

Gladwin County 2019 Hot Mix Asphalt (HMA) Paving Itemized Bid List

Road Name Township	Limits/Location	Length (Miles)	Width (Feet)	Applic. Rate (Lbs/Syd)	Pay Items	Estimated Quantity	Unit	Unit Price	Amount
1 (TobaccoTwp)	Knox Road south to Glidden Road	0.500	24	275	HMA, 13A	1,000	Tons		
					HMA, Approach	10	Tons		
					Temp. Pavt. Markings	1	Lump Sum		
					Total Bid:				
2 (Clement Twp.)	From the dead end, back .5 miles	0.500	22	275	HMA, 13A	1,000	Tons		
					Temp Pavt. Markings	1	Lump Sum		
					Total Bid:				
3 (Secord Twp.)	Lakeshore west 1800'	1800'	22	275	HMA, 13A	605	Tons		
					HMA Approach	5	Tons		
					Temp. Pavt. Markings	1	Lump Sum		
					Total Bid:				
4 (Billings Twp.)	Estey Road north Including Center and S. Lake St.	1.400	22	100	Ultrathin HMA, Med. Vol	19,000	Syds		
					Full Width wedge	600	tons		
					Temp. Pavt. Markings	1	Lump Sum		
					Total Bid:				
5 (Butman Twp.)	Sugar Springs north	1.000	23	100	Ultrathin HMA, Med. Vol	13,750	Syds		
					Wedging	40	tons		
					Temp. Pavt. Markings	1	Lump Sum		
					Total Bid:				
6 (Butman Township)	Butman Road to Sugar River Road	1.500	23	100	Ultrathin HMA, Med. Vol	20,350	Syds		
					Temp. Pavt. Markings	1	Lump Sum		
					Total Bid:				
7 (Butman Twp.)	Linksvie to Hockaday Road	0.500	23	100	Ultrathin HMA, Med. Vol	6,800	Syds		
					Temp. Pavt. Markings	1	Lump Sum		
					Total Bid:				
8 (Secord Twp.)	W. Thendara, Peninsular, Thendaract (Entire Thendara Sub)	1.100	23	100	Ultrathin HMA, Med. Vol	14,850	Syds		
					Temp. Pavt. Markings	1	Lump Sum		
					Total Bid:				
9 (Secord Twp.)	Cedar Lake to Whispering Pine Deer Lane	1.100	23	100	Ultrathin HMA, Med. Vol	14,850	Syds		
					Temp. Pavt. Markings	1	Lump Sum		
					Total Bid:				

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10	Blueberry Lane (Secord Twp.)	Lakeshore Dr. to Secord Dam Road	0.20	22	100	Ultrathin HMA, Med. Vol	2,600	Syds	
					Temp. Pavt. Markings	1	Lump Sum		
Total Bid:									
11	Chappel Dam Rd. (Grout Twp.)	M-61 north 2800' (Full width wedging and widening)	0.500	24	100	Ultrathin HMA, Med. Vol	9,500	Syds	
				8'	Various	Wedging	300	Tons	
					Temp. Pavt. Markings	1	Lump Sum		
Total Bid:									
12	Grout Road (Grout Twp.)	M-61 north (Full width wedging and widening)	0.500	24	100	Ultrathin HMA, Med. Vol	6,800	Syds	
						Full Width/Wedge	300	Tons	
					Temp. Pavt. Markings	1	Lump Sum		
Total Bid:									
13	Parker Road (Grout Twp.)	M-18 to McCulloch (Full width wedging and widening)	1.000	24	100	Ultrathin HMA, Med. Vol	13,500	Syds	
						Full Width/ Wedge	300	Tons	
					Temp. Pavt. Markings	1	Lump Sum		
Total Bid:									
14	Wagarville Road (Sage Twp.)	Chappel Dam to M-18 (Full width wedging and widening)	2.000	23	90	Ultrathin HMA, Med. Vol	28,200	Syds	
						Full Width Wedging	800	Tons	
					Temp. Pavt. Markings	1	Lump Sum		
Total Bid:									
15	Chappel Dam (Grout)	M-61 north (Full width wedging and widening)	0.600	22-28'	100	Ultrathin HMA, Med. Vol	8,800	Syds	
				various		Full Width/Wedging	400	Tons	
					Temp. Pavt. Markings	1	Lump Sum		
Total Bid:									
16	Bard Road (Beaverton Twp.)	Beaverton Road South (Full width wedging and widening)	3.000	24'	100	Ultrathin HMA, Med. Vol.	42,500	Syds	
				various		Full Width/Wedging	1,200	Tons	
					Temp.Pavt.Markings	1	Lump Sum		
Total Bid:									
17	Bard Road (Grout Twp.)	Kerswill road south 1 mile (Full width wedging and widening)	1.000	24	100	Ultrathin HMA,Med. Vol.	14,300	Syds	
				various		Full Width/Wedging	400	Tons	
					Temp.Pavt. Markings	1	Lump Sum		
Total Bid:									

