



● Compliance with International Codes
● Compliance with State Codes

ICC-ES Evaluation Report

ESR-2281

Reissued December 2020

Revised September 2022

This report is subject to renewal December 2022.

DIVISION: 05 00 00—METALS
Section: 05 40 00—Cold-Formed Metal Framing
Section: 05 41 00—Structural Metal Stud Framing

DIVISION: 09 00 00—FINISHES
Section: 09 22 16.13—Non-Structural Metal Stud Framing

REPORT HOLDER:

TELLING INDUSTRIES

EVALUATION SUBJECT:

METAL FRAMING

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2018, 2015, 2012, and 2009 *International Building Code*® (IBC)
- 2018, 2015, 2012, and 2009 *International Residential Code*® (IRC)

Property evaluated:

Structural

2.0 USES

Members with a minimum G40 coating are used as nonstructural members as defined by the North American Standard for Cold-Formed Steel Framing – Nonstructural Members (AISI S220).

Members with a minimum G60 coating are used as structural members as defined by the North American Standard for Cold-Formed Steel Structural Framing (AISI S240) and the North American Standard for Cold-Formed Steel Framing - General Provisions (AISI S200), as applicable and may also be used as nonstructural members.

3.0 DESCRIPTION

3.1 General:

The metal framing members described in this report are factory-formed from coils of steel at the facilities noted in Table 8. See Tables 1, 2, 5 and 6, and Figure 1, for

recognized profiles and section names. The C-sections (studs) are manufactured with and without web punch-outs. When provided, punch-outs have a width no greater than one-half the member web height ($d/2$). Punch-out dimensions will vary with web width. Typical punch-out size for web widths greater than 3 inches (76 mm) is 1½ inches (38 mm) by 3 inches (76 mm) or 1½ inches (38 mm) by 4 inches (102 mm). Typical punch-out size for web widths less than 3 inches (76 mm) is ¾ inch (19 mm) by 2½ inches (64 mm) or ¾ inch (19 mm) by 4 inches (102 mm). See Figure 2 for an illustration of punch-outs. The punch-outs are located along the centerline of the webs of the studs with a minimum center-to-center spacing of 24 inches (610 mm). The minimum distance between the end of the stud and the near edge of the web punch-outs is 10 inches (254 mm). The values for studs in each of the tables of this report are for studs with punch-outs unless otherwise noted.

C-sections with 1.25-inch (32 mm) flanges may have indentations on the flanges. All other surfaces are flat, smooth surfaces. All surfaces of all other members are flat and smooth.

3.2 Materials:

Telling Industries metal framing members are cold-formed from steel coils conforming to ASTM A1003 ST33H or ASTM A1003 ST50H for members with a thickness of 33 mils or more, and ASTM A1003 NS33 for members with a thickness of less than 33 mils. The members have either a minimum G40 or G60 galvanized coating. The base-metal thickness is specified in Tables 1 through 6.

4.0 DESIGN AND INSTALLATION

4.1 Design:

The section properties indicated in Tables 3 through 6 have been determined in accordance with the North American Specification for Design of Cold-formed Steel Structural Members (AISI S100). The allowable moments, M_a , as indicated in Tables 3 through 6, are for use with Allowable Strength Design (ASD) and are for flexural members installed with the compression flange continuously braced. For other conditions of compression flange bracing, the allowable moment must be determined in accordance with AISI S100. The design of members must address web

cripling, combined bending and web crippling, and combined bending and shear, as applicable, in accordance with the AISI S100.C-sections (studs) listed in Table 7 and channels (tracks) qualify for use with the prescriptive requirements of the IRC. For use of all other sections under the IRC, the cold-formed steel framing members must be limited to engineered structures, in accordance with IRC Section R301.1.3.

4.2 Installation:

The framing members must be installed in accordance with the code, the approved plans and this report. If there is a conflict between the plans submitted for approval and this report, this report governs. The approved plans must be made available at the jobsite at all times.

5.0 CONDITIONS OF USE

The Telling Industries metal framing described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 The cold-formed steel members are installed in accordance with the code, the approved plans and this report.
- 5.2 Minimum uncoated base-metal thickness of the cold-formed steel members as delivered to the jobsite are at least 95 percent of the design base-metal thickness noted in Tables 1, 2, 5 and 6.
- 5.3 Complete plans and calculations verifying compliance with this report must be submitted to the code official for each project at the time of permit application. The calculations and drawings must be prepared and sealed by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.
- 5.4 The cold-formed steel members are manufactured under an approved quality control program by ICC-ES.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Cold-formed Steel Framing Members (AC46), dated February 2019.

7.0 IDENTIFICATION

- 7.1 At a spacing not exceeding 96 inches (2440 mm) on center, each cold-formed steel member is stamped with the Telling Industries name or initials (TI); the section name as described in Tables 1 through 6; the evaluation report number (ESR-2281); the minimum uncoated base-metal thickness in mils or decimal inches; in addition to the following:
 - For nonstructural members, each member must have the minimum specified yield strength (if other than 33 ksi), and the designation "NS".
 - For structural members, each member must have the minimum specified yield strength; and the designation CP 60 for the G60 galvanized coating.
- 7.2 The report holder's contact information is the following:

TELLING INDUSTRIES
4420 SHERWIN ROAD
WILLOUGHBY, OHIO 44094
(440) 974-3370
www.buildstrong.com
technical@tellingindustries.com

TABLE 1—C-SECTIONS (STUDS)¹

SECTION	DEPTH ² (in)	FLANGE (in)	LIP (in)	INSIDE CORNER RADII (in)	MILS	DESIGN THICK. (in)	MIN. BASE METAL THICK. ³ (in)	SECTION	DEPTH ² (in)	FLANGE (in)	LIP (in)	INSIDE CORNER RADII (in)	MILS	DESIGN THICK. (in)	MIN. BASE METAL THICK. ³ (in)
162S125-18	1.625	1.25	0.1875	0.0843	18	0.0188	0.0179	362S125-43	3.625	1.25	0.1875	0.0712	43	0.0451	0.0428
162S125-27	1.625	1.25	0.1875	0.0796	27	0.0283	0.0269	362S125-54	3.625	1.25	0.1875	0.0849	54	0.0566	0.0538
162S125-30	1.625	1.25	0.1875	0.0781	30	0.0312	0.0296	362S125-68	3.625	1.25	0.1875	0.1069	68	0.0713	0.0677
162S125-33	1.625	1.25	0.1875	0.0764	33	0.0346	0.0329	362S137-33	3.625	1.375	0.375	0.0764	33	0.0346	0.0346
250S125-18	2.5	1.25	0.1875	0.0843	18	0.0188	0.0179	362S137-43	3.625	1.375	0.375	0.0712	43	0.0451	0.0451
250S125-27	2.5	1.25	0.1875	0.0796	27	0.0283	0.0269	362S137-54	3.625	1.375	0.375	0.0849	54	0.0566	0.0566
250S125-30	2.5	1.25	0.1875	0.0781	30	0.0312	0.0296	362S137-68	3.625	1.375	0.375	0.1069	68	0.0713	0.0713
250S125-33	2.5	1.25	0.1875	0.0764	33	0.0346	0.0329	362S137-97	3.625	1.375	0.375	0.1525	97	0.1017	0.1017
250S125-43	2.5	1.25	0.1875	0.0712	43	0.0451	0.0428	362S162-33	3.625	1.625	0.5	0.0764	33	0.0346	0.0346
250S125-54	2.5	1.25	0.1875	0.0849	54	0.0566	0.0538	362S162-43	3.625	1.625	0.5	0.0712	43	0.0451	0.0451
250S125-68	2.5	1.25	0.1875	0.1069	68	0.0713	0.0677	362S162-54	3.625	1.625	0.5	0.0849	54	0.0566	0.0566
250S137-33	2.5	1.375	0.375	0.0764	33	0.0346	0.0329	362S162-68	3.625	1.625	0.5	0.1069	68	0.0713	0.0713
250S137-43	2.5	1.375	0.375	0.0712	43	0.0451	0.0428	362S162-97	3.625	1.625	0.5	0.1525	97	0.1017	0.1017
250S137-54	2.5	1.375	0.375	0.0849	54	0.0566	0.0538	362S162-118	3.625	1.625	0.5	0.1863	118	0.1242	0.1180
250S137-68	2.5	1.375	0.375	0.1069	68	0.0713	0.0677	362S200-33	3.625	2	0.625	0.0764	33	0.0346	0.0346
250S137-97	2.5	1.375	0.375	0.1525	97	0.1017	0.0966	362S200-43	3.625	2	0.625	0.0712	43	0.0451	0.0451
250S162-33	2.5	1.625	0.5	0.0764	33	0.0346	0.0329	362S200-54	3.625	2	0.625	0.0849	54	0.0566	0.0566
250S162-43	2.5	1.625	0.5	0.0712	43	0.0451	0.0428	362S200-68	3.625	2	0.625	0.1069	68	0.0713	0.0713
250S162-54	2.5	1.625	0.5	0.0849	54	0.0566	0.0538	362S200-97	3.625	2	0.625	0.1525	97	0.1017	0.1017
250S162-68	2.5	1.625	0.5	0.1069	68	0.0713	0.0677	362S200-118	3.625	2	0.625	0.1863	118	0.1242	0.1180
250S162-97	2.5	1.625	0.5	0.1525	97	0.1017	0.0966	362S250-43	3.625	2.5	0.625	0.0712	43	0.0451	0.0451
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250S200-43	2.5	2	0.625	0.0712	43	0.0451	0.0428	362S250-68	3.625	2.5	0.625	0.1069	68	0.0713	0.0713
250S200-54	2.5	2	0.625	0.0849	54	0.0566	0.0538	362S250-97	3.625	2.5	0.625	0.1525	97	0.1017	0.1017
250S200-68	2.5	2	0.625	0.1069	68	0.0713	0.0677	362S250-118	3.625	2.5	0.625	0.1863	118	0.1242	0.1180
250S200-97	2.5	2	0.625	0.1525	97	0.1017	0.0966	362S300-54	3.625	3	1	0.0849	54	0.0566	0.0566
250S250-43	2.5	2.5	0.625	0.0712	43	0.0451	0.0428	362S300-68	3.625	3	1	0.1069	68	0.0713	0.0713
250S250-54	2.5	2.5	0.625	0.0849	54	0.0566	0.0538	362S300-97	3.625	3	1	0.1525	97	0.1017	0.1017
250S250-68	2.5	2.5	0.625	0.1069	68	0.0713	0.0677	362S300-118	3.625	3	1	0.1863	118	0.1242	0.1180
250S250-97	2.5	2.5	0.625	0.1525	97	0.1017	0.0966	362S350-54	3.625	3.5	1	0.0849	54	0.0566	0.0566
350S125-18	3.5	1.25	0.1875	0.0843	18	0.0188	0.0179	362S350-68	3.625	3.5	1	0.1069	68	0.0713	0.0713
350S125-27	3.5	1.25	0.1875	0.0796	27	0.0283	0.0269	362S350-97	3.625	3.5	1	0.1525	97	0.1017	0.1017
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350S125-33	3.5	1.25	0.1875	0.0764	33	0.0346	0.0329	400S125-18 ⁴	4	1.25	0.1875	0.0843	18	0.0188	0.0179
350S125-43	3.5	1.25	0.1875	0.0712	43	0.0451	0.0428	400S125-27	4	1.25	0.1875	0.0796	27	0.0283	0.0269
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350S137-43	3.5	1.375	0.375	0.0712	43	0.0451	0.0428	400S125-54	4	1.25	0.1875	0.0849	54	0.0566	0.0538
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350S162-54	3.5	1.625	0.5	0.0849	54	0.0566	0.0538	400S137-97	4	1.375	0.375	0.1525	97	0.1017	0.1017
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350S162-118	3.5	1.625	0.5	0.1863	118	0.1242	0.1180	400S162-54	4	1.625	0.5	0.0849	54	0.0566	0.0566
350S200-33	3.5	2	0.625	0.0764	33	0.0346	0.0329	400S162-68	4	1.625	0.5	0.1069	68	0.0713	0.0713
350S200-43	3.5	2	0.625	0.0712	43	0.0451	0.0428	400S162-97	4	1.625	0.5	0.1525	97	0.1017	0.1017
350S200-54	3.5	2	0.625	0.0849	54	0.0566	0.0538	400S162-118	4	1.625	0.5	0.1863	118	0.1242	0.1180
350S200-68	3.5	2	0.625	0.1069	68	0.0713	0.0677	400S200-33	4	2	0.625	0.0764	33	0.0346	0.0346
350S200-97	3.5	2	0.625	0.1525	97	0.1017	0.0966	400S200-43	4	2	0.625	0.0712	43	0.0451	0.0451
350S200-118	3.5	2	0.625	0.1863	118	0.1242	0.1180	400S200-54	4	2	0.625	0.0849	54	0.0566	0.0566
350S250-43	3.5	2.5	0.625	0.0712	43	0.0451	0.0428	400S200-68	4	2	0.625	0.1069	68	0.0713	0.0713
350S250-54	3.5	2.5	0.625	0.0849	54	0.0566	0.0538	400S200-97	4	2	0.625	0.1525	97	0.1017	0.1017
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350S250-97	3.5	2.5	0.625	0.1525	97	0.1017	0.0966	400S250-43	4	2.5	0.625	0.0712	43	0.0451	0.0451
350S250-118	3.5	2.5	0.625	0.1863	118	0.1242	0.1180	400S250-54	4	2.5	0.625	0.0849	54	0.0566	0.0566
350S300-54	3.5	3	1	0.0849	54	0.0566	0.0538	400S250-68	4	2.5	0.625	0.1069	68	0.0713	0.0713
350S300-68	3.5	3	1	0.1069	68	0.0713	0.0677	400S250-97	4	2.5	0.625	0.1525	97	0.1017	0.1017
350S300-97	3.5	3	1	0.1525	97	0.1017	0.0966	400S250-118	4	2.5	0.625	0.1863	118	0.1242	0.1180
350S300-118	3.5	3	1	0.1863	118	0.1242	0.1180	400S300-54	4	3	1	0.0849	54	0.0566	0.0566
350S350-54	3.5	3.5	1	0.0849	54	0.0566	0.0538	400S300-68	4	3	1	0.1069	68	0.0713	0.0713
350S350-68	3.5	3.5	1	0.1069	68	0.0713	0.0677	400S300-97	4	3	1	0.1525	97	0.1017	0.1017
350S350-97	3.5	3.5	1	0.1525	97	0.1017	0.0966	400S300-118	4	3	1	0.1863	118	0.1242	0.1180
350S350-118	3.5	3.5	1	0.1863	118	0.1242	0.1180	400S350-54	4	3.5	1	0.0849	54	0.0566	0.0566
362S125-18	3.625	1.25	0.1875	0.0843	18	0.0188	0.0179	400S350-68	4	3.5	1	0.1069	68	0.0713	0.0713
362S125-27	3.625	1.25	0.1875	0.0796	27	0.0283	0.0269	400S350-97	4	3.5	1	0.1525	97	0.1017	0.1017
362S125-30	3.625	1.25	0.1875	0.0781	30	0.0312	0.0296	400S350-118	4	3.5	1	0.1863	118	0.1242	0.1180
362S125-33	3.625	1.25	0.1875	0.0764	33	0.0346	0.0329								

