         13'0"         11'3"         11'3"         11'3"         10'8"           600PDS125-152         0.0158         50         12         15'11"         15'11"         15'11"         13'0"         13'0"         11'3"		1001 20120-00	0.0312	33	24	14' 11"	14' 10"	13' 0"	12' 2"	12' 2"	11' 4"	10' 6"	10' 6"	10' 3"
Prostrud 233Mile 400PDS125-33         0.0346         33         16         19'5"         17'7"         15'4"         15'10"         15'4"         13'5"         13'9"         13'9"         13'9"         12'2"           0.0346         33         24         15'10"         15'4"         13'5"         13'0"         11'9"         11'3"         11'3"         11'3"         10'8"           0.0346         33         24         15'10"         15'4"         13'0"         13'0"         11'9"         11'3"			0.0346	33	12	22' 5"	19' 4"	16' 11"	18' 4"	16' 11"	14' 9"	15' 10"	15' 4"	13' 5"
Holp DS12533         0.0346         33         24         15'0"         15'4"         13'5"         13'0"         11'9"         11'3"         11'3"         10'8"           Image: ProSTUD 25 600PDS125-152         0.0158         50         12         15'11"         15'11"         15'11"         13'0"         13'0"         11'3"		400PDS10D 33IVIIL	0.0346	33	16	19' 5"	17' 7"	15' 4"	15' 10"	15' 4"	13' 5"	13' 9"	13' 9"	12' 2"
ProSTUD 25 600PDS125-15 <sup>2</sup> 0.0158         50         12         15 <sup>2</sup> 11 <sup>n</sup> 15 <sup>2</sup> 11 <sup>n</sup> 13 <sup>2</sup> 0 <sup>n</sup> 13 <sup>2</sup> 0 <sup>n</sup> 11 <sup>2</sup> 3 <sup>n</sup> 13 <sup>2</sup> 3 <sup>n</sup>		400FD3125-55	0.0346	33	24	15' 10"	15' 4"	13' 5"	13' 0"	13' 0"	11' 9"	11' 3"	11' 3"	10' 8"
ProSTUD 25 600PDS125-15 <sup>2</sup> 0.0158         50         12         15 <sup>2</sup> 11 <sup>n</sup> 15 <sup>2</sup> 11 <sup>n</sup> 13 <sup>2</sup> 0 <sup>n</sup> 13 <sup>2</sup> 0 <sup>n</sup> 11 <sup>2</sup> 3 <sup>n</sup> 13 <sup>2</sup> 3 <sup>n</sup> 13 <sup>2</sup> 3 <sup>n</sup>														
FIGUR 23 600PDS125-152         0.0158         50         16         13'9"         13'9"         11'3"         11'3"         11'3"         8'11"         8'11"         8'11"           000PDS125-152         0.0158         50         24         11'3"         11'3"         11'3"         11'3"         11'3"         11'3"         11'3"         11'3"         6'0" <td></td> <td>DrogTUD 05</td> <td>0.0158</td> <td>50</td> <td>12</td> <td>15' 11"</td> <td>15' 11"</td> <td>15' 11"</td> <td>13' 0"</td> <td>13' 0"</td> <td>13' 0"</td> <td>11' 3"</td> <td>11' 3"</td> <td>11' 3"</td>		DrogTUD 05	0.0158	50	12	15' 11"	15' 11"	15' 11"	13' 0"	13' 0"	13' 0"	11' 3"	11' 3"	11' 3"
6         000 DS122413         0.0158         50         24         11'3"         11'3"         11'3"         7'11"         7'11"         7'11"         6'0"		ProSTUD 25	0.0158	50	16	13' 9"	13' 9"	13' 9"	11' 3"	11' 3"	11' 3"	8' 11"	8' 11"	8' 11"
ProSTUD 20 600PDS125-19*         0.0200         65         12         22'2"         21'2"         18'6"         18'1"         18'1"         16'2"         15'8"         15'8"         14'8"           0.0200         65         16         19'2"         19'2"         16'10"         15'8"         14'8"         13'7"         13'7"         13'4"           0.0200         65         24         15'8"         15'8"         14'8"         12'10"         12'10"         11'1"         11'1"         11'1"         11'1"           0.0200         65         24         15'8"         15'8"         14'8"         12'10"         12'10"         12'10"         11'1"         11'1"         11'1"           0.0312         33         12         26'9"         25'7"         22'4"         21'10"         19'7"         18'11"         18'11"         17'9"           0.0312         33         16         23'2"         23'2"         20'4"         18'11"         18'11"         16'5"         16'5"         16'5"         16'5"         13'5"         13'5"         13'5"         13'5"         13'5"         13'5"         13'5"         13'5"         13'5"         13'5"         13'5"         13'5"         13'5"		0001 20120-10-	0.0158	50	24	11' 3"	11' 3"	11' 3"	7' 11"	7' 11"	7' 11"	6' 0"	6' 0"	6' 0"
