



Eaton County
**Road
Commission**

April 17, 2018

Duane A. Eldred
Chair

NOTICE TO BIDDERS

Timothy J. Lamoreaux
Vice Chair

EATON COUNTY ROAD COMMISSION

Jerry L. Frazier
Member

2018 HMA RESURFACING – CONTRACT C

Benjamin S. Lyons
Member

Addendum No. 1

Dorothy E. Maxwell
Member

The bid opening for the 2018 HMA Resurfacing – Contract C has been rescheduled from Friday, May 4, 2018 at 10:30 AM to Monday, May 7, 2018 at 10:30 AM.

Blair E. Ballou, P.E.
Engineer-Manager

If you have any questions, please contact me at 517-543-1630.

Lori N. Friedlis, CPA
Director of Finance

Sincerely,

Mathew Hannahs, P.E.
Assistant County Engineer

1112 Reynolds Road
Charlotte, MI 48813

Telephone
517-543-1630
Toll-Free
877-883-2866

Fax
517-543-2608

Email
ecrc@eatoncountyroa.com



Eaton County
**Road
Commission**

April 6, 2018

Duane A. Eldred
Chair

NOTICE TO BIDDERS

Timothy J. Lamoreaux
Vice Chair

Sealed proposals will be received by the Board of County Road Commissioners of the County of Eaton, Michigan at 1112 Reynolds Road, Charlotte, MI 48813, until 10:30 A.M., Friday, May 4, 2018 at which time and place proposals will be publicly opened and read aloud for furnishing and delivering the following:

Jerry L. Frazier
Member

HMA RESURFACING

Benjamin S. Lyons
Member

CONTRACT C – HMA 13A, Approx. 15,690 Tons; Cold Milling HMA Surface, Approx. 115,280 SYD; along with curb reconstruction, temporary pavement marking, slope restoration, drainage structure cover adjustments, and gravel shoulders at various locations in Eaton County, Michigan.

Dorothy E. Maxwell
Member

Blair E. Ballou, P.E.
Engineer-Manager

The Eaton County Road Commissioners will consider award of the contract after review by staff.

Lori N. Friedlis, CPA
Director of Finance

Further information may be obtained at the offices of the undersigned, 1112 Reynolds Road, Charlotte, MI, 48813, Telephone (517) 543-1630 or (877) 883-2866. Plans, specifications, and bid blanks are available at our office.

All proposals must be submitted in sealed envelopes bearing the name of the bidder and clearly marked with a notation indicating the service or material for which the bid is submitted. **All bids must be submitted on the enclosed Bid Blank.**

1112 Reynolds Road
Charlotte, MI 48813

The Board reserves the right to accept or reject any or all bids, to waive irregularities in any proposal, and to make the award in any manner deemed in the best interest of the County of Eaton.

Telephone
517-543-1630
Toll-Free
877-883-2866

**BOARD OF COUNTY ROAD COMMISSIONERS
OF THE COUNTY OF EATON, MICHIGAN**

Fax
517-543-2608

Duane A. Eldred, Chair
Timothy J. Lamoreaux, Vice Chair
Jerry L. Frazier, Member
Benjamin S. Lyons, Member
Dorothy E. Maxwell, Member

Email
ecrc@eatoncountyroa.com

**EATON COUNTY ROAD COMMISSION
CHARLOTTE, MICHIGAN
2018 HMA SURFACING PROPOSAL**

CONTRACT C

**To: Board of Eaton County Road Commissioners
1112 Reynolds Road
Charlotte, Michigan 48813**

The undersigned has examined the Plans, Specifications, and the Location of the work described herein and is fully informed as to the nature of the work and the conditions relating to its performance, and understands that the quantities shown are approximate only and are subject to either Increase or Decrease.

The undersigned hereby proposes to furnish all necessary equipment, tools, apparatus, and other means of construction; do all the work and furnish all the materials; and, for the unit prices named in the itemized bid, complete the work herein described, in strict accordance with the plans thereof, and in strict conformity with the requirements of the 2012 Michigan Department of Transportation Standard Specifications for Construction and such other special provisions and supplemental specifications included as part of this proposal.

The undersigned further proposes to do such extra work as may be authorized by the Eaton County Road Commission, prices for which are not included in the itemized bid. Compensation shall be made on the basis agreed upon prior to commencing with extra work.

