

Design Standards Letter

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Effective Date: 06/01/1964

Section/Plan No.: None

Subject: Special Provisions and Standard Drawings

Body

ALL DIVISION, DISTRICT AND URBAN ENGINEERS AND CHIEF COUNSEL

We are furnishing you under separate cover, copies of the following new or revised special provisions and standard drawings which will be placed in effect with the June, 1964 Letting

Standard Drawing 70.16 is a new standard which is to be used in lieu of Standard Drawing 70.12 when metering is required. Standard Drawing 70.12 is applicable when metering is not required.

Standard Drawing 72.03 (six sheets) has been revised as follows:

Sheet 1. Welding requirements brought up-to-date

Sheet 2. No change except No. of sheets.

Sheet 3. Revised Type A Structural Panel to show variable width sign panels at one end of sign, noted variations in horizontal and vertical arrangement of sheets, added detail to show minimum extension of lower sign beyond posts for mounting without Zee Bar Assembly, and brought General Notes up-to-date.

Sheet 4. Revised Type B Structural Panel same as Type A.

Sheet 5. New Drawing Type C Structural Panel.

Sheet 6. No change except Sheet Numbers

Standard Drawing 87.00 has been revised to include the item of Flasher Sign for use at the Districts' discretion for particularly hazardous locations. When the flasher sign is to be mounted on a barricade, the barricade and the flasher sign are listed as separate pay items.

Standard Drawing 87.21 is a new standard indicating the sign and alternate messages for use when federal forest highway funds are involved.

Standard Drawing 72.10 (Sheet 8 of 8), 72.12 (Sheet 7 of 7) and 72.60 (Sheet 7 of 7) have been revised to require the use of Dry Type Transformers on overhead sign structures to reduce 240 V. or 480 V. power to 120 V. supply for operation of sign lights. This change is necessary because of the 40 megohm insulation resistance test now specified.

Standard Drawing 61.00 has been revised to include the method of bedding for vitrified clay culvert pipe when permitted as an alternate under Group I pipe culverts. The special provisions covering the use of alternate pipe types by groups, and the instructions, were transmitted with General Letter No. 20, 1964, and General Letter No. 20A, 1964.

The special provision "Excavation and Embankment" consolidates and renders void the following individual special provisions:

Roadway and Drainage Exc. (April 1964) (Borrow Exc., Measurement of Exc., Compacting, Overhaul)

Rock Excavation (June 1964) (Transmitted with General Letter No. 16, 1964)

Standard Compaction Test - 4" Mold (July 1962)

This consolidated special provision also includes a new provision of "Compacting" setting out definition of a bridge for this section only, and method of compacting adjacent to masonry structures.

The special provision on "Plant Mix Bituminous Surface" and "Plant Mix Bituminous Stabilized Base" have both been revised to remove the reference to Section 41.4.2 from the "Base" special and add it the "Surface" special.

The special provision "Asphaltic Concrete Pavement" has been revised by the addition of a statement concerning the location of longitudinal joints in successive courses.

The special provision on "Highway Signing" has been revised to provide for the following major changes:

- 1). Section 72.2, Last sentence revised to set out requirements for list of equipment and material, and to eliminate the cross reference to Section 70.2.1, which is also to be changed.
- 2). Section 72.2.1, Brought up-to-date on ASTM specifications and changes the stud bolt type and alloy.
- 3). Section 72.2.1.1, Last item deleted because it is covered by change 1 above.

- 4). Section 72.2.2, Revised to clarify that Structural Sign Panels may consist of one sheet of aluminum.
- 5). Section 72.2.11.3 through 72.2.11.9 have been transferred to a new Section 72.2.15, which covers sign lighting. When originally written, it applied only to Sign Trusses, whereas it now applies to Tubular Supports also.
- 6). Section 72.2.11.7 supersedes old Section 72.2.11.14.
- 7). Section 72.2.14.1, Deleted reference to anchor bolt threads as being unnecessary.
- 8). Section 72.2.15, Added section to cover lighting items. The revision shown in Section 72.2.15.2 regarding dry type transformers is important. These transformers are necessary since we have adopted a 40 megohm requirement for the cable insulation resistance test. Previously, they have only been required if 240 V. or 480 V. ballast's were not available. All ballast's for these fluorescent lights will now be 120 volt as indicated in Section 72.2.15.1.
- 9). Section 72.4.5.4 and 72.4.5.5 were revised to utilize current available widths of reflective sheeting.
- 10). Section 72.4.15 was transferred to Section 72.2.15.10 as a lighting item.
- 11). Section 72.5, Method of Measurement was completely revised to eliminate "plan quantity" basis, except for the cable and cable-conduit, which has been revised to eliminate the 5% variation. Until such time as the "Design Manual" is revised, Designers should continue to compute these items with approximately 5% added for splicing, cutting, snaking, etc. This quantity should be shown on the "B" sheets without mentioning the "5%", i.e.
1" Cable-Conduit, 2 No. 8 Conductors 17,000 Ft.
Added for splicing, cutting, snaking, etc. 850 Ft.
Total Plan Quantity 17,850 Ft.
- 12). Section 72.2.6.1, Basis of Payment was revised to include new items.
- 13). Section 72.6.4, Revised to add new items. When Item 72093: Sign Modification is used, complete details of the modifications must be provided, as required in Section 15.3.2.2.1 of the Design Manual.

The special provision on "Corrugated Metal Pipe Underdrains" clarifies and modifies the original specification for Type V drains.

The special provision on "Flasher Signs" will accompany Standard Drawing 87.00 as heretofore described.

Standard Drawing 72.09, Sheet 2 of 2 has been revised to require a dry type transformer for operation of sign lighting, and 120 volt ballasts. This change was necessary to obtain 40 megohm insulation resistance when testing the completed circuit. Also, "switchbox fuse ratings" for 120, 240 and 480 volt sources were added.

The revisions contained in this letter will be effective for the June, 1964 Letting, where applicable.

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