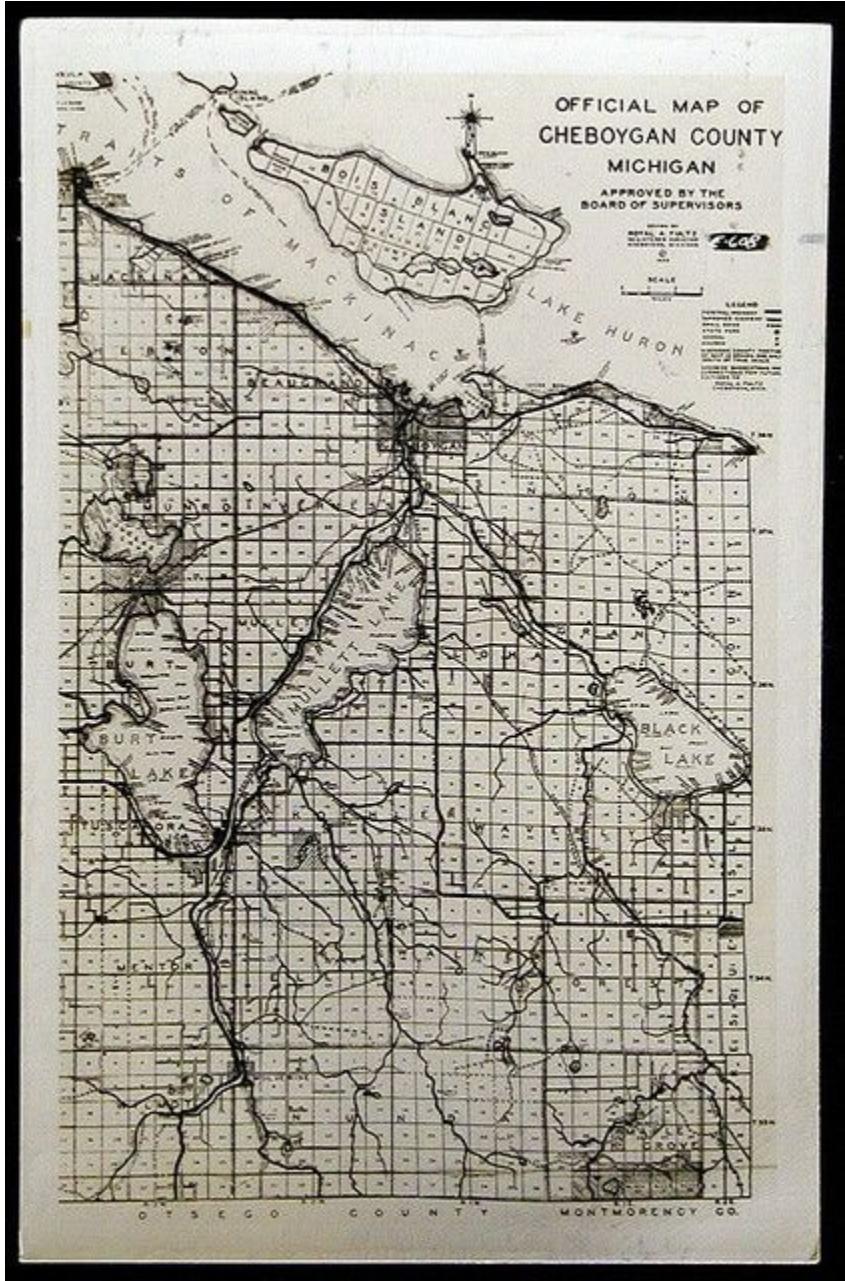


# Road Construction & Paving

Focused Trenching  
Modified Mill & Fill  
Wedge & Overlay

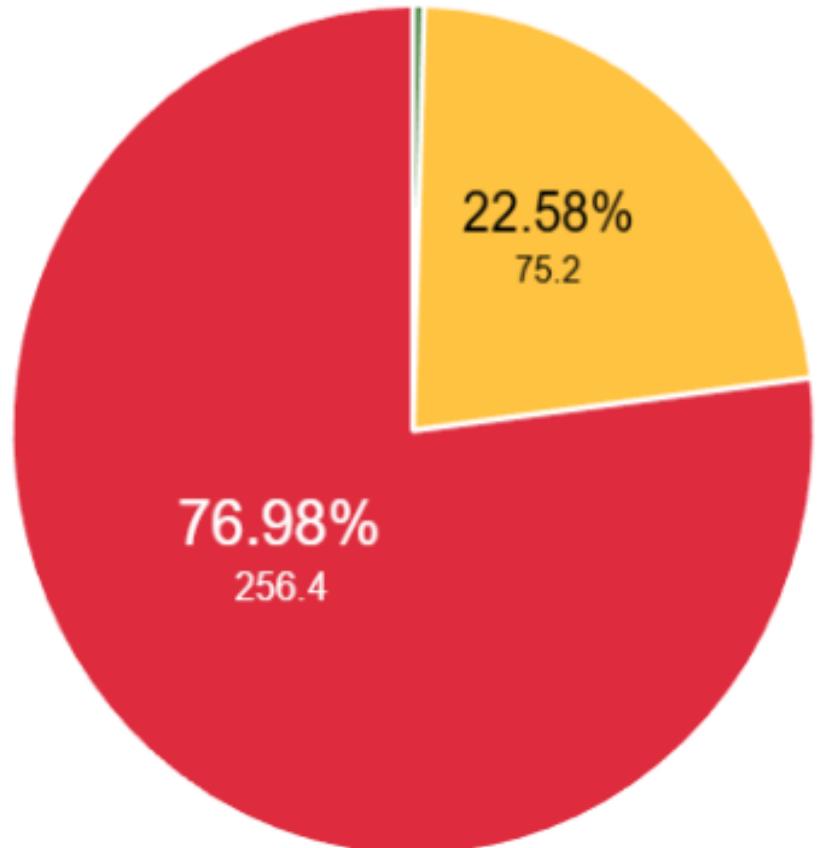
Exploring Alternative Techniques in Road Infrastructure Improvement



## Cheboygan County

Federal Aid Rated Pavement Conditions  
County, Cheboygan, County Road Commission, 2014

