



## Erosion Prevention and Sediment Control

### Permit Process for Residential Construction

#### Overview

To protect local waterways, all ground-disturbing residential construction sites in Happy Valley must comply with water quality standards. This includes developing and implementing a plan to limit soil erosion and contain sediment and other pollutants on-site during construction activities.

#### What constitutes residential construction?

Construction of one single-family or duplex dwelling on a site disturbing less than 1 acre of land surface is considered residential construction. All other construction is considered commercial construction and applicants should contact the City's engineering division.

#### When is a permit required?

An Erosion Prevention and Sediment Control (EPSC) permit is required for all construction sites that disturb *500 square feet or more* of land surface. Sites that disturb less than 500 square feet of land surface are not required to obtain a permit, but property owners must protect water quality.

#### What constitutes a land disturbing activity?

Any activity that exposes soil, including but not limited to grading, excavating, filling, vegetation removal, or logging.

#### What is required to obtain an erosion prevention permit?

Applicants must submit a completed EPSC application and 2 copies of an EPSC site plan showing how soil erosion will be minimized and sediment contained on site during construction.

*An EPSC Residential Plan Submittal Requirements* handout with sample plan is included below.

#### Are there special qualifications to prepare this plan?

No. For residential construction, the applicant or their designated party may create the EPSC site plan.

#### Where can I get assistance?

We are here to help you. Staff is typically available from 8:00 am to 4:00 pm weekdays to answer your questions at the Building Division front counter in City Hall, 16000 SE Misty Drive or by phone at (503) 783-3800. Handouts and sample plans are available at the counter and online at [www.happyvalleyor.gov](http://www.happyvalleyor.gov). We also encourage you to call and make arrangements for a free on-site consultation.

#### Are fees required?

Yes. The amount varies depending on the size of the land disturbance. A typical residential EPSC permit is \$400.00.

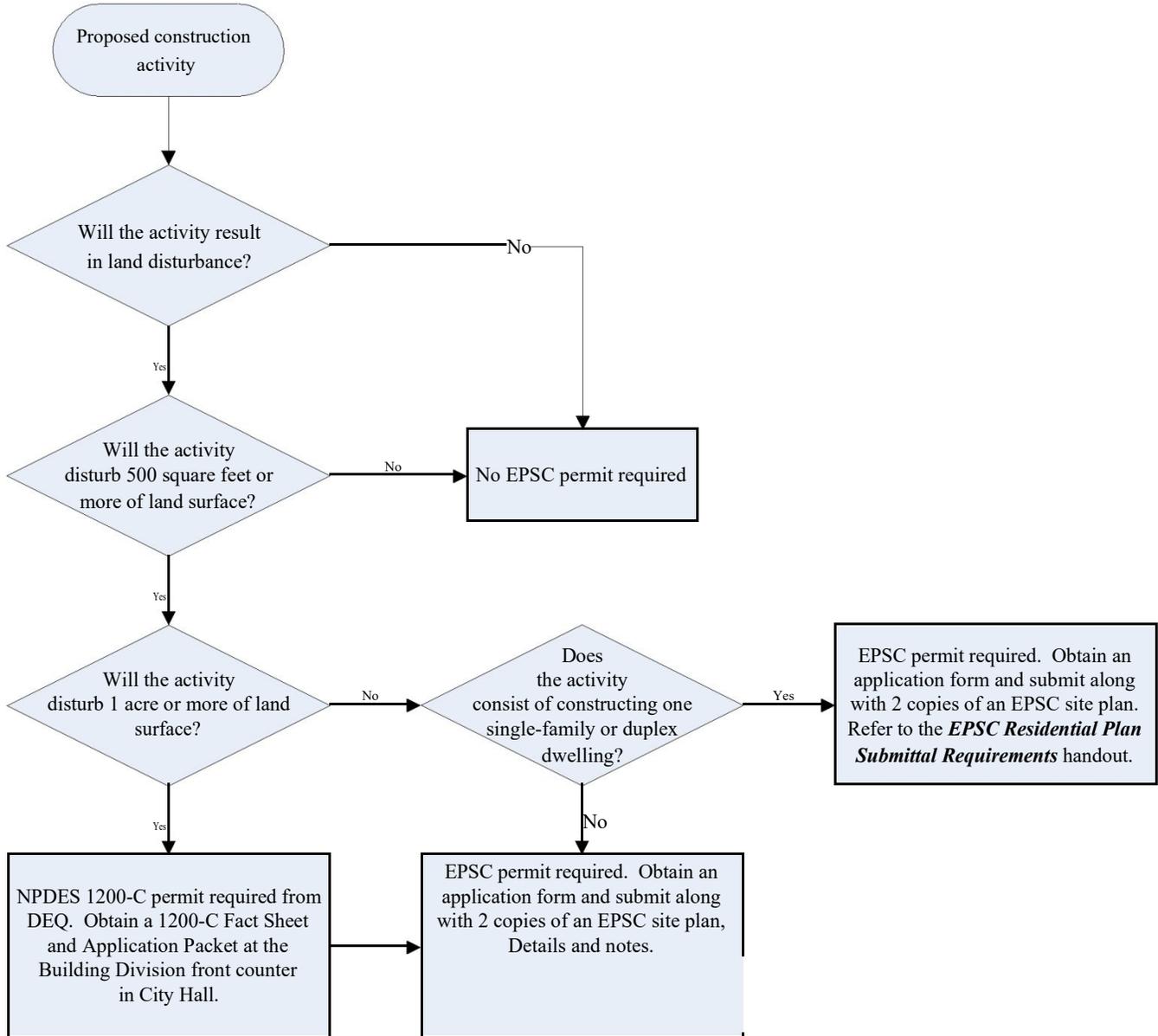
#### Why are construction sites a problem?

