Installation Procedure

Watson Bowman Acme 95 Pineview Drive Amherst, NY 14228
phone: (716) 691-7566 fax: (716) 691-9239
website: www.watsonbowmanacme.com

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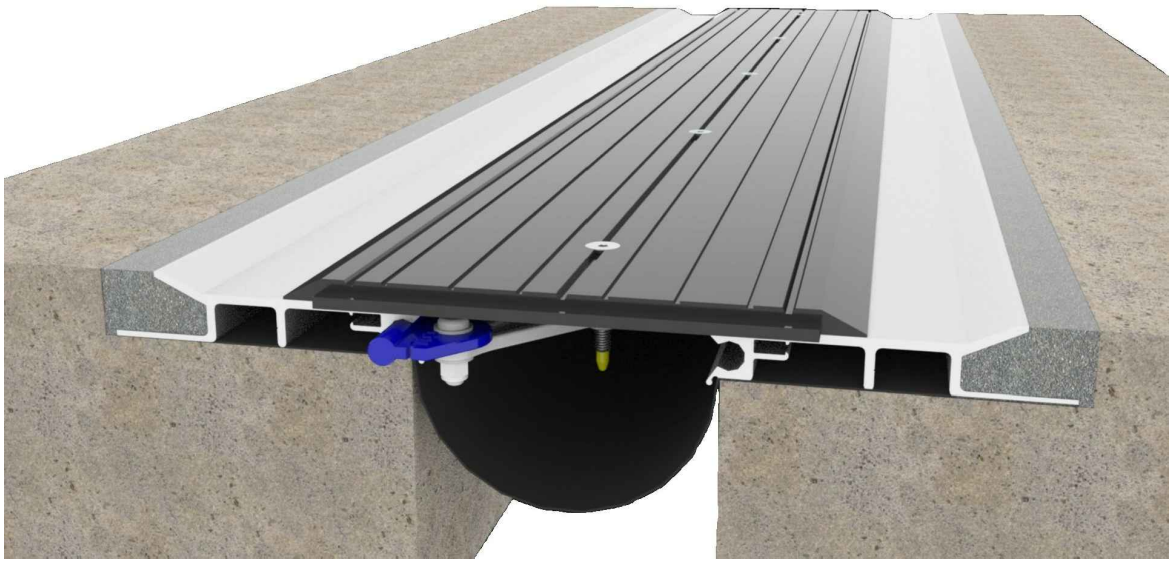


Wabo®SeismicSafetyFlex
Model "SSF-200/400"
Horizontal Expansion Control Systems

The following installation procedure is very important and must be fully understood prior to beginning any work. To ensure proper installation and performance of the expansion joint system the following actions must be completed by the installing contractor. **Failure to do so will affect product warranty**.

1) Carefully read and understand installation procedure. Contact WBA's Technical Service Department at (800) 677-4922 for product assistance.
2) Inspect all shipments and materials for missing or damaged components and hardware. Contact Customer Service at (800) 677-4922 with WBA's order number and invoice for prompt assistance.
3) Inspect substrate or adjacent construction for acceptance before beginning work. Report unacceptable construction to the project manager for scheduled repair work.
4) Review WBA shop drawings for project specific detailed information if Engineering services were purchased at time of order.

Issued:12/16/2020 p/n: 20282

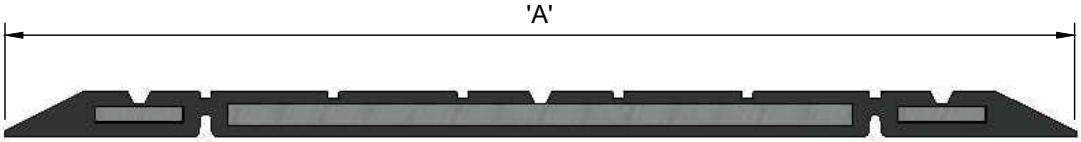
Standard components

Bullet Bolt 3/8-16
- *shipped loose* -
(P/N 5442)

Alignment Pin
- *shipped loose* -
(P/N 15775)

3/8" x 3" Lg Hilti Kwik Bolt
- *shipped loose* -
(P/N 6591)

