

**CLARE COUNTY ROAD COMMISSION  
ADVERTISEMENT FOR BIDS  
BITUMINOUS PAVING  
HARRISON, MICHIGAN**

Bids will be received by the Board of County Road Commissioners at their office at 3900 E. Mannsiding Road, Harrison, Michigan, 48625 (telephone 989-539-2151) until 10:00 A.M. local time on April 14th, 2021 and then publicly opened and read for the following:

**Bituminous Paving, 2021 Countywide Program  
Item #1-5**

Bids shall be in accordance with the specifications, obtainable from the road commission office. Bids shall be submitted upon the forms provided. Bids shall be submitted in sealed envelopes plainly marked on the outside as to their contents. The Board of County Road Commissioners reserves the right to reject any and all bids and waive any defects and accept the bid which in their opinion is in the best interests of the Clare County Road Commission.

Board of County Road Commissioners  
Of Clare County, Michigan

Karen Hulliberger , Chair

Tim Haskin, Vice-Chair

William Simpson, Member

Max Schunk, Member

Dave Coker, Member

**INFORMATION TO BIDDERS  
CLARE COUNTY ROAD COMMISSION  
2021 COUNTYWIDE PAVING PROGRAM**

**SCOPE OF WORK** – The work involves paving over aggregate base or pulverized base or overlaying existing pavements and related work at the locations shown on the drawings.

**EXAMINATION OF THE SITE** – The bidder shall examine the sites and become thoroughly familiar with the work.

**BID WITHDRAWAL** – No bid may be withdrawn for a period of 60 calendar days after bid opening.

**INSURANCE** – The successful bidder shall provide proof of insurance for general liability, auto liability, and workers compensation and shall name the Clare County Road Commission as an additional insured for general liability.

**TAXES** – The contractor shall pay all Michigan Sales and Use taxes.

**CONSTRUCTION SCHEDULE** – The contractor shall provide a construction schedule upon request. Work shall be coordinated with the Road Commission’s preparation schedule. Estimated “ready for paving” dates are posted on each project sketch.

**COMPLETION DATE** – All work shall be completed by November 15th, 2021.

**LIQUIDATED DAMAGES** – Liquidated damages of \$200 per calendar day will be assessed after the completion date shown for each project until the project is completed.



**SPECIAL NOTES:**

1. Project Deletion – The Clare County Road Commission reserves the right to delete individual paving projects from the 2021 paving program.
2. Skip Patching – Additional locations may be added to those shown by mutual consent with the contractor.
3. Mobilization – Costs for mobilization shall be included in other bid items.

**SPECIFICATIONS FOR BITUMINOUS PAVING  
CLARE COUNTY ROAD COMMISSION  
2021 COUNTYWIDE PAVING PROGRAM**

1. **GENERAL** – The work shall be in accordance with the Michigan Department of Transportation (MDOT) Standard Specifications for Construction of the latest revision unless otherwise modified herein.
2. **TRAFFIC CONTROL** – The contractor shall provide construction signing and traffic control for their operations. Payment shall be included in other bid items. The Road Commission will provide permanent signing and permanent pavement marking after paving.
3. **BITUMINOUS MIXTURE** –The bituminous mixture shall be 13A with PG 58-28 liquid asphalt. Air voids shall not exceed 3%. The recycled asphalt content (RAP) shall not exceed 20%. The yield shall be as shown on the individual project sketches.

A different mix may be used as approved by Engineer.

4. **PAVING** – Shall be as follows:
  - A. **Shoulders** – The road commission will grade back vegetation on existing paved roads prior to paving.
  - B. **Sweeping** – Existing paved surfaces to be patched or paved shall be swept by mechanical means. Costs shall be included in the unit price for patching or paving.
  - C. **Tack Coat** – Tack coat for overlays shall be applied at the rate of 0.05 to 0.1 gallons per sq. yard as directed by the Engineer and shall be included in the unit price for patching and paving.
  - D. **Temporary Pavement Marking** – The contractor shall apply tape immediately after top course paving and the cost shall be included in the pay item for paving.

