

Materials Procedures Committee Regular Meeting

Meeting Time/Date: January 17th, 10:00 AM

Meeting Location: MCS&T (Conference Rm.) - 190 Dry Branch Drive, Charleston, WV 25306

Online Meeting: Google Meet Video Conference

Online Link - (<https://meet.google.com/apa-rvti-ndx?authuser=0>)

Files Available on ProjectWise for DOT users – See Invite or Follow P/W path:

[WVDOH ORGS\MCS&T \(0077\) - FM\Materials Procedure Committee\MP Committee Meeting Files\2024\2024 01 17 MP Meeting](#)

Files Available on Webpage:

<https://transportation.wv.gov/highways/mcst/Pages/MP-Committee-Page.aspx>

Materials Procedures – Approved at Last Meeting

1. 700.03.50, 601.03.50, 711.00.21, 709.15.50, 601.03.21, 601.03.22, 658.05.06 – Editorial Edits (Previously Approved MP's, Adding Metric Units)

Materials Procedures - Old Business

*Note – Going Forward MCS&T will be using either SI units or Combined Imperial and SI Units. Guidelines are established in the pending updates to MP 100.00.00.

Number	Champion	Title	Description
1 – 100.00.00 *	Brayack	Preparing Materials Procedures	Updates to add SI/Imperial Units and other minor edits.
2 - 100.00.03 *	Brayack	Method of Evaluation of Non-Standard or Non-Conforming Materials in Construction Via Dmir	Specifically points out the penalty location instead of a linked reference. Gives an example of a DMIR price assessment.

Materials Procedures – Editorial Edits

1-717.04.21	Guide for Quality Control of Compaction	Previously Approved MP, Adding Metric
2-307.00.50	Attachment - Guide for Quality Control and Acceptance Plans for Base Course	Previously Approved MP, Adding Metric

Materials Procedures - New Business with Significant or Process Updates

None on this agenda			
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Note 1: * Denotes this MP is up for Vote

Note 2: & Denotes this MP is not up for Vote

Comments

Comments due January 16th, so the Champion may review and address them. Submit comments to Adam Nester (Adam.W.Nester@wv.gov)

Next Meeting

New or Updated MPs due to the MP Chair 3-weeks before the next meeting: January 31st

Meeting Time/Date: 10:00 AM, February 21, 2024

Meeting Location: MCS&T

Online Meeting: Google Meet Video Conference (Link TBD)

Additional MP Committee Meeting Information

For details of previous meetings, please visit the MCST MP Committee Webpage

<https://transportation.wv.gov/highways/mcst/Pages/MP-Committee-Page.aspx>

Tentative MP Committee Dates for 2024:

March 20, April 17, May 15

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
MATERIALS CONTROL, SOILS AND TESTING DIVISION

MATERIALS PROCEDURE

PREPARING MATERIALS PROCEDURES

1. PURPOSE

- 1.1 To set forth instructions for drafting Materials Procedures (MP) concerning sampling, testing, reporting, and inspection.
 - 1.1.1 To establish a numbering system for MPs.
 - 1.1.2 To establish a styles guideline for MPs.
 - 1.2 To establish a workflow for the creation, acceptance, and approval for MPs.
 - 1.2.1 To set up a reconfirmation schedule for existing MPs.
 - 1.3 To provide further guidance and clarification from that set forth in DD-105.
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2. REFERENCED DOCUMENTS

- 2.1 [AASHTO Publications Style Manual and Process Guide](#)¹, current edition.
 - 2.2 [Using SI Units in ASTM Standards: A Guide to Form and Style for ASTM Standards, Part H](#)²
 - 2.3 [WVDOH Design Directives DD-105](#)³
 - ~~2.3~~ [ASTM E29 - Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications.](#)
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3. NUMBERING GUIDELINES

- 3.1 A MP consists of a sequence of numbers such as 120.20.01.
 - 3.1.1 The first set (three digits) of an MP are taken from the WVDOH Specifications Roads and Bridges to denote the general area to which the procedure applies.
 - 3.1.2 The second set (two digits) of an MP are taken from the WVDOH Specifications Roads and Bridges denotes the particular area to which the procedure applies.

¹ <https://materials.transportation.org/>

² <https://sn.astm.org/rules-and-regs/using-si-units-astm-standards-nd12.html>

³ <https://transportation.wv.gov/highways/engineering/Pages/Design-Directives.aspx>

3.1.3 The third set (two digits) is defined by this Division thus:

- .00 - .09 Field Sampling
- .10 - .19 Pre-sampling (Source or Intermediate Points)
- .20 - .29 Testing
- .30 - .39 (For future designation)
- .40 - .49 Inspection
- .50 - .59 Quality Assurance System
- .60 - .69 Reporting (laboratory)
- .70 - .79 Reporting (issuance under master control)
- .80 - .89 (For future designation)
- .90 - .99 Miscellaneous

4. COMMON DEFINITIONS

4.1 ~~Often, different entities use different terminology to describe certain entities.~~ To stay consistent, this section will define some commonly used terms and specify the term that is to be used in Materials Procedures.

4.2 Authors may choose to spell out these terms in titles, sections, or headers.

4.3 Specific Terms:

4.3.1 DWR: When referring to a Daily Work Report that is performed on a WVDOT project, the term to be used is “DWR”.

4.3.2 Coverage: When referring to coverage for a material, traditionally referred to as “Direct Coverage” or “Master Coverage”, the term to be used is “coverage”.

4.3.3 Specifications: When referring to the WVDOT Standard Specifications, Roads and Bridges, current edition including ~~supplementals~~Supplementals and Special Provisions, the term to be used is “Specification(s)” with a capital “S”. There is no need to list the Specifications in the referenced document, this link is assumed. Specific references to aid in navigation are encouraged.

4.3.4 WVDOT project: When referring to any construction project in the state that is governed by the Specifications, the term to be used is “WVDOT project(s).”

4.3.5 MS&P: When referring to Manufacture and/or a Supplier and/or a Producer, the term to be used is: “MS&P”. This author may choose to define this in the first instance of use in the document as this is not a common, industry wide term.

4.3.6 Chief Engineer: When referring to the final approving entity, the term “Chief Engineer” shall be used. This position was previously the State Highway Engineer and is now the applicable Chief Engineer based on the WVDOT org chart.

~~4.3.6~~4.3.7 Division: When referring to the Department of Transportation, Division of Highways as an entire entity, the term: “Division” shall be used with a capital “D”. There is no need to spell out the name in any materials procedure.

~~4.3.7~~4.3.8 MCS&T Division: When referring to the Materials Control, Soils and Testing Division, the term: “MCS&T Division” shall be used. There is no need to spell out the name in any materials procedure, though the author may choose to do so.

~~4.3.84.3.9~~ TED Division: When referring to the Traffic Engineering Division, the term: “TED Division” shall be used. There is no need to spell out the name in any materials procedure.

~~4.3.94.3.10~~ All other Divisions shall be spelled out once and then given an appropriate abbreviation. For example, Engineering Division “Engr Division”

~~4.3.104.3.11~~ APL: When referring to MCS&T Approved Product List, the term to be used is “APL”, with all letters capitalized.

~~4.3.10.14.3.11.1~~ When referring to an APL submission, the following text shall be used: Prospective Producers/Suppliers shall complete form HL-468, as per MP 106.00.02 indicating their intention to be included on the WVDOT APL.

