

SPECIFICATIONS AND SPECIAL PROVISIONS

Bituminous Pavement Crack Treatment
On Various County Roads

July 2016

Ramsey County Department of Public Works
1425 Paul Kirkwold Drive

Arden Hills, Minnesota 55112-3933

INDEX TO SPECIFICATIONS AND SPECIAL PROVISIONS

Project Certification

Project Location Maps

Bid Proposal Form

Division A

To Ramsey County Board of Commissioners	1-A to 2-A
Notice to All Bidders (Bid Rigging)	3-A
State Construction contract Division A – Labor	4-A to 6-A
Notice to Bidders (prompt payment to subcontractors)	16-A
Prevailing Wages for State Funded Construction Projects	17-A to 26-A
Certification of Truck Rental Rates	27-A to 29-A
Equal Employment Opportunity (EEO) Special Provisions (EEO 1-22)	30-A to 51-A
Non-Collusion Affidavit	52-A
Responsible Contractor Verification and Compliance	53-A to 57-A

Division S

Special Provisions

Attachments

Fuel Escalation Clause
Annual Right-of-Way User Registration From
Excavation or Obstruction Permit Application
Schedule of Materials Control

CERTIFICATION

I hereby certify that this specification was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under State of Minnesota Section 326.02 to 326.15.

Kathryn Jaschke
Katherine Jaschke, P.E.

Date: 5/27/16 License Number: 21864

Reviewed by: William Fiesel

Date: 5/31/2016

Ramsey County Department of Public Works
1425 Paul Kirkwold Drive
Arden Hills, Minnesota 55112
651-266-7100



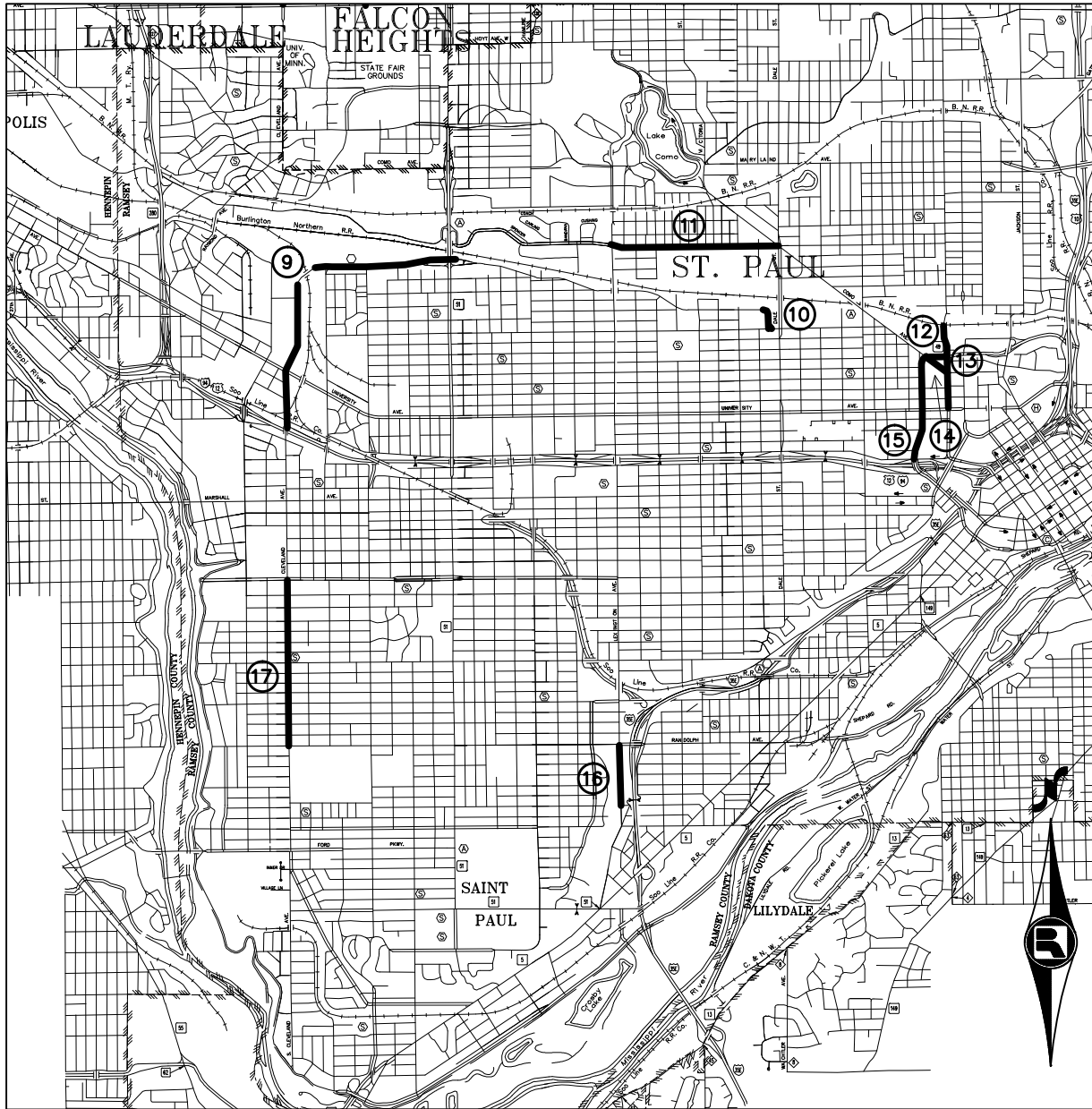
Map ID	Road Number	Road	From	To	Segment in Miles	Crack Repair Special Quantity in LBS.	Bit. Crack Leveling with Mastic Quantity in LBS.
1	44	Silver Lake Road	I-694	County Road H	1.98	6,273	
2	73	County Road E2	35W	Old Snelling	0.85		5,655
3	52	Victoria Street	Harriet Avenue	I-94	0.68	7,540	
4	25	St. Croix St	T.H. # 280	Terminal Road	0.22	1,324	
5	46	Cleveland Avenue	Larpenteur Avenue	County Road B	1.06	4,701	
6	48	Fairview Avenue	Larpenteur Avenue	County Road B	0.99		12,043
7	25	County Road B	Lexington Avenue	Sandhurst Drive	1.21	11,040	
8	53	Dale Street	220' north of TH # 36	County Road C	0.69	1,749	

NOT TO SCALE



RAMSEY COUNTY
DEPARTMENT OF PUBLIC WORKS

PROJECT LOCATION MAP
2016 CRACK SEALING
AT VARIOUS LOCATIONS



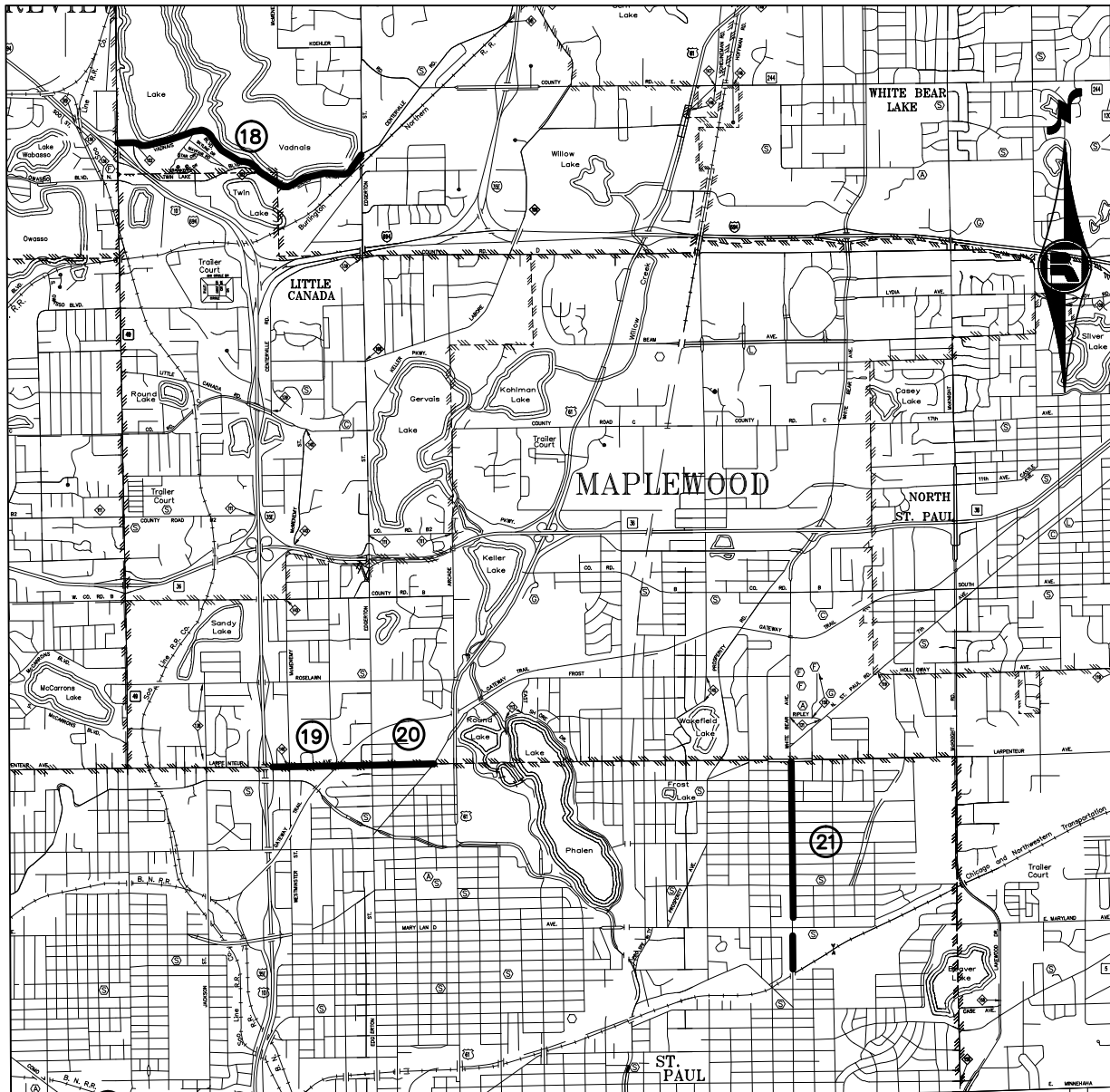
Map ID	Road Number	Road	From	To	Segment in Miles	Crack Repair Special Quantity in LBS.	Bit. Crack Leveling with Mastic Quantity in LBS.
9	33	Pierce Butler Route	University Avenue	Snelling Avenue	1.54	3,903	
10	33	Pierce Butler Route	Curve	Minnehaha Avenue	0.16	304	
11	32	Front Avenue	Lexington Avenue	Dale Street	1.01	2,560	
12	33	Pennsylvania Avenue	Como Avenue	Rice Street	0.12	304	
13	49	Rice Street	University Avenue	RR Bridge	0.46	1,166	
14	33	Como Avenue	Marion Street	Rice Street	0.16	406	
15	56	Marion Street	St. Anthony Avenue	Como Avenue	0.64	1,622	
16	51	Lexington Pkwy.	Pleasant Avenue	Randolph Avenue	0.45	1,996	
17	46	Cleveland Avenue	Randolph Avenue	Summit Avenue	1.00	2,534	

NOT TO SCALE



RAMSEY COUNTY
DEPARTMENT OF PUBLIC WORKS

PROJECT LOCATION MAP
2016 CRACK SEALING
AT VARIOUS LOCATIONS



Map ID	Road Number	Road	From	To	Segment in Miles	Crack Repair Special Quantity in LBS.	Bit. Crack Leveling with Mastic Quantity in LBS.
18	16	Vadnais Boulevard	Rice Street	Edgerton Street	1.72		9,825
19	30	Larpenteur Avenue	I-35E	Edgerton Street	0.57	9,029	
20	30	Larpenteur Avenue	Edgerton Street	Parkway Drive	0.37	1,032	
21	65	White Bear Avenue	RR Bridge	Larpenteur Avenue	1.25	3,168	

NOT TO SCALE



RAMSEY COUNTY
DEPARTMENT OF PUBLIC WORKS

PROJECT LOCATION MAP
2016 CRACK SEALING
AT VARIOUS LOCATIONS

2016 RAMSEY COUNTY CRACK SEALING - BID PROPOSAL

Item No.	Description	Units	Quantity	Unit Price	Total Price
CLEVELAND AVENUE - RANDOLPH AVENUE TO SUMMIT AVENUE					
2021.501	MOBILIZATION	LUMP SUM	1		
2331.608	CRACK REPAIR SPECIAL	POUND	2,534		
2563.603	TRAFFIC CONTROL	LUMP SUM	1		
2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	UDAY	12		
CLEVELAND AVENUE TOTAL				\$	-
CLEVELAND AVENUE - LARPEUTEUR AVENUE TO COUNTY ROAD B					
2021.501	MOBILIZATION	LUMP SUM	1		
2331.608	CRACK REPAIR SPECIAL	POUND	4,701		
2563.603	TRAFFIC CONTROL	LUMP SUM	1		
2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	UDAY	12		
CLEVELAND AVENUE TOTAL				\$	-
COMO AVENUE - MARION STREET TO RICE STREET					
2021.501	MOBILIZATION	LUMP SUM	1		
2331.608	CRACK REPAIR SPECIAL	POUND	406		
2563.603	TRAFFIC CONTROL	LUMP SUM	1		
2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	UDAY	6		
COMO AVENUE TOTAL				\$	-
COUNTY ROAD B - LEXINGTON AVENUE TO SANDHURST DRIVE					
2021.501	MOBILIZATION	LUMP SUM	1		
2331.608	CRACK REPAIR SPECIAL	POUND	11,040		
2563.603	TRAFFIC CONTROL	LUMP SUM	1		
2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	UDAY	18		
COUNTY ROAD B TOTAL				\$	-
DALE STREET - 220' NORTH OF TH 36 TO CUONTY ROAD C					
2021.501	MOBILIZATION	LUMP SUM	1		
2331.608	CRACK REPAIR SPECIAL	POUND	1,749		
2563.603	TRAFFIC CONTROL	LUMP SUM	1		
2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	UDAY	12		
DALE STREET TOTAL				\$	-
FRONT AVENUE - LEXINGTON AVENUE TO DALE STREET					
2021.501	MOBILIZATION	LUMP SUM	1		
2331.608	CRACK REPAIR SPECIAL	POUND	2,560		
2563.603	TRAFFIC CONTROL	LUMP SUM	1		
2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	UDAY	12		
FRONT AVENUE TOTAL				\$	-
LARPEUTEUR AVENUE - I35E TO PARKWAY DRIVE					
2021.501	MOBILIZATION	LUMP SUM	1		
2331.608	CRACK REPAIR SPECIAL	POUND	10,061		
2563.603	TRAFFIC CONTROL	LUMP SUM	1		
2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	UDAY	24		
LARPEUTEUR AVENUE TOTAL				\$	-
LEXINGTON PARKWAY - PLEASANT AVENUE TO RANDOLPH AVENUE					
2021.501	MOBILIZATION	LUMP SUM	1		
2331.608	CRACK REPAIR SPECIAL	POUND	1,996		
2563.603	TRAFFIC CONTROL	LUMP SUM	1		
2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	UDAY	12		

LEXINGTON PARKWAY TOTAL				\$		-
MARION STREET - SAINT ANTHONY AVENUE TO COMO AVENUE						
2021.501	MOBILIZATION	LUMP SUM	1			
2331.608	CRACK REPAIR SPECIAL	POUND	1,622			
2563.603	TRAFFIC CONTROL	LUMP SUM	1			
2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	UDAY	12			
MARION STREET TOTAL				\$		-
PENNSYLVANIA AVENUE - COMO AVENUE TO RICE STREET						
2021.501	MOBILIZATION	LUMP SUM	1			
2331.608	CRACK REPAIR SPECIAL	POUND	304			
2563.603	TRAFFIC CONTROL	LUMP SUM	1			
2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	UDAY	6			
PENNSYLVANIA AVENUE TOTAL				\$		-
PIERCE BUTLER ROUTE - UNIVERSITY AVENUE TO SNELLING AVENUE						
2021.501	MOBILIZATION	LUMP SUM	1			
2331.608	CRACK REPAIR SPECIAL	POUND	3,903			
2563.603	TRAFFIC CONTROL	LUMP SUM	1			
2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	UDAY	24			
PIERCE BUTLER ROUTE TOTAL				\$		-
PIERCE BUTLER ROUTE - CURVE TO MINNEHAHA AVENUE						
2021.501	MOBILIZATION	LUMP SUM	1			
2331.608	CRACK REPAIR SPECIAL	POUND	304			
2563.603	TRAFFIC CONTROL	LUMP SUM	1			
2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	UDAY	6			
PIERCE BUTLER ROUTE TOTAL				\$		-
RICE STREET - UNIVERISTY AVENUE TO RR BRIDGE						
2021.501	MOBILIZATION	LUMP SUM	1			
2331.608	CRACK REPAIR SPECIAL	POUND	1,166			
2563.603	TRAFFIC CONTROL	LUMP SUM	1			
2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	UDAY	12			
UNIVESITY AVENUE TOTAL				\$		-
SILVER LAKE ROAD - I694 TO COUNTY ROAD H						
2021.501	MOBILIZATION	LUMP SUM	1			
2331.608	CRACK REPAIR SPECIAL	POUND	6,273			
2563.603	TRAFFIC CONTROL	LUMP SUM	1			
2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	U DAY	12			
SILVER LAKE ROAD TOTAL				\$		-
SAINT CROIX STREET - TH 280 TO TERMINAL ROAD						
2021.501	MOBILIZATION	LUMP SUM	1			
2331.608	CRACK REPAIR SPECIAL	POUND	1,324			
2563.603	TRAFFIC CONTROL	LUMP SUM	1			
2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	UDAY	12			
SAINT CROIX STREET TOTAL				\$		-
VICTORIA STREET - HARRIEST AVENUE TO I694						
2021.501	MOBILIZATION	LUMP SUM	1			
2331.608	CRACK REPAIR SPECIAL	POUND	7,540			
2563.603	TRAFFIC CONTROL	LUMP SUM	1			
2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	UDAY	12			
VICTORIA STREET TOTAL				\$		-
WHITE BEAR AVENUE - RR BRIDGE TO LARPENTEUR AVENUE						
2021.501	MOBILIZATION	LUMP SUM	1			
2331.608	CRACK REPAIR SPECIAL	POUND	3,168			

2563.603	TRAFFIC CONTROL	LUMP SUM	1		
2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	U DAY	12		
WHITE BEAR AVNEUE TOTAL				\$	-
VADNAIS BOULEVARD - RICE STRET TO EDGERTON STREET					
2021.501	MOBILIZATION	LUMP SUM	1		
2331.608	CRACK REPAIR SPECIAL	POUND	9,825		
2563.603	TRAFFIC CONTROL	LUMP SUM	1		
2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	U DAY	24		
VADNAIS BOULEVARD TOTAL				\$	-
COUNTY ROAD E2 - I35W TO OLD SNELLING AVENUE					
2021.501	MOBILIZATION	LUMP SUM	1		
2331.608	CRACK REPAIR SPECIAL	POUND	5,655		
2563.603	TRAFFIC CONTROL	LUMP SUM	1		
2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	UDAY	50		
COUNTY ROAD E2 TOTAL				\$	-
FAIRVIEW AVENUE - LARPENTEUR AVENUE TO COUNTY ROAD B					
2021.501	MOBILIZATION	LUMP SUM	1		
2331.608	CRACK REPAIR SPECIAL	POUND	12,043		
2563.603	TRAFFIC CONTROL	LUMP SUM	1		
2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	UDAY	50		
FAIRVIEW AVENUE TOTAL				\$	-

PROJECT TOTAL	\$	-
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Entered By: _____ Certified By: _____ Verified
By: _____

To Ramsey County Board of Commissioners:

According to the advertisement of Ramsey County inviting proposals for the improvement of the section of highway hereinbefore named, and in conformity with the Contract, Plans, Specifications and Special Provisions pertaining thereto, all on file in the office of the Auditor of Ramsey County:

(I)(We) hereby certify that (I am)(we are) the only person(s) interested in this proposal as principal(s); that this proposal is made and submitted without fraud or collusion with any other person, firm or corporation at all; that an examination has been made of the site of the work and the Contract form, with the Plans, Specifications and Special Provisions for the improvement.

(I)(We) understand that the quantities of work shown herein are approximate only and are subject to increase or decrease; that all quantities of work, whether increased or decreased within the limits specified in Mn/DOT 1903, are to be done at the unit prices shown on the attached schedule; that, at the time of opening bids, totals only will be read, but that comparison of bids will be based on the correct summation of item totals obtained from the unit prices bid, as provided in Mn/DOT 1301.

(I)(We) propose to furnish all necessary machinery, equipment, tools, labor and other means of construction and to furnish all materials specified, in the manner and at the time prescribed, all according to the terms of the Contract and Plans, Specifications, and the Special Provisions forming a part of this.

(I)(We) further propose to do all Extra Work that may be required to complete the contemplated improvement, at unit prices or lump sums to be agreed upon in writing before starting such work, or if such prices or sums cannot be agreed upon, to do such work on a Force Account basis, as provided in Mn/DOT 1904.

(I)(We) further propose to execute the form of Contract within 10 days after receiving written notice of award, as provided in Mn/DOT 1306.

(I)(We) further propose to furnish a payment bond equal to the Contract amount, and a performance bond equal to the Contract amount, with the aggregate liability of the bond(s) equal to twice the full amount of the Contract, as security for the construction and completion of the improvement according to the Plans, Specifications and Special Provisions as provided in Mn/DOT 1305.

(I)(We) further propose to do all work according to the Plans, Specifications and Special Provisions, and to renew or repair any work that may be rejected due to defective materials or workmanship, before completion and acceptance of the Project by Ramsey County.

(I)(We) agree to all provisions of Minnesota Statutes, Section 181.59.

(I)(We) further propose to begin work and to prosecute and complete the same according to the time schedule set forth in the Special Provisions for the improvement.

(I)(We) assign to Ramsey County all claims for overcharges as to goods and materials purchased in connection with this Project resulting from antitrust violations that arise under the antitrust laws of the United States and the antitrust laws of the State of Minnesota. This clause also applies to subcontractors and first tier suppliers under this Contract.

NOTICE TO ALL BIDDERS

To report bid rigging activities call:

1-800-424-9071

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

NOTICE TO BIDDERS
SUSPENSIONS/DEBARMENTS

January 15, 2016
Page 1 of 3

DEPARTMENT OF TRANSPORTATION

NOTICE OF SUSPENSION

NOTICE IS HEREBY GIVEN that MnDOT has ordered that the following vendors be suspended for a period of six (6) months, effective January 14, 2016 until July 14, 2016:

- Jeffrey and Laurie Plzak doing business as Fibertech Incorporated¹, and its affiliates, Loretto, MN

NOTICE OF DEBARMENT

NOTICE IS HEREBY GIVEN that MnDOT has ordered that the following vendors be debarred for a period of three (3) years, effective May 6, 2013 until May 6, 2016:

- Gary Francis Bauerly and his affiliates, Rice, MN
- Gary Bauerly, LLC and its affiliates, Rice, MN
- Watab Hauling Co. and its affiliates, Rice, MN

NOTICE IS HEREBY GIVEN that MnDOT has ordered that the following vendors be debarred for a period of three (3) years, effective September 17, 2014 until September 17, 2017:

- Jeffrey Plzak and his affiliates, Loretto, MN
- Laurie Plzak and her affiliates, Loretto, MN
- Honda Electric Incorporated and its affiliates, Loretto, MN
- Jeffrey and Laurie Plzak doing business as Honda Electric Logistics, and its affiliates, Loretto, MN

NOTICE IS HEREBY GIVEN that MnDOT has ordered that the following vendors be debarred for a period of three (3) years, effective January 12, 2015 until January 12, 2018:

- Marlin Dahl, Granada, MN
- Dahl Trucking, Elmore, MN
- Elmore Truck and Trailer, Inc., Elmore, MN

Minnesota Statute section 161.315 prohibits the Commissioner, counties, towns, or home rule or statutory cities from awarding or approving the award of a contract for goods or services to a person who is suspended or debarred, including:

- 1) any contract under which a debarred or suspended person will serve as a subcontractor or material supplier,
- 2) any business or affiliate which the debarred or suspended person exercises substantial influence or control, and
- 3) 3) any business or entity, which is sold or transferred by a debarred person to a relative or any other party over whose actions the debarred person exercises substantial influence or control, remains ineligible during the duration of the seller's or transfer's debarment.

¹ This notice refers only to Fibertech Incorporated of Loretto, Minnesota and is not to be confused with any other businesses not controlled by Jeffrey and Laurie Plzak, including: FiberTech of Parkers Prairie, Minnesota; Fiber Tech Productions of Nisswa, Minnesota; Fiber Technologies Solutions of Georgia; or Fiber-Tech Industries of Cadillac, Michigan.

**NOTICE TO BIDDERS
SUSPENSIONS/DEBARMENTS**

January 15, 2016
Page 2 of 3

DEPARTMENT OF ADMINISTRATION

As of the date of this notice and in accordance with Minnesota Rules 1230.1150, the Minnesota Department of Administration has debarred and disqualified the following persons and businesses from entering into or receiving a State of Minnesota contract:

NAME	DATE OF SUSPENSION
Devos, Ltd. d/b/a Guaranteed Returns Dean Volkes, Donna Fallon & Ronald Carlino 100 Colin Drive Holbrook, NY	December 5, 2014 through December 31, 2019
NAME	DATE OF DEBARMENT
Best Electric Thomas Clifton and Earl Standafer 9909 S. Shore Drive #155 Plymouth, MN 55441	May 22, 2015 through May 21, 2018 (eligible for reinstatement on May 21, 2019)
Best Used Trucks of Minnesota, Inc. Jason W. Leas 635 Marin Avenue Crookston, MN 56716	Nov. 20, 2012 through Nov. 20, 2015 (eligible for reinstatement on Nov. 20, 2016)
C & S Electric, Inc. Thomas Clifton and Earl Standafer 9909 S. Shore Drive #155 Plymouth, MN 55441	May 22, 2015 through May 21, 2018 (eligible for reinstatement on May 21, 2019)
Dahl Trucking Marlin Dahl 305 Highway 169 South Elmore, MN 56027	Aug.19, 2014 through January 12, 2018
Elmore Truck and Trailer Repair, Inc. Marlin Dahl 305 Highway 169 South Elmore, MN 56027	Aug.19, 2014 through Jan. 12, 2018 (eligible for reinstatement on Jan. 12, 2019)
Groundscape Maintenance, Inc. Rob Sievers 1160 County Road 83 Maple Plain, MN 55359	February 19, 2015 through February 19, 2016 (eligible for reinstatement February 19, 2017)
Honda Electric, Inc. Jeffrey and Laurie Plzak 5075 Nielsen Circle, P.O. Box 236 Loretto, MN 55357	July 24, 2014 through July 23, 2017 (eligible for reinstatement on July 23, 2018)
McCaa, Webster & Associates, Inc. Sammie McCaa 2751 Hennepin Avenue South, #301 Minneapolis, MN 55408-1002	May 1, 2014 through April 30, 2015 (eligible for reinstatement on April 30, 2016)
MG Carlson Construction Company, Inc. Martin Gerald Carlson 701 East First Street Fort Worth, TX 76102-3276	Sept. 5, 2014 through October 5, 2015 (eligible for reinstatement on April 5, 2016)
Ocuture, LLC 11930 Camby Park Drive Houston, TX 77047	Dec. 15, 2014 through Dec. 15, 2015 (eligible for reinstatement Dec. 15, 2016)
Ramco Heating and Air Conditioning Mark and Cheryl Ramquist 605 Ash Street Downing, WI 54734	March 11, 2015 through March 11, 2017 (eligible for reinstatement March 11, 2017)

NOTICE TO BIDDERS
SUSPENSIONS/DEBARMENTS

January 15, 2016
Page 3 of 3

St. Cloud Lawn & Landscaping, Inc. Pat Murphy 10602 County Road 2 Brainerd, MN 56401	February 20, 2015 through February 20, 2016 (eligible for reinstatement on Feb. 20, 2017)
TAC Construction Solutions, Inc. Christina Woods 31767 Deacons Way Pequot Lakes, MN 56472	August 19, 2014 through August 19, 2016 (eligible for reinstatement on August 19, 2017)
Watab Hauling Co. Gary Francis Bauerly 9695 Deerwood Rd. NE Rice, MN 56367	Jan. 14, 2013 through Jan. 14, 2016 (eligible for reinstatement on Jan. 14, 2017)

Minnesota Administrative Rule part 1230.1150, subpart 6 requires the Materials Management Division to maintain a master list of all suspensions and debarments. The master list must retain all information concerning suspensions and debarments as a public record for at least three (3) years following the end of a suspension or debarment. Refer to the following website for the master list: <http://www.mmd.admin.state.mn.us/debarredreport.asp>.

If the project is financed in whole or in part with federal funds, refer to the following website for vendors debarred by federal government agencies: <http://sam.gov>.

This list does not include preclusion actions taken by cities, counties or local authorities. Consult local authorities to ensure that contractors, subcontractors and materials suppliers are not currently suspended or debarred.

STATE FUNDED CONSTRUCTION CONTRACTS

SPECIAL PROVISIONS DIVISION A - LABOR

June 3, 2013

I. PREAMBLE

It is in the public interest that public buildings and other public works projects be constructed and maintained by the best means and the highest quality of labor reasonably available and that persons working on public works projects be compensated according to the real value of the services they perform.¹

This contract is subject to the Minnesota Prevailing Wage Act², Rules³, Wage Decisions, and Truck Rental Rate Schedules established by the Minnesota Department of Labor and Industry (MnDLI). All contractors and subcontractors must pay each laborer and mechanic the established total prevailing wage rate for the actual work performed under this contract. Failure to comply may result in civil or criminal penalties and may compel the Minnesota Department of Transportation (MnDOT) to take such actions as prescribed in section: **XVI (NON-COMPLIANCE AND ENFORCEMENT)**.

Upon MnDOT's request, the prime contractor must promptly furnish copies of payroll records for its workers and those of all subcontractors, along with other records, documents or agreements deemed appropriate by agency to determine compliance with these contract provisions.⁴

Questions related to the Special Provisions Division A can be directed to the MnDOT Labor Compliance Unit (LCU) by calling (651) 366-4209 or by visiting its website at: www.dot.state.mn.us/const/labor

II. DEFINITIONS

Terms utilized in the Special Provisions Division A are defined in MnDOT's Standard Specifications for Construction⁵, unless defined below.

- A. **Contractor**: The term "contractor" in these provisions shall include the prime contractor, subcontractor, agent, or other person doing or contracting to do all or part of the work under this contract.⁶
- B. **Employer**: An individual, partnership, association, corporation, business trust, or other business entity that hires a laborer, worker, or mechanic.⁷
- C. **First Tier Subcontractor**: An individual, firm, corporation, or other entity to which the prime contractor sublets part of the contract.
- D. **Independent Truck Owner/Operator (ITO)**: An individual, partnership, or principal stockholder of a corporation who owns or holds a vehicle under lease and who contracts that vehicle and the owner's services to an entity which provides construction services to a public works project.⁸
- E. **Laborer or Mechanic**: A worker in a construction industry labor class identified in or pursuant to Minnesota Rules 5200.1100, Master Job Classifications.⁹
- F. **Prime Contractor**: The individual, firm, corporation, or other entity contracting for and undertaking prosecution of the prescribed work; the party of the second part to the contract, acting directly or through a duly authorized representative.

¹ Minnesota Statute 177.41

² Minnesota Statute 177.41 to 177.44

³ Minnesota Rules 5200.1000 to 5200.1120

⁴ Minnesota Statute 177.44, Subdivision 7 and Minnesota Rules 5200.1106, Subpart 10

⁵ MN/DOT Standard Specifications for Construction, Section 1103

⁶ Minnesota Statute 177.44, Subdivision 1

⁷ Minnesota Statute 177.42, Subdivision 7

⁸ Minnesota Rules 5200.1106, Subpart 7(A)

⁹ Minnesota Rules 5200.1106, Subpart 5(A)

- G. **Second Tier Subcontractor**: An individual, firm, corporation, or other entity to which a first tier subcontractor sublets part of the contract.
- H. **Substantially In Place**: Mineral aggregate is deposited on the project site directly or through spreaders where it can be spread from or compacted at the location where it was deposited.¹⁰
- I. **Trucking Broker**: An individual or business entity, the activities of which include, but are not limited to: contracting to provide trucking services in the construction industry to users of such services, contracting to obtain such services from providers of trucking services, dispatching the providers of the services to do work as required by the users of the services, receiving payment from the users in consideration of the trucking services provided, and making payment to the providers for the services.¹¹
- J. **Trucking Firm/Multiple Truck Owner (MTO)**: Any business entity that owns more than one vehicle and hires the vehicles out for services to brokers or contractors on public works projects.¹²

III. SCOPE – SPECIAL PROVISIONS DIVISION A & CONTRACT

- A. These provisions shall apply to the prime contractor, all subcontractors, or agents contracting to do all or part of the work under this contract.¹³
- B. The prime contractor is required to ensure that all lower tier subcontractors receive with their written subcontracts, agreements and/or purchase orders a copy of the contract labor provisions (Special Provision – Division A), the contract wage decision(s), and truck rental rate decision(s).
- C. An unpublished decision from the Minnesota Court of Appeals affirms the authority of the Minnesota Commissioner of Transportation to enforce the Minnesota Prevailing Wage Law on a case-by-case basis without prior notification.¹⁴

IV. PAYROLLS AND STATEMENTS

- A. The prime contractor must submit its payroll statements, along with those of its subcontractors to MnDOT.¹⁵ The payroll statements include a payroll report and a statement of compliance.¹⁶ The statements shall be submitted within fourteen (14) calendar days after the end of each contractor's pay period.¹⁷ All contractors shall pay its employees at least once every fourteen (14) calendar days.¹⁸
- B. Payroll Report: the report may be submitted in any manner and must include all the information contained in **Subpart A (1 - 11)** of this section. However, contractors needing a payroll form may utilize the **MnDOT Payroll Form**, which is made available on the MnDOT LCU website.¹⁹ Each payroll report must include all workers that performed work as a laborer or mechanic under this contract and provide at minimum the following information:
1. contractor's name, address, and telephone number;
 2. state project number;
 3. payroll report number;
 4. project location;
 5. workweek end date;
 6. each employee's name, home address, and full (or last four digits of) social security number;

¹⁰ Minnesota Rules 5200.1106, Subpart 5(C)

¹¹ Minnesota Rules 5200.1106, Subpart 7(C)

¹² Minnesota Rules 5200.1106, Subpart 7(B)

¹³ Minnesota Statute 177.44, Subdivision 1

¹⁴ See *International Union of Operating Eng'rs, Local 49 v. MnDOT*, No. C6-97-1582, 1998 WL 74281, at *2 (Minn. App. Feb. 24, 1998).

¹⁵ Minnesota Statute 177.44, Subdivision 7

¹⁶ Minnesota Rules 5200.1106, Subpart 10

¹⁷ Minnesota Statute 177.30, (a) (4)

¹⁸ Minnesota Statute 177.30 (a) (4)

¹⁹ www.dot.state.mn.us/const/labor/forms.html

7. labor classification(s) titles and optional three-digit code for each employee;
 8. hourly straight time and overtime wage rates paid to each employee;
 9. daily and weekly hours worked in each classification, including overtime hours for each employee;
 10. authorized legal deductions for each employee; and
 11. project gross amount, weekly gross amount, and net wages paid to each employee.²⁰
- D. Statement of Compliance: the payroll report must be accompanied with a completed and signed **MN/DOT, 21658 - Statement of Compliance Form**, identifying any fringe contributions made on behalf of each worker.²¹ The prime contractor is required to review the information submitted by each subcontractor and sign the Statement of Compliance Form.
- E. The prime contractor is responsible for assuring that its payroll reports, and those of each subcontractor, include all workers that performed work under this contract and accurately reflect the hours worked, regular and overtime rates of pay, and classifications of work performed.²²
- F. The prime contractor is responsible for maintaining all certified payroll records, including those of all subcontractors, throughout the course of a construction project and retaining all records for a period of three (3) years after the final contract voucher has been issued.²³ All contractors are responsible for maintaining their supporting employment records relating to this contract for a minimum period of three (3) years after the final contract payment has been made; other laws may have longer retention requirements.
- G. At the end of each pay period, each contractor shall provide every employee, in writing or by electronic means, an accurate, detailed earnings statement.²⁴
- H. If, after written notice, the prime contractor fails to submit its payroll reports and certification forms, or its subcontractors fail to submit same, MnDOT may implement the actions prescribed in section **XVI (NON-COMPLIANCE AND ENFORCEMENT)**.

V. WAGE RATES

- A. The prime contractor is responsible to ensure that its workers and those of all subcontractors are compensated according to the state prevailing wage determinations included and/or incorporated into this contract. All contractors shall pay each worker the required minimum total hourly wage rate for all hours worked on the project at the appropriate classification(s) of labor for the work performed by the worker.
1. State highway and heavy wage determinations are issued for ten separate regions throughout the state of Minnesota. If the contract work is located in more than one region, the applicable wage decision for each region shall be incorporated into this contract. If the contract contains multiple state highway and heavy wage determinations, there shall be only one standard of hours of labor and wage rate for each classification of labor.²⁵
 2. State commercial wage determinations are issued for each county throughout the state of Minnesota. If the contract work is located in more than one county, the applicable wage determination for each county shall be incorporated into this contract. If the contract contains multiple commercial wage determinations, each determination applies to the classification(s) of work performed in the county for which it was issued.

²⁰ Minnesota Rules 5200.1106, Subpart 10 and Minnesota Statute 177.30

²¹ Minnesota Rules 5200.1106, Subpart 10

²² Minnesota Statute 177.30(1)(2)(3)(4)

²³ Minnesota Statute 177.30 (a) (5)

²⁴ Minnesota Statute 181.032

²⁵ Minnesota Statute 177.44, Subdivision 4

- B. Wage rates listed in the state wage determination(s) contain two components: the hourly basic rate and the fringe rate. The hourly basic rate plus the fringe rate equal the total prevailing wage rate. A contractor shall compensate workers a combination of cash and fringe benefits equaling, at minimum, the total prevailing wage rate.²⁶
- C. The certified wage decision(s) incorporated into the contract remains in effect for the duration of this contract unless replaced by the Department through an addendum or supplemental agreement. No increase in the contract price shall be allowed or authorized due to wage rates that exceed those incorporated into this contract.
- D. From the time a worker is required to report for duty at the project site until the worker is allowed to leave the site, no deductions shall be made from the worker's hours for any delays of less than twenty consecutive minutes.²⁷
- E. In situations where a delay may exceed twenty (20) consecutive minutes and the contractor requires a worker to remain on the premises, or so close to the premises that the worker cannot use the time effectively for the worker's own purposes, the worker is considered "on-call"²⁸ and shall be compensated in accordance with **Subpart B** of this section, unless the worker is completely relieved of duty and free to leave the premises for a definite period of time²⁹.
- F. A contractor making payment to an employee, laborer, mechanic, or worker may not accept a rebate for the purpose of reducing or otherwise decreasing the value of the compensation paid.³⁰
- G. Deductions from the total prevailing wage rate, whether direct or indirect, shall not be allowed for the following:
1. purchase or rental of uniforms or non-home maintenance of uniforms;
 2. consumable supplies, which means materials required to perform duties of employment and are used during the course of employment;
 3. travel expenses, which means receipted out-of-pocket expenses for transportation, meals and lodging, or an agreed upon allowance, whichever is greater; or
 4. other items as established in Minn. Rules 5200.0090.³¹

VI. BONA FIDE FRINGE BENEFITS

- A. A contractor that does not provide fringe benefits to its employees shall compensate each worker the total prevailing wage rate for the classification of work performed.
- B. A "funded" fringe benefit plan is one that allows the contractor to make irrevocable contributions on behalf of an employee to a financially responsible trustee, third person, fund, plan, or program without prior approval from the U.S. Department of Labor. Types of "funded" fringe benefits may include, but are not limited to: pension, health insurance, and life insurance.³²
- C. An "unfunded" fringe benefit plan or program is one that allows the contractor to furnish an in-house benefit on behalf of an employee. The cost to provide the benefit is funded from the contractor's general assets rather than contributions made to a trustee, third person, fund, plan, or program. Types of "unfunded" fringe benefits may include, but are not limited to: holiday, vacation, and sick plans.³³

²⁶ Minnesota Statute 177.42, Subdivision 6 and 177.44, Subdivision 1

²⁷ Minnesota Rules 5200.0120, Subpart 1

²⁸ Minnesota Rules 5200.0120, Subpart 2

²⁹ Minnesota Rules 5200.0120, Subpart 3

³⁰ Minnesota Rules 5200.1106, Subpart 6

³¹ Minnesota Rules 5200.0090

³² 29 CFR Parts 5.26 and 5.27

³³ 29 CFR Part 5.28

- D. Allowable credit toward the total prevailing wage rate shall be determined for each individual employee based on all hours worked (government and non-government) for bona fide fringe benefits that:³⁴
1. are contributions irrevocably made by a contractor on behalf of an employee to a financially responsible trustee, third person, fund, plan, or program;
 2. are legally enforceable;
 3. have been communicated in writing to the employee; and
 4. are made available to the employee once all eligibility requirements are met.
- E. No credit shall be allowed for benefits required by federal, state or local law, such as but not limited to: worker's compensation, unemployment compensation, and social security contributions.³⁵
- F. A contractor that is obligated to deposit fringe benefit contributions on behalf of its employees into a financially responsible trustee, third person, fund, plan, or program and fails to make timely contributions is guilty of a gross misdemeanor³⁶ or other violations under federal law. A contractor found in violation shall compel MnDOT to take such actions as prescribed in section **XVI (NON-COMPLIANCE AND ENFORCEMENT)**.

VII. OVERTIME

- A. A contractor shall not permit or require a worker to work longer than the prevailing hours of labor unless the worker is paid for all hours in excess of the prevailing hours at a rate of at least one and a half (1 ½) times the hourly basic rate of pay.³⁷ The prevailing hours of labor is defined as not more than 8 hours per day or more than 40 hours per week.³⁸
- B. To calculate the worker's minimum overtime hourly rate: (1) multiply the contract classification's hourly basic rate by 1.5, then (2) add the contract fringe rate, and finally (3) subtract the worker's bona fide hourly fringe benefit costs incurred by the Contractor.
- C. Contractors subject to the Federal Fair Labor Standards Act may be subject to additional overtime compensation requirements.

VIII. LABOR CLASSIFICATIONS

- A. All contractors must refer to the state wage determinations incorporated into the contract to obtain an applicable job classification.
- B. All contractors must refer to the Minnesota Rules to determine an appropriate classification of labor based on the tasks performed by a worker on the project.³⁹ If a contractor cannot determine an appropriate job classification, state law requires that the employer assign the worker to a job classification that is the "same or most similar".⁴⁰
- C. Contractors needing assistance in determining a classification of labor must contact the MnDOT LCU for instructions. Determinations and/or disputes concerning the assignment of labor classifications or wage rates fall under MnDLI's statutory authority.

IX. INDEPENDENT CONTRACTORS, OWNERS, SUPERVISORS, AND FOREMAN

- A. An independent contractor performing work as a laborer or mechanic is subject to the contract prevailing wage requirements⁴¹ for the classification of work performed and shall adhere to the

³⁴ Minnesota Statute 177.42, Subdivision 6

³⁵ Minnesota Statute 177.42, Subdivision 6

³⁶ Minnesota Statute 181.74, Subdivision 1

³⁷ Minnesota Statute 177.44, Subdivision 1

³⁸ Minnesota Statute 177.42, Subdivision 4

³⁹ Minnesota Rules 5200.1101 and 5200.1102

⁴⁰ Minnesota Statute 177.44, Subdivision 1

⁴¹ 29 CFR Part 5.2(o) and Minnesota Statute 177.41

requirements established in sections **IV (PAYROLLS AND STATEMENTS); V (WAGE RATES); VI (FRINGE BENEFITS); VII (OVERTIME) and VIII (LABOR CLASSIFICATIONS).**

- B. Pursuant to state regulations, owners, supervisors, and foreman performing the work of a laborer or mechanic⁴² under the contract⁴³ are considered workers and shall be compensated in accordance with section **V (WAGE RATES)**. Furthermore, the prime contractor and any subcontractor shall adhere to the requirements established in sections **IV (PAYROLLS AND STATEMENTS); VI (FRINGE BENEFITS); VII (OVERTIME); and VIII (LABOR CLASSIFICATIONS).**

X. APPRENTICES, TRAINEES AND HELPERS

- A. An apprentice is not subject to the state wage decision(s) incorporated into the contract, provided the contractor can demonstrate compliance with the following:⁴⁴
1. The apprentice is performing the work of his/her trade.
 2. The apprentice is registered with the U.S. DOL Bureau of Apprenticeship and Training or MnDLI Division of Voluntary Apprenticeship.
 3. The apprentice is compensated according to the rate specified in the program for the level of progress.
 4. The employer's ratio of apprentices to journeyman workers on the project is not greater than the ratio permitted for the employer's entire work force under the registered program.⁴⁵
- B. If a contractor fails to demonstrate compliance with the terms established in **Subpart A (1 – 4)** of this section, the contractor shall compensate the worker not less than the applicable total prevailing wage rate for the actual classification of labor performed.⁴⁶
- C. A trainee or helper is not exempt under state law; the contractor shall assign the trainee or helper a job classification that is the "same or most similar"⁴⁷ and compensate the trainee or helper for the actual work performed regardless of the trainee's or helper's skill level.

XI. SUBCONTRACTING PART OF THIS CONTRACT

- A. The prime contractor shall execute a written subcontract with each first tier subcontractor performing work under this contract that includes the Special Provisions Division A - LABOR, contract wage determinations, and truck rental rate decisions. First tier subcontractors acquiring the services of a second tier subcontractor are subject to the same requirements.

