ONLINE CERTIFICATIONS DIRECTORY

Design No. U905
BXUV.U905
Fire Resistance Ratings - ANSI/UL 263

Page Sections

Design/System/Construction/Assembly Usage Disclaimer

- Authorities having jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL listed or Classified products, equipment, system, devices, and materials.
- Authorities having jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- Only those items listed in this design are manufactured by the listee(s). Materials, products or services offered or provided by non-listees are not investigated by UL for the uses described in this design. Users of fire resistance assemblies are advised to consult the general listee(s) information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and allowable methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

Fire Resistance Ratings - ANSI/UL 263

See General Information for Fire Resistance Ratings - ANSI/UL 263

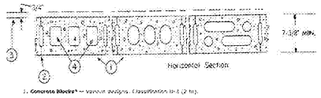
Design No. U905

September 30, 2019

Bearing Wall Rating — 3 HR.

Nonbearing Wall Rating — 2 HR.

Load Restricted for Canadian Applications — See Guide BXUV7



1. **Concrete Blocks** — Various designs. Classification is 2 hr.

See **Concrete Blocks** category for list of applicable manufacturers.

2. **Mortar** — Masonry unit or non-load bearing wall mortar. Joint may shrink as it cures and not more than 3/8 inch gaps at block sides want to 1 inch finished surface (unpointed or by others) and not more than 3/4 percent installed wire (by weight) maximum. Mortar joints staggered.

3. **Portland Cement Stucco or Gypsum Plaster** — Applied in accordance with Standard for Safety for Installation and Use of UL Listed or Classified Products, Equipment, Systems, Devices, and Materials.

4. **Lenox Masonry Fill** — Fill all cell spaces and voids with loose dry expanded slag, expanded clay or shale (Kaolite Inc. Proprietary), water repellent vermiculite mixtures for insulation, or siliceous treated perlite loose fill insulation with 5 to 10 percent binder.

5. **Foamed Plastic*** — (Optional) Not shown — 1-1/2 in. thick max. 4 lb min. density sprayed on concrete blocks (Item 1).

THE DOW CHEMICAL CO — Type Thermax Sheathing, Thermax Rigid Duty Insulation, Thermax Heavy Duty Insulation, Thermax Metal Decking Board, Thermax Walls Smooth Insulation, Thermax or Dowtherm Insulation, Thermax IA Insulation, Thermax Plus Liner Panel and Thermax Heavy Duty Plus (HDP)

*Bearing Side UL Classification Mark

Last Updated on 2019-09-30

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4	1-5/8	4 layers, 1/2 in. thick	Optional

GSC INC — 1/2 in. thick Type C, SP-422 or SPC-AR, 5/8 in. thick Type AR, C, SP-AR, IP-X1, IP-X2, SPC-AR, SCX, SGX, IP-AR, IP-C, IP-X3, CP-AR, or SP-X Thick Types SP-X2 or ULTRACODE

UNITED STATES GYPSUM CO — 1/2 in. thick Type C, SP-422, SPC-AR or 5/8 in. thick Type SCX, SGX, SHX, IP-X1, AR, C, IP-AR, IP-X2, SPC-AR, 1/4 in. thick Types IP-X2 or ULTRACODE

USG MEXICO S.A DE C.V — 1/2 in. thick Type C, IP-X2, SPC-AR or 5/8 in. thick Type SCX, SGX, SHX, IP-X1, AR, C, IP-AR, IP-X2, SPC-AR, 1/4 in. thick Types IP-X2 or ULTRACODE

3a. **Gypsum Board*** — (Not shown) — As an alternate to Item 3 when used on the base layers on one or both sides of wall where 5/8 or 3/4 in thick products are specified, fire rated assemblies apply to steel studs Design U419 that could be used with Item 3. When 5/8 or 3/4 in. core be used as alternate to all 5/8 or 3/4 in. shown in Item 3. Multilayer Protection on Each Side of Wall below. Item 3/8 or 3/4 in. thick base backing gypsum boards with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered with 1 inch gypsum boards over those on opposite sides of studs. Gypsum board secured to 25 MSG steel studs Item 2A with 1 inch Type S-S bugle head screws spaced 8 in. OC at perimeter and 12 in. OC in the field. To be used with Lead Batten Strips (See Item 11A) or Lead Block or Tabs (See Item 12A).