5. UNITS

5.1 For units each champion has the option of using solely SI, or both SI and Imperial (combined units) as the standard.

5.2 When writing a procedure, the following two statements govern:

5.2.1 For solely SI, the values stated in SI are to be regarded as standard. No other units of measurement are included.

5.2.2 For combined units, the values stated in either SI or Imperial are to be regarded separately. The value stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance.

5.2.3 When providing a sample calculation or an example of a filled form, the champion may choose to use any single unit system.

5.2.4 When converting units, rounding shall be performed as specified in ASTM E29-Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications.

5.2.4.1 In the instance of length measurement, inches and feet shall be rounded to the nearest 5 mm. For example, 1 foot or 12 inches is 305 mm.

5.3 An example of the unit syntax is as follows:

5.3.1 The distance between the earth and moon is 238,900 mi (384,400 km).

5.3.2 The cylinder shall be 6 in (150 mm) x 12 in (305 mm).

6. FORMAT GUIDELINES

6.1 The style guides for MPs shall follow the general guidelines established in “Section 6.4.3” of [AASHTO Publications Style Manual and Process Guide Typography in Design](#). These guidelines are further refined in this document.

- 6.1.1 The font shall be Times New Roman, size 12, fully justified for all text except for the section title. The section title shall be all capital letters, fully justified, Times New Roman, size 12 and bold. There shall also be a horizontal line above this text.
- 6.1.2 The line numbering shall be as follows: “x.” For a section title and “x.x” for a section paragraph. From here, follow the format of “x.x.x...” for additional layers of sub paragraphs. This document provides an example of the formatting.
- 6.1.3 Links shall be [blue and clickable](#)⁴. The link path shall also be included as a footnote. An example of this is demonstrated by the “blue and clickable” text and link above and the footer at the bottom of this page.
- 6.1.3.1 Any instances of an email address shall also be clickable and adhere the guidelines for a link.
- 6.1.4 Figure labels shall follow the guidelines of “Section 2.1.4” of AASHTO Publications Style Manual and Process Guide Typography in Design. This section states: “The title should be succinct noun or noun phrase that describes the figure, but does not provide unnecessary background information, nor repeat information found in the text.” Do not abbreviate “Figure” and capitalize key words such; an example of this is as follows: “Conditions Determined to Be Pre-Existing.”
- 6.1.4.1 Formatting for labels shall be the same as normal body text, except that “Figure X.” shall be bold. All figure text shall be centered and located below the figure.

7. HEADER GUIDELINES

- 7.1 A standard numbering and indexing system shall appear in the upper right-hand corner shall of pages of all MPs. All header text shall be in “All Caps” format.
- 7.1.1 The letters MP shall appear first, denoting Materials Procedure. The number of the MP shall follow that text and be in the header of every page. The numbering of the MP shall follow the format as described in this document.
- 7.1.2 All MPs shall contain headers in the manner described in this section. There are two instances of a header. If an MP has been reconfirmed, the header will follow the example in Figure 1. This includes the date the latest date the MP was approved, and the date of confirmation.

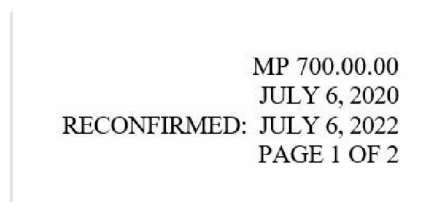


Figure 1 – MP Header with Approval Date and Reconfirmation Date

⁴ <https://transportation.wv.gov/highways/mcst/Pages/default.aspx>

- 7.1.3 In the instance of either a new MP or an approved update to a MP, only the Director signature date (located at the end of the body section of the document) is in the header. A sample is provided in Figure 2.

MP 700.00.00
JULY 6, 2022
PAGE 1 OF 2

Figure 2 – MP Header With Approval Date

- 7.1.4 In the instance of an attachment, the first line of the MP header shall be in the format: MP XXX.XX.XX – ATTACHMENT. All other lines shall follow the guidelines previously described. This is demonstrated in Figure 3.

MP 100.00.00 - ATTACHMENT
JULY 6, 2020
PAGE 4 OF 5

Figure 3 – MP Attachment Header

- 7.1.4.1 In all instances, on all pages (do not use different first page), the text “PAGE X1 to X2” shall be last, with X1 being the current page and X2 being the total pages in the section. The main body and each attachment shall be considered a separate section; numbering shall be restarted on any new attachment instance.

8. MP APPROVAL PROCESS

- 8.1 In the instance of any MP Committee work, the champion is a person defined as the person who is the primary author, editor and/or liaison for the document. The champion is responsible for introducing and presenting the document. The champion is also responsible for addressing comments on the document.
- 8.2 Attachment 1 provides an overview of the approval process of an MP. First the document is brought to the MP committee chair (chair) by the champion. The document is distributed by the chair and discussed at the next MP committee meeting. After the document has been at a minimum of two consecutive MP meetings, the ~~document may be approved by vote~~committee may vote to recommend or reject the proposed document. The document is then reviewed, and if approved, signed by the Director of Materials Control, Soils and Testing Division (Director, MCS&T). The signed document is sent through DOH management for review and approval. Once the review is complete, the document is reviewed and affirmed by Federal Highways Administration (FHWA). Once the document is affirmed by FHWA, the document is posted and distributed. ~~If at any step an approving authority makes comments~~If any comment is received during the approval process, the document is cycled back to the MP Committee meeting for review and another approval vote.

- 8.2.1 In the instance where a document has no content changes (editorial changes only), the MP committee may choose to vote to approve the document after one meeting. In this case, any voting member of the MP committee or the FHWA representative may veto this decision.
- 8.2.2 The details of the MP committee, including the submission process, distribution practices, and current voting members is available for review in Design Directive 105 and available at the [WVDOH Technical Support Webpage](#)⁵

9. RECONFIRMATION PROCESS

- 9.1 Each MP shall be periodically reviewed for both relevancy and accuracy. At a minimum frequency, each MP shall be reviewed every 4 years by the applicable MCS&T Section Supervisor (Reconfirmation Champion). In the instances where there is no obvious Section Supervisor, the delegation of the review shall be the responsibility of the chair in liaison with the Director of MCS&T.
- 9.2 After reviewing the document, if the Reconfirmation Champion determines that no changes are required, they will submit the document to chair for reconfirmation. The reconfirmation shall be done by the voting members.
- 9.3 If approved by the Committee, the MCS&T Director shall review the document and if accepted, sign the document. Because no changes were made to this document, once the document is signed, it shall be posted and distributed.

10. POSTING AND DISTRIBUTION OF MPS

- 10.1 Active MPs are available on the [WVDOH MCST MP Webpage](#)⁶. The webpage shows the MP number, the title of the MP and the latest approval or reconfirmation date.
- 10.1.1 For each document (if applicable), an archived link is available to provide a documented history of updates. Figure 4 provides an example.