XII. POSTER BOARDS

- A. The prime contractor must construct and display a poster board, which contains all required posters, is complete, accurate, legible, and accessible to all project workers from the first day of work until the project is one hundred percent (100%) complete.⁴⁸ Placement of a poster board at an off-site location does not satisfy this requirement.
- B. The prime contractor can obtain the required posters by visiting the MnDOT LCU website. The prime contractor will need to furnish its name, mailing address, the type of posters (i.e., state-aid), and the quantity needed.
- C. Refer to the poster board section of the MnDOT LCU website to obtain applicable contact information for each poster.

⁴² Minnesota Rules 5200.1106, Subpart 5A

⁴³ Minnesota Statute 177.44, Subdivision 1

⁴⁴ Minnesota Rules 5200.1070

⁴⁵ MnDLI Division of Apprenticeship – April 6, 1995 Memorandum from Jerry Briggs, Director

⁴⁶ Minnesota Rules 5200.1070, Subpart 3

⁴⁷ Minnesota Statute 177.44, Subdivision 1

⁴⁸ Minnesota Statute 177.44, Subdivision 5

XIII. EMPLOYEE INTERVIEWS

- A. At any time, the prime contractor shall permit representatives from MnDLI or MnDOT to interview its workers, and those of any subcontractor, during working hours on the project.⁴⁹

XIV. TRUCKING / OFF-SITE FACILITIES

- A. The prime contractor shall assume responsibility for ensuring its workers, and those of all subcontractors, are compensated in accordance with the state wage determination(s) incorporated into this contract for the following work:
1. processing or manufacturing of material, including the hauling of material to and from a prime contractor's material operation that is not a separately held commercial establishment;⁵⁰
 2. processing or manufacturing of material, including the hauling of material to and from an off-site material operation that is not considered a commercial establishment;⁵¹
 3. hauling of any or all stockpiled or excavated materials on the project work site to other locations on the same project even if the truck leaves the work site at some point;⁵²
 4. delivery of materials from a non-commercial establishment to the project and the return haul;⁵³
 5. delivery of materials from another construction project site to the public works project and the return haul, either empty or loaded. Construction projects are not considered commercial establishments;⁵⁴
 6. hauling required to remove materials from the project to a location off the project site and the return haul, either empty or loaded from other than a commercial establishment;⁵⁵ and
 7. delivery of mineral aggregate materials from a commercial establishment, which is deposited "substantially in place", and the return haul either empty or loaded.⁵⁶
- B. The work duties prescribed in **Subpart A (1 - 7)** of this section do not represent all possible hauling activities and/or other work duties that may be performed under this contract. It is the responsibility of the prime contractor and all subcontractors to be informed about all-applicable job duties that may be subject to the contract labor provisions.
- C. A contractor acquiring trucking services from an ITO, MTO, and/or Truck Broker to perform and/or provide "covered" hauling activities shall comply with the payment of the certified state truck rental rates.⁵⁷
- D. Truck hires must be paid the truck rental rate for time spent repairing or maintaining equipment; and for waiting to load or unload (so long as the wait, repair or maintenance, is attributable to the fault of the broker, contractor, or agent and/or employees thereof).⁵⁸
- E. Prime contractors and subcontractors shall submit, for each month where hauling activities were performed under this contract, a **MnDOT, TP-90550 - Month-End Trucking Report** and **MN/DOT, TP-90551 - Month-end Trucking Statement of Compliance Form**, along with each ITOs, MTOs and/or Truck Brokers reports to MnDOT.⁵⁹ The specifications regarding the dates for submission can be found near the bottom of the **MN/DOT, TP-90551 - Statement of Compliance Form**.

⁴⁹ MN/DOT Standard Specifications for Construction, Section 1511

⁵⁰ ALJ Findings of Fact, Conclusions of Law, and Recommendation, Conclusions (7), Case #12-3000-11993-2

⁵¹ Minnesota Rules 5200.1106, Subpart 3B(2)

⁵² Minnesota Rules 5200.1106, Subpart 3B(1)

⁵³ Minnesota Rules 5200.1106, Subpart 3B(2)

⁵⁴ Minnesota Rules 5200.1106, Subpart 3B(3)

⁵⁵ Minnesota Rules 5200.1106, Subpart 3B(4)

⁵⁶ Minnesota Rules 5200.1106, Subpart 3B(5)(6)

⁵⁷ Minnesota Rules 5200.1106, Subpart 1

⁵⁸ Minnesota Rules 5200.1106, Subpart 8(A)(1)

⁵⁹ Minnesota Rules 5200.1106, Subpart 10

- F. A truck broker contracting to provide trucking services directly to a prime contractor or subcontractor is allowed to assess a, broker fee.⁶⁰ No other lower tier broker fees against the truck rental rate will be permitted. In addition, the prime contractor and any subcontractor contracting to receive trucking services must, at a minimum, pay the full contract truck rental rate.
- G. A contractor may not accept a rebate for the purpose of reducing or otherwise decreasing the value of the compensation paid to a hired Independent Truck Owner/Operator (ITO) or Multiple Truck Owner (MTO).⁶¹
- H. A contractor with employee truck drivers shall adhere to the requirements established in sections **IV (PAYROLLS AND STATEMENTS); V (WAGE RATES); VI (FRINGE BENEFITS); VII (OVERTIME); and VIII (LABOR CLASSIFICATIONS).**
- I. If, after written notice, the prime contractor fails to submit its month-end trucking reports and certification forms and those of any subcontractor, MTO and/or Truck Broker, MnDOT may take such actions as prescribed in section **XVI (NON-COMPLIANCE AND ENFORCEMENT).**

XV. CHILD LABOR

- A. Except as permitted under **Subpart B** of this section, no worker under the age of 18 is allowed to perform work on construction projects.⁶²
- B. In accordance with state law, a worker under the age of 18, employed in a corporation totally owned by one or both parents that is supervised by the parent(s), may perform work on construction projects.⁶³ However, if this contractor is subject to the federal Fair Labor Standards Act, a worker under the age of 18 is not allowed to perform work in a hazardous occupation.⁶⁴
- C. The project engineer may remove a worker that appears to be under the age of 18 from the construction project until the contractor or worker can demonstrate proof of age⁶⁵ and compliance with all applicable federal and state regulations.⁶⁶

XVI. NON-COMPLIANCE AND ENFORCEMENT

- A. The prime contractor shall be liable for any unpaid wages to its workers or those of any subcontractor, agent, ITO, MTO, and/or Truck Broker.⁶⁷
- B. If it is determined that a contractor has violated the state prevailing wage law, or any portion of this contract, MnDOT may, after written notice, implement one or more of the following:
1. withhold or cause to be withheld from the prime contractor such amounts in considerations of charges or assessments against the prime contractor, whether arising from this contract or other contract with MnDOT;⁶⁸
 2. reject a bid from a prime contractor that has demonstrated continued or persistent noncompliance with the prevailing wage law on previous or current contracts with MnDOT;
 3. take the prosecution of the work out of the hands of the prime contractor, place the contractor in default and terminate the contractor for failure to demonstrate compliance with these provisions;⁶⁹
 4. refer the matter to the Minnesota Department of Administration for suspension or debarment proceedings;⁷⁰ and/or

⁶⁰ Minnesota Rules 5200.1106, Subpart 7(C)

⁶¹ Minnesota Rules 5200.1106, Subpart 6

⁶² Minnesota Rules 5200.0910, Subpart F

⁶³ Minnesota Rules 5200.0930, Subpart 4

⁶⁴ 29 CFR Part 570.2(a)(ii)

⁶⁵ Minnesota Statute 181A.06, Subdivision 4

⁶⁶ MN/DOT Standard Specifications for Construction, Section 1701

⁶⁷ MN/DOT Standard Specifications for Construction, Section 1801

⁶⁸ MN/DOT Standard Specifications for Construction, Section 1906

⁶⁹ MN/DOT Standard Specifications for Construction, Section 1808

5. consider referring violations to the appropriate local County Attorney for prosecution.⁷¹
- C. Any contractor who violates the state prevailing wage law is guilty of a misdemeanor and may be fined not more than \$300 or imprisoned not more than 90 days or both. Each day that the violation continues is a separate offense.⁷²
- D. A contractor may be fined up to \$1,000 for each failure to maintain records.⁷³
- E. All required documents and certification reports are legal documents; willful falsification of the documents may result in civil action and/or criminal prosecution⁷⁴ and may be grounds for debarment proceedings.⁷⁵
- F. For contracts subject to Minnesota Statutes section 177.43, the Commissioner of MnDLI may issue compliance orders for willful violation of the section. If the employer is found to have committed a violation, liquidated damages and other costs may be assessed against the employer.
- F. An employee may pursue a civil action in district court against its employer for failure to comply with the proper payment of wages.⁷⁶ If the employer is found to have committed a violation, liquidated damages and other costs may be assessed against the employer.⁷⁷

⁷⁰ Minnesota Rules 1230.1150, Subpart 2(A)(4)

⁷¹ Minnesota Statute 177.44, Subdivision 7

⁷² Minnesota Statute 177.44, Subdivision 6

⁷³ Minnesota Statute 177.30(b)

⁷⁴ Minnesota Statutes 16B, 161.315 - Subdivision 2, 177.32 - Subdivision 1(4), 177.43 - Subdivision 5, 177.44 - Subdivision 6, 609.63

⁷⁵ Minnesota Statute 161.315 and Minnesota Statute 609.63

⁷⁶ Minnesota Statute 177.27, Subdivision 8

⁷⁷ Minnesota Statute 177.27, Subdivision 10

NOTICE TO BIDDERS

Minnesota Statutes that require prompt payment to subcontractors:

471.425 Prompt payment of local government bills.

Subd. 1. Definitions. For the purposes of this section, the following terms have the meanings here given them.

(d) "Municipality" means any home rule charter or statutory city, county, town, school district, political subdivision or agency of local government. "Municipality" means the metropolitan council or any board or agency created under chapter 473.

Subd. 4a. Prompt payment to subcontractors.

Each contract of a municipality must require the prime contractor to pay any subcontractor within ten days of the prime contractor's receipt of payment from the municipality for undisputed services provided by the subcontractor. The contract must require the prime contractor to pay interest of 1-1/2 percent per month or any part of a month to the subcontractor on any undisputed amount not paid on time to the subcontractor. The minimum monthly interest penalty payment for an unpaid balance of \$100 or more is \$10. For an unpaid balance of less than \$100, the prime contractor shall pay the actual penalty due to the subcontractor. A subcontractor who prevails in a civil action to collect interest penalties from a prime contractor must be awarded its costs and disbursements, including attorney's fees, incurred in bringing the action.

HIST: 1985 c 136 s 5; 1995 c 31 s 1

MINNESOTA DEPARTMENT OF LABOR AND INDUSTRY PREVAILING WAGES FOR STATE
FUNDED CONSTRUCTION PROJECTS



THIS NOTICE MUST BE POSTED ON THE JOBSITE IN A CONSPICUOUS PLACE

Construction Type: Highway and Heavy

Region Number: 09

Counties within region:

- ANOKA-02
- CARVER-10
- CHISAGO-13
- DAKOTA-19
- HENNEPIN-27
- RAMSEY-62
- SCOTT-70
- WASHINGTON-82

Effective: 2015-10-12 Revised: 2015-12-29

This project is covered by Minnesota prevailing wage statutes. Wage rates listed below are the minimum hourly rates to be paid on this project.

All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at a rate of one and one half (1 1/2) times the basic hourly rate.

Violations should be reported to:

Department of Transportation
Office of Construction
Transportation Building MS650
John Ireland Blvd
St. Paul, MN 55155
(651) 366-4209

Refer questions concerning the prevailing wage rates to:

Department of Labor and Industry
Prevailing Wage Section
443 Lafayette Road N
St Paul, MN 55155
(651) 284-5091
DLI.PrevWage@state.mn.us

LABOR CODE AND CLASS	EFFECT DATE	BASIC RATE	FRINGE RATE	TOTAL RATE
LABORERS (101 - 112) (SPECIAL CRAFTS 701 - 730)				
101 LABORER, COMMON (GENERAL LABOR WORK)	2015-10-12	28.94	16.89	45.83
	2016-05-01	29.95	17.49	47.44
102 LABORER, SKILLED (ASSISTING SKILLED CRAFT JOURNEYMAN)	2015-10-12	28.94	16.89	45.83
	2016-05-01	29.95	17.49	47.44
103 LABORER, LANDSCAPING (GARDENER, SOD LAYER AND NURSERY OPERATOR)	2015-10-12	20.01	13.54	33.55
	2016-05-01	21.17	13.99	35.16
104 FLAG PERSON	2015-10-12	28.94	16.89	45.83
	2016-05-01	29.95	17.49	47.44
105 WATCH PERSON	2015-10-12	25.54	16.34	41.88
	2016-05-01	26.55	16.94	43.49
106 BLASTER	2015-10-12	31.94	16.89	48.83
	2016-05-01	32.95	17.49	50.44
107 PIPELAYER (WATER, SEWER AND GAS)	2015-10-12	31.44	16.89	48.33
	2016-05-01	32.45	17.49	49.94
108 TUNNEL MINER	2015-10-12	29.64	16.89	46.53
	2016-05-01	30.65	17.49	48.14
109 UNDERGROUND AND OPEN DITCH LABORER (EIGHT FEET BELOW STARTING GRADE LEVEL)	2015-10-12	29.64	16.89	46.53
	2016-05-01	30.65	17.49	48.14
110 SURVEY FIELD TECHNICIAN (OPERATE TOTAL STATION, GPS RECEIVER, LEVEL, ROD OR RANGE)	2015-10-12	28.94	16.89	45.83

POLES, STEEL TAPE MEASUREMENT; MARK AND DRIVE STAKES; HAND OR POWER DIGGING FOR AND IDENTIFICATION OF MARKERS OR MONUMENTS; PERFORM AND CHECK CALCULATIONS; REVIEW AND UNDERSTAND CONSTRUCTION PLANS AND LAND SURVEY MATERIALS). THIS CLASSIFICATION DOES NOT APPLY TO THE WORK PERFORMED ON A PREVAILING WAGE PROJECT BY A LAND SURVEYOR WHO IS LICENSED PURSUANT TO MINNESOTA STATUTES, SECTIONS 326.02 TO 326.15.

	2016-05-01	29.95	17.49	47.44
111 TRAFFIC CONTROL PERSON (TEMPORARY SIGNAGE)	2015-10-12	28.94	16.89	45.83
	2016-05-01	29.95	17.49	47.44
112 QUALITY CONTROL TESTER (FIELD AND COVERED OFF-SITE FACILITIES; TESTING OF AGGREGATE, ASPHALT, AND CONCRETE MATERIALS); LIMITED TO MN DOT HIGHWAY AND HEAVY CONSTRUCTION PROJECTS WHERE THE MN DOT HAS RETAINED QUALITY ASSURANCE PROFESSIONALS TO REVIEW AND INTERPRET THE RESULTS OF QUALITY CONTROL TESTERS. SERVICES PROVIDED BY THE CONTRACTOR.	2015-10-12	16.28	4.07	20.35

SPECIAL EQUIPMENT (201 - 204)

201 ARTICULATED HAULER	2015-10-12	31.77	17.20	48.97
202 BOOM TRUCK	2015-10-12	32.93	17.90	50.83
	2016-05-01	33.54	18.90	52.44
203 LANDSCAPING EQUIPMENT, INCLUDES HYDRO SEEDER OR MULCHER, SOD ROLLER, FARM TRACTOR WITH ATTACHMENT SPECIFICALLY SEEDING, SODDING, OR PLANT, AND TWO-FRAMED FORKLIFT (EXCLUDING FRONT, POSIT-TRACK, AND SKID STEER LOADERS), NO EARTHWORK OR GRADING FOR ELEVATIONS	2015-10-12	20.01	13.54	33.55
	2016-05-01	21.17	13.99	35.16
204 OFF-ROAD TRUCK	2015-10-12	32.93	17.90	50.83
	2016-05-01	33.54	18.90	52.44

205	PAVEMENT MARKING OR MARKING REMOVAL EQUIPMENT (ONE OR TWO PERSON OPERATORS); SELF-PROPELLED TRUCK OR TRAILER MOUNTED UNITS.	2015-10-12	32.04	18.26	50.30
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HIGHWAY/HEAVY POWER EQUIPMENT OPERATOR

GROUP 2		2015-10-12	33.78	17.90	51.68
		2016-05-01	34.39	18.90	53.29

- 302 HELICOPTER PILOT (HIGHWAY AND HEAVY ONLY)
- 303 CONCRETE PUMP (HIGHWAY AND HEAVY ONLY)
- 304 ALL CRANES WITH OVER 135-FOOT BOOM, EXCLUDING JIB (HIGHWAY AND HEAVY ONLY)
- 305 DRAGLINE, CRAWLER, HYDRAULIC BACKHOE (TRACK OR WHEEL MOUNTED) AND/OR OTHER SIMILAR EQUIPMENT WITH SHOVEL-TYPE CONTROLS THREE CUBIC YARDS AND OVER MANUFACTURER.S RATED CAPACITY INCLUDING ALL ATTACHMENTS. (HIGHWAY AND HEAVY ONLY)
- 306 GRADER OR MOTOR PATROL
- 307 PILE DRIVING (HIGHWAY AND HEAVY ONLY)
- 308 TUGBOAT 100 H.P. AND OVER WHEN LICENSE REQUIRED (HIGHWAY AND HEAVY ONLY)

GROUP 3		2015-10-12	33.23	17.90	51.13
		2016-05-01	33.84	18.90	52.74

- 309 ASPHALT BITUMINOUS STABILIZER PLANT
- 310 CABLEWAY
- 311 CONCRETE MIXER, STATIONARY PLANT (HIGHWAY AND HEAVY ONLY)
- 312 DERRICK (GUY OR STIFFLEG)(POWER)(SKIDS OR STATIONARY) (HIGHWAY AND HEAVY ONLY)
- 313 DRAGLINE, CRAWLER, HYDRAULIC BACKHOE (TRACK OR WHEEL MOUNTED) AND/OR SIMILAR EQUIPMENT WITH SHOVEL-TYPE CONTROLS, UP TO THREE CUBIC YARDS MANUFACTURER.S RATED CAPACITY INCLUDING ALL ATTACHMENTS (HIGHWAY AND HEAVY ONLY)
- 314 DREDGE OR ENGINEERS, DREDGE (POWER) AND ENGINEER
- 315 FRONT END LOADER, FIVE CUBIC YARDS AND OVER INCLUDING ATTACHMENTS. (HIGHWAY AND HEAVY ONLY)
- 316 LOCOMOTIVE CRANE OPERATOR
- 317 MIXER (PAVING) CONCRETE PAVING, ROAD MOLE, INCLUDING MUCKING OPERATIONS, CONWAY OR SIMILAR TYPE

- 318 MECHANIC . WELDER ON POWER EQUIPMENT (HIGHWAY AND HEAVY ONLY)
- 319 TRACTOR . BOOM TYPE (HIGHWAY AND HEAVY ONLY)
- 320 TANDEM SCRAPER
- 321 TRUCK CRANE . CRAWLER CRANE (HIGHWAY AND HEAVY ONLY)
- 322 TUGBOAT 100 H.P AND OVER (HIGHWAY AND HEAVY ONLY)

GROUP 4	2015-10-12	32.93	17.90	50.83
	2016-05-01	33.54	18.90	52.44

- 323 AIR TRACK ROCK DRILL
- 324 AUTOMATIC ROAD MACHINE (CMI OR SIMILAR) (HIGHWAY AND HEAVY ONLY)
- 325 BACKFILLER OPERATOR
- 326 CONCRETE BATCH PLANT OPERATOR (HIGHWAY AND HEAVY ONLY)
- 327 BITUMINOUS ROLLERS, RUBBER TIRED OR STEEL DRUMMED (EIGHT TONS AND OVER)
- 328 BITUMINOUS SPREADER AND FINISHING MACHINES (POWER), INCLUDING PAVERS, MACRO SURFACING AND MICRO SURFACING, OR SIMILAR TYPES (OPERATOR AND SCREED PERSON)
- 329 BROKK OR R.T.C. REMOTE CONTROL OR SIMILAR TYPE WITH ALL ATTACHMENTS
- 330 CAT CHALLENGER TRACTORS OR SIMILAR TYPES PULLING ROCK WAGONS, BULLDOZERS AND SCRAPERS
- 331 CHIP HARVESTER AND TREE CUTTER
- 332 CONCRETE DISTRIBUTOR AND SPREADER FINISHING MACHINE, LONGITUDINAL FLOAT, JOINT MACHINE, AND SPRAY MACHINE
- 333 CONCRETE MIXER ON JOBSITE (HIGHWAY AND HEAVY ONLY)
- 334 CONCRETE MOBIL (HIGHWAY AND HEAVY ONLY)
- 335 CRUSHING PLANT (GRAVEL AND STONE) OR GRAVEL WASHING, CRUSHING AND SCREENING PLANT
- 336 CURB MACHINE
- 337 DIRECTIONAL BORING MACHINE
- 338 DOPE MACHINE (PIPELINE)
- 339 DRILL RIGS, HEAVY ROTARY OR CHURN OR CABLE DRILL (HIGHWAY AND HEAVY ONLY)
- 340 DUAL TRACTOR
- 341 ELEVATING GRADER
- 342 FORK LIFT OR STRADDLE CARRIER (HIGHWAY AND HEAVY ONLY)
- 343 FORK LIFT OR LUMBER STACKER (HIGHWAY AND HEAVY ONLY)
- 344 FRONT END, SKID STEER OVER 1 TO 5 C YD
- 345 GPS REMOTE OPERATING OF EQUIPMENT
- 346 HOIST ENGINEER (POWER) (HIGHWAY AND HEAVY ONLY)
- 347 HYDRAULIC TREE PLANTER

- 348 LAUNCHER PERSON (TANKER PERSON OR PILOT LICENSE)
- 349 LOCOMOTIVE (HIGHWAY AND HEAVY ONLY)
- 350 MILLING, GRINDING, PLANNING, FINE GRADE, OR TRIMMER MACHINE
- 351 MULTIPLE MACHINES, SUCH AS AIR COMPRESSORS, WELDING MACHINES, GENERATORS, PUMPS (HIGHWAY AND HEAVY ONLY)
- 352 PAVEMENT BREAKER OR TAMPING MACHINE (POWER DRIVEN) MIGHTY MITE OR SIMILAR TYPE
- 353 PICKUP SWEEPER, ONE CUBIC YARD AND OVER HOPPER CAPACITY(HIGHWAY AND HEAVY ONLY)
- 354 PIPELINE WRAPPING, CLEANING OR BENDING MACHINE
- 355 POWER PLANT ENGINEER, 100 KWH AND OVER (HIGHWAY AND HEAVY ONLY)
- 356 POWER ACTUATED HORIZONTAL BORING MACHINE, OVER SIX INCHES
- 357 PUGMILL
- 358 PUMPCRETE (HIGHWAY AND HEAVY ONLY)
- 359 RUBBER-TIRED FARM TRACTOR WITH BACKHOE INCLUDING ATTACHMENTS (HIGHWAY AND HEAVY ONLY)
- 360 SCRAPER
- 361 SELF-PROPELLED SOIL STABILIZER
- 362 SLIP FORM (POWER DRIVEN) (PAVING)
- 363 TIE TAMPER AND BALLAST MACHINE
- 364 TRACTOR, BULLDOZER (HIGHWAY AND HEAVY ONLY)
- 365 TRACTOR, WHEEL TYPE, OVER 50 H.P. WITH PTO UNRELATED TO LANDSCAPING (HIGHWAY AND HEAVY ONLY)
- 366 TRENCHING MACHINE (SEWER, WATER, GAS) EXCLUDES WALK BEHIND TRENCHER (HIGHWAY AND HEAVY ONLY)
- 367 TUB GRINDER, MORBARK, OR SIMILAR TYPE
- 368 WELL POINT DISMANTLING OR INSTALLATION (HIGHWAY AND HEAVY ONLY)

GROUP 5	2015-10-12	29.89	17.90	47.79
	2016-05-01	30.50	18.90	49.40

- 369 AIR COMPRESSOR, 600 CFM OR OVER (HIGHWAY AND HEAVY ONLY)
- 370 BITUMINOUS ROLLER (UNDER EIGHT TONS)
- 371 CONCRETE SAW (MULTIPLE BLADE) (POWER OPERATED)
- 372 FORM TRENCH DIGGER (POWER)
- 373 FRONT END, SKID STEER UP TO 1C YD
- 374 GUNITE GUNALL (HIGHWAY AND HEAVY ONLY)
- 375 HYDRAULIC LOG SPLITTER
- 376 LOADER (BARBER GREENE OR SIMILAR TYPE)

- 377 POST HOLE DRIVING MACHINE/POST HOLE AUGER
- 378 POWER ACTUATED AUGER AND BORING MACHINE
- 379 POWER ACTUATED JACK
- 380 PUMP (HIGHWAY AND HEAVY ONLY)
- 381 SELF-PROPELLED CHIP SPREADER (FLAHERTY OR SIMILAR)
- 382 SHEEP FOOT COMPACTOR WITH BLADE . 200 H.P. AND OVER
- 383 SHOULDERING MACHINE (POWER) APSCO OR SIMILAR TYPE INCLUDING SELF-PROPELLED SAND AND CHIP SPREADER
- 384 STUMP CHIPPER AND TREE CHIPPER
- 385 TREE FARMER (MACHINE)

GROUP 6	2015-10-12	28.68	17.90	46.58
	2016-05-01	29.29	18.90	48.19

- 387 CAT, CHALLENGER, OR SIMILAR TYPE OF TRACTORS, WHEN PULLING DISK OR ROLLER
- 388 CONVEYOR (HIGHWAY AND HEAVY ONLY)
- 389 DREDGE DECK HAND
- 390 FIRE PERSON OR TANK CAR HEATER (HIGHWAY AND HEAVY ONLY)
- 391 GRAVEL SCREENING PLANT (PORTABLE NOT CRUSHING OR WASHING)
- 392 GREASER (TRACTOR) (HIGHWAY AND HEAVY ONLY)
- 393 LEVER PERSON
- 394 OILER (POWER SHOVEL, CRANE, TRUCK CRANE, DRAGLINE, CRUSHERS, AND MILLING MACHINES, OR OTHER SIMILAR HEAVY EQUIPMENT) (HIGHWAY AND HEAVY ONLY)
- 395 POWER SWEEPER
- 396 SHEEP FOOT ROLLER AND ROLLERS ON GRAVEL COMPACTION, INCLUDING VIBRATING ROLLERS
- 397 TRACTOR, WHEEL TYPE, OVER 50 H.P., UNRELATED TO LANDSCAPING

TRUCK DRIVERS

GROUP 1	2015-10-12	29.10	15.20	44.30
	2016-05-01	30.55	15.20	45.75

- 601 MECHANIC . WELDER
- 602 TRACTOR TRAILER DRIVER
- 603 TRUCK DRIVER (HAULING MACHINERY INCLUDING OPERATION OF HAND AND POWER OPERATED WINCHES)

GROUP 2	2015-10-12	28.55	15.20	43.75
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	2016-05-01	30.00	15.20	45.20
604 FOUR OR MORE AXLE UNIT, STRAIGHT BODY TRUCK				
GROUP 3	2015-10-12	28.45	15.20	43.65
	2016-05-01	29.90	15.20	45.10
605 BITUMINOUS DISTRIBUTOR DRIVER				
606 BITUMINOUS DISTRIBUTOR (ONE PERSON OPERATION)				
607 THREE AXLE UNITS				
GROUP 4	2015-10-12	28.20	15.20	43.40
	2016-05-01	29.65	15.20	44.85
608 BITUMINOUS DISTRIBUTOR SPRAY OPERATOR (REAR AND OILER)				
609 DUMP PERSON				
610 GREASER				
611 PILOT CAR DRIVER				
612 RUBBER-TIRED, SELF-PROPELLED PACKER UNDER 8 TONS				
613 TWO AXLE UNIT				
614 SLURRY OPERATOR				
615 TANK TRUCK HELPER (GAS, OIL, ROAD OIL, AND WATER)				
616 TRACTOR OPERATOR, UNDER 50 H.P.				
SPECIAL CRAFTS				
701 HEATING AND FROST INSULATORS	2015-10-12	42.31	20.74	63.05
	2016-06-01	44.26	20.74	65.00
702 BOILERMAKERS	2015-10-12	34.15	26.37	60.52
	2016-01-01	35.55	26.52	62.07
703 BRICKLAYERS	2015-10-12	35.70	18.13	53.83
704 CARPENTERS	2015-10-12	35.85	17.78	53.63
	2016-05-01	37.46	17.78	55.24
705 CARPET LAYERS (LINOLEUM)				
	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVVAGE@STATE.MN.US			

706 CEMENT MASONS	2015-10-12	35.54	17.57	53.11
707 ELECTRICIANS	2015-10-12	38.57	26.04	64.61
	2016-05-01	40.47	26.04	66.51
711 GROUND PERSON	2015-10-12	27.44	13.28	40.72
	2016-04-04	28.26	13.92	42.18
712 IRONWORKERS	2015-10-12	35.50	23.45	58.95
713 LINEMAN	2015-10-12	40.95	17.06	58.01
	2016-04-30	42.18	17.82	60.00
714 MILLWRIGHT	2015-10-12	33.93	20.23	54.16
715 PAINTERS (INCLUDING HAND BRUSHED, HAND SPRAYED, AND THE TAPING OF PAVEMENT MARKINGS)	2015-10-12	33.57	20.12	53.69
716 PILEDRIIVER (INCLUDING VIBRATORY DRIVER OR EXTRACTOR FOR PILING AND SHEETING OPERATIONS)	2015-10-12	35.85	17.78	53.63
	2016-05-01	37.46	17.78	55.24
717 PIPEFITTERS . STEAMFITTERS	2015-10-12	42.35	24.49	66.84
719 PLUMBERS	2015-10-12	39.67	26.80	66.47
721 SHEET METAL WORKERS	2015-10-12	38.05	26.13	64.18
723 TERRAZZO WORKERS	FOR RATE CALL 651-284-5091 OR EMAIL DLIPREWAGE@STATE.MN.US			
724 TILE SETTERS	2015-10-12	28.30	21.89	50.19
725 TILE FINISHERS				

FOR RATE CALL 651-284-5091 OR
EMAIL
DLIPREVVAGE@STATE.MN.US

727 WIRING SYSTEM TECHNICIAN

2015-10-12	36.00	14.43	50.43
2016-07-01	36.90	14.43	51.33

728 WIRING SYSTEMS INSTALLER

2015-10-12	25.21	12.02	37.23
2016-07-01	25.84	12.02	37.86

729 ASBESTOS ABATEMENT WORKER

2015-10-12	29.13	15.96	45.09
2016-01-01	30.13	16.41	46.54

730 SIGN ERECTOR

FOR RATE CALL 651-284-5091 OR
EMAIL
DLIPREVVAGE@STATE.MN.US

NOTICE OF CERTIFICATION OF TRUCK RENTAL RATES AND EFFECTIVE DATE PURSUANT TO MINNESOTA RULES, PART 5200.1105

From April 6, 2015, to June 5, 2015, the Department of Labor and Industry (DLI) conducted a truck operational cost survey. On January 25, 2016, the Commissioner of DLI certified the minimum truck rental rates for highway projects in the state's ten highway and heavy construction areas for trucks and drivers operating "four or more axle units, straight body trucks," "three axle units," "tractor only" and "tractor trailers." The certification followed publication of the Notice of Determination of Truck Rental Rates in the *State Register* on November 16, 2015, and the informal conference held pursuant to Minnesota Rules, part 5200.1105 on December 3, 2015.

According to Minnesota Rules, part 5200.1105, the purpose of the informal conference is for DLI to obtain further input regarding the proposed rates before the rates are certified. Approximately 8 individuals attended the informal conference. None of the attendees at the informal conference commented on the Determination of the Construction Truck Rental Rates or contacted the department with comments regarding the rates prior to the date of this Certification.

Truck rental rates are determined by adding the certified prevailing wage driver rate in each region to the statewide operating cost survey data. The minimum hourly truck rental rate for the four types of trucks in each area is certified to be as follows:

3 Axle Units				
	Effective Date	Certified 607 Driver Rate	Surveyed Operating Cost	Determined Truck Rental Rate
Region 1	Certification date	\$40.60	\$37.35	\$77.95
Region 2	Certification date	\$34.26	\$37.35	\$71.61
Region 3	Certification date	\$36.91	\$37.35	\$74.26
	May 1, 2016	\$38.36	\$37.35	\$75.71
Region 4	Certification date	\$40.63	\$37.35	\$77.98
Region 5	Certification date	\$43.65	\$37.35	\$81.00
	May 1, 2016	\$44.85	\$37.35	\$82.20
Region 6	Certification date	\$41.45	\$37.35	\$78.80
	May 1, 2016	\$42.90	\$37.35	\$80.25
Region 7	Certification date	\$36.91	\$37.35	\$74.26
	May 1, 2016	\$38.36	\$37.35	\$75.71
Region 8	Certification date	\$13.77	\$37.35	\$51.12
Region 9	Certification date	\$43.65	\$37.35	\$81.00

	May 1, 2016	\$45.10	\$37.35	\$82.45
Region 10	Certification date	\$13.77	\$37.35	\$51.12
4 or More Axle Units				
	Effective Date	Certified 604 Driver Rate	Surveyed Operating Cost	Determined Truck Rental Rate
Region 1	Certification date	\$40.70	\$50.82	\$91.52
Region 2	Certification date	\$37.06	\$50.82	\$87.88
	May 1, 2016	\$38.51	\$50.82	\$89.33
Region 3	Certification date	\$37.06	\$50.82	\$87.88
	May 1, 2016	\$38.51	\$50.82	\$89.33
Region 4	Certification date	\$23.88	\$50.82	\$74.70
Region 5	Certification date	\$28.17	\$50.82	\$78.99
Region 6	Certification date	\$41.55	\$50.82	\$92.37
	May 1, 2016	\$43.00	\$50.82	\$93.82
Region 7	Certification date	\$37.40	\$50.82	\$88.22
Region 8	Certification date	\$16.32	\$50.82	\$67.14
Region 9	Certification date	\$43.75	\$50.82	\$94.57
	May 1, 2016	\$45.20	\$50.82	\$96.02
Region 10	Certification date	\$16.02	\$50.82	\$66.84

Tractor						
	Effective Date	Certified 602 Driver Rate	Surveyed Operating Cost	Determined Tractor Only Truck Rental Rate	Plus Trailer Operating Cost	Determined Tractor Trailer Rental Rate
Region 1	Certification date	\$43.90	\$49.17	\$93.07	\$11.46	\$104.53
	May 1, 2016	\$45.35	\$49.17	\$94.52	\$11.46	\$105.98
Region 2	Certification date	\$37.57	\$49.17	\$86.74	\$11.46	\$98.20
	May 1, 2016	\$39.02	\$49.17	\$88.19	\$11.46	\$99.65
Region 3	Certification date	\$27.10	\$49.17	\$76.27	\$11.46	\$87.73
Region 4	Certification date	\$24.45	\$49.17	\$73.62	\$11.46	\$85.08
Region 5	Certification date	\$26.27	\$49.17	\$75.44	\$11.46	\$86.90
Region 6	Certification date	\$39.45	\$49.17	\$88.62	\$11.46	\$100.08

Region 7	Certification date	\$27.55	\$49.17	\$76.72	\$11.46	\$88.18
Region 8	Certification date	\$37.57	\$49.17	\$86.74	\$11.46	\$98.20
	May 1, 2016	\$39.02	\$49.17	\$88.19	\$11.46	\$99.65
Region 9	Certification date	\$44.30	\$49.17	\$93.47	\$11.46	\$104.93
	May 1, 2016	\$45.75	\$49.17	\$94.92	\$11.46	\$106.38
Region 10	Certification date	\$24.50	\$49.17	\$73.67	\$11.46	\$85.13

The minimum truck rental rate for these four types of trucks in the state's ten highway and heavy construction areas will be effective for all highway and heavy construction projects financed in whole or part with state funds advertised for bid on or after the day the notice of certification is published in the *State Register*.

Ken B. Peterson,

COMMISSIONER

EQUAL EMPLOYMENT OPPORTUNITY (EEO) SPECIAL PROVISIONS

This section of Special Provisions contains the Equal Employment Opportunity (EEO) rules and regulations for highway construction projects in Minnesota which are federally and/or State funded.

The source of funding determines which EEO regulations and goals (Federal and/or State goals) apply to a specific project. When a project contains funding from both Federal and State sources, both sets of regulations apply, and the Minnesota Department of Transportation (MnDOT) monitors and reviews projects at both levels.

If the project contains any Federal funding, and has a total dollar value exceeding \$10,000, Federal EEO regulations and goals apply (pages 2, 6, 7-8, 9-14, 15, 16-17, 22-26, 27-38). The MnDOT Office of Civil Rights monitors and reviews these projects on behalf of the Federal Highway Administration (FHWA), under Federal statutes (23 USC 140) and rules (23 CFR 230).

If the project contains any State funding, and has a total dollar value exceeding \$100,000, State EEO regulations and goals apply (pages 2, 3, 4, 5, 6, 9-14, 16-22). MnDOT's Office of Civil Rights monitors and reviews these projects in conjunction with the Minnesota Department of Human Rights under Minnesota Statutes §363A.36 and its accompanying rules.

MnDOT has established a single review and monitoring process which meets both Federal and State requirements.

Please note that Pages 23-38 of these Special Provisions may be omitted from projects with no Federal funding.

CONTENTS

Notice of Requirement for Affirmative Action	2
Notice of Pre-Award Reporting Requirements.....	3
Minnesota Affirmative Action Requirements.....	4
Appropriate Work Place Behavior.....	5
Notice to All Prime and Subcontractors: Reporting Requirements.....	6
Specific Federal Equal Employment Opportunity Responsibilities	7
Standard Federal and State Equal Employment Construction Contract Specifications	9
Equal Opportunity Clause.....	15
Minority and Women Employment Goals Chart.....	16
Sample Summary of Employment Activity, Form EEO-12	18
Sample Monthly Employment Compliance Report, Form EEO-13	20
EEO Compliance Review Report	22
On-The-Job Training Program: Trainee Assignment	23
Certification of On-the-Job Training Hours: Federal-Aid Projects.....	24
On-the-Job Training (OJT) Program Approval Form.....	25
On-the-Job Training (OJT) Program Trainee Termination Form.....	26
Required Contract Provisions: Federal-Aid Construction Contracts.....	27

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION
TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY
(23 USC 140, 23 CFR 230 and Minnesota Statute §363A.36)**

1. The offerer's or bidder's attention is called to the "Minnesota Affirmative Action Requirements" (EEO Page 4), the "Specific Federal Equal Employment opportunity Responsibilities" (EEO Pages 7-8), the "Standard Federal and State Equal Employment Opportunity Construction Contract Specifications" (EEO Pages 9-14), the "Equal Opportunity Clause" (EEO Page 15) and "Required Contract Provisions - Federal-Aid Construction Contracts" (EEO Pages 27-38).
2. The goals and timetables for minority and women participation, expressed in percentage terms of hours of labor for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as shown on EEO Pages 16-17.

These goals are applicable to all the Contractor's construction work (whether or not it is State or State assisted, Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the regulations in 41 CFR Part 60-4, and/or Minnesota Statutes §363A.36 and its accompanying rules shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a) for Federal or federally assisted projects, and Minnesota Statutes §363A.36, and its accompanying rules for State or State assisted projects, and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and women employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority and women employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4 for Federal or federally-assisted projects and/or Minnesota Statutes §363A.36 and its accompanying rules for state or state-assisted projects. Compliance with the goals will be measured against the total work hours performed.

3. If the contract is federally funded, the Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs (OFCCP) within ten working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. If the contract is state funded, the Contractor shall provide written notification to the Compliance Division, Minnesota Department of Human Rights, Freeman Building, 625 Robert Street North, Saint Paul, Minnesota 55155 within ten working days of award of any construction subcontract in excess of \$100,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the Subcontractor; employer identification number of the Subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.
4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is the county or counties of the State of Minnesota where the work is to be performed.

**NOTICE TO ALL PRIME AND SUBCONTRACTORS
PRE-AWARD REPORTING REQUIREMENTS**

In order to ensure compliance with Federal and State laws and regulations (23 USC 140, and 23 CFR 230, and Minnesota Statutes §363A.36) and to ensure Mn/DOT's ability to monitor and enforce compliance efforts, the following requirements apply if the apparent low bid exceeds \$ 5,000,000.00:

- 1) The Apparent Low Bidder ("ALB") must provide to Mn/DOT the "EEO-8 Form" (also entitled "EEO Compliance Review Report"), which must provide detail on the contractor's total company workforce in the State of Minnesota during the twelve month period preceding July 30th of the previous year (Office and/or clerical personnel need not to be included).
- 2) The ALB must provide to Mn/DOT a work plan for meeting the minority and women employment goals established by the Minnesota Department of Human Rights, for the project in question. The work plan must include, at a minimum (1) how the ALB will incorporate its current minority and women employees in the ALB's efforts to meet the established goals; and (2) a contingency plan if the ALB has determined that its current workforce is not sufficient in order to achieve the established employment goals. If the ALB relies in whole or in part upon unions as a source of employees, then the ALB must (1) include a list of established organizations that are likely to yield qualified minority and women candidates if those union(s) are unable to provide a reasonable flow of minority and women candidates in their work plan; and (2) document the method by which these organizations will refer candidates to the ALB for employment opportunities. All bidders are hereby notified that the U.S. Department of Labor has determined that a contractor will not be excused from complying with the Federal and State laws and regulations cited above based solely on the fact that a contractor has a collective bargaining agreement with a union providing for the union to be the exclusive source of referral and that the union failed to refer minority employees. A contractor may obtain a list of organizations likely to yield qualified minority and women candidates from the Mn/DOT Office of Civil Rights.
- 3) The ALB must provide to Mn/DOT the ALB's total workforce and labor projections for the project (represented in hours), the ALB's projected total number of minority hours for the project, and the ALB's projected total number of women hours for the project. The details must include the trade(s) that will be utilized in order to complete the project.

The ALB must submit documents as required to comply with this section no later than five business days after the date that bids for the contract are opened. The five day period starts the business day following the date that bids were opened. The required documents must be received prior to Contract Award, and must be sent to the Mn/DOT Office of Civil Rights – 395 John Ireland Blvd., Mail Stop 170 St. Paul, MN 55155-1899. Submittal of the documents described in (1), (2) and (3) is required for contract award to the ALB. The submitted documents will be used as a tool to assist contractors in meeting employment goals; the content itself will not be evaluated for the purpose of determining contract award.

MINNESOTA AFFIRMATIVE ACTION REQUIREMENTS

1. It is hereby agreed between the parties to this contract that Minnesota Statutes, Section §363A.36, and its accompanying rules are incorporated into any contract between these parties based upon this specification or any modification of it. A copy of Minnesota Statutes, Section §363A.36, and its accompanying rules is available upon request from the contracting agency. The Contractor hereby agrees to comply with the rules and relevant orders of the Minnesota Department of Human Rights issued pursuant to the Minnesota Human Rights Act.
2. It is hereby agreed between the parties to this contract that this agency requires that the Contractor meet affirmative action criteria as provided for by Minnesota Statutes §363A.36 and its accompanying rules. It is the intent of the Minnesota Department of Transportation to fully carry out its responsibility for requiring affirmative action, and to implement sanctions for failure to meet these requirements. Failure by a contractor to implement an affirmative action plan, meet project employment goals for minority and women employment or make a good faith effort to do so may result in revocation of his/her Certificate of Compliance or suspension or revocation of the contract (Minnesota Statutes §363A.36).
3. Under the affirmative action obligation imposed by the Human Rights Act, Minnesota Statutes, Section §363A.36, contractors shall take affirmative action to employ and advance in employment minority, female, and qualified disabled individuals at all levels of employment. Affirmative action must apply to all employment practices, including but not limited to hiring, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Contractor shall recruit, hire, train and promote persons in all job titles, without regard to race, color, creed, religion, sex, national origin, marital status, status with regard to public assistance, physical or mental disability, sexual orientation or age except where such status is a bona fide occupational qualification. These affirmative action requirements of the Minnesota Human Rights Act are consistent with but broader than the Federal requirements as covered in this contract.
4. Affirmative Action for disabled workers. The Contractor shall not discriminate against any employee or applicant for employment because of a physical or mental disability in regard to any position for which the employee or applicant for employment is qualified. The Contractor agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified disabled individuals without discrimination based upon their physical or mental disability in all employment practices such as employment, upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training (including apprenticeship). In the event of the Contractor's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with Minnesota Statutes, section §363A.36 and the rules and relevant orders of the Minnesota Department of Human Rights pursuant to the Minnesota Human Rights Act.
5. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the commissioner of the Minnesota Department of Human Rights. Such notices shall state the Contractor's obligation under the law to take affirmative action to employ and advance in employment minority, women and qualified disabled employees and applicants for employment, and the rights of applicants and employees. **A poster entitled "Contractor Non-discrimination is the Law" may be obtained from: Compliance Unit, Minnesota Department of Human Rights, Freeman Building, 625 Robert Street North, Saint Paul, Minnesota 55155. (651) 539-1100, TTY 296-1283, Toll Free 1-800-657-3704.**
6. The Contractor shall notify each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of Minnesota Statutes, section §363A.36 of the Minnesota Human Rights Act, and is committed to take affirmative action to employ and advance in employment minority, women and qualified physically and mentally disabled individuals.

APPROPRIATE WORK PLACE BEHAVIOR ON Mn/DOT CONSTRUCTION PROJECTS UTILIZING STATE FUNDS

It is the Minnesota Department of Transportation's (MnDOT's) policy to provide a workplace free from violence, threats of violence, harassment and discrimination. MnDOT has established a policy of zero tolerance for violence in the workplace. Contractors who perform work on MnDOT construction projects, or local government entities or public agencies utilizing state funds on highway construction projects, shall maintain a workplace free from violence, harassment and discrimination (See definitions, below).

Definitions:

1. Violence is the threatened or actual use of force which results in or has a high likelihood of causing fear, injury, suffering or death. Employees are prohibited from taking reprisal against anyone who reports a violent act or threat.