Lane Miles Good    Lane Miles Fair  
 Lane Miles Poor



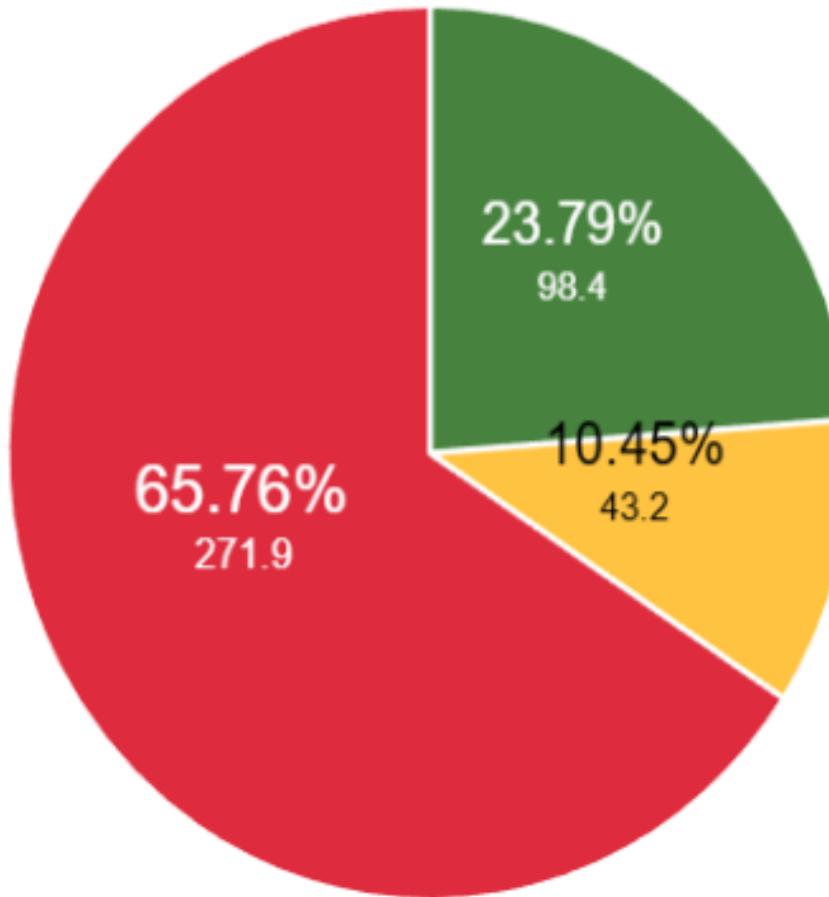
- 1129 Miles
- 312 Miles State
- 39 FTE
- 7.7 Million MTF (2024)

Millage \$1.5 Million  
(2024)

# Federal Aid Rated Pavement Conditions

## County, Cheboygan, County Road Commission, 2021

Lane Miles Good    Lane Miles Fair  
 Lane Miles Poor



November 30, 2015

# **LEVERING ROAD**

## **Project Information:**

Job Number: A459.271

Job Location: Levering Road between Inverness Trail Road and Cheboygan City Limits.

Type of Work: 1.54 MILES OF BASE CRUSHING AND SHAPING, CONCRETE & HMA CURB, SPILLWAYS, HMA PAVING, HI-PERFORMANCE BIAXIAL GEO-GRID, GRAVEL SHOULDERS AND PAVEMENT MARKINGS.