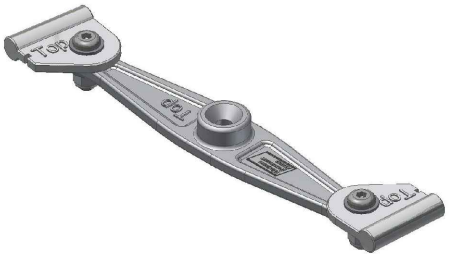
Components shown below vary in size depending on the model shown



Wabo®SafetyFlex Coverplate
- *refer to chart for size and P/N* -

Model #	Black P/N	Gray P/N	"A" dim.
SSF-200/400	19960	19961	12"

SSF-200/400 Base Member
(P/N 15844)

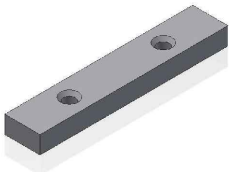


Seismic Self-Centering Bar
- *refer to chart for size and P/N* -

Model #	P/N	System Width
SSF-200/400	15888	11.5"

OPTIONAL

Screw, 1/4 x 1"Lg FPTN
- *SSF-1000/1200* -
P/N 5634



Stop Bar (4" x 3/4" x 3/8")
P/N 5937

Color Matched End Caps
Optional
- *refer to chart for size and P/N* -

Model #	Black P/N	Gray P/N
SSF-200/400	19962	19963

Moisture Barrier
- *refer to chart for size and P/N* -

Model #	P/N
SSF-200/400	3166

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Optional components

Wabo®Crete Parking Series Elastomeric Concrete
Part A (P/n #14380H), Part B (P/n #14385G) &
Part C (P/n #33138)

Master Builders Solutions -
Masterseal 940 50lb bag (22.68Kg)
(P/n #33137) for broadcasting onto
Wabo®Crete Parking Series
Elastomeric Concrete exposed
surface

Wabo®Crete Parking Series Elastomeric Concrete
Non-Flow Additive
(for sloped, crowned or ramped surfaces) P/n #14389
Add maximum of one (1) bag to one (1) unit of
Elastomeric Concrete

Health & Safety

During the installation of any Watson Bowman Acme product, appropriate personal protective items should be worn at all times, including but not limited to the following:

- Proper work clothing
- Safety glasses
- Safety boots
- Gloves
- Hard hat

Local rules and regulations regarding safe work environments and health should be followed.

Pre-Installation Notes

Concrete substrate must be clean (free of dirt, dust, coatings, rust, grease, oil and other contaminants), sound and durable. New concrete must be fully cured (min. 14 days) and all laitance removed. Mask joint edges with duct tape and roofing paper to ensure a clean final appearance. Clean blockout with dry compressed air.

