

# 2015 WISDOT QUALITY MANAGEMENT PROGRAM REVIEW



# Quality Management Program

- ▶ Under the contract QMP provisions, the department will allow for product acceptance based on:
  - Contractor's quality control testing
  - Department verification testing
  - Inspections of the materials production, storage, handling, and construction processes
  - Dispute resolution procedures
- ▶ Foundation of the concept is to develop partnership so that the exchange of information is commonplace



# Why QMP?

- ▶ Quality of Materials and Proper Installation is key



# FHWA Six Building Blocks of Quality Assurance



# QMP Provisions

- QMP provisions in standard specs, STSPs, SPVs
- Required sampling and testing methodologies and documentation are specified in CMM Chapter 8
- Each QMP is independent of others
- Standard spec 701 are general QMP requirements common to QMPs in Part 7 of standard specs



# Section 7.01 General QMP Requirements

- Common to QMPs in Part 7 of standard specs
- Part 7 includes General Concrete QMP, QMP Concrete Pavement and Structures, and QMP Ancillary Concrete



# General QMP Requirements

- Provide and maintain a **quality control program** defined as all activities and documentation of:
  - Mix and gradation design
  - Control and inspection of production and placement processes
  - Material sampling, testing, and correction of in-place work



# General QMP Requirements

- Quality Control Plan
  - Submit 10 days before production or placement
- Personnel Certification
  - Trained and certified by HTCP
- Laboratory Qualification
  - Information at web site
  - Ken Nwankwo POC



# General QMP Requirements

## Equipment

- Contractor supplies equipment and supplies
- Calibrate

## Documentation

- Document observations, inspection records, process adjustments
- Submit test results
- Use CMM chapter 8 forms
- Enter data into MRS software within 5 business days
- Maintain original handwritten documents as “source” document



# General QMP Requirements

## □ Contractor Testing

- QC testing
- Random sampling required
- Notify engineer of failed tests

## □ Department Testing

- QV testing
- Random sampling required
- Use same sampling and testing methods as contractor
- Immediately report nonconforming results
- Jointly investigate



# General QMP Requirements

## □ Independent Assurance

- IA testing to evaluate Department QV and Contractor QC
  - Split Sample testing
  - Proficiency sample testing
  - Witness sampling and testing
  - Test equipment calibration checks
  - Reviews contract req'd data and contractor process control information
  - Can request additional sampling and testing
  - Checks to assure testers are certified by HTCP
- 90% target



# General QMP Requirements

- ❑ Dispute resolution process for non-conforming materials
  - CMM 8-30-13
  - Engineer and contractor to make every effort to avoid conflict
  - Contractor inspections, testing, corrective actions and process control charts are to be used to help determine solution
  - Third party testing will be used if resolution cannot be made by evaluating existing data



# Where is QMP?

- ❑ FDM 19-21-1 PS&E QMP Overview
- ❑ Standard Specifications
  - Standard spec 106.3.4.3 - Department's Materials QMP Program
  - Standard spec 460 – QMP HMA Mixture
  - Part 7 – QMP Concrete
    - 701 General QMP Requirements
    - Standard Spec 710 General Concrete QMP
    - Standard Spec 715 QMP Concrete Pavement and Structures
    - Standard Spec 716 QMP Ancillary Concrete



# QMP Information

- QMP STSPs and SPVs
  - QMP Base Aggregate; STSP 301-010
  - QMP Ride, STSP 440-010
  - QMP HMA Pavement Nuclear Density; STSP 460-020
  - QMP Base Aggregate Dense 1 1/4 –Inch Compaction; SPV.0196.xx
  - Mill/Pulverize and Relay Compaction; SPV.0180.xx
- CMM Chapter 8 Materials Testing, Sampling, Acceptance
  - 8.20 QMP - General



## **Construction and Materials Manual**

*Wisconsin Department of Transportation*

**Chapter 8 Materials Testing, Sampling, Acceptance**

**Section 10 Materials - General**

*Materials sampling and testing methods and documentation procedures prescribed in chapter 8 of the CMM are mobilized into the contract by [standard spec 106.3.4.1](#) and [standard spec 106.3.4.3.1](#).*