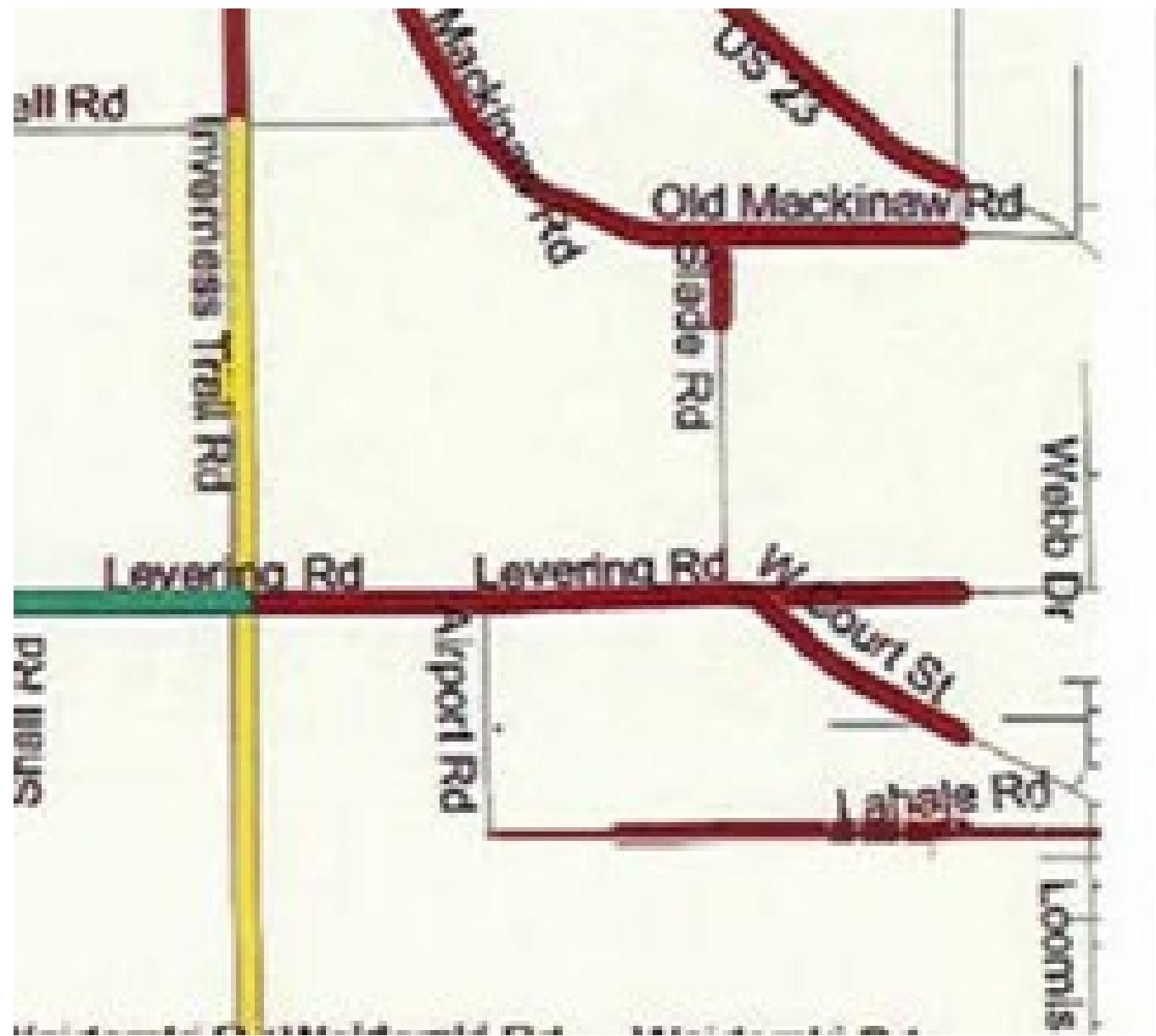
Owner: Cheboygan County Road Commission

## PASER Ratings for 9/27/2024

Ratings - 2024

PASER Rating

- 10
- 9
- 8
- 7
- 6
- 5
- 4
- 3
- 2
- 1



Road	Township	Project Type	Project Estimate	Amount Allocated
Ranch Road*	Mullett	Paving	\$123,100.00	\$25,000
Elmhurst, Feather Lane, Numbers*	Burt	Sealcoat	\$98,300.00	\$25,000
Wartella*	Benton	Sealcoat	\$107,600.00	\$25,000
Polish Line*	Inverness	Paving	\$624,226.90	\$25,000
Godin Circle*	Grant	Gravel	\$54,300.00	\$25,000
Wurm Road*	Nunda	Sealcoat	\$147,200.00	\$25,000
Hackleburg*	Kohler	Sealcoat	\$66,100.00	\$25,000
Baker Road*	Aloha	Gravel	\$71,620.00	\$25,000
Mentor Road (split)	Mentor	Gravel	\$66,643.80*	\$25,000
Mentor Road (split)	Wilmot	Gravel	\$66,643.80*	\$25,000
Stimpson	Mackinaw	Paving	\$110,423.00	\$25,000
Gravel Match: Tuscarora, Forest, Waverly, Walker, Munro, Hebron, Beaugrand, Ellis				\$20,000
*Signed agreements received.				
Estimated Local Road Construction		\$1,536157.49		
Allocation Amount				

# CHEBOYGAN COUNTY ROAD COMMISSION

## PRELIMINARY CONSTRUCTION ESTIMATE

Date of Estimate: 11/13/2023 13:55

Road Name: **Bowersock Rd**

Limits: **East Mullett Lake Rd to the End**

Township: **Koehler**

Prepared By: **Matt Hall**

Project Description: 3010' HMA Crushing and shaping,trenching, aggregate base, 2" asphalt paving and restoration.

<b>CLEAR &amp; GRUB</b>	\$ -	<b>EXCAVATION / GRADE WORK</b>	\$ 60,400.00
-------------------------	------	--------------------------------	--------------

<b>DITCHING and CULVERTS</b>	\$ 1,800.00	<b>GRAVEL</b>	\$ 38,200.00
------------------------------	-------------	---------------	--------------

<b>HMA PAVING</b>	\$ 78,800.00	<b>SEAL COAT</b>	\$ -
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<b>SHOULDERING</b>	\$ 7,000.00	<b>SOD, SEED &amp; EROSION CONTROL</b>	\$ 23,900.00
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<b>TRAFFIC SIGNS / CONTROL</b>	\$ -	<b>GUARDRAIL</b>	\$ -
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<b>CONSTRUCTION ENGINEERING</b>	\$ -
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<b>ESTIMATED PROJECT TOTAL</b>	\$ 210,100.00
--------------------------------	---------------

# Sand Repair & Seal



# CHEBOYGAN COUNTY ROAD COMMISSION

## PRELIMINARY CONSTRUCTION ESTIMATE

Date of Estimate: 12/17/2025 15:42

Road Name: **Hackleburg Road** Limits: **2900 feet west of Carter Road to M-33.**

Township: Koehler

Length: 8174 Ft

Prepared By: Matt Hall

Project Description: HMA base crushing and shaping, aggregate base, trenching, cross culvert, HMA Paving (24 ft wide x 2 inch), gravel shoulders, restoration and pavement markings.

<u>CLEAR &amp; GRUB</u>	\$ -	<u>EXCAVATION / GRADE WORK</u>	\$ 115,200.00
<u>DITCHING and CULVERTS</u>	\$ 2,800.00	<u>GRAVEL</u>	\$ 84,000.00
<u>HMA PAVING</u>	\$ 226,700.00	<u>SEAL COAT</u>	\$ -
<u>SHOULDERING</u>	\$ 19,300.00	<u>SOD, SEED &amp; EROSION CONTROL</u>	\$ 18,700.00
<u>TRAFFIC SIGNS / CONTROL</u>	\$ 12,900.00	<u>GUARDRAIL</u>	\$ -
<u>CONSTRUCTION ENGINEERING</u>	\$ -		

**ESTIMATED PROJECT TOTAL \$ 479,600.00**

If the township would like to continue with the project please send a deposit of 2% to move the project forward.

Deposit Amount \$ 9,592.00







OVERSIZE LOAD

5584 A

Intertape  
PROTECTIVE FILM

## PASER Ratings for 9/27/2025



# Ratings

## How do we make them all green?

# More with Less

- Planning and Design of Road Projects
- Preparation and Construction of Road Foundations
- Road Paving Techniques and Materials
- Quality Control and Maintenance of Roads





# Let's Try This 2021

DAVID F. BRANDT  
CHAIRMAN

HENRY GINOP  
VICE-CHAIRMAN

DAVID D. BROW  
COMMISSIONER

KENNETH PAQUET  
COMMISSIONER

RICHARD A. LAHAIE  
COMMISSIONER

R. BRENT SHANK  
ENGINEER/MANAGER

5302 South Straits Highway  
Indian River, Michigan 49749  
Phone: (231) 238-7775  
Fax: (231) 238-0830  
877-257-2272

DANA S. STEMP  
CLERK

## Cheboygan County Road Commission

### Projects:

**A459.301 RIGGSVILLE ROAD** – KATE HANSON ROAD TO VFW ROAD - 2.26 MILES OF MILLING, HMA PAVING, HMA APPROACHES, AGGREGATE SHOULDERS, GUARDRAIL AND PAVEMENT MARKINGS.

