

EROSION & SEDIMENT CONTROL PLAN

SCALE 1"=50'

Design Criteria

1. Stabilization of the swale shall be completed within 7 days of installation in accordance with the appropriate standard and specifications for vegetative stabilization or stabilization with mulch as determined by the time of year.
2. In highly erodible soils, as defined by the local approving agency, refer to the next higher slope grade for type of stabilization.

3. Recycled Concrete Equivalent shall be concrete broken into the required size and shall contain no steel reinforcement. New York Standards and Specifications Page 5A.4 August 2005 For Erosion and Sediment Control Outlet.

4. Swale shall have an outlet that functions with a minimum of erosion and dissipates runoff velocity prior to discharge off the site.

5. Runoff shall be conveyed to a sediment trapping device such as a sediment trap or sediment basin until the drainage area above the swale is adequately stabilized.

6. The on-site location may need to be adjusted to meet field conditions in order to utilize the most suitable outlet.

7. If a swale is used to divert clean water flows from entering a disturbed area, a sediment trapping device may not be needed.

8. RECP (ROLLED EROSION CONTROL PRODUCT) shall be used for excavated inlet protection. Provide 4" min. topsoil and seed with KENTUCKY BLUEGRASS, CREEPING RED FESCUE, and PERENNIAL RYGRASS at a rate of 25, 20 and 10 LBS PER ACRE RESPECTIVELY.

9. AS AN ALTERNATE PRACTICE TO TEMPORARY SWALES, EARTH DIKES MAY BE USED. SEE DETAIL THIS SHEET.

Design Criteria

Drainage Area - The drainage area for storm drain inlets shall not exceed one acre. The crest elevations of these practices shall provide storage and minimize bypass flow.

Type I - Excavated Drop Inlet Protection

See details for Excavated Drop Inlet Protection.

Limit the drainage area to the inlet device to 1 acre.

Excavated site slopes shall be no steeper than 2:1. The minimum depth shall be 1 foot and the maximum depth 2 feet as measured from the crest of the inlet structure.

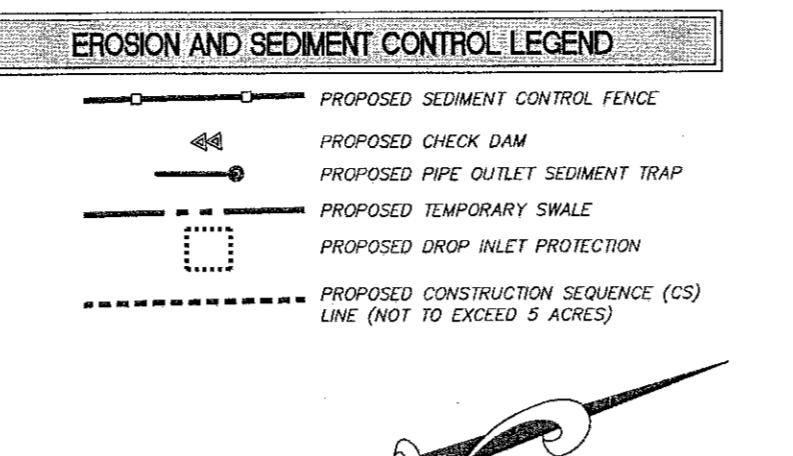
Shape the excavated basin to fit the inlet device to provide maximum trap efficiency. The capacity of the excavated basin should be established to contain 900 cubic feet per acre of disturbed area. Wrap holes, protected by fine mesh stone, should be provided for draining the temporary pool.

Inspect and clean the excavated basin after every storm.

Sediment should be removed when 50 percent of the storage volume is achieved. This material should be incorporated into the site in a stabilized manner.

