



PROPOSAL

FOR

2023 Roadway Improvements Mill and HMA Overlay

CHARTER TOWNSHIP OF MERIDIAN INGHAM COUNTY, MICHIGAN

BID OPENING:

January 31, 2023 @ 11:00 A.M.

OWNER:

Charter Township of Meridian
Okemos, Michigan

ENGINEER:

THE MANNIK & SMITH GROUP, INC.
2193 Association Drive, Suite 200
Okemos, MI 48864

MSG PROJECT NO. M4150015

ADVERTISEMENT FOR BIDS

Bids Due: Tuesday, January 31, 2023 at 11:00 a.m.

Project Title: **CHARTER TOWNSHIP OF MERIDIAN
2023 ROADWAY IMPROVEMENTS
MILLING AND HMA OVERLAY**

Project Location: Various local streets within the Charter Township of Meridian

Charter Township of Meridian
Ingham County, Michigan

Owner: Charter Township of Meridian
5151 Marsh Road
Okemos, MI 48864

Engineer: The Mannik & Smith Group, Inc.
2193 Association Drive, Suite 200
Okemos, MI 48864

1. Charter Township of Meridian will receive sealed bids for the 2023 Roadway Improvements projects. **The Bids will be received at the Charter Township of Meridian Municipal Building, 5151 Marsh Road, Okemos, Michigan 48864, until 11:00 a.m. local time, Tuesday, January 31, 2023.**

Work will consist of a variety of road improvements including cold milling, HMA resurfacing, and restoration on approximately 2.17 miles of local roads in the Charter Township of Meridian, Ingham County, Michigan as noted in the Bid Documents and Supplemental Specifications.

2. Bids will be publicly opened and read aloud at **11:00 a.m. Tuesday, January 31, 2023** at the Charter Township of Meridian Municipal Building, 5151 Marsh Road, Okemos, MI 48864.
3. Bids will be based on the total bid utilizing Unit Bid Prices.
4. Bid security in the form of a Bid Bond, Cashier's Check, or Certified Check in an amount equal to 5% of the bid amount, and payable to Charter Township of Meridian will be required of all Bidders.
5. Performance Bond and Lien Bond, equal to the amount of the Contract, will be required of the bidder awarded the Contract.
6. No bid may be withdrawn for a period of 60 days after the opening of bids.
7. The Owner reserves the right to reject any or all bids and to waive any informality or irregularity in any bid.
8. A separate project will be issued for bid for crushing and shaping 4.4 miles of roads within Meridian Township to be completed in 2023.

Issued by
Charter Township of Meridian

Charter Township of Meridian 2023 Roadway Improvements

TO: Charter Township of Meridian

FOR: Work will consist of a variety of road improvements including cold milling, HMA resurfacing, and restoration on approximately 2.17 miles of local roads in the Charter Township of Meridian, Ingham County, Michigan as noted in the Bid Documents and Supplemental Specifications.

Ladies and Gentlemen:

The undersigned bidder hereby affirms that:

1. The proposal is in all respects fair and without any collusion or fraud.
2. The undersigned have examined the site of the proposed project and have made a personal investigation and estimate of quantities.
3. The undersigned will contract to furnish all labor, equipment, tools and material necessary for the complete construction of the above described project at the unit prices stated on the attached bid forms and to complete the work in the time specified to the satisfaction of Charter Township of Meridian.

Company: _____

Address: _____

City, State, ZIP: _____

Telephone: _____

By: _____

Title: _____

Email: _____

Date: _____

NOTE: If the bidder is a co-partnership, each member must sign the proposal.

Corporations must execute the proposal by duly authorized officers in accordance with Articles of Incorporation.

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INSTRUCTIONS TO BIDDERS and GENERAL CONDITIONS

The Michigan Department of Transportation 2020 Standard Specifications for Construction are incorporated as part of these bidding documents and shall govern except as provided in the Invitation to Bid, Instructions to Bidders and General Conditions, Proposal, Contract, Supplemental Specifications, Special Provisions and Plans. References to the Department in the Michigan Department of Transportation 2020 Standard Specifications for Construction shall for this project mean Charter Township of Meridian, hereinafter referred to as "Owner," unless otherwise specified.

OWNER

The Owner of the project is Charter Township of Meridian.

ENGINEER

The Engineer is the individual assigned by Charter Township of Meridian to be in charge of the project. The individual assigned as the Engineer shall be an employee of The Mannik & Smith Group, Inc.

BIDDER

The Bidder is one who submits a signed bid with the required documentation directly to the Owner at the time and place specified.

BID FORMS

Sealed proposals must be submitted on the bid forms furnished by the Owner. **The proposal shall be submitted in its entirety with no modifications or changes except as authorized by an addendum and with no pages removed.** Unit prices as listed will govern in determining the correct total of the bid. All proposals must be filled out in ink or typewritten and shall be legibly signed, giving the complete name and address of the Bidder. **Three (3) sealed copies shall be submitted by the Bidder.**

All bids must be in sealed envelopes and clearly marked ***Charter Township of Meridian 2023 Roadway Improvements – Milling and HMA Overlay.***

PROJECT INTENT

It is the intent of the Charter Township of Meridian to rehabilitate and resurface selected roadways. This involves cold milling the existing asphalt from the road as specified in the log of project, and overlay with new asphalt as shown on the typical sections. Additionally, the intent of the project is to deliver a portion of the millings to locations specified by the Township.

Additional to this work, under a separate contract, ADA sidewalk ramps and select areas of curb shall be replaced by others. The Contractor shall coordinate work with this contract as necessary and as described in this proposal.

BIDDER'S SURETY

The proposal must be accompanied by a cashier's check, certified check, or a bid bond made payable to Charter Township of Meridian, in the sum of five percent (5%) of the amount of the bid. Upon awarding and signing of a contract, or in the event of bid rejection, such bid surety will be returned to the Bidder. Bids may be held for a period of sixty (60) days.

INTERPRETATION AND ADDENDA

All questions about the meaning or intent of the Contract Documents are to be directed to the Engineer. Interpretation or clarification considered necessary by the Engineer to such questions will be issued by Addenda, e-mailed all parties recorded by the Engineer as having received the Bidding Documents. Questions received less than seven days prior to the date for opening the bids may not be answered. Only questions answered by formal written Addenda are binding. Oral and other interpretations or clarifications will be without legal effect.

OPENING OF BIDS

Bids will be received at no later than 11:00 A.M., local time prevailing, on January 31, 2023

Charter Township of Meridian Municipal Building
Attention: Dan Opsommer, Deputy Township Manager/Director of Public Works & Engineering
5151 Marsh Road
Okemos, MI 48864

Proposals received at other locations or delivered after the due date and time will not be accepted and will be returned to the proposer.

REJECTION OF BIDS

The Owner reserves the right to reject any or all bids, including without limitation the right to reject any or all nonconforming, nonresponsive, unbalanced, or conditional bids and to reject the bid of any Bidder if the Owner believes that it would not be in the best interest of the project to make an award to that Bidder, whether because the bid is not responsive or if the Bidder is unqualified or of doubtful financial ability or fails to meet any pertinent standards or criteria established by the Owner. The Owner also reserves the right to waive all informalities in any bid should it be deemed in the best interest of the Owner to do so. Discrepancies between the multiplication of units of work and the unit prices will be resolved in favor of the unit price. Discrepancies between the indicated sum of any column of figures and the correct sum will be resolved in favor of the correct sum. Discrepancies between words and figure will be resolved in favor of words.

CONTRACT EXECUTION

The Bidder to whom the contract is awarded shall, **within five (5) calendar days** after notice of award, enter into a written contract with the Owner and furnish bonds and proof of insurance as hereinafter specified. Failure to execute the contract or furnish satisfactory bonds and proof of insurance will be considered cause for annulment of award and forfeiture of the Bidder's surety. Following the execution of the contract, the Bidder shall become known as the Contractor.

PERFORMANCE AND LIEN BONDS

The successful Bidder to whom the contract is awarded shall furnish two (2) surety bonds as follows:

Performance Bond – To Charter Township of Meridian, 5151 Marsh Road, Okemos, MI 48864 for the faithful fulfillment of the terms of the contract in the amount of one-hundred (100) percent of the contract amount.

Payment Bond – To Charter Township of Meridian, 5151 Marsh Road, Okemos, MI 48864 for the payment of all labor and materials used in the work in the amount of one-hundred (100) percent of the contract amount.

MAINTENANCE BOND

See Special Provision for Warranty Work Requirements for Hot Mix Asphalt Pavements.

INCREASED OR DECREASED QUANTITIES

The Owner reserves the right to increase or decrease quantities from those originally estimated and such changes will be paid for at the unit price bid so long as the total contract amount is not changed more than ten (10) percent. Changes in excess of that amount will be individually negotiated.

TIME OF COMPLETION

All work shall be completed **by October 14, 2023**. All work shall be conducted during normal daytime hours unless otherwise approved by the Engineer. Normal daytime hours are considered to be Monday through Saturday from 7 a.m. to 7 p.m. No work shall be conducted during holiday periods, as defined in subsection 101.03 of the Michigan Department of Transportation 2020 Standard Specifications for Construction. Extension of time requests must be made in accordance with section 108.09.

FAILURE TO COMPLETE ON TIME

Liquidated damages will be assessed according to Section 108.10 for each calendar day in which the project remains incomplete beyond the contract completion date, except that all references to seasonal limitations will not apply. Liquidated damages will continue to be assessed each calendar day after the contract project completion date until all work on the project is completed, even if those days extend beyond any seasonal limitations.

PAYMENTS TO CONTRACTOR

Payments will be made to the Contractor on the 30th day of each month based on work completed. The Owner will make a partial payment to the Contractor on the basis of an estimate, prepared by the Engineer, of the work performed on the project during the preceding period less a five (5) percent retainer.

FINAL INSPECTION, ACCEPTANCE AND FINAL PAYMENT

The Engineer will make a final inspection of all work included in the contract, and notify the Contractor of defects to be remedied prior to final acceptance. The Contractor is required to provide unconditional waivers of lien from all sub-contractors and suppliers before preparing a final estimate. Upon satisfactory completion of the work by the Contractor, a final estimate will be prepared. Payment for all work completed and accepted, less previous payments, will be made within thirty (30) days of final acceptance.

DISPUTES

The Engineer's written decision on any question arising under the contract between the Owner and Contractor shall be final and binding upon both the Owner and the Contractor in the absence of fraud, bad faith, or abuse of discretion.

ARBITRATION

All claims, disputes and other matters in question between the Owner and the Contractor arising out of, or relating to, the Contract Documents or the breach thereof (except for claims which have been waived by the making or acceptance of final payment) will be decided by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association then obtaining subject to the limitations of this section. This agreement so to arbitrate and any other agreement or consent to arbitrate entered into in accordance herewith will be specifically enforceable under the prevailing laws of any court having jurisdiction.

No demand for arbitration of any claim, dispute or other matter that is required to be referred to Engineer initially for decision will be made until the earlier of (a) the date on which Engineer has rendered a decision or (b) the tenth day after the parties have presented their evidence to Engineer if a written decision has not been rendered by Engineer before that date. No demand for arbitration of any such claim, dispute or other matter will be made later than thirty (30) days after the date on which Engineer has rendered a written decision in respect thereof; and the failure to demand arbitration within said thirty (30) days' period shall result in Engineer's decision being final and binding upon Owner and Contractor. If Engineer renders a decision after arbitration proceedings have been initiated, such decision may be entered as evidence but will not supersede the arbitration proceedings, except where the decision is acceptable to the parties concerned. No demand for arbitration of any written decision of Engineer will be made later than ten (10) days after the party making such demand has delivered written notice of intention to appeal.

Notice of the demand for arbitration will be filed in writing with the other party to the Agreement and with the American Arbitration Association, and a copy will be sent to Engineer for information. The demand for arbitration will be made within the thirty (30) day or ten (10) day period specified above as applicable, and in all other cases within a reasonable time after the claim, dispute or other matter in question has arisen, and in no event shall any such demand be made after the date when institution of legal or equitable proceedings based on such claim, dispute or other matter in question would be barred by the applicable statute of limitations.

No arbitration arising out of or relating to the Contract Documents shall include by consolidation, joinder or in any other manner any other person or entity who is not a party of this contract unless:

- a) the inclusion of such other person or entity is necessary if complete relief is to be afforded among those who are already parties to the arbitration;
- b) such other person or entity is substantially involved in a question of law or fact which is common to those who are already parties to the arbitration and which will arise in such proceedings, and;
- c) the written consent of the other person or entity sought to be included and of Owner and Contractor has been obtained for such inclusion, which consent shall make specific reference to this paragraph; but no such consent shall constitute consent to arbitration of any dispute

not specifically described in such consent or to arbitration with any party not specifically identified in such consent.

