

VIRGINIA DEPARTMENT OF TRANSPORTATION

LOCATION AND DESIGN DIVISION

INSTRUCTIONAL AND INFORMATIONAL MEMORANDUM

GENERAL SUBJECT: GENERAL NOTES	NUMBER: IIM-LD-110.16
SPECIFIC SUBJECT:	DATE: NOVEMBER 21, 2003
	SUPERSEDES: IIM-LD-110.15
DIVISION ADMINISTRATOR APPROVAL: Mohammad Mirshahi, P.E. Approved November 12, 2003	

Changes are shaded.

CURRENT REVISION

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- Revisions have been made to the Title Sheet note regarding original Title Sheets.
 - All original, approved Title Sheets are filed in the VDOT Central Office Plan Library.
 - All scanned signatures (inserted into a .dgn file or attached as a reference file to any .dgn file title sheet) must be removed.
-

EFFECTIVE DATE

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- These instructions are effective upon receipt.
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GENERAL INSTRUCTIONS

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- It is unlikely that any one project will need all of the available general notes. Designers should use only those notes that are applicable. It may be necessary to modify notes and/or supplement notes with additional information.
 - Notes referring to dated materials, such as Specifications or Standards, should be updated when new or revised Specifications or Standards take effect, as applicable.
 - The General Notes are available as CADD cells.

- The Drainage and Stormwater Management General Notes to be used on each project will be determined by the Drainage Designer.
 - Dual Units (Metric and Imperial) are shown for informational purposes.
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TITLE SHEET

- The following notes (available in the CADD Cell Library) shall be shown in the lower left portion of the Title Sheet prior to Field Inspection:
 - THE COMPLETE ELECTRONIC .TIF VERSION OF THE PLAN ASSEMBLY AS AWARDED, INCLUDING ALL SUBSEQUENT REVISIONS, WILL BE THE OFFICIAL CONSTRUCTION PLANS. FOR INFORMATION RELATIVE TO ELECTRONIC FILES AND LAYERED PLANS, SEE THE GENERAL NOTES.
 - DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT.
 - THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DEPARTMENT'S ROAD AND BRIDGE SPECIFICATIONS DATED 2002, ROAD AND BRIDGE STANDARDS DATED FEBRUARY 1, 2001, WORK AREA PROTECTION MANUAL DATED JANUARY 2003 AND AS AMENDED BY CONTRACT PROVISIONS AND THE COMPLETE ELECTRONIC .TIF VERSION OF THE PLAN ASSEMBLY.
 - ALL CURVES ARE TO BE SUPERELEVATED, TRANSITIONED AND WIDENED IN ACCORDANCE WITH STANDARD (see note below) EXCEPT WHERE OTHERWISE NOTED.

Note: Show the appropriate designation: (TC-5.01U, TC-5.01R, TC-5.01ULS (Metric), TC-5.01U (Metric), or TC-5.01R (Metric).
 - THE ORIGINAL APPROVED TITLE SHEET(S), INCLUDING ORIGINAL SIGNATURES, ARE FILED IN THE VDOT CENTRAL OFFICE PLAN LIBRARY. ANY MISUSE OF ELECTRONIC FILES, INCLUDING SCANNED SIGNATURES, IS ILLEGAL AND ENFORCED TO THE FULL EXTENT OF THE LAW.
- For Metric Projects:
 - THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DEPARTMENT'S ROAD AND BRIDGE SPECIFICATIONS DATED JANUARY 1997, 1996 ROAD AND BRIDGE STANDARDS, WORK AREA PROTECTION MANUAL DATED JANUARY 2003 AND AS AMENDED BY CONTRACT PROVISIONS AND THE COMPLETE ELECTRONIC .TIF VERSION OF THE PLAN ASSEMBLY.

- The Classification, Design Traffic Volumes, etc., are to be placed directly under the project number block as shown in the following example:

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA			
a) MINOR ARTERIAL-DIVIDED-ROLLING-55 MPH MIN. DESIGN SPEED			
	Fr: Rte. 1	Fr: Rte. 640	Fr: Rte. 660
	To: Rte. 640	To: Rte. 660	To: Rte. 301
b)ADT 1996	1840	2700	4180
c)ADT 2018	5080	7320	11300
d)DHV	620	790	1140
e)D (%) (design hour)	55	58	58
f) T (%) (design hour)	5	5	5
g)V (MPH)	*	*	*

- See Plan and Profile Sheets for horizontal and vertical curve design speeds.

