

Bracketed section numbers refer to the 2006 *Standard Specifications*.

Section 69 Overside Drains

4-6901 General

Overside drains consist of various types of pipes, flumes, and lined ditches installed to remove surface water from highways or from benches in cut or fill slopes.

4-6902 Before Work Begins

During this preliminary inspection, take the following steps:

- Review the project with the maintenance superintendent to assess any problem drainage areas.
- Review sheets D87A, D87B, D87C, and D87D in the *Standard Plans* for information on downdrains and overside drains.
- Verify that Form CEM-3101, “Notice of Materials to Be Used,” includes all fabricated materials. Refer to Section 6-2, “Acceptance of Manufactured or Fabricated Materials and Products,” and Section 6-3, “Field Tests,” of this manual for additional information.
- Ensure the contractor has provided a certificate of compliance for steel, aluminum, and plastic materials used in overside drains. Generally, there will be no Form TL-0624, “Inspection Release Tag,” for these materials with the exception of coatings used with overside drains.
- Check the condition of the materials to discover any damage possibly sustained during shipping and handling. Require the repair of minor damage to coatings or galvanizing. (See Section 66-1.02C [66-1.03], “Protective Coatings, Linings, and Pavings,” and Section 75-1.05, “Galvanizing,” of the *Standard Specifications*.) If satisfactory repair cannot be achieved, require unacceptable materials to be removed from the project.
- Inspectors from the Office of Materials Engineering and Testing Services (METS) will inspect and test any coating materials.
- Review any planned installations of metal beam guardrail. If overside drains are in a metal beam guardrail area, consider using long span nested guard rail. (See the *Traffic Manual*, Chapter 7-03.6, “Guardrail Design Considerations” and Figure 7.9, “Long Span Nested Guardrail.”)
- Review plans and planned overside drain locations by verifying design with the actual field surveys. Make any necessary changes and give the contractor a revised list of lengths.
- You can determine the exact location of overside drains, in an area where the grade is flat, by having a water truck dump part of its load in the gutter and cutting the dike where the water ponds.

Section 69 Overside Drains

4-6901 General

4-6902 Before Work Begins

4-6903
During the Course of
Work

4-6903 **During the Course of Work**

During work, take the following steps:

- Determine that pipe sections have watertight joints and are properly installed.
- As specified in Section 19 of the *Standard Specifications*, ensure the contractor disposes of the surplus material resulting from excavation and performs the backfill.
- Ensure entrance areas are watertight.
- Require fog sealing of all asphalt concrete spillways and downdrain entrance areas.

4-6904
Measurement and
Payment

4-6904 **Measurement and Payment**

Count entrance tapers, tapered inlets, reducers, slip joints, and anchor assemblies. The length of downdrain pipe and flume to be paid for is the length ordered by the engineer with an adjustment when downdrain pipe is cut to fit a structure or slope. The length ordered by the engineer is the length shown on the plans or any revised lengths the resident engineer deems necessary to meet field conditions. In the lengths of pipe and flume downdrains to be paid for, do not include lengths of tapered inlets and entrance tapers (including tail pipe and slip joints).

For additional information, see the discussion on measuring pipe in Section 4-65, “Concrete Pipe,” of this manual.