



## Grading, Erosion and Sediment Control (GESC) Checklist

**A complete Grading, Erosion and Sediment Control (GESC) submittal will contain the following information. Please check off the items to ensure that your application is complete. Please submit one (1) electronic copy of each document required. Plan sets should be 24" x 36". Recommended scales include 20', 50' and 10'. PDF format is preferred.**

**Pre-Application Meeting Date:** \_\_\_\_\_ **Project Manager:** \_\_\_\_\_  
**Email:** \_\_\_\_\_ **Phone:** \_\_\_\_\_

Req'd	Cmpl'd	Subm'd	<b>Submittal Checklist</b>
			<b>LAND USE APPLICATION</b> (completed/signed)
			<b>SUBMITTAL CHECKLIST</b> (completed)
			<b>DEVELOPMENT REVIEW FEE</b> (Amt. Req'd \$ _____ Amt. Rec'd \$ _____)
			<b>PROPERTY OWNER APPROVAL</b> If any work is proposed on land not owned by the applicant, a letter of approval from the landowner is required.
			<b>GESC PLANS</b> containing the initial, interim and final GESC plans for the site, including Town Standard GESC detail sheets. Cut and fill quantities need to be indicated as well. Please prepare in accordance with the Town's Grading, Erosion and Sediment Control (GESC) Manual, found online at <a href="http://www.crgov.com/GESC">http://www.crgov.com/GESC</a>
			<b>GESC REPORT</b> containing all items listed in the following GESC Report checklist.
			<b>ENGINEER'S GESC COST ESTIMATE</b> using Town standard template, stamped by a Professional Engineer.
			<b>HAUL ROUTE MAP</b> If any material is going to be exported or imported to the site, a Haul Route map must be submitted for Town review and approval. Any import or export sites located within the Town of Castle Rock jurisdiction will require a GESC permit as well, unless the site already has an active permit.
			<b>TECHNICAL CRITERIA VARIANCE</b> Complete a Technical Criteria Variance form with appropriate supporting information describing any proposed deviations from the Technical Design Criteria in the GESC/DESC Manual.
			<b>CHECKLISTS</b> Submit any checklist used for Plan preparation and all reports

A complete set of Grading, Erosion and Sediment Control (GESC) Plans should contain the following information. The specific plan sheets are listed below in the order they should appear in the Plan set. All GESC plans submitted to the Town of Castle Rock (TCR) for review, comment, and approval shall be prepared by, or under the direct supervision of a Professional Engineer, licensed in the State of Colorado. GESC Plans shall be in accordance with the requirements of the Grading, Erosion, and Sediment control (GESC) Manual of the TCR as amended.

