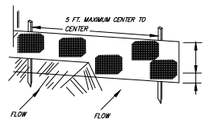
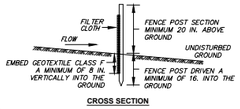
STANDARD SYMBOL

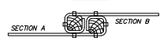
SF



PERSPECTIVE VIEW



CROSS SECTION



JOINING TWO ADJACENT SILT FENCE SECTIONS

CONSTRUCTION SPECIFICATIONS

1. FENCE POSTS MUST BE A MINIMUM OF 36 IN. LONG DRIVEN 16 IN. MINIMUM INTO THE GROUND. WOOD POSTS MUST BE OF SOUND QUALITY HARDWOOD WITH 1-1/2 IN. MINIMUM WIDTH WHEN SQUARE CUT, OR 1-3/4 IN. MINIMUM DIAMETER WHEN ROUND. STEEL POSTS MUST BE STANDARD T OR U SECTION WEIGHING NOT LESS THAN 1.00 POUND PER LINEAR FOOT.
2. FASTEN GEOTEXTILE SECURELY TO EACH FENCE POST WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION. GEOTEXTILE MUST MEET THE FOLLOWING REQUIREMENTS (GEOTEXTILE CLASS F):

PROPERTY	VALUE	TEST METHOD
TENSILE STRENGTH	50 LBS/IN (MIN.)	ASTM D-4595
TENSILE MODULUS	20 LBS/IN (MIN.)	ASTM D-4595
FLOW RATE	0.3 GAL/FT^2 /MINUTE (MAX.)	ASTM D-5141
FILTERING EFFICIENCY	75% (MIN.)	ASTM D-5141

3. WHERE ENDS OF GEOTEXTILE FABRIC COME TOGETHER, OVERLAP, FOLD, AND STAPLE THEM TO PREVENT SEDIMENT BYPASS.
4. INSPECT SILT FENCE AFTER EACH RAINFALL EVENT, AT LEAST DAILY DURING SUSTAINED RAINFALL EVENTS, AND MAINTAIN WHEN BULGES OCCUR OR WHEN SEDIMENT ACCUMULATION REACHES 30% OF THE FABRIC HEIGHT.

DATE	APPR
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ISSUED:	
REFERENCE	

SILT FENCE-1

DISTRICT OF COLUMBIA DEPARTMENT OF ENERGY & ENVIRONMENT

DWG. NO 301.1

SOURCE: 2011 MARYLAND STANDARDS & SPECIFICATIONS

SILT FENCE DESIGN CRITERIA:

TABLE 3.1: SILT FENCE SLOPE LENGTH AND FENCE LENGTH CONSTRAINTS

SLOPE STEEPNESS	SLOPE LENGTH (MAXIMUM) (FEET)	SILT FENCE LENGTH (MAXIMUM) (FEET)
FLATTER THAN 50:1 (2%)	UNLIMITED	UNLIMITED
> 50:1 TO 10:1 (2% to 10%)	125	1,000
> 10:1 TO 5:1 (10% to 20%)	100	750
> 5:1 TO 3:1 (20% to 33%)	60	500
> 3:1 TO 2:1 (33% to 50%)	40	250
> 2:1 (> 50%)	20	125

NOTE:

- IN AREAS OF LESS THAN 2% SLOPE AND SANDY SOILS (USDA GENERAL CLASSIFICATION SYSTEM, SOIL CLASS A) MAXIMUM SLOPE LENGTH AND SILT FENCE LENGTH WILL BE UNLIMITED. IN THESE AREAS A SILT FENCE MAY BE THE ONLY PERIMETER CONTROL REQUIRED.
- TO AVOID CIRCUMVENTION, EXTEND THE ENDS OF THE SILT FENCE UPSLOPE TO PREVENT WATER AND SEDIMENT FROM FLOWING AROUND THE ENDS OF THE FENCE.