PHOSTOD 20 600PDS125-19:         0.0200         65         16         19'2"         19'2"         16'10"         15'8"         15'8"         14'8"         13'7"         13'7"         13'7"         13'4"           ProSTUD 30MIL 600PDS125-39         0.0200         65         24         15'8"         15'8"         12'10"         12'10"         11'1'1"		DreCTUD 00	0.0200	65	12	22' 2"	21'2"	18' 6"	18' 1"	18' 1"	16' 2"	15' 8"	15' 8"	14' 8"
001 D012010         0.0200         65         24         15'8"         14'8"         12'10"         12'10"         11'1"         11'1"         11'1"           ProSTUD 30MIL 600PDS125-30         0.0312         33         12         26'9"         25'7"         22'4"         21'10"         19'7"         18'11"         18'11"         17'9"           ProSTUD 30MIL 600PDS125-30         0.0312         33         16         23'2"         20'4"         18'11"         18'11"         16'5"         16'5"         16'5"         16'2"           ProSTUD 33MIL 600PDS125-30         0.0346         33         12         28'4"         26'7"         23'2"         23'2"         23'2"         23'2"         23'2"         23'2"         23'2"         20'3"         10'5"         13'5"         1		PI0510D 20	0.0200	65	16	19' 2"	19' 2"	16' 10"	15' 8"	15' 8"	14' 8"	13' 7"	13' 7"	13' 4"
ProSTUD 30MIL 600PDS125-30         0.0312         33         12         26'9"         25'7"         22'4"         21'10"         19'7"         18'11"         18'11"         17'9"           ProSTUD 30MIL 600PDS125-30         0.0312         33         16         23'2"         23'2"         20'4"         18'11"         18'11"         16'5"         16'5"         16'5"         16'5"         16'5"         16'5"         16'5"         16'5"         16'5"         16'5"         13'5"	C	0001 00120-19-	0.0200	65	24	15' 8"	15' 8"	14' 8"	12' 10"	12' 10"	12' 10"	11' 1"	11' 1"	11'1"
Prostop solving 600PDS125-30         0.0312         33         16         23'2"         20'4"         18'11"         18'11"         17'9"         16'5"         16'5"         16'2"           0.0312         33         24         18'11"         18'11"         15'5"         15'5"         15'5"         13'5" <td>0</td> <td>DroSTUD 2014</td> <td>0.0312</td> <td>33</td> <td>12</td> <td>26' 9"</td> <td>25' 7"</td> <td>22' 4"</td> <td>21' 10"</td> <td>21' 10"</td> <td>19' 7"</td> <td>18' 11"</td> <td>18' 11"</td> <td>17' 9"</td>	0	DroSTUD 2014	0.0312	33	12	26' 9"	25' 7"	22' 4"	21' 10"	21' 10"	19' 7"	18' 11"	18' 11"	17' 9"
Bool Dollado         0.0312         33         24         18' 11"         17' 9"         15' 5"         15' 5"         13' 5" </td <td></td> <td>600PDS125-20</td> <td>0.0312</td> <td>33</td> <td>16</td> <td>23' 2"</td> <td>23' 2"</td> <td>20' 4"</td> <td>18' 11"</td> <td>18' 11"</td> <td>17' 9"</td> <td>16' 5"</td> <td>16' 5"</td> <td>16' 2"</td>		600PDS125-20	0.0312	33	16	23' 2"	23' 2"	20' 4"	18' 11"	18' 11"	17' 9"	16' 5"	16' 5"	16' 2"
ProSTUD 33MIL 600PDS125-33         0.0346         33         12         28'4"         26'7"         23'2"         23'2"         23'2"         20'3"         20'1"         20'1"         18'5"           0.0346         33         16         24'7"         24'1"         21'1"         20'1"         20'1"         18'5"         17'5"         17'5"         16'9"           0.0346         33         24         20'1"         20'1"         18'5"         16'5"         16'5"         16'1"         14'2"         14'2"         14'2"		0001 20120-00	0.0312	33	24	18' 11"	18' 11"	17' 9"	15' 5"	15' 5"	15' 5"	13' 5"	13' 5"	13' 5"
FIGURE Solving 600PDS125-33         0.0346         33         16         24'7"         24'1"         21'1"         20'1"         18'5"         17'5"         17'5"         16'9"           0.0346         33         24         20'1"         20'1"         16'5"         16'5"         16'1"         14'2"         14'2"         14'2"		Droetur conu	0.0346	33	12	28' 4"	26' 7"	23' 2"	23' 2"	23' 2"	20' 3"	20' 1"	20' 1"	18' 5"
0.0346         33         24         20'1"         18'5"         16'5"         16'1"         14'2"         14'2"         14'2"		600PDS125-22	0.0346	33	16	24' 7"	24' 1"	21' 1"	20' 1"	20' 1"	18' 5"	17' 5"	17' 5"	16' 9"
		0001 20120-00	0.0346	33	24	20' 1"	20' 1"	18' 5"	16' 5"	16' 5"	16' 1"	14' 2"	14' 2"	14' 2"