The undersigned encloses a certified or cashiers check on an open solvent bank, in the amount of \$25,000, payable to the Eaton County Road Commission as a guarantee of good faith. If the undersigned is the successful bidder and fails to enter into a contract to furnish satisfactory bonds to the Eaton County Road Commission within 15 days after being furnished with the necessary contract and bond forms, the Bid Deposit will be forfeited to the Eaton County Road Commission as liquidated damages. It is understood that the Bid Deposit of the successful bidder will not be returned until the contract has been executed and that the proposal guarantees of all other bidders will be returned promptly.

Company Name _____

Address _____

Phone # _____

Fax # _____

Signed by _____

Date _____

EATON COUNTY ROAD COMMISSION

2018 HMA SURFACING BID BLANK

CONTRACT C

ITEM OF WORK	QUANTITY	UNIT	UNIT PRICE	TOTAL AMOUNT
HMA, 13A	15,690	TON	\$ _____	\$ _____
Cold Milling HMA Surface	115,280	SYD	\$ _____	\$ _____
Intersection Grading	170	SYD	\$ _____	\$ _____
Pavt Mrkg, Type NR, 4 inch, Temp.	2,709	LFT	\$ _____	\$ _____
Slope Restoration	1,184	SYD	\$ _____	\$ _____
Curb, Reconstruct	560	LFT	\$ _____	\$ _____
Dr. Structure Cover, Adj.	234	EACH	\$ _____	\$ _____
Dr. Structure Reconstruct	17	FT	\$ _____	\$ _____
Water Shutoff Adj.	2	EACH	\$ _____	\$ _____
Shoulder, CI II	100	Ton	\$ _____	\$ _____
TOTAL BID CONTRACT C				\$ _____

The undersigned agrees that the quantities provided on the Contract C Bid Blank are estimates. Actual quantities paid will be based on final field measurements. The Eaton County Road Commission reserves the right to increase or decrease quantities, or add or eliminate entire projects from the contract. No unit price changes will be allowed as a result of increased or decreased quantities, or for added or eliminated projects.

Company Name _____ Date _____

Address _____ Phone # _____

_____ Fax # _____

Signed by _____

EATON COUNTY ROAD COMMISSION

2018 HMA SURFACING PROGRAM
 BID BLANK SUMMARY

03/28/2018

ROAD	FROM TO	LENGTH	WIDTH	HMA APPLICATION RATE	HMA OVERLAY	HMA WEDGING	TOTAL HMA, 13A	COLD MILLING HMA SURFACE	SLOPE RESTORATION	PAVT MRKG, TYPE NR, 4 INCH, TEMP	CURB RECONSTRUCT	DRAINAGE STRUCT. ADJUST	DRAIN STRUCT RECONSTRUCT	WATER VALVE ADJUST	SHOULDER, CL II
				#/SYD	TON	TON	TON	SYD	SYD	FT	FT	EACH	EACH	EACH	TON
CONTRACT C															
Pepper Hill	Willow Hwy to Dead End	1550	27	220	510		610	3100	15	93	30	6	1		
Addison	Maycroft Rd to Robins Rd	875	27	220	290		290	2625	25	53	50	7	1		
Apple Tree	Pepper Hill Dr to Willow Hwy	1720	27	220	570		570	5160	30	103	60	11			
Arden	Maycroft Rd to Willow Hwy	1260	27	220	420		420	3780	5	76	10	7	1		
Aspen	Snow Rd to Dead End	1480	27	220	490		490	4440	10	89	20	8			
Bretton	Elizabeth Rd to Arden Rd	1040	27	220	340		340	3120		62		6	1		
Gull Cir	Gull Rd to Gull Rd	210	27	220	70		70	630		13				1	
Gull	Aspen Dr to Pickton Dr	970	27	220	320		320	2910	10	58	20	6			
Maycroft	Elizabeth Rd to Arden Rd	980	27	220	320		320	2940		59		6			
Wagon Wheel	Willow Hwy to Attribute Change	1660	27	220	550		585	3900	55	100	110	5	1		
Wintergreen	Broadbent Rd to Laurelwood Dr	1940	30	220	710		710	900		116		12			
Firwood	Doe Pass to Wintergreen St	1055	30	220	390		390	720		63		9	1		
Arbor Vitae	Wintergreen St to E Saint Joe Hwy	675	30	220	250		250		135	41		6			25
Camellia	Broadbent Rd to Firwood St	1430	30	220	520		520		286	86		11			25
Huckleberry	Broadbent Rd to Firwood St	1435	30	220	530		530		287	86		10			25
Juniper	Broadbent Rd to Arbor Vitae Dr	980	30	220	360		360		196	59		5			25
Berner	Silver Ridge Dr to Dead End	470	27	220	160		160	1410		28					
Bronco	Colt Run to Lariat Ln	945	27	220	310		310	2835	20	57	40	3	2		
Carmel	Crestline Dr to Silver Ridge Dr	700	27	220	230		230	2100		42		1			
Chesley	E Saint Joe Hwy to Park Meadows Dr	1090	27	220	360		360	3270	10	65	20	6	1		
Colt	Hoover Ave to Corral Path	750	27	220	250		250	2250	10	45	20	5	1		

