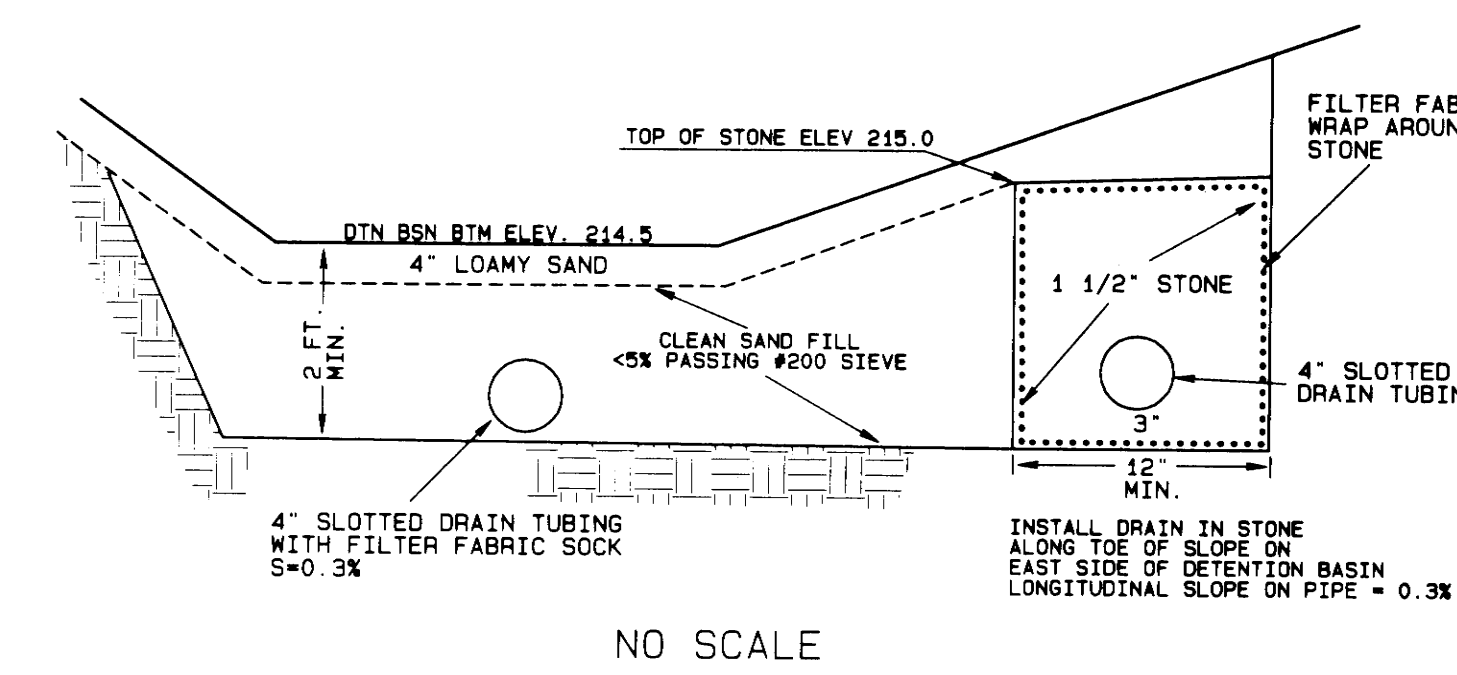