Table 1 continued on next page.

TABLE 1—C-SECTIONS (STUDS)¹ (Continued)

SECTION	DEPTH ² (in)	FLANGE (in)	LIP (in)	INSIDE CORNER RADII (in)	MILS	DESIGN THICK. (in)	MIN. BASE METAL THICK. ³ (in)	SECTION	DEPTH ² (in)	FLANGE (in)	LIP (in)	INSIDE CORNER RADII (in)	MILS	DESIGN THICK. (in)	MIN. BASE METAL THICK. ³ (in)
550S125-27	5.5	1.25	0.1875	0.0796	27	0.0283	0.0269	725S125-27 ⁴	7.25	1.25	0.1875	0.0796	27	0.0283	0.0269
550S125-30	5.5	1.25	0.1875	0.0781	30	0.0312	0.0296	725S125-30 ⁴	7.25	1.25	0.1875	0.0781	30	0.0312	0.0296
550S125-33	5.5	1.25	0.1875	0.0764	33	0.0346	0.0329	725S125-33 ⁴	7.25	1.25	0.1875	0.0764	33	0.0346	0.0329
550S125-43	5.5	1.25	0.1875	0.0712	43	0.0451	0.0428	725S125-43	7.25	1.25	0.1875	0.0712	43	0.0451	0.0428
550S125-54	5.5	1.25	0.1875	0.0849	54	0.0566	0.0538	725S125-54	7.25	1.25	0.1875	0.0849	54	0.0566	0.0538
550S125-68	5.5	1.25	0.1875	0.1069	68	0.0713	0.0677	725S125-68	7.25	1.25	0.1875	0.1069	68	0.0713	0.0677
550S137-33	5.5	1.375	0.375	0.0764	33	0.0346	0.0329	725S137-33 ⁴	7.25	1.375	0.375	0.0764	33	0.0346	0.0329
550S137-43	5.5	1.375	0.375	0.0712	43	0.0451	0.0428	725S137-43	7.25	1.375	0.375	0.0712	43	0.0451	0.0428
550S137-54	5.5	1.375	0.375	0.0849	54	0.0566	0.0538	725S137-54	7.25	1.375	0.375	0.0849	54	0.0566	0.0538
550S137-68	5.5	1.375	0.375	0.1069	68	0.0713	0.0677	725S137-68	7.25	1.375	0.375	0.1069	68	0.0713	0.0677
550S137-97	5.5	1.375	0.375	0.1525	97	0.1017	0.0966	725S137-97	7.25	1.375	0.375	0.1525	97	0.1017	0.0966
550S162-33	5.5	1.625	0.5	0.0764	33	0.0346	0.0329	725S162-33 ⁴	7.25	1.625	0.5	0.0764	33	0.0346	0.0329
550S162-43	5.5	1.625	0.5	0.0712	43	0.0451	0.0428	725S162-43	7.25	1.625	0.5	0.0712	43	0.0451	0.0428
550S162-54	5.5	1.625	0.5	0.0849	54	0.0566	0.0538	725S162-54	7.25	1.625	0.5	0.0849	54	0.0566	0.0538
550S162-68	5.5	1.625	0.5	0.1069	68	0.0713	0.0677	725S162-68	7.25	1.625	0.5	0.1069	68	0.0713	0.0677
550S162-97	5.5	1.625	0.5	0.1525	97	0.1017	0.0966	725S162-97	7.25	1.625	0.5	0.1525	97	0.1017	0.0966
550S162-118	5.5	1.625	0.5	0.1863	118	0.1242	0.1180	725S162-118	7.25	1.625	0.5	0.1863	118	0.1242	0.1180
550S200-33	5.5	2	0.625	0.0764	33	0.0346	0.0329	725S200-33 ⁴	7.25	2	0.625	0.0764	33	0.0346	0.0329
550S200-43	5.5	2	0.625	0.0712	43	0.0451	0.0428	725S200-43	7.25	2	0.625	0.0712	43	0.0451	0.0428
550S200-54	5.5	2	0.625	0.0849	54	0.0566	0.0538	725S200-54	7.25	2	0.625	0.0849	54	0.0566	0.0538
550S200-68	5.5	2	0.625	0.1069	68	0.0713	0.0677	725S200-68	7.25	2	0.625	0.1069	68	0.0713	0.0677
550S200-97	5.5	2	0.625	0.1525	97	0.1017	0.0966	725S200-97	7.25	2	0.625	0.1525	97	0.1017	0.0966
550S200-118	5.5	2	0.625	0.1863	118	0.1242	0.1180	725S200-118	7.25	2	0.625	0.1863	118	0.1242	0.1180
550S250-43	5.5	2.5	0.625	0.0712	43	0.0451	0.0428	725S250-43	7.25	2.5	0.625	0.0712	43	0.0451	0.0428
550S250-54	5.5	2.5	0.625	0.0849	54	0.0566	0.0538	725S250-54	7.25	2.5	0.625	0.0849	54	0.0566	0.0538
550S250-68	5.5	2.5	0.625	0.1069	68	0.0713	0.0677	725S250-68	7.25	2.5	0.625	0.1069	68	0.0713	0.0677
550S250-97	5.5	2.5	0.625	0.1525	97	0.1017	0.0966	725S250-97	7.25	2.5	0.625	0.1525	97	0.1017	0.0966
550S250-118	5.5	2.5	0.625	0.1863	118	0.1242	0.1180	725S250-118	7.25	2.5	0.625	0.1863	118	0.1242	0.1180
550S300-54	5.5	3	1	0.0849	54	0.0566	0.0538	725S300-54	7.25	3	1	0.0849	54	0.0566	0.0538
550S300-68	5.5	3	1	0.1069	68	0.0713	0.0677	725S300-68	7.25	3	1	0.1069	68	0.0713	0.0677
550S300-97	5.5	3	1	0.1525	97	0.1017	0.0966	725S300-97	7.25	3	1	0.1525	97	0.1017	0.0966
550S300-118	5.5	3	1	0.1863	118	0.1242	0.1180	725S300-118	7.25	3	1	0.1863	118	0.1242	0.1180
550S350-54	5.5	3.5	1	0.0849	54	0.0566	0.0538	725S350-54	7.25	3.5	1	0.0849	54	0.0566	0.0538
550S350-68	5.5	3.5	1	0.1069	68	0.0713	0.0677	725S350-68	7.25	3.5	1	0.1069	68	0.0713	0.0677
550S350-97	5.5	3.5	1	0.1525	97	0.1017	0.0966	725S350-97	7.25	3.5	1	0.1525	97	0.1017	0.0966
550S350-118	5.5	3.5	1	0.1863	118	0.1242	0.1180	725S350-118	7.25	3.5	1	0.1863	118	0.1242	0.1180
600S125-27 ⁴	6	1.25	0.1875	0.0796	27	0.0283	0.0269	800S125-30 ⁴	8	1.25	0.1875	0.0781	30	0.0312	0.0296
600S125-30	6	1.25	0.1875	0.0781	30	0.0312	0.0296	800S125-33 ⁴	8	1.25	0.1875	0.0764	33	0.0346	0.0329
600S125-33	6	1.25	0.1875	0.0764	33	0.0346	0.0329	800S125-43	8	1.25	0.1875	0.0712	43	0.0451	0.0428
600S125-43	6	1.25	0.1875	0.0712	43	0.0451	0.0428	800S125-54	8	1.25	0.1875	0.0849	54	0.0566	0.0538
600S125-54	6	1.25	0.1875	0.0849	54	0.0566	0.0538	800S125-68	8	1.25	0.1875	0.1069	68	0.0713	0.0677
600S125-68	6	1.25	0.1875	0.1069	68	0.0713	0.0677	800S137-33 ⁴	8	1.375	0.375	0.0764	33	0.0346	0.0329
600S125-97	6	1.25	0.1875	0.1525	97	0.1017	0.0966	800S137-43	8	1.375	0.375	0.0712	43	0.0451	0.0428
600S137-33	6	1.375	0.375	0.0764	33	0.0346	0.0329	800S137-54	8	1.375	0.375	0.0849	54	0.0566	0.0538
600S137-43	6	1.375	0.375	0.0712	43	0.0451	0.0428	800S137-68	8	1.375	0.375	0.1069	68	0.0713	0.0677
600S137-54	6	1.375	0.375	0.0849	54	0.0566	0.0538	800S137-97	8	1.375	0.375	0.1525	97	0.1017	0.0966
600S137-68	6	1.375	0.375	0.1069	68	0.0713	0.0677	800S162-33 ⁴	8	1.625	0.5	0.0764	33	0.0346	0.0329
600S137-97	6	1.375	0.375	0.1525	97	0.1017	0.0966	800S162-43	8	1.625	0.5	0.0712	43	0.0451	0.0428
600S162-33	6	1.625	0.5	0.0764	33	0.0346	0.0329	800S162-54	8	1.625	0.5	0.0849	54	0.0566	0.0538
600S162-43	6	1.625	0.5	0.0712	43	0.0451	0.0428	800S162-68	8	1.625	0.5	0.1069	68	0.0713	0.0677
600S162-54	6	1.625	0.5	0.0849	54	0.0566	0.0538	800S162-97	8	1.625	0.5	0.1525	97	0.1017	0.0966
600S162-68	6	1.625	0.5	0.1069	68	0.0713	0.0677	800S162-118	8	1.625	0.5	0.1863	118	0.1242	0.1180
600S162-97	6	1.625	0.5	0.1525	97	0.1017	0.0966	800S200-33 ⁴	8	2	0.625	0.0764	33	0.0346	0.0329
600S162-118	6	1.625	0.5	0.1863	118	0.1242	0.1180	800S200-43	8	2	0.625	0.0712	43	0.0451	0.0428
600S200-33	6	2	0.625	0.0764	33	0.0346	0.0329	800S200-54	8	2	0.625	0.0849	54	0.0566	0.0538
600S200-43	6	2	0.625	0.0712	43	0.0451	0.0428	800S200-68	8	2	0.625	0.1069	68	0.0713	0.0677
600S200-54	6	2	0.625	0.0849	54	0.0566	0.0538	800S200-97	8	2	0.625	0.1525	97	0.1017	0.0966
600S200-68	6	2	0.625	0.1069	68	0.0713	0.0677	800S200-118	8	2	0.625	0.1863	118	0.1242	0.1180
600S200-97	6	2	0.625	0.1525	97	0.1017	0.0966	800S250-43	8	2.5	0.625	0.0712	43	0.0451	0.0428
600S200-118	6	2	0.625	0.1863	118	0.1242	0.1180	800S250-54	8	2.5	0.625	0.0849	54	0.0566	0.0538
600S250-43	6	2.5	0.625	0.0712	43	0.0451	0.0428	800S250-68	8	2.5	0.625	0.1069	68	0.0713	0.0677
600S250-54	6	2.5	0.625	0.0849	54	0.0566	0.0538	800S250-97	8	2.5	0.625	0.1525	97	0.1017	0.0966
600S250-68	6	2.5	0.625	0.1069	68	0.0713	0.0677	800S250-118	8	2.5	0.625	0.1863	118	0.1242	0.1180
600S250-97	6	2.5	0.625	0.1525	97	0.1017	0.0966	800S300-54	8	3	1	0.0849	54	0.0566	0.0538
600S250-118	6	2.5	0.625	0.1863	118	0.1242	0.1180	800S300-68	8	3	1	0.1069	68	0.0713	0.0677
600S300-54	6	3	1	0.0849	54	0.0566	0.0538	800S300-97	8	3	1	0.1525	97	0.1017	0.0966
600S300-68	6	3	1	0.1069	68	0.0713	0.0677	800S300-118	8	3	1	0.1863	118	0.1242	0.1180
600S300-97	6	3	1	0.1525	97	0.1017	0.0966	800S350-54	8	3	1	0.0849	54	0.0566	0.0538
600S300-118	6	3	1	0.1863	118	0.1242	0.1180	800S350-68	8	3	1	0.1069	68	0.0713	0.0677
600S350-54	6	3.5	1	0.0849	54	0.0566	0.0538	800S350-97	8	3	1	0.1525	97	0.1017	0.0966
600S350-68	6	3.5	1	0.1069	68	0.0713	0.0677	800S350-118	8	3.5	1	0.1863	118	0.1242	0.1180
600S350-97	6	3.5	1	0.1525	97	0.1017	0.0966								
600S350-118	6	3.5	1	0.1863	118	0.1242	0.1180								