#### Notes:

- Heights are based on AISI S100-12, North American Specification and AISI S220-15, North American Standard for Cold-Formed Steel Framing-

Nonstructural Members, using steel properties alone.

- Above listed Non-Composite Limiting Heights are applicable when the unbraced length is less than or equal to Lu.

- Heights are limited by moment, deflection, shear, and web crippling (assuming 1" end reaction bearing).
- 1 Web-height to thickness ratio exceeds 200. Web stiffeners are required at bearing points.

2 Web-height to thickness ratio exceeds 260. Web stiffeners are required at bearing and intermediate points.

\*Higher heights can be achieved by using end-bearing stiffeners. See full ProSTUD non-composite charts at clarkdietrich.com.

## ProSTUD<sup>®</sup> 3-5/8" SOUND ASSEMBLIES

D. Mit.			STC Rating /	'Test Report	
Partition type	Assembly description	ProSTUD 25 (15mil)	ProSTUD 20 (19mil)	ProSTUD 30MIL	ProSTUD 33MIL
	3-5/8" ProSTUD @ 24" o.c. 1 layer 5/8" Type X GWB on each side	<b>43</b> TL09-539	<b>38</b> TL13-190	36 TL13-204	<b>36</b> TL13-197
	3-5/8" ProSTUD @ 24" o.c. 3-1/2" R-13* unfaced insulation 1 layer 5/8" Type X GWB on each side	<b>48</b> TL09-540	<b>41</b> TL13-189	<b>37</b> TL13-203	<b>37</b> TL13-196
	<ul> <li>3-5/8" ProSTUD @ 24" o.c.</li> <li>3-1/2" R-13* unfaced insulation</li> <li>1 layer 5/8" Type X GWB on one side</li> <li>2 layers 5/8" Type X GWB on the other side</li> </ul>	<b>49</b> TL13-167	<b>44</b> TL13-188	<b>40</b> TL13-202	<b>42</b> TL13-195
	3-5/8" ProSTUD @ 24" o.c. 3-1/2" R-13* unfaced insulation 2 layers 5/8" Type X GWB on each side	54 TL09-538	<b>45</b> TL13-187	<b>42</b> TL13-201	<b>45</b> TL13-194
	3-5/8" ProSTUD @ 24" o.c. 3-1/2" R-13* unfaced insulation RC-Deluxe w/ 1 layer 5/8" Type X GWB on one side 1 layer 5/8" Type X GWB on the other side	<b>53</b> TL13-183	<b>48</b> TL13-191	<b>48</b> TL13-205	<b>50</b> TL16-369
	3-5/8" ProSTUD @ 24" o.c. 3-1/2" R-13* unfaced insulation RC-Deluxe w/ 2 layers 5/8" Type X GWB on one side 1 layer 5/8" Type X GWB on the other side	<b>59</b> TL09-543	54 TL13-192	<b>55</b> TL16-367	<b>56</b> TL16-370
	3-5/8" ProSTUD @ 24" o.c. 3-1/2" R-13* unfaced insulation RC-Deluxe w/ 2 layers 5/8" Type X GWB on one side 2 layers 5/8" Type X GWB on the other side	62 TL13-181	<b>59</b> TL13-193	<b>58</b> TL16-368	58 TL13-200

#### Notes:

- Sound Assemblies are certified by Western Electro-Acoustic Laboratories.

- NVLAP Accredited for ASTM E90 & E413, ISO Certified.

- See STC test reports at www.clarkdietrich.com/ProSTUD for detailed requirements of construction of wall assembly. \* Values are the same for R-11 insulation.

Contact ClarkDietrich Technical Services at 888-437-3244 for questions about ProSTUD sound assemblies.

ProSTUD	1-5/8" STU	D CHASE S	OUND ASS	EMBLIES	Two parallel 1	ows	
Current turns	٨ ملز؟	Side P	laculation turns	Stud anasia s	STC Rating	Test second	Destition turns
Gypsum type	Side A	Side D	Insulation type	Stud spacing	ProSTUD 25 (15mil)	Test report	Partition type
5/8" Type X	1 layer	1 layer	R-13* unfaced	24"	55	TL09-590	1 Similar
5/8" Type X	1 layer	2 layers	R-13* unfaced	24"	59	TL09-591	1 Similar
5/8" Type X	2 layers	2 layers	R-13* unfaced	24"	61	TL09-592	1

ProSTUD	2-1/2" STUI	D CHASE S	OUND ASS	EMBLIES	Staggered in o	opposite walls	
Commission	A .L.2	C:1. P	la sulation tono	Stud and in a	STC Rating	Test see at	Destition to a
Gypsum type	Side A	Side D	Insulation type	Stud spacing	ProSTUD 25 (15mil)	Test report	Partition type
5/8" Type X	1 layer	1 layer	R-13* unfaced*	24"	58	TL09-593	2 Similar
5/8" Type X	1 layer	2 layers	R-13* unfaced*	24"	63	TL09-594	2 Similar
5/8" Type X	2 layers	2 layers	R-13* unfaced*	24"	65	TL09-595	2

ProSTUD	3-5/8" STU	D CHASE S	Staggered studs in 6" track					
Current turns	٨ ما:٢	Side P	Insulation type	Stud spacing	STC Rating	Test second	D. Martina	
Gypsum type	Side A	Side D			ProSTUD 25 (15mil)	Test report	r artition type	
5/8" Type X	1 layer	1 layer	R-13* unfaced	16"	49	TL09-587	3	
5/8" Type X	1 layer	2 layers	R-13* unfaced	16"	52	TL09-588	3 Similar	
5/8" Type X	2 layers	2 layers	R-13* unfaced	16"	56	TL09-589	3 Similar	









Туре З

- Sound Assemblies are certified by Western Electro-Acoustic Laboratories.
- NVLAP Accredited for ASTM E90 & E413, ISO Certified.
- See STC test reports at www.clarkdietrich.com/ProSTUD for detailed requirements of construction of wall assembly.
- \* Values are the same for R-11 insulation. Contact ClarkDietrich Technical Services at 888-437-3244 for questions about ProSTUD sound assemblies.

ProSTU	D° SINGL	E STUD WALL-	FIRE ASSE	MBLIES <sup>^</sup>			
UL design no.	Hourly rating	ProSTUD minimum thickness	ProSTUD minimum depth	UL design no.	Hourly rating	ProSTUD minimum thickness	ProSTUD minimum depth
U403	2	ProSTUD 20 (19mil)	3-5/8"	V410	2	ProSTUD 20 (19mil)	1-5/8"
U407	1/2 or 1	ProSTUD 25 (15mil)	3-5/8"	V412	2	ProSTUD 20 (19mil)	3-5/8"
U408	2	ProSTUD 20 (19mil)	3-5/8"	V416	1	ProSTUD 20 (19mil)	3-5/8"
U411	2	ProSTUD 25 (15mil)	2-1/2"	V417	1	ProSTUD 20 (19mil)	3-5/8"
U412	2	ProSTUD 25 (15mil)	1-5/8"	V418	2	ProSTUD 20 (19mil)	1-5/8"
U419	1, 2, 3 or 4	ProSTUD 25 (15mil)	(See Table 1 below)	V419	2	ProSTUD 20 (19mil)	2-1/2"
U421	2	ProSTUD 25 (15mil)	3-5/8"	V425	1	ProSTUD 20 (19mil)	2-1/2"
U431	4	ProSTUD 20 (19mil)	3-5/8"	V435	1	ProSTUD 20 (19mil)	3-5/8"
U435	3 or 4	ProSTUD 25 (15mil)	1-5/8"	V438	1, 2, 3 or 4	ProSTUD 25 (15mil)	(See Table 1 below
U442*	1	ProSTUD 33MIL	2-1/2"	V443	4	ProSTUD 20 (19mil)	3-5/8"
U450	1 or 3	ProSTUD 20 (19mil)	3-5/8"	V444	1	ProSTUD 20 (19mil)	3-5/8"
U451	1	ProSTUD 20 (19mil)	2-1/2"	V448	1	ProSTUD 20 (19mil)	3-5/8"
U454	2	ProSTUD 20 (19mil)	2-1/2"	V449	2	ProSTUD 20 (19mil)	3-5/8"
U463	3 or 4	ProSTUD 20 (19mil)	1-5/8"	V450	1	ProSTUD 25 (15mil)	3-5/8"
U465	1	ProSTUD 20 (19mil)	3-5/8"	V450	2	ProSTUD 25 (15mil)	2-1/2"
U471	1-1/2	ProSTUD 20 (19mil)	3-5/8"	V452	1 or 2	ProSTUD 20 (19mil)	3-5/8"
U475	1, 2 or 3	ProSTUD 20 (19mil)	3-5/8"	V453*	1-1/2	ProSTUD 33MIL	6"
U478	3	ProSTUD 20 (19mil)	1-5/8"	V461*	1	ProSTUD 33MIL	3-5/8"
U484*	2	ProSTUD 33MIL	2-1/2"	V476	1 or 3	ProSTUD 20 (19mil)	3-5/8"
U488*	1	ProSTUD 33MIL	2-1/2"	V477	1, 2, 3 or 4	ProSTUD 25 (15mil)	(See Table 1 below
U490	4	ProSTUD 20 (19mil)	2-1/2"	V487	2	ProSTUD 20 (19mil)	1-5/8"
U491	2	ProSTUD 20 (19mil)	3-5/8"	V489	1, 2, 3 or 4	ProSTUD 25 (15mil)	(See Table 1 below
U494	1	ProSTUD 20 (19mil)	2-1/2"	V498	1, 2, 3 or 4	ProSTUD 25 (15mil)	(See Table 1 below
U495	1 or 2	ProSTUD 20 (19mil)	3-5/8"	W411	1/2 or 1	ProSTUD 25 (15mil)	3-5/8"
U496	1	ProSTUD 20 (19mil)	1-5/8"	W415	1 or 2	ProSTUD 20 (19mil)	2-1/2"
				W424	1	ProSTUD 25 (15mil)	3-5/8"

## ProSTUD CHASE OR DOUBLE STUD-FIRE ASSEMBLIES<sup>A</sup>

UL design no.	Hourly rating	ProSTUD minimum thickness	ProSTUD minimum depth	UL design no.	Hourly rating	ProSTUD minimum thickness	ProSTUD minimum depth
U420	2	ProSTUD 25 (15mil)	1-5/8"	V442	2	ProSTUD 25 (15mil)	1-5/8"
U436	1, 2, or 3	ProSTUD 20 (19mil)	1-5/8"	V464	1	ProSTUD 25 (15mil)	3-5/8"
U444	2	ProSTUD 25 (15mil)	1-5/8"	V469*	1	ProSTUD 33 (33mil)	2-1/2"
U445*	1	ProSTUD 33 (33mil)	1-5/8"	V469	2	ProSTUD 20 (19mil)	2-1/2"
U466	1	ProSTUD 20 (19mil)	2-1/2"	V488	1 or 2	ProSTUD 20 (19mil)	2-1/2"
U493	2	ProSTUD 25 (15mil)	2-1/2"	V490*	1 or 2	ProSTUD 33 (33mil)	2-1/2"
V437	1	ProSTUD 20 (19mil)	1-5/8"	V496	1 or 2	ProSTUD 20 (19mil)	2-1/2"

## ProSTUD TABLE 1: MINIMUM DEPTH OF ProSTUD REQUIRED^

Hourly rating	Min. stud depth (in)	No. of layers and thickness of gypsum board	UL U419	UL V438	UL V477	UL V489	UL V498
1	2-1/2"	1 layer, 1/2"	_		_	√	
1	3-5/8"	1 layer, 5/8"	√	√	√	√	~
2	1-5/8"	2 layer, 1/2"	√	√	√	√	~
2	1-5/8"	2 layer, 5/8"	√	_	√	√	~
2	2-1/2"	2 layer, 5/8"	—	√	_	—	—
3	1-5/8"	3 layer, 1/2"	√	√	$\checkmark$	√	$\checkmark$
3	1-5/8"	3 layer, 5/8"	√	~	~	√	$\checkmark$
4	1-5/8"	4 layer, 1/2"	√	~	$\checkmark$	√	$\checkmark$
4	1-5/8"	4 layer, 5/8"	√	√	√	√	$\checkmark$

Notes:

<sup>A</sup>See UL listing for detailed requirements of construction of tested assembly.

\*ProSTUD meets or exceeds the description of the generic stud/track listed in the UL assembly.



## DEEP LEG DEFLECTION TRACK SYSTEMS

Head-of-wall vertical deep leg deflection track systems are required to allow the top of the wall stud to float within the top track legs. This condition allows for vertical live load movement of the primary structure without transferring axial loads to the interior drywall studs. A gap (determined by the Engineer of Record) is required between the top of the wall stud and the deflection track.

ProSTUD® Drywall Framing studs can be used with the three Deep Leg Track Systems listed below:

#### ProTRAK<sup>®</sup> Deep Leg Track

ProTRAK deep leg track is available with leg lengths of 2," 2-1/2" and 3" long.