2. Harassment is the conduct of one employee (toward another employee) which has the purpose or effect of 1) unreasonably interfering with the employee's work performance, and/or 2) creating an intimidating, hostile or offensive work environment. Harassment is not legitimate job-related efforts of supervisor to direct/evaluate an employee or to have an employee improve work performance.

A. Unlawful discriminatory harassment is harassment which is based on these characteristics: race, color, creed, religion, national origin, sex, disability, age, marital status, status with regard to public assistance or sexual orientation. Managers, supervisors and employees shall not take disciplinary or retaliatory action against employees who make complaints of sexual harassment.

Sexual harassment is unwelcome sexual advances, requests for sexual favors, or sexually motivated physical contact, or other verbal or physical conduct or communication of a sexual nature, when submission to that conduct or communication is 1) made a term or condition, either explicitly or implicitly, of obtaining employment; or 2) is used as a factor in decisions affecting an individual's employment; or 3) when that conduct or communication has the purpose or effect of substantially interfering with an individual's employment or creating an intimidating, hostile or offensive work environment, and the employer knows or should have known of the existence of the harassment and fails to take timely and appropriate action. Examples include but are not limited to insulting or degrading sexual remarks or conduct; threats, demands or suggestions that status is contingent upon toleration or acquiescence to sexual advances; displaying in the workplace sexually suggestive objects, publications or pictures, or retaliation against employees for complaining about the behavior cited above or similar behaviors.

B. General harassment is harassment which is not based on the above characteristics. Examples may include, but are not limited to: physically intimidating behavior and/or threats of violence; use of profanity (swearing), vulgarity; ridiculing, taunting, belittling or humiliating another person; inappropriate assignments of work or benefits; derogatory name calling.

3. Discrimination includes actions which cause a person, solely because of race, color, creed, religion, national origin, sex, disability, age, marital status, status with regard to public assistance or sexual orientation to be subject to unequal treatment.

Prime Contractors who work on MnDOT projects shall ensure that their managers, supervisors, foremen/women and employees are familiar with MnDOT's policy on appropriate work place behavior; and shall ensure that their subcontractors are familiar with this policy. Managers, supervisors and foremen/women will respond to, document, and take appropriate action in response to all reports of violence, threats of violence, harassment or discrimination. Failure to comply with this policy may result in cancellation, termination or suspension of contracts or subcontracts currently held and debarment from further such contracts or subcontracts as provided by statute. If you need additional information or training regarding this policy, please contact the Office of Civil Rights at (651) 366-3073.

NOTICE TO ALL PRIME AND SUBCONTRACTORS REPORTING REQUIREMENTS

1. In order to monitor compliance with Federal Statutes 23 USC 140 and 23 CFR 230, and Minnesota Statutes §363A.36, all prime contractors and subcontractors are required to complete a Mn/DOT Monthly Employment Compliance Report each month for each project (Form EEO-13, sample copy at EEO Pages 20-21.) Prime contractors are also required to complete a Contractor Employment Data Report (Form EEO-12, sample copy at EEO Pages 18-19) once prior to work commencing on the project, unless one has been completed already within the calendar year.

The prime contractor of each project collects Monthly Employment Compliance Reports from each subcontractor who performed work during the month, and completes a Monthly Employment Compliance Report on its own work force. **For the month of July only, an EEO-13 is required for each payroll period within the month of July.** The prime contractor submits the EEO-13 forms to the Mn/DOT Project Engineer by the 15th day of the subsequent month.

Failure to submit the required reports in the allowable time frame will be cause for the imposition of contract sanctions.

It is the intent of Mn/DOT to implement monitoring measures on each project to ensure that each prime contractor and subcontractor is promoting the full realization of equal employment opportunities. Any project may be scheduled for an in depth on-site contract compliance review. During the scheduled on-site review, the Contractor will be required to provide to Mn/DOT documentation of its "good faith efforts" as shown in EEO Pages 10-13, at 7 a-p of this contract.

2. If a Federally funded project requires On-the-Job-Training (OJT) participation, information is provided in the contract and can be located by referring to the Table of Contents for Division S. (OJT is also listed as a bid line item under Trainees.) When a contract requires OJT participation, the Prime Contractor shall submit a training plan as indicated in the Proposal. The training plan shall include the job classification titles of trainees, planned training activities and the approximate start date of trainees.
3. When a Contractor selects a trainee applicant for OJT, the Contractor completes an On the Job Training Program-Trainee Assignment form (sample copy at EEO Page 23) and submits it to the Contract Compliance Specialist (CCS) assigned to the project for approval. The CCS notifies the Contractor and Project Engineer when the applicant is approved.
4. Hours of work performed by OJT employees shall be documented on a monthly basis on the Certification of On-The-Job Training Hours form, (Mn/DOT Form No. 21860, sample copy at EEO Page 24). The Contractor shall submit the original and one copy to the Project Engineer, and one copy to the CCS assigned to the project.

Do not remove forms from this contract. Please duplicate forms from the copies in this contract, or the Mn/DOT Office of Civil Rights will provide these forms upon request. Please call the Office of Civil Rights, (651) 366-3073.

SPECIFIC FEDERAL EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 CFR 230, Subpart A, Appendix A, FAPG June 6, 1996)

1. General.

a. Equal employment opportunity requirements not to discriminate and to take affirmative action to assure equal opportunity as required by Executive Order 11246 and Executive Order 11375 are set forth in Required contract Provisions (Form PR-1273 or 1316, as appropriate) and these Special Provisions which are imposed pursuant to Section 140 of title 23, U.S.C., as established by Section 22 of the Federal-Aid Highway Act of 1968. The requirements set forth in these Special Provisions shall constitute the specific affirmative action requirements for project activities under this contract and supplement the equal employment opportunity requirements set forth in the Required Contract Provisions.

b. The contractor will work with the State highway agencies and the Federal Government in carrying out equal employment opportunity obligations and in their review of his/her activities under the contract.

c. The contractor and all his/her subcontractors holding subcontracts not including material suppliers, of \$10,000 or more, will comply with the following minimum specific requirement activities of equal employment Opportunity: (The equal employment opportunity requirements of Executive Order 11246, as set forth in volume 6, Chapter 4, Section 1, Subsection 1 of the Federal-Aid Highway program Manual, are applicable to material suppliers as well as contractors and subcontractors.) The contractor will include these requirements in every subcontract of \$10,000 or more with such modification of language as is necessary to make them binding on the subcontractor.

2. Equal Employment Opportunity Policy.

The contractor will accept as his operating policy the following statement which is designed to further the provision of equal employment opportunity to all persons without regard to their race, color, religion, sex, or national origin, and to promote their full realization of equal employment through a positive continuing program:

It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, or national origin. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre apprenticeship, and/or on-the-job training.

3. Equal Employment Opportunity Officer.

The contractor will designate and make known to State highway agency contracting officers

an equal employment opportunity officer (hereinafter referred to as the EEO Officer) who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of equal employment opportunity and who must be assigned adequate authority and responsibility to do so.

4. Dissemination of Policy.

a. All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action will be made fully cognizant of, and will implement, the contractor's equal employment opportunity policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

(1). Periodic meetings of supervisory and personnel office staff will be conducted before the start of work and then not less often than once every six months, at which time the contractor's equal employment opportunity policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

(2). All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer or other knowledgeable company official, covering all major aspects of the contractor's equal employment opportunity obligations within thirty days following their reporting for duty with the contractor.

(3). All personnel who are engaged in direct recruitment for the project will be instructed by the EEO officer or appropriate company official in the contractor's procedures for locating and hiring minority group employees.

b. In order to make the contractor's equal employment policy known to all employees, prospective employees and potential sources of employees, i.e., schools, employment agencies, labor unions (where appropriate), college placement officers, etc., the contractor will take the following actions:

(1). Notices and posters setting forth the contractor's equal employment opportunity policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

(2). The contractor's equal employment opportunity policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

5. Recruitment.

a. When advertising for employees, the contractor will include in all advertisements for employees the notation "An Equal Opportunity Employer." All such advertisements will be published in newspapers or other publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

b. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants, including, but not limited to, State employment agencies, schools, colleges and minority group organizations. To meet this requirement, the contractor will, through his/her EEO Officer, identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with equal employment opportunity contract provisions. (The U.S. Department of Labor has held that where the implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

c. The contractor will encourage his present employees to refer minority group applicants for employment by posting appropriate notices or bulletins in areas accessible to all such employees. In addition, information and procedures with regard to referring minority group applicants will be discussed with employees.

6. Personnel Actions. Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, or national origin. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each

SPECIFIC FEDERAL EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (cont.)

classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his/her obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all his avenues of appeal.

7. Training and Promotion.

a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees and applicants for employment.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e. apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event the Training Special Provision is provided under this contract, this subparagraph will be superseded as indicated in Attachment 2.

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The Contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

8. Unions. If a contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as

agent will include the procedures set forth below:

a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group members and women so that they may qualify for higher paying employment.

b. The contractor will use best efforts to incorporate an equal employment opportunity clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, or national origin.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the State highway department and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, or national origin; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The U.S. Department of Labor has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the State highway agency.

9. Subcontracting.

a. The contractor will use his best efforts to solicit bids from and to utilize minority group subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of minority-owned construction firms from State highway agency personnel.

b. The contractor will use his best efforts to ensure subcontractor compliance with their equal employment opportunity obligations.

10. Records and Reports:

a. The contractor shall keep such records as necessary to determine compliance with the contractor's equal employment opportunity obligations. The records kept by the contractor will be designed to indicate:

(1) The number of minority and non minority group members and women employed in each work classification on the project.

(2) The progress and efforts being made in cooperation with unions to increase employment opportunities for minorities and women (applicable only to contractor's who rely in whole or in part on unions as a source of their work force),

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees, and

(4) The progress and efforts being made in securing the services of minority group subcontractors with meaningful minority and female representation among their employees.

b. All such records must be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the State highway agency and the Federal Highway Administration.

c. The contractors will submit an annual report to the State highway agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form PR-1391. If on-the-job training is being required by a "Training Special Provision", the contractor will be required to furnish Form FHWA 1409.

**STANDARD FEDERAL AND STATE EQUAL EMPLOYMENT OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFICATIONS
(41 CFR 60-4.3 and Minnesota Statute §363A.36)**

Unless noted, the following apply to both Federal/federally assisted projects and State/state assisted projects. Item 3 applies to Federal/federally assisted projects only

1. As used in these specifications:
 - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
 - b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
 - c. "Employer Identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
 - d. "Minority" includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 (\$100,000 for State projects) the provisions of these specifications and the Notice which contains the applicable goals for minority and women participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4, 5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work on the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7(a) to (p) of these specifications (itemized as 4 [a] to [o], Minnesota Rules

**STANDARD FEDERAL AND STATE EEO CONSTRUCTION
CONTRACT SPECIFICATIONS (cont.)**

5000.3535). The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minorities and utilization the Contractor should (shall, for State or state assisted projects) reasonably be able to achieve in each construction trade in which it has employees in the covered area. The Contractor shall make substantially uniform progress toward its goals in each craft during the period specified. Covered construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Federal goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any office of Federal Contract Compliance programs or from Federal procurement contracting officers. State goals are published periodically in the State Register in notice form, and may be obtained from the Minnesota Department of Human Rights or the Minnesota Department of Transportation Office of Civil Rights. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement nor the failure by a union, with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications and Executive Order 11246 and its associated rules and regulations for Federal or federally assisted projects, and Minnesota Statutes, Section §363A.36 of the Minnesota Human Rights Act, or the rules adopted under the Act for State or state assisted projects.
6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees shall be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees shall be trained according to training programs approved by the Minnesota Department of Human Rights, the Minnesota Department of Labor and Industry, or the United States Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications must be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following (referred to in Minnesota Rules 5000.3535 as items 4(a) to (o):
 - (a) Ensure and maintain, or for State or state assisted projects make a good faith effort to maintain, a working environment free of harassment, intimidation, and coercion at all sites and in all facilities at which the Contractor's employees are assigned to work. For

**STANDARD FEDERAL AND STATE EEO CONSTRUCTION
CONTRACT SPECIFICATIONS (cont.)**

Federal or federally assisted projects, the Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or women individuals working at such sites or in such facilities.

- (b) Establish and maintain a current list of minority and women recruitment sources, provide written notification to minority and women recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
- (c) Maintain a current file of the names, addresses, and telephone numbers of each minority and woman off-the-street applicant and minority or woman referral from a union, a recruitment source, or community organization and of what action was taken with respect to each individual. If the individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore along with whatever additional actions the Contractor may have taken.
- (d) Provide immediate written notification to the commissioner of the Minnesota Department of Human Rights for State or state assisted projects, or the director of the Office of Federal Contract Compliance for Federal or federally assisted projects, when the union, or unions with which the Contractor has a collective bargaining agreement, has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
- (e) Develop on-the-job training opportunities and/or participate in training programs for the areas which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the State of Minnesota for State or state assisted projects or the Department of Labor, for Federal or federally assisted projects. The Contractor shall provide notice of these programs to the sources compiled under (b).
- (f) Disseminate the Contractor's equal employment opportunity policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its equal employment opportunity obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and women employees at least once a year; and by posting the company equal employment opportunity policy on bulletin boards accessible to all employees at each location where construction work is performed.

**STANDARD FEDERAL AND STATE EEO CONSTRUCTION
CONTRACT SPECIFICATIONS (cont.)**

- (g) Review, at least annually, the company's equal employment opportunity policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions; including specific review of these items with onsite supervisory personnel such as superintendents, general foremen, etc., prior to the first day of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- (h) Disseminate the Contractor's equal employment opportunity policy externally by including it in any advertising in the news media, specifically including minority and women news media, and providing written notification to and discussing the Contractor's equal employment opportunity policy with other contractors and subcontractors with whom the Contractor does or anticipates doing business.
- (i) Direct its recruitment efforts, both oral and written, to minority, women, and community organizations; to schools with minority and women students; and to minority and women recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations, such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- (j) Encourage present minority and women employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and women youth, both on the site and in other areas of a Contractor's work force.
- (k) Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3. (This requirement applies only to Federal and federally assisted projects.)
- (l) Conduct, at least annually, an inventory and evaluation at least of all minority and women personnel for promotional opportunities; and encourage these employees to seek or to prepare for, through appropriate training, such opportunities. (This is Item 4(k) in Minnesota Rules.)
- (m) Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment-related activities to ensure that the equal employment opportunity policy and the Contractor's obligations under these specifications are being carried out. (This is item 4(l) in Minnesota Rules.)

**STANDARD FEDERAL AND STATE EEO CONSTRUCTION
CONTRACT SPECIFICATIONS (cont.)**

- (n) Ensure that all facilities and company activities are non segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes. (This is item 4(m) in Minnesota Rules.)
 - (o) Document and maintain a record of all solicitations or offers for subcontracts from minority and women construction contractors and suppliers, including circulation of solicitations to minority and women contractor associations and other business associations. (This is item 4(n) in Minnesota Rules.)
 - (p) Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's equal employment opportunity policies and affirmative action obligations. (This is item 4(o) in Minnesota Rules.)
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7(a) to (p) for Federal or federally assisted projects, and 4(a)-(o) for State or state assisted projects). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7(a) to (p) or 4(a) to (o) of these specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and women work force participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be defense for the Contractor's noncompliance.
9. A single goal for minorities and a separate single goal for women have been established. The Contractor however, is required to provide equal employment opportunity and to take affirmative action for all minority groups both male and female, and all women both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order for Federal or federally assisted projects, or Minnesota Rules for State or state assisted projects, if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order or Minnesota Rules part 5000.3520 if a specific minority group is under-utilized).
10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, creed, religion, sex, or national origin. Minnesota Statutes §363A.36, part 5000.3535 (Subp. 7) also prohibits discrimination with regard to marital status, status with regard to public assistance, disability, age, or sexual orientation.

**STANDARD FEDERAL AND STATE EEO CONSTRUCTION
CONTRACT SPECIFICATIONS (cont.)**

11. The Contractor shall not enter into any subcontract with any person or firm debarred from government contracts under the federal Executive Order 11246 or a local human rights ordinance, or whose certificate of compliance has been suspended or revoked pursuant to Minnesota Statutes, Section §363A.36.
12. The Contractor shall carry out such sanctions for violation of these specifications and of the equal opportunity clause, including suspension, termination, and cancellation of existing contracts as may be imposed or ordered pursuant to Minnesota Statutes, Section §363A.36, and its implementing rules for State or state assisted projects, or Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs for Federal or federally assisted projects. Any contractor who fails to carry out such sanctions shall be in violation of these specifications and Minnesota Statutes, Section §363A.36, or Executive Order 11246 as amended.
13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications (paragraph 4 in Minnesota Rules 5000.3535), so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of these Specifications or Minnesota Statutes, Section §363A.36 and its implementing rules, or Executive Order 11246 and its regulations, the commissioner or the director shall proceed in accordance with Minnesota Rules part 5000.3570 for State or state assisted projects, or 41 CFR 60-4.8 for Federal or federally assisted projects.
14. The Contractor shall designate a responsible official to monitor all employment-related activity to ensure that the company equal employment opportunity policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Minnesota Department of Human Rights or the Government, and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (for example, mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
15. Nothing provided in this part shall be construed as a limitation upon the application of other state or federal laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents.

EQUAL OPPORTUNITY CLAUSE
(41 CFR Part 60-1.4 b, 7-1-96 Edition)

The applicant hereby agrees that it will incorporate or cause to be incorporated into any contract for construction work, or modification thereof, as defined in the regulations of the Secretary of Labor at 41 CFR Chapter 60, which is paid for in whole or in part with funds obtained from the Federal Government or borrowed on the credit of the Federal Government pursuant to a grant, contract, loan, insurance, or guarantee, the following equal opportunity clause:

During the performance of this contract, the Contractor agrees as follows:

1. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoffs or termination; rates of pay or other forms of compensation; and, selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the State Highway Agency (SHA) setting forth the provisions of this nondiscrimination clause.
2. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
3. The Contractor will send to each labor union or representative of workers with which the Contractor has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
4. The Contractor will comply with all provisions of Executive Order 11246, Equal Employment Opportunity, dated September 24, 1965, and of the rules, regulations (41 CFR Part 60), and relevant orders of the Secretary of Labor.
5. The Contractor will furnish all information and reports required by Executive Order 11246 and by rules, regulations, and orders of the Secretary of Labor, pursuant thereto, and will permit access to its books, records, and accounts by the Federal Highway Administration (FHWA) and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
6. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract, or with any of such rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part, and the Contractor may be declared ineligible for further Government contracts or federally-assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions as may be imposed and remedies invoked as provided in Executive Order 11246 or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
7. The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraph (1) through (7) in every subcontract or purchase order so that such provisions will be binding upon each subcontractor or vendor, unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246. The Contractor will take such action with respect to any subcontract or purchase order as the Secretary of Labor, SHA, or the Federal Highway Administration (FHWA) may direct as a means of enforcing such provisions, including sanctions for noncompliance. In the event a contractor becomes a party to litigation by a subcontractor or vendor as a result of such direction, the contractor may request the SHA to enter into such litigation to protect the interest of the State. In addition, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: *Provided*, that if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

Minority and Women Employment Goals

County	Federal Goals		State Goals	
	Minority Goal	Women Goal	Minority Goal	Women Goal
Aitkin	2.2%	6.9%	5%	6%
Anoka	2.9%	6.9%	22%	6%
Becker	0.7%	6.9%	6%	6%
Beltrami	2.0%	6.9%	6%	6%
Benton	0.5%	6.9%	3%	6%
Big Stone	2.2%	6.9%	4%	6%
Blue Earth	2.2%	6.9%	4%	6%
Brown	2.2%	6.9%	4%	6%
Carlton	1.2%	6.9%	5%	6%
Carver	2.9%	6.9%	22%	6%
Cass	2.2%	6.9%	6%	6%
Chippewa	2.2%	6.9%	4%	6%
Chisago	2.9%	6.9%	3%	6%
Clay	0.7%	6.9%	6%	6%
Clearwater	2.0%	6.9%	6%	6%
Cook	1.2%	6.9%	5%	6%
Cottonwood	0.8%	6.9%	4%	6%
Crow Wing	2.2%	6.9%	6%	6%
Dakota	2.9%	6.9%	22%	6%
Dodge	0.9%	6.9%	4%	6%
Douglas	2.2%	6.9%	6%	6%
Faribault	2.2%	6.9%	4%	6%
Fillmore	0.9%	6.9%	4%	6%
Freeborn	0.9%	6.9%	4%	6%
Goodhue	2.2%	6.9%	4%	6%
Grant	2.2%	6.9%	6%	6%
Hennepin	2.9%	6.9%	32%	6%
Houston	0.6%	6.9%	4%	6%
Hubbard	2.0%	6.9%	6%	6%
Isanti	2.2%	6.9%	3%	6%
Itasca	1.2%	6.9%	5%	6%
Jackson	0.8%	6.9%	4%	6%
Kanabec	2.2%	6.9%	3%	6%
Kandiyohi	2.2%	6.9%	3%	6%
Kittson	2.0%	6.9%	6%	6%
Koochiching	1.2%	6.9%	5%	6%
Lac Qui Parle	2.2%	6.9%	4%	6%
Lake	1.2%	6.9%	5%	6%
Lake of the Woods	2.0%	6.9%	6%	6%
Le Sueur	2.2%	6.9%	4%	6%
Lincoln	0.8%	6.9%	4%	6%
Lyon	0.8%	6.9%	4%	6%

County	Federal Goals		State Goals	
	Minority Goal	Women Goal	Minority Goal	Women Goal
Mahnomen	2.0%	6.9%	6%	6%
Marshall	2.0%	6.9%	6%	6%
Martin	2.2%	6.9%	4%	6%
McLeod	2.2%	6.9%	3%	6%
Meeker	2.2%	6.9%	3%	6%
Mille Lacs	2.2%	6.9%	3%	6%
Morrison	2.2%	6.9%	6%	6%
Mower	0.9%	6.9%	4%	6%
Murray	0.8%	6.9%	4%	6%
Nicollet	2.2%	6.9%	4%	6%
Nobles	0.8%	6.9%	4%	6%
Norman	2.0%	6.9%	6%	6%
Olmsted	1.4%	6.9%	4%	6%
Otter Tail	2.2%	6.9%	6%	6%
Pennington	2.0%	6.9%	6%	6%
Pine	2.2%	6.9%	3%	6%
Pipestone	0.8%	6.9%	4%	6%
Polk	1.2%	6.9%	6%	6%
Pope	2.2%	6.9%	6%	6%
Ramsey	2.9%	6.9%	32%	6%
Red Lake	2.0%	6.9%	6%	6%
Redwood	0.8%	6.9%	4%	6%
Renville	2.2%	6.9%	3%	6%
Rice	2.2%	6.9%	4%	6%
Rock	0.8%	6.9%	4%	6%
Roseau	2.0%	6.9%	6%	6%
Scott	2.9%	6.9%	22%	6%
Sherburne	0.5%	6.9%	3%	6%
Sibley	2.2%	6.9%	4%	6%
St. Louis	1.0%	6.9%	5%	6%
Stearns	0.5%	6.9%	3%	6%
Steele	0.9%	6.9%	4%	6%
Stevens	2.2%	6.9%	6%	6%
Swift	2.2%	6.9%	4%	6%
Todd	2.2%	6.9%	6%	6%
Traverse	2.2%	6.9%	6%	6%
Wabasha	0.9%	6.9%	4%	6%
Wadena	2.2%	6.9%	6%	6%
Waseca	2.2%	6.9%	4%	6%
Washington	2.9%	6.9%	22%	6%
Watonwan	2.2%	6.9%	4%	6%
Wilkin	0.7%	6.9%	6%	6%
Winona	0.6%	6.9%	4%	6%
Wright	2.9%	6.9%	3%	6%
Yellow Medicine	2.2%	6.9%	4%	6%

Minnesota Department of Transportation Office of Civil Rights Contractor Employment Data	1. Contractor Name and Address: Phone: _____
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2. Employment Data	a) Name: Last Name, First Name, MI	b) Social Security #	c) New Hire (Y or N)	d) Ethnicity	e) Gender (M or F)	f) Trade/Foreman, Supervisors, Managers	g) Level (A, J, or T)
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INSTRUCTIONS FOR EEO-12 CONTRACTOR EMPLOYMENT DATA

This form should be submitted at the Pre-Con to the Project Engineer prior to the start of your first MnDOT construction project for the calendar year (Prime and Subs)

1. Contractor Name and Address self-explanatory.
2. Employment Data information will coincide with your employment records.
 - 2a. Name should be listed First Name, Middle Initial, and Last Name. This will enable MnDOT EEO staff to readily identify individuals on all projects.
 - 2b. Social Security Number self-explanatory.
 - 2c. New Hire is to be indicated with a “Y” for Yes or an “N” for No. “New Hire” is an employee who has not worked for you in any capacity or on any other project within the current calendar year.
 - 2d. Ethnicity can be indicated by Black (B), Hispanic (H), American Indian/Alaskan Native (AI), Asian/Pacific Islander (AP), or White (W).
 - 2e. Gender is to be indicated with an “M” for Males or an “F” for Females.
 - 2f. Trade/Foreman, Supervisors, Managers self-explanatory. List trade that applies unless the employee fits one of the other three categories.
 - 2g. Level “A” is for an Apprentice, “J” is for a Journey Worker, and “T” is for a MnDOT approved Trainee.

If you have questions about filling out this form, contact the Office of Civil Rights at (651) 366-3073.
(Please make copies as you need them.)

This information can be submitted electronically via the web, through MnDOT’s Work force Information Tracking Initiative (WITI) Program. To open a free account to gain access to WITI or to find out more about this possibility please contact MnDOT’s Office of Civil Rights at (651) 366-3015.

Minnesota Department of Transportation EEO Special Provisions
Office of Civil Rights

Revised 07/12

Minnesota Department of Transportation Office of Civil Rights Monthly Employment Compliance Report EEO-13		1. SP <input type="checkbox"/> SAP <input type="checkbox"/> (Check one)		3. Contractor Name:		4. Prime <input type="checkbox"/> Subcontractor <input type="checkbox"/> (check one)		
		SP#		Federal Tax ID:				
		County or City		Street Address:		5. Dollar Amount of Contract:		
		2. Reporting Period to _____		City, State Zip		6. Percent of Completion:		
7. Employment Data a) Name: Last, First Middle Initial		b) Social Security #	c) New Hire (Y or N)	d) Ethnicity	e) Gender (M or F)	Trade/Foreman, Supervisors, Managers	g) Level (A, J or T)	h) Hours Worked This Period
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20.								
8. Contract Goals MINNESOTA GOALS %OBTAINED _____ % Minority _____ % _____ % Women _____ %		9. Prepared by: (Signature) _____ Print Name: _____ Title: _____ Date: _____ Phone: _____ Fax: _____			10. Reviewed by: (Signature) _____ Print Name: _____ Title: _____ Date: _____ Phone: _____ Fax: _____			

INSTRUCTIONS FOR EEO-13
MONTHLY EMPLOYMENT COMPLIANCE REPORT

- 1.-5. Self-explanatory – State Project #, county project is located in, are you a prime or sub, and contract value.
6. Percent of Completion is the estimated percentage of work completed including this reporting period.
7. Employment Data information will coincide with your employment records. All professional, supervisory and managerial hours actually worked on the project site must be included, whether or not they appear on the certified payroll.
 - 7a. Name should be listed Last Name, First Name, and Middle Initial. This will enable MnDOT EEO staff to readily identify individuals on all projects.
 - 7b. Social Security Number self-explanatory.
 - 7c. New Hire is to be indicated with a “Y” for Yes or an “N” for No. “New Hire” is an employee who has not worked for you in any capacity or on any other project within the current calendar year.
 - 7d. Ethnicity can be indicated by Black (B), Hispanic (H), American Indian/Alaskan Native (AI), Asian/Pacific Islander (AP), or White (W).
 - 7e. Gender is to be indicated with an “M” for Males or an “F” for Females.
 - 7f. Trade/Foreman, Supervisors, Managers list the trade that applies unless the employee fits one of the other three categories.
 - 7g. Level “A” is for an Apprentice, “J” is for a Journey Worker, and “T” is for a MnDOT approved Trainee.
 - 7h. Hours Worked for This Period will be all hours worked by the individual, for each trade, during the specified reporting period.
8. Contract Goals are the percent of total project hours to be worked by minority and women employees. The goals are determined by the geographic location and source of funding for the project. Projects in excess of \$100,000 with any State funding must meet the State Employment Goals. Projects in excess of \$10,000 with any Federal funding must meet the Federal Employment Goals. (See chart on EEO Pages 16-17.) Minority and women employee hours shall be distributed evenly throughout the length of the project and in every trade and craft that performs work on the project.

% Obtained is the percent of the total project hours worked by minority and women employees, up to and including this reporting period.
9. Prepared by Contractor Designee is the signature of the prime or subcontractor’s EEO officer/designee.
10. Reviewed by Project Engineer is the signature of the MnDOT staff monitoring the project.

The Prime Contractor will submit EEO-13 forms for its workforce and all subcontractors to the MnDOT Project Engineer by the 15th day of the month following the month when work was performed. If you have questions about filling out this form, contact the Office of Civil Rights at (651) 366-3073. (Please make copies as you need them.)

This information can be submitted electronically via the web, through MnDOT’s Workforce Information Tracking Initiative (WITI) Program. To open a free account to gain access to WITI or to find out more about this possibility please contact MnDOT’s Office of Civil Rights at (651) 366-3321.

EEO COMPLIANCE REVIEW REPORT

Total Company Workforce
(For 12 Month Period Preceding July 30th of the previous year)

Name and Address of Contractor

Name and Title of Corporate Officer

Name of EEO Officer

Job Categories	Total Employees		Total Minorities		Blacks		Asian/ Pacific Is.		American Indian		Hispanic		On-the-Job Trainees	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Officials (Managers)														
Supervisors														
Foremen/Women														
Clerical														
Equipment Operators														
Mechanics														
Truck Drivers														
Iron Workers														
Carpenters														
Cement Masons														
Electricians														
Pipefitters & Plumbers														
Painters														
Laborers														
Misc. Trades														
Total														
On-the-Job Trainees														

NON-COLLUSION AFFIDAVIT

The following Non-Collusion Affidavit shall be executed by the bidder:

State Project No. _____

Federal Project No. _____

State of Minnesota _____)

) ss

County of _____)

I, _____, do state under penalty of
(name of person signing this affidavit)

perjury under 28 U.S.C. 1746 of the laws of the United States:

(1) that I am the authorized representative of _____

(name of person, partnership or corporation submitting this proposal)

and that I have the authority to make this affidavit for and on behalf of said bidder;

(2) that, in connection with this proposal, the said bidder has not either directly or indirectly entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding;

(3) that, to the best of my knowledge and belief, the contents of this proposal have not been communicated by the bidder or by any of his/her employees or agents to any person who is not an employee or agent of the bidder or of the surety on any bond furnished with the proposal and will not be communicated to any person who is not an employee or agent of the bidder or of said surety prior to the official opening of the proposal, and

(4) that I have fully informed myself regarding the accuracy of the statements made in this affidavit.

Signed: _____
(bidder or his authorized representative)

**ATTACHMENT A
PRIME CONTRACTOR RESPONSE**

RESPONSIBLE CONTRACTOR VERIFICATION AND CERTIFICATION OF COMPLIANCE

STATE PROJECT NUMBER: _____

This form includes changes by statutory references from the Laws of Minnesota 2015, chapter 64, sections 1-9. This form must be submitted with the response to this solicitation. A response received without this form, will be rejected.

<p>Minn. Stat. § 16C.285, Subd. 7. IMPLEMENTATION. ... any prime contractor or subcontractor or motor carrier that does not meet the minimum criteria in subdivision 3 or fails to verify that it meets those criteria is not a responsible contractor and is not eligible to be awarded a construction contract for the project or to perform work on the project...</p>	
<p>Minn. Stat. § 16C.285, Subd. 3. RESPONSIBLE CONTRACTOR, MINIMUM CRITERIA. "Responsible contractor" means a contractor that conforms to the responsibility requirements in the solicitation document for its portion of the work on the project and verifies that it meets the following minimum criteria:</p>	
<p>(1)</p>	<p>The Contractor:</p> <ul style="list-style-type: none"> (i) is in compliance with workers' compensation and unemployment insurance requirements; (ii) is in compliance with Department of Revenue and Department of Employment and Economic Development registration requirements if it has employees; (iii) has a valid federal tax identification number or a valid Social Security number if an individual; and (iv) has filed a certificate of authority to transact business in Minnesota with the Secretary of State if a foreign corporation or cooperative.
<p>(2)</p>	<p>The contractor or related entity is in compliance with and, during the three-year period before submitting the verification, has not violated section 177.24, 177.25, 177.41 to 177.44, 181.13, 181.14, or 181.722, and has not violated United States Code, title 29, sections 201 to 219, or United States Code, title 40, sections 3141 to 3148. For purposes of this clause, a violation occurs when a contractor or related entity:</p> <ul style="list-style-type: none"> (i) repeatedly fails to pay statutorily required wages or penalties on one or more separate projects for a total underpayment of \$25,000 or more within the three-year period, provided that a failure to pay is "repeated" only if it involves two or more separate and distinct occurrences of underpayment during the three-year period; (ii) has been issued an order to comply by the commissioner of Labor and Industry that has become final; (iii) has been issued at least two determination letters within the three-year period by the Department of Transportation finding an underpayment by the contractor or related entity to its own employees; (iv) has been found by the commissioner of Labor and Industry to have repeatedly or willfully violated any of the sections referenced in this clause pursuant to section 177.27; (v) has been issued a ruling or findings of underpayment by the administrator of the Wage and Hour Division of the United States Department of Labor that have become final or have been upheld by an administrative law judge or the Administrative Review Board; or (vi) has been found liable for underpayment of wages or penalties or misrepresenting a construction worker as an independent contractor in an action brought in a court having jurisdiction. Provided that, if the contractor or related entity contests a determination of underpayment by the Department of Transportation in a contested case proceeding, a violation does not occur until the contested case proceeding has concluded with a determination that the contractor or related entity underpaid wages or penalties;*

(3)	The contractor or related entity is in compliance with and, during the three-year period before submitting the verification, has not violated section 181.723 or chapter 326B. For purposes of this clause, a violation occurs when a contractor or related entity has been issued a final administrative or licensing order;*
(4)	The contractor or related entity has not, more than twice during the three-year period before submitting the verification, had a certificate of compliance under section 363A.36 revoked or suspended based on the provisions of section 363A.36, with the revocation or suspension becoming final because it was upheld by the Office of Administrative Hearings or was not appealed to the office;*
(5)	The contractor or related entity has not received a final determination assessing a monetary sanction from the Department of Administration or Transportation for failure to meet targeted group business, disadvantaged business enterprise, or veteran-owned business goals, due to a lack of good faith effort, more than once during the three-year period before submitting the verification;*
	* Any violations, suspensions, revocations, or sanctions, as defined in clauses (2) to (5), occurring prior to July 1, 2014, shall not be considered in determining whether a contractor or related entity meets the minimum criteria.
(6)	The contractor or related entity is not currently suspended or debarred by the federal government or the state of Minnesota or any of its departments, commissions, agencies, or political subdivisions that have authority to debar a contractor; and
(7)	All subcontractors and motor carriers that the contractor intends to use to perform project work have verified to the contractor through a signed statement under oath by an owner or officer that they meet the minimum criteria listed in clauses (1) to (6).

Minn. Stat. § 16C.285, Subd. 5. **SUBCONTRACTOR VERIFICATION.**

A prime contractor or subcontractor shall include in its verification of compliance under subdivision 4 a list of all of its first-tier subcontractors that it intends to retain for work on the project. Prior to execution of a construction contract, and as a condition precedent to the execution of a construction contract, the apparent successful prime contractor shall submit to the contracting authority a supplemental verification under oath confirming compliance with subdivision 3, clause (7). Each contractor or subcontractor shall obtain from all subcontractors with which it will have a direct contractual relationship a signed statement under oath by an owner or officer verifying that they meet all of the minimum criteria in subdivision 3 prior to execution of a construction contract with each subcontractor.

If a prime contractor or any subcontractor retains additional subcontractors on the project after submitting its verification of compliance, the prime contractor or subcontractor shall obtain verifications of compliance from each additional subcontractor with which it has a direct contractual relationship and shall submit a supplemental verification confirming compliance with subdivision 3, clause (7), within 14 days of retaining the additional subcontractors.

A prime contractor shall submit to the contracting authority upon request copies of the signed verifications of compliance from all subcontractors of any tier pursuant to subdivision 3, clause (7). A prime contractor and subcontractors shall not be responsible for the false statements of any subcontractor with which they do not have a direct contractual relationship. A prime contractor and subcontractors shall be responsible for false statements by their first-tier subcontractors with which they have a direct contractual relationship only if they accept the verification of compliance with actual knowledge that it contains a false statement.

Subd. 5a. Motor carrier verification. A prime contractor or subcontractor shall obtain annually from all motor carriers with which it will have a direct contractual relationship a signed statement under oath by an owner or officer verifying that they meet all of the minimum criteria in subdivision 3 prior to execution of a construction contract with each motor carrier. A prime contractor or subcontractor shall require each such motor carrier to provide it with immediate written notification in the event that the motor carrier no longer meets one or more of the minimum criteria in subdivision 3 after submitting its annual verification. A motor carrier shall be ineligible to perform work on a project covered by this section if it does not meet all the minimum criteria in subdivision 3. Upon request, a prime contractor or subcontractor shall submit to the contracting authority the signed verifications of compliance from all motor carriers providing for-hire transportation of materials, equipment, or supplies for a project.

Minn. Stat. § 16C.285, Subd. 4. **VERIFICATION OF COMPLIANCE.**

A contractor responding to a solicitation document of a contracting authority shall submit to the contracting authority a signed statement under oath by an owner or officer verifying compliance with each of the minimum criteria in subdivision 3, with the exception of clause (7), at the time that it responds to the solicitation document.

A contracting authority may accept a signed statement under oath as sufficient to demonstrate that a contractor is a responsible contractor and shall not be held liable for awarding a contract in reasonable reliance on that statement. A prime contractor, subcontractor, or motor carrier that fails to verify compliance with any one of the required minimum criteria or makes a false statement under oath in a verification of compliance shall be ineligible to be awarded a construction contract on the project for which the verification was submitted.

A false statement under oath verifying compliance with any of the minimum criteria may result in termination of a construction contract that has already been awarded to a prime contractor or subcontractor or motor carrier that submits a false statement. A contracting authority shall not be liable for declining to award a contract or terminating a contract based on a reasonable determination that the contractor failed to verify compliance with the minimum criteria or falsely stated that it meets the minimum criteria. A verification of compliance need not be notarized. An electronic verification of compliance made and submitted as part of an electronic bid shall be an acceptable verification of compliance under this section provided that it contains an electronic signature as defined in section 325L.02, paragraph (h).

CERTIFICATION

By signing this document I certify that I am an owner or officer of the company, and I swear under oath that:

- 1) My company meets each of the Minimum Criteria to be a responsible contractor as defined herein and is in compliance with Minn. Stat. § 16C.285, and**
- 2) if my company is awarded a contract, I will submit Attachment A-1 prior to contract execution, and**
- 3) if my company is awarded a contract, I will also submit Attachment A-2 as required.**

Authorized Signature of Owner or Officer:

Printed Name:

Title:

Date:

Company Name:

NOTE: Minn. Stat. § 16C.285, Subd. 2, (c) If only one prime contractor responds to a solicitation document, a contracting authority may award a construction contract to the responding prime contractor even if the minimum criteria in subdivision 3 are not met.

ATTACHMENT A-1

FIRST-TIER SUBCONTRACTORS LIST

SUBMIT PRIOR TO EXECUTION OF A CONSTRUCTION CONTRACT

STATE PROJECT NUMBER: _____

Minn. Stat. § 16C.285, Subd. 5. A prime contractor or subcontractor shall include in its verification of compliance under subdivision 4 a list of all of its first-tier subcontractors that it intends to retain for work on the project. Prior to execution of a construction contract, and as a condition precedent to the execution of a construction contract, the apparent successful prime contractor shall submit to the contracting authority a supplemental verification under oath confirming compliance with subdivision 3, clause (7). Each contractor or subcontractor shall obtain from all subcontractors with which it will have a direct contractual relationship a signed statement under oath by an owner or officer verifying that they meet all of the minimum criteria in subdivision 3 prior to execution of a construction contract with each subcontractor.

FIRST TIER SUBCONTRACTOR NAMES* (Legal name of company as registered with the Secretary of State)	Name of city where company home office is located

*Attach additional sheets as needed for submission of all first-tier subcontractors.

SUPPLEMENTAL CERTIFICATION FOR ATTACHMENT A-1	
<p>By signing this document I certify that I am an owner or officer of the company, and I swear under oath that:</p> <p>All first-tier subcontractors listed on attachment A-1 have verified through a signed statement under oath by an owner or officer that they meet the minimum criteria to be a responsible contractor as defined in Minn. Stat. § 16C.285.</p>	
Authorized Signature of Owner or Officer:	Printed Name:
Title:	Date:
Company Name:	

ATTACHMENT A-2

ADDITIONAL SUBCONTRACTORS LIST

PRIME CONTRACTOR TO SUBMIT AS SUBCONTRACTORS ARE ADDED TO THE PROJECT

STATE PROJECT NUMBER: _____

This form must be submitted to the Project Manager or individual as identified in the solicitation document.

Minn. Stat. § 16C.285, Subd. 5. ... If a prime contractor or any subcontractor retains additional subcontractors on the project after submitting its verification of compliance, the prime contractor or subcontractor shall obtain verifications of compliance from each additional subcontractor with which it has a direct contractual relationship and shall submit a supplemental verification confirming compliance with subdivision 3, clause (7), within 14 days of retaining the additional subcontractors. ...

ADDITIONAL SUBCONTRACTOR NAMES* (Legal name of company as registered with the Secretary of State)	Name of city where company home office is located

*Attach additional sheets as needed for submission of all additional subcontractors.

SUPPLEMENTAL CERTIFICATION FOR ATTACHMENT A-2	
<p>By signing this document I certify that I am an owner or officer of the company, and I swear under oath that:</p> <p>All additional subcontractors listed on Attachment A-2 have verified through a signed statement under oath by an owner or officer that they meet the minimum criteria to be a responsible contractor as defined in Minn. Stat. § 16C.285.</p>	
Authorized Signature of Owner or Officer:	Printed Name:
Title:	Date:
Company Name:	

DIVISION S
SPECIAL PROVISIONS
TABLE OF CONTENTS

S-1	GOVERNING SPECIFICATIONS.....	2
S-2	RESPONSIBLE CONTRACTOR.....	2
S-3	COMPLIANCE WITH TAX LAW REQUIREMENTS	2
S-4	(1203) ACCESS TO PROPOSAL PACKAGE	3
S-5	(1206) PREPARATION OF PROPOSAL.....	3
S-6	(1209) DELIVERY OF PROPOSALS	3
S-7	(1210) REVISION OF PROPOSAL PACKAGE OR WITHDRAWAL OF PROPOSALS	4
S-8	(1212) OPENING OF PROPOSALS	4
S-9	(1302) AWARD OF CONTRACT	4
S-10	(1304) RETURN OF PROPOSAL GUARANTY.....	4
S-11	(1404) MAINTENANCE OF TRAFFIC AND (2563) TRAFFIC CONTROL.....	5
S-12	(1505) COOPERATION BY CONTRACTORS.....	13
S-13	(1506) SUPERVISION BY CONTRACTOR	13
S-14	(1507) UTILITY PROPERTY AND SERVICE	13
S-15	(1603) MATERIALS: SPECIFICATIONS, SAMPLES, AND TESTS	14
S-16	(1702) PERMITS, LICENSES AND TAXES.....	14
S-17	(1707) PUBLIC CONVENIENCE AND SAFETY	14
S-18	(1801) SUBLETTING OF CONTRACT	14
S-19	(1803) PROGRESS SCHEDULES	15
S-20	(1806) DETERMINATION AND EXTENSION OF CONTRACT TIME.....	15
S-21	(1906) PARTIAL PAYMENTS	15
S-22	(1910) FUEL ESCALATION CLAUSE.....	15
S-23	(2013) SURVEY MONUMENT	15
S-24	(2331) BITUMINOUS PAVEMENT CRACK TREATMENT	16
S-25	BITUMINOUS CRACK LEVELING WITH MASTIC	22
S-26	(2563) TRAFFIC CONTROL	27
S-27	(2563) PORTABLE CHANGEABLE MESSAGE SIGN	27

DIVISION S

S-1 GOVERNING SPECIFICATIONS

The 2016 Edition of the Minnesota Department of Transportation “Standard Specifications for Construction” shall apply on this contract except as modified or altered by the following Project Special Provisions.

Numbering in the Project Special Provisions that begins with “SP201X” and the “Revised” or “New Write Up” date notations reference corresponding sections in the Minnesota Department of Transportation Standard Special Provisions located at <http://www.dot.state.mn.us/pre-letting/prov/>. Changes to the Standard Special Provisions are denoted with highlight, bold, or paragraph marker, with the exception of section 1404.

The requirements of the Project Special Provisions are in addition to requirements in the Mn/DOT Standard Specifications for Construction, unless otherwise indicated.

Numbers in parenthesis in the section titles, such as S-3 (1103) Definitions, refer to the corresponding specification number in the Minnesota Department of Transportation “Standard Specifications for Construction”.

