

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
**PAVEMENT PERFORMANCE WARRANTY FOR PAVER PLACED SURFACE SEAL
(Capital Preventive Maintenance)**

C&T:KPK

1 of 15

C&T:APPR:GMM:JAR:09-29-03
FHWA:APPR:10-15-03

a. Description. The pavement performance warranty shall consist of satisfying the warranty requirements of the work contained in the appendices. This special provision establishes the common terms and definitions applied to the pavement requiring warranted work. The pavement performance warranty assures and protects the Department from specific defects found in the pavement.

b. Definitions.

1. Initial Acceptance - The date when the warranted work is complete and has been determined by the Department to be in compliance with the contract specifications and is continuously open to traffic. This is the start date for the warranty period. There may be more than one initial acceptance for a project.
2. Warranty Bond - A surety which guarantees that the warranty requirements will be met.
3. Driving Lane(s) - The delineated pavement surface used by traffic including adjacent shoulders. Each of the following is considered a separate driving lane:
 - Each individual mainline lane
 - The sum of all ramp lanes and the associated acceleration/deceleration lanes
 - The sum of all auxiliary lanes, such as passing lanes and turn lanesApproaches and driveways are not considered driving lanes for the purpose of this provision.
4. Warranted Work - Work that is guaranteed that will not exceed the specified thresholds of the performance criteria during the warranty period.
5. Warranty Work - If the thresholds are exceeded during the warranty period, corrective action will be completed by the Contractor to bring the warranted work back into compliance for release of the warranty. All costs will be borne by the Contractor including traffic control, mobilization, pavement marking and/or other related work.

c. Initial Acceptance. The Department and the Contractor shall jointly review all completed warranted work, or a portion thereof, as determined by the Department. If the work does not meet contract requirements, the Contractor shall make all necessary corrections, at their expense, prior to initial acceptance. Initial acceptance will occur as soon as the Department determines that all contract requirements have been met for the warranted work and is continuously open to traffic.

Initial acceptance will be documented and executed jointly by the Department and the Contractor on a form furnished by the Department. A copy of the form will be sent to the Contractor's warranty bond surety agent by the Department. Neither the initial acceptance nor any prior inspection, acceptance or approval by the Department diminishes the Contractor's responsibility under this warranty.

The Department may accept any portion of the work and begin the warranty period to accommodate seasonal limitations or staged construction, excluding any area needing corrective work.

d. Warranty Bond. The Contractor shall furnish a single term warranty bond of the amount stipulated in the appendix prior to contract award. The effective starting date of the warranty bond shall be the Initial acceptance. The warranty bond will be released at the end of the warranty period, or after all warranty work has been satisfactorily completed, whichever is latest.

e. Rights and Responsibilities of the Department. The Department:

1. Reserves the right to approve the time, traffic control and methods for performing any warranty work by permit through the Region utilities and permit process.
2. Reserves the right to approve the schedule proposed by the Contractor to perform warranty work.
3. Reserves the right to approve all materials and specifications used in warranty work.
4. Reserves the right to determine if warranty work performed by the Contractor meets the contract specifications.
5. Reserves the right to perform, or have performed, routine maintenance during the warranty period, which routine maintenance will not diminish the Contractor's responsibility under the warranty.
6. Reserves the right, if the Contractor is unable, to make immediate emergency repairs to the pavement to prevent an unsafe road condition caused by defective warranted work as determined by the Department. The Department will attempt to notify the Contractor that action is required to address an unsafe condition. The Department will record the time and date of the attempts for Contractor notification. However, should the Contractor be unable to comply with this requirement, to the Department's satisfaction and within the required time frame specified by the Department, the Department will perform, or have performed any emergency repairs deemed necessary. Any such emergency repairs undertaken will not relieve the Contractor from meeting the warranty requirements of this Special Provision. Any costs associated with such emergency repairs will be paid by the Contractor.
7. Is responsible for monitoring the pavement throughout the warranty period and will provide the Contractor any written reports of the surface condition and/or maintenance activities related to pavement performance.
8. Is responsible for notifying the Contractor, in writing, of any corrective action required to meet the warranty requirements.

