

# RETAINING WALL REQUIREMENTS

East Brunswick Township

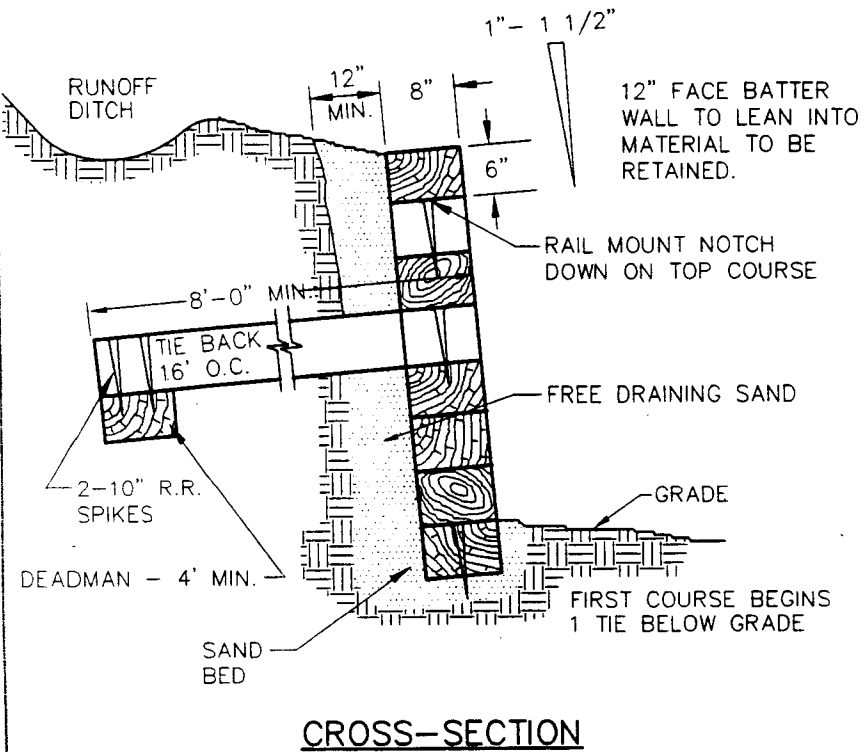
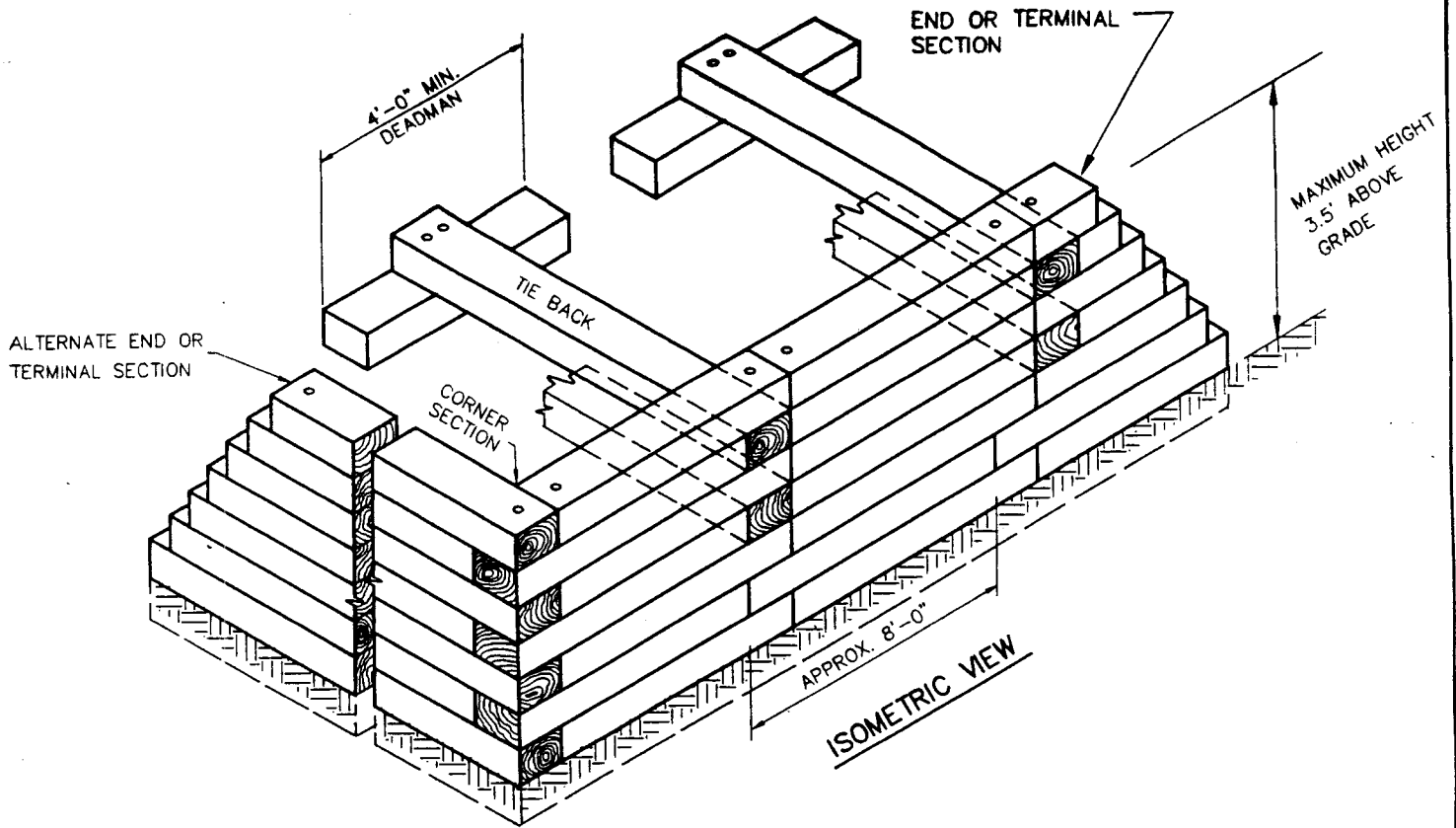
## **RETAINING WALL REQUIREMENTS**