S-2 RESPONSIBLE CONTRACTOR

REVISED 06/04/15

The Department cannot award a construction contract in excess of \$50,000 unless the Bidder is a “responsible contractor” as defined in Minnesota Statutes §16C.285, subdivision 3. A Bidder submitting a Proposal for this Project must verify that it meets the minimum criteria specified in that statute by submitting the “Responsible Contractor Verification and Certification of Compliance” form. A company owner or officer must sign the “Responsible Contractor Verification and Certification of Compliance” form under oath verifying compliance with each of the minimum criteria. **THE COMPLETED FORMS MUST BE SUBMITTED WITH THE BID PROPOSAL, found on page 53-A.**

A bidder must obtain a verification from each subcontractor it will have a direct contractual relationship with. At the Department’s request, a bidder must submit signed subcontractor verifications. A contractor or subcontractor must obtain an annual verification from each motor carrier it has a direct contractual relationship with. A motor carrier must give immediate written notice if it no longer meets the minimum responsible contractor criteria. The requirement for subcontractor verifications does not apply to:

- Design professionals licensed under Minnesota Statutes §326.06; and
- A business or person that supplies materials, equipment, or supplies to a subcontractor on the Project, including performing delivering and unloading services in connection with the supply of materials, equipment, and supplies. But, a business or person must submit a verification if it delivers mineral aggregate such as sand, gravel, or stone that will be incorporated into the Work by depositing the material substantially in place, directly or through spreaders, from the transporting vehicle.

A bidder or subcontractor who does not meet the minimum criteria specified in the statute, or who fails to verify compliance with the criteria, is not a “responsible contractor” and is ineligible to be awarded the Contract for this Project or to work on this Project. Submitting a false verification makes the bidder or subcontractor ineligible to be awarded a construction contract for this Project. Additionally, submitting a false statement may lead to contract termination. If only one bidder submits a bid, the Department may, but is not required to, award a contract even if that bidder does not meet the minimum criteria.

S-3 COMPLIANCE WITH TAX LAW REQUIREMENTS

The Department cannot make final payment to the Contractor until the Contractor demonstrates that it and all its subcontractors have complied with the Income Tax withholding requirements of Minnesota

Statutes, section 290.92 for wages paid for work performed under the contract. To establish compliance, the Contractor must submit a “Contractor Affidavit” either online or in paper form (IC134) to the Minnesota Department of Revenue. The contractor will receive written certification of compliance when the Department of Revenue determines that all withholding tax returns have been filed and all withholding taxes attributable to the work performed on the contract have been paid. The Contractor must then provide this written certification to the Department to receive final payment.

Every subcontractor working on the Project must submit an approved “Contractor Affidavit” from the Minnesota Department of Revenue to the Contractor before the Contractor can file its own Contractor Affidavit. **The Contractor is advised to obtain the certification from each subcontractor as soon as the subcontractor completes work on the Project. Experience has shown that waiting until the project is complete to obtain the forms from all subcontractors is likely to result in significant additional work for the Contractor as it will be difficult or impossible to collect all forms.**

The Department of Revenue, in association with the Department of Employment and Economic Development, offers a free seminar to help contractors understand tax law requirements. The Department strongly urges the Contractor and all subcontractors to attend the “Employment Taxes & Employer Responsibilities Seminar” or similarly offered classes. You can find a schedule and more information on the Department’s website at: www.revenue.state.mn.us/businesses/withholding/Pages/EducationandOutreach.aspx.

Complying with this requirement is considered part of the Work under this contract. The Department will enforce this requirement equally with all other Contract requirements. Contractor delay in complying with this requirement will cause the Department to delay final payment and Contract Acceptance. The Department may also report non-compliance to the Department of Revenue, which may result in enforcement action by the Department of Revenue.

S-4 (1203) ACCESS TO PROPOSAL PACKAGE

MnDOT 1203 is hereby deleted from the MnDOT Standard Specifications. Bidding documents, including the Bid Form, Drawings, and Specifications, will be available to be downloaded from Onvia DemandStar at <http://www.demandstar.com/>.

S-5 (1206) PREPARATION OF PROPOSAL

MnDOT 1206.1 is hereby deleted from the MnDOT Standard Specifications.

S-5.1 MnDOT 1206.2 is hereby deleted from the MnDOT Standard Specifications and replaced with the following:

1206.2 ALLOWABLE SUBSTITUTIONS

For all Proposals the Bidder shall use the following method:

- (1) Bid Proposal Form – Separate Excel Spreadsheet

Instructions: This form is a locked cell spreadsheet which allows for information to be entered into the blue coded cells. The cells have been formatted and will calculate the extensions and the totals. Bidder is to provide the Bid Proposal Form only on a portable USB storage device (e.g., flash drive, thumb drive, jump drive, etc.) in addition to all of the other required paper forms for the bid submission. Handwritten spreadsheets will not be accepted.

S-6 (1209) DELIVERY OF PROPOSALS

The provisions of MnDOT 1209 are modified with the following:

S-6.1 When submitting a Proposal in accordance with 1206.2, “Allowable Substitutions,” of these Special Provisions, the Bidder shall deliver the Proposal and the Proposal Guaranty in a sealed envelope. The Bidder shall mark the sealed envelope with the name of the Bidder, the Project number, and the letting date. The Bidder shall deliver the sealed envelope to the Department as specified in the Advertisement for Bids as follows:

- (1) To the address specified,
- (2) In care of the official receiving the Proposals, and

- (3) By the date and time for opening Proposals.

The Bidder shall return paper copies of the documents listed in the solicitation.

S-6.2 Ramsey County will receive sealed bids until 2:00 PM, on the date listed in the solicitation at Ramsey County Procurement, Suite 210, City Hall/Court House, 15 West Kellogg Boulevard, Saint Paul, Minnesota 55102. Immediately thereafter, all bids will be opened publicly and read aloud in the City Hall/Court House, 15 West Kellogg Boulevard, St. Paul, Minnesota 55102.

S-7 (1210) REVISION OF PROPOSAL PACKAGE OR WITHDRAWAL OF PROPOSALS

The provisions of MnDOT 1210 are deleted and replaced with the following:

S-7.1 When submitting a Proposal in accordance with 1206.2, “Allowable Substitutions,” of these Special Provisions, the Bidder may revise or withdraw its Proposal after delivery to the Department if the Department receives the Bidder’s written request for withdrawal or revision before the date and time for opening Proposals.

S-7.2 The Department reserves the right to revise the Proposal Package at any time before the date and time for opening Proposals. The Department will issue a numbered and dated Addendum for any revision of the Proposal Package. The Department will post each Addendum as announced in an e-mail or other method of notification to each Bidder on the Department’s list of Bidders.

S-7.3 The Department will include each Addendum with all Proposal Forms issued to the Bidder after the date of the Addendum.

S-7.4 If revisions made by an Addendum require change to Proposals or reconsideration by the Bidder, the Department may postpone opening Proposals. If the Department postpones opening Proposals, the Department will specify the new date and time for opening Proposals in the Addendum.

S-7.5 The Bidder shall acknowledge receipt of each Addendum in the proposal.

S-8 (1212) OPENING OF PROPOSALS

S-8.1 MnDOT 1212 is hereby deleted from the MnDOT Standard Specifications and replaced with the following:

1212 OPENING OF PROPOSALS

The Department will open Proposals at the time, date, and place defined in the Proposal Package and the Advertisement for Bids.

S-9 (1302) AWARD OF CONTRACT

Award of Contract shall be performed in accordance with the provisions of 1302 except as modified below:

S-9.1 Delete the first paragraph and add the following:

The award of Contract, if it is awarded, will be made within 60 calendar days after the opening of proposals to the lowest responsible bidder who complies with all prescribed requirements. The successful bidder will be notified by letter, mailed to the address shown on the proposal that the bid has been accepted subject to execution and approval of the Contract as required by law.

S-10 (1304) RETURN OF PROPOSAL GUARANTY

S-10.1 MnDOT 1304 is hereby deleted from the MnDOT Standard Specifications and replaced with the following:

The Department will not return proposal guaranties to any of the bidders.

S-11 **(1404) MAINTENANCE OF TRAFFIC AND (2563) TRAFFIC CONTROL**

REVISED 03/01/16

SP2016-18

All traffic control devices shall conform and be installed in accordance to:

- the "Minnesota Manual on Uniform Traffic Control Devices" (MN MUTCD);
- Part 6, "Field Manual for Temporary Traffic Control Zone Layouts" (Field Manual);
- the Speed Limits in Work Zones Guideline
- the Minnesota Flagging Handbook;
- the Minnesota Standard Signs Manual;

And the provisions of MnDOT 1404 and 1710, the Plan, and these Special Provisions.

The Contractor shall furnish, install, maintain, and remove all traffic control devices required to provide safe movement of vehicular traffic through the Project during the life of the Contract from the start of Contract operations to the completion thereof. The Engineer will have the right to modify the requirements for traffic control as deemed necessary due to existing field conditions. The highways shall be kept open to traffic at all times, except as modified below.

Traffic control devices include, but are not limited to, barricades, warning signs, trailers, flashers, cones, and drums, as required and sufficient barricade weights to maintain barricade stability.

S-11.1 **TRAFFIC CONTROL**

(A) If traffic control layouts are not present in the Plan, or if the Contractor modifies the layout or sequence from the Plan, the Contractor shall submit the proposed traffic control layout to the Engineer, for approval, at least fourteen (14) days prior to the start of construction. The Contractor does not need to submit layouts that can be found in the Field Manual. All other layouts that are not found in the plan shall be submitted. At least 24 hours prior to placement, all traffic control devices shall be available on the Project for inspection by the Engineer. The Contractor shall modify his/her proposed traffic control layout and/or devices as deemed necessary by the Engineer.

(B) The Contractor shall be responsible for the immediate repair or replacement of all traffic control devices that become damaged, moved or destroyed, of all lights that cease to function properly, and of all barricade weights that are damaged, destroyed, or otherwise fail to stabilize the barricades. The Contractor shall further provide sufficient surveillance of all traffic control devices at least once every 24 hours.

(C) The Contractor shall furnish names, addresses, and phone numbers of at least three (3) individuals responsible for the placement and maintenance of traffic control devices. These individuals shall be "on call" 24 hours per day, seven days per week during the times any traffic control devices, furnished and installed by the Contractor, are in place. The required information shall be submitted to the Engineer at the Pre-construction Conference. The Contractor shall also furnish the names, addresses and phone numbers of those individuals to the following:

Ramsey County Public Works Department	(651) 266-7100
Ramsey County Sheriff's Department	(651) 266-7300
Saint Paul Public Works	(651) 266-6201
Saint Paul Police Department	(651) 266-5588
Saint Paul Fire Department	(651) 224-7811
Saint Paul City Clerk	(651) 266-8688
Shoreview Public Works	(651) 490-4650
Shoreview City Clerk	(651) 490-4610
Lake Johanna Fire Department	(651) 480-7024
Roseville Fire Department	(651) 792-7009
Roseville Administration	(651) 792-7001
Roseville Police Department	(651) 792-7008

Roseville Public Works	(651) 792-7003
Falcon Heights City Clerk	(651) 792-7600
Falcon Heights Public Works	(651) 792-7600
Maplewood Fire Department	(651) 249-2800
Maplewood City Clerk	(651) 249-2010
Maplewood Police Department	(651) 249-2600
Maplewood Public Works	(651) 249-2400
New Brighton Fire Department	(651) 288-4100
New Brighton Public Works	(651) 638-2111
New Brighton Police Department	(651) 288-4100
Vadnais Heights City Clerk	(651) 204-6000
Vadnais Heights Public Works	(651) 204-6050
Vadnais Heights Fire Department	(651) 204-6031

(D) The Contractor shall, at the pre-construction conference, designate a Work Zone Safety Coordinator who shall be responsible for safety and traffic control management in the Project work zone. The Work Zone Safety Coordinator shall be either an employee of the Contractor such as a superintendent or a foreman, or an employee of a firm which has a subcontract for overall work zone safety and traffic control management for the Project. The responsibilities of the Work Zone Safety Coordinator shall include, but not be limited to:

- Coordinating all work zone traffic control operations of the Project, including those of the Contractor, subcontractors and suppliers.
- Establishing contact with local school district, government, law enforcement, and emergency response agencies affected by construction before work begins.
- Maintaining a record of all known crashes within a work zone. This record should include all available information, such as: time of day, probable cause, location, pictures, sketches, weather conditions, interferences to traffic, etc. These records shall be made available to the Engineer upon request.

All costs incurred to provide Work Zone Safety Coordinator shall be incidental.

(E) The Contractor shall inspect, on a daily basis, all traffic control devices, which the Contractor has furnished and installed, and verify that the devices are placed in accordance with **the Traffic Control Layouts**, these Special Provisions, and/or the MN MUTCD. Any discrepancy between the placement and the required placement shall be immediately corrected.

The Contractor shall be required to respond immediately to any call from the Engineer or his designated representative concerning any request for improving or correcting traffic control devices. **If the Contractor is negligent in correcting the deficiency within one hour of notification the Contractor shall be subject to an hourly charge assessed at a rate of \$250.00 per hour for each hour or any portion thereof with which the Engineer determines that the Contractor has not complied.**

The Contractor is required to meet the traffic control device quality standards as determined in the Field Manual. The Contractor shall immediately replace traffic control devices that are deemed unacceptable. Signs that are dirty and result in a noticeable loss of reflectivity at night are also considered unacceptable and shall be cleaned or replaced. The Contractor shall be required to respond immediately to any call from the Engineer or his designated representative concerning the notification of unacceptable traffic control devices. **If the Contractor is negligent in correcting the deficiency within one day of notification the Contractor shall be subject to a daily charge assessed at a rate of \$500 for each day or any portion thereof with which the Engineer determines that the Contractor has not complied.**

(F) The person performing the inspection in paragraph (E) above shall be required to make a daily log. This log shall also include the date and time any changes in the stages, phases, or portions thereof go into effect. The log shall identify the location and verify that the devices are placed as directed or corrected in accordance with the Plan. All entries in the log shall include the date and time of the entry and be signed by the

person making the inspection. The Engineer reserves the right to request copies of the inspection logs, as he deems necessary.

The Contractor shall provide copies of the inspection logs on a weekly basis on a day of the week determined by the Engineer. Additionally the Engineer may request copies of the logs at any time he deems necessary. **If the Contractor is negligent in providing the inspection logs on the predetermined weekly date or at the Engineer's request, the Contractor shall be subject to a daily charge assessed at a rate of \$250.00 per day for each day or any portion thereof with which the Engineer determines that the Contractor has not complied.**

(G) If, at any time, the Contractor fails to, in a timely manner, properly furnish, install, maintain or remove any of the required traffic control devices, the Department reserves the right to correct the deficiency. **Each time the Department takes such corrective action, the costs thereof, including mobilization, plus \$5,000 will be deducted from monies due or coming due the Contractor.**

S-11.2 GENERAL REQUIREMENTS

(A) All portable sign assemblies shall be perpendicular to the ground. No roll-up signs will be allowed unless authorized by the Engineer. No traffic control device (signs, channelizing devices, arrowboards, etc.) shall be weighted so they become hazardous to motorists and workers. The approved ballast system for devices mounted on temporary portable supports is sandbags, unless it is designed, crash tested, and approved for the specific device. During freezing conditions, the sand for bags shall be mixed with a de-icer to prevent the sand from freezing. The sandbags shall be placed and maintained at the base of the traffic control device to the satisfaction of the Engineer.

(B) When signs will remain in the same location for more than 30 consecutive days the signs shall be post mounted. This would not include portable signs, which are set up and taken down at the beginning and end of each work shift. The signs must be post mounted according to the Typical Temporary Sign Framing and Installation Detail Sheet found in the Plan or in these Special Provisions.

(C) When signs are installed, they shall be mounted on posts driven into the ground at the proper height and lateral offset as detailed in the MN MUTCD. **When signs are removed, the sign posts and stub posts shall also be removed from the Right of Way within two (2) weeks or the Contractor shall be subject to a daily charge assessed at a rate of \$100.00 per day for each day or portion thereof with which the Engineer determines that the Contractor has not complied.**

(D) All temporary rigid signs shall be fabricated with an approved retroreflective sheeting material of the appropriate color, and be listed under the Approved/Qualified Products List (APL/QPL) for either "Sheeting for Rigid Temporary Work Zone Signs, Delineators, and Markers (Type IX and XI) " or "Sheeting for Rigid Permanent Signs, Delineators, and Markers (Type IX and XI)". Signs remaining in place that still apply during temporary operations need no change in sign sheeting.

Signs shall have an easily identifiable marking on the face to make the identification of approved retroreflective sign sheeting on temporary rigid signs in the field easier. This marking verifies that the sign sheeting has been approved for temporary rigid signs. Temporary rigid signs 4 sq. feet and under in size and all barricades and route markers will be exempt from this marking. The appropriate marking shall be used for each type of the approved sheeting types. Refer to the instructions for the marking of temporary signs that are on the APL or directly at the following link: <http://www.dot.state.mn.us/products/signing/pdf/typelabel.pdf>

The sheeting materials APL/QPL, including the retroreflective sheeting types, is located at <http://www.dot.state.mn.us/products/signing/sheeting.html>

(E) At the beginning of the Project, the Contractor shall have available within 2 hours at the job site 10 extra Type III barricades and 10 extra retroreflective drums, at a convenient location within the Project limits, to be used at the discretion of the Engineer. Furnishing and erecting these traffic control devices shall be incidental.

(F) The Contractor will not be permitted to park vehicles or construction equipment in a location that obstructs any traffic control device. The parking of workers' private vehicles will not be allowed within the Project limits unless so approved by the Engineer.

(G) The Contractor will not be allowed to store materials or equipment within 30 feet [10 m] of through traffic unless approved by the Engineer. If materials or equipment must be stored within 30 feet [10 m] of through traffic, the Contractor shall provide Type B channelizers, barricades or barriers, placed near the object to warn and protect traffic.

(H) High Visibility Apparel

All workers within the road Right-of-Way who are exposed to either traffic or to construction equipment shall wear reflectorized high-visibility safety apparel.

High-visibility safety apparel means personal protective safety clothing that is intended to provide conspicuity during both daytime and nighttime usage, and meets the minimum performance Class 2 requirements of the ANSI/ISEA 107 – 2004 publication entitled “American National Standard for High-Visibility Safety Apparel and Headwear”.

Additional Requirements: ANSI/ISEA 107-2004 Class 3 Requirements (Class 2 Vest with Class E Long Pants)

- **Flaggers**– In addition to an ANSI Class 2 vest, shirt, or jacket, flagger shall wear high visibility Class E long pants and a hat.
- **Nighttime and Low Light Conditions** – All workers working at night or in low light conditions shall wear high visibility Class E long pants in addition to an ANSI Class 2 vest, shirt, or jacket and retro-reflective headgear.

All high visibility apparel must be worn in the manner for which it was designed. All apparel worn on the torso must be closed in the front to provide contiguous 360 degree visibility. If a worker’s high-visibility apparel becomes faded, worn, torn, dirty, or defaced, reducing the conspicuity of the apparel, the apparel shall be removed from service and replaced with new apparel.

The Contractor will be subject to a non-compliant charge for failure to adhere to the clothing requirements as listed above. Non-compliance charges, for each incident, will **assessed at a rate of \$500.00 per incident** that the Engineer determines that the Contractor has not complied.

S-11.3 VEHICLE WARNING LIGHT SPECIFICATION

All Contractors, subcontractors' and suppliers' mobile equipment, operating within the limits of the Project with potential exposure to passing traffic, shall be equipped with operable warning lights that meet the appropriate requirements of the SAE specifications. This would include closed roads that are open to local traffic only. This also includes any vehicle that enters the traveled roadway at any time. The SAE specification requirements are as follows:

360 Degree Rotating Lights - SAE Specification J845

Flashing Lights - SAE Specification J595

Flashing Strobe Lights - SAE Specification J1318

Lights shall be mounted so that at least one light is visible at all times from a height of 3.5 feet and from a 60 foot radius about the equipment. In order to meet the 360 degree at 60 foot [18 m] radius requirements supplemental lighting may be used in addition to the lights on the Approved Products List. All supplemental lights must be SAE Class 1 certified. This specification is to be used for both day and night time operations. All costs incurred to provide warning lights shall be at no cost to the Department. These warning lights shall also be operating and visible when a vehicle decelerates to enter a construction work zone and again when a vehicle leaves the work zone and enters the traveled traffic lane.

Any warning lights shall be on the Approved Products List for Vehicle Lighting which is found at the following weblink: <http://www.dot.state.mn.us/products/vehiclelighting/vehiclesafetylights.html>. The list may also be obtained by contacting:

Vehicle Warning Lights
Office of Construction MS722
Transportation Bldg. OR by calling: (651)366-3585
395 John Ireland Blvd.
St. Paul, MN 55155

This list is updated periodically. Warning light suppliers and manufacturers may contact the above for information on adding new products to the list.

A \$100 penalty (per incident) will be assessed against the Contractor each time failure to comply with the above requirements is observed on the Project site.

S-11.4 LANE CLOSURE REQUIREMENTS

(A) Temporary lane closures or other traffic restrictions by the Contractor, during work hours and consistent with the time restrictions, will be permitted only during those hours and at those locations approved by the Engineer. **Requests for temporary lane closures shall be made at least 1 business days prior to the closure.** When a temporary lane closure is used by the Contractor, the closure shall be incidental work.

(B) Temporary lanes closures during non-working hours will not be allowed.

(C) Temporary lane closures or other traffic restrictions will only be permitted between the official hours of sunrise and sunset. **Work that will restrict or interfere with traffic shall not be performed between 12:00 noon on the day preceding and 9:00 A.M. on the day following any consecutive combination of a Saturday, Sunday and legal holiday.** The Engineer will have the right to lengthen, shorten, or otherwise modify the foregoing periods of restrictions as actual traffic conditions may warrant. **If the Contractor is negligent in adhering to the established time schedules, he shall be subject to an hourly charge assessed at a rate of \$500.00 per hour for each hour or any portion thereof with which the Engineer determines that the Contractor has not complied.**

(D) Except as otherwise provided for in the Special Provisions, no work will be performed that will interfere with traffic before 7 a.m. and after 7 p.m. on any weekday (Monday through Friday inclusive) unless otherwise permitted by the Engineer. Any requests for deviation from these time periods will be required at a minimum of five working days in advance of roadway crack sealing operations.

(E) Signal systems within the project limits will be placed in flash mode during working hours if requested by the contractor and approved by the Engineer. No signal systems will be allowed to be operated in flash mode prior to 9:00 a.m. or after 3:00 p.m. Requests for sign modifications must be made 24 hours in advance of crack sealing operations.

(F) Unless otherwise approved by the Engineer, any temporary lane closure that is adjacent to traffic, and is extending to or beyond 1000 feet [300 m] shall have a minimum of one Type III barricade, or three drums, placed in the closed lane for every 1000 feet [300 m] of extension. Any lane closure that is adjacent to traffic and in place 3 days or more, shall use the Type III barricade only.

(G) All lane closures shall have Drum (Type B) Channelizers with florescent reflectorized sheeting in the lane closure taper and in any shifts in traffic alignment.

(H) Short Term Duration lane closures will not be permitted during inclement weather, nor any other time when, in the opinion of the Engineer, the lane closure will be a greater than normal hazard to traffic.

(I) In addition to the above restrictions, no work, including traffic control set up will occur prior to 9:00 a.m. or after 3:00 p.m. on the following roadways:

- Cleveland Avenue - Randolph Avenue to Summit Avenue
- Como Avenue - Marion Street to Rice Street
- Highway 10 - Pleasantview Drive to County Road H
- Lexington Avenue - Highway 96 to County Road J
- Marion Street - Saint Anthony Avenue to Como Avenue
- Pennsylvania Avenue - Como Avenue to Rice Street
- Rice Street - University Avenue to RR Bridge
- White Bear Avenue - Frost Avenue to Cope Avenue
- White Bear Avenue - Shopping Center Entrance to Radatz Avenue
- White Bear Avenue - RR bridge to Larpenteur Avenue - No work

(J) Portable Changeable Message Signs

The Contractor will provide a Portable Changeable Message sign (s) on this project to communicate real time information, as shown in the plans or directed by the Engineer.

(PCMS) Type C Trailer Mounted Message Signs will be permitted and shall be on the Approved Products List for “Changeable Message Signs: Type C - Three Lines, Trailer Mounted” as found at: <http://www.dot.state.mn.us/products/temporarytrafficcontrol/tcelectronicsequipment.html>. It is imperative that the Contractor continually operate each PCMS at maximum legibility. Many factors, such as mechanical problems, insufficient charging, incorrect intensity settings, or other factors can degrade performance. If at any time the Contractor fails to operate a Portable Changeable Message Sign at maximum legibility, as determined by the Engineer, no payment will be made for each day that the Message Sign is deemed inadequate.

Except as approved by the Engineer, the message sign shall be stored off the shoulder when not in use. In the event the Engineer allows the message board to remain on the shoulder the message sign shall be delineated according to Layout 4 (Partial Shoulder Closure) in the Field Manual, as determined by the Engineer.

When not being actively used as a traffic control device, the Portable Changeable Message Sign shall be stored beyond the clear zone distance. **Non-compliant charges, for each incident, will be assessed at a rate of \$500.00 per incident that the Engineer determines that the Contractor has not complied.**

Payment for Portable Changeable Message Signs furnished and installed, as directed by the Engineer, will be made for each PCMS by the Unit Day as specified in Section S-2563 (PORTABLE CHANGEABLE MESSAGE SIGN) of these Special Provisions.

(K) Truck/Trailer Mounted Attenuators (TMAs) For All lane Closures

If the Contractor establishes a lane closure on a high-speed roadway, a vehicle equipped with a truck/trailer mounted attenuator that meets Test Level 3 requirements of NCHRP 350 (or AASHTO’s Manual for Assessing Safety Hardware (MASH)) shall be placed in the closed lane next to traffic prior to the active work site, as directed by the Engineer. The lane closure shall meet the requirements described in the appropriate Field Manual layout.

(L) **Truck Mounted Attenuators (TMAs)**

If the Contractor establishes any temporary traffic control zone defined as “Moving” and/or “Mobile” by the Field Manual; Truck Mounted Attenuators (TMA) **SHALL** be used on all work vehicles or equipment operating totally or partially in the traffic lane. All references to “should” in the Field Manual in regards TMA use for Moving and/or Mobile layouts are hereby changed to “shall”. The truck mounted attenuator shall meet the requirements of NCHRP 350 or AASHTO’s Manual for Assessing Safety Hardware (MASH).

If any work vehicle, equipment or manual work zone is not equipped with a TMA, a shadow vehicle equipped with a TMA shall be utilized in lieu thereof. The TMA mounted shadow vehicle shall maintain a minimum distance of 200 and maximum distance of 300 feet from any operation that is otherwise unprotected by a TMA.

This requirement shall apply to all operations utilizing a Mobile and/or Moving work zone; including, but not limited to interim and permanent traffic striping and marking, stripe removal, rumble strip grinding, bituminous core cutting, running of the profilograph, and any other operations meeting the criteria for Mobile and for Moving operations, as shown in the Field Manual.

S-11.5 FLAGGER TRAINING AND REQUIREMENTS

(A) Any person acting as a flagger on this Project shall have attended a training session taught by a Contractor's qualified trainer. The Contractor's qualified trainer shall have completed a "MnDOT Flagger Train the Trainer Session" in the five years before the start date of this Contract and shall be on file as a qualified flagger trainer with the Department. The Flagger Trainer's name and Qualification Number shall be furnished by the Contractor at the pre-construction meeting. The Contractor shall provide all flaggers with the MnDOT Flagger Handbook and shall observe the rules and regulations contained therein. This handbook shall be in the possession of all flaggers while flagging on the Project. The Contractor shall obtain handbooks from the Department. Flaggers shall not be assigned other duties while working as authorized flaggers. The "Checklist for Flagger training" form shall be furnished to the Engineer any time a new flagger reports to work on the Project. The "Checklist for Flagger Training" form is found at:
<http://www.dot.state.mn.us/const/wzs/documents/flaggertrainingchecklist.pdf>.

The Engineer will have the right to waive the above requirements.

(B) The Contractor shall furnish Flaggers as required to adequately control traffic. Flaggers shall conform to the requirements set forth in the MN MUTCD. All costs incurred to provide such Flaggers shall be incidental.

(C) The Contractor shall provide two-way radios for Flaggers.

Flaggers shall wear high visibility retroreflective safety vests, pants and hats at all times while actively flagging on the Project. High visibility apparel shall also comply with current Minnesota OSHA Rules 5207.0100 and 5207.1000. The Flaggers clothing shall be considered incidental.

The Contractor shall keep the separation distance between the last sign in the "flagger ahead" signing sequence and the actual flagger to the amount shown in the Field Manual, whenever it is practical. The maximum separation distance allowed from the signs to the flagger shall be ½ mile [0.8 km]. The Contractor shall use multiple flagger signing set-ups or continuously move the signing for moving flagging operations to keep within the distance limit. The "flagger ahead" signing sequence shall not be in place when flagging operations are not in effect.

The maximum distance between flaggers shall be ½ mile [0.8 km] unless otherwise authorized by the Engineer. In the event a distance longer than one mile is authorized, the Engineer may order the Contractor to provide two pilot cars at no additional cost to MnDOT.

All signs associated with the flagging operation must be removed or covered when flagging operations are not present.

The Contractor will be subject to a non-compliant charge for failure to adhere to the requirements listed in this Section S-13. These requirements include: providing two-way radios for flaggers, properly attired flaggers, flagging operation length requirements, and distance limit between the flagger and the last sign in the flagger sequence, and removing or covering flagger signs when flagging operations are not present. **Non-compliance charges, for each incident will be assessed at a rate of \$500 per incident that the Engineer determines that the Contractor has not complied.** The charges may be assessed equally, separately, and may be assessed concurrently.

The Contractor shall coordinate the flagging operations in a manner that causes as little delay to the traveling public as possible, and at no time shall the delay exceed 5 minutes. In the event that the Contractor is unable to meet the maximum delay requirements, operations shall shut down until such time a new traffic control plan is developed which does meet the maximum delay requirement.

If hauling operations create hazards for the traveling public, the Contractor will be required to provide additional flaggers, as directed by the Engineer. All costs incurred to provide the additional flaggers shall be incidental.

S-11.6 CRACK SEALING OPERATIONS

(A) The Contractor will maintain two way vehicular traffic at all times, unless otherwise approved by the Engineer.

(B) The Contractor shall maintain traffic with a minimum of delay during crack sealing operations at intersections controlled by signals or by all-way stop signs.

(C) The Contractor may close intersecting streets to traffic, other than at intersections controlled by signals or "All Way Stop" signs during crack sealing in the intersection, but only if there are adequate alternate routes for the intersecting street traffic. The Contractor shall not close adjacent intersecting streets to traffic concurrently. The Contractor shall notify the local road authorities of its schedule to close intersecting streets 48 hours in advance of the closure.

S-11.7 MAINTENANCE AND STAGING OF TRAFFIC CONTROL

(A) The Contractor shall maintain, at all times, the existing traffic movements at all intersections.

(B) Pedestrian traffic shall be maintained and guided through the Project at all times.

(C) The Contractor shall furnish, install, and maintain "ROAD WORK AHEAD" and "END ROAD WORK" signs in advance of and beyond each end of the construction limits as directed by the Engineer. The Contractor shall also furnish, install, and maintain "ROAD WORK AHEAD" signs in advance of the construction limits on all intersecting roads and streets as directed by the Engineer. The signs shall conform to the standards shown in the MN MUTCD. Furnishing and erecting these signs shall be incidental. The signs shall remain the property of the Contractor.

(D) The Contractor shall cover all signs that are not consistent with traffic operations. The cover should be a plate of solid material covering the entire legend or all of that part of the legend that is inappropriate. The cover shall be bolted to the sign and shall have a minimum of 1/8 inch [3 mm] plastic washers between the sign face and the cover. See Figures 8.2A, 8.2B and 8.2C of the Traffic Engineering Manual for details. This work will be done as required by the Engineer.

(E) Street identification signage shall be maintained at all times. Where the only existing signs are small city or county signs located at the intersection, street names and address numbers shall be maintained by temporary installations as required by the Engineer. This is necessary to maintain the 911 emergency system.

(F) The Contractor shall maintain a lane width of not less than 10 feet in each direction.

(G) The Contractor may ban parking within the project limits. All necessary signing is the responsibility of the Contractor and shall be installed, as directed by the Engineer, 24 hours prior to the parking ban. The Contractor shall remove that signing as soon as the work in the area has been completed. When working within the city of Saint Paul, the Contractor will purchase No Parking signs from the city.

The Contractor shall notify the affected city at least 24 hours prior to posting any parking ban within the city.

(H) No access to or from any public road will be permitted for the Contractor's equipment, material deliveries, the hauling of excavated materials of any kind, or employees' private vehicles, except at in place public road intersections, or at locations and in such manner as approved by the Engineer.

S-11.8 **MEASUREMENT AND PAYMENT**

Traffic control will be measured and paid for as follows:

Payment for furnishing, installing, maintaining, relocating and subsequently removing traffic control devices (including flagpersons) as required will be made as a lump sum under Item 2563.601 (Traffic Control) and according to the following schedule:

- (1) When 5 percent of the Contract amount is earned, 50 percent of the amount bid for traffic control will be paid.
- (2) When 10 percent, or more, of the Contract amount is earned, an additional 25 percent of the amount bid for traffic control will be paid.
- (3) When 50 percent, or more, of the Contract amount is earned, an additional 20 percent of the amount bid for traffic control will be paid.
- (4) The remaining 5 percent bid for traffic control will be paid when all work has been completed and accepted.
- (5) In all items above, the original Contract amount shall be the total value of all Contract Items including the traffic control item, but the percentage earned in each case shall be exclusive of the traffic control item.

S-12 (1505) COOPERATION BY CONTRACTORS

The provisions of MnDOT 1505 are supplemented as follows:

S-12.1 Bidders are advised that separate contracts may exist for other related work in the project area. The Contractor will complete the work in cooperation and conjunction with the related work.

S-12.2 The state, cities or county may also let other contracts that may be in progress concurrently with the operations of this project.

S-12.3 The Contractor shall coordinate his/her work and cooperate with the holders of those separate contracts, both present and future, and their forces in a manner consistent with the provisions of Mn/DOT 1505.

S-13 (1506) SUPERVISION BY CONTRACTOR

Delete 1506.1 and add the following:

S-13.1 During the life of the Contract, the Contractor shall provide and have at all times a competent superintendent in charge of the overall project, who will personally be on call 24 hours a day and shall be available at the jobsite within four (4) hours notice. The superintendent may be either the Contractor himself/herself or a responsible employee authorized to act in the Contractor's behalf. This individual shall be fully authorized to conduct all business with the subcontractors; to negotiate and execute all supplemental agreements; to execute the orders and direction of the Engineer without delay; and to promptly supply the materials, equipment, tools, labor, and incidentals necessary for prosecution of the work.

S-13.2 At the Pre-construction Conference, the Contractor shall designate in writing whom the competent superintendent and competent individual (if different) will be for this project. These persons can only be changed throughout the duration of the project by submission of written authorization to the Engineer by the Contractor. The submittal of these persons shall be done before any work is performed on this project.

S-13.3 The Contractor shall furnish names, addresses, and phone numbers of at least three individuals responsible for all aspects of maintenance on the project. At least one of these individuals shall be "on call" 24 hours per day, seven days per week. The individual "on call" upon receiving notification of any deficiency shall dispatch people, materials, and equipment to correct the deficiency. The required information shall be submitted to the Engineer at the Pre-construction Conference.

S-14 (1507) UTILITY PROPERTY AND SERVICE

Construction operations in the proximity of utility properties shall be performed in accordance with the provisions of MnDOT 1507, except as modified below:

S-14.1 The first paragraph of Mn/DOT 1507 is deleted and the following substituted therefore:
"It shall be the Contractor's own responsibility to contact all local utility companies and ascertain the location of all existing underground utilities, if any, prior to performing any excavation operations. The Contractor shall conduct his/her operations in the vicinity of any such facilities, which may exist, in a manner that will prevent damage thereto."

S-15 (1603) MATERIALS: SPECIFICATIONS, SAMPLES, AND TESTS

The provisions of Mn/DOT 1603 are supplemented as follows:

S-15.1 SAMPLING AND TESTING

Quality assurance sampling and testing, as required by the "Schedule of Materials Control" will be performed by the County. The County at the Contractor's expense shall perform retests of those tests that fail.

S-15.2 ACCEPTANCE

A copy of the "Schedule of Materials Control" is in the Appendix.

S-16 (1702) PERMITS, LICENSES AND TAXES

The provisions of Mn/DOT 1702 are supplemented as follows:

S-16.1 Ramsey County requires the Contractor and all of his/her subcontractors to submit the Annual Right of Way User Registration permit and the Excavation of Obstruction Permit application forms, (attached in Appendix). The permit fee will be waived. The bond and insurance requirements are met through the provisions of this Contract.

S-16.2 The Contractor is responsible for acquiring all permits required by the city of Saint Paul.

S-16.3 The permits included in the Proposal for this project, as issued, shall be construed to be a part of the Special Provisions in the Proposal. The conditions, requirements and restrictions of these permits shall be binding on the Contractor's operations under this Contract.

S-17 (1707) PUBLIC CONVENIENCE AND SAFETY

The provisions of Mn/DOT 1707 are further supplemented as follows:

Metro Transit has bus service in the Project area which will be affected by this construction. The Contractor shall notify the following Metro Transit representative prior to the start of the Project:

Greg Tuveson
Manager of Street Operations
greg.tuveson@metc.state.mn.us
612-349-5407

S-18 (1801) SUBLETTING OF CONTRACT

SP2016-44

The provisions of MnDOT 1801 are modified as follows:

S-18.1 For Projects in excess of \$50,000, the Contractor may sublet work only to subcontractors that meet the definition of "responsible contractor" in Minnesota Statutes §16C.285, subdivision 3. The Contractor shall obtain verifications of compliance with §16C.285 from subcontractors using a form provided by the Department. The Contractor must provide such verifications to the Department upon the Department's request.

S-19 **(1803) PROGRESS SCHEDULES**

Prosecution of work shall be in accordance with the provisions of 1803 and the following:

S-19.1 The Progress Schedule as provided in 1803.1 shall be in the form of a bar chart. A bar chart approved by the Engineer may be required for the processing of estimates. All milestones must be denoted on the bar chart.

S-19.2 The contractor shall be aware that it is anticipated that there will be multiple “move-ins” required within the allotted contract time.

S-20 **(1806) DETERMINATION AND EXTENSION OF CONTRACT TIME**

The Contract Time will be determined in accordance with the provisions of MnDOT 1806 and the following:

S-20.1 Construction operations shall be started on or within ten (10) Calendar Days following notice from the County Engineer of notice to proceed. Construction operations shall not commence prior to Contract Approval.

S-20.2 All work required under this Contract, except maintenance work and Final Clean Up shall be completed by June 30, 2017.

S-20.3 Construction operations shall not be started before 7:00 a.m. nor continued after 7:00 p.m., Monday through Saturday, unless otherwise defined in these special provisions. Construction operations shall not be permitted on Sundays. Written permission from the Engineer and a permit from the affected municipalities may permit deviations from these time limits.

S-20.4 Only County caused delays will be considered as justification for an extension of Working Days, but only to the extent that it can be shown that said delays directly affected the completion of the work.

S-21 **(1906) PARTIAL PAYMENTS**

Payments shall be made in accordance with the provisions of 1906 and the following:

S-21.1 Partial payments of ninety-five (95) percent of the value of the completed work will be made under this Contract. Five (5) percent of the amount due will be retained until final completion and acceptance of all work covered by the Contract. Payments made pursuant to estimates and the final payment will be made after the work has been approved and accepted by the County Engineer and the County Board and then in the manner in which County claims are usually paid.

S-22 **(1910) FUEL ESCALATION CLAUSE**

The provisions of MnDOT 1910 are hereby supplemented with the attached Fuel Escalation Clause. These sheets are attachments.

S-23 **(2013) SURVEY MONUMENT**

The provisions of MnDOT 2013 shall be supplemented by the following:

S-23.1 Should the Contractor hit, disturb, or remove an existing Public Land survey, lot corner, block corner, or any other monument marking property boundaries that has been located, marked, or shown on the plans, an assessment of liquidated damages in the minimum amount of \$2,000.00 per monument or the actual cost of restoring the monument, shall be charged. If, during the course of construction a monument is discovered, the Contractor shall notify the County Surveyor at 651 266-7170. The Contractor shall cease all activities that could disturb the monument until the surveyors have perpetuated the monuments location. The County Surveyor must be contacted at 651 266-7170 prior to the removal of a survey monument. Compliance with this provision does not indemnify the Contractor from Minnesota Statutes Chapter 381.19, 505.33 or 609.605, Subdivision 1.

S-24 **(2331) BITUMINOUS PAVEMENT CRACK TREATMENT**
SP2014-116 (Modified)

This work consists of sealing random transverse and longitudinal cracks in the bituminous pavement in accordance with the Plans and the applicable MnDOT Standard Specifications.

Rout and Seal: Transverse cracks less than or equal to 0.75 inches [19 mm] wide shall be routed, cleaned and sealed.

Clean and Seal: Transverse cracks greater than 0.75 inches [19 mm] wide and longitudinal cracks shall be cleaned and sealed (without routing) following the same procedures used for routed cracks.

A pre-construction meeting shall be held between the Contractors, sub-contractors, and the Engineer prior to the beginning of any work. Items to be discussed include the traffic control plan, Contractor's documentation requirements, Contractor submittals and material selection. The Contractor shall schedule the pre-construction meeting.

S-24.1 **MATERIALS**

(A) Rout and Seal at Transverse Cracks

The Contractor shall provide certification that the sealant meets the requirements of MnDOT 3725 for transverse cracks sealed using Rout and Seal.

(B) Clean and Seal at Transverse and Longitudinal Cracks

The Contractor shall provide certification that the sealant meets the requirements of MnDOT 3723 or MnDOT 3719 for Clean and Seal cracks. The use of MnDOT 3719 sealant may be allowed on more severely cracked longitudinal cracks with approval of the Engineer or as shown on the Plans.

(C) Sealant Requirements

Only those products that meet the requirements of MnDOT specifications and have performed satisfactorily based on Chemical Laboratory and field analysis shall be used. A list of certified sources is on file at the Chemical Laboratory, MnDOT Maplewood's Office of Materials and Road Research. To obtain the list, call (651) 366-5548 or visit the website at: <http://www.dot.state.mn.us/products/index.html>

The crack sealant material shall be packaged and shipped in sealed containers. Each container shall be clearly marked with the name of the manufacturer, the trade name of the sealant, weight [mass], the manufacturer's batch and lot number, the application/pouring temperature, and the safe heating temperature. The Contractor shall furnish two (2) sample boxes for each lot of sealant used on the Project for field sampling. Each sample box shall have a capacity to hold 5 pounds [2.3 kg] of sealant. The boxes shall be Teflon or silicone-lined.

A copy of the manufacturer's recommendations pertaining to the heating and re-heating and application of the joint sealant material shall be submitted to the Engineer before the commencement of the work. The Contractor shall follow these recommendations.

The temperature of the sealer in the field application equipment shall not exceed the safe heating temperature recommended by the manufacturer. Temperatures above the safe heating temperature will result in rejection of the sealant material and will require disposal of the sealant material.

The Contractor shall not place sealant if the temperature of the material is below the manufacturer's recommended minimum application/ pouring temperature.

Mixing of different manufacturer's brands or different types of sealants is prohibited.

(D) Basis of Material Acceptance

Acceptance of the sealant material is based on the certification by the manufacturer that the sealant meets the requirements listed above. Field sampling shall be used to verify that the delivered sealant meets the requirements of the specification. Prior to the sealing operation to begin, the Contractor shall take a sample from the application wand during the first 20 minutes of placing sealant from each melter on the Project. The Contractor shall furnish the Department one (1) sample for each lot of sealant used on the Project. The Engineer reserves the right to obtain a second sample of sealant from the Contractor for each lot of sealant.

The Contractor shall obtain samples of sealant from the application wand in the presence of the Engineer. Each sample shall consist of two (2) Teflon or silicone lined boxes with the capacity to hold 5 pounds [2.3 kg] of sealant. The two (2) sampling boxes shall be labeled with SP number, date, time, location, manufacturer and lot number of the sealant. Each box shall be numbered one of two, or two of two. The Engineer reserves the right to conduct supplementary sampling and testing of the sealant material.

The Engineer may randomly pick the time and date of the second sampling per lot of sealant. The Engineer reserves the right to conduct additional sampling and testing of the sealant material at no cost to the Contractor, unless testing reveals the sealant material not meeting MnDOT specifications.

The Contractor shall document the locations where the material from each lot number of sealant is placed.

If a field sample fails to meet any of the six (6) physical properties contained in MnDOT specifications, the work completed with the material from that lot the field sample represents, shall be subject to a reduction in the Contract unit price for sealant material to 20 percent for each failing property.

S-24.2 CONSTRUCTION REQUIREMENTS

(A) Weather Limitations

Sealant materials shall only be placed during a period of rising temperature after the air and surface temperature in the shade and away from artificial heat sources has reached 50° F [10° C] and indications are for a continued rise in temperature. During a period of falling temperatures, which may fall below 50° F [10° C], placement of the sealant material shall be suspended until the above conditions are met.

Do not place sealant material if weather conditions are raining or wet. Should the sealant be placed and rain should fall before the sealant has properly cured, the Contractor shall remove and replace the wet/contaminated sealant.

Sealants shall not be placed when the weather or roadbed conditions are unfavorable.

Crack sealing work should be completed in the Northern 'Spring Load Restriction' (SLR) zone before September 16. The Northern SLR zone extends from the northern limits of MN 39 at the Wisconsin state line in Duluth, west along MN 210 to Staples, then US 10 west to the North Dakota state line at Moorhead.

All other SLR zones should be completed before October 1 of the current construction season.

(B) Equipment Requirements

Melting Kettle: shall be double jacketed boiler type, equipped with both agitation and recirculation systems capable of melting and applying the sealant through a pressure-fed hose and wand. The melter shall be capable of starting at ambient temperature and bringing the sealant material to application temperature within one hour, while continuously agitating and recirculating the sealant. The melter shall be equipped with automatic thermostatic controls and temperature gages to monitor the sealant temperature in the applicator lines and temperature of heat transfer oil in the kettle jacket.

The Contractor shall furnish the Engineer daily production data sheet(s) for each melting kettle on the Project.