EXCAVATED DROP INLET PROTECTION

NOT TO SCALE

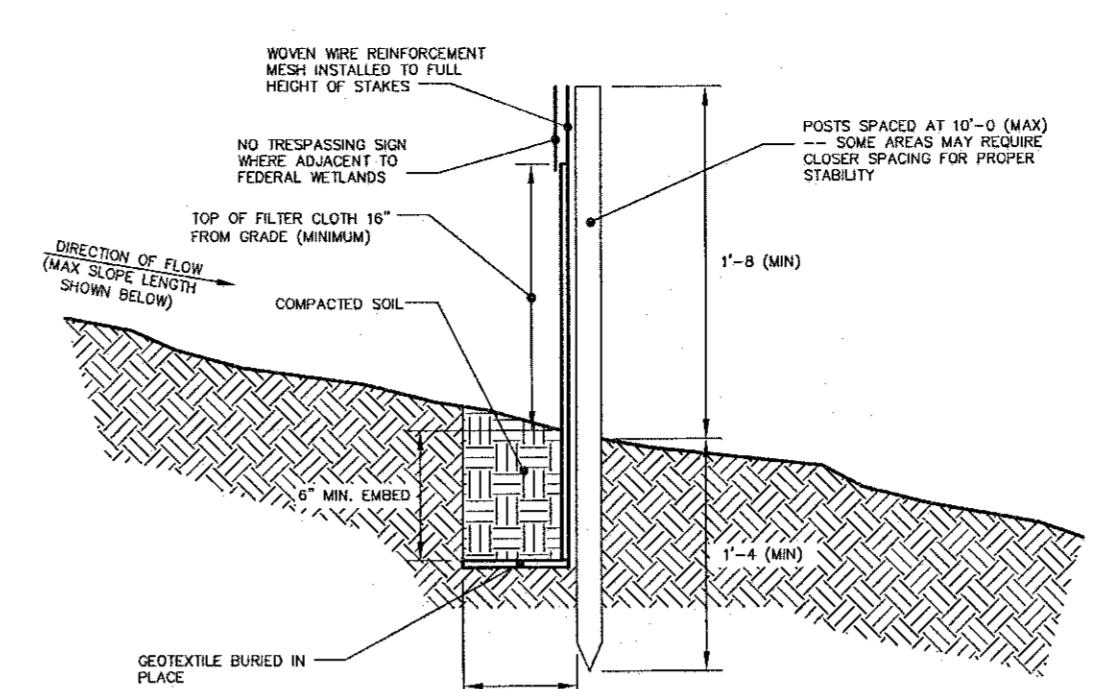


TEMPORARY SWALE SUMMARY TABLE					
SWALE	LENGTH	GRADE	TYPE*	DRAINAGE AREA	
S1	500'	0.5%	A, 1	3.2 ACRES	* ALL TEMPORARY SWALES SHALL RECEIVE RECP

CONSTRUCTION SEQUENCE SUMMARY TABLE	DISTURBED AREA
CS#	4.4 ACRES

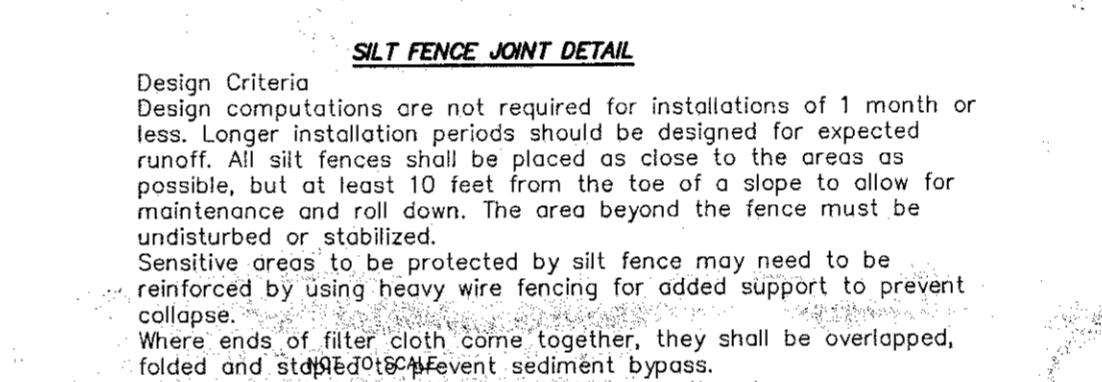
TEMPORARY SEDIMENT TRAP SUMMARY TABLE	
DESCRIPTION	TRAP No.
TYPE	1
DRAINAGE AREA	4.4 ACRES
STORAGE REQD	590 C.Y.
STORAGE PROVIDED*	600 C.Y.
PIPE OUTLET	12"
DEPTH BELOW OUTLET	12"
EMBANKMENT HT.	6'
50% CLEANOUT ELEVATION	208'
INVERT OUT ELEVATION	205'
LENGTH x WIDTH x HT*	55'x60'x5'

*STORAGE CAPACITY FROM THE TOP ELEVATION OF THE RISER PIPE OUTLET TO THE TRAP BOTTOM.



