CHAPTER 3 - MATERIALS

ADMINISTRATION OF MATERIALS CERTIFICATION AND TESTING PROCEDURES 3 - 2
- **REVIEWING PLANS**
- **BUILDING THE DOT-14**
- **CERTIFICATION & TESTING REQUIREMENTS**
- **TIER SYSTEM**
- **UMBRELLA CERTIFICATION**
- **ADDRESSING DEVIATIONS AND/OR DEFICIENCIES**
- **FINALING PROCESS**

APPROVED PRODUCTS LIST 3 - 6

SDDOT MATERIALS MANUAL 3 - 6

SDDOT MATERIALS TESTING & INSPECTION CERTIFICATION PROGRAM 3 - 7
- **REQUIREMENTS**
- **AREAS OF EXPERTISE INCLUDED**
- **REQUIREMENTS FOR TEMPORARY & SEASONAL PERSONNEL FOR TESTING**
- **REQUIREMENTS FOR TEMPORARY & SEASONAL PERSONNEL FOR INSPECTION**

ADMINISTRATION OF MATERIALS CERTIFICATION AND TESTING PROCEDURES

Based on a review of the project plans, the Certification Engineer prepares a DOT-14 which is a compilation of all certification, sampling, and testing requirements for a project.

All requirements on the DOT-14 come from the MSTR section of the materials manual with the exception of materials used in bid items not previously used by the department (something that is totally new). In that case, the specifications are usually provided in the plans/special provisions for that work. The DOT-14 is accessible on the computer at all region/area offices. Hard copy of the DOT-14 can be printed at any of these locations.

Copies of the DOT-14 can be made available to the contractor at the discretion of the area/project engineer. We encourage you to do so because it gives the contractor an indication of what he needs to be furnishing as the work progresses.

DOT-14 Attachment 1

The entire process outlined herein for certification and testing of materials was changed when the MS&T system was implemented. As of the March 2002 letting MS&T has been utilized for all contracts. MS&T is an electronic version of the DOT-14. Nearly all of the forms used by field personnel are automated within that system. Hard copies of the forms no longer need to be completed or saved as the contract within the system is the project file. Copies of other forms not automated within MS&T can be obtained from the region/area office. All field test data will be loaded electronically. Sample data sheets will be prepared within MS&T. Submittal of certification documents will require the preparation of a cover letter. The system will assign a sample/cert ID number for all materials and the data which previously needed to be filled in on the DOT-14 by the Region Materials Engineer or the Certification Engineer will occur electronically.

When the work begins on the project, copies of all certification documents (certificates of compliance, mill test reports, etc.) received from the Contractor must be forwarded to the Certification Engineer as they are received (with a cover sheet indicating what documents are enclosed) so that he can make specification compliance determination. Cover letters can be printed from MS&T for all the items selected by the Engineer for submittal. If all materials in the submittal meet applicable specifications, the Certification Engineer simply goes into the DOT-14 and dates the item which indicates to the field people the item met specifications. If there is a deviation or the submittal is incomplete a letter is drafted to whoever submitted it, indicating what was missing or what is out of specification.

Cover Letter Attachment 2
DOT-14 Attachment 3
Yellow Deviation Letter Attachment 4

If there is a deviation, the Area Engineer should be alerted, so a determination can be made whether the material must be corrected, replaced or if a DOT-18 must be prepared. This is applicable to both certification data and tests of material performed on the project.

DOT-18 Attachment 5

Testing forms for materials tested in the field do not need to be forwarded to the Certification Engineer. In the past, they were forwarded on a daily basis to the Region Materials Engineer for his review to assure materials manual testing procedures had been followed, required tests were performed, (fractured faces, lightweight particles, etc. on the sieve analysis) correct sample weights were used, calculations, etc. At that point the Region Materials Engineer would update the DOT-14 to indicate how many samples were tested. This no longer needs to be done as all the forms utilized by the field are automated in MS&T. The number of tests is updated each time a new test is entered and prepared. The number of certificates of compliance is updated each time an approved supplier cert is added to the system or the certification office approves a cert provided from a source not on the approved products list.

DOT-14 Attachment 3

Samples of materials which cannot be tested in the field (liquid asphalt, air entraining agent, water reducing agent, cement, curing compound, quality tests for aggregates, etc.) must be obtained and forwarded to the Central Testing Laboratory for testing. Each sample must be accompanied by a DOT-1 (Sample Data Sheet) and provide the information required to make proper identification of the material, intended use, project number, PCN, county, sample number, by whom submitted, to whom the results should be reported, etc. The DOT-1's and cert ID's are created in MS&T.

DOT-1 Attachment 6

A copy of the certificate of compliance received from the Contractor for the material represented by the sample should accompany the DOT-1 which is sent with the sample to the Central Testing Laboratory in Pierre.

Cert of Comp. Attachment 7
DOT-2 Envelope Attachment 8

Containers for the Samples: Granular Materials-Cloth Sample Bags, Emulsified Asphalt ½ Gallon Plastic Jugs, Cutback and Asphalt Binders-1Qt. Metal Cans, Curing Compound, AEA, WRA etc.- ½ Pt. Plastic Bottles, Cement-4lb. Cans. These containers may be obtained from the region materials engineer.

See materials manual MSTR section for “Minimum Sample Sizes” - Granular Materials Samples shall meet the minimum defined sample size requirements for the applicable material - and all other samples submitted in the various types of containers defined above must consist of 2 containers for each sample.

All materials that have a certification or testing requirement have a “Tier” associated with it. Each material is labeled with the applicable tier on the DOT-14. The following describes what the tiers are and what they should mean to the Project Engineer or Inspector.

a. Tier-1 Materials: A material that is critical to safety or costly to replace – the Department will allow the Contractor to install these materials only after he furnishes the documents specified under the heading “Certification” in the MSTR section of the materials manual and the Certification Engineer advises the materials conform to the specifications. Payment for a Tier 1 material is made only after it has been installed.

b. Tier-2 Materials: The Department will allow the contractor to install a Tier 2 material only after he furnishes the documents specified under the heading "Certification" in the MSTR section of the materials manual or the Contractor uses a material listed on the "Approved Products List" or furnished by a "Certified Supplier". Payment for a Tier 2 material is made only after it has been installed.

c. Tier-3 Materials: Are materials that have no requirements under the heading "Certification" in the MSTR section of the materials manual. Many of them do however have a requirement for visual inspection for acceptance. The Contractor may install a Tier 3 material at any time and the Department will make payment only after it is installed.

DOT-14 Attachment 22

Note: A tabulation of the visual inspection requirements can be printed out and used as a checklist to keep track of what documentation has or has not been made.

Summary of Vis. Insp. Reqmts. Attachment 23

Umbrella certification is another process used for materials certification. This process takes precedence over other guidelines provided in reference to materials certification for the following areas of work:

Guardrail Systems
Roadway Lighting/Signals/Traffic Control
Permanent Signing Materials
Chain Link Fencing Systems
Bridge Drains

When the above items of work are included in a contract, the Contractor is not required to furnish copies of the mill test reports etc. for each component used in the assembly. He merely furnishes the Inspector with a completed copy of a DOT-99 when the work begins. The heading of the form shall be filled out and the body must include a tabulation of the components used to include: Item size & description for each, manufacturer for each, and heat or lot number for each. The items of work involved are the types frequently performed by a Subcontractor. When they are of this variety, the Subcontractor can prepare the DOT-99 but it is the responsibility of the Contractor to sign the form.

DOT-99 Attachment 9

When the Inspector receives the DOT-99 he/she should review same to ascertain that all components listed on the DOT-14 for that bid item are included in the component tabulation. (All components for an assembly which have certification/testing requirements are listed under the bid item on the DOT-14). If all components have not been listed on the DOT-99 the Inspector should take it back to the Contractor and have him provide the missing information. After the form is complete, it must be forwarded to the Certification Engineer who will verify that all components and the corresponding information required for each have been provided and will make the necessary updates on the DOT-14.

DOT-14 Attachment 22

The Contractor is required to keep the original documents (mill tests, etc.) in the file at his office. The department will randomly select a percentage of the projects with umbrella certification on an annual basis for an audit to verify the Contractor is maintaining the proper paperwork. This audit will be conducted at the Contractor's office.

The umbrella certification process does not relieve the Inspector of their responsibility to provide the visual Inspection and corresponding documentation of the materials used in the various systems as required for acceptance in the MSTR section of the materials manual.

The tiering system and the umbrella certification process are defined in detail in the materials manual RSTC section 6.

The Project Engineer (consultant) must be aware of the supplemental specifications and errata that are also a part of the proposal for every project. These supplemental specifications reflect changes made to the standard specifications since it was published in January of 2004.

The Project Engineer (Consultant) must be aware of the fact that most fabricated systems (lighting structures, bridge rail, structural steel etc.) require submittal of a set of shop drawings before the system is fabricated. These shop drawings must be approved by central office personnel before the system can be fabricated or installed. Plan notes will normally point out the requirement for these shop drawings.

As the project nears completion, contact the Region Materials Engineer and the Certification Engineer and ask them to do a project file review to ensure all samples and certifications in the file are reflected on the DOT-14.

