

The goal of the Development Activity Plan (DAP) is to ensure that construction activity is proactive in minimizing the effects of erosion, sediment transport, water runoff and pollutants. This is known as Best Management Practices (BMP's) which must be maintained during the construction project and removed when vegetation is stabilized.

Submit a detailed design early, in text and diagrams, along with photos of installed pre-construction measures. Some items below may not apply to your project. If so, indicate Not applicable, because .....

If you have any questions, Dotti Harness-Foster, Planning Dept. 435-3118. In Block lettering is city code. *Italicized are suggestions.*

Applicant's Name:		Applicant's Email:	
Mailing address:		Phone numbers:	
Project Location:		Legal:	
City Engineer Approval	Date:	Planning Approval	Date

**What Triggers a DAP? Circle those that apply to your project.**

1. Land disturbing activity of 10,000 SF or greater;
2. The cumulative addition of 5,000 square feet or greater of impervious surface area from the pre-development conditions;
3. Grading, filling or excavating involving the movement of 1,000 cubic yards of material;
4. Grading activities that will result in a temporary or permanent slope having a steepness of 3:1 and having a total slope height, measured vertically from toe of slope to top of slope, exceeding 5 feet;
5. Grading activities that will result in the diversion of existing drainage courses, both natural or human-made, from their existing point of entry or exit from the grading site;
6. Any land clearing or grading on slopes steeper than 20%, or within 20 feet of wetlands, streams, or ponds;

HCC 21.74 010(b). When a DAP is required, **no person shall do or cause to be done any development activity on the site without first obtaining a DAP approved by the City.**

21.74.020 These standards apply during construction and all other phases of development activity.

a. Stabilization and sediment trapping. All exposed or disturbed soils with grades exceeding 10 percent and soils exposed to concentrated surface runoff flows, including soil stockpiles, shall be stabilized in a way that protects soil from the erosive forces of weather and flowing water. Applicable practices include, but are not limited to, the installation of silt fences, vegetative establishment, mulching, plastic covering, and the early application of gravel base on areas to be paved. No soils shall remain unstabilized for more than three days. At all times of the year, the contractor shall have sufficient materials, equipment and labor on site to stabilize and prevent erosion from all disturbed areas before initiating or continuing work.

**Suggestion:** On your site plan or as-built survey, indicate where you intend to have soil stock piles, exposed or disturbed soils and the grades/slopes. **Describe and illustrate when and where** you are going to stabilize and project soils from erosion using of BMP's such as: silt fencing, straw bales, mulching etc.

b. Delineation of clearing and easement limits. Clearing limits, setbacks, buffers, and sensitive or critical areas such as steep slopes, wetlands and riparian corridors shall be clearly identified in the DAP, marked in the field, and inspected by the City prior to commencement of land clearing activities.

**Suggestion:** Use your site plan to indicate clearing limits, setbacks, buffers, steep slopes, wetlands, drainages.

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c. Protection of adjacent properties. Adjacent properties shall be protected from sediment deposition by appropriate use of vegetative buffer strips, sediment barriers or filters, dikes or mulching, or by a combination of these measures and other appropriate methods.

**Suggestion: Describe** *how you are going to protect adjacent properties from sediment deposit.*

d. Timing and stabilization of sediment trapping measures. Sediment ponds and traps, perimeter dikes, sediment barriers and other approved methods intended to trap sediment on-site shall be constructed as a first step. These methods shall be functional before additional land-disturbing activities take place. Earthen structures such as dams, dikes, and diversions shall not remain unstabilized for more than three days.

**Suggestion: Describe** *your time line and submit photos of installed mitigation measures.*

e. Slope Stabilization. Cut and fill slopes shall be constructed in a manner that will minimize erosion. Roughened soil surfaces are preferred to smooth surfaces. Interceptors should be constructed at the top of long, steep slopes that have significant areas above that contribute runoff. Concentrated runoff should not be allowed to flow down the face of a cut or fill slope unless contained within an adequate channel or pipe slope drain. Wherever a slope face crosses a water seepage plane, adequate drainage or other protection should be provided. In addition, slopes should be stabilized in accordance with subsection (b) above.

**Suggestion: Describe and illustrate** *how you are going to stabilize slope from concentrated runoffs. If you have little to no slope, NA is an appropriate response.*

f. Controlling off-site erosion. Properties and waterways downstream from development sites shall be protected from erosion due to increases in the volume, velocity, and peak flow rate of stormwater runoff from the development site by the implementation of appropriate methods to minimize adverse downstream impacts.

**Suggestion: Describe and illustrate** *how you are going to protect neighboring property from your erosion.*

g. Stabilization of conveyance channels and outlets. All temporary and permanent on-site conveyance channels shall be designed, constructed and stabilized to prevent erosion from the expected flow velocity from a 2-year, 3-hour duration storm for the post-development condition. Stabilization adequate to prevent erosion of outlets, adjacent stream banks, slopes and downstream reaches shall be provided at the outlets of all conveyance systems.

**Suggestion:** *If your site doesn't have conveyance channels or outlets, NA is acceptable.*

h. Storm drain inlet protection. All storm drain inlets made operable during construction shall be protected so that stormwater runoff shall not enter the conveyance system without first being filtered or otherwise treated to remove sediment. After proper written application, the requirement for inlet protection may be waived by the City on a site-specific basis when the conveyance system downstream of the inlet discharges to an appropriate on-site sediment control methods, including but not limited to sediment ponds or traps. The conveyance system will be adequately cleaned following site stabilization.