**A459.302 N. BLACK RIVER ROAD** – MEYERS PIT ROAD TO BUTLER ROAD - 1.91 MILES COLD MILLING, HMA PAVING, HMA APPROACHES, AGGREGATE SHOULDERS, GUARDRAIL AND PAVEMENT MARKINGS

The Cheboygan County Road Commission will accept Bids until 9:00 a.m. local time on November 30, 2021, 5302 South Straits Highway, Indian River, MI 49749. Bid packages are available at the Cheboygan County Road Commission.

**ALL BIDS WILL BE SEALED AND PLAINLY MARKED AS TO THE PROJECT NUMBER.**

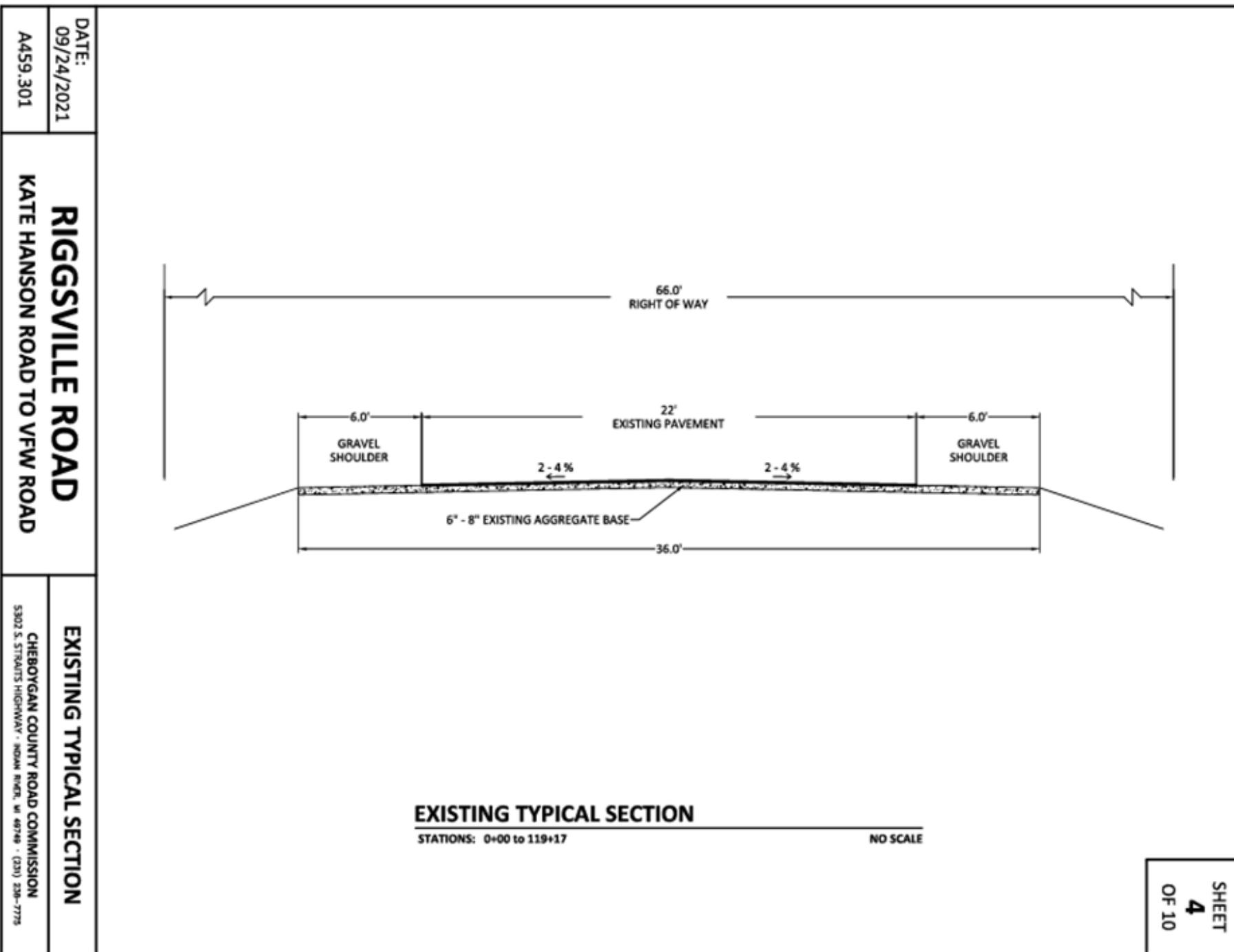
## PROPOSAL

## Cold Milling HMA Surface:

Limits of cold milling shall be 5.0' in width. Mill to a depth of 2.0 inches below existing pavement surface 9.0 feet from road centerline at a 2.0% slope in Normal Crown areas and match existing cross slope in superelevated areas.

### Project Quantities:

Mobilization, Max 10%	1	LSUM
Pavt, Rem	40	Syd
Approach, Cl I	68	Ton
Approach, Cl II	20	Ton
Shoulder, Cl II	2943	Ton
Cold Milling HMA Surface	10973	Syd
HMA Surface, Rem	1407	Syd
Pavt for Butt Joints, Rem	234	Syd
HMA, 4E1	5664	Ton
HMA Approach	189	Ton
Pavt. Mrkg, Waterborne, 4 inch, White	20500	Ft
Pavt. Mrkg, Waterborne, 4 inch, Yellow	12600	Ft
Traffic Control	1	LSUM
Monument Box	1	Ea