Req'd	Cmpl'd	Subm'd	
			<b>COVER SHEET</b>
			1. Project name.
			2. Project address (if applicable).
			3. Owner address.
			4. Design firm's name and address.
			5. Plan sheet index.
			6. Designer's Signature Block.
			7. The following note: THE <b>GRADING, EROSION AND SEDIMENT CONTROL PLAN</b> INCLUDED HEREIN IS ON FILE AT THE TOWN OF CASTLE ROCK AND APPEARS TO FULFILL APPLICABLE TOWN OF CASTLE ROCK GRADING, EROSION AND SEDIMENT CONTROL CRITERIA, AS AMENDED. ADDITIONAL GRADING, EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED OF THE PERMITTEES DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT FUNCTION AS INTENDED. THE REQUIREMENTS OF THIS PLAN SHALL RUN WITH THE LAND AND BE THE OBLIGATION OF THE PERMITTEES, UNTIL SUCH TIME AS THE PLAN IS PROPERLY COMPLETED, MODIFIED OR VOIDED.
			8. GESC Plan Designer's signature block with name, date, and Professional Engineer registration number. Signature block shall include the following note: THE <b>GRADING, EROSION AND SEDIMENT CONTROL PLAN</b> INCLUDED HEREIN HAS BEEN PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH THE REQUIREMENTS OF THE GRADING, EROSION, AND SEDIMENT CONTROL (GESC) MANUAL OF THE TOWN OF CASTLE ROCK AS AMENDED.
			9. Town Acceptance Block.
			10. General Location Map Show at a scale of 1-inch to 1000-feet to 8000-feet indicating: <ul style="list-style-type: none"> <li>• general vicinity of site location.</li> <li>• major roadway names.</li> <li>• north arrow and scale.</li> </ul>
			<b>GESC DRAWING INDEX SHEET</b>
			For projects that require multiple plan-view sheets to adequately show the project area (based on the specified scale ranges), a single plan-view sheet shall be provided at a scale appropriate to show the entire site on one sheet. Areas of coverage of the multiple blow-up sheets are to be indicated as rectangles on the index sheet.
			<b>INITIAL GESC PLAN</b>
			This plan sheet shall provide grading, erosion and sediment controls for the initial clearing, grubbing and grading of a project. At a minimum, it shall contain:
			1. Property Lines.
			2. Existing and proposed easements.
			3. Existing topography at one- or two-foot contour intervals, extending a minimum of 100 feet beyond the property line.
			4. Location of any existing structures or hydraulic features within the mapping limits.
			5. USGS Benchmark used for project and note that NAVD88 Datum was used.

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			6. Limits of construction encompassing all areas of work, access points, storage and staging areas, borrow areas, stockpiles, and utility tie-in locations in on-site and off-site locations. Stream corridors and other resource areas to be preserved and all other areas outside the limits of construction shall be lightly shaded to clearly show area not to be disturbed.
			7. Location of stockpiles, including topsoil, imported aggregates, and excess material.
			8. Location of storage and staging areas for equipment, fuel, lubricant, chemical (and other materials) and waste storage.
			9. Location of borrow or disposal areas.
			10. Location of temporary roads.
			11. Location, map symbol, and letter callouts of all initial erosion and sediment control BMPs.
			12. Information to be specified for each BMP, such as type and dimensions, as called for in the Standard Notes and Details.
			13. The following note: SEE COVER SHEET FOR THE TOWN OF CASTLE ROCK STANDARD NOTES AND DETAILS FOR LEGEND OF BMP NAMES AND SYMBOLS.
			14. Town of Castle Rock approval block.
			15. Other information as may be reasonably required by the Town of Castle Rock
			<b>INTERIM GESC PLAN</b>
			This plan sheet shows BMPs to control grading, erosion and sediment during the initial overlot grading, site construction and site revegetation process. At a minimum, it shall contain the following information:
			<i>The Interim GESC Plan shall show all the information included on the Initial GESC Plan, as noted below:</i>
			1. Existing topography at one-or two-foot contour intervals, extending a minimum of 100 feet beyond the property line, as shown on the Initial GESC Plan. <b>These contours shall be screened.</b>
			2. Location of all existing erosion control measures on site, as shown on the <b>Initial</b> GESC Plan Sheet. <b>These control measures shall be screened. Dimension information for initial stage BMPs shall not be shown.</b>
			3. Items 1,2, and 4 through 10 from the Initial GESC Plan.
			<i>In addition, the Interim GESC Plan shall include the following:</i>
			4. Proposed Topography at one-or two-foot contour intervals, showing elevations, dimensions, locations and slope of all proposed grading.
			5. Outlines of cut and fill areas.
			6. Location of all interim erosion and sediment controls, designed in conjunction with the proposed site topography, but also considering the controls designed for the existing topography.
			7. Location of all buildings, drainage features and facilities, paved areas, retaining walls, cribbing, water quality facilities, or other permanent features to be constructed in connection with, or as part of, the proposed work, per approved plat, FPDSP, or other improvement plan.

