

**Unified Government – Erosion Control Checklist**

Name of development: \_\_\_\_\_

Revision: \_\_\_\_\_

Review date: \_\_\_\_\_

Reviewed: \_\_\_\_\_

Concur: \_\_\_\_\_

	Item	Okay	Redo	N.A.
<b>Intake</b>				
1	A series of drawings, each related to a construction milestone is provided. Exceptions are very small sites and linear projects. These may have a single drawing.			
2	A written construction sequence is included.			
<b>Form of drawings</b>				
3	Base map shows accurate contours for the milestone depicted. No other contours are shown.			
4	Base map show sufficient R.O.W. baseline or other alignment information to establish locations of BMPs.			
5	All BMPs are located within the property limits or construction easements for the project.			
<b>Protection of undisturbed areas</b>				
6	Pre-clearing and subsequent plans show access barrier between active work areas and areas to remain undisturbed.			
7	Construction fence is used for the access barrier where the undisturbed area is in response to regulation, i.e. stream buffer or native area used as post construction water quality BMP. Otherwise rope line may be used.			
<b>Perimeter sediment control</b>				
8	Perimeter control devices are shown on pre-clearing plan, and the construction sequence requires them to be installed prior to general clearing.			
9	The entire downhill perimeter has a sediment control BMP identified; and the BMPs selected meet the loading limits of table 1, Load rates for sediment control.			
10	There is a detail plan for each sediment basin or sediment trap, and the plan passes the appropriate checklists following the main checklist.			
11	There is a grading detail for the pit accompanying each inlet used as perimeter control. The cut slopes do not exceed 1.5: 1, and storage volume of pit is not less than 900 cf/acre.			
12	Treatment area of the silt fence is located precisely along a contour and the ends are returned uphill a minimum of 18 inches higher than the treatment area.			
13	Other linear filters are located generally along a contour and the ends are returned uphill.			
14	Vegetative buffers have a minimum width of 10 feet with access control. Vegetative buffers narrower than 25 feet are protected by a rope line. Vegetative buffers may be located in any orientation to the contour.			

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<b>Runoff control</b>				
15	Runoff control devices (except top slope diversion on steep embankment slopes created during the grading phase) are shown on pre-clearing plan, and the written construction sequence requires them to be installed prior to general clearing. (Early installation may not be possible for projects with deep fills that relocate the drainage ways.)			
16	Where early installation of runoff control devices is not possible. The written construction sequence requires material to be on site to build check dams and that check dams are constructed across the drainageway at the end of any shift when the local weather forecast predicts greater than 10% chance of rain greater than 0.1 inches prior to the completion of the next planned shift.			
17	All concentrated flows with tributary area greater than 1.0 acre are collected and transported in a continuous conveyance system.			
18	To the extent interception with a diversion dike is practical, flow from upstream areas is collected and transported around or through the site unmingled with silty on-site water and transported in a continuous conveyance system.			
19	Conveyances for the continuous conveyance system are approved in table 2, Stable conveyance types, and any limiting requirement is met.			
20	Discharge point for the conveyance system is approved in table 2, Stable conveyance types, and any limiting requirement is met.			
21	Check dams are spaced so that the change in the conveyance flowline is no greater than 3 feet between adjacent check dams.			
22	Water bars are used on linear projects where the fall line of the ground is within 45° of the centerline of the trench. Water bar is constructed from earth, compost berm, gravel berm, compost sock or silt fence. Water bars terminate in vegetative buffer and water does not re-enter trench zone. Water bars are spaced less than 50 feet apart.			
<b>Stabilization of steep slopes. A steep slope is any slope that is both steeper than 15% and has a difference in elevation between toe and top greater than 3 feet.</b>				
23	Steep slope protection is shown on the inactive area stabilization plan, and the written construction sequence requires steep slope protection to be placed as soon as practicable during the grading operation.			
24	Water is diverted from the top of slope by a diversion dike or by use of adverse grade at the top of slope. Diverted water is transported in a continuous conveyance system and discharged onto a stable area.			
25	Cover type is approved in table 3, Approved cover types, for “all slopes”			
26	Where the difference in elevation between the toe and top is greater than 10 feet, a slope interrupt is used at intervals not to exceed 10 feet vertical. The slope interrupt for steep slopes may be compost berm, compost sock, or gradient terrace.			
27	Sediment control is located near the toe of the slope. Sediment control meets the loading limits of table 1, Load rates for sediment control.			

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<b>Inactive area stabilization</b>				
28	A separate inactive area stabilization drawing is provided to each major milestone in the excavation work. Typical milestones maybe completion of mass grading on development projects or traffic routing phases on roadway projects. (Linear pipeline projects have nearly daily changes; for linear projects a single drawing can convey multiple milestones.)			
29	The written construction sequence identifies the construction milestone prior to which the ground cover and access barriers are to be placed.			
30	All area within the project site are shown as one of the following: an active excavation area, a non-disturbed area, an identified cover on a restored inactive area, an identified mud free surface in contractor areas, or a erosion control device such as a sediment trap, sediment basin or stable open channel conveyance. Areas are shown as unique patterns not as outlines only.			
31	The cover identified for a restored inactive area is approved in table 3, Approved cover types, for the ground slope in that area.			
32	Mild and moderate slopes longer than 75 feet are interrupted at intervals not to exceed 75 feet. Slope interrupts for long slopes are compost berm, gravel berm, compost sock, or silt fence.			
33	For large sites the written construction sequence includes a requirement to limit the exposed area to no more than 10 acres at any one time, or to limit the total time of exposure at any one location to 35 days.			
34	Inactive area stabilization drawings show access barrier between active work areas and inactive areas restored by seeding. Paving, sod and similar covers do not need an access barrier.			
<b>Good housekeeping</b>				
35	A rock construction access is shown on all phases prior to completion of paved surfaces on the site.			
36	A concrete washout tank is shown on all phases with concrete deliveries to site.			
37	Stockpiles, if used, are located within 50' of a hillcrest or have an uphill diversion dike. Stockpiles are located at least 50' away from a drainage way. Stockpiles have sediment control located within 25' of their downhill toe.			
<b>Sediment basin detail, for each sediment basin show all the following:</b>				
38	Existing and proposed contours, storage volume is not less than 3600 cf/acre of tributary area.			
39	Embankment and pond are located so as to not impact utilities or roadways.			
40	Minimum surface area is 1000 sf/acre, or the flow length is twice the average width with water surface at the top of the riser.			
41	The embankment slopes do not exceed 2.5:1, and the embankment height does not exceed 15.0 feet, unless the designer is a professional engineer.			
42	Cover for the downstream face of the embankment is approved for steep slopes. See table 3, Approved cover types.			