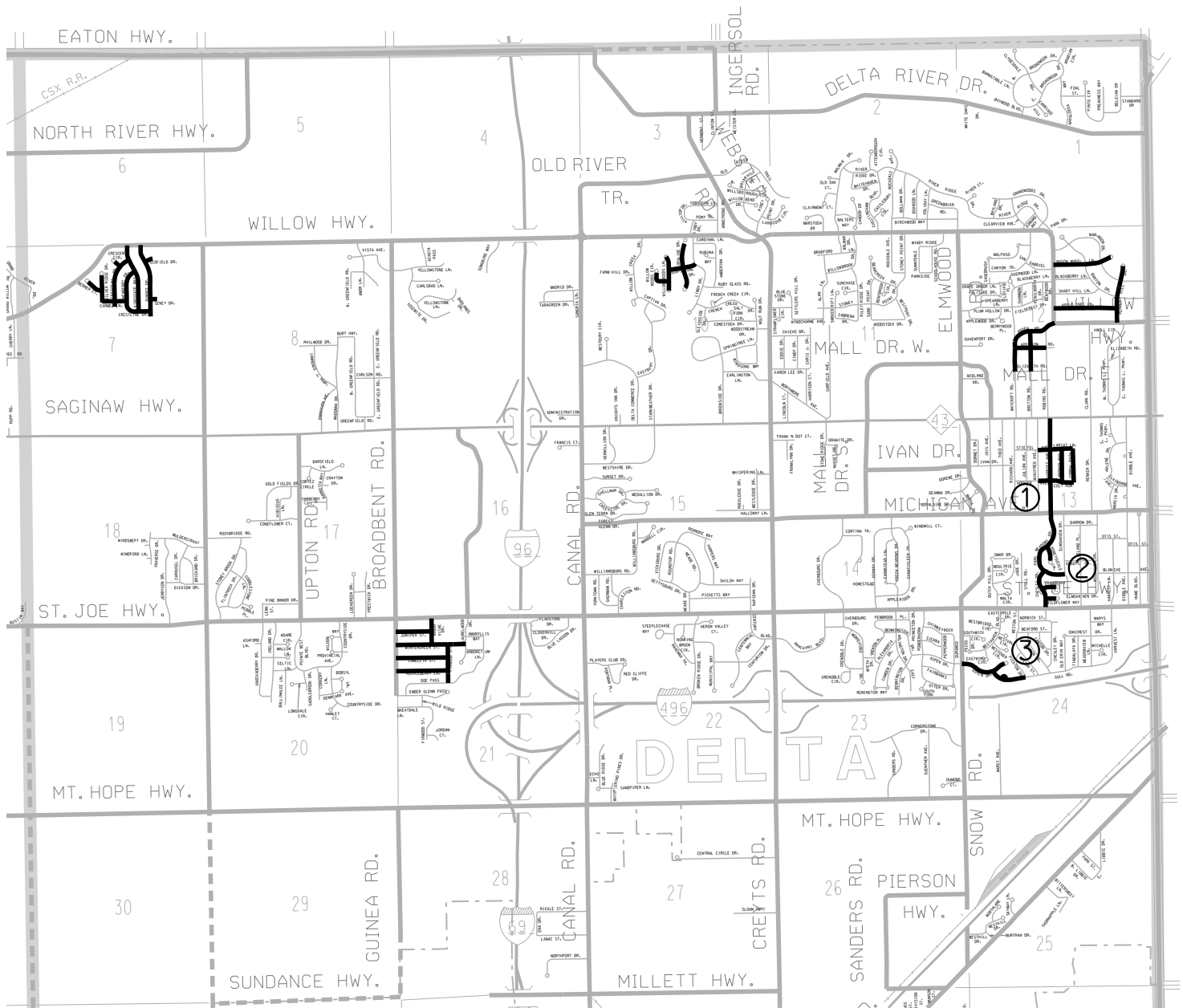
ROAD	FROM TO	LENGTH	WIDTH	HMA APPLICATION RATE	HMA OVERLAY	HMA WEDGING	TOTAL HMA, 13A	COLD MILLING HMA SURFACE	SLOPE RESTORATION	PAVT MRKG, TYPE NR, 4 INCH, TEMP	CURB RECONSTRUCT	DRAINAGE STRUCT. ADJUST	DRAIN STRUCT RECONSTRUCT	WATER VALVE ADJUST	SHOULDER, CL II
				#/SYD	TON	TON	TON	SYD	SYD	FT	FT	EACH	EACH	EACH	TON
Corral	Colt Run to Lariat Ln	1020	27	220	340		340	3060		61		20			
Cranberry	Chesley St to Dead End	560	27	220	180		180	1680		34		2			
Crescent Circle	Crescent Dr to Dead End	230	27	220	80		180	1590		14		1			
Crescent	Deat End to Kingsgate Way	1450	27	220	480		480	4350	5	87	10	9			
Crestline	Dundee Dr to Carmel Ln	625	27	220	210		210	1875		38					
Dundee	Deat End to Willow Hwy	2070	27	220	680		680	6210		124		8			
Harriet	Park Meadows Dr to E Saginaw Hwy	2580	27	220	850		850	7740	30	155	60	15	3		
Honey Suckle	Park Meadows Dr to Dead End	570	27	220	190		190	1710	15	34	30	2			
Hoover	Winsfred Ave to Colt Run	340	27	220	110		110	1020		20					
