SECTION 09 22 16

NON-STRUCTURAL METAL FRAMING

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\*\* NOTE TO SPECIFIER \*\* ClarkDietrich; non-load-bearing metal studs, runner track, and other components for partitions, shaftwall, stairwalls, and area separation walls.  
This section is based on the products of ClarkDietrich, which is located at:  
9050 Centre Pointe Dr. Suite 400  
West Chester, OH 45069  
Toll Free Tel: 800-543-7140  
Tel: 513-870-1100   
Fax: 513-870-1300  
Email: [request info (info@clarkdietrich.com)](https://admin.arcat.com/users.pl?action=UserEmail&company=ClarkDietrich&coid=31460&rep=&fax=513-870-1300&message=RE:%20Spec%20Question%20(09110cla):%20%20&mf=)  
Web: <https://www.clarkdietrich.com>   
 [ [Click Here](https://www.arcat.com/arcatcos/cos31/arc31460.html) ] for additional information.  
ClarkDietrich Building Systems is the leading manufacturer of cold-formed steel framing and finishing products for commercial and residential construction. ClarkDietrich Building Systems has been growing to meet the continued needs of our customers and we bring with us a long and respected history in the steel framing industry. ClarkDietrich provides a wide selection of cold-formed steel framing and finishing products including drywall and structural framing, clips and connectors, floor joists, metal lath, fire-rated assemblies, shaftwall framing products, numerous deflection systems and an extensive line of metal, vinyl, veneer, paper-faced, plaster and stucco beads and trims. ClarkDietrich companies and divisions include ClarkDietrich Engineering Services [CDES], ClarkDietrich ClipExpress and Vinyl Corp. ClarkDietrich Building Systems operates manufacturing and service locations throughout North America.  
ClarkDietrich also provides total cold-formed steel design services. ClarkDietrich Engineering Services [CDES] is a full-service engineering consulting firm specializing in cold-formed steel. CDES offers services including sealed shop drawings and calculations for curtainwall (non-bearing) and full load-bearing designs " HYPERLINK "http://www.clarkdietrich.com/services/bim-services" Building Information Modeling (BIM) Services; preliminary sizing; pre-bid engineering pricing; and technical assistance and LEED compliance with ClarkDietrich's products. CDES is the largest group of design engineers devoted solely to cold-formed steel framing design and is licensed in 49 states and now operates in four locations: Crown Point, IN; McDonough GA; Bristol, CT and Carlsbad, CA.   
ClarkDietrich Building Systems has grown to what we are today so that we can be closer to our customers while offering them the quality products and service they have come to expect from us over the years. ClarkDietrich works to bring its years of experience in the industry to our customers through knowledgeable sales people and a management team committed to the success of our customers. We recognize that our reputation rests upon quality products competitively delivered when they are needed. What's inside those walls not only counts, it is what we build our reputation on. But, this is only the beginning; we will continue to work to be our customers' preferred supplier by adding additional products so that we can be the industry's first choice from framing to finishing, coast to coast.   
Try our new SubmittalPro: Gathering the information you need for your technical submittal has never been easier. You can quickly view information about any of our products as individual PDFs, or you can select all the products you need and create the final submittal as a single PDF. You don't even need to login.