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43	The riser and drain pipe location and diameters, the number of rows and area per row of the dewatering holes.			
44	The route of the overflow channel, the dimensions of the control section of the overflow channel. If located on the embankment the exit channel of the overflow channel is lined with sod, TRM or rock. If located in excavated earth the exit channel may be seeded and mulched.			
45	Outlet protection is provided where the drain pipe and the open channel spillway rejoin the watercourse.			
46	Elevation of the sediment cleanout level. In Kansas the cleanout level can be no more than 20% of the total storage volume. Permanent pool, if used, does not exceed the cleanout level.			
47	Dewatering provisions meet one of the following: A. Area of dewatering holes is 0.10 to 0.15 sq-in/row/acre of tributary area. Rows of dewatering holes are separated by 6 inch, vertical. B. A skimmer is used and a dewatering rate is identified that will drain the basin in 24 to 48 hours.			
48	Elevation at all the following locations of: the lowest row of dewatering holes, the top of riser, the control section of the open channel spillway, the minimum embankment crest "as constructed" and after settlement, the downstream toe of embankment, and the water surface elevations of the 50% and 4% design storms. The settlement allowance for the "as constructed" elevation is 5% of the fill depth.			
<b>Sediment trap detail, for each sediment trap show all the following:</b>				
49	Existing and proposed contours. Depth is less than 7 feet, and the storage volume is greater than 1800 cf/acre of tributary area.			
50	The embankment slopes do not exceed 2.5:1, and the embankment height is less than 5 feet.			
51	Cover for the downstream face of the embankment approved for steep slopes, see table 3, Approved cover types.			
52	The location of the rock outlet section of the embankment.			

<b>Table 1</b>		
<b>Load Rates for Sediment Controls</b>		
<b>BMP</b>	<b>Load limits for perimeter sediment control</b>	<b>Interior placement for inactive area stabilization</b>
Sediment Basin*	5 to 50 acre tributary area	N.A.
Sediment Trap*	0 to 5 acre tributary area	N.A.
Silt Fence	<0.25 acre tributary area/100' of treatment length.	At edge of active construction, and interrupt mild and moderate slopes at 75 foot spacing on.
Compost Sock, Compost Berm and other Linear Filters	Sheet flow only: < 75' catchment length for slopes < 5% < 50' catchment length for slopes > 5%	At edge of active construction, and interrupt mild and moderate slopes at 75 foot spacing, and interrupt steep slopes at 10-foot vertical spacing.
Inlet Protection*	Less than 3 acres for overflow type with excavated pit. Other inlet types not suitable for perimeter control	Overflow with pit < 3 acre Overflow w/o pit < 1 acre Bypass – area not limiting factor
* diversion dike or other runoff conveyance is required to complete the treatment system		

**Table 2**  
**Stable Conveyance Types**

<b>Conveyance</b>	<b>Limit</b>
Diversion dike, seeded	Tributary area < 5 acres, slope < 5%
Diversion dike, seeded & erosion control blanket	Tributary area < 10 Acre
Undisturbed stream corridor	None
Open channel with check dams	None
Open channel with sod lining	Slope less than 5% or the velocity less than 5 fps for the 50% design storm
Open channel with rock or TRM lining	None
Temporary and permanent piped system	None
Water bars	Limited to linear work sites with stable vegetation adjacent to downhill edge. Spacing less than 50 feet
Slope drain	Tributary area < 2 acres
<b>Stable outlet</b>	
Riprap pad	None
Rock lined plunge pool	None
permanent energy dissipating structure	None
lateral discharge to a stream where the discharge elevation is at the base flow elevation	None
Discharge to a sediment basin or sediment trap	Discharge elevation 0 - 1' above the cleanout elevation
<b>Discharge point</b>	
Natural stream, vegetated swale or public storm sewer.	Clean water bypass only
Sediment basin or sediment trap	Silty water, and clean water only when bypass is not possible.

**Table 3**  
**Approved Cover Types**

<b>Cover</b>	<b>Allowed for</b>
Seed with erosion control blanket	All slopes
Erosion control blanket without seed, winter only	All slopes
Seed with compost mulch	All slopes
Compost mulch without seed, winter only	All slopes
Sod	All slopes
Final landscape planting and mulch	All slopes
Temporary shoring or permanent retaining wall	All slopes
Seed with straw mulch	Mild or moderate slope*
Compost mulch without seed	Mild or moderate slope*
Erosion control blanket with or without seed	Mild or moderate slope*
Gravel or millings	Mild or moderate slope*
Pavement or pavement base course	Mild or moderate slope*
Building floor slab or foundation pit	Mild or moderate slope*
* Slopes flatter than 15% or with less than 3' elevation change between toe and top.	