106.00.02	Procedure for Evaluation of New Products for Use In Highway Construction	November 2016
Archive		

Figure 4 – MP Committee Webpage Example

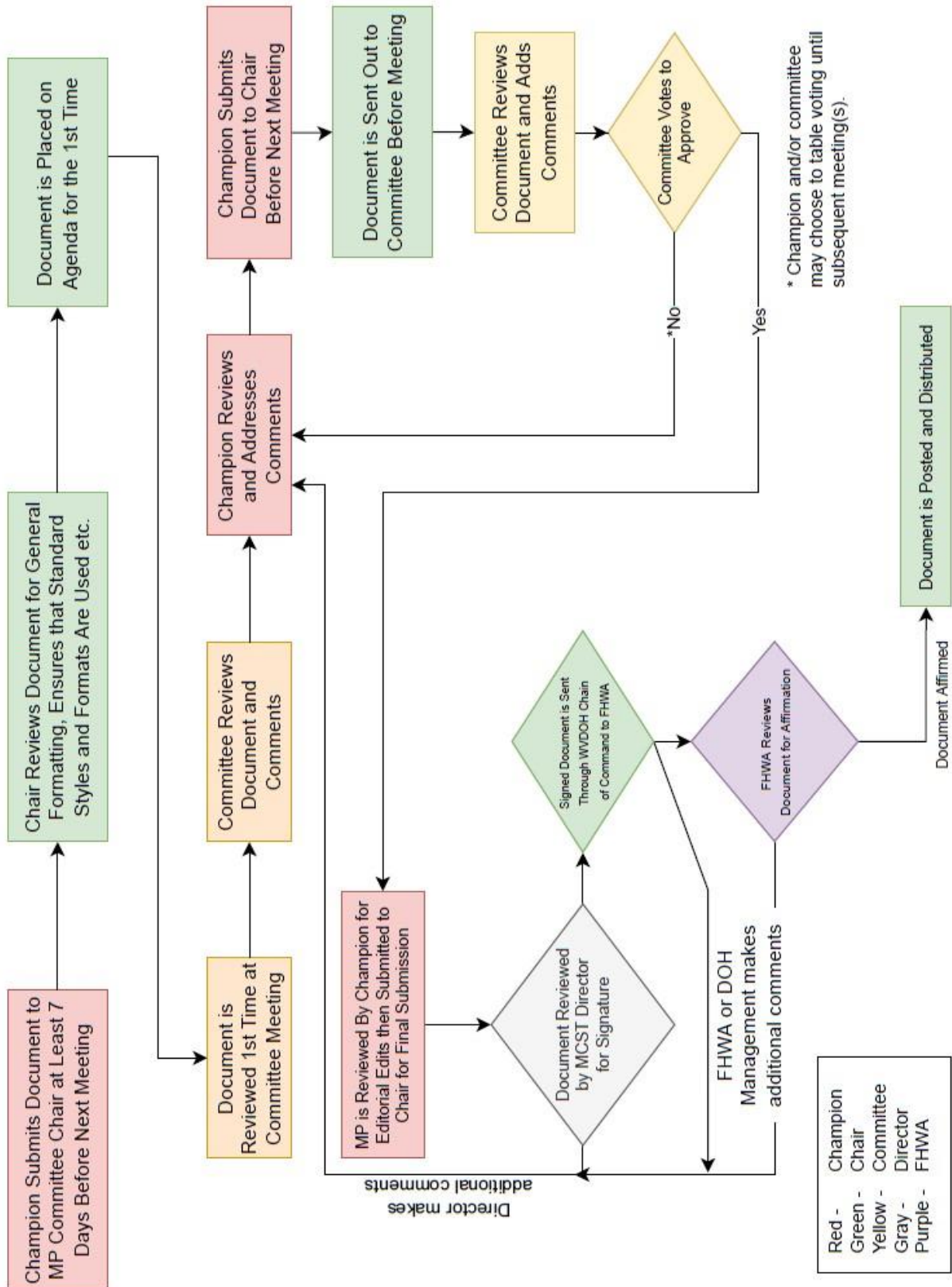
- 10.2 When a document is affirmed by FHWA, the documents will be distributed to applicable Division Directors, District Engineer/Managers and District Material Supervisors.

⁵ <https://transportation.wv.gov/highways/TechnicalSupport/Pages/Design-Directives.aspx>

⁶ <https://transportation.wv.gov/highways/mcst/Pages/WVDOH-Materials-Procedures.aspx>

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Director
Materials Control, Soils & Testing Division

MP 100.00.00 Steward – Materials Control Section
RLS:B
ATTACHMENT



ATTACHMENT 1 – MP Committee Meeting Flowchart

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
MATERIALS CONTROL, SOILS AND TESTING DIVISION
MATERIALS PROCEDURE

METHOD OF EVALUATION OF NON-STANDARD OR
NON-CONFORMING MATERIALS IN CONSTRUCTION VIA DMIR

1. PURPOSE

- 1.1 Provide a method for evaluating material that does not meet the requirements of the Contract Documents.
 - 1.1.1 To evaluate a material when a failure is not otherwise addressed in the Contract Documents.
 - 1.2 Provide guidelines and/or a course of action when a material test has not been performed or has been performed incorrectly.
-

2. REFERENCED DOCUMENTS

- 2.1 [MP 109.00.21 - Basis for Charges for Non-Submittal of Sampling & Testing Documentation by the Established Deadline](#)
-

3. DEFINITIONS

- 3.1 ST-1: Special Testing Form 1- The ST-1 is a historic WVDOH document which has been used to provide an acceptance method for a material that does not have a prescribed acceptance method or is otherwise outside the scope of the normal acceptance procedure. An ST-1 is to be accepted before the material is placed.
 - 3.2 DMIR: District Materials Inspection Report – A DMIR is a materials investigation, into a situation where the material does not meet the requirements of the Contract Documents.
 - 3.3 AWP: (AASHTOWare Project Management Software) – This is the generic term for the suite of software used by the WVDOH to manage and process projects. This system manages contracts, samples, tests and other aspects of projects.
 - 3.4 Concur/Non-Concur of Sample – This is a technical AWP term in which the reviewer indicates their acceptance of a sample. A “Non-Concur” typically requires additional action to accept the material in the AWP system.
 - 3.5 District Lab Number – This is the tracking number and database field for the WVDOH materials management system.
-

4. SCOPE

- 4.1 This procedure applies to situations where the resolution of a non-conformance is not clearly defined or described by Contract Documents.

- 4.1.1 The DMIR shall be submitted to MCS&T for consideration and either concurrence/non-concurrence for the following situations:
 - 4.1.1.1 The Material did not meet the Standard Specifications or other Division Testing Requirements.
 - 4.1.1.2 The Material is not addressed in the Standard Specifications or other Division Documents and has been placed before testing (ST-1 or evaluation methods were not utilized).
 - 4.1.1.3 Sampling and/or testing was not done correctly, samples or documentation was lost, or testing otherwise cannot be used to represent or accept the material.
 - 4.1.1.4 The resolution of the material has not been addressed in a change order or other contractual document.

4.2 As per Section 105.3 of the ~~Standard~~ Specifications, the Engineer may accept materials that do not conform to Contract Documents. In this instance, material acceptance shall be processed via DMIR.

4.2.1 The cost assessment for a DMIR is at the discretion of the District, though when assessing the penalty the District is advised to use the rate listed in Section 2.2 of MP 109.00.21. An additional processing fee shall be assessed as described in Section 105.3 of the Specifications. These assessments are in addition to any deductions for the resolution of the material.

4.1.1.54.2.1.1 For example, if a set of cylinders is not cured within the Specification temperature limits, the District may assess a penalty of the current rate listed in MP 109.00.21 (\$700) plus the rate listed in Section 105.3 (\$200). The Engineer may also deduct a portion of the cost of material.

4.1.24.2.2 In any event of a DMIR, a change order shall be processed, even if the final evaluation/penalty of the DMIR is \$0.00.

4.1.34.2.3 A note of each DMIR, regardless of evaluation amount shall be in the final material certifications letter (MC-8).