The Region Materials Engineer and Certification Engineer normally will make the update within 2 days or so, and will advise when this update is complete. The area office can then look at the missing requirements on-line on the needs lists to see what is still needed to fulfill the project requirements. They can also print a needs list which shows all the requirements that have not been fulfilled on the project.

Needs Letter Report Attachment 10

Following satisfactory completion of the field work, Region Materials and Certification Engineers have updated the DOT-14, the Area Engineer (Consultant) shall then prepare and submit the DOT-246A to the Contractor listing all documents the Contractor must submit before final acceptance of the project can be made.

DOT-246A Attachment 11

When all requirements of the contract have been met including documents requested in the DOT-246A, the Area Engineer (Consultant) shall submit the DOT-246B to the Region Engineer. Upon receipt of a copy of the DOT-246B, the Certification Engineer will make a final review/update of the DOT-14 and assuming all requirements have been fulfilled, will execute the project materials summary (DOT-20) to the Area Engineer.

DOT-246B Attachment 12
DOT-20 Attachment 13

The DOT-20 is commonly referred to as the "Made List". The "Made List" is basically the DOT-14 exclusive of the bid item numbers, materials quantities and dates. It shows the materials, number of certificates/tests that were required and the number of each that were reported/performed.

Upon receipt of the DOT-246B, the DOT-20 and notification from the Certification Engineer that all project requirements have been fulfilled, the Region Materials Engineer prepares the DOT-19 (Region Materials Project Materials Certification Letter).

DOT-19 Attachment 14

Upon receipt of the DOT-246B, the Region Engineer will submit the DOT-246C to the Contractor notifying him of acceptance of the project.

DOT-246C Attachment 15

Upon receipt of the DOT-19 (Region Materials Engineers Project Materials Certification Letter), the DOT-246B and the Final CCO, the Certification Engineer will prepare the DOT-21 (Final Materials Certification Letter). The DOT-21 will include documentation to indicate what certification/testing requirements were not met on the project, remedial action testing required as a result of acceptance and/or IA testing and address the acceptance of any materials used on the project which failed to meet applicable specifications.

DOT-21 Attachment 16

The DOT-21 which is addressed to the Director of Operations signifies acceptance of the materials incorporated into the project and is signed by the Certification Engineer and the Chief Materials and Surfacing Engineer.

APPROVED PRODUCTS LIST

The Approved Products List is developed and maintained by the Certification Engineer. The list is a summary of all products which have been approved for use on construction projects by the Department. These products can be used without furnishing a certificate of compliance unless otherwise specified by specifications or plans. The inspector must however provide verification to the certification office what the product designation is and who manufactured the product. This can be done by either furnishing a certificate of compliance or picking the approved product in MS&T after creating the cert ID.

Approved Prods. Index Attachment 17
Approved Prods. List Attachment 18

This list is available on the Internet and is accessible under the Materials and Surfacing Home Page under Certification/Accreditation.

SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION MATERIALS MANUAL

All requirements and testing procedures used on a project come from the materials manual except for the provisions for asphalt concrete surfacing projects which are addressed in the Special Provision for Gyratory Controlled QC/QA Specification for Hot Mixed Asphalt Concrete Pavement.

Materials manuals may be purchased from the Department at a cost of $100.00 by contacting the certification office. Upon purchasing the manual, the holder will be furnished with a set of revisions any time a revision is published which usually happens once a year.

MATERIALS TESTING & INSPECTION CERTIFICATION PROGRAM

This program is mandated by the Federal Highway Administration per (23 CFR 637 Subpart B). It requires that all individuals performing acceptance testing, independent assurance testing or inspection shall be certified and all testing equipment used for this testing be calibrated at a specified frequency.

The program applies to highway construction on all highway systems plus all informal/maintenance projects which require inspection as determined by the Region Engineer or Region Materials Engineer. The calibration records for the equipment must be readily available for review upon request by FHWA (for DOT equipment) and by FHWA or DOT (for consultant equipment).

Areas Included:

Testing	Inspection
Soils	Concrete Paving
Aggregates	Concrete Plants
Concrete Materials (ACI)	Earthwork/Eros.Control/Pipe Install
Asphalt Materials (QC/QA)	Structures
	Asphalt (QC/QA)
	Erosion & Sediment Control

The soils & aggregate testing and concrete paving, concrete plants, earthwork & structures courses are sponsored and conducted by the Department of Transportation. The scheduling of these courses is handled by the certification office in conjunction with the BOP-Training Activity and anyone wishing to attend one must register through that office. The cost for non-department people to attend each workshop is $150.00, which includes the course manual except for soils/aggregates, which does not have a manual. The certification for each of these courses is good for 4 years.

Anyone certified in these areas became certified initially by completing the training course. In lieu of attending the course to recertify after 4 years, there is an option of testing out. This means they can take the course examination and if they achieve a minimum score of 70% they will be certified for another 4 years. The test-out option may not be used to recertify for more than one successive 4 year certification period. The test-out option must be alternated with completion of the course on a 4 year basis.

The Erosion & Sediment Control Course is conducted by representatives designated by BOP office. They set the fees for this training and registration is also handled by that office. The fees again include a copy of the training manual. Certification for each of this level is good for 3 years. Certification for this area can only be achieved by attending the course & successfully passing the exam every 3 years. Testing out is not an option.

The Asphalt QC/QA Program consists of following levels: Introduction to Asphalt Concrete (strongly recommended but not mandatory), Asphalt Concrete Aggregate Testing, Asphalt Concrete Hot Mix Testing, Asphalt Concrete Roadway Inspection & Asphalt Concrete Mix

Design & Production Control. This training is scheduled and conducted through the office of Associated General Contractors of South Dakota. They set the fees for this training and registration is also handled by that office. The fees again include a copy of the training manual. Certification for each of these levels is also good for 4 years. Recertification for this area can only be achieved by attending a recertification course. Testing out is not an option.

The ACI training addresses the field tests for concrete. This training is scheduled by the certification office and conducted by SD Ready Mixed Concrete Association (SDRMCA). The fees are set by SDRMCA/ACI and registration done through the SDRMCA website (www.sdrmca.org). The fees include a copy of the ACI Workbook used during training course. Certification for this course is good for 5 years. Recertification can be achieved only by attending the course.

Personnel who complete the various training workshops receive a wallet card annually (1st of April+/-) showing the training they have completed to include the expiration date for each subject and must be able to show this card as proof of training. Although ACI and QC/QA asphalt training are not sponsored or conducted by the department of transportation, the wallet cards will include records of this training.

The materials testing & inspection certification program includes provisions for disciplinary action – revocation or suspension of certification for just cause. This action is administered by the Oversight Committee which includes a variety of people from the DOT and contracting agencies.

Seasonal and/or temporary people may be used for inspection/testing in accordance with the guidelines provided in the program manual for these people as shown below:

Requirements for Temporary & Seasonal Personnel for testing:

a) Temporary and seasonal personnel who are utilized to perform materials testing duties shall obtain a copy of the test procedure(s) and become familiar with them.
b) Shall observe a certified technician perform the test procedure.
c) Shall perform the test procedure until proficiency is obtained.
d) Shall demonstrate the test procedure to a certified technician. The certified technician shall use the performance checklist for the test being demonstrated to ascertain all steps are performed correctly. This document shall be retained as verification of successful demonstration of the procedure.
e) Shall have a copy of the applicable test procedure available during the demonstration testing and while testing material on the project.
f) Shall work on the same project under direct supervision of an individual certified in that area of testing.

Summary of performance checklists Attachment 19
Performance checklist example Attachment 20

Requirements for Temporary & Seasonal Personnel for inspection:

a) An individual's qualifications (training, education, and experience) will be considered in determining their ability to provide proper inspection in a particular area.
b) The individual must work on the same project under direct supervision of an inspector certified in that inspection area.

c) The certified inspector will determine whether the temporary or seasonal person is qualified for a particular area of inspection.
d) The Individual shall review the applicable Training Manual and have it available for use on the project.
e) Temporary or seasonal personnel will not be required to take any of the inspection certification courses.

Direct Supervision:

a.) Materials Testing-A non-certified individual may perform tests or portions of tests only under direct observation of a certified technician until such time the non-certified technician demonstrates they can consistently perform the test or portion thereof in accordance with the outlined procedures. From that point on, the non-certified individual can perform the test or portion thereof whether or not a certified technician is physically present at the test site. The certified technician is however required to spend time at the project/laboratory on a daily basis. The certified technician assumes all responsibility for the accuracy of the test data and signifies so by placing their initials on the worksheet as the checker.

b.) Inspection-A non-certified individual may perform inspection of a phase of work only under the direct observation of a certified technician until such time the non-certified individual demonstrates a thorough understanding and knowledge of the requirements and procedures for that phase of work. From that point on, the non-certified individual may inspect that phase of work whether or not a certified technician is physically present on the project. The certified technician shall however spend time on the project on a daily basis. The certified technician assumes all responsibility for the accuracy of the documentation provided and shall place his/her initials on the document to verify review and approval.