The Contractor shall furnish, for use by the Engineer, an infrared temperature-measuring gun accurate to 1°F at 400°F [1° C at 204° C]. The Engineer may check the pouring temperature of the sealant at the point of discharge into the reservoir. If the sealant falls below the recommended application/pouring temperature, all production shall stop at that melting kettle until the recommended application/pouring temperature is obtained. Should the sealant temperature at the point of discharge exceed the maximum safe heating temperature, the melting kettle shall be emptied of all sealant, and the sealant shall be legally disposed of in an environmentally safe method. No payment will be made for this sealant material or the disposal thereof.

Pavement Cutter: Self-propelled pavement cutter capable of providing a cut of uniform depth and width shall be used. Cutter shall have carbide tipped cutters, radial mounted around a flywheel, held in place on hardened steel pins. The cutter shall be adjustable by rearrangement of the holding spacers such that the cutter is capable of achieving a maximum width of 2 inches [50 mm] and a minimum depth of cut of 0.375 inches [9.5 mm]. The pavement cutter shall be capable of cutting the countersunk design configuration into the pavement, expeditiously, with ease and in one single pass. An engine capable of achieving a minimum of 20 horsepower shall power the pavement cutter.

Air Compressor: shall be capable of producing a continuous stream of clean, dry air through the nozzle at 75 to 150 pounds per square inch [517 to 1034 kPa] and 125 cubic feet per minute (CFM) [3.5 m³/minute] minimum. The compressed air unit shall be equipped with water and oil traps and must produce sufficient air volume and pressure to remove all debris from the crack (routed or not) and all adjacent road surfaces in a safe manner such that the debris will not re-enter the crack prior to the sealing operation. The traps used to remove moisture and oil shall be checked by the Contractor at least once per day of production and replaced when necessary.

- The use of backpack blowers (leaf blowers) is not allowed.
- The use of vacuum cleaning equipment will be allowed after demonstrating to the Engineer that the vacuum equipment can successfully clean the cracks.

Heat Lance: shall operate with propane and compressed air in combination and be capable of achieving a temperature of heated air at the exit orifice of 1,800° F [982° C] and a discharge velocity of 3,000 feet per second [914 m/sec.].

(C) Submittals

Melting kettle production data sheets shall be submitted daily for each kettle on the Project with the following information.

1. SP number, control section and route number.
2. Date, ambient air temperature (° F [°C]) at the beginning of the shift, mid-day and end of shift.
3. Manufacturer's heating melting rate in pounds [kilograms] per hour to application/pouring temperature.
4. Stated conditions under which the rate of melting/ heating sealant to application/pouring temperature was determined.
5. Kettle temperature once an hour during working production.
6. Sealant material temperature at the wand once an hour during working production.
7. Beginning and ending locations on Project for the day, including lane and direction.
8. The amount of materials used for the day in pounds [kilograms], including lot numbers.
9. Sample(s) taken with Project location recorded.
10. Unique or atypical situations on the Project that may affect the placement or performance of the sealed crack.
11. The Contractor's authorized signature.

Material certification.
Material test samples.

(D) Transverse Crack Preparation

Random transverse cracks measuring less than or equal to 0.75 inch [19 mm] wide shall be 'Rout and Sealed' to a width and depth of 0.75 inch [19 mm]. Cracks greater than 0.75 inch [19 mm] wide shall follow the 'Clean and Seal' method (without routing) of crack repair.

The pavement cutter shall at all times exhibit the capability of expeditiously cutting the design reservoir in one easy pass. The Contractor shall change cutters when it is evident that the reservoir configuration specified is not being achieved in an easy and expeditious manner in conformance with design. The Contractor shall demonstrate the cutters capability of following meandering cracks and maintaining centering of the reservoir over the crack ± 0.25 inches [± 6 mm]. The resulting reservoir shall have vertical sidewalls and a uniform, horizontal profile. Anytime that the Contractor cannot meet these requirements, the production of that cutter shall cease until such time as the requirements can be met.

(E) Longitudinal Crack Preparation

Random longitudinal cracks shall follow the 'Clean and Seal' method (without routing) following the same procedures used for the transverse 'Rout and Seal' cracks.

(F) Reservoir, Crack Cleaning and Conditioning Operation

Rout and Seal: Routed reservoirs shall be thoroughly cleaned with a minimum of one pass of the air wand not more than 2 inches [50 mm] from each face of the reservoir / crack. Cleaning shall continue until the reservoir / crack is dry and all dirt, dust or deleterious matter is removed. If the air compressor produces dirt or other residue, the Contractor will be required to re-clean the reservoir / crack.

Clean and Seal: Clean and Seal cracks shall be thoroughly cleaned with a minimum of one pass of the air wand not more than 2 inches [50 mm] from each face of the reservoir / crack. Cleaning shall continue until the reservoir / crack is dry and all dirt, dust or deleterious matter is removed. If the air compressor produces dirt or other residue, the Contractor will be required to re-clean the reservoir / crack. In addition, prior to the placement of the crack sealant, all cracks will be cleaned with a street sweeper. The sweeper will be self propelled with a vacuum pick up system. Compensation for the street sweeper will be included in the unit price for 2331 (Bituminous Pavement Crack Treatment).

Immediately prior to the placement of the crack sealant, the surface of both the sidewalls, as well as the pavement 1 inch [25 mm] on either side of their sidewalls shall be conditioned with hot compressed air from a heat lance. The heat lance shall be placed within 3 inches [75 mm] of each sidewall of the reservoir/ crack. This treatment shall continue until the affected areas are conditioned. The heat lance shall not scorch the routed reservoir, crack or adjacent pavement surface. The Engineer reserves the right to randomly spot check the reservoirs/ cracks to verify that they are clean and dry. Anytime the Engineer determines that this requirement is not being met, the Contractor shall modify their operation to meet these requirements.

The Contractor shall be required to provide protective screening if cleaning and conditioning operations could cause damage to or interference with traffic in adjacent lanes.

(G) Crack Sealing Operation

The crack sealant shall be placed immediately after the completion of the cleaning and conditioning with the heat lance.

Cracks shall be sealed when the sealant material is at the application/pouring temperature recommended by the manufacturer. The Contractor shall fill the transverse reservoirs / cracks by the use of the double fill method. (Note, the Contractor may need to use additional passing filling the reservoir / crack to meet the level fill requirement). The final level of the filled reservoir shall be flush with the pavement surface, no more

than 0.125 inches [3 mm] thick, spread uniformly over the entire length of the crack. The width of the overband, including the routed reservoir, shall be 2.5 inches [64 mm] wide with a film thickness of the overband limited to 0.125 inches [3 mm] deep. The Contractor may be required to use a squeegee to force the sealant material into narrow cracks if the sealant material is not flowing into the crack properly.

Longitudinal cracks using the Clean and Seal method shall be applied using an application wand followed by a “V” shaped squeegee or by a round application head having a concave underside or other methods that meets the requirements for size and shape. The maximum width of the application head shall be 3 inches [75 mm] for standard coverage. The maximum width of the application head shall be 6 inches [150 mm] for multi-crack locations. The maximum film thickness of the overband is limited to 0.125 inches [3 mm] deep.

Care shall be taken in the sealing of the cracks so that the cracks are not overfilled and the final appearance shall present a neat fine line. The applicator wand shall be returned to the machine and the joint sealant material re-circulated immediately upon completion of each crack sealing.

Sealants shall not be removed from their packaging until immediately before it is placed in the melter. The Contractor shall feed additional sealant into the melter at a rate equal to or less than the rate of placement of the sealant in the reservoirs / cracks.

The Contractor may apply single ply toilet paper or ~~a light coating of sand, dust~~ or an approved de-tacking agent for use with the specified sealant to the surface of the newly placed sealant if traffic results in tracking of the crack sealing material. The Contractor shall repair any damage by traffic to treated pavement areas. If the existing pavement markings are obliterated as a result of the crack treatment work, temporary pavement markings shall be placed before the roadway is opened to traffic.

Lanes may be opened to traffic only after the sealer has set sufficiently so it will not pick up under traffic. Sealant material picked up or pulled out during construction shall be replaced at the contractor’s expense.

At the end of the workday the Contractor shall clean and remove all debris generated in the area of work operations. The Contractor’s operations shall, at all times, be conducted in a manner not deleterious to the public at large, or the Engineering and Labor Forces involved on the Project Site.

(H) Acceptance Sampling

The Contractor shall record the required information on the melting kettle production data sheets as required during the actual working operations. This information is to be recorded by the Contractor. At the end of each day’s production, the completed sheets shall be presented to the Engineer, and the Engineer shall place them in a permanent file.

During crack sealing operations, the Engineer may review the sealant temperatures at the melting kettle intermittently during the working operations. If the temperatures are above the manufacturer’s specified safe heating temperature, the sealant will be rejected. The Contractor shall empty the kettle of the over-heated material and legally dispose of it in an environmentally safe method.

Transverse cracks, whether sealed by the ‘Rout and Seal’ or ‘Clean and Seal’, and longitudinal cracks filled by ‘Clean and Seal’, will be observed on a crack-by-crack basis for acceptable workmanship. Unsealed cracks will be brought to the attention of the Contractor. The Contractor shall fill all unsealed cracks prior to re-opening the roadway to traffic.

(I) Workmanship

Sealed cracks shall be rejected if there is evidence of poor workmanship or obvious defects, such as, but not limited to the following:

- Routed reservoir not filled completely, flush with pavement surface.
- Lack of bond to the sidewalls of the joint reservoir or crack.

- Excessive debris or moisture in the joint reservoir or crack.
- Contamination of the sealant.
- Excessive pools of sealant on the pavement or shoulder surface.
- Excessively wide, thick sealant overband.

Rejected sealed cracks shall be repaired, the sealant removed and disposed of in a legal and appropriate manner and the cracks resealed as necessary.

(J) Warranty of Rout and Seal Crack Sealing

Contractor’s Responsibilities: The Contractor shall provide a written two-year warranty starting from the date the Project is substantially complete or the roadway has been re-opened to traffic. The warranty shall cover 100% the cost of new materials, removal and disposal of failed materials, equipment, mobilization, traffic control and labor necessary to repair the failed rout and sealed cracks.

Definition of Failure: Failure shall be determined on a crack-by-crack basis for cracks sealed using the rout and seal method as:

- Loss of sealant (pull-out) on any portion of the rout and sealed crack or a rout and sealed crack with ten (10%) percent or more of its length in which the sealant has lost its bond with the pavement, or the sealant has torn within the routed crack which could allow water to penetrate the crack.
- Bituminous pavement that breaks, but is still bonded to the sealant, will not be considered a failed rout and sealed crack.

Definition of Catastrophic Failure: If at any time during the warranty period, 30 percent of the routed cracks treated as part of this Contract fail in any road section segment, the Contractor shall correct all such failures as soon as the weather conditions permit. Repair work shall include all sealed cracks damaged by the catastrophic failure, including longitudinal cracks that are pulled out by failed sealant.

Annual Review: The Contractor shall schedule and review the Project in detail with the Engineer annually during the warranty period. The meeting should occur in the early part of the construction season to expedite any repair work that may be required.

The Contractor shall make the necessary repairs to all failed sealed cracks during the current construction season.

Additional Bituminous Cracking: Should additional cracking occur in the bituminous surface during the warranty period, the Engineer may request a proposal from the Contractor to seal these cracks. This work, if applicable, will be paid for as an additional service in accordance with MnDOT specifications.

Administrative Requirements: The Contractor must comply with MnDOT specifications for bonding, which requires the successful bidder to “furnish a Payment Bond equal to the Contract amount and a Performance Bond equal to the Contract amount”.

The Contractor will be required to amend their Performance Bond to cover the warranty period. This bond must be submitted to MnDOT. The release of the Performance Bond will take place following the end of the warranty period provided the Contractor has executed the warranty work in good faith.

Failure to Comply with Warranty: Failure to comply with the warranty described will result in forfeiture of the Performance Bond and the Contractor shall be ineligible to enter into work with MnDOT bituminous pavement crack sealing or ‘Saw and Seal’ projects for the remainder of the Contract period and for the next 12 months following the original Contract period.

(K) Final Clean-Up

After the sealant has been placed and cured and before opening the road to traffic, any additional debris left on the roadway surface shall be removed. Any method used to complete this work shall not damage the newly placed sealant; the Contractor shall repair any damage to the sealant.

S-24.3 MEASUREMENT

This work will be measured by the weight of sealant properly placed in the routed cracks in accordance with the requirements put forth herein.

S-24.4 PAYMENT

Payment for Crack Repair Special will be made in accordance with the schedule set forth below at the Contract bid price per pound [kilogram] of sealant placed, which shall include the cost of furnishing all labor, equipment, and materials necessary to complete the work as specified or as ordered by the Engineer.

S-25 BITUMINOUS CRACK LEVELING WITH MASTIC

S-25.1 DESCRIPTION

This work consists of repairing recessed joints in asphalt concrete pavement with a specified sealant material.

S-25.2 MATERIALS

Asphalt repair mastic shall be composed of quality-selected asphalt and/or resins, select aggregates with structural integrity, synthetic rubber polymers, anti-oxidants, naturally occurring and man-made reinforcing material, and other modifiers.

Asphalt repair mastic shall be: BCI Flex Patch, Deery Level and Go Repair Mastic, Crafcoc Mastic One, or Maxwell Nuvo GAP Type B, meeting the appropriate specifications below or an approved equal.

A. BCI Flex Patch

PROPERTIES OF ASPHALT SEALANT		
Property	Test Method	Specification
Cone Penetration @ 77°F (25°C)	ASTM 05329	50-90 dmm
Ductility @ 77°F (25°C)	ASTM D113	40 cm minimum
Bond @ 0°F (-18°C), 100% ext, 12.7 mm sample	ASTM D5329	Pass 5 cycles
Flow @140°F (60°C)	ASTM D5329	1.0 cm maximum
Resilience @ 77°F (25°C)	ASTM D5329	25-60%
Impact@ 0°F (-18°C)	MnDOT	Pass
Compression Recovery	MnDOT	0.40 min
Asphalt Compatibility	ASTM 05329	Compatible
Recommended Application Temperature	ASTM D5167	380°F (193°C)
Maximum Heating Temperature	ASTM D6690	410°F (210°C)
PROPERTIES OF FIBERS		
Property		Specification
Fiber Content (by weight of asphaltic cement)		2% minimum
Type		Polyester
Length		0.25 inch +/- 0.02 inch
Denier		3 to 6
Specific Gravity		1.32 to 1.40
Tensile Strength		70,000 psi min
Melt Temperature		475 degrees F min

Crimps		None
Ignition Temperature		1000 °F min
Specification Limits when heated in accordance with ASTM D5167 are:		
Property	Test Method	Specification
Minimum Application Temperature		380 °F (193°C)
Maximum Heating Temperature		400 °F (204°C)
Softening Point	ASTM D36	190 °F (88°C) min
Flexibility	1" -20°F (-29°C), 90° bend, 10 sec.	Pass
Cone Penetration 77° F (25°C)	ASTM D5329	25 – 45
Workability		Capable of being melted and applied through a pressure feed, indirect heat, agitated melter.
Viscosity 400 °F (204°C)	ASTM 4402	3000 cp min
PROPERTIES OF COVER AGGREGATE		
Property	Test Method	Specification
Gradation	MnDOT 3127	FA-2
Classification	MnDOT 3137.2.B	Class A
Aggregate Pre-coating at Plant	MnDOT 3151.2A	Asphalt Cement

Payment for precoated aggregate and application of precoated aggregate is incidental.

Apply cover aggregate immediately after application of crack filler. Cover material shall be spread on top of the sealant using a forced air system. Hand casting, shoveling, or other application of cover aggregate is not allowed without written permission of Engineer.

Cover material shall be placed as vertically as possible upon the sealing bituminous. Material may not be spread horizontally by tossing with shovels. Traffic shall not be allowed on the material until it is cured or it has been blotted to prevent tracking.

PRECOATED COVER AGGREGATE - SPECIFICATION AND PROCESS FOR PRODUCTION/APPLICATION.

Provide aggregate according to MnDOT 3127. Use Class A aggregate FA-2 specification. Provide Engineer with aggregate source and sample for approval prior to manufacturing precoated aggregate.

Precoat aggregate based on specifications listed below:

Field precoating of aggregate shall not be allowed.

Precoat aggregate using hot mix asphalt plant mixing method. Mixing plant must be drum type with capability to heat aggregate and bitumen to required temperatures to achieve required results. Equipment and procedure used for precoating must ensure that the bitumen is uniformly applied to aggregate.

Aggregate shall be heated and dried prior to bitumen application in plant to eliminate moisture and dust prior to precoating. Aggregate is to be clean and dry prior to bitumen application. Use of adhesion agents is not allowed. Aggregate shall subject to the Monetary Price Adjustments per MnDOT 2356.5A.

Asphalt binders for precoating aggregates shall be asphalt cement (AC) MnDOT 3151.2A. The target value of precoating material typically varies from 0.80 to 1.50 percent (by weight), of residual binder on the aggregate. Provide aggregate with a uniform coating of bitumen for use.

Precoated Aggregate Price Reduction Schedule	
% of AC Binder (by weight) ²	Price Reduction in Unit Price of Crack Repair
0.50% to 0.79%	25%
Less than 0.60%	Reject Aggregate ¹
1: Aggregate must be recoated for use for Crack Repair Special. The cost of recoating aggregate shall be incidental to Crack Repair Special.	
2: The percent of AC binder by weight shall be determined by chemical extraction.	

Precoating of aggregate must be completed and stockpiled minimum of two weeks in advance of performing work. Materials may be stockpiled for up to 4 months but shall be approved by Engineer prior to use. Provide Engineer with plant certification and production slips. Provide Engineer with weigh tickets of material used.

B. Deery Level and Go Repair Mastic

PROPERTIES OF MASTIC BINDER		
	Test Method	Specification
Penetration @ 77°F (25°C), 150 g, 5 sec	ASTM D 5329	100 dmm Max
Penetration @ 122°F (50°C), 150 g, 5 sec	ASTM D 5329	150 dmm Max
Ductility @ 77°F (25°C), 5 cm Min	ASTM D 113	20 cm Min
Softening Point (R&B)	ASTM D 36	190°F (88°C) Min.
Pliability @ 0°F (-18°C), 1" mandrel, 90° bend, 2 sec	ASTM D3111 Modified *	Bend With No Cracks
Resilience @ 77°F (25°C)	ASTM D5329	45% Min
Recommended Application Temp		380-400°F (193-204°C) ***
Safe Heating Temp		400°F (204°C) Max ****
PROPERTIES OF BLENDED MASTIC PRODUCT		
	Test Method	Specification
Low Temperature Flexibility @ 32°F (0°C) 1" mandrel, 90° bend, 10 sec	ASTM D3111 Modified **	Bend Without Breaking
Weight per Cubic Foot (Cubic Meter)		108–112 pounds (49–51 kilograms)

* 1" (25mm) wide x 7" (175mm) long x 0.5" (12mm) thick sample

** 2" (50mm) wide x 6" (150mm) long x 0.25" (8mm) thick sample conditioned for 24 hours

*** Temperature of the product measured at the pavement surface. Use maximum application temperature in cool weather

**** Prolonged heating at or above Maximum Safe Heating Temperature may severely damage product

C. Crafcoc Mastic One

PROPERTIES OF MASTIC BINDER		
	Test Method	Specification
Penetration @ 77°F (25°C)	ASTM D 5329	60 dmm Max.
Penetration @ 122°F (50°C)	ASTM D 5329	120 dmm Max.
Flexibility @ 32°F (0°C), 1" mandrel, 180° bend, 10 sec	ASTM D 3111 Modified	Bend Without Cracking
Softening Point (R&B)	ASTM D 36	200°F (93°C) Min.

PROPERTIES OF BLENDED MASTIC PRODUCT		
	Test Method	Specification
Flexibility @ 32°F (0°C),	PTM 3	Pass
Adhesion @ 77°F (25°C)	PTM 4	25 PSI (172 KPA) ,Min
Specific Gravity		1.7 – 2.0
Recommended Application Temp		375-400°F (190 -204°C)

Test Methods PTM 3 and PTM 4 are Crafcro, Inc test procedures. Copies may be obtained from the Company. Contact information for Crafcro, Inc: 1-800-528-8242.

D. Maxwell Nuvo GAP Type B

PROPERTIES OF MASTIC BINDER		
	Test Method	Specification
Resilience @ 77 °F (25°C)	ASTM D 5329	35% min.
Tensile Adhesion	ASTM D 5329	400% min.
Flexibility 1” mandrel, 2 sec	ASTM D 3111 Modified	-15 °F min. (-26.1°C)
PROPERTIES OF AGGREGATE		
	Test Method	Specification
Specific Gravity	(As per manufacturer's certification)	1.5
Porosity	(As per manufacturer's certification)	10% min.
Shear Strength	(As per manufacturer's certification)	30% min.
Recommended Application Temp		380°F (193 °C)
Recommended Safe Heating Temp		400°F (204 °C)
PACKAGING		
		Specification
Meltable Packaging		Packaging shall completely melt into solution at 380 °F or lower. There shall be no cardboard or paper waste from packaging. No sharp objects shall be required to open containers.
Storage		Containers shall be weather resistant for outdoor storage.

E. Structural Aggregate Properties: The aggregate portion of the mastic shall include wear resistant granite, quartzite, or limestone meeting the following requirements:

PROPERTIES OF AGGREGATE		
	Test Method	Specification
Resistance to Abrasion and Impact	ASTM C 131 Grading “C”	20% Degradation Max

S-25.3 CONSTRUCTION REQUIREMENTS

Surface Preparation: All surfaces shall be dry and free of all dirt, dust, grease, and loose material prior to application of the mastic. All surfaces shall be cleaned by the use of compressed air produced from an air-compressor with the capability of producing a minimum of 125 cfm (0.06 cubic meters per second) of clean, oil-free compressed air equipped with a maximum of a ¾ inch (20mm) diameter nozzle. The use of “backpack” type blowers is not allowed.

In the event of surface temperatures falling below 40°F (4°C), a compressed air heat lance shall be used to thoroughly dry all moisture and heat the surface area as per the manufacturer’s recommendations. The compressed air heat lance shall produce a minimum temperature of 750°F (399°C) at a minimum velocity of 650 feet per second. The compressed air must be produced from an air-compressor with the capability of producing a minimum of 125 cfm (0.06 cubic meters per second) of clean, oil-free compressed air. The use of direct flame dryers will not be permitted. Caution shall be taken as to not overheat pavement surfaces.

When recommended by the mastic manufacturer, a surface conditioner or primer approved by the mastic manufacturer shall be applied to the surfaces prior to placement of the asphalt repair mastic to promote increased surface adhesion to the existing pavement. If used, the surface conditioner or primer must thoroughly cover all surface areas where the asphalt repair mastic will be placed. The installation of the asphalt repair mastic will not take place until the surface conditioner or primer has cured to a “tacky” consistency.

Installation: The Contractor must be trained and approved by the mastic manufacturer.

The asphalt repair mastic shall be heated in a thermostatically controlled mastic mixer that utilizes oil as a heat transfer medium. The Mastic mixer must be equipped with a full sweep horizontal agitator capable of gently lifting the material from the bottom of the reservoir and turning the material over and over. The agitator shall be capable of mixing and suspending materials, filled with aggregates having a specific gravity as high as 3.0.

The heated asphalt repair mastic will then be dispensed onto the properly prepared pavement recess, in layers if needed. Immediately following, a heated hand squeegee shall be used to level and smooth the repair mastic with the surrounding pavement surface until the material has formed a durable, well-bonded repair. The heated hand squeegee shall be kept free of material buildup to ensure a smooth, quality finished product.

The asphalt repair mastic shall be applied to the applicable surface area from the bottom up in lifts appropriate to the specific application. Due to the depths of some of the repair locations, a minimum of two lifts may be required to obtain a level surface. In the event that multiple lifts are required, the first application should fill the work area to within 0.5" (12mm) to 1" (25mm) of the desired reservoir depth. The first lift shall be properly cooled before any subsequent lifts are applied. All excess material shall be removed from the roadway and properly disposed of.

The Contractor shall cooperate with the Engineer to keep accurate running totals of the pounds of material used.

Workmanship

Sealed cracks shall be rejected if there is evidence of poor workmanship or obvious defects, such as, but not limited to the following:

Reservoir not filled completely, flush with pavement surface.

Lack of bond to roadway surface.

Excessive debris or moisture in the patch or joint reservoir or crack.

Contamination of the sealant, aggregate, or blended mastic product.

Excessive pools of hot-melt material on the pavement or shoulder surface.

Excessively wide, thick overband.

Rejected treated cracks and patches shall be repaired, the material removed and disposed of in a legal and appropriate manner and the joints retreated as necessary

Documentation: The Contractor's documentation shall include all of the following information.

Written verification from the manufacturer stating the Contractor has received the required training and certification to install the asphalt repair mastic.

Written certification from the manufacturer for each shipment, which shall include a statement of the asphalt repair mastic material quantity and quality control data for each production run. A production run shall be described as the quantity of material produced during one cycle from startup to shutdown of the manufacturer's equipment.

Manufacturer's certificate of compliance for surface conditioner or primer.

S-25.4 **METHOD OF MEASUREMENT**

Asphalt repair mastic will be measured by the pound (kilogram) of mastic applied. The manufacturer's weights of the mastic will be accepted as the basis for measurement.

S-25.5 **BASIS OF PAYMENT**

Bituminous Crack Leveling with Mastic will be paid to the contract by unit price per pound (kilogram) and shall be full compensation for all labor, equipment, materials, surface conditioner, or primer, and incidentals required to place the repair mastic.

S-26 (2563) TRAFFIC CONTROL

The work will be accomplished in accordance with the provisions of 1404.

S-27 (2563) PORTABLE CHANGEABLE MESSAGE SIGN

REVISED 12/13/13 (Modified)
SP2014-213

The Contractor shall furnish, install, maintain and remove Portable Changeable Message Signs in accordance with Contract provisions, as directed by the Engineer and the following:

S-27.1 A Portable Changeable Message Sign (PCMS) will be provided in advance of each temporary lane closure to communicate real time information. In addition, PCMSs will be placed at least 24 hours prior to start of crack sealing operations to provide advance notice. A PCMS will be placed at each end of the project and at intersecting side streets as directed by the Engineer.

S-27.2 The Portable Changeable Message Signs shall be trailer mounted three line, DOT signs with eight characters per line with a character height of 18 inches [450 mm] as approved by the Engineer.

S-27.3 (PCMS) Type C Trailer Mounted Message Signs will be permitted and shall be on the Approved Products List for "Changeable Message Signs: Type C - Three Lines, Trailer Mounted" as found at: <http://www.dot.state.mn.us/products/temporarytrafficcontrol/tccelectronicsequipment.html> It is imperative that the Contractor continually operate each PCMS at maximum legibility. Many factors, such as mechanical problems, insufficient charging, incorrect intensity settings, or other factors can degrade performance. If at any time the Contractor fails to operate a Portable Changeable Message Sign at maximum legibility, as determined by the Engineer, no payment will be made for each day that the Message Sign is deemed inadequate.

S-27.4 The changeable message signs shall be in operation within 24 hours of notification by the Engineer. Remove the changeable message signs within 24 hours after notification by the Engineer. Multiple mobilizations of the changeable message signs will be required and shall be incidental. The changeable message signs shall be subject to approval of the Engineer. All maintenance and repair as required will be incidental.

S-27.5 Except as approved by the Engineer, the message sign shall be stored off the shoulder when not in use. Delineate the changeable message sign according to Layout 4 (Partial Shoulder Closure) in the Field Manual if the Engineer permits the sign to remain on the shoulder.

S-27.6 When not being actively used as a traffic control device, the Portable Changeable Message Sign shall be stored beyond the clear zone distance. **Non-compliant charges, for each incident, will be assessed at a rate of \$500.00 per incident that the Engineer determines that the Contractor has not complied.**

S-27.7 Measurement will be made by the number of Portable Changeable Message Signs furnished and installed per day of service (Unit Day) as specified.

S-27.8 Payment for Portable Changeable Message Signs furnished and installed, as directed by the Engineer, will be made under Item 2563.613 (Portable Changeable Message Sign) at the Contract bid price per Unit Day. This payment shall be compensation in full for all costs incidental thereto, including but not limited to furnishing and installing the signs with appropriate message, maintaining the signs, revising the messages as directed by the Engineer, and removing the signs at the direction of the Engineer. The Portable Changeable Message Signs shall remain the property of the Contractor.

(1910) FUEL ESCALATION CLAUSE

The provisions set forth in Mn/DOT 1910 are hereby supplemented with the following:

These provisions provide for compensation adjustments in the cost of motor fuels (diesel and gasoline) consumed in prosecuting the Contract work. The Engineer will calculate the Fuel Cost Adjustments. Payments or credits will be applied to partial and final payments for work items set forth herein.

For this purpose, the Department will establish a Base Fuel Index (BFI) for fuel to be used on the Project. The Base Fuel Index will be the average of the high and low rack prices shown for No. 2 ultra low sulfur fuel oil in the "OPIS Energy Group" tabulation titled "RackFax, Minneapolis, MN, OPIS Direct Gross No. 2 Distillate Fuels" *for the day of the Contract letting*.

A Current Fuel Index (CFI) in cents per gallon will be established for each month. The CFI will be the average of the high and low rack prices shown for No. 2 ultra low sulfur fuel oil in the "OPIS Energy Group" tabulation titled "RackFax, Minneapolis, MN, OPIS Direct Gross No. 2 Distillate Fuels" averaged for the beginning and ending dates of the monthly period being adjusted.

The Engineer will compute the ratio of the Current Fuel Index to the Base Fuel Index (CFI/BFI) each month. If that ratio falls between 0.85 and 1.15, no fuel adjustment will be made that month. If the ratio is less than 0.85, a credit to the Department will be computed. If the ratio is greater than 1.15, additional payment to the Contractor will be computed.

Credit or additional payment will be computed as follows:

- (1) The Engineer will estimate the quantity of work done in that month under each of the Contract items listed below.
- (2) The Engineer will compute the gallons of fuel used in that month for each of the Contract items listed below by applying the unit fuel usage factors shown.
- (3) The Engineer will summarize the total gallons (Q) of fuel used in that month for the applicable items.
- (4) The Engineer will determine the Fuel Cost Adjustment (FCA) from the following formulas:

If the Current Fuel Index (CFI) is greater than the Base Fuel Index (BFI), the following formula shall be used to determine the amount of Fuel Cost Adjustment to be paid to the Contractor.

$$FCA = [(CFI/BFI) - 1.15] \times Q \times BFI$$

If the Current Fuel Index (CFI) is less than the Base Fuel Index (BFI), the following formula shall be used to determine the amount of Fuel Cost Adjustment to be credited to the Department.

$$FCA = [(CFI/BFI) - 0.85] \times Q \times BFI$$

Where FCA = Fuel Cost Adjustment (cents)
 CFI = Current Fuel Index (cents per gallon)
 BFI = Base Fuel Index (cents per gallon)
 Q = Monthly total gallons of fuel

Basis of Payment

A Fuel Cost Adjustment payment to the Contractor will be made as a lump sum each payment period based on the last published CFI. A Fuel Cost Adjustment credit to the Department will be deducted as a lump sum each payment period from any monies due the Contractor. Upon completion of the work under the Contract, any difference between the estimated quantities previously paid and the final quantities will be determined. The CFI in effect on the day of completion of the Contract will be applied to the quantity differences in accordance with the procedures set forth above.

Schedule of Work Items

(Only items shown will be considered for compensation adjustments.)

Item	Unit	Gallons of Fuel per Unit	Unit	Gallons of Fuel per Unit
(1) Earthwork:				
2105.501	Common Excavation	Cu. Yd	0.17	m ³ 0.22
2105.503	Rock Excavation	Cu. Yd	0.27	m ³ 0.35
2105.505	Muck Excavation	Cu. Yd	0.17	m ³ 0.22
2105.507	Subgrade Excavation	Cu. Yd	0.17	m ³ 0.22
2105.515	Unclassified Excavation	Cu. Yd	0.23	m ³ 0.30
2105.521	Granular Borrow (EV)	Cu. Yd	0.17	m ³ 0.22
	Granular Borrow (CV)	Cu. Yd	0.19	m ³ 0.25
	Granular Borrow (LV)	Cu. Yd	0.14	m ³ 0.18
2105.522	Select Granular Borrow (EV)	Cu. Yd	0.17	m ³ 0.22
	Select Granular Borrow (CV)	Cu. Yd	0.19	m ³ 0.25
	Select Granular Borrow (LV)	Cu. Yd	0.14	m ³ 0.18
2105.523	Common Borrow (EV)	Cu. Yd	0.17	m ³ 0.22
	Common Borrow (CV)	Cu. Yd	0.19	m ³ 0.25
	Common Borrow (LV)	Cu. Yd	0.14	m ³ 0.18
2105.535	Topsoil Borrow (EV)	Cu. Yd	0.17	m ³ 0.22
	Topsoil Borrow (CV)	Cu. Yd	0.19	m ³ 0.25
	Topsoil Borrow (LV)	Cu. Yd	0.14	m ³ 0.18
2106.607	Common Embankment (CV)	Cu. Yd	0.19	m ³ 0.25
2106.607	Granular Embankment (CV)	Cu. Yd	0.19	m ³ 0.25
2106.607	Select Granular Embankment(CV)	Cu. Yd	0.19	m ³ 0.25
2106.607	Select Granular Embankment Modified (___ %) (CV)	Cu. Yd	0.19	m ³ 0.25
2106.607	Excavation – Rock	Cu. Yd	0.27	m ³ 0.35
2106.607	Excavation – Muck	Cu. Yd	0.17	m ³ 0.22

Item	Unit	Gallons of Fuel per Unit	Unit	Gallons of Fuel per Unit
(2) Aggregate Base:				
2211.501	Aggregate Base	Ton	0.55	t 0.61
2211.502	Aggregate Base (LV)	Cu. Yd	0.77	m ³ 1.01
2211.503	Aggregate Base (CV)	Cu. Yd	0.99	m ³ 1.29
2211.607	Open Graded Aggregate Base (CV)	Cu. Yd	0.99	m ³ 1.29
(3) Aggregate Shouldering:				
2221.501	Aggregate Shouldering	Ton	0.55	t 0.61
2221.502	Aggregate Shouldering (LV)	Cu. Yd	0.77	m ³ 1.01
2221.503	Aggregate Shouldering (CV)	Cu. Yd	0.99	m ³ 1.29
(4) Concrete Pavements:				
2301.511	Structural Concrete	Cu. Yd	0.98	m ³ 1.28
2301.513	Structural Concrete HE	Cu. Yd	0.98	m ³ 1.28
2301.604	Structural Concrete	Sq. Yd.	0.027*t	m ² 0.00128*t
(5) Bituminous Pavements:				
2350.501	Type () Wearing Course Mixture ()	Ton	0.90	t 0.99
2350.502	Type () Non-Wearing Course Mixture ()	Ton	0.90	t 0.99
2350.503	Type () () Course (,) (t)" Thick	Sq. Yd	0.051*t	
2350.503	Type () () Course (,) (t) mm Thick			m ² 0.0024*t
2360.501	Type SP () Wearing Course Mixture ()	Ton	0.90	t 0.99
2360.502	Type SP () Non-Wearing Course Mixture (,)	Ton	0.90	t 0.99
2360.503	Type SP () () Course (,) (t)" thick	Sq. Yd	0.051*t	
2360.503	Type SP () () Course (,) (t) mm thick			m ² 0.0024*t
(6) Pipe: ***				
2501.511	___ ___ Pipe Culvert ___	Lin. Ft.	0.70	m 2.30
2501.521	___ ___ Pipe Arch Culvert ___	Lin. Ft.	0.70	m 2.30
2501.561	___ ___ Pipe Culvert Des 3006 ___	Lin. Ft.	0.70	m 2.30
2501.603	___ Pipe Culvert	Lin. Ft.	0.70	m 2.30
2503.511	___ ___ Pipe Sewer ___	Lin. Ft.	0.70	m 2.30
2503.521	___ ___ Pipe Arch Sewer ___	Lin. Ft.	0.70	m 2.30
2503.541	___ ___ Pipe Sewer Des 3006 ___	Lin. Ft.	0.70	m 2.30
2503.603	___ ___ Pipe Sewer	Lin. Ft.	0.70	m 2.30

t = thickness (in inches or mm)

NOTE: No price adjustments will be made on fuel used for drying and heating aggregates.

*** No price adjustment will be made for pipes less than 12" in diameter or jacked pipes.



ANNUAL RIGHT-OF-WAY USER
 REGISTRATION FORM
 Ramsey County
 Department of Public Works
 Ph: 651-266-7100
<http://www.co.ramsey.mn.us/pw>
 email: pwpermits@co.ramsey.mn.us

Permit Office
 1425 Paul Kirkwold Drive
 Arden Hills, MN 55112
 651-266-7186 Ph
 651-266-7188 Fax

Type of Registration: _____ (Please check appropriate boxes)

New or Annual Update Utility Owner or Contractor

Registrants Name: _____

Company Name: _____

Registrants Billing Address: _____

Street: _____

City, State Zip: _____ Bus. Ph: _____

E-mail Address: _____

Fax: _____ Emergency Ph: _____

Gopher One-Call Registration Certificate Number: _____

Local Representative Information (24-hour contact)		(Minimum – 2 names)
Person 1		Person 2
Name		
Business Phone		
Emergency Phone		
Cell Phone		

ATTACHMENTS:

Certificate of Insurance: (See Ramsey County, Insurance and Indemnification Requirements.)

1. A copy of Ramsey County's "Insurance Requirements" can be downloaded from our web site.
2. Attach a copy of your "CERTIFICATE OF INSURANCE" to the application.
3. Ramsey County, their officials and employees must be named as "additional insured: on the insurance certificate.

Construction Performance Bond:

1. **"ANNUAL"** : Utility Owners must post an Annual Construction Performance Bond in the amount of \$100,000. (We reserve the right to increase this amount for larger projects.) Attach to application.
2. **"INDIVIDUAL PROJECT BONDS"** : All other Performance Bonds (individual project bonds) and amounts shall be determined at the time of the permit application. The amount of the bond will be determined by several factors including age of road, surface to be disturbed, width – length- depth of excavation, etc. The length of this bond shall be for a period of twenty-four (24) months.

Annual Right-of-Way Registration fee: \$30.00

Check

Billed

Applicant

Signature: _____ Date: _____

(MUST BE SIGNED)

Official Use Only

Authorized County Representative: _____ Registration Number: _____

Signature: _____ Date: _____

Road Number _____ Segment _____



EXCAVATION OR OBSTRUCTION PERMIT APPLICATION

1425 Paul Kirkwold Drive
Arden Hills, MN 55112
651-266-7186 permit office
651-266-7188 fax

RAMSEY COUNTY
DEPARTMENT OF PUBLIC WORKS

<http://www.co.ramsey.mn.us/pw>
(email) pwpermits@co.ramsey.mn.us

Permit Number _____

ATTACH TWO (2) SETS OF 1/2 SIZE, ENGINEER GRADE CONSTRUCTION PLANS TO APPLICATION. MAXIMUM LENGTH PER PERMIT IS 5280 FEET (1 MILE). ONE PERMIT PER ROAD.

(Please Print)

TYPE PERMIT:	Excavation: <input type="checkbox"/>	Obstruction: <input type="checkbox"/>	Municipal Project: <input type="checkbox"/>
Applicants Name:	_____	Phone Number: _____	Fax Number: _____
Company Name:	_____	Phone Number: _____	Fax Number: _____
Billing Address:	_____	City: _____	State: _____ Zip: _____
Registration Number:	_____	Plan Number: _____	Project Number: _____
Joint Application?	Yes <input type="checkbox"/> No <input type="checkbox"/>	If "Yes" List additional applicants below and the percentage of they fee they will share.	
Joint Applicant	_____	Registration Number: _____	% of Fee: _____
If there is more than one "Joint Applicant", Attach a separate sheet naming each applicant, with their "Registration Number" and the percent of the fee they will pay. ALL APPLICANTS MUST BE REGISTERED PRIOR TO PERMIT APPROVAL.			

TYPE UTILITY: _____

PURPOSE OF CONSTRUCTION: _____

LOCATION: Address: _____ City: _____ Zip: _____
From: _____ Nearest Intersection: _____
To: _____

EXCAVATION INFORMATION:
Trench Hole Plowing Other (specify) _____
Excavation Size: Width: _____ Length: _____ Depth: _____
Type of surface being disturbed: Asphalt Concrete Gravel Grass Other (Specify) _____

OBSTRUCTION INFORMATION:
Portion of R/W being obstructed: Driving Lane Parking Lane Sidewalk/Path Boulevard
Obstruction Size: Width: _____ Length: _____ Duration (Hours/Days): _____
Hours of Obstruction: Start Time: _____ End Time: _____

CONSTRUCTION SCHEDULE: (delay penalties will be enforced.)
Start Date: _____ **Number of days for construction:** _____
(Leave "Construction Start Date" blank if exact date is unknown. Call 651-266-7186 when exact date is known, a **48-hour MINIMUM** notice is required).

Additional permits are normally required from individual Cities, Townships, Watershed Districts, MDOT etc. To avoid any possible delays to your project, you should contact the appropriate governmental agency. Some agencies require a copy of this permit application, even though they may or may not issue a permit.

By signing this application, I (the applicant/company) hereby acknowledge that I must adhere to Ramsey County Ordinance Number 2010-44 and all its provisions.

When signed and dated by an Authorized County Representative, this form along with the attached "Special Provisions" becomes your "PERMIT". When your project is finished, return a copy of this permit to the above address, or call the permit office. This will be your "Completion Certificate".

APPLICANTS SIGNATURE: _____ **DATE:** _____

OFFICIAL COUNTY USE ONLY			
APPROVED BY:	_____	DATE:	_____
Fee(s):	_____	Paid <input type="checkbox"/> Check # _____	Billed <input type="checkbox"/> Waived <input type="checkbox"/>
Comments:	_____		

Schedule of Materials Control 2016

Contents

Introduction Page	1
SCHEDULE OF MATERIALS CONTROL (For use with the 2016 Standard Specifications for Construction):	
I. Grading, Base and Reclamation Construction Items	2
II. Bituminous Construction Items for Specification 2360.....	11
III. Construction Items for Bituminous Specialty Items	18
IV. Concrete Construction Items	23
V. Landscaping and Erosion Control Items.....	41
VI. Chemical Items.....	44
VII. Metallic Materials and Metal Products.....	47
VIII. Miscellaneous Materials	55
IX. Geosynthetics, Pipe, Tile, and Precast/Prestressed Concrete	56
X. Brick, Stone, and Masonry Units.....	61
XI. Electrical, Roadway Lighting, and Traffic Control Signal Equipment Items.....	62
Certifications List	65
Telephone Index for Schedule of Materials Control	68
Form Index	69

Introduction Page

Minnesota Department of Transportation Schedule of Materials Control (SMC) (Federal Aid, State Funds, County/Municipal Federal Aid Projects and State Aid Projects)

This schedule outlines the minimum sampling and testing required for most materials used in highway construction. Some items that are rarely used or materials of recent development are often covered by special provisions and may not be shown on the schedule. For more information regarding contract requirements for testing, please reference the "Standard Specifications for Construction", Specification 1603 Materials: Specifications, Samples, Tests, and Acceptance.

Laboratories performing acceptance tests for payment shall be accredited by the AASHTO Materials Reference Laboratory (AMRL) or a comparable accreditation program approved by MnDOT and the FHWA for all test procedures performed.

When sample sizes required for testing exceed 35 pounds, please submit multiple containers of the material with no individual container weighing more than 35 pounds.

Small quantities of materials may be accepted without sampling and testing. A small quantity is defined as any total quantity, for the whole project, of one material, which is smaller than the minimum quantity required for testing unless modified by the individual material items. These materials shall be from known, reliable sources, perform satisfactorily and meet the requirements for purpose intended. The inspection report (Form 02415) should include a statement to this effect and show the source. Form 2403 may be used to report small quantities of diverse materials from different sources. Form 02415 and Form 2403 (or approved revisions) are referenced in the Schedule of Materials Control for project record documentation and are required to be maintained in the project file.

Previously approved materials transferred from another project should be reported on Form 02415. The report should include: type of material, quantities involved, source, and supplier of materials. Whenever possible, include the project number for which the material was originally approved.

If Forms 02415 and 2403 are referenced by form number within the Schedule of Materials Control for materials or products received from pre-approved sources, where the field responsibility for acceptance is visual inspection and all information required to complete these forms is contained in other documents in the project file, the use of these forms becomes optional. If these forms are completed and sent to the Project Engineer by off-site inspection personnel from the district or the Office of Materials, they must be retained in the project file.

A Telephone Index is included with the Schedule giving contact information for the specialty areas if further information is required regarding the various materials. A form index is also included.

The Department maintains the Approved/Qualified Products List and the Certified Products and Services List, as well as, the Schedule of Materials Control. All are available electronically on the Office of Materials and Road Research website. www.dot.state.mn.us/materials.html

Products manufactured offsite may be pre-approved; however, final acceptance will be made at the point of incorporation, based upon review of documentation and inspection for shipping or other damage.

Contact the MnDOT District Independent Assurance Inspector when project starts to provide the proper servicing of your project.