The City's storm water system consists of open channels, creeks, wetlands, and pipes that carry untreated runoff to the Willamette and Clackamas Rivers. Construction activities can cause erosion and sedimentation, which reduces the capacity of the storm water system to convey water away from homes and businesses and reduces water quality. This can lead to drainage and flood problems, polluted drinking water sources, can harm fish and other aquatic life, and otherwise reduce beneficial uses.

#### What are examples of storm water pollutants?

Anything other than rain that enters the storm-water system is considered a pollutant. This includes soil sediment, fertilizer, paint, oil, solvents, concrete-washout, and any other garbage, trash or debris.

## When is a permit required?





## Erosion Prevention and Sediment Control

### Residential Plan Submittal Requirements

#### Overview

To expedite your permit process, follow this guide to preparing an Erosion Prevention and Sediment Control (EPSC) site plan showing how soil erosion will be minimized and sediment contained on-site during residential construction activities.

#### What do I need to submit?

An erosion control permit is required for any project in which 500 square feet or more of land surface is disrupted. To obtain this permit, submit a completed Building Division Erosion Control Permit Application along with a PDF of your EPSC site plan. Follow the checklist below to create the EPSC site plan.

#### EPSC site plan checklist

##### *Start with a copy of your site plan, showing the following:*

- Property lines, easements, and north arrow
- Existing and proposed contour lines at 2-foot intervals
- Footprint of all structures (including decks, porches, retaining walls, etc.)
- Location of driveway and sidewalks

##### *Add the following EPSC information:*

- Gravel construction entrance/exit (*20-foot length x 20-foot width minimum, 8-inches of gravel*).
- Location for any temporary stockpiling of soil during construction.
- Outline all areas of land disturbance on the site, including areas that will be cleared, graded, or excavated during any phase of construction.
- Place erosion control measures on the downhill side of all disturbed areas on the construction site. Appropriate measures include:
  - Sediment fence
  - Rice straw/coconut fiber (coir)/excelsior wattle
  - Excavated sidewalk (*4-foot width x 4-inch depth minimum for slopes < 10%, 2-inches of gravel*)
  - Mulch or gravel berm
  - Undisturbed buffer zone (*10-foot minimum width for slopes < 10%, fence off with orange construction fencing*)