1. GENERAL
   1. SECTION INCLUDES
      1. Non-structural metal studs for wall assemblies.
      2. Area separation and shaft wall framing products.
   2. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 05 40 00 - Cold-Formed Metal Framing.
    2. Section 06 10 00 - Rough Carpentry.
    3. Section 07 21 26 - Blown Insulation.
    4. Section 07 84 13 - Penetration Firestopping.
    5. Section 09 21 16.23 - Gypsum Board Shaft Wall Assemblies.
  1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. ASTM International (ASTM):
       1. STM A 653 - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
       2. ASTM A 780 - Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings.
       3. ASTM B 633 - Standard Specification for Electrodeposited Coatings of Zinc on Iron and Steel.
       4. ASTM C 645- Standard Specification for Nonstructural Steel Framing Members.
       5. ASTM C 754 - Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products.
       6. ASTM C 847 - Standard Specification for Metal Lath.
       7. ASTM C 1063 - Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster (Plaster and Stucco Accessories).
       8. ASTM C 1396 - Standard Specification for Gypsum Board.
       9. STM C 1513 - Standard Specification for Steel Tapping Screws for Cold-Formed Steel Framing Connections.
       10. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
       11. ASTM E 90 - Standard Test Method for Lavatory Measurements of Airborne Sound Transmission Loss of Building Partitions and Elements.
       12. ASTM E 119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
       13. ASTM E 413 - Classification for Rating Sound Insulation.
    2. GA - 600 - Fire Resistance Design Manual.
    3. AISI North American Specification for the Design of Cold-Formed Steel Structural Members.
    4. AISI - Standard for Cold-Formed Steel Framing General Provisions.
  1. DESIGN REQUIREMENTS
     1. Design steel in accordance with American Iron and Steel Institute Publication "Specification for the Design of Cold-Formed Steel Structural Members", except as otherwise shown or specified.
     2. Design loads: As indicated on the Architectural Drawings. 5 PSF minimum design lateral load is required for interior walls by the building code. Shaftwall framing minimum design lateral load is typically 5 - 15 PSF.
     3. Design framing systems to withstand design loads without deflections greater than the following:

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + - 1. Interior Non-Load Bearing Walls: Lateral deflection of: L/120.
      2. Interior Non-Load Bearing Walls: Lateral deflection of: L/180.
      3. Interior Non-Load Bearing Walls: Lateral deflection of: L/240.
      4. Interior Non-Load Bearing Walls: Lateral deflection of: L/360.
    1. Design framing system to accommodate deflection of primary building structure and construction tolerances.
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
     2. Product Data: Manufacturer's data sheets on each product specified, including:
        1. Preparation instructions and recommendations.
        2. Storage and handling requirements and recommendations.
        3. Installation methods.
        4. Manufacturer's certification of product compliance with codes and standards.
     3. Sustainable Design Submittals:
        1. LEED v4 Submittals:
           1. MR Credit: Building Product Disclosure and Optimization - Environmental Product Declarations: Provide Type III EPDs from manufacturers that have third-party verified environmental impact data.
           2. MR Credit: Building Product Disclosure and Optimization - Sourcing of Raw Materials: Provide recycled content of products showing the percentage of postconsumer and/or preconsumer recycled content by weight and its associated cost.
           3. MR Credit: Building Product Disclosure and Optimization - Material Ingredients: Provide Health Product Declarations (HPDs) from manufacturers with full disclosure of known hazards in compliance with the Health Product Declaration Open Standard.
           4. MR Credit: Construction and Demolition Waste Management: Include a statement indicating percentage of materials diverted from disposal in landfills and incinerators, and where recyclable resources are directed back to the manufacturing process.
  2. QUALITY ASSURANCE
     1. Installer Qualifications: Installer experienced in performing work of this section who has specialized in installation of work similar to that required for this project.
     2. Pre-installation Meetings: Conduct pre-installation meeting to verify project requirements, substrate conditions, and manufacturer's installation instructions.
     3. Fire-Test-Response Characteristics: For fire-resistance-rated assemblies that incorporate non-structural steel framing, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by, and displaying a classification label from, an independent testing agency acceptable to authority having jurisdiction.
        1. Construct fire-resistance rated partitions in compliance with tested assembly requirements indicated on the Drawings.
        2. Rated assemblies to be substantiated from applicable testing using the proposed products, by Contractor.

\*\* NOTE TO SPECIFIER \*\* Retain paragraph below where framing is part of STC-rated assemblies. Indicate design designations of specific assemblies on Drawings.