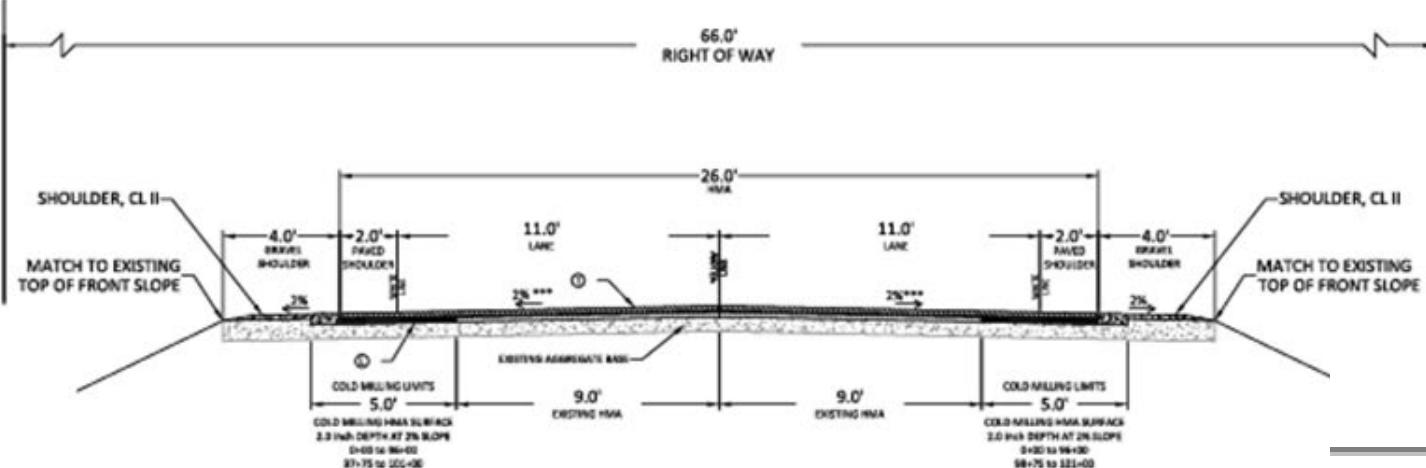
DATE:  
10/22/2021

A459.302

## N. BLACK RIVER ROAD MEYERS PIT ROAD TO BUTLER ROAD

### TYPICAL SECTION

CHEBOYGAN COUNTY ROAD COMMISSION  
5302 S. STRAITS HIGHWAY - INDIAN RIVER, MI 49746 - (231) 238-7775



HMA APPLICATION TABLE

LABEL	MIX	RATE (lbs/Syd)	PERFORMANCE GRADE	COMMENTS	PAY ITEM
T	HMA, 4E1	220*	58-28	ML - TOP	HMA, 4E1
L	HMA, 4E1	AVG 123**	58-28	ML - LEVEL	HMA, 4E1
A	HMA, 4E1	220	58-28		HMA APPROACH

\* AFTER LEVELING COURSE IS PLACED, THE CONTRACTOR AND ENGINEER WILL BACK CALCULATE AND AGREE ON TOP COURSE APPLICATION RATE FROM 95% REMAINING TONNAGE AVAILABLE

\*\* LEVELING COURSE DEPTH IS 0.5 inch AT CENTERLINE, APPROXIMATELY 2.5 inch AT SHOULDER.

\*\*\* MATCH CROSS SLOPE IN SUPERELEVATED AREAS

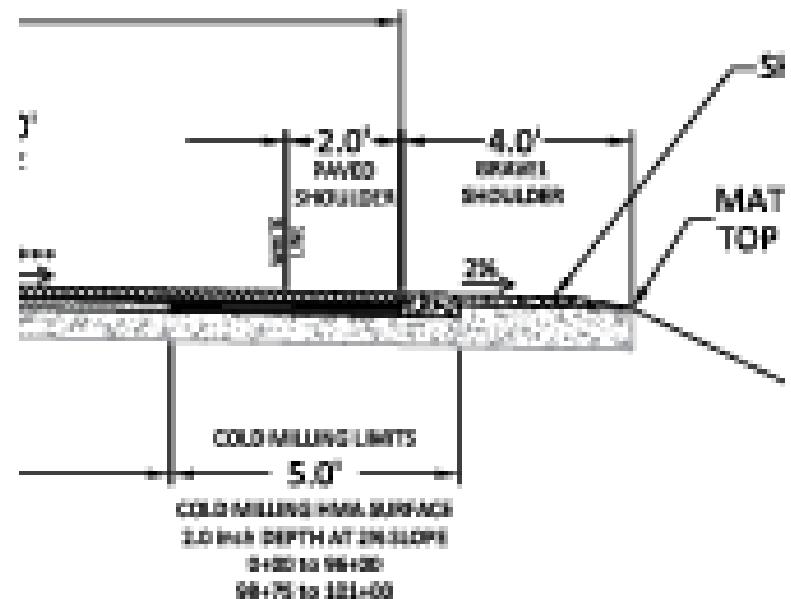
AWI = 220 FOR ALL HMA, 4E1

APPLY HMA BOND COAT AT 0.10 GALLONS PER SQUARE YARD BETWEEN PAVING COURSES OR AS DIRECTED BY THE ENGINEER AND/ OR ENGINEER TECHNICIAN (PAID FOR AS PART OF HMA ITEMS), FOR INFORMATION ONLY.

### TYPICAL SECTION

STATIONS: 0-00 to 101-00

NO SCALE





# How Much Did it Cost?

## **MILL/WEDGE/OVERLAY 2022**

- \$290,000.00 per mile
  - Did Include Guardrail/Shoulder Gravel Pavement Markings
  - 38%
  - Stronger Edge?
  - Crack in Wheel Path?

## **CRUSH/SHAPE/PAVE/GRAVEL ADDED 2021**

- \$400,000.00 per mile
  - Restoration
  - Intersection/Driveway Approaches
  - Super Elevations

# What's Next?

Can We?