Kingsgate	Crestline Dr to Willow Hwy	1930	27	220	640		640	5790		116		12			
Lariat	Harriet Ave to Corral Path	710	27	220	230		230	2130	10	43	20	3	1		
Newberry	Carmel Ln to Kingsgate Way	1120	27	220	370		370	3360		67		6			
Opaline	Deat End to Dead End	1460	27	220	480		675	6160	20	88	40	4	2		
Park Meadows	Elmshaven Dr to Harriet Ave	2405	27	220	790		790	7215	10	144	20	10	1		
Scofield	Dundee Dr to Dead End	275	27	220	90		90	825		17		1			
Seney	Dundee Dr to Dead End	145	27	220	50		50	435		9					
Silver Ridge	33' S of Carmel Ln to Dead End	700	27	220	230		330	3000		42					
Soapstone	Willow Woods Ln to Lindy Dr	795	27	220	260		260	2385		48		3		1	
Stiefel	Winsfred Ave to Lariat Ln	345	27	220	110		110	1035		21					
Wild Flower	Chesley St to Dead End	460	27	220	150		150	1380		28		1			
Willow Woods Cir	Willow Woods Ln to Dead End	730	27	220	240		240	2190		44		2			
Willow Woods	Deat End to Dead End	1350	27	220	450		450	4050		81		5			
				Total =	15,160		15,690	115280	1,184	2709	560	234	17	2	100

