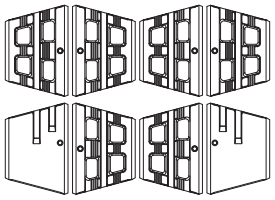
D

P **PATENT**
CND 2,114,677
US 5,528,873

SEMMA

DESCRIPTION: Wall double-sided **TEXTURE:** Split Face

Pallet Overview



Split Face **Chestnut Brown**

Split Face **Sandlewood**

Split Face **Champlain Grey**

Split Face **Shale Grey**

Specifications per pallet

A

REGULAR
30 units / pallet

B

CORNER
10 units / pallet

	Imperial	Metric
Dimension Front (L × D × H) A	16 × 11 × 5 ⅞	406 × 279 × 150
Dimension Back (L × D × H) A	10 ½ × 11 × 5 ⅞	266 × 279 × 150
Dimension Front (L × D × H) B	16 × 11 × 5 ⅞	406 × 279 × 150
Dimension Back (L × D × H) B	10 ½ × 11 × 5 ⅞	266 × 279 × 150
Cubing	40 units	40 units
	26.25 ft²	2.44 m²
	53.33 lin. ft	16.26 lin. m
Approx. Weight	2 363 lbs	1 072 kg
Number of rows	5	
Coverage per row	5.25 ft²	0.49 m²
Lin. coverage per row	10.67 lin. ft	3.25 lin. m

NOTES

See page 6 for icons description.

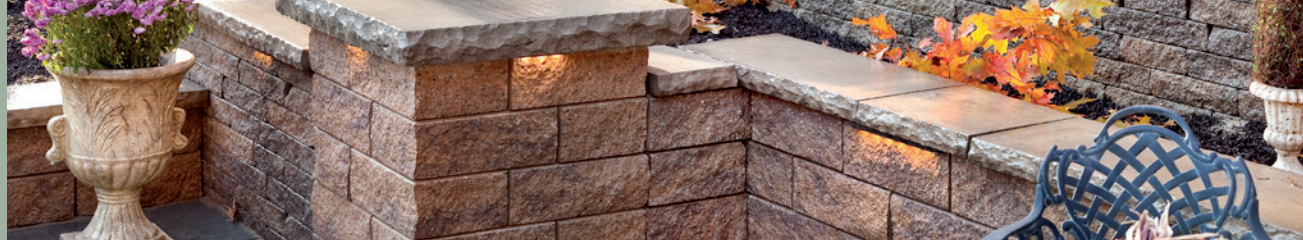
COMPATIBLE CAPS
See page 137 for product compatibility.

When building a double-sided wall one pallet will cover an average of 21.74 ft².

The corner units for the Semma block should be glued with a concrete adhesive.

The corner unit can be used as a right or left corner unit and as a regular unit. Metric measures are approximate.

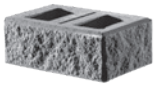
See page 138 to 153 for more technical information.



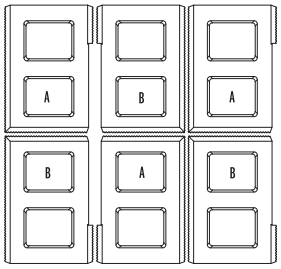
SEMMA

DESCRIPTION : Corner or Pillar **TEXTURE :** Split Face

90 mm

Specifications per pallet		Imperial	Metric
	Product dimension (L × D × H)	16 × 10 ½ × 5 ⅞	406 × 266 × 150
	Cubing	24 units	24 units
	Approx. Weight	1 403 lbs	636 kg
24 units / pallet 12 right corners 12 left corners	Number of rows	4	
	Pillar height	35 7/16 in	900 mm

Pallet Overview



NOTES

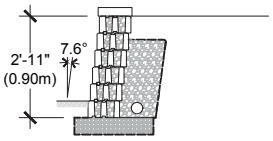
See page 6 for icons description.

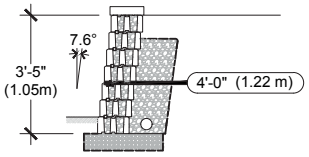
COMPATIBLE CAPS
See page 137 for product compatibility.