Notwithstanding the above paragraph, if a claim, dispute or other matter in question between Owner and Contractor involves the Work of a Subcontractor, either Owner or Contractor may join such Subcontractor as a party to the arbitration between Owner and Contractor hereunder. Contractor shall include in all subcontracts a specific provision whereby the Subcontractor consents to being joined in arbitration between Owner and Contractor involving the Work of such Subcontractor. Nothing in this paragraph nor in the provision of such subcontract consenting to joinder shall create any claim, right or cause of action in favor of Subcontractor and against Owner or Owner's Consultants that does not otherwise exist.

The award rendered by the arbitrators will be final, judgment may be entered upon it in any court having jurisdiction thereof, and it will not be subject to modification or appeal.

PROGRESS SCHEDULE

In no case shall any work be commenced prior to the receipt of a Notice of Award.

The low bidder for the work covered by this proposal will be required to meet with the Owner and Engineer to review the Contractor's proposed schedule. The date and time for this meeting will be set within (1) week after the low bidder is determined. The Engineer will arrange the time and place for the meeting.

An approved progress schedule shall be submitted in accordance with section 108.05 prior to starting work.

TAXES

The Contractor shall include, and will be deemed to have included, in its base bid and contract price all applicable Michigan Sales and Use taxes which have been enacted into law as of the date the bid is submitted.

OWNER'S RESPONSIBILITY

The Owner shall not supervise, direct or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences or procedures of construction or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with laws and regulations applicable to the furnishing or performance of the work unless otherwise specified in the Special Provisions. Owner will not be responsible for Contractor's failure to perform or furnish the Work in accordance with the Contract Documents.

INDEMNIFICATION, DAMAGE LIABILITY AND INSURANCE

The Contractor, and any and all of his/her subcontractors, shall not commence work under this contract until he/she has obtained the insurance required under this paragraph and any subsequent contract. All coverage's shall be with insurance companies licensed and admitted to do business in the State of Michigan. All coverage's shall be with insurance carriers acceptable to the County of Ingham and rated A+ (Superior) or A or A- (Excellent) by the A.M. Best Company (www.ambest.com).

a) Worker's Compensation Insurance: The Contractor shall procure and maintain during the life of this contract, Workers' Compensation Insurance, including Employers Liability Coverage, in accordance with all applicable Statutes of the State of Michigan.

b) Commercial General Liability Insurance: The Contractor shall procure and maintain during the life of this contract, Commercial General Liability Insurance on an "Occurrence Basis" with limits of liability not less than \$1,000,000 per occurrence and/or aggregate combined single limit for Personal Injury, Bodily Injury and Property Damage. Coverage shall include the following extensions: (A) Contractual Liability; (B) Products and Completed Operations; (C) Independent Contractors Coverage; (D) Broad Form General Liability Extensions or equivalent, if not already included; (E) Deletion of all Explosion, Collapse, and Underground (XCU) Exclusions, if applicable; (F) Per contract aggregate.

c) Motor Vehicle Liability Insurance: The Contractor shall procure and maintain during the life of this contract, Motor Vehicle Liability Insurance, including applicable No-Fault coverage's, with limits of liability of not less than \$1,000,000 per occurrence combined single limit for Bodily Injury and Property Damage. Coverage shall include all owned vehicles, all non-owned vehicles and all hired vehicles.

d) Professional Liability/Errors and Omissions Insurance: The Contractor shall procure and maintain during the life of this contract, Professional Liability insurance in an amount not less than \$1,000,000 per occurrence and aggregate. If this policy is Claims Made Form, then the Contractor shall be required to keep the policy in force, or purchase "tail" coverage, for a minimum of three (3) years after the termination of this contract.

e) Additional Insured: Commercial General Liability and Vehicle Liability, as described above, shall include an endorsement stating the following shall be "Additional Insured's: The County of Ingham, including all elected and appointed officials, all employees and volunteers, all boards, commissions and/or authorities and their board members, including employees, and volunteers thereof. The coverage shall be primary to the Additional Insured's, and not contributing with any other insurance or similar protection available to the Additional Insured's, whether other available coverage is primary, contributing or excess." The appropriate boxes must be checked under the "Addl Insr" heading on the Certificate of Insurance.

f) Cancellation Notice: All insurances described above shall include an endorsement stating the following: "It is understood and agreed that thirty (30) days advanced written notice of cancellation, non-renewal, reduction and/or material change shall be sent to: Ingham County Purchasing Department, P.O. Box 319, Mason, Michigan 48854."

g) Proof of Insurance: The Contractor shall provide the County of Ingham at the time the contracts are returned by him/her for execution, two (2) copies of the aforementioned Certificates of Insurance and/ Policies, acceptable to the County. If so requested, certified copies of all policies will be furnished. The Contractor shall provide the County evidence that all subcontractors are included under the contractor's policy.

If any of the above coverage's expires during the term of this contract, the Contractor shall deliver renewal certificates and/or policies to the County of Ingham at least ten (10) days prior to the expiration date.

Indemnification, damage liability, and insurance shall be in accordance with subsection 107.10 of the Michigan Department of Transportation 2020 Standard Specifications for Construction and the attached special provision.

All insurance policies and binders shall include the following endorsements, verbatim:

"ADDITIONAL INSURED: Charter Township of Meridian and its officers, agents and employees, Ingham County and its officers, agents and employees, and The Mannik & Smith Group, Inc. and its officers, agents and employees.

"Provide written notice ten (10) days prior to cancellation, expiration, termination or reduction in coverage for nonpayment of the premium and written notice thirty (30) days prior to the cancellation, expiration, termination or reduction in coverage for all other reasons."

IRAN ECONOMIC SANCTIONS ACT

The Contractor shall comply with the Iran Economic Sanctions Act, Act 517 of 2012, including the certification required as per Section 129.313(2). This certification shall be enclosed with the sealed bid.

SPECIFICATIONS

All work not otherwise specified shall be done in accordance with the Michigan Department of Transportation 2020 Standard Specifications for Construction. Within these specifications all references to the Michigan Department of Transportation shall mean the Owner.

SPECIAL PROVISIONS, NOTES AND DETAILS, AND SUPPLEMENTAL SPECIFICATIONS

- Technical Specifications
- The most recent version of the Errata to the 2020 Standard Specifications (available online at <https://mdotjboss.state.mi.us/SpecProv/specBookHome.htm>)

The above documents are enclosed for reference or available online, as noted.

COMMUNICATIONS

Any questions regarding this bid shall be directed to the person listed below:

Name: Corey Vincent

Email: cvincent@manniksmithgroup.com

MAINTENANCE OF TRAFFIC

The Contractor is responsible for obtaining a work within the ROW permit. The Contractor shall maintain traffic as directed by the Engineer and in compliance with the ROW permit required by Ingham County Road Department. As a minimum, the Contractor shall be expected to provide a "Road Work Ahead" sign at each entrance into the work area. "Bump" signs shall also be placed at transitions where pavement has been milled. Additional traffic devices shall be provided as needed to meet the requirements of the Ingham County Road Department and the Special Provision for Maintaining Traffic. Access to driveways shall be maintained throughout construction. Temporary ramps shall be left at driveways to facilitate access and removed prior to paving.

UNIT PRICE CONTRACT
Charter Township of Meridian 2023 Roadway Improvements – Milling and HMA Overlay

TO: Charter Township of Meridian

The undersigned, having full knowledge of the site, proposal, plans and specifications for the **Charter Township of Meridian 2023 Roadway Improvements – Milling and HMA Overlay** including Bidders' Addenda _____, and the conditions of these Contract Documents, hereby agrees to furnish all services, labor, materials, tools, equipment, transportation, and incidentals necessary to perform the entire Work; to complete the contract by the date specified in the Instructions to Bidders and General Provisions, according to the Proposal, Plans and Specifications, and to accept in full, compensation for all work necessary to complete the project at the unit prices named below:

UNIT PRICE WORK					
Item Code	Item Description	Approx. Quantity	Unit	Unit Price	Bid Amount
1100001	Mobilization, Max	1	LSUM	\$	\$
2050041	Subgrade Undercutting, Type II	330	Cyd	\$	\$
2080020	Erosion Control, Inlet Protection, Fabric Drop	55	Ea	\$	\$
3020001	Aggregate Base	2000	Ton	\$	\$
3020016	Aggregate Base, 6 inch	330	Syd	\$	\$
3020050	Aggregate Base, Conditioning	43000	Syd	\$	\$
4017010	Sanitary Structure, Chimney Seal, External	520	Sft	\$	\$
4037050	Dr Structure Cover, Adj, Case 1, Modified	30	Ea	\$	\$
4030390	Dr Structure, Temp Lowering	68	Ea	\$	\$
4037050	Sanitary Structure Adj, Case 1	38	Ea	\$	\$
4037050	Sanitary Structure Cover	36	Ea	\$	\$
5010002	Cold Milling HMA Surface	43000	Syd	\$	\$
5010008	Pavt for Butt Joints, Rem	100	Syd	\$	\$
5010025	Hand Patching	5	Ton	\$	\$
5010033	HMA, 13A	6000	Ton	\$	\$
5010034	HMA, 36A	3700	Ton	\$	\$
5010061	HMA Approach	25	Ton	\$	\$
8127051	Traffic Control	1	LSUM	\$	\$
8167011	Slope Restoration, Modified	50	Syd	\$	\$
8230381	Water Shutoff, Adj, Temp, Case 1	1	Ea	\$	\$
8230391	Gate Box, Adj, Temp, Case 1	2	Ea	\$	\$
8230421	Water Shutoff, Adj, Case 1	1	Ea	\$	\$
8230431	Gate Box, Adj, Case 1	2	Ea	\$	\$
8252140	Sanitary Structure Adj, Add Depth	2	Ft	\$	\$

Contractor Signature: _____

Printed Name and Title: _____

Quantities are not guaranteed. Final payment will be based on actual quantities.

Bidder agrees that the work will be completed and ready for final payment in accordance with the General Conditions. All work on the **Charter Township of Meridian 2023 Roadway Improvements – Milling and HMA Overlay** to be completed by **October 14, 2023** and as detailed in the Time of Completion section above.

Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the work on time.

The following documents are attached to and made a condition of this Bid:

Required Bid Security in the form of either:

Certified Check or a Bidder's Bond in the amount of:

_____ Dollars (\$ _____)

Communications concerning this Bid shall be addressed to the Bidder's representative.

Name of Representative: _____

Address: _____

City, State, ZIP: _____

Telephone Number: _____

Fax Number: _____

E-Mail Address: _____

The terms used in this Bid, which are defined in Division 1 of the Michigan Department of Transportation 2020 Standard Specifications of the Construction, have the meanings assigned to them in the Standard Specifications for Construction.

SUBMITTED on: _____, 2023.

If Bidder is:

An Individual

By: _____ (SEAL)
Individual's Name

Doing Business As: _____

Business Address: _____

Phone No.: _____

A Partnership

By: _____ (SEAL)
Firm Name

_____ General Partner

Business Address: _____

Phone No.: _____

A Corporation

By: _____ (Corporate SEAL)
Corporate Seal

State of Incorporation

By: _____
Name of Person Authorized to Sign

Title

Business Address: _____

Phone No.: _____

A Joint Venture

By: _____
Name

Business Address: _____

Phone No.: _____

By: _____
Name

Business Address: _____

Phone No.: _____

(Each joint venture must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above.)

PROJECT OVERVIEW

Overall Scope of Work

Work will consist of a variety of road improvements including cold milling, HMA resurfacing, and restoration on approximately 2.17 miles of local roads in the Charter Township of Meridian, Ingham County, Michigan as specified in this bid proposal. The details of work to be performed on the roads selected for cold milling is outlined in the Log of Work.

Summary of Roads

Refer to Table 1 below. A list of each road is shown with the length, and average width. Refer to Appendix B for available pavement core information. Pavement depth varies and the cores only represent thicknesses at that specific location. Charter Township of Meridian may add roads to the list below to be completed under this contract. Additional roads, if added, will be discussed at the preconstruction meeting.

Table 1

Road Name	POB	POE	Length (mi)	Avg Width (ft)
Area A				
Honey Creek Cir	Wood Valley Dr	End	0.09	27
Woodmont Cir	Wood Valley Dr	End	0.09	27
Area B				
Chipping Camden Ln	Newman Rd	End	0.13	33
Buttercup Ln	Newman Rd	End	0.19	33
Area C				
Manitou Dr	Birchwood Dr	End	0.04	27
Area D				
Buglers Way	Highgate Ave	Patriots Way	0.19	33
Southwood Dr	Cambria Dr	Still Valley Dr	0.37	27 & 33
Still Valley Dr	Blythefield Dr	End	0.23	27 & 33
Still Valley Ct	Still Valley Dr	Still Valley Dr	0.06	20
Blythefield Dr	Still Valley Dr	Buglers Way	0.17	30
Colony Dr	Highgate Ave	Blythefield Dr	0.05	27
Shadowlawn Dr	Southwood Dr	Buglers Way	0.22	27
Shadowlawn Ct	Buglers Way	End	0.04	32
Area E				
Creek Landing	Bayonne Ave	End	0.29	27

PROGRESS CLAUSE

Charter Township of Meridian 2023 Roadway Improvements – Milling and HMA Overlay

After receiving Notice of Award, start work within ten (10) days, or on or before the date designated as the starting date in the approved Detailed Progress Schedule (MDOT Form 1130). In no case shall any work be commenced prior to receipt of formal notice of award by the Engineer and the Detailed Progress Schedule has been approved.

