
GravityStone®
ENCORE II
So Simple. It's Advanced.
A Licensed product of
WESTBLOCK SYSTEMS®

EnCore at a Glance

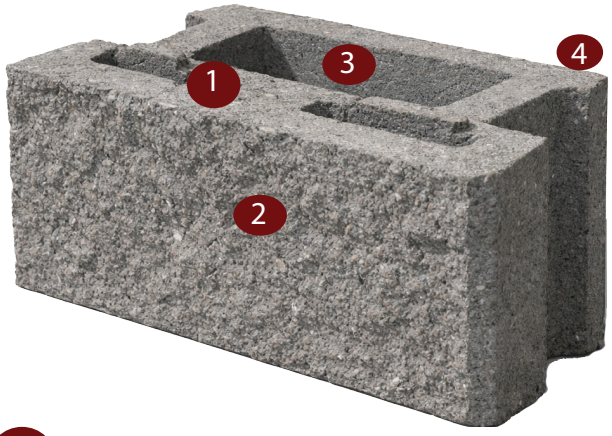
GravityStone® EnCore II is a patented earth retention system that provides solutions to a variety of site needs and project requirements. The system creates graceful and durable retaining walls that can be built serpentine or straight, single height or tiered, with concave, convex or 90-degree corners.

When used in conjunction with geosynthetic reinforcement, GravityStone® EnCore creates durable, soil reinforced walls. As a system, geogrid provides the function of Mechanically Stabilizing the Earth (MSE) creating retaining walls capable of addressing a wide range of structural wall heights and site conditions.

EnCore is an economical and easy to use product that provides precise wall batter, alignment, and shear resistance through the use of a high strength Concrete Alignment Nub (CAN) that is cast directly into the top of the unit, eliminating the need for pins or plugs, and easier installation than lip or lug systems, offering greater flexibility and construction efficiency.

EnCore can be manufactured with a variety of faces,including different textures, geometries, and colors. From classic split to contemporary smooth, or the look of natural stone.





1 CONCRETE ALIGNMENT NUB (CAN)
Built-in 4.5° alignment and shear resistance

2 FACE + FINISH FLEXIBILITY
Split, Smooth, Ashlar, and Hewn aesthetic options

3 LARGE OPEN CORE
Large open core creates vertical shafts for easy aggregate fill placement and lightweight handling

4 ERGONOMIC HANDLING AND PALETIZING
Rear handholds support efficient hand placement and prevent rotation with machine assisted installation

The EnCore Advantage

1 NO PINS OR PLUGS

Built-in alignment eliminates separate consumables, and the added steps of inserting hardware, reducing installation time and additional material costs.

2 TOP-UP ON PALLET. TOP-UP IN WALL.

Because the CAN is cast into the top of the unit, EnCore can move directly from pallet to wall without flipping - simplifying hand-set or machine-assisted installation. While its forward position maintains consistent alignment through tight radii.

3 LEVEL BASE WITHOUT THE WASTE

With no alignment device projecting below the unit, EnCore can sit directly on any prepared leveling pad - without modifying the alignment device or introducing separate base units.

4 INTERFERENCE-FREE REINFORCEMENT

The CAN's forward, top-up position keeps the alignment in front of the reinforcement, supporting consistent block seating while avoiding abrasion as new units are placed and the geogrid is tensioned.

GravityStone® EnCore Components



GravityStone® EnCore II
18 x 8 x 10 1/8″
~63lbs*

**Unit weight is based on a 145 pcf mix*



Universal Corner
18 x 8 x 9″
or
15 x 8 x 6″



Cap Unit
18 x 4 x 12″

EnCore with Geogrid



MSE Structures

GravityStone EnCore, when paired with geogrid reinforcement, forms a strong, economic and visually striking Mechanically Stabilized Earth (MSE) retaining wall. Perfect for fill sites, this system allows contractors to utilize suitable on-site soils, reducing import costs and efficiently achieving a level, finished grade.



GravityStone® ENCORE II

FROM SALES FLOOR TO THE JOBSITE

SIMPLE. EFFICIENT. ENGINEERED.



Solutions for Any Site



COMMERCIAL + CIVIL

When combined with geogrid, EnCore creates durable, mechanically reinforced retaining walls that provide stability, structure, sustainability and style to even the most challenging change of grade projects. From tiered walls, single height to load-bearing, or steepened slopes EnCore offers proven results.