The procedure to be followed in evaluating and documenting proficiency of testing and inspection for seasonal or temporary personnel shall be in accordance with the provisions of the program manual.

Performance checklists for the testing procedures can be found in the U: drive-ms - performance checklist. A checklist shall be prepared and attached to the training & evaluation record form for each testing procedure a seasonal/temporary employee demonstrates proficiency in.

Training and Evaluation Record form Attachment 21

There are no performance checklists for the Inspection areas. The seasonal/temporary shall at all times possess a copy of the most current training manual in the area in which they are providing inspection in. The individual providing the direct supervision must use his judgment in determining when proficiency in a particular area is achieved. This must also be documented on a training & evaluation record form.

The performance checklists and training & evaluation record forms shall be available in the laboratory in which a seasonal/temporary is performing tests and the training and evaluation

record form for inspection must be available somewhere on the project for review on request by FHWA, DOT or other authorized personnel.

The above referenced data for department seasonal/temporary personnel must be available for review at the local area office.

The Materials Testing & Inspection Certification Program Manual is accessible on the internet under Materials and Surfacing – Certification/Accreditation.

Summary of Requirements for Tests and Certs

DOT - 14

Contract: 2424 **Date Let:** 10/17/2007

PCN: 6438 (Main)

Project(s): P 0281(80)59 (Main)

County: Aurora

Location: Fm 0.5 S of SD42 N to SD258

Type of Work: Asphalt Concrete Surfacing & Pavement Marking

Contractor: SPENCER QUARRIES INCORPORATED **Length:** 11.9 miles

Engineer: Kent Gates **Area:** Mitchell Area

Material	Quantity	Unit	Reqd	Made	Requirement
270 Salvage and Stockpile Asphalt Mix and Granular Base Mater (Tier 3)	690.3	TON			
			1	0	Sieve Analysis for Acceptance - One per day
320 PG 64-34 Asphalt Binder (Tier 2)	3,131.7	TON			
	3131/200 = 16		16	0	Central Lab Test for Acceptance
			1	0	Central Lab Test for Independent Assurance - One per project (Not req'd if less than 100 ton)
			16	0	Cert of Compliance per Convey for Certification
320 Class Q3 Hot Mixed Asphalt Concrete	52,713.0	Ton			
			1	0	Asphalt Binder Content for Acceptance - One per day
	52713/10000 = 6		6	0	In-Place Density (SP) for Independent Assurance - Specified Density on 50,840.6 tons.
			51	0	In-Place Density (SP) for Quality Assurance - Specified Density on 50,840.6 tons.
			1	0	Lime Content for Acceptance - One per day (If Used)
	52713/10000 = 6		6	0	Moisture Content for Acceptance
	52713/5000 = 11		11	0	Standard Density (SP) for Quality Assurance
	52713/1000 = 53		53	0	Standard Density (SP) for Quality Control
	52713/10000 = 6		6	0	Standard Density (SP) for Independent Assurance
AGGREGATE COMPOSITE (Tier 3)	52713/50000 = 2		2	0	Central Lab Test for Quality
	52713/10000 = 6		6	0	Sieve Analysis (Superpave) for Independent Assurance
	52713/5000 = 11		11	0	Sieve Analysis (Superpave) for Quality Assurance
	52713/1000 = 53		53	0	Sieve Analysis (Superpave) for Quality Control
320 Asphalt Concrete Composite	5,450.5	Ton			
Asphalt Concrete Composite (Cl E or G Type 1, Q-LVT, Q-MVT, Q-HVT, Q2, Q3, Q4)			1	0	DOT-97 for Certification
			1	0	Visual Inspection for Acceptance
ASPHALT BINDER PG 64-22, PG 64-28, PG 64-34) (Tier 2)			1	0	Cert of Compliance per Convey for Certification

Attachment #1

* = number of requirements cannot be determined at this time, please check comments for additional instructions.

Summary of Requirements for Tests and Certs

Material		Quantity	Unit	Reqd	Made	Requirement
330	SS-1h or CSS-1h Asphalt for Tack (Tier 2)	94.4	TON			
				1	0	Central Lab Test per Conveyanc for Acceptance
				1	0	Cert of Compliance per Convey for Certification
330	SS-1h or CSS-1h Asphalt for Flush Seal (Tier 2)	45.4	TON			
				1	0	Central Lab Test per Conveyanc for Acceptance
				1	0	Cert of Compliance per Convey for Certification
330	Sand for Flush Seal (Tier 3)	812.6	TON			
				1	0	Sieve Analysis for Acceptance - One per project
633	Cold Applied Plastic Pavement Marking, Arrow (Tier 2)	8.0	EACH			
				1	0	Cert or Approved Suppl/Prod for Certification
				1	0	Visual Inspection for Acceptance
633	Pavement Marking Paint, White (Tier 2)	430.0	GAL			
				*	0	Central Lab Test per Lot for Acceptance - Per Type, Source, & Lot - Not req'd. if less than 20 gallons of Paint used
				*	0	Certificate of Compliance for Certification - Per Type, Source, & Lot
633	Pavement Marking Paint, White (Tier 2)	430.0	GAL			
633	Pavement Marking Paint, Yellow (Tier 2)	85.0	GAL			
		515.0				
	GLASS BEADS (Tier 3)			1	0	Central Lab Test per Shipment for Acceptance - Not reqd. if less than 20 Gals. Paint used
633	Pavement Marking Paint, Yellow (Tier 2)	85.0	GAL			
				*	0	Central Lab Test per Lot for Acceptance - Per Type, Source, & Lot - Not req'd. if less than 20 gallons of Paint used
				*	0	Certificate of Compliance for Certification - Per Type, Source, & Lot

Attachment #1

* = number of requirements cannot be determined at this time, please check comments for additional instructions.

Department Of Transportation

Watertown Area Office
5000 9th Avenue SE
P.O. Box 1446
Watertown, SD 57201 605/882-5166
Fax: 605/882-5117

Contract: 2105 **DATE:** 1/8/2008
PCN: 4975
Project: IM 0296(27)179
County: Codington
Work: Deck Overlay, Rail Replacement & Approach Modification

ITEM(S) ATTACHED

Cert Group Id: 33000

Cert Id	Description	Date Submitted	Submitted By
101755	Stud Welding Associates	6/15/2007	Olson, Bryce
	SPEC 460 - Concrete Approach Slab for Bridge		
	Material Group: 1/2 x12" (A-496) DBA STUDS		
	Approved Product: - -		
	Requirement Type: Mill Test	**Purpose:** Certification	
101756	Lin-Seal White	6/15/2007	Olson, Bryce
	SPEC 460 - Concrete Approach Slab for Bridge		
	Material Group: CURING COMPOUND (LOB)		
	Approved Product: W.R. Meadows, Inc. - - Lin-Seal White		
	Requirement Type: Cert or Approved Suppl/Prod	**Purpose:** Certification	
101757	Nucor	6/15/2007	Olson, Bryce
	SPEC 460 - Concrete Approach Slab for Bridge		
	Material Group: L6 x 4 x 3/4" (A-709 Gr. 36) ARMOR ANGLE		
	Approved Product: - -		
	Requirement Type: Mill Test	**Purpose:** Certification	

Summary of Requirements for Tests and Certs

DOT - 14

Contract: 2385 **Date Let:** 7/18/2007

PCN: 01AW (Main)

Project(s): NH 0012(129)275 (Main)

County: Edmunds

Location: US12, 1 Mile West of the Jct of US12 and SD134

Type of Work: Right and Left Turn Lane Construction

Contractor: LIEN TRANSPORTATION CO **Length:** 0.45 miles

Engineer: Bob Ward **Area:** Aberdeen Area

Material	Quantity	Unit	Reqd	Made		Requirement
120 Contractor Furnished Borrow	2,300.0	CuYd				
			1	1		Field Test for Acceptance - For Liquid Limit & PI on Contr. Furn. Bor.
			*	1	F	In-Place Emb Den or S. Analy for Acceptance - Density or soil classification.
			*	1	F	Moisture Content - Embankment for Acceptance - One per 2 hours
			1	1		Sieve Analysis (Four Point) for Information Only
			1	1		Standard Density (4 Point) for Acceptance
260 Base Course (Tier 3)	1,646.0	TON				
	1646/50000 = 1		1	1		Central Lab Test for Quality
			1	3		In-Place Density for Acceptance - One per mile per lift
	1646/3000 = 1		1	1		Sieve Analysis for Acceptance
			1	1		Sieve Analysis (Four Point) for Information Only - One per source, combination or type
			1	1		Standard Density (4 Point) for Acceptance - One per source, combination or type
320 Asphalt Concrete Composite	2,800.4	Ton				
Asphalt Concrete Composite (Class E Type I, Class Q-MVT or Q-HVT)			1	1		DOT-97 for Certification
			1	1		Visual Inspection for Acceptance
ASPHALT BINDER (PG 64-34) (Tier 2)			1	1		Cert of Compliance per Convey for Certification
633 Cold Applied Plastic Pavement Marking, 24" (Tier 2)	226.3	FT				
			1	1		Cert or Approved Suppl/Prod for Certification
			1	1		Visual Inspection for Acceptance
633 Cold Applied Plastic Pavement Marking, Arrow (Tier 2)	11.0	EACH				
			1	1		Cert or Approved Suppl/Prod for Certification
			1	1		Visual Inspection for Acceptance

Attachment #3

* = number of requirements cannot be determined at this time, please check comments for additional instructions.