I. Grading, Base and Reclamation Construction Items (www.dot.state.mn.us/materials/gradingandbase.html)

Pay Item Number	Test Type / Material	Spec. No.	Minimum Contractor Quality Control (QC) Testing Rate	Minimum Agency Quality Assurance (QA) Testing (See Note 1)		Minimum Companion (Split Lab) Sample (See Note 2)		Form No. (See Note 5)	
				Rate	Size	Rate	Size		
(a) 2118 (b) 2211 (c) 2212 (d) 2221	1. Gradation (a) Aggregate Surfacing (b) Aggregate Base (c) Drainable Aggregate Base (d) Shoulder Base Aggregate	3138 3138 3136 3138	Production: 1/550 yd ³ (CV) Only required for Material On Hand, 1906.2	<p style="text-align: center;">Random Sampling</p> <ul style="list-style-type: none"> • < 280 yd³ (CV) no tests required • ≥ 280 yd³ (CV) to < 1,100 yd³ (CV) <ol style="list-style-type: none"> 1. Lot Size = Total Quantity 2. Divide lot into two equal sublots 3. Collect one random sample from each subplot 4. Review average of lot & subplot results to determine compliance • ≥ 1,100 yd³ (CV) to < 5,500 yd³ (CV) <ol style="list-style-type: none"> 1. Lot Size = Total Quantity 2. Divide Lot into four equal sublots 3. Collect one random sample from each subplot. 4. Review average of lot & subplot results to determine compliance • ≥ 5,500 yd³ (CV) <ol style="list-style-type: none"> 1. #Lots = (total bid quantity/5,500) 2. Round # Lots up to next whole number 3. Lot Size = (total bid quantity/#lots) 4. Divide each Lot into four equal sublots. 5. Collect one random sample from each subplot. 6. Review all averages of lot & subplot results to determine compliance 		30 lb.	1 per project.	30 lb.	G&B-001 G&B-002 G&B-101 G&B-104

I. Grading, Base and Reclamation Construction Items (www.dot.state.mn.us/materials/gradingandbase.html)

Pay Item Number	Test Type / Material	Spec. No.	Minimum Contractor Quality Control Testing Rate	Minimum Agency Quality Assurance (QA) Testing		Minimum Companion (Split Lab) Sample (See Note 2)		Form No. (See Note 5)
				Rate	Size	Rate	Size	
(e) 2105 2106	1. Gradation (Continued) (e) Granular Borrow/Embankment, Select Granular Borrow/Embankment, Modified Granular Borrow/Embankment & Stabilizing Aggregate	3149 & Special Provisions	1/10,000 yd ³ (CV) Only required for Material On Hand, 1906.2	1/40,000 yd ³ (CV) (See note 1)	30 lb.	1 per project.	30 lb.	G&B-001 G&B-101 G&B-104
(f) 2215	(f) Full Depth Reclamation (FDR)	Special Provisions & 3135	1/6,000 yd ² (See Note 10)	1/day	30 lb.	NA		G&B-001 G&B-003 G&B-101
(g) 2511	(g) Granular Filter	3601	One per source before delivery on project	1 per source	300 lb.	NA		G&B-001 G&B-101 G&B-104
(h) 2451 (i) 2451 (j) 2451 (k) 2451 (l) 2451 (m) 2502	(h) Granular Backfill (i) Aggregate Backfill (j) Granular Bedding (k) Aggregate Bedding (l) Coarse Filter Aggregate (m) Fine Filter Aggregate	3149	One per source before delivery on project	1 per source	30 lb.	NA		G&B-001 G&B-101 G&B-104

I. Grading, Base and Reclamation Construction Items (www.dot.state.mn.us/materials/gradingandbase.html)

Pay Item Number	Test Type / Material	Spec. No.	Minimum Contractor Quality Control Testing Rate	Minimum Agency Quality Assurance (QA) Testing		Minimum Companion (Split Lab) Sample (See Notes 2 & 3)		Form No. (See Note 5)
				Rate	Size	Rate	Size	
2105 2106 2112	2. Proctor Test (Used for optimum moisture & maximum density) Material type: Non-granular embankment and Subgrade Preparation material per 3149.2.B.1	2105 2106 2112	When QA is Specified Density, may use QA result for Target moisture When QA is NOT Specified Density: 1 per major soil type (See Notes 7 & 11) Used for optimum moisture determination	For Specified Density: 1/major soil type. For all other compaction requirements: One Contractor Companion/project (See Note 8)	50 lbs.	1 per project.	25 lb.	G&B-001 G&B-003 G&B-303
2105 2106 2112	3a. Compaction Compliance For non-granular material per 3149.2B.1 Specified Density Test (Sand Cone or other) or Light Weight Deflectometer (LWD)	2105 2106 2112		Roadway Embankment (within road core): One test/4,000 yd ³ or, one test/8,000 yd ³ (CV), if test rolled. (for material outside road core, test at Engineer's discretion) Trenches for Transverse Culverts and Abutments: 1 test per every 2 feet of fill height per 250 feet of trench length Trenches for longitudinal water-main, Storm-sewer, sanitary, and gas & retaining walls & removals: One test per 500 feet of each trench length at various depths. Subgrade Preparation One per 25 Road Stations (See note 8)		NA	NA	G&B-001 G&B-304

I. Grading, Base and Reclamation Construction Items (www.dot.state.mn.us/materials/gradingandbase.html)

Pay Item Number	Test Type / Material	Spec. No.	Minimum Contractor Quality Control Testing Rate	Minimum Agency Quality Assurance (QA) Testing Rate	Form No. (See Note 5)
(a) 2211 (b) 2221	3b. Compaction Compliance Dynamic Cone Penetration (DCP) Index Method or Light Weight Deflectometer (LWD) (a) Aggregate Base (b) Shoulder Base Aggregate	3138		1 test/500 yd ³ (CV)	G&B-001 G&B-204 G&B-601 G&B-603
(c) 2215	(c) Full Depth Reclamation (FDR)	3135		1 test/3,000 yd ²	G&B-001 G&B-205 G&B-601 G&B-603
(d) 2105 2106 2112	(d) Granular Borrow/Embankment, Select Granular Borrow/Embankment, & Modified Granular Borrow/Embankment and all other granular materials. Subgrade Preparation (for materials meeting 3149.2B1)	3149		Roadway Embankment: One test/2,000 yd ³ (CV) Or, one test/4,000 yd ³ (CV), if test rolled Trenches for Transverse Culverts and Abutments: 1 per every 2 feet of fill height per 250 feet of trench length. Trenches for longitudinal water-main, Storm-sewer, sanitary, and gas & retaining walls & removals: 1 per 500 feet of each trench length at various depths. Subgrade Preparation: 1 per 25 Road Stations.	G&B-001 G&B-203 G&B-601 G&B-602 G&B-603
(a) 2118 (b) 2211 (c) 2212 (d) 2221	4. Moisture Content Test During Compaction Needed for all compaction methods including quality compaction. (See Note 9) (a) Aggregate Surfacing (b) Aggregate Base (c) Draggable Aggregate Base (d) Shoulder Base Aggregate	3138	1/1,000 yd ³	1 per project in this category. Obtain split samples from Contractor.	G&B-001 G&B-003 G&B-105
(e) 2215	(e) Full Depth Reclamation (See Note 9)	2215	1/6,000 yd ²	1 per project in this category. Obtain split sample from Contractor.	
(f) 2105 2106 2112	(f) All embankment materials (See Note 9) (g) Subgrade Preparation	2105, 2106 & Special Provisions	All Embankment Materials 1/10,000 yd ³ Subgrade Preparation 1 per 25 Road Stations	1 per project in this category. Obtain split sample from Contractor	G&B-001 G&B-003 G&B-105

I. Grading, Base and Reclamation Construction Items (www.dot.state.mn.us/materials/gradingandbase.html)

Pay Item Number	Test Type / Material	Spec. No.	Minimum Contractor Quality Control Testing Rate	Minimum Agency Quality Assurance (QA) Testing		Form No. (See Note 5)
				Rate	Size	
2105 2106 2118 2211 2212 2221	5. Percent Crushing		1/lot, only required for Material On Hand, 1906.2	2 per source (See Notes 3 & 4)		G&B-103 G&B-104
2105 2106 2118 2206 2211 2212 2221 2451 2502	6. Aggregate Quality A: LAR, Insoluble Residue, Lithological Exam & Bitumen Content B: Percentage of Concrete, Masonry Concrete, Glass, Brick and other Objectionable Material in a Recycled Aggregate Sample	3136, 3138, 3149	1/source (See Note 6), only required for Material on Hand, 1906.2	A: 2 per source (See Notes 3, 4 & 6) B: Test at the discretion of the Engineer. See Lab Manual, Section 1209	30 lb.	G&B-104
2215	7. Depth Check Full Depth Reclamation (FDR)		1/1000 feet of machine width	1/day		G&B-003 G&B-401
2111	8. Test Rolling	Contractor perform test rolling at the top of all subgrade and granular layers not meeting the requirements of 3149.2B2 (2105 & 2106), base layers (2211), and non-stabilized FDR (2215). Minimum 12' width and 300' length. Agency to observe test rolling.				

General Notes: Sampling and Testing Procedures are found in the Grading and Base Manual in Section 5-692.200. Obtain all gradation, quality and crushing samples after spreading and before compaction.

Modify testing and sampling protocol for increases in Plan quantities as follows:

Time Plan Quantity Increased	Testing and Sampling
Before Collection of first sample.	Reorder sampling to account for additional quantity.
After Collection of first sample, but before sampling is complete.	Complete testing of current lot, and then reorder the sampling using the remaining quantity.
After collection of all original Plan quantity samples.	Order sampling for additional quantity.

I. Grading, Base and Reclamation Construction Items (www.dot.state.mn.us/materials/gradingandbase.html)

Note 1: Samples are not required for 280 yd³ (CV) (500 tons) or less. Report small quantities on Form 02415 or Form 2403.
<http://www.dot.state.mn.us/const/tools/forms.html>.

Note 2: Laboratories with AMRL accreditation that perform Agency Assurance testing are not required to submit companion samples. When Quality Assurance testing is not performed in an AMRL accredited facility, obtain the Companion/Lab sample as a split sample from the first Agency Quality Assurance sample, and include the gradation results on the sample card.

Note 3: Companion gradation and proctor, and Quality Assurance crushing and aggregate quality samples are not required for 550 yd³ (CV) (1,000 tons) or less.

Note 4:

- Carbonate aggregates require 50 lb. samples for lab testing.
- Submit the initial aggregate quality and crushing sample from the first day's production; the Engineer may elect to sample from the stockpile.
- The crushing test will not be required when the material is crushed from a quarry.
- A second test is required, when the first test fails. Average both tests to determined compliance, when two tests are performed.
- Not all quality and crushing tests are required for each material, see specifications
- Use the table below as a **guideline**, **determination of specific required tests is through the Specifications and/or the Special Provisions.**

Note 5: Forms are available on the Grading & Base website at: <http://www.dot.state.mn.us/materials/gradingandbase.html>

Note 6: Use the Centrifuge Method (MnDOT Lab. Manual Method 1852) to determine bitumen content.

Note 7: Major soil types are defined in the Triaxial Chart located in the Grading and Base Manual.

Note 8: Required only for specified density.

Note 9: Required during Compaction. For Quality Compaction of Shoulder Aggregate (2118 or 2221), the Engineer may replace the moisture testing requirement with time stamped photo documentation of water being applied.

Note 10: Provide gradation test results to the Engineer within the first 500 feet (150 m) of production and within 500 feet (150 m) after a failing gradation.

Note 11: The Contractor may use a one point Proctor, or the estimated optimum moisture content formula for granular (Form G&B- 305) to determine the optimum moisture.

I. Grading, Base and Reclamation Construction Items (www.dot.state.mn.us/materials/gradingandbase.html)**Table: Guidelines for Required Crushing and Aggregate Quality Tests**

Material	Crushing	Bitumen Content	LAR	Insoluble Residue	Lithological Exam & Shale Float Test
3136 Drainable Bases	Yes. Not required for quarried sources.	Not applicable	Yes	Yes, if source from a carbonate quarry.	Yes, when not from quarried source.
3138 Aggregate for Surface and Base	Yes for Class 5, 5Q and 6. Test waived if material contains recycled at twice the minimum crushing requirement. Not required for quarried sources.	Yes, if it contains Bitumen.	Yes, if source is carbonate quarry and does not contain bitumen.	Yes, if source from a carbonate quarry, and does not contain bitumen.	Yes for Class 3, 4, 5, 5Q and 6, when not from quarried rock, and does not contain bitumen.
3149 Granular Material *	Yes for Stabilizing Aggregate, Fine Aggregate Bedding and Medium Filter Aggregate. Test waived if material contains recycled at twice the minimum crushing requirement. Not required for quarried sources.	Yes, if it contains Bitumen	Not applicable	Yes, if source from a carbonate quarry, and does not contain bitumen	Yes for Medium Filter Aggregate

* Note for 3149.2D.2 Granular Materials - Structural Backfill, perform all tests required of 3137.2B3, shear angle test (AASHTO T236) and Proctor.

Perform test procedure for determining the amount of concrete, masonry concrete, glass, brick and other objectionable material in a recycled aggregate sample when sample appears to contain more material than allowed by specification. See Lab Manual; Section 1209.

Grading and Base Conversion from Volume (CV) to Weight

If possible, always perform a proctor for the material in question to obtain a conversion factor.

Only use the following conversion factor for materials meeting specifications 3138 or 3149 Stabilizing Aggregate. Material may be composed of crushed limestone, granite, gneiss, quartzite, recycled materials or natural gravel. **Do not** use the conversion factor for crushed basalt, taconite, or other heavy or light-weight aggregates. For other materials or gradations contact the Grading and Base Unit.

To convert from volume to weight use the following: **1 yd³ (CV) = 1.8 tons.**

See the Grading and Base Manual Section .430 for further explanation.

I. Grading, Base and Reclamation Construction Items (www.dot.state.mn.us/materials/gradingandbase.html)

Contractor Quality Control Tests Requirements for Cold in Place Recycling (CIR) & Stabilized Full Depth Reclamation (SFDR), Specification 2215		
Test Name	Rate	Method/Location
SFDR: Gradation (Simple) Pre-Ground Un-Stabilized Material	1 per mile	G&B Manual .215 & Form G&B-101 Report sieves 3" & 2"
SFDR: Gradation (Entire) (Material to be Stabilized)	One per day, give split sample to Engineer	G&B Manual .215 & Form G&B-101 Report sieves 2", 1.5", 1.25", 1", ¾", 3/8", #4, #10 & #30
CIR & SFDR: Gradation (Simple) (Material to be Stabilized)	1 per mile for SFDR and CIR without top size screening 4 per mile for CIR with machines with top size screen.	G&B Manual .215 & .293, Form G&B-101 Report only sieves 2" and 1.5" for SFDR 1.5" and 1.25" for CIR
CIR & SFDR: Depth Check Unstabilized (SFDR) & Stabilized (CIR & SFDR)	One per 1,000 feet per machine width for each vertical machine face for initial pulverization and stabilization	G&B Manual .284 and Form G&B- 401
SFDR: Moisture during compaction of unstabilized portion	1/6,000 yd ²	G&B Manual .245, Speedy Tester not allowed
SFDR: Penetration Index (DCP) – Unstabilized	One per ½ lane mile	G&B Manual .255 & Form G&B-205
CIR & SFDR (if used): Calibrate mineral stabilizing agent application rate	Once using design rate per vane feeder	G&B Manual .286 or .287
SFDR: Moisture before Injecting Liquid Bituminous Material	One per 5,000 feet of lane of daily anticipated SFDR & one after the addition of water by Contractor or rain or mechanical drying out (disking, etc.).	G&B Manual .281 & Form G&B-105
CIR & SFDR: Yield Mineral Stabilizing Agent (if used) Liquid Bituminous Material	1 per transport 1 per transport	G&B Manual .286 & .287 & Forms G&B 402 & 403
CIR & SFDR: Compaction (Nuclear Density) (SFDR Stabilized and CIR)	1 per 500 feet of lane width <i>(See Note Below)</i>	Grading & Base manual .282
CIR & SFDR: Control Strip (SFDR Stabilized and CIR)	Minimum once per project	
CIR & SFDR (if foaming): Foaming Asphalt Checks Expansion Ratio & Half Life	1 per load	Grading & Base Manual .285
Note: the Engineer may require a Contractor to perform additional Nuclear Density tests in areas that the Engineer believes are failing density requirements. Correlate the nuclear gauge's dry measurement density by direct moisture measurement (microwave oven or equivalent).		

I. Grading, Base and Reclamation Construction Items (www.dot.state.mn.us/materials/gradingandbase.html)

Agency Quality Assurance Tests Requirements for Cold in-Place Recycling and Stabilized Full Depth Reclamation, Specification 2215		
Test Name	Rate	Method/Location
SFDR: Gradation (Simple) Pre-Ground Un-Stabilized Material	Run gradation at the discretion of the Engineer	G&B Manual .215 & Form G&B-101 Report only sieves 3" & 2"
SFDR: Gradation (Entire) (Material to be Stabilized)	Run gradation at the discretion of the Engineer	G&B Manual .215 & Form G&B-101 Report sieves 2", 1.5", 1.25", 1", ¾", 3/8", #4, #10, #40 & #200
CIR & SFDR: Gradation (Simple) (Material to be Stabilized)	Run gradation at the discretion of the Engineer	G&B Manual .215 & Form G&B-101 Report sieves 2" & 1.5" for SFDR 1.5" and 1.25" for CIR
CIR & SFDR: Depth Check Unstabilized (SFDR) & Stabilized (CIR & SFDR)	One per day	G&B Manual .284 and Form G&B-401
SFDR: Moisture during compaction of unstabilized portion	Once per project – Run test in same area as Contractor	G&B Manual .245, Speedy Tester not allowed
SFDR: Penetration Index (DCP) – Unstabilized	1 per lane mile	G & B Manual .255 & Form G&B-205
CIR & SFDR (if used): Calibrate mineral stabilizing agent application rate	Observe the Contractor	
CIR & SFDR: Yield Mineral Stabilizing Agent (if used) Liquid Bituminous Material	1 per day each	G&B Manual .286 & .287 Forms G&B- 402 & 403
CIR & SFDR: Compaction (Nuclear Density) (SFDR Stabilized and CIR)	Observe the Contractor	
CIR & SFDR: Control Strip (SFDR Stabilized and CIR)	Observe the Contractor	
CIR & SFDR: Bituminous Material Samples	First load, then 1 per 50,000 gal	One quart each sample
CIR & SFDR: Mineral Stabilizing Agent Sampling	1 sample	
CIR & SFDR (if foaming): Foaming Asphalt Checks Expansion Ratio & Half Life	Observe the Contractor Once per day	Grading & Base Manual .285
CIR & SFDR: Moisture testing of stabilized layer during curing before placement of HMA	Three daily after Compaction	Grading & Base Manual

II. Bituminous Construction Items for Specification 2360

Note: Projects with bituminous tonnage less than or equal to 300 tons (272 metric tons) per day may be accepted on a small quantity basis at the discretion of the Engineer. Retain Form 02415 or Form 2403 in Project File.

(All plant mixed asphalt from Certified Plants)

DEFINITIONS

SAMPLE TYPE	DESCRIPTION	SAMPLE LOCATION DETERMINED BY	SAMPLE TAKEN BY	SAMPLE TESTED BY
QC	Quality Control Testing performed by Contractor. Also known as Process Control Testing.	Contractor	Contractor	Contractor
QA	Quality Assurance Testing performed by the Agency. This test is performed on a companion sample to the Contractor's QC sample.	Contractor Contractor (mixture) Agency (density cores)	Contractor	Agency
Verification	A sample to assure compliance of the Contractor's Quality Control program. The results shall be included as part of the QA Testing Program.	Agency	Agency	Agency
Verification Companion	A companion sample to the Agency's Verification sample provided to the Contractor. The Contractor <u>is required</u> to test this sample. The results <u>shall be used</u> as part of the QC program.	Agency	Agency	Contractor
IAST	The <u>I</u> ndependent <u>A</u> ssurance <u>S</u> ampling and <u>T</u> esting assures testers are sampling and testing properly and that equipment is calibrated correctly.	Agency	Contractor or Agency	Contractor or Agency

II. Bituminous Construction Items for Specification 2360 (cont.)

A. Pre-Production Sampling and Testing for Specification 2360 Plant Mixed Asphalt

Minimum Sample Sizes:

Quality Sample Size for Lab Submittal:

Plus #4 aggregate sample for quality testing and Percent Crushing	80 lb. (35 kg)
Minus #4 aggregate for quality testing	35 lb. (15 kg)
Bituminous mixture plus 2 Gyratory specimens for volumetric testing	80 lb. (35 kg)
Bituminous mixture for TSR testing (option A)	80 lb. (35 kg)
Bituminous mixture for TSR testing plus 6 Gyratory specimens (option B)	20 lb. (10 kg)
Mineral filler.	2 lb. (1 kg)
RAP for Quality Testing	80 lb. (35 kg)
RAS (shingles) for Gradation and Quality Testing	10 lb. (5 kg)
Asphalt Binder	1 qt. (1L)

All aggregates and mixtures will be split according to G&B Manual 5-692.141, "Quartering Method of Sample Size Reduction"

Pay Item No.	Test Type	Spec. No.	Producer/Contractor Testing	Agency Testing	Form No.
2360	Bituminous Mix Design (QC/QA)	2360	Contractor submits Mix Design Option 1 or Option 2	<p>Option 1- Laboratory Mix Design: In addition to reviewing the Trial Mix data (JMF), test Contractor's mixture (at optimum asphalt content). Also, evaluate TSR per 2360.2E5a(3).</p> <p>Option 2- Laboratory Mix Design: Review submitted Mix data only.</p>	Approved Mix Design Report
2360	Aggregate Quality Testing (QA only)	2360	<p>Provide 24 hour notice of intent to sample aggregates for quality testing. Agency has the option to monitor sampling.</p> <p>Submits to the Bituminous Engineer or the District Materials Engineer one (1) sample of each non-asphaltic aggregate type or class per source per year. Also submit the asphaltic aggregate material when the mixture contains RAP or RAS. Provide documentation that of all RAS /TOSS (Tear Off Shingle) material is from a MPCA certified supplier.</p>	Test as directed by the Bituminous Engineer or the District Materials Engineer.	Test Report
2360	Mineral Filler (QA only)	2360	One (1) sample per shipment of 50 tons (45 metric tons) or less, unless previously inspected.	Testing as directed by the Engineer or the District Materials Engineer.	Test Report
2360	Additives (QA Only)	2360	Sample blended asphalt binder and additive, 1 qt. (1 L). Sample first shipment of each type of material. Then submit one sample per 250,000 gal. (1,000 m3) (approximately 1,000 ton).	Testing as directed by the Engineer or the Chemical Laboratory Director.	Test report

II. Bituminous Construction Items for Specification 2360 (cont.)

B. BITUMINOUS PRODUCTION for Specification 2360

*Verification Testing

Verification Companion testing from Agency split sample is required to be performed and used as the next QC sample that day.

SAMPLE SIZE:	Aggregate for Gradation (QC/QA)	35 lb. (15 kg)
	Plus #4 Aggregate Type for Quality Testing	80 lb. (35 kg) for each source
	Minus #4 Aggregate Type for Quality Testing	35 lb. (15 kg) for each source
	RAP material for Quality Testing	80 lb. (35 kg) for each source
	RAS (Shingles) for Processed Gradation and Quality Testing	10 lb. (5 kg)
	Mixture Properties (QC/QA) 3 full 6" by 12" cylinder molds for QA	65 lb. (30 kg)
	TSR (QC/QA) 4 full 6" by 12" cylinder molds for QA	90 lb. (40 kg)
	Aggregate Specific Gravity (QC/QA)	90 lb. (40 kg)
	Asphalt Binder (QA)	1 qt. (1 L)
	Emulsified Asphalt (QA)	½ gal (2 L)

All aggregates and mixtures will be split according to G&B Manual 5-692.141, "Quartering Method of Sample Size Reduction"

Pay Item No.	Test Type	Spec. No.	Producer/Contractor Testing	Agency Testing	Form No.
2360	Aggregate Quality Testing Including aggregate specific gravity (QA Only)	2360		Take additional samples when aggregate qualities approach specification limits or when material variation is observed, take additional field samples as requested by Project Engineer. Take additional samples when material variation is observed in RAP or RAS take additional field samples as requested by Project Engineer.	Lab report
2360	Moisture Content in Mixture (QC/QA) Lab Manual 1855	2360	Sample and test as directed by the Engineer.		Test Summary Sheet (TSS)

II. Bituminous Construction Items for Specification 2360 (cont.)

Pay Item No.	Test Type	Spec. No.	Producer/Contractor Testing	Agency Testing	Form No.
2360	Asphalt Binder Content, % AC, ADD AC, AC/Total AC ratio (QC/QA, Verification*) Lab Manual 1851, 1852, 1853	2360	(a) Incinerator Oven MnDOT Lab Manual 1853 (b) Chemical Extraction MnDOT Lab Manual 1851 or 1852 REMARKS: Contractor selects one method at the beginning of the project (when material is submitted for Trial Mix Review) and use that method for the entire project. The Contractor and Engineer may agree to change test procedures during the construction of the Project. See Note #1, Note #2 & Note #4. A computer file of the plant's control settings is required every 20 minutes of production.	The inspector will witness all QC mixture sampling and take possession of their QA-Verification split of this sample immediately after the sample is split. At the end of the day randomly submit one of the QA-Verification splits to the District Lab for testing. Additional verification samples can be taken at any time or location. When additional verification samples are taken the contractor must test the Verification companion split of this sample and include the results in the QC program (Test Summary Sheet). The Agency reviews the computer files of the plant's control settings. REMARKS: See Note # 3 & Note #7	TSS
2360	Mixture Properties (QC/QA, Verification*) Maximum Specific Gravity Lab Manual 1807	2360	Contractor performs test 1807 REMARKS: See Note #1, Note #2, & Note #4.	The inspector will witness all QC mixture sampling and take possession of their QA-Verification split of this sample immediately after the sample is split. At the end of the day randomly submit one of the QA-Verification splits to the District Lab for testing. Additional verification samples can be taken at any time or location. When additional verification samples are taken the contractor must test the Verification companion split of this sample and include the results in the QC program (Test Summary Sheet). REMARKS: Note # 3 & Note #7	TSS
2360	Mixture Properties (QC/QA, Verification*) Gyratory Bulk Specific Gravity - 2 Specimen Average, Lab Manual 1806, 1820	2360	Contractor performs test 1806 REMARKS: See Note #1, Note #2, & Note #6.	The inspector will witness all QC mixture sampling and take possession of their QA-Verification split of this sample immediately after the sample is split. At the end of the day randomly submit one of the QA-Verification splits to the District Lab for testing. Additional verification samples can be taken at any time or location. When additional verification samples are taken the contractor must test the Verification companion split of this sample and include the results in the QC program (Test Summary Sheet). REMARKS: See Note #3 & Note #7.	TSS

II. Bituminous Construction Items for Specification 2360 (cont.)

Pay Item No.	Test Type	Spec. No.	Producer/Contractor Testing	Agency Testing	Form No.
2360	Mixture Properties (QC/QA, Verification*) Adjusted Asphalt Film Thickness (AFT), Air Voids, Fines to effective, CAA, FAA and Gradation. Lab Manual 1203, 1206, 1214, 1808, 1854	2360	<p>Verification Companion testing from Agency split sample is required and used as a QC sample once per day.</p> <p>Bituminous mixes composed entirely of Class A and/or Class B aggregates are not required to be tested for CAA (Coarse Aggregate Angularity).</p> <p>REMARKS: See Note #1, Note #2, Note #4, Note #5, & Note #6.</p> <p>The production start-up testing rates for the CAA and FAA are 1 per 1000 tons for the first 2000 tons. After 2000 tons, 2 test per day for at least two days. Then CAA and FAA at a rate of 1 test per week, if the CAA and FAA exceed the requirements by 8% and 5% respectively, otherwise test daily.</p>	<p>The inspector will witness all QC mixture sampling and take possession of their QA-Verification split of this sample immediately after the sample is split. At the end of the day randomly submit one of the QA-Verification splits to the District Lab for testing. Additional verification samples can be taken at any time or location. When additional verification samples are taken the contractor must test the Verification companion split of this sample and include the results in the QC program (Test Summary Sheet).</p> <p>REMARKS: See Note # 3 & Note #7.</p>	TSS
2360	Core Density and Thickness Lab manual 1810	2360	<p>Contractor cuts two cores at each location. In the laboratory, measure, and saw cores into separate lifts. Sawing of cores into separate lifts is required.</p> <p>Schedule the approximate time of testing during normal project work hours so the Agency may observe and record the saturated surface dry and immersed weight of the cores.</p> <p>A completed Core Density Incentive/Disincentive worksheet is to be submitted to the Laboratory (Agency field or District/Division).</p>	<p>Complete core stationing spreadsheet to determine core locations and then mark all coring locations on the pavement.</p> <p>Once the Contractor has measured and sawed the Agency companion cores transport them to the Agency field lab or District Lab for testing. Transport the cores as soon as possible to the testing lab taking care to prevent damage due to improper handling or exposure to heat.</p> <p>Selects at least one of the two companion cores per lot to test for verification.</p> <p>REMARKS: Note #3 & Note #6.</p>	<p>Core Density Worksheet</p> <p>Core Density Incentive/Disincentive worksheet.</p>
2360	Tensile Strength Ratio (T.S.R.) (QC/QA) Lab Manual 1813	2360	<p>Sample as directed by the Engineer. When testing is required, complete testing within 72 hours after the sample is taken.</p>	<p>Test as directed by the Engineer. When testing is required, complete testing within 72 hours after the sample is taken.</p>	TSR Worksheet

II. Bituminous Construction Items for Specification 2360 (cont.)

C. BITUMINOUS MATERIALS for Specification 2360

Only Bituminous Materials from Certified Sources are allowed for use. The most current list of Certified Sources: <http://www.dot.state.mn.us/products/index.html>

Minimum Sample Sizes:

Quality Sample Size for Lab Submittal:

Asphalt Binder (QA)/Cutback Asphalt (QA)
Emulsified Asphalt (QA)

1qt (1 L) Metal can with pressure fit lid
½ gal (2 L) plastic

Pay Item No.	Test Type	Spec. No.	Producer/Contractor Testing	Agency Testing	Form No.
2360	Asphalt Binder (QA only)	3151.2	<p><u>Asphalt Supplier</u> QC testing is the responsibility of the bituminous material supplier as part of the Combined State Binder Certification program.</p> <p><u>During Asphalt Mixture Production</u> Obtain asphalt binder samples from a sampling valve located between the pump and the drum. Sample each type of asphalt binder used in mixture production after 50 tons of mixture has been produced, then sample at a rate of one per 250,000 gal [1,000,000 L]. A minimum of 1 gallon of binder must be drawn and wasted from the sampling valve before the actual sample is drawn. For batch plants, obtain the asphalt binder sample from the weigh pod. Provide asphalt binder sample in clean one L (1 qt.) steel container. The Inspector will monitor the sampling the Contractor performs.</p>	<p><u>Asphalt Supplier</u> Random sampling of bituminous material at the asphalt supplier is discussed in the Combined State Binder Certification program arranged by the MnDOT Chemical Laboratory.</p> <p><u>During Asphalt Mixture Production</u> Observe contractor personnel taking sample from sampling valve and submit to MnDOT Chemical Lab</p>	2413 Asphalt Sample Identification Card
2355 2356 2357	Emulsified Asphalt (QA only)	3151.2	<p>QC testing is the responsibility of the bituminous material supplier as part of the Combined State Binder Certification program.</p> <p><u>Tack Coat</u> During mixture production the Contractor will sample first shipment, then submit one sample per 50,000 gal (200,000 L). Sample emulsified asphalt in clean ½ gal (2 L) plastic container with wide screw top and send to MnDOT Chemical Lab within 7 days of sampling. Sample all emulsified asphalt from the distributor.</p>	<p><u>Asphalt Supplier</u> Random sampling of bituminous material at the asphalt supplier is discussed in the Combined State Binder Certification program arranged by the MnDOT Chemical Laboratory.</p> <p><u>Tack Coat</u> Observe contractor personnel taking sample from the distributor and submit to MnDOT Chemical Lab.</p>	2413 Asphalt Sample Identification Card

II. Bituminous Construction Items for Specification 2360 (cont.)

Pay Item No.	Test Type	Spec. No.	Producer/Contractor Testing	Agency Testing	Form No.
2357 2358	Cutback Asphalt (QA only)	3151.2	<p>QC testing is the responsibility of the bituminous material supplier as part of the Combined State Binder Certification program.</p> <p><u>Tack Coat</u> During mixture production the Contractor will sample first shipment, then submit one sample per 50,000 gal (200,000 L). Sample emulsified asphalt in clean ½ gal (2 L) plastic container with wide screw top and send to MnDOT Chemical Lab within 7 days of sampling. Sample all emulsified asphalt from the distributor.</p>	<p><u>Asphalt Supplier</u> Random sampling of bituminous material at the asphalt supplier is discussed in the Combined State Binder Certification program arranged by the MnDOT Chemical Laboratory.</p> <p><u>Tack Coat</u> Observe contractor personnel taking sample from the distributor. Cutback Asphalt should only be used in cold temperature applications with the Engineer's approval. Contact Bituminous Engineering Unit for cold temperature application guidelines.</p>	2413 Asphalt Sample Identification Card

Note #1 All QA test samples shall be from split samples.

If a member of the monitoring team observes the Contractor Test, note and sign under remarks.

The Project Engineer is responsible for:

- 1.) Reviewing control charts & Test summary sheets for accuracy and completeness,
- 2.) Checking sampling and testing procedures,
- 3.) Discussing QC problems with the Contractor,
- 4.) Obtaining Verification Samples

Note #2 For Mixture Quality Management, acceptance will be based on Contractor's test results as verified by MnDOT test results.

Note #3 When a member of a monitoring team observes the Contractor test, note and sign under remarks.

Note #4

How to calculate the number of tests per day	Production Start-up testing rates (first 2000 tons of production)	Production testing rates (after 2,000 tons of mixture produced)
Divide daily tonnage by 500 and round up to next whole number	1 test/ 500 tons	
Divide daily tonnage by 1000 and round up to next whole number		1 test/ 1000 tons

Note #5 MnDOT projects will require the calculated Adjusted Asphalt Film Thickness (AFT). VMA will still be calculated for informational purposes, but will not be used for acceptance criteria. The adjusted AFT will be calculated each time a gradation test is required.

Note #6 Random number generation and determination of random sample location shall be consistent with the MnDOT Bituminous Manual Section 5-693.7 Table A or Section 5 of ASTM D3665. The Engineer may approve alternate methods of random number generation.

Note #7 QA samples retained for 10 calendar days and tested, if needed.

III. Construction Items for Bituminous Specialty Items include the following:

- **2363 Permeable Asphalt Stabilized Stress Relief Course (PASSRC) and Permeable Asphalt Stabilized Base (PASB)**
- **2354 Micro-Surfacing**
- **2355 Bituminous Fog Seal**
- **2356 Bituminous Seal Coat and Bituminous Underseal Special Provision**
- **2356 Otta Seal**
- **2353 Ultra-Thin Bonded Wearing Course (UTBWC)**
- **2357 Bituminous Tack Coat**
- **2365 Stone Matrix Asphalt (SMA)**

All aggregates and mixtures will be split according to G&B Manual 5-692.141, “Quartering Method of Sample Size Reduction”

Only Bituminous Materials from Certified Sources are allowed for use. The most current list of Certified Sources:

<http://www.dot.state.mn.us/products/index.html>

SAMPLE TYPE	DESCRIPTION	SAMPLE LOCATION DETERMINED BY	SAMPLE TAKEN BY	SAMPLE TESTED BY
QC	Quality Control Testing performed by Contractor. Also known as Process Control Testing.	Contractor	Contractor	Contractor
QA	Quality Assurance Testing performed by the Agency. This test is performed on a companion sample to the Contractor’s QC sample.	Contractor Contractor (mixture) Agency (density cores)	Contractor	Agency
Verification	A sample to assure compliance of the Contractor’s Quality Control program. The results shall be included as part of the QA Testing Program.	Agency	Agency	Agency
Verification Companion	A companion sample to the Agency’s Verification sample provided to the Contractor. The Contractor <u>is required</u> to test this sample. The results <u>shall be used</u> as part of the QC program.	Agency	Agency	Contractor
IAST	The <u>I</u> ndependent <u>A</u> ssurance <u>S</u> ampling and <u>T</u> esting assures testers are sampling and testing properly and that equipment is calibrated correctly.	Agency	Contractor or Agency	Contractor or Agency

III. Construction Items for Bituminous Specialty Items (cont.)

Pay Item Number	Test Type	Material Spec. No.	Minimum Contractor Quality Control Testing Rate Minimum Sample Size	Minimum Agency QA/Verification (Acceptance)	Form No.
(a) 2363 (b) 2363	1. Mix Design (Pre-Production) (a) PASSRC (b) PASB	2363	Complete 1 Job Mix Formula (gradation blend only) per mix Submit to agency: 100 lbs. each coarse agg., 35 lbs. each fine agg. & 4 qt. asphalt binder	Agency Performs Mix Design	Approved Mix Design Report
(c) 2354	(c) Micro-Surfacing	3139.5	Complete one mix design per aggregate source. See specification. Submit to Agency: 150 lbs. aggregate	Review Submitted Mix Design. Perform gradation and sand equivalence test from submitted sample. (See Notes 1 & 5)	Approved Mix Design Report
(d) 2356	(d) Bituminous Seal Coat and Bituminous Underseal	2356	At least two weeks before beginning construction complete 1 design per mix and provide information to Engineer. See 2356.3 for failing or out of tolerance results. Submit to Agency: 150 lbs. aggregate	Review and verify submitted Mix Design by performing gradation and quality tests per Table 3127-1 & Table 3127-2. Gradations and quality tests must meet requirements and tolerances, see 2356.3 for failures. (See Note 5)	
(e) 2353	(e) UTBWC	2353 UTBWC	Complete and submit 1 design per mix	Review Submitted Mix Design	Approved Mix Design Report
(f) 2365	(f) SMA	2365 SMA	Complete 1 design per mix Submit to Agency: 80 lb. (35 kg) - bituminous mixture plus 6 Gyratory specimens for TSR testing. 150lbs +4 aggregate from JMF blend for VCA 80 lbs. each coarse agg. & 30 lbs. each fine agg. for quality testing	Review & verify Submitted Mix Design Test as directed by the Engineer	Approved Mix Design Report
(a) 2363 (b) 2363	2. Production Gradation (a) PASSRC (b) PASB Lab manual 1202, 1203	2363	One per 1,000 ton with a minimum of one per day Submit to Agency: 35 lbs. Note # 2	1/day	Test Report
(c) 2354	(c) Micro-Surfacing Lab manual 1202, 1203	2354	Machine Hopper: 1/500 tons (min. 1/day) Submit to Agency: 30 lbs.	1 at time of production	Test Report

III. Construction Items for Bituminous Specialty Items (cont.)

Pay Item Number	Test Type	Material Spec. No.	Minimum Contractor Quality Control Testing Rate Minimum Sample Size	Minimum Agency QA/Verification (Acceptance)	Form No.
(d) 2356 (e) 2356	(d) Bituminous Seal Coat and Bituminous Underseal (e) Otta Seal Lab manual 1202, 1203	2356	Stockpile: 1/1,500 tons (min. 1/ day) Placement: Chip Spreader Hopper: 1/day Submit to Agency : 30 lbs. from Hopper See 2356.3 for failing or out of tolerance QC or QA results.	Bituminous Seal Coat and Bituminous Underseal: Stockpile: 1 prior to project beginning, Placement: one/day obtained from Contractor's split sample from Chip Spreader Hopper. All gradations must meet Table 3127-1 requirements and must be within mix design tolerance. See 2356.3 for failing or out of tolerance QC or QA results. Otta Seal: 1/day	Test Report
(a) 2363 (b) 2363	3. Production % Crushing (CAA) (a) PASSRC (b) PASB Lab manual 1214	2363	One per 1,000 tons with a minimum one per day Submit to Agency: 35 lbs. from Belt	1/day	Test Report
(a) 2354	4. Moisture (In Aggregate) (a) Micro-Surfacing Grading & Base manual, 5-692.245.B	2354	Machine Hopper: 1/500 tons (min. 1/day) Submit to Agency: 2 lbs.	1/day	Test Report
(a) 2354	5. Sand Equivalence (a) Micro-Surfacing AASHTO T 176	2354	1/day	1/project from submitted Mix Design sample at Pre-Production	Test Report
(a) 2356	6. Quality Tests (a) Bituminous Seal Coat and Bituminous Underseal Lab Manual 1223	2356	Production: Perform daily flakiness index test, obtain sample from first load. Submit split sample to Agency: 30 lbs. See 2356.3 for failing QC or QA results.	Stockpile: Perform Flakiness Index test and additional quality tests from Table 3127-2 at Engineer's discretion. Production: Perform daily quality tests per Table 3127-2, at the discretion of Engineer. See 2356.3 for failing results.	Test Report
(a) 2353	7. Bituminous Mixture Tests (a) UTBWC Lab Manual 1203, 1807, 1852, 1853, 1854	2353 UTBWC	Tests: % AC, Gradation, Max Gravity, Adjusted AFT Rate: (1/300 tons, min. 1 per day) Note #3: Submit to Agency: 20 lbs. (1 cylinder from truck box)	1 per day	TSS

III. Construction Items for Bituminous Specialty Items (cont.)

Pay Item Number	Test type	Spec. No.	Minimum Contractor Quality Control Testing Rate Minimum Sample Size	Minimum Agency QA/Verification (Acceptance)	Form
(b) 2363	(b) PASSRC, PASB Bit Manual	3151	Test: Asphalt spot check Rate: minimum 1/day		Test Report
c) 2365	(c) SMA Lab Manual 1203,1204, 1205, 1211, 1214, 1806, 1807, 1808, 1813, 1853, 1854, 1855, AI SP-2 AASHTO T305	2365 SMA	Tests: % AC, Gradation, Max Gravity, Bulk Gravity, Voids, VMA, CAA, Draindown, voids in coarse aggregate (VCA) fines/effective asphalt. Rate: (1/1000 tons, min. 1/day) Aggregate sp. gravity, mix moisture content to be tested as directed by the Engineer See Note: #3 Submit companion 1/day to agency: 65 lb. (30 kg) 3 full 6" by 12" cylinder molds	Tests: % AC, Gradation, Max Gravity, Bulk Gravity, Voids, VMA, CAA, voids in coarse aggregate (VCA) fines/effective asphalt. See Note # 3 & Note #4	TSS
(b) 2353	8. Asphalt Binder (b) UTBWC	2353 UTBWC 3151	QC testing is the responsibility of the bituminous material supplier. Random sampling is arranged by the MnDOT Chemical Laboratory. Asphalt Binder: First load, then 1/250,000 gal. 1 qt. Emulsified Asphalt: First load, then 1/50,000 gal. ½ gal*	Observe contractor personnel taking sample from sampling valve and submit to MnDOT Chemical Lab.	Test Report
(c) 2354 (d) 2356 (e) 2356 (f) 2357	(c) Micro-Surfacing (d) Bituminous Seal Coat and Bituminous Underseal (e) Otta Seal (f) Bituminous Tack Coat	2354, 2356, 3151	QC testing is the responsibility of the bituminous material supplier. Random sampling is arranged by the MnDOT Chemical Laboratory.	First load, then 1 / 50,000 gal. ½ gal*	Test Report
(g) 2363 (h) 2365	(g) PASSRC, PASB (h) SMA	3151, 2365 SMA	QC testing is the responsibility of the bituminous material supplier. Random sampling is arranged by the MnDOT Chemical Laboratory. Asphalt Binder (1 qt.): First load, then 1/250,000 gal. Note: SMA to be test as in Section C. BITUMINOUS MATERIALS for Specification 2365	Observe contractor personnel taking sample and submit to MnDOT Chemical Lab. Note: SMA to be test as in Section C. BITUMINOUS MATERIALS for Specification 2365.	Test Report

III. Construction Items for Bituminous Specialty Items (Cont.)

Pay Item Number	Test type	Spec. No.	Minimum Contractor Quality Control Testing Rate Minimum Sample Size	Minimum Agency QA/Verification (Acceptance)	Form
(a) 2354	9. Asphalt Binder Application Rate (a) Micro-Surfacing	2354	Verify Application rate 3/day	Verify Application rate 1/day	
(b) 2355 (c) 2356 (d) 2356 (e) 2357	(b) Fog Seal (c) Bituminous Seal Coat and Bituminous Underseal (d) Otta Seal (e) Bit Tack Coat	2355, 2356, 2357	Verify Application rate 1/day	Verify Application rate 1/day	21841-02, found on construction tools website

***Use plastic containers for Emulsified Asphalt Samples. Send to MnDOT Chemical Lab within 7 days of sampling.**

Note 1: Agency will test at their discretion.

Note 2: Run test on gradation sample taken from aggregate belt

Note 3: TSR testing on production mixture is at the discretion of the Engineer.

Note 4: Agency is not required to run draindown testing on QA/Verification samples.

Note 5: Submit copy of mix design to Project Engineer and copy Grading and Base Engineer.

IV. Concrete Construction Items (www.dot.state.mn.us/materials/concrete.html)

The testing rates shown in this Schedule of Materials Control are **minimums**. Take as many tests as necessary to ensure quality concrete.

All samples shall be taken in a random manner using an appropriate number generator.

All field samples shall be taken at the point of placement unless otherwise allowed by the Engineer.

It is recommended that the Agency Plant Monitor be present during critical pours, such as superstructure or paving concrete (i.e. 3A21, S mixes, JMF mixes).

If any field test fails, reject the concrete or if the Producer makes adjustments to the load to meet requirements, record the adjustments on the Certificate of Compliance and the Weekly Concrete Report. Retest the load and record the adjusted test results. Make sure the next load is tested before it gets into the work.

If batching adjustments are made at the plant, test the adjusted load, before it gets into the work. Continue to test the concrete when test results are inconsistent or marginal.

The first load of concrete for any pour must have passing air content and slump results, prior to placing.

Material not meeting requirements shall not knowingly be placed in the work. If failing concrete inadvertently gets placed in the work, review either the MnDOT Standard Specifications for Construction or contact the Concrete Engineering Unit for monetary deductions recommendations.

It is recommended that the Agency representative continually monitor the progress of all concrete pours in the field and review Certificates of Compliances. It is not a recommended practice to only perform minimum testing requirements and leave the pour.

Should circumstances arise on a project which makes the testing rate impractical, contact the Concrete Engineering Unit.

