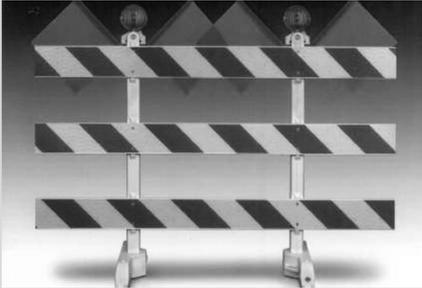


Unit 4

00200
Temporary Features &
Appurtenances



00200 – Temporary Features and Appurtenances

- Mobilization (210)
- Accommodations for Public Traffic (220)
- Work Zone Traffic Control (225)
- Erosion and Sediment Control (280)
- Environmental Protection (290)



Unit 4 Topics:

- Accommodations to public traffic
- General requirements for a Traffic Control Plan
- Flagging basics
- Traffic Protection and Directional Traffic (TPDT)
- General requirements for a Erosion and Sediment Control Plan and Measures
- General environmental protection regulations



Other Relevant Certifications

- Traffic Control Supervisor (TCS)
- Environmental/ Erosion Control Inspector (CECI)



00210 – Mobilization

- Move personnel, equipment, supplies, and incidentals to the project site
- Measurement and payment



00220 – Accommodations for Public Traffic

- Safety and mobility of the public
 - Including bicycles and pedestrians
- Maintain access to business and residential driveways
- Allow emergency vehicles immediate passage at all times
- Stockpile materials and park inactive construction equipment at least 30 feet from traveled way



00220 – Accommodations for Public Traffic

00220.40 Construction
Keep roadways clean

- Protect traffic adjacent to excavations
- Lane restrictions (Standard Specs or restrictions in Special Provisions)



00220 – Accommodations for Public Traffic

00220.80 Measurement

No measurement of quantities will be made

00220.90 Payment

No separate or additional payment will be made for Work performed, unless otherwise provided or pay items are provided under other sections.



00225 – Work Zone Traffic Control



Properly placed
ODOT approved
impact attenuators



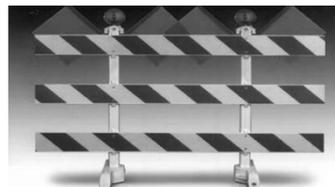
Not an ODOT approved impact attenuator



00225 – Work Zone Traffic Control

00225.00 Scope

- Temporary Traffic Control Measures (TCM)
- Temporary Traffic Control Devices (TCD)
- Temporary Traffic Control Plan (TCP)
- Temporary Traffic Protection (TP)
- Temporary Direction of Traffic (DT)



00225 – Work Zone Traffic Control

00225.10 Materials

- Temp. signing (signs, sign support, flags or flag boards, and amber flashers)
- Barricades, guardrails, barriers, attenuators, and pedestrian fence
- Temp. delineation (temp. tape, striping and flex marker)
- Temp. illumination and traffic signals
- Temp. electrical signs (PCMS, and seq. arrows)
- Temp. night flagging illumination



00225 – Work Zone Traffic Control

Barricade Knowledge

Reference: Standard Drawing TM 820

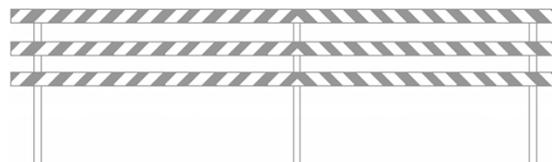


Merge to the Left



Merge to Left or Right

Merge to the Right



00225 – Work Zone Traffic Control

00225.20 Equipment

00225.27 Flaggers

- ANSI Class 3 upper body garment or Class 2 upper body garment and Class E trouser or gaiters.
- A hardhat or baseball-style cap
- Stop/Slow paddle from the QPL.
- Portable, self contained two-way radio and repeaters, as required, with range suitable for communications throughout project.



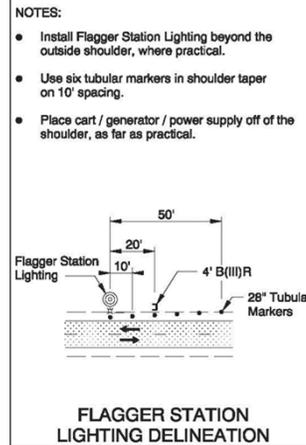
What's wrong with this picture?