TABLE 1—C-SECTIONS (STUDS)¹ (Continued)

SECTION	DEPTH ² (in)	FLANGE (in)	LIP (in)	INSIDE CORNER RADII (in)	MILS	DESIGN THICK. (in)	MIN. BASE METAL THICK. ³ (in)	SECTION	DEPTH ² (in)	FLANGE (in)	LIP (in)	INSIDE CORNER RADII (in)	MILS	DESIGN THICK. (in)	MIN. BASE METAL THICK. ³ (in)
925S137-43	9.25	1.375	0.375	0.0712	43	0.0451	0.0428	1150S200-43 ⁴	11.5	2	0.625	0.0712	43	0.0451	0.0428
925S137-54	9.25	1.375	0.375	0.0849	54	0.0566	0.0538	1150S200-54	11.5	2	0.625	0.0849	54	0.0566	0.0538
925S137-68	9.25	1.375	0.375	0.1069	68	0.0713	0.0677	1150S200-68	11.5	2	0.625	0.1069	68	0.0713	0.0677
925S137-97	9.25	1.375	0.375	0.1525	97	0.1017	0.0966	1150S200-97	11.5	2	0.625	0.1525	97	0.1017	0.0966
925S162-43	9.25	1.625	0.5	0.0712	43	0.0451	0.0428	1150S200-118	11.5	2	0.625	0.1863	118	0.1242	0.1180
925S162-54	9.25	1.625	0.5	0.0849	54	0.0566	0.0538	1150S250-43 ⁴	11.5	2	0.625	0.0712	43	0.0451	0.0428
925S162-68	9.25	1.625	0.5	0.1069	68	0.0713	0.0677	1150S250-54	11.5	2	0.625	0.0849	54	0.0566	0.0538
925S162-97	9.25	1.625	0.5	0.1525	97	0.1017	0.0966	1150S250-68	11.5	2.5	0.625	0.1069	68	0.0713	0.0677
925S162-118	9.25	1.625	0.5	0.1863	118	0.1242	0.1180	1150S250-97	11.5	2.5	0.625	0.1525	97	0.1017	0.0966
925S200-43	9.25	2	0.625	0.0712	43	0.0451	0.0428	1150S250-118	11.5	2.5	0.625	0.1863	118	0.1242	0.1180
925S200-54	9.25	2	0.625	0.0849	54	0.0566	0.0538	1150S300-54	11.5	3	1	0.0849	54	0.0566	0.0538
925S200-68	9.25	2	0.625	0.1069	68	0.0713	0.0677	1150S300-68	11.5	3	1	0.1069	68	0.0713	0.0677
925S200-97	9.25	2	0.625	0.1525	97	0.1017	0.0966	1150S300-97	11.5	3	1	0.1525	97	0.1017	0.0966
925S200-118	9.25	2	0.625	0.1863	118	0.1242	0.1180	1150S300-118	11.5	3	1	0.1863	118	0.1242	0.1180
925S250-43	9.25	2.5	0.625	0.0712	43	0.0451	0.0428	1150S350-54	11.5	3	1	0.0849	54	0.0566	0.0538
925S250-54	9.25	2.5	0.625	0.0849	54	0.0566	0.0538	1150S350-68	11.5	3	1	0.1069	68	0.0713	0.0677
925S250-68	9.25	2.5	0.625	0.1069	68	0.0713	0.0677	1150S350-97	11.5	3	1	0.1525	97	0.1017	0.0966
925S250-97	9.25	2.5	0.625	0.1525	97	0.1017	0.0966	1150S350-118	11.5	3	1	0.1863	118	0.1242	0.1180
925S250-118	9.25	2.5	0.625	0.1863	118	0.1242	0.1180	1200S137-54 ⁴	12	1.375	0.375	0.0849	54	0.0566	0.0538
925S300-54	9.25	3	1	0.0849	54	0.0566	0.0538	1200S137-68	12	1.375	0.375	0.1069	68	0.0713	0.0677
925S300-68	9.25	3	1	0.1069	68	0.0713	0.0677	1200S137-97	12	1.375	0.375	0.1525	97	0.1017	0.0966
925S300-97	9.25	3	1	0.1525	97	0.1017	0.0966	1200S162-54 ⁴	12	1.625	0.5	0.0849	54	0.0566	0.0538
925S300-118	9.25	3	1	0.1863	118	0.1242	0.1180	1200S162-68	12	1.625	0.5	0.1069	68	0.0713	0.0677
925S350-54	9.25	3.5	1	0.0849	54	0.0566	0.0538	1200S162-97	12	1.625	0.5	0.1525	97	0.1017	0.0966
925S350-68	9.25	3.5	1	0.1069	68	0.0713	0.0677	1200S162-118	12	1.625	0.5	0.1863	118	0.1242	0.1180
925S350-97	9.25	3.5	1	0.1525	97	0.1017	0.0966	1200S200-54 ⁴	12	2	0.625	0.0849	54	0.0566	0.0538
925S350-118	9.25	3.5	1	0.1863	118	0.1242	0.1180	1200S200-68	12	2	0.625	0.1069	68	0.0713	0.0677
1000S137-43 ⁴	10	1.375	0.375	0.0712	43	0.0451	0.0428	1200S200-97	12	2	0.625	0.1525	97	0.1017	0.0966
1000S137-54	10	1.375	0.375	0.0849	54	0.0566	0.0538	1200S200-118	12	2	0.625	0.1863	118	0.1242	0.1180
1000S137-68	10	1.375	0.375	0.1069	68	0.0713	0.0677	1200S250-54 ⁴	12	2.5	0.625	0.0849	54	0.0566	0.0538
1000S137-97	10	1.375	0.375	0.1525	97	0.1017	0.0966	1200S250-68	12	2.5	0.625	0.1069	68	0.0713	0.0677
1000S162-43 ⁴	10	1.625	0.5	0.0712	43	0.0451	0.0428	1200S250-97	12	2.5	0.625	0.1525	97	0.1017	0.0966
1000S162-54	10	1.625	0.5	0.0849	54	0.0566	0.0538	1200S250-118	12	2.5	0.625	0.1863	118	0.1242	0.1180
1000S162-68	10	1.625	0.5	0.1069	68	0.0713	0.0677	1200S300-54 ⁴	12	3	1	0.0849	54	0.0566	0.0538
1000S162-97	10	1.625	0.5	0.1525	97	0.1017	0.0966	1200S300-68	12	3	1	0.1069	68	0.0713	0.0677
1000S162-118	10	1.625	0.5	0.1863	118	0.1242	0.1180	1200S300-97	12	3	1	0.1525	97	0.1017	0.0966
1000S200-43 ⁴	10	2	0.625	0.0712	43	0.0451	0.0428	1200S300-118	12	3	1	0.1863	118	0.1242	0.1180
1000S200-54	10	2	0.625	0.0849	54	0.0566	0.0538	1200S350-54 ⁴	12	3.5	1	0.0849	54	0.0566	0.0538
1000S200-68	10	2	0.625	0.1069	68	0.0713	0.0677	1200S350-68	12	3.5	1	0.1069	68	0.0713	0.0677
1000S200-97	10	2	0.625	0.1525	97	0.1017	0.0966	1200S350-97	12	3.5	1	0.1525	97	0.1017	0.0966
1000S200-118	10	2	0.625	0.1863	118	0.1242	0.1180	1200S350-118	12	3.5	1	0.1863	118	0.1242	0.1180
1000S250-43 ⁴	10	2.5	0.625	0.0712	43	0.0451	0.0428	1350S137-54 ⁴	13.5	1.375	0.375	0.0849	54	0.0566	0.0538
1000S250-54	10	2.5	0.625	0.0849	54	0.0566	0.0538	1350S137-68	13.5	1.375	0.375	0.1069	68	0.0713	0.0677
1000S250-68	10	2.5	0.625	0.1069	68	0.0713	0.0677	1350S137-97	13.5	1.375	0.375	0.1525	97	0.1017	0.0966