f. Rights and Responsibilities of the Contractor. The Contractor:

1. Shall warrant to the Department that the warranted work will be free of defects as measured by the performance parameters and specified threshold values for each. The warranty bond shall be described on a form furnished by the Department. The completed form shall be submitted to the Department prior to award of contract.
2. Is responsible for performing all warranty work including, but not limited to, maintaining traffic and restoring all associated pavement features, at the Contractor's expense.
3. Is responsible for performing all temporary or emergency repairs, resulting from being in non-compliance with the warranty requirements, using Department approved materials and methods.
4. Shall notify the Department and submit a written course of action for performing the needed warranty work, ten calendar days prior to commencement of said warranty work, except in the case of emergency repairs as detailed in this special provision. The submittal must propose a schedule for performing the warranty work and the materials and methods to be used.
5. Shall follow a Department approved maintaining traffic plan when performing warranty work. All warranty work shall be performed under permit issued by the Region Utilities and Permits Engineer. The permit fee and an individual permit performance bond shall not be required. The permit insurance requirements, however, shall apply.
6. Shall furnish to the Department, in addition to the regular performance and lien bond for the contract, supplemental performance and lien bonds covering any warranty work being performed. These supplemental bonds shall be furnished prior to beginning any warranty work, using Department approved forms. These supplemental bonds shall be in the amount required by the Department to cover the costs of warranty work.
7. Shall complete all warranty work required by this special provision and prior to conclusion of the warranty period, or as otherwise agreed to by the Department.
8. Shall be liable during the warranty period in the same manner as Contractors currently are liable for their construction related activities with the Department pursuant to the standard specifications, including, but not limited to subsections 103.06, 107.10 and 107.11. This liability shall arise and continue only during the period when the Contractor is performing warranty work. This liability is in addition to the Contractor performing and/or paying for any required warranty work, and shall include liability for injuries and/or damages and any expenses resulting therefrom which are not attributable to normal wear and tear of traffic and weather, but are due to non-compliant materials, faulty workmanship, and to the operations of the Contractor as set forth more fully in subsections 103.06, 107.10 and 107.11 of the Standard Specifications for Construction.

g. Evaluation Method. The Department will conduct pavement evaluations by dividing the project into segments. Each individual driving lane will be divided into segments of 528 feet for measuring and quantifying the condition parameters. Evaluation may include use of both the Department's Pavement Management System and/or field pavement condition reviews. This evaluation may be waived in emergency situations.

The beginning point for laying out segments will be the Point of Beginning (POB) of the project. Segments will be laid out consecutively to the Point of Ending (POE) of the project. The original segmentation of the project will be used for all successive reviews throughout the warranty period.

h. Warranty Requirements. Warranty work will be required when the following two criteria are both met as a result of a failure to meet the performance parameters:

Criterion 1 - The threshold limit for a performance parameter is exceeded, and

Criterion 2 - The maximum allowable number of defective segments is exceeded for one or more performance parameters for a driving lane, unless otherwise noted in the appendices.

Specific threshold limits and segment limits are covered in the appendices.

During the warranty period, the Contractor will not be held responsible for pre-existing conditions and by factors beyond his control. These include, but are not limited to: chemical and fuel spills, vehicle fires, snow plowing, and any testing by the Department, such as coring. Other factors considered to be beyond the control of the Contractor which may contribute to pavement distress will be considered by the Engineer on a case by case basis upon receipt of a written request from the Contractor.

i. Conflict Resolution Team. The sole responsibility of the Conflict Resolution Team (CRT) is to provide a decision on disputes between the Department and the Contractor regarding application or fulfillment of the warranty requirements. The CRT will consist of five members:

- Two members selected and compensated by the Department.
- Two members selected and compensated by the Contractor.
- One member mutually selected by the Department and the Contractor. Compensation for the third party member will be equally shared by the Department and the Contractor.

If a dispute arises on the application or fulfillment of the terms of this warranty, either party may serve written notice that appointment of a CRT is required.