Explanations of the foregoing abbreviations:

- a) Road Functional Classification and Minimum Design Speed for this classification.
- b) ADT = Current (existing) Average Daily Traffic (for informational purposes and Maintenance of Traffic)
- c) ADT = Design Average Daily Traffic anticipated in the design year.
Secondaries = Ad date + 11 years.
All other systems and selected urban secondaries = Ad date + 22 years.
- d) DHV = Design Hour Volume
- e) D = Directional Distribution Factor (%) for design hour
- f) T = Percent of trucks (2 axles – 6 tires/3 axles or more) for design hour
- g) V = Design Speed (As shown on the plans by the Location and Design Division to determine the posted speed limit and/or the maximum safe speed.)

FIRST PROFILE SHEET

- Levels based on _____ Datum.
-

GRADING GENERAL NOTES

- G-1 The grade line denotes top of finished pavement unless shown otherwise on typical sections or plans.

The following applicable notes are for use where settlement is uncertain. (Omit notes G-2 and G-3 if project has both Excavation and Embankment set up as pay items.)

- Applicable when the contract is on plan quantity basis:

G-2 Earthwork quantities on this project are based on anticipated settlement and may require adjusting during construction.

- Applicable when the contract is not on plan quantity basis:

G-3 Earthwork quantities on this project are based on anticipated settlement and may require adjusting during construction. Payment will be made only for quantities actually moved.

- Non-significant masonry items (e.g. sidewalk, curb and gutter, paved ditch, small footings, small block or brick items, etc.) may be included in regular excavation and designated by the following note:

G-4 The cost of removal of all existing concrete items located in the area to be graded, including, but not limited to the following, shall be included in the price bid for regular excavation: _____

- When a project has excavation of unsuitable material shown on the plans for a specified depth and undercut excavation is not set up as a bid item, the following note will be used:

G-5 The excavation of unsuitable material as specified on these plans is based on previously conducted subsurface soil investigation. If, during construction, it is deemed necessary to change the depth more than 1 foot (0.3 m) or the limits of such excavation, such change shall be made at the direction of the Engineer and measurement and payment shall be made in accordance with Section 303 of the applicable VDOT Road and Bridge Specifications.

G-6 The borrow material for this project shall be a minimum CBR _____ or as approved by the Materials Engineer.

G-7 Material from regular excavation which is suitable for stabilization with hydraulic cement (lime) shall be placed in the top portion of the subgrade.

DRAINAGE GENERAL NOTES

D-1 The locations of all drainage structures shown on these plans are approximate only, with the exception of structures showing specific stations, special design bridges and storm sewer. The "h" dimensions shown on the plans for drop inlets and junction boxes and the L.F. (m) dimensions shown for manholes are approximate.

D-2 If, during construction, the culvert invert elevations shown on the plans are found to differ significantly from the elevations of the stream or swale in which the culvert shall be placed, the Engineer will confer with the Project Drainage Designer before installing the culvert.

