

200's – Mobilization and Traffic Control

Section 00220 – Accommodations for Public Traffic

In this Section, the Contractor is required to maintain and adequately protect all facilities being used by public traffic – including motor vehicles, bicycles and pedestrians.

General

The contractor is required to provide for the safety and mobility of the public through the use of a variety of traffic control devices and measures.

The Inspector should be ensuring the Contractor is providing:

- A safe clear zone (30 feet, min.) for the storage of all construction equipment, vehicles and materials from the travelled way.
- Clear and adequate protection and delineation between the work area and public traffic.
- Immediate passage for all emergency vehicles at all times.
- Adequate pedestrian facilities and routes (including detours) that comply with all applicable Americans with Disabilities Act (ADA) requirements.
- Adequate temporary pedestrian signing, per the MUTCD and the TCP.
- Adequate bicycle facilities and routes (including detours), as well as applicable warning and detour signing.
- Access to businesses, residences, intersections, and connections, whether as existing or temporary facilities.
- Adequate mobility through the work zone without delaying traffic for longer than 20 minutes, unless otherwise indicated in the project's Special Provisions.

Construction

This subsection describes a number of important contractor requirements, including:

- Traffic nuisance abatement – Keeping the roadway free of debris.
- Driveway access details – Details for providing reasonable access.
- Abrupt edge and adjacent excavation protection details.
- Lane restrictions – Times when lanes/shoulders/roads cannot be closed.

Lane Restrictions

The last bulleted item above – Lane Restrictions – is one of the most critical components of the contract. The Inspector should know and completely understand the Lane Restrictions for each project.

Enforcing the contract Lane Restrictions is crucial for maintaining mobility, efficient operation and overall traffic safety through the project limits.

Extensive efforts and planning have been made during project design to develop the Lane Restrictions. Lane and road closures can have a significant impact on traffic flow, commercial mobility; and, road user safety in advance of and through the work zone.

Bring any proposed modifications to the Lane Restrictions to the attention of the Project Manager. Also, before implementation, contact ODOT Region Traffic offices discuss impacts associated with any changes to the original Lane Restrictions.

If the Contractor exceeds or violates Lane Restrictions from Section 00220.40 of the Special Provisions, the Contractor may be subject to Liquidated Damages as described and identified in Section 00180.85(c). If the contract includes Liquidated Damages for lane closures exceeding Lane Restrictions, or for delays to public traffic in excess of given time limits, Inspectors should document these violations on a Source Document and report it to the Project Manager as soon as practical.

Quality Control

In general, cost-related items (typically, labor costs) within Section 00220 are paid for under the Temporary Protection and Direction of Traffic (TP&DT) pay item. However, quantity and quality-related issues should be adequately documented to track Contractor progress and efficiency. Therefore, on a daily basis, complete and record pertinent information regarding temporary traffic control and public safety in the [“Daily Progress Report” \(Form 734-3474\)](#).

Concurrently, ensure the Contractor is completing and signing a [“Traffic Control Inspection Report” \(Form 734-2474\)](#) on a daily basis and submitting it by the end of the next working day.

Section 00225 – Work Zone Traffic Control

Work zone traffic control consists of providing temporary traffic control measures (TCM) and all work that must be done involving TCM and associated traffic control devices (TCD).

Prior to commencement of the project, review the Traffic Control Plan (TCP) and project Special Provisions with the Project Manager. During the review of the TCP, pay particular attention to the following:

- Modifications made to the TCP by the Contractor, if any. Look for inconsistencies in the standard application of TCM or TCD within their plan.
- Site or project-specific details added to the TCP to cover unique work items.
- Temporary Traffic Control Standard Drawings (TM800 series) to be used for the project.
- Constructability issues or other conflicts that may impact safety, mobility or construction schedule deadlines.

General

Ultimately, the Contractor is responsible for the safe handling of traffic. Do not issue instructions that would shift responsibility from the Contractor to the agency.

Complete and submit Source Documents, as required, to justify payment for all temporary traffic control pay items – including the TCS.

Observe traffic conditions during the course of the project. If the current TCP is:

- Providing ineffective traffic control – including driver confusion or erratic behaviors.
- Creating adverse traffic conditions – including excess delay and long queues.
- Inadequately addressing the safety of workers or public traffic.
- Contact the Project Manager, who can then require the Contractor to revise their TCP.

Quality Control

To maintain a consistent level of quality for all work zone traffic control features, do the following:

- Review all TCM, TCD, and other materials to ensure compliance with applicable Standard Specification and Special Provision requirements.

- Consult the [Non-Field Tested Materials Guide](#) for any quality documentation that must be submitted.
- Consult the [Qualified Products List \(QPL\)](#) for approved devices and products.
- Review temporary devices and materials, and record information about their condition, placement, usage, etc. in the [“Daily Progress Report” \(form 734-3474\)](#).

Surveying and Layout

Ensure the Contractor has performed the following tasks to ODOT's satisfaction:

- Survey markings are laid out in a manner that provides smooth traffic flow.
- TCD placed on the project appear to meet the requirements of the TCP and specifications.
- Survey markings indicate when devices must be mounted on posts.
- Both the Contractor and Inspector understand the survey markings.
- For post-mounted devices, there are no apparent conflicts with underground or overhead utilities.

Construction

Review the traffic control measures and devices being used to ensure the Contractor is addressing the following:

General

- TCM and TCD conform to the Traffic Control Plan.
- All TCD meet the “Acceptable” condition as described in the ATSSA “Quality Standards for Work Zone Traffic Control Devices” handbook. “Marginal” or “Unacceptable” devices must be replaced with new or “Acceptable” devices.
- All TCD are visible and legible during both day and night.
- Wiring connections to devices are constructed in a safe manner (i.e., no loose or stray wires exposed).
- The TCS is performing all required duties, if the contract includes a pay item quantity for a TCS.
- All TCM and TCD are being properly maintained by the Contractor – including washing, repairing, and replacing TCD as needed, through the life of the project.

Temporary Signing

- The Oregon Utility Notification Center has been contacted and asked to identify conflicts between post locations and utilities.
- Signs are in “Acceptable” condition when first installed.

- Signs are mounted on wood or square tube steel posts, unless otherwise indicated in the specifications or shown in the plans.
- Signs are installed and secured so they will not be blown down or create a traffic hazard.
- Signs installed on a Temporary Sign Support (TSS) are not tipped over in the work zone and left exposed to public traffic. Tipping over a TSS is not an approved method for “covering” an inconsistent sign.
- Signs are installed at the proper angle to the roadway to insure reflectivity, and at the proper height according to the TCP and MUTCD.
- If called for in the specifications or the plans, flashers on signs are installed correctly and functioning properly.
- All inconsistent signs have been turned, covered or removed. Covered signs are completely covered by a sign cover from the QPL, or as approved by the Project Manager.
- Portable Changeable Message Signs (PCMS) are placed according to the Standard Drawings and serviced to ensure continuous function.
- PCMS messages being displayed are as shown in the plans, or as approved by the Project Manager.
 - If assistance is needed in developing additional PCMS messages, the Inspector may contact the State TCP Engineer in Salem.

Temporary Barricades, Guardrail, and Barrier

- Guardrail and barrier are aligned correctly, constructed or installed properly, and include all correct blunt end treatments.
- Sufficient barricades, of the correct type and orientation (“left”, “right”, “left/right”), are being used and placed as shown in the plans or Standard Drawings.
- Placement of TCD allows for safe and efficient flow of traffic (including bicycles and pedestrians), and accommodates all vehicles expected to use the roadway (e.g. over-dimensional trucks).

Temporary Traffic Delineation

- The correct number and type of devices are used per the TCP.
- The spacing between devices and taper lengths are correct per Standard Drawing TM800 and the TCP.
- Inconsistent and conflicting pavement markings are removed per the TCP. Ensure the removal method is allowed by Specification and does not excessively damage the pavement.