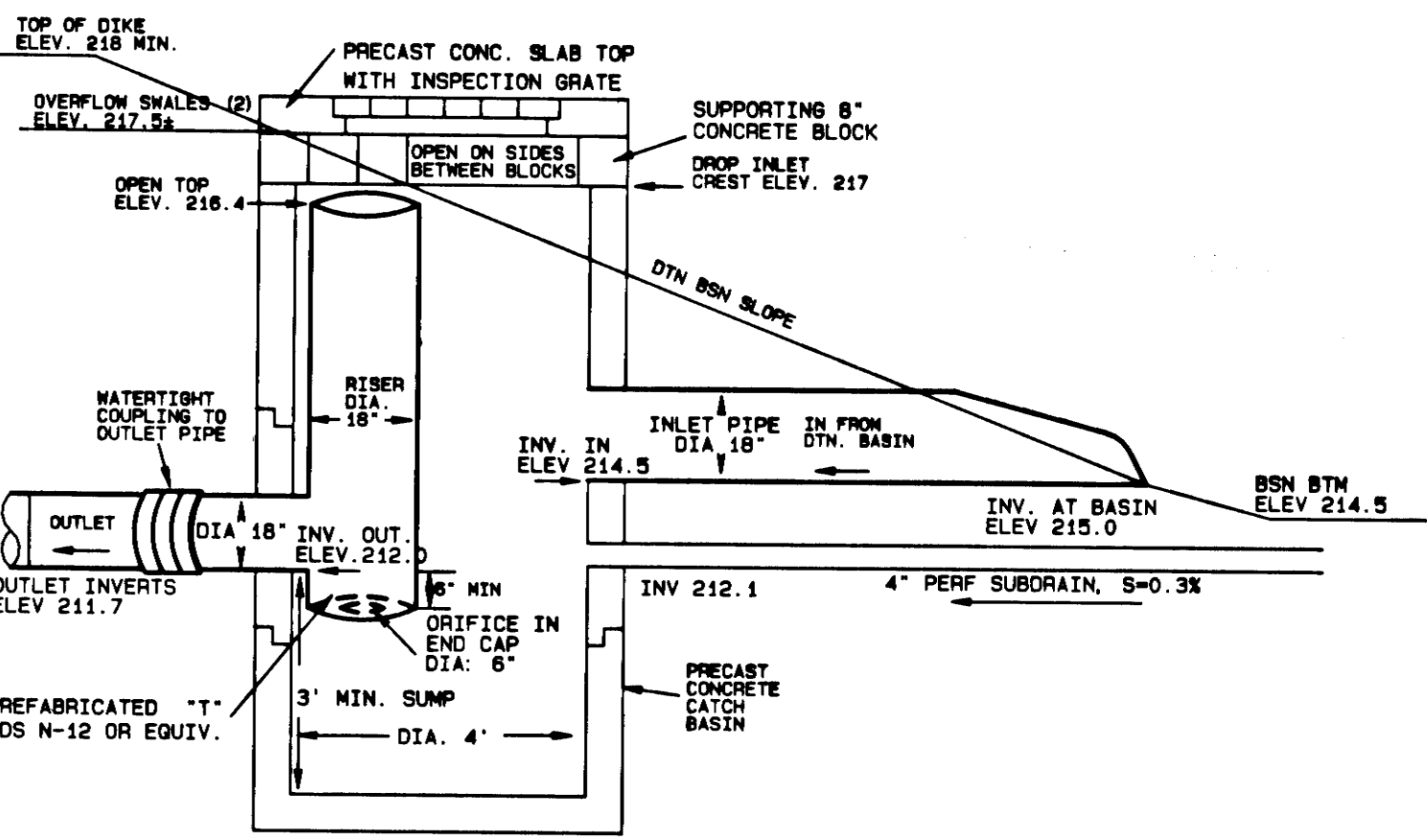


