8. Erosion and Sediment Control and Tree Protection.

a. General.

1) No land disturbance for the purpose of constructing or maintaining an underground utility may take place without first obtaining a Utility Erosion and Sediment Control Plan Approval and Permit from the Commission, and implementing soil erosion and sediment controls in accordance with an Erosion and Sediment Control Plan approved by the Commission. Land disturbance means any earth movement and land changes which may result in soil erosion from wind and water and the movement of sediment into state waters or onto state lands, including but not limited to tilling, clearing, excavating, trenching, stripping, filling, stockpiling of earth materials, root mat or topsoil removal, the covering of land with an impermeable material, or any combination of these.

b. Utility Erosion and Sediment Control Plan Approval and Permit Acquisition for Utility Construction.

- 1) Requirements for plan approval.
 - a) An applicant shall submit an appropriate detailed erosion and sediment control plan and any subsequently required documents to the Commission for review and approval. The erosion and sediment control plan shall contain sufficient information in engineered drawings and notes to describe how soil erosion and off-site sedimentation will be minimized. The Commission will review the plan to determine compliance with the WSSC Utility Erosion and Sediment Control Regulations and WSSC Specifications and Standard Details prior to approval. The plan shall serve as the basis for all subsequent land disturbance and stabilization.
 - b) The design of the erosion and sediment control will be shown on the drawings, see the design requirements, in this section.
 - c) WSSC Utility Erosion and Sediment Control Permits will only be issued for projects that have obtained plan approval.
- 2) Design Requirements.
 - a) Show the design of the Erosion and Sediment Control on the drawings. The drawings will show where specific erosion and sediment control devices will be installed on the site, and the notes will contain general erosion and sediment control requirements in narrative form. The plan presents a strategy for minimizing erosion and preventing off-site sedimentation, by containing sediment on-site or by passing sediment laden runoff through approved sediment control devices. At a minimum, a Utility Erosion and Sediment Control plan should contain:
 - (1) Delineation of limits of disturbance
 - (2) Location and type of erosion and sediment control devices to be installed, and devices already in place if part of an active development site
 - (3) WSSC Utility Erosion and Sediment Control Note and Standard Detail Sheet
 - (4) Delineation of access road and soil stockpile areas



- (5) Existing and proposed topography 100 feet either side of construction area. (For utility construction areas not contained within a project site subject to county or Soil Conservation District subdivision grading and sediment control approval, provide contours at two (2) foot intervals)
- (6) Delineation of waterways, streams, 100 year floodplain, and wetland boundaries for any water body within 100 feet of construction area
- (7) Total acreage of drainage area and direction of flow for any water body within 100 feet of construction area.
- (8) Delineation of forested areas
- (9) Identification of environmentally sensitive areas such as Chesapeake Bay Critical Areas, Class I and Class IV streams, parklands, steep slopes, historical sites, archaeological sites, rural and rustic roads, etc.
- (10) Supporting documentation: i.e., County and/or Soil Conservation District approved sediment control plans
- b) Comply with the requirements and procedures set forth by the Maryland Department of the Environment (MDE), latest edition of the Maryland Standards and Specifications for Soil Erosion and Sediment Control and Water Resources Administration (WRA), latest edition of the Maryland Guideline to Waterway Construction, with specific jurisdiction requirements as modified in this section, and the Specifications and Standard Details.
- c) The soil erosion and sediment control strategy that is formulated on the drawings is to be conveyed to the contractor through the sediment control devices shown on the drawings and in the Standard Details.
- d) All drawings must be easy to read and interpret if they are to be implemented correctly. To help clarify and simplify the drawings, standard symbols have been developed and are used to facilitate the understanding and review of the drawings. The symbols should be bold and easily discernible on the drawings.
- 3) The WSSC is the approving agency for the Erosion and Sediment Control Permit, and drawings for erosion and sediment control.
- 4) The WSSC will provide its comments for erosion and sediment control on the drawings and also provide a Plan Review Checklist. In addition, see the following Environment Review Checklist. Refer to the checklist for the type of information required on the drawings, when applicable.