LANDSCAPE + RESIDENTIAL

EnCore scales seamlessly, from large infrastructure to small landscape features. Offering homeowners an easy to install and visually pleasing wall used for small gravity structures, raised planters, stairways and more.

Solutions for Any Site

WATER APPLICATIONS

EnCore's large open core is designed for free-draining aggregate fill, supporting retaining-wall applications where water management is part of the site condition.



ROADWAY + DOT

EnCore is engineered to handle live loads ranging from light residential to demanding DOT applications.

Wall Layouts

Radius

Concave Radius





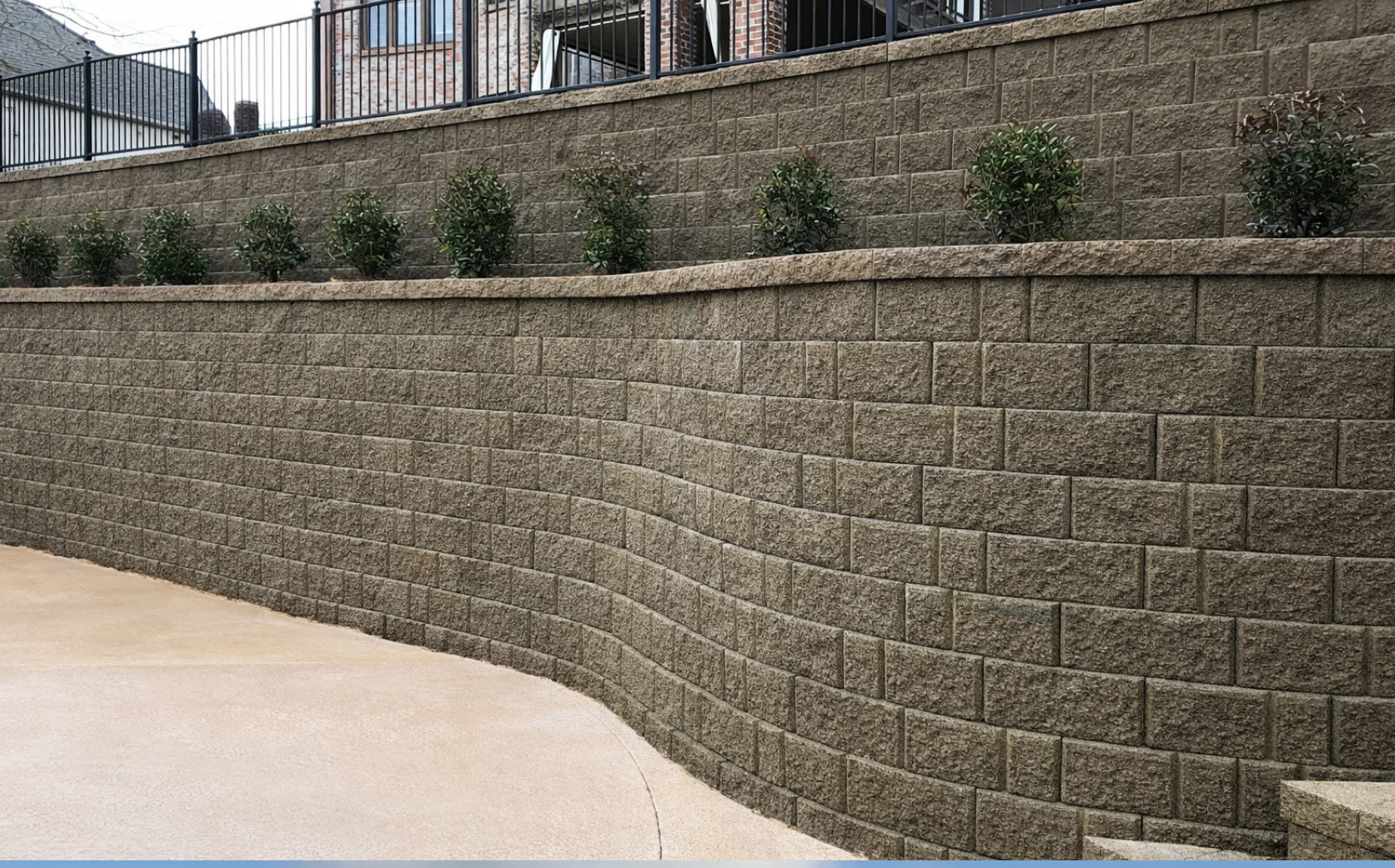
GravityStone® EnCore makes concave curves effortless. With its forward facing alignment design, EnCore forms smooth, stable radii using standard units, no special units or cuts needed. The result is tight, consistent curves with full interlock and structural integrity, making serpentine layouts simple to execute.

