

Chapter 4 – Materials Testing

1-401 Overall Responsibilities

The quality of materials used on the project are evaluated and accepted in various ways, whether by testing of samples, visual inspection, or certification of compliance. The Division of Materials Testing (DMT) Representative and the District Construction Representative have separate and important responsibilities for inspecting, sampling and testing of these materials. Complete cooperation by both is required to effectively evaluate and determine the compliance of materials to the project specifications.

1-401A District Construction (Designated Representative)

District Construction does the following:

- Furnishes to the DMT, copies of test reports for certain materials tested by the District, including
 - in-place nuclear density tests for all materials, such as bituminous concrete, structural backfill, embankment and base materials, and
 - air content, temperature, and slump tests for Portland Cement concrete.
- Ascertains that project inspection, sampling, and testing on federally funded National Highway System projects is performed by NETTCP certified personnel. All other funded projects will have qualified personnel perform project inspection, sampling and testing.
- Special mixes are submitted and revised for content to Special Provisions.
- Notifies the DMT, of the final disposition of all materials recommended for rejection by the Laboratory using a MAT-103 - Report of Rejected Materials.
- Ascertains that samples for all materials incorporated permanently or temporarily into a project are representative of the material used and meet the contract specifications.
- Notifies the DMT when additional items that require testing are added to the Contract.
- Submits material samples or documentation in accordance with the “Minimum Schedule for Acceptance Testing” and the “Minimum Schedule for Assurance Testing.”

1-401B Division of Materials Testing (Designated Representative)

The Division of Materials Testing does the following:

- Ascertains that laboratory inspection, sampling, and testing on Federally funded National Highway System projects is performed by NETTCP certified personnel according to Contract Specifications. All other funded projects will have qualified personnel perform inspection, sampling and testing.

- Responds to Requests for Tests in a timely fashion and posts recommendations for material acceptance or rejection within SiteManager.
- Posts detailed results of testing within SiteManager where possible.
- Issues final material certification to FHWA for oversight projects and for other construction projects to the Construction Administrator.
- Is available for consultation and acts as an adviser to Office of Construction on all matters pertaining to the sampling, testing, fabrication, inspection and production of materials.
- When a test is rejected, the DMT will notify the project staff directly and follow up with a report of the rejected test.

1-402 Standard Procedures

1-402A Request-for-Test/Material Quantities

The primary responsibility for adequate and sufficient testing rests with the project Chief Inspector. The Chief Inspector must comply in all regards to the requirements stipulated in the “Minimum Schedule for Acceptance Testing,” and the “Minimum Schedule for Assurance Testing” or as directed. The Project Engineer is responsible for providing adequate supervision and instructions to the Inspector to ensure adherence to material testing requirements.

The Inspector is responsible for taking samples, so that the Laboratory will be able to complete the tests and post the results in SiteManager before the Contractor desires to use the material. It is the Contractor's responsibility to have materials on the Project in sufficient quantities early enough to allow for testing.

The Chief Inspector is responsible for scheduling assurance testing as stipulated in the “Minimum Schedule for Assurance Testing.” Notification of the Laboratory Supervisor is required to have appropriate assurance testing performed.

The Chief Inspector must arrange for the delivery of samples of all materials to be used on the job, except those to be tested at the source of supply or by the District, to the DMT. Material submitted for testing can only be sampled or witnessed by State forces or other designated representatives employed by the State. Design approval of cuts (catalog and sheets) or drawings of materials is similar to shop drawing approval by the Bridge Design Section. The Inspector is responsible for inspecting and verifying the materials involved are represented by the approved cuts.

A standard form Request for Test, Form MAT-100, must accompany any acceptance or assurance sample. The form used for non-SiteManager jobs is shown in Figure 1-4.1, and is explained in detail in the Section 1-405 “Request for Materials Test (Form MAT-100).” The form generated by SiteManager is shown in Example 1-4.2, and directions on how to complete the form are contained in the “SiteManager Help Files.” Sampling, labeling and shipping must be in accordance with the instructions contained in “Schedule of Minimum Requirements for Sampling Materials for Test.”

