



TABLE OF CONTENTS

Chapter 4: Pavements

Section 4-10 Concrete Pavement - General

- [4-10.1..... General](#)
- [4-10.2..... Paving Operations](#)
- [4-10.3..... Concrete Reinforcement](#)
- [4-10.4..... Measurement of Clearances before Opening Roadway for Traffic](#)

Section 4-11 Preparing the Grade for Concrete Pavement

- [4-11.1..... Preparation of Foundation for Concrete Pavement](#)
- [4-11.2..... Testing Base Course](#)
- [4-11.3..... Concrete Paving Over Existing Surfacing](#)
- [4-11.4..... Setting String Lines and Forms](#)

Section 4-15 Hauling and Placing Concrete

- [4-15.1..... Hauling Concrete](#)
- [4-15.2..... Placing Concrete](#)
- [4-15.3..... Dowel Bar Assemblies](#)
- [4-15.4..... Adjusting Drainage and Utility Fixtures](#)
- [4-15.5..... Checking Depth](#)
- [4-15.6..... Hand Methods](#)

Section 4-16 Concrete Consolidation

- [4-16.1..... Slip-Form Method](#)
- [4-16.2..... Form Method](#)

Section 4-17 Concrete Finishing

- [4-17.1..... Form Method](#)
- [4-17.2..... Slip-Form Method](#)
- [4-17.3..... Straight-Edging and Hand Finishing](#)
- [4-17.4..... Pavement Stamping](#)

Section 4-18 Concrete Texturing and Tining

- [4-18.1..... Texturing](#)
- [4-18.2..... Tining](#)

Section 4-19 Protecting Freshly Placed Concrete

- [4-19.1..... General](#)
- [4-19.2..... Curing](#)
- [4-19.3..... Thermal Protection](#)
- [4-19.4..... Equivalent Curing Days](#)

Section 4-21 Pavement Joints

- [4-21.1..... General](#)
- [4-21.2..... Sawed Contraction Joints](#)
- [4-21.3..... Transverse Construction Joints](#)
- [4-21.4..... Longitudinal Construction Joints](#)
- [4-21.5..... Expansion Joints](#)
- [4-21.6..... Cleaning and Sealing Joints](#)

Section 4-24 Concrete Paving Inspection

- [4-24.1..... Responsibilities of the Paving Inspector](#)

- [4-24.2.....](#) Checking Surface Cross Section
- [4-24.3.....](#) Measurement and Payment of Concrete Items
- [4-24.4.....](#) Surface Smoothness
- [4-24.5.....](#) Deficiencies and Probable Causes
- [4-24.6.....](#) Concrete Transverse Crack Repair
- [4-24.7.....](#) Ancillary Concrete
- [4-24.8.....](#) Rain-Damaged Pavement
- [4-24.9.....](#) Concrete Pavement Repair and Replacement
- [4-24.10...](#) Opening to Service

Section 4-50 Asphalt Pavement - General

- [4-50.1.....](#) Quality Management Program for Plants and Mixtures
- [4-50.2.....](#) Environmental Regulations
- [4-50.3.....](#) Salvaged or Reclaimed Asphaltic Material
- [4-50.4.....](#) Measurement of Clearances before Opening Roadway for Traffic

Section 4-51 Asphalt Mixing Plants

- [4-51.1.....](#) General
- [4-51.2.....](#) Stockpiling Aggregates
- [4-51.3.....](#) Asphalt Storage
- [4-51.4.....](#) Hot Asphaltic Mixture Storage System
- [4-51.5.....](#) Automation and Interlock
- [4-51.6.....](#) Recordation
- [4-51.7.....](#) Plant Safety
- [4-51.8.....](#) Records and Reports

Section 4-53 Mix Production

- [4-53.1.....](#) Mix Design
- [4-53.2.....](#) Start Up
- [4-53.3.....](#) Temperature of the Mix
- [4-53.4.....](#) Change in Asphalt Source
- [4-53.5.....](#) Sampling and Testing
- [4-53.6.....](#) Acceptance
- [4-53.7.....](#) Measurement
- [4-53.8.....](#) Corrective Action
- [4-53.9.....](#) Reduced Payment
- [4-53.10...](#) Temperature/Volume/Mass Conversions
- [4-53.11...](#) Mixture Appearance
- [4-53.12...](#) Asphalt Mix Problems and Causes

Section 4-54 Preparation of Foundation for Asphalt Pavement

- [4-54.1.....](#) General
- [4-54.2.....](#) Subgrade
- [4-54.3.....](#) Crushed Aggregate Base Course
- [4-54.4.....](#) Old Concrete Pavements
- [4-54.5.....](#) Old Asphaltic Surfaces
- [4-54.6.....](#) Tack Coats
- [4-54.7.....](#) Drainage and Utility Fixtures
- [4-54.8.....](#) Leveling Layer

Section 4-56 Hauling Asphaltic Mixture

- [4-56.1.....](#) General
- [4-56.2.....](#) End Dump Trucks
- [4-56.3.....](#) Bottom Dump Trucks
- [4-56.4.....](#) Asphalt Release Agents

Section 4-57 Asphalt Pavers

- [4-57.1.....](#) Tractor Unit
- [4-57.2.....](#) Screed Unit

[4-57.3](#).....Maintenance

[4-57.4](#).....Reporting

Section 4-58 *Placing Asphalt Mixtures*

[4-58.1](#).....Pre-Pave Meeting

[4-58.2](#).....Maintenance of Aggregate Base

[4-58.3](#).....Ambient Air Temperatures

[4-58.4](#).....Inspection of Delivered Mixtures

[4-58.5](#).....Longitudinal Joints

[4-58.6](#)..... Transverse (Construction) Joints

[4-58.7](#)..... Resumption of Paving Operations

[4-58.8](#)..... Paver Operation

[4-58.9](#)..... Screed Extensions

[4-58.10](#)... Cold Weather HMA Paving

[Attachment 1](#)..... Hot Mix Asphalt Pre-Pave Meeting Agenda

Section 4-59 *Asphalt Mat Inspection*

[4-59.1](#).....Duties of the Paving Inspector

[4-59.2](#)..... Temperature of the Mix

[4-59.3](#)..... Torn or Open Texture

[4-59.4](#)..... Surface Smoothness

[4-59.5](#)..... Pavement Geometrics

[4-59.6](#)..... Segregation

[4-59.7](#)..... Checking Yield or Spread

Section 4-61 *Compaction and Density of Asphalt Pavement*

[4-61.1](#)..... General

[4-61.2](#)..... Initial Rolling

[4-61.3](#)..... Intermediate Rolling

[4-61.4](#)..... Final Rolling

[4-61.5](#)..... Reporting

[4-61.6](#)..... Compaction Procedures

[4-61.7](#)..... Field Densities

Section 4-65 *Pavement Marking, Roads Open to Traffic*