

MODEL FB97-7" through 24" SEISMIC FLOOR JOINT FIRE BARRIER INSTALLATION INSTRUCTIONS



IMPORTANT INFORMATION

Prior to the commencement of Installation, all materials **MUST** be inspected for Damage. Any damage must be reported to CONSTRUCTION SPECIALTIES, INC., as soon as possible, so that replacement materials may be furnished without delay.

All work must be completed as per Architect's Approved "Shop Drawings", and in accordance with these Installation Instructions. When installation is complete, all materials must be protected from damage until the Architect's FINAL INSPECTION.

All materials should be arranged in the order that they are to be installed. All hardware required for each portion of the work should be placed with the appropriate materials.

Please review all Approved Shop Drawings and this Document to familiarize yourself with all the details and components of this assembly.

IMPORTANT:

READ THROUGH ALL INSTRUCTIONS PRIOR TO STARTING INSTALLATION

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Notes:

ALWAYS WEAR GLOVES when handling and cutting the barrier as the edges of the stainless steel foil may cause cuts.

Before beginning installation, review the architectural drawings and approved Construction Specialties Inc. shop drawings to familiarize yourself with the joint cover models and locations.

Check all of the joint cover components to confirm that the correct joint cover model and size have been received. Also, check for materials that may have been damaged during shipping. Report all incorrect and/or damaged components to CS at 800-233-8493.

Read through all the steps of these instructions prior to beginning work.

STEP 1:

TOOLS:

The following tools may be needed for installation of the FB97 fire barriers:

- Fabric or Leather Work Gloves
- Permanent Marker
- Utility Marker
- Duct Tape
- Measuring Tape
- Tin Snips
- Drill
- Screwdrivers
- Level
- Hammer
- Circular and/or Chop Saw (standard and abrasive blades)
- 1/2" Wrench