### **Provided by Division of Construction Inspection:**

1. Construction application.
2. Building Subcode application.

### **Homeowner/Contractor to Provide:**

1. Completed applications, front and back.
2. Two sets of detailed drawings for the wall.
3. Two copies of survey showing location of new wall.
4. Zoning sign off.
5. Township Engineer sign off.
6. Copy of a contract or a written statement to verify the cost.



**NOTES:**

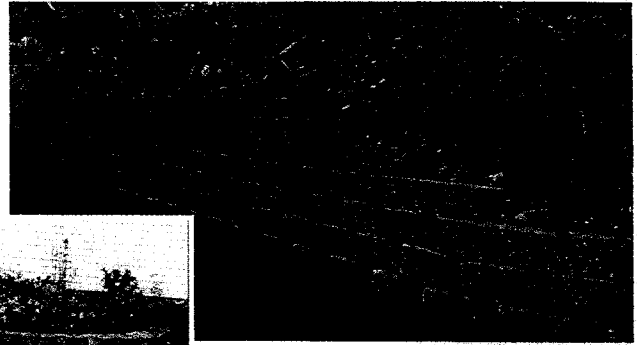
1. ALL R.R. TIES SHALL BE SOUND, UNWARPED WITH SQUARE ENDS AND EDGES AND WITHOUT MAJOR SPLITS OR DEFECTS GENERALLY 6" x 8" AND APPROXIMATELY 8' LONG, EXCEPT WHEN CUT TO FIT.
2. ALL CORNER CONSTRUCTION SHALL BE DOVE-TAILED WITH ENDS CUT TO PROVIDE A GOOD FIT.
3. TIE BACKS TO BE LOCATED 16' O.C. WITH FIRST COURSE 3 TIES ABOVE GRADE. FOR EVERY TWO TIERS OF TIES ABOVE 3, AN ADDITIONAL TIE-BACK SHALL BE PLACED ON A STAGGERED BASIS 16' O.C.
4. FASTENINGS SHALL BE STANDARD 10" R.R. SPIKE OR 5/8" x 24" STEEL RODS IN DRILLED HOLES. THE BOTTOM COURSE SHALL BE ANCHORED WITH TWO 30" STEEL RODS DRIVEN INTO THE GROUND FOR EACH 8' TIE SECTION.
5. "SWITCH TIES" ARE ACCEPTABLE PROVIDED EACH TIE IS FASTENED WITH 3 STEEL RODS OR SPIKES. (10")
6. OVERLAPPING JOINTS SHALL BE PROPERLY SPIKED OR TIED TO THE MEMBER BELOW.

EAST BRUNSWICK TOWNSHIP  
DEPARTMENT OF PLANNING  
AND ENGINEERING

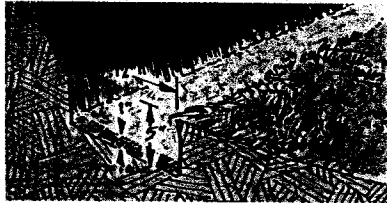
TIMBER TIE  
RETAINING WALL

## Cottage Stone

- *Functionality and performance in one package!*
- *Interlocking rear lip for automatic setback and alignment!*
- *Perfect for terraced gardens, tree rings or low retaining walls!*

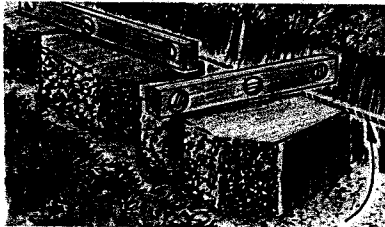


### Installing a Cottage Stone wall...



#### 1. Dig the Foundation

Dig a trench 3 to 4 inches deep and 12 inches wide. Level the soil; then compact it firmly. A solid foundation is essential. One inch of sand in the bottom of the trench will make leveling the first course easier.



#### 2. Install Cottage Stone

Install Cottage Stone with textured rockface forward and interlocking lip down in the trench. Level unit in all directions. Install entire base course, making sure units touch each other. A string line at the back of the units is helpful in creating straight walls.



#### 3. Add More Courses

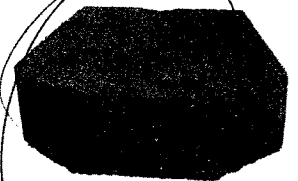
Position the next row of Cottage Stone units on the top of the base row. The second row of units will be offset 1/2 unit from the row below. The interlocking lip is always down and it goes behind the unit below it. This creates the automatic setback of 1 inch.



#### 4. Backfill / Secure Top Course

Backfill and compact behind the units as you finish each row. Clean granular fill is recommended. Brush excess soil off the top of the units before installing the next row. If desired, filter fabric may be used behind the units to prevent soil particles from coming through the wall. Secure the top course of units with construction adhesive.

