

TABLE OF CONTENTS

Section Title

SECTION 100 -- GENERAL PROVISIONS

SECTION 101 -- DEFINITIONS AND TERMS

- 101.01 Abbreviations
- 101.02 Above Normal Rainfall
- 101.03 Blank
- 101.04 Bid Bond
- 101.05 Bidder
- 101.06 Bridge
 - (a) Length
 - (b) Roadway Width
- 101.07 Calendar Day
- 101.08 Blank
- 101.09 Change Order
- 101.10 Construction Limits
- 101.11 Contract
- 101.12 Contract Information Book
- 101.13 Contract Item (Pay Item)
- 101.14 Contract Time
- 101.15 Contractor
- 101.16 Culvert
- 101.17 Department
 - (a) Materials and Tests Division
 - (b) Contract Services Section
 - (c) Procurement and Distribution Division
- 101.18 Commissioner
- 101.19 Engineer
- 101.20 Equipment
- 101.21 Extra Work
- 101.22 Force Account Work
 - 101.22.1 Frequency Manual
- 101.23 Holidays
- 101.24 Invitation for Bids
- 101.25 Itemized Proposal
- 101.26 Laboratory
- 101.27 Major and Minor Contract Items
- 101.28 Materials
- 101.29 Notice to Proceed
- 101.30 Open to Unrestricted Traffic
- 101.31 Pavement Structure
- 101.32 Performance Bond
- 101.33 Plans
 - 101.33.1 Professional Engineer
- 101.34 Profile Grade
- 101.35 Project
- 101.36 Proposal
- 101.37 Proposal Book
- 101.38 Reasonably Close Conformance
- 101.39 Right-of-Way
- 101.40 Road
- 101.41 Roadbed
- 101.42 Roadside
- 101.43 Roadside Development
- 101.44 Roadway
- 101.45 Schedule of Pay Items

TABLE OF CONTENTS

Section Title

101.46 Shoulder
101.47 Sidewalk
101.48 Special Provisions
101.49 Specifications
101.50 Specified Completion Date
101.51 State
101.52 Street
101.53 Structures
101.53.1 Substantial Completion
101.54 Blank
101.55 Subcontractor
101.56 Subgrade
101.57 Substructure
101.58 Superintendent
101.59 Superstructure
101.60 Supplemental Specifications
101.61 Surety
101.62 Technician or Inspector
101.63 Titles (Headings)
101.64 Township, Town, City
101.65 Traveled Way
101.66 Work
101.67 Work Day
101.68 Working Drawings

SECTION 102 -- BIDDING REQUIREMENTS AND CONDITIONS

102.01 Prequalification and Bidding
102.02 Certification Regarding Lobbying for Contracts, Grants, Loans, and Cooperative Agreements

SECTION 103 -- AWARD AND EXECUTION OF CONTRACT

103.01 Disadvantaged Business Enterprise Program
 (a) General Requirements
 (b) Definitions
 1. DBE
 2. Small Business Concern
 3. Socially and Economically Disadvantaged Individuals
 4. Certified DBE
 (c) Goal
 1. DBE Joint Venture Type A
 2. DBE Joint Venture Type B
 (d) Affirmative Actions
 (e) Guidelines for Determining Good Faith Efforts
 (f) Affirmative Action Certification
 (g) Subcontracts
 (h) Leases and Rentals
 (i) Records and Reports
103.02 Specific Equal Employment Opportunity Responsibilities
103.03 Blank
103.04 Insurance
 (a) Worker's Compensation and Employer's Liability
 (b) Commercial General Liability
 (c) Business Automobile Liability
 (d) Railroad's Protective Liability
 (e) Owner's and Contractor's Protective Liability Insurance Coverage for Operations of Designated Contractor
 (f) Basis of Payment
103.05 Waiver of Damages

TABLE OF CONTENTS

Section Title

103.06 Wage and Labor Requirements

- (a) Nondiscrimination of Employees
- (b) Affidavits and Payrolls
- (c) Wage Stipulations
 - 1. General Decision Included in Contract Information Book
 - 2. General Decision Not Included in Contract Information Book

103.07 Accident Prevention and Safety

SECTION 104 -- SCOPE OF WORK

104.01 Intent of Contract

104.02 Differing Site Conditions, Suspension of Work and Significant Changes in the Character of Work

- (a) Differing Site Conditions
- (b) Suspensions of Work Ordered by the Engineer
- (c) Significant Changes in the Character of Work
- (d) Pre-established Remedies to Changed Conditions

104.03 Extra Work

104.04 Maintenance of Traffic

- (a) Special Detours
- (b) Maintenance Directed by the Engineer
- (c) Blank
- (d) Traffic Control for Patching on a Two-Lane Roadway

104.05 Removal and Disposal of Structures and Obstructions

104.06 Removal and Disposal of Regulated Materials

- (a) For Such Materials which are Identified in the Proposal Book as Being Present on the Project Site
- (b) For Such Materials which are not Identified in the Proposal Book as Being Present on the Project Site

104.07 Rights in and Use of Materials Found in the Project Site

104.08 Final Clean-Up

SECTION 105 -- CONTROL OF WORK

105.01 Authority of the Engineer

105.02 Plans and Working Drawings

105.03 Conformance with Plans and Specifications

105.04 Coordination of Plans, Standard Specifications, Supplemental Specifications, and Special Provisions

105.05 Cooperation by Contractor

105.06 Cooperation with Utilities

105.07 Cooperation Between Contractors

105.08 Construction Stakes, Lines, and Grades

- (a) Construction Engineering by the State
- (b) Construction Engineering by the Contractor
- (c) Production Staking by the Contractor

105.09 Duties of Technician and Inspector

105.10 Inspection of Work

105.11 Removal of Unacceptable and Unauthorized Work

105.12 Load Restrictions

105.13 Maintenance During Construction

105.14 Failure to Maintain Roadway, Structures, Barricades, and Construction Signs

105.15 Acceptance and Final Inspection

- (a) Partial Acceptance
- (b) Final Acceptance

105.16 Claims for Adjustment and Disputes

105.17 Field Office

105.18 Method of Measurement

105.19 Basis of Payment

SECTION 106 -- CONTROL OF MATERIAL

106.01 Source of Supply and Quality Requirements

- (a) Approved or Prequalified Materials

TABLE OF CONTENTS

Section Title

(b) Material Records	
1. Documentation of Material Delivery	
2. Delivery Ticket Information	
3. Payment Procedures	
(c) Buy American Requirement	
106.02 Samples, Tests, Cited Specifications	
106.03 Plant Inspection	
106.04 Field Laboratory	
106.05 Storage of Materials	
106.06 Handling Materials	
106.07 Unacceptable Materials	
106.08 Hazard Communication Program	
106.09 Department Furnished Materials	
106.10 Proportioning Materials	
106.11 Sample Asbestos Exclusion Letter	
SECTION 107 -- LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC	
107.01 Laws to be Observed	
107.02 Permits, Licenses, and Taxes	
107.03 Patented Devices, Materials, and Processes	
107.04 Restoration of Surfaces Opened by Permit	
107.05 Federal Aid Provisions	
107.06 Equal Employment Opportunity Trainees	
107.07 Sanitary Conditions Requirements	
107.08 Public Convenience and Safety	
(a) Employee Safety	
(b) Dust and Air Pollution	
(c) Protection to Traffic	
(d) Notice to Local Public Officials	
(e) Convenience to Traffic and Property Owners	
107.09 Railroad-Highway Requirements	
(a) Protection of Track Ballast	
(b) Hold Harmless Clause	
107.10 Blank	
107.11 Bridges over Navigable Waters	
107.12 Traffic Control Devices	
107.13 Use of Explosives	
107.14 Protection and Restoration of Property and Landscape	
107.14.1 Erosion Control Plan and Proof of Publication	
107.15 Forest Protection	
107.16 Responsibility for Damage Claims	
107.17 Opening Sections of Project to Traffic	
107.18 Contractor's Responsibility for Work	
107.19 Contractor's Responsibility for Utility Property and Services	
107.20 Furnishing Right-of-Way	
107.21 Personal Liability of Public Officials	
107.22 Waiver of Legal Rights	
107.23 Governing Law	
107.24 Severability	
SECTION 108 -- PROSECUTION AND PROGRESS	
108.01 Subletting of Contract	
108.01.1 Release of Retainage to Subcontractors	
108.02 Notice to Proceed	
108.03 Prosecution of the Work	
108.04 Prephase Site Construction Meetings	

TABLE OF CONTENTS

Section Title

108.05 Limitation of Operations
108.06 Character of Workers, Methods, and Equipment
108.07 Determination and Extension of Contract Time
108.08 Failure to Complete on Time
108.09 Default and Termination of Contract
108.10 Termination of Contractor's Responsibility
108.11 Contract Documentation

SECTION 109 -- MEASUREMENT AND PAYMENT

109.01 Measurement of Quantities
 (a) General Requirements
 (b) Scales and Measurement by Mass (Weight)
 (c) Measurement by Volume
 (d) Measurement of Asphalt Materials
 (e) Measurement of PCC
 (f) Measurement of Aggregates
 (g) Measurement of Timber or Lumber
 (h) Rental of Equipment
 (i) Manufactured Materials
109.02 Scope of Payment
109.03 Compensation for Altered Quantities
109.04 Cost Reduction Incentive
 (a) Cost Reduction Incentive Proposal Requirements
 (b) Approval of Proposal
 (c) Method of Measurement
 (d) Basis of Payment
109.05 Extra Work and Force Account Work
 (a) Labor Costs
 (b) Bond and Insurance
 (c) Materials
 (d) Equipment
 (e) Miscellaneous
 (f) Subcontracting
 (g) Compensation
 (h) Statements
 (i) Cost Breakdown
109.06 Eliminated Pay Items
109.07 Partial Payments
109.08 Final Payment

SECTION 110 -- MOBILIZATION AND DEMOBILIZATION

110.01 Description
110.02 Limitations
110.03 Method of Measurement
110.04 Basis of Payment

SECTION 111 -- STOCKPILED MATERIALS

111.01 Description
111.02 General Requirements
111.03 Structural Steel and Concrete Structural Members
 (a) Delivered to the Job Site
 (b) Acceptably Stored at the Fabricator's or Manufacturer's Storage Facilities
111.04 Dowel Bar Assemblies
111.05 Granular Base, Subbase Materials, and Aggregates for HMA and Concrete Pavements
111.06 Bridge Expansion Joints
 (a) Type SS
 (b) Type M

TABLE OF CONTENTS

Section Title

111.07 Structural Supports for Signals, Signs and Luminaries
111.08 Precast Concrete Median Barrier
111.09 Additional Requirements
111.10 Method of Measurement
111.11 Basis of Payment

SECTION 200 -- EARTHWORK

SECTION 201 -- CLEARING AND GRUBBING

201.01 Description
201.02 General
201.03 Clearing and Grubbing
201.04 Scalping
201.05 Hedge Removal
201.06 Method of Measurement
 (a) Area Basis
 (b) Lump Sum Basis
 (c) Linear Basis
 (d) Individual Unit Basis
201.07 Basis of Payment
 (a) Area Basis
 (b) Lump Sum Basis
 (c) Linear Basis
 (d) Individual Unit Basis
 (e) Clearing Right-of-Way
 (f) Exclusions

SECTION 202 -- REMOVAL OF STRUCTURES AND OBSTRUCTIONS

202.01 Description
202.02 General Requirements
 (a) Type X Waste
 (b) Type Y Waste
 (c) Type Z Waste
202.03 Removal of Bridges, Culverts, and Other Drainage Structures
 (a) Complete
 (b) Portions
 (c) Disposal of Concrete
202.04 Removal of Pipe and Tile Drains
202.05 Removal of Pavement, Sidewalks, Curbs, Surface, Surface Milling, etc
202.06 Removal of Houses and Buildings
202.06.1 Inspection and Removal of Asbestos
202.07 Removal of Underground Storage Tanks Containing Petroleum Products or Other Hazardous Chemicals
 (a) Type A Waste
 (b) Type B Waste
 (c) Type C Waste
202.08 Remediation of Contaminated Soil and Groundwater
202.09 Remediation of Other Regulated Materials
202.10 Transportation and Disposal of Regulated Materials
202.11 Blank
202.12 Method of Measurement
202.13 Basis of Payment

SECTION 203 -- EXCAVATION AND EMBANKMENT

203.01 Description
203.02 Common Excavation
203.03 Rock Excavation
203.04 Unclassified Excavation

TABLE OF CONTENTS

Section Title

203.05	Peat Excavation
203.06	Waterway Excavation
203.07	Class Y Excavation
203.08	Borrow or Disposal
203.09	General Requirements
203.10	Disposal of Excavated Material (Except Waterway and Peat Excavation)
203.11	Disposal of Waterway Excavation
203.12	Disposal of Peat
203.13	Slides
203.14	Drainage
203.15	Excavating Rock
203.16	Peat Deposit Treatment
(a)	Treatment of Existing Fills
(b)	Treatment by Removal
(c)	Treatment by Displacement
203.17	Cased Test Holes
203.18	Embankment Construction
203.19	Embankment Over and Around Structures
203.20	Rock and Shale Embankment
(a)	Rock Embankment
(b)	Shale, Shale and Soft Rock Mixtures, or Soft Rock
(c)	Shale and Thinly Layered Limestone
203.21	Embankment on Hillsides or Slopes
203.22	Embankment Over Existing Roadbeds
203.23	Embankment Other Than Rock and Shale, With Density Control
203.24	Method of Making Density Tests
(a)	Laboratory
(b)	Field
203.25	Embankment Without Density Control
203.26	Proofrolling
203.27	Method of Measurement
(a)	Contract Quantity
(b)	Measured Quantities
(c)	Measurement on a Linear Basis
(d)	Measurement of Excavation Items on a Weight Basis
(e)	Measurement of Embankments
(f)	Measurement of Borrow
(g)	Measurement of Subgrade Treatment
(h)	Measurement of Water for Shale, Shale and Soft Rock Mixtures, or Soft Rock
(i)	Lump Sum
(j)	Measurement of Exploratory Cores
203.28	Basis of Payment
SECTION 204 -- GEOTECHNICAL INSTRUMENTATION	
204.01	Description
204.02	Materials
204.03	Settlement Plates
(a)	Installation of Settlement Plates
(b)	Instrument Readings and Settlement Period
204.04	Method of Measurement
204.05	Basis of Payment
SECTION 205 -- TEMPORARY EROSION AND SEDIMENT CONTROL	
205.01	Description
205.02	Materials

TABLE OF CONTENTS

Section Title

205.03 Temporary Perimeter Protection
 (a) Straw Bales
 (b) Silt Fence
205.04 Temporary Slope Protection
205.05 Sediment Control in Side Ditches
205.06 Sediment Basin
205.06.1 Fish Pool and Sediment Trap
205.07 Temporary Inlet Protection
205.08 Maintenance of Erosion and Sediment Control Measures
205.09 Removal of Temporary Erosion and Sediment Control Measures
205.10 Method of Measurement
205.11 Basis of Payment

SECTION 206 -- STRUCTURE EXCAVATION

206.01 Description
206.02 Class X Excavation
 (a) General Excavation
 (b) Excavation for Foundations of Traffic Support Structures
206.03 Wet Excavation
206.04 Dry Excavation
206.05 Foundation Excavation, Unclassified
206.06 General Requirements
206.07 Disposal of Excavated Material
206.08 Preparation of Foundation Surfaces
206.09 Cofferdams and Temporary Construction Dikes
206.10 Method of Measurement
206.11 Basis of Payment
 (a) Culverts and Retaining Walls
 (b) Bridges
 (c) Traffic Structure Supports

SECTION 207 -- SUBGRADE

207.01 Description
207.02 General Requirements
207.03 Subgrade for HMA Base Courses
207.04 Subgrade for Approaches
207.05 Subgrade for Cement Concrete Base and Pavement
207.06 Special Subgrade Treatment
207.07 Method of Measurement
207.08 Basis of Payment

SECTION 208 -- FINISHING SHOULDERS, DITCHES, AND SLOPES

208.01 Description
208.02 Finishing Shoulders
208.03 Finishing Ditches
208.04 Finishing Slopes
208.05 Blank
208.06 Finishing at Contract Drainage Structures
208.07 Method of Measurement
208.08 Basis of Payment

SECTION 209 -- FINISHING EARTH GRADED ROADS

209.01 Description
209.02 Construction Requirements
209.03 Method of Measurement
209.04 Basis of Payment

TABLE OF CONTENTS

Section Title

SECTION 210 -- FINAL TRIMMING AND CLEANING

- 210.01 Description
- 210.02 Construction Requirements
- 210.03 Method of Measurement
- 210.04 Basis of Payment

SECTION 211 -- B BORROW FILL AND BACKFILL

- 211.01 Description
- 211.02 Materials
 - (a) Gradation for Structure Backfill
 - (b) Gradations for Other Types of Backfill
 - (c) Coarse Aggregate For End Bent Backfill
 - (d) Flowable Mortar Substitution
- 211.03 General Requirements
- 211.04 Mechanical Compaction
- 211.05 Blank
- 211.06 Embankment for Bridges
- 211.07 B Borrow Around Bents
 - 211.07.1 Aggregate For End Bent Backfill
- 211.08 Spandrel Filling
- 211.09 Method of Measurement
- 211.10 Basis of Payment

SECTION 212 -- STOCKPILED SELECTED MATERIALS

- 212.01 Description
- 212.02 Materials
- 212.03 Construction Requirements
- 212.04 Method of Measurement
- 212.05 Basis of Payment

SECTION 213 -- FLOWABLE MORTAR

- 213.01 Description
- 213.02 Materials
- 213.03 Proportioning
- 213.04 Mix
 - (a) Flow
 - (b) Average Penetration Resistance
 - (c) Mixing Equipment
 - (d) Placement
 - (e) Limitation of Operations
- 213.05 Blank
- 213.06 Method of Measurement
- 213.07 Basis of Payment

SECTION 214 -- DETENTION PONDS

- 214.01 Description
- 214.02 Materials
- 214.03 Construction Requirements
- 214.04 Method of Measurement
- 214.05 Basis of Payment

SECTION 215 -- CHEMICAL MODIFICATION OF SUBGRADE SOILS

- 215.01 Description
- 215.02 Materials
- 215.03 Testing And Mix Design
- 215.04 Storage and Handling
- 215.05 Weather Limitations

TABLE OF CONTENTS

Section Title

215.06 Preparation Of Subgrade
215.07 Spreading of Chemical Modifiers
215.08 Mixing
215.09 Compaction
215.10 Method of Measurement
215.11 Basis of Payment

SECTION 216 –CELLULAR CONCRETE FILL, CCF

216.01 Description
216.02 Materials
216.03 Mix Design
216.04 Properties and Tests
 (a) CCF Cast Density
 (b) Foam Density
216.05 Storage and Handling
216.06 Weather Limitations
216.07 Preparation of Subgrade
216.08 Installation
216.09 Lots
216.10 Testing
216.11 Method of Measurement
216.12 Basis of Payment

SECTION 300 -- BASES

SECTION 301 -- Blank

SECTION 302 -- Blank

SECTION 303 -- COMPACTED AGGREGATE BASE, SURFACE, OR SHOULDERS

303.01 Description
 (a) Type O Mix
 (b) Type P Mix
303.02 Materials
303.03 Preparation of Type P Mixture
 (a) Mixer Unit
 (b) Conveyors and Feeders
 (c) Water Pump and Meter
 (d) Mixing
303.04 Calcium Chloride
303.05 Preparation of Subgrade or Subbase
303.06 Handling and Transporting Mixtures
303.07 Spreading Mixtures
303.08 Control of Width
303.09 Compacting Aggregate
303.10 Checking and Correcting Surface
303.11 Temperature Limitations
303.12 Priming Compacted Aggregate Base
303.13 Blank
303.14 Protection of Surface
303.15 Method of Measurement
303.16 Basis of Payment

SECTION 304 -- SUBBASE

304.01 Description
304.02 Materials
304.03 Subgrade Preparation
304.04 Spreading

TABLE OF CONTENTS

Section Title

304.05 Compacting
304.06 Surface Requirements
304.07 Method of Measurement
304.08 Basis of Payment
SECTION 305 -- RECONDITIONING
305.01 Description
305.02 Materials
305.03 Repairing
305.04 Rubblizing Existing PCCP
305.05 Patching Asphalt Pavement
305.06 Patching PCCP or PCCP Base
(a) Patching with PCC
(b) Patching with HMA Mixture
305.07 Retrofit Load Transfer for PCCP
305.08 Sealing Cracks and Joints in Asphalt Pavement
305.09 Filling Cracks and Joints in Concrete Pavement
305.10 Widening
(a) Widening with HMA Mixture
(b) Widening with PCC
(c) Widening with Compacted Aggregate
305.11 Method of Measurement
305.12 Basis of Payment
SECTION 306 -- Blank
SECTION 307 -- PORTLAND CEMENT CONCRETE BASE
307.01 Description
307.02 Materials
307.03 General Requirements
307.04 Joints
307.05 Blank
307.06 Final Finish
307.07 Curing
307.08 Monolithic Curb
307.09 Method of Measurement
307.10 Basis of Payment
SECTION 308 -- BLANK
SECTION 309 -- BLANK
SECTION 310 -- BLANK

SECTION 400 -- ASPHALT PAVEMENTS

SECTION 401 -- QUALITY CONTROL/QUALITY ASSURANCE, QC/QA, HOT MIX ASPHALT, HMA, PAVEMENT
401.01 Description
401.02 Quality Control
401.03 Materials
401.04 Design Mix Formula
401.05 Volumetric Mix Design
401.06 Recycled Materials
401.07 Lots and Sublots
401.08 Job Mix Formula
401.09 Acceptance of Mixtures
401.10 General
401.11 Preparation of Surfaces to be Overlaid

TABLE OF CONTENTS

Section Title

401.12	Process Control
401.13	Weather Limitations
401.14	Spreading and Finishing
401.15	Joints
401.16	Density
(a)	Mainline ESAL Equal To or Greater Than 1,000,000
(b)	Blank
(c)	Mainline ESAL Less Than 1,000,000
401.17	Shoulder Corrugations
(a)	Formed Corrugations
(b)	Milled Corrugations
401.18	Pavement Smoothness
401.19	Adjustment Points
(a)	Mixture
(b)	Density
1.	Mainline ESAL Equal To or Greater Than 1,000,000
2.	Blank
(c)	Smoothness
401.20	Appeals
(a)	Mixture
(b)	Density
1.	Mainline ESAL Equal To or Greater Than 1,000,000
2.	Blank
401.21	Method of Measurement
401.22	Basis of Payment
SECTION 402 -- HOT MIX ASPHALT, HMA, PAVEMENT	
402.01	Description
402.02	Materials
402.03	Job Mix Formula
402.04	Mix Criteria
(a)	Composition Limits for Base Mixtures
(b)	Composition Limits for Intermediate Mixtures
(c)	Composition Limits for Surface Mixtures
(d)	Composition Limits for HMA Rumble Strip Mixtures
(e)	Composition Limits for HMA Wedge and Leveling Mixtures
402.05	Recycled Materials
402.06	Acceptance of Mixtures
(a)	Mainline and Shoulders
(b)	Wedge and Leveling and Rumble Strips
402.07	Preparation of Mixtures
402.08	General
402.09	Preparation of Surfaces to be Overlaid
402.10	Weather Limitations
402.11	Spreading and Finishing
402.12	Joints
402.13	Compaction
402.14	Low Temperature Density Requirements
402.15	Shoulder Corrugations
(a)	Formed Corrugations
(b)	Milled Corrugations
402.16	Pavement Smoothness
402.17	Method of Measurement
402.18	Basis of Payment

TABLE OF CONTENTS

Section Title

SECTION 403 -- COLD MIX ASPHALT, CMA, PAVEMENT

- 403.01 Description
- 403.02 Materials
- 403.03 Weather Limitations
- 403.04 Equipment
- 403.05 Preparation of Mixtures
- 403.06 Preparation of Subgrade or Base
- 403.07 Spreading Mixture
- 403.08 Curing
- 403.09 Compaction
- 403.10 Surface Tolerances
- 403.11 Method of Measurement
- 403.12 Basis of Payment

SECTION 404 -- SEAL COAT

- 404.01 Description
- 404.02 Asphalt Material
- 404.03 Cover Aggregate
- 404.04 Weather Limitations
- 404.05 Equipment
- 404.06 Preparation of Surface
- 404.07 Applying Asphalt Material
- 404.08 Application of Cover Aggregate
- 404.09 Method of Measurement
- 404.10 Basis of Payment

SECTION 405 -- PRIME COAT

- 405.01 Description
- 405.02 Asphalt Material
- 405.03 Cover Aggregate
- 405.04 Weather Limitations
- 405.05 Equipment
- 405.06 Preparation of Surface
- 405.07 Application of Asphalt Material
- 405.08 Cover Aggregate
- 405.09 Method of Measurement
- 405.10 Basis of Payment

SECTION 406 -- TACK COAT

- 406.01 Description
- 406.02 Asphalt Material
- 406.03 Equipment
- 406.04 Preparation of Surface
- 406.05 Application of Asphalt Material
- 406.06 Method of Measurement
- 406.07 Basis of Payment

SECTION 407 -- DUST PALATIVE

- 407.01 Description
- 407.02 Asphalt Material
- 407.03 Weather Limitations
- 407.04 Equipment
- 407.05 Preparation of Surface
- 407.06 Application of Asphalt Material
- 407.07 Method of Measurement
- 407.08 Basis of Payment

TABLE OF CONTENTS

Section Title

SECTION 408 -- EQUIPMENT

408.01 Production, Transportation, and Laydown of Asphalt Mixtures

408.02 Mixing Plant

(a) HMA Mixing Plant

1. Plant Inspection
2. Proportioning Systems
3. Material Storage
 - a. Aggregates
 - b. Asphalt
4. Aggregate Feed System
5. Drier Unit
6. Dust Collector
7. Mixing Unit
8. Mix Load-out Scales
9. Hot Surge Bins
10. Sampling Point Requirements

(b) CMA Mixing Plant

408.03 HMA Laydown Operations

(a) Distributor

(b) Hauling Equipment

(c) Laydown Equipment

1. Paver
2. Widener
3. Other Mechanical Devices

(d) Compaction Equipment

1. Tandem Roller
2. Three Wheel Roller
3. Pneumatic Tire Roller
4. Vibratory Roller
5. Trench Roller
6. Speciality Roller/Compactor

(e) Miscellaneous Equipment

1. Aggregate Spreader
2. Rotary Power Broom

(f) Smoothness Equipment

1. Profilograph
2. Straightedge - 4.9 m (16 ft)
3. Straightedge - 3 m (10 ft)

SECTION 409 -- Blank.

SECTION 410 -- Blank

SECTION 500 -- CONCRETE PAVEMENT

SECTION 501 -- QUALITY CONTROL/QUALITY ASSURANCE, QC/QA, PORTLAND CEMENT CONCRETE PAVEMENT, PCCP

501.01 Description

501.02 Quality Control

501.03 Materials

501.04 Concrete Mix Design

501.05 Concrete Mix Criteria

501.06 Trial Batch

501.07 Lots and Sublots

501.08 Acceptance

501.09 General

501.10 Preparation of Grade

TABLE OF CONTENTS

Section Title

501.11	Preparation of Subbase
501.12	Placement
501.13	Process Control
501.14	Concrete Mixing and Transportation
501.15	Weather Limitations
501.16	Placing Concrete
501.17	CMD Adjustments
501.18	Joints
501.19	Finishing
501.20	Curing
501.21	Form Removal
501.22	Pavement Inspection
501.23	Opening to Traffic
(a)	Construction
(b)	Non-Construction
501.24	Shoulder Corrugations
(a)	Formed Corrugations
(b)	Milled Corrugations
501.25	Pavement Smoothness
501.26	Pavement Thickness
(a)	PCCP Removal
(b)	PCCP Non-Payment
(c)	PCCP Thickness
501.27	Tolerance
(a)	Plastic Unit Weight
(b)	Water to Cementitious Ratio
(c)	Flexural Strength
(d)	Air Content
501.28	Adjustment Points
(a)	Flexural Strength
1.	Lots
2.	Sublots
(b)	Air Content
1.	Lots
2.	Sublots
(c)	Thickness
(d)	Smoothness
501.29	Appeals
(a)	Flexural Strength
(b)	Air Content
501.30	Method of Measurement
501.31	Basis of Payment

SECTION 502 -- PORTLAND CEMENT CONCRETE PAVEMENT, PCCP

502.01	Description
502.02	Materials
502.03	Concrete Mix Design
502.04	Concrete Mix Criteria
(a)	Portland Cement Concrete
(b)	High-Early Strength Concrete
502.05	Job Control
502.06	General
502.07	Preparation of Grade
502.08	Preparation of Subbase
502.09	Placement

TABLE OF CONTENTS

Section Title

502.10 Concrete Mixing and Transportation

- (a) Central Mixed Concrete
- (b) Shrink Mixed Concrete
- (c) Transit Mixed Concrete

502.11 Weather Limitations

502.12 Placing Concrete

502.13 Joints

502.14 Finishing

502.15 Curing

502.16 Form Removal

502.17 Pavement Inspection

502.18 Opening to Traffic

- (a) Construction
- (b) Non-Construction

502.19 Shoulder Corrugations

- (a) Formed Corrugations
- (b) Milled Corrugations

502.20 Pavement Smoothness

502.21 Pavement Thickness

- (a) Sections
- (b) PCCP Adjusted Payment
- (c) PCCP Non-Payment
- (d) PCCP Removal
- (e) PCCP Thickness

502.22 Method of Measurement

502.23 Basis of Payment

SECTION 503 -- PCCP JOINTS

503.01 Description

503.02 Materials

503.03 Joints

- (a) Type D-1 Contraction Joint
- (b) Longitudinal Joint
- (c) Transverse Construction Joints
- (d) Longitudinal Construction Joint
- (e) Terminal Joints
- (f) Expansion Joints
- (g) Retrofitted Tie Bars

503.04 Dowel Bar Assemblies

503.05 Sealing Cracks and Joints

503.06 Random Crack Remediation

- (a) Transverse
 - 1. Retrofit Load Transfer
 - 2. PCCP Replacement
- (b) Longitudinal

503.07 Method of Measurement

503.08 Basis of Payment

SECTION 504 -- PCCP FINISHING AND CURING

504.01. Description

504.02 Materials

504.03 Finishing

504.04 Curing

- (a) Liquid Membrane Forming Compounds
- (b) Double Burlap

TABLE OF CONTENTS

Section Title

(c) Waterproof Covers	
(d) Straw	
504.05 Method of Measurement	
504.06 Basis of Payment	
SECTION 505 – TESTS AND PROCEDURES	
505.01 Test Methods and Procedures	
(a) Exceptions to AASHTO T 23	
(b) Exceptions to AASHTO T 97	
(c) Exceptions to AASHTO T 121	
(d) Exceptions to AASHTO T 141	
(e) Exceptions to AASHTO T 152	
SECTION 506 -- PCCP PATCHING	
506.01 Description	
506.02 Materials	
506.03 Concrete Mix Design	
506.04 Concrete Mix Criteria	
506.05 Trial Batch	
506.06 Job Control	
506.07 PCCP Removal	
(a) Partial Depth Removal	
(b) Full Depth Removal	
506.08 Concrete Mixing and Transportation	
(a) Central Mixed Concrete	
(b) Shrink Mixed Concrete	
(c) Transit Mixed Concrete	
506.09 Weather Limitations	
506.10 Placing Concrete	
(a) Partial Depth	
(b) Full Depth	
506.11 Opening to Traffic	
506.12 Method of Measurement	
506.13 Basis of Payment	
SECTION 507 -- EQUIPMENT	
507.01 Production, Transportation, and Placement of PCC Mixtures	
507.02 Mixing Plant	
(a) Plant Inspection	
(b) Proportioning System	
(c) Material Storage	
1. Aggregates	
2. Cementitious Materials	
3. Admixtures	
(d) Hoppers	
(e) Mixing System	
1. Central or Stationary Mixers	
2. Truck Mixers	
507.03 Transportation	
(a) Truck Mixers and Truck Agitators	
(b) Non-Agitator Trucks	
507.04 Placement Equipment	
(a) Slipform	
(b) Form Riding Equipment	
(c) Hand Placement	
1. Steel Forms	
2. Wood Forms	

TABLE OF CONTENTS

Section Title

- 3. Finishing Equipment
- 4. Vibrators
- 507.05 Curing
- 507.06 Texturing Equipment
- 507.07 Sawing Equipment
- 507.08 Miscellaneous Equipment
 - (a) Hand Tools
 - (b) Joint Sealing
 - (c) Grinding
- 507.09 Testing Facility and Equipment
 - (a) Testing Facility
 - (b) Testing Equipment
 - (c) Profilograph
 - (d) Straightedge - 4.9 m (16 ft)
 - (e) Straightedge - 3 m (10 ft)

SECTION 600 -- INCIDENTAL CONSTRUCTION

SECTION 601 -- GUARDRAIL

- 601.01 Description
- 601.02 Materials
- 601.03 General Requirements
- 601.04 Guardrail Erection
- 601.05 Curved W-Beam Guardrail Systems
- 601.06 Guardrail Transitions
- 601.07 Guardrail End Treatments
 - 601.07.1 Impact Attenuators
- 601.08 Extension of Existing Guardrail
- 601.09 Removal of Existing Guardrail
- 601.10 Adjusting Existing Guardrail Height
- 601.11 Resetting Guardrail
- 601.12 Method of Measurement
- 601.13 Basis of Payment

SECTION 602 -- CONCRETE BARRIER

- 602.01 Description
- 602.02 Materials
- 602.03 Concrete Barrier and Concrete Glare Screen
 - (a) Precast Concrete Barrier and Concrete Glare Screen
 - (b) Cast-in-Place Concrete Barrier and Concrete Glare Screen
 - (c) Finishing
 - (d) Sealing
 - (e) Joints
 - (f) Reflectorization
- 602.04 Temporary Concrete Barrier
 - (a) Placement
 - (b) Connection
 - (c) Anchorage
 - (d) Delineation
- 602.05 Method of Measurement
- 602.06 Basis of Payment

SECTION 603 -- FENCES

- 603.01 Description
- 603.02 Materials
- 603.03 General Requirements
- 603.04 Setting Posts

TABLE OF CONTENTS

Section Title

603.05 Placing Barbed and Tension Wire and Fabric
603.06 Resetting Fence
603.07 Method of Measurement
603.08 Basis of Payment

SECTION 604 -- SIDEWALKS, CURB RAMPS AND STEPS

604.01 Description
604.02 Materials
604.03 Portland Cement Concrete Sidewalks and Curb Ramps
 (a) General Requirements
 (b) Excavation
 (c) Forms
 (d) Placing Concrete
 (e) Finishing
 (f) Joints
 (g) Curing
604.04 Portland Cement Concrete Steps
604.05 Reconstructed Portland Cement Concrete Sidewalk
604.06 Re-Laid Portland Cement Concrete Sidewalk
604.07 HMA Sidewalk
 (a) Excavation and Forms
 (b) Bed Course
 (c) Placing HMA Sidewalk
604.08 Backfilling and Finishing Shoulders and Slopes
604.09 Method of Measurement
604.10 Basis of Payment

SECTION 605 -- CURBING

605.01 Description
605.02 Materials
605.03 Precast Cement Concrete Curbing
 (a) Excavation
 (b) Installation
 (c) Joints
 (d) Backfilling
605.04 Cast in Place Cement Concrete Curbing
 (a) Excavation
 (b) Forms
 (c) Proportioning and Placing
 (d) Curb Turnouts and Combined Concrete Curb and Gutter Turnouts
 (e) Joints
 (f) Curing
 (g) Backfilling
 (h) Curb Machine
 (i) Integral Curb Walk
605.05 Reflecting Cement Concrete Curbing
605.06 Cement Concrete Center Curbing
605.07 HMA Curbing
 (a) Excavation
 (b) Preparation of Bed
 (c) Mixture
 (d) Placing
 (e) Painting and Sealing
605.08 Resetting Curbing
 (a) Salvage of Curbing
 (b) Curb Removal

TABLE OF CONTENTS

Section Title

(c) Excavation
(d) Resetting
(e) Backfilling
605.09 Method of Measurement
605.10 Basis of Payment

SECTION 606 -- Blank

SECTION 607 -- PAVED SIDE DITCH OR CONCRETE GUTTER

607.01 Description
607.02 Materials
607.03 General Requirements
607.04 Cement Concrete Gutter and Turnout
607.05 Method of Measurement
607.06 Basis of Payment

SECTION 608 -- SHOULDER DRAINS

608.01 Description
608.02 Materials
608.03 General Requirements
608.04 Method of Measurement
608.05 Basis of Payment

SECTION 609 -- Blank

SECTION 610 -- SURFACES FOR APPROACHES

610.01 Description
610.02 Materials
610.03 General Requirements
610.04 Existing Approaches and Crossovers
610.05 Reinforced Concrete Bridge Approach
 (a) Machine Method
 (b) Hand Method
610.06 Method of Measurement
610.07 Basis of Payment

SECTION 611 -- CROSSTOVERS, DRIVEWAYS AND MAILBOX INSTALLATIONS

611.01 Description
611.02 Materials
611.03 General Requirements
611.04 Temporary Crossovers
611.05 Mailbox Assembly
611.06 Method of Measurement
611.07 Basis of Payment

SECTION 612 -- UNDERSEALING

612.01 Description
612.02 Materials
612.03 Shoulders
612.04 Drilled Holes
612.05 Pumping Asphalt
612.06 Method of Measurement
612.07 Basis of Payment

SECTION 613 -- SALVAGED ROAD MATERIALS

613.01 Description
613.02 Materials

TABLE OF CONTENTS

Section Title

613.03 Construction Requirements
613.04 Method of Measurement
613.05 Basis of Payment

SECTION 614 -- CONCRETE HEADER

614.01 Description
614.02 Materials
614.03 PCC Header
614.04 Reconstructed Cement Concrete Header
614.05 Method of Measurement
614.06 Basis of Payment

SECTION 615 -- MONUMENTS, MARKERS AND PARKING BARRIERS

615.01 Description
615.02 Materials
615.03 Reinforced Cement Concrete Right-of-Way Markers
615.04 Monuments
615.05 Bench Mark Posts
615.06 Parking Barriers
615.07 Setting Right-of-Way Markers
615.08 Resetting Right-of-Way Markers
615.09 Setting Monuments
615.10 Re-Established Monuments
615.11 Setting Bench Mark Posts and Tablets
615.12 Reset Bench Mark Posts
615.13 Method of Measurement
615.14 Basis of Payment

SECTION 616 -- RIPRAP AND SLOPEWALL

616.01 Description
616.02 Materials
616.03 Placing Dumped Riprap
616.04 Placing Revetment, Class 1, and Class 2 Riprap
616.05 Placing Uniform Riprap
616.06 Blank
616.07 Placing Grouted Riprap
616.08 Placing Precast Cement Concrete Riprap
616.09 Slopewall
616.09.1 Undermined Paved Side Ditch
616.10 Installation of Geotextile Under Riprap
616.11 Method of Measurement
616.12 Basis of Payment

SECTION 617 -- GEOGRID FOR SUBGRADE STABILIZATION OR MODIFICATION

617.01 Description
617.02 Materials
617.03 Foundation Preparation
617.04 Geogrid Placement
617.05 Fill Placement
617.06 Method of Measurement
617.07 Basis of Payment

SECTION 618 -- Blank

SECTION 619 -- PAINTING BRIDGE STEEL

619.01 Description
619.02 Materials

TABLE OF CONTENTS

Section Title

619.03	Quality Control and Quality Assurance
(a)	Acceptance Testing Definitions
1.	Lot
2.	Series
3.	Phase
(b)	Testing Procedure
(c)	Test Methods and Procedures
619.04	Prosecution of Work
619.05	Inspection Access to Bridges
619.06	Maintaining Traffic
619.07	Environmental and Safety Requirements
(a)	Pollution Control
(b)	Waste Disposal
1.	Laws to be Observed
2.	Time Limitations
3.	Marking of Spent Material Containers
4.	Instruction for Disposal of Paint Waste
5.	Instructions for Disposal of Other Project Generated Waste
619.08	Surface Preparation
(a)	Pressure Washing
(b)	Solvent Cleaning
(c)	Near-White Blast Cleaning
(d)	Commercial Blast Cleaning
(e)	Hand Tool Cleaning.
(f)	Brush-Off Blast Cleaning
(g)	Power Tool Cleaning
(h)	Power Tool Cleaning to Bare Metal
619.09	Paint Systems
(a)	Structural Steel Paint System
(b)	Partial Paint System
619.10	Painting
(a)	Weather Limitations
(b)	Storage
(c)	Mixing
(d)	Thinning
(e)	Application of Paint
(f)	Curing Time
(g)	Stencil Identification
619.11	Shop Painting
619.12	Field Painting New Steel Bridge
619.13	Painting Existing Steel Bridges
619.14	Drain Castings Treatment
619.15	Claims
619.16	Responsibility for Damage
619.17	Method of Measurement
619.18	Basis of Payment
SECTION 620 -- Blank	
SECTION 621 -- SEEDING AND SODDING	
621.01	Description
621.02	Materials
621.03	Preparation of Ground Before Seeding
621.04	Preparation of Ground Before Applying Erosion Control Blankets

TABLE OF CONTENTS

Section Title

621.05 Applying Fertilizer, Seed, and Mulch

- (a) Fertilizer
- (b) Seed
- (c) Mulch
 - 1. Method A
 - 2. Method B
 - 3. Method C
 - 4. Method D
 - 5. Method E
- (d) Excelsior Blankets
- (e) Paper Mat
- (f) Straw Mat
- (g) Wood Cellulose Fiber Mulch

621.06 Seed Mixtures

- (a) Seed Mixture R
- (b) Seed Mixture U
- (c) Seed Mixture P
- (d) Seed Mixture CV
- (e) Seed Mixture D
- (f) Seed Mixture T
 - 1. Conventional Mix
 - 2. Color Mix
- (g) Seed Mixture Grass
 - 1. Type 1
 - 2. Type 2
- (h) Seed Mixture Legume
 - 1. Type 1
 - 2. Type 2

621.07 Mulched Seeding

621.08 Preparation of Ground Before Sodding

621.09 Laying Sod

621.10 Watering Sod

621.11 Seasonal Limitations

621.12 Method of Measurement

621.13 Basis of Payment

- (a) Warranty Bond
- (b) Changed Fertilizer
- (c) Mulching

SECTION 622 -- PLANTING TREES, SHRUBS, AND VINES

622.01 Description

622.02 Materials

622.03 Care and Handling of Plants

- (a) Bare Rooted Plants
- (b) Balled and Burlapped Plants and Container Grown Plants

622.04 Collected Plants

622.05 Excavation for Plant Holes

622.06 Planting Season

622.07 Pruning

622.08 Planting, Backfilling, and Watering

- (a) Plants with Bare Roots
- (b) Balled and Burlapped Plants
- (c) Seedlings for Wildlife Habitat

622.09 Liquid Fertilizer Application

622.10 Mulching

622.11 Guying and Staking

TABLE OF CONTENTS

Section Title

- 622.12 Plant Protection
 - (a) Borer Control Coatings
 - (b) Wrapping for Rodent Protection
- 622.13 Retaining Walls and Tree Wells
- 622.14 Tree Root Protection
- 622.15 Pipe Underdrains
- 622.16 Damage to Plants
- 622.17 Grass and Weed Control
- 622.18 Care, Inspection, and Replacement
 - (a) Care
 - (b) Inspection and Replacement
- 622.19 Crown Vetch Plants and Seedlings
- 622.20 "Do Not Mow or Spray" Signs and "Do Not Disturb" Signs
- 622.21 Method of Measurement
- 622.22 Basis of Payment

SECTION 700 -- STRUCTURES

SECTION 701 -- DRIVEN PILING

- 701.01 Description
- 701.02 Materials
- 701.03 Handling of Epoxy Coated Piles
- 701.04 Equipment for Driving Piles
 - (a) Approval of Pile Driving Equipment
 - 1. Wave Equation Analysis Method
 - 2. Alternate Method
 - (b) Pile Hammers
 - 1. Gravity Hammers
 - 2. Steam and Air Hammers
 - 3. Diesel Hammers
 - 4. Pile Driving Aids
 - (c) Pile Driving Appurtenance
 - 1. Hammer Cushion
 - 2. Pile Drive Head
 - 3. Pile Cushion
 - 4. Leads
 - 5. Followers
 - 6. Jets
- 701.05 Test Piles
- 701.06 Driven Pile Capacity
 - (a) Wave Equation Analysis Program, or WEAP
 - (b) Dynamic Formula
 - (c) Dynamic Pile Load Test
 - (d) Static Load Test
 - 1. Load Test Procedure
 - 2. Hydraulic Jacks and Load Gages
 - 3. General Requirements
- 701.07 Piling Length
- 701.08 Required Bearing Capacity
- 701.09 Preparation and Driving
 - (a) Pilot Holes
 - (b) Location and Alignment Tolerance
 - (c) Heaved Piles
 - (d) Installation Sequence
 - (e) Inspection
 - (f) Pouring Concrete

TABLE OF CONTENTS

Section Title

- 701.10 Unsatisfactory Piles
- 701.11 Splicing Piles
- 701.12 Steel H Pile Tips
- 701.13 Cut-Off Lengths
- 701.14 Method of Measurement
- 701.15 Basis of Payment
 - (a) Timber Piles Furnished
 - (b) Timber Piles Driven
 - (c) Epoxy Coated Piles

SECTION 702 -- STRUCTURAL CONCRETE

- 702.01 Description
- 702.02 Classes of Concrete
- 702.03 Materials
- 702.04 Shipping and Storage
- 702.05 Proportioning
- 702.06 Batching
 - (a) Portland Cement
 - (b) Water
 - (c) Aggregates
 - (d) Bins and Scales
 - (e) Batching
- 702.07 Mixing
- 702.08 Mixing at Site of Work
- 702.09 Ready-Mixed Concrete
 - (a) General Requirements
 - (b) Mixers and Agitators
 - (c) Mixing and Delivery
 - (d) Non-Agitating Equipment
- 702.10 Pumping Concrete
- 702.11 Cold Weather Concrete
- 702.12 Consistency
- 702.13 Forms
 - (a) Construction
 - (b) Ties
 - (c) Walls
 - (d) Surface Treatment
 - (e) Metal Forms
 - 1. Removable
 - 2. Permanent
 - (f) Precast Concrete Deck Panels
 - (g) Removal and Re-Use of Forms
 - (h) Test Beams
- 702.14 Falsework and Centering
 - (a) Design and Construction
 - (b) Removal
- 702.15 Joints
 - (a) Construction Joints
 - (b) Expansion Joints
 - (c) Folded Metal Joints
 - (d) Sliding Joints
- 702.16 Drainage Pipes Through Concrete Masonry
- 702.17 Incased Pipes and Conduits
- 702.18 Roadway Surface Drainage
- 702.19 Pouring Bent Caps

TABLE OF CONTENTS

Section Title

702.20	Placing Concrete
(a)	General Requirements
(b)	Chutes and Troughs
(c)	Vibrating
(d)	Depositing Concrete Under Water
(e)	Placing Footing Concrete
(f)	Concrete Foundation Seal
702.21	Finishing Concrete Surfaces
(a)	Class 1 Finish
(b)	Class 2 Finish
(c)	Class 3 Finish
702.22	Curing Concrete
(a)	Protective Covering Curing Methods
(b)	Membrane Forming Curing Compound
(c)	Curing-Sealing Materials
702.23	Waterproofing
702.24	Application of Loads to and Acceptance of New Concrete
702.25	Field Drilled Holes in Concrete
702.26	Artificial Lighting
702.27	Method of Measurement
702.28	Basis of Payment
SECTION 703 -- REINFORCING BARS	
703.01	Description
703.02	Materials
703.03	Bar List
703.04	Protection of Materials
703.05	Bending
703.06	Placing and Fastening
703.07	Method of Measurement
703.08	Basis of Payment
SECTION 704 -- CONCRETE FLOOR SLABS	
704.01	Description
704.02	Materials
704.03	Forms
704.04	Placing Reinforcement and Concrete
704.05	Finishing Concrete
704.06	Curing
704.07	Method of Measurement
704.08	Basis of Payment
SECTION 705 -- SIDEWALKS ON STRUCTURES	
705.01	Description
705.02	Materials
705.03	Construction Requirements
705.04	Method of Measurement
705.05	Basis of Payment
SECTION 706 -- RAILINGS	
706.01	Description
706.02	Materials
706.03	Concrete Railing
706.04	Pipe Railing
706.05	Aluminum and Steel Railings
706.06	Method of Measurement
706.07	Basis of Payment

TABLE OF CONTENTS

Section Title

SECTION 707 -- PRECAST AND PRESTRESSED CONCRETE STRUCTURAL MEMBERS

- 707.01 Description
- 707.02 Materials
- 707.03 General Requirements
- 707.04 Steel and Concrete Requirements
 - (a) Reinforcing Steel
 - (b) Welding Reinforcing Steel
 - (c) Concrete
- 707.05 Forms
- 707.06 Placing and Finishing Cement Concrete
- 707.07 Removal of Forms and Curing
- 707.08 Handling and Shipping
- 707.09 Placing Structural Members
 - 707.09.1 Precast Prestressed Concrete Deck Panels
- 707.10 Method of Measurement
- 707.11 Basis of Payment

SECTION 708 -- PNEUMATICALLY PLACED MORTAR

- 708.01 Description
- 708.02 Materials
- 708.03 Preparing Surface
- 708.04 Reinforcement
- 708.05 Proportioning and Mixing
- 708.06 Placing Mortar
- 708.07 Finishing
- 708.08 Method of Measurement
- 708.09 Basis of Payment

SECTION 709 -- PORTLAND CEMENT CONCRETE SEALERS

- 709.01 Description
- 709.02 Materials
- 709.03 Surface Preparation
- 709.04 Environmental Requirements
 - (a) General Requirements
 - (b) Epoxy Penetrating Sealers
 - (c) Other Portland Cement Concrete Sealers
 - (d) Low Temperature Epoxy Penetrating Sealer
- 709.05 Sealer Application
 - (a) General Requirements
 - (b) Epoxy Penetrating Sealer
 - (c) Other Portland Cement Concrete Sealers
 - (d) Clear Sealers
 - (e) Alternate To Concrete Sealers
- 709.06 Safety Precautions
- 709.07 Method of Measurement
- 709.08 Basis of Payment

SECTION 710 -- REPOINTING MASONRY IN STRUCTURES

- 710.01 Description
- 710.02 Materials
- 710.03 Repointing Concrete Masonry
- 710.04 Repointing Rubble Masonry
- 710.05 Repointing Dressed Stone and Brick Masonry
- 710.06 Method of Measurement
- 710.07 Basis of Payment

TABLE OF CONTENTS

Section Title

SECTION 711 -- STEEL STRUCTURES

711.01	Description
711.02	Materials
711.03	General Requirements
711.04	Certification of Fabricators
711.05	Shop Drawings
711.06	Storage of Materials
711.07	Mill Orders and Shipping Statements
711.08	Mill Test Reports
711.09	Notice of Beginning Work
711.10	Facilities for Inspection
711.11	Straightening Material
711.12	Finish
711.13	Flame Cutting
711.14	Edge Planing
711.15	Abutting Joints
711.16	End Connection Angles
711.17	Blank
711.18	Blank
711.19	Bent Plates
711.20	Fit of Stiffeners
711.21	Bolt Holes
	(a) High Tensile Strength Bolts, and Unfinished Bolts
	(b) Ribbed Bolts, Turned Bolts, or other Approved Bearing-Type Bolts
711.22	Punched Holes
711.23	Reamed or Drilled Holes
711.24	Subpunching and Reaming of Field Connections
711.25	Accuracy of Punched or Subdrilled Holes
711.26	Accuracy of Reamed Holes and Holes Drilled Full Size
711.27	Fitting for Bolting
711.28	Filler Plates
711.29	Toothed Expansion Plates
711.30	Blank
711.31	Blank
711.32	Welds
	(a) AWS Requirements
	(b) Edge Blocks
711.33	Stud Shear Connectors
711.34	Annealing and Stress Relieving
711.35	Eyebars
711.36	Facing of Bearing Surfaces
711.37	Pins and Rollers
711.38	Boring Pin Holes
711.39	Pin Clearances
711.40	Threads for Bolts and Pins
711.41	Pilot and Driving Nuts
711.42	Finishing Cast Steel
711.43	Finished Members
711.44	Shop Assembling
	(a) Full Truss or Girder Assembly
	(b) Progressive Beam or Girder Assembly
	(c) Full Chord Assembly
	(d) Progressive Chord Assembly
	(e) Special Complete Structure Assembly
711.45	Drifting of Holes

TABLE OF CONTENTS

Section Title

711.46 Match Marking	
711.47 Shop Cleaning and Painting	
711.47.1 Shop Cleaning and Storage of ASTM A 709M Grade 345W (ASTM A 709 Grade 50W) Steel	
(a) Hot Rolled Products	
(b) Welded Areas	
711.48 Furnishing Bolts	
711.49 Weighing of Members	
711.50 Full Size Tests	
711.51 Acceptance	
711.52 Shipping	
711.53 General Requirements	
711.54 Delivery of Materials	
711.55 Handling and Storing	
711.56 Falsework	
711.57 Bearings and Anchorages	
711.58 Field Straightening Material	
711.59 Field Assembly of Steel	
711.60 Misfits	
711.61 Pin Connections	
711.62 Blank	
711.62.1 Diaphragm Connections	
711.63 Bolted Connections Using High Strength Bolts	
(a) General	
(b) Bolts, Nuts, and Washers	
(c) Bolted Parts	
(d) Installation	
1. Bolt Tension	
2. Washers	
3. Calibrated Wrench Tightening	
4. Turn-of-Nut Tightening	
(e) Inspection	
711.64 Bolted Connections Using Other Than High Strength Bolts	
711.65 Final Clean-Up	
711.66 Structural Steel Cutting, Rivet and Bolt Removal, and Drilled Bolt Holes in Repair Projects	
711.67 Jacking and Supporting Beams	
711.67.1 Field Cleaning and Storage of ASTM A 709M Grade 345W (ASTM A 709 Grade 50W) Steel	
711.68 Painting	
711.69 Method of Measurement	
711.70 Basis of Payment	
(a) Lump Sum Basis	
(b) Unit Weight Basis	

SECTION 712 -- TIMBER STRUCTURES

712.01 Description	
712.02 Materials	
712.03 General Requirements	
712.04 Caps	
712.05 Stringers	
712.06 Bents	
712.07 Wheel Guards and Railings	
712.08 Painting	
712.09 Single-Ply Plank Floors	
712.10 Two-Ply Plank Floors	
712.11 Method of Measurement	
712.12 Basis of Payment	

TABLE OF CONTENTS

Section Title

SECTION 713 -- TEMPORARY BRIDGES AND APPROACHES

- 713.01 Description
- 713.02 Materials
- 713.03 General Requirements
- 713.04 Temporary Bridge
- 713.05 Temporary Approaches
- 713.06 Maintenance
- 713.07 Removal
- 713.08 Method of Measurement
- 713.09 Basis of Payment

SECTION 714 -- CONCRETE CULVERTS AND RETAINING WALLS

- 714.01 Description
- 714.02 Materials
- 714.03 General Requirements
- 714.04 Extension of Existing Culverts
 - (a) Precast Concrete Box Sections Extension
 - (b) Cast-In-Place Concrete Culvert Extension
- 714.04.1 Precast Reinforced Concrete Box Section Joints
- 714.05 Sealing Existing Culverts
- 714.06 Method of Measurement
- 714.07 Basis of Payment

SECTION 715 -- PIPE CULVERTS, AND STORM AND SANITARY SEWERS

- 715.01 Description
- 715.02 Materials
 - (a) Type 1 Pipe
 - (b) Type 2 Pipe
 - (c) Type 3 Pipe
 - (d) Type 4 Pipe
 - (e) Type 5 Pipe
 - (f) Slotted Drain Pipe
 - (g) Slotted Vane Drain Pipe
 - (h) End Bent Drain Pipe
 - (i) Underdrain Outlet Pipe
 - (j) Grated Box End Sections
- 715.02.1 General Requirements
- 715.03 Excavation
- 715.04 Laying Pipe
- 715.05 Joining Pipe
- 715.06 Tee and Stub-Tee Connections
- 715.07 Blank
- 715.08 Backfilling
- 715.09 Pipe End Sections, Anchors, Grated Box End Sections, and Safety Metal End Sections
- 715.10 Re-Laid Pipe
- 715.11 Method of Measurement
- 715.12 Basis of Payment

SECTION 716 -- JACKED PIPE

- 716.01 Description
- 716.02 Materials
- 716.03 General Requirements
 - (a) Jacking
 - (b) Boring
- 716.04 Jacking Steel Pipe
- 716.05 Jacking Concrete Pipe

TABLE OF CONTENTS

Section Title

716.06 Method of Measurement

716.07 Basis of Payment

SECTION 717 -- STRUCTURAL PLATE PIPE, PIPE-ARCHES, AND ARCHES

717.01 Description

717.02 Materials

717.03 General Requirements

717.04 Backfill

717.05 Re-Laid Pipe and Pipe-Arch

717.06 Blank

717.07 Concrete Paved Inverts

717.08 Method of Measurement

717.09 Basis of Payment

SECTION 718 -- UNDERDRAINS

718.01 Description

718.02 Materials

718.03 Pipe Installation

718.04 Geotextile

718.05 Underdrain Outlets

718.06 Underdrain Outlet Protectors

718.07 Video Inspection

718.08 Method of Measurement

718.09 Basis of Payment

SECTION 719 -- TILE DRAINS

719.01 Description

719.02 Materials

719.03 Trench Excavation

719.04 Laying Tile

719.05 Backfilling

719.06 Blank

719.07 Method of Measurement

719.08 Basis of Payment

SECTION 720 -- MANHOLES, INLETS, AND CATCH BASINS

720.01 Description

720.02 Materials

720.03 General Requirements

720.04 Grade Adjustment of Existing Structures

720.05 Method of Measurement

720.06 Basis of Payment

SECTION 721 -- AUTOMATIC DRAINAGE GATES

721.01 Description

721.02 Materials

721.03 Construction Requirements

721.04 Method of Measurement

721.05 Basis of Payment

SECTION 722 -- LATEX MODIFIED CONCRETE BRIDGE DECK OVERLAYS

722.01 Description

722.02 Materials

722.03 Storage and Handling of Materials

722.04 Proportioning

722.05 Preparation of the Bridge Floor

TABLE OF CONTENTS

Section Title

(a) Concrete Removal	
1. Deck Surface	
2. Bridge Floor	
(b) Cleaning	
722.06 Patching of the Bridge Floor	
(a) Full Depth Patching	
1. Patching with Bridge Deck Patching Concrete	
2. Patching with Latex Modified Concrete	
(b) Partial Depth Patching	
1. Patching with Bridge Deck Patching Concrete	
2. Patching with Latex Modified Concrete	
722.06.1 Overlay Dam	
722.07 Mixing	
722.08 Placing and Finishing	
722.09 Texturing	
722.10 Curing	
722.11 Calibration of Continuous Mixers	
(a) Frequency	
(b) Equipment	
(c) Pre-calibration	
(d) Calibration	
1. Cement Meter	
2. Water Flow Meter	
3. Aggregate Bin Gates	
4. Latex Throttling Valve	
5. Admixture Dispensers	
722.12 Patching an Existing Bridge Deck Overlay	
(a) Materials	
(b) Storage and Handling of Materials	
(c) Proportioning	
(d) Preparation of the Bridge Floor	
(e) Patching	
(f) Mixing	
(g) Placing and Finishing	
(h) Texturing	
(i) Curing	
(j) Calibration of Continuous Mixers	
722.13 Method of Measurement	
722.14 Basis of Payment	
SECTION 723 -- Blank	
SECTION 724 -- STRUCTURAL EXPANSION JOINTS	
724.01 Description	
(a) Structural Expansion Joint	
(b) Replacement of Existing Structural Expansion Joint	
(c) Replacement of Existing Structural Expansion Joint Seal	
724.02 Materials	
(a) Expansion Joint SS	
(b) Expansion Joint M	
724.03 General Requirements	
(a) Expansion Joint SS	
(b) Expansion Joint BS	
(c) Expansion Joint M	
(d) Replacement of Existing Structural Expansion Joint	
(e) Replacement of Existing Structural Expansion Joint Seal	

TABLE OF CONTENTS

Section Title

724.04 Method of Measurement

724.05 Basis of Payment

SECTION 800 -- TRAFFIC CONTROL DEVICES AND LIGHTING

SECTION 801 -- TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE OPERATIONS

801.01 Description

801.02 Materials

801.03 General Requirements

801.04 Construction Signs

(a) Type A

(b) Type B

(c) Type C

(d) Type D

(e) Temporary Panel Sign

801.05 Detour Route Marker Assembly

801.06 Road Closure Sign Assembly

801.07 Barricades

(a) Type III-A Barricade

(b) Type III-B Barricade

(c) Permanent Type III Barricade

801.08 Cones and Tubular Markers

801.09 Drums

801.10 Temporary Pavement Marking

(a) Temporary Pavement Marking Materials

1. Paint

2. Temporary Pavement Marking Tape

a. Type I

b. Type II

3. Temporary Raised Pavement Marker

4. Temporary Buzz Strips

(b) Quality Assurance Unit

801.11 Temporary Illumination

801.12 Construction Warning Lights

(a) Type A

(b) Type B

(c) Type C

(d) Vehicle Warning Lights

801.13 Electronic Devices

(a) Flashing Arrow Sign

(b) Changeable Message Signs

(c) Temporary Worksite Speed Limit Sign Assembly

(d) Temporary Traffic Signals

801.14 Temporary Traffic Control Zone

(a) Temporary Traffic Control Signs

(b) Maintenance of Traffic for Mobile Operations

(c) Traffic Control for Temporary Traffic Stoppage

1. On Multi-Lane Divided Highways

2. On Non-Divided Highways

801.15 Method of Measurement

801.16 Basis of Payment

SECTION 802 -- GROUND MOUNTED SIGNS

802.01 Description

802.02 Materials

802.03 Location of Signs

802.04 Excavation

TABLE OF CONTENTS

Section Title

802.05 Installing Posts and Signs
802.06 Removal or Relocation of Signs or Support Assemblies
802.07 Remove and Reset Roadway and Bridge Reference Signs
802.08 Shop Drawings of Signs and Sign Structures
802.09 Final Clean-Up
802.10 Method of Measurement
802.11 Basis of Payment

SECTION 803 -- OVERHEAD SIGN STRUCTURES

803.01 Description
803.02 Materials
803.03 Shop Drawings
803.04 Excavation
803.05 Placing Concrete
803.06 Erection
 (a) Under Traffic
 (b) Trusses
 (c) Monotube
 (d) Cantilever
 (e) Bridge Brackets
803.07 Welding Aluminum Alloys for Highway Structures
 (a) Base Metals
 (b) Welding Processes
 (c) Filler Metal
 (d) Shielding Gases
 (e) Preparation of Materials
 (f) Welding Procedure
 (g) Weld Quality
 (h) Inspection
 (i) Corrections
 (j) Qualification of Procedures, Welders, and Welding Operators
803.08 Removal of Overhead Signs and Sign Structures
803.09 Final Clean-Up
803.10 Method of Measurement
803.11 Basis of Payment

SECTION 804 -- DELINEATORS

804.01 Description
804.02 Materials
804.03 Delineators and Barrier Delineators
804.04 Posts
804.05 Flexible Delineator Posts
804.06 Method of Measurement
804.07 Basis of Payment

SECTION 805 -- TRAFFIC SIGNALS

805.01 Description
805.02 Materials
805.03 General Requirements
805.04 Pole Installation
805.05 Placing Signal Heads
805.06 Grounding
805.07 Wire and Cable Installations
805.08 Controller Cabinet, Signal Service, and Detector Housing Installation
805.09 Loop Wire Detector Installation
 (a) Megohm Test Before Splice is Made at Detector Housing for Loop Wire
 (b) Megohm Test Before Splice is Made at Detector Housing for Lead-in Cable

TABLE OF CONTENTS

Section Title

(c) Megohm Test After Splice is Completed at Cabinet	
(d) Vehicle Simulator Test	
(e) Acceptance Criteria	
805.10 Magnetometer and Microloop Detectors	
805.11 Steel Conduit	
805.12 PVC Conduit	
805.13 Foundations	
805.14 Final Clean-Up	
805.15 Method of Measurement	
805.16 Basis of Payment	
SECTION 806 -- BLANK	
SECTION 807 -- HIGHWAY ILLUMINATION	
807.01 Description	
807.02 Maintenance of Highway Illumination	
807.03 Materials	
807.04 Excavation	
(a) Trench Excavation	
(b) Foundation Excavation	
(c) Landscape Replacement	
807.05 Backfilling	
807.06 Placing Conduit	
807.07 Connections in Base of Lighting Standards	
807.08 Placing Wire and Cable	
(a) Underground Through Cable-duct	
1. Cable-duct	
2. Cable Markers	
(b) Underground Through Conduit	
1. Cable-duct	
2. Cable Markers	
(c) In Conduit Risers	
(d) Through Conduit in Bridge Copping	
(e) Aerial Cable	
807.09 Lighting Handholes	
807.10 Concrete Foundations For Lighting Standards	
(a) Cast-in-Place Foundations	
(b) Precast Foundations	
(c) Grading of Foundations	
807.11 Placing Lighting Standards	
(a) Lighting Standards Under 24 m (80 ft) in Height	
(b) High Mast Lighting Standards of 24 m (80 ft) Height and Over	
807.12 Grounding	
807.13 Luminaire Installation	
(a) Roadway Luminaires	
(b) Sign Luminaires	
(c) Underpass Luminaires	
(d) High Mast Luminaires	
807.14 Sign, Underpass, Roadway, and High Mast Lighting Location Identification	
807.15 Service Point Power Entry	
(a) Types of Service Points	
1. Type I Service Point	
2. Type II Service Point	
(b) Sign and Underpass Circuits	
(c) Multiple Relay Switches	
807.16 Testing of Highway Lighting System	

TABLE OF CONTENTS

Section Title

(a) Testing Lighting Circuitry	
(b) Testing and Inspecting Luminaires	
807.17 Pay Item and Installation Summary Sheets	
807.18 Method of Measurement	
(a) From the Face of the Concrete Foundation to the Center of the Handhole or Face of the Next Concrete Foundation	
(b) From Lighting Standard Bases or Handholes to Switch Boxes at Underpasses	
(c) From End to End of the Conduit when the Cable is in Conduit under a Roadway Surface or Shoulder	
807.19 Basis of Payment	
SECTION 808 -- PAVEMENT TRAFFIC MARKINGS	
808.01 Description	
808.02 Materials	
808.03 General Requirements	
808.04 Longitudinal Markings	
(a) Center Lines	
(b) Lane Lines	
(c) Edge Lines	
(d) Barrier Lines	
808.05 Transverse Markings	
808.05.1 Curb Markings	
808.06 Pavement Marking Material Application and Equipment	
(a) Traffic Paint	
1. Application	
2. Equipment	
(b) Durable Pavement Marking Material	
1. Thermoplastic	
a. Application	
b. Equipment	
2. Preformed Plastic	
a. Application	
b. Equipment	
3. Epoxy	
a. Application	
b. Equipment	
808.07 Marking Protection and Maintenance of Traffic	
(a) Vehicle Signs	
(b) Vehicle Warning Lights	
(c) Cones	
(d) Front Escort Vehicles	
(e) Marking Application Vehicles	
(f) Rear Escort Vehicles	
808.08 Warranty for Durable Pavement Marking Material	
808.09 Removal of Pavement Markings	
808.10 Snowplowable Raised Pavement Markers	
(a) Surface Preparation	
(b) Location	
(c) Reflector Color	
(d) Installation	
(e) Removal of Markers	
(f) Replacement of Prismatic Reflectors	
808.11 Method of Measurement	
808.12 Basis of Payment	

TABLE OF CONTENTS

Section Title

SECTION 900 -- MATERIALS DETAILS

SECTION 901 – PCC MATERIALS

901.01 Hydraulic Cement

- (a) General
- (b) Portland Cement
 - 1. Requirements
 - 2. Acceptance Criteria
 - a. General Requirements
 - b. Requirements for Domestic Source Qualification
 - c. Requirements for Foreign Source Qualification
 - d. Certification
- (c) Masonry Cement

901.02 Fly Ash Used as a Pozzolan

- (a) General
- (b) Acceptance Criteria
 - 1. Requirements
 - 2. Test and Calibration Procedure
 - 3. Documentation

901.03 Ground Granulated Blast Furnace Slag Used as a Pozzolan

- (a) General
- (b) Acceptance Criteria
 - 1. Requirements
 - 2. Test and Calibration Procedure
 - 3. Documentation

901.04 Silica Fume Used As a Pozzolan Mineral Admixture

- (a) General
- (b) Acceptance Criteria
 - 1. Requirements
 - 2. Frequency of Testing
 - 3. Test and Calibration Procedure
 - 4. Documentation

901.05 Chemical Anchor Systems

- (a) Requirements
- (b) Laboratory Testing

901.06 PCC Sealer/Healers

- (a) Requirements
- (b) Laboratory Testing

901.07 Rapid Setting Patch Materials

- (a) Normal Weather Mixes
- (b) Hot Weather Mixes
- (c) Requirements
- (d) Test Report

SECTION 902 -- ASPHALT MATERIALS

902.01 Asphalt

- (a) Performance Graded Asphalt Binders
- (b) Asphalt Emulsions
- (c) Cutback Asphalts
 - 1. Medium Curing Asphalts With and Without Additives
 - 2. Slow Curing Asphalts With and Without Additives
- (d) Utility Asphalt
- (e) Asphalt for Coating Corrugated Metal Pipe

902.02 Sampling and Testing Asphalt Materials

902.03 Application Temperatures

TABLE OF CONTENTS

Section Title

SECTION 903 -- CLASSIFICATION OF SOILS

903.01 Definitions

903.02 Soils Having 0 to 19 Percent Retained on 2.00 mm (No. 10) Sieve

903.03 Soils Having 20 Percent or More Retained on 2.00 mm (No. 10) Sieve and More Than 20 Percent Passing 75 Fm (No. 200) Sieve

903.04 Soils Having 20% or More Retained on 2.00 mm (No. 10) Sieve and Less Than 20% Passing 75 Fm (No. 200) Sieve

903.05 Organic Soils

903.06 Marly Soils

SECTION 904 -- AGGREGATES

904.01 Fine Aggregates

(a) For Portland Cement Concrete

(b) For HMA Mixtures

(c) For Pneumatic Placement

(d) For Mortar

(e) Mineral Filler

(f) Snow and Ice Abrasives

(g) Sizes of Fine Aggregates

(h) Sampling and Testing

904.02 Coarse Aggregates

(a) General Requirements

(b) Classification of Aggregates

(c) Coarse Aggregate Angularity

(d) Surface Aggregate Requirements

(e) Sizes of Coarse Aggregates

(f) Sampling and Testing

904.03 Exceptions to AASHTO Standard Methods

(a) Exceptions to AASHTO T 2

(b) Exceptions to AASHTO T 11, T 27, and T 37

(c) Exceptions to AASHTO T 27 for Coarse Aggregates

(d) Blank

(e) Exceptions to AASHTO T 103 and T 104

(f) Exceptions to AASHTO T 85

904.04 Riprap

(a) Dumped Riprap

(b) Revetment, Class 1, and Class 2 Riprap

(c) Grouted Riprap

(d) Uniform Riprap

(e) Precast Cement Concrete Riprap

SECTION 905 -- MASONRY UNITS

905.01 Clay or Shale Brick

(a) Sewer Brick

(b) Manhole Brick

(c) Building Brick

905.02 Concrete Brick

905.03 Concrete Masonry Blocks

SECTION 906 -- JOINT MATERIALS

906.01 Joint Fillers

906.02 Joint Sealing Materials

(a) Joint Sealers

1. Silicone Joint Sealants

a. Physical Requirements

b. Field Evaluation

c. Specific Requirements for Installation of Silicone Joint Sealant

TABLE OF CONTENTS

Section Title

2. Hot Poured Joint Sealant	
a. General Requirements	
b. Packaging and Marking	
c. Requirements for Installation	
d. Sampling and Testing	
3. Preformed Elastomeric Joint Seals	
(b) Backer Rod	
1. Requirements	
2. Certification	
906.03 Joint Mortar	
906.04 Rubber Type Gaskets	
906.05 Bituminous Mastic Pipe Joint Sealer	
(a) General Requirements	
(b) Detail Requirements	
(c) Certification	
906.05.1 Joint Membrane System for Precast Reinforced Concrete Box Sections	
906.06 Bridge Expansion Joints	
(a) Type SS	
(b) Type BS2, BS6, BS8, BS9, BS11, and 1-A	
(c) Type M	
SECTION 907 -- CONCRETE, CLAY, AND PLASTIC DRAINAGE COMPONENTS	
907.01 Non-Reinforced Concrete Pipe	
907.02 Reinforced Concrete Pipe	
907.03 Reinforced Concrete Horizontal Elliptical Pipe	
907.04 Precast Concrete Manholes, Inlets, and Catch Basins	
907.05 Precast Reinforced Concrete Box Sections	
907.06 Blank	
907.07 Blank	
907.08 Clay Pipe	
907.09 Perforated Clay Pipe	
907.10 Blank	
907.11 Drain Tile	
907.12 Blank	
907.13 Blank	
907.14 Blank	
907.15 Blank	
907.16 Plastic Pipe Manufacturer Requirements	
907.17 Corrugated Polyethylene Drainage Tubing	
907.18 Perforated Polyvinyl Chloride Semicircular Pipe	
907.19 Corrugated Polyethylene Pipe	
907.20 Ribbed Polyethylene Pipe	
907.21 Smooth Wall Polyethylene Pipe	
907.22 Profile Wall Polyvinyl Chloride Pipe	
907.23 Smooth Wall Polyvinyl Chloride Pipe	
907.24 Smooth Wall Pipe for Outlets	
(a) Type PSM Polyvinyl Chloride Pipe and Fittings	
(b) Schedule 40 Polyvinyl Chloride Pipe	
907.25 Solvent Cements for Polyvinyl Chloride Pipe and Pipe Fittings	
907.26 Elastomeric Seals	
SECTION 908 -- METAL PIPE	
908.01 Blank	
908.02 Corrugated Steel Pipe and Pipe-Arches	
908.03 Blank	
908.04 Corrugated Aluminum Alloy Pipe and Pipe-Arches	

TABLE OF CONTENTS

Section Title

908.05	Blank
908.06	Metal End Sections
908.07	Fiber Bonded Fully Bituminous Coated Corrugated Steel Culvert Pipe and Pipe-Arches
908.08	Polymer Precoated Galvanized Corrugated Steel Culvert Pipe and Pipe-Arches
908.09	Structural Plate Pipe, Pipe-Arches, and Arches
	(a) Steel
	(b) Aluminum Alloy
908.10	Cast Iron Soil Pipe
908.11	Steel Pipe
908.12	Straps, Hook Bolts and Nuts Used in Anchors
908.13	Fully Bituminous Coated and Lined Corrugated Steel Pipe and Pipe-Arches.
908.14	Slotted Drain or Slotted Vane Drain Pipe
SECTION 909 -- PAINT AND LIQUID EPOXY	
909.01	General Requirements
909.02	For Metal
	(a) Zinc Primers
	1. Two Component and Multi-Component Inorganic Zinc Silicate Primer
	2. Single Package Inorganic Zinc Silicate Primer
	3. Organic Zinc Primer
	4. Approval of Formulation
	5. Reapproval of Formulation
	(b) Epoxy Intermediate Paint
	(c) Polyurethane Finish Coat
	(d) Waterborne Finish Paint
	1. Vehicle Component
	2. Pigment Component
	3. Mixed Paint Properties
	4. Color
	5. Approval of Formulation
	(e) Finish Coat for Weathering Steel
909.03	Structural Steel Coating System
	(a) Toxicity
	(b) Resistance
	(c) Approval of Structural Steel Coating System
	(d) Structural Steel Coating System Re-approval.
909.04	Field Paint for Wood or Metal
909.05	White and Yellow Traffic Paint
	(a) Standard Traffic Paint
	1. General Requirements
	2. Specific Requirements
	(b) Fast Dry Traffic Paint
	1. General Requirements
	2. Specific Requirements
	(c) White and Yellow Waterborne Traffic Paint
	1. Composition Requirements
	2. Specific Requirements
	3. Formulation Approval
	4. Formulation Reapproval
909.06	Blank
909.07	Blank
909.08	Blank
909.09	Epoxy Penetrating Sealers
	(a) Polysulfide Type
	(b) Unmodified Type
	(c) Specific Requirements

TABLE OF CONTENTS

Section Title

- (d) Low Temperature Epoxy Penetrating Sealer
- (e) Packaging and Marking
- (f) Approval of Formulation
- 909.10 Proprietary PCC Sealers
 - (a) Properties
 - (b) Test Report
- 909.11 Epoxy-Resin-Base System for Bonding Plastic Concrete to Hardened Concrete
- SECTION 910 -- METAL MATERIALS
- 910.01 Reinforcing Bars and Dowel Bars
 - (a) General
 - (b) Specific Requirements
 - 1. Billet Steel Bars
 - 2. Threaded Tie Bar Assembly
 - 3. Splicing Systems
 - 4. Blank
 - 5. Welded Steel Wire Fabric for Concrete Reinforcement
 - 6. Welded Deformed Steel Wire Fabric for Concrete Reinforcement
 - 7. Uncoated 7 Wire Strand for Prestressed Concrete
 - 8. Steel Spiral Reinforcement
 - 9. Epoxy Coated Reinforcing Bars
 - 10. Dowel Bars
 - (c) Inspection, Sampling, and Testing
- 910.02 Structural Steel
 - (a) Structural Steel
 - (b) High Strength Structural Steel
 - (c) Charpy V-Notch Toughness Tests
 - (d) Mill Test Reports
 - (e) High Strength Bolts, Nuts, and Washers
 - 1. General Use
 - 2. Assembly of Structural Steel in Bridges
 - a. Bolts
 - b. Nuts
 - c. Tests
 - (1) Rotational Capacity
 - (2) Proof Loads
 - (3) Wedge Tension Test
 - d. Certification
 - (f) Bolts other than High Strength Bolts
 - 1. General
 - 2. Unfinished Bolts
 - 3. Turned Bolts
 - 4. Ribbed Bolts
- 910.03 Permanent Metal Forms
- 910.04 Steel Forgings and Steel Shafting
 - (a) Carbon Steel Forgings
 - (b) Cold Finished Carbon Steel Shafting
 - (c) Alloy Steel Forgings
 - (d) Certification
- 910.05 Castings
 - (a) Steel Castings
 - 1. Steel Castings for Highway Bridges
 - 2. Chromium Alloy Steel Castings
 - (b) Iron Castings
 - (c) Ductile Iron Castings
 - (d) Malleable Castings

TABLE OF CONTENTS

Section Title

- (e) Carbon Steel Castings
- 910.06 Bronze and Copper Alloy
 - (a) Bronze Castings
 - (b) Copper Alloy Plates
- 910.07 Steel Drain Pipe
- 910.08 Blank
- 910.09 Guardrail
 - (a) Steel Beam Rail
 - (b) Aluminum Rail
- 910.10 Guardrail Posts
 - (a) Steel Guardrail Posts
 - (b) Aluminum Guardrail Posts
 - (c) Wood Guardrail Posts
- 910.11 Guardrail Accessories, Fittings, and Hardware
 - (a) For Steel Beam Guardrail
 - (b) For Aluminum Guardrail
 - (c) For Steel Tube Guardrail
- 910.12 Certification of Guardrail Suppliers
- 910.13 Steel Fence Posts
 - (a) Tubular Steel Fence Posts
 - 1. Group 1
 - 2. Group 2
 - (b) Fence Fastenings
- 910.14 Sign Posts
 - (a) Steel, Flanged, Channel Posts
 - 1. General Requirements
 - 2. Deflection Test Requirements
 - 3. Type of Posts
 - (b) Wide Flange Posts
 - (c) Structural Steel Posts
 - (d) Structural Aluminum Posts
 - (e) Square Steel Posts
 - 1. Steel
 - 2. Fabrication
 - 3. Protective Coating
 - (f) Portable Construction Sign Trailer
- 910.15 Delineator Posts
- 910.16 Copper Flashing
- 910.17 Bronze or Copper Alloy Plates
- 910.18 Fence, Fittings, and Gates
 - (a) Farm Field or Woven Wire Fence
 - (b) Steel Fabric Chain Link Fence
 - 1. Tension Wire
 - 2. Stretcher Bars, Truss Rods, and Turnbuckles
 - 3. Braces
 - 4. Barbed Wire
 - (c) Aluminum Fabric Chain Link Fence
 - (d) Gates
 - 1. Steel Gates
 - 2. Aluminum Gates
 - (e) Control Procedures for Furnishing Fence and Accessories
 - 1. General Requirements
 - 2. Suppliers of Pretested Approved Stockpiled Material
 - 3. Suppliers Not Furnishing Pretested Approved Stockpiling Material

TABLE OF CONTENTS

Section Title

910.19 Overhead Sign Structures

(a) Aluminum Overhead Sign Structures, Box Truss and Bridge Attached

(b) Steel Overhead Sign Structures, Box Truss, Cantilever, Monotube, and Bridge Attached

910.20 Steel Bridge Railing Components

910.21 Steel Sheet Piling

SECTION 911 -- WOOD MATERIALS

911.01 Untreated Lumber

(a) General

1. Boards

2. Dimension Lumber

3. Structural Lumber

4. Timbers

5. Timbers, Round

6. Yard Lumber

7. Surfaced or Dressed Lumber

8. Rough Lumber

(b) Species and Grade

(c) Inspection

(d) Tolerances

(e) Untreated Piling

911.02 Treated Lumber

(a) General

(b) Bridge Lumber

(c) Piling

(d) Guardrail Posts, Braces, and Battens

(e) Sign Posts

(f) Sawed Timber Posts and Blocks for Thrie-Beam and W-Beam Guardrail

1. Species and Grades

2. Department Grade GRP

a. Splits

b. Checks

c. Shakes

d. Stains

e. Slope of Grain

f. Wane

g. Knots

3. Department Grade GRB

a. Splits

b. Checks

c. Shakes

d. Stains

e. Wane

f. Knots

4. General Requirements

a. Decay

b. Unsound Wood

c. Crook or Bow

d. Dimensional Tolerances

5. Pressure Treating Posts and Blocks

a. Machining

b. Blank

c. Inspection Before Treatment

d. Test for Moisture Content

e. Preservative Treatment

f. Material for Preservative Treatments

TABLE OF CONTENTS

Section Title

- g. Treatment Methods
- h. Sorting and Spacing
- i. Conditioning
- j. Treatment
- k. Inspection During Treatment
- l. Retentions
- m. Penetration
- n. Inspection After Treatment
- o. Branding
- p. Conformance
- q. Records
- r. Independent Inspections
- 6. Field Treatment of Posts and Blocks
- 7. Rejection for Degrade After Treatment
- (g) Preservatives
 - 1. Waterborne Preservatives

SECTION 912 -- CONCRETE CURING MATERIALS AND ADMIXTURES

912.01 Curing Materials

- (a) Burlap Cloth made from Jute or Kenaf
- (b) Waterproof Paper Blankets
- (c) White Polyethylene Sheeting, Film
- (d) White Burlap Polyethylene Sheet
- (e) Liquid Membrane Forming Compounds
- (f) Polyethylene Film.

912.02 Curing-Sealing Materials

912.03 Admixtures for Use in Concrete

- (a) Air Entraining Admixtures
- (b) Chemical Admixtures for Concrete
 - 1. Type A
 - 2. Type B
 - 3. Type C
 - 4. Type D
 - 5. Type E
 - 6. Type F
 - 7. Type G
 - 8. High Range Water Reducing and High Range Water Reducing and Retarding Admixture Systems
- (c) Test Report

912.04 Latex Modifiers

SECTION 913 -- MISCELLANEOUS

913.01 Water

913.02 Calcium Chloride

913.03 Sodium Chloride

913.04 Lime

- (a) Hydrated Lime for Masonry
- (b) Lime for Soil Modification
 - 1. Hydrated Lime and Quicklime
 - 2. Lime By-Products

913.05 Precast Concrete Curbing

913.06 Precast Concrete Units Not Otherwise Covered

913.07 Flexible Delineator Posts

913.07.1 Tubular Marker

913.08 Delineators

- (a) Acrylic Plastic Delineators
- (b) Reflective Sheeting Delineators

TABLE OF CONTENTS

Section Title

- (c) Barrier Delineators
- 913.09 Glass Beads
- 913.10 Traffic Signs
 - (a) Sheet Signs
 - (b) Panel Signs
 - (c) Flexible Roll-Up Prismatic Reflective Sign
 - 1. Reflectivity
 - 2. Color
 - 3. Sheeting
 - 4. Durability
 - 5. Impact Resistance
 - 6. Sign Face Backing Fabric
 - 7. Cross Brace Assembly and Attaching Fasteners
 - 8. General Characteristics and Packaging
 - 9. Basis of Use
 - (d) Reflective Sheeting
 - 1. General
 - a. Reflectivity
 - b. Color
 - c. Adhesive
 - d. Sheeting
 - e. Durability
 - f. Impact Resistance
 - g. General Characteristics and Packaging
 - 2. Enclosed Lens, Engineer Grade, and Super Engineer Grade, Reflective Sheeting
 - a. Reflectivity
 - b. Color
 - c. Adhesive
 - d. Sheeting
 - e. Durability
 - f. Impact Resistance
 - g. General Characteristics and Packaging
 - 3. Encapsulated Lens, High Intensity, Reflective Sheeting
 - a. Reflectivity
 - b. Color
 - c. Adhesive
 - d. Sheeting
 - e. Durability
 - f. Impact Resistance
 - g. General Characteristics and Packaging
 - 4. Flexible Encapsulated Lens Reflective Sheeting, High Intensity
 - a. Reflectivity
 - b. Color
 - c. Adhesive
 - d. Sheeting
 - e. Durability
 - f. Impact Resistance
 - g. General Characteristics and Packaging
 - 5. Prismatic Lens, High Intensity, Reflective Sheeting
 - a. Reflectivity
 - b. Color
 - c. Adhesive
 - d. Sheeting
 - e. Durability
 - f. Impact Resistance