STEP 1

BEGINNING INSTALLATION

GALVANIZED RETAINER

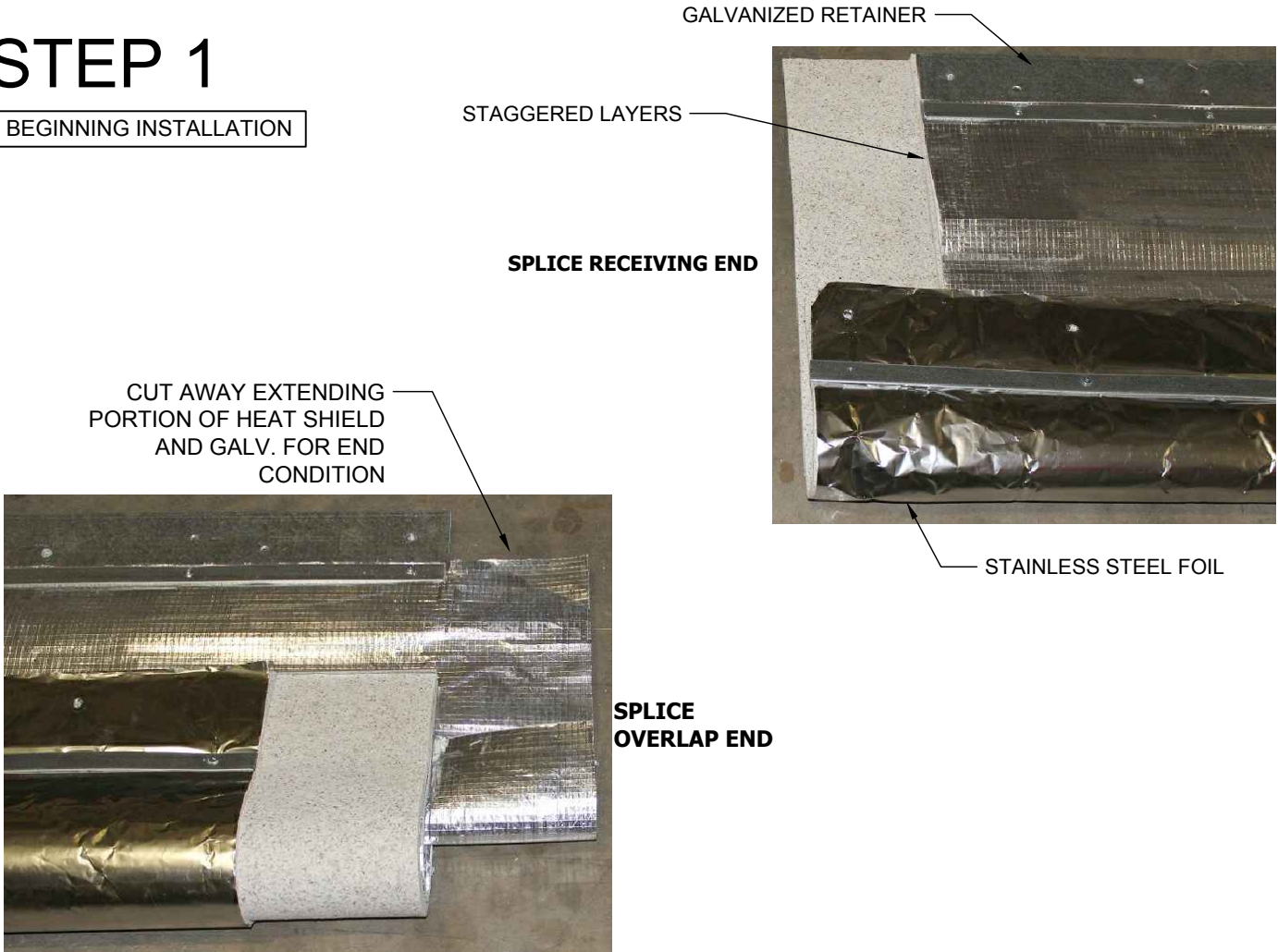
STAGGERED LAYERS

SPLICE RECEIVING END

CUT AWAY EXTENDING PORTION OF HEAT SHIELD AND GALV. FOR END CONDITION

SPLICE OVERLAP END

STAINLESS STEEL FOIL



Note: The FB-97 fire barrier is generally supplied in (10) foot lengths with the layers staggered to allow for field splicing. See field splicing instructions later in these sheets.

- 1.1) When beginning installation, make sure that the first barrier segment is placed so that the "Splice Receiving End" of the Barrier is in position for the next Barrier segment.
- 1.2) Using tin snips and a utility knife, cut away the portion of the Middle Heat Shield and Galvanized Strip that extends beyond the Galvanized Retainer at the "Splice Overlap End" of the Barrier. (Note: This end of the Barrier will be the starting end for installation.)

STEP 2

INSTALLING THE FIRST MAIN BARRIER SEGMENT



Fig. 2.2



Fig. 2.1



Fig. 2.3

STEP 2:

Note: The Fire Barrier assemblies can be quite heavy and because of their flexibility, can be difficult to handle. It is helpful to attach several Wood Spreaders across the top of the Barrier assembly to serve as handles to position the Barrier for attachment.

- 2.1) Cut two Wood Spreaders per Fire barrier length longer than the joint width. Measure and mark the joint width on Wood Spreaders. (See Fig. 2.1, 2.2 & 2.3)
- 2.2) Attach the Wood Spreaders to the Fire barrier Galvanized Retainers with sheet metal screws. (See Fig. 2.4)

