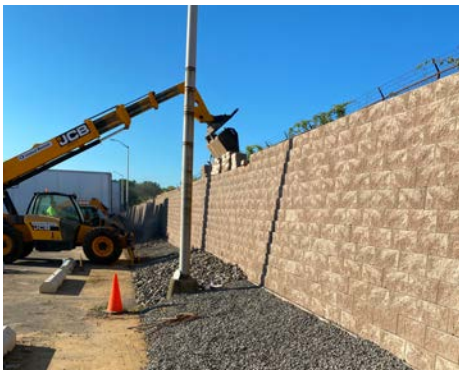
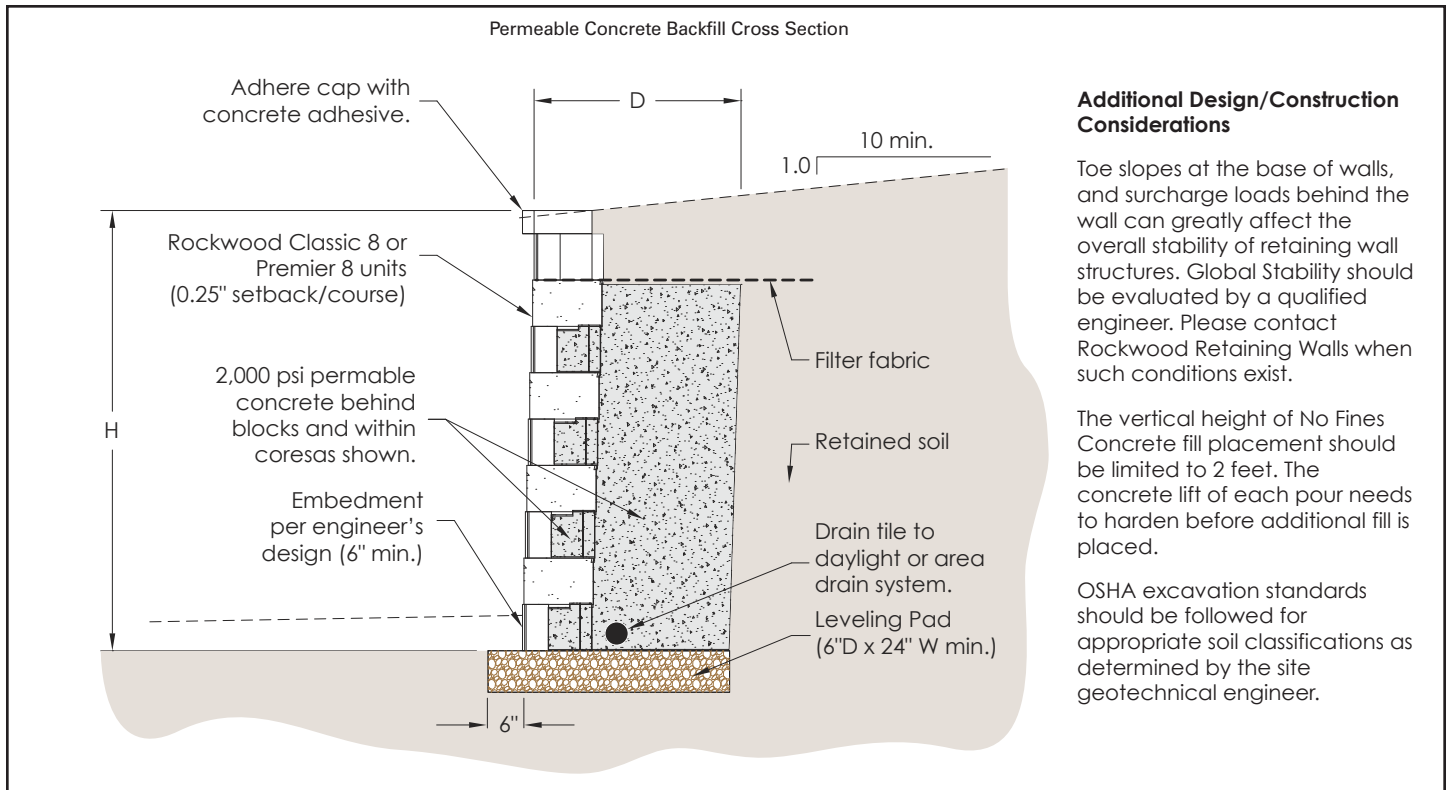


Typical Construction Guidelines for Permeable Concrete Backfill



In situations where excavations are constrained by property lines, environmental setbacks, or the presence of infrastructure, using permeable concrete backfill may be an alternative to geosynthetically reinforced backfill.

No Fines Concrete or "Permeable Concrete" is a mix of cement, coarse aggregate, and water. It is made by removing the fine aggregates in concrete. This creates void space in the concrete mix and allows water to permeate through the concrete.

Sequence of construction*

(Refer to cross section for typical dimensions.)

Step 1. Excavate and compact sub-grade.

Step 2. Place and compact leveling pad.

Step 3. Set and level first course of block.

Step 4. Place additional course of block.

Step 5. Backfill. Place permeable concrete to mid-height of upper course. Ensure all voids between blocks and backcut are filled.

Step 6. Place additional block and backfill. Build wall in two-course increments to desired total height.

Step 7. Install cap units. Adhere caps to underlying block with a concrete adhesive.

Step 8. Complete backfill. Segregate surficial soil from backfill with filter fabric.

*For use on walls up to 10' with the approval of a qualified engineer.

Typical mix designs for permeable concrete are comprised of:

- Portland Cement, Type I or II.
- Nominal sized ¾" inch aggregate meeting ASTM C150
- 6:1 ratio of (Gravel : Cement).
- Water to Cement ratio is .35 to .45 by weight. 4 to 4 ½ gallons per sack of cement.