Convex Radius





GravityStone® EnCore handles tight convex curves with ease, forming smooth, consistent radii as tight as 2.25 ft, using only standard units, without cuts or custom pieces required. GravityStone® EnCore maintains full interlock and structural integrity, even on the sharpest bends, making serpentine layouts simple to build.

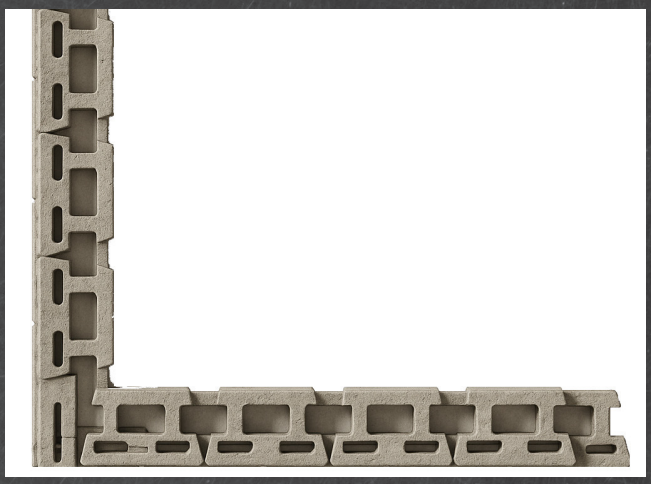




Wall Layouts

Corners

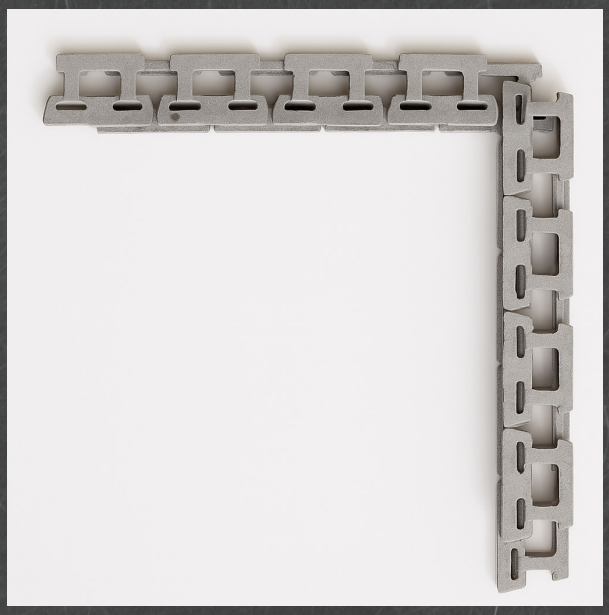
Outside Corners

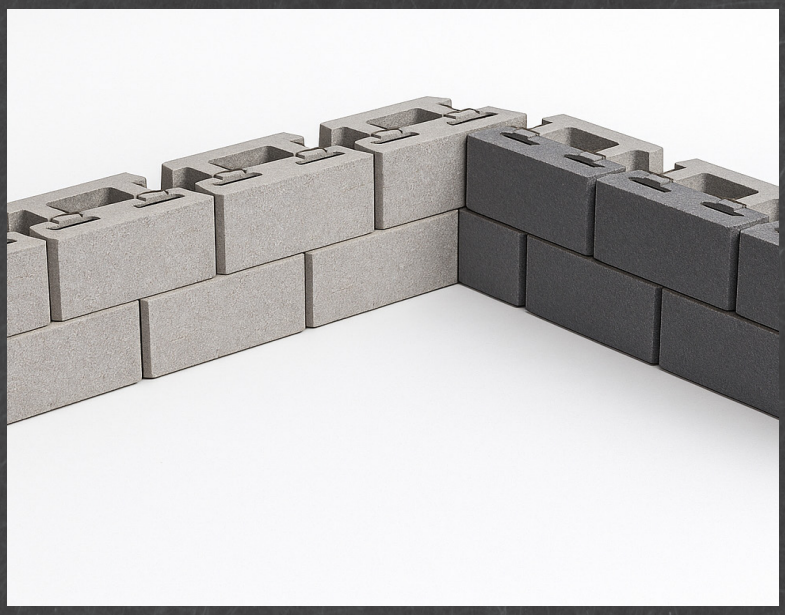




Using corner units in an overlapping, alternating pattern, the EnCore system forms fully interlocked 90° outside corner returns. The result is structural continuity, precise course-to-course alignment, and faster, more efficient on-site construction.

