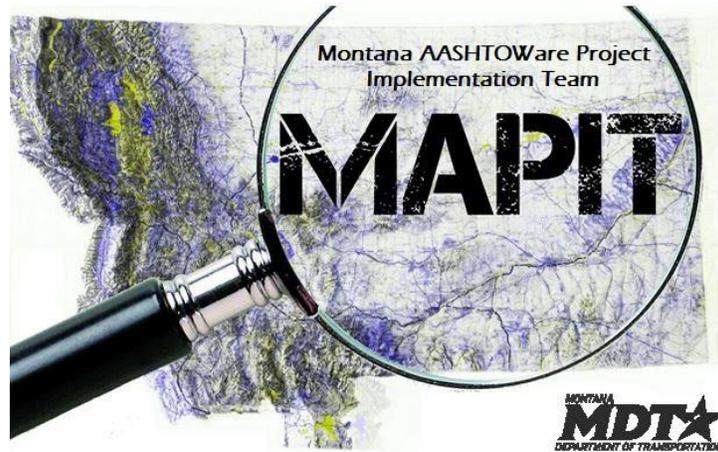


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MDT Procedure Process: Materials Tests, Qualifications and Test Assignments

Date: July 26, 2017
Updated: August 26, 2019





❑ **Process Definition**

This is the process to create materials tests, associate them to the appropriate qualification(s), and create test assignments for the new test.

The Materials Test component is used to manage all material tests and/or procedures and test agency views. The information in these components is used to provide a list of valid tests for a material when performing sampling and testing processes.

All requests for a new materials test or modifications to an existing test are submitted to MBA or the Helpdesk. Once approved by the Materials Bureau, the Materials Testing Engineer, Testing Operations Supervisor or Inspection Operations Supervisor will modify the Material Test as appropriate.

❑ **Acronyms and Definitions**

AASHTO – American Association of State Highway and Transportation Officials

MBA – Materials Bureau Administrator

MDT – Montana Department of Transportation

MT – Montana Test method

QPL – Qualified Products List

❑ **MDT Procedure**

1. Create the new test

Navigation: Reference Data > Tests

a. From the Action menu, select Add



b. Enter the Test Method

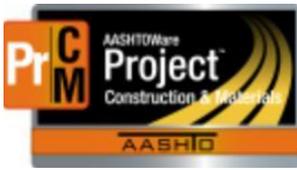
- i. The name will typically be a generic name for the test, group of tests or procedure (e.g. Proctor, Concrete Properties or Certification)

c. Enter the Description

- i. The description will typically be the test number (e.g. MT 202, AASHTO T-315)



d. If there is an agency view that can be added at this time, go to the Agency Views tab



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- e. Click Select Agency Views
- f. Start typing the name or description of the agency view in the filter
- g. Select the appropriate view
- h. Click Add to Test
- i. Select the Effective Date

Note, this can be a date in the future to correspond with changes to a specification or the MT 601.

- j. Change the status to Active
- k. Click Save

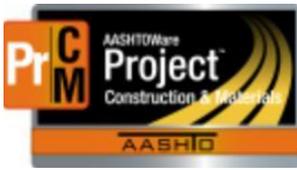
2. Add the test to a qualification

Navigation: Reference Data > Qualifications

- a. In the field, click Enter or start typing the name of the qualification
- b. Select the appropriate Qualification ID for the new Material Test

- c. Go to the Qualification Tests tab
- d. Click Select Tests

- e. In the field, start typing the test name or description
- f. Click on the new Material Test
- g. Click Add to Qualification Tests



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Q Type search criteria or press Enter **Advanced** Showing 14 of 14

Select: All None 1 selected

Test Method	Test Description
SIEVE	Sieve Analysis of Concrete Aggregate
T265	T-265 Laboratory Determination of Moisture Content of Soils
IAP_ExcEmb	IAP WAQTC Embankment
Proctor	Proctor
T27	Sieve Analysis of Fine and Coarse Aggregates
AASHTO T 315	Determining Rheological Properties of Asphalt Binder (DSR)
QPL	Qualified Products List
MT 202	Sieve Analysis
Concrete Properties	Plastic Concrete Properties Tests
Concrete Strength	Concrete Compressive Strength Tests
Routed_To_Helena	Sample Routed to Helena Materials
AsphaltBinderCert	PG Asphalt Binder Certification (Sample Witnessed)
✓ Certification	Certification Review
Visual	Visual Inspection

Add to Qualification Tests

- h. Select the Effective Date (same as the effective date on the test)
- i. Change the status to Active
- j. Click Save

[Overview](#)

Qualification Summary

▼ Qualification: Bituminous - Bituminous Pavement Save ?

