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**City of Potterville**  
Eaton County Michigan

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**2021 ROAD MAINTENANCE PROJECT**

**CONTRACT SPECIFICATIONS**

**williams&works**  
engineers | surveyors | planners

Project No. 220167  
March 3, 2021



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SECTION 00 01 15

00 01 15.1  
LIST OF DRAWINGS

The following drawings are attached hereto and form a part of the Contract Documents. Generally entitled "2021 Road Maintenance Project."

No separate drawings are attached to these Contract Documents. A map showing the locations of the proposed work is provided in Section 01 11 00 – Summary of Work.

ADVERTISEMENT  
FOR  
2021 ROAD MAINTENANCE PROJECT  
FOR  
CITY OF POTTERVILLE

The City of Potterville is soliciting sealed proposals for the 2021 Road Preventative Maintenance Project. The work includes treating cracks on 5.75 lane miles of road, path and parking lots within the City of Potterville. The work on the streets and parking lots is to be completed on or before July 16, 2021. The work at Alliance Lake park must be completed between August 30, 2021 and September 15, 2021 because of other work at the park.

Sealed proposals will be received by the City of Potterville at City Hall; located at 319 N Nelson St, Potterville, MI 48876 until 2:00 p.m. local time, Wednesday, March 24, 2021, at which time they will be publicly opened and read aloud. The Potterville City Hall is open pursuant to the MDHHS COVID-19 Guidelines. No more than 25 people will be allowed in the council chamber where the sealed proposals will be opened, and social distancing and mask use orders are in place.

Contract Documents may be viewed online\* at the following locations:

- <http://williams-works.com/#bids> (616) 224-1500\*
- Builders Exchange of Grand Rapids, 678 Front Ave. NW #330, Grand Rapids, MI 49504\*
- Builders Exchange of Kalamazoo, 3431 East Kilgore Road, Kalamazoo, MI 49001\*
- Builders Exchange of Lansing 1240 East Saginaw, Lansing, MI 48906\*
- Mc Graw Hill, 401 Hall Street, Grand Rapids, MI 49503\*

Plan Rooms are authorized to share the contract documents for viewing with other exchanges.

Each proposal shall be accompanied by a certified check or bid bond by a recognized surety in the amount of five percent (5%) of the total of the bid price.

After the time of opening, no bid may be withdrawn for a period of forty-five (45) days.

The City of Potterville reserves the right to accept any bid, to reject any or all bids, to waive informalities, and to make the award in any manner deemed in the best interest of the City of Potterville.

City of Potterville  
BY ORDER OF:

Aaron Sheridan  
City Manager

ARTICLE 1 - BASIS OF PROPOSAL

- 1.1 The Bid is based on unit and lump sum prices as stipulated in the Bid Form. The totals of the extensions of unit and lump sum prices will be used as a basis for determining the total bid price.
- 1.2 All work necessary for completion of the Contract, but not specifically listed as a pay item, will be considered to be covered under one or more of the Bid items.

ARTICLE 2 - QUALIFICATIONS OF BIDDERS

Bids are solicited only from responsible BIDDERS skilled and regularly engaged in work of similar character and magnitude.

ARTICLE 3 - EXAMINATION OF CONTRACT DOCUMENTS AND SITE

- 3.1 Before submitting a Bid, each BIDDER shall:
  - A. Examine the Contract Documents thoroughly;
  - B. Visit the Site, by attending a mandatory pre-bid meeting, if required in the Bid Advertisement, or visiting the site independently, to become familiar with local conditions that may in any manner affect cost, progress, performance or timely completion of the Work;
  - C. Become familiar with all laws, rules and regulations that may in any manner affect cost, progress, performance or timely completion of the Work; and
  - D. Study and carefully correlate BIDDER's observations with the Contract Documents.
- 3.2 Surveys, investigations, and reports of subsurface or latent physical conditions at the Site which have been relied upon by ENGINEER in preparing the Drawings and Specifications are not guaranteed as to accuracy or completeness. Each BIDDER shall, at his own expense, make additional surveys and investigations as necessary to determine his Bid for the performance of the Work.

ARTICLE 4 - INTERPRETATION

Questions about the meaning or intent of the Contract Documents shall be submitted to the ENGINEER not less than seven (7) days prior to date of opening of Bids. Replies will be issued by Addenda mailed or delivered to Planholders of Record not less than three (3) days before Bids are due. ENGINEER may issue other Addenda at any time prior to opening of Bids. Only answers given by Addenda shall be binding. Oral and other interpretations or clarifications shall be without legal effect.

ARTICLE 5 - BID SECURITY

- 5.1 The type and amount of Bid Security is stated in the Advertisement. Bid Security from each BIDDER on the Work shall be by a single Surety.
- 5.2 A Bid Bond when used as Bid Security, shall be issued by a Surety named in U.S. Treasury Circular 570 licensed to conduct business in the state in which the Work is located.
- 5.3 The Bid Security of the successful BIDDER will be retained until the executed Agreement, Bonds, insurance certificates and other required information is delivered by the BIDDER to the OWNER.
- 5.4 Failure of the successful BIDDER to execute and deliver the Agreement, Bonds, insurance certificates and other required information within ten (10) days of the Notice of Award shall be just cause for OWNER to annul the Notice of Award and declare the Bid and Bid Security forfeited.
- 5.5 The Bid Security of any BIDDER whom OWNER believes to have a reasonable chance of receiving the award may be retained by OWNER until either the executed Agreement, Bonds, insurance certificates and other required information are delivered by the successful BIDDER to the OWNER

or the expiration of the time limit specified for the Bid Hold Period, whichever occurs first.

- 5.6 Unless specifically requested, Bid Bond will not be returned to BIDDER.

ARTICLE 6 - CONTRACT TIME

The time(s) for completion of the Work shall be as stipulated in the Agreement. If the time requirement(s) cannot be met, the BIDDER is requested to stipulate in the Bid Form his schedule for performance of the Work. Consideration will be given to time in evaluating Bids.

ARTICLE 7 - LIQUIDATED DAMAGES AND EXPENSES

Provisions for liquidated damages and expenses for failure to complete on time are set forth in the Agreement.

ARTICLE 8 - BID PREPARATION

- 8.1 Submit the Bid on the separate Proposal and Bid Form with Bid Security and other required documents. The bound copy is for BIDDER's records.
- 8.2 No change shall be made in the wording of the form or in any of the items. Bids should be typed or filled out legibly in ink.
- 8.3 All names must be printed or typed below the signature.
- 8.4 The Proposal shall contain an acknowledgement of receipt of all Addenda.
- 8.5 Bid by partnership shall be executed in the partnership name and signed by a partner. Partner's title must appear under signature.
- 8.6 Bid submitted by two or more firms will not be considered (i.e. no joint bids).
- 8.7 Bid by corporation must be executed in the corporate name by a corporate officer accompanied by evidence of authority to sign. The corporate address and state of incorporation shall be listed.
- 8.8 Agreement will be on the basis of material and equipment described in the Contract Documents without consideration of substitute or "or-equal" items; except for alternates which may be offered by the BIDDER in the Bid Form and accepted by the OWNER prior to execution of the Agreement. Applications for substitutions will be considered only after the Agreement has been executed. The procedure for substitutions is set forth in the General Conditions.
- 8.9 On unit price Bids, BIDDERS shall show the unit price for each item listed, the total price for the quantity of each item, and the total price for all items. If ENGINEER finds any errors in the Bidder's computations, ENGINEER reserves the right to make corrections.

ARTICLE 9 - SUBMISSION OF BIDS

- 9.1 Bids, Bid Security and other required documents shall be submitted prior to the time and at the place indicated in the Advertisement.
- 9.2 Submit Bid Documents, in a sealed envelope, properly identified.
- 9.3 If the Bid Documents are sent through the mail or other delivery system, the sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face thereof.
- 9.4 Bid documents may not be sent by facsimile. Bids must be submitted in a sealed envelope as stated in part 9.2

ARTICLE 10 - MODIFICATION AND WITHDRAWAL OF BIDS

- 10.1 Bids may be modified or withdrawn by an appropriate document duly executed and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.

- 10.2 If, within 24 hours after Bids are opened, any BIDDER files a duly signed notice with OWNER and promptly thereafter demonstrates to the reasonable satisfaction of OWNER that there was a material and substantial mistake in the preparation of Bid, that BIDDER may withdraw its Bid, and the Bid Security will be returned by OWNER.

ARTICLE 11 - OPENING OF BIDS

The Bid opening location and time will be as indicated in the Advertisement.

ARTICLE 12 - BID HOLD PERIOD

All bids shall remain firm, after the day of the Bid opening, for the period stipulated in the Advertisement.