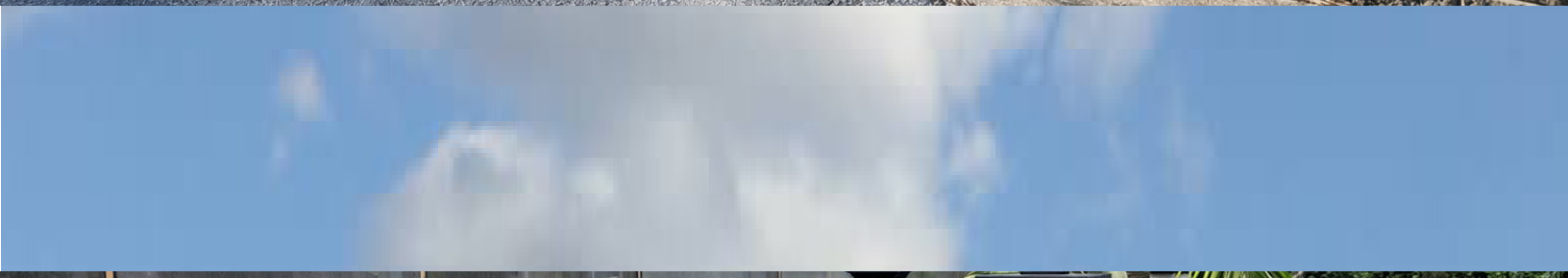
Inside Corners





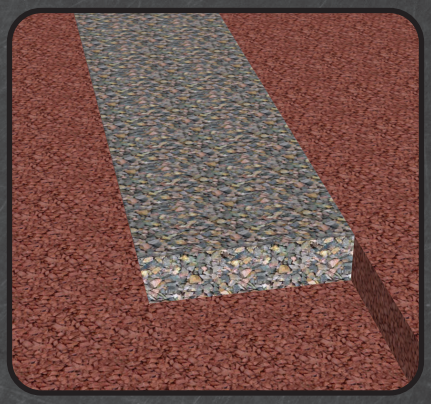
EnCore's inside corner uses standard units in an alternating pattern to form a fully interlocked 90° return, no custom cuts or corner blocks required. The result is structural integrity, precise alignment, and simplified installation.





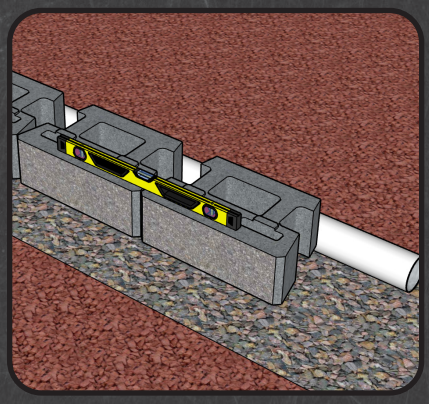


Basic Installation



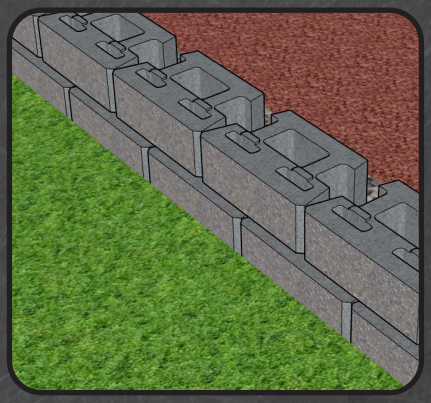
1. Leveling Pad

Prepare a foundation by excavating and filling with a minimum of 6" of crushed stone, ensure it is level and compacted.



