

## GRN-SM

Parts List	
DESCRIPTION	QTY
GRANITE BOULDER SMALL	1

*Unless Otherwise Specified, All Units of Measure are Each*

*Items listed below Hardware Complete line are included with Hardware Complete Number*

**Warning: During Installation, Hardware And Small Parts Are Choking Hazards For Young Children. Store Unused Parts Appropriately Until Assembly Is Completed. Once Assembly Is Completed, Remove Any Unused Parts From The Play Environment And Dispose/Save Them In A Secure Location. Any bolt end protruding more than two full threads beyond the face of the nut causes risk of clothing entanglement. Promptly cut-off flush, file smooth, and treat to prevent corrosion.**

**Note: Peen Tee-Nuts and Flatwashers to match radius of pipe after assembly is complete.**

**Note: Loctite (supplied by others) should be used on any non-patch hardware.**

### SPECIFICATIONS:

#### **GRANITE BOULDER SMALL**

Shall be fabricated from GFRC (Glass Fiber Reinforced Cement) and hand molded with structural steel armatures and inner framework reinforcement. Cement aggregate slurry shall be a proprietary mixture blended with a precision scale mixing system for consistency, using the following materials: Type 1 Portland cement meeting the requirements of ASTM C 150. Washed and dried 40-70 mesh silica sand shall be specific grades and colors intended to provide strength, color and texture, and conform to ASTM C144. Glass Fiber reinforcement shall be alkali-resistant (AR) fiber specifically designed for use in concrete and glass fibers shall be three-quarters inch to two inches (3/4" to 2") in length. Base concrete layer of scratch coat to be bundled fiber. High dispersion fiber not to be used in base layer of scratch coat, only top layer of face coat. Reinforcing steel: armatures and underlying steel framework shall be from #3 and #4 steel reinforcing bars tied and welded as needed to provide structural strength. Mild steel 4" x 8" x 3/16" thick fork pockets may be used to secure frame base for ease of movement during installation. Additional mild steel structural tubing will be used to create substructural frame. Reinforcing lathe shall be 2 5# diamand galvanized expanded steel, and shall be tied to the frame 18 gauge galvanized wire. Concrete Admixes: Acrylic Polymer a mix containing a minimum 47% solids content. Pozzolan content minimum 10- 20% of cement weight. Curing retarders and accelerators based on curing requirements. QUALITY CONTROL: Minimum FGRC material thickness shall be 1", but may be as much as 2.5" thick depending on the side and the design of the element. Minimum 5,000 PSI concrete compression strength.

### GENERAL MAINTENANCE GUIDELINES FOR GFRC:

1. All custom GFRC must be installed on level ground.
2. Remember that the structural integrity of the products stems on a solid foundation.
3. Inadequate footers will void all warranties on GFRC products.
4. Footers should be installed and cured prior to delivery of equipment.
5. Be sure to verify the type of surfacing prior to installing your footers.
6. Allow for backfill around footers if surfacing depths are less than 12".
7. Be sure to confirm if permits are required as you may need modified footer details.
8. Avoid handling this product more than necessary; the concrete footers should be installed and cured for at least 72 hours but prefer 5 to 7 days if possible.

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### **INSTALLATION INSTRUCTIONS:**

1. Determine which surfacing option you will be using. Refer to GFRC Footing Details.
2. Inspect all pieces before unloading from truck for damages incurred during shipping.
3. Leave as much packaging in place on play feature as possible, without interfering with handling to help protect the finish from damage during placement.
4. Due to variables in local soil conditions, footing sizes may vary to meet local codes.
5. Actual on-site conditions may vary and may require modifications to installation method.
6. Use care and caution while handling play pieces; make sure all points of contact are protected from lifting straps or other machinery that may damage the piece.
7. Bracing materials may be required during installation.
8. Put Granite Boulder Small in place. Drill 5/8" x 5" deep holes in concrete to receive Wedge Anchors.

