

SUMMARY OF CHANGES FROM THE 2009 TO 2019 ODOT STANDARD SPECIFICATIONS

General Changes

1. Incorporated previously approved 2009 special provisions, where applicable.
2. Updated references where applicable.

Chapter 100

1. Revised Subsection 101.03, Table 101:1 "Abbreviations and Acronyms" as follows:
 - Removed ARA (American Railway Association) from this table. This group no longer exist and has merged with the Association of American Railroads (AAR).
 - Removed AREA (American Railroad Engineering Association) from this table, and updated the name to AREMA (American Railway Engineering and Maintenance-of-Way Association).
 - Removed ASA (American Standards Association) from this table. This group is now the American National Standards Institute (ANSI).
 - Added DBE (Disadvantage Business Enterprise) to the table.
 - Added EEO (Equal Employment Opportunity) to the table.
 - Added MSA (Metropolitan Statistical Area) to the table.
 - Added UCC (Uniform Commercial Code) to the table.
 - Added US (United States) to the table.
 - Added VEP (Value Engineering) to the table.
2. Reorganized Subsection 102.07, "Preparation of Proposal," into Subsection "A. General" and incorporated 2009 Special Provision 102-4 "A+B BIDDING" into new Subsection "B. A+B Bidding"
3. Added the following paragraph at the end of Subsection 105.17.B, "Project Completion,":

"The Resident Engineer will evaluate the Prime Contractor's performance, and document the evaluation using the Department's approved Contractor performance evaluation form. The Prime Contractor will be given a copy of evaluation and will have the opportunity to discuss any unsatisfactory ratings with the Resident Engineer prior to the form being approved by the Division Engineer. Any subcontractor's performance is subject to evaluation."
4. Incorporated 2009 Special Provision 106-5, "BUY AMERICA" into Subsection 106.01.B, "Buy America."
5. Incorporated 2009 Special Provision 108-2 "ADMINISTRATION AND EXTENSION OF CONTRACT TIME (WINTER TIME SUSPENSION)" into a new Subsection, 108.07.B(3) "Winter Time Suspension."
6. Revised values in Subsection 108.09, "Failure to Complete on Time," Table 108:1 *Schedule of Liquidated Damages*.
7. Incorporated the updates of 2009 Special Provision 109-8 "PAYMENT TO SUBCONTRACTORS" into Subsection 109.11.
 - Revised 30 calendar days to 15 calendar days
 - Removed the last paragraph, "Payment disputes between the Contractor and subcontractors relating to allocation of chargeable Contract Time and any resultant Liquidated Damages, quantity or quality of items of work subject to a subcontract or other agreement shall be referred to a neutral alternative dispute resolution forum for hearing and decision with the costs for such mediation or arbitration to be shared equally by the parties. Funding for mediation of payment disputes involving

Disadvantaged Business Enterprises is available from the Department through the DBE Supportive Service Program. Such services are reimbursed by the Federal Highway Administration and are authorized by 23 CFR § 230, Subpart B. The Contractor shall include a clause in any subcontract notifying the subcontractor of their right to resolution of payment disputes through alternative dispute resolution mechanisms.”

Chapter 200

1. Incorporated 2009 Special Provision 201-1, “EASTERN RED CEDAR ERADICATION” into a new Subsection, 201.04.E, “Eastern Red Cedar Removal”
2. Incorporated 2009 Special Provision 221-1, “TEMPORARY FIBER LOG” into a new Subsection, 221.04.H, “Temporary Fiber Logs”
3. Revised Section 228 title from “Nylon Erosion Control Mat” to a more general description “Erosion Control Mat.”
4. Removed asphalt mulching from Section 233, “Mulching.”

Chapter 300

1. Incorporated 2009 Special Provision 303-1, “AGGREGATE BASE” and 303-2, “AGGREGATE BASE (PLANT MIXED)” into new Subsection, 303.03 “Equipment,” and updated Subsections 303.04 “Construction Methods” and 303.06 “Basis of Payment,” to include pay items for aggregate base, plant mixed.
2. Incorporated 2009 Special Provision 317-8, “CEMENT TREATED BASE” into Section 317, “Cement Treated Base.”

Chapter 400

1. Revised Section 411 title from “Hot Mix Asphalt” to “Hot Mix Asphalt/Warm Mix Asphalt”
2. Divided Section 404 from “Thin Surface Courses” into new Sections 404, “Ultra-Thin Bonded Wearing Course” and 410, “Micro Surfacing.”
3. Incorporated the following 2009 Special Provisions:
 - 109-7, “PRICE ADJUSTMENT FOR ASPHALT BINDER” incorporated into a new Subsection, 411.06.B, “Price Adjustment for Asphalt Binder.”
 - 411-12, “LONGITUDINAL JOINT DENSITY ON ASPHALT CONCRETE PAVEMENT,” incorporated into Subsection 411.04.J(2) “Longitudinal Joint Density”
 - 411-13, “WARM MIX ASPHALT,” incorporated into Section 411
 - 411-14, “ASPHALT SAFETY EDGE,” incorporated into a new Section, “440 Asphalt Safety Edge”
 - 411-16, “HOT MIX ASPHALT (LIME),” incorporated into a new Subsection, 411.04.B(4) “Lime”
 - 411-17, “COMPACTION OF HOT MIX ASPHALT,” updated Subsection 411.04.K(2) “Acceptance”
 - 414-17, “LONGITUDINAL FINISH,” incorporated into new Subsections 414.03.B(3)(c), “Longitudinal Tining” and 414.04.I(6)(a) 2), “Longitudinal Finish”

Chapter 500

1. Revised tolerance value from “-1/4” to “-1/2” for bridge deck thickness in Subsection 502.04.B(1) “General,” Table 502:1 *Maximum Dimensional Tolerances for Cast-in-Place Formed Concrete*.
2. Revised reference from “HS20-44 live load” to “HL-93 live load” in Subsection 502.04.F, “Detour Bridges.”
3. Added language to Subsection 503.04.F “Detensioning,” fifth paragraph as follows:
 “**Within 14 days of detensioning**, use an epoxy modified grout to cover the exposed strand ends and zinc-rich paint.”
4. Revised Table 503:01, “Maximum Dimensional Tolerances for AASHTO Girders, J Beams, and Bulb Tees” in Subsection 503.04.H “Tolerances,” to include J-Beams.
5. Revised Table 503:03, “Maximum Dimensional Tolerances for Prestressed Concrete Stay-in-Place Forms (Deck Panels)” in Subsection 503.04.H “Tolerances,” to include Deck Panels.
6. Removed pay item for “(B) Prestressed Concrete Double Tees” in Subsection 503.06, “Basis of Payment.” We no longer use double tees for county bridges.
7. Subsection 504.04.E(5) “Fogging and Curing Requirements,” second paragraph, revised language from “at least 10 days” to “at least seven days” as follows:
 “If using a pozzolan, such as flyash, of greater than 10 percent, continuously cure the concrete immediately after finishing for **at least seven days** for Type C flyash, and 10 days for all other pozzolans including Type F flyash.”
8. Revised material reference in Subsection 505.02 “Materials,” from “Multiple Layer Polymer Concrete Overlay” to “Type N- Epoxy-Urethane Copolymer Overlay System.”
9. Removed the requirement for minimum water usage rate for Hydrodemolition in Subsections 505.03.A “Hydrodemolition Equipment” and Subsection 505.04.C(c) “Hydrodemolition.”
10. Added reference “International Concrete Repair Institute (ICRI) level 6-7” to Subsection 504.04.C(1) “Surface Preparation for Concrete Overlays.”
11. Revised requirement for membrane lap to “at least 6 inches” in Subsection 505.04.D(4) Asphalt Membrane Overlays.”
12. Added values for larger bolt sizes (1 3/8” and 1 1/2”) to Table 506:6: *Minimum Required Bolt Tension (English)*.
13. Revised requirements for bolt tensioning measuring devices to Subsection 506.04.F(6)(d) “Installation,” as follows:
 “When using the turn-of-the nut method or when required by the Engineer, and/or when required by the Contract documents, provide a Skidmore Wilhelm calibrator, or an approved bolt—tension measuring device, at job sites that require the installation and tightening of high tension strength fasteners.”
14. Revised reference in Subsection 508.02 “Materials,” from “AASHTO M259 or M273” to “ASTM C 1577.”
15. Consolidated temperature requirements for concrete into one place in Subsection 509.04.B “Protection of Concrete from Environmental Conditions.”
16. Added the following sentence to Subsection 509.04.D(3) “Doweling Into Existing Concrete”:
 “For epoxy coated reinforcing steel, increase embedment by a minimum of 30%.”

17. Added the following sentence to Subsection 509.04.G "Finishing Formed Concrete Surfaces":
"When finish treatment is not specified in the plans, use a Class 1 ordinary surface finish followed by either a Class 2 rubbed finish or a Class 6 mortar finish."
18. Revised title, added language, and added new Table 509:02 *Time and Strength Requirements for Concrete Placement and Loading*, to Subsection 509.04.1 "Application of Loads Including Bridge Decks and Approach Slabs."
19. Added the following language for testing low air in Subsection 509.06 "Basis of Payment":
"Testing of compressive strength cores will be conducted by the Materials Division in accordance with AASHTO T-22 and the cores must comply with the sample requirements of the contract documents. Testing of entrained air content cores will be conducted by the Materials Division or its representative in accordance with ASTM C457. The entrained air portion of the total air content must meet or exceed 3.0% to comply with sample requirements. Replace concrete sections with less than 3.0% entrained air except for Class P, replace concrete sections with less than 2.0% entrained air."
20. Added requirement to protect epoxy coated steel from UV in Subsection 511.04.A "Protection of Material."
21. Made the following changes to Section 512 "Paint":
 - Added waste stream for paint solvents.
 - Subsection 512.04.A(1) "Contractor Qualifications" requires QP2 certification.
 - Revised Tables 512:1A *Characteristically Hazardous Waste - Toxicity (Metals)*, Table 512:1B *Characteristically Hazardous Waste - Toxicity (Organics)*, 512:1C *Characteristically Hazardous Waste – Ignitability*, 512:1D *Listed Hazardous Waste – Spent Solvents*.
 - Added new definitions to Subsection 512.01.B "References, Definitions, and Abbreviations."
 - Revised the language for soil sampling in Subsection 512.04.A(3)(b)1) as follows:
"Wording for soil sampling has been revised: "Collect the pre job and post job soil samples in the Engineer's presence in accordance with SSPC Guide 6, Subsection 5.5.5, Method E-Soil Analysis for Toxic Metals. Prior to taking the samples, remove vegetation and any visible chips of paint on the surface of the ground by hand. Provide the Engineer with splits of the samples and a chain of custody form. Submit test results within two weeks of collection. Determine if soils have been impacted by testing the samples for lead in accordance with EPA Method 3050. Soils will be considered impacted when the geometric mean of the post job soil test results exceeds 100 ppm or two standard deviations, whichever is greater, higher than the geometric mean of the pre job soil test results. When impact is indicated, test for all metals noted in Table 512:1A Characteristically Hazardous Waste – Toxicity/Metals using the Engineer's split sample, and clean soils as directed by the Engineer and by ODOT Environmental Programs Division."
 - Revised the language for work area signs in Subsection 512.04.A(3)(b)5) as follows:
"Post signs in the work area during surface cleaning in areas with hazardous materials with boundaries at the OSHA Action Level, 30 µg/m³ for lead, which read as follows: DANGER LEAD WORK AREA MAY DAMAGE FERTILITY OR THE UNBORN CHILD, CAUSES DAMAGE TO THE CENTRAL NERVOUS SYSTEM DO NOT EAT, DRINK, OR SMOKE IN THIS AREA."
 - Revised language in Subsection 512.04B(6) "Treating Pack Rust and Crevice Corrosion" as follows:
"Treat pack rust and crevice corrosion when present on bottom flanges of splice plates and other locations in accordance with all contract requirements. Use a penetrating sealer that is compatible with the coating system. Use a low viscosity, high solids, epoxy penetrating sealer or a low viscosity high ratio co-polymerized calcium sulfonate penetrating sealer. Tint the penetrating sealer a different color than the primer. Apply penetrating sealer as directed by the Engineer and in accordance with the manufacturer's instructions. Wipe off excess. Allow penetrating sealer to cure before applying additional coats. Submit for approval surface preparation

- procedures for the penetrating sealer including SDS and PDS to the Engineer and Bridge Division a minimum of three weeks prior to application.”
- Added new pay item “(C) PENETRATING SEALER FOR TREATING PACK RUST” to Subsection 512.06 “Basis of Payment.”
22. Removed Subsection 513.04.E “Anodes,” to be replaced by a 2019 special provision.
 23. Added Class AA Concrete as an option for a patching material in Subsection 513.04.D(1) “Class A Bridge Deck Repair.”
 24. Added the following language to address paint requirements for steel pilings in Subsection 514.02.B “Steel Piles”:
“Apply primer coat of the IZ-E-U or OZ-E-U paint system in accordance with Section 512 “Painting” and Section 730 “Paint for Structural Steel” to exposed prime piles as shown on the Plans before driving when exposed steel piles or steel pile shell piles extend above the ground or water surface and are left exposed in the finished structure (i.e. pile bents). Apply remaining coats of three coat paint system to accessible surfaces the after driving. Recoat splices and damaged areas above the water or ground surface. Cure paint as required by the Contract before driving.”
 25. Added paragraph to address concrete encasement of piling at abutments in Subsection 514.04.C(1)(b) “Pilot Holes.”
 26. Added Gate’s equation and removed references to Engineering News Record and references to practical refusal in Subsection 514.04.E(2) “Gates Equation.”
 27. Added new Table 514:3 *Compensation Rate Per Splice* in Subsection 514.06 “Basis of Payment.
 28. Incorporated changes from most recent 2009 Special Provision 516-3 “DRILLED SHAFT FOUNDATIONS” into Section 516. This section does not include TIP (Thermal Integrity Profiler).
 29. Added new Section 518 “Construction Joints and Expansion Devices,” which includes modular joints, inverted V silicone joints, compression joints with silicone toppings, and the specifications for water stops.
 30. Also removed the following pay items from Subsection 504.06 “Basis of Payment” and added them to Subsection 518.06 “Basis of Payment”:
(C) EXPANSION JOINTS, (G) RAPID CURE JOINT SEALANT, and (H) ELASTOMERIC MORTAR
 31. Incorporated 2009 Special Provision 535-1 into a new Section 535 “Surface Applied Penetrating Corrosion Inhibitors.”

Chapter 600

1. Revised the title of Subsection 601.04.D from “Type I, I-A, II, and II-A” to “Type I and II (With or Without Filter Blanket).”
2. Removed the following pay items from Subsection 601.06 “Basis of Payment”:
 - (B) TYPE I-A – PLAIN RIPRAP
 - (C) TYPE I-A – FILTER BLANKET
 - (E) TYPE II-A – SPECIAL PLAIN RIPRAP
 - (F) TYPE II-A – FILTER BLANKET
 - (I) FILTER FABRIC (RIPRAP)

and Added the following pay items to Subsection 601.06 “Basis of Payment”:

 - (B) TYPE I PLAIN RIPRAP WITH FILTER BLANKET
 - (D) TYPE II SPECIAL PLAIN RIPRAP WITH FILTER BLANKET

3. Removed pay item "(D) ASPHALT CURBING" from Subsection 609.06 "Basis of Payment"
4. Added the following paragraph to Subsection 610.04.A "Concrete Construction":
"Use a hand operated or power compactor to compact uniformly the subgrade material. The type and weight of the compactor must meet the Resident Engineer's approval. Hand-tamp areas inaccessible to the compactor."
5. Removed the following paragraphs from Subsection 611.02.A "General":
"Ensure precast structures, with slab tops that may be subject to traffic, meet HS-20 loading requirements. Ensure precast units consist of Class A concrete.

Provide coarse aggregate in accordance with Subsection 701.06, "Coarse Aggregate."
Provide size No. 7 coarse aggregate for thin section concrete. If using alternative forms of concrete, provide in accordance with AASHTO M 199 (ASTM C 478).

Provide reinforcing steel for precast concrete units in accordance with Subsection 723.01, "Bar Steel Reinforcement- Billet Steel," Subsection 723.02, "Welded Steel Wire Fabric," and Subsection 723.03, "Steel Wire Strand for Prestressing." If using alternative steel, provide in accordance with AASHTO M 199 (ASTM C 478)."
6. Incorporated 2009 Special Provision 613-1, "POLYPROPYLENE DRAINAGE CONDUIT" into Section 613, "Drainage Conduit."

and Added pay item "(EE) CORRUGATED POLYPROPYLENE PIPE" to Subsection 613.06 "Basis of Payment."
7. Revised the reference in Subsection 615.01 "Description," second paragraph, from "Oklahoma State Department of Health (OSDH)" to "Oklahoma Department of Environmental Quality (ODEQ)."
8. Added the following sentence to the end of second paragraph in Subsection 615.02.B "Joints":
"Make joints with a single natural rubber or neoprene gasket, or O-ring, in accordance with the manufacturer's recommendations."
9. Removed Subsection 624.04.A(5) "Grounding the Fence."
10. Removed "White Concrete" from Subsection 627.02 "Materials."
11. Removed the following sentence from the end of Subsection 629.05 "Method of Measurement," and removed pay item "(C) MAILBOX" from Subsection 629.06 "Basis of Payment."

Chapter 700

1. Added cement type "IL" to Table 701:3 *Cement Substitutes for Blended Hydraulic Cement* in Subsection 701.01.B "Cement Substitution," and to Table 701:6 *Cement Properties* in Subsection 701.03.B "General Construction Requirements."
2. Updated AASHTO test procedures in Table 701:4 *Concrete Sampling and Testing* in Subsection 701.01.D "Test and Samples."
3. Added the following sentence to Subsection 701.04.B "Chemical Admixtures":
"Do not add water to the concrete after the addition of the HRWR to increase or maintain the slump."
4. Added the following bullet to Subsection 701.05.B "General Requirements":
"Fine Aggregate used in Section 701.19, "Controlled Low Strength Material," may be made from 100% manufactured sand meeting all other requirements of this Section."

5. Revised the reference in Subsection 701.07.D "Sheet Materials" from "AASHTO M 171" to "ASTM C 171."
6. Removed Table 701:13 Linseed Oil Emulsion Composition in Subsection 701.07.E "Linseed Oil Emulsion," and added reference AASHTO M 233.
7. Added "Elongation (Polyurethane)" to properties in Table 701:14 *Combined Liquid Components* (was Table 701:15).
8. Added new Subsection 701.08.H "Construction Joint and Expansion Joint Sealers."
9. Revised quantities for percent passing in Table 701:18 *Combined Aggregate Gradation*.
10. Revised the title of Table 701:26 from *Grout Properties* to *Mortar Properties* in Subsection 701.16 "Dowel Bar Retrofit Mortar," and updated the references for Test Methods.
11. Revised the reference in Subsection 701.19.C "Sampling and Testing," bullet #3, from "ASTM D 4832" to "OHD L-62."
12. Updated the test item reference for "Method of preparation of samples" in Table 703:2 *Aggregate Testing Methods*, from "AASHTO T 87" to "AASHTO R 58." Also, updated the same reference in Table 705:2 *Select Borrow Testing Methods*.
13. Added Subsection 703.06.B(3) "Edge Drain Cover Aggregate."
14. Added Subsection 703.10 "Aggregate for Multiple Layer Polymer Concrete Overlays." This subsection includes Table 703:13, *Polymer Overlay Aggregate*.
15. Added the following paragraph to Subsection 707.01.A "Approval of Materials":
"Prepare the mix design at the Contractor designated lab and as required by the Contract. Prepare the mix design in general accordance with ASTM D 6372, the latest version of the ISSA A-143 and the ISSA technical bulletins, and these specifications."