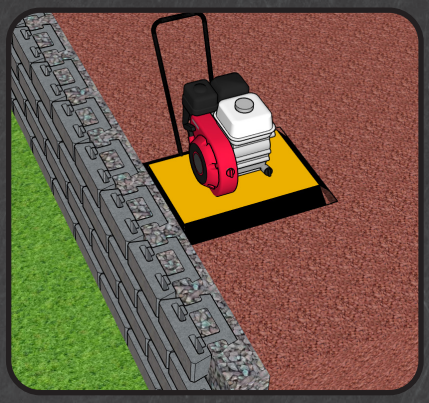
2. Laying The First Course

Begin the first course by starting at the lowest elevation. After placing a string line, position each Face block along the line, level side to side and front to back, using a rubber mallet to seat the block.



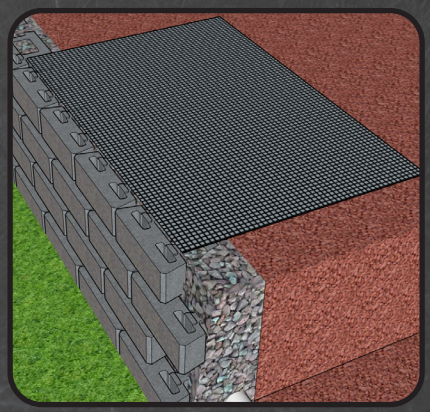
3. Stacking The Wall

Once your base course has been laid out and leveled, begin stacking the wall in a running bond placing the oval shaped cores over the Concrete Alignment Nub (CAN) to assure proper batter and alignment.



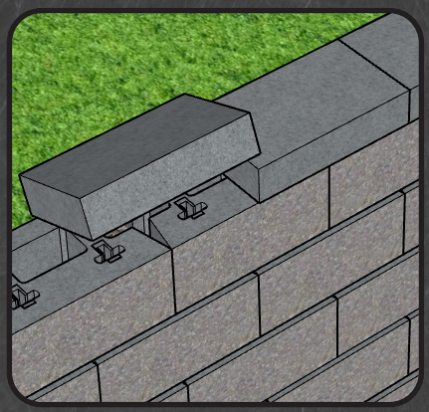
4. Backfill and Compaction

After reaching a maximum of three courses, backfill the GravityStone units with the specified aggregate, filling the core of the face units and an additional 12" behind. Compact the soil with a vibratory compactor to the proper density. Sweep debris from the top of the blocks before starting the next block course.



5. Placing Geogrid

Following the engineer's design, place the Geogrid at the proper course and to the specified length. Ensure the geogrid maintains full contact with the soil.



6. Capping The Wall

Once the body of the wall is complete, permanently affix a Cap Block to the Face Block using an approved concrete adhesive parallel to the wall face on both sides of the plug holes. Place the Cap Block onto the adhesive, making sure of its proper position.

GravityStone EnCore in Action

1



2



3



4



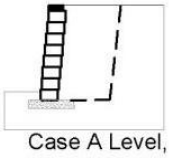
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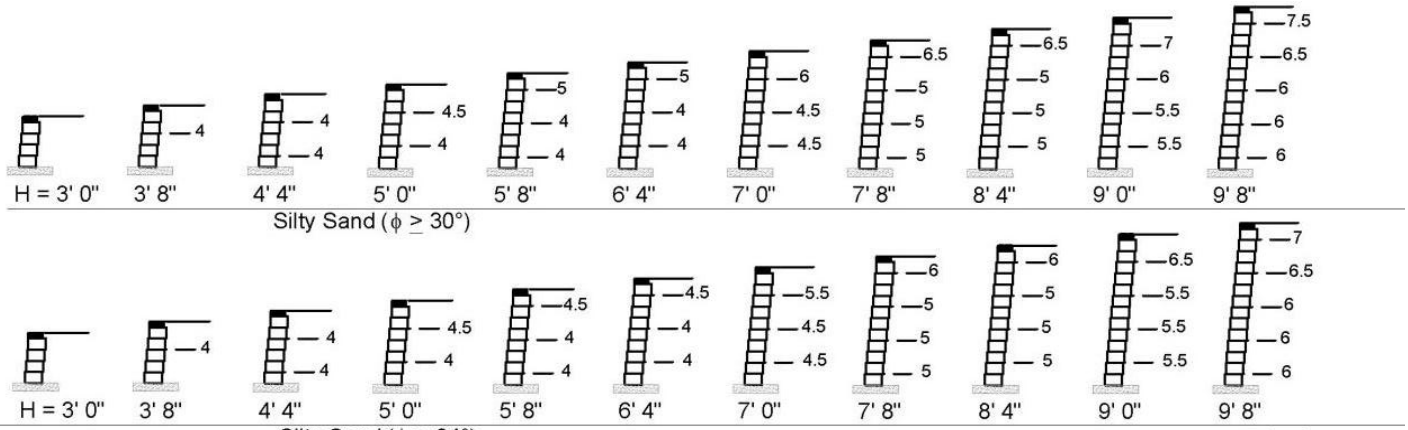
MSE Design Charts
Design Method: NCMA
Batter: 4.5°

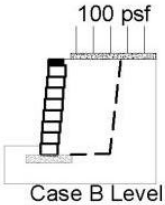
Case 1: No Slope, No Surcharge
Case 2: 250 PSF Live Load
(3' offset)
Case 3: 3:1 Back Slope

GravityStone® ENCORE II

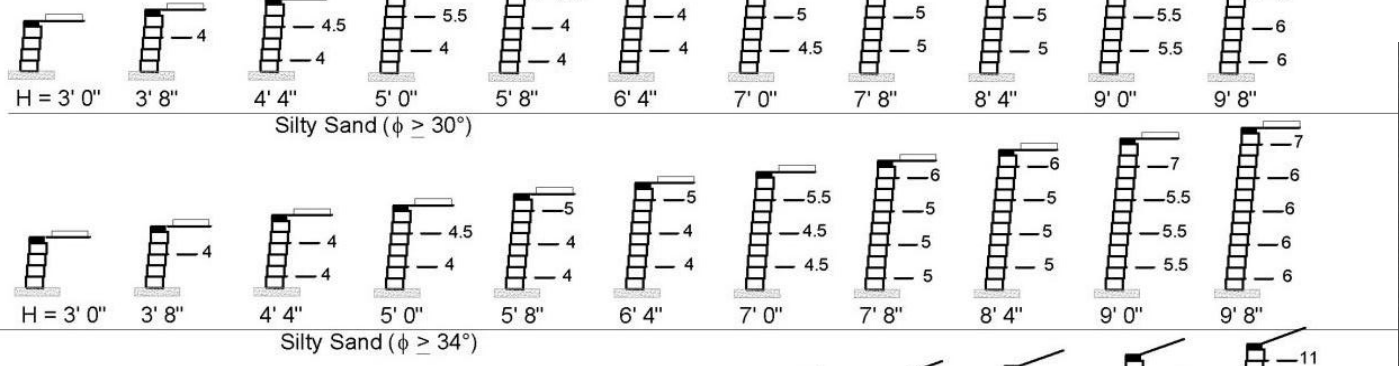


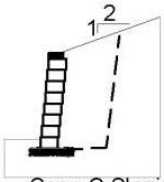
Case A Level,
No Surcharge



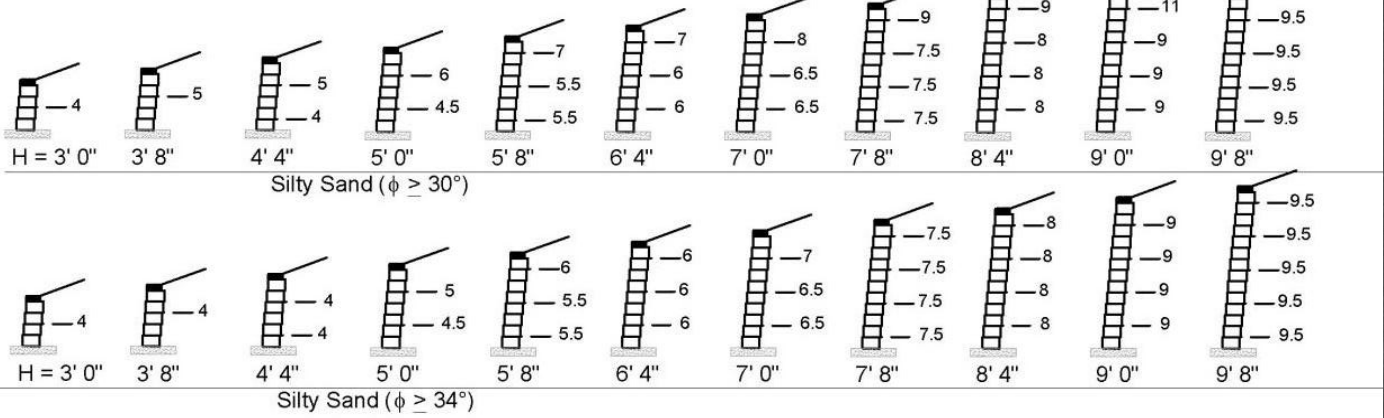


Case B Level,
100 psf Surcharge





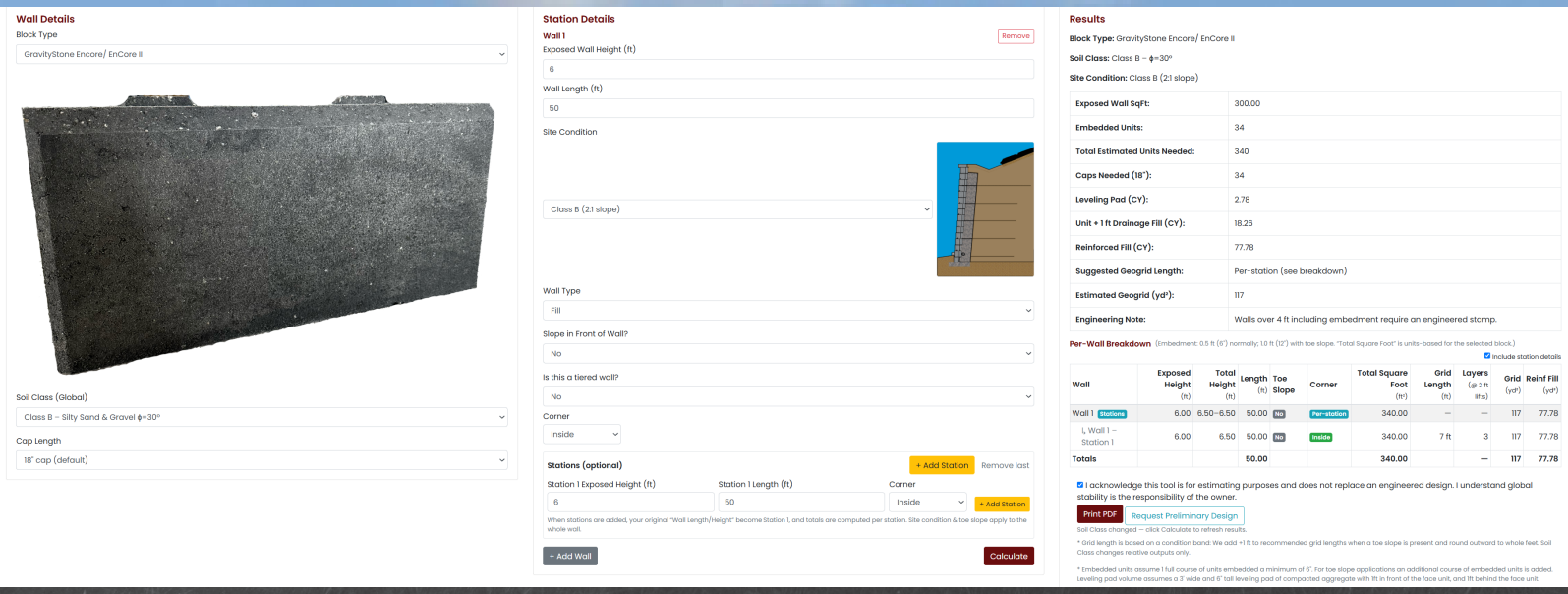
Case C Sloping,
No Surcharge



**Designs provided for informational and estimating purposes only. It is recommended to consult with a licensed engineer for walls exceeding 4 ft in total height. Full CAD files and engineering support are available upon request and can be located on our website: https://www.westblocksystems.com/cads*

From Concept to Design

A Wall is More Than A Cross Section



Wall Calculator

DESIGN IT

Use the WestBlock retaining-wall calculator to create instant preliminary estimates and designs based on your wall and site conditions.

Preliminary Designs

SUBMIT IT

Need a second set of eyes? Submit your project information directly from the calculator or our design hub for a preliminary design review and system-specific support.

Design Software

BUILD IT

Move from preliminary concepts and CAD details, to project-specific engineering and support with WestBlock's industry leading design software and engineering packages.

GravityStone® ENCORE II

No Pins, Plugs, Lips or Lugs.

Designed for Builders. Trusted by Engineers.

Support sustainable site development

Reduce labor, equipment, and installation time

Experience unmatched aesthetic versatility

GravityStone® EnCore. The smarter way to build retaining walls.

WESTBLOCK SYSTEMS®

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