The wall studs are not fastened to the deflection track, and a row of lateral bracing is required within 12" of the deep leg track to prevent rotation and lateral movement of the studs. The deflection track system must be designed for the end reaction of the wall studs (point loads) and for the specific gap required for vertical deflection.

<b>PrnTR∆K®</b>	Allowable	Lateral	hne zhen l	Wall Heinhts
TTUTHAN	Allowabic	LUIGIUI		wanneigino

Deflection	2" Leg with 1/	g Track 2″ Gap	2-1/2" L with 3/	eg Track '4" Gap	3" Leg Track with 1" Gap		
track system	Allowable Ioad (Ibs)	Limiting wall height	Allowable Ioad (Ibs)	Limiting wall height	Allowable Ioad (Ibs)	Limiting wall height	
ProTRAK 25	36	10' 8"	24	7' 2"	18	5' 4"	
ProTRAK 20	57	17' 2"	38	11' 5"	29	8' 7"	
ProTRAK 30MIL	92	27' 6"	61	18' 4"	46	13' 9"	
ProTRAK 33MIL	113	33' 10"	75	22' 7"	56	16' 11"	

#### Notes:

- Limiting wall heights are based on studs spaced at 16" o.c. and an interior lateral load of 5psf.
- Stud members must be analyzed independently of the track system. Use www.iProSTUD.com to check
  limiting wall heights for ProSTUD members.
- Stud failure modes relating to the deflection track connection (shear, web crippling, etc.) must be checked separately.

## Structural Deep Leg Track (18ga & 16ga)

Structural Deep Leg Track systems are installed the same as the ProTRAK deep leg track system but are designed to handle tall wall systems.

For structural deep leg track allowable loads, contact Technical Services at 888-437-3244 or visit clarkdietrich.com.

#### Slotted Deflection Track from ClarkDietrich

The slotted deflection track is attached to the wall studs through vertical slots using wafer head screws, creating a positive connection that allows for vertical movement and also eliminates the requirement for lateral bracing near the top of the wall stud.

#### MaxTrak™ Allowable Lateral Loads and Wall Heights

Deflection track system	ProST (15mil,	UD 25 50ksi)	ProST (19mil,	UD 20 65ksi)	ProS 30mil	TUD (33ksi)	ProSTUD 25 33mil (33ksi)		
	Allowable load (lbs)	Limiting wall height	Allowable load (lbs)	Limiting wall height	Allowable load (lbs)	Limiting wall height	Allowable load (lbs)	Limiting wall height	
MaxTrak 30MIL	45	13' 6"	85	25' 6"	148	44' 4"	148	44' 4"	
MaxTrak 33MIL	52	15' 7"	99	29' 7"	156	46' 10"	156	46' 10"	

#### Notes:

- Allowable loads are based on screws through the slots located 1-1/4" from the track web.
- #8 minimum wafer head screws shall be used for stud-track connection.
- The above table is applicable to ProSTUD members only. ProSTUD allowable heights must be checked also.
- Allowable heights are based on 5psf and wall stud spacing at 16" o.c. with a max. gap of 7/8."



## DEEP LEG DEFLECTION TRACK DETAIL

WITH LATERAL BRACING WITHIN 12" OF SLIP TRACK

Details shown are for example only. The engineer of record of the project is responsible for the design of the connection to the structure. Additional connection details can be found at clarkdietrich.com.



ClarkDietrich offers both the MaxTrak® Slotted Deflection Track and BlazeFrame® Integrated Fire Stop System. Find more information on these systems at clarkdietrich.com.

Complete information on Allowable Loads is available at clarkdietrich.com.