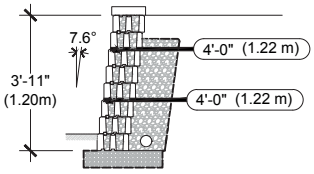
See page 138 to 153 for more technical information.

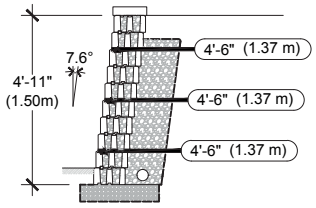
CLEAN SAND/GRAVEL/ SAND AND GRAVEL MIXES (Ø=34°, γ = 120 pcf)
GEOGRID: MIRAGRID 3XT BY TENCATE (RFd=1.10, RFcr=1.45, RFid=1.25, Cds=0.9, Ci=0.9)

CASE N° 1 :
No Surcharge
No Backslope
No Toe Slope

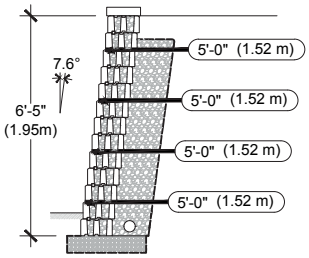


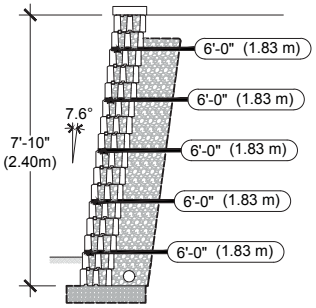


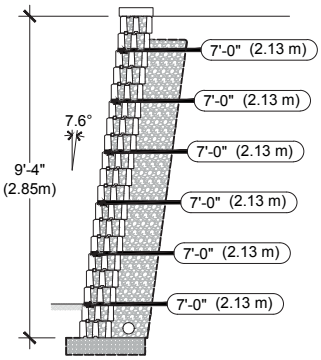


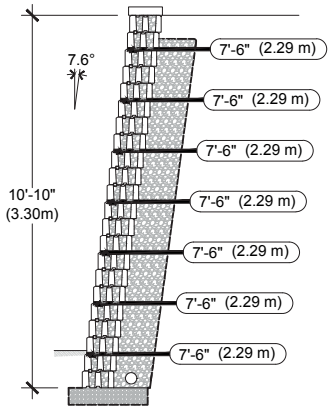


VISIT WWW.TECHO-BLOC.COM FOR COMPLETE DESIGN CHART DOCUMENT (USA AND CANADA VERSIONS)





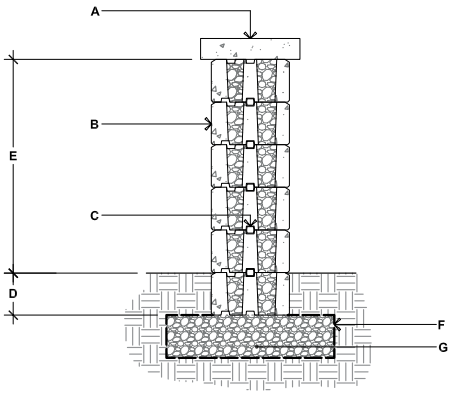




1. The information contained in the design charts is supplied for information purposes only and as such should only be used for preliminary designs.
2. The height (H) of the wall is the total height from the leveling pad to the top of the wall not including the thickness of the cap.
3. Soil parameters: reinforced soil (φ = 34°, γ = 120 pcf); retained soil (φ =34°, γ = 120 pcf); foundation soil (φ=34°, γ = 120 pcf)
4. A qualified engineer should be consulted for the final design to be used for construction.
5. The foundation soil must be able to support the wall system. The bearing capacity of the foundation soil, settlement, and global stability must be verified and validated by a qualified geotechnical engineer.
6. The seismic analysis is not included.
7. The design charts do not apply to tiered walls.
8. The charts assume that the walls are constructed in accordance with Techo-Bloc specifications, good construction practice and an adequate drainage system.
9. The geogrid layout has been optimized to satisfy the design requirements of the NCMA's Design Manual for Segmental Retaining Walls, 3rd Edition.
10. The minimum burial depth must be 6 in (150 mm) or 10% of the exposed height, whichever is greater.
11. Engineering judgement should be used when interpolating between heights.
12. Techo-Bloc and its predecessors, successors, beneficiaries, employees, associates, administrators and insurers accepts no liability for the incorrect use of information contained in the design charts.
13. For further information, please contact our technical service department.