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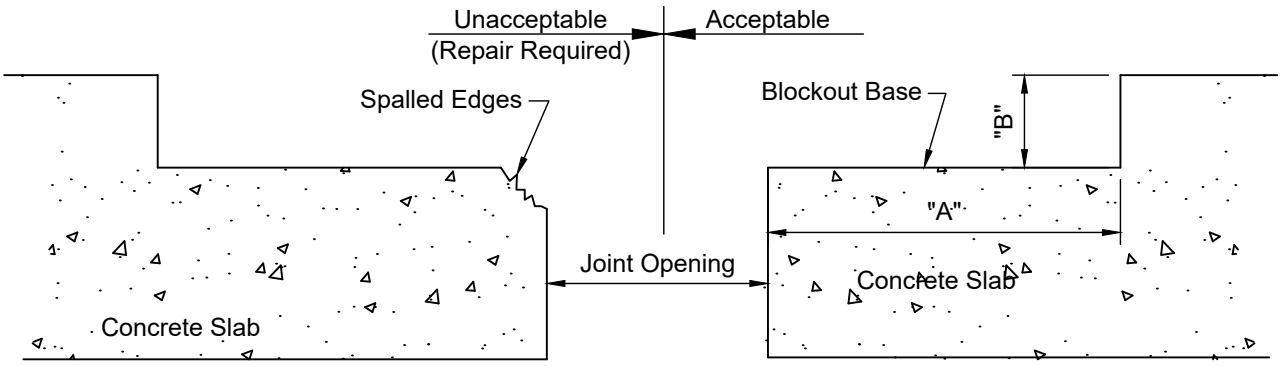
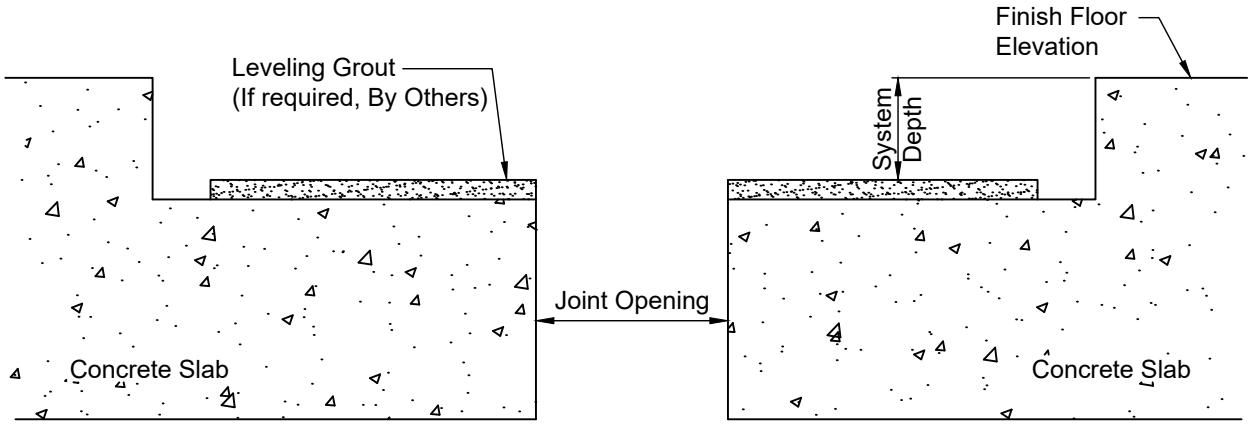
Installation Procedure

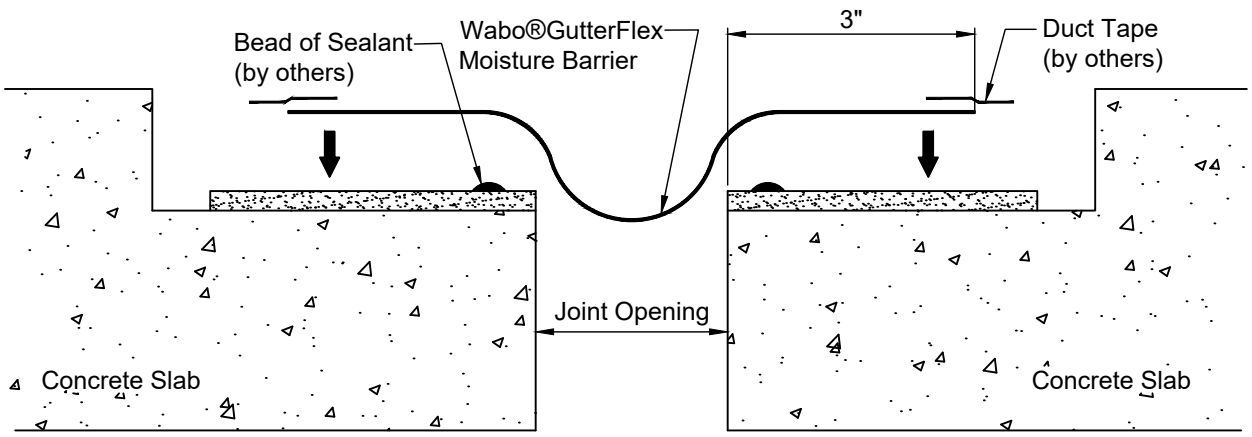


Model #	J.O.	"A"	"B"
SSF-200	2"	7 1/2"	1 1/2"
SSF-400	4"	7 1/2"	1 1/2"

1 Prepare concrete block out for installation of Wabo®SeismicSafetyFlex Expansion Control System. *Deficiencies in block out base and spalled edges must be corrected prior to beginning work.*
Note: Utilizing concrete repair material, repair corner of concrete slab following manufacturers written instructions.



2 Prepare concrete blockout for installation of expansion joint. Variations in block out dimensions must be corrected prior to beginning work.
Note:
Leveling grout usually not required if blockout was formed true and level to satisfy expansion joint system depth.



