SP225 (~~08-18-11~~01-26-12) *(This Section requires SP2110 and SP2910. Requires SP440 when temporary traffic signals are required.)*

(NOTE: All Federal-aid projects, including local government projects, that are advertised and awarded by ODOT require "Method 'A' Unit Basis" measurement [see Standard Specifications 00225.80].)

SECTION 00225 - WORK ZONE TRAFFIC CONTROL

(Follow all instructions. If there are no instructions above a subsection, paragraph, sentence, or bullet, then include them in the project but make necessary modifications to only include project specific specifications. Delete specifications that do not apply to the project.)

Comply with Section 00225 of the Standard Specifications modified as follows:

00225.02 General Requirements - Add the following after the last paragraph of this subsection:

(Use one of the following two paragraphs on all ODOT projects that have an engineer's estimate of $1 million or more, and duration longer than one month, and an ADT of 2,000 or higher. Fill in the blank.)

[Use this paragraph when using a 4 by 8 foot Project Identification sign.]

Install a Type "W8" "PROJECT IDENTIFICATION" (CG20-8-48) sign with a "KEEPING OREGON ON THE MOVE" rider on the _____ Highway. Place the sign according to sign spacing "A" from the "TCD Spacing Table" shown on the standard drawings or as modified by the supplemental drawings, in advance of the "ROAD WORK AHEAD" sign at each end of the Project, facing incoming traffic. The Engineer will determine the sign legend.

[(Use this paragraph when using the 54 by 48 inch Urban Project Identification sign for projects with limited roadside widths.]

Install an urban Type "W8" "PROJECT IDENTIFICATION" (CG20-8-54) sign with an "ODOT" logo rider on the _____ Highway. Place the sign according to sign spacing "A" from the "TCD Spacing Table" shown on the standard drawings or as modified by the supplemental drawings, in advance of the "ROAD WORK AHEAD" sign at each end of the Project, facing incoming traffic. The Engineer will determine the sign legend.

(Use the following paragraph when post mounted signs are required. Fill in the blank.)

Install a "ROAD WORK AHEAD" (W20-1-48) sign with "FINES DOUBLE" (R2-6-36) rider on the _____ Highway, according to the "TCD Spacing Table" shown on the standard drawings or as modified by the supplemental drawings.

(Use the following paragraph when concrete barrier mounted signs are required. Fill in the blank.)

When mounted on concrete barrier, install a "ROAD WORK AHEAD" (W20-1-36) sign on the _____ Highway, according to the "TCD Spacing Table" shown on the standard drawings or as modified by the supplemental drawings.

Install beyond each end of the Project, facing outgoing traffic, an "END ROAD WORK" (CG20-2A-24) sign a distance of (A ÷ 2) according to the "TCD Spacing Table" shown on the standard drawings or as modified by the supplemental drawings.

(Use the following paragraph when it is necessary to reduce the overall roadway width between positive barriers [for example: concrete barrier, guardrail, and falsework] to less than 19 feet.)

When the horizontal clearance for the roadway is less than 19 feet, install horizontal clearance (CW21-12-48) signs, identifying the narrowest width of the roadway. Locate these horizontal clearance signs as shown or as directed.

(Use the following paragraph when it is necessary to reduce the overall vertical clearance to less than 15 feet 3 inches.)

When the vertical clearance is less than 15 feet 3 inches, install low clearance (W12-2-48) and (OW12-2-36) signs. The clearance shown on the signs shall be 4 inches less than the shortest height of the opening. Locate these low clearance signs as shown or as directed.

(Use the following paragraph on 2 mile long or longer freeway projects when sign boards are required to enhance the visibility of the signs.)

On freeway post mounted signs, install two sign flag boards, as shown on the standard drawings, above the "ROAD WORK NEXT XX MILES" (CG20-1) signs and the initial "ROAD (or BRIDGE) WORK AHEAD" (W20-1-48) signs.

00225.05 Contractor Traffic Control Plan - Replace this subsection, except for the subsection number and title, with the following:

The Contractor will be allowed to use the Agency's TCP, modify the Agency's TCP, or use a different TCP. Submit the following, for approval, five calendar days before the preconstruction conference:

(a) Agency or Contractor TCP - If the Agency's TCP is used without modification, a written notification indicating that the Agency's TCP will be used without modification.

If the Contractor will be using a modified Agency TCP, or if the Contractor will not be using the Agency TCP, include the following:

- Proposed TCP showing all TCM and quantities of all TCD.
- Proposed order and duration of the TCM.
- A detailed temporary striping plan.

(b) Tourist-Oriented Directional (TOD) and Business Logo Signs - One copy of a sketch map of the Project showing all existing tourist-oriented directional (TOD) and

business logo signs and a written narrative describing how these signs will be kept in service and protected throughout all the construction stages.

If there are no TOD signs on the project, a written notification that no TOD signs exist within the project limits.

(Use the following subsection .11 when the completion time is less than eight months after the bid opening date and on traffic signal, illumination, landscaping, or other projects when temporary signing duration will be limited.)

00225.11 Temporary Signing - Replace the sentence that begins "Furnish new or acceptable temporary signs..." with the following sentence:

Furnish temporary signs meeting the requirements of the "Acceptable" category shown in the American Traffic Safety Services Association (ATSSA) "Quality Standards For Work Zone Traffic Control Devices" handbook and the following:

(Use the following subsection .11(b-3) when concrete barrier mounted signs are required.)

00225.11(b-3) Concrete Barrier Sign Supports - Add the following bullet to the bullet list:

- Capable of supporting a maximum 9 square feet of total sign area.

00225.11(b-5) Square Tube Sign Supports - Replace this subsection with the following subsection:

00225.11(b-5) Perforated Steel Square Tube Sign Supports - Use perforated steel square tube sign supports from the QPL and as shown on the standard drawings.

00225.13(d) Plastic Drums - Replace the sentence that begins "Provide drums with…" with the following sentence:

Use retroreflective drum sheeting meeting the requirements of ASTM D 4956 Type III or Type IV.

(Use the following subsection .32 when there is a pay item for a traffic control supervisor.)

00225.32 Traffic Control Supervisor - Replace the bullet that begins "Prepare and sign a daily…" with the following bullet:

- Prepare and sign a "TP & DT Daily Report" form (Form No. 734-2474). Submit the report to the Engineer no later than the end of the next working day. As a minimum, include the following items in the report:

00225.41(b-5) Square Tube Sign Supports - Replace this subsection with the following subsection:

00225.41(b-5) Perforated Steel Square Tube Sign Supports - Perforated steel square tube sign supports may be used as a substitute for wood sign posts. Install perforated steel square tube sign supports as shown on the standard drawings.

(Use the following subsection .42(c) when concrete barrier is required.)

00225.42(c) Concrete Barrier - In the flare rate table, replace the 45 mph and the 40 mph lines with the following lines:

45	12:1
40	10:1

(Use the following subsection .43(e) when pavement markers are required.)

00225.43(e) Pavement Markers - Replace the bullets that begin "Single markers…" and "Double markers…" with the following bullets:

- Single markers spaced 10 feet apart for solid no passing lines.
- Double markers spaced 10 feet apart for double solid no passing lines.

(Use the following paragraphs when flexible oiling pavement markers are required for mixes with temperatures greater than 325 °F.)

Add the following paragraph before paragraph (1) of this subsection:

Use flexible oiling pavement markers approved for mixes with temperatures greater than 325 °F.

(Use the following subsection .43(f-1) when temporary removable tape is required.)

00225.43(f-1) Temporary Removable Tape - Add the following sentence to the end of the paragraph:

Remove the temporary removable tape before placing subsequent surfacings and after installing permanent pavement markings.

(Use the following subsection .43(g) when striping is required on new bridge decks.)

00225.43(g) Temporary Striping - Add the following paragraph after the first paragraph:

For temporary striping on new bridge deck surfaces, use temporary removable tape.

(Use the following lead-in paragraph and subsection .43(j) when pavement legends or pavement bars are required.)

Add the following subsection:

00225.43(j) Pavement Legends and Bars - Before opening roadways to traffic, unless otherwise allowed, apply temporary pavement legends and bars on pavement base courses at locations designated. Apply bead binder at a thickness of 15 mils wet and glass beads at a rate of 5 pounds per gallon of paint.

(Use the following subsection .44 when temporary illumination is required.)

00225.44 Temporary Illumination - In the paragraph, replace "02925" with "02926".

(Use the following subsection .62(b) when impact attenuators are required.)

00225.62(b) Temporary Impact Attenuators - Replace the paragraph that begins "When impact attenuator…" with the following paragraph:

When impact attenuator, truck mounted attenuator, or narrow site attenuator systems are used, have enough modules, cartridges, components, and replacement parts on-site to replace one complete installation or have on-site a complete replacement attenuator. Re-stock replacement items or complete replacement attenuators within 24 hours of use. All modules, cartridges, components, and replacement parts, and replacement attenuators not used remain the property of the Contractor.

(Use the following subsection .65(a) when temporary traffic signals are required.)

00225.65(a) Temporary Traffic Signals - Replace this subsection, except for the subsection number and title, with the following:

After successful turn-on of the temporary signal, except for equipment inside the controller cabinet, assume operation and maintenance of the temporary traffic signal until it is removed.

The operation and maintenance of the equipment inside the controller cabinet will be the responsibility of the Agency, except the Contractor shall furnish replacement parts that fail within the controller cabinet while the temporary traffic signal is in use.

After notification by the Agency, if the Contractor is not able to respond to a maintenance request for the temporary traffic signal or a request for replacement parts for the inside of the controller cabinet, Agency electricians will make repairs at the Contractor's expense.

If the temporary traffic signal fails during operation for any reason, immediately provide flaggers to control traffic until the temporary traffic signal is operational. No additional payment will be made for flagging as a result of a temporary traffic signal failure.

(Use the following lead-in paragraph and subsection .82(e) when impact attenuators are required.)

Add the following subsection:

00225.82(e) Temporary Impact Attenuator Repair - Temporary impact attenuator repair will be measured on the unit basis as follows:

- Sand barrel systems will be the replacement of damaged sand modules.

- All other systems will be the repair or complete replacement of the attenuator system.

(Use the following subsection .83(c) when pavement legends or pavement bars are required. When only one paragraph is required remove the "s" from "paragraphs" and delete the paragraph that does not apply.)

00225.83(c) Striping - Add the paragraphs to the end of this subsection:

(Use the following paragraph when pavement legends are required.)

Temporary pavement legends will be measured on the unit basis, by actual count.

(Use the following paragraph when pavement bars are required.)

Temporary pavement bars will be measured on the area basis, to the nearest square foot, for each stop bar and crosswalk bar.

(Use the following subsection .90(a-1) when impact attenuators are required.)

00225.90(a-1) Pay Quantities - Replace the paragraph that begins "All TCD damaged by…" with the following paragraph:

All TCD damaged by public traffic and replaced by the Contractor, except temporary signing, temporary electrical signs, and portable temporary traffic signals, will be paid for at the Contract price for the pay items listed in the Contract Schedule of Items or in approved Contract change orders, unless otherwise specified. Payment for replacing damaged TCD will only be made when:

(Use the following subsection .92 when impact attenuators are required.)

00225.92 Temporary Barricades, Guardrail, Barrier, and Attenuators - Add the following pay item to the end of the pay item list and add the following paragraph:

(n) Repair Temporary Impact Attenuator, ____.....Each

In item (n), the words "Sand Module" or the type of attenuator, if applicable, will be inserted in the blank. Item (n) includes replacement of sand modules damaged by public traffic or includes repair or complete replacement of impact attenuators damaged by public traffic.

Replace the paragraph that begins "No separate or additional…" with the following paragraph:

No separate or additional payment will be made for temporary impact attenuator replacements, replacement modules, cartridges, components, or replacements parts that are required to be on-site according to 00225.62(b) or for cleaning and removing debris from impacts.

(Use the following subsection .93 when pavement legends or pavement bars are required. When only one pay item is required remove the "s" from "items" and

delete the pay item that does not apply. Do not change the alpha characters (m) or (n).)

00225.93 Temporary Traffic Delineation - Add the following pay items:

(m) Temporary Pavement Legends.....Each
(n) Temporary Pavement Bars.....Square Foot

(Use the following paragraph when pavement bars are required AND when there is a pay item for legend removal.)

In the paragraph that begins "Item (l) includes...", add "and bars" between the words "legends required".

(Use the following paragraph when pavement bars are required.)

In the paragraph that begins "Payment for items...", replace "(g), (h), (i), and (j)" with "(g), (h), (i), (j), and (n)".

(This page is only used to provide a list of standard drawings to the specification writer for listing on the plan title sheet. Remove this page before advance and final.)

NUMBER OF TRAFFIC CONTROL PLAN SHEETS: _____

(Add or delete Standard Drawings, as applicable.)

To be accompanied by Standard Drawings:

RD410 ..... Guardrail Parts (Thrie Beam)
RD420 ..... Guardrail Non-Flared Terminal
RD425 ..... Guardrail Flared Terminal

RD500 ..... Precast Concrete Barrier
RD510 ..... Concrete Barrier Terminal
RD530 ..... Guardrail Connection to Concrete Barrier
RD535 ..... Concrete Barrier (Modified) Around Medial Obstacle
RD545 ..... Precast Tall Concrete Barrier
RD560 ..... Cast-in-Place Tall Barrier Transition to Standard Concrete Barrier

BR236 ..... Guardrail Connection to Concrete Bridge Rail

TM204 ..... Flag Board Mounting Details
TM211 ..... Signing Details US and Interstate Route Shields
TM212 ..... Signing Details Oregon Route Signs
TM570 ..... Traffic Delineators
TM575 ..... Traffic Delineator, Installation for Freeways
TM576 ..... Traffic Delineator, Installation for Non-Freeways
TM670 ..... Wood Post Supports Sizing Charts
TM671 ..... 3 Second Gust Wind Speed Isotach
TM677 ..... Sign Mounts
TM681, TM687, TM688 .. Perforated Steel Square Tube Sign Support Installation and Foundation
TM800 ..... TCP Details
TM810 ..... TCP Temporary Reflective Pavement Markers
TM820 ..... Temporary Barricades
TM821 ..... TCP Temporary Sign Supports
TM830 ..... Temporary Concrete Barrier & Rumble Strip Details
TM831, TM832 ..... TCP Temporary Impact Attenuators
TM840 ..... TCP Closure Details
TM841 ..... TCP Intersection Details
TM842 ..... TCP Signalized Intersection Details
TM843 ..... TCP Multi-Lane Signalized Intersection Details
TM850 ..... TCP 2 Lane, 2-Way Roadways
TM851, TM852 ..... TCP Non-Freeway Multi-Lane Sections
TM860, TM861, TM862 .. TCP Freeway Sections
TM870 ..... TCP Bridge Construction
TM871 ..... TCP Blasting Zones