Summary of Requirements for Tests and Certs

Material		Quantity	Unit	Reqd	Made	Requirement
633	Cold Applied Plastic Pavement Marking, Combination Arrow (Tier 2)	2.0	EACH			
				1	1	Cert or Approved Suppl/Prod for Certification
				1	1	Visual Inspection for Acceptance
633	Pavement Marking Paint, White (Tier 2)	18.6	GAL			
633	Pavement Marking Paint, Yellow (Tier 2)	21.0	GAL			
633	Pavement Marking Paint, 8" White (Tier 2)	1,500.0	FT			
	GLASS BEADS (Tier 3)			1	1	Central Lab Test per Shipment for Acceptance - Not reqd. if less than 20 Gals. Paint used
633	Pavement Marking Paint, White (Tier 2)	18.6	GAL			
633	Pavement Marking Paint, 8" White (Tier 2)	1,500.0	FT			
	Total Pavement Marking Paint, White (Tier 2)			*	1 F	Central Lab Test per Lot for Acceptance - Per Type, Source, & Lot - Not req'd. if less than 20 gallons of Paint used
				*	1 F	Certificate of Compliance for Certification - Per Type, Source, & Lot
633	Pavement Marking Paint, Yellow (Tier 2)	21.0	GAL			
				*	1 F	Central Lab Test per Lot for Acceptance - Per Type, Source, & Lot - Not req'd. if less than 20 gallons of Paint used
				*	1 F	Certificate of Compliance for Certification - Per Type, Source, & Lot
734	Erosion Control	2,817.76	LS			
	SEED MIXTURE (Tier 2)			1	1	Visual Inspection for Acceptance
999	Incidentals					
	DRAINAGE FABRIC TYPE A (RCP JOINTS) (Tier 2)			1	1	Cert or Approved Suppl/Prod for Certification
				1	1	Visual Inspection for Acceptance

Attachment #3

* = number of requirements cannot be determined at this time, please check comments for additional instructions.

Department of Transportation
Division of Planning/Engineering
Office of Materials and Surfacing
700 E Broadway Avenue
Pierre, South Dakota 57501-2586 605/773-3401
FAX: 605/773-5867

October 23, 2007

Steve Palmer
Lead Project Engineer
Rapid City, SD

File No. 14.2

Re: Cert Group ID: 33908

P 0034(106)58, Meade County
Grading and Rip Rap

PCN: 4330

Dear Steve,

This office acknowledges receipt of the following certification/test data submitted by Darrel Henrichsen with the cover memo dated, October 19, 2007.

A. Certificate of Compliance for CCA Treated Fence Post.

Note: As per section 950 of the South Dakota Standard Specifications for Roads and Bridges preservative treatment shall be in accordance with AWPA Standards as referenced in AASHTO M133. The certificate of compliance supplied does not include the penetration results as per AWPA C5 (80% of the borings meeting the penetration requirement of 2 inches or 85% of sapwood). Therefore; I cannot verify whether this material meets specifications or not. Please provide this office with a revised certificate of compliance or your basis of acceptance/non-acceptance of this material.

Yours truly,
DEPARTMENT OF TRANSPORTATION

Jerry Schaefer
Certification Engineer

Kelly Hudecek
Transportation Specialist I

cc: Region Materials Engineer

Attachment #4

DOT 18
(09/2001)

REPORT OF SPECIFICATION DEVIATION

File # _____

PROJECT IM-BRF90-1(106)52 COUNTY MEADE PCEMS 5589

CONTRACTOR STANLEY J JOHNSEN CONCRETE CONTR AREA ENGINEER Gary Engel

BID ITEMS AFFECTED 104P 380E0570 11.5"Continuously Reinforced PCC Pavement @ $35.00/SqYd

MATERIAL Total Combined tests for PCCP

QUANTITY AFFECTED 323.9 SY

WORK INVOLVED

26.5 ft wide paving on EBL Mainline - 11.5" Continuously Reinforced PCC Paving

Test No.	Test	Failing Test Results	Sample Id	Test Results	Specification
023-11.5-18	Fresh Concrete Test (Slump - Slip Form (Mainline Pa)		1170411	3.250	.000 - 2.000
023A-11.5-18A	Fresh Concrete Test (Slump - Slip Form (Mainline Pa)		1170412	2.250	.000 - 2.000

Test No.	Test	Corrective Test Results	Sample Id	Test Results	Specification
No Corrective Test Taken					

ACTION TAKEN (Attach additional sheets as necessary.)

Slump tests were taken to monitor the material being placed and to establish when the material properties were within specification requirements.

Location of previous test that met specification was at Sta. 287+05 EBL Mainline. First failing test located at Sta. 288+50. Second failing test located at Sta. 288+75. Material was back into specification at Sta. 289+00.

Area calculation: ((28705 - 28850)/2 + (28850 - 28875) + (28875 - 28900)/2) / 9 = 323.9 SY

DETERMINATION: $500.00 LUMP SUM DEDUCTION.

[signature] 21 Jul 04
AREA ENGINEER DATE

Matt Stone January 13, 2005
FOR REGION ENGINEER DATE

The Price Adjustment is as set forth in the letter from the Region Engineer.

Copies to: Area
Region
Region Materials
Certification
Construction Management
Contractor (thru Area Engineer when Price Adjustment is involved)
FHWA (when Federal funds are involved)

Attachment #5

DOT-1
(09/2004)

SAMPLE DATA SHEET

File No. _____ Laboratory Test No. _____

SUBMITTED BY _____

SEND RESULTS TO _____

CONTRACTOR & SUBCONTRACTOR _____

PROJECT _____ PCN _____ COUNTY _____

CHARGE TO (If not above project) _____

This is a ( ) PRELIMINARY PIT (add. Data on back) ( ) PROCESS CONTROL ( ) ACCEPTANCE

( )INDEPENDENT ASSURANCE ( ) CORRECTIVE ACTION ( ) MIX DESIGN

( ) _____ SAMPLE. ( ) SUBMITTED SPECIFICALLY FOR QUALITY TESTS

FIELD SAMPLE NO. _____ DATE SAMPLED _____, 20___

THIS SAMPLE REPRESENTS _____ (quantity & unit of measurement)

Please identify as: Sta. _____ Dist. L/R _____ Lift _____/ _____ Windrow ( )

FOR CONCRETE Type	Lot No.	FOR SURFACE COURSES	MISCELLANEOUS Type	Lot No.
( ) cement, _____	_____	( ) gravel_____%	( ) beads, _____	_____
( ) admixture, _____	_____	( ) crushed rock _____%	( ) paint, _____	_____
( ) latex modifier, _____	_____	( ) sand _____%	( ) asphalt, _____	
( ) curing compound, _____	_____	( ) clay _____%	Sampling method _____	
( ) coarse agg., size _____	_____	( ) filler _____%	( ) fencing material (list	
( ) fine agg., _____	_____	( ) coated aggregate _____	under remarks)	
( ) cylinders (add. data on back)	_____	( ) lime _____%	( ) _____	

If material is to be used for CONCRETE, check its use as follows: ( ) Class _____

( ) On Grading ( ) On Bridge ( ) Paving ( ) _____

If material is to be used for SURFACE COURSES, check use as follows: ( ) Subbase, Type _____

( ) Base Course, Type _____ ( ) _____ Treated _____ ( ) Gravel Surfacing

( ) Asph. Conc., Class _____, Type _____ ( ) Asph. Surf. Treatment, Type _____ ( ) Shoulders

( ) Maintenance Stockpile ( ) Miscellaneous _____

FOR SHIPPED IN MATERIAL: Producer's Name & Address _____

_____ Brand, Trade Name or Quarry _____

FOR LOCAL MATERIAL: Location of Pit or Quarry _____ 1/4, Sec. _____

Twp.,_____ Range, _____ County _____ Owner & Address _____

==========

Shipping Truck or

Ticket No. _____ Car No. _____ Unloaded At _____

REMARKS:

Attachment #6

(over)

CONCRETE TEST CYLINDER DATA

LAB TEST NO.						
Cylinder No.						
Station						
Identity						
Quantity Yd^3 Represented m^3						
Date Made						
Breaking Age						
Breaking Date						
Percent Entrained Air						
Slump in. / mm.						
Cylinder lbs. / kg.						
DESIGN MIX NO.						

PRELIMINARY GRAVEL SAMPLES

Lab Test No.	Sample No.	Hole No.	Stripping	Deposit	Bottom	REMARKS
Remarks						

Attachment #6

BASF

The Chemical Company

September 6, 2006

Certificate of Conformance
DELVO Stabilizer
BASF Admixtures, Inc.* Admixture for Concrete

(*Previously do business as Degussa Admixtures, Inc.
and prior to that as Master Builders, Inc.)