MAYCO INDUSTREES INC — Type X-Ray Shieldex Gypsum

3c. **Gypsum Board*** — (As an alternate to Item 3) — Item 3/8 in. thick gypsum panels with beveled, square or tapered edges installed as described in Item 3. Steel sheet minimum 25ga shall be as indicated in Item 2.

GSC INC — Type SLX

UNITED STATES GYPSUM CO — Type SLX

USG MEXICO S.A DE C.V — Type SLX

6. **Fasteners** — (Not shown) — For use with Items 2 and 2F — Type S or S-12 steel screws used to attach panels to studs (Item 2). For fastening thicknesses (Item 7), **Single layer systems** 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels or 1-5/8 in. long for 1 in. thick panels, spaced 8 in. OC when panels are applied horizontally. **Two layer systems applied horizontally:** First layer 1 in. long for 1/2 in. thick panels or 1-1/4 in. long for 5/8 in. thick panels, spaced 24 in. OC. Second layer 1-1/4 in. long for 1/2 in. thick panels or 1-5/8 in. long for 5/8 in. thick panels, spaced 12 in. OC, screws offset 6 in. from layer below. **Three layer systems:** First layer 1 in. long for 1/2 in. thick panels, spaced 24 in. OC. Second layer 1-5/8 in. long for 1/2 in. thick panels or 2-1/4 in. long for 5/8 in. thick panels, spaced 24 in. OC, screws offset 12 in. from layer below. **Four-layer systems:** First layer 1 in. long for 1/2 in. thick panels, spaced 24 in. OC. Second layer 1-5/8 in. long for 1/2 in. thick panels or 2-1/4 in. long for 5/8 in. thick panels, spaced 24 in. OC, third layer 2-1/4 in. long for 1/2 in. thick panels or 2-3/4 in. long for 5/8 in. thick panels, spaced 24 in. OC, fourth layer 2-3/4 in. long for 1/2 in. thick panels or 3 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below.

8A. **Fasteners** — (Not shown) — For use with Item 2A — Type S or S-12 steel screws used to attach panels to studs (Item 2A). **Single layer systems** 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 8 in. OC with additional screws 1 in. and 2 in. from edges of the board when panels are applied vertically. **Two layer systems applied horizontally:** First layer 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 24 in. OC. Second layer 1-5/8 in. long for 1/2 in. thick panels or 2-1/4 in. long for 5/8 in. thick panels, spaced 12 in. OC, screws offset 6 in. from layer below. **Two layer systems applied vertically:** First layer 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 24 in. OC. Second layer 1-5/8 in. long for 1/2 in. thick panels or 2-1/4 in. long for 5/8 in. thick panels, spaced 12 in. OC, screws offset 6 in. from layer below. **Three layer systems applied horizontally:** First layer 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 24 in. OC. Second layer 1-5/8 in. long for 1/2 in. thick panels or 2-1/4 in. long for 5/8 in. thick panels, spaced 24 in. OC, screws offset 12 in. from layer below. Third layer 2-1/4 in. long for 1/2 in. thick panels or 2-3/4 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below. For all series, an additional row of screws to be spaced 1-1/2 in. from each edge of the board.

7. **Furring Channels** — (Optional) not shown, for single or double layer systems — Resilient furring channels

fabricator fixed, min 25 MSG corrosion protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting wall with 1/2 in. long Type S-12 steel screws. Not for use with Item 3A and 3B.

7A. **Framing Members*** — (Not Shown) — Optional for use at both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and steel framing members as described below:

a. **Furring Channels** — Formed of No. 25 MSG galv steel, 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 2. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 3A and 3B.

b. **Steel Framing Members*** — Used as resilient furring channels (Item 7) to attach gypsum board (Item 6). Steel channels formed from min 25 MSG galv steel, 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 2. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 3A and 3B.

PAC INTERNATIONAL INC — Types RSIC-1, RSIC-7.

