

# TOWN OF LOS ALTOS HILLS

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## Soil Erosion and Sediment Control Plan

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Two copies of the soil erosion and sedimentation control plan (24"x36") shall be submitted by the property owner for review and approval by the City Engineer prior to acceptance of plans for building plan check.

**The DETAILS of the Fiber Roll shall be included in the soil erosion and sedimentation control plan.**

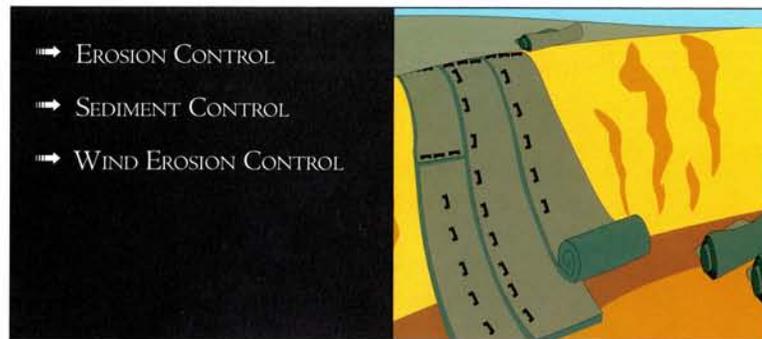
**Notes: (to be included on the plan)**

1. Erosion control measures shall conform to ABAG standards, Town standards and the approval of the Town's Engineering Department.
2. All materials necessary for the approved erosion control measures shall be on site by September 15th and in place by October 1st.
3. Erosion control systems shall be installed and maintained throughout the rainy season, or from October 1st through April 30th, whichever is longer.
4. In the event of rain, all grading work is to cease immediately and the site is to be sealed in accordance with the approved erosion control measures and approved erosion control plan.
5. The contractor shall be responsible for checking and repairing erosion control systems after each storm.
6. Projects must have all cut and fill slopes protected by and disturbed areas by one of the following measures or the combination of them: temporary seeding and mulching, permanent seeding and mulching, hydromulching-hydroseeding, erosion control blankets/geotextiles, and fiber rolls;
7. Any areas of disturbed soil shall be seeded or replanted to the satisfaction of the City engineer prior to October 1st, or final inspection, whichever is sooner.
8. Additional erosion control measures may be required as determined by Town's Engineering Department or Building Officials.
9. Projects shall prevent any accumulation or deposit of dirt, mud, sand, rocks, gravel or debris on the surface of any street, alley or public place or in any public storm drain system.

**Failure to implement erosion control measures during periods of rainfall may result in a prohibition of any additional construction during the remainder of the rainy season.**

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## EROSION CONTROL BLANKETS AND GEOTEXTILES



*Purpose:*

Erosion control blankets or mats are biodegradable or synthetic blankets that are used for temporary or permanent stabilization of disturbed soils at construction sites. Erosion control blankets and mats protect disturbed soil from rain and surface runoff impact, increase infiltration, decrease soil compaction and crusting, protect seeds from impact and predators, and moderate soil temperature to enhance the growth of vegetation.

*Application:*

- Slopes and disturbed soils where mulch must be anchored and other methods such as crimping or tackifying are not feasible or adequate.
- Steep slopes, generally steeper than 3:1.
- Slopes where erosion hazard is high.
- Critical slopes adjacent to sensitive areas such as streams, wetlands, or other highly valued resources.
- Disturbed soils where plants are slow to develop protective cover.
- Channels with flows from 0.6 m/s (2 fps) to 1.2m/s (4 fps).
- Channels intended to be vegetated and where the design flow velocity exceeds the permissible velocity.

*Limitations:*

- ⚠ While blankets and mats are easy to install, are biodegradable, and effective in reducing erosion and enhancing vegetative growth, they are typically more expensive than other erosion control measures due to high material and labor costs.

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- ✦ Rolled blankets are not suitable for rocky sites or areas where final vegetation will be mowed. Proper site preparation, including proper soil compaction, are necessary to ensure adequate contact of the blanket/matting with the soil.
  - ✦ Plastic sheeting is easily vandalized, easily torn, not degradable, and should be disposed of at a landfill. Plastic results in 100% runoff, increasing the potential for serious erosion problems in downgradient areas receiving increased flows. Plastic use should be limited to covering stock piles, or very small graded areas as a temporary measure and for short periods of time.