TO WHOM IT MAY CONCERN:

I, Richard Hubbard III, Technical Specialist for BASF Admixtures, Inc., Cleveland, Ohio, certify:

That no calcium chloride or chloride based ingredient is used in the manufacture of DELVO Stabilizer; and

That DELVO Stabilizer, based on the chlorides originating from all the ingredients used in its manufacture, contributes less than 0.00011 percent (1.1 ppm) chloride ions by weight of the cement when used at the rate of 65 mL per 100 kg (1 fluid ounce per 100 pounds) of cement; and

That DELVO Stabilizer meets the current requirements for a Type B, Retarding, and Type D, Water-Reducing and Retarding Admixture specified in ASTM C 494, Corps of Engineers' CRD-C 87, and AASHTO M194, the Standard Specifications for Chemical Admixtures for Concrete.

Richard Hubbard III

Richard Hubbard III
Technical Specialist, Technology Innovation & Sustainability Group

BASF Admixtures, Inc.
2955 Eagandale Blvd., Suite 300
Eagan, MN 55121
800-624-6355 ph
651-365-7600 fax
www.masterbuilders.com

Master Builders

Admixture Solutions

Attachment #7

FROM

_____

_____

TO

SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION

_____ LABORATORY

_____, SOUTH DAKOTA

_____
(Zip Code)

DOT-2 (1/84)

SAMPLE DATA

COUNTY _____ **PCN/PROJECT** _____

ACCEPTANCE. IAS. PRELIMINARY _____
(Circle appropriate test type) (or other)

SAMPLE OF _____ TO BE USED FOR _____
(aggregate, soil, or other)

PIT OR
PRODUCER _____ DEPTH _____

STATION OR
LOCATION _____ DISTANCE FROM
CENTERLINE _____

FIELD
NUMBER _____ HOLE
NUMBER _____ LABORATORY
NUMBER _____

DATE
MADE _____ **BREAK**
DATE _____ **AGE** _____

REMARKS:

Cert Group Id 32151
Contract 2173

DOT - 99
04-02

SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION

MATERIALS UMBRELLA CERTIFICATE

COUNTY KINGSBURY PCN/PROJECT 6532 PH 000S()1

LOCATION Various Township Roads Statewide

CONTRACTOR Bestway Traffic, Inc. ADDRESS 1610 East Grand Crossing, Mobridge, SD 57601

SUBCONTRACTOR ADDRESS

SUBMITTED BY DeBoer, Dakota

The following items or materials are for use in the construction of the above mentioned contract.

Component Description	Manufacturer	Heat or Lot Number (as Applicable)
632E1120 2.5 Lb/Ft Flanged Channel Post		
2.5 Lb/Ft Flanged Channel Post	Nucor / Marion Steel	37503A
632E1320 2.0"x2.0" Perforated Tube Post		
2 1/2" X 2 1/2" PERF.TUBE BASE POST	Ultimate Highway Products	30629040
2 1/4" X 2 1/4" PERF.TUBE BASE POST	Ultimate Highway Products	30632390
2.0"x2.0" Perforated Tube Post	Ultimate Highway Products	30632380
632E1330 2.25"x2.25" Perforated Tube Post		
2.25"x2.25" Perforated Tube Post	Ultimate Highway Products	20630320
632E2022 4"x4" White Delineator Back to Back with 1.12 Lb/Ft Post		
.063" ALUMINUM SHEETING	Lyle Signs, Inc. / Nichols Aluminum	406644
1.12 LB/FT DELINEATOR POST	Nucor / Marion Steel	4406381401
DIAMOND GRADE WHITE REFLECTIVE SHEETING	3M Corp.	MAC 41
632E2510 Type 2 Object Marker Back to Back		
.063" ALUMINUM SHEETING	Lyle Signs, Inc. / Nichols Aluminum	406644
2.5# POST	Nucor / Marion Steel	37503A
DIAMOND GRADE YELLOW REFLECTIVE SHEETING	3M Corp.	MAI 41
632E2520 Type 2 Object Marker		
.063" ALUMINUM SHEETING	Lyle Signs Inc. / Nichols Aluminum	406645
2.5# POST	Nucor / Marion Steel	37503A
DIAMOND GRADE YELLOW REFLECTIVE SHEETING	3M Corp.	MAI 41
632E2530 Type 3 Object Marker		
.063" ALUMINUM SHEETING	Lyle Signs Inc. / Nichols Aluminum	406645
DIAMOND GRADE YELLOW REFLECTIVE SHEETING	3M Corp.	MAI 41
2.5# STEEL POSTS	Nucor / Marion Steel	37503A
632E3203 Flat Aluminum Sign, Nonremovable Copy High Intensity		
.063" ALUMINUM SHEETING	Lyle Signs, Inc / Nichols Aluminum	406645
.080" ALUMIMUM SHEETING	Lyle Signs, Inc. / Alcoa	710450
.100" ALUMINUM SHEETING	Lyle Signs, Inc / Alcoa	718078
2" U-CHANNEL STIFFENER (free of holes)	Alcoa	552515-001
HIGH INTENSITY YELLOW REFLECTIVE SHEETING	3M Corp.	MAC 21
HIGH-INTENSITY WHITE REFLECTIVE SHEETING	3M Corp.	2BAC 3

hereby certify that ~~these items~~ or materials, including all miscellaneous items required, do meet the requirements as set forth in the plans ~~and/or~~ specifications.

Contractor's Signature	Title	Date
	Vice-President	3-15-07
Carrie Ebel	Office Manager	3-15-07
Form Completed by (Please Print)	Title	Date

Note: An original copy of this certification must be furnished to the Project Engineer.

Attachment 9

Testing and Certification Needs Letter

Contract: 1806 **Date Let:** 7/26/2005

PCN: 5934 (Main)

Project(s): NH 0085(40)45 (Main)

County: Butte, Lawrence

Location: US85 FM I90 TO N OF SD34 IN BELLE FOURCHE

Type of Work: NONREINFORCED PCCP, GRADING, LIGHTING, PAVEMENT MARKING, PERMANENT SIGNING, WEIGH

Contractor: Upper Plains Contracting, Inc. **Length:** 8.693 miles

Engineer: Tim Rose **Area:** Belle Fourche Area

Material		Quantity	Unit	Reqd	Made		Requirement
009	Extra Work (Tier 1)	172,138.54	LS				
	1 1/2 x 60" (A-449) ANCHOR B/N/W (Tier 1)			1	0		Mill Test for Certification
320	Class E Asphalt Concrete	15,619.31	Ton				
	AGGREGATE COMPOSITE (Tier 3)	15619.3/10000 = 2		2	0		Sieve Analysis for Independent Assurance
380	8.5" Nonreinforced PCC Pavement	184,831.85	SqYd				
380	12" Nonreinforced PCC Pavement	1,964.4	SqYd				
380	8.5" Miscellaneous PCC Pavement	564.6	SqYd				
		187,360.85					
	#5X30" EP CTD DEFORMED TIE BAR (Tier 2)			1	0	U	Coater's Certificate for Certification
				1	0	U	Coating Certificate for Certification
				1	0	U	Mill Test for Certification
				1	0	U	Quality Report for Certification
380	8.5" Nonreinforced PCC Pavement	184,831.85	SqYd				
380	12" Nonreinforced PCC Pavement	1,964.4	SqYd				
380	8.5" Miscellaneous PCC Pavement	564.6	SqYd				
380	4" Barrier Type Median PCC Pavement	2,366.6	SqYd				
		189,727.45					
	CURING COMPOUND (Tier 2)			1	0	U	Cert or Approved Suppl/Prod for Certification
	WRA (Tier 2)			1	10	U	Cert or Approved Suppl/Prod for Certification
380	8.5" PCC Fillet Section	193.6	SqYd				
	#4 REINFORCING STEEL (Tier 2)			*	0	U	Mill Test or Cert Fabricator for Certification - Not req'd. if from Egger or Dakota Steel
380	Insert Steel Bar in PCC Pavement	72.0	Each				
	#9 x 18" EPOXY CTD DEF TIE BARS (Tier 2)			1	0	U	Coater's Certificate for Certification
				1	0	U	Coating Certificate for Certification
				1	0	U	Mill Test for Certification
				1	0	U	Quality Report for Certification

Attachment 10

* = number of requirements cannot be determined at this time, please check comments for additional instructions.

Department of Transportation
Pierre Area Office
104 S. Garfield
Pierre, South Dakota 57501-5405
605/773-5294 FAX: 605/773-5750

DOT 246A (10/98)

November 14, 2007

A.G.E. Corporation
P.O. Box 697
Fort Pierre, SD 57532-0697

RE: BRF 3806(18)155, Stanley County
Structure and Approach Grading
PCN 6253

Dear Sir:

The field work on this project is satisfactorily completed. In order to put this project in line for final acceptance and final payment, the following documents must be submitted by you to this office.