ENVIRONMENTAL REVIEW CHECKLIST

CONTRACT NUMBER _____ ____ TO: _____ DATE: REVIEWER:

- SEDIMENT CONTROL APPROVAL STICKER ENCLOSED. []
- RETURN ONE COPY OF APPROVED PLAN. []
- RETURN UTILITY SEDIMENT CONTROL PERMIT WITH TOP PORTION FILLED OUT. []
- [] SEDIMENT CONTROL NEEDED.
- [] DEVELOPER'S SEDIMENT CONTROLS NEEDS TO BE SHOWN.
- RESUBMIT WITH COUNTY APPROVED SEDIMENT CONTROL PLAN. []
- [] RESUBMIT WITH APPROVED FOREST CONSERVATION PLAN.
- ADD NOTE TO PROTECT STOCKPILE AREAS. []
- ADD NOTE TO NOTIFY WSSC AND COUNTY DEP WHEN WORKING THROUGH SEDIMENT TRAP. []
- CHANGE RESTORATION SCHEDULE AS NOTED ON PLAN. n
- SHOW 100 YEAR FLOOD PLAIN ELEVATION AND DELINEATION. []
- SHOW WETLAND DELINEATION AND BUFFER ON PLAN. n
- [] SHOW DRAINAGE AREA AT STREAM CROSSING.
- STREAM CROSSING, STREAM DIVISION, DEWATERING NOTED NEEDED. []
- LOCATION OF STREAM CROSSING SHOULD BE CHANGED (SEE PLAN). []
- CHANGE SIZE OF RIPRAP (SEE NOTES ON PLAN). []
- SHOW CROSS SECTIONAL AREA OF STREAM CHANNEL AT CROSSING. n.
- [] PROJECT IMPACTS NON-TIDAL WETLANDS OF SPECIAL STATE CONCERNS.
- [] ADD THIS NOTE TO PLAN: CALL JIM BENTON WHEN JOB IS COMPLETED FOR TREE PLANTING AT 301-206-8077
- [] ADD THIS NOTE TO PLAN: 48 HOURS ADVANCE NOTICE IS REQUIRED PRIOR TO UTILITY CONSTRUCTION AT 301-206-8077.
- [] ADD THIS NOTE TO PLAN: A PRE-CONSTRUCTION MEETING IS REQUIRED WITH 48 HOURS ADVANCE NOTICE AT 301-206-8077. THE UTILITY SEDIMENT CONTROL PERMIT WILL BE ISSUED TO THE CONTRACTOR AT THIS MEETING.
- [] ADD THIS NOTE TO PLAN: ALL UTILITY INSTALLATION MUST BE IN CONFORMANCE WITH THE CONDITIONS OF THE SOIL CONSERVATION DISTRICT/COUNTY APPROVED SEDIMENT CONTROL PLAN NO.
- [] ADD THIS NOTE TO PLAN: UTILITY SEDIMENT CONTROL APPROVAL IS CONTINGENT UPON APPROVED COUNTY SEDIMENT CONTROL PLAN.
- [] SEE ADDITIONAL NOTES ON PLANS.

PERMITS REQUIRED

| NOT REQ. [] | REQ. | [] | 1. UTILITY SEDIMENT CONTROL PERMIT. |
|-------------|------|----|---|
| NOT REQ. [] | REQ. | [] | 2. PUBLIC TREE PERMIT. [] REFERRED TO DNR |
| NOT REQ. [] | REQ. | [] | 3. TIDAL WETLAND PERMIT. |
| NOT REQ. [] | REQ. | [] | 4. NON-TIDAL WETLAND PERMIT. |
| NOT REQ. [] | REQ. | [] | 5. CRITICAL AREA APPROVAL. |
| NOT REQ. [] | REQ. | [] | 6.FSD/FCP. |

c. Design Requirements.