# DETENTION BASIN FILTER AND SUBDRAIN SYSTEM



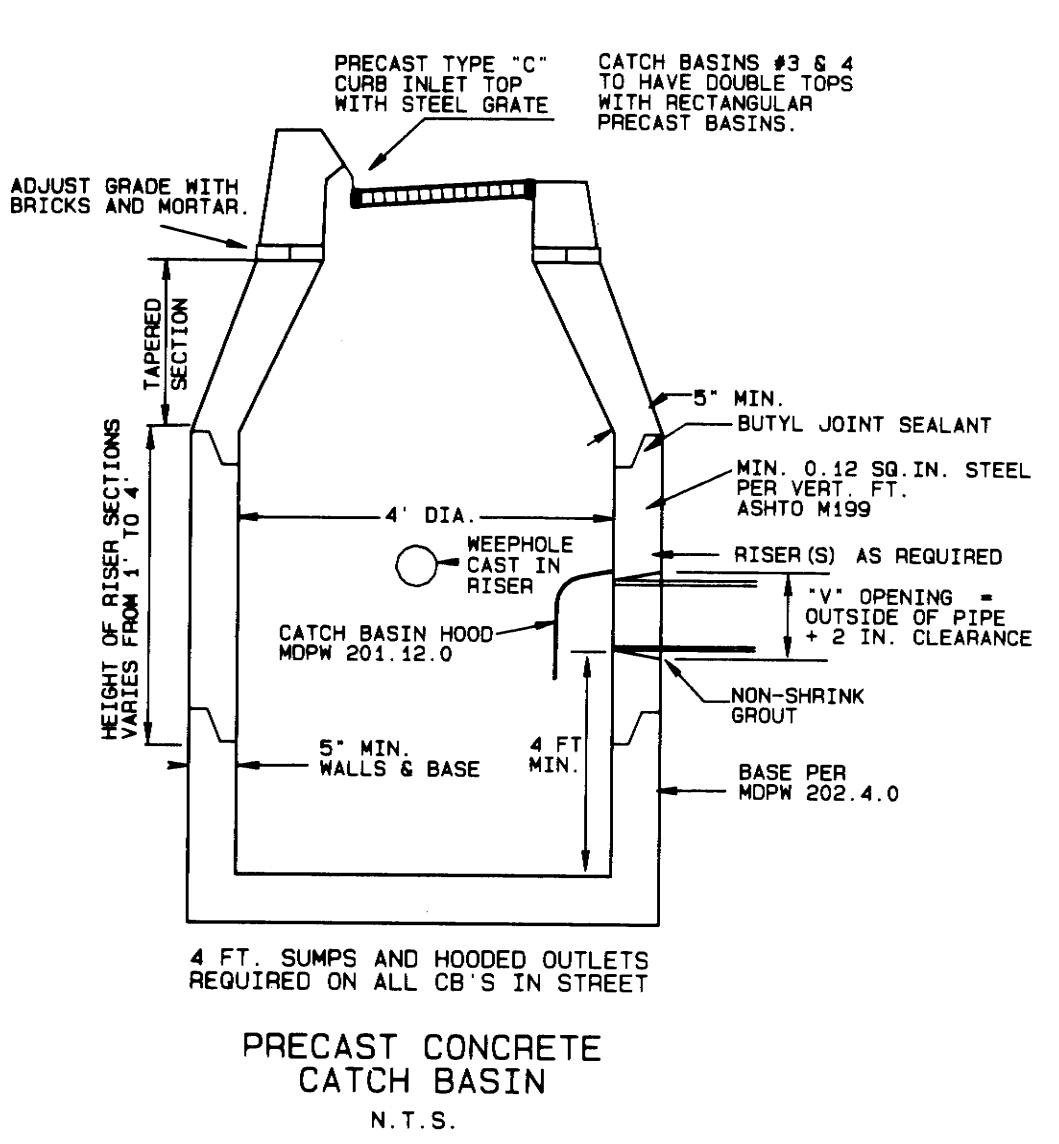
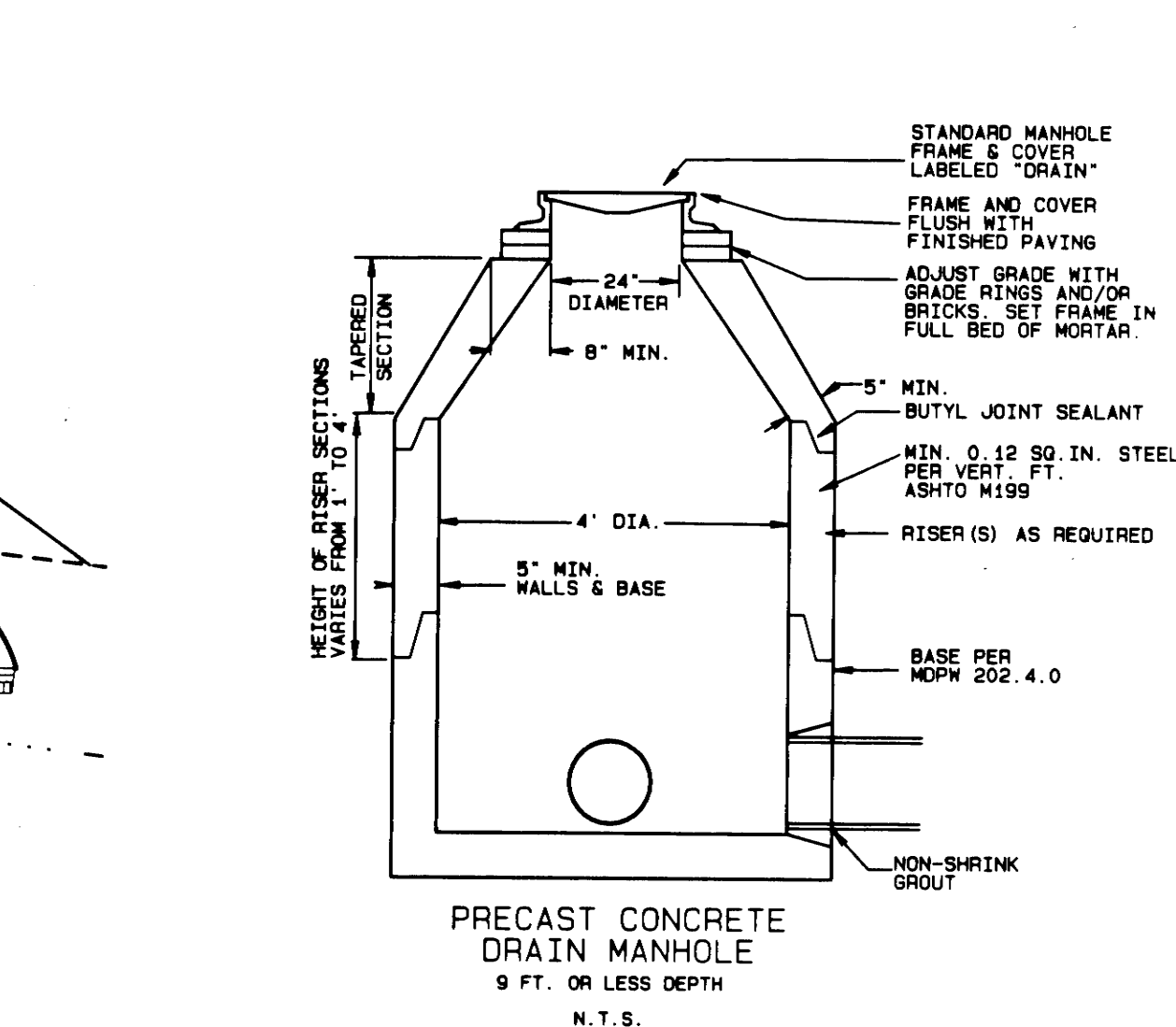