DOT-289, Actual DBE Participation

Sincerely,

Department of Transportation

Jim A Hyde

Jim A. Hyde by AM
Pierre Area Engineer

cc: Region Engineer
Region Materials Engineer
Certification Engineer – Central Office

DOT-246B
(2/01)

Department of Transportation

Sioux Falls Area Office
5316 West 60th Street North
Sioux Falls, SD 57107 605/367-5680
FAX: 605/367-5685

December 19, 2007

To: Mr. Tom Week
Mitchell Region Engineer
P.O. Box 1206
Mitchell, SD 57301-7206

RE: P-PH 0042(7)364 PCN 5947
SD Highway 42
Minnehaha County

Project Acceptance

The fieldwork on this project is satisfactorily completed. I certify that the materials were properly sampled and tested or covered by certification and substantially met applicable requirements of the contract or were covered by Construction Change Order or DOT-18.

Final Acceptance of the project is recommended.

Sincerely,

Area Engineer

cc: Certification Engineer
Region Materials Engineer

PROJECT MATERIALS SUMMARY

December 26, 2007

Mr. Phil Dwight
Area Engineer
Aberdeen, SD

Project - **P 0010(32)320**

County - **MARSHALL**

PCN - **4998**

Type of Work - **GRADING, STORM SEWER, C & G, LIGHTING & PCCP**

Contractor - **IRVING F JENSEN CO INC**

This is to certify that:

1. The materials list on the back of this certification letter substantially met pertinent specification requirements of the contract except as noted.

2. Laboratory reports covering tests of materials are on file in the Central Testing Laboratory, Department of Transportation, Pierre, South Dakota.

DEPARTMENT OF TRANSPORTATION

Jerry L. Schaefer

Jerry L. Schaefer
Certification/Accreditation Engineer

JLS:bac

cc: M. Boland, Aberdeen
S. Parmely - Finance
R. Newman

Department of Transportation

Pierre Region Office
104 S. Garfield
Pierre, South Dakota 57501-5405 605/773-3464
FAX: 605/773-6215

DOT-19

March 16, 2007

Jerry Schaefer
Certification Engineer
Department of Transportation
Pierre, South Dakota 57501

RE: 083-392, PCN 00TW
Mellette and Todd Counties
Asphalt Concrete Crack Sealing
Contractor = Highway Improvement Inc.

The following is the Pierre Region Materials Final Report for the above referenced projects:

Records indicate that all samples and tests were obtained or performed in accordance with required procedures.

There were no deviations on samples obtained.

The DOT-14 indicates that all of the requirements of this project are complete.

Materials and Surfacing acceptance and certification is recommended.

Sincerely

DEPARTMENT OF TRANSPORTATION

John M. Koch /s/
Pierre Region Materials Engineer

cc: J. Forman
N. Pitlick
D. Sherman
Project file

DOT-246C
(2/01)

Department of Transportation
Aberdeen Region Office
West Highway 12
PO Box 1767
Aberdeen, South Dakota 57402-1767
Phone: 605/626-2244
FAX: 605/626-7875

January 7, 2008

Asphalt Paving & Materials Company
1836 US Highway 14E
Huron, SD 57350-7962

RE: P 0045(00) 112 & Related Projects, PCN 00VJ & Related PCNs
Beadle, Brown, Clark, Codington, Hand, Miner, & Spink Counties
Asphalt Surface Treatment

Final Acceptance

Gentlemen:

The work embraced under contract with your firm for the above referenced project has been completed substantially in accordance with the plans and specifications.

The project is hereby accepted and final payment will be made.

Sincerely,

DEPARTMENT OF TRANSPORTATION

Jeff Senst, P.E.
Aberdeen Region Engineer

JS:kh

cc: Operations – Jason Humphrey
Certifications Engineer – Jerry Schaefer
Finance – Stacy Parmely
Right of Way – Jan Krull
Area Engineer – Wayne Cramer
Region Materials Engineer – Mike Boland
Bond Company – Richard Long
American Trust Insurance
PO Box 1418
Huron SD 57350
SD Dept. of Labor - Unemployment Ins. - Tax Unit

Attachment 15

FINAL MATERIALS CERTIFICATION
SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION

January 7, 2008

Greg Fuller
Director of Operations
Department of Transportation
Pierre, SD 57501

Project No.: **BRO 8034(22)**

County: **HUTCHINSON**

PCN: **6580**

Type of Work: **Structure & Approach Grading**

This is to certify that:

Except as documented on reverse side of this sheet, test results of the acceptance samples indicate materials incorporated in the project and the construction operations controlled by sampling and testing were in conformity with the plans and specifications.

Test results of independent assurance materials samples are in essential agreement with acceptance test results performed as construction progressed, except as listed on the back of the certification.

Laboratory reports covering tests of the materials used on the project are on file in the Central Testing Laboratory at Pierre, South Dakota, or associate laboratory.

Department of Transportation

Jerry L. Schaefer
Certification/Accreditation Engineer

Joe J. Feller
Chief Materials & Surfacing Engineer

JLS/JJF:cff

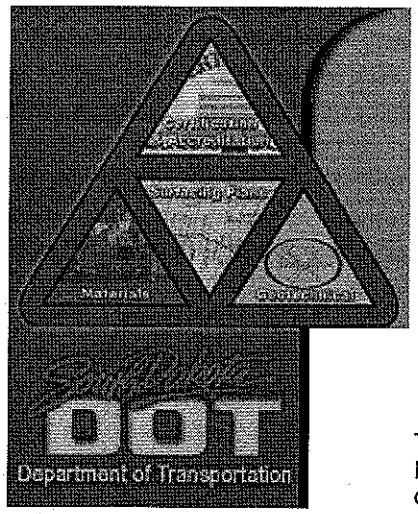
cc: Mitchell Area Engineer
Mitchell Region Matls. Engineer - Dahme
Mitchell Region Engineer - Week
Mitchell Operations Engineer - Williams
FHWA (if applicable)

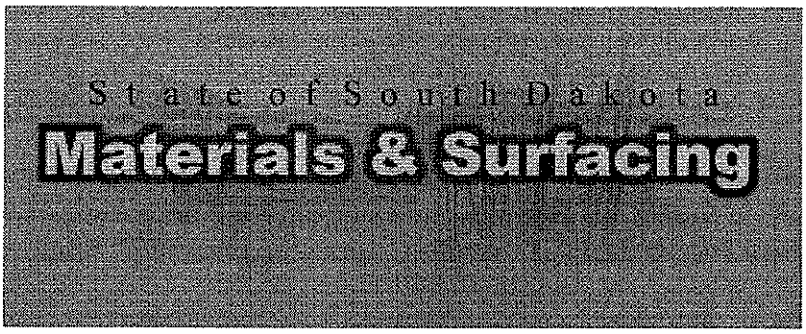
Project: BRO 8034(22)
County: Hutchinson

PCN: 6580

Material	DOT-18 Date	Sample No.	Deviation / Deficiency	Specification / Requirement	Material Represented	Action Taken
(260) Gravel Surfacing	N/A	N/A	Minimum sampling/testing requirements not met (no quality sample obtained)	The materials manual requires one quality sample per 50,000 ton	336 ton	None
	N/A	N/A	Minimum sampling/testing requirements not met (no acceptance sieve analysis obtained)	The materials manual requires one acceptance sieve analysis per 4,000 ton	336 ton	None

Attachment 16





Main Navigation

Certification & Accreditation
Geotechnical
Materials
Surfacing Plans

Certification

Approved Products List
Welding Certifications
Materials Manual
Training Manuals
Contacts

Back to SD DOT
Site Index
Search this Site
Help
Feedback
Contacts

SDDOT / Materials & Surfacing / Approved Products List

The South Dakota Department of Transportation has an **Approved Products Evaluatio Procedure (Adobe PDF)** to evaluate new products which may be used on the departme construction and maintenance projects. Materials identified on the approved products list not require a certificate of compliance unless the need for such a document is specificall identified in the material requirements or by specifications. Materials on the approved products list will be re-evaluated on an as needed basis. In addition to materials on the li meeting certification requirements, they can also be inspected and/or tested to verify conformance to the specifications. Any materials presently on the list and subsequently f to conform to the certification and specification requirements can be removed at any time advised, it is not necessary for a product to be on the approved products list (unless othe specified). If the product meets the specifications outlined in the project plans there is no reason it could not be used as long as the necessary certification documents are provide than becomes the vendors responsibility to make contractors aware of the product and n it accordingly. The department has placed many of the products on the list because of pa knowledge of their use and history of excellent field performance on our projects. Some products may or may not be evaluated depending on where they fit in with our states use them in the construction and maintenance areas.

If you would like to request an evaluation for a new product by SDDOT, please print a SI **Product Evaluation Request (Adobe PDF)**. Please fill out the form as completely as possible. Send any additional information such as product brochures, test reports, certific of compliance, etc., that you feel are pertinent to the evaluation of the product to the addi shown on the application. Each product evaluation form will be looked at individually and sender will be notified of the outcome at the completion of the evaluation.

Please do not submit any samples at this time. Should laboratory testing be needed y will be contacted and the samples requested.

We appreciate your interest in doing business with the SDDOT. Thank you!