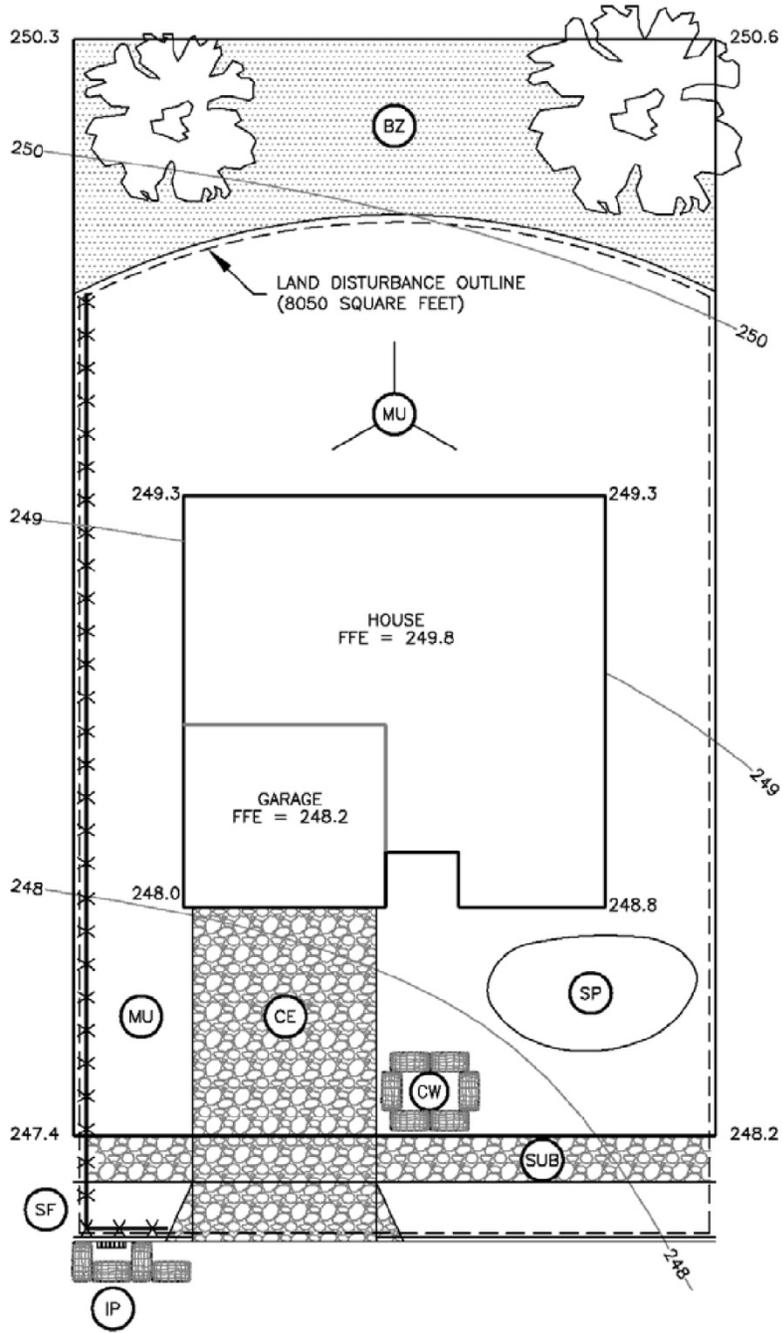
Provide curb gutter filtration and inlet protection for all downhill storm sewer inlets. Appropriate measures include:

- Bio-bags (*for curb inlets, catch basins, and area drains in low-traffic areas*)
- Curb inlet sediment filters (*for curb inlets in high-traffic areas*)
- Filter inserts (*for catch basins and area drains in high-traffic areas*)

Provide a concrete wash-out facility for all concrete truck, mortar, and concrete tool wash out:

- Wash-out facilities are a below-grade excavated basin or above-grade basin constructed of straw bales or lumber, lined with plastic sheeting, where waste can solidify, and excess water evaporate.
- Wash-out facilities must be clearly marked and located away from the street, storm sewer inlets, and water quality facilities.

**EPSC site plan example**



- (CE) GRAVEL CONSTRUCTION ENTRANCE
- (SF) SEDIMENT FENCE (OR EQUIV.)
- (SUB) SIDEWALK SUBGRADE GRAVEL BARRIER
- (IP) INLET PROTECTION
- (BZ) BUFFER ZONE—DO NOT DISTURB
- (MU) MULCH—ESTABLISH GRASS
- (SP) SOIL STOCKPILE
- (CW) CONCRETE WASHOUT

EROSION CONTROL NOTES:

1. AREAS DELINEATED ON THE PLAN AS A "BUFFER ZONE" SHALL BE CLEARLY MARKED IN THE FIELD WITH ORANGE CONSTRUCTION FENCING PRIOR TO THE START OF ANY GROUND DISTURBING ACTIVITIES.
2. A STABILIZED GRAVEL CONSTRUCTION ENTRANCE SHALL BE INSTALLED AS FIRST SITE ACTIVITY.
3. EROSION CONTROL MEASURES SHALL BE INSPECTED DAILY AND MAINTAINED AS NECESSARY TO ENSURE THEIR FUNCTION.
4. EROSION CONTROL MEASURES SHALL BE KEPT IN PLACE UNTIL PERMANENT GROUND COVER IS ESTABLISHED.

