Pipes Installed Perpendicular Through Wall

Remove only the minimum number of blocks required to fit pipe through wall

Concrete collar (Cast-in-place around pipe)

Pipe protruding through wall (48" (1.22 m) diameter concrete pipe shown)

Use adequate measures to address scour, runoff, and other issues at base of wall

Leveling pad or lower courses of Redi-Rock blocks

Plan View

Concrete collar (Cast-in-place around pipe)

Non-woven geotextile fabric (AASHTO M288 Survivability Class 1)
360° around pipe and behind collar

Pipe protruding through wall (48" (1.22 m) diameter concrete pipe shown)

Use adequate measures to address scour, runoff, and other issues at base of wall

Section View

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Pipes Installed Skewed Through Wall

**SECTION A-A**
- **CAST-IN-PLACE CONCRETE COLLAR AROUND PIPE**
- **GRAVITY (NON-REINFORCED) PORTION**
- **REINFORCED PORTION**

**PROFILE VIEW**
- **28" PC TOP BLOCKS**
- **41" PC BLOCKS**
- **28" SERIES HALF TOP BLOCK (NON PC)**
- **41" SERIES HALF BLOCK (NON PC)**
- **28" PC TOP BLOCK**
- **PC 28T**
- **PC 28M**
- **PC 28T**
- **PC 28T**
- **PC 28M**
- **PC 28M**

**3D VIEW FROM BACK**
- **CAST-IN-PLACE CONCRETE COLLAR AROUND PIPE**
- **SKEWED PIPE MUST BE LOCATED ABOVE THE REINFORCED PORTION OF A COMBINATION GEONET/GEONET WALL**
- **24" REINFORCED CONCRETE PIPE SHOWN**
- **GEOGRID STRIP REINFORCEMENT**

**DRAWN BY:** JRJ  **TITLE:** Pipes Installed Skewed Through Wall  **APPROVED BY:** JRJ  **DATE:** 06-22-2015  **FILE:** 2 Pipes Installed Skewed Through Wall 062215.dwg
Utilities in the Reinforced Soil Zone

Keep sufficient separation to meet max geogrid slope and clearance requirements

Maintain 3" (76 mm) minimum between geogrid and pipe

Wrap pipe joints with non-woven geotextile fabric (AASHTO M288 Survivability Class 2)
48" (1.22 m) wide minimum centered on joint

Storm drain or sanitary sewer pipe installed parallel to wall

AASHTO No. 57 stone (or equivalent)
6" (152 mm) minimum around pipe

Install geogrid strips above and below pipe

Storm or Sanitary Sewer Pipe

Keep sufficient separation to meet max geogrid slope and clearance requirements

Maintain 3" (76 mm) minimum between geogrid and pipe

"Dry" Utilities installed parallel to wall

Install geogrid strips above and below pipe

"Dry" Utilities (Electric, Gas, Telecommunications)

Redi-Rock International follows the recommendations of FHWA GEC 011 and discourages placing pipes or other horizontal obstructions behind the wall in the reinforced soil zone. Placing pipes in this zone could lead to maintenance problems and potential wall failure.

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Light Pole Base or Concrete Pile in Reinforced Soil Zone

Light pole base or concrete pile
Maximum diameter = 32" (0.81 m)
Spacing = 46 1/2" (1.17 m) centers

Geogrid strips installed every other row of blocks
(25% coverage ratio)

3D View from Back

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Manhole or Large Obstruction in Reinforced Soil Zone

Threaded rod cast into block (Typical)

Structural beam (2 steel channels shown)

Threaded rod (Typical)

Pipe (Typical)

Geogrid strips (Typical)

Hooked rod with threaded end cast into block (Typical)

Block Detail

Steel structural elements to be sized and galvanized per engineer for project specific requirements.

Top View

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1. INSTALL HYDRANT CONCURRENTLY WITH WALL CONSTRUCTION PER SITE PLAN REQUIREMENTS.
2. INSTALL GEOGRID STRIPS AROUND RISER.
3. DRAINAGE BLANKET EXTENDS TO BACK OF REINFORCED SOIL ZONE.
4. WIDTH OF DRAINAGE BLANKET IS 3’ AND THICKNESS IS 6”.
5. DIVE GEOGRID STRIP DOWN UNDER DRAINAGE BLANKET AS NEEDED.
6. INSTALL AASHTO NO. 57 STONE BETWEEN THRUST BLOCK AND REDI-ROCK PC BLOCKS.

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