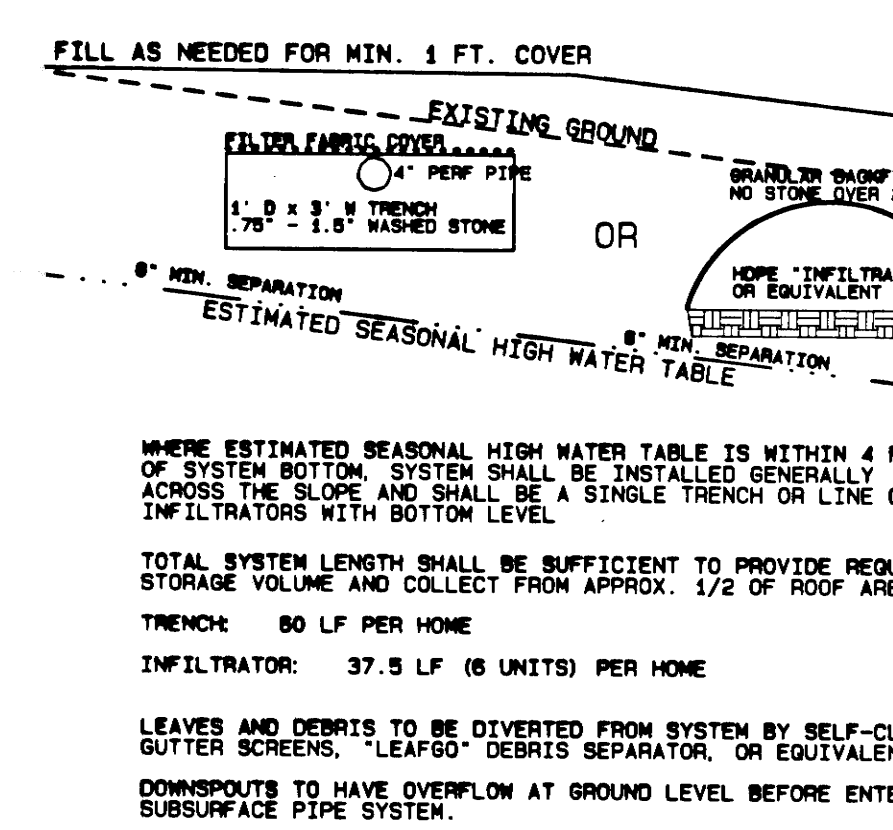
# OUTLET CONTROL STRUCTURE FOR DETENTION BASIN CB'S D1, D2, D3, D4



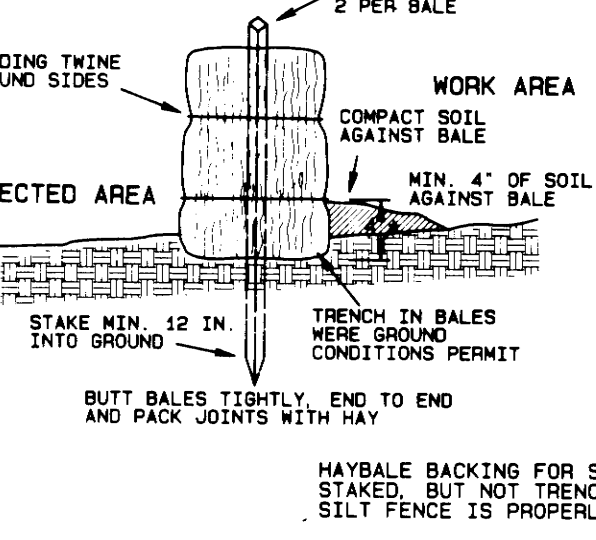
# PRECAST SANITARY MANHOLE (WITH DROP IF REQUIRED)

N.T.S.

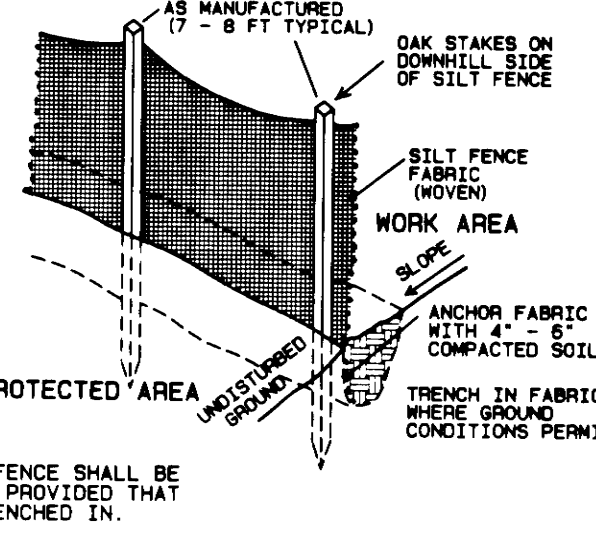
# TYPICAL INFILTRATION SYSTEM FOR RESIDENTIAL ROOF RUNOFF



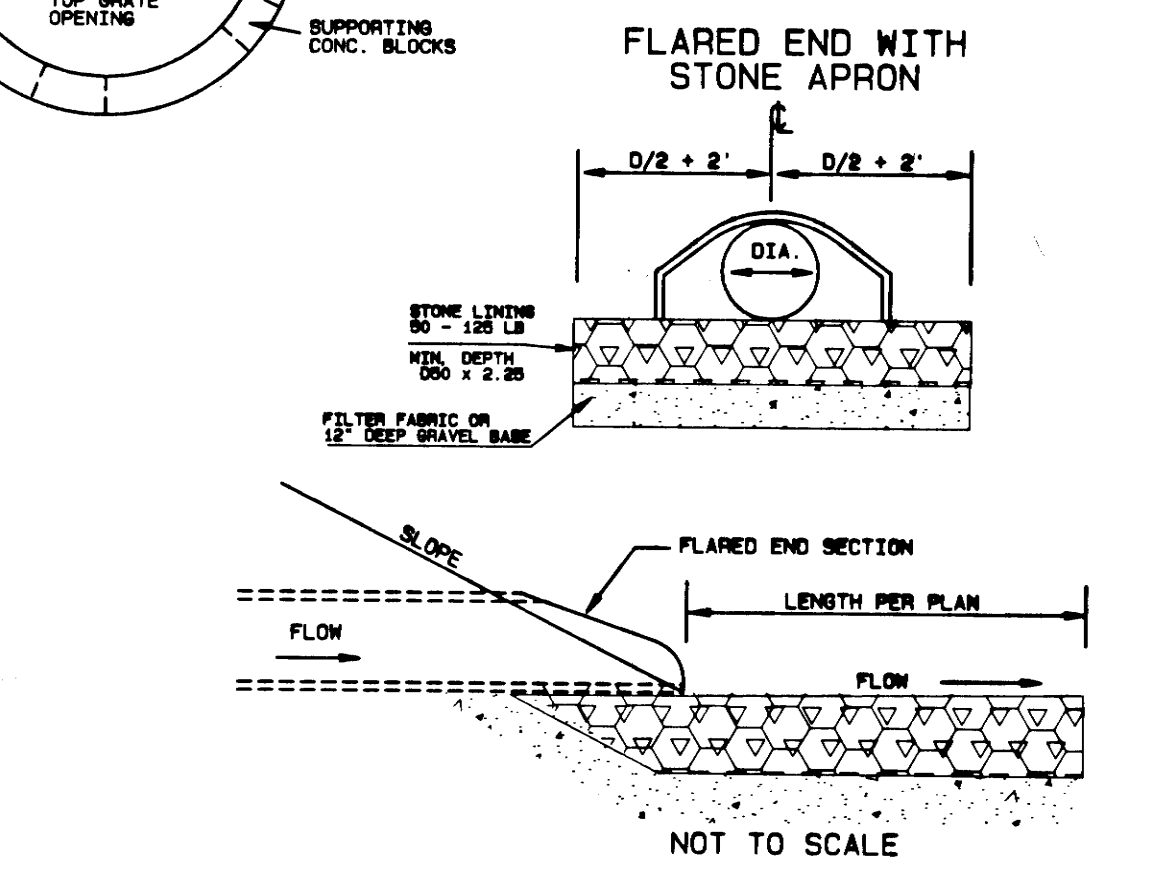
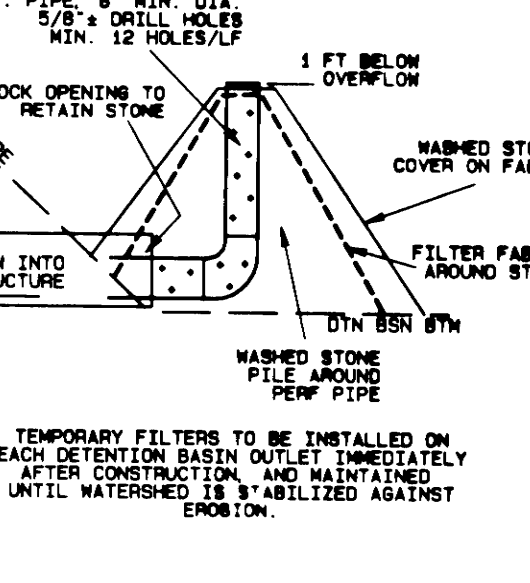
# HAY BALE SEDIMENT BARRIER INSTALLATION



# TYPICAL SILT FENCE INSTALLATION



# TEMPORARY OUTLET FILTER FOR DETENTION BASINS.



# EROSION CONTROL SPECIFICATIONS AND PROCEDURES

**CONTRACTOR'S RESPONSIBILITIES:**

The contractor shall install, maintain, and replace as necessary all measures for erosion control, sediment control, wetland protection, and wetland reclamation throughout the site as is outlined in these specifications and shown on the drawings and in accordance with local, state, and federal wetlands and environmental regulations and permits. The contractor shall execute all work in such a manner as to prevent alteration or degradation of wetlands or buffer zones beyond designated work limit lines, including taking temporary or emergency measures as necessary.

The contractor shall assume all responsibility for compliance with the following permits and related regulations:

- Order of Conditions issued under the Mass. Wetlands Protection Act and East Longmeadow Wetlands Bylaw.
- Including referenced Notice of Intent for the project.
- 401 Water Quality Certification issued by the Mass. DEP.
- CPDES General Permit for Storm Water Discharge from Construction Sites, issued by US EPA.

**GENERAL SEQUENCE OF WORK:**

- Stakeout and review of perimeter silt fence location.
- Clearing of work areas without disturbing or grading.
- Silt fence installation along perimeter work limit.
- Grubbing and clearing of area for detention basin and sewer easement.
- Installation of detention basin and sediment filter on outlet.
- Loading, seeding, and mulching of detention basin embankments, slopes, and bottom.
- Construction of roadway, drainage, sewer, and utilities, with temporary erosion controls and maintenance of erosion control measures, as site conditions require.
- Stabilization of site and removal of erosion controls.
- Clean-out of sediment accumulation in detention basin, installation of sand filter and drains, seeding of bottom, and removal of outlet filters.

**EROSION AND SEDIMENT CONTROL PROCEDURES:**

**PRECONSTRUCTION NOTIFICATIONS AND MEETINGS:** No work shall be performed within 100 feet of any wetland area until all notification and meeting requirements of the Order of Conditions have been completed. These requirements shall be the responsibility of the contractor to arrange, attend, and document.

**PERIMETER SILT FENCE AND WORK LIMIT:** Before installation of silt fence, location shall be staked in the field for review and approval by the engineer or their representative. To facilitate silt fence installation, woody vegetation may then be removed and the trench cut by machine, provided all other ground cover is left intact.

No excavation, grading, filling, or removal of vegetative ground cover shall be performed within 100 feet of any wetland area until perimeter silt fences have been installed as per the drawings and have been inspected by the engineer or their representative.

Perimeter silt fences located adjacent to wetland areas shall serve as the limit of work for this project. No construction, fence/work limit without the approval of the engineer or their representative and the East Longmeadow Conservation Commission.

**SILT FENCE:** The bottom of the fence shall be trenched into the ground a minimum of 6" and back-filled with compacted soil. The top of the fabric shall be stretched as tightly as is practical, with intermediate stakes added to correct excessive sags. Stakes shall be driven at least 12" into the ground. Splices between sections shall be made by rolling and stakes together one complete turn and driving into the ground together.

**HAY BALES:** Hay bales may be used as temporary and movable control measures, check dams, or as reinforcement for silt fence in areas of concentrated runoff. Bales shall be tightly butted and staked 12" into the ground. Where used without silt fence in front, the bales shall be trenched 4" into the ground, back-filled with compacted soil, and the spaces chinked with loose hay.

**STONE CONSTRUCTION ENTRANCE:** shall be installed and maintained at any points where construction traffic from an unpaved road enters onto the public way or a paved portion of the project roadway.

**STOCKPILE ADDITIONAL MATERIALS:** A stock of additional erosion control materials shall be maintained available on the site for emergency repairs and temporary measures. Stock shall be replenished when decreased to 50% of the numbers below. Stock shall include:

- Hay bales - 25 (Covered to be kept dry)
- Silt fence - 100 linear feet
- Washed stone - 2 cubic yards, 3/4" to 1" diameter
- Filter fabric - 25 linear feet of 12 ft. wide roll, or equivalent.

**SEDIMENT/DETENTION BASIN:** The stormwater detention basin shall serve as a temporary sediment basin during construction. The detention basin shall be constructed when specified in the sequence above. Basin shall be provided with temporary outlet filter and maintained until permanent outlet filter is installed. Filter fabric shall be replaced as necessary to maintain permeability. Accumulated sediment in the basin shall be removed if deeper than 1 ft. in the basin. After construction, accumulated sediment shall be removed, the basin excavated to 2 ft. below finish grade, and silt fence shall be installed with drains and the bottom seeded. The filters shall be removed after re-vegetation of the basin is sufficient.

**STOCKPILES:** There shall be a silt fence between any soil stockpile and the wetland edge. The base of the stockpile shall be kept at least 10 feet from the silt fence. Temporary piles of trench spoil may be closer to the silt fence but shall not rest against the silt fence. Soil expected to remain stockpiled for over 30 days shall be shaped to stable slopes and seeded or mulched for temporary cover. No stockpile shall be placed within a swale, drainage-way, or other path of concentrated surface runoff.

**ROADSIDE SLOPES:** Cut and fill slopes for roadway construction shall be finish graded, loamed, seeded, and mulched as soon as possible during road construction. This stabilization shall not await finish grading of roadway, tree-belts, or lots. Where necessary, temporary runoff controls will be provided to permit establishment of permanent vegetative cover.

**TRENCH PROTECTION:** Open trenches shall be protected from accumulation of surface water or groundwater that could result in erosion of the trench and discharge of sediment.

**TEMPORARY RUNOFF CONTROLS:** As site grading progresses, temporary erosion control measures shall be installed, maintained, and removed as necessary to prevent erosive accumulations of runoff on sediment discharge until final grade and cover are established. Measures include mulch, temporary seeding, diversions, sediment barriers, water-bars, open-topped culverts, check-dams, crowning of trench back-fills, and stone lining of swales.

**EROSION CONTROL NETTING, MESH, OR MULCH MATS** shall be used on steep slopes or in swales where required to protect seeding until establishment. Materials shall be installed per manufacturers' recommendations and anchored by burial of edges, staples, or stakes, as applicable.

**STORM DRAIN PROTECTION:** The storm drain system shall be protected against inflow of sediment. Storm drain structures shall be protected by elevation above grade, silt fence barriers, haybales, or stone filters until the tributary area is stabilized by pavement and vegetative cover is established. Filter protection shall be protected against damage by traffic and repaired/replaced as necessary.

**SITE STABILIZATION:** On completion of loaming and finish grading on any portion of the site, (except as provided in the sequence below) that area shall be seeded or planted in accordance with USDA SCS guidelines or equivalent.

**ROADWAY SWEEPING:** The entrance(s) to the site and affected portions of the public roadway or paved project roadway shall be swept periodically, as required or directed by the engineer.

**INSPECTION & MAINTENANCE:** All erosion and sediment control measures shall be inspected daily during grading and after all rain storms by the contractor, and shall be kept in functioning condition until tributary areas are stabilized. Sediment shall be removed from silt fences, check dams, and filter dams when it reaches 6" depth.

**SEEDING**

**DETENTION BASIN BOTTOM:**

- Loam - 6" minimum depth
- Lime & fertilizer in accordance with soil test or NRCS guidelines
- Seed mix:
  - Red Fescue - 25 lbs/1000 sq. ft.
  - Redtop - 0.1 lbs/1000 sq. ft.
  - Perennial Ryegrass - 0.25 lbs/1000 sq. ft.
  - Canada Bluegrass - 0.25 lbs/1000 sq. ft.
  - Mulch w/ twy or straw at 2 bales/1000 sq. ft.

