

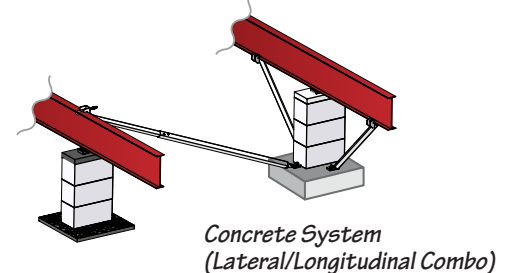
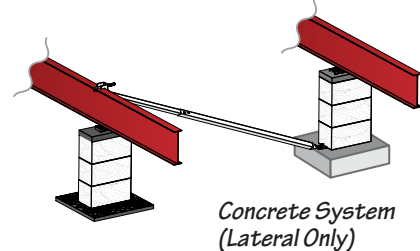
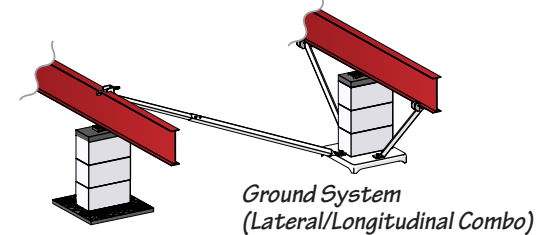
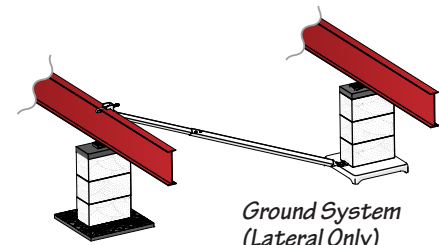
Xi2-24 Foundation System Lateral Block Pier System Installation Instructions for Florida Only

US Patent No.11,898,318

The Xi2 System (2024 Version) Instructions use the Lateral and Longitudinal struts to replace normal lateral frame tie and longitudinal end tie anchorage and stabilizer plates. The home manufacturer may require additional vertical anchor ties that are unique to a home's design. Check the manufacturers installation instructions for set-up requirements.

Installation Requirements

- Installation can be made in any type of soil, 4B or better
- Florida requires 5' 4" anchor spacing for vertical ties
- 4' ground anchors are used with the Xi-system in 4A and 4B soils, except at shear wall or marriage wall locations where loads exceed 3150 pounds. Florida requires that 5' anchors be used at these locations.
- Center line or shear wall anchors, that may be required by specific manufacturers, are to be sized according to soil torque conditions. Follow all manufacturers instructions for anchor type and placement in addition to Florida regulations.
- Poured concrete must be 2,500 PSI minimum at 28 days.
- Square concrete pads minimum is 18" wide by 12" deep. Round concrete pads minimum is 18" wide by 14" deep. Strip footings minimum is 18" wide by 14' long by 4" deep.
- Maximum height is a 96" projection. Higher walls may be used, when the design loads are adjusted accordingly.
- Maximum roof eave is 16"
- Main rail spacing must be 99.5" or less
- Maximum pier height at the Xi2-24 system is 48"
- Instructions are not for use on "Exposure D" homes within 1500 feet of the coastline
- Installation instructions are based on 4200# per pad longitudinal load and 6000# per pad lateral load.
- This System only replaces normal lateral frame tie and longitudinal end tie anchorage and plates, for longitudinal only installations diagonal frame ties and stabilizer plates are still needed every 5'4". The home manufacturer may require additional vertical anchor ties that are unique to a home's design. These locations may include shear walls, marriage line ridge beam supports, and rim plates. Check the manufacturer's installation instructions for set-up requirements.