5. DMIR DOCUMENTATION AND SUBMISSION TO MCS&T

- 5.1 The DMIR form is available on the [WVDOH MCS&T Webpage](https://transportation.wv.gov/highways/mcst/Pages/tbox.aspx)¹. All required fields must be completed before submitting the DMIR to MCS&T.
 - 5.1.1 The preparer of the DMIR, typically the Materials Supervisor or their designee, shall clearly state all details that initiated the DMIR and shall include the following categories of information:
 - 1. General/Project Information

¹ <https://transportation.wv.gov/highways/mcst/Pages/tbox.aspx>

2. Date or Dates of Incident
 3. Date of Report
 4. Materials Information
 5. Type of Deviation
 6. Situation
 7. Review
 8. Conclusion
 9. Review and Signatures from Construction Engineer and Materials Supervisor
 10. Supporting Documentation
- 5.1.2 A description of the material, known quantities, technical issues, or any requirement from the applicable Specifications, Contract Proposal, Project Plans, Material Procedures (MPs), Standard Details, Special Provisions, AASHTO, ASTM, or any Non-Specification issues shall be provided.
- 5.1.3 A justification and any supporting and/or relevant detail shall be provided.
- 5.1.4 The conclusion shall clearly state and justify the final price assessment resolution (which may be \$0.00), including all applicable fees and penalties.
- 5.1.5 The assessment fees should be listed individually and with a final total price assessment. Justification of the price assessment shall be provided.
- 5.1.6 The supporting documentation shall provide the necessary information and evidence for the materials inspection.
- 5.2 The DMIR shall be sent to the ST-1/DMIR mailbox (St1dmir@wv.gov).
- 5.2.1 DMIR Request Email files shall be submitted in the following format for both the subject of the email and the file name for the submission: DMIR-District Lab Number-CID Contract ID. An example follows:
- 5.2.1.1 DMIR-MXZXXXXX-CID 20XX00XXXX
- 5.3 The sample shall be logged in the current materials tracking system and sent to the applicable MCS&T Section to review. If the subject material(s) and the resolution meets the project requirements, MCS&T will concur; otherwise, MCS&T will non-concur.
- 5.3.1 The District must electronically send the fillable PDF form. This cannot be hand-written and scanned (Fields must be able to be selected for Copy and Paste). The entire submission shall be 1 file, with a total file size must be less than 25MB. Only one DMIR instance (unique line-item and material) may be submitted per email.
- 5.4 After MCS&T has reviewed the DMIR (whether be concur or non-concur), the DMIR will be sent to Regional Construction Engineer at the Contract Administration Division. The Regional Construction Engineer will then forward it to the Director of Contract Administration with his/her recommendation.

- 5.5 After the DMIR has been completed, the Director of Contract Administration will send the resolution back to MCS&T and the District with their final decision.
- 5.5.1 If the project is being tracked in AWP, the initiating District Materials Supervisor will document the DMIR status on the contract via DWR. Otherwise, the sample record in SiteManager shall be processed by the project.

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Materials Control, Soils & Testing Division

MP 100.00.03 Steward – Materials Control Section
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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
MATERIALS CONTROL, SOILS AND TESTING DIVISION

MATERIALS PROCEDURE

GUIDE FOR QUALITY CONTROL OF COMPACTION

1. PURPOSE

- 1.1 This procedure sets forth minimum guidelines for the Contractor's Quality Control (QC) Plan for embankment, subgrade, pipe and random fill used as structure backfill material and aggregate base courses. It is intended that these requirements be used as a procedural guide in detailing the inspection, sampling, and testing necessary to maintain compliance with the specification requirements.
- 1.2 To establish procedural guidelines for approval and documentation of a Master QC Plan.

2. SCOPE

- 2.1 This procedure is applicable to all items requiring compaction control except asphalt pavements. This outlines the QC procedures for Compaction items and includes procedures for approving and using Master and/or Project Specific QC Plans. This procedure also aids in documentation and retention of QC Plans in ProjectWise.

3. REFERENCED DOCUMENTS

- 3.1 MP 109.00.21 - Basis for Charges for Non-Submittal of Sampling & Testing Documentation by the Established Deadline
- 3.2 MP 207.07.20 - Nuclear Field Density - Moisture Test for Random Material Having Less Than 40% of +3/4 Inch (20 mm) Material
- 3.3 MP 700.00.24 - Nuclear Density Test By The Roller Pass Methods Revised December 2008
- 3.4 MP 700.00.50 - Procedure for Monitoring the Contractor's Compaction Testing of Bituminous Concrete, Base Course, Embankment, Sub-Grade and Pipe and Structural Backfill
- 3.5 MP 712.21.26 - Procedure for Determining Random Location of Compaction Tests

4. GENERAL REQUIREMENTS

- 4.1 The Contractor shall provide and maintain a QC system that will provide assurance that all materials submitted to the Division for acceptance will conform to the contract requirements whether natural, manufactured or processed by the Contractor, or procured from suppliers. The QC Plan should clearly describe the methods by which the QC Program will be conducted. For example, the items to be controlled, tests to be performed, testing frequencies, sampling locations and techniques all should be included etc. Each item should be listed separately.

- 4.1.1 A detailed plan of action regarding disposition of non-specification material shall be included. Such a plan shall provide for immediate notification of the Division in the event of a non-conforming situation or instance.
- 4.2 Inspection and testing records shall be maintained, kept current, and made available for review by the Engineer throughout the life of the contract. All other documentation, such as date of inspections, tests performed, temperature measurements, and any accuracy, calibration, or re-calibration checks performed on production or testing equipment shall be recorded and kept.
- 4.3 The Contractor shall maintain standard calibrated equipment and qualified personnel in accordance with the contract and Specification requirements for the applicable material.

5. QUALITY CONTROL PLAN

- 5.1 The Contractor shall prepare a QC Plan detailing the type and frequency of inspection, sampling, and testing necessary to measure and control the compaction properties of materials and construction governed by the Specifications. As a minimum, the sampling and testing plan should detail sampling location, sampling techniques, and test frequency. QC sampling and testing performed by the Contractor may be utilized by the Division for acceptance.
 - 5.1.1 A QC Plan shall be developed by the Contractor and submitted to the Engineer prior to the start of construction on every project. Acceptance of the QC Plan by the Engineer will be contingent upon its concurrence with these guidelines as listed in section 5.2 thru 5.4.5.2.
 - 5.1.2 As work progresses, an addendum(s) may be required to a QC Plan to keep the QC program current. Personnel may be required to show proof of certification for testing.
- 5.2 QC PLAN MINIMUM REQUIREMENTS
 - 5.2.1 The QC Plan should be on Company Letterhead, be addressed to the District which it pertains, and include the items to be controlled. An example/template is provided in Attachment 1.
 - 5.2.2 Provide the name of the Person who is responsible for the Company's QC program and will be liaison with the Division's personnel.
 - 5.2.3 List all inspectors' names performing compaction tests on the project and their date becoming a Certified Soils Compaction Inspector as per WVDOH Specification Section 106 Control of Materials.
 - 5.2.4 Compaction field tests will be performed according to MP 207.07.20, MP 700.00.24, and Standard Specification 716.32.3
 - 5.2.5 Soft shale tests are to be done as per Section 716 of the Standard Specifications.

- 5.2.6 Specify in the plan the methods by which each item will be tested. Table A and Table B summarizes the different materials, minimum frequencies, and the appropriate test procedure or method for controlling each material.

Table A- COMPACTION CONTROL OF AGGREGATE BASE COURSES

TEST PROCEDURE	LOT SIZE	NUMBER OF TEST	MATERIAL TYPE			
			PORTLAND CEMENT TREATED AGGREGATE BASE COURSE	CRUSHED AGGREGATE BASES AND SUBBASE COURSES	HOT-MIX HOT- LAID BITUMINOUS TREATED BASE COURSE	SOIL CEMENT BASE COURSE
MP 700.00.24	2000 FEET (610 m)	1 PER SUBLOT 5 PER LOT	X	X	X	
MP 207.07.20	2000 FEET (610 m)	1 PER SUBLOT 5 PER LOT				X

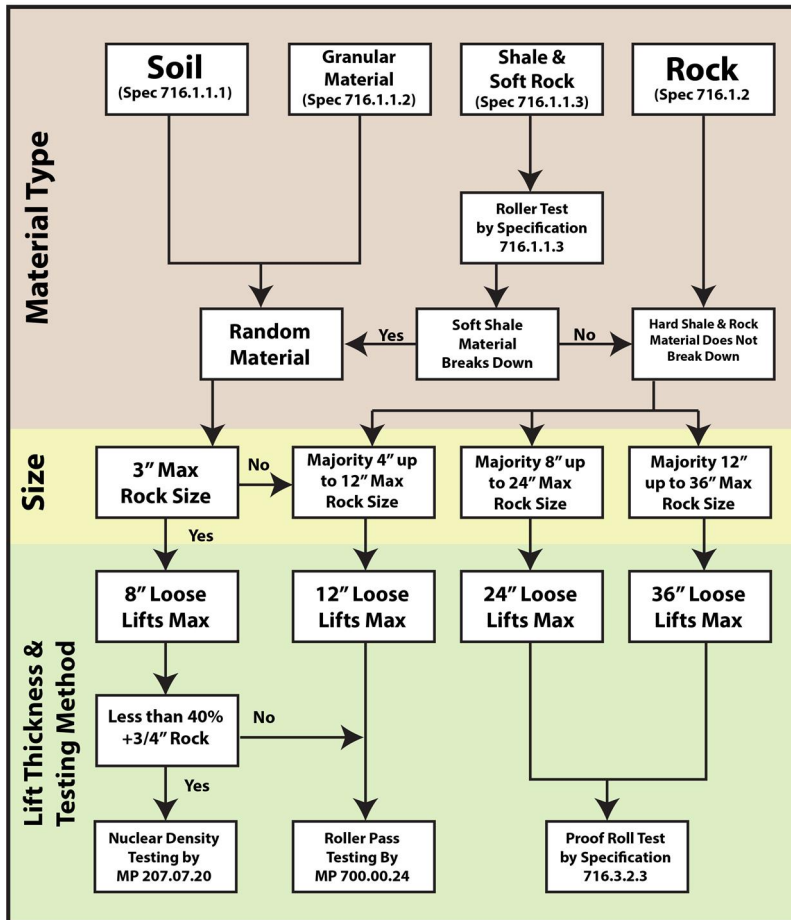
Table B - COMPACTION CONTROL OF EMBANKMENT BACKFILL AND SUBGRADE

TEST	LOT SIZE	NUMBER OF TESTS	MATERIAL WITH LESS THAN 40% RETAINED ON 1/2" (19.0 mm) SIEVE	MATERIAL WITH 40% OR MORE RETAINED ON 1/2" (19.0 mm) SIEVE AND CAN BE PLACED IN A 12" (300 mm) LOOSE LIFT OR LESS	MATERIAL THAT CAN BE PLACED IN A LOOSE LIFT GREATER THAN 12" (300 mm)	GRANULAR SUBGRADE	SELECT MATERIAL FOR BACKFILLING AND CLASS I AGGREGATE
				UNIFORM NON-UNIFORM	ROCK HARD SHALE		
MP 207.07.20	SEE STD. SPECS.	1 PER SUBLOT 5 PER LOT	X				
MP 700.00.24	SEE STD. SPECS.	1 PER SUBLOT, 5 PER LOT		X [1]	X [1], [2]	X	X
PROOF Rolling		1 REPORT PER LIFT			X	X	

1. If a hole for a direct transmission density reading cannot be readily made due to the coarse material, proof roll the lift.
2. If density readings are varying above 105 percent or below 95 percent and the material appears to be non-uniform, proof roll the lift.

5.2.7 A flow chart for embankment material, Table C, shall serve as a guide for identifying material types, maximum rock size, lift thickness and compaction test method. This table shall be included in the QC Plan for making field decisions to ensure that each type of material is properly placed and compacted.

Table C – Guide for Quality Control of Embankment Material



Commented [GM1]: 3" = 76 mm

8" = 205 mm
3/4" = 19 mm
4" = 102 mm
12" = 305 mm
8" = 205 mm
24" = 610 mm
36" = 914 mm

Commented [DB2]: Round these to the 5mm as 3" = 75mm, 3/4" = 20 mm, 4" = 100 mm, 36" = 915mm

- 5.2.8 The plan shall include a statement that all necessary testing equipment will be provided to perform the procedures MP 700.00.24, MP 207.07.20, and Specification 716.3.2 and lists the required testing equipment for compaction tests. The plan shall list the make and model of equipment for proof rolling and its weight per Specification 716.3.2. The plan shall list the make and model and operating weight of the roller(s) to be used for the soft shale tests and per Specification 716.1.1.3.
- 5.2.9 List the type of gauge to be used (...i.e., Troxler 3430, etc). The calibration frequency must be acceptable to the Division. Gauges must be calibrated as per the manufacturer's requirements. This information shall be given to the Division upon their request.
- 5.2.10 If applicable, outline the procedure for performing a stability check on gauges that are not within the tolerance range for standard counts during the interval between

calibrations. Standard counts derived during the stability check for stable gauges may be used in lieu of the manufacturer's standards. Gauges found to be unstable cannot be used until repaired and calibrated.

- 5.2.11 Include in the plan the lot and subplot sizes to be used for testing each type of installation. During construction, some flexibility in lot sizes may be made if the situation warrants in order to maintain a workable system. For example, two or more areas containing small quantities of embankment material might be combined into one lot at the Contractor's option and subject to the Division's approval.
- 5.2.12 Specify the maximum time period for completion of a lot of embankment material. As a guide, if the desired lot size cannot be obtained within seven calendar days, then the material placed up to that time would constitute the lot and the specified number of tests for a lot would still be performed.
- 5.2.13 Specify in the plan when quality control tests for base and subgrade will be performed. QC tests are to be performed after the material has been shaped and final rolling has been completed.
- 5.2.14 The Contractor is responsible for the accuracy of their individual testing and calculations.
- 5.2.15 List the forms and method of distribution for tests and measurements.
- 5.2.16 Compaction test results are reported on forms specified in MP 207.07.20 and MP 700.00.24. The forms are supplied by the Division and available on the [MCS&T Webpage](#)¹. Each form consists of an original and one copy. The original of a completed form is submitted to the Division's project supervisor and the other copy is for the Contractor's records.
- 5.2.17 Indicate the length of time after tests and measurements are completed that documentation will be provided.
 - 5.2.17.1 Test results and measurements are made available to project personnel for review on a daily basis. Formal submission of measurements should be made within 24 hours after the measurements are taken and test results within 24 hours after testing of a lot is completed.
 - 5.2.17.2 Tests performed in a lot before final rolling is completed should be submitted to the Project Supervisor and retained in the project files. This includes test documents for failing lots and moisture checks.
- 5.2.18 List the compaction equipment giving the quantity, make, model, and weight or applied force at which each roller will be operated. If ballast will be added to a roller, indicate the type and quantity of ballast and the method for verifying the gross weight. Attach the manufacturer's specifications for compaction capabilities for each roller to the plan or state the procedure for verifying the compaction capabilities of each

¹ <https://transportation.wv.gov/highways/mcst/Pages/tbox.aspx>

roller in cases where the manufacturer's specifications are not available. This equipment shall meet the requirements as per 207.7.5 of the Standards Specifications.

- 5.2.19 Indicate in the plan that a minimum of a 10-ton (9.07 Mg) roller will be used for testing as per MP 700.00.24 for soil and granular material only.
- 5.2.20 Rollers used to breakdown soft shale shall be in accordance with 716.1.1.3 of the Standard Specifications and shall have a minimum of 1.5 tons per linear foot of roller or drum.
- 5.2.21 Specify the method by which proof rolling will be conducted on embankment materials. The materials to be proof rolled are summarized in Table B in Section 5.2.6.
- 5.2.22 List the number of passes to be made and corrective measures if soft areas are detected. Documentation should include the type of material, number of passes, and corrective action if soft areas are detected.
- 5.2.23 For equipment used for proof rolling explain how the gross weight will be determined for any ballast added to the operating weight. For alternate proof rollers, attach to the QC Plan the calculations used to determine that the roller meets specifications. Also, attach the manufacturer's specifications for all proof rollers to the Plan. The following calculation is used to determine if an alternate proof roller meets specifications:

ENGLISH	Metric
$c = \frac{\sqrt{(ab\pi)}}{2}$	$c = \frac{\sqrt{(ab\pi)}}{50.8}$

Where:

a = weight (force) on a single tire = pounds (kg x .009807 = kN)

b = operating tire pressure = psi (kPa)

c = weight (force) per inch (mm) width of tire = pounds per inch (Nm)

The weight (force) per inch (mm) width of tire must be equal to or greater than 1315 pounds (9.067 kN/mm).

- 5.2.24 Outline the procedure for notifying the Division when the test section in MP 700.00.24 will be performed. The Division should be notified a minimum of 24 hours in advance unless other arrangements acceptable to the Division can be made.
- 5.2.25 Laboratory testing for random material is not required unless the material has unusual characteristics or differs from the soil and rock data used to develop the design. Testing to develop density curves, specific gravities, organic content, etc. may be required.
- 5.2.26 A list of test procedures is contained in Section 716 of the WVDOT Standard Specifications as a guideline for required testing should the need arise for random material.

- 5.2.27 Design a plan of action for the disposition of non-specification material, such as material with excessive moisture, excessive organic content, etc. These materials shall be stockpiled away from the embankment or fill placement areas. The Project Supervisor should be immediately notified in the event a nonconformance situation is detected.
- 5.2.28 List the method(s) and frequencies per Table E (attached) by which lift thickness measurements will be taken. If surveying of compacted lifts is not utilized, then the maximum loose lifts per Table C shall be measured.
- 5.3 TYPES OF QC PLAN
- 5.3.1 QC Plans which are intended for use on more than one project shall be defined as Master QC Plans. Section 5.4 outlines the procedures for Master QC Plan submittal and approval.
- 5.3.2 QC Plans which are intended for use on a single project shall be defined as Project Specific QC Plans. Project Specific QC Plans shall contain a cover letter which includes the following: project name/description, CID#, Federal and/or State Project Number.
- 5.3.3 A contractor may submit a Master QC Plan for field operations instead of a Project Specific QC Plan.
- 5.3.4 Once any QC Plan is approved for a project, the key date shall be entered in ASSHTOWare software by the appropriate District Materials personnel. The first date entered shall be the date the Project QC Plan letter is received. The second date shall be when the District approves the QC Plan for use on the project.
- 5.4 MASTER QUALITY CONTROL PLAN
- 5.4.1 The intent of Master QC Plans is to facilitate the approval process in a more uniform manner. A Master QC Plan can be submitted to the Division/District by the Contractor when their work in a given District is routinely repetitive for the year. The Master Quality Control Plan is applicable for only the calendar year for which it has been approved.
- 5.4.2 The Contractor shall submit the Master Compaction QC Plan yearly to each District in which they have work in. If the Contractor does not have work in a given District for the year then no Master QC Plan shall be submitted to that District.
- 5.4.3 The District will review the submitted Master QC Plan and assign a laboratory reference number upon approval for future referencing. The District will acknowledge approval of Master QC Plan to the Contractor by letter (see Attachment #2 for an example), which will include the laboratory reference number and a copy of the approved Master QC Plan attached. This will then be scanned and placed in ProjectWise under the appropriate District's Org for that Contractor.
- 5.4.4 Once a project has been awarded, if a contractor elects to use the approved Master Compaction QC Plan on that project, the Contractor shall submit a letter requesting

to use the Master QC Plan for that project. This letter must be on the Contractor's letterhead, be addressed to the District Engineer/Manager or their designee, and contain the following information: project number, CID#, project name/ description, type of Quality Control Plan and the laboratory reference number for the Master QC Plan (See Attachment #3 for an example).

- 5.4.5 The District shall review the referenced Master QC Plan to ensure that it covers all items in the project. If the referenced Master QC Plan is found to be insufficient for some items on the project, the District shall request the Contractor to submit additional information for QC of those items as an addendum on a project specific basis. When the District is satisfied with the QC Plan for this project, a letter shall be sent to the Contractor acknowledging approval (see Attachment #4 for an example), with the following attached: the Contractor's project QC Plan request letter and the Master QCP approval letter. This shall then be placed in the project's incoming-mail mailbox in ProjectWise.
- 5.4.5.1 A Master QC Plan that has been approved for project use shall be acceptable for the duration of that project, even if that project continues into subsequent calendar years, unless otherwise directed by the District.
- 5.4.5.2 For the use of Division Personnel, the District approval letter for this project must state the ProjectWise link to the referenced Master QC Plan for that Contractor. (i.e., WVDOT ORGS > District Organization #> Materials > Year>Master QC Plans...)

6. CERTIFICATION & ACCEPTANCE SAMPLING AND TESTING

- 6.1 The Contractor shall certify that compaction testing and sampling is in conformance with the approved QC plan, referenced MP's and referenced Standard Specifications in a letter format on the company's letterhead. The certification shall summarize what materials were encountered and the compaction method/lift thickness utilized. The letter shall state whether any deviations from the requirements of the QC plan, MP's, and Standard Specifications exist, and why.
- 6.2 Acceptance sampling and testing is the responsibility of the Division. QC tests by the Contractor may be used for acceptance.
- 6.3 The Division shall sample and test for applicable items completely independent of the contractor at a frequency equal but not limited to approximately ten (10) percent of the frequency for testing given in the approved Quality Control Plan. Witnessing the contractor's sampling and testing activities may also be a part of the acceptance procedure, but only to the extent that such tests are considered "in addition to" the ten (10) percent independent tests.
- 6.4 MP 700.00.50, MP 207.07.20, and Specification 716.3.2.3 outlines the procedures to be followed for acceptance of compaction testing.

7. ABSENT TESTING OF MATERIAL

- 7.1 If the Contractor fails to perform testing of the material in accordance with the Contractor's Division Approved Quality Control Plan, payment for the portion of the

item represented by the absent test shall be withheld, pending the Engineer's decision whether or not to allow the material to remain in place. Testing includes both performing the test and submitting the results as per MP 109.00.21.

- 7.1.1 If the Engineer allows the material to remain in place, the Division shall not pay for the material represented by the absent test. However, the Division shall pay for the cost of the placement of the material, including labor and equipment. The invoice or material supplier cost (if applicable), determined at the time of shipment, shall be used to calculate the cost of material when evaluating the total cost of labor and equipment.
- 7.1.1.1 If there is no material cost, the deduction shall be assessed on the tonnage of material that was failed to be tested via a District Materials Inspection Report (DMIR).

Ronald L. Stanevich, PE
Director
Materials Control, Soils & Testing Division

MP 717.04.21 Steward – Pavement Analysis & Evaluation Section

RLS:A

Attachments

ATTACHMENT 1 - EXAMPLE GUIDE FOR COMPACTION QUALITY CONTROL PLAN

The Acme Company
20 First St.
Somewhere, WV XXXXXXXX

Mr./Ms/Mrs. _____
WV Division of Highways
District ____ Engineer/Manager
_____, WV _____

RE: (YEAR) Master Compaction QC
Plan
DISTRICT: _____

Dear Mr./Ms/Mrs. _____

We are submitting our Compaction Quality Control Plan for field control, developed in accordance with sections 716 and 717 of the (year) WVDOH Standards and Specifications, (year) WVDOH Supplemental specifications, MP 700.0024, MP 207.07.20, MP 712.21.26 and MP 700.00.50.

The Quality Control Program is under the direction of _____. He/She can be contacted by telephone number _____, email _____ and/or in person.

- 1.) All testing will be performed by qualified personnel as per WVDOH Specification Section 106 Control of Materials. Proof of personnel certification shall be provided to WVDOH inspectors upon request.
- 2.) Specify the methods by which each item will be tested .(IE.. 207,307...etc). Table A and Table B (attached) summarizes the different materials, minimum frequencies, and the appropriate test procedure or method for controlling each material. A flow chart for embankment material, Table C (attached), is intended to serve as a guide for making field decisions to insure that each type of material is properly placed.
- 3.) Testing Equipment used will be as required in MP 700.00.24 and MP 207.07.20.

- 4.) Type of gauge to be used (IE.... Troxler 3430, etc). State that calibration information is available upon request by the Division/District.
- 5.) Outline the procedure for performing a stability check on nuclear gauges which are not within the tolerance range for standard counts during the interval between calibrations. Gauges found to be unstable cannot be used until repaired and calibrated.
- 6.) Include in the plan the lot and subplot sizes to be used for testing each type of installation.
- 7.) Specify the maximum time period for completion of a lot of embankment material.
- 8.) Specify in the plan when quality control tests for base and subgrade will be performed.
- 9.) List the forms and method of distribution for tests and measurements. (The forms are specified in MP 207.02.20 and MP 700.00.24.) State that test results will be made available to WVDOH personnel on a daily basis.
- 10.) List the compaction equipment giving the quantity, make, model, and weight or applied force at which each roller will be operated. If ballast will be added to a roller, indicate the type and quantity of ballast and the method for verifying the gross weight. Attach the manufacturer's specifications for compaction capabilities for each roller to the plan or state the procedure for verifying the compaction capabilities of each roller in cases where the manufacturer's specifications are not available.
- 11.) Indicate in the plan that a minimum of a 10 ton (9.07 Mg) roller will be used for testing as per 700.00.24.
- 12.) Indicate in the plan that when shale materials are encountered, the shale hardness test will be performed to determine if material is a soft shale as per 716.1.1.3 of the WVDOH Standards and Specifications.
- 13.) Specify the method by which proof rolling will be conducted on embankment materials. The materials to be proof rolled are summarized in Table B (attached).
- 14.) Laboratory testing for random material is not required unless the material has unusual characteristics or differs from the soil and rock data used to develop the design. Testing to develop density curves, specific gravities, organic content, etc. may be required. The Yearly Quality Control Plan should state that these additional tests must be performed by qualified Aggregate testing personnel as per as per WVDOH Specification Section 106 Control of Materials.

- 15.) Design a plan of action for the disposition of non-specification material.
- 16.) List the method(s) and frequencies by which the lift thickness measurements will be taken.

Very Truly Yours,

Title

ATTACHMENT 2

**** WVDOH LETTERHEAD ****

THE ACME COMPANY INC.
20 First St.
Somewhere, WV XXXXX

RE: Compaction Master QCP
Description: 20XX Year

Dear Mr./Ms/Mrs. _____,

Your Master Quality Control Plan(M# - #####) for Compaction has been reviewed and found to be acceptable for the following items:

- 207001-001	Unclassified Excavation	- 207002-001	Subgrade
- 211-001	- 307001 Items	- 604 items	
- 212 Items	- 605 items	-etc....	

As work progresses throughout the season an addendum(s) may be required to this QCP to keep the QC program current. **Please use M# - ##### when corresponding about this QC plan.** Please make sure that all appropriate personnel have a copy of this plan in their possession.

Very Truly Yours,

Title

ATTACHMENT 3

The ACME COMPANY
20 First St.
Somewhere, WV XXXXX

EXAMPLE

Mr./Ms/Mrs _____
WV Division of Highways
District ____ Engineer/Manager
_____, WV _____

RE: Compaction Quality Control plan
 for Field ---- Project

Fed. Project No _____
State Project No. _____
Contract ID No. _____
Description _____

Dear Mr./Ms/Mrs. _____,

We would like to use our approved Yearly Master Quality Control Plan, reference number _____ for the project referenced above. All Compaction items on the referenced project are covered by the Master Quality Control Plan.

The QC Plan is under the direction of _____,
_____ (title), and will be the company's contact representative to the Department of Highways District Materials and Construction Departments. He/She can be contacted in person at the project, by telephone _____ or at email account _____.

Very Truly Yours,

Title

ATTACHMENT 4

**** WVDOH LETTERHEAD ****

THE ACME COMPANY INC.
20 First St.
Somewhere, WV XXXXX

RE: Compaction QC Plan
Project CID#: #####
Fed/State Project #: NHPP- ## - #####.##
Description: Falling Slide
County : XXXXXXX

Dear Mr./Ms/Mrs. _____,

Your request to use Master Quality Control Plan (**M# - #####**) for compaction on the project referenced above, has been reviewed and found to be acceptable for the following items on the referenced project:

- 207001-001	Unclassified Excavation	- 207002-001	Subgrade
- 307001	Items	- 604 items	- 212 Items
			-etc....

As work progresses throughout this project an addendum(s) may be required to this QCP to keep the QC program current. **Please use M##### when corresponding about this QC plan.** Please make sure that all appropriate personnel have a copy of this plan in their possession.

