



Instructions For Using The 207 And 212 Project Standards During Construction

Revised June 6, 2022

Background:

The process of amending topsoil and seeding in CDOT right-of-way as part of a construction activity is known as “roadside revegetation,” and occurs once grading activities and other infrastructure improvements have been completed. Successful roadside revegetation support transportation goals for safety and efficiency while stabilizing slopes, reinforcing infrastructure, supporting pollinator habitat, and improving road users’ experience (FHWA Roadside Revegetation Manual).

CDOT’s existing roadside revegetation process has been under evaluation since 2015, starting with an [Assessment of CDOT Revegetation Practices For Highway Construction Sites](#) paper that provided an assessment of its success in past and active construction projects. CDOT evaluated the research recommendations and conducted a pilot program during the 2018 construction season. These pilot projects successfully implemented revised roadside revegetation practices and 212 methods through design and construction. Using the lessons learned from the pilot program, CDOT developed standard special provisions (SSPs) for the 207, 212 and 214 specifications. The SSP process allows for time for additional evaluation, and feedback on the documents prior to the inclusion as standard specifications. These proposed revisions are best practices and intended to compliment Region best practices and methods for revegetating challenging terrain such as rocky soils, steep slopes, shallow bedrock etc.

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CONSTRUCTION PHASE: Tools and Options

The SWMP Permanent Stabilization Plan Sheets and Site Maps (revegetation plan) are developed in the design phase and implemented in the construction phase. Revegetation includes topsoil management (salvage if using on-site material, stockpiling and placement), addition of amendments, seeding, and applying final mulch or blanket cover (straw/hay, hydraulic mulches or soil retention blankets).

Agenda templates and worksheets are available tools to document and track installed quantities for Engineers and Region Water Pollution Control Managers (RWPCM). This information is part of the project closeout and handoff if there is a stormwater permit transfer. These documents are required to be filled out as part of the project file and may be found on the [Landscape Architecture web page](#).

- Environmental Pre-Construction Conference Agenda
- Site Pre-vegetation Conference Agenda
- Seed Tag Calculation Worksheet
- Revegetation Checklist
- Seed and Amendment Quantities Checklist

Successful use of the roadside revegetation templates and worksheets is described in the following five (5) step process.

Step 1 – Environmental Pre-Construction Conference



The goal of the Environmental Pre-Construction Conference is to improve the communication on the SWMP, permit, and revegetation requirements. This meeting is coordinated by the Regional Water Pollution Control Manager (RWPCM) if the region's Permanent Stabilization Subject Matter Expert (PSSME) is a different individual they should also attend to provide input on revegetation as the project progresses. The Environmental Pre-Construction Conference Agenda and Handouts are found on in the [Construction Manual](#) webpage.

Step 2 - Site Pre-Vegetation Conference

The goal of the Site Pre-Vegetation Conference is to effectively communicate contract revegetation requirements to the Subcontractor. This meeting is scheduled by the Engineer-in-Charge (EIC) and conducted by the PSSME and occurs just prior to the start of the required subsoil preparation if subsoil decompaction is feasible for the project. Based on experience, a meeting length of approximately 2 hours is necessary to address questions from grading and revegetation subcontractors, site inspectors, and other project stakeholders.

Step 3 - Seed Tag Calculation Worksheet

A Seed Tag Calculation Excel Worksheet is available to calculate the amount of pure live seed (PLS) required for each of the seeding phases based on the SWMP Seed Plan requirements allowing the total bulk seed to be determined. This worksheet is intended to be completed by the EIC and/or the inspector to assist with verifying seed quantities.

Detailed instructions on how to use the Seed Tag Calculation Worksheet are located on the first tab of the worksheet.

Step 4 - Seed and Amendment Quantities Checklist

The Seed and Amendment Quantities Checklist is a useful tool to track product approvals and to calculate quantities of topsoil amendment and mulches for each of the seeding phases based on the SWMP requirements. The checklist consists of an Excel worksheet and is intended to be completed by the EIC and/or the Inspector as materials are delivered and installed on the project.