INSTALLATION GUIDE

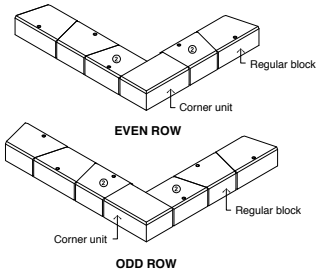
FREESTANDING WALLS - SEMMA

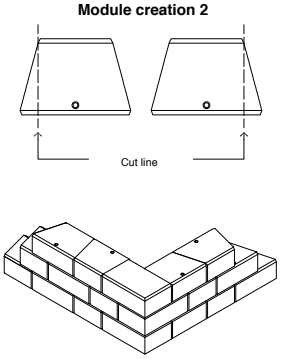


SEMMA

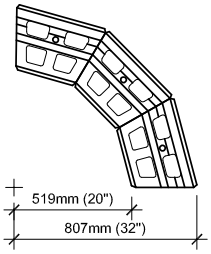
- **A.** TECHO-BLOC CAP UNIT SECURED TO UNIT BELOW WITH FLEXLOCK ADHESIVE
- **B.** SEMMA DOUBLE-SIDED WALL UNIT SECURE EACH ROW WITH FLEXLOCK ADHESIVE
- **C.** CONNECTOR
- **D.** EMBEDMENT DEPTH, 6" (150 mm) MIN.
- **E.** 29 7⁄16" (750 mm) MAX.
- **F.** GEOTEXTILE
- **G.** COMPACTED GRANULAR LEVELING PAD, 6" (150 mm) THICK MIN. THICKNESS ACCORDING TO PROJECT SPECIFIC CONDITIONS

90° CORNER OF A DOUBLE-SIDED WALL



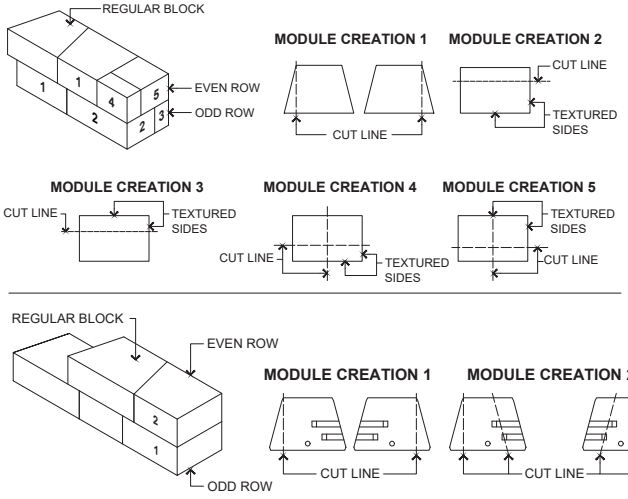


DOUBLE-SIDED WALL RADIUS



It is the user's responsibility to verify for the quantity of materials required.

DOUBLE-SIDED WALL - END OF A STRAIGHT WALL

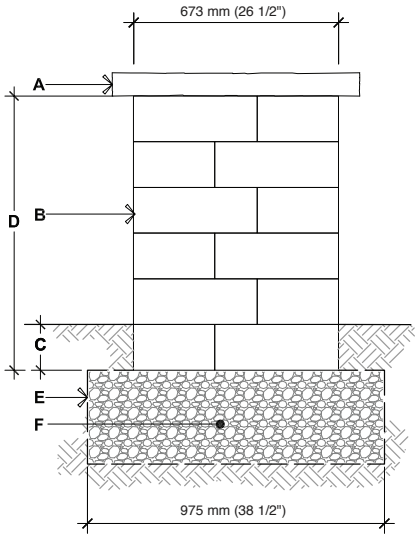


GENERAL NOTES

1. Alternate odd and even rows.
2. Stagger joints from one row to the next.
3. Glue all modules at each row with Flexlock adhesive.
4. Cavities, grooves and connectors are not illustrated to avoid overloading the image.