- 1) Sediment control design must conform to the latest edition of the Maryland Standards and Specifications for Soil Erosion and Sediment Control, Specifications and Standard Details.
- 2) <u>Sensitive areas</u>. Include but may not be limited to the following; Chesapeake Bay Critical Areas, Tidal and Non-Tidal Wetlands, Areas of Special State Concerns, any Park Property, Streams, especially Class III and Class IV, Steep Slopes, Historical Sites, Archaeological Sites, Forested Areas, Water Shed Areas (serving water supply reservoirs), and Designated Rural and Rustic Roads.
 - a) The sensitive nature of these areas within or adjacent to Prince George's and Montgomery counties and within the State of Maryland in general needs to be considered when the sediment control and erosion strategy are prepared.
 - b) Additional soil erosion and sediment control provisions and measures may be required to protect these areas to the greatest extent possible.
- 3) Existing areas and developments.
 - a) Show all existing and proposed sediment control devices on the drawings.
 - b) Sediment control devices must be within the limits of the contract and within the WSSC right of way and construction strips or public road right of way to accommodate the proposed construction.
 - c) Show existing elevation contours at two (2) foot intervals on the drawings, when the design is not within the road right of way.
 - d) When crossing a stream or drainage ditch, show the amount of drainage area upstream of the point of the crossing on the drawings.



- 4) <u>Proposed developments</u>.
 - a) When the proposed pipeline is within a proposed development, show the erosion and sediment control requirements of the developer's sediment control plan on the drawings and label as existing. The sediment control permit number must be noted in the General Notes.
 - b) Additional devices may be required if the limit of the design falls outside the limits of the site sediment control. Design additional devices and show them on the drawings, see procedures above.
- 5) <u>WSSC facility contracts</u>.
 - a) Provide the design of the sediment control devices on a separate soil erosion and sediment control plan.
 - b) Obtain approval from the following authorities.

- (1) For underground pipelines, conduits, etc., approval is obtained through the WSSC, see procedures noted above.
- (2) For site clearing, grading and building, obtain a permit through the MDE, unless otherwise noted.
- c) Request any additional sediment control requirements from WSSC.

d. Sediment Control Devices.

- (All Sediment Control Devices shown on a plan should be labeled "Install" or "Existing")
- 1) <u>Silt Fence</u>. A silt filtering device, see Standard Detail SC/1.0.
 - a) A silt fence is a temporary barrier of woven fabric used to intercept surface runoff from disturbed areas.
- b) Silt fences can be used to intercept sheet flow only and cannot be used as a velocity check in ditches or swales or placed where they will intercept concentrated flow.
- c) Silt fences cannot be used where rocky soils and paved areas prevent the keying in of the fabric.
- d) <u>Design criteria</u>, show the limits of the silt fence on the drawings as follows:
 - (1) Design calculations are not required.
 - (2) Design all silt fences as close to the same contour grade line as possible.
 - (3) The area below the silt fence must be undisturbed or stabilized.
 - (4) Determine the slope/grade and slope length entering the silt fence, and the total length of silt fence. To determine the above, refer to the tables and charts in the latest edition of the Maryland Standards and Specifications for Soil Erosion and Sediment Control.
 - (5) Show silt fences on the drawings using this symbol.

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- 2) <u>Super Silt Fence</u>. A silt filtering device, see Standard Detail SC/2.0.
 - a) A super silt fence is a temporary barrier of fabric over a chain link fence used to intercept sediment laden runoff from small disturbed areas.
 - b) Super silt fences can be used where the installation of a dike would destroy sensitive areas, woods, wetlands, etc.
 - c) Super silt fences provide a barrier that collects and holds debris and soil, preventing the material from entering critical areas, streams, streets, etc.