EATON COUNTY, MICHIGAN 2018 HMA OVERLAY CONTRACT C

— ASPHALT OVERLAY

1 of 1

APRIL 4, 2018



- ① NO TRUCKS SHALL USE ROADS FROM WINIFRED AVE. TO THE WEST
- ② NO TRUCKS SHALL USE ROADS FROM ELMHAVEN DR. TO THE EAST.
- ③ LOADED TRUCKS SHALL ACCESS OFF SNOW ROAD. NO LOADED TRUCKS SHALL USE THE STREETS FROM PICKTON DRIVE TO THE EAST.

EATON COUNTY ROAD COMMISSION

SPECIFICATIONS
FOR
HMA SURFACING PROGRAM

ECRC

1 of 4

01/26/18

- A. All work included in the 2018 HMA Surfacing Program shall follow the 2012 Michigan Department of Transportation Standard Specifications for Construction, except as modified herein.
- B. Prepare the existing asphalt surface in accordance with section 501.03.C of the Standard Specifications. Joint cleanout will not be required. The contractor shall provide the Road Commission one week's notice prior to beginning pavement cleaning to provide for blading the shoulder or berm. Material left on the existing pavement resulting from the blading operations shall be removed as part of pavement cleaning. Payment for pavement cleaning shall be included in the unit price bid for HMA work items and will not be paid for separately.
- C. Place the bond coat in accordance with section 501.03.D of the Standard Specifications. Payment for the bond coat shall be included in the unit price bid for HMA work items and will not be paid for separately.
- D. Cold Milling HMA Surface shall be in accordance with section 501.03.C.5 of the Standard Specifications. Cold Milling HMA Surface includes edge milling or milling the entire road surface. The quantities and project locations where cold milling is indicated on the Bid Blank Summary are estimates only and will be paid based on final measurements. Any deletion or addition of project locations, or increases or decreases in milling quantities, will not change the unit prices bid. Cold milling will be paid by the square yard as **Cold Milling HMA Surface**.

Specified locations will be cold milled and the material salvaged and hauled to the Eaton County Road Commission garage closest to the milling operation. Refer to the **Cold Milling HMA Surface – Special** special provision in the proposal.

Butt joints shall be milled wherever new HMA will abut adjacent pavement to remain. Payment of butt joints shall be included in the unit price bid for HMA work items and will not be paid for separately.

Edge milling will be used to remove the existing HMA surface at the curb line to a depth adequate to place the new surfacing flush with the curb edge at the yield shown on the bid blank. Where edge milling is indicated, the existing HMA surface shall be milled to a maximum width of 7 feet from the curb edge.

Where the entire road width is milled, the pavement shall be milled using automatic controls at 2% cross slope. The depth at the existing curb edge shall be as necessary to match the proposed yield. Where the milled depth creates a drop of 3" or greater, the contractor shall immediately place temporary ramps at all drives and butt joints and remove them immediately prior to surfacing. Payment for temporary ramps shall be included in the unit price bid for **Cold Milling HMA Surface** or **Cold Milling HMA Surface, Special** and will not be paid for separately. The contractor should expect to be milling into the subsurface on entire roads and on portions of some roads to obtain the specified cross section. Payment for milling subsurface material will be included in the payment for **Cold Milling HMA Surface**.

- E. Adjust drainage structure covers, water valve boxes, and monument boxes in accordance with Sections 403, 821, and 823 of the Standard Specifications. Quantities shown on the bid blank are estimates and payment will be for the actual number of covers adjusted.

Adjusting manhole covers, catch basin covers, and water valve manhole covers will be measured and paid for as **Dr Structure Cover, Adj, Case 1**. Water valve boxes will be measured and paid for as **Water Shutoff, Adj, Case 1**. The unit price for **Monument Box Adjust, Special** includes the cost of sawcutting existing pavement, adjusting the cover up or down, and removing and replacing the pavement adjacent to the monument box.

Temporary lowering and/or protection of existing drainage structure covers for cold milling operations will be required, and shall be included in the unit price bid for **Cold Milling Hma Surface** or **Cold Milling Hma Surface, Special**. Covers and boxes that do not require adjustment, but which require removal of the existing HMA surface (hand chipping) prior to surfacing will be paid for at 50% of the bid price for the respective adjust work item.

Drainage structure covers shall be adjusted with concrete blocks, bricks or concrete adjusting rings supported on a full bed of mortar. Monument boxes shall be raised to the required elevation. Water valve boxes shall be adjusted by turning casting up to the required elevation.

Metal riser rings will not be allowed to adjust drainage structure covers, monument boxes, or valve boxes.

- F. Drainage structure reconstruction will be necessary on those projects designated on the bid blank or as determined by the Engineer and shall meet the requirements of Section 403 of the Standard Specifications. Where the Engineer determines the a top section of an existing drainage structure has deteriorated and needs to be repaired, that portion the drainage structure shall be reconstructed. The section of drainage structure shall be reconstructed using new concrete blocks, bricks, or precast concrete sections. Chimney sections shall be reconstructed using new concrete blocks, bricks, or precast riser rings supported on a full bed of mortar. The outside of the drainage structure shall be wrapped with non-woven geotextile fabric.