For Division/District

The Master Quality Control Plan can be reviewed in ProjectWise folder shown below:

WVDOTORG> D0# > year > MASTERQCPLANS > Contractors >Contractor Name >
Name of Quality Control Plan

Very Truly Yours,

Title

ATTACHMENT #1 - GUIDELINES FOR CONTRACTOR'S QUALITY CONTROL

Item Description	Property	Minimum Frequency
207 Subgrade	Gradation	One (1) sample per day of placement. Note 1
	Atterburg Limits	From an approved aggregate source: one (1) test at the beginning of placement and then each 10,000 tons <u>(9x10⁵ kg)</u> . Not from an approved aggregate source a minimum of one (1) test per 6 days placement.
212 select Material for Backfill	Gradation	Minimum of one (1) sample per day of Placement. Note 1
307 Crushed Aggregate	Gradation	One (1) sample per each one-half (1/2) day placement. Note 1
	Atterburg limits	One(1) test at the beginning of placement and then each 10,000 tons <u>(9x10⁵ kg)</u> thereafter
	Other tests as requested by the Division or required by the contract documents: percent crushed particles, unit weight, etc.	As requested by the Division or required by the contract documents.
307 Aggregate Shoulder course for Resurfacing Projects	Gradation	One (1) sample per day of placement. Note 1
	Atterburg limits	One (1) test at the beginning of placement and then each 10,000 tons thereafter
	Other tests as requested by the Division or required by the contract documents: percent crushed particles, unit weight, etc.	As requested by the Division or required by the contract documents.

ATTACHMENT #1 GUIDELINES FOR CONTRACTOR'S QUALITY CONTROL (CONTINUED)

604 Class 1 Aggregate	Gradation	Minimum of one (1) sample per day of placement. Note 1
606 Aggregate for Underdrain	Gradation	Minimum of one (1) sample per day of placement. Note 1
609 Bed Course Material	Gradation	Minimum of one(1) sample per day of placement. Note 1
626 Aggregate	Gradation	Minimum of one (1) sample per day of placement. Note 1
	Atterburg Limits	From an approved aggregate source: one (1) test at the beginning of placement and then each 10,000 tons <u>(9x10⁵ kg)</u> . Not from an approved aggregate source a minimum of one (1) test per 6 days placement.
636 Aggregate	Gradation	One (1) sample per each one-half (1/2) day of placement. Note 1: Note 2
	Atterburg Limits	One (1) test at beginning of placement and then each 10,000 tons <u>(9x10⁵ kg)</u> thereafter. Note 2

Note 1: In the event project activities are such that relatively small quantities of material are being placed per placement date, and to prevent over sampling, the Engineer may approve the following alternate sampling method: A minimum of One (1) sample per six (6) consecutive days shall be taken to represent up to each 170 cubic yards (130 cubic meters) (250 tons (2x10⁵ kg)). Sampling is to be done on the first day of aggregate placement. In this case the sample shall be taken at a random time and place

Note 2: When Aggregate for maintaining traffic is not to be part of any succeeding base or pavement course, the appropriate aggregate size shall be determined by the Engineer. If the aggregate is from an approved source, then it shall be accepted by visual inspection. If the Contractor elects to use aggregate from an unapproved source, test results shall be provided to show that the liquid limit and plasticity index meet the requirements in Table 704.6.2B

*** ATTACHMENT #2 - EXAMPLE GUIDE FOR AGGREGATE ITEMS QUALITY CONTROL PLAN ***

The Acme Company
20 First St.
Somewhere, WV XXXXXXXX

Mr./Ms/Mrs. _____
WV Division of Highways
District ____ Engineer/Manager
_____, WV

RE: "year" Master Aggregate Items QC Plan
DISTRICT: _____

Dear Mr./Ms/Mrs. _____

We are submitting our Master QC Plan for Aggregate Items , developed in accordance with the (year) WVDOH Standards and Specifications, (year)WVDOH Supplemental specifications, MP300.00.51, MP 700.00.54, ML-25, and AASHTO Testing standards.

The Quality Control Program is under the direction of _____. They can be contacted by telephone number _____, email _____ and/or in person.

- 1.) All testing will be performed by qualified personnel as per WVDOH Specification Section 106 Control of Materials. Proof of personnel certification shall be provided to WVDOH inspectors upon request.
- 2.) Specify items to be controlled and the methods by which each item will be tested (For example:207,307...etc) Attachment #1 summarizes the different materials, minimum frequencies, and the appropriate test procedure or method for controlling each material.

- 207 Items - 212 Items -307 Crushed Aggregate Items - ETC>>>>>
- 3.) List the location (address) and lab where testing will be performed.
- 4.) State the method and means by which that Contractor will document and distribute test results.
- 5.) State what forms will be used for tests the time frame for completing testing and distributing of test information to District Materials.

- 6.) Specify in the QC Plan where and how the charts will be maintained and made available to Division/District personnel. Control Charts will use the moving average concept as described in MP 300.00.51.
- 7.) Specify a plan of action providing for immediate notification of all parties involved in the event that nonconforming material situations are detected.

Very Truly Yours,

Title

***** ATTACHMENT #3 WVDOH LETTERHEAD *****

ACME Company
20 First St.
SOMEWHERE, WV #####

RE: Aggregate Items Master QC Plan
Description: (Year) Construction Season

Dear Mr./Ms/Mrs. _____,

Your Master Aggregate Quality Control Plan (**M#-#####**) for
_____ has been reviewed and found to be acceptable for the following
items:

- 207 Aggregate Items - 212 Aggregate Items
- 307 Aggregate Items - ETC

As work progresses throughout the season, an addendum(s) may be required to this QCP to keep the QC program current. **Also note that personnel may be required to show proof of certification for testing. Please use Lab Reference # M#-##### when corresponding about this QC plan.** Please make sure that all appropriate personnel have a copy of this plan in their possession.

Very Truly Yours,

Title

***** ATTACHMENT #4 - EXAMPLE *****

THE ACME COMPANY INC.
20 First St.
Somewhere, WV XXXX

Mr./Ms/Mrs _____
WV Division of Highways
District ____ Engineer/Manager
_____, WV _____

Subject: Aggregate Items QC plan
For project

Fed. Project No _____
State Project No. _____
Contract ID No. _____
Description _____

Dear Mr./Ms/Mrs. _____,

We would like to use our approved Aggregate Items Master Quality Control Plan, reference number _____ for the project referenced above. We feel that all items on the referenced project are covered by the Master Quality Control Plan for Aggregate Items.

The QC Plan is under the direction of _____,
_____(title), and will be the Company's contact representative to the Division of Highways District Materials and Construction Departments. He/She can be contacted in person at the project, by telephone _____ or at email account _____.

Very Truly Yours,

Title

***** ATTACHMENT #5 - WVDOH LETTERHEAD *****

THE ACME COMPANY INC.
20 First St.
Somewhere, WV XXXXX

RE: _____ Aggregate Items QC Plan

Project CID#: #####
Fed/State Project #: #####- ## - #####.##
Description: Falling Slide
County : XXXXXXX

Dear Mr./Ms/Mrs. _____,

Your request to use your Master Aggregate Items Quality Control Plan (**M# - #####**) for Aggregate Items on the project referenced above, has been reviewed and found to be acceptable for the following items:

- | | |
|-----------------------|-----------------------|
| - 207 Aggregate Items | - 212 Aggregate Items |
| - 307 Aggregate Items | - ETC |

As work progresses throughout this project an addendum(s) may be required to this QCP to keep the QC program current. **Please use M# - ##### when corresponding about this QC plan. Also note that personnel may be required to show proof of certification for testing.** Please make sure that all appropriate personnel have a copy of this plan in their possession.

For Division/District use

The Master Quality Control Plan can be reviewed in Projectwise at this Link:

WVDOT ORG>D0#>year>MASTER QC PLANS>Contractors or Plant>Contractor
Name>Name of Quality Control Plan

Very Truly Yours,

Title