* + 1. STC-Rated Assemblies: For STC-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 90 and classified according to ASTM E 413 by an independent testing agency.
  1. DELIVERY, STORAGE, AND HANDLING
     1. Protect and store products in manufacturer's unopened packaging until ready for installation per requirements of AISI's "Code of Standard Practice".
     2. Notify manufacturer of damaged materials received prior to installing.
     3. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
  2. PROJECT CONDITIONS
     1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer, Metal Framing: ClarkDietrich Building Systems, 9100 Centre Pointe Dr. Suite 210, West Chester, OH 45069. Tel: (513) 870-1100. Fax: (513) 870-1300. E-mail:[info@clarkdietrich.com](mailto:info@clarkdietrich.com) ; Web: www.clarkdietrich.com.
         1. ClarkDietrich Building Systems; 4601 North Point Boulevard, Baltimore, MD 21219. Tel: (410) 477-4000.
         2. ClarkDietrich Building Systems; 4200 Cedar Blvd., Baytown, TX 77520. Tel: (281) 383-1617.
         3. ClarkDietrich Building Systems; 780 James P. Casey Road, Bristol, CT 06010. Tel: (866) 921-0023.
         4. ClarkDietrich Building Systems; 6510 General Drive, Riverside, CA 92509. Tel: (951) 360-3500.
         5. ClarkDietrich Building Systems; 1685 Tide Court, Woodland, CA 95776. Tel: (530) 668-1987.
         6. ClarkDietrich Building Systems; 501 Steward Road, Suite 100, Rochelle, IL 61068. Tel: (800) 659-0745.
         7. ClarkDietrich Building Systems; 91-300 Hanua Street, Kapolei, HI 96707. Tel: (808) 682-5747.
         8. ClarkDietrich Building Systems; 330 Greenwood Place, McDonough, GA 30253. Tel: (678) 304-5500.
         9. ClarkDietrich Building Systems; 10340 Denton Drive, Dallas, TX 75220. Tel: (214) 350-1716.
         10. ClarkDietrich Building Systems; 38020 Pulp Drive, Dade City, FL 33523. Tel: (352) 518-4400.
         11. ClarkDietrich Building Systems; 1985 N. River Road NE, Warren, OH 44483. Tel: (330) 372-5564.
         12. ClarkDietrich Building Systems; 1455 Ridge Road, Vienna, OH 44473. Tel: (330) 372-4014.

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.
  1. COMPONENTS

\*\* NOTE TO SPECIFIER \*\* Review ClarkDietrich Building Systems Full Line Catalog and Technical Design Guide. Lateral and axial load carrying applications, including fixtures, cabinetry and other equipment in interior uses, are design dependent, and all designs should be reviewed by a competent design professional familiar with the system and the requirements of the specific project. Custom sizes and lengths are available along with the standard sizes and lengths. Maximum product length is limited only by practical handling limitations. Revise recycled content number if applicable after consultation with manufacturer.

* + 1. Recycled Content of Steel Products: Post-consumer recycled content plus one-half of pre-consumer recycled content not less than 25 percent.
    2. Framing Members, General: Comply with ASTM C645 for conditions indicated.
       1. Steel Sheet Components: Comply with ASTM C645 requirements for metal unless otherwise indicated.
       2. Protective Coating: Comply with ASTM C645; ASTM A 653/A 653M G40 (Z120), Coating with equivalent corrosion resistance of ASTM A 653/A 653M,G40 (Z120) or DiamondPluscoating; roll-formed from steel meeting mechanical and chemical requirements of ASTM A 1003 with a zinc-based coating. A40 galvannealed products are not acceptable.
          1. Coatings shall demonstrate equivalent corrosion resistance with an evaluation report acceptable to the authority having jurisdiction.
    3. Steel Studs and Runners: ASTM C645.
       1. Non-Structural Studs: Cold-formed galvanized steel C-studs, ClarkDietrich ProSTUD drywall studs as per ASTM C645 for conditions indicated below:
          1. Flange Size: 1-1/4 inch (32mm).

\*\*NOTE TO SPECIFIER\*\* Delete depths not required.

* + - * 1. Web Depth: As specified on Drawings.
        2. Web Depth: 1-5/8 inches (41 mm).
        3. Web Depth: 2-1/2 inches (64 mm).
        4. Web Depth: 3-5/8 inches (92 mm).
        5. Web Depth: 4 inches (102 mm).
        6. Web Depth: 6 inches (152 mm).

\*\*NOTE TO SPECIFIER\*\* Delete description not required.

* + - * 1. Member Description: ProSTUD 25 (25ga equivalent drywall stud) 50 ksi. Minimum Base-Steel Thickness: 0.0150 inches (0.3810 mm). Minimum Design Thickness: 0.0158 inches (0.4013 mm).
        2. Member Description: ProSTUD 20 (20ga equivalent drywall stud) 65 ksi. Minimum Base-Steel Thickness: 0.019 inches (0.4826 mm). Minimum Design Thickness: 0.020 inches (0.508 mm).