00225 – Work Zone Traffic Control

00225.17 Flagger Station Lighting

Flagger station lighting from the QPL.



TM 800



00225 – Work Zone Traffic Control

00225.32 Traffic Control Supervisor

- Has the authority to control flagging operations
- Coordinate and implement Traffic Control Measures flaggers.
- Inspect traffic control measures
- Notify Engineer of minor revisions to Traffic Control Plan and recommends changes for Engineer approval



00225 – Work Zone Traffic Control

00225.40 Construction

Install, inspect, move, operate, maintain, and remove temporary TCD according to the plans and specifications.

- Temporary TCD are to remain the property of the contractor
- Existing TCD shall remain in operation throughout the contract or until replaced by new and permanent TCD



00225 – Work Zone Traffic Control



Turn ≠ Tipped!



00225 – Work Zone Traffic Control

00225.46(b) Portable Changeable Message Signs (PCMS)

- Concise accurate messages
- Engineer must approve displayed message

See PCMS Handbook in class workbook.



00225 – Work Zone Traffic Control

00225.60 Maintenance

Evaluate the condition of TCD and maintain them using the criteria shown in the current American Traffic Safety Services Association (ATSSA) publication.



00225 – Work Zone Traffic Control

00225.80 Measurement

00225.90 Payment

- Temporary Protection & Direction of Traffic (TP&DT)
- Temporary signs – area basis, using width times length
- Flaggers – time basis (actual hours the flagger stations are staffed)
- Traffic Control Supervisor (TCS) – unit basis (determined by the TCS construction work shift. If bid item is included in contract)



00280 – Erosion and Sediment Control

00280.00 Scope

This work consists of implementing structural and non-structural Best Management Practices (BMP) for controlling soil erosion, keeping eroded sediments and other construction-generated pollutants from moving off project sites.



NPDES Permit

Permit Number: 1200-CA
Expiration Date: 12/31/2005
Page 1 of 15

**GENERAL PERMIT
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
STORM WATER DISCHARGE PERMIT**
Oregon Department of Environmental Quality
811 SW Sixth Avenue, Portland, OR 97204, (503) 229-5279
Issued pursuant to ORS 468B 050 and The Federal Clean Water Act

ISSUED TO:

All public agencies responsible for construction activities with storm water discharges that are covered by this permit. The submittal of an approved application and payment of applicable fees are required.

SOURCES COVERED BY THIS PERMIT:

All Construction activities including clearing, grading, excavation, and stockpiling activities under the authority or jurisdiction of a public agency that will result in the disturbance of five or more acres. Also included are activities that disturb a total of five or more acres if part of a larger common plan of development.

Effective December 1, 2002 the previously described construction activities will include land disturbance of one acre or more, and will also include activities that disturb a total of one or more acres if part of a larger common plan of development.

This permit does not authorize in-water or riparian work. These activities are regulated by the Oregon Division of State Lands, US Army Corp of Engineers, and/or the DEQ Section 401 certification program.

Michael T. Llewellyn, Administrator Date
Water Quality Division

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permittee is authorized to construct, install, modify, or operate erosion and sediment control measures, and storm water treatment and control facilities, and to discharge storm water to public waters in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows:

	Page
Schedule A - Limitations and Controls for Storm Water Discharges	2
Schedule B - Minimum Monitoring Requirements	7
Schedule C - Compliance Schedule	9
Schedule D - Special Conditions	10
Schedule F - General Conditions	11

Unless specifically authorized by this permit, by another NPDES or WPCF permit, or by Oregon Administrative Rule, any other direct or indirect discharge to waters of the state is prohibited, including discharges to an underground injection control system.

00280 – Erosion and Sediment Control

- Erosions and Sediment Control Plan (ESCP)
- Monitoring site conditions






**GENERAL PERMIT
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
STORM WATER DISCHARGE PERMIT**

Oregon Department of Environmental Quality
811 SW Sixth Avenue, Portland, OR 97204, (503) 229-5279
Issued pursuant to ORS 468B.050 and The Federal Clean Water Act

ISSUED TO:

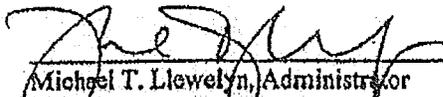
All public agencies responsible for construction activities with storm water discharges that are covered by this permit. The submittal of an approved application and payment of applicable fees are required.