7B. **Framing Members*** — (Optional, Not Shown) — As an alternate to Item 7, furring channels formed from double boxshapes, furring channels and steel framing members as described below:

a. **Furring Channels** — Formed of No. 25 MSG galv steel, spaced max 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 2. Gypsum board attached to furring channels as described in Item 6. Resilient channels shall be mounted directly on studs. Channels secured to studs as described in Item 2. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 3A and 3B.

b. **Steel Framing Members*** — Used as resilient furring channels (Item 7) to attach gypsum board (Item 6). Steel channels formed from min 25 MSG galv steel, 2-3/8 in. wide by 7/8 in. deep, spaced max 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 2. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 3A and 3B.

KINETICS NOISE CONTROL — Type Isostud

7C. **Framing Members*** — (Optional) Not shown — As an alternate to Item 7, furring channels formed from resilient channels (Item 7). Clips attached to each intersecting stud with one screw through each leg of clip. Resilient channels (Item 7) fastened to clips with one screw through each leg. Channels spaced 24 in. OC max. Gypsum board attached to channels as described in Item 6. Not for use with Item 3A and 3B.

BASWAL INDUSTRIES PRODUCTS CO INC — Type RC Resilient Channel

7D. **Framing Members*** — (Optional) Not shown — As an alternate to Item 7, furring channels formed from resilient channels (Item 7). Clips attached to each intersecting stud with one screw through each leg of clip. Resilient channels (Item 7) fastened to clips with one screw through each leg. Channels spaced 24 in. OC max. Gypsum board attached to channels as described in Item 6. Not for use with Item 3A and 3B.

BASWAL INDUSTRIES PRODUCTS CO INC — Type RC Resilient Channel

7E. **Framing Members*** — (Optional) Not shown — As an alternate to Item 7, furring channels and steel framing members as described below:

a. **Furring Channels** — Formed of No. 26 MSG galv steel, 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 2. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 3A and 3B.

b. **Steel Framing Members*** — Used as resilient furring channels (Item 7) to attach gypsum board (Item 6). Steel channels formed from min 26 MSG galv steel, 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 2. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 3A and 3B.

PLITEQ INC — Type GENOSTL19

8. **Joint Tape and Compound** — Strip of paper, slit or perforated joint compound applied in two coats to joints and some boards of outer layers. Paper tape, min 2 in. wide, embedded in first layer of compound over all joints of outer layer panels. Tape, and all joints and corners, may be omitted when gypsum panels are supported on a square edge.

9. **Siding, Brick or Stucco** — (Optional, not shown) — Aluminum, vinyl or steel siding, brick veneer or stucco, meeting the requirements of local code authorities, installed over gypsum panels. Brick veneer attached to studs with corrugated metal tab ties attached to studs with steel screws, not more than 3 in. apart with course of brick.

10. **Caulking and Sealants*** — (Optional, not shown) — A bead of acoustical sealant applied around the partition perimeter for sound control.

GNOTED STATES GYPSUM CO — Type NS

11. **Lead Batten Strips** — (Not Shown, For Use With Item 9S) — Lead batten strips, min 1-1/2 in. wide, min 10 ft long with a nominal thickness of 0.125 in. Strips secured to the interior face of studs and attached from the exterior face of the stud with one 1 in. long Type S-12 pan head steel screws, one at the top of the strip and

one at the bottom of the strip. Lead Batten Strips to have a purity of 99.9% meeting the Federal specification QQ-L-201, Grade "C". Lead batten strips must require applied vertical joints of type covered gypsum wallboard (Item 9H) and optional w/intervening mat insertions. Every our optimal vertical joints.

12A. **Lead Batten Strips** — (Not Shown, For Use With Item 9H) Lead batten strips, 2 in. wide, min 10 ft long with a max thickness of 0.062 in. Strips placed on the face of studs and attached to the stud with two, min 1 in. long, Type S-S pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min 1 in. long min. Type S-S pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201, Grade "C". Lead batten strips required behind vertical joints of type backed gypsum wallboard (Item 9H) and optional at intervening mat locations.

13. **Lead Sheet Strips** — (Not Shown, For Use With Item 9S) — Lead in the form of coil or sheet in addition to the lead batten strips (Item 11), as optional in water locations. Thin, 3/4 in. down to max 0.125 in. thick lead sheet compensation fillet to achieved over steel wave bends or max 1.22 in. to 0.125 in. thick lead sole placed on gypsum boards (Item 18) underneath sides locations prior to the installation of the panels. Lead sheet or fabric to have a purity of 99.9% meeting the Federal specification QQ-L-201, Grade "C".