*Installation:*

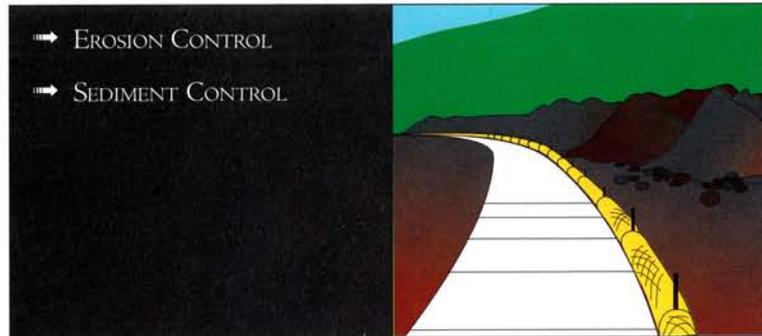
Follow manufacturer's recommendations for installation. In general these will be as follows:

- ⇨ Begin at the top of the slope and anchor the blanket in a 150 mm (6 in) deep by 150 mm (6 in) wide trench. Backfill trench and tamp earth firmly.
- ⇨ Unroll blanket downslope in the direction of water flow, not horizontally.
- ⇨ Overlap the edges of adjacent parallel rolls 50mm (2 in) to 75 mm (3 in) and staple every 1 m (3 ft).
- ⇨ When blankets must be spliced, place blankets end over end (shingle style) with 150 mm (6 in) overlap. Staple through overlapped areas, approximately 300 mm (12 in) apart.
- ⇨ Lay blankets loosely and maintain direct contact with the soil—do not stretch.
- ⇨ Staple blankets sufficiently to ensure that materials will maintain direct contact with soil.

*Inspection and Maintenance:*

- ⇒ Inspect all blankets and mats after installation and periodically throughout the course of construction.
- ⇒ Inspect blankets and mats before and after significant rain events for erosion and undermining. Repair failures immediately.
- ⇒ If washout or breakages occur, re-install or re-anchor materials only after repairing damage to the slope or channel (rills, gullies etc.).

## F I B E R   R O L L S



*Purpose:*

Fiber rolls (sediment logs or wattles), composed of bio-degradable fibers stuffed in a photo-degradable open weave netting, are designed to reduce sediment runoff from disturbed soils into the storm drain system or watercourses. Fiber rolls are porous and allow water to filter through fibers and trap sediment, increase filtration rates, slow runoff and reduce sheet and rill erosion. Wattles also create a favorable environment for plant establishment.

*Application:*

- Along the face of exposed and erodible slopes to shorten slope length
- At grade breaks where slopes transition to a steeper slope
- In drainage swales to slow flows
- Along streambanks to assist stabilization and revegetation

*Inspection and Maintenance:*

Follow manufacturer's recommendations for installation. In general, these will be as follows:

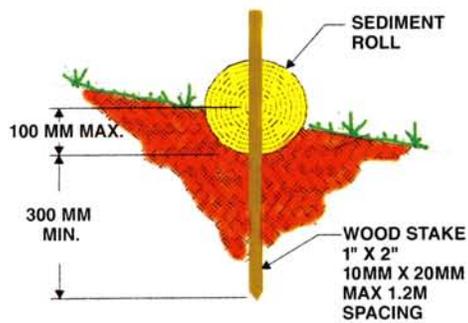
- ⇨ Fine grade the subgrade by hand dressing where necessary to remove local deviations and to remove larger stones or debris that will inhibit intimate contact of the fiber roll with the subgrade.
- ⇨ Prior to roll installation, contour a concave key trench 50 to 100 mm (2 to 4 inches) deep along the proposed installation route.
- ⇨ Soil excavated in trenching should be placed on the uphill or flow side of the roll to prevent water from undercutting the roll.
- ⇨ Place fiber rolls into the key trench and stake on both sides of the roll within 6 feet of each end and then 3–5 feet with 1" x 2" stakes or as suggested by manufacturer.
- ⇨ Stakes are typically driven in on alternating sides of the roll. When more than one fiber roll is placed in a row, the rolls should be abutted securely to one another to provide a tight joint, not overlapped.

*Limitations:*

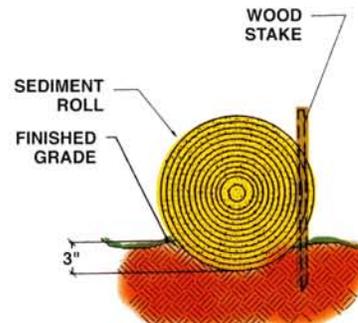
- ⚠ Designed for low surface flows not to exceed 1 cfs for small areas.
- ⚠ Designed for short slopes or slopes flatter than 3:1.
- ⚠ Primary purpose is not sediment control, although do provide some sediment removal.

*Inspection and Maintenance:*

- ➡ Repair or replace split, torn, unraveling or slumping fiber rolls.
- ➡ Inspect fiber rolls when rain is forecast, following rain events and at least daily during prolonged rainfall. Perform required maintenance.
- ➡ In most cases, fiber rolls do not require removal and can be abandoned in place. If not excessively soiled, rolls may be removed, replaced and reused.



**ENTRENCHMENT DETAIL  
IN SLOPE AREA**



**ENTRENCHMENT DETAIL  
IN FLAT AREA**