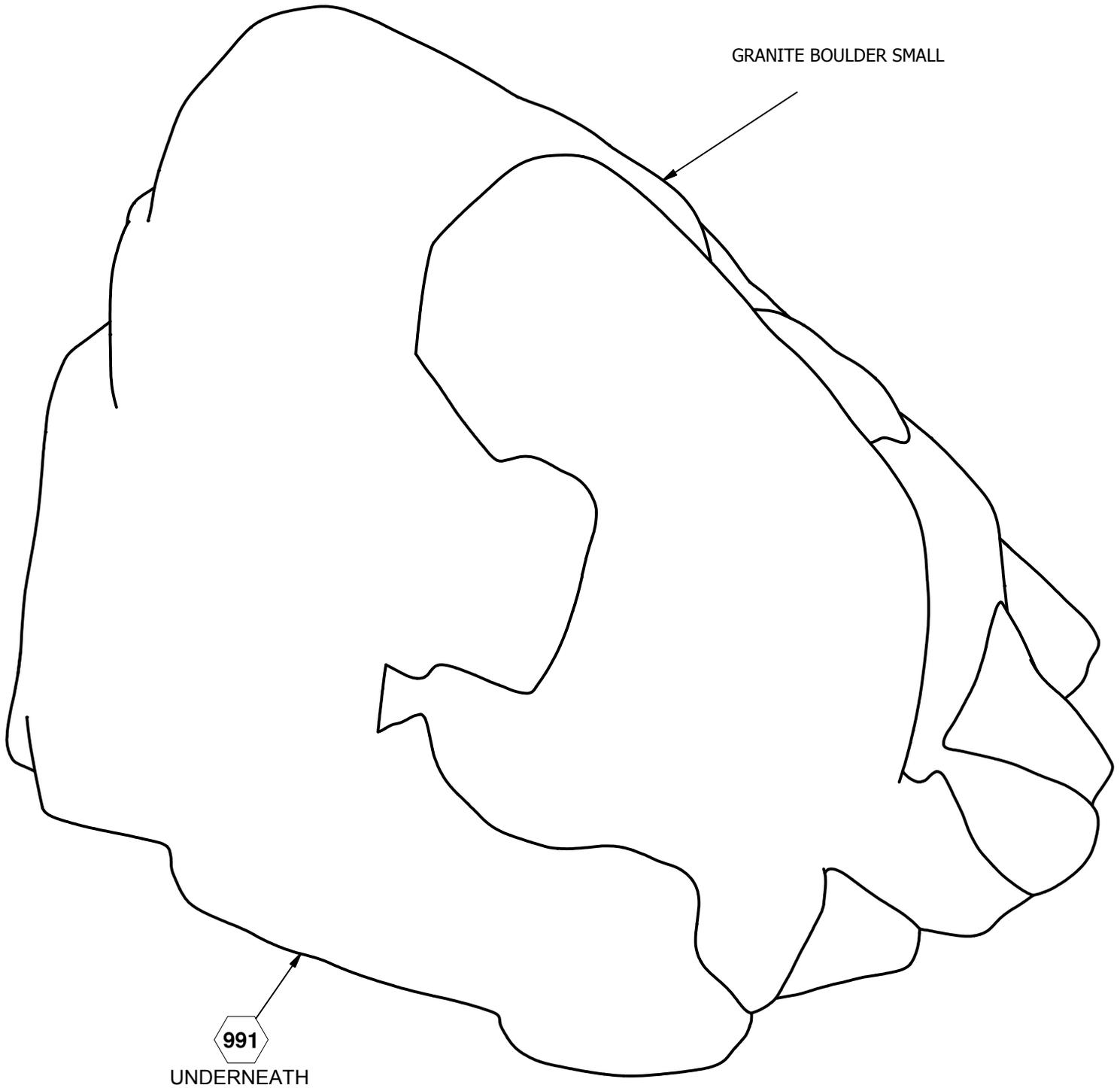
### **NOTE: Anchor wedges supplied by Ultraplay.**

9. Insert Wedge Anchors and secure with 1 1/4" O.D. Flat Washer and 5/8" Lock Nut. See Detail 991.
10. Plumb and level the entire assembly and tighten all fasteners.
11. When the structure is finished and satisfactory, eliminate sharp points and sharp edges (burring) on installed hardware like bolts, nuts, etc. Install resilient surfacing material within the use zone of play structure in accordance with ASTM specifications F1292 appropriate for the fall height of each structure. Refer to the safety guidelines.