ARTICLE 13 - AWARD OF CONTRACT(S)

- 13.1 BIDDER will be required to complete Bid documentation and correct irregularities as a condition of award. OWNER reserves the right to reject any and all Bids and waive any and all irregularities. OWNER further reserves the right to accept or reject nonconforming, qualified, alternate or conditional Bids.
- 13.2 In evaluating Bids, OWNER will consider the qualifications of the BIDDERS, whether or not the Bids comply with the prescribed requirements and include completed alternates and unit prices if requested in the Bid Form. OWNER may conduct investigations to establish the responsibility, qualifications and financial ability of the BIDDERS and proposed Subcontractors to do the Work within the prescribed time. OWNER reserves the right to reject the Bid of any BIDDER who does not pass such evaluation to OWNER's satisfaction.
- 13.3 Subject to the rights reserved by the OWNER, it is intended that a contract will be awarded to the low responsible, responsive BIDDER whose evaluation indicates to OWNER that such award will be in the best interests of the OWNER.
- 13.4 Prior to the Notice of Award, ENGINEER will notify the apparent successful BIDDER if OWNER, after due investigation, has reasonable objection to any listed Subcontractor(s), where such listing is requested in the Bid Form. Failure of OWNER to make objection prior to Notice of Award will constitute acceptance of the listed Subcontractor(s), but not a waiver of any right of OWNER to reject defective work, material or equipment, or material and equipment not in conformance with the requirements of the Contract Documents.
- 13.5 If, prior to the Notice of Award, OWNER refuses to accept any listed Subcontractor(s), the apparent successful BIDDER may:
- A. Submit an acceptable substitute without an increase in bid price; or
  - B. Withdraw Bid and Bid Security.
- 13.6 If, after Notice of Award, OWNER refuses to accept any Subcontractor, CONTRACTOR shall submit an acceptable substitute and the Contract Price will be adjusted by the difference in cost occasioned by such substitution.
- 13.7 Concurrently with execution and delivery of Agreement, CONTRACTOR shall deliver to OWNER the Bonds, insurance certificates and other information as required by the Contract Documents.
- 13.8 If Bidder is a business entity (i.e., corporation, partnership, joint venture, etc.) organized under the laws of a state other than the state of the location of the Work, Bidder must provide evidence of proper registration to do business in the state of the location of the Work as a condition to execution of the Agreement.
- 13.9 The Agreement and such other documents as required will be signed by OWNER and CONTRACTOR within 25 days of the Notice of Award. OWNER will sign Agreement within 10 days of receipt of required Bonds, insurance certificates, other required information, and

CONTRACTOR executed Agreement. OWNER, CONTRACTOR, SURETY and ENGINEER will each receive an executed copy of the Agreement.



CITY OF POTTERVILLE  
 2021 ROAD MAINTENANCE PROJECT

ARTICLE 1-SCHEDULE OF PRICES

For the entire Work outlined in these Contract Documents complete as specified, using equipment and materials only of the type and manufacturers where specifically named, the following unit and lump sum prices:

<u>Item</u>	<u>Description</u>	<u>Unit</u>	<u>Est. Quant.</u>	<u>Unit Price</u>	<u>Amount</u>
1	GC, Mobilizations, Bonds, Insurance, Max 15%	LS	1	\$ _____	\$ _____
2	Overband Crack Fill, Lane	Lnmi	5.75	\$ _____	\$ _____
3	Traffic Control	LS	1	\$ _____	\$ _____
4	Overband Crack Fill Material	lb	1,000	\$ _____	\$ _____
<b>Total Base Bid:</b>					\$ _____

ARTICLE 2-MATERIAL AND EQUIPMENT ALTERNATES

The Contract Documents stipulate that the Base Bid price shall include materials and equipment selected from the designated items and manufacturers listed therein. This is done to establish uniformity in bidding and to establish standards of quality for the items named.

If the BIDDER wishes to quote alternate items for consideration by the OWNER, he may do so under this Article. A complete description of the item and the proposed price differential are to be provided. Unless approved at the time of award, substitutions, where items are specifically named, will be considered only in accordance with the terms set forth in the General Conditions.

<u>Item No.</u>	<u>Description</u>	<u>Add/Deduct Amount (Dollars)</u>
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ARTICLE 3-TIME ALTERNATE

If the BIDDER takes exception to the time(s) stipulated in Article 3 - Contract Time of the Agreement, he is requested to stipulate below his proposed time for performance of the Work. Consideration will be given to time in evaluating bids.

ARTICLE 4-SUBCONTRACTOR LISTING

Bid is submitted on the basis of the use of the following Subcontractors:

WORK ITEM	FIRM	CITY
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please note if work is to be performed by BIDDER. Failure to list Subcontractors with the Bid waives BIDDER'S rights to a change in Contract Time or Price or withdrawal of Bid and Bid Security; in the event OWNER has reasonable objection to any Subcontractor.

OWNER shall have the right to reject any Subcontractor for reasonable cause. If Subcontractors are not identified in the Bid, the BIDDER/CONTRACTOR shall engage a Subcontractor acceptable to OWNER and waives the right to withdraw Bid and Bid Security, and further, waives right to a change in Contract Time or Price due to failure to list.

CITY OF POTTERVILLE  
2021 ROAD MAINTENANCE PROJECT

City of Potterville  
319 N Nelson St  
Potterville, MI 48876

Gentlemen:

ARTICLE 1-CONTRACT PRICE

Having carefully examined the site of the proposed Work; being fully informed of the conditions to be met in the prosecution and completion of the Work; having read and examined the Contract Documents applicable to this Work and agreeing to be bound thereby; the undersigned proposes to perform all services, and furnish all necessary labor, materials, tools, and equipment to complete the Work described in the Contract Documents for the amounts set forth in the accompanying Bid Form.

ARTICLE 2-CONTRACT TIME

If awarded a Contract, undersigned agrees to prosecute the Work regularly and diligently to ensure full completion within the Contract Time(s) indicated in the Agreement.

ARTICLE 3-LIQUIDATED DAMAGES

The undersigned agrees that liquidated damages, in the amount stipulated in the Agreement, shall be assessed for each day that expires after the completion time(s), stipulated in the Agreement, until the Work is complete.

ARTICLE 4 -BIDDER'S QUALIFICATIONS

The undersigned agrees to furnish, upon request, a list of projects of a similar nature completed in the last 3 years.

ARTICLE 5-WAIVER

The undersigned certifies the price(s) entered in the Bid Form are correct and complete and that all information given or furnished in connection therewith is correct, complete and submitted as intended. The undersigned waives any right to:

- 5.1 claims he may now have or which may accrue to him,
- 5.2 refuse to execute the Contract if awarded to him,
- 5.3 demand the return of the Bid Security,
- 5.4 be relieved from any obligation by reason of any errors, mistakes or omissions, subject to right of withdrawal of Bid as provided in the Instructions to Bidders.

ARTICLE 6-BID NON-COLLUSIVE

The undersigned certifies that this Proposal is fair, genuine and not collusive or sham, and has not in any manner, directly or indirectly, agreed or colluded with any other person, firm or association to submit a sham Bid, to refrain from bidding, or in any way to fix the amount of this Bid or that of any other BIDDER, or to secure any advantage against the OWNER. The undersigned further certifies that no officer or employee of the OWNER is personally or financially interested, directly or indirectly, in this Bid or in the undersigned.

ARTICLE 7-BID SECURITY

The undersigned encloses a Bid Security in the form and amount required by the Advertisement. The undersigned agrees to contract for the Work and to furnish the necessary Bonds, Insurance Certificates and other information, as stipulated in the Instructions to Bidders. If this Proposal shall be accepted by the OWNER and the undersigned shall fail to contract as aforesaid and to furnish the required Bonds, Insurance Certificates and other information, then the

undersigned shall be considered to have abandoned the Contract and the Bid Security accompanying this Proposal shall become due and payable to the OWNER.

ARTICLE 8-OWNERS' RIGHTS

In submitting this Bid, it is understood that the right is reserved by the OWNER to accept any Bid, or reject any or all Bids, or to waive irregularities and/or informalities in any Bid and to make the award in any manner deemed in the best interest of the OWNER.

ARTICLE 9-RECEIPT OF ADDENDA

Receipt of Addenda \_\_\_\_\_ through \_\_\_\_\_ is acknowledged.

SIGNED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2021.

\_\_\_\_\_  
(Firm Name)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Street Address)

\_\_\_\_\_  
(Name Printed)

\_\_\_\_\_  
(City, State and Zip)

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
(Telephone No.)

LEGAL STATUS OF BIDDER: (Fill out appropriate form and cross out others.)

\*Joint BIDDERS including:

Firm Name	City	State
_____	_____	_____
_____	_____	_____
_____	_____	_____

We hereby authorize \_\_\_\_\_ to sign the Bid on behalf of the firms listed:

_____	Signature and Title	_____	Firm
_____	Signature and Title	_____	Firm
_____	Signature and Title	_____	Firm

\*A Corporation, duly organized in good standing and doing business under the laws of the state of \_\_\_\_\_, for whom \_\_\_\_\_ bearing the office title of \_\_\_\_\_ whose signature is affixed to this proposal, is duly authorized to execute contracts. If a foreign corporation, the BIDDER states this corporation is qualified to and will register in state in which project Work is located.

\*A Partnership, all members of which with address are:

_____	_____
_____	_____
_____	_____
_____	_____

\*An Individual whose name with address is:

_____	_____
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This Agreement is dated the \_\_\_\_ day of April 2021, by and between the City of Pottersville, hereinafter called OWNER, and \_\_\_\_\_, hereinafter called CONTRACTOR.

OWNER and CONTRACTOR, in consideration of the mutual covenants set forth herein, agree as follows:

ARTICLE 1-WORK

CONTRACTOR shall complete the Work as specified or indicated in the Contract Documents, generally described as follows:

City of Pottersville  
2021 Road Maintenance

ARTICLE 2-ENGINEER

The Work has been designed by the firm of Williams & Works, Inc., who will act as ENGINEER on the Work, unless Notice is otherwise given by the OWNER.

ARTICLE 3-CONTRACT TIME

- 3.1 The Work to be completed under this Contract shall be commenced immediately after receipt of a fully executed Contract and Notice to Proceed. The Notice to Proceed will be issued at the time of the contract signing.
- 3.2 The Work under this Contract shall commence after contract is signed and a notice to proceed is issued, and shall be substantially completed on all areas except the non-motorized trail in Alliance Lake Park by July 16, 2021. The work in Alliance Lake Park must be completed between August 30, 2021 and September 15, 2021. The above dates shall be the Contract Times for this project.
- 3.3 OWNER and CONTRACTOR recognize that time is of the essence of this Contract and that OWNER will suffer financial loss if the Work is not completed within the Contract Time(s) plus any extensions as provided for in the General Conditions. They recognize that the financial loss suffered by OWNER in the event that CONTRACTOR fails to complete the Work within the Contract Time(s) would be most difficult to determine accurately in any legal or arbitration proceedings. Instead of requiring such proof, OWNER and CONTRACTOR agree that as liquidated damages, but not as a penalty, CONTRACTOR shall pay OWNER Five Hundred Dollars (\$500.00) for each day of delay in the completion of the Work beyond the Contract Time(s)
- 3.4 CONTRACTOR agrees to pay, in addition to liquidated damages, expenses arising from failure to complete the Work within the Contract Time including expenses for engineering services, attorney's fees, technical services and administration costs.

ARTICLE 4-CONTRACT PRICE

- 4.1 OWNER shall pay CONTRACTOR for performance of the Work in accordance with the Contract Documents in current funds as follows: \_\_\_\_\_ (\$\_\_\_\_\_).
- 4.2 The amount paid shall be equitably adjusted to cover changes in the Work ordered by the ENGINEER but not required by the specifications. Such increases or decreases in the Contract Price shall be determined by agreement between the OWNER and CONTRACTOR.

ARTICLE 5-PAYMENTS

- 5.1 CONTRACTOR will prepare and submit monthly and final payment requests in accordance with the General Conditions.
- 5.2 OWNER will make bi-weekly and final payments in accordance with the GENERAL CONDITIONS.
- 5.3 All monies not paid when due shall bear interest at the greater of the rate of 7% per annum, or the highest rate allowed by law.

ARTICLE 6-CONTRACT DOCUMENTS

6.1 The complete Contract between OWNER and CONTRACTOR consists of the following Contract Documents:

- Advertisement
- Instruction to Bidders
- Proposal
- Bid Form
- Bonds
- Agreement
- General Conditions
- Specifications
- Drawings
- Modifications

6.2 In resolving conflicts, errors and discrepancies, the Contract Documents shall be given precedence in the following order: Modifications, Agreement, Addenda, Supplemental Conditions, General Conditions, Specifications, Drawings, Advertisement, Instructions to Bidders, Proposal/Bid Form, and Bonds.

ARTICLE 7-MISCELLANEOUS

7.1 Terms used in this Agreement are defined in the General Conditions.

7.2 Neither party shall assign, in whole or in part, any of its rights or obligations, including any monies due, or to become due, under the terms of the Contract Documents without the written prior consent of the other party. This paragraph shall not be construed to limit the powers vested in the OWNER under the General Conditions.

7.3 The OWNER and CONTRACTOR each binds itself, successors and assigns to the other party hereto in respect to all covenants, agreements, and obligations contained in the Contract Documents.

7.4 The Contract Documents may only be altered, amended, or repealed by a Modification.

IN TESTIMONY WHEREOF, the parties hereto have executed this contract in at least four (4) counterparts, each of which shall be deemed an original, the day and year first above written.

WITNESS

CONTRACTOR

\_\_\_\_\_  
(Contractor)

By \_\_\_\_\_  
(Signature)

Title \_\_\_\_\_

WITNESS

OWNER

City of Pottersville  
(Owner)  
Aaron Sheridan

By \_\_\_\_\_  
(Signature)

Title City Manager

APPROVED AS TO FORM:

\_\_\_\_\_  
OWNER's Attorney



LEGAL STATUS OF CONTRACTOR: (Fill out appropriate form and cross out others.)

\*A Corporation: The same officer shall not execute both the Agreement and this certificate, unless only one person occupies all corporation offices.

I, \_\_\_\_\_, certify that I am the \_\_\_\_\_ of the corporation named as CONTRACTOR herein; that \_\_\_\_\_, who signed this Agreement on behalf of the corporation, was then \_\_\_\_\_ of the corporation, that the Agreement was duly signed for and in behalf of the corporation by authority of its board of directors, and is within the scope of its corporate powers. If a foreign corporation, this corporation is qualified to and will register in state in which project Work is located.

\_\_\_\_\_  
(Date) (Signature) LS

\*A Partnership: The same officer shall not execute both the Agreement and this certificate, unless only one person occupies all partnership offices.

I, \_\_\_\_\_, certify that I am the \_\_\_\_\_ of the partnership named as CONTRACTOR herein; that \_\_\_\_\_, who signed this Agreement on behalf of the partnership, was then \_\_\_\_\_ of the partnership, that the Agreement was duly signed for and in behalf of the partnership by authority of its partners, and is within the scope of its partnership powers. If a foreign partnership, this partnership is qualified to and will register in state in which project Work is located.

\_\_\_\_\_  
(Date) (Signature) L.S.

\*A Joint Venture: The same officer shall not execute both the Agreement and this certificate, unless only one person occupies all offices.

I, \_\_\_\_\_ certify that I am the \_\_\_\_\_ of \_\_\_\_\_, a \_\_\_\_\_ engaged in a Joint Venture with \_\_\_\_\_, a \_\_\_\_\_, pursuant to a Joint Venture Agreement dated \_\_\_\_\_, 2019; that \_\_\_\_\_, who signed this Agreement on behalf of \_\_\_\_\_, was then its \_\_\_\_\_, that this Agreement was duly signed for and in behalf of the Joint Venture in accordance with the Joint Venture Agreement and by authority of the members of the Joint Venture.

\_\_\_\_\_  
(Date) (Signature) LS

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that \_\_\_\_\_, as Principal, and \_\_\_\_\_, a Corporation, organized and existing under the laws of the State of \_\_\_\_\_, and duly authorized to transact business in the State of Michigan, as Surety, are held and firmly bound unto \_\_\_\_\_, as obligee, and hereinafter called OWNER, in the just and full sum of \_\_\_\_\_ Dollars (\$\_\_\_\_\_) lawful money of the United States of America, for the payment whereof the Principal and Surety bind themselves, their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the above Principal has entered into a written Contract with the OWNER, dated the \_\_\_\_\_ day of \_\_\_\_\_, 2021, for \_\_\_\_\_ in accordance with plans and specifications prepared by Williams & Works, Inc., 549 Ottawa Avenue, N.W., Grand Rapids, Michigan, 49503 which Contract is hereby referred to and made a part hereof as fully and to the same extent as if the same were entirely written herein.

NOW, THEREFORE, the conditions of this obligation are such, that if the said Principal shall in all respects well and truly keep and perform the said Contract, and shall pay all sums of money due or to become due, for any labor, materials, apparatus, fixtures or equipment furnished for the purpose of constructing the work provided in said Contract, and shall defend, indemnify and save harmless the OWNER against any and all liens, incumbrances, damages, demands, expenses, costs and charges of every kind except as otherwise provided in said Contract Documents, arising out of or in relation to the performance of said Work and the provisions of said Contract, and shall remove and replace any defects in workmanship or materials which may be apparent or may develop within a period for one year from the date of final acceptance, then this obligation shall be null and void; otherwise it shall remain in full force and effect;

AND PROVIDED, that any alterations which may be made in the terms of said Contract, or in the Work to be done under it, or any extension of time for the performance of said Contract, or any forbearance on the part of either party to the other, or the placing of an inspector or resident engineer thereon by the OWNER, shall not in any way release the Principal and Surety or either of them, their heirs, executors, administrators, successors or assigns from any liability hereunder; notice to the surety of any such alteration, extension or forbearance being hereby waived.

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_ A.D., 2021

WITNESS:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PRINCIPAL:

\_\_\_\_\_  
By \_\_\_\_\_ (Seal)  
By \_\_\_\_\_

WITNESS:

\_\_\_\_\_

SURETY:

By \_\_\_\_\_ (Seal)  
Title \_\_\_\_\_

LOCAL ADDRESS OF AGENT FOR SURETY:

\_\_\_\_\_  
Street City State Zip Code

PART 1 - GENERAL

## 1.01 SUMMARY OF WORK:

- A. The City of Potterville desires to perform preventative maintenance on their existing road system. The work includes the following work items;

## 1. HMA Crack Treatment of the following roads

<u>Road</u>	<u>Road Width (Ft)</u>	<u>Road Length (Ft)</u>	<u>Lane Mile (Lnmi)</u>
Thornway	30	560	0.21
Remway St.	27	415	0.16
Remway Cul-de-Sac	27	395	0.15
Laurens Way	27	160	0.06
Laurens Way	30	160	0.06
Laurens Way Cul-de-Sac	27	785	0.30
Country Lake Dr.	27	1,125	0.43
Cherry St.	28	950	0.36
Pearl St.	28	950	0.36
Benton St.	24	950	0.36
N. Church St.	40	1,310	0.74
S. Church St.	30	1,200	0.45
N. Cottage St.	24	1,310	0.50
S. Cottage St.	24	950	0.36
Library Ln.	32	640	0.24
Murphy Blvd.	20	560	0.11
Park Parking Lot	100	140	0.20
Alliance Lake Park SUP	10	3,100	0.59
Alliance Lake Park Path	12	580	0.11
Totals:			5.75