Drainage Structure Reconstruct will be measured by the foot from the lowest depth of drainage structure required to be removed to the bottom of the casting. **Dr Structure Cover, Adj, Case 1** will NOT be paid on those structures where **Drainage Structure Reconstruct** is paid. Payment shall be in full for all work, materials, and equipment necessary to perform drainage structure reconstruction to the final paving elevation. Curb and gutter that must be removed and replaced to facilitate the pay item **Drainage Structure Reconstruct** will be paid for as **Curb Reconstruct**.

- G. New curb and gutter will be required on those projects designated on the bid blank or as determined by the Engineer and shall be in accordance with section 802 of the Standard Specifications.

Where directed by the Engineer, existing curb and gutter shall be removed and replaced with curb and gutter of the same cross section. Work required will be removing the existing curb and gutter; excavating to prepare the grade; placing, grading, and compacting aggregate base for the new curb and gutter; constructing the curb and gutter; hand patching; and restoration. All work, labor, materials, and equipment for removing the existing curb and gutter, excavating, placing new aggregate base, placing new curb and gutter, hand patching, backfill and slope restoration will be measured by the foot and paid for as **Curb Reconstruct**.

Where there is no existing curb and gutter, the grade will be excavated; Aggregate Base, 21AA, 6 inch placed, graded, and compacted for the new curb and gutter and new HMA between the new curb and existing pavement; new curb and gutter constructed; and the slope restored. Refer to the Proposed Intersection Curb Construction detail. All work, labor, materials, and equipment for constructing the new curb and gutter where there is no curb and gutter will be measured by the foot and paid for as **Curb, Conc, Det B2 – Special**. All work, labor, materials, and equipment for preparing the aggregate base including excavation between the existing asphalt to 6" behind the proposed curb and gutter, placing and compacting **Aggregate Base, 6 inch – 21AA** over the entire excavated area, backfill, and slope restoration will be measured by the square yard and paid for as **Intersection Grading**.

- H. HMA placed between the new curb and gutter and existing pavement will be paid for as **HMA, 13A**. HMA Application Rates will be as shown on the bid blank summary.

All HMA (HMA mixtures) shall meet the requirements of the 2012 MDOT Standard Specifications for Construction, the attached Special Provisions, and as specified herein.

The final asphalt binder grade shall meet or exceed PG 58-28.

The HMA mix shall be designed at 4.00% air voids and field regressed to 3.5% air voids during production.

Prior to the start of production of any mixture, the contractor shall provide an MDOT approved mix design for any mix to be used and shall provide manufacturer certifications for all asphalt cement used on the project. All materials used shall be as specified in the MDOT Material Source Guide.

Wedging of uneven areas of the existing pavement prior to placing the surface course will be required as designated on the project summary. Wedging will be paid for at the unit price bid for HMA and will not be paid for separately. Bidders shall note that projects with wedging will include variable thicknesses placed in one pass. The bidders should expect the screed of the paver to be dragging stones during wedging operations. Application rates for wedging will not be increased to eliminate this condition. The maximum application rate for one pass is 250 lbs per square yard.

- I. Aggregate shoulder construction shall be in accordance with section 307 of the Standard Specifications. Aggregate shoulder material shall meet MDOT Specification 23A. Aggregate shoulder construction will be required in rural and urban areas where there is no curb and gutter, as designated on the project summary. Aggregate shoulders shall be placed no wider than 2 feet unless otherwise directed by the Engineer. Compaction shall be performed using a rubber tired roller. Any spillage or surplus material shall be removed and the area shall be left with a clean-neat appearance. Additional aggregate shall be placed and compacted in gravel driveways as needed to build proper approaches and will be paid for at the unit price per ton for **Shoulder, CI II** and will not be paid for separately.

The Eaton County Road Commission will test gravel furnished by the Contractor, and will reject gravel that does not meet the specifications.

The HMA pay items on each individual project will not be paid for until the aggregate shoulders for that project have been completed. Shoulder gravel will be measured by the ton and paid for as **Shoulder, CI II**.