1000S250-97	10	2.5	0.625	0.1525	97	0.1017	0.0966	1350S162-54 ⁴	13.5	1.625	0.5	0.0849	54	0.0566	0.0538
1000S250-118	10	2.5	0.625	0.1863	118	0.1242	0.1180	1350S162-68	13.5	1.625	0.5	0.1069	68	0.0713	0.0677
1000S300-54	10	3	1	0.0849	54	0.0566	0.0538	1350S162-97	13.5	1.625	0.5	0.1525	97	0.1017	0.0966
1000S300-68	10	3	1	0.1069	68	0.0713	0.0677	1350S162-118	13.5	1.625	0.5	0.1863	118	0.1242	0.1180
1000S300-97	10	3	1	0.1525	97	0.1017	0.0966	1350S200-54 ⁴	13.5	2	0.625	0.0849	54	0.0566	0.0538
1000S300-118	10	3	1	0.1863	118	0.1242	0.1180	1350S200-68	13.5	2	0.625	0.1069	68	0.0713	0.0677
1000S350-54	10	3.5	1	0.0849	54	0.0566	0.0538	1350S200-97	13.5	2	0.625	0.1525	97	0.1017	0.0966
1000S350-68	10	3.5	1	0.1069	68	0.0713	0.0677	1350S200-118	13.5	2	0.625	0.1863	118	0.1242	0.1180
1000S350-97	10	3.5	1	0.1525	97	0.1017	0.0966	1350S250-54 ⁴	13.5	2.5	0.625	0.0849	54	0.0566	0.0538
1000S350-118	10	3.5	1	0.1863	118	0.1242	0.1180	1350S250-68	13.5	2.5	0.625	0.1069	68	0.0713	0.0677
1150S137-43 ⁴	11.5	1.375	0.375	0.0712	43	0.0451	0.0428	1350S250-97	13.5	2.5	0.625	0.1525	97	0.1017	0.0966
1150S137-54	11.5	1.375	0.375	0.0849	54	0.0566	0.0538	1350S250-118	13.5	2.5	0.625	0.1863	118	0.1242	0.1180
1150S137-68	11.5	1.375	0.375	0.1069	68	0.0713	0.0677	1350S300-54 ⁴	13.5	3	1	0.0849	54	0.0566	0.0538
1150S137-97	11.5	1.375	0.375	0.1525	97	0.1017	0.0966	1350S300-68	13.5	3	1	0.1069	68	0.0713	0.0677
1150S162-43 ⁴	11.5	1.625	0.5	0.0712	43	0.0451	0.0428	1350S300-97	13.5	3	1	0.1525	97	0.1017	0.0966
1150S162-54	11.5	1.625	0.5	0.0849	54	0.0566	0.0538	1350S300-118	13.5	3	1	0.1863	118	0.1242	0.1180
1150S162-68	11.5	1.625	0.5	0.1069	68	0.0713	0.0677	1350S350-54 ⁴	13.5	3.5	1	0.0849	54	0.0566	0.0538
1150S162-97	11.5	1.625	0.5	0.1525	97	0.1017	0.0966	1350S350-68	13.5	3.5	1	0.1069	68	0.0713	0.0677
1150S162-118	11.5	1.625	0.5	0.1863	118	0.1242	0.1180	1350S350-97	13.5	3.5	1	0.1525	97	0.1017	0.0966
								1350S350-118	13.5	3.5	1	0.1863	118	0.1242	0.1180

Table 1 continued on next page.

TABLE 1—C-SECTIONS (STUDS)¹ (Continued)

SECTION	DEPTH ² (in)	FLANGE (in)	LIP (in)	INSIDE CORNER RADII (in)	MILS	DESIGN THICK. (in)	MIN. BASE METAL THICK. ³ (in)	SECTION	DEPTH ² (in)	FLANGE (in)	LIP (in)	INSIDE CORNER RADII (in)	MILS	DESIGN THICK. (in)	MIN. BASE METAL THICK. ³ (in)
1400S137-54 ⁴	14	1.375	0.375	0.0849	54	0.0566	0.0538	1600S162-68 ⁴	16	1.625	0.625	0.1069	68	0.0713	0.0677
1400S137-68	14	1.375	0.375	0.1069	68	0.0713	0.0677	1600S162-97	16	1.625	0.625	0.1525	97	0.1017	0.0966
1400S137-97	14	1.375	0.375	0.1525	97	0.1017	0.0966	1600S162-118	16	1.625	0.625	0.1863	118	0.1242	0.1180
1400S162-54 ⁴	14	1.625	0.5	0.0849	54	0.0566	0.0538	1600S200-68 ⁴	16	2	0.625	0.1069	68	0.0713	0.0677
1400S162-68	14	1.625	0.5	0.1069	68	0.0713	0.0677	1600S200-97	16	2	0.625	0.1525	97	0.1017	0.0966
1400S162-97	14	1.625	0.5	0.1525	97	0.1017	0.0966	1600S200-118	16	2	0.625	0.1863	118	0.1242	0.1180
1400S162-118	14	1.625	0.5	0.1863	118	0.1242	0.1180	1600S250-68 ⁴	16	2.5	0.625	0.1069	68	0.0713	0.0677
1400S200-54 ⁴	14	2	0.625	0.0849	54	0.0566	0.0538	1600S250-97	16	2.5	0.625	0.1525	97	0.1017	0.0966
1400S200-68	14	2	0.625	0.1069	68	0.0713	0.0677	1600S250-118	16	2.5	0.625	0.1863	118	0.1242	0.1180
1400S200-97	14	2	0.625	0.1525	97	0.1017	0.0966	1600S300-68 ⁴	16	3	1	0.1069	68	0.0713	0.0677
1400S200-118	14	2	0.625	0.1863	118	0.1242	0.1180	1600S300-97	16	3	1	0.1525	97	0.1017	0.0966
1400S250-54 ⁴	14	2.5	0.625	0.0849	54	0.0566	0.0538	1600S300-118	16	3	1	0.1863	118	0.1242	0.1180
1400S250-68	14	2.5	0.625	0.1069	68	0.0713	0.0677	1600S350-68 ⁴	16	3.5	1	0.1069	68	0.0713	0.0677
1400S250-97	14	2.5	0.625	0.1525	97	0.1017	0.0966	1600S350-97	16	3.5	1	0.1525	97	0.1017	0.0966
1400S250-118	14	2.5	0.625	0.1863	118	0.1242	0.1180	1600S350-118	16	3.5	1	0.1863	118	0.1242	0.1180
1400S300-54 ⁴	14	3	1	0.0849	54	0.0566	0.0538								
1400S300-68	14	3	1	0.1069	68	0.0713	0.0677								
1400S300-97	14	3	1	0.1525	97	0.1017	0.0966								
1400S300-118	14	3	1	0.1863	118	0.1242	0.1180								
1400S350-54 ⁴	14	3.5	1	0.0849	54	0.0566	0.0538								
1400S350-68	14	3.5	1	0.1069	68	0.0713	0.0677								
1400S350-97	14	3.5	1	0.1525	97	0.1017	0.0966								
1400S350-118	14	3.5	1	0.1863	118	0.1242	0.1180								

For SI: 1 inch = 25.4 mm.

¹ See Table 3 for member properties. See Figure 1 for illustration of member cross section.

² Depth measured from outside face to outside face of flanges.

³ Base metal thickness of members, exclusive of coatings, delivered to the jobsite must be a minimum of 95 percent of the design thickness.

⁴ Web height-to-thickness ratio, h/t, exceeds 200. Web must have bearing stiffeners in accordance with AISI S100. No holes or punch-outs are permitted in the web.