Concrete Requirements

- Poured concrete must be 2500 PSI minimum at 28 days. Bottom of footers must be below the frost line or a minimum of 4" below finished grade. Check with authorities for local requirements (LAHJ).
- **Footer Requirement:** Must be large enough for the pier load at that location and be a minimum of 22" wide by 6" deep with anchor wedge bolts a minimum of 4" from any edge or 18" wide by 12" deep with anchor wedge bolts a minimum of 1-1/2" from edge. Strip footings minimum of 18" wide by 14' long by 6" deep or 27" wide by 14' long by 4" deep.

Xi2-24 components exceed HUD code 3280.306 g "Anchoring equipment exposed to weathering shall have a resistance to weather deterioration at least equivalent to that provided by a coating of zinc on steel of not less than 0.30 ounces per square foot of surface coated. The Xi2-24 Foundation System by Tie Down complies with 24CFR Part 3280 & 3285 when installed in accordance with the instructions provided by Tie Down.

D2056 - Rev. 7/16/24

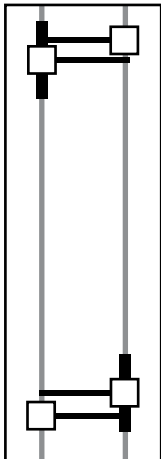
Longitudinal and Lateral Stabilization for Florida


 Xi Lateral
 "Only" System

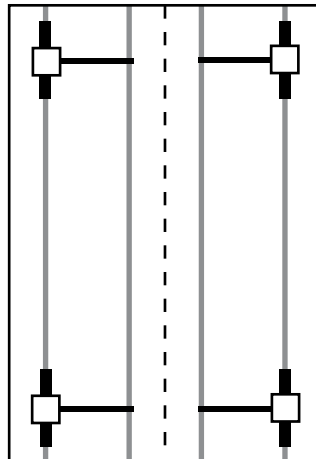

 LSD Longitudinal
 "Only" System


 LSD Longitudinal
 with Lateral Strut Combo

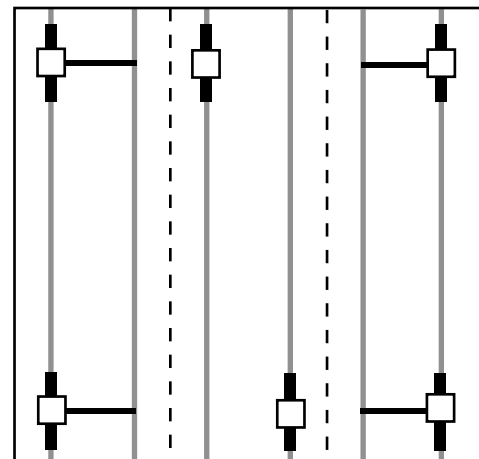
Homes Up To 52'



Single
 Up to 16' Width
 2 Combo Systems
 2 Lateral only

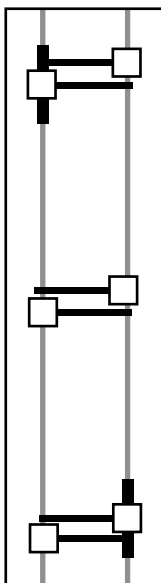


Double Section
 Up to 32' Width
 4 Combo Systems

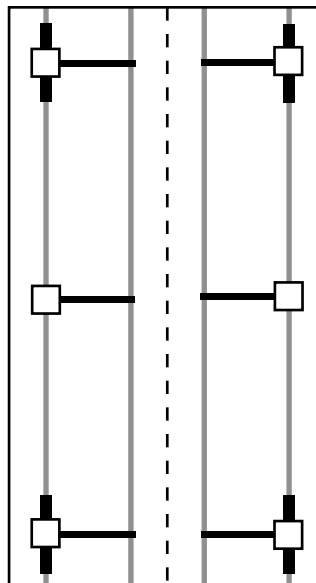


Triple Section or "Tag"
 Up to 48' Width
 4 Combo Systems
 2 Additional Longitudinal Xi Piers

