CONSTRUCTION DETAILS

Typical Gravity Wall with 41" Blocks

No Scale

- SETBACK = 1 5/6 (5° Batter Angle on Wall)
- 28" Top Block
- Swale As Needed and Grade to Drain Away From Wall
- Note: Load Condition A Shown (No Backslope - No Surcharge)
- Ground Level
- Move Blocks Forward During Installation to Engage Shear Knobs (Typical)
- 41" Middle Block
- Free Draining Backfill to Extend at Least 12" Behind Wall
- Non-Woven Geotextile Fabric (If Specified)
- 41" Bottom Block
- Perforated Sock Drain (As Specified by Engineer)
- Crushed Stone Leveling Pad
- Bury Depth
- Ground Level
- Wall Height

See Redi-Rock.com for Detailed Section Drawings of Each Condition Shown in the Design Charts
Conceptual Seawall Detail - No. 2
No Scale

Ground Surface
(Slope Varies)

Armor stone as specified by local Professional Engineer to be placed on non-woven geotextile fabric

Water Surface
(Elevation Varies)

1" dia. drainstone to extend at least 12" behind wall
(Final depth below and behind wall to be determined by local Professional Engineer based on site specific conditions)

Non-woven geotextile fabric

Blocks to extend below long term scour depth determined by local Professional Engineer based on site specific conditions

NOTES:
Use 1" diameter stone (or as specified by local Professional Engineer) to infill between blocks. Maximum wall height charts are not provided for walls in water applications due to the variety of site-specific variables. Contact your local Professional Engineer for specific details and final design. Walls may require geogrid reinforcement. Refer to final engineering plans.
Transition In and Out of Planters

NOTE:
ONE KNOB ON EACH BLOCK MUST BE REMOVED AT THE TRANSITION. PLANTER TRANSITIONS WILL ALTER THE BOND (VERTICAL JOINT) ALIGNMENT FROM COURSE TO COURSE.

NOTE:
TOP, FREE STANDING, AND PLANTER BLOCKS SHOWN WITH LIMESTONE FACE. COBBLESTONE FACE IS ALSO AVAILABLE.

DETAIL A

1. Bottom or Middle Retaining Block
2. Planter Block
3. Middle Retaining Block
4. 28" Wide Top Retaining Block

DETAIL B

1. Planter Block
2. Freestanding Middle Corner Block
3. Half Middle Retaining Block
4. Freestanding Half Middle Corner Block
5. 28" Wide Top Retaining Block
6. Freestanding Top Corner Garden Block
7. Middle Retaining Block
8. Bottom or Middle Retaining Block

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Perimeter Free Standing Wall Blocks on Top of Retaining Blocks

Wall Profile

Section A-A

1 Retaining Bottom
2 Retaining Middle
3 Freestanding Bottom
4 Freestanding Bottom Half Corner
5 Freestanding Top Corner
6 Freestanding Top Half Corner
7 Freestanding Middle Half Corner
8 Freestanding Middle
9 Freestanding Top
10 6" Cap Block - 3 Sided
11 6" Cap Block - 2 Sided

SETBACK = 0.00*
SETBACK = 2 3/4" (With 10" Knob)
SETBACK = 1 3/4" (With 7 3/4" Knob)
SETBACK = 1 5/8"
Redi-Rock Columns with Wrought Iron Fence
Available Upon Special Request Only

SECTION A-A
Alternate Mounting Option

SECTION B-B
CURVED FREESTANDING WALL

NOTE:
Smaller radius curves are available by using the end block insert. (This is not applicable in Force Protection Applications.)

Minimum Radius = 29'-0"
(When every other block is a curved block)

3-Sided Corner Block

Minimum Radius = 14'-6"
(When all curved blocks are used)

Top Garden Blocks Shown
90° OUTSIDE CORNER DETAIL
(41" AND 28" SERIES)

Note: Top row of blocks are shown in RED and have been cutout to show location of knobs on bottom row of blocks.