- Pavement markings are of the specified type for site conditions, and do not impede traffic flow.
- Replace pavement markers, as needed.
- Restripe worn or faded pavement markings, as needed.
- Temporary electrical signs, including PCMS and sequential arrows, are properly placed and will be serviced to ensure continuous function.
- Flaggers/Pilot Cars
- Signing used for flagging operations is placed and maintained per the TCP.
- Flaggers and pilot car operators have a current Flagger Certification card from Oregon, Washington, Idaho or Montana on their person.
- Flaggers and pilot cars have effective radio communications.
- Pilot cars are equipped with a "PILOT CAR FOLLOW ME" sign on the back of the vehicle, and have a yellow flashing, overhead light visible from behind the vehicle.
- Flaggers are wearing ANSI Class 2 or Class 3 apparel, and have other safety equipment per specifications and Oregon OSHA requirements.
- Flaggers have an "Acceptable" quality STOP/SLOW sign of the correct size.
- Flaggers are stationed away from vehicles and equipment and have identified their "escape route".
- Flaggers are standing out of areas of shade and in advance of sharp curves to maximize their visibility and provide drivers with adequate advance warning.
- Flaggers are using proper hand signals when directing, stopping, or starting traffic. Flaggers are making eye contact with motorists to ensure the Flaggers are seen, and that drivers are seeing the Flagger's instructions.
- Flagger stations are effectively illuminated at night using "Flagger Station Lighting" devices from the QPL.
- If queues are regularly extending beyond the first sign in the flagger signing sequence (typically a "ROAD WORK AHEAD" sign), additional advance warning signs are installed according to the "Extended Traffic Queues for Advance Flagging" detail shown in the Temporary Traffic Control Standard Drawings.

Lighting Conditions

- Work area lighting and equipment-mounted lighting does not shine into passing traffic streams, and proper glare shades are in place.
- Brightness for PCMS, sequential arrows and other work area lighting is appropriate for the environmental conditions (e.g., daytime, nighttime, rain, fog, snow).

- The flagger can easily be seen at lighted flagger stations, as per the specifications.
- Lighted devices are placed to warn or guide traffic and should not be confusing to approaching motorists.
- All lighting devices are being maintained to ensure continuous operation.

Maintenance

- All TCM and TCD are being maintained – including washing, servicing, repairing, or replacing, as needed.
- Temporary signs and other TCD are being replaced if their condition does not meet the specifications – including portable sign flags and STOP/SLOW signs.
- Damaged or missing pavement markers are being replaced; and, faded, worn or ineffective pavement markings are being reapplied.
- Elements of electrical signs are being monitored for brightness; and, are being replaced or repaired, as needed.

Bid Item Measurement and Payment

Before measuring a pay item or paying for that item, carefully review the Standard Specifications and Special Provision subsections 00225.80 and 00225.90. Meet with the Project Manager to discuss and questions or confusion over any of the pay items included in the contract.

Measurement – Section 00225.80

Measure all bid items on the unit, lump sum or incidental basis, as described in the Standard Specifications or project Special Provisions.

Do not agree to a price quoted directly to you by the Contractor if this price differs from the original contract bid item price. Contact the Project Manager to discuss differences in bid item prices.

As work is performed, take measurements or ensure that they are taken. To justify payment, prepare and submit the measurements on an ["Installation Sheet" \(Form 734-2605\)](#) as a Source Document.

Payment – Section 00225.90

Payment for bid items is made at the contract bid item unit price – unless a different price is agreed to between the Project Manager and the Contractor as part of a Contract Change Order (CCO), or other arrangement.

In paying for damaged or destroyed traffic control devices, the following process should be followed:

All TCD listed in the Contract Schedule of Items or CCO's, and damaged by public traffic and replaced by the Contractor will be paid for at the contract price, EXCEPT:

- Temporary signs
- PCMS
- Sequential Arrows
- Portable Temporary Traffic Signals

Payment for replacing damaged TCD will only be made when:

- The Project Manager orders it.
- The replacement device(s) is used on the project site.
- The damaged devices are disposed of to the Project Manager's satisfaction.

For Temporary Striping, Stripe Removal, Flaggers and Pilot Cars, the bid item price is effective only for the original bid quantity for those items. Contact the Project Manager to discuss extending bid item quantities.

For additional information regarding documentation or measurement, see the ODOT Construction Manual, Section 12D.

For additional questions or information regarding temporary traffic control measures, devices, specifications, standard drawings or quality control, contact the State Traffic Control Plans Engineer in Salem.

Section 00240 – Temporary Drainage Facilities

This work consists of constructing and removing temporary drainage facilities.

Quality

The Inspector must record information about temporary facilities in [the Daily Progress Report \(form 734-3474\)](#).

Ensure that the materials and methods comply with specification requirements.

Construction

Ensure that the location for each temporary facility is located and marked and both the Contractor and Inspector understand the markings.

Ensure that drainage will flow through the facilities, water does not flow around the installation, and construction will carry traffic loading and maintain a stable roadway. The size of the facilities shown on the plans is a minimum only. Temporary drainage facilities must be approved by the Engineer.

When the devices are removed, ensure that the Contractor removes them from the project and restores the affected area.

Measurement

Unless specified otherwise, no measurement of quantities will be made for this work. As the work is performed, prepare and submit an [Installation Sheet \(form 734-2605\)](#) as a source document to justify payment.

Section 00245 – Temporary Water Management

This section is not a Standard Specification, and is included on projects by Special Provisions. This work consists of furnishing, installing, operating, maintaining, and removing temporary water management facilities in regulated work areas.

Quality

The Inspector must record information about temporary water management facilities in the [Daily Progress Report \(form 734-3474\)](#).

Ensure that the materials and methods comply with the Standard Specification under which the material is covered.

Construction

Fish Removal

Ensure the Contractor:

- Contacts ODOT, ODFW biologists, or the ODOT consultant to remove the fish and aquatic life from the isolation work area.
- Before installing temporary water management facilities, ODOT, ODFW biologists, or the ODOT consultant will remove fish and aquatic life within the proposed isolated work area.
- After installing temporary water management facilities, begin reducing water level. ODOT, ODFW biologists, or the ODOT consultant will remove additional fish and aquatic life as the water is reduced. DO NOT de-water the isolation area until all of the fish and aquatic life have been removed.

Installation, Operation, and Removal of Temporary Water Management Facilities

Ensure the Contractor:

- Provides safe passage around or through isolated work area for migratory fish.
- Maintains and controls water flow downstream of isolated work area for the duration of diversion to prevent downstream de-watering.
- Cleans and repairs water intake screening to maintain flow and protect aquatic life.
- Monitors water turbidity.
- Removes, re-waters, and restores the stream flow when approved.
- Maintains downstream water flow during the removal of the facility.

Measurement

Unless specified otherwise there will be no measurement of quantities. As work is performed document the work with an [Installation Sheet \(form 734-2605\)](#) as a source document to justify payment.

Section 00250 – Temporary Bridges

This section is not a Standard Specification, and is included on projects by Special Provisions. This section consists of designing, constructing, maintaining, and removing temporary detour bridges.

Quality

The Inspector must record information about temporary bridges in the [Daily Progress Report \(form 734-3474\)](#).

Ensure that the materials and methods comply with Standard Specification Section 00500 requirements where applicable.

Construction

Ensure that the Contractor provides stamped working and foundation drawings and calculations that have been “reviewed and accepted” by the Engineer. Ensure that the [Pile and Driving Equipment Data \(form 734-2608\)](#), has been approved by the Contractor EOR and has been “reviewed and accepted” by the Engineer.

Ensure that:

- The [Pile Driving Checklist \(form 734-2609\)](#), [Pile Record Book \(form 734-3485\)](#) and [Micropile Log \(form 734-2644\)](#), as applicable, are completed for the project file.
- Before any welding is permitted the following have been approved:
 - WPS-Welding Procedure
 - PQR-Procedure Qualification Records
 - WQTR-Welder Certification Test Records
 - MTR-Material Test Report
 - CWI-AWS Certificate Welding Inspector
- Prior to opening temporary bridge to traffic
 - The Contractor's EOR has completed an inspection of the structure to confirm the materials and construction conforms to the plans and specifications (any changes to the plans and specifications need to be approved by the Contractor's EOR and accepted by the Engineer).
 - The Engineer has received a written statement that states the structure will serve the intended use.
 - All concerns have been addressed and the Engineer agrees that the structure will serve the intended use.