		<p>8. The following notes:</p> <ul style="list-style-type: none"> <li>• SEE COVER SHEET OF THE TOWN OF CASTLE ROCK STANDARD NOTES AND DETAILS FOR LEGEND OF BMP NAMES AND SYMBOLS.</li> <li>• SHADED BMPs WERE INSTALLED IN INITIAL STAGE AND SHALL BE LEFT IN PLACE IN INTERIM STAGE.</li> <li>• ALL INTERIM BMPs MUST BE COMPLETED PRIOR TO ISSUANCE OF ANY PUBLIC WORKS PERMITS.</li> <li>• SEE PUBLIC IMPROVEMENT CONSTRUCTION PLANS FOR DETAILS OF PERMANENT DRAINAGE FACILITIES SUCH AS DETENTION FACILITIES, WATER QUALITY FACILITIES, CULVERTS, AND STORM DRAINS.</li> </ul>
		9. Summary of cut and fill volumes.
		10. Town of Castle Rock acceptance block.
		11. Other information or data as may be reasonably required by the Town of Castle Rock.
		<b>FINAL GESC PLAN</b>
		This plan sheet shows controls for final completion of the site. At a minimum, this plan sheet shall contain the indicated information.
		<i>The Final GESC Plan shall include all information shown on the Initial and Interim Plans, as noted below:</i>
		1. Existing Topography in areas of proposed contours need not be shown.
		2. Existing Initial and Interim BMPs shall be shown, ( <b>screened</b> ). Dimension information shall not be shown.
		<i>In addition, the following information shall be shown:</i>
		3. Directional flow arrows on all drainage features.
		4. Any Initial or Interim BMPs that are to be removed and any resulting disturbed area to be stabilized.
		5. Location of all Final erosion and sediment control BMPs (including seeding and mulching of any areas not stabilized in the Interim Plan), permanent landscaping, and measures necessary to minimize the movement of sediment off site until permanent vegetation can be established.
		6. Show area of buildings, pavement, sod, and permanent landscaping (define types) per accepted plat, FPSDP, SIA, or other improvement plan or agreement.
		7. Show seeding and mulching (SM) everywhere except buildings and pavement areas.
		8. Show other BMPs considered by the designer to be appropriate.
		<p>9. Show the following BMPs to be removed prior to the end of construction:</p> <ul style="list-style-type: none"> <li>• Indicate dewatering (DW) to be removed.</li> <li>• Indicate temporary stream crossings (TSC) to be removed.</li> <li>• Indicate stabilized staging area (SSA) to be removed.</li> <li>• Indicate vehicle tracking control (VTC) to be removed.</li> <li>• Indicate construction fence (CF) to be removed.</li> </ul>

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			<p>10. Include the following notes:</p> <ul style="list-style-type: none"> <li>• SEE COVER SHEET OF THE TOWN OF CASTLE ROCK STANDARD NOTES AND DETAILS FOR LEGEND OF BMP NAMES AND SYMBOLS.</li> <li>• SHARED BMPS WERE INSTALLED IN INITIAL OR INTEREM GESC PLAN AND, UNLESS OTHERWISE INDICATED, SHALL BE LEFT IN PLACE UNTIL REVEGETATION ESTABLISHMENT IS APPROVED BY THE TOWN.</li> <li>• SEE PUBLIC IMPROVEMENT CONSTRUCTION PLANS FOR DETAILS OF PERMANENT DRAINAGE FACILITIES, SUCH AS DETENTION FACILITIES, WATER QUALITY FACILITIES, CULVERTS AND STORM DRAINS.</li> </ul>
			11. Town of Castle Rock Acceptance block.
			12. Other information as may be reasonably required by the Town of Castle Rock.
			<b>GESC DRAWING AND REPORT CHECKLIST.</b>
			<i>A copy of this GESC Drawing and Report Checklist must be completely filled out, signed by the designer, and submitted with the GESC Plan.</i>

