

**DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES, COUNTY OF FAIRFAX
OFFICE OF SITE DEVELOPMENT SERVICES
ENVIRONMENTAL AND FACILITIES REVIEW DIVISION
EROSION AND SEDIMENT CONTROL CHECKLIST**

Project Name:

Project #:

Tax Map #:

District:

Design Engineer:

Plan Reviewer:

Date:

Abbreviations

PFM: Fairfax County Public Facilities Manual
VESCH: Virginia Erosion and Sediment Control Handbook
CC: Fairfax County Code
MS: Minimum State Standard
LTI: Fairfax County Letter to Industry

Item #	Code Section	Requirement	Shown on Plan Sheet #	OK	NO	N/A
1		<i>NARRATIVE</i>				
	PFM 11 -0405.8.B	All plans must have Erosion and Sediment Control Narrative. The narrative should be site specific and include the following items:				
1.1	VESCH 7A-2	Project Description- Briefly describe the purpose and nature of land disturbing activity, and the area to be disturbed.				
1.2	VESCH 7A-2	Existing Site Condition - Description of existing topography, vegetation and drainage				
1.3	VESCH 7A-2	Adjacent Areas - a Brief description of neighboring areas such as streams, lakes, ponds, floodplain, Resources Protection Area (RPA), Environmental Quality Corridor (EQC) or residential areas which might be affected by this project.				
1.4	VESCH 7A-2	Off-site areas - Describe any off-site land-disturbing activities that will occur including borrow sites, waste or surplus areas.				
1.5	VESCH 7A-2	Critical Areas - A description of areas on the site which have potential serious erosion problem (e.g., steep slopes, channels, wet weather/underground springs)				
1.6	VESCH 7A-2	Soils - A description of areas on the site giving such information as soil name, mapping unit, erodibility, permeability, depth, texture and soil structure.				
1.7	VESCH 7A-2	Erosion and Sediment Control Measures - a brief description of methods to control erosion and sedimentation on the site.				
1.8	VESCH 7A-2	Permanent Stabilization - A brief description, including specifications, of how the site will be stabilized after construction is completed.				

Item #	Code Section	Requirement	Shown on Plan Sheet #	OK	NO	N/A
2		GENERAL				
2.1	PFM 11-0202.1	Provision for E&S control shall be shown on all grading plans.				
2.2	LTI 11-08	Provide Priority Rating Form for E&S control				
2.3	LTI 1.04	Provide Responsible Land Disturber Certificate				
2.4	PFM 11-0102.2	Provide Soil Map using Fairfax County Soil Classification, not less than 1"=500'				
2.5	PFM 11 -0405.8B1	Written summary of measures to be used and Sequence of construction should be specified on the submitted plans				
2.6	PFM 11 -0407.6N	Adequate maintenance including daily inspections for E&S Control should be included in the plans				
2.7	PFM 11-0406	General land conservation notes 1 through 8 should be addressed on the submitted plans				
2.8	PFM 11 -0405.8A(1)	Limits of clearing and grading should be identified and should conform with the limit of clearing shown on the GDP/FDP				
2.9	PFM 11-0302.2	Sediment ponds shall not be placed on Fairfax County Parking Authority Land (FCPA) unless required in conjunction with construction by the FCPA on its own land				
2.10	PFM 11-0202.4	The owner/developer shall certify in a statement on the plan that all wetlands permits required by law will be obtained prior to commencing land disturbing activities				
2.11	PFM 12-0504.1A	Show the drip line of trees near the property boundary				
2.12	PFM 11 -0407.6A	The existing and proposed drainage pattern shall be examined. The drainage area and the 2-yr storm runoff quantities shall be reviewed to determine the existing and proposed direction of stormwater runoff				
2.13	PFM 11 -0407.6B	The acreage to be disturbed should be identified				
2.14	PFM 11 -0407.6C	The exit swales and slopes to the off-site properties, parklands, major streams and lakes or ponds should be examined				
2.15	PFM 11 -0407.6D	A determination shall be made as to what property would be impacted by sediment if controls are not provided				
2.16	PFM 11 -0407.6E	Tree preservation and other areas that remain undisturbed, shall be determined and depicted on the plan.				
2.17	PFM 11 -0407.6F	Possible problem areas shall be identified and addressed				
2.18	PFM 11 -0407.6G(2)	Check velocities of sheet flows, swale or pipe discharges on slopes, or unprotected soil surfaces				
2.19	PFM 11 -0407.6G(3)	Check use of diversions, seeding and mulching when slope exceeds 4:1 and length exceeds 20 ft. check adequate outlets are provided for diversion				
2.20	PFM 11 -0407.6G(4)	Look for interceptor ditch at top of cut slopes, for berm (dike) at base of fill slopes and see outlet with adequate capacity is provided				
2.21	PFM 11-0110.3A CC 104-1 -8.a (1)	Straw Bales are to be used only for sheet flow application, they are not to be used for channel flow or site development perimeter control.				
2.22	PFM 11-0110.3B	Brush Barrier is not to be used without the specific authorization by the Director				
2.23	PFM 11 -0407.6M	The adequacy of diversions to handle the design storm runoff without excessive velocities or overtopping and dimensions of all storage areas shall be checked.				
2.24	PFM 11 -0407.6I	The location and suitability of all E&S control devices should be checked and verified (This should include temporary diversion dikes, ditches, sediment barrier, straw bales, gravel weir, and silt fence)				
2.25	PFM 11 -0407.6K	The instructions to the contractor shall be reviewed for clarity				
2.26	PFM 11 -0407.6L	The proposed timing of construction shall be reviewed for suitability of planting and mulching provisions. The time span for establishment of permanent cover shall be checked.				