13A. **Lead Sheet** — (Not Shown, For use with Item 9H) Max 3/64 in. thick by max 0.0625 in. thick lead sheet compensation fillet to achieved over steel wave bends. Lead Sheet to have a purity of 99.9% meeting the Federal Specification QQ-L-201, Grade "C".

14. **Lead Batten Strips** — (Not Shown, For Use With Item 9C) Lead batten strips, 2 in. wide, min 10 ft long with a max thickness of 0.062 in. Strips placed on the face of studs and attached to the stud with two, min 1 in. long min. Type S-S pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min 1 in. long min. Type S-S pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201, Grade "C". Lead batten strips required behind vertical joints of type backed gypsum wallboard (Item 9H) and optional at intervening mat locations.

15. **Lead Tape** — (Not Shown, For Use With Item 9S) 2 in. wide, 5 in. long with a max thickness of 0.142 in. Tape molded around steel face of stud, one each for each panel flange, and the back face of the stud. Tape required at each location where a screw that secures the gypsum board, does not go completely through lead sheet. Lead tape to have a purity of 99.9% meeting the Federal specification QQ-L-201, Grade "C". Lead tabs may be held in place with standard asphaltic type if necessary.

*Bearing Side UL Classification Mark

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CONSOLIDATED FABRICATORS CORP.

BUILDING PRODUCTS DIV — Type SUPREME Framing System

QUAKE IRON BUILDING MATERIALS INC — Type NORTHERN Framing System

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME Framing System

STEEL CONSTRUCTION SYSTEMS INC — Type NORTHERN Framing System

UNITED METAL PRODUCTS INC — Type SUPREME Framing System

2F. **Framing Members*** — **Steel Studs** — (Not shown, for an alternate to Item 2) — For use with Items 2E, 2F or 2G or 25 gage, channel shaped studs, min depth as indicated under Item 2F, 3S or 3T, fabricated from min 33 mil, 50 ksi yield, galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height. For use with Item 3S, 3T or 3U, studs attached to floor and ceiling with fasteners 24 in. OC max.

CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD

DMFCWBS L L C — ProSTUD

MBA BUILDING SUPPLIES — ProSTUD

SOUTHEASTERN STUD & COMPONENTS INC — ProSTUD

TELLING INDUSTRIES L L C — ProSTUD

2G. **Framing Members*** — **Steel Studs** — Not shown — As alternate to Items 2 - For use with Item 1F. Proprietary shaped sheet, minimum width indicated under Item 2, studs to be cut 3/4 in. less than the assembly height.

STUDCO BUILDING SYSTEMS — ENDCENTRE

3. **Wood Structural Panel Sheathing** — (Optional, for use with Item 3 Only) — Not Shown — 4 ft wide, 7/16 in. thick exterior glued board (OSB) or STRUCTURAL 1 Rated sheathing conforming with DOC PS1 or PS2, or APA Standard PRP-108, manufactured with exterior glue, applied horizontally or vertically to the steel studs. Panels secured to studs as described in Item 2. Not to be used with Item 3A and 3B.

4. **Batts and Blankets*** — (Required as indicated under Item 3) — Mineral wool batts, friction fitted between steel studs and runners. For use thickness as indicated under Item 3. **Batts and Blankets (BKNW or R232) Categories** For numbers of Classified companies.

4A. **Batts and Blankets*** — (Optional) — Placed in steel cavities, between floor or ceiling assemblies and bearing the UL Classification Marking as to Surface Burning Characteristics. **Batts and Blankets (BKNW or R232) Categories** For numbers of Classified companies.

5. **Gypsum Board*** — Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered over those on opposite sides of studs. Gypsum board secured to various gauge studs in various combinations as described in Item 2 with screws spaced a max of 12 in. OC. Gypsum board may be secured by steel backing. Horizontal joints over steel backing centered on supporting studs or backing. Gypsum board secured to steel backing with screws spaced a max of 12 in. OC. Steel backing may be omitted on second side of wall when gypsum board is applied directly to the studs. Steel backing may be omitted on second side of wall when gypsum board is applied directly to the studs.