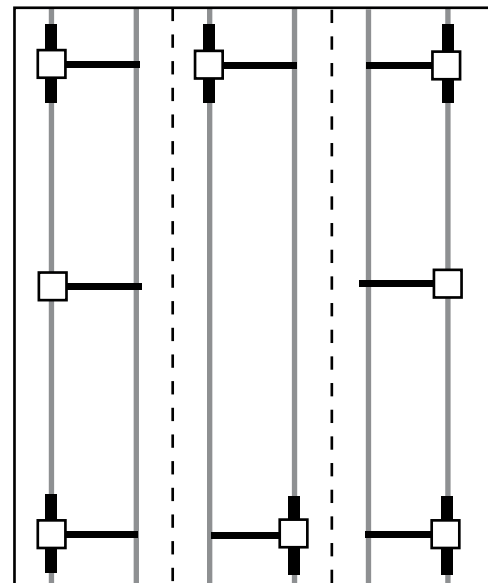
Homes Over 52', up to 80'



Single
 Up to 16' Width
 2 Combo Systems
 4 Lateral Only



Double Section
 Up to 32' Width
 4 Combo Systems/2 Lateral Only



Triple Section or "Tag"
 Up to 48' Width
 6 Combo Systems/2 Lateral Only

- Notes:** 1. 5/12 roof pitch home requires 2 additional systems
 2. 6 lateral systems up to 52', 8 lateral systems up to 80'

Xi2-24 Longitudinal Installation

Step 1 - Ground Pad

- Stand the ground pad on its side. Slide a carriage bolts through the pan washers passing through the ground pad as shown right in Fig 3-1.
- Attach two star washers over the carriage bolts on top of the ground pan, securing both bolts in place as in Fig 3-1.
- Clear all organic matter and debris from the pad site.
- Place pad centered under I-beam.
- Press or drive pan into ground until the top of the pan is level and flush with prepared surface.
- Stack the pier blocks as needed.

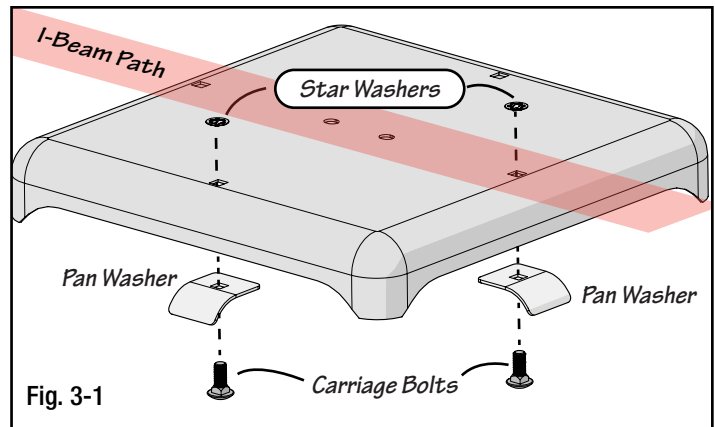


Fig. 3-1

Step 1 – Concrete Footer

- Build footer according to State Local, or Home Manufacturer's guidelines.
- **For Dry Set:** Depending on depth of footer, measure 1 1/2" from edge or 4" from edge of footer and drill a 3/8" x 3" hole on the side of the block under the beam for longitudinal and a hole at the end of the block for the lateral going across to the other beam. Place a nut and washer on the very top of anchor wedge bolt leaving no threads showing. Using a hammer, tap the bolts until snug in the hole, remove nut and washer and attach strut and pan washer to anchor bolt, followed by the washer and nut. Tighten wedge bolt to slab.
- **Note: Once the wedge bolts are set, proceed with standard installation steps.**
- **For Wet Set:** Follow steps for dry set except instead of drilling a hole in the footing insert the J bolt into the wet concrete up to the bottom of the threads at the proper placement and allow to dry.