All Approved Products

Product Type Index

Certified Plants

List Products by Product Type
Select a Product Type

List Products by Product Name
Select a Product Name

List Products by Manufacturer Name
Select a Manufacturer Name

Attachment 17

State of South Dakota
Materials & Surfacing

SDDOT / Materials & Surfacing / Approved Products / Product Types

Go Back

Printable Format

Product Type:	Asphalt Growth & Asphalt Bridge Joint		
Standard Product:	**Product Name:**	**Manufacturer:**	**Approval Date:**
Asphalt Growth & Asphalt Bridge Joint	**FlexAble Bridge Joint System**	Deery American Corp Grand Junction CO (800) 227-4059 http://www.deeryamerican.com	8/19/2004
Asphalt Growth & Asphalt Bridge Joint	**Matrix 502**	D.S. Brown Co., The North Baltimore OH (419) 257-3561 http://www.dsbrown.com	8/19/2004
Asphalt Growth & Asphalt Bridge Joint	**Thorma Joint System**	Dynamic Surface Applications, Ltd. Pennsdale PA (800) 491-5663 http://www.DSA-Ltd.com Notes: Formally LaFarge - Road Marking	8/19/2004
Asphalt Growth & Asphalt Bridge Joint	**Wabo Expandex Joint System**	Watson Bowman Acme Corp. Amherst NY (800) 677-4922 http://www.wbacorp.com	8/19/2004

Copyright © State of South Dakota, 1997-2006.
All rights reserved.

Attachment 18

Schaefer, Jerry (DOT)

From: Jund, John
Sent: Wednesday, July 12, 2000 8:45 AM
To: DOT-AREA ENGINEERS; Boland, Mike; Dahme, Ron; Koch, John (Pierre Region); Stone, Matt
Cc: DOT-OPERATIONS ENGINEERS; DOT-REGION ENGINEERS; Michlitsch, Harvey; Brey, Matt; Dwight, Phil; Long, Keith; Aalberg, Greg; Smith, Craig; Gall, Rod; Hyde, Jim; Payne, Bill; Norrid, Brad; Horan, Tom; Matthesen, John E.; Carlson, Mike; Williams, Tammy; Jundt, Joel; Jund, John; Schaefer, Jerry (DOT); Simons, Lloyd; Feller, Joe; McMahon, Ron
Subject: Documentation requirements for Temporary & Seasonal Personnel used to test Materials!

The following data is provided for your information and use in documenting demonstrated proficiency of testing procedures for Temporary and Seasonal Personnel. The Department's Materials Testing & Inspection Certification Program Manual requires a Certified Technician to use a Performance Checklist for the applicable test to document that all steps of a procedure were performed correctly by a Temporary or Seasonal Employee before they may perform that test. The Testing procedures to which this requirement applies include:

SD 104	1-Point Soils & Aggregates
SD 105 / 110	In-Place Density - Sand Cone Method
SD 106	In-Place Density - Rubber Balloon Method
SD 108	Moisture Determination Test - Alcohol Burning
SD 108	Moisture Determination Test - Oven/Hot Plate/Stove Top Method
SD 108	Moisture Determination Test - Speedy
SD 114	In-Place Moisture/Density - Nuclear Method
SD 202	Fine Aggregate Sieve Analysis
SD 202	Coarse Aggregate Sieve Analysis
SD 206	Material Finer than a #200 Sieve
SD 207	Liquid Limit / Plastic Limit
SD 208 & 214	% Lightweight Particles
SD 211	% Crushed Particles
SD 213	Reducing Field Sample by Quartering
SD 213	Reducing Field Sample by Splitter
ASTM C172	Sampling Fresh Concrete
ASTM C1064	Temperature of Fresh Concrete
SD 403	Air Content / Pressure Method (Type A Meter)
SD 403	Air Content / Pressure Method (Type B Meter)
SD 404	Slump Test
SD 405	Making and Curing Concrete Cylinders
SD 411	Unit Weight of Concrete

The Performance Checklists for the above referenced testing procedures, Proctoring Instructions (used by the Certified Technician to administer the Performance Test) and the Training and Evaluation Record for Temporary and Seasonal Personnel are provided for your convenience and can be accessed in the U Drive: ms/certification accreditation/accreditation - public folder/performance checklists folder. A copy of the applicable forms must be printed, prepared and retained on file as verification of successful demonstration of the procedure for all Temporary and Seasonal Personnel used to test NHI Project materials.

These provisions do not apply to QC/QA projects. Personnel doing the testing on those projects must be certified in accordance with the QC/QA guidelines.

If you have any questions, feel free to contact me. Thanks!!! <<<JJJ>>>

SD DOT Aggregate Testing
Performance Checklist

SD 202 Coarse Aggregate Sieve Analysis

Name: _____ SSN/Dr. Lic. No./Emp. No.: _____

Obtain sample oven dried to a constant weight at Temperature of 230^0 F, ± 9^0F.	explain?
Weight sample and record the original weight to nearest 0.1 gram.	perform
Assemble a series of sieve that will furnish the information required by specification and to regulate overloading.	explain?
Agitate sieves by hand (or mechanical) for sufficient period of time – end point shall be not more than 0.5% by weight of the material on a sieve passing that sieve in 1 minute.	explain?
On each sieve, remove any dirt adhering to coarse material by rubbing with soft pine or rubber covered block, or agitate in a cement can. After dirt is removed, sample shall be sieved following above requirements.	explain?
Weigh the material retained on each sieve & pan, total and check that total is within 0.3% of the original weight.	perform
Given DOT-3 with sample weights, calculate % passing and retained for ach sieve – record to the nearest 0.1%.	perform
Use the coarse material retained to conduct the balance of required testing for that type material (% Crushed Particles, % Light Wt. Particles).	explain?

Equipment & Materials Needed

Material from splitting (Test Out – need + #4 Material already placed in nest of sieves listed and shook)
12" Diameter Nest of Sieves (3/4" through #4 and pan)
Shaker
12K Electronic Balance
Brush, cement can (cleaning off the rock)
Cut stake (tapping the sieve's ring and knocking out rocks)

Proctor Signature: _____ Date: _____ Pass ☐ Fail ☐

SDDOT MATERIAL TESTING & INSPECTION CERTIFICATION PROGRAM

Training and Evaluation Record

Seasonal or Temporary Employee Name: _____ SSN: _____

Test Method and Inspection	Check One		Evaluated By	Title	Date	Comments
	Pass	Fail				

Summary of Requirements for Tests and Certs

Contract: 1916 **Date Let:** 1/18/2006

PCN: 6391 (Main)

Project(s): BRO 8043(06) (Main)

County: Lyman

Location: 5.0 W of Kennebec Over Medicine Creek

Type of Work: Structure & Approach Grading (115'-0" Prestressed Precast Concrete Bridge)

Contractor: Nolz Dragline and Const Inc **Length:** 0 miles

Engineer: Mark Peppel **Area:** Pierre Area

Material		Quantity	Unit	Reqd	Made	Requirement
120	Unclassified Excavation	3,093.0	CuYd			
120	Contractor Furnished Borrow		CuYd			
		3,093.0				
	Combined Uncl Exc/Contr Furn Borrow			1	2	In-Place Density for Acceptance - 1 per project for Ordinary Compaction
410	Structural Steel, Miscellaneous	23,114.84	LS			
	C12 X 20.7 (Tier 1)			1	1	Mill Test for Certification
				1	1	Visual Inspection for Acceptance
	MC12 x 20.7 (Tier 1)			1	1	Mill Test for Certification
				1	1	Visual Inspection for Acceptance
	MC18 x 42.7 (Tier 1)			1	1	Mill Test for Certification
				1	1	Visual Inspection for Acceptance
470	Type T101 Bridge Railing	262.0	Ft			
	1 1/4 x 34" (A449) ANCHOR B/N/W (Tier 1)			1	1	Mill Test for Certification
				1	1	Visual Inspection for Acceptance
	1/2" (A-36) PLATE (Tier 1)			1	1	Mill Test for Certification
				1	1	Visual Inspection for Acceptance
	7/8 x 5" (A-307) B/N/W (Tier 2)			1	1	Mill Test for Certification
				1	1	Visual Inspection for Acceptance
	7/8" (A-36) PLATE (Tier 1)			1	1	Mill Test for Certification
				1	1	Visual Inspection for Acceptance
	CLASS M-6 CONCRETE (Tier 2)			1	1	DOT-57 for Certification
				1	1	Visual Inspection for Acceptance
	TS 4 X 3 X .25 (A500,GR.B) (Tier 1)			1	1	Mill Test for Certification
				1	1	Visual Inspection for Acceptance
	W-BEAM GUARDRAIL CLASS A TYPE 1 (Tier 2)			1	1	Umbrella Mill Test* for Certification
				1	1	Visual Inspection for Acceptance
	W6 X 20 POSTS (A-36) (Tier 1)			1	1	Mill Test for Certification
				1	1	Visual Inspection for Acceptance

Attachment 22

* = number of requirements cannot be determined at this time, please check comments for additional instructions.

