At Flex-Ability Concepts we start with the best designed products in the industry for curved framing applications. We match these designs with care and dedication in the manufacturing process. This allows us to offer you products of the greatest consistency and of the greatest value. We are proud of our “Family of Products.” You can be too, since we developed these great value products by listening to you, our valued customers. Ease of installation, strong assemblies and smooth, easy to finish curves are what you can continue to expect from THE CURVED WALL PEOPLE®.

EARN LEED® POINTS USING FLEX-ABILITY CONCEPTS PRODUCTS

Flex-Ability Concepts recognize the importance of Green construction and the LEED program. Flex-Ability Concepts’ products contribute toward achieving LEED™ credits in the Materials and Resources area.

Material Credit #4.1 – Recycled Content (6%) Flex-Ability Concepts’ products exceed this criteria.

Material Credit #4.2 – Recycled Content (10%) Flex-Ability Concepts’ products exceed this criteria.

Recycled Content

Light gauge steel framing is recognized as a recycled content product with the LEED Green Building Rating System®. Flex-Ability Concepts’ products contain a high content of recycled steel.

* LEED and LEED Green Building Rating System are service marks of the U.S. Green Building Council.

Flex-C Trac with new Hammer-Lock™ feature is designed to make life easier for the builder needing to construct curved walls, barrel vaults and more.

- Pivotal sections make it easy to shape Flex-C Trac by hand
- On a hard surface hammer the tabs to embed them, securing the shape of the track
- Wood or Metal studs work equally well with Flex-C Trac
- All sizes and gauges include Hammer-Lock feature
- Material – 20 Gauge: 2 1/2", 3 1/2", 4", 6", 8", 10"
- Material – 18 Gauge: 3 5/8", 4", 6", 8", 10"
- Material – 16 Gauge: 3 3/8", 4", 6", 8", 10"
- Minimum outside radius – (2 1/2", 3 1/2", 4", 6", 8", 10")
- Minimum outside radius of other sizes please refer to website, cut sheets or contact Flex-Ability Concepts.

Flex Lite is lightweight, easy to use and great for building curved walls, ceilings and soffits. Use it where lateral loads are not an issue and where the higher quality of Flex-C Trac is not needed.

- Pivotal sections make it easy to shape Flex Lite by hand
- Wood or Metal studs work equally well with Flex Lite
- Material – 25 Gauge: 3 1/8"
- Minimum outside radius: 10"

Flex-C Angle with Hammer-Lock™ feature is ideal for use in the construction of deep curved soffits and fur downs or other applications where the second leg of the track would interfere with perpendicular framing components.

- Pivotal sections make it easy to shape Flex-C Angle by hand
- On a hard surface hammer the tabs to embed them. This secures the shape of Flex-C Angle.
- Wood and metal studs work equally well with Flex-C Angle
- Material – 20 Gauge: 2 5/16" x 1 5/16", Minimum Outside Radius: 7"
- Material – 16 Gauge: 3 3/8" x 2", Minimum Outside Radius: 10 1/2"
Use Flex-C Arch to frame virtually any doorway, window or pass-through arch. This sturdy, well-built product can be easily shaped by hand and installed in a fraction of the time required for traditional methods.

It is also well suited for framing curved soffits and light coves as well as acoustical clouds.

- Form Flex-C Arch to the desired radius
- Install screws in the holes along one side of the overlapping plates or flatten the Hammer-Lock™ tabs
- Commercial widths: 2 1/2", 3 9/16", 4", 6", 8"
- Minimum Radius: 0°
- Standard length: 8'
- Material: 20 Gauge
- Custom widths available, please contact us for a quote

Using Flex-C Trac system technology, the Flex-C Header is pre-assembled, easy to install and load bearing.

- Pivotal sections make it easy to shape Flex-C Header by hand
- The pivotal sections are easily secured by means of self-tapping screws (included) or “Positive Placement” type nails
- Material - Widths: 3 9/16" and 6", Flex-C Trac: 20 Gauge
- Side Sheet Steel: 16 Gauge
- Caution: Always use proper eye protection and safety measures when using power tools and air nails.

The 3-Legged Dog™ deflection clip eliminates tumbling or dropping of clips.

First, Slide the 3-Legged Dog onto the end of the stud
Second, With the clip on the top end raise the stud into the deep-leg track and snap into place
Third, Secure the 3-Legged Dog inside the top track using conventional fasteners

Light Gauge framing for use in joint systems. See UL Fire Resistance Directory (Control No. 6CAR File No. R0931)


D-Flexion Post works hand in hand with 20 gauge 35/8" and 21/2" Flex-C Trac and allows for vertical deflection in a curved wall.