**A complete Grading, Erosion and Sediment Control (GESC) Report should contain the following information. GESC Reports shall be in accordance with the requirements of the Grading, Erosion, and Sediment control (GESC) Manual of the TCR as amended.**

Req'd	Cmpl'd	Subm'd	
			<b>GESC REPORT</b>
			<u>1—Name, Address, and Telephone Number of the Applicants</u> —The name, address, and telephone number of the Professional Engineer preparing (or supervising the preparation of) the GESC Plan shall also be included if different from the Applicants.
			<u>2—Project Description</u> —A brief description of the nature and purpose of the land-disturbing activity, the total area of the site, the area of disturbance involved, and the project location including township, range, section and quarter-section, or the latitude and longitude, of the approximate center of the project.
			<u>3—Existing Site Conditions</u> — A description of the existing topography, vegetation, and drainage; a description of any wetlands on the site; and any other unique features of the property.
			<u>4—Adjacent Areas</u> —A description of neighboring areas such as streams, lakes, residential areas, roads, etc., which might be affected by the land disturbance.
			<u>5—Soils</u> —A brief description of the soils on the site including information on soil type and names, mapping unit, erodibility, permeability, hydraulic soil group, depth, texture, and soil structure (this information may be obtained from the soil report for the site, for adjacent sites if acceptable to the Town, or the applicable Soil Survey prepared by the Natural Resources Conservation Service).
			<u>6—Areas and Volumes</u> —An estimate of the quantity (in cubic yards) of excavation and fill involved (indicating a balance onsite), and the surface area (in acres) of the proposed disturbance.
			<u>7—Erosion and Sediment Control Measures</u> —A description of the methods presented in the GESC Manual that will be used to control erosion and sediment on the site.
			<u>8—Timing/Phasing Schedule</u> —A schedule indicating the anticipated starting and completion time periods of the site grading and/or construction sequence, including the installation and removal of erosion and sediment control BMPs. Indicate the anticipated starting and completed time periods of individual project phases.

Req'd	Cmpl'd	Subm'd	
			<b>GESC REPORT—CONTINUED</b>
			<u>9—Permanent Stabilization</u> —A brief description, including applicable specifications, of how the site will be stabilized after construction is completed.
			<u>10—Stormwater Management Considerations</u> —Explain how stormwater runoff from and through the site will be handled during construction.
			<u>11—Maintenance</u> —Any special maintenance requirements over and above what is identified in the standard notes and details.
			<u>12—Opinion of Probable Cost for Installation and Maintenance of Controls</u> —An opinion of probable costs for erosion and sediment control, including anticipated maintenance during the construction phase, shall be submitted with the GESC Plan. This will be reviewed by Town staff and used as a basis for fiscal security. A copy of a spreadsheet to be used for preparing the opinion of probable costs for erosion and sediment control is included in Appendix H of the GESC Manual. An electronic copy of the spreadsheet is available from the Town of Castle Rock Utilities Department OR THE Plan Review Engineer. Unit Costs used to develop probable erosion and sediment control costs shall be those shown in the spreadsheet.
			<u>13—Calculations</u> —Any calculations made for the design of such items as sediment basins or erosion control blanket selection.
			<u>14—Other Information</u> —Any other information as reasonably required by the Town of Castle Rock.
			<u>15—The Following Note:</u> "This <i>Grading, Erosion and Sediment Control Plan</i> is on file at the Town of Castle Rock and appears to fulfill the applicable Town of Castle Rock <i>Grading, Erosion and Sediment Control Criteria</i> , as amended. I understand that additional grading, erosion and sediment control measures may be required of the Permittees, due to unforeseen erosion problems or if the submitted plan does not function as intended. The requirements of this plan shall run with the land and be the obligation of the Permittees until such time as the plan is properly completed, modified or voided."
			<u>16—Signature Page</u> — For Permittees acknowledging the review and acceptance of responsibility, and a statement by the Professional Engineer acknowledging responsibility for the preparation of the GESC Plan.