**Gladwin County 2019 Hot Mix Asphalt (HMA) Paving
Itemized Bid List**

Road Name Township	Limits/Location	Length (Miles)	Width (Feet)	Applic. Rate (Lbs/Syd)	Pay Items	Estimated Quantity	Unit	Unit Price	Amount
18 Middle/Brushaber (Billings Twp.)	Midland County line northerly (Full width wedging and widening)	2.000	24	100	Ultrathin HMA Med. Vol. Full Width/Wedging Temp. Pavt. Markings	28,200 800 1	Syds Tons Lump Sum		
									Total Bid:
19 Hockaday Road (Gladwin Twp.)	Weber Road to Youngs (Full width wedging and widening)	1.000	24	100	Ultrathin HMA Med. Vol. Full Width/Wedging Temp. Pavt. Markings	14,200 400 1	Syds Tons Lump Sum		
									Total Bid:
20 Grout Road (Grout Twp.)	Parker to Plude (Full width wedging and widening)	0.750	24	100	Ultrathin HMA Med. Vol. Full Width/Wedging Temp. Pavt. Markings	11,000 400 1	Syds Tons Lump Sum		
									Total Bid:
21 Swinson Road (Bentley Twp.)	Klender to Bay County Line Herner to School (Full width wedging and widening)	2.000	24	100	Ultrathin HMA Med. Vol. Full Width/Wedging Temp. Pavt. Markings	28,400 800 1	Syds Tons Lump Sum		
									Total Bid:
	Cross Culvert HMA Patching County Wide Various Locations			330	HMA, 13A	100	Ton		
	(Price Per Ton)								Total Bid:
	**Fine grading and prep included **								

Notes:

1. All paving for the main roadway, paved shoulders (adjacent to guardrail & other areas), road intersections, cul-de-sacs, & 2' pavement widenings at driveways will be paid for as HMA, 13A, by the ton.
2. Paving for paved drive approaches, beyond the 2' pavement widenings will be paid for as HMA Approach, by the ton.
3. Temporary centerline pavement markings shall consist of Pavt Mrkg, Type NR, Tape, 4 inch, Yellow, Temp, placed in 4' strips at 50' spacing.
4. The Gladwin County Road Commission reserves the right to award each project individually.

Company Name: _____

Bidders Name and Title: _____

Bidders Signature: _____

Date: _____

Prepared By:

Gladwin County Road Commission
301 South State Street
Gladwin, MI 48624
989.426.7441

**Gladwin County Road Commission
2019 Hot Mix Asphalt (HMA) Paving**

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**SEALED PROPOSALS (BIDS) WILL BE RECEIVED UNTIL 9:30 A.M., EST,
WEDNESDAY, February 20, 2019**

Board of County Road Commissioners of the County of Gladwin, 301 South State Street, Gladwin, Michigan 48624.

BID REQUIREMENTS:

SIR: The undersigned has examined the location(s) of the work described herein and is fully informed as to the nature of the work and conditions relating to its performance and understands the quantities shown are approximate 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 of the work, furnish all materials except as otherwise specified herein; and, for the unit prices named in the itemized bid, to complete the work herein described in strict accordance with the plans and the requirements of these bid documents.

The undersigned further proposes to perform extra work (for items that are not included with the itemized bid) that may be authorized by the Gladwin County Road Commission. Compensation for extra work will be made on the basis of an agreed upon unit price prior to performing the extra work.

Upon mutual agreement of the county and the contractor, bid prices may be extended to MDOT maintenance projects run by the county.

Bid prices may also be extended through mutual agreement to new projects within the same township as the original bid.

SPECIFICATIONS:

All materials, equipment, and construction methods used on the project(s) shall be in accordance with the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction, supplemental specifications, and the attached HMA Application Estimate.

Curb, HMA shall consist of a 18 inch wide by 3 inch high "wedge shaped" curb placed on the top of and at the outer edge of the new Hot Mix Asphalt (HMA) pavement where called for on the plans or as directed by the County. The HMA curb shall be installed at the same time as the new HMA pavement.