Prostod® ALLOWABLE CEILING SPANS Deflection Limit L/240														
	E.	4psf Lateral Support of Compression Flange						6psf Lateral Support of Compression Flange						
Section	ry (ksi)	jois	Unsupported t spacing (in)	o.c.	joi	Mid-span joist spacing (in) o.c.			Unsupported joist spacing (in) o.c.			Mid-span joist spacing (in) o.c.		
		12	16	24	12	16	24	12	16	24	12	16	24	
162PDS125-15	50	7' 3"	6' 8"	5' 11"	7' 10"	7' 2"	6' 3"	6' 5"	5' 11"	5' 3"	6' 10"	6' 3"	5' 5"	
250PDS125-15	50	8' 4"	7' 8"	6' 11"	10' 11"	9' 11"	8' 8"	7' 5"	6' 11"	6' 2"	9' 7"	8' 8"	7' 7"	
350PDS125-15	50	9' 1"	8' 5"	7' 6"	12' 7"	11' 6"	10' 2"	8' 2"	7' 6"	6' 8"	11' 1"	10' 2"	8' 10" e	
362PDS125-15	50	9' 2"	8' 6"	7' 7"	12' 9"	11' 8"	10' 3"	8' 3"	7' 7"	6' 9"	11' 3"	10' 3"	8' 11" e	
400PDS125-15	50	9' 5"	8' 9"	7' 10"	13' 1"	12' 0"	10' 7" e	8' 6"	7' 10"	6' 11" e	11' 7" e	10' 7" e	9' 3" e	
600PDS125-15	50	10' 8"	9' 10"	8' 10"	15' 0"	13' 9"	12' 2"	9' 6"	8' 10"	7' 11"	13' 3"	12' 2"	9' 11" e	
162PDS125-19	65	7' 11"	7' 4"	6' 6"	8' 5"	7' 8"	6' 9"	7' 2"	6' 6"	5' 9"	7' 5"	6' 9"	5' 11"	
250PDS125-19	65	9' 1"	8' 5"	7' 7"	11' 11"	10' 10"	9' 6"	8' 2"	7'7"	6' 10"	10' 5"	9' 6"	8' 3"	
350PDS125-19	65	10' 0"	9' 4"	8' 4"	14' 4"	13' 2"	11' 9"	9' 0"	8' 4"	7' 6"	12' 9"	11' 9"	10' 5"	
362PDS125-19	65	10' 2"	9' 5"	8' 5"	14' 6"	13' 4"	11' 10"	9' 1"	8' 5"	7' 7"	12' 11"	11' 10"	10' 6"	
400PDS125-19	65	10' 5"	9' 8"	8' 8"	14' 11"	13' 9"	12' 3"	9' 5"	8' 8"	7' 10"	13' 4"	12' 3"	10' 11"	
600PDS125-19	65	11' 11" e	11' 0" e	9' 11" e	17' 0" e	15' 9" e	14' 0" e	10' 8" e	9' 11" e	8' 11" e	15' 3" e	14' 0" e	12' 6" e	
162PDS125-30	33	9' 4"	8' 7"	7' 8"	9' 10"	9' 0"	7' 10"	8' 3"	7' 8"	6' 10"	8' 7"	7' 10"	6' 10"	
250PDS125-30	33	10' 4"	9' 7"	8' 6"	13' 8"	12' 5"	10' 10"	9' 3"	8' 6"	7' 8"	11' 11"	10' 10"	9' 6"	
350PDS125-30	33	11' 2"	10' 4"	9' 3"	16' 0"	14' 10"	13' 4"	10' 0"	9' 3"	8' 4"	14' 5"	13' 4"	11' 11"	
362PDS125-30	33	11' 3"	10' 5"	9' 4"	16' 2"	15' 0"	13' 6"	10' 1"	9' 4"	8' 5"	14' 7"	13' 6"	12' 0"	
400PDS125-30	33	11' 7"	10' 9"	9' 8"	16' 8"	15' 6"	13' 11"	10' 5"	9' 8"	8' 8"	15' 0"	13' 11"	12' 5"	
550PDS125-30	33	12' 10"	11' 10"	10' 8"	18' 5"	17' 1"	15' 4"	11' 6"	10' 8"	9' 7"	16' 7"	15' 4"	13' 9"	
600PDS125-30	33	13' 1"	12' 2"	10' 11"	18' 11"	17' 6"	15' 8"	11' 9"	10' 11"	9' 10"	17' 0"	15' 8"	14' 1"	
162PDS125-33	33	9' 9"	9' 0"	8' 0"	10' 4"	9' 4"	8' 2"	8' 8"	8' 0"	7' 1"	9' 0"	8' 2"	7' 2"	
250PDS125-33	33	10' 9"	9' 11"	8' 10"	14' 3"	12' 11"	11' 3"	9' 7"	8' 10"	7' 11"	12' 5"	11' 3"	9' 10"	
350PDS125-33	33	11' 7"	10' 8"	9' 7"	16' 6"	15' 3"	13' 9"	10' 4"	9' 7"	8' 7"	14' 10"	13' 9"	12' 4"	
362PDS125-33	33	11' 8"	10' 9"	9' 8"	16' 8"	15' 5"	13' 11"	10' 5"	9' 8"	8' 8"	15' 0"	13' 11"	12' 6"	
400PDS125-33	33	12' 0"	11' 1"	9' 11"	17' 2"	15' 11"	14' 4"	10' 9"	9' 11"	8' 11"	15' 5"	14' 4"	12' 10"	
550PDS125-33	33	13' 3"	12' 3"	11' 0"	19' 0"	17' 7"	15' 10"	11' 10"	11' 0"	9' 10"	17' 1"	15' 10"	14' 3"	
600PDS125-33	33	13' 6"	12' 6"	11' 3"	19' 6"	18' 1"	16' 3"	12' 2"	11' 3"	10' 1"	17' 6"	16' 3"	14' 7"	

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## ProSTUD ALLOWABLE CEILING SPANS