SOURCES COVERED BY THIS PERMIT:

All Construction activities including clearing, grading, excavation, and stockpiling activities under the authority or jurisdiction of a public agency that will result in the disturbance of five or more acres. Also included are activities that disturb a total of five or more acres if part of a larger common plan of development.

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This permit does not authorize in-water or riparian work. These activities are regulated by the Oregon Division of State Lands, US Army Corp of Engineers, and/or the DEQ Section 401 certification program.



Michael T. Llewellyn, Administrator
Water Quality Division

2/20/2001
Date

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permittee is authorized to construct, install, modify, or operate erosion and sediment control measures, and storm water treatment and control facilities, and to discharge storm water to public waters in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows:

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JRT

CONSTRUCTION LLC

April 1, 2015

Attention: Ted Paselk, PE
Project Manager
Roseburg PM Office

RE: I-5: Exit 61 (Louse Creek) Interchange Improvements – Contract No. 14785
Erosion & Sediment Control Plan

Kevin:

This is our preliminary erosion and sediment control plan.

At this time, we intend on following the general layout of the agency provided ESCP depicted on plan sheets GA through GA-4. We will implement the plan as soon as possible and practical.

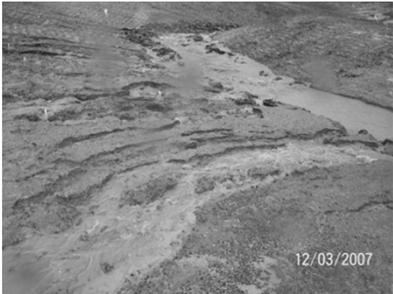
Please note that some clearing may be necessary prior to the installation of the erosion control measures. We will perform this work in a sectional manner. Specifically, we will clear an appropriate sized section and then install the erosion control measures in the section before moving to the next section.

Installation of erosion and sediment control devices will be performed adhering as closely as possible to the Oregon Department of Transportation (ODOT) Erosion and Sediment Control Manual. We will implement Best Management Practices that are consistent with the project permits, and we will endeavor to ensure that no visible and measurable sediment or pollutants leave the project boundaries, enter waterways or drainage systems, or violate applicable water standards during or upon completion of construction.

The Erosion and Sediment Control Manager (ESCM) for the project is Tyler Thayer (cert no. 49135) who can be reached at 541-530-7725. The ESCM will complete and submit the Erosion Control Progress Reports (ECPR) on a weekly basis and during the rainy seasons on a daily basis. The ESCP will be updated monthly and within 24 hours of any changes being implemented.