The height of the HMA curb shall be reduced to 1 inch through all existing or proposed driveways unless otherwise directed by the County.

HMA Patching shall be placed and compacted for filling holes, depressions and ruts, to repair failed pavement areas, to fill large cracks in the existing pavement,

**Gladwin County Road Commission
2019 Hot Mix Asphalt (HMA) Paving**

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and to replace existing patches as called for on the plans or as directed by the County. This item will apply to intermittent locations on various roads in the county where the existing pavements will remain in place and the locations for the work will be established in the field by the County. **The contractor shall perform the preparation work, including removal of up 3" of temporary material, compacting and fine grading.**

PROGRESS SCHEDULE:

Begin all work after receiving notice of award of contract from the County, and after the County provides notification that the base preparation work has been completed and paving can begin.

All items of work shall be completed by **October 1, 2019**, unless a different date is authorized by the County. All paving over new gravel grades shall be completed by July 1, 2019

MAINTAINING TRAFFIC:

Traffic shall be maintained at all times during construction in accordance with Sections 103.05 and 812 of the MDOT 2012 Standard Specifications for Construction, and as herein specified.

The Contractor shall furnish, erect, and maintain barricades, drums, and lights adjacent to the work and provide traffic regulators as the construction operations may require. The barricades, drums, and lights shall be furnished, erected, and maintained in accordance with the requirements of Section 812 of the MDOT 2012 Standard Specifications for Construction.

All signs, barricades, warning lights, traffic regulators, and other traffic control devices shall be in accordance with the 2011 edition of the Michigan Manual of Uniform Traffic Control Devices (MMUTCD), as amended and shall be the responsibility of the Contractor.

Temporary pavement markings shall be Type NR tape and shall be placed in a single line of 4' strips spaced 50' center-to-center for each course of HMA paving for passing zones and a double line of 4' strips spaced 50' center-to-center for each course of HMA paving for no-passing zones.

The furnishing, placement, and maintaining of traffic control devices, and traffic regulators will not be paid for separately, but is considered included with payment for HMA, 13A, and HMA, Approach.

Note:

The county will furnish, place, and maintain all traffic control devices that are needed for roads that will need HMA patching. These are other roads in the

**Gladwin County Road Commission
2019 Hot Mix Asphalt (HMA) Paving**

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county and are not the roads that will be paved or resurfaced as shown on the itemized bid list.

BASE PREPARATION:

The existing road surface will be prepared for paving by the County and/or its designated Contractor. Paving work on these projects will be performed on a prepared aggregate base or a crushed HMA base as noted in the bid documents. The County will maintain the prepared base in a graded and compacted condition until such time paving will be performed.

Note: The Contractor may be required to perform some minor base preparation work in some locations such as the removal of temporary aggregate transitions and minor grading. This work, if required will not be paid for separately, but is considered included with payment for HMA, 13A, and HMA Approach.

BID GUARANTEES:

The undersigned enclosed a certified or cashier's check on an open solvent bank, or bid bond, in the amount of not less than 5% payable to the Gladwin County Board of Road Commissioners as a guarantee of good faith. If the undersigned is the successful bidder, and fails to enter into a contract or to furnish satisfactory bonds to the Board of Gladwin County Road Commissioners within fifteen (15) days after being furnished with the necessary contract and bond forms, said check, or bid bond, shall be forfeited to the Board of County Road Commissioners as liquidated damages. It is understood that the check, or bid bond, of the selected bidder will not be returned until the contract has been executed, and that the proposal guarantees of all except the selected bidder will be returned promptly.

INSURANCE REQUIREMENTS:

The successful bidder shall furnish proof of insurance prior to beginning work on the project(s). The following minimum requirements must be included on the certificate of insurance:

1. \$1,000,000 - General Aggregate – General Liability
2. \$1,000,000 – Personal Injury – General Liability
3. \$500,000 – Policy Limit – Worker's Compensation
4. \$100,000 – Each Accident – Worker's Compensation
5. \$1,000,000 – Automobile Liability – Combined single limit for each accident, bodily injury per accident, and property damage per accident, and in an amount not less than \$500,000 for bodily injury per person.

The additional insured information must also be included to read as follows:
"ADDITIONAL INSURED: The Board of County Road Commissioners for Gladwin County, the Gladwin County Road Commission, and its officers, agents, and employees."