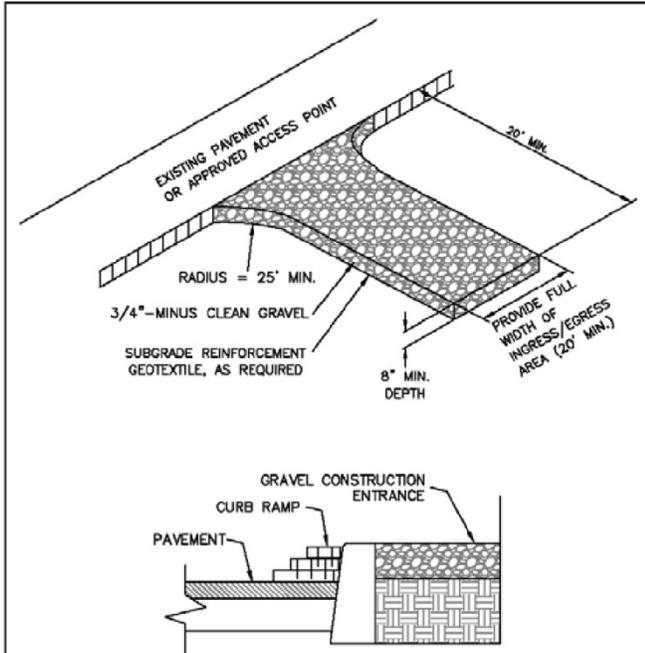
WET WEATHER EROSION NOTES:

1. DURING WET WEATHER SEASON (OCTOBER 1 - APRIL 30) ALL SOILS EXPOSED FOR MORE THAN 2 DAYS SHALL BE COVERED WITH PLASTIC SHEETING, OR A 2-INCH LAYER OF MULCH, BARK, WOOD CHIPS, SAWDUST, OR STRAW TO MINIMIZE EROSION POTENTIAL.
2. EXPOSED SOILS SHALL BE SEEDED NO LATER THAN SEPTEMBER 1.

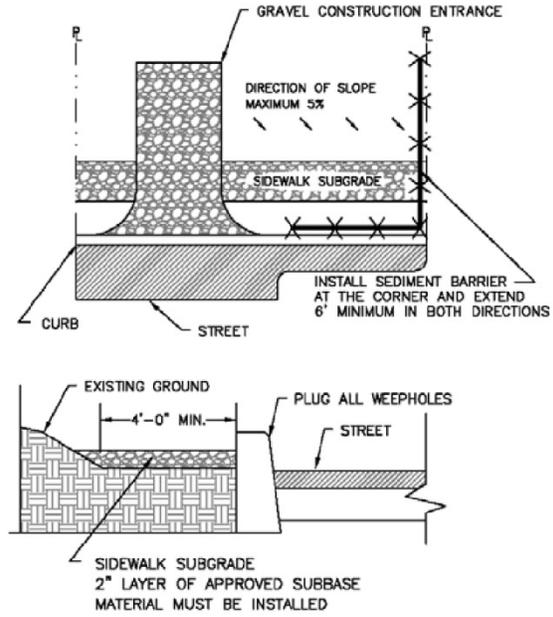
**Single Family Residence**



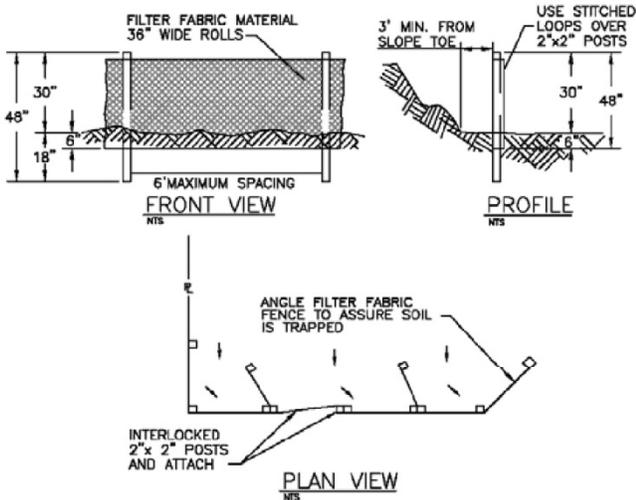
## Commonly used residential erosion control measures