First, Form and secure Flex-C Trac in the desired curve.
Second, Insert the D-Flexion Post into a pivot hole of Flex-C Trac. Use as many Posts as needed for the desired lateral strength of the wall.
Third, Anchor D-Flexion Post to the top deck using the pre-punched holes in the base plate.
Last, Install the wall stud.

Contact Flex-Ability Concepts, THE CURVED WALL PEOPLE™, for complete instructions, product specifications, load capacities and allowable heights. Assistance is also available for finding all your curved framing resources and for finding a dealer near you.

Tel 405.996.5343 Toll Free 866.443.FLEX (866.443.3539)
E-mail: info@flexibilityconcepts.com or visit www.flexibilityconcepts.com.

U.S. Patent #s: Flex-C Trac and Flex-Lite: 6,000,181 - 6,625,942 - 6,637,173, other patents pending;
3-Legged Dog: 8,792,733
1.2 SUMMARY

PART 2 – PRODUCTS

1.1 DESCRIPTION

1.4 QUALITY ASSURANCE

A. This Section includes the following:

1. Exterior and Interior non load-bearing walls.
2. Exterior and Interior load-bearing walls.

1.3 PERFORMANCE REQUIREMENTS

A. Engineering Responsibility: Engage a fabricator who assumes undivided responsibility for engineering FLEX-C TRAC and FLEX-C ANGLE metal framing by employing a qualified professional engineer to prepare design calculations, shop drawings, and other structural engineering.

B. Design exterior non load-bearing curtainwall framing to accommodate lateral deflection without regard to contribution of sheathing materials.

C. All Exterior and Interior load-bearing applications are to be engineered by a qualified professional engineer.

1.4 QUALITY ASSURANCE

A. Installer Qualifications: Engage an experienced Installer who has completed cold-formed metal framing similar in material, design, and extent to that indicated for this project and with a record of successful in-service performance.

B. Standard

1. Work shall meet the requirements of the following standards:
   c. American Society for Testing Materials (A.S.T.M.)
   e. All pertinent Federal, State, and Local codes.

2. The most stringent standards shall govern in conflicts between specified codes and standards.

3. Certify that each welder has satisfactorily passed AWS qualification tests for welding processes involved and, if pertinent, has undergone recertification within the past twelve months.

C. Inspection

1. As directed by Architect, Owner’s testing agency may inspect the maintenance of a quality control program including spot checking weldments and welding procedures in accordance with A.W.S. standards.

2. Full responsibility for quality control shall remain with the Contractor.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Protect FLEX-C TRAC and FLEX-C ANGLE metal framing from corrosion, deformation, and other damage during delivery, storage, and handling.

B. Store FLEX-C TRAC and FLEX-C ANGLE metal framing, protect with waterproof covering, and ventilate to avoid condensation.

1.6 SUBMITTALS

A. Structural Calculations

1. Submit structural calculations prepared by the Professional Engineer of record.

2. Calculations shall include, but are not limited to:
   a. Description of design criteria.
   b. Engineering analysis depicting stress and deflection (stiffness) requirements for each framing application.
   c. Selection of framing components and accessories.
   d. Verification of attachments to structure and/or adjacent framing components.

B. Drawings

1. Submit drawings prepared by the manufacturer for approval by the Project Architect and Engineer. These drawings should include:
   a. Cross-sections, plans and/or elevations depicting component locations.
   b. Connection details showing screw types and locations, weld lengths and/or locations or other related fastener requirements.
   c. Where the Contractor intends on erecting prefabricated/prefinished panels, drawings depicting panel configurations, dimensions and locations would be developed by the Contractor.

PART 2 – PRODUCTS

2.1 AVAILABLE MANUFACTURERS:

A. Manufacturers offering FLEX-C TRAC and FLEX-C ANGLE metal framing that may be incorporated in the work include, and are limited to, the following:

   1. FLEXABILITY CONCEPTS – 5500 West Reno Avenue Suite 300 Oklahoma City, OK 73127 Tel 405.996.3534 Fax 405.996.3533 www.flexabilityconcepts.com

2.2 MATERIALS

A. Galvanized – 20 Gauge Sheet Steel Track: ASTM A 653, and as follows:

1. Coating Designation: Galvanized Steel equal or superior to ASTM A653 G40 or A40
2. Grade: 33

B. Galvanized – 18 Gauge and 16 Gauge Sheet Steel Track: ASTM A653,

1. Coating Designation: Galvanized Steel equal or superior to ASTM A653 G60.
2. Grade: 50

C. Galvanized Sliding Steel Strap: ASTM A653

1. Coating Designation: Galvanized Steel equal or superior to ASTM A653 G60.
2. Grade: 80

D. Galvanized Integral Steel Strap: ASTM A653:

1. Coating Designation: Galvanized Steel equal or superior to ASTM A653 G60.
2. Grade: 50

2.3 WALL FRAMING

A. Steel Studs: Manufacturer’s standard C-shaped steel studs with punched webs in depths indicated, with flanged lengths 1-5/8 inches in width. Design uncoated steel thickness of specified gauge unless noted otherwise.

