

SP00280 (Special Provisions for the 2021 Book)

(Bidding on or after: ~~097-01-23~~

Last updated: ~~0504-016-23~~

May required SP02320 when geotextile
is used. Requires SP02415
when 00280.15(d) is required)

(This Section is not required for Projects classed as “No Risk” per Advisory GE12-01(A), i.e., Projects with no ground disturbance. It is required for Projects classed as “Low Risk” and “High Risk” per Advisory GE12-01(A)).

SECTION 00280 - EROSION AND SEDIMENT CONTROL

(Follow all instructions and make all edits with “Track Changes” turned on. If there are no instructions [orange text] above a subsection, paragraph, sentence, or bullet, then include it in the Project. Delete all orange text before preparing the final document. All other modifications to this Section will require ODOT Technical Resource and State Specifications Engineer approval.)

Comply with Section 00280 of the Standard Specifications modified as follows:

00280.00 Scope - Replace the paragraph that begins "This Work also consists of providing temporary ..." with the following paragraphs:

This Work also consists of providing temporary erosion and sediment control (ESC) measures and furnishing, installing, moving, operating, maintaining, inspecting, and removing ESC throughout the Project area according to the Standard Drawings, the erosion and sediment control plan (ESCP), the Specifications, or as directed, until the site is permanently stabilized. Included also is the monitoring of weather, of stormwater and receiving waters, the reporting of monitoring observations, the reporting of corrective actions (when necessary) and the updates and revisions of the ESCP, including ESCP cover sheet, necessary to keep it representative of current site conditions and compliant with the 1200-CA permit.

When contaminants, pollutants or hazardous materials are discovered in the Project location in soils or groundwater comply with 00290.30(f) and, provide an environmental management plan (EMP) as required by the 1200-CA permit.

(Use one of the following two options as instructed on Projects that involve one acre of ground disturbance or more. Delete the option that does not apply. Check with the Local Agency Liaison, the Erosion Control Program Leader, or the Region Environmental Coordinator.)

[Option 1 - Use the following paragraph when ODOT's NPDES 1200-CA Permit is applicable to the Project.]

Add the following paragraph to the end of this subsection:

The Agency's NPDES 1200-CA permit is applicable to the Project.

[Option 2 - Use the following paragraph when ODOT's NPDES 1200-CA Permit is NOT applicable to the Project and the Contractor is required to use the Local Agency's NPDES 1200 CA Permit or obtain an NPDES 1200-C Permit.]

Add the following paragraph to the end of this subsection:

The Agency's NPDES 1200-CA permit is not applicable to the Project. Before beginning Work on the Project, obtain a NPDES 1200-CA permit from the applicable local jurisdiction or a NPDES 1200-C permit that is applicable to the Project.

(Use the following for “High Risk” Projects that disturb less than one acre.)

The Agency's NPDES 1200-CA permit is not applicable to this Project. Comply with all applicable conditions of this Section.

00280.02 Definitions -

Replace the sentence that begins “**Temporary Stabilization**” with the following sentence:

Temporary Stabilization - Covering soil or other measures to prevent erosion until permanent stabilization measures are in place and established.

00280.04 Erosion and Sediment Control Plan on Agency Controlled Lands - Replace the bullets with the following bullets:

- When using the Agency's ESCP with only modifications required to keep the ESCP current during construction, submit a written notification indicating the Agency's ESCP is used without modifications prior to construction.
 - Prior to beginning construction, edit the ESCP to provide a list of all contractors working on the site.
 - Prior to beginning construction edit the ESCP cover sheet to list all personnel by name and position who are responsible for the installation and maintenance of stormwater control measures including their individual responsibilities and certifications. Keep list current for the duration of the project.
- When using a Contractor modified version of the Agency's ESCP, include the following:
 - Proposed ESCP showing all ESC Work, and quantities of Work.
 - An EMP that addresses pollution prevention and control of potentially contaminated sites or Materials when pollutants are known to be present.
 - Implementation schedules for the ESCP
 - Plans for each phase of Contractor's Work
 - Names and positions of all personnel engaged in construction activities.
 - Names and positions of all personnel responsible for the installation and maintenance of stormwater control measures.
 - Information required under 1200-CA permit.
- When using a Contractor developed ESCP, develop and stamp the ESCP by a professional with one of the following credentials. Include their name and credentials in the ESCP. The ESCP preparer shall be one of the following:

- Oregon Registered Professional Engineer,
- Oregon Registered Landscape Architect; or
- Oregon Certified Engineering Geologist
- When using a Contractor developed ESCP where engineered facilities such as sedimentation basins or diversion structures for erosion and sediment control are required, prepare and stamp the ESCP by one of the following:
 - Oregon Registered Professional Engineer; or
 - Oregon Registered Landscape Architect.
- When using a Contractor developed ESCP, provide plans for each phase of Contractor's work implementation schedule and information required under the 1200-CA permit and as directed in ODOT's Erosion Control Manual.

(Use the following subsection .06 for "Low Risk" Projects.)

00280.06 Erosion and Sediment Control Manager - Delete this subsection.

(Use the following subsection .14(e) when Type A matting is applied hydraulically or is a rolled product.)

00280.14(e) Slope and Channel Liner Matting - Replace the bullet that begins "Type A – Slope..." with the following bullets:

- **Type A: Hydraulically-Applied** – Hydraulically-applied material composed of long strand, thermally processed wood fibers, crimped, interlocking fibers and performance enhancing additives meeting the following criteria:
 - Flexural rigidity when wet, and equal to or greater than 5 oz-yd.
 - Permissible shear stress 1.0 lbs/sqft or greater
 - Thermally processed wood fibers – 73%
 - Crosslinked hydro-colloid tackifiers and activators – 10% + 1%
 - Crimped, interlocking fibers - 5% +1%
 - Moisture content – 12% + 3%
 - Fully Biodegradable
 - A cure time of less than 2 hours during wet weather.

(Use the following bullet when Type A matting is a rolled product.)

- **Type A: Rolled** – Rolled slope protection mat, fully biodegradable, for Clay Soil Slopes 1V:3H or flatter.

(Use the following subsection .15(d) when temporary slope drains are used.)

00280.15(d) Temporary Slope Drains – Replace this subsection, except subsection number and title, with the following:

Furnish either plastic pipe and flared end sections meeting the requirements of Section 02415 or metal pipe and flared end sections meeting the requirements of Section 02420.

(Use the following subsection .15(f)(1) when compost filter socks are required. Fill in the blank with the diameter of the filter sock. Obtain information from the Erosion Control Designer.)

00280.15(f)(1) Filter Sock Material - Add the following sentence to the end of this subsection:

Furnish filter sock Material with a diameter of ____ inches.

(Use the following subsection .16(a) when reusable prefabricated construction entrance mats are included on the Project.)

00280.16(a) Construction Entrances - Add the following bullets to the end of the bullet list:

- **Prefabricated Construction Entrance:** Furnish reusable prefabricated construction entrance mats (track out mats) with the following characteristics:
 - Track out mats consisting of irregular driving surface provided by ridges, knobs or pyramidal extensions (protrusions) not less than 2 1/2 inches height that collects dislodged material off Equipment tires and surface below protrusions.
 - Modular and designed to be fixed together into widths and lengths as needed and anchored in place.
 - High visibility coloration
 - Chemical and UV resistant
 - Crush strength not less than 20,000 pounds

(Use the following subsection .16(h) when Temporary Sediment Traps are required.)

00280.16(h) Temporary Sediment Trap - Replace this subsection, except for the subsection number and title, with the following:

Furnish temporary sediment trap as shown on drawings that are stamped and signed by a licensed engineer. Where soils are engineered with cementitious material, and a potential for runoff exists, furnish temporary sediment trap to capture runoff from engineered soils.

(Use the following subsection .16(i) when concrete washouts are included on the Project.)

00280.16(i) Concrete Washout – Replace this subsection, except subsection number and title, with the following:

Furnish impermeable, spill resistant, leak proof concrete washout basin of sufficient size and quantity to retain all concrete wash water and concrete waste developed during construction, meeting the following requirements:

- (1) Field fabricated washout basin as shown and consisting of the following:

- **Straw Bales** - Standard rectangular straw bales, with straw Material according to 01030.15, except no certification is required.
- **Plastic Sheeting** - Minimum 10-mil thick polyethylene plastic sheeting.
- **Staples** - 1/8-inch diameter steel wire staples. 2-inch "U" width with a length of 6 inches minimum

(2) Manufactured basins sufficiently durable to be removed intact, or cleaned of content without releasing concrete material or concrete washout water.