3 Before installation of Wabo®GutterFlex, Contractor shall apply a bed of sealant to the blockout to ensure that there will be a water tight connection between the blockout and Wabo®GutterFlex assembly. Lay Wabo®GutterFlex moisture barrier into opening and hold it in place using Duct Tape (by others) per the drawing above. *Note: moisture barrier should pitch from one end to the other to drain properly. See Wabo®GutterFlex Installation Manual for further instructions.*

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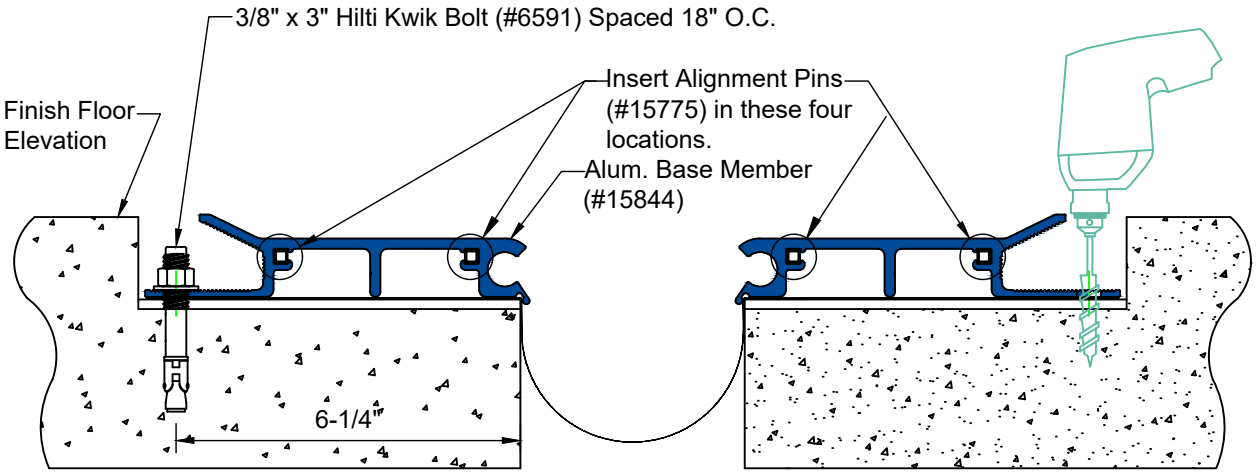
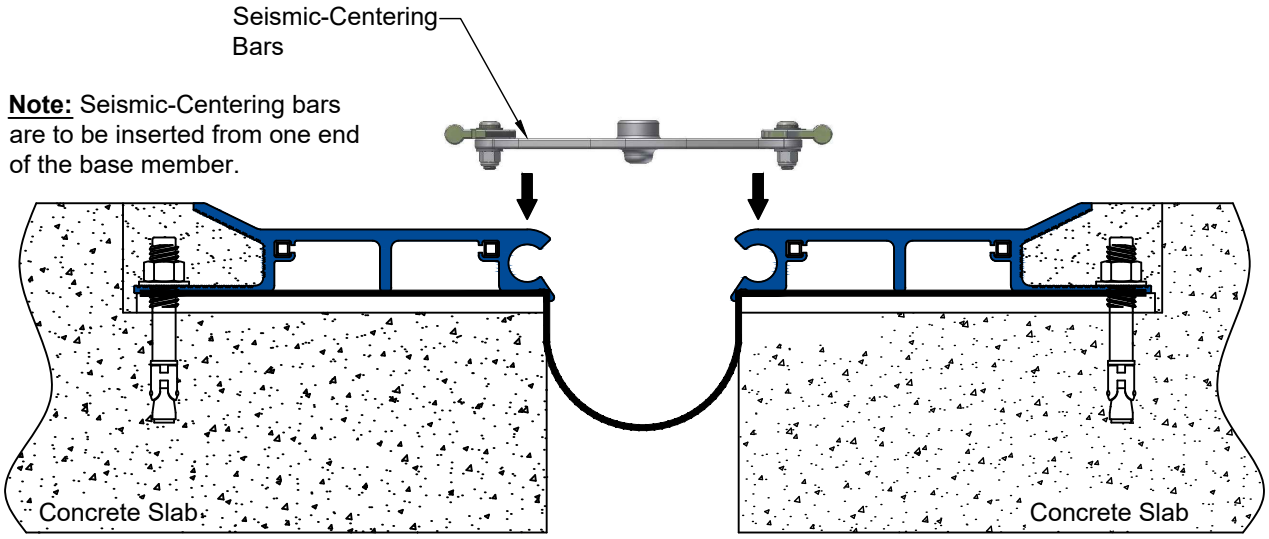