A summary must be included in the Inspector's records so that the number of each test taken, under the appropriate categories, can be readily checked against the total required and against the quantity paid for on the monthly estimate.

The Supervising Engineer supervises a monthly review of each project to ensure that the number of tests for each item included for payment on the monthly estimates is equal to or greater than the minimum number of tests required for that quantity of material. The tabulation of minimum testing requirements for each project must be revised if there is a change in the contract quantity. Quantity changes are documented with Construction Orders.

1-402B Test Results

Materials cannot be used until a favorable report of the test is received from the Division of Materials Testing, except in special cases as provided in the *Specifications* or approved by the Assistant District Engineer. When a verbal or email report is received from the Materials Testing Section or the District, either recommending acceptance or rejection of the material, a notation is generally made on the Request for Test by DMT personnel. Project personnel can always access the testing status through SiteManager after they are posted.

Typically results of testing performed by DMT personnel are never provided directly to the Contractor. Any requests from a Contractor for test results should be coordinated through the District or the Office of Construction.

1-402C Samples Recommended for Rejection

If the Division of Materials Testing determines that a sample does not meet specification, a representative from the Division contacts the Project Field office and provides the results of the tests. A detailed test report may also be issued. Copies of all test reports are on file at the Division of Materials Testing.

1-402D Buy America Requirements

As stated in Section 1.06.01 of the Standard Specifications, "All permanently incorporated steel and iron used in the construction of the project must have been produced and fabricated in the United States." DMT personnel review all documentation submitted with requests for test for steel and materials containing steel and recommend acceptance or rejection based on this review. As part of the enforcement of Contract Specifications for materials, it is important that all project personnel be aware of this requirement and notify their chain of command and the DMT if there is evidence or suspicion that this requirement is not being met.

As further stated in Section 1.06.01, "The Contractor may request, in accordance with Section 635.410(b)(4) of Title 23 CFR, approval to include a minimal amount of steel in the Project." These requests must be made in writing. The District will approve these requests provided the overall value of the steel, including delivery cost to the Project, is less than 1/10 of 1% of the total Contract price or \$2,500, whichever is greater. When multiple approvals are requested the combined total can not exceed the minimal amount defined above.

There may be other circumstances where the Contractor proposes to use foreign steel and may request that the District seek a waiver. Should this occur, the District will obtain from the Contractor details of the efforts made to secure domestic steel. The District will forward this information to the Office of Construction which may request a waiver from the Federal Highway Administration or other administering agency for the specific Project.

Foreign steel should never be incorporated into the Project unless approved. Inspection personnel are required to track the value of all foreign steel delivered to the project and provide documentation to the DMT at the conclusion of the Project that substantiates required waivers and/or approvals have been obtained.

Figure 1-4.1 Request for Test (Form MAT-100)

REQUEST FOR TEST (302-06-0266) MAT-100 REV 1/04 STATE OF CONNECTICUT - DEPARTMENT OF TRANSPORTATION																																			
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Figure 1-4.2 Request for Test (Form MAT-100) SiteManager

Mat 1 Hard Copy Page 1 of 1
 Process ID: MAT1 Print Date: 12/03/2004

**State of Connecticut
Department of Transportation
Material Test Report**

SAMPLE ID	C0108-0154C0041D	REMARKS
Material Code	04901	Lab: Itm#:0751003 C#:569553 Lab: Itm#:0651015 C#:569545 Lab: Itm#:0651020 C#:569547 Lab: Itm#:0651657 C#:569549 Lab: Itm#:0751002 C#:569552 Lab: Itm#:0751001 C#:569551 Lab: Itm#:0651664 C#:569550 Lab: Itm#:0651
Material Description	Bedding Material	
Sample Date	09/27/2002	
Sampled By	Siragusa, Albert A.	
Source of Supply	ERNEST JOLY & SONS, S&G. -DANIELSON (PS)	
Producer/Supplier Code	1008	
Material Rep Qty	2,000.00	
Sample Unit	CY	
Batch Number	n/a	
Sample Taken From	n/a	
Purpose/Intended Use	bedding material for drainage	
Location of Sample	n/a	
Where Material Will Be Used	n/a	
Contract Number	0108-0154	
District Number	2	
Federal Aid Number	IXE-598(107)	
Field Office Phone Number	(860)564-6980	
Sample Status	ACCEPTED	
Date of Assigned Status	09/27/2002	