Lane closures or detours will not be permitted without prior written authorization.

All work shall be completed on or before **October 14, 2023**.

The low bidder for the work covered by this proposal will be required to submit a Progress Schedule to the Engineer within five (5) calendar days of confirmation of the low bid.

The Progress Schedule shall include, as a minimum, the controlling work items for the completion of the project and the planned dates (or work day for a work day project) that these work items will be controlling operations. As specified in the bidding proposal, the project completion date and any other controlling dates specified in the proposal shall also be included in the Project Schedule.

HMA paving shall take place within ten (10) calendar days of any cold milling or pavement removal operation. The Contractor shall schedule operations to have the leveling course paved in the active area prior to opening the next.

The Project Engineer will arrange the time and place for the preconstruction meeting, if needed. The named subcontractor(s) for designated and/or specialty items included in the proposal shall be included with the Progress Schedule if such items materially affect the workschedule.

The Contractor shall be expected to mobilize sufficient labor and equipment to complete the project within the specified time frames. This includes concurrent crews working at different locations as needed based on the Contractor's progress and schedule.

Failure by the Contractor to meet interim completion, open to traffic, and/or final completion dates will result in the assessment of liquidated damages in accordance with subsections 108.10.C.1 and 108.10.C.2 of the Standard Specifications for Construction. Liquidated Damages will be assessed according to Section 108.10. Extension(s) of time will not be granted for:

1. Increases in contract quantities or extra work, unless it can be shown that such increases or extras affect the critical item(s) of work.
2. Labor disputes, unless it can be shown that such disputes are industry wide, and that the delay affects the critical item(s) of work.
3. Delays resulting from work stoppages ordered by the Department for Contractor non-compliance.
4. Delays in delivery of critical materials unless the delay can be shown to be industry wide and the delay affects the critical item(s) of work.

Curb replacement and ADA sidewalk ramp improvements for streets selected for milling are being completed under a separate contract. The concrete contract will be let for bidding within the same timeframe as the 2023 Roadway Improvements contract. Concrete work on the streets to be milled will begin immediately after the concrete contract is awarded. Both contractors selected for the concrete work and the roadway work will be at the preconstruction meeting to facilitate coordination. The Contractor shall coordinate with the selected Contractor for the Township's concrete work to complete MDOT Form 1130.

**NOTICE TO BIDDERS
UTILITY COORDINATION CLAUSE**

The Contractor shall cooperate and coordinate construction activities with the owners of utilities as stated in section 104.08 of the 2020 MDOT Standard Specifications for Construction. In addition, for the protection of underground utilities, the Contractor shall follow the requirements in Section 107.12 of the 2020 MDOT Standard Specifications for Construction. Contractor delay claims resulting from a utility, will be determined based upon Section 109.05 of the 2020 MDOT Standard Specifications for Construction.

For protection of underground utilities in conformance with Public Act 174, the Contractor shall dial 1-800-482-7171 or 811 a minimum of three (3) full working days, excluding Saturdays, Sundays and holidays, prior to beginning each excavation in areas where public utilities have not been previously located. Members will thus be routinely notified. This does not relieve the Contractor of the responsibility of notifying utility owners who may not be a part of the "MISS dig" alert system.

PUBLIC UTILITIES

The following Public Utilities have facilities located within the Right-of-Way:

Communications

AT&T
Darnell Taylor
(517) 337-3509
dt5439@att.com

Electric

CMS Energy
Jacob Chalut
(517) 580-2049
Jacob.chalut@cmsenergy.com

Gas

CMS Energy
Adam Bertram
(517) 614-8570
Adam.Bertram@cmsenergy.com

Water & Sewer

Charter Township of Meridian - DPW
Ryan Schaner
(517) 853-4464
schaner@meridian.mi.us

Consumers Energy (gas) will be performing work on the following roads that may occur during the project's scheduled timeframe:

Service Only Work

- Blythfield Dr.
- Shadowlawn Dr.
- Southwood Dr.

The Contractor is hereby notified of preceding and concurrent work in the project area. Consumers Energy will be performing underground electrical work with in the construction influence area (CIA). Where either contractor has traffic control in the project area, the Contractor shall coordinate installation of traffic control devices shown on the plans with those devices to avoid a gap in time or space between the two sets of traffic control. The Contractor shall conduct his operations in such a way as to avoid interfering with work by others and shall coordinate with others as required. This coordination will not be paid for separately but shall be included in the appropriate items of work identified in the Proposal.

MICHIGAN LOCAL AGENCY
SPECIAL PROVISION
FOR
WARRANTY WORK REQUIREMENTS FOR HOT MIX ASPHALT PAVEMENTS

CRA/MML	1 of 3	09/04/2018
MDOT		09/18/2018
FHWA		11/01/2018

a. Description. This special provision is for use with MICHIGAN LOCAL ROAD AGENCY SPECIAL PROVISION FOR HOT MIX ASPHALT and CONCRETE PAVEMENT WARRANTY for Local Agency projects constructing a Hot Mix Asphalt (HMA) pavement that will be warranted against defects in workmanship and materials.

Follow Section 501 of the current MDOT Standard Specifications for Construction to determine initial acceptance of a warranted project.

b. Definitions of the Work Types as defined in this specification

Long Term Warranty - This includes **New Construction / Reconstruction** and HMA placement on an approved aggregate base where the subbase and drainage have been analyzed and determined that the planned improvements meet design life requirements.

Medium Term Warranty– This includes **Rehabilitation** and when HMA is placed on an aggregate base, subbase, and/or drainage situation, which was not analyzed to assure that the existing materials and/or planned improvements meet the pavement’s design life requirements and the project did not include or improve the base, sub-base and/or drainage. This includes crush-shape-pave projects and other similar 3R work.

Short Term Warranty– This is for **Overlays** when HMA is placed on existing HMA, concrete or composite pavement.

c. Terms of the Warranty

Limits of Warranted Work - Warranted work includes all HMA placed in driving lanes in the project limits, unless otherwise indicated on project documents.

Warranty Term – A timeframe which begins at the Acceptance Date of Warranted Work of a completed HMA project. Multi-phased projects may have multiple “Acceptance Dates of Warranted Work.” Warranty term length is specified in Table 1

Warranty Bond - The Contractor shall furnish a single term bond worth 5% of the total contract or \$1,000,000 whichever is less, secured in the name of the road owner and/or the agency in charge of the project. The effective starting date of the warranty bond will be the Acceptance Date of Warranted Work. The warranty bond will be released at the end of the warranty period or upon satisfactory completion of all warranty work; whichever is later.

Warranty Requirements - Table 1 lists maximum allowable defect thresholds for each condition per 1/10-mile lane segments and the maximum allowable number of defective segments for each condition parameter. If the Contractor has exceeded any warranty requirement, even in non-contiguous segments, the Engineer will request warranty fixes.

Each Driving lane will be assessed separately. Any warranty work required of the Contractor to correct deficiencies for any condition, will be full-width across the entire driving lane.

d. Quality Control/Quality Assurance (QA/QC) - The Contractor is responsible for project quality and must provide QC testing procedures and results to the Engineer.

The Engineer will perform Quality Assurance (QA) testing, as a spot-check to determine Initial Acceptance or assess penalties if specifications are not met. QA testing does not relieve the Contractor of QC responsibilities.

e. Corrective Actions. Table 2 lists recommended corrective actions to outline typical acceptable treatments for the various condition parameters. The Agency will accept the listed corrective action if the action addresses the cause of the condition parameter. The Contractor may use an alternative action subject to Engineer's approval.

Table 1: Warranty Requirements

Condition Parameter	LONG TERM WARRANTY (INCLUDES NEW CONSTRUCTION / RECONSTRUCTION)		MEDIUM TERM WARRANTY (INCLUDES REHABILITATION CRUSH & SHAPE & PAVE)		SHORT TERM WARRANTY (INCLUDES SINGLE COURSE & MULTIPLE COURSE OVERLAY)	
	Threshold Limits Per Segment (Segment Length = 528 feet = 1/10 mile)	Max. Defective Segments Per Driving Lane Mile	Threshold Limits Per Segment (Segment Length = 528 feet = 1/10 mile)	Ma Defective Segments Per Driving Lane Mile	Threshold Limits Per Segment (Segment Length = 528 feet = 1/10 mile)	Max. Defective Segments Per Driving Lane Mile (c)
Warranty period	5 years		3 years		1 year	
Transverse Cracking	3(b)	1	3(b)	2 (d)	3(a,b,d)	3 (a,d)
Open Joints & Long. cracking	10% of Segment length	1	25% of Segment length	2 (d)	25% of Segment length(a,d)	3 (a,d)
De-bonding	5% of Segment length	1	5% of Segment length	1	5% of Segment length	1
Raveling	8% of Segment length	1	8% of Segment length	1	8% of Segment length	1
Flushing	5% of Segment length	1	5% of Segment length	1	5% of Segment length	1
Rutting (d, e, f)	Ave. rut depth = 3/8 inch	1 (e)	Ave. rut depth = 3/8 inch	1 (e)	Ave. rut depth = 3/8 inch	1 (e)
Alligator or Block cracking (g)	Any amount	0 (none allowed)	Any amount	0 (none allowed)	Any amount	0 (none allowed)

- a. For a single course overlay, or multiple course overlays less than 2" thick, transverse and longitudinal cracking will not be warranty conditions.
- b. For segments less than 1/10 mile in length, divide the segment length in feet by 528. Then multiply the threshold limit shown in the table by this fractional number. Round the result to the nearest whole number for the new threshold limit. In no case can the threshold limit be less than 1.

The maximum allowable number of defective segments per condition for a specific driving lane is determined by multiplying the length of the specific driving lane in miles by the maximum allowable defective segments per mile as shown in the table for that condition. Round all fractional values n to the nearest whole number. In no case can the max. segments per driving lane limit be less than 1.

- c. The Engineer shall waive this requirement if it is determined the cracks are reflective cracks from the surface being overlaid.
- d. Rut-depth threshold applies to each wheel path individually.
- e. For single course overlays constructed on existing rutted pavement without first milling, wedging or otherwise fixing the existing ruts $> 1/2$ inch, the Engineer shall waive this requirement.
- f. The Engineer will evaluate for rutting throughout the warranty period. If rutting is found in a 1/10-mile segment, the rutting will be measured in that segment at the POB and every 132 feet thereafter.

The Engineer will take rut measurements with a straight, rigid device at least 7 feet long that does not deflect from its own weight, or a wire that remains taut when extended 7 feet. The Engineer will place across the pavement, perpendicular to travel with at least one bearing point on either side of a rut. The straightedge is properly located when sliding it along its axis does not change these contact points. The Engineer will measure rut depth at the greatest distance from the bottom of the straightedge to the bottom of the paved rut.

- g. Any amount of alligator and/or block cracking is unacceptable, and must be removed and replaced as directed by the Engineer.

Table 2: Suggested Corrective Actions

Condition Parameter	Recommended Action
Transverse cracking	Seal, or cut/seal (per Engineer direction)
Longitudinal cracking	Seal, or cut/seal (per Engineer direction)
De-bonding	Mill, resurface affected courses
Raveling	Mill, resurface affected courses
Flushing	Mill, resurface affected courses
Rutting	Microsurface or mill/resurface (a)
Alligator or block cracking	Remove and replace (b)
Note: The actual fix approved by the Engineer may differ from these suggestions.	
a. The Engineer's recommended action depends on rut depth.	
b. Removal and replacement will be required for any areas exhibiting alligator or block cracking to the extent and depth of the cracking.	

CHARTER TOWNSHIP OF MERIDIAN

SPECIAL PROVISION
FOR
HMA APPLICATION ESTIMATE

MERIDIAN TWP:MSG

1 of 1

1-04-2023

a. Description. – Perform this work according to Division 5 of the Michigan Department of Transportation 2020 Standard Specifications for Construction and applicable supplemental specifications and special provisions, and as specified herein.

b. Materials. - Furnish and place HMA Bond Coat material per Section 501.02, at an application rate of 0.05 to 0.15 gallons per square yard to assure uniform, complete coverage as directed by the Engineer. Furnish all HMA mixtures using asphalt cement binder meeting requirements for Performance Grade PG 58-28. Regress air voids for mainline top course HMA mixtures to 3 percent. Do not exceed 17% Recycled Asphalt Pavement (RAP) binder by weight (Tier I RAP mixes). Furnish all HMA mixtures used for top course with aggregate having 260 minimum aggregate wear index (AWI).