4A **SSF-200/400** Place and adjust aluminum base member (#15844) into blockouts. Mark anchor locations and follow Hilti recommendations for proper anchor installation. Prior to anchoring base members into place, apply a continuous bead of sealant (by others) onto blockout and at butt ends of aluminum base members. Place and anchor base member. *Remember to install Alignment Pins (#15775) at each butted intersection.*



Note: Seismic-Centering bars are to be inserted from one end of the base member.

5 As work progresses with placement of base members, install Seismic-centering bars by sliding the sphered ends of the bars into and through the circular cavity of the base members. Set four (4) per SafetyFlex coverplate. Ensure that the "TOP" indicator is facing up and that bars are in same orientation. Additionally "notches" should face out (away from center of bar) for proper installation... as shown below.

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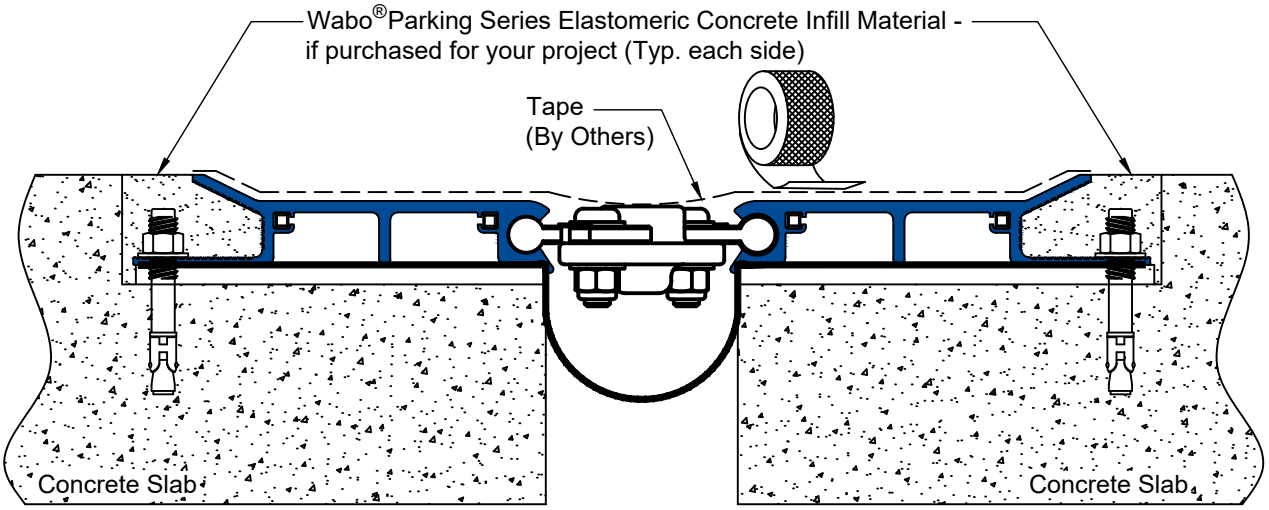
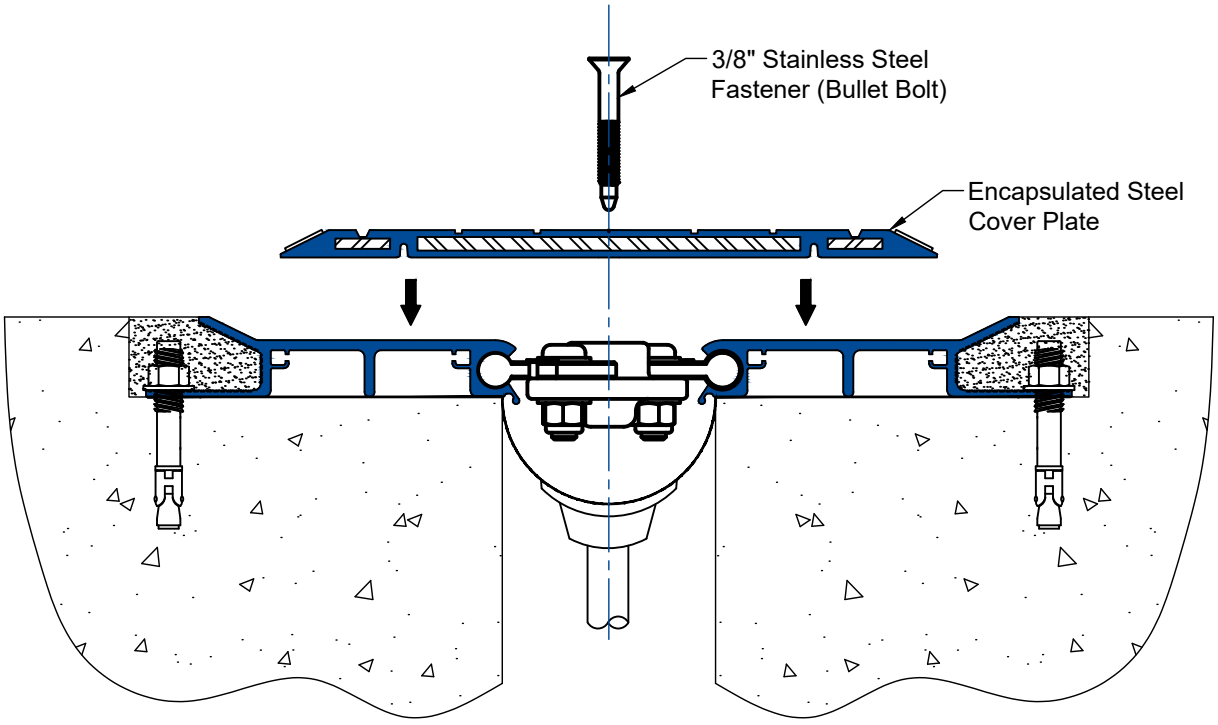