General

Qualification Tests

Q Type search criteria or press Enter **Advanced** Showing 1 of 1

Select Tests... 0 marked for deletion 0 changed

Test Method	Test Description	Effective Date	Expiration Date
AASHTO T 315	Determining Rheological Properties of Asphalt Binder (DSR)	07/31/2017	
Status	Active		
ACTIVE - Active	No		

3. Assign the test to the appropriate material and lab unit(s)

When the user adds tests to a sample record, the test will only be added to the sample if there is a test assignment for that test and material to the lab unit(s) within the destination lab that will be performing the test.

Navigation: Reference Data > Test Assignment Information

Note: A test assignment can only be made if there is an action relationship for the material category or material category/material. See NP_Action_Relationships to create the action relationship.

- a. Click New and then scroll to the bottom of the list of Test Assignments (if it does not automatically direct to the new record).

Test Assignment Information Overview

▼ Test Assignment Information Overview Save ?

Test Assignments

Test Result Values

Q Type search criteria or press Enter **Advanced** Showing 37 of 37

Material

Sample Type

Lab Unit

Q (Begin typing to search or) No Filter Q (Begin typing to search or)

New 1 added 0 marked for deletion 0 changed

- b. Select the appropriate Material Category



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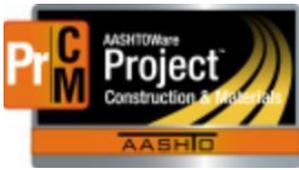


- c. If the Test Assignment is only applicable to a single Material Code, enter the Material Code
- d. Select the appropriate Sample Type
- e. Enter the Lab Unit where the material will be tested
- f. Enter the new Test
- g. Check the Default Test box if the test needs to always be added to a sample
Note, additional test runs can only be added at a later date if the test is default rather than required
- h. Select the appropriate Start Test Status
 - i. Most tests will start with 05 – Test Assigned
 - ii. If the test does not follow a normal queue, it could be different. This may require a test triggered event (contact System Administration for a determination).
- i. If there is a need to not allow a test to be deleted on a sample record and test runs will not be added, check the Required Test (not common)
- j. If the Test does not require any review (a non-contract test that does not require a review, such as a QPL Submission), check the Autofinalize box
- k. Enter Test Runs (this is the default number of runs that will be added on a sample record)
- l. Click Save

<p>Material Category *</p> <input type="text" value="702.02"/> <small>Emulsified Asphalt</small> <p>Material</p> <input type="text" value="Begin typing to search or press Enter"/> <p>Sample Type *</p> <input type="text" value="PROJ - Project Acceptance"/> <p>Lab Unit *</p> <input type="text" value="Asphalt"/> <small>Materials Binder Properties Lab</small> <p>Test *</p> <input type="text" value="Emulsion Properties"/> <small>Emulsified Asphalt Property Tests</small>	<p>Default Test</p> <input checked="" type="checkbox"/> <p>Start Test Status</p> <input type="text" value="05 - Test Assigned"/> <p>Required Test</p> <input type="checkbox"/> <p>Autofinalize</p> <input type="checkbox"/> <p>Test Runs</p> <input type="text" value="1"/>
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- ❑ **IT Systems Interfaces Outside of AASHTOWare Project**
- ❑ **Process Exceptions**
- ❑ **Business Change Summary**

This is a major change. In SiteManager, a test and a template are essentially the same thing. In the new system, they are not. The test is created first and then an agency view can



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be associated to it, if applicable. The test might be for a physical test, certification or process.

In the new system, qualifications apply to the lab units, separate from the person qualifications.

The test assignment is needed to link the sample to the lab unit performing the test and allows the for the sample to be tracked from origination to the lab unit.

Without this information, the LIMS functionality would not work.

□ **Comments**

Depending on the test, coordination might be required between Materials, Specifications and the MT 601