Also, added Tables 707:1A *Example Component Chart* and Table 707:1B *Mix Evaluation Tests*
16. Added the following paragraph to Subsection 707.02."Composition of Mixtures":
" Areas receiving Micro Surfacing will be allowed to cure from one to three hours or until the treated pavement will not be damaged by traffic. The Contractor will protect the area with suitable barricades or markers for the full curing period. Areas which are damaged within 24 hours of application of Micro Surfacing, or prior to moving to new work locations, shall be repaired by the Contractor at his expense."
17. Updated references in Table 707:5 *Sampling and Testing*.
18. Updated values in Table 708:1 *Physical Properties of Aggregates* and added rich intermediate layer.
19. Updated test and references in Table 708:2 from *Additional Requirements to AASHTO M 320 for Asphalt Cement* to *AASHTO M 332 Requirements for Asphalt Cement*.
20. Added Tables 708:3B and 708:3C for *Requirements for NT Tack Material*.
21. Added the following paragraph to Subsection 708.04.A "Asphalt Mix Design and Initial Job-Mix Formula":

“Prepare PFC mix designs in general accordance with AASHTO PP 77 except where modified by these specifications. Prepare SMA mix designs in general accordance with AASHTO R 46 except where modified by these specifications.”

22. Updated superpave binder types and values in Tables 708:5 *Reclaimed Asphalt Pavements*, Table 708:8, Table 708:9 *Mix Design Properties of Laboratory Molded Specimens*, Table 708:10, and Table 708:11 *Field Properties of Laboratory Molded Specimens*.
23. Added Subsection 712.10 “Geotextile for Concrete Overlay Bond Breakers.”
24. Updated steel requirement references in Table 724:1 *Structural Steel Requirements*.
25. Updated references in Subsection 73.08.B(1) “Plastic Waterstops” and 73.08.B(2) “Rubber Waterstops.” Added ASTM D3182, D3183, D3184, D3185, and D3186.
26. Removed Subsection 735.04.B “Asphalt Mulch.”
27. Added the following language to the first paragraph in Subsection 737.04 “Anti-Graffiti Coating System”:
 - A. *General-* “Ensure that the anti-graffiti coating is pigmented to the proper color and is applied in a one coat system when a colored surface is required on the project plans. Apply the surface preparation and coating system in accordance with the manufacturer’s recommendations, except that the coating must be sprayed and not applied by polling or brushing. Provide a system field tested and approved by the Materials Division or its representative, along with a Type A certification, to the Resident Engineer for acceptance.”
 - B. *Physical Properties-*
 - (1) Level 1 Coating “Provide a non-sacrificial anti-graffiti coating system that meets the testing requirements of ASTM D7089 with a cleanability Level 1 (graffiti completely removed with high-pressure cold water wash) for field evaluation by the ODOT Materials Division or its representative. All costs of field testing will be at the coating manufacturer’s expense. Ensure the non-sacrificial anti-graffiti coating system shows the same level of cleanability for a minimum of 10 cycles of marking and cleaning. When a pigmented system is required in the plans, use laminar silicates, titanium dioxide, inorganic oxides, and other mineral pigments and toning. Use of organic pigments, vegetable or marine oils, paraffinic materials or stearates in the formulation are not permitted.”
28. Incorporated the following 2009 Special Provisions:
 - 708-22, “WARM MIX ASPHALT MATERIAL REQUIREMENTS,” incorporated into new Subsection 708.04.F “Warm Mix Asphalt.”
 - 708-23, “HAMBURG RUT TESTING OF HOT MIX ASPHALT,” incorporated into new Table 708:12 *Hamburg Test Requirements*.
 - 708-26, “PLANT MIX BITUMINOUS BASES AND SURFACES (SUPERPAVE),” incorporated into Subsection 708.02.A “Coarse Aggregate.”
 - 711-1, “PERMANENT PAVEMENT MARKING TAPE” incorporated updates into Subsection 711.02.K, “Reflectance.”
 - 724-1, “BRIDGE BEARING STRUCTURAL STEEL” incorporated into updated Subsection 724.05 “Bridge Bearing Assemblies.”
 - 726-1, “STRUCTURAL STEEL PLATE PIPE, PIPE ARCHES, AND ARCHES” incorporated into footnote ‘d’ of Table 726:3 *Flexible Conduit Material Specifications*.
 - 733-1, “ELASTOMERIC BEARING PADS” incorporated into Subsection 733.06.B “Materials.”

Chapter 800

1. Revised the requirement for submission not listed on the QPL from five copies to “two copies” in Subsection 801.02 “Materials,” paragraph one.
2. Added the following paragraph to Subsection 802.05 “Method of Measurement” and Subsection 802.06 “Basis of Payment”:

“The Resident Engineer will measure the length of pushed or bored conduit separately, along the centerline of the conduit from end to end, plus four (4) foot of either side of the pavement section.”

“Pushed or bored conduit in excess of the measured pavement section as specified in 802.04.B and 802.05 will be paid as trenched conduit.”
3. Removed the following language from Subsection 803.04.B, “Cover and Markings”:

“Mark ground box covers with the legend ‘electrical danger, danger, ____ V.’”
4. Removed the following language from Subsection 806.04.A “General,”:

“Ensure the manufacturer designs the poles and mast arms for a minimum 80 mph [128 km/h] wind velocity. Ensure the calculated stresses from design loading on poles and arms do not exceed the lesser of, 50,000 psi [344.8 MPa] or 85 percent of ASTM yield strength. Provide certification of the pole material in accordance with ASTM for the operational stress range of the poles. Provide traffic signal steel poles and mast arm materials with at least a 7 gauge thickness. Design traffic signal poles in accordance with the Traffic Engineering Division’s Loading Chart.”
5. Revised the quantities of slack in conductors in Subsection 811.04.A “Conductors in Conduit” from “2ft [0.6m] at pole base and at least 3ft [0.9m] at pull boxes,” to “5ft [1.5m] at pole base and at least 10ft [3m] at pull boxes.”
6. Removed Table 812:1 *Base Plate Thickness for High Mast Poles* from Subsection 812.02.A “Structural Design.”
7. Added the following language to Subsection 852.04.A “Design”:

“Provide drilled shaft footings in accordance with Section 516, “Drilled Shaft Foundations.” CSL tubes will not be required.”
8. Added the following paragraph to Subsection 852.04.C “Fabrication”:

“Ensure that all anchor bolts, base plates, and flange plates are properly aligned to prevent unacceptable distortion of the structure upon final installation. In the event that the drilled shaft and anchor bolts are installed before the fabrication of the structure, coordinate with the fabricator to ensure that the base plates and flanges are fabricated so that proper alignment of all bolt holes is achieved. In the event that the structure is fabricated before the installation of the drilled shaft and anchor bolts, coordinate with the structure fabricator to ensure that the anchor bolt installation allows for proper alignment of all bolted connections.”
9. Added the reference “MASH Test Level Three (TL-3)” to Section 870, Section 876, Section 877, and Section 880.

10. Incorporated the following 2009 Special Provisions:

- 855-7, "TRAFFIC STRIPE (PLASTIC)," incorporated into Subsection 855.02.A "General."
- 856-1, "TRAFFIC STRIPE (MULTI-POLYMER)," incorporated into Table 856:1 *Color Requirements* in Subsection 856.02.A "Physical Properties of the Mixed Compound," and Table 856:4 *Multi-Polymer Composition* in Subsection 856.02.B "Multi-Polymer Composition."
- 877-1, "PORTABLE LONGITUDINAL BARRIER," incorporated into Subsections 877.02 "Materials" and 877.04 "Construction Methods."
- 880-1, "PLASTIC DRUMS," incorporated into Subsection 880.02.B(10) "Plastic Drums."
- 880-6, "TEMPORARY ROADWAY LIGHTING ASSEMBLY," incorporated into new Subsections 880.02.B(14) "Temporary Roadway Lighting Assembly" and 880.02.B(15) "Temporary Service Pole Assembly."