NELCO — Xerus

5F. **Gypsum Board*** — (As an alternate to Item 5) — For use with Items 1D and 2F and faulted to 1 hour rating only. Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally, and fastened to the steel studs with 1 in. long Type S screws spaced 6 in. OC along vertical and bottom edges and 12 in. OC in the field. Vertical joints centered over studs and staggered one side directly on opposite side of studs. Sheet base sheet over the 2 inches of studs.

UNITED STATES GYPSUM CO — 5/8 in. thick Type SCX, SGX

5G. **Gypsum Board*** — (As an alternate to Item 5) — For use with Items 2A and 2B of this Design. Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally as required by the code listed and fastened to the steel studs as prescribed in Item 6. Vertical joints centered over studs and staggered one layer directly on opposite sides of studs. Vertical joints on adjacent layers (multilayer systems) staggered one layer directly. Multilayer joints need not be backed by steel framing. Horizontal edge joints and horizontal joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal joints on adjacent layers (multilayer systems) staggered a min of 12 in. The thickness and number of layers for the 2 hr, 1 hr and 0 hr ratings are as follows:

Gypsum Board Protection on Each Side of Wall

Rating, Hr	Min Stud Depth, In. Item 2F	No. of Layers & Thickness of Panel	Min Thkns of Insulation (Item 4)
2	3-5/8	2 layers, 5/8 in. thick	Optional
2	3-5/8	2 layers, 1/2 in. thick	Optional
2	6-1/4	2 layers, 1/2 in. thick	Optional
1	3-1/2	3 layers, 5/8 in. thick	Optional
1	6-1/4	3 layers, 1/2 in. thick	Optional
0	3-1/2	4 layers, 5/8 in. thick	Optional

GSC INC — 1/2 in. thick Type C, SP-422 or SPC-AR, 5/8 in. thick Type AR, C, SP-AR, IP-X1, IP-X2, SPC-AR, SCX, SGX, SHX, IP-AR, AR, C, IP-AR, IP-X2, SPC-AR, 1/4 in. thick Types IP-X2 or ULTRACODE

UNITED STATES GYPSUM CO — 1/2 in. thick Type C, SP-422, SPC-AR or 5/8 in. thick Type SCX, SGX, SHX, IP-X1, AR, C, IP-AR, IP-X2, SPC-AR, 1/4 in. thick Types IP-X2 or ULTRACODE

USG MEXICO S.A DE C.V — 1/2 in. thick Type C, IP-X2, SPC-AR or 5/8 in. thick Type SCX, SGX, SHX, IP-X1, AR, C, IP-AR, IP-X2, SPC-AR, 1/4 in. thick Types IP-X2 or ULTRACODE

5H. **Gypsum Board*** — (As an alternate to Item 5) — Item 3/8 in. thick, 48 in. wide, applied vertically or horizontally. Secured as described in Item 4. No end joint Items 1 and 2 only.

UNITED STATES GYPSUM CO — Type UNDEX

5I. **Gypsum Board*** — (Not Shown) — As an alternate to Item 5 when used on the base layers on one or both sides of wall where 1/2 in. or 5/8 in thick products are specified. Fire rated assemblies apply to steel studs Item 2A, not to be used with Item 2J. Nominal 5/8 in. thick base board gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs on opposite sides of studs. Wallboard secured to studs with 1-7/8 in. long Type S-12 bu No. 6 by 1-1/4 in. long bugle head fine thread steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.

NEW ENGLAND LEAD BURNING CO INC, DBA

NELCO — Xerus

5J. **Gypsum Board*** — (As an alternate to Item 5) — For use with Items 2A and 2B of this Design. Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally as required by the code listed and fastened to the steel studs with 1 in. long Type S screws spaced 6 in. OC along vertical and bottom edges and 12 in. OC in the field. Vertical joints centered over studs and staggered one side directly on opposite sides of studs. Sheet base sheet over the 2 inches on 3-5/8 in.