(Use the following subsection .16(k) when Active Treatment Systems are required.)

00280.16(k) Flocculant - Replace this subsection with the following subsection:

00280.16(k) Active Treatment System - Install sediment or other pollutant removal system using products, pumps and other engineered or mechanical means to clean water. Include with the active treatment system an operation and maintenance plan that includes system schematic, inlet and discharge details and sampling plan, including discharge water sampling frequency. Active treatment systems may consist of the following:

- **Flocculants** - Materials that cause sediments to fall out of suspension and are fully biodegradable and harmless to aquatic organisms.
- **Electro-Coagulation** - Electro-mechanical system using pumps and electricity to remove sediment from water.
- **Filtration** - Mechanical system using pumps and filters to remove sediment from water.

(Use the following subsection .30 on all Projects except "No Risk" or "Low Risk" Projects.)

00280.30 Erosion and Sediment Control Manager - Replace this subsection, except for the subsection number and title, with the following:

If the Agency's NPDES 1200-CA permit is applicable to the Project, designate and provide an ESCM who possesses a valid ODOT ESCM certificate or who has successfully completed an erosion control training that is acceptable to the Engineer.

The ESCM duties include:

- Manage and ensure proper implementation of the ESCP.
- Accompany the Engineer during field review of the ESCP prior to construction activities.
- Monitor rainfall, snow melt and runoff at the Project Site.
- Monitor water quality in receiving streams in the vicinity of the Project Site.
- Monitor water in sediment traps receiving runoff from soils amended with cementitious material for acidity or alkalinity.
- Monitor locations identified in Section 00294 for compliance.
- Inspect ESC and monitor receiving waters on active construction site on initial date and every 14 Days for effective functioning.
- Inspect ESC on inactive sites every 14 Days for effective functioning.

- Inspect ESC for effective functioning and monitor receiving waters, on all active and inactive sites at least within 24 hours of rainfall events sufficient to result in runoff from the Project Site.
 - West of the Cascades, after 0.1 inch of rainfall, inspect conveyances for runoff and monitor site if runoff is observed.
- Fill out and provide monitoring report for each site inspection and include the following:
 - Photographs of any BMP that is not providing effective functioning or requires maintenance.
 - Provide sufficient photographic documentation of all BMPs that are providing Effective Functioning.
- Ensure that ESC are regularly cleaned and maintained.
- Mobilize crews to make immediate repairs to ESC or install additional ESC during working and non-working hours when ESC is not effectively functioning.
- Record actions taken to clean up discharged sediment.
- Report potential permit violations to the Agency immediately upon discovery.
- Repair conditions that caused permit violations and prepare submittals for corrective actions according to 00280.64.
- Update the ESCP monthly and within 7 Days after changes or major ESC modifications are implemented in the field.
- Submit ESCP revisions in electronic format, to Engineer within 30 Days after making revisions.
- Prepare for wet weather during the periods between October 1 and May 31 according to 00280.41(c).
- Accompany the Engineer on inspections and, if required, on inspections by representatives of regulating agencies. If any of the following occur, revise the ESCP to reflect the change(s) within 7 Days.
 - Changes to the construction plans that impact erosion and sediment control measures;
 - Changes to the stormwater control BMPs, their location, maintenance required, and any other revisions necessary to prevent erosion and control sediment runoff;
 - An increase in the area impacted by construction activities;
 - Other activities at the site that are no longer accurately reflected in the ESCP. This includes changes made in response to corrective actions triggered;
 - To reflect areas on the site map where operational control has been transferred (and the date of transfer) since initiating permit coverage;
 - If inspections by DEQ determine that ESCP revisions are necessary for compliance with the 1200-CA permit;
 - Where DEQ determines it is necessary to install or implement additional controls at the site in order to meet the requirements of the 1200-CA permit. Include the following in the ESCP:
 - A copy of any correspondence describing such measures and requirements; and
 - A description of the controls to be used to meet such requirements.