\*\* NOTE TO SPECIFIER \*\* For additional ProSTUD® thicknesses to meet nonstandard specifications see: www.clarkdietrich.com.

* + - 1. Non-Structural Track: Cold-formed galvanized steel runner tracks, ClarkDietrich ProTRAK drywall track, in conformance with ASTM C 645 for conditions indicated below:
         1. Flange Size: 1-1/4 inch (32mm).
         2. Web Depth: Track web to match stud web size.
         3. Minimum Base-Steel Thickness: Track thickness to match wall stud hickness or as per design.
      2. "EQ" (Equivalent Gauge Thickness) Steel Studs and Runners: Members that can show certified third party testing with gypsum board in accordance with ICC ES AC86 - 2010 (Approved May 2012) need not meet the minimum thickness limitation or minimum section properties set forth in ASTM C 645. The submission of an evaluation report is acceptable to show conformance to this requirement.
      3. Steel Framing Stud and Track Wall System: Self-locking metal studs, and telescoping stud extensions and tracks.
         1. TRAKLOC Steel Framing System by ClarkDietrich Building Systems.

TRAKLOC Fixed Length Stud (TLF).

TRAKLOC Adjustable Stud (TLA).

TRAKLOC Elevator Stud (TLE).

TRAKLOC Track (TTS).

* + - * 1. Minimum Base-Steel Thickness: 0.0179 inch (0.45 mm).
        2. Minimum Base-Steel Thickness: 0.0238 inch (0.60mm).
        3. Minimum Base-Steel Thickness: 0.0296 inch (0.75 mm).
        4. Minimum Base-Steel Thickness: 0.0329 inch (0.84 mm).
        5. Web Depth: 2-1/2 inches (64 mm).
        6. Web Depth: 3-5/8 inches (92 mm).
        7. Web Depth: 4 inches (102 mm).
        8. Web Depth: 6 inches (152 mm).
      1. Steel Framing Stud and Deflection Track Wall System: Self-locking metal studs with telescoping stud extension with knockout in each flange to allow for 1 inch (25 mm) of deflection for fire-rated head-of-wall deflection system.
         1. TRAKLOC Stud Deflection Assembly.

TRAKLOC (TLD).

* + - * 1. Minimum Base-Steel Thickness: 0.0179 inch (0.45 mm).
        2. Minimum Base-Steel Thickness: 0.0238 inch (0.60 mm).
        3. Minimum Base-Steel Thickness: 0.0296 inch (0.75 mm).
        4. Minimum Base-Steel Thickness: 0.0329 inch (0.84 mm).
        5. Web Depth: 2-1/2 inches (64 mm).
        6. Web Depth: 3-5/8 inches (92 mm).
        7. Web Depth: 4 inches (102 mm).
        8. Web Depth: 6 inches (152 mm).

\*\* NOTE TO SPECIFIER \*\* MaxTrak® - Provides a positive attachment for overall strength and allows for vertical movement caused by normal head-of-wall and floor extension or compression. Select the designation and criteria information based upon the shape and size component required for the project. If more than one, identify the application or location where used or verify the designation and size is indicated on the drawings.

* + 1. Slotted Deflection Track: ClarkDietrich Building Systems MaxTrak or BlazeFrame; cold-formed galvanized steel in conformance with AISI's Specifications for Design of Cold-Formed Steel Members.
       1. Designation and size as indicated on the drawings.

\*\*NOTE TO SPECIFIER\*\* Delete thickness not required.

* + - 1. Minimum Delivered Thickness: 20 gauge, 0.0329 inches (0.84 mm).
      2. Minimum Delivered Thickness: 18 gauge, 0.0428 inches (1.09 mm).
      3. Minimum Delivered Thickness: 16 gauge, 0.0538 inches (1.37 mm).
      4. Minimum Delivered Thickness: 14 gauge, 0.0677 inches (1.72 mm).
      5. Standard leg 2-1/2 inches (64 mm).
      6. Standard Vertical Slot of 1-1/2 inches (38 mm) in leg.
      7. Minimum yield strength of 50 ksi in 16 gauge (1.37 mm) and heavier and minimum yield strength of 33 ksi in 18 gauge (1.09 mm) and lighter.
    1. Furring Channel: Cold-formed galvanized steel in conformance with AISI's North American Specifications for Design of Cold-Formed Steel Structural Members; ClarkDietrich Building Systems furring channel:

\*\* NOTE TO SPECIFIER \*\* Select the designation and criteria information based upon the shape and size component required for the project. If more than one, identify the application or location where used or verify the designation is indicated on the drawings.