UNITED STATES GYPSUM CO — 5/8 in. thick Type SCX, SGX

5K. **Gypsum Board*** — (As an alternate to Item 5) — For use with Items 2A and 2B of this Design. Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally as required by the code listed and fastened to the steel studs as prescribed in Item 6. Vertical joints centered over studs and staggered one layer directly on opposite sides of studs. Vertical joints on adjacent layers (multilayer systems) staggered one layer directly. Multilayer joints need not be backed by steel framing. Horizontal edge joints and horizontal joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal joints on adjacent layers (multilayer systems) staggered a min of 12 in. The thickness and number of layers for the 2 hr, 1 hr and 0 hr ratings are as follows:

Gypsum Board Protection on Each Side of Wall

Rating, Hr	Min Stud Depth, In. Item 2F	No. of Layers & Thickness of Panel	Min Thkns of Insulation (Item 4)
2	3-5/8	2 layers, 5/8 in. thick	Optional
2	3-5/8	2 layers, 1/2 in. thick	Optional
2	6-1/4	2 layers, 1/2 in. thick	Optional
1	3-1/2	3 layers, 5/8 in. thick	Optional
1	6-1/4	3 layers, 1/2 in. thick	Optional
0	3-1/2	4 layers, 5/8 in. thick	Optional

CONSOLIDATED FABRICATORS CORP.

BUILDING PRODUCTS DIV — Type SUPREME Framing System

QUAKE IRON BUILDING MATERIALS INC — Type NORTHERN Framing System

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME Framing System

STEEL CONSTRUCTION SYSTEMS INC — Type NORTHERN Framing System

UNITED METAL PRODUCTS INC — Type SUPREME Framing System

2F. **Framing Members*** — **Steel Studs** — (Not shown, for an alternate to Item 2) — For use with Items 2E, 2F or 2G or 25 gage, channel shaped studs, min depth as indicated under Item 2F, 3S or 3T, fabricated from min 33 mil, 50 ksi yield, galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height. For use with Item 3S, 3T or 3U, studs attached to floor and ceiling with fasteners 24 in. OC max.

CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD

DMFCWBS L L C — ProSTUD

MBA BUILDING SUPPLIES — ProSTUD

SOUTHEASTERN STUD & COMPONENTS INC — ProSTUD

TELLING INDUSTRIES L L C — TELCO STACK™

2G. **Framing Members*** — **Steel Studs** — Not shown — As alternate to Items 2 - For use with Item 1F. Proprietary shaped sheet, minimum width indicated under Item 2, studs to be cut 3/4 in. less than the assembly height.

STUDCO BUILDING SYSTEMS — ENDCENTRE

3. **Wood Structural Panel Sheathing** — (Optional, for use with Item 3 Only) — Not Shown — 4 ft wide, 7/16 in. thick exterior glued board (OSB) or STRUCTURAL 1 Rated sheathing conforming with DOC PS1 or PS2, or APA Standard PRP-108, manufactured with exterior glue, applied horizontally or vertically to the steel studs. Panels secured to studs as described in Item 2. Not to be used with Item 3A and 3B.

4. **Batts and Blankets*** — (Required as indicated under Item 3) — Mineral wool batts, friction fitted between steel studs and runners. For use thickness as indicated under Item 3. **Batts and Blankets (BKNW or R232) Categories** For numbers of Classified companies.

4A. **Batts and Blankets*** — (Optional) — Placed in steel cavities, between floor or ceiling assemblies and bearing the UL Classification Marking as to Surface Burning Characteristics. **Batts and Blankets (BKNW or R232) Categories** For numbers of Classified companies.

5. **Gypsum Board*** — Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered over those on opposite sides of studs. Gypsum board secured to various gauge studs in various combinations as described in Item 2 with screws spaced a max of 12 in. OC. Gypsum board may be secured by steel backing. Horizontal joints over steel backing centered on supporting studs or backing. Gypsum board secured to steel backing with screws spaced a max of 12 in. OC. Steel backing may be omitted on second side of wall when gypsum board is applied directly to the studs. Steel backing may be omitted on second side of wall when gypsum board is applied directly to the studs.

NELCO — Xerus

5F. **Gypsum Board*** — (As an alternate to Item 5) — For use with Items 1D and 2F and faulted to 1 hour rating only. Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally, and fastened to the steel studs with 1 in. long Type S screws spaced 6 in. OC along vertical and bottom edges and 12 in. OC in the field. Vertical joints centered over studs and staggered one side directly on opposite sides of studs. Sheet base sheet over the 2 inches on 3-5/8 in.