Remove part of 10" knob with chop saw to allow for proper alignment.

Remove part of 6" knob with chop saw to allow for proper alignment.

Alternate construction practice would be to offset freestanding block ± 1" to avoid cutting knob. Note, this will result in a small offset to the bond beam down the wall.

41" or 28" Series Block with 10" Knobs
(41" Block Shown)

Freestanding Corner Block with 6" Knobs

TOP VIEW
(NO SCALE)

SIDE VIEW
(NO SCALE)

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90° OUTSIDE CORNER DETAIL
WITH SPECIALTY CORNER BLOCK
(41" AND 28" SERIES)

SPECIALTY CORNER BLOCK
(NO SCALE)

4" x 6" x 2" HIGH OVAL KNOB CENTERED ON BLOCK

TOP VIEW

4" x 6" x 2" HIGH OVAL KNOB CENTERED ON BLOCK OR 6" DIA. KNOB

BOTTOM VIEW

13" WIDE GROOVE NEAR END OF BLOCK

NOTE:
THE TOP ROW OF BLOCKS ARE SHOWN IN RED. THEY HAVE BEEN CUTOUT IN LINE WITH THEIR BOTTOM GROOVES TO SHOW HOW THEY FIT WITH THE KNOBS ON THE BOTTOM ROW OF BLOCK.

10" KNOB IS FULLY ENGAGED

NON-WOVEN GEOTEXTILE IN ALL JOINTS BETWEEN BLOCKS (TYP)

SPECIALTY CORNER BLOCK

TOP VIEW OF BOTTOM TWO ROWS
(NO SCALE)

41" OR 28" SERIES BLOCKS
(41" SHOWN)
DOUBLE 90° OUTSIDE CORNER - 42 1/2" BLOCK SOLUTION
(41" AND 28" SERIES)

NOTE:
- 42 1/2" "short" blocks are made using a special adaptor kit for the retaining wall form.
- For this solution to work please note the orientation of the corner blocks.
- One extra short block must be used for each additional course of height.
DOUBLE 90° INSIDE CORNER
(41" AND 28" SERIES)

Build Back Wall First

Freestanding Corner Blocks On Outside Corners

Use Half Blocks Every Other Course to Butt into Back Wall

TOP VIEW

FRONT ELEVATION VIEW

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FLUSH END TO 90° CORNER DETAIL
(41" AND 28" SERIES)

NOTES:
Wall is flush with building.
Rows 2, 4, 6, and 8 require approximately 1/8" gaps between blocks for length of wall given.
Solution shown based on a 24" wide corner block.

<table>
<thead>
<tr>
<th>COURSE</th>
<th>SHORT BLOCKS REQUIRED</th>
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<tbody>
<tr>
<td>1</td>
<td>None</td>
</tr>
<tr>
<td>2 and 3</td>
<td>1 per Row</td>
</tr>
<tr>
<td>4 and 5</td>
<td>2 per Row</td>
</tr>
<tr>
<td>6 and 7</td>
<td>3 per Row</td>
</tr>
<tr>
<td>8</td>
<td>4 per Row</td>
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PARTS LIST

<table>
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<tr>
<th>PART</th>
<th>DESCRIPTION</th>
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<tr>
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<td>3</td>
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<td>7</td>
<td>FS Corner Middle</td>
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<tr>
<td>4</td>
<td>Short Retaining Top</td>
</tr>
<tr>
<td>1</td>
<td>FS Corner Top Garden Left</td>
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<tr>
<td>1</td>
<td>Retaining Top</td>
</tr>
<tr>
<td>1</td>
<td>Retaining Top Half</td>
</tr>
<tr>
<td>36</td>
<td>Retaining Middle</td>
</tr>
<tr>
<td>1</td>
<td>Retaining Top Cut</td>
</tr>
<tr>
<td>1</td>
<td>House Corner</td>
</tr>
</tbody>
</table>