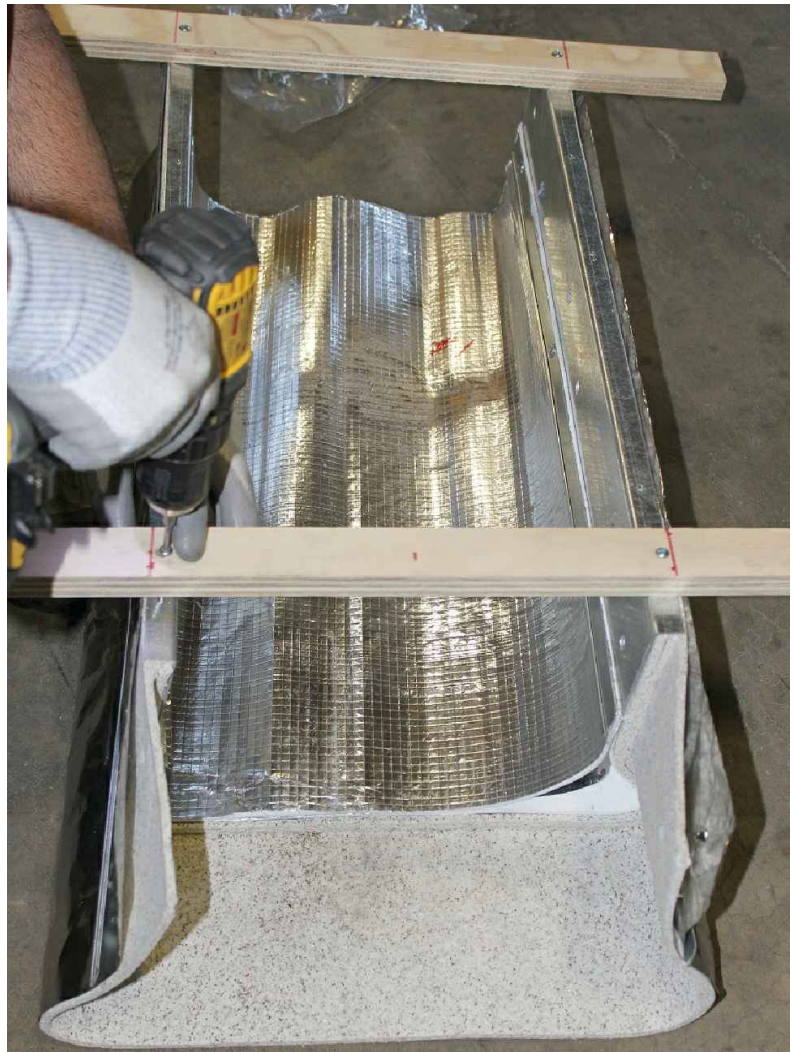


Fig. 2.4

STEP 2 CON'T

INSTALLING THE FIRST MAIN BARRIER SEGMENT



Fig. 2.5

STEP 2:

- 2.3) Beginning at one end of the joint with the first section of Fire Barrier in the proper orientation for splicing, place the Barrier inside the joint locating the Barrier so the top edge aligns with the floor slab or position at the proper height as indicated on the CS shop drawings. (See Fig. 2.5)
- 2.4) The proper height can be achieved by backing the screw out of the wood spreader. (See Fig. 2.6 & 2.7)



Fig. 2.6



Fig. 2.7

STEP 2 CON'T

INSTALLING THE FIRST MAIN BARRIER SEGMENT



Fig. 2.8

- 2.5) Using the holes in the Galvanized Retainers as a template, drill the holes for Anchor Bolts on both sides of the Barrier. Remove the Barrier to clean out the holes. Reposition the Barrier and insert the CS supplied Anchor Bolts, installed snug tight to the fire barrier, just tightened enough that the fire barrier is in firm contact with the substrate. The fire barrier material should not be crushed during installation. (See Fig. 2.8)