**Gladwin County Road Commission
2019 Hot Mix Asphalt (HMA) Paving**

SAFETY PROGRAM:

The successful bidder will be required to furnish a safety program prior to beginning work on the project(s).

DELAYED ACCEPTANCE, FINAL INSPECTION, AND PAYMENT TO CONTRACTOR:

A minimum of 14 days after completion of the HMA paving work, the Road Commission Manager and Construction Supervisor (or designated representatives) will inspect the project with the Contractor. If deficiencies are found, corrective work is required. Complete all corrective work within seven working days of the inspection, or by an agreed upon date. All costs associated with completing this corrective work, to the satisfaction of the Road Commission, will be borne by the Contractor.

The Road Commission will not pay the Contractor for the work performed on the project until after the inspection is completed, corrective work is completed (if necessary), and the project is accepted by the Road Commission.

MEASUREMENT AND PAYMENT:

The completed work, including all materials, labor, and equipment, as measured, will be paid for at the contract unit price for the following item (pay item), as shown on the itemized bid list for each project.

<u>Contract Item</u>	<u>Pay Unit</u>
HMA, 13A.....	Ton
HMA Approach.....	Ton
HMA Patching.....	Ton
Curb, HMA.....	Foot
Temporary Pavement Markings.....	Lump Sum

HMA, 13A, HMA Approach, and HMA Patching will be paid for by the ton, based on delivery load tickets received for material delivered and placed on the project(s).

Curb, HMA will be measured and paid for by the length in feet for the actual curb placed with no deductions for catch basins or inlet castings.

Temporary Pavement Markings will be paid for by the Lump Sum for each project, and will be payment in full for all temporary pavement markings placed on the project.

**Gladwin County Road Commission
2019 Hot Mix Asphalt (HMA) Paving**

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COMPANY NAME: _____

ADDRESS: _____

PHONE: _____ FAX: _____

EMAIL: _____

BIDDERS NAME AND TITLE: _____

BIDDERS SIGNATURE: _____

DATE: _____

GLADWIN COUNTY ROAD COMMISSION
SPECIAL PROVISION
FOR
HMA, Ultra-Thin

GCRB:BDS

1 of 4

5/1/2014

- a. **Description.** This guide specification provides acceptance testing requirements for use on HMA Ultra-Thin Overlay mixture.
- b. **Materials.** The HMA and materials shall meet the following requirements:
 - 1. **Bond Coat.** The bond coat material will be emulsified asphalt conforming to the requirements of Section 904 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction, Type SS1h.
 - 2. **HMA Ultra-Thin Overlay.** The Ultra Thin HMA Overlay shall be composed of a mixture of aggregate, asphalt binder, and if required, mineral filler, as listed in Table 1.

Table 1 - HMA Ultra-Thin Overlay Mixture Requirements

Parameter	Low Volume Comm. ADT <380	Medium Volume Comm. ADT 380 - 3400	High Volume Comm. ADT >3400
Marshall Air Voids %	4.5	4.5	5.0
VMA % (min.) based on Gsb	15.5	15.5	15.5
Fines/Binder % Max.	1.2	1.4	1.4
Flow (0.01 in.)	8-16	8-16	8-16
Stability Min. (lbs)	1200		

- 3. **Aggregate Gradation and Physical Properties.** The combined gradation of the aggregate portion of the mixture, including the mineral filler, shall be within the limits of Table 2. The physical properties of the combined aggregates shall meet the criteria of Table 3.

Table 2 - HMA Ultra-Thin Overlay Aggregate Gradation

Sieve Size	Total Passing Percent by Weight
½ inch	100
3/8 inch	99-100
No. 4	75-95
No. 8	55-75
No. 30	25-45
No. 200	3-8

Table 3 - HMA Ultra-Thin Overlay Aggregate Physical Requirements

Parameter	Low Volume Comm. ADT <380	Medium Volume Comm. ADT 380 - 3400	High Volume Comm. ADT >3400
Percent Crush (min.)	50%	75%	95%
Angularity Index (MTM 118) (min.)	2.5	3.0	4.0
L.A abrasion loss (max.)	40	35	35
Aggregate Wear Index (AWI)	(a)	(a)	(a)
a. AWI of 220 is required for projects with less than or equal to 2000 ADT, projects with ADT greater than 2000 the minimum AWI requirement is 260.			

In addition, the sum of the shale, siltstone, ochre, coal, clay-ironstone and particles which are structurally weak or are found to be non-durable in service shall not exceed 8.0 percent.

- Performance Graded (PG) Asphalt Binder. Binder selection is based on present day two-way commercial ADT as listed in Table 4. The PG binder shall meet all the requirements in Section 904 of the 2003 MDOT Standard Specifications for Construction.

Table 4 - Asphalt Binder Selection for HMA Ultra-Thin Overlay

Low Volume Comm. ADT <380	Medium Volume Comm. ADT 380 - 3400	High Volume Comm. ADT >3400
PG 64 -22*	PG 64 -28P**	PG 70-22P*
* In areas North of M-46, May use PG 58-28 (Low) or PG 70-28P (High)		
** May use another "readily available" polymer modified (P) grade.		

c. Construction.

- Bond Coat Application. The bond coat material will be applied to completely cover the prepared surface at a rate of 0.10 - 0.15 gal/yd².
- Mixture Application Rate. The target application rate shall be 90 lb/yd², unless specified by the engineer to address special circumstances.
- Mix Design. The Contractor shall submit to the Owner a complete mix design for review prior to the start of production.
- Quality Control. The Contractor shall provide and follow a Quality Control (QC) plan for the Ultra Thin HMA Overlay that will maintain adequate QC for production and construction processes applicable to this specification and the contract documents. For QC purposes, the Contractor must perform at least one QC test per day for gradation, AC content, and air voids, and is allowed to take informational cores for application rates. The Owner shall be provided a copy of the QC plan for review, prior to mix production and placement.

After the job-mix-formula is established, the aggregate gradation and the binder content of the HMA mixture furnished for the work shall be maintained within the Range 1 uniformity tolerance limits permitted for the job-mix-formula specified in Table 5.

However, if deviations are predominantly either below or above the job-mix-formula, the Owner may order alterations in the plant to bring the mixture to the job-mix-formula. If two consecutive aggregate gradations on one sieve, or binder contents as determined by the QC tests, are outside Range 1 but within Range 2 tolerance limits, the Contractor shall suspend all operations. Contract time will continue during these times when the plant is down. Before resuming any production, the Contractor shall propose, for the Owner's approval, all necessary alterations to the materials or plant so that the job-mix-formula can be maintained. The Owner, after evaluating for effects on AWI and mix design properties, will approve or disapprove such alterations. ****RAP is NOT Allowed****

Table 5 – Uniformity Tolerance Limits (for QC and Acceptance)

PARAMETER	* Range 1	Range 2
Air Voids**	± 1.0	± 2.0
Binder Content	± 0.40	± 0.50
% Passing # 8 and Larger Sieves	± 5.0	± 8.0
% Passing # 30 Sieve	± 4.0	± 6.0
% Passing # 200 Sieve	± 1.0	± 2.0
* This range allows for normal mixture and testing variations. The mixture shall be proportioned to test as closely as possible to the Job-Mix-Formula.		
** Air Void limits apply to QC testing and are optional for Acceptance testing.		

5. **Crushed Particle Content.** The crushed particle content of the aggregate used in the HMA mixture shall not be more than 10 percentage points above or below the crushed particle content used in the job-mix-formula nor less than the minimum specified for the aggregate in the project documents.
6. **Density.** Thoroughly compact the mixture immediately after placement using the number of rollers method.

Number of Rollers Method. The number of compactive and finish rollers used shall be as specified in Table 6 based on the square yards per hour of Ultra Thin HMA Overlay being placed.

Average Laydown Rate, square yards per hour	Number of Rollers Required	
	Compaction Rollers	Finish Rollers
Less than 800	1	1*
801 – 2000	1	1
2001 – 5500	2	1
5501 – 7200	3	1

*The compaction roller may be used as the finish roller also.

- a. **Mix Design and JMF-** Starting in 2017, a mix design and JMF must be submitted and approved prior to start of work. Submissions must be received 72 hours before the start of work. The selected contractor will be required to submit one mix design and one JMF per mix type awarded. Any changes to these after initial approval, must be approved prior to the start of work, by the County Highway Engineer. Mix samples will be taken by

Gladwin County Road Commission employees, and tested by a qualified third party tester. Samples will be random and at the owners discretion. Mix Design and JMF are not required for HMA, Wedging.

d. **Rejected Mixtures.** If for any one mixture, two consecutive aggregate gradations on one sieve or binder contents as determined by acceptance tests exceed the uniformity tolerance of Range 2 under Table 5, or do not meet the minimum requirements for crushed particle content specified in the project documents, the mixture will be rejected. If such mixtures are placed in a pavement, the remaining portions of the failing acceptance samples (split sample) will be sent to an independent Laboratory to confirm the acceptance test results. If the Laboratory's results do not confirm the acceptance test results, then no price adjustments will be made for the mixture involved. If the Laboratory's results confirm the acceptance test results and if, in the Owner's judgment, the defective mixture can remain in place, the contract unit price for the defective mixture involved, as determined from acceptance tests, will be decreased on the following basis: The contract unit price for material outside of Range 2 will be decreased 25 percent.