- d) Super silt fences can be used to intercept sheet flow only and cannot be used as a velocity check in ditches or swales or placed where they will intercept concentrated flow.
- e) Super silt fences cannot be used where rocky soils and paved areas prevent the keying in of the fabric.
- f) <u>Design criteria</u>, show the limits of the super silt fence on the drawings as follows:
 - (1) Design calculations are not required.
 - (2) Design super silt fences as close to the same contour grade line as possible. No section of the super silt fence should exceed a grade of five (5%) percent for a distance of fifty (50) feet.
 - (3) Determine the slope/grade and slope length entering the super silt fence and the total length of super silt fence. To determine the above, refer to the tables and charts in the latest edition of the Maryland Standards and Specifications for Soil Erosion and Sediment Control.
 - (4) Show super silt fence on the drawings using this symbol.

3) <u>Stream Bank Protection at Utility Crossing</u>. Used as stream bank protection, see Standard Detail SC/3.0 and the design guidelines under Part Three, Section 9 (Pipeline Stream Crossings). On the drawings, show stream bank protection at utility stream crossings using this symbol.



4) <u>Stream Invert Protection for Shallow Utility Stream Crossings</u>. Used as stream invert protection for shallow utility stream crossings, see Standard Detail SC/3.1 and the design guidelines under Part Three, Section 9 (Pipeline Stream Crossings). On the drawings, show stream invert protection on the drawings using this symbol.



- 5) <u>Sediment Traps</u>. A temporary sediment trapping device formed by excavation or an embankment with an approved outlet used to intercept sediment laden runoff and to retain the sediment.
 - a) Design the sediment trap at the point(s) of discharge from the disturbed area.
 - b) Two (2) types of sediment traps.
 - (1) <u>Riprap Outlet Sediment Trap</u>, used as a sediment trapping device, see Standard Detail SC/4.0. The outlet for this trap consists of a partially excavated channel lined with riprap.



- (2) <u>Stone Outlet Sediment Trap</u>, used as a sediment trapping device, see Standard Detail SC/5.0. The outlet for this trap is over a stone section placed on level ground.
- c) Design criteria.
 - (1) Provide calculations showing that the design meets the criteria that are set forth in this section and the latest edition of the Maryland Standards and Specifications for Soil Erosion and Sediment Control.
 - (2) Design sediment traps to have storage of 3600 cubic feet per acre of contributory drainage. For sizing the sediment trap, refer to the latest edition of the Maryland Standards and Specifications for Soil Erosion and Sediment Control.
 - (3) Design of the outlet structure for the sediment trap. Channels the discharge water into a stabilized area or a stable watercourse. Indicate the drainage area for the riprap outlet sediment trap on the drawings. Two (2) types of outlets are:
 - (a) <u>Riprap outlet sediment trap</u>, see Standard Detail SC/4.0. This type of trap may be used for drainage areas of up to a maximum of ten (10) acres.
 - (b) <u>Stone outlet sediment trap</u>, see Standard Detail SC/5.0. This type of trap may be used for drainage areas of up to a maximum of five (5) acres, unless a riprap channel in addition to the stone outlet is provided. The addition of the riprap channel will allow the trap to be used up to a maximum drainage area to ten (10) acres.
 - (4) Provide the following information on the sediment control plan.
 - (a) Delineate each trap on the contract drawings in such a manner that it will not be confused with any other features.
 - (b) Indicate all necessary information to properly construct and maintain the trap.
 - (c) Show the following information for each trap: trap number, type of trap, drainage area, storage required, storage provided, outlet length, storage depth below outlet and cleanout elevation, embankment height and elevation (if applicable), typical detail of each trap, trap bottom and crest elevations, and the following information for the outlet structure:
 - [1] <u>Riprap outlet</u>, using Standard Detail SC/4.0, provide dimensions on the drawings for the bottom width of the weir (b) and the minimum depth of channel (a). For sizing the riprap outlet sediment trap [dimensions (a) and (b)], and other information, refer to the latest edition of the Maryland Standards and Specifications for Soil Erosion and Sediment Control. Show the riprap outlet sediment trap on the drawings using this symbol.