**SPECIFICATIONS FOR BITUMINOUS PAVING  
CLARE COUNTY ROAD COMMISSION  
2021 COUNTYWIDE PAVING PROGRAM**

- E. Paving, other than Bituminous Approaches, Subdivision Paving, Skip Patch, or Bituminous Wedging shall be paid for as "BITUMINOUS MIXTURE, Ton".
  
- F. The Nuclear Gauge Method for testing compaction is hereby waived for this project. The Number of Rollers Method chart below shall apply:  
(Nuclear Gauge may be used to determine rolling pattern)

Number of Rollers Required Based On Placement Rate:

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 - 7000	3	1

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

- 5. **APPROACHES** – This section applies to side road approaches. The Road Commission will prepare aggregate approaches for paving. The contractor shall sweep existing paved approaches. Approaches shall be paved where shown on the drawings or as directed by the Engineer. All HMA approaches are to be constructed at the same rate as mainline paving, unless otherwise noted. Paving of approaches shall be paid for at the contract unit price for "BITUMINOUS APPROACHES, Ton".
  
- 6. **SUBDIVISION PAVING** – Work consists of paving in subdivision areas as noted on the plans, including all necessary approaches, valley gutter, spillways, Cul-De-Sacs and related work, and shall be paid for as "SUBDIVISION PAVING, Ton".
  
- 7. **SKIP PATCH PAVING** – This involves placing asphalt over rural paved or gravel roads at scattered locations throughout the county. Gravel base will be prepared by the Road Commission. Average yield shall be 220#/SYD, unless otherwise noted. The use of pull-behind pavers is not permitted. Skip patching shall be paid for as "SKIP PATCH, Ton".

**SPECIFICATIONS FOR BITUMINOUS PAVING  
CLARE COUNTY ROAD COMMISSION  
2021 COUNTYWIDE PAVING PROGRAM**

8. **BITUMINOUS WEDGING** – Work consists of paving at varying widths and yield over existing asphalt to correct cross-section and profile irregularities at locations as indicated or as directed by the Engineer. Wedging shall be paid for as “BITUMINOUS WEDGE, Ton”.
9. **BITUMINOUS VALLEY GUTTER, 2'** – This work shall consist of placing and compacting the specified bituminous mixture at locations as shown on the plans or as directed by the Engineer, to form a 2' wide valley gutter and corresponding spillways. The valley gutter lip shall be placed monolithically with the top course of bituminous paving. Valley gutter and corresponding spillway areas shall be paid for as “BITUMINOUS VALLEY GUTTER, 2' – LFT”, and shall be for labor and equipment only. The materials shall be paid for as “BITUMINOUS MIXTURE, Ton”. When placed in conjunction with a SUBDIVISION PAVING project, the materials shall be paid as “SUBDIVISION PAVING, Ton”.
10. **MONUMENT BOXES** – Monument boxes shall be installed at the locations shown on the sketches or as directed by the Engineer. Boxes will be furnished by the road commission and shall be paid for as “MONUMENT BOX, Each”. Existing monument boxes shall be adjusted and paid for as “MONUMENT BOX, Each”.
11. **BITUMINOUS WIDENING** – As directed by the Engineer, a widening strip shall be placed at minor public roads, private roads and commercial areas. The strip shall be placed parallel to and in conjunction with mainline paving. The width will be determined by the Engineer and the limits of the extendable screed, not to exceed 5 feet. Widening strips are not required behind valley gutter. Widening shall be paid for as materials only, as “BITUMINOUS MIXTURE, Ton”.
12. **AGGREGATE SHOULDERS** – Contractor shall place Class II Shoulders (23A) to match final elevation of pavements placed under this bid. Shoulders will be paid for as SHOULDER, Class II, Ton

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

CCRC:AL

1 of 4

3/29/2021

- 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.

