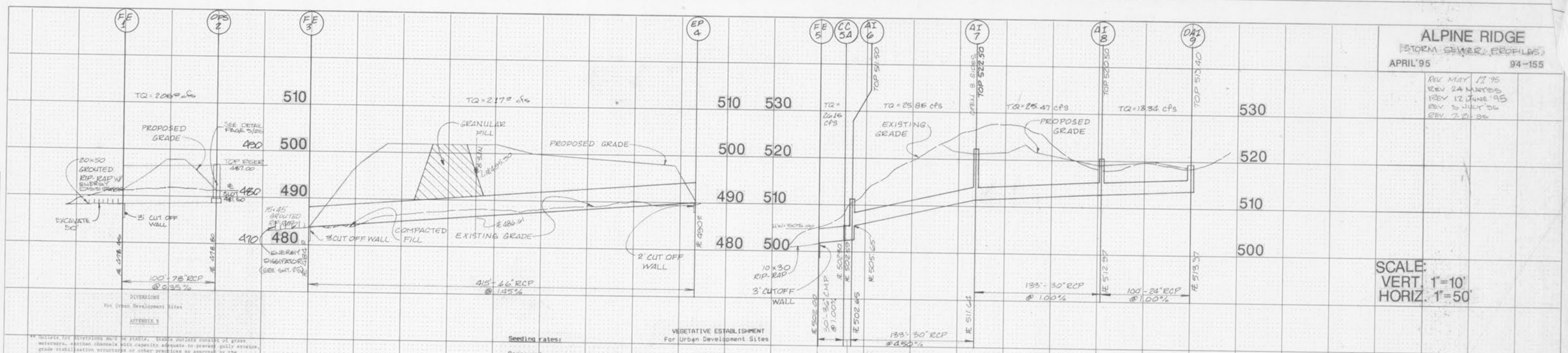
ALPINE RIDGE

STORM SEWER PROFILES

APRIL '95 — 94-155

REV MAY 17 '95
REV 24 MAY '95
REV 12 JUNE '95
REV 5 JULY '95
REV 7-21-95

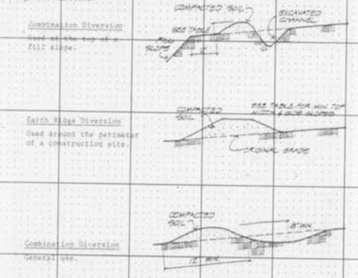
SCALE:
VERT. 1"=10'
HORIZ. 1"=50'



NOTE: ALL AREA INLETS TO BE OPEN ON FOUR SIDES UNLESS OTHERWISE NOTED.
ALL RIP RAP SHALL BE IMBEDDED IN HIGH SLUMP READY-MIX CONCRETE.

DIVERSIONS
For Urban Development Sites
APPENDIX B

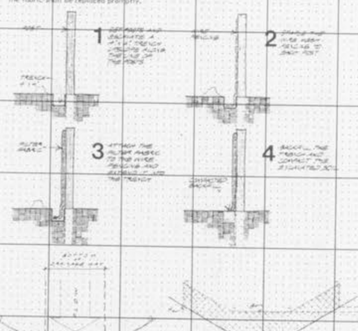
All outlets for diversions must be stable. Stable outlets consist of grass waterways, earthen channels with capacity adequate to prevent gully erosion, grade stabilization structures or other practices as approved by the Designated Official.



SYNTHETIC FILTER BARRIERS
For Urban Development Sites
APPENDIX D

Maintenance

1. Filter barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs should be made immediately.
2. Should the fabric decompose or become ineffective prior to the end of the expected usable life and the barrier still be necessary, the fabric shall be replaced promptly.
3. Sediment deposits should be removed after each storm event. They must be removed when deposits reach approximately half the height of the barrier.
4. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed to conform with the existing grade, prepared and seeded.



Placement and Construction of a Synthetic Filter Barrier

VEGETATIVE ESTABLISHMENT
For Urban Development Sites
APPENDIX A

Seeding rates:

Permanent:

Tall Fescue – 30 lbs./ac.
Smooth Brome – 20 lbs./ac.
combined: Fescue 9 15 lbs./ac. and Brome 2 10 lbs./ac.

Temporary:

Wheat or Rye – 150 lbs./ac. (3.5 lbs. per 1,000 square feet)
Oats – 120 lbs./ac. (2.75lbs. per 1,000 square feet)

Seeding periods:

Fescue or Brome – March 1 to June 1
August 1 to October 1

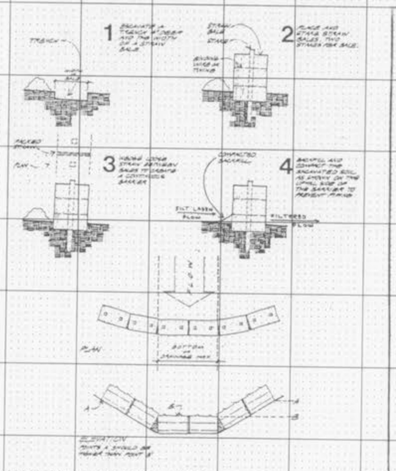
Wheat or Rye – March 15 to November 1
Oats – March 15 to September 15

Mulch rates: 100 lbs. per 1,000 sq. feet (4,356 lbs. per acre)

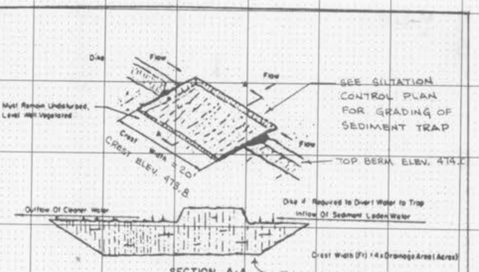
Fertilizer rates: Nitrogen 30 lbs./ac.
Phosphate 30 lbs./ac.
Potassium 30 lbs./ac.
Lime 600 lbs./ac. ENM*

* ENM = effective neutralizing material as per State evaluation of quarried rock.

STRAW BALE BARRIERS
For Urban Development Sites
APPENDIX C



Placement and Construction of a Straw Bale Barrier

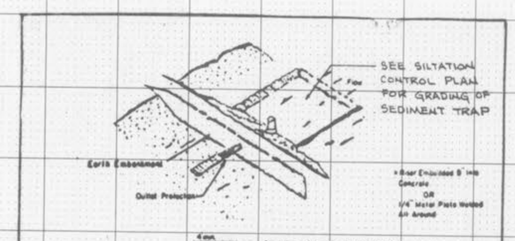


EXCAVATED GRASS OUTLET SEDIMENT TRAP "F"

CONSTRUCTION SPECIFICATION

1. Volume of sediment storage shall be 1800 cubic feet per acre of contributory drainage area.
2. Minimum crest width shall be 4 X Drainage Area.
3. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to ½ 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.
4. The structure shall be inspected after each rain and repairs made as needed.
5. Construction operations shall be carried out in such a manner that erosion and water pollution shall be minimized.
6. The sediment trap shall be removed and area stabilized when the remaining drainage area has been properly stabilized.
7. All cut slopes shall be 1:1 or flatter.

GRASS OUTLET SEDIMENT TRAP DETAIL



A - PROVIDE 5'x5' SQUARE ANTI-SEEP COLLAR FOR BASINS 'C' & 'E', 6.25 x 6.25' COLLAR FOR BASIN 'B'

TRAP NO.	TOP BERM ELEV.	TOP RISER ELEV.	UPPER R. BARREL	LOWER R. BARREL	BARREL LENGTH	BARREL DIAMETER	RISER DIAMETER
A	504.0	502.5	498.0	497.5	50'	18" CMP	12" CMP
B *	497.0	494.5	490.0	489.5	50'	24" CMP	18" CMP
C**	488.0	485.5	483.0	482.6	40'	30" CMP	24" CMP
D	476.0	474.5	472.7	472.5	20'	21" CMP	18" CMP
E**	476.0	474.0	471.9	471.6	30'	30" CMP	21" CMP

* PROVIDE 4'x4'x18" THICK CONC. BASE
** PROVIDE 5'x5'x18" THICK CONC. BASE

PIPE OUTLET SEDIMENT TRAP DETAIL

Pipe Outlet Trap
Construction Specifications

1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
2. The fill material for the embankment shall be free of roots or other woody vegetation as well as oversized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.
3. Volume of sediment storage shall be 1800 cubic feet per acre of contributory drainage.
4. 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.
5. The structure shall be inspected after each rain and repairs made as needed.
6. Construction operations shall be carried out in such a manner that erosion and water pollution are minimized.
7. The structure shall be removed and area stabilized when the drainage area has been properly stabilized.
8. All fill slopes shall be 2:1 or flatter; cut slopes 1:1 or flatter.
9. All pipe connections shall be watertight.
10. The top 2/3 of the riser shall be perforated with one (1) inch diameter holes or slits spaced six (6) inches vertically and horizontally and placed in the concave portion of pipe. No holes will be allowed within six (6) inches of the horizontal barrel.
11. The riser shall be wrapped with 1/4 to 1/2 inch hardware cloth wire then wrapped with filter cloth (having an equivalent sieve size of 40 - 80). The filter cloth shall extend six (6) inches above the highest hole and six (6) inches below the lowest hole. Where ends of filter cloth come together, they shall be overlapped, folded and stapled to prevent bypass.
12. Straps or connecting bands shall be used to hold the filter cloth and wire fabric in place. They shall be placed at the top and bottom of the cloth.
13. Fill material around the pipe spillway shall be hand compacted in four(4) inch layers. A minimum of two (2) feet of hand-compacted backfill shall be placed over the pipe spillway before crossing it with construction equipment.
14. The riser shall be anchored with either a concrete base or steel plate base to prevent flotation. For concrete bases the depth shall be 12 inches with the riser embedded nine (9) inches. A 1/4 inch minimum thickness steel plate shall be attached to the riser by a continuous weld around the bottom to form a watertight connection and then placing two (2) feet of stone, gravel, or tamped earth on the plate.

9A
25

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO., BY, DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO., BY, DATE

HIGHWAY FEDERAL AID SHEET
PLATE 3-FULL CROSS SECTION-LINE & DOT
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