INSTALLATION GUIDE

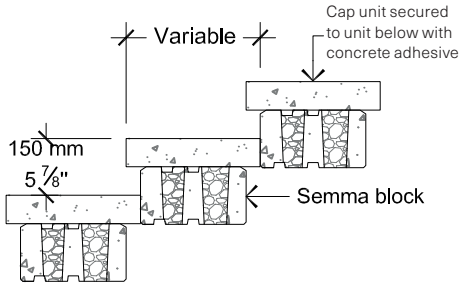
PILLARS - SEMMA

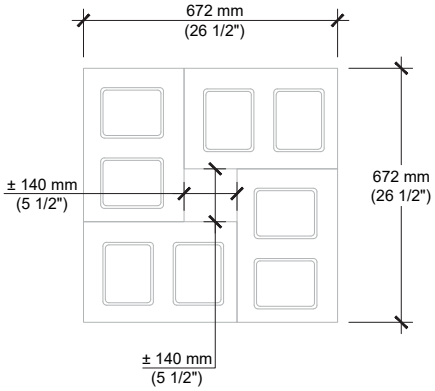


SEMMA

- **A.** PILLAR CAP UNIT (SECURE WITH FLEXLOCK ADHESIVE)
- **B.** SEMMA PILLAR UNIT SECURE EACH ROW WITH FLEXLOCK ADHESIVE
- **C.** EMBEDMENT 6" (150 mm) MIN.
- **D.** 35 7/16" (900 mm), HEIGHT PER PALLET 47 1/4" (1200 mm), MAXIMUM HEIGHT
- **E.** GEOTEXTILE
- **F.** COMPACTED GRANULAR BASE 6" (150mm) THICK MIN. THICKNESS ACCORDING TO PROJECT SPECIFIC CONDITIONS

STEPS

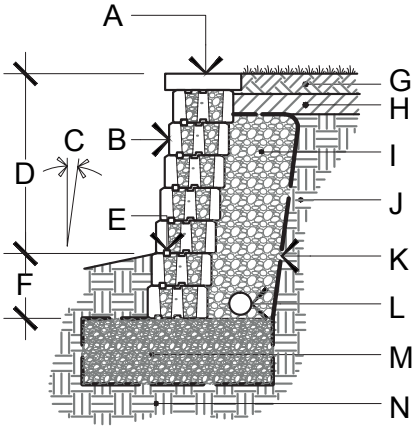


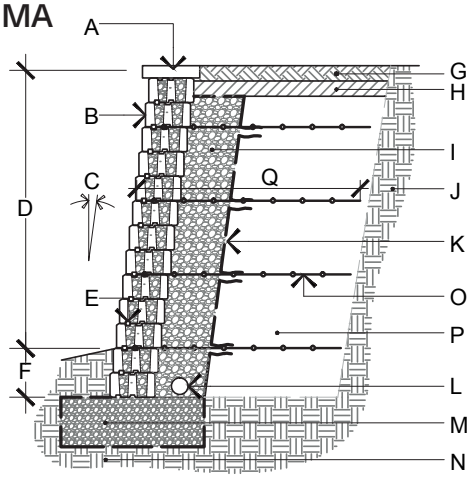


For all possible combinations of pillars and caps, please refer to the correspondence table on page 137 .

Check with your local Building Codes to determine any restrictions or guidelines regarding the dimensions of steps (including riser height and step tread) as well as handrail specifications.