DEFINITIONS				
	Description	Sample Location Determined By	Sample Taken By	Sample Tested By
QC	Quality Control Testing performed by Contractor. Also known as Process Control Testing.	Contractor	Contractor	Contractor
QA	Quality Assurance Testing performed by the Agency. This test is performed on a companion sample to the Contractor's QC sample.	Contractor	Contractor	Agency
Verification	A sample to assure compliance of the Contractor's Quality Control program. The results shall be included as part of the QA Testing Program.	Agency	Agency	Agency
Verification Companion	A companion sample to the Agency's Verification sample provided to the Contractor. The Contractor <u>is required</u> to test this sample.	Agency	Agency	Contractor
IAST	The <u>I</u> ndependent <u>A</u> ssurance <u>S</u> ampling and <u>T</u> esting assures testers are sampling and testing properly and that equipment is calibrated correctly.	Agency	Contractor or Agency	Contractor or Agency

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Concrete Plant Batching Materials				
Remarks:				
(1) All materials must come from certified or qualified sources. All certified sources must state so on the delivery invoice.				
(2) The most current list of certified/approved sources can be found at www.dot.state.mn.us/products .				
Sample Sizes:				
Cementitious: 5 lb. (2 kg)				
Admixture: 1/2 pt. (0.25 L) Producer obtains samples from dispensing tubes. Store samples in a plastic container.				
Water: 1 gal (3.5 L) Store sample in a clean glass or plastic container.				
Pay Item No.	Material	Spec. No.	Minimum Required Sampling Rate for Laboratory Testing	Form No.
2301 2302	Portland Cement	3101	For certified ready-mix and concrete paving: 1 sample when the plant is certified.	24300 ID Card Cement Samples
2401 2405	Slag	3102	Take an additional sample:	
2411 2412	Blended Cement	3103	1) At 6 months, if producing Agency concrete, 2) If the plant changes sources, or 3) As the Contract requires.	24308 ID Card Fly Ash Samples
2422 2452 2461	Fly Ash	3115	For precast concrete: 1 sample every 3 months during Agency production	
2506 2511 2514 2519			The Producer obtains and stores the sample in a sealed container provided by the Agency, and includes the supplier's delivery invoice from which the sample is obtained.	
2521			Take additional samples as directed by the Concrete Engineer	
2531 2533 2545 2550 2554 2557 2564 2565	Admixtures (Accelerating, Retarding, Water-Reducing, Air-Entraining, etc.)	3113	For all concrete: 1 sample when the plant is certified. Take additional samples: 1) At 3 month intervals during Agency production, 2) If the plant changes sources, or 3) As the Contract requires. The Producer obtains and stores the sample in a sealed container provided by the Agency. Take additional samples as directed by the Concrete Engineer	
	Water	3906	1 sample from any questionable source	2410 Sample ID Card

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Certified Ready-Mix - Concrete Plant Production

Remarks:

- (1) Mix design is provided by MnDOT unless otherwise specified in the Contract.
- (2) All gradation and quality tests require companion samples. Samples taken at location identified on Contact Report located at plant.
- (3) Perform Quality testing as directed by the Concrete Engineer.
- (4) Record all gradation weights in metric.

****Use Certified Ready-Mix - Concrete Plant Production testing rates schedule when:**

- a) The entire concrete paving project is < 3,500 cu. yd. (2,900 m³)
- b) When a secondary plant is used to provide minor work.

Minimum Sample Sizes:

Gradation Test:

(Companion Required, Double Sample Size)

3/4" Plus, #4 (+19 mm)	25 lb. (12 kg)
3/4" Minus, #67 (-19 mm)	10 lb. (5 kg)
#7	6 lb. (2.5 kg)
#89, Sand	1.1 lb. (500 g)

Moisture Test:

Coarse Aggregate	2000 g
Fine Aggregate	500 g

Quality Sample Size for Lab Submittal:

(Companion Required, Double Sample Size)

3/4" Plus, #4 (+19 mm)	50 lb. (24 kg)
3/4" Minus, #67, #7 (-19 mm)	30 lb. (15 kg)
#89, Fine Aggregate	30 lb. (15 kg)

Pay Item No.	Test Type	Spec. No.	Producer/Contractor Testing	Agency Testing	Form No.
2301**	Gradation Testing (QC/QA) (5-694.145 and 5-694.148)	2461	When over 20 yd ³ (m ³) of Agency concrete produced per week: Coarse and Fine: 1 per week or 1 per 400 yd ³ (m ³), whichever is greater If Agency production is 3 or more days per week, a minimum of one additional gradation sampled and tested on or after the third day is required per week. Washing the fine aggregate gradation (QC) sample is not required when the result on the -75µm (#200) sieve of the unwashed sample is less than 1.0%, Hold QA (QC companion) samples until they are picked up by the Agency monitor. Discard after 14 calendar days if not picked up. For Contractor Mix Designs utilizing an approved JMF and all Bridge Deck concrete mixes: Passing aggregate gradations are required prior to the start of concrete pours. Performing testing on representative material at the end of the most recent day of production is allowed.	None	21763 Concrete Aggregate Worksheet (QC/QA) 2449 Weekly Concrete Aggregate Report 21765 Concrete Aggregate Worksheet JMF (QC/QA)
2302		3126			
2401		3137			
2411					
2452					
2461					
2506					
2511					
2514					
2519					
2521					
2531					
2533					
2545					
2550					
2554					
2557					
2564					
2565					

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Certified Ready-Mix - Concrete Plant Production (cont.)					
Pay Item No.	Test Type	Spec. No.	Producer/Contractor Testing	Agency Testing	Form No.
2301** 2302 2401 2411 2452 2461 2506 2511 2514 2519 2521 2531 2533	Gradation Testing (Verification/ Verification Companion) (5-694.145 and 5-694.148)	2461 3126 3137	Test the Verification Companion sample. Complete on the day the sample was taken. Wash all fine aggregate Verification Companion samples.	Coarse and Fine: 1 Verification sample per week when Agency production is 1 or 2 days per week. 2 Verification samples per week when Agency production is 3 or more days per week. For small quantities: When less than 25 yd³ (m³) of Agency concrete is produced per week , Verification samples are not required Include verification companion results on Sample ID Card.	2449 Weekly Concrete Aggregate Report 24143 Weekly Certified Ready-Mix Plant Report (Verification)
2545 2550 2554 2557 2564 2565	Quality Testing <u>including</u> Coarse Aggregate Percent Passing - #200 (-75µm) (5-694.146)	3126 3137	Test at Contractor's Discretion	1 test each fraction per month For all bridge deck concrete poured during the month: If the monthly quality was not tested for 3137.2.D.2, take 1 additional quality sample for each coarse aggregate fraction and test for 3137.2.D.2. Identify quality samples with a "Q" on the Sample ID Card and the Quality companion sample. Write 3137.2.D.2 on bridge deck concrete Sample ID Cards.	2410 Sample ID Card
	Aggregate Moisture Testing (QC) (5-694.142)	2461	When over 20 yd³ (m³) of Agency concrete produced per day: Coarse and Fine: 1 completed every 4 hours. Complete the initial moisture content and adjust the batch water prior to the start of concrete production each day. If weather conditions allow, performing moisture testing on representative material at the end of production the prior evening is allowed. In this event, the four-hour rate will commence with the first pour of the day, regardless if it is placed in Agency or private work.	None	2152 Concrete Batching Report

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Concrete Pavement - Concrete Plant Production

Remarks:

- (1) Mix Design is Contractor's responsibility with review by MnDOT unless otherwise specified in the Contract.
- (2) **Use Certified Ready-Mix - Concrete Plant Production testing rates schedule when:**
 - a) The entire concrete paving project is < 3,500 cu. yd. (2,900 m³)
 - b) When a secondary plant is used to provide minor work.
- (3) When w/c incentives apply according to 2301:
 - a) Contractor QC Technician and Agency Plant Monitor are required to be present during the entire pour. **If w/c incentives do not apply, the Agency Plant Monitor shall monitor as necessary to ensure compliance with the requirements of the Contract.**
 - b) A certified ready-mix plant shall be **dedicated (provides concrete only to the concrete paving project).**
- (4) All gradation samples shall be taken in the presence of the Agency, unless otherwise authorized by the Engineer. All samples shall be taken off the belt leading to the weigh hopper unless otherwise approved by the Engineer. All gradation and quality tests require companion samples.
- (5) Perform Quality testing as directed by the Concrete Engineer.

Minimum Sample Sizes:

Gradation Test:	Moisture Test:	Quality Sample Size for Lab Submittal:	75µm (#200) Coarse Aggregate Sample Size
(Companion Required, Double Sample Size)		(Companion Required, Double Sample Size)	
3/4" Plus, #4 (+19 mm) 25 lb. (12 kg)	Coarse Aggregate 2000 g	3/4" Plus, #4 (+19 mm) 50 lb. (24 kg)	3/4" Plus, #4 (+19 mm) 10 lb. (5000 g)
3/4" Minus, #67 (-19 mm) 10 lb. (5 kg)	Fine Aggregate 500 g	3/4" Minus, #67, #7 (-19 mm) 30 lb. (15 kg)	3/4" Minus, #67, #7 (-19 mm) 6 lb. (2500 g)
#7 6 lb. (2.5 kg)		#89 Fine Aggregate 30 lb. (15 kg)	
#89, Sand 1.1 lb. (500 g)			

Pay Item No.	Test Type	Spec. No.	Producer/Contractor Testing		Agency Testing		Form No.
2301	Gradation Testing (QC/QA) (5-694.145 and 5-694.148)	3126 3137	<u>For a concrete paving batch plant:</u>	<u>For a certified ready-mix plant:</u>	Test the first 4 QA samples of production each time the Contractor mobilizes the plant in a new calendar year or changes aggregate sources.		21764 Concrete Aggregate Worksheet JMF Well-graded Concrete Aggregate Worksheet
			<u>When over 250 yd³ (m³) is produced per day:</u> 1 per 1500 yd ³ (m ³) or completed 1 per ½ day, whichever results in the higher sampling rate.	<u>When over 20 yd³ (m³) is produced per day:</u> 1 per 400 yd ³ (m ³) or completed every 4 hours, whichever results in the higher sampling rate.	<u>For a concrete paving batch plant:</u> 1 per day on randomly selected samples thereafter.	<u>For a certified ready-mix plant:</u> 1 per 1000 yd ³ (m ³) or 1 per week, whichever results in higher sampling rate on randomly selected samples thereafter.	
			Performing testing on representative material at the end of the most recent day of production is allowed. If well-graded aggregate incentives apply: Use the Contractor's gradation results for well-graded aggregate incentive calculations as verified by Agency testing		Identify the gradation samples with "QA Gradation" on the Sample ID Card and include the JMF Number and the QC Gradation results. If Coarse Aggregate Quality Incentive/Disincentives apply: The Agency may also use the QA gradation sample for the Coarse Aggregate Quality incentive/disincentive testing. In this case, notify the Producer/Contractor to double the QC/QA gradation sample size.		

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Concrete Pavement - Concrete Plant Production (cont.)							
Pay Item No.	Test Type	Spec. No.	Producer/Contractor Testing		Agency Testing		Form No.
2301	Coarse Aggregate Percent Passing - #200 (-75µm) (QC/QA) (5-694.146)	3137	Test the first sample and then at least 1 of the next 3 samples on the first day of production and each time the Contractor mobilizes the plant, changes aggregate sources, or the cleanliness of the coarse aggregate is in question.		<p><u>For a concrete paving batch plant:</u></p> <p>1 randomly selected sample on the first day of production and each time the Contractor mobilizes the plant, changes aggregate sources, or the cleanliness of the coarse aggregate is in question.</p> <p>1 test per week thereafter</p> <p>Test these samples at the plant.</p>	<p><u>For a certified ready-mix plant:</u></p> <p>1 randomly selected sample on the first day of production and each time the Contractor mobilizes the plant, changes aggregate sources, or the cleanliness of the coarse aggregate is in question.</p> <p>1 per 1000 yd³ (m³) or 1 per week, whichever results in the higher sampling rate on randomly selected samples thereafter.</p>	21764 Concrete Aggregate Worksheet JMF - Paving
			1 test per day thereafter				
			Test these samples at the plant.				
Aggregate Moisture Testing (QC/Verification) (5-694.142)			<p><u>For a concrete paving batch plant:</u></p> <p>If w/c incentives do not apply: 1 per 1000 yd³ (m³) or completed every 4 hours, whichever results in the higher sampling rate.</p>	<p><u>For a certified ready-mix plant:</u></p> <p>If w/c incentives do not apply: 1 completed every 4 hours.</p>	<p><u>For a concrete paving batch plant:</u></p> <p>If w/c incentives apply: 1 per 1000 yd³ (m³) or completed every 4 hours, whichever results in the higher sampling rate. Take initial samples for aggregate moisture testing within the first 250 yd³ (m³).</p>	<p><u>For a certified ready-mix plant:</u></p> <p>If w/c incentives apply: 1 per 200 yd³ (m³) or completed every 4 hours, whichever results in the higher sampling rate. Take initial samples for aggregate moisture testing within the first 100 yd³ (m³).</p>	Concrete W/C Ratio Calculation Worksheet
			<p>Complete the initial moisture content and adjust the batch water prior to the start of concrete production each day.</p> <p>If weather conditions allow, performing moisture testing on representative material at the end of production the prior evening is allowed.</p>		<p>If w/c incentives apply: Use aggregate moisture results for determining the water content to calculate the w/c ratio incentive/disincentive.</p> <p>Do not leave samples unattended.</p>		

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Concrete Pavement - Concrete Plant Production (cont.)							
Pay Item No.	Test Type	Spec. No.	Producer/Contractor Testing	Agency Testing	Form No.		
2301	Water Content Verification Testing (Microwave Oven Verification) (5-694.532)	2301	Obtain the plastic concrete sample at the plant.	<p>If w/c incentives apply: Microwave oven verification testing to verify the w/c ratio is completed in conjunction with Agency aggregate moisture testing.</p> <p>Do not leave samples unattended.</p> <table border="1"> <tr> <td> <p><u>For a concrete paving batch plant:</u></p> <p>Take initial sample for microwave oven verification testing within the first 250 yd³ (m³).</p> <p>At least one additional verification test should be taken if more than 1,000 yd³ (m³) is produced in a day.</p> </td> <td> <p><u>For a certified ready-mix plant:</u></p> <p>Take initial sample for microwave oven verification testing within the first 100 yd³ (m³).</p> <p>At least one additional verification test should be taken if more than 400 yd³ (m³) is produced in a day.</p> </td> </tr> </table>	<p><u>For a concrete paving batch plant:</u></p> <p>Take initial sample for microwave oven verification testing within the first 250 yd³ (m³).</p> <p>At least one additional verification test should be taken if more than 1,000 yd³ (m³) is produced in a day.</p>	<p><u>For a certified ready-mix plant:</u></p> <p>Take initial sample for microwave oven verification testing within the first 100 yd³ (m³).</p> <p>At least one additional verification test should be taken if more than 400 yd³ (m³) is produced in a day.</p>	Concrete W/C Ratio Calculation Worksheet
	<p><u>For a concrete paving batch plant:</u></p> <p>Take initial sample for microwave oven verification testing within the first 250 yd³ (m³).</p> <p>At least one additional verification test should be taken if more than 1,000 yd³ (m³) is produced in a day.</p>	<p><u>For a certified ready-mix plant:</u></p> <p>Take initial sample for microwave oven verification testing within the first 100 yd³ (m³).</p> <p>At least one additional verification test should be taken if more than 400 yd³ (m³) is produced in a day.</p>					
	Unit Weight (QC) (5-694.542)		Test one load of concrete per day at the plant.	None			
Air Content for Type 3 Concrete (QC) (5-694.541)	2301 2461	Test the first load of concrete at the plant.	None				

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Concrete Pavement - Concrete Plant Production (cont.)					
Pay Item No.	Test Type	Spec. No.	Producer/Contractor Testing	Agency Testing	Form No.
2301	Quality Testing including Coarse Aggregate Percent Passing - #200 (-75µm)	3126 3137	<p>Prior to concrete production: Test the Agency’s pre-production sample at the Contractor’s discretion</p> <p>During concrete production: Test the -#200 (-75µm) on the Quality companion sample the day it was sampled.</p> <p>All other testing is at the Contractor’s discretion</p>	<p>Prior to concrete production for the primary concrete plant: Obtain pre-production samples for quality testing at least 16 hours prior to concrete production. Samples may be taken from the stockpile and the -#200 (-75µm) test may be performed at the lab instead of at the plant at the discretion of the Engineer. If the Entire Project is < 3,500 cu. yd. (2,900 m³), pre-production sampling is not required.</p> <p>During concrete production: 1 randomly selected test each fraction every 20,000 yd³ (m³) of production.</p> <p>Split the Quality sample 4 ways:</p> <ol style="list-style-type: none"> 1) Provide 2 quarters of the sample to the Producer/Contractor. 2) Test the -#200 (-75µm) on the quality sample <u>at the plant</u> the day it was sampled. 3) Submit the remaining sample to the lab for quality testing including testing on the -#200 (-75µm) sieve. <p>Identify quality samples with a “Q” and record the QC and QA -#200 (-75µm) test results on the Sample ID Card.</p> <p>Identify the Quality Companion samples with a “Q”.</p> <p>See additional requirements for first sand quality sample under ASR Testing.</p>	2410 Sample ID Card
2301	Alkali Silica Reactivity (ASR) Testing	2301	None	<p>1 per paving project per sand source</p> <p>Provide one 5 lb. sample of:</p> <ol style="list-style-type: none"> 1) cement 2) supplementary cementitious material (fly ash or slag), and 3) sand. <p>Write “Project Specific ASR Testing” on all 3 Sample ID cards.</p> <p>ASR Testing is not required if the entire project is <3,500 cu. yd. (2,900 m³).</p>	2410 Sample ID Card 24300 ID Card Cement Samples 24308 ID Card Fly Ash Samples

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Concrete Pavement - Concrete Plant Production (cont.)						
Pay Item No.	Test Type	Spec. No.	Producer/Contractor Testing	Agency Testing	Form No.	
2301	Coarse Aggregate Quality Testing for Incentive/Disincentive	3137	Test at Contractor's discretion	<p>If coarse aggregate quality incentives apply: Test the Class B aggregates for % absorption and Class C aggregates for % carbonate including any other tests necessary to make those determinations.</p> <p>Sample the 2 largest fractions in accordance with the following table and 2301:</p>	2410 Sample ID Card Coarse Aggregate Quality Incentive/Disincentive Worksheet	
				Coarse Aggregate Quality Incentive/Disincentive Sampling Rates		
				Plan Concrete cu. yd. [cu. m]		Samples per fraction (n)
				3,500 – 7,500 [2,900 – 6,250]		3
				7,501 – 10,000 [6,251 – 8,500]		5
				10,001 – 25,000 [8,501 – 21,000]		10
				25,001 – 50,000 [21,001 – 42,000]		15
				> 50,000 [42,000]		20
				Identify incentive samples on the Sample ID Card with "I/D"		

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Concrete Field Materials (Refer to Metallic Materials and Metal Products for sampling requirements for concrete reinforcement.)

Sample Sizes:

Joint Materials:

Hot Poured Elastomeric:	5 lb. (2.26 kg)	Take samples from application wand, store in steel (1 gal) container.	Preformed Elastomeric:	6 ft. (2 m)
Silicone Joint Sealer:	1 pt. (0.5 L)	Store sample in steel container.	Preformed:	2 ft ² (0.25 m ²)

Curing Materials:

Burlap:	1 yd ² (m ²)	
Paper and Plastic:	2 ft ² (0.25 m ²)	
Membrane Compound	1 qt. (1 L)	If sampling is required, materials must be thoroughly stirred or agitated immediately prior to taking sample. Store sample in steel container and cover immediately.

Pay Item No.	Material	Spec. No.	Minimum Required Field Sampling Rate	Form No.
2301 2302 2401 2411 2514 2521 2531	Preformed	3702	Visual Inspection	2410 Sample ID Card
2301 2302 2401	Preformed Elastomeric Type	3721	1 per lot	
	Silicone Joint Sealer	3722	Only joint materials from qualified sources are allowed. The most current lists can be found at www.dot.state.mn.us/products	
	Hot Poured Elastomeric Type	3723 3725		
2301 2302	Burlap	3751	Visual Inspection	
2401	Paper	3752	Visual Inspection - Must be white opaque	
2411 2514 2520 2521 2531	Membrane Curing Compound	3754 3754AMS 3755	Visual Inspection – Use only Pre-Approved Curing Compounds. Refer to the approved products list of curing compounds for pre-approved lots at http://www.mrrapps.dot.state.mn.us/CuringCompoundProducts/curingcompounds.aspx	
2533	Plastic	3756	Visual Inspection -Must be white opaque and free from holes. A Certificate of Compliance shall be submitted to the Project Engineer from the Manufacturer certifying that the plastic complies with AASHTO M171.	

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Concrete Field Testing –General Concrete Grades F, G, M, P, and R					
<u>Sampling Locations for Air, Slump, Temperature and Cylinder Testing</u>					
(1) First load each day per mix - Take sample after discharging approximately ¼ yd ³ , stop further discharge until both slump and air content test are completed.					
(2) Subsequent tests - Sample from the middle portion of the load.					
Pay Item No.	Test Type	Spec. No.	Contractor Testing	Agency Testing	Form No.
2302 2452 2461 2506 2511 2514 2520 2521 2531 2533 2545 2550 2554 2557 2564 2565	Air Content for Type 3 Concrete (Verification) (5-694.541)	2461		1 per 100 yd ³ (m ³) Test first load each day per mix Test when adjustments are made to the m	2448 Weekly Concrete Report
	Slump (Verification) (5-694.531)	2461		Test first load each day per mix, then test as necessary to verify passing slump No slump testing required for slipform placement	
	Air and Concrete Temperature (5-694.550)	2461	Record temperature each time air content, slump, or strength test specimen is performed/fabricated.	Record temperature each time air content, slump, or strength test specimen is performed/fabricated.	
	Compressive Strength (Verification) (5-694.511)	2461	Any additional control cylinders are the responsibility of the Contractor. MnDOT standard cylinder mold size is 4 x 8 inch (100 x 200 mm). If aggregate has a maximum size greater than 1-1/4 inch (31.5 mm), use 6 x 12 inch (150 x 300 mm) molds.	1 set of 3 cylinders per 300 yd ³ (m ³) MnDOT will break 3 cylinders at 28-days MnDOT will cast up to three (3) control cylinders. MnDOT standard cylinder mold size is 4 x 8 inch (100 x 200 mm). If aggregate has a maximum size greater than 1-1/4 inch (31.5 mm), use 6 x 12 inch (150 x 300 mm) molds for the 28-day strengths.	2409 ID Card Concrete Test Cylinder When submitting samples, record all field test results and Batch Ticket Number on the Cylinder ID Card.

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Concrete Field Testing – Bridge Concrete Grades B, S, and Y					
<u>Sampling Locations for Air, Slump, Temperature and Cylinder Testing</u>					
(1) First load each day per mix - Take sample after discharging approximately ¼ yd ³ , stop further discharge until both slump and air content test are completed.					
(2) Subsequent tests - Sample from the middle portion of the load.					
Pay Item No.	Test Type	Spec. No.	Contractor Testing	Agency Testing	Form No.
2401 2406 2411 2461	Air Content for Type 3 Concrete (Verification) (5-694.541)	2461		1 per 100 yd ³ (m ³) Test first load each day per mix Test when adjustments are made to the m	2448 Weekly Concrete Report
	Slump (Verification) (5-694.531)	2461		1 per 100 yd ³ (m ³) Test first load each day per mix Test as necessary to verify passing slump No slump testing required for slipform placement	
	Air and Concrete Temperature (5-694.550)	2461	Record temperature each time air content, slump, or strength test specimen is performed/fabricated.	Record temperature each time air content, slump, or strength test specimen is performed/fabricated.	
	Compressive Strength (Verification) (5-694.511)	2461	Any additional control cylinders are the responsibility of the Contractor. MnDOT standard cylinder mold size is 4 x 8 inch (100 x 200 mm). If aggregate has a maximum size greater than 1-1/4 inch (31.5 mm), use 6 x 12 inch (150 x 300 mm) molds.	1 set of 3 cylinders for 100 yd ³ (m ³), then 1 set of 3 cylinders per 300 yd ³ (m ³) thereafter MnDOT will break 3 cylinders at 28-days MnDOT will cast up to three (3) control cylinders. MnDOT standard cylinder mold size is 4 x 8 inch (100 x 200 mm). If aggregate has a maximum size greater than 1-1/4 inch (31.5 mm), use 1 set of 2 (6 x 12 inch (150 x 300 mm) molds) in lieu of the 1 set of 3 - 4 x 8 cylinders for the 28-day strengths.	2409 ID Card Concrete Test Cylinder When submitting samples, record all field test results and Batch Ticket Number on the Cylinder ID Card.
Concrete Field Testing – Cellular Concrete					
Pay Item No.	Test Type	Spec. No.	Agency Testing		Form No.
2519	Compressive Strength (Verification) (5-694.511)	2461 2519	1 set of 4 cylinders (28-day) per day 4 x 8 inch (100 x 200 mm) cylinders shall be filled in two equal lifts, do not rod the concrete, lightly tap the sides, cover and move to area with minimal or no vibration. Do not disturb for 24 hours.		2409 ID Card Concrete Test Cylinder

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Concrete Field Testing – Concrete Pavement					
Pay Item No.	Test Type	Spec. No.	Contractor Testing	Agency Testing	Form No.
2301	Air Content Before Consolidation for Type 3 Concrete (QC/QA) (5-694.541)	2301 2461	1 per 300 yd ³ (m ³) or 1 per hour, whichever results in the lower testing rate is less Test first load each day per mix	1 correlation air test per day	2448 Weekly Concrete Report
	Air Content After Consolidation for Type 3 Concrete (QC/QA) (5-694.541)	2301 2461	Test 1 air content per ½ day of slip form paving to establish an air loss correction factor (ACF). See Special Provisions for additional information.	1 air test per day	
	Slump (QC/QA) (5-694.531)	2461	For fixed form placement: 1 per 300 yd ³ (m ³) and as directed by the Engineer Test first load each day per mix For slipform placement: No slump testing is required	For fixed form placement: 1 slump test per day For slipform placement: No slump testing is required	
	Concrete Temperature (QC/QA) (5-694.550)	2461	Record temperature each time air content, slump or strength test specimen is performed/fabricated by the Contractor.	Record temperature each time air content, slump or strength test specimen is performed/fabricated by the Agency.	
	Flexural Strength (QC) (5-694.521)	2301 2461	1 beam (28-day) per day - Make additional control beams as necessary. - Control beams shall be made <u>within the last hour</u> of concrete poured each day. Fabricate beams, deliver beams to curing site, and clean beam boxes. Cylinders may be substituted for beams at the discretion of the Engineer	Supply beam boxes, cure, and test beams. MnDOT standard beam box size is 6" x 6" x 20" unless other sizes or types are approved by the Concrete Engineer.	2162 Concrete Test Beam Data
Concrete Pavement Texture (QC)	2301	1 per 1000 linear feet per lane of concrete pavement at locations determined by the Agency. All adjoining lanes shall be tested at the same location if paved at the same time. The Contractor supplies all materials necessary to perform the required testing.	Determine texture testing locations using random numbers.	Probing Coring Texture and MIT-SCAN T2 Report	

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Concrete Field Testing – Concrete Pavement (cont.)					
Pay Item No.	Test Type	Spec. No.	Contractor Testing	Agency Testing	Form No.
2301	Thickness (QC/Verification)	2301	The Contractor drills concrete cores at locations determined by the Agency. The Contractor probes the plastic concrete at locations determined by the Agency.	Determine probing and coring locations using random numbers. Initial pavement at core locations and re-initial the sides of specimens after coring to clearly verify their authenticity.	24327 Probing Coring Texture and MIT-SCAN T2 Report
2301	Surface Smoothness	2399	Contractor provides MnDOT certified inertial profiler results for the entire project as required by the Contract.	None	Concrete Profile Summary Worksheet

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Concrete Field Testing - Low Slump Concrete for Bridge Deck Overlays

Remarks:

- (1) Mix design is provided by MnDOT on the back of the Form 21412 Weekly Report of “Low Slump Concrete” unless otherwise specified in the Contract.
- (2) All field gradation samples shall be taken by the Agency. All gradation and quality tests require companion samples.
- (3) Perform Quality testing as directed by the Concrete Engineer.

Minimum Sample Sizes:

Gradation Test:

(Companion Required, Double Sample Size)

#7 6 lb. (2.5 kg)
 Sand 1.1 lb. (500 g)

Quality Sample Size for Lab Submittal:

(Companion Required, Double Sample Size)

Coarse Aggregate 50 lb. (24 kg)
 Fine Aggregate 30 lb. (15 kg)

Pay Item No.	Test Type	Spec. No.	Contractor Testing	Agency Testing	Form No.
2404	Gradation and Quality Testing including Coarse Aggregate Percent Passing - #200 (-75µm) (QC/Verification) (5-694.145, 5-694.146 and 5-694.148))	3126 3137	Prior to concrete production, the Contractor shall provide the Agency with: <ul style="list-style-type: none"> • Aggregate pit numbers • 1 passing gradation result per aggregate fraction per source No quality test results are required. Test companion samples at Contractor’s discretion.	1 per aggregate fraction prior to concrete production and each time aggregate is delivered to the site. Identify quality samples with a “Q” on the Sample ID Card and the Quality companion sample.	2410 Sample ID Card 21412 Weekly Report of “Low Slump Concrete”
	Air Content for Type 3 Concrete (Verification) (5-694.541)	2461	None	1 per 15 yd ³ (m ³) Test at beginning of pour each day	
	Slump (Verification) (5-694.531)	2461	None	1 per 15 yd ³ (m ³) Test at beginning of pour each day For concrete from a concrete-mobile, allow mix to hydrate 4 to 5 minutes before slump test to assure all cement is saturated.	
	Compressive Strength (Verification) (5-694.511)	2461	None	1 cylinder (28-day) per 30 yd ³ (m ³)	2409 ID Card Concrete Test Cylinder

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Concrete Field Testing – Concrete Pavement Repair (CPR) for 3U18

Remarks:

- (1) Mix design is provided in accordance with MnDOT Spec 3105 unless otherwise specified in the Contract.
- (2) Testing rates apply to concrete that is produced on site.
- (3) All field gradation samples shall be taken by the Agency. All gradation and quality tests require companion samples.
- (4) Perform Quality testing as directed by the Concrete Engineer.

Minimum Sample Sizes:

Gradation Test:

(Companion Required, Double Sample Size)

3/4" Minus, #67 (-19 mm) 10 lb. (5 kg)
 #7 6 lb. (2.5 kg)
 #89, Sand 1.1 lb. (500 g)

Quality Sample Size for Lab Submittal:

(Companion Required, Double Sample Size)

Fine Aggregate 30 lb. (15 kg)

Pay Item No.	Test Type	Spec. No.	Contractor Testing	Agency Testing	Form No.
2302	Gradation and (QC/Verification) (5-694.145 and 5-694.148)	3126 3137	Prior to concrete production, the Contractor shall provide the Agency with: <ul style="list-style-type: none"> • Aggregate pit numbers • 1 passing gradation result per aggregate fraction per source. Test companion samples at Contractor's discretion.	1 per aggregate fraction prior to concrete production and each time aggregate is delivered to the site.	2410 Sample ID Card
	Quality Testing including Coarse Aggregate Percent Passing - #200 (-75µm) (5-694.146)	3126 3137	No quality test results are required.	1 test each aggregate fraction per source The Agency may use the gradation results for the Quality Samples as a substitute for 1 required field gradation. Identify quality samples with a "Q" on the Sample ID Card and the Quality companion sample.	2410 Sample ID Card
	Air Content for Type 3 Concrete (Verification) (5-694.541)	2461	None	1 per 15 yd ³ (m ³) Test at beginning of pour each day.	CPR1 Field Testing Report for CPR

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Concrete Field Testing – Concrete Pavement Repair (CPR) for 3U18 (cont.)

Remarks:

- (1) Mix design is provided in accordance with MnDOT Spec 3105 unless otherwise specified in the Contract.
- (2) Testing rates apply to concrete that is produced on site.
- (3) All field gradation samples shall be taken by the Agency. All gradation and quality tests require companion samples.
- (4) Perform Quality testing as directed by the Concrete Engineer.

Minimum Sample Sizes:

Gradation Test:

(Companion Required, Double Sample Size)

3/4" Minus, #67 (-19 mm) 10 lb. (5 kg)
 #7 6 lb. (2.5 kg)
 #89, Sand 1.1 lb. (500 g)

Quality Sample Size for Lab Submittal:

(Companion Required, Double Sample Size)

Fine Aggregate 30 lb. (15 kg)

Pay Item No.	Test Type	Spec. No.	Contractor Testing	Agency Testing	Form No.
2302	Slump (Verification) (5-694.531)	2461	None	1 per 15 yd ³ (m ³) Test at beginning of pour each day. Allow mix to hydrate 5 minutes before slump test to assure all cement is saturated.	
	Compressive Strength (Verification) (5-694.511)	2461	None	1 cylinder (28-day) per 30 yd ³ (m ³)	2409 ID Card Concrete Test Cylinder

IV. Concrete Construction Items (cont.) (www.dot.state.mn.us/materials/concrete.html)

Concrete Field Testing – Dowel Bar Retrofit (DBR)

Remarks:

- (1) Mix Design is Contractor's responsibility with review by MnDOT unless otherwise specified in the Contract.
- (2) Testing rates apply to concrete that is produced on site. (Not from a certified ready-mix plant.)
- (3) All field gradation samples shall be taken by the Agency. All gradation and quality tests require companion samples.
- (4) Perform Quality testing as directed by the Concrete Engineer.

Minimum Sample Sizes:

Gradation Test:

(Companion Required, Double Sample Size)

#89, Sand 1.1 lb. (500 g)

Quality Sample Size for Lab Submittal:

(Companion Required, Double Sample Size)

Coarse Aggregate 50 lb. (24 kg)
 Fine Aggregate 30 lb. (15 kg)

Pay Item No.	Test Type	Spec. No.	Contractor Testing	Agency Testing	Form No.
2302	Gradation and Quality Testing <u>including</u> Coarse Aggregate Percent Passing - #200 (-75µm) (QC/Verification) (5-694.145, 5-694.146) and 5-694.148)	3126 3137	Prior to concrete production, the Contractor shall provide the Agency with: <ul style="list-style-type: none"> • Aggregate pit numbers • 1 passing gradation result per aggregate fraction per source. No quality test results are required. Test companion samples at Contractor's discretion.	1 per aggregate fraction prior to concrete production and each time aggregate is delivered to the site. Identify quality samples with a "Q" on the Sample ID Card and the Quality companion sample.	2410 Sample ID Card
	Dowel Bar Retrofit Material Compressive Strength (Verification) (5-694.511)	2301 2302	None	During the pre-production test operations: 1 set of 3 cylinders tested at a rate as directed by the Engineer. Testing may need to be repeated if any problems with the dowel bar retrofit material are encountered. First day of production: 1 set of 3 cylinders tested at a rate as directed by the Concrete Engineer. After the first day of production: 1 cylinder per day during production tested at rate determined by Engineer to determine opening to traffic strength.	2409 ID Card Concrete Test Cylinder

V. Landscaping and Erosion Control Items

Pay Item No	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2571 2574 2575	1. Topsoil borrow ^a	3877.2	None	From each source: One composite sample for the first 765 m ³ (1,000 Cu yd.). Small quantities under 75 m ³ (100 Cu yd.), no sample required.	10 kg (20 lb.)	^a Certificate of Compliance showing meets specifications. Testing for topsoil for fertility by Contractor at a Certified Soils Lab.
2571 2575 2577	2. Plant Stock & Landscape Materials ^b	3861 and 2571.2A1	Field Inspection at Job Site, submit itemized report for each shipment ^c .			^b Preliminary inspection will not be done at the source. Material must be in accordance with the Inspection and Contract Administration Guidelines for MnDOT Landscape Projects. ^c Utilize "Inspection and Contract Administration Guidelines for MnDOT Landscape Projects" to determine and measure minimum and maximum criteria thresholds. The following documentation must be provided: 1. A MnDOT Certificate of Compliance for Plant Stock, Landscape Materials, and Equipment 2. A valid copy of a nursery stock (dealer or grower) certificate registered with the MN Dept. of Agric. And/or a current nursery certificate/license from a state or provincial Dept. of Agric. for each plant stock supplier. 3. A copy of the most recent Certificate of Nursery Inspection for each plant stock supplier. 4. Plant material shipped from out-of-state nursery vendors subject to pest quarantines must be accompanied by documentation certifying all plants shipped are free of regulated pests. 5. Bills of lading (shipping documents) for all materials delivered. 6. Invoices for all materials to be used. 7. Each bundle, bale, or individual plant must be legibly and securely labeled with the name and size of each species or variety.
2502 2573 2575 2577	3. Erosion Control Blanket ^d	3885	Visual Inspection	Random - See Footnote ^d		^d Check Web site for list of approved products.. www.dot.state.mn.us/products

V. Landscaping and Erosion Control Items (cont.)

Pay Item No	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2573 2577	4. Erosion Control Netting ^e	3885	Visual Inspection			^e Check Web site for list of approved products. www.dot.state.mn.us/products
2573	5. Silt Fence ^f	3886	Check Product Label. Obtain Certificate of Compliance with MARV values			^f Check Approved/Qualified Products List (A/QPL) of accepted geotextiles www.dot.state.mn.us/products
2573	6. Flotation Silt Curtain ^g	3887	Visual Inspection			^g Accepted, based on manufacturers' certification of compliance. Check weight of fabric.
2573 2575	7. Erosion Stabilization Mat ^h	3885	Visual Inspection			^h Check Web site for list of approved products. www.dot.state.mn.us/products
2573	8. Sediment Control Logs	3897	Visual Inspection			Meet specifications
2573	9. Flocculants ⁱ	3898	Visual Inspection	None		ⁱ Certificate of Compliance and MSDS to the Engineer.
2571 2575	10. Fertilizer ^j	3881	Visual Inspection			^j Bagged: Inspected on the basis of guaranteed analysis. Rate based on fertility analysis of slope dressing/topsoil. Bulk: Inspector to obtain copy of invoice of blended material stating analysis. Check the type specified.
2571 2575	11. Agricultural Lime ^k	3879	One gradation test for each 180 Metric Ton (200 ton)			^k Contractor must supply amount of ENP (Equivalent Neutralizing Power) for each shipment.
2575 2577	12. Mulch Material A. Type 3 Mulch - Certified Weed Free (Certified sources only) ^l	3882	Visual Inspection, Check if from Certified Vendor by Minnesota Crop Improvement Association. Must be tagged, grain straw only.			^l Certified mulch will be indicated by label.

V. Landscaping and Erosion Control Items (cont.)

Pay Item No	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2571 2575 2577	13. Mulch Material B. Type 6 Mulch – Woodchips	3882	Visual Inspection. Obtain Certificate of Compliance.			All wood chips supplied by a supplier outside the Emerald Ash Borer quarantine area or have an Emerald Ash Borer Compliance Agreement with the MDA.
2502 2575 2577	14. Seeds A. Seeds (Certified Vendors Only) (Mixes 22-000 and 25-000 series) ^m	3876	Check for Certified Vendor tag from Minnesota Crop Improvement Association. If materials are on hand and past the twelve months, testing must be done.			^m Periodic sampling taken by Office of Environmental Services. Any moldy or insect contaminated seed must be rejected.
2502 2575 2577	14. Seeds B. Native Seed (Mixes 30-000 series) certified seed only ⁿ	3876	Check if from Certified Vendor by Minnesota Crop Improvement Association, Must be tagged. If materials are on hand and past the twelve months, testing must be done.			ⁿ Certified seed will be indicated by label on containers. Reject all moldy or insect contaminated seed. Periodic sampling taken by Office of Environmental Services.
2575	15. Sod ^o	3878	A certified tag by Minnesota Crop Improvement Association for Salt tolerant sod. Final Visual Inspection at site.			^o A Certificate of Compliance must be furnished by the producer to the Engineer for the type of sod supplied showing correct grass varieties.
2571 2575	16. Compost A. Compost Certified Source ^p	3890	Visual Inspection			^p Check Approved/Qualified Products List (A/QPL), retain Certificate of Compliance.
2571 2575	17. Compost B. Compost Non-Certified Source ^q	3890	Inspection of source 6 weeks prior to delivery.			^q Retain Certificate of Compliance, 6 weeks prior to delivery.
2575	18. Hydraulic Soil Stabilizer ^r	3884				^r Check Approved/Qualified Products List (A/QPL). Installer needs to show certificate of training.

VI. Chemical Items

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2401	Asphalt Plank	3204	Check for proper type and size as specified in plans. Lab Sample Required	1 per 1,000 plank or less of each thickness in each shipment	3 – 1 m (yd.) pieces samples from different planks	
2131	Calcium Chloride	3911	Check for listing on Qualified Products website. Lab Sample Required (see Notes)	Liquid: 1 per shipment Dry: 1 per shipment	0.5 L (1 pint) or 0.5 kg (1 lb.) in Plastic Container	Provide copy of the BOL with sample.
2131	Magnesium Chloride	3912	Check for listing on Qualified Products website. Lab Sample Required (see Notes)	1 per 40,000 L (1 per 10,000 gal.)	0.5 L (1 pint) in Plastic Container	Provide copy of the BOL with sample.
2331	Hot-Pour Crack Sealant for Crack Sealing/Filling	3719 3723 3725	Check for listing on Qualified Products website. (see Notes) Lab Sample Required	1 per lot. Take samples from application wand. Use caution when handling hot containers	2.26 kg (5 lb.) in a 1gal steel container.	Form 02415 List batch numbers and retain Certificate of Compliance.
2331	Pavement Joint Adhesive	Special Provisions	Lab Sample Required	1 per lot. Take samples from application wand. Use caution when handling hot containers	2.26 kg (5 lb.) in a 1gal steel container	
2481	Waterproofing Materials Membrane Waterproofing System	3757	Check for listing on Qualified Products website. Lab Sample Required	1 per shipment (Membrane Only)	0.1 m ² (1 Sq. Ft)	

VI. Chemical Items (cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2481	Waterproofing Materials Three Ply System Asphalt Primer	3165	Verify supplied material meets ASTM D 41 Lab Sample Required	1 per shipment	0.5 L (1 pt.) in steel container	
2481	Waterproofing Materials Three Ply System Waterproofing Asphalt	3166	Verify supplied material meets ASTM D 449 Lab Sample Required	1 per shipment	0.5 L (1 pt.) in steel container	
2481	Waterproofing Materials Three Ply System Fabric	3201	Verify supplied material meets ASTM D 41 Lab Sample Required	1 per shipment	1 m ² (1 Sq. yd.)	
2582	Waterborne Latex Traffic Marking Paint.	3591	Check for listing on Qualified Products website. (see Notes) Lab Sample Required	1 per lot	0.5 L (1 pint)	Form 02415 List batch numbers and retain Certificate of Compliance.
2582	Epoxy Traffic Paint	3590	Check for listing on Qualified Products website. (see Notes) Lab Sample Required	1 Part A per lot 1 Catalyst Part B per lot	0.5 L (1 pint)	Form 02415 List batch numbers and retain Certificate of Compliance.
2582	Traffic Marking Paint	Special Provisions	Check for listing on Qualified Products website. (see Notes) Lab Sample Required	High Build Latex 1 per lot Other Two Part Markings 1 Resin Part A per lot 1 Catalyst Part B per lot	0.5 L (1 pint)	Form 02415 List batch numbers and retain Certificate of Compliance. For traffic marking paints other than Waterborne Latex and Epoxy. See Special Provision for Qualified Products List.
2564	Non-Traffic Marking Paints	3501 3532 3533 Special Provisions	Check for proper material as specified in plans. (see Notes) Lab Sample Required	1 per lot	0.5 L (1 pint)	Form 02415 List batch numbers.

VI. Chemical Items (Cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2478	Bridge Structural Steel Paint	3520	Check for listing on Approved Products website. (see Notes) No Lab Sample Required			Form 02415 List batch numbers and provide Certificate of Compliance with each batch/lot for each component of the paint system to the Engineer. Confirm that the contractor provided a color "Draw Down" sample to the MnDOT Chemical Laboratory for verification of the finish coat color.
	Exterior Masonry Paint	3584	Check for proper material as specified in plans. (see Notes) Lab Sample Required	1 per lot	0.5 L (1 pint)	Form 02415 List batch numbers.
	Noise Wall Stain	Special Provisions	Check for listing on Approved Products website. (see Notes) No Lab Sample Required	1 per lot	0.5 L (1 pint)	Form 02415 List batch numbers.
2582	Drop-on Glass Beads	3592	Check for listing on Qualified Products website. (see Notes) Lab Sample Required	1 per lot	1 L (qt.)	Form 02415 List lot numbers and retain Certificate of Compliance
2502 2581 2582	Pavement Marking Tape	3354 3355 Special Provisions	Check for listing on Qualified Products website. (see Notes) Lab Sample Required	1 per lot of each color and width	3 m (3 yds.) if 12" or less 1 m (1 yd) if greater than 12"	Form 02415 List lot numbers and retain Certificate of Compliance.