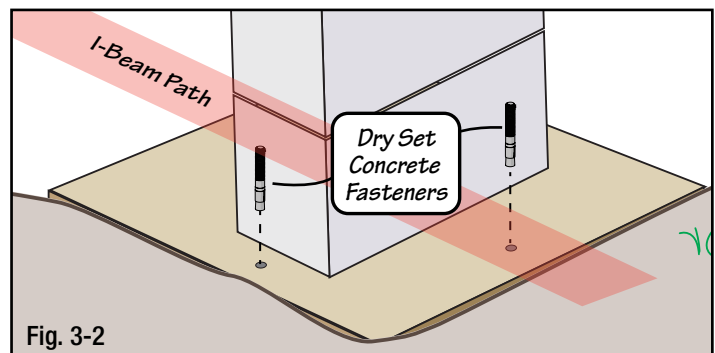


Fig. 3-2

Step 2 - Longitudinal Beam Clamps

- Position two longitudinal beam clamps on both sides of the I-beam. The I-beam frame will slide into the slot on the clamp.
- Raise the longitudinal strut upward and position it between the two beam brackets as shown right in Fig. 3-3.
- Insert a 4" carriage bolt through the clamp, strut, and opposite clamp as shown right.
- Attach a flange nut to the carriage bolt.
- Note: the two "loose" beam clamps will appear to be out of alignment with the frame as shown in Fig. 4-4 "A".
- Do Not tighten beam clamps.

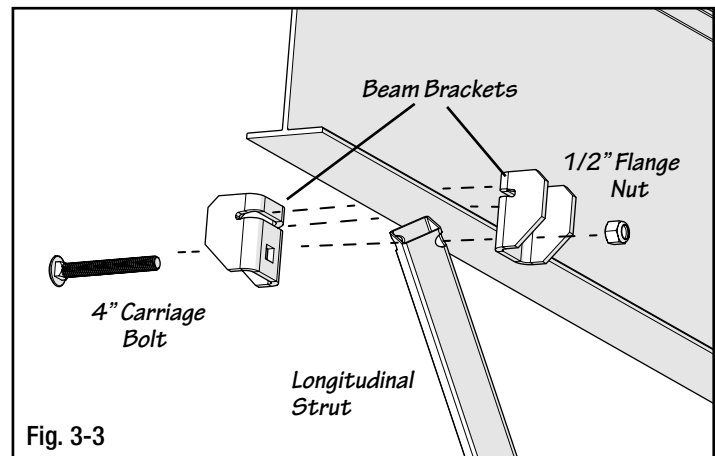


Fig. 3-3

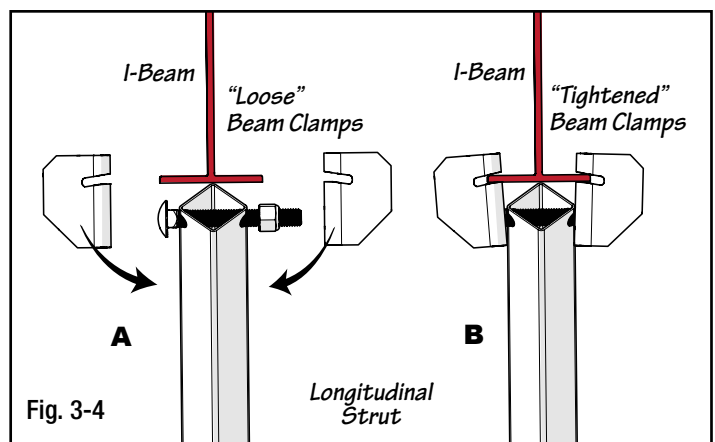


Fig. 3-4

Xi2-24 Block Installation

Step 3 - Longitudinal Strut

- Slide the end of the longitudinal strut over the carriage bolt on the ground pad.
 - Slide a pan washer over the carriage bolt, install a flange nut over the carriage bolt as show right in Fig. 4-1
 - Using a 3/4" deep socket/impact driver, tighten the flange nut on the ground pad.
 - Pull outward on the longitudinal beam clamp removing any slack between the clamp and ground pad.
 - Using a 3/4" deep socket/impact driver, tighten the flange nut on the beam clamp.
- Note: As the bolt/nut tighten, the two beam clamps with begin to crimp the I-beam frame as shown in Fig. 4-4 "B".

