TRIWEB™ RETAINED SOIL WALL SYSTEM
(5'-0" x 5'-0" Panels)

CONSTRUCTION MANUAL

PLEASE CONTACT YOUR LOCAL SYSTEM PROVIDER:

WWW.TRICONPRECAST.COM

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TRIWEB™ RETAINED SOIL WALL SYSTEM

The Triweb™ Wall 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, adhesive joint materials, connection anchors, ParaWeb geosynthetic strips soil reinforcement 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.
ounded in 1987, Tricon Precast Ltd. provides innovative engineered MSE wall and bridge systems throughout North America. With headquarters in Houston, Tricon operates two state-of-the-art plants strategically located in Texas; Houston in the Gulf Coast Region and San Antonio in the Central Texas Region making it the largest precast concrete manufacturer in the state. Networks of licensed producer partners expand the reach of the Tricon systems by providing manufacturing and support across the US and Canada.

Tricon de Mexico, headquartered in Mexico City, provides the Tricon products and systems into many parts of that country.

TEG Engineering, headquartered in Grand Rapids, MI, with offices in Texas, provides a full range of structural engineering services not only for all Tricon system applications but for other civil construction projects across the continent. TEG continues to expand its network with the most talented and innovative professional engineering staff in the country.

Tricon’s unique patented systems are produced and offered by a growing number of licensed precast affiliate partners. Licensing agreements are currently available in certain geographic locations. Interested precast concrete producers should please contact us for more information.

Products and Systems include:

- Retained Soil Wall System™
- Drill Shaft Fascia Panel Wall System
- Soil Nail Fascia Panel Wall System
- Temporary Wire Wall System
- Permanent Wire Wall System
- Redi-Span™ Arch Bridge System
- Con-Struct™ Prefabricated Bridge System
- Sound Wall System
- Privacy Wall System
- Precast Concrete Traffic Barriers
- Custom Civil, Industrial and Commercial Precast Concrete Services
Materials Supplied with the Triweb™ Retained Soil Wall System

- Precast Concrete Fascia Panels
- Panel Alignment Shims
- Panel Bearing Pads
- Filter Fabric and Adhesive
- Soil Reinforcing Strips
- Panel Lifting Device (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 Instruments
- 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
V. Final Completion of the Wall

A. Install top panels as described in Step IV – Installation of Second and Following Courses.

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

C. Form and pour the level-up course for precast coping, or form and pour coping in place as specified.
IV. Installation of Second and Following Courses

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

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

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

D. Install supplied filter fabric in the vertical/horizontal joints with the provided adhesive.

E. Install backfill and reinforcement as described in Step III - Backfill.

F. Check vertical alignment, no bracing shall be required for the remainder of the wall.

G. Backfill front of the wall above the leveling pad.

I. Level Pad Construction

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

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

C. Finish leveling course to a smooth trowel finish.

D. LINE AND GRADE MUST BE HELD TO 1/4” TOLERANCE.
II. Setting Bottom Panels

A. Snap chalk line on leveling pad along the face of the panels.

B. Place first bottom 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.

C. Brace panel with 2 X 4 lumber for vertical alignment.

D. Set second half bottom panel at a typical 3/8” or 3/4” spacing (See specific erection drawings). Align, shim, and brace panel.

E. Use clamps to secure First and Second panels together.

F. Set remaining bottom panels in wall as described in C & D above.

G. 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

A. Place and compact the first lift of specified backfill. Use hand operated compactors within 3 feet of the panel.

B. Place reinforcing strips around loop anchors at panel, anchor strips at back of reinforcing zone using anchorage pin or bar.

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