6 Tape and protect exposed metal surfaces during placement of filler material. Fill blockout with Wabo®Crete Parking Series or equivalent for infill material.

Wabo®Crete Parking Series Elastomeric Concrete (*if purchased for your project*): **DO NOT** mix partial units of Wabo®Crete Parking Series Elastomeric Concrete. Thoroughly stir Part B, scraping the can before pouring entire contents of Part B in a clean five (5) gallon plastic bucket. Add Part A and mix both components with a 3/4" Low RPM drill equipped with a large grout paddle for 30 seconds and until well blended. Add aggregate component to the liquid material and mix until all aggregate is coated (approx. 1-1/2 minutes) Pour Wabo®Crete Parking Series Elastomeric Concrete mix flush to the top of the aluminum extrusion and adjacent surface. The material will flow and self-level. Lightly trowel surface to a smooth surface. If desired, solvent (i.e. Xylene, Toluene) can be used while troweling and for cleanup of tools. After 2-3 minutes, broadcast Masterseal 940 Aggregate to refusal (medium grit). This enhances Wabo®Crete Parking Series aesthetic, UV Stability and skid-resistance. Remove tape from top of system and substrate immediately after installation of Wabo®Crete Parking Series Elastomeric Concrete is completed.



NOTE: Read entire Step #7 (below) before proceeding.

7

1. Center holes in SafetyFlex Plate should be drilled out for a 3/8" clearance hole, then align hole in SafetyFlex Coverplate with the Self-Centering Bar Grommet hole.
2. Insert 3/8" "Bullet Bolt" into hole manually by hand through Coverplate and into Self-Centering Bar. Once thread starts, continue using large philips screw driver, then finish using Drill to gently 'drive home' screw. A setting of 12 on the drill should suffice. Do not overtighten.
3. Do one Coverplate (with four self-centering bar assemblies) system at a time.