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SILT FENCE-2

DISTRICT OF COLUMBIA DEPARTMENT OF ENERGY & ENVIRONMENT

DWG. NO 301.2

SOURCE: 2011 MARYLAND STANDARDS & SPECIFICATIONS

STANDARD SYMBOL

CONSTRUCTION DEBRIS GROUND COVER

CONSTRUCTION SPECIFICATIONS

1. DURING DEMOLITION, SORT MATERIALS, AND ENSURE THAT MATERIALS USED FOR EROSION CONTROL ARE APPROVED FOR THIS PURPOSE BY THE DESIGN ENGINEER OR THEIR REPRESENTATIVE.
2. ENSURE THAT THE BARE GROUND SURFACE IS DRY AND COMPACTED BEFORE SPREADING THE DEBRIS LAYER.
3. SPREAD AND COMPACT TO A DEPTH OF 3 TO 4 INCHES.
4. DURING CONSTRUCTION, REPLENISH AND COMPACT THE SURFACE WITH ACCEPTABLE MATERIAL IF THE SURFACE IS DISTURBED, EXPOSING BARE SOIL OR IF SOIL IS TRACKED INTO THE SURFACE AND MAY BE EXPORTED OFF SITE. AT THE CLOSE OF CONSTRUCTION, PROPERLY DISPOSE OF OR REUSE THE MATERIAL, AS INDICATED ON THE CONSTRUCTION PLANS.

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CONSTRUCTION DEBRIS GROUND COVER

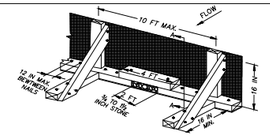
DISTRICT OF COLUMBIA DEPARTMENT OF ENERGY & ENVIRONMENT

DWG. NO 204.1

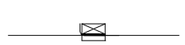
SOURCE: 2011 MARYLAND STANDARDS & SPECIFICATIONS

STANDARD SYMBOL

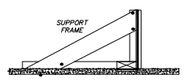
SFOP



ISOMETRIC VIEW



JOINING ADJACENT SECTIONS OF GEOTEXTILE



SECTION A-A

CONSTRUCTION SPECIFICATIONS

1. USE NOMINAL 2 INCH BY 4 INCH LUMBER.
2. USE WOVEN SLIT FILM GEOTEXTILE, AS SPECIFIED IN APPENDIX A.
3. SPACE UPRIGHT SUPPORTS NO MORE THAN 10 FEET APART.
4. PROVIDE A 2-FOOT OPENING BETWEEN EVERY SET OF SUPPORTS AND PLACE STONE IN THE OPENING OVER GEOTEXTILE.
5. KEEP SILT FENCE TAUT AND SECURELY STAPLE TO THE UPSLOPE SIDE OF UPRIGHT SUPPORTS. EXTEND GEOTEXTILE UNDER 2x4.
6. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN – OVERLAP, FOLD, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL. ATTACH LATHE.
7. PROVIDE A MASTIC SEAL BETWEEN PAVEMENT, GEOTEXTILE, AND 2x4 TO PREVENT SEDIMENT-LADEN WATER FROM ESCAPING BENEATH SILT FENCE INSTALLATION.
8. SECURE BOARDS TO PAVEMENT WITH 40D 5-INCH MINIMUM LENGTH NAILS.
9. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. MAINTAIN WATER TIGHT SEAL ALONG BOTTOM. REPLACE STONE IF DISPLACED.

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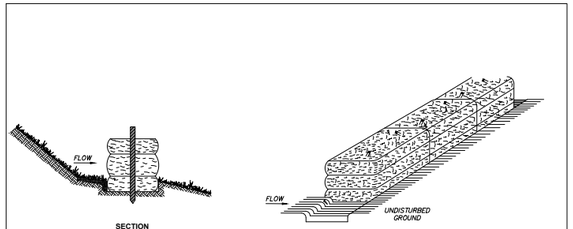
SILT FENCE ON PAVEMENT

DISTRICT OF COLUMBIA DEPARTMENT OF ENERGY & ENVIRONMENT

DWG. NO 310.1

SOURCE: 2011 MARYLAND STANDARDS & SPECIFICATIONS



CONSTRUCTION SPECIFICATIONS

1. PLACE BALES IN A ROW ON THE CONTOUR WITH THE ENDS OF EACH BALE TIGHTLY ABUTTING THE ADJACENT BALES.
2. ENTRENCH EACH BALE 4 INCHES MINIMUM INTO THE SOIL AND PLACE SO THE BINDINGS ARE HORIZONTAL. SOME OF THE EXCAVATED SOIL MUST BE BUILT UP AND COMPACTED AT THE UPSTREAM EDGE OF THE DIKE TO PREVENT PIPING AND UNDERCUTTING.
3. SECURELY ANCHOR BALES IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE 12 TO 18 INCHES INTO THE GROUND. DRIVE THE FIRST STAKE IN EACH BALE TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. DRIVE THE STAKES FLUSH WITH THE TOP OF THE BALE.
4. IMMEDIATELY INSPECT STRAW BALE BARRIERS AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL EVENTS. RE-DRIVE THE ANCHORING STAKES IF THEY BECOME EXPOSED. REMOVE SEDIMENT WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER.
5. REMOVE ALL BALES WHEN THE SITE HAS BEEN STABILIZED, GRADE FLUSH AND STABILIZE THE TRENCH WHERE THE BALES WERE LOCATED.