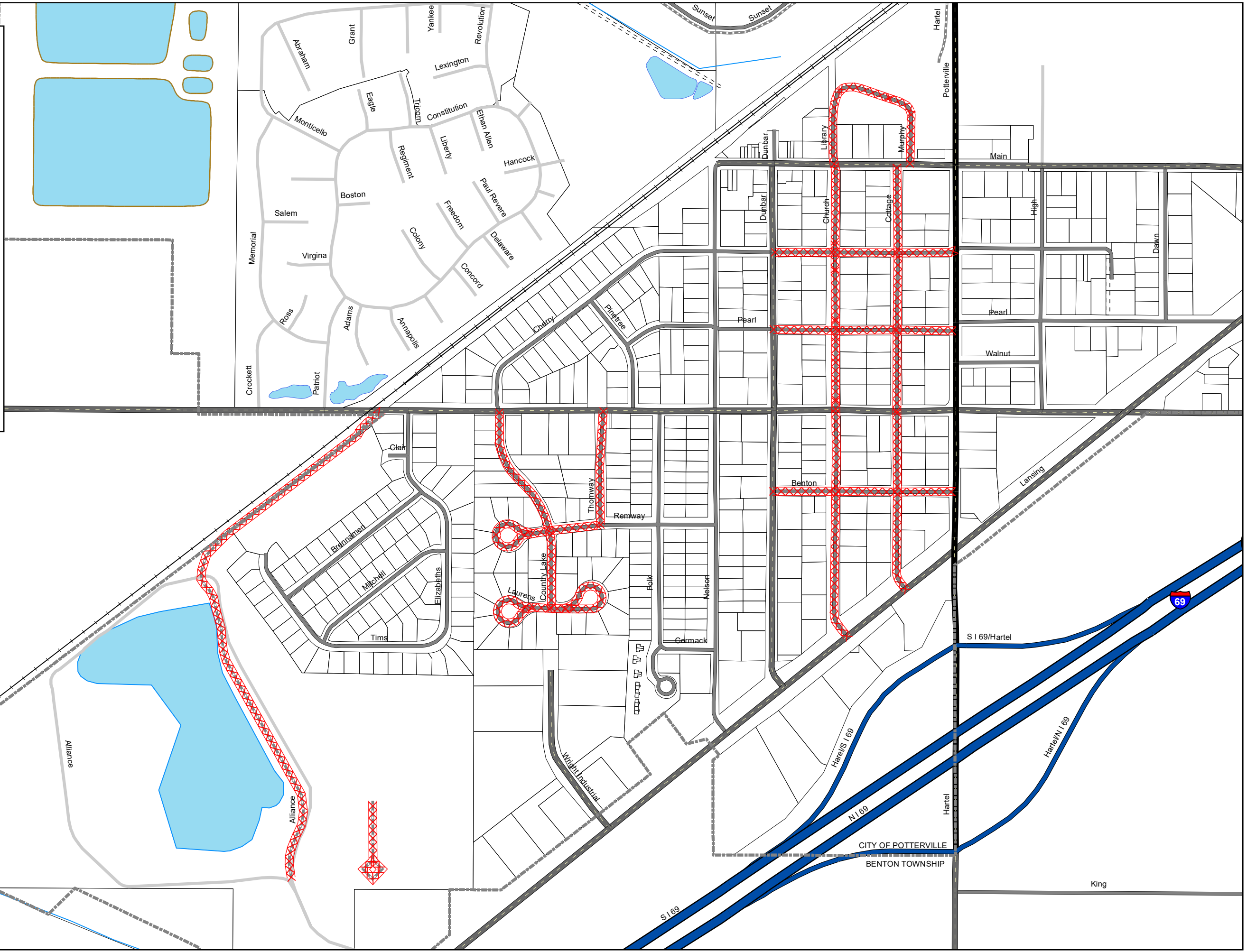
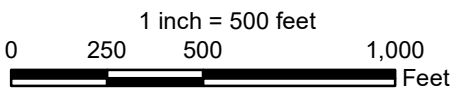
2. Work Sequence:
- Complete the work on the city streets and park parking lot on or before July 16, 2021.
  - Complete the work in Alliance Lake Park between August 30, 2021 and September 15, 2021.
- B. The OWNER has title, easement and/or permission to enter the property on which the construction is to take place.
- C. The locations of the work are shown in the map provided on the following page.

# City of Potterville

Eaton County, Michigan

## 2021 Road Preventative Maintenance Map

-  Interstate Highway
-  Highway Ramps
-  State Highway
-  Major Roads
-  Local Roads
-  Private Roads
-  Shared Use Path
-  Railroad
-  2021 Overband Crack Sealing



PART 1 - GENERAL

1.01 SECTION INCLUDES:

- A. Measurement and payment criteria applicable to the Work.

1.02 AUTHORITY:

- A. Measurement methods delineated in the individual specification sections are intended to complement the criteria of this section.
- B. The ENGINEER will take all measurements and compute quantities accordingly.
- C. Assist by providing necessary equipment, workers, and survey personnel as required.

1.03 UNIT QUANTITIES SPECIFIED:

- A. Quantities and measurements indicated in the Bid Form are for bidding and contract purposes only. Quantities and measurements supplied or placed in the Work and verified by the ENGINEER shall determine payment.
- B. If the actual Work requires more or fewer quantities than those quantities indicated, provide the required quantities at the unit prices contracted.

1.04 MEASUREMENT OF QUANTITIES:

- A. Measurement Devices:
  - 1. Weigh Scales: Inspected, tested and certified.
  - 2. Platform Scales: Of sufficient size and capacity to accommodate the conveying vehicle.
  - 3. Metering Devices: Inspected, tested and certified.
- B. Measurement by Weight: Concrete reinforcing steel, rolled or formed steel or other metal shapes will be measured by handbook weights. Welded assemblies will be measured by handbook weights.
- C. Measurement by Volume: Measured by cubic dimension using mean length, width and height or thickness.
- D. Measurement by Area: Measured by square dimension using mean length and width or radius.
- E. Linear Measurement: Measured by linear dimension, at the item centerline.

1.05 PAYMENT:

- A. Payment Includes: Full compensation for all required labor, products, tools, equipment, plant, transportation, services and incidentals; erection, application or installation of an item of the Work; overhead and profit.
- B. Final payment for Work governed by unit prices will be made on the basis of the actual measurements and quantities accepted by the ENGINEER multiplied by the unit price for Work which is incorporated in or made necessary by the Work.

1.06 MEASUREMENT AND PAYMENT SCHEDULE:

- A. The following schedule outlines the method of measurement and basis of payment to be used on this project. Requirements for materials and methods described under each unit price are included in the specification sections.
  - 1. General Conditions, Bonds and Insurance, Max 5%: Paid as a lump sum for general conditions necessary to complete the work.
  - 2. Overband Crack Fill, Lane: Paid for by the lane mile. All roads are two lanes wide with the exception of N. Church St. which has parking lane(s) that will be treated as an additional

lane(s), and the path and SUP in Alliance Lake Park. which will be considered one lane wide. The parking lot area has been converted to an equivalent lane mile. A road lane is a distance of up to 15 feet between the road centerline and either the back of valley gutter or face of concrete curb. Distance of further than 15 feet from the centerline of the road will be paid for as an additional lane.

3. Traffic Control: Paid as a lump sum.
4. Overband Crack Fill Material: Paid for by the pound of material used to seal additional cracks at the direction of the OWNER. Contractor shall certify the amount of material used.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

PART 1-GENERAL

## 1.01 REQUIREMENTS INCLUDED:

- A. The ENGINEER will schedule and administer the pre-construction meeting, periodic progress meetings and specially called meetings throughout the progress of the work.
  - 1. Prepare the agenda for the meetings.
  - 2. Distribute written notice of each meeting four (4) days in advance of meeting date.
  - 3. Make physical arrangements for meetings.
  - 4. Preside at meetings.
  - 5. Record the minutes; include significant proceedings and decisions.
  - 6. Reproduce and distribute copies within seven (7) days after each meeting.
    - a. To participants in the meeting.
    - b. To parties affected by decisions made at the meeting.
- B. Representatives of contractors, subcontractors, and suppliers attending meetings shall be qualified and authorized to act on behalf of the entity each represents.

## 1.02 PRE-CONSTRUCTION MEETINGS:

- A. Schedule:
  - 1. Meeting shall be prior to the start of work at a time and place designated by the ENGINEER.
- B. Attendance:
  - 1. OWNER.
  - 2. ENGINEER.
  - 3. CONTRACTOR.
  - 4. Major Subcontractors.
  - 5. Utility companies.
  - 6. Governmental agencies.
  - 7. Safety representative.
- C. Agenda:
  - 1. Responsibilities.
  - 2. General contract terms.
  - 3. Supervision.
  - 4. Schedules and seasonal limitations.
  - 5. Approvals and testing.
  - 6. Clearances and notices.
  - 7. Construction procedures.
  - 8. Payments and estimates.
  - 9. Labor requirements.

## 1.03 PROGRESS MEETINGS:

- A. Schedule:
  - 1. Meetings will be scheduled a minimum of once each month at a time and place designated by the ENGINEER.
- B. Attendance:
  - 1. ENGINEER.
  - 2. CONTRACTOR.
  - 3. Subcontractors as pertinent to agenda.
  - 4. Government agencies as pertinent to agenda.
  - 5. Safety representative.
- C. Agenda:
  - 1. Review and approve minutes of previous meeting.
  - 2. Review of work progress since previous meeting.
  - 3. Field observations, problems, conflicts.

4. Problems which impede constructing schedule.
5. Review of off-site fabrication and delivery schedules.
6. Corrective measures and procedures to regain projected schedule.
7. Revisions to construction schedule.
8. Progress schedule during the succeeding work period.
9. Coordination of schedules.
10. Review of submittal schedules.
11. Review of proposed changes for effect on construction schedule and on completion date.
12. Safety report.
13. Review new business.



PART 1-GENERAL

## 1.01 CONSTRUCTION SCHEDULES:

- A. General:
1. Coordinate with work by others as explained in the General Conditions
  2. CONTRACTOR shall notify the ENGINEER 72 hours prior to start of work or a major increase in the work force if these vary from schedule as submitted.
- B. Form of Schedules:
1. Prepare schedules in the form of a horizontal bar chart.
  2. Provide a separate horizontal bar for each trade or operation.
  3. Provide a horizontal time scale identifying the first work day of each week.
  4. The order shall be the chronological beginning of each work item.
  5. The row identification shall be each major specification section or subdivision of work with distinct graphic delineation.
- C. Content of Schedules:
1. The construction project schedule shall include as a minimum:
    - a. Project start date.
    - b. Start dates and durations for each major trade group, work tasks or other subdivisions of the work.
    - c. Shop drawings, product data, and sample submittal dates and dates when reviewed copies will be required.
    - d. Equipment and/or material delivery dates if approved.
    - e. Total project duration and end date.
- D. Updating:
1. Show all occurring changes of previous submission.
  2. Show progress completion dates of each activity.
  3. Submit a narrative report, if required by ENGINEER defining:
    - a. Problem areas: Impact of current and anticipated delay factors.
    - b. Schedule changes: Effect on other contractors.
    - c. Revision description: Effect of change of scope and duration of activities.
- E. Submittal of Schedules:
1. The CONTRACTOR shall submit the initial detailed construction schedule within seven (7) days after the notice of award. ENGINEER will return copy within ten (10) days of receipt. The resubmittal, if required, shall be within (10) days.
  2. An updated schedule shall be submitted on the first work day of each month.
- F. Distribution:
1. The reviewed schedule shall be distributed by ENGINEER to:
    - a. The job site file.
    - b. OWNER.

## 1.02 SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES:

- A. General:
1. Where required by the specifications, the CONTRACTOR shall submit descriptive information which will enable the ENGINEER to advise the OWNER whether the CONTRACTOR's proposed materials, equipment, or methods of work are in general conformance to the design concept and in compliance with the drawings and specifications. The information to be submitted shall consist of drawings, specifications, descriptive data, certificates, samples, test results and such other information, all as specifically required in the specifications.
- B. CONTRACTOR Responsibility:
1. CONTRACTOR shall be responsible for the accuracy and completeness of the information contained in each submittal and shall assure that the material, equipment or method of work shall be as described in the submittal. The CONTRACTOR shall verify that the

material and equipment described in each submittal conform to the requirements of the specifications and drawings. If the information shows deviations from the specifications or drawings, the CONTRACTOR shall insure that there is no conflict with other submittals and notify the ENGINEER in each case where his submittal may affect the work of another CONTRACTOR or the OWNER. The CONTRACTOR shall insure coordination of submittals among the related crafts and subcontractors.

2. The CONTRACTOR shall be responsible to check and verify all field measurements, all dimensions on shop and setting drawings and all schedules required for the work of all the various trades.
3. The CONTRACTOR may authorize in writing a material or equipment supplier to deal directly with the ENGINEER or with the OWNER with regard to a submittal. These dealings shall be limited to contract interpretations.
4. The CONTRACTOR shall stamp each submittal with stamp, initialed and signed, certifying to review of the submittal by the CONTRACTOR, verification of field measurements and compliance with Contract Documents.

C. Transmittal Procedure:

1. General:

- a. Submittals shall be submitted promptly in accordance with dates in proposals, approved schedules and in such sequence that there is no delay in the Work or the work of any other CONTRACTOR.
- b. Submittals regarding material and equipment shall be accompanied by the attached Transmittal Form identifying the equipment and any variations from these specifications. A separate form shall be used for each specific item, class of material, equipment, and items specified in separate, discrete sections, for which the submittal is required. Submittals for various items shall be made with a single form when the items taken together constitute a manufacturer's package or are so functionally related that expediency indicates checking or review of the group or package as a whole
- c. A unique number, sequentially arranged, shall be noted on the transmittal form accompanying each item's submittal. Original submittal numbers shall have the following format "XXX-Y"; where "XXX" is the originally assigned submittal number, and "Y" is a sequential letter assigned for resubmittals, i.e., A, B, or C being the 1st, 2nd and 3rd resubmittals, respectively. Submittal 25-B, for example, is the second resubmittal of submittal 25.

2. Deviation From Contract:

- a. If the CONTRACTOR proposed to provide material or equipment which does not conform to the specifications and drawings, he shall indicate so under "deviations" on the transmittal form accompanying the submittal copies. He shall prepare his reason for a change, including cost differential, and request a change order to cover the deviations.

3. Submittal Completeness:

- b. Submittals which do not have all the information required to be submitted, including deviations, are not acceptable and will be returned without review.

D. Review Procedure:

1. When the contract documents require a submittal, the CONTRACTOR shall submit five (5), and no more than eight (8), copies of all submittal data of which two (2) copies will be retained by the ENGINEER. For samples this number may vary. For samples, submit the number stated in each specifications section.
2. Unless otherwise specified, within 14 calendar days after receipt of the submittal, the ENGINEER shall review the submittal and return a minimum of three (3) copies which carry the ENGINEER's stamp of approval. The returned submittal shall indicate one of the following actions:
  - a. If the review indicates that the material, equipment or work method is in general conformance with the design concept and complies with the drawings and specifications, submittal copies will be marked "FURNISH AS SUBMITTED". In this event the CONTRACTOR may begin to implement the work method or incorporate the material or equipment covered by the submittal.
  - b. If the review indicates limited corrections are required, submitted copies will be marked "FURNISH AS CORRECTED". The CONTRACTOR may begin

implementing the work method by the submittal in accordance with the noted corrections. Where submittal information will be incorporated in O&M data, a corrected copy shall be provided.

- c. If the review reveals that the submittal is insufficient or contains incorrect data, submitted copies will be marked "REVISE AND RESUBMIT". Except at his own risk, the CONTRACTOR shall not undertake work covered by this submittal until it has been revised, resubmitted and returned marked either "FURNISH AS SUBMITTED" or "FURNISH AS CORRECTED".
  - d. If the review indicates that the material, equipment or work method is not in general conformance with the drawings and specifications, copies of the submittal will be marked "REJECTED". Submittals with deviations which have not been identified clearly may be rejected. Except at his own risk the CONTRACTOR shall not undertake the work covered by such submittals until it has been revised, resubmitted and returned marked either "FURNISH AS SUBMITTED" or "FURNISH AS CORRECTED".
  - e. If the review indicates that the material or equipment is not from an acceptable manufacturer, as indicated in the specifications, copies of the submittal will be marked "SUBMIT SPECIFIED ITEM". Except as his own risk, the CONTRACTOR shall not undertake the work covered by such submittals until it has been revised, resubmitted and returned marked either "FURNISH AS SUBMITTED" or "FURNISH AS CORRECTED".
- E. Effect of Review of CONTRACTOR's Submittal:
1. Review of drawings, methods of work, or information regarding materials or equipment the CONTRACTOR proposes to provide, shall not relieve the CONTRACTOR of his responsibility for errors therein and shall not be regarded as an assumption of risks or liabilities by the ENGINEER or the OWNER, or by an officer or employee thereof, and the CONTRACTOR shall have no claim under the contract on account of the failure, or partial failure, of the method of work, material, or equipment so reviewed. A mark of "FURNISH AS SUBMITTED" or "FURNISH AS CORRECTED" shall mean that the OWNER has no objection to the CONTRACTOR, upon his own responsibility, using the plan or method of work proposed, or providing the materials or equipment proposed.

#### 1.03 OPERATION AND MAINTENANCE DATA:

- A. Requirements:
1. Compile product data on related information appropriate for OWNER'S operation and maintenance of products furnished.
  2. Prepare data in the form of an instructional manual for use by OWNER'S personnel. Prepare five (5) copies or complete sets compiled, bound, and indexed.
  3. Submittal of operation and maintenance manuals shall be thirty (30) prior to final payment request.
- B. Required Submittals:
1. Refer to technical specification sections for required submittals.

#### 1.04 RECORD DOCUMENTS:

- A. Requirements:
1. The CONTRACTOR shall maintain on the construction site a minimum of one (1) complete set of contract documents amended by "RED LINE" or highlight inclusion to reflect the most immediate status methods, materials, and locations and routings of construction. Supplementary sketches shall be included, if necessary, to clearly indicate all work as constructed.
  2. At conclusion of work, the CONTRACTOR shall submit to the ENGINEER one (1) complete amended record set of these site documents.
  3. Submittal shall be thirty (30) days prior to final payment.
  4. Failure of the CONTRACTOR to maintain an up-to-date set of modified drawings on the project site shall be reason to withhold payments.