00280 – Erosion and Sediment Control

- Rain events
- ESCM
- ESC Monitoring Form





EROSION CONTROL MONITORING

PROJECT NAME (SECTION) FFO US20 PME: UPPR-Eddyville (Phase 2)		CONTRACT NO. 14590						
HIGHWAY Corvallis-Newport	COUNTY Lincoln	EROSION & SEDIMENT CONTROL MGR (ESCM) NAME & TITLE: Matthew Kuenzi Civil Engineer						
CONTRACTOR AND/OR SUBCONTRACTOR K&E Excavating, Inc								
EROSION CONTROL FACILITIES AND ACCESS ROAD SURFACING								
LOCATION	DESCRIPTION	EFFECTIVENESS	DATE(S)					
Eddy C	All lined channels, rock lined ditches complete.	Effective	11-Sep					
	Finishing seeding Fill 3B. Everything looks good.							
	Installed rock plating on Fill 3 Access Road	Effective	11-Sep					
Eddy B	Finishing turbidity treatment swales, rock lined ditches	Effective	11-Sep					
	complete. Still some seeding touch up to do.							
Crystal	Installed ditch by Fill 1 and temp culvert. Ditch still	Effective	11-Sep					
	needs to be lined with 3"-0.							
Cougar	Backfilled sand bag isolation dam with dirt plug to	Effective	11-Sep					
	control water escaping. No other erosion control installed							
	Site looks stable.							
VISIBLE OR MEASURABLE EROSION LEAVING THE CONSTRUCTION SITE								
LOCATION	DESCRIPTION	EFFECTIVENESS	DATE(S)					
Eddy C	No visible erosion leaving site.	Effective	11-Sep					
Eddy B	No visible erosion leaving site.	Effective	11-Sep					
Crystal	No visible erosion leaving site.	Effective	11-Sep					
Cougar	No visible erosion leaving site.	Effective	11-Sep					
VISUALLY COMPARE COLOR & CLARITY 30 ft. (10 m) UPSTREAM (U) AND DOWNSTREAM (D)								
RECEIVING WATERS: NAME OF CREEK, RIVER OR LAKE ETC.								
LOCATION - U/D	OBSERVATIONS/ACTIONS TAKEN	DATE(S)						
Eddy C Downstream	No clarity issues observed.	11-Sep						
Eddy B Downstream	No clarity issues observed.	11-Sep						
Crystal Downstream	Not clarity issues observed.	11-Sep						
Eddy A	No clarity issues observed.	11-Sep						
Cougar	No clarity issues observed.	11-Sep						
COMMENTS AND GENERAL SITE CONDITIONS								
<p>All erosion control on site looked good on 9/11 with some minor maintenance needed on the sediment fence at Cougar (still effective). Erosion control at Eddy C substantially complete with only rock plating of the main haul road to be completed and some seeding. Continuing to install erosion control, with turbidity treatment swales almost complete at Eddy B. Installing rock lined ditches working from Eddy B to the west. Andersons Erosion Control continuing to seed and install sediment barrier Type 3. Added dirt plug behind upstream dam at Cougar to control flow of water from channel and better isolate work area. Overall site looks stable. Reviewed site with DEA and ODOT. No significant concerns/comments/changes.</p>								
RAINFALL REPORTING STATION	24 HOUR RAINFALLS	0.11	0	0	0	0		
Cornforth On-Site Gauge	ENDING DATES	9/6/13	9/7/13	9/8/13	9/9/13	9/10/13		
PREPARED BY Matthew Kuenzi	CERT NO. 72645PE	TELEPHONE NUMBER 503-508-7691		MONITORING PERIOD 9/06/2013 - 9/10/2013				
MINIMUM MONITORING AND REPORTING REQUIREMENTS: Inspect all erosion control facilities at least every 7 calendar days on active sites and two weeks on inactive sites. Inspect daily during storm water or snowmelt runoff and within 24 hours after more than 1/2 inch (12 mm) of rain per 24 hour period. See contract subsection 00290.30(a) for additional information. Furnish a completed copy of this report to DEQ upon their request.								

DISTRIBUTION: ORIGINAL TO AGENCY PROJECT MANAGER - COPY TO ORIGINATOR

00290 – Environmental Protection

Turbidity

- Monitor
- Notify PM of discharge



00280 – Erosion and Sediment Control

00280.80 Measurement

00280.90 Payment

- Erosion control
- Check bid schedule to determine measurement and payment for individual Erosion Control Devices



00290 – Environmental Protection

00290.00 Scope

- This section describes the contractor duties and obligations to protect land, water, air, wildlife, and other environmental resources of the state.
- Waste material becomes the property of the contractor



00290 – Environmental Protection

- Pollution Control Plan
- Protection of wildlife
- Protection of sensitive cultural sites



00290 – Environmental Protection

- Migratory Bird Act
- Tree removal
- Active nests



**Environmental Protection
Fish and Fish Habitat**

In-water work periods



Environmental Protection

De-fishing operations and containment



Key Inspection Points

- Safety priority to public, contractor, yourself
- Minimize impact to public and community
- Look at the overall project site at least once per day
- Adhere to the TCP and ESCP or modify if necessary
- Work closely with Contractor to prevent erosion issues
- Stop and change things that are not working
- Keep water confined and away from unprotected slopes
- Know the Region Environmental Coordinator (REC)



Unit 4 Review:

- ✓Accommodations to public traffic
- ✓Traffic Protection and Directional Traffic (TPDT)
- ✓General requirements for a Traffic Control Plan
- ✓Basics of flagging
- ✓General requirements for a Erosion and Sediment Control Plan and Measures
- ✓General Environmental Protection regulations