- J. Slope restoration shall be done in accordance with section 816 of the Standard Specifications. Slope restoration may be necessary in rural and subdivision areas that do not have curb and gutter, behind replaced and new curb and gutter, and where directed by the Engineer. Topsoil shall be visually inspected and approved by the Engineer. Seed mixture shall be TGM. Seed shall be sowed into topsoil. Straw mulch and mulch anchoring shall be placed on the finished, seeded grade. Mulch blanket is an acceptable alternative for mulch and mulch anchoring. All labor, equipment, topsoil, seed, fertilizer, mulch, mulch anchoring, and mulch blankets will be paid for at the unit price bid for slope restoration and will not be paid for separately. Slope restoration will be measured by the square yard and paid for as **Slope Restoration**.

Schedule: Slope restoration shall be completed within 2 weeks of paving the surface. All slope restoration shall be completed prior to September 15, 2018. The contractor shall schedule the work to have streets requiring slope restoration completed prior to this date.

- K. TRAFFIC CONTROL - Supply, install, and maintain the proper signs and the necessary traffic regulators per the MMUTCD, MDOT Maintaining Traffic Typical, and as directed by the Engineer. No road closures will be allowed during paving operations and traffic regulators will be required to perform the work. On projects that include shoulder gravel or slope restoration, this requirement includes the furnishing, installation, maintenance, moving, and removal of low shoulder and all other signs and/or barricades needed to maintain traffic safety until the shoulders are placed and the project completed. Payment for traffic control shall be included in the bid prices for the other contract pay items and will not be paid for separately.
- L. Proof of ADEQUATE INSURANCE COVERAGE by the successful bidder will be required as part of this contract. The successful Bidder shall furnish proof of Workers Compensation Insurance and a separate Liability Insurance Policy in favor of the Road Commission naming the Road Commission, its Commissioners, and Employees as an additional named insured, in the amount of \$1,000,000.

The successful Bidder will be required to provide a PERFORMANCE BOND in the amount of 50% of the total contract amount and a LIEN BOND in the amount of 50% of the total contract amount prior to award.

- M. PAY ESTIMATES will be prepared twice monthly by the Engineer for the work completed on the project. Payment of 95% of such estimates will be made upon approval by the Road Commission. Final Payment will be made on an Approved Final Estimate after acceptance of the completed work by the Road Commission.
- N. **Schedule:** The completion date for all work in this contract is October 26, 2018.

The Board reserves the right to cancel any of the individual projects and/or cancel Contracts in their entirety. The Board reserves the right to add other similar projects to the contract. Any such cancellations or additions shall not change the unit prices bid and all unit prices bid shall remain firm through November 15, 2018.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
RECYCLED HOT MIX ASPHALT MIXTURE ON LOCAL AGENCY PROJECTS

CFS:KPK

1 of 2

APPR:JWB:CJB:03-13-14
FHWA:APPR:03-13-14

Add the following subsection to subsection 501.02.A.2, on page 234 of the Standard Specifications for Construction.

- c. **Reclaimed Asphalt Pavement (RAP) and Binder Grade Selection.** The method for determining the binder grade in HMA mixtures incorporating RAP is divided into three categories designated Tier 1, Tier 2 and Tier 3. Each tier has a range of percentages that represent the contribution of the RAP binder toward the total binder, by weight. The tiers identified below apply to HMA mixtures with the following exception: Superpave mixture types E3, E3 High Stress, E10, E10 High Stress, E30, E30 High Stress, E50, and E50 High Stress used as leveling or top course must be limited to a maximum of 27 percent RAP binder by weight of the total binder in the mixture.

Recycled materials may be used as a substitute for a portion of the new materials required to produce HMA mixtures in accordance with contract.

- **Tier 1 (0% to 17% RAP binder by weight of the total binder in the mixture).** No binder grade adjustment is made to compensate for the stiffness of the asphalt binder in RAP.
- **Tier 2 (18% to 27% RAP binder by weight of the total binder in the mixture).** For all mixtures no binder grade change will occur in Tier 2 for all shoulder and temporary road mixtures.