SECTION 01 33 00

01 33 00.4  
SUBMITTAL PROCEDURES

1.05 SCHEDULES:

- A. Shop Drawing Transmittal Form

# williams&works

engineers | surveyors | planners

## SHOP DRAWING TRANSMITTAL FORM

**To:** Brandon Mieras, P.E.  
Williams & Works  
549 Ottawa Ave., N.W.  
Grand Rapids, MI 49503

**Date:** \_\_\_\_\_  
**Job Name:** 2021 Road Maintenance Project  
**Job No.:** 220167  
**Job Location:** City of Potterville  
**Contractor:** \_\_\_\_\_

**We are sending you:**

<input type="checkbox"/> Plans	<input type="checkbox"/> Specifications	<input type="checkbox"/> Change Order No. _____
<input checked="" type="checkbox"/> Shop Drawings	<input type="checkbox"/> Contract Documents	<input type="checkbox"/> Other _____

Quantity	Drawing No.	Description

**These are transmitted as checked below:**

<input type="checkbox"/> Furnish as Submitted	<input type="checkbox"/> Rejected	<input type="checkbox"/> For Your Information
<input type="checkbox"/> Furnish as Corrected	<input type="checkbox"/> For Approval	<input type="checkbox"/> For Grade Inspection
<input type="checkbox"/> Revise and Resubmit	<input type="checkbox"/> For Field Use	<input type="checkbox"/> For Your Use
<input type="checkbox"/> Submit Specified Item	<input type="checkbox"/> For File	<input type="checkbox"/> As Requested
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____

**Remarks:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Copy to:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Authorized by:** \_\_\_\_\_

PART 1 - GENERAL

## 1.01 REFERENCE SPECIFICATIONS:

- A. All specifications referred to in the Contract Documents shall be current at the time of advertisement and hereby incorporated.
- B. Copies may be inspected at the office of the ENGINEER and addresses for purchase will also be supplied.
- C. The references shall be limited to section and subsection specified.
- D. References will be abbreviated as the following example:  
"MDOT 0.0.00."

## 1.02 ABBREVIATIONS:

- A. Standards:
 

AASHTO:	American Association of State Highway Transportation Officials
ACI:	American Concrete Institute
ACPA:	American Concrete Pipe Association
AI:	Asphalt Institute
AIA:	American Institute of Architects
AISI:	American Iron and Steel Institute
AGA:	American Gas Association
ANSI:	American National Standards Institute
API:	American Petroleum Institute
ASA:	American Standards Association
ASTM:	American Society for Testing and Materials
ASCE:	American Society of Civil Engineers
AWS:	American Welding Society
AWWA:	American Water Works Association
CE:	Corps of Engineers
CFR:	Code of Federal Regulations
CRSI:	Concrete Reinforcing Steel Institute
CSI:	Construction Specifications Institute
DOT:	Department of Transportation
EGLE:	Environment Great Lakes and Energy
EPA:	Environmental Protection Agency
FM:	Factory Mutual
IEEE:	Institute of Electrical and Electronic Engineers
ISA:	Instrument Society of America
MBMA:	Metal Building Manufacturers Association
MDPH:	Michigan Department of Public Health
MDOT:	Michigan Department of Transportation
MDNR:	Michigan Department of Natural Resources
MDEQ:	Michigan Department of Environmental Quality
MIOSHA:	State of Michigan OSHA
NAPA:	National Asphalt Pavement Association
NEC:	National Electrical Code.(by NFPA)
NEMA:	National Electrical Manufacturers Association
NFPA:	National Fire Protection Association
NPCA:	National Precast Concrete Association
OSHA:	Occupational Safety and Health Administration
PCI:	Portland Cement Institute
PTI:	Post-Tensioning Institute
SDI:	Steel Deck Institute
SJI:	Steel Joist Institute
SSPC:	The Society for Protective Coatings
TPI:	Truss Plate Institute
UL:	Underwriters Laboratories

SECTION 01 42 00

01 42 00.2  
REFERENCES

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

PART 1 - GENERAL

1.01 DESCRIPTION:

- A. Work Included:
  - 1. This section summarizes the work required for quality control. Also reference the specific technical Section for the work being performed.

1.02 QUALITY ASSURANCE:

- A. General:
  - 1. The test specimen selection will be by the ENGINEER.
  - 2. The testing procedure will be in accordance with the current standard specified.
  - 3. For field quality control, refer to the SECTION requirements.

1.03 SUBMITTALS:

- A. Test Specimens:
  - 1. Delivery shall be to the place of inspection and testing.
- B. Certification of Quality by Producer:
  - 1. Delivery shall be to the ENGINEER.
- C. Certification of Welders:
  - 1. Delivery shall be to the ENGINEER.

PART 2 - PRODUCTS

2.01 MATERIALS:

- A. Inspection and Testing Agencies.
  - 1. In accordance with the requirements of ASTM E329.
  - 2. Reporting shall be to the ENGINEER.

PART 3 - EXECUTION

3.01 PERFORMANCE:

- A. Acceptance Tests and Inspection:
  - 1. Aggregates: Certification of quality by producer.
  - 2. Soil density:
    - a. Moisture-density relationships: ASTM D1557-78, AASHTO T-180 (Modified Proctor).
    - b. Field density determination according to ASTM standards.
    - c. CONTRACTOR to provide access to test location and depth.
  - 3. Asphalt cement: Certification of quality by producer.
  - 4. Asphalt mix composition:
    - a. Sample: ASTM D979.
    - b. Extraction test: AASHTO T30, AASHTO T168 and ASTM D2172.
    - c. Frequency: One test within each 500-ton placed.
  - 5. Asphalt pavement density:
    - a. Sample: ASTM D979.
    - b. Comparative density tests of in-place material against laboratory specimens of the same material: ASTM D1559 and ASTM D2726.
    - c. Frequency: One test within each 2,500 square yards placed.
  - 6. Brick and Block:
    - a. Buildings:
      - (1) Under 30M: Visual inspection on site.
      - (2) Over 30M: ASTM C216 and ASTM C90.



- b. Manholes, catch basins, etc.:
  - (1) Visual inspection on site.
- 7. Cement: Certification of quality by producer.
- 8. Concrete:
  - a. Sample: ASTM C172.
  - b. Frequency: Once for each 50 cubic yards of each class of concrete placed.
  - c. Perform following from sample:
    - (1) Mold three 6-inch cylinder compressive strength specimens: ASTM C31.
    - (2) Slump test: ASTM C143.
    - (3) Air test: ASTM C231.
    - (4) Yield test: ASTM C138.
    - (5) Strength test: ASTM C139.
- 9. Field quality control of SECTIONS: Required.
- 10. Manholes:
  - a. Precast: Certification of quality by producer.
- 11. Painting:
  - a. Workmanship: Visual inspection on site.
  - b. Film thickness test: Gauge or yield.
  - c. Frequency: One test within each 100 square feet applied.
- 12. Pipe:
  - a. Gravity: Laboratory test 1/2 percent of total item with minimum three pieces each size, material and class. Certification of quality by producer acceptable for corrugated metal.
  - b. Pressure: Certification of quality by producer.
- 13. Steel (reinforcing, structural and miscellaneous): Certification of quality by producer.
- 14. Welding:
  - a. Certification of welders as follows:
    - (1) Buildings: AWS D1.0 Appendix A.
    - (2) Water Tanks: AWS D1.0 Appendix A.
  - b. Visual on-site inspection and nondestructive testing as follows:
    - (1) Buildings: AWS D1.0 Appendix B.
    - (2) Water Tanks: AWWA D100.
- 15. Well soil samples: Sieve analysis ASTM C136.

PART 1 - GENERAL

## 1.01 DESCRIPTION:

- A. This work shall consist of road maintenance in Eaton County, Michigan.
- B. Local Traffic shall be maintained according to Sections 104.11, 812 and 922 of the Michigan Department of Transportation 2012 Standard Specifications for Construction, including any Supplemental Specifications, and as specified herein.
  - 1. The Contractor shall notify the Engineer a minimum of 5 business days prior to the implementation of any lane closures or traffic shifts.
  - 2. The Contractor shall coordinate his operations with Contractors performing work on other projects within or adjacent to the Construction Influence Area (CIA).
  - 3. The Owner's maintenance crews and/or Contract Maintenance Agencies may perform maintenance work within or adjacent to the Construction Influence Area (CIA). Maintenance and/or Contract Maintenance Agency will coordinate their operations with the Resident Engineer to minimize the interference to the Contractor. No additional payment will be made to the Contractor for the joint use of the traffic control items.
- C. Construction Influence Area (CIA). The CIA shall include the right-of-way of the following roadways, within the approximate limits described below:
  - 1. Grand Rapids St. between Fremont St. and Washington St.
  - 2. The intersection of M-37 (Broadway St.) and State St.
  - 3. The CIA shall include the right-of-way of all roadway segments used for detour routes.
- D. Traffic Restrictions.
  - 1. No work shall be performed or lane closures allowed during the Memorial Day, July 4th, or Labor Day holiday periods, as defined by the Engineer.
  - 2. The Contractor shall notify the Engineer at least 24 hours in advance of erection or removal of overlay on existing signs.
  - 3. Parking of the Contractor's employees' vehicles shall not be allowed within the construction zone where traffic is maintained, except in areas determined by the Engineer.
  - 4. The work shall be completed as defined in the progress schedule.
  - 5. One lane of one-way traffic shall be maintained within the CIA.
  - 6. Overnight lane closures are prohibited.