**Suggestion: If** *public storm drains are nearby, explain how your design will filter and remove sediment prior to entering the public storm drain. If no storm drains are nearby, NA is an acceptable response.*

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i. Underground utility construction. The construction of underground utility lines shall be limited, where feasible, to no more than 500 feet of open trench at any one time. Where consistent with safety and space considerations, excavated material shall be placed on the uphill side of the trench. Dewatering devices shall discharge to an appropriate sediment trap or pond, preceded by adequate energy dissipation, prior to runoff leaving the site.

**Suggestion:** *On your site plan or as-built survey **illustrate** where your underground utility lines are located and their length. **Ensure** that you will not have more than 500' of trench 'open' at one time and that your excavated material will be placed on the uphill side of the trench so the any sediment will run into the trench.*

j. Constructed access routes. Wherever construction vehicle routes intersect paved roads, provisions must be made to minimize the transport of sediment (mud) and debris onto the paved road by use of approved methods. If sediment or debris is transported onto a road surface, the roads shall be cleaned thoroughly, as a minimum, at the end of each day. Sediment or debris shall be removed from roads by shoveling or sweeping and be transported to a controlled sediment disposal area. Street washing shall be allowed only after sediment is removed in this manner.

**Suggestion:** *How will you minimize transport of sediment onto paved roads? Ensure the City that you will remove any sediment or debris from the roads by shoveling or sweeping. If your site doesn't have paved road, NA is an acceptable response.*

k. Removal of temporary erosion and sediment control methods. All temporary erosion and sediment control methods shall be removed within thirty days after final site stabilization is achieved or after the temporary methods are no longer needed. Trapped sediment shall be removed or stabilized on-site. Disturbed soil areas resulting from removal of temporary methods shall be permanently stabilized. The removal of temporary erosion and sediment control methods may not be required for those projects, such as single family developments, that will be followed by additional construction under a different permit. In these circumstances, the need for removing or retaining the measures will be evaluated on a site-specific basis.

**Suggestion:** ***Describe** your timeline for removal of temporary erosion and sediment control methods. **Explain** how you are going to permanently stabilize the trapped sediment.*

l. Dewatering construction sites. Dewatering devices shall discharge into an appropriate sediment trap or pond designed to accept such a discharge, preceded by adequate energy dissipation, prior to runoff leaving the site.

**Suggestion:** *If your site doesn't require dewatering, NA is an acceptable response.*

m. Control of pollutants other than sediment on construction sites. All pollutants other than sediment that occur on-site during construction shall be handled and legally disposed of in a manner that does not cause contamination of ground or surface waters. Pollutants of concern include, but are not limited to, fuels, lubricants, solvents, concrete by-products and construction materials.

**Suggestion:** *All construction sites have potential pollutants. **Describe how you are going to handle possible contamination.** Explain what supplies you will have on site in the event of a pollutant spill.*

n. Maintenance. All temporary and permanent erosion and sediment control methods shall be maintained and repaired as needed to assure continued performance of their intended function. The owner shall be responsible for assuring that any such facilities damaged during floods, storms or other adverse weather conditions are immediately returned to normal operating condition.

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**Suggestion:** *If you are onsite daily, weekly, monthly describe your inspection and maintenance of the erosion and sediment control methods.*

o. Erosion control. Erosion Control Design Storm Event Facilities designed for the control of erosion and sedimentation shall be designed for the erosion and sedimentation control design storm event, defined as the 2-year, 3-hour duration storm.

p. Changes in Site Topography:

1. The maximum surface gradient on any artificially created slope shall be **two feet of horizontal run to one foot of vertical fall (2:1)**. This gradient may be increased to a steeper slope, if, in the judgment of the Director of Public Works, it has been demonstrated by the developer through engineering calculations performed by a qualified professional engineer that surface erosion at such a gradient can be controlled to that erosion rate equal to a properly stabilized 2:1 slope under the same conditions.

*Suggestion: Take measurements of the maximum grades. Does this apply to your site?*

2. The developer shall, at all times, protect adjacent properties and public rights-of-way and easements from damage occurring during, or resulting from, grading operations. The developer shall restore public improvements damaged by the developer's operations.

q. Correction of Defective Maintenance. If the developer or owner, or both, **refuse or fail to adequately maintain and keep the erosion and sediment control facilities functional at all times**, and the owner of the property is given seven days notice to perform the work necessary to make the facility functional and fails to do so, the City may use public funds to complete maintenance of the facilities at the cost of the developer and the property owner, who shall be jointly and severally liable for such costs.

r. Progress of Work. All work required or approved under this section shall proceed continuously to completion in an expeditious manner unless otherwise authorized by the Director of Public Works, with the intent that work may be halted, for example, due to weather conditions or the need to coordinate other construction on the project site.

\_\_\_\_\_  
Signature of Property Owner                      Print Name                      Date

\_\_\_\_\_  
Signature of Project Manager                      Print Name                      Date

\_\_\_\_\_  
Signature of Excavator                      Print Name                      Date

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