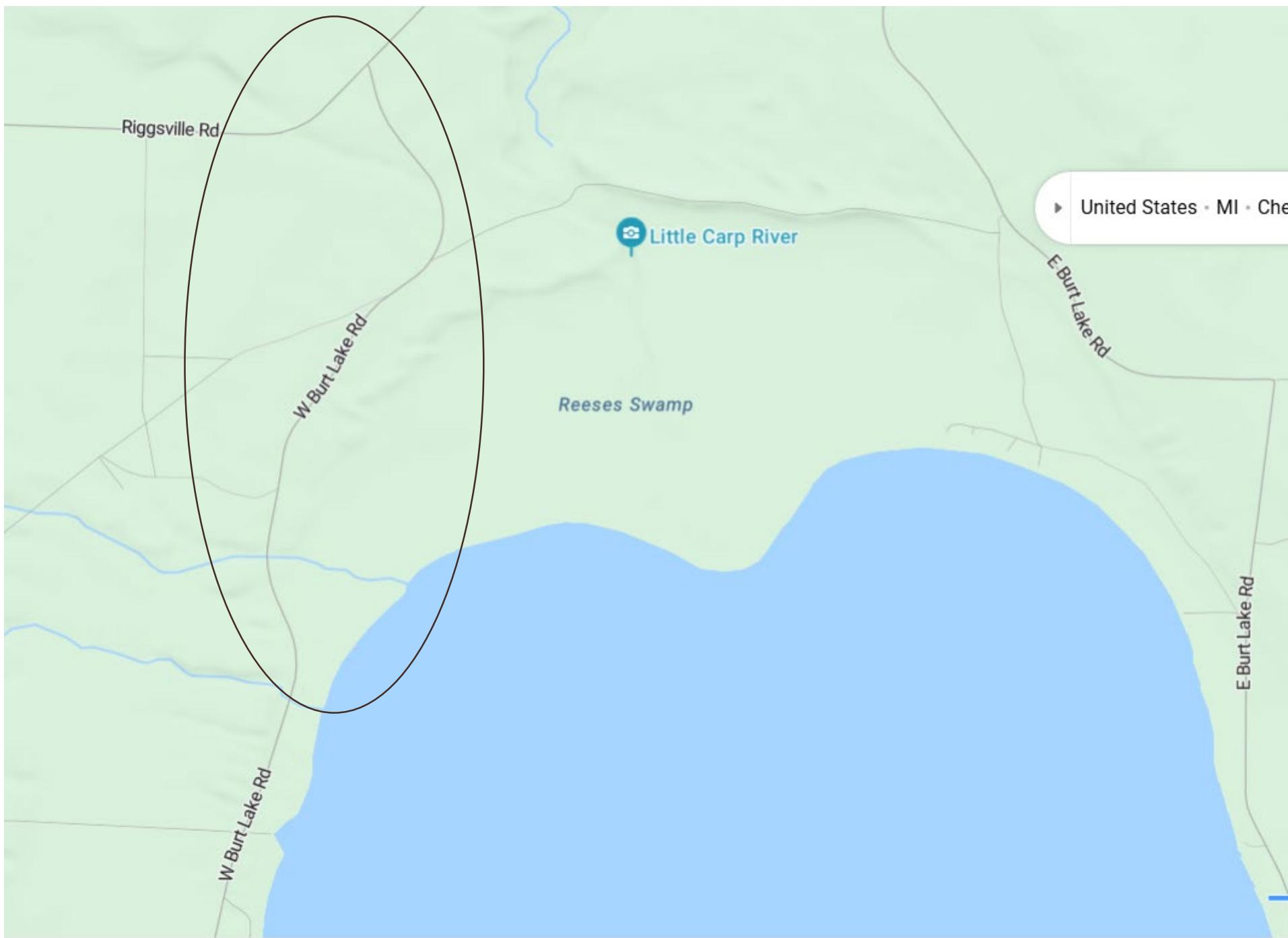
Should We?

Preparation for Construction

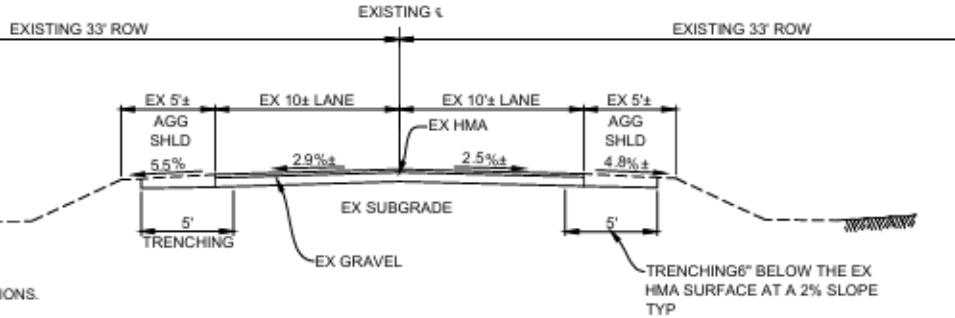


# West Burt Lake Road

Michigan's 4<sup>th</sup> Largest Inland Lake (Schaetzl, 1993)

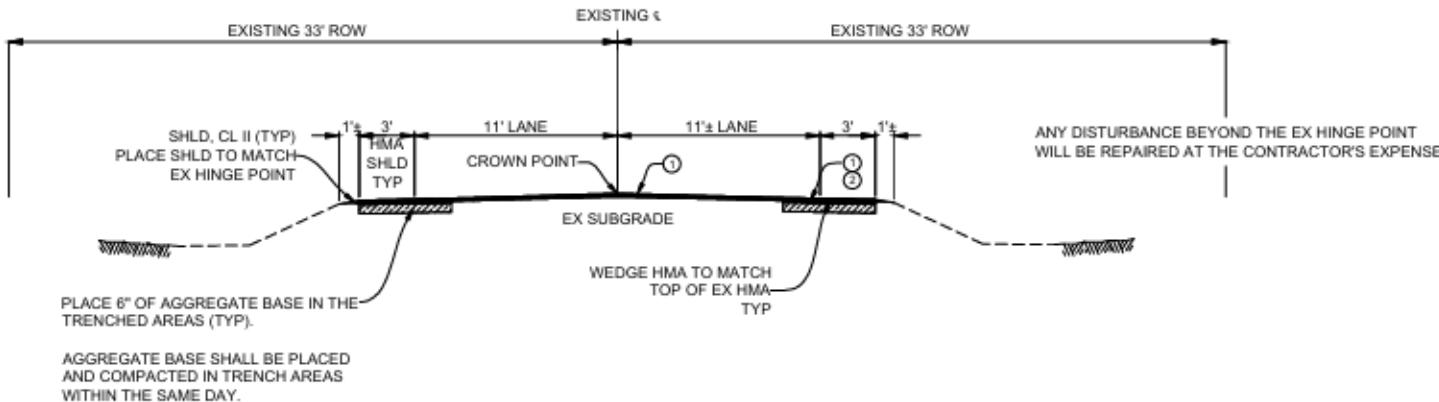


TRENCHING SHALL BE COMPLETED WITH A MILL MACHINE, THE MILLINGS WILL BE CAPTURED DURING THE MILLING OPERATION AND NOT PLACED ON THE ROAD SURFACE. ALL MILLINGS WILL STOCKPILED AT A SINGLE LOCATION WITHIN THE PROJECT LIMITS AND WILL BE BECOME THE PROPERTY OF THE CHEBOYGAN COUNTY ROAD COMMISSION