Project Number	LIN	Item Code	Item Description	Lab Number	Material Rep Qty	Item Rep Qty
0108-0154	0048	0651001	BEDDING MATERIAL			1,145.00
0108-0154	0049	0651011	12" R.C. PIPE			33.00
0108-0154	0050	0651012	15" R.C. PIPE			259.00
0108-0154	0051	0651013	18" R.C. PIPE			228.00
0108-0154	0052	0651015	24" R.C. PIPE			137.00
0108-0154	0053	0651019	36" R.C. PIPE			83.00
0108-0154	0054	0651020	42" R.C. PIPE			37.00
0108-0154	0055	0651656	12" CORRUGATED PE PIPE (SMOOTH INTERIO			14.00
0108-0154	0056	0651657	15" CORRUGATED PE PIPE (SMOOTH INTERIO			9.00
0108-0154	0057	0651664	48" CORRUGATED ALUMINUM PIPE			12.00
0108-0154	0072	0751001 A	UNDERDRAIN WITH 12" SLOTTED R.C. PIPE			0.00
0108-0154	0073	0751002 A	UNDERDRAIN WITH 15" SLOTTED R.C. PIPE			0.00
0108-0154	0074	0751003 A	UNDERDRAIN WITH 18" SLOTTED R.C. PIPE			0.00
0108-0154	0075	0751711	6" UNDERDRAIN			0.00

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1-402E Structural Steel Fabrication Inspection Off-Site

In accordance with the notification required in Section M06.02-13(a), the Division of Materials Testing provides on-site inspection at any facility fabricating structural steel which includes, but is not limited to, bridge girders or trusses, building trusses, sign supports, span poles, railings, or any fabricated steel item that is controlled by a shop drawing. The inspection is intended to monitor the fabricator's adherence to the Department's and project specifications and advise project staff on the progress of the work. It is the responsibility of DMT staff to keep District project personnel informed so that any action that may be required on the part of the Contractor can be initiated as soon as possible.

In accordance with Section 1.05.09, this inspection "does not relieve the Contractor of its responsibility to perform the project work properly, to monitor the work of its subcontractors, and to institute and maintain quality control procedures appropriate for the proper execution of the project work". While every attempt is made to assure that steel is fabricated correctly at the fabrication facility, project personnel should be aware that incorrect, incomplete, or unacceptable material may be delivered to the project site. The Department's role is to perform Quality Assurance, not Quality Control. Minimally, a visual inspection of the materials delivered to the project site should be performed by project personnel to detect any damage during transportation. It should be made clear to the Contractor that structural steel is not accepted at any stage prior to being properly erected or installed in its final location.

1-403 Non-standard Testing Procedures

The designer (with input from the D.E. and the DMT representative) establishes the method of processing for approval of all items for which a standard testing procedure has not been identified in the special provisions.

1-404 Minimum Testing Requirements Acceptance and Assurance

1-404A General

All materials are subject to inspection, testing, and acceptance or rejection at any time during preparation and use. Contract Items within Site Manager that include materials that require acceptance testing, assurance testing, or certification will have all material(s) codes assigned to each project by the Division of Materials Testing. The Project Engineer is responsible for deleting materials not used with that item on each project. The testing requirements (frequency, sample size etc...) for each specific material are included within Site manager. These requirements are also listed in the "Schedule of Minimum Requirements for Sampling Materials for Test". It includes the following information:

- the persons responsible for sampling,
- the sample size,
- the location for sampling,
- the frequency for acceptance sampling,
- the frequency for assurance sampling, and
- any special instructions.