- i. HMA in Pavement Removal Sections.** Furnish and place HMA, 36A mixture for top course at a yield of 165 lbs per square yard. Furnish and place HMA, 13A mixture for leveling course at a yield of 275 lbs per square yard according to the typical cross sections and as directed.
- ii. HMA Approach.** Furnish and place HMA, 36A mixture for top course at a yield of 165 lbs per square yard. Furnish and place HMA, 13A mixture for leveling course at a yield of 275 lbs per square yard according to the typical cross sections and as directed.
- iii.** Performance Grade: PG 58-28

MICHIGAN DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
MARSHALL HOT MIX ASPHALT MIXTURE

CFS:JWB

1 of 2

APPR:EHR:CJB:09-25-06
FHWA:APPR:06-06-11

a. Description. Furnish hot mix asphalt (HMA) mixture, designed using Marshall Mixture Design Methods, in accordance with the standard specifications except as modified by this special provision.

b. Mix Design. Submit the mix design for evaluation in accordance with the Department's HMA Production Manual. Use a 50 blow Marshall hammer when compacting mixtures for developing Marshall mix designs.

c. Recycled Mixtures. Substituting reclaimed asphalt pavement (RAP) for a portion of the new material required to produce HMA mixture is allowed provided that the mixture is designed and produced to meet all criteria specified herein, unless otherwise prohibited. RAP materials must be in accordance with the standard specifications.

d. Materials. Table 1 provides the mix design criteria and volumetric properties. Table 2 provides the required aggregate properties. Use aggregates of the highest quality available to meet the minimum specifications. Use the mixture designation number shown in the contract item name when determining mix design properties from Tables 1 and 2.

e. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item	Pay Unit
HMA, (type)	Ton

Table 1: Mix Design Criteria and Volumetric Properties

	Mixture No.				
	2C	3C	4C	13A	36A
Target Air Void, % (a)	3.00	4.00	4.00	3.00	3.00
VMA (min) (b)	11.00	13.00	14.00	14.00	15.00
VFA	65-78	65-78	65-78	65-78	65-78
Fines to Binder Ratio (max) (c)	1.2	1.2	1.2	1.2	1.2
Flow (0.01 inch)	8 -16	8 -16	8 -16	8 -16	8 -16
Stability (min), lbs	1200	1200	1200	900	900
<p>a. Lower target air voids by 1.00% if used in a separate shoulder paving operation. Consider reducing air void targets to 3.00% for lower traffic volume roadways when designing 13A and 36A mixtures for local agency use.</p> <p>b. VMA calculated using Gsb of the combined aggregates.</p> <p>c. Ratio of the weight of aggregate passing the No. 200 sieve to total asphalt binder content by weight; including fines and binder contributed by RAP.</p>					

Table 2: Aggregate Properties

	Mixture No.				
	2C	3C	4C	13A	36A
	Percent Passing Indicated Sieve or Property Limit				
1½ inch	100				
1 inch	91-100	100			
¾ inch	90 max.	91-100	100	100	
½ inch	78 max.	90 max.	91-100	75-95	100
⅜ inch	70 max.	77 max.	90 max.	60-90	92-100
No. 4	52 max.	57 max.	67 max.	45-80	65-90
No. 8	15-40	15-45	15-52	30-65	55-75
No. 16	30 max.	33 max.	37 max.	20-50	
No. 30	22 max.	25 max.	27 max.	15-40	25-45
No. 50	17 max.	19 max.	20 max.	10-25	
No. 100	15 max.	15 max.	15 max.	5-15	
No. 200	3-6	3-6	3-6	3-6	3-10
Crushed (min), % (MTM 117)	90	90	90	25	60
Soft Particle (max), % (a)	12.0	12.0	8.0	8.0	8.0
Angularity Index (min) (b)	4.0	4.0	4.0	2.5	3.0
L.A. Abrasion (max), % loss (c)	40	40	40	40	40
Sand Ratio (max) (d)	-	-	-	50	50
<p>a. The sum of the shale, siltstone, structurally weak, and clay-ironstone particles must not exceed 8.0 percent for aggregates used in top course. The sum of the shale, siltstone, structurally weak, and clay-ironstone particles must not exceed 12.0 percent for aggregates used in base and leveling courses.</p> <p>b. The fine aggregate angularity of blended aggregates, determined by MTM 118, must meet the minimum requirement. In mixtures containing RAP, the required minimum fine aggregate angularity must be met by the virgin material. NAA fine aggregate angularity must be reported for information only and must include the fine material contributed by RAP if present in the mixture.</p> <p>c. Los Angeles abrasion maximum loss must be met for the composite mixture, however, each individual aggregate must be less than 50</p> <p>d. Sand ratio for 13A and 36A no more than 50% of the material passing the No. 4 sieve is allowed to pass the No. 30 Sieve.</p>					

CHARTER TOWNSHIP OF MERIDIAN

SPECIAL PROVISION
FOR
**DR STRUCTURE COVER, ADJ, CASE 1, MODIFIED
AND SANITARY STRUCTURE, ADJ, CASE 1**

MERIDIAN TWP:MSG

1 of 3

01-11-2023

a. Description

This work shall consist of adjusting drainage structure covers and sanitary structure covers in accordance with section 403, 602, 603, 905, 914 and 1004 of the *Michigan Department of Transportation (MDOT) 2020 Standard Specifications for Construction* except as herein provided.

b. Materials

Provide materials in accordance with subsection 403.02 of the *MDOT 2020 Standard Specifications for Construction* and the *Special Provision for Sanitary Structures – Meridian* with the following exceptions:

Provide Concrete, Grade 3500 or 3500HP in accordance with section 1004 of the MDOT 2020 Standard Specifications for Construction and meet ASR requirements. Provide epoxy anchored lane ties in accordance with section 905 of the MDOT 2020 Standard Specifications for Construction. The lane ties must be #5 bar size with a nominal length of 18 inches. The circular bar for the rotary cut application must be epoxy coated #5 bar of a diameter that will center it between the structure cover and the existing surrounding pavement. Select epoxy for anchoring lane ties into the concrete from section 7.12.03J of the Qualified Products List. Provide hot-poured joint sealant in accordance with section 914 of the MDOT 2020 Standard Specifications for Construction.

c. Construction

All structures are to be opened by the Contractor for inspection by the Engineer and Utility representatives for confirmation and/or change of adjustment and reconstruction quantities prior to beginning any work. Payment for inspection of structures shall be paid as part of the structure adjustment items. When work is being performed, the Contractor shall notify the Engineer for inspection. Final work shall not be accepted until written acceptance is received from the utility owner. All structures are to be opened by the Contractor for inspection by the Engineer and Utility representatives for final inspection.

The Contractor shall record the location of the structure so each cover can be reinstalled at its original location. The method for recording the structure locations must be approved by the Engineer prior to starting work. The Contractor is responsible for field locating the cores.

For structures within the pavement area, remove pavement adjacent to the drainage structure cover using a rotary coring method. The rotary core shall remove a minimum 4-foot diameter section of pavement around the drainage structure frame and cover. If the frame outside diameter measurement is greater than 36 inches, use a rotary coring head to remove a minimum 4.5-foot diameter section of pavement.

Prior to setting the frame compact exposed soil using a method approved by the Engineer.

The structure rim shall be within 0.25 inches of final elevation of HMA or concrete pavement using the 10-foot straight edge method.

Support the cover frame over the structure matching the adjacent roadway cross slope. Secure the frame in-place to allow for placement of concrete using brick or block as required on a full bed of mortar without altering frame position. Remove deteriorated portions of drainage structure. Reconstruct removed portions of sanitary structures using precast units. Use blocks only where approved by the Engineer. Reconstruct chimneys only with pre-cast concrete adjusting rings to the elevations indicated on the plans or as directed by the Engineer. Do not use more than 12 inches of adjusting rings on a single chimney. One-inch (1") butyl rope shall be placed continuously around the perimeter between all adjusting rings, below the bottom ring, and above the top ring. Use at least 2 adjusting rings beneath the casting. Apply a ½ inch thick plaster coat of mortar to all inner and outer surfaces of adjusted areas as directed. Joint sealant to be applied after concrete placement, but before the end of the construction season.

Structures shall be cleaned of debris and construction materials prior to final acceptance and payment.

Install epoxy anchored lane ties in accordance with section 603 of the MDOT 2020 Standard Specifications for Construction to anchor the concrete to adjacent composite pavement where applicable or as directed by Engineer. Install circular epoxy coated bar as detailed below. Once pavement is removed and structure cover is adjusted, replace pavement around the frame with Concrete, Grade 3500 or 3500HP matching the finished elevation and cross-slope of the roadway. Construct plane of weakness joints when square structure covers are adjusted or as directed by the Engineer.

Immediately remove any debris that falls into drainage structures or other utility manholes due to Contractor operations.

Do not overcut into adjacent paving when constructing plane of weakness joints.

d. Measurement and Payment

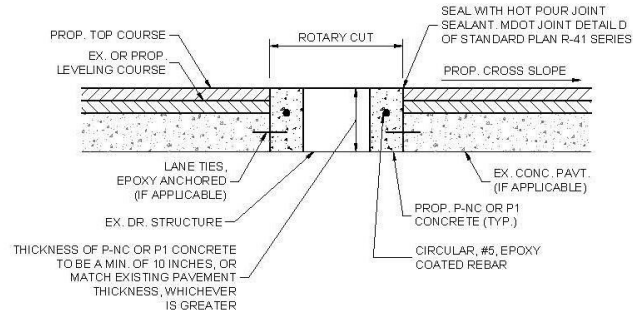
The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

<u>Pay Item</u>	<u>Pay Unit</u>
Dr Structure Cover, Adj, Case 1, Modified.....	Each
Sanitary Structure, Adj, Case 1.....	Each

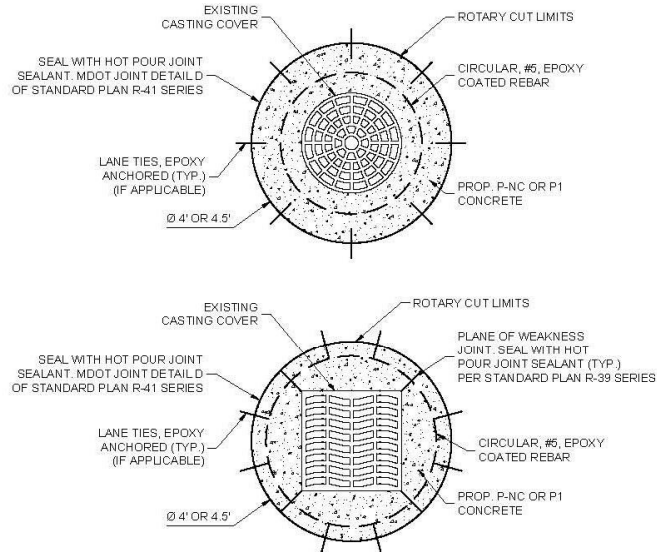
Dr Structure Cover, Adj, Case 1, Modified and Sanitary Structure, Adj, Case 1 includes:

1. Furnishing and placement of all materials described above
2. Removal and disposal of existing pavement and debris
3. Cleaning and sealing joints with hot-poured joint sealant
4. Constructing plane of weakness joints, as directed by the Engineer
5. Salvaging and reusing existing cover and frame, as directed by the Engineer
6. Cost of repairs for uniform contact of temporary steel plate to the top of structures
7. Providing, placing and removal of temporary plating of the structure
8. Temporary lowering of the structures including:
 - A. Match marking for later identification and placement of covers;
 - B. Record the location of the structure so each cover can be reinstalled at its original location
 - C. Removing, salvaging, and transporting castings to and from site;
 - D. Storing the existing structure castings;
 - E. Temporary plating the structure. Plate materials shall meet *MDOT 2020 Standard Specifications for Construction* section 403.02.
 - F. HMA patching;
 - G. Removing the temporary plate and HMA patching materials for final adjustment.
9. Existing structure covers that have been replaced are to be disposed of in a legal manner off the project by the Contractor included in the structure adjustment pay items.

Sanitary Structure, Adj, Case 1 includes all work, materials, and labor as specified in the Special Provision for Sanitary Structure – Meridian.