Measurement

Unless specified otherwise there will be no measurement of quantities. As work is performed document the work with an [Installation Sheet \(form 734-2605\)](#) as a source document to justify payment.

Section 00280 / 00290 – Erosion and Sediment Control / Environmental Protection

This section involves all work, devices, and measures required to control erosion and sediment on the project. For contract administration purposes, “erosion and sediment” also includes any other substance that may be harmful to people or any element of the environment. This includes but is not limited to those elements identified in the project’s environmental documents or assessments.

It is expected that the Inspector be a Certified Environmental Construction Inspector to inspect this work.

Quality

Quality requirements are specified in the [Non-Field Tested Materials Acceptance Guide](#) and [Qualified Products List](#).

Ensure that the Contractor is aware of those requirements and provides acceptable quality documentation before the material is incorporated.

Complete and submit quality documentation as required. If no quality acceptance documentation needs to be submitted then record relevant information in the daily report.

Ensure that the materials are not damaged and that installation is done according to specifications and manufacturer recommendations.

The Contractor must inspect the project and the erosion and sediment control devices frequently to ensure that they are controlling erosion and sediment. The Contractor, with ODOT concurrence, must modify the ESCP and devices, including replacing devices or utilizing different devices or methods, as needed to ensure proper control.

Survey and Layout

Ensure that:

- The devices and measures comply with Specification requirements, the ESCP, and the PCP.
- The devices, measures, and layout are appropriate for local conditions.
- All areas needing erosion or sediment control have been addressed.
- Both the Contractor and Inspector understand the markings.
- If new kinds or different devices are needed, they are identified, developed and utilized.

Construction

It is expected that if there are any environmental questions or concerns that the Inspector notify the Region Environmental Coordinator (REC). The Inspector should also complete the Environmental Monitoring Checklist. It is also expected that if there are any questions regarding HazMat issues (if a material is hazardous or what is considered contaminated) that the Inspector will contact the Regional HazMat Coordinator. If the Region HazMat Coordinator is unavailable then contact the Statewide HazMat Lead.

When dealing with Erosion and Sediment Control

Ensure that the Contractor complies with contract requirements, including:

- Copies of the approved ESCP are available at the project site.
- A contingency plan is developed for use in emergencies and the rainy season.
- The ESCM monitors rainfall, inspects the project and control devices and ensures their effectiveness, completes and submits an Erosion Control Monitoring form (734-2361).
- The ESCM maintains the control devices.
- The ESCM installs additional or new devices, as approved by ODOT.
- The Inspector periodically inspects the project site to evaluate whether the control devices are properly functioning and controlling erosion and sediment.
- If the implemented ESCP, PCP, or other submittal does not perform effectively, contact the Project Manager and require the Contractor to modify the submittal, processes, and devices as needed to provide effective performance.
- As devices are installed or removed, the ESCM records those dates on the ESCP.

When dealing with Water Quality

Ensure that the Contractor:

- Does not discharge contaminated or sediment-laden water directly into any water way until it has been satisfactorily treated.
- Does not cause turbidity in waters of the State or U.S. greater than 10% above background reading (up to 100 feet upstream of the Project), as measured 100 feet downstream of the Project.
- If construction discharge water is released using an outfall or diffuser port, do not exceed velocities more than 4 feet per second, and do not exceed an appropriate aperture size.

When dealing with Fish and Fish Habitat Regulated Work Areas

Ensure that the Contractor:

- Performs work within the regulated work area only during the in-water work period defined in the Special Provisions or permits; pile driving may have unique in-water work periods.
- Has a permit to work within a coffer dam outside the designated in-water work window.
- Has reviewed the *In-Water Work Window Extension Request Processes Advisory* for guidance and discussed the situation with the REC or agency biologist before requesting an in-water work variance.

When dealing with Protection of Fish and Fish Habitat

Regulated Work Areas

Ensure that the Contractor:

- Performs work within the regulated work area only and during the designated in-water work period. (In-water work period may be different for Pile Driving. Check with the project Special Provisions, REC or Agency Biologist for any Pile Driving restrictions that may apply.)
- Contacts the REC or Agency Biologist before working within a coffer dam outside of in-water work period.
- Properly deploys bubble ring equipment.
- Monitors hydro acoustic noise levels.
- Adjusts attenuation equipment to keep noise levels within the specified noise limits. Check with the REC or Agency Biologist for specific hydro acoustic guidance.

- Treated wood used below the ordinary high water elevation (OHW) must be sealed with a sealant that is approved by the Project Special Provisions to prevent leaching of preservative agents into waters of the state.

When dealing with Wildlife

Ensure that the Contractor:

- Does not handle or hurt birds or their eggs, or destroy or move occupied bird nests unless allowed by permit.
- Does not disturb, destroy, or move an eagle nest.
- Adheres to noise and sight distance restrictions.
- Clears vegetation only within contract temporal windows.
- Coordinates activities with the Project Manager if bats are present.
- Does not deviate from bridge bat habitat plans.
- Does not disturb or injure marine mammals unless allowed by permit.
- Does not deviate from wildlife passage plans.

When dealing with Protected Plants or Habitats

Ensure that the Contractor:

- Installs and maintains “No Work Zone” fencing around sensitive areas denoted on plan sheets.
- Does not alter or impact fenced areas by any means.
- Does not alter or impact signed “Special Management Areas.”

When dealing with hazardous materials

Ensure that the Contractor:

- Provides copies of the approved PCP are on-site.
- At a minimum, contains hazardous materials and wastes, and that they are clearly labeled and stored in a location that prevents damage.
- Has a Spill Control and Countermeasures Plan (SPCC) If more than 1,320 gallons of fuel and petroleum are stored on site, in containers of 55 gallons or more, in a location where a spill could impact water.
- If the project involves demolition or repair of any structure (bridge, building, etc) ensure that there is a copy of the asbestos survey onsite.

- Provides all disposal receipts, recycling receipts or other documentation for all material that leaves the project site.

If unexpected contamination is encountered during excavation work (based on odor, staining, or sheen), stop work in that location and call the region HazMat coordinator to help get a qualified company on-site to ensure all requirements associated with the contamination are met.

If a Contractor spills any substance that could cause harm to the environment, immediately call ODOT dispatch. Ensure that the Contractor follows the Pollution Control Plan for clean up.

For 3rd party spills in the construction zone (accidents not related to the Contractor), call ODOT Dispatch to get maintenance responders on-site for wreck and material clean up.

For petroleum spills over 42 gallons, hazardous waste or materials spill that impact surface water, ask ODOT Dispatch to notify DEQ via Oregon Emergency Response System (OERS @ 1-800-452-0311). If the spill is hazardous material or impacts surface water, also ensure that the National Response Center (NRC @ 1-800-424-8802) is notified. These notifications are required regardless of who causes the spill.

When dealing with Archaeology

Ensure that the Contractor:

- Maintains No Work Zones and does not impact those protected areas.
- Stops work and reports inadvertent discoveries if archaeological material is identified during construction activities.
- Reports violations promptly to the appropriate authorities (REC, State Police, Project Manager, etc.).

Measurement

For Erosion and Sediment Control, unless specified otherwise, measurement will be on the lump sum, unit or length basis. As work is performed take measurements, or ensure that they are taken, and prepare and submit the measurements on an [Installation Sheet \(form 734-2605\)](#) as a source document to justify payment.

For Environmental Protection, unless specified otherwise, no measurement of quantities will be made for this work. As the work is performed, prepare and submit an [Installation Sheet \(form 734-2605\)](#) as a source document to justify payment.