#### Deflection Limit L/360

	_	4psf Lateral Support of Compression Flange							6psf Lateral Support of Compression Flange					
Section (ksi)		jois	Unsupported t spacing (in)	o.c.	jois	Mid-span st spacing (in)	o.c.	jois	Unsupported joist spacing (in) o.c.			Mid-span joist spacing (in) o.c.		
		12	16	24	12	16	24	12	16	24	12	16	24	
162PDS125-15	50	6' 10"	6' 3"	5' 5"	6' 10"	6' 3"	5' 5"	6' 0"	5' 5"	4' 9"	6' 0"	5' 5"	4' 9"	
250PDS125-15	50	8' 4"	7' 8"	6' 11"	9' 7"	8' 8"	7' 7"	7' 5"	6' 11"	6' 2"	8' 4"	7' 7"	6' 8"	
350PDS125-15	50	9' 1"	8' 5"	7' 6"	12' 5"	11' 4"	9' 11"	8' 2"	7' 6"	6' 8"	10' 10"	9' 11"	8' 8" e	
362PDS125-15	50	9' 2"	8' 6"	7' 7"	12' 9"	11'7"	10' 1"	8' 3"	7' 7"	6' 9"	11' 2"	10' 1"	8' 10" e	
400PDS125-15	50	9' 5"	8' 9"	7' 10"	13' 1"	12' 0"	10' 7" e	8' 6"	7' 10"	6' 11" e	11' 7" e	10' 7" e	9' 3" e	
600PDS125-15	50	10' 8"	9' 10"	8' 10"	15' 0"	13' 9"	12' 2"	9' 6"	8' 10"	7' 11"	13' 3"	12' 2"	9' 11" e	
162PDS125-19	65	7' 5"	6' 9"	5' 11"	7' 5"	6' 9"	5' 11"	6' 5"	5' 11"	5' 2"	6' 6"	5' 11"	5' 2"	
250PDS125-19	65	9' 1"	8' 5"	7' 7"	10' 5"	9' 6"	8' 3"	8' 2"	7' 7"	6' 10"	9' 1"	8' 3"	7' 3"	
350PDS125-19	65	10' 0"	9' 4"	8' 4"	13' 8"	12' 5"	10' 10"	9' 0"	8' 4"	7' 6"	11' 11"	10' 10"	9' 6"	
362PDS125-19	65	10' 2"	9' 5"	8' 5"	14' 1"	12' 9"	11' 2"	9' 1"	8' 5"	7' 7"	12' 3"	11' 2"	9' 9"	
400PDS125-19	65	10' 5"	9' 8"	8' 8"	14' 11"	13' 9"	12' 0"	9' 5"	8' 8"	7' 10"	13' 2"	12' 0"	10' 6"	
600PDS125-19	65	11' 11" e	11' 0" e	9' 11" e	17' 0" e	15' 9" e	14' 0" e	10' 8" e	9' 11" e	8' 11" e	15' 3" e	14' 0" e	12' 6" e	
162PDS125-30	33	8' 7"	7' 10"	6' 10"	8' 7"	7' 10"	6' 10"	7' 6"	6' 10"	6' 0"	7' 6"	6' 10"	6' 0"	
250PDS125-30	33	10' 4"	9' 7"	8' 6"	11' 11"	10' 10"	9' 6"	9' 3"	8' 6"	7' 8"	10' 5"	9' 6"	8' 3"	
350PDS125-30	33	11' 2"	10' 4"	9' 3"	15' 6"	14' 1"	12' 4"	10' 0"	9' 3"	8' 4"	13' 6"	12' 4"	10' 9"	
362PDS125-30	33	11' 3"	10' 5"	9' 4"	15' 11"	14' 6"	12' 8"	10' 1"	9' 4"	8' 5"	13' 11"	12' 8"	11' 1"	
400PDS125-30	33	11' 7"	10' 9"	9' 8"	16' 8"	15' 6"	13' 9"	10' 5"	9' 8"	8' 8"	15' 0"	13' 9"	12' 0"	
550PDS125-30	33	12' 10"	11' 10"	10' 8"	18' 5"	17' 1"	15' 4"	11' 6"	10' 8"	9' 7"	16' 7"	15' 4"	13' 9"	
600PDS125-30	33	13' 1"	12' 2"	10' 11"	18' 11"	17' 6"	15' 8"	11' 9"	10' 11"	9' 10"	17' 0"	15' 8"	14' 1"	
162PDS125-33	33	9' 0"	8' 2"	7' 2"	9' 0"	8' 2"	7' 2"	7' 10"	7' 2"	6' 3"	7' 10"	7' 2"	6' 3"	
250PDS125-33	33	10' 9"	9' 11"	8' 10"	12' 5"	11' 3"	9' 10"	9' 7"	8' 10"	7' 11"	10' 10"	9' 10"	8' 7"	
350PDS125-33	33	11' 7"	10' 8"	9' 7"	16' 1"	14' 7"	12' 9"	10' 4"	9' 7"	8' 7"	14' 1"	12' 9"	11' 2"	
362PDS125-33	33	11' 8"	10' 9"	9' 8"	16' 6"	15' 0"	13' 2"	10' 5"	9' 8"	8' 8"	14' 5"	13' 2"	11' 6"	
400PDS125-33	33	12' 0"	11' 1"	9' 11"	17' 2"	15' 11"	14' 3"	10' 9"	9' 11"	8' 11"	15' 5"	14' 3"	12' 5"	
550PDS125-33	33	13' 3"	12' 3"	11' 0"	19' 0"	17' 7"	15' 10"	11' 10"	11' 0"	9' 10"	17' 1"	15' 10"	14' 3"	
600PDS125-33	33	13' 6"	12' 6"	11' 3"	19' 6"	18' 1"	16' 3"	12' 2"	11' 3"	10' 1"	17' 6"	16' 3"	14' 7"	

#### Notes:

 For unbraced sections, allowable moment is based on 2012 AISI Specification Section C3.1.2 with weak axis and torsional unbraced length assumed to be the listed span (completely unbraced). For mid-span braced sections, allowable moment based on 2012 AISI Specification Section C3.1.2 with weak axis and torsional unbraced length assumed to be one-half of the listed span (bracing at mid-span).

- Web crippling calculation based on bearing length = 1 inch.

Web crippling and shear capacity have not been reduced for punchouts. If web punchouts occur near support members must be checked for reduced shear and web
crippling in accordance with the 2012 AISI Specification.

- Values are for simple span conditions.

e Web stiffeners required at support.

## ClarkDietrich LEED<sup>®</sup> INFORMATION AND REQUIREMENTS



ClarkDietrich LEED Request Form online at clarkdietrich.com

#### ClarkDietrich Building Systems LEED Services

ClarkDietrich Building Systems, Inc. is an active member of the U.S. Green Building Council with LEED® Accredited Professionals on staff. ClarkDietrich is committed to supplying quality products and continually looking for new ways to develop greener building products and sustainable business practices.



In total, ClarkDietrich products can help your project qualify for up to:

- 8 LEED points under LEED v4 for BD+C
- 7 LEED points under LEED 2009 (LEED-NC Version 2.2 and 3.0)

#### Environmental Product Declarations (EPD)

ClarkDietrich Building Systems, the largest manufacturer of cold-formed steel framing in North America, announced July 2015 a milestone in its ongoing commitment to supplying high-quality, environmentally responsible products. ClarkDietrich received third party-verified ISO-compliant Environmental Product Declarations (EPDs) for its complete steel product portfolio, including its popular ProSTUD® and ProSTUD® with DiamondPlus<sup>™</sup> Steel Framing Systems.

An EPD is a standardized, internationally recognized, comprehensive tool for providing information on a product's environmental impact. Verified by a third party, information in the document is based on an ISO-compliant Life Cycle Assessment (LCA). This detailed analysis considers all processes in the life cycle of a product, including raw material extraction and refining, energy use and efficiency during manufacture, in addition to transportation methods.