4. 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 2012 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)		

c. **Construction.**

1. 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/yd<sup>2</sup>.
2. Mixture Application Rate. The target application rate shall be 95 lb/yd<sup>2</sup>, unless specified by the engineer to address special circumstances.
3. Mix Design. The Contractor shall submit to the Owner a complete mix design for review prior to the start of production.
4. 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



Clare 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:

<b>Contract Item (Pay Item)</b>	<b>Pay Unit</b>
HMA, Ultra-Thin, Medium Volume	Ton
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. Full width wedging is intended to scratch course at the center line and build up to a thicker wedge (with or w/o widening) on the outside edge. In the event that the desired yield cannot be achieved, the wedge will start from the quarter-crown and thicken to the edge of pavement.

# CLARE COUNTY ROAD COMMISSION

## 2021 OVERLAYS

### LOCATION SHEET

#### MAINLINE PAVING

Item #1: Location Arbor Drive and Oak Tree

(from Lake George St to end)

1.5 miles @ 22' Wide

Lincoln Township

Ultra Thin

900 Tons @ 95 lbs/yd<sup>2</sup>

Item #2: Location Forest Ave , Bungo Trail , Ojibway Trail , Maple St and Lake Dr

(From Lake George St to the end)

2.8 Miles @ 18- 22' wide

Lincoln Township

Ultra Thin

1711 Tons @ 95 lbs/yd<sup>2</sup>

Ultra Thin Approaches (14 Locations)

130 Tons @ 95 lbs/yd<sup>2</sup>

Item #3: Location Harrison Ave.

(From M61 north to Townline Lake Road)

4747' @ 22.5' wide

Hayes Township

Bituminous Mixture 13A

980 Tons @ 165lbs/yd<sup>2</sup>

Shoulders Class II 23A

3' Wide = 400 Tons

Item #4: Location Rodgers Ave.  
(From Browns Road to Adams)  
5450' @ 21' wide  
Arthur Township

Bituminous Mixture 13A  
1050 Tons @ 165 lbs/yd<sup>2</sup>

Quarter crown wedging  
L 6700' W 6' D 1.5"  
370 Tons

Shoulders Class II 23A  
550 Tons @ 3'+- Wide

Item #5: Location Hall Street  
(Village of Farwell from Washington to Floyd)  
1045' @ 11.5' wide  
Surrey Township

Bituminous Wedging 13A/29A  
110 Tons @ 165lbs/yd<sup>2</sup> +-

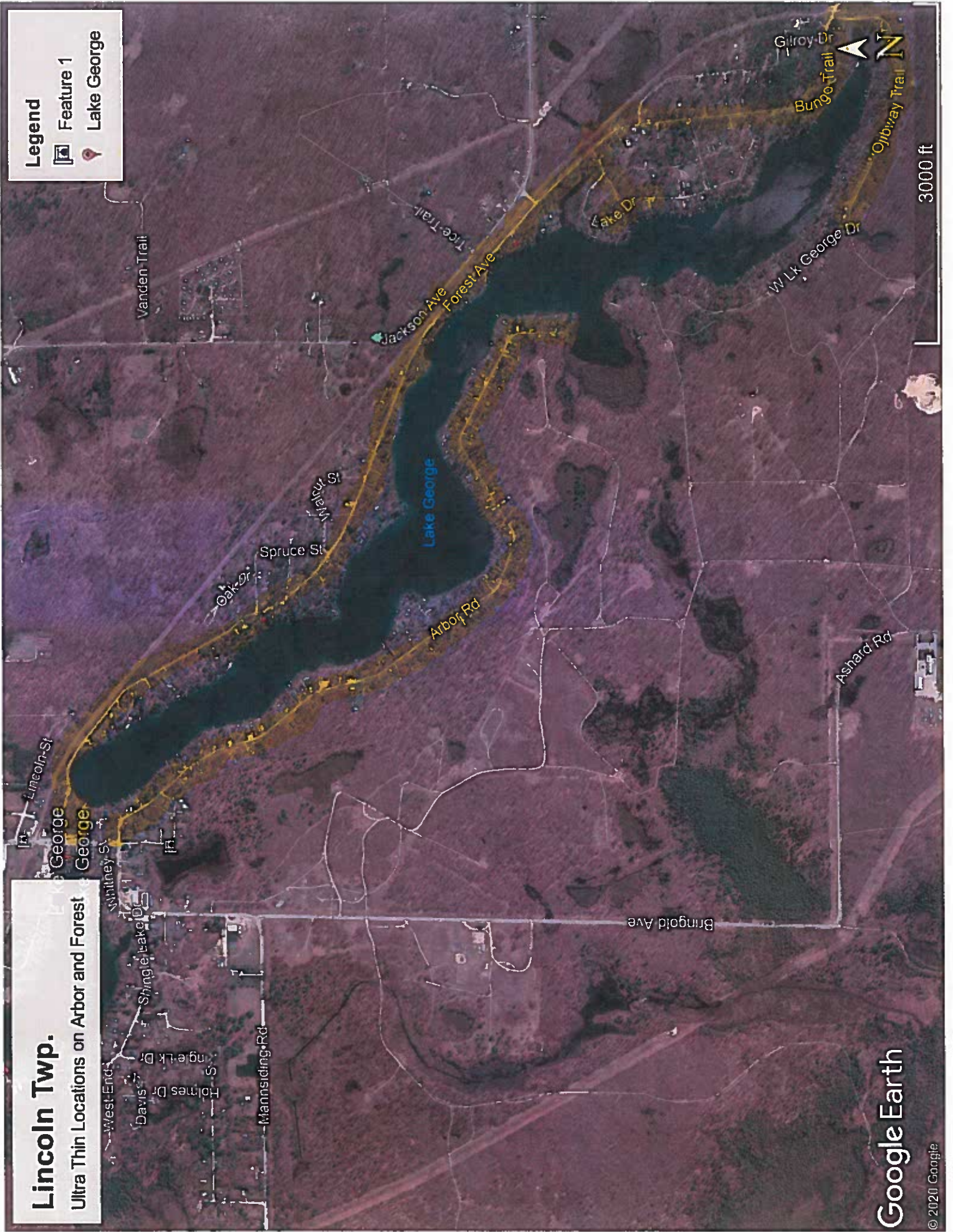
**THIS LOCATION NEEDS TO BE COMPLETED BY MID JUNE  
(DETOUR ROUTE ON A PROJECT)**

# Lincoln Twp.

Ultra Thin Locations on Arbor and Forest

## Legend

- Feature 1
- Lake George



**CLARE COUNTY ROAD COMMISSION  
2021 COUNTYWIDE PAVING PROGRAM**

<u>ITEM</u>	<u>UNIT</u>	<u>QTY</u>	<u>UNIT PRICE</u>	<u>TOTAL AMOUNT</u>
Subdivision Paving (HMA,Ultra-Thin, Medium Vol.)	Ton	2750	_____	\$ _____
Wedging Subdivision Paving (HMA,Ultra-Thin, Medium Vol.)	Ton	100	_____	\$ _____
Bituminous Mixture 13A	Ton	2030	_____	\$ _____
Bituminous Approaches	Ton	50	_____	\$ _____
Monument Box	Each	5	_____	\$ _____
Shoulder, CI II	Ton	950	_____	\$ _____
Wedging	Ton	480	_____	\$ _____
<b>TOTAL</b> - - - - -				\$ _____

Bids shall be in accordance with the specifications, obtainable from the road commission office. Bids shall be submitted upon the forms provided. Bids shall be submitted in sealed envelopes plainly marked on the outside as to their contents. The Board of County Road Commissioners reserves the right to reject any and all bids and waive any defects and accept the bid which in their opinion is in the best interests of the Clare County Road Commission. The bid unit prices may be renewed for up to 3 years if mutually agreed upon by both parties. The extension of bids shall also apply to City of Harrison , City of Clare, Village of Farwell, MDOT and all adjacent counties.

Contract will be awarded based on consideration of total price of all work.