It is required by Federal and State regulations that at least the minimum number of tests be conducted. Additional sampling and testing may be needed to assure acceptability of materials.

Project sampling and testing falls into three general classifications:

- Quality Control samples are those samples obtained by the Contractor to provide quality control of his process/material.
- Acceptance samples are taken and tested, by DOT personnel to determine material compliance with the Contract specifications.
- Assurance samples are taken by or under the observation or supervision of the Materials Testing Section, personnel of the Office of Construction, representatives of the Federal Highway Administration or representatives of other federal agencies to provide an independent check on the quality of the sampling and testing equipment, and the personnel performing these tasks. Assurance testing is extremely important in that it validates the results and recommendations of all the acceptance sampling and testing done on the project.
- Verification samples are used to validate the contractor's quality control test data used in process control for the product.

1-404B Assurance Samples and Tests

In accordance with the "Schedule of Minimum Requirements for Sampling Materials for Test," the following items/materials require assurance samples and/or tests:

- Borrow
- Concrete Pavement
- Concrete Structures
- Earth Embankment
- Hot Mix Asphalt
- Processed Aggregate Base
- Subbase
- Aggregates for Ready Mix Concrete

To ensure that required assurance sampling and testing is performed as required including qualification of sampling and testing personnel, it is necessary that the District project personnel notify Laboratory personnel of the need for these samples and tests, with as much advance notice as possible. Assurance samples and tests performed by Laboratory personnel must be in accordance with the following:

- When assurance samples are required for materials subject to gradation analysis, Laboratory personnel must be contacted to witness the sampling procedure at the project site. The samples are then transported to a District Laboratory and halved in accordance with AASHTO T248. One-half of the assurance sample is tested at the District Laboratory. If desired by project personnel, this sample can additionally serve as the acceptance sample for the appropriate test coverage. The other half of the assurance sample is for laboratory use and is utilized for the purpose of making independent checks on the reliability of the results obtained from various equipment, personnel, and testing facilities. If any set of results shows a variation greater than the expected deviation, it is the responsibility of the Central Laboratory to investigate the cause and, if necessary, to see that appropriate corrective action is taken.

- When assurance tests are required for PC Concrete testing, Laboratory personnel must be contacted to witness all required sampling and testing procedures at the project site. Laboratory personnel record on the assurance testing forms all pertinent testing data, observations of the testing procedures, and the names of all persons involved in the tests and molding of the specimens. Laboratory personnel additionally perform side by side air content testing, verify equipment calibration and use of the proper testing and equipment being utilized at the field testing sites. If there are any deficiencies, District Construction offices are notified via memorandum that corrective action is required.
- Assurance tests for concrete cylinders must include air content, temperature, and slump tests on the plastic Portland cement concrete. The technician indicates on the assurance testing form the names of all persons involved in the tests and molding of all specimens. The cylinders molded during an assurance test can be submitted for acceptance testing provided they are submitted with a separate MAT-100. It is possible that the material could be recommended for rejection, and the assurance test could be acceptable or vice versa.
- When assurance testing is required for project field density testing, Laboratory personnel must be contacted to observe the test site preparation and testing procedure performed by the District density gauge operators. Two nuclear density gauges are used in the assurance testing procedure. One gauge will be used by District operators, and the second gauge and operator is provided by the Laboratory. Upon completion of a test, Laboratory personnel perform a test in the same location, using a second density gauge, to verify test results obtained by the District operator. Corrective action is required if there are any deficiencies. The District test report must be signed and dated by Laboratory personnel indicating they have witnessed the test procedure. The test report completed by Laboratory personnel is marked “Assurance Test” and placed in the appropriate project folder.

1-405 Requests for Test (Form MAT-100)

A Request for Test (Form MAT-100) must accompany all acceptance and assurance samples, Certified Test Reports, and Materials Certificates and Approved Product List items submitted to the Laboratory. Refer to Figures 1-4.1 and 1-4.2, for examples of Form MAT-100.

1-405A SiteManager

The Inspector should consult SiteManager documentation for guidelines in inputting and printing a MAT-100 from SiteManager. A major difference between the SiteManager MAT-100 and the previous hardcopy version MAT-100/MAT-1 are the fields labeled “Smpl Type” and “Acpt Meth.”

“Smpl Type” is the type of sample being submitted, and has the following choices available in the pull-down menu.

- *Acceptance (Production)* – will be used for all samples submitted where the project is looking for a recommendation of acceptance or rejection.
- *Assurance* – will be used for all samples/testing used to validate equipment or personnel performing the acceptance testing.
- *Bid Sample (Not for Construction use)*
- *Information Only* – use when results are not used to determine acceptance or rejection. Example, concrete cylinders broken to bridge deck opening or form removal.
- *Maintenance Sample* – for use by maintenance.
- *Source Sample* – for use by lab personnel

- *Spaces* - blank
- *Stores Sample* – for use by lab personnel.

It is important that project personnel select “*Acceptance (Production)*” when submitting a sample for material and quantity that is being incorporated into the project. This is the only type of sample that will provide material test coverage for the project.

It is equally important that “*Assurance*” be selected for those materials that need assurance testing coverage. A project must perform assurance testing in accordance with the minimum schedule of sampling materials for test, or else assurance testing will be listed as a deficiency on the final materials certificate.

“Acpt Meth” is the method used to determine if the material will be recommended for acceptance or rejection. The following are available from the pull-down menu. Examples of what materials apply to these methods are shown in parentheses.

- *Field Test* - (ex. HMA and Soil Density,)
- *Lab Test, Mat Cert & Certified Test Report* - (ex. Epoxy pavement markings)
- *Laboratory Test* - (ex. Aggregates)
- *Mat Cert & Certified Test Report* - (ex. Anchor Bolts)
- *Material Certification* - (ex. Construction Barricades, Impact attenuators)
- *PC-1* - (ex. Catch basin components)
- *Past Performance (Lab use only)*
- *Qualified Products List*-(ex. Erosion Control Matting, Geotextiles)
- *Spaces*
- *Visual Inspection*-(ex. Riprap, stone walls)

Project personnel are responsible for selecting the appropriate acceptance method for the material and sample type. For example, a MAT-100 for gravel that is an “Acceptance (production)” sample type and a “Lab Test” will be recorded as a test on a physical sample. A MAT-100 for gravel that is the same sample type, but is a “Field Test” will be recorded as a test at the project site on an in-place material.

1-405A.1 Item Materials (SiteManager)

Construction Order items and material information should be brought to the attention of the Division of Material Testing as soon as it is possible and verified at or near the completion of the project. (For activities related to materials testing at project start up refer to Volume 1 Chapter 2 Section 1-201).

At project start up, periodically throughout the course of the project, and again prior to requesting the final material certificate the Chief Inspector or Resident Engineer will review the Item Material Assignment by Item Code report.

In order to promote consistency from project to project and District to District, the ability to modify the association of materials to contract items must reside solely with DMT personnel. Project personnel must contact DMT personnel via email to modify these associations.

1-405B Hardcopy (Non-SiteManager)

The Inspector should use the following guidelines for completing the hardcopy version of Form MAT-100:

- *Contract Number.* Enter the project number, purchase order number, or both if applicable.