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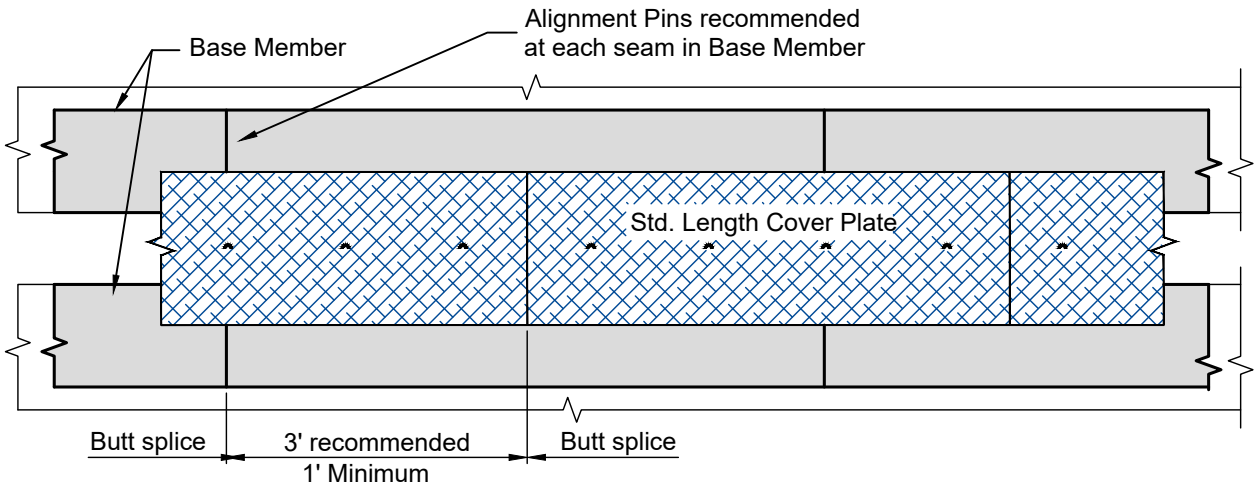

Plan of Staggered Joints.

7A Center encapsulated Cover plates over opening, aligning the holes for the self-centering bars over the previously installed bars. Maintain butt splice spacing as shown.

Stop Bar Installation *Optional*

7B Once all the SafetyFlex Coverplates have been installed and placed tightly together, the Stop Bars can be used at each end to hold the Coverplates tightly together (Optional). See Appendix 'A' for proper installation detail.

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Recommended Equipment for Wabo®Crete Mixing

- Abrasive blasting Equipment
- 3/4" Heavy Duty Drill (1 hsp - Low RPM)
- 3/8" Hand Drill
- (2) Jiffy mixing paddles
- (1) Large Paddle (4" to 6")
- (1) Small Paddle (2")
- (1) Roll of 15lb Roofing Paper
- (2) Clean 5 gallon plastic buckets
- (4) Clean 1 gallon plastic buckets (For bonding agent)
- (8) 2" disposable paint brushes (For Bonding agent)
- Rubber gloves
- (8) 2" Margin trowels
- Misc. hand tools and extension cords

Yield Calculations for Wabo®Crete Parking Series:

- One unit of Wabo®Crete Parking Series Elastomeric Concrete will yield .60 cu. ft.
- One unit of Wabo®Crete Parking Series = One US half gallon Part A, One gallon Part B, and one 60 lb Container of aggregate. the formula for calculating volume is: (length in feet x width in inches x depth in inches) / 86.4 = Number of units of Wabo®Crete Parking Series needed to complete the job.

Example

Based on a blockout size 3 1/2" wide x 3/4" deep x 30' long:
The calculation would be: (.0304 x 30)= .91 units. This calculation is for only **ONE** side of the bockout.

Curing of Wabo®Crete Parking Series Elastomeric Concrete:

Wabo®Crete Parking Series Elastomeric Concrete is an ambient cure material. Cure times are therefore, temperature dependant. Suggested cure times are listed below:

Cure Time:	21° - 32°C(70°-90°F)	- 1 to 1 1/2 Hours
(Open to Traffic)	10° - 21°C(50°-70°F)	- 1 1/2 to 2 Hours
	4° - 10°C(40°-50°F)	- 2 to 3 Hours

Sloped Conditions:

1. Premix Part B for 20 seconds (Scraping sides and bottom of can)
2. Pour Part B into clean empty 5 gallon bucket
3. Pour into Part A
4. Add Non-Flow additive, blend for 30 seconds
5. Add Part C and mix for 1.5 minutes
6. Pour into blockout and work Wabo®Crete Parking Series with trowel into sloped condition until it sets up and stays in slopped position.

