



Planning & Building Department

455 County Center, 2nd Floor
Redwood City, California 94063
Tel: 540/863-4161/Fax: 650/363-4849

Mail Drop PLN122
plngbldg@smcgov.org
<http://planning.smcgov.org>

Requirements for Erosion and Sediment Control

Soil Erosion and Sedimentation Pose a Serious Threat to Water Quality:

- Erosion is the wearing away of the ground surface as a result of the movement of wind or water.
- Sedimentation is the accumulation of soil and other matter transported from the land by wind or water.

The State Water Resources Control Board mandates the regulation of runoff and the treatment of stormwater into drainage systems and waterways under the National Pollutant Discharge Elimination System (NPDES) permit, including construction stormwater from project sites. The prevention of stormwater pollution is a responsibility shared by everyone involved in the development/construction process, including Project engineers, developers, contractors, property owners, municipal planners, and municipal building inspectors.

The San Mateo County Planning and Building Department requires the submittal of an erosion and sediment control plan for review and approval prior to the issuance of any demolition, grading or building permit that involves site disturbance.

Erosion and Sediment Control Plan Requirements:

- It is important that an erosion and sediment control plan is effective in preventing illicit discharge. Careful examination of the specific project site during project design to identify potential problems posed by slope, drainage patterns, and soil types is important in preparing an effective erosion and sediment control plan.

Submittal Requirements for a Planning and/or Building Permit:

- Submit five (5) full-size (24" x 36") identical copies of the erosion and sediment control plans as part of the plan sets with the planning and/or building permit application submittal. For projects including those requiring a Grading Permit, separate erosion and sediment control plans are required to show the measures to be implemented at the grading stage (e.g., grading, foundation/retaining walls) and at the construction stage of the project.

Erosion and Sediment Control Plan Requirements:

- The erosion and sediment control plan shall be overlaid on the project grading plan(s) or site plan if there is no grading plan.

- The plan shall show what Best Management Practices (BMPs) will be used, when, and where, specific to the project scope, along with the total disturbance area and installation details and notes for the proposed BMPs. Measures include those necessary to delineate areas of work/disturbance, prevent erosion of unstable or denuded areas, plan for construction staging and storage logistics, construction of stabilized access points, and proper containment measures for construction materials and waste (see attached checklist.)
- Include an anticipated demolition/construction schedule and construction duration (in weeks or months).
- Erosion Control Point of Contact: Include name and contact information for the person responsible for maintaining erosion and sediment control measures throughout the term of the permit on the EC Plan or on the Title Sheet.
- For projects, including those requiring a Grading Permit, a licensed civil engineer experienced in erosion and sediment control or a certified professional soil erosion and sediment control specialist shall prepare the erosion and sediment control plan.
- Erosion and Sediment Control Plans shall comply with all Conditions of Approval of the associated permit(s).
- Boundary lines of the site.
- Vicinity of the site in relation to the surrounding adjacent areas.
- Accurate contours showing the topography of the existing ground extending at least 10 feet outside all boundary lines of the project site. The contour lines shall be at intervals sufficient to show the configuration of the ground before disturbance.
- The location of all existing buildings, structures, easements, or underground utilities.
- The location of all proposed buildings, structures, retaining walls, easements, or underground utilities.
- Location, width, direction of flow and approximate location of top and toes of banks of any watercourses.
- Location and types of existing vegetation on the site. Within 25 feet of any cut or fill, the plan shall identify the location, diameter, species and appropriate elevation at the base of all trees over 12 inches in diameter (or 6 inches in diameter if project is located in the Emerald Hills area) measured at 4 1/2 feet above average ground level.
- Areas of the site currently experiencing or susceptible to erosion problems.
- Existing drainage patterns and direction of flow.
- Final contours after proposed development.
- Limits of disturbed areas.
- Areas not to be disturbed and off-limits to construction activity.

- Location of proposed vegetative erosion control measures (e.g., seeding, landscaping), including type, quantity, planting schedule, and irrigation.
- Location and details of all proposed drainage systems, walls, cribbing or other erosion protection devices to be constructed in connection with, or as a part of, the proposed work.