TABLE 2—CHANNEL (TRACK) SECTIONS¹

SECTION	DEPTH ² (in)	FLANGE (in)	INSIDE CORNER RADI (in)	MILS	DESIGN THICK. (in)	MIN. BASE METAL THICK. ³ (in)	SECTION	DEPTH ² (in)	FLANGE (in)	INSIDE CORNER RADI (in)	MILS	DESIGN THICK. (in)	MIN. BASE METAL THICK. ³ (in)
162T125-18	1.625	1.25	0.0843	18	0.0188	0.0179	350T300-54	3.5	3	0.0849	54	0.0566	0.0538
162T125-27	1.625	1.25	0.0796	27	0.0283	0.0269	350T300-68	3.5	3	0.1069	68	0.0713	0.0677
162T125-30	1.625	1.25	0.0781	30	0.0312	0.0296	350T300-97	3.5	3	0.1525	97	0.1017	0.0966
162T125-33	1.625	1.25	0.0764	33	0.0346	0.0329	350T300-118	3.5	3	0.1863	118	0.1242	0.1180
162T125-43	1.625	1.25	0.0712	43	0.0451	0.0428	350T400-68	3.5	4	0.1069	68	0.0713	0.0677
162T125-54	1.625	1.25	0.0849	54	0.0566	0.0538	350T400-97	3.5	4	0.1525	97	0.1017	0.0966
162T125-68	1.625	1.25	0.1069	68	0.0713	0.0677	350T400-118	3.5	4	0.1863	118	0.1242	0.1180
162T125-97	1.625	1.25	0.1525	97	0.1017	0.0966	362T125-18	3.625	1.25	0.0843	18	0.0188	0.0179
162T150-18	1.625	1.5	0.0843	18	0.0188	0.0179	362T125-27	3.625	1.25	0.0796	27	0.0283	0.0269
162T150-27	1.625	1.5	0.0796	27	0.0283	0.0269	362T125-30	3.625	1.25	0.0781	30	0.0312	0.0296
162T150-30	1.625	1.5	0.0781	30	0.0312	0.0296	362T125-33	3.625	1.25	0.0764	33	0.0346	0.0329
162T150-33	1.625	1.5	0.0764	33	0.0346	0.0329	362T125-43	3.625	1.25	0.0712	43	0.0451	0.0428
162T150-43	1.625	1.5	0.0712	43	0.0451	0.0428	362T125-54	3.625	1.25	0.0849	54	0.0566	0.0538
162T150-54	1.625	1.5	0.0849	54	0.0566	0.0538	362T125-68	3.625	1.25	0.1069	68	0.0713	0.0677
162T150-68	1.625	1.5	0.1069	68	0.0713	0.0677	362T125-97	3.625	1.25	0.1525	97	0.1017	0.0966
162T150-97	1.625	1.5	0.1525	97	0.1017	0.0966	362T125-118	3.625	1.25	0.1863	118	0.1242	0.1180
162T200-33	1.625	2	0.0764	33	0.0346	0.0329	362T150-27	3.625	1.5	0.0796	27	0.0283	0.0269
162T200-43	1.625	2	0.0712	43	0.0451	0.0428	362T150-30	3.625	1.5	0.0781	30	0.0312	0.0296
162T200-54	1.625	2	0.0849	54	0.0566	0.0538	362T150-33	3.625	1.5	0.0764	33	0.0346	0.0329
162T200-68	1.625	2	0.1069	68	0.0713	0.0677	362T150-43	3.625	1.5	0.0712	43	0.0451	0.0428
162T200-97	1.625	2	0.1525	97	0.1017	0.0966	362T150-54	3.625	1.5	0.0849	54	0.0566	0.0538
250T125-18	2.5	1.25	0.0843	18	0.0188	0.0179	362T150-68	3.625	1.5	0.1069	68	0.0713	0.0677
250T125-27	2.5	1.25	0.0796	27	0.0283	0.0269	362T150-97	3.625	1.5	0.1525	97	0.1017	0.0966
250T125-30	2.5	1.25	0.0781	30	0.0312	0.0296	362T150-118	3.625	1.5	0.1863	118	0.1242	0.1180
250T125-33	2.5	1.25	0.0764	33	0.0346	0.0329	362T200-33	3.625	2	0.0764	33	0.0346	0.0329
250T125-43	2.5	1.25	0.0712	43	0.0451	0.0428	362T200-43	3.625	2	0.0712	43	0.0451	0.0428
250T125-54	2.5	1.25	0.0849	54	0.0566	0.0538	362T200-54	3.625	2	0.0849	54	0.0566	0.0538
250T125-68	2.5	1.25	0.1069	68	0.0713	0.0677	362T200-68	3.625	2	0.1069	68	0.0713	0.0677
250T125-97	2.5	1.25	0.1525	97	0.1017	0.0966	362T200-97	3.625	2	0.1525	97	0.1017	0.0966
250T150-27	2.5	1.5	0.0796	27	0.0283	0.0269	362T200-118	3.625	2	0.1863	118	0.1242	0.1180
250T150-30	2.5	1.5	0.0781	30	0.0312	0.0296	362T250-43	3.625	2.5	0.0712	43	0.0451	0.0428
250T150-33	2.5	1.5	0.0764	33	0.0346	0.0329	362T250-54	3.625	2.5	0.0849	54	0.0566	0.0538
250T150-43	2.5	1.5	0.0712	43	0.0451	0.0428	362T250-68	3.625	2.5	0.1069	68	0.0713	0.0677
250T150-54	2.5	1.5	0.0849	54	0.0566	0.0538	362T250-97	3.625	2.5	0.1525	97	0.1017	0.0966
250T150-68	2.5	1.5	0.1069	68	0.0713	0.0677	362T250-118	3.625	2.5	0.1863	118	0.1242	0.1180
250T150-97	2.5	1.5	0.1525	97	0.1017	0.0966	362T300-54	3.625	3	0.0849	54	0.0566	0.0538
250T200-33	2.5	2	0.0764	33	0.0346	0.0329	362T300-68	3.625	3	0.1069	68	0.0713	0.0677
250T200-43	2.5	2	0.0712	43	0.0451	0.0428	362T300-97	3.625	3	0.1525	97	0.1017	0.0966
250T200-54	2.5	2	0.0849	54	0.0566	0.0538	362T300-118	3.625	3	0.1863	118	0.1242	0.1180
250T200-68	2.5	2	0.1069	68	0.0713	0.0677	362T400-68	3.625	4	0.1069	68	0.0713	0.0677
250T200-97	2.5	2	0.1525	97	0.1017	0.0966	362T400-97	3.625	4	0.1525	97	0.1017	0.0966
250T250-43	2.5	2.5	0.0712	43	0.0451	0.0428	362T400-118	3.625	4	0.1863	118	0.1242	0.1180
250T250-54	2.5	2.5	0.0849	54	0.0566	0.0538	400T125-18 ¹	4	1.25	0.0843	18	0.0188	0.0179
250T250-68	2.5	2.5	0.1069	68	0.0713	0.0677	400T125-27	4	1.25	0.0796	27	0.0283	0.0269
250T250-97	2.5	2.5	0.1525	97	0.1017	0.0966	400T125-30	4	1.25	0.0781	30	0.0312	0.0296
250T300-54	2.5	3	0.0849	54	0.0566	0.0538	400T125-33	4	1.25	0.0764	33	0.0346	0.0329
250T300-68	2.5	3	0.1069	68	0.0713	0.0677	400T125-43	4	1.25	0.0712	43	0.0451	0.0428
250T300-97	2.5	3	0.1525	97	0.1017	0.0966	400T125-54	4	1.25	0.0849	54	0.0566	0.0538
350T125-18	3.5	1.25	0.0843	18	0.0188	0.0179	400T125-68	4	1.25	0.1069	68	0.0713	0.0677
350T125-27	3.5	1.25	0.0796	27	0.0283	0.0269	400T125-97	4	1.25	0.1525	97	0.1017	0.0966
350T125-30	3.5	1.25	0.0781	30	0.0312	0.0296	400T125-118	4	1.25	0.1863	118	0.1242	0.1180
350T125-33	3.5	1.25	0.0764	33	0.0346	0.0329	400T150-27	4	1.5	0.0796	27	0.0283	0.0269
350T125-43	3.5	1.25	0.0712	43	0.0451	0.0428	400T150-30	4	1.5	0.0781	30	0.0312	0.0296
350T125-54	3.5	1.25	0.0849	54	0.0566	0.0538	400T150-33	4	1.5	0.0764	33	0.0346	0.0329
350T125-68	3.5	1.25	0.1069	68	0.0713	0.0677	400T150-43	4	1.5	0.0712	43	0.0451	0.0428
350T125-97	3.5	1.25	0.1525	97	0.1017	0.0966	400T150-54	4	1.5	0.0849	54	0.0566	0.0538
350T125-118	3.5	1.25	0.1863	118	0.1242	0.1180	400T150-68	4	1.5	0.1069	68	0.0713	0.0677
350T150-27	3.5	1.5	0.0796	27	0.0283	0.0269	400T150-97	4	1.5	0.1525	97	0.1017	0.0966
350T150-30	3.5	1.5	0.0781	30	0.0312	0.0296	400T150-118	4	1.5	0.1863	118	0.1242	0.1180
350T150-33	3.5	1.5	0.0764	33	0.0346	0.0329	400T200-33	4	2	0.0764	33	0.0346	0.0329
350T150-43	3.5	1.5	0.0712	43	0.0451	0.0428	400T200-43	4	2	0.0712	43	0.0451	0.0428
350T150-54	3.5	1.5	0.0849	54	0.0566	0.0538	400T200-54	4	2	0.0849	54	0.0566	0.0538
350T150-68	3.5	1.5	0.1069	68	0.0713	0.0677	400T200-68	4	2	0.1069	68	0.0713	0.0677
350T150-97	3.5	1.5	0.1525	97	0.1017	0.0966	400T200-97	4	2	0.1525	97	0.1017	0.0966
350T150-118	3.5	1.5	0.1863	118	0.1242	0.1180	400T200-118	4	2	0.1863	118	0.1242	0.1180
350T200-33	3.5	2	0.0764	33	0.0346	0.0329	400T250-43	4	2.5	0.0712	43	0.0451	0.0428
350T200-43	3.5	2	0.0712	43	0.0451	0.0428	400T250-54	4	2.5	0.0849	54	0.0566	0.0538
350T200-54	3.5	2	0.0849	54	0.0566	0.0538	400T250-68	4	2.5	0.1069	68	0.0713	0.0677
350T200-68	3.5	2	0.1069	68	0.0713	0.0677	400T250-97	4	2.5	0.1525	97	0.1017	0.0966
350T200-97	3.5	2	0.1525	97	0.1017	0.0966	400T250-118	4	2.5	0.1863	118	0.1242	0.1180
350T200-118	3.5	2	0.1863	118	0.1242	0.1180	400T300-54	4	3	0.0849	54	0.0566	0.0538
350T250-43	3.5	2.5	0.0712	43	0.0451	0.0428	400T300-68	4	3	0.1069	68	0.0713	0.0677
350T250-54	3.5	2.5	0.0849	54	0.0566	0.0538	400T300-97	4	3	0.1525	97	0.1017	0.0966
350T250-68	3.5	2.5	0.1069	68	0.0713	0.0677	400T300-118	4	3	0.1863	118	0.1242	0.1180
350T250-97	3.5	2.5	0.1525	97	0.1017	0.0966							
350T250-118	3.5	2.5	0.1863	118	0.1242	0.1180							

Table 2 continued on next page.