- Change of Subcontractors that engage in construction activities on site, and the areas of the site where the Subcontractor(s) engage in construction activities;
- Change of any personnel (by name and position) that are responsible for the design, installation and maintenance of stormwater control measures;
- Change of the certified erosion and sediment control inspector, or of their contact information and any applicable certification and training experience;
- To reflect any revisions to applicable federal, state, tribal, or local requirements that affect the stormwater controls implemented at the site; and
- If a change in chemical treatment systems or chemically enhanced stormwater control is made, including use of a different treatment chemical, different dosage rate, or different area of application as applicable. Furnish temporary sediment trap as shown on drawings, stamped and signed by licensed engineer.

When Work on Project or portion of Project is temporarily suspended and those portions of the site are stabilized to eliminate risk of sediment discharge, reduce monitoring frequency as follows:

- Twice a month, not less than 14 days apart, after work in that area has stopped.
- After this first month, and the site remains stabilized, monitoring frequency can be reduced to once per month;
- Upon resumption of work, return to the standard monitoring frequency.
- Document the beginning and end dates of area's work suspension on monitoring form and identify area(s) of work suspension on ESCP revision.

Submit revised ESCP to Engineer for signature by licensed professional (see 00280.04) and submission to DEQ when changes are made for the following reasons:

- Part of a corrective action requirement;
- An increase or decrease in project size;
- An increase or decrease in size or location of disturbed areas;
- Changes to BMPs, such as type, design or location;
- Change of the ESCM.

00280.41(a) Disturbance Limits - Replace this subsection, except for the subsection number and title, with the following:

Prior to any ground disturbing activity, delineate all construction site clearing limits with high visibility markings and do not disturb areas outside the clearing limits. Prior to beginning construction activities, delineate and protect riparian areas including trees, root zones and vegetation to be preserved and delineate and protect vegetated buffer zones according to 00280.41(e). Protect post-construction stormwater facilities, unless used during construction as sediment trap, in which case, repair according to 00280.46(h).

Add the following subsection

00280.41(e) Buffers - Retain and preserve buffer zones of natural, undisturbed vegetation, 50 feet in width between Work and Waters of the State and sensitive areas including water bodies, wetlands, springs and seeps. Where 50 foot buffers are not attainable, provide erosion, runoff and sediment control BMPs as shown or directed.

Add the following subsection:

00280.41(f) Hauling Material - Cover loads carrying soil or sediment when leaving Project Site. Drain saturated loads on site or haul in water tight beds.

Add the following subsection:

00280.41(g) Underground Injection Controls (UIC) - Do not allow storm water from work area to enter Underground Injection Control (UIC) inlets, catch basins or wells.

(Use the following subsection .46(a) when construction entrances are included on the Project.)

00280.46(a) Construction Entrances - Add the following to the end of this subsection:

Construct the construction entrances as shown or directed.

00280.46(h) Temporary Sediment Trap - Add the following paragraph to the end of this subsection:

Where location of Temporary Sediment Trap is used post-construction for water quality treatment, storage or infiltration, remove sediment and soil to a depth of 18" and replace to finish grade with material approved by engineer.

00280.46(i) Concrete Washout - Add the following paragraph to the end of this subsection:

Locate concrete wash basins and concrete waste disposal to prevent stormwater that has been in contact with concrete wash or waste concrete from contaminating Waters of the State or stormwater inlets or conveyances. Handle wash water as waste. Do not dispose of concrete wash water or wash out concrete trucks or tools onto the ground, or into storm drains, open ditches, streets, or streams.

Add the following subsection:

00280.46(j) Access Routes - Stabilize unpaved access and haul routes within the Project Site with Aggregate or as approved by Engineer.

(Use the following subsection .48 on Projects that require emergency Materials. Obtain information from the Erosion Control Designer. Include in the Schedule of Items all emergency items listed in this subsection. The listed items do not need to be shown on the plans if they are for emergency use only and are not otherwise part of the Agency's ESCP.)

00280.48 Emergency Materials - Add the following paragraphs after the paragraph that begins "Provide, stockpile, and protect...":

Provide and stockpile the following emergency Materials on the Project site:

Item

Quantity

.....
.....
.....