Implementation of Erosion and Sediment Control Plans:

Project erosion and sediment control measures shall be maintained as necessary throughout the duration of the permit to be effective. If significant field changes are made (as may be required by the Building Inspector, changing field conditions, etc.), revised plans must be submitted for approval. The building inspector has the authority to require additional measures at any time and may cancel any requested inspection if any measures are found to be deficient. A Stop Work Notice may be issued pursuant to the County's Stormwater Enforcement Response Plan until corrections have been made and applicable fees paid for staff enforcement time. The property owner shall demonstrate via building inspection that the site is stabilized, either with adequate erosion control or landscaping, prior to issuance of the Certificate of Occupancy.

Attachment A: General Erosion and Sediment Control Plan Checklist

FRM00507 (EC COUNTER HANDOUT).DOCX
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**County of San Mateo
Planning and Building Department**

General Erosion and Sediment Control Plan Guidelines
(Best Management Practices to be used during Site Preparation and Construction)

A complete Erosion and Sediment Control Plan (EC Plan) should include the following (as applicable to the site and project):

1. Delineation of Area of Work	
a.	For projects, including those requiring a Grading Permit, separate erosion and sediment control plan sheets are required to show the measures to be implemented at the grading stage (e.g., grading, foundation/retaining walls) and at the construction stage. For difficult projects only, additional plan sheets are required for each of the following phases: Grading and retaining wall phase, foundation and construction phase.
b.	Show all areas of construction, including but not limited to: areas to be graded as shown on a grading plan, areas to be cleared, as well as structures, retaining walls, roads, drives, utilities, trenches, scaffolds, catch basins, etc. These areas should be consolidated and located outside steep or sensitive areas.
c.	Protect surface water locations, providing primary control measures (e.g., silt fence along outer buffer zone of creek; do not disturb riparian areas) and secondary control measures (e.g., fiber rolls) in disturbed areas sloping toward the creek/ocean.
d.	Protect storm drain inlets using fiber rolls, permeable rock sacks, or other measures that keep sediment from entering the drain. Show inlet locations and protection measure details on the EC Plan. Include on the EC Plan that filter fabric or filter baskets shall be installed in the drains and cleaned out after each rain event, or as needed to function properly. Do not use sand bags as these tear and can result in sand entering the storm drains.
e.	Maximize and protect areas to be undisturbed (including sensitive areas and buffer zones), using a vegetative buffer strip or 6 ft. fence/barrier. Show the "limits of work" on the EC Plan and barriers along the "limit". Forbid work, storage, earth moving, vegetation clearing, and other disturbances outside of the "limit". Do not use hay bales as these can easily fall apart.
f.	Provide a separate Tree Protection Plan to identify and protect trees, using fencing placed along driplines. An arborist report is required for those trees where work will encroach into the dripline. See separate Tree Protection Plan Guidelines.
g.	Prevent runoff to off-site areas using perimeter controls (diversion berms, silt fencing, and/or fiber rolls). Silt fencing is preferred, but fiber rolls may work in some instances. Where the site is flat or the slope is gentle, installing these measures on the property line should be adequate. On slopes greater than 3:1, the measures must be installed along contour lines.
2. Prevent Erosion of Unstable or Denuded Areas	
a.	Show all proposed retaining walls in the EC Plan, including areas that will be used for stockpiling earth and storing construction materials
b.	Indicate the location and method for stabilizing disturbed bare earth areas. Use seeding and/or mulching and the following, as necessary: i) For slopes less than 3:1, provide silt fencing or fiber rolls along contour lines. ii) For slopes greater than 3:1, anchored erosion blankets (rice, straw, or coconut) and fiber rolls or silt fencing at the crest are required. Jute netting is preferred when used with seeding.
c.	Use diversion berms to divert water from unstable or denuded areas (e.g., top and base of a disturbed slope, grade breaks where slopes transition to a steeper slope).
d.	Direct water from construction areas to designated temporary filtration/detention areas. Show any temporary detention areas for stormwater and stabilization of those areas.
3. Show Locations of Logistics Areas	
a.	Show location of office trailer(s), storage sheds, temporary power pole, scaffold footprint, and other temporary installations on the EC Plan. Show how they will be accessed and show protection of the access routes.
b.	Show location of utility trenches, indicate utility types, and identify timing of installation.