B. Wood Studs: Per applicable drawing specifications.

C. FLEX-C TRAC: Manufacturer’s standard C-shaped flex steel track with banded flanges and screw attachments at every flange interval.

D. FLEX-C ANGLE: Manufacturer’s standard L-shaped flex steel angle with banded flanges and screw attachments at every flange interval.

2.4 FRAMING ACCESSORIES

A. Fabricate steel-framing accessories of the same material and finish used for framing members; with a minimum yield strength of 33,000 psi.

B. Provide accessories of manufacturer’s standard thickness and configuration, unless otherwise indicated.

2.5 FASTENERS

A. Mechanical Fasteners: Corrosion-resistant coated, self-drilling, self-threading steel drill screws.

   1. Head Type: Low-profile head beneath sheathing, manufacturer’s standard elsewhere.

B. Welded Electrodes: Comply with AWS standards.

2.6 MISCELLANEOUS MATERIALS

A. Galvanizing Repair Paint: SSPC-Paint 20 of DOD-P-21035, with dry film containing a minimum of 94 percent zinc dust by weight.

2.7 FABRICATION

A. Fasten FLEX-C TRAC and FLEX-C ANGLE metal framing by welding or screw fastening, as standard with fabricator. Wire tyng of FLEX-C TRAC and FLEX-C ANGLE framing members is not permitted.

B. Extreme care should be taken when handling or cutting any metal products. All safety precautions when handling or cutting FLEX-C TRAC.

C. Fasten other materials to FLEX-C TRAC and FLEX-C ANGLE metal framing by welding, bolting, or screw fastening, according to manufacturer’s recommendations.

D. Reinforce, stiffen, and brace framing assemblies to withstand handling, delivery, and erection stresses. Lift fabricated assemblies to prevent damage or distortion.

2.8 FABRICATION TOLERANCES: Fabricate assemblies as required.

PART 3 – EXECUTION

3.1 INSTALLATION, GENERAL

A. FLEX-C TRAC and FLEX-C ANGLE metal framing may be shop or field fabricated for installation, or it may be field assembled.

B. Install FLEX-C TRAC and FLEX-C ANGLE metal framing and accessories plumb, square, true to line, true to radius, and with connections securely fastened, according to manufacturer’s recommendations and the requirements of this Section.

C. Extreme care should be taken when handling and cutting metal products.

D. Observe all safety precautions when handling or cutting FLEX-C TRAC.

E. Cut FLEX-C TRAC and FLEX-C ANGLE members by welding or screwing; do not torch cut.

F. Fasten FLEX-C TRAC metal framing by welding or screw fastening, as standard with fabricator. Wire tyng of FLEX-C TRAC and FLEX-C ANGLE framing members is not permitted.

G. Comply with AWS requirements and procedures for welding, appearance and quality of welds, and methods used in correcting welding work.

H. Locate mechanical fasteners and install according to FLEX-C TRAC and FLEX-C ANGLE manufacturer’s instructions with screw penetrating bands at every flange interval and joined members by not less than 3 exposed screw threads.

I. Install FLEX-C TRAC and FLEX-C ANGLE members in one or multi-piece lengths as specified.

J. Splice FLEX-C TRAC and FLEX-C ANGLE segments by overlapping bands from one FLEX-C TRAC or FLEX-C ANGLE to another and attaching screwed fasteners at overlapping plates or flange intervals. Screw penetrations of not less than 3 exposed screw threads.

K. Provide temporary bracing and leave in place until framing is permanently stabilized.

L. Do not bridge building expansion and control joints with FLEX-C TRAC or FLEX-C ANGLE metal framing. Independently frame both sides of joints.

M. Fasten reinforcement plate over web penetrations that exceed size of manufacturer’s standard punched openings.

3.2 REPAIRS AND PROTECTION

A. Galvanizing Repairs: Prepare and repair damaged galvanized coatings on fabricated and installed FLEX-C TRAC and FLEX-C ANGLE metal framing with galvanizing paint according to ASTM A 780 and the manufacturer’s instructions.

B. Touchup painting: Wire brush, clean, and paint scarred areas, welds, and rust spots on fabricated and installed primer-painted, FLEX-C TRAC and FLEX-C ANGLE metal framing. Independently frame both sides of joints.

C. Provide final protection and maintain conditions in a manner acceptable to manufacturer and installer to ensure that FLEX-C TRAC and FLEX-C ANGLE metal framing is without damage or deterioration at the time of substantial completion.

FLEXABILITY CONCEPTS

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