PART 2 - PRODUCTS

## 2.01 TRAFFIC CONTROL DEVICES:

- A. General:
  - 1. All traffic control devices and their usage shall conform to Michigan MUTCD, current edition, and MDOT typicals M0020a, and M0140a.
- B. Temporary Signs for stage construction shall be as shown in the plans and stated herein.
  - 1. All diamond-shaped warning signs shall be 48 in x 48 in mounted at 7-foot minimum bottom height.
  - 2. All temporary signs shall be constructed with legends and symbols flush to the signs face and not extending beyond the sign borders or edges.
  - 3. Temporary warning, regulatory and guide signs not required for that particular lane closure or shift, shall be either removed, covered or laid down with the legs removed.
  - 4. Sign covers used to cover temporary signs have been considered to be included in the cost of placing the temporary signs. The cover shall cover the entire sign face.
  - 5. All temporary signs used on this project shall be faced with prismatic retroreflective sheeting.
  - 6. When signs on this project are covered, they shall be covered in accordance with Section 812.03 of the Michigan Department of Transportation 2012 Standard Specifications for Construction.
  - 7. Temporary signs accompanying Barricade, Type III, High Intensity, Lighted shall be free standing and mounted separately from the barricade.

8. Reflective sheeting shall be applied to both sides of the rail on the item Barricade, Type III, High Intensity, Lighted, and shall bear the appropriate directional pattern as shown in Traffic and Safety Standard Plan WZD-125 series.
9. Sandbags to anchor signs shall contain sand, in the event of a break, shall be replaced.

2.02 PLASTIC DRUMS:

- A. Plastic drums with high intensity sheeting shall be required.
- B. Plastic drums should be placed at 50-foot intervals along transition tapers and the work areas, or as directed by the Engineer.
- C. Plastic drums with high intensity sheeting are included and may be used at the discretion of the Engineer.

PART 3 – EXECUTION

3.01 Construction Sequencing.

- A. The contractor shall submit a plan to the Engineer prior to the preconstruction conference to review regarding the maintenance of traffic plan.

3.02 MDOT Typical.

- A. The following MDOT typicals are included in this contract.

\*\*\*END OF SECTION\*\*\*

PART 1 - GENERAL

1.01 MATERIALS AND EQUIPMENT:

- A. Materials and equipment incorporated into the Work:
  - 1. Conform to applicable specifications and standards.
  - 2. Comply with size, make, type and quality specified or as specifically approved by the ENGINEER.
  - 3. Manufactured and fabricated products.
    - a. Design, fabricate and assemble in accord with the best engineering and shop practices.
    - b. Manufacture like parts of duplicate units to standard sizes and gages to be interchangeable.
    - c. Two or more items of the same kind shall be identical, by the same manufacturer.
    - d. Products shall be suitable for service conditions.
    - e. Equipment capacities, sizes and dimensions shown or specified shall be adhered to unless variations are specifically approved in writing.
  - 4. Do not use material or equipment for any purpose other than that for which it is designed or specified.

1.02 MANUFACTURERS'S INSTRUCTIONS:

- A. When Contract Documents, require that installation of work shall comply with manufacturer's printed instructions, obtain and distribute copies of such instructions to parties involved in the installation, including two sets to the ENGINEER.
  - 1. Should job conditions or specified requirements conflict with manufacturer's instructions, consult with ENGINEER for further instructions.
- B. Handle, install, connect, clean, and condition and adjust products in strict accord with such instructions and in conformity with specified requirements.
- C. Perform work in accord with manufacturer's instructions. Do not omit any preparatory step or installation procedures unless specifically modified or exempted by Contract Documents.

1.03 TRANSPORTATION AND HANDLING:

- A. Arrange deliveries of products in accord with construction schedules; coordinate to avoid conflict with work and conditions at the site.
  - 1. Deliver products in undamaged condition, in manufacturer's original containers or packaging with identifying labels intact and legible.
  - 2. Immediately upon delivery, inspect shipments to assure compliance with requirements of Contract Documents and approved submittals and that products are properly protected and undamaged.
- B. Provide equipment and personnel to handle products by methods to prevent soiling or damage to products or packaging.

1.04 STORAGE AND PROTECTION:

- A. Store products in accord with manufacturer's instructions, with seals and labels intact and legible.
  - 1. Store products subject to damage by the elements in weather tight enclosures.
  - 2. Maintain temperature and humidity within the ranges required by manufacturer's instructions.
- B. Arrange storage in a manner to provide easy access for inspection. Make periodic inspections to assure that products are maintained under specified conditions and free from damage or deterioration.

1.05 SUBSTITUTIONS:

- A. Where materials and equipment items are identified in the specifications by manufacturer's name or catalog number, Bids shall be based on the products of one of the manufacturers so named or added thereto by addendum during the bidding period.
- B. During the bidding period, all requests for substitutions shall be given full consideration by the ENGINEER; and if approved, an addendum will be issued to incorporate the approved material or equipment into the Contract Documents.
- C. Requests for substitutions must be received by the ENGINEER in ample time, not later than 10 days before bid due date, so that any necessary addendum will be received by all prospective bidders before submission of the Bids.
- D. After award of the Contract; requests for substitutions will be considered only for one of the following reasons:
  - 1. Increased value to the OWNER.
  - 2. Decreased cost to the OWNER.
  - 3. Specified items not procurable.
- E. Requests for substitutions after award of the contract shall be accompanied by manufacturer's data or other detailed description of the proposed material or equipment.
- F. A request for a substitution constitutes a representation that the CONTRACTOR has investigated and determined the proposed product is equal to, or superior in all respects to that specified.
- G. The CONTRACTOR shall coordinate the installation of an accepted substitution into the Work and make the Work complete in all respects.
- H. The ENGINEER shall be the judge of the acceptability of the proposed substitutions.
- I. Requests for substitutions shall be submitted on the accompanying form.

APPLICATION FOR APPROVAL OF SUBSTITUTE MATERIAL/EQUIPMENT

<u>Material/Equipment</u>	<u>Manufacturer</u>	<u>Model No. Certificate No. or Other Description</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Proposed Substitute Material/Equipment:

<u>Material/Equipment</u>	<u>Manufacturer</u>	<u>Model No Certificate No</u>
_____	_____	_____

Reason for Request for Substitution:

Increased value to OWNER

Decreased cost to OWNER Amount of Credit \$ \_\_\_\_\_

Specified item not procurable

Approval of Substitution

\_\_\_\_\_  
Contractor

\_\_\_\_\_  
Date

Not Approved

\_\_\_\_\_  
Engineer

\_\_\_\_\_  
Date

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Cleaning:
  - 1. General:
    - a. Manufactured products: Manufacturer's instructions.
    - b. Clean-up during construction: Maintain premises and public properties free from accumulations of waste, debris and rubbish caused by operations.
    - c. Final clean-up: Remove waste materials, rubbish, tools, equipment, machinery and surplus materials, and clean all surfaces; leave the work clean and ready for occupancy.
  - 2. Delinquency:
    - a. Remedies: Failure to clean-up promptly is considered to be defective Work:
      - (1) Payment: Per ARTICLE 14 of SECTION 00 70 00, GENERAL CONDITIONS.
      - (2) OWNER may correct per ARTICLE 13 of SECTION 00 70 00, GENERAL CONDITIONS.
- B. Work Record Documents:
  - 1. Maintenance of Documents:
    - a. Maintain 1 copy at jobsite in good order of:
      - (1) Contract Drawings.
      - (2) Specifications.
      - (3) Addenda.
      - (4) Reviewed shop drawings.
      - (5) Change Orders.
      - (6) Other contract Modifications.
    - b. Filing: Work specification format.
    - c. Accessibility: To OWNER and ENGINEER.
  - 2. Recording:
    - a. Keep record documents current.
    - b. Contract Drawings: Legibly mark to record actual construction:
      - (1) Field changes of dimension and detail.
      - (2) Changes made by Change Orders and Bulletins.
      - (3) Details not on original contract Drawings.
    - c. Specifications and Addenda: Legibly mark up each SECTION to record:
      - (1) Manufacturer, trade name, catalog number and supplier of products actually installed.
      - (2) Changes made by Change Orders and Bulletins.
      - (3) Other matters not originally specified.
  - 3. Submittal:
    - a. Delivery: See SECTION 01 33 00.
    - b. Transmittal letter: Contain:
      - (1) Date.
      - (2) Project title and number.
      - (3) CONTRACTOR'S name and address.
      - (4) Title and number of each record documents.
      - (5) Certification that each document as submitted is complete and accurate.

502.01

### Section 502. HMA CRACK TREATMENT

**502.01. Description.** This work consists of treating cracks in Hot Mix Asphalt (HMA) surfaces using either a saw or rout and seal process or an overband process.

**502.02. Materials.** Provide materials in accordance with the following:

Hot Poured Joint Sealant.....	<u>914</u>
Asphalt Binder .....	<u>904</u>
Polyester Fibers.....	<u>904</u>

A. **Saw or Rout and Seal.** Provide hot-poured joint sealant that meets the requirements of subsection 914.04 for sealing sawn or routed cracks.

B. **Overband.** Provide overband material as specified in subsection 502.02.B.1 or subsection 502.02.B.2.

1. **Overband (Alternate 1).** Provide a field-blended liquid mixture with the following characteristics and proportions:

- a. Performance graded asphalt binder PG 64-22 south of M-46 and PG 58-28 north of M-46;
- b. Asphalt rubber product selected from the Qualified Product List, 5 percent by weight; and
- c. Polyester fibers, 5 percent by weight.