TABLE 2—CHANNEL (TRACK) SECTIONS¹ (Continued)

SECTION	DEPTH ² (in)	FLANGE (in)	INSIDE CORNER RADII (in)	MILS	DESIGN THICK. (in)	MIN. BASE METAL THICK. ³ (in)	SECTION	DEPTH ² (in)	FLANGE (in)	INSIDE CORNER RADII (in)	MILS	DESIGN THICK. (in)	MIN. BASE METAL THICK. ³ (in)
400T400-68	4	4	0.1069	68	0.0713	0.0677	725T125-68	7.25	1.25	0.1069	68	0.0713	0.0677
400T400-97	4	4	0.1525	97	0.1017	0.0966	725T125-97	7.25	1.25	0.1525	97	0.1017	0.0966
400T400-118	4	4	0.1863	118	0.1242	0.1180	725T125-118	7.25	1.25	0.1863	118	0.1242	0.118
550T125-27	5.5	1.25	0.0796	27	0.0283	0.0269	725T150-27 ⁴	7.25	1.5	0.0796	27	0.0283	0.0269
550T125-30	5.5	1.25	0.0781	30	0.0312	0.0296	725T150-30 ⁴	7.25	1.5	0.0781	30	0.0312	0.0296
550T125-33	5.5	1.25	0.0764	33	0.0346	0.0329	725T150-33 ⁴	7.25	1.5	0.0764	33	0.0346	0.0329
550T125-43	5.5	1.25	0.0712	43	0.0451	0.0428	725T150-43	7.25	1.5	0.0712	43	0.0451	0.0428
550T125-54	5.5	1.25	0.0849	54	0.0566	0.0538	725T150-54	7.25	1.5	0.0849	54	0.0566	0.0538
550T125-68	5.5	1.25	0.1069	68	0.0713	0.0677	725T150-68	7.25	1.5	0.1069	68	0.0713	0.0677
550T125-97	5.5	1.25	0.1525	97	0.1017	0.0966	725T150-97	7.25	1.5	0.1525	97	0.1017	0.0966
550T125-118	5.5	1.25	0.1863	118	0.1242	0.1180	725T150-118	7.25	1.5	0.1863	118	0.1242	0.118
550T150-27	5.5	1.5	0.0796	27	0.0283	0.0269	725T200-33 ⁴	7.25	2	0.0764	33	0.0346	0.0329
550T150-30	5.5	1.5	0.0781	30	0.0312	0.0296	725T200-43	7.25	2	0.0712	43	0.0451	0.0428
550T150-33	5.5	1.5	0.0764	33	0.0346	0.0329	725T200-54	7.25	2	0.0849	54	0.0566	0.0538
550T150-43	5.5	1.5	0.0712	43	0.0451	0.0428	725T200-68	7.25	2	0.1069	68	0.0713	0.0677
550T150-54	5.5	1.5	0.0849	54	0.0566	0.0538	725T200-97	7.25	2	0.1525	97	0.1017	0.0966
550T150-68	5.5	1.5	0.1069	68	0.0713	0.0677	725T200-118	7.25	2	0.1863	118	0.1242	0.118
550T150-97	5.5	1.5	0.1525	97	0.1017	0.0966	725T250-43	7.25	2.5	0.0712	43	0.0451	0.0428
550T150-118	5.5	1.5	0.1863	118	0.1242	0.1180	725T250-54	7.25	2.5	0.0849	54	0.0566	0.0538
550T200-33	5.5	2	0.0764	33	0.0346	0.0329	725T250-68	7.25	2.5	0.1069	68	0.0713	0.0677
550T200-43	5.5	2	0.0712	43	0.0451	0.0428	725T250-97	7.25	2.5	0.1525	97	0.1017	0.0966
550T200-54	5.5	2	0.0849	54	0.0566	0.0538	725T250-118	7.25	2.5	0.1863	118	0.1242	0.118
550T200-68	5.5	2	0.1069	68	0.0713	0.0677	725T300-54	7.25	3	0.0849	54	0.0566	0.0538
550T200-97	5.5	2	0.1525	97	0.1017	0.0966	725T300-68	7.25	3	0.1069	68	0.0713	0.0677
550T200-118	5.5	2	0.1863	118	0.1242	0.1180	725T300-97	7.25	3	0.1525	97	0.1017	0.0966
550T250-43	5.5	2.5	0.0712	43	0.0451	0.0428	725T300-118	7.25	3	0.1863	118	0.1242	0.118
550T250-54	5.5	2.5	0.0849	54	0.0566	0.0538	725T400-68	7.25	4	0.1069	68	0.0713	0.0677
550T250-68	5.5	2.5	0.1069	68	0.0713	0.0677	725T400-97	7.25	4	0.1525	97	0.1017	0.0966
550T250-97	5.5	2.5	0.1525	97	0.1017	0.0966	725T400-118	7.25	4	0.1863	118	0.1242	0.118
550T250-118	5.5	2.5	0.1863	118	0.1242	0.1180	800T125-30 ⁴	8	1.25	0.0781	30	0.0312	0.0296
550T300-54	5.5	3	0.0849	54	0.0566	0.0538	800T125-33 ⁴	8	1.25	0.0764	33	0.0346	0.0329
550T300-68	5.5	3	0.1069	68	0.0713	0.0677	800T125-43	8	1.25	0.0712	43	0.0451	0.0428
550T300-97	5.5	3	0.1525	97	0.1017	0.0966	800T125-54	8	1.25	0.0849	54	0.0566	0.0538
550T300-118	5.5	3	0.1863	118	0.1242	0.1180	800T125-68	8	1.25	0.1069	68	0.0713	0.0677
550T400-68	5.5	4	0.1069	68	0.0713	0.0677	800T125-97	8	1.25	0.1525	97	0.1017	0.0966
550T400-97	5.5	4	0.1525	97	0.1017	0.0966	800T125-118	8	1.25	0.1863	118	0.1242	0.118
550T400-118	5.5	4	0.1863	118	0.1242	0.1180	800T150-30 ⁴	8	1.5	0.0781	30	0.0312	0.0296
600T125-27 ⁴	6	1.25	0.0796	27	0.0283	0.0269	800T150-33 ⁴	8	1.5	0.0764	33	0.0346	0.0329
600T125-30	6	1.25	0.0781	30	0.0312	0.0296	800T150-43	8	1.5	0.0712	43	0.0451	0.0428
600T125-33	6	1.25	0.0764	33	0.0346	0.0329	800T150-54	8	1.5	0.0849	54	0.0566	0.0538
600T125-43	6	1.25	0.0712	43	0.0451	0.0428	800T150-68	8	1.5	0.1069	68	0.0713	0.0677
600T125-54	6	1.25	0.0849	54	0.0566	0.0538	800T150-97	8	1.5	0.1525	97	0.1017	0.0966
600T125-68	6	1.25	0.1069	68	0.0713	0.0677	800T150-118	8	1.5	0.1863	118	0.1242	0.118
600T125-97	6	1.25	0.1525	97	0.1017	0.0966	800T200-33 ⁴	8	2	0.0764	33	0.0346	0.0329
600T125-118	6	1.25	0.1863	118	0.1242	0.118	800T200-43	8	2	0.0712	43	0.0451	0.0428
600T150-27 ⁴	6	1.5	0.0796	27	0.0283	0.0269	800T200-54	8	2	0.0849	54	0.0566	0.0538
600T150-30	6	1.5	0.0781	30	0.0312	0.0296	800T200-68	8	2	0.1069	68	0.0713	0.0677
600T150-33	6	1.5	0.0764	33	0.0346	0.0329	800T200-97	8	2	0.1525	97	0.1017	0.0966
600T150-43	6	1.5	0.0712	43	0.0451	0.0428	800T200-118	8	2	0.1863	118	0.1242	0.118
600T150-54	6	1.5	0.0849	54	0.0566	0.0538	800T250-43	8	2.5	0.0712	43	0.0451	0.0428
600T150-68	6	1.5	0.1069	68	0.0713	0.0677	800T250-54	8	2.5	0.0849	54	0.0566	0.0538
600T150-97	6	1.5	0.1525	97	0.1017	0.0966	800T250-68	8	2.5	0.1069	68	0.0713	0.0677
600T150-118	6	1.5	0.1863	118	0.1242	0.118	800T250-97	8	2.5	0.1525	97	0.1017	0.0966
600T200-33	6	2	0.0764	33	0.0346	0.0329	800T250-118	8	2.5	0.1863	118	0.1242	0.118
600T200-43	6	2	0.0712	43	0.0451	0.0428	800T300-54	8	3	0.0849	54	0.0566	0.0538
600T200-54	6	2	0.0849	54	0.0566	0.0538	800T300-68	8	3	0.1069	68	0.0713	0.0677
600T200-68	6	2	0.1069	68	0.0713	0.0677	800T300-97	8	3	0.1525	97	0.1017	0.0966
600T200-97	6	2	0.1525	97	0.1017	0.0966	800T300-118	8	3	0.1863	118	0.1242	0.118
600T200-118	6	2	0.1863	118	0.1242	0.118	800T400-68	8	4	0.1069	68	0.0713	0.0677
600T250-43	6	2.5	0.0712	43	0.0451	0.0428	800T400-97	8	4	0.1525	97	0.1017	0.0966
600T250-54	6	2.5	0.0849	54	0.0566	0.0538	800T400-118	8	4	0.1863	118	0.1242	0.118
600T250-68	6	2.5	0.1069	68	0.0713	0.0677	925T125-43 ⁴	9.25	1.25	0.0712	43	0.0451	0.0428
600T250-97	6	2.5	0.1525	97	0.1017	0.0966	925T125-54	9.25	1.25	0.0849	54	0.0566	0.0538
600T250-118	6	2.5	0.1863	118	0.1242	0.118	925T125-68	9.25	1.25	0.1069	68	0.0713	0.0677
600T300-54	6	3	0.0849	54	0.0566	0.0538	925T125-97	9.25	1.25	0.1525	97	0.1017	0.0966
600T300-68	6	3	0.1069	68	0.0713	0.0677	925T125-118	9.25	1.25	0.1863	118	0.1242	0.118
600T300-97	6	3	0.1525	97	0.1017	0.0966	925T150-43 ⁴	9.25	1.5	0.0712	43	0.0451	0.0428
600T300-118	6	3	0.1863	118	0.1242	0.118	925T150-54	9.25	1.5	0.0849	54	0.0566	0.0538
600T400-68	6	4	0.1069	68	0.0713	0.0677	925T150-68	9.25	1.5	0.1069	68	0.0713	0.0677
600T400-97	6	4	0.1525	97	0.1017	0.0966	925T150-97	9.25	1.5	0.1525	97	0.1017	0.0966
600T400-118	6	4	0.1863	118	0.1242	0.118	925T150-118	9.25	1.5	0.1863	118	0.1242	0.118
725T125-27 ⁴	7.25	1.25	0.0796	27	0.0283	0.0269	925T200-43 ⁴	9.25	2	0.0712	43	0.0451	0.0428
725T125-30 ¹	7.25	1.25	0.0781	30	0.0312	0.0296	925T200-54	9.25	2	0.0849	54	0.0566	0.0538
725T125-33 ¹	7.25	1.25	0.0764	33	0.0346	0.0329	925T200-68	9.25	2	0.1069	68	0.0713	0.0677
725T125-43	7.25	1.25	0.0712	43	0.0451	0.0428	925T200-97	9.25	2	0.1525	97	0.1017	0.0966
725T125-54	7.25	1.25	0.0849	54	0.0566	0.0538	925T200-118	9.25	2	0.1863	118	0.1242	0.118

Table 2 continued on next page.