PAVEMENT AREAS - ELEVATION VIEW



PAVEMENT AREAS - PLAN VIEW

PAVEMENT REMOVAL AND REPAIR DETAIL FOR
DR STRUCTURE COVER, ADJ, CASE 1, MODIFIED
AND
SANITARY STRUCTURE ADJ, CASE 1

CHARTER TOWNSHIP OF MERIDIAN
SPECIAL PROVISION
FOR
SANITARY STRUCTURES – MERIDIAN

MERIDIAN TWP:MSG

1 of 1

01-04-2023

a. Description. Perform this work according to the plans, the Michigan Department of Transportation 2020 Standard Specifications for Construction, and as specified herein.

b. Materials. For project locations in Meridian Township, furnish East Jordan Iron Works 1045W manhole frame(s). Furnish East Jordan Iron Works 1040 lid(s) with a watertight rubber gasket and bearing the words “SANITARY”, “MERIDIAN TOWNSHIP”, and the Township logo.

c. Construction Methods. Temporarily lower and adjust sanitary structures according to the plans, Section 403, and as directed by the Engineer except as described herein.

Remove deteriorated portions of drainage structure. Reconstruct removed portions of sanitary structures using precast units. Use blocks only where approved by the Engineer. Reconstruct chimneys only with pre-cast concrete adjusting rings to the elevations indicated on the plans or as directed by the Engineer. Do not use more than 12 inches of adjusting rings on a single chimney. One-inch (1") butyl rope shall be placed continuously around the perimeter between all adjusting rings, below the bottom ring, and above the top ring. Use at least 2 adjusting rings beneath the casting. Apply a ½ inch thick plaster coat of mortar to all inner and outer surfaces of adjusted areas as directed.

Structures shall be cleaned of debris and construction materials prior to final acceptance and payment.

d. Measurement and Payment. The completed work for **Sanitary Structure, Adj, Add Depth**, will be measured and paid for by the vertical foot, according to Section 403. Payment includes all material, equipment, and labor to complete this work as specified herein. When this work is performed, the *work for temporary lowering will not be paid for separately*. When the work for **Sanitary Structure, Adj, Add Depth** is not performed, temporary lowering of sanitary structures will be paid for separately as *Dr Structure, Temp Lowering*, according to Section 403.

The completed work for **Sanitary Structure Cover** and **Sanitary Structure Adj, Case_____** will be measured and paid by the unit each and includes all material (as noted with frames and lids), equipment, and labor to complete this work as specified herein. In addition, Sanitary Structure Adj, Case 1 shall include all materials, equipment, and labor to complete the work as outlined in the *Special Provision for Dr Structure Adj, Case 1, Modified and Sanitary Structure Adj, Case 1*.

<u>Pay Item</u>	<u>Pay Unit</u>
Sanitary Structure, Adj, Add Depth	Foot
Sanitary Structure Adj, Case__	Each
Sanitary Structure Cover	Each

INGHAM COUNTY ROAD DEPARTMENT
SPECIAL PROVISION
FOR
SANITARY STRUCTURE, SEAL, EXTERNAL

ICRD:DJT

1 of 1

03-31-2016

a. Description. This work consists of installing woven polypropylene infiltration sealing tape on sanitary structure chimney and casting joints according to the requirements of Section 403 of the 2020 Michigan Department of Transportation Standard Specifications for Construction, and as specified herein.

Furnish sealing tape from one of the following manufacturers, or approved equal:

Boa Tape Garlock Sealing Technologies N666 Division Street Palmyra, NY 14522 800.448.6688 www.garlock.com	Infi-Shield Sealing Systems, Inc. 9350 County Road 19 Loretto, MN 55357 800.478.2054 www.ssisealingsystems.com	EZ Wrap Press-Seal Coporation 2424 West State Blvd Fort Wayne, IN 46808 800.348.7325 www.press-seal.com	Creutex Wrap Creutex Specialty Products N25 W23790 Commerce Cir, Suite E Waukesha, WI 53188 800.345.3764 www.cretexseals.com
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b. Materials. Furnish a wraparound sealing product designed for external use on manhole structure meeting the following criteria:

Adhesive	ASTM Test	Test Results
Softening Point	ASTM E-28	116°C (240°F)
Dielectric Strength	ASTM D-1000	350 volts/mil
Tape		
Tensile Strength	ASTM D-1000	75 lbs./inch width
Elongation	ASTM D-1000	40%
Puncture Resistance	ASTM E 164	200 lbs.
Water Absorption	ASTM D-570	0.05%
Penetration Resistance	ASTM G-9	PASS
Fungal Resistance	ASTM G-21	Growth-None

c. Installation. Install the seal over the entire chimney area, overlapping at least four (4) inches of the manhole cone, and at least two (2) inches of the manhole casting. Install the product according to the Manufacturer's specifications. Furnish product data sheet including certification of the specified properties to the Engineer prior to installation. The Contractor shall clear all debris from the operation out of the manhole. Sealant shall be applied prior to placing final pavement.

d. Measurement and Payment. The complete work for **Sanitary Structure, Chimney Seal, External**, will be measured by area in square feet (perimeter x vertical depth) of the external manhole chimney surface. Payment for **Sanitary Structure, Chimney Seal, External** will be at the contract unit price includes all material, equipment, and labor to complete this item.

<u>Pay Item</u> Sanitary Structure, Chimney Seal, External	<u>Pay Unit</u> Square Foot
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CHARTER TOWNSHIP OF MERIDIAN

SPECIAL PROVISION
FOR
SLOPE RESTORATION, MODIFIED

MERIDIAN TWP:MSG

1 of 2

10-27-22

a. Description. This work consists of preparing areas designated for slope restoration as shown on the plans or as directed by the Engineer and applying topsoil, fertilizer, seed, and bonded fiber matrix (BFM) mulch. Ensure turf establishment is in accordance with section 816 of the Standard Specifications for Construction and Standard Plan R-100 Series, except as modified herein or otherwise directed by the Engineer.

b. Materials. Provide the materials and use the application rates specified in sections 816 and 917 of the Standard Specifications for Construction unless modified by this special provision, the BFM manufacturer's guidelines or otherwise directed by the Engineer. Use the following materials on this project:

1. Seeding mixture shall meet the requirements of a THM mix.
2. Fertilizer, Chemical Nutrient, Class A.
3. Topsoil Surface, Furn, 4 inch or Topsoil Surface, Salv, 4 inch is required in all areas designated on the plans as Slope Restoration, Modified. Remove any stones greater than 1 inch in diameter and all other debris from the topsoil.
4. Bonded Fiber Matrix. Provide a product from the list below or an approved equal.
 - Soil Guard manufactured by Mat, Inc.;
 - HydroStraw BFM manufactured by HydroStraw, LLC; HydraMax manufactured by North American Green;
 - Bindex BFM manufactured by American Excelsior Company; ProMatrix EFM manufactured by Profile Products, LLC.

If multiple grades of the selected product are available, use the grade appropriate for the application as approved by the Engineer.

Approved equal BFMs must consist of long strand, virgin wood fibers (90 percent by weight) bound together by a pre-blended, high strength polymer adhesive (10 percent by weight). The virgin wood fibers will be thermally refined from clean whole wood chips. Ensure the organic binders are a high viscosity colloidal polysaccharide tackifier with activating agents to render the resulting matrix insoluble upon drying.

c. Construction Methods. The Contactor shall restore disturbed areas as described in Subsection 816.03 of the MDOT's 2020 Standard Specifications for Construction. Begin this work as soon as possible after final grading of the areas designated for slope restoration but no later than the maximum time frames allowed by subsection 208.03 of the Standard Specifications for Construction. Materials shall be placed at rates specified in Section 816 of MDOT's 2020 Standard Specifications for Construction.

Shape, compact and assure all areas to be seeded are weed free prior to placing topsoil. Place topsoil to the minimum depth indicated herein to meet proposed finished grade. Topsoil shall be placed along the edge in such a manner that it is flush with the new shoulder and is feathered down to match with the existing ground. In the event that sufficient suitable topsoil is not salvaged from the grading operation, the Contractor shall furnish the additional topsoil required as part of "Slope Restoration, Modified". The application rates for other items covered under "Slope Restoration, Modified" shall meet or exceed the rates called for in Section 816 of the MDOT's 2020 Standard Specifications for Construction.

Ensure topsoil is weed and weed seed free and friable prior to placing seed. Remove any stones greater than 1 inch in diameter and other debris. Apply seed mixture and fertilizer to prepared soil surface. If using hydroseeding equipment, incorporate the seed into the friable topsoil using the handgun/reel and spray directly into the seed bed. If using other methods of seed application, incorporate the seed into the top 1/2 inch of topsoil.

Mix the BFM and organic binders thoroughly at a rate of 40 pounds for each 100 gallons of water or as otherwise recommended by the manufacturer. Hydraulically apply the BFM slurry in successive layers, from two or more directions, to fully cover 100 percent of the soil surface. Ensure the minimum application rate is at least 3000 pounds of BFM for each acre or otherwise apply in accordance with the manufacturer's recommendations as appropriate depending on site conditions.

Do not apply on saturated soils or immediately before, during or after rainfall.

If an area washes out after this work has been properly completed and approved by the Engineer, make the required corrections using mulch blankets in accordance with Section 816 to prevent future washouts. This replacement will be paid for as additional work using the same pay item.

If an area washes out for reasons attributable to the Contractor's operation or failure to take proper precautions, replacement will be at the Contractors expense.

The Engineer will inspect the seeded turf to ensure the end product is well established, in a vigorous growing condition, and contains the species called for in the seeding mixture.

If the seeded turf is not well established at the end of the first growing season, the Contractor will be required to reseed as detailed herein until the turf is well established and approved by the Engineer.

If weeds are determined by the Engineer to cover more than 10 percent of the total area of slope restoration, provide weed control in accordance with subsection 816.03.J of the Standard Specifications for Construction. Weed control will be at no cost to the contract.

d. Measurement and Payment. "Slope Restoration, Modified" will be measured and paid for based on the area restored.

<u>Pay Item</u>	<u>Unit</u>
Slope Restoration, Modified	Syd

Payment for "Slope Restoration, Modified" will be made based on the following schedule: Upon completion of the work, payment will be based on 50% of the contract unit price. After the grass germinates and the Engineer is satisfied that the amount and area of the grass germination should reasonably provide a well-established turf, the remaining balance of the contract unit price will be paid.

CHARTER TOWNSHIP OF MERIDIAN

SPECIAL PROVISION
FOR
MAINTAINING TRAFFIC

MERIDIAN TWP:MSG

1 of 1

2-27-22

a. General. Local traffic shall be maintained at all times during construction in accordance with Sections 104.07C, 104.11, 812, and 922 of the Michigan Department of Transportation 2020 Standard Specifications for Construction, the Michigan Manual of Uniform Traffic Control Devices (MMUTCD), and as specified herein.

b. Construction Influence Area. The Construction Influence Area (CIA) shall consist of the project right-of-way five hundred (500) feet in all directions at all intersecting roads. In addition, the CIA shall include the limits of all construction signing.

c. Traffic Control Devices & Restrictions. All traffic control devices and their usage must conform to Part 6 of the MMUTCD. The Contractor must review, adjust, and maintain all traffic control devices on a daily basis or as directed by the Engineer. The Contractor must notify the Engineer at least 24 hours in advance of erecting construction zone signing.

A minimum of one lane traffic shall be maintained at all times in order to allow access to businesses and driveways. Access to all businesses and residences must be maintained at all times and work must be coordinated with the Engineer. Type III Barricades shall be used for road closures to through traffic and shall be coordinated in advance.

At a minimum, each area under construction shall have a W20-1 (48" x 48") "Road Work Ahead" sign at each entrance. W8-1 (48" x 48") "Bump" signs shall be placed on each side of areas left with a 2-inch or greater grade difference for more than 24-hours.

The Contractor must maintain all traffic control devices and is responsible for reviewing the adequacy and condition of all traffic control devices at least once per day for the duration of the project. Replacement and repair of traffic control devices as necessary will be restricted to daylight hours. Any signs damaged as a result of the Contractor's operations must be replaced by the Contractor at their expense.

Signing for all traffic control operations shall be in accordance with the Michigan Department of Transportation maintaining traffic typical drawings and the MMUTCD.

Signs and devices shall be promptly removed

d. Measurement and Payment. All work and materials pertaining to traffic maintenance will be paid for at the contract unit price for the following pay items. This includes all signs, barricades, cones, drums, flaggers, furnishing items and operating is included in this pay item

Pay Item
Traffic Control

Pay Unit
LSUM

Partial Payment Schedule

Milestone	Total Percent of Unit Price Paid
First Use	50%
50% Percent of Original Contract Earned	75%
Final Removal	100%

LOG OF PROJECT

Scope of Work

The work will consist of a variety of road improvements in the Charter Township of Meridian, Ingham County, Michigan, including cold milling, HMA paving, and slope restoration as specified in this proposal.