4. Construction Access Routes
a. Use stabilized designated access points for entrance onto the property using 3"- 6" fractured aggregate over geo-textile fabric over the first 20 feet of the property. If using an existing paved driveway, identify on EC Plan. Where vehicles or equipment will travel from an existing paved driveway to unpaved areas within the property, a stabilized transition point is required that meets the above standards.
b. Provide designated area(s) for parking of construction vehicles, using aggregate over geo-textile fabric.
c. Show all access roads/ramps and access points used by excavation equipment, trucks, or fork lifts/crane access (second floor construction). For unpaved routes, use ridges running diagonally across the road that run to a stabilized outlet. The type of materials used for stabilization and their locations shall be indicated on the EC Plan. Materials for this purpose are required to be stored on-site.
5. Containment of Construction Materials and Waste
a. Show location, installation and maintenance of a concrete/stucco mixer, washout, and pits. No concrete, mortar, or stucco washout is allowed to be placed directly on the soil/ground. Specify the method used to contain the washout.
b. Show location of portable toilets away from surface water locations and storm drain inlets.
c. Show storage location and containment of construction materials during work, as well as afterhours/weekends. Show the location of lumber, gravel, and materials storage areas on the EC Plan. Show how they will be accessed and show protection of the access routes.
d. Show areas and proposed protection of temporary stockpiles using anchored-down plastic sheeting in dry weather. The use of plastic sheeting during the wet season, Oct 1 through April 30, is not allowed, unless the stockpile is also protected with fiber rolls containing the base of the stockpile. Alternatively, in wet weather, or for longer storage, use seeding and mulching, soil blankets or mats.
e. Indicate the location of refuse piles and debris box locations on the EC Plan. Show how they will be accessed and show protection of the access routes.
6. Construction Schedule
a. Provide an anticipated construction schedule and/or construction duration (in weeks or months).
7. Other Required Permits/Inspections
a. Does the project require a County Grading Permit? Check with Planning staff to verify. <u>For County Grading Permits (only):</u> Grading associated with a County Grading Permit is prohibited during the Winter Grading Moratorium (Oct. 1 through April 30).
b. Does the project disturb 1 acre (43,560 sq. ft.) of area or more? If Yes: <input type="checkbox"/> Applicant shall file Notice Of Intent (NOI) with State Water Resources Control Board for State General Construction Activity NPDES Permit. (Prior to issuance of the building permit, applicant must submit WDID Number to Planning).
c. A Pre-Site EC and/or Tree Protection Inspection may be required prior to the issuance of a building, grading, or demolition permit.
8. Add the Following Standard Comments on the EC Plan:
Erosion Control Point of Contact. (Please provide an Erosion Control Point of Contact including name, title/qualification, email, and phone number. The EC Point of Contact will be the County's main point of contact if Erosion Control or Tree Protection corrections are required).
Perform clearing and earth-moving activities only during dry weather. Measures to ensure adequate erosion and sediment control shall be installed prior to earth-moving activities and construction.
Measures to ensure adequate erosion and sediment control are required year-round. Stabilize all denuded areas and maintain erosion control measures continuously between October 1 and April 30.
Store, handle, and dispose of construction materials and wastes properly, so as to prevent their contact with stormwater.
Control and prevent the discharge of all potential pollutants, including pavement cutting wastes, paints, concrete, petroleum products, chemicals, wash water or sediments, and non-stormwater discharges to storm drains and watercourses.
Use sediment controls or filtration to remove sediment when dewatering site and obtain Regional Water Quality Control Board (RWQCB) permit(s) as necessary.
Avoid cleaning, fueling, or maintaining vehicles on-site, except in a designated area where wash water is contained and treated.
Limit and time applications of pesticides and fertilizers to prevent polluted runoff.

Limit construction access routes to stabilized, designated access points.
Avoid tracking dirt or other materials off-site; clean off-site paved areas and sidewalks using dry sweeping methods.
Train and provide instruction to all employees and subcontractors regarding the Watershed Protection Maintenance Standards and Construction Best Management Practices.
Placement of erosion materials at these locations are required on weekends and during rain events: (List locations)
The areas delineated on the plans for parking, grubbing, storage, etc., shall not be enlarged or "run over."
Construction sites are required to have erosion control materials on-site during the "off-season."
Dust control is required year-round.
Erosion control materials shall be stored on-site.
Use of plastic sheeting between October 1 and April 30 is not acceptable, unless for use on stockpiles where the stockpile is also protected with fiber rolls containing the base of the stockpile.
Tree protection shall be in place before any demolition, grading, excavating or grubbing is started.

Sources: Watershed Protection Maintenance Standards (County of San Mateo Department of Public Works, Watershed Protection website); SMCWPP's Erosion and Sediment Control Field Manual (Planning Counter)

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