UNITED STATES GYPSUM CO — 5/8 in. thick Type SCX, SGX

5G. **Gypsum Board*** — (As an alternate to Item 5) — For use with Items 2A and 2B of this Design. Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally as required by the code listed and fastened to the steel studs as prescribed in Item 6. Vertical joints centered over studs and staggered one layer directly on opposite sides of studs. Vertical joints on adjacent layers (multilayer systems) staggered one layer directly. Multilayer joints need not be backed by steel framing. Horizontal edge joints and horizontal joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal joints on adjacent layers (multilayer systems) staggered a min of 12 in. The thickness and number of layers for the 2 hr, 1 hr and 0 hr ratings are as follows:

Gypsum Board Protection on Each Side of Wall

Rating, Hr	Min Stud Depth, In. Item 2F	No. of Layers & Thickness of Panel	Min Thkns of Insulation (Item 4)
2	3-5/8	2 layers, 5/8 in. thick	Optional
2	3-5/8	2 layers, 1/2 in. thick	Optional
2	6-1/4	2 layers, 1/2 in. thick	Optional
1	3-1/2	3 layers, 5/8 in. thick	Optional
1	6-1/4	3 layers, 1/2 in. thick	Optional
0	3-1/2	4 layers, 5/8 in. thick	Optional

TELLING INDUSTRIES L L C — TELCO STACK™

1H. **Framing Members*** — **Floor and Ceiling Runner** — Not shown - In lieu of Item 1 — For use with Item 3G, proprietary channel shaped runners, thickness width to accommodate stud size, with 1-1/2 in. long legs fabricated from min 0.033 in. thick base metal thickness galvanized steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

SUPER STUD BUILDING PRODUCTS — Type Edge

1I. **Framing Members*** — **Floor and Ceiling Runner** — Not shown - In lieu of Item 1 — For use with Item 3G, proprietary channel shaped runners, thickness width to accommodate stud size, with 1-1/2 in. long legs fabricated from min 0.033 in. thick base metal thickness galvanized steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

STUDCO BUILDING SYSTEMS — CERTICSTUD Track

2. **Steel Studs** — Channel shaped, fabricated from min 25 MSG corrosion protected steel, min depth as indicated under Item 3, fabricated from min 0.018 in. thick base metal thickness galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

2D. **Framing Members*** — **Steel Studs** — In lieu of Item 2 - Proprietary channel shaped studs, min depth as indicated under Item 3, fabricated from min 0.018 in. thick base metal thickness galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height. Adjustable use of studs is shown in the table below, for detail attachment of gypsum board only. Attached thickness is 0.034 in.

CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD

2H. **Steel Studs** — (As an alternate to Item 2, For use with Items 5B & 5M) Channel shaped, fabricated from min 25 MSG corrosion protected or galv steel, 3-1/2 in. min depth, spaced a max of 24 in. OC. Studs height as max of 1/4 in. less than the assembly height and installed with a 1/4 in. gap between the end of the stud and track at the bottom of the stud. For detail attachment of gypsum board only.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper25™

CRACO MFG INC — SmartTrack™

MARINO/WARE, DIV OF WARE INDUSTRIES

INC — Viper25™ Track

TELLING INDUSTRIES L L C — Viper25™ Track

2I. **Framing Members*** — **Metal Studs** — Not shown - In lieu of Item 2 — For use with Item 3G, proprietary channel shaped steel studs, min depth as indicated under Item 3, spaced a max of 24 in. OC, fabricated from min 0.029 in. thick galv steel, studs cut 3/8 in. to 3/4 in. less in lengths than assembly height.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™

MARINO/WARE, DIV OF WARE INDUSTRIES

INC — Viper20™

TELLING INDUSTRIES L L C — Viper20™ Track

2K. **Framing Members*** — **Steel Studs** — In lieu of Item 2 - For use with Item 1E Channel shaped studs, min depth as indicated under Item 3, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

ALLSTEEL & GYPSUM PRODUCTS INC — Type DURASAVE Framing System

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