HMA paving shall take place within ten (10) calendar days of any pavement removal work including cold milling or crushing operation. The Contractor shall schedule operations so each area is substantially complete and leveling course placed prior to removing pavement in the next area.

Slope Restoration, Modified is included to cover minor disturbances that may occur along the short sections that are uncurbed. The work covered under the scope of this project should not require the contractor to disturb ground outside of the existing pavement. Slope Restoration, Modified shall only be performed as necessary and where indicated by the Engineer. Disturbances outside of the described areas that occur due to Contractor operations shall be repaired at the cost of the Contractor. Slope restoration shall begin within five (5) calendar days of ground disturbance and within ten (10) calendar days of the completion of paving and shoulder placement operations to minimize disturbances to the residents.

Log of Work (Full Depth Mill and Resurface)

Storm inlets shall be protected with the specified SESC measures prior to base material being exposed. SESC measures shall be maintained in accordance with MDOT specifications and shall be promptly removed after permanent surfacing and seeding have been established. This work will be paid for as Erosion Control, Inlet Protection, Fabric Drop.

Contractor is to locate a buried storm manhole located in between 2781 & 2785 Southwood. Locate and plate manhole prior to milling. Paid for as Temp Lowering and Adj, Case 1.

The Engineer will mark Cold Milling HMA Surface limits in the field. The existing HMA surface shall be removed to the specified depth and width. Cores were taken at various locations to determine the existing asphalt depth. Core logs are located in Appendix B. The depths provided are for the specific core locations as actual conditions may vary. The Contractor is encouraged to verify depths prior to milling operations. Existing material removal shall be performed to facilitate the placement of the proposed cross section. Some areas may require milling into existing base material to place the proposed 4-inch pavement section. This will be paid for as Cold Milling HMA Surface. Other areas may require removal of existing HMA to a depth greater than 4 inches to remove the full depth of existing HMA. Aggregate material shall be placed as directed to correct cross slope and raise the base so 4 inches of HMA meets the existing gutter pan and provides positive drainage. This will be paid for as Aggregate Base.

Ramps shall be left at driveways to maintain access for residents when milling full depth. Millings can be used to create the ramps. The ramps shall be removed and the areas prepped prior to paving. This work shall be included in the costs of Traffic Control.

Butt joints will need to be milled at adjoining side streets. This will be paid for as Pavt for Butt Joint, Rem. Limits will be marked by the Engineer. HMA placed on the intersecting side street approach will be paid for as HMA Approach.

Butt joints at POB and POE will be considered part of cold milling and paid for as Cold Milling HMA Surface. HMA placed at POE and POB will be considered part of mainline paving and paid for as HMA,___.

Aggregate Base, Conditioning is to be used on the roadway base as directed.

For Subgrade Undercutting, Type II, the Engineer will specify the location and depth of the subgrade undercut in accordance with Section 205.03 of the *2020 Standard Specifications for Construction*.

HMA shall be placed according to MDOT standard practices and specifications. Prior to paving operations, the prepared base shall be approved by the Engineer. All loose HMA and debris shall be removed before paving.

Sidewalk ADA ramps and areas of deteriorated curb will be replaced during this project by others. This work will be performed under a separate contract. The Contractor will need to coordinate operations with the Township and Concrete Contractor.

The following table summarizes the full depth milling and resurfacing roads.

Road Name	POB	POE	Length (mi)	Avg Width (ft)	Ex HMA (in)
Area A					
Honey Creek Cir	Wood Valley Dr	End	0.09	27	3.0
Woodmont Cir	Wood Valley Dr	End	0.09	27	5.0
Area B					
Chipping Camden Ln	Newman Rd	End	0.13	33	4.5
Buttercup Ln	Newman Rd	End	0.19	33	2.0 - 4.0
Area C					
Manitou Dr	Birchwood Dr	End	0.04	27	3.0
Area D					
Buglers Way	Highgate Ave	Patriots Way	0.19	33	3.5
Southwood Dr	Cambria Dr	Still Valley Dr	0.37	27 & 33	3.75 - 6.0
Still Valley Dr	Blythefield Dr	End	0.23	27 & 33	5.0 - 6.0
Still Valley Ct	Still Valley Dr	Still Valley Dr	0.06	20	5.0
Blythefield Dr	Still Valley Dr	Buglers Way	0.17	30	3.25 - 7.0
Colony Dr	Highgate Ave	Blythefield Dr	0.05	27	5.0
Shadowlawn Dr	Southwood Dr	Buglers Way	0.22	27	3.25 - 4.5
Shadowlawn Ct	Buglers Way	End	0.04	32	3.25
Area E					
Creek Landing	Bayonne Ave	End	0.29	27	1.5 - 3.5

Existing HMA thicknesses represent thickness at the specific core location (refer to Appendix B). Actual field conditions vary. Contractor shall field verify.

The following pay items will be used on roads selected for milling and resurfacing.

Items of Work (Full Depth Mill and Resurface)

Item Description	Approx. Quantity	Units
Mobilization, Max	1	LSUM
Subgrade Undercutting, Type II	330	Cyd
Erosion Control, Inlet Protection, Fabric Drop	55	Ea
Aggregate Base	2000	Ton
Aggregate Base, 6 inch	330	Syd
Aggregate Base, Conditioning	43000	Syd
Sanitary Structure, Chimney Seal, External	520	Sft
Dr Structure Cover, Adj, Case 1, Modified	30	Ea
Dr Structure, Temp Lowering	68	Ea
Sanitary Structure Adj, Case 1	38	Ea
Sanitary Structure Cover	36	Ea
Cold Milling HMA Surface	43000	Syd
Pavt for Butt Joints, Rem	100	Syd
Hand Patching	5	Ton
HMA, 13A	6000	Ton
HMA, 36A	3700	Ton
HMA Approach	25	Ton
Traffic Control	1	LSUM
Slope Restoration, Modified	50	Syd
Water Shutoff, Adj, Temp, Case 1	1	Ea
Gate Box, Adj, Temp, Case 1	2	Ea
Water Shutoff, Adj, Case 1	1	Ea
Gate Box, Adj, Case 1	2	Ea
Sanitary Structure Adj, Add Depth	2	Ft

Refer to Appendix D for detailed breakdown by road. Overall quantities listed account for some contingency to be used as directed.

APPENDIX A

Payment and Performance Bonds

Payment Bond

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Address of Principal Place
of Business):

OWNER (Name and Address): **Charter Township of Meridian**

CONTRACT: **Charter Township of Meridian 2023 Roadway Improvements - Milling and HMA Overlay**

Date:

Amount:

Description (Name and Location):

BOND

Date (Not earlier than Contract Date):

Amount:

Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Payment Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

Company: _____ (Corp. Seal)

Signature: _____

Name and Title:

SURETY

Company: _____ (Corp. Seal)

Signature: _____

Name and Title:
(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

CONTRACTOR AS PRINCIPAL

SURETY

Company: _____ (Corp. Seal)

Company: _____ (Corp. Seal)

Signature: _____

Signature: _____

Name and Title:

Name and Title:

EJCDC No. 1910-28-B (1996 Edition)

Originally prepared through the joint efforts of the Surety Association of America, Engineers Joint Contract Documents Committee, the Associated General Contractors of America, the American Institute of Architects, the American Subcontractors Association, and the Associated Specialty Contractors.

1. The CONTRACTOR and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the OWNER to pay for labor, materials and equipment furnished for use in the performance of the Contract, which is incorporated herein by reference.
 2. With respect to the OWNER, this obligation shall be null and void if the CONTRACTOR:
 - 2.1. Promptly makes payment, directly or indirectly, for all sums due Claimants, and
 - 2.2. Defends, indemnifies and holds harmless the OWNER from all claims, demands, liens or suits by any person or entity who furnished labor, materials or equipment for use in the performance of the Contract, provided the OWNER has promptly notified the CONTRACTOR and the Surety (at the addresses described in paragraph 12) of any claims, demands, liens or suits and tendered defense of such claims, demands, liens or suits to the CONTRACTOR and the Surety, and provided there is no OWNER Default.
 3. With respect to Claimants, this obligation shall be null and void if the CONTRACTOR promptly makes payment, directly or indirectly, for all sums due.
 4. The Surety shall have no obligation to Claimants under this Bond until:
 - 4.1. Claimants who are employed by or have a direct contract with the CONTRACTOR have given notice to the Surety (at the addresses described in paragraph 12) and sent a copy, or notice thereof, to the OWNER, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.
 - 4.2. Claimants who do not have a direct contract with the CONTRACTOR:
 1. Have furnished written notice to the CONTRACTOR and sent a copy, or notice thereof, to the OWNER, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials were furnished or supplied or for whom the labor was done or performed; and
 2. Have either received a rejection in whole or in part from the CONTRACTOR, or not received within 30 days of furnishing the above notice any communication from the CONTRACTOR by which the CONTRACTOR had indicated the claim will be paid directly or indirectly; and
 3. Not having been paid within the above 30 days, have sent a written notice to the Surety and sent a copy, or notice thereof, to the OWNER, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to the CONTRACTOR.
 5. If a notice required by paragraph 4 is given by the OWNER to the CONTRACTOR or to the Surety, that is sufficient compliance.
 6. When the Claimant has satisfied the conditions of paragraph 4, the Surety shall promptly and at the Surety's expense take the following actions:
 - 6.1. Send an answer to the Claimant, with a copy to the OWNER, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.
 - 6.2. Pay or arrange for payment of any undisputed amounts.
 7. The Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
 8. Amounts owed by the OWNER to the CONTRACTOR under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any Performance Bond. By the CONTRACTOR furnishing and the OWNER accepting this Bond, they agree that all funds earned by the CONTRACTOR in the performance of the Contract are dedicated to satisfy obligations of the CONTRACTOR and the Surety under this Bond, subject to the OWNER's priority to use the funds for the completion of the Work.
 9. The Surety shall not be liable to the OWNER, Claimants or others for obligations of the CONTRACTOR that are unrelated to the Contract. The OWNER shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.
 10. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related Subcontracts, purchase orders and other obligations.
 11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by paragraph 4.1 or paragraph 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
 12. Notice to the Surety, the OWNER or the CONTRACTOR shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, the OWNER or the CONTRACTOR, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.
 13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is, that this Bond shall be construed as a statutory Bond and not as a common law bond.
 14. Upon request of any person or entity appearing to be a potential beneficiary of this Bond, the CONTRACTOR shall promptly furnish a copy of this Bond or shall permit a copy to be made.
- #### 15. DEFINITIONS
- 15.1. Claimant: An individual or entity having a direct contract with the CONTRACTOR or with a Subcontractor of the CONTRACTOR to furnish labor, materials or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of the CONTRACTOR and the CONTRACTOR's Subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.
 - 15.2. Contract: The agreement between the OWNER and the CONTRACTOR identified on the signature page, including all Contract Documents and changes thereto.
 - 15.3. OWNER Default: Failure of the OWNER, which has neither been remedied nor waived, to pay the CONTRACTOR as required by the Contract or to perform and complete or comply with the other terms thereof.

(FOR INFORMATION ONLY--Name, Address and Telephone)

AGENCY OR BROKER:

OWNER'S REPRESENTATIVE (Engineer or other party):

Performance Bond

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):
Place

SURETY (Name and Address of Principal
of Business):

OWNER (Name and Address): **Charter Township of Meridian**

CONTRACT: **Charter Township of Meridian 2023 Roadway Improvements - Milling and HMA Overlay**

Date:

Amount:

Description (Name and Location):

BOND

Date (Not earlier than Contract Date):

Amount:

Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Performance Bond to be duly executed on its behalf by its authorized officer, agent or representative.

CONTRACTOR AS PRINCIPAL

Company: _____ (Corp. Seal)

Signature: _____

Name and Title:

SURETY

Company: _____ (Corp. Seal)

Signature: _____

Name and Title:

(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

CONTRACTOR AS PRINCIPAL

Company: _____ (Corp. Seal)

Signature: _____

Name and Title:

SURETY

Company: _____ (Corp. Seal)

Signature: _____

Name and Title:

EJCDC No. 1910-28-A (1996 Edition)

Originally prepared through the joint efforts of the Surety Association of America, Engineers Joint Contract Documents Committee, the Associated General Contractors of America, and the American Institute of Architects.

1. The CONTRACTOR and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Contract, which is incorporated herein by reference.

2. If the CONTRACTOR performs the Contract, the Surety and the CONTRACTOR have no obligation under this Bond, except to participate in conferences as provided in paragraph 3.1.