#### Health Product Declarations (HPDs)

ClarkDietrich also has Health Product Declarations (HPDs) for its complete steel product portfolio. The HPD Standard is solely a declaration of product content and direct health hazards associated with exposure to its individual contents.

ClarkDietrich plant locations: Riverside, CA

Sacramento, CA Bristol, CT Dade City, FL McDonough, GA Kapolei, HI Rochelle, IL Baltimore, MD Warren, OH Vienna, OH Baytown, TX Dallas, TX

## SUPPORT TOOLS





#### clarkdietrich.com

Visit to explore company information, design tools, technical documents, services and so much more. Featuring a unique product selector, our website is designed to deliver the details you want with a minimum number of clicks.



## iProSTUD.com

Going mobile? With your smartphone in hand, you can perform a fast, easy search, view ProSTUD limiting heights and even email submittal documents.



#### SubmittalPro®

We built this online technical submittal generator tool to make your job easier. Use it to quickly view data on our products and create your final submittal documents. Access SubmittalPro at clarkdietrich.com or on your desktop or smartphone.



#### Architectural Specification Review

Over time, project specifications can become outdated. For suggestions on how to improve the performance of your specifications, contact us about a complimentary review at 330-372-5564, ext. 244.



#### **Technical Services**

Count on ClarkDietrich Technical Services to respond to a variety of needs, from general questions on industry standards to specifics on accurate sizing. Call us at 888-437-3244.

## ProSTUD® & ProTRAK® CODE APPROVALS AND PERFORMANCE STANDARDS

ClarkDietrich® ProSTUD Drywall Framing System meets or exceeds these applicable performance standards.

AISI S100-12 North American Specification for the Design of Cold-Formed Steel Structural Members

AISI S220-15 North American Standard for Cold-Formed Steel Framing—Nonstructural Members

#### **ASTM American Society for Testing and Materials**

- A1003 "Material specification for steel sheet mechanical and chemical requirements"
- C645 "Standard Specification for Nonstructural Steel Framing Members"
- C754 "Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products"
- C1002 "Standard Specification for Steel Self Piercing Tapping Screw for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs"
- E119 "Standard Test Methods for Fire Tests of Building Construction and Materials"
- E72 "Standard Test Methods of Conducting Strength Tests of Panels for Building Construction"
- E90 "Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements"

UL<sup>®</sup> Underwriters Laboratories testing standard UL 263 "Fire Tests of Building Construction and Materials"

Independent product testing and certification

Sound ratings: (WEAL) Western Electro-Acoustic Laboratory Fire testing: (UL) Underwriters Laboratories Inc.

Multiple UL<sup>®</sup> design listings for ProSTUD Over 50 UL Designs. See UL file number R26512 for additional information.

For the complete listing of all Fire and Sound rated assemblies, visit www.clarkdietrich.com/testing-agencies.

UL<sup>®</sup> and UL<sup>®</sup> Design are service marks of Underwriters Laboratories, Inc.

ClarkDietrich Building Systems is a proud member of the Steel Framing Industry Association (SFIA). Check the updated list of Certified Production Facilities at Architectural Testing's website at www.archtest.com. Additional code approvals SFIA (Steel Framing Industry Association) ATI CCRR-0207.

LOCATIONS

## ClarkDietrich Building Systems Manufacturing and Sales Locations:

CALIFORNIA Riverside	CALIFORNIA Sacramento	CONNECTICUT Bristol	FLORIDA Dade City
P 951.360.3500	P 951.360.3500	P 866.921.0023	P 352.518.4400
F 951.360.3333	F 951.360.3333	F 860.584.6899	F 352.518.4450
<b>GEORGIA</b> McDonough	HAWAII Kapolei	ILLINOIS Rochelle	MARYLAND Baltimore
P 678.304.5500	P 951.360.3500	P 800.659.0745	P 410.477.4000
F 678.304.5555	F 951.360.3333	F 513.645.0750	F 410.477.1550
OHIO Warren East	OHIO Vienna	TEXAS Baytown	TEXAS Dallas
P 330.372.5564	P 330.372.4014	p 281.383.1617	P 214.350.1716
F 330.372.4055	F 330.372.1945	f 281.573.1679	F 214.350.7252
CLIP EXPRESS <sup>™</sup> —East	CLIP EXPRESS—West	VINYL CORP.	<b>STRAIT-FLEX</b>
P 866.638.1908	P 530.406.3462	P 800.648.4695	P 888.747.0220

## LEED® Services

BUILD GREEN with ClarkDietrich Building Systems ClarkDietrich Building Systems is an active member of the U.S. Green Building Council and is committed to supplying quality products that are environmentally responsible. We are continually working to develop greener building products and sustainable business practices. ClarkDietrich steel framing helps contribute points toward LEED® certification. For more details contact Technical Services at 888-437-3244 or visit www.clarkdietrich.com/LEED.

ClarkDietrich Building Systems has prepared this literature with the utmost diligence and care for accuracy and conformance to standards.

ClarkDietrich intends this information to be accurate, informative, and helpful as a selection guide for choosing ClarkDietrich Building System products. However, this information is only to be used for guidance and is not intended to replace the design, drawings, specifications, and decisions of a professional architect or engineer.

ClarkDietrich Building Systems or its affiliates shall not be responsible for incidental or consequential damages, directly or indirectly sustained, nor for loss caused by application of our products for other than their intended uses. Our liability is limited to replacement of defective products. Claims shall be deemed waived unless they are made to us in writing within thirty (30) days of the date a problem was or reasonably should have been discovered.

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## ClarkDietrich Engineering Services. A full spectrum of solutions.

Toll-Free Phone: 877.832.3206 Toll-Free Fax: 877.832.3208 Technical Services: 888.437.3244 Email: engineering@clarkdietrich.com

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