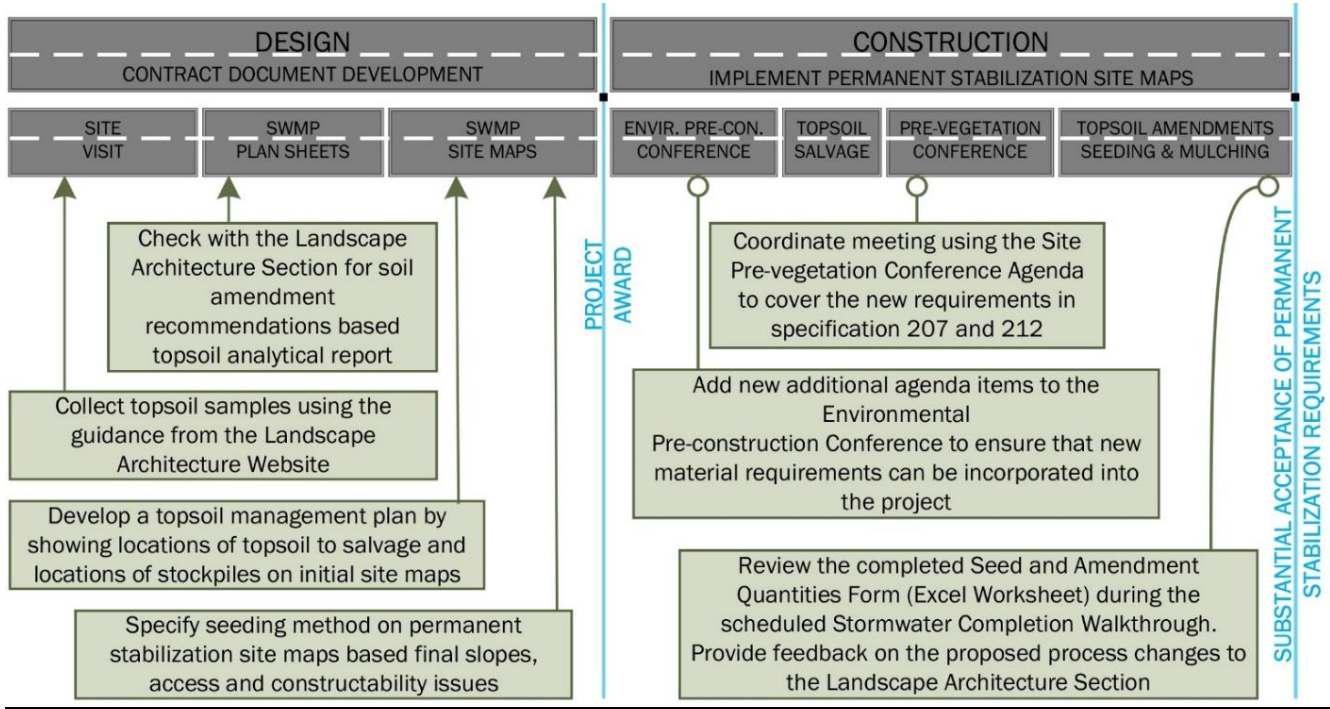
Detailed instructions on how to use the Seed and Amendment Quantities Checklist are on the first tab of the worksheet. The completed checklist is reviewed by the PSSME during Stormwater Completion Walkthrough.

Step 5 - Verification of Subsoil Preparation

Additional requirements for inspection of Contractor's work and monitoring the subsoil preparation, topsoil amendments, and seeding operations have been incorporated into the SSPs. Requirements include the verification of adequate subsoil preparation by the Contractor using a penetrometer prior to the placement of topsoil, seed, and fertilizer. For projects where decompaction depths were altered or were infeasible, provide a plan for alternative plans for placing topsoil. The Contractor is required to submit a Permanent Stabilization Phasing Plan to ensure equipment, materials, and vehicles are kept off areas to prevent recompaction to soils and damage to vegetation.



Project Delivery Timeline



For assistance with any of these documents, please contact the Region PSSME or CDOT Landscape Architect.