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VERTICAL CORNER TO BATTERED WALL DETAIL
(41" AND 28" SERIES)
90° OUTSIDE CORNER
(9" SETBACK WALLS)

- Standard 41" Wide or 60" Wide Bottom Block (Typical, Bottom Row)
- Left Hand Corner Block for 9" Setback Walls (Typical, Shown as Lavender)
- 41" Wide 9" Setback Bottom Block
- Right Hand Corner Block for 9" Setback Walls (Typical, Shown as Red)
- Half Mitre 9" Setback Block (Typical, Shown as Green)
- Mitre 9" Setback Block

Step Out Corner Blocks to Align Shear Knobs as Shown, Both Directions, (Typ.)

BOTTOM ROW DETAILS FOR 90° OUTSIDE CORNER
(9" SETBACK WALLS)

- Standard 41" Wide or 60" Wide Bottom Block (41" Wide Shown)
- 60" Wide 9" Setback Bottom Block
- 41" Wide 9" Setback Bottom Block
- Standard 41" Wide or 60" Wide Bottom Block (41" Wide Shown)

Step Out Corner Blocks to Align Shear Knobs as Shown, Both Directions, (Typ.)
Corner Block for 9" Setback Walls
DOUBLE 90° OUTSIDE CORNERS
(9" SETBACK WALLS)

TYPICAL BOTTOM ROW INSTALLATION

TYPICAL SECOND ROW INSTALLATION

TYPICAL MULTIPLE ROW INSTALLATION
90° Outside Corner
(60" Blocks)

SECOND LEVEL BLOCKS

FIRST LEVEL BLOCKS

CUT EDGE OF 10" KNOB ON 41" BLOCK AND 6" KNOB ON CORNER BLOCK WITH CHOP SAW TO PROVIDE CLEARANCE FOR BLOCKS IN THE NEXT LAYER.
Precast Barrier Block

Isometric View
No Scale

Top View
Scale: 1" = 2'

2'-0" 3' Cover 5 1/2" to 6" 2" Cover 7'-8"
1'-6" 3'-0" 7'-4"
4'-2" 6 1/2"
4'-6"
11"

Side View
Scale: 1" = 2'

4 1/2" 6 1/2"
4'-0"

Back View
Scale: 1" = 2'

No Scale

Final design of poured-in-place cantilever slab by Local Engineer to meet project requirements.

#6 Bent Bar @ 9" O.C. (10 Each)
#6 Straight Bar @ 8" O.C. (11 Each)

NOTE:
Rebar shown in Barrier Block meets TL-3 loading requirements. Rebar design in Barrier Block can be modified as necessary to meet other loading conditions.

Notes:
All reinforcing steel shall be Grade 60 deformed rebar.
All concrete shall have a minimum 28 day compressive strength of 4000 psi.
Typical Geogrid Wall with 28" Geoconnector Blocks

No Scale

(VP) = Vertical placement of geogrid layers. Measurements are from the base elevation.

(L) = Length of geogrid. Measurements are from the face of the block.

Setback = 1 5/8" (5° Batter Angle on Wall)

28" Top Block

Swale As Needed and Grade to Drain Away From Wall

Ground Level

Geogrid Layer (Typical)

Free Draining Backfill to Extend at Least 12" Behind Wall

Move Blocks Forward During Installation to Engage Shear Knobs (Typical)

Non-Woven Geotextile Fabric (If Specified)

28" Middle Block

28" Bottom Block

Perforated Sock Drain (As Specified by Engineer)

Crushed Stone Leveling Pad

Ground Level

Exposure Wall

Base Elevation

See Redi-Rock.com for Detailed Section Drawings of Each Condition Shown in the Design Charts
Type 1AT Connection
(Anchored Tail)

MANDATORY
3' Minimum Anchored Tail

Main Geogrid Reinforcement
(Length Per Design)

INSTALLATION STEP 1
Place geogrid on block over the groove. Leave about 3'-6" extending over the block past the groove to provide for the tail.