# QMP Website

WISCONSIN DEPARTMENT OF TRANSPORTATION

## Doing Business

Drivers & Vehicles | Safety | Travel | Plans & Projects | State Patrol | Doing Business | Programs for Local Gov't

Doing Business > Design and Construction > Procedures and Standards > Roadway Standards

### Quality Management Program (QMP)

Contractor testing for acceptance is the center piece of the department's Quality Management Program. Program requirements are found in various department publications.

The following documents are in Adobe PDF format.

#### QMP Design Guidance

- [FDM 19-21-1 Use of QMP Provisions](#)

#### Hot Mix Asphalt (HMA) QMP specifications

- [Standard spec 460.2.8 Quality Management Program](#)

#### Concrete QMP specifications

- [Standard spec 701 General QMP Requirements](#)
  - [Standard spec 710 General Concrete QMP](#)
    - [Standard spec 715 QMP Concrete Pavement and Structures](#)
    - [Standard spec 716 QMP Ancillary Concrete](#)

#### QMP Standardized Special Provisions (Unofficial)

**Note: Only use official STSP files for proposal preparation.**  
**To see the official STSPs, click on the STSPs in the related links area on the right.**

- [STSP301-010 QMP Base Aggregate](#)
- [STSP 440-010 QMP Ride](#)
- [STSP 460-020 QMP HMA Pavement Nuclear Density](#)

#### QMP Construction Guidance

- [CMM 8-30 General](#)
- [CMM 8-32 Subgrade](#)
- [CMM 8-34 Aggregate](#)
- [CMM 8-35 Concrete](#)
- [CMM 8-36 HMA - Hot Mix Asphalt](#)
- [CMM 8-38 IRI Ride](#)
- [WS5019 Concrete Pavement Thickness Log](#)

#### Project Special Provisions

- [Pavement Friction Surface Treatments](#)
  - [Resin Binder High Friction Surface Treatment](#)
  - [Resin Binder Enhanced Friction Surface Treatment](#)
  - [Asphalt Enhanced Friction Surface Treatment](#)
- [Pilot HMA Nuclear Density](#)
- [Continuously Reinforced Concrete Pavement SHES Repair](#)
- [Concrete Pavement Joint Layout](#)
- [Concrete Pavement Warranty](#)
- [QMP Subgrade](#)

**SEARCH QMP**



#### Related Links:

- [Additional Special Provisions \(ASPs\)](#)
- [Standard Special Provisions \(STSPs\)](#)
- [Bridge Special Provisions \(BSTSPs\)](#)
- [Materials Reporting System](#)
- [Approved Products Lists](#)
- [Erosion Control PAL](#)
- [Lab Qualification](#)
- [Highway Technician Certification](#)
- [Airports](#)
- [Traffic Manuals](#)
- [National Highway Specifications](#)
- [FHWA Wisconsin](#)
- [HCCI](#)
- [WisDOT Forms](#)

 [Requires Extranet User ID & Password](#)



# QMP Website

## GPS Machine Guidance

- [Implementation of GPS Controlled Highway Construction Equipment, Phase II](#)
- [Final Report: Implementation of GPS Controlled Highway Construction Equipment](#)
- GPS Specifications
  - [Standard spec 650.3.3 Subgrade - GPS for Subgrade](#)
  - [Pilot special provision - GPS Base for HMA Pavement](#)

## 2014 Materials Training

### Materials Reporting System

### MTS and MIT User Guide

### WisPave 4 User Manual

### Technician Certification

### Lab Qualification

## Ride Quality

- [Ride Data Entry](#)
- [Approved Profilers List](#)

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# QMP Quiz

True or False:

The purpose of independent assurance testing is to test the materials.

**FALSE**



# QMP Quiz

True or False:

The department and contractor should work jointly to investigate nonconforming materials.

**TRUE**



# QUESTIONS?

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