The required asphalt binder grade must be at least one grade lower for the low temperature than the design binder grade required for the specified project mixture type. Lowering the high temperature of the binder one grade is optional. For example, if the design binder grade for the mixture type is PG 58-22, the required grade for the binder in the HMA mixture containing RAP would be a PG 52-28 or a PG 58-28.

For Marshall Mixes, no binder grade change will be required when Average Daily Traffic (ADT) is above 7000 or Commercial Average Daily Traffic (CADT) is above 700. No binder grade change will occur for LVSP, E03 and E1 mixtures used as leveling or top course.

The asphalt binder grade can also be selected using a blending chart for high and low temperatures. Supply the blending chart and the RAP test data used in determining the binder selection according to *AASHTO M 323*.

- **Tier 3 ($\geq 28\%$ RAP binder by weight of the total binder in the mixture).** The binder

grade for the asphalt binder is selected using a blending chart for high and low temperatures per *AASHTO M 323*. Supply the blending chart and the RAP test data used in determining the binder selection.

EATON COUNTY ROAD COMMISSION

SPECIAL PROVISION
FOR
SAMPLING ASPHALT BINDER

ECRC:MMH

1 of 1

05-08-15

Original samples of asphalt binder shall be taken by the Contractor and delivered to the Engineer prior to incorporation into the mixture. The Contractor shall allow the Engineer access to witness the sampling. The frequency of sampling shall be each day material is placed as part of this contract unless otherwise determined by the Engineer. The cost of obtaining and delivering the samples to the Engineer will be included in the hot mix asphalt (HMA) pay items.

The Contractor must certify in writing that the materials used in the HMA mixture are from the same source as the materials used in developing the HMA mixture design and the bond coat is from an approved supplier as stated in MDOT's Material Quality Assurance Procedures Manual.

EATON COUNTY ROAD COMMISSION

SPECIAL PROVISION
FOR
INTERSECTION GRADING

ECRC

1 of 1

04-04-18

a. Description. **Intersection Grading** consists of providing all labor, equipment and materials required to excavate, remove, grade, shape, and compact to the subgrade elevation. **Intersection Grading** also includes supplying, placing, grading, and compacting 6" aggregate base - 21AA.

Intersection Grading applies to Addison/Maycroft intersection and other areas designated by the Engineer.

b. Materials. All materials shall meet all the requirements of Section 205 of the 2012 MDOT Standard Specification for construction.

c. Construction. **Intersection Grading** shall be done in accordance with section 205 of the 2012 MDOT Standard Specifications for Construction, standard plans, and as specified herein.

Excavate, load, and haul intersection material, including existing asphalt, to the subgrade elevation to a depth of 10" below the finished grade. Compact the subgrade. Supply, place, grade, and compact the aggregate base – 20AA.

All excess or unsuitable material removed from earth excavation shall become the property of the contractor and shall be disposed of by the contractor outside the road right of way.

d. Measurement and Payment. The work of **Intersection Grading** will be measured and paid for by the square yard. The area measured and paid for of **Intersection Grading** will be the finished aggregate base surface. Payment will be made at the contract unit price per square yard, which price shall be payment in full for all work specified herein including the aggregate base.

Curb removal and replacement will be paid for as **Curb Reconstruct. Slope Restoration and HMA, 13A** will be paid for separately.

<u>Pay Item</u>	<u>Pay Unit</u>
Intersection Grading	Square Yard

PROJECT LOG

The following is additional work necessary prior to resurfacing of these roads.

Addison Road at Maycroft Road

Remove the curb and gutter along the north edge of Addison Road beginning approx. 50 feet east of Maycroft Road and ending at the curb joint before the springpoint of Maycroft Road. Replace the curb and gutter with MDOT Detail F4. The mid-point of the new curb and gutter will be about 6 inches lower than the existing. Perform **Intersection Grading** to prepare the intersection for the new curb and gutter and HMA surface. This section of Addison will get 4 inches HMA, 13A.

Wagon Wheel at Mar Moor Drive

Cold mill Wagon Wheel from the edge of Mar Moor Drive to approximately 60 feet west to provide positive drainage south across Wagon Wheel. This will include milling 2 inches at each pavement edge and approximately 6" at the centerline of Wagon Wheel. The Contractor can expect to mill into the base material under the asphalt.

ADDISON/MAYCROFT INTERSECTION GRADING

MAYCROFT