### EXISTING SECTION

TO APPLY: POB STA 10+25 TO POE STA 108+15



### PROPOSED SECTION

TO APPLY: POB STA 10+25 TO POE STA 108+15

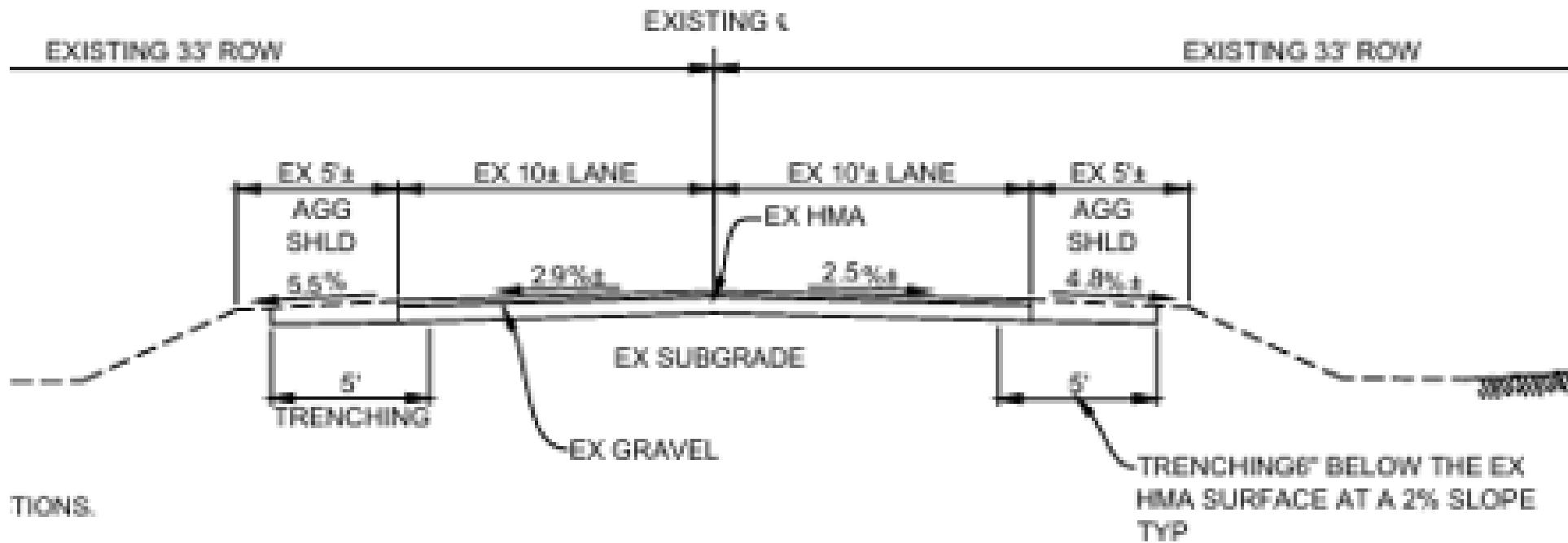
HMA APPLICATION TABLE				
IDENTITY	PAY ITEM	RATE LB/SYD	PERFORMANCE GRADE	REMARKS
1	HMA, 4E1	220	58-28	TOP COURSE AWI 220
2	HMA, 4E1	0 - 220	58-28	HMA WEDGING TO FILL RUTS AND WEDGE SHOULDER WIDENING
3	HMA APPROACH	VARIABLE	58-28	DRIVeways AND APPROACHES
	HMA BOND COAT	0.05-0.15 GAL/SYD (FOR INFORMATION ONLY)		

W BURT LAKE RD  
OVERLAY PROJECT  
INDIAN RD TO RIGGSVILLE RD  
TYPICAL CROSS SECTION

CLIENT:  
CHEBOYGAN COUNTY ROAD COMMISSION

DATE  
01/17/2024  
DRN  
KMS  
CHD  
RER  
**HURON**  
ENGINEERING & SURVEYING, INC.

SCALE  
NA

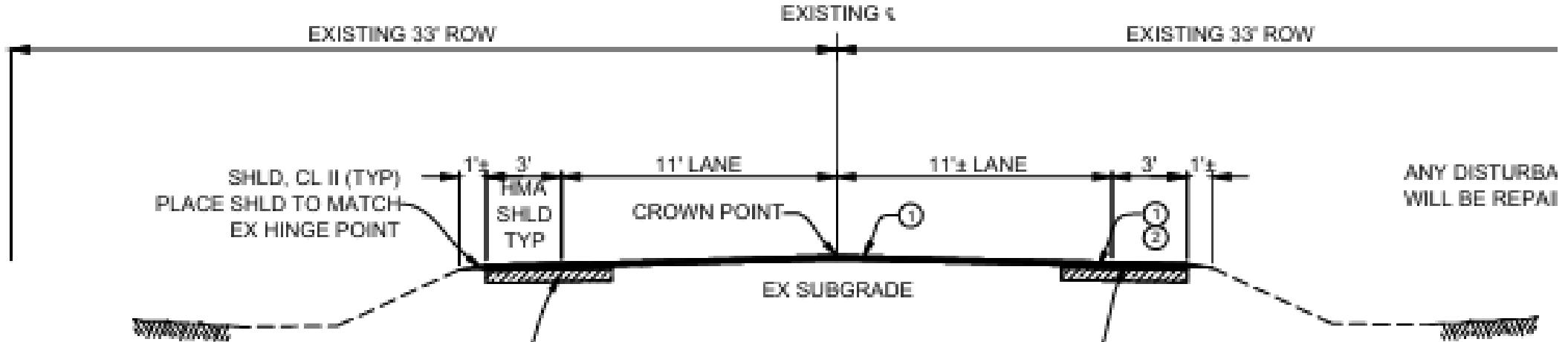


TIONS.

IG OPERATIONS  
THER ITEMS.

## EXISTING SECTION

TO APPLY: POB STA 10+25 TO POE STA 108+15



PLACE 6" OF AGGREGATE BASE IN THE TRENCHED AREAS (TYP).

AGGREGATE BASE SHALL BE PLACED AND COMPACTED IN TRENCH AREAS WITHIN THE SAME DAY.