The Owner may take into account the Contractor's QC test results when making acceptance decisions and price adjustments.

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

Contract Item (Pay Item)	Pay Unit
HMA, Ultra-Thin, Medium Volume	Square Yard
HMA, Wedging (Full Width)	Ton

Payment for HMA, Ultra-Thin, Medium Volume, includes all materials, equipment, labor for preparing the surface, tack coat, placing the HMA, Ultra-Thin Overlay mixture and complying with all requirements. The placement includes placement of a single course of mixture for full width coverage as specified in the plans. ****RAP is not allowed****

Payment for HMA, Wedging (Full Width), includes all materials, equipment, labor for preparing the surface, tack coat, placing the wedging mixture and complying with all requirements. The placement of the HMA, Wedging is intended as a full width scratch course, with the intent of filling all voids and building up settled areas. The wedging is intended to build slope and consistency, allowing the surface course of HMA, Ultra-Thin to be placed at a consistent depth. It is understood that the scratch course will not be judged on appearance or drag marks in the surface. The average depth for placement will be variable based on existing road conditions. The material for HMA Wedging shall be the same as HMA Ultra-Thin or other approved mixtures with 100% of material passing 1/2". PG-58-28 would be allowable for this mixture. ****RAP is not allowed****

**GLADWIN COUNTY ROAD COMMISSION
HMA APPLICATION ESTIMATE**

502

1 of 2

DATE: 12/2/2015

a. Description.- This work shall be done in accordance with the requirements of Division 5 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction except as herein specified.

b. Construction Methods.- The construction methods shall be in accordance with the MDOT 2012 Standard Specifications for Construction.

c. Tests.- The Nuclear Gauge Method or Coring Method for testing compaction, Section 504.01C is hereby waived for this project. The Number of Rollers Method chart below shall apply.

Average Laydown Rate, Square Yards Per Hour	Number of Rollers Required	
	Compaction Rollers	Finish Rollers
Less than 800	1	*1
800-1800	1	1
1800-4000	2	1
4000-7200	3	1

*The compaction roller may also be used as the finish roller.

d. Materials.- The HMA, 13A (Top Course) shall have a yield of 275 lbs per square yard, per plans.

The HMA Approach for intersecting roads will consist of HMA, 13A, and shall have a yield of 275 lbs per square yard per plan.

The HMA Approach for existing paved drive approaches will consist of HMA, 13A, and shall have a yield of 275 lbs per square yard (over a gravel base) or a variable yield per square yard (when overlaying existing paved drives).

The Performance Grade asphalt binder range for the HMA top course and leveling course shall be 58-28.

Reclaimed Asphalt Pavement (RAP) shall not exceed 15%.

GLADWIN COUNTY ROAD COMMISSION
HMA APPLICATION ESTIMATE

502

2 of 2

DATE: 12/2/2015

The HMA Bond Coat material shall be per Section 502.02 of the MDOT 2003 Standard Specifications for Construction. The uniform rate of application shall be 0.05 to 0.10 gallons per square yard.

HMA Bond Coat is included with payment for HMA, 13A, HMA Ultra Thin and HMA, Approach.

The Aggregate Wear Index (AWI) for all aggregates used in the HMA top course mixtures shall be a minimum of 220.

e. Mix Design and JMF-

A mix design and JMF must be submitted and approved prior to start of work. Submissions must be received 72 hours before the start of work. The selected contractor will be required to submit one mix design and one JMF per mix type awarded. Any changes to these after initial approval, must be approved prior to the start of work, by the County Highway Engineer. Mix samples will be taken by Gladwin County Road Commission employees or qualified testing agent, and tested by a qualified third party tester. Samples will be random and at the engineers discretion. Mix design and JMF will not be required for HMA, Wedging. Payment will not be made until a mix design and JMF are submitted, approved, and matching any samples taken. Moving forward without an approved mix design and JMF is at the contractors risk.

f. Measurement and Payment.- Measurement and Payment shall be at the contract unit price per ton.