- The following note is to apply, only at specific locations that are designated on the District Administrator's Field Inspection Report. The portion regarding "Excavation For Minor Structures" will apply to single and multiple line culvert and arch installations with an overall span or diameter of 48" (1200 mm) or greater.
- D-3 At Station _____, the fill shall be placed, allowed to settle and displace all soft materials. Any necessary temporary drainage shall be installed. When directed by the Engineer, that part of the fill necessary for the installation of the permanent drainage structure shall be removed and the structure placed. The cost of installing and removing the temporary drainage facility, the cost of removing the fill for installation of permanent drainage (above the original ground) and the cost of backfill shall be included in the unit price bid for regular excavation. Excavation below the original ground necessary for the installation of the permanent drainage structure will be measured and paid for in accordance with Section 303 of the applicable VDOT Road and Bridge Specifications.
- If the cost of constructing fills is to be paid for as "embankment" make the appropriate change in the previous note.
 - The following note is to be included in the General Notes under "Drainage" for all projects that have locations that do not allow the use of uncoated Corrugated Steel pipe, if Structural Plate Steel pipe is required or allowed as an option:
- D-4 In locations where Galvanized Steel Pipe is allowed that require a paved invert, the paved invert shall be a factory applied asphalt paving or a field applied concrete invert. As an option, the plates along the bottom 25% (minimum) of the circumference of the Galvanized Structural Plate Steel Pipe or the bottom and corner plates of the Galvanized Structural Steel Pipe Arch shall be a minimum of two sheet thickness (gage) heavier than the sheet thickness (gage) indicated in the applicable VDOT Road and Bridge Standard PC-1 for applicable cover.
- Example: For a pipe with cover requiring 0.109" (2.8 mm) sheet thickness (12 gage) plates, the bottom plates shall be 0.168" (3.5 mm) sheet thickness (8 gage). The sheet thickness (gage) of the remainder of the pipe plates shall either conform to Standard PC-1 or to the heavier plates used in the bottom of the pipe.
 - The previous note addresses those locations where use of uncoated Corrugated Steel Pipe is not allowed. If there are locations on the project that allow the use of uncoated corrugated Steel pipe, and Structural Plate Steel Pipe is required or allowed as an option to Corrugated Steel Pipe the following note will be included in the General Notes under "Drainage":
- D-5 At locations on this project where uncoated Corrugated Steel Pipe is allowed, and where Structural Plate Steel Pipe is required or is allowable as an option to Corrugated Steel Pipe, no change in the sheet thickness (gage) of the structural plates, specified in the applicable VDOT Road and Bridge Standard PC-1, is required.
- Both of the previous notes will be shown in the General Notes if each of the conditions exists on a project.

- The following note is applicable when multiple types of pipes are allowed:
- D-6 Pipes shall conform to any of the allowable types shown on sheet number _____, within the applicable fill height limitations. For strength, sheet thickness, or class designation; available sizes; height of fill limitations; and method of bedding required for a particular height of cover, see Standard PC-1 and PB-1. Structural plate pipe may be substituted for corrugated pipe of the same size and a structural plate pipe arch may be substituted for a corrugated pipe arch of the same size, provided the substitution complies with the applicable VDOT Road and Bridge Standard PC-1 and PB-1.
- D-7 (Deleted)
- The following note is applicable when only one type of pipe is allowed (No Allowable Pipe Type Table is required):
- D-8 All pipe on this project shall be (Specify Type). For strength, sheet thickness, or class designation; available sizes; height of fill limitations; and method of bedding required for a particular height of cover, see applicable VDOT Road and Bridge Standards PC-1 and PB-1.
- The following notes (D-9 and D-10) are applicable when the plans specify that concrete pipe shall be laid on a radius.
(See IIM LD- (D) 223).
- D-9 A pipe joint length different from that stated on the plans may be used. An adjustment in the percentage of open joint or amount of bevel shall be made that will obtain the radius stated on the plans. Extra payment for this adjustment will not be allowed. The proposed adjustment will be approved by the Engineer prior to installation of pipe line.
- D-10 Where open joint pipe is used, no joint shall be opened a distance exceeding 25% of the spigot length. Sealing of the pipe joint shall be in accordance with Section 302 of the applicable VDOT Road and Bridge Specifications.
- The following note is applicable when riprap is specified:
- D-11 The proposed riprap may be omitted by the Engineer if the slope is found to meet the following criteria: The slope designated for placement of riprap is comprised of solid rock or closely consolidated boulders with soundness, size and weight equal to, or exceeding, the specifications for the riprap.
- The following note is applicable when a granular filter blanket is used in lieu of geotextile fabric bedding. This does not apply to the aggregate cushion which is placed over the geotextile fabric in certain cases.

- D-12 The proposed riprap may be omitted by the Engineer if the slope is found to meet the following criteria: The slope designated for placement of riprap is comprised of solid rock or closely consolidated boulders with soundness, size and weight equal to or exceeding the specifications for the riprap. If the slope is found to be comprised of material which is coarser than the bedding aggregate filter blanket specified on the plans, the aggregate filter blanket may be omitted by the Engineer.
- D-13 All existing drainage facilities labeled "to be abandoned" shall be left in place, backfilled and plugged in accordance with Road and Bridge Standard PP-1. Payment will be in C.Y. (m²) of Flowable Backfill.

The previously mentioned sheet may be obtained from the CADD Insertable Sheet Directory.