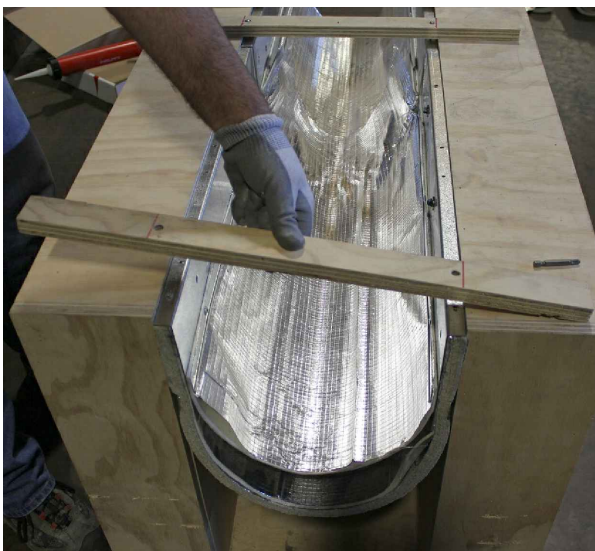
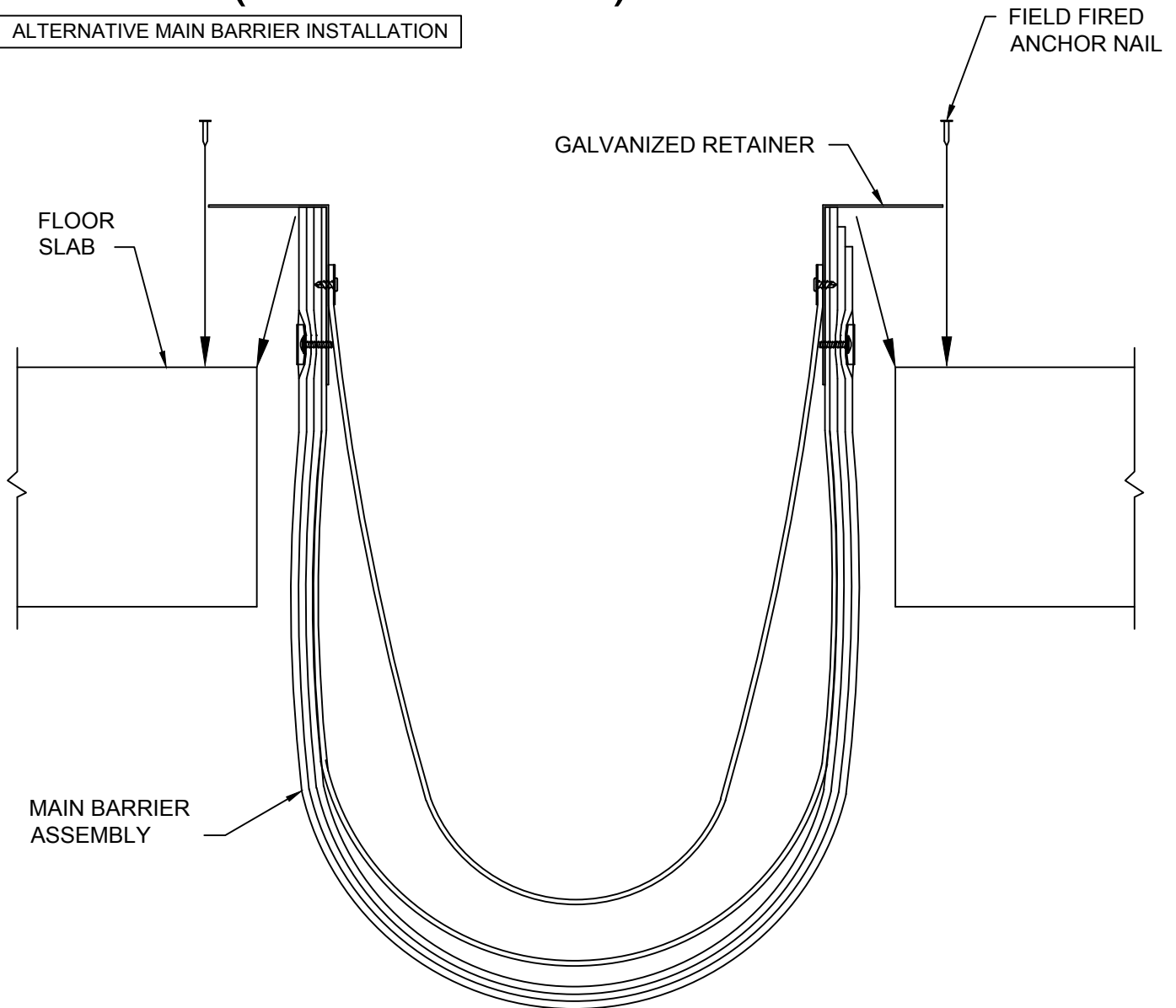


Fig. 2.9

Note: It may be necessary to detach the Wood Spreaders as you work in order to fully tighten the bolts.

STEP 2 (ALTERNATE)

ALTERNATIVE MAIN BARRIER INSTALLATION



STEP 2A:

Note: It is very important that the vertical portion of the Barrier (behind the Galvanized Retainers) is held tightly to the inside face of the slab when the Barrier is anchored. It may be helpful to cut several pieces of wood which can be wedged between the Galvanized Retainers to aid in pushing the Barriers to the slabs.

- 2.1A) With the first Barrier segment in its proper orientation for splicing, hold the segment by the Galvanized Retainers and lower it into the joint.
- 2.2A) Seat the Barrier so that the Galvanized Retainer along each edge rests on the surface of the slabs.
- 2.3A) While holding the Barrier tightly to the inside face of the slabs, field fire (3) to (4) anchor nails along the length of the Galvanized Retainers to temporarily hold the Barrier in place.