TABLE 3—C-SECTION (STUD) SECTION PROPERTIES^{2,3,4,5} (Continued)

Table with 22 columns: Section, Fy, Gross Properties (Area, W, lxx, Sxx, Rx, lyy, Ry), Effective Properties (lxx, Sxx, Ma-L, Ma-D, Vag, VaNet), Torsional Properties (Jx1000, Cw, Xo, m, Ro), and Lu. It contains 100 rows of data for various section sizes and materials.

Table 3 continued on next page

TABLE 3—C-SECTION (STUD) SECTION PROPERTIES^{2,3,4,5} (Continued)

Table with 23 columns: Section, Fy, Area, W, Ixx, Sxx, Rx, Iyy, Ry, Ixx, Sxx, Ma-L, Ma-D, Vag, VaNet, Jx1000, Cw, Xo, m, Ro, Lu. It lists properties for various section types and sizes.

Table 3 continued on next page

TABLE 3—C-SECTION (STUD) SECTION PROPERTIES^{2,3,4,5} (Continued)

Table with columns for Section, Fy, Gross Properties (Area, W, lxx, Sxx, Rx, lyy, Ry), Effective Properties (lxx, Sxx, Ma-L, Ma-D, Vag, VaNet), Torsional Properties (Jx1000, Cw, Xo, m, Ro, beta), and Lu. Rows include section types like 1200S200-118, 1350S137-54, etc.

Table 3 continued on next page

TABLE 3—C-SECTION (STUD) SECTION PROPERTIES^{2,3,4,5} (Continued)

Section	Fy (ksi)	Gross Properties							Effective Properties						Torsional Properties						Lu (in)
		Area (in ²)	W (lb/ft)	Ixx (in ⁴)	Sxx (in ³)	Rx (in)	Iyy (in ⁴)	Ry (in)	Ixx (in ⁴)	Sxx (in ³)	Ma-L (in-k)	Ma-D (in-k)	Vag (lb)	VaNet (lb)	Jx1000 (in ⁴)	Cw (in ⁶)	Xo (in)	m (in)	Ro (in)	β	
1400S350-118	50	2.742	9.33	75.200	10.743	5.237	3.903	1.193	75.200	10.354	310.00	259.12	12745	11287	14.099	155.387	-2.130	1.360	5.778	0.864	69.6
1600S162-68'	33	1.406	4.78	40.913	5.114	5.394	0.268	0.436	37.533	3.896	76.99	61.87	2062	2062	2.383	14.816	-0.601	0.415	5.445	0.988	35.2
1600S162-68'	50	1.406	4.78	40.913	5.114	5.394	0.268	0.436	35.986	3.624	108.49	78.88	2062	2062	2.383	14.816	-0.601	0.415	5.445	0.988	28.6
1600S162-97	33	1.983	6.75	56.824	7.103	5.354	0.347	0.418	55.563	6.173	121.97	105.56	6043	6043	6.835	19.807	-0.577	0.401	5.401	0.989	34.4
1600S162-97	50	1.983	6.75	56.824	7.103	5.354	0.347	0.418	53.725	5.738	171.79	136.38	6043	6043	6.835	19.807	-0.577	0.401	5.401	0.989	27.9
1600S162-118	33	2.400	8.17	68.014	8.502	5.323	0.393	0.405	68.014	7.920	156.50	141.09	11088	11088	12.342	23.035	-0.559	0.391	5.368	0.989	33.7
1600S162-118	50	2.400	8.17	68.014	8.502	5.323	0.393	0.405	66.535	7.399	221.51	184.21	11088	11088	12.342	23.035	-0.559	0.391	5.368	0.989	27.3
1600S200-68'	33	1.477	5.03	45.291	5.661	5.537	0.506	0.585	41.916	4.431	87.56	73.25	2062	2062	2.503	27.155	-0.862	0.584	5.634	0.977	45.7
1600S200-68'	50	1.477	5.03	45.291	5.661	5.537	0.506	0.585	40.523	4.045	121.11	93.73	2062	2062	2.503	27.155	-0.862	0.584	5.634	0.977	37.1
1600S200-97	33	2.084	7.09	63.050	7.881	5.500	0.670	0.567	61.757	6.938	137.10	123.13	6043	6043	7.186	36.744	-0.835	0.569	5.592	0.978	44.9
1600S200-97	50	2.084	7.09	63.050	7.881	5.500	0.670	0.567	59.933	6.500	194.61	159.78	6043	6043	7.186	36.744	-0.835	0.569	5.592	0.978	36.4
1600S200-118	33	2.525	8.59	75.601	9.450	5.472	0.773	0.553	75.601	8.859	175.05	163.28	11088	11088	12.981	43.132	-0.815	0.558	5.560	0.979	44.3
1600S200-118	50	2.525	8.59	75.601	9.450	5.472	0.773	0.553	74.084	8.331	249.44	214.23	11088	11088	12.981	43.132	-0.815	0.558	5.560	0.979	35.9
1600S250-68'	33	1.549	5.27	49.814	6.227	5.672	0.889	0.758	46.607	4.792	94.70	79.79	2062	2062	2.624	46.230	-1.167	0.778	5.840	0.960	57.3
1600S250-68'	50	1.549	5.27	49.814	6.227	5.672	0.889	0.758	45.550	4.092	122.51	102.05	2062	2062	2.624	46.230	-1.167	0.778	5.840	0.960	46.5
1600S250-97	33	2.186	7.44	69.476	8.685	5.638	1.192	0.738	68.160	7.728	152.72	133.82	6043	6043	7.536	63.082	-1.138	0.762	5.799	0.962	56.5
1600S250-97	50	2.186	7.44	69.476	8.685	5.638	1.192	0.738	66.577	6.983	209.06	173.43	6043	6043	7.536	63.082	-1.138	0.762	5.799	0.962	45.9
1600S250-118	33	2.649	9.01	83.427	10.428	5.612	1.389	0.724	83.427	9.827	194.19	177.59	11088	11088	13.620	74.524	-1.116	0.750	5.768	0.963	56.0
1600S250-118	50	2.649	9.01	83.427	10.428	5.612	1.389	0.724	81.923	9.222	276.12	232.57	11088	11088	13.620	74.524	-1.116	0.750	5.768	0.963	45.4
1600S300-68'	33	1.638	5.57	55.289	6.911	5.810	1.514	0.962	52.293	5.169	102.14	90.79	2062	2062	2.775	77.327	-1.562	1.022	6.093	0.934	70.6
1600S300-68'	50	1.638	5.57	55.289	6.911	5.810	1.514	0.962	51.250	4.446	133.12	116.29	2062	2062	2.775	77.327	-1.562	1.022	6.093	0.934	57.3
1600S300-97	33	2.313	7.87	77.262	9.658	5.779	2.054	0.942	75.986	8.564	169.23	150.44	6043	6043	7.975	106.226	-1.531	1.005	6.053	0.936	69.9
1600S300-97	50	2.313	7.87	77.262	9.658	5.779	2.054	0.942	74.472	7.719	231.09	195.17	6043	6043	7.975	106.226	-1.531	1.005	6.053	0.936	56.7
1600S300-118	33	2.804	9.54	92.914	11.614	5.756	2.414	0.928	92.914	11.003	217.43	198.52	11088	11088	14.418	126.134	-1.507	0.993	6.022	0.937	69.4
1600S300-118	50	2.804	9.54	92.914	11.614	5.756	2.414	0.928	91.558	10.053	300.98	260.10	11088	11088	14.418	126.134	-1.507	0.993	6.022	0.937	56.3
1600S350-68'	33	1.745	5.94	61.622	7.703	5.943	2.490	1.195	58.537	6.041	119.38	106.38	2062	2062	2.957	127.370	-2.055	1.322	6.401	0.897	85.8
1600S350-68'	50	1.745	5.94	61.622	7.703	5.943	2.490	1.195	57.437	5.180	155.08	136.70	2062	2062	2.957	127.370	-2.055	1.322	6.401	0.897	69.7
1600S350-97	33	2.466	8.39	86.270	10.784	5.915	3.410	1.176	84.926	9.771	193.09	173.68	6043	6043	8.501	175.896	-2.022	1.304	6.361	0.899	85.2
1600S350-97	50	2.466	8.39	86.270	10.784	5.915	3.410	1.176	83.691	8.382	250.96	226.04	6043	6043	8.501	175.896	-2.022	1.304	6.361	0.899	69.1
1600S350-118	33	2.990	10.18	103.892	12.987	5.894	4.038	1.162	103.892	12.367	244.38	227.20	11088	11088	15.376	209.692	-1.998	1.291	6.331	0.900	84.8
1600S350-118	50	2.990	10.18	103.892	12.987	5.894	4.038	1.162	102.530	11.305	338.47	298.58	11088	11088	15.376	209.692	-1.998	1.291	6.331	0.900	68.8

For SI: 1 inch = 25.4mm, 1 pound = 4.4482 N.

¹ Web height to thickness ratio, h/t, exceeds 200. Web must have bearing stiffeners in accordance with AISI S100.

² Gross properties and torsional properties are based on the full-unreduced cross section of the studs, away from web punch-outs.

³ Effective properties are based on punched sections.

⁴ Use the effective moment of inertia for deflection calculations.

⁵ Ma-D based on $K\phi = 0$.

SYMBOLS:

- Ixx=Strong axis moment of inertia.
- Rx=Strong axis radius of gyration.
- Iyy=Weak axis moment of inertia.
- Ry=Weak axis radius of gyration.
- Sxx=Strong axis section modulus.
- Vag = Allowable shear at unpunched web section.
- Ma - L = Allowable moment based on local buckling
- Kφ = Distortional buckling moment (Ma-D) is calculation without the beneficial effect of sheathing to rotational stiffness, $K\phi = 0$.
- Lu = Critical unbraced length for lateral-torsional buckling. Moments considered fully braced when unbraced length is less than Lu.
- J=St. Venant torsion constant.
- Cw=Warping constant.
- Xo=Distance from shear center to neutral axis.
- m = distance from shear center to mid-plane of web.
- Ro = Radii of gyration.
- VaNet = Allowable shear of punched web section.
- Ma-D = Allowable moment based on distortional buckling.
- β=Torsional flexural constant.

TABLE 4—CHANNEL (TRACK) SECTION PROPERTIES

Table with 17 columns: Section, Gross Properties (Area, Weight, Ixx, Rx, Iyy, Ry), 33 ksi Effective Properties (Ixx, Sxx, Ma, Va), 50 ksi Effective Properties (Ixx, Sxx, Ma, Va), and Torsional Properties (Jx1000, Cw, Xo, Ro, beta). Rows list section numbers (e.g., 162T125-18) and their corresponding property values.

Table 4 continued on next page.

TABLE 4—CHANNEL (TRACK) SECTION PROPERTIES (Continued)

Table with 20 columns: Section, Gross Properties (Area, Weight, Ixx, Rx, Iyy, Ry), 33 ksi Effective Properties (Ixx, Sxx, Ma, Va), 50 ksi Effective Properties (Ixx, Sxx, Ma, Va), and Torsional Properties (Jx1000, Cw, Xo, Ro, beta). Rows list various section types like 725T200-43, 800T125-30, etc.