- D-14 Existing drainage facilities being utilized as a part of the drainage system, and designated on the plans "To Be Cleaned Out", shall be cleaned as directed by the Engineer. The cost incidental to this shall be included in the contract price for other items.
- D-15 Drop inlets with "H" less than standard minimum shall be considered as standard and quantities adjusted accordingly. Where noted on the plans or as directed by the Engineer, concrete pipe with less than standard minimum cover shall have bedding material placed up to half the pipe diameter and shall be minimum of Class III.
- D-16 Where plans specify Standard Curb Drop Inlets adjacent to (Specify City of _____, etc.) standard curb and gutter, the drop inlets shall be modified in accordance with details shown on sheet____. These drop inlets shall be considered Standard Drop Inlets and paid for as such.
- D-17 When CG-6 or CG-7 is specified on a radius (such as at an intersection), the Engineer may approve a decrease in the cross slope of the gutter to facilitate proper drainage.

PAVEMENT GENERAL NOTES

- The following note applies to projects without bridge approach slabs.

- P-1 If any settlement occurs in concrete pavement adjacent to bridges prior to acceptance of the project by the Department, the contractor shall restore the pavement to the original grade either by the mud jack method or by replacing the pavement. In the event the pavement cracks or becomes damaged, it shall be replaced, if directed by the Engineer.
- P-2 The pavement materials on this project will be paid for on a tonnage basis. The weight will vary in accordance with the specific gravity of the aggregates and the asphaltic content of the mix actually used to secure the design depth. The weight of the asphalt concrete is based on 95% of theoretical maximum density. (See IIM LD-158)

P-3 Deleted

INCIDENTAL GENERAL NOTES

- On Primary and Secondary projects involving grade crossings to remain in place, show the following notes in the General Notes, on applicable plan sheets and in the summary. Do not include the railroad crossbuck signs in the estimate.
- I-1 Two Reflectorized Railroad Grade Crossing Crossbuck Signs, complete with posts, SHALL BE FURNISHED AND ERECTED BY THE RAILROAD COMPANY.
- I-2 Two Reflectorized Railroad Advance Warning Signs W10-1 complete with two approved posts, WILL BE FURNISHED AND ERECTED BY STATE FORCES.
- The following note applies to all projects where access to private property will ultimately be by means of a service road. This note will be on the plans for all applicable projects when submitted for Right of Way Acquisition:
 - I-3 Service Roads are to be constructed, and private entrances connected thereto prior to the permanent severing of private entrances by other phases of the proposed construction.
- Principal-Minor Arterial Projects:
 - I-4 All trees located within the Clear Zone or within a minimum of 9 m (30 feet) of the edge of pavement, within the limits of the right of way or construction easement, unless otherwise noted on plans or directed by the Engineer, shall be removed, as provided for in Section 301 of the applicable VDOT Road and Bridge Specifications.
- Secondary – Collector – Local Projects:
 - I-5 That portion of the right of way lying within the Clear Zone or within a minimum of 10 feet (3 m), from the edge of pavement or surfacing or within the limits of the construction slopes beyond 10 feet (3 m), shall be cleared and grubbed in accordance with the applicable VDOT Road and Bridge Specifications, Section 301, where sufficient right of way or construction easement is provided.

Exceptions:

- I-6 Certain trees shall be preserved as noted on plans or as directed by the Engineer.
- I-7 Where Standard slope roundoffs would damage trees, bushes or other desirable vegetation, they shall be omitted when so ordered by the Engineer.

