# Project Materials Certification Guide for LGA/LAP Projects



This guide is designed to be a resource to a Local Government Agency (LGA) when administering a project with Federal funds. This guide provides explanation and resource links for materials received. This will help ensure the materials used are in accordance to federal regulations.

M&T Quality Systems Section and other M&T staff conduct material certification reviews on each Local Government Agencies (LGA) project. This is a separate review from anything reviewed by your local division representative or FHWA. It is recommended that the LGA invite a M&T staff representative to pre-construction meetings. It is recommended that the material certification process begin before the final payment is made. All materials may not be represented in this guide. Please contact M&T if you have questions.

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#### WHAT IS A LOCALLY-ADMINISTERED PROJECT (LGA)?

LGA programs and projects receive federal or state money based on the recommendations of Municipal or Rural Planning Organizations (MPOs and RPOs), NCDOT Program Areas, and Board of Transportation Members. LGAs are responsible for carrying out the design, construction and administration of projects, or implementation of programs. The program is also referred to as a Locally Administered Project (LAP).

#### WHAT IS NCDOT'S ROLE?

NCDOT's role is to advise, approve and oversee the proper expenditure of funds by an LGA on an eligible project or program. NCDOT is committed to establishing appropriate oversight in order to ensure the best use of public funds and compliance with all applicable state and federal regulations.

#### WHAT IS M&T's ROLE?

The Materials and Tests Unit will audit project documents to complete a *Materials Certification*. This is referred to as the **Final Project Certification** within the Locally Administered Project Municipality agreement.

#### MATERIAL CERTIFICATION (FINAL PROJECT CERTIFICATION)

FHWA requires the Department to materially certify each project that receives Federal funding. This includes the verification of the field and lab test results, certifications, quantities and Buy America requirements. To accomplish this certification, the LGA is to ensure the project constructed follows Federal Guidelines in order to qualify for reimbursement. The NCDOT Standard Specifications for Roads and Structures should be followed and can provide further clarification. The Project Material Certification is the process by which the NCDOT Materials and Tests Unit certifies that all materials and workmanship are in compliance with the specifications.

M&T will review documentation/records linking to; sampling, testing, and certification of all materials temporary and permanently incorporated in the construction work and the construction operations. All materials must conform to applicable standards, specifications, plans, and NCDOT policies. Each line item representing a material received (temporary or permanently) will require a receipt in order to verify quantities received and the supplier/producer. A Material Certification is required for each line item representing a material received (temporary or permanently). All materials are considered critical and must meet the documentation requirements. All qualified technicians involved with sampling and testing of materials must hold current appropriate NCDOT certification for the applicable testing and inspections they are performing. "Shortages" and "exception" of materials will be documented. Shortages are detailed records connecting to materials which did not receive the required number of sampling and/or testing. Exceptions occur when representative materials are utilized but not in accordance with specifications. Exception materials are typically supplied by unapproved sources and/or meet close conformity. Exceptions also include materials which no required documentation was retained in order to review. The Materials and Tests Unit will identify "non-Participating" costs due to improper sampling/testing procedures, absence of tests reports, uncertified materials, shortages, or materials not meeting the required specifications. NCDOT will not be able to provide reimbursement or "nonparticipating" costs.

#### **MATERIAL & TESTING REQUIREMENTS**

The Department is responsible for insuring that all materials and manufactured products incorporated into transportation projects meet the required criteria and will function as intended. The Materials and Tests Unit performs this function and will work with the LGA and the Division to provide the required materials oversight and assurance testing.

NCDOT must certify that LGAs met the Department's Requirements for:

- Following NCDOT Standard Specifications and Drawings for Roads and Structures
- Sampling and Testing (Minimum Sampling Guide)
- Using Qualified Technicians (Training & Certifications)
- Fulfilling the FHWA "Buy America" requirements & North Carolina State Law
- Using approved Producer/Supplier (NCDOT Approved Producer/ Supplier List, Mix Designs for both asphalt and concrete)
- Using approved materials that are produced by the Approved Producer/Supplier
- Resolving Any Failures or Discrepancies (Must Be In Writing)

