

TRICON™ RETAINED SOIL WALL SYSTEM

CrimpLock™ Connection System

CONSTRUCTION MANUAL

Tricon
Precast Limited™



TRICON™ RETAINED SOIL WALL SYSTEM

The Tricon™ Retained Soil Wall System is a mechanically stabilized earth retaining wall structure comprised of a cast-in-place leveling course (by others), precast concrete fascia panels, panel alignment shims, HDPE bearing pads, filter fabric and adhesive joint materials, connection anchors, locking rods, hot-dipped galvanized welded wire soil reinforcement mats combined with a select backfill mass (by others). Included with the system are engineered design and erection drawings, precast concrete copings, as well as limited on-site technical assistance as required.

Figure 1 below illustrates the installed system.

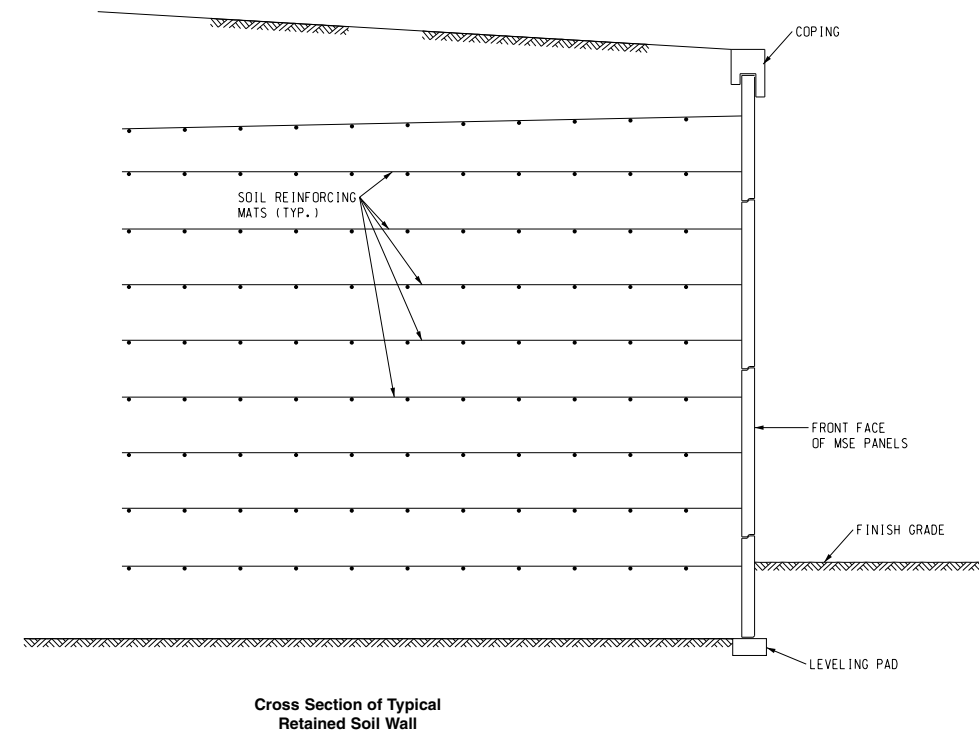


FIGURE 2

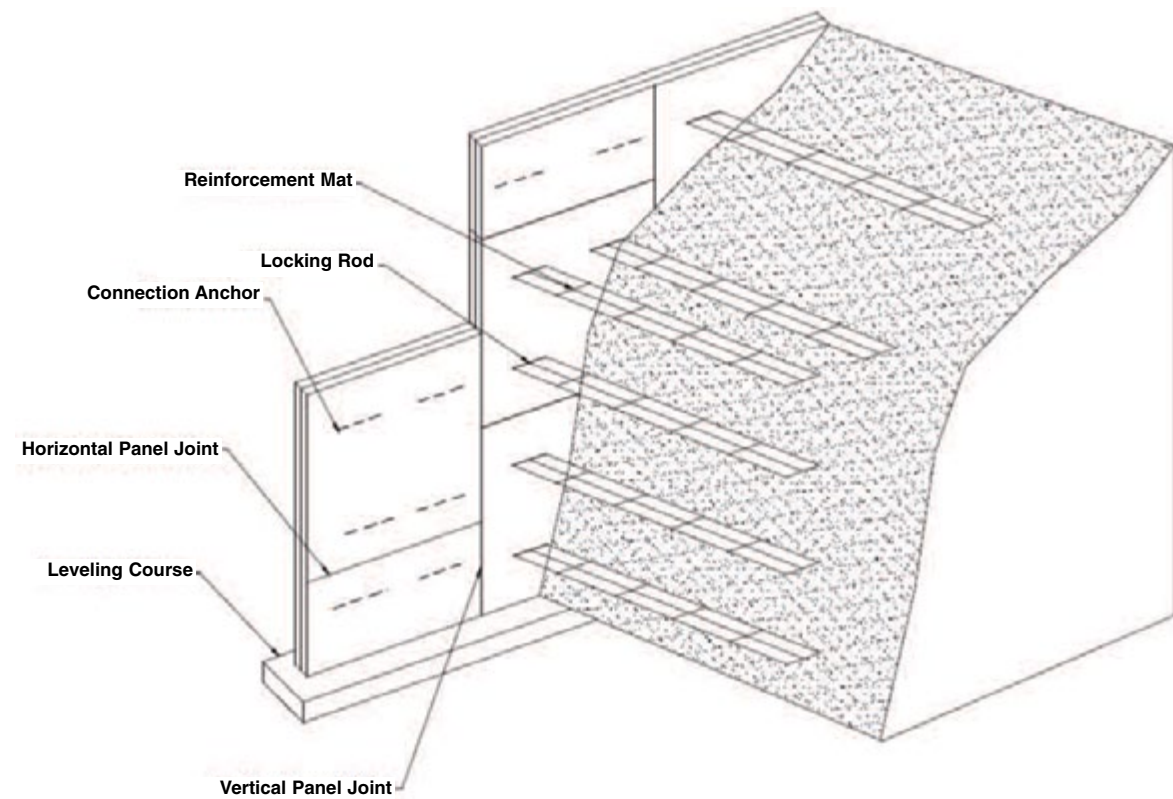


FIGURE 1

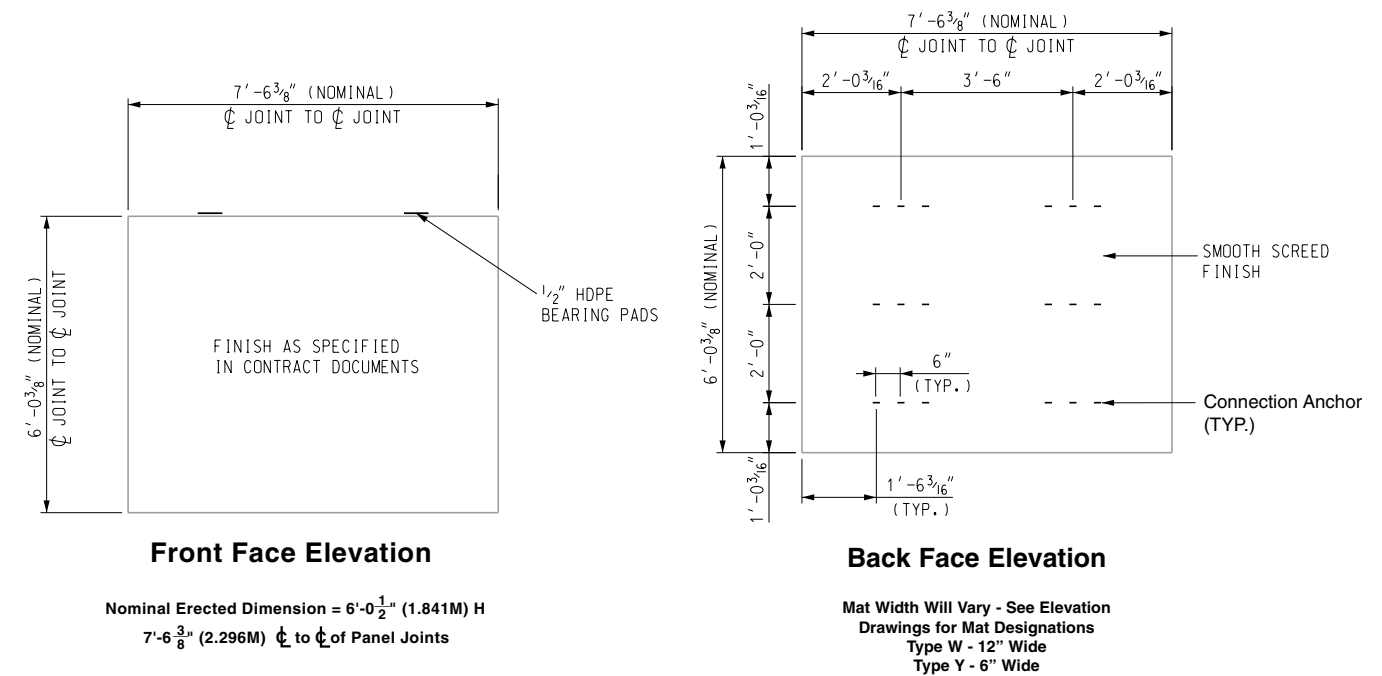


FIGURE 3

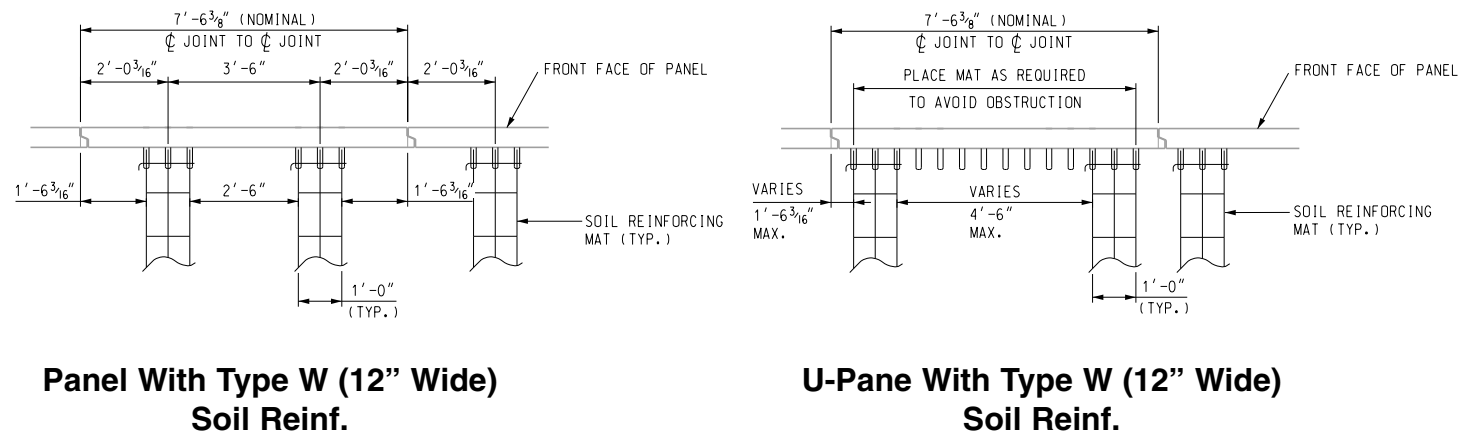


FIGURE 4

**CONNECTION ANCHOR
DETAIL**

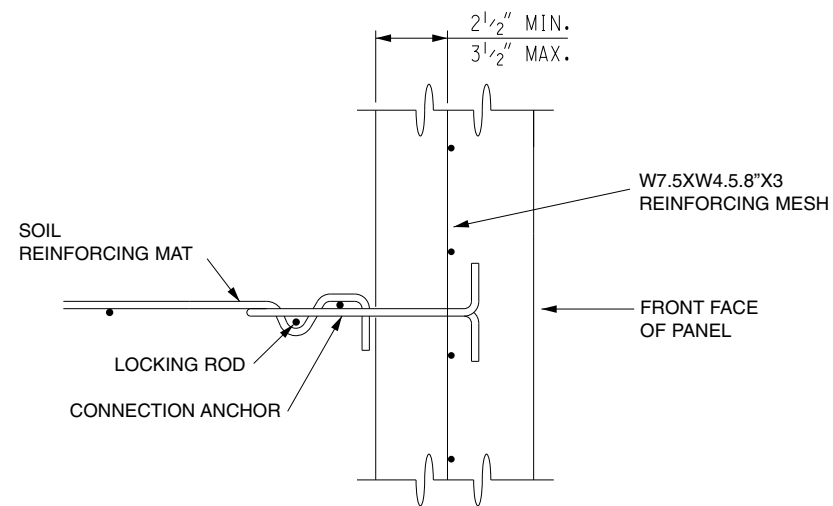


FIGURE 5

Delivery, Storage and Handling

Soil Reinforcement Mats-

Mats are supplied in bundles, by size and tagged with description. Mats should be stored on wooden dunnage. Mats should be color coded by size to help identify easily.

Wall Panels-

Unloading- Panels can be unloaded individually by using a four point lift with slings. Panels should be stacked four high on level ground. The panels are shipped stacked four high and can be unloaded by stack using nylon slings.

Storage- Panels should be stored on adequate dunnage as near to the final setting position as possible on firm, level ground. Dunnage should maintain vertical alignment to eliminate the chance of the panel being damaged. When lifting panels off storage stack, always place a wooden block between panels to prevent damage when rotating to vertical position. (See Figure 6)

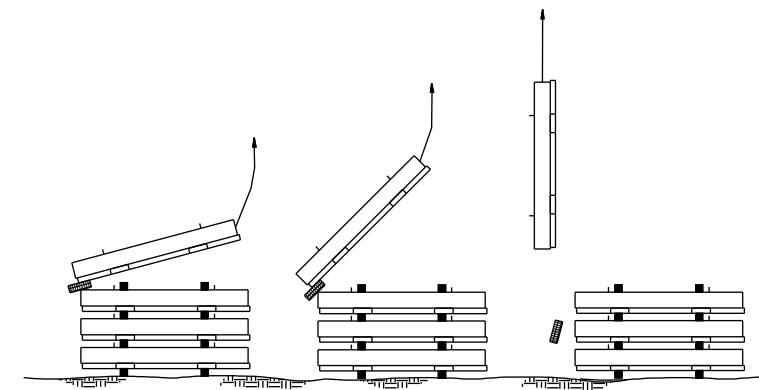


FIGURE 6

ERECTION PROCEDURE

I. Leveling Course Construction

Layout the leveling course on the centerline and grade of the wall panels as provided by the project drawings.

Course dimensions are detailed in the supplied erection drawings. Typical course is 6 inches thick and 12 inches wide.

Finish leveling course to a smooth trowel finish.

LINE AND GRADE MUST BE HELD TO 1/4" TOLERANCE.



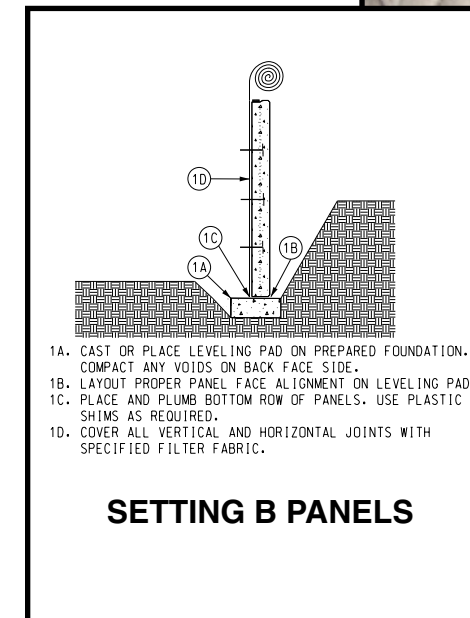
II. Setting "B" Panels

Snap chalk line on leveling course along the face of the panels.

Place first "B" panel. Closely check for horizontal alignment and vertical plumb. Back-batter panel as required to obtain vertical plumb after backfill. A 1/4" to 3/4" back-batter is typical – adjust as needed for different backfill materials. Use wooden wedges and/or shims as required.

Brace panel with 2 X 4 lumber for vertical alignment.

Set second half "B" panel at a typical 3/8" spacing. Align, shim, and brace panel.



Use clamps to secure First and Second panels together.

Set remaining "B" panels in wall as described above.

Install supplied filter fabric with adhesive over the vertical and horizontal joints. Make sure to cover the joint between the panel and leveling course.



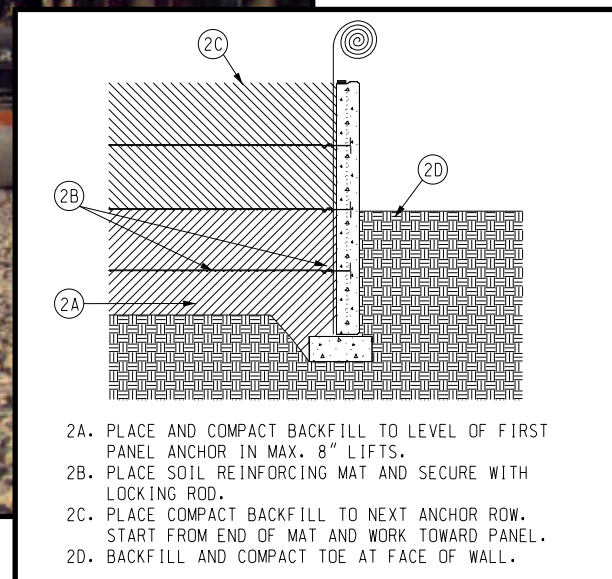
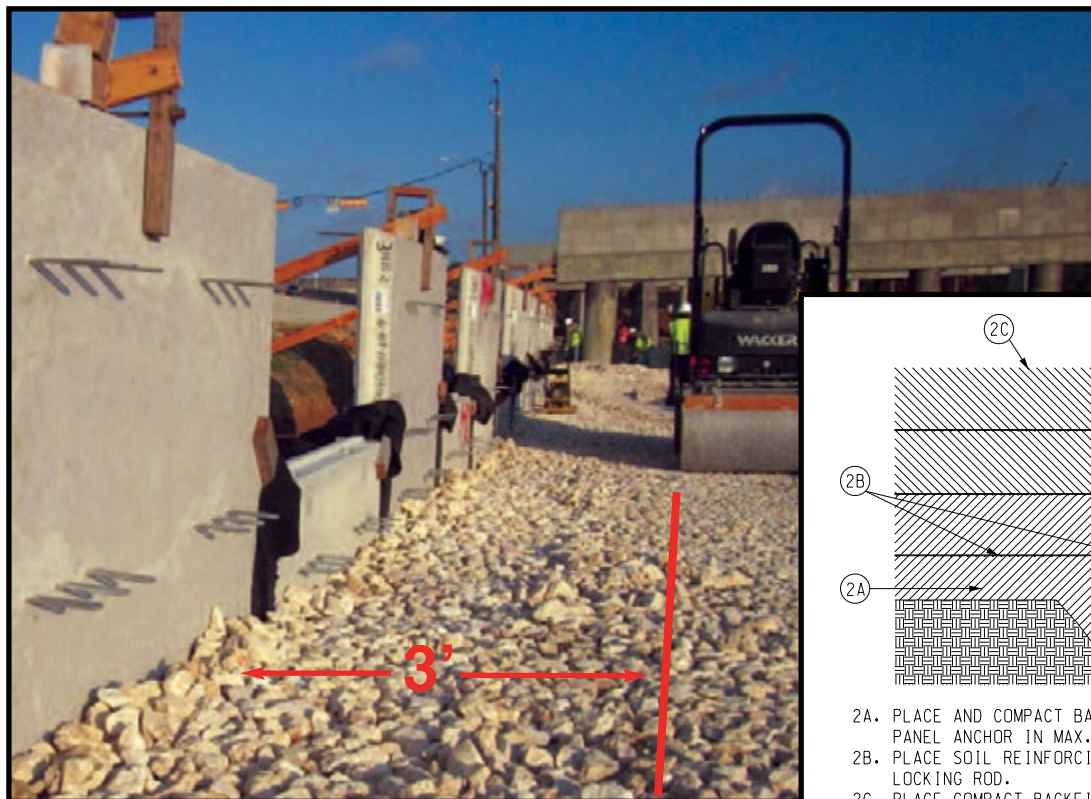
III. Backfill

Place and compact the first lift of specified backfill up to the first row of soil reinforcement mats. Use hand operated compactors within 3 feet of the panel.

Place soil reinforcement mats into the wall connectors and install the locking rod.



Continue installing and compacting backfill in specified lifts to the next level of connectors. (Do not operate tracked equipment on reinforcing mats. Equipment with rubber tires can be used, but with extreme caution.)



IV. Installation of Second and Following Panel Courses

Always backfill to the top of the prior course before setting the next course.

Remove clamps one panel at a time. Remove wooden wedges from panel face. Place supplied bearing pads on top of the panels in the preformed bearing pad pockets.

Set "A" panel in place. Check spacing, and the horizontal and vertical alignment of the panel. Set joint clamps.

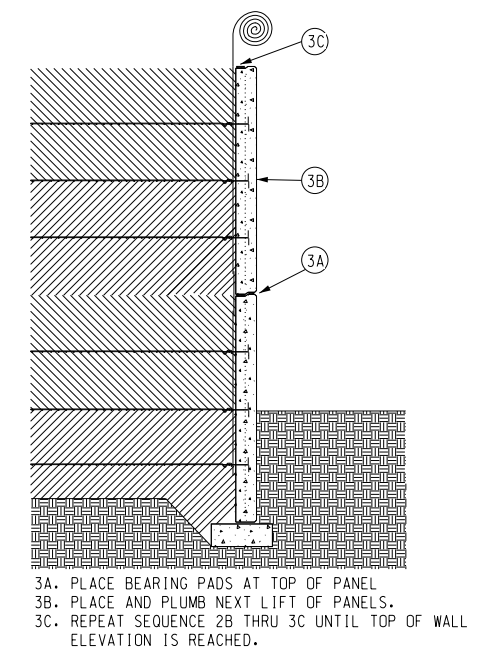
Install supplied filter fabric with adhesive over the vertical and horizontal joints.



Install backfill and soil reinforcement mats as described in Step III – Backfill.

Check the vertical alignment. No bracing should be required for the remainder of the wall.

Backfill front of the wall above the leveling pad according to the plans.



V. Final Completion of the Wall

Install “T” panels as described in Step IV – Installation of Second and Following Panel Courses.

Complete backfill and compaction. Remove all bracing, clamps, and wedges.

Form and pour the level-up course to accept precast coping, or form and pour coping in place as specified.



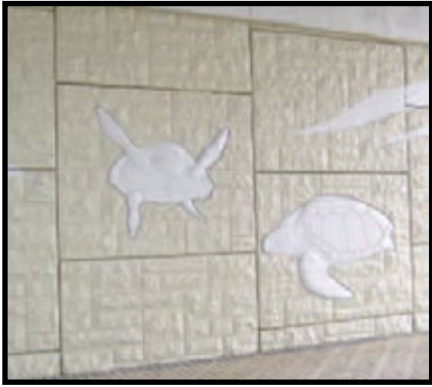
Materials Supplied with the Tricon™ Retained Soil Wall System

- Precast Concrete Fascia Panels
- Panel Alignment Shims
- Panel Bearing Pads
- Filter Fabric and Adhesive
- Soil Reinforcement Mats
- Connection Locking Rods
- Panel Lifting Devices (1 set)

Material, Tools and Equipment Required by Contractor

- Excavation Equipment
- Leveling Course Formwork and Concrete
- Crane, Picker or Boom Truck
- Cable and Sling Rigging
- Survey Instrument
- Chalk Line, Level, Plumb Bob
- Wooden Wedges, Pry Bars
- Select Backfill Material and Placement Equipment
- Small Vibratory Roller
- Joint Clamps and Bracing
- Hammer Drill and Concrete Bits
- Miscellaneous Small Tools





TRICON

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