(Use the following subsection .62 for “Low Risk” Projects.)

00280.62 Inspection and Monitoring - Replace the paragraph that begins "Ensure that regular site inspection ..." with the following paragraphs:

Inspect the Project Site and all ESC devices for potential erosion or sediment movement on a weekly basis and when 1/2 inch or more of rainfall occurs within a 24 hour period, including weekend and holidays.

If a significant noncompliance or serious water quality issue occurs that could endanger health or the environment, verbally report it to the Engineer within 24 hours.

(Use the following subsection .62(a) when ODOT's NPDES 1200-CA permit is applicable to the Project.)

00280.62(a) Inspection - Replace this subsection, except for the subsection number and title, with the following subsection:

Perform site inspection, complete all applicable parts of the ODOT Erosion Control Monitoring Form, and submit the form to the Agency as follows:

- On initial day of construction activity
- Every 14 days
- 24 hours after any rainfall event or snow melt event that results in runoff, including weekends and holidays
- When directed by the Engineer.
- Include photographs of any BMP that is not functioning or requires maintenance in the inspection report. If all BMPs are functioning as designed, include not less than 4 photos of these BMPs.

For inactive sites or inactive areas within a site, document the dates when work stopped and resumed and identify the location(s) in an ESCP revision. Conduct inspection and monitoring of inactive sites or inactive areas within a site as follows:

- Not more than 14 days prior to the site becoming inactive to verify BMPs are providing Effective Functioning.
- Every 14 days for the first month the area is inactive
- Once a month thereafter
- 24 hours after any rainfall event or snow or ice melt event that results in runoff, including weekends and holidays
- When directed by the Engineer.
- Work may be stopped due to frozen conditions such that the site is stabilized. Resume monitoring every 14 days and within 24 hours of rainfall or melt resulting in runoff when frozen conditions end.

00280.62(b) Rainfall - Replace this subsection, except for the subsection number and title, with the following subsection:

Furnish and install a temporary rain gauge at the Project site. Upon approval, storm event information may be derived from weather stations that are representative of precipitation levels at the site.

(Designer to insert the web address of the closest on-line rain gauge to the Project. Replace "XX.XXXXX" with the latitude and "XXX.XXXXX" with the longitude of nearest weather station, in 5 decimal place format in degrees (Example: Replace "XX.XXXXX" with "43.381159" and "XXX.XXXXX" with "124.23273").)

The closest on-line rain gauge is located at:
forecast.weather.gov/MapClick.php?lat=XX.XXXX&lon=-
XXX.XXXX&unit=0&lg=english&FcstType=graphical

00280.63(c) Paved Areas - Replace this subsection, except for the subsection number and title, with the following subsection:

Keep all paved areas clean for the duration of the Project. Use cleaning methods that do not transport sediment-laden water to receiving streams. Remove sediment that has been tracked-out from the Project Site by the end of the same business day. If the sediment track-out occurs on a non-business day, remove the sediment by the end of the next business day.

Add the following subsection:

00280.64 Corrective Actions - Initiate corrective actions when the following noncompliance occur:

- A discharge from the Project Site causes an exceedance of applicable water quality standards,
- Sediment or turbidity are visible in discharge from the Project site in conveyance system leading to surface water or at the discharge point within surface water,
- BMP needs repair or replacement, beyond routine maintenance,
- BMP shown on ESCP was not installed or installed incorrectly,
- A prohibited discharge has occurred,
- When required by DEQ,
- As directed by Engineer

(a) Corrective Action Timelines - Immediately initiate corrective actions to address noncompliance, including removing discharged material and repairing or replacing BMPs that do not provide Effective Functioning according to the following:

- Mobilize resources to clean contaminated surfaces and address cause of discharge,
- Complete corrective actions by the close of the next business day for discharge clean-up and to restore Effective Functioning of installed BMPs,

- For more significant noncompliance of which require additional, replacement or modified BMPs to restore Effective Functioning, complete corrective action(s) no later than 24 hours after the discovery
 - If completion of corrective action is not feasible within 24 hours, document the reasons why the time line cannot be met.
 - Provide a schedule for clean-up and corrective actions that restores Effective Functioning as soon as feasible. If schedule cannot be met document the reasons for the delay.
 - Provide all corrective action documentation and photographs to Agency within 24 hours of completion of corrective actions.