MAXIMUM ALLOWABLE SLOPE LENGTH
TO A SECTION OF SILT FENCE SHALL BE AS FOLLOWS:
SLOPE STEEPNESS: MAX. SLOPE LENGTH:
1:2 25 FT
1:3 50 FT
1:4 75 FT
1:5 OR FLATTER 100 FT
NOTE: MAXIMUM DRAINAGE AREA FOR OVERLAND FLOW TO SILT FENCE SECTION SHALL NOT EXCEED 1/4 ACRE PER 100 FT OF FENCE. CONCENTRATED DISCHARGE OF SEDIMENT LOAD WATER SHALL NOT BE ALLOWED TO FLOW DIRECTLY TO THE FENCE.

CONSTRUCTION NOTES FOR FABRICATED SILT FENCE
1. INSTALL SILT FENCE IN ACCORDANCE WITH THE NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, SECTION 7A.
2. WOVEN WIRE FENCE SHALL BE 1/2" X 24", 6" MAXIMUM MESH OPENING, FASTENED SECURELY TO POSTS WITH WIRE TIES OR STAPLES.
3. FILTER CLOTH TO BE 6' X 100' AND 6' MAX. MESH OPENING.
4. WHEN TWO SECTIONS OF FILTER CLOTH JOIN EACH OTHER, THEY SHALL BE WRAPPED TOGETHER PER ETAL 4 ON PAGE 1.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SEDIMENT REMOVED WHEN ACCUMULATION REACHES 1/2 OF DESIGN CAPACITY OF FENCE (1/2 HEIGHT OF FILTER FABRIC) OR WHEN SIGNS DEVELOP IN FENCING.
6. POSTS: STEEL EITHER "T" OR "U" TYPE OR 2" HARDWOOD
FENCE: WOVEN WIRE, 12 1/2 GA, 6" MAX. MESH OPENING
FILTER CLOTH: FILTER X, MIRAF 100X, STABILINKA T140N OR APPROVED EQUAL
PREFABRICATED UNIT: GEOPAB, ENVIROFENCE, OR APPROVED EQUAL
GEOTEXTILE
WOOD POSTS
WRAP ENDS OF SILT FENCE SECTIONS TOGETHER TO PREVENT FLOW OF SEDIMENT BETWEEN SECTIONS



SILT FENCE JOINT DETAIL

NOT TO SCALE

Design Criteria
Design computations are not required for installations of 1 month or less. Longer installation periods should be designed for expected runoff. All silt fences shall be placed as close to the area as possible, but at least 100 feet from the top of the hill or valley for maximum sediment bypass.

Sensitive areas to be protected by silt fence may need to be reinforced with heavy wire fencing for added support to prevent collapse.

Where ends of filter cloth come together, they shall be overlapped, folded and stapled to prevent sediment bypass.

A detail of the silt fence shall be shown on the plan.

SEDIMENT CONTROL FENCE INSTALLATION DETAIL

NOT TO SCALE

Design Criteria
If any of the design criteria presented here cannot be met, see Standard and Specification for Sediment Basin on page BA-49.

Drainage Area
The drainage area for sediment traps shall be in accordance with the specific type of sediment trap used (Type I through V).

Location
Sediment traps shall be located so that they can be installed prior to grading or filling in the drainage area they are to protect. Traps must not be located any closer than 20 feet from a proposed building foundation. The trap is to function as a sediment trap during construction. Location traps to obtain maximum storage benefit from the terrain and for ease of cleanout and disposal of the trapped sediment.

Trap Size
The volume of a sediment trap, as measured at the elevation of the crest of the outlet, shall be at least 3,600 cubic feet per acre of drainage area. The volume of a constructed trap shall be calculated using standard mathematical procedures.

The volume of a natural sediment trap may be approximated by the equation: Volume (cu.ft.) = 0.4 x surface area (sq.ft.) x maximum depth (ft.).

Trap Cleanout
Sediment shall be removed and the trap restored to the original dimensions when the sediment trap is to be used to collect runoff from an undisturbed or stabilized area outlet directly to an undisturbed, stabilized area or a non-erosive velocity.

Excavation
All excavation operations shall be carried out in such a manner that erosion and water pollution shall be minimal. Excavated portions of sediment traps shall have 1:1 or flatter slopes.

Outlet
The outlet shall be designed, constructed, and maintained in such a manner that sediment does not leave the trap and that erosion and water pollution does not occur.

