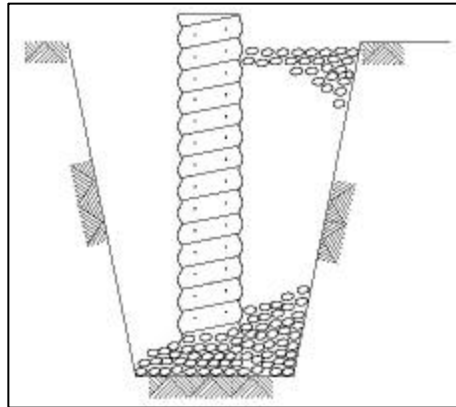


NATURAL RESOURCES CONSERVATION SERVICE
ILLINOIS URBAN MANUAL
PRACTICE STANDARD

SUMP PIT

(no.)

CODE 950



(Source: USDA – Natural Resources Conservation Service – Illinois)

DEFINITION

A temporary pit which is constructed to trap and filter water for pumping into a suitable discharge area.

PURPOSE

The purpose of this practice is to remove excessive water from excavations in a manner that improves the quality of the water being pumped.

CONDITIONS WHERE PRACTICE APPLIES

Sump pits are constructed when water collects during the excavation phase of construction. This practice is particularly useful in urban areas during excavation for building foundations.

CRITERIA

A perforated vertical standpipe is placed in the center of the pit to collect filtered water. The standpipe will be a perforated 12 to 24-inch diameter corrugated metal or PVC pipe. Water is then pumped from the center of the pipe

to a suitable discharge area. The pit will be filled with coarse aggregate meeting the requirements of IDOT standards for gradations of CA-2, CA-3 or CA-4.

CONSIDERATIONS

Discharge of water pumped from the standpipe should be to a suitable practice such as practice standard IMPOUNDMENT STRUCTURE-ROUTED 842, PORTABLE SEDIMENT TANK 895, TEMPORARY SEDIMENT TRAP 960, or a stabilized area. If water from the sump pit will be pumped directly to a storm drainage system, filter fabric will be wrapped around the standpipe to ensure clean water discharge. The fabric, if used, shall meet the requirements as shown in material specification 592 GEOTEXTILE Table 1 or 2, Class 1 with an equivalent opening size of at least 30 for non-woven or 50 for woven. It is recommended that 1/4 to 1/2 inch hardware cloth wire be wrapped around and secured to the standpipe prior to attaching the filter fabric. This will increase the rate of water seepage into the standpipe.

PLANS AND SPECIFICATIONS

Plans and specifications for installing and utilizing sump pits shall be in keeping with standard and shall describe the requirements for applying the practice to achieve its intended purpose.

The contractor or responsible reviewing authority will determine the number of sump pits and their locations.

Standard drawing IL-650 SUMP PIT PLAN may be used as a plan sheet.

All plans shall include the installation, inspection, and maintenance schedules with the responsible party identified.

OPERATION AND MAINTENANCE

The sump pit may have to be replaced if the pit and filter fabric plugs with sediment.

NRCS IL August 1994

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