Note: The field fired anchors are needed to temporarily attach the Barrier, as the unit will ultimately be attached by the joint cover anchors.

STEP 3

FIELD SPLICING BARRIER SEGMENTS

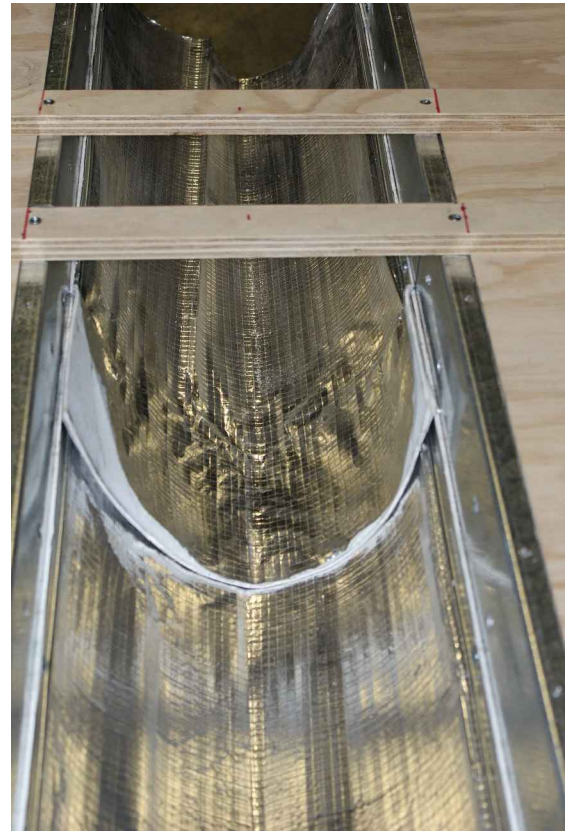
STEP 3:

Note: With the end segment of the Fire Barrier in place, install the second segment of Barrier while creating a field splice as described below.

- 3.1) Position the next segment of Fire Barrier so that it is in the proper orientation for splicing. (See Fig. 3.1)



Fig. 3.1



- 3.2) Apply (2) beads of the CS supplied Firestop Sealant (See Fig. 3.2 & 3.3) (approx. $\frac{1}{2}$ " wide) to the inside surface of the staggered layers of the first Barrier segment.



Fig. 3.2



Fig. 3.3

- 3.3) Insert the next segment of Barrier into the joint as described in Step 2, leading with the Splice End. Lay the bottom surface of the staggered layers into the Firestop Sealant and butt the ends of the layers and Galvanized Retainers together. Make sure that the ends of the Barriers are butted tightly together. (Note: The Middle Heat Shield should overlap the Middle Heat Shield of the end Barrier by 6" as well.) Adjust the height of the Fire Barrier as indicated in Step 2. (Fig. 2.6 & 2.7) Anchor the Fire Barrier as indicated in Step 2.
- 3.4) Lift the end of the Middle Heat Shield at the splice, and press the top staggered layers into the Firestop Sealant to seat the caulking. Reposition the overlap of the Heat Shield.

Note: Continue with installation of the remaining Fire Barrier segments, following these guidelines, for the remainder of the run.

STEP 4

TOP HEAT SHIELD INSTALLATION



Fig. 4.1

STEP 4:

Note: The Top Heat Shield has been supplied in 10'-6" lengths. Beginning at the same end as the Main Fire Barrier installation, begin installing the Top Heat Shield. The Heat Shield UL Label side must be face up when installed.

- 4.1) Place the length of Top Heat Shield so that one edge aligns with the outside edge of the Galvanized Retainer. Use a few pieces of Duct Tape, placed along the edge of the Heat Shield, to temporarily hold it in place.
- 4.2) Place a length of Galvanized Washer Strip along the flange of the Heat Shield. Attach both the Washer Strip and Heat Shield to the Galvanized Retainer with the Construction Specialties supplied TEK Screws. (See Fig 4.1)