**Residential Gravel Construction Entrance**

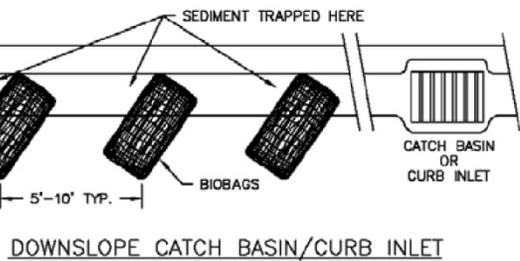
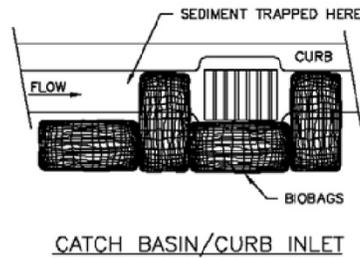


**Excavated Sidewalk Gravel Barrier**



- NOTES:**
1. EXCAVATE A 4" X 8" TRENCH.
  2. USE 36" WIDE FILTER FABRIC WITH STITCHED STAKE POCKETS.
  3. STAKE WITH 2" X 2" FIR, PINE, OR STEEL FENCE POSTS.
  4. POSTS TO BE INSTALLED ON UPHILL SIDE OF SLOPE.
  5. BURY BOTTOM OF FILTER FABRIC 6" VERTICALLY BELOW FINISHED GRADE.
  6. WHERE JOINTS ARE NECESSARY, INTERLOCK POSTS.
  7. BACKFILL AND COMPACT BOTH SIDES OF FILTER FABRIC IN TRENCH.

**Sediment Fence**



**Bio-Bag Inlet Protection**

**Standard permit conditions:**

1. Prior to any ground disturbing activity on the site, an initial inspection by City staff may be required. Erosion Prevention and Sediment Control (EPSC) measures should be in place prior to the inspector arriving. To schedule your inspection, use the online inspection request system [www.BuildingPermits.oregon.gov](http://www.BuildingPermits.oregon.gov)
2. EPSC measures must be constructed in conjunction with, and prior to, all clearing and grading activities and in a manner as to ensure that sediment and sediment-laden water does not enter the drainage system, roadways, or violate applicable water quality standards.
3. EPSC measures shown on the plans are minimum requirements for anticipated site conditions. During the construction period, the EPSC measures shall be upgraded as needed for unexpected storm events and to ensure that sediment and sediment-laden water does not leave the site.
4. EPSC measures shall be inspected daily by the permit holder and be maintained as necessary to ensure their function.
5. Stabilized gravel construction entrances shall be installed at the beginning of construction and maintained for the duration of the project. Additional measures may be required to ensure that all paved areas are kept clean for the duration of the project.
6. EPSC measures shall be kept in place until permanent ground cover is established.
7. All exposed soil must be permanently stabilized against wind and water erosion before the EPSC permit can be closed. Once the site is stabilized, schedule a final inspection by calling the number listed above or by using the ePermitting website. Permanent soil stabilization includes landscaping, seeding, or covering exposed soil with a minimum 2-inch layer of bark, straw, compost, or wood chips.

**Note: Front yard landscaping and street trees must be completed prior to the building final inspection.**

**Wet weather permit conditions:**

1. Wet weather erosion prevention measures will be in effect from October 1 through April 30.
2. Soil exposed for more than 2 days shall be seeded, or covered with plastic sheeting, matting, or a 2-inch layer of mulch, bark, wood chips, compost, or straw to minimize erosion potential.
3. Exposed soils shall be seeded no later than September 1 to allow time for proper germination and growth before the wet weather season.
4. Dry season erosion control measures will vary by site, regardless the final inspection requirements will apply.

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