Item #	Code Section	Requirement	Shown on Plan Sheet #	OK	NO	N/A
2		GENERAL - continued				
2.27	PFM 11-0104.1	The E&S control plans shall address two phases of control. The ultimate tree save area shall be depicted on the phase I plan. Phase I plan will address the control needed with minimum clearing and grading and Phase II shall address the control needed after the utilities and curb gutter are installed and the roads roughed in.				
2.28	Practical Consideration	Show floodplain limits and easements, RPA's & EQC delineation's				
2.29	CC 118-9-3	The limits of Clearing and Grading shown near and/or within the limits of the RPA must be strictly observed and enforced. Any encroachment into, and/or disturbance of the RPA not shown on this plan is considered a violation of the Chesapeake Bay Preservation Ordinance (CBPO) and is subject to the penalties of CBPO Article 8 (Violation and Penalties), per Amendment 10-02-118 adopted by the Fairfax County Board of Supervisors on February 25, 2002.				
3	4VAC50-30-40	MINIMUM STANDARDS				
3.1	MS-1	Permanent or temporary soil stabilization shall be applied to denuded areas within seven days after final grade is reached on any portion of the site. Temporary soil stabilization shall be applied within seven days to denuded areas that may not be at final grade but will remain dormant for longer than 30 days.				
3.2	MS-2	During construction of the project, soil stockpiles and borrow areas shall be stabilized or protected with sediment trapping measures.				
3.3	MS-3	A permanent vegetative cover shall be established on denuded areas not otherwise permanently stabilized.				
3.4	MS-4	Sediment basins and traps, perimeter dikes, sediment barriers and other measures intended to trap sediment shall be constructed as a first step in any land-disturbing activity and shall be made functional before upslope land disturbance takes place.				
3.5	MS-5	Stabilization measures shall be applied to earthen structures such as dams, dikes and diversion immediately after installation.				
3.6	MS-6	Sediment traps and sediment basins shall be designed and constructed based upon the total drainage area to be served by the trap or basin				
3.7	MS-7	Cut and fill slopes shall be designed and constructed in a manner that will minimize erosion. Additional slope stabilization measures should be provided to provide excessive erosion on slopes				
3.8	MS-8	Concentrated runoff shall not flow down cut or fill slopes unless contained within an adequate temporary or permanent channel, flume or slope drain structure.				
3.9	MS-9	Adequate drainage protection shall be made whenever water seeps from a slope face				
3.10	MS-10	All storm sewer inlets that are made operable during construction shall be protected				
3.11	MS-11	Adequate outlet protection and temporary or permanent lining shall be installed in both conveyance channel and receiving channel before made operational				
3.12	MS-12	Minimize encroachment, control sediment transport and stabilize the area when working in a live watercourse.				
3.13	MS-13	Temporary vehicular stream crossing shall be provided when a live watercourse must be crossed				
3.14	MS-14	All applicable federal, state and local regulation to working in crossing watercourse shall be met				
3.15	MS-15	The bed and banks of a watercourse shall be stabilized immediately after work is completed				
3.16	MS-16	Underground utility lines shall be installed in accordance with the standards and criteria shown Chapter 8 of VESCH - page 22. Provide and/or address notes (a) through (f) on the submitted plans.				

Item #	Code Section	Requirement	Shown on Plan Sheet #	OK	NO	N/A
3		MINIMUM STANDARDS - continued				
3.17	MS-17	Provision shall be made to minimize the transport of sediment by vehicular tracking onto the paved surface area, where construction vehicle access routes intersect public or paved roads				
3.18	MS-18	All temporary erosion sediment control measures shall be removed within 30 days after final site stabilization after the permission of the inspector.				
3.19	MS-19	Adequacy of outfall channels and pipes shall be verified in following manners: (a) Analysis shall be made to a point having drainage area equal to 100 times contributing site area (b) natural channel shall be analyzed using two year storm for overtopping and erosive velocity (c) Provide a detailed site-specific outfall narrative. (d) Provide outfall location(s) map and all detailed outfall analysis computations (e) At least 3 to 5 cross-sections, selected at critical locations shall be utilized to verify the adequacy of outfall. Cross-sectional data must be based on field survey data or 2 ft contour intervals. (f) Cross-sections must have same vertical and horizontal scale to give clear picture of bed & banks (g) Outfall velocities shall be compared with erosive velocities of existing channel. (h) The use of 1 -yr extended detention is recommended to remedy existing downstream channel erosion problems				
4		DETAILS & PLAN CONSISTENCY				
4.1	VESCH 7A-2 PFM 11-0110.3	Provide all detailed calculations necessary to meet the minimum state and PFM standards.				
4.2	PFM 11-0102.1	Provide detailed drawings of control devices on the submitted plans				
4.3	VESCH 3.35 PFM 11-0110.3I	Provide details of seeding and mulching specifications				
5		STORMWATER RUNOFF CONSIDERATION				
5.1	PFM 6-0202.13 VESCH Page VI-13	Describe the strategy to control the stormwater runoff, and provide calculations for the pre- and post-development runoff.				
5.2	PFM 6-0202.13	Minimum C factor to be used for disturbed areas during construction must be 0.6				
5.3	PFM 6-0202.14	The 10-year peak discharge from silt traps discharging overland in residential areas must be < 0.5 cfs.				
6		CONSTRUCTION ENTRANCE				
6.1	PFM 11-0110.3H	Minimum length for construction entrance shall be 75 ft				
6.2	PFM 11-0110.3H	Provide woven filter fabric underlain				
6.3	PFM 11-0110.3H	Provide wash rack with appropriate water source				
7	VESCH 3.05	SILT FENCE & SUPER SILT FENCE				
7.1	CC 104-1 -(8)-(10)	Silt fence material shall be made to meet the required physical properties for synthetic filter fabric with the construction specifications in Chapter 3- section 5 of the VESCH				
7.2	VESCH 3.05	Silt fence should be used for size of drainage area of no more than one quarter acre per 100 feet of silt fence length; the maximum slope length behind the barrier is 100 feet; and the maximum gradient behind the barrier is 2:1. Silt fence is best used when the slope above the fence, either cut or fill, is not steeper than 3:1				
7.3	VESCH 3.05	Silt fence can be provided in minor swales or ditch lines where the maximum contributing area is no greater than 1 acres and flow is no greater than 1 cfs.				
7.4	VESCH 3.05	The height of silt fence shall be a minimum of 16 inches above the original ground surface and shall not exceed 34 inches.				

Item #	Code Section	Requirement	Shown on Plan Sheet #	OK	NO	N/A
7	VESCH 3.05	SILT FENCE & SUPER SILT FENCE - continued				
7.5	Practical Consideration	When using silt fence below a slope, allow 15 ft or more between silt fence and slope, so that the piece of equipment working the slope need space to leave the slope.				
7.6	Practical Consideration	Provide super silt fence adjacent to environmental sensitive areas of RPA's, EQC and floodplains				
7.7	PFM 11-01110.3J	Super silt fence should be used on slopes 3:1 or steeper with a maximum concentrated flow rate 5 cfs. Super silt fence must follow the design criteria in PFM 11-0110.3J				
8	VESCH 3.07 & 3.08	STORM DRAIN INLET AND CULVERT INLET PROTECTION				
8.1	VESCH 3.07	Specify the type of inlet protection to be used with justification				
8.2	PFM 11-0110.3C CC 104-1-(8)-(3)	Any storm drain inlet protection which completely block the drain throat should not be used.				
8.3	VESCH 3.07	The drainage area for storm drain inlet protection shall not be greater than 1 acre.				
8.4	VESCH 3.07	Provide a detail for the inlet protection. Provide a note to ensure that flow will enter the inlet during the time the site is in alternate paving and when the gutter pans are at an elevation higher than the temporary road surface				
8.5	VESCH 3.07	Inlet protection devices which utilize stone as a filter media, VDOT # 3, #5, or # 357 coarse aggregate should be used.				
8.6	VESCH 3.08	The maximum area draining to culvert inlet sediment trap should not exceed 3 acres				
9	VESCH 3.09	TEMPORARY DIVERSION DIKE				
9.1	VESCH 3.09	The maximum allowable drainage area for temporary diversion dike is 5 acres				
9.2	VESCH Plate 3.09-1	Minimum height of temporary diversion dike is 18 inches, minimum width is 4.5 ft. and side slopes of 1.5:1 or flatter.				
9.3	VESCH 3.09	Temporary diversion dike should be stabilized immediately after installation and a note should be added on the plan.				
10	VESCH 3.13	TEMPORARY SEDIMENT TRAPS				
10.1	CC 104-1-8-4	Sediment traps in RPAs must have storage volume of 202 cubic yards per acre of disturbed area.				
10.2	PFM 11-0110.3D	Maximum drainage area for temporary sediment trap is one acre				
10.3	VESCH 3.13	The storage capacity for the temporary sediment traps should at least be 134 cubic yards; 67 cubic yards of dry storage and 67 cubic yards of wet storage.				
10.4	VESCH 3.13	For the sediment trap, provide Storage area which has a minimum 2:1 length to width ratio. Length is measured from where the water enters to the outlet weir.				
10.5	VESCH Plate 3.13-1	The maximum height of the sediment trap embankment shall be 5 ft as measured from the base of the stone outlet. Side slope shall be 2:1 or flatter. Minimum length of the outlet shall be 6 feet times the number of acres draining to the trap.				
10.6	VESC Plate 3.13-2	Weir for the sediment trap should be made from class I rip-rap and a face stone of VDOT # 3 or #357 or #5 coarse aggregate. Weirs should have filter fabric underlain. The outlet for sediment trap shall be configured as shown in Plate 3.13-2				
10.7	VESCH 3.13	The earthen embankment shall be seeded with temporary or permanent vegetation immediately after installation				

Item #	Code Section	Requirement	Shown on Plan Sheet #	OK	NO	N/A
11		TEMPORARY PIPE OUTLET SEDIMENT TRAP				
11.1	PFM 11-0110.3D CC 104-1 -8-4	Pipe outlet sediment traps shall be required for drainage areas of one (1) to three (3) acres. For land areas designated as RPA, pipe outlet sediment traps may also be required for areas less than 1 acre where topographical and drainage conditions are favorable.				
11.2	CC 104-1-8.4	The riser should be buried or provide buoyancy computations to verify that weight of rise is able to counter buoyancy. The desired drawdown times are minimum of 4 hrs and a maximum of 40 hrs.				
12		TEMPORARY SEDIMENT BASIN				
12.1	CC 104-1-8.5 PFM 11-0110.3E	Standard Specification # 3.14 Temporary Sediment Basin - For land areas designated as RPAs, the storage volume shall be two hundred two (202) cubic yard per acre of disturbed area.				
12.2	VESCH 3.14	Temporary sediment basin should be used for drainage areas that are greater than or equal to 3 acres and less than 100 acres.				
12.3	VESCH 3.14 VESCH Plate 3.14-1 PFM 11 -0407.6M	The design capacity of the basin should be at least 134 cubic yards per acre of total contributing drainage area. One half of the design volume shall be in the form of a permanent pool, and the remaining half as drawdown volume. Sediment basin dimensions shall be shown on the plan.				
12.4	VESCH Plate 3.14-6 Appendix 3.14a	The length of the basin should be twice the width, otherwise baffles should be used.				
12.5	VESCH Plate 3.14-10	Anti-vortex device and trash rack shall be attached to the top of the principal spillway to improve the flow characteristics.				
12.6	VESCH 3.14	The crest of the principal spillway shall be set at the elevation corresponding to a total storage of 134 cubic yards per acre.				
12.7	VESCH Plate 3.14-2	A minimum of 1 ft freeboard should be provided between the 25-years WSE storm event and the top of embankment if an emergency spillway is used in conjunction with the principal spillway.				
12.8	VESCH Plate 3.14-2	The crest of principal spillway shall be a minimum of 3 ft below the top of the embankment if no emergency spillway is provided. The minimum freeboard shall be two feet between the 25-year storm WSE and the top of embankment.				
12.9	VESCH 3.14 VESCH Appdx. 3.14-a	Provision should be made to dewater the sediment basin down to the permanent pool elevation. It is necessary to provide at least 6-hour drawdown time in the dry storage area to achieve up to 60% removal of sediments.				
12.10	VESCH 3.14	The base of the principal spillway must be firmly anchored to prevent flotation. If the riser height is greater than 10 ft., provide computations and verify a minimum factor of safety of 1.25 is made against flotation.				
12.11	VESCH 3.14 VESCH App. 3.14-a	The barrel for the combined spillway shall be designed to safely pass the 25-years storm event, and the outlet of the barrel must be protected to prevent erosion or scour of downstream area.				
12.12	VESCH 3.14 VESCH App. 3.14-a	Anti-seep collars shall be used on the barrel of the principal spillway if the settled height of the embankment exceeds 10 ft or when the embankment has a low silt content. The anti-seep collars shall be installed within the saturated zone. Collars shall not be closer than 2 ft to a pipe joint and the maximum spacing between collars shall be 14 times the projection of the collars above the barrel.				
12.13	VESCH 3.14 VESCH App. 3.14-a	When a separate emergency spillway is used the capacity of both principal and emergency spillway should be able to carry the 25-years storm.				
12.14	VESCH 3.14	Emergency spillway should not be constructed in fill areas. Avoid sharp turns or bends when locating the spillway channel.				
12.15	VESCH 3.17	Check for maximum allowable velocity of spillway channel using Table 3.17-A				
12.16	VESCH 3.14	Embankment should receive temporary or permanent seeding immediately after installation.				

Item #	Code Section	Requirement	Shown on Plan Sheet #	OK	NO	N/A
13	VESCH 3.18	OUTLET PROTECTION & RIPRAP				
13.1	VESCH 3.18	Specify the type of outlet protection to be used with justification				
13.2	VESCH 3.18 VESCH Plat 3.18-1	Outlet protection shall be designed according to the criteria specified in Section 3.18 of VESCH				
13.3	PFM 6-1604.7 VESCH 3.18	The energy dissipater at the outfall of the principal spillway must be designed using HEC-14 and relevant computations				
13.4	PFM 6-1604.3	Depth of rip-rap scour protection provided in emergency spillway shall be adequate.				
13.5	PFM 6-1604.3	Provide correct class of rip-rap per VESCH plate 3.19-3 and detailed on Appendix 3.19-A				
13.6	PFM 6-1107.3 PFM 6-1604.3	Riprap used for erosion control shall conform to the current version of the VDOT road and bridge specifications				
14	VESCH 3.20	ROCK CHECK DAM				
14.1	VESCH 3.20 Plate 3.20-1	The drainage area of the protected swale or ditch shall not exceed 2 acres when VDOT # 1 coarse aggregate is used alone and shall not exceed 10 acres when a combination of Class I Riprap and VDOT # 1 course aggregate is used.				
14.2	VESCH Plate 3.20-1 VESCH 3.20	The maximum height of check dam shall be 3 ft and the center of the dam must at least be 6 inches lower than the outer edges.				
14.3	VESCH Plate 3.20-2	The maximum spacing between the dams should be such that the toe of the upstream dam is at as the same elevation as the top of the downstream dam.				
14.4	VESCH Plate 3.20-1	Stones should be placed according to the configuration shown in Plate 3.20-1				
15	VESCH 3.22	VEGETATIVE STREAM PROTECTION				
15.1	VESCH 3.22	Vegetative streambank stabilization shall only be applied when bankfull flow velocity does not exceed 5 fps and soils are erosion resistance. Above 5 fps structural measures are required.				
15.2	VESCH 3.22	Ensure that the channel bottom are stable before stabilizing channel banks. Keep velocities at a non-erosive rate. Meet the design criteria established in Table 3.22-A for vegetative stabilization.				
15.3	VESCH 3.22	Ensure that the plants used are deemed or considered to be acceptable per VESCH 3.22				
	VESCH 3.22	Follow the seed mixture noted in Table 3.22-B of VESCH for appropriate plantings				
16	VESCH 3.23	STRUCTURAL STREAMBANK STABILIZATION				
16.1	VESCH 3.23	Structural measures should be designed using the 10-year storm				
16.2	VESCH 3.23	Riprap shall be designed and installed according to standard and specifications 3.19 of VESCH				
16.3	VESCH Plate 3.23-1	Gabions should be designed and installed in accordance with manufacturer's standards and specifications (see plate 3.23-1). The design water velocity for channels utilizing gabions should not exceed 6 fps for gabion thickness of 1/2 ft, 11 fps for thickness of 3/4 ft and 14 fps for thickness of 1 ft				
16.4	VESCH Plate 3.23-2	The design and installation of deflectors should follow the specifications shown on Plate 3.23-2				
16.5	VESCH 3.23	Reinforced concrete channel lining should follow the standard and specification 3.17 of VESCH				
16.6	VESCH Plate 3.23-4	The design and installation of grid pavers should follow the specifications shown on Plate 3.23-4				
17	VESCH 3.24	TEMPORARY STREAM CROSSING				
17.1	VESCH 3.24	Applicable to flowing streams with drainage areas less than one (1) square mile				
17.2	VESCH 3.24 VESCH Plate 3.24-1	Materials used to construct the bridge must be able to withstand the anticipated loading of the construction traffic.				
17.3	VESCH 3.24	Temporary waterway crossing shall be made at right angles				
17.4	VESCH 3.24	A diverting structure such as dike or swale shall be constructed 50 ft on either side of the crossing				
17.5	VESCH 3.24	All crossing shall have one traffic lane with minimum width of 12 ft and a maximum of 20 ft.				
17.6	VESCH 3.24	Appropriate perimeter control such as silt fence or super silt fence must be employed				

Item #	Code Section	Requirement	Shown on Plan Sheet #	OK	NO	N/A
17	VESCH 3.24	TEMPORARY STREAM CROSSING - continued				
17.7	VESCH 3.24	Where culverts are installed, VDOT #1 Coarse Aggregate or larger shall be used to form the crossing				
17.8	VESCH 3.24	The depth of stone cover over the culvert shall be a minimum of one half the culvert diameter or 12 inch, whichever is greater.				
17.9	VESCH 3.24	Culvert sizing using 2-year event if remain for 14 days and 10-year if remain up to 1 -year				
17.10	VESCH 3.24	Temporary bridge crossing shall be in accordance with specification shown on Plate 3.24-1				
18	VESCH 3.25	UTILITY STREAM CROSSING				
18.1	VESCH 3.25	Applicable to flowing streams with drainage areas less than one (1) square mile				
18.2	VESCH 3.25	All filter cloth used in the construction of the utility crossing must conform to physical requirements noted in standards and specifications 3.19.				
18.3	VESCH 3.25	Water diverting structures should be used at all trenching and/or construction roads				
18.4	VESCH 3.25	For diversion channel crossing minimum width of bottom shall be six feet or equal to the bottom width of the existing streambed, whichever is less. Maximum side slope shall be 2:1				
18.5	VESCH 3.25	Channel lining should be based upon velocity of bankfull flow and per Table 3.25-A of VESCH				
18.6	VESCH 3.25	The materials used Flume Pipe Crossing must meet Standard and Specification 3.24 of VESCH				
19	VESCH 3.31	TEMPORARY SEEDING				
19.1	VESCH 3.31	Selection of plants should be based on the specific site and season and per VESCH Tables 3.31 -B&C				
19.2	VESCH 3.31	Liming requirements should be based on Table 3.31-A of VESCH				
19.3	VESCH 3.31	Fertilizers shall be applied as 600 lbs per acre. Fertilizer shall be incorporated into top 2 -4" of soil				
19.4	VESCH 3.31	Seed shall be evenly applied and small grains shall be planted no more than 1 1/2 inches deep				
19.5	VESCH 3.31	Seeding made in fall for winter cover and during hot summer months shall be mulched				
20	VESCH 3.32	PERMANENT SEEDING				
20.1	VESCH 3.32	Permanent vegetation cover must meet the requirements of minimum standards # 3 (MS # 3)				
20.2	VESCH 3.32	Provide a note which describe the procedure followed in selecting plant material. The selection should be based on Tables 3.32-A & B depending on climate, topography, soils and site conditions				
20.3	VESCH 3.32	The planting soil must have enough fine grained soil, sufficient pore space, sufficient depth and free from toxic or excessive quantities of roots and shall be applied in accordance with std. 3.30				
21	VESCH 3.33	SODDING				
21.1	VESCH 3.33	Sodded areas shall be brought to final grade in accordance with the approved plans				
21.2	VESCH 3.33	Soil tests should be made to determine the exact requirements for lime and fertilizer				
21.3	VESCH 3.33	Prior to laying sod, soil surface shall be clear of trash, debris and large objects				
21.4	VESCH 3.33	Quality of sod shall be state certified and ensure genetic purity and high quality				
21.5	VESCH 3.33	Sod shall not be laid in excessively wet or dry weather and be delivered and installed with 36 hrs				
21.6	VESCH 3.33	Sod should not be laid on frozen soil surface and shall be installed per Plate 3.33-1 of VESCH				
22	VESCH 3.39	DUST CONTROL				
22.1	VESCH 3.39	Provision for dust control shall be made in accordance with STD. And SPEC. 3.39 of VESCH				