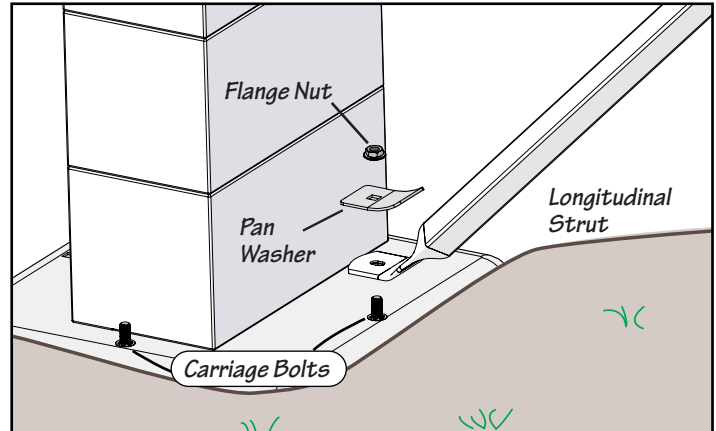


Fig. 4-1

Lateral Strut Beam Attachment

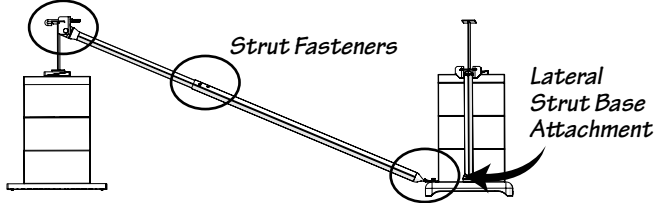


Fig. 4-2

Step 4 - Lateral Strut Beam Attachment

- Extend the lateral strut outward to the opposite side I-beam as shown above. **NOTE: The fully extended strut must maintain a minimum 6" to 8" overlap between inner and outer tubes.**
- Slide the "J" bolt (10631Z) over the I-beam and between the home frame.
- Slide the beam clamp over the "J" bolt end passing through the top of the beam clamp and slide the clamp over the i-beam frame as shown in Fig. 4-3. Attach flange nut over the "J" bolt and loosely tighten nut.
- Align/insert the lateral strut end in the mounting slot on the bottom of the beam clamp as shown in Fig. 4-3.
- Pass a carriage bolt through the beam clamp and lateral strut coming out the opposite side beam clamp. Loosely tighten flange nut. Do not tighten nut.
- Slide the assembled beam clamp with the mounted lateral strut left or right aligning the strut perpendicular to the Xi2 Pan.
- Once the beam clamp/strut attachment is in its final location, tighten the two flange nuts.

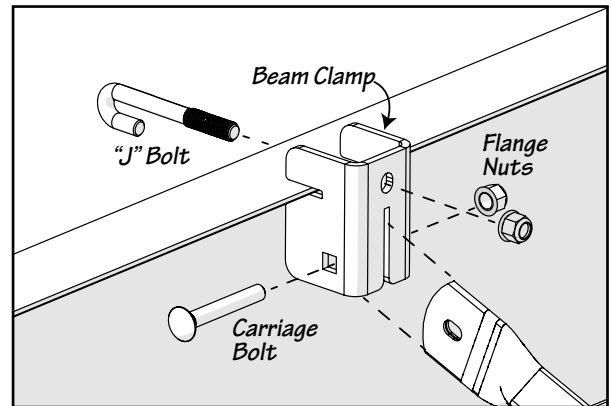


Fig. 4-3

Step 5 - Lateral Strut Base Attachment

- Slide the end of the lateral strut over the carriage bolt on the ground pad.
- Slide a pan washer over the carriage bolt/lateral strut, install a flange nut over the carriage bolt as show right in Fig. 4-4.
- Using a 3/4" deep socket/impact driver, tighten the flange nut on the ground pad.
- Using a 3/4" deep socket/impact driver, tighten the flange nut on the beam clamp.