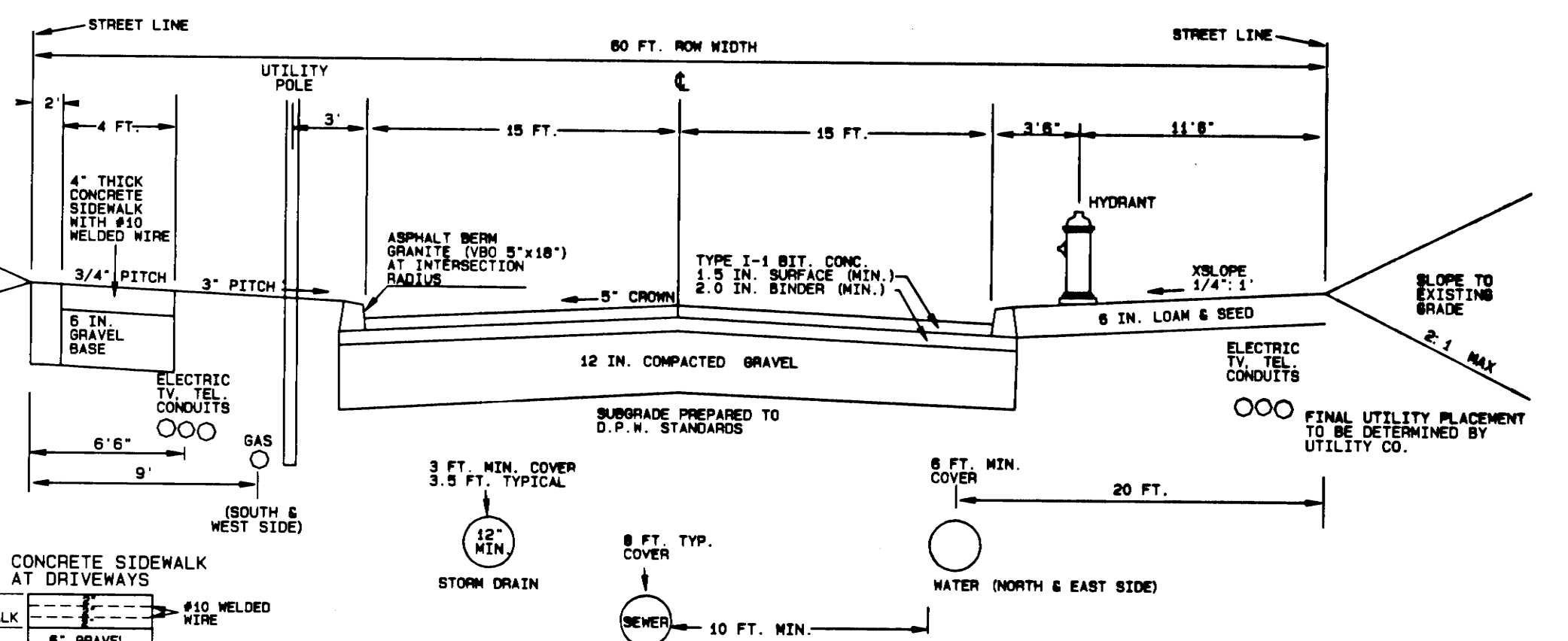
**DETENTION BASIN SLOPES, SEWER EASEMENT, AND ROADWAY SLOPES:**

- Loam - 6" minimum depth
- Lime & fertilizer in accordance with soil test or NRCS guidelines
- Seed mix:
  - Red Fescue - 25 lbs/1000 sq. ft.
  - Redtop - 0.1 lbs/1000 sq. ft.
  - Perennial Ryegrass - 0.25 lbs/1000 sq. ft.
  - Canada Bluegrass - 0.25 lbs/1000 sq. ft.
  - Mulch w/ twy or straw at 2 bales/1000 sq. ft.

**WORK ON INDIVIDUAL LOTS:**

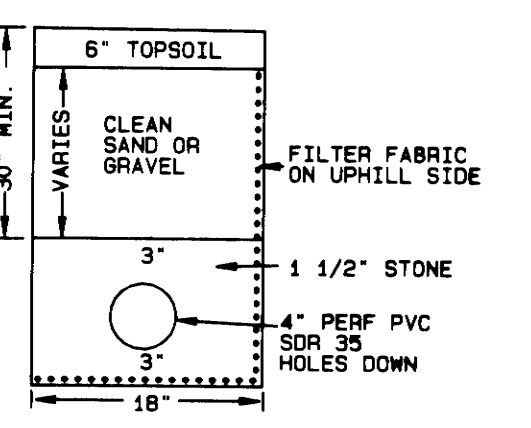
Site work on individual lots shall be controlled so as to prevent sediment discharge to street, wetland, or abutting lots. Typical measures may include:

- Silt fence along down-slope edge of graded areas.
- Stone construction entrance on driveway cut.
- Silt fence and haybale check dams across swales carrying concentrated runoff.
- Temporary diversions to carry runoff around open construction site.
- Stone-lined swales to carry concentrated runoff.
- Immediate revegetation of slopes, prior to final grading of yard and lawn.
- Curtain drainage or stone blanket to control seepage from cut slopes.
- Waterbars or open-topped culverts on driveways to prevent accumulation of runoff.



# TYPICAL STREET CROSS SECTION

NOT TO SCALE



# ROADWAY SUBDRAIN

NOT TO SCALE

# DETAIL SHEET

CANTERBURY CIRCLE, EAST LONGMEADOW, MA  
GREAT WOODS, PHASE IV

OWNED BY  
SIVAD NOMINEE TRUST  
PREPARED FOR  
DAN ROULIER & ASSOCIATES, INC.  
SHEET 5 OF

SCALE: AS NOTED DATE: SEPT. 1999, REV. 2/10/00

SMITH ASSOCIATES  
SURVEYORS, INC.

165 SHAKER RD., EAST LONGMEADOW, MASS. 01028

SD 250