At least three members of the CRT must vote in favor of a motion to make a decision. If agreement cannot be reached, the CRT may decide to conduct a forensic investigation. The CRT will determine the scope of work and select the party to conduct the investigation. All costs related to the forensic investigation will be shared proportionally between the Contractor and the Department based on the determined cause of the condition.

j. Emergency Repairs. If the Department determines that emergency repairs are necessary for public safety, the Department or its agent may take repair action. Emergency repairs will be authorized by the Engineer.

Prior to emergency repairs, the Department will document the basis for the emergency action. In addition, the Department will preserve evidence of the defective condition.

k. Non-extension of Contract. This Special Provision shall not be construed as extending or otherwise affecting the claim process and statute of limitation applicable to this Contract.

I. Measurement and Payment. All costs, including engineering and maintaining traffic costs, associated with meeting the requirements of this Special Provision are considered to be included in the contract unit prices for the warranted work regardless of when such costs are incurred throughout the warranty period. These costs include but are not limited to, all materials, labor and equipment necessary to complete required warranty work.

**PAVEMENT PERFORMANCE WARRANTY APPENDIX
FOR PAVER PLACED SURFACE SEAL**

- A1. Application.** This appendix is applicable for surface treatment performance warranties on Paver Placed Surface Seals. The work consists of furnishing all labor, equipment, and materials necessary to place a warm polymer modified asphalt emulsion followed by a Hot Mix Asphalt (HMA) thin overlay.
- A2. Limits of Warranted Work.** The warranted work includes all Paver Placed Surface Seal applications on driving lanes and shoulders within the project limits unless otherwise indicated in the proposal or excluded as specified in section A.9.1.
- A3. Warranty Period.** The length of warranty will be three years from the Initial Acceptance.
- A4. Amount of Warranty Bond.** The Contractor will supply a warranty bond equal to 100% of the warranted work for Paver Placed Surface Seal.
- A5. Materials.**
- 1. Aggregate Physical Properties.** The physical properties of the aggregate must comply with the values shown in Table 1 and Table 2.

Table 1: Physical Requirements for Coarse Aggregate		
Test	Method	Specifications
L.A. Abrasion Resistance:	MTM-102	35% max loss
Aggregate Wear Index (AWI)	MTM-111	260 min
Percentage of Crushed Particles, Two Faced	MTM-117	90% min
Deleterious Particles in Aggregate	MTM-110 (1)	5.0% max
Flat and Elongated Ratio, 3:1	ASTM D 4791(2)	25% max
Water Absorption	ASTM C 127	<3.0% max
Micro-Deval, % loss	AASHTO TP 58-99	18 max
(1) Includes the sum of shale, siltstone, structurally weak and clay ironstone. (2) As determined in accordance with ASTM D4791 for material retained on the No. #4 sieve. The ratio between length to width or length to thickness or any combination shall not be greater than 3:1 for not be more than 25% of the material.		

Table 2: Physical Requirements for Fine Aggregate		
Test	Method	Specifications
Sand Equivalent	ASTM D 2419	45% min.
Uncompacted Void Content	ASTM C 1252	40% min.

2. **Performance Graded (PG) Asphalt Binder.** Binders must meet all the requirements of the Special Provision for Polymer Modified Performance Grade Binders Table 1, and the Selection criteria listed in Table 3.

Table 3: Performance Graded Asphalt Binder	
Location	PG Asphalt Binder
North of M-72 in lower peninsula and the upper peninsula	PG 64-28P
South of M-72 (including M-72)	PG 70-28P
Metro Region only	PG 70-22P

3. **Asphalt Emulsion.** The polymer modified asphalt emulsion used must meet the requirements listed on Table 4.