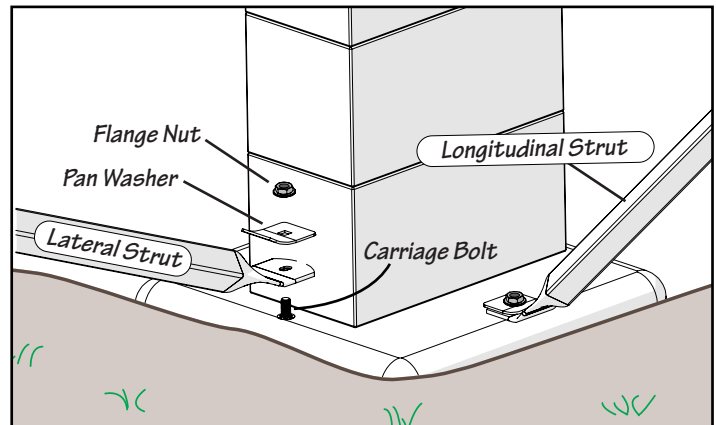


Fig. 4-4

Step 6 - Strut Fasteners

- Secure the extended lateral strut by mounting 4 self tapping screws in the 4 holes in the outer lateral tube as shown in Fig. 4-2. Attach two screws per side.

Xi2-24 Ground Parts Detail

5 ft. Xi2 Ground System

59831 Kit Includes:

- (1) Steel Pan
- (1) 5 ft. Lateral Strut
- (1) Lateral Hardware Kit

6 ft. Xi2 Ground System

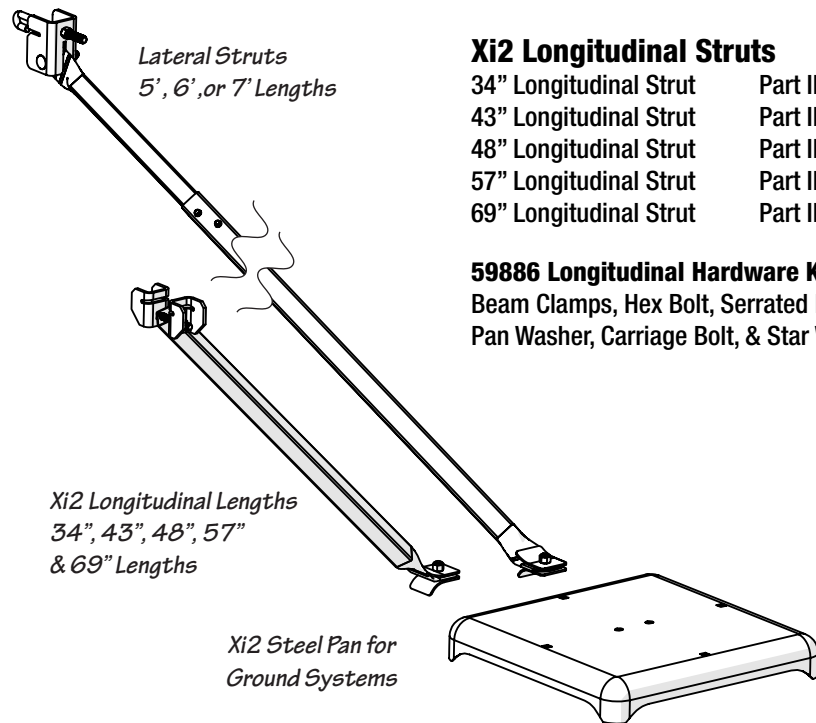
59832 Kit Includes:

- (1) Steel Pan
- (1) 6 ft. Lateral Strut
- (1) Lateral Hardware Kit

7 ft. Xi2 Ground System

59833 Kit Includes:

- (1) Steel Pan
- (1) 7 ft. Lateral Strut
- (1) Lateral Hardware Kit



Xi2 Longitudinal Struts

34" Longitudinal Strut	Part ID: 59811
43" Longitudinal Strut	Part ID: 59812
48" Longitudinal Strut	Part ID: 59813
57" Longitudinal Strut	Part ID: 59814
69" Longitudinal Strut	Part ID: 59815

59886 Longitudinal Hardware Kit Includes:

Beam Clamps, Hex Bolt, Serrated Nuts,
Pan Washer, Carriage Bolt, & Star Washer

Xi2-24 Concrete Parts Detail

5 ft. Xi2 Concrete System

59841 Kit Includes:

- (1) 5 ft. Lateral Strut & Hardware
- (1) Lateral Hardware kit

6 ft. Xi2 Concrete System

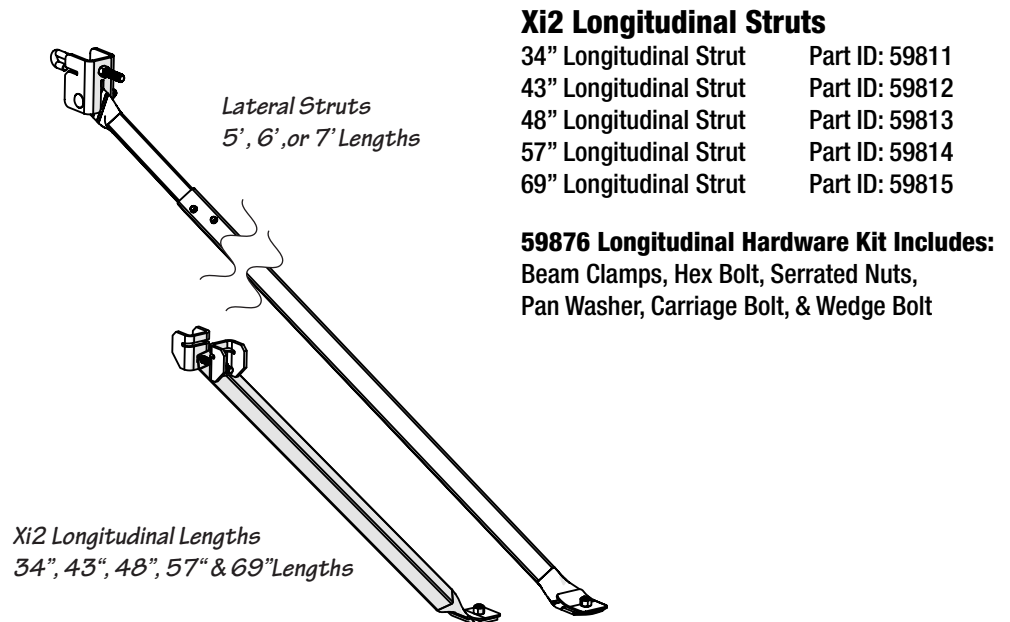
59842 Kit Includes:

- (1) 6 ft. Lateral Strut & Hardware
- (1) Lateral Hardware kit

7 ft. Xi2 Concrete System

59843 Kit Includes:

- (1) 7 ft. Lateral Strut & Hardware
- (1) Lateral Hardware kit



Xi2 Longitudinal Struts

34" Longitudinal Strut	Part ID: 59811
43" Longitudinal Strut	Part ID: 59812
48" Longitudinal Strut	Part ID: 59813
57" Longitudinal Strut	Part ID: 59814
69" Longitudinal Strut	Part ID: 59815

59876 Longitudinal Hardware Kit Includes:

Beam Clamps, Hex Bolt, Serrated Nuts,
Pan Washer, Carriage Bolt, & Wedge Bolt