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Sediment traps must outlet onto stabilized (preferable undisturbed) ground, into a watercourse, stabilized channel, or into a storm drain system. Distance between inlet and outlet should be maximized to the longest length possible.

Notes
1. THE STANPIPE ASSEMBLY SHOULD BE GROUTED PVC OR ABS. THE TOP OF THE STANPIPE SHOULD BE LEFT OPEN TO SERVE AS AN OVERFLOW. THE TOP OF THE STANPIPE SHOULD BE AT LEAST 1'-0 BELOW THE EMBANKMENT OF THE SEDIMENT BASIN.

2. DISCHARGE SHOULD BE MONITORED CLOSELY, AND THE FILTER FABRIC SHOULD BE CHANGED AS SOON AS DISCHARGE CAN BE FURTHER TREATED BY ATTACHING A SEDIMENT BAG TO THE DISCHARGE PIPE OR OUTLETING TO A STONE FILTER.

3. THE TEMPORARY SEDIMENT BASIN SHALL BE CONSTRUCTED AND MAINTAINED THOUGH OUT DEVELOPMENT.

4. THE CONTRACTOR SHALL PERIODICALLY SCHEDULE CLEANING OF ALL CULVERTS USED TO CONVEY SEDIMENT UNDER WATER TO TEMPORARY FACILITIES.

5. UPON STABILIZATION OF THE SITE ALL CULVERTS AND DRAINAGE STRUCTURES SHALL BE CLEANED.

6. INSTALL TEMPORARY & PERMANENT SEEDING IN ACCORDANCE WITH THE NEW YORK GUIDELINES FOR URBAN EROSION AND SEDIMENT CONTROL STANDARD AND SPECIFICATION FOR CRITICAL AREA SEEDING PAGE 3.3 AND FOR MULCHING PAGE 3.31.

7. INSTALL PERMANENT RIP-RAP AT ALL PIPE END SECTIONS AT TIME OF INSTALLATION OF PIPE.

8. IMPROVEMENTS SHOWN ARE FOR REFERENCE ONLY SEE OTHER SHEETS FOR SITE UTILITY AND GRADING.

9. PAVED AREAS ARE TO BE SWEEP DAILY TO REMOVE ANY SEDIMENT AND ALL NEWLY PAVED AREAS SHALL BE DIRECTED TO THE TEMPORARY OR FINAL SEDIMENT CONTROL BASINS.

EROSION AND SEDIMENT CONTROL NOTES

1. THIS PROJECT IS AUTHORIZED UNDER NYSDC PERMIT GP-0-10-001.

2. ANY CONTRACTOR INVOLVED IN EARTHWORK ACTIVITIES, INCLUDING BUT NOT LIMITED TO: CLEARING, GRADING AND TRENCHING, SHALL REVIEW ALL PERMIT CONDITIONS AND CERTIFY UNDERSTANDING OF THESE CONDITIONS, IN WRITING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IMPLEMENT ALL EROSION CONTROLS DESCRIBED IN GP-0-10-001, AND IT IS NOT THE INTENT OF THESE DRAWINGS TO REPLACE OR DISSEMINATE THE PERMIT REQUIREMENTS. THE CONTRACTOR SHALL REMAIN IN COMPLIANCE WITH THE PERMIT AT ALL TIMES.

3. AT NO TIME, SHALL MORE THAN FIVE (5) ACRES REMAIN UNSTABILIZED. THE CONTRACTOR SHALL COORDINATE EARTHWORK ACTIVITIES AND IMPLEMENTATION OF SOIL STABILIZATION MEASURES TO ENSURE COMPLIANCE TO THIS PERMIT REQUIREMENT.

4. THE CONTRACTOR SHALL MAINTAIN A CLEAN CONSTRUCTION AND EQUIPMENT ENTRANCE WHENEVER PRACTICABLE.

5. DISTURBED AREAS SHALL BE STABILIZED WITHIN 14 DAYS OF COMPLETION OR SUSPENSION OF GRADING OPERATIONS.

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EROSION AND SEDIMENT CONTROL NOTES

1. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE LATEST EDITION OF NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL." (aka: THE BLUE BOOK) EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITIES.

2. IT IS THE INTENT OF THESE PLANS AND NOTES TO BE USED AS A GUIDE BY THE CONTRACTOR TO ENSURE THAT NO ERODED MATERIAL MIGRATES FROM THE SITE OR ENTERS A WATER COURSE OR STREAM. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THIS GOAL IS MET. IN IMPLEMENTING THESE PLANS AND ANY ADDITIONAL MEANS THAT MAY BE NECESSARY, FURTHER MEASURES MAY BE REQUIRED BY THE CITY, VILLAGE, OR TOWN ENGINEER, WHILE MANY OF THE EROSION CONTROL DETAILS CONTAINED WITHIN THESE PLANS ARE TAKEN DIRECTLY FROM THE BLUE BOOK, THE CONTRACTOR SHOULD CONSIDER ANY OF THE DETAILS CONTAINED IN SECTION 7A OF THE BLUE BOOK AS ACCEPTABLE PRACTICE IN THE APPROPRIATE APPLICATION.

3. THE DEVELOPER/CONTRACTOR OR HIS BUILDER SHALL INSPECT AND MAINTAIN EROSION CONTROL MEASURES WEEKLY AND AFTER EACH RAINFALL EVENT THROUGH THE ENTIRE CONSTRUCTION PROCESS TO ASSURE PROPER FUNCTION. CONTRACTORS SHALL BE SEEN IN THE FIELD AND RE-SEED AND PROTECTED FROM FURTHER EROSION. WATER SHALL BE APPLIED TO NEWLY SEED AREAS AS NEEDED UNTIL GRASS COVER IS WELL ESTABLISHED. DURING THESE PERIODIC INSPECTIONS, THE FOLLOWING ITEMS SHOULD BE PAID PARTICULAR ATTENTION:

A. THE BASIN INLET LOCATIONS SHALL BE INSPECTED FOR SILT ACCUMULATION CAUSED BY THE LACK OF ESTABLISHED SURROUNDING VEGETATION.

B. CATCH BASINS SHALL BE CHECKED FOR SEDIMENT ACCUMULATION.

C. FILTER CLOTH SECTIONAL LENGTH SHALL ALSO BE CHECKED FOR SEDIMENT ACCUMULATION. IF SIGNIFICANT AMOUNTS OF SEDIMENT ACCUMULATE, RIP-RAP SHALL BE REMOVED AND RE-SEED AND PROTECTED FROM FURTHER EROSION.

D. HAY/STRAW BALES AND SILT FENCING SHALL BE INSPECTED REGULARLY FOR UNDERMINING AND DETERIORATION.

E. SEEDED/MULCHED AREAS SHALL BE INSPECTED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHALL BE REPAVED AS NECESSARY.

4. EROSION CONTROL DEVICES SHALL NOT BE REMOVED UNTIL THE CITY, VILLAGE OR TOWN ENGINEER HAS APPROVED FINAL STABILIZATION.

5. CHECK DAMS AND SILT FENCE SHALL BE INSTALLED IN ACCORDANCE WITH PLAN AND DETAIL LOCATIONS AND AS DESCRIBED IN GP-0-10-001.

6. PRIOR TO CONSTRUCTION OF ANY PHASE, THE STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED.

7. CONSTRUCTION TRAFFIC SHALL NOT CROSS STREAMS OR DITCHES AT SUITABLE CROSSING FACILITIES. EQUIPMENT SHALL NOT OPERATE UNNECESSARILY.

8. EXISTING PAVEMENT AREAS SHALL BE CLEANED AT THE DIRECTION OF THE CITY, VILLAGE, OR TOWN ENGINEER.

9. WATER TRUCKS SHALL BE USED TO MINIMIZE DUST POLLUTION ON SITE, AND ON ADJACENT ROADWAYS ROADWAY AREAS AS DIRECTED BY THE CITY, VILLAGE, OR TOWN ENGINEER.

10. ANY WATER PUMPED AS A RESULT OF DEWATERING ACTIVITIES SHALL BE PUMPED INTO A Dewatering PIT.

11. CONCRETE WASHOUT AREAS SHALL BE DESIGNATED BY THE DEVELOPER OR CONTRACTOR AND PROTECTED IN ACCORDANCE WITH GP-0-10-001.

12. ALL AREAS DISTURBED IN THE CONSTRUCTION PROCESS SHALL BE RE-SEEDED AS SOON AS PRACTICABLE. PARTICULAR CARE SHALL BE TAKEN TO RE-SEEDED DISTURBED SLOPES IN A TIMELY MANNER.

13. IT IS RECOMMENDED THAT ALL EROSION CONTROL DEVICES