* + - 1. Designation and size as indicated on the drawings.
      2. Designation: 25 gauge, 0.0179 inches (0.45 mm) sheet thickness, 7/8 inches (22 mm) height, 2-23/32 inches (69 mm) width.
      3. Designation: 20 gauge, 0.0296 inches (0.75 mm) sheet thickness, 7/8 inches (22 mm) height, 2-23/32 inches (69 mm) width.
      4. Designation: 25 gauge, 0.0179 inches (0.45 mm) sheet thickness, 1-1/2 inches (38 mm) height, 2-11/16 7/8 inches (68 mm) width.
      5. Designation: 20 gauge, 0.0296 inches (0.75 mm) sheet thickness, 1-1/2 inches (38 mm) height, 2-11/16 inches (68 mm) width.
    1. U Channel: Cold-formed galvanized steel; ClarkDietrich Building Systems U-Channel:

\*\* NOTE TO SPECIFIER \*\* Select the designation and criteria information based upon the shape and size component required for the project. If more than one, identify the application or location where used or verify the designation is indicated on the drawings.

* + - 1. Designation and size as indicated on the drawings.
      2. Designation: galvanized, 16 gauge, 0.0538 inches (1.37 mm) steel thickness, 3/4 inches (19.1 mm) size.
      3. Designation: galvanized, 16 gauge, 0.0538 inches (1.37 mm) steel thickness, 1 1/2 inches (38 mm) size.
      4. Designation: galvanized, 16 gauge, 0.0538 inches (1.37 mm) steel thickness, 2 inches (51 mm) size.

\*\* NOTE TO SPECIFIER \*\* H Studs and C-Runner are used in the construction of area separation walls.

* + 1. Rough Openings: Galvanized steel one-piece header and jamb studs meeting or exceeding the requirements of ASTM C 754; ClarkDietrich RedHeader PRO:
       1. Designation and size as indicated on drawings.
       2. Header flange length: 3 inches (76mm).
       3. Header flange length: 3-1/2 inches (89mm).
       4. Jamb flange length: 3 inches (76mm).
       5. Jamb flange length: 3-1/2 inches (89mm).
       6. Minimum Base-Steel Thickness: 20 gauge, 0.0329 inch.
       7. Minimum Base-Steel Thickness: 18 gauge, 0.0428 inch.
    2. H-Studs and C-Runner: Cold-formed galvanized steel, ClarkDietrich Building Systems H-studs and C-Runner:

\*\*NOTE TO SPECIFIER\*\* Select the designation and criteria information based upon the shape and size component required for the project. If more than one, identify the application or location where used or verify the designation is indicated on the drawings.

* + - 1. Designation and size as indicated on the drawings.
      2. Designation: Unhemmed H-stud; 2 inches (51 mm), 10-foot (3 m) length, 25 gauge, 0.0179 inches (0.45 mm).
      3. Deflection Limitation at 10-foot (3000 mm): L/240.

\*\* NOTE TO SPECIFIER \*\* C-T Shaftwall Studs and J-Tabbed Track are used in the construction of shaftwalls and stairwalls. Select the designation and criteria information based upon the shape and size component required for the project. If more than one, identify the application or location where used or verify the designation is indicated on the drawings.

* + 1. CT Shaftwall Studs and J-Tabbed Track: Cold-formed galvanized steel, approved for the use intended based on a current Evaluation Report; ClarkDietrich Building Systems CT Shaftwall Studs and J-Tabbed Track.

\*\*NOTE TO SPECIFIER\*\* Select the designation and criteria information based upon the shape and size component required for the project. If more than one, identify the application or location where used or verify the designation is indicated on the drawings.

* + - 1. Designation and size as indicated on the drawings.
      2. Designation: CT Shaftwall Stud with J-Tabbed Track, 2-1/4 inches (57 mm) leg.
      3. Designation: CT Shaftwall Stud with J-Tabbed Track, 3 inches (76 mm) leg.

\*\*NOTE TO SPECIFIER\*\* Delete size not required.

* + - 1. Size: 2-1/2 inches (64 mm).
      2. Size: 4 inches (102 mm).
      3. Size: 6 inches (152 mm).

\*\*NOTE TO SPECIFIER\*\* Delete thickness not required.

* + - 1. Sheet Thickness: 25 gauge.
      2. Sheet Thickness: 20 gauge.
      3. Sheet Thickness: 18 gauge.

\*\*NOTE TO SPECIFIER\*\* Delete deflection limitation not required.

* + - 1. Deflection Limitation: L/120.
      2. Deflection Limitation: L/180.
      3. Deflection Limitation: L/240.
      4. Deflection Limitation: L/360.
    1. Metal Trims: Cold-formed galvanized steel.

\*\* NOTE TO SPECIFIER \*\* Select the designation and criteria information based upon the shape and size component required for the project. If more than one, identify the application or location where used or verify the designation is indicated on the drawings.

* + - 1. Type and Size as indicated on the drawings.
      2. Type: J Trim.
         1. Designation: M400, 3/8 inches (9.5 mm) size, 1-1/4 inches (32 mm) leg.
         2. Designation: M401, 1/2 inches (12.7 mm) size, 1-1/4 inches (32 mm) leg.
         3. Designation: M402, 5/8 inches (15.9 mm) size, 1-1/4 inches (32 mm) leg.
      3. Type: U Trim.
         1. Designation: 200A, 1/2 inches (12.7 mm) size, 1-1/4 inch (32 mm) leg.
         2. Designation: 200A, 5/8 inches (15.9 mm) size, 1-1/4 inch (32 mm) leg.
      4. Type: L Trim.
         1. Designation: 200B, 1/2 inches (12.7 mm) size, 1-1/4 inch (32 mm) leg.
         2. Designation: 200B, 5/8 inches (15.9 mm) size, 1-1/4 inch (32 mm) leg.
    1. Drywall Corner Bead: Cold-formed galvanized steel sheet.
       1. Type: 103 Deluxe.
       2. Flange Length: 1-1/4 inches (32 mm).
    2. Flat Strap and Backing Plate: Sheet for blocking and bracing in length and width indicated.
       1. Galvanized Sheet Steel:

\*\*NOTE TO SPECIFIER\*\* Delete thickness not required.

* + - * 1. Minimum Base-Steel Thickness: As indicated on Drawings.
        2. Minimum Base-Steel Thickness: 0.0179 inch (0.45 mm).
        3. Minimum Base-Steel Thickness: 0.0296 inch (0.75 mm).
      1. Subject to compliance with requirements, provide ClarkDietrich Building Systems; Backing Plate.

\*\*NOTE TO SPECIFIER\*\* Delete option not required.

* + 1. Backing Plate: Proprietary fire-retardant-treated wood blocking and bracing in width indicated.
       1. ClarkDietrich Building Systems Danback Fire-Retardant Treated Wood Backing Plate D16F.
       2. ClarkDietrich Building Systems Danback Fire-Retardant Treated Wood Backing Plate D24F.
    2. Channel Bridging and Bracing: Pre-notched steel bar, 7/8 inch by 7/8 inch by 50 inches (22.2 mm by 22.2 mm by 1270 mm), 0.0329-inch (0.84-mm) minimum base-steel thickness.
       1. Subject to compliance with requirements, provide ClarkDietrich Building Systems; Spazzer 9200 Bridging and Spacing Bar (SPZD).
    3. Channel Bridging: 0.0538 inch (1.37 mm) base-steel thickness, with minimum 1/2 inch (12.7 mm) wide flanges.
       1. Subject to compliance with requirements, provide ClarkDietrich Building Systems; Cold-Formed U-Channel.

\*\*NOTE TO SPECIFIER\*\* Delete depths not required.

* + - * 1. Depth: As indicated on Drawings.
        2. Depth: 3/4 inch (19.1 mm).
        3. Depth: 1-1/2 inches (38.1 mm).
        4. Depth: 2 inches (50.8 mm).
        5. Clip Angle: Subject to compliance with requirements, provide ClarkDietrich Building Systems; EasyClip U-Series Clip Angle or not less than 1-1/2 by 1-1/2 inches (38.1 by 38.1 mm), 0.0538 inch (1.37 mm) thick, galvanized steel.

\*\*NOTE TO SPECIFIER\*\* Delete clip angles not required.

Clip Angle: U543.

Clip Angle: U545.

Clip Angle: U547.

* + 1. Resilient Furring Channels: 1/2 inch (12.7 mm) deep, steel sheet members designed to reduce sound transmissions:
       1. Provide ClarkDietrich Building Systems; RC Deluxe (RCSD) Resilient Channel.
    2. Radius Framing: Steel sheet runner for non-load-bearing curves, bends, variable radii and arches using expandable ribbon technology.
       1. Provide ClarkDietrich Building Systems Interior Contour Track.

\*\*NOTE TO SPECIFIER\*\* Delete thickness not required.

* + - 1. Minimum Base-Steel Thickness: As indicated on Drawings.
      2. Minimum Base-Steel Thickness: 0.0179 inch (0.45 mm).
      3. Minimum Base-Steel Thickness: 0.0259 inch (0.66 mm).

\*\*NOTE TO SPECIFIER\*\* Delete size not required.

* + - 1. Size: 2-1/2 inches.
      2. Size: 3-5/8 inches.
      3. Size: 6 inches.
      4. Size: As indicated on Drawings.
    1. Framing Component Accessories: Provide the following accessories as required for a complete system.
       1. EasyClip Clip Angle.
       2. Angles.
       3. Backing Strip.
    2. Drywall Penetration Barrier Mesh: Supply and install Barrier Mesh steel expanded metal panels as a penetration barrier behind gypsum wallboard walls and/or ceilings, where noted on the drawings.
       1. Barrier Mesh supplied by ClarkDietrich Building Systems.

\*\*NOTE TO SPECIFIER\*\* Delete size not required.

* + - * 1. BM75-9F Maximum Security.
        2. BM50-13F Maximum Security.
        3. BM15-9F Medium Security.
        4. BM75-13F Medium Security.
        5. BM10-16F Minimum Security.
      1. ClarkDietrich Barrier Mesh Clips: Barrier Mesh shall be attached to framing members using ClarkDietrich Barrier Mesh Clips and the appropriate threaded fasteners.
    1. Fasteners: Self-drilling, self-tapping screws; steel, complying with ASTM C 1513; galvanized coating, plated or oil-phosphate coated complying with ASTM B 633 as needed for required corrosion resistance.

\*\* NOTE TO SPECIFIER \*\* Include the following paragraph if welded connections are specified.

* + 1. Touch-Up Paint: Complying with ASTM A 780 - Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings. Zinc rich, containing 95-percent metallic zinc.
    2. Non-Hardening, Flexible Sealant: Latex acrylic.
  1. MATERIALS
     1. Cold-Formed Steel: Complying with ASTM C 645; unless indicated otherwise.
     2. Protective Coating: Comply with ASTM C645; ASTM A 653/A 653M G40 (Z120), Coating with equivalent corrosion resistance of ASTM A 653/A 653M,G40 (Z120) or DiamondPluscoating; roll-formed from steel meeting mechanical and chemical requirements of ASTM A 1003 with a zinc-based coating. A40 galvannealed products are not acceptable.
        1. Coatings shall demonstrate equivalent corrosion resistance with an evaluation report acceptable to the authority having jurisdiction.
  2. FABRlCATlON
     1. General: Framing components may be preassembled into panels prior to erecting.
     2. Fabricate panels square, with components attached in a manner so as to prevent racking or distortion.
     3. Cut all framing components squarely for attachment to perpendicular members, or as required for an angular fit against abutting members. Hold members positively in place until properly fastened.
     4. Fasteners: Fasten components using self-tapping screws or welding.

1. EXECUTION
   1. EXAMINATION
      1. Prior to installation, inspect previous work of all other trades. Verify that all work is complete and accurate to the point where this installation may properly proceed in strict accordance with framing shop drawings.
      2. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
   2. ERECTION
      1. Install cold-formed framing in accordance with requirements of ASTM C 754.

