

CONSTRUCTION SPECIFICATION AR-527 KARST SINKHOLE TREATMENT

1. Scope

The work shall consist of furnishing materials and installing all components necessary for treating/closing sinkholes that pose a threat to farm safety or water quality, as outlined in this specification.

This specification does not apply to closure of sinkholes that open into caves.

2. Public and Private Utilities

Utilities are defined to be overhead and underground power or communication lines, and pipelines. All utilities discovered to be in the work area are shown on the drawings or sketches. However, the absence of indicators on the drawings or sketches does not assure the nonexistence of utilities in the work area. The contractor should conduct their own search and discovery of utilities in order to lessen or avoid potential damages. The landowner shall contact *Arkansas One Call* (866-237-5028) ten days prior to the commencement of construction activities to have underground utilities located in the work area.

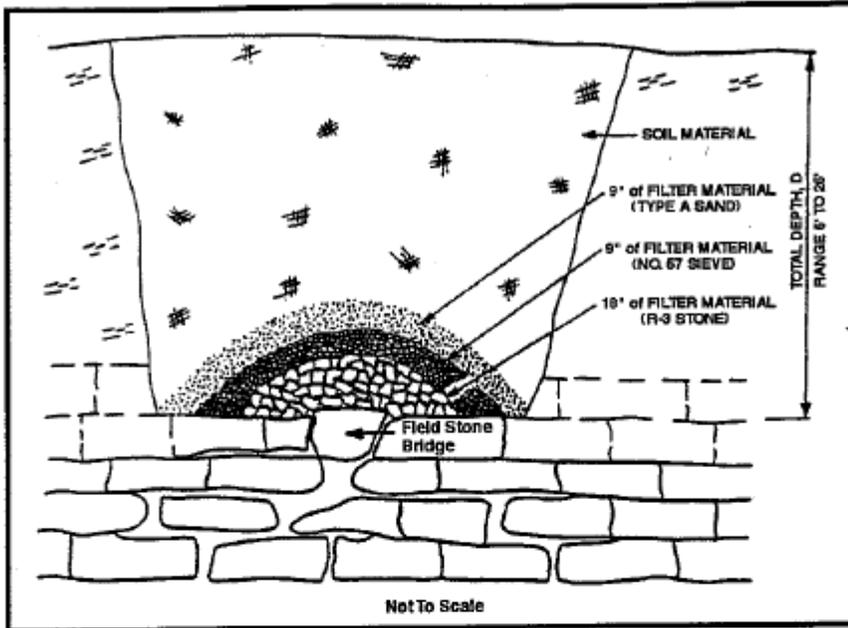
3. Materials

- A. Drainfill aggregate and bedding shall meet the requirements of NEH Part 632, Chapter 3 – National Standard Material Specifications.
- B. Rockfill and riprap shall meet the material requirements of NEH Part 632, Chapter 3 – National Standard Material Specifications.
- C. Geotextile shall be non-woven with a minimum burst strength of 100 psi.
- D. Concrete shall consist of a commercially prepared mixture of sand, gravel, Portland cement, and water with a minimum 28-day compressive strength of 3000 psi.

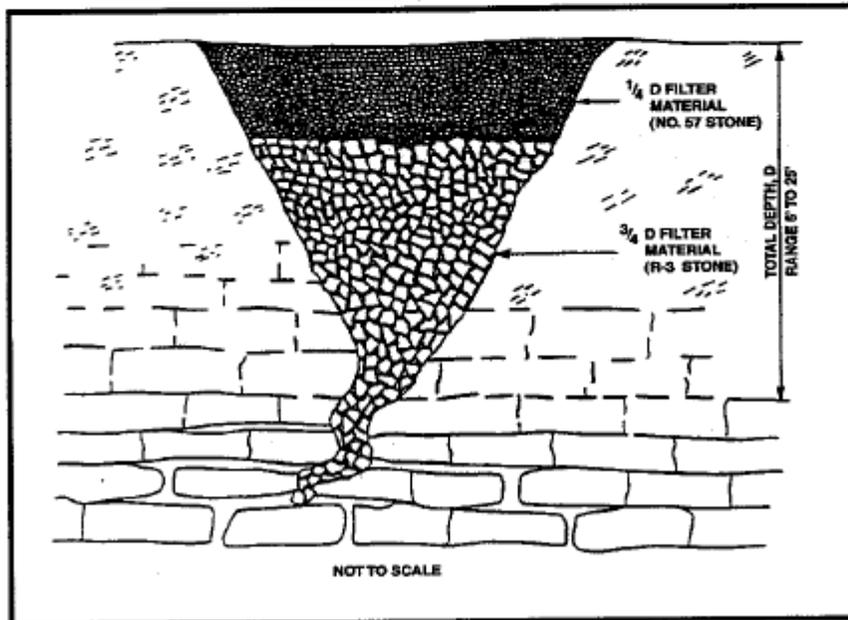
4. Planning and Design

See attached construction drawings and specifications for the site-specific design. Figure 1 shows typical inverted filter designs used in sinkhole repair.

Figure 1: Examples of General Inverted Filter Designs for Sinkhole Treatment



INVERTED FILTER - DRAINAGE AREAS LESS THAN 5 ACRES



INVERTED FILTER - DRAINAGE AREA 5 TO 15 ACRES

5. Measurement

Payment will only be made for sinkholes which have been treated or repaired that meet this specification. The measurement for payment will be based on a per-foot of surface length/width of opening, as measured prior to treatment. The dimensions will be reported in feet on the associated USDA-NRCS Job Sheet. An onsite check of the completed work will be performed by a USDA-NRCS representative.