## PROPOSED SECTION

TO APPLY: POB STA 10+26 TO POE STA 108+15

HMA APPLICATION TABLE



# Burt Lake Trail



Back to Black River Road













**\$297,000.00  
Per Mile**

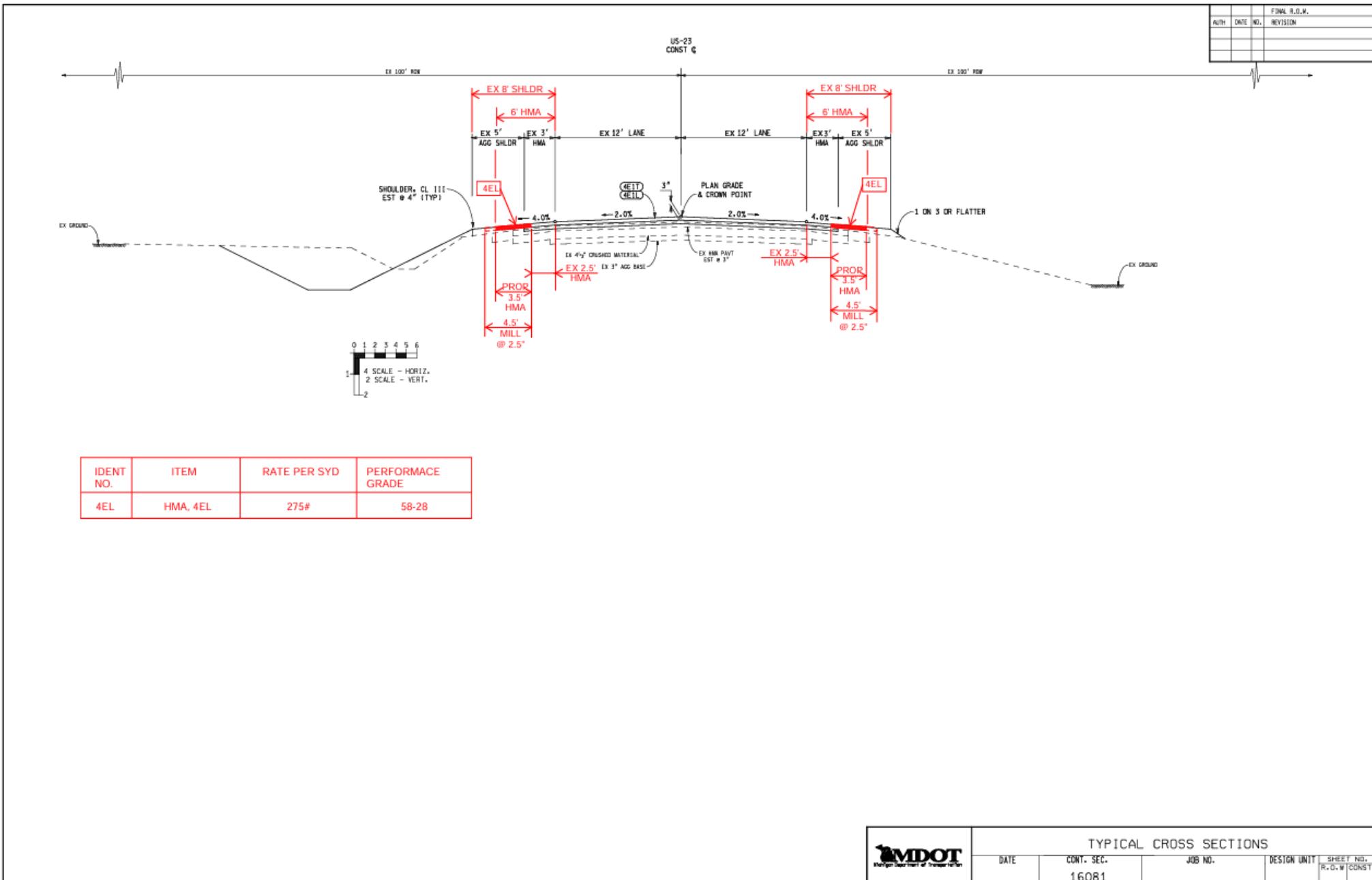
**Crush & Shape with 4' Shoulder  
\$409,000.00 per mile**



**Partnership with  
MDOT US-23**

**Edge Mill**

**HMA Pave/Widen**







# Hand Work!







DAVID D. BROWN  
CHAIRMAN

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COMMISSIONER

BRADLEY ORMSBEE  
COMMISSIONER

GREGORY BUNKER  
VICE-CHAIRMAN

HENRY GINOP  
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MATTHEW HALL  
MANAGER

Cheboygan County Road Commission  
5302 South Straits Highway  
Indian River, Michigan 49749  
Phone: (231) 238-7775  
Fax: (231) 238-0830  
877-257-2272

CHELSEA STYES  
CLERK

## PROPOSAL

**Project: A459.315      S Black River Rd & North Allis Highway Overlay**

Type of Work: 3.90 miles of trenching, HMA wedging and overlay, Gravel Shoulders, and Pavement Markings

The Cheboygan County Road Commission will accept Bids until **11:00 a.m. local time on March 4, 2025**  
at: 5302 South Straits Highway, Indian River, MI 49749. Bid packages are available at the Cheboygan County Road Commission.

**ALL BIDS WILL BE SEALED AND PLAINLY MARKED AS TO THE PROJECT AND PROJECT NUMBER.**

The bidder has examined the plans, specification, special provisions and related materials in the proposal, as well as the location of the work described in the proposal for this project, and is fully informed as to the nature of the work and conditions relating to its performance and understands that the quantities shown are approximate only and are subject to either increase or decrease.

# Shoulder Widening Overlay

# Bid Sheet

Pay Item	Description	Quantity	Units	Unit Price		Bid Amount	
				Dollars	Cts	Dollars	Cts
1100001	Mobilization, Max	1	LSUM				
5010061	HMA Approach	600	Ton				
5012024	HMA, 4EL	7,000	Ton				
8120170	Minor Traf Devices	1	LSUM				
							<b>Total Bid:</b>

**Contractor:** \_\_\_\_\_

---

(Signature)

---

(Date)

# South Black River Road

The Singing Road





1095  
County Line Rd  
1094

# Project Cost HMA

\$75.00/Ton

\$157,000.00/Mile

2.9 miles SBRR

1.0 Miles N Allis

Pick Up at Plant

\$69.00 & \$76.00/Ton

# Conclusion

- Wheel Path Crack
- Reduce Edge Cracking
- Innovation/Spark New Ideas
- Cost Benefit