TABLE 4—CHANNEL (TRACK) SECTION PROPERTIES (Continued)

Table with columns for Section, Gross Properties (Area, Weight, Ixx, Rx, Iyy, Ry), 33 ksi Effective Properties (Ixx, Sxx, Ma, Va), 50 ksi Effective Properties (Ixx, Sxx, Ma, Va), and Torsional Properties (Jx1000, Cw, Xo, Ro, beta). Rows include section types like 1350T125-118, 1350T150-54, 1350T150-68, etc.

For SI: 1 inch = 25.4mm, 1 pound = 4.4482 N.

1Gross properties and torsional properties are based on the full-unreduced cross section of the studs, away from web punch-outs.

2Use the effective moment of inertia for deflection calculations.

3Web height to thickness ratio, h/t, exceeds 200. Web must have bearing stiffeners in accordance with AISI S100.

4Where effective properties are not provided web to height-to-thickness ratio exceeds 260.

SYMBOLS:

- Ixx=Strong axis moment of inertia.
Rx=Strong axis radius of gyration.
Iyy=Weak axis moment of inertia.
Ry=Weak axis radius of gyration.
Sxx=Strong axis section modulus.
Ma=Allowable bending moment
Va = Allowable shear.

- Ycg= Distance from top of flange to effective center of gravity.
J=St. Venant torsion constant.
Cw=Warping constant.
Xo=Distance from shear center to neutral axis.
Ro=Radii of gyration.
beta=Torsional flexural constant.

TABLE 5—U CHANNELS STRUCTURAL PROPERTIES^{1,2}

SECTION	DEPTH ⁵	MILS	DESIGN THICK. (in)	MIN. BASE METAL THICK. (in)	INSIDE CORNER RADII (in)	WEIGHT (lb/ft)	GROSS SECTION PROPERTIES ³					EFFECTIVE SECTION PROPERTIES			ALLOWABLE MOMENT ⁴ M _a (in-k)
							Area (in ²)	I _x (in ⁴)	r _x (in)	I _y (in ⁴)	r _y (in)	I _x (in ⁴)	S _x (in ³)	Area (in ²)	
CRC-075-54	0.75	54	0.0566	0.0538	0.0849	0.30	0.087	0.007	0.288	0.002	0.155	0.007	0.019	0.087	0.45
CRC-150-54	1.5	54	0.0566	0.0538	0.0849	0.44	0.129	0.039	0.547	0.003	0.144	0.039	0.052	0.129	1.22
CRC-200-54	2.0	54	0.0566	0.0538	0.0849	0.54	0.157	0.079	0.709	0.003	0.136	0.079	0.079	0.157	1.87
CRC250-54	2.5	54	0.0566	0.0538	0.0849	0.63	0.186	0.139	0.866	0.003	0.128	0.139	0.111	0.186	2.64

For SI: 1 inch = 25.4 mm, 1 lb/ft = 1.488 kg/m, 1 in-lb = 11.30 N-m.

I_x = Strong axis moment of inertia. r_y = Weak axis radius of gyration.
 r_x = Strong axis radius of gyration. S_x = Strong axis section modulus.
 I_y = Weak axis moment of inertia.

¹F_y = 33 ksi.

²Use the effective moment of inertia for deflection calculations.

³Gross properties are based on the full-unreduced cross section of the U channel.

⁴Full lateral support of compression flanges must be provided.

⁵Depth of member is measured from outside face to outside face of flanges. See Figure 1.

TABLE 6—HAT FURRING CHANNEL PROPERTIES^{1,3}

SECTION	MILS	DESIGN THICK. (in)	MIN. BASE METAL THICK. (in)	INSIDE CORNER RADII (in)	WEIGHT (lb/ft)	DEPTH (in)	GROSS SECTION PROPERTIES					EFFECTIVE SECTION PROPERTIES		ALLOWABLE MOMENT ² M _a (ft-lb)
							Area (in ²)	I _x (in ⁴)	r _x (in)	I _y (in ⁴)	r _y (in)	I _x (in ⁴)	S _x (in ³)	
DWFC088-18	18	0.0188	0.0179	0.0843	0.239	0.875	0.0702	0.0089	0.356	0.0354	0.710	0.0086	0.0160	26.41
DWFC088-30	30	0.0312	0.0296	0.0784	0.391	0.875	0.1149	0.0143	0.353	0.0580	0.710	0.0143	0.0365	50.47
DWFC150-18	18	0.0188	0.0179	0.0843	0.320	1.500	0.0939	0.0311	0.575	0.0467	0.705	0.0299	0.0344	56.59
DWFC150-30	30	0.0312	0.0296	0.0784	0.525	1.500	0.1543	0.0503	0.571	0.0797	0.705	0.0503	0.0639	105.25

For SI: 1 inch = 25.4 mm, 1 lb/ft = 1.488 kg/m, 1 in-lb = 11.30 N-m.

I_x = Strong axis moment of inertia.
 r_x = Strong axis radius of gyration.
 I_y = Weak axis moment of inertia.
 r_y = Weak axis radius of gyration.
 S_x = Strong axis section modulus.

¹F_y = 33 ksi.

²Allowable moment is applicable for both positive and negative moments. Full lateral support of compression flanges must be provided.

³Use the effective moment of inertia for deflection calculations.

TABLE 7—C-SECTIONS (STUDS) FOR USE WITH THE IRC¹

IRC MEMBER DESIGNATION	EQUIVALENT TELLING INDUSTRIES MEMBER DESIGNATION			
	t = 33	t = 43	t = 54	t = 68
350S162-t	350S162-33	350S162-43	350S162-54	350S162-68
	350S200-33	350S200-43	350S200-54	350S200-68
550S162-t	550S162-33	550S162-43	550S162-54	550S162-68
	550S200-33	550S200-43	550S200-54	550S200-68
800S162-t	800S162-33	800S162-43	800S162-54	800S162-68
	800S200-33	800S200-43	800S200-54	800S200-68
1000S162-t	---	1000S162-43	1000S162-54	1000S162-68
	---	1000S200-43	1000S200-54	1000S200-68
1200S162-t	---	---	1200S162-54	1200S162-68
	---	---	1200S200-54	1200S200-68

1. Under the 2018 and 2015 IBC: Minimum Grade 33 ksi steel must be used wherever 33 mil and 43 mil thicknesses are specified; and Minimum Grade 50 ksi steel must be used wherever 54 mil and 68 mil thicknesses are specified.

TABLE 8—MANUFACTURING LOCATIONS

Telling Industries Osceola, Arkansas 72370 870-563-2597	Telling Industries Windsor, Connecticut 06095 860-731-7975	Telling Industries Cambridge, Ohio 43725 740-435-8900
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SECTION PROFILES

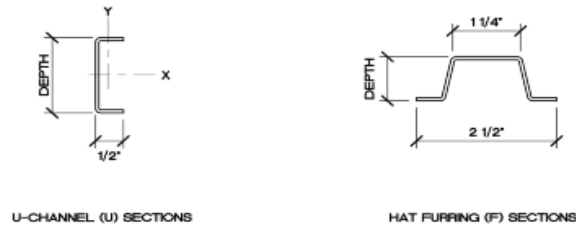
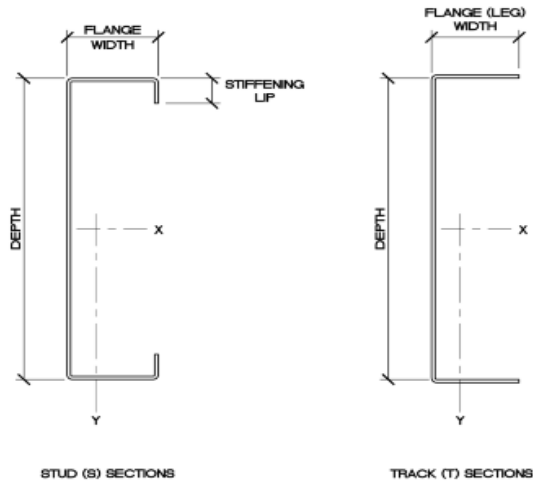


FIGURE 1—SECTION PROFILES

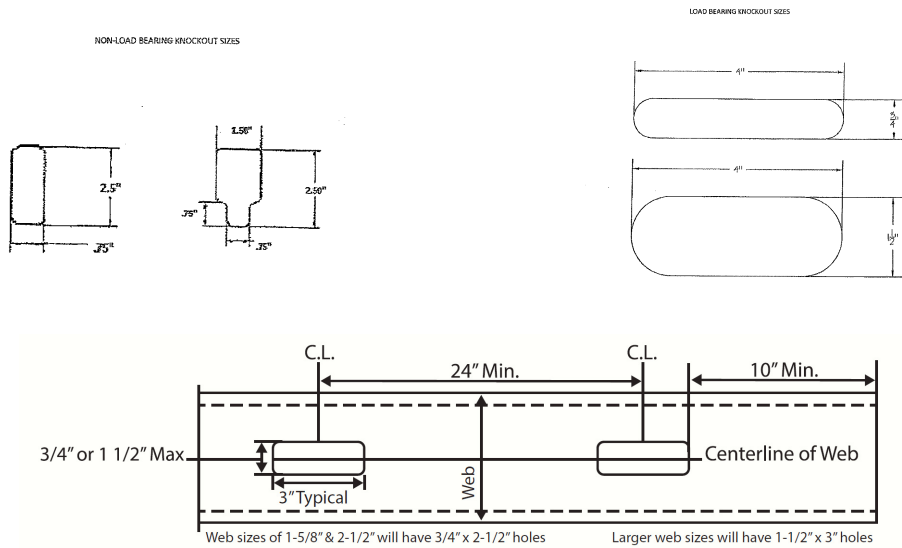


FIGURE 2—PUNCH-OUTS

DIVISION: 05 00 00—METALS

Section: 05 40 00—Cold-Formed Metal Framing

Section: 05 41 00—Structural Metal Stud Framing

DIVISION: 09 00 00—FINISHES

Section: 09 22 16.13—Non-Structural Metal Stud Framing

REPORT HOLDER:

TELLING INDUSTRIES

EVALUATION SUBJECT:

METAL FRAMING

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that the metal framing members, described in ICC-ES evaluation report ESR-2281, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2020 and 2017 *Florida Building Code—Building*
- 2020 and 2017 *Florida Building Code—Residential*

2.0 CONCLUSIONS

The metal framing members, described in Sections 2.0 through 7.0 of the ICC-ES evaluation report ESR-2281, comply with the *Florida Building Code—Building* and the *Florida Building Code—Residential*, provided the design and installation are in accordance with the 2018 and 2015 *International Building Code*® provisions noted in the evaluation report.

Use of the metal framing members for compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building* and the *Florida Building Code—Residential* is outside the scope of this report.

For products falling under Florida Rule 61G20-3, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official, when the report holder does not possess an approval by the Commission).

This supplement expires concurrently with the evaluation report, reissued December 2020 and revised September 2022.