- *Sample Number.* Enter the number assigned to the sample. The sample number will be reported back exactly as submitted.
- *Kind of Material.* Enter the complete name of the material represented by the Request for Test form. (Example: processed stone, bank run gravel etc. –not item names such as Processed Aggregate Base or Subbase which the particular material are used under and paid for.) Only one material can be entered on each form. The following are the only exceptions to the one-material-per-form rule:
 - Deformed steel bars, where different sizes are allowed on the same form.
 - Hardware and accessories for fencing and guide rail.
 - ACCMP and collars.
- *Source of Supply.* Enter the full name of the manufacturer, source of production, or natural deposit of the material.
- *Location.* Enter the town or city and state where the source of supply is located. If the source is at a foreign location, enter the city, province (if applicable) and country.
- *Sample Taken From.* Identify the type of conveyor or lot from which the sample was taken-, stockpile, project, end of chute, end of pump, etc.
- *Location of.* Enter the location where the sample was actually taken. For example, the sample may be taken from a stockpile, at the plant, or on the job. List the specific station and distance from centerline for samples taken at the job site.
- *MAT-100 Completed By.* Enter the names of the individuals who perform the actual sampling. If Laboratory personnel or others observe or sample, their names should also appear in this space. Witnesses for assurance samples should be shown in parentheses.
- *District.* Enter the number of the District requesting the test on the material. When a Request is prepared by an agency other than a District, such as Purchasing or Stores, this space should be completed per the direction of the Director of Materials and Research.
- *Purpose.* Indicate the purpose for which the material will be used. For example, “traffic signals,” “drainage,” “signing,” “subbase” etc.
- *Item Number.* Specify the contract item number for the material represented by the test. If the item being tested is subject to a special provision in the contract, place an “A” following after the item number. The contract item numbers must be entered correctly. They are the bases for quantity totals and estimates and for materials certification at the close of the project. If the same material is used for more than one contract item, up to 10 item numbers can be put on one Request.
- *Item Quantity Represented.* Enter the quantity of material that is represented by the test sample. Specify the proper quantity for each item number by the pay unit.
- *Material Quantity Represented.* Enter the quantity of material that is represented by the test sample.
- *Additional Laboratory Numbers & Laboratory Test No.:* No longer used.

- *Unit of Material.* Some materials have quantities and units of measure different from that for the basis of payment. For example, the item quantity unit of measure for concrete sidewalk is square meters, but the material quantity unit of measure is cubic meters.
- *Date Sampled.* Enter date sample taken.
- *Where Material will be Used.* Enter the name of the town.
- *Status Assigned.* The status is entered by the Laboratory.

1-406 Specialty and Proprietary Items

Some specialty items incorporated into transportation projects are not physically tested by the Division of Materials Testing (DMT). DMT recommendations for these materials usually is contingent on receipt of a satisfactory Materials Certificate, Certified Test Report, or both. In general, the following procedures pertain to the testing of specialty and proprietary items.

Prior to the award of the contract, the Contractor is required to state on Form CON-83 the sources of all items intended to be supplied for the Project. The Contractor is responsible for obtaining approval of each of these items, and must request the approval in writing from the District Engineer. If a particular manufacturer's product is a proprietary item and is specified in the special provisions or the plans, it is understood that this represents the standard required but that a similar product by another manufacturer may be considered for approval as an equal. Nine copies of shop drawings, cuts or other descriptive literature that completely illustrates such proprietary or substitute items must be submitted by the contractor for approval by the Department. The submittal must be forwarded by the District to the responsible section (Design, Traffic, etc.) for review and approval. Submittals returned to the District will be forwarded to the Project. Project personnel must verify that only material described by an approved catalog cut is incorporated into the project.

No Request for Test is required for materials approved with a catalog cut. Included with the request for the final materials certificate, project personnel must include all approved catalog cuts showing the approval date, and verify that these materials were incorporated into the project.

For materials that require a Materials Certificate and/or a Certified Test Report, the Request for Test must show the name of the manufacturer, the source of supply, the code number or serial number of the material, any applicable material reference or requirement in the special provisions or the approved catalog cut, and any other data necessary to ensure that the item provided is the item specified, or an equal approved by the Designer. Currently, the Department is specifying testing requirements of specialty and proprietary items in the special provisions of contracts.

1-407 Certified Test Report

A Certified Test Report is a document containing a list of the dimensional, chemical, metallurgical, electrical, and physical results of actual tests of the materials involved. It must certify that the materials meet the requirements of the plans and specifications and include the following information:

- the item number and a description of the material;
- the date of manufacture;

- the date of testing;
- the name of the organization to which the material is consigned;
- a means of identifying the consignment, such as label, marking, or lot number;
- a date and method of shipment; and
- the name of the organization that performed the tests.