#### 2012 NCDOT Standard Specifications Manual

https://connect.ncdot.gov/resources/Specifications/Pages/2012StandSpecsMan.aspx

#### 2018 NCDOT Standard Specifications Manual

https://connect.ncdot.gov/resources/Specifications/Pages/2018-Specifications-and-Special-Provisions.aspx###

#### NCDOT Roadway Standard Drawings

https://connect.ncdot.gov/resources/Specifications/Pages/2018-Roadway-Standard-Drawings.aspx

#### Minimum Sampling Guide (MSG)

The Minimum Sampling Guide (MSG) lists materials that are pretested and materials that are to be sampled by project personnel. The LGA can use this resource for sampling requirements; however, the project certification for LGA project is always *Critical*, therefore, the certification type always applies. *Resource:* https://apps.ncdot.gov/vendor/approvedproducts/MinimumSamplingGuide.aspx

#### **Certified Construction Technicians**

The LGA will provide Technicians to inspect and document the construction of the project. Specific items of work including the placement of asphalt and concrete and testing of certain materials such as soil and aggregate base course materials require certifications by the Department. It is the responsibility of the LGA to make sure that individual Technicians are thoroughly familiar with the contract requirements and NCDOT certified for the various phases of work which they are called upon to inspect.

Resource: https://apps.ncdot.gov/vendor/approvedproducts/Technician.aspx

#### Buy America

#### 2012 Standard Specifications for Roads and Structures Section 106-1B

For LGA projects, all steel, iron, and manufactured products must include a certification statement from the contractor that the items provided for incorporation into the project were produced in the United States, including raw materials. The individual documents certifying the products are in accordance with this requirement should be maintained with the material test results and be available for audit or project material certification upon completion of the project.

#### Approved Producer/Supplier

Producers and Suppliers are pre-approved to produce and/or supply materials to NCDOT. Facility Types include but are not limited to; Asphalt Plants, Cast Iron, Concrete Plants, Guardrail, Brick and Block, Rebar Coaters, Metal Pipe. Use the resource link to view the complete list. The list is updated daily. It is recommended to check the list prior to purchasing materials from approved producers/suppliers. Producers and Suppliers are removed from the approved list. The LGA is responsible for monitoring the approved list. *Resource:* https://apps.ncdot.gov/vendor/approvedproducts/Producer.aspx

#### Approved Products List (APL)

The Approved Products List is a database of pre-approved products available to construction for use on NCDOT projects. These products have been evaluated to ensure the product is viable for use by performing a detailed review of product specifications, technical data, test results and, monitoring the products durability and performance. The list is not a blanket for approval. All products are still subject to all other project requirements and should be used in conjunction with the MSG, NCDOT Standard specifications for Roads and Structures, and plans.

Resource https://apps.ncdot.gov/vendor/approvedproducts/Default.aspx

#### RFID - Precast Concrete and Prestressed Concrete Lookup (Alternate ID Look Up)

Precast Concrete should come from an approved Producer/Supplier. Precast producers do not only produce for NCDOT. The LGA needs to ensure that the material being produced/supplied by the approved producer/supplier is <u>also</u> NCDOT approved. RFID tags are cast in all pieces produced for NCDOT. The piece is visually inspected by a Materials and Tests representative at the precast facility. After passing a visual inspection, the RFID tag cast into that piece is scanned, accepted and a FIR (field inspection report) is created in the NCDOT HiCAMS system. The piece is also stamped NCDOT approved. If the piece does not pass a visual inspection, the RFID tag is still scanned but it is rejected. The FIR is still created in the HiCAMS but the status will be rejected. The piece will not get a NCDOT approved stamp. Depending on the visual discrepancy, the producer can choose to destroy the piece or sell it as a non NCDOT piece. It is the responsibility of the LGA to ensure all Precast Concrete pieces are accepted and stamped NCDOT approved. The Precast Concrete ID/Barcode (RFID tag) can be entered and verified by following the Resource link. The LGA should also retain the Bill of Lading from the producer <u>and</u> ensure all RFID tag numbers and NCDOT approved stamp is documented to satisfy the material certification process.