\*\* NOTE TO SPECIFIER \*\* Delete references to welding connections when framing components are lighter than 16 gauge.

* + 1. Framing Installation:
       1. Erect framing and panels plumb, level and square in strict accordance with approved drawings.
       2. Handle and lift prefabricated panels in a manner to not cause distortion in any member.
       3. Anchor runner track securely to the supporting structure. Install concrete anchors only after full compressive strength has been achieved.
       4. Butt all track joints. Securely anchor abutting pieces of track to a common structural element, or splice them together.
       5. Align and plumb studs, and securely attach to the flanges or webs of both upper and lower tracks.
       6. Attach wall stud bridging when required in a manner to prevent stud rotation. Space bridging rows according to manufacturer's recommendations.
       7. Provided temporary bracing until erection is completed.
       8. Where indicated in the drawings, provide for structural vertical movement using means in accordance with manufacturer's recommendations.
       9. Cut all framing components square for attachment to perpendicular members or as required for an angular fit against abutting members.

\*\* NOTE TO SPECIFIER \*\* Provide the following for shaft wall construction.

* + 1. Shaftwall Framing Installation:
       1. Lay out as shown in construction drawings. Secure J-Tabbed Track at perimeter framing and plumb to ceiling, floor and sides. Attach with suitable fasteners, spaced not more than 24 inches (610 mm) o.c. Apply a bead of non-hardening, flexible sealant to the perimeter.
       2. Preplan the stud layout 24 inches (610 mm) o.c. and adjust the spacing at either end so the end studs will not fall closer than 12 inches (305 mm) from the end.
       3. Erect the first 1-inch (25.4 mm) shaft wall liner panel, cut 3/4 inch (19 mm) less than the total height of the framed section. Plumb the panel against the web of the J-Tabbed Track and bend out tabs in J-Tabbed Track to secure panels in place. If tabs are not used, screw the liner panel to the J-Tabbed Track.
       4. Insert CT Shaftwall Stud, cut 3/4 inch (19 mm) less than the overall height, into the top and bottom J-Tabbed Tracks and fit tightly over the previously installed 1 inch (25.4 mm) panel. Allow equal clearance between top and bottom J-Tabbed Track.
       5. Install the next 1-inch (25.4 mm) shaft wall liner panel inside the J-Tabbed Tracks and within the tabs of the CT Shaftwall stud.
       6. Progressively install succeeding studs and panels as described above until the wall section is enclosed. The final panel section may be secured with tabs from the J-Tabbed Track at 12 inches (305 mm) o.c.
       7. Where wall heights exceed the standard or available length of shaft wall liner panels, the gypsum panels may be cut and stacked with joints occurring within the top or bottom third points of the wall. Joints of adjacent panels should be alternately staggered to prevent a continuous horizontal joint. Any butt joints must be factory edge to factory edge with pieces pushed tightly together. Gypsum panels must engage a minimum of 2 tabs of the CT Shaftwall Stud.
       8. CT Shaftwall Studs cannot be spliced. They must be installed full height, one piece. J-Tabbed Track when not attached of the structure shall not be spliced.
       9. Do not attach J-Tabbed Track to the CT Shaftwall Studs.
       10. For doors, ducts or other large penetrations or openings, install J-Tabbed Track as perimeter framing. Use 20 gauge, 0.0329 inches (0.83 mm) track with a 3 inches (76 mm) back leg for elevator doors and block cavity with 12 inches (305 mm) wide gypsum filler strips for doors exceeding 7-foot (2 m) height.
    2. Drywall Penetration Barrier Mesh Installation:
       1. Barrier Mesh sheets may be installed with diamond running in direction most suitable.
       2. ClarkDietrich BM-Clips shall be installed to secure the mesh to the framing members.
       3. Mesh joints occurring on framing members may either join staggered or butt together.
       4. It is acceptable to overlap mesh joints to achieve tie-in.
       5. BM sheets shall join, begin and terminate on a framing member.
       6. BM sheets not joining on framing member shall be wire tied with 18GA steel tie wire.
       7. Wire tying shall be no less frequent than the installation of Mesh Clips.
  1. PROTECTION
     1. Protect installed products until completion of project.
     2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION