

RIP-RAP DIMENSIONS L W1 W2 PIPE/STR ID (IN) (FT) (FT) (FT) (IN) (IN) 24 15 6 20 18 REVETMENT

. INSPECT RIP-RAP APRON AFTER EACH STORM EVENT FOR STONE DISPLACEMENT AND EROSION AT SIDES AND ENDS OF THE APRON. REMOVE AND STABILIZE EXCESS SEDIMENT EVIDENT ON APRON. MAKE REPAIRS TO THE APRON IMMEDIATELY. USE APPROPRIATE STONE

FINISHED GRADE. 4. RIP-RAP AND GEOTEXTILES SHALL MEET INDOT SPECIFICATIONS.

SIZE AND DO NOT PLACE ABOVE

RIP-RAP STORM OUTLET PROTECTION

NOT TO SCALE

EROSION CONTROL SEQUENCE

- 1. The following erosion control measures shall be in place prior to any land disturbing activities:
- Create a stabilized construction entrance
- 1.2. Install Temporary Inlet Protection Measures on existing storm inlets. 1.3. Install Temporary Silt Fence and/or Silt Sock Protection as shown on approved plans
- 1.4. Install Temporary Concrete Washout
- 2. Once land disturbing activities begin, the following practices shall be provided:
- 2.1. Once earth disturbing activities begin, the adjacent roadways, Mann Road and adjacent drives and parking lots shall be continuously monitored for sediment tracking. If sediment is found, immediate action is required to clean the offsite areas and the current erosion control practices will need to be inspected and modified accordingly to prevent any further sediment from leaving the project site.
- 2.2. Once the new storm structures/pipes are is in place, the appropriate type of inlet protection measures shall be
- 2.3. Continued monitoring of all exposed areas shall be performed in order to verify the surrounding areas are not becoming sediment laden from construction activities onsite.
- 2.4. As the construction occurs, disturbed areas shall be stabilized as soon as they are at finished grade or will be left bare for more than 15 days.
- Provide final grade stabilization upon final grading of all areas including erosion control blanketing, seeding
- Storm sewers that become silted due to construction activities shall be cleaned with a jet vacuum and the material properly disposed of.

EROSION CONTROL NOTES:

- . All proposed erosion and sediment control shall be in conformance with the Hamilton County Stormwater Specifications Manual, latest edition. Discrepancies between the plans and the Manual shall not alleviate the contractor from adhering to the requirements as set forth in the Manual.
- Additional erosion and sediment control measures may be required by the inspector.

| EROSION CONTROL SCHEDULE | | | | | | |
|------------------------------|--|--|--|--|--|--|
| EROSION CONTROL MEASURE | * MAINTENANCE | INSTALLATION SEQUENCE | | | | |
| STONE ENTRANCE | AS NEEDED | PRIOR TO CLEARING AND GRADING | | | | |
| SILT FENCE | WEEKLY, AFTER STORM EVENTS AND AS NEEDED | PRIOR TO CLEARING AND GRADING | | | | |
| EXISTING INLET PROTECTION | WEEKLY, AFTER STORM EVENTS AND AS NEEDED | PRIOR TO CLEARING AND GRADING | | | | |
| TREE PROTECTION | WEEKLY, AFTER STORM EVENTS AND AS NEEDED | PRIOR TO CLEARING AND GRADING | | | | |
| TEMPORARY DIVERSIONS | WEEKLY, AFTER STORM EVENTS AND AS NEEDED | ALONG WITH ROUGH GRADING | | | | |
| TEMPORARY SEEDING | WATER AS NEEDED | AFTER ROUGH GRADING | | | | |
| PERMANENT SEEDING | WATER AS NEEDED | AFTER FINISH GRADING | | | | |
| EROSION CONTROL MATTING | WEEKLY, AFTER STORM EVENTS AND AS NEEDED | AFTER FINISH GRADING | | | | |
| STRAW BALES | WEEKLY, AFTER STORM EVENTS AND AS NEEDED | AFTER FINISH GRADING | | | | |
| INLET PROTECTION | WEEKLY, AFTER STORM EVENTS AND AS NEEDED | AFTER EACH INLET IS PLACED | | | | |
| SEED, SOD & LANDSCAPE AROUND | WATER AS NEEDED | AFTER FINISHED GRADING AROUND FINISHED UNITS | | | | |
| UNITS FINISHED | | | | | | |
| REMOVAL OF STRAW BALFS | *** | AFTER ALL AREAS DRAINING TO THESE AREAS ARE STABILI | | | | |
| REMOVAL OF INLET PROTECTION | N/A | AFTER ALL AREAS DRAINING TO THESE AREAS ARE STABILIZ | | | | |
| REMOVAL OF SILT FENCE | N/A | AFTER ALL AREAS DRAINING TO THESE AREAS ARE STABILIZED | | | | |

Seedbed Preparation

Apply lime to raise the pH to the level needed for species being seeded. Apply 23 pounds of 12-0-12 analysis fertilizer (or equivalent) per 1000 sq. ft. (approximately 1000 pounds per acre) or fertilize according to test. Application of 150 lbs. of ammonium nitrate on areas low in organic matter and fertility will greatly enhance vegetative growth.

Work the fertilizer and lime into the soil to a depth of 2-3 inches with a harrow, disk or rake operated across the slope as much as possible.

Select a seed mixture based on projected use of the area (Figure 5-2), while considering best seeding dates. See Figure 5-3 this sheet. If tolerances are a problem, such as salt tolerance of seedings adjacent to streets

and highways, see Figure 5-4 this sheet before final selection. Mulch Rate

Mulch is to be applied at 2,000 to 3,000 pounds per acre in areas not covered by erosion control blanketing. Mulch must be anchored using a mulch anchoring tool or farm disk with dull, serrated, straight set blades, or bulldozer cleats driven up and down slope.

Figure 5-2: Permanent Seed Mixtures

| lbs | /acre lbs/1000 | well |
|-----|----------------|----------------------|
| | sq. ft. | Droughty Drained Wet |

1. Tall Fescue 35 .8 5.5-8.3 2 1 2 2. Tall Fescue 25 .6 5.5-8.3 Red Clover** 5 .12 3. Kentucky Bluegrass 15 .4 5.5-7.5 2 1 Creeping Red Fescue 15 .4 Steep Banks and Cuts

Kentucky Bluegrass 25 .6 5. Tall Fescue 35 .8 5.5-8.3 2 1 Emerald Crownvetch** 10 .25

4. Tall Fescue 15 .4 5.8-7.5 2 1 2

Lawns and High Maintenance Areas 6. Kentucky Bluegrass 40 .9 5.8-7.5 2 1

Creeping Red Fescue 40 .9 7. Perennial Ryegrass 170 4.0 5.0-7.5

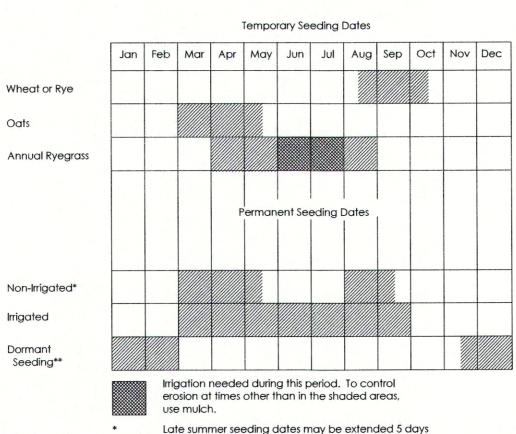
8. Tall Fescue 170 4.0 5.5-8.3 2 1 2 * 1 - Preferred 2 - Will Tolerate ** Inoculate with specific Inoculant.

| | | SOIL | | | Close Mowing to 2-3 1/2inches | | | | Rooding Tolerance (days) | ches) | 9 () | | Salt | |
|--------------------------------------|-----------|-------|---------------------------------|------|--|-------|---------------------|------|-----------------------------|--------------------------|-----------|------|------|-------|
| | CONDITION | | Shade Tolerance Close Mov | | Close Mov to 2-3 1/2ir Tromping Tolerance | ≧s | Winter Hardiness | ding | Mature Height (inches) | Emergence Time (days) | Tolerance | | | |
| | Wet | Norm | Dry | Shad | Clos to 2- | Toler | Fertility | Wint | Floor | Math | Emer | Gen. | Soil | Spray |
| Creeping Red Fescue Festuca rubra | 2 | 1 2 | 1 1 | 1 | | | Med. | 1 | 20-25 | 12-18 | 7-21 | | | s |
| Kentucky Bluegrass Poa pratinsis | 2 | 1 2 | 1 1 | 1 | | | Med. | 1 | 25-35 | 12-18 | 10-20 | | | МТ |
| Tall Fescue Festuca L arundinacea | 2 | 1 1 | 1 1 | 1 | | | Low | 1 | 24-35 | 24-36 | 5-14 | | T | |
| Perennial ryegrass Lolium perenne | 2 | 2 | - 1 | 2 | | | Med- High | 2 | 15-20 | 12-18 | 5-10 | | MT | |
| Crownvetch Coronilla varia | - | 1 1 2 | | | | | Low | 1 | 5-10 | 24 | 14-21 | T | | |
| Red Clover Trifolium pratense | - 1 | - 2 | | | | | Med | . 1 | 7-10 | 18 | 5-10 | S | S | |

1 Good 2 Medium - Not tolerant

Salt Tolerance (to both soil salts & spray): MT Medium Tolerance S Slight Tolerance

FIGURE 5-4



Late summer seeding dates may be extended 5 days if mulch is applied.

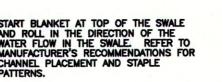
Increase seeding application by 50%. FIGURE 5-3

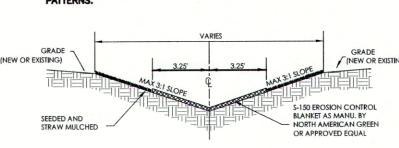
Temporary Seedings

| Kind of Seed | 1000 Sq. Ft. | Acre | Remarks | | | | |
|-----------------|--------------|---------|---------------------------------|--|--|--|--|
| Wheat or Rye | 3.5 lbs. | 2 bu. | Cover seed 1" to 1 1/2" deep | | | | |
| Spring Oats | 2.3 lbs. | 3 bu. | Cover seed 1" deep | | | | |
| Annual ryegrass | 1 lb. | 40 lbs. | Cover seed 1/4"deep* | | | | |
| | | | | | | | |

* Not necessary where mulch is applied.

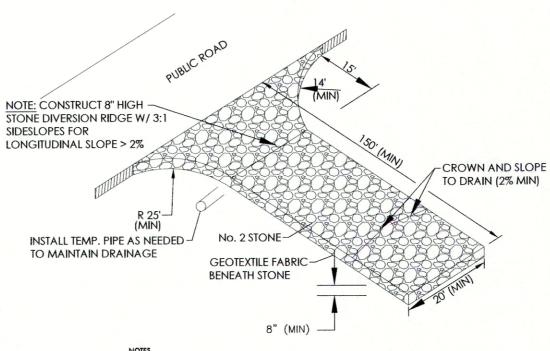
SEEDING SCHEDULE NOT TO SCALE





TYPICAL DRAINAGE SWALE WITH **EROSION CONTROL MATTING**

NOT TO SCALE



NOTES Installation:
Avoid locating on steep slopes or at curves in public roads. Remove all vegetation and other objectionable material from the foundation area, and grade and crown for positive drainage. If longitudinal slope is in excess of 2% construct a water bar (ridge) about 15 feet from the entrance to divert runoff away from the road (See detail above). Install pipe under the pad (if needed) to maintain proper public road drainage. If wet conditions are anticipated, place geotextile fabric on the graded foundation to improve Divert all surface runoff and drainage from the stone pad to a sediment trap or basin. MAINTENANCE

heavy use.

Reshape pad as needed for drainage and runoff control.

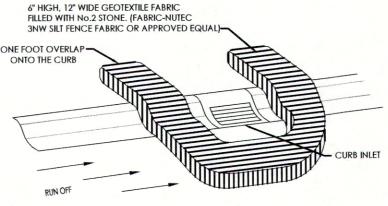
Topdress with clean stone as needed.

Immediately remove mud and sediment tracked or washed onto public roads by brushing or sweeping. Bush only if water is conveyed to a sediment trap or basin.

Repair any broken road pavement immediately.