Resource: https://apps.ncdot.gov/vendor/approvedproducts/PrecastLookup.aspx

#### **Concrete Pipe**

Concrete Pipe should come from an approved Producer/Supplier. Concrete Pipe producers do not only produce for NCDOT. The LGA needs to ensure that the material being produced/supplied by the approved producer/supplier is <u>also</u> NCDOT approved. The producer stamps all pipe with an Alternate ID, (CPxx-xx-xx). The pipe is visually inspected by a Materials and Tests representative at the concrete pipe facility. After passing the visual inspection, the pipe is stamped NCDOT approved. If the pipe does not pass a visual inspection, the pipe is not stamped NCDOT approved. Depending on the visual discrepancy, the producer can choose to destroy the pipe or sell it as a non NCDOT piece. It is the responsibility of the LGA to ensure all pipe is stamped NCDOT approved. The LGA should also retain the Bill of Lading from the producer <u>and</u> ensure the Alternate ID & NCDOT approved stamp is documented on the Bill of Lading in order to satisfy the material certification process.

#### Structural Timber and Lumber

In accordance with Section 1082

- All timber or lumber must be pre-inspected by an M&T approved independent inspection agency. The inspection firm will hammer mark, die stamp or tag each piece of acceptable timber or lumber with their unique mark. Silver "M&T" numbered tags are no longer used.
- An industry standard commercial inspection report must accompany each shipment of timber or lumber. M&T no longer has inspection reports on file.
- In addition, an industry standard treatment test report for treated lumber must accompany each shipment of treated timber or lumber. M&T no longer has test reports on file.
- These inspection reports may be on the same sheet of paper.
- Report the size, quantity, inspection report number and the wood producer on the MRR. Forward this information to M&T along with the supplied inspection reports.

#### Approved Timber Product Inspection Companies

A. W. Williams Inspection Co., Inc	HRV CONFORMANCE VERIFICATION
P.O. Box 2107	200 Hightower Blvd.,
Mobile, AL 36601	Pittsburgh, PA 15205
Phone: 215-438-3691	Phone: 412-788-2522

#### **BUREAU VERITAS NORTH AMERICA INC**

Foster Plaza XI 790 Holiday Drive Pittsburgh, PA 15220 Phone: 412-503-4105 Timber Products Inspection, Inc. P.O. BOX 919, Conyers, GA 30012 Phone: 770-922-8000

#### QPL (ITS AND SIGNALS QUALIFIED PRODUCTS LIST)

The ITS and Signals Qualified Products List (ITSS QPL) contains traffic signal equipment and material standards that are approved for use on contract projects on the North Carolina State Highway System. All signal and traffic management equipment, materials, and hardware should be pre-approved and on the QPL list by the day of installation. The QPL listing does not replace a material certification. Reference 2018 Standard Specifications for Roads and Structures section 1098 to be aware of the materials that require a material certification in addition to the QPL approval.

- A Bill of Lading for signal equipment, materials, and hardware must be provided from the supplier.
- The line item number from the bill of materials MUST be marked on the Bill of Lading in order to satisfy the material certification process.
- The applicable QPL listing must be provided for all signal equipment, materials, and hardware on the bill of material.
- The line item number from the bill of materials must be marked on the QPL listing to satisfy the material certification process.
- Signal equipment, materials, and hardware requiring a material certification as stated in section 1098 of the NCDOT spec book, must be provided and marked with the line item number from the bill of materials to satisfy the material certification process.

Be aware the QPL list may be updated once a month during the first week of the month.

Introduction to Online QPL link <u>https://connect.ncdot.gov/resources/safety/Pages/QPL-Introduction.aspx</u> QPL database link <u>https://connect.ncdot.gov/resources/safety/Pages/ITS-and-Signals-Qualified-Products.aspx</u> ITS and Signals Qualified Products List <u>https://apps.ncdot.gov/products/qpl/</u>

#### Cast Iron (grates, frames, hoods, manhole rings and covers)

Currently there are two companies supplying casting for NCDOT work, US Foundry and East Jordan Ironworks. Each piece is paint stamped indicating the casting is acceptable for use. The stamp indicates the casting has passed quality control procedures. If a casting has a stamp on it, it is acceptable for use on NCDOT work. U.S. Foundry (Cl2) stamp- **USF NC DOT** 

#### East Jordan Ironworks (CI3, CI5 & CI10) stamp- NCDOT EJIW QC

Casting will have either "Made in the USA" or "USA" cast in them. In addition, they will have a date cast in them. The date, along with the foundry ID number is the alternate ID. The alternate ID will be the "Lot Number". To satisfy the material certification process for Cast Iron materials, you will need to provide:

- A Bill of Lading from either East Jordan Ironworks or US Foundry
- Provide a material certification which will include a reference to the foundry, alternate ID, and/or lot number

#### Tickets Issued for Payment By Weight (Quarry material and Asphalt)

https://connect.ncdot.gov/projects/construction/Pages/RRMan.aspx?Order=RR-26

Upon delivery of materials paid for by weight, the Contractor should immediately give the weight ticket to the construction technician performing the inspection.