The Certified Test Report must be signed by an authorized and responsible agent for the manufacturer, and it must be notarized. Article 1.06.07 of the Standard Specifications describes the requirements.

1-408 Materials Certificate

If the consignee listed on the Certified Test Report is not the prime contractor, a Materials Certificate is required to identify the shipment. A Materials Certificate is a document that certifies that the materials, components and equipment furnished conform to all requirements of the plans and specifications.

The Materials Certificate must also include the following information:

- the project to which the material is consigned;
- the name of the contractor to whom the material is supplied;
- the item number and a description of the material;
- the quantity of material represented by the certificate;
- a means of identifying the consignment, such as label, marking or lot number; and
- the date and method of shipment.

The Material Certificate must be signed by an authorized and responsible agent for the vendor, and it must be notarized. Article 1.06.07 of the Standard Specifications describes the requirements. Field personnel forward all Certified Test Reports and Materials Certificates to the Central Laboratory with a Request for Test (Form MAT-100).

1-409 Final Material Certification (FMC)

Federal Regulation Title 23CFR 637 requires that the Department have in place an approved Quality Assurance (QA) Program for materials used in Federal-aid highway construction projects. The final procedure in the Department's QA program is for the Division Chief of Research and Materials (DCRM) to produce a Final Material Certification for individual projects and submit them to the Division Office of the Federal Highway Administration. The FMC documents the testing of materials permanently incorporated into the project and the results of that testing in accordance with the "Schedule of Minimum Requirements for Acceptance Testing," and the "Schedule of Minimum Requirements for Assurance Testing".

During the course of a project, Division of Materials Testing (DMT) personnel work with project personnel to meet the requirements of the schedules of acceptance testing and assurance testing.

Inspectors are urged to address all testing deficiencies and material rejections when they occur or on a regular basis. Inspectors are reminded that any Report of Rejected Material (MAT-103) submitted to the DMT must be the original with appropriate signatures.

Projects that span more than one construction season should not carry over any deficiencies or rejections into the next construction season. Processing of deficiencies or rejections older than 12 months will be significantly delayed as priority will be given by the DMT to address current issues.

When at least 95 % of the construction work is complete and before the Contractor has been relieved of its responsibility, the Assistant District Engineer will request that a Final Material Certification be issued for the construction project. The Federal Aid Project (FAP) number must be included with the request.

Documentation for field density acceptance tests for both HMA, and granular materials shall accompany all requests for Final Material Certificates. Acceptable documentation of the density acceptance tests may be a summary report produced at the project level or a report generated from Pave Track or other software. In all cases the source document Inspection Reports shall become part of the permanent project records.

As part of drafting this request, project personnel should review the following Site Manager reports and appropriately document any testing deficiencies or rejected material not previously documented.

- Contract Testing Deficiency Report
- Final Material Cert.-Qty Summary
- Samples Saved without Status
- Samples Pending
- Contract Sample Rejection List
- Contract Assurance Samples “AT”
- Contract Assurance Samples “CP”

The Assistant District Engineer or District Engineer may accept material that was tested and rejected or material which was not tested if the conditions listed in Article 1.06.02 are met. The District will notify the Division Chief of Research and Materials in writing upon accepting the material. If the Division of Research and Materials takes exception to the District’s findings, the Division of Research and Materials will attempt to resolve the disagreement with the District and if the matter cannot be resolved it shall be referred to the Office of Construction for resolution.

A request for a Final Material Certificate should document all testing deficiencies and rejected materials not previously documented and be sent to the Division Chief of Research with a copy to the Assistant District Engineer. If all deficiencies and rejections are documented adequately, the issuance of a Final Material Certificate should not be delayed. Examples of well documented requests for Final Material Certification are available from District Office personnel.