Table 4: Polymer Modified Asphalt Emulsion			
Test on Residue from Distillation	Method	Min.	Max.
Viscosity @ 25 °C, SFS	ASTM D 88	20	100
Sieve Test, %	ASTM D 244		0.05
24-Hour Storage Stability, % Diff. ⁽¹⁾	ASTM D 244		1
Residue from Distillation @ 204°C, % ⁽²⁾	ASTM D 244	63	
Oil Distillate, ml	ASTM D 244		2
Demulsibility 35 ml, 0.02 N CaCl 2	ASTM D 244	60	
Elastic Recovery, %	AASHTO T 301	60	
Penetration @ 25°C, 100 g, 5 sec. dmm	ASTM D 5	80	150
(1) After standing undisturbed for 24 hours, the surface shall show no white, milky colored substance, but shall be a smooth homogenous color throughout. Any visible amount of white, milky colored substance is basis for non-acceptance.			
(2) ASTM D 244 with modifications to include a 400 degree F ± 10 degree maximum temperature to be held for a period of 15 minutes.			

4. **HMA Mixture Design.** The Contractor will submit a completed mix design from an MDOT approved laboratory to the Engineer, five working days prior to the start of construction. All material sources used for the mix design will be identified. The mixture will be designed so that the asphalt binder produces a minimum film thickness of 9 microns. The film thickness will be computed consistent with the method defined in *Hot Mix Asphalt Materials, Mixture Design and Construction*, 2nd Edition, National Center for Asphalt Technology. The designed mixture must meet all requirements of Table 5 and minimum film thickness. Test results verifying that the mix meets the requirements in Table 5 and film thickness will be presented to MDOT as part of the completed mix design. Reclaimed Material will not be allowed in the mixture.

Table 5: Mixture Requirements		
Sieve Size	Type B Mix	Type C Mix
	% Passing Indicated Sieve	% Passing Indicated Sieve
3/4"		100
1/2"	100	85-100
3/8"	85-100	55-80
No. 4	22-38	22-38
No. 8	19-32	19-32
No. 16	15-24	15-24
No. 30	11-18	11-18
No. 50	8-14	8-14
No. 100	5-10	5-10
No. 200	4-7	4-7
Asphalt Binder Content, %	4.8-6.2	4.6-6.2
Draindown Test AASHTO T 305 ⁽¹⁾	0.10% max.	0.10% max.
Moisture Sensitivity, AASHTO T 283 ⁽²⁾	80% min.	80% min.

(1) Conduct the draindown test at the JMF asphalt content plus .5%. Test the draindown at the mixing temperature plus 27 °F but do not exceed 350 °F.

(2) Specimens for T-283 testing are to be compacted by using the Superpave Gyratory Compactor (SGC) at 100 gyrations with target dimensions of either 150 mm diameter x 95 mm (±3 mm) height or 100 mm diameter x 63 mm (±3 mm) height. No adjustment is made to the number of revolutions to target an air void range. Cure the loose bituminous surface course mix 1 hour at the specified application temperature. Minimum time for vacuum saturation: 20 minutes. Specimens subject to freeze - thaw conditioning. If an anti-stripping agent is needed, amount and type must be reported with the mix design.

A. Mix Design Documentation.

1. MDOT Form 1820 - Contractor Bituminous Mix Design Communication
2. MDOT Form 1923 - Sample Identification
3. Average max. percent draindown for each test temperature (Report)
4. Moisture sensitivity for specimen tests (Report)
5. Computation of film thickness (Report)

A6. Construction.**1. Equipment.**

- A. **Self-Priming Machine.** The self-priming machine must spray a polymer modified emulsion membrane and place a HMA surface course over the membrane in a single pass continuous application. No part of the self-priming machine is to come in contact with the polymer modified emulsion membrane before the HMA surface course is applied. The self-priming machine must have:
- A receiving hopper with at least two heated - twin screw, mix feed augers.
 - An integral storage tank for the polymer modified asphalt emulsion.
 - Twin expandable emulsion spray bars located immediately in front of the HMA feed augers and ironing screed. The spray bars must be metered to accurately apply the polymer modified asphalt emulsion and monitor the rate of spray across the entire width of the paving pass.
 - A variable width vibratory heated ironing screed. The screed must be adjustable and capable of providing both positive and negative crowns to the desired thickness and cross section.
- B. **Compacting Equipment.** Use at least two steel wheel roller each weighing a minimum of 10 tons. The rollers must meet subsection 502.03A.5 of the Standard Specifications for Construction.
2. **Pre-Paving Meeting.** A pre-paving meeting between the Engineer and Contractor will be held on-site prior to beginning work. The agenda for this meeting includes:
- A. Review of a work schedule.
 - B. Examine traffic control plan.
 - C. Review equipment calibrations and adjustments.
 - D. Inspect condition of equipment for safety criteria.
 - E. Discussion of the quality control plan.
 - F. Designation of Contractor's authorized representative.
3. **Weather / Seasonal Limitations.** The Paver Placed Surface Seal must be placed on dry pavement. Placement is not permitted if the air temperature is below 50 °F at the time of placement. Seasonal limitations for placing Paver Placed Surface Seal will be from May 1 to October 15.
4. **General Placement.**
- A. **Emulsion Membrane.** The target application rate for the polymer modified asphalt emulsion membrane is 0.20 gal/ syd. A field adjustment of the emulsion application rate is allowed for changes in existing pavement surface conditions or limitation of the HMA Mixture Design.

- B. **HMA Surface Course.** The target application rate is 73 lbs/syd for Type B surface course mixture and 83 lbs/syd for Type C surface course mixture. In no case will the application rate be thin enough to fracture aggregate by the screed.
5. **Quality Control.** The following measures shall be taken by the Contractor to maintain quality control and uniformity. If a condition is identified below that causes an unsatisfactory Paver Placed Surface Seal, all production work shall stop and corrective action must immediately be taken.
- A. **Placing HMA Surface Course.** The application rate of the HMA surface course is determined by three yield checks daily. The yield shall not exceed a tolerance of ± 5 lbs/yd² from the target application rate.
- B. **HMA Mixture.** A sample of the HMA mixture will be taken from the truck transports according to ASTM D 979 and reduce them in size according to MTM 313. One daily sample will be taken and tested prior to the following day's production. The test results must fall within the tolerances listed in Table 6.

Table 6: Quality Control Tolerances		
	Type B Mix	Type C Mix
Sieve Size	Tolerance, % ⁽¹⁾	Tolerance, % ⁽¹⁾
3/4"		
1/2"		±5
3/8"	±5	±5
#4	±5	±5
#8	±4	±4
#200	±1	±1
PG Asphalt Binder Content, %	±0.4	
Film Thickness	9 microns (Min.)	
(1) Tolerance in reference to values listed in Table 5.		

- C. **Material Temperature.** Apply the polymer modified asphalt emulsion membrane at a temperature of 140 to 175 °F. Apply the HMA mixture at a temperature of 300 to 330 °F and compaction will be completed before the mat has cooled to 185 °F.
- D. **Rough Joints.** Transverse or longitudinal construction joints created from a Paver Placed Surface Seal operation that causes a bump or poor riding joint, in the opinion of the Engineer, is unsatisfactory and must be repaired by a mutually agreed upon method.
6. **Ride Quality.** Prior to the placement of the Paver Placed Surface Seal, the Department will determine the ride quality of the pavement surface in terms of the Michigan Ride

Quality Index (RQI). The plots of the original roadway profiles will be retained by the Department. Shoulder work is exempt from ride quality measures.

The ride quality of the pavement shall not diminish after the application of Paver Placed Surface Seal. The finished pavement surface may be accepted without measuring the new roadway profile if, in the opinion of the Engineer, the final quality of the ride is at least as good as that of the original pavement prior to construction.

When the ride quality appears to have diminished after the Paver Placed Surface Seal, the ride quality shall be corrected by the Contractor. If a dispute arises based on a diminished ride quality, the Department will then re-measure the pavement profile and compare the RQI values for the finished pavement surface to the original RQI values for the pavement documented prior to construction. Any reductions in the ride quality shall be corrected by the Contractor, as directed by the Engineer, so as to produce a finished pavement surface with an RQI at least as good as that of the original pavement documented prior to construction.

7. Initial Acceptance. At the construction completion of the Paver Placed Surface Seal, or a portion as determined by the Department, the Department and Contractor will review the Paver Placed Surface Seal for compliance with the project specifications. If the Department determines that the Paver Placed Surface Seal is not in compliance, then the Contractor shall repair and make good at its own expense any and all defects. The Department and the Contractor shall document and execute the initial acceptance on a form furnished by the Department when the Paver Placed Surface Seal is determined by the Department to be in compliance. A copy of initial acceptance shall be sent to the Contractor’s Warranty Bond surety agent by the Department.