VI. Chemical Items (Cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2540 2563 2564 2565 2582	Signs and Markers	3352	Check for listing on Approved Products website. No Lab Sample Required	None unless material suspect		

VII. Metallic Materials and Metal Products

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2554	1. Guard Rail A. Fittings - Splicers, Bolts, etc.	3381	Visual Inspection – sample if necessary, see notes	Bolts: One Post bolt and 4 splice bolts with nuts for each 1,000 units or less.		Form 02415 or 2403 To be approved before use. Materials from H&R may be pre-sampled and tested. Call the MnDOT inspector at 218-846-3613 to see if material has been approved. For non-pre-tested, submit laboratory samples at required rate. For small quantities, lab samples are not required, but document on Form 02415 or 2403 and maintain in project file. Small Quantities: Rail Sections - 20 or less Terminals - 10 or less Post Bolts - 100 or less, Splice Bolts - 100 or less
2554	1.B.i. Non-High Tension Guard Rail Cable	3381	Visual Inspection – submit sample	1 sample from each spool	1.2 m (4 ft.)	Form 02415 or 2403 See VII.1.A.
2554	1. B.ii. High Tension Guard Rail Cable	Special Provisions	Visual Inspection – see notes	None, unless material is suspect (see note)	1.2 m (4 ft.)	Sample at the rate of 1/50,000 ft. if the strand appears damaged or suspect (Accepted as part of system)
2554	1. Guard Rail C. Structural Plate Beam	3382	Visual Inspection – see notes	One sample from one end of a section for each 200 (or portion thereof) rail sections or one sample of each 100 terminal sections	Full depth x 0.25 m (full depth x 10")	Form 02415 or 2403 See VII.1.A.
2554	D. Plate Beam Guide Posts	3382	Visual Inspection	None, unless material is suspect		Form 02415 or 2403
2554	E. High Tension Guide Posts	Spec. Provisions	Visual Inspection	None, unless material is suspect		Form 02415 or 2403 (Accepted as part of system)

VII. Metallic Materials and Metal Products (cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2545 2554 2564	2. Steel Sign Posts	3401	Visual Inspection & Certification from Contractor of compliance with Domestic source requirement under 1601, if applicable. Submit sample from material being installed, see notes	One post per shipment of each mass per unit length. Submit shortest full sized length of each weight, not a scrap piece.	See note	Form 02415 or 2403 Check domestic steel requirement under 1601 No Samples for project quantities less than 20
2554 2557	3. Posts for Traffic & Fence A. Steel fence posts, brace bars, and rails	3403 3406	Visual Inspection - submit sample of material being installed, see notes	One sample per 500 pieces. Submit full length for posts used in the ground (line, terminal, "C" and anchor posts), and 5' length of top rail and brace bar. Small Quantity (less than 1000 ft. on entire project): sample line post, top rail, and brace bar only.		Form 02415 or 2403 Check domestic steel requirement under 1601 Special Provision. Retain Certificate of Compliance and certified mill analysis in project file. See link for certification form on right side of page, www.dot.state.mn.us/materials/lab.html
2557	3. Fence B. Components: includes cup, cap, nut, bolt, end clamp, tension band, truss rod tightener, hog ring, tie wire, tension stretcher bar, truss rod, clamp, & tension wire	3376	Visual Inspection - submit sample of material being installed, see notes	1 each of cup, cap, nut, bolt, end clamp, tension bands, truss rod tightener, 12 hog rings, 6 tie wires, 1 tension stretcher bar; 1 truss rod, cut to 2-foot min. with threaded section, 3 feet of tension wire. Small quantity (less than 1000 ft. on entire project): no sample required		Form 02415 or 2403 Check domestic steel requirement under 1601 Special Provision. Retain Certificate of Compliance in the project file. See link for certification form on right side of page, www.dot.state.mn.us/materials/lab.html
2557	3. Fence C. Gates	3379	Visual Inspection, see notes	No sample required. See notes.		Form 02415 or 2403 Check domestic steel requirement under 1601 Special Provision. Retain Certificate of Compliance in the project file. See link for certification form on right side of page, www.dot.state.mn.us/materials/lab.html
2557	3. Fence D. Barbed Wire	3376	Visual Inspection – submit sample of material being installed, see notes	One sample per 50 rolls – see notes	1 m (3 ft.)	Form 02415 or 2403 Check domestic steel requirement under 1601 Special Provision. Retain Certificate of Compliance in the project file. See link for cert. form on right side of page, www.dot.state.mn.us/materials/lab.html

VII. Metallic Materials and Metal Products (cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2557	3. Fence E. Woven Wire Fabric	3376	Visual Inspection - submit sample of materials being installed, see notes	One full height sample per 50 rolls	1 m (3 ft.)	Form 02415 or 2403 Check domestic steel requirement under 1601 Special Provision. Retain Certificate of Compliance in the project file. See link for cert. form right side of page, www.dot.state.mn.us/materials/lab.html
2557	3. Fence F. Chain Link Fabric	3376	Visual Inspection - submit sample of materials being installed, see notes	One full height sample for each 5,000 ft. of fencing.	0.3 m (1 ft.)	Form 02415 or 2403 Check domestic steel requirement under 1601 Special Provision. Retain Certificate of Compliance in the project file. See link for certification form on right side of page, www.dot.state.mn.us/materials/lab.html
2402	4. Water Pipe and other Piping Materials	3364, 3365, 3366 & Special Provisions	See notes	No sample necessary		Form 02415 or 2403 Check domestic steel requirement under 1601 Special Provision. To be identified & tested if necessary prior to use. See Special Provisions.
2201 2301 2401 2405 2411 2412 2433 2452 2472 2514 2531 2533 2545 2564	5. Reinforcing Steel A. Bars – Uncoated	3301	Visual Check for Size and Grade Marking	No Field Sample Necessary		Form 02415 or 2403 For Uncoated bars - Retain Certificate of Compliance and Certified Mill Analysis in Project File.

VII. Metallic Materials and Metal Products (cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2201 2301 2401 2405 2411 2412 2433 2452 2472 2514 2531 2533 2545 2564	5. Reinforcing Steel B. Bars - Epoxy Coated	3301	Visual Check for Size and Grade Marking and "Inspected" tag. Inspect for damage to coating, verify repairs, if necessary. See notes.	One sample (1 bar) of each size of bar for each day's coating production	1 m (3 ft.)	Form 02415 or 2403 For Epoxy-Coated bars, steel will be tagged "Inspected" when it has been sampled and tested by MnDOT prior to shipment, and it will be tagged "Sampled" when testing has not been completed prior to shipment. If the Epoxy-Coated bars are not tagged "Sampled" or "Inspected", submit samples with copies of the , Certificate of Compliance, and Certified Mill Analysis. Retain originals of the Certificate of Compliance and Certified Mill Analysis in the project file.
2401	5. Reinforcing Steel C. Bars Stainless Steel	Special Provisions	Visual check for size and grade. Send sample bars from shipment. See note.	One sample (2 Bars) per heat per bar size	1 m (3 ft.)	Submit copies of mill test reports with samples, retain originals in project file
2401 2411 2452 2472 2564	5. Reinforcing Steel D. Spirals	3305	Submit sample, inspect for damage to coating, verify repairs, if necessary.	One per shipment	1 m (3 ft.)	Same as 5.B
2201 2301 2401 2411 2412 2472 2531	5. Reinforcing Steel E. Steel Fabric	3303	Visual inspection, see notes.	Field sample not necessary for uncoated fabric. If epoxy-coated, submit 2-ft.-square sample.		Retain Certificate of Compliance in project file. Verify material size, normally shown on metal tag on bundles of fabric. Use caliper or micrometer if there is no metal tag. If fabric is pre-bent, examine outside of bends for cracking. Do not allow cracked material to be installed.
2201 2301 2401 2411	5. Reinforcing Steel F. Dowel Bars	3302	Sample from material being used, including basket. See note.	One Dowel Bar from each shipment	Full Size Dowel Bars	For all types of dowels – Each project shall have a Certificate of Compliance from the Manufacturer certifying that all materials used in fabrication of the dowel bars and baskets comply with all applicable specifications. The Manufacturer shall maintain all records necessary for certification by project. The Certificate of Compliance shall be submitted to the Project Engineer

VII. Metallic Materials and Metal Products (cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2401 2405	5. Reinforcing Steel G. Prestressing or Post-Tensioning Strand	3348	If strand is installed at project site, sample from material being used.	One sample (2 strands) from each heat (see Notes)	1.8 m (6 ft.)	Submit one copy of mill certificate and one copy of the stress-strain curve representative of the lot with the samples. For most manufacturers, a heat equals a production lot, and an individual lot, pack, or reel is a subset of a heat/production lot.
2402 2506 2565	6. Drainage and Electrical Castings	3321 2471 2565	Check Approved/Qualified Products list and visual inspection at the project site. See notes.	All castings: Three tensile bars to be cast with each heat at Foundry and submitted to the lab by an approved Foundry*. See 3321.		Form 02415 or 2403 Verify source of material is listed on APL/QPL Inspect in the field and retain Form 02415 or 2403 in project file, showing name of foundry and quantity
2401 2402 2411 2433 2545 2554 2564 2565	7. Anchor Rods (Cast in Place)	3385 3391 3392	Check Approved/Qualified Products list, mill certifications, and visual inspection at the project site. Take sample if not listed on APL/QPL.	Pre-approved (see notes) or one complete anchor rod assembly including nuts and washers from each lot supplied.		Pre-approved system requires supplier to submit a sample to the Department yearly for each anchor rod grade. Test results of sample must verify compliance to product specifications.
2401 2402 2411 2433 2545 2554 2564 2565	8. Structural Fasteners, both coated and uncoated	3385 3391 3392	Visual inspection and verify material is on APL/QPL, or submit sample for verification testing if not on APL/QPL	Pre-approved (see notes) or two complete assemblies for each size, length, diameter, grade and finish, per increment of 1000 or fraction thereof		Pre-approved system requires the supplier to submit a sample yearly for each fastener size, grade and finish. Test results must verify compliance to specifications. If not on the APL/QPL, submit two complete assemblies for each size, length, grade and finish per increment of 1000 or fraction thereof of fasteners supplied for the project, including nuts and washers from each lot supplied. Obtain passing test results before installation.
2401 2411 2433 2545 2565	9. Anchorages (Drilled In)	Special Provisions, Standard Plates, Plan Sheet Details	Visual Inspection. Before installation, verify listing on APL/QPL.	Laboratory samples not required.		Note: Before installation, verify that anchorages are on the approved/qualified products list www.dot.state.mn.us/products <i>Or</i> Verify that anchorages are in accordance with the Standard Plate or the details in the Plan.

VII. Metallic Materials and Metal Products (cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2402	10. Structural Steel A. For Steel Bridge – Beams, Girders, Diaphragms, etc.	2471	Structural Metals Inspection Tag and field inspection for damage/defects	None		Structural metals products will be inspected at the plant and will be shipped with a Structural Metals Inspection Tag. An inspection confirmation report will be completed by Structural Metals Inspection staff and sent to the field personnel. Only approved suppliers are allowed to supply Structural Metals products. A list of approved suppliers can be found on the Bridge Office web site: http://www.dot.state.mn.us/bridge/
2402 2405	10. Structural Steel B. For Concrete Girders- Diaphragms and sole plates	2471	Structural Metals Inspection Tag and field inspection for damage/defects	None		Structural metals products will be inspected at the plant and will be shipped with a Structural Metals Inspection Tag. An inspection confirmation report will be completed by Structural Metals Inspection staff and sent to the field personnel. Only approved suppliers are allowed to supply Structural Metals products. A list of approved suppliers can be found on the Bridge Office web site: http://www.dot.state.mn.us/bridge/
2402	10. Structural Steel C.. Expansion joints	2471	Structural Metals Inspection Tag and field inspection for damage/defects	None		Structural metals products will be inspected at the plant and will be shipped with a Structural Metals Inspection Tag. An inspection confirmation report will be completed by Structural Metals Inspection staff and sent to the field personnel. Only approved suppliers are allowed to supply Structural Metals products. A list of approved suppliers can be found on the Bridge Office web site: http://www.dot.state.mn.us/bridge/
2402	10. Structural Steel D. Steel Bearings	2471	Structural Metals Inspection Tag and field inspection for damage/defects	None		Structural metals products will be inspected at the plant and will be shipped with a Structural Metals Inspection Tag. An inspection confirmation report will be completed by Structural Metals Inspection staff and sent to the field personnel. Only approved suppliers are allowed to supply Structural Metals products. A list of approved suppliers can be found on the Bridge Office web site: http://www.dot.state.mn.us/bridge/

VII. Metallic Materials and Metal Products (cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2402	10. Structural Steel E. Railing-Structural tube and ornamental	2471	Structural Metals Inspection Tag and field inspection for damage/defects	None		Structural metals products will be inspected at the plant and will be shipped with a Structural Metals Inspection Tag. An inspection confirmation report will be completed by Structural Metals Inspection staff and sent to the field personnel. Only approved suppliers are allowed to supply Structural Metals products. A list of approved suppliers can be found on the Bridge Office web site: http://www.dot.state.mn.us/bridge/
2402	10. Structural Steel F. Drainage Systems	2471	Structural Metals Inspection Tag and field inspection for damage/defects	None		Structural metals products will be inspected at the plant and will be shipped with a Structural Metals Inspection Tag. An inspection confirmation report will be completed by Structural Metals Inspection staff and sent to the field personnel. Only approved suppliers are allowed to supply Structural Metals products. A list of approved suppliers can be found on the Bridge Office web site: http://www.dot.state.mn.us/bridge/
2402	10. Structural Steel G. Protection Angles	2471	Structural Metals Inspection Tag and field inspection for damage/defects	None		Structural metals products will be inspected at the plant and will be shipped with a Structural Metals Inspection Tag. An inspection confirmation report will be completed by Structural Metals Inspection staff and sent to the field personnel. Only approved suppliers are allowed to supply Structural Metals products. A list of approved suppliers can be found on the Bridge Office web site: http://www.dot.state.mn.us/bridge/

VII. Metallic Materials and Metal Products (cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2564	11. Overhead Sign structures	2564 2471	Structural Metals Inspection Tag and field inspection for damage/defects	None		Structural metals products will be inspected at the plant and will be shipped with a Structural Metals Inspection Tag. An inspection confirmation report will be completed by Structural Metals Inspection staff and sent to the field personnel. Only approved suppliers are allowed to supply Structural Metals products. A list of approved suppliers can be found on the Bridge Office web site: http://www.dot.state.mn.us/bridge/
2545	12. High Mast Lighting Structures	2545 2471	Structural Metals Inspection Tag and field inspection for damage/defects	None		Structural metals products will be inspected at the plant and will be shipped with a Structural Metals Inspection Tag. An inspection confirmation report will be completed by Structural Metals Inspection staff and sent to the field personnel. Only approved suppliers are allowed to supply Structural Metals products. A list of approved suppliers can be found on the Bridge Office web site: http://www.dot.state.mn.us/bridge/
2565	13. Monotube Signal Structures	2565 2471	Structural Metals Inspection Tag and field inspection for damage/defects	None		Structural metals products will be inspected at the plant and will be shipped with a Structural Metals Inspection Tag. An inspection confirmation report will be completed by Structural Metals Inspection staff and sent to the field personnel. Only approved suppliers are allowed to supply Structural Metals products. A list of approved suppliers can be found on the Bridge Office web site: http://www.dot.state.mn.us/bridge/

VIII. Miscellaneous Materials

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2403 2422 2452 2521 2540 2545 2554 2557 2564	1. Timber, Lumber Piling & Posts	3412 to 3471 & 3491	Visual Inspection			Form 02415 or 2403 Untreated materials shall be inspected in the field and the results reported on Form 02415 or 2403. Treated materials shall be Certified on the Invoice or Shipping Ticket. Material is inspected and stamped by an Independent Agency as per Specification 3491. Contact Laboratory for additional information.
2402 2405 2557 Many	2. Miscellaneous pieces and Hardware (Galvanized)	3392 3394		3 samples of each item per shipment. Sample critical items only. (Critical items are load bearing, structurally necessary items.)	Three of each type.	Form 02415 or 2403 Will carry "Inspected" tag if sampled and tested prior to shipment. No sample necessary if "Inspected".
2504	3. Insulation Board	3760	Visual Inspection	None		Form 02415 or 2403
2402	4. Laminated Elastomeric Bearing Pads	3741 and Special Provisions	Structural Metals Inspection Tag and field inspection for damage/defects	See Notes		See Project Special Provisions for Sampling, Testing, and Acceptance Requirements.
2402	4. Plain Elastomeric Bearing Pads	3741 and Special Provisions	Structural Metals Inspection Tag and field inspection for damage/defects	See Notes		See Project Special Provisions for Sampling, Testing, and Acceptance Requirements.
2402	4. Cotton Duck Bearing Pads	3741 and Special Provisions	Structural Metals Inspection Tag and field inspection for damage/defects	See Notes		See Project Special Provisions for Sampling, Testing, and Acceptance Requirements.

IX. Geosynthetics, Pipe, Tile, and Precast/Prestressed Concrete

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2402 2422 2501 2503 2506	1. Corrugated Metal Products A. Culvert Pipe Underdrains Erosion control Structures	3225 thru 3229, 3351 and 3399	Visual Inspection: Check for good construction, workmanship, finish requirements and shipping			Form 02415 or 2403 Make certain pipe is Certified on Invoice, retain certificate of compliance and certified mill analysis in project file
2501	1. Corrugated Metal Products B. Structural Plate	3231	Visual Inspection: Invoice shall include notation that material described is in accordance with fabricator's Certificate and Guarantee			Same as 1.A
2501	1. Corrugated Metal Products C. Aluminum Structural Plate	3233				Retain certificate of compliance and certified mill analysis in project file
2503 2506	2. Clay Pipe	3251	No samples required for less than 100 pieces	1 sample per 200 pieces of each size.	Full Size Pipe	Form 02415 or 2403
2501 2503 2506	3. Concrete Pipe A. Reinforced Pipe and Arches, Precast Cattle Pass Units, and Sectional Manhole Units	3236	Field Inspection: Check for damage and defects. Check dimensions as required. Check for producer's "Certified" stamp and signature on the certification document.	1 "companion" cylinder per month per plant during production, or cylinder testing machine, whichever is greater. Call Precast Inspection Engineer at 651-366-5540 for additional information.		Form 02415 or 2403 For Concrete Pipe Both A & B: Product will be certified by producer, only spot checks are done by plant inspector. Make certain the invoice or certification document is signed and the product has the required markings. Maintain Form 2403 or 02415 in project records, showing source of materials and type and quantity used
2501 2503 2506	3. Concrete Pipe Fine Aggregate	3126		1 quality test per month during production for A and B above.	10 kg. (25 lb.)	
2501 2503 2506	3. Concrete Pipe Coarse Aggregate	3137		1 quality test per month during production for A and B above.	10 kg. (25 lb.)	

IX. Geosynthetics, Pipe, Tile, and Precast/Prestressed Concrete (Cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2412	4. Precast/Prestressed Concrete Structures A. Reinforced Precast Box Culvert	3238	1 air test per pour (1st load), One set of cylinders per 25 cubic yards, with a minimum of two cylinders per set. Alternate cylinder acceptance systems may be allowed with the approval of the State Materials Engineer.	1 "companion" cylinder per month per plant during production, or cylinder testing machine, whichever is greater. Call Precast Inspection Engineer at 651-366-5540 for additional information.		Precast/prestressed Concrete Structure (beams, posts, etc.) will be inspected and stamped at plant. Field personnel are responsible for checking for plant inspector's stamp, for shipping/handling damage or defects, and dimensions. An inspection report will be completed by plant personnel and sent to the field personnel.
	Fine Aggregate	3126		1 quality test per month during production.	10 kg. (25 lb.)	
	Coarse Aggregate	3137		1 quality test per month during production.	10 kg. (25 lb.)	
2405	4. Precast/Prestressed Concrete Structures B. Precast/Prestressed Concrete Structure (beams, posts, etc.).	2405	1 air test per pour (1st load), One set of cylinders per 25 cubic yards, with a minimum of two cylinders per set, and one set per beam. Alternate cylinder acceptance systems may be allowed with the approval of the State Materials Engineer.	1 "companion" cylinder per month per plant during production, or cylinder testing machine, whichever is greater. Call Precast Inspection Engineer at 651-366-5540 for additional information.		Precast/prestressed Concrete Structure (beams, posts, etc.) will be inspected and stamped at plant. Field personnel are responsible for checking for plant inspector's stamp, for shipping/handling damage or defects, and dimensions. An inspection report will be completed by plant personnel and sent to the field personnel.
	Fine Aggregate	3126	Gradation: 1 per 150 m ³ (200 Cu. yd.) or fraction thereof. 1 per day of production or 3 per week, whichever is less.	1 gradation and 1 quality test per month during production from a split sample. Include producer's gradation results on sample card.	10 kg (25 lb.)	
	Coarse Aggregate	3137	Gradation: 1 per 75 m ³ (100 Cu. yd.) or fraction thereof. 1 per day of production or 3 per week, whichever is less.	1 gradation and 1 quality test per month during production from a split sample. Include producer's gradation results on sample card.	10 kg (25 lb.)	

IX. Geosynthetics, Pipe, Tile, and Precast/Prestressed Concrete (Cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2506	5. Manholes and Catch Basins (Construction)	2506 3622	Field Inspection: Check for damage and defects. Check dimensions as required. Check for Producer's "Certified" stamp and signature on the certification document.	1 "companion" cylinder per month per plant during production, or cylinder testing machine, whichever is greater. Call Precast Inspection Engineer at 651-366-5540 for additional information.		Form 02415 or 2403 Product will be certified by producer or inspected, tested and stamped at source. Only spot checks are done by plant inspector. Make certain the invoice or certification document is signed and the product has the required markings. Maintain Form 2403 or 02415 in project records, showing source of materials and type and quantity used (bricks, blocks, precast, or combination).
2502	6. Drain Tile (Clay or Concrete)	3276	Visual Inspection	2 samples of each size from each source		
2502 2503	7. Thermoplastic (TP) Pipe ABS and PVC	3245	Obtain Certificate of compliance. Check for approved marking printed on pipe. Field Inspect for damage or defects.			Form 02415 or 2403 See Spec. 3245 for specific AASHTO or ASTM Pipe types are approved under this specification. If perforated, holes should be 5mm - 10 mm (3/16 - 3/8 inch) diameter, two rows for 4", and four rows for 6" diameter; approximately 75 mm (3 inches) on center.
2502	8. Corrugated Polyethylene Pipe – Single wall for edge drains, etc.	3278	Check for markings (AASHTO M 252) Certificate of Compliance. Field Inspect for damage or defects.	No Laboratory tests required		Form 02415 or 2403
2503	9. Sewer Joint Sealing Compound	3724		One per shipment	0.5 liter (1 pt.)	
2412 2501 2503	10. Preformed Plastic Sealer for Pipe	3726 Type b		One from each source	0.3 m (1 ft.)	
2412 2501 2503	11. Bituminous Mastic Joint Sealer for Pipe	3728	Visual Inspection	Sample, if questionable		

IX. Geosynthetics, Pipe, Tile, and Precast/Prestressed Concrete (Cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2105	12. EPS Geofoam	Special Provisions	Visual Inspection Check for yellow aged material, uniformity and dimensions. Weigh 1'x1'x1' cut coupon to verify density every 200 m ³ (250 yd ³)			Form 02415 or 2403
2501 2503	13. Corrugated Polyethylene Pipe – Dual Wall, 12” – 48”	3247				For Specification 3247, Corrugated Polyethylene Pipe (HDPE) manufacturing facilities are required to be reviewed <u>yearly</u> and in compliance with AASHTO's National Transportation Product Evaluation Program (NTPEP) for producers of AASHTO M294 HDPE pipe. To determine if a pipe manufacturing plant is qualified, click on the following link for M294 pipe. http://data.ntpep.org/Module/PIPE/StatusReport.aspx If a plant has a compliant NTPEP audit for AASHTO M294 pipe at the time the pipe is manufactured, then the plant has met requirements. Note that a previous year's audit shall govern until NTPEP issues the next year's audit. A Certificate of Compliance shall be provided in accordance with Specification 1603.

IX. Geosynthetics, Pipe, Tile, and Precast/Prestressed Concrete (Cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2105 2411 2412 2501 2502 2511 2512	14. Geotextile Fabric and Geogrid Reinforcement	3733 and Special Provisions	<p>Inspect for damage and uniformity of texture. Rolls of both geotextile and geotextile wrapped PE Tubing must be wrapped in UV protective plastic. (Usually Black). Obtain Certificate of Compliance</p> <p>If using adhesive for seams, see Approved/Qualified Product List available at the Department's website</p>	<p>(a) 1 per project for pipe wrap or trench lining for Permeable base designs.</p> <p>(b) 1 per 50,000 yd² (40,000 m²) or fraction thereof of each type fabric or geogrid for all other uses.</p> <p>(c) Seam, if required, 1 per project minimum, additional as appropriate.</p> <p>Small Quantity Acceptance</p> <ul style="list-style-type: none"> • For fabric totals less than 200 yd² (170 m²) • For pipe wrap totals less than 1000 Lin. Ft • No sampling required • Use Inspection Report for Small Quantities (Form 2403) • Check: <ul style="list-style-type: none"> ○ Certificate of Compliance ○ Identifying label on product ○ Geotextile Small Quantity Acceptance List at <p>http://www.dot.state.mn.us/materials/aggregatedocs/gtxlist.pdf</p>	<p>(a) 10 Lin. Ft. (3 m)</p> <p>(b) 4 yd² (3 m²)*</p> <p>(c) 10 Lin. Ft. (3 m)**</p>	<p>Certificate of Compliance shall state material identification (e.g. Propex 2002, Miragrid 8XT), and minimum average roll values (MARV) for all specified geotextile properties. MARV values must meet the Specification 3733 Types 1 through 7 requirements for the specific application. Submit copy of Certificate with material samples sent to the Materials Laboratory.</p> <p>Submit additional sample(s), if the manufacturer or model of geotextile or geogrid used changes during construction.</p> <p>Sampling shall be by random selection and no more than one sample shall be taken from an individual roll. For type 6 applications (including geogrids), submit pages of Special Provisions that list required material properties. (Type 6 requirements are job specific.) For Modular Block Walls or Reinforced Soil Slopes, submit page(s) of shop drawings that reference geogrid/geotextile to be used (product name) and/or required properties.</p> <p>* Do not sample first full turn of rolled product. ** Seam sample to include approximately 3 ft. (1 m) of geosynthetic material on each side of seam (in direction perpendicular to seam).</p>

X. Brick, Stone, and Masonry Units

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2506	1. Brick A. Sewer (clay) and Building	3612 to 3615	Visual Inspection	One sample per 50,000 brick or fraction thereof	6 whole bricks	
2506	1. Brick B. Sewer (Concrete)*	3616	Visual Inspection	One sample per shipment.	6 whole bricks	* Air entrainment required. Obtain air content statement from supplier.
2506	2. Concrete Masonry Units A. For Sewer Construction	3621	Visual Inspection	One sample per shipment	6 whole units	Air entrainment required. Obtain air content statement from supplier.
2411	2. Concrete Masonry Units B. For Modular Block Retaining Walls	Special Provisions	Visual Inspection Check for cracks and broken corners	One sample per 10,000 units or fraction thereof, with a minimum of one sample per product (block) type per contract.*	5 whole units	All lots of block upon delivery shall have Manufacturer or Independent laboratory test results to verify passing both compression and freeze-thaw requirements. * Wall units and cap units are considered separate block types.
2422	3. Reinforced Concrete Cribbing	3661	Concrete control tests Air Tests Visual Inspection if previously tested	One cylinder per 100 units, but not less than 5 cylinders for a given contract. Other materials as required herein.	150 x 300mm (6 x 12 in) Cylinders	Form 02415 or 2403 Will be stamped when inspected prior to shipment.
2511 2512 2577	4. Stone for Masonry or Rip-Rap	3601 and Special Provisions	Visual Inspection Submit Form 02415 unless special testing is specified			Form 02415 or 2403 Each source shall be approved by Project Engineer or Supervisor for quality, prior to use. For questions on quality, contact District Materials or Geology Unit.

XI. Electrical, Roadway Lighting, and Traffic Control Signal Equipment Items

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2545	1. Light Poles (Aluminum, Steel, or Stainless Steel)	3811	Visual Inspection			The Fabricator shall submit "Certificate of Compliance", on a per project basis, to the Project Engineer.
2545 2550 2565	2. Hand Holes (Concrete Precast, PVC with Polymer Concrete Ring and Cover, and Polymer Concrete)	2545 2550 2565				Form 02415 or 2403 Traffic control signals and roadway lighting projects require handholes (HH) and frames and covers to be listed on the MnDOT Approved/Qualified Products List (A/QPL) for signals. For precast concrete HH's and cast iron frame and cover: see VII.6, Drainage Castings and Standard Specifications for Construction 3819.2B
2545 2565	3. Foundation	2545	Slump as needed	1 cylinder per 20 m ³ (25 Cu. yd.)		Rebar is required in concrete foundations as specified in the Contract documents for all traffic control signals and roadway lighting projects.
2545 2565	4. Steel Screw In Foundations	2545 2565	Visual Inspection - verify make and model number as shown on MnDOT's APL	None		Steel Screw in Foundations are listed on MnDOT's Approved/Qualified Products List for Roadway Lighting & Signals
2402 2545 2565	5. Conduit and Fittings A. Metallic B. Liquid Tight Flexible Non Metallic Conduit C. PVC Coated Hot Dipped Galvanized Rigid Steel Conduit	3801 3802 3804 3805	Visual Inspection	None		Form 02415 or 2403 Conduit shall be labeled as being listed by a National Recognized Testing Laboratory (NRTL). Retain Form 02415 or 2403 in Project File
2545 2565	5. Conduit and Fittings D. Non-Metallic (Rigid and HDPE)	3803	Visual Inspection			Form 02415 or 2403 Conduit shall be labeled as being listed by a National Recognized Testing Laboratory (NRTL). Retain Form 02415 or 2403 in Project File. For traffic control signals and roadway lighting projects, specific requirements are contained in the Special Provisions for each project.
2545 2565	6a. Anchor bolts (cast in place)	2545 2565				See section VII, 7.
2545	6b. Anchorages (Drilled In)	2545				See section VII, 8.

XI. Electrical, Roadway Lighting, and Traffic Control Signal Equipment Items (cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2545 2565	7. Miscellaneous Hardware	2545 2565	Visual Inspection	Sample critical items only. One of each item per shipment. (Critical Items are load bearing, structurally necessary items.)		Will carry "Inspected" tag if sampled and tested prior to shipment. No sample necessary if "Inspected". Do not use if not tested. Field sample at sampling rate for laboratory testing. For traffic control signals and roadway light lighting projects, various miscellaneous hardware is required to be listed on the MnDOT Signals and Lighting Approved/Qualified Products Lists (A/QPL). The Contract documents indicate which items must be on the Signals and/or Lighting APL.
2545 2550 2565	8. Cable and Conductors A. Service, Feeder, and Branch Circuit Conductors Roadway Loop Detector Conductors (No Tubing) Underground Service Entrance (USE) cables	3815.2B1 3815.2B2	Visual Inspection	None		Form 02415 or 2403 Make certain the conductors are the type specified. Submit Field Inspection report showing type and quantities used. Shall be labeled as being listed by a National Recognized Testing Laboratory (NRTL) and type where applicable.
2545 2550 2565	8. Cable and Conductors B. Electrical Cables and Single Conductors with Jacket	3815.2B2(b) 3815.2B3 3815.2B5 3815.2C1 3815.2C3 3815.2C4 3815.2C5 3815.2C6 3815.2C7 3815.2C8 3815.2C14	Visual Inspection	1 sample per size per lot	1.5m (5 ft.)	Form 02415 or 2403 Usually inspected at the distributor. Documentation showing project number, reel number(s), and MnDOT test number(s) will be included with each project shipment. If such documentation is not received from Contractor, submit sample for testing along with material certification from manufacturer. <u>Do not</u> use if <u>not</u> tested. Pre-inspected materials will <u>not</u> be tagged; an inspection report will be sent by the MnDOT inspector for each shipment. Project inspectors should verify that the shipping documents agree with this inspection report. Call Steve Grover at 651-366-5540 or Cindy Schellack at 651-366-5543 with questions. For traffic control signals and roadway lighting projects, the Special Provisions for each project contain electrical cable and conductor specifications.
2545 2550 2565	8. Cable and Conductors C. Fiber Optic Cables	3815.2C13	Visual Inspection - verify make and model number as shown in Special Provisions	None		Form 02415 or 2403 Fiber optic cables shall be listed on the MnDOT Approved/Qualified Products List (A/QPL) for Traffic Management Systems/ITS.

XI. Electrical, Roadway Lighting, and Traffic Control Signal Equipment Items (cont.)

Pay Item No.	Kind of Material	Spec. No.	Minimum Required Acceptance Testing (Field Testing Rate)	Minimum Required Sampling Rate for Laboratory Testing	Sample Size	Notes
2545 2565	9. Grounding Electrodes (Ground Rods) (Plate Electrodes)	2545 2565 3818	Visual Inspection	None.		Form 02415 or 2403 Retain Form 02415 or 2403 in project file. Shall be labeled as being listed by a National Recognized Testing Laboratory (NRTL).
2545	10. Luminaires and Lamps	3810				Form 02415 or 2403 Traffic control signals and roadway lighting projects require luminaires and lamps to be listed on the MnDOT Approved/Qualified Products List (A/QPL) for Lighting. The conductors shall be labeled as being listed by a National Recognized Testing Laboratory (NRTL) and type, where applicable.
2545	11. Air Obstruction Lights	3816	Visual Inspection - verify make and model number as shown on MnDOT's APL	None.		Air Obstruction Lights are listed on MnDOT's Approved/Qualified Products List for Roadway Lighting.
2545	12. Navigation Lanterns	3817	Visual Inspection - verify make and model number as shown on MnDOT's APL	None.		Navigation Lanterns are listed on MnDOT's Approved/Qualified Products List for Roadway Lighting.
2545 2565	13. Sponge Rubber Expansion Joint. Used for wrapping expansion and deflection/expansion conduit joints on bridges.	3841	Visual Inspection			
2545	14. Lighting System	2545				Lighting Systems are to be reported as a "System" using the Lighting, Signal, and Traffic Recorder Inspection Report. To be certified by the Project Engineer.
2545	15. Electrical Systems					Electrical Systems are to be reported as a "System" using the Lighting, Signal, and Traffic Recorder Inspection Report. To be certified by the Project Engineer.
2565	16. Traffic Control Signal Systems	2565				Traffic Control Signal Systems are to be reported as a "System" using the Lighting, Signal, and Traffic Recorder Inspection Report. To be certified by the Project Engineer.

Certifications List

Material	SMC Section	Sub Section	Page	Certification Needed
All Base, Surface, and Granular Materials	I. Grading & Base	Many	2-10	Form G&B-104 (24346) include gradation, crushing, bitumen content, and quality test results
Plant Mixed Asphalt (PMA)	II. Bituminous	Many	11-15	All PMA from certified supplier www.dot.state.mn.us/materials/bituminous.html
Shingles	II. Bituminous		12	Contractor shall provide documentation that of all RAS /TOSS (Tear Off Shingle) material is from a MPCA certified supplier.
Bituminous Material	II. Bituminous		16	Only Bituminous Materials from certified asphalt binder sources are allowed for use. The most current list of Certified Sources can at http://www.dot.state.mn.us/products
Emulsified Asphalt	II. Bituminous		16	Use Emulsion for seal coat from a certified emulsified asphalt source.
Portland Cement Fly Ash Ground Granulated Blast Furnace Slag Cement Admixtures	IV. Concrete		24	Concrete Plant Batching Materials: All materials must come from certified approved, or qualified sources. All certified sources must state so on the Bill of Lading Delivery invoice including MnDOT standardized certification statement for cement, flyash, and slag. The most current list of certified/approved sources can be found at www.dot.state.mn.us/products .
Certified Ready Mix	IV. Concrete	Many	25-26	Contact Report from Ready-Mix Plant. All concrete from certified plant including a computerized certificate of compliance with each load.
Plastic for Curing	IV. Concrete		32	A Certificate of Compliance shall be submitted to the Project Engineer from the Manufacturer certifying that the plastic complies with AASHTO M171.
Profiler	IV. Concrete		36	Contractor provides MnDOT certified Inertial Profiler Results for bumps/dips and/or Areas of Localized Roughness for the entire project.
Aggregate for Low Slump Overlays	IV. Concrete		37	Aggregate pit numbers and 1 passing gradation result per fraction per source
Aggregate for Concrete Pavement Repair	IV. Concrete		38	Aggregate pit numbers and 1 passing gradation result per fraction per source
Aggregate for Dowel Bar Retrofits	IV. Concrete		40	Aggregate pit numbers and 1 passing gradation result per fraction per source

Certifications List (cont.)

Material	SMC Section	Sub Section	Page	Certification Needed
Plant Stock & Landscape Materials	V: Landscaping etc.	2	41	Several certifications
Silt Fence	V: Landscaping etc.	5	42	Certificate of Compliance with MARV values
Flotation Silt Curtain	V: Landscaping etc.	6	42	Manufacturers' certification of compliance
Mulch Type 3	V: Landscaping etc.	12	42	Certified Vendor by Minnesota Crop Improvement Association must be tagged grain straw only on label.
Mulch Type 6 Wood Chips	V: Landscaping etc.	13	43	Emerald Ash Borer Compliance Agreement with the MDA
Seeds	V: Landscaping etc.	14	43	Certified Vendor by Minnesota Crop Improvement Association must be tagged.
Seeds - Native	V: Landscaping etc.	14	43	Certified Vendor by Minnesota Crop Improvement Association must be tagged.
Sod	V: Landscaping etc.	15	43	A certified tag by Minnesota Crop Improvement Association for Salt tolerant sod. A certificate of Compliance for all other types of sod listing grass varieties.
Compost	V: Landscaping etc.	16	43	APL/QPL with certified test reports.
Waterproofing material membrane waterproof system	VI: Chemical Items		44	Certificate and test results
Waterborne latex traffic marking paint	VI: Chemical Items		45	Certificate of Compliance
Epoxy traffic paint	VI: Chemical Items		45	Certificate of Compliance
Traffic marking paint	VI: Chemical Items		45	Certificate of Compliance
Non-traffic marking paint	VI: Chemical Items		45	Certificate of Compliance
Bridge structural steel paint	VI: Chemical Items		46	Certificate of Compliance
Exterior masonry paint	VI: Chemical Items		46	Certificate of Compliance
Noise wall stain	VI: Chemical Items		46	Certificate of Compliance
Drop-on glass beads	VI: Chemical Items		46	Certificate of Compliance
Pavement marking tape	VI: Chemical Items		46	Certificate of Compliance
Steel sign posts	VII: Metallic	2	48	Certification of domestic source if applicable under 1601
Posts for traffic or fence	VII: Metallic	3A	48	Certification of domestic source if applicable under 1601 For fence: Fence certification form (Optional)
Fence components	VII: Metallic	3B	48	Fence certification form (Optional)
Fence gates	VII: Metallic	3C	48	Fence certification form (Optional)
Fence barbed wire fabric	VII: Metallic	3D	48	Fence certification form (Optional)
Fence woven wire fabric	VII: Metallic	3E	49	Fence certification form (Optional)
Fence chain link wire fabric	VII: Metallic	3F	49	Fence certification form (Optional)
Reinforcing steel uncoated bars	VII: Metallic	5A	49	Certificate of Compliance & certified mill analysis
Reinforcing steel epoxy bars	VII: Metallic	5B	50	Inspected tag or Certificate of Compliance & certified mill analysis
Steel Fabric	VII: Metallic	5E	50	Certificate of Compliance
Dowel Bars	VII: Metallic	5F	50	Certificate of Compliance
Pre or post tensioning strand	VII: Metallic	5G	51	Mill analysis
Anchor rods & Structural Fasteners	VII: Metallic	7, 8	51	Yearly MnDOT passing test report

Certifications List (cont.)

Material	SMC Section	Sub Section	Page	Certification Needed
Timber & lumber	VIII: Miscellaneous	1	55	Certified on invoice
Bearing pads	VIII: Miscellaneous	4	55	Certificate of Compliance
Corrugated metal pipe	IX: Geosynthetics & Pipe	1A	56	Certified on invoice
Corrugated metal structural plate	IX: Geosynthetics & Pipe	1B	56	Certified on invoice
Corrugated metal aluminum plate	IX: Geosynthetics & Pipe	1C	56	Fabricator's Certificate and guarantee
Concrete pipe	IX: Geosynthetics & Pipe	3A	56	Certified stamp and certification document
Precast box culverts	IX: Geosynthetics & Pipe	4A	57	Stamped & field inspection report
Prestressed beams & posts, etc.	IX: Geosynthetics & Pipe	4B	57	Stamped & field inspection report
Manholes & catch basins	IX: Geosynthetics & Pipe	5	58	Certification document or stamped
Thermoplastic pipe ABS & PVC	IX: Geosynthetics & Pipe	7	58	Certificate of Compliance
Corrugated PE Pipe: Single wall – edge drains	IX: Geosynthetics & Pipe	8	58	Certificate of Compliance
Corrugated PE Pipe: dual wall – 12"-48"	IX: Geosynthetics & Pipe	13	59	Certificate of Compliance
Geotextile fabric	IX: Geosynthetics & Pipe	14	60	Manufacturers' Certification of compliance
Brick sewer concrete	X: Brick, Stone, Masonry	1B	61	Air content statement
Concrete masonry units	X: Brick, Stone, Masonry	2A	61	Air content statement
Light poles	XI: Electrical & Signal	1	62	Certificate of Compliance
Cable & Conductors	XI: Electrical & Signal	7	62	Usually inspected at the distributor. Documentation showing project number, reel number(s), & MnDOT test number(s) will be included with each project shipment. If not received from Contractor, submit sample for testing along with manufacturers' material certification.
Electrical systems	XI: Electrical & Signal	14	64	Electrical Systems are to be reported as a "System" using the Lighting, Signal, and Traffic Recorder Inspection Report.
Traffic control signal systems	XI: Electrical & Signal	15	64	Traffic Control Signal Systems are to be reported as a "System" using the Lighting, Signal, and Traffic Recorder Inspection Report.

Telephone Index for Schedule of Materials Control

Section	Page	Section Name	Contact	Phone
Part I	Page 1	Grading, Base & Reclamation – Specifications 2105, 2106, 2118, 2211, 2212, 2215, and 2221	Terry Beaudry John Bormann Melissa Cole	(651) 366-5456 (651) 366-5596 (651) 366-5432
Website: www.dot.state.mn.us/materials/gradingandbase.html				
Part II	Page 9	Bituminous - Spec. 2360	John Garrity	(651) 366-5577
Part II C	Page 14	Asphalt Binder	Allen Gallistel Jason Szondy	(651) 366-5545 (651) 366-5549
Website: www.dot.state.mn.us/materials/bituminous.html				
Part III	Page 16	Bituminous Specialty Items	Terry Beaudry Greg Schneider Melissa Cole Tom Wood	(651) 366-5456 (651) 366-5403 (651) 366-5432 (651) 366-5573
Part IV	Page 21	Concrete – Aggregates and Mix Design Concrete – Certified Ready Mix Concrete Concrete – Paving Concrete – Bridges Concrete – Pavement Rehabilitation	Wendy Garr Wendy Garr Rob Golish Ron Mulvaney Gordy Bruhn	(651) 366-5423 (651) 366-5423 (651) 366-5576 (651) 366-5575 (651) 366-5523
Website: www.dot.state.mn.us/materials/concrete.html				
Part V	Page 39	Landscaping and Erosion Control Items Erosion Control Landscaping Wood Chips	Lori Belz Scott Bradley Tina Markeson	(651) 366-3607 (651) 366-4612 (651) 366-3619
Part VI	Page 42	Chemical Items	Allen Gallistel Dave Iverson	(651) 366-5545 (651) 366-5550
Part VII	Page 45	Metallic Materials and Metal Products Sampling Test Results Bridge Structural Metals	Steve Grover Laboratory Todd Niemann	(651) 366-5540 (651) 366-5560 (651) 366-4567
Part VIII	Page 53	Miscellaneous Materials Sections 1 thru 3 Section 4 Test Results	Steve Grover Todd Niemann Laboratory	(651) 366-5540 (651) 366-4567 (651) 366-5560
Part IX	Page 54	Geosynthetics, Pipe, Tile, and Precast/Prestressed Concrete Sections 1 thru 11, & 13 Section 12 Section 14 Test Results	Steve Grover Rich Lamb Blake Nelson Laboratory	(651) 366-5540 (651) 366-5595 (651) 366-5599 (651) 366-5560
Part X	Page 59	Brick, Stone and Masonry Units/Modular Retaining Wall Blocks Sections 1, 2A,3, & 4 Section 2B Test Results	Steve Grover Blake Nelson Laboratory	(651) 366-5540 (651) 366-5599 (651) 366-5561
Part XI	Page 60	Electrical & Signal Sections 1, 8-11 Section 2, 4- 7 Section 3 Test Results	Susan Zarling Steve Grover Wendy Garr Laboratory	(651) 234-7052 (651) 366-5540 (651) 366-5423 (651) 366-5560

Form Index

Grading and Base	
Form No.	Form Name
G&B – 001	Grading & Base Report
G&B – 002	Random Sampling Acceptance
G&B – 003	Weekly Grading and Base Testing Summary Report
G&B – 101	Sieve Analysis
G&B – 103	Percent Crushing Report
G&B – 104	Certificate of Aggregates & Granular Materials
G&B – 105	Moisture Test
G&B – 203	(Table 2105-6, 2106-6) DCP Penetration Index Method
G&B – 204	(Table 2211-3) DCP Penetration Index Method
G&B – 205	2215 DCP Penetration Index Form – Full Depth Reclamation
G&B – 303	Moisture - Density (Proctor) Test
G&B – 304	Relative Density Test
G&B – 305	Estimated Optimum Moisture Content
G&B – 401	Depth Report – FDR, CIR, SFDR
Concrete	
Form No.	Form Name
2152	Concrete Batching Report
2162	Concrete Test Beam Data
2409	ID Card Concrete Test Cylinder
2448	Weekly Concrete Report
2449	Weekly Concrete Aggregate Report (QC/QA)
21412	Weekly Report of “Low Slump Concrete”
21763	Concrete Aggregate Worksheet
21764	Concrete Aggregate Worksheet JMF - Paving
21765	Concrete Aggregate Worksheet JMF
24143	Weekly Certified Ready-Mix Plant Report (Verification)
24300	ID Card Cement Samples
24308	ID Card Fly Ash Samples
24327	Field Core Report
	Concrete W/C Ratio Calculation Worksheet
	Incentive/Disincentive Smoothness Worksheet
Bituminous	
Form No.	Form Name
2413	Asphalt Sample Identification Card
Miscellaneous	
Form No.	Form Name
2410	Sample ID Card
02415	Inspection Report for Small Quantities (May be used for documentation or use another method to capture required documentation)
2403	Inspection Report for Small Quantities (May be used for documentation or use another method to capture required documentation)
	Certification Form for Type of Fence used (right side of page at website location below) www.dot.state.mn.us/materials/lab.html