Notes:

All blockout width shall be 2x greater than the depth.
All yields are approximate and do not include allowance for uneven blockouts, waste etc..

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APPENDIX 'A'

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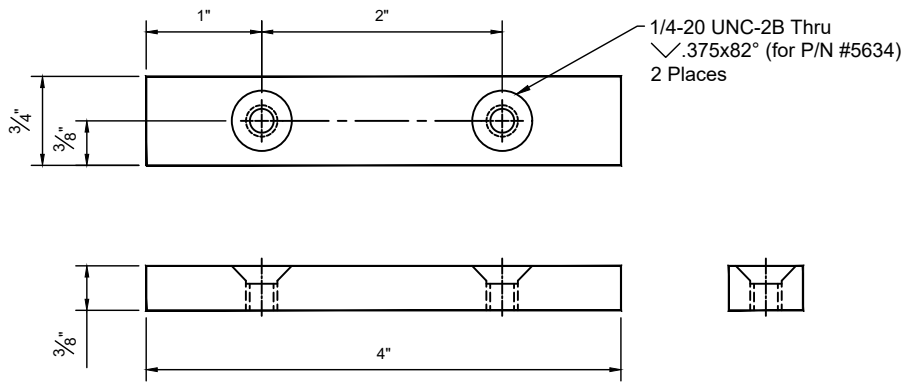
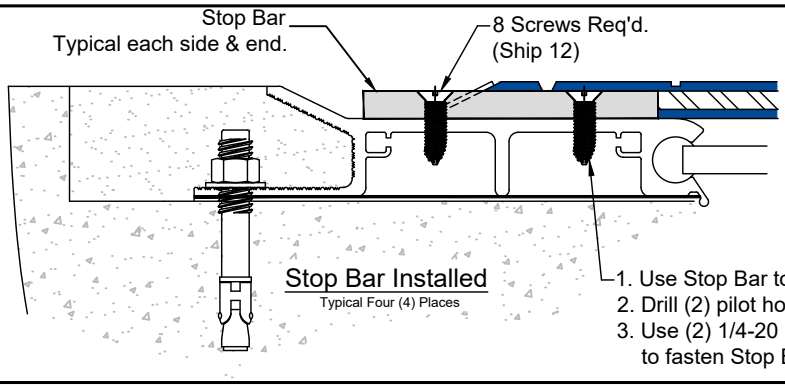
See drawing below for proper installation of the Stop Bars

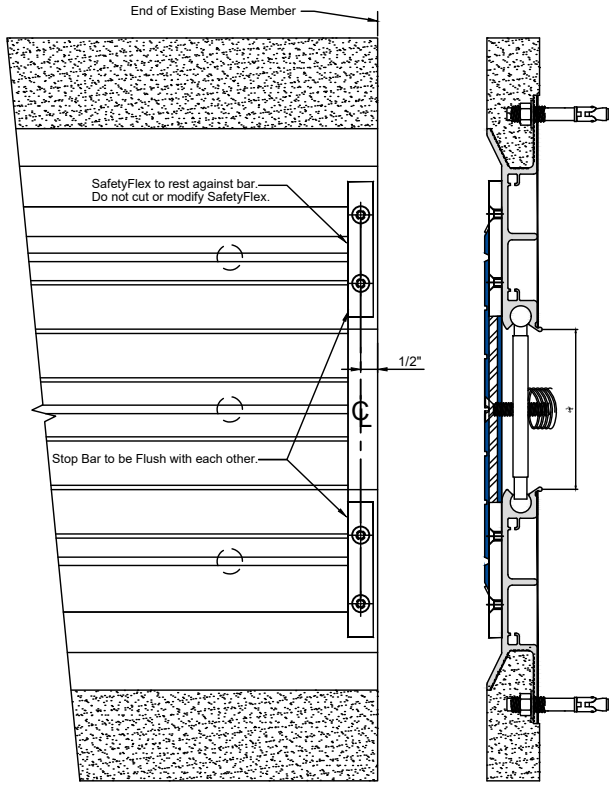


Stop Bar

(WBA #5937) - 4 Req'd



1. Use Stop Bar to locate holes.
2. Drill (2) pilot holes in Base Member @ each location.
3. Use (2) 1/4-20 Flat Head SS Self-Tapping Screws to fasten Stop Bar.



Partial Plan View

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