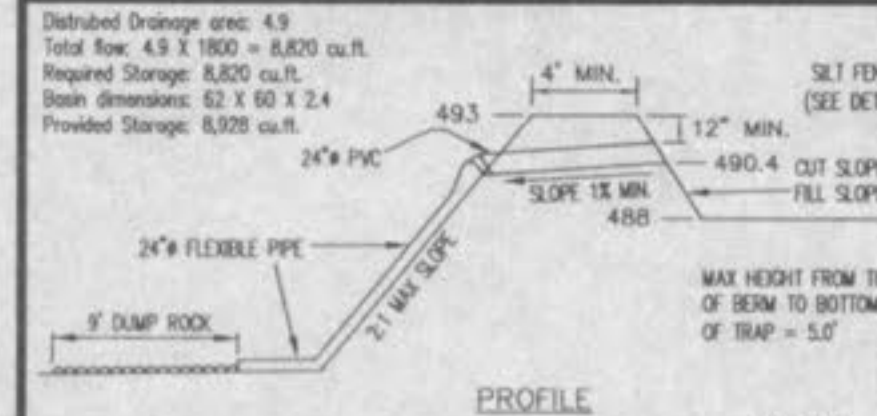
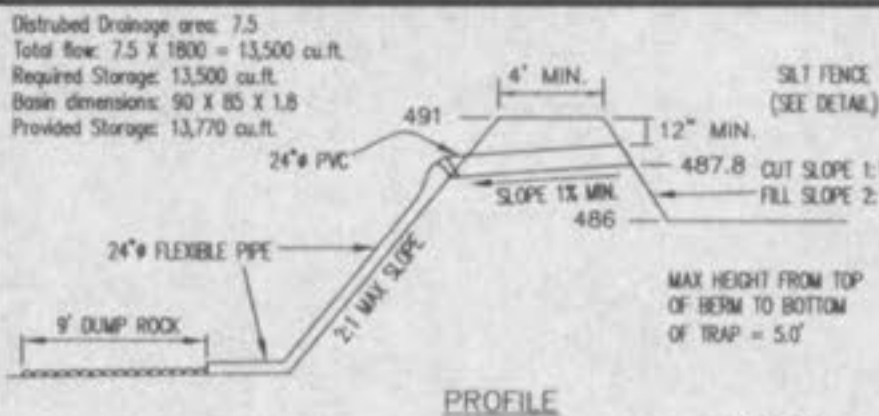


**PIPE SLOPE DRAIN FOR SEDIMENT BASIN P1-A**



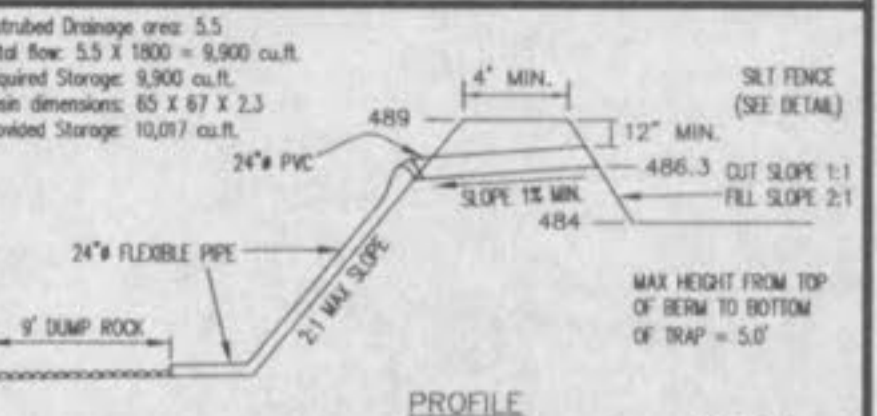
- N.T.S.**
- See plan for location and length of pipe.
  - The top of the earth dike over the inlet pipe and those dike carrying water to the pipe shall be at least 1' higher at all points than the top of the inlet pipe.
  - A siltation fence shall be constructed around pipe opening to prevent sediment from entering pipe.
  - The corrugated polyethylene pipe shall be securely anchored to the slope by staking at the hold-granets spaced 10' on centers.
  - Follow-up inspection and any needed maintenance shall be performed after each storm.
  - Soil around and under the inlet pipe and entrance section shall be hand tamped in 4" lifts to the top of the earth dike.
  - Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.

**PIPE SLOPE DRAIN FOR SEDIMENT BASIN P1-B**



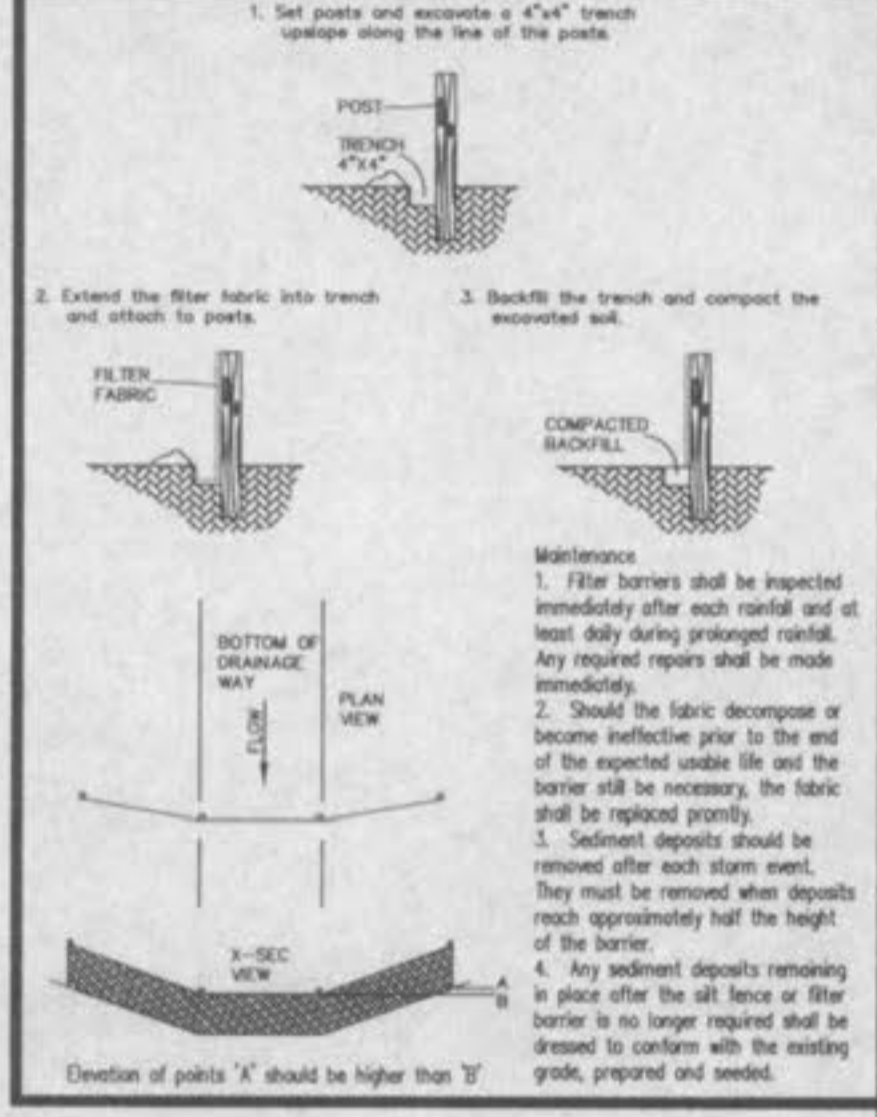
- N.T.S.**
- See plan for location and length of pipe.
  - The top of the earth dike over the inlet pipe and those dike carrying water to the pipe shall be at least 1' higher at all points than the top of the inlet pipe.
  - A siltation fence shall be constructed around pipe opening to prevent sediment from entering pipe.
  - The corrugated polyethylene pipe shall be securely anchored to the slope by staking at the hold-granets spaced 10' on centers.
  - Follow-up inspection and any needed maintenance shall be performed after each storm.
  - Soil around and under the inlet pipe and entrance section shall be hand tamped in 4" lifts to the top of the earth dike.
  - Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.

**PIPE SLOPE DRAIN FOR SEDIMENT BASIN P1-C**

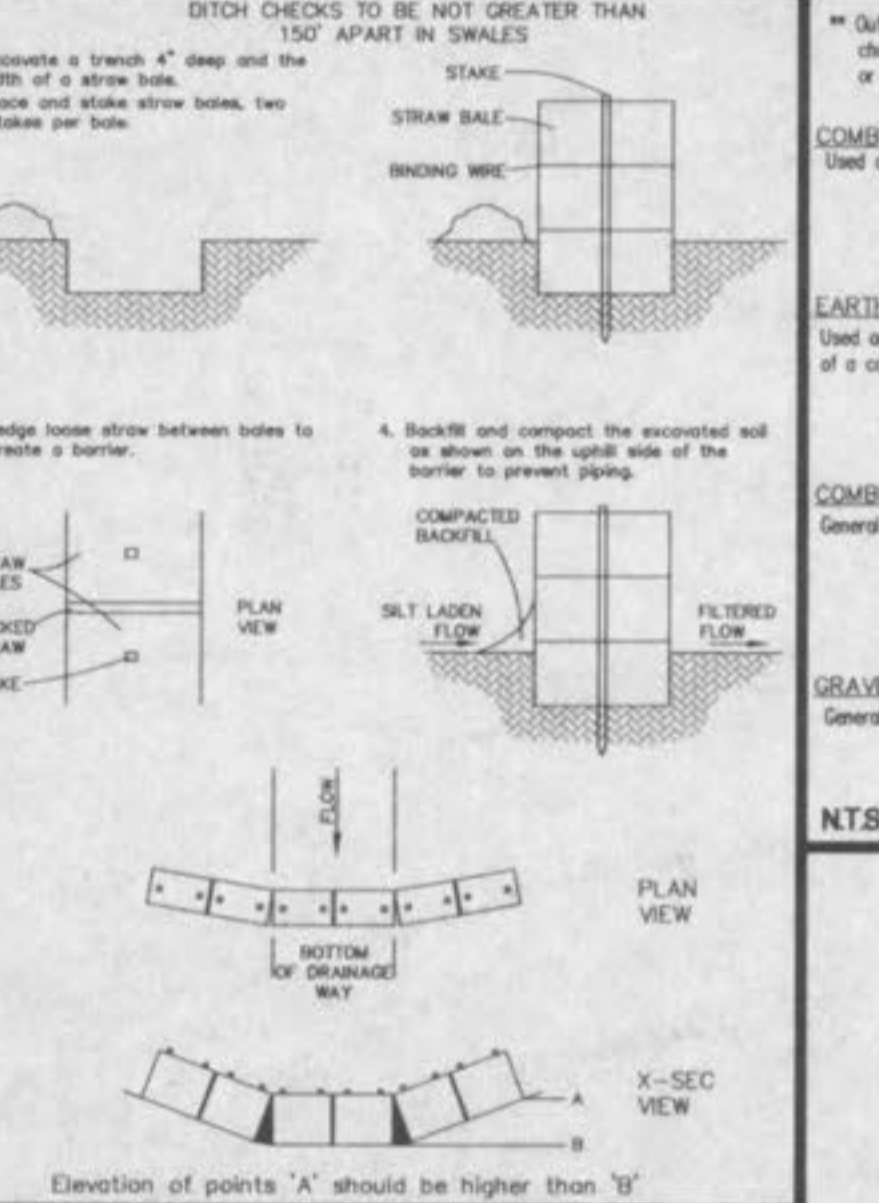


- N.T.S.**
- See plan for location and length of pipe.
  - The top of the earth dike over the inlet pipe and those dike carrying water to the pipe shall be at least 1' higher at all points than the top of the inlet pipe.
  - A siltation fence shall be constructed around pipe opening to prevent sediment from entering pipe.
  - The corrugated polyethylene pipe shall be securely anchored to the slope by staking at the hold-granets spaced 10' on centers.
  - Follow-up inspection and any needed maintenance shall be performed after each storm.
  - Soil around and under the inlet pipe and entrance section shall be hand tamped in 4" lifts to the top of the earth dike.
  - Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.

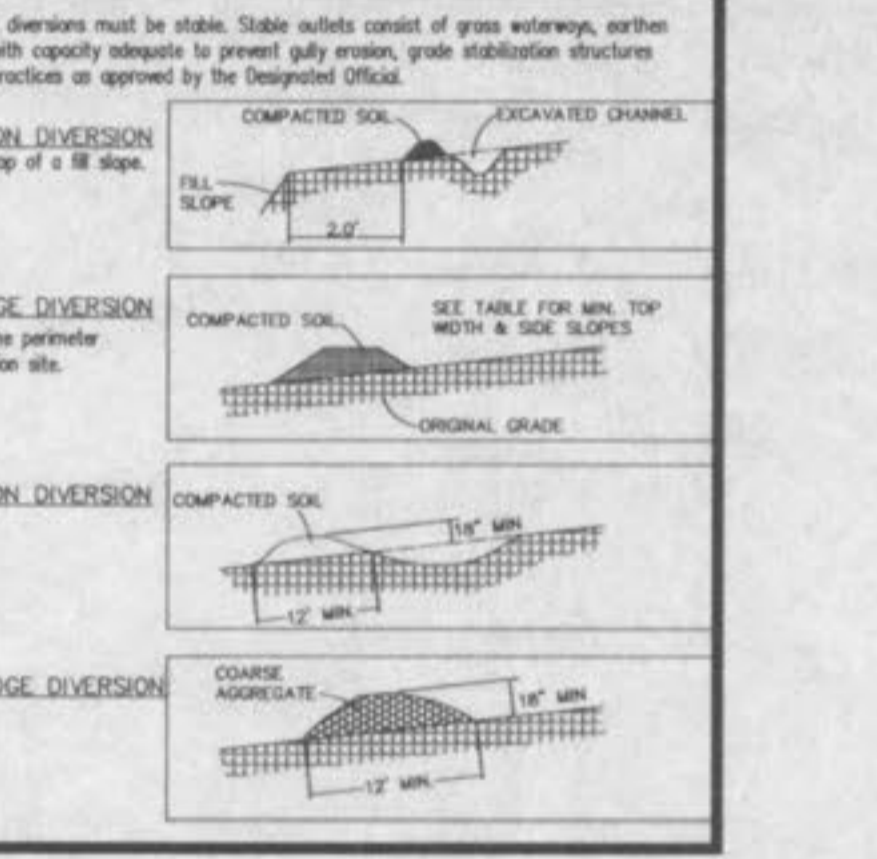
**SYNTHETIC FILTER BARRIERS**



**DITCH CHECK DETAIL**



**DIVERSION SWALES**



**BITUMINOUS CONCRETE OVER CONCRETE PAVEMENT CUT**

**CONCRETE PAVEMENT CUT**

**BITUMINOUS CONCRETE PAVEMENT CUT**

**GENERAL NOTES:**

4. REINFORCING AREA MUST BE SAW CUT TO REINFORCING CURB, PAVEMENT, OR 10' FROM CURB, WHICHEVER IS DEEPEST. REINFORCING AREA MUST BE REINFORCED WITH 2#4 BARS.
5. SP-1 ASPHALT CONCRETE MUST BE REINFORCED WITH 2#4 BARS.
6. BITUMINOUS CONCRETE ASPHALT CONCRETE MUST BE INSTALLED IN TWO (2) COMPACTED LIFTS.
7. ONE (1) LIFT OF BITUMINOUS CONCRETE MUST BE OPEN AT ALL TIMES.
8. NOTIFY THE CHIEF INSPECTOR ON THE CONSTRUCTION SUPERVISORSHIP AT THE ST. CHARLES COUNTY JOB OFFICE. A MINIMUM OF 24 HOURS BEFORE WORK IS TO BEGIN.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF TRAFFIC AREA AND SUBSEQUENT ASPHALT WORK SHALL BE ACCEPTED.
10. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ALL NECESSARY CONSTRUCTION SIGNS AS DETERMINED BY FIELD INSPECTOR.

**MINIMUM THICKNESS FOR PAVEMENT REPLACEMENT:**

| CONCRETE (1)   | BITUMINOUS (1) |
|--|----------------|
| All Residential Minor and Local Streets  | 6"             |
| Residential Collector, All County and Non-Residential Streets  | 7"             |
| All Arterial Streets   | 8"             |
| Pavement replacement will require 4" Type 1 or Type 5 Aggregate Base Course, Granular Backfill and Base will be compacted by mechanical tamping methods in lifts no greater than 6 inches. | 9 1/2"         |
|  | 12"            |

**VEGETATIVE ESTABLISHMENT FOR URBAN DEVELOPMENT SITES**

**APPENDIX A**

**Seeding Rates:**

**Permanent:**

- Tall Fescue - 30 lbs./ac.
- Smooth Brome - 20 lbs./ac.
- Combined: Fescue @ 15 lbs./ac. and Brome @ 10 lbs./ac.

**Temporary:**

- Wheat or Rye - 150 lbs./ac. (3.5 lbs. per 1000 sq. ft.)
- Oats - 120 lbs./ac. (2.75 lbs. per 1000 sq. ft.)

**Seeding Periods:**

| Species         | Period                                     |
|-----------------|--|
| Fescue or Brome | March 1 to June 1<br>August 1 to October 1 |
| Wheat or Rye    | March 15 to November 1                     |
| Oats            | March 15 to September 15                   |

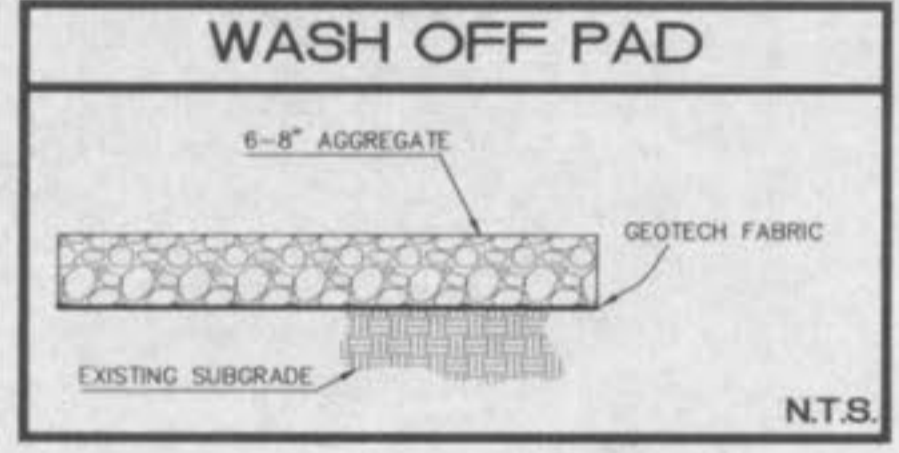
**Mulch Rates:**

100 lbs. Per 1,000 sq. ft. (4,356 lbs. per acre)

**Fertilizer Rates:**

|           |                   |
|-----------|-------------------|
| Nitrogen  | 30 lbs./ac.       |
| Phosphate | 30 lbs./ac.       |
| Potassium | 30 lbs./ac.       |
| Lime      | 600 lbs./ac. ENM* |

\*ENM - Effective Neutralizing Material as per State evaluation of quarried rock.



**DETAILS  
HIDDEN CREEK  
PHASE 1**

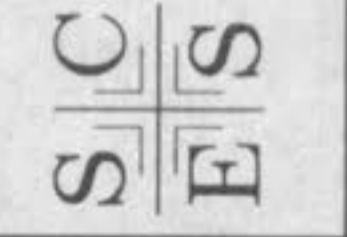
**SAINT CHARLES COUNTY  
HIGHWAY DEPARTMENT  
ST. CHARLES, MISSOURI**

**DETAILS OF TEMPORARY  
OPENINGS IN  
ROADWAY PAVEMENT**

DATE: October, 2002

DRAWING  
C613.00

**ST. CHARLES ENGINEERING & SURVEYING, INC.**  
801 S. FIFTH STREET, SUITE 202  
ST. CHARLES, MO 63301  
TEL: (636) 947-0607 FAX: (636) 947-2448



ORDER NO.  
02-0162-01

DATE  
09/28/02

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