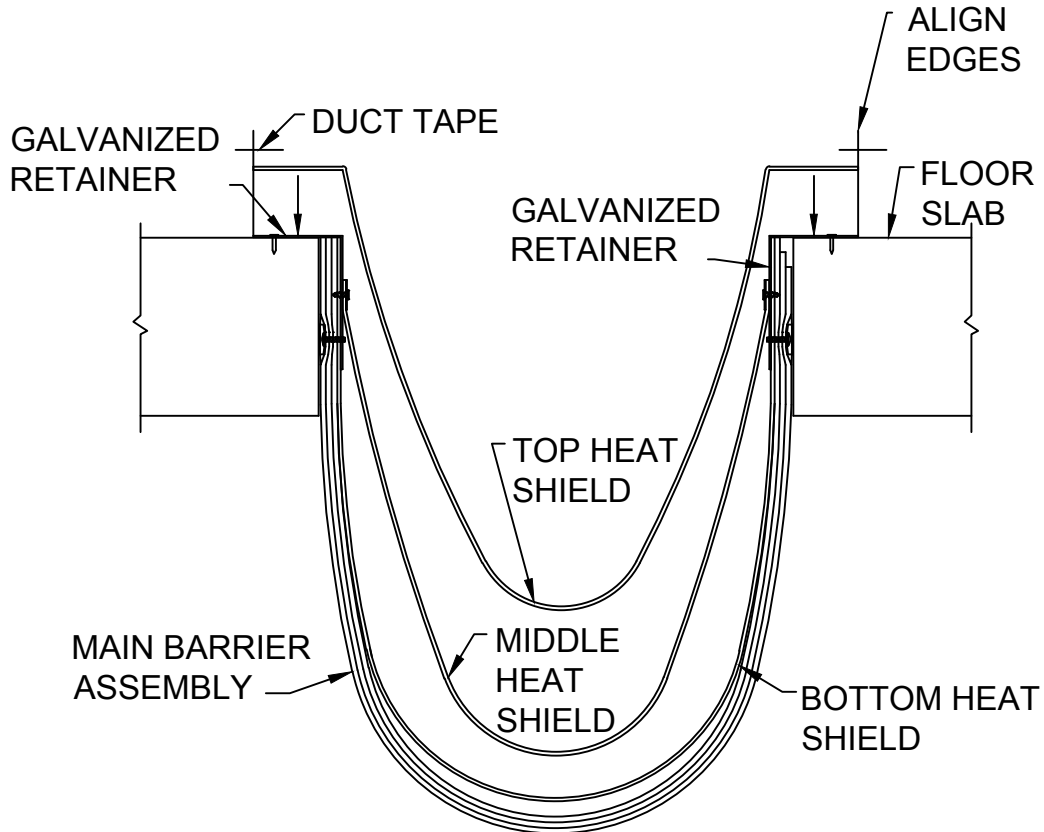


Fig. 4.2

- 4.4) Align the opposite edge with the outside edge of the other Galvanized Retainer, and tape it in place. (Note: by aligning the edges with the Galvanized Retainers, the Heat Shield will drape properly into the joint.)
- 4.5) Anchor the Heat Shield to the Fire Barrier Retainer with the Washer Strip and Construction Specialties supplied anchors. (See Fig. 4.2) If additional length of Top Heat Shield is required, overlap the previous length by 6". Proceed and install next section repeating attachment as indicated above.

STEP 4 (ALTERNATE)

ALTERNATIVE TOP HEAT SHIELD INSTALLATION



ALTERNATE INSTALLATION

STEP 4A:

Note: The Top Heat Shield has been supplied in 10'-6" lengths. Beginning at the same end as the Main Barrier installation, begin installing the Top Heat Shield. To allow the splice in the Top Heat Shield to be staggered away from the splice in the Main Barrier, we recommend starting with a 5'-0" length. The Heat Shield UL Label side must be face up when installed.

- 4.1A) Place the length of Heat Shield so that one edge aligns with the outside edge of the Galvanized Retainer. Use a few pieces of duct tape, placed along the edge of the Heat Shield, to temporarily hold it in place.
- 4.2A) Align the opposite edge with the outside edge of the other Galvanized Retainer, and tape it in place. (Note: By aligning the edges with Galvanized Retainers, the Heat Shield will drape properly into the joint.)
- 4.3A) Proceed with installation of the next section of Top Heat Shield by overlapping the previous section by 6" and repeat as per above.

Note: Proceed with installation of the joint cover system per its instructions. The anchor bolts of the joint cover will ultimately provide the anchorage for the entire Fire Barrier installation.