If using field mixed material, add the polyester fibers to the polymer modified asphalt cement and mix in the kettle. Do not allow field mix material to exceed 400 °F.

2. **Overband (Alternate 2).** Provide an asphalt rubber product selected from the Qualified Product List. Do not allow prepackaged material to exceed 400 °F.

**502.03. Construction.**

A. **Equipment.** Provide equipment, in accordance with section 107 and this subsection, capable of meeting the requirements of this subsection.

1. **Compressed Air System.** Provide and use a compressed air system that produces a continuous, high-volume, high-pressure stream of clean, dry air to prepare cracks. Equip the air compressor with a moisture separator to remove oil and water from the air supply. Provide a compressor capable of producing at least 100 psi at a continuous air flow of 150 cfm.



2. **Melter Applicator.** Provide a melter applicator consisting of a boiler kettle equipped with pressure pump, hose, and applicator wand. Equip the unit with the following:
    - a. Shutoff control on the applicator hose;
    - b. Mechanical full-sweep agitator in the kettle to provide continuous blending;
    - c. Thermometers to monitor the material temperature and the heating oil temperature; and
    - d. Thermostatic controls that allow the operator to regulate material temperature up to 425 °F.
  3. **Application Wand.** Apply the material using either a wand followed by a V-shaped or U-shaped squeegee or a round application head with a concave underside.
- B. Pre-Production Meeting.** Before beginning work, conduct an on-site pre-production meeting with the Engineer to discuss the following:
1. Contractor's detailed work schedule,
  2. Traffic control plan,
  3. Required project documentation,
  4. Inspection of the condition of equipment,
  5. The Contractor's Quality Control (QC) Plan, and
  6. The Contractor's designated Authorized Representative.
- C. Crack Preparation.** Clean and dry cracks using compressed air and other tools to remove loose dirt, vegetation, and deleterious material. Clean cracks no more than 10 minutes before filling.
- D. Crack Treatment Methods.**
1. **Saw or Rout and Seal.** Treat visible working cracks no greater than 1¼ inches wide in the pavement surface using the saw or rout and seal process. Treat working cracks in shoulders unless otherwise required. The Department defines working cracks as cracks that experience considerable horizontal or vertical movement, at least ⅛ inch, as a result of temperature change or traffic loading.  
  
Create a reservoir by sawing or routing along the crack. Create the reservoir to a volume of at least 7.5 cubic inches per foot of crack and with a 1:1 width to depth ratio. Ensure the finished reservoir walls are vertical and the reservoir bottom is flat. Place sealant flush or no greater than ⅛ inch below the pavement surface.
  2. **Overband.** The Contractor may treat non-working cracks with material placed in an overband configuration. The Department defines non-working cracks as cracks that experience relatively little

502.03

horizontal or vertical movement, less than  $\frac{1}{8}$  inch, as a result of temperature change or traffic loading.

Apply overband material to clean, dry cracks. Apply overband 4 inches wide and from  $\frac{1}{8}$  inch to  $\frac{3}{16}$  inch thick.

The Contractor may increase the maximum application width to 6 inches for coverage of multiple cracks, with Engineer's prior written approval.

Place temporary pavement markings before opening the road to traffic if overband material obliterates existing pavement markings.

Apply overband as follows unless otherwise required:

- a. **Stand Alone Overband Crack Fill.** If no other surface treatment is required on the pavement, fill visible cracks in the road less than  $1\frac{1}{4}$  inch wide.
- b. **Micro-Surfacing Preparation.** If preparing the pavement for a micro-surface overlay, fill visible cracks in the road less than  $1\frac{1}{4}$  inch wide.
- c. **Chip Seal Preparation.** If preparing the pavement surface for a single or double chip seal, fill cracks greater than  $\frac{1}{8}$  inch wide or 3 feet long. Seal cracks with varying widths and portions at least  $\frac{1}{8}$  inch wide, along the entire length.
- d. **Paver Placed Surface Seal.** If preparing the pavement for a paver placed surface seal, fill cracks with widths from  $\frac{1}{4}$  inch to  $1\frac{1}{4}$  inch.
- e. **HMA Ultra-Thin Overlay.** If preparing the pavement for an HMA ultra-thin overlay, fill visible cracks less than  $1\frac{1}{4}$  inch wide.

E. **Weather Limitations.** Place material at air temperatures from 45 °F to 85 °F. Do not place material if moisture is present in the crack.

F. **Cure Time and Repair.** Allow the material to cool before opening the road to traffic. Apply de-tackifying solution, if required, to protect the uncured crack treatment material from tracking. Do not use blotting materials, including sand, aggregate, sawdust, or paper. Repair treated pavement areas, damaged by traffic at no additional cost to the Department.

G. **Quality Control (QC).** Provide and follow a QC plan for production and construction processes. Provide the Engineer a copy of the QC plan for review and approval, prior to the pre-production meeting. Maintain QC measures until the Engineer accepts the work.

Comply with the approved QC plan throughout the project and allow the Engineer access to work in progress for assurance review and testing. If the Engineer identifies a condition causing unsatisfactory crack treatment, immediately stop production and correct the work at no additional cost to the Department.

Ensure the QC plan addresses at least the following:

1. A detailed description explaining how field crews will determine working and non-working cracks. Separately detail projects with multiple pavement sections.
2. The sealant material and equipment used to heat, handle, and apply sealant material in accordance with the manufacturer's specifications. Provide the material manufacturer's specifications to the Engineer upon request.
3. Reservoir configuration for the saw or rout and seal operation.
4. Procedures for crack cleaning.
5. Replacement criteria for cutting tools.
6. Controls implemented to ensure flying dust and debris is not directed toward adjacent traveled lanes, pedestrians, parked vehicles, or buildings.
7. An action plan for adjusting crack sealing operations to address actual environmental conditions if adverse environmental conditions occur.
8. Proposed procedure for monitoring the work to ensure acceptance requirements are met.

H. **Acceptance.** Upon completion of work, schedule an inspection with the Engineer. The Engineer will note deficiencies, including areas exhibiting adhesion failure, cohesion failure, missed cracks, or other factors the Engineer determines unacceptable. Correct work the Engineer identifies as unacceptable. Notify the Engineer upon completion of required corrective work.

**502.04. Measurement and Payment.**

<b>Pay Item</b>	<b>Pay Unit</b>
Overband Crack Fill, Roadbed .....	Roadbed Mile
Overband Crack Fill, Ramp .....	Roadbed Mile
HMA Crack Treatment, Roadbed .....	Roadbed Mile
HMA Crack Treatment, Ramp .....	Roadbed Mile

A. **Overband Crack Fill.** The Engineer will measure **Overband Crack Fill, Roadbed** along the roadway centerline. This measurement includes traffic lanes, paved shoulders, auxiliary lanes, and ramps to the

502.04

2-foot gore point. For divided highways, the Engineer will measure the roadway separately in each direction.

The Engineer will measure **Overband Crack Fill, Ramp** along the ramp centerline beginning at the 2-foot gore point.

The unit prices for **Overband Crack Fill**, of the type required, include the cost of preparing and filling cracks using the overband method, providing the required documentation, corrective work, and temporary traffic markings.

**B. HMA Crack Treatment.** The Engineer will measure **HMA Crack Treatment, Roadbed** along the roadway centerline. This measurement includes traffic lanes, paved shoulders, auxiliary lanes, and ramps to the 2-foot gore point. For divided highways, the Engineer will measure the roadway separately in each direction.

The unit price for **HMA Crack Treatment, Roadbed** includes the cost of preparing, filling, and sealing the cracks, including treating working cracks with the saw or rout and seal method, and treating non-working cracks with the overband method.

The Engineer will measure **HMA Crack Treatment, Ramp** along the ramp centerline beginning at the 2-foot gore point.

The unit price for **HMA Crack Treatment, Ramp** includes the cost of preparing, filling, and sealing the cracks, including treating working cracks with the saw or rout and seal method, and treating non-working cracks with the overband method.

MICHIGAN  
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION  
FOR  
**HOT MIX ASPHALT CRACK TREATMENT**

1 of 1

**a. Description.** This work consists of treating cracks in hot mix asphalt (HMA) surfaces in accordance with section 502 of the Standard Specifications for Construction, except as specified in this special provision.

**b. Materials.** Provide material in accordance with subsection 502.02 of the Standard Specifications for Construction.

**c. Construction.** Complete all work in accordance with subsection 502.03 of the Standard Specifications for Construction and as modified on the plans.

**d. Measurement and Payment.** The completed work, as described, will be paid for at the calculated unit price, which will be determined by dividing the fixed construction cost amount, excluding mobilization, by the Contractor's number of lane miles bid. Completed work will be paid for using the following pay item:

<b>Pay Item</b>	<b>Pay Unit</b>
Overband Crack Fill, Lane .....	Lane Mile

**Overband Crack Fill, Lane** will be measured in lane miles along the centerline of each lane. This measurement includes traffic lanes, paved shoulders, auxiliary lanes, and ramps to the 2-foot point. The established unit price will include all labor, equipment, and materials required to complete crack sealing as specified on the plans. Maintaining traffic and lighting items of work will not be paid for separately, but will be included in the item **Overband Crack Fill, Lane**.