

Design Standards Letter

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Effective Date: 07/01/1964

Section/Plan No.: None

Subject: Standard Drawings and Special Provisions

Body

ALL DIVISION, DISTRICT AND URBAN ENGINEERS AND CHIEF COUNSEL

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

Standard Drawing 54.00 has been revised to indicate separate drawings when top layer of reinforcing steel is parallel to centerline of roadway and where it is perpendicular to centerline of roadway.

Standard Drawing 70.00 was revised to add Mercury Vapor Underpass Luminaries. Preference should be given to the use of the mercury vapor underpass luminaries where the underpass has longitudinal beams providing a vertical mounting face for the luminaries. The ASA designations for these luminaries have also been updated.

Standard Drawing 70.02 and 70.03 are new standards for 2400 volt and 7200 volt substations respectively. These drawings are intended to supersede Standard Drawing 70.10 in the St. Louis area only, but may be used elsewhere, if secondary power is not available.

The special provision on "Portland Cement Concrete (Air Entrained)" has been revised to add a tolerance to the required quantity of air entraining agent.

The special provision "Right-of-Way - Drain Markers (Sketch)" has been revised to locate the drain markers at the outlet end of the drain pipes.

The special provision "Highway Lighting" has been revised sufficiently to warrant a complete review, however, some of the major revisions are as follows: Revised requirements for list of equipment and materials. Pole requirements brought up-to-date with added requirement that steel base covers be galvanized instead of painted.

Section 70.4 Concrete Lighting Poles. Added requirement for inserts and connectors for

grounding.

Section 70.5. Substituted hot dipped galvanizing of steel poles for painting.

Section 70.7 Requires ground rods in concrete bases for concrete poles as well as for metal poles.

Section 70.9 Bracket arms brought up-to-date by deleting 1 1/4" slip fitters, and provides for galvanizing when used with steel poles, as well as concrete poles.

Section 70.10 Mercury Luminaries. Brought up-to-date by eliminating 1 1/4" slip fitter, requiring internal ballast, and increasing minimum rated lamp life from 6,000 hours to 12,000 hours.

Section 70.10.2 Pole Top Ballast's eliminated.

Section 70.11 Underpass Lighting. Changes ballast requirements for fluorescent lamps to 120 volt. Requires dry type transformers for fluorescent circuits. Adds mercury luminaries for underpasses.

Section 70.17 Expanded to include photoelectric controls, load relays, contactors, main disconnect switches, and selector switches.

Section 70.18 Control cabinet description revised.

Section 70.19 Regulator Poles. Cluster type mounting unit for transformers added.

Section 70.19.1 Pad Mounted Substation. The inclusion of this section will replace the special provision "Pad-Mounted Substation (April, 1962)".

Section 70.19.2 A new item, "Pole Mounted Substation" is added to this special provision to consolidate the separate items of: Control Transformer, Distribution Transformer, Primary Oil Switch, Primary Fuse Cutout, Lightning Arrestor, Control Cabinet, Regulator Pole, Contactors, Main Disconnect Switches, etc.

Section 20 through 23 are the present standard special provision. The table of insulation and sheath thickness is modified for underground use of Type THW Cable.

Section 25 and 26 Method of measurement and basis of payment is brought up-to-date.

This special provision is effective with the July, 1964 Letting; however, plans which are complete or nearly so, may be submitted with no change, and this office will effect the necessary revisions.

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