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[2] Stone outlet, using Standard Detail SC/5.0, indicate the dimensions on the drawings for the bottom width of the weir and the elevation for the outlet crest (top of stone in weir section). The minimum length of weir (feet) of the outlet is to be equal to four (4) times the drainage area (acres). Design the outlet crest elevation to be level and at least one (1) foot below the top of the embankment and no more than three (3) feet above ground beneath the outlet, see Standard Detail SC/5.0. For addition information on the stone outlet sediment trap, refer to the latest edition of the Maryland Standards and Specifications for Soil Erosion and Sediment Control. Show stone outlet sediment trap on



the drawings using this symbol.

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- 6) <u>Stone Outlet Structure</u>, used as a sediment filtering device, see Standard Detail SC/6.0.
 - a) A stone outlet structure is a temporary stone dike installed in conjunction with and part of an earth dike.
 - b) The purpose of the stone outlet structure is to filter sediment laden runoff and to provide a protection outlet for an earth dike, to provide for concentrated flow and to allow the area behind the dike to dewater.
 - c) <u>Design criteria</u>, show stone outlet structure on the drawings as follows.
 - (1) Provide calculations showing that the design meets the criteria that are set forth in this section and the latest edition of the Maryland Standards and Specifications for Soil Erosion and Sediment Control.
 - (2) Design a stone outlet structure to discharge onto an already stabilized area or into a stable watercourse. Stabilization consists of complete vegetative cover, paving, etc., sufficiently established to be erosion resistant.
 - (3) Design stone outlet structure for drainage areas less than 1/2 acre or less. Indicate the drainage area for the stone outlet structure on the drawings.
 - (4) Verify that the minimum length of the crest of the stone outlet structure will work in the location shown.
 - (5) Provide the elevation of the crest of the stone dike on the drawings. The crest of the stone dike is to be at least 6" lower than the lowest elevation of the top of the earth dike.
 - (6) The stone outlet structure can have the optional baffle board installed, if so, the drawings will have to note this.
 - (7) For additional information, see Standard Detail SC/6.0 and refer to the latest edition of the Maryland Standards and Specifications for Soil Erosion and Sediment Control.
 - (8) Show the stone outlet structure on the drawings using this symbol.

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- 7) <u>Stabilized Construction Entrance</u>, used to reduce tracking of sediment onto streets or public right of ways, see Standard Detail SC/7.0.
 - a) Stabilized construction entrances reduce tracking of sediment onto streets or public right of ways and provide a stable area for entrance or exit from the construction site.
 - b) Stabilized construction entrances should not be used on existing paving.

- c) <u>Design criteria</u>, show the stabilized construction entrance on the drawings as follows.
 - (1) Design calculations are not required.
 - (2) Verify that the minimum length and width of the stabilized construction entrance will work at the location shown on the drawings. Provide fifty (50) feet minimum length and ten (10) feet minimum width, with a flared section at the existing paving for a turning radius.
 - (3) Design piping under the stabilized construction entrance if necessary to maintain positive drainage. See Standard Detail SC/7.0 and the latest edition of the Maryland Standards and Specifications for Soil Erosion and Sediment Control for "Stabilized Construction Entrance".
 - (4) For additional information, refer to the latest edition of the Maryland Standards and Specifications for Soil Erosion and Sediment Control for "Stabilized Construction Entrance".
 - (5) Show the stabilized construction entrance on the drawings using this symbol.



- 8) Earth Dikes, used as a water handling device, see Standard Detail SC/8.0.
 - a)Earth dikes are a temporary berm or ridge of soil, compacted, stabilized and located in a manner as to direct water to a desired location.
 - b) <u>Design criteria</u>, show earth dike on the drawings as follows.
 - (1) Provide calculations showing that the design meets the criteria that are set forth in this section and the latest edition of the Maryland Standards and Specifications for Soil Erosion and Sediment Control.
 - (2) Determine the drainage area that is entering and being intercepted by the earth dike, and the slope along the earth dike.
 - (3) Using the above drainage area and slope, determine the type of dike (either A or B) and the type of lining (either 1, 2, 3 or 4). Refer to the tables and charts in the latest edition of the Maryland Standards and Specifications for Soil Erosion and Sediment Control.
 - (4) Show the earth dike type (A or B) and lining (1, 2, 3 or 4) on the drawings using this symbol.



Note: The letter idicates the type of dike and the number indicates the lining type.

- (5) The design may preempt the use of the design criteria for the selection of the type of dike and lining type, if the design uses the basic requirements set forth in the latest edition of the Maryland Standards and Specifications for Soil Erosion and Sediment Control for Earth Dike and provide calculations.
- (6) Earth dike outlet design.
 - (a) The flow of water from the earth dike must discharge into an outlet that functions without causing erosion.

- (b) Run-off from the disturbed areas is to be conveyed to a sediment trapping device until the drainage area above the earth dike is adequately stabilized.
- (c) Clear water diversions around the disturbed areas are to be discharged into an undisturbed, stabilized area or watercourse at a non-erosive velocity.
- 9) <u>Straw Bale Dike</u>, used as a filtering device, see WSSC Standard Detail SC/9.0.
 - a) Straw bale dike is a temporary barrier of straw used to intercept and direct surface runoff.
 - b) A straw bale dike can be used to intercept sheet flow only and cannot be used as a velocity check in ditches or swales or placed where it will intercept concentrated flow.
 - c) The design of straw bale dikes is not recommended as a primary sediment control device. Straw bale dikes clog and deteriorate rapidly and require frequent maintenance.
 - d) <u>Design criteria</u>, show straw bale dikes on the drawings as follows:
 - (1) Design calculations are not required. Straw bale dikes should not be used on slopes exceeding 5:1.
 - (2) Determine the slope/grade and slope length entering the straw bale dikes, and the total length of straw bale dike. To determine the slope length and total slope, refer to the tables and charts in the latest edition of the Maryland Standards and Specifications for Soil Erosion and Sediment Control.
 - (3) When the slope of the existing ground is within the requirements stated above, design straw bale dikes on intervals along the pipeline. For slope, spacing and width requirements, refer to the tables and charts in the latest edition of the Maryland Standards and Specifications for Soil Erosion and Sediment Control.
 - (4) Show the straw bale dike on the drawings using this symbol.

- 10) <u>Temporary Access and Pipeline Waterway Crossing</u>. The type of crossing will be at the option of the contractor, unless otherwise noted on the drawings or specified by other agencies.
 - a) Provide a note on the drawings that a temporary access waterway crossing will be required at the waterway crossing and indicate the type of temporary access waterway crossing.
 - b) Types of temporary access waterway crossings for the purpose of providing a safe access across a waterway for construction equipment are: <u>Temporary Access Bridge</u>, see Standard Detail SC/11.0, and <u>Temporary Access Culvert</u>, see Standard Detail SC/12.0. For additional information, see Specifications, the latest edition of the Maryland Standards and Specifications for Soil Erosion and Sediment Control and the latest edition of the Maryland Guidelines to Waterway Construction.
 - c) Types of temporary pipeline waterway crossings for the purpose of providing erosion control when constructing a pipeline crossing a stream are as follows:

- (1) <u>Open Diversion</u>. For additional information, see Specifications, Standard Detail SC/13.0, and the latest edition of the Maryland Guidelines to Waterway Construction for "Sandbag/Stone Flow Diversion".
- (2) <u>Culvert Diversion</u>. For additional information, see Specifications, Standard Detail SC/14.0, and the latest edition of the Maryland Guidelines to Waterway Construction for "Culvert Pipe with Access Road".
- (3) <u>Diversion Pipe</u>. A pipe that is placed between two (2) sandbag/stone diversions and the pipe diverts the flow around the construction area in the stream. For additional information, see the latest edition of the Maryland Guidelines to Waterway Construction.
- (4) <u>Pump Around Diversion</u>. This type is similar to the pipe diversions, except a pump is placed upstream behind a sand bag dam and the stream water is pumped around the construction area, see WSSC Standard Detail SC/10.0. For additional information, see the latest edition of the Maryland Guidelines to Waterway Construction for "Pipe Diversion" and the latest edition of the Maryland Standards and Specifications for Soil Erosion and Sediment Control for "Removable Pumping Station and Sump Pit".
- (5) <u>Fabric-base Channel Diversion</u>. A temporary channel that is constructed around the construction area within the stream. The stream is then diverted into the fabric-base channel using two (2) sandbag diversions. For additional information, see the latest edition of the Maryland Guidelines to Waterway Construction.
- d) Design criteria.
 - (1) Design calculations are not required, unless WSSC requires one type of temporary access or pipeline crossing. In this case, provide calculations showing that the design meets the criteria that is set forth in this section and the latest edition of the Maryland Standards and Specifications for Soil Erosion and Sediment Control and the latest edition of the Maryland Guidelines to Waterway Construction.
 - (2) Show the drainage area and cross-sectional area at the point of the crossing.
 - (3) Size the temporary access culvert and culvert diversions in accordance with Specifications and the latest edition of the Maryland Standards and Specifications for Soil Erosion and Sediment Control.
 - (4) For additional information refer to the latest edition of the Maryland Standards and Specifications for Soil Erosion and Sediment Control for Temporary Access Waterway Crossings.
- 11) Sediment Tank for Dewatering, used as a dewatering device and is contractor requirement.
 - a) A sediment tank for dewatering is a compartment tank container through which sediment laden water is pumped to trap and retain the sediment.
 - b) <u>Design criteria</u>. Provide calculations showing that the design meets the criteria set forth in this section and the latest edition of the Maryland Standards and Specifications for Soil Erosion and Sediment for "Desilting Structure for Dewatering". For additional information refer to the latest edition of the Maryland Standards and Specifications for Soil Erosion and Sediment Control for "Sediment Tanks".



- 12) <u>Storm Drain Inlet Protection</u>, used as a filtering device and a barrier across or around a storm drain inlet to intercept and filter sediment laden runoff before it enters the storm drain system. Storm drain inlet protection may take various forms, depending upon the type of inlet to be protected.
 - a) Provide storm drain inlet protection, when the drainage area to the inlet is disturbed and the following conditions prevail.
 - (1) It is not possible to temporarily divert the storm drain outfall into a sediment trapping device.
 - (2) Watertight blocking of the inlet is not advisable.
 - (3) Drainage area is less than 1/4 acre for curb inlet protection.
 - b) For curb inlet protection, see Standard Detail SC/16.0, and show it on the drawings using this symbol.



- c) If other types of inlet protection are required, provide all details and notes for the protection of the storm drain inlet on the drawings.
- d) For additional information, refer to the latest edition of the Maryland Standards and Specifications for Soil Erosion and Sediment Control.

e. Tree Protection.

- 1) Tree protection is a way to protect desirable trees from mechanical and other injury while the contractor installs the pipeline, etc.
- 2) Label on the drawings the size and type of all trees 6-inch and larger within fifty (50) feet of working area limits.
- 3) When to use tree protection. If the construction area is within the dripline of any tree, it will require tree protection and if the contractor does not have the right to cut trees within the WSSC construction strip, see the Part Three, Section 2 (Rights of Way and Construction Strips).
- 4) For additional information, see Standard Details SC/17.0, SC/18.0, and SC/19.0, and the latest edition of the Maryland Standards and Specifications for Soil Erosion and Sediment Control.
- 5) When referring to Standard Detail SC/19.0, show this symbol on the drawings.