3. If there is no OWNER Default, the Surety's obligation under this Bond shall arise after:

3.1. The OWNER has notified the CONTRACTOR and the Surety at the addresses described in paragraph 10 below, that the OWNER is considering declaring a CONTRACTOR Default and has requested and attempted to arrange a conference with the CONTRACTOR and the Surety to be held not later than fifteen days after receipt of such notice to discuss methods of performing the Contract. If the OWNER, the CONTRACTOR and the Surety agree, the CONTRACTOR shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive the OWNER's right, if any, subsequently to declare a CONTRACTOR Default; and

3.2. The OWNER has declared a CONTRACTOR Default and formally terminated the CONTRACTOR's right to complete the Contract. Such CONTRACTOR Default shall not be declared earlier than twenty days after the CONTRACTOR and the Surety have received notice as provided in paragraph 3.1; and

3.3. The OWNER has agreed to pay the Balance of the Contract Price to:

3.3.1. The Surety in accordance with the terms of the Contract;

3.3.2. Another contractor selected pursuant to paragraph 4.3 to perform the Contract.

4. When the OWNER has satisfied the conditions of paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

4.1. Arrange for the CONTRACTOR, with consent of the OWNER, to perform and complete the Contract; or

4.2. Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or

4.3. Obtain bids or negotiated proposals from qualified contractors acceptable to the OWNER for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by the OWNER and the contractor selected with the OWNER's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the Bonds issued on the Contract, and pay to the OWNER the amount of damages as described in paragraph 6 in excess of the Balance of the Contract Price incurred by the OWNER resulting from the CONTRACTOR Default; or

4.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances;

4.4.1. After investigation, determine the amount for which it may be liable to the OWNER and, as soon as practicable after the amount is determined, tender payment therefor to the OWNER; or

4.4.2. Deny liability in whole or in part and notify the OWNER citing reasons therefor.

5. If the Surety does not proceed as provided in paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond fifteen days after receipt of an additional written notice from the OWNER to the Surety demanding that the Surety perform its obligations under this Bond, and the OWNER shall be entitled to enforce any remedy available to the OWNER. If the Surety proceeds as provided in paragraph 4.4, and the OWNER refuses the payment tendered or the Surety has denied liability, in whole or in part, without further notice the OWNER shall be entitled to enforce any remedy available to the OWNER.

6. After the OWNER has terminated the CONTRACTOR's right to complete the Contract, and if the Surety elects to act under paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the OWNER shall not be greater than those of the CONTRACTOR under the Contract, and the responsibilities of the OWNER to the Surety shall not be greater than those of the OWNER under the Contract. To a limit of the amount of this Bond, but subject to commitment by the OWNER of the Balance of the Contract Price to mitigation of costs and damages on the Contract, the Surety is obligated without duplication for:

6.1. The responsibilities of the CONTRACTOR for correction of defective Work and completion of the Contract;

6.2. Additional legal, design professional and delay costs resulting from the CONTRACTOR's Default, and resulting from the actions or failure to act of the Surety under paragraph 4; and

6.3. Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of the CONTRACTOR.

7. The Surety shall not be liable to the OWNER or others for obligations of the CONTRACTOR that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the OWNER or its heirs, executors, administrators, or successors.

8. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related subcontracts, purchase orders and other obligations.

9. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and shall be instituted within two years after CONTRACTOR Default or within two years after the CONTRACTOR ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

10. Notice to the Surety, the OWNER or the CONTRACTOR shall be mailed or delivered to the address shown on the signature page.

11. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the Contract was performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted here from and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

12. Definitions.

12.1. Balance of the Contract Price: The total amount payable by the OWNER to the CONTRACTOR under the Contract after all proper adjustments have been made, including allowance to the CONTRACTOR of any amounts received or to be received by the OWNER in settlement of insurance or other Claims for damages to which the CONTRACTOR is entitled, reduced by all valid and proper payments made to or on behalf of the CONTRACTOR under the Contract.

12.2. Contract: The agreement between the OWNER and the CONTRACTOR identified on the signature page, including all Contract Documents and changes thereto.

12.3. CONTRACTOR Default: Failure of the CONTRACTOR, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.

12.4. OWNER Default: Failure of the OWNER, which has neither been remedied nor waived, to pay the CONTRACTOR as required by the Contract or to perform and complete or comply with the other terms thereof.

APPENDIX B

HMA Core Log

HMA Core Log

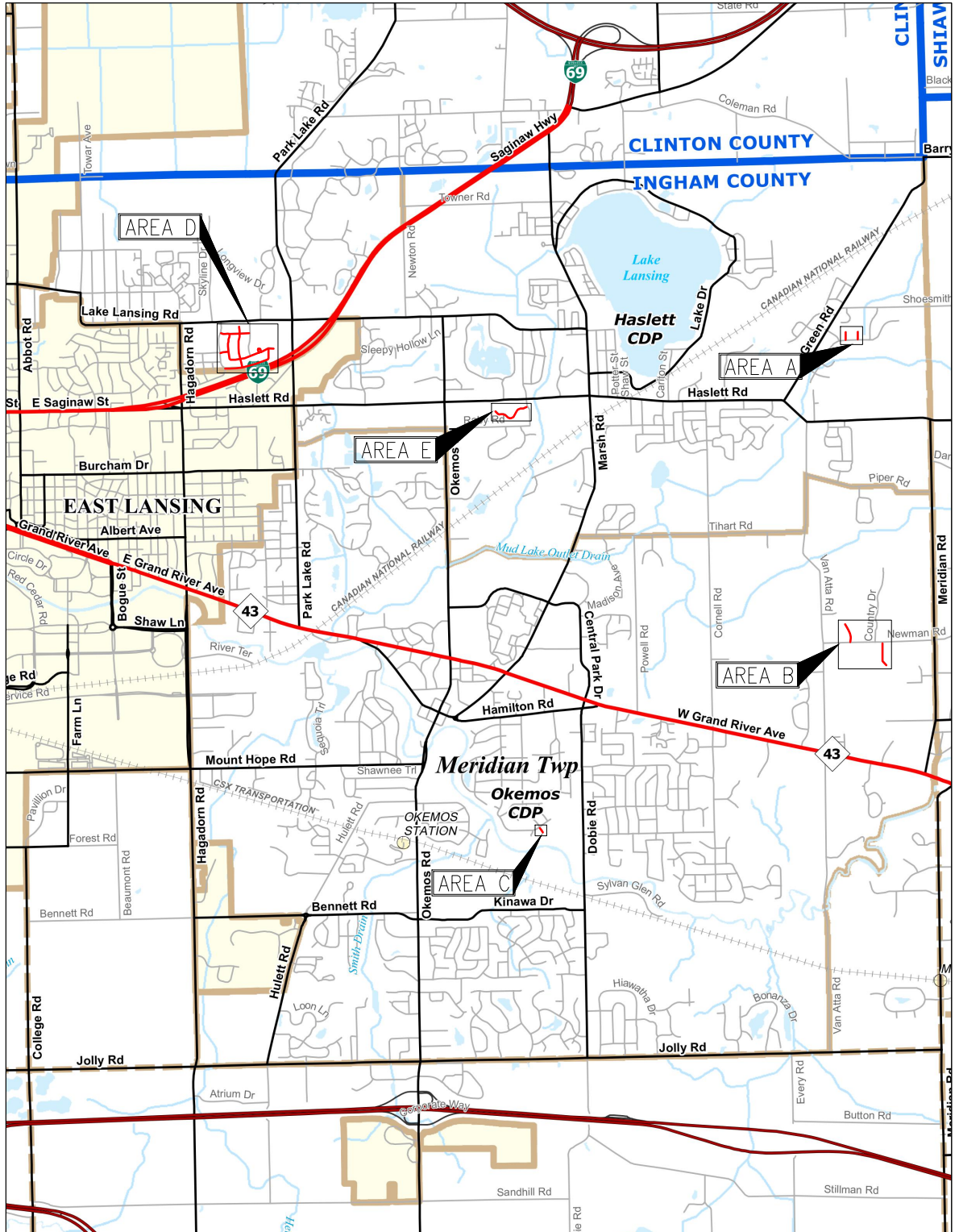
Area	Location	Thickness of Asphalt	Base Thickness	Base Material
A	Honey creek Cir	3"	Unknown	Unknown
A	Woodmont Cir	5"	Unknown	Unknown
B	Buttercup Ln	4"	Unknown	Unknown
B	Buttercup Ln	2"	11"	Sand/Natural Agg Mix
B	Chipping Camden Ln	4.5"	Unknown	Unknown
C	Manitou Dr	3"	9"	Sand
D	Blythefield Dr	3.25"	Unknown	Unknown
D	Blythefield Dr	7"	10"	Sand/Natural Agg Mix
D	Buglers Way	3.5"	Unknown	Unknown
D	Buglers Way	3.5"	≥ 8"	Sand/Natural Agg Mix
D	Colony Dr	5"	≥ 7"	Clay
D	Shadowlawn Ct	3.25"	≥ 7"	Sand/Natural Agg Mix
D	Shadowlawn Dr	3.25"	≥ 12"	Clay
D	Shadowlawn Dr	4.5"	Unknown	Unknown
D	Southwood Dr	4"	Unknown	Unknown
D	Southwood Dr	5"	7"	Sand/Natural Agg Mix
D	Southwood Dr	6"	Unknown	Unknown
D	Southwood Dr	3.75"	Unknown	Unknown
D	Still Valley Ct	4"	8"	Sand/Natural Agg Mix
D	Still Valley Dr	5"	Unknown	Unknown
D	Still Valley Dr	5"	14"	Sand/Natural Agg Mix
D	Still Valley Dr	6"	Unknown	Unknown
E	Creek Landing	1.5"	Unknown	Unknown
E	Creek Landing	3.5"	6.5"	Sand
E	Creek Landing	3.5"	Unknown	Unknown

APPENDIX C

Typical Sections

2023 ROAD IMPROVEMENTS MILL AND HMA OVERLAY FOR CHARTER TOWNSHIP OF MERIDIAN INGHAM COUNTY MICHIGAN

- AREA A:
HONEY CREEK CIRCLE
WOODMONT CIRCLE
- AREA B:
BUTTERCUP LANE
CHIPPING CAMDEN LANE
- AREA C:
MANITOU DRIVE
- AREA D:
BUGLERS WAY
SOUTHWOOD DRIVE
STILL VALLEY DRIVE
STILL VALLEY COURT
BLYTHEFIELD DRIVE
COLONY DRIVE
SHADOWLAWN DRIVE
SHADOWLAWN COURT
- AREA E:
CREEK LANDING



PREPARED BY:

PREPARED FOR:



TECHNICAL SKILL.
CREATIVE SPIRIT.

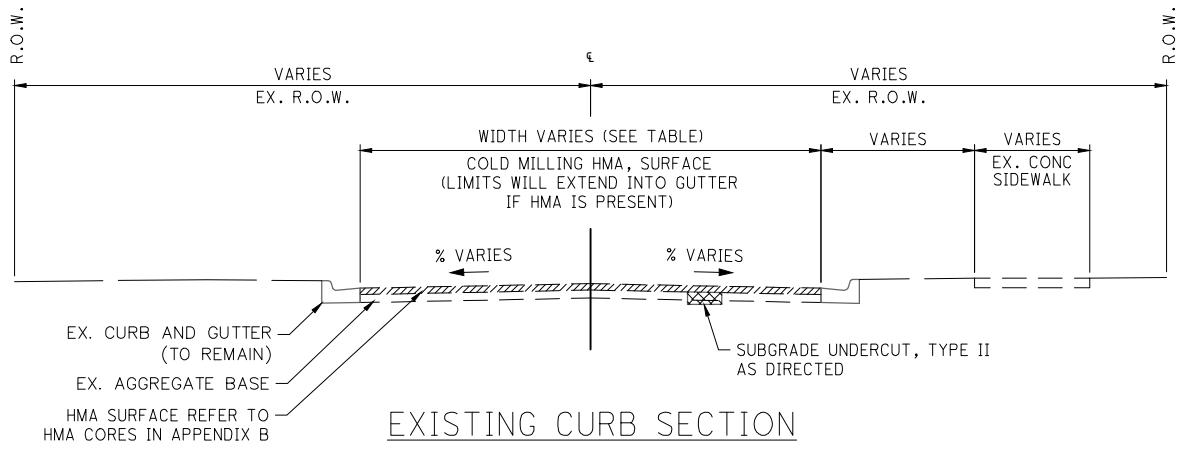


5151 MARSH ROAD
OKEMOS, MI 48864

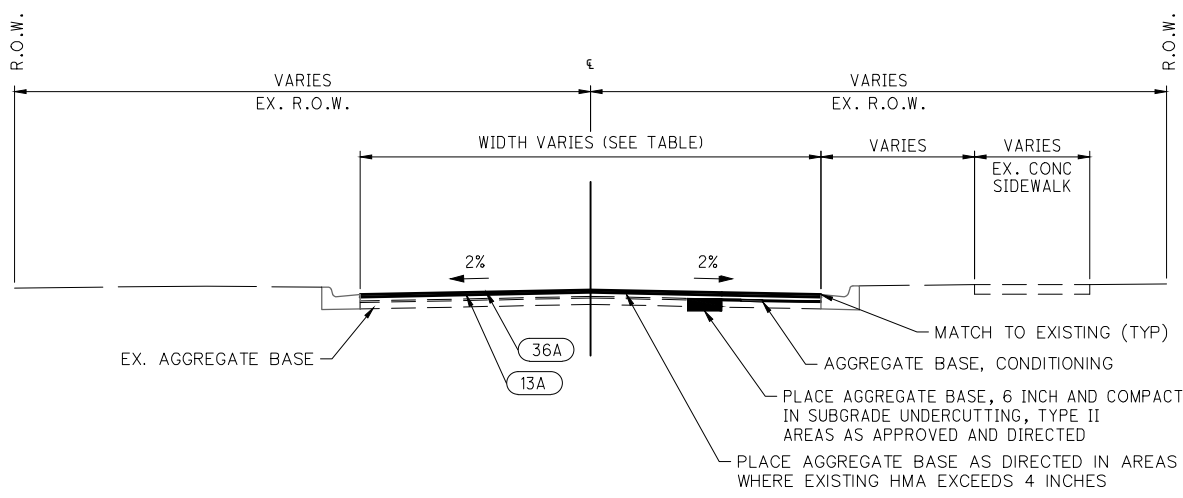
2023 ROADWAY IMPROVEMENTS MILL AND HMA OVERLAY