Upon receipt, the construction technician should make sure the ticket is legible and the following information has been listed on the ticket:

- 1. The Department Contract Number/WBS Number.
- 2. The date the ticket is issued.
- 3. The time the ticket is issued if the material is asphalt plant mix or plant mixed cement treated base course.
- 4. The type of material represented by the weight ticket.
- 5. The gross weight of the vehicle.
- 6. The tare weight of the vehicle.
- 7. The net weight of the material.
- 8. The location of the quarry or plant where the material came from.
- 9. The number of the truck transporting the material.
- 10. The name of the prime Contractor for the project.
- 11. The stamp or number of the public weighmaster weighing the material.
- 12. The signature or initials of the public weighmaster in ink.
- 13. The appropriate Job Mix Formula (JMF) number for the asphalt plant mix.

Upon determining that all required information has been furnished on the weight certificate, the Inspector should then list the following information on the ticket:

- 1. Contract Number/WBS Element Number if not shown on the ticket.
- 2. WBS Element Number if different from that shown on the ticket.
- 3. Contract item number by which material will be paid.
- 4. Location where the material was placed.
- 5. Date the material was placed if it is different from the date the ticket was issued, such as erosion control stone stockpiled on a previous date anticipating inclimate weather.
- 6. Construction Technician's signature on the first ticket for the day and initials on subsequent tickets.
- 7. Quantity reduction for unused portion of material and reason should be shown clearly on the ticket.
- 8. The time the ticket is received for asphalt plant mix or plant mixed cement treated base course.

Tickets for each day should be bound separately with the total for the day shown on the front cover.

As with any material, whether it is pre-approved or not, if any problem is found by field, contractor, LGA or inspector personnel, the material can be rejected at any time. M&T personnel can be contacted if any questions arise or any assistance is needed.

#### Other Resources are available on the Materials and Tests Webpage

https://connect.ncdot.gov/resources/Materials/Pages/default.aspx

#### NCDOT Department of Transportation Construction Manual

https://connect.ncdot.gov/projects/construction/pages/construction-manual.aspx

#### **Concrete Mix Designs**

Concrete mix designs are submitted via email to – <u>concretedesigns@ncdot.gov</u> To check the status of an approved concrete mix design, email – <u>concretedesigns@ncdot.gov</u> If you have any questions or concerns, please contact Ben Chola at 919-329-4122

#### Approved Concrete Mix Design Look up

https://engblp.services.ncdot.gov/EAS/CMD/Main.aspx

#### Final Voucher Date/Records Retention

After reimbursement request has been processed and all paperwork accepted, FHWA will issue a Final Voucher. The Division will provide the Final Voucher Date to the municipality/town as the start of the required Records Retention period.

All records shall be maintained by the municipality/town, not the contractor or the Professional Engineering Firm that provided construction administration.

The minimum Records Retention Period is five (5) years from the Final Voucher date. Projects are subject to audit by Federal Agencies (FHWA) for a minimum of three (3) years after acceptance of the project, and by State Agencies for a minimum of five (5) years. The municipality/town will be responsible for providing reasonable access to all project records for audit or review during the entire retention period.

#### 1446B

1446B is mentioned within the attached checklist. The is the FHWA Final Acceptance Report. This is a FHWA and NCDOT form. This form is filled out and signed by Division representative and the State Materials Engineer. The LGA is not responsible for this form.

#### NCDOT Materials & Tests Project Material Certification Checklist

This checklist is utilized by NCDOT M&T and their representative when completing the material certification process (final project certification). It is included in this guide as a reference for the municipality and/or CEI firm to assist you with ensuring the required documentation is retained and in order. This is only a guide and does not represent all materials that may have been used to complete a project.

## **NCDOT Materials & Tests Project Material Certification Checklist**

This form is used by a M&T representative when completing the material certification process. It is provided to you as a reference. This is only a guide and does not represent all materials that are used to complete a project.

	TIP Number	State WBS Nur	nber		FA#		County	
	Local Agency	Local Agency C	Contact		CEL	Agency	CEI Contact	
	Date review began	Date review con	nplete		M&1	<b>F</b> representative	CEI Inspector	
	Project Description							
G	ENERAL		Yes	No	N/A	Comments		
		List of Materials				Must include quantit	es and unit price	
	Buy America Guar	rantee (notarized)						
	Letter	of Accountability						
	Copy of no	tes & worksheets						
А	SPHALT		Yes	No	N/A	Comments		
	Asphalt Facility Na	ame & NCDOT #	105	1.0	1011	AS#		
	Is the Asphalt Facility N							
	1 2	Approved JMF?						
	Was testing done?	11						
	•	et specifications?						
ŀ	Active testing technician cert	ification (name,						
٨	sphalt roadway inspection #,	expiration date)						
A	Original weight tickets v							
		an information?						
	Asphalt tickets were signed/							
		Weight Master?						
	Are the above doc	cuments on file?						
C	CONCRETE		Yes	No	N/A	Comments		
	Ready Mix Facility N	ame & NCDOT#				RM#		
	Is the Ready-Mix Facility NC							
	Approved cond	crete mix design?						
V	Vere samples taken to meet sam	pling frequency?						
	Did the samples me			1				
Ac	tive certified batching/ testing t							
		t, expiration date)						
	903 forms on file for all c							
	Is the <b>top</b> and <b>bottom</b> portion filled	d out completely?						

M&T 250 form?

Are ALL the above documents on file?

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## AGGREGATE Yes No N/A Comments

Does all Aggregate come from a NCDOT approved facility- Name and CA# or FA#		
Are tickets signed/stamped by NC Weight Master?		
Original weight tickets with all required technician information?		

#### TRAFFIC CONTROL (spec book Section 1089) Yes No N/A Comments

Did Traffic control devices comply with section		
1101-1180? Are they on the approved products		
list?		
Did contractor provide a type 3 or type 7 material		
certification in accordance with Section 1089?		
Did the contractor provide the traffic control?		
(material and labor)		
Did contractor supply a receipt for traffic control if		
it was contracted out?		
Are the above documents on file?		

## EROSION CONTROL (spec book Section 1056) Yes No N/A Comments

Did the contractor supply a receipt for all erosion		
control material received (temporary and		
permanent)?		
Did the contractor supply a material certification		
for the erosion control material received		
(temporary and permanent?		
Are the above documents on file?		
(temporary and permanent?		

Timber (spec book Section 1082-4)	105	INO	N/A	Comments
Did you receive any timber/lumber?				
Did the contractor supply a receipt for the timber/lumber?				
Did the contractor supply a material certification to comply with section 1082-4				
Are the above documents on file?				

#### Frame, Grate, Hood (Iron Casting)

(Spec book Section 1074-7)	Yes	No	N/A	Comments
Buy America Guarantee on all iron				
Frame and Grate and Hood- Need a Bill of Lading				Gray Iron Castings "Made in USA" or "USA"
A record of the Alt ID/Lot Number to match the material on the Bill of Lading				

### **Facility Supplied**

Did you receive any of the following:	Yes	No	N/A	Comments
Guardrail				
Guiderail				
Plastic Pipe				
Metal Pipe				
Brick & Block				
Segmental Retaining Wall				
Stay in Place				
Is the Producer <b>currently</b> on the NCDOT Approved List? List name and NCDOT #				
Did the contractor supply a Bill of Lading & material certification?				
Are the documents on file				

Landscaping (spec book Section 1060)	Yes	No	N/A	Comments
Were plants, trees, shrubs (nursery stock) received?				
Do you have the NC Department of Agriculture				
Certification from the nursery suppling nursery stock or plants?				
Do you have a receipt for all landscape material				
(seed, mulch, fertilizer etc.) received, (temporary				
or permanent) Has the seed been NCDOT approved?				
Did you keep the orange NCDOT sticker from the				
bag?				

Concrete Pipe (spec book Section 1032-6)	Yes	No	N/A	Comments
Concrete Pipe Producer name and NCDOT#				CP#
Concrete Pipe Producer currently on the NCDOT approved list?				
Bill of Lading provided?				
Alternate ID and NCDOT stamp provided on the Bill of Lading?				Alt-ID

Precast (spec book Section 1077)	Yes	No	N/A	Comments
Precast Concrete Producer name and NCDOT#				PC#
Precast Producer currently on the NCDOT				
approved list?				
Bill of Lading provided?				
RFID tag and NCDOT stamp provided on the Bill				
of Lading?				

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Prestress (spec book Section 1078)	Yes	No	N/A	Comments
Prestress Producer name and NCDOT #				PS#
Prestress Producer currently on the NCDOT				
approved list?				
Bill of Lading provided?				
RFID tag and NCDOT stamp provided on the Bill				
of Lading?				
Miscellaneous Material	Yes	No	N/A	Comments
Thermoplastic Pavement Markings spec book				
Section 1086.				
Receipt for Pavement Markings?				
Material certification for Pavement Markings?				
<b>Truncated Domes/Curb Ramps Section 848-2</b>				
Are the domes/ramps on the NCDOT approved				
Products list?				
Receipt to verify quantities?				
Material certification for domes/curb ramp				
Signage spec book Section 1092				
Receipt for all sign material				
Material certification for sign material?				
Material certification for 3M sign covering?				
Material certification for any coating?				

Utilities QPL- (lighting, traffic, IT)	Yes	No	N/A	Comments
Receipt provided to verify quantities?				
Line Item numbers marked on the receipt				
QPL list provided with line item number marked				

Final Process	Yes	No	N/A	Comments
Material Certification completed?				
Has the 1446B been received?				
LGA Certification Packet (A1, A2, A3)				
Material line item list (include unit price)				
Project Scope & Description				
Line Item Discrepancy Detail (A4)				
LGA Pre-Construction Meeting (A5)				
LGA Project Material Review/Audit (A6)				
On-Site Summary/Inspection (A7)				

\*A material certification is obtained from the producer, supplier or an approved independent testing laboratory that states the material received meet specifications set by the department based on 2018 NCDOT Standard Specifications for Roads and Structures. A material certification is **NOT** a spec sheet, submittal or brochure about the material.

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## Materials Received Reports (MRR)

https://connect.ncdot.gov/projects/construction/Pages/RRMan.aspx?Order=RR-09

- The Material Received Report (MRR) (M&T Form 251) should be completed when any material received on the project is to be incorporated into the construction on a temporary or permanent basis.
- Exceptions- Material items that are delivered and accompanied by a ticket with a Weigh Master stamp, such as Quarried Materials and Asphalt. These tickets will be placed in a Ticket Book as the source documentation for the product.
- Most material items that are delivered to the project will be accompanied by a Bill of Lading, Invoice, or a Packing Slip. This documentation should clearly identify the item as well as the quantity that was received. *Quantities received will be verified, therefore, all receipts, bill of lading, invoice and/or packing slips must be retained (temporary or permanent material). All materials received for LGA projects are considered critical.*
- Contractors will need to furnish a material certification for certain material items that are incorporated into the project.
- These type of material certifications can be found in Section 106-3 of the Standard Specifications for Roads and Structures.

## **106-3 CONTRACTOR FURNISHED CERTIFICATION**

The Contractor shall furnish the Department material certifications obtained from the producer, supplier, or an approved independent testing laboratory for the following types of materials, unless otherwise directed by the Engineer.

- (A) Materials required to meet criteria documented by tests that are normally performed during the production process.
- **(B)** Materials that are required to meet specifications other than those published by AASHTO, ASTM, or the Division of Highways.
- **(C)** Materials produced at locations that are not within routine travel distance for Department representatives.
- (D) Materials required to meet criteria documented by tests involving special equipment not readily available to Department representatives.
- (E) Any other special material when so directed by the Engineer.
- (F) Material certifications of one of the following types shall be furnished for pre-tested materials. The specific type of material certification for each material shall be in accordance with the schedule maintained by the Materials and Tests Unit.

#### Type 1 - Certified Mill Test Report

A certified mill test report shall be a certified report of tests conducted by the manufacturer on samples taken from the same heat or lot number as the material actually shipped to the project. The report shall identify the heat or lot number.

#### Type 2 - Typical Certified Mill Test Report

A typical certified mill test report shall be a certified report of tests conducted by the manufacturer on samples taken from a lot which is typical of the material actually shipped to the project, but which may or may not be from the lot shipped.

#### Type 3 - Manufacturer's Certification

A manufacturer's certification shall be a certified statement that the material actually shipped to the project was manufactured by production processes which are periodically and routinely inspected to assure conformance to specification requirements.

#### **Type 4 - Certified Test Reports**

A certified test report shall be a certified report of test conducted by an approved independent testing laboratory on samples taken from same heat or lot number as the material actually shipped to the project. The report shall identify the heat or lot number.

#### **Type 5 - Typical Certified Test Reports**

A certified test report shall be a certified report of tests conducted by an approved independent testing laboratory on samples taken from a lot which is typical of the material actually shipped to the project, but which may or may not be from the lot shipped.

#### Type 6 - Supplier's Certification

A supplier's certification is a signed statement by the supplier that the material described in the certification is of the specification grade required and that the supplier has on hand Type 1, Type 2, or Type 3 material certifications to cover the material which is included in the Type 6 supplier's certification.

#### Type 7 - Contractor's Certification

Contractor's certification is a signed statement by a contractor that the used material described in the certification meets the requirements of the current specifications to the best of the contractor's knowledge and that the contractor had in his possession at the time of purchase a Type 1, 2, or 3 materials certification to cover the material which is included in the Type 7 Contractor's Certification.

A certification is not a submittal, spec sheet or a brochure. An acceptable Material Certification must have a current date as well as a company officials signature. A certification dated within 2 years of the contract let date is acceptable to account for stock pile materials and project delays.

## Modified Minimum Sampling Guide (MSG) for Greenways and Multi-Use Paths

MSG Group	How Accepted	Additional Requirements	Other
Aggregate	Must come from a plant on the NCDOT Approved List and participating in the Aggregate Quality Control/Quality Assurance Program.	Roadway Assurance is Optional for Aggregate Base Course	92% (Nuclear or Conventional) for Aggregate Base Course
Asphalt	Must come from a plant on our approved list and participating in the NCDOT Quality Management System; Must use a NCDOT Approved Mix Design and Job Mix formula that has been used on a NCDOT project.	610-9 revised mix per QMS	Compaction – 85% every 5,000 ft., minimum of one per project
Cementious Materials	Must come from a NCDOT approved source; Type 3 certification		
Concrete (Class B only)	Must come from a concrete plant on the NCDOT Approved List. Must use a Concrete Mix Design that has been used on a NCDOT project. Project specific mix approval is not required.	Minimum of one set of cylinders per project to test compressive strength	All other classes per Standard MSG
Fencing Materials	Туре 6		Buy America
Grading	N/A (Sampling and /or Visual)	Visual Inspection plus minimum of one embankment density and one subgrade density per project	Embankment 90%, subgrade 92%
Guardrail	Must come from plant on the NCDOT Approved List	Guardrail marking should be visually inspected to ensure that it came from NCDOT approved source	Buy America
Landscape	Type 6 Certification		
Paints and Coatings	Туре 3, Туре 4, Туре 6		

## Modified Minimum Sampling Guide (MSG) for Greenways and Multi-Use Paths (con't.)

MSG Group	How Accepted	Additional Requirements	Other
Pipe	Drainage – NCDOT Approved Plant,	Product markings should be	Buy America
	NCDOT stamped, tagged, sticker.	visually inspected to insure that it	
	Water/Sewer Type 3 certification or	came from NCDOT approved	
	Type 6	source	
Precast	Must come from a NCDOT Approved	Product marking should be	Buy America
	Plant. NCDOT stamped, tagged or	visually inspected to insure that it	
	stickered;	came from NCDOT personnel	
	For Incidental items only need Type 6		
Prestress	Must come from NCDOT Approved	Field Inspection Report conducted	Buy America
	Plant and be NCDOT stamped	at plant by NCDOT personnel	
Steel	Various req. NCDOT Approved		Buy America
	Producers, Type1, Type 3, Type 4,		
	Type 6		
Traffic Control	Type 3, Type 4, Type 7		
Utilities	Туре 3, Туре 6		By America