(b) Corrective Action Documentation - Document corrective actions within 24 hours of implementations to provide:

- The Project Site's common name and 1200-CA permit identification number when applicable,
- Conveyance system discharge location(s) and outfalls that were out of compliance,
- Photographs of the discharge(s) before and after the implementation of corrective actions, or before and after NTU readings of the discharge,
- The period of noncompliance,
- Name(s), titles and contact information of personnel conducting inspections,
- The specific condition and the date and time the noncompliance was identified,
- Description of the noncompliance and BMP failure(s) that caused the noncompliance,
- Description of the actions taken to address the noncompliance and prevent a reoccurrence of the noncompliance,
- Where corrective actions change site conditions from what is shown on ESCP, revise the ESCP to represent the site conditions,
- Immediately upon completion of corrective action documentation, provide to Agency for signature and submittal to DEQ.

00280.90 Payment - Replace this subsection, except for the subsection number and title, with the following:

The accepted quantities of Work performed under this Section will be paid for at the Contract unit price, per unit of measurement, for the following items:

(Delete Pay Item (s) from the list that are not included in the Schedule of Items, but do not change the alpha characters next to the Pay Items. Do not use item (b) on "Low Risk" Projects.)

Pay Item	Unit of Measurement
(a) Erosion Control.....	Lump Sum
(b) Erosion and Sediment Control Manager	Lump Sum

Erosion Prevention

- (c) Plastic Sheetting..... Square Yard
- (d) Chemical Soil Binder Acre
- (e) Chemical Dust Control..... Acre
- (f) Temporary Mulching, _____ Acre
- (g) Matting, Type _____ Square Yard
- (h) Compost Erosion Blanket Square Yard

Item (a) includes:

- mobilization
- furnishing, stockpiling, protecting, restocking, and removing emergency Materials
- preparing Project for a period of extended non-activity
- inspecting, maintaining, and removing erosion control devices
- restoring, mulching, tacking, and seeding all disturbed ground, Work, and storage areas not otherwise covered

Partial payment for items (a) will be made as follows:

- When the initial Contractor developed ESCP, narrative, and schedule are complete and accepted, and the initial erosion control devices are installed25%
- When 50 percent of the Contract is complete, excluding advances on Materials25%
- When 75 percent of the Contract is complete, excluding advances on Materials25%
- At completion of the Work covered by this Section25%

(Use the following paragraph when item (b) is included in the Pay Item list above.)

Item (b) includes:

- monitoring activities to maintain effective functioning
- developing, revising and documenting the ESCP
- monitoring activities to maintain effective function and permit compliance

(Use the following paragraph when item (c) is included in the Pay Item list above.)

Item (c) includes protecting exposed slopes with plastic sheets, anchoring devices, and providing toe protection.

(Use the following paragraph when item (f) is included in the Pay Item list above.)

In item (f), the word "Hydromulch", "Straw", or "Compost" will be inserted in the blank.

(Use the following two paragraphs when item (g) is included in the Pay Item list above.)

In items (g), the type will be inserted in the blank.

Item (g) includes preparing the slope surface and stabilizing exposed Soil with erosion matting Material and bonded fiber matrix matting application.

Payment will be payment in full for furnishing and placing all Materials, and for furnishing all Equipment, labor, and Incidentals necessary to complete the Work as specified.

No separate or additional payment will be made for:

- constructing and removing temporary slope berms
- erosion control for Work outside the construction limits including but not limited to limited to, Borrow pits, haul roads, disposal sites, and Equipment storage sites
- modifications or additions to the ESCP.

No separate or additional payment will be made for constructing laps, seams, joints, wraps, overlaps, joint overlaps, or patches unless the Engineer orders additional amounts in excess of the minimum. For laps, wraps, or overlaps that that have been ordered by the Engineer and exceed the minimum or specified length or width, payment will be made for the added lap, overlap, or wrap length or width at the Contract unit price.

Water used for non-chemical dust control will be paid according to Section 00340.

Additional ESC devices required for permit compliance will be paid for according to 00195.20.