### **MAINTENANCE PROCEDURE:**

Periodically check hardware for tightness, and tighten as necessary. Always check all parts for breakage or wear, and immediately put equipment out of service until any faulty parts found are repaired or replaced. Also check all metal parts for rust, paint loss and touch-up if necessary with paint. Check welded areas and verify integrity. Check periodically resilient surfacing for appropriate depth and remove extraneous materials that could cause injury, infection, or disease. Maintain detailed installation, inspection, maintenance, and repair records for each public-use playground equipment.

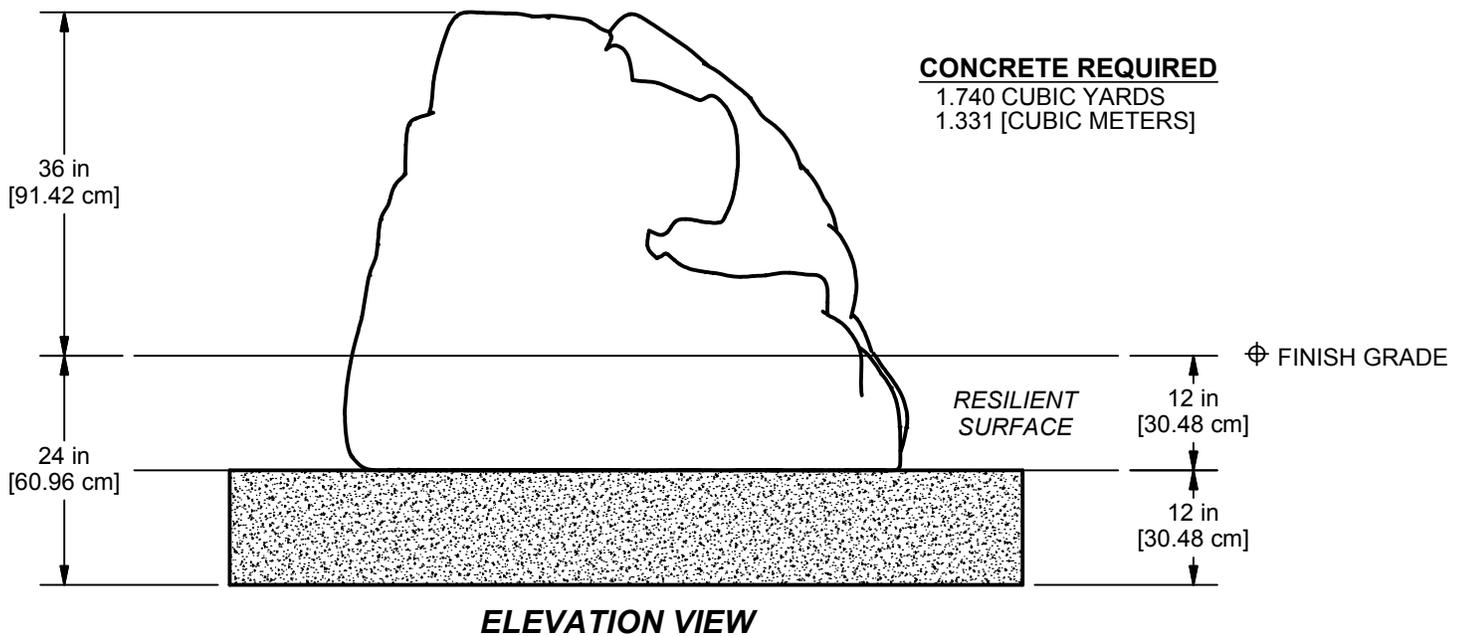
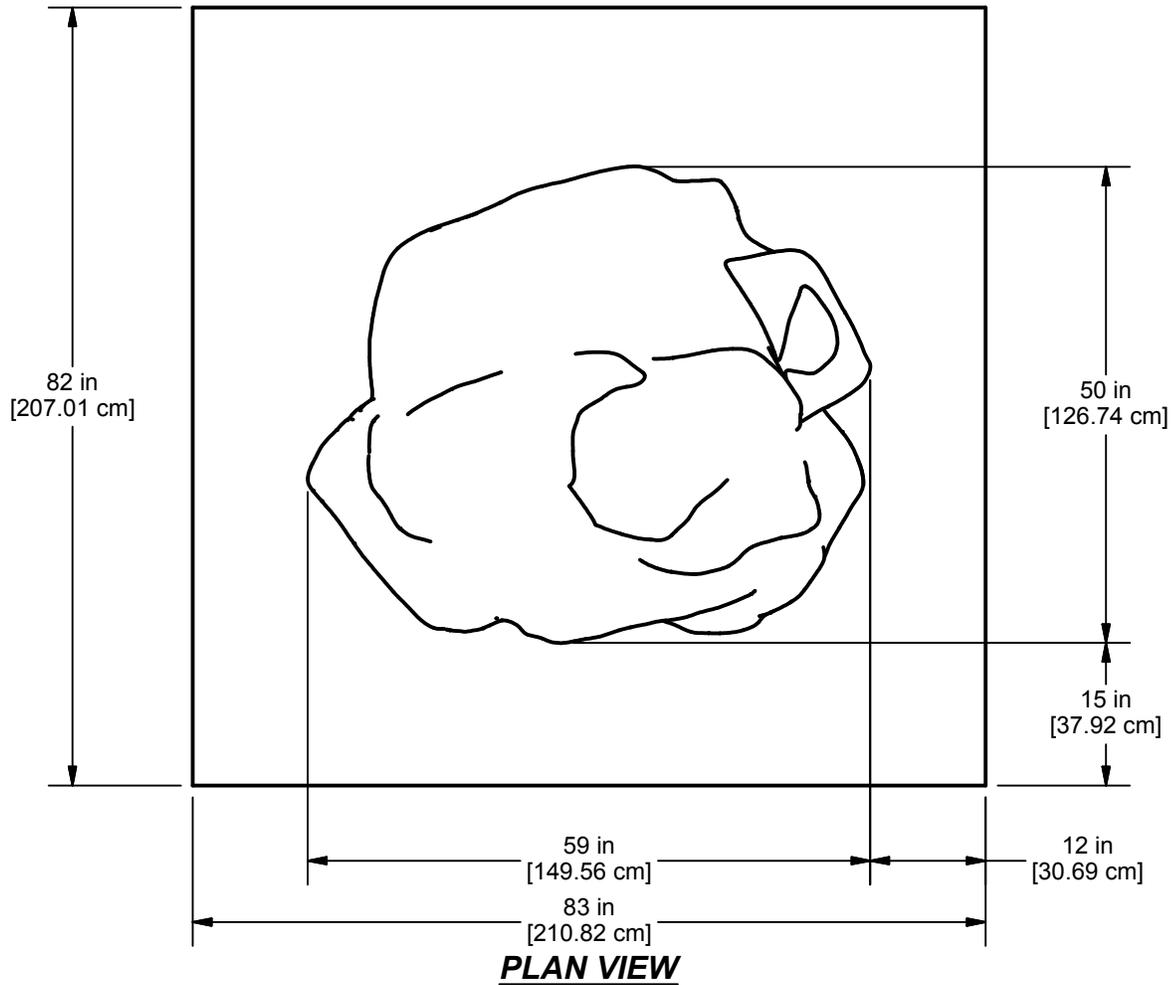
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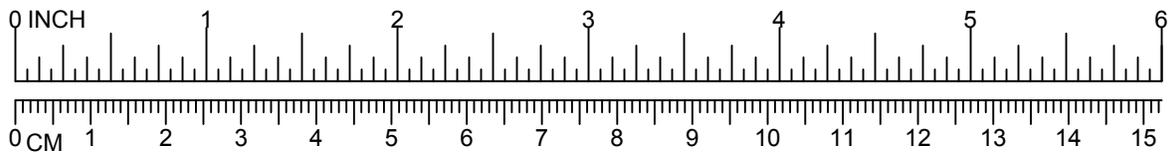