A7. Measurement and Payment.

The completed work as measured will be paid for at the contract unit price for the following contract item:

Contact Item (Pay Item)	Pay Unit
Paver Placed Surface Seal, Type B, Warranty	Square Yard
Paver Placed Surface Seal, Type C, Warranty	Square Yard

Payment for **Paver Placed Surface Seal, Type B and Type C, Warranty** includes all materials, equipment, labor for preparing the surface, placing temporary pavement markings, placing the Paver Placed Surface Seal mixture and complying with all requirements including the warranty. The placement includes placement of a membrane and HMA surface course of mixture for full width coverage as specified in the contract documents.

A8. Condition Parameters. Condition parameters are used to measure the performance of the Paver Placed Surface Seal treatment during the warranty period. Each condition parameter has a threshold level applied to each segment and defines the number of defective segments allowed before corrective action (warranty work) is required. Shoulders are included in the segments when designated as warranted work.

Definitions

Segment. Each segment is 528 feet conforming to Section g. "Evaluation Method."

Rutting. Longitudinal surface depressions in the wheel path of a HMA pavement caused by inadequate compaction or plastic movement of the asphalt mixture.

Raveling. Surface disintegration, due to the loss of aggregate material, that occurs over an area or in a continuous longitudinal strip. Wear caused by snowplow abrasion is not considered raveling.

Bleeding/Flushing. An excessive amount of asphalt binder on the surface that changes the acceptable texture of the Paver Placed Surface Seal. Both bleeding and flushing are characterized by a black sheen over the entire surface or at localized areas such as wheel paths. The accumulation of excess asphalt binder on the pavement surface becomes tacky to the touch at high temperatures.

Debonding. A physical separation of the new pavement surface from the previous pavement surface. Debonding will be visually present as the loss of the new surface course. Surface potholes, regardless of depth, will be classified as debonding, if the condition was derived from debonding of the new Paver Placed Surface Seal course.

A9. Warranty Requirements. If any of the following performance thresholds are exceeded, warranty work is required. The warranty work shall be performed prior to conclusion of the warranty period or within such other time frame as agreed to by the Department and the Contractor, unless safety concerns dictate otherwise.

4 Segments - A combination of one or more surface deficiencies exceeding the allowable threshold limit for rutting, raveling, bleeding/flushing, and debonding.

1 Segment - Rutting exceeding the allowable threshold limit.

1 Segment - Any single surface deficiency for raveling, bleeding/flushing, and debonding, exceeding 10 percent of the segment length.

1. Rutting. A single measure of rut depth shall not exceed 1/4 inch for any 528 feet (0.1 mile) segment during the first 120 days after initial project acceptance. During the entire warranty period rut depths that average in excess of 3/8 inch are deficient. The average rut depth is defined by 5 measurements at approximately 100 foot intervals in the segment as determined by the Engineer. Pavement segments where the original pavement rut depth exceeds 1/2 inch are excluded from the warranty for rutting threshold level. The Contractor will define locations where rutting exceeds 1/2 inch and provide the information to the Engineer. Work shall not begin until the Engineer has verified and accepted the Contractor's list of rutting exceptions. Any subsequent rutting caused from movement of the underlying pavement layers is excluded from the warranty.

Corrective action is required for any one segment deficiency. Correction of this parameter requires the Contractor to reapply a Paver Placed Surface Seal treatment on the deficient portion of the segment. The Engineer may accept alternative corrective measures, based on unique conditions.

The measurement will be done using a straight rigid device that is a minimum of 7 feet long and of sufficient stiffness that it will not deflect from its own weight, or a wire under sufficient tension to prevent sag when extended 7 feet. Measurements will be taken by placing this straightedge across the pavement surface perpendicular to the direction of travel. The straightedge shall contact the surface on at least two bearing points with one located on either side of the rut. The straightedge is properly located when sliding the straightedge along its axis does not change the location of the contact points. Rut depth is then measured at the point of greatest perpendicular distance from the bottom of the straightedge to the pavement surface.