GRAVITY AND REINFORCED WALLS - SEMMA





GRAVITY WALL DETAIL

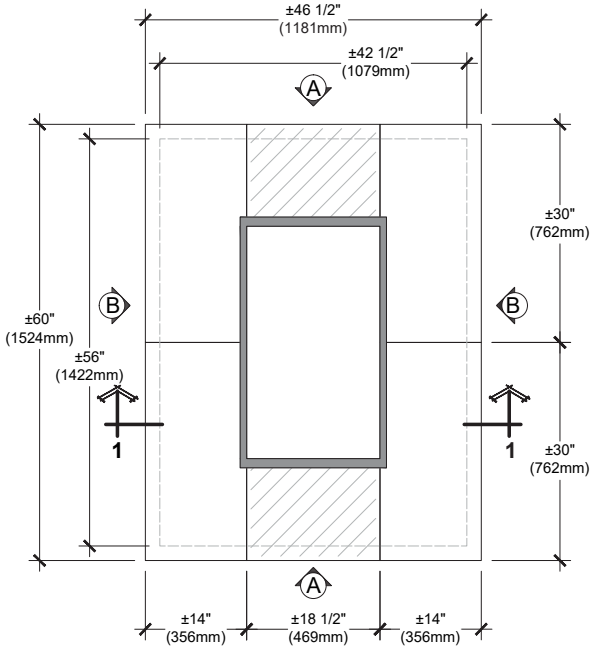
- **A.** CAP FROM TECHO-BLOC
- **B.** SEMMA BLOCK FROM TECHO-BLOC
- **C.** WALL INCLINATION (7.6°)
- **D.** EXPOSED HEIGHT
- **E.** HDPE HORIZONTAL KEY
- **F.** EMBEDMENT DEPTH
- **G.** TOP SOIL
- **H.** LOW PERMEABILITY SOIL
- **I.** ¾" (20 mm) CLEAN STONE, 13" (330 mm) THICK MIN.

REINFORCED WALL DETAIL

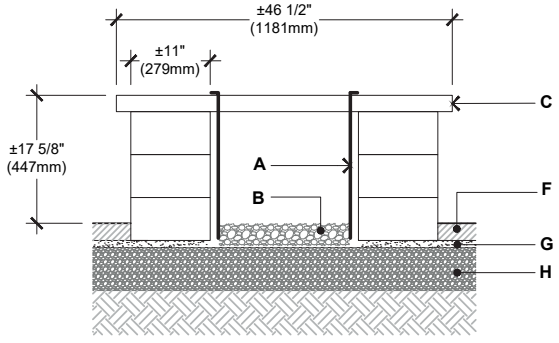
- **J.** RETAINED SOIL
- **K.** GEOTEXTILE
- **L.** PERFORATED DRAIN
- **M.** LEVELING PAD
- **N.** FOUNDATION SOIL
- **O.** GEOGRID
- **P.** REINFORCED SOIL
- **Q.** GEOGRID LENGTH

INSTALLATION GUIDE

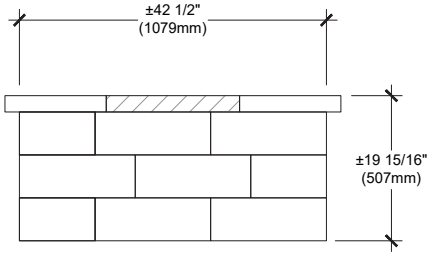
FIREPIT - SEMMA



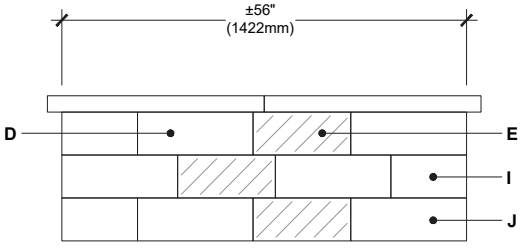
TOP



SECTION 1-1



ELEVATION A



ELEVATION B

CUT ON FIELD

A. STEEL BOX INSERT
B. CLEAN STONE 3/4" (20 mm), 4" (100 mm) THICK
C. PIEDIMONTE CAP 14"X30" (CUT ON FIELD AS REQUIRED)
D. SEMMA BLOCK (A OR B UNIT)
E. SEMMA BLOCK (A OR B UNIT) CUT ON FIELD AS REQUIRED
F. TECHO-BLOC PAVERS OR SLABS
G. SETTING BED 1" (25 mm)
H. COMPACTED GRANULAR 0- 3/4" (0-20 mm)
I. SEMMA PILLAR UNIT (LEFT CORNER)
J. SEMMA PILLAR (RIGHT CORNER)

QUANTITY OF MATERIALS REQUIRED

Piedimonte Cap (14"x30"): 6
Semma (A or B): 24
Semma Pillar: 12 (8 RIGHT CORNER, 4 LEFT CORNERS)

NOTE: Secure the blocks using a heat resistant concrete adhesive. The installer must ensure that the installation and use of the firepit comply with local regulations and code requirements.