Setback = 1 1/8" (41 mm)
Standard blocks
(5° Wall Batter Angle)

Setback = 3 1/2" (83 mm)
XL Block
(5° Wall Batter Angle)

Exposed wall
(Height varies with design)

Top block
Grade to drain surface water
away from wall

Redi-Rock standard blocks
(Block widths vary with design)

Drainstone (AASHTO No. 57 or
equivalent) to extend at least 12 inches
(305 mm) behind standard blocks

RETIRED SOIL

Move blocks forward during installation
to engage shear knobs (Typical)

Redi-Rock XL Blocks
(Block widths vary with design)

Non-woven geotextile fabric at back of
XL blocks and between drainstone and
retained soil (if specified by Engineer
based on site soil conditions)

Non-woven geotextile fabric between
adjacent blocks at face (required)

Fill all void spaces in and between
blocks with drainstone (AASHTO No. 57
or equivalent)

Gravity drain to outlet
(as specified by Engineer)

Bury depth (as
specified by Engineer)

Leveling pad (as specified by
Engineer)
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Typical Gravity Wall Section with Hollow-Core Blocks

Setback = 1 ⅝" (41 mm)
(5° batter angle on wall)

Leveling pad (as specified by engineer)

Drain (as specified by engineer)

Non-woven geotextile fabric
(if specified by Engineer based on site soil conditions)

Drain (as specified by engineer)

Drainstone (AASHTO No. 57 or equivalent)
to extend at least 12" (305 mm) behind blocks

Non-woven geotextile fabric
(if specified by Engineer based on site soil conditions)

Fill vertical core slot with drainstone (PC blocks)

Fill wedge between adjacent blocks with drainstone (all blocks)

Move blocks forward during installation to engage shear knobs (typical)

Fill hollow core with drainstone (HC blocks)

41" (1030 mm) Hollow-Core block

Note: Wall designs typically include a combination of solid, PC, and hollow-core blocks. Redi-Rock blocks are designed to be used together. Block type, size, and configuration will vary based on site-specific conditions and wall height.

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**BLOCK-TO-BLOCK SETBACK OPTIONS**

No Scale

Five degree (5°) setback
(Standard)

- 1" (102 mm)
- 4 1/2" (114 mm)
- 15" (381 mm)
- 10" (254 mm) diameter knob

Setback = 1 5/6" (41 mm)
(5° batter angle on wall)

Available with:
- 28" (710 mm) blocks, 41" (1030 mm) blocks, and 60"
(1520 mm) blocks
- 28" (710 mm) PC blocks (shown here) and 41" (1030 mm) PC blocks

Move blocks forward during installation to engage shear knobs (Typical)

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One degree (1°) setback
(Specialty)

- 13 3/4" (350 mm)
- 2" (51 mm)
- 4 1/2" (114 mm)
- 7 1/2" (190 mm) diameter knob

Setback = 3/4" (10 mm)
(1° batter angle on wall)

Available with:
- 28" (710 mm) blocks, 41" (1030 mm) blocks, and 60"
(1520 mm) blocks
- 28" (710 mm) PC blocks (shown here) and 41" (1030 mm) PC blocks

Move blocks forward during installation to engage shear knobs (Typical)

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Zero (0°) setback
(Specialty)

- 13 3/4" (340 mm)
- 2" (51 mm)
- 4 1/2" (114 mm)
- 6 3/4" (171 mm) diameter knob

Setback = 0° (0 mm)
(0° batter angle on wall)

Available with:
- 28" (710 mm) blocks, 41" (1030 mm) blocks, and 60"
(1520 mm) blocks
- 28" (710 mm) PC blocks (shown here) and 41" (1030 mm) PC blocks

Move blocks forward during installation to engage shear knobs (Typical)

The block-to-block setback available with Redi-Rock is controlled by the size and location of the shear knobs (domes) cast into the blocks. While the 10" (254 mm) diameter knob and the 1 5/8" (41 mm) setback position is the most common configuration, Redi-Rock has three different knob sizes and three different locations available.

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**DRAWN BY:**
J RJ

**APPROVED BY:**
J RJ

**DATE:**
06-22-2015

**FILE:**
4 Block Setback Options Normal Batter 062215.dwg
BLOCK-TO-BLOCK SETBACK OPTIONS
NO SCALE

9" (230 mm) Setback Blocks

4" (102 mm)

4 3/4" (114 mm)

Available with:
• 41" (1030 mm) blocks (shown here) and 60" (1520 mm) blocks
• Not available in PC blocks

13 3/4" (340 mm)

22 3/4" (578 mm)

10" (254 mm) diameter knob

Setback = 9 3/4" (238 mm)
(27.5° batter angle on wall)

Move blocks forward during installation to engage shear knobs (Typical)

Planter Blocks

4" (102 mm)

4 3/4" (114 mm)

Available with:
• 41" (1030 mm) blocks (shown here) and 60" (1520 mm) blocks
• Not available in PC blocks

13 3/4" (340 mm)

30" (762 mm)

10" (254 mm) diameter knob

Setback = 16 3/4" (422 mm)

Move blocks forward during installation to engage shear knobs (Typical)

Redi-Rock has two options for large batter retaining walls. Both options are created by relocating the knob so that it is further back in the Redi-Rock blocks compared to our smaller batter walls (5" and less). There are two knob locations further back in the block which create the 9" (230 mm) setback block and the planter block. Blocks made with knobs in either of these locations almost exclusively use 10" (254 mm) diameter knobs.
The Redi-Rock retaining blocks are available with multiple shear knob size and location options, to permit wall batter design flexibility. This detail depicts alternating 16\(\frac{2}{3}\) (422 mm) Planter and 1\(\frac{1}{8}\) (41 mm) Standard setback blocks, however designs are possible using more than one Standard setback block between Planter blocks. The regular repetition of combinations of different setback blocks within a wall profile can have structural and aesthetic significance. Abrupt changes in wall batter that carry over multiple blocks are not recommended.

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