7/16" Fiberglass Rod is Available From Your Local Authorized Redi-Rock Dealer

INSTALLATION STEP 2
Place the fiberglass rod on top of geogrid.

See www.redi-rock.com for Geogrid Connection and Interface Shear Test Reports.

INSTALLATION STEP 3
Fold the geogrid over the fiberglass rod. Pull to tighten rod snug with the back of the groove. Extend the geogrid tail behind the block to provide a minimum of 3'-0" embedment behind the back of the block.

TIP FOR STEP 3
A steel angle can be used to hold the geogrid and rod in position.
Typical Reinforced Wall with 28" Positive Connection (PC) Blocks

NOTE:
One Degree or Zero Degree
Batter Angle Walls are Available
Using Blocks with 7 1/2" or 6 3/4"
Knobs (Specialty Items)

SETBACK = 1 3/4"
(5° Batter Angle on Wall)

Non-Woven Geotextile or
Geomembrane if Specified

Grade to Drain Surface Water
Away From Wall

12" Wide Strip of Geogrid Wrapped Through
Block and Extending Full Length (L) Back into
Reinforced Fill Zone (Typical)

Exposed
Wall

Non-Woven Geotextile
Fabric if Specified

Move Blocks Forward During
Installation to Engage Shear
Knobs (Typical)

Free Draining Backfill (ASTM No. 57 or Equivalent)
to Extend at Least 12" Behind Wall

Fill Slot and Wedge Between
Blocks with Stone

28" PC Middle Block
(Typical)

28" PC Bottom Block

Crushed Stone Leveling Pad
(ASTM No. 57 or Equivalent)

Perforated Sock Drain
As Specified by Engineer

• This drawing is for reference only.

• Final designs for construction must be prepared by a
registered Professional Engineer, using the actual conditions of
the proposed site.

• Final wall design must address both internal and external
drainage and shall be evaluated by the Professional Engineer
who is responsible for the wall design.
Positive Connection (PC) Details

See www.redi-rock.com for Geogrid Connection and Interface Shear Test Reports.

Fill Slot and Wedge Between Blocks with Stone

12" Wide Strip of Geogrid Wrapped Through Block and Extending Full Length (L) Back Into Reinforced Fill Zone

Nonwoven Geotextile Fabric (If Specified)

Free Draining Backfill (ASTM No. 57 or Equivalent) To Extend at Least 12" Behind Wall

Section View Through Blocks

No Scale

12" Wide Strip of Geogrid Wrapped Through Block and Extending Full Length (L) Back Into Reinforced Fill Zone

Isometric View of Back of Blocks

No Scale

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TYPICAL APPURTENANCE INSTALLATION WITH REDI-ROCK WALLS

Front View (NO SCALE)
- Fence or Other Appurtenance
- 28" Top Block
- Block in Second Course Down (41" Middle Block Shown)
- Embedment Depth As Required To Resist Overturning Forces on Appurtenance

Side View (NO SCALE)
- 28" Top Block
- Block in Second Course Down (41" Middle Block Shown)

Top View (NO SCALE)
- Connection Option #2
  - GROUT Pests in V-Shaped Opening Between 28" Top Blocks
  - Spacing in Multiples of 46 1/8" Increments
  - Mass of 2 Adjacent Blocks Available to Resist Overturning Forces

- Connection Option #3
  - Core Through Top Block and GROUT Pests in V-Shaped Opening Between Blocks in Second Course Down
  - Spacing in Multiples of 46 1/8" Increments
  - Mass of 2 Adjacent Blocks in Second Level Down and 3 Top Row Blocks Available to Resist Overturning Forces

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J. JOHNSON 06/27/08

Appurtenance - Typical Installation, dwg

Sheet No. 1 OF 1

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