⬡ = INSTALLATION DETAIL

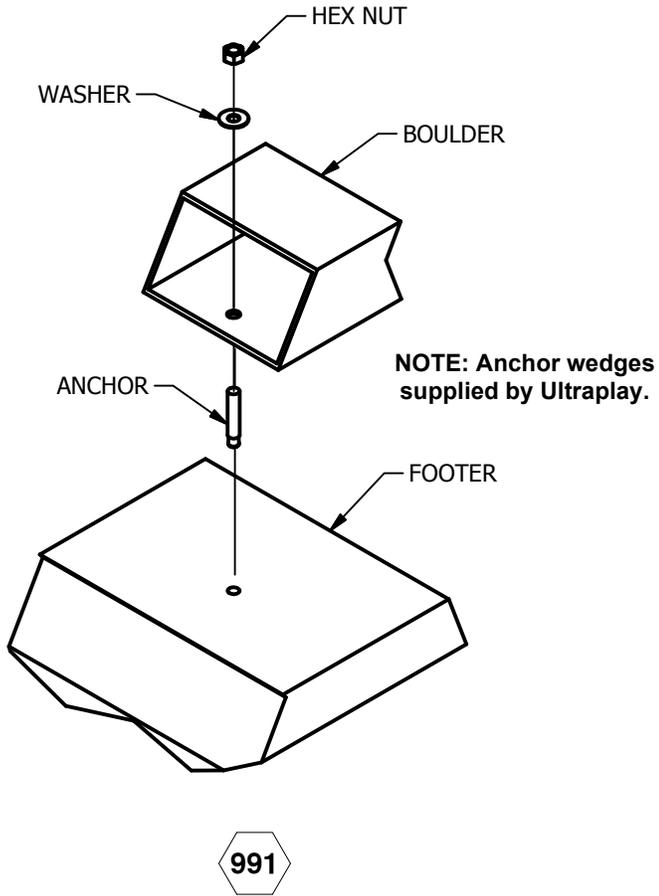
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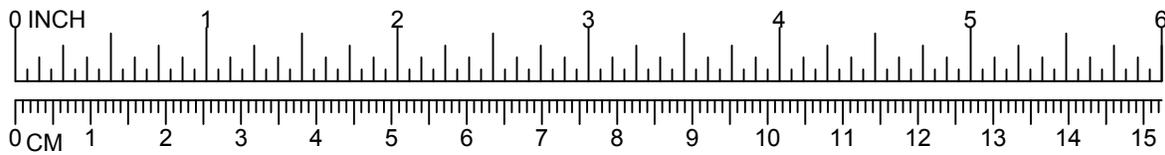
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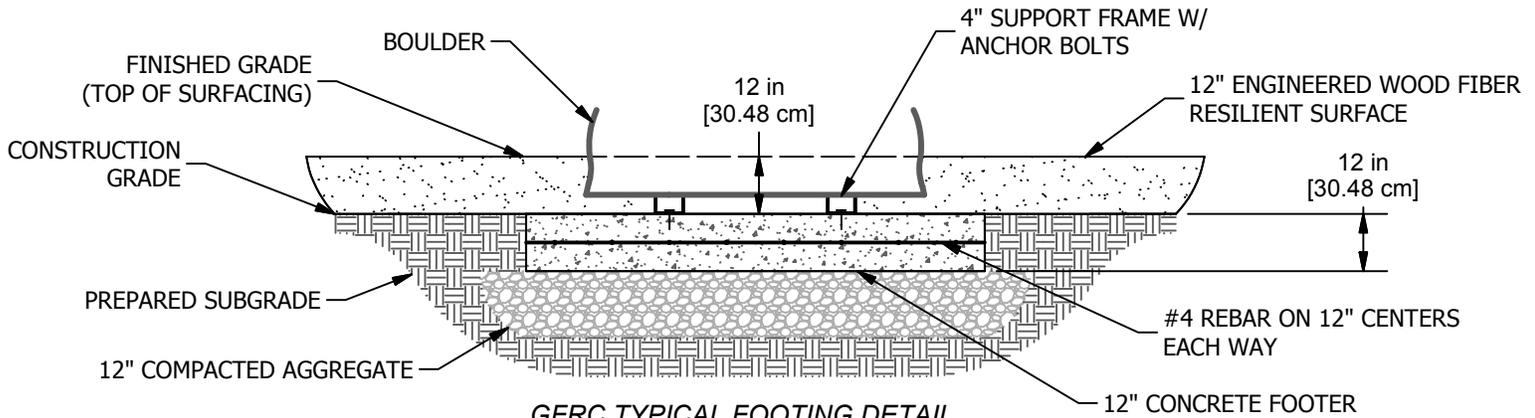


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### GFR TYPICAL FOOTING DETAIL

NOTE: THESE FOOTING DETAILS ARE SUBJECT TO PROJECT SPECIFIC SOIL CONDITION REPORTS. (BY OTHERS)

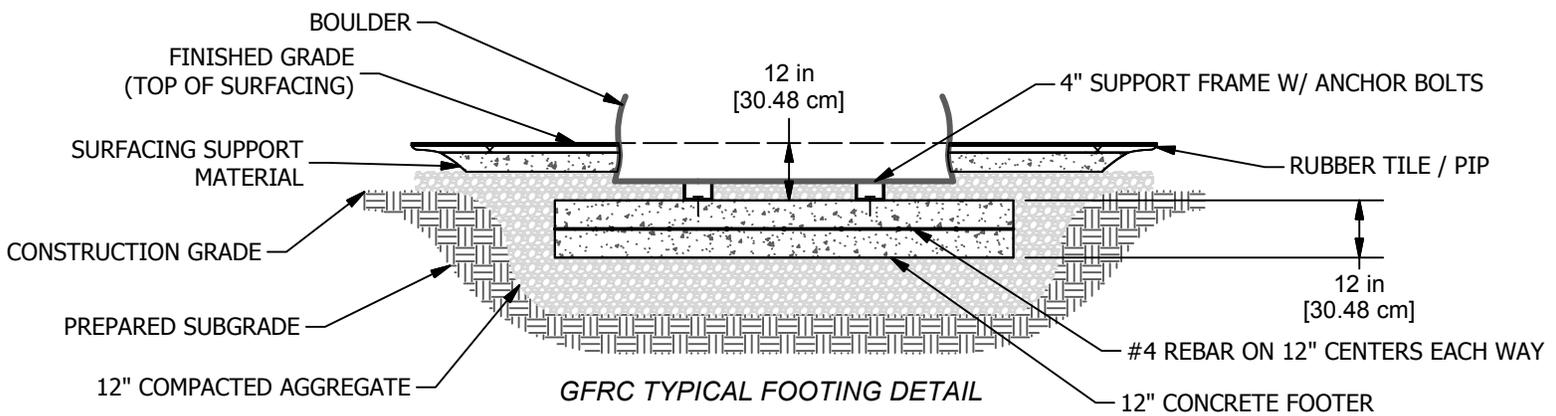
**NOTE:** CONCRETE PADS ARE TO BE 12" THICK UNLESS OTHERWISE SPECIFIED.

**NOTE:** PAD IS TO BE REINFORCED WITH #4 REBAR ON 12" CENTERS.

**NOTE:** TOP OF CONCRETE PAD TO BE FLUSH WITH GRADE.

**NOTE:** BELOW THE CONCRETE PAD, THERE IS TO BE A 12" COMPACTED STONE SUB-BASE.

**NOTE:** ANCHOR WEDGES SUPPLIED BY ULTRAPLAY.



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