Material	Quantity	Unit	Reqd	Made	Requirement
510 HP 10x42 Steel Test Pile, Furnish and Drive (Tier 2)	141.0	FT			
510 HP 10x42 Steel Bearing Pile, Furnish and Drive (Tier 2)	1,015.0	FT			
	1,156.0				
			1	1	Mill Test for Certification
510 Sheet Piling, Furnish and Drive (Tier 2)	1,938.0	SQFT			
Sheet Piling, (ASTM A-857 10 ga) Furnish and Drive (Tier 2)			1	1	Mill Test for Certification
560 3'-10" Wide Deck x 30" Prstr Concrete Double Tee	920.0	Ft			
			*	8 F	Fresh Concrete Test for Acceptance - With cylinders & as needed for control
			0	0	Fresh Concrete Test for Independent Assurance
			*	8 F	Strength Test for Acceptance - One per pour per curing chamber
270k PRESTRESSED STRANDS (Tier 2)			1	1	Central Lab Test for Acceptance
			1	1	Umbrella Mill Test for Certification
3/4 x 7" (A-449) B/N/W (Tier 2)			1	1	Umbrella Mill Test for Certification
			1	1	Visual Inspection for Acceptance
3/4 x 9" (A-449) B/N/W (Tier 2)			1	1	Umbrella Mill Test for Certification
			1	1	Visual Inspection for Acceptance
AEA (Tier 2)			1	1	Central Lab Test per Lot for Acceptance
			1	1	Umbrella Cert of Comp* for Certification
CEMENT TYPE II (IF CERT MILL) (Tier 2)			1	1	Central Lab Test per Project for Acceptance
			1	1	Umbrella Cert of Comp* for Certification
COARSE AGGREGATE (Tier 3)			1	1	Central Lab Test for Quality - One per 50,000 tons
			0	0	Sieve Analysis for Independent Assurance
			1	2	Sieve Analysis for Acceptance - 1 per size per project
ELASTOMERIC BEARING PADS (DUR 70) (Tier 2)			1	1	Umbrella Cert of Comp for Certification
			1	1	Visual Inspection for Acceptance
FINE AGGREGATE (Tier 3)			1	1	Central Lab Test for Quality - One per 50,000 tons
			1	2	Sieve Analysis for Acceptance - One per project per size
			0	0	Sieve Analysis for Independent Assurance
REINFORCING STEEL (IF CERT FABRCTR) (Tier 2)			1	1	Central Lab Test per 3 Sizes for Acceptance - Not req'd. if from Egger or Dakota Steel
			1	1	Umbrella Mill Test* for Certification - Mill test not req'd. if from Egger Steel or Dakota Steel
			1	1	Visual Inspection for Acceptance
WELDED WIRE FABRIC (Tier 2)			1	1	Umbrella Mill Test for Certification
WRA (Tier 2)			1	1	Central Lab Test per Lot for Acceptance
			1	1	Umbrella Cert of Comp* for Certification

Attachment 22

* = number of requirements cannot be determined at this time, please check comments for additional instructions.

Material		Quantity	Unit	Reqd	Made	Requirement
700	Class B Riprap (Tier 3)	679.2	TON			
				1	1	Visual Inspection for Acceptance - For size & quality
734	Erosion Control	1,200.0	LS			
	SEED MIXTURE (Tier 2)			1	1	Visual Inspection for Acceptance
734	12" Diameter Erosion Control Wattle	120.0	Ft			
	12" Diameter Erosion Control Wattle (Added by CCO #1)			1	1	Certificate of Compliance for Certification
				1	1	Visual Inspection for Acceptance
734	Low Flow Silt Fence (Tier 2)	718.0	FT			
				1	1	Certificate of Compliance for Certification - Must be one of the Low Flow Silt Fences listed in plans.
				1	2	Visual Inspection for Acceptance
734	Floating Silt Curtain	200.0	Ft			
	Floating Silt Curtain (Added by CCO #1) American Boom & Barrier			1	1	Certificate of Compliance for Certification - Must be American Boom & Barrier as per CCO #1
				1	1	Visual Inspection for Acceptance
831	Type B Drainage Fabric (Tier 2)	925.0	SQYD			
				1	1	Cert or Approved Suppl/Prod for Certification
				1	1	Visual Inspection for Acceptance
999	Incidentals					
	PAINT (Plans spec section 412 field painting for none galvanized exposed steel) (Tier 2)			1	1	Cert or Approved Suppl/Prod for Certification
	PRIMER (Plans spec section 412 field painting for none galvanized exposed steel) (Tier 2)			1	1	Cert or Approved Suppl/Prod for Certification

Attachment 22

SD Department of Transportation
Visual Inspection Summary

Contract: 1948 **Date Let:** 2/15/2006
PCN: 4789 (Main)
Project(s): NH 0018(129)223 (Main)
County: Todd, Tripp
Location: Fm W of Okreek to Carter
Type of Work: Nonreinforced PCC Pavement, Erosion Control and Pavement Marking
Contractor: Progressive Contractors Incorporated **Length:** 11.16 miles
Engineer: Richard Frazier **Area:** Winner Area

---

320 Asphalt Concrete Composite Quantity: 6,305.200 Unit: Ton Inspections Required = 1

Asphalt Concrete Composite (Class E or G Type 1, Q-MVT,

Inspected By: Richard Frazier
Inspected Date: 9/15/2006
Inspection: Asphalt Composite used for this project was produced from a Hot Plant located on the project with materials supplied by Weatherton. The mix design was performed by Aaron Swann and Associates and proper certification was submitted. The Asphalt Composite was produced and placed by Bituminous Paving according to plans and specifications.

---

380 8" Nonreinforced PCC Pavement Quantity: 178,901.000 Unit: SqYd Inspections Required = 1
380 8" Miscellaneous PCC Pavement Quantity: 146.000 Unit: SqYd Inspections Required = 1

#4X6' EP CTD DEFORMED TIE BAR

Inspected By: Richard Frazier
Inspected Date: 6/16/2006
Inspection: #4x6' Epoxy Coated Tie Bars for Construction Joints were supplied by Sioux City Foundry. Steel was delivered in good condition and was accompanied with proper certifications.

---

380 8" Nonreinforced PCC Pavement Quantity: 178,901.000 Unit: SqYd Inspections Required = 1
380 8" Miscellaneous PCC Pavement Quantity: 146.000 Unit: SqYd Inspections Required = 1

#5X30" EP CTD DEFORMED TIE BAR

Inspected By: Richard Frazier
Inspected Date: 6/16/2006
Inspection: #5x30" Epoxy Coated Centerline Tie Bars were supplied by Sioux City Foundry and were delivered to the project in good condition. Proper Certifications for the steel were also delivered with the load.

---

380 8" Nonreinforced PCC Pavement Quantity: 178,901.000 Unit: SqYd Inspections Required = 1
380 8" Miscellaneous PCC Pavement Quantity: 146.000 Unit: SqYd Inspections Required = 1

KEYWAYS

Inspected By: Richard Frazier
Inspected Date: 3/28/2007
Inspection: The keyway used on this project on the Miscellaneous PCC Paving was a female keyway with the metal recess strip. This keyway was installed according to standard construction plates.

---

380 Dowel Bar Quantity: 69,100.000 Unit: Each Inspections Required = 1

SUPPORT BSKTS FOR DOWEL BARS

Inspected By: Richard Frazier
Inspected Date: 6/16/2006
Inspection: Support Baskets for Dowel Bars are in good condition and of proper size and steel quality. Baskets are properly placed and anchored in position according to plans.

Attachment 23

SD Department of Transportation

Visual Inspection Summary

632 4"x4" White Delineator Back to Back with 1.12 Lb/Ft F Quantity: 1,085.000 Unit: Each Inspections Required = 1

.063" ALUMINUM SHEETING

Inspected By: Richard Frazier

Inspected Date: 6/16/2006

Inspection: Delineators were delivered in new condition and were free from damage. Delineators were properly secured to posts.

---

632 4"x4" White Delineator Back to Back with 1.12 Lb/Ft F Quantity: 1,085.000 Unit: Each Inspections Required = 1

1.12 LB/FT DELINEATOR POST

Inspected By: Richard Frazier

Inspected Date: 6/16/2006

Inspection: Delineator posts were delivered to project in new condition and were free from damage. Posts were installed according to plans and specifications.

---

632 4"x4" White Delineator Back to Back with 1.12 Lb/Ft F Quantity: 1,085.000 Unit: Each Inspections Required = 1

DIAMOND GRADE WHITE REFLECTIVE SHEETING

Inspected By: Richard Frazier

Inspected Date: 6/16/2006

Inspection: Reflective Sheeting for delineators was of the correct grade and intensity as called for in the plans.

---

730 Type A Permanent Seed Mixture Quantity: 868.000 Unit: Lb Inspections Required = 1

Type A Permanent Seed Mixture

Inspected By: Richard Frazier

Inspected Date: 10/12/2006

Inspection: Seed used was supplied by Foothills Seed, Inc. and was of the kind and variety as specified in the contract. Seed was delivered to project in unopened properly tagged bags with the correct information. Seed was drilled according to plans and specifications by Word Reclamation.

---

732 Mulching Quantity: 93.500 Unit: Ton Inspections Required = 1

Mulching

Inspected By: Richard Frazier

Inspected Date: 3/28/2007

Inspection: Mulch used on this project was free from noxious weeds and was inspected by the Todd County Highway Superintendant (Norman Riley) and was approved for use.

Attachment 23