2. **Raveling.** The threshold limit for raveling is 8% of the segment length.

Corrective action for this parameter requires the Contractor to reapply Paver Placed Surface Seal (full-width) to the deficient portion of the segment, including shoulders if part of the Paver Placed Surface Seal work. The Engineer may accept alternative corrective measures, based on unique conditions. The corrective action shall be placed on the full lane width.

3. **Bleeding/Flushing.** The threshold limit for bleeding or flushing is 5% of the segment length.

Corrective action for this parameter requires the Contractor to either reapply Paver Placed Surface Seal (full-width), diamond grind, or remove and replace (full-width) the Paver Placed Surface Seal treatment on the deficient portion of the segment, including shoulders if part of the Paver Placed Surface Seal work. The Engineer may accept alternative corrective measures, based on unique conditions.

4. **Debonding.** The threshold limit for debonding is 5% of the segment length.

Corrective action for this parameter requires the Contractor to either reapply Paver Placed Surface Seal (full-width) or remove and replace the Paver Placed Surface Seal (full-width) on the deficient portion of the segment, including shoulders if part of the Paver Placed Surface Seal work. The Engineer may accept alternative corrective measures, based on unique conditions. The corrective action shall be placed on the full lane width.

**MICHIGAN DEPARTMENT OF TRANSPORTATION
INITIAL ACCEPTANCE
FOR
PAVEMENT WARRANTY**

CONTRACT ID: _____

CONTRACT SECTION: _____ **JOB NUMBER:** _____

SURETY NAME: _____

SURETY ADDRESS: _____

CONTRACTOR NAME: _____

CONTRACTOR ADDRESS: _____

<i>IDENTIFY EACH JOB NUMBER, LOCATION AND WORK SEPARATELY</i>					
JOB NUMBER	ROUTE NUMBER	CONTROL SECTION	WORK TYPE	DATE ACCEPTED	PROJECT ENGINEER

INITIAL ACCEPTANCE OF WARRANTY WORK APPROVAL

CONTRACTOR'S SIGNATURE: _____

ENGINEER'S SIGNATURE: _____

ACCEPTANCE DATE: _____

**MICHIGAN
DEPARTMENT OF TRANSPORTATION
PAVEMENT WARRANTY BOND**

Bond Number _____

KNOWN ALL MEN BY THESE PRESENTS:

That we, _____ (hereinafter called the "Principal"), and _____, a corporation duly organized under the laws of the State of _____ and duly licensed to transact business in the State of Michigan (hereinafter called "Surety"), are held and firmly bound unto the Michigan Department of Transportation (hereinafter called the "Obligee"), in the sum of _____ Dollars (\$), for the payment of which sum well and truly to be made, we, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said Principal has heretofore entered into a contract with the Michigan Department of Transportation dated _____ under Contract ID _____ and;

WHEREAS, the said Principal is required to guarantee the _____ installed under said contract, against specific pavement defects which may develop during the period(s) of _____ years beginning the date(s) of the Acceptance Date of Construction by the Obligee.

In no event shall losses paid under this bond aggregate more than the amount of the bond.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if said Principal shall faithfully carry out and perform the said guarantee, and shall, on due notice, repair and make good at its own expense any and all specific pavement defects in the said work which may develop during the period specified above or shall pay over, make good and reimburse to the said Obligee all loss and damage which said Obligee may sustain by reason of failure or default of said Principal so to do, then this obligation shall be null and void; otherwise shall remain in full force and effect.

PROVIDED HOWEVER, that in the event of any default on the part of said Principal, a written statement of the particular facts showing such default and the date thereof shall be delivered to the Surety by registered mail, within thirty (30) days after the Obligee or his representative shall learn of such default and that no claim, suit or action by reason of any default of the Principal shall be brought hereunder after the expiration of thirty (30) days from the end of the warranty period as herein set forth.

Signed this _____ day of _____, _____.

Contractor _____

By _____

Surety _____

By _____

Attorney-In-Fact