- The following note shall be shown on all applicable plans when submitted for right of way acquisition:
 - I-8 All fruit trees between Station _____ and Station _____, lying within the right of way, shall be removed and destroyed. These trees shall be removed and destroyed as soon as possible after the contractor actually commences work. The cost of this work shall be included in the price bid for clearing and grubbing.
- When the following note applies to specific locations on a project, show Sta. _____ to Sta. _____.
 - I-8A Clearing and grubbing shall be confined to those areas needed for construction. No trees or shrubs in ungraded areas shall be cut without the permission of the Engineer. Station _____ to Station _____.
- I-9 When no centerline alignment is shown for a proposed entrance, the entrance shall be constructed in the same location as the existing entrance.
- The following note is to be used on all applicable projects as follows:
 - a) Projects using St'd. RM-2 Monuments only – select note I-11 or I-12.
 - b) Projects using both St'd. RM-1 and RM-2 Monuments – select notes I-10 and (I-11 or I-12)
 - c) Projects using Standard RM-1 only – select note I-10.
- I-10 St'd. RM-1 Right of Way monuments shall be set by the Contractor.
- I-11 St'd. RM-2 right of way monuments will be set by the State Survey Party at the time of stakeout or after construction is complete, if pin location is within construction limits.
- I-12 St'd. RM-2 right of way monuments shall be set by the Contractor.
- The following notes will be included in the General Notes when “Reuse Guardrail” is specified in the plans as follows:
 - a) Used when the District Administrator desires to retain the guardrail component materials not used by the Contractor in the new construction:
- I-13 Salvaged guardrail materials not used in the new construction shall become the property of the Department and the Contractor shall deliver and store, at no additional cost to the Department, the unused materials at the Department’s maintenance yard at (location) during the Department’s normal working hours.
 - b) Used when the District Administrator does not wish to retain the guardrail component parts not used by the Contractor in the new construction:
- I-14 Salvaged guardrail materials not used in the new construction shall become the property of the Contractor and shall be disposed of at a licensed landfill, recycled or be retained by the contractor.

- The following note may be used with note I-13 or I-14:
- I-15 Where Guardrail GR-2 or GR-8 is shown on the plans and in the summaries, either new guardrail or reused guardrail beam shall be used as provided elsewhere in these plans. The total quantities have been proportioned between new and reuse guardrail based on an estimate of the amount of existing beam that is reusable. The Contractor will be paid for the actual quantities of Guardrail, St'd GR-2 or St'd. GR-8, or Reuse Guardrail St'd. GR-2 or St'd GR-8, as determined by the Engineer.
- The following note will be included in the General Notes when the "Underground Utilities" survey data on a project has been provided by a consultant.
 (See IIM LD - (D) 140)
- I-16 The "Underground Utilities" survey data on this project has been provided by consultant and copies are available from the Department.
- The following note is applicable in accordance with IIM LD - (D) 175):
- I-17 For method of constructing Straight-Line Taper Lanes in Curb and/or Curb and gutter sections, see typical details on Sheet _____.
- I-18 All pavement markings and traffic flow arrows shown on the roadway construction plans are schematic only. The actual location and application of pavement markings shall be in accordance with Section 704 of the applicable VDOT Road and Bridge Specifications, MUTCD, sequence of construction/traffic control plans, pavement marking plan sheets _____ thru _____ and as directed by the Engineer.
- The following note is applicable to projects having work performed by others:
- I-19 The following outside sources, under contract with VDOT, have provided information on this project.

Hydraulic Design	(Show Name of Source)			
Roadway Design	"	"	"	"
Utility Design	"	"	"	"
Utility Designation	"	"	"	"
Utility Location	"	"	"	"
Survey	"	"	"	"
Bridge Design	"	"	"	"

- If questions or problems arise during construction, please contact the Project Designer. DO NOT CONTACT THE OUTSIDE SOURCES. The following notes are applicable to all projects:
- I-20 The Official Electronic .tif Version of the plans will override the paper copies or prints of specific layers.

Portions of this plan assembly have been CADD generated. To assist in the construction of the project electronic files will be available to the prime contractor during bids and after award of the contract.

- I-21 All electronic plan assemblies will include the construction plans in two formats: .tif files and Microstation format (.dgn) files. Only the .tif files will be considered as part of the official plan assembly.

The Microstation format (.dgn) files are furnished only as information for the contractor. These plans are developed in layers (levels) to aid in readability. However, the construction items may or may not be in the proper layering scheme as described in the VDOT CADD Manual. The Microstation files will only match the scanned files if all required levels are turned on. A Microstation Software license is required to be able to read these files.

STORMWATER MANAGEMENT (SWM) GENERAL NOTES

- S-1 CLEARING AND GRUBBING – The area where the dam is to be constructed and the area upstream of the dam, to an elevation equal to the crest of the dam (maximum ponded water elevation), shall be cleared and grubbed in accordance with Section 301 of the applicable VDOT Road and Bridge Specifications.

and shall be constructed in accordance with Section 303 of the applicable VDOT Road and Bridge Specifications. The native material on which the dam will set shall meet the specifications for AASHTO Type A-4 or finer material. Where the native material does not meet this requirement, the area beneath the dam is to be excavated a minimum of 4' (1.2 m) and backfilled with a material meeting the AASHTO Type A-4 or finer classification unless otherwise specified in the plans. The material used for the embankment of the dam shall be AASHTO Type A-4 or finer or otherwise specified in the plans. Dams with foundation and embankment material not meeting the above requirements or dams greater than 15' (4.6 m) in height shall incorporate a membrane-lined trench, a homogenous embankment with seepage controls, a zoned embankment or other such approved designs as specified in the plans.

- S-3 OUTLET PIPE – The pipe culvert under or through the dam shall be reinforced concrete pipe with rubber gaskets in accordance with Section 232 and 212 of the applicable VDOT Road and Bridge Specifications. A concrete cradle shall extend the full length of the pipe culvert in accordance with the Standard Drawings. The connection between the pipe culvert and the SWM Drainage Structure (or other control structure) shall be made watertight as approved by the Engineer and the cost shall be included in the price bid for the pipe.

- S-4 The SWM Drainage Structure (or other control structure) shall have 4" (100 mm) high numbers and 1" (25 mm) wide stripes painted at 1' (300 mm) intervals as shown on the Standard Drawings or detail sheets. Paint and application shall be in accordance with Section 231 and 411 of the applicable VDOT Road and Bridge Specifications and the cost is to be included in the price bid for the applicable structure.

- S-5 All SWM Basins designated for use as temporary sediment basins shall be constructed during the initial phase of earth moving activities. During project construction, the SWM Drainage Structure or other control structure shall be modified in accordance with the Standard Drawings or plan details in order to provide a temporary sediment basin with both a “wet” storage volume (permanent pool) and a “dry” storage volume. Sediment accumulated in the basin shall be removed when the volume of the “wet” storage (permanent pool) has been reduced by approximately 50%. Sediment shall be disposed of as approved or directed by the Engineer.
- S-6 When project construction is complete to a stage where no additional sediment from the project is expected to enter the basin, as determined by the Engineer, the basin shall be cleaned out and restored to the original design elevations, the area stabilized and all temporary modifications to the SWM Drainage Structure or other control structure removed.

EROSION AND SEDIMENT (E&S) CONTROL GENERAL NOTES

















- E-1 The temporary erosion and siltation control items shown on the E&S Control Plan are intended to provide a general plan for controlling erosion and siltation within the project limits. The E&S Control Plan is based on field conditions at the time of plan development and an assumed sequence of construction. The contractor, in conjunction with the Project Engineer and/or Environmental Monitor, shall adjust the location, quantity and type of erosion and siltation control items required based on the actual field conditions encountered at the time of construction and the selected sequence of construction.
- E-2 The areas beyond the project’s construction area are to be protected from siltation. Perimeter controls such as filter barrier, silt fence, diversion dikes, turbidity curtains, etc. shall be installed prior to any grubbing operations or other earth moving activities.
- E-3 All channel relocations are to be constructed during the earliest stage of construction and shall be constructed in the dry wherever possible. Stabilization or vegetation shall be established before flow is redirected through the constructed area as directed by the Engineer.
- E-4 If the removal of Brush Silt Barrier is required by the Engineer, the cost of removal and disposal of brush shall be in accordance with Section 109 of the applicable VDOT Road and Bridge Specifications.
- E-5 Rock for Check Dams, Drop Inlet Silt Traps, Erosion Control Stone and Riprap in channels shall be in accordance with Section 203 and Section 414 of the applicable VDOT Road and Bridge Specifications.
- E-6 Silt removal and sediment clean-out from erosion and siltation control items shall be performed in accordance with the following:

Temporary Sediment Basins and Sediment Traps - When the “wet” storage volume (permanent pool) has been reduced by 50%.

- Dewatering Basins - When the excavated volume has been reduced by 50%.

All other Erosion and Siltation Control items - When the capacity, height or depth has been reduced by 50%.

E-7 The following symbols are used to depict Erosion Control items in the plan assembly:

		Denotes Temporary Filter Barrier
		Denotes Temporary Silt Fence
		Denotes Temporary Diversion Channel
		Denotes Temporary Diversion Dike
		Denotes Temporary Silt Trap
		Denotes Rock Check Dam , Type I
		Denotes Rock Check Dam , Type II
		Denotes Culvert Inlet Protection
		Denotes Drop Inlet Silt Trap
		Denotes Existing Contours
		Denotes Proposed Contours

- The previous symbols are to be used to denote erosion control items and are available as CADD cells. The following note is to be placed on level 63 of all applicable plan sheets (cell name: ESNOTE1):

NOTE: SEE GENERAL NOTES FOR E&S LEGEND

ELECTRONIC SELECTION OF GENERAL NOTES

Microstation has the capability of incorporating the necessary inserts in the General Notes (e.g. sheet number, station, etc.) and also incorporating any additional notes that are required for the project. The General Notes are to be shown for the applicable unit of measurement (Imperial or Metric). General Notes with metric units are denoted by the suffix “M”.

- A General Notes Sheet file is created as follows:
 - Create a file in MicroStation by using the **SEEDGEN.DGN** seed file.

- Ensure that the **LGNOTE.CEL** is part of the workspace search list for MicroStation cell library. (If you are using the **LD** workspace, then this is already set.)

Type **macro gnote** in the “Key-in Windows”. This will start a MicroStation macro command that will prompt you for information about the General Notes Sheet.

- Select the notes needed, or select the **Select All** button, then de-select the notes that are not needed. The **Add Sp** button will prompt you for additional spaces that you may need between each note header.

EXAMPLE:

GENERAL NOTES SELECTION SCREEN

General Notes - Version 1.3

Pick The General Notes That You Need

Grading	Drainage	Pavement	Incidentals	Stormwater	Erosion		
<input type="checkbox"/> G - 1	<input type="checkbox"/> D - 1	<input type="checkbox"/> D - 10	<input type="checkbox"/> P - 1	<input type="checkbox"/> I - 1	<input type="checkbox"/> I - 10	<input type="checkbox"/> S - 1	<input type="checkbox"/> E - 1
<input type="checkbox"/> G - 2	<input type="checkbox"/> D - 1M	<input type="checkbox"/> D - 11	<input type="checkbox"/> P - 2	<input type="checkbox"/> I - 2	<input type="checkbox"/> I - 11	<input type="checkbox"/> S - 2	<input type="checkbox"/> E - 2
<input type="checkbox"/> G - 3	<input type="checkbox"/> D - 2	<input type="checkbox"/> D - 12	<input type="checkbox"/> Add Sp	<input type="checkbox"/> I - 3	<input type="checkbox"/> I - 12	<input type="checkbox"/> S - 3	<input type="checkbox"/> E - 3
<input type="checkbox"/> G - 4	<input type="checkbox"/> D - 3	<input type="checkbox"/> D - 13		<input type="checkbox"/> I - 4	<input type="checkbox"/> I - 13	<input type="checkbox"/> S - 4	<input type="checkbox"/> E - 4
<input type="checkbox"/> G - 5	<input type="checkbox"/> D - 4	<input type="checkbox"/> D - 14		<input type="checkbox"/> I - 4M	<input type="checkbox"/> I - 14	<input type="checkbox"/> S - 4M	<input type="checkbox"/> E - 5
<input type="checkbox"/> G - 5M	<input type="checkbox"/> D - 5	<input type="checkbox"/> D - 15		<input type="checkbox"/> I - 5	<input type="checkbox"/> I - 15	<input type="checkbox"/> S - 5	<input type="checkbox"/> E - 6
<input type="checkbox"/> G - 6	<input type="checkbox"/> D - 6	<input type="checkbox"/> D - 16		<input type="checkbox"/> I - 5M	<input type="checkbox"/> I - 16	<input type="checkbox"/> S - 6	<input type="checkbox"/> E - 7
<input type="checkbox"/> G - 7	<input type="checkbox"/> D - 8	<input type="checkbox"/> D - 17		<input type="checkbox"/> I - 6	<input type="checkbox"/> I - 17	<input type="checkbox"/> Add Sp	<input type="checkbox"/> Add Sp
<input type="checkbox"/> Add Sp	<input type="checkbox"/> D - 9	<input type="checkbox"/> Add Sp		<input type="checkbox"/> I - 7	<input type="checkbox"/> I - 18		
				<input type="checkbox"/> I - 8	<input type="checkbox"/> I - 19		
				<input type="checkbox"/> I - 8A	<input type="checkbox"/> I - 20		
				<input type="checkbox"/> I - 9	<input type="checkbox"/> I - 21		
				<input type="checkbox"/> Add Sp			

Add Sp - Additional Spaces That Are Needed

OK Cancel Select All