TEMPORARY CONSTRUCTION ENTRANCE

NOT TO SCALE

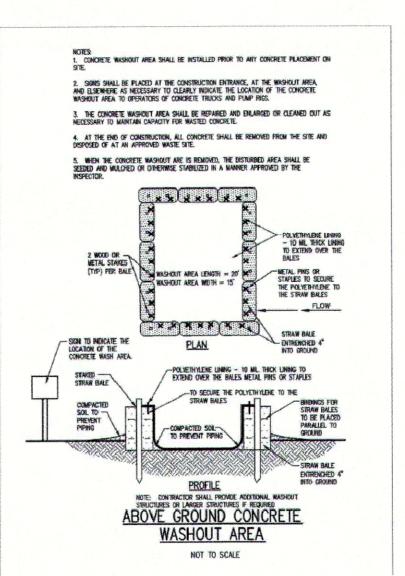


CURB INLET SEDIMENT BARRIER NOT TO SCALE

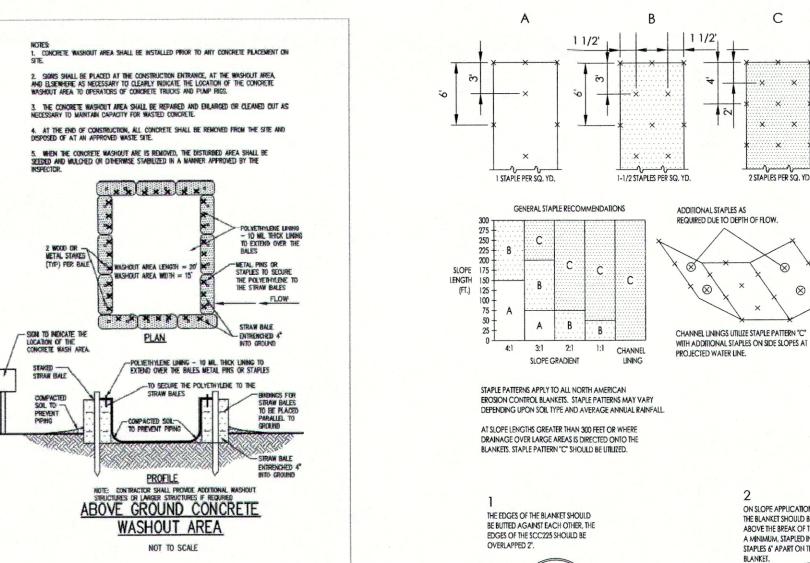
CROSSBARS-- BEEHIVE INLET OR DRAINAGE COVER SILT FENCE MATERIAL-- SILT FENCE EXTENDS 6" BELOW FINISHED GRADE 1. SEE SILT FENCE DETAIL FOR MATERIAL SPECIFICATIONS.

INLET PROTECTION-SILT FENCE NOT TO SCALE

2. SILT FENCE SHALL BE PREASSEMBLED BY SUPPLIER.



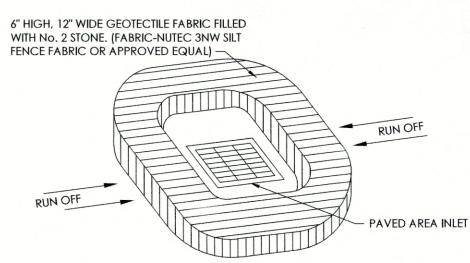
CONCRETE WASHOUT AREA NOT TO SCALE



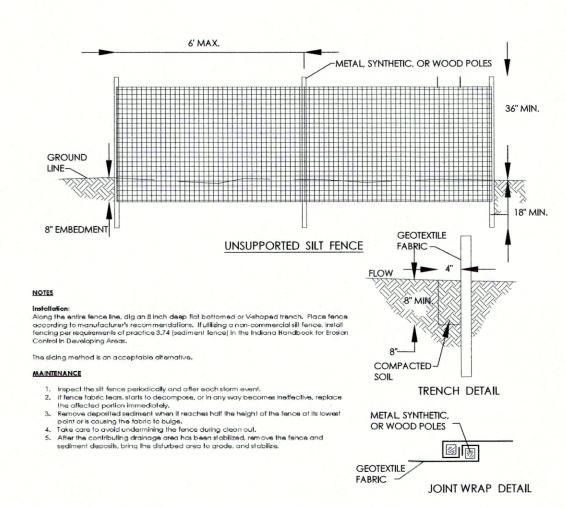
STAPLES 6" APART ON THE END OF THE ROLL BLANKETS ON LONG SLOPES, THE ENDS OF THE BLANKETS SHOULD BE OVERLAPPED THE BLANKET SHOULD NOT BE STRETCHED BUT ALLOWED TO LAY LOOSELY ON THE SOIL SURFACE TO ACHIEVE MAXIMUM BLANKET TO SOIL INCLUDING APPLICATION OF LIME, FERTILIZER AND SEED SHOULD BE CONDUCTED AS NORMAL PRIOR TO IN HIGH VELOCITY CHANNEL APPLICATIONS, CHECK SLOTS SHOULD BE ESTABLISHED EVERY 35 - 40'. THE SLOTS SHOULD BE 6" WIDE BY 6" DEEP WITH THE BLANKET STAPLED IN THE BOTTOM OF THE SLOT THEN BACKFILLED AND SEEDED.

EROSION BLANKET INSTALLATION

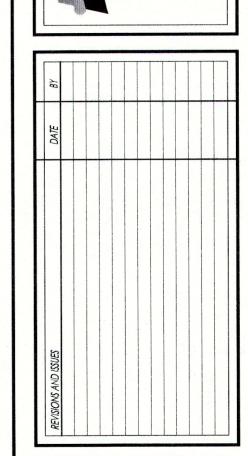
NOT TO SCALE



PAVED INLET SEDIMENT BARRIER NOT TO SCALE



SILT FENCE (SEDIMENT FENCE) NOT TO SCALE



ON SLOPE APPLICATIONS, THE TOP OF

ABOVE THE BREAK OF THE SLOPE OR AT

THE BLANKET SHOULD BE "SLOTTED IN"

A MINIMUM, STAPLED IN PLACE WITH

ASE SWPP

S., CONSTRUCTION I ENDL

PLAN DATE: