

ESC PLAN PREPARER/REVIEWER CHECKLIST

Instruction: The checklist shall be completed if an ESC Plan and Narrative is required per the VT Annual Standards and Specifications for ESC and SWM. The completed checklist shall be provided with the ESC Plan submittal. The Plan and Narrative submitted for review shall be signed and sealed by a licensed professional. This checklist is not inclusive. The licensed professional is responsible for ensuring plans address all applicable ESC laws and regulations.

Project Name: _____ **Project Location:** _____
Submittal Date: _____ **Date on Plans:** _____
Design Engineer (Printed): _____ **Email:** _____

Yes	N/A	General
		CHECKLIST – Completed ESC checklist provided in the ESC Narrative.
		VTAS&S – Note the applicable Virginia Tech Annual Standards and Specifications version on both covers.
		PROFESSIONAL SEAL – The designer’s original seal, signature, and date are required on the cover sheet of each Narrative and each sheet in a set of Plan sheets for approval.
		NUMBER OF PLAN SETS – One (1) complete full size set of plans must be submitted for review. One (1) 11x17 size set of plans must be submitted with the final submittal for approval, digital signatures on seals are acceptable for the 11x17 size plan set.
		ELECTRONIC PLAN SUBMITTAL – PDF versions of all submitted documentation shall be submitted for review. Electronic versions can have digital signatures on seals.
		REVIEW COMMENT RESPONSE LETTER – Submit a review comment response letter with each subsequent plan submittal that addresses all comments in the previous review’s comment letter from VTSID.
		VARIANCE – All required documentation submitted for SID review and submittal to DEQ for approval.
		ADDITIONAL PERMITS – If the project impacts any wetlands or surface waters, are all correspondence and permits concerning any proposed impacts to jurisdictional wetlands, stream and channels included?
Yes	N/A	ESC Narrative Requirements
		PAGE NUMBERS/TABLE OF CONTENTS – Provide a clearly organized narrative with pages numbers.
		PROJECT DESCRIPTION – Description of the purpose and nature of land disturbing activity and the area to be disturbed. Include the pre and post development impervious areas.
		EXISTING SITE CONDITION – Description of existing topography, ground cover, and drainage.
		ADJACENT AREAS – Description of neighboring areas such as agricultural areas, streams, lakes, roads, floodplains, etc., that might be impacted by the land disturbance.
		OFF-SITE AREAS – Description of any off-site land disturbing activities that may occur (disposal areas, etc.)
		SOILS – Description of conditions, including hydrologic soil groups, mapping unit, erodibility, permeability, surface runoff, and a brief description of depth, texture and soil structure. Mapping of soil variations should be provided in the narrative.
		CRITICAL AREAS – Description of areas that have potentially serious erosion problems or that are sensitive to sediment impacts (e.g., steep slopes, channels, wetlands, springs, etc.).
		EROSION AND SEDIMENT CONTROL MEASURES – Description of the measures that will be used for ESC on the site and their installation, inspection, and maintenance standards and specifications.
		PERMANENT STABILIZATION – Description, including specifications, of how the site will be stabilized after construction is completed.
		STORMWATER RUNOFF DESCRIPTION – Description of any increase in peak runoff rates and the effects on downstream erosion and flooding. The description shall include the strategy to control stormwater runoff as well as tables for quick reference to pertinent information.
		SWM FACILITY MAINTENANCE – Provide a table with a recommended schedule of inspection and maintenance along with the responsible party’s name and contact information.
		STREAM CHANNEL EROSION – Verify adherence to 9VAC25-870-66B.
		FLOODING – Verify adherence to 9VAC25-870-66C.

		CALCS FOR TEMP. ESC MEASURES – Provide the calculations required by the standards and specifications.
		STORMWATER MANAGEMENT CALCULATIONS – Provide exhibits showing the drainage areas, direction of flow, and acreage of each of the site drainage areas that discharge runoff off-site, for pre- and post-development. Provide supporting calculations from the drainage areas and verify that MS-19 is satisfied.
		SPECIFICATIONS – Include for all site work and stormwater management structures.
Yes	N/A	ESC Plan Requirements
		LOCATION AND VICINITY MAP – Locate the site in relation to the surrounding area. Include any landmarks and road information that might assist in locating the site.
		RESPONSIBLE LAND DISTURBER – Provide a location on the Plan cover sheet for identification of the RLD.
		NORTH ARROW – The direction of north in relation to the site.
		LEGEND – List all ESC measures used, the VESCH uniform code symbol, and the standard and spec number.
		APPROVAL LOCATION – Designate a single location on the right side of all plan sheets for a 2.5” by 2.5” box for VTSID stamp approval.
		EROSION AND SEDIMENT CONTROL GENERAL NOTES – Include (ES-1 through ES-20) found in the Appendix of the Virginia Tech Annual Standards and Specifications.
		MINIMUM STANDARDS – Include all 19 minimum standards definitions, supplemented with how the plan is addressing each standard.
		EXISTING/PROPOSED CONDITIONS – Including existing contours (2’ interval min.), surface waters and other surface features, existing tree lines, buildings, parking lots, access roads, utility construction and features. Show all physical items that could affect or be affected by erosion, sediment, and drainage.
		EXISTING CONDITIONS GRAYED OUT – All existing conditions are to be shown as grayed out on all proposed plan sheets (i.e. site plan, grading plan, etc.).
		PROPERTY/EASEMENT LINES – For each adjacent, non-Virginia Tech property, list the deed book and page number and the property owner's name and address.
		DEMOLITION PLAN – Identify features to be demolished and ESC measures required for the demolition
		LIMITS OF DISTURBANCE – Clear delineation of the limits of disturbance , with total disturbed area called out including utilities, laydown areas, staging areas, unpaved access roads, etc. Area to be staked at 100’ intervals for permitted projects.
		PROTECTION AREAS – Show fencing or other measures to protect areas that are not to be disturbed.
		CRITICAL AREAS – Clearly identify critical areas and their appropriate protections.
		ESC SEQUENCE OF CONSTRUCTION - Sequence to include initial inspection by VTSID prior to land disturbance.
		ESC SEQUENCE OF CONSTRUCTION - Sequence to include Topsoil inspection by VTSID prior to stabilization. Inspection to be scheduled a minimum 5 business days in advance.
		ESC PRACTICE LOCATIONS – Note each location used on the site with a unique identification number for multiple practices (i.e., SF1, SF2, etc.).
		TOPSOIL STOCKPILE – Topsoil stockpile area shown on plans with appropriate ESC measures.
		OFF-SITE AREAS – Documentation of land disturbing approvals and identification of any off-site land disturbing activities and their appropriate ESC controls.
		FINISHED FLOOR ELEVATION – All buildings and pads on site, including basements.
		STORM DRAINS – Provide profiles of all proposed storm drains and the plan shall include the pipe size, pipe material, and flow direction arrows for all proposed and existing storm drains, excluding roof drains.
		DETAILS – Site-specific details for all ESC measures included within the project. Proprietary measures shall include any information for construction, maintenance, and inspection per the manufacturer’s specifications.
Yes	N/A	Minimum Standard Requirement (9VAC25-840-40)
		Permanent or temporary soil stabilization shown where required on plans using standard symbols and abbreviations in Chapter 3 of the VESCH. (MS-1, MS-3, and MS-5)
		Stabilization and/or protection measures for soil stockpiles and borrow areas. (MS-2)
		Detailed sequence of construction shown on the plan ESC plan sheet that includes the phasing of installation of ESC measures with sediment trapping measures as a first step prior to upslope land disturbance. (MS-4)

	Drainage area maps for sediment traps and sediment basins included in the narrative. (MS-6)
	Stabilization measures provided for slopes steeper than 3:1. (MS-7)
	Measures to prevent concentrated flow from flowing down cut or fill slopes (e.g. slope drains). (MS-8)
	Measures to address water seeping from a slope face. (MS-9)
	Inlet protection provided for all operational storm drain and culvert inlets. (MS-10)
	Outlet protection and/or channel linings provided for all stormwater conveyance channels and receiving channels prior to being made operational (see sequence of construction). (MS-11)
	Measures to minimize encroachment and sediment transport for work in a live watercourse (MS-12)
	Temporary stream crossings of non-erodible material where a live watercourse must be crossed by construction vehicles more than twice in any six-month period. (MS-13)
	Applicable federal, state and local regulations pertaining to working in or crossing live watercourses are addressed and summarized on the plan. (MS-14)
	Stabilization measures for bed and banks of live watercourse subject to disturbance. (MS-15)
	Unique requirements for underground utility line installations have been addressed. (MS-16)
	Measures are shown on plan to minimize sediment transport onto public and/or paved roads. (MS-17)
	Adequacy of each receiving channel and pipe verified with calculations. (MS-19)