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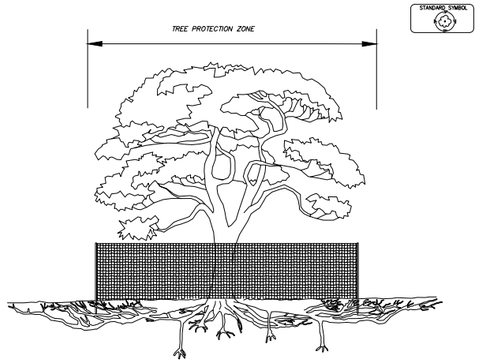
STRAW BALE DIKE

DISTRICT OF COLUMBIA DEPARTMENT OF ENERGY & ENVIRONMENT

DWG. NO 305.1

SOURCE: 2011 MARYLAND STANDARDS & SPECIFICATIONS

STANDARD SYMBOL



SECTION VIEW

TREE PROTECTION

DISTRICT OF COLUMBIA DEPARTMENT OF ENERGY & ENVIRONMENT

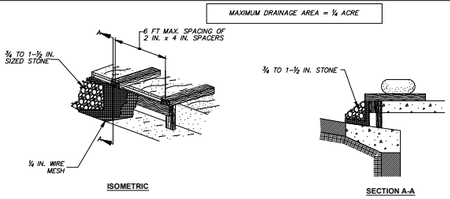
DWG. NO 903.1

SOURCE: URBAN TREE FOUNDATION 2014

MAXIMUM DRAINAGE AREA = ¼ ACRE

STANDARD SYMBOL

CIP



ISOMETRIC

SECTION A-A

CONSTRUCTION SPECIFICATIONS

1. ATTACH A CONTINUOUS PIECE OF 1/2 INCH x 1/2 INCH WIRE MESH, (30 INCHES MINIMUM WIDTH BY THROAT LENGTH, PLUS 4 FEET) TO THE 2-INCH x 4-INCH WEIR (MEASURING THROAT LENGTH PLUS 2 FEET) AS SHOWN ON THE STANDARD DRAWING.
2. PLACE A CONTINUOUS PIECE OF GEOTEXTILE CLASS E OF THE SAME DIMENSIONS AS THE WIRE MESH OVER THE WIRE MESH AND SECURELY ATTACH TO THE 2-INCH x 4-INCH WEIR.
3. SECURELY NAIL THE 2-INCH x 4-INCH WEIR TO A 9-INCH LONG VERTICAL SPACER TO BE LOCATED BETWEEN THE WEIR AND THE INLET FACE (MAXIMUM 4 FEET APART).
4. PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL (MINIMUM 2-FOOT LENGTHS OF 2-INCHES x 4-INCHES TO THE TOP OF THE WEIR AT SPACER LOCATIONS). EXTEND THESE 2-INCH x 4-INCH ANCHORS ACROSS THE INLET TOP AND BE HELD IN PLACE BY SANDBAGS OR ALTERNATE WEIGHT.
5. PLACE THE ASSEMBLY SO THAT THE END SPACERS ARE 1 FOOT BEYOND BOTH ENDS OF THE THROAT OPENING.
6. FORM THE 1/2-INCH x 1/2-INCH WIRE MESH AND THE GEOTEXTILE FABRIC TO THE CONCRETE GUTTER AND AGAINST THE FACE OF THE CURB ON BOTH SIDES OF THE INLET. PLACE CLEAN 3/4 TO 1-1/2 INCH STONE OVER THE WIRE MESH AND GEOTEXTILE IN SUCH A MANNER AS TO PREVENT WATER FROM ENTERING THE INLET UNDER OR AROUND THE GEOTEXTILE.
7. THIS TYPE OF PROTECTION MUST BE INSPECTED FREQUENTLY AND THE GEOTEXTILE FABRIC AND STONE REPLACED WHEN CLOGGED WITH SEDIMENT.
8. ASSURE THAT STORM FLOWS DO NOT BYPASS THE INLET BY INSTALLING A TEMPORARY EARTH OR ASPHALT DIKE TO DIRECT THE FLOW TO THE INLET.
9. IF THERE ARE ANY SIGNS OF STREET FLOODING OR WATER PONDING, THIS STRUCTURE MUST BE CLEANED OR REPLACED, OR REDESIGNED WITH A VIABLE ALTERNATIVE SUCH AS 3.3 FILTER SOCK.

*NOTE: FILTER SOCK IS AN ALTERNATIVE WHICH IS EASIER TO INSTALL AND MAINTAIN THAN THIS STANDARD DESIGN.

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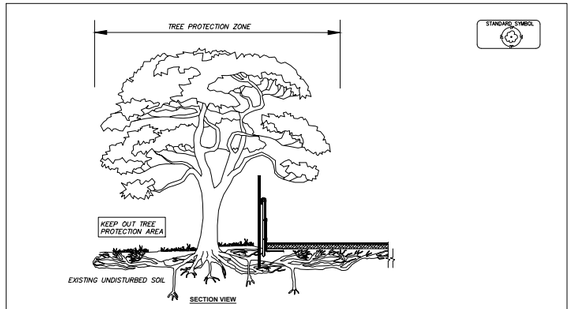
CURB INLET PROTECTION STORM DRAIN INLET PROTECTION

DISTRICT OF COLUMBIA DEPARTMENT OF ENERGY & ENVIRONMENT

DWG. NO 307.3

SOURCE: 2011 MARYLAND STANDARDS AND SPECIFICATIONS



SECTION VIEW

CONSTRUCTION SPECIFICATIONS

1. MATTING MATERIAL MUST BE DOUBLE SIDED GEOCOMPOSITE, GEONET CORE WITH NON-WOVEN COVERING (SUCH AS TENSAR ROADRAIN RD7) OR APPROVED EQUIVALENT.
2. INSTALL ROOT PROTECTION MATTING BY A CERTIFIED ARBORIST.
3. TO BE USED FOR DESIGNATED TEMPORARY CONSTRUCTION ACCESS AND STOCKPILE AREAS.
4. PLACE MATTING ON 6 IN. WOOD CHIP MULCH UNLESS OTHERWISE DIRECTED.
5. FOR HEAVY TRAFFIC AREAS, COVER MATTING WITH STEEL PLATES.

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TREE ROOT PROTECTION WITH SILT FENCE

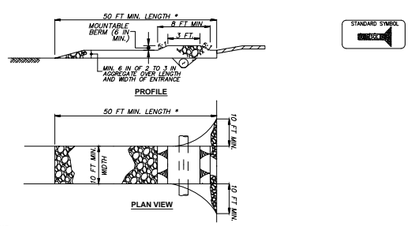
DISTRICT OF COLUMBIA DEPARTMENT OF ENERGY & ENVIRONMENT

DWG. NO 903.2

SOURCE: URBAN TREE FOUNDATION 2014

STANDARD SYMBOL

VCE



CONSTRUCTION SPECIFICATIONS

1. PLACE THE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE A MINIMUM LENGTH OF 50 FEET (*50 FEET FOR SINGLE-FAMILY RESIDENCE LOT) AND A MINIMUM WIDTH OF 10 FEET. FLARE THE SCE AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. PROVIDE PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN THE SCE IS NOT LOCATED AT A HIGH SPOT.
3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE.
4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

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STABILIZED CONSTRUCTION ENTRANCE

DISTRICT OF COLUMBIA DEPARTMENT OF ENERGY & ENVIRONMENT

DWG. NO 201.1

SOURCE: 2011 MARYLAND STANDARDS & SPECIFICATIONS

DOEE SOIL EROSION AND SEDIMENT CONTROL PLAN GENERAL NOTES
1. Following initial land disturbance or re-disturbance, permanent or interim stabilization must be completed within seven (7) calendar days for the surfaces of all perimeter controls, dikes, swales, ditches, perimeter slopes, and slopes greater than three (3) horizontal to one (1) vertical (3:1); and fourteen (14) days for all other disturbed or graded areas on the project site. These requirements do not apply to areas shown on the plan that are used for material storage other than stockpiling, or for those areas on the plan where actual construction activities are being performed. Maintenance shall be performed as necessary so that stabilized areas continuously meet the appropriate requirements of the District of Columbia Standards and Specifications for Soil Erosion and Sediment Control (ESC). [21 DCMR § 542.9 (o)]
2. ESC measures shall be in place before and during land disturbance. [21 DCMR § 543.6]
3. Contact DOEE Inspection (202) 535-2977 to schedule a preconstruction meeting at least three (3) business days before the commencement of a land-disturbing activity. [21 DCMR § 503.7 (a)]
4. A copy of the approved plan set will be maintained at the construction site from the date that construction activities begin to the date of final stabilization and will be available for DOEE inspectors. [21 DCMR § 542.15]
5. ESC measures shall be in place to stabilize an exposed area as soon as practicable after construction activity has temporarily or permanently ceased but no later than fourteen (14) days following cessation, except that temporary or permanent stabilization shall be in place at the end of each day of underground utility work that is not contained within a larger development site. [21 DCMR § 543.7]
6. Stockpiled material being actively used during a phase of construction shall be protected against erosion by establishing and maintaining perimeter controls around the stockpile. [21 DCMR § 543.16 (a)]
7. Stockpiled material not being actively used or added to shall be stabilized with mulch, temporary vegetation, hydro-seed or plastic within fifteen (15) calendar days after its last use or addition. [21 DCMR § 543.16 (b)]
8. Fill material must be free of contamination levels of any pollutant that is, or may be considered to represent, a possible health hazard to the public or may be detrimental to surface or ground water quality, or which may cause damage to property or the drainage system. All fill material must be free of hazardous materials and comply with all applicable District and federal regulations.
9. Protect best management practices from sedimentation and other damage during construction for proper post construction operation. [21 DCMR § 543.5]
10. Request a DOEE inspector's approval after the installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. [21 DCMR § 542.12 (a)]
11. Request a DOEE inspector's approval after final stabilization of the site and before the removal of erosion and sediment controls. [21 DCMR § 542.12 (b)]
12. Final stabilization means that all land-disturbing activities at the site have been completed and either of the following two criteria have been met: (1) a uniform (for example, evenly distributed, without large bare areas) perennial vegetative cover with a density of seventy percent (70%) of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or (2) equivalent permanent stabilization measures have been employed (such as the use of riprap, gabions, or geotextiles). [21 DCMR § 542.12 (b.1, b.2)]
13. Follow the requirements of the United States Environmental Protection Agency approved Stormwater Pollution Prevention Plan (SWPPP) and maintain a legible copy of this SWPPP on site. [21 DCMR § 543.10 (b)]
14. Post a sign that notifies the public to contact DOEE in the event of erosion or other pollution. The sign will be placed at each entrance to the site or as directed by the DOEE inspector. Each sign will be no less than 18 x 24 inches in size and made of materials that will withstand weather for the duration of the project. Lettering will be at least 1 inch in height and easily readable by the public from a distance of twelve feet (12 ft). The sign must direct the public, in substantially the following form: "To Report Erosion, Runoff, or Stormwater Pollution" and will provide the construction site address, DOEE's telephone number (202-535-2977), DOEE's e-mail address (IEB.scheduling@dc.gov), and the 311 mobile app heading ("Construction-Erosion Runoff"). [21 DCMR § 543.22]
If a site disturbs 5,000 square feet of land or greater, the ESC plan must contain the following statement:
15. A *Responsible Person* must be present or available while the site is in a land-disturbing phase. The *Responsible Person* is charged with being available to (a) inspect the site and its ESC measures at least once biweekly and after a rainfall event to identify and remedy each potential or actual erosion problem, (b) respond to each potential or actual erosion problem identified by construction personnel, and (c) speak on site with DOEE to remedy each potential or actual erosion problem. A *Responsible Person* shall be (a) licensed in the District of Columbia as a civil or geotechnical engineer, a land surveyor, or architect; or (b) certified through a training program that DOEE approves, including a course on erosion control provided by another jurisdiction or professional association. During construction, the *Responsible Person* shall keep on site proof of professional licensing or of successful completion of a DOEE-approved training program. [21 DCMR § 547]

Construction Specifications for Dust Control

1. The contractor must conduct operations and maintain the project site so as to minimize the creation and dispersion of dust. Use dust control throughout the work at the site.
2. The contractor must provide clean water, free from salt, soil, and other deleterious material to be used for on-site dust control.
3. The contractor shall supply water-spraying equipment capable of accessing all work area.
4. The contractor shall implement strict dust control measures during active construction periods on-site. These control measures shall generally consist of water applications that shall be applied a minimum of once per day during dry weather or more often as required to prevent dust emissions.
5. For water application to undisturbed soil surfaces, the contractor shall:
   5.a. Apply water with equipment consisting of tank, spray bar, and pump with discharge pressure gauge.
   5.b. Arrange spray bar height, nozzle spacing, and spray pattern to provide complete coverage of ground with water.
   5.c. Disperse water through nozzles on spray bar at 20 psi (137.8 kPa) minimum. Keep areas damp without creating nuisance conditions such as ponding.
6. For water application to soil surfaces during demolition and/or excavation, the contractor shall:
   6.a. Apply water with equipment consisting of a tank, pump with discharge gauge, hoses, and mist nozzles.
   6.b. Locate tank and spraying equipment so that the entire excavation area can be misted without interfering with demolition and/or excavation equipment or operations. Keep areas damp without creating nuisance conditions such as ponding.
   6.c. Apply water spray in a manner to prevent movement of spray beyond the site boundaries.

Construction Sequence Notes

1. Sediment traps or basins and other erosion and sediment controls shall be installed no later than the first phase of land grading.
2. Sediment traps or basins and other erosion and sediment controls shall be, installed as soon as new site-related runoff is detected and employed at all times to protect inlets or storm sewers below silt-producing areas.
3. Immediately after debris basins, diversions, waterways, and related structures are built seed and mulch, or install sod & stabilization blanket.
4. No later than the first day of construction install site access measures to minimize off-site vehicle tracking of sediments. Each construction entrance must be stabilized and include each additional measure required to keep sediment from being carried, onto public streets by construction vehicles, and washed into a storm drain or waterways.
5. Remove off-site accumulations of sediment daily during construction and immediately at the request of a DOEE inspector.
6. Perform routine maintenance to prevent any new destabilized areas.

Notes for Underground Utility Work

1. When conducting underground utility work do not open more than five hundred linear feet (500 ft) of trench at any one time.
2. Filter water pumped out of trench excavations prior to discharging to the storm sewer system.
3. Place excavated material for utility work on the uphill side of a trench.
4. Install interim or permanent stabilization immediately after a utility trench is refilled.
5. Use mulch and matting on excavated material to minimize their erosion when natural or artificial grass filter strips are installed to receive stormwater runoff from the excavated materials.

Notes for Roadway Projects

1. Rough graded rights-of-way awaiting installation of utilities or pavement shall be protected by the installation of interceptor dikes across rights-of-way, with spacing of five hundred feet (500 ft) or less between the dikes. The DOEE reviewer may approve alternative controls recommended a DC-licensed PE.
2. The ESC plan must demonstrate how temporary diversion dikes and flumes, or alternative controls recommended by a DC-licensed PE, will convey runoff down cut-and-fill slopes to an DOEE approved outlet.
3. The ESC plan must demonstrate how a permanent drainage structure, including diversions at top-of-slope cuts and diversions to convey runoff to a storm sewer or other suitable outlet, shall be installed at the completion of rough grading, unless the DOEE reviewer approves an alternative recommended by a DC-licensed PE.

Notes for Building Demolition, Razing, and Site Development

1. Erosion shall be controlled by the installation of gutters and downspouts as soon as practicable.
2. Measures shall be taken to achieve a non-eroding velocity for stormwater exiting from a roof or downspout or to temporarily pipe that stormwater directly to a storm drain.
3. The site work shall maximize the preservation of natural vegetation and limit the removal of vegetation to what is necessary for construction or landscaping activity.
4. Remove off-site accumulations of sediment daily during construction and immediately at the request of a DOEE inspector.
5. Filter water pumped from excavations prior to discharging to the storm sewer system.
6. The DOEE inspector may require changes or additions to the ESC plan based on site conditions.
7. Contractor to install straw bales or erosion control tube across stabilized construction entrances when not in use and at end of day.

Chapter 9 Other Practices

9.1 Dust Control

9.1.1 Definition

To control blowing dust and movement on construction sites and roads.

9.1.2 Purpose

To prevent or reduce the blowing and movement of dust from disturbed soil surfaces that may create off-site damage, health hazards, and traffic safety problems.

9.1.3 Conditions Where Practice Applies

This practice is applicable to areas subject to dust blowing and movement where on and off-site nuisance dust damage is likely without treatment.

9.1.4 Design Criteria

When designing a dust control plan for a site, the amount of soil exposed will dictate the quantity of dust generation and transport. Therefore, construction sequencing and disturbing only small areas at a time can greatly reduce problematic dust from a site. If land should be disturbed, consider additional temporary stabilization measures prior to disturbance.

Temporary Methods

1. Mulches – See Section 2.7 Mulching. Chemical or wood cellulose fiber binders must be used instead of asphalt to bind mulch material.
2. Vegetative Cover – See Section 2.10 Vegetative Stabilization.
3. Spray-on Adhesives – Use on mineral soils (not effective on muck soils). These are generally synthetic materials that are applied to the soil surface to act as binding agents. Asphalt-based and coal tar-based materials are not accepted. Keep traffic off these areas once they have been treated. The following table may be used for general guidance.

Table 9.1 Spray-on Adhesives Guidance

Adhesive	Water Dilution (Adhesive: Water)	Type of Nozzle	Application Rate (gallons/acre)
Latex emulsion	12.5:1	Fine spray	235
Resin-in-water emulsion	4:1	Fine spray	300
Acrylic emulsion (non-traffic)	7:1	Coarse spray	450
Acrylic emulsion (traffic)	3.5:1	Coarse spray	350

4. Tillage – This is an emergency temporary practice that will scarify the soil surface and prevent or reduce the amount of blowing dust until a more appropriate solution can be implemented. Begin the tillage operation on the windward side of site. Use a chisel-type plows to produce the best results.
5. Sprinkling – This is the most commonly used dust control practice. The site is sprinkled with water until the surface is moist and repeated as needed. This practice can be particularly effective for road construction and other traffic routes. The site must not be sprinkled to the point that runoff occurs.
6. Barriers – Solid board fences, snow fences, burlap fences, straw bales, crate walls, or similar materials can be used to control air currents and soil blowing.
7. Calcium Chloride – Can be applied as flakes or granular material with a mechanical spreader at a rate that will keep the soil surface moist but not so high as to cause water pollution or plant damage. Can be reapplied as necessary.

Permanent Methods

1. Permanent Vegetation – See Section 2.10 Vegetative Stabilization. Existing trees or large shrubs may afford valuable protection if left in place.
2. Topsoiling – Covering with less erosive soil materials. See Section 2.6 Topsoiling.
3. Stone – Cover surface with crushed stone or coarse gravel. See Section 2.3 Construction Road Stabilization and Section 2.4 Construction Debris Ground Cover.

9.1.5 Construction Specifications

1. The contractor must conduct operations and maintain the project site so as to minimize the creation and dispersion of dust. Use dust control throughout the work at the site.
2. The contractor must provide clean water, free from salt, oil, and other deleterious material to be used for on-site dust control.
3. The contractor shall supply water-spraying equipment capable of accessing all work areas.
4. The contractor shall implement strict dust control measures during active construction periods on-site. These control measures shall generally consist of water applications that

shall be applied a minimum of once per day during dry weather or more often as required to prevent dust emissions.

5. For water application to undisturbed soil surfaces, the contractor shall:
   (a) Apply water with equipment consisting of tank, spray bar, and pump with discharge pressure gauge.
   (b) Arrange spray bar height, nozzle spacing and spray pattern to provide complete coverage of ground with water.
   (c) Dispense water through nozzles on spray bar at 20 psi (137.8 kPa) minimum. Keep areas damp without creating nuisance conditions such as ponding.
6. For water application to soil surfaces during demolition and/or excavation, the contractor shall:
   a) Apply water with equipment consisting of a tank, pump with discharge gauge, hoses and mist nozzles.
   b) Locate tank and spraying equipment so that the entire excavation area can be misted without interfering with demolition and/or excavation equipment or operations. Keep areas damp without creating nuisance conditions such as ponding.
   c) Apply water spray in a manner to prevent movement of spray beyond the site boundaries.

9.1.6 Maintenance

Because dust controls are dependent on specific site and weather conditions, inspection and maintenance are unique for each site. Generally, dust control measures involving application of either water or chemicals require more monitoring than structural or vegetative controls to remain effective. If structural controls are used, inspect them for deterioration on a regular basis to ensure that they are still achieving their intended purpose.