DATE: 01/04/2023
PROJ. NO.: M4150015
DRAWN BY: ASML
REVISION: CAV

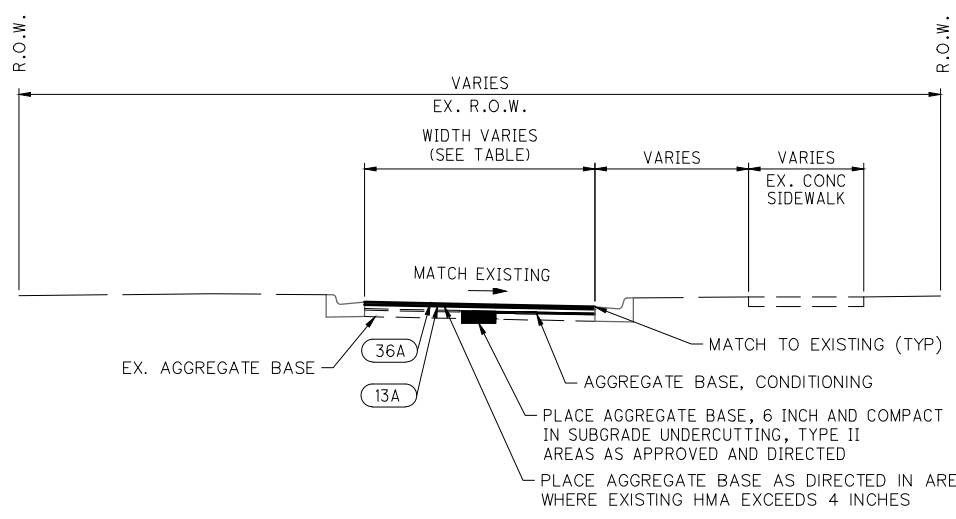
W:\Projects\Projects-K\M4150015\CADD\SHEET\M4150015_T501_LOG.dwg - Last printed 1/4/2023 9:51 AM



EXISTING CURB SECTION



PROPOSED CURB SECTION



PROPOSED CUL-DE-SAC SECTION

PREPARED BY:

PREPARED FOR:



TECHNICAL SKILL.
CREATIVE SPIRIT.



5151 MARSH ROAD
OKEMOS, MI 48864

TYPICAL SECTIONS 2023 ROADWAY IMPROVEMENTS MILL AND HMA OVERLAY

DATE: 01/04/2023
PROJ. NO.: M4150015
DRAWN BY: ASML
REVISION: CAV

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HMA APPLICATION ESTIMATE

IDENT NO.	ITEM	RATE LBS PER SYD	PERFORMANCE GRADE	REMARKS
36A	HMA, 36A	165	PG 58-28	TOP COURSE
13A	HMA, 13A	275	PG 58-28	LEVELING COURSE
HMA APPROACH	HMA, 36A	165	PG 58-28	
	HMA, 13A	275	PG 58-28	
* BOND COAT		0.05-0.15 GAL		
*FOR INFORMATION ONLY				

NOTES:

- FURNISH HMA MIXTURES WITH TIER 1 RAP BINDER NOT EXCEEDING 17% BY WEIGHT OF TOTAL BINDER IN THE MIXTURE REGRESS AIR VOIDS TO 3% HMA MIX FOR A GIVEN STREET MAY BE CHANGED AS APPROVED OR AS DIRECTED BY THE ENGINEER.
- UNIFORMLY REMOVE ALL HMA IN GUTTER WHERE PRESENT. ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO REMOVE THE HMA FROM THE GUTTER SHALL BE INCLUDED IN COLD MILLING HMA SURFACE. NO ADDITIONAL PAYMENT OR ADJUSTMENT TO AREA WILL BE PROVIDED FOR REMOVING HMA FROM GUTTER.
- CONTRACTOR SHALL REMOVE ANY WEAK BASE AS DIRECTED BY ENGINEER, PAID FOR AS SUBGRADE UNDERCUTTING, TYPE II. REPLACE WITH BASE MATERIAL APPROVED BY ENGINEER, AGGREGATE BASE, 6 INCH SHALL BE PLACED AS DIRECTED OVER BACKFILLED MATERIAL.
- CONTRACTOR SHALL ESTABLISH A CROWN IN NON-CUL-DE-SAC AREAS WITH A 2% MINIMUM CROSS SLOPE (OR MATCH EXISTING STEEPER SLOPE) IF NEEDED. CUL-DE-SACS SHALL BE GRADED TOWARDS THE MAINLINE AND EXISTING CATCH BASINS WITH A MINIMUM SLOPE OF 2% WHEREVER POSSIBLE.
- ROADWAYS ARE LISTED FOR FULL DEPTH MILLING. ALL EXISTING HMA IS TO BE REMOVED. REFER TO APPENDIX D FOR PAVEMENT CORES. PAVEMENT CORES REPRESENT THE EXISTING HMA THICKNESS AT THE LOCATION OF THE CORE AND ACTUAL FIELD CONDITIONS MAY VARY. CONTRACTOR IS TO FIELD VERIFY. MILLING BEYOND THE EXISTING DEPTH MAY BE REQUIRED TO FACILITATE THE PLACEMENT OF THE PROPOSED 4 INCH PAVEMENT SECTION.
- AREAS WHERE EXISTING HMA DEPTH EXCEEDS 4 INCHES WILL BE FILLED WITH AGGREGATE BASE AND COMPACTED TO 98% PRIOR TO PAVING.
- USE OF A LOW TRACKING BOND COAT IS REQUIRED,

PREPARED BY:

PREPARED FOR:



TECHNICAL SKILL.
CREATIVE SPIRIT.



5151 MARSH ROAD
OKEMOS, MI 48864

TYPICAL SECTIONS
2023 ROADWAY IMPROVEMENTS
MILL AND HMA OVERLAY

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APPENDIX D

Items by Road



Item No.	Description	Unit	Area A		Area B		Area C
			Honey Creek Cir.	Woodmont Cir.	Buttercup Ln.	Chipping Camden Ln.	Manitou Dr.
2050041	Subgrade Undercutting, Type II	Cyd	28	28	0	44	0
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	2	0	2	2	2
3020001	Aggregate Base	Ton	0	157	0	0	0
3020016	Aggregate Base, 6 inch (syd)	Syd	28	28	0	44	0
3020050	Aggregate Base, Conditioning	Syd	1425	1425	3915	2190	1045
4017010	Sanitary Structure Chimney Seal, External	Sft	15	15	0	0	15
4037050	Dr Structure Cover, Adj, Case 1, Modified	Ea	0	0	0	0	1
4030390	Dr Structure, Temp Lowering	Ea	1	1	0	0	2
4037050	Sanitary Structure Cover, Adj, Case 1	Ea	1	1	0	0	1
4037050	Sanitary Structure Cover	Ea	1	1	0	0	1
5010002	Cold Milling HMA Surface	Syd	1425	1425	3915	2190	1045
5010008	Pavt for Butt Joint, Rem	Syd	0	0	0	0	0
5010025	Hand Patching	Ton	0	0	0	0	0
5010033	HMA, 13A	Ton	200	200	540	305	145
5010034	HMA, 36A	Ton	120	120	325	185	90
5010061	HMA Approach	Ton	0	0	0	0	0
8167011	Slope Restoration, Modified	Syd	0	0	0	0	0
8230381	Water Shutoff, Adj, Temp, Case 1	Ea	0	0	0	0	0
8230391	Gate Box, Adj, Temp, Case 1	Ea	0	0	0	0	0
8230421	Water Shutoff, Adj, Case 1	Ea	0	0	0	0	0
8230431	Gate Box, Adj, Case 1	Ea	0	0	0	0	0
8252140	Sanitary Structure, Adj, Add Depth	Ft	0	0	0	0	0



Item No.	Description	Unit	Area D				
			Blythefield Dr.	Buglers Way	Colony Dr.	Shadowlawn Ct.	Shadowlawn Dr.
2050041	Subgrade Undercutting, Type II	Cyd	0	0	18	15	73
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	1	6	2	0	4
3020001	Aggregate Base	Ton	303	0	98	0	0
3020016	Aggregate Base, 6 inch (syd)	Syd	0	0	18	15	73
3020050	Aggregate Base, Conditioning	Syd	2755	3835	890	730	3675
4017010	Sanitary Structure Chimney Seal, External	Sft	46	61	0	15	15
4037050	Dr Structure Cover, Adj, Case 1, Modified	Ea	1	3	0	0	2
4030390	Dr Structure, Temp Lowering	Ea	4	7	0	1	3
4037050	Sanitary Structure Cover, Adj, Case 1	Ea	3	4	0	1	1
4037050	Sanitary Structure Cover	Ea	3	3	0	0	5
5010002	Cold Milling HMA Surface	Syd	2755	3835	890	730	3675
5010008	Pavt for Butt Joint, Rem	Syd	0	0	0	0	0
5010025	Hand Patching	Ton	0	0	0	0	0
5010033	HMA, 13A	Ton	380	530	125	100	505
5010034	HMA, 36A	Ton	230	320	75	60	305
5010061	HMA Approach	Ton	0	0	0	0	0
8167011	Slope Restoration, Modified	Syd	0	0	0	0	0
8230381	Water Shutoff, Adj, Temp, Case 1	Ea	0	0	0	0	0
8230391	Gate Box, Adj, Temp, Case 1	Ea	0	0	0	0	0
8230421	Water Shutoff, Adj, Case 1	Ea	0	0	0	0	0
8230431	Gate Box, Adj, Case 1	Ea	0	0	0	0	0
8252140	Sanitary Structure, Adj, Add Depth	Ft	0	0	0	0	0



Item No.	Description	Unit	Area D			Area E
			Southwood Dr.	Still Valley Ct.	Still Valley Dr.	Creek Landing
2050041	Subgrade Undercutting, Type II	Cyd	0	0	0	94
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	10	0	12	7
3020001	Aggregate Base	Ton	723	100	604	0
3020016	Aggregate Base, 6 inch (syd)	Syd	0	0	0	94
3020050	Aggregate Base, Conditioning	Syd	6575	910	5495	4715
4017010	Sanitary Structure Chimney Seal, External	Sft	92	0	138	92
4037050	Dr Structure Cover, Adj, Case 1, Modified	Ea	7	0	4	9
4030390	Dr Structure, Temp Lowering	Ea	13	0	13	15
4037050	Sanitary Structure Cover, Adj, Case 1	Ea	6	0	9	6
4037050	Sanitary Structure Cover	Ea	7	1	8	6
5010002	Cold Milling HMA Surface	Syd	6575	910	5495	4715
5010008	Pavt for Butt Joint, Rem	Syd	85	0	0	0
5010025	Hand Patching	Ton	0	0	0	0
5010033	HMA, 13A	Ton	905	125	760	650
5010034	HMA, 36A	Ton	545	75	455	390
5010061	HMA Approach	Ton	20	0	0	0
8167011	Slope Restoration, Modified	Syd	0	0	0	0
8230381	Water Shutoff, Adj, Temp, Case 1	Ea	0	0	0	0
8230391	Gate Box, Adj, Temp, Case 1	Ea	0	0	1	0
8230421	Water Shutoff, Adj, Case 1	Ea	0	0	0	0
8230431	Gate Box, Adj, Case 1	Ea	0	0	1	0
8252140	Sanitary Structure, Adj, Add Depth	Ft	0	0	0	0