TABLE OF CONTENTS

Section Title

- g. General Characteristics and Packaging
- 6. Prismatic Lens, Super High Intensity, Reflective Sheeting
 - a. Reflectivity
 - b. Color
 - c. Adhesive
 - d. Sheeting
 - e. Durability
 - f. Impact Resistance
 - g. General Characteristics and Packaging
- (e) Letters, Numerals, Symbols, and Accessories
 - 1. Embossed Reflective Sheeting Type
 - 2. Acrylic Plastic Type
- (f) Fiberglass Reinforced Plastic Sign Panels
 - 1. Mechanical Properties
 - 2. Physical Properties
 - a. Thickness
 - b. Length and Width
 - (1) Panel Length of 3660 mm (144 in.) or Less
 - (2) Panel Length Exceeding 3660 mm (144 in.)
 - (3) Panel Width of 3660 mm (144 in.) or Less
 - c. Squareness
 - d. Weather Resistance
 - e. Fire Resistance
 - f. Impact Resistance
 - g. Coefficient of Linear Thermal Expansion
 - h. Panel Smoothness
 - i. Flatness
 - (1) Test Purpose
 - (2) Test Procedure
 - j. Color
- (g) Samples and Tests
 - 1. Reflective Sheeting
 - 2. Traffic Signal Materials
- 913.11 Highway Illumination Materials
 - (a) Lighting Standards and Mast Arms, under 80 feet (24.4 m)
 - 1. General Requirements
 - 2. Aluminum Lighting Standards
 - a. Round Seamless
 - b. Single Longitudinal Welded
 - 3. Stainless Steel Lighting Standards
 - 4. Galvanized Steel Lighting Standards
 - 5. Wood Pole Lighting Standards
 - 6. Frangible Breakaway Bases
 - a. Cast Aluminum Transformer Base
 - b. Breakaway Coupling
 - 7. Anchor Bolts
 - (b) High Mast Standards of 24.5 m (80 ft) and Over
 - 1. High Mast Poles
 - 2. Welding
 - 3. Handholes
 - 4. Luminaire Ring Assembly
 - 5. Head Frame Assembly
 - 6. Winch Assembly
 - 7. External Drive System
 - 8. Cable Terminator

TABLE OF CONTENTS

Section Title

- 9. Lightning Rod Assembly and Grounding System
- 10. Anchor Bolts
- (c) Wire and Cable
 - 1. Polyethylene Conduit
 - 2. Conductors in Cable-Duct
 - 3. Lighting Standard Circuit Wiring
 - 4. Sign and Underpass Wiring
 - 5. Aerial Cable
 - 6. High Mast Tower Luminaire Ring Conductors
 - 7. Power Cable-High Mast Poles
 - 8. Electrical Connectors
- (d) Luminaires
 - 1. General Requirements
 - 2. Roadway Lighting Luminaires
 - 3. Sign Luminaires
 - 4. Underpass Luminaires
 - 5. High Mast Luminaires
- (e) Circuit Breakers and Enclosure
 - 1. Circuit Breakers for Type II Service Point
 - 2. Circuit Breakers for Sign and Underpass Circuits
 - 3. Circuit Breakers for High Mast Poles
 - 4. E-Series Magnetic Circuit Breakers
- (f) Multiple Relay Switches with Photocell Receptacles
- (g) Shop Drawings
- (h) Materials Certification
- 913.12 Construction Warning Lights
 - (a) Flash Requirements
 - 1. Flash Rate
 - 2. On-Time
 - a. Type A
 - b. Type B
 - (b) Optical Requirements
 - 1. Effective Intensity
 - 2. Lens Illumination
 - 3. Reflex-Reflective Performance
 - 4. Testing Procedure
 - (c) Lens Requirements
 - 1. Size of Lens
 - 2. Directional Lenses
 - 3. Lens Chromaticity
 - 4. Lens Luminous Transmittance
 - 5. Lens Material
 - (d) Head and Case
 - 1. Swivel Head
 - 2. Case
 - (e) Photoelectric Controls
- 913.13 Flashing Arrow Sign
 - (a) Solar Powered
 - (b) Diesel Powered
 - (c) AC Powered
- 913.13.1 Temporary Worksite Speed Limit Sign Assembly
- 913.14 Pavement Marking Material
 - (a) Traffic Paint
 - (b) Durable Marking Material

TABLE OF CONTENTS

Section Title

1. Thermoplastic
2. Preformed Plastic
 - a. Material Requirements
 - (1) Tensile Strength
 - (2) Adhesive Stability Test
 - (3) Adhesive Shear Strength
 - (4) Bend Test
 - b. Packaging
 - c. Basis For Use
3. 100 Percent Solids Epoxy
 - a. Material Requirements
 - (1) Glass Beads
 - (2) Abrasion Resistance
 - (3) Hardness
 - (4) Tensile Strength
 - (5) Compressive Strength
 - (6) Weather Resistance
 - (7) Laboratory Drying Time
 - (8) Viscosity
 - b. Materials Preparation
 - c. Packaging and Storage
 - d. Basis For Use
- (c) Temporary Pavement Marking Tape
- (d) Raised Pavement Marker
 1. Snowplowable Raised Pavement Marker
 - a. Prismatic Reflector
 - (1) Optical Performance
 - (2) Seal Test
 - (3) Heat Resistance Test
 - (4) Strength Test
 - (5) Impact Test
 - (6) Temperature Cycling Test
 - (7) Adhesive Tensile Strength Test
 - (8) Basis for Use
 - b. Cast Metal Base
 - (1) Epoxy Adhesive
 - (2) Basis for Use
 - c. Precast Cement Concrete Base
 - (1) Adhesive for Precast Concrete Base
 - (2) Packaging
 - (3) Basis for Use
 2. Temporary Raised Pavement Marker
 - a. Optical Requirements
 - b. Strength Requirements
 - c. Adhesive
 - d. Acceptance Evaluation
 - e. Basis for Use
- 913.15 Traffic Signal Materials and Equipment
 - (a) Traffic Signal Controller and Cabinet
 1. Model Approval
 2. Controllers or Control Units Furnished and Installed by the Contractor
 3. Blank
 4. Bench Testing
 5. Pretimed Solid State Digital Controller

TABLE OF CONTENTS

Section Title

- a. General
- b. Controller Requirements
- c. Spare Modules
- d. Controller Enclosure
- e. Power Requirements
- f. Certification of Traffic Control Units
- g. Warranty
- 6. Traffic Actuated Solid State Digital Controller
 - a. General
 - b. Controller Requirements
 - c. Spare Modules
 - d. Controller Enclosure
 - e. Power Requirements
 - f. Certification of Traffic Control Units
 - (1) Certification of a Production Run Model
 - (2) Certification of Environmental Testing
 - g. Warranty
- 7. Cabinet Requirements for Traffic Signal Controllers
 - a. General
 - b. G Cabinet
 - (1) Cast Aluminum Pedestal Base
 - (2) Pedestal Pole
 - (3) Pole Cap
 - c. M Cabinet
 - d. P-1 Cabinet
- 8. Two Circuit Alternating Flasher
 - a. General
 - b. Cabinet Requirements
- (b) Interconnection Equipment.
 - 1. Hardwire Interconnection
 - a. Electro-Mechanical Dial Coordination Unit
 - (1) General
 - (2) Additional Requirements for Master Locations
 - (3) Additional Requirements for Secondary Locations
- (c) Blank
- (d) Signal Head Components
 - 1. Vehicle Signal Face
 - a. General
 - b. Housing, Door, and Visor
 - c. Lens
 - d. Reflector Assembly
 - e. Lamp Receptacle and Wiring
 - f. Section Coupling
 - g. Terminal Block
 - h. Material Requirements
 - (1) Polycarbonate Signal Head
 - (2) Die-Cast Aluminum Signal Head
 - i. Certification
 - 2. Pedestrian Signal Head
 - a. Housing, Door, and Visor
 - b. Optical Unit
 - c. Lens
 - d. Message
 - e. Reflector Assembly
 - f. Light Distribution

TABLE OF CONTENTS

Section Title

- g. Electrical
- 3. Disconnect Hanger Junction Box
- 4. Signal Bulbs
- 5. Free Swinging Signal Support Assemblies
- 6. Mid-Mast Arm Mount Signal Bracket
- 7. Pedestal Mounted Control Cabinets or Pedestrian Signal Heads
- (e) Signal Support
 - 1. Steel Strain Pole
 - a. Maximum Load 35.6 kN (8000 lbs)
 - 2. Wood Strain Pole
 - 3. Signal Cantilever Structures
 - a. General
 - b. Signal Support
 - c. Combination Signal-Luminaire Support
 - d. Pole Requirements
 - (1) General
 - (2) Deflection
 - (3) Materials
 - (4) Hardware
 - (5) Anchor Base
 - e. Arm Requirements
 - (1) Signal Cantilever Arm
 - (2) Luminaire Mast Arm for Combination Support
 - (3) Materials
 - f. Anchor Bolts
 - g. Finish
 - h. Certification
 - i. Shop Drawings
 - 4. Downguys, Anchors, Rods, and Guards
- (f) Messenger Cable
 - 1. Messenger Cable
 - 2. Span, Catenary, and Downguy Cable
 - 3. Tether and Support Cable
 - 4. Cable Hardware
 - a. Messenger Hangers
 - b. Cable Ring
 - c. Clamps
 - d. Servi-Sleeves
 - e. Straight Eye-Bolts
 - f. Hub-Eyes
 - 5. Signal Cable
 - a. Hook-up Wire
 - b. Signal Control Cable
 - c. Integral Messenger Interconnect Cable
 - d. 6 Pair/19 Telemetry Cable
 - e. Fiber Optic Interconnect Cable
 - f. Service Cable
 - g. Detection Wire and Sealant
 - (1) Loop Detector Lead-in Cable
 - (2) Roadway Loop Wire
 - (3) Sealant
 - h. Ground Wire
 - i. Splicing Kit
- (g) Ground Rod and Connections
- (h) Castings for Handholes

TABLE OF CONTENTS

Section Title

(i) Entrance Switch	
(j) Conduit and Fittings	
1. Steel Conduit	
2. Polyvinyl Chloride Conduit	
(k) Detector Housing	
(l) Certification	
913.16 Fabric for Waterproofing	
913.17 Packaged, Dry, Combined Materials for Mortar and Concrete	
913.18 Geotextile for Use Under Riprap	
913.19 Geotextile for Use with Underdrains	
913.20 Geotextile for Silt Fence	
913.21 Geogrid for Stabilization or Modification	
SECTION 914 -- ROADSIDE DEVELOPMENT MATERIALS	
914.01 Special Topsoil for Roadside Development	
914.02 Blank	
914.03 Fertilizer	
914.04 Grass and Legume Seed	
914.05 Mulch	
(a) Mulch for Seeding	
1. Excelsior Mulch	
2. Wood Cellulose Fiber	
3. Excelsior Blanket	
4. Paper Mat	
5. Straw Mat	
(b) Mulch for Plants	
914.06 Leguminous Inoculants	
914.07 Sod	
914.08 Plant Materials	
(a) Quality of Plant Materials	
(b) Plant Names	
(c) Substitutions	
(d) Grading Standards	
(e) Nursery Inspection and Plant Quarantine	
(f) Balled and Burlapped Plants	
(g) Container Grown Plants	
(h) Bare Rooted Plants	
(i) Collected Plants	
(j) Forms, Shapes, and Condition of Plants	
(k) Inspection	
(l) Shipment	
(m) Certification	
914.09 Miscellaneous Material	
(a) Water	
(b) Stakes for Bracing and Anchoring	
(c) Tree Wound Dressing	
(d) Porous Material	
(e) Pipe	
(f) Staples	
(g) Plastic Net	
SECTION 915 -- BRIDGE PILES AND BEARINGS	
915.01 Steel Shell Encased Concrete Piles and Epoxy Coated Steel Shell Encased Reinforced Concrete Piles	
(a) General Requirements	
(b) Fluted Steel Pile Shells	
(c) Rounded Steel Pipe Shells	

TABLE OF CONTENTS

Section Title

- (d) Epoxy Coating for Piles
 - 1. Prequalification of Organic Coatings for Steel Piles
 - a. Product Data Sheet
 - b. Fingerprint
 - c. Materials Safety Data Sheets
 - d. Laboratory Report
 - (1) Tensile Strength and Elongation
 - (2) Impact Resistance
 - (3) Abrasion Resistance
 - (4) Salt Fog
 - 2. Application
 - a. Surface Preparation
 - b. Coating Application
 - (1) Thickness
 - (2) Cure
 - (3) Continuity of Coating
 - 3. Certification

915.02 Steel H Piles and Epoxy Coated Steel H Piles

915.03 Wood Piles

915.04 Elastomeric Bearings

- (a) Description
- (b) Materials
- (c) Manufacturing Requirements
- (d) Appearance and Dimensions
- (e) Quality Assurance
- (f) Certification

SECTION 916 -- MATERIALS CERTIFICATIONS

916.01 General

916.02 Types of Certifications

- (a) Type A
- (b) Type B
- (c) Type C
- (d) Type D
- (e) Other Types
- (f) Requirements for Small Quantities of Materials
- (g) Buy American Requirement

916.03 Sample Forms

- (a) For Buy American Requirement
- (b) Sample Type A Certification Form
- (c) Sample Type B Certification Form
- (d) Sample Type C Certification Form
- (e) Sample Type D Certification Form
- (f) Sample Asbestos Exclusion Letter

SECTION 917 -- QUALITY ASSURANCE AGGREGATE CERTIFICATION

917.01 General Requirements

917.02 Quality Control Plan

917.03 Source Approval Requirements

- (a) Step 1
- (b) Step 2
- (c) Step 3

917.04 Removal from Certified Producer Status

917.05 Appeals