#### Cottage Stone Specifications\*

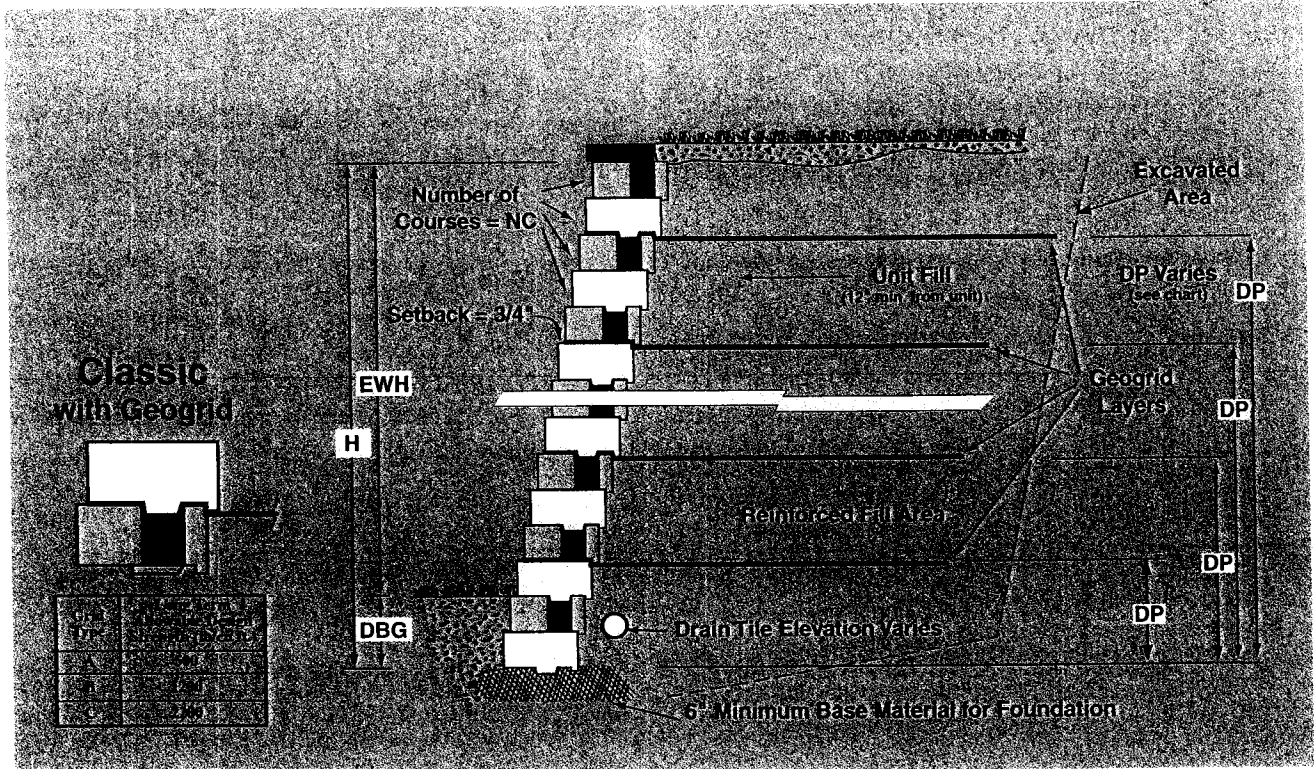


Size .....	4"H x 12"W x 8-1/2"D
Weight .....	26-1/2 lbs.
Area .....	1/3 sq. ft.
Setback .....	1"
Radius .....	2'1"
Wall Height ..	up to 2.5 feet
Strength .....	3000 PSI minimum
Absorption ...	6% maximum

\*Actual unit weight, size, compression strength manufactured to meet specification guidelines may vary in your region.

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# Geogrid Design Table – Classic 6" with No Load



## Classic 6" with No Load

Φ = 3/4" Sand & Gravel	Total Wall Height	Exposed Wall Height	Depth Below Grade	Total # of Courses	Type of Geogrid	Length of Geogrid	GEOGRID PLACEMENT Distance up from Foundation or Leveling Pad						Total Geogrid Layers
	H	EWH	DBG	NC		LG	DP						NL
	4' 6"	4'	0'-6"	9	A	5' 0"	2' - 6"						
6' 6"	6'	0'-6"	13	B	5' 0"	1' - 0"	3' - 0"	5' - 0"					3
9' 0"	8'	1' 0"	18	B	6' 6"	1' - 0"	3' - 0"	5' - 0"	7' - 0"				4
11' 0"	10'	1' 0"	22	B	7' 0"	1' - 0"	3' - 0"	5' - 0"	7' - 0"	8' - 6"			5
13' 0"	12'	1' 0"	26	B	8' 0"	0 - 6"	2' - 0"	4' - 0"	6' - 0"	8' - 6"	11' - 0"		6

Φ = 30" Silty Sand	Total Wall Height	Exposed Wall Height	Depth Below Grade	Total # of Courses	Type of Geogrid	Length of Geogrid	GEOGRID PLACEMENT Distance up from Foundation or Leveling Pad						Total Geogrid Layers
	H	EWH	DBG	NC		LG	DP						NL
	4' 6"	4'	0'-6"	9	A	5' 0"	2' - 0"						
6' 6"	6'	0'-6"	13	B	5' 6"	1' - 0"	3' - 0"	5' - 0"					3
9' 0"	8'	1' 0"	18	B	6' 6"	1' - 0"	3' - 0"	5' - 0"	7' - 0"				4
11' 0"	10'	1' 0"	22	B	7' 6"	1' - 0"	3' - 0"	5' - 0"	7' - 0"	8' - 6"			5
13' 0"	12'	1' 0"	26	B	9' 0"	0 - 6"	2' - 0"	4' - 0"	6' - 0"	8' - 6"	11' - 0"		6

Φ = 28" Silty Clay	Total Wall Height	Exposed Wall Height	Depth Below Grade	Total # of Courses	Type of Geogrid	Length of Geogrid	GEOGRID PLACEMENT Distance up from Foundation or Leveling Pad						Total Geogrid Layers
	H	EWH	DBG	NC		LG	DP						NL
	4' 6"	4'	0'-6"	9	A	5' 0"	2' - 0"						
6' 6"	6'	0'-6"	13	B	6' 0"	1' - 0"	2' - 0"	3' - 6"	5' - 0"				4
9' 0"	8'	1' 0"	18	B	8' 0"	0 - 6"	2' - 0"	3' - 6"	5' - 6"	7' - 0"			5
11' 0"	10'	1' 0"	22	B	9' 0"	0 - 6"	2' - 0"	3' - 6"	5' - 6"	7' - 6"	9' - 6"		6
13' 0"	12'	1' 0"	26	B	10' 0"	0 - 6"	2' - 0"	3' - 6"	5' - 6"	7' - 6"	9' - 6"	11' - 6"	7

**NOTES:**

- Factor of safety for sliding: 1.5
- Factor of safety for overturning: 2.0
- Global stability has not been checked.
- Follow applicable specifications for proper installation of ROCKWOOD Classic retaining wall systems and geogrid.
- Allowable bearing pressure: 3000 PSF
- Compaction 95% standard proctor.
- Min 1 ft. drainage